7800 Golden Valley Road | Golden Valley, MN 55427
763-593-8012 | TTY 763-593-3968 | 763-593-8109 (fax) | www.goldenvalleymn.gov

May 7, 2024 — 6:30 PM
Council Chambers
Hybrid Meeting

CITY COUNCIL REGULAR MEETING AGENDA

City Council meetings are being conducted in a hybrid format with in-person and remote options for attending, participating, and commenting. The public can make statements in this meeting during public comment sections, including the public forum beginning at 6:20 pm.

Remote Attendance/Comment Options:
Members of the public may attend this meeting by watching on cable channel 16, streaming on CCXmedia.org, streaming via Webex, or by calling 1-415-655-0001 and entering access code **2631 238 6864** and webinar password **1234**. Members of the public wishing to address the Council remotely have two options:

- Via web stream - Stream via Webex and use the 'raise hand' feature during public comment sections.
- Via phone - Call 1-415-655-0001 and enter meeting code **2631 238 6864** and webinar password **1234**. Press *3 to raise your hand during public comment sections.

1. Call to Order

1A. Pledge of Allegiance and Land Acknowledgement
1B. Roll Call
1C. Proclamation Honoring Asian American and Pacific Islander Heritage Month
1D. Proclamation for Arbor Day and Arbor Month
1E. Proclamation Recognizing National Police Week, May 12-18, 2024

2. Additions and Corrections to Agenda

3. Consent Agenda

Approval of Consent Agenda - All items listed under this heading are considered to be routine by the City Council and will be enacted by one motion. There will be no discussion of these items unless a Council Member so requests in which event the item will be removed from the general order of business and considered in its normal sequence on the agenda.

3A. Approval of City Check Registers
3B. Boards, Commissions, and Task Forces:
3B.1. Board/Commission Appointments and Reappointments
3C. Bids, Quotes, and Contracts:
3C.1. Approve Professional Services Agreement for Professional Project Engineering Services with WSB
3C.2. Approve Joint Powers Agreement Between Hennepin County and the City of Golden Valley Regarding the Police Embedded Social Worker

3C.3. Approve Purchase of Hockey Rink Dasher Boards and Components from Becker Arena Products
3C.4. Award Contract for Construction Engineering Services to Short Elliot Hendrickson, Inc. - 2024 Pavement Management Program
3D. Grants and Donations:
3D.1. Adopt Resolution No. 24-029 Accepting a Donation for the National Police Week Conference From the Golden Valley Crime Prevention Fund
3E. Receive and File the City of Golden Valley 2024 - 2026 Equity Plan
3F. Adopt Resolution No. 24-030 Approving Amendment to Compensation and Classification Tables
3G. Approve Extension of Minor Consolidation Plat for Niewald Lyons Addition
3H. Approve Extension of Board of Zoning Appeals (BZA) Variance Granted for 4501 Merribee Drive

4. Public Hearing

4A. Public Hearing and Consideration of Ordinance No. 780 Approving a Zoning Ordinance Text Amendment for Sacred Communities and Resolution No. 24-031 Authorizing Summary Publication of the Ordinance
4B. Public Hearing on Proposed Improvements for the Zane Avenue and Lindsay Street Reconstruction Project, Project #23-02, Resolution No. 24-032
4C. Public Hearing Regarding a Request for Approval of a Land Use Map Amendment, Zoning Map Amendment, Final Plat and Conditional Use Permit at 6100 Golden Valley Road
4D. Public Hearing and Consideration of Ordinance No. 783 - Approving Conditional Use Permit No. 24-0003 to Allow for Laboratories at 201 General Mills Boulevard
4E. Public Hearing to Authorize Submittal of Applications to DEED's Minnesota Investment Fund (MIF) and Job Creation Fund (JCF) Programs for Baxter Healthcare Corporation, Resolution Nos. 24-035 and 24-036

5. Old Business - None.

6. New Business

6A. Review of Council Calendar
6B. Mayor and Council Communications
1. Other Committee/Meeting updates

7. Adjournment

This document is available in alternate formats upon a 72-hour request. Please call 763-593-8006 (TTY: 763-593-3968) to make a request. Examples of alternate formats may include large print, electronic, Braille, audiocassette, etc.

EXECUTIVE SUMMARY

Human Resources

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

1C. Proclamation Honoring Asian American and Pacific Islander Heritage Month

Prepared By

Seth Kaempfer, Equity and Inclusion Manager

Summary

May is celebrated as Asian American and Pacific Islander (AAPI) Heritage Month. This month celebrates the vibrant and diverse traditions, languages, spiritual and religious practices, and cultures of AAPI communities. AAPI Heritage Month puts into focus the immeasurable and prolific contributions that AAPI communities have made and continue to make locally and statewide. This proclamation calls upon the community in Golden Valley to collectively work towards dispelling ignorance, prejudice, and fear through education and action about the historical and current impacts made by AAPI communities. In addition, this proclamation calls upon the Golden Valley to recognize and confront racial inequities, leading to liberation and celebration.

Legal Considerations

This item did not require legal review.

Equity Considerations

This proclamation aligns with the City's commitment to diversity, equity, and inclusion and the City's welcome statement. The City supports and honors individuals of all backgrounds and believes it is critical to acknowledge celebrations such as Asian American and Pacific Islander Heritage Month to both educate community and staff as well as create space for belonging of these richly diverse communities.

Recommended Action

Motion to adopt proclamation honoring the month of May as Asian American and Pacific Islander Heritage Month.

Supporting Documents

- Proclamation for Asian American and Pacific Islander Heritage Month

CITY OF GOLDEN VALLEY

PROCLAMATION HONORING ASIAN AMERICAN AND PACIFIC ISLANDER HERITAGE MONTH MAY 1 – 31, 2024

WHEREAS, in 1978, the United States Congress passed a law initially proclaiming a week of recognition of Asian American and Pacific Islander (AAPI) heritage and was further extended to a month by Congress in 1992; and

WHEREAS, this month is a celebration that encompasses a wealth of cultures, backgrounds, faiths, and histories of AAPI people from the Asian continent and the Pacific islands of Melanesia, Micronesia, and Polynesia; and

WHEREAS, the month of May was selected to commemorate the immigration of Japanese citizens to the United States on May 7, 1843, and to mark the anniversary of the completion of the transcontinental railroad on May 10, 1869, with the majority of the workers being Chinese immigrants; and

WHEREAS, AAPI Hertiage Month celebrates the immeasurable contributions that AAPI communities have made and continue to make in arts, music, law, literature, science, education, entertainment, politics, and other endeavors; and

WHEREAS, the state of Minnesota, specifically the Twin Cities metro area, is unique in having the largest concentration of Hmong and Karen people in the United States and providing a place of home for many refugees of these communities; and

WHEREAS, AAPI Heritage Month is also a time to reflect on historical and current inequities and violence facing these communities in education, healthcare, policy, and employment stemming from an interconnection of xenophobia, racism, and prejudice towards someone's faith and spiritual practices; and

WHEREAS, in 2024, AAPI Heritage Month honors the theme "Advancing Leaders Through Innovation", which is established by the Federal Asian Pacific American Council; and

WHEREAS, in its commitment to racial equity, the City of Golden Valley must recognize and confront racial inequities, leading to liberation and celebration.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Golden Valley does hereby proclaim the month of May as "Asian American and Pacific Islander Heritage Month" and call upon the people of Golden Valley to recognize the contributions made by AAPI communities and to actively promote the principles of equality, equity, liberty, and justice.

I, Mayor Roslyn Harmon, proudly certify this proclamation with my signature and the seal of the City of Golden Valley on May 7th, 2024.

Roslyn Harmon, Mayor

EXECUTIVE SUMMARY

Public Works

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item
1D. Proclamation for Arbor Day and Arbor Month

Prepared By
Tim Kieffer, Public Works Director
Al Lundstrom, Park Maintenance Superintendent

Summary
The city was awarded the Tree City USA Award for the 37th consecutive year and 11th Tree City Growth Award. Tree City USA recognizes communities that have proven their commitment to an effective, ongoing community forestry program. Tree City USA is sponsored in cooperation with the National Association of State Foresters and the USDA Forest Service.

To become a Tree City USA, a community must meet four criteria:

1. Operate a forestry division.
2. Have a tree ordinance.
3. Manage a comprehensive community forestry program.
4. Observe Arbor Day.

The city observes Arbor Day by hosting an annual event. This year's event will be held on May 9 at Good Shepherd School starting at 9:00 a.m. The event includes a presentation, poster contest winners, tree planting, and handing out packaged tree seedlings.

Legal Considerations
Not Applicable.

Equity Considerations
Everyone is welcome at the event.

Recommended Action
Motion to adopt Proclamation for Arbor Day and Arbor Month declaring May 9, 2024 as Arbor Day and May 2024 as Arbor Month in the City of Golden Valley.

Supporting Documents

- Proclamation for Arbor Day and Arbor Month

CITY OF GOLDEN VALLEY

PROCLAMATION FOR ARBOR DAY AND ARBOR MONTH

WHEREAS, trees are an increasingly vital resource in Golden Valley, enriching our lives by purifying air and water, helping conserve soil and energy, serving as recreational settings, providing habitat for wildlife of all kinds, and making our community more livable; and

WHEREAS, trees are a renewable resource giving us paper, wood for our homes, fuel for our fires and countless other wood products; and

WHEREAS, trees in our city increase property values, enhance the economic vitality of business areas, and beautify our community; and

WHEREAS, trees, wherever they are planted, are a source of warmth and security; and

WHEREAS, Golden Valley has been recognized as a Tree City USA by the National Arbor Day Foundation and desires to continue its urban forestry efforts.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Golden Valley does hereby proclaim May 9, 2024, as Arbor Day and May 2024 as Arbor Month in the City of Golden Valley, and urge all citizens to support efforts to protect our trees and woodlands and to support our City's urban forestry program; and

BE IT FURTHER RESOLVED, the Golden Valley City Council urges all citizens to become more aware of the importance of trees to their well-being, and to plant, nurture, protect, and wisely use Golden Valley's great treasure of trees.

IN WITNESS WHEREOF, that I, Mayor Roslyn Harmon, proudly certify this proclamation with my signature and the seal of the City of Golden Valley on the 7th day of May 2024.

CITY OF GOLDEN VALLEY CORPORATE SEAL MINNESOTA

Roslyn Harmon, Mayor

EXECUTIVE SUMMARY

Police

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item
1E. Proclamation Recognizing National Police Week, May 12-18, 2024

Prepared By
Keith Curtis, Police Office Assistant
Virgil Green, Police Chief

Summary
National Police Week will be observed from May 12 through May 18, 2024. This annual, weekly observance pays special recognition to law enforcement officers who serve and protect citizens with courage, dedication, and dignity.

The week begins with the Peace Officers Memorial Standing Guard on Sunday May 12th at 7:00pm until Monday, May 13th at 7:00pm. This 24-hour annual observance honors and remembers all officers who have died in the Line of Duty in Minnesota.

The Officers of the Golden Valley Police Department have chosen the profession of Law Enforcement and have made the decision to sacrifice themselves, for others, should it become necessary. I invite all civilians to recognize and thank all Peace Officers for this choice.

Financial or Budget Considerations
N/A

Legal Considerations
N/A

Equity Considerations
N/A

Recommended Action
Motion to proclaim the week of May 12 through May 18, 2024 as National Police Week in the City of Golden Valley.

Supporting Documents
- Proclamation - Police Week

CITY OF GOLDEN VALLEY

PROCLAMATION RECOGNIZING NATIONAL POLICE WEEK
May 12 - 18, 2024

WHEREAS, the first recognition of National Police Week and Peace Officers Memorial Day was signed by President Kennedy in 1962. It was resolved by Congress that May 15 be designated Peace Officers Memorial Day and the week in which it falls be designated as Police Week; and

WHEREAS, the members of the law enforcement agencies of Golden Valley, Hennepin County, and the State of Minnesota continuously provide a vital public service playing an essential role in safeguarding the rights and freedoms of the City of Golden Valley; and

WHEREAS, it is important that all citizens know and understand the duties, responsibilities, hazards, and sacrifices of their law enforcement agencies, and that members of our law enforcement agency recognize their duty to serve the people by safeguarding life and property, by protecting them against violence and disorder, and by protecting the innocent against deception and the weak against oppression.

NOW, THEREFORE, BE IT RESOLVED that the City Council of Golden Valley does hereby proclaim the week of May 12 through May 18, 2024 as National Police Week in the City of Golden Valley, and I call upon all citizens and civic organizations to join in commemorating our public safety professionals, and to recognize the substantial contributions they make to protecting our health, safety, and quality of life.

IN WITNESS WHEREOF, that I, Roslyn Harmon, Mayor of the City of Golden Valley have hereunto set my hand and caused the seal of the City to be affixed this 7th day of May, 2024.

CITY OF GOLDEN VALLEY CORPORATE SEAL MINNESOTA

_____

Roslyn Harmon, Mayor

EXECUTIVE SUMMARY

Administrative Services

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item
3A. Approval of City Check Registers

Prepared By
Jennifer Hoffman, Accounting Manager

Summary
Approval of the check register for various vendor claims against the City of Golden Valley.

Document is located on city website at the following location:
http://weblink-int/WebLink/Browse.aspx?id=1037405&dbid=0&repo=GoldenValley

- 04-17-2024 Check Register
- 04-24-2024 Check Register
- 05-01-2024 Check Register

Financial or Budget Considerations
The check register is attached with the financing sources at the front of the document. Each check has a program code(s) where it was charged.

Legal Considerations
Not Applicable

Equity Considerations
Not Applicable

Recommended Action
Motion to authorize the payment of the bills as submitted.

EXECUTIVE SUMMARY

Human Resources

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item
3B.1. Board/Commission Appointments and Reappointments

Prepared By
Melissa Croft, Executive Assistant

Summary
On a staggered basis, each year on April 30, terms end for various members of City boards and commissions creating vacancies to be filled. Each year the City Council conducts interviews with persons who have applied to serve on a board or commission.

Attached is the list of vacancies to be filled and the list of appointments and reappointments as decided by Council at the special meeting held on April 20, 2024.

Legal Considerations
This item does not require legal review.

Equity Considerations
As a general guideline, each board or commission should be comprised of a diverse population representing a wide range of groups and interests. Furthermore, appointing new commission members fits within the Advancement of Diversity, Equity, and Inclusion pillar of the City's Equity Plan as well as the Inclusive Community Engagement pillar.

Recommended Action
Motion to make the following appointments and reappointments.

Supporting Documents
- 2024 Reappointments and Vacancies

2024 Appointments and Reappointments

BOARD OF ZONING APPEALS	TERM DATE
None	N/A

ENVIRONMENTAL COMMISSION	TERM DATE
Paul Klaas (reappointment)	April 30, 2027
Kari Cantarero	April 30, 2027

COMMUNITY SERVICES COMMISSION	TERM DATE
Josh Kelley	April 30, 2026

OPEN SPACE AND RECREATION COMMISSION	TERM DATE
Linden Weiswerda (reappointment)	April 30, 2027
Scott Seys (reappointment)	April 30, 2027
Brian Wright (reappointment)	April 30, 2027

PLANNING COMMISSION	TERM DATE
Gary Cohen (reappointment)	April 30, 2027
Martin Sicotte	April 30, 2027
Eric Van Oss	April 30, 2027

DEI COMMISSION	TERM DATE
Joelle Allen (reappointment)	April 30, 2027
Ajani Woodson (reappointment)	April 30, 2027
Tracy Murphy	April 30, 2027

PEACE COMMISSION	TERM DATE
Katrina Cisneros (reappointment)	April 30, 2027
Karen Boehne **– 1 year term**	April 30, 2025
Jim Heighington	April 30, 2027

Current Vacancies

BOARD OF ZONING APPEALS	TERM DATE
Youth Vacancy	September 30, 2024

ENVIRONMENTAL COMMISSION	TERM DATE
Vacancy, April 2024	April 30, 2027
Vacancy, April 2024	April 30, 2027
Youth Vacancy, September 2023	September 30, 2024
Youth Vacancy, September 2023	September 30, 2024

COMMUNITY SERVICES COMMISSION	TERM DATE
Vacancy, April 2023	April 30, 2025
Vacancy, April 2023	April 30, 2026
Vacancy, April 2024	April 30, 2027
Youth Vacancy, September 2023	April 30, 2024

OPEN SPACE AND RECREATION COMMISSION	TERM DATE
Vacancy, April 2024	April 30, 2027
Vacancy, April 2024	April 30, 2027
Vacancy, April 2024	April 30, 2027
Youth Vacancy, September 2023	September 30, 2024

PLANNING COMMISSION	TERM DATE
Vacancy, April 2024	April 30, 2027
Vacancy, April 2024	April 30, 2027
Vacancy, April 2024	April 30, 2027
Youth Vacancy, September 2023	September 30, 2024

DEI COMMISSION	TERM DATE
Vacancy, April 2024	April 30, 2027
Vacancy, April 2024	April 30, 2027
Vacancy, April 2024	April 30, 2027

PEACE COMMISSION	TERM DATE
PD Vacancy April, 2024 - 2 year term	April 30, 2026
Vacancy, April 2023 - 1 year term	April 30, 2025
Vacancy, April 2024	April 30, 2027
Vacancy, April 2024	April 30, 2027
Youth Vacancy, September 2023	September 30, 2024

EXECUTIVE SUMMARY

Community Development

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

3C.1. Approve Professional Services Agreement for Professional Project Engineering Services with WSB

Prepared By

Alma Flores, Community Development Director

Summary

On February 9, the city's City Engineer retired. Although the City Engineer position has been posted and the Assistant Engineer has been serving as the Acting City Engineer, the work in the engineering division has not decreased. We anticipate staff to need support on ongoing and on-coming projects related to infrastructure, development review, contracts, project management, and permits which have been managed under the direction of the acting city engineer and community development director. In order to safeguard the City and any Federal, State, and local funding and development deadlines, the community development director would like to contract on-call services to provide professional engineering services to our staff for as-needed support.

Financial or Budget Considerations

Fiscal impact will be covered by cost savings of the City Engineer's position.

Legal Considerations

The Community Development Director used the legal template for professional services to create the attached contract and amended the indemnification section that WSB requested with the City Attorney's review.

Equity Considerations

No equity considerations needed.

Recommended Action

Motion to approve Professional Services Agreement for on-call professional project engineering services with WSB.

Majority vote needed.

Supporting Documents

- PSA for Engineering Consulting Services with WSB

April 12, 2024

Ms. Alma Flores
Community Development Director
City of Golden Valley
7800 Golden Valley Road
Golden Valley, MN 55427

Re: Proposal to Provide Professional Engineering Services
Interim Project Management

Dear Alma:

On behalf of WSB, we are pleased to submit this proposal to provide Interim Project Management services to the City of Golden Valley. We anticipate providing staff to fill the role immediately upon receiving Council authorization and will continue to serve the City until Engineering staff is hired by the City, for a period of 6-9 months. Following this period, should the City still require interim services, WSB will work with the City to provide additional support as needed.

We have developed an approach based on our understanding of your needs as well as our familiarity with the City. Our approach includes the following:

Proposed Interim Project Manager/Support Staff

We propose to assign Emily Brown, PE as the Interim Project Manager for infrastructure projects in the City of Golden Valley. Emily has 14 years of experience in municipal engineering, most recently performing engineering duties for the City of Champlin and Princeton. Emily's infrastructure expertise includes civil design, construction inspection, plan review, and management of project teams, including both internal WSB and City staff. She offices out of WSB's Golden Valley corporate headquarters, giving her the ability to be at the City offices or on the project site as quickly as needed.

Emily will be supported by Juan Lopez-Martinez, a Graduate Engineer who has three years of experience in the municipal engineering arena. Juan will provide task-based support to Emily, whether it be plan review, site inspection, project design, or other direct engineering tasks. In his three years at WSB, Juan has been both a design engineer and a construction observer/engineer for several municipal clients, primarily Maple Grove.

We expect to provide the following services to the City based on our discussion with you:

Scope of Services for Interim Project Manager and Support Staff

- Attending project-related meetings as guided by City staff and project needs.
- Providing review of plans, right of way permit applications, inspections records and other infrastructure-related documents.
- On site presence at City offices or project site as needed (and directed by City staff) in order to direct or coordinate design or construction work.

540 GATEWAY BLVD | BURNSVILLE, MN | 55337 | 952.737.4660 | WSBENG.COM

PROFESSIONAL SERVICES AGREEMENT FOR
Consultant Project Engineering--WSB
CONSULTING SERVICES

THIS AGREEMENT is made this May 7, 2024 ("Effective Date") by and between WSB, LLC. ("Consultant"), and the City of Golden Valley, Minnesota, a Minnesota municipal corporation located at 7800 Golden Valley Road, Golden Valley, MN 55427 (the "City"):

RECITALS

A. Consultant is engaged in the business of Design and Consulting firm specialized in engineering, community planning, environmental, and construction consulting services.

B. The City desires to hire Consultant to provide engineering project management and infrastructure project consulting services.

C. Consultant represents that it has the professional expertise and capabilities to provide the City with the requested services.

D. The City desires to engage Consultant to provide the services described in this Agreement and Consultant is willing to provide such services on the terms and conditions in this Agreement.

NOW, THEREFORE, in consideration of the terms and conditions expressed in this Agreement, the City and Consultant agree as follows:

AGREEMENT

1. **Services.** Consultant agrees to provide the City with interim engineering project management and support staff services for engineering needs (See **Exhibit A—Scope of Services and Rate Schedule**) such as review of plans, right of way permit applications, inspection records, and on-site services as mutually agreed to by Consultant and the Golden Valley Community Development Director or their designee (the "Services"). All Services shall be provided in a manner consistent with the level of care and skill ordinarily exercised by professionals currently providing similar services.

2. **Term.** This Agreement shall remain in force and effect commencing from the effective date and continuing until terminated by the City or amended pursuant to the Agreement.

3. **Consideration.** The City shall pay Consultant an hourly rate of $131-207 per hour for the Services. The consideration shall be for both the Services performed by Consultant and any expenses incurred by Consultant in performing the Services. Consultant shall submit statements to the City upon completion of the Services. The City shall pay Consultant within thirty-five (35) days after Consultant's statements are submitted.

4. **Termination.** Notwithstanding any other provision herein to the contrary, this Agreement may be terminated as follows:

a. The parties, by mutual written agreement, may terminate this Agreement at any time;

b. Consultant may terminate this Agreement in the event of a breach of the Agreement by the City upon providing thirty (30) days' written notice to the City;
c. The City may terminate this Agreement at any time at its option, for any reason or no reason at all; or
d. The City may terminate this Agreement immediately upon Consultant's failure to have in force any insurance required by this Agreement.

In the event of a termination, the City shall pay Consultant for Services performed to the date of termination and for all costs or other expenses incurred prior to the date of termination.

5. **Amendments.** No amendments may be made to this Agreement except in a writing signed by both parties.

6. **Records/Inspection.** Pursuant to Minnesota Statutes § 16C.05, subd. 5, Consultant agrees that the books, records, documents, and accounting procedures and practices of Consultant, that are relevant to the contract or transaction, are subject to examination by the City and the state auditor or legislative auditor for a minimum of six years. Consultant shall maintain such records for a minimum of six years after final payment. The parties agree that this obligation will survive the completion or termination of this Agreement.

7. **Indemnification.** To the fullest extent permitted by law, Consultant, and Consultant's successors or assigns, agree to protect, indemnify, and hold harmless the City, its officers, officials, agents, volunteers, and employees from any and all claims; lawsuits; causes of actions of any kind, nature, or character; damages; losses; or costs, disbursements, including but not limited to attorneys' fees, professional services, and other technical, administrative or professional assistance resulting from or arising out of Consultant's (or its subcontractors, agents, volunteers, members, invitees, representatives, or employees) performance of the duties required by or arising from this Agreement, or caused in whole or in part by any negligent act or omission or willful misconduct by Consultant, or arising out of Consultant's failure to obtain or maintain the insurance required by this Agreement. Nothing in this Agreement shall constitute a waiver or limitation of any immunity or limitation on liability to which the City is entitled. The parties agree that these indemnification obligations shall survive the completion or termination of this Agreement.

8. **Insurance**. Consultant shall maintain reasonable insurance coverage throughout this Agreement. Consultant agrees that before any work related to the approved project can be performed, Consultant shall maintain at a minimum: Worker's Compensation Insurance as required by Minnesota Statutes, section 176.181; Business Auto Liability in an amount not less than $1,000,000.00 per occurrence; Professional Liability in an amount not less than $1,000,000.00 per occurrence; and Commercial General Liability in an amount of not less than $1,000,000.00 per occurrence for bodily injury or death arising out of each occurrence, and $1,000,000.00 per occurrence for property damage, $2,000,000.00 aggregate. To meet the Commercial General Liability and Business Auto Liability requirements, Consultant may use a combination of Excess and Umbrella coverage. Consultant shall provide the City with a current certificate of insurance including the following language: "The City of Golden Valley is named as an additional insured with respect to the commercial general liability, business automobile liability and umbrella or excess liability, as required by the contract. The umbrella or excess liability policy follows form on all underlying coverages." Such certificate of liability insurance shall list the City as an additional insured and contain a statement that such policies of insurance shall not be canceled or amended unless 30 days' written notice is provided to the City, or 10 days' written notice in the case of non-payment.

9. **Assignment and Subcontracting.** Neither the City nor Consultant shall assign, or transfer any rights under or interest (including, but without limitation, moneys that may become due or moneys that are due) in the

Agreement without the written consent of the other except to the extent that the effect of this limitation may be restricted by law. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent Consultant from employing such independent consultants, associates, and subcontractors, as it may deem appropriate to assist it in the performance of the Services required by this Agreement. Any instrument in violation of this provision is null and void.

10. **Independent Contractor.** Consultant is an independent contractor. Consultant's duties shall be performed with the understanding that Consultant has special expertise as to the services which Consultant is to perform and is customarily engaged in the independent performance of the same or similar services for others. Consultant shall provide or contract for all required equipment and personnel. Consultant shall control the manner in which the services are performed; however, the nature of the Services and the results to be achieved shall be specified by the City. The parties agree that this is not a joint venture and the parties are not co-partners. Consultant is not an employee or agent of the City and has no authority to make any binding commitments or obligations on behalf of the City except to the extent expressly provided in this Agreement. All services provided by Consultant pursuant to this Agreement shall be provided by Consultant as an independent contractor and not as an employee of the City for any purpose, including but not limited to: income tax withholding, workers' compensation, unemployment compensation, FICA taxes, liability for torts and eligibility for employee benefits.

11. **Compliance with Laws.** Consultant shall exercise due professional care to comply with applicable federal, state and local laws, rules, ordinances and regulations in effect as of the date Consultant agrees to provide the Services. Consultant's guests, invitees, members, officers, officials, agents, employees, volunteers, representatives, and subcontractors shall abide by the City's policies prohibiting sexual harassment and tobacco, drug, and alcohol use as defined on the City's Tobacco, Drug, and Alcohol Policy, as well as all other reasonable work rules, safety rules, or policies, and procedures regulating the conduct of persons on City property, at all times while performing duties pursuant to this Agreement. Consultant agrees and understands that a violation of any of these policies, procedures, or rules constitutes a breach of the Agreement and sufficient grounds for immediate termination of the Agreement by the City.

12. **Entire Agreement.** This Agreement, any attached exhibits, and any addenda signed by the parties shall constitute the entire agreement between the City and Consultant, and supersedes any other written or oral agreements between the City and Consultant. This Agreement may only be modified in a writing signed by the City and Consultant. If there is any conflict between the terms of this Agreement and the referenced or attached items, the terms of this Agreement shall prevail.

13. **Third Party Rights.** The parties to this Agreement do not intend to confer any rights under this Agreement on any third party.

14. **Choice of Law and Venue.** This Agreement shall be governed by and construed in accordance with the laws of the state of Minnesota. Any disputes, controversies, or claims arising out of this Agreement shall be heard in the state or federal courts of Hennepin County, Minnesota, and all parties to this Agreement waive any objection to the jurisdiction of these courts, whether based on convenience or otherwise.

15. **Conflict of Interest.** Consultant shall use reasonable care to avoid conflicts of interest and appearances of impropriety in representation of the City. In the event of a conflict of interest, Consultant shall advise the City and, either secure a waiver of the conflict, or advise the City that it will be unable to provide the requested Services.

16. **Work Products and Ownership of Documents.** All records, information, materials, and work product, including, but not limited to the completed reports, data collected from or created by the City or the City's employees or agents, raw market data, survey data, market analysis data, and any other data, work product, or reports prepared or developed in connection with the provision of the Services pursuant to this Agreement shall become the property of the City, but Consultant may retain reproductions of such records, information, materials and work product. Regardless of when such information was provided or created, Consultant agrees that it will not disclose for any purpose any information Consultant has obtained arising out of or related to this Agreement, except as authorized by the City or as required by law. Notwithstanding the foregoing, nothing in this Agreement shall grant or transfer any rights, title or interests in any intellectual property created by Consultant prior to the effective date of this Agreement; however, to the extent Consultant generates reports or recommendations for the City using proprietary processes or formulas, Consultant shall provide the City (1) factual support for such reports and recommendations; (2) a detailed explanation of the method used and data relied upon to arrive at the recommendation; and (3) a detailed explanation of the rationale behind the methodology used. All of the obligations in this paragraph shall survive the completion or termination of this Agreement.

17. **Agreement Not Exclusive.** The City retains the right to hire other professional Consultant service providers for this or other matters, in the City's sole discretion.

18. **Data Practices Act Compliance.** Any and all data provided to Consultant, received from Consultant, created, collected, received, stored, used, maintained, or disseminated by Consultant pursuant to this Agreement shall be administered in accordance with, and is subject to the requirements of the Minnesota Government Data Practices Act, Minnesota Statutes, Chapter 13 (the "MGDPA"). Consultant agrees to notify the City within three business days if it receives a data request from a third party. This paragraph does not create a duty on the part of Consultant to provide access to public data to the public if the public data are available from the City, except as required by the terms of this Agreement. These obligations shall survive the termination or completion of this Agreement.

19. **Confidentiality.** Consultant understands that the City has access to, develops, and uses private, confidential, nonpublic, and protected nonpublic information, as those terms are defined by the MGDPA, in connection with its business (collectively, "Confidential Information"). The City has instituted policies and procedures to protect and safeguard this Confidential Information. While working for the City under this Agreement, Consultant may come into contact with Confidential Information. Consultant understands that the protection of Confidential Information is required by law and is a requirement of their relationship with the City. Accordingly, Consultant agrees as follows:

19.1 During the term of this Agreement and after the termination of Consultant's relationship with the City: (a) Consultant will keep secret all Confidential Information and will not directly or indirectly disclose it to anyone outside the City; (b) Consultant will not make use of any Confidential Information for their own purposes or for the benefit of anyone other than the City; and (c) upon termination of Consultant's relationship with the City, Consultant will promptly deliver to the City all memoranda, notes, records, and other documents (and all copies thereof) constituting or relating to Confidential Information.

19.2 If Consultant breaches or threatens to breach any provisions of paragraph 19.1, the City has the right to enforce this Agreement in any court having jurisdiction. This Agreement will be governed by and construed in accordance with the laws of the State of Minnesota.

19.3 This Agreement is not intended to prevent Consultant from working for any employer subsequent to the termination of their relationship with the City, as long as Consultant does not use or disclose Confidential Information.

20. **No Discrimination.** Consultant agrees not to discriminate in providing products and services under this Agreement on the basis of race, color, sex, creed, national origin, disability, age, sexual orientation, status with regard to public

assistance, or religion. Violation of any part of this provision may lead to immediate termination of this Agreement. Consultant agrees to comply with the Americans with Disabilities Act as amended ("ADA"), section 504 of the Rehabilitation Act of 1973, and the Minnesota Human Rights Act, Minnesota Statutes, Chapter 363A. Consultant agrees to hold harmless and indemnify the City from costs, including but not limited to damages, attorneys' fees and staff time, in any action or proceeding brought alleging a violation of these laws by Consultant or its guests, invitees, members, officers, officials, agents, employees, volunteers, representatives and subcontractors. Upon request, Consultant shall provide accommodation to allow individuals with disabilities to participate in all Services under this Agreement. Consultant agrees to utilize its own auxiliary aid or service in order to comply with ADA requirements for effective communication with individuals with disabilities.

21. **Waiver.** No waiver of any provision or of any breach of this Agreement shall constitute a waiver of any other provisions or any other or further breach, and no such waiver shall be effective unless made in writing and signed by an authorized representative of the party to be charged with such a waiver.

22. **Headings.** The headings contained in this Agreement have been inserted for convenience of reference only and shall in no way define, limit or affect the scope and intent of this Agreement.

23. **Publicity.** At the City's request, the City and Consultant shall develop language to use when discussing the Services. Consultant agrees that Consultant shall not release any publicity regarding the Services or the subject matter of this Agreement without prior consent from the City. Consultant shall not use the City's logo or state that the City endorses its services without the City's advanced written approval.

24. **Severability.** In the event that any provision of this Agreement shall be illegal or otherwise unenforceable, such provision shall be severed, and the balance of the Agreement shall continue in full force and effect.

25. **Signatory.** Each person executing this Agreement ("Signatory") represents and warrants that they are duly authorized to sign on behalf of their respective organization. In the event Consultant did not authorize the Signatory to sign on its behalf, the Signatory agrees to assume responsibility for the duties and liability of Consultant, described in this Agreement, personally.

26. **Counterparts and Electronic Signatures.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument. This Agreement may be transmitted by electronic mail in portable document format ("pdf") and signatures appearing on electronic mail instruments shall be treated as original signatures.

27. **Recitals.** The City and Consultant agree that the Recitals are true and correct and are fully incorporated into this Agreement.

IN WITNESS WHEREOF, the City and Consultant have caused this Professional Services Agreement to be executed by their duly authorized representatives in duplicate on the respective dates indicated below.

CONSULTANT

By: _____
Jupe Hale, Senior Director of Municipal Serv.

CITY OF GOLDEN VALLEY:

By: _____
Roslyn Harmon, Mayor

By: _____

Noah Schuchman, City Manager

This list is not all-inclusive, nor is it meant to be. We are comfortable working with you to prioritize the time spent on specific activities to get the most out of the time allocated to the position.

Office Hours

Close coordination and communication with the City will be important to ensure the appropriate amount of time is being allocated to keep important tasks on schedule. We believe that Emily and Juan can effectively serve the City by providing the majority of their hours each week from the WSB office in Golden Valley, using our existing Teams meeting and cell phone connectivity, rather than designate a work station or other office technology in order to achieve physical office hours. Presence at City offices is proposed to be on an as-needed basis, as staff is less than five minutes away by car. However, should it be determined that a schedule with set office hours at City Hall would be beneficial, we will work with you to adjust as needed.

Basis of Compensation

Our goal is to provide the City with a compensation structure that best fits the needs of staff and customers alike. In addition to the strong technical skills Emily and the WSB Team bring with them to support the Department during this transitionary time, the WSB Team wants to bring value to City services.

For management duties, WSB will propose to bill Emily Brown at her standard rate of $207 per hour. For engineering support duties, we propose to bill Juan Lopez-Martinez at his standard rate of $131 per hour.

Based on the scope and complexity of the development, Emily may need to bring in technical experts, such as Traffic or Water Resources, to assist with the review. In these instances, it is proposed that services will also be provided in accordance with WSB's 2024 billing rates, a copy of which is attached.

There will be no charge for expenses such as WSB-provided equipment, including computers and cell phones, and WSB will not invoice the City of Golden Valley for mileage associated with office hours in City Hall.

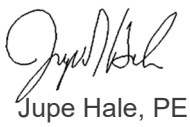
Start Date

We propose to have this contract begin immediately upon Council authorization (anticipated to be May 7 as noted in our communications), so that City Staff can begin transitioning their workloads right away. If you agree with the terms laid forth in this proposal, WSB will execute the City's Standard Professional Services Agreement for this work.

If you have any questions or concerns, please contact me at 612-875-2156. Thank you for the opportunity to serve the City of Golden Valley.

Sincerely,

WSB



Jupe Hale, PE
Senior Director of Municipal Services

2024 Rate Schedule

	Billing Rate/Hour
SR. PRINCIPAL | SR. ASSOCIATE	$249 – $265
PRINCIPAL | ASSOCIATE	$184 – $237
SR. PROJECT MANAGER | SR. PROJECT ENGINEER	$184 – $237
PROJECT MANAGER | PROJECT MANAGER ASSISTANT	$90 – $180
PROJECT ENGINEER | GRADUATE ENGINEER	$108 – $179
ENGINEERING TECHNICIAN | ENGINEERING SPECIALIST	$72 – $177
LANDSCAPE ARCHITECT | SR. LANDSCAPE ARCHITECT	$82 – $172
ENVIRONMENTAL SCIENTIST | SR. ENVIRONMENTAL SCIENTIST	$73 – $170
PLANNER | SR. PLANNER	$85 – $177
GIS SPECIALIST | SR. GIS SPECIALIST	$82 – $177
CONSTRUCTION OBSERVER	$110 – $143
SURVEY	
Survey Office Technician	$128 – $159
Drone Pilot	$186
One-Person Crew	$186
Two-Person Crew	$250
OFFICE TECHNICIAN	$64 – $140

Costs associated with word processing, cell phones and reproduction of common correspondence are included in the above hourly rates. Vehicle mileage is included in our billing rates [excluding geotechnical and construction materials testing (CMT) service rates]. Mileage can be charged separately, if specifically outlined by contract. | Reimbursable expenses include costs associated with plan, specification, and report reproduction; permit fees; delivery costs; etc. | Multiple rates illustrate the varying levels of experience within each category. | Rate Schedule is adjusted annually.

EXECUTIVE SUMMARY

Police

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

3C.2. Approve Joint Powers Agreement Between Hennepin County and the City of Golden Valley Regarding the Police Embedded Social Worker

Prepared By

Keith Curtis, Police Office Assistant
Virgil Green, Police Chief

Summary

In May 2021, Hennepin County and the Golden Valley Police Department partnered to establish a program that provides a social worker employed by Hennepin County that will work with GVPD through Hennepin County 911 dispatch. The joint powers agreement was an effort to coordinate expertise and delivery of services to provide 911 dispatch services in a manner that most effectively and efficiently supports and protects the physical, mental, and behavioral health of individuals in the City of Golden Valley In Hennepin County.

The term of this joint powers agreement between Hennepin county and City of Golden Valley shall be from January 1, 2024, through December 31, 2025.

Financial or Budget Considerations

With the cost sharing formula the cost of this program has been incorporated into the Proposed 2024 Budget.

Legal Considerations

N/A

Equity Considerations

N/A

Recommended Action

Motion to approve the Joint Powers Agreement between Hennepin County and the City of Golden Valley regarding the Police Embedded Social Worker in the form approved by the City Attorney.

Supporting Documents

- Joint Power Agreement - GVPD Social Worker

JOINT POWERS AGREEMENT
BETWEEN HENNEPIN COUNTY
AND CITY OF GOLDEN VALLEY

This Joint Powers Agreement ("Agreement") is made and entered into by and between the County of Hennepin, State of Minnesota ("COUNTY") on behalf of its Human Services and Public Health Department ("HSPHD") and City of Golden Valley ("CITY"), 7800 Golden Valley Road, Golden Valley, Minnesota 55427, on behalf of its police department, ("POLICE DEPARTMENT") and pursuant to the authority conferred upon them by Minn. Stat. § 471.59. The parties to this Agreement may also be referred to individually as "Party" and collectively as "Parties".

WHEREAS, COUNTY is a political subdivision of the State of Minnesota and its Human Services and Public Health Department is empowered to provide general and emergency public services that support and protect the physical, mental and behavioral health of individuals in Hennepin County; and

WHEREAS, CITY is a governmental unit of the State of Minnesota and is empowered to provide general and emergency public services in a manner that supports and protects the physical, mental and behavioral health of individuals in Hennepin County; and

WHEREAS, the Parties desire to jointly and cooperatively coordinate their expertise and delivery of services to further the interests of providing mental health and related social services in a manner that most effectively and efficiently supports and protects the physical, mental and behavioral health of individuals in Hennepin County, subject to the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the mutual promises and benefits realized by each Party, the Parties agree as follows:

1. PURPOSE

The purpose of this Agreement is to enable COUNTY to provide social work services to GOLDEN VALLEY POLICE DEPARTMENT, for the GOLDEN VALLEY POLICE DEPARTMENT to secure such services from COUNTY and to establish the terms on which such services shall be provided.

2. PROJECT/PROGRAM

A. The Parties shall cooperate and collaborate to perform services associated with the Embedded Social Worker Model (the "Model"), as further described and outlined in Exhibit A: Description of Services.

B. The Parties shall perform at all times in accordance with the provisions herein, including but not limited to the data provisions.

3. TERM OF THE AGREEMENT

The term of this Agreement shall be from January 1, 2024, through December 31, 2025, unless terminated earlier in accordance with the cancellation/termination provisions of this Agreement.

4. PAYMENT

A. In accordance with the provisions herein, CITY shall pay COUNTY as follows for 1.0 full-time Social Worker ("SW"), as that term is defined in Exhibit A, employed by COUNTY.

1. For the period January 1, 2024, through December 31, 2024, total payments by CITY to COUNTY shall not to exceed eighty-two thousand seven hundred seventeen dollars ($82,717).

2. For the period of January 1, 2025, through December 31, 2025, total payments by CITY to COUNTY shall not to exceed eighty-eight thousand four hundred thirty-one dollars ($88,431).

B. In the event that the SW position is vacant or absent for a period of one-month HSPHD may provide the GOLDEN VALLEY POLICE DEPARTMENT with a temporary SW to work onsite at the GOLDEN VALLEY POLICE DEPARTMENT when available. If a temporary onsite SW is not available, HSPHD may assign based on availability a coverage team to review existing service determine need and complete outreach (via phone or in-person) based on resident needs for each referral from the GOLDEN VALLEY POLICE DEPARTMENT. The GOLDEN VALLEY POLICE DEPARTMENT may also opt to not have coverage until the onsite social worker is replaced.

1. There will be no additional cost to GOLDEN VALLEY POLICE DEPARTMENT if HSPHD assigns a temporary onsite SW worker. The billing will remain as set forth in this Agreement.

2. If HSPHD provides a coverage team to review existing services, determine need and complete outreach (via phone or in-person) the GOLDEN VALLEY POLICE DEPARTMENT will be billed at 50% of the amount listed above during the period of reduced coverage.

3. If POLICE DEPARTMENT decides not to have HSPHD assign a temporary SW, HSPHD will not bill for period when position is vacant.

4. HSPHD shall submit a quarterly invoice to POLICE DEPARTMENT for the previous quarter's cost of SW services. In the event the SW position is not staffed for a portion of the billing cycle, the payment shall be prorated.

C. POLICE DEPARTMENT will make payment within thirty-five (35) days from receipt of the invoice. If the invoice is incorrect, defective, or otherwise improper, GOLDEN VALLEY POLICE DEPARTMEMT will notify HSPHD within ten (10) days of receiving

the incorrect invoice. Upon receiving the corrected invoice from HSPHD, GOLDEN VALLEY POLICE DEPARTMENT will make payment within thirty-five (35) days.

D. Further, the Parties expressly agree that neither this Agreement nor either Party's performance hereunder obligates or commits either Party to enter a subsequent contract or engagement with the other.

5. LIABILITY AND NOTICE

A. Each Party shall be liable for its own acts and the results thereof to the extent provided by law and, further, each Party shall defend, indemnify, and hold harmless the other (including their present and former officials, officers, agents, employees, volunteers, and subcontractors), from any liability, claims, causes of action, judgments, damages, losses, costs, or expenses, including reasonable attorney's fees, resulting directly or indirectly from any act or omission of the indemnifying Party, anyone directly or indirectly employed by it, and/or anyone for whose acts and/or omissions it may be liable, in the performance or failure to perform its obligations under this Agreement. The provisions of Minnesota Statutes, Chapter 466 shall apply to any tort claims brought against COUNTY and/or CITY as a result of this Agreement.

B. To the fullest extent permitted by law, action by the Parties to this Agreement is intended to be and shall be construed as a "cooperative activity" and it is the intent of the Parties that they shall be a deemed a "single governmental unit" for the purposes of liability, as set forth in Minnesota Statutes, section 471.59, subdivision 1a(a), provided further that for purposes of that statute, each Party to this Agreement expressly declines responsibility for the acts or omissions of the other Party to this Agreement except to the extent they have agreed in writing to be responsible for the acts or omissions of the other Party. The total liability for the Parties shall not be added together to exceed the limits on governmental liability for a single governmental unit.

C. Duty to Notify: Each Party shall promptly notify the other Party of any actual or suspected claim, action, cause of action, administrative action, criminal arrest, criminal charge, or litigation brought against the party, its present and former officials, officers, agents, employees, volunteers, and subcontractors which arises out of this Agreement.

6. INSURANCE

Each party warrants that it has a purchased insurance or utilizes a self-insurance program sufficient to meet its liability obligations and, at a minimum, to meet the maximum liability limits of Minnesota Statutes Chapter 466. This provision shall not be construed as a waiver of any immunity from liability under Chapter 466 or any other applicable law.

7. INDEPENDENT PARTIES

Notwithstanding any other formal, written agreements or contracts which may exist between COUNTY and CITY, nothing is intended or should be construed in any manner as creating or establishing the relationship of partners between the Parties hereto or as constituting either Party as the agent, representative, or employee of the other for any purpose or in any manner

whatsoever. Each Party is to be and shall remain an independent contractor with respect to all services performed under this Agreement. Each Party will secure at its own expense all personnel required in performing services under this Agreement. Any personnel of a Party or other persons engaged in the performance of any work or services required by that Party shall have no contractual relationship with the other Party and will not be considered employees of the other Party. No Party shall be responsible for any claims related to or on behalf of the other Party's personnel, including without limitation, claims that arise out of employment or alleged employment under the Minnesota Unemployment Insurance Law (Minnesota Statutes Chapter 268) or the Minnesota Workers' Compensation Act (Minnesota Statutes Chapter 176), or claims of discrimination arising out of state, local, or federal law, against a Party, its officers, agents, contractors, or employees. Such personnel or other persons shall neither require nor be entitled to any compensation, rights, or benefits of any kind from the other Party, including, without limitation, tenure rights, medical and hospital care, sick and vacation leave, workers' compensation, unemployment compensation, disability, severance pay, and retirement benefits.

8. NONDISCRIMINATION

In accordance with COUNTY's policies against discrimination, POLICE DEPARTMENT shall not exclude any person from full employment rights or participation in, or the benefits of, any program, service or activity on the grounds of race, color, creed, religion, national origin, sex, gender expression, gender identity, age, disability, marital status, sexual orientation, or public assistance status. No person who is protected by applicable law against discrimination shall be subjected to discrimination.

9. NO THIRD PARTY BENEFICIARY

Except as herein specifically provided, no other person, customer, employee, or invitee of any Party or any other third party shall be deemed to be a third party beneficiary of any of the provisions herein.

10. DATA

COUNTY and POLICE DEPARTMENT, their officers, agents, owners, partners, employees, volunteers and subcontractors, shall abide by the provisions of the Minnesota Government Data Practices Act, Minnesota Statutes Chapter 13, and all other applicable state and federal law, rules, regulations and orders relating to data privacy, confidentiality, disclosure of information, medical records or other health and enrollment information, and as any of the same may be amended, as well as the data and data sharing provisions set forth in Exhibit A. The terms of this paragraph shall survive the cancellation or termination of this Agreement.

11. RECORDS – AVAILABILITY/ACCESS

Subject to the requirements of Minnesota Statutes section 16C.05, subd. 5, the Parties, the State Auditor, Legislative Auditor, or any of their authorized representatives, at any time during normal business hours, and as often as they may reasonably deem necessary, shall have access to and the right to examine, audit, excerpt, and transcribe any books, documents, papers, records, etc., of the Parties which are pertinent to the accounting practices and procedures of

the Parties and involve transactions relating to this Agreement. The Parties shall maintain these materials and allow access during the period of this Agreement and for six (6) years after its expiration, cancellation or termination.

12. MERGER, MODIFICATION, AND SEVERABILITY

A. The entire understanding between the Parties is contained herein and supersedes all oral agreements and negotiations between the Parties relating to the subject matter. All items that are referenced or that are attached are incorporated and made a part of this Agreement. If there is any conflict between the terms of this Agreement and referenced or attached items, the terms of this Agreement shall prevail.

B. Any alterations, variations or modifications of the provisions of this Agreement shall only be valid when they have been reduced to writing as an amendment to this Agreement signed by the Parties. Except as expressly provided, the substantive legal terms contained in this Agreement including but not limited to Indemnification; Liability and Notice; Merger, Modification and Severability; Default and Cancellation/Termination or Minnesota Law Governs may not be altered, varied, modified or waived by any change order, implementation plan, scope of work, development specification or other development process or document.

C. If any provision of this Agreement is held invalid, illegal or unenforceable, the remaining provisions will not be affected.

13. DEFAULT AND CANCELLATION/TERMINATION

A. If either Party fails to perform any of the provisions of this Agreement, fails to administer the work so as to endanger the performance of the Agreement or otherwise breaches or fails to comply with any of the terms of this Agreement, it shall be in default. Unless the Party's default is excused in writing by the non-defaulting Party, the non-defaulting Party may upon written notice immediately cancel or terminate this Agreement as to the defaulting Party or in its entirety.

B. This Agreement may be canceled/terminated with or without cause by either Party upon sixty (60) days' written notice Either Party may immediately cancel or terminate this Agreement if the terminating party determines that the health and welfare of a member of the public is at risk. Upon cancellation/termination, property or surplus money, if any, acquired as a result of the operation of this Agreement shall be distributed to the Parties in proportion to contributions of the Parties.

C. Either Party's failure to insist upon strict performance of any provision or to exercise any right under this Agreement shall not be deemed a relinquishment or waiver of the same, unless consented to in writing. Such consent shall not constitute a general waiver or relinquishment throughout the entire term of the Agreement.

D. The above remedies shall be in addition to any other right or remedy available to either Party under this Agreement, law, statute, rule, and/or equity.

14. NOTICES

Unless the Parties otherwise agree in writing, any notice or demand which must be given or made by a Party under this Agreement, or any statute or ordinance shall be in writing and shall be sent registered or certified mail. Notices to COUNTY shall be sent to the County Administrator at the address given in the opening paragraph of this Agreement with copies to HSPHD as detailed below. Notice to POLICE DEPARTMENT shall be sent to the address stated in the opening paragraph of this Agreement with a copy as detailed below.

HSPHD:

Leah Kaiser
Director of Behavioral Health
Hennepin County
300 South 6th Street
Minneapolis, Minnesota 55487
leah.kaiser@hennepin.us

POLICE DEPARTMENT:

Virgil Green
Chief of Police
Golden Valley Police Department
7700 Golden Valley Road
Golden Valley, Minnesota 55427
VGreen@goldenvalleymn.gov

15. SURVIVAL OF PROVISIONS

Provisions that by their nature are intended to survive the term, cancellation or termination of this Agreement do survive such term, cancellation or termination. Such provisions include but are not limited to: INDEPENDENT PARTIES; LIABILITY AND NOTICE; INSURANCE; DATA; RECORDS-AVAILABILITY/ACCESS; DEFAULT AND CANCELLATION/TERMINATION; MARKETING AND PROMOTIONAL LITERATURE; and MINNESOTA LAW GOVERNS.

16. MARKETING AND PROMOTIONAL LITERATURE

POLICE DEPARTMENT agrees that the terms, “Hennepin County” and “Hennepin County Human Services and Public Health Department”, the name of any elected official, or any derivatives thereof, shall not be utilized in any promotional literature or advertisements of any type without the express prior written consent of COUNTY.

17. MINNESOTA LAWS GOVERN

The laws of the state of Minnesota shall govern all questions and interpretations concerning the validity and construction of this Agreement and the legal relations between the Parties and their performance. The appropriate venue and jurisdiction for any litigation will be those courts located within the County of Hennepin, state of Minnesota. Litigation, however, in the

federal courts involving the Parties will be in the appropriate federal court within the state of Minnesota.

(The remainder of this page intentionally left blank.)

The Parties hereto agree to be bound by the provisions set forth in this Agreement.

Reviewed for COUNTY by the County Attorney's Office

_____

Date:_____

COUNTY OF HENNEPIN
STATE OF MINNESOTA

By:_____
Chair of Its County Board

ATTEST: _____
Deputy/Clerk of County Board

Date: _____

By: _____
County Administrator

Date: _____

CITY OF GOLDEN VALLEY

By: _____

Roslyn Harmon, Mayor

Date: _____

By: _____

Noah Schuchman, Interim City Manager

Date: _____

EXHIBIT A: Description of Services

POLICE DEPARTMENT and HSPHD staff will work collaboratively to prevent reoccurrences of crisis calls.

Roles and Responsibilities of Parties

POLICE DEPARTMENT will:

A. Provide office space for the Social Workers (SW);

B. Provide a hotspot for connection if SW is otherwise unable to access to COUNTY network.

C. Work with the HSPHD management to establish operational protocols including but not limited to referral criteria and process, hours of operation, data tracking and analysis; and

D. Provide safety vests available for SW who ride along in squad cars with officers in accordance with police department policies.

HSPHD will:

A. Provide the SW with equipment that is necessary for completing their work. This includes, but is not limited to, laptop computer, cell phone, printer, computer monitor, docking station and office supplies.

B. Supervise the SW staff providing services under this Agreement.

C. Be responsible for transportation/mileage expenses for the SW. The SW will be responsible following the HSPHD transportation/mileage reimbursement policies.

D. Provide short-term assistance to individuals in order to connect the individuals with internal and/or community resources to help meet their needs. Services will be provided timely and in an ethical and culturally sensitive manner. Services could include coordination with existing service providers, risk assessments, referrals and evaluation of need for emergency services and assistance in making those connections.

E. Share individually identifiable information with law enforcement only when there is an ongoing emergency situation, and the client information is necessary to protect the health or safety of the individual or other people and pursuant to applicable law. Information disclosed shall be limited to that necessary to address the emergency situation. During contact with individuals, the SW will make a reasonable attempt to obtain a Release of Information (ROI)

signed by each individual served, in order to permit relevant information to be subsequently shared with POLICE DEPARTMENT. Without an ROI individually identifiable information will be shared with POLICE DEPARTMENT only as previously described; and

F. Collect information needed to determine eligibility for community and/or county resources/services as needed. The SW will facilitate referrals to appropriate resources.

The Embedded Social Worker Model consists of:

A. Embedded mental health expertise in police departments and dispatch;

B. SW and medical professional respond to mental health, substance and social service-related calls to 911; and

C. SW and law-enforcement officer respond to mental health, substance and social service-related calls to 911.

Goals of the model include:

A. Ensure timely engagement with people who need support;

B. Fewer arrests and repeat calls;

C. Increased public satisfaction with the response to mental health emergencies; and

D. Free up police resources for other types of calls.

EXECUTIVE SUMMARY

Public Works

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

3C.3. Approve Purchase of Hockey Rink Dasher Boards and Components from Becker Arena Products

Prepared By

Tim Kieffer, Public Works Director
Janelle Crossfield, Park and Recreation Director
Al Lundstrom, Park Maintenance Superintendent

Summary

The Lions Park outdoor hockey rink is over 35 years old, deteriorating, and needs to be replaced. Staff proposes to purchase new wood boards, steel posts and crossmembers, and fencing.

Staff recommends purchasing the equipment through Sourcewell. Sourcewell is a service cooperative created by the Minnesota legislature as a local unit of government pursuant to Minn. Const. art. XII, sec. 3 and enabling law Minn. Stat. § 123A.21. Sourcewell has awarded contract number 120320-ATH for the purchase of the dasher boards and components.

Financial or Budget Considerations

The 2024-2033 Park Improvement Capital Improvement Program (CIP) includes $85,000 for Outdoor Hockey Rink Replacement (P-039). The cost for the boards and components is $58,683.00. The cost to install the dasher boards is $19,975 for a total cost of $78,658.

Legal Considerations

The proposed materials will be purchased following Minn. Stat. § 471.345 Subd. 15 Cooperative purchasing.

(a) Municipalities may contract for the purchase of supplies, materials, or equipment by utilizing contracts that are available through the state's cooperative purchasing venture authorized by section 16C.11. For a contract estimated to exceed $25,000, a municipality must consider the availability, price and quality of supplies, materials, or equipment available through the state's cooperative purchasing venture before purchasing through another source.

Equity Considerations

Park amenities satisfies Pillar 3 of the Equity Plan by providing unbiased programs and services.

Recommended Action

Motion to approve purchase of hockey rink dasher boards and components from Becker Arena Products in the amount of $58,683.00.

Supporting Documents

- Becker Arena Products Quote

Becker
ARENA PRODUCTS
Reliability by **design**

720 Innovation Drive
Shakopee, Minnesota, USA 55379
Tel: 952-890-2690
beckerarena.com

Customer #: 207731
Sourcewell ID: 21219
Quotation #: Lions Park ODR
Revision #: 1
Date: February 13, 2024
Proposal Expiration Date: March 13, 2024
Sales Consultant: Dan Mehren

Prepared For:
Al Lundstrom
Golden Valley, City of
7800 Golden Valley Rd
Golden Valley MN 55427

Project Location:
Lions Park
151 Louisiana Ave N
Golden Valley MN 55427

Thank you for considering Becker Arena Products, Inc., we appreciate the opportunity...

Benefits of Choosing to Partner with Becker Arena Products

- A stable and reliable company since 1988
- A staff with in-depth knowledge of the industry and products
- Quality products that last
- Experienced and professional installers
- Excellent customer service
- Worry Free Projects – Guaranteed

This system is available through the Sourcewell Cooperative Purchasing Program at discounted pricing. BECKER ARENA PRODUCTS, INC – VENDOR CONTRACT #120320 - ATH

- Sourcewell is a municipal contracting government agency that serves education and government agencies nationally through competitively bid and awarded contract purchasing solutions. Over 47,000 Member agencies enjoy the value and commitment of the world-class Sourcewell awarded Vendors. Take advantage of the cooperative purchasing discounts shown here in this quotation mentioning our contract **#120320 - ATH** when ordering. You must be a member and contracting authority. Ask your salesperson for a copy of the Sourcewell Contract Purchasing information

Per our recent discussion, please see below for Sourcewell pricing for the BAP 4.0 Wooden Dasher board system. Installation not included, by others.

BAP 4.0 DASHER BOARD SYSTEM

Becker Arena Products, Inc. shall furnish one BAP4.0 Outdoor hockey dasher board system. The pricing is based on the information furnished and will include the following items and features.

DASHER MATERIALS

Rink size 197' x 85' x 20' radius

- Approximately 530 lineal feet of dasher material [Ring only]
- 48" high galvanized steel frame components

- Vertical dasher supports to be anchored directly into grade, Steel posts pounded in, approximately 4' embedment
- 10' high 2" schedule 40 galvanized pipe dasher board supports for the ends and radius corners of rink and the chain link fence
- One (1) frame only for a 12'-0" straight "Lift Out" gate system (planks)
- One 36' player access gates, straight, with HD hinges and lift latches
- All steel framing components hot dip galvanized after fabrication
- 2 x 10 x 10' long treated lumber for the sides and straight ends
- 2 x 6 x 4' long treated lumber for the radius corners (Positioned vertically)
- Dasher panels to be assembled on site
- Includes all hardware required for installation

CHAIN LINK FENCING

- Support posts for 6' high fence fabric
- 216 lineal feet of 6' high x 9-gauge galvanized chain link fabric with three horizontal support rails and all hardware for a complete installation
- Four (4) each shield termination pads

DELIVERY

- Freight to Golden Valley MN has been estimated and included in the total dasher pricing. Due to the volatility in transportation and freight rates, Becker Arena Products reserves the right to adjust the total price to match the actual freight rates incurred on the date of shipment(s).

Total Sourcewell Price, Material and Freight **Accept _____ $ 58,683.00**

Material Price Escalation & De-Escalation Clause (Due to the volatility of all components of the above dasher board system)

- In the event that the price of any of the material(s) used in the Becker Arena Products, Inc. production of the above product increase or decrease by 3% or greater from the price used for that material(s) at the time the quote was signed, then the price for the material(s) in the contract between Becker Arena Products, Inc. and the purchaser shall be increased or decreased to reflect the additional or reduced cost to obtain that material or materials. Purchaser agrees that Becker Arena Products, Inc. shall be entitled to an adjustment to the contract price to reflect and price increases of material(s) that occur as a result of Becker Arena Products, Inc. incurring additional costs when ordering materials.

Please Note: ***Taxes are the responsibility of the purchaser.*** Prices do not include special insurance requirements, bonding, or applicable permits and/or license fees. Prices subject to site visit and/or receipt of final construction drawings and specifications. If sales tax is applicable, it will be added to the proposal totals and noted on a Contract Summary Sheet that will be sent back with your executed contract.
All payment terms are based on credit approval.

Our Standard Payment terms are:

50% due upon placement of order $ _____

50% due 10 days prior to shipment $ _____

The above payment amounts will be filled in based on total contract price and any applicable sales tax and sent back on the Contract Summary Sheet with your executed contract.

We are looking forward to the opportunity of working with you on your project and if we can be of further assistance please do not hesitate to call.

This proposal is subject to Becker Arena Products, Inc. Standard Terms and Conditions and Limited Warranty and may be withdrawn without penalty at any time before contract execution. If accepted, please sign and return this copy to Becker Arena Products. When approved and signed by one of our officers a fully executed copy will be forwarded for your records. This proposal is subject to change, withdrawal or cancellation until accepted by you. If Becker Arena Products, Inc. have not received your acceptance within 60 days from the date hereof, this proposal shall automatically expire. Becker Arena Products, Inc. retains a security interest in all products covered in this agreement until all payment terms have been met. In addition, the purchaser agrees to sign any additional documents for Becker Arena Products, Inc. to perfect its security interest in the products.

Proposal/Contract # **Lions Park ODR rev 1** is accepted with initialed options:

City of Golden Valley 05-07-24

Roslyn Harmon, Mayor

Noah Schuchman, Interim City Manager

#2129
Sourcewell ID

Becker Arena Products, Inc.

General Manager
Title

Jeff Brosz
Print Name

3-14-24
Today's Date

#120320 - ATH
Sourcewell Contract ID

BECKER ARENA PRODUCTS INC. STANDARD TERMS AND CONDITIONS OF SALE - EFFECTIVE JANUARY 2021

1. Definitions. In these terms -"Seller" means the seller of the Goods as defined herein; "Buyer" means the entity purchasing the Goods, including any successors thereof; "Goods" means the goods, products and materials manufactured, imported, supplied and/or delivered for or by Seller to Buyer, as such were approved by Seller in reply to Buyer's order and accordingly listed in the Approval of Order; "Approval of Order", in respect of any Buyer's order, means the instrument issued by Seller, bearing the same reference number of such order and specifying, *among any other terms*, the items of Goods, including their respective price and quantity, which shall be supplied to Buyer upon such order; "Contract" means the contract for the supply of Goods which have been ordered by Buyer and specified in Seller's Approval of Order, which contract is concluded based on these Terms and Conditions of Sale unless otherwise specified in the Approval of Order.

2. Payment. Payment for Goods shall be due on or prior to the delivery date of Goods and no discount may be taken. Payments received after the due date thereof shall bear a service charge from their due date, at the maximum lawful interest rate applicable, and if none – at the annual rate of 5% above the base rate from time to time of the central bank of the place of Buyer's incorporation. All payments shall be made to Seller's designated bank account in the same currency and for the same amounts as specified in the Approval of Order.

3. Prices, Duties and Taxes. Prices specified in the Approval of Order are net, excluding packaging, and shall be deemed Ex-works (Incoterms 2000 as amended). Prices are based, inter alia, on production costs for supplies, labor, deliveries, duties, and services current on the order date. In the event of material increase in any such costs, Seller reserves the right either to adjust the prices for Goods accordingly, or to cancel any certain part of the sales relating to undelivered Goods. Duties, taxes, fees, levies and other compulsory payments applicable to the sale of Goods at any time, as well as freight, express, insurance and delivery charges, shall all be borne and paid in full by Buyer, unless otherwise expressly stipulated.

4. Delivery. Delivery dates noted on the Approval of Order are estimates only, and are not guaranteed, and are all subject to adjustment as determined by the Seller acting reasonably. The acceptance of shipment by a common carrier or by any licensed public truckman shall constitute proper delivery. Risk associated with the Goods shall pass to Buyer on delivery or with the passing of title in the Goods, whichever occurs first; provided however, that where delivery is delayed due to circumstances caused by or within the responsibility of Buyer, risk of loss shall pass to Buyer upon Seller's notification that Goods are ready for dispatch.

5. Retention of Title. Title shall pass to Buyer only upon full payment by Buyer for the Goods and following payment of any other outstanding debt by Buyer to Seller. Buyer shall, at Seller's request, take any measures necessary under applicable law to protect Seller's title in the Goods, and lawfully notify Buyer's present or potential creditors of Seller's title on and interest in the Goods. Buyer acknowledges that so long as title has not been transferred in the Goods, it holds the Goods as bailee and fiduciary agent for the Seller and shall safely and securely store and keep the Goods separate and in good condition, clearly showing the Seller's ownership of the Goods and shall respectively record the Seller's ownership of the Goods in its books. Notwithstanding the above, Buyer may use Goods for its own use, or sell Goods, as fiduciary agent for the Seller, to a third party in the normal course of business by bona fide sale at market value, whereby proceeds of such usage or sale of Goods, as the case may be, shall, to the extent of the amount being owed by Buyer to Seller at the time of receipt of such proceeds, be held by Buyer on trust for Seller and specifically ascertained, until payment in full for all payable debts by Buyer to Seller.

6. Warranty.

a) If applicable, Seller warrants that Goods as set out in the warranty applicable thereto given by Seller to Buyer, subject always to the terms and conditions thereof, and subject to use, storage and application thereof in accordance with and based on Seller's standard tolerances, instructions of use and recommendations. b) Unless otherwise restricted by mandatory applicable law, THE WARRANTY SET FORTH HEREIN IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY AND ALL WARRANTIES OF MERCHANTABILITY, QUALITY AND FITNESS FOR USE AND FOR PURPOSE, ANY ADVICE AND RECOMMENDATION AND ANY OBLIGATIONS OR LIABILITIES WHICH MAY BE IMPUTED TO SELLER, ANY AND ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED, DENIED AND EXCLUDED. BUYER EXPRESSLY AGREES THAT NO WARRANTY THAT IS NOT SPECIFICALLY STATED IN THIS AGREEMENT WILL BE CLAIMED OR OTHERWISE ADHERED TO BY BUYER AND/OR BY ANYONE ACTING ON BUYER'S BEHALF AND/OR BY ANYONE DERIVING THE LEGALITY OF ITS CLAIM FROM BUYER, NOR THAT WILL ANY SUCH WARRANTY BE VALID. SELLER NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT, ANY OTHER LIABILITY IN CONNECTION WITH THE SALE, USE OR HANDLING OF ANY AND ALL GOODS SPECIFIED OR CONTEMPLATED BY THIS CONTRACT. NO WARRANTY IS MADE WITH RESPECT TO ANY OF THESE GOODS WHICH HAVE BEEN SUBJECT TO ACCIDENT, NEGLIGENCE, ALTERATION, IMPROPER CARE, IMPROPER STORAGE, IMPROPER MAINTENANCE, ABUSE OR MISUSE.

7. Claims and Liability.

a) Unless Seller shall within 30 days after delivery of the Goods, receive from Buyer written notice of any matter or thing by reason whereof it is alleged that Goods are not in accordance with the Contract, Goods delivered shall be deemed to have been supplied, delivered and accepted in all respects in full conformity with the Contract and Buyer shall be entitled neither to reject the same nor to raise any claim for damages or for other remedy in respect of any alleged negligence and/or breach of warranty and/or any condition. b) In any claim, brought subject to the conditions above, Buyer must prove to the satisfaction of Seller that it followed Seller's instructions for use, care, storage, maintenance, handling and application of the Goods. c) Unless otherwise specifically restricted by mandatory applicable law, Seller's liability under any claim and in connection with any possible allegation, whether based on negligence, contract, or any other cause of action, shall, if the Seller shall be liable hereunder, be limited to either (i) the replacement of the Goods or the supply of equivalent goods; (ii) the repair, or payment of the cost of repair, of the Goods; or (iii) credit in an amount equal to the purchase price specified in Seller's pertinent invoice, or in an amount of equivalent goods, all at Seller's sole option. Buyer acknowledges that the remedy available to him as specified herein, is in lieu of any remedies that may be otherwise available to him, now or in the future, whether in law or in equity, relating to any loss or damage, whether directly or indirectly, arising from the purchase and/or the use of Goods, including without limitation, any actual or contingent damages, loss of production, loss of profit, loss of use, loss of contracts or any other consequential or indirect loss whatsoever, whether pecuniary or non-pecuniary, and it is acknowledged and agreed by Buyer that in no circumstances shall Seller be liable for any such damages. Should any limitation on Seller's liability hereunder be held ineffective under applicable law, than Seller's liability shall in any event be limited to the minimum amount of damages to which Seller may limit its liability, where such is greater than the purchase price as specified in Seller's pertinent invoice.. Buyer's undertaking as specified in this subsection shall extend and inure to the benefit of Seller and of Seller's successors at any time, as well as to Seller's personnel, representatives, managers, directors and officers. Nothing contained herein shall take effect to exclude or limit liability where liability may not be excluded or limited under applicable law, including, without limitation, for death, personal injury and fraudulent misrepresentations. e) Any and all warranties, undertakings, guarantees, or assurances provided herein by Seller, are specifically limited to Buyer herein, and not imputed by Seller, whether directly or indirectly, expressly or impliedly, to any other person or entity, including any subsequent buyer or user, bailee, licensee, assignee, employee and agent of Buyer.

8. Default. Upon failure of Buyer to pay any amounts due to Seller, or in the event of any breach or anticipated breach by Buyer of any Contract with Seller, or if Buyer shall either (i) become insolvent, (ii) call a meeting of its creditors, or (iii) make any assignment for the benefit of creditors, or if (iv) a bankruptcy, insolvency, reorganization, receivership or reorganization proceeding shall be commenced by or against Buyer, then, in each such occasion, Seller may, at its sole discretion, opt to (1) cancel this and any other Contract with Buyer (without waiving any of Seller's rights to pursue any remedy against Buyer); (2) claim return of any Goods in the possession of Buyer, the title of which has not passed to Buyer, and enter Buyer's premises (or the premises of any associated company or agent where such Goods are located), without liability for trespass or any alleged damage, to retake possession of such Goods; (3) defer any shipment hereunder; (4) declare forthwith due and payable all outstanding bills of Buyer under this or any Contract; and/or (5) sell all or part of the undelivered Goods, without notice at public and/or on

private sale, while Buyer shall be responsible for all costs and expenses of such sale and be liable to Seller for any shortfall in the discharge of the amounts due to Seller. **9. Independent Delivery.** Each delivery of Goods shall (without prejudice to Seller's rights under clause 8 hereinabove) be considered a separate contract and the failure of any delivery shall not vitiate any contract as to deliveries of other Goods and payment therefor.

10. Cancellation. Orders manufactured in whole or in part, pursuant to Buyer's specifications, may not be cancelled except with Seller's prior written consent, on terms which will compensate Seller for any resulting losses.

11. No-Assignment. No rights or obligations of Buyer arising out of this Contract may be assigned without the express prior written consent of Seller.

12. Force Majeure. Should Seller be prevented from effecting deliveries of the Goods or any of them by reason of either an act of god, insurrection, riot, war hostilities, terror attacks, warlike operations, piracy, arrests, restraints or detainments by any competent authority, strikes or combinations or lock-out of workmen, fire, floods, droughts, earthquakes, permanent or temporary delay or inability to obtain labor, material or services through Seller's usual and regular sources, or any other circumstances (whether of a nature similar to those specified, or not) beyond the absolute control of the Seller, then, in each such cases, the obligation of the Seller to effect deliveries hereunder shall be suspended until after such prevention shall cease to continue. Should any deliveries under this Contract be suspended under this clause for more than 90 days – either party may withdraw from this Contract and be relieved from any liability; provided however, that Buyer shall nevertheless accept delivery and pay for such Goods once the Seller is able to deliver in accordance with the period(s) of shipment named in this Contract. Seller shall not be liable for, and be relieved from, any loss or damages of any kind resulting from the causes mentioned hereinabove.

13. Advice. Any provisions specified or implied by herein or elsewhere notwithstanding, any advice, recommendation, information, assistance or service provided by Seller in relation to the Goods or in respect of their use or application is given in good faith, shall be deemed accepted by Buyer without imputation of any liability to Seller, and it shall be the responsibility of Buyer to confirm the accuracy and reliability of the same in light of the use of which Buyer makes or intends to make of the Goods.

14. Entire Agreement. This Contract merges the entire terms and conditions for sale of the Goods. In the event of any conflict between the terms herein and any provisions included in the Approval of Order, the latter shall govern and prevail. Subject to the foregoing, nothing specified in, or referred to by, any other document, record or instrument whatsoever, which relates to and/or which otherwise subsists in connection with the sale of Goods herein, whether expressly or impliedly, including any written order, request or other standard or specific terms of any entity, shall or may be interpreted to attribute to Seller and/or to Seller's affiliates or representatives (i) any liability, obligation, commitment and/or undertaking, and/or (ii) any waiver in connection with or of any right, whether contractual, proprietary, in-person am and/or equitable, including but not limited to, any and all intellectual property rights in connection with the Goods, which are and shall always remain in the Seller's exclusive and complete ownership under all circumstances whatsoever, notwithstanding any sale of Goods hereunder and whether the Goods shall be standard Goods or manufactured to a specific order. No modification or waiver of any provision hereof shall become valid and effective except upon a written instrument duly signed beforehand by Seller. No waiver by either party of any default of the other party shall be deemed a waiver of any subsequent or other default. If any provision of this Contract becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable, or void, the balance of this Contract shall continue in full force and effect without the
provision.

15. Law and Arbitration. This Contract shall be governed by and construed in accordance with the laws of the state of Minnesota.

16. Dasher Board Systems

1. Seller may choose whether or not to produce the rink according to its production schedule. If they produce the rink on schedule, it will be stored at Becker Arena Product's location of business and storage fees will be charged to the Purchaser at the rate of US $300 per week. All payments will be due according to the terms from the original ship date. If the Seller chooses to delay production to coincide with the new ship date, no storage fees will apply, and payment will be due according to the terms from the original ship date. If contract terms are paid in full prior to shipping, the time will start from the original ship date and not the adjusted ship date.

2. A new shipping installation date will be coordinated with Seller's installation department and confirmed with the Purchaser. The Seller will reschedule the installation for the next available date according to the Seller's installation schedule. In some cases, the site delay may cause additional charges. This includes, but is not limited to, wages, remobilization, and equipment rental, to be paid by the Purchaser.

3. If the Purchaser's site is not ready when the Seller's installation crew arrives, additional costs will be charged to the Purchaser. This includes, but is not limited to wages, travel, lodging, meals, equipment rental and changes in Becker Arena Product's installation schedule.

17. General Site Requirements.
The following criteria must be met, or extra charges may apply, and delays will be incurred, if the site is not in compliance when Seller is ready to deliver and install the goods:

1. Concrete and Floor Work: All concrete work is to be completed and allowed to cure, according to job specifications and/or refrigeration contractors requirements, before the date installation is scheduled to begin.

2. The levelness of the perimeter concrete, where the rink is to be installed, must be within 1/8" of levelness for every 10' in length and no more than 1/4" difference in height over the length and width of the perimeter surface.

3. For sand floors, the first 6" from the front of the curb, where the rink is to be installed, must be within 1/16" of flatness from the inside edge outward and meet the levelness and flatness conditions specified above, Sand floors are not to be final graded prior to dasher board installation.

4. Expansion joints, which are to be covered completely by the rink, are to be within 1/2" of straightness from end to end and side to side. The distance from side to side and end to end of the outside edge of the expansion joint is to be within 1/2" of the required dimension for the frame to cover it.

5. If, upon arrival, the perimeter concrete is inspected and does not meet the specifications for levelness, flatness, straightness and size, the following will occur:

6. Seller's Representative will determine if rink can be shimmed or adjusted/cut to achieve desired levelness, fit and/or expansion joint coverage while maintaining the structural integrity of the rink. If so, the additional time and materials to do this will be paid by the Purchaser. A change order must be filled out by the Seller's Representative and signed by the Purchaser before any work commences.

7. If the rink cannot be shimmed or adjusted to the desired levelness and/or coverage while maintaining the structural integrity of the rink, the Purchaser will be responsible for fixing the surface to meet specifications. All associated costs for this are the sole responsibility of the Purchaser.

8. The Seller will accept contracts that are retrofit projects with the understanding that the condition of the underlying perimeter concrete work meets the specifications stated above. If, after removal of the existing rink, the concrete does not meet these conditions, points "1" and "2" from above will apply.

18. Requirements for Rink Installations:

(Refer to the enclosed Site Requirements)

1. Walk Through Inspection. When Seller's work is complete or near complete, Purchaser or the Purchaser's Representative (including general contractors and architects) must be available for a final walk-through inspection with the Seller's Representative. Any parties who do not attend the walk through will forfeit their right to submit punch list items. A final punch list of items to be completed or repaired will be prepared as a result of this walk through. Any item not included on the final "punch list" will not be the responsibility of the Seller unless it is covered by the Seller's Warranty.

2. Shop Drawings and Non-standard Shielding. Preparation of shop drawings will not commence until after the signed contract has been delivered to Seller. Production will not commence until Seller receives approved shop drawings. Field measured; tempered glass (non-standard sizes) may require an additional 3-4 weeks for delivery after completion of installation. Any field measured tempered glass to be installed by purchaser.

3. Polyethylene. All polyethylene used to manufacture the rink shall be virgin material. All colors shall match within manufacturer's tolerance.
4. Seller will not be responsible for replacing polyethylene that conforms to manufacturers color tolerance. During manufacturing, all panels shall have the polyethylene overhang past the frame a minimum of 1/16" on each end to allow for contraction of the material due to temperature change in the field. Seller shall not be responsible for material contraction gaps between panels due to temperature change if it adheres to these manufacturing requirements.

5. Material Check-in. (Installation supervision and supply only contracts) The Purchaser shall be responsible to verify the shipment for quantities and any damage caused from shipping for jobs that include installation supervision or are supply only. Any quantity variances and/or damage must be noted and reported to the Project Manager by filling out the Material Check-in Form and faxing it to the Project Manager. Missing/damaged items must be reported within 24 hours of receipt to receive credit. All boxes will be clearly marked by the Seller. The Ship list will clearly identify the contents and quantities of the shipment. It is the responsibility of the Purchaser to verify that all box numbers in the hardware crate are accounted for, not to open and count each individual item per box. The Purchaser must count anything that is not boxed.

EXECUTIVE SUMMARY

Community Development

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

3C.4. Award Contract for Construction Engineering Services to Short Elliot Hendrickson, Inc. - 2024 Pavement Management Program

Prepared By

RJ Kakach, PE, Assistant City Engineer

Summary

Staff received a proposal from the consulting engineering firm of Short Elliott Hendrickson, Inc. (SEH), dated February 26, 2024 for construction staking and observation for the 2024 PMP. This item was approved by City Council at the March 6, 2024 City Council meeting. In routing for signatures, it was discovered that the 2023 hourly rates were included in the appendix of the agreement instead of the 2024 hourly rates. The original approved not to exceed amount of $288,100 was calculated based off of the 2024 rates, so no change to the total contract amount is required. The attached updated agreement has the correct 2024 hourly billing rates for consideration.

Financial or Budget Considerations

This item is included in the Streets section of the Capital Improvement Plan for the 2024 PMP project.

Legal Considerations

The professional services agreement with SEH was created from contract templates reviewed and approved by the City Attorney.

Equity Considerations

The purpose of the Pavement Management Program is to provide high quality, cost effective streets in Golden Valley. This program satisfies Pillar 3 of the Equity Plan Pillars by providing unbiased programs and services. Full street reconstruction has occurred in nearly every neighborhood since 1995, and by the end the 2024 PMP, all neighborhoods will have been fully reconstructed.

Recommended Action

Motion to approve professional services agreement with Short Elliott Hendrickson, Incorporated for the observation, construction staking, and engineering services on the 2024 PMP, for an amount not to exceed $288,100. This item requires a majority vote.

Supporting Documents

- 2024 Construction Services Agreement with SEH Inc

PROFESSIONAL SERVICES AGREEMENT
FOR PROVIDING THE PROFESSIONAL ENGINEERING CONSULTING SERVICES
FOR THE RECONSTRUCTION OF STREETS AND UTILITIES
FOR THE 2024 PAVEMENT MANAGEMENT PROGRAM #24-01

THIS AGREEMENT is made this 7th day of May, 2024 ("Effective Date") by and between Short Elliott Hendrickson, Incorporated a Minnesota corporation with its principal office at 3535 Vadnais Center Drive, St. Paul, MN 55110-3507 ("Consultant"), and the City of Golden Valley, Minnesota, a Minnesota municipal corporation located at 7800 Golden Valley Road, Golden Valley, MN 55427 (the "City"):

RECITALS

A. Consultant is engaged in the business of providing professional engineering consulting services.

B. The City desires to hire Consultant to provide professional services for the reconstruction of streets and utilities for the 2024 Pavement Management Program.

C. Consultant represents that it has the professional expertise and capabilities to provide the City with the requested professional services.

D. The City desires to engage Consultant to provide the services described in this Agreement and Consultant is willing to provide such services on the terms and conditions in this Agreement.

NOW, THEREFORE, in consideration of the terms and conditions expressed in this Agreement, the City and Consultant agree as follows:

AGREEMENT

1. **Services.** Consultant agrees to provide the City with professional consulting services as described in the attached **Exhibit A** (the "Services") at the locations depicted in the attached **Exhibit B**. **Exhibits A and B** shall be incorporated into this Agreement by reference. All Services shall be provided in a manner consistent with the level of care and skill ordinarily exercised by professionals currently providing similar services. Consultant may reasonably rely on information and documents provided by or through the City.

2. **Time for Completion.** The Services shall be completed on or before December 31, 2024, provided that the parties may extend the stated deadline upon mutual written agreement. This Agreement shall remain in force and effect commencing from the effective date and continuing until the completion of the project, unless terminated by the City or amended pursuant to the Agreement.

3. **Consideration.** The City shall pay Consultant for the Services on an hourly basis and for necessary out-of-pocket expenses at the rates set forth in Consultant's fee schedule, attached hereto as **Exhibit C**. Consultant's total compensation for the Services, including hourly fees and expenses, shall not exceed $288,100. The consideration shall be for both the Services performed by Consultant and any and all expenses incurred by Consultant in performing the Services. The City shall make progress payments to Consultant on a monthly basis. Consultant shall submit statements to the City containing a detailed list of project labor and hours, rates, titles, and amounts undertaken by Consultant during the relevant billing period. The City shall pay Consultant within thirty (30) days after Consultant's statements are submitted.

4. **Approvals.** Consultant shall secure the City's written approval before making any expenditures, purchases, or commitments on the City's behalf beyond those listed in the Services. The City's approval may be provided via electronic mail.

5. **Termination.** Notwithstanding any other provision hereof to the contrary, this Agreement may be terminated as follows:

a. The parties, by mutual written agreement, may terminate this Agreement at any time;
b. Consultant may terminate this Agreement in the event of a breach of the Agreement by the City upon providing thirty (30) days' written notice to the City;
c. The City may terminate this Agreement at any time at its option, for any reason or no reason at all; or
d. The City may terminate this Agreement immediately upon Consultant's failure to have in force any insurance required by this Agreement.

In the event of a termination, the City shall pay Consultant for Services performed to the date of termination and for all costs or other expenses incurred prior to the date of termination.

7. **Amendments.** No amendments may be made to this Agreement except in a writing signed by both parties.

8. **Remedies.** In the event of a termination of this Agreement by the City because of a breach by Consultant, the City may complete the Services either by itself or by contract with other persons or entities, or any combination thereof. These remedies provided to the City for breach of this Agreement by Consultant shall not be exclusive. The City shall be entitled to exercise any one or more other legal or equitable remedies available because of Consultant's breach.

9. **Records/Inspection.** Pursuant to Minnesota Statutes § 16C.05, subd. 5, Consultant agrees that the books, records, documents, and accounting procedures and practices of Consultant, that are relevant to this Agreement or transaction, are subject to examination by the City and the state auditor or legislative auditor for a minimum of six years. Consultant shall maintain such records for a minimum of six years after final payment. The parties agree that this obligation will survive the completion or termination of this Agreement.

10. **Indemnification.** To the fullest extent permitted by law, Consultant, and Consultant's successors or assigns, agree to protect, defend, indemnify, save, and hold harmless the City, its officers, officials, agents, volunteers, and employees from any and all claims; lawsuits; causes of actions of any kind, nature, or character; damages; losses; and costs, disbursements, and expenses of defending the same, including but not limited to reasonable attorneys' fees, professional services, and other technical, administrative or professional assistance to the extent resulting from Consultant's (or its subcontractors, agents, volunteers, members, invitees, representatives, or employees) negligent performance of the duties required by or arising from this Agreement, or caused in whole or in part by any negligent act or omission or willful misconduct by Consultant, or arising out of Consultant's failure to obtain or maintain the insurance required by this Agreement. Nothing in this Agreement shall constitute a waiver or limitation of any immunity or limitation of liability to which the City is entitled. The parties agree that these indemnification obligations shall survive the completion or termination of this Agreement.

11. **Insurance.** Contractor shall maintain reasonable insurance coverage throughout this Agreement. Contractor agrees that before any work related to the approved project can be performed, Contractor shall maintain at a minimum:

A. Workers' Compensation and Employers' Liability

1. Coverage A: Per state statute
2. Coverage B: $500,000 each accident
   $500,000 Disease – policy limit
   $500,000 Disease – each employee

B. Commercial General Liability

1. $2,000,000 General Aggregate
2. $2,000,000 Products—Completed Operations Aggregate
3. $1,000,000 Each Occurrence
4. $1,000,000 Personal Injury

C. Commercial Automobile Liability

1. $1,000,000 Combined single limit bodily injury and property damage. The Commercial Automobile Liability shall provide coverage for the following automobiles:
   i. All owned automobiles
   ii. All non-owned automobiles
   iii. All hired automobiles

D. Umbrella Liability

1. $10,000,000 Each claim
2. $10,000,000 Annual aggregate

The umbrella liability shall provide excess limits for the commercial general liability policies.

E. Professional and Pollution Incident Liability

Professional liability insurance including pollution incident liability coverage with limits of not less than:

1. $5,000,000 per claim
2. $5,000,000 annual aggregate

Contractor shall provide the City with a current certificate of insurance including the following language: "The City of Golden Valley is named as an additional insured with respect to the commercial general liability, business automobile liability and umbrella or excess liability, as required by the contract. The umbrella or excess liability policy follows form on all underlying coverages." Such certificate of liability insurance shall list the City as an additional insured and contain a statement that such policies of insurance shall not be canceled or amended unless 30 days' written notice is provided to the City, or 10 days' written notice in the case of non-payment.

12. **Assignment.** Neither the City nor Consultant shall assign or transfer any rights under or interest (including, but without limitation, moneys that may become due or moneys that are due) in this Agreement without the prior written consent of the other except to the extent that the effect of this limitation may be restricted by law. Any assignment in violation of this provision is null and void. Unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under this Agreement. Nothing contained in this paragraph shall prevent Consultant from employing such independent consultants, associates, and subcontractors, as it may deem appropriate to assist it in the performance of the Services required by this Agreement. Any instrument in violation of this provision is null and void.

13. **Independent Contractor.** Consultant is an independent contractor. Consultant's duties shall be performed with the understanding that Consultant has special expertise as to the services which Consultant is to perform and is customarily engaged in the independent performance of the same or similar services for others. Consultant shall provide or contract for all required equipment and personnel. Consultant shall control the manner in which the services are performed; however, the nature of the Services and the results to be achieved shall be specified by the City. The parties agree that this is not a joint venture and the parties are not co-partners. Consultant is not an employee or agent of the City and has no authority to make any binding commitments or obligations on behalf of the City except to the extent expressly provided in this Agreement. All services provided by Consultant pursuant to this Agreement shall be provided by Consultant as an independent contractor and not as an employee of the City for any purpose, including but not limited to: income tax withholding, workers' compensation, unemployment compensation, FICA taxes, liability for torts and eligibility for employee benefits.

14. **Compliance with Laws.** Consultant shall exercise due professional care to comply with applicable federal, state and local laws, rules, ordinances and regulations in effect as of the date Consultant agrees to provide the Services. Consultant's guests, invitees, members, officers, officials, agents, employees, volunteers, representatives, and subcontractors shall abide by the City's policies prohibiting sexual harassment and tobacco, drug, and alcohol use as defined on the City's Tobacco, Drug, and Alcohol Policy, as well as all other reasonable work rules, safety rules, or policies, and procedures regulating the conduct of persons on City property, at all times while performing duties pursuant to this Agreement. Consultant agrees and understands that a violation of any of these policies, procedures, or rules constitutes a breach of the Agreement and sufficient grounds for immediate termination of the Agreement by the City.

15. **Entire Agreement.** This Agreement, any attached exhibits, and any addenda signed by the parties shall constitute the entire agreement between the City and Consultant, and supersedes any other written or oral agreements between the City and Consultant. This Agreement may only be modified in a writing signed by the City and Consultant. If there is any conflict between the terms of this Agreement and the referenced or attached items, the terms of this Agreement shall prevail. If there is any conflict between this Agreement and Exhibits A or B, the terms of this Agreement shall prevail.

16. **Third Party Rights.** The parties to this Agreement do not intend to confer any rights under this Agreement on any third party.

17. **Choice of Law and Venue.** This Agreement shall be governed by and construed in accordance with the laws of the state of Minnesota. Any disputes, controversies, or claims arising out of this Agreement shall be mediated with a mutually acceptable third-party neutral within 90 days of either party giving notice to the other of a dispute, controversy or claim. If such mediation is unsuccessful, the dispute, controversy, or claim shall be heard in the state or federal courts of Hennepin County, Minnesota, and all

parties to this Agreement waive any objection to the jurisdiction of these courts, whether based on convenience or otherwise.

18. **Conflict of Interest.** Consultant shall use reasonable care to avoid conflicts of interest and appearances of impropriety in its representation of the City. In the event of a conflict of interest, Consultant shall advise the City and either secure a waiver of the conflict, or advise the City that it will be unable to provide the requested Services.

19. **Work Products and Ownership of Documents.** All records, information, materials, and work product, including, but not limited to the completed reports, data collected from or created by the City or the City's employees or agents, raw market data, survey data, market analysis data, and any other data, work product, or reports prepared or developed in connection with the provision of the Services pursuant to this Agreement shall become the property of the City, but Consultant may retain reproductions of such records, information, materials and work product. Regardless of when such information was provided or created, Consultant agrees that it will not disclose for any purpose any information Consultant has obtained arising out of or related to this Agreement, except as authorized by the City or as required by law. Notwithstanding the foregoing, nothing in this Agreement shall grant or transfer any rights, title or interests in any intellectual property created by Consultant prior to the effective date of this Agreement; however, to the extent Consultant generates reports or recommendations for the City using proprietary processes or formulas, Consultant shall provide the City (1) factual support for such reports and recommendations; (2) a detailed explanation of the method used and data relied upon to arrive at the recommendation; and (3) a detailed explanation of the rationale behind the methodology used. All of the obligations in this paragraph shall survive the completion or termination of this Agreement. Any reuse of the records, information, materials, or work product without written verification or adaptation by Consultant will be at the City's sole risk and without liability or legal exposure to Consultant.

20. **Agreement Not Exclusive.** The City retains the right to hire other professional service providers for this or other matters, in the City's sole discretion.

21. **Data Practices Act Compliance.** Any and all data provided to Consultant, received from Consultant, created, collected, received, stored, used, maintained, or disseminated by Consultant pursuant to this Agreement shall be administered in accordance with, and is subject to the requirements of the Minnesota Government Data Practices Act, Minnesota Statutes, Chapter 13. Consultant agrees to notify the City within three business days if it receives a data request from a third party. This paragraph does not create a duty on the part of Consultant to provide access to public data to the public if the public data are available from the City, except as required by the terms of this Agreement. These obligations shall survive the termination or completion of this Agreement.

22. **No Discrimination.** Consultant agrees not to discriminate in providing products and services under this Agreement on the basis of race, color, sex, creed, national origin, disability, age, sexual orientation, status with regard to public assistance, or religion. Violation of any part of this provision may lead to immediate termination of this Agreement. Consultant agrees to comply with Americans with Disabilities Act as amended ("ADA"), section 504 of the Rehabilitation Act of 1973, and the Minnesota Human Rights Act, Minnesota Statutes, Chapter 363A. Consultant agrees to hold harmless and indemnify the City from costs, including but not limited to damages, reasonable attorneys' fees and staff time, in any action or proceeding brought alleging a violation of these laws by Consultant or its guests, invitees, members, officers, officials, agents, employees, volunteers, representatives and subcontractors. Upon request, Consultant shall provide accommodation to allow individuals with disabilities to participate in all Services

under this Agreement. Consultant agrees to utilize its own auxiliary aid or service in order to comply with ADA requirements for effective communication with individuals with disabilities.

23. **Authorized Agents.** The City's authorized agent for purposes of administration of this contract is Jeff Oliver, City Engineer, or designee. Consultant's authorized agent for purposes of administration of this contract is Scott Haupt, or designee who shall perform or supervise the performance of all Services.

24. **Notices.** Any notices permitted or required by this Agreement shall be deemed given when personally delivered or upon deposit in the United States mail, postage fully prepaid, certified, return receipt requested, addressed to:

CONSULTANT
Short Elliott Hendrickson, Inc
Scott Haupt, PE
3535 Vadnais Center Drive
St. Paul, MN 55110
shaupt@sehinc.com

THE CITY
City of Golden Valley
7800 Golden Valley Road
Golden Valley, MN 55437
engineeringdept@goldenvalleymn.gov

or such other contact information as either party may provide to the other by notice given in accordance with this provision.

26. **Waiver.** No waiver of any provision or of any breach of this Agreement shall constitute a waiver of any other provisions or any other or further breach, and no such waiver shall be effective unless made in writing and signed by an authorized representative of the party to be charged with such a waiver.

27. **Headings.** The headings contained in this Agreement have been inserted for convenience of reference only and shall in no way define, limit or affect the scope and intent of this Agreement.

28. **Payment of Subcontractors.** Consultant agrees that it must pay any subcontractor within 10 days of the Consultant's receipt of payment from the City for undisputed Services provided by the subcontractor. Consultant agrees that it must pay interest of 1-1/2 percent per month or any part of a month to the subcontractor on any undisputed amount not paid on time to the subcontractor. The minimum monthly interest penalty payment for an unpaid balance of $100 or more is $10. For an unpaid balance of less than $100, the Consultant shall pay the actual penalty due to the subcontractor. A subcontractor who prevails in a civil action to collect interest penalties from Consultant must be awarded its costs and disbursements, including attorneys' fees, incurred in bringing the action.

29. **Publicity.** At the City's request, the City and Consultant shall develop language to use when discussing the Services. Consultant agrees that Consultant shall not release any publicity regarding the Services or the subject matter of this Agreement without prior consent from the City. Consultant shall not use the City's logo or state that the City endorses its services without the City's advanced written approval.

30. **Severability.** In the event that any provision of this Agreement shall be illegal or otherwise unenforceable, such provision shall be severed, and the balance of the Agreement shall continue in full force and effect.

31. **Signatory.** Each person executing this Agreement ("Signatory") represents and warrants that they are duly authorized to sign on behalf of their respective organization. In the event Consultant did not authorize the Signatory to sign on its behalf, the Signatory agrees to assume responsibility for the duties and liability of Consultant, described in this Agreement, personally.

32. **Counterparts and Electronic Communication.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which taken together shall constitute one and the same instrument. This Agreement may be transmitted by electronic mail in portable document format ("pdf") and signatures appearing on electronic mail instruments shall be treated as original signatures.

33. **Recitals.** The City and Consultant agree that the Recitals are true and correct and are fully incorporated into this Agreement.

IN WITNESS WHEREOF, the City and Consultant have caused this Professional Services Agreement to be executed by their duly authorized representatives in duplicate on the respective dates indicated below.

SHORT ELLIOTT HENDRICKSON, INC;

By: _____

Name: _____

Title: _____

CITY OF GOLDEN VALLEY:

By: _____
Roslyn Harmon, Mayor

By: _____
Noah Schuchman, Interim City Manager

EXHIBIT A
SCOPE OF SERVICES

Building a Better World
for All of Us®

February 26, 2024

RE: City of Golden Valley
2024 Pavement Management Program
Construction Services Proposal
City Project No. 24-01
SEH No. GOLDV P-171745 14.00

Mr. Jeff Oliver
City Engineer
City of Golden Valley
7800 Golden Valley Road
Golden Valley, MN 55427-4588

Dear Mr. Oliver:

Thank you for the opportunity to assist the City of Golden Valley in providing professional engineering services for the reconstruction of streets in the 2024 Pavement Management Program (PMP) project area. Short Elliott Hendrickson (SEH®) has recently completed final design services and the City is requesting a scope of work for construction services. This letter serves as the Scope of Services for the Agreement for Professional Services for the 2024 Pavement Management Program Project between the City of Golden Valley and SEH.

BACKGROUND

The City of Golden Valley is planning to reconstruct approximately 1.17 miles of residential streets and perform a mill and overlay on an additional 0.06 miles of residential streets in the northwest corner of the City. The project is generally bounded by Wisconsin Avenue North on the west, Winnetka Avenue North (County State Aid Highway (CSAH) 156) on the east, Duluth Street on the south, and 23rd Avenue North on the north.

The following streets are included in the project area:

- Duluth Street: Wisconsin Avenue North to Winnetka Avenue North
- Westbend Road: Wisconsin Avenue North to Valders Avenue North
- Winnetka Heights Drive: Orkla Drive to Valders Avenue North
- Wisconsin Avenue North: Duluth Street to Westbend Road
- Wisconsin Avenue North: Westbend Road to 23rd Avenue North
- Orkla Drive: Westbend Road to 23rd Avenue North
- Valders Avenue North: Duluth Street to Winnetka Heights Drive
- Valders Avenue North: Winnetka Heights Drive to 23rd Avenue North
- Valders Court (mill and overlay): Valders Avenue North to east cul-de-sac

The proposed improvements include water main replacement, sanitary sewer replacement and rehabilitation, storm sewer replacement and rehabilitation. Improvements also include construction of

concrete curb and gutter, concrete sidewalk, and a pedestrian median, pedestrian ramp reconstruction, and street reconstruction.

Construction services for the 2024 PMP include construction staking, providing a Resident Project Representative (RPR), and limited construction observation as described below. We understand the City will be providing overall construction administration on this project.

SCOPE OF WORK

Construction Staking

SEH will provide a survey crew to perform construction staking for the proposed improvements within the proposed project area. Staking tasks for this project will include placement of horizontal and vertical control, utility staking for private utilities, water main stakes, sanitary sewer manhole stakes, storm sewer stakes, curb and gutter stakes, blue tops after curb is in place, sidewalk stakes, concrete median and pedestrian ramp stakes, and survey truck/equipment expenses. All survey coordination for construction staking and observation will be between the survey crew chief and the City.

Resident Project Representative

The Resident Project Representative (RPR) is the Engineer's agent at the site and will act as directed by and under supervision of the Engineer. The RPR shall serve as the liaison with the contractor, working principally through the contractor's superintendent. They will assist in helping the contractor understand the intent of the Contract Documents. The field personnel will review the progress schedule, shop drawings, and required submittals, Schedule of Materials Control and consult with the Engineer concerning acceptability. The RPR will be responsible for maintaining job site files, for correspondence, meeting reports, field orders, and supplemental agreements. They will maintain a daily diary and records pertaining to quantities, and will assist City staff with the applications for payment. The RPR will also keep information pertaining to record plans and will assist City staff with scheduling the survey crew based on staking requests from the contractor's representative.

Observation

SEH will provide observation services including attendance at the pre-construction meeting and weekly construction meetings, and will perform shop drawing reviews for the proposed improvements. The proposed budget also includes minor technical support for geotechnical issues that may arise. Time has also been included in the proposed budget to assist the City with project closeout activities.

Record Plans

SEH will furnish the City with AutoCAD files for the City's use in preparing the record drawings.

PROJECT TEAM

Scott Haupt and Steve Prall will be available to answer design-related questions and provide coordination with field staff and Scott will provide project management of our contract with the City. They will also be available to review design issues in the field if necessary. Troy Anderson will serve as the RPR and will assist the City with field representation. Brett Larsen will be available to provide geotechnical field support as may be required with the subgrade correction work. Construction staking will be led by one of our survey crew chiefs who has worked on previous Golden Valley PMP projects.

SCHEDULE

We anticipate construction starting in April and ending in October 2024, however the actual schedule will depend on the Contractor's schedule and weather.

COMPENSATION

SEH proposes to be compensated for the scope of work proposed in the Agreement on an hourly basis. Compensation will be based on the hourly cost of personnel plus reimbursable expenses, including reproductions, mileage, personal vehicle allowance, and equipment. Additional services required beyond the tasks and estimated hours as described can be negotiated or provided as extra work on an hourly basis.

We have estimated a not-to-exceed fee of $288,100 for the proposed services. Anticipated tasks, hours and expenses are included in the attached work task breakdown. The City of Golden Valley will be invoiced for actual labor and reimbursable expenses incurred by SEH to complete the work.

This agreement is an understanding of the project to date. If this document satisfactorily sets forth your understanding of our agreement, please sign in the space below and email SEH an electronic copy.

We look forward to working with the City on the next phase of this project, and appreciate the continued opportunity to work with the City of Golden Valley.

Sincerely,

SHORT ELLIOTT HENDRICKSON INC.

Scott D. Haupt

Scott Haupt, PE (Lic. MN, WI)
Senior Project Manager

sh
Enclosure

Approved this _____ day of _____, 2024

City of Golden Valley, Minnesota

By: _____

Title: _____

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2024 PMP - Construction Services

Deliverables: **Construction Observation, Construction Staking, Full Time RPR, Record Plan Assistance**

Task		Project Manager	Geotech Engineer	Project Engineer	Sr. RPR	Admin	Survey Crew
1	**Observation/Administration**						
	Prepare & distribute Construction Documents	2				2	
	Precon meeting preparation & attendance	4		2	8		2
	Shop drawing review/coordination	2		6	18		
	Project administration/design coordination	24	8	16		6	
	On-site observation/weekly construction meetings				1400		
2	**Construction Staking**						
	Horizontal control						8
	Pedestrian ramps & median						18
	Sanitary sewer						10
	Water main						24
	Storm sewer						24
	Curb and gutter						38
	Sidewalk						8
	Data transfer			8			18
	Blue tops after curb is in place						14
3	**Record Drawings/Closeout Assistance**						
	Record plan & closeout assistance	4		16	20		
Total hours		1710	36	8	48	1446	8	164

Project labor cost this phase **$275,200**

Equipment charges

Mileage and Expenses **$5,400**

Reproductions **$1,000**

Survey Truck and Equipment **$6,500**

Total project cost this task **$288,100**

Assumptions:

1. Survey Crew and RPR based on assumed project schedule (mid April to mid-October).
2. Construction services are largely dependant on weather and contractor's schedule. RPR's estimate of hours based on 50 hours per week for 28 weeks.
3. The on-site observation/construction meetings task includes time for project closeout activities.
4. Materials sampling & testing will performed by others.
5. Record plan assistance includes preparing & providing design files to City for their staff's use in preparing Record Plans.
6. No record plan survey will be needed.

EXHIBIT B
LOCATION OF WORK

city of golden valley

2024 PMP

Print Date: 9/27/2022
Sources:
-Hennepin County Surveyors Office for Property Lines (2022).
-City of Golden Valley for all other layers.

0 125 250 500 Feet

EXHIBIT C
FEE SCHEDULE

SEH Hourly Billing Rates – 2024

CLASSIFICATION	BILLABLE RATE[1]
Principal	$185.00 – $320.00
Project Manager	$150.00 – $280.00
Senior Project Specialist	$155.00 – $265.00
Project Specialist	$110.00 – $205.00
Senior Professional Engineer I	$135.00 – $215.00
Senior Professional Engineer II	$160.00 – $275.00
Professional Engineer	$120.00 – $200.00
Graduate Engineer	$100.00 – $160.00
Senior Architect	$135.00 – $255.00
Architect	$115.00 – $185.00
Graduate Architect	$100.00 – $135.00
Senior Landscape Architect	$130.00 – $205.00
Landscape Architect	$105.00 – $150.00
Graduate Landscape Architect	$95.00 – $125.00
Senior Scientist	$145.00 – $215.00
Scientist	$100.00 – $165.00
Graduate Scientist	$90.00 – $135.00
Senior Planner	$145.00 – $250.00
Planner	$115.00 – $185.00
Graduate Planner	$100.00 – $145.00
Senior GIS Analyst	$120.00 – $205.00
GIS Analyst	$110.00 – $180.00
Project Design Leader	$135.00 – $220.00
Lead Technician	$125.00 – $205.00
Senior Technician	$100.00 – $165.00
Technician	$70.00 – $135.00
Graphic Designer	$100.00 – $170.00
Administrative Professional	$65.00 – $150.00
Professional Land Surveyor	$125.00 – $195.00
Lead Resident Project Representative	$110.00 – $190.00
Senior Project Representative	$105.00 – $165.00
Project Representative	$85.00 – $150.00
Survey Crew Chief	$95.00 – $160.00
Survey Instrument Operator	$70.00 – $120.00

[1] The actual rate charged is dependent on the hourly rate of the employee assigned to the project.

Effective: January 1, 2024
Expires: December 31, 2024

SEH SCHEDULE OF EXPENSES – 2024

Vehicle Mileage Rates

2024 IRS Rate.....$0.65/Mile

Vehicle Allowance Costs

Resident Project Representative.....$16.00/day

Survey and Field Vehicle.....$4.90/hour + 2024 IRS mileage rate/mile

Survey Equipment

Robotic Total Station.....$35.00/hour

Global Positioning System (GPS).....$35.00/hour

Other Equipment Expenses

SEH uses many different types of equipment, such as traffic counters; flow meters; air, water, and soil sampling kits; inspection cameras; density meters; and many others. Our equipment is frequently upgraded to utilize current technology. The City will be charged for equipment usage per the specific project agreement with SEH. Equipment not included on this list that is needed to complete a specific project will be scoped on a per project basis.

IDENTIFIABLE REPRODUCTION AND REPROGRAPHIC COSTS[1]

Item	8½x11	11x17	Large Format	Per Item
Black/White Copy (single-sided, standard white paper)	$0.07	$0.24	$0.95 + $0.50/sq. ft.	
Color Copy (single-sided, standard white paper)	$0.46	$1.02	$0.95 + $2.55/sq. ft.	
Mylar			$5.00	
Laminated Foamcore - up to 30" x 42" - larger than 40" x 60"			$40.00 $75.00	
Binding - wire - comb				$3.60 $3.20
Covers - custom - standard				$0.15 $0.03
Tabs (white)				$0.20
Mailing/Processing				UPS or USPS rates

[1] SEH assumes that reports will be prepared and delivered electronically. On the occasion where reports or other reprographic services are needed, these reports and reprographic services will be scoped and costed on a per project basis determined by the need of the project and specific service requested.

EXECUTIVE SUMMARY

Police

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

3D.1. Adopt Resolution No. 24-029 Accepting a Donation for the National Police Week Conference From the Golden Valley Crime Prevention Fund

Prepared By

Keith Curtis, Police Office Assistant
Virgil Green, Police Chief

Summary

As adopted in the Donation/Gift Policy, a gift of real or personal property must be accepted by the City Council by resolution and be approved by a two-thirds majority of the Council. All donations and grants must be acknowledged and accepted by motion with a simple majority.

National Police Week occurs every May, and in 2024, we commemorated it with live, in-person events. The National Law Enforcement Officers Memorial Fund held ceremonies, including the 36th Annual Candlelight Vigil, to honor the fallen officers whose names have recently been added to the Memorial.

The 36th Annual Candlelight Vigil will be held on Monday, May 13. Followed by other events throughout the week. National Police Week is a collaborative effort of many organizations dedicated to honoring America's law enforcement community.

In 1962, President John F. Kennedy signed a proclamation which designated May 15 as Peace Officers Memorial Day and the week in which that date falls as Police Week. Currently, tens of thousands of law enforcement officers from around the world converge on Washington, DC to participate in a number of planned events which honor those that have paid the ultimate sacrifice.

Golden Valley Police Officer Sergeant Toavs will be participating in the 2024 Road to Hope Bike Ride during Police Week. The donation of $1,500 from the Golden Valley Crime Prevention Fund cover travel expenses for the Police Chief to attend the conference events and accept Sergeant Toavs on behalf of the Golden Valley Police Department at the commencement of the bike ride.

Financial or Budget Considerations

N/A

Legal Considerations

N/A

Equity Considerations
N/A

Recommended Action
Motion to adopt Resolution No. 24-029 accepting the donation of $1,500 from the Golden Valley Crime Prevention Fund for the National Police Week Conference the week of May 11th – May 16th, 2024.

Supporting Documents
- Resolution No. 24-029 - Donation for National Police Week

RESOLUTION NO. 24-029

RESOLUTION ACCEPTING A DONATION FROM THE CRIME PREVENTION FUND TO ATTEND THE NATIONAL POLICE WEEK CONFERENCE

WHEREAS, the City Council adopted Resolution No. 04-20 on 16, 2004, which established a policy for the receipt of gifts; and

WHEREAS, the Resolution states that a gift of real or personal property must be accepted by the City Council by Resolution and be approved by a two-thirds majority of the Council. A cash donation must be acknowledged and accepted by motion with a simple majority.

NOW THEREFORE, BE IT RESOLVED, that the City Council accept the following donations on behalf of its residents:

$1,500.00 from the Golden Valley Crime Prevention Fund for the National Police Week Conference from May 11th-16th, 2024.

Adopted by the City Council of the City of Golden Valley, Minnesota this 7th day of May 2024.

_____
Roslyn Harmon, Mayor

ATTESTED:

_____
Theresa Schyma, City Clerk

EXECUTIVE SUMMARY

Human Resources

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

3E. Receive and File the City of Golden Valley 2024 - 2026 Equity Plan

Prepared By

Seth Kaempfer, Equity and Inclusion Manager

Summary

At the April 10th, 2024, Council Work Session, Equity and Inclusion Manager, Seth Kaempfer presented the City of Golden Valley 2024 - 2026 Equity Plan.

The City of Golden Valley's Equity Plan provides an actionable structure to promote social justice and increase equity throughout the city. It works as an accountability tool to establish and reframe processes, practices, and policies in the aim of eliminating inequities and disparities internally and externally. Furthermore, this plan directly challenges norms and ways of operating that perpetuate social inequities and trauma, provides approaches that center the needs of those most marginalized, and measures the direct human impact.

The Equity Plan is an evolving document that takes shape through various means. The Equity Team developed the current iteration using input gathered from the following: a) Employee Equity Survey Report; b) Equity Plan Implementation Report; c) Racial Equity Dividends Index; and d) Continuum on Becoming an Antiracist Multicultural Organization. Through these avenues of input, the Equity Plan was built with three distinct focus areas: (1) Organizational Culture; (2) Operationalize Equity; and (3) Workforce Engagement.

Each Focus Area is framed with specific outcomes, actions, and measurables that provide a detailed approach to achieving the overarching goal of the plan as well as addressing City and community needs. In addition to broad actions, each department has named Equity Actions that reflects and focus on the needs of their respective department.

Legal Considerations

This item does not require legal review.

Equity Considerations

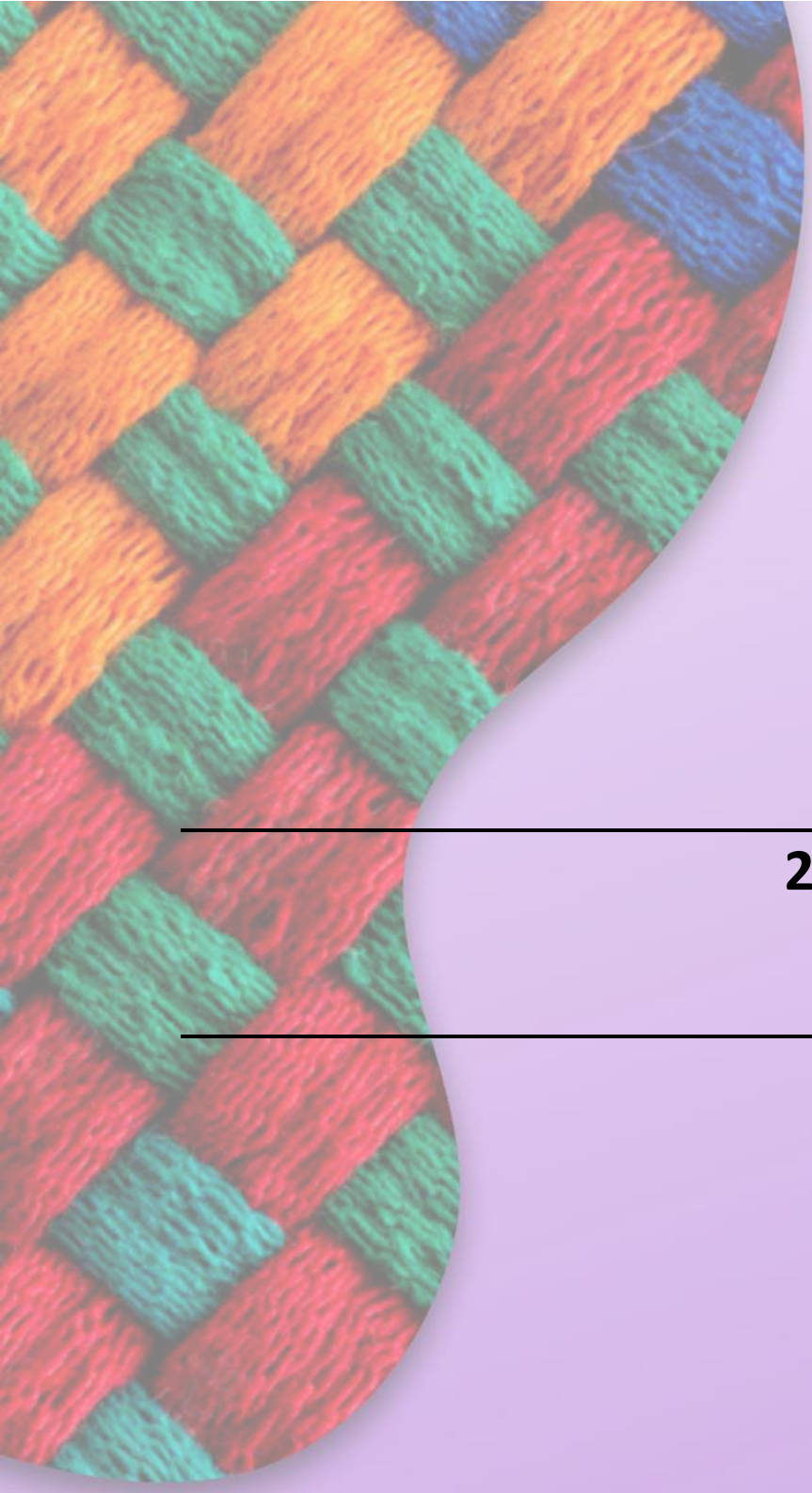
As the City continues in its efforts with embedding diversity, equity, and inclusion into all facets of its work, the Equity Plan and its implementation acts as its polestar. The breadth and specificity of the Equity Plan allows it to create direct and sweeping impact internally with employees and externally with community to establish an infrastructure that collectively eliminates inequities, recognizes

diversity as an asset, and engages at inclusive ways of acting and collaborating. Furthermore, the Equity Plan is rooted in frameworks and principles that guide its application and all encompassed actions and approaches to be equity-minded, anti-racist, and multicultural as well as be communicable, collaborative, and clear in responsibility, accountability, and impact.

Recommended Action
Motion to receive and file the City of Golden Valley 2024 - 2026 Equity Plan.

Supporting Documents

- City of Golden Valley 2024 - 2026 Equity Plan



city of golden valley

2024-2026 Equity Plan

5/7/2024

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Executive Summary

Transforming Golden Valley

The City of Golden Valley's Equity Plan provides an actionable structure to promote social justice and increase equity throughout the city. It works as an accountability tool to establish and reframe processes, practices, and policies in the aim of eliminating inequities and disparities internally and externally. Furthermore, this plan directly challenges norms and ways of operating that perpetuate social inequities and trauma, provides approaches that center the needs of those most marginalized, and measures the direct human impact.

The City recognizes that historical and present disparities perpetuated by its structures, policies, and procedures have burdened different people, particularly within Black, Indigenous and People of Color communities. Consequently, the City is committed to transforming local government to dismantle barriers, provide resources, and enhance opportunities for all residents and visitors.

Development Process

The Equity Plan is an evolving document that takes shape through various means. The Equity Team developed the current iteration using input gathered from the following:

- Employee Equity Survey Report (EESR)
  A survey conducted with City of Golden Valley employees to understand the perspectives, needs, and insight related to diversity, equity, and inclusion in the workplace and throughout their respective work (see Appendix A).

- Equity Plan Implementation Report (EPIR)
  A report completed by the Diversity, Equity, and Inclusion Commission (DEIC) and the Equity and Inclusion Manager to gather information about the implementation of the most recent Equity Plan and inform the execution of future plans (see Appendix B).

- Racial Equity Dividends Index (REDI)
  Indexing conducted by the Center for Economic Inclusion to understand how public sector institutions are progressing towards being inclusive and supportive of racially equitable economic outcomes for both employees and community (see Appendix C).

- Continuum on Becoming an Antiracist Multicultural Organization (CBARMO)
  Framework created by Crossroads Ministry to illustrate a progression model of action and process for organizations to consider and implement so as to move from an Exclusionary Institution to a Fully Inclusive Anti-Racist Multicultural Organization in a Transformed Society (see Appendix D).

Further input from the City's Equity Advancement Team (EAT) and DEIC identified key connective pieces that required changing the plan's structure. These included a need to transparently name who is

accountable for the work, a shift into focus areas, and a reconnection to concepts, such as anti-racism, through using best practices like the Continuum on Becoming an Anti-Racism and Multicultural Organization.

Accountability And Reporting

The City's Equity and Inclusion Manager is responsible for coordination, oversight, and implementation. Each Department Director is responsible for their respective department's action within the Equity Plan. Accordingly, each action is uniquely measured and assessed for achievement and impact. To ensure clear and consistent communication, the City will provide semi-annual updates and has created an online dashboard[1] available to both employees and the community.

[1] City of Golden Valley – Equity Plan Dashboard

Definitions And Shared Understanding

Language guides personal and collective attitudes, behaviors, and actions. The City uses the following definitions to create a shared understanding to advance diversity, equity, inclusion, and anti-racism (DEI-AR).

City DEI Definitions and In Practice Statements

The following definitions for diversity, equity, and inclusion are vital to grounding this plan and any work throughout the City. They came from a collaborative process with leadership to craft descriptions applicable to the work of local government and each department. The "In Practice" statements provide an understanding of how City staff will put these terms into use.

Diversity

Range of human differences and complexity, whether shared or individual, across thought, beliefs, experience, and identity (including, but not limited to, race, ethnicity, gender, sexuality, class, language, physical ability/disability, religious/spiritual beliefs, and education).

In practice at Golden Valley: We intentionally recognize, understand, and celebrate the differences and lived experiences of fellow staff and the community we serve.

Equity

Proactive and ongoing reinforcement of policies, projects, attitudes, and actions that distribute power, access, and opportunity, and where outcomes are determined by how provided services are structured rather than identity or lived experience.

In practice at Golden Valley: We identify and diligently eliminate disparities in as well as barriers to opportunities, resources, and services the City provides to residents, employees, businesses, and visitors.

Inclusion

Actively empowering and bringing individuals or groups to be participatory in projects, actions, and decision/policy making that shares power as well as honors nuance and authenticity.

In practice at Golden Valley: We purposefully and continuously engage diversity in decision making, goal setting, and project development that foster, cultivate, and contribute to cultural humility, a sense of belonging, and an empathic understanding.

Equity Plan Context Definitions

For additional terms used throughout the Equity Plan, which include terms specific to the implementation of the plan, please refer to Appendix E.

City Demographics and Information

Statistics and data are foundational for critical change and transformation. Data, especially when disaggregated, can indicate areas of needed growth, disparity, and potential historical and current inequities that are part of the fabric of the community. It can also indicate upcoming trends to both adjust and be responsive to as well as be a starting point for critical inquiry.

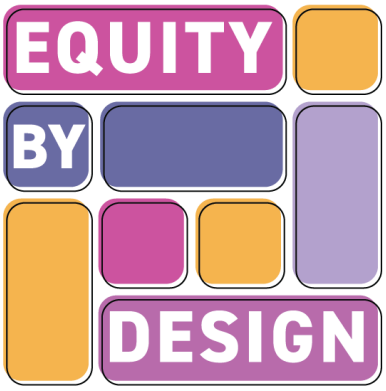
Information provided in Appendix F helps to provide a picture of Golden Valley across various data points.

Plan Frameworks and Principles

The Equity Plan includes intersecting frameworks and principles that drive and create continued accountability. Some connect to recommendations from conducted reports, while others connect to best practices related to implementing racial equity and anti-racism.

Equity by Design

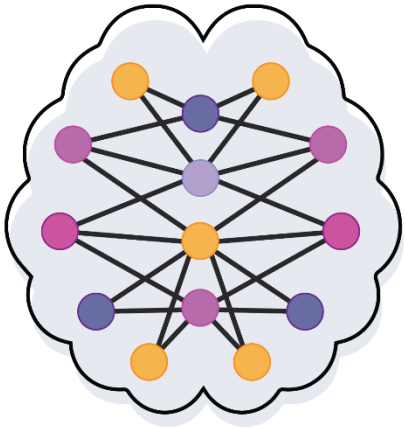
A cornerstone of this plan are the following Equity by Design[2]principles, which center responsibility on both the individual and the City as a system and institution:



- Clarity in language, goals, and measures is vital to effective equitable principles.
- Equity-mindedness is a guiding paradigm for language and action.
- Equitable practices and policies are designed to engage at differences in the context of community and not to treat all community the same.
- Enacting equity requires a continual process of learning, disaggregating data, and questioning assumptions about relevance and effectiveness.
- Equity must be enacted as a pervasive institutional- and department-wide principle.

Equity-Mindedness

Focusing more closely on Equity by Design, the principle of "Equity-Mindedness[3]" itself is also a main tenant of the plan. The following subprinciples center responsibility primarily on the individual:



- Race-Conscious and Inquiry
  Noticing racial inequities, recognizing stereotypes, and questioning assumptions and implicit/explicit bias.

- Evidence and Outcome Based
  Awareness that beliefs, expectations, and practices assumed to be race neutral can and typically have outcomes that are racially disadvantageous.

- Equity Advancing
  Willingness and readiness to assume responsibility and take action to eliminate inequities.

[2]Center for Urban Education: Five Principles for Creating Equity by Design
[3]Five Principles for Enacting Equity by Design

- Systemically Aware
  Awareness that while racism may not always be overt, racialized patterns nevertheless permeate policies and practices. Also, an awareness to bring in additional socio-historical context to the review, edits, and buildout of policies and practices.

- Gap Reframing
  Reassessment that disparities are a dysfunction of structures, policies, and practices as well as how these mechanisms have contributed to and exacerbate disparities.

Three Cs: Communication, Collaboration, and Clarity

From conducted reports, recommendations were formed to highlight the various needs related to future plans. In turn, these recommendations have become additional principles, which find themselves applied to all actions and some more specifically:

- Communication of the Plan
  Provide consistent, continuous, and clear communication about the Equity Plan to City employees and community using various communication tools and accessible dashboards.

- Internal and External Collaboration
  Identify, cross-collaborate, and involve both internal and external stakeholders as well as leverage existing assets, which includes but is not limited to current staff, commissions, professional services, and county/state agencies.

- Clarity of Responsibility, Accountability, and Impact
  Clearly determine and communicate how actions and subsequent tasks connect to specific roles and responsibilities as well as what intended impact is to be created and whether it addresses specific inequities.

Continuum on Becoming an Anti-Racist and Multicultural Organization

The Continuum on Becoming an Anti-Racist and Multicultural Organization (Appendix D) is a fundamental framework for the plan itself and each action. It helps establish a starting point for the City and gives perspective of what to do so racial and cultural differences are seen as assets. In its work and operations, the City is deemed a combination of a "Compliance Organization" and an "Affirming Institution," which look at symbolic change and identity change respectively. This determination is noted in Appendix D.

Equity Plan Focus Areas At-A-Glance

Focus Area 1: Organizational Culture

- **Outcome 1**: Possess and advance a common understanding of diversity, equity, inclusion, and anti-racism.
  - Action A: Provide accessible and applicable DEI-AR resources and tools.
  - Action B: Establish and carry out common language and common understanding engagement.

- **Outcome 2**: Implement a City structure that values diversity and intercultural engagement.
  - Action A: Increase collective intercultural mindedness and skillset.
  - Action B: Enhance and expand awareness of City-wide policies, practices, and resources.

Focus Area 2: Operationalize Equity

- **Outcome 1**: Equity tools are applied to process, procedures, policies, projects, programs, and initiatives.
  - Action A: Update and strengthen usage of City Equity Decision Making Tool.
  - Action B: Build and apply City Community Equity Participation Tool.

- **Outcome 2**: Equity strategies and measures are identified and applied.
  - Action A: Departmental Equity Actions are identified and addressed.
  - Action B: Update and communicate City Equity Infrastructure. (fabric image)

Focus Area 3: Workforce Engagement

- **Outcome 1**: Enhance employee engagement methods.
  - Action A: Develop and implement City Employee Impression Strategy.
  - Action B: Communicate and facilitate employee engagement opportunities focused on DEI-AR and intersectional topics.

- **Outcome 2**: Increase professional development opportunities.
  - Action A: Create, implement, and assess DEI-AR curriculum.
  - Action B: Develop and execute Workforce Equity Advancement Strategy workforce equity strategy.

Equity Plan Focus Areas

The Equity Plan includes three distinct focus areas: (1) Organizational Culture; (2) Operationalize Equity; and (3) Workforce Engagement. Each focus area contains expected outcomes and action.

Focus Area 1: Organizational Culture

Respect, encouragement, and empowerment are crucial to establishing an organizational culture that is equitable and inclusive. This kind of culture comes from grounding the workplace in fundamental values and a foundational understanding of how diversity, equity, inclusion, and anti-racism are interwoven into how employees engage with one another and across the City.

Outcome 1: Possess and advance a common understanding of diversity, equity, inclusion, and anti-racism

Action A: Provide accessible and applicable DEI-AR resources and tools.	
Description:	Research, create, and communicate tools and resources that are specialized for local government and departmental application of DEI-AR. This also includes communicating DEI-AR standards set by leading organizations, whether focused on local government or specific departments.
Accountability:	Equity Team
Stakeholders:	Equity Advancement Team and IT
Connections:	• ESSR Recommendation(s): 5
Measurables:	• Central location for all DEI-AR content • Number of resources and tools for each department

Action B: Establish and carry out DEI-AR common language and common understanding engagement.	
Description:	Communication campaign and training to establish better collective understanding and engagement regarding DEI-AR language and concepts, as it pertains to each department's work and local government.
Accountability:	Equity Team and Executive Leadership Team
Stakeholders:	Departmental leadership
Connections:	• EESR Recommendation(s): 1.A & 1.B • EPIR Recommendation(s): B.3 • CBARMO Pillar 4: Step 4
Measurables:	• Number of Full Time Employees trained • Departmental In Practice Statements • Definitions/Terms guide • All staff communication • Change in understanding of terminology

Outcome 2: Implement a City structure that values diversity and intercultural engagement

Action A: Increase and enhance the City's collective intercultural mindedness and skillset.	
Description:	Apply the Intercultural Development Inventory (IDI) throughout the entire City. This includes Development Support Opportunities that supplement the content of the IDI process by providing additional engagement that focus on continued learning, further understanding, and diversifying application of intercultural mindedness, communication, and more.
Accountability:	Equity Team, Executive Leadership Team, and departmental leadership
Stakeholders:	IDI qualified administrators
Connections:	• ESSR Recommendation(s): 6 • CBARMO Pillar 3: Step 4
Measurables:	• Full Time Employee participation • Participation in Developmental Support Opportunities • Addition of IDI qualified administrators

Action B: Enhance and expand awareness of City-wide policies, practices, and resources.	
Description:	Assessment and recrafting of current employee policies and a communication campaign to inform employees of policies in efforts of making it more understandable, approachable, and effective. These efforts will also work towards helping employees better understand how to for oneself and others via various means.
Accountability:	HR Department and Executive Leadership Team
Stakeholders:	City Attorney, Communications Department, Equity Advancement Team, and City Council
Connections:	• EESR Recommendation(s): 9
Measurables:	• Full redevelopment of workplace behavior policy • All staff communication • Development of guides and resources for policy usage • Change in understanding of policy and how to use it • Review of handbook

Focus Area 2: Operationalize Equity

Systemic approaches to decision-making as well as process/policy/project development, implementation, and evaluation are crucial to establishing equitable outcomes, improving results, and eliminating disparities for those the City serves. Operationalizing equity in individual, departmental, and City work using tools, frameworks, and lenses moves towards these goals and helps to establish stronger accountability, metrics, and standards.

Outcome 1: Equity tools are applied to processes, policies, and projects.

Action A: Update and strengthen usage of City Equity Decision Making Tool.	
Description:	Update current Equity Tool for stronger approach and utilization through diversifying its application, clarity of its use, and further cohesion within the Equity/Legal Review. Efforts related to communication, training, and attestation are also part of the approach to establish better usage and understanding with anticipation of City policy embedment.
Accountability:	Equity and Inclusion Manager, City Attorney, and City Clerk
Stakeholders:	Executive Leadership Team, Equity Advancement Team, and departmental leadership
Connections:	• ESSR Recommendation(s): 4 • EPIR Recommendations(s): B.4 • CBARMO Pillar 4: Step 2 & 6
Measurables:	• Full redevelopment of tool • Usage numbers of the tool • Number of managers and supervisors trained • Completion of attestation and number of managers and supervisors completing

Action B: Build and apply Community Equity Participation Tool.	
Description:	Create a Community Equity Participation Tool and implement a communication and training campaign for usage across the City. The tools application will guide employees on how to properly incorporate community in different actions, strategies, and initiatives, especially those that have direct impact.
Accountability:	Community Connection and Outreach Specialist
Stakeholders:	Executive Leadership Team, Equity Advancement Team, and departmental leadership
Connections:	• EESR Recommendation(s): 10 • EPIR Recommendation(s): A.2 • REDI: Leadership Q7 • CBARMO Pillar 4: Step 2 & 6
Measurables:	• Full development of tool • Usage numbers of the tool • Number of managers and supervisors trained

	• Completion of attestation and number of managers and supervisors completing

Outcome 2: Equity strategies and measures are identified and applied.

Action A: Departmental Equity Actions are identified and addressed.	
Description:	Departments either focus on a current initiative/project or build out a particular initiative/project for implementation related to engaging at DEI-AR for their respective work. (see Appendix E)
Accountability:	Equity and Inclusion Manager, Executive Leadership Team, and departmental leadership Note: Each departmental Equity Action will have differing individuals for accountability and stakeholders
Stakeholders:	Stakeholder(s): Departmental leadership and staff, City Council, City Commissions, and external partners Note: Each departmental Equity Action will have differing individuals for accountability and stakeholders
Connections:	• ESSR Recommendation(s): 7 & 8 • EPIR Recommendations(s): A.1, A.2, & A.3 • REDI: Procurement Q1-7, Budget/Finance Q5, Community/Economic Development Q4, Housing/Transportation/Land Use Q4-7, Public Policy Q2-5
Measurables:	Departmentally defined

Action B: Update and communicate City Equity Infrastructure.	
Description:	Redesign and bolster the City of Golden Valley Equity Infrastructure to both enhance and deepen equity praxis. This focuses on connecting internal committees/groups, commissions, city council, schools, tools/resources, physical infrastructure, community organizations, and the formalization of a racial equity vision statement.
Accountability:	Equity Team
Stakeholders:	Communication Department, IT, Equity Advancement Team, DEI Commission, and City Council
Connections:	• EESR Recommendation(s): 5 & 7 • EPIR Recommendation(s): A.4 & B.1 • REDI: Procurement Q1-7, Budget/Finance Q5, Community/Economic Development Q4 • CBARMO Pillar 4: Step 2, 5, & 7
Measurables:	• Number of engaged identity-based student groups • Number of engaged identity-based community organizations • Full development of a racial equity vision statement

Focus Area 3: Workforce Engagement

Continued engagement at developing and strengthening equity-mindedness through professional development creates long-term success for the entire City, fosters a more dynamic and critical skillset of each employee, and upholds unbiased services. Coupled with a focus on supporting the careers of employees, this helps build out a workforce that is empowered, valued, and feels a sense of belonging.

Outcome 1: Enhance employee engagement methods.

Actions A: Develop and implement Employee Impression Strategy.	
Description:	Build a strategy that examines and engages at the life of an employee from recruitment to leave. This focuses on gathering and assessing data/information as well as setting goals related to recruitment, hiring, time throughout employment, and then exit from the City.
Accountability:	Human Resources Specialist, Equity and Inclusion Manager, Executive Leadership Team, and departmental leadership
Stakeholders:	HR Department, Administrative Services, Communications Department, and external partners
Connections:	• ESSR Recommendation(s): 3 • REDI: Leadership Q12, Hiring Q5-7, Culture/Retention/Advancement Q6 • CBARMO Pillar 3: Step 3 & Pillar 4: Step 8
Measurables:	• Application demographic analyzed • Engagement of new hires via check-ins • Engagement of all employees via stay interviews • Completion of exit interviews

Action B: Communicate and facilitate employee engagement opportunities focused on DEI-AR and intersectional topics.	
Description:	Promote and deliver sessions, trainings, and additional employee engagement opportunities focused on DEI-AR, which aim to expand equity mindedness, connect on topical and current issues, and directly engage at employee needs. This also includes supporting departments in their own efforts of DEI-AR employee engagement.
Accountability:	Equity Team and Equity Advancement Team
Stakeholders:	Executive Leadership Team, departmental leadership, IT, Wellness Committee, and external partners
Connections:	• EESR Recommendation(s): 2.A & 2.B • CBARMO Pillar 3: Step 4 & Pillar 4: Step 3 and 4
Measurables:	• Number of JEDI Lunch sessions • Number of additional learning opportunities • Assessments for JEDI Lunch sessions and additional learning opportunities

Outcome 2: Strengthen professional development opportunities.

Action A: Create, implement, and assess DEI-AR curriculum.	
Description:	Create various DEI-AR curricula that are both applicable to the work of local government and center equity mindedness, liberatory practices, and departmental nuance.
Accountability:	Equity Team and Equity Advancement Team
Stakeholders:	Executive Leadership Team, departmental leadership, IT, Wellness Committee, and external partners
Connections:	• ESSR Recommendation(s): 2.A & 2.B • CBARMO Pillar 3: Step 4 & Pillar 4: Step 3 and 4
Measurables:	• Developed and implemented curricula • Number of full-time employees participating • Assessments for curriculums

Action B: Develop and execute Workforce Equity Advancement Strategy.	
Description:	Build a strategy that examines and engages the advancement of employees through different means. This includes evaluating job descriptions to embed equity competencies, establishing succession planning for roles, and tracking promotional data/information.
Accountability:	HR Department, Executive Leadership Team, and departmental leadership
Stakeholders:	Equity Advancement Team and Administrative Services
Connections:	• EESR Recommendation(s): 3 • REDI: Hiring Q7, Culture/Retention/Advancement Q2/7/10, Workforce Development Q1 • CBARMO Pillar 4: Step 7 and 8
Measurables:	• Review and update job descriptions • Number of departmental completions for succession planning • Promotion demographic analyzed

APPENDIX A:
City of Golden Valley Employee Equity Survey Report

City of Golden Valley
2023 Employee Equity Survey Report

10/16/2023

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Executive Summary & Introduction

Executive Summary

The City of Golden Valley and its employees serve a community of roughly 22,000 residents and a wealth of businesses, visitors, and patrons. This community brings a multiplicity of experience, identity, history, and needs. With this in mind, it requires the City and its employees to be dynamic, reflective, and responsive when providing services and resources, directly engaging, incorporating perspectives and lived experiences, implementing policy and practice, and more. To better inform and ground this work, it is vital to understand how to advance, ingrain, and apply equity into it. As such, the Equity and Inclusion Manager and the City developed a survey to establish a baseline of employee knowledge, experience, and perspectives.

Based on this overarching goal, the Equity and Inclusion (E&I) Manager developed a set of draft survey questions and structure. With the support of the HR Department as well as the City's Management Team and Equity Advancement Team, these questions were edited and adjusted to be properly reflective and inclusive of the City and its workforce. The E&I Manager in collaboration with the Community Connection and Outreach Specialist analyzed and reported on the data.

Introduction

A key directive of the City of Golden Valley's Council is imbedding diversity, equity, inclusion (DEI), and racial justice into the work of the City and make it a vital, inextricable, and fundamental part of how the City does its work. To ensure that this directive is woven and part of the fabric of the City, staff created a survey tool for employees to express the diverse perspectives, views, and opinions when to comes to previous and future DEI as well as the work that comes with it. Furthermore, staff will use the results of the survey as one of many tools to inform an updated City of Golden Valley Equity Plan in the prospects that is proactive, nuanced, and purposeful in its impact both internally with employees and externally with the community the City serves.

Survey Objectives

The Equity and Inclusion Division staff communicated the following survey objectives to City of Golden Valley employees:

- Create a direct connection to the directives made by the City Council related to diversity, equity, inclusion, and racial justice.
- Establish a stronger starting point to understand the dynamic regarding DEI within our employees.
    - Obtain feedback on employees' needs, wants, and concerns.
    - Gain insight regarding employees' engagement and understanding of previous DEI efforts and desires for future DEI efforts.
- Create a better grounding for the upcoming City of Golden Valley Equity Plan
    - Learn where to invest time, resources, and support to establish a more inclusive and equitable workplace as well as build a more responsive approach to workplace belonging.
    - Understand the gaps in building skillsets related to DEI and what efforts can be established to address said gaps.
    - Find where to imbed equitable approaches and processes in the work of the City.

Methodology

To fulfill the indicated objectives, employees were asked to participate in an online survey built and conducted via Survey Monkey. The survey questions were developed in Summer 2023 by the Equity and Inclusion Manager with support and feedback provided from the City's Management Team. Prior to releasing the survey, the E&I Manager developed as survey communication campaign to inform employees of the survey, its purpose, and how to participate. This campaign included:

- Three emails preparing employees for the survey, and
- Calendar invitations for three survey information sessions

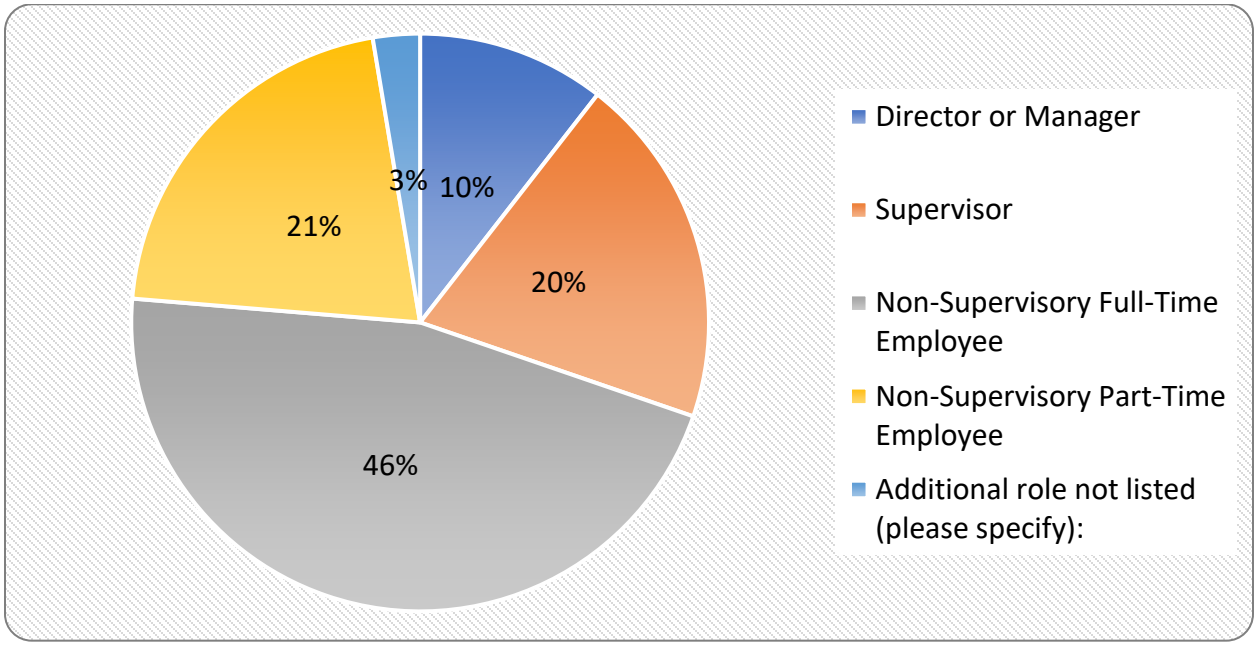
On Monday, July 17th, 2023 the E&I Manager sent out the survey link via email. The survey remined open for seventeen days with a reminder email sent on Friday, July 28th, 2023. The survey closed on Wednesday, August 2nd, 2023.

The survey contained 80 total questions. Questions were primarily on a Likert scale with options: strongly disagree, disagree, agree, and strongly agree. Each Likert scale question also included an "I Don't Know" option. Within each section, employees had the option to complete open-fill text responses. All questions were options, and the survey was voluntary and anonymous with no responses attributed to individual employees or specific departments.

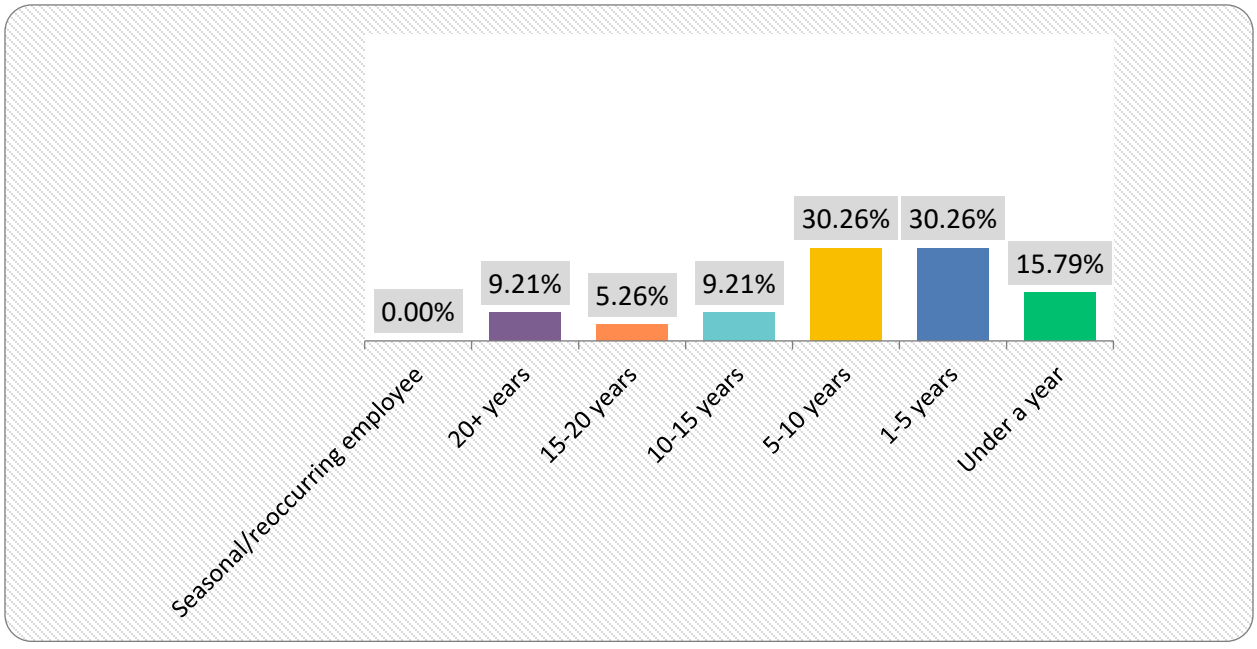
Demographic Overview

Staff designed the survey to include several demographic questions that were asked of City employees in order identify the range of backgrounds, identities, and experiences. In several sections of the demographic report staff have provided a comparison of survey respondent data to the overall employee demographic data taken from the City's payroll system.

Question: Select the options that best describes your role in the City

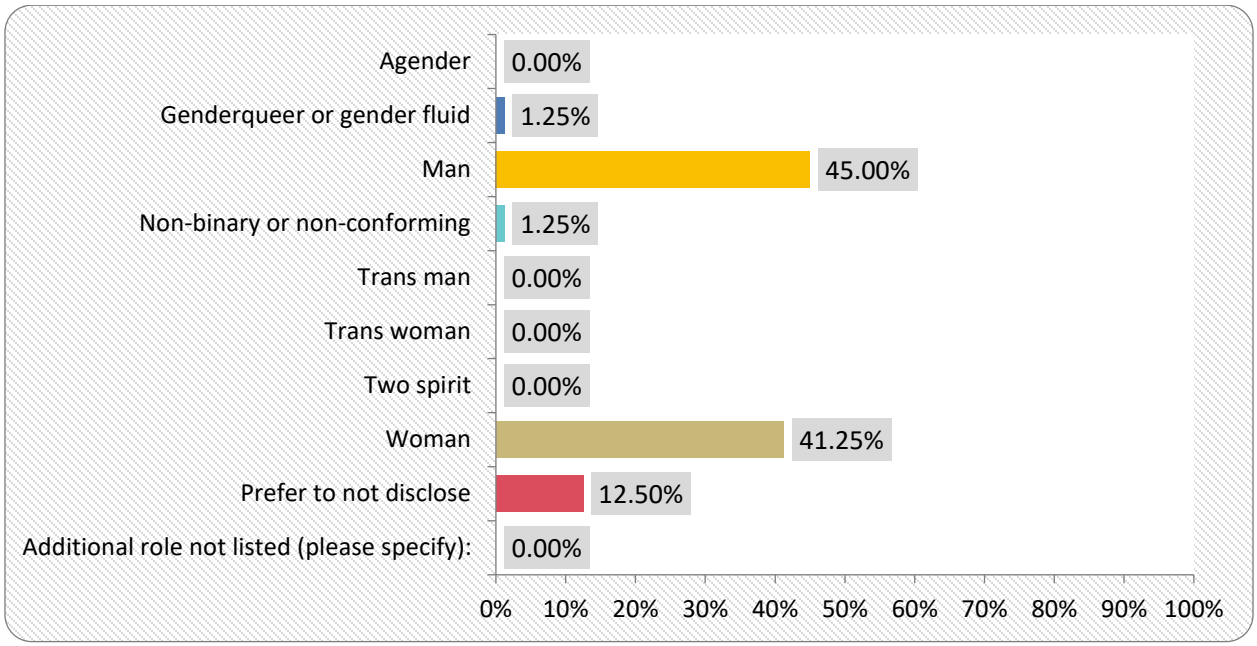


Question: How long have you been with Golden Valley?

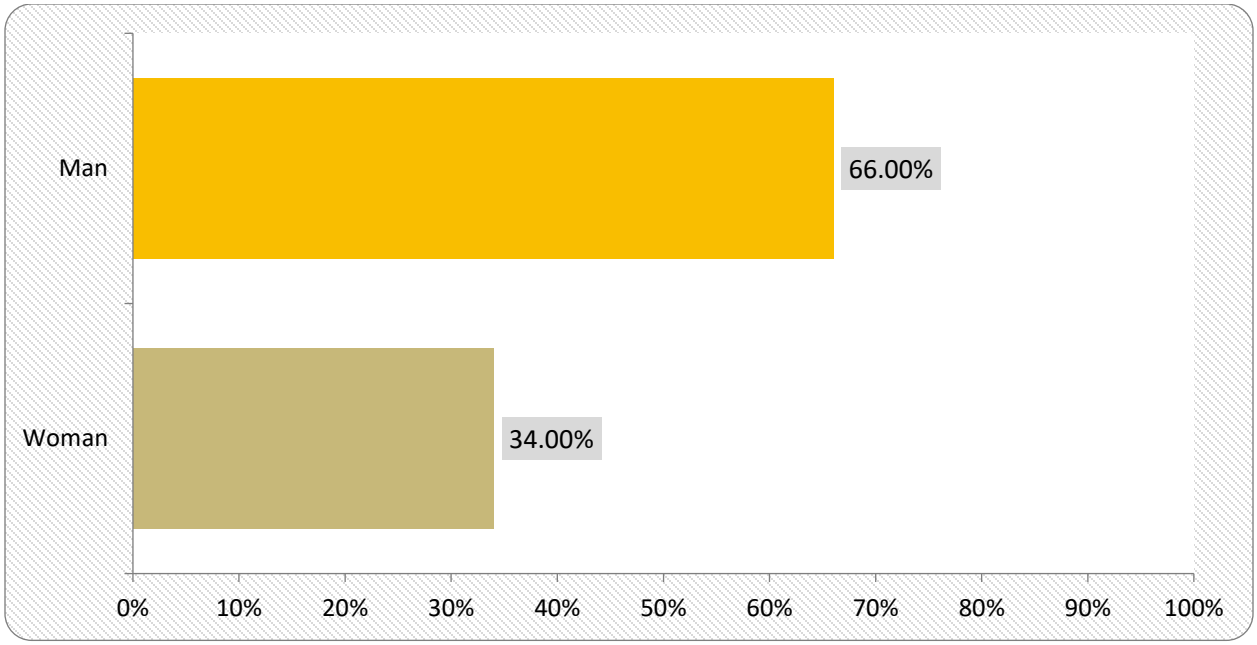


Question: Gender/Gender Identity (select all that apply)

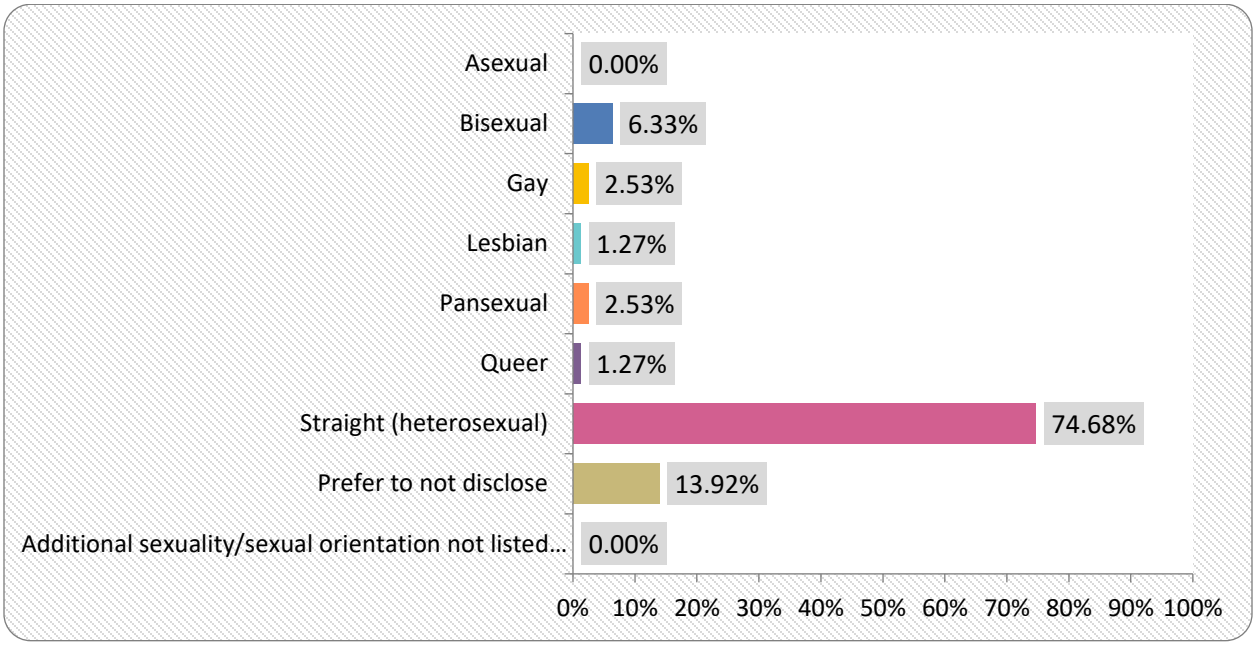
Survey Results:



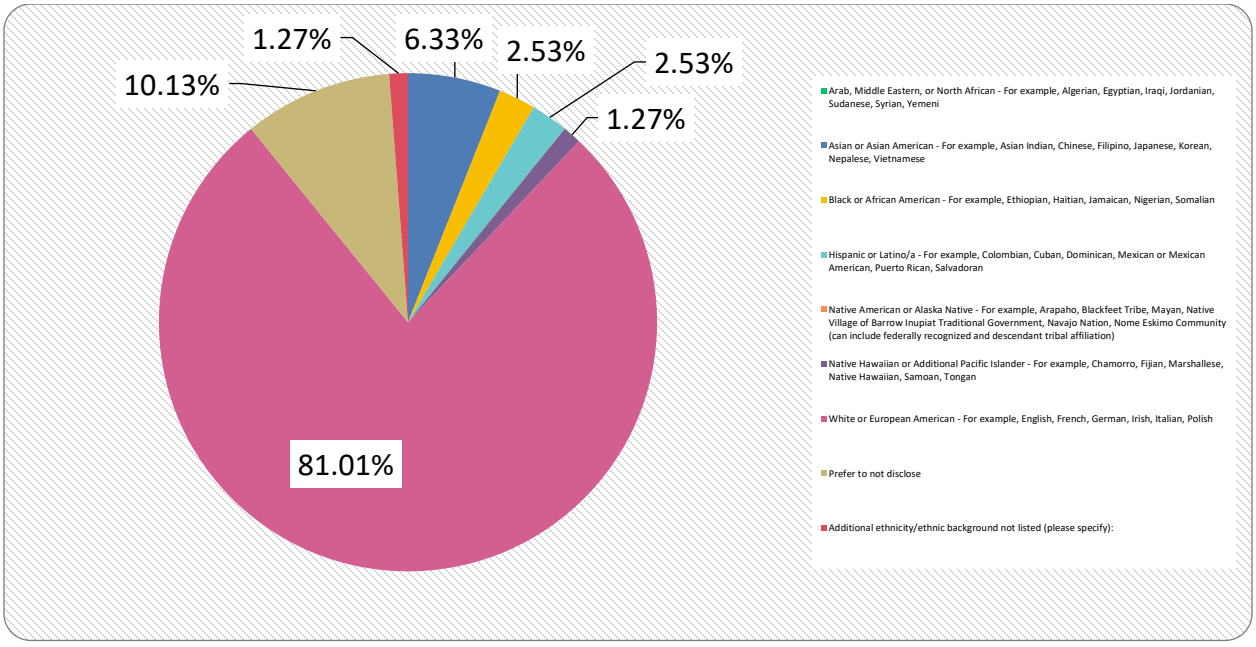
Current Employee Data:



Question: Sexuality/ Sexual Orientation (select all that apply)

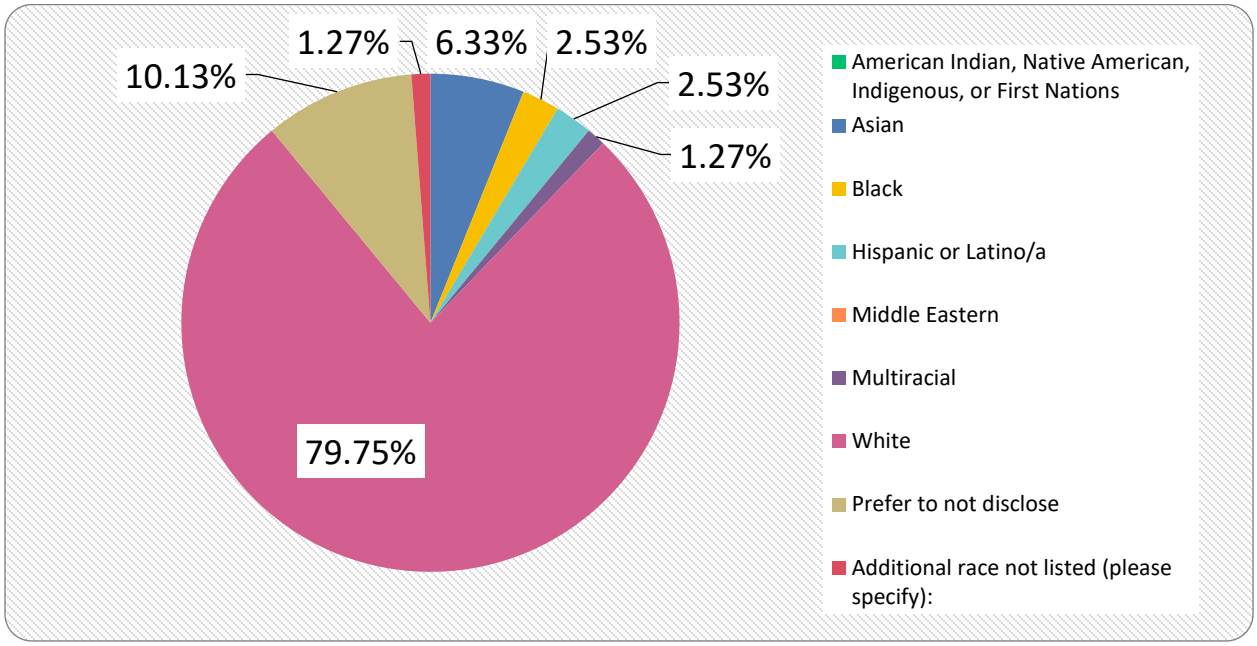


Question: Ethnicity/Ethnic Background (select all that apply)

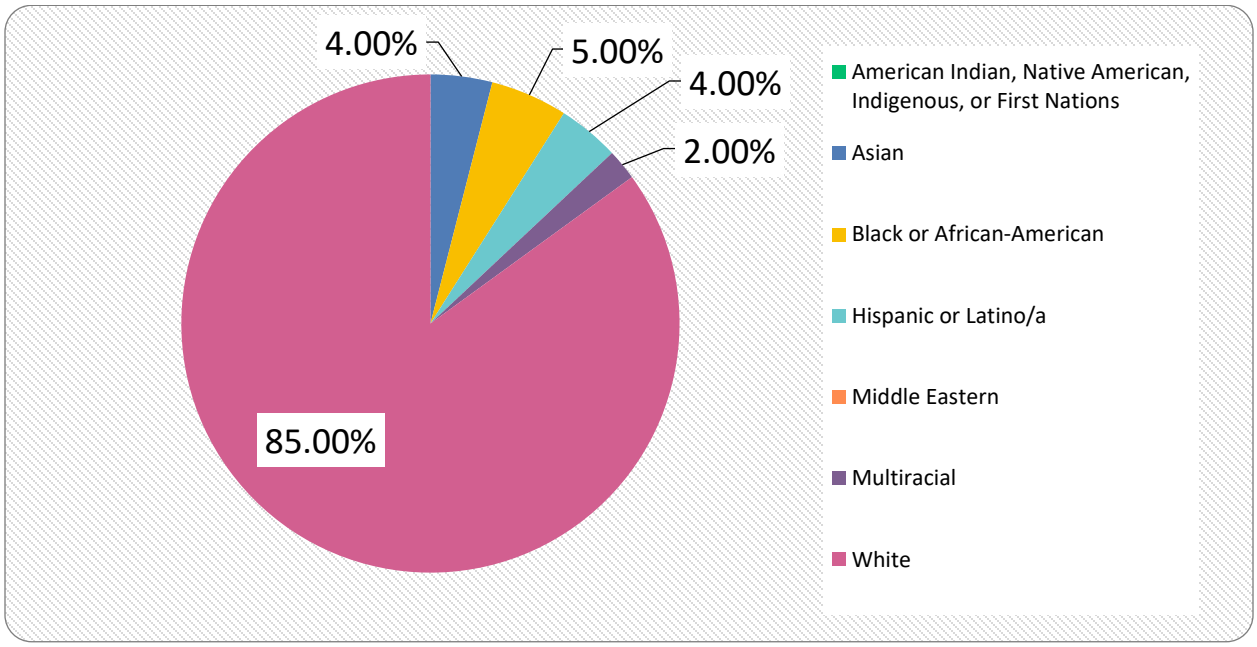


Question: Race (select all that apply)

Survey Results:

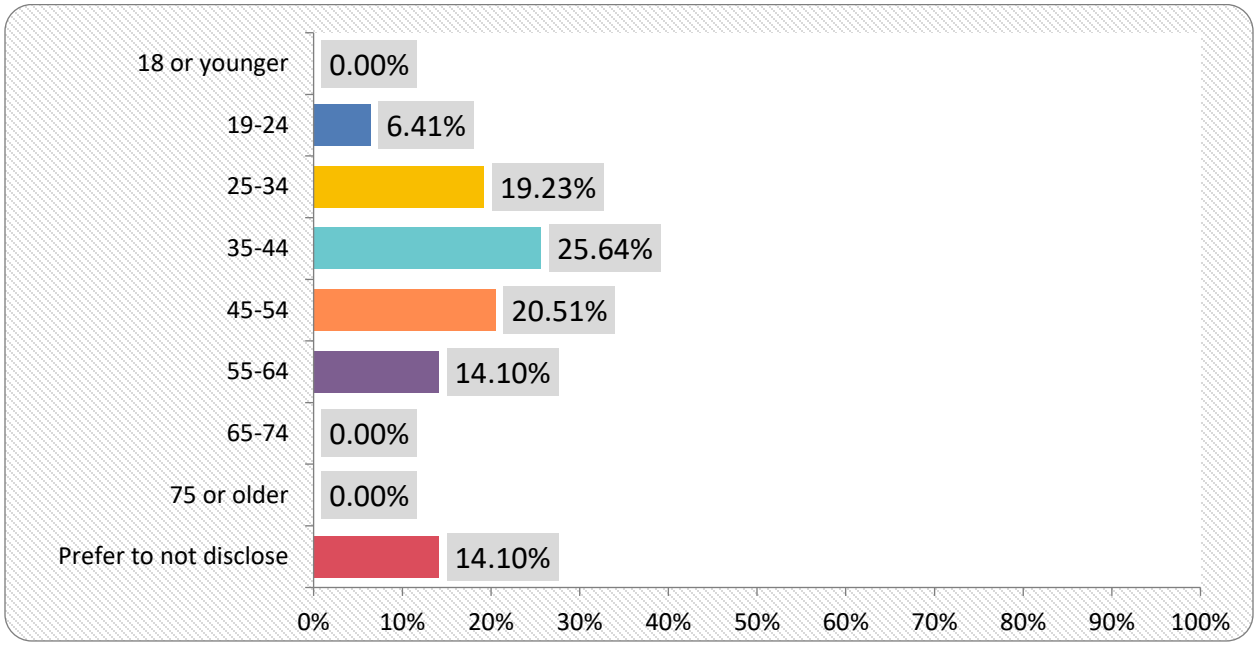


Current Employee Data:

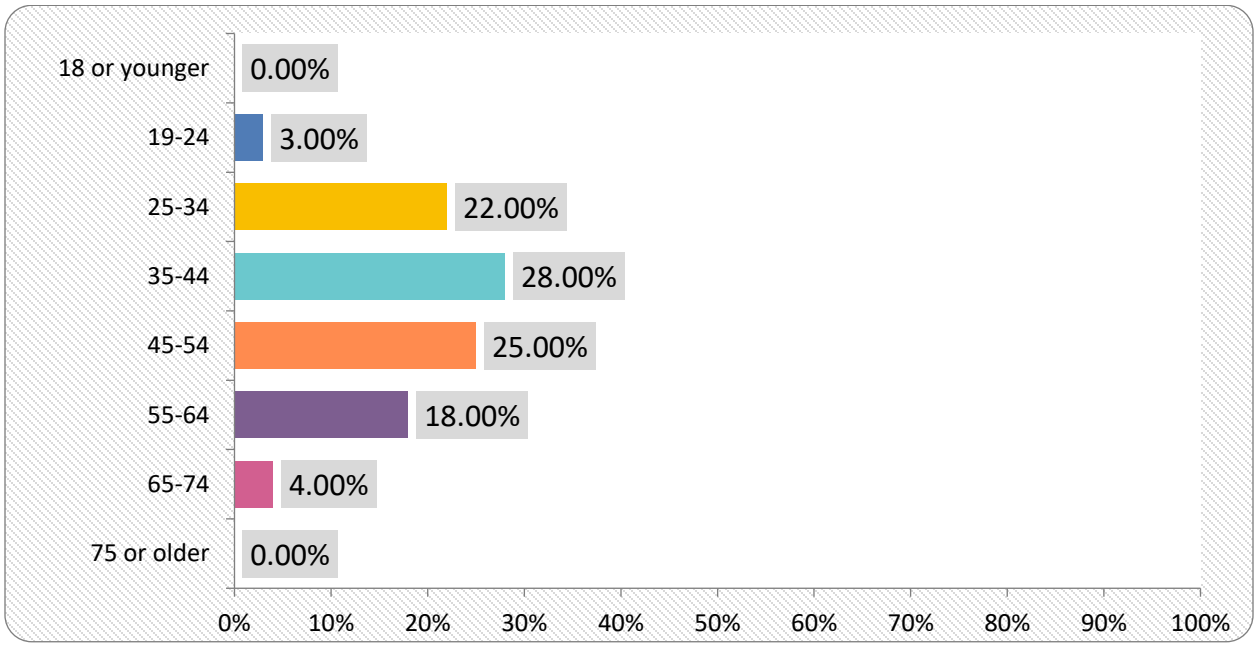


Question: Age

Survey Results:



Current Employee Data:



Survey Question Sections & Results and Key Findings

In addition to the demographic component of the survey, the survey included the following nine sections of questions and prompts:

1. Definitions
2. Personal Perspectives
3. Perception of Attitudes about Equity in the City
4. Equity Work Observations and Expectations of Myself
5. Equity Work Observations and Expectations of Others
6. Observations of Inequities in the Workplace
7. Observations of Inequities with Community Partners
8. Equity Skills and Knowledge Building
9. Workplace Belonging and Equitable Workplace

In this part of the report, each section is further defined, which includes its purpose, key findings, and results. Additionally, this part shares an analysis of top themes and trends from the open-fill question of each section where answers did not always reflect the response in the Likert scale prompts.

Section 1: Definitions

In this section, respondents were asked to share their personal definition for the terms of diversity, equity, and inclusion. The purpose of this section was to garner an understanding of how employees individually and collectively think of these terms and what is the common understanding across the City.

Results & Key Findings

Diversity:

Some common ways respondents defined diversity focused on differing background, perspectives, and lived experiences. Answers also highlighted the thinking of diversity as the multiplicity of identity with some respondents naming social identities such as race, age, gender, ability/disability, race, and education.

Inclusion:

As it relates to the term inclusion, respondents shared a strong resonance with ideas and approaches of welcoming, accepting, and valuing people regardless of identity or background. Many respondents identified inclusion as both an action and a feeling, especially in the vein of having a sense of belonging and being valued. Employees also expressed that being inclusive one is holding and creating space so that differing skills, perspectives, and experiences can be present and considered.

Equity:

While there was strong consensus of employee's definitions for diversity and inclusion, respondents' definitions of equity highly differed from one employee to the next. Some employees defined equity as ensuring equal opportunity, having equal and fair treatment, and impartiality. While other employees defined equity as removing barriers, ensuring access by meeting specific and unique needs, and recognizing situational circumstances.

Section 2: Personal Perspectives

DEI is tied to the lived experiences, social identities, and backgrounds of individuals, therefore it is important to gain an understanding of the varying perspectives related to this kind work. By gaining a better understanding of how people engage, connect, and find value in DEI work, the City can help to establish a more dynamic approach that directly resonates with employees at a more granular level.

Results & Key Findings

Overwhelmingly, employees greatly value the work of equity and improving equity all around, which includes listening to individuals who experience or report inequities or removing inequities. Respondents find it important for others to work towards improving equity. Additionally, there is a sense of strong self-awareness with roughly 95% of respondents indicated that they either strongly agree or agree that one may not be aware of inequities that may exist.

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	🚫 I DON'T KNOW
2.1: Equity is personally important to me.	2.47%	4.94%	38.27%	49.38%	4.94%
2.2: I see value in working towards equity.	2.50%	2.50%	35.00%	57.50%	2.50%
2.3: I think it is valuable to examine and discuss the impacts of equity in my work.	2.47%	7.41%	38.27%	49.38%	2.47%
2.4: I think others should work towards improving equity.	2.47%	4.94%	39.51%	44.44%	8.64%
2.5: It is important to listen to others who experience or report an inequity.	1.23%	2.47%	39.51%	55.56%	1.23%

2.6: Once they have been identified, I think it is important to remove inequities.	1.23%	3.70%	34.57%	53.09%	7.41%
2.7: Inequities may exist that I am not aware of.	1.23%	1.23%	41.98%	53.09%	2.47%

Open-Fill Question

From analyzing the responses to this question, the following themes and trends were present:

- Need to bring in the perspective, experiences, and insight from additional marginalized groups inclusive of race.
- Make sure to have an interconnected and intersectional approach when doing DEI so as to not have marginalized groups contend for the same resources, tools, and opportunities.
- Continue to explore through conversation the subtle and deceptive nature of inequities to reveal the how they are engrained in all fabrics of our work and lives.

Section 3: Perception of Attitudes About Equity in the City

In this section, participants were asked to provide their perspective of the collective attitudes towards equity across the City. Participants were also prompted to provide their perspective on how the City, as an organization, is invested in equity both internally with employees and externally with community partners.

Results & Key Findings

According to participants, there is an overwhelming agreement that peers/colleagues (62%) and supervisors/leadership (47%) think of equity as important. Although there is general agreement that the City invests in equity within some areas, roughly 20% of respondents stated "I don't know" when asked if the City invests in equity within its services and 27% indicated similarly when asked if the City places emphasis on equity with its partnerships. This lack of knowing raises questions about transparency of investments whether that is time, money, or people to achieving goals related to equity as well as even if these kind of investments are being made.

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	🚫 I DON'T KNOW
3.1: I believe my peers/colleagues think equity is important.	4.94%	11.11%	61.73%	9.88%	12.35%

3.2: I believe my supervisor/leadership thinks equity is important.	1.23%	6.17%	46.91%	37.04%	8.64%
3.3: I believe senior leadership thinks equity is important.	5.00%	11.25%	50.0%	27.50%	6.25%
3.4: Equity is valued at Golden Valley.	2.47%	7.41%	55.56%	20.99%	13.58%
3.5: Golden Valley invests in equity in the workplace.	6.17%	9.88%	53.09%	22.22%	8.64%
3.6: Golden Valley invests in equity in our services.	4.94%	9.88%	48.15%	17.28%	19.75%
3.7: Golden Valley invests in equity in our partnerships.	3.70%	7.41%	46.91%	14.81%	27.16%

Open-Fill Question

From analyzing the responses to this question, the following themes and trends were present:

- Budgetary and monetary investment needs to be established for DEI efforts both city-wide and departmentally.
- DEI strategy must include both City-wide and departmentally tailored approaches to DEI with more clearly defined roles, responsibilities, and outcomes.
- City facilities and buildings are not inclusive, especially bathrooms, wayfinding, and accessible entry and building navigation.
- Middle management/supervisors need to have stronger, more active support in DEI efforts and communicate DEI information related to staff, especially those in part-time, temporary, and variable hour roles.

Section 4: Equity Work Observations and Expectations of Myself

The purpose of this section was to understand the expectations employees have of themselves to engage and focus on equity within one's work. These questions required participants to be critically self-reflective.

Results & Key Findings

Combined, 87% of survey participants indicated that they have a self-expectation to actively work towards equity. Similarly, a high percentage of respondents indicated that this expectation is supported by the workplace, which includes their peers/colleagues and supervisors/leadership. This expectation is also felt from top leadership of the City Council. Close to 20% of respondents indicated they did not know if their peers/colleagues have an expectation of working towards equity, which may indicate that conversations and expectations about equity are infrequently had or shared amongst peers.

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	🚫 I DON'T KNOW
4.1: I seek ways to improve equity in my work.	1.25%	7.50%	51.25%	33.75%	6.25%
4.2: I am actively involved in advancing equity in my projects and teams.	1.25%	13.75%	52.50%	23.75%	8.75%
4.3: I apply policies, processes, and procedures in an equitable way.	1.25%	7.50%	60.0%	22.50%	8.75%
4.4: I expect myself to actively work towards equity.	1.25%	2.50%	46.25%	41.25%	8.75%
4.5: My peers/colleagues expect me to actively work towards equity.	2.50%	3.75%	53.75%	22.50%	17.50%
4.6: My supervisor/leadership expects me to actively work towards equity.	0%	5.00%	47.50%	37.50%	10.0%
4.7: The city council expects me to actively work towards equity.	3.75%	2.50%	43.75%	37.50%	12.50%
4.8: I think it is valuable to examine and discuss the	3.75%	5.00%	47.50%	38.75%	5.00%

impacts of equity in my work.					

Open-Fill Question

From analyzing the responses to this question, the following themes and trends were present:

- Feeling that DEI does not need to be part of the fabric of the City's work and business and/or that DEI work and the City's work and business are mutually exclusive.
- A want and desire for equity work to feel natural, organic, and integral to one's work.
- Lack of intersectional or intercultural lens to DEI work, approaches, and professional development, especially when employees are asked to engage from their lived experiences.
- Difficulty in bringing up equity concerns and considerations in conversations, meetings, and more because of overt and covert disrespect as well as lack of consideration or obstruction.

Section 5: Equity Work Observations and Expectations of Myself

Instead of critical self-reflection, this section prompted participants to take an outward critical lens. The questions of this section asked participants to describe their observations of equity work across the City including expectations they have of their department, peers, leadership, and City Council.

Results & Key Findings

Employees overwhelmingly responded with "agree" and "strongly agree" to all prompts within this section indicating that they perceive their departments, coworkers, supervisor, and the City Council to value equity as well as seek ways to improve it. Similar to the previous section, there is some indication with close to 20% that respondents either don't know or disagree, respectively, that their peers are actively improving equity in their work or see examples of this either.

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	🚫 I DON'T KNOW
5.1: My department applies policies, processes, and procedures in an equitable way.	3.70%	12.35%	58.02%	16.05%	9.88%
5.2: My peers/colleagues seek ways to improve equity in their work.	3.70%	17.28%	49.38%	11.11%	18.52%

5.3: My supervisor/leadership seek ways to improve equity in their work.	2.47%	11.11%	55.56%	23.46%	7.41%
5.4: The City Council seeks ways to improve equity in the work of the City.	3.70%	9.88%	59.26%	16.05%	11.11%
5.5: I see clear examples of my colleagues working to improve equity.	2.47%	19.75%	45.68%	14.81%	17.28%
5.6: I see clear examples of my supervisor/leadership working to improve equity.	2.50%	11.25%	57.50%	18.75%	10.0%
5.7: I expect my peers/colleagues to actively work towards equity.	2.53%	10.13%	50.63%	31.65%	5.06%
5.8: I expect my supervisor/leadership to actively work towards equity.	3.75%	8.75%	46.25%	38.75%	2.50%
5.9: I expect the City Council to actively work towards equity.	3.85%	7.69%	47.44%	39.74%	1.28%

Open-Fill Question

From analyzing the responses to this question, the following themes and trends were present:

- Departmental and City processes, procedures, and policies maintain that status-quo, which create challenges for non-affluent community members to obtain or access resources and services.
- City leadership, especially the City Council, verbally support DEI work, but there is a lack of accountability measures and need for improved communication of expectations.
- Top-down approach to decision making creates inequities and negative impact to employees not in leadership roles and doesn't allow opportunity for input.

- Consensus across the City is that DEI is considered as a choice, elective, or option instead of being an inextricably fundamental, serious, and crucial component of all City work.

Section 6: Observations of Inequities in the Workplace

While not always easy to do, it is important to understand where employees see and experience inequities across the workplace. In this section, respondents were asked questions about this as well as whether employees disrupt those inequitable behaviors when they are present.

Results & Key Findings

Respondents' results were well divided between agreeing and disagreeing for many of the prompts in this section. Although 33% of respondents indicated they disagreed with seeing inequities in their department, roughly 31% agreed that they do see inequities in their department. Similarly, close to 30% disagreed to seeing inequities in workplace policies while 30% also agreed to seeing inequities. At a more personal level, with a 10% difference, roughly half of respondents indicated witnessing, experience, or hearing biased behaviors or actions while the other half have not. Respondents did indicate when biased behaviors or actions occur that colleagues confront it more than their supervisors or leadership.

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	🚫 I DON'T KNOW
6.1: I see workplace inequities in my team.	23.46%	40.74%	20.99%	6.17%	8.64%
6.2: I see workplace inequities in my department.	19.75%	33.33%	30.86%	8.64%	7.41%
6.3: I see workplace inequities in the City of Golden Valley.	12.35%	18.52%	35.80%	23.46%	9.88%
6.4: I see workplace inequities in the City of Golden Valley's workplace policies.	12.35%	29.63%	30.86%	9.88%	17.28%
6.5: I have witnessed, experienced, or heard biased/inequitable behaviors and actions in the workplace	13.58%	27.16%	35.80%	16.05%	7.41%

regarding age, race, religion, gender, sexuality, disability, veteran status, marital/familial status, and national origin.					
6.6: I see peers/colleagues confronting behaviors and actions that create an inequitable workplace.	7.41%	24.69%	48.15%	3.70%	16.05%
6.7: I see my supervisor/leadership confronting behaviors and actions that create in inequitable workplace.	10.0%	31.25%	38.75%	5.00%	15.00%

Open-Fill Question

From analyzing the responses to this question, the following themes and trends were present:

- Although departments and employees are working towards disrupting harmful and oppressive behaviors/actions, there are visible and apparent daily instances across the workplace.
- There are common occurrences of offensive behaviors, actions, and conversations related to age, disability/ability, and gender with unawareness of the harm being done.
- Same group of people, whether departmentally or city-wide, confront behaviors and actions, which has had a reversal effect of creating a more equitable and inclusive workplace.
- Incongruence between what is the stated culture and how employee policies related to equity are put into practice.

Section 7: Observations of Inequities with Community Partners

Community is critical to how the City functions, operates, and provides services, which means it is understand how employees perceive equity relationships with community. In this section, respondents answered questions about equity and inequities in the City's partnerships with community.

Results & Key Findings

According to respondents, many employees do not know whether there are inequities in the practices, policies, or partnerships with external partners. These results may indicate that if inequities are occurring, staff are not directly involved in those interactions. Respondents also strongly indicated that they don't know if inequities are present in how the City relates with communities. This could signify a variety of things with one being that staff and their respective departments may not be directly addressing or engaging communities, whether geographical, cultural, or the like, when they are implementing projects or initiatives.

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	🚫 I DON'T KNOW
7.1: I see inequities in how Golden Valley relates to its external partners.	11.39%	25.32%	16.46%	5.06%	41.77%
7.2: I see inequities in how Golden Valley relates to communities.	12.66%	27.85%	24.05%	5.06%	30.38%
7.3: I see inequities in Golden Valley's policies and processes related to external partners and communities.	12.50%	26.25%	15.00%	10.0%	36.25%

Open-Fill Question

From analyzing the responses to this question, the following themes and trends were present:

- The City does not invest in building relationship with communities most impacted by inequities or those facing current and historical disparities.
- Departments need to hold contractors, partners, and external collaborators to standards regarding equity and then enforce them.
- There is lack of critically analyzing the current network of relationship building, contracts, and investment, which creates an external image of only working with the same, well-developed organizations.

Section 8: Equity Skills and Knowledge Building

Respondents were asked in this section to reflect on their own skillset and whether they feel equipped to discuss equities and inequities, have the ability to address inequities in the immediate, and can seek out educational resources. Although it is important to build specific skills related to DEI, the prompts

were purposely written with a broad context to give the respondents the opportunity to take a more expansive look at themselves as well as their knowledge and approaches.

Results & Key Findings

In general, participants indicated that skillsets and knowledge regarding diversity, equity, and inclusion are sound, especially as it relates to feeling equipped to discuss and recognize equities/inequities. Knowledge of who to connect with regarding questions or concerns about equity was high with roughly 58% agreeing and 26% strongly agreeing. Even with such a high percentage of agreeing with most, if not all of the prompts, it still is significant to note that close to 20% of participants don't agree with either feeling equipped to discuss equity/inequity, having support to address inequities, and being able to articulate the City's commitment to equity and inclusion.

	STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	🚫 I DON'T KNOW
8.1: I feel equipped to discuss equity/inequity.	2.47%	17.28%	62.96%	9.88%	7.41%
8.2: I believe I can recognize inequities.	0%	2.47%	74.07%	17.28%	6.17%
8.3: I have the skills to address inequities when I see them.	6.25%	12.50%	62.50%	7.50%	11.25%
8.4: I know who to contact for equity questions and concerns.	3.70%	8.64%	58.02%	25.93%	3.70%
8.5: I have the support I need to address inequities when I see them.	7.41%	18.52%	51.85%	13.58%	8.64%
8.6: I have taken the time to educate myself about the experiences of those we serve.	1.23%	12.35%	59.26%	19.75%	7.41%
8.7: I feel equipped to incorporate a variety of cultural	1.23%	16.05%	53.09%	22.22%	7.41%

perspectives and lived experiences when I'm doing my job.					
8.8: I can articulate Golden Valley's commitment to equity and inclusion to others.	8.64%	20.99%	54.32%	9.88%	6.17%

Open-Fill Question

From analyzing the responses to this question, the following themes and trends were present:

- Strong drive and want from employees to gain tools, resources, and skills to work through situations involving inequity.
- Desire for employee training and development to incorporate examples of inequities that are relative and reflective of the work, the department, and more.
- Concern about not feeling equipped and how to continually incorporate cultural humility and responsiveness into day-to-day work.
- Worry that previous employee DEI trainings have created a polarizing employee culture.
- When trainings have occurred, there has been dismissal of additional marginalized identities and experiences.

Section 9: Workplace Belonging and Equitable Workplace

With any DEI efforts, identity and lived experience are interconnected, almost inextricably. This is just as true and even vital to examine when taking a look at how employees are feeling welcomed and treated, employee sense of belonging, and employee's comfortability to self-advocate. Through its prompts, this section aims to get a grasp on this as well as see how employees are also exhibiting welcomeness, belonging, and intercultural humility with one another.

Results & Key Findings

Overall and across some of our major/most prominent identities in the workplace, there is agreement in feeling included and respected in the workplace. In addition to feeling included and respected, there is also agreement in being treated equitably inclusive of a variety of identity and lived experiences. Although there is agreement of participants indicating that they one can bring their whole, authentic self to work without repercussion, BIPOC participants and LGBTQIA+ participants disagree with roughly 43% and 44% respectively. This disagreement is also present in prompt 9.4, where 29% of BIPOC and 44% LGBTQIA+ participants feel that they need to conceal or alter important parts of themselves to fit in at work. As the prompts turn toward self-advocating and using established processes to do so, the

responses provided were more mixed with higher percentages showing up disagreeing and not knowing, across the most prominent identities, of the formal process for engaging with biased and/or inequitable behavior.

		STRONGLY DISAGREE	DISAGREE	AGREE	STRONGLY AGREE	🚫 I DON'T KNOW
9.1: I feel included and respected in the workplace.	All	8.75%	18.75%	50.0%	20.0%	2.50%
	White	6.45%	19.35%	50.0%	22.58%	1.61%
	BIPOC	0%	0%	85.71%	14.29%	0%
	LGBTQIA+	0%	22.22%	66.67%	11.11%	0%
9.2: I can bring my whole, authentic self to work every day without worrying about repercussions.	All	8.75%	33.75%	38.75%	17.50%	1.25%
	White	8.06%	30.65%	38.71%	20.97%	1.61%
	BIPOC	0%	42.86%	57.14%	0%	0%
	LGBTQIA+	0%	44.44%	33.33%	22.22%	0%
9.3: I am treated respectfully in the workplace.	All	5.00%	18.75%	52.50%	21.25%	2.50%
	White	1.61%	17.74%	53.23%	24.19%	3.23%
	BIPOC	0%	14.29%	71.43%	14.29%	0%
	LGBTQIA+	0%	0%	77.78%	22.22%	0%
9.4: I do not need to conceal or alter valued parts of my identity, style, or individual characteristics in order to fit in at work	All	8.75%	23.75%	47.50%	15.00%	5.00%
	White	6.45%	19.35%	50.0%	17.74%	6.45%
	BIPOC	14.29%	28.57%	57.14%	0%	0%

	LGBTQIA+	0%	44.44%	44.44%	11.11%	0%
9.5: I am treated equitably at work with regards to my age, race, religion, gender, sexuality, disability, veteran status, marital/familial status, and national origin.	All	6.25%	12.50%	60.0%	18.75%	2.50%
	White	6.45%	12.90%	59.68%	19.35%	1.61%
	BIPOC	0%	14.29%	85.71%	0%	0%
	LGBTQIA+	0%	22.22%	66.67%	11.11%	0%
9.6: Engagement with different perspectives, fair access, and a sense of belonging are important in my daily work.	All	2.47%	4.94%	56.79%	33.33%	2.47%
	White	3.17%	3.17%	57.14%	33.33%	3.17%
	BIPOC	0%	14.29%	57.14%	28.57%	0%
	LGBTQIA+	0%	0%	66.67%	33.33%	0%
9.7: I feel comfortable sharing my ideas, opinions, and perspectives at work, even when they differ from others.	All	12.50%	27.50%	42.50%	13.75%	3.75%
	White	9.68%	29.03%	43.55%	12.90%	4.84%
	BIPOC	0%	14.29%	85.71%	0%	0%
	LGBTQIA+	0%	33.33%	44.44%	11.11%	11.11%
9.8: I feel comfortable and confident in my interactions with others at work, especially when my race or culture differs from others.	All	6.25%	16.25%	57.50%	17.50%	2.50%
	White	6.45%	12.90%	61.29%	17.74%	1.61%
	BIPOC	0%	14.29%	85.71%	0%	0%
	LGBTQIA+	0%	33.33%	55.56%	11.11%	0%

9.9: I have the information I need to file a formal report on biased/inequitable behavior or actions.	All	6.25%	22.50%	50.0%	10.0%	11.25%
	White	6.45%	22.58%	50.0%	11.29%	9.68%
	BIPOC	0%	14.29%	57.14%	0%	28.57%
	LGBTQIA+	11.11%	33.33%	33.33%	0%	22.22%
9.10: If I chose to file a formal report on biased/inequitable behavior or actions, I feel supported.	All	11.25%	17.50%	37.50%	11.25%	22.50%
	White	11.29%	17.74%	38.71%	12.90%	19.35%
	BIPOC	0%	14.29%	57.14%	0%	28.57%
	LGBTQIA+	11.11%	11.11%	33.33%	0%	44.44%
9.11: I feel comfortable with filing a formal report on biased/inequitable behavior or actions.	All	15.00%	23.75%	36.25%	11.25%	13.75%
	White	12.90%	25.81%	37.10%	11.29%	12.90%
	BIPOC	14.29%	14.29%	57.14%	0%	14.29%
	LGBTQIA+	11.11%	33.33%	22.22%	0%	33.33%

Open-Fill Question

From analyzing the responses to this question, the following themes and trends were present:

- Imbalance of support when issues or concerns arise. Some find support with direct peers and team but fear retaliation from leadership roles such as directors or City leadership while others feel the opposite.
- Will not use the formal reporting process because of either fear or previous experience of retaliation, concerns not being taken seriously, and/or the process resulted in favoring the person or group that did harm.
- Unawareness of the formal reporting process and what it entails.

- Indirect judgment, generally through microaggressive phrases or statements, towards someone's gender/gender presentation, disability, and how they dress, whether for religious purposes or not.

Recommendations

Through a thorough review, the Equity and Inclusion Manager synthesized the data and present themes and trends. From the key findings and trends illustrated within the report, the Equity and Inclusion division clear recommendations for the City Council, leadership, and all employees. These recommendations are a duality of individual and collective responsibility of employees and the City. By doing so, it strengthens the drive to create a more inclusive, equitable workplace and better serve the community of Golden Valley. Additionally, these resulting themes and recommendations will be incorporated in an updated Equity Plan, employee development, and other DEI strategies and initiatives.

1. Cultivate a collective understanding of diversity, equity, and inclusion (DEI) amongst all employees by:
    A. Developing shared language regarding DEI; and
    B. Establishing a distinct method of how to apply terminology, concepts, and techniques to all City work.

2. Adapt DEI learning and development approaches in the following ways:
    A. Provide clear and direct examples and concepts, which are reflective of departmental work; and
    B. Be intersectional in development and implementation to each audience while maintaining a central core of racial justice and equity-mindedness.

3. Embolden and sustain the current efforts to foster an equitable and inclusive organizational culture that recognizes, values, and celebrates diversity, while proceeding with implementing avenues of nuanced impact and action to increase sense of belonging.

4. Further imbed equity in policies, practices, procedures, strategies, and decision making at all levels of the City by using clearer, unambiguous tools and resources that center intersectional and liberatory practices.

5. Continue to expand internal communication and engagement efforts that are continuous, consistent, and clear where all employees, inclusive of part-time and variable hour roles, feel their perspective is valued and can fully participate.

6. Develop a common culture and perspective across the workplace that efforts, approaches, and actions centering equity do not diminish rights or opportunity for others but, instead, creates more access and opportunity for everyone, especially those who face current and historical oppression.

7. Allocate financial capital and human capital investment to bolster both City-wide and departmental DEI specific actions and strategies, which aim to address identified disparities and inequities that the Golden Valley community faces.

8. Implement a structure of accountability for strategies, actions, and plans that better illustrates the responsibilities of City Council and all employees, the intended impact and goals, and how it addresses specific systemic inequities.

9. Build, enact, and communicate clearer pathways to reporting biased and inequitable treatment in the workplace while also creating and enacting learning opportunities to develop and increase skills of self-advocacy and advocacy for others.

10. Utilize community engagement tools, resources, and strategies to have direct involvement and input of community to inform departmental and City-wide decisions and actions.

APPENDIX B:
City of Golden Valley Equity Plan Implementation Report

City of Golden Valley

2022 Equity Plan Implementation Report

11/8/2023

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Executive Summary

Equity plans have become common place in city government, especially throughout the metro area of the Twin Cities. These plans establish a structure and framework to guide a city through taking actions that focus on efforts to increase equity. Equity plans serve as an accountability tool for appointed and elected officials to establish new processes, practices, and policies that aim to eliminate inequities or disparities within the community it serves. To achieve the greatest impact both internally and externally, equity plans should dually span broadly across the city's work and be imbedded within each department[1].

With this in mind and its intentions to recognize and directly engage at historical and present disparities perpetuated by its structures, policies, and procedures, the City of Golden Valley's Council put forth a directive to establish and implement an Equity Plan for the City. The overarching goals of this plan are: (a) Imbed practices and strategies of diversity, equity, inclusion, and racial justice into the work of the City; (b) Dismantle barriers; (c) Provide resources; and (d) Enhance opportunities for all of its residents and visitors. Considering the goals and the intention behind it, the Equity Plan is a living and responsive document, which means that it has included different approaches and methods since its initial creation.

Similar to many other plans across the City, the Equity Plan has community impact. What makes plans like this one unique is that they directly challenge norms and ways of operating that perpetuate social inequities and trauma, provide approaches that center the needs of those most marginalized, and, more so, their explicit human impact. To truly understand the impact of the GV Equity Plan, it is vital to regularly assess it. This report serves as an evaluation of the plan holistically and departmentally, including observations, conclusions, and recommendations for City leadership for future work and equity plans.

[1] Government Alliance on Race and Equity

Equity Plan Implementation Assessment Objectives

For the first time, a formal assessment was created and conducted to not only be accountable to the directive from the City Council, but also to the community of Golden Valley. The report of the plan and its assessment aims to provide the following:

- Context to the plan itself.
- Additional insight and perspective of the various equity actions.
- Show the progress and impact of the identified objectives.

Moreover, the information and insight gathered from this assessment will be used to inform the next iteration of the City of Golden Valley Equity Plan. This assessment and the report are one of many resources being built into a future equity plan and will play a significant role in an updated structure and framework.

Methodology

To evaluate the City of Golden Valley 2022 Equity Plan, each department was asked to complete an assessment in the form of a data and information request. The assessment was drafted by the Equity and Inclusion (E&I) Manager. With support of the HR Department as well as the City Systems Subcommittee of the City's Diversity, Equity, and Inclusion (DEI) Commission, these questions were edited and adjusted to appropriately reflect needed information to be properly assess the goals and objectives of the plan.

The assessment was initially presented to the City's Management Team to inform them about the assessment and instruct them on how to complete it. Each departmental director was sent the assessment to complete with their respective departmental leadership and sent back to the E&I Manager. Another option for departmental leadership was to have the E&I Manager assist in the completion of the assessment at a departmental leadership meeting. The assessment was broken into five sections.

Section one and section two used a Likert scale with the following options: strongly disagree, disagree, agree, and strongly agree. Each Likert scale question also allowed for an "I Don't Know" selection. Section one asked prompts related to the Equity Plan and its pillars while section two asked prompts regarding the Equity Tool. Section three was a status review for each department's objectives within a respective pillar of the plan. In this section, each department was instructed to fill-in the coordinating status within the "Status Review" column and complete questions explaining their status selection. Section four of the assessment posed two questions on the implementation of the plan. Similarly, section five posed two questions but, instead, focused on the long-term success of the action taken when enacting the plan.

City of Golden Valley 2022 Equity Plan Overview

The City of Golden Valley 2022 Equity Plan is its third iteration of the City's Equity Plan that has been adopted for implementation. This plan is comprised of the work conducted through the collaborative efforts of the City's Equity Leadership Team, Equity Advancement Team, DEI Commission, E&I Manager, and additional staff across the City.

The Equity Plan is a guiding document for the City to implement a variety of DEI actions, goals, and strategies. The plan is also comprised of the Equity Tool and equity approaches that help to inform the identified objectives. At the center of this plan are the four key pillars: (1) Economic Prosperity for All; (2) Inclusive Community Engagement; (3) Unbiased Services; and (4) Advancement of Diversity, Equity, and Inclusion. Within each pillar, the various City departments put forth specific objectives to accomplish.

Key Pillar 1: Economic Prosperity for All

The City of Golden Valley defines economic prosperity for all as the intentional provision of economic opportunities and resources for all communities by finding solutions to support economic growth and inclusion of historically marginalized communities and those facing economic hardship. As an employer and municipality, the City of Golden Valley is determined to identify and disrupt barriers to economic inclusion. Below are the outlined objectives with corresponding department:

Objective	**Department(s)**
Create and implement pay parity policy	Human Resources
Create a more intentional opportunities for vendors through updated procurement process	Legal
	Human Resources
	Community Development
	Public Works
Develop recruitment tools and relationships to increase applications and find talent	Human Resources
	Fire
	Police
	Public Works
Participate in at least one of Hennepin County's DBE procurement networking events for small and emerging businesses	Community Development

Key Pillar 2: Inclusive Community Engagement

The unique geographic and economic situation of Golden Valley requires the City to use an expanded definition of community. Beyond residents and business owners, the City is accountable to all people that come to the City to work, play, worship and commute. This definition of community begs the City of Golden Valley to develop relationships across municipal boundaries to develop inclusive solution making processes for all stakeholders. Below are the outlined objectives with corresponding department:

Objective	Department(s)
Partner with additional organizations and schools to educate about public works careers	Public Works

Key Pillar 3: Unbiased Services

The City of Golden Valley seeks to provide intentional access regardless of social identity to all of its programs and services. Below are the outlined objectives with corresponding department:

Objective	Department(s)
Train 100% direct service providers on language conversion software	Administrative Services
Develop strategies to build relationships with low-income, linguistically, and culturally diverse populations	Communications
Develop and implement strategies for implementing culturally relevant programming for youth	Parks and Recreation
Implement “Share First” approach through a public data system	Legal
Develop a Golden Valley Police Department interactive database	Police

Key Pillar 4: Advancement of Diversity, Equity, and Inclusion

The City of Golden Valley continuously analyzes processes, policies, procedures, and systems for disparate outcomes and actively seeks opportunities to develop new tools to support sustainable methods to reduce disparities and increase access. Below are the outlined objectives with corresponding department:

Objective	Department(s)
Assess and revise paid on-call firefighter recruitment and hiring process to increase event attendance and applications by 10 percent	Fire

Complete organizational equity assessment for at least two departments	Human Resources
Create regular, low-stakes opportunities for staff to learn and discuss a variety of topics relating to different social identities	Human Resources
Create two training sessions on equity in land use/zoning for Planning Commission and City Council	Legal
Complete and implement organizational equity assessment	Community Development

City of Golden Valley 2022 Equity Plan Assessment Findings and Results

Section 1: Equity Plan and Pillars Overview

This section asked departments to gauge their overall familiarity with the Equity Plan and the main structure of it via the use of key pillars. The two prompts of this sections are the following:

1. My department is familiar with the pillars of the Equity Plan.
2. My department is familiar with their role in implementing various strategies and objectives of the Equity Plan.

Equity Plan and Pillars Overview Findings and Results:

According to the results, 67% of departments across the City do agree that they are familiar with the pillars of the Equity Plan. Roughly 22% of departments strongly agree with the familiarity of their role in implementing the strategies and objectives present in the plan. While there is a sense of agreement related to the plan itself and the structure of it, some departments disagree and indicated that they don't have great familiarity. Although the plan is interwoven into each department and the expectation was for leadership in those departments to be aware, which should have resulted in full agreement but didn't. The lack of full agreement creates concern that the plan and all that is comprised of it was not communicated consistently and well enough throughout its implementation as well as if a common point of information like a dashboard could have been beneficial.

My department is familiar with the pillars of the Equity Plan.				
Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
11%	22%	67%	0%	0%

My department is familiar with their role in implementing various strategies and objectives of the Equity Plan.				
Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
0%	11%	67%	22%	05

Section 2: Equity Tool

This section posed three prompts for departments to measure their familiarity, overall usage, and assurance of usage with the main resource of the plan, the Equity Tool. The three prompts of this sections are the following:

1. My department is familiar with the Equity Tool.
2. All contracts and procurement in my department use the Equity Tool.
3. Staff in my department ensure the Equity Tool is used and equity impact is considered in departmental contracts, procurement, and processes.

Equity Tool Findings and Results:

Even though more departments may agree of actually using the Equity Tool, there is still some disagreement with the familiarity of it. This disconnect between familiarity and actual usage creates concern that while the usage of it may be high that the unfamiliarity could create unintentional misuse and the tool itself may create more confusion than help.

My department is familiar with the Equity Tool.				
Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
5.5%	22%	56%	5.5%	0%

All contracts and procurement in my department use the Equity Tool.				
Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
0%	11%	78%	11%	0%

Staff in my department ensure the Equity Tool is used and equity impact is considered in departmental contracts, procurement, and processes.				
Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
0%	11%	78%	11%	0%

Section 3: Status Review

This section asked for the analyzation of the current status for each department's objectives within each key pillar. In this analyzation, it was required for the status review column to be filled in with the respective text fill-in. Additionally, departments were asked to provide further context regarding its indicated status in the status review explanation column.

The following are the text fill-in indicators:

- **Fully Implemented** = each respective department has taken meaningful steps to implement this objective and has measured the outcomes
- **Mostly Implemented** = on track for completion
- **Minimally Implemented** = delayed or encountering challenges with implementation
- **Not Implemented** = stuck, requires additional support or resolution to get back on track

Key Pillar 1 Objectives Results

Objective	Department(s)	Status Review	Status Review Explanation
Create and implement pay parity policy.	Human Resources	Minimally Implemented	Begun work at looking on how to bring in lived

			experience into pay in addition to using established practices of considering educational and professional experience. Encountered both state and federal legal barriers with additional approaches to stated objective, which required a pause.
Create a more intentional opportunities for vendors through updated procurement process.	Legal	Minimally Implemented	All contracts that have come from the legal department have gone through updated processes that included revising language in request for proposals (RFP) to ask about equity impact, share out contracts to disadvantaged business enterprise lists, and using data that is available. Established and further streamlined the Legal and Equity Review process for procurement documents and RFPs. Additionally, added an Equity Consideration to Council Executive Summaries to further illustrate the impact to community with implemented contracts, procurement processes, and RFPs.
	Human Resources	Minimally Implemented	When request for proposals RFP) or contracts are needed, they are submitted through the Legal and Equity Review. Data is also

			tracked on which methods of communication regarding departmental contracts and RFPs have been used and how many applicants have come from those methods.
	Community Development	Minimally Implemented	Updated request for proposals (RFP) and request for quotes (RFQ) now include language that explicitly asks questions related to equity whether that is the applicant providing their company's or businesses' equity plans, their process for subcontracting to disadvantaged business enterprise, or providing examples of how they have taken steps to creating equitable impact in their respective work. Utilized the process of the internal Legal & Equity Review for most contracts, RFPs, and RFQs.
	Public Works	Mostly Implemented	Used the state's disadvantaged business enterprise (DBE) list in the procurement process to engage with more organizations that are minority owned and operated. Although this became part of the process, the businesses and organizations that do the specific work needed are

			not always minority owned or operated. Request for proposals were also redeveloped to ask contractors to provide their organization's or businesses' equity plan and placed importance on subcontracting with DBEs.
Develop recruitment tools and relationships to increase applications and find talent.	Human Resources	Minimally Implemented	Analyzed pre-employment screening criteria for bias and adverse impacts, which resulted in a change of vendor. Partnered with BrookLynk for some departments and other internship programs to create pathways of youth employment and experience in public government work.
	Fire	Mostly Implemented	Assessed the 2020/2021 hiring process and determined specific needs related to changing testing, background investigation, and interview questions. These changes were needed as they presented barriers to specific populations whether that was with initially applying or advancing through the application process.
	Police	Mostly Implemented	Partnered with the National Latino Peace Officers Association, Minnesota Asian Police Officers Association, National Black Police Association, and Somali American Police

			Association to develop approaches to recruiting and diversifying police employment.
	Public Works	Fully Implemented	Worked with different external organizations and entities such as high schools, Summit Academy, and workforce education training (WET) programs to recruit, build relationships, and increase the awareness of public works as a career field. Established an internal departmental culture that recruitment is a priority of everyone, which helped to shift perspective overall and bring in new applicants.
Participate in at least one of Hennepin County's DBE procurement networking events for small and emerging businesses.	Community Development	Minimally Implemented	Have been aware of events that occur but have not connected fully so as to be invited to participate.

Key Pillar 2 Objective Results

Objective	**Department(s)**	**Status Review**	**Status Review Explanation**
Partner with additional organizations and schools to educate about public works careers.	Public Works	Mostly Implemented	Built and fostered direct contacts with schools in Golden Valley and neighboring cities, which has brough in an increase in applications for seasonal positions but not full-time roles. These contacts have also helped to increase applications from candidates of color and

			additional marginalized identities.

Key Pillar 3 Objectives Results

Objective	Department(s)	Status Review	Status Review Explanation
Train 100% direct service providers on language conversion software.	Administrative Services	Fully Implemented	All direct service staff have been trained in how to use Propio Language Services with communication provided to all City employees of how to access these services when needed. The services provide direct translation and interpreters for over 300 languages.
Develop strategies to build relationships with low-income, linguistically, and culturally diverse populations.	Communications	Minimally Implemented	Worked successfully with Parks and Recreation to promote the community garden plots for lower-income residents and all plots were reserved. Still need to develop and use metrics to gauge what strategies would be appropriate for each department and a dedicated budget for services such as translation of communication materials.
Develop and implement strategies for implementing culturally relevant programming for youth.	Parks and Recreation	Fully Implemented	Expanded mobile programming to reach underserved neighborhoods, partners with northwest suburbs to expand adaptive programming for youth and adults, and explored and implemented culturally specific events.

Implement “Share First” approach through a public data system.	Legal	Mostly Implemented	Developed materials and curriculum to engage departments about how systemic racism can be built into public data systems. Identified current practices and polices that uphold systems of exclusion, specifically related to housing and property deeds.
Develop a Golden Valley Police Department interactive database.	Police	Not Implemented	Looking into several interactive data dashboards that can provide community with crime data and statistics but have not yet built or implemented them.

Key Pillar 4 Objectives Results

Objective	**Department(s)**	**Status Review**	**Status Review Explanation**
Assess and revise paid on-call firefighter recruitment and hiring process to increase event attendance and applications by 10 percent.	Fire	Mostly Implemented	Assessed current model of on-call and made changes to a duty crew model. This change and the marketing of this change has steadily increased the applications but not exactly by 10 percent. Additionally, a change in radius requirements to 12 minutes has expanded the pool of candidates.
Complete organizational equity assessment for at least two departments.	Human Resources	Not Implemented	Assessment and alignment plans were created in 2022 with a plan to complete them with City Management and Community Development, but were never finished.

Create regular, low-stakes opportunities for staff to learn and discuss a variety of topics relating to different social identities.	Human Resources	Mostly Implemented	Topical training and employee engagement opportunities were done through the internal Equity Advancement Team. Assessments to gauge audience engagement or comprehension need to be developed.
Create two training sessions on equity in land use/zoning for Planning Commission and City Council.	Legal	Minimally Implemented	Partnered with American Planning Association and Just Deeds to develop the overall training program. Hired an outside consultant to lead the curriculum development of the training. Established future plans of piloting the training in Twin Cities metro cities before expanding to other cities.
Complete and implement organizational equity assessment.	Community Development	Not Implemented	Unaware of this specific objective and no assessment tool was indicated, provided, or assigned to this objective.

Section 4: Reflection on Plan Implementation

In the fourth section, departmental leadership were asked to answer questions related to the Equity Plan implementation. This section posed the following two questions to be answered as it pertains to their respective department:

- Question 1: Describe a time when you felt the implementation of these objectives went well. What made it possible?
- Question 2: Beyond funding, staff and time, name 1-2 tools, resources, or working behaviors that would have been helpful when implementing these objectives.

Below are identified themes and trends for each question:

- Questions 1:

    - A shift in thinking, perspective, and culture about the benefits and advantages of focusing on the needs of specific communities.
    - Recognition and then active removal of barriers at play, especially as it relates to recruitment of employees.
- Questions 2:
    - Having clear and specific measurable objectives that could be then measured.
    - Better cross-departmental collaboration, connection, and communication.
    - Ease of access to data and processes in place to collect data that can be easily disaggregated.

Section 5: Preparing for Long-Term Success

In the last section, departmental leadership were asked to answer questions related to the long-term success of actions taken during the implementation of the Equity Plan. This section posed the following two questions to be answered as it pertains to their respective department:

- Question 1: Think about who benefited from your department's equity actions to date, and why. What is different for people, and how can we build on that momentum in the next action plan?
- Question 2: Think about the next 2 years as your department identifies and implements further equity actions. Name 1-2 challenges that may affect the implementation as well as how this might have unintended consequences internally with employees and externally with community members.

Below are identified themes and trends for each question:

- Question 1:
    - Youth benefited when programs and engagement were centered on specific needs of transportation, location, and cost.
    - Departments and, in turn, staff benefited when initiatives and action were primarily focused on efforts of recruitment.
    - Some departments were unable to evaluate the impact to people or community because no identified method was established at the creation of the equity action.
- Question 2:
    - Not having proper tools and resources to implement actions, incorporate equity perspectives, and gather and assess data.
    - Accessing community and community input in an empowering and collaborative manner.
    - Change in staffing and knowledge retention, especially with general turnover and an increase in retirement.

City of Golden Valley 2022 Equity Plan Assessment Conclusions and Recommendations

Conclusions

The Diversity, Equity, and Inclusion Commission (DEIC) and the Equity and Inclusion (E&I) Manager collaboratively reviewed the assessment results. From the conducted review, the following areas of success and opportunity for growth were identified:

- Areas of Success
    - Establishing and fostering partnerships or relationships with external partners, especially as it relates to recruitment, has shown to increase interest and applications.
    - Adjusting requirements and providing opportunities so as to remove named and identified barriers has increased participation and engagement as well as shifted perception of that field of work in a positive manner.
    - Identifying needs at the beginning and then building and/or adjusting resources, services, and opportunity to directly aim at that need.
    - When executed, collaboration across departments allowed for named outcomes, actions, and results to be more dynamic and culturally responsive.

- Areas of Opportunity for Growth
    - Providing stronger, more structured community engagement efforts that aim to move community into decision making roles, whether City-wide or departmentally.
    - Having intentional time, focus, and money dedicated to DEI efforts and actions that are relevant and reflective of that department's work and responsibilities.
    - Use and implement assessment and evaluative tools, data and databases, and project management to make informed and equity-focused decisions.
    - Building in methods that directly assess and address who and how they are impacted by the identified equity action.

While the GV Equity Plan itself does provide some guidance and grounding, it falls short in various ways and in its overall implementation including the execution of each departmental objective. Although department staff had a strong familiarity with the plan's structure, many did not fully implement their respective objectives. In the creation of the departmental objectives, staff either included vague measurable outcomes or none at all, which created restrictions in accurately assessing their specific work. As a result, it has led to ambiguous paths of accountability as well as required an alternative and less effect manner of evaluating the success of the plan. Altogether, this illustrates a disconnect that could come from shortcomings in communication of the plan, financial underinvestment for each objective, deficiencies in cross-departmental collaboration and communication, and lack of command of the responsibilities to implement each action.

Recommendations

Future equity plans must be taken seriously and seen as an essential way of operating a city. Whether it is from City Council or each department, to not view and implement a plan with both resolve and resoluteness can have negative human consequences, further the mistrust of government, and create clear disconnect from stated City values. Additionally, forthcoming equity plans and objectives must be clear about their baseline of measurement and what inequities are addressed such as racial equity, gender equity, health equity, and the like. With structure, accountability, cocreation, and clarity of purpose and responsibility, plans such as these can become beacons of change, provide and create long lasting impact, and move away from norms that are dangerous and harmful to norms that center compassion, empathy, and liberation.

Taking this into consideration, the DEIC and E&I Manager jointly crafted the following recommendations:

Overarching Equity Plan Recommendations:

1. Identify stakeholders with the work of the City and have pathways of involvement for collaboration, decision making, and implementation.

2. Collaborate with City commissions and community members as well as use tools such as the Inclusive Holiday and Cultural Calendar and International Association for Public Participation's (IAP2) Spectrum of Public Participation[2] to have a holistic approach to developing and implementing equity actions.

3. Create attainable measurable outcomes for each department's established equity action with built-in baselines of measurement and manners of evaluation for stated outcomes.

4. Establish explicit and defined financial investment both departmentally and City-wide to implement equity actions and initiatives.

5. Determine specific roles or leaders, internally and externally, for each equity action and its objectives with designated responsibilities to have more structured accountability, collaboration, and completion.

Department Specific Recommendations:

1. Provide consistent, continuous, and clear communication about the Equity Plan to City employees and community using various communication tools such as the newsletter and accessible dashboards from the Equity Team.

[2] International Association for Public Participation: Quality Assurance Standard for Community and Stakeholder Engagement

2. Have communication, whether internal or external, be an integral and inseparable component of equity actions and initiatives to communicate challenges, successes, and results to both employees and community via established communication channels.

3. Make established equity actions and initiatives be appropriately reflective of departmental responsibilities and use a departmentally reflective equity lens to establish stated actions.

4. Reframe and continue training related to applying and using the Equity Tool and institute measures of accountability tied to this tool.

5. Create a procurement process that is well structured to incorporate and involve Disadvantaged, Minority, Women, Emerging, and Small Businesses (DMWESB) as well as bolstered through an updated maintained city vendor system.

APPENDIX C:
CEI City of Golden Valley Racial Equity Dividends Index Report

PUBLIC SECTOR

2023 RACIAL EQUITY DIVIDENDS INDEX
SCORE REPORT

City of Golden Valley

2023 OVERALL SCORE: **25.8 out of 100 points**

2023 PERCENTILE (ALL ORGANIZATIONS): **45%**

2023 PERCENTILE (PEER ORGANIZATIONS): **58%**

Introduction

By completing the *2023 Racial Equity Dividends Index for the Public Sector* survey, you and your organization have taken an important step to assess your progress toward building and benefitting from the dividends of racially equitable workplaces and communities.

The Center for Economic Inclusion developed the Racial Equity Dividends Index for the Public Sector for city, county, and other local governments. The score report includes your organization's full set of answers accompanied by quantitative scoring and peer comparison with other participating organizations to give leaders in government a clear sense of current progress and future opportunities for inclusive, antiracist action, leveraging local governments' power as employers, service providers, and policymakers.

Thank you for being a partner in the goal of building racially equitable and inclusive workplaces in Minnesota.

Scoring

All 67 multiple-choice questions about racial equity standards in the survey are weighted equally and scored out of 100 possible points. Organizations score full points for each "Yes" answer given, indicating the presence of a racial equity standard, and zero points for other answers. Questions with answers of "not applicable" are excluded from scoring. Racial equity outcomes data related to workforce demographics and procurement spending are included for comparison purposes and do not affect an organization's score.

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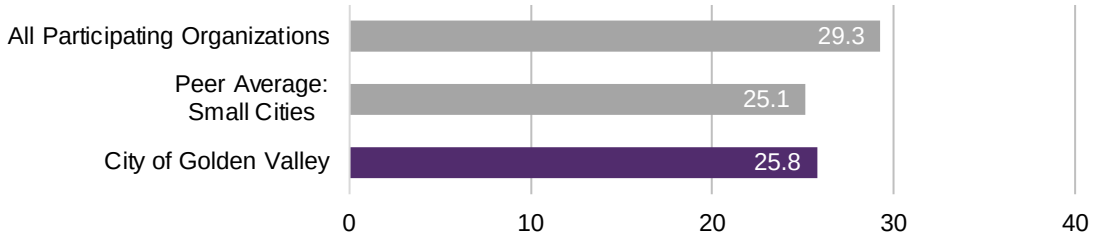
Peer Comparison

This score report benchmarks City of Golden Valley's scores against other participating **Small Cities.**

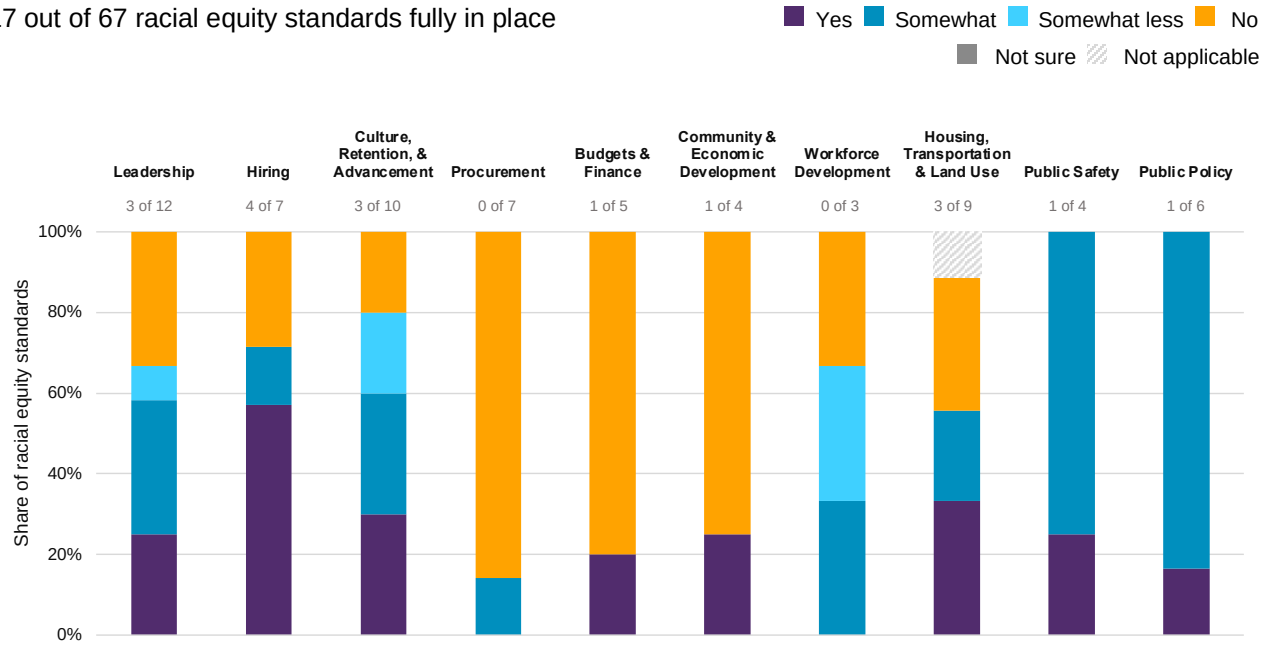
PEER DEMOGRAPHICS	Resident population	Resident racial demographics	Full-time employees	Government Type
Small Cities	36,493	23.4% Black, Indigenous, Hispanic, or Asian	191	City
City of Golden Valley	**22,247**	**16.2% Black, Indigenous, Hispanic, or Asian**	**130**	**City**

INDEX SCORE COMPARISON



City of Golden Valley Score Overview

17 out of 67 racial equity standards fully in place



Dimensions of the Racial Equity Dividends Index

LEADERSHIP

Your Score: 3 out of 12 *(peer average: 2.8)*

Yes | Somewhat | Somewhat less | No | Not sure

Question	Your Answer	Peer Answers
Does your organization have a **Chief Diversity, Equity, and/or Inclusion Officer**, or a full-time senior-level employee dedicated to advancing inclusion and racial equity across the organization?	■	58% / 33% / 8%
Does your government participate in **cross-sector partnerships or civic organizations** that have explicit goals to reduce racial inequities and support racial equity?	■	42% / 42% / 8% / 8%
Does your organization provide **internal teams working on racial equity** with an annual budget and executive-level sponsors?	■	36% / 55% / 9%
Actions your organization currently takes:		
We have one or more internal teams working on racial equity, diversity, and inclusion within our organization	✔	**91%** of peers took this action
We provide annual budgets for internal teams working on racial equity, diversity, and inclusion	✔	**64%** of peers took this action
We have identified at least one executive sponsor for internal teams working on racial equity, diversity, and inclusion	✔	**64%** of peers took this action
Does your organization collect data and take action to ensure that **appointed board and commission members are representative of the racial demographics of the community** the board is intended to serve?	■	33% / 42% / 25%

Does your organization **regularly publish data** on the demographics of your workforce disaggregated by race and ethnicity?		
Does your organization currently have an **organization-wide racial equity strategy**?		
Does your organization follow a **regular process at the onset of major projects and initiatives to determine how to engage residents**, particularly among Black, Indigenous, Hispanic/Latine, and Asian communities, in order to incorporate their perspectives throughout?		
Does your organization **regularly publish population-level data on resident demographics, economic outcomes, and quality of life**, disaggregated by race/ethnicity, on your organization's website?		
Does your organization follow a **consistent process to measure community satisfaction with services**, disaggregating resident perspectives by race, and take action to improve services?		
Has your organization **conducted a racial equity assessment** within the past 3 years?		
Does your organization **actively maintain an Open Data Portal** that publishes datasets that disaggregate data by race or otherwise relate to racial equity across your organization?		

Does your organization's **senior leadership reflect** the current racial demographic of your region? **Leadership demographics match or exceed regional demographics for:**	■	
Black	⊘	**0%** of peers answered yes
Indigenous	⊘	**0%** of peers answered yes
Hispanic	✔	**8%** of peers answered yes
Asian	⊘	**17%** of peers answered yes
White	✔	**100%** of peers answered yes

HIRING

Your Score: 4 out of 7 *(peer average: 2.9)*

■ Yes ■ Somewhat ■ No ■ Not sure

Question	Your Answer	Peer Answers
Does your organization **publish salary information** for job postings?	■	
Has your organization **eliminated the use of prior salary information** to inform pay and hiring decisions?	■	

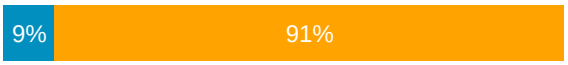
Does your organization take **ongoing actions to remove bias from application processes**? **Actions your organization currently takes:**	■	
Reviewing job qualifications and removing unnecessary criteria on a regular basis	✔	**100%** of peers took this action
Consistently creating racially diverse hiring committees	✔	**25%** of peers took this action
Focusing background checks on job-specific factors	✔	**92%** of peers took this action
Implementing second-chance hiring practices	✔	**33%** of peers took this action
Does your organization **invest in local talent pipelines** through paid internships, training partnerships with community colleges or workforce development providers, scholarships for students who are not related to employees, and/or other substantial career exposure opportunities?	■	
Does your organization intentionally **recruit from racially diverse talent pools,** including schools, workforce development programs, and other community-based organizations with high shares of Black, Indigenous, Hispanic/Latine, and/or Asian people?	■	
Does your organization set **enterprise-wide goals for hiring, retaining, and advancing** Black, Indigenous, Hispanic/Latine, and Asian workers and hold organizational leadership accountable for meeting these goals? **Actions your organization currently takes:**	■	
We set goals across our organization for hiring a racially diverse workforce	⊘	**42%** of peers took this action
We set goals across our organization for retaining employees of color	⊘	**8%** of peers took this action
We set goals across our organization for promoting employees to produce racially diverse leadership teams	⊘	**8%** of peers took this action
We take action to hold leadership accountable for meeting these goals	⊘	**0%** of peers took this action
Does your organization **require hiring managers to consider a racially diverse slate of candidates** during the application and interview stages?	■	

CULTURE, RETENTION, & ADVANCEMENT

Your Score: 3 out of 10 *(peer average: 1.8)*

Yes | Somewhat | Somewhat less | No | Not sure

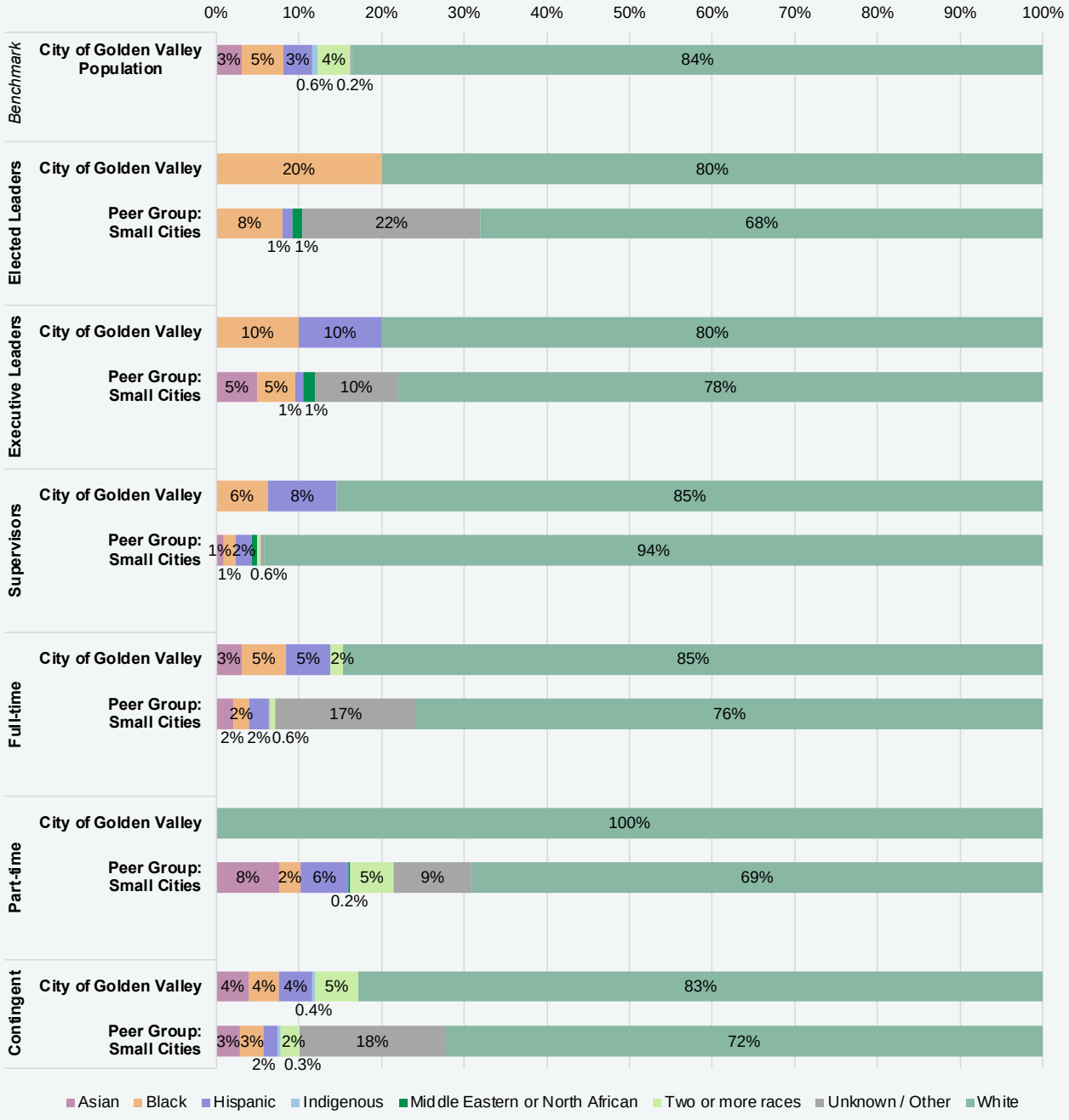
Question	Your Answer	Peer Answers
Does your organization **provide benefits to all full-time employees**? **Benefits provided by your organization:**	■	100%
Health insurance	✔	**100%** of peers provide this benefit
Paid leave	✔	**100%** of peers provide this benefit
Paid family leave	✔	**92%** of peers provide this benefit
Access to a retirement account	✔	**100%** of peers provide this benefit
Does your organization have **clear standards for promotions** that are shared with all employees?	■	33% / 50% / 17%
Does your organization take steps to **increase the economic wellbeing of non-exempt employees**? **Actions your organization currently takes:**	■	8% / 92%
We provide schedules at least one week in advance to all non-exempt employees and strive to keep schedules consistent week-to-week	✔	**92%** of peers took this action
We offer all non-exempt employees the opportunity to work full-time if desired	⊘	**17%** of peers took this action
We provide all non-exempt employees a minimum number of hours per week	⊘	**50%** of peers took this action
Does your organization **regularly survey employees about their sense of belonging and equity** in the workplace, disaggregate results by race, and share insights with employees? **Actions your organization currently takes:**	■	8% / 67% / 25%
We have surveyed employees about their sense of belonging and inclusion in the past two years	✔	**67%** of peers took this action

We have disaggregated survey results by race	✔	**17%** of peers took this action
We have shared insights from employee surveys back with employees	✔	**58%** of peers took this action
Does your organization **pay all employees a family-sustaining wage** for Minnesota? *Note: The Center for Economic Inclusion defines a family-sustaining wage for Minnesota based on the MIT Living Wage Calculator. In 2023, this is $24.98 per hour, or approximately $52,000 for a full-time employee.*		
Does your organization have **employee resource groups or similar entities specific to Black, Indigenous, Hispanic, and/or Asian workers** for the purposes of enabling mutual support, mentorship, professional development, and more?		
Does your organization **measure employee pay by race and ethnicity** at least once per year and taken action to ameliorate any pay gaps between workers in similar roles with equivalent skills, experiences, and qualifications?		
Does your organization **invest in professional development opportunities** for workers including certificates, tuition reimbursement, educational grants, and coaching and measure participation in these opportunities by race and ethnicity of employees at least once per year?		
Does your organization **provide formal mentorship opportunities** specific to Black, Indigenous, Hispanic, and/or Asian workers?		
Does your organization offer **regular learning opportunities for staff to understand and apply antiracist practices** to their work and make efforts to increase organization-wide participation?		

Racial Equity Outcomes Data: Workforce

The following section displays data on racial equity outcomes within your organization across several critical dimensions. Workforce-related data includes the racial demographics of your organization's workforce and leadership, number of workers earning a family sustaining wage, and hiring, retention, and promotion rates by race and ethnicity compared with peers.

Workforce by Race and Ethnicity[1][2]



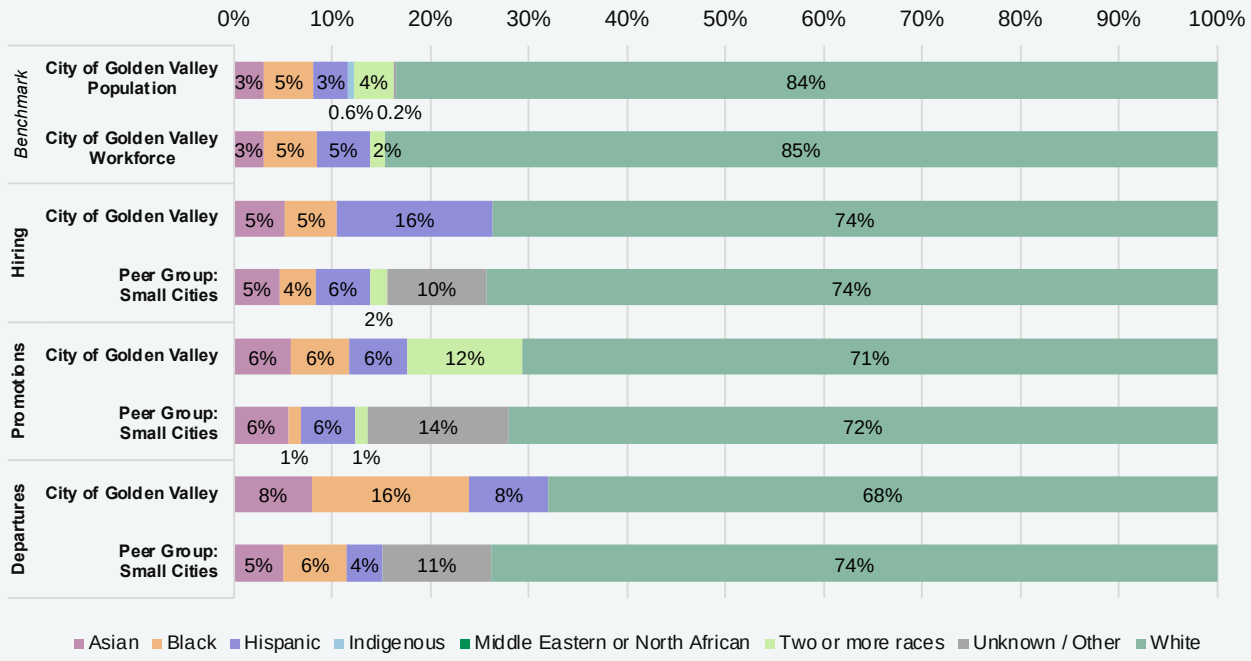
[1] *Population data for the City of Golden Valley comes from the 2021 5-Year American Community Survey*

[2] *0.5% of Supervisors in this peer group identify as Two or more races and 0.4% identify as Unknown/Other. 0.1% of Full-time staff in this peer group identify as Indigenous.*

City of Golden Valley Workforce by Race and Ethnicity

	Asian	Black	Hispanic	Indigenous	Middle Eastern or North African	Two or more races	Unknown	White (non-Hispanic)
Elected leaders	0	1	0	0	0	0	0	4
All senior appointed leaders	0	1	1	0	0	0	0	8
All managers of at least 1 full-time employee	0	3	4	0	0	0	0	41
All permanent full-time employees	4	7	7	0	0	2	0	110
Permanent part-time employees	0	0	0	0	0	0	0	2
Contingent workers	10	9	10	1	0	13	0	207

Hiring, Promotion, and Departure rates by Race and Ethnicity[3]



Percent of Employees Earning a Family-Sustaining Wage by Race and Ethnicity)[4]

[3] *Hiring data displays the racial demographics of full-time employees who were hired in the past year. Promotions data displays the racial demographics of full-time employees who were internally promoted in the past year. Departures data displays the racial demographics of full-time employees who left the organization in the past year.*

[4] *The Center for Economic Inclusion defines a family-sustaining wage for Minnesota based on the MIT Living Wage Calculator. In 2023, this is $24.98 per hour, or approximately $52,000 for a full-time employee.*

PROCUREMENT

Your Score: 0 out of 7 *(peer average: 0.3)*

Yes Somewhat No Not sure

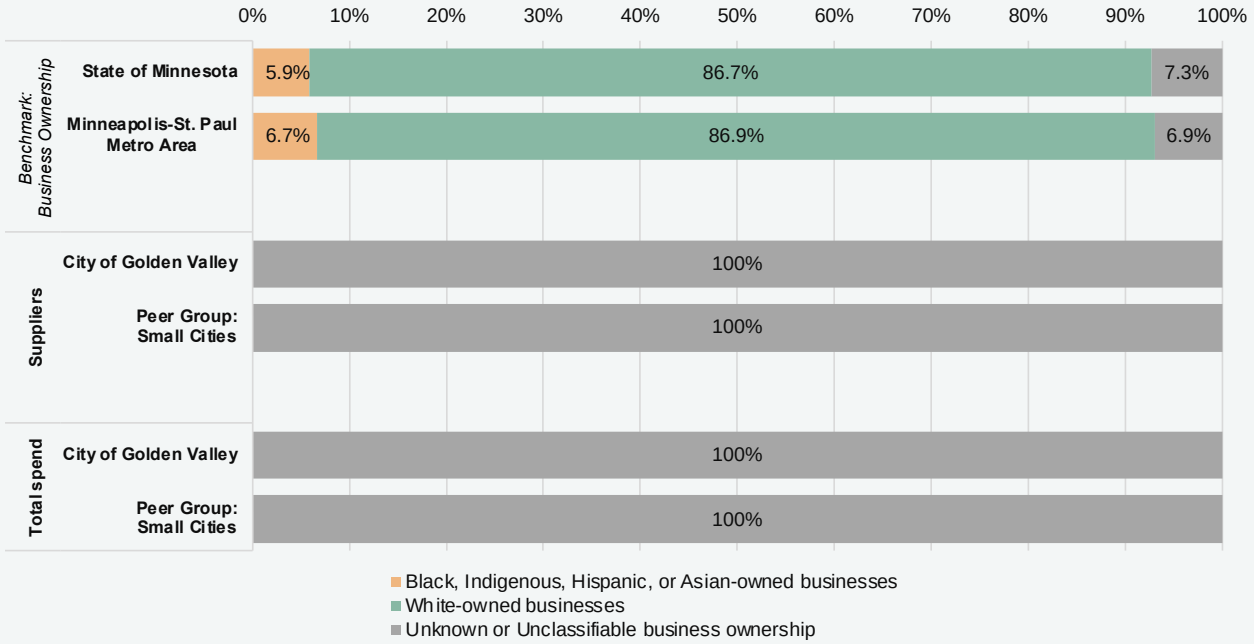
Question	Your Answer	Peer Answers
Has your organization taken action to **reduce prohibitive barriers for suppliers**, including reducing the size of contracts, lowering annual revenue or bonding requirements, simplifying submittal processes, and shortening supplier payment terms to 15-30 days?		
Actions your organization has taken:		
We have taken action to reduce the size of our contracts to enable smaller suppliers, including ones led by Black, Indigenous, Hispanic, or Asian owners, to compete	✔	**25%** of peers took this action
We have taken action to lower our minimum threshold for suppliers' annual revenue	⊘	**8%** of peers took this action
We have taken action to adjust insurance requirements	✔	**17%** of peers took this action
We have taken action to simplify submittal processes for bids from suppliers	⊘	**42%** of peers took this action
We pay most or all of our suppliers on a monthly basis	⊘	**75%** of peers took this action
Does your organization have a **Minority Business Enterprise (MBE) procurement strategy** with measurable goals?		
Does your organization require that **all RFP and bid processes track the number of bids** received from Black, Indigenous, Hispanic, and Asian-owned business and seek out additional bids if no bids from these groups have been received?		
Does your organization **invest financial and human capital resources in building a racially diverse pipeline of suppliers** via a dedicated budget, staff time, and education for procurement leaders within your organization?		

Does your organization **regularly collect and share data** internally on the racial diversity of its suppliers?		
Does your organization **measure the racial diversity of its Tier 2 suppliers**?		
Has your organization **participated in a disparity study within the past 5 years** to evaluate the outcomes of race-neutral supplier diversity programs and provide legal justification for race-conscious strategies?		

Racial Equity Outcomes Data: Procurement

The following section displays data on racial equity outcomes across several critical dimensions. Procurement-related data includes the number of suppliers owned by Black, Indigenous, Hispanic, and Asian individuals and the amount of total procurement spending going to these suppliers.

Procurement spending with Black, Indigenous, Hispanic, or Asian-owned businesses[5]



City of Golden Valley Procurement spending with Black, Indigenous, Hispanic, or Asian-owned businesses

Total number of suppliers	1,375
Total number of suppliers that are owned by Black, Indigenous, Hispanic, or Asian individuals	*not provided*
Total number of suppliers that are owned by White individuals	*not provided*
Total number of suppliers with unknown business ownership	1,375
Total spend	$36,683,449
Total spend with businesses owned by Black, Indigenous, Hispanic, or Asian individuals	*not provided*
Total spend with businesses owned by White individuals	*not provided*
Total spend with businesses of unknown ownership	$36,683,449

[5] *Data for the State of Minnesota and the 15-county Minneapolis-St. Paul metro area comes from the 2021 Annual Business Survey. Suppliers data displays the percentage of all suppliers that are owned by Black, Indigenous, Hispanic, or Asian individuals within the past year. Total spend data displays the percentage of all procurement spending going to businesses owned by Black, Indigenous, Hispanic, or Asian-owned businesses within the past year.*

BUDGETS & FINANCE

Your Score: 1 out of 5 *(peer average: 0.4)*

Yes Somewhat No Not sure

Question	Your Answer	Peer Answers
Does your **organization invest assets in Community Development Financial Institutions (CDFIs)** or other depository institutions whose missions prioritize wealth-building and investment in underinvested communities?		20% 50% 30%
Do you **analyze and act to mitigate the impacts of taxes, fines, fees, and other revenue-generating activities** on Black, Indigenous, Hispanic/Latine, and Asian communities?		17% 8% 75%
Do you **proactively seek input** from Black, Indigenous, Hispanic/Latine, and Asian communities in the **early stages of developing your operating and capital budgets**?		8% 83% 8%
Do you have a **standardized process for analyzing the impact of potential budgets on Black, Indigenous, Hispanic/Latine, and Asian communities** (often described as a budget equity tool)?		100%
Does your organization **invest its financial assets using Environmental, Social, and Governance (ESG) criteria** or otherwise screen its financial investments to avoid organizations and sectors that perpetuate racial inequities?		83% 17%

COMMUNITY & ECONOMIC DEVELOPMENT

Your Score: 1 out of 4 *(peer average: 1.2)*

Yes | Somewhat | Somewhat less | No | Not sure

Question	Your Answer	Peer Answers
Do you have **community development programs that explicitly seek to support stronger social capital ties, resident voice, and neighborhood improvements** in Black, Indigenous, Hispanic/Latine, Asian, and other historically disinvested communities?		42% / 25% / 33%
Are your **economic development job creation subsidies only available to companies that create jobs that pay family-sustaining wages** or a similar wage threshold? *Note: The Center for Economic Inclusion defines a family-sustaining wage for Minnesota based on the MIT Living Wage Calculator. In 2023, this is $24.98 per hour, or approximately $52,000 for a full-time employee.*		40% / 20% / 40%
Does your organization have **initiatives to support entrepreneurship and business development** among Black, Indigenous, Hispanic/Latine, Asian, and other communities historically underrepresented in business ownership?		27% / 55% / 18%
Does your organization **analyze the racial demographics of business owners receiving your economic and business development services** on at least an annual basis?		17% / 17% / 25% / 33% / 8%

WORKFORCE DEVELOPMENT

Your Score: 0 out of 3 *(peer average: 0.2)*

Yes | Somewhat | Somewhat less | No | Not sure

Question	Your Answer	Peer Answers
Do your workforce development programs **survey past program participants about their job placement experiences**, disaggregate results by race, and use this information to guide future partnerships and job placements?	No	25% / 25% / 50%
Actions your organization currently takes:		
Most or all of our workforce development programs survey past program participants about their job placement experiences	⊘	**25%** of peers took this action
Most or all of our workforce development programs disaggregate survey results by race	⊘	**50%** of peers took this action
We use survey results to guide future partnerships and job placements, across all or most of our workforce development programs	⊘	**50%** of peers took this action
Does your organization **follow a consistent process to facilitate partnerships between local workforce training partners and local businesses** to support training of Black, Indigenous, Hispanic/Latine, Asian, and other historically underrepresented communities for job opportunities?	Somewhat less	10% / 50% / 40%
Do your workforce development initiatives **prioritize placing participants into jobs that pay family-sustaining wages**? *Note: The Center for Economic Inclusion defines a family-sustaining wage for Minnesota based on the MIT Living Wage Calculator (in 2023, this is $24.98 per hour) but alternative family-sustaining wage definitions also exist.*	Yes	75% / 25%

HOUSING, TRANSPORTATION, & LAND USE

Your Score: 3 out of 9 *(peer average: 3.1)*

Yes | Somewhat | Somewhat less | No | Not sure

Question	Your Answer	Peer Answers
Does your organization have a **zoning code that allows for higher density construction near commercial and transportation corridors** and job centers?		100%
Do your transportation-related capital investments include **dedicated programs using own-source revenue to expand and improve alternatives to single-occupancy cars** for residents?		58% / 25% / 8% / 8%
Does your organization take action to **reduce cost burdens for low-income users of public transportation**, including through reduced fare programs, subsidies, and more?	NA	43% / 43% / 14%
Does your organization have **programs to offer homeownership opportunities for first time homebuyers**, including through loans and grants, and analyze program participation by race?		40% / 30% / 30%
Does your jurisdiction **require inclusionary zoning for housing projects developed with city funding** or in-kind contributions, such as land or infrastructure investment?		33% / 42% / 25%
Does your organization **prioritize repairs to roads and other transportation infrastructure based on a systematic evaluation of both the infrastructure grade and the disparities experienced** by currently and historically underserved communities?		25% / 67% / 8%

Do you have **policies to incorporate principles of environmental justice in major new development projects** you permit via community benefits agreements, permitting requirements, or more?		
Has your organization **named the racially inequitable impact of past land use policies it has made and embraced a race-conscious, restorative framework** in its comprehensive plan or similar strategic land use report?		
Does your jurisdiction provide a **legal right to counsel for tenants facing eviction**?		

PUBLIC SAFETY

Your Score: 1 out of 4 *(peer average: 2.3)*

Yes Somewhat Somewhat less No Not sure

Question	Your Answer	Peer Answers
Do your **law enforcement agencies have use-of-force policies** that meet the following guidelines from the U.S. Department of Justice?		
Policies that your agencies have instituted:		
Require that officers strictly limit the use of deadly force	✔	**100%** of peers took this action
Require that officers be regularly trained in de-escalation tactics	✔	**100%** of peers took this action
Affirm that officers have an affirmative duty to intervene to stop any officer from engaging in excessive force	✔	**100%** of peers took this action
Affirm that officers have an affirmative duty to render medical aid when needed	✔	**100%** of peers took this action
Require that officers receive training on the use-of-force policy on an annual basis	✔	**100%** of peers took this action

Does your government **invest in alternative crisis response teams** to provide services to individuals with developmental disabilities, individuals who are experiencing health crises, and others who call 911 or otherwise seek help?	■	
Does your government have **programs and staff focused on diversion opportunities from the criminal justice system** and towards care-based services?	■	
Do your **law enforcement agencies publish racially disaggregated data on law enforcement activities** on at least an annual basis?	■	
Categories for which data is published on at least an annual basis:		
Racially disaggregated data on officer use of force	⊘	**33%** of peers took this action
Racially disaggregated data on internal and external complaints about police conduct	⊘	**8%** of peers took this action
Racially disaggregated data on arrests	✔	**25%** of peers took this action
Racially disaggregated data on traffic and pedestrian stops	⊘	**25%** of peers took this action
We publish data on some of the categories above, but not disaggregated by race		**42%** of peers took this action

PUBLIC POLICY

Your Score: 1 out of 6 *(peer average: 1.4)*

Yes Somewhat No Not sure

Question	Your Answer	Peer Answers
Has your organization **identified racial equity as a public policy priority**?		
Do you have a strategy to **seek input from residents, particularly Black, Indigenous, Hispanic/Latine, and Asian residents on local ordinance development**?		
Does your organization **advocate to other government entities (including city, county, state, and the federal government) for public policy changes that would improve economic outcomes** for Black, Indigenous, Hispanic/Latine, and Asian communities?		
Do you have a **strategy to communicate relevant changes to local ordinances to residents of different cultural communities and backgrounds**, including through translation of documents into multiple languages when deemed necessary and through multiple communication methods (including digital, print, and in-person gatherings)?		
Does your organization **lobby other government entities (including city, county, state, and/or the federal government) to oppose public policies that have historically exacerbated racial inequities**?		
For **ordinances developed and passed by your jurisdiction's elected leaders, does your organization use a racial equity tool to analyze impacts** on Black, Indigenous, Hispanic/Latine, Asian, and other communities of color?		

Recommendations

- **The City of Golden Valley can build more racially diverse teams by setting organization-wide goals for hiring, recruitment, and promotion of Black, Indigenous, Hispanic, and Asian employees and holding leadership accountable to them.** Golden Valley leads peers in racially equitable hiring swith 4 of 7 racial equity standards in place but does not yet set goals for racially diverse hiring, something 42% of peers have started. Committing to hire, retain, and promote more workers of color so that employees' demographics better match the demographics of residents can allow Golden Valley to build a city workforce that benefits from diverse perspectives and contributes to inclusive growth.

- **The City of Golden Valley can collect data and set goals for increasing the racial diversity of suppliers to benefit from innovative ideas.** Similar to peers, Golden Valley has opportunity to grow in Procurement with no supplier demographic data provided in the Index and none of the seven racial equity standards in place. One opportunity is to begin gathering data on the racial diversity of existing suppliers and setting goals for increased investment, which can help Golden Valley benefit from promising new ideas and reach new markets for trusted partnerships.

- **The City of Golden Valley can strengthen existing services by having workforce development programs survey past program participants about their job placement experiences, disaggregate results by race, and use this information to guide future partnerships and job placements.** Similar to peers, Golden Valley has opportunity to grow in Workforce Development with none of 3 racial equity standards fully implemented. Surveying participants of workforce development programs and disaggregating results by race, something 50% of peers already do, can help identify any potential disparities and ensure continuous improvement of participants' experience.

Case Study

Informed by a new disparity study, the City of Boston sets bold targets for purchasing with minority business enterprises

In 2021, the Mayor of the City of Boston, Massachusetts signed an executive order "Establishing Equitable Procurement Goals in Support of Minority and Woman-Owned Businesses." The executive order built upon the city's supplier diversity program, first established in 2008. A disparity study commissioned by the city and completed in 2021 revealed that "minority-owned business enterprises are available for 5.7% of City contract and procurement dollars," but were awarded only 2.5% of city procurement spending.

To remedy these disparities, the City set an 'overall annual aspirational goal' of 10% minority-owned business enterprise utilization on 'discretionary contract and procurement spending,' along with accompanying goals for women-owned business utilization, through 2027.

Pursuit of this goal is aided by earlier work by the City to support diversification of supplier contracts, including: creation of a performance tracking system to measure contracts awarded to diverse vendors, paying vendors on faster timelines, reducing bonding requirements for City contractors, simplifying paperwork, "breaking up large contracts into multiple small contracts to increase accessibility for small

businesses," and providing technical assistance to diverse vendors around capital access and announcement of contracts.

Visit these links for more information about this case study.

About the Index

The 2023 Racial Equity Dividends Index for the Public Sector (Public Sector Index) is designed to support leaders in city and county governments in their efforts to build racially equitable workplaces and communities.

The Public Sector Index was developed by the Center for Economic Inclusion and draws from the insights of expert practitioners and organizations at the forefront of racial equity in local governments, including PolicyLink, Brookings Metro, the Harvard Institutional Antiracism and Accountability Project, the Urban Institute, the Government Alliance on Race and Equity, academic researchers, and others. Center staff selected and defined standards that are recognized as policies and practices that support tangible progress towards racially equitable outcomes within local governments.

The structure of the Public Sector Index has been adapted from the Center's Racial Equity Dividends Index for the Private Sector, which launched in 2022, and has been adjusted to reflect the unique structure and responsibilities of public sector organizations. 2023 marks the launch of the Public Sector Index for city and county governments in Minnesota. The Public Sector Index will be distributed annually going forward.

Next Steps

We hope that this 2023 Racial Equity Dividends Index score report provides you a clear assessment of the opportunities to take meaningful actions to strengthen relationships and improve outcomes for Black, Indigenous, Hispanic, Asian, and White employees, suppliers, and communities.

The Center for Economic Inclusion equips public- and private-sector leaders and employers with the knowledge and tools to build, scale, and institutionalize anti-racist workplaces. Through purposeful, research-driven action, our mission is to close racial wealth gaps and build racially equitable and inclusive regional economies. Our team of activators and strategists leverage data, insights, and wisdom from Black, Indigenous, Hispanic, and Asian communities to fulfill your vision for an organization that is good for your employees, customers, and the communities you serve.

Contact our team for support with learning more about your Racial Equity Dividends Index score, to develop strategies for moving from awareness to action and accountability, or to participate in one of our learning programs at action@centerforeconomicinclusion.org.

APPENDIX D:
Continuum on Becoming an Anti-Racist and Multicultural Organization

Continuum on Becoming an Anti-Racist Multicultural Organization

MONOCULTURAL ==> MULTICULTURAL ==> ANTI-RACIST ==> ANTI-RACIST MULTICULTURAL

Racial and Cultural Differences Seen as Deficits ==> Tolerant of Racial and Cultural Differences ==> Racial and Cultural Differences Seen as Assets

Exclusive An Exclusionary Institution	2. Passive A "Club" Institution	3. Symbolic Change A Compliance Organization	4. Identity Change An Affirming Institution	5. Structural Change A Transforming Institution	6. Fully Inclusive Anti-Racist Multicultural Organization in a Transformed Society
• Intentionally and publicly excludes or segregates African Americans, Native Americans, Latinos, and Asian Americans • Intentionally and publicly enforces the racist status quo throughout institution • Institutionalization of racism includes formal policies and practices, teachings, and decision making on all levels • Usually has similar intentional policies and practices toward other socially oppressed groups such as women, gays and lesbians, Third World citizens, etc. • Openly maintains the dominant group's power and privilege	• Tolerant of a limited number of "token" People of Color and members from other social identify groups allowed in with "proper" perspective and credentials. • May still secretly limit or exclude People of Color in contradiction to public policies • Continues to intentionally maintain white power and privilege through its formal policies and practices, teachings, and decision making on all levels of institutional life • Often declares, "We don't have a problem." • Monocultural norms, policies and procedures of dominant culture viewed as the "righ" way" business as usual" • Engages issues of diversity and social justice only on club member's terms and within their comfort zone.	• Makes official policy pronouncements regarding multicultural diversity • Sees itself as "non-racist" institution with open doors to People of Color • Carries out intentional inclusiveness efforts, recruiting "someone of color" on committees or office staff • Expanding view of diversity includes other socially oppressed groups *But…* • "Not those who make waves" • Little or no contextual change in culture, policies, and decision making • Is still relatively unaware of continuing patterns of privilege, paternalism and control • Token placements in staff positions: must assimilate into organizational culture	• Growing understanding of racism as barrier to effective diversity • Develops analysis of systemic racism • Sponsors programs of anti-racism training • New consciousness of institutionalized white power and privilege • Develops intentional identity as an "anti-racist" institution • Begins to develop accountability to racially oppressed communities • Increasing commitment to dismantle racism and eliminate inherent white advantage • Actively recruits and promotes members of groups have been historically denied access and opportunity *But…* • Institutional structures and culture that maintain white power and privilege still intact and relatively untouched	• Commits to process of intentional institutional restructuring, based upon anti-racist analysis and identity • Audits and restructures all aspects of institutional life to ensure full participation of People of Color, including their world-view, culture and lifestyles • Implements structures, policies and practices with inclusive decision making and other forms of power sharing on all levels of the institutions life and work • Commits to struggle to dismantle racism in the wider community, and builds clear lines of accountability to racially oppressed communities • Anti-racist multicultural diversity becomes an institutionalized asset • Redefines and rebuilds all relationships and activities in society, based on anti-racist commitments	• Future vision of an institution and wider community that has overcome systemic racism and all other forms of oppression. • Institution's life reflects full participation and shared power with diverse racial, cultural and economic groups in determining its mission, structure, constituency, policies and practices • Members across all identity groups are full participants in decisions that shape the institution, and inclusion of diverse cultures, lifestyles, and interest • A sense of restored community and mutual caring • Allies with others in combating all forms of social oppression • Actively works in larger communities (regional, national, global) to eliminate all forms of oppression and to create multicultural organizations.

© Crossroads Ministry, Chicago, IL: Adapted from original concept by Bailey Jackson and Rita Hardiman, and further developed by Andrea Avazian and Ronice Branding; further adapted by Melia LaCour, PSESD.

APPENDIX E:
Equity Plan Context Definitions

Supplementary Context Definitions

The following terms and their meanings provide additional context to the Equity Plan as well as ensure common language and understanding.

Access/Accessibility
Practice of making information, activities, and/or environment functional, meaningful, and usable for all people with consideration of ability/disability, language, learning, and cultural responsiveness.

Anti-racism
Actively and consciously opposing racism in any forms, including, but not limited to, economic, political, social, and cultural racism.

Belonging
The feeling of security and support when there is a sense of acceptance, inclusion, and identity.

Bias
A disproportionate weight in favor of or against an idea, thing, person, or group, usually in a way that is prejudicial and unfair. Biases can be innate or learned.

- **Unconscious/Implicit Bias:** Attitudes and stereotypes that influence judgment, decision-making, and behavior in ways that are outside of conscious awareness and/or control. Typically expressed automatically without much awareness.

- **Conscious/Explicit Bias:** Overt negative attitudes and stereotypes expressed openly and knowingly held.

BIPOC (Black, Indigenous, and People of Color)
Use of this acronym recognizes the collective experiences of systemic racism. It is meant to emphasize the hardships faced by Black and Indigenous people and to acknowledge that not all People of Color face the same levels of injustice.

Culture
A set of agreed-upon expectations or systems of norms that influence how individuals or the community as a whole act or behave.

- **Objective Culture:** The artifacts and institutions created by a group of people, reflected in areas such as art, architecture, literature, dance, holidays, and collective history.

- **Subjective Culture:** Patterns of interpretations (values, beliefs, perceptions) and behavior learned from one's group that guides individual and group activity.

Disparity
A pattern of differences in outcomes and impacts across social identity groups.

Inequity
A pattern of differences in outcomes and impacts that are systemic, avoidable, unnecessary, and unjust across social identity groups. These patterns or differences ultimately create negative impact and effect across various life determinants, especially when coupled together.

Intersectional/Intersectionality
Interactive effect of various forms of discrimination and oppression based on social identities or categorization, which creates specific challenges, disadvantages, and inequities unique to the interconnected identities or lived experiences. For example, a Black woman in America experiences gender inequities differently to white woman and racial inequities differently to a Black man because of being at the crossroads of gender and race, which creates a unique and qualitatively different oppression and outcomes.

Racial Equity
A condition in which the race of an individual and/or group is no longer a predictor of outcomes. It is also a process and practice with which intentional and continual changes are made to eliminate disparities across both race and ethnicity.

Racism
Belief and action, based on skin color, that one group of people is superior to others.

- **Individual/Interpersonal Racism:** Conscious or subconscious racially biased beliefs, attitudes, and actions that influence interactions and perception of other people.

- **Institutional Racism:** Implicit and explicit policies, practices, and procedures *within* an organization/institution (i.e., City of Golden Valley, University of Minnesota, Department of Human Services, HealthPartners, Affinity Plus Credit Union, etc.), that create different outcomes for different racial groups. Typically, this is to the benefit of white people and to the detriment of people of color.

- **Internalized Racism:** Conscious and subconscious acceptance or belief in negative messages, stereotypes, and biases about one's own race or racial group.

- **Structural Racism:** Implicit and explicit racial inequities *across* organizations/institutions (i.e., city government + bank + realtor + insurance + racial covenants = structural) inclusive of policy, practices, procedures, history, and culture. This creates an interconnection of racial inequities reinforced by organizational/institutional norms (past and present), which can also reproduce old and create new forms of racism.

- **Systemic Racism:** Implicit and explicit policies, practices, and procedures that are *within* and *across* organizations/institutions (i.e., K-12 school + university = educational system, or primary care physician + pharmacy = healthcare system), which create and perpetuate racial inequities.

Focus Area Context Definitions

Below are the terms used throughout the Equity Plan and their practical applications.

Accountability
Who oversees, implements, and helps guide the related action.

Action
Specific approach and/or initiative to implement to achieve the desired outcome.

Connections
Relationship to related frameworks, plans, or assessments.

See “Development Process” in Executive Summary for detail about connected plans and frameworks.

Outcome
What is to be accomplished related to each identified focus area.

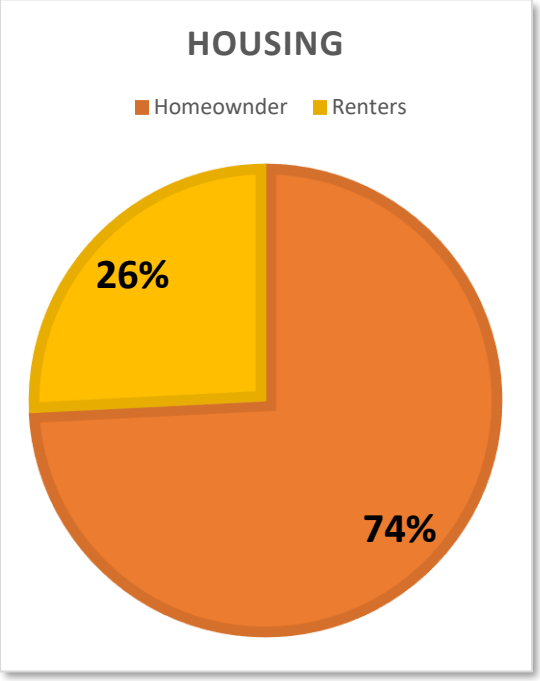
Stakeholders
Who should or needs to be in partnership with the related action to ideate, collaborate, implement, and more.

APPENDIX F:
Demographic Data and Information

As stated before, the following information helps provide a picture of Golden Valley across various data points. It should be noted that common demographics related to sexuality and gender identity are generally unavailable at a city jurisdiction level and are thus not reflected.

Housing

Homeownership and Renting[4]
74.2% - Homeowners
• 75.5% - White • 19.1% - Hispanic and Latino/a/e • 13.6% - Black or African American • 6.3% - Asian • 3.0% - Multiracial • 1.3% - American Indian and Alaska Native • 0.3% - Native Hawaiian and Pacific Islander
25.85% - Renters



Housing Types[5]
• 59.66% - Single-Family Detached • 32.22% - Multi-Family • 4.42% - Single-Family Attached • 3.7% - Townhome

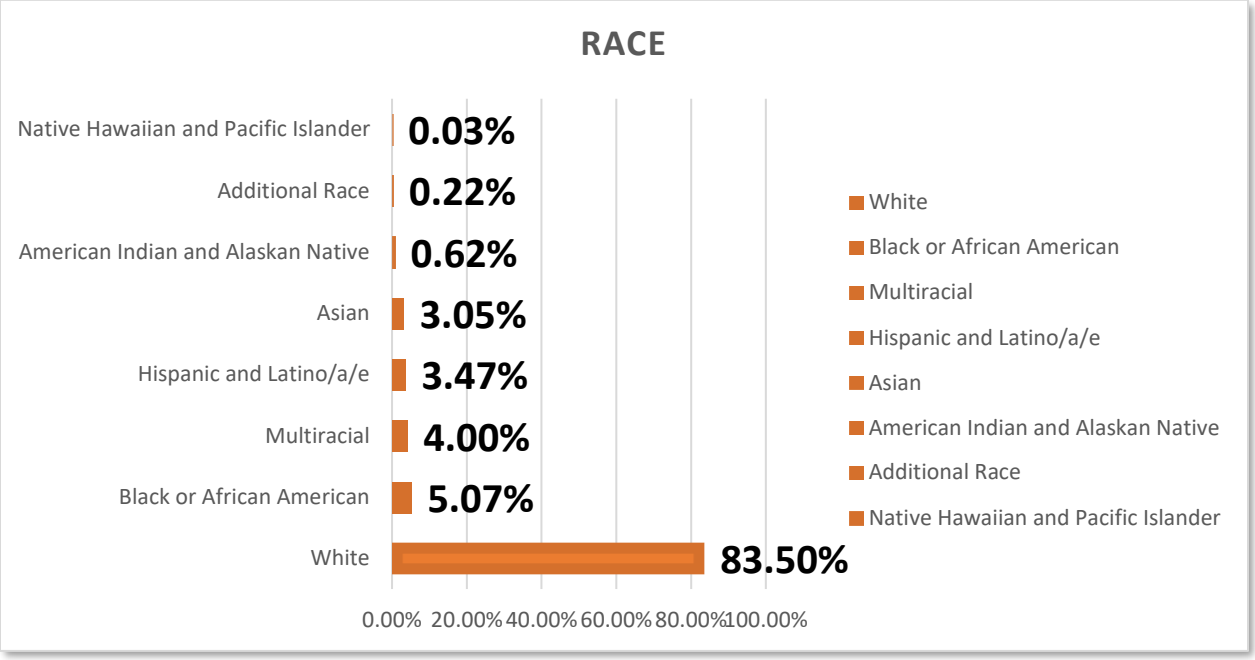
Racial Covenants[6]
• 1,604 homes in Golden Valley had or still maintain a racial covenant within their deed

Race

Racial Demographics[7]
• 83.5% - White • 5.07% - Black or African American • 4% - Multiracial • 3.47% - Hispanic and Latino/a/e • 3.05% - Asian • .62% - American Indian and Alaskan Native

[4] Data USA
[5] City of Golden Valley
[6] Mapping Prejudice
[7] USA Census

- .22% - Additional Race
- .0315% - Native Hawaiian and Pacific Islander



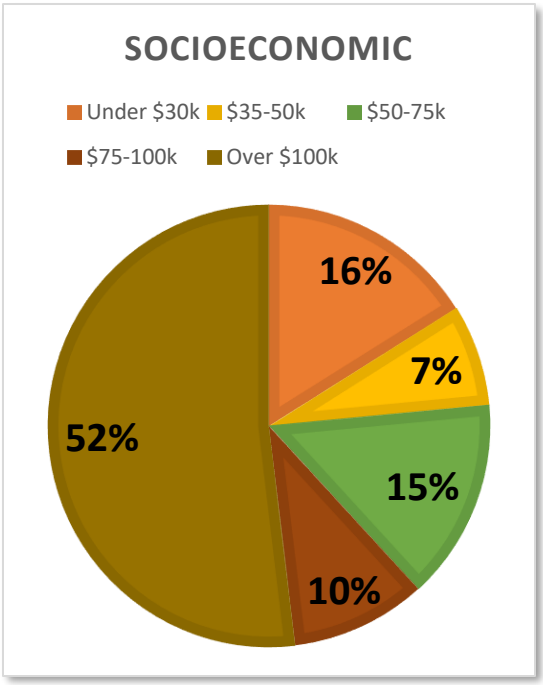
Sex Assigned at Birth (Note: No data beyond binary sex)

Sex Assigned at Birth Demographics[8]
• 53.0% - Female • 47.0% - Male

[8] Minnesota Compass

Socioeconomics (Median Household Income)

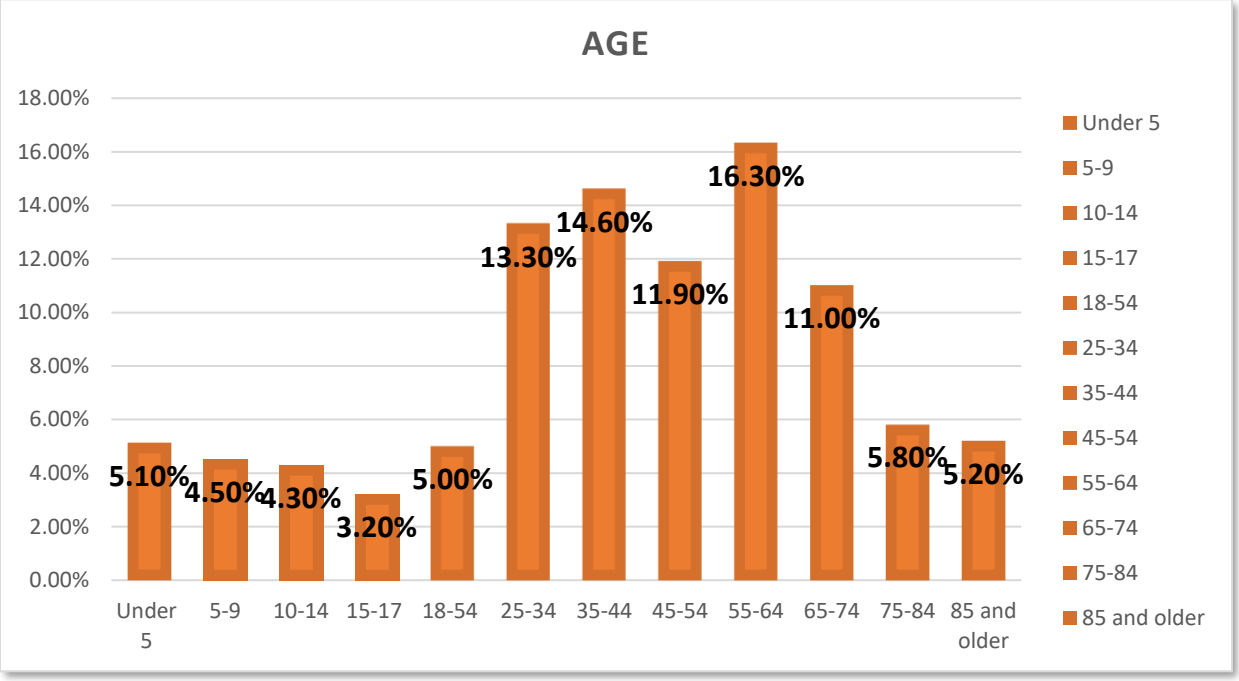
Socioeconomics Demographics[9]
• 16.1% - Under $35k • 7.4% - $35-50K • 14.7% - $50-75k • 9.9% - $75-100k • 51.9% - Over $100k



Education

Educational Attainment Among Adults[10]
• 97.1% - High School Graduate or Higher • 60.5% - Bachelor's Degree or Higher • 36% - Bachelor's Degree • 24.6% - Graduate or Professional Degree • 23.4% - Some College or Associate Degree • 13.2% - High School Diploma or GED • 2.9% - Less than High School Education

Age



[9] Minnesota Compass
[10] Minnesota Compass

Age[11]	
4.4% - Under 5 Years	4.8% - 5-9 Years
• 4% - Asian • 15% - Black • .10% - Native American • 0% - Native Hawaiian and Pacific Islander • 55% - White • 22% - Multiracial • 2.9% - Additional Race	• 5.05% - Asian • 11% - Black • .47% - Native American • 0% - Native Hawaiian and Pacific Islander • 60% - White • 19% - Multiracial • 4.5% - Additional Race
5.5% - 10-14 Years	5.2% - 15-19 Years
• 5.03% - Asian • 11.54% - Black • .41% - Native American • 0% - Native Hawaiian and Pacific Islander • 65% - White • 15% - Multiracial • 2.9% - Additional Race	• 6.35% - Asian • 10.4% - Black • .69% - Native American • 0% - Native Hawaiian and Pacific Islander • 66% - White • 15.3% - Multiracial • 17.2% - Additional Race
4.3% - 20-24 Years	4.7% - 25-29 Years
• 7% - Asian • 10.2% - Black • .21% - Native American • 0% - Native Hawaiian and Pacific Islander • 68% - White • 11.6% - Multiracial • 3.15% - Additional Race	• % - Asian • 11% - Black • .3% - Native American • 0% - Native Hawaiian and Pacific Islander • 72% - White • 7% - Multiracial • 2.3% - Additional Race
4.5% - 30-34 Years	6.2% - 35-39 Years
• 7.06% - Asian • 10.25% - Black • .3% - Native American • 0% - Native Hawaiian and Pacific Islander • 70% - White • 9% - Multiracial • 3.1% - Additional Race	• 6% - Asian • 11% - Black • .4% - Native American • 0% - Native Hawaiian and Pacific Islander • 73% - White • 7.1% - Multiracial • 3% - Additional Race
6.3% -40-44 Years	5.4% - 45-49 Years
• 5.6% - Asian • 9.4% - Black • .64% - Native American • 0% - Native Hawaiian and Pacific Islander • 78% - White • 4.6% - Multiracial • 1.7% - Additional Race	• 4.3% - Asian • 7.2% - Black • .33% - Native American • 0% - Native Hawaiian and Pacific Islander • 83% - White • 4.4% - Multiracial • .7% - Additional Race
6.3% - 50-54 Years	7.4% - 55-59 Years
• 3% - Asian	• 2.7% - Asian

[11] Esri

• 7% - Black • .6% - Native American • 0% - Native Hawaiian and Pacific Islander • 86% - White • 3% - Multiracial • .64% - Additional Race	• 5.3% - Black • .55% - Native American • 0% - Native Hawaiian and Pacific Islander • 81% - White • 2% - Multiracial • .73% - Additional Race
7.7% - 60-64 Years	7.2% - 65-69 Years
• 1.6% - Asian • 4.5% - Black • .64% - Native American • 0% - Native Hawaiian and Pacific Islander • 89% - White • 4.1% - Multiracial • .5% - Additional Race	• 2% - Asian • 5.7% - Black • .44% - Native American • 0% - Native Hawaiian and Pacific Islander • 87% - White • 4.3% - Multiracial • .56% - Additional Race
6.4% - 70-74 Years	5% - 75-79 Years
• 1.6% - Asian • 5.4% - Black • .3% - Native American • 0% - Native Hawaiian and Pacific Islander • 88% - White • 4% - Multiracial • 1% - Additional Race	• 4% - Asian • 3% - Black • 0% - Native American • 0% - Native Hawaiian and Pacific Islander • 90% - White • 3% - Multiracial • .62% - Additional Race
3.7% - 80-85 Years	5% - 85 Years and Older
• 2.6% - Asian • 2.3% - Black • 0% - Native American • 0% - Native Hawaiian and Pacific Islander • 93% - White • 2% - Multiracial • .37% - Additional Race	• 1% - Asian • 1.8% - Black • 0% - Native American • 0% - Native Hawaiian and Pacific Islander • 94% - White • 2.6% - Multiracial • .2% - Additional Race

Disability Status

Disability Status[12]
• 11.3% of Golden Valley population have a disability

Language

Languages Used[13]
• 89.1% - English Only • 10.9% - Language Other than English

[12] Minnesota Compass
[13] Minnesota Compass

APPENDIX G:
Departmental Equity Actions

Communications Department	
Action A: Establish and maintain Communication Translation and Interpreting Operations.	
Description:	Develop a translation determination matrix to provide responsive, effective, and timely services for submitted projects and initiatives. This effort will include a focus on relationship- and contract-building with external translation services and potential for City policy embedment.
Accountability:	Communications Director, Communications Specialist, and Graphic/Web Designer
Stakeholders:	Equity and Inclusion Manager, Community Engagement and Outreach Specialist, departmental directors, and project leads
Action B: Implement and maintain Accessible City Communication Standards	
Description:	Develop standards, training, resources, and tools for City implementation to improve accessibility across all City and departmental communication. This includes concerted effort and focus on plain language as well as brand and design accessibility to meet and exceed the needs present within the community.
Accountability:	Communications Director, Communication Specialist, and Graphic/Web Designer
Stakeholders:	Equity and Inclusion Manager, IT, departmental directors, and project leads

Community Development Department	
Action A: Participate in equitable code enforcement training and implement.	
Description:	Learn and apply continued and systemic equitable code enforcement across all operations. These efforts will include training, implementation tracking, and assessment via customer surveys to gain a more encompassing perspective of enforcement application and impact.
Accountability:	Community Development Director, Assistant Community Development Director, Housing and Economic Development Manager, City Engineer, City Attorney, City Manager, Deputy City Manager, Fire Chief, and Police Chief
Stakeholders:	PRISM, Golden Valley property owners, and communities of color
Action B: Assess and redesign departmental operations for reduction in barriers and disparities.	
Description:	Develop a framework of actions informed by and that addresses current barriers and disparities. This effort seeks to establish clear and transparent processes, community engagement, and project development.
Accountability:	Community Development Director, Assistant Community Development Director, Housing and Economic Development Manager, City Engineer, City Attorney, City Manager, and Deputy City Manager
Stakeholders:	PRISM, Rebuilding Together, Minnesota Department of Employment and Economic Development, Minneapolis Regional Chamber, Urban Land Institute, Minnesota Chapter of American Planning Association, Habitat

	for Humanity, Homes within Reach, developers, real estate brokers, property owners, and communities of color

Finance and Administrative Services Department	
Action A: Review, update, and implement purchase policy	
Description:	Review current purchase policy and make edits to reflect current operations related to making purchases. Updates will have a dedicated focus on building out processes to directly engage with Disadvantaged, Minority, Women, and Emerging Small Businesses (DMWESB) and note consideration of DMWESB vendors.
Accountability:	Finance Director, Accounting Manager/Supervisor, and Accountant
Stakeholders:	Equity and Inclusion Manager, City Attorney, Deputy City Manager, City Manager, and employees who authority for vendor selection
Action B: Analyze and assess vendor demographics	
Description:	Connect and audit existing City vendors via implemented survey to understand vendor diversity, specifically focused on understanding which vendors are considered DMWESB. This effort will also include a cross reference with current departmental vendor information to create a robust and current vendor catalogue.
Accountability:	Finance Director, Accounting Manager/Supervisor, Accountant, and Accounts Payable Technician
Stakeholders:	City vendors, employees who make purchases/City purchasers, Equity, and Inclusion Manager, and Communications Department

Fire Department	
Action A: Utilize and implement appropriate response approaches.	
Description:	Formalize internal and external partners to co-design and execute a strategy aimed at investing in a wider range of response options for community. This effort will have a specific focus on high-frequency user of 911 to provide more targeted approaches that are appropriate for the circumstances that are occurring.
Accountability:	Fire Chief and Assistant Fire Chief of Operations
Stakeholders:	Fire Department, Police Department, emergency medical services, and Care Resource Connection
Action B: Continue and build out recruitment and retention plan.	
Description:	Assess current efforts as well as reestablish and execute updates to recruitment and retention plans. This will have a focused effort on increasing number of fire fighters as well as continually diversifying to have a department reflective of the larger community and future community trends.
Accountability:	Fire Chief and Assistant Fire Chief of Training and Community Outreach
Stakeholders:	Fire Department, Human Resources Department, and Communications Department

Human Resources Department	
Actions A: Develop and implement Employee Impression Strategy.	
Description:	Build a strategy that examines and engages the life of an employee from recruitment to leave. This focuses on gathering and assessing data/information as well as setting goals related to recruitment, hiring, time throughout employment, and then exit from the City.
Accountability:	Human Resources Specialist, Equity and Inclusion Manager, Executive Leadership Team, and departmental leadership
Stakeholders:	HR Department, Administrative Services, Communications Department, and external partners
Action B: Develop and execute Workforce Equity Advancement Strategy.	
Description:	Build a strategy that examines and engages the advancement of employees through different means. This includes evaluation of job descriptions to embed equity competencies, establishing success planning for roles, and tracking promotional data/information.
Accountability:	HR Department, Executive Leadership Team, and departmental leadership
Stakeholders:	Equity Advancement Team and Administrative Services

Legal Department	
Action A: Expand number of elections judges via recruitment and retention approaches.	
Description:	Recruit a diverse pool of election judges inclusive of a wide range of ages, social identities, language abilities, and more.
Accountability:	City Clerk
Stakeholders:	City Manager Executive Assistant, election assistants, external voting organizations, and school staff
Action B: Establish and implement training, resources, and tools for equity in land use and zoning.	
Description:	Work in collaboration with Community Development Department, Minnesota Chapter of American Planning Association, and Just Deeds participants to create trainings and toolkits about equitable land use and zoning. These trainings and toolkits can be used to inform and advise city councils and relevant commissions.
Accountability:	City Attorney, Community Development Director, Assistant Community Development Director, and Housing and Economic Development Manager
Stakeholders:	City Council, Planning Commission, DEI Commission, and external housing equity organizations

Parks and Recreation Department
Action A: Formalize City recognition and celebrations via community participation efforts.

Description:	Create and execute culturally relevant and reflective recognitions and celebrations, with community participation as foundational.
Accountability:	Parks and Recreation director, Events Coordinator, and Recreation Supervisors
Stakeholders:	Equity Team, Parks and Recreation staff, and community organizations
Action B: Provide and participate in professional development that increases equity in action specific to Parks and Recreation operations.	
Description:	Directly engage with professional development opportunities that seek to increase equity in action at all levels of employment. This includes participating in the National Recreation and Parks Association Equity in Practice Certification as well as implementing anti-bias and anti-bystander training for all staff, specifically front line.
Accountability:	Parks and Recreation management
Stakeholders:	Parks and Recreation staff, City administration, and Golden Valley community members

Police Department	
Action A: Provide and participate in professional development focused on holistic development and impact in Police operations.	
Description:	Bring in training that focuses on comprehensive development of officers and staff to increase and further advance workplace culture, social engagement, and emotional intelligence. This professional development approaches the learning with dual goals of building and sustaining internal inclusive impact amongst employees and external inclusive impact with community.
Accountability:	Chief of Police, Assistant Chiefs of Police, command staff, and training sergeants
Stakeholders:	Staff of Police department, Minnesota Board of Peace Officer Standards and Training, and Fire Department
Action B: Strengthen, assess, and maintain community engagement efforts	
Description:	Continually enhance and grow community engagement approaches by using different tools and resources and ensuring they are reflective of community needs. Part of the action also includes assessing current and future approaches to understand what may need to be maintained, updated, or altered.
Accountability:	Chief of Police, Assistant Chiefs of Police, and Crime Analyst & Community Outreach Supervisor
Stakeholders:	Community Connection and Outreach Specialist and Communications Department

Public Works Department	
Action A: Sustain and expand recruitment and retention efforts.	
Description:	Continue and broaden outreach with schools, organizations, and employment programs to recruit and retain employees in the field of public works.

Accountability:	Public Works Director and Public Works Superintendent
Stakeholders:	Human Resource Generalist, BrookLynk, high school, four- and two-year colleges or universities, and community organizations
Action B: Expand opportunities and reduce barriers for vendors and contractors.	
Description:	Targeted efforts
Accountability:	Public Works Director and Public Works Superintendents
Stakeholders:	Finance Department, vendors, contractors, community organizations, Minnesota Department of Administration State Procurement Office, and Hennepin County

EXECUTIVE SUMMARY

Human Resources

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

3F. Adopt Resolution No. 24-030 Approving Amendment to Compensation and Classification Tables

Prepared By

Melissa Croft, Executive Assistant

Summary

To exemplify transparency with the community, each year the City Council reviews and adopts the City's compensation grid and classification table. To ensure consistency within its compensation and classification structure, the City continues to engage its consultant David Drown and Associates (DDA) to review current positions to ensure they remain in line with current market averages.

In preparation for its full time City Manager search, the City worked with DDA to ensure the position salary was competitive with the market. The City also updated some other positions to ensure appropriate departmental delineation of roles and responsibilities, thereby increasing operational effectiveness. The position changes include: Senior Planner (formerly Planner) Grade 10 to Grade 11; Associate Planner (formerly Planning Assistant) Grade 5 to Grade 9; and Permit Technician Grade 7 (formerly Grade 6).

Financial or Budget Considerations

These compensation grid adjustments are absorbed within the approved 2024 budget.

Legal Considerations

The City contracts with DDA to grade all of the positions and ensure compliance with applicable Minnesota Local Government Pay Equity laws.

Equity Considerations

One of the City's equity pillars is providing economic opportunities for all, which includes employment opportunities, and paying fair and equitable wages. By contracting with DDA the City maintains a consistent practice of grading positions and market considerations. The City will continue evaluating its compensation grid and pay practices for equity considerations.

Recommended Action

Motion to adopt Resolution No. 24-030 approving amendment to compensation and classification tables.

Supporting Documents

- Resolution No. 24-030 Compensation Study and Classification Grid Amendment

RESOLUTION NO. 24-030

RESOLUTION APPROVING IMPLEMENTATION
OF 2020 COMPENSATION STUDY AND
ESTABLISHING COMPENSATION GRID
AND CLASSIFICATION TABLE

WHEREAS, in 2020, the City conducted a full compensation and classification study (the "Study") to ensure the City is paying competitive and fair wages to its employees; and

WHEREAS, on December 15, 2020 the City Council approved implementation of the Study; and adopted the compensation grid for the City:

WHEREAS, on December 15, 2020 the City also adopted a Classification Table that assigned a grade to each position within the City; and

WHEREAS, positions are routinely reviewed and reclassified according to position responsibilities; and the Council approved changes to the classification table by Resolution 21-13 on March 16, 2021; and by Resolution 21-38 on May 18, 2021; and by Resolution 21-114 on December 21, 2021, and by Resolution 22-048 on May 3, 2022, and by Resolution 22-120 on December 20, 2022; and by Resolution 23-007 on February 7, 2023, and by Resolution 23-017 on April 4, 2023; and by Resolution 23-062 on July 5, 2023; and by Resolution 23-108 on December 19, 2023; and by Resolution 24-021 on March 6, 2024; and

WHEREAS, in alignment with the City's values of communication and accountability, it is the City's practice for the City Council to review and adopt the Compensation Grid and Classification Table annually; and

WHEREAS, the City Council supports the health and wellness of City employees and their families through qualified flexible health benefit plans; and

WHEREAS, the City provides a cafeteria plan that allows employees to design their own benefit packages by purchasing benefits with a pre-specified amount of employer dollars; and

WHEREAS, the effective date and eligibility of City's health insurance and contribution is established by the Employee Handbook; and

WHEREAS, the amount of the employers' monthly contribution is established annually by the City Council.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Golden Valley, Minnesota, that:

1. The City hereby adopts the 2024 monthly health benefit contribution as $1,652.10.
2. The City hereby adopts the following 2024 Full-Time & Part-Time Regular Compensation Grid effective January 1, 2024:

Grade	Compensation Grid						
		4.90%	4.90%	4.90%	4.90%	4.90%	4.90%
	1	2	3	4	5	6	7
1	$20.40	$21.40	$22.45	$23.55	$24.71	$25.92	$27.18

2	$21.62	$22.68	$23.80	$24.96	$26.18	$27.47	$28.80
3	$22.92	$24.04	$25.22	$26.45	$27.74	$29.11	$30.53
4	$24.29	$25.48	$26.73	$28.04	$29.42	$30.85	$32.37
5	$25.99	$27.27	$28.60	$30.01	$31.48	$33.02	$34.63
6	$27.81	$29.17	$30.61	$32.10	$33.67	$35.33	$37.06
7	$29.20	$30.63	$32.12	$33.70	$35.36	$37.09	$38.91
8	$30.36	$31.86	$33.42	$35.05	$36.77	$38.57	$40.46
9	$31.59	$33.14	$34.77	$36.46	$38.26	$40.12	$42.09
10	$33.16	$34.79	$36.49	$38.28	$40.16	$42.13	$44.19
11	$37.48	$39.32	$41.25	$43.26	$45.39	$47.61	$49.94
12	$39.72	$41.67	$43.71	$45.85	$48.10	$50.46	$52.93
13	$41.71	$43.75	$45.89	$48.14	$50.51	$52.98	$55.58
14	$43.38	$45.50	$47.74	$50.07	$52.53	$55.10	$57.81
15	$45.54	$47.77	$50.12	$52.58	$55.15	$57.85	$60.69
16	$48.28	$50.65	$53.12	$55.73	$58.46	$61.32	$64.55
17	$51.19	$53.69	$56.32	$59.08	$61.98	$65.01	$68.19
18	$55.78	$58.52	$61.38	$64.40	$67.55	$70.86	$74.33
19	$58.57	$61.44	$64.45	$67.61	$70.92	$74.40	$78.04
20	$61.50	$64.51	$67.67	$70.98	$74.46	$78.11	$81.94
21	$64.58	$67.75	$71.06	$74.55	$78.20	$82.03	$86.04
22	$68.45	$71.80	$75.32	$79.02	$82.89	$86.94	$91.21
23	$83.43	$87.09	$90.75	$94.41	$98.07	$101.73	$105.39

3. The City hereby adopts the following updated Full-Time & Part-Time Regular Classification Table:

Grade	Positions
1	
2	Guest Services Specialist
3	Administrative Assistant – Fire Department Brookview Events Coordinator Community Service Officer Police Department Office Assistant Recreation Coordinator
4	Administrative Assistant – Inspections Administrative Assistant – Parks And Recreation Engineering Assistant Inspections & Development Assistant Lead Community Service Officer Lead Cook Turf Maintenance Assistant

5	Accounting Technician Assessments/Accounts Payable Technician Motor Vehicle License Clerk Police Department Assistant Public Works Assistant
6	Deputy City Clerk (Temporary) Executive Assistant - City Manager's Office Facilities Maintenance Specialist Management Analyst/Executive Assistant Utility Billing Specialist
7	Golf Operations Coordinator Maintenance Worker/Mechanic Park Maintenance Worker Permit Technician Restaurant & Catering Coordinator Street Maintenance Worker Sustainability Specialist Turf Equip Technician /Mechanic Utilities Maintenance Worker Web/Graphic Designer
8	Communications Specialist Community Connections and Outreach Specialist Executive Chef Information Technology Technician Public Works Inspector Utilities Specialist Vehicle Maintenance Worker/Mechanic
9	Associate Planner City Forester Engineering Technician II Investigator - Non-Sworn Park Maintenance Field Supervisor Street Maintenance Field Supervisor Utilities Maintenance Field Supervisor Vehicle Maintenance Field Supervisor Water Distribution Specialist
10	Assistant Golf Operations Manager Engineering Technician III Fire Inspector I GIS Specialist Payroll and Benefits Specialist Police Support Services Supervisor Water and Natural Resources Specialist

11	Building Inspector Crime Analyst Supervisor Deputy Registrar Supervisor Fire Inspector II Greens & Turf Specialist Human Resources Generalist Information Technology Specialist Patrol Officer Police Department Recruiter (Temporary) Recreation & Facilities Supervisor Recreation Supervisor Senior Planner
12	Accountant Deputy Fire Marshal Golf Maintenance Supervisor Restaurant & Catering Manager
13	City Clerk Equity and Inclusion Manager
14	Assistant City Engineer Environmental Resources Supervisor Golf Operations Manager Park Superintendent Street And Vehicle Maintenance Superintendent Utilities Superintendent
15	Accounting Manager Assistant Fire Chief Building Official Sergeant
16	Housing and Economic Development Manager Information Technology Manager
17	Assistant Community Development Director Police Lieutenant
18	City Engineer Communications Director Assistant Police Chief
19	Community Development Director Finance Director Fire Chief Parks & Recreation Director Public Works Director
20	
21	City Attorney Deputy City Manager/Human Resources Director Police Chief
22	
23	City Manager

4. The City hereby adopts the following 2024 Seasonal, Variable Hour, Temporary and Intern Positions Compensation Grid, effective March 1, 2024:

Steps	1	2	3	4	5	6	7
Grade							
1	$12.17	$12.79	$13.40				
2	$13.01	$13.68	$14.33	$15.01	$15.66	$16.32	$16.79
3	$13.56	$14.24	$14.92	$15.64	$16.32	$17.01	$17.47
4	$14.04	$14.88	$15.62	$16.33	$17.07	$17.79	$18.26
5	$14.29	$15.43	$16.18	$16.94	$17.70	$18.52	$19.01
6	$15.55	$16.00	$17.27	$17.85	$18.61	$19.54	$20.02
7	$18.25	$19.10	$19.84	$20.56	$21.38	$22.15	$22.64

5. The City hereby adopts the following 2024 Seasonal, Variable Hour, Temporary and Intern Positions Classification Table:

Grade	Position
1	Starter/Ranger Warming House
2	316 Restaurant Positions: • Bartender • Server • Dishwasher/Bar-Back Election Judge (Step 6) Indoor Playground Attendant Park & Reaction Seasonal Athletics: • Playground Leader • Field Attendant • Sports Instructor Golf Operations: • Beverage Cart Attendant • Par 3 Cashier • Range Supervisor
3	Election Captain (Step 6) Pro Shop Cashier
4	Community Center Attendant Golf Maintenance Operator Parks and Recreation Program Specialist
5	Golf Office Assistant Pathways Intern
6	Community Health Worker Intern Curling Assistant Golf Maintenance Technician Lawn Bowling Assistant Lead Pro Shop Cashier Park and Recreation Intern Seasonal Public Works Worker
7	Assistant Senior Program Coordinator Banquet and Restaurant Staff Coordinator

	Cook Community Development Intern Elections Assistant Engineering Intern GIS Intern Golf Staff Coordinator Guest Services Lead Human Resources Assistant Water Resources Intern Collegiate Intern

6. The City hereby adopts the following paid on-call firefighter compensation, effective January 1, 2024:

Battalion Chief	$26.10	Per Hour
Captain	$24.18	Per Hour
Lieutenant	$22.43	Per Hour
Firefighter	$19.48	Per Hour
Firefighter-Apprentice	$16.55	Per Hour
Firefighter in Training	$13.31	Per Hour

7. The Council shall approve all classification changes that increase the budget. Changes to job title and other modifications that do not increase the budget shall not require Council approval. The most current Job Classification Grid shall be kept on file with the Human Resources Department.

Adopted by the City Council of Golden Valley, Minnesota this 7th day of May, 2024.

_____
Roslyn Harmon, Mayor

ATTEST:

_____
Theresa Schyma, City Clerk

EXECUTIVE SUMMARY

Community Development

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

3G. Approve Extension of Minor Consolidation Plat for Niewald Lyons Addition

Prepared By

Darren Groth, Assistant Community Development Director

Summary

On October 6, 2022, City Council held a public hearing to consider the preliminary plat for a minor consolidation at 4501 Merribee Drive. City Council approved the preliminary plat. On August 15, 2023, City Council adopted Resolution 23-070 for the Approval of Plat for Niewald Lyons Addition. With the transition of staff in the Community Development Department, the property owner's extension request was delayed; however, this agenda item is intended to allow a 90-day extension of time for the property owner to file the approved plat.

Legal Considerations

Per City Code Section Sec. 109-122(d), a certified copy of the resolution approving the final plat, together with one copy of the final plat, shall be recorded with the County. The filing of the plat must be done by the applicant within 60 days of the approval of the resolution. The other hard copy shall be filed with the City. Proof of filing of the final plat shall be submitted to the City prior to issuance of any building permits on the properties. While the plat was not filed within 60 days, the applicant informed City staff that she asked for more time to resolve various issues. The property owner also indicated that they intend to file the plat in early May.

Equity Considerations

Equity review was not needed as this item falls under the general course of business for the Planning Division.

Recommended Action

Motion to approve a 90-day extension Minor Consolidation Plat for Niewald Lyons Addition.

Majority vote needed.

Supporting Documents

- 23-070 (08-15) Approval of Plat - Niewald Lyons Addition.pdf

DocuSign Envelope ID: B30BCD49-C3E0-460D-BD1F-3B591553C0C0

RESOLUTION NO. 23-070

RESOLUTION FOR APPROVAL OF PLAT
NIEWALD LYONS ADDITION

WHEREAS, the City Council for the City of Golden Valley, pursuant to due notice, has heretofore conducted a public hearing on the proposed plat to be known as NIEWALD LYONS ADDITION covering the following described tracts of land:

Lot 1, Block 1, NIEWALD LYONS ADDITION, Hennepin County, Minnesota

WHEREAS, all persons present were given the opportunity to be heard.

NOW, THEREFORE, BE IT RESOLVED, by the City Council for the City of Golden Valley, that said proposed plat be, and the same hereby is, accepted and approved, and the proper officers of the City are hereby authorized and instructed to sign the original of said plat and to do all other things necessary and proper in the premises.

Adopted by the City Council this 15th day of August, 2023.

DocuSigned by:
Shepard M. Harris
B107F40B94604A8...
Shepard M. Harris, Mayor

ATTEST:

DocuSigned by:
Theresa Schyma
C2F66C0073F34DD...
Theresa Schyma, City Clerk

EXECUTIVE SUMMARY

Community Development

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

3H. Approve Extension of Board of Zoning Appeals (BZA) Variance Granted for 4501 Merribee Drive

Prepared By

Darren Groth, Assistant Community Development Director

Summary

On September 27, 2022, BZA approved a variance to allow an accessory structure to be located closer to the front setback than the principal structure and approved a variance of 33 feet off of the required 35 feet to a distance of 2 feet for an accessory structure from the front property line with the listed condition. With the transition of staff in the Community Development Department, the property owner's extension request was delayed; however, this agenda item is intended to allow a 90-day extension to the one-year lapse in the granted variances.

Financial or Budget Considerations

None

Legal Considerations

Per City Code Section 113-27(d)(5), in the cases where the effect of the decision of the Board of Zoning Appeals is to grant a variance, the permission or license to perform the action authorized thereby shall lapse one year after the order granting the variance.

Equity Considerations

Equity review was not needed as this item falls under the general course of business for the Planning Division.

Recommended Action

Motion to approve a 90-day extension of BZA variance granted for 4501 Merribee Drive.

Majority Vote needed.

Supporting Documents

- BZA Minutes - September 27, 2022

7800 Golden Valley Road | Golden Valley, MN 55427
763-593-3992 | TTY 763-593-3968 | 763-593-8109 (fax) | www.goldenvalleymn.gov

Board of Zoning Appeals

September 27, 2022 – 7 pm

REGULAR MEETING MINUTES

This meeting was conducted in a hybrid format with in-person and remote options for attending, participating, and commenting. The City used Webex to conduct this meeting and members of the public were able to monitor the meeting and provide comment by calling in.

Call to Order
The meeting was called to order at 7 pm and the land acknowledgement was read by **Chair Carlson**.

Roll Call

Members present:	Kade Arms-Regenold, Chris Carlson, Richard Orenstein, Ellen Brenna – Planning Commissioner
Members absent:	Nancy Nelson
Staff present:	Jason Zimmerman – Planning Manager, Myles Campbell – Planner

Approval of Agenda
MOTION made by **Orenstein**, seconded by **Carlson** to approve the agenda of September 27, 2022, as submitted.
Motion carried

Approval of Minutes
MOTION made by **Carlson**, seconded by **Commissioner Brenna** to approve the August 23, 2022 meeting minutes.
Motion carried

1. **Address: 4501 Merribee Dr**
   Applicant: Nancy Lyons
   Request: To locate a shed in a front yard – closer than the principal structure and 33 feet off of the required 35 feet to a distance of 2 feet from a front property line.

   Jason Zimmerman, Planning Manager, reviewed the request, showed members its location in the city, and elaborated on its corner location. Staff explained the lot's current size and explained there's a proposal going before City Council in October for an adjacent vacated ROW to be added to the property.
   Zimmerman went on to review the property, the request, and how the ROW vacation and lot consolidation would address the concrete slab crossing the current property line. The proposal is to locate the new shed in the "front yard" closer than the principal structure and within the 35ft setback. This portion of the yard acts as a side yard but due to zoning codes on corner lots, it's classified as having two front yards.

This document is available in alternate formats upon a 72-hour request. Please call 763-593-8006 (TTY: 763-593-3968) to make a request. Examples of alternate formats may include large print, electronic, Braille, audiocassette, etc.

Practical Difficulties

- As proposed, the shed would be positioned in an area that both functions as a side yard and is predominately screened from view by the existing fence. The intended size is not excessive and it is a complementary use commonly found on single-family lots. **Staff believes the proposed use is reasonable.**
- In light of the desire to construct a shed to hold bicycles, yard equipment, and other items, the applicant notes that due to the topography of the lot there are few places where a shed could be located while still practically fulfilling that purpose. The conforming portion of the lot is far removed from the active areas. The dramatic changes in grade as well as the reduced depth of the yard facing Lee Ave **are unique circumstances that are not caused by the landowner.**
- The proposed location for the shed is in an area that is shielded from view from the public right-of-way by a fence. The portion of the property facing Lee Ave functions as a side yard, and the current placement of the home is nonconforming in that it sits roughly 12 feet from the (front) property line. While the introduction of the proposed shed would be a change to the lot, it would be minor and **staff believes granting the variance would not alter the essential character.**

Other Considerations

Staff assesses whether the request represents the smallest feasible variance or if there are other options available:

- Given the nature of the site as a corner lot, the only conforming alterative for the placement of a shed would be at the bottom of the hill in the rear yard. While this would avoid the need for a variance, its location would be ill-served for the intended purpose of providing storage for bicycles and other equipment typically associated with the garage (at the top of the hill). Alternatively, no shed could be constructed and all items would need to fit within the garage.

Recommendations

Staff recommends **approval** of the variance to allow an accessory structure to be located closer to the front setback than the principal structure.

Staff recommends **approval** for the variance of 33 feet off of the required 35 feet to a distance of 2 feet for an accessory structure from the front property line.

Further, staff recommends including the following condition:

1. The approvals shall be contingent on the final approval by the City Council and the recording of a plat that combines the existing lot with the vacated right-of-way along Lee Avenue.

Staff and Board members reviewed the elevation on the lot, the vacated section details, the fence height,

Chair Carlson invited the applicant to speak.
Nancy Lyons, Applicant, thanked staff for their presentation and said they were available for questions but didn't have any details to add. Applicant added they love their house and want to maintain the integrity of the home within the neighborhood.

Chair Carlson opened the open forum at 7:15pm.

Lauren Akin
2441 Lee Ave
I live the closest to the shed location and can see its location. I have a lot of confidence the shed will only add value and I'm not opposed in any way.

Mathews
2420 Lee Ave
I have no objection and support both variances.

Staff received an email comment:
Judith Krause
4508 Meribee
I'm in support of the proposal and project.

There were no remote commenters.
Chair Carlson closed the open forum at 7:17pm.

Chair Carlson opened the Board Discussion.

Member Orenstein noted his agreement with staff analysis and all the requirements are met. **Chair Carlson** echoed this statement. **Commissioner Brenna** added neighbor support of the project adds to it's approval.

A **MOTION** was made by **Commissioner Brenna** and seconded by **Member Orenstein** to **approve** the variance to allow an accessory structure to be located closer to the front setback than the principal structure
AND to **approve** the variance of 33 feet off of the required 35 feet to a distance of 2 feet for an accessory structure from the front property line with the listed condition.
Motion carried.

2. **Address: 309 Edgewood**
   Applicant: Roger Friedell
   Request: To allow an increase in average grade over the existing elevation by 2.5 feet, 1.5 feet over what is allowed by right.

Myles Campbell, Planner started be showing the location in the City and provided a background of the zoning, the property, topography, and the stormwater concerns at the front of the lot. The applicant would like to teardown the current home and repair the grading to the home. Raising the grade at the front elevation triggers the zoning variance request, as the average is increasing from 910.5 elevation to 913 average elevation. Staff represented the contours to illustrate the specific elevations discussed.
Staff collaborated with Engineering and Environmental staff and noted their recommendation is to approve a variance relating to average grade but a half foot less than the requested amount.

Practical Difficulties

- The increase in grade is correcting an existing site issue that should be corrected given the opportunity provided by the new build, **overall staff finds this request reasonable.**
- While all lots often have flat or sloped areas in their topography to be worked around, few in the city have this issue of being at level with their associated street, which many issues in regards to directing storm water flows. **Staff believes the site exhibits unique circumstances.**
- While the new house will be slightly higher than what is existing in terms of finished floor elevation, it will not have a second story above the main floor and this variance would not be a major contributing factor in the change in the lot's appearance with the new home. **Staff believes that the requested variances will not alter the essential character of the neighborhood and city**.

Other Considerations

Staff assesses whether the request represents the smallest feasible variance or if there are other options available:

- As Engineering staff noted in their review, a lesser variance for increase in average grade could allow for the applicant to correct the front grading issue without running into issues with driveway slope or without dropping the walkout level to the same elevation as the floodplain to the southwest.

Recommendation

- Staff recommends **denial** of a variance to allow an increase in average grade over the existing elevation by 2.5 feet, 1.5 feet over what is allowed by right.
- Staff recommends **approval** of a variance to allow an increase in average grade over the existing elevation by 2 feet, 1 foot over what is allowed by right.

Staff and members reviewed the request as a whole and the potential new home plans.

Chair Carlson invited the applicant to speak.
The applicants weren't present.

Chair Carlson opened the open forum at 7:35pm.
There were no in person commenters.

There were no callers.
Chair Carlson closed the open forum at 7:37pm.

Chair Carlson opened the Board Discussion.

Orenstein stated the request seemed reasonable and the grade change is to help the flow. **Carlson** added as a homeowner, he would listen to the advisement of the engineering staff and thinks the staff recommendation and condition is sound.

A **MOTION** was made by **Orenstein** and seconded by **Carlson** to **deny** the variance to allow an increase in average grade over the existing elevation by 2.5 feet, 1.5 feet over what is allowed by right.
Motion carried.

A **MOTION** was made by **Orenstein** and seconded by **Commissioner Brenna** to **approve** a variance recommended by staff and allow an increase in average grade over the existing elevation by 2 feet, 1 foot over what is allowed by right.
Motion carried

3. **Address: 6601 Plymouth Ave**
Applicant: Paul Patton and Barbara Pierson
Request: To construct a three-season porch within the shoreland setback – 13 feet off of the required 50 feet to a distance of 37 feet from the ordinary high-water line.

Jason Zimmerman, Planning Manager, started the presentation by giving the Board a background on the home and lot as well as it's location in the City. The rear of the property backs up to Bassett Creek and a rear deck was constructed in 1999. Staff pointed out that at the time, the interpretation of the Shoreland setback did not require a variance for the deck (though with today's interpretation it is shown to be approximately 12 feet inside the required 50 feet setback).
Staff noted the applicant's details to the proposal:

- The porch would be limited to 18 feet wide by 12 feet deep
- It would extend into the shoreland setback by no more than 13 feet
- It would be elevated with only supporting posts intruding at the ground level
- A modified stairway would also be within the setback, but by no more than the amount caused by the new porch
- The porch would not extend into the side setback
- 110 square feet of patio paving could be removed and replaced with a permeable, planted area

Practical Difficulties

- The use of a three-season porch, especially in a rear yard, is reasonable and typically would not trigger the kind of scrutiny generated by this application. If not for the proximity to Bassett

Creek, staff would have no issue approving the use. **Staff believes the proposed use is reasonable.**

- While adjacency to Bassett Creek is a limiting factor in seeking approval for the proposed three-season porch, hundreds of other properties across the city face similar regulations and are generally able to remodel or redevelop in ways that do not require a variance. Staff has offered a compromise that takes advantage of the portion of the rear yard most accommodating of a conversion of the nonconforming deck, but does not believe additional expansion is warranted. Given this option and the preferences of the applicants, **staff does not find that unique circumstances are the cause of the landowner's problem.**
- The targeted requirements of the shoreland setback are designed primarily to limit the intrusion of structures or other uses that may detract from the experience of using the protected waters (in this case, Bassett Creek). The addition of an elevated three-season porch visible from the creek would contradict these efforts. **Therefore, due to the sensitive nature of the Shoreland Overlay District and the importance placed on maintaining the "natural character" of the protected waters, staff believes granting the variance would alter the essential character.**

Other Considerations

Staff assesses whether the request represents the smallest feasible variance or if there are other options available:

- As discussed above, staff believes a three-season porch constructed in place of the existing deck would provide the enclosed experience desired by the applicants while still respecting the intent of the shoreland setback, though the layout or size may not be the preferred scenario.

Recommendation

Based on the factors above, staff recommends **denial** of the variance request for 13 feet off of the required 50 feet to a distance of 37 feet to allow the construction of a three-season porch.

Staff and members reviewed the plan, DNR oversight of the creek, the original variance in 1999, current landscaping, and the expansion of height versus out towards the creek.

Chair Carlson invited the applicant to speak.

Paul Patton, Applicant, thanked staff for their help and guidance through the variance process. Applicant added that he cares a lot about the ecology of the Creek and has created educational programs and live streams about local birds and wildlife.

The applicant added that his property is hemmed in on all four sides by modern setbacks and considers that to equal a unique situation. The applicant's opinion is that staff's suggestion to place the new screened in porch over the deck is worse as it converts the current permeable area into runoff. He provided reasons why the proposal is not impacting the sightlines, or negatively impacting the character of the neighborhood, while adding the intrusion of deck posts is not in the floodplain. The applicant pointed out that staff alternatives would leave a porch either off the bathroom or require a walkway from the house to the screened in porch. Neither of these options match the

character of the home nor do they create a welcoming living space that they desire. The applicant stated a number of neighbors offered to attend and voice support, however he told them that was not necessary.

Chair Carlson opened the open forum at 8:11pm.
There were no in person commenters.
No remote commenters.
Chair Carlson closed the open forum at 8:41pm.

Member Orenstein looked at the requirements for approving a variance, the request use is reasonable, the impacts to the neighborhood could go either way, and points out the circumstances surrounding the request are caused by the homeowner. The circumstance is not unique and therefore approval fails 1/3. **Orenstein** added the homeowner seems environmentally conscious and can understand the desire for a 3-season porch but the group is bound by legalities of the three requirements. **Chair Carlson** added he's struggling with the shoreland district standards regarding the impacts to the character of the area because the area is a suburban neighborhood. **Commissioner Brenna** noted that the City may not have historically done the best job to protect water resources, that doesn't negate the need to protect them now and in the future. While this is a tough decision, she sides with the importance of the shoreland overlay. **Member Arms-Regenold** pointed out the complexity of the shoreland overlay changing, that the home and deck were built in compliance to the standards of that time. He added that the unique circumstance may not be the homeowner's doing as you'd have to hold them responsible for a house location they inherited when purchasing the home.
Staff responded that when the deck was constructed it was intended to be out of the overlay and staff recognizes that the current homeowner shouldn't be penalized for a past event. Thus, the compromise of the deck technically being in the overlay, but staff agreeing to an expansion without adding width. Even though there are structures in the overlay currently, that doesn't mean the City needs to continue to impact the overlay and setback.

A **MOTION** was made by **Orenstein** and seconded by **Carlson** to **deny** of the variance request for 13 feet off of the required 50 feet to a distance of 37 feet to allow the construction of a three-season porch. Denial based on all three requirements not being met, the circumstances are caused by the landowner.
Motion carried.

4. **Address: 610 Ottawa Ave N**
   Applicant: Lori Bosclair
   Request: To build a deck off an existing office building, 17 feet off the required 35 feet from the west property line, and 4.5 feet off the required 20 feet from the north property line.

Myles Campbell, Planner, started the presentation by laying out the two variances the applicant is requesting, the goal is to create an outdoor meeting area for the business. He continued by going into detail on the lot, its zoning, access points, and parking.

Practical Difficulties

- A space for employees to gather outdoors associated with a principal office use is not wholly out of place. And while the deck could be reduced in size, **overall staff finds this request reasonable.**
- **Staff does not believe the site exhibits unique circumstances.** It is of a relatively standard size and shape, and is not impeded by floodplains or wetlands. The only physical design challenge not created by the applicant might be the north-sloping topography to the front of the lot. Rather than avoiding this area however, the proposed deck plans show the deck is located in this area, and can be constructed despite the topography.
- The deck would be visible from Ottawa Ave N and would be closer to that street than either of the other buildings along the east side of Ottawa. That said, given the few properties along the street to compare to, staff isn't concerned about the impact on streetscape. An existing mature tree to the front of the building would hopefully be preserved along with the deck project although this point is not addressed by the applicant. **Staff believes that the requested variances will not alter the essential character of the neighborhood and city.**

Other Considerations

- The deck as shown is quite large, being just over 470 sq. ft. and seating 21. Reducing the size of the deck could reduce the front setback request or potentially eliminate the needed side setback request.
- Just south of the building, in between it and the parking lot is a gravel area which could be used to create a patio area for employees to use without needing a variance.

Recommendation

Staff recommends **denial** of a variance of 17 feet off the required 35 feet to a distance of 18 from the west property line.
Staff recommends **denial** of a variance of 4.5 feet off the required 20 feet to a distance of 15.5 feet from the north property line.

Members and staff discussed greenspace, setbacks, potential impacts to character, the building's proximity to the sidewalk, and a potential variance for a patio alternative and the need for regrading.

Chair Carlson invited the applicant to speak.
Lori Bosclair, Applicant, mentioned that the gravel area staff referred to as an alternative location is a holding space for runoff water and has sump pumps installed there to pump water out. Prior to the applicant's ownership of the building, that area had water and mold issues, that area was created for remediation. She added the unique circumstances aren't due to the topography but rather the use of the building; this building is a corporate headquarters. The applicant went on to discuss employee safety and proper circulation with Covid concerns.

Chair Carlson opened the open forum at 8:44pm.
There were no in person commenters.

No remote commenters.
Chair Carlson closed the open forum at 8:46pm.

Orenstein commented that he's struggling to understand the applicant's definition of unique circumstances as it's not the building's fault that it's the size it is. **Chair Carlson** added that in the past there has been some leniency with setbacks but this request extends beyond that reasonable amount. **Orenstein** added he believes it changes the characteristic of the area, **Arms-Regenold** echoed that and added this request is the biggest percentage of setback variance the group has ever approved. **Chair Carlson** asked the applicant if there were other options and they responded they're amenable to re-submitting a more setback conducive plan. **Chair Carlson** suggested tabling the request to the following meeting and reviewing a new plan. Staff requested the Board offer guidance to the applicant for the next meeting. They discussed layout size changes, reduction in setback variance, and building footprint.

A **MOTION** was made by **Carlson** and seconded by **Arms-Regenold** to **table** the variance request of a variance of 17 feet off the required 35 feet to a distance of 18 from the west property line and the request of a variance of 4.5 feet off the required 20 feet to a distance of 15.5 feet from the north property line to the following meeting in October 2022.
Motion carried.

Council Member Rosenquist was present and mentioned the following day will be a ribbon cutting for the Franklin Center, formally known as the Academy of Whole Learning. **Rosenquist** added HRA approved a levy for $241,000 and City Council approved a 11.3% tax levy 4-1.

5. Adjournment

MOTION made by **Orenstein,** seconded by **Carlson** and the motion carried unanimously to adjourn the meeting at 8:59 pm.
Motion carried.

Chris Carlson, Chair

Amie Kolesar, Planning Assistant

EXECUTIVE SUMMARY

Community Development

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

4A. Public Hearing and Consideration of Ordinance No. 780 Approving a Zoning Ordinance Text Amendment for Sacred Communities and Resolution No. 24-031 Authorizing Summary Publication of the Ordinance

Prepared By

Kendra Lindahl, Planning Consultant
Darren Groth, Assistant Community Development Director
Alma Flores, Community Development Director

Summary

In the 2023 session, the Minnesota Legislature adopted its Omnibus Labor Policy Bills in both the House and Senate. Within these omnibus bills were sections on the topic of "Sacred Communities" requiring them to be allowed in all municipalities. These Sacred Communities would be primarily comprised of residential "Micro-Units," which could be located on property owned and used by places of worship and other religious institutions. The majority of regulations and requirements for Sacred Communities are outlined in state statute, such as being less than 400 square feet, anchored in place, insulated, providing traditional or low voltage electricity, and utilizing smoke and carbon monoxide alarms, among others. Golden Valley, along with other communities, must update its zoning code text to reflect these new requirements.

City planning staff presented this topic to the Planning Commission at the September 11, 2023, October 9, 2023 and November 13, 2023 meetings. An informal public hearing was held at the March 25, 2024 Planning Commission meeting and the Commission voted to recommend approval of the draft ordinance with the addition of a condition requiring that city staff hold a community meeting once the applicant has submitted the plan. Staff continues to recommend approval of the ordinance as drafted.

This item was discussed at the April 10th City Council Work Session. Council expressed concerns about the limiting effect of the State Statute and asked for a summary of the issue to be included in this packet.

Financial or Budget Considerations

N/A

Legal Considerations

The ordinance has been reviewed by legal and those comments were incorporated into the draft

ordinance.

Equity Considerations
The ordinance was submitted to equity for review and those comments were incorporated into the draft ordinance. The draft ordinance addresses equity pillars 2, 3 and 4.

Recommended Action
1. Motion to approve Ordinance No. 780 approving Zoning Text Amendment for Sacred Communities.
2. Motion to approve Resolution No. 24-031 authorizing summary publication of Ordinance No. 780.

Motion 1 (approving the ordinance) requires a simple majority vote. Motion 2 (approving publication) requires approval from 4/5 of the body to pass.

Supporting Documents
- Ordinance No. 780 - Zoning Text Amendment - Sacred Communities
- Resolution No. 24-031 - Approving Summary Publication
- 2024-03-25 Planning Commission Staff Report - Zoning Text Amendment for Sacred Communities
- Planning Commission - Meeting Minutes - 03-25-2024

ORDINANCE NO. 780

AN ORDINANCE AMENDING THE CITY CODE Amending Chapter 113 - Zoning in Order to Allow Sacred Communities and Living Quarters Accessory to Religious Institutions in Certain Zoning Districts

The City Council for the City of Golden Valley hereby ordains as follows:

Section 1. City Code Section 113--1 is amended to read as follows:

Sacred Community: A residential settlement established on or contiguous to the grounds of a religious institution's primary worship location primarily for the purpose of providing permanent housing for chronically homeless persons, extremely low-income persons, and designated volunteers that meets the requirements of Minn. Stat. § 327.30.

Section 2. City Code Section 113-93 is amended to read as follows, with all subsequent sections renumbered accordingly:

(d) *Accessory Uses.* The following accessory uses shall be permitted in the Light Industrial Zoning District:

(1) Essential services, Class II.

(2) Sacred Communities, accessory to a religious institution's primary worship location and consistent with the requirements of Minn. Stat. § 327.30.

Section 3. City Code Section 113-94 is amended to read as follows, with all subsequent sections renumbered accordingly:

(e) Accessory Uses. The following uses shall be permitted in the Assembly Subdistrict:

(1) Living quarters associated with a place of worship, subject to the following:

a. Living quarters shall be on the same property as the place of worship.

b. The persons residing in the living quarters must be clergy, religious leaders, employees or otherwise similarly associated with the place of worship.

c. The living quarters must comply with the development standards in the R-1 zoning district (Section 113-88(e)).

d. The living quarters shall not be taller or larger than the principal structure.

e. The living quarters shall not count toward the one accessory structure allowed on each lot.

(2) Sacred Communities, accessory to a religious institution's primary worship location and consistent with the requirements of Minn. Stat. § 327.30.

Section 4. City Code Section 113-96 is amended to read as follows, with all subsequent sections renumbered accordingly:

(f) Accessory Uses. The following uses shall be permitted in the Assembly Subdistrict:

(3) Living quarters associated with a place of worship, subject to the following:

a. Living quarters shall be on the same property as the place of worship.

b. The persons residing in the living quarters must be clergy, religious leaders, employees or otherwise similarly associated with the place of worship.

c. The living quarters must comply with the development standards in the R-1 zoning district (Section 113-88(e)).

d. The living quarters shall not be taller or larger than the principal structure.

e. The living quarters shall not count toward the one accessory structure allowed on each lot.

(4) Sacred Communities, accessory to a religious institution's primary worship location and consistent with the requirements of Minn. Stat. § 327.30.

Section 5. This ordinance shall take effect from and after its passage and publication as required by law.

Adopted by the City Council this 7th day of May, 2024.

_____
Roslyn Harmon, Mayor

ATTEST:

_____
Theresa J. Schyma, City Clerk

RESOLUTION NO. 24-031

RESOLUTION AUTHORIZING SUMMARY PUBLICATION OF ORDINANCE NO. 780

WHEREAS, the City has adopted the above referenced amendment of the Golden Valley City Code; and

WHEREAS, the verbatim text of the amendment is cumbersome, and the expense of the publication of the complete text is not justified.

NOW THEREFORE, **BE IT RESOLVED,** BY THE CITY COUNCIL OF THE CITY OF GOLDEN VALLEY, MINNESOTA that the following summary is hereby approved for official publication:

SUMMARY PUBLICATION
ORDINANCE NO. 780

AMENDING CHAPTER 113 (ZONING ORDINANCE) TO ALLOW SACRED COMMUNITIES AND LIVING QUARTERS ACCESSORY TO RELIGIOUS INSTITUTIONS

This is a summary of the provisions of Ordinance No. 780 which has been approved for publication by the City Council.

At the May 7, 2024 City Council meeting, the Golden Valley City Council enacted Ordinance No. 780 amending City Code Chapter 113 to allow Sacred Communities and Living Quarters Accessory to Religious Institutions in certain zoning districts. The full ordinance is available to the public at the City Clerk's Office, 7800 Golden Valley Road during normal business hours and online at www.goldenvalleymn.gov/code/.

Passed by the City Council of the City of Golden Valley, Minnesota on May 7, 2024.

_____
Roslyn Harmon, Mayor

ATTEST:

_____
Theresa J. Schyma, City Clerk

city of golden valley

MEMORANDUM

COMMUNITY DEVELOPMENT
Planning Division
763-593-8095 / 763-593-8109 (fax)

Date: March 25, 2024

To: Golden Valley Planning Commission

From: Kendra Lindahl, AICP
Consulting City Planner

Subject: Informal Public Hearing – Zoning Text Amendment for Sacred Communities

Background

In its last session, the Minnesota Legislature adopted its Omnibus Labor Policy Bills in both the House and Senate. Within these omnibus bills were sections on the topic of "Sacred Communities" requiring them to be allowed in all municipalities. These Sacred Communities would be primarily comprised of residential " Micro-Units," which could be located on property owned and used by places of worship and other religious institutions. The majority of regulations and requirements for Sacred Communities are outlined in state statute, such as being less than 400 square feet, anchored in place, insulated, providing traditional or low voltage electricity, and utilizing smoke and carbon monoxide alarms, among others. Golden Valley, along with other communities, must update its zoning code text to reflect these new requirements.

City planning staff presented this topic to the Planning Commission at the September 11, 2023, October 9, 2023 and November 13, 2023 meetings. At those meetings, staff presented information about eligible lands and presented some draft language to require a conditional use permit for sacred communities. Additionally, in order to distinguish these new micro-units from existing living quarters such as rectories and parsonages, staff is suggesting the addition of other clarifying language within the Institutional - Assembly zoning code text.

Since the meetings last fall, staff has reviewed the statute and discussed options with the City Attorney and Community Development Director. The statutory language does allow the City to process these types of requests as a conditional use permit (CUP), but strictly limits the City's discretion to deny such a request. MN Statute Section 327.30, Subd. 3 (d) says "*Unless the municipality has designated sacred communities meeting the requirements of this section as permitted uses, a sacred community meeting the requirements of this section* shall be approved *and regulated as a conditional use without the application of additional standards not included in this section. When approved, additional permitting is not required for individual micro units*." This limitation is restrictive and we believe that requiring a CUP would be an unnecessary burden to the applicant because the City has very little discretion to deny the request and the CUP process delays the project and adds a financial burden to the applicant.

After going through legal/equity review, the ordinance language has been modified from the last time the Planning Commission reviewed the proposed amendment and the process has been streamlined to allow as an accessory use as anticipated by statute.

Summary of Request
Staff recommends amending the zoning ordinance language to allow sacred communities and accessory living quarters as a permitted accessory use.

Staff Analysis
The City Code does not set specific standards for changing the zoning ordinance text. The City Council – with the input of the Planning Commission – has a great deal of latitude when considering such changes. In making a determination, the City should take into account the purpose of zoning as outlined in the City Code, which is "to regulate land use within the City, including the location, size, use, and height of buildings, the arrangement of buildings on lots, and the density of population within the City for the purpose of promoting the health, safety, order, convenience, and general welfare of all citizens of the City." (Sec. 113-2)

Staff recommends the following changes with underlined text for the proposed additions to the City Code and ~~struck through text~~ for the deletions:

The definitions (Section 113-1) should be amended to add the following:

Sacred Community: A residential settlement established on or contiguous to the grounds of a religious institution's primary worship location primarily for the purpose of providing permanent housing for chronically homeless persons, extremely low-income persons, and designated volunteers that meets the requirements of Minn. Stat. § 327.30.

The Light Industrial (Section 113-93), Industrial (Section 113-94) and Institutional (Section 113-96) districts should be amended to allow Sacred Communities as an accessory use and living quarters as an accessory use in the Industrial and Institutional districts. The amendment would be as follows for the respective ordinance sections:

(d) Accessory Uses. The following accessory uses shall be permitted in the Light Industrial Zoning District:

(1) Essential services, Class II.

(2) Sacred Communities, accessory to a religious institution's primary worship location and consistent with the requirements of Minn. Stat. § 327.30.

And

(e) Accessory Uses. The following uses shall be permitted in the Assembly Subdistrict:

(1) Living quarters associated with a place of worship, subject to the following:

a. Living quarters shall be on the same property as the place of worship.

b. The persons residing in the living quarters must be clergy, religious leaders, employees or otherwise similarly associated with the place of worship.

c. The living quarters must comply with the development standards in the R-1 zoning district (Section 113-88(e)).

d. The living quarters shall not be taller or larger than the principal structure.

e. The living quarters shall not count toward the one accessory structure allowed on each lot.

(2) Sacred Communities, accessory to a religious institution's primary worship location and consistent with the requirements of Minn. Stat. § 327.30.

And

(f) Accessory Uses. The following uses shall be permitted in the Assembly Subdistrict:

(3) Living quarters associated with a place of worship, subject to the following:

a. Living quarters shall be on the same property as the place of worship.

b. The persons residing in the living quarters must be clergy, religious leaders, employees or otherwise similarly associated with the place of worship.

c. The living quarters must comply with the development standards in the R-1 zoning district (Section 113-88(e)).

d. The living quarters shall not be taller or larger than the principal structure.

e. The living quarters shall not count toward the one accessory structure allowed on each lot.

(4) Sacred Communities, accessory to a religious institution's primary worship location and consistent with the requirements of Minn. Stat. § 327.30.

Recommended Action
Based on the findings above, staff recommends **approval** of the proposed zoning ordinance text amendment.

Attachments:
Draft Ordinance
Zoning Map
MN Stat. §327.30

CITY OF GOLDEN VALLEY
PLANNING COMMISSION MEETING MINUTES

Monday, March 25, 2024 – 6:30 p.m. | City Hall Council Chamber
7800 Golden Valley Road Golden Valley, MN 55427

1. CALL TO ORDER

AND LAND ACKNOWLEDGEMENT: Chair Brookins called the meeting to order at 6:32 p.m. and read the Land Acknowledgement.

a. Regular Members Present: Brookins, Ruby, McCormick, Cohen, and Segelbaum

b. Regular Members Absent: Barnstorff and Meredith

c. Student Member, Status: Benjamin Fricke, Present

d. Staff Members Present: Alma Flores, Community Development Director
Darren Groth, Assistant Community Development Director
Christine Costello, Housing & Econ. Dev. Manager
Maria Cisneros, City Attorney
Kendra Lindahl, City Planning Consultant

e. Council Liaison Present: None

2. APPROVAL OF AGENDA: Cohen motioned to approve as presented, Ruby seconded. Commission voted 5-0 to approve. Motion carried.

3. APPROVAL OF MINUTES: March 11, 2024, Regular Meeting Minutes.
Item Continued to next meeting.

4. STAFF INTRODUCTIONS: Darren Groth, Assistant Community Development Director
Christine Costello, Housing & Econ. Dev. Manager

5. INFORMAL PUBLIC HEARING FOR MINOR SUBDIVISION LOCATED AT 227 PAISELY LANE AND 220 EDGEWOOD AVENUE NORTH

a. Lindahl introduced and presented the agenda item to the Commission.
b. Staff recommended approval of Minor Subdivision, subject to the findings and conditions in the report.
c. Discussion ensued.
d. The applicant spoke in favor of the request.
e. Chair Brookins opened the public hearing at 6:45 p.m.
f. Three citizens spoke in opposition to the request.
g. Chair Brookins closed the public hearing at 6:55 p.m.
h. Chair Brookins requested a motion.
i. Ruby moved to approve the motion, as recommended by staff.
j. Cohen seconded.
k. The Commission voted 5-0 to recommend APPROVAL.

6. INFORMAL PUBLIC HEARING FOR ZONING MAP AMENDMENT, FUTURE LAND USE PLAN AMENDMENT, PRELIMINARY PLAT, AND CUP LOCATED AT 6100 GOLDEN VALLEY ROAD

a. Lindahl introduced and presented the agenda item to the Commission.
b. Staff recommends approval of the following based on the findings and conditions in the staff report.
c. Discussion ensued.
d. The applicant spoke in favor of the request.
e. Chair Brookins opened the public hearing at 7:33 p.m.
f. No comments were provided during the hearing.
g. Chair Brookins closed the public hearing at 7:33 p.m.
h. Ruby moved to approve the motion for the Future Land Use Plan Amendment to change the guided land from Medium Density Residential to Office
i. McCormick seconded.
j. The Commission voted 5-0 to recommend APPROVAL of the Future Land Use Plan Amendment.
k. Ruby moved to approve the motion for the Zoning Map Amendment to rezone the property from R-3 to Office.
l. McCormick seconded.
m. The Commission voted 5-0 to recommend APPROVAL of the Zoning Map Amendment.
n. Ruby moved to approve the motion for the Preliminary Plat.
o. McCormick seconded.
p. The Commission voted 5-0 to recommend APPROVAL of the Preliminary Plat.
q. Commission Ruby moved to approve the Conditional Use Permit, with the following five (5) conditions:
    i. The applicant shall follow the conditions in the Staff Report presented by Lindahl.
    ii. The applicant shall monitor site parking and, when requested by the City, provide information about how site parking will be managed, if cueing or parking begins to impact access on Golden Valley Road.
    iii. A City Stormwater Management permit is required for the construction. That permit will require submittal of civil drawings with demolition, grading/stormwater, utility, site, etc. for review and approval by staff.
    iv. The applicant shall submit a snow management plan for the site.
    v. Open turf areas shall use pervious materials.
r. Segelbaum seconded.
s. The Commission voted 5-0 to recommend APPROVAL, with conditions.

7. INFORMAL PUBLIC HEARING FOR ZONING ORDINANCE TEXT AMENDMENT FOR SACRED COMMUNITIES.

a. Lindahl introduced and presented the agenda item to the Commission.
b. Staff recommends approval of the following based on the findings and conditions in the staff report.
c. Discussion ensued.
d. No person was present to speak at the public hearing.
e. Cisneros spoke to add clarification to the agenda item.
f. Ruby moved to approve the motion for the Zoning Ordinance Text Amendment, with the following condition:
    i. Staff shall hold a public meeting once a permit application is submitted.
g. Segelbaum seconded.
h. The Commission voted 4-1 (Brookins) to recommend APPROVAL, with conditions.

8. COUNCIL LIAISON REPORT: None

9. STAFF UPDATES: None

10. OTHER BUSINESS: None

11. ADJOURNMENT: Chair Brookins adjourned the meeting at 8:45 p.m.

Approved by: _____
Commissioner McCormick,
Secretary

Attest By:

Darren Groth, AICP, CPM
Community Development Asst. Director

EXECUTIVE SUMMARY

Community Development

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

4B. Public Hearing on Proposed Improvements for the Zane Avenue and Lindsay Street Reconstruction Project, Project #23-02, Resolution No. 24-032

Prepared By

RJ Kakach, PE, Assistant City Engineer
Scott Haupt, PE, Project Manager, SEH

Summary

Background: At the October 5, 2021 City Council meeting, the City Council directed staff to prepare a feasibility report for the Zane Avenue and Lindsay Street reconstruction project. The proposed project includes reconstruction of 0.80 miles of Municipal State Aid Streets (MSAS) and local streets. The streets included in the project are shown on the attached project location map. The feasibility report for this project was prepared by the consulting engineering firm of Short Elliott Hendrickson, Inc., (SEH). The feasibility report outlines a project that includes reconstruction of the subject streets, replaces and repairs the majority of the aging sanitary sewer and water systems, storm drainage improvements, and stormwater treatment of runoff from the project area. These streets along with the underground infrastructure were originally constructed in the 1960s and have reached the end of their design life. The project was initially brought to City Council in the mid 2000s, but the project was tabled due to funding shortages.

Proposed Design: The proposed street widths in the commercial areas of Zane Avenue and Lindsay Street will be 30-feet wide and the residential portion of Lindsay Street will be 26-feet wide (Refer to the Attached Map). These proposed widths are consistent with the City's Pavement Management Policy for street widths and MSAS design standards. The project was presented to City Council at the March 6, 2024 City Council meeting and not approved. After the meeting, staff evaluated potential costs associated with widening the commercial areas on Zane and Lindsay to 32' and the residential portion on Lindsay to 28'. Estimated costs associated with widening each street type by 2' range from an additional $34K for widening the residential area to $193K for widening all streets by 2' from the current design. These cost increases are estimated to raise assessment rates by up to $400/unit for residential properties and $5/LF for commercial properties. Staff added additional signage along Lindsay Street to the proposed plan to help deter truck traffic from driving in the residential area. Additional truck deterrence methods could be used like vegetation or landscaping to demark the transition from commercial to residential and vice versa.

In addition to the street improvements, the project includes installation of a new sidewalk along Zane Avenue consistent with the City's 2040 Comprehensive Plan. The Union Pacific Railroad crossing on

Zane Avenue, along with the railroad signal system, will also be replaced with the project. Union Pacific Railroad is drafting an agreement for review for this work which is anticipated to be received in Q2 of 2024 and can be incorporated into the project. Because the crossing replacement process has taken longer than expected, the project is anticipated to take place over two construction seasons. The City's approved contractor will coordinate with the Union Pacific Railroad team on replacement of the crossing and work within the railroad's right of way.

The estimated total project costs for Zane Avenue and Lindsay Street Project are $10,050,000. The estimated costs include all street rehabilitation, sidewalk construction, sanitary sewer and water main repair and replacement, and storm sewer construction. An estimated 25% of the construction costs have been included for indirect project costs, which includes project design, staking, construction observation administration, and legal expenses. A preliminary special assessment rate of $11,100 per residential unit in the project area and $155/LF for commercial and industrial properties in the project area are estimated. This represents approximately 20% of the estimated street construction costs. Minnesota Statutes, Chapter 429 requires that when special assessments are used to finance projects, a minimum of 20% of the project cost must be specially assessed. Therefore, because special assessments are being used to finance a portion of the street reconstruction costs, the assessments must be a minimum 20% of that cost. The project costs associated with sidewalk, sanitary sewer, watermain, and storm sewer are financed from dedicated funds, and special assessments are not utilized for funding for these separate categories. The final special assessment rates will be calculated following the opening of construction bids and will be based on actual costs. The estimated special assessments are consistent with the City of Golden Valley Special Assessment Policy. Optional assessments to properties for private residential driveway reconstruction or sanitary sewer services rehabilitation are not included.

Following Council authorization of the Zane Avenue and Lindsay Street Project, the anticipated project schedule is as follows:

June 13, 2024 - Open Bids for Zane/Lindsay
July 16, 2024 - Award Contract Zane/Lindsay
July 16, 2024 - Public Hearing for Special Assessments
August 15, 2024 - Start Construction
September 30, 2025 - Complete Construction

Financial or Budget Considerations
The proposed project funding sources are as follows:
Sewer and Water Reserve Fund $ 2,100,000*
Storm Sewer Improvement Fund $ 850,000
Street Improvement Fund $ 6,500,000**
Zane Avenue Sidewalk Fund 300,000
Railroad Crossing Improvement Fund $300,000
Total Project Funding $10,050,000

*$750,000 is included from the American Rescue Plan Act (ARPA) funding which will offset costs from the Sewer and Water Reserve fund.
**State Aid funding will be used to compensate the Street Improvement fund for street costs on Zane Avenue.

These financing sources are consistent with the City's 2024 Capital Improvement Plan. Special assessments will be used to reimburse the Street Improvement Fund and will cover a minimum of 20% of the Street Improvement costs for the project.

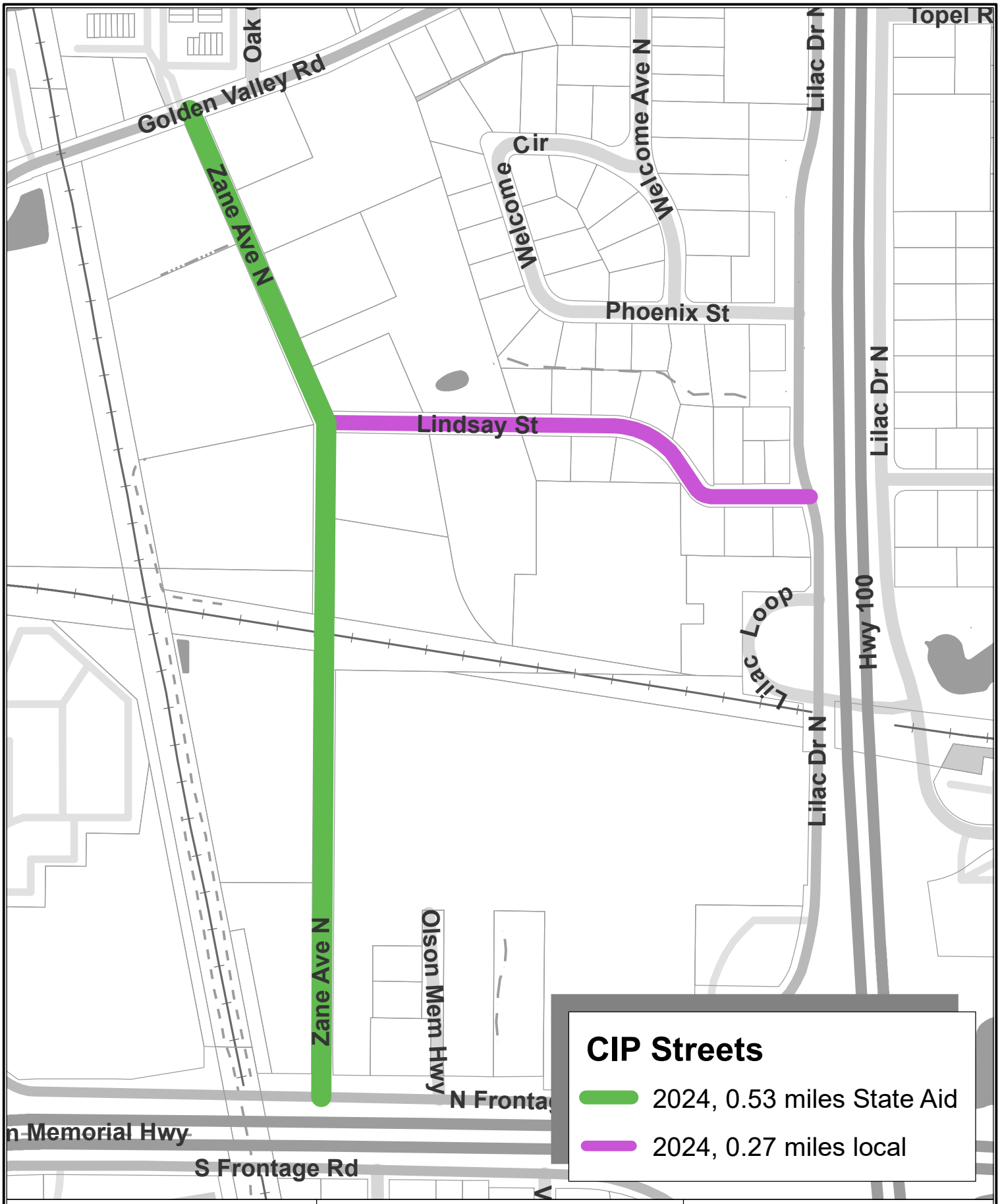
It is important to note that the State Aid dollars and ARPA dollars need to have a project awarded by December 31, 2024 in order to utilize these funding sources.

Legal Considerations
The public hearing process and advertisement for bids process has been reviewed by the City Attorney for compliance with all applicable State Statutes. In addition, the community development department has instituted a project coordination group to ensure compliance across finance, city manager, and legal are met.

Equity Considerations
The Zane Avenue and Lindsay Street Project satisfies Pillar 3 of the Equity Plan Pillars by providing unbiased programs and services to all.

Recommended Action
Motion to adopt Resolution No. 24-032 accepting Feasibility Report, approving plans and specifications, ordering construction, and authorizing bidding of Certain Proposed Public Improvements for the Zane Avenue and Lindsay Street Reconstruction Project. This item requires a four-fifths vote of the body for approval.

Supporting Documents
- Zane and Lindsay Project Location Map
- Zane & Lindsay Project Summary
- Zane and Lindsay Feasibility Report
- Zane and Lindsay Project Manual
- Zane and Lindsay Plans
- Resolution No. 24-032 Resolution Zane Lindsay Feasibility Construction Plans



city of golden valley

Zane Ave / Lindsay St Reconstruction Project

Print Date: 12/28/2023
Sources:
-Hennepin County Surveyors Office for Property Lines (2023).
-City of Golden Valley for all other layers.

0 175 350 700 Feet

ZANE AVENUE NORTH AND LINDSAY STREET RECONSTRUCTION PROJECT

PROJECT BACKGROUND

The City of Golden Valley evaluates streets for type and extent of pavement distresses. These distresses are analyzed by a software program that gives each street a Pavement Quality Index (PQI) rating in the good, fair, or poor range.

Generally, streets with a PQI in the poor range have pavements that have failed entirely. Since these streets are considered to be among the worst in the City, major rehabilitation, such as reconstruction or pavement reclamation, is usually the most cost-effective solution.

Zane Avenue North, which is a Municipal State Aid Street (MSAS), and Lindsay Street within the project area have been evaluated and determined as a priority for major rehabilitation since the early 2000's. In 2005 the City Council authorized the preparation of a feasibility report to rehabilitate the streets as part of the 2007 Pavement Management Program (PMP) project. The project was put on hold until 2021 when the City Council again authorized the preparation of a feasibility report to rehabilitate 0.80 miles of Zane Avenue North and Lindsay Street.

PUBLIC ENGAGEMENT

As part of the public engagement process, two project open houses were held. The first open house was held in May 2022 and the second was held in January 2024. The open houses provided business owners and residents with project information and a forum to express concerns and ask questions regarding the proposed project.

City staff also contacted each business owner within the project area to schedule individual meetings to gather information on their delivery and access needs and to discuss the proposed improvements and impacts to each property. Communication with business owners will continue to be an ongoing process up to and throughout project construction. During construction there will be weekly meetings with business owners to provide project and schedule updates, and upcoming construction activities that may impact businesses. Additionally, there will be a city representative responsible for communicating project updates and respond to any questions or concerns from business owners during construction.

EXISTING CONDITIONS

STREETS:

- Mainly concrete pavement, except for bituminous pavement on ends of Zane Avenue North and east end of Lindsay Street
- Concrete curb and gutter along both streets
- Constructed in the 1960s.
- Existing width: 40-feet (measured face of curb to face of curb)
- Concrete pavement section: 6.5" to 8" of concrete over 6" to 16" of gravel base
- Bituminous pavement section: 7.5" to 8" of bituminous over 0" to 10" of gravel base

CONCRETE PAVEMENT DISTRESSES:

- Longitudinal and transverse joint spalling, durability cracking, panel cracking, panel breaking, faulted joints, faulted panels, and patching.

BITUMINOUS PAVEMENT DISTRESSES:

- Longitudinal and transverse cracking, alligator cracking, edge cracking, and patching.

SUBGRADE SOILS:

- Loose to medium dense fill soils overlying glacial till soils typically classified as clayey sand.
- Groundwater immediately beneath the concrete pavement near the intersection of the Zane Avenue North and Lindsay Street. Ground water immediately beneath a pavement typically results in extreme pavement distress and ultimately pavement failure.

CITY OWNED UTILITIES (SANITARY SEWER, WATER, STORM SEWER):

- Constructed during initial development in the 1950's and 1960's.

EXISTING SANITARY SEWER:

- Eight-inch and nine-inch diameter clay pipes, cast iron pipes (CIP), and ductile iron pipe (DIP).
- A Closed Circuit Television (CCTV) identified distresses that are consistent with the age and pipe material.

EXISTING WATER MAIN:

- 12-inch diameter CIP on Zane Avenue North and 8-inch CIP on Lindsay Street.
- Water main maintenance records indicate a history of water main breaks and maintenance issues consistent with other water mains of the same age and material.

EXISTING STORM SEWER:

- Reinforced concrete pipe (RCP) and concrete catch basins and manholes.
- Existing catch basins collect runoff from the project area and direct stormwater via concrete pipes into a trunk line that runs along the UPRR track.

ANTICIPATED PROJECT SCHEDULE:

- **5/7/2024** – Public Improvement Hearing and Authorization to Advertise for Bidding
- **5/23/2024** – Begin Advertising Project for Bidding
- **6/13/2024** – Bid Opening
- **7/16/2024** – Assessment Hearing and Award Construction Contract
- **Jul 2024 thru Nov 2024** (Estimated) – Construction Phase 1
- **Apr 2025 thru Aug 2025** (Estimated) – Construction Phases 2 and 3
- **Fall 2025** – Construction Completed

ESTIMATED COST AND FUNDING

ESTIMATED PROJECT COSTS	
Estimated Sewer and Water Costs	$ 2,100,000
Estimated Storm Drainage Costs	$ 850,000
Estimated Street Reconstruction Costs	$ 6,500,000
Estimated Sidewalk Construction Costs	$ 300,000
Estimated UPRR Reconstruction Costs	$ 300,000
Estimated Total Project Cost	$ 10,050,000

PROJECT FUNDING		
‖	Sewer and Water Reserve Fund	$ 2,100,000
‡	Storm Sewer Improvement Fund	$ 850,000
*‡	Street Improvement Funds	$ 6,500,000
†	Bicycle and Ped. Improvement Funds	$ 300,000
	Railroad Crossing Improvement Funds	$ 300,000
	Estimated Total Project Funding	$ 10,050,000

* Street Reconstruction Bonds are sold, paid back with Special Assessments

† Fully funded by MSA funds

‡ Partially funded by MSA funds

‖ Partially funded by ARPA Funds

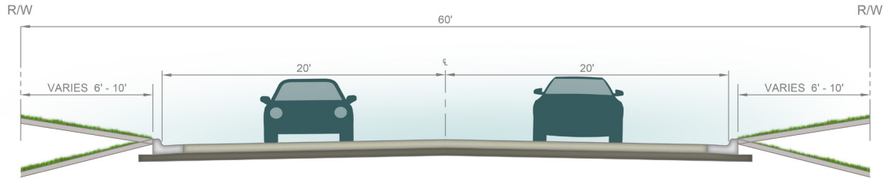
PRELIMINARY SPECIAL ASSESSMENT RATES:

- $11,100 per single-family residential unit
- $155 per linear foot of frontage for other zonings
- Approximately 20% of the street construction costs

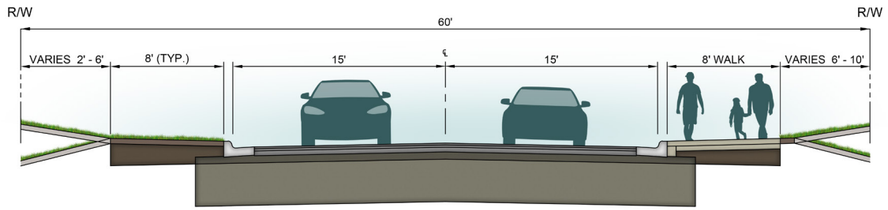
ZANE AVENUE NORTH AND LINDSAY STREET RECONSTRUCTION PROJECT

https://bit.ly/3r6BhSh

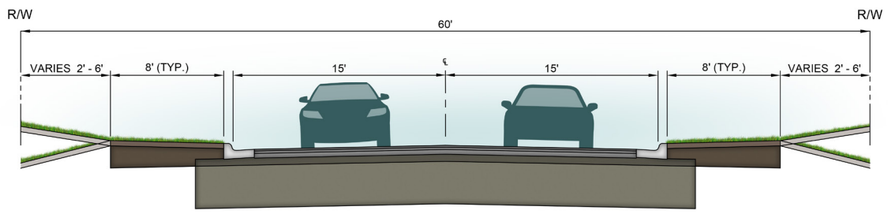
TYPICAL SECTIONS



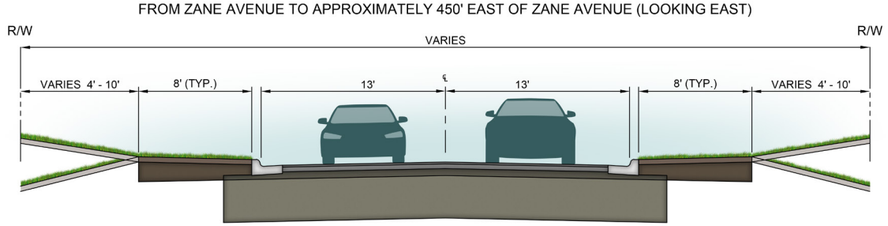
EXISTING STREET SECTION
ZANE AVENUE AND LINDSAY STREET



TYPICAL STREET SECTION (30' STREET w/ 8' SIDEWALK)
ZANE AVENUE (LOOKING NORTH)



TYPICAL STREET SECTION (30' STREET)
LINDSAY STREET COMMERCIAL
FROM ZANE AVENUE TO APPROXIMATELY 450' EAST OF ZANE AVENUE (LOOKING EAST)



TYPICAL STREET SECTION (26' STREET)
LINDSAY STREET RESIDENTIAL
FROM APPROXIMATELY 450' EAST OF ZANE AVENUE TO LILAC DRIVE

THE PROPOSED DESIGN

DESIGN CRITERIA

The City of Golden Valley stresses the use of proper pavement rehabilitation measures for each street reconstruction project. After reviewing the streets within the project area, it has been determined that reconstruction to City standards is the appropriate rehabilitation measure.

Municipal State Aid Streets (MSAS) in urban industrial areas, with no parking, are required to be a minimum of 28' wide (measured face of curb to face of curb, or F-F) and a minimum of nine tons structural axle load design.

It is the City of Golden Valley's practice to narrow the residential streets in project areas to minimize stormwater runoff, minimize impacts to adjacent trees and landscaping, and to reduce construction and maintenance costs of the pavements. The City Council adopted a motion to amend the Pavement Management Policy to adjust the standard street width to 26' F-F at their October 20, 2020 meeting for all future residential construction projects.

In the City of Golden Valley's 2040 Comprehensive Bicycle and Pedestrian Plan, Zane Avenue North within the project area is identified as recommended for pedestrian improvements.

MSA streets must meet minimum stormwater requirements including stormwater spread, which affects catch basin spacing, pipe capacity, and pipe diameter.

STREET WIDTHS:

- **Zane Avenue North:** 30-feet, measured face of curb to face of curb (F-F)
  - No parking resolution proposed
- **Lindsay Street Commercial:** 30-feet, measured face of curb to face of curb (F-F)
- **Lindsay Street Residential:** 26-feet, measured face of curb to face of curb (F-F)

PAVEMENT SECTIONS:

- **Zane Avenue North:** 7.5-inches of bituminous over 6-inches of aggregate base
- **Lindsay Street Commercial:** 7.5-inches of bituminous over 6-inches of aggregate base
- **Lindsay Street Residential:** 4.5-inches of bituminous over 6-inches of aggregate base
- **All Streets:** B618 concrete curb and gutter

SUBGRADE CORRECTIONS:

- 3-foot (minimum) subgrade excavation with select granular backfill (sand) below aggregate base layer
- Perforated PVC draintile at bottom of sand section, running behind and parallel to the curb and gutter.

PEDESTRIAN FACILITIES:

- **Zane Avenue North:** 8-foot wide concrete sidewalk adjacent to back of curb
  - Pedestrian ramps with truncated domes at each driveway and street crossing

UNION PACIFIC RAILROAD (UPRR):

- New concrete crossing panels and signals at UPRR crossing of Zane Avenue North

CITY-OWNED UTILITIES:

- **Sanitary Sewer:** Cured-in-Place-Pipe (CIPP) lining with spot replacements
- **Water main:** All new water main (PVC), gate valves, fittings, and services (HDPE) to the right-of-way line
- **Storm Sewer:** All new (RCP) storm sewer pipe, manholes and catch basins

city of golden valley

Feasibility Report

Zane Avenue and Lindsay Street Improvements

City of Golden Valley, Minnesota

City No. 23-02 SAP 128-408-002

GOLDV 163618 | May 7, 2024

city of golden valley

SEH

Building a Better World for All of Us®

Engineers | Architects | Planners | Scientists

Feasibility Report

Zane Avenue and Lindsay Street Improvements
City of Golden Valley, Minnesota

City No. 23-02
SAP 128-408-002
SEH No. GOLDV 163618

May 7, 2024

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Stephen R. Prall, PE

Date: May 7, 2024 License No.: 54949

Reviewed By: Scott D. Haupt, PE Date: May 7, 2024

Short Elliott Hendrickson Inc.
3535 Vadnais Center Drive
St. Paul, MN 55110-3507
651.490.2000

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APPENDIX A

Summary of Property Owner Comments

APPENDIX B

Preliminary Assessment Roll

INTRODUCTION

At the October 5, 2021 Council Meeting, the Golden Valley City Council authorized preparation of a feasibility report for the rehabilitation of streets for the Zane Avenue North and Lindsay Street Improvements project. The proposed project includes reconstruction of approximately 0.80 miles of two streets located in an industrial and residential area in the center of the city.

Zane Avenue North is a Municipal State Aid Street (MSAS) bound by Olson Memorial Highway Frontage Road North on the south and Golden Valley Road on the north. Lindsay Street is bound by Zane Avenue North on the west and Lilac Drive on the east. The proposed streets are shown on *Exhibit 1: Project Location Map*.

This feasibility report will discuss the existing conditions of the streets, sanitary sewer, water main, and storm sewer within the project area. In addition, the report will discuss the proposed project design, estimated project costs, and the proposed financing, including a preliminary special assessment roll.

PROJECT LEGAL DESCRIPTION

The proposed project includes:

All properties in the NW ¼, and N ½ of the SW ¼, of Section 33, Township 118 North, Range 21 West of the 5th Principal Meridian; within the City of Golden Valley, Hennepin County, Minnesota, that are adjacent to the following streets:

- Zane Avenue North: Olson Memorial Highway Frontage Road North to Golden Valley Road
- Lindsay Street: Zane Avenue North to Lilac Drive

EXISTING CONDITIONS

Sanitary Sewer

Inflow and Infiltration

The Metropolitan Council Environmental Services (MCES) provides wastewater treatment and interceptor collection services for the Twin Cities metropolitan area. The MCES has undertaken a major effort to eliminate excess peak flows in its system that exceed the capacity of the collection and treatment facilities. These excess flows can and do result in overflows of raw sewage into the Mississippi River.

Inflow and Infiltration (I/I) is defined as clear water that is either directly discharged (inflow) or indirectly discharged (infiltration) into the sanitary sewer system. Among the most common sources are improperly connected sump pumps or foundation drains discharging into the sanitary sewer and the infiltration of ground water through defects in sanitary sewer mains, services, and manholes.

The City of Golden Valley is one of many cities within the MCES sanitary sewer district that have been notified of excess peak sanitary sewer flows being generated by their community. An Inflow and Infiltration (I/I) mitigation program has been implemented to take steps towards decreasing the peak flows associated with clear water entering the sanitary sewer and contributing to these excess peak flows.

The peak flows in Golden Valley typically follow heavy rainfall events, indicating that improper connections to the sewer system may be present, and that sewers may be allowing ground water and surface water into the system through cracked pipes, leaking manholes, and substandard castings.

The proposed project area is located within the portion of the City that has excessive volume of inflow and infiltration following rainfall events and high groundwater conditions.

Sewer Mains

The existing sanitary sewer system within the project area is comprised of local lateral sewers and one portion of trunk sewer main that were constructed in the mid 1950's when sanitary sewer was first available in the City. The local lateral sanitary sewer mains are constructed with eight-inch and nine-inch diameter clay pipes, eight-inch cast iron pipe (CIP) and eight-inch ductile iron pipe (DIP). The trunk sanitary sewer main, which crosses the project area at Zane Avenue North, south of the Union Pacific Railroad (UPRR) at-grade crossing, is constructed with twelve-inch reinforced concrete pipe (RCP). See *Exhibits 2A through 2C: Construction Layout* for pipe sizes.

A Closed Circuit Television (CCTV) inspection was performed on all the City's sanitary sewer mains within the project area as part of the preliminary project design. This inspection was intended to locate the extent and severity of the defects to the sanitary sewer system to determine if repairs are needed as part of the street reconstruction project. The television inspection has identified distresses within the City system that are consistent with the age and pipe material. These defects include mineral deposits, cracked pipes, root intrusion, noticeable infiltration, and offset joints. These defects are typical sources of groundwater infiltration into the sewer system.

The extent of these defects is typical compared to the defects encountered in previous street reconstruction projects containing clay pipes. Based upon these CCTV results, the local lateral sanitary sewer mains throughout the entire project area will require structural lining as discussed in the "Proposed Improvements" section of this report. Additionally, there were three pipe sags identified along the sanitary sewer along Zane Avenue North that will need to be repaired. The westernmost run of sewer on Lindsay Street is proposed to be replaced entirely because it is at a depth above the street subcut and will be difficult to work around during subcutting.

The existing sanitary sewer defects are illustrated on *Exhibit 7*.

Sanitary Sewer Services

As part of its I/I Reduction Program, the City is offering property owners within the project area an opportunity to have a CCTV inspection performed on the sanitary sewer service to their home. Property owners will not be charged for this voluntary inspection during the project, which is identical to the Point of Sale Inspections required by City Code. The intent of this inspection is to identify I/I issues present in the private sanitary sewer services and allow property owners to make informed decisions regarding rehabilitation of the service lines, including voluntary participation in the repair program offered as part of the project. This sewer service repair program will be discussed in more detail later in this report.

Water Main

The majority of the existing water main system within the project area consists of lateral mains that were installed during the early 1960's. The existing mains are 12-inch diameter cast iron pipe (CIP) on Zane Avenue North, and 8-inch CIP on Lindsay Street. These mains are located within the existing City owned street rights-of-way.

A review of water main maintenance records within the project area indicates a history of water main breaks and maintenance issues consistent with other water mains of the same age and material. In addition, leaky, inoperable gate valves have been discovered throughout the project area.

Stormwater Drainage

The entire project area is part of the Bassett Creek Watershed, which is contained within the Sweeney Lake subwatershed.

Existing catch basins at the intersection of Zane Avenue North and Olson Memorial Highway Frontage Road North collect stormwater from contributing drainage along the southern 200 feet of Zane Avenue and a portion of the frontage road. Stormwater flows west in concrete pipes to a ditch along the Soo Line Railroad track.

Existing catch basins on the south side of the Union Pacific Railroad (UPRR) at-grade crossing of Zane Avenue North collect stormwater from contributing drainage along the majority of the Zane Avenue North between Olson Memorial Highway Frontage Road North and the UPRR crossing, with the exception of the abovementioned southernmost 200 feet of Zane Avenue North. Stormwater flows in concrete pipes underneath the railroad tracks and into a storm trunk line that runs parallel to the tracks and continues east beyond the project area.

Existing catch basins at the intersection of Zane Avenue North and Lindsay Street collect stormwater from contributing drainage along all of Zane Avenue North to the north of the UPRR crossing, and the westernmost 500 feet of Lindsay Street. Stormwater flows in concrete pipes into a storm trunk line that runs south along the west side of Zane Avenue North and connects to the trunk line that runs along the UPRR track.

Existing catch basins on Lindsay Street located approximately 500 feet east of Zane Avenue North collect stormwater from contributing drainage along all of Lindsay Street east of that point. Stormwater flows in concrete pipes into a storm trunk line that runs

west along the north side of Lindsay Street and connects to the trunk line that runs south along Zane Avenue North.

The trunk storm sewer systems conveying discharge from the project site ultimately discharge into Sweeney Lake.

Streets

The streets within the proposed project area are mainly concrete streets that were originally constructed as development occurred. The original dates of construction throughout the project area generally occurred throughout the 1950's and 1960's. There are portions of the project area that have been changed to bituminous pavement since original construction. These bituminous areas include the following: the southernmost 200 feet of Zane Avenue North, 30 feet north and south of the UPRR crossing of Zane Avenue North, the northernmost 50 feet of Zane Avenue North, and the easternmost 250 feet of Lindsay Street.

Existing Street Widths

The existing width of both streets in the project area is 40 feet as shown in *Exhibit 3: Existing Street Widths*. Street width is typically measured from face of curb to face of curb. The entire project area has concrete curb and gutter, with integral curb along the concrete portions of the roadway.

Pavement Sections

Streets in the proposed project area have varying thicknesses of existing bituminous or concrete pavement over varying amount of gravel base. Soil boring locations are shown on *Exhibit 5: Proposed Subcut Depths/Soil Boring Locations*, and the chart below shows the existing and variable pavement and gravel depths at the boring locations.

Soil Boring #	Location	Concrete Pavement Depth (inches)	Bituminous Pavement Depth (inches)	Apparent Gravel Depth (inches)
37	Lindsay Street	-	7.5	0
38	Lindsay Street	6.5	-	12
39	Zane Avenue North	7.5	-	16.5
40	Zane Avenue North	6.5	-	17.5
41	Zane Avenue North	6.5	-	12
42	Zane Avenue North	-	8	10
43	Zane Avenue North	6.5	-	0
44	Zane Avenue North	6.5	-	6
45	Zane Avenue North	8	-	16
46	Zane Avenue North	8	-	4.5
47	Zane Avenue North	8	-	16
48	Lindsay Street	7.5	-	0
49	Lindsay Street	7.5	-	6

As part of the preliminary design for the proposed project, which originally began in 2006, a series of thirteen soil borings were taken to determine the suitability of the existing subgrade materials for street construction. These soil borings were also the source of the pavement and gravel thickness information provided above. Refer to *Exhibit 5: Subcut Depths/Soil Boring Locations* for locations of soil borings.

Properly constructed streets are built with a base course of fill beneath the pavement usually made up of granular (gravel) material. This base course layer is considered to be part of the pavement section. Not all soil borings taken in this project area encountered a base course layer. When encountered, some of the soil boring locations lacked the base course thickness that is required to meet today's requirements for pavement base.

The pavement distresses present within the project area are consistent with the age of the streets. Common concrete pavement distresses include longitudinal and transverse joint spalling, durability cracking, panel cracking, panel breaking, faulted joints, faulted panels, and patching. Common bituminous pavement distresses include longitudinal and transverse cracking, alligator cracking, edge cracking, and patching. Patching is frequently used to cover severe distresses such as durability cracking, faulting, or alligator cracking and is therefore indicative of poor pavement quality.

Subgrade Conditions

The soil borings indicate that the subgrade soils (soils beneath the base course or subbase) in the project area are loose to medium dense fill soils overlying glacial till soils typically classified as clayey sand. The fill varies in thickness from 7 feet to over 16 feet and consists predominantly of silty sand and clayey sand (till). Coarse alluvium (outwash sand) was encountered beneath the fill in a few areas, but till was encountered beneath the fill in most borings.

Additionally, ground water was encountered immediately beneath the concrete pavement near the intersection of the Zane Avenue North and Lindsay Street. Ground water immediately beneath a pavement typically results in extreme pavement distress and ultimately pavement failure.

Concrete Curb and Gutter

The project area contains integral concrete curb that was poured with the concrete pavement, with the exception of a few isolated locations as mentioned previously in this report.

Pedestrian Facilities

Pedestrian facilities within the project limits include the following: existing concrete sidewalk along the north side of Olson Memorial Highway Frontage Road North, existing concrete sidewalk along the north side of Golden Valley Road, and the bituminous Luce Line Regional Trail which cuts across Zane Avenue North just south of the UPRR crossing. The Luce Line Trail is owned and maintained by Three Rivers Park District.

Refer to *Exhibit 6: Pedestrian Routes* for locations of existing pedestrian facilities within the project area.

Street Lighting

No City-owned street lighting facilities exist within the project area. Xcel Energy owns wooden poles with cobra-head light fixtures that are present at the following locations: the SE quadrant of the UPRR crossing of Zane Avenue North, the SE quadrant of the intersection of Zane Avenue North and Golden Valley Road, and the NW quadrant of the intersection of Lindsay Street and Lilac Drive.

PROPOSED IMPROVEMENTS

This portion of the feasibility report will focus on the proposed design of the project. The estimated project costs and project financing will be discussed later in this report.

Public Participation

As part of the public engagement process for the Zane Avenue North and Lindsay Street Improvements Project, two project open houses were held. The first open house was held in May 2022 and the second was held in January 2024.

The open houses provided business owners and residents with project information and a forum to express concerns and ask questions regarding the proposed project. Business owners and residents were able to view the preliminary project design, including anticipated impacts to landscaping, trees, and driveways. Information regarding the Driveway Reconstruction Program and the Inflow and Infiltration Sewer Service Inspection Program was also available at these meetings.

All written comments received at or following the open house meetings, are summarized in *Appendix A: Summary of Resident Comments*. These written comments are an important tool for staff to identify issues that need to be addressed as part of the project design.

City staff also contacted each business owner within the project area to schedule individual meetings to gather information on their delivery and access needs and to discuss the proposed improvements and impacts to each property. Based on those who responded, staff conducted 21 meetings (as of the date of this report) with business owners throughout the project design process. Communication with business owners will continue to be an ongoing process up to and throughout project construction. During construction there will be weekly meetings with business owners to provide project and schedule updates, and upcoming construction activities that may impact businesses. Additionally, there will be a full time city representative responsible for communicating project updates and respond to any questions or concerns from business owners during construction.

The proposed improvements discussed in this portion of the feasibility report are shown on *Exhibits 2A through 2C: Proposed Project Layouts*.

Sanitary Sewer and Water Main

Sanitary Sewer Rehabilitation

As discussed earlier in this report, a television inspection of the existing sanitary sewer system was performed during the preliminary design portion of this project. Based upon the results of the televising, it has been determined that all of the local lateral sanitary sewer mains within the project area are in need of repair.

The nature of the defects, including primarily cracked pipes and root intrusion, indicates that the majority of the sanitary sewer mains can be rehabilitated by structural lining. Sanitary sewer lining will be effective in repairing the defects and addressing the infiltration issues within the City's system.

Additionally, there were three pipe sags identified in the sanitary sewer along Zane Avenue North that will require pipe replacement. The westernmost run of sewer on Lindsay Street is also proposed to be replaced entirely because it is at a depth above the street subcut and will be difficult to work around during subcutting.

The existing sanitary sewer defects are illustrated on *Exhibit 7*. The proposed sanitary sewer improvements are illustrated on *Exhibits 2A through 2C: Proposed Project Layouts*.

In addition to lining the sanitary sewer mains, this project will incorporate other measures to reduce the amount of I/I being introduced into the City's sanitary sewer main system. These I/I reduction efforts include the replacement of all sanitary sewer manhole castings and covers and the rehabilitation and reconstruction of necessary sanitary sewer manholes. These measures have been implemented in past projects of this scope, and are consistent with the City's efforts to address all sources of I/I.

Sanitary Sewer Service Rehabilitation

As previously mentioned, property owners, including businesses, in the project area have been given the opportunity to voluntarily have their sanitary sewer service inspected as part of this project and as part of the City's ongoing I/I Reduction Program. The intent of this voluntary inspection, which is funded by the City's water and sewer fund, is to identify potential sources of I/I from the privately owned sanitary sewer services. It is also intended to let the property owners know what sewer service repairs are needed in order to become compliant with City Code. Property owners can use the information provided in the inspection to plan for future sewer service repairs, including participation in the sewer service repair program, which includes the option to specially assess the work offered as part of the proposed project.

Sewer service inspections will begin in summer 2024 for property owners involved with the project. Each property owner, including those who did not participate in the voluntary inspection program as previously mentioned, will be given the opportunity to have repairs performed on their sanitary sewer service.

These repairs will be performed in conjunction with this project, but will be completed under a separate contract from the public improvements. Property owners will be able to have their sewer services lined, or removed and replaced, as part of this program.

Interested property owners can enter into a three-way agreement with the Contractor and the City. The Contractor performs the work, the City pays the Contractor, and the property owner reimburses the City over a ten year period via a special assessment.

Water Main Rehabilitation

Based upon water system maintenance records, it is proposed that the existing 8-inch and 12-inch cast iron water main located in the project area be replaced as part of this project with polyvinyl chloride (PVC) plastic pipe of the same pipe diameters. A 24-inch steel casing pipe is proposed to be jacked under the UPRR crossing of Zane Avenue North to house the new 12-inch PVC water main pipe.

Larger (3-inch and larger) existing commercial water services will also be replaced with PVC pipe to the right-of-way line. A new gate valve will be installed at the right-of-way line on the new services.

Smaller (1-inch and 2-inch) existing water services will be replaced with high-density polyethylene (HDPE) plastic pipe to the right-of-way line. New curb stops will also be installed at the right-of-way line on new water services.

A temporary water supply system will be required to provide water to businesses and homes during water main replacement. The proposed water main replacement is shown on *Exhibits 2A through 2C*: *Proposed Project Layouts*.

In addition to water main replacement, all hydrant and gate valves will be replaced throughout the project area. Additional gate valves and hydrants will be added where needed to meet current spacing requirements.

Stormwater Management

The entire Zane Avenue North and Lindsay Street Improvements project area is part of the Bassett Creek Watershed and is contained within the Sweeney Lake subwatershed. Therefore, the proposed improvements will be designed in accordance with the City's standards and the Bassett Creek Water Management Commission (BCWMC) *Requirements for Improvements and Development Proposals,* including the implementation of temporary and permanent stormwater best management practices (BMPs) as part of the project design and during construction. Additionally, the project will be required to obtain an NPDES Construction Stormwater Permit from the Minnesota Pollution Control Agency (MPCA).

The minimization of impervious surfaces such as street pavement, which generate higher volumes of stormwater runoff than vegetated pervious surfaces, is a goal of project design. Quantities of existing street impervious area, post construction impervious area, and the overall decrease in impervious area for the project are summarized in the table on the next page.

The Zane Avenue North and Lindsay Street reconstruction is a linear project that will disturb more than one acre, therefore must be submitted to the Bassett Creek Watershed Management Commission (BCWMC) for review and approval for erosion and sediment control standards. As the linear project is not adding any net new impervious surfaces, the project area is exempt from BCWMC water quality standards.

The City of Golden Valley is a municipal separate storm sewer system (MS4) permittee. MS4, as defined in Minnesota Rule 7090, is a conveyance or system of conveyances including roads with drainage systems, municipal street, catch basins, curbs, gutters, ditches, man-made channels, or storm drains that are owned by a city, designed or used for collecting or conveying storm water, not a combined sewer, and not part of a publicly owned treatment facility.

MS4 permit holders in Minnesota must satisfy the requirements of the MS4 general permit if they are at least one of the following: located in an urbanized area and have a population of 1,000 or more, owned by a municipality with a population of 10,000 or more, or have a population of at least 5,000 and the system discharges to specially classified bodies of water. The MS4 general permit is designed to reduce the amount of sediment and other pollutants entering state waters from storm water systems.

As an MS4 permittee, the City has a post construction stormwater management standard that must be implemented, including treatment of the water quality volume on any project where the sum of the new impervious and fully reconstructed impervious surfaces equals one or more acres. Where the entire water quality volume cannot be treated within the existing right-of-way, a reasonable attempt to obtain additional right-of-way, easement, or other permission to treat the stormwater during the project planning process must be made.

The City also adheres to the Minimal Impact Design Standards (MIDS) performance goals for new development, re-development, and linear projects and the requirements of BCWMC. MIDS, developed by the Minnesota Pollution Control Agency (MPCA), has a set of performance goals and design standards to promote low impact development and other stormwater management techniques. MIDS has a similar, but more stringent, water quality volume requirement as the MS4 permit. To meet the MIDS performance goal for linear projects, the water quality volume must be calculated as the larger of 1.1 inches of runoff from the net increase in impervious area, or 0.55 inches of runoff from the new and fully reconstructed impervious surfaces. The required water quality volume for the project area is summarized in the table below.

	Existing Impervious Area (acres)	Post Construction Impervious Area (acres)	Decrease of Impervious Area (acres)	Newly Reconstructed Impervious Area (acres)	Required Water Quality Volume * (cubic feet)	% Reduction of Impervious Area
Street	4.51	4.20	0.31	4.20	8,395	6.7%

* Water quality volume is calculated, per the MIDS performance goal, as 0.55 inches of runoff from the new and fully reconstructed impervious surfaces.

Per the BCWMC Requirements for Improvements and Development Proposals, Linear projects on sites without restrictions that create one or more acres of net new impervious surfaces shall capture and retain onsite 1.1 inches of runoff from the net new impervious surfaces. This performance goal does not apply to this project since the proposed improvements result in a reduction in impervious surface area.

Due to limited right-of-way on the Zane Avenue North and Lindsay Street project, the water quality volume, as described above, cannot be treated within the right-of-way. Properties outside the right-of-way were reviewed to locate potential options for water quality volume treatment. The City of Golden Valley has reached out to these property owners in attempts to obtain additional right-of-way or easements, but none of the property owners were interested in participating.

As mentioned previously, Zane Avenue North within the project area is a Municipal State Aid Street (MSAS) therefore, it must adhere so certain State Aid design requirements when reconstructed. One of these requirements is stormwater spread cannot exceed the allowable spread on the roadway. Spread is the amount stormwater pools up, or spreads, across the roadway before it makes its way into a catch basin. In order to meet the State Aid spread criteria, many catch basins are proposed to be added compared to the existing conditions, particularly north of the UPRR crossing. This is due to a narrower roadway, flat longitudinal grade, and stormwater from large offsite impervious drainage areas entering the roadway. Lindsay Street is not a State Aid street; therefore, the same spread requirements are not required to be met. However, additional storm sewer is proposed in the westernmost 350 feet to improve drainage at the Zane Avenue North intersection.

A sump discharge drainage system is proposed within the project area for residential parcels, which connects into the storm sewer system. This sump discharge drainage system consists of a piping system behind the curb and a service stub for potential connection of private sump pump discharges. The sump discharge drainage system is proposed for locations where a significant number of sump pumps are present, and provides an alternative to discharging sump pumps above ground into backyards, the street, or into the sanitary sewer system, where clear water flows are not allowed.

Additional Water Quality Measures

While infiltration is not feasible due to the typical clayey soils that prevent water infiltration into the subsurface, rain gardens designed as filtration basins may be feasible. The City will provide technical assistance to individual property owners if they desire to create “rain garden” filtration basins on their property.

Storm sewer sump manholes with manhole baffles will be installed throughout the project area where practical, prior to stormwater discharge from the project limits. Manhole baffles provide pre-treatment to stormwater entering the sump manholes by filtering out sediment as it enters the manhole. The sump manholes allow the larger debris and sediment that is filtered from the stormwater by the manhole baffle to settle out in the sump, where it is cleaned out on a regularly scheduled basis as part of the City’s maintenance program.

Streets

The City of Golden Valley stresses the use of proper pavement rehabilitation measures for each street reconstruction project. After reviewing the streets within the project area, it has been determined that reconstruction to City standards is the appropriate rehabilitation measure. This section of the report will discuss proposed rehabilitation measures being recommended, as well as the structural and geometric concerns encountered during preliminary design.

Street Widths

The existing street widths are illustrated in *Exhibit 3: Existing Street Widths*. The proposed width of both streets are shown on *Exhibits 2A through 2C: Proposed Project Layouts* and on *Exhibit 4: Proposed Street Widths.*

The streets for all of Zane Avenue North and the westernmost 520 feet of Lindsay Street are located in a commercial/industrial area. These roadways are proposed to be narrowed from 40 feet to 30 feet, measured face of curb to face of curb. The remaining portion of Lindsay Street is bounded by residential parcels. This portion of the street will be reduced in width from 40 feet to 26 feet, measured face of curb to face of curb, to match the City standard street width for residential streets and consistent with the City's Pavement Management Policy.

Pavement Sections

Two bituminous pavement sections are proposed for this project: one section for the commercial/industrial area consisting of all of Zane Avenue North and the westernmost 520 feet of Lindsay Street, and one section for the remaining residential portion of Lindsay Street. The commercial/industrial area will have a thicker section of 7.5-inches of bituminous over 6-inches of class 5 aggregate base, which is the City standard street section for commercial areas, industrial areas, and other streets that carry high volumes of truck traffic. The residential area will have 4.5-inches of bituminous over 6-inches of class 5 aggregate base, which is the City standard street section for residential streets.

Bituminous pavement is proposed instead of concrete as a cost savings measure as concrete pavement is significantly more expensive that bituminous pavement. Installation of bituminous pavement also reduces traffic interruptions as cure times on concrete pavement are typically 7 days whereas bituminous pavement can be driven on the day it was placed. Finally, City staff is better equipped to maintain bituminous pavement as the majority of pavement in the city is bituminous.

Subgrade Corrections

Based upon the subsurface conditions encountered within the project area, it is recommended that subgrade correction occur beneath both streets. Subgrade correction is performed by removing soft, moisture-susceptible soils that are structurally unsuitable, and backfilling with clean (minimal silt) granular material such as sand or gravel.

The subgrade correction planned for both streets in the project area includes subcutting and replacing the excavated soils with a minimum of three feet of

sand and the above-mentioned bituminous and gravel base street sections. Refer to *Exhibit 5: Subcut Depths/Soil Boring Locations* for an illustration of the proposed subcut areas and depths.

Additionally, perforated PVC draintile is proposed to be placed at the bottom of the sand section, behind and running parallel to the curb and gutter, to help remove of groundwater from the sand section and reduce pavement problems associated with high groundwater, as previously discussed in this report. This perforated draintile is placed within 50 feet of catch basins, or where there are high ground water concerns, and drains into the catch basin and into the storm sewer system. Areas of high ground water concern are on Zane Avenue North, north of the UPRR crossing and the westernmost 500 feet of Lindsay Street.

Concrete Curb and Gutter

The installation of concrete curb and gutter is required by the City because of its engineering and maintenance advantages. Curb and gutter provides pavement edge support and protection, facilitates roadway drainage, and eliminates the need for ditches. Given the practicality of curb and gutter and its usefulness, the City's standard practice is to install concrete curb and gutter on all streets in the project area.

The standard type of concrete curb and gutter on Golden Valley streets includes a 6-inch high barrier curb and an 18-inch wide gutter (B618 curb and gutter). B618 concrete curb and gutter will be installed on both streets in the project area.

Parking

The Municipal State Aid (MSA) minimum design standards specify a minimum parking lane width of eight feet in commercial or industrial areas. Due to the proposed road width on Zane Avenue, parking lanes cannot be included and no parking is allowed per MSA design standards. "No Parking" signs are proposed on both sides of the street along the entire length of Zane Avenue to enforce this MSA requirement. "No Parking" signs are also included on both sides of the westernmost 500 feet of Lindsay Street to reduce conflicts with turning trucks and parked vehicles. These proposed parking regulations differ from the existing conditions which have "No Parking" signs at various locations along these routes and do not encompass the entire roadway length.

Pedestrian Facilities

In the City of Golden Valley's *2040 Comprehensive Bicycle and Pedestrian Plan*, Zane Avenue North (within the project area) is identified for recommended pedestrian improvements. An 8-foot wide concrete sidewalk along the entire east side of Zane Avenue North is proposed with this project. The proposed sidewalk includes pedestrian ramps with detectable warning plates at the following locations: the northeast and northwest quadrants of the Olson Memorial Highway Frontage Road North intersection, the southeast and northeast quadrants of the Lindsay Street intersection, the southeast and northeast quadrants of the Golden Valley Road intersection, and at every driveway crossing the sidewalk on Zane Avenue North. New pedestrian ramps with detectable warning plates are also proposed at the Luce Line Trail crossing of Zane Avenue North.

The proposed concrete sidewalk along Zane Avenue North also requires the UPRR crossing panels at the at grade crossing to be extended to include a pedestrian railroad crossing. This pedestrian crossing will include pedestrian ramps with detectable warning plates and appropriate signage for pedestrians.

The existing pedestrian routes through the project area are illustrated on *Exhibit 6: Pedestrian Routes.*

Street Lighting

As described above, the project area does not contain any City-owned street lights. No new street lighting is proposed for the project area.

Tree and Landscape Impacts

The proposed project outlined in this feasibility report includes minimizing impacts to landscaping, trees and shrubs as a major design consideration. As a result, the impacts have been minimized to the extent possible.

It is estimated that approximately 12 trees will be impacted by the proposed improvements. The extent of the potential tree impacts due to the reconstruction of sanitary sewer and water services cannot be quantified at this time. Any tree removals required for sewer service repairs will be included in the assessable costs, but replacement trees or shrubs will be the responsibility of the property owner. The potential impacts to trees, shrubs and landscaping is one of the primary reasons that lining of sanitary sewer services is the preferred method of rehabilitation.

Commercial Driveway Improvements

With the reduction in street width, large trucks entering and exiting commercial properties will be more constrained in the proposed conditions. To alleviate the truck turning constraints, many of the commercial driveways are proposed to be widened and radii increased. Truck turning movements have been simulated using vehicle turning software to assist in designing the appropriate width and radius for each driveway.

Proposed geometrics for the project area are illustrated in *Exhibits 2A through 2C: Proposed Project Layouts.* Example truck turning movements are illustrated in *Exhibit 8: Truck Turning Movement Sample.*

Residential Driveway Reconstruction Program

As with past residential street projects, homeowners within the project area whose driveways are impacted by street reconstruction will be given the opportunity to have their driveway replaced as part of the project, at contract unit prices. As part of this program, residents have the option of having the driveway reconstruction costs assessed against their property for a period of 10 years.

It should be noted that the City may reject homeowner participation in the driveway replacement program in situations where the reconstruction is excessively complicated or the risk of additional liability to the City is high during the reconstruction of the driveway. Challenging driveway reconstruction often includes pavement removal or installation against the base of retaining walls, foundation or basement walls or very flat or steep grades.

The City also evaluates the number of driveways on a single property for compliance with City Code Chapter 113-88 – *Street Access*. Staff will meet with homeowners during final design to determine the status of secondary driveways. Typically, a property is allowed a single driveway unless specific conditions are met.

UPRR Crossing

With the proposed roadway and sidewalk improvements to Zane Avenue North, the UPRR at-grade crossing of Zane Avenue North will also need to be improved. The existing crossing panels are proposed to be removed and replaced with new concrete crossing panels. These crossing panels will be longer than the existing panels due to the addition of the concrete sidewalk along the east side of Zane Avenue North. The crossing signals and wiring are also proposed to be replaced; the new signals being relocated to account for the narrower road. All improvements described in this section will be completed by UPRR or their contractor.

ESTIMATED COSTS AND PROJECT FINANCING

Estimated Project Costs

The estimated costs for the improvements outlined in this report are separated by the type of work and funding sources. These categories include utility work, storm drainage improvements, and street reconstruction costs. The estimated project costs include construction costs and construction contingencies, and an estimated 25 percent of the construction costs as indirect costs. These indirect costs typically include project design, surveying, construction administration, and legal costs.

Discussion on the financing and funding sources for the proposed improvements is included in the next section of this report.

Sewer and Water Costs

The estimated sewer and water costs include all water main replacement, sanitary sewer repairs (including service wye liners), and maintenance as outlined within this report.

Estimated Construction Costs =	$ 1,575,000
Estimated 25% Indirect Costs =	$ 525,000
Estimated Sewer and Water Total =	**$ 2,100,000**

Municipal State Aid (MSA) Eligible Storm Drainage Costs

The estimated storm drainage costs include all storm sewer installation, water quality measures, and erosion control eligible for State Aid Funding.

Estimated Construction Costs =	$ 487,500
Estimated 25% Indirect Costs =	$ 162,500
Estimated MSA Storm Drainage Total =	**$ 650,000**

Storm Drainage Costs – Non MSA

The estimated storm drainage costs include all storm sewer installation, water quality measures, and erosion control.

Estimated Construction Costs =	$	150,000
Estimated 25% Indirect Costs =	$	50,000
Estimated Storm Drainage Total =	**$**	**200,000**

Municipal State Aid (MSA) Eligible Street Costs

The estimated street reconstruction costs include all subgrade correction, pavement, curb and gutter, and turf restoration eligible for State Aid Funding.

Estimated Construction Costs =	$	3,750,000
Estimated 25% Indirect Costs =	$	1,250,000
Estimated MSA Street Total =	**$**	**5,000,000**

Street Reconstruction Costs – Non MSA

The estimated street reconstruction costs include all subgrade correction, pavement, curb and gutter, and turf restoration.

Estimated Construction Costs =	$	1,125,000
Estimated 25% Indirect Costs =	$	375,000
Estimated Street Reconstruction Total =	**$**	**1,500,000**

Municipal State Aid (MSA) Sidewalk Construction Costs

The estimated sidewalk construction costs include sidewalk on Zane Avenue North.

Estimated Construction Costs =	$	225,000
Estimated 25% Indirect Costs =	$	75,000
Estimated Sidewalk Construction Total =	**$**	**300,000**

Union Pacific Railroad (UPRR) Reconstruction Costs

The estimated UPRR construction costs include new crossing, signals, and signal equipment at the UPRR crossing of Zane Avenue North. UPRR facilities are constructed by UPRR and paid for by the City.

Estimated Construction Costs =	$	225,000
Estimated 25% Indirect Costs =	$	75,000
Estimated UPRR Reconstruction Total =	**$**	**300,000**

Total Project Costs

Estimated Sewer and Water Costs =	$	2,100,000
Estimated Storm Drainage Costs =	$	850,000
Estimated Street Reconstruction Costs =	$	6,500,000
Estimated Sidewalk Construction Costs =	$	300,000
Estimated UPRR Reconstruction Costs =	$	300,000
Estimated Total Project Cost =	**$**	**10,050,000**

Proposed Project Financing

The proposed financing of this project is a combination of special assessments to properties abutting the streets being improved, Street Improvement funds, the Sewer and Water Reserve Fund, the Storm Water Improvement Fund, Municipal State Aid, and American Rescue Plan Act funds. The following is a brief description of each of these funding sources and a summary of the estimated amount to be funded from each source.

Special Assessments

The proposed special assessments for the Zane Avenue North and Lindsay Street Improvements Project are consistent with the City of Golden Valley Special Assessment Policy and Minnesota Statutes, Chapter 429. As outlined in the Special Assessment Policy, residential properties are assessed on a per-unit basis for each single family or duplex unit (duplex properties are assessed twice; one per unit). Oversized lots that may potentially be subdivided into additional conforming lots are assessed one unit assessment for each potential lot. However, only one unit assessment is levied with the project, with the other assessments being deferred until the property is subdivided.

Corner residential lots are assessed one-half unit for each of the lot's frontage being improved, with no more than one full unit assessed, unless the lot could be subdivided. Non-residential parcels, including commercial and industrial properties, are typically assessed on a front-footage basis.

The use of special assessments for financing public improvement projects is outlined in Minnesota Statutes, Chapter 429. This law requires that when special assessments are used to finance projects a minimum of 20% of the project cost must be specially assessed. Therefore, because special assessments are being used to finance a portion of the *street reconstruction costs*, the assessments must be 20% of that cost. The project costs associated with sanitary sewer, watermain, storm sewer, and sidewalk construction are financed from dedicated funds, and special assessments are not utilized for funding for utilities and sidewalk.

Preliminary special assessment rates of $11,100 per single-family residential unit, and $155 per linear foot of frontage for other zonings represent approximately 20% of the estimated street construction costs. The final special assessment rate will be calculated following the opening of construction bids and will be based on actual costs.

Based upon the current schedule for the Zane and Lindsay Improvements project, it is anticipated that the construction contract award and the Public Hearing for the Special Assessments will be held at the May 7, 2024 City Council Meeting.

As shown on *Appendix B: Preliminary Special Assessment Roll*, the estimated amount of street reconstruction costs to be financed through special assessments is $1,124,210.35.

Municipal State Aid

Municipal State Aid will fund a portion of the eligible street, sidewalk and storm sewer costs on Zane Avenue North, which is a Municipal State Aid Street (MSAS). The estimated amount to be funded from this source is approximately $5,000,000.

American Rescue Plan Act

American Rescue Plan Act (ARPA) will fund a portion of the sanitary sewer and water main work discussed within this report. The estimated amount to be funded from this source is $750,000.

Sewer and Water Reserve Fund

The Sewer and Water Reserve Fund will be the funding source for all sanitary sewer and water main work discussed within this report. The estimated amount to be funded from this source is $2,100,000, of which $750,000 are funded by the above-mentioned ARPA funding. The Sewer and Water Reserve Fund is financed from sanitary sewer and water utility fees.

Storm Sewer Improvement Fund

All storm drainage improvements not funded by MSA, including lateral storm sewer extensions, drain tile, erosion control, and stormwater BMPs are funded from the Storm Sewer Improvement Fund. The estimated amount to be funded from this source and MSA funds is $850,000. The Storm Sewer Improvement Fund is financed from stormwater utility fees paid by all properties in the City.

Street Improvement Funds

All street rehabilitation costs not funded by special assessments or MSA funds will be funded using street improvement tax levies. These levies are used to repay bonds sold to finance the project. The estimated amount to be funded from this source and MSA funds is $6,500,000.

Bicycle and Pedestrian Improvement Funds

All sidewalk construction costs not funded by MSA funds will be funded using the Zane Avenue and Linsay Street Bicycle and Pedestrian Improvement Funds. The estimated amount to be funded from this source and MSA funds is $300,000.

Railroad Crossing Improvements Funds

All UPRR construction costs will be funded using the Zane Avenue and Linsay Railroad Crossing Improvement Funds. The estimated amount to be funded from this source is $300,000.

Financing Summary

The following is a summary of the amounts to be funded from each of the sources discussed above.

‖Sewer and Water Reserve Fund =	$	2,100,000
‡Storm Sewer Improvement Fund =	$	850,000
*‡Street Improvement Funds =	$	6,500,000
†Bicycle and Pedestrian Improvement Funds =	$	300,000
Railroad Crossing Improvement Funds =	$	300,000
Estimated Total Project Cost =	**$**	**10,050,000**

**Street Reconstruction Bonds are sold, paid back with Special Assessments.*
†Fully funded by MSA funds
‡Partially funded by MSA funds
‖Partially funded by APRA Funds

SUMMARY AND RECOMMENDATIONS

This feasibility report for the proposed Zane Avenue North and Lindsay Street Improvements has been prepared in accordance with the Golden Valley City Council's authorization on October 5, 2021. The proposed improvements are part of the City of Golden Valley's Capital Improvement Program (CIP), a planning instrument that is used to identify needed capital projects. This report discusses the proposed improvements to streets illustrated on *Exhibit 1: Project Location Map*, which are proposed to be constructed during the 2024 and 2025 construction seasons.

Two construction seasons are anticipated due to unanticipated delays with outside parties. It is proposed that the contractor shall split the project up into three phases. The first phase will be constructed in 2024 and the remaining two phases will be completed in 2025. The UPRR facilities are proposed to be constructed in 2025 due to additional coordination required between the City and UPRR. This construction phasing schedule may change once City staff has discussions with the selected contractor regarding schedule to provide the most efficient and effective project.

Engineering staff has determined that the improvements outlined in this report are feasible from an engineering perspective. These improvements are consistent with similar street reconstruction projects in the City of Golden Valley and will benefit the community and those properties abutting the proposed improvements. The City Council should determine the cost-effectiveness of the proposed improvements.

Staff recommends approval of City Improvement Project No. 23-02, Zane Avenue North and Lindsay Street Improvements, as discussed within this report. Staff further recommends that the City Council authorize advertising for bids to construct the project.

Exhibits

Exhibit 1 - Project Location Map

Exhibit 2A – 2C - Proposed Project Layouts

Exhibit 3 - Existing Street Widths

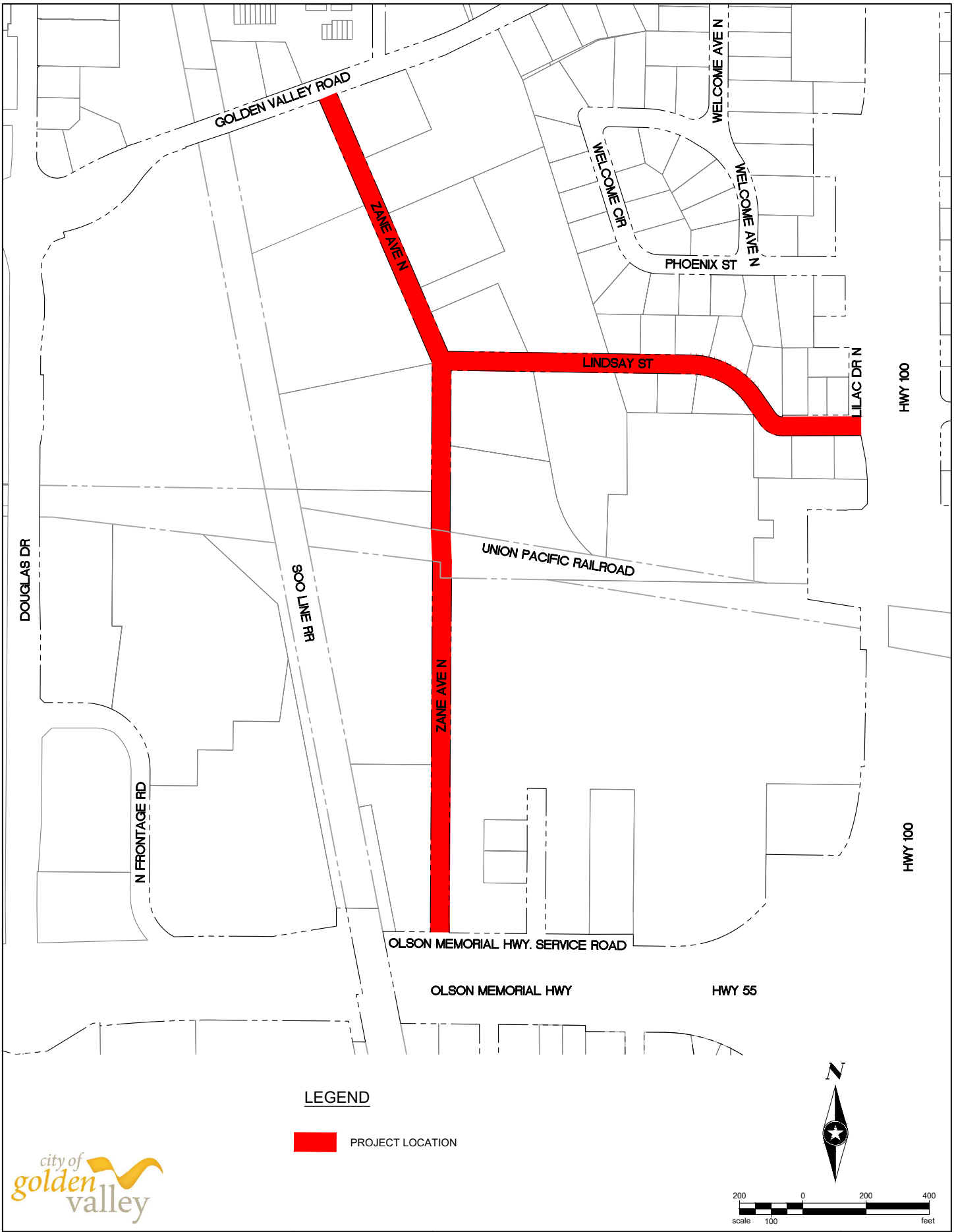
Exhibit 4 - Proposed Street Widths

Exhibit 5 - Subcut Depths / Soil Boring Locations

Exhibit 6 - Pedestrian Routes

Exhibit 7 - Sanitary Sewer Defects

Exhibit 8 - Truck Turning Movement Sample



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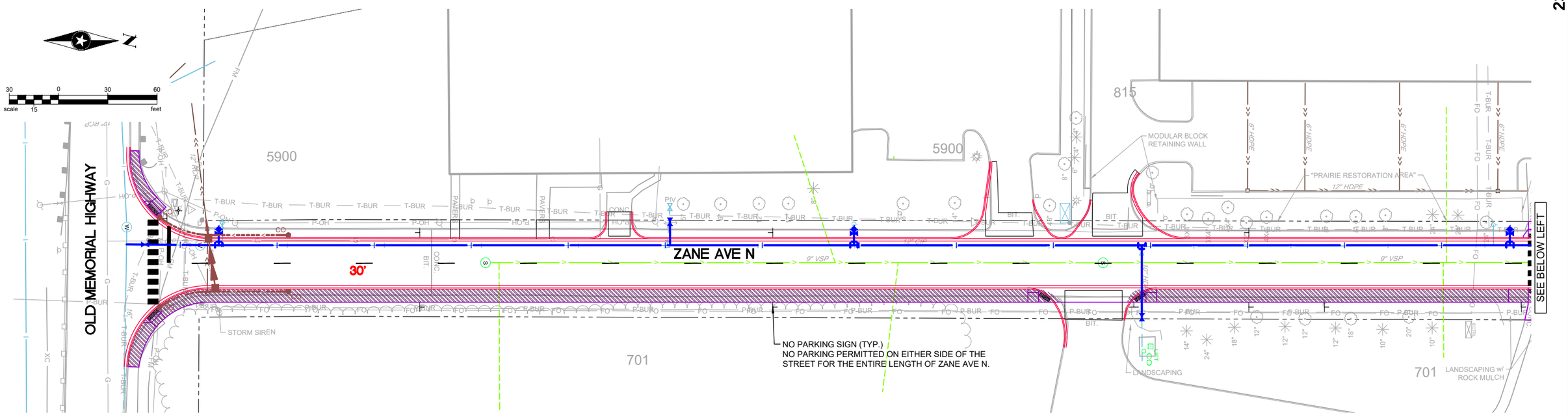
FILE NO. 163618

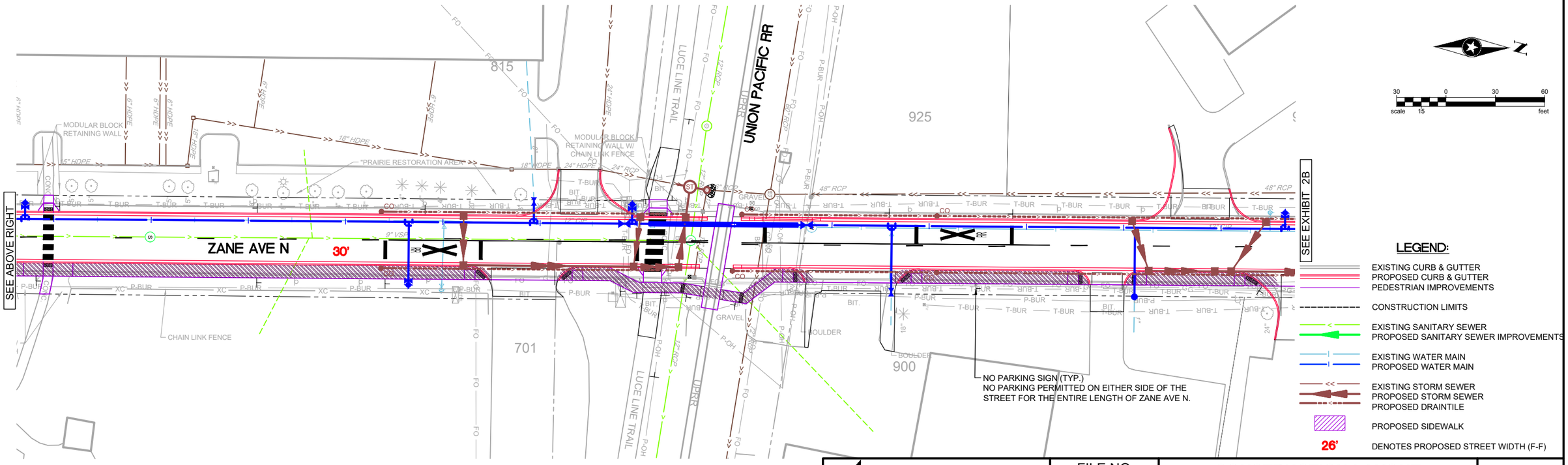
DATE: 5/7/2024

PROJECT LOCATION MAP
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS
GOLDEN VALLEY, MINNESOTA

EXHIBIT NO. 1

Save: 1/22/2024 12:36 PM sprall Plot: 2/19/2024 10:08 AM X:\FJ\G\GOLDV\163618\4-prelim-dsgn-rpts\Exhibits\PROJECT LOCATION MAP.dwg





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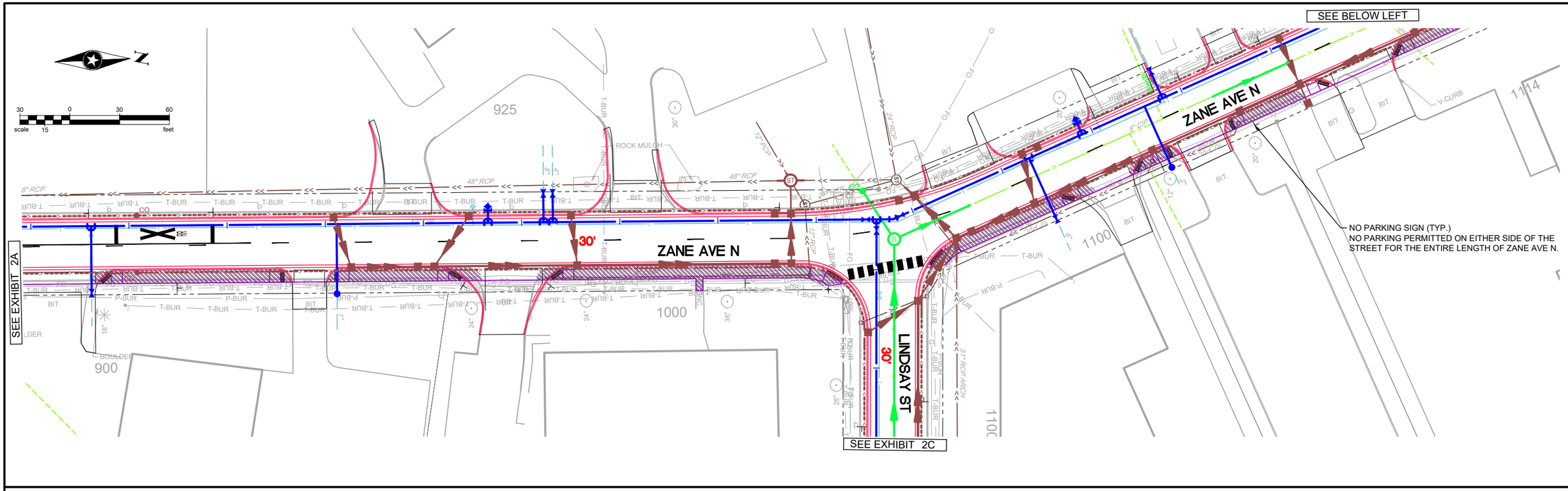
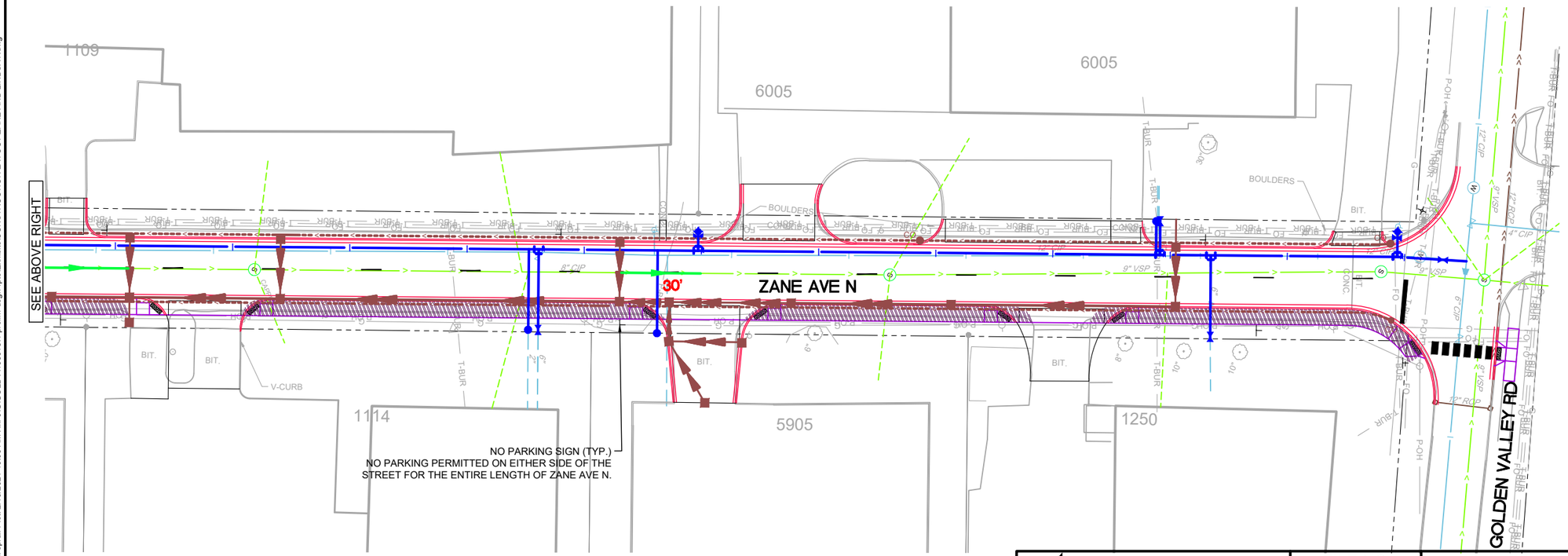
CONSTRUCTION LAYOUT
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS
GOLDEN VALLEY, MINNESOTA

EXHIBIT NO. 2A

Save: 2/19/2024 9:48 AM sprall Plot: 2/19/2024 10:09 AM X:\F\JG\GOLDV\163618\4-prelim-dsgn-rpts\Exhibits\CONSTRUCTION LAYOUT ZANE AND LINDSAY.dwg





LEGEND:

- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- PEDESTRIAN IMPROVEMENTS
- CONSTRUCTION LIMITS
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER IMPROVEMENTS
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- PROPOSED DRAINTILE
- PROPOSED SIDEWALK
- 26' DENOTES PROPOSED STREET WIDTH (F-F)

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CONSTRUCTION LAYOUT
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS
GOLDEN VALLEY, MINNESOTA

EXHIBIT NO. 2B

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SEE EXHIBIT 2B

NO PARKING SIGN (TYP.)
NO PARKING PERMITTED ON EITHER SIDE OF THE STREET FOR THE WESTERNMOST 500 LF OF LINDSAY STREET.

LINDSAY ST

30'

26'

SEE BELOW LEFT

SEE EXHIBIT 2B

SEE ABOVE RIGHT

LINDSAY ST

26'

LILAC DR

LITTLE FREE LIBRARY

MODULAR BLOCK RETAINING WALL

ROCK MULCH LANDSCAPING

MOD BLOCK LANDSCAPE EDGING w/ ANGLE STAKE

SHRUBS w/ ROCK MULCH

1100 1000 1121 935 5660 5640 5645 5625 5735 5605 5540 5530 5520 5510

N

30 0 30 60
scale 15 feet

LEGEND:

- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- PEDESTRIAN IMPROVEMENTS
- CONSTRUCTION LIMITS
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER IMPROVEMENTS
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- PROPOSED DRAINTILE
- PROPOSED SIDEWALK
- 26' DENOTES PROPOSED STREET WIDTH (F-F)

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CONSTRUCTION LAYOUT
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS
GOLDEN VALLEY, MINNESOTA

EXHIBIT NO. 2C

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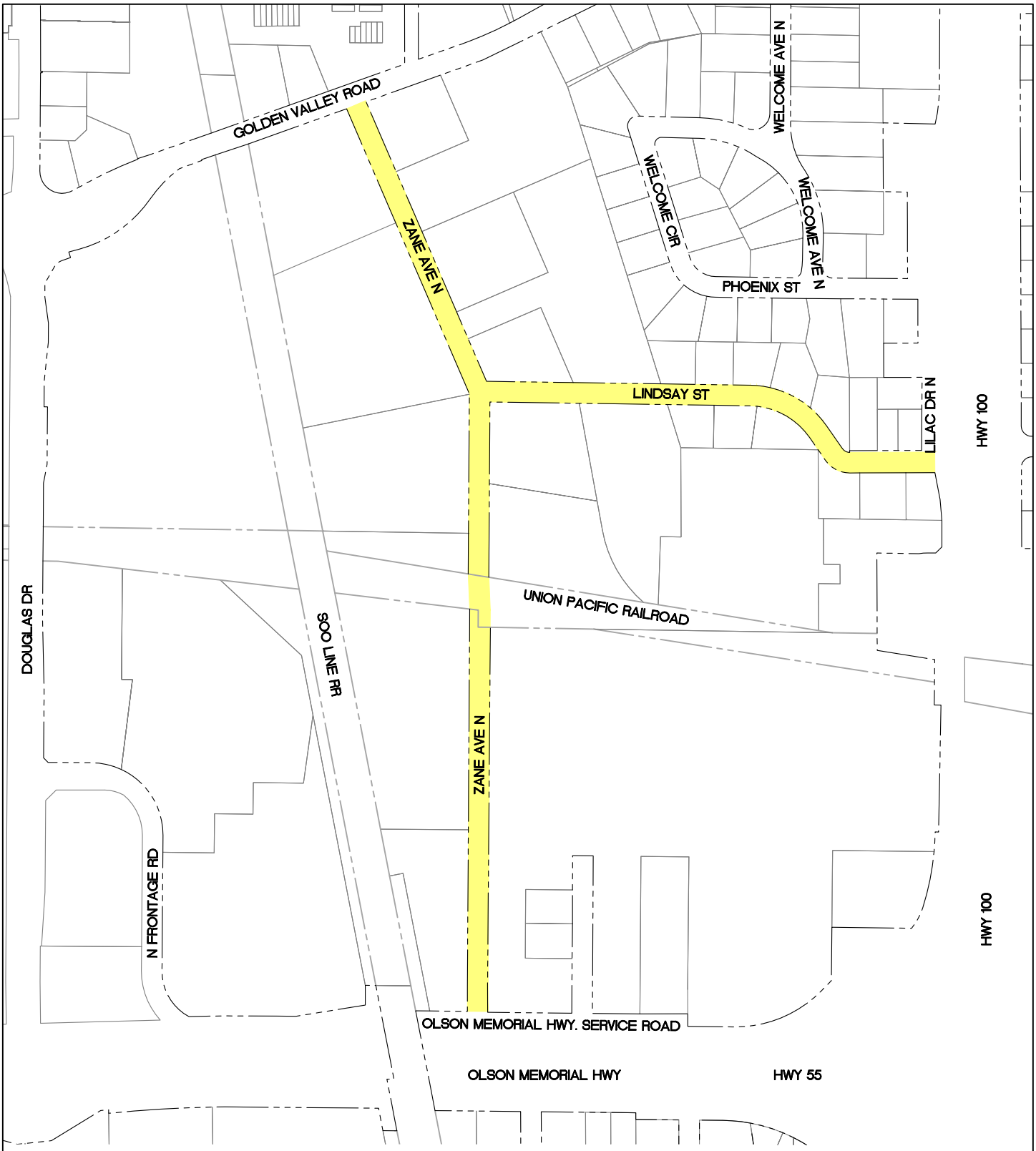

LEGEND

40' FACE OF CURB TO FACE OF CURB

N

200 0 200 400
scale 100 feet

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DATE: 5/7/2024

EXISTING STREET WIDTHS
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS
GOLDEN VALLEY, MINNESOTA

EXHIBIT NO. 3

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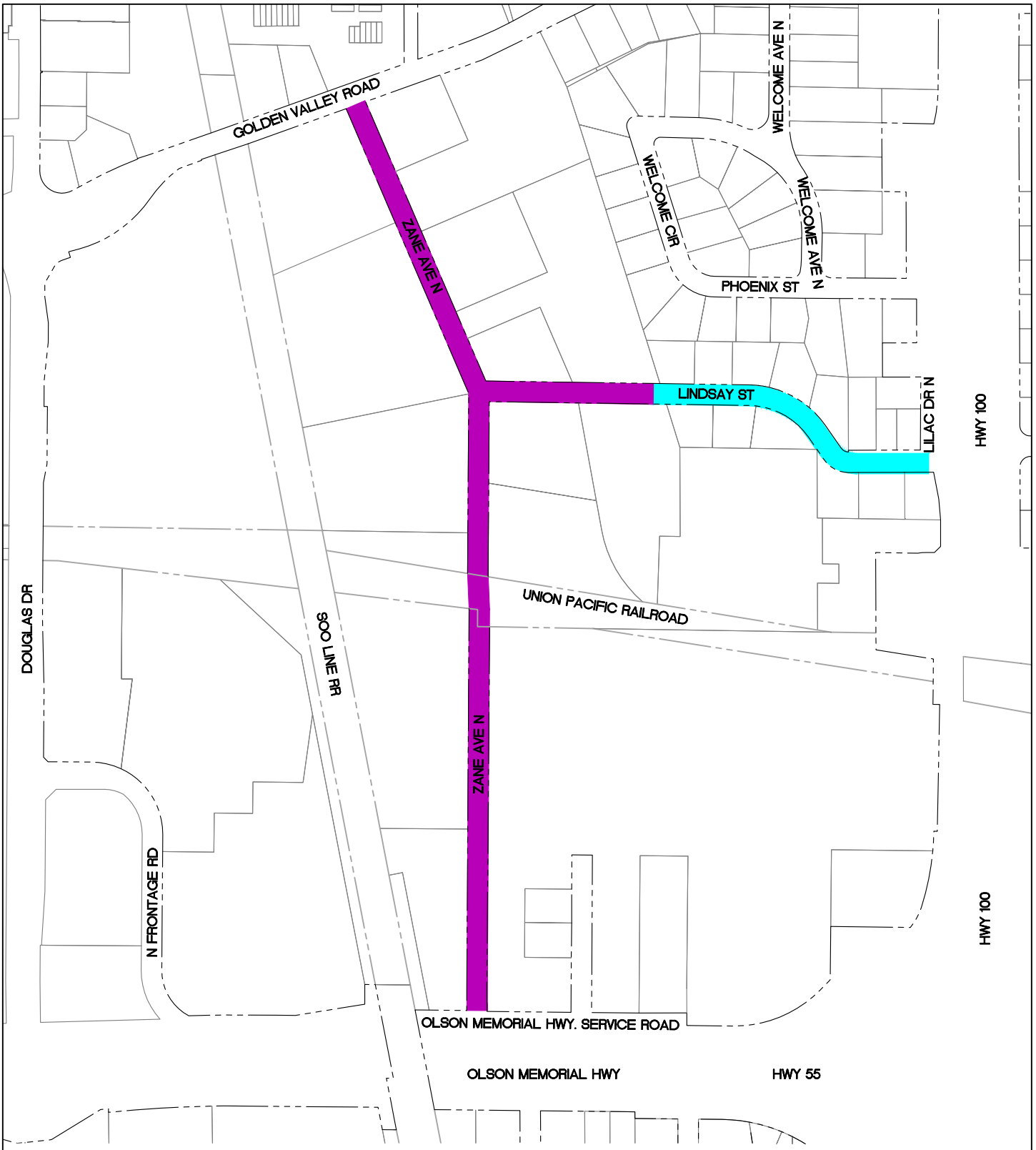

LEGEND

30' FACE OF CURB TO FACE OF CURB

26' FACE OF CURB TO FACE OF CURB

N

200 0 200 400

scale 100 feet

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FILE NO. 163618

DATE: 5/7/2024

PROPOSED STREET WIDTHS
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS
GOLDEN VALLEY, MINNESOTA

EXHIBIT NO. 4

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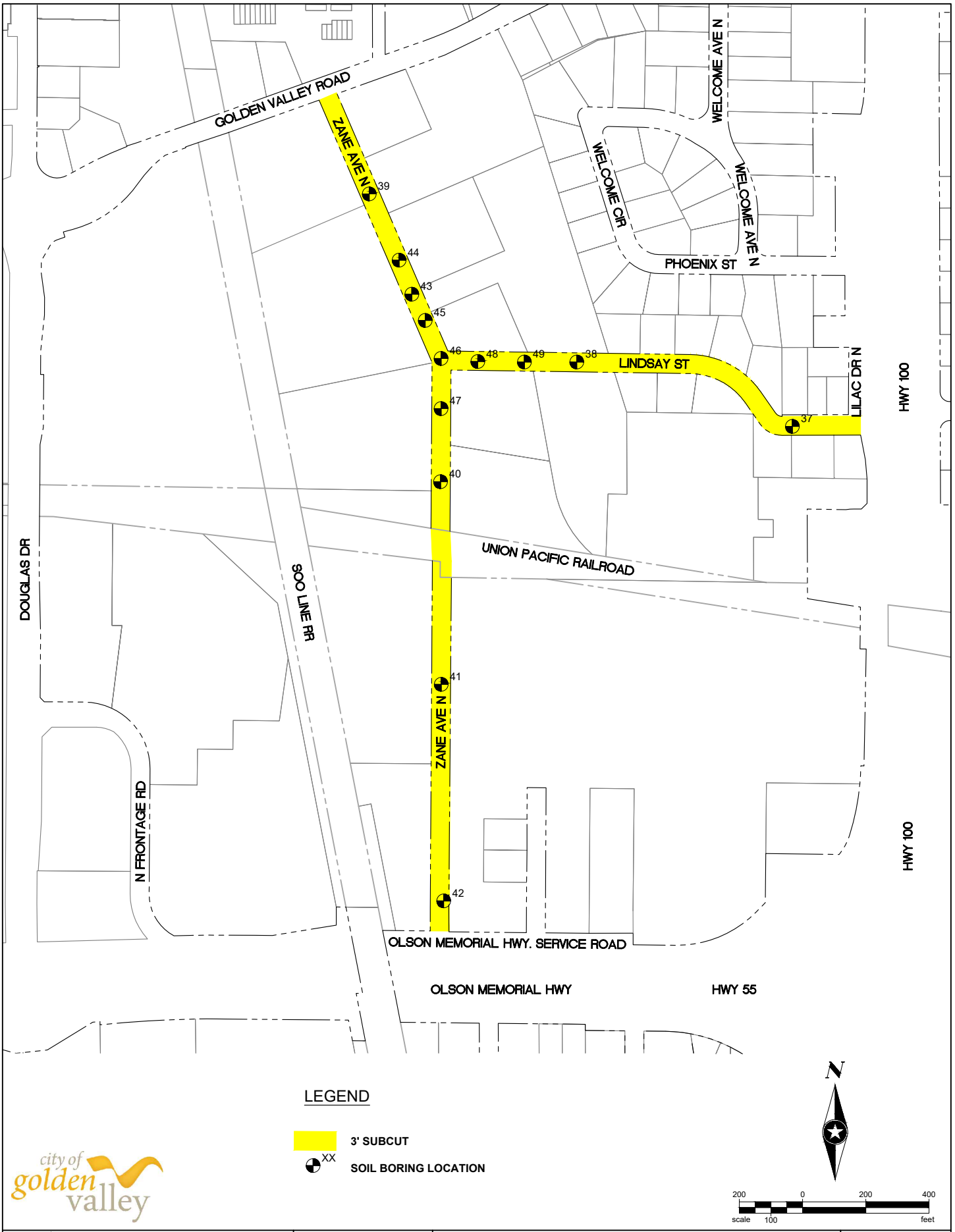

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DATE: 5/7/2024

SUBCUT DEPTH & SOIL BORING LOCATIONS
ZANE AND LINDSAY STREET IMPROVEMENTS
GOLDEN VALLEY, MINNESOTA

EXHIBIT NO. 5

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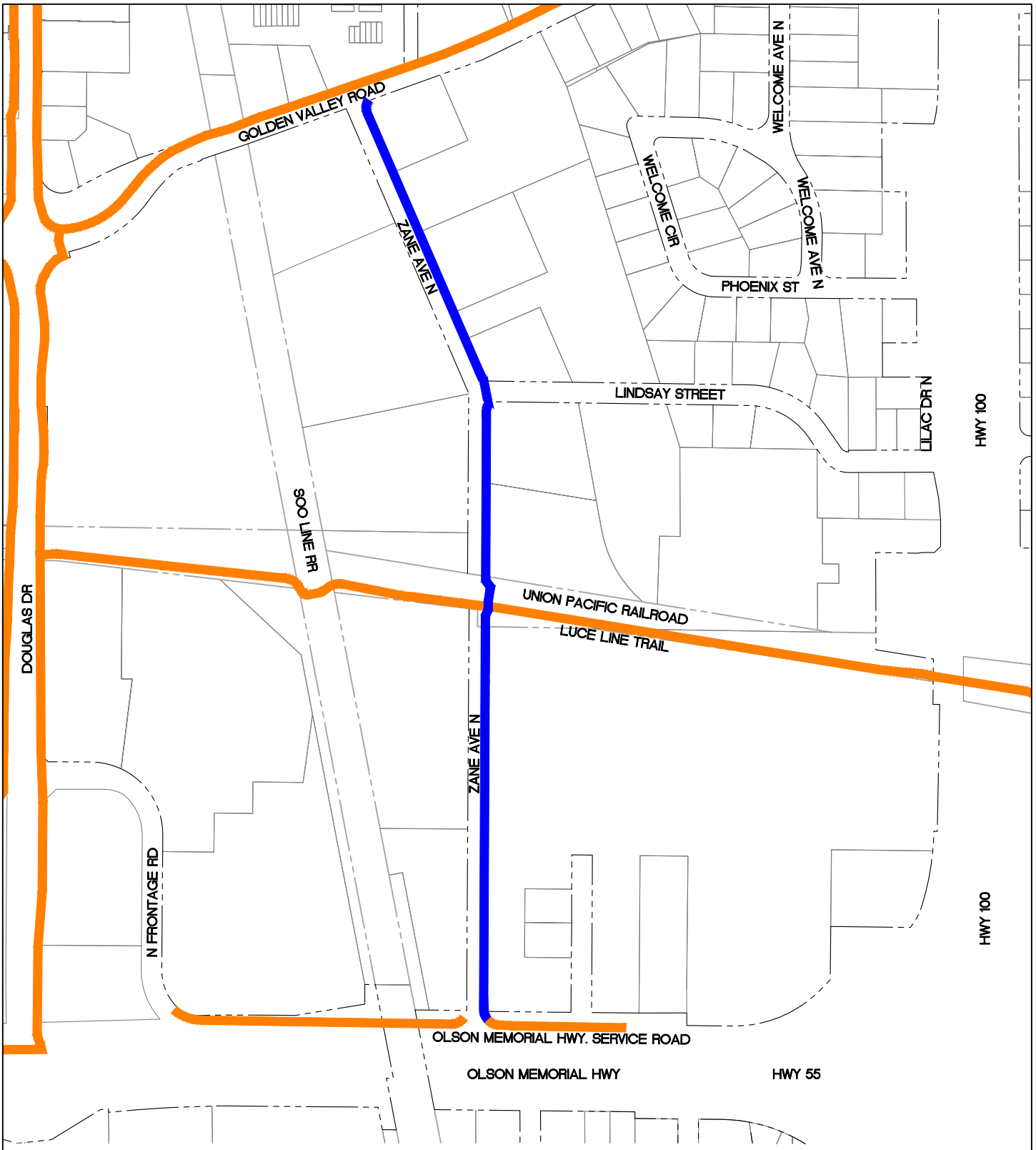

LEGEND

EXISTING PEDESTRIAN ROUTE

PROPOSED PEDESTRIAN ROUTE

N

200 0 200 400

scale 100 feet

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DATE: 5/7/2024

PEDESTRIAN ROUTES
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS
GOLDEN VALLEY, MINNESOTA

EXHIBIT NO. 6

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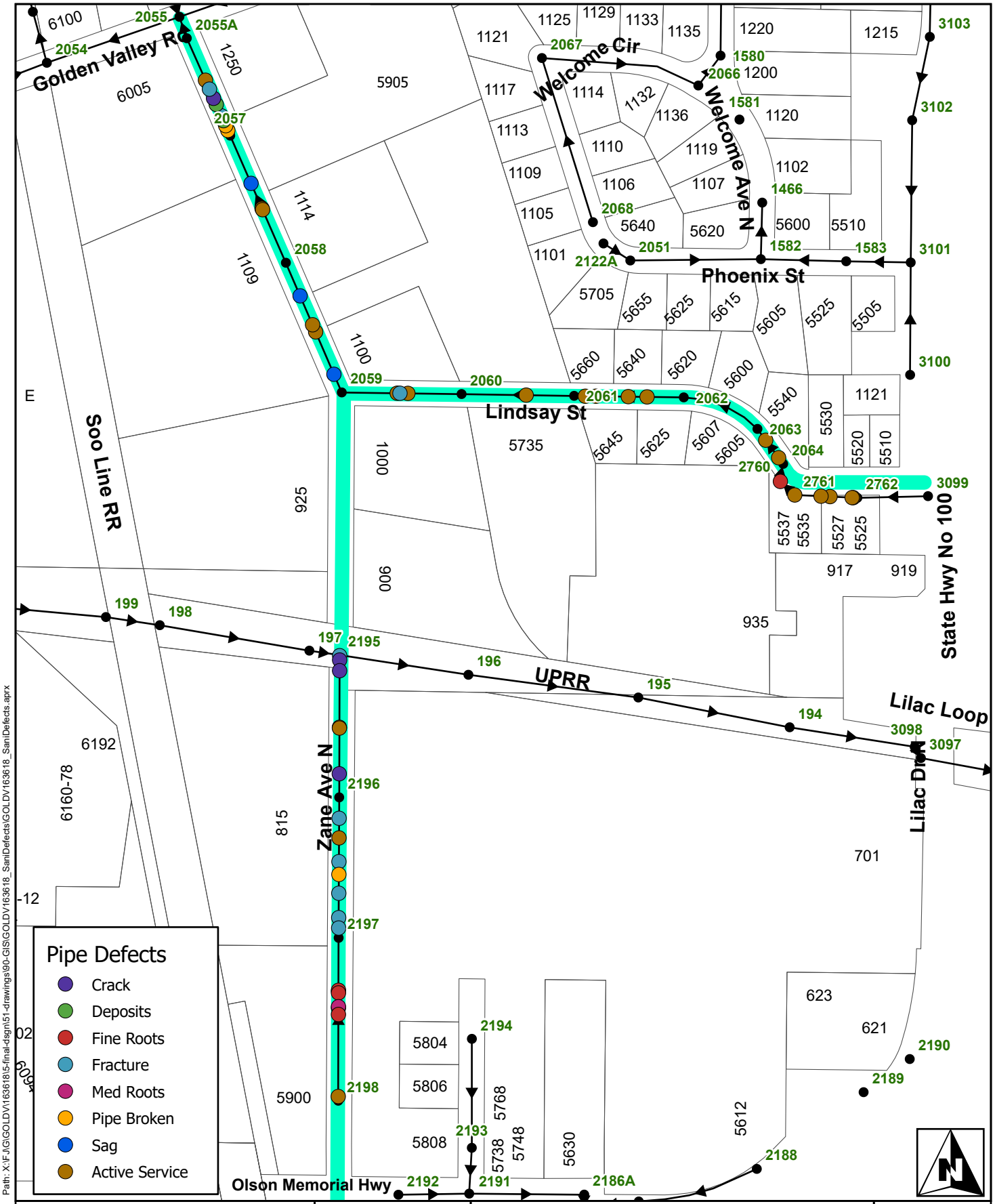

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Project: GOLDV 163618
Print Date: 5/7/2024

Map by: tschwarz
Projection: Hennepin CC
Source: Hennepin County, City of Golden Valley, SEH
1 inch = 300 feet

SANITARY SEWER DEFECTS

city of golden valley

Zane Avenue & Lindsay Street Improvements

Exhibit No. 7

This map is neither a legally recorded map nor a survey map and is not intended to be used as one. This map is a compilation of records, information, and data gathered from various sources listed on this map and is to be used for reference purposes only. SEH does not warrant that the Geographi Information System (GIS) Data used to prepare this map are error free, and SEH does not represent that the GIS Data can be used for navigational, tracking, or any other purpose requiring exacting measurement of distance or direction or precision in the depiction of geographic features. The user of thi map acknowledges that SEH shall not be liable for any damages which arise out of the user's access or use of data provided.

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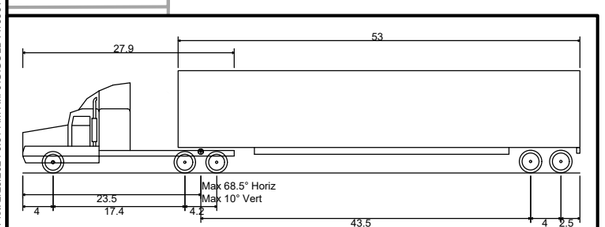
N

20 0 20 40
scale 10 feet

P-OH
BIT.
CONC.
GRAVEL
BOULDER
MODULAR BLOCK RETAINING WALL W/ CHAIN LINK FENCE
"PRAIRIE RESTORATION AREA"
ZANE AVE N
19 + 00
18 + 00
17 + 00
16 + 00
4.77'
8"
20"
4"
XC
815
701



WB-67 - Interstate Semi-Trailer

Overall Length	73.501ft
Overall Width	8.500ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.334ft
Max Track Width	8.500ft
Lock-to-lock time	6.00s
Max Steering Angle (Virtual)	28.40°

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FILE NO. 163618

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TRUCK TURNING MOVEMENT SAMPLE

ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS
GOLDEN VALLEY, MINNESOTA

EXHIBIT NO. 8

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Appendix A

Summary of Property Owner Comments

Zane & Lindsay Reconstruction Public Comments

Open House or Online	HOUSE No.	STREET	PROPERTY OWNER(S)	Phone Number	Email	Invisible Fence	Automatic Sprinkler System	Sump Pump	Retaining Walls/ Landscape Features	Sanitary Sewer Service Problems	Comments
OL	5600	Lindsay St	Kathryn Palmisano	218-760-2531	kmverchota@gmail.com			SE corner of the house. Perhaps 40+ feet away from the road.			1 - With this neighborhood's proximity to both the Luce Line trail and the local shopping center (Walgreens and Lunds), there would be benefit to the community to include pedestrian walkways or sidewalks on both Zane and Lindsay. Further, there is a fair amount of business related traffic (including semi-trucks) that use the residential Lindsay street. Improved signage at the intersection of Zane and Lindsay, and alerting business traffic that Lindsay is a residential street would be appreciated. 2 - Are there plans or considerations for pedestrians given this project? I see that a crosswalk will be painted crossing Golden Valley Rd to Zane? There is often semi-truck traffic on Lindsay and Zane and these streets are frequented by pedestrians from the residential areas and the businesses alike, as well as folks accessing the Three Rivers Park Trail. It would help improve safety to include pedestrian safety markings on the road, or to route semis away from Lindsay Street and provide guidnace that they avoid parking in areas pedestrians frequent.
OH	5620	Lindsay St	Mick & Renee Bergquist	763-360-9812							We have occasional standing water on the North side of our lawn. Will Lindsay St be narrowed? Will semi-trucks have weight limits?
OH	5625	Lindsay St	Leo & Sally Anderson	763-546-5625			Y	Front Lawn			1. The street will be a safety hazard to the truck drivers for having the street so narrow. 2. Parking on the street with our own cars is going to be a nightmare as well. 3. We have garbage trucks going up and down the street, running & stopping. They need room to pick up the garbage. 4. We have a school bus that is on this street twice a day. With that being said, we get a lot of traffic on this street. 5. A lot of trucks & vans delivering packages & boxes to the neighbor. We also have the Golden Valley sewer truck checking out the manholes!
OL	5645	Lindsay St	Randy Anderson	763-331-5167	randyanderson@outlook.com			Middle of front yard at least 10' from curb			Unlike most streets in GV I would venture to guess they do NOT have commercial property with daily semi-truck and trailer traffic. Lindsay St has three commercial properties on the west end of the block and two of those properties use Lindsay St for their semi-truck and trailer dock entrances. Furthermore, multiple semi-truck and trailers come off Hwy 100 down Lilac drive and use the east end of Lindsay St. to access the commercial properties located on Lindsay St. and Zane Ave. An average vehicle width in the us is approximately 6ft. An Average width of a semi-truck and trailer is the US is approximately 9ft. Let's assume that someone that can park fairly well and is about 12" away from the curb. Let's do some math 6+6+9+1+1=23 With those calculations we have about 3ft remaining or 18" on either side. Let's add walkers and bikers to the mix. What about emergency vehicles? A full-sized fire truck can measure 12ft wide according to the math that truck would NOT be unable to pass if vehicles are parked on the street. At the end of the day, I would not oppose a street width of 26ft if Lindsay St did not have the amount of semi-truck and trailer it gets on a daily basis. Maybe the City of Golden Valley could spend a little time seeing what the real-time daily traffic patterns and the frequency of truck traffic that happens on Lindsay St. before creating a possible safety issue.

Appendix B

Preliminary Assessment Roll

Preliminary Special Assessment Roll
ZANE AVENUE AND LINDSAY STREET RECONSTRUCTION
City Project 23-02

RESIDENTIAL ASSESSMENT RATE=	$11,100.00
STATE-AID FRONT FOOTAGE RATE=	$155.00
OTHER ZONINGS LOCAL STREET=	$155.00

PID	HOUSE NO.	STREET	CITY/STATE/ZIP	PROPERTY OWNERS	FRONTAGE	NOTES	RES. UNITS	LEVIED ASSESSMENTS Non-MSAS	LEVIED ASSESSMENTS MSAS	DEFERRED ASSESSMENTS Non-MSAS	DEFERRED ASSESSMENTS MSAS	TOTAL ASSMTS.
3311821210057	5905	GOLDEN VALLEY RD	GOLDEN VALLEY MN 55422	JEW FAM/CHILDREN'S SVC MPLS	190.00	4	0		$29,450.00			$29,450.00
3311821220006	6005	GOLDEN VALLEY RD	GOLDEN VALLEY MN 55422	D & S RENTALS LLC	361.72	3	0		$56,066.60			$56,066.60
3311821210059	5525	LINDSAY ST	GOLDEN VALLEY MN 55422	G W LAWRENCE ET AL TRUST	134.40	2, 16	2	$22,200.00				$22,200.00
3311821210058	5535	LINDSAY ST	GOLDEN VALLEY MN 55422	S F KAROLEWSKI & B M EPSTEIN	149.14	2, 17	2	$22,200.00				$22,200.00
3311821210041	5540	LINDSAY ST	GOLDEN VALLEY MN 55422	CLIFTON PROPERTIES LLC	181.17	1, 18	1	$11,100.00				$11,100.00
3311821210042	5600	LINDSAY ST	GOLDEN VALLEY MN 55422	J PALMISANO & K PALMISANO	132.00	1	1	$11,100.00				$11,100.00
3311821210048	5605	LINDSAY ST	GOLDEN VALLEY MN 55422	CATHARINE W NISAM	227.30	2	2	$22,200.00				$22,200.00
3311821210043	5620	LINDSAY ST	GOLDEN VALLEY MN 55422	MICHAEL A BERGQUIST ET AL	108.92	1	1	$11,100.00				$11,100.00
3311821210047	5625	LINDSAY ST	GOLDEN VALLEY MN 55422	LEO L ANDERSON JR ETAL	125.05	1	1	$11,100.00				$11,100.00
3311821210044	5640	LINDSAY ST	GOLDEN VALLEY MN 55422	A E DIETZ & A DIETZ TRSTES	110.00	1	1	$11,100.00				$11,100.00
3311821210046	5645	LINDSAY ST	GOLDEN VALLEY MN 55422	R A ANDERSON/D M L ANDERSON	136.13	1	1	$11,100.00				$11,100.00
3311821210045	5660	LINDSAY ST	GOLDEN VALLEY MN 55422	DENISE LA MERE-ANDERSON	100.00	1	1	$11,100.00				$11,100.00
3311821210056	5735	LINDSAY ST	GOLDEN VALLEY MN 55422	LAKELAND MGMT SERVS INC	256.59	7	0	$39,771.45	$0.00			$39,771.45
3311821230004	5900	OLSON MEMORIAL HWY	GOLDEN VALLEY MN 55422	STORE MASTER FUNDING XVI LLC	528.88	3	0	$0.00	$81,976.40			$81,976.40
3311821230003	815	ZANE AVE N	GOLDEN VALLEY MN 55422	TENNANT COMPANY	642.73	4, 13	0	$0.00	$99,623.15			$99,623.15
3311821210055	900	ZANE AVE N	GOLDEN VALLEY MN 55422	GBC PARTNERS LLP	273.01	4, 12	0	$0.00	$42,316.55			$42,316.55
3311821230001	925	ZANE AVE N	GOLDEN VALLEY MN 55422	HEINRICH ENVELOPE CO	118.30	4	0	$0.00	$18,336.50			$18,336.50
3311821220002	925	ZANE AVE N	GOLDEN VALLEY MN 55422	HEINRICH ENVELOPE CO	405.12	4	0	$0.00	$62,793.60			$62,793.60
3311821210054	1000	ZANE AVE N	GOLDEN VALLEY MN 55422	GBC PARTNERS LLP	497.84	5, 12	0	$40,310.85	$36,854.35			$77,165.20
3311821210052	1100	ZANE AVE N	GOLDEN VALLEY MN 55422	GBC PARTNERS LLP	387.20	5, 10	0	$39,122.00	$20,925.00			$60,047.00
3311821220007	1109	ZANE AVE N	GOLDEN VALLEY MN 55422	IMF LLC	543.75	4, 19	0	$0.00	$84,281.25			$84,281.25
3311821210051	1114	ZANE AVE N	GOLDEN VALLEY MN 55422	DM LLC	255.00	4, 9	0	$0.00	$39,525.00			$39,525.00
3311821220004	1250	ZANE AVE N	GOLDEN VALLEY MN 55422	TENDRIL INVESTMENTS LLC	221.00	3, 8	0	$0.00	$34,255.00			$34,255.00
3311821210065	5510	LINDSAY ST	GOLDEN VALLEY MN 55422	JONATHAN KIM & MELISSA KIM	68.70	2, 6, 21	0.5	$5,550.00				$5,550.00
3311821210064	5520	LINDSAY ST	GOLDEN VALLEY MN 55422	M F ADLER TR/ADMORE PROP LLC	59.96	2, 21	1	$11,100.00				$11,100.00
3311821210063	5530	LINDSAY ST	GOLDEN VALLEY MN 55422	HOLLY SHEETS	81.00	1	1	$11,100.00				$11,100.00
3311821210053	28		GOLDEN VALLEY MN 55422	IMF LLC	340.44	5, 19	0	$39,593.20	$13,175.00			$52,768.20
3311821240025	701	LILAC DR N	GOLDEN VALLEY MN 55422	TENNANT COMPANY	1,121.19	3, 14	0	$0.00	$173,784.45			$173,784.45
3311821230004	5509	LINDSAY ST	GOLDEN VALLEY MN 55422	V SIVRIVER & I SIVRIVER	81.90	6, 15, 22	0.5			$5,550.00		
								$330,847.50	$793,362.85	$0.00	$0.00	$1,124,210.35

1) Residential, Single Family
2) Residential, Multi Family (Two Unit)
3) Industrial Corner Lot on 2 State Aid Streets, one of which is being reconstructed, assess State Aid Rate for side of construction
4) Industrial with State Aid Street Frontage, Assess State Aid Rate
5) Industrial Corner Lot with Local Street and State Aid Street Frontage, Assess State Aid Rate for State Aid Street, Local Other Zonings for Local Street
6) Residential Corner Lot with Local and State Aid Street Frontage, Assess One-Half Unit Residential
7) Industrial with Local Street Fronage, Assess Local Rate
8) Tax Payer Address: 418 HALSEY AVE SE BUFFALO MN 55313
9) Tax Payer Address: 6890 HARRISON CIRCLE CHANHASSEN MN 55317
10) Tax Payer Address: 450 FERGUSON DR MOUNTAIN VIEW CA 94043
11) Tax Payer Address for 925 Zane Avenue: C/O TAYLOR CORPORATION 1725 ROECREST DR NORTH MANKATO MN 56003
12) Tax Payer Address: 1000 ZANE AVE N GOLDEN VALLEY MN 55422
13) Tax Payer Address: 10400 CLEAN STREET EDEN PRAIRIE MN 55344
14) Tax Payer Address: 701 LILAC DR N MINNEAPOLIS MN 55422
15) Tax Payer Address: IRYNA SIVRIVER 6480 WAYZATA BLVD GOLDEN VALLEY MN 55426
16) Tax Payer Address: 2455 COMSTOCK LA N PLYMOUTH MN 55447
17) Tax Payer Address for 5535 Lindsay Street: BARBARA M EPSTEIN 4121 WENDOVER CT MINNETONKA MN 55345
18) Tax Payer Address: 8445 CENTER DR NE SPRING LAKE PARK MN 55432
19) Tax Payer Address: 12424 CREEK RD W MINNETONKA MN 55305
20) Tax Payer Address for 1109 Zane Avenue: 12424 CREEK RD W MINNETONKA MN 55305
21) 5510 Lindsay Street and 5520 Lindsay Street is a duplex, Assess One Residential Unit for Each
22) Vacant Land - Residential

Building a Better World for All of Us®

Sustainable buildings, sound infrastructure, safe transportation systems, clean water, renewable energy and a balanced environment. Building a Better World for All of Us communicates a company-wide commitment to act in the best interests of our clients and the world around us.

We're confident in our ability to balance these requirements.

JOIN OUR SOCIAL COMMUNITIES

Project Manual and Specifications

Zane Avenue and Lindsay Street Improvements

S.A.P. 128-408-002
City Project No. 23-02

I hereby certify this Specification was prepared by me,
or under my direct supervision
and that I am a duly Licensed Professional Engineer
under the laws of the State of Minnesota

Stephen R. Prall, PE
Registration No. 54949
May 7, 2024

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DOCUMENT 00 00 00

CERTIFICATION

I hereby certify that this specification was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Stephen R. Prall, PE

Date: May 7, 2024 Lic. No. 54949

Reviewed By: Scott Haupt

Date: May 7, 2024

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CITY OF GOLDEN VALLEY, MINNESOTA
ADVERTISEMENT FOR BIDS
Zane Avenue and Lindsay Street Improvements
S.A.P. 128-408-002
City Improvement Project No. 23-02

Notice is hereby given that Online Bids will be received by the City of Golden Valley, Minnesota until **10:00 a.m., Thursday, June 13, 2024**, via QuestCDN for the furnishing of all labor and material for the construction of the Zane Avenue and Lindsay Street Improvements. Major quantities for the Work include.

Description	Quantity	Unit
Remove Concrete Pavement (Crush & Salvage)	15,600	SY
Clearing/Grubbing	12	TREE
Common Excavation	22,900	CY
Select Granular Borrow	31,200	TONS
Class 5 Aggregate Base	7,930	TONS
Bituminous Mixture	6,100	TONS
4”-6” Concrete Walk	18,900	SF
Concrete Curb and Gutter	7,100	LF
6”-8” Concrete Driveway Pavement	2,200	SY
Sanitary Sewer Lining	3,200	LF
Sanitary Sewer Service Wye Grouting/Liners	31	EA
Sodding with 4-Inches of Topsoil	11,600	SY
4”-12” PVC (C-900) Water Main	4,800	LF
4”-8” Gate Valve and Box	29	EA
10”-12” Gate Valve and Box	7	EA
F&I Hydrant	12	EA
12”-51” Reinforced Concrete Storm Sewer Pipe	2,360	LF
6” Perf PVC Pipe Drain with Sock	4,675	LF
Drainage Structures & Castings	55	EA

The bid opening will be conducted via Microsoft Teams, at which time they will be publicly opened and read aloud:

To Join the meeting by computer or mobile ap, go to: https://bit.ly/49KYBEx

Or call in (audio only)
+1 872-242-7640, United States, Chicago
Phone Conference ID: 593 795 713#

The Issuing Office for the Bidding Documents is: Short Elliott Hendrickson Inc. located at 3535 Vadnais Center Drive, St. Paul, MN 55110-5196, Steve Prall, PE – 651.318.0359.

The Bidding Documents may be viewed for no cost at http://www.sehinc.com by selecting the Project Bid Information link at the bottom of the page and the View Plans option from the menu at the top of the selected project page.

Digital image copies of the Bidding Documents are available at http://www.sehinc.com for a fee of $30. These documents may be downloaded by selecting this project from the “Project Bid Information” link and by entering eBidDocTM Number 9096298 on the SEARCH PROJECTS page.

For this project, bids will ONLY be received electronically. Contractors submitting an electronic bid will be charged an additional $42 at the time of bid submission via the online electronic bid service QuestCDN.com. To access the electronic Bid Worksheet, download the project document and click the online bidding button at the top of the advertisement. Prospective bidders must be on the plan holders list through Quest CDN for bids to be accepted. Bids shall be completed according to the Bidding Requirements prepared by SEH dated May 7, 2024.

The Bidding Documents are available for viewing **by appointment only**. Please call the City of Golden Valley Engineering Department at 763-593-3987 to schedule an appointment at the following location:

City of Golden Valley
Engineering Department
7800 Golden Valley Road
Golden Valley, MN 55427-4588

Paper copies of the Bidding Documents may be obtained from Docunet Corp. located at 2435 Xenium Lane North, Plymouth, MN 55441 (763-475-9600) for a fee of $80.

Bid security in the amount of 5 percent (5%) of the Bid must accompany each Bid in accordance with the Instructions to Bidders.

This work shall be subject to the Minnesota Prevailing Wage Act, Minnesota Fair Labor Standards Act, Minnesota Rules 5200.1000 – 5200.1120, Minnesota Department of Labor and Industry (MnDLI) Wage Decision(s), and the MnDLI Truck Rental Rate Schedule, in accordance with MnDLI Prevailing Wages for State Funded Construction Projects for Hennepin County.

Bidders are required to submit information indicating they have practical experience of the particular construction work bid upon, and that they have the ability and resources to complete the proposed work in a manner satisfactory to the Owner. A contract award will only be made to a bidder meeting the minimum contractor qualifications as stated within the contract specifications.

The successful bidder must be a “responsible contractor.” The term “responsible contractor” means a contractor as defined in Minnesota Statutes, section 16C.285, subdivision 3. Any prime contractor, subcontractor, or motor carrier that does not meet the minimum criteria or fails to comply with the verification requirements is not a responsible contractor and is not eligible to be awarded a construction contract for the project or to perform work on the project. A prime contractor, subcontractor, or motor carrier that makes a false statement under oath verifying compliance with the minimum criteria will be ineligible to be awarded a construction contract on the project, and the submission of a false statement may result in termination of a contract awarded to a prime contractor, subcontractor, or motor carrier that submits the false statement. A prime contractor shall include in its verification of compliance a list of all of its first-tier subcontractors that it intends to retain for work on the project. Before execution of a construction contract, a prime contractor shall submit a supplemental verification under oath confirming that all subcontractors and motor carriers that the prime contractor intends to use to perform project work have verified to the prime contractor, through a signed statement under oath by an owner or officer, that they meet the minimum criteria for a responsible contractor.

The City of Golden Valley reserves the right to reject any and all Bids, to waive irregularities and informalities therein and to award the Contract in the best interests of the City of Golden Valley.

BY ORDER OF THE CITY COUNCIL
Theresa Schyma, City Clerk

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INSTRUCTIONS TO BIDDERS
CITY OF GOLDEN VALLEY, MINNESOTA

1. PRE-BID MEETING

No pre-bid meeting will be held for this project.

2. PREVAILING WAGE RATES

The contractor will be required to pay not less than the minimum wage rates certified by the Minnesota Department of Labor and Industry (DLI) Prevailing wages for State Funded Construction Projects, Highway and Heavy Construction in Hennepin County, and not less than the minimum DLI certified Truck Rental Rates for the project location. Prevailing Wage Rates and Truck Rental Rates and reporting requirements are included in Appendices J-M.

3. EXAMINATION OF PLANS, SPECIFICATIONS AND SITE OF WORK

The Bidder shall examine to their satisfaction the quantities of work to be done as determined from the Plans and Specifications. Quantities indicated by the Engineer on drawings or elsewhere are estimated only, and Bidders must rely on their own calculations. Bidders shall be thoroughly familiar with the Specifications, including all Special Conditions.

Submission of a bid by the Bidder is a representation that the Bidder has visited the Work site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents. Bidders shall inform themselves of the character and magnitude of work and the conditions under which the work is to be performed concerning the site of the work, the structure of the ground, the existence of surface and groundwater, availability of drainage, the obstacles which may be encountered, means of approach to the site, manner of delivering and handling materials, facilities of transporting and installing construction plant and equipment and all other relevant matters pertaining to the complete execution of this Contract. No plea of ignorance of conditions that exist or that may hereafter exist, or of difficulties that will be encountered in the execution of the work hereunder, as a result of failure to make necessary examination and investigations, will be accepted as a sufficient excuse for any failure or omission on the part of the Contractor to fulfill in every detail all the requirements of this Contract, or will be accepted as a basis for any claim whatsoever for extra compensation or for an extension of time. No Bidder may rely upon any statements or representations of any officer, agent, or employee of the City with reference to the conditions of the work or the character of the soil or other hazards that may be encountered in the course of construction.

Submission of a bid by a Bidder is a representation that the Bidder has contacted the affected utilities listed in Item 18 of the Special Conditions prior to submitting the bid to determine the extent of their facilities within the project area and the scope and anticipated schedule of the facility relocation, removal or adjustment.

4. BID SECURITY

Each bid shall be accompanied by a cash deposit, certified or cashier's check, or bid bond with a corporate surety in an amount at least equal to five (5) percent of the total amount of the base bid, payable to the City as a guaranty that the Bidder

will enter into a contract with the City for the work described in the Proposal, and the amount of the bid security of a successful Bidder shall be forfeited to the City as liquidated damages in the event that such Bidder fails to enter into a contract and furnish Contractor's bond.

5. CONTRACT DOCUMENTS

The Contract Documents shall consist of the Plans and the Specifications along with the fully executed Contract Form. "Plans" means all project plans and drawings including addendums as distributed by the City. "Specifications" means all documents included in the project manual including, but not limited to, the following:

- the Certification:
- Advertisement for Bids;
- Instructions to Bidders;
- Proposal Form;
- Affidavit of Non-Collusion;
- Acceptance of Liquidated Damage Rate;
- Certificate of Compliance
- Responsible Contractor Certification Form
- Form of Contract
- Special Conditions
- General Conditions;
- All documents required within any of the documents listed herein including, but not limited to, all bonds and insurance required.
- Appendix

6. PREPARATION OF PROPOSAL

The Bidder shall state the prices for each item of work in the Online Bid Worksheet.

The following items are required for a bid to be considered complete:

1. **Completed Proposal Form**
2. **Five Percent Bid Security**
3. **Completed Contractor Questionnaire**
4. **Receipt of Addenda (if applicable), must be downloaded to submit bid.**
5. **Affidavit of Non-Collusion**
6. **Acceptance of Liquidated Damage Rate**
7. **Employment Certificate of Compliance**
8. **Responsible Contractor Certification Form**
9. **Hourly Equipment and Labor Rates**
10. **Complete list of subcontractors working on this project, the portion of the project they will be constructing and the value of the work they are responsible for.**

The Proposal shall be typed or printed in ink in the appropriate places. If the Proposal is made by an individual, his name and post office address shall be shown. If made by a firm or partnership, the name and post office address of each member of the firm or partnership shall be shown. If made by a company

or corporation, the Proposal shall identify the name of the state formation of the corporation or business, and names, titles and business addresses of the President, Secretary and Treasurer. All bids from corporations shall bear the official seal of the corporation; if the corporation does not have a corporate seal, the bid must be signed by the president and the treasurer. **This form must be uploaded to QuestCDN when submitting your bid**.

7. CONDITIONS IN BIDDER'S PROPOSAL

The Bidder shall not stipulate in its Proposal any conditions not provided for on the Proposal Form.

8. INTERPRETATION OF ESTIMATES

The award of the Contract shall be made on the basis of the Engineer's estimate of quantities as shown in the Proposal, but these quantities are not guaranteed to be accurate and are furnished without any liability on the part of the City. Quantities indicated by the Engineer on drawings or elsewhere are estimated only, and Bidders must rely on their own calculations.

9. DELIVERY OF PROPOSALS

Bidders shall submit their Proposal via QuestCDN, if there are any addenda for this project, they must be downloaded in order to submit your electronic bid. This project will be bid using QuestCDN's on-line bidding tool known as VirtuBid™ (vBid™). Only bids received through vBid™ will be accepted. See the Project Manual Appendix for instructions on the use of this bidding tool.

10. REJECTION OF BIDS

The City reserves the right to reject any and all bids, including without limitation; proposals that show any omission, alteration of form, additions not called for, conditional bids or alternate bids not specified or irregularities of any kind. Proposals in which the prices are obviously unbalanced may be rejected.

11. WITHDRAWAL OF PROPOSALS

A Bidder may withdraw its Proposal without prejudice to themselves, provided a written request is filed with the City Clerk before the hour of letting, and such withdrawn Proposal may be modified and resubmitted by the Bidder at any time prior to the hour set for receiving bids.

12. PUBLIC OPENING OF PROPOSALS

Proposals will be opened publicly and read aloud in such place as designated at the time and the date set in the "Advertisement for Bids." Bidders or their authorized agents are invited to be present.

13. EVALUATION OF BIDS

The City will review the completed Contractor Questionnaire, included within the Proposal Form, to determine whether the Bidder has the practical knowledge, experience, available personnel, equipment and financial resources for the timely and professional completion of the work. The City also reserves the right to make inquiries regarding past performance of any Bidder on previous contracts. The object of this review and any other inquiries is to provide the City with the best available information regarding the capabilities of the Bidder to complete the work

as specified in the Contract Documents, and to minimize the risk of awarding the Contract to an unqualified Bidder.

Bidders are required to submit evidence that they have practical knowledge of the particular work bid upon and that they have the financial resources to complete the proposed work. The City reserves the right to reject any Proposal where there is insufficient or unsatisfactory evidence to demonstrate the Bidder's ability to perform the work. Failure on the part of any Bidder to have carried out previous contracts satisfactorily, to show adequate experience, or to possess necessary equipment or labor for completion of the work, shall be sufficient cause for disqualification of the Bidder. **Bidders who will subcontract more than 50% of the value of the work under the Contract shall be deemed unqualified to perform the work.**

The City will award the Contract to the Bidder whose bid price, quality and experience best conform to the overall interests of the City. Bids from qualified bidders will be considered as described in the City of Golden Valley General Conditions, Section II.1 CONSIDERATION OF BIDS. The City's decisions regarding bidder qualifications, contract award and contract amount shall be final.

The City has limited financial resources to commit to the project. Accordingly, the project must be accomplished with a minimum of interruption, on time and without cost overruns. The City believes that a contractor with sufficient experience in constructing this kind of specialty roadway is necessary for this complicated project. Therefore, the City will consider the quality and experience of each Bidder in addition to the bid price.

A Bidder will not be considered for this project unless the Bidder receives a rating of at least 10 points, as determined by the City, using the following system for assigning points:

Experience constructing an urban street reconstruction project similar in size and functions within the last five years, to the satisfaction of the City	5 points
➢ For each additional project qualifying under the above category	1 point each
Experience of the assigned job superintendent in supervising construction of an urban street reconstruction project while under traffic similar in size and functions within the last five years, to the satisfaction of the City	5 points
➢ For each additional roadway supervised that qualifies under the above category	1 point each
History of initiating change orders (not at the owner's request) that total more than 5% of the original bid within the last five years	Deduct 2 points for each confirmed project
History of complaints regarding completion deadlines or the quality of the work of projects within the last five years	Deduct 2 points for each confirmed project

The City may give partial credit for points depending upon the nature of the projects.

14. DISQUALIFICATION OF BIDDERS

More than one Proposal for the same project from an individual firm, partnership, company or corporation under the same or different names will not be

considered. Evidence that any Bidder is interested in more than one Proposal for the same work will result in the rejection of all such Proposals. Collusion between Bidders shall be sufficient cause for the rejection of all bids so affected. Failure to achieve a rating of 10 points or more as described in section 9 above shall be sufficient cause to disqualify a Bidder for this project.

15. EQUIPMENT

When requested by the City, the Bidder shall furnish a complete statement of the make, size, weight (where weight is one of the specified requirements), condition and previous length of service of all equipment to be used in the proposed work.

16. SUPPLIERS AND SUBCONTRACTORS

The Bidder shall provide, within the time requested, a list of all suppliers and subcontractors to be used on the project for approval by the City. All provisions of Item 12 of these instructions shall also apply to subcontractors and suppliers. The Bidder will be notified in writing by the City of disqualification of any supplier or subcontractor. The Bidder will then be given the option to replace the disqualified supplier or subcontractor with an approved supplier or subcontractor or withdraw its bid. No adjustment of bid prices will be allowed for such replacement.

17. FURNISHING OF EVIDENCE OF RESPONSIBILITY

When requested by the City, the Bidder and any subcontractors shall furnish a balance sheet, certified by a Certified Public Accountant, dated not more than sixty (60) days prior to date of the opening of the Proposal which shall set forth outstanding assets and liabilities in reasonable detail. The City may also require the Bidder and its subcontractors to furnish a list of work of similar nature performed with dates of completion thereof. The Bidder or subcontractor shall also furnish any other additional information relative to financial responsibility and competence to do the work as may be requested by the City prior to acceptance of any Proposal.

18. REQUIREMENTS OF CONTRACT BOND

The successful Bidder, at the time of execution of the Contract, shall furnish and at all times maintain a satisfactory and sufficient bond in the full amount of the Contract as required by law with a corporate surety satisfactory to the City. The form of bond is that required by Statute. Personal sureties will not be approved.

19. FAILURE TO EXECUTE CONTRACTS

Failure to furnish the Contract Bond in a sum equal to the amount of the award, or to execute the Contract within ten (10) days as specified, shall be just cause for the annulment of the award and, in the event of the annulment of the award, the amount of the guaranty deposited with the Proposal shall be retained by the City, not as a penalty, but as liquidated damages.

20. AWARD OF CONTRACT

If the Contract is to be awarded, the City Council will award the Contract to the Bidder whose bid is in the best interest of the City. Award will be based on the Base Bid, plus any bid alternates the City may include.

Proposal Form

CITY OF GOLDEN VALLEY, MINNESOTA

City Council
City of Golden Valley
7800 Golden Valley Road
Golden Valley, MN 55427

Council Members:

In accordance with the Advertisement for Bids of the City of Golden Valley, inviting proposals in conformity with the plans and specifications on file in the office of the City Engineer, City of Golden Valley, Minnesota, the undersigned hereby certifies that an examination has been made of the Specifications and the Plans, and the site of the work, and hereby proposes to furnish all necessary machinery, equipment, tools, labor and other means of construction and to furnish all materials specified in the manner and at the time prescribed; and understands that the quantities of work shown herein are approximate only and are subject to increase or decrease; and further understands that all quantities of work, whether increased or decreased, are to be performed at the following unit prices:

Proposal Form
Contractor Questionnaire

City of Golden Valley, Minnesota
Zane Avenue and Lindsay Street Improvements
S.A.P. 128-408-002 - City Project No. 23-02

Bidders must file this Prospective Bidder Contractor Questionnaire by bid opening as required in the Advertisement for Bids. This questionnaire is to be attached to the sealed bid proposal.

The object of the questionnaire is not to discourage bidding or make it difficult for qualified bidder to file bids, but is to make it possible for the City to have exact information on the financial ability, personnel, equipment, past performance and experience of the bidders involved prior to awarding the Contract. The City reserves the right to require additional information before approving the award of the Contract to a Contractor. This may be done to help qualify subcontractors for bidding to better determine the contractor's qualifications for bidding the work.

The contents of this questionnaire will be private until the City has completed the selection process. At that time, all information will become public, except information that qualifies as trade secret data under Minnesota Statutes Section 13.37.

If the City is not satisfied with the sufficiency of the answers to the questionnaire, it may require additional information, including a financial statement, or it may determine that the Bidder is unqualified to bid the project.

The Bidder must submit a full, complete and accurate statement. False information or material omission will be grounds for disqualifying the Bidder.

STATEMENT OF BIDDER QUALIFICATIONS

1. Name of Bidder: _____

   Type of Contractor: _____

2. Bidder Address: _____

   _____

3. Date of Organization: _____

4. State of Organization: _____

5. How many years has Bidder been engaged in the contracting business under the present name? _____

6. Contracts on hand (attach a list of present contracts, including the nature of the work, a schedule as to estimated completion date and gross amount of each contract).

7. General character of the work performed by Bidder: _____

   _____

   _____

8. Has Bidder ever failed to complete any work awarded to it?
   Yes ____ No ____ If yes, attach a statement explaining where and why.

9. Has Bidder ever defaulted on a contract?
   Yes ____ No ____ If yes, attach a statement explaining where and why.

10. Attach a list of the larger, more relevant projects completed by Bidder, including the kind of work and approximate cost.

11. Attach a list of the major equipment that Bidder has available and the hourly rates for each piece (list whether equipment prices are with or without operator).

12. Attach a statement of Bidder's experience in the construction of work similar in scope to this project.

13. Furnish written evidence, preferably from banks of Bidder's available credit.

14. Submit a signed statement from Bidder's bonding company, establishing the bonding capacity for the firm.

15. Experience Requirements:
    Bidder's company, project superintendent and job site foreman must all have successful construction experience on one qualifying project within the five (5) years prior to the bid opening date.* A qualifying project is an urban street reconstruction project with a minimum engineer's estimate of three million dollars.

    * The following meet the experience requirements: Acquisition of a company with relevant successful experience within the five (5) years prior to the bid opening date by the bidder; a company in existence for less than five (5) years that meets the minimum experience requirements for the project superintendent and job site foreman.

Proposal Form
Contractor Questionnaire

Total Bid Price	
Cost of the work items to be performed by Bidder	
List major work items to be performed by bidder	

Qualifying Project Information

(Qualifying project must be a street reconstruction project while under traffic with a cost equal or greater than bid amount)

1 Qualifying Project Name (5 pts)	
2 Project Number	
3 Describe the work completed on this project	
3 Final Project Cost	
4 Total Value of Change Orders Initiated by Contractor	
5 Total Percentage of above Change Orders to Original Contract Amount	
6 Contract Completion Date	
7 Actual Completion Date	
8 If work was not completed by Contract Completion Date explain reason	
9 Owner's Representative	
Agency	
Telephone	
Email	
1 Additional Qualifying Project Name (1 pt)	
2 Project Number	
3 Describe the work completed on this project	
3 Final Project Cost	
4 Total Value of Change Orders Initiated by Contractor	
5 Total Percentage of above Change Orders to Original Contract Amount	
6 Contract Completion Date	
7 Actual Completion Date	
8 If work was not completed by Contract Completion Date explain reason	
9 Owner's Representative	
Agency	
Telephone	
Email	

Proposal Form
Contractor Questionnaire

1 Additional Qualifying Project Name (1 pt)	
2 Project Number	
3 Describe the work completed on this project	
3 Final Project Cost	
4 Total Value of Change Orders Initiated by Contractor	
5 Total Percentage of above Change Orders to Original Contract Amount	
6 Contract Completion Date	
7 Actual Completion Date	
8 If work was not completed by Contract Completion Date explain reason	
9 Owner's Representative	
Agency	
Telephone	
Email	

Experience of Assigned Supervisor for this project

1 Project Supervisor Name	
2 How long has the Supervisor been in current position?	
3 Name of qualifying project supervised (5 pts)	
4 Project Number of project supervised	
5 Description of Project	
6 Owner's Representative	
Agency	
Telephone	
Email	
1 Name of qualifying project supervised (1 pt)	
2 Project Number of project supervised	
3 Description of Project	
4 Owner's Representative	
Agency	
Telephone	
Email	
1 Name of qualifying project supervised (1 pt)	
2 Project Number of project supervised	
3 Description of Project	
4 Owner's Representative	
Agency	
Telephone	
Email	

Proposal Form
Contractor Questionnaire

Subcontractor Name	Contract Name	Value of Work	Major Work Items

Proposal Form
Contractor Questionnaire

Certified as true and correct this _____ day of _____, 20__.

_____
(Company Name)

_____
(Authorized Signature)

_____
(Title)

_____
(Signer Printed Name)

Line No.	Item No.	Description	Unit	Est. Quantity
Base Bid				
1	2021.501	MOBILIZATION	LS	1
2	2101.502	CLEARING	EACH	12
3	2101.502	GRUBBING	EACH	12
4	2101.505	CLEARING	ACRE	0.3
5	2101.505	GRUBBING	ACRE	0.3
6	2104.502	REMOVE BOLLARDS	EACH	2
7	2104.502	REMOVE GATE VALVE	EACH	3
8	2104.502	REMOVE GATE VALVE & BOX	EACH	32
9	2104.502	REMOVE HYDRANT	EACH	12
10	2104.502	REMOVE DRAINAGE STRUCTURE	EACH	14
11	2104.502	REMOVE SIGN TYPE C	EACH	41
12	2104.502	SALVAGE BOULDER	EACH	1
13	2104.502	SALVAGE SIGN TYPE C	EACH	5
14	2104.502	SALVAGE SIGN TYPE SPECIAL	EACH	6
15	2104.502	SALVAGE MAILBOX SUPPORT	EACH	15
16	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LF	370
17	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	1733
18	2104.503	REMOVE SEWER PIPE (STORM)	LF	605
19	2104.503	REMOVE SEWER PIPE (SANITARY)	LF	416
20	2104.503	REMOVE CURB & GUTTER	LF	9444
21	2104.503	SALVAGE CHAIN LINK FENCE	LF	110
22	2104.503	REMOVE SANITARY SERVICE PIPE	LF	97
23	2104.503	REMOVE WATER SERVICE PIPE	LF	760
24	2104.503	REMOVE WATER MAIN	LF	4804
25	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	825
26	2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SY	1482
27	2104.504	REMOVE BITUMINOUS PAVEMENT	SY	2760
28	2104.518	REMOVE CONCRETE WALK	SF	1002

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Fill In Online Bid Worksheet

Line No.	Item No.	Description	Unit	Est. Quantity
29	2104.602	REMOVE MANHOLE (SANITARY)	EACH	2
30	2104.602	REMOVE MANHOLE (WATERMAIN)	EACH	3
31	2104.602	REMOVE CASTING (CASTING AND COVER - STORM)	EACH	15
32	2104.602	REMOVE CASTING (CASTING AND COVER - WATER MAIN)	EACH	3
33	2104.602	REMOVE CASTING (FRAME- SANITARY)	EACH	13
34	2104.602	SALVAGE CASTING (COVER- SANITARY)	EACH	13
35	2104.603	SALVAGE LANDSCAPE EDGING-BRICK	LF	72
36	2104.603	SALVAGE MODULAR BLOCK RETAINING WALL	LF	10
37	2104.604	REMOVE CONCRETE PAVEMENT (CRUSH & SALVAGE FOR TEMP. STABILZATION)	SY	15550
38	2104.618	SALVAGE CONCRETE PAVERS	SF	84
39	2104.618	REMOVE LANDSCAPING MULCH	SF	207
40	2106.507	EXCAVATION - COMMON (EV)	CY	22840
41	2106.507	EXCAVATION - SUBGRADE (EV)	CY	750
42	2106.609	SELECT GRANULAR BORROW MOD 5%	TON	31210
43	2108.504	GEOTEXTILE FABRIC TYPE V	SY	12600
44	2118.609	AGGREGATE SURFACING SPECIAL (3" MINUS - TEMPORARY DRIVEWAYS)	TON	2174
45	2123.61	STREET SWEEPING (WITH PICKUP BROOM)	HR	54
46	2211.509	AGGREGATE BASE CLASS 5	TON	7931
47	2301.602	DRILL & GROUT REINF BAR (EPOXY COATED)	EACH	247
48	2331.603	JOINT ADHESIVE (MASTIC)	LF	14646
49	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	1335
50	2360.509	TYPE SP 9.5 WEARING COURSE MIX (4,F)	TON	2513
51	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2,C)	TON	3139
52	2360.609	TYPE SP 9.5 WEARING COURSE MIX (2,C) - DRIVEWAYS AND TRAILS	TON	442
53	2451.609	COARSE FILTER AGGREGATE (DRAIN TILE)	TON	1307
54	2451.609	PIPE BEDDING MATERIAL	TON	2477
55	2451.609	CRUSHED ROCK	TON	150
56	2502.602	6" PVC PIPE DRAIN CLEANOUT ASSEMBLY	EACH	21

For Information Only
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Line No.	Item No.	Description	Unit	Est. Quantity
57	2502.603	6" PERF PVC PIPE DRAIN (W/ SOCK)	LF	4676
58	2503.503	6" DUCTILE IRON PIPE SEWER CL 52	LF	97
59	2503.503	8" DUCTILE IRON PIPE SEWER CL 52	LF	140
60	2503.503	10" DUCTILE IRON PIPE SEWER CL 52	LF	276
61	2503.503	51" SPAN RC PIPE-ARCH SEWER CLASS IIIA	LF	60
62	2503.503	12" RC PIPE SEWER DESIGN 3006 CLASS V	LF	52
63	2503.503	15" RC PIPE SEWER DESIGN 3006 CLASS V	LF	791
64	2503.503	18" RC PIPE SEWER DESIGN 3006 CLASS V	LF	76
65	2503.503	18" RC PIPE SEWER DESIGN 3006 CLASS III	LF	603
66	2503.503	21" RC PIPE SEWER DESIGN 3006 CLASS III	LF	425
67	2503.503	24" RC PIPE SEWER DESIGN 3006 CLASS III	LF	259
68	2503.503	27" RC PIPE SEWER DESIGN 3006 CLASS III	LF	52
69	2503.503	30" RC PIPE SEWER DESIGN 3006 CLASS V	LF	10
70	2503.503	48" RC PIPE SEWER DESIGN 3006 CLASS III	LF	16
71	2503.603	12" HDPE PIPE SEWER	LF	8
72	2503.602	CONNECT TO EXISTING SANITARY SEWER	EACH	6
73	2503.602	CONNECT TO EXISTING MANHOLES (STORM SEWER)	EACH	2
74	2503.602	CONNECT TO EXISTING STORM SEWER	EACH	7
75	2503.602	CONNECT TO EXISTING SANITARY SEWER SERVICE	EACH	3
76	2503.602	6" CLEAN-OUT ASSEMBLY (SANITARY)	EACH	3
77	2503.602	CONSTRUCT BULKHEAD	EACH	2
78	2503.603	CLEAN PIPE SEWER	LF	341
79	2503.603	4" PVC PIPE SEWER (SDR-35)	LF	273
80	2503.603	6" PVC PIPE SEWER (SDR-35)	LF	1691
81	2503.603	LINING SEWER PIPE 8"	LF	1556
82	2503.603	LINING SEWER PIPE 9"	LF	1620
83	2504.601	TEMPORARY WATER SYSTEM	LS	1
84	2504.602	CONNECT TO EXISTING WATERMAIN	EACH	17
85	2504.602	HYDRANT	EACH	12

For Information Only
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Line No.	Item No.	Description	Unit	Est. Quantity
86	2504.602	ADJUST VALVE BOX - WATER	EACH	1
87	2504.602	1" CORPORATION STOP	EACH	18
88	2504.602	2" CORPORATION STOP	EACH	4
89	2504.602	4" GATE VALVE & BOX	EACH	3
90	2504.602	6" GATE VALVE & BOX	EACH	17
91	2504.602	8" GATE VALVE & BOX	EACH	9
92	2504.602	10" GATE VALVE & BOX	EACH	1
93	2504.602	12" GATE VALVE & BOX	EACH	6
94	2504.602	1" SADDLE (STAINLESS STEEL)	EACH	18
95	2504.602	2" SADDLE (STAINLESS STEEL)	EACH	4
96	2504.602	1" CURB STOP & BOX	EACH	18
97	2504.602	2" CURB STOP & BOX	EACH	4
98	2504.602	HYDRANT MARKER	EACH	12
99	2504.603	4" PVC WATERMAIN	LF	80
100	2504.603	6" PVC WATERMAIN	LF	336
101	2504.603	8" PVC WATERMAIN	LF	1549
102	2504.603	10" PVC WATERMAIN	LF	45
103	2504.603	12" PVC WATERMAIN	LF	2783
104	2504.603	1" TYPE PE PIPE (SIDR 7 WATER SERVICE)	LF	625
105	2504.603	2" TYPE PE PIPE (SIDR 7 WATER SERVICE)	LF	147
106	2504.603	24" STEEL CASING PIPE (JACKED)	LF	90
107	2504.604	4" POLYSTYRENE INSULATION	SY	1372
108	2504.608	DUCTILE IRON FITTINGS (EPOXY COATED)	LB	5929
109	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 48-4020	EACH	20
110	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 54-4020	EACH	4
111	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 60-4042	EACH	1
112	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 66-4042	EACH	1
113	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 72-4020	EACH	3
114	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 84-4020	EACH	1

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Line No.	Item No.	Description	Unit	Est. Quantity
115	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 96-4020	EACH	1
116	2506.602	CONSTRUCT DRAINAGE STRUCTURE DES 48-4020 (W/ 4' SUMP)	EACH	2
117	2506.602	CONSTRUCT DRAINAGE STRUCTURE DES 54-4020 (W/ 4' SUMP)	EACH	2
118	2506.602	CONSTRUCT DRAINAGE STRUCTURE DES 72-4020 (W/ 4' SUMP)	EACH	1
119	2506.602	CONSTRUCT DRAINAGE STRUCTURE DES STD. 2X3	EACH	17
120	2506.602	CONSTRUCT DRAINAGE STRUCTURE DES 4007 (SANITARY)	EACH	2
121	2506.602	CASTING ASSEMBLY (DRIVEWAY CURB STOP)	EACH	2
122	2506.602	CASTING ASSEMBLY (NEENAH R-3067-L)	EACH	48
123	2506.602	CASTING ASSEMBLY (NEENAH R-3237)	EACH	1
124	2506.602	CASTING ASSEMBLY (NEENAH R-2573)	EACH	1
125	2506.602	CASTING ASSEMBLY (NEENAH R-1733) (STORM)	EACH	2
126	2506.602	CASTING ASSEMBLY (NEENAH R-4342)	EACH	2
127	2506.602	CASTING ASSEMBLY SPECIAL (FRAME ONLY - NEENAH R-1733)	EACH	12
128	2506.602	CASTING ASSEMBLY SPECIAL (FRAME ONLY - NEENAH R-1733-1)	EACH	1
129	2506.602	INSTALL CASTING (SALVAGED COVER) (SANITARY)	EACH	13
130	2506.602	CASTING ASSEMBLY (MCDONALD 74M "A" SERIES)	EACH	24
131	2506.602	ADJUST FRAME AND RING CASTING (STORM)	EACH	8
132	2506.602	ADJUST FRAME AND RING CASTING (GATE VALVE MANHOLE)	EACH	1
133	2506.603	RECONSTRUCT SANITARY STRUCTURE	LF	16.9
134	2511.602	PLACE BOULDER	EACH	1
135	2521.518	4" CONCRETE WALK	SF	15596
136	2521.518	6" CONCRETE WALK	SF	3284
137	2531.503	CONCRETE CURB & GUTTER DESIGN B612	LF	341
138	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	6656
139	2531.503	CONCRETE CURB & GUTTER DESIGN D412	LF	31
140	2531.503	CONCRETE CURB DESIGN B6	LF	110
141	2531.504	6" CONCRETE DRIVEWAY PAVEMENT	SY	519
142	2531.603	CONCRETE SILL	LF	2096
143	2531.604	8" CONCRETE DRIVEWAY PAVEMENT (HIGH EARLY)	SY	725

For Information Only
Fill In Online Bid Worksheet

Line No.	Item No.	Description	Unit	Est. Quantity
144	2531.604	7" COMMERCIAL CROSS GUTTER DRIVEWAY (HIGH EARLY)	SY	944
145	2531.618	TRUNCATED DOMES	SF	534
146	2540.602	INSTALL SALVAGED MAILBOX AND SUPPORT	EACH	15
147	2540.603	LANDSCAPE EDGING	LF	24
148	2540.603	INSTALL SALVAGED LANDSCAPE EDGING-BRICK	LF	72
149	2540.603	INSTALL SALVAGED MODULAR BLOCK RETAINING WALL	LF	10
150	2540.618	INSTALL CONCRETE PAVERS	SF	84
151	2540.618	CONCRETE PAVERS (F&I)	SF	100
152	2557.603	INSTALL CHAIN LINK FENCE	LF	110
153	2563.601	TRAFFIC CONTROL	LS	1
154	2564.502	INSTALL SIGN TYPE C	EACH	5
155	2564.518	SIGNS PANELS TYPE C	SF	284.15
156	2564.518	SIGN TYPE SPECIAL	SF	62
157	2564.602	INSTALL SIGN TYPE SPECIAL	EACH	2
158	2571.502	CONIFEROUS TREE 6' HT B&B	EACH	4
159	2571.502	DECIDUOUS TREE 2.5" CAL B&B	EACH	14
160	2571.502	DECIDUOUS SHRUB NO 5 CONT	EACH	7
161	2571.602	CONIFEROUS SHRUB NO 5 CONT	EACH	5
162	2572.603	TEMPORARY FENCE (TREE PROTECTION FENCING)	LF	100
163	2573.501	STABILIZED CONSTRUCTION EXIT	LS	1
164	2573.501	EROSION CONTROL SUPERVISOR	LS	1
165	2573.503	SILT FENCE, TYPE MS	LF	1019
166	2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LF	91
167	2575.604	SODDING TYPE LAWN (W/ 4" TOPSOIL)	SY	11543
168	2575.604	MULCH MATERIAL, TYPE SPECIAL (4" THICK)	SY	225
169	2575.604	HYDRAULIC MULCH MATRIX (W/ 4" TOPSOIL, SEED & HYDRAULIC MULCH)	SY	722
170	2573.502	STORM DRAIN INLET PROTECTION	EACH	85
171	2582.603	4" SOLID LINE YELLOW - MULTI-COMPONENT (WR)	LF	400
172	2582.603	24" SOLID LINE WHITE - MULTI-COMPONENT (WR)	LF	122

For Information Only
Fill In Online Bid Worksheet

Line No.	Item No.	Description	Unit	Est. Quantity
173	2582.603	4" BROKEN LINE YELLOW - MULTI-COMPONENT (WR)	LF	550
174	2582.618	PAVEMENT MESSAGE - MULTI-COMPONENT (WR)	SF	124
175	2582.618	CROSSWALK MULTI COMP (WR)	SF	744
176	SPEC PROV	F&I MANHOLE BAFFLE (STORM)	SF	81.5
		BID ALTERNATE A - SANITARY SEWER SERVICE WYE SEALING VIA GROUT PACKER INJECTION METHOD		
177	SPEC PROV	CHEMICAL GROUT	GAL	155
178	SPEC PROV	SEAL 8" MAIN TO 6" LATERAL W/ 3' BLADDER	EACH	17
179	SPEC PROV	SEAL 9" MAIN TO 6" LATERAL W/ 3' BLADDER	EACH	14
		BID ALTERNATE B - SANITARY SEWER WYE LINERS		
180	SPEC PROV	SERVICE WYE LINER - 8" MAIN X 6" WYE	EACH	17
181	SPEC PROV	SERVICE WYE LINER - 9" MAIN X 6" WYE	EACH	14

For Information Only
Fill In Online Bid Worksheet

Proposal Form

Accompanying this proposal is the Bid Security, which under the contract documents, is subject to forfeiture in the event of default by the undersigned.

In submitting this proposal, the undersigned acknowledges that the City reserves the right to reject any or all proposals and to waive informalities.

This proposal may not be withdrawn after the opening of proposals, and shall be subject to acceptance by the City for a period of forty-five (45) calendar days from the opening thereof.

If Bidder is a corporation or company, provide the State of incorporation: _____

If Bidder is a partnership, state full name of all co-partners:

_____

_____

_____

_____

Proposal Submitted by (please print):

Company Name: _____ Telephone: _____

Address: _____ Date: _____

City, State, Zip: _____

Email Address for Contact Person: _____

By: _____

Title: _____

By: _____

Title: _____

AFFIDAVIT AND INFORMATION
REQUIRED OF BIDDERS

AFFIDAVIT OF NON-COLLUSION:

I hereby swear or affirm under penalty of perjury:

1. That I am the Bidder (if the bidder is an individual), a partner in the Bidder (if the Bidder is a partnership), or an officer or employee of the bidding corporation or company having authority to sign on its behalf (if the Bidder is a corporation or company).

2. That the attached bid or bids have been arrived at by the Bidder independently, and have been submitted without collusion and without any agreement, understanding, or planned common course of action with any other vendor of materials, supplies, equipment or services described in the invitation to bid, designed to limit independent bidding or competition.

3. That the contents of the Bid or Bids have not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder or its surety on any bond furnished with the Bid or Bids, and will not be communicated to any such person prior to the official opening of the Bid or Bids; and

4. That I have fully informed myself regarding the accuracy of the statements made in this affidavit.

_____
Signature

_____
Firm Name

Subscribed and sworn to before me

on this _____ day of _____, 2024.

Notary Public. My Commission expires: _____

Bidder Employee Identification Number: _____
(Number used on Employer Quarterly Federal Tax Return,
U.S. Treasury Department Form No. 941)

ACCEPTANCE OF LIQUIDATED DAMAGE RATE

Due to the difficulty of proving damages caused by not completing this project within the specified times, the undersigned company ("Contractor") agrees that the amounts listed below (the "Liquidated Damages") are appropriate and fair amounts for actual damages. Contractor hereby stipulates that the Liquidated Damages shall apply in the event that the contract work is not completed within the specified times as outlined here and in the Special Provisions:

> **Failure to have all of the required work completed by the final completion date shall result in the City charging the Contractor, and withholding from any monies due, liquidated damages in the amount of $500 per calendar day until all work is completed.**

Liquidated damages as described here shall be withheld from money due to the Contractor when Work is not completed within the Contract time.

Company Name: _____

Date: _____

By: _____

Title: _____

EMPLOYMENT CERTIFICATE OF COMPLIANCE

I hereby certify that _____ ("Bidder") is in compliance with Minnesota Statutes Section 363 as amended and (check one of the two below, as applicable):

_____ Has a certificate of compliance issued by the Department of Human Rights.

_____ Has applied for a certificate of compliance to the Commissioner of Human Rights, which is pending.

I also certify that Bidder, and all of its subcontractors, are in compliance as applicable, with Federal Executive Order 11246, September 24, 1965 as amended by Executive Order 11375, October 13, 1967 and U.S. Department of Labor Regulations (41 CFR Part 60), and will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. I also certify that Bidder, and all of its subcontractors, shall take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action includes, and is not limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; and layoff or training, including apprenticeship. Bidder and its subcontractors have posted approved notices setting forth the provisions of this nondiscrimination clause in a place visible to employees and applicants for employment. Bidder and its subcontractors also assure that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex or national origin.

Bidder, and all of its subcontractors, shall, upon request, provide access to the City, the State of Minnesota, the Comptroller General of the United States, or any of their duly authorized representatives, any books, documents, papers, and records which are directly pertinent to this contract for the purpose of conducting an audit, examination, excerpts, and transcriptions. Bidder, and all of its subcontractors, shall retain all required records for three (3) years after final payment and all other pending matters are closed on this project.

_____
Signature of Bidder

_____
Title

_____
Name of Company

_____, 20__
Date

CITY OF GOLDEN VALLEY
RESPONSIBLE CONTRACTOR CERTIFICATE
Applies to all prime contracts in excess of $50,000

A responsible contractor is defined in Minnesota Statutes §16C.285, subdivision 3.

Any prime contractor or subcontractor who does not meet the minimum criteria under Minnesota Statutes §16C.285, subdivision 3, or who fails to verify that it meets those criteria, is not a responsible contractor and is not eligible to be awarded a construction contract for the project or to perform work on the project.

A false statement under oath verifying compliance with any of the minimum criteria shall render the prime contractor or subcontractor that makes the false statement ineligible to be awarded a construction contract for the project and may result in termination of a contract awarded to a prime contractor or subcontractor that makes a false statement.

Before execution of a construction contract, a prime contractor shall submit a verification under oath confirming that all subcontractors that the prime contractor intends to use to perform the project work have verified to the prime contractor, through a signed statement under oath by an owner or officer, that they meet the minimum criteria for a responsible contract.

By signing this statement, I, _____ (typed or printed name), _____ (title) certify that I am an owner or officer of the company and do verify under oath that my company is in compliance with each of the minimum criteria listed in the law.

_____
(*name of the person, partnership or corporation submitting this proposal*)

_____
(*business address*)

Signed: _____ _____
(bidder or authorized representative) *Date*

CONTRACT NO. 23-02
AGREEMENT FOR THE ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS
PROJECT NO. 23-02
S.A.P. 128-408-002

THIS AGREEMENT (this "Agreement"), entered into the ____ day of _____, 20__ between the City of Golden Valley (the "City"), a municipal corporation, existing under the laws of the State of Minnesota, and _____, a _____, under the laws of _____ ("Contractor").

ARTICLE 1. The Contract Documents. The Contract Documents consist of: this Agreement, the Proposal and Bid of the Contractor, the Contractor's Bonds, the General Conditions, Special Conditions and any supplementary conditions, drawings, plans, Specifications, addenda issued prior to execution of this Agreement, other documents listed herein or in any of the foregoing documents, and Modifications of the same issued after execution of this Agreement (collectively the "Contract" or "Contract Documents"). A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Engineer.

In the event of a conflict among the various provisions of the Contract Documents, the terms shall be interpreted in the following order of priority:

1. Modifications to the Contract
2. This Agreement
3. Special Conditions
4. General Conditions

Drawings shall control over Specifications, and detail in drawings shall control over large-scale drawings.

All capitalized terms used and not otherwise defined in this Agreement, but defined elsewhere in the Contract Documents, shall have the meaning set forth in the Contract Documents.

ARTICLE 2. The Work. Contractor, for good and valuable consideration the sufficiency of which is hereby acknowledged, covenants and agrees to furnish all materials, all necessary tools and equipment, and to do and perform all work and labor necessary for Zane Avenue and Lindsay Street Improvements (23-02) (the "Project") according to the Plans and Specifications and all of the Contract Documents.

Contractor shall commence and conclude the Work in accordance with the Contract Documents. Time is of the essence in this Agreement. Accordingly, Contractor shall complete the Work in accordance with the time schedule for commencement and completion of the Work set forth in the Contract Documents. Contractor shall complete the Work in every respect to the satisfaction and approval of the City.

ARTICLE 3. Contract Price. The City shall pay the Contractor the Contract Price in current funds for the Contractor's performance of the Contract. The Contract Price shall be $_____, subject to additions and deductions as provided in the Contract Documents.

Installment payments, if any, on account of the Work shall be made in accordance with the provisions of the General Conditions. Final payment shall be due and payable on or before thirty (30) days after issuance of a Certificate of Final Completion issued by the City Engineer confirming that the Work has been fully completed and Contractor's obligations fully performed by Contractor.

ARTICLE 4. Contractor's Bonds. Contractor shall make, execute and deliver to the City corporate surety bonds in a form approved by the City, in the sum of $_____ for the use of the City and of all persons furnishing labor, skill, tools, machinery or materials to the Project. Said bonds shall secure the faithful performance and payment of the Contract by the Contractor and shall be conditioned as required by law. This Agreement shall not become effective unless and until said bonds have been received and approved by the City.

ARTICLE 5. Acceptance of the Work. The City, through its authorized agents, shall be the sole and final judge of the fitness of the Work and its acceptability.

ARTICLE 6. Records. Contractor shall keep as complete, exact and accurate an account of the labor and materials used in the execution of the Work as is possible, and shall submit and make this information available as maybe requested by the City.

ARTICLE 7. Payment. All payments to Contractor shall be made payable to the order of _____, and the City does not assume and shall not have any responsibility for the allocation of payments or obligations of the Contractor to third parties.

ARTICLE 8. Cancellation Prior to Execution. The City reserves the right, without liability, to cancel the award of the Contract at any time before the execution of the Contract by all parties.

ARTICLE 9. Special Assessment Contingency. The City's obligation under this contract is contingent upon the availability of appropriated funds, including funds derived from special assessments, from which payment for contract purposes can be made. The City shall not be legally liable for any payment under this Agreement unless the special assessment appeal period under Minn. Stat. § 429.081 has passed and no appeals have been received.

ARTICLE 10. Termination. The City may by written notice terminate the Contract, or any portion thereof, when (1) it is deemed in the best public, state or national interest to do so; (2) the Special Assessment contingency has not been met; (3) the City is unable to adequately fund payment for the Contract because of changes in state fiscal policy,

regulations or law; or (4) after finding that, for reasons beyond Contractor's control, Contractor is prevented from proceeding with or completing the Work within a reasonable time.

In the event that any Work is terminated under the provisions hereof, all completed items or units of Work will be paid for at Contract Bid Prices. Payment for partially completed items or units of Work will be made in accordance with the Contract Documents.

Termination of the Contract or any portion thereof shall not relieve Contractor of responsibility for the completed Work, nor shall it relieve Contractor's Sureties of their obligations for and concerning any just claims arising out of the Work.

IN WITNESS WHEREOF, both parties hereto have caused this Contract to be signed on their respective behalves by their duly authorized offices and their corporate seals to be hereunto affixed the day and year first above written.
THE CITY OF GOLDEN VALLEY, MINNESOTA

BY _____
Roslyn Harmon, Mayor

BY _____
Kirsten Santelices, Acting City Manager

CONTRACTOR

BY _____

ITS _____

SPECIAL CONDITIONS
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SPECIAL CONDITIONS
CITY OF GOLDEN VALLEY
FOR
CITY PROJECT NO. 23-02
S.A.P. 128-408-002
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

BID OPENING: June 13, 2024
10:00 am CST

1. **GENERAL:** Instructions to Bidders and General Conditions as embodied in these Contract Documents shall apply except as modified or supplemented in these Special Conditions.

2. **PROJECT DESCRIPTION:** The contract Work includes for the reconstruction of the streets in Golden Valley within the following boundaries:

   - Zane Avenue and Lindsay Street Improvements Project Area: Zane Avenue North from Olson Memorial Highway Frontage Road to Golden Valley Road. Lindsay Street from Zane Avenue North to Lilac Drive.
   - The Work will include, but is not limited to, the following:

     Removal of concrete and bituminous pavement. Also, water main replacement, sanitary sewer lining, spot sewer replacement, subgrade preparation, installation of storm sewers, aggregate base, granular borrow, bituminous pavement, concrete pedestrian ramps, concrete walk, concrete curb and gutter, landscaping, restoration, and utility repairs.

   - This project has two bid alternates:

     Bid Alternate A includes bid items for service wye sealing. These items are listed under the Sanitary Sewer Service Wye Sealing Via Grout Packer Injection Method section of the Statement of Estimated Quantities (SEQ) of the Plan and of the Proposal Form. Refer to the Specifications for additional details.

     Bid Alternate B includes bid items for service wye lining utilizing a Cured-in-Place Pipe (CIPP) liner. These items are listed under the Sanitary Sewer Service Wye Liners section of the SEQ of the Plan and of the Proposal Form. Refer to the Specifications for additional details.

     The City has the right to accept or reject Bid Alternates A or B at its discretion or any combination thereof.

   See the Plans for more detailed information on the locations.

3. **QUALIFICATIONS OF BIDDER:** Bidders are required to submit evidence that they have practical knowledge of the particular work bid upon, and that they have the financial resources to complete the proposed Work. Failure on the part of any Bidder to carry out previous contracts satisfactorily or any bidder's lack of

experience or equipment necessary for the satisfactory and timely completion of this Project may be deemed sufficient cause for disqualification of said Bidder.

Please refer to Instructions to Bidders and Contractor's Questionnaire regarding other Bidder Qualification Requirements. **Bidders who will require more than fifty percent (50%) of the Work value to be performed by subcontractors will be deemed unqualified to perform the Work**. **Bidder must submit subcontractor list with their anticipated items of work and value.**

The following Contract items shall be considered specialty items and will not be included in the fifty percent (50%) requirement as stated in the Qualifications of Bidders Section of the Instructions to Bidders:

Item No.	Item
2563.601	Traffic Control
2503.603	Sewer Pipe Lining
Spec. Provisions	Service Wye Grouting | Service Wye Lining (Alt. Bid)

4. **STARTING AND COMPLETION TIME:** Contractor shall furnish all required bonds and insurance within one (1) week of the award of the Contract by the Golden Valley City Council. Work shall begin within one week following the issuance of the Notice to Proceed.

All Work under this Contract must be Substantially Completed no later than **August 31, 2025** (the "Contract Time"), and be completed and ready for final payment in accordance with Section I, Paragraph 1.J. of the General Conditions on or before **October 31, 2025** (the "Contract Time"). Contractor shall prosecute the Work continuously and effectively, with the least possible delay, to the end that all Work is completed within the Contract Time.

The City is entitled to damages for failure of the Contractor to complete the Work within the Contract Time. In view of the difficulty in making a precise determination of actual damages incurred, the City will assess a daily charge not as a penalty but as liquidated damages to compensate the City for additional costs incurred.

Failure to substantially complete the Work by the Contract Time shall result in the City charging Contractor, and withholding any monies due as liquidated damages, the amount of $500 per calendar day until all Work is completed.

If Contractor is delayed for any reason in the commencement or performance of the Work, to the extent such delay will prevent the Contractor from completing the Work (or any portion thereof) within the Contract Time, Contractor's sole remedy for such delay shall be an extension of the Contract Time. All such extension requests shall be made according to the requirements and procedures set forth in Division I, 1806 (Determination and Extension of Contract Time) and 1403 (Notification for Contract Revisions) of the MnDOT shall apply, except as modified or supplemented in these Special Conditions.

Without limiting the foregoing, if a conflict arises with existing private utilities during the commencement or performance of the Work, Contractor shall proceed

to work in areas without such conflict until the conflicts are resolved. It is the express understanding of the parties with regard to all Work that Contractor will undertake its performance in a manner to avoid or minimize any delays that may result from private utility conflicts or any other possible causes of delay.

5. **SCHEDULE AND CONSTRUCTION PHASING:** Contractor shall schedule its work to minimize inconvenience to property owners.

This project shall be divided into **three (3) areas** for project scheduling and shall conform to the requirements on the Construction Sequencing plan sheet(s).

This Work must be completed according to the following phasing requirements.

Contractor shall submit to the Engineer for review and approval, a detailed **critical path phasing plan and schedule** a minimum of one (1) week before the pre-construction conference. The schedule must detail all controlling operations. The following requirements/operations must be included in this plan:

A. Installation of sanitary sewer liners (mains and services) before installation of wear course. Once the existing pavement is removed on a street, work must proceed in a continuous manner until it is completed. Contractor must schedule the Work to avoid time when there is no work progressing on any given street.

B. Driveway replacement within the required time constraints.

C. Landscape restoration within the required time constraints.

D. Completion of the Project by the specified dates.

E. Once Contractor has raised all castings to their final grade, it must allow two (2) weeks in each area for City staff to televise existing and new sewers before the wear course is placed. Contractor shall ensure that all work on sewer manholes, catch basins and sewer lines is completed, and they are cleaned to the Engineer's satisfaction before any televising is performed. **If the sewers are determined, at any time during televising operations, to need any additional cleaning, the City will, at their discretion, clean them with their own staff (at $500/hour with a four-hour minimum) or retain a cleaning service to perform cleaning on all sewers remaining to be televised. All costs for such cleaning will be billed to the Contractor or withheld from monies due.**

F. Coordination with Union Pacific Railroad (UPRR):
   a. Contractor shall complete all items listed in Section 20 of these Special Conditions in the required timeframe prior to construction within UPRR right of way.
   b. Contractor shall provide traffic control and road closure, in accordance with the Traffic Control and Maintenance (2563) section of these Special Conditions, for UPRR during the UPRR's crossing panel replacement and signal work.

c. Contractor shall saw cut and remove bituminous pavement for UPRR to perform crossing panel replacement and provide temporary driving surface up to the new crossing panels upon UPRR completion, as directed by the Engineer.
d. Plan subcutting and storm sewer operations within 25' of track centerline during UPRR crossing panel replacement operations.
e. Installation of aggregate base, pavement, curb and gutter, and sidewalk within UPRR right of way shall be completed after the new crossing panels and signals are placed by UPRR, unless directed otherwise by Engineer.

Working hours for this project shall be limited to 7:00 a.m. to 7:00 p.m., Monday through Saturday, except as otherwise stated in the Contract Documents, unless approved in writing by the City Engineer. Contractor shall schedule its work to comply with this requirement.

Contractor shall perform some Work at times other than those indicated if the Engineer deems it is in the best interest of the City and the property owners affected. No claims for extra compensation will be considered for complying with this requirement.

6. **SPECIFICATIONS WHICH APPLY:** The Specifications which apply to the Work shown in the Plans shall be as follows:

A. These Special Conditions.
B. Standard Utilities Specifications for Watermain and Service Line Installation, Sanitary Sewer and Storm Sewer Installation, and Trench Excavation and Backfill/Surface Restoration, Revised 2018, as prepared by the City Engineers Association of Minnesota (CEAM) and published by the League of Minnesota Cities, St. Paul, Minnesota, except as modified or supplemented in these Special Conditions. Copies of the Standard Utilities Specifications are available from the Minnesota Society of Professional Engineers by calling 651.292.8860, or from the CEAM website at *http://ceam.org/*.
C. Division I, 1507 (Utility Property and Service) and Division I, 1512 (Unacceptable and unauthorized work) of the MnDOT Specification shall apply, except as modified or supplemented herein.
D. Division II (Construction Details) and Division III (Materials) of the MnDOT Specification shall apply, except as modified or supplemented herein.

7. **REFERENCE:** All references in the Specifications and Special Conditions to "MnDOT Specification" are intended to mean the Minnesota Department of Transportation's "Standard Specifications for Construction," 2020 Edition, and its supplements. All reference therein to the State, the Department, the Department of Transportation of the State of Minnesota and the Commissioner shall be read as reference to the City.

8. **PRE-CONSTRUCTION CONFERENCE:** Prior to the beginning of construction operations, a pre-construction conference shall be held, and shall be attended by the authorized representatives of the City, the Engineer in charge of the Project, utility companies and persons of the contracting firm or firms who will have direct responsibility for workmanship and/or materials used on the Project. The conference will disclose all aspects for execution and schedule of the Work. Agreement on any and all questionable measurements, materials, methods or other matters shall be made at this conference.

Contractor shall submit the following at the preconstruction conference:

- Critical path phasing plan and schedule, which details all controlling operations. **This shall be submitted a minimum of one (1) week before the pre-construction conference**.
- General project contact information including emergency contacts
- Subcontractor list (discussed under Section 3 of these Special Conditions)
- Material supplier list
- Shop drawings
- Traffic Control plan

9. **CONSTRUCTION MEETINGS:** Contractor shall be required to attend weekly construction meetings scheduled for 8:00 a.m. on Wednesdays at Golden Valley City Hall. Contractor shall also be required to attend weekly meetings with business representatives to discuss upcoming work, access needs/changes, etc.

Contractor must submit the following at each meeting:

- A two-week Critical Path schedule of work bar graph/Gantt chart showing the two-week work plan
- The overall project schedule
- Erosion Control Inspection Forms (see Erosion & Sedimentation Control Section in these Specifications)
- Written documentation of performed street sweeping (see Erosion & Sedimentation Control Section in these Specifications)
- A written request for any extra work

The Project Schedule information will be included in a newsletter distributed to property owners in the Project area updating them of the progress and expected construction sequencing. **Failure to submit an approved, detailed Critical Path Schedule as required shall result in the City withholding any monies due.**

In the event delays are experienced on the Project due to weather or conflicts with private utility company facilities, Contractor's schedule must detail extra efforts to put the construction back on schedule.

10. **SUPERVISION OF WORK**: Contractor shall provide a competent, reliable Superintendent to be present at all times when Work is in progress in accordance with Section 1506 of the MNDOT Standard Specifications for Construction and as modified herein.

The Superintendent must be the full-time person identified in the Contractor Questionnaire with the Proposal, and shall act as Contractor's representative and supervise all of Contractors and subcontractors forces through all phases of operations of the Work. Contractor shall not replace the Superintendent without written authorization by the Engineer.

The Superintendent shall not change with phases of the Work nor shall a subcontractor's superintendent act as the Contractor's Superintendent. Additionally, the Superintendent shall not be a working foreman of the Contractor or subcontractor.

The Superintendent shall have the authority to represent the Contractor in all issues that may arise during execution of the Work, and to obtain all the equipment and manpower needed to perform the Work as outlined in the Plans and as directed by the Engineer. All orders from the Engineer shall be directed to the Contractor through the Superintendent.

11. **EMERGENCY CONTACTS**: Contractor shall provide the City, at or before the pre-construction conference, with a list of emergency contacts. This list shall include a telephone number to contact the Project superintendent 24-hours a day until all of the Work is completed, as well as additional 24-hour emergency contacts for all subcontractors.

12. **RESIDENT PROJECT REPRESENTATIVE:** The Engineer shall designate an Inspector for this project. The Inspector shall have the same authority as that specified for the Inspector in MnDOT Specification 1510 and the General Conditions of these Specifications. The Contractor **must** direct all requests for extra compensation, or changes in scope or character of the Work through the Inspector to the Engineer. Failure to direct such initial requests may be cause for rejection of the request.

In order to ensure all communication to property owners on this project is uniform and complete, **Contractor shall direct all communication to the City**. Contractor shall, however, be responsible for disseminating daily construction notices, or other communication as directed by the Engineer, to the property owners on a daily basis indicating construction operations and access conflicts. Failure to disseminate such information, as directed by the Engineer, shall be cause for the City to withhold all compensation due.

13. **SITE CONDITIONS:** Contractor shall be required to keep the Project site in a clean, orderly condition at all times. Littering of cans, bottles or other garbage/debris will not be tolerated. Contractor shall submit a plan to the Engineer for approval, for debris and waste disposal within the Project area. It shall include, but not be limited to, providing a dumpster for debris and waste materials.

No removal items, spoil or aggregate piles will be allowed within rights-of-way overnight except by express, written consent of the Engineer. **In the event piles are left in the rights-of-way at the end of the day, the City may, at its**

discretion and without prior notification to Contractor, remove all piles with its own or contracted forces. All costs associated with such removal shall be billed to Contractor or withheld from monies due.

14. **MAINTENANCE OF EXISTING CITY UTILITIES:** The City has cleaned and televised all sanitary sewer lines and storm sewer lines prior to construction. Sanitary sewer televising videos and reports are available for download at the following link: Golden Valley Zane Ave_Lindsay St Videos

    Contractor shall be responsible for keeping all utilities clean during construction including but not limited to gate valve stacks, utility lines, and manholes. **In the event debris is found during the post-construction televising of sewers, the City may, at its discretion, clean all remaining sewers to be televised with its own or contracted forces. All costs associated with such cleaning shall be billed to Contractor or withheld from monies due.**

15. **CONSTRUCTION STAKING:** The City, or its representative, will set construction stakes, lines, elevations and grades for this construction as deemed necessary by the Engineer. The stakes established by the City will constitute the field control Contractor will use to perform the Work. It will be Contractor's responsibility to request any additional staking necessary to perform the Work.

    Contractor's superintendent shall notify the Inspector **a minimum of 48 hours in advance** of the need for construction stakes. This advance notification requirement **must** be strictly adhered to. No claims for down time or delays in work due to Contractor's negligence to request staking as described will be permitted. Contractor shall be obligated to prepare the entire area to be staked before requesting staking. Failure to prepare the area to the Engineer's satisfaction shall result in staking delays until the area is prepared properly. No claims for lack of stakes or schedule delays will be considered that are due to not properly preparing such areas.

    Contractor shall be responsible for the preservation of all stakes and marks established by the City or its consultants. If the Engineer determines that construction stakes have been carelessly or willfully destroyed or disturbed by Contractor or by Contractor's lack of protection of the stakes, the cost of replacing the stakes will be deducted from monies due Contractor.

    The City will provide Contractor with written notice of violation of this Section one time. This written notice shall serve as notice of withholding of monies due Contractor so the City may recover its costs for failure to comply with this requirement.

16. **QUALITY CONTROL AND QUALITY ASSURANCE TESTING:** Contractor shall be responsible for quality control testing in accordance with the current **Schedule for Material Testing found on the MnDOT website http://www.dot.state.mn.us/materials/lab.html**, as amended in these Specifications. All costs for such testing shall be included in the unit prices for the items to be tested.

All testing must be done by a laboratory experienced with the testing procedures required by MnDOT and approved by the Engineer. Certification of such experience shall be submitted to the Engineer at the pre-construction conference.

Contractor shall also cooperate with the Engineer in collecting companion samples in accordance with MnDOT Specifications to verify Contractor's test results. Collecting companion samples shall be considered incidental for which no direct compensation shall be made. The City will be responsible for testing such samples provided by Contractor at its cost. The Engineer shall contact Contractor so he may be represented during sampling, and assist as necessary.

17. **PROJECT ACCESS AND STAGING AREA:** Construction traffic access to the Project areas shall be limited to City streets being reconstructed under this project, and federal, state and county highways and City streets as approved by the Engineer, or as otherwise noted in the plans.

The use of other non-designated routes shall be cause for ticketing. This requirement shall not waive Contractor's obligation to comply with existing statutes, local ordinances, or any other existing laws; nor shall it waive the governing authority from assigning penalty for violating such statutes, ordinances or laws.

Construction staging area to be submitted and approved by the City. This requirement shall not waive Contractor's obligation to comply with existing statutes, local ordinances or any other existing laws; nor shall it waive the governing authority from assigning penalty for violating such statutes, ordinances or laws.

No extra compensation will be allowed for extra construction costs due to these restrictions.

18. **UTILITY CONFLICTS:** In order to minimize inconvenience to adjacent property owners and expedite the Project, Contractor shall be expected to coordinate its efforts with the private utility companies so the Work can be done in a timely manner. Contractor shall schedule or redirect its Work to ensure that utility company relocates, installations and/or removals do not impede progress of the Project. Contractor shall also coordinate all unanticipated utility relocations or adjustments determined to be necessary to complete the Work. The City will be responsible for costs incurred by the utility companies for unanticipated relocations and adjustments only in cases where prior, written authorization to perform the utility work is provided by the Engineer.

Contractor waives claims for any and all costs or damages due to alleged delay, disruption or acceleration, and releases the City from any such claims, to the extent the claim is due to the failure of any private utility with facilities affected by the Project to promptly relocate, remove, or adjust such facilities.

CenterPoint Energy (CPE) will be upgrading and/or replacing gas mains in the Project area as part of this project. Contractor is expected to coordinate construction operations with CPE so all Work can be done in a timely manner without impeding the progress of the Project.

Utility company contacts for this Project are:

Arvig – Brian Applequist .....(218.346.5500)
AT&T – Jerry Streeter.....(612.344.3327)
CenterPoint Energy – Amir Fazlovic .....(612.321.5086)
Lumen/CenturyLink, Inc. (Consultant) – Brandon Amam .....(701.866.7952)
Comcast – McClay Lyford .....(651.925.6372)
MCI Communications (Verizon) – Andy Wood .....(612.919.1741)
Met Council – Manking Lee .....(651.602.4313)
Sprint – Dan Hilliard.....(612.217.3526)
Verizon – Andrew Frette.....(612.919.1751)
Xcel Energy – Dave Fitch .....(612.630.4127)
Xcel Energy (Lighting Division) – Damon Erickson .....(651.229.2480)
Zayo Group – Steve Senger .....(612.210.8037)

It is anticipated that some facilities will be in conflict with the Work on this project that Contractor will be expected to guard and protect these facilities. **No claims for extra compensation to perform the Work in accordance with the Plans that are due to conflicts with in-place utilities shall be considered. Likewise, no claim for delays due to conflicts with in-place utilities shall be considered. (Also see Special Conditions Section 4 with regard to utility company requirements)**

19. **EASEMENTS AND PERMITS:** The City shall work to obtain all required permanent and temporary easements and permits for this project with the exception of the following:

A. The construction activities, methods and procedures used on this Project shall comply with and be done in accordance with the General Permit Authorization to Discharge Storm Water Associated with a Construction Activity under the National Pollutant Discharge Elimination System/State Disposal System Permit Program. Therefore, prior to beginning the Work, the City and Contractor as a co-permittee will be required to obtain a permit from the Minnesota Pollution Control Agency (MPCA). The Storm Water Pollution Prevention Plan (SWPPP) is included in the Plan. The Contractor shall file required construction Storm Water permit online with the MPCA (https://rsp.pca.state.mn.us/TEMPO_RSP/Orchestrate.do?initiate=true). The permit becomes valid one business day after Contractor submits a completed application online. Contractor shall email the permit to the City permit once obtained.

   In addition to establishing legal accountability by the co-permittee on this Project, the general permit shall serve to modify the Minnesota Department of Transportation (MnDOT) Standard Specifications for Construction and all

supplements thereto. All permit requirements pertaining to construction practices, application of erosion control methods and devices, and implementation time requirements are hereby incorporated into the Construction Specifications by reference and are made both integral and enforceable parts of the Contract.

The weekly inspection and maintenance requirements of said general permit (Part IV.E) shall be the responsibility of Contractor. All site inspections shall be completed in accordance with the requirements specified in the permit. An inspection form will be supplied by the City. It shall be Contractor's responsibility to provide blank copies of the log sheet as necessary for the life of this Contract. The active and completed inspection forms shall be kept on the Project site in a secure, weatherproof location, and shall be accessible by both Contractor and City personnel at all times. This information shall also be made available to any other interested party upon request. **Contractor shall provide copies of the previous week's original inspection form to the Engineer at every weekly construction meeting.** The inspection form will be filed with the Project's SWPPP.

B. Contractor shall also obtain a City of Golden Valley Storm Water Management Permit and a Right-of-Way Permit from the City. Contractor shall comply with all terms and requirements of the permits. No additional permit fees or securities will be required to obtain these permits over the Contract Performance and Payment Bonds required in Section VI, Item 18 "Requirements of Contract Bond" of the General Conditions of this Contract.

C. Contractor shall execute UPRR's current form of Contractor's Right of Entry Agreement and to comply with the requirements set forth therein. Applicable fee shall be paid by the Contractor.

The City will obtain the following permits:

A. Erosion and Sediment Control Permit from Bassett Creek Watershed Management Commission (BCWMC). Contractor shall be required to fulfill all requirements and provide any bonds required of the permit.

B. Department of Health permit for water main replacement work. Contractor shall be required to fulfill all requirements of this permit.

C. Separate Miscellaneous Work permits from MnDOT for all work on MnDOT's right-of-way along North from Olson Memorial Highway Service Road (HWY 55) and Lilac Drive (HWY 100). Contractor shall be required to fulfill all requirements and provide any bonds required of the permit.

D. Pipeline Crossing Agreement (water main), Pipeline Encroachment Agreement (storm sewer), and Construction and Maintenance Agreements (surface improvements) with Union Pacific Railroad (UPRR).

20. <u>UNION PACIFIC RAILROAD REQUIREMENTS</u>: The Contractor shall conform to all Union Pacific Railroad (UPRR) requirements and associated costs, including those described in the Pipeline Crossing Agreement (Appendix M), Pipeline Encroachment Agreement (Appendix N), required for working in UPRR right of way, including but not limited to:

A. Contractor shall execute UPRR's current form of Contractor's Right of Entry Agreement and to comply with the requirements set forth therein. Applicable fee shall be paid by the Contractor.

B. Contractor shall provide UPRR and the City at least thirty (30) working days advance notice prior to working within twenty-five (25) feet of any track, and upon UPRR's receipt of such notice, UPRR will determine and inform the City whether a flagman needs to be present or whether Contractor needs to implement any special protective or safety measures.

C. Contractor shall meet UPRR insurance requirements, including Railroad Protective Liability Insurance (RPLI), as described in the Exhibit C of the Pipeline Crossing Agreement (Appendix M) and Exhibit C of the Pipeline Encroachment Agreement (Appendix N). More info on RPLI can also be found at the following link: https://www.up.com/real_estate/rrinsurance/liability_insurance/index.htm

D. Contractor shall obtain third-party flagging and third-party construction observation via RailPros and complete the Project and Billing form (Appendix O) and send to: utilities.office.staff@railpros.com.
   i. Pipeline Crossing (watermain) Folder Number: 03328-47
   ii. Pipeline Encroachment (storm sewer) Project: 0783985

E. Contractor shall complete a separate UPRR Work Plan (Appendix Q) for both Pipeline Crossing (Folder Number 03328-47) and Pipeline Encroachment (Folder Number 0783985) and send to: utilities.office.staff@railpros.com.

F. Contractor shall obtain track monitoring for all work, as required in UPRR Work Plan (Appendix Q) and UPRR's Guidelines for Track & Ground Monitoring (Appendix R).

G. Contractor shall complete a shoring plan, and provide shoring, as required in UPRR Work Plan (Appendix Q) and UPRR's Guidelines for Temporary Shoring (Appendix S).

H. Contractor shall locate UPRR signal cables prior to construction:
   a. Email the UPRR Manager of Signal Maintenance James Brenner at jrbrenne@up.com

b. Provide the depth of the casing, the MP and Subdivision given in Exhibit A of the UPRR Agreement (Appendix M and Appendix N).
c. Ask them to reply to your email with any instructions.

I. Contractor shall call UPRR at 1-800-336-9193 to locate any buried fiber optic cables prior to work within UPRR right of way. If fiber optic cable is present, contractor shall coordinate with the City and the applicable telecommunications companies for the relocation or other protection of the fiber optic cable prior to beginning any work.

J. Contractor shall submit a UPRR call before you dig (CBUD) ticket and forward the ticket to utilities.office.staff@railpros.com
a. UPRR CBUD: https://www.up.com/aboutup/community/telecom/groups/index.htm

K. Contractor shall conform to UPRR safety requirements, including but not limited to those found in UPRR Contractor Minimum Safety Requirements (Appendix T).

L. No work of any kind shall be performed, and no person, equipment, machinery, tools, materials, vehicles or other items shall be located, operated, placed or stored within twenty-five (25) feet of any track at any time for any reason except as approved by UPRR or when crossing tracks for work outside UPRR right of way.

21. <u>DRIVEWAY CONSTRUCTION ON PRIVATE PROPERTY</u>: <u>Residential</u> property owners with driveways disturbed as part of this street improvement project will be given the opportunity to reconstruct their entire driveway at contract unit prices. (No adjustments to any pay items associated with driveway reconstruction will be permitted due to increases or decreases in quantities due to Work on private property). The estimated quantities may not reflect all of the proposed private driveway Work. The Engineer shall set a reasonable deadline for residents to return their agreements, and Contractor shall be obligated to perform all such Work as ordered by the Engineer. **Contractor shall cooperate with the Engineer to ensure timely completion of Private Driveway Construction**. Claims by the Contractor for delays caused by not receiving this information to coincide with the Work schedule will not be allowed.

Some driveways, requested by residents to be replaced, may require the Contractor to assume a higher degree of liability to construct than a normal driveway, or on which the ability to achieve the required quality is not possible (i.e., too much or not enough slope, landscaping impacts, construction along a foundation, etc.). If Contractor deems this to be true, it may make a request to the Engineer to remove the driveway from the Work. The Engineer shall consider all such requests; however, the decision of whether or not the driveway shall be included in the Work shall be at the sole discretion of the Engineer. If the Engineer deems the driveway is within the scope of the Contract Work, the

Contractor shall be obligated to perform such Work in accordance with all Specifications herein.

Contractor shall be responsible to establish grades for all private driveways. The City may be available, with advanced notification, per Contractor's request to help assist in establishing grades.

Contractor shall be required to notify the property owners 48 hours in advance of performing work on private driveways. Failure to provide such written notification shall result in Contractor delaying the Work until the proper notification is provided. No claim for extra compensation to adhere to this requirement shall be considered.

22. **MEASUREMENT AND PAYMENT:** Payment for all items shall be by the unit price bid.

Items on the Proposal Form have been listed in a logical order. However, items from any section may be used for like work on any part of this project, not only the section they are listed under. No claims for additional compensation for use of an item for work under a different section will be considered.

Measurement for all items not specifically described in these Specifications shall be done in accordance with MnDOT Standard Specifications.

Contractor shall submit all final quantities to the City within one month after wear course paving. Should Contractor's final quantities not be submitted within the required time, it shall be understood that the City's Quantities for the Work are accepted by Contractor.

Unclassified work authorized by the Engineer, will be paid for on a force account basis according to Section VIII, Item 8 of the General Conditions.

23. **TREE AND LANDSCAPE PRESERVATION:** Significant care must be taken to protect existing trees and shrubbery that the Engineer feels may be impacted by the construction. **Contractor shall meet with the Assistant City Forester (763.593.3976) on-site to review procedures for successful protection of trees throughout the construction process.** Special care must be taken when in close proximity to any such vegetation to prevent unnecessary cutting, breaking, or shredding of roots; wounding or scraping of trunks; smothering of root systems by stockpiling of construction materials or excavated materials within their drip lines; excess foot or vehicular traffic; or parking of vehicles within their drip lines.

Contractor shall install tree protection fencing, as directed by the Engineer in the field. The unit price bid per linear foot shall be considered compensation in full to place and maintain all such protection throughout the construction.

Contractor shall exercise due caution to protect existing tree branches. All branches that have been damaged by Contractor shall be properly trimmed in accordance with National Arboriculture Standards by the end of the workday. Contractor shall also notify the Engineer immediately of any damaged branches.

When excavating near trees, Contractor shall cut cleanly back to the soil line, all exposed, shredded or torn roots greater than 1-½" in diameter, with proper pruning equipment. The cost to cut roots shall be incidental for which there shall be no direct compensation. When excavating or sloping within fifteen (15) feet of any tree, Contractor shall coordinate all such efforts with the Assistant City Forester. Standard excavation procedures may need to be modified for large trees that have their trunks closer than five (5) feet from the excavation or sloping limits.

Contractor shall be required to provide protection to all exposed oak tree roots that are cut prior to July 1. Contractor shall have on-site an approved wound dressing to be applied to freshly cut root ends immediately (within 10 minutes) after excavation to prevent oak wilt infection. Wound dressing will not be permitted for any other situation other than oaks damaged by construction before July 1. Contractor shall coordinate all such work with the Assistant City Forester.

24. **RESPONSIBILITY FOR DAMAGE CLAIMS (1714):** The provisions of MnDOT Specification 1714 are supplemented as follows:

> Contractor must have the City of Golden Valley, and Short Elliott Hendrickson Inc. named as additional insureds on any insurance coverage Contractor is required to provide.

25. **MOBILIZATION (2021):** The lump sum for mobilization is to include all aspects of work in accordance with MnDOT Specification 2021, for the base bid. No measurement for Mobilization shall be made for Bid Alternates A or B.

26. **CLEARING AND GRUBBING (2101):** In an effort to minimize tree removals, Contractor shall be obligated to remove trees at any time throughout the duration of the Work. **Contractor's bid price shall take into consideration multiple mobilizations.** Contractor shall notify the Engineer of any trees he/she feels must be removed to complete the Work as specified. The Engineer may wait until all subgrade correction and/or sloping near such questionable trees is complete to determine the necessity of removals. No claims for extra compensation shall be considered due to Contractor's compliance with this requirement. Clearing and grubbing shall be performed in accordance with the provisions of MnDOT Section 2101, and the following:

The Engineer shall mark all trees, shrubbery and other items designated for clearing and grubbing, after grade stakes have been established. **Only those trees and items as marked may be removed.** Any items removed or damaged by Contractor not marked for removal will be Contractor's responsibility to replace at its sole cost. All replacement items must be approved by the Engineer. **Only the Engineer or his designate is**

authorized to mark trees, brush or shrubs for any purpose or in any manner. In addition, Contractor shall ensure that trees/landscaping not designated for removal are not damaged, marked or defaced in any way.

Grinding of stumps may be allowed with approval from the Engineer.

All trees cleared and grubbed shall be **promptly** disposed of off the site with no additional compensation. Disposal must be in accordance with all county and state disposal requirements. Contractor shall not leave removed trees, stumps or debris on the Project site overnight.

Measurement for clearing and grubbing trees shall be the individual tree, or by the acre, as specified in the Plans or as directed by the Engineer. Payment for clearing and grubbing trees under these items is for trees four (4) inches in diameter and larger (measured at a point 24-inches above the ground) only, and shall be considered compensation in full to remove each tree and stump as directed by the Engineer. Removal and disposal of all trees, brush and shrubs smaller than four (4) inches in diameter shall be considered incidental for which no direct compensation shall be made. No claims shall be considered for extra costs due to size for clearing and/or grubbing trees or shrubs as directed by the Engineer. Trees, stumps, brush and shrubs the Engineer designates to be removed in conjunction with private driveway construction, as part of this project, shall be performed and compensated for in accordance with this Specification. Once the Engineer marks trees and shrubs for removal, Contractor shall **promptly** remove such items and dispose of them off the Project area.

27. **REMOVALS AND SALVAGES (2104):** The unit price bid for all items designated for removal shall include disposal at a site selected by Contractor and approved by the Engineer. Items designated to be removed must be loaded and taken from the Project area as they are removed. **In no case will removal items be allowed to remain on the Project overnight without written consent of the Engineer**. Failure to comply with this requirement may result in the City withholding all money due until removal items have been disposed of off the Project.

Residents with driveways disturbed as part of the Work will be given the opportunity to replace their entire driveways in conjunction with the Project. Removals of bituminous or concrete driveway pavement shall be compensated for under the unit price bid for the type of pavement removed, and shall be considered compensation in full for such Work as directed by the Engineer. No claims for extra compensation or unit price adjustment will be considered due to increased or decreased quantities for private driveway work.

Contractor shall be required to remove all pavement against building foundations, panels or existing retaining walls by hand to prevent damage to the in-place structure. All such extra equipment and labor, including but not limited to, jackhammers, compressors, etc., shall be considered incidental to the unit price bid for such removal.

Contractor shall salvage all items designated to be reused on this project as directed by the Engineer. The City has no areas contiguous to the Project for stockpiling salvaged bituminous pavement or crushed concrete pavement. **Items damaged by the Contractor that are designated to be salvaged shall be replaced at the Contractor's expense.**

If there are existing mailboxes that must be removed to construct the Project, Contractor shall salvage and reset them at the end of the Project. During the Project, Contractor must provide a temporary bank of mailboxes to allow mail delivery by the U.S. Postal Service. Contractor shall coordinate the temporary mailbox locations with the local post office. These locations shall also be approved by the Engineer. The temporary mailbox bank shall be considered incidental to salvage mailbox and support.

It shall be Contractor's responsibility to notify the Engineer before removal of any existing mailbox posts that are rotten and cannot be removed without damage. If Contractor fails to notify the Engineer and the posts are damaged, Contractor shall be responsible for repairing the damaged post at its own expense. An item is included in this project for replacing rotted mailbox supports. Contractor shall also cooperate with property owners to install either the support furnished by Contractor or a support that the property owner supplies. Any mailboxes or supports to be salvaged which are damaged during storage or replacement shall be replaced at Contractor's expense. Any painting/staining required, in the opinion of the Engineer, to match original condition that is due to damage by Contractor shall be included in the unit price bid for salvaging and replacing the mailboxes and supports. Payment will be made on the basis of each support post set to its permanent location regardless of the number of mailboxes on each unit in accordance with postal requirements. No compensation will be considered for work to temporarily set any mailbox. Contractor shall cooperate with property owners to determine the location for final setting of mailboxes.

The unit price bid, per square yard, to Remove Bituminous Pavement, regardless of existing pavement thickness (see chart in plan for existing bituminous thickness) shall be considered compensation in full to remove the full depth of all bituminous from the roadway (including bituminous curb), as directed by the Engineer. Contractor shall dispose of the material at no additional cost in accordance with all applicable rules and regulations. The contractor may choose to reclaim the full depth of bituminous pavement with underlying granular material for reuse on this project as directed by the Engineer. The reclaimed bituminous pavement can be used to cap select granular borrow to provide a drivable surface.

Bituminous pavement designated to be removed (driveways, bituminous curb, and small miscellaneous bituminous pavements), shall be disposed of by Contractor at a site selected by Contractor and approved by the Engineer.

The unit price bid, per square yard, to Remove Concrete Pavement (Crush & Salvage for Temporary Stabilization), regardless of existing pavement thickness

(see chart in plan for existing concrete thickness) shall be considered compensation in full to crush the full depth of all concrete from the roadway (including integral curb) and remove any reinforcement that may be present. Concrete pavement shall be crushed on site, as directed by Engineer, for reuse to cap select granular borrow to provide a drivable surface. **Placement and maintenance of crushed concrete to cap select granular borrow, as directed by Engineer, shall be considered incidental to the unit bid price to Remove Concrete Pavement (Crush & Salvage for Temporary Stabilization).** Contractor shall provide suitable means to provide dust control during crushing operations, as directed by the Engineer and in accordance with Minnesota Pollution Control Agency's (MPCA) Fugitive Dust Emissions Management and Best Practices. **The contractor shall be required to submit to the Engineer a Fugitive Dust Control Plan prior to any crushing operations.** In addition, contractor shall apply water to temporary stockpiles to control dust, as directed by the Engineer. Crushing operations shall not take place adjacent to residential properties, within 100 feet of the railroad track, or in locations as directed by the Engineer. In the event there is excess crushed concrete pavement, the Engineer will direct Contractor to use as additional granular base material or to dispose of it off the Project. Contractor shall dispose of the material at no additional cost in accordance with all applicable rules and regulations. In order to maintain temporary vehicle access during construction, concrete pavement shall be removed half at a time on each street as needed to replace existing water main. Contractor shall dispose of the material at no additional cost in accordance with all applicable rules and regulations. No payment for additional mobilizations to remove concrete pavement in phases will be made.

The unit price bid for Remove Bollards shall be considered compensation in full to remove bollards and bollard foundations in conformance with the plans and as directed by the Engineer.

The unit price bid for Remove Landscape Mulch shall be considered compensation in full to remove landscape mulch materials in conformance with the plans and as directed by the Engineer and disposed of offsite by Contractor. Measurement shall be made by area, in square feet, of mulch material removed.

The unit price bid to Salvage Modular Block Retaining Wall shall be considered compensation in full to salvage the existing modular block wall, including foundation blocks, for reuse on this project. The measurement shall be based on the actual linear footage, measured across the face of the wall, acceptably salvaged. Contractor shall be responsible for replacing any damaged blocks with matching blocks of the same manufacturer color necessary for rebuilding the walls.

The unit price bid to Salvage Concrete Pavers (Driveway or Walk) shall be considered compensation in full to salvage pavers for driveway or sidewalk, for reuse on this Project. Contractor shall offer any extra pavers to the resident. Contractor shall be responsible for replacing any pavers damaged during construction with matching blocks of the same manufacturer and color necessary

for rebuilding them, at no additional cost to the Owner. The measurement for Salvage Concrete Pavers (Driveway or Walk) shall be based on the actual area in square feet of undamaged pavers removed from the Work.

The unit price bid per linear foot to Salvage Chain Link Fence shall be considered compensation in full to remove the existing footings (if present), vertical support posts and fencing materials for reuse on this project as directed by the Engineer. The measurement shall be based on the actual linear footage acceptably removed, measured horizontally across the face of the fence, including support posts. Contractor shall be responsible for replacing any damaged components with matching components of the same manufacturer or finish and color necessary for reinstalling the fence.

The unit price bid to Salvage Landscape Items (inclusive of brick/rock edging, boulders etc.) shall be compensation in full for all materials, equipment and labor to salvage such items for reuse on this Project. Items designated to be salvaged that are damaged by Contractor shall be replaced with new items at Contractor's expense. Excess salvaged items shall be offered to the property owner adjacent to the Work. If the property owner does not want the excess salvaged items, it shall be Contractor's responsibility to dispose of such items at a site selected by Contractor and approved by the Engineer with no additional compensation.

The unit price bid for Salvage Sign (Type C or Special) shall be considered compensation in full to salvage and protect all signs in conformance with the plans and as directed by the Engineer. Existing street name signs shall be salvaged to the City of Golden Valley as directed by the Engineer.

The unit price bid for Remove Sign, Type C, shall be considered compensation in full to remove signs in conformance with the plans and as directed by the Engineer.

The unit bid prices for Remove Water Main Pipe and Remove Water Service Pipe shall also include the removal of water main fittings including, but not limited to, tees, bends, and elbows.

The unit bid price for hydrant removal shall be considered compensation in full to remove hydrants and store in an area designated by the Engineer for 48 hours to allow city staff to remove parts from the hydrants before they are removed.

The unit bid price for hydrant marker removal shall be considered compensation in full to remove and dispose of hydrant markers from existing hydrants specified for removal.

The unit bid price to remove gate valve shall be considered compensation in full to remove all sizes of gate valves inside a gate valve manhole. Removal of the gate valve manhole shall be paid for under a separate bid item.

The unit bid price to remove the gate valve and box shall be considered compensation in full to remove all sizes of gate valves, including hydrant auxiliary valves.

The unit bid price for salvaging casting frame and cover shall be considered compensation in full to salvage all sanitary sewer manhole castings and covers. Salvaged covers will be reinstalled on new manhole casting frames (paid for under separate bid item) and salvaged casting frames shall be stockpiled as directed by the Engineer for pickup by City staff.

28. <u>SAWING CONCRETE AND BITUMINOUS PAVEMENT (2104)</u>: Sawing concrete and bituminous pavements shall be compensated for at the unit price bid for actual length of pavement sawed.

Sawing shall be paid for one time only. Contractor shall be required to take all precautions necessary to ensure that pavement is removed cleanly along all saw cut joints. Any re-sawing of bituminous or concrete pavements deemed necessary by the Engineer shall be done at Contractor's expense.

Sawing at curb replacement locations shall be incidental to curb removal and will not be measured and paid for separately under this item.

Bituminous saw cuts at match points with existing pavements shall be performed immediately prior to placement of bituminous wear course.

See table in plan for existing pavement thicknesses observed during soil borings.

Contractor shall be required to saw cut bituminous pavement for UPRR to perform crossing panel replacement, as directed by the Engineer.

<u>Concrete dust shall be swept up and slurry created by wet-sawing shall be cleaned up, as directed by engineer, immediately after sawcutting concrete pavement, driveways, walks, curbs or other panels.</u>

29. <u>EXCAVATION AND EMBANKMENT (2106)</u>: The excavation and embankment shall be constructed in accordance with the Provisions of Section 2106, MnDOT Specification, except as modified herein.

Depth of actual subcut shall be determined in the field by the Engineer. In order to facilitate efficient determination of actual subcut depth, Contractor shall be obligated to dig test holes ahead of its excavation operation so the Engineer may determine actual subcut depths. Contractor shall notify the Engineer at least 48 hours in advance of the excavation to schedule the Work. Extra compensation for delays caused by Contractor's failure to schedule the Engineer as described shall not be considered. Contractor shall provide all equipment and labor to dig test holes at its expense. Contractor shall also be responsible for determining that test hole sites are clear of utilities before excavation.

The geotechnical report for this project is included in the Appendix.

A. *Excavation-Common*: Excavation-Common shall be considered as all excavation required, including but not limited to, construction of the roadbeds, driveways, walks, trails and stripping topsoil prior to construction of embankments, as shown in the Plans and/or as determined necessary by the Engineer.

No claims for additional compensation above the unit price bid shall be considered, regardless of subgrade soil type or depth of subcut required.

Contractor shall be responsible for disposal of all excavated materials and shall be required to salvage and reuse all suitable soils encountered within the excavation. Suitable materials include material free of contamination, rocks and debris. The Engineer shall determine the suitability of excavated soils from the excavation for reuse on the Project. The cost of such salvaging, placement and compaction shall be included in the unit price bid for excavation of such soils.

The basis of payment for Excavation-Common shall be by **excavated volume as determined by cross-sectional measurement, average end area method**.

Contractors shall be advised the actual depth of excavation and backfill will be determined in the field.

Excavation-Subgrade: Excavation-Subgrade shall be considered as roadbed excavation below the depth indicated in the Plans, as directed by the Engineer.

B. *Select Granular (2106)*: Select Granular Borrow shall conform to the requirements of MnDOT Specification 3149.2B, except as herein amended:

Maximum particle size shall be four inches. Not more than 5% of the material passing a one-inch sieve may pass a #200 sieve. The unit price shall include all installation, grading, compacting and any other work necessary to conform to the Plans.

Compaction shall be in accordance with the Standard Proctor Specified Density Method unless specifically noted otherwise.

Contractor shall give the Engineer notification of borrow site two weeks prior to the use on the Project. Contractor shall provide gradation testing performed by a party acceptable to the Engineer, for all materials under this pay item and in accordance with the Schedule for Materials Control. All testing shall be at the rate specified in the Materials Testing Schedule. Contractor shall schedule with the Engineer times for sampling the granular borrow so the Engineer may be present. **Measurement and payment will be measured on a per ton installed basis. Contractor must provide accurate scale tickets. No**

requests for measurement by any other means will be considered. In addition, Contractor will not be allowed to set up a portable scale to comply with this requirement. All tickets must come from a permanent scale approved by the Engineer.

Contractor must submit all scale tickets for this item to the Engineer no later than noon of the day following delivery to the Project. At Engineers discretion tickets that are not provided within the time specified may not be accepted for payment.

C. *Test Rolling/Compaction*: Contractor shall not be allowed to place any aggregate base until the subgrade has been approved by the Engineer. Test rolling shall meet the requirements of MnDOT Specification 2111. Contractor shall furnish a test roller to verify adequate consolidation of all subgrade soils. Any visible deflection of the subgrade shall be considered unacceptable, and the Engineer will require Contractor to take corrective measures to obtain a consistent, stable subgrade. Compaction of all of the subgrade shall be in accordance with MnDOT Specification 2106.3.G.1, Specified Density Method. Compliance will be based on Standard Proctor Densities. No additional compensation shall be considered to obtain specified densities in accordance with the Specifications. Test rolling shall be considered incidental for which there shall be no direct compensation. All costs to excavate and compact in-place subgrades to specified densities shall be included in the unit price bid for Common Excavation.

The Plans show the approximate construction limits defined by the street excavation and embankments. They do not represent construction limits in areas of water, sewer or utility construction. Contractor shall keep the construction within the grading limits to the extent possible. The Engineer will direct Contractor to grade outside of the limits shown when necessary. Contractor shall provide such grading with no additional compensation. Restoration shall be paid at the unit prices for such restoration.

30. GEOSYNTHETIC CONSTRUCTION MATERIALS (2108): The geosynthetic construction materials shall be constructed in accordance with the Provisions of Section 2108, MnDOT Specification, except as modified herein.

A. Geotextile Fabric: The unit price bid per square yard shall be compensation in full for equipment, material and labor to install each type of geotextile fabric specified in accordance with the Engineer's and manufacturer's recommendations.

The geotextile fabric for roadbed stabilization, Type V, shall meet the requirements of MnDOT Specification 3733 for the type specified.

Edges shall be overlapped and sewing will be required. Type V fabric shall be installed (rolled) perpendicular to the street centerline. All fabric shall be lapped and stitched with double "J" stitch for Type V. Seams shall have two (2) lines of stitching over the overlapped material. The stitched

seam shall meet the same minimum strength requirements as the fabric on which the seam is constructed. The fabric shall be placed flat and hand-stretched to pre-tension the fabric. Certification of seam testing shall be provided to the Engineer.

Measurement shall be made on the actual square yards placed excluding overlap and stitched seams. Sewing will be considered incidental

31. **AGGREGATE SURFACING (2118):** Aggregate Surfacing Special (3" Minus Limestone) shall be constructed in accordance with the Provisions of Section 2118 of MnDOT Specifications except as modified herein. The aggregate material shall be compacted in accordance with MnDOT Specification 2211.3.D.2.b, Quality Compaction Method. Imported material will be measured on a per ton installed basis, based on weight tickets from a certified scale.

Aggregate Surfacing Special shall be used for temporary driveways, entrances, or other temporary surfaces, as directed by the Engineer. The unit bid price per ton includes furnishing, placing and compacting aggregate for temporary access during construction, maintaining aggregate surfacing as directed by engineer during construction, and excavating, hauling/disposal off-site. Contractor shall dispose of the material at no additional cost in accordance with all applicable rules and regulations.

Aggregate surfacing for temporary access, as described above, shall be constructed a minimum 8" thick, or as directed by engineer.

The material shall consist of crushed limestone or recycled concrete but not bituminous asphalt and shall meet the gradation as shown in the following table. Contractor shall provide product source and certification that supplied material meets below gradation requirements.

Sieve	Percent Passing (%)
3-inch	100
2-inch	90-60
1-inch	80-45
¾-inch	55-30
#200	3-12

32. **CONTAMINATED AND DEBRIS-IMPACTED SOIL:** Although the City is not aware of buried debris or contamination on the Project, Contractor should be aware that debris and/or contaminated materials may be encountered in any excavation.

In the event Contractor suspects that contamination is present on the Project (organic vapor detector readings above background, staining or discoloration, debris-rich fill, or olfactory evidence), Contractor shall stop Work and **IMMEDIATELY NOTIFY THE ENGINEER**. The Engineer shall be responsible for notifying the necessary regulatory agencies and other necessary parties.

Contractor shall be prepared to stop work at the suspected contaminated or debris-impacted site for a minimum of 72 to 96 hours after notifying the Engineer to allow time to test for actual contamination and/or extent of debris in the soil. The City's Environmental Consultant shall collect samples of the suspect material for characterization. No suspect material shall be removed from the site or moved from its position at the time of discovery without the Engineer's approval. No claims for costs for interrupted progress shall be considered.

A. *Contaminated Soil*

The soils shall be considered **contaminated** if laboratory results indicate the contamination concentrations exceed the applicable risk or health based cleanup criteria established by the State of Minnesota or U.S. Environmental Protection Agency. If the soils are determined to be contaminated the City's Environmental Consultant shall work with the appropriate regulatory agency to develop project specific cleanup goals.

When the excavation resumes at a contaminated or potentially contaminated site, the City's Environmental Consultant shall conduct field monitoring to identify the materials that are to be managed as contaminated. The Engineer shall direct Contractor on the appropriate management of the contaminated soil.

Said material may be stockpiled, reused within the Project, or hauled off-site for treatment as directed by the Engineer and in accordance with the Project-specific cleanup goals. Reuse and stockpiling of said material are limited to areas within the Project limits and must meet the guidelines included in the MPCA Best Management Practices for the Off-site Reuse of Unregulated Fill (MPCA, February 2012) and Managing Petroleum Contaminated Soil at Public Works Projects (September, 2008).

B. *Debris-Impacted Soil*

The material shall be considered **debris-impacted** if the amount of debris in the soil exceeds 5% by volume as verified by the Engineer. The Engineer will verify by "Charts for Estimating Proportions of Mottles and Coarse Fragments" Munsell Soil Handbook, 2000 Edition. If the soils are determined to be debris impacted, the City's Environmental Consultant shall work with the appropriate regulatory agency to develop project specific cleanup goals.

When the excavation resumes at a debris-impacted site, the City's Environmental Consultant shall conduct field monitoring to identify the materials that are to be managed as debris-impacted. The Engineer shall direct Contractor on the appropriate management of the debris-impacted material. With the approval of or under the direction of the Engineer, Contractor may be required to separate debris from the soil to meet the

5% by volume guideline. Contractor will be required to reasonably sort debris from soil in an effort to minimize disposal at the landfill.

When the excavation in the area where contaminated and/or debris-impacted soils are located is complete, Contractor shall permit the City to collect samples from the bottom and sidewalls of the excavation. Soils shall not be excavated beyond the limits shown on the cross-sections in the Plan, or as approved unless directed in writing by the Engineer.

Contractor shall be obligated to comply with all applicable safety regulations imposed by federal and state law for handling pollutants, contaminants, or hazardous substances, wastes or materials, including but not limited to, 29 C.F.R., Part 1910, and all subsequent revisions thereof.

Contractor **may be** required to temporarily stockpile contaminated or debris-impacted soil on the Project site or at a City-owned location within the City **(only as directed in writing by the Engineer)**. Excavated materials with different physical characteristics (i.e. contaminated soil for off-site disposal, contaminated soil for on-site reuse, debris, etc.) will be segregated into separate stockpiles. Contaminated or debris-impacted soil shall be stockpiled on an impervious surface or reinforced plastic a minimum of 10 mils thick. Contractor shall cover contaminated soil stockpiles with 10-mil reinforced plastic and securely anchor it from wind using sandbags, clean soil or an Engineer-approved alternative. Any maintenance or recovering of stockpiles due to lack of adequate anchorage shall be at Contractor's expense. If the Engineer deems it necessary, the Contractor shall surround the stockpile with fencing to provide extra security. Once established, stockpiles shall not be disturbed, moved or combined except as directed by the Engineer.

The City reserves the right to retain responsibility to manage the disposal of soils determined to be unfit for use on the Project due to contamination or debris. **Suspect material that has been characterized and does not meet either contaminated or debris-impacted criteria shall be Contractor's responsibility to manage under the General Excavation provisions with no additional expense to the City.**

The City advises Contractor to coordinate for a **secondary disposal site** for soils containing debris below the established levels. The City reserves the right to hire a different contractor for this operation if an agreement regarding extra work compensation for contaminated and/or debris impacted soils cannot be established.

If directed by the Engineer, Contractor shall haul contaminated or debris-impacted materials to a permitted treatment facility consistent with state and local requirements. The method of treatment shall be approved by the Engineer and be in accordance with the approved project-specific cleanup goals. Contractor shall complete all necessary permits and applications for the treatment facility. Contractor shall certify to the Engineer within 30 days of completion of soil

treatment that the soil has been treated/disposed as approved by the Engineer. Contractor shall provide copies of all treatment facility applications, permits, approvals and disposal manifests to the City and Engineer.

Handling, stockpiling and disposal of contaminated and debris-impacted materials shall be considered Unclassified Work. The City shall compensate the Contractor for such Unclassified Work, as specified by the Engineer, at a rate of the actual cost, plus 10 percent (10%). Contractor shall submit detailed records of the actual cost incurred for such removal, stockpiling and disposal. Contractor shall separate contaminated and debris-impacted materials from non-contaminated soil to the extent deemed practical by the Engineer. Unclassified Work for this section shall be limited to work over and above the costs Contractor would have experienced to excavate and remove the soils per the Contract.

33. **WATER USE ON PROJECT (2130):** Project related water use for compaction, dust control, sod, and landscaping shall be considered incidental. Should the Engineer deem that additional water must be used on the Project; Contractor shall provide the water within two (2) hours of notification by the Engineer.

Contractor will not be charged for any project related water use. However, to receive permission to take water from hydrants, Contractor shall be required to obtain a meter from the City Utilities Maintenance Department (763.593.3962). The meter requires a one thousand eight hundred dollar ($1,800.00) deposit, which will be refunded when Contractor returns the meter in good condition.

Contractor shall identify specific hydrants he/she wishes to take water from during construction and obtain approval from the Engineer. Only hydrants approved by the Engineer will be available for use by Contractor.

34. **AGGREGATE BASE (2211):** The Class 5 Aggregate Base shall be constructed in accordance with the Provisions of Section 2211 of MnDOT Specifications. The aggregate base shall be compacted in accordance with MnDOT Specification 2211.3.D.2.a , Specified Density Method. Imported material will be measured on a per ton installed basis, based on weight tickets from a certified scale.

Contractor may use Class 5 Recycled Aggregate on this Project. If recycled aggregate is used, Contractor shall be responsible for providing testing certification for all recycled aggregate used. Contractor shall provide documentation of product source and certification that recycled aggregate meets all requirements for Class 5 (MnDOT Specification), including the percent crushing. Testing documentation shall be performed by a testing agency approved by the City. The rate of testing shall be as follows:

The first test shall be performed before use on the Project, and thereafter one test every 2,000 tons used.

35. **DRILL AND GROUT REINFORCEMENT BAR (EPOXY COATED) (2301):** This work shall consist of drilling, grouting, and inserting No. 4 x 12-inch-long epoxy

coated reinforcement bars in accordance with the provisions of MnDOT 2301 and the following:

Measurement will be by the number of epoxy coated reinforcement bars that are furnished, installed, and grouted in place as specified. Payment will be under Item 2301.602 (Drill and Grout Reinforcement Bar (Epoxy Coated)) at the Contract bid price per each, which shall be payment in full for all work included under this section.

36. JOINT ADHESIVE (MASTIC) (2331): This shall consist of furnishing and placing Joint Adhesive (Mastic) as specified in accordance with the following:

This work is the application of a hot-applied modified asphalt used as an adhesive on a cold longitudinal construction joint for hot mix asphalt (HMA) pavements. The material shall be applied to the face of the concrete gutter pan immediately before the bituminous wear course is installed. The engineer shall determine if this item is to be installed prior to paving the wear course. If the engineer directs the Contractor that the joint adhesive is not to be installed, the contractor will not be paid for this item.

Provide joint adhesive as specified in Table 1.

Table 1. Joint Adhesive Specifications

TEST		SPECIFICATION
Brookfield Viscosity, 204°C [400°F]	ASTM D 3236	4,000-10,000 cp
Cone Penetration, 25°C [77°F]	ASTM D 5329	60-100 mm
Flow, 60° [140°F]	ASTM D 5329	5 mm maximum
Resilience, 25°C, [77°F]	ASTM D 5329	30% minimum
Ductility, 25°C, [77°F]	ASTM D 113	30 cm minimum
Ductility, 4°C, [39.2°F]	ASTM D 113	30 cm minimum
Tensile Adhesion, 25°C, [77°F]	ASTM D 5329	500% minimum
Softening Point	STM D 36	77°C [170°F] min.
Asphalt Compatibility	ASTM D 5329	Pass

Apply joint adhesive ONLY when the pavement surface temperature is 10°Celsius [50°Fahrenheit] and rising or as directed by engineer.

Use a jacketed double boiler type melting unit, with both agitation and recirculation systems. Provide a pressure feed wand application system. If necessary, use a hot air lance with propane and compressed air in combination, capable of heating air at the exit orifice to 982°C [1800°F] and a discharge velocity of 914 m/sec [3000 feet per second].

Submit a copy of the manufacturer's recommendations for heating and re-heating material, and for applying the joint adhesive material. Do not remove the joint adhesive from the package until immediately before it is placed in the melter. Use clearly marked boxes with the name of the manufacturer, the trade name of

the adhesive, the manufacturer's batch and lot number, the application/pour temperature, and the safe heating temperature. Feed additional material into the melter at a rate equal to the rate of material used.

Furnish a production data sheet for each melter on the Project. Include the manufacturer's melting/heating rate in pounds per hour to application/pour temperature. Also include the conditions under which the rate of melting/heating sealant to application/pouring temperature was determined. Provide automatic thermostatic controls and temperature gauges to monitor the temperature of heat transfer oil in the kettle jacket. No payment will be made for material placed in excess of 110 percent of the melter's capacity, based on the manufacturer's melting rating and the actual number of hours worked.

Furnish, for City's use, an infrared temperature-measuring gun accurate to 1°C at 204°Celsius [1°Fahrenheit at 400°F]. Check the pouring temperature of the adhesive, at least once per hour, at the point of discharge. Stop production if the adhesive falls below the recommended application/pour temperature. If the adhesive temperature at the point of discharge exceeds the maximum safe heating temperature, empty the melter and dispose of the adhesive in an environmentally safe method. No payment will be made for this material or its disposal.

Do not mix different manufacturer's brands or different types of adhesives.

The joint face must be clean and dry. If necessary, use a heat lance. Apply the joint adhesive material over the entire face of the top lift, cold longitudinal edge of a HMA pavement where and adjacent HMA pavement will be constructed. Apply a band approximately 3 mm [1/8"] thick. The use of an application shoe attached to the end of application wand is recommended. Do not overlap the joint by greater than 12.5 mm [1/2"] at the top of the joint and 50 mm [2"] at the bottom of the joint. Apply the joint adhesive, at the point of discharge, above the recommended pour temperature of 193°Celsius [380°Fahrenheit] and below the safe heating temperature of 210°Celsius [410°Fahrenheit]. Apply the joint adhesive immediately in front of the paving operation. If the adhesive is tracked by construction vehicles, repair the damaged area and restrict traffic from driving on the adhesive.

Contractor is responsible for all the quality control (QC) sampling and testing. Provide material certification and quality control test results for each batch of adhesive used on the Project. The adhesive must meet all requirements in Table 1. Provide 2 sample boxes for each lot of adhesive used on the Project, for field sampling. Each sample box shall hold 2.3 kg [5 pounds] of adhesive. Provide Teflon or Silicone-lined boxes.

The Engineer is responsible for all quality assurance (QA) sampling and testing.

Acceptance of the adhesive material is based on certification and quality control results, provided by Contractor, that adhesive meets the requirements in Table 1.

Use field samples to verify that the delivered adhesive meets the requirements. Take a sample, on the first day of production, from the application wand, during the first 20 minutes of placing adhesive from each melter on the Project. Each sample shall consist of two, Teflon/Silicone lined boxes each containing 2.3 kg [5 pounds] of adhesive. Label the two sample boxes with the: Project number, date, time, location, adhesive temperature, manufacturer, and lot number. Number each box one of two, or two of two. Take one sample for each lot of adhesive used on the Project. City may conduct additional sampling and testing.

If a field sample fails to meet any of the requirements in Table 1, the Work completed with the material from the lot that the field sample represents, shall be subject to a reduction in the Contract unit price equal to ten percent for each failing property.

Joint Adhesive shall be measured by the linear foot. Payment for the accepted quantity of joint adhesive at the Contract Price of measure will be compensation in full for all costs of furnishing and applying the material as specified.

37. **PLANT MIXED BITUMINOUS MIXTURES (2360):** All bituminous mixtures shall be in conformance with MnDOT Specification 2360, except as modified or supplemented herein.

Bituminous mixtures to be used on this Project shall be Superpave mixtures as shown below. Refer to Plans for locations of each mix type.

1. Wearing Course: Type SP 9.5 Wearing Course Mix (4,F)
2. Non-Wearing Course: Type SP 12.5 Non-Wearing Course (2,C)
3. Bituminous Mixture for Driveways & Trails: Type SP 9.5 Wearing Course Mix (2,C)

Contractor shall submit Q/C testing for Class B aggregates included in mix designs based on the following schedule:

1. For every 5,000 tons of bituminous mixture placed on the Project, or for mix placed 30 days after the previous submittal, perform and submit the following Q/C testing from Class B stockpile:
    a. Soundness Testing (ASTM C 88)
    b. Loss by Abrasion and Impact (ASTM C 131)

In addition, it shall be Contractor's obligation to ensure the top surface is closed to the satisfaction of the Engineer. The use of coarse mixtures that do not close to the Engineer's satisfaction shall not be permitted.

Compaction shall be obtained in accordance with MnDOT Specification 2360.3.D.2, Ordinary Compaction. Contractor shall have a certified person, approved by the City, with calibrated nuclear testing equipment to verify roll patterns achieve maximum density.

Design of all mixtures used on this Project shall be approved by MnDOT, and mix certification documentation of such shall be provided to the Engineer at least two weeks prior to placement.

The unit price bid for Bituminous Mixtures for Base and Wearing courses shall be considered compensation in full to furnish and place the asphalt in accordance with MnDOT Specification 2360, the Plans and the Engineer except that no incentives shall be included in the payment. Disincentives in accordance with the Specification shall apply.

Bituminous tack coat shall be CSS-1 or CSS-1h.

For bituminous driveways that residents elect to have replaced in conjunction with this project, the unit prices bid for common excavation, aggregate base and bituminous driveway mixture shall be considered compensation in full to perform such extra work as directed by the Engineer. No claims for extra compensation will be considered. Contractor shall not be allowed to negotiate prices based on an increase or decrease in quantities as a result of the driveway reconstruction program.

All bituminous used in construction of driveways completely replaced shall be placed with a paver. It shall be the obligation of Contractor to ensure all driveways are installed with proper drainage. Failure to place the pavement with proper drainage shall be cause for replacement. If Contractor deems that there is not sufficient grade to ensure drainage, he shall notify the Engineer before placement of the new aggregate base, and cooperate with the Engineer in seeking the best alternative for replacement. In all cases, the pavement must slope away from existing structures, and whenever possible, slope to the street.

Driveway pavements shall be placed in two lifts unless Contractor can demonstrate to the Engineer that satisfactory results may be obtained with one lift. The quality of workmanship of the pavement installed in this manner shall be determined by the Engineer.

All asphalt driveways shall be completed within two weeks from the start of the curb placement. Failure to complete the Work in accordance with this requirement may result in the City withholding all monies due until the Work is completed.

Any structural or surface defect of the driveway pavement which develops during the one-year warranty period described in the General Conditions of these Specifications, including, but not limited to, cracking, roller marks, settlement or heaving, or open surface condition, shall be cause for rejection and replacement of the entire driveway at Contractor's expense. Determination of defective materials to be replaced shall be solely made by the Engineer.

The unit price bid for each mixture shall be compensation in full to place and warrant such mixture as specified.

All turf restoration and casting adjustments, including sealing and grouting, must be complete before the wearing course on the street may be placed.

38. **PIPE BEDDING (2451):** This shall consist of furnishing and placing bedding material as specified in accordance with the provisions of MnDOT 2451 and 3149, the plan details for utility construction, and the following:

Select Granular Material (MnDOT 3149.2B) shall be used for bedding material, and pipe foundation for water main. Granular bedding used for water main shall be measured and paid for by the ton of granular material furnished and placed.

Any necessary excavation for pipe bedding and any disposal of excess material related to pipe bedding shall be considered incidental for which no additional compensation shall be considered.

39. **CRUSHED ROCK FOR STABILIZATION (2451):** Work shall consist of furnishing and placing crushed rock pipe foundation material. The crushed rock shall meet the gradation requirements set forth under MnDOT 3149.2G.2.

The crushed rock shall only be used for pipe foundation or manhole foundation, or as directed by the Engineer. In no case will there be compensation allowed for crushed rock used for the purpose of dewatering. Geotextile fabric shall be measured and paid for separately.

Measurement will be made by the weight of crushed rock material furnished and placed as specified. Payment will be made under Item 2451.507, Crushed Rock for Stabilization, at the contract bid price per ton, which shall be payment in full for all costs incidental thereto including, but not limited to, excavation of unstable soils to place the rock as specified.

In no case will there be additional compensation allowed for removal and disposal of the material necessary to place the crushed rock as specified.

40. **COARSE FILTER AGGREGATE (2451):** The unit price bid per ton for Coarse Filter Aggregate shall be considered compensation in full for all equipment, material and labor to place crushed rock meeting the requirements of MnDOT Specification 3149.2H around the perforated pipe to provide subgrade drainage, in conformance with the detail in the Plans and as directed by the Engineer

41. **CONSTRUCT BULKHEAD (2503):** The unit price bid for each interior structure repair shall be considered compensation in full to bulkhead/patch each existing pipe opening as directed by the Engineer.

The unit price bid shall include all labor, materials and incidentals to complete the work at locations where pipes will be abandoned adjacent to existing structures, or as directed by the Engineer.

42. **PIPE SEWERS (2503):** Pipe Sewers shall be constructed in accordance with the provisions of MnDOT 2503, and the most recent version of the Standard Utilities Specifications for Sanitary Sewer and Storm Sewer Installation, as prepared by CEAM, except as modified below.

All joints in the reinforced concrete pipe (RCP) shall be sealed with preformed rubber gasket type seals, in accordance with the most current version of MnDOT Standard Plate 3006.

No construction joints are allowed for sanitary or storm sewer pipe connections. The connection to existing sanitary sewer or storm sewer pipe item shall be to the nearest joint. No concrete collars allowed unless otherwise approved in writing by the Engineer.

Contractor shall be responsible for providing all dewatering by such means as will preserve the structural stability of the trench bottom and sides and provide a dry trench for the installation of the pipe and appurtenant structures. All such dewatering, per the Engineer's approval, shall be considered incidental to the pipe and appurtenant structures for which no direct compensation will be made.

Contractor shall be responsible for flow control and bypass pumping, as necessary, to complete sanitary sewer construction. These tasks shall be considered incidental to pipe installation for which no direct compensation will be made.

The unit price bid per linear foot for each size perforated and/or solid walled Polyvinyl Chloride Pipe (PVC) drain pipe shall be considered compensation in full for all materials, equipment and labor to construct the subgrade and sump drain system in accordance with MnDOT Specification 2503, CEAM Specifications and in conformance with the Plans. It shall also include installation of a green with brown striped #12 solid copper tracer wire in accordance with the details in the Plans. The PVC pipe shall also include installation of PVC wyes and all other fittings, including bends and caps. The perforated PVC pipe shall include a geotextile sock meeting MnDOT Specification 3733. The above items shall be considered incidental. Cleanouts as shown on the Plans shall be paid for separately.

The unit price bid for each size of sanitary PVC pipe shall include materials, equipment and labor necessary to install sanitary sewer and/or sanitary service. The pipe shall include the installation of a green with brown striped #12 solid copper tracer wire in accordance with the details in the plans. It shall also include the installation of PVC fittings including bends and caps. PVC wyes used for sanitary sewer as shown on the plans will be paid for separately. Cleanouts as shown on the plans shall also be paid for separately.

The unit price bid for each size sanitary and storm Cleanout Assembly shall be considered compensation in full to construct a cleanout in accordance with the detail in the Plans and as directed by the Engineer on either the perforated drain

pipe, or the laterals that are provided for connecting to sanitary service or private drain pipes. The unit price shall include, but not be limited to, the wye, bends, steel post, a green with brown striped #12 Solid Copper tracer wire in accordance with the detail in the Plans and vertical pipe extending to the surface. The storm and sanitary cleanouts shall be constructed with SDR 35 PVC and SDR 26 PVC, respectively. The unit bid price for each size cleanout assembly does not include the casting assembly. The cleanout casting assembly (McDonald 74M "A" Series) as shown in the detail shall be paid for separately.

All ductile iron pipe (DIP) shall be Class 52 (unless otherwise noted in plans) and wrapped with polyethylene pipe encasement in accordance with the manufacturer's recommendations. The polyethylene for each pipe shall be overlapped and sealed to keep the water out. The polyethylene pipe encasement shall conform to AWWA C105/A21.5 (8-mil thickness), Class C (Black), and be in tube form. The polyethylene pipe encasement shall be considered incidental.

Pipe materials specific to water main and sanitary sewer construction shall be in accordance with CEAM specifications.

The unit price bid to Connect to Existing Storm Sewer, Connect to Existing Manholes, Connect to Existing Sanitary Sewer, and Connect to Existing Sanitary Sewer Service shall be considered compensation in full for all materials, equipment and labor to connect to an existing pipe sewer line in accordance with the Plans, and as directed by the Engineer. This includes, but not limited to, excavating, cutting the existing pipe, and securing the connection with a collar, sleeve, or adapter as required.

Excavation and backfill in accordance with MnDOT 2503 shall be considered incidental for pipe sewer installation, including pipe sewers to be supported on helical piles.

Contractor shall supply an OSHA-approved trench box to minimize damage to adjoining landscaping due to installation of pipes and appurtenant structures. All extra costs to provide the box and install the sewer or water shall be considered incidental for which no extra compensation shall be considered.

43. **WATER MAIN CONSTRUCTION (2504):** Water mains shall be constructed in accordance with the most recent version of the Standard Utilities Specifications for Water main and Service Line Installation, as prepared by CEAM, except as modified below.

Water mains and appurtenances will be replaced or relocated on this Project as shown on the Plans. Contractor shall be paid for acceptably completed work at the unit prices bid for water main and appurtenant items. No claims for extra compensation above the unit prices shall be considered due to the random location for repairs or relocations, or for over-burying of proposed water mains as shown in the Plans.

Polyvinyl chloride (PVC) pressure pipe and fittings shall be used for water main construction on this project, unless otherwise noted. The CEAM Standard Specifications for Section 2611, "Watermain and Service Line" installation shall govern for this work. The service line material shall be SIDR 7 Polyethylene Pipe (PE) with compression brass fittings. Furnishing and installing tracer wire shall be incidental to the PVC pipe and PE service lines.

It shall be Contractor's obligation to take precautions when exposing the existing water mains to prevent damage to them. If Contractor fails to take the necessary precautions, all costs to repair damage to the existing water main shall be borne by Contractor. If, in the Engineer's opinion, Contractor has taken the necessary precautions and damage occurs, the City will be responsible for the cost of such repairs.

All water main flushing shall be performed by City staff, and requires a minimum 48-hour advance notice.

Contractor shall supply an OSHA-approved trench box to minimize damage to adjoining landscaping due to installation of pipes and appurtenant structures. All extra costs to provide the box and install the sewer or water (including any necessary excavation for pipe bedding and disposal of excess material related to pipe bedding and/or replacement backfill) shall be considered incidental for which no additional compensation shall be considered.

44. **CORPORATION STOPS (2504):** The unit price bid for each size corporation stop shall be considered compensation in full for all equipment, materials and labor to furnish and install each stop complete in-place.

The unit price bid for each size corporation stop shall be considered compensation in full for all materials, equipment and labor to wet tap and install the corporation complete in-place. Corporation stop shall be A.Y. McDonald (74701B-33), or approved equal. The stainless steel insert (A.Y. McDonald - 6136) furnished and installed at the corporation stop at each proposed service location shall be considered incidental. The service saddle will be paid for separately.

45. **CURB STOP AND BOX (2504):** The unit price bid for each Curb Stop and Box shall be considered compensation in full for all equipment, materials and labor to furnish and install complete, in-place as directed by the Engineer. Curb stops shall be A.Y. McDonald (76104-33) with A.Y. McDonald Series 5622 8 Curb Box complete with 5623LTW Lid, or approved equal. Includes furnishing and installing SnakePit® Access point tracer wire box provided with SnakePit Bracket-refer to Plan detail and detail in Appendix F. Connection to the existing service shall be incidental. The stainless steel insert (A.Y. McDonald – 6136) furnished and installed at each proposed curb stop shall be considered incidental.

46. **WATER SERVICE PIPE (2504):** The unit price bid for each size SIDR 7 Polyethylene Pipe (PE) used for water services shall be considered

compensation in full to construct the services complete, in-place in accordance with the Plans, and as directed by the Engineer. If Contractor has more than one water service excavation open at a time, they cannot be on the same street where the excavation would block traffic.

47. **SERVICE SADDLE**: The unit price bid for each service saddle installed at proposed service line locations shall be considered compensation in full for all equipment, materials, and labor to furnish and install complete-in-place. Service saddles shall be stainless steel (Smith-Blair 372 or equal).

48. **TEMPORARY WATER SYSTEM:** The lump sum unit price bid for Temporary Water System shall be considered compensation in full, including but not limited to piping, fittings, disinfection, testing and demolition, to provide a temporary water delivery system approved by the Engineer.

Contractor shall connect temporary water to existing services larger than 2" underground at the existing service. **Connecting temporary water to and disconnecting from existing water services, including excavation and backfill, shall be incidental to the lump sum unit price for Temporary Water System.**

The water main installation and temporary water distribution shall be completed in a manner so fire protection can be maintained. **The minimum pipe size for the temporary water main pipe on Zane Avenue and the westernmost 500' of Lindsay Street (commercial properties) is equal to or greater than the diameter of the largest connecting service of that segment, but not less than six-inches. Contractor shall match existing pipe size when temporarily connecting to existing services, or as directed by the Engineer.** Contractor shall furnish temporary water system in a manner does not affect jobsite safety and does not affect accesses to businesses or residents. Contractor shall connect temporary water directly to existing main below ground.

The contractor may provide two separate temporary systems; one for domestic and one for fire protection. The minimum pipe size for domestic temporary water main pipe servicing any commercial property shall be three-inch for properties with **separate** domestic and fire water connections or **without** an internal fire suppression system as directed by engineer. Contractor shall match existing pipe size when temporarily connecting to existing domestic only services, up to three-inch, or as directed by the Engineer.

Contractor shall submit a phasing plan to the City. In addition, Contractor shall submit to the Engineer for review and approval, a plan detailing how water will be provided, pipes disinfected and tested, and removed for the affected property owners. The plan must be designed to minimize pressure and flow losses from the existing supply condition. The temporary water installation plans shall be submitted to the City two weeks prior to the start of water main installation. All water main flushing shall be performed by City staff, and requires a minimum 48-hour advance notice. The Engineer will cooperate with Contractor to determine the best method for providing the Work.

49. **FURNISH AND INSTALL HYDRANT (2504):** The unit price bid shall be considered compensation in full to furnish and install each hydrant in accordance with CEAM Specifications and the detail in the Plans. The unit price bid shall also include, but not be limited to, drain rock, plastic wrap, pipe restraints, disinfection and testing to complete the installation in complete conformance with such specifications and the Plan detail. Contractor shall be required to restrain all hydrant fittings beginning from the main. Each hydrant shall have a 6-inch auxiliary gate valve & box. The 6-inch auxiliary gate valve & box and 6-inch PVC (C-900) hydrant lead shall be paid for separately under their respective bid items.

For hydrant replacements connecting to an existing water main, the connection from the new hydrant lead to the existing main shall be considered incidental to the Furnish & Install Hydrant (2504) item.

50. **FIRE HYDRANT MARKERS (2504):** The unit price bid for each Fire Hydrant Marker shall be considered compensation in full for all equipment, materials and labor to furnish and install complete, in-place as directed by the Engineer. Hydrant Marker shall be EZ See Hydrant Markers (72610 W-R 10501) with reflective tape (65' overall length), or approved equal, and installed in accordance with the manufacturer's instructions or as directed by the Engineer.

51. **CONNECT TO EXISTING WATER MAIN (2504):** The unit price for Connect to Existing Water Main shall be compensation in full, but not limited to, locating, excavating, draining down and cutting into the existing pipe. Sleeves, fittings and pipe required to make the connection will be paid for at their respective unit prices.

52. **ADJUST GATE VALVE BOX (2504):** Contractor shall be required to adjust all gate valve boxes as directed by the Engineer. The unit price bid for each gate valve box adjustment shall be considered compensation in full for all equipment, materials, and labor including, but not limited to bituminous patching mixture, to set the valve box as directed by the Engineer.

All valves within the roadway shall be set to 1/4-inch below the elevation of the finished pavement surface. Valve elevations shall be verified by Contractor within 24 hours prior to wear course paving.

53. **GATE VALVE AND BOX (2504):** The unit price bid for each size gate valve shall be considered compensation in full to install the auxiliary and/or mainline valve complete in-place in accordance with the detail in the Plans and the following requirements. All gate valves shall be iron body, resilient wedge, in accordance with AWWA C509, non-rising stem with O-ring packing with a working pressure of 150 psi. They must open counterclockwise and be equipped with mechanical joints and 2-inch square, corrosion-resistant stainless steel operating nuts. They shall also be fusion-bonded, epoxy-coated and equipped with stainless steel bolts, Type 304, alloy group 1, CW condition meeting the requirements of ASTM F594 to provide corrosion protection. All valves shall be installed with size G Tyler #6860 boxes, #6 round base and a drop lid having the word "WATER" cast thereon. All valves, including but not limited to, auxiliary

valves shall also be installed with Power Seal™ Model 5000 valve box aligners, or approved equal, to ensure the valve operating nut remains centered in the valve box. The boxes shall be capable of extending a minimum of one-foot upward from their initial installed position.

All valves within the roadway shall be set to 1/4-inch below the elevation of the finished pavement surface. Valve elevations shall be verified by the Contractor within 24 hours prior to wear course paving.

54. **DUCTILE IRON FITTINGS (2504):** The unit price bid per pound for Ductile Iron Fittings shall be considered payment in full to install all such fittings complete in-place in accordance with the Specifications. It shall also include, but not be limited to, all megalug glands, rods or other restraining devices or corrosion inhibitors the Engineer deems necessary to restrain or protect such fittings/restraints. All bolts and nuts used in the construction of water mains on this project shall be stainless steel or "Core Blue."

Contractor shall be required to restrain 6-inch and 8-inch fittings a minimum of 20 feet from all such fittings; 12-inch fittings shall be restrained a minimum of 40 feet from all such fittings. All fittings on the hydrant lead shall be restrained back to the tee fitting on the main.

Ductile Iron Fittings shall meet the following requirements:

- ANSI/AWWA C153/A21.53, "American National Standard for Ductile Iron Compact Fittings, 3-inch through 24-inch, and 54-inch through 64-inch for Water Service,"
- ANSI/AWWA C111/A21.11, "American National Standard for Rubber Gasket Joints for Ductile Iron Pressure Pipe and Fittings,"
- ANSI/AWWA C116/A21.16, "American National Standard for Protective Fusion Bonded Epoxy Coatings for the Interior and Exterior Surfaces of Ductile Iron and Gray Iron Fittings for Water Supply Service."

Ductile Iron Fittings shall be measured by the pound, in accordance with the published American National Standard. Joint accessories or restraint shall not be considered in the weight.

55. **4" POLYSTYRENE INSULATION (2504):** The unit price bid per square yard for 4" Polystyrene Insulation shall be considered compensation in full to insulate water mains and sewers from freezing. It shall include all equipment, materials and labor to place 4-inch thick high-density polystyrene Styrofoam insulation as directed by the Engineer over the top of the pipe to be protected.

56. **STEEL CASING PIPE (2504):** The unit price bid per linear foot for 24" Steel Casing Pipe (jacked) shall be considered compensation in full to install steel casing pipe in accordance with the plans and these specifications. It shall include all equipment, materials and labor to install the casing pipe by trenchless method, including excavation of launching and receiving pits, installation of carrier pipe inside casing pipe, and removal of existing casing and carrier pipe.

Casing spacers, end seals, cathodic protection, and air blown sand to fill annular space between casing and carrier pipe shall be considered incidental to the unit bid price per linear foot for 24” Steel Casing Pipe (jacked).

Casing pipe shall be new, Grade B steel with welded joints and a minimum yield strength of 35,000 psi. The inside diameter of the casing pipe shall be large enough to go around the existing casing pipe, but no smaller than four (4) inches greater than the outside diameter of the bell of the carrier pipe. The minimum wall thickness for the casing pipe shall be in accordance with the following table.

Min. Wall Thickness	Diameter of Casing Pipe
3/8” (0.375”)	Over 18” – 22”
7/16” (0.4375”)	Over 22” – 28”
1/2" (0.5000”)	Over 28” – 34”

Casing spacers shall be type 304 stainless steel with abrasion resistant polymer runners, elastomeric PVC liners, and type 304 stainless steel fasteners. End seals shall be a minimum 1/8 inch thick manufactured synthetic rubber casing end seals with stainless steel bands and fasteners.

Cathodic protection shall include a minimum 30 pound magnesium anode placed at each end of the casing and flush mount test stations at each end of the casing located behind the back of curb as directed by Engineer. Test stations and associated wiring shall conform to the tracer wire specifications as described in the appendices.

Contractor shall install new casing pipe outside of the existing casing pipe. Verification of existing casing pipe size to confirm new casing size, including all excavations and restorations, shall be considered incidental to the unit bid price per linear foot for 24” Steel Casing Pipe (jacked).

57. **MANHOLES AND CATCH BASINS (2506):** All Manholes and Catch Basins shall be constructed in accordance with the Provisions of Section 2506 of MnDOT Specifications, except as modified herein.

The use of a manhole debris catcher equal or equivalent to that provided by Grappler Specialty Products (www.grapplerusa.com) **must be used when constructing, adjusting or reconstructing drainage structures on this project. The intent is to catch falling debris such as mortar, soil, etc.** All costs related to providing and use of such product shall be considered incidental to such construction, adjustment or reconstruction of structures.

The unit price bid for each type of sanitary or storm structure shall be considered compensation in full to construct each manhole, median/yard drain or catch basin complete, in-place in conformance with the Plans, excluding the casting

assembly. Casting, rings and casting adjustment to final elevation shall be paid for under the F&I Casting Assembly (2506) item for each type of casting.

Design K Drainage Structures shall be constructed in accordance with MnDOT Specification 2506, with the details on the Plans and as directed by the Engineer. Design 4020 Drainage Structures shall be constructed in accordance with MnDOT Specification 2506, MnDOT Standard Plates, the Plans, and as directed by the Engineer.

All storm sewer structures that will have castings in the proposed curb and gutter shall be furnished with Neenah Casting Assembly R-3067-L, or approved equal. All other storm sewer castings shall be Neenah Casting Assembly R-1733 or Neenah Casting Assembly R-4342 for Median/Yard Drains, or approved equal.

Drainage Structures Design 4020 which have the casting assembly R-3067-L designated, shall be constructed with a 24” x 36” opening on the top slab to match the dimension of the casting.

The unit price bid to Connect to Existing Drainage Structure and Connect to Existing Structure (Sanitary) shall be considered compensation in full, including but not limited to, excavating, breaking into the existing structure, repairing unused holes in the structure and repairing or modifying the existing invert to match new pipe locations, as directed by the Engineer. Connect to Existing Drainage Structure shall be measured and paid for by the number of new pipes connected to the existing structure. No payment will be made for connection of pipes to new structures constructed under this project.

58. **FURNISH AND INSTALL MANHOLE BAFFLE:** The unit price bid per square foot to furnish and install Manhole Baffle shall be considered compensation in full for all materials, equipment and labor to install a SAFL Baffle, The Preserver (Momentum Environmental) or approved equal, into each size Design 4020 Drainage Structure complete, in-place as specified in the plans, in accordance with the manufacturer’s recommendations and as directed by the Engineer.

Measurement for payment will be made by surface area of the installed baffle, with the width being the diameter of the sump manhole being fitted, and the height being the vertical height of the panel or panels installed. A supplier of the SAFL Baffle is Upstream Technologies, Chanhassen, Minnesota, telephone: 651.295.3369. A supplier of The Preserver is Brock White Company, St. Paul, Minnesota, telephone: 651.647.0950.

Requests for products to be accepted as approved equal must be submitted to the Engineer a minimum of two weeks prior to the bid opening. Detailed product information must be submitted showing the approved equal condition (efficiency test results, material specifications, etc.). Approved equal products will be provided to plan holders by addendum prior to the bid opening. **Requests for approved equal materials that have not been submitted in accordance with the above will not be considered for use on this project.**

Contractor shall install the baffle at the elevation shown on the plans, with a vertical tolerance of +/- 0.5 inches. The baffle must also be installed at the horizontal midpoint of the sump, perpendicular to the inlet pipe. The top and bottom rails of the baffle must be level, with no tolerance on levelness. Upon completion of installation, baffle panels may overlap as much as 2 inches, or the edges of adjacent panels may touch one another without overlapping. However, no gap is allowed between baffle panels.

SAFL Baffle

Materials –

1. Baffle Panels
   a. Stainless steel shall be Type 304.
   b. Stainless steel shall have a minimum yield strength of 31,000 pounds per square inch (psi).
   c. Modular baffle panels shall be manufactured to allow insertion through the City's standard storm sewer castings.
   d. Minimum panel height of 33, 44, or 54 inches as determined by inlet size (see Plans).
   e. Minimum panel thickness shall be 1/8 inch.
2. Frame
   a. Shall consist of 1" x 1" square stainless steel tube with 1/8" thick walls.
   b. Connector on top and bottom frame rails shall consist of a solid square stainless steel bar measuring 7/8" by 7/8" in cross section.
3. Anchor Bolts
   a. Must be 3/8" Diameter.
   b. Must have a mechanism, approved by the Engineer, that expands against the sides of a hole drilled in the concrete structure wall, to secure the bolt.
   c. Minimum pullout strength of each anchor shall be 2,200 pounds and minimum shear strength shall be 2,500 pounds.
4. Screws and Bolts
   a. Must conform to MnDOT 3319.2E.

The Preserver (Momentum Environmental)

1. Construct Structural Pollution Control Devices (SPCDs):
   The storm sewer system designed for this project includes SPCDs. These structures shall be commercially available products that are fabricated and constructed in accordance with the applicable provisions for manholes and catch basins as defined in these project Specifications, the manufacturer's recommendations, and the following:
   a. Materials Requirements:
      i. Connections shall be watertight, either via elastomeric seals or cemented by the Contractor using non-shrink grout.
      ii. Internal components and hardware shall be made of non-corroding material only – stainless steel, aluminum, reinforced concrete, fiberglass, or copolymer plastic.

iii. Castings shall be vented and meet local government unit's requirements.
iv. The structures and castings shall be rated for HS-20 loading.

b. Project Performance Requirements:
   i. All units must:
      (a) Be non-mechanical and flow driven, requiring no external power.
      (b) Not block/clog or have a reduction of treatment capacity during normal operation.
      (c) Be configured to minimize the potential for scour and resuspension of materials during high flows.
      (d) Be designed to not allow trapped pollutants to be released during temporary backwater conditions.
      (e) Be designed and constructed such that it can be inspected and maintained from the surface without requiring entry into the structure.
      (f) Have a storage sump sized so that it is capable of storing a volume of material that would allow the SPCD to be fully functional if cleaned only one time per year at equal intervals.
      (g) Not exceed a total build depth (rim to sump) of 20' for purposes of maintenance.

59. **FURNISH AND INSTALL CASTING ASSEMBLY (2506):** The unit price bid for each casting assembly shall be considered compensation in full for all equipment, materials and labor to furnish and install the specified casting in accordance with MnDOT Specification 2506, including but not limited to setting the casting to the correct height and sealing the casting and rings in accordance with the detail, casting adjustment specification and as directed by the engineer. Adjusting frame and ring casting will not be measured separately for any structures receiving a new casting assembly. See Plans for schedule of castings assemblies.

Contractor shall adjust all castings within the roadway to 1/4-inch below the finished pavement surface within 48 hours after the base course paving is complete.

60. **FURNISH AND INSTALL CASTING FRAME (NEENAH R-1733 FRAME) (2506):** The unit price bid for each casting frame assembly shall be considered compensation in full for all equipment, materials and labor to furnish and install the specified casting frame in accordance with MnDOT Specification 2506, including but not limited to setting the casting to the correct height and sealing the casting and rings in accordance with the detail, casting adjustment specification and as directed by the engineer. Adjusting frame and ring casting will not be measured separately for any structures receiving a new casting frame assembly.

Contractor shall adjust all castings within the roadway to 1/4-inch below the finished pavement surface within 48 hours after the base course paving is complete.

61. **INSTALL SALVAGED COVER (2506):** The unit price bid for installing each salvaged sanitary manhole cover shall be considered compensation in full for all equipment, materials and labor to install each salvaged cover onto a new casting frame (paid for under separate bid item) at locations shown in the Plans or as directed by the Engineer.

62. **RECONSTRUCT MANHOLE STRUCTURE (2506):** The unit price bid per linear foot shall be considered compensation in full to reconstruct manhole structures so designated in accordance with MnDOT Specification 2506.

The unit price bid shall include salvaging existing top slab, removal of existing cone and/or barrel sections, furnishing and installing 42-inch (or other diameter barrel sections as existing structure diameters dictate) diameter barrel sections, sealing new barrel joints, reinstalling salvaged top slab, setting and adjusting the casting to its final elevation and sealing rings in accordance with the Adjust Frame & Ring Casting (2506) of these Specifications. Adjustment rings shall be the same diameter as top slab opening. **Contractor will be required to field verify structure diameter on all manholes to be reconstructed prior to performing the work.** Contractor will also be required to furnish and install any needed barrel sections to complete the manhole reconstruction.

Each new barrel joint shall be sealed with Infi-Shield™ 6” external rubber seal wrap as manufactured by Sealing Systems Inc. or submit for “As-Equal” two (2) weeks prior to bid opening. A supplier for Infi-Shield™ is Ess Brothers and Sons, Inc., Loretto, Minnesota.

Measurement shall be made from the lowest point of the barrel section actually reconstructed to the bottom of the finished casting elevation.

The use of a manhole debris catcher equal or equivalent to that provided by Grappler Specialty Products (www.grapplerusa.com) **must be used when constructing, adjusting or reconstructing sanitary and storm manholes on this project. The intent is to catch falling debris such as mortar, soil, etc.** All costs related to providing and use of such product shall be considered incidental to such construction, adjustment or reconstruction of structures.

63. **ADJUST FRAME & RING CASTING (2506):** The unit price bid for adjusting each frame and ring casting shall be considered compensation in full including, but not limited to, furnishing new adjusting rings, sealing the rings and casting, bituminous patching, sawing necessary to raise the castings and setting them to the elevation designated by the Engineer, and in accordance with the detail. This applies to existing structures only, which are not receiving a new casting. Compensation for adjusting, sawing, patching and sealing rings and castings on structures constructed, reconstructed or furnished and installed under this Contract shall be included in the unit price bid for such construction or reconstruction. Adjustment rings shall be the same diameter as top slab opening.

Contractor shall adjust all castings within the roadway to 1/4-inch below the finished pavement surface within 48 hours after the base course paving is complete.

The use of a manhole debris catcher equal or equivalent to that provided by Grappler Specialty Products (www.grapplerusa.com) **must be used when constructing, adjusting or reconstructing sanitary and storm manholes on this project. The intent is to catch falling debris such as mortar, soil, etc.** All costs related to providing and use of such product shall be considered incidental to such construction, adjustment or reconstruction of structures.

64. **RANDOM RIPRAP (2511)**: The unit price bid per cubic yard of Random Riprap Class III shall be considered compensation in full for all equipment, materials and labor to furnish and install riprap in accordance to MnDOT Specification 2511 (except as modified below), the detail in the plans, and as directed by the Engineer. All riprap used on project shall be field stone. No limestone will be allowed.

Geotextile Fabric, Type IV shall be placed under riprap as shown on the detail in the plans and as directed by the Engineer. The fabric shall meet the requirements of MnDOT Specification 3733 and be paid separately under the Geotextile Fabric, Type IV item.

65. **WALKS (2521)**: The unit price bid for each thickness of concrete walk shall be considered compensation in full to construct the walk in accordance with MnDOT Specification 2521, these Specifications and to the full satisfaction of the Engineer.

A. *Excavation and Embankment (2106):* The excavation and embankment shall be constructed in accordance with the provisions of Section 2106, except as modified herein.

At locations where fill is required to construct the walk, Contractor shall utilize select granular borrow at the unit price bid per ton and compact the fill material using the “Ordinary Compaction Method”.

B. *Concrete Pedestrian Ramp (2521):* All concrete pedestrian ramps shall be constructed in accordance with the Provisions of MnDOT 2521, except as modified herein.

At locations where pedestrian curb ramps are to be constructed or reconstructed, removal and disposal of the in-place concrete walk, concrete curb and gutter and any sawing that may be required shall be paid for at the unit price bid for the respective bid item.

The pedestrian curb ramps shall be constructed in accordance with the details in the Plans. The truncated dome panels shall be "Detectable Warning Plates", Model #R4984 (cast iron with no powder coated finish), as manufactured by Neenah Foundry Company, telephone: 800.558.5075, Tuf Tile ADA detectable warning products, telephone: 888.960.8897, or an approved equal. The unit price bid for Truncated Domes shall be measured by the square foot, and shall be considered compensation in full to install them as directed by the Engineer. The concrete walk into which the panels are placed shall be measured by actual square foot area placed and paid for under item 6-inch Concrete Walk unless otherwise noted in the plans.

The concrete to be used for hand-placed flatwork shall be placed in accordance with the provisions of MnDOT Specification 2521, and these Specifications. However, Contractor may, with the Engineer's approval, modify the concrete mixture to reduce the possibility of defects. However, the unit price bid for concrete pavement shall remain the same. All extra costs for such modification shall be borne by Contractor.

Contractor shall construct a decorative two-foot wide shoulder using a hand trowel to smooth concrete "windows" in broom finished concrete, as shown in the plans and as directed by Engineer. Shoulder shall be placed at the edge of the concrete walk at locations when concrete walk is at the back of curb. All materials and labor to construct the shoulder shall be considered incidental to the unit bid price for 4" Concrete Walk and 6" Concrete Walk.

All contraction joints in new walk constructed under this contract shall be saw cut. The cost for providing the saw cut joints shall be included in the unit price bid for each thickness of walk. No additional compensation shall be considered for sawing joints in new walk. Upon completion of saw cutting the joints, the concrete walk must be immediately cleaned, **including the slurry created by wet-sawing**, to the satisfaction of the Engineer. Saw cuts shall extend to at least 30% of the walk thickness.

All expansion joints constructed in the new walk shall be tooled and shall be ¼-inch radius to meet current PROWAG standards.

66. **CONCRETE CURB AND GUTTER (2531):** Concrete Curb and Concrete Curb and Gutter shall be placed in accordance with the provisions of MnDOT Specification 2531, and these Specifications.

Replacement of curbs and driveway panels will be paid for under the bid items for 2531 Concrete Curb and Gutter Design B612, B618 or D412, Concrete Curb Design B6, and 6" or 8" Concrete Driveway Pavement. Removals of existing

concrete items will be paid for at the Unit Price Bid for such removals. Concrete Curb and Gutter removals shall be paid for under the Remove Concrete Curb and Gutter Item regardless of length. Each size and type of concrete curb and concrete curb and gutter will be paid for under its respective bid item. Integral curb shall be measured as Remove Concrete Pavement as specified under that Section.

Necessary bituminous patching shall be paid for under the item for such work.

In some areas, the Engineer shall require Contractor to hand-place curbs, walks and pavements to avoid damage to landscaping, retaining walls, etc. No request for additional compensation shall be considered to accommodate this requirement.

67. **CONCRETE SILL (2531):** The unit price per linear foot for Concrete Sill shall be considered compensation in full to construct concrete sill at locations when concrete walk is at the back of curb, as directed by Engineer, in conformance with MnDOT Specification 2531, and the standard details in the plans. It shall include, but not be limited to, all excavation, materials, and labor to install the materials as specified. Polythene sheeting and 1/4-inch thick separation material shall be considered incidental to the unit bid price for Concrete Sill. Epoxy coated tie bars, as directed by Engineer, shall be paid for under the item for Drill and Grout Reinforcement Bar (Epoxy Coated).

The sill shall be measured separately from the concrete curb and gutter, regardless of the type of installation as shown in the standard details.

68. **7" COMMERCIAL CROSS GUTTER DRIVEWAY (2531):** The unit price bid per square yard for 7" Commercial Cross Gutter (High-Early Strength) shall be considered compensation in full to construct the cross gutter driveway in accordance with MnDOT Specifications, the detail in the plans, and as directed by the Engineer.

As noted in the plans, or whenever the Engineer deems it necessary, the Contractor shall phase driveway and curb construction to accommodate access to businesses and handicapped residents. This will include multiple mobilizations to ensure adequate cure time on the concrete before placing traffic on it.

All 7" Commercial Cross Gutter shall be High-Early strength concrete to allow traffic on driveway sooner than with standard concrete.

Compliance with this requirement will not lessen the Contractor's responsibility to warrant the work in accordance with these Specifications. Measurement shall be made on the actual square yards placed including the triangular area outside of the curb and gutter form the radii and reinforcement bars as detailed in the Plans.

69. **<u>CONCRETE DRIVEWAY PAVEMENT (2531)</u>:** The unit price bid per square yard for 6" Concrete Driveway Pavement and 8" Concrete Driveway Pavement (High-Early Strength) shall be considered compensation in full to construct aprons and driveways as directed by the Engineer, and in conformance with MnDOT Specification 2531, and the standard details in the Plans. 6-inch pavement shall be used on all residential driveways, 8-inch pavement shall be used on all commercial driveways. All reconstructed commercial driveways shall be constructed half at a time, unless otherwise directed by Engineer.

All concrete driveway pavement shall be completed within three (3) days from the completion of curb at each driveway location. Failure to complete the Work in accordance with this requirement may result in the City withholding all monies due until the Work is completed.

All 8" Concrete Driveway Pavement shall be High-Early strength concrete to allow traffic on driveway sooner than with standard concrete.

For concrete driveways that residents elect to have replaced in conjunction with this Project, the unit prices bid for common excavation, aggregate base and concrete driveway pavement shall be considered compensation in full to perform such extra work as directed by the Engineer. No claims for additional compensation shall be considered.

Any structural or surface defect which occurs on driveways constructed on this Project within the one-year warranty period, described in the General Conditions of these Specifications, including, but not limited to, hairline cracks, minor scaling, minor pop outs or unacceptable broom finish shall be cause for rejection of the pavement and replacement at Contractor's expense. Determination of defective pavement to be replaced shall be solely made by the Engineer.

The concrete to be used for hand-placed flatwork shall be in accordance with the provisions of MnDOT Specification 2531, and these Specifications. However, Contractor may, with the Engineer's approval, modify the concrete mixture to reduce the possibility of defects. However, the unit price bid for concrete pavement shall remain the same. All extra costs for such modifications shall be borne by Contractor.

All contraction joints in concrete driveway pavement constructed under this contract shall be saw cut. The cost for providing the saw cut joints shall be included in the unit price bid for each thickness of driveway pavement. No additional compensation shall be considered for sawing joints in concrete driveway pavement. Upon completion of sawcutting the joints, the concrete driveway pavement must be immediately cleaned, **including the slurry created by wet-sawing**, to the satisfaction of the Engineer. Saw cuts shall extend to at least 30% of the pavement thickness.

All expansion joints constructed in the concrete driveway pavement shall be tooled and shall be ¼-inch radius to meet current PROWAG standards.

Whenever the Engineer deems it necessary, Contractor shall phase driveway and curb construction to accommodate access to businesses or handicapped residents. This will include multiple mobilizations to ensure adequate cure time on the concrete before placing traffic on it. Compliance with this requirement will not lessen Contractor's responsibility to warrant the Work in accordance with these Specifications.

70. **INSTALL SALVAGED MAILBOX AND SUPPORT (2540):** The unit price bid to Install Salvaged Mailbox and Support shall be considered compensation in full to install each mailbox and support as directed by and to the Engineer's complete satisfaction. It shall include, but not be limited to, all excavation, materials and labor to install the materials as specified. The unit price for each item shall also include furnishing and installing any additional materials needed to supplement salvaged materials to complete the installation.

71. **INSTALL SALVAGED RETAINING WALLS (2540):** The unit price bid to install each type of salvaged retaining wall shall be considered compensation in full to install the salvaged material in accordance with these Specifications and to the complete satisfaction of the Engineer. It shall also include, but not be limited to, excavation if needed, aggregate base material, granular backfill, drain tile and geotextiles required by the Engineer to reconstruct the walls complete in-place.

In the event additional materials must be provided to complete the wall construction, it shall be Contractor obligation to provide material matching the size, color and texture of the existing salvaged materials. Suitability of the match shall be at the sole discretion of the Engineer. Any extra materials provided will be paid for under the item for installing salvaged retaining walls of the type placed.

72. **INSTALL SALVAGED LANDSCAPE MATERIALS (2540):** The unit price bid to Install Salvage Landscape Materials (inclusive of plastic/brick/rock edging, boulders, rock mulch (type 9), etc.) shall be considered compensation in full to install each material consistent with the adjoining material and to the Engineer's complete satisfaction. It shall include, but not be limited to, all excavation, materials and labor to install the materials as specified. The unit price for each item shall also include furnishing and installing any additional materials needed to supplement salvaged materials to complete the installation.

73. **INSTALL SALVAGED CONCRETE PAVERS (WALK) (2540):** The unit price bid to Install Salvaged Concrete Pavers (Walk) shall be considered compensation in full for all equipment, materials, and labor to install the required base/subbase material and pavers matching the pattern of the adjoining pavers. It shall include, but not be limited to, furnishing and placing aggregate base and sand leveling course, foundation preparation, and edging to complete the Work to the Engineer's satisfaction. Pavers shall be laid on a base consistent with the existing pavers, but not less than 6-inches of Class 5 Aggregate Base topped with a washed sand leveling course. Grading and paver placement should facilitate positive drainage as shown in the Plans, and/or as directed by the Engineer.

74. **FURNISH AND INSTALL CONCRETE PAVERS (WALK) (2540):** The unit price bid to Furnish and Install Concrete Pavers (Walk) shall be considered compensation in full for all equipment, materials, and labor to install the required base/subbase material and pavers matching the pattern of the adjoining pavers. It shall include, but not be limited to, furnishing and placing pavers, aggregate base and sand leveling course, foundation preparation, and edging to complete the Work to the Engineer's satisfaction. Pavers shall be laid on a base consistent with the existing pavers, but not less than 6-inches of Class 5 Aggregate Base topped with a washed sand leveling course. Grading and paver placement should facilitate positive drainage as shown in the Plans, and/or as directed by the Engineer. It shall be the Contractor's responsibility to provide pavers matching color, size, quality and texture of the adjoining existing pavers and to the Engineer's satisfaction.

75. **INSTALL SALVAGED CHAIN LINK FENCE (2557)**: The unit price bid to Install Salvaged Chain Link Fence shall be considered compensation in full to install salvaged chain link fencing at the completion of grading operations in locations shown in the Plans to the Engineer's complete satisfaction. It shall include, but not be limited to, all excavation, materials and labor to install the materials as specified, including all materials necessary to construct new post foundations to match existing conditions. Payment also includes furnishing new fencing components as needed to match manufacturer/texture/color of existing materials.

76. **INSTALL SALVAGED BRICK OR ROCK LANDSCAPE EDGING (2540)**: The unit price bid to Install Salvaged Brick Landscape Edging or to Install Salvaged Rock Landscape Edging shall be considered compensation in full to install salvaged brick or rock landscape edging at the completion of grading operations in locations shown in the Plans to the Engineer's complete satisfaction. It shall include, but not be limited to, all excavation, materials and labor to install the materials as specified.

77. **<u>TRAFFIC CONTROL AND MAINTENANCE (2563)</u>:** Contractor shall maintain traffic at all times during construction in accordance with the current Minnesota Manual of Uniform Traffic Control Devices (MMUTCD) and its supplements, and as it may be deemed necessary by the Engineer. Additionally, contractor shall provide and maintain traffic control devices for a detour of the Luce Line Trail, as shown in the Plans, and as directed by the engineer. Contractor shall submit a temporary traffic control plan two weeks prior to construction.

In addition to traffic control devices as specified above, the contractor shall furnish a minimum of six (6) temporary traffic signs that read "ZANE AVE AND LINDSAY ST BUSINESS ACCESS" with arrows, as shown in the plans, to use at various locations within the vicinity of the project, as directed by the Engineer.

In the event that the City must install additional signs for traffic control for safety purposes, the cost for such measures shall be billed to Contractor or withheld from monies due. **In order to facilitate project safety, Contractor shall position and schedule deliveries of all materials to be incorporated into the Work, such as pipe and castings, to minimize conflict with traffic flow. Failure to cooperate with the Engineer in this respect shall authorize the Engineer to have such materials removed from the Project by any means available until their use is imminent. The costs associated with such removal and return to the Project site shall be borne by Contractor with no additional compensation.**

Contractor shall be required to schedule his daily work to ensure that all excavations are filled in completely; adequate drainage is provided to prevent any water from standing on the Project site; and an adequate driving surface with class 5 or salvaged bituminous millings is provided at the completion of work each day.

Contractor shall also schedule equipment and its work so no removal items, spoil or aggregate piles are left within the rights-of-way overnight except by express, written consent of the Engineer. All requirements for drainage and access herein shall apply to this work also. It shall also be Contractor's responsibility to handle all such salvaged material in a way to prevent segregation and/or contamination of all salvaged materials.

Contractor will be required to have a motor grader on the site each day to facilitate the drainage and surface requirements. If, in the opinion of the Engineer, the driving surface is not suitable to provide access for businesses and residents, Contractor shall provide all granular material, at its expense, necessary to stabilize the roadbed and driveway entrances to carry the normal traffic present.

Throughout construction, Contractor shall provide safe and adequate access at all times for businesses, deliveries, residents, property owners and emergency vehicles. Access shall include the maintaining of ingress and egress of businesses and private driveways, as well as maintaining temporary aggregate

driveways, throughout construction except during Engineer approved Work related excavations, and concrete placement and curing. It is anticipated that parking will need to be restricted to one side of the street during construction. **Contractor shall be responsible under this item for providing and installing temporary parking restriction signing as directed by the Engineer.**

Throughout the duration of construction, Contractor shall coordinate with the City a minimum of at least twenty-four (24) hours in advance, any inconveniences to property owners. The City will provide Contractor with printed door hangers that shall be placed in business's and resident's doors by Contractor no later than 5:00 p.m. the day before work is to begin. **Contractor is responsible for notifying property owners of any limited access at least twenty-four (24) hours in advance.**

Contractor shall provide traffic control and road closure for UPRR during UPRR's crossing panel and signal work, and shall be considered incidental to the lump sum bid item for Traffic Control.

78. **INSTALL SALVAGED SIGNS (2564):** The unit price bid for Install Salvaged Signs (Type C, Street Name Signs or Type Special signs) shall be considered compensation in full for all equipment and labor to relocate each sign, so designated, to the satisfaction of the Engineer.

The Engineer shall, after completion of the curb and gutter placement, designate the signs that shall be relocated.

Contractor shall review all signs and posts on this project designated for relocation prior to construction to determine existing damage. Any existing sign damage shall be reported to the Engineer immediately. **All signs that have been damaged that Contractor fails to report shall become the responsibility of Contractor to replace.**

The unit price bid for each Install Salvaged Signs shall be considered compensation in full to reset all signs as directed by the Engineer.

Any signs or posts damaged during the salvage/storage or reinstallation operations shall be replaced by Contractor at its expense.

All signs considered necessary by the Engineer shall remain in-place throughout construction. Any sign that must be removed due to construction conflicts shall be temporarily reset by the end of the day it was removed, until it may be set at its permanent location. All costs for resetting signs shall be included in the lump sum bid for the traffic control.

79. **FURNISH AND INSTALL SIGN TYPE C (2564):** The unit price bid per square foot for sign panels of each type shall be considered compensation in full to place each panel specified in accordance with MnDOT Specification 2564, the Minnesota Traffic Engineering Manual, the details in the plans, and as directed by the Engineer.

All new permanent Type C signs installed on this project shall be constructed of no less than .080" flat aluminum with Telespar punching. Sheeting for all signs shall be DG3 (Diamond Grade) Series 4090 reflective sheeting manufactured by the 3M Company, or an approved equal.

Posts and mounting hardware shall be included in the unit price for sign panels.

Posts and mounting hardware for Type C signs shall be in accordance with the plan details, applicable provisions of the Plans, Minnesota Traffic Engineering Manual and these Specifications. Signs shall be attached to posts with drive rivets and a nylon washer between rivet and sign facing.

To avoid specular glare, Type C sign faces shall be mounted at approximately 93 degrees from the traveled roadway.

All signs considered necessary by the Engineer shall remain in-place throughout construction. Any sign that must be removed due to construction conflicts shall be temporarily reset by the end of the day it was removed, until it may be set at its permanent location. Contractor shall receive no compensation for temporary relocations.

80. **FURNISH AND INSTALL SIGN TYPE SPECIAL (2564):** The unit price bid per square foot for sign panels of each type shall be considered compensation in full to furnish and install each street name sign assembly, including but not limited to the post, mounting brackets and sign panels specified in accordance with the details in the Plans and to the complete satisfaction of the Engineer.

Signs shall be single faced with DG3 Series 4090 reflective sheeting manufactured by the 3M Company, or a mutually approved equal.

Street name sign panels shall be pre-punched at the longitudinal midpoint of the sign with holes 7/16" in diameter to fit a standard Telespar post. Two 5/16" holes shall be pre-punched at the vertical midpoint of the sign spaced 1/2" center-on-center from the edge of the sign panel.

It is the responsibility of the sign plate supplier to furnish signs punched to properly to fit the post and on each end to be secured back-to-back using a Cherry Mate and PVC spacer equal to the width of the Telespar support post.

Posts and mounting hardware shall be included in the unit price for sign panels.

Posts and mounting hardware for Street Name signs shall be in accordance with the applicable provisions of the Plans, Minnesota Traffic

Engineering Manual and these Specifications. Signs shall be attached to posts with drive rivets and a nylon washer between rivet and sign facing.

Street name signs shall be installed parallel to adjoining supplemental signs as directed by the Engineer.

All signs considered necessary by the Engineer shall remain in-place throughout construction. Any sign that must be removed due to construction conflicts shall be temporarily reset by the end of the day it was removed, until it may be set at its permanent location. Contractor shall receive no compensation for temporary relocations.

81. <u>TREES AND SHRUBS AS SPECIFIED (2571)</u>: Property owners on this project, at locations where existing trees and shrubs are designated for removal, shall be offered replacement trees and shrubs to be planted at new locations anywhere the property owner chooses on their property.

The unit price bid for each "Tree as Specified" shall be considered compensation in full for furnishing, planting and maintaining any of the following varieties in conformance with the planting details in the Appendices, and as directed by the Engineer:

<u>Shade Trees</u>
Red Maple 'Northwood' or a Hybrid Variety (2-½" Caliper B&B)
Honeylocust 'Skyline' (2-½" Caliper B&B)
Hackberry (2-½" Caliper B&B)
Linden (2-½" Caliper B&B)
Disease Resistant Elm (2-½" Caliper B&B)
Sugar Maple (2-½" Caliper B&B)
River Birch (Clump 6' B&B)
Bur Oak *Quercus macrocarpa* (2" Caliper B&B)
Swamp White Oak (2" Caliper B&B)

<u>Ornamental Tree</u>
Crabapple 'Red Splendor' (2-½" Caliper B&B)

<u>Evergreens</u>
Black Hills Spruce (6' Tall B&B)
Arborvitae 'Techny' (5' Tall B&B)
Austrian Pine (*Pinus nigra)* (6' Tall B&B)

The unit price bid for each "Shrub as Specified" shall be considered compensation in full for furnishing, planting and maintaining the following varieties in conformance with the planting details in the Appendices, and as directed by the Engineer:

<u>Deciduous Shrubs</u>
Potentilla 'Goldfinger' (#5 Cont.)
Serviceberry 'Regent' (#5 Cont.)
Spirea 'Anthony Waterer' (#5 Cont.)
Dogwood Redtwig (#5 Cont.)

Viburnum Compact American (#5 Cont.)
Weigela 'Red Prince' (#5 Cont.)
Lilac, Common White or Purple (#5 Cont.)

Evergreen Shrubs
Juniper 'Prince of Wales' (#5 Cont.)
Juniper 'Sea Green' (#5 Cont.)
Arborvitae 'Techny Globe' (#5 Cont.)
Yew 'Taunton' (#5 Cont.)

82. **TEMPORARY TREE PROTECTION FENCING (2572):** The unit price bid per linear foot for tree fencing shall be considered compensation in full to place 4-foot high, orange polyethylene snow fence and maintain such protection as directed by the Engineer. All tree protection must be in place before any pavement is removed, and must remain in-place throughout the construction.

Where tree fencing and silt fence are placed in the same location, Contractor may utilize the same posts for both applications.

83. **EROSION AND SEDIMENTATION CONTROL (2573):** Contractor shall provide temporary erosion control in accordance with the provisions of MnDOT Section 2573, the Bassett Creek Water Management Commission, Minnesota Department of Natural Resources, Minnesota Pollution Control Agency and the Engineer. In accordance with the Specifications, Contractor shall provide the Engineer with the name and 24-hour contact information of the Erosion Control Supervisor at the pre-construction conference. The unit price bid to provide an Erosion Control Supervisor for this project shall be considered compensation in full for the person to perform all duties in accordance with MnDOT Specification 2573. Compensation shall be considered all-inclusive on a lump sum basis, with no direct payment for each duty or for the number of hours worked.

A. *Street Sweeping*: Contractor will be required to provide proof of ability to perform the street cleaning at the pre-construction conference. This proof may include demonstration of the ability to use his or her own equipment and forces, or an executed contract with a subcontractor.

All sweeping shall be done between 7:00 a.m. and 7:00 p.m. daily, or more often as directed by the Engineer.

The unit price bid per hour to perform street sweeping shall be considered payment in full to sweep all areas, on a daily basis, deemed necessary by the Engineer to prevent sediment from entering any water body or storm sewer. Contractor shall furnish a **pick-up sweeper, which actively controls dust** and all trucks or other equipment the Engineer deems necessary to remove all sediment. Any additional street sweeping directed by the Engineer must be performed within four (4) hours of the Engineer's order. Failure to perform ordered street sweeping within this four-hour period would result in the sweeping being performed by the City of Golden Valley staff (minimum charge of $500 per hour with a 2-hour minimum) or by a contractor hired by the City. Any and all costs incurred

by the City to perform street sweeping which is Contractor's responsibility will be deducted from the monies due to Contractor.

Contractor shall be required to provide the Engineer with written documentation of performed sweeping at each weekly meeting.

B. *Storm Drain Inlet Protection*:

1. *Wimco Inlet Protection*. Contractor shall provide Wimco Inlet Protection devices, or approved equal, on all inlets where inlet protection is designated. Information on the Wimco devices can be obtained at www.roaddrain.com. Payment will be made on the basis of each structure protected through all phases of the Work. Use of different methods for protection in order to phase the Work or for the ease of the construction shall not be cause for multiple payments over one per structure.

C. *Silt Fence*: Contractor shall install machine sliced silt fence and maintain as shown on the Plans, or as directed by the Engineer. Maintenance is to include repair of any torn or damaged silt fence immediately following discovery of the problem. Accumulated silt is to be removed when deposits reach approximately one-third the height of the silt fence, or more often as directed by the Engineer.

D. *Inspection of Erosion Control Measures*: The Erosion Control Supervisor will be required to inspect all erosion and sediment control measures on a daily basis, and complete an inspection form to be provided by the City. These forms are then to be submitted to the Engineer at the weekly construction meetings.

E. *Concrete Washout Area:* Contractor shall provide a concrete washout area that meets NPDES requirements and the Storm Water Pollution Prevention Plan (SWPPP). This shall be considered incidental. The concrete washout area shall include all necessary labor, materials and equipment to provide an onsite washout facility as shown on the detail in the Plans.

F. *Sediment Control Log Type Straw:* Contractor shall furnish, install and maintain as shown on the plans or as directed by the Engineer.

G. *Stabilized Construction Exit:* Contractor shall furnish, install and maintain a stabilized construction exit as shown on the Plans or directed by the Engineer.

84. TURF ESTABLISHMENT (2575): Turf establishment shall be performed in accordance with the Provisions of MnDOT Specification 2575, except as modified herein:

Four inches (4") of topsoil meeting the requirements of MnDOT Specification 3877 shall be included in the unit price bid per square yard of sod, hydraulic mulch matrix, and seed.

The Contractor shall take reasonable measures to ensure topsoil is placed to the thickness required in the Plans.

Topsoil provided shall be free of debris, rocks in excess of ½-inch diameter, large organic material or other materials that do not contribute to plant growth. Evidence of such deleterious materials shall be cause for rejection and replacement at Contractor expense.

The square yard unit price bid for sod, including 4" of topsoil, shall be compensation in full to place and maintain the sod for 30 growing days, as per MnDOT Specification 2575.A.26 and to the Engineer's satisfaction.

When Contractor has completed sod placement in an area defined by the following requirements, the Engineer will inspect the Work and notify the Contractor of any deficiencies:

- No less than 1,000' of street length shall be approved for commencement of the maintenance period at any given time;
- Both sides of the street must be completed, including along driveways;
- Street sections must run the full length between intersections;
- Once the Engineer approves the sod placement, the 30-day maintenance period shall commence in accordance with MnDOT Specification 2575.

All curbs shall be backfilled with Topsoil Borrow meeting the requirements of MnDOT Specification 3877 with no additional compensation. The Contractor shall also be required to examine the area behind the curb and remove all construction debris, including but not limited to, concrete and asphalt chunks, large stones, cement bags and cardboard fabric rolls.

Contractor will not be permitted to use any type of equipment to place topsoil or sod on driveways which will, in the opinion of the Engineer, mar the surface with rubber tire marks (typically skid loaders) or topsoil. **Any damage, including rubber tire marks or excessive soil staining, caused by Contractor shall result in replacement of the driveway to the Engineer's satisfaction.**

Sod placement on this project must be completed within two weeks of the placement of the base course of asphalt. Failure to complete the Work in accordance with this requirement may result in the City withholding all monies due until the Work is completed.

Hydraulic Mulch Matrix (Hydroseeding):

The unit price bid per SY of Hydraulic Mulch Matrix shall include 4" of topsoil and the slurry for hydroseeding, including fertilizer, seed, water and Type Hydraulic Mulch. The unit bid price shall be compensation in full to place and maintain per MnDOT specification and the Engineer's satisfaction.

Seed shall be in accordance with MnDOT 3876, mixture 25-131. Fertilizer shall be in accordance with MnDOT 3881 and be a slow-release nitrogen type,

10-20-20. Type Hydraulic Mulch shall be in accordance with MnDOT 3884, Type B2.

Construction requirements for Hydroseeding are as follows:

1. Apply slurry mixture over designated areas at a rate of 6,000 gallons per acre.
2. Apply seed uniformly by hydroseeding method.
3. Application rates for hydroseeding:
   a. Fertilizer: 75 lbs per 1000 gallons of slurry mix.
   b. Type Hydraulic Mulch Type B2: 350 lbs per 1,000 gallons of slurry mix.
   c. Water: 875 gallons per 1,000 gallons of slurry mix.
4. Work shall consist of establishing perennial ground cover by using hydroseeder to hydraulically apply seed, water, fertilizer, and type hydraulic mulch in one operation.
5. This item is in accordance with MnDOT Standard Specification 2575.3M – Rapid Stabilization Method with the following exceptions:
   a. The specified seed mixture, mixture 22-111, is not to be used for permanent stabilization. Contractor shall use seed mixture 25-131 in accordance with MnDOT 3876.
   b. Work shall be completed within 7 days of final grading.
6. Apply seed at a rate specified under MnDOT 3876, according to the specified seed mixture.

85. **LANDSCAPE EDGING (2575):** Landscape edging to be installed in accordance with the Provisions of MnDOT Specification 2575, except as modified herein:

A. Black Diamond Poly Edging™, or approved equal, shall be used to construct plant beds as shown on plan in accordance with the Technical Specifications for planting in the Appendices. All edging acceptably placed as directed by the Engineer shall be measured by the linear foot and paid for under this item.

86. **MULCH MATERIAL (2575):** The unit price bid for each type of Mulch Material shall be considered compensation in full to furnish and install the required mulch in new and/or existing plant beds in accordance with MnDOT Specification 2575.

Landscape Rock (Mulch, Type 9) shall be in accordance with MnDOT Specification 3882, except that on areas designated for Type 9 mulch, the type of rock shall match the existing rock it is placed adjacent to.

Landscape Rock (Mulch, Type 9) shall be measured and paid by the ton.

Mulch Material, Type Special shall be used to construct landscape beds with **processed shredded hardwood mulch** in accordance with the Technical Specifications for planting in the Appendices. Mulch shall be placed a minimum of 4-inches deep. Mulch Material, Type Special shall be measured and

compensated for by the area in square yards of mulch material acceptably placed.

87. **PAVEMENT MARKINGS (2582)**: The unit prices bid for Pavement Markings to be used in the roadway shall be considered compensation in full to place all markings complete in-place as directed by the Engineer, and in accordance with MnDOT 2582.

Contractor shall be responsible for all testing as described in the relevant Specifications. Reports for all testing required shall be submitted to the Engineer.

All costs for temporary traffic control or temporary signage in conjunction with striping or other pavement markings shall be included in the lump sum bid price for Traffic Control.

Payment for solid line or broken line multi comp shall be made on the basis of actual linear feet of painted line as noted in the Plan. Each thickness and line type shall be measured separately and paid for under separate bid items.

Payment for pavement message multi comp shall be made on the basis of actua area of painted message as noted in the Plan.

Payment for crosswalk multi comp shall be made on the basis of actual square feet of painted line. Crosswalk lines shall be 3-feet by 6-feet and spaced as directed by the Engineer.

88. **RESTORATION:** Contractor shall restore all adjoining properties to the Engineer's satisfaction. Contractor shall work with adjoining property owners and the City in protecting and minimizing any damage to adjoining landscaping, sprinkler systems, invisible pet fencing or other property. Indiscriminate damage to such systems shall obligate Contractor to replace such systems at its cost.

89. **CLEAN PIPE SEWER:** The unit prices bid for clean pipe sewer shall be considered compensation in full to clean pipe sewer and/or service laterals, regardless of size, to a condition for proper installation of the repair product for Bid Alternate A or Bid Alternate B. This shall include, but not be limited to, removing all roots, protruding taps, mineral deposits and loose pieces of pipe, as deemed necessary by the Engineer.

90. **SANITARY SEWER MAIN REPAIR:** The sanitary sewer repair sites under this Contract have been televised. The Proposal Form represents the probable work to be done at the various locations. The location of all work covered by the Proposal Form is shown on the Plans. It is not the intent of this Section to attempt to cover the entire problem, or the extent of the Work that may be required to repair the sewer at each site. Copies of the video showing sewer defects are available for download at the link provided in the Maintenance of Existing City Utilities section of these Special Conditions.

A. *Maintaining Flow*: Contractor shall maintain flow at all times at all repair locations. Maintaining flow on all Sanitary Sewer repairs shall be considered incidental.

B. *Sewer Lining*: The unit price bid per linear foot for lining sewers shall be considered compensation in full to line the pipe with a liner of the size and length specified on the Proposal.

All lining required under this Contract must be completed at least two (2) weeks prior to placement of the bituminous wearing course (in the first area worked in).

Liners shall be constructed with a resin impregnated tube. Each liner must be the full length of the area specified to be repaired. All costs associated with the installation to meet the following requirements shall be included in the bid price for sewer lining and/or service wye liners:

1. Mobilization and site preparation.
2. Televising and recording of sanitary sewer lines to be lined to determine existing conditions on a manhole-to-manhole basis. The recorded closed-circuit television (CCTV) video and written log of the pipeline shall be submitted to the Engineer **by September 30, 2024** prior to lining. Contractor shall stop the camera at each service lateral and pan and tilt the camera in order to inspect the lateral connection to the extent possible.
3. Cleaning necessary to a condition for proper installation of the product. This shall include, but not be limited to, removing all roots, protruding taps, mineral deposits and loose pieces of pipe, as deemed necessary by the Engineer.
4. Determine if existing service connections are active or inactive and perform any investigative work that may be necessary to make this determination, including, but not limited to, dye testing, smoke testing, and coordination with homeowners.
5. Notification of affected property owners including residents located downstream to the nearest manhole, at least 24 hours in advance of proposed lining installation, of limited or restricted usage of sewer lines.
6. Complete placement of approved lining material within sanitary sewer in accordance with the manufacturer's requirements, and as directed by the Engineer.
7. Hydrophilic seal the ends of the liner in manholes to provide a watertight seal, approved by the Engineer, and eliminates infiltration from between the liner and the existing pipe.
8. Grind and seal the edges of short lining segments (that do not go from manhole to manhole) to provide a watertight seal to eliminate infiltration from between the liner and existing pipe and to help pipe flow.
9. Flow control, including bypass pumping, if required.
10. Reinstatement and reconnection of service connections as directed by the Engineer. All reinstated services shall be cut

open, then brushed to a smooth edge, to the satisfaction of the Engineer.

11. Post-lining internal television inspection and recording. Pre- and post- CCTV video shall be submitted to the Engineer and become the property of the City.
12. Cleanup.
13. Other appurtenant and incidental work.

The only installers pre-qualified to do linings (defined as those areas where a lining is installed through the full length of the existing sewer between two adjoining manholes) are: Insituform, Inc., Veit, Visu-Sewer, Inc., Granite Inliner, LLC, Michels Pipe Services, S.J. Louis Trenchless, LLC, and HK Solutions Group.

All other contractors or subcontractors wishing to become prequalified to perform this portion of the Work must apply two (2) weeks before bid opening and shall submit to the Engineer for approval: 1) a license or certificate from the manufacturer verifying their approval, 2) evidence of the installer's experience, including the number, total length and the locations of project installations to date using the proposed materials and methods, 3) names and telephone numbers of owners where work of this nature was done by the proposed installer, and 4) detailed technical information pertaining to long-term design considerations of the product. The decision to accept or reject the applicant lies solely with the Engineer.

All lining materials shall be in accordance with the provisions of ASTM:

1. F1216 – Rehabilitation of Existing Pipelines and Conduits by Inversion and Curing of a Resin Impregnated Tube.
2. D-3034 – Type PSM Poly (Vinyl/Chloride) (PVC) Sewer Pipe and Fittings.
3. D-1248 – Specification for Polyethylene Plastics Molding and Extrusion Materials.
4. F-1504 – Standard Specifications for Folded Poly (Vinyl Chloride) (PVC) Pipe for Existing Sewer and Conduit Rehabilitation.
5. F1743-96 – Practice for Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe (CIPP).
7. D-1784 – Standard Specification for Installation of Deformed Poly (Vinyl/Chloride) and Chlorinated Poly (Vinyl/Chloride) Components.
8. D-2122 – Method for Determining Dimensions of Thermoplastic Pipe and Fittings.
9. D-3350 – Specifications for Polyethylene Plastics Pipe and Fittings Materials.

The Contractor shall submit the following:

1. Manufacturer's product literature and application and installation requirements for materials used in the liner.

2. Manufacturer's product certification for materials used in the liner.
3. Liner pipe thickness design (cured-in-place) signed by a Professional Engineer licensed in the State of Minnesota. See ASTM F1216 Section A.5.
4. Liner pipe thickness design shall be in accordance with Appendix XI of ASTM F1216. In the liner thickness calculations, the minimum quality of the host pipe shall be five (5) percent, the enhancement factor (K) shall not be greater than 7.0; the minimum safety factor shall be 2.0; and the flexural modulus of elasticity shall be reduced to account for long-term effects and used in the design equation E1. The reduction shall be 75 percent for HDPE material, 65 percent for PVC material and 50 percent for cured-in-place pipe systems.
5. No liner will be approved for installation until liner thickness calculations have been submitted and reviewed for conformance with the Specifications and installation requirements.
6. Proposed plan for bypassing sewer signed by a Professional Engineer licensed in the State of Minnesota.
7. The finished liner shall be fabricated from materials which, when cured, will be chemically resistant to withstand internal exposure to domestic sewage.

All manhole connections shall be watertight, utilizing hydrophilic gaskets.

CIPP Liners shall meet the following product requirements:

1. Resin:
   a. The liner bag shall be impregnated with polyester resin for general chemical applications. The resin shall not contain fillers, except those required for viscosity control unless approved by the Engineer. Up to 5% by mass thixotropic agent, which will not interfere with visual inspection, may be added for viscosity control. The resin shall contain a pigment to enhance visual clarity for inspection with video equipment.
   b. Epoxy resins may be required by Contractor, if conditions are deemed to warrant their use.
2. Felt Content:
   a. Content shall ensure cured thickness of liner as specified.
   b. Thickness of cured liner to be as specified (+10%-4%), and shall not include thickness of polyurethane inner liner.
3. Resin Content:
   a. Shall be 10 to 15% by volume greater than volume of felt in the liner bag.

4. The cured liner shall conform to the following minimal structure standards listed herein:

	Standard	Value
Tensile Strength	ASTM D638	3,000 psi
Flexural Modulus of Elasticity	ASTM D790	250,000 psi
Flexural Strength	ASTM D790	4,500 psi

5. The fabric liner shall be fabricated to the size such that when installed, will fit the internal circumference of the pipe. Contractor shall allow for circumferential stretching during insertion for such sizing.

6. Contractor shall certify that CIPP shall meet the chemical resistance requirements of ASTM F1216, Appendix X2.

When requested by the Engineer, Contractor shall submit test results from previous field installations in the USA of the same resin system and tube materials as proposed for the actual installation. These test results must verify that the CIPP physical properties specified have been achieved in previous field applications. Testing samples for this project shall be made and tested at the Contractor's expense.

It shall be the responsibility of the City to provide locations of all manhole access points. Contractor shall be responsible for making the manholes accessible for the Work. Any traffic control deemed necessary by the Engineer shall be provided by Contractor, and included in the lump sum price for Traffic Control.

1. CIPP liner insertion shall be performed in accordance with the manufacturer's recommendations, and in such a way to fully extend the tube to its termination point, hold the tube tight against the pipe wall, and produce dimples at service connections and flared ends at maintenance holes. Lubricants may be used as necessary. Care shall be taken so as not to over-stress the liner material.
2. Temperature gauges shall be placed to determine the temperature of the incoming and outgoing water from the heat source. Another such gauge shall be placed inside the tube at the remote end to determine the temperature at that location during the cure cycle. Contractor shall supply a suitable heat source and water circulation equipment to deliver hot water throughout the section to be cured by means of a pre-strung hose to uniformly raise the water temperature above the temperature required to effectively cure the resin in accordance with the manufacturer's recommendations.
3. Contractor shall maintain the manufacturer's recommended hydrostatic pressure and temperature throughout the curing process and for the duration recommended by the manufacturer. Compressible gases such as air or steam shall not be used.
4. Initial cure shall be considered complete when the exposed portions of the pipe are hard and sound and the remote

temperature sensor indicates that the temperature is high enough to create an exotherm.

5. Contractor shall slowly cool the hardened pipe liner in a temperature below 100 degrees F before releasing the hydrostatic pressure. Cool down may be accomplished by introducing cool water into the inversion standpipe to replace water drained from a small hole placed in the downstream end. Final pressure release shall be slow to avoid development of a vacuum in the newly formed pipe liner.
6. A tight seal shall be achieved at the ends of the liner. If this is not achieved, then a seal must be achieved by applying a coating of a resin mixture compatible with the liner material at the manholes.
7. Steam curing shall not be used unless Contractor meets the following qualifications:
    a. Contractor shall be licensed and certified by the manufacturer of the CIPP Lining process and have successfully completed at least 5 CIPP Lining Projects and aggregate length of at least 10,000, of which 2,000 linear feet must be greater than 9-inch pipe using steam curing.
    b. Each installation crew must be directly supervised by a dedicated foreman having previously supervised the successful installation of at least 5 CIPP Lining Projects and aggregate length of at least 10,000, of which 2,000 linear feet must be greater than 9-inch pipe using steam curing.

Contractor shall reopen branch connections to buildings without excavation using a remote-controlled cutting device monitored by a video television camera.

Contractor shall certify he/she has a minimum of two (2) complete working cutter units plus spare key components on the site before each lining process begins.

After the sewer lining is complete, Contractor shall re-establish all active service connections as soon as practical and before any adverse effect is experienced by the property owner. Contractor shall determine active services during pre-construction televising.

If Contractor is unable to re-establish sewer service connections inside the pipe and excavation is necessary, the cost and liability of such excavation shall be the responsibility of Contractor, including any additional landscaping or turf establishment.

Significant wrinkles, as determined by the Engineer, shall be cause for rejection of the liner. Rejected liners shall be completely removed and the pipes relined to provide a smooth pipe interior. The cost for all such removals and relining shall be borne by Contractor.

Contractor shall warrant and save harmless the City against all claims for patent infringement and any loss thereof.

C. *Increased or Decreased Quantities*: No consideration will be given to requests for extra compensation due to increased or decreased quantities.

91. SANITARY SEWER SERVICE WYE SEALING VIA GROUT PACKER INJECTION METHOD (BID ALTERNATE A): Work shall consist of sealing sanitary sewer lateral service connections identified by the City.

Contractor shall:

A. Provide all labor, materials, tools, equipment, and incidentals as shown, specified, and required to seal pipeline joints and lateral connections to the mains using the packer injection method. The effective sealing length of the lateral connection shall be a minimum of 18 inches from the connection to the main.

1. Packer injection sealing is used to reduce the infiltration within the pipeline, seal annular space between liners and host pipes, seal pipe joints that have failed the joint test criteria, provide external pipe support, but not a structural rehabilitation, by stabilizing soils outside the pipe and prevent further loss of pipe bedding into the pipe.
2. Packer injection sealing shall be accomplished by pressure injection of chemical grout into the soils encompassing the exterior of pipe joint. Chemical grouts shall be designed to be injected into the soil surrounding the pipe, which stabilizes the soil and forms a permanent impermeable seal called a grout/soil ring, and into the annular space between liners and host pipes. Adequate volumes of grout must be injected to form an effective seal. Adequate amounts of grout are based generally upon pipe size and field conditions. This application will be through structurally sound joints and lateral connections through penetrations from within the pipe by using the packer method in tandem with a CCTV inspection system.

GENERAL

A. REQUIREMENTS

1. Contract requires work in active sewers. Contractor shall follow all federal, state and local requirements for safety in confined spaces and uniform traffic controls.
2. Contractor shall provide notification to affected property owners, at least 24 hours in advance of proposed sealing that service will be disrupted and provide notice when work is complete.
3. Contractor shall provide flow control, including bypass pumping if required.
4. Contractor shall provide cleaning necessary to a condition for proper installation of the product. This shall include, but not be

limited to, removing all roots, protruding taps, mineral deposits and loose pieces of pipe, as deemed necessary by the Engineer (paid for under Clean Pipe Sewer bid item).

5. Contractor shall remove residual grout after sealing is completed as directed by the Engineer.
6. Additional safety considerations including safely handling, mixing, and transporting of chemical grouts should be provided by the grout manufacturer/supplier, and should include safe operating practices and procedures, appropriate personal protective equipment (PPE) for the various grouting operations, and proper storage, transportation, mixing, and disposal of grouts, additives, and their associated containers.
7. Requires completion of grout handling and mixing training certification from the grout manufacturer/supplier for personnel working with chemical grouts and additives.

B. RELATED SECTIONS

1. Sanitary Sewer Main Repair Section in this document
2. Standard Utilities Specifications for Sanitary Sewer Installation, and Trench Excavation and Backfill/Surface Restoration, Revised 2013, prepared by the City Engineer's Association of Minnesota (CEAM) and published by the League of Minnesota Cities, St. Paul Minnesota, except as modified by these Special Provisions

C. QUALITY CONTROL

1. No change of material, design values, or procedures specified herein may be made during the course of the Work without the prior written approval of the Engineer.

D. SUBMITTALS

1. Contractor shall provide a minimum 48-hour advance written notice of proposed testing schedules and testing procedures for review and concurrence of the Engineer.
2. Equipment operating procedures and systems.
3. Chemical Grout information:
   a. Description of chemical grout materials to be used per section PRODUCT.C.
   b. Description of proposed additives to be used per section PRODUCT.D.
   c. Manufacturers recommended procedures for storing, mixing, testing and handling of chemical grouts.
   d. MSDS sheets for all materials to be used.
4. Identify the manufactures & models of the packers to be utilized on the Project.
5. Upon completion of each pipe segment, submit to Engineer a report showing the following data for each joint and/or lateral connection tested, grouted or attempted to be grouted as required by PACP.

a. Identification of the sewer pipe section tested by assigned sewer ID or house address for lateral connections, and length.
b. Type of pipe material, diameter & depth of pipe to the surface at manholes.
c. Length of pipe sections between joints.
d. Test pressure used and duration of test.
e. Pass/fail results for each joint/connection tested.
f. Location stationing of each joint/connection tested and location of any joints/connections not tested with an explanation for not testing.
g. Volume of grout material used on each joint or connection.
h. Gel set time used (cup test results from tanks)
i. Grout mix record of the batches mixed including amount of grout and catalyst, additives, temperature of the grout solution in tanks.
j. Name of the operator conducting testing and sealing shall be noted on the reports.
k. Video recordings
    i. Video recording shall include sealing operations for each joint/lateral (including inflation and deflation over the joint/lateral) displaying the final air test of joints or laterals.
    ii. Additional final recording, shall include inspection of the pipe or lateral after all grouting work is complete.

E. REFERENCE STANDARDS TO BE USED

1. ASTM F2304 Standard Practice for Rehabilitation of Sewers using Chemical Grouting (latest revision)

2. ASTM F2454 Standard Practice for Sealing Lateral Connections and lines from the Mainline Sewer Systems by Lateral Packer Method, Using Chemical Grouting (latest revision)

F. METHOD OF MEASUREMENT

1. SEAL MAIN TO LATERAL CONNECTION WITH 3’ BLADDER
    a. Measure by the each size sealed lateral connection, pipe to each size of sewer main.
    b. Measure by the gallon for the chemical grout required to effectively seal each lateral connection.
    c. Includes mobilization, notification of affected property owners and any traffic control that may be necessary.
    d. Includes flow control and bypass pumping as necessary.
    e. Includes all materials, equipment, and labor needed to prepare the lateral to be sealed after completing lateral cleaning.
    f. Includes all materials, equipment, and labor needed to prepare, mix, and install the chemical grout.
    g. Includes all materials, equipment, and labor needed to provide advance notice, updates, and notice that their lateral is back in

service to each affected property Owner.

h. Includes all materials, equipment, and labor needed to bypass the flow around each lateral connection to be sealed.
i. Includes all materials, equipment, and labor needed to test the lateral connection before and after grouting.
j. Includes cleaning residual grout after sealing.
k. In the event that sealing fails, it includes all materials, equipment, and labor needed to access the failed pipe, repair the failure to the satisfaction of the Engineer, and restore the affected area to the satisfaction of the Engineer.
l. Includes all materials, equipment, and labor needed to prepare and submit to the Engineer submittals requested in Article GENERAL.D above.
m. Includes all materials, equipment, and labor needed to prepare and submit to the Engineer the digital CCTV files for inspection work after sealing has been completed.

G. BASIS OF PAYMENT

1. Payment for acceptable quantities of sealing with chemical grout shall be at the contract unit price listed on the Bid Form. All associated work items are incidental.
2. Contractor shall be advised that the actual number of services sealed and grouted will be determined after the mainline CCTV (by others) is reviewed by the City after the Project is bid. No claim shall be made for increased or decreased quantities.

PRODUCTS

A. TESTING AND SEALING EQUIPMENT

1. The basic equipment used for mainline pipe joints and for laterals connected to the mainline shall consist of a remotely operated color television camera capable of pan and tilt, joint testing device (referred to hereafter as a packer), and test monitoring equipment. The equipment shall be constructed in such a way as to provide means for introducing air under pressure into the void area created by the expanded ends of the packer against the host pipe and a means for continuously measuring, viewing and recording the actual static pressure of the test medium and grout within the void area only. The packer shall be of a size less than the diameter of the host pipe, with the cables at either end used to pull it through the line and may be constructed in such a manner as to allow a restricted amount of sewage to flow at all times. Packer shall be expanded by air pressure. Packers shall be of low void space construction with void volume given by the packer manufacturer.
2. The device for testing lateral connections shall consist of inflatable mainline end elements and a lateral sealing plug that creates a void area extending beyond the main connection. Whenever possible, use a lateral sealing plug sized to match the diameter of the lateral

being sealed with an effective sealing length of at least 18 inches. Where the lateral is capped, utilize alternate lateral sealing plug or equipment sized appropriately for the capped lateral.

3. Void pressure data shall be transmitted from the void area to the monitoring equipment or video picture of a pressure gauge mounted on the packer and connected to the void area. All test monitoring shall be above ground and in a location to allow for simultaneous and continuous observation of the televising monitor and test monitoring equipment.
4. Sealing equipment shall consist of the packer, appropriate pumping and hosing systems capable of supplying an uninterrupted flow of sealing materials to completely fill the voids. Grout pumping system shall be sized to deliver a mixed volume of grout at a minimum of 3 gpm and 30 gallons of uninterrupted flow within 10 minutes.
5. Volume of mixed grout pumped must be capable of being measured and recorded for each sealed joint/connection. Generally, the equipment shall be capable of performing the specified operations in sewers where flows do not exceed 25 percent of pipe diameter unless permitted by Engineer.
6. Connection and lateral service sealing shall be accomplished using the lateral sealing plugs and push packers specified above. Provide back-up bladders for each packer on-site at all times during grouting procedures.
7. Equipment for cleaning lateral blockages shall be readily available while any lateral sealing work is being performed.

B. GROUTS - GENERAL

1. All grout materials must have the following characteristics:
   a. While being injected, the grout must be able to react /perform in the presence of water (groundwater).
   b. The ability to increase grout mix viscosity, density and gel strength by increased concentration of constituents or the use of approved additives.
   c. The cured grout must withstand submergence in water without degradation.
   d. The resultant grout formation must be homogeneous and prevent the passage of water (infiltration) through the pipe joint.
   e. The grout must not be biodegradable.
   f. The cured grout should be chemically stable and resistant to organics found in sewage.
   g. Residual grout shall be easily removable from the sewer line to prevent blockage of the sewage flow.
2. Handle, mix, and store grout in accordance with the manufacturer's recommendations. The materials shall be delivered to the site in unopened original manufacturer's containers.

C. CHEMICAL GROUTS

1. Water based chemical grouts shall have the following characteristics:
   a. A minimum of 10% acrylamide base material by weight in the total grout mix. A higher concentration of acrylamide base material is recommended to increase strength or offset dilution during injection.
   b. The ability to tolerate some dilution and react in moving water during injection.
   c. A viscosity of approximately 2 centipoise, which can be increased with approved additives.
   d. A controllable reaction time from 10 seconds to 1 hour.
   e. A reaction (curing) that produces a homogenous, chemically stable, non-biodegradable, firm, flexible gel.
   f. The ability to increase mix viscosity, density and gel strength by increased concentrations of the mix constituents or by the use of approved additives.
   g. Product Manufacturer:
      i. Avanti AV-100, Avanti AV-118; or equal.

D. ADDITIVES

1. At Contractor's discretion and according to field conditions, additives may be selected and used within the manufacturers recommended quantities.

E. Strengthening Agents

1. For joint sealing, a latex or “diatomaceous earth” additive may be added to increase compressive and tensile strength. The quantity of strengthening agent additive shall be as recommended by the manufacturer and approved by Engineer. Product Manufacturer:
   a. Avanti AV-257 Icoset; or equal.

F. Root Inhibitor

1. When roots are present, for joint and lateral connection joint sealing, a root deterrent chemical shall be added to control root re-growth. The quantity of inhibitor shall be as recommended by the manufacturer and approved by Engineer.
2. Product Manufacturer:
   a. Avanti AC-50W; or equal.
3. Dye - A manufacturer approved water soluble dye without trace metals may be added to the grout tank(s) for visual confirmation.
4. Gel Time Modifier - A gel time extending agent may be used in accordance with the manufacturer’s recommendations to extend gel time as necessary.
5. Freeze/Thaw - In those lines where the grout may be exposed to a freeze-thaw cycle, ethylene glycol or other Engineer approved additive shall be used to prevent chemical grout cracking once set.

6. When using non soluble additives the grout tanks must have mechanical mixing devices to keep the additives in suspension and maintain a uniform solution of grout and additive.

EXECUTION

A. CONTROL TESTS

1. Packer Tests - Demonstrate the acceptable performance of air test.
   a. To insure the accuracy, integrity and performance capabilities of the testing equipment, a demonstration test will be performed in an above-ground 8” nominal diameter test cylinder suitable to contain the full length of the packer and sustain the void test pressure. The test cylinder shall be equipped with a void release valve to exercise a controlled release of pressurized air from the void area to test the packer under both sound and leaking conditions. The test cylinder shall also be equipped with a local pressure gauge (0-25 psi) within the void space.
      i. With the void release valve sealed, inflate the packer and air test void at 7-10 psi. The observed void pressure at the test cylinder pressure gauge must be within ±1.0 psi of the reading in the control center/studio void pressure gauge and follow both up and down pressure changes (allowing time for pressure equalization).
      ii. If above test is passed, crack the release valve to simulate a very small leak. The cylinder shall be equipped with a void release valve to exercise a controlled release of the test media with the associated pressure drop to be equally displayed ±1.0 psi of the cylinder gauge and test monitoring equipment.
   b. After entering each pipeline segment with the test equipment, but prior to the commencement of joint testing, position the packer on a section of sound sewer pipe between pipe joints, and perform a test as specified. The equipment shall hold a 7-10 psi test pressure for a period of 15 seconds with a pressure drop of less than 1 psi. In the event of a failed test, repair any defective equipment and re-test to verify proper operation of all equipment at no additional compensation. Should it be found that the surface or porosity conditions of the barrel of the sewer pipe cannot meet the joint test requirements, then the performance testing shall be waived or modified as determined by the Engineer.
   c. If air testing cannot be performed successfully, repair or otherwise modify air test equipment and repeat the tests. This test may be required at any other time during the

performance of joint testing work if the Engineer suspects the testing equipment is not functioning properly.

2. Pump Tests - At the beginning of the contract, prior to application of grout, perform a pump test to determine if proper ratios are being pumped from the grout component tanks at the proper rates and to measure pump rates. Use separate containers to capture the discharges from each of the grout component hoses, to simulate the actual volumes of each component through the interconnect hoses, hose reel and length of grout hose and confirm accuracy of grout pump totalizer. Take corrective action if ratios or rates are not within manufacturer's recommended standards.
3. Grout Tests - Perform and record a grout gel test in the presence of the Engineer by recording the grout tank solution temperature, catalyst tank solution temperature, ambient air temperature in truck, and gel time of the sample whenever the following conditions occur:
   a. At the beginning of each day; the material in the hoses shall be recycled to the tanks and a sample shall be taken.
   b. When new batches of grout are mixed.
   c. Whenever the temperature in the tanks or ambient temperature have changed by more than +/- 10°F from the previous gel test.

B. PIPE PREPARATION

1. Prior to the application of the chemical grout materials, Contractor shall thoroughly clean the sewer designated to receive the chemical grout. Cleaning shall constitute removal of all roots and loose debris and solids which inhibit proper seating of the packer. Removal of hardened materials such as concrete shall be considered beyond the scope of this work.
2. The City shall have cleared the designated sewer line(s) of obstructions such as dropped joints, protruding lateral connections, and broken pipe / crushed pipe which will prevent the use of the grouting equipment. If the CCTV inspection reveals a condition for which an applicable pay item has not been included on the Schedule of Prices, Contractor shall inform the Engineer. Engineer may choose to make a point repair or will direct Contractor to abandon the section of pipe or lateral connection scheduled for sealing.

C. GROUT PREPARATION

1. Follow the manufacturer's recommendations for the mixing and safety procedures.
2. Adjust gel time as necessary to compensate for changes in temperature in grout component tanks or hoses. The addition of dilution water to extend gel times is not acceptable unless resulting base grout tank only material exceeds 20% by weight for solution grouts.

3. During the grouting process, the Grouting Technician shall monitor the grout component tanks to make sure that proper ratios are being pumped. If unequal levels are noted in the tanks, repeat the pump test as described above and correct any defective equipment.
4. Gel times shall be calculated using the following formula unless Contractor experience and/or field conditions dictate otherwise. Any alterations of the gel time formula shall be approved by the Engineer.

$$Gel\ Time = \left(\frac{Volume\ of\ Pipe / Packer\ Void\ Space\ (gal)}{Pumping\ Rate\ (gpm)} \right) \left(\frac{60\,\text{sec}}{1\,\text{min}} \right) + 20\,\text{sec}(+/-5\,\text{sec})$$

5. Packer/Pipe void shall be defined as the volume between the inflated packer and the inside pipe wall when the packer is inflated per manufacturer recommendations. For example: an 8" pipe with a packer void space of 0.3 gallons and a 3 gpm pumping rate would provide

$$Gel\ Time = \left(\frac{.3(gal)}{3(gpm)} \right) \left(\frac{60\,\text{sec}}{1\,\text{min}} \right) + (20\,\text{sec}) = 26\,\text{sec}(+/-5\,\text{sec})$$

D. TESTING AND SEALING DEFECTS

1. Testing and Sealing shall only be performed on those lateral connections as directed by the Engineer.
2. Testing and Sealing will not be required on pipe exhibiting the following conditions or characteristics:
   a. Longitudinally cracked, fractured or broken pipe.
   b. Sections of the pipe with structural defects between joints.
   c. Any sections of pipe or joints or lateral connections that are in such poor structural condition that in the judgment of Engineer or Contractor, significant structural damage of the pipe would occur as a result of testing or sealing.
3. Any structurally undamaged joint that structurally fails (breaks) during testing and sealing that are documented on video to have been done under normal pressure conditions shall be the City's responsibility and cost to repair.
4. Seal all circumferential cracks and fractures or other defects as specified or as directed by Engineer. Do not test or seal any other pipe defects unless so specified or shown, or directed by Engineer to do so. Any structurally failed pipe or joint that is sealed at the Engineer's direction that further fails/breaks during testing and grouting that are documented on video to have been done under normal pressure conditions shall be the City's responsibility and cost to repair. Promptly repair any other sewer damage resulting from Contractor's operations at no additional compensation.

E. LATERAL CONNECTION TESTING PROCEDURE

1. Lateral connection joint testing pressure shall be equal to 0.5 psi per vertical foot of pipe depth plus 2 psi; however, test pressure shall not exceed 10 psi without approval of the Engineer.
2. Air testing lateral connections shall be accomplished by isolating the area to be tested with the lateral connection packer and by applying positive pressure into the isolated void area. A pan and tilt camera shall be used to position the lateral packer for laterals directly connected to the mainline sewer. The lateral bladder shall be inverted from the mainline assembly into the lateral pipe and inflated. The mainline elements shall then be inflated to isolate the lateral connection and the portion of the lateral to be tested. A sensing unit shall monitor the pressure of the packer void and will accurately transmit a continuous readout of the void pressure to the control panel at the grouting truck or to a pressure gauge on the packer recorded by the CCTV camera.
3. The test procedure will consist of applying a controlled air pressure into each isolated void area. Air shall then be slowly introduced into the void area until a pressure equal to or greater than the required test pressure, but in no cases greater than 2 psi above the required test pressure, is observed on the pressure monitoring equipment. Once the designated pressure in the isolated void is displayed on the meter of the control panel, the application of air pressure will be stopped and a 15 second waiting period will commence. The void pressure will be observed during this period. If the void pressure drop is greater than 2.0 psi within 15 seconds, the lateral shall be considered to have failed the air test and shall be grouted and retested.
4. After completing the air test for each individual lateral specified herein, deflate the lateral packer, with the void pressure meter continuing to display void pressure. If the void pressure does not drop to 0.0 +/- 0.5 psi, the equipment shall be adjusted to provide a zero void pressure reading at the monitor.

F. SEALING GENERAL

1. Seal all joint and lateral connections that failed the pressure test, or as specified or as directed by the Engineer, by the injection method. This shall be accomplished by forcing grout through a system of pumps and hoses into and through the joints of the sewer from the packer within the sewer pipe. Remove excess grout from pipe and laterals. Excess grout shall be defined as a thickness of grout that given its location, size and geometry, could cause a blockage. Flush or push forward to the next downstream manhole, remove from the sewer system, and properly dispose of excess grout.

G. LATERAL CONNECTION SEALING FROM THE MAINLINE BY PACKER INJECTION GROUTING

1. Lateral connection sealing begins if the lateral connection does not pass the air test, shows evidence of leakage, has been successfully cleaned to remove roots, or where Contractor has been directed. The lateral packer shall remain in position during the pressure test, thus maintaining the isolated void. Pressure inject grout through the lateral packer into the annular space between the lateral sealing plug and the lateral pipe.
2. When pumping grout, operate the pumps until the mixed grout has flowed through any joint failure, through any annular space, and into the surrounding soil; gelled or filled the available void space; formed a cohesive seal stopping further grout flow; and minimum of 8 psi back pressure is achieved while pumping. As grout pumping continues the void pressure will slowly rise to a range of about 2 to 4 psi, continue pumping until a point where there is a sudden increase in the void pressure. This increase from 2 to 4 psi to over 8 to 10 psi takes place in a matter of a few seconds. If the grout pumped exceeds 1 gallon per foot of lateral bladder plus 3 gallons, it will be suspected that there are significant voids on the outside of the pipe or that the packer is not properly sealed. Check that the packer is sealed properly. If it is, modify grouting procedure to stage grouting by pumping additional grout equivalent to 1 gallon plus 0.25 gallon per foot of lateral bladder, waiting 1 full minute, and retesting. The maximum number of stages shall not exceed two stages unless authorized by Engineer.
3. Upon completion of the lateral connection sealing procedure, deflate the lateral bladder, re-inflate and air test the lateral connection a second time to confirm the sealing of the connection in accordance with the air testing procedure. If the lateral connection fails this air test, repeat the grouting procedure at no additional cost to the City, except for the additional grout used. Air tests after grouting laterals containing roots is not required.
4. Confirm lateral flow after sealing of each lateral connection. If a grout blockage exists, Contractor shall immediately clear the lateral at no additional cost to the City. Blockages in the lateral that are not the result of sealing operations shall not be the responsibility of Contractor.
5. After sealing lateral connections (with the appropriate size lateral bladder), a thin residual grout film may be present inside the lateral wall. The amount of residual grout film present is dependent on the lateral bladder used, geometry of the lateral and positioning of the packer. This thin layer of cured grout is normal and will eventually peel off the sidewall of the pipe. The residual chemical grout film is not “sandwiched” between two structures and will eventually peel off the sidewall of the pipe. This residual chemical grout film is not considered excess grout.

H. JOINT / LATERAL CONNECTION SEALING VERIFICATION

1. Record sealing of joints in conjunction with the testing of joints. Record the void pressure drop continuously on video and in writing immediately before and after sealing. After the packer is deflated and moved, record on video the visual inspection of the joint.
2. Use of standardized test and seal data sheets and PACP data codes is highly recommended.

I. DISPOSAL

1. Collect and properly dispose of cleaning materials used in the cleaning of the sealing and grout mixing equipment.

J. POST-CONSTRUCTION INSPECTION

1. Conduct Post-Construction Inspection of lateral and mainline utilizing CCTV.
2. Upon completion of sealing lateral connections, notify the Engineer so that the Engineer may be present during the CCTV inspection of the sealed lateral connections to verify that no infiltration is present.

92. <u>SANITARY SEWER SERVICE WYE LINING (BID ALTERNATE B)</u>:

A. Provide Sanitary Sewer Service Repair at all active service locations in the lining area.

1. CIPP Service Wye Liners without cleanouts (blindshot method)

B. Method of Measurement

1. Measure each service connection as a unit

C. Basis of Payment:

1. Unit Price as listed on Bid Form as service wye lining.
2. Associated Work Items: Incidental.
3. Pipe Liner: The unit price bid for liners shall be considered compensation for all labor & equipment to line the portion of the sewer service indicated.
4. Dewatering: Incidental.

<u>References</u>

A. ASTM D790

B. ASTM D2990

C. ASTM D3567

D. ASTM D5813

E. ASTM D2990/DIN EN 761

F. ASTM F1216-07B

G. ASTM F2561-06

System Description

A. CIPP:

1. This work shall occur after the Sanitary Sewer Main Repair via lining is complete.
2. All lining required under this Contract must be completed at least two (2) weeks prior to placement of the bituminous wearing course (in the first area worked in).
3. The service lateral lining shall provide a one-piece, homogenous, cured in-place full circle main to lateral non-leaking connection lining by air inversion with no overlapping materials. The CIPP shall cure into a hard, impermeable liner pipe of the submitted and approved thickness and form a structurally sound liner pipe with a uniformly smooth interior providing hydraulic flow equal to or greater than the existing lateral in original condition.
4. The inverted lateral CIPP lining must be able to invert to a minimum distance of 18 inches while being able to compromise 4” and 6” lateral connections including lateral diameter changes with main pipe diameters of diameters of 8” through 12”.
5. Must heat cure (steam). No ambient cure allowed.
6. The one-piece CIPP main to lateral lining will incorporate hydrophilic non-caulk solid gasket sealing technology & the use of compressible materials in the main CIPP portion and at the termination of the lateral liner.
7. Soft caulk gaskets, collar type systems, two-piece systems, systems where the lateral is pulled in-place and CIPP connection systems that are based on adhesion will not be allowed.
8. Insert hydrophilic waterstop on the upstream end of the CIPP Blindshot.
9. All main to lateral sewer service lining connections shall comply with or latest revision of ASTM F2561-06.
10. No cleanout required for CIPP method Blindshot.
11. Contractor Qualifications:
    (a) Contractor shall be licensed and certified by the manufacturer of the CIPP Blindshot process and have successfully completed at least 10 CIPP Blindshot installations for the manufacturer proposed using the specific method of installation and curing proposed.
    (b) Each installation crew must be directly supervised by a dedicated foreman having previously supervised the successful installation of at least 10 CIPP Blindshot rehabilitations using the manufacturer proposed and using the specific method of installation and curing proposed.
    (c) Exclusive of the foreman, the installation crew must include at least 2 members who have each previously completed the successful installation of at least 10 CIPP Blindshot

rehabilitations using the manufacturer proposed and using the specific method of installation and curing proposed.

Submittals

A. Product Data: Submit manufacturer product literature and application and installation requirements for materials used in the liner, including:

1. A copy of the license and or certification as issued by the manufacturer.
2. A resume for each proposed foreman responsible for the supervision of installations. The resume shall include name, employment history (5 years), current position within the organization, current responsibilities, proposed project responsibilities, and certifications.
3. Documentation of meeting experience requirements in System Description Paragraph A.3. Include references with names and contact information.
4. Submit structural design calculations and specification data sheets listing all parameters used in the liner design and thickness calculations based on Appendix XI of ASTM F1216 for **each** lateral. All calculations shall be prepared under and stamped by a Professional Engineer registered in the State of Minnesota.
5. Proposed plan for bypassing sewer.
6. Installation and quality control plan, including Sewage Bypass Pumping Plans, mainline sewer and lateral cleaning plan and cleanliness requirements, liner shot plan and sequence, liner installation standard procedures, temperature monitoring plan, odor controls procedures, and plan to manage flow to/from laterals during lining for consideration and approval by the Engineer.
7. Curing schedule for each shot, including heating, curing, and cool-down schedules for consideration and approval by the Engineer.
8. Hydrophilic end seal material to be used and method of installation.
9. Contingency Plan, including methods and equipment to be used to repair unacceptable liner defects, for removing failed liners, and for availability and accessibility of backup equipment such as air compressors and boilers.
10. Curing log of CIP lateral lining (CIPLL) temperature and pressure at each lateral during the curing process to document that proper temperatures and cure times have been achieved. Submit curing logs weekly.
11. The name of the liner and resin manufacturer, the location of the facility where each was manufactured and a list of appurtenant materials and accessories to be furnished.
12. The type and volume of catalysts and promoters added to the resin.
13. Manufacturer's Quality Control Plan or procedures that ensure proper materials are used in the resin impregnation process and in liner shipping and storage.

14. Independent third party ISO 17025 certified laboratory test reports demonstrating that the exact resin/liner combination to be used for this project meets the requirements for initial structural properties (performed in accordance with ASTM F1216 and ASTM D790 and/or ISO 178 with a wall thickness measured per DIN EN 13566-4) and chemical resistance (performed in accordance with ASTM F1216-Appendix X2 or ASTM D5813).
15. Independent third party certified laboratory test reports demonstrating that the exact resin and comparable liner to be used for this project has been tested for long-term flexural modulus of elasticity and long-term flexural strength (i.e., 10,000 hour minimum creep testing performed in accordance with ASTM D2990/DIN EN 761 for design conditions applicable to this project).
    (a) Test will be performed for a minimum of 10,000 hours under test conditions and loadings described below. Independent third party test data of the entire ASTM D-2990/DIN EN 761 data set are required as substantiation of the values used in design. The data points from 1,000 hours to 10,000 hours of the Long-term Flexural Modulus shall be extrapolated using a Microsoft Excel log-log scale linear regression analysis, unless Engineer determines that the data set better suit another regression method, to determine the minimum service life performance of the resin-tube.
    (b) Testing will be conducted at:
        i. Temperature: 21 to 25°C
        ii. Relative humidity: 50% minimum
        iii. Load: Equivalent to 25% of the initial yield stress measured in accordance with ASTM D790/ISO 178, or as approved by Engineer.

B. Testing

1. CIPP - If requested, submit test results from previous field installations in the USA of the same resin system and tube materials as proposed for the actual installation. These test results must verify that the physical properties specified have been achieved in previous field applications.

Regulatory Requirements

A. Work shall be done in accordance with applicable state and local codes, rules, and ordinances.

B. Certify that CIPP shall meet the chemical resistance requirements of ASTM F1216 Appendix X2.

Project Conditions

A. View Site prior to bid opening to determine obstructions or Site conditions which may affect Work.

B. Provide for continuity of sanitary sewer service to each facility connected to the affected sections and ensure no sewage backup to private property.

C. Maintain commercial and residential sewer service during the installation process and bypass pump individual laterals if needed. If necessary to properly complete the Work, Contractor may interrupt flow from services for no more than 4 hours on any given day if such interruption is first coordinated with and allowed by the property owner(s). Upon completion of the Work requiring interruption of service, immediately restore all services and notify the property owner(s) that service is again available. Contractor assumes all responsibility for notifying property owners of service interruptions. Contractor also assumes all responsibility for blockages, back-ups, or damages caused to public or private property as a result of the interruption of service, whether caused by Contractor's or property owner's actions.

D. Make manholes accessible for Work.

E. Provide necessary traffic control, as requested by Engineer.

F. All active service connections to be replaced.

G. The mainline lining contractor shall internally cut and remove any protruding laterals and service hammer taps. No lateral shall protrude into the main more than ½ inch.

Materials

A. Performance Liner, as manufactured by LMK Enterprises, Inc. is the only approved product for use on this project for CIPP Blindshots.

B. CIPP Liner Requirements:

1. Resin:
   (a) Liner bag: Impregnated with polyester resin for general chemical applications.
   (b) No fillers except those required for viscosity control unless approved by Engineer.
   (c) Viscosity control: Up to 5 percent by mass thixotropic agent, which will not interfere with visual inspection.
   (d) Pigment to enhance visual clarity for inspection with video equipment.
   (e) Epoxy resins may be used by Contractor if conditions are deemed to warrant their use.
2. Felt Content: Cured thickness of liner plus 10 percent minus 4 percent not including thickness of polyurethane inner liner.
3. The tube shall be capable of conforming to offset joints, bells and deformed pipe sections up to 20% of original pipe diameter.
4. Resin Content: 10 to 15 percent by volume greater than volume of felt in the liner bag.
5. Conform to the following minimal structure standards listed herein:
   (a) Tensile Strength: ASTM D638, 3000 psi.

(b) Flexural Modulus of Elasticity: ASTM D790, 250,000 psi.
(c) Flexural Strength: ASTM D790, 4500 psi.

6. Fabric Liner: Fabricate to size to fit the internal circumference of pipe. Allow for circumferential stretching during insertion for such sizing.

Preparation

A. Clean mainline and service pipe prior to lining, such that the pipes are free of roots, grease, sand, rocks, sludge and other debris. Cleaning mainline or service pipe deemed necessary by the Engineer shall be paid for under separate bid item.

B. Clear the mainline and service of obstructions such as solids, dipped joints or broken pipe that will prevent the insertion of the liner. If inspection reveals an obstruction that cannot be removed by the conventional cleaning equipment, make an excavation and repair the obstruction. This work shall be approved by the Engineer prior to commencement of the Work and shall be paid for as Extra Work.

C. CIPP Pre-Construction Inspection submittals shall accurately locate all transitions, bends, and defects. Any discrepancies between the footage reported on the video inspection and on the report must be reconciled on the report by showing both distances. Any water or obstructions in the lateral must be removed prior to the inspection.

D. Inspect and confirm the inside diameter, alignment, length, ovality, and condition of each service to be lined. Use the data and information collected from this inspection to verify the size of the liner and refine the installation techniques. If unknown physical conditions in the Work area that differ materially from those ordinarily encountered are uncovered during the investigation, Contractor shall notify the Engineer.

E. Visually inspect each service immediately prior to CIPLL lining to demonstrate that the service is clean and free of roots, grease, sand, rocks, sludge, or structural impediments that would affect long-term viability of the CIPP. Visually inspect mainline sewer immediately prior to CIPLL lining to demonstrate that the mainline sewer is clean and free of impediments that would affect long-term viability of the lateral liner.

Installation Procedures

A. Saturate tube with the resin in accordance with manufacturer's instructions. Liner wet out may not be done on any surface whose temperature is greater than 70º Fahrenheit.

B. For LCS, provide flow control sufficient to allow CCTV observation of mainline packer throughout liner installation.

C. Completely protect the resin-saturated lateral tube during positioning and installation. No resin shall be lost by contact with manhole walls or pipe.

D. After insertion is complete, apply a suitable recirculation system capable of delivering air, steam, or water, as required by the liner system manufacturer, uniformly throughout the section to achieve a consistent cure of the resin. If using hot air or steam, slowly bleed in heated air to control the initial rise in liner temperature such that heating air temperature rises no more than 3 degrees Fahrenheit per minute. Maintain the curing temperature recommended by the liner system manufacturer. Prevent excessive temperatures that could scald or bubble the liner. Scalded or blistered liner will be rejected if, in the opinion of the Engineer, the performance of the liner is compromised.

E. During curing, provide controls to prevent odors from entering private residences.

F. Prevent air, steam, or curing water from entering the private residence at all times.

G. Cure and cool down the CIPP in accordance with manufacturer's instructions.

H. Provide a view of the CIPP contacting the service pipe from the beginning to the end of the repair.

I. After the curing process is complete, remove all installation and curing equipment from the host service pipe. No material other than the cured CIPP shall remain in the host pipe. Provide a finished CIPP that is continuous and free as commercially practicable of visual defects such as foreign inclusions, dry spots, pinholes, delamination, and wrinkles in any location in excess of 10% of the host pipe inside diameter. Verify there is no potential for obstruction of flow.

J. If a point repair is required after the liner has cured, use a tube segment with compatible (preferably identical) properties as the existing liner to splice across the point repair. Point repair shall extend a minimum of 12 inches on each side of the defect.

Post-Construction Inspection of Completed Work

A. Conduct Post-Construction Inspection of service and mainline connection. Perform Post-Construction Inspection no sooner than 30 days and no later than 60 days after the completion of lining work. Inspection submittals shall accurately locate all transitions, bend, and defects. Any discrepancies between the footage reported on the video inspection and on the report must be reconciled on the report by showing both distances. Remove water and obstructions in the service prior to the inspection.

Quality Control Tests

A. Pressure Testing

1. All pressure testing shall be conducted in the presence of the Engineer.

2. For each service rehabilitated, air test the service liner and connection at the main using a service testing packer that extends beyond the repair to seat on the original pipe/liner.
3. Increase pressure in the void area to at least 8 psi. The duration of the test shall be 30 seconds with a maximum of 1.0 psi loss in pressure.

B. Material Sampling

1. Prepare, cure, and provide to Engineer one restrained pipe sample for every 50 lateral liner installations of each resin-fabric combination used for this project or fraction thereof, in accordance with the Field Sample Preparation Plan.
2. Construct an above-grade Tee-fitting mockup for each restrained sample in which a liner can be installed using similar methods as below-grade. Select material and size of PVC host pipe for restrained sample to match the inside diameter of the main and lateral being rehabilitated as close as reasonably practicable. The lengths of the main and lateral pipes shall be of sufficient length to install the liner in a similar fashion as below-grade. Cure the sample in the same manner as the installed liners.
3. The sample submitted shall have the main portion cut a minimum of two inches beyond the maximum dimension of the mainline portion of the liner. The lateral portion of the sample shall be 4 feet long.

C. The following tests at the following minimum frequencies will be performed by Contractor. The results of these analyses will be assumed to be representative of the liners. Contractor may elect to perform additional testing. Contractor may, at his discretion and cost, conduct additional testing to improve the resolution of performance test characterization. Any testing Contractor elects to perform shall be performed by an independent, certified ISO 17025 testing facility. Each test shall be performed by a laboratory with an American Association for Laboratory Accreditation (A2LA) for the specific test to be performed.

1. Short-term Flexural (Bending) Properties - The initial tangent flexural modulus of elasticity and flexural yield strength measured in accordance with ASTM D790.
   (a) Frequency - 1 test per sample
2. Thickness measured in accordance with ASTM D3567.
   (a) Frequency - 1 test per sample
3. Long-term Flexural Modulus of Elasticity measured in accordance with ASTM D2990. Test will be performed for a minimum of 10,000 hours under test conditions and loadings described below. The data points from 1,000 hours to 10,000 hours, or such other time period as determined by the Engineer based on the curve or slope of the plotted data, of the Long-term Flexural Modulus shall be extrapolated using a Microsoft Excel log-log scale linear regression analysis to determine the minimum service life performance of the resin-fabric.

(a) Testing will be conducted at:
(i) Temperature: 21 to 25°Celsius
(ii) Relative humidity: 50% minimum
(iii) Load: Load used in ASTM D2990/DIN EN 761 testing as submitted in accordance with paragraph 1.8.A.5
(b) Frequency - 1 test per sample

4. Chemical Resistance - The chemical resistivity of the liner measured in accordance with ASTM F1216, Appendix X2.
(a) Chemical Resistance - The chemical resistivity of the liner measured in accordance with ASTM F1216, Appendix X2 Acceptance of the CIPLL shall be based on the ENGINEER's evaluation of the resin impregnation quality control reports, CIPLL temperature curing logs, laboratory test results for the prepared samples, and Post-construction Inspection video, which shall demonstrate:

CIPP Acceptance

A. Acceptance of the CIPLL shall be based on the ENGINEER's evaluation of the resin impregnation quality control reports, CIPLL temperature curing logs, laboratory test results for the prepared samples, and Post-construction Inspection video, which shall demonstrate:
(1) Compliance with the required liner physical properties and thickness.
(2) Evidence of groundwater infiltration through the liner and at interface with the host pipe in the lateral and main is zero.
(3) There is no evidence of excessive wrinkles, splits, cracks, breaks, lifts, kinks, scalds, blisters, delamination’s or crazing in the liner.
(4) Achieving the minimum service life as determined by using the actual thickness and short term flexural modulus of elasticity modified by the creep retainage measured by ASTM D2990 extrapolation.
(5) Compliance with required length and diameter of liner.
(6) Liners meet requirements for chemical resistivity.

B. If any defective liner is discovered after it has been installed, it shall be removed and replaced with either a sound liner or a new lateral at no additional cost to the OWNER. Obtain approval of the Engineer for method of repair, which may require field or workshop demonstration.

Warranty Inspection

A. Provide a CCTV inspection 18 to 24 months after completion of CIPP work showing all completed. Actual period for inspection shall be determined by the Engineer and will ideally be conducted during high groundwater conditions. Contractor will be provided with a 60 day notice prior to period of inspection. Conduct all inspections in the presence of the Engineer.

Restoration

A. If excavation is necessary to re-establish connections, the cost and liability shall be the responsibility of the Contractor, including any additional landscaping, turf establishment, tree removal, and tree replacement.

93. **SANITARY SEWER SERVICE REPLACEMENT PROGRAM:** Residential property owners in the Project area will be given the opportunity to have their sanitary sewer service pipe rehabilitated, but will be completed under a separate contract from the Project. The Zane Avenue and Lindsay Street Improvements contractor shall cooperate with the Engineer and the sewer service repair contractor to ensure timely completion of this work. Claims by Contractor for delays caused by this work will not be allowed.

94. **PROCEDURES IN THE EVENT OF A SEWAGE SPILL:** In the event of a sewage release, Contractor shall immediately notify the State of Minnesota Duty Officer at the Department of Public Safety at 651.649.5451 and the City Engineer at 763.593.8030.

The Duty Officer will instruct Contractor on any further notification procedures.

Contractor shall also take immediate action to prevent sewage from entering any water body or storm sewer by directing any such sewage flow into the existing sanitary sewer system.

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GENERAL CONDITIONS
CITY OF GOLDEN VALLEY

SECTION I - GENERAL

1. DEFINITIONS

When used in the Contract Documents, the intent and meaning of the below listed terms shall be as follows:

A. "A.S.T.M." means the American Society for Testing Materials.

B. "Bidder" means any individual, firm or corporation submitting a Proposal for the Work contemplated, acting directly or through a duly authorized representative.

C. "City" means the City of Golden Valley, Minnesota.

D. "Contract" means the entire agreement covering the performance of the Work and the furnishing of materials in the construction.

E. "Contractor" means the individual, firm, partnership, corporation or company with which the City contracts and unless otherwise specified, includes subcontractors of Contractor.

F. "Contract Bond" means collectively the approved forms of security furnished by Contractor and Contractor's Surety or Sureties as a guarantee of good faith on the part of Contractor to execute and pay for the Work in accordance with the terms of the Contract.

G. "Contract Price" means the total amount payable by the City to Contractor, including authorized adjustments, for the performance of the Work under the Contract Documents and is stated in the Agreement.

H. "Contract Time" means the period of time, including authorized adjustments, allotted in the Contract Documents for Final Completion of the Work.

I. "Engineer" means the City Engineer, or her/his designee.

J. "Final Completion" means the stage of construction following Substantial Completion when the Contractor has completed all written corrective measures for damaged or defective Work as determined by the Engineer, and has provided

all documents required for close out of the Contract as discussed within the Contract Documents.

K. "Force Account" means the payment method used for extra work if Contractor and the Engineer are unable to negotiate prices for revised Work.

L. "Force Account Work" means work completed on a Force Account basis.

M. "Inspector" means an authorized representative of the Engineer, assigned to make any or all necessary inspections of the Work performed and the materials furnished by Contractor.

N. "Laboratory" means the testing laboratory that shall be approved by the Engineer to inspect and determine the suitability of materials.

O. "Plans" means all approved drawings or reproductions of drawings pertaining to the construction of the Work and appurtenances.

P. "Proposal" means the proposal for the Work submitted by the Bidder on the Proposal Form.

Q. "Proposal Form" means the approved form on which the Bidder submits its Proposal for the Work contemplated. The Proposal may also be referred to as the bid.

R. "Proposal Guarantee" means the security designated in the Proposal to be furnished by the Bidder as a guarantee of good faith to enter into a contract with the City if the Work is awarded to the Bidder.

S. "Specifications" means the directions, provisions and requirements contained in the Contract Documents, together with all written agreements made or to be made, pertaining to the method and manner of performing the Work, or to the quantities and qualities of materials to be furnished under the Contract Documents.

T. "Substantial Completion" is the stage in the progress of the Work when the Work or a designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the City can occupy or use the Work for its intended purpose. For the avoidance of doubt, unless otherwise agreed, Substantial Completion requires all of the following to be complete: all utility and storm sewer installation (except as noted below), placement of the base course and wear course of bituminous, sidewalk and pedestrian ramps, curb and gutter, driveway pavement, signage, sod, seed, pavement markings and project cleanup. Sanitary sewer lining and wye grouting or wye lining need not be complete to achieve

Substantial Completion; however, all work related to these items shall be completed prior to Final Completion.

U. "Surety" is the individual or corporate surety that is bound with and for Contractor for the acceptable performance of the Contract and for its payment of all obligations pertaining to the Work.

V. "Unclassified Work" means all work and materials that are not included under any items in the Proposal and Contract, for which a unit price has been submitted.

W. The "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by Contractor to fulfill Contractor's obligations. The Work may constitute the whole or a part of the Project.

X. Meaning of expressions - In order to avoid cumbersome and confusing repetition of expressions in these Specifications, whenever it is provided that anything is, or is to be done or is, "contemplated," "required," "directed," "specified," "authorized," "ordered," "given," "designated," "indicated," "considered necessary," "permitted," "suspended," "approved," "acceptable," "unacceptable," "suitable," "unsuitable," "satisfactory," "unsatisfactory," or "sufficient," it shall be taken to mean and intend by or to the Engineer.

2. FAMILIARITY WITH LAWS AND ORDINANCES

Contractor is assumed to have made itself familiar with all laws, ordinances and regulations which in any manner affect those engaged or employed in the Work, or the materials or equipment used in or upon the improvement, or in any way affect the conduct of the Work. No plea of misunderstanding will be considered on account of the ignorance thereof. The provisions of such laws or ordinances are deemed to be a part of these Specifications, and Contractor shall be bound by the provisions thereof.

SECTION II - AWARD AND EXECUTION OF THE CONTRACT

1. CONSIDERATION OF PROPOSALS

Comparison of proposals will be based on the correct summation of item totals, obtained from the Proposal Form. In the case of errors on a Proposal Form, the unit price shall be used to determine the correct total for a bid item.

The City reserves the right to award any or all alternate bid items, or any combination thereof, in the best interest of the City.

The City reserves the right to reject any or all Proposals and to waive defects or technicalities as it may deem in the best interest of the City.

2. EXECUTION OF CONTRACT

The individual, firm, partnership, corporation or company to which the Contract has been awarded shall sign the necessary agreements, enter into a contract with the City, and shall return all necessary documents to the office of the City Clerk of Golden Valley within ten (10) days after it has received notice of award.

3. FAILURE TO EXECUTE CONTRACTS

Failure to furnish the Contract Bonds in the sum equal to the amount of the award, or to execute the Contract within ten (10) days as specified, shall be just cause for annulment of the award. It shall be understood by the Bidder that, in the event of annulment of the award, the amount of the Proposal Guarantee deposited with the Proposal shall be retained by the City, not as a penalty, but as liquidated damages to compensate the City for additional costs and expenses.

SECTION III - SCOPE OF WORK

1. INTENT OF PLANS AND SPECIFICATIONS

The intent of the Plans and Specifications is to prescribe the complete Work or improvement that Contractor undertakes to do. The Plans and Specifications shall be read and interpreted in conjunction with the Contract Documents.

Unless otherwise provided, it is understood that Contractor shall furnish all labor, material, equipment, tools, transportation, necessary supplies and incidentals as may reasonably be required to complete the Work in accordance with the Plans, Specifications and other Contract Documents.

The approved Plans are on file in the office of the City Clerk, City of Golden Valley, Golden Valley City Hall, 7800 Golden Valley Road, Golden Valley, Minnesota 55427, and show the location, details and dimensions of the Work. Any deviations from the Contract Documents as may be required during construction shall, in all cases, be determined by the Engineer and authorized in writing by the Engineer before such deviations are consummated.

The City may attach addenda to these Specifications, to be filed with such Specifications and incorporated as part thereof, at the office of the City Clerk of Golden Valley. Bidders shall be responsible to examine such Specifications as are on file for addenda before submitting Proposals.

2. INCREASED OR DECREASED QUANTITIES OF WORK

The Engineer shall have the sole right to increase or decrease any or all of the items specified in the Contract Documents, including the elimination of any one or more

items. Such changes shall not invalidate the Contract. If quantities originally contemplated are materially changed, Contractor shall request a cost adjustment in writing in compliance with the Change Order requirements set forth in Section 3 herein. Approval of any such cost adjustment shall be at the sole discretion of the Engineer and the Engineer's decision shall be final on any and all matters concerning cost adjustment. No payment for changed items shall be made to Contractor until both parties have signed the Change Order.

Except in the case of minor changes in the Work approved or ordered by the Engineer in accordance with Section III (3)(D), or ordered by the Engineer in accordance with Section III (3)(C), Contractor may make substitutions only with the consent of the City, after evaluation and written approval by the Engineer and in accordance with a Change Order.

3. CHANGES IN THE WORK

A. GENERAL

Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Section and elsewhere in the Contract Documents. A Change Order shall be based upon agreement between the City and Contractor. A Construction Change Directive may be issued by the Engineer and may or may not be agreed to by Contractor. An order for a minor change in the Work may be issued by the Engineer alone and shall not involve a change in the Contract Price or Contract Time. Changes in the Work shall be performed under applicable provisions of the Contract Documents. Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

B. CHANGE ORDERS

A Change Order is a written instrument prepared by the Engineer and signed by the City and Contractor stating their agreement upon all of the following:

i) The change in the Work;
ii) The amount of the adjustment, if any, in the Contract Price; and
iii) The extent of the adjustment, if any, in the Contract Time.

C. MINOR ALTERATIONS OF PLANS OR CHARACTER OF WORK

The Engineer may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Price or Contract Time. The Engineer's order for minor changes shall be made in writing. If Contractor believes that the proposed minor change in the Work will affect the Contract Price or Contract Time, Contractor shall notify the Engineer and shall

not proceed to implement the change in the Work. If Contractor performs the Work set forth in the Engineer's order for a minor change without prior notice to the Engineer that such change will affect the Contract Price or Contract Time, Contractor waives any adjustment to the Contract Price or extension of the Contract Time.

D. ELIMINATION OF WORK

Should the City eliminate any Contract items from the Contract, delete any Work, or order termination on a Contract item before completion of that unit, Contractor shall be reimbursed for all costs incurred prior to notification that are not the result of unauthorized work. Compensation will be made on the following basis:

i) Accepted quantities of Work completed in accordance with the Contract will be paid for at the Contract prices.
ii) For materials that have been ordered but not incorporated in the Work, reimbursement will be made in accordance with the procedure set out for Surplus Material.
iii) For partially completed items, accepted Work shall be paid for on the basis of a percentage of the Contract bid price equal to the percentage of actual accomplishment toward completion of the item. In arriving at this percentage, the value of materials incorporated in the partially completed items will be considered to be the actual purchase price of the materials, plus transportation costs, to which will be added fifteen percent (15%) of the sum thereof.

Contractor shall also be reimbursed for such actual expenditures for equipment, mobilization, and overhead as the City considers directly attributable to the eliminated work and that are not recovered as part of the direct payment for the Work.

Payment for completed Work at the Contract prices and for partially completed Work and materials in accordance with the above provisions, together with such other allowances as are made for fixed costs, shall constitute final and full compensation for the Work related to those Contract items that have been partially or totally eliminated from the Contract.

4. UNCLASSIFIED WORK

All work and materials that are not included under any items in the Proposal or Contract Documents and for which a unit price has been submitted, shall be designated as Unclassified Work.

Before any Unclassified Work is performed, the Engineer shall submit to Contractor for its acceptance, a Change Order stating the location, nature, estimate of quantities, and basis of payment of work to be performed. When this Change Order has been signed by both parties, it shall become part of the Contract.

Any Change Order shall stipulate a unit price or lump sum for the performance of work. Where a change in the Contract Price or Contract Time cannot be agreed upon, the Unclassified Work shall be completed pursuant to a Construction Change Directive and payment shall be made on a Force Account basis.

5. CONSTRUCTION CHANGE DIRECTIVES

A Construction Change Directive is a written order prepared by the Engineer directing a change in the Work prior to agreement on adjustment, if any, in the Contract Price or Contract Time, or both. The City may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Price and Contract Time being adjusted accordingly. A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

If the Construction Change Directive provides for an adjustment to the Contract Price, the adjustment shall be made as provided in Section VIII below. If Contractor disagrees with the adjustment in the Contract Price or Contract Time, Contractor may make a Claim in accordance with applicable provisions of Section VIII(6).

Upon receipt of a Construction Change Directive, Contractor shall promptly proceed with the change in the Work involved and advise the Engineer of Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Price or Contract Time. When the City and Contractor agree with a determination made by the Engineer concerning the adjustments in the Contract Price and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Engineer shall prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive. A Construction Change Directive signed by Contractor indicates Contractor's agreement therewith, including adjustment in Contract Price and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

6. FINAL CLEAN-UP

Upon completion of the Work and before acceptance, issuance of the Certificate of Final Completion and final payment, Contractor shall remove from the street and adjacent property, all surplus and discarded materials, equipment, rubbish and temporary structures; restore in an acceptable manner all property, both public and private, which has been damaged during the prosecution of the Work; and shall leave the site in a neat and presentable condition subject to the approval of the Engineer.

SECTION IV - CONTROL OF WORK

1. AUTHORITY OF ENGINEER

   The Engineer shall decide any and all questions which may arise as to (1) the quality and acceptability of materials furnished and Work performed; (2) the manner of performance and rate of progress of the Work; (3) the interpretation of the Plans and Specifications; (4) the acceptable fulfillment of the Contract on the part of Contractor; and (5) the amount and quantity of the several kinds of Work performed and materials furnished under the Contract.

2. CONFORMITY WITH PLANS AND ALLOWABLE DEVIATIONS

   No deviations from the Plans or the approved working drawings shall be permitted without the written approval of the Engineer.

3. COORDINATION OF PLANS AND SPECIFICATIONS

   Contractor shall take no advantage of any apparent error or omission in the Plans or Specifications, and the Engineer shall be permitted to make such corrections and interpretations as may be deemed necessary for the fulfillment of the Plans and Specifications.

   Any work not specified herein or in the Plans, but which may be fairly implied or understood as included in the Contract, shall be completed by Contractor without extra charge. Any ambiguity or discrepancy in the Plans or Specifications shall be adjusted by using the best class of work or materials.

   In the case of any discrepancy between the scale and figures in the Plans, drawings, etc., the figured dimensions shall govern. In the case of any discrepancy between the quantities shown in the Proposal and those shown in the Plans, the Plans shall prevail. In case any other discrepancy occurs between the Plans and the Specifications, the decision of the Engineer shall be decisive thereon.

4. COOPERATION BY CONTRACTOR

   The City shall supply Contractor with five copies of the Plans and Specifications. Contractor shall have said Plans and Specifications available at the Project at all times during the prosecution of the Work. Contractor shall give the Work its constant attention to facilitate progress and shall cooperate with the Engineer in setting and preserving stakes, benchmarks, etc., and in all other things that are necessary for satisfactory completion of the Work. Contractor shall have a competent and reliable superintendent acting as Contractor's representative on the job at all times. This representative shall supervise all of Contractor's workforce, including its subcontractors, during all phases and in all aspects of the Work. All orders from the Engineer shall be directed through the superintendent.

Contractor shall provide a list, as deemed necessary by the Engineer, of emergency contacts, including names and 24-hour telephone numbers, to the City.

5. CARE AND PROTECTION OF WORK AND MATERIALS

From the commencement of the Work until the final acceptance of the same, Contractor shall be solely responsible for the care of the Work and for the materials delivered to the site and intended to be used in the Work. All injury or damage to the same from whatever cause, shall be made good at Contractor's expense. Contractor shall provide suitable means of protection for and shall protect all materials intended to be used in the Work and shall provide similar protection for all Work in progress as well as completed Work. Contractor shall at all times take all necessary precautions to prevent injury or damage to the Work in progress, including but not limited to protection for damage or injury caused by flood, freezing, or inclement weather of any kind. Only approved methods shall be used for this purpose.

6. AUTHORITY AND DUTY OF INSPECTOR

The Inspector shall be authorized to inspect all Work and materials furnished. Such inspection may extend to all or any part of the Work and to the preparation or manufacture of the materials to be used. An inspector shall be stationed on the Work to report to the Engineer as to the progress of the Work and the manner in which it is being performed. The Inspector shall also report to the Engineer whenever it appears that the materials furnished or the Work performed by Contractor fail to fulfill the requirements of the Specifications and Contract, and shall bring any such failure or other infringement to Contractor's attention. Such inspection, however, shall not relieve Contractor from any obligation to perform all of the Work strictly in accordance with the requirements of the Specifications.

In case of any dispute arising between Contractor and the Inspector as to materials furnished or the manner of performing the Work, the Inspector shall have the authority to reject materials or suspend the Work until the questions at issue can be referred to and decided by the Engineer. If Contractor uses rejected materials or fails to suspend the Work, all Work performed by Contractor under such suspension or rejection shall be considered unauthorized work and subject to rejection or replacement by Contractor at Contractor's expense. The Inspector shall not be authorized to revoke, alter, enlarge, relax or release any requirements of these Specifications nor to approve or accept any portion of the Work, or to issue instructions contrary to the Plans and Specifications. The Inspector shall in no case act as foreman or perform other duties for Contractor, nor shall the Inspector interfere with the management of the Work by Contractor.

Any advice that the Inspector may give to Contractor shall in no way be construed as binding upon the City in any way, nor shall any such advise release Contractor from fulfillment of the terms of the Contract.

7. INSPECTION

The Engineer or the Engineer's representative shall be allowed access to all parts of the Work at all times and shall be furnished such information and assistance by Contractor as may be required to make a complete and detailed inspection. Such inspection may include mill, plant, or shop inspection of materials and workmanship.

8. UNAUTHORIZED WORK

Work done without lines and grades, Work done beyond the lines and grades shown on the Plans, or as given, except as herein provided, or any Unclassified Work done without written authority shall be considered unauthorized and at the expense of Contractor and will not be measured or paid for by the City. Work so done may be ordered removed and replaced at Contractor's expense.

9. DEFECTIVE WORK

All Work not conforming to the requirements of the Contract Documents shall be considered defective and may be rejected by the Engineer by providing written notice of the defect to Contractor. Contractor shall promptly correct Work rejected by the Engineer or failing to conform to the requirements of the Contract Documents and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Engineer's services and expenses made necessary thereby, shall be at Contractor's expense.

Should Contractor fail or refuse to remove or renew any defective Work, or to make any necessary repairs in an acceptable manner and in accordance with the requirements of the Contract Documents within the time indicated by the City, the Engineer shall have the authority to cause the unacceptable or defective Work to be removed and renewed or repaired at Contractor's expense. Any expense incurred by the City in making these removals, renewals or repairs, which Contractor has failed or refused to make, shall be paid for out of any monies due or which become due Contractor, or may be charged against the Contract Bonds. Continued failure or refusal on the part of Contractor to make any or all necessary repairs promptly, fully and in an acceptable manner shall be sufficient cause for the City, at its option, to purchase materials, tools and equipment, and employ labor or to contract with any other individual, firm or corporation, to perform the Work. All costs and expenses so incurred shall be charged against Contractor and the amount thereof deducted from any monies due or which may become due to Contractor under this Contract, or shall be charged against the Contract Bonds. Any work performed, as described in this section, shall not relieve Contractor in any way from its responsibility to perform the Work.

The City shall also have authority to take over and use defective Work without compensation to Contractor, when Contractor fails or refuses to rebuild such defective Work.

10. FINAL INSPECTION

The Engineer will make final inspection of all Work, and any portion thereof, as soon as practicable after notification by Contractor that such Work is nearing completion. If the inspected Work is not acceptable to the Engineer at the time of the Engineer's inspection, the Engineer shall advise Contractor in writing as to the particular defects to be remedied. If, within a period of ten (10) days after such notification, Contractor has not taken steps to speedily complete the Work as directed, the Engineer may, without further notice and without in any way impairing the Contract, make such other arrangements as the Engineer may deem necessary to have such Work completed in a satisfactory manner. The cost of completing such Work shall be deducted from any monies due, or which may become due Contractor on the Contract.

11. GUARANTEE

In addition to Contractor's obligations under Section IV paragraph 9, if, within one year after the date of Final Completion of the Work, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, Contractor shall correct it promptly after receipt of notice from the City to do so, unless the City has previously given Contractor a written acceptance of such condition. The City shall give such notice promptly after discovery of the condition. If, during the one-year period for correction of Work, the City fails to notify Contractor and give Contractor an opportunity to make the correction, the City waives the right to require correction by Contractor and to make a claim for breach of warranty. If Contractor fails to correct nonconforming Work within a reasonable time after receipt of notice from the City, the City may correct the Work at Contractor's expense.

The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Final Completion by the period of time between Final Completion and the actual completion of that portion of the Work. The one-year period for correction of Work shall not be extended by corrective Work performed by Contractor pursuant to this Section.

Nothing contained in this Section shall be construed to establish a period of limitation with respect to other obligations Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in this Section relates only to the specific obligation of Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish Contractor's liability with respect to Contractor's obligations other than specifically to correct the Work.

12. FOSSILS

If any fossils or treasure or other unusual or valuable geological formations are found in the process of excavating, such fossils and sample of geological formations shall be carefully preserved by Contractor and given to the Engineer and shall be the property of the City.

SECTION V - CONTROL OF MATERIALS

1. SOURCE AND QUALITY OF MATERIALS

The source of supply of the materials to be used shall be approved by the Engineer before delivery is started. The approval of the source of any material will stand only so long as the material itself conforms to the Specifications. Only materials conforming to the requirements of these Specifications shall be used in the Work. The source of any materials shall not be changed at any time without the written approval of the Engineer. Contractor may be required, at any time, to furnish a complete statement of the original composition and manufacturer of any or all materials required in the Work, or to submit sample of the same.

2. STANDARD STOCK PRODUCTS

All materials, supplies and articles furnished shall, whenever so specified, and otherwise wherever practicable, be the standard stock products of recognized, reputable manufacturers. The standard stock products of manufacturers other than those specified may be accepted when it is proved to the satisfaction of the Engineer that they are equal to or better than the specified products in strength, durability, usefulness and convenience for the purpose intended. Whenever reference is made herein to A.S.T.M. Specifications, it shall be understood that the latest revision of the A.S.T.M. at the time of award of Contract is implied.

3. TESTS OF MATERIALS

When tests of materials are necessary, such tests shall be made by and at the expense of the City unless otherwise provided. Contractor shall afford such facilities as the Engineer may require for collecting and forwarding samples, and shall not use the materials represented by the samples until tests have been made and the materials have been found to satisfy the requirements of these Specifications. Contractor shall, in all cases, furnish the required samples without charge. The quantity of materials Contractor must furnish shall be a reasonable amount, deemed by the Engineer, to effectively test such materials to verify compliance with the Specifications and/or meet requirements from non-City funding sources.

4. STORAGE

Materials shall be stored so as to insure the preservation of their quality and fitness for the Work and such materials, even though approved before storage, shall be subject to test, and must meet the requirements of these Specifications at the time it is proposed to incorporate them in the Work. Materials shall be stored in a manner that will facilitate inspections and protect the general public from injury.

The portion of the right-of-way not required for public travel may, with the consent of the Engineer, be used for storage purposes, and for the placing of Contractor's plant and equipment, but any additional space required, unless otherwise stipulated, shall be provided by Contractor at its expense.

5. DEFECTIVE MATERIALS

All materials not conforming to the requirements of these Specifications shall be considered as defective and all such materials, whether in place or not, will be rejected and shall be removed immediately from the right-of-way unless otherwise permitted by the Engineer. No material that has been rejected - the defects on which have been corrected or removed - shall be used until the Engineer's written approval has been given.

6. FAILURE TO REMOVE DEFECTIVE MATERIALS

Should Contractor fail or refuse to remove and renew any defective materials within the time indicated in writing, the Engineer shall have the authority to cause the unacceptable or defective materials to be removed and renewed at Contractor's expense. Any expense incurred by the City in making these removals or renewals, which Contractor has failed or refused to make, shall be paid for out of any monies due or which may become due Contractor under this Contract, or may be charged against the "Contract Bond" deposited.

SECTION VI - LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

1. LAWS TO BE OBSERVED

Contractor shall observe and comply with all laws, ordinances, regulations and decrees which may, at any time or in any manner, affect the equipment or materials used at the Project, the conduct of the Work or those employed to complete the Work. No plea of misunderstanding will be considered on account of the ignorance thereof.

Contractor further agrees that in connection with the employment and hiring of the labor necessary for the performance of the Work, or any subcontract hereunder, Contractor will not discriminate against any person or persons contrary to the provisions of Minnesota Statutes 181.9, which is hereby incorporated by reference.

Contractor and Contractor's Surety shall, indemnify and save harmless the City and all of its officers, agents and servants against any claim or liability arising from or based on the violation of any law, ordinance, regulation or decree, whether by itself or its employees.

If Contractor shall discover any provisions in the Plans, Contract, or these Specifications or any direction of the Engineer or Inspector which is contrary to or inconsistent with any such law, ordinance, regulation or decree, Contractor shall immediately report its inconsistency to the Engineer in writing.

2. PERMITS AND LICENSES

Contractor shall procure all permits and licenses as required in the Contract documents, pay all charges and fees and give all notices necessary and incidental to the due and lawful prosecution of the Work.

3. PATENTED DEVICES, MATERIALS AND PROCESSES

If the Contract requires, or Contractor desires the use of any design, device, material or process covered by letter, patent or copyright, trademark or trade name, Contractor shall provide for such use by suitable legal agreement with the patentee or owner allowing use of such design, devise, material or process in the Work. A copy of said agreement shall be filed with the City. If no such agreement is made or filed as noted, Contractor and Contractor's Surety shall indemnify and save harmless the City from any and all claims for infringement by reason of the use of any such patented design, device, material or process, or any trademark or trade name or copyright in connection with the Work agreed to be performed under the Contract, and shall indemnify the City for any costs, expenses and damages which it may be obliged to pay, including costs, expense and attorneys' fees incident to litigation by reason of any such infringement at any time during the prosecution or after the completion of the Work.

4. SANITARY PROVISIONS

Contractor shall observe and comply with all laws, rules and regulations of the State and Local Health Authorities and shall take such precautions as are necessary to avoid creating unsanitary conditions.

Contractor shall provide and maintain suitable sanitary conveniences for the use of all persons employed on the Project. Such facilities shall be properly screened from public observation, in sufficient numbers, in such manner and at such points as shall be approved by the Engineer. Contractor shall rigorously prohibit committance of nuisances within, on or about the Work. Any employee found violating these provisions shall be discharged and not again employed on the Work without the written consent of the Engineer. Contractor shall supply sufficient drinking water to all of the work force employed, but only from such sources as shall be approved by

the Engineer. Contractor shall also obey and enforce such other sanitary regulations and orders and shall take such precautions against infectious disease as may be deemed necessary by the Engineer.

5. PUBLIC CONVENIENCE AND SAFETY, BARRICADES, LIGHTS AND WARNING SIGNALS

Where the Work is carried on in or adjacent to any street, alley or public place, Contractor shall, at Contractor's own cost and expense, furnish and erect such barricades, fences, lights and danger signals, and shall take such other precautionary measures for the protection of persons and property and of the Work as is necessary or required by the Contract Documents. Excavations in or adjacent to public streets or alley in which water stands more than one (1) foot deep or where banks of the excavation are subject to collapse or cave-in shall be securely barricaded with snow fence so as to prevent access by children and adults during the period when work is not being carried on at the site of excavation. Barricades shall be painted in a color and reflectorized in accordance with the provisions of the most current version of the Minnesota Manual of Uniform Traffic Control Devices ("MMUTCD").

From sunset to sunrise, Contractor shall furnish and maintain at least two (2) flashing lights at each barricade. A sufficient number of barricades shall be erected to keep vehicles from being driven on or into any of the Work and to warn pedestrians and children of the existence of the excavation at all open points. When a detour is necessary because a street is blocked by the Work, the Engineer shall designate its route and Contractor shall furnish and post detour signs at places designated approved by the Engineer. All signs shall be in accordance with the most current version of the MMUTCD and appendices.

Contractor shall be responsible for all damage to the Work due to failure of barricades, signs, and lights to protect it, and whenever evidence of such damage is found, the Engineer may order the damaged portion immediately removed and replaced by Contractor at Contractor's expense. Contractor's responsibility for the maintenance of barricades, signs and lights, and for providing the watchmen, shall not cease until the Project has been accepted by the City.

6. MAINTENANCE OF DRAINAGE AND ACCESS TO MUNICIPAL AND PRIVATE UTILITIES

On all Work, Contractor shall provide and maintain free access to gas valves, manholes and similar facilities. Contractor shall also provide and maintain free access to all fire hydrants, gate valves, manholes, and appurtenant equipment of the City's water distribution and sanitary sewer systems.

Contractor shall provide for the flow of all water courses, storm sewers and storm drains, and shall keep all gutters and waterways open or make other provisions for the free removal of storm water. Contractor shall be liable for any damages or costs

incurred by the City due to flood conditions, or backing up of sanitary or storm sewers or storm drains caused by the Work. Contractor also agrees to indemnify the City and its agents and employees against claims relating to or arising from any such backups or flooding.

7. SITES TO BE KEPT CLEAN

Contractor shall clean and keep clean from waste materials or refuse resulting from its operations, the streets, the Work and public property occupied by Contractor. Equipment not usable on the Work shall be promptly removed and the adjacent premises maintained in a neat and orderly condition at all times. Advertising signs in general will not be permitted at the Project.

8. NOISE ELIMINATION

Contractor shall eliminate noise to as great an extent as possible at all times. Air compressing plants shall be equipped with silencers, and the exhausts of all gasoline motors or other power equipment shall be provided with mufflers approved by the Engineer.

9. USE OF EXPLOSIVES

If it is necessary to use explosives in the performance of the Work, Contractor shall take out permits and comply with all laws, ordinances and regulations governing same. Contractor shall fully protect all completed Work as well as all overhead, surfaces or underground structures and shall be liable for any damage done to the Work or other structures on public or private property and injuries sustained by persons by reason of the use of explosives in Contractor's operations. Explosives shall be handled, used and fired only by experienced personnel. All firing shall be done by electricity. All explosive supplies shall be safely stored and protected in an approved manner. All such storage places shall be marked clearly, "**DANGEROUS – EXPLOSIVES**". Caps or other exploders shall not be stored at the place where dynamite or other explosives are stored.

10. PROTECTION AND RESTORATION OF PROPERTY

Where the Work passes over or through private property, the City shall secure a license, right of entry, right-of-way agreement or easement. Contractor shall not receive any extra compensation or be entitled to any extras because of delay on the part of the City in obtaining right-of-way or easement access. Contractor shall not enter upon private property for any purpose without obtaining written permission from the property owner. Contractor shall, at Contractor's own expense, protect and restore any public or private property damaged or injured in consequence of any act or omission on Contractor's part or on the part of Contractor's employees or subcontractors, to a condition equal to or better than that existing before such damage or injury occurred. If Contractor neglects to restore or make good such damage or injury, the Engineer may, upon forty-eight (48) hours' notice, proceed to

restore or make good such damage or injury and to order the cost thereof deducted from any monies that are or may come due to Contractor.

Contractor shall restore at Contractor's own expense all parks, streets, alleys, roads, or public highways, and the public structures and improvements which may occupy such parks, streets, roads, alleys, or public highways, including but not limited to water mains, water connections and appurtenances, sewer, manholes, catch basins, and sewer connections, ornamental light poles, and cables. All persons, firms, trustees, and corporations having buildings, structures, works, conduits, mains, pipes, tracks, poles, wires, cables, ducts, or other physical structures and improvements in, over, or under the public lands, streets, roads, alleys, or highways, shall be notified by the City to shift, adjust, accommodate or remove any such interfering works so as to comply reasonably with the requirements of construction. Thereafter, Contractor shall be responsible for all just and proper claims for damages caused to or on account of such interference or removal, and shall at Contractor's own cost and expense reimburse such persons, firms, trustees and corporations all just and proper claim for such removal and replacement or repair.

Contractor shall include the cost of such interference, removal and replacement in the various affected unit and lump sum prices, and no separate payment will be made to Contractor for any cost involved by reason of any causes or situations arising from such interference, removal or replacement.

Land monuments shall not be moved or otherwise disturbed except as may be directed by the Engineer.

11. EXISTING SURFACE, OVERHEAD AND UNDERGROUND STRUCTURES

Prior to construction, Contractor shall obtain field locations or other assistance as may be required to determine the existence and location of gas mains and other private utilities, as well as public utilities of the City, County or State, which may be underground or overhead within street and highway rights-of-way or within easements and which may be interfered with by the Work.

Existing underground, surface or overhead structures are not necessarily shown on the Plans, and those shown are only correct to the level of accuracy permitted by the locations both from field located and record drawings, established by the utility owners. The City does not assume any responsibility for the accuracy of the disclosed locations. Contractor shall be responsible for all verifying all utility location by contacting Gopher State One-Call (651.454.0002) prior to beginning the Work. Contractor shall also make such investigations as are necessary to determine the extent to which existing structures may interfere with the Work prior to submitting its Proposal. The sizes, locations and depths of such structures as are shown on the Plans and profiles are only approximate and Contractor shall satisfy itself as to the accuracy of the information given.

Contractor shall not claim or be entitled to receive compensation for any damages sustained by reason of the inaccuracy of the omission of any of the information given on the drawings relative to the surface, overhead or underground structures or by reason of Contractor's failure to properly protect and maintain such structures.

Contractor shall exercise extreme care in crossing, or working adjacent to, all utilities and shall be responsible to protect and maintain their operation during the Work. Contractor shall restore, at its expense, any public structures such as, including but not limited to, water mains, water connections, and appurtenances, sewers, manholes, catch basins, culverts, and sewer connections which are damaged or injured in any way by Contractor's acts or the acts of its employees, agents or subcontractors.

Contractor shall indemnify and save harmless the City from any suit, claim, demand or expense, including attorneys' fees and costs, brought for or on account of any damage, maintenance, removal, replacement, or relocation of mains, conduits, pipes, poles, wires, cables or other structures of private utility firms or corporations whether underground or overhead, that may be caused or required by Contractor during the Work. However, in cases involving an overhead or underground privately owned utility installed and located in accordance with a permit issued by the City, if, in the opinion of the Engineer, the relocation of said utility is required to facilitate the Work, the City shall provide for such relocation, to the extent allowed under the permit or applicable law.

12. MAINTENANCE OF SERVICE IN EXISTING STRUCTURES

All existing overhead, surface or sub-surface structures, together with all appurtenances and service connections except those otherwise provided for herein, encountered or affected in any way during Work shall be maintained in service at all times unless other arrangements satisfactory to the agencies responsible for such utility are made. The cost of this work shall be included in the price paid under the items applicable thereto and there shall be no separate payment for it.

13. RAILWAY AND HIGHWAY CROSSINGS

Where the Work encroaches upon any right-of-way of any railway, State or County Highway, the City shall make application for the necessary easement or permit for the Work. Where railway tracks or highways are to be crossed, Contractor shall observe all regulations and instructions of the railway company and Highway Department and other applicable federal, state or local regulations as to methods of doing the Work, or precautions for safety of property and the public. Contractor will not be paid compensation for such railway or highway crossing applications or regulations unless otherwise provided for in the Proposal or other Contract Documents.

14. RESPONSIBILITY FOR LABOR, MATERIAL, EQUIPMENT AND DAMAGE CLAIM

To the fullest extent permitted by law, Contractor shall indemnify and hold harmless the City and its agents and employees from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, but only to the extent caused by the negligent acts or omissions of Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section or any other obligations of indemnity under the Contract Documents.

In claims against any person or entity indemnified under this Section by an employee of Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under this Section shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

15. CONTRACTOR'S RESPONSIBILITY FOR WORK

Until acceptance, the Work and all materials shall be under Contractor's charge and care, and Contractor shall take every reasonable precaution against injury or damage to the Work or to any part thereof by the action of the elements or from any other cause whatsoever. Contractor shall rebuild, repair, restore and make good, at Contractor's own expense, all injuries or damages to any portion of the Work occasioned by any of the above causes before its completion and acceptance.

16. SAFETY PRECAUTIONS AND ACCIDENT PREVENTION

Contractor shall observe and comply with all requirements of the Engineer as to the safety of the workforce to be employed on the Project. Contractor shall also comply with all safety measures recommended or required by any governmental agency, including the Department of Labor and Industry and the Division of Accident Prevention of the Industrial Commission of Minnesota, and with the requirements of the Workmen's Compensation Act and any amendments thereto.

Contractor shall be responsible for all safety issues on the Project. Contractor must, however, comply with all orders from the City for implementing any additional requirements relating to safety concerns.

17. REQUIREMENTS OF CONTRACT BOND

The successful Bidder, at the time of the execution of the Contract, shall furnish, and at all times, maintain a satisfactory and sufficient **PERFORMANCE BOND AND PAYMENT BOND**, each in the full amount of the Contract, as required by law, with Sureties satisfactory to the City. The form of the Contract Bond is that required by Statute. Personal Sureties will not be approved. The Contract Bond shall be acknowledged by both principal and Surety, and the execution thereof witnessed by two witnesses as to each party.

Minnesota Statutes, Chapter 13, requires that the City make all payment and performance bonds available for inspection and copying upon request. All claims on Contractor's Bonds shall be brought in accordance with the requirements of Minnesota Statutes Chapter 574.

18. PUBLIC LIABILITY AND PROPERTY DAMAGE INSURANCE

Contractor shall purchase and maintain, at Contractor's own cost and expense, insurance of the types and limits of liability, containing endorsements and subject to the terms and conditions described herein and in the Contract Documents, including but not limited to property damage and public liability coverage. The City shall be named as an additional insured under Contractor's policies of insurance.

The policies of insurance shall indemnify the City and all of its officers, agents, consultants and employees, from all property or personal injury claims.

Contractor shall not commence the Work until it has obtained all the insurance described below, provided proof of such coverage to the City, and the City has approved Contractor's insurance. All policies and certificates shall provide that the policies shall remain in force and effect throughout the term of the Contract.

A. Policy Requirements

i) Worker's Compensation Insurance:
   a. Statutory Compensation Coverage:
   b. Coverage B – Employer's Liability with limits of not less than:
      1. $100,000 Bodily Injury per Disease per Employee
      2. $500,000 Bodily Injury per Disease Aggregate
      3. $100,000 Bodily Injury by Accident

ii) Automobile Liability Insurance:
   a. Minimum Limits of Liability:
      1. $2,000,000 – Per Occurrence – Bodily Injury and Property Damage Combined Single Limit
   b. Coverages:
      X Owned Automobile, if any
      X Non-Owned Automobile

X Hired Automobile
X City of Golden Valley named as Additional Insured

iii) General Liability Insurance:
a. Minimum Limits of Liability:
1. $2,000,000 – Per Occurrence
2. $3,000,000 – Annual Aggregate
b. Coverages:
X Bodily Injury
X Property Damage
X Personal Injury
X Blanket Contractual
X City of Golden Valley named as Additional Insured

iv) Professional Liability/Miscellaneous Liability Insurance:
Coverage for negligent acts, errors or omissions arising out of the performance of professional services included in the Contract coverage shall continue for a minimum of five (5) years.
a. Minimum limit of liability of $2,000,000 per occurrence
b. Deductible not to exceed $5,000 (if in excess, submit certified financial statement)
c. If Claims-Made, please complete the following:

If prior acts coverage is restricted, advise the retroactive date of coverage: _____.

Contractor's policy(ies) shall be primary and non-contributory to any other valid and collectible insurance available to the City with respect to any claim arising out of this Contract, and shall provide the City with thirty (30) days advance written notice of cancellations, non-renewals or reduction in limits or coverage or other material change.

Contractor is responsible for payment of insurance deductibles. If Contractor is self-insured, a Certification of Self-Insurance must be attached.

Insurance companies must have an "AM Best" rating of A-, class V or better, and be authorized to do business in the State of Minnesota and must be satisfactory to the City.

Each subcontractor shall furnish property damage and public liability insurance that complies with all of the requirements stated, except as to amounts. Subcontractors shall furnish property damage insurance and public liability insurance in amount proportionate to their respective subcontracts, but such amounts shall be satisfactory to the Engineer.

19. WORKMEN'S COMPENSATION INSURANCE

Contractor shall furnish Workmen's Compensation Insurance for its employees, and must comply with all Workmen's Compensation Laws for the state of Minnesota. The insurance company or companies, or the manner in which the compensation insurance is carried, must be satisfactory to the City and to the Minnesota Industrial Commission. The cost of Workmen's Compensation Insurance shall be included in all lump sum and unit cost items under this Contract.

20. COMPLIANCE WITH EXISTING CONTRACTS BETWEEN THE CITY OF GOLDEN VALLEY AND OTHERS

Contractor shall familiarize itself with all terms and provisions of contracts between the City of Golden Valley and the City of Minneapolis in regards to wholesale purchase of potable water; and with the Cities of Crystal and New Hope for the storage distribution of potable water as may apply. Contractor shall similarly familiarize itself with other contracts between the City of Golden Valley and other municipalities, firms, corporations, or individuals relating in any manner whatsoever to the subject matter of this Contract and shall conform to all of the requirements of said contracts and shall do nothing which shall violate any of the provisions or conditions imposed upon the City.

SECTION VII - PROSECUTION AND PROGRESS

1. SUBLETTING OR ASSIGNMENT OF CONTRACT

Contractor shall not sublet, sell, transfer, assign or otherwise dispose of the Contract or any portion thereof, or of the Work, or of Contractor’s right, title or interest therein, to any person, firm or corporation without the written consent of the City and Contractor's Surety, and such consent shall not relieve Contractor in any way of full responsibility for the performance of this Contract.

Contractor shall include a list of subcontractors with the Proposal. The City reserves the right to reject any or all of the subcontractors.

2. PROSECUTION OF WORK

All dealings of the City will be with Contractor. No Work shall be started until the Contract has been executed and written notice to proceed has been given to Contractor.

Definite notice of intention to start the Work shall be given to the City at least five (5) days in advance of beginning the Work. Such starting time shall be within ten (10) calendar days after the date of receipt by Contractor of written notice to proceed. The official starting time shall be taken as the date on which Contractor is notified in writing by the Engineer that Contractor has fulfilled all preliminary requirements of

the City. The official Contract Time shall be in accordance with the Special Conditions. Should the prosecution of the Work be discontinued temporarily by Contractor for any reason, Contractor shall notify the Engineer at least twenty-four (24) hours before again resuming operations and shall not resume operations until it receives written approval from the Engineer.

Unless otherwise provided for elsewhere in these Specifications, Contractor shall notify the City of the location at which Contractor intends to begin operations. The Engineer shall have the right to change the point of beginning or the points of operation of Contractor's work force.

The Work shall be prosecuted in such manner as to ensure its completion within the Contract Time. In case of failure to prosecute the Work in such a manner as to ensure its completion within the Contract Time, the Engineer shall have the right to require Contractor to place in operation such additional force and equipment as are deemed necessary by the Engineer.

3. LIMITATIONS OF OPERATIONS

In case of a dispute arising between two or more Contractors engaged on the same work as to the respective rights or each under these Specifications, the Engineer shall determine the matters at issue and shall define the respective rights of the various interests involved in order to secure the completion of all parts of the Work in harmony and with satisfactory results. Any such decisions by the Engineer shall be final and binding on all parties and shall not in any way give rise to or provide a basis for a claim for extra compensation by any of the parties.

4. CHARACTER OF WORKMEN AND EQUIPMENT

Contractor shall employ such superintendents, foremen and workmen as are careful and competent, and the Engineer may demand in writing the dismissal of any person or persons employed by Contractor in, about or upon the Work, who engages in misconduct, or who is incompetent or negligent or refuses to comply with the direction given. Any such person or persons shall not be employed again at the Project without the written consent of the Engineer. Should Contractor continue to employ such person or persons at the Project, the City may withhold all payments which are or may become due, or the Engineer may suspend the Work until the offending persons are dismissed. Contractor shall not employ any minors, as defined by the Minnesota Workmen's Compensation Act, on the Project.

Contractor shall keep on the Project, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Engineer. The Superintendent shall meet all requirements contained in the Contract Documents, including but not limited to those enumerated in Section 10 of the Special Conditions, and shall not be changed except with the consent of the Engineer, unless the superintendent proves unsatisfactory to Contractor and ceases to be in Contractor’s employ. The superintendent shall represent Contractor in all matters

and have the authority to obtain equipment and manpower as needed to complete the Work. All directions given to the superintendent shall be as binding as if they were given to Contractor.

All machinery and equipment owned or controlled by Contractor which is proposed to be used by Contractor on the Work shall be of sufficient size and in such mechanical condition as to meet with the requirements of the Work and to produce a satisfactory quality of work.

When so ordered by the Engineer, in writing, unsatisfactory equipment shall be removed and replaced with equipment which will satisfactorily perform the Work. No change in the machinery and equipment employed on the Project that has the effect of decreasing its capacity shall be made except by written permission of the Engineer.

The measure of the capacity of machinery and equipment shall be its actual performance of the Work. Failure of Contractor to provide adequate equipment may result in the annulment of the Contract as hereinafter provided.

5. CONTRACTOR'S RIGHT TO REQUEST CHANGES

If Contractor discovers, prior to or during construction anything in the Plans or Specifications or in the supplementary directions issued by the Engineer which, in the opinion of Contractor, appears to be faulty engineering or design, Contractor shall immediately advise the Engineer in writing of Contractor's concerns. If no objection is raised by Contractor under the provisions of this paragraph, Contractor waives any right to contest the provisions of the Contract on the basis of faulty engineering or design.

6. TEMPORARY SUSPENSION OF WORK

The Engineer shall have the authority to suspend the Work, wholly or in part, for such a period or periods as the Engineer may deem necessary due to conditions considered unfavorable for the suitable prosecution of the Work, or for such time as is necessary due to failure on the part of Contractor to carry out orders or perform any or all provisions of the Contract. If the Engineer directs Contractor in writing to suspend the Work, Contractor shall store all materials and equipment in such a way as to not obstruct or impede public travel or work on adjacent contracts. Contractor shall not suspend the Work without written authority from the Engineer.

7. SUBSTANTIAL COMPLETION

When Contractor considers that the Work, or a portion thereof which the City agrees to accept separately, is substantially complete, Contractor shall prepare and submit to the Engineer a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of Contractor to complete all Work in accordance with the Contract Documents.

Upon receipt of Contractor's list, the Engineer or the Inspector shall inspect the Work to determine whether it is substantially complete. If the inspection discloses any item, whether or not included on Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the City can occupy or utilize the Work or designated portion thereof for its intended use, Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item. In such case, Contractor shall then submit a request for another inspection by the Engineer to determine Substantial Completion.

When the Work or designated portion thereof is substantially complete as determined by the Engineer, the Engineer shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the City and Contractor for security, maintenance, damage to the Work and insurance; and fix the time within which Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

The Certificate of Substantial Completion shall be submitted to the City and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the City shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

8. DETERMINATION AND EXTENSION OF CONTRACT TIME FOR COMPLETION

Contractor shall perform fully, entirely, and in an acceptable manner, the Work contracted for within the time stated in the Contract.

If Contractor finds that it will be impossible to complete the Work on or before the Contract Time, Contractor shall request an extension of the Contract Time as set forth in Section 4 of the Special Conditions.

In case such extension is not granted, the right to proceed with the Work may be considered as forfeited as of the Contract Time, including all agreed upon adjustments, and the City, without violating the Contract, may proceed immediately to take over the Work, materials and equipment and make final settlement of costs incurred as provided for in Paragraph 7 below, except that it shall not be necessary to give Contractor written ten (10) days' notice for such forfeiture.

9. FAILURE TO COMPLETE WORK ON TIME

Should Contractor fail to complete the Work on or before the Contract Time, taking into consideration all agreed upon extensions, the City may permit Contractor to

proceed and there shall be deducted from any monies due or that may become due Contractor the amount agreed upon as liquidated damages under section 4 the Special Conditions of the Agreement. Liquidated damages shall continue to accrue until the unfinished Work is completed whether Contractor finishes the Work or the Work is finished by an alternate contractor.

Permitting Contractor to continue and finish the Work or any part of it after the Contract Time, or after the date to which the Contract Time may have been extended, shall in no way operate as a waiver on the part of the City of any of its rights. Neither by the taking over of the Work by the City, nor by the annulment of the Contract, shall the City forfeit the right to recover liquidated damages from Contractor or Contractor's Surety for failure to complete the Contract.

10. RIGHT OF THE CITY TO DECLARE CONTRACTOR IN DEFAULT

In addition to those instances specifically referred to in the Contract Documents, the City shall have the right to declare Contractor in default of the whole or any part of the Work if:

A. Contractor becomes insolvent;

B. Contractor makes an assignment for the benefit of creditors pursuant to the Statutes of the State of Minnesota;

C. A voluntary or involuntary petition in bankruptcy be filed by or against Contractor;

D. Contractor fails to commence work when notified to do so by the Engineer;

E. Contractor shall abandon the Work;

F. Contractor shall refuse to proceed with the Work when and as directed by the Engineer;

G. Contractor shall, without just cause, reduce its working force to a number which, if maintained would be insufficient, in the opinion of the Engineer, to complete the Work in accordance with the approved progress schedule, and shall fail or refuse to sufficiently increase such working force when ordered to so by the Engineer;

H. Contractor shall sublet, assign, transfer, convey or otherwise dispose of this Contract other than as herein specified;

I. A receiver or receivers are appointed to take charge of Contractor's property or affairs;

J. The Engineer shall be of the opinion that Contractor is or has been knowingly, willfully or in bad faith, violating any of the provisions of this Contract;

K. The Engineer shall be of the opinion that Contractor is or has been unnecessarily, unreasonable or willfully delaying the performance and completion

of the Work, or the award of a necessary subcontract or the placing of necessary material or equipment orders;

L. The Engineer shall be of the opinion that the Work cannot be completed within the Contract Time, taking into consideration all agreed upon amendments to the Contract Time; provided, however, that the impossibility of timely completion is, in the Engineer's opinion, attributable to conditions within Contractor's control;

M. The Engineer shall be of the opinion that Contractor is not or has not been executing the Contract in good faith and in accordance with its terms; or

N. The Work is not completed within t within the Contract Time, taking into consideration all agreed upon amendments to the Contract Time.

Before the City shall exercise its right to declare Contractor in default by reason of the conditions set forth in items numbered 1, 4-7, 10-13, or 14, it shall give Contractor an opportunity to be heard, on two days' notice, at which hearing Contractor may have a stenographer present; provided, however, that a copy of such stenographic notes, if any, shall be furnished to the City.

The right to declare in default for any of the grounds specified or referred to above shall be exercised by sending Contractor a notice, signed by the Engineer, setting forth the grounds upon which such default is declared. Upon receipt of such notice, Contractor shall immediately discontinue all further operations under this Contract and shall immediately quit the site, leaving untouched all plant, materials, equipment, tools and supplies then on the site.

11. COMPLETION OF THE WORK AFTER DEFAULT

The City, after declaring Contractor in default, may then have the Work completed by such means and in such manner, by contract with or without public letting or otherwise, as it may deem advisable, utilizing for such purpose such of Contractor's plant, materials, equipment, tools, and supplies remaining on the site, and also such subcontractors as it may deem advisable.

After such completion, the Engineer shall make a certificate stating the expense incurred in such completion, which shall include the cost of re-letting and also the total amount of liquidated damages (at the rate provided for in the Specifications) from the date when the Work should have been completed by Contractor in accordance with the Contract Documents to the date of actual completion of the Work. Such certificate shall be binding and conclusive upon Contractor in accordance with the terms hereof to the date of actual completion of the Work. Such certificate shall be binding and conclusive upon Contractor, Contractor's Sureties, and any person claiming under Contractor, as to the amount thereof.

The expense of such completion, as so certified by the Engineer shall be charged against and deducted out of such monies as would have been payable to Contractor

if it had completed the Work; the balance of such monies, if any, subject to the other provisions of this Contract, to be paid to Contractor without interest after such completion. Should the expense of such completion exceed the total sum which would have been payable under this Contract if the same had been completed by Contractor, any such excess shall be paid by Contractor to the City upon demand. If Contractor fails to pay the City promptly for such excess costs, the City may at its discretion submit a claim to Contractor's Surety for such reimbursements.

12. PARTIAL DEFAULT

In case the City shall declare Contractor in default as to a part of the Work only, Contractor shall discontinue such part, shall continue performing the remainder of the Work in strict conformity with the terms of the Contract, and shall in no way hinder or interfere with any other contractors or persons whom the City may engage to complete the Work as to which Contractor was declared in default.

The provisions of the clauses herein relating to declaring Contractor in default as to the entire Work shall be equally applicable to a declaration of partial default, except that the City shall be entitled to utilize for completion of the Work as to which Contractor was declared in default only such plant, materials, equipment, tools and supplies as had been previously used by Contractor on such part.

13. TERMINATION OF CONTRACTOR'S RESPONSIBILITY

Except as otherwise provided for in these Specifications and in Contractor's bond, Contractor's responsibility for all Work and materials under this Contract shall continue until the expiration date of the warranty. The warranty shall commence on the date of Final Completion of the Work.

SECTION VIII - MEASUREMENT AND PAYMENT

1. MEASUREMENT OF QUANTITIES

Measurement of all Work acceptably completed will be made in accordance with the system in which the Contract is let, either U.S. Standard or International System (metric). Such measurements will be used as a basis for the computation of the quantities of Work performed. Quantities designated to be measured by linear units will be taken horizontally. Where Work is to be paid for by units of length, area, volume or mass, only the net amount of Work actually performed, as it shall appear in the finished Work and measured as hereinafter specified shall be paid for, local customs to the contrary notwithstanding. Calculation of area quantities where the computation of the areas by geometric methods would be comparatively laborious, it is stipulated and agreed that the City's computer aided drafting system shall be used as the method of measurement.

2. SCOPE OF PAYMENT

Contractor shall receive and accept the compensation as herein provided, in full payment for furnishing all materials, labor, tools, equipment, royalties, fees, insurance, permits, bonds, etc., and for performing all Work contemplated and embraced under the Contract, also for all loss or damage arising out of the nature of the Work, or from the action of the elements, the expiration of the warranty to the City, and for all risks connected with the prosecution of the Work, also for all expenses incurred by, or in consequence of the suspension or discontinuance of said prosecution of the Work as herein specified, and for completing all of the Work embraced in the Contract.

3. WORK COVERED BY CONTRACT PRICE

Contractor shall, under Contractor's contract unit prices, furnish and pay for, all material and incidental work, furnish all accessories, and do everything which may be necessary to carry out the Contract in good faith, which contemplates everything completed, in good working order, of good material, with good and accurate workmanship.

4. BASIS OF PAYMENT

Where Work is to be paid by linear, area, volume, mass, or by each individual units Contractor's cost for all materials, labor, tools and equipment required to complete the Work, notwithstanding that while the Work may not be fully shown on the drawings, it may be described in the Specifications and vice-versa.

5. PAYMENTS FOR INCREASED OR DECREASED QUANTITIES

Whenever the quantity of any item of Work as given in the Proposal shall be increased or decreased, payment for such item of Work will be made on the basis of the actual quantity completed at the unit price for such item named in the Proposal, except as otherwise provided in Section III - Paragraph 2 of these General Conditions, and in the detail Specifications for each class of Work.

6. PAYMENT FOR SURPLUS MATERIALS

Payment for materials that have been ordered in furtherance of the Work, but that are not to be used because (1) of cancellation of the Contract or a portion thereof; (2) of an order to terminate the Work before completion of the entire unit; or (3) the quantity ordered by the Engineer was in excess of the quantity needed, will be made in accordance with this section, unless Contractor or one of Contractor's suppliers elects to take possession of the surplus material without expense to the City.

Payment for surplus materials that have been purchased and shipped or delivered to the Project will be made at the Contract bid price when the pay item covers the furnishing and delivering of the material only.

When the Contract bid price covers the furnishing and placing of the material, the City will take possession of the surplus materials that have been purchased and shipped or delivered to the Project, or will order the material returned to the supplier for credit and will pay the Contractor the actual purchase price of the material plus transportation costs, to which will be added fifteen percent (15%) of the total thereof, and from which will be deducted any credits received by the Contractor for materials returned.

Materials that have been ordered but have not been consigned for shipment shall be paid for upon delivery the same as materials in transit or delivered only when the supplier is unwilling to cancel or modify the order such as in the case of materials requiring special manufacture, fabrication, or processing so as to be unsuitable for general use.

In no case shall payment for surplus materials exceed the Contract Price for the materials complete in place. Contractor shall furnish invoices or an affidavit showing the purchase price and transportation charges on materials to be taken over by the City.

Surplus materials that are taken over by the City shall be delivered to the storage sites designated by the Engineer.

Except as above provided, no payment shall be made to Contractor for any materials that are not incorporated in the Work. Materials shall be ordered in the quantities needed unless a specific quantity is to be furnished by direct order of the Engineer.

7. CLAIMS AND PROTESTS

A. General

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term “Claim” also includes other disputes and matters in question between the City and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section does not require the City to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

B. Time Limit on Claims

The City and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of this Section and within the period specified by applicable law, but in any case not more than one year

after the date of Substantial Completion of the Work. The City and Contractor waive all Claims and causes of action not commenced in accordance with this Section.

C. Notice of Claims

Claims by either the City or Contractor shall be initiated by notice to the other party and shall be initiated within ten (10) days after occurrence of the event giving rise to such Claim or within ten (10) days after the claimant first recognizes, or reasonably should have recognized, the condition giving rise to the Claim, whichever is later. Any Claim not made within ten (10) days shall be deemed waived.

D. Continuing Contract Performance

Pending final resolution of a Claim, except as otherwise agreed in writing, Contractor shall proceed diligently with performance of the Contract and the City shall continue to make payments in accordance with the Contract Documents. The Contract Price and Contract Time shall be adjusted in accordance with the resolution of the Claim, subject to the right of either party to proceed in accordance with this section.

E. Claims for Additional Cost

If Contractor wishes to make a Claim for an increase in the Contract Price, notice as provided in Subsection 1C above shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property.

F. Claims for Additional Time

If Contractor wishes to make a Claim for an extension of the Contract Time, Contractor shall request an extension as set forth in Section 4 of the Special Conditions.

G. Mediation

Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in the Contract Documents, shall be subject to mediation as a condition precedent to commencement of litigation. The parties shall endeavor to resolve their Claims by mediation which shall be administered by a mediator mutually agreed upon by the parties.

A request for mediation shall be made in writing, delivered to the other party to the Contract and shall be completed within ninety (90) days from the date the request for mediation was delivered to the other party. The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in Hennepin County, Minnesota, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

8. PAYMENT FOR UNCLASSIFIED AND FORCE ACCOUNT WORK

Unclassified Work authorized by the Engineer, will be paid for at a unit price, lump sum or on a Force Account basis. All Force Account Work shall be paid for in the following manner:

A. For all labor and foremen in the direct charge of the specific Work, Contractor will receive the actual wages paid for each and every hour that said labor and foreman are actually engaged in such Work, plus the cost of bond, insurance and taxes, to which cost shall be added twenty (20) percent of the sum thereof. No charge shall be made by Contractor for organization or overhead expense.

B. For all materials used, Contractor will receive the actual cost of such materials including freight charges as shown by original receipted bills, to which cost shall be added ten (10) percent of the sum thereof. Where materials are specifically purchased for use on Unclassified Work but are taken from Contractor's stock, Contractor shall submit an affidavit of the quantity, price and freight on such materials in lieu of original bills and invoices. This affidavit shall be approved by the Engineer.

C. For any machinery, trucks or equipment, including fuel and lubricants, which it may be deemed necessary or desirable to use, Contractor will receive a reasonable rental price, to be agreed upon in writing before such Work is begun, for each and every hour that said machinery, trucks and equipment are in use on such Work, and to which sum no percentage will be added. Such rental price shall not exceed the rates established by the A.G.C. for this district.

The compensation as herein provided shall be received by Contractor as payment in full for Unclassified Work done by Force Account and said twenty (20) percent for labor and said ten (10) percent for materials shall be agreed to cover profit, superintendence, general expense, overhead, and the use of small tools and equipment for which no rental is allowed.

Contractor or Contractor’s representative and the Engineer or the Engineer’s representative shall compare records of Force Account Work at the end of each day. Copies of these records shall be made in triplicate on Force Account forms, provided for this purpose by the Engineer and signed by both parties. To all such claims for Force Account Work, Contractor shall attach receipted bills for, or affidavit of, materials used and freight receipts covering freight on such materials used, and said claims shall be presented to the Engineer for payment not later than the twentieth (20th) day of the month following that in which the Work was actually performed and shall include all labor charges and material charges insofar as they can be verified.

Should Contractor refuse or fail to prosecute such Unclassified Work as directed, or to submit this claim as required, the City may withhold payment of all current

estimates until Contractor's refusal or failure is eliminated, or, after giving Contractor due notice, the City may make payment for said Work on a basis of a reasonable estimate of the value of the Work performed.

9. PARTIAL PAYMENTS

Unless payments are withheld by the City for reasons herein before stated, payment will be made at least once a month on a basis of ninety-five (95) percent of the Work done, provided that the Work is progressing to the satisfaction of the Engineer; provided further, however, that when ninety-five (95) percent or more of the Work is completed, the City, in its sole discretion, may determine that something less than five (5) percent need be retained to protect the City's interest in satisfactory completion of the Contract.

Monthly estimates may include the value of acceptable materials required for the Work, which have been delivered to the Project, and for which acceptable provisions have been made for the preservation and storage. From the total value of the materials so reported, five (5) percent shall be retained. Such material, when so paid for by the City, shall become the property of the City and in the event of default on the part of Contractor, the City may use or cause to be used such materials in the construction of the Work provided for in the Contract. The amount thus paid by the City for materials shall go to reduce estimates due Contractor as the materials are used in the Work.

Minnesota Statutes, Sections 337.10, subd. 3 and 471.425, subd. 4a, requires that Contractor pay any subcontractors within ten (10) days after receipt of payment from the City for undisputed services provided by the subcontractor. Contractor shall provide proof to the City of payment to subcontractors in the form of check copies or receipts. If Contractor fails to make payments to subcontractors for undisputed Work, Contractor shall pay interest of one and one-half percent (1-1/2%) per month of any amounts not paid on time to subcontractors, with a minimum monthly interest penalty payment of ten dollars ($10).

No release of any retained percentage will be made without the written approval of the Surety or Sureties, which approval shall be obtained by Contractor. Any such release may be optional with the City.

10. FINAL PAYMENT

Upon receipt of Contractor’s notice that the Work is ready for final inspection and acceptance, the Engineer shall promptly make such inspection as provided in section IV(10) of these General Conditions. When the Engineer finds the Work acceptable under the Contract Documents and the Contract fully performed, the Engineer will prepare a final estimate containing complete quantities of each and every item of Work performed by Contractor, and the value thereof (the “Final Pay Estimate”). Upon acceptance of the Final Pay Estimate by Contractor, the Engineer will (i) issue a Certificate of Final Completion; (ii) forward the Certificate of Final

Completion and Final Pay Estimate to the City Finance Director for payment; and (iii) notify Contractor and Contractor's Surety or Sureties of the acceptance of the Work.

The date of Final Completion of the Contract shall be the date on the Certificate of Final Completion and the action of the City by which Contractor is bound and the Contract concluded shall be evidenced by the Certificate of Final Completion and Final Payment. All prior certificates or estimates upon which payments may have been made are merely partial estimates and subject to correction in the final payment.

11. CERTIFICATE OF COMPLIANCE OF MINNESOTA WITHHOLDING TAX

Final payment will not be made until Contractor shall have filed with the City evidence, in the form of an affidavit, lien waiver or such other evidence as may be required, that all claims against Contractor by reason of the Contract have been fully paid or satisfactorily secured. In case such evidence is not furnished, the City may retain out of any amount due said Contractor sums sufficient to cover all lienable claims unpaid.

Before final payment is made for the Work on this project, Contractor must make a satisfactory showing that it has complied with the provisions of Minnesota Statutes Section 290.92 requiring the withholding of State Income Tax for wages paid employees on this project. Receipt by the City Engineer of a Certificate of Compliance from the Commissioner of Taxation will satisfy this requirement. Contractor is advised that before such Certificate can be issued, Contractor must first place on file with the Commissioner of Taxation an affidavit, in the form of an IC-134, that Contractor has complied with the provisions of Minnesota Statutes Section 290.92.

SECTION IX - MISCELLANEOUS PROVISIONS

1. NONDISCRIMINATION.

Contractor agrees:

A. That it shall not, in the hiring of labor or employees for the performance of any work under this Agreement, by reason of any race, creed, color, national origin, sex, gender identity, sexual orientation, or disability discriminate against any person who is qualified and available to perform the Work;

B. That it shall not, in any manner, discriminate against, intimidate or prevent the employment of any person identified in clause (a) of this section, or on being hired, prevent or conspire to prevent, the person from the performance of any

work under this Agreement on account of the persons race, creed, color, national origin, sex, gender identity, sexual orientation, or disability; and

C. That it shall not intentionally refuse to do business with, refuse to contract with, or discriminate in the terms, conditions, or performance of any agreement related to the Work to be performed under this Agreement because of a person's race, creed, color, national origin, sex, gender identity, sexual orientation, or disability, unless the alleged refusal is because of a legitimate business purpose.

2. GOVERNMENT DATA.

Contractor acknowledges that, to the extent this Agreement requires Contractor to perform a government function, all of the data created, collected, received, stored, used, maintained or disseminated by Contractor in performing government functions is subject to the requirements of the Minnesota Government Data Practices Act (Minn. Stat. § 13.01 *et. seq.* the "MGDPA"), except to the extent the data is privileged pursuant to an exception to or exclusion from the MGDPA, and that Contractor must comply with the MGDPA as if Contractor were a government entity, including the remedies in Minn. Stat. §13.08, subject to any other appropriate exception to or exclusion from the MGDPA. Contractor agrees to promptly notify the City of any request for data that Contractor receives related to this Agreement.

3. VENUE AND FORUM.

This Agreement shall be interpreted in accordance with Minnesota law and any suit or litigation between the parties arising out of this Agreement shall be filed, tried and litigated only in Hennepin County District Court in the state of Minnesota.

4. COUNTERPARTS.

This Agreement may be executed in any number of counterparts, including electronically. Each counterpart constitutes an original and all counterparts collectively constitute one and the same instrument. The signatures of the parties need not appear on the same counterpart.

5. ELECTRONIC SIGNATURES.

Except as otherwise stated herein, documents executed, scanned and transmitted electronically and electronic signatures shall be deemed original signatures for purposes of this Agreement and all related matters. All scanned and electronic signatures shall have the same legal effect as original signatures. This Agreement, any other document necessary for the consummation of the transaction contemplated by this Agreement may be accepted, executed or agreed to through the use of an electronic signature in accordance with the Uniform Electronic Transactions Act, Minnesota Statutes Chapter 325L. Any document accepted,

executed or agreed to in conformity with such laws will be binding on each party as if it were physically executed.

6. NOTICES.

Any notices or communications required or permitted by this Agreement must be (i) given in writing; and (ii) personally delivered, mailed, by prepaid certified mail, or transmitted by facsimile or electronic mail transmission (including email or PDF), to the intended party at the mailing address or email address of such party as follows:

To City:
City of Golden Valley
Attn: Tim Kieffer
7800 Golden Valley Road
Golden Valley, MN 55427
tkieffer@goldenvalleymn.gov

To Contractor:

7. SEVERABILITY

If any term or provision of the Contract Documents shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby and such provision shall be ineffective only to the extent of such invalidity, illegality or unenforceability.

8. NO WAIVER OF LEGAL RIGHTS

Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law. No action or failure to act by the City, or Engineer shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

APPENDICIES

Appendix A - Technical Specifications and Planting Details for Furnishing and Installation of Trees and Shrubs

Appendix B - Construction Striper Operations Daily Log

Appendix C - Asbestos and PCB Information Sheets

Appendix D - Erosion Control Inspection Form

Appendix E - Accessibility, Design, Policy and Implementation Manual for Public Rights-of-Way

Appendix F - Sewer/Water Utility – Tracer Wire Specification

Appendix G - Online Bidding Instructions

Appendix H - Geotechnical Investigation

Appendix I - Suspension/Debarments Notice to Bidders

Appendix J - State Funded Contract Special Provisions Division A - Labor

Appendix K - Prevailing Wages for State Funded Construction Projects

Appendix L - Notice of Truck Rental Rate Certification and Effective Date

Appendix M - Union Pacific Railroad Pipeline Crossing Agreement 03328-47

Appendix N - Union Pacific Railroad Pipeline Encroachment Agreement 0783985

Appendix O - RailPros Project and Billing Form

Appendix P - Union Pacific Railroad Third-Party Flagging Policy

Appendix Q - Union Pacific Railroad Work Plan Form

Appendix R- Union Pacific Railroad Guidelines for Track & Ground Monitoring

Appendix S - Union Pacific Railroad Guidelines for Temporary Shoring

Appendix T - Union Pacific Railroad Contractor Safety Requirements

Appendix A

Technical Specifications and Planting Details for Furnishing and Installation of Trees and Shrubs

TECHNICAL SPECIFICATIONS AND PLANTING DETAILS
FOR
FURNISHING AND INSTALLATION OF TREES AND SHRUBS

GENERAL: Requirements of the Conditions of the Contract and General Conditions of these Specifications apply to all work under this section.

GENERAL PROVISIONS

1. PLANT MATERIAL

   A. Nursery stock shall meet the American Standard for Nursery Stock, ANSI-Z60.1 latest edition, of the American Association of Nurserymen, as to grading and quality. All plant material shall be labeled true to type and name in accordance with the standardized plant names.

   B. All plant material shall be nursery grown, freshly dug, true to natural form, well branched, self-supporting with one straight, original terminal leader intact.

   C. All plant material shall be free of insect infestations, and shall have been grown under climatic conditions as specified in the planting detail.

   D. All plant material shall be of the size no less than as indicated on the plant material list, and have been root pruned or transplanted once between October 1989 and December 1993.

   E. All plant material shall be inspected and selected by the City Forester at the place of growth and upon delivery for conformity to Specification requirements. Such approval shall not impair the right of inspection and rejection during the installation process.

2. DIGGING AND HANDLING

   A. All trees shall be adequately balled in burlap (BB) in sizes as specified in the planting detail. Trees with loose, broken or manufactured balls will be rejected.

   B. Balled in burlap (BB) plants that cannot be planted immediately on delivery shall be set on unfrozen ground, and be well protected with soil, hay, mulch, wood chips or other acceptable material. Plant materials which are stored at the site and which have excessively dry tops and root balls, or frozen root balls, shall be rejected and replaced.

3. PLANTING (also see planting details)

A. Locations - Before any excavation is to begin, the City Forester shall stake locations of all plantings. The Contractor will be furnished with a plan indicating the species to be planted and their locations.

B. Backfill Soil - Use soil excavated from planting holes. Remove all debris including rocks larger than 3" in diameter. All backfill soils replaced around the planting ball shall be well compacted, or the Contractor will be asked to return and complete the job.

C. Root Collar - Remove all materials used to secure the root ball/basket to the root collar (see planting detail).

D. Mulch Material - Mulch for all trees and shrub beds shall be processed shredded hardwood mulch, free from any soil, twigs, leaves, rock, weeds and synthetic matter (see mulching detail for requirements).

E. Watering Guidelines - All plant materials must be watered in at the time of planting by the Contractor, and according to the following guidelines.

Plant Type	Average amount of water per application (gallons)
Machine Transplanted Trees (25" caliper +)	50-100
Balled and Burlap Trees	20
Balled and Burlap Shrubs	10
Container Shrubs	7

F. Tree Wrapping - When planting in fall, wrap all smooth-barked tree trunks up to the first functional crotch with wrapping material specifically designed and manufactured for horticultural use.

G. Tree Pruning - Prune plants only at time of planting, and according to standard horticulture practice, to preserve the natural character and branch structure of the plant. Remove all dead or broken branches and competing terminal branches at time of planting. Also, remove any identification labels.

H. Tree Staking - No plant materials shall be staked unless specifically approved by the City Forester. If all planting guidelines are followed correctly, tree staking will not be necessary. If a tree leans or rotates in its planting bed during the warranty period, the Contractor will replant the tree by the end of the warranty period.

I. Planting Beds - All planting beds to be mulched will be marked by the City Forester. City crews will remove the sod in these areas prior to planting and edging.

4. MAINTENANCE

Maintenance shall begin immediately after planting begins, and shall continue in accordance with the following requirements.

A. All plant materials shall be protected and maintained until November 15 of the year following the initial planting.

B. Maintenance shall include, but not be limited to; watering, cultivating, mulching, removal of dead material and re-setting plants to proper depth or upright positions. Any damage to adjoining landscaping shall be the responsibility of the Contractor, and shall be repaired or replaced to the City Forester's satisfaction with no additional compensation.

5. ACCEPTANCE OF WORK

A. Prior to the end of the guarantee period, the City Forester will make an inspection of the Project and notify the Contractor of any dead, defective or missing plants that must be replaced, and as to any other work that must be performed prior to acceptance. Replacements may not be required where, in the opinion of the Forester, the planting design is not adversely affected. Dead or defective plants shall be removed and replaced where so ordered.

B. Where replacements are required, the Contractor will be ordered to furnish and install the replacement plants immediately, or at the beginning of the next planting season, as the Forester considers most appropriate. As a condition for acceptance of this work, plant maintenance operations shall not be past due at the time of the final inspection.

6. PLANT GUARANTEE AND REPLACEMENT

A. Guarantee plant material for two full years minimum, and not less than two continuous growing seasons from time of installation.

B. At the end of the guarantee period, an inspection will be made. Any tree installed under this Contract that is dead or does not meet the standard plant material guidelines shall be removed. These and any trees missing shall be replaced as soon as conditions permit, but during the normal planting season (see planting detail). In the case of any questions regarding the marginal condition and/or satisfactory establishment of an individual tree, the City may elect to allow such tree to remain through another complete growing season at which time the tree, if found to be dead or in an unhealthy or badly impaired condition, shall be replaced.

C. All replacements shall be trees of the same kind and size as specified in the specification list. Trees larger than those specified may be substituted upon approval of the City Engineer. They shall be furnished and replaced as specified in the Contract; the cost shall be borne by the Contractor.

Appendix B

Construction Striper Operations Daily Log

Construction Striper Operations Daily Log

Mn/DOT District	County	City	S.P.
Route Designation	Route Number	*Beginning M.P.	*Ending M.P.
Mn/DOT Proj. Contact		Mn/DOT Proj. Contact #	
Location Description			
Date Striped	Contractor		
Striper ID	Striper Operator	Striper Operator Contact #	

Mn/DOT Proj. Contact | **Mn/DOT Proj. Contact #**

Location Description

Date Striped | **Contractor**

Striper ID | **Striper Operator** | **Striper Operator Contact #**

**Mile Post Reference (NOT Station) are required for each form and should reference actual striping not just project limits*

Materials

☐ Latex ☐ Epoxy ☐ Poly-Preform ☐ Thermoplastic ☐ Other Material ( ) ☐ Wet Reflective *(WR)*

Supplier	Product	Lot #	White-Gallons/Mils /
Supplier	Product	Lot #	Yellow-Gallons/Mils /
Supplier	Product	Lot #	Other ( ) Gal/Mils /
Beads Supplier	Product	Lot #	Beads = lbs
*(WR)*Beads Supplier	*(WR)*Product	*(WR)*Lot #	*(WR)*Beads lbs

Environmental Information

☐ Bit ☐ Concrete ☐ Sealcoat ☐ Microsurface ☐ Other Surface (Specify) ☐ Rumble strip

Road Surface Age ☐ Old ☐ New (Includes Milled Surfaces) ☐ Inlaid ☐ Ground-In ☐ Grooved Depth Mils

☐ Other Placement Method (Specify) Ambient Temp (°F)

Surface Temp (°F)	Humidity (%)	Dew Point (°F)	Wind Direction/Speed /	Sunny/Cloudy/Mix

Longitudinal Lines	Quantity (ft)		Quantity (ft)		Quantity (ft)
☐ 4" Solid White		☐ 4" Solid Yellow		☐ 8" Dotted White	
☐ 6" Solid White		☐ 4" Double Solid Yellow		☐ 7" Broken White	
☐ 8" Solid White		☐ 6" Solid Yellow		☐ 7" Dotted White	
☐ 12" Solid White (1)		☐ 24" Solid Yellow (3)		☐ 11" Broken White	
☐ 24" Solid White (2)		☐ 7" Solid Yellow		☐ 11" Dotted White	
☐ 36" Solid White		☐ 4" Broken White		☐ 4" Broken Yellow	
☐ 7" Solid White		☐ 4" Dotted White		☐ 7" Broken Yellow	
☐ 11" Solid White		☐ 8" Broken White			
☐ Other (Specify)					

(1) use for Stop Bars and Crosshatching, (2) use for Stop Bars, Crosshatching and Airplane Markers, (3) use for Crosshatching

Pavement Messages	Quantity (ea)		Quantity (ea)		Quantity (ea)
☐ Left Arrow		☐ Right-Thru-Left Arrow		☐ "SCHOOL XING"	
☐ Left-Thru Arrow		☐ Handicapped Symbol		☐ "TRAIL XING"	
☐ Thru Arrow		☐ HOV Diamond Symbol		☐ "SIGNAL AHEAD"	
☐ Right Arrow		☐ "AIRPLANE MARKER"		☐ "STOP"	
☐ Right-Thru Arrow		☐ "ONLY"		☐ "STOP AHEAD"	
☐ Fish-Hook Arrow		☐ "PED XING"		☐ Bike Symbol	
☐ Transition Arrow		☐ "RR XING"			Quantity (ft^2)
☐ Other (Specify)				☐ Zebra Crosswalk	

Comments_____

_____

_____

_____

Mail Original to: Office of Traffic, Safety and Technology
Attn: Pavement Marking Engineer (Ethan Peterson)
1500 W. County Road B2, Mailstop 725
Roseville, MN 55113

Or Fax to: 651-234-7370

Appendix C

Asbestos and PCB Information Sheets

ASBESTOS INFORMATION SHEET

Non-friable asbestos is present in some pipe wrap found on old piping within CenterPoint Energy's gas distribution system. This information sheet was prepared to provide interested parties with facts about asbestos as found in our system.

What is asbestos? Asbestos is a group of silicate minerals formerly added to products to provide strength or insulating properties. Asbestos handling and disposal is closely regulated by the MN Pollution Control Agency (MPCA), OSHA, and MN Department of Health (MDH).

Are there different kinds of asbestos? Asbestos can be placed into two broad categories, friable and non-friable. Friable asbestos can easily become airborne and is hazardous to handle. Non-friable asbestos cannot be crumbled to a powder under hand pressure and is not hazardous if handled correctly.

Where is asbestos found in CenterPoint Energy's system? Asbestos is no longer present in any new products used by CenterPoint Energy. However, in the past, asbestos was used to strengthen pipe wrap, and some of the pipe that is coated with asbestos-containing wrap remains in service. Asbestos may also be found in some old gaskets used by CenterPoint Energy. The asbestos present in pipe wrap and gaskets is considered non-friable.

How does CenterPoint Energy comply with asbestos regulations? Before starting a project that may require handling of pipe, CenterPoint Energy determines if the pipe was installed during the period when asbestos-containing wrap was used. If there is a potential that the wrap contains asbestos, a MDH Certified professional collects a sample of the wrap. The sample is analyzed and if asbestos is detected, certain handling requirements must be followed. The MPCA allows abandoned pipe with asbestos-containing wrap to be left in the ground. In fact, in most instances they prefer that it be left undisturbed. However, if it is necessary to remove the pipe, CenterPoint Energy's crews and contractors have been trained in the proper handling and disposal procedures.

What are the health and safety considerations? Non-friable asbestos does not present a health hazard if handled properly. Only procedures that could cause the asbestos to become airborne would make non-friable asbestos hazardous. Procedures to be avoided include cutting, grinding, and otherwise crushing the materials. CenterPoint Energy crews and contractors have been trained in proper handling of our asbestos-containing wrap to minimize exposure to themselves or the public.

Who can I contact at CenterPoint Energy if I have more questions about asbestos?

Customer Service
Residential: (612) 372-4727
Commercial: (612) 321-4939

Appendix D

Erosion Control Inspection Form

Erosion Control Inspection Sheet

Project:
Contractor: **Phone:**

INSPECTIONS MUST BE CONDUCTED ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL. ALL SEDIMENT CONTROLS MUST BE INSTALLED PRIOR TO GRADING AND WITHIN 7 DAYS OF FIRST GRUBBING

Type of Inspection (circle)	**Routine**	**>0.5" Rain**
Erosion Control Supervisor:		
Date:		
Time:		

TEMPORARY STABILIZATION		
1. Have all dormant, disturbed areas been temporarily stabilized in their entireties?	**Yes**	**No**
SILT FENCE		
1. Is the fence at least 4" to 6" into the ground?	**Yes**	**No**
2. Is the trench backfilled to prevent runoff from cutting underneath the fence?	**Yes**	**No**
3. Is the fence pulled tight so it won't sag when water builds up behind it?	**Yes**	**No**
4. Are the ends brought upslope of the rest of the fence so as to prevent runoff from going around the ends?	**Yes**	**No**
5. Is the fence placed on a level contour? If not, the fence will only act as a diversion.	**Yes**	**No**
6. Have all the gaps and tears in the fence been eliminated.	**Yes**	**No**
INLET PROTECTION		
1. Does water pond around the inlet when it rains?	**Yes**	**No**
2. Has the fabric been replaced when it develops tears or sags?	**Yes**	**No**
3. For curb inlet protection, does the fabric cover the entire grate, including the curb window? For yard inlet protection, does the structure encircle the entire grate?	**Yes**	**No**
4. Is the fabric properly entrenched or anchored so that water passes through it and not under it?	**Yes**	**No**
5. For yard inlet protection, is the fabric properly supported to withstand the weight of water and prevent sagging? The fabric should be supported by a wood frame with cross braces, or straw bales.	**Yes**	**No**

NON-SEDIMENT POLLUTION CONTROL

1. Has an area been designated for washing out concrete trucks? Washings must be contained on site within a bermed area until they harden. The washings should never be directed toward a watercourse, ditch or storm drain.	**Yes**	**No**
2. Are streets swept as often as necessary to keep them clean and free from sediment?	**Yes**	**No**
3. Are stockpiles of soil or other materials stored away from any watercourse, ditch or storm drain?	**Yes**	**No**

NOTES:

NOTES ON CORRECTIONS MADE: **DATE**

SIGNATURE:

Appendix E

Accessibility, Design, Policy and Implementation Manual for Public Rights-of-Way

Accessibility, Design, Policy and Implementation Manual for Public Rights-of-Way

A COPY OF THE COMPLETE MANUAL IS AVAILABLE AT THE OFFICE OF THE CITY ENGINEER

Appendix F

Sewer/Water Utility – Tracer Wire Specification

Sewer/Water Utility - Trace Wire Specification

Materials

General

All trace wire and trace wire products shall be domestically manufactured in the U.S.A.

All trace wire shall have HDPE insulation intended for direct bury, color coated per APWA standard for the specific utility being marked.

Trace wire

- **Open Trench -** Trace wire shall be #12 AWG Copper Clad Steel, High Strength with minimum 450 lb. break load, with minimum 30 mil HDPE insulation thickness.
- **Directional Drilling/Boring -** Trace wire shall be #12 AWG Copper Clad Steel, Extra High Strength with minimum 1,150 lb. break load, with minimum 30 mil HDPE insulation thickness.
- **Trace wire – Pipe Bursting/Slip Lining -** Trace wire shall be 7 x 7 Stranded Copper Clad Steel, Extreme Strength with 4,700 lb. break load, with minimum 50 ml HDPE insulation thickness.

Connectors

- All mainline trace wires must be interconnected in intersections, at mainline tees and mainline crosses. At tees, the three wires shall be joined using a single 3-way lockable connector. At Crosses, the four wires shall be joined using a 4-way connector. Use of two 3-way connectors with a short jumper wire between them is an acceptable alternative.
- **Direct bury wire connectors** – shall include 3-way lockable connectors and mainline to lateral lug connectors specifically manufactured for use in underground trace wire installation. Connectors shall be dielectric silicon filled to seal out moisture and corrosion, and shall be installed in a manner so as to prevent any uninsulated wire exposure.
- Non locking friction fit, twist on or taped connectors are prohibited.

Termination/Access

- All trace wire termination points must utilize an approved trace wire access box (above ground access box or grade level/in-ground access box as applicable), specifically manufactured for this purpose.
- All grade level/in-ground access boxes shall be appropriately identified with “sewer” or “water” cast into the cap and be color coded.
- A minimum of 2 ft. of excess/slack wire is required in all trace wire access boxes after meeting final elevation.
- All trace wire access boxes must include a manually interruptible conductive/connective link between the terminal(s) for the trace wire connection and the terminal for the grounding anode wire connection.
- Grounding anode wire shall be connected to the identified (or bottom) terminal on all access boxes.

This Standard specification was prepared by Joe Rubbelke (joe.rubbelke@gmail.com), Jeff Dale (jeff.dale@mrwa.com) and Frank Stuemke (frank.stuemke@mrwa.com), and is a work-in-progress, intended for redistribution, modification and immediate use by any municipality (March 2014). The end user must accept all liabilities and hold harmless the contributors of this information.

Sewer/Water Utility - Trace Wire Specification

- **Service Laterals on public property** - Trace wire must terminate at an approved grade level/in-ground trace wire access box, located at the edge of the road right-of-way, and out of the roadway.
- **Service Laterals on private property** - Trace wire must terminate at an approved above-ground trace wire access box, affixed to the building exterior directly above where the utility enters the building, at an elevation not greater than 5 vertical feet above finished grade, or terminate at an approved grade level/in-ground trace wire access box, located within 2 linear feet of the building being served by the utility.
- **Hydrants** – Trace wire must terminate at an approved above-ground trace wire access box, properly affixed to the hydrant grade flange. (affixing with tape or plastic ties shall not be acceptable)
- **Long-runs, in excess of 500 linear feet without service laterals or hydrants** - Trace wire access must be provided utilizing an approved grade level/in-ground trace wire access box, located at the edge of the road right-of-way, and out of the roadway. The grade level/in-ground trace wire access box shall be delineated using a minimum 48" polyethylene marker post, color coded per APWA standard for the specific utility being marked.

Grounding

- Trace wire must be properly grounded at all dead ends/stubs
- Grounding of trace wire shall be achieved by use of a drive-in magnesium grounding anode rod with a minimum of 20ft of #14 red HDPE insulated copper clad steel wire connected to anode (minimum 0.5 lb.) specifically manufactured for this purpose, and buried at the same elevation as the utility.
- When grounding the trace wire at dead ends/stubs, the grounding anode shall be installed in a direction 180 degrees opposite of the trace wire, at the maximum possible distance.
- When grounding the trace wire in areas where the trace wire is continuous and neither the mainline trace wire or the grounding anode wire will be terminated at/above grade, install grounding anode directly beneath and in-line with the trace wire. Do not coil excess wire from grounding anode. In this installation method, the grounding anode wire shall be trimmed to an appropriate length before connecting to trace wire with a mainline to lateral lug connector.
- Where the anode wire will be connected to a trace wire access box, a minimum of 2 ft. of excess/slack wire is required after meeting final elevation.

Installation

General

- Trace wire installation shall be performed in such a manner that allows proper access for connection of line tracing equipment, proper locating of wire without loss or deterioration of low frequency (512Hz) signal for distances in excess of 1,000 linear feet, and without distortion of signal caused by multiple wires being installed in close proximity to one another.
- Trace wire systems must be installed as a single continuous wire, except where using approved connectors. No looping or coiling of wire is allowed.

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Sewer/Water Utility - Trace Wire Specification

- Any damage occurring during installation of the trace wire must be immediately repaired by removing the damaged wire, and installing a new section of wire with approved connectors. Taping and/or spray coating shall not be allowed.
- Trace wire shall be installed at the bottom half of the pipe and secured (taped/tied) at 5' intervals.
- Trace wire must be properly grounded as specified.
- Trace wire on all service laterals/stubs must terminate at an approved trace wire access box located directly above the utility, at the edge of the road right-of-way, but out of the roadway. (See Trace wire Termination/Access)
- At all mainline dead-ends, trace wire shall go to ground using an approved connection to a drive-in magnesium grounding anode rod, buried at the same depth as the trace wire. (See Grounding)
- Mainline trace wire shall not be connected to existing conductive pipes. Treat as a mainline dead-end, ground using an approved waterproof connection to a grounding anode buried at the same depth as the trace wire.
- All service lateral trace wires shall be a single wire, connected to the mainline trace wire using a mainline to lateral lug connector, installed without cutting/splicing the mainline trace wire.
- In occurrences where an existing trace wire is encountered on an existing utility that is being extended or tied into, the new trace wire and existing trace wire shall be connected using approved splice connectors, and shall be properly grounded at the splice location as specified.

Sanitary Sewer System

- A mainline trace wire must be installed, with all service lateral trace wires properly connected to the mainline trace wire, to ensure full tracing/locating capabilities from a single connection point.
- Lay mainline trace wire continuously, by-passing around the outside of manholes/structures on the North or East side.
- Trace wire on all sanitary service laterals must terminate at an approved trace wire access box color coded green and located directly above the service lateral at the edge of road right of way.

Water System

- A mainline trace wire must be installed, with all service lateral trace wires properly connected to the mainline trace wire, to ensure full tracing/locating capabilities from a single connection point.
- Lay mainline trace wire continuously, by-passing around the outside of valves and fittings on the North or East side.
- Trace wire on all water service laterals must terminate at an approved trace wire access box color coded blue and located directly above the service lateral at the edge of road right of way.
- Above-ground tracer wire access boxes will be installed on all fire hydrants.
- All conductive and non-conductive service lines shall include tracer wire.

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Sewer/Water Utility - Trace Wire Specification

Storm Sewer System

This section shall be included at the discretion of the facility owner.

- If the storm sewer system includes service laterals for connection of private drains and tile lines, it shall be specified the same as a sanitary sewer application.
- Lay mainline trace wire continuously, by-passing around the outside of manholes/structure on the North or East side.

Prohibited Products and Methods

The following products and methods shall not be allowed or acceptable

- Uninsulated trace wire
- Trace wire insulations other than HDPE
- Trace wires not domestically manufactured
- Non locking, friction fit, twist on or taped connectors
- Brass or copper ground rods
- Wire connections utilizing taping or spray-on waterproofing
- Looped wire or continuous wire installations, that has multiple wires laid side-by-side or in close proximity to one another
- Trace wire wrapped around the corresponding utility
- Brass fittings with trace wire connection lugs
- Wire terminations within the roadway, i.e. in valve boxes, cleanouts, manholes, etc.
- Connecting trace wire to existing conductive utilities

Testing

All new trace wire installations shall be located using typical low frequency (512Hz) line tracing equipment, witnessed by the contractor, engineer and facility owner as applicable, prior to acceptance of ownership.

This verification shall be performed upon completion of rough grading and again prior to final acceptance of the project.

Continuity testing in lieu of actual line tracing shall not be accepted.

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Sewer/Water Utility - Trace Wire Specification

Products

The following products have been deemed acceptable and appropriate. These products are a guide only to help you choose the correct applications for your tracer wire project.

- Copper clad Steel (CCS) trace wire
  - Open Trench – Copperhead #12 High Strength part # 1230-HS
  - Directional Drilling/Boring - Copperhead Extra High Strength part # 1245*EHS
  - Pipe Bursting/Slip Lining – Copperhead SoloShot Extreme Strength 7 x 7 Stranded part # PBX-50
- Connectors
  - Copperhead 3-way locking connector part # LSC1230*
  - DryConn 3- way Direct Bury Lug: Copperhead Part # 3WB-01
- Termination/Access
  - Non-Roadway access boxes applications: Trace wire access boxes Grade level Copperhead adjustable lite duty Part # LD14*TP
  - Concrete / Driveway access box applications: Trace wire access boxes Grade level Copperhead Part # CD14*TP 14”
  - Fire hydrant trace wire access box applications: Above ground two terminal with 1” conduit. Copperhead part # T3-75-F (Cobra T3 Test Station, denoting “F” includes mounting flange)
- Grounding
  - Drive in Magnesium Anode: Copperhead Part # ANO-1005 (1.5 lb)

Manufacture product options:

The information provided by Copperhead Industries gives you product options to help you choose the correct wire – termination/access points – connectors and grounding products. Other manufactures provide these products; this information is only a guide.

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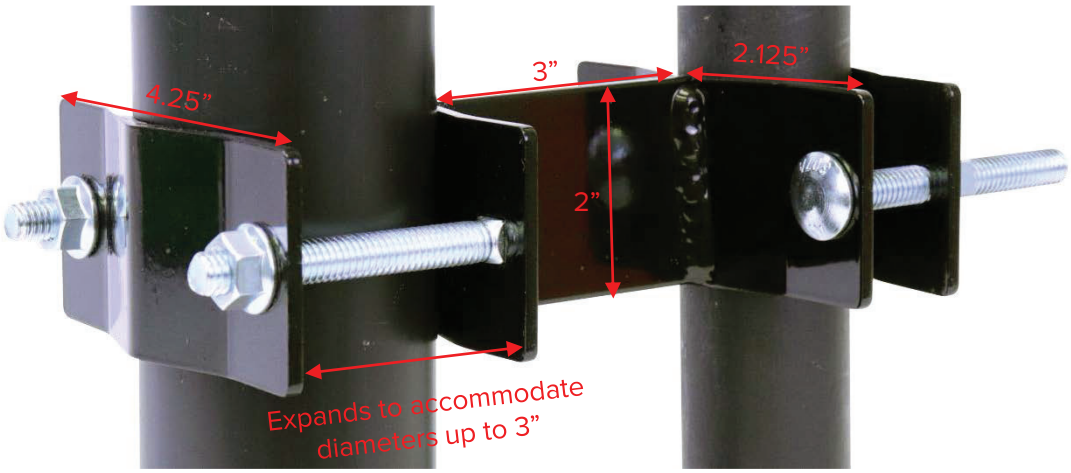
SnakePit Bracket

Accessory for SnakePit® Access Points

APPLICATION

Secures SnakePit® Access Point to curb box to keep in place during backfill and future ground shifting.



SnakePit Access Point (sold separately)

Curb Box (not included)

***SP-BRACKET** - SnakePit Bracket*

SPECIFICATIONS

MATERIAL AND DESIGN

Bracket Material

- 3/16” steel arm
- 10 AWG steel brackets
- Black powder-coated finish
- Includes hardware
  - 4 - 4” zinc-plated bolts
  - 4 nuts

Shape

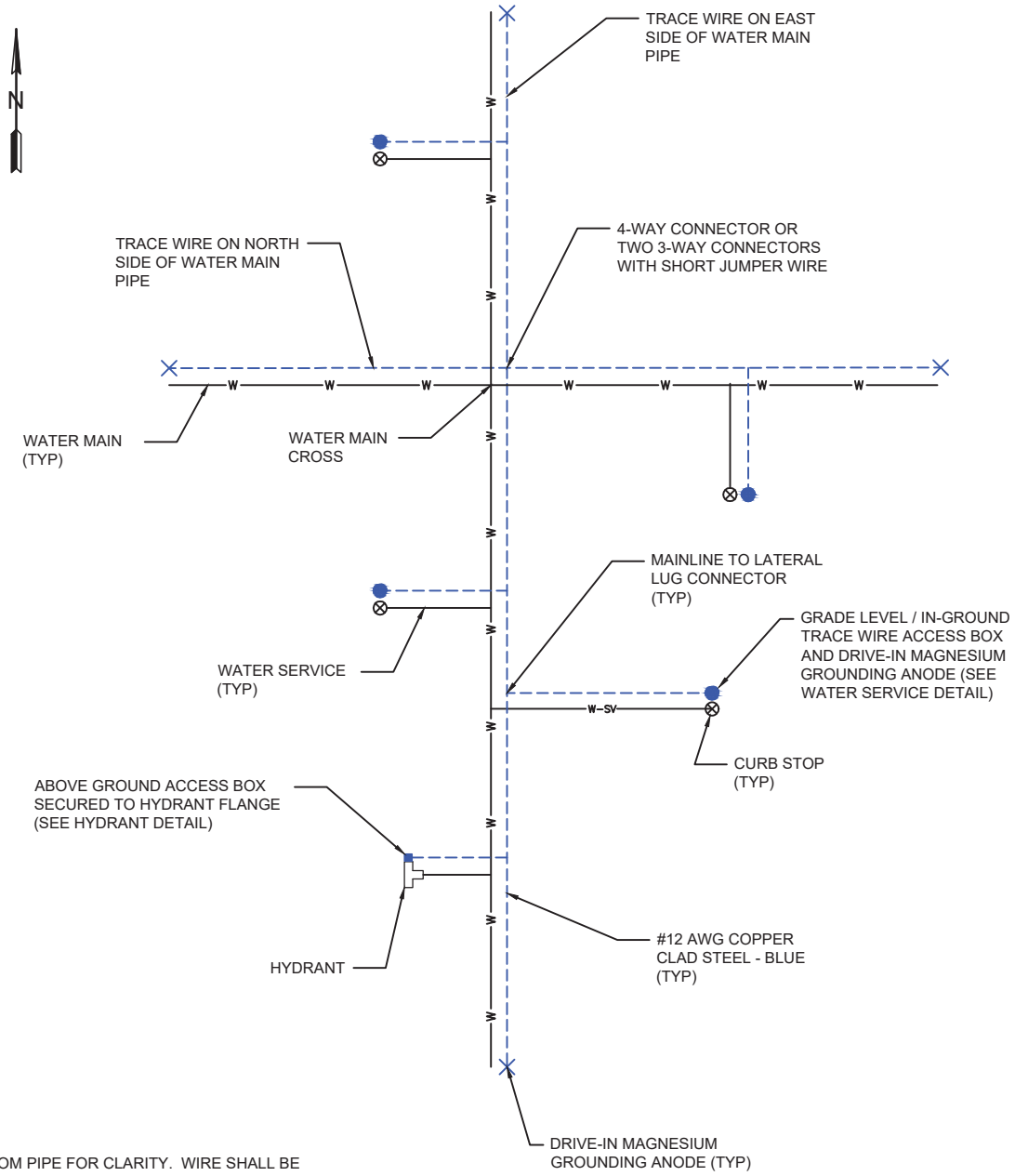
- “I” shape with brackets at each end
- Brackets at ends expand to accommodate diameters up to 3”

QUALITY ASSURANCE

- Copperhead products are manufactured under a quality control system that ensures products are free of defects and meet performance requirements.
- Copperhead provides best-in-class customer service. We promise to put forth our best efforts for our customers and to treat everyone we encounter with courtesy and respect.

FEATURES AND BENEFITS

- Secures SnakePit® Access Point to curb box
- Eliminates shifting of SnakePit® Access Point during backfilling and/or ground settling
- Fits all SnakePit® Access Points



NOTES:
1. WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED ON THE BOTTOM SIDE OF THE PIPE BELOW THE SPRING LINE. THE WIRE SHALL BE FASTENED TO THE PIPE WITH TAPE OR PLASTIC TIES AT 5' INTERVALS.

TRACE WIRE PLAN (WATER)

NO SCALE

MINNESOTA RURAL WATER ASSOCIATION
STANDARD DETAIL

TRACE WIRE
SAMPLE WATER PLAN

May 28, 2014

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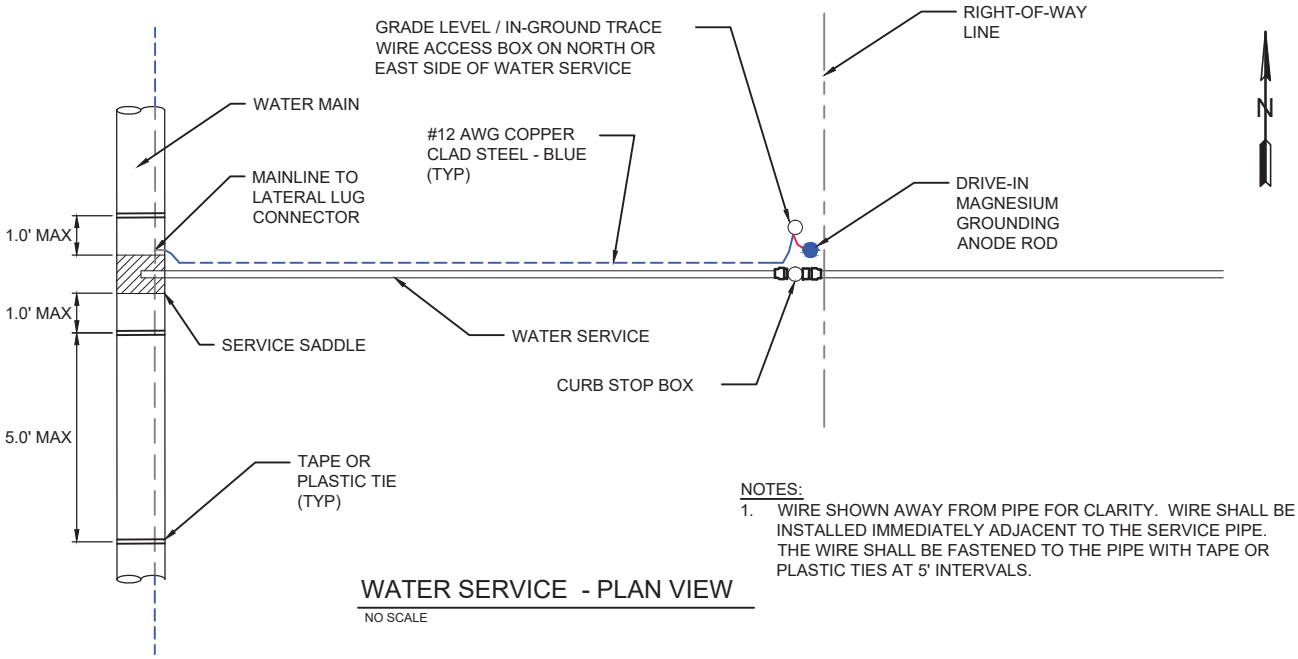
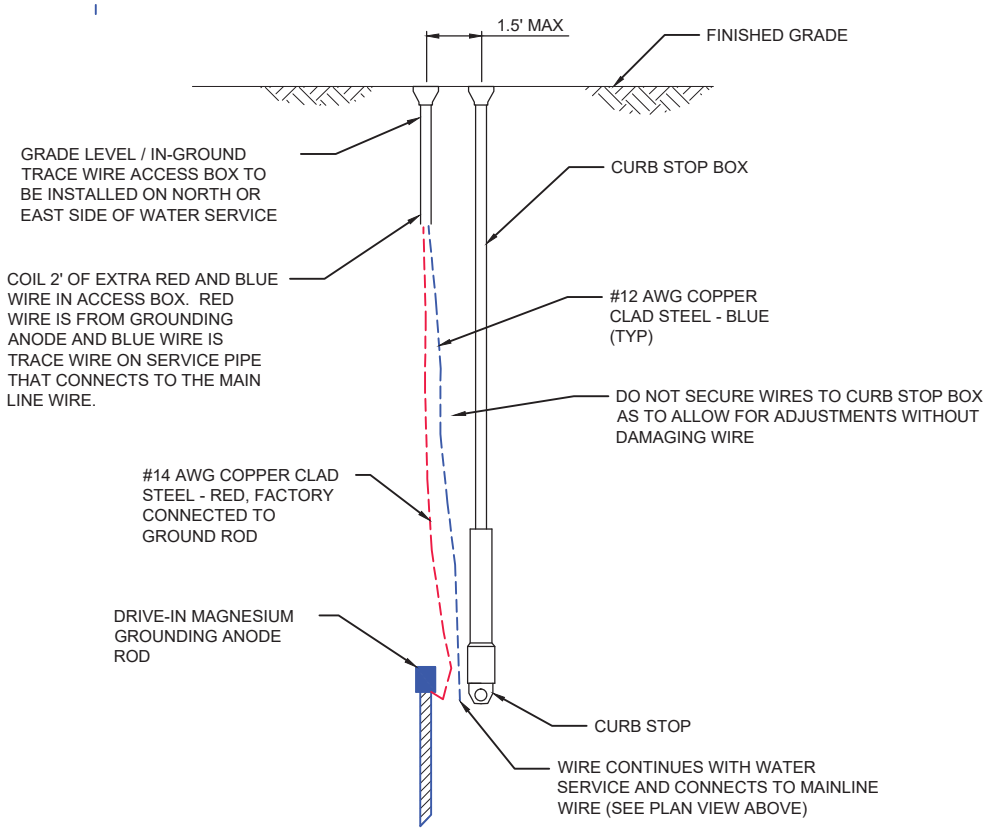


NOTES:

1. WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED IMMEDIATELY ADJACENT TO THE SERVICE PIPE. THE WIRE SHALL BE FASTENED TO THE PIPE WITH TAPE OR PLASTIC TIES AT 5' INTERVALS.

WATER SERVICE - PLAN VIEW

NO SCALE



WATER SERVICE - SECTION VIEW

NO SCALE

MINNESOTA RURAL WATER ASSOCIATION
STANDARD DETAIL

TRACE WIRE
WATER SERVICE DETAIL

May 28, 2014

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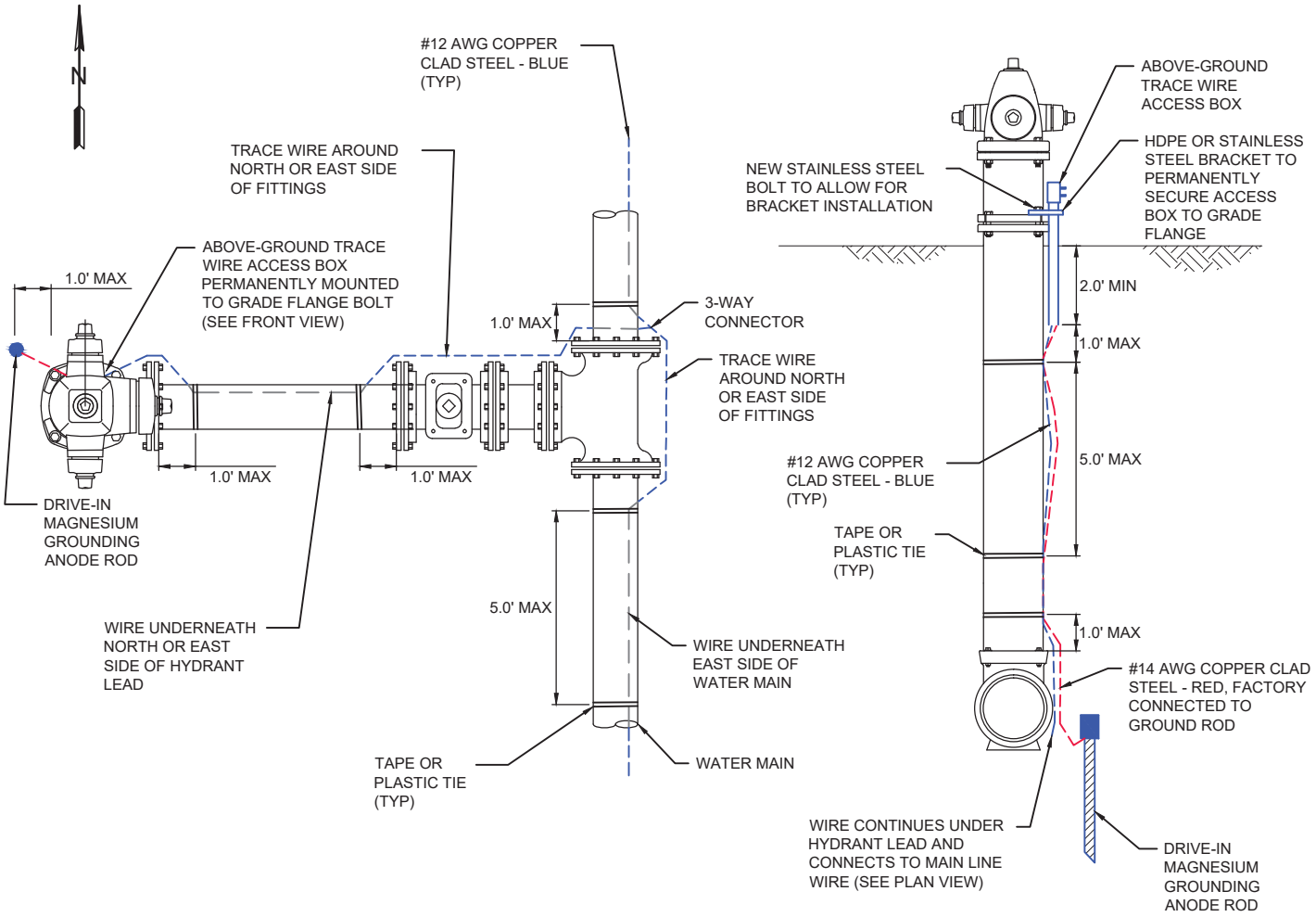

HYDRANT - PLAN VIEW

NO SCALE

HYDRANT - SECTION VIEW

NO SCALE

MINNESOTA RURAL WATER ASSOCIATION
STANDARD DETAIL

TRACE WIRE
HYDRANT DETAIL

May 28, 2014

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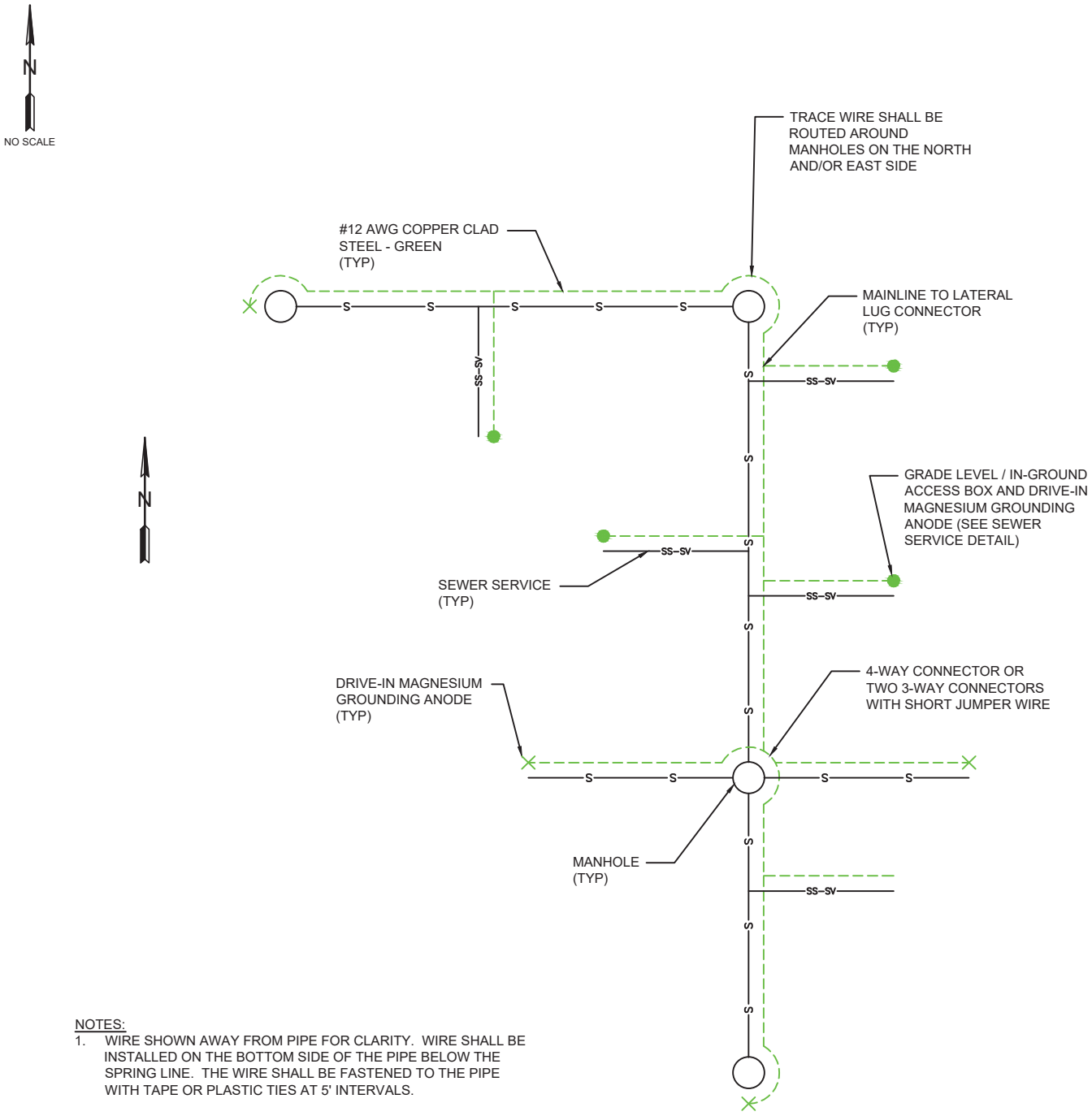

NOTES:

1. WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED ON THE BOTTOM SIDE OF THE PIPE BELOW THE SPRING LINE. THE WIRE SHALL BE FASTENED TO THE PIPE WITH TAPE OR PLASTIC TIES AT 5' INTERVALS.

TRACE WIRE PLAN (SEWER)

NO SCALE

MINNESOTA RURAL WATER ASSOCIATION
STANDARD DETAIL

TRACE WIRE
SAMPLE SEWER PLAN

May 28, 2014

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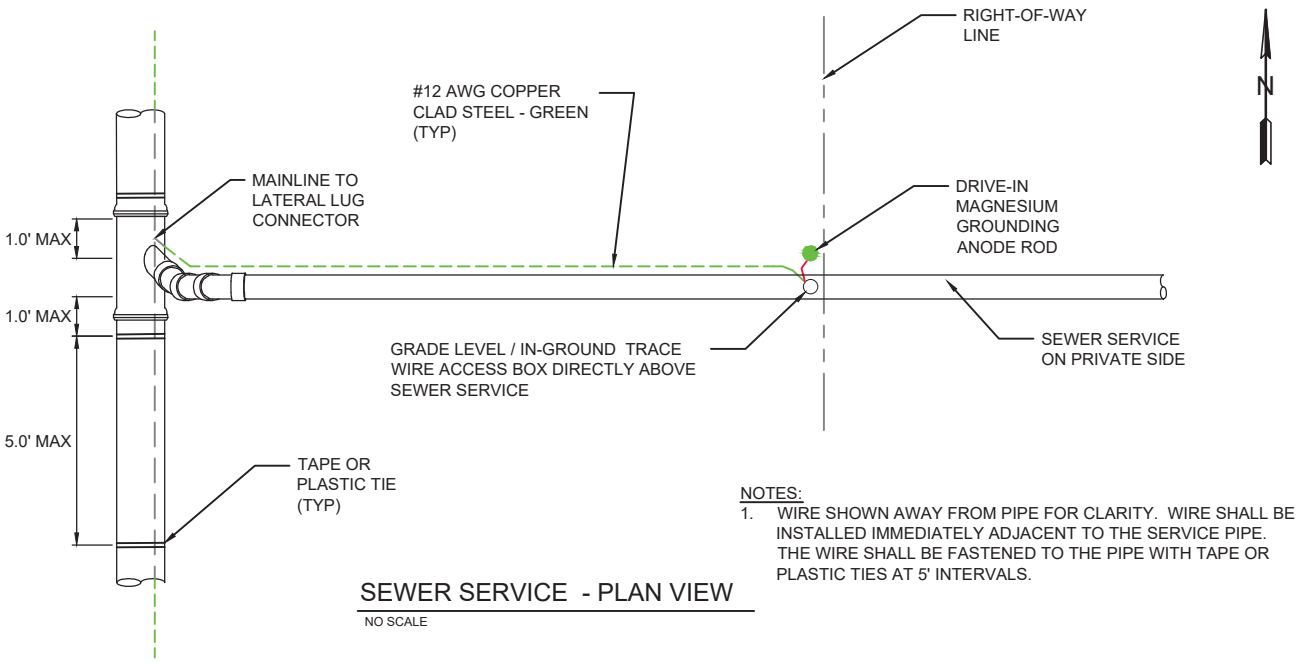
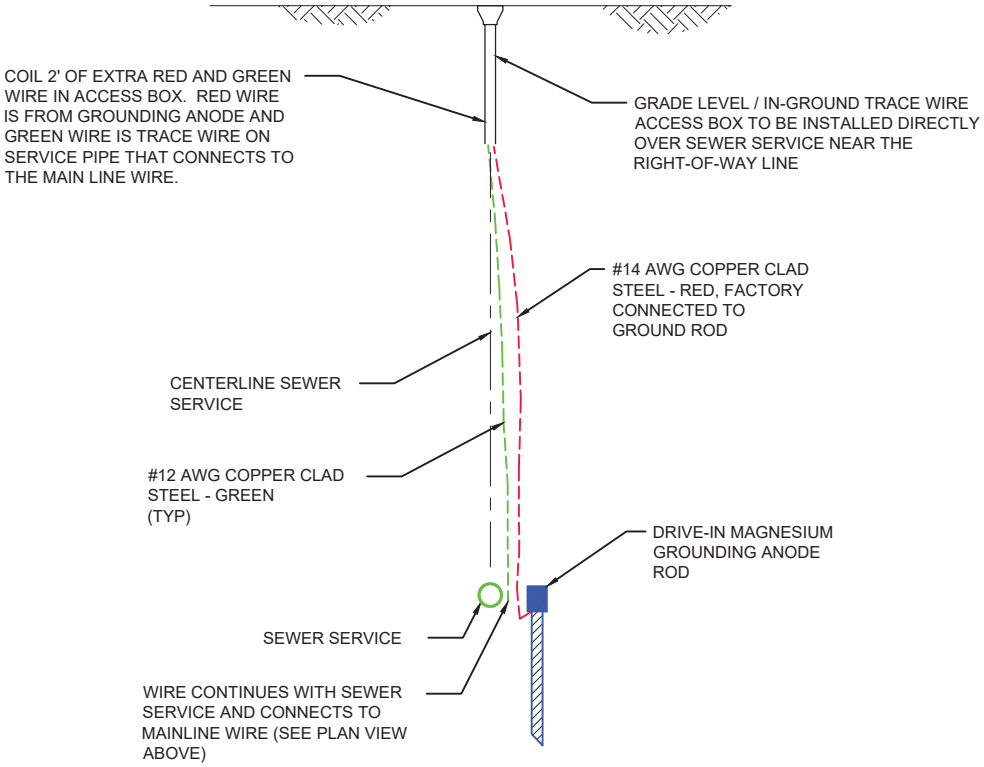


NOTES:

1. WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED IMMEDIATELY ADJACENT TO THE SERVICE PIPE. THE WIRE SHALL BE FASTENED TO THE PIPE WITH TAPE OR PLASTIC TIES AT 5' INTERVALS.

SEWER SERVICE - PLAN VIEW

NO SCALE



SEWER SERVICE - SECTION VIEW

NO SCALE

MINNESOTA RURAL WATER ASSOCIATION
STANDARD DETAIL

TRACE WIRE
SEWER SERVICE DETAIL

May 28, 2014

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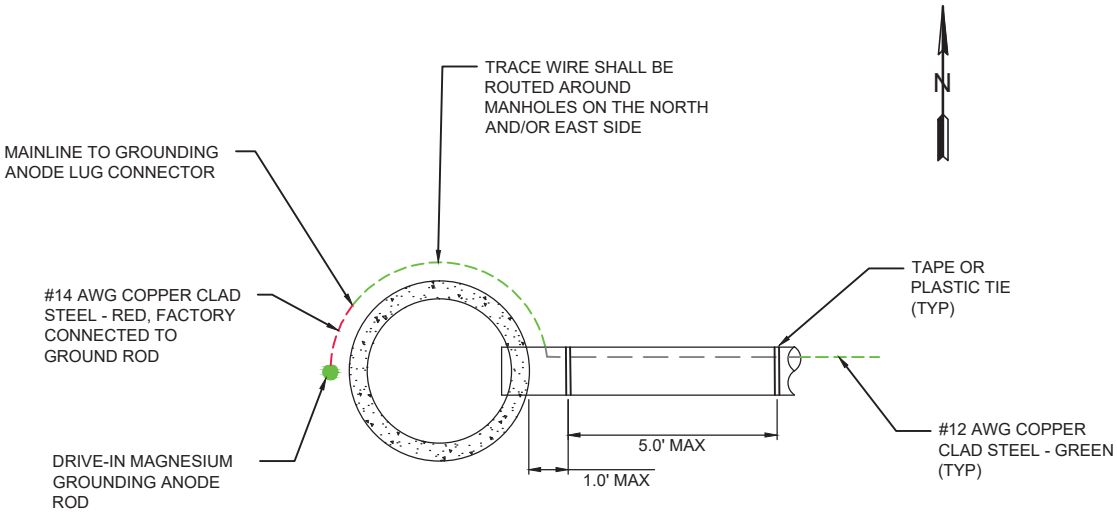
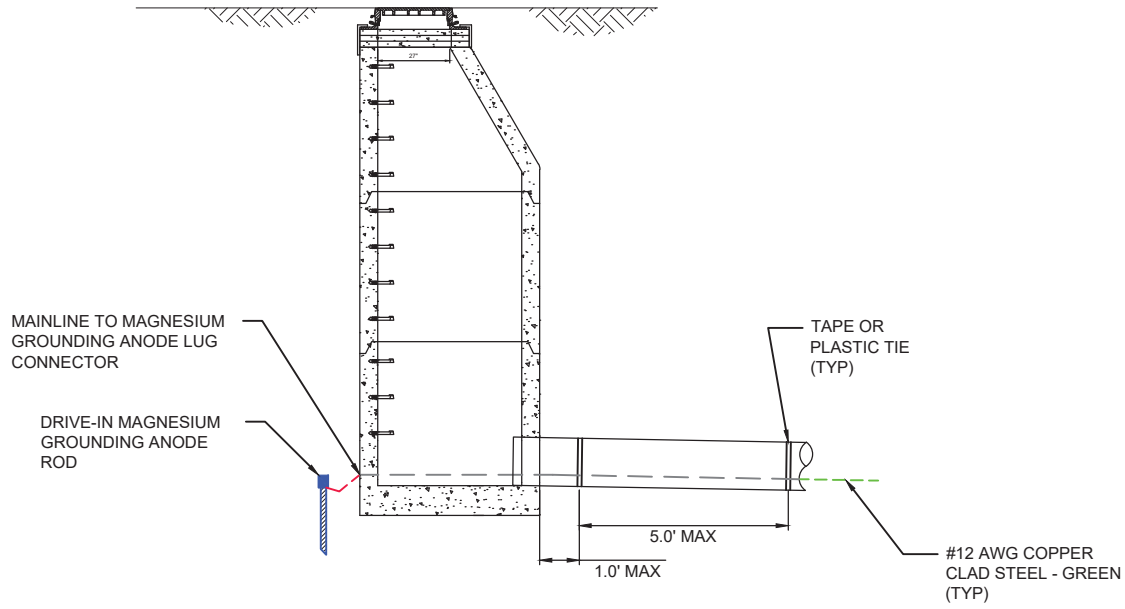


SEWER MANHOLE - PLAN VIEW

NO SCALE



SEWER MANHOLE - SECTION VIEW

NO SCALE

MINNESOTA RURAL WATER ASSOCIATION
STANDARD DETAIL

TRACE WIRE
SEWER MANHOLE DETAIL

May 28, 2014

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Appendix G

Online Bidding Instructions

How to Electronically Bid Projects for the City of Golden Valley

For the Zane Avenue and Lindsay Street Improvements Project, the City of Golden Valley will be only accepting bid submittals electronically through www.questcdn.com.

Digital copies of the Bidding Documents are available at www.questcdn.com. These documents may be downloaded by entering eBidDoc #**8811196** on the "Search Projects" page. For assistance and questions regarding free membership registration, downloading, and on-line bidding, contact QuestCDN by phone at 952. 233.1632 or by email at info@questcdn.com.

For New Users to QuestCDN vBid™ (On-line Bidding)

Prior to starting use of the QuestCDN vBid™, be sure to set up your company's On-line Bid ID Code and update your password to higher security if required. You can do this by logging in at www.questcdn.com and going to the "My Account" page. If you do not have access to the "My Account" page, please contact the administrator at your company.

A summary of steps for using www.questcdn.com for submitting electronic bids is as follows:

1. From QuestCDN, download the project documents using the project number referenced (may need to refresh after download);
2. Click on the "On-line Bid" button to go to Quest vBid™, log into the VirtuBid™ Server with your QuestCDN User Name and Password (not your On-line Bid ID Code);
3. Fill out the Qualification Information Tab and download the required documents – Save;
4. Upload any required completed documents – Save;
5. Upload Bid Bond – Save;
6. Go to the Bid Worksheet Tab and fill out all required fields or use the export and import to complete the Bid Worksheet – Save;
7. Download any issued addenda; and
8. When finished with both the Qualification Information and Worksheet Tabs, click Submit – you will need your company's On-line Bid ID Code. This is a special passcode (your company digital signature) required only at bid submittal – it can be added or changed at www.questcdn.com on the "My Account" page. There is a link to the "My Account" page on the submission screen. (Only the system administrator's login to your company account can access the "My Account" functions.)

Bid Openings

The bid date and time on the QuestCDN server screen is the official time of the bid opening. At the time of bid opening, representatives from the City of Golden Valley will open and review all electronic bids received. Preliminary Base Bid Results will be shared with all bidders on the project once the Owner has reviewed and accepted **(AS READ)** all the electronic bids. Bid results may be viewed at www.questcdn.com. This information will also be shared via email from QuestCDN.

FAQs

What kind of equipment and software do I need?

It is required to have Internet capabilities on a computer running operating systems required by QuestCDN. A scanner will be required to electronically submit scanned copies of required documents for bid submission. No software needs to be downloaded to submit electronic bids.

Do I need special software to download and save documents?

Bid documents are delivered in Adobe PDF (Portable Document Format) (.pdf). No software investment is required, free PDF reader programs are available. (Sometimes the PDF file will be Zipped; make sure to save to the ZIP folder and then open and save the PDF files, so you do not miss any project information.)

Why is the Owner accepting only electronic bid submission for their project?

- Electronic bid submission reduces the number of nonconforming bids and math errors commonly seen in paper bids.

- Bidders now have the option to attend bid openings electronically. It also allows bidders to make changes closer to bid opening.
- QuestCDN's on-line bidding tool allows efficient bid submittal from the comfort of your home or office.
- QuestCDN's on-line bidding tool allows the uploading and submitting of forms and bid worksheet online, while a bid clock notifies the time left to submit bids.
- All required bid documents are included in submittals, as well as checks and balances to assure Bidder has submitted all required documents.

What Internet browsers can be used?

Internet browsers, as required by QuestCDN, shall be used; Google Chrome, IE, or Edge are preferred but not required. Please make sure you have updated your browser to the most current version.

How do I ensure that my bids are secure?

The software program uses an encryption code and other security methods which prohibit anyone, including the Owner and the service provider from reading your bid. Once the bid opening time is reached, the Owner can read bids but cannot alter the bids in any way.

Bidders do not have the ability to see other bids until the Owner chooses to share the bids.

The Owner will only share Base Bid and Sections totals with all bidders on the project once they have reviewed all the electronic bids.

May I make changes to my bid and submit a bid more than once?

Yes. Bidders can withdraw a bid, make changes, and resubmit a bid as many times they wish, until the bid opening time has occurred.

Will I know if my bid changes are accepted?

Yes. Each time a bid is withdrawn and resubmitted, the bidder will receive an email from QuestCDN confirming that they have successfully submitted a bid. Your On-line Bidding screen will also indicate that the bid has been submitted successfully. If you have an error, the bid will not be submitted, and an error message will be at the top of the On-line Bidding screen.

May I withdraw a bid?

Yes. Bidders may withdraw a bid prior to the bid opening time. If a bidder withdraws a bid prior to the bid opening time, the Owner will not see the bid.

What occurs when an addendum is posted for the project?

If a bidder already submitted a bid, QuestCDN will withdraw the bid and email the bidder. The bidder will need to sign into QuestCDN, download the addendum, make changes to the bid if required, and resubmit the bid. If the bidder has not already submitted a bid, the bidder will need to sign into QuestCDN and download the addendum prior to submitting a bid.

How do I submit a Bid Bond electronically?

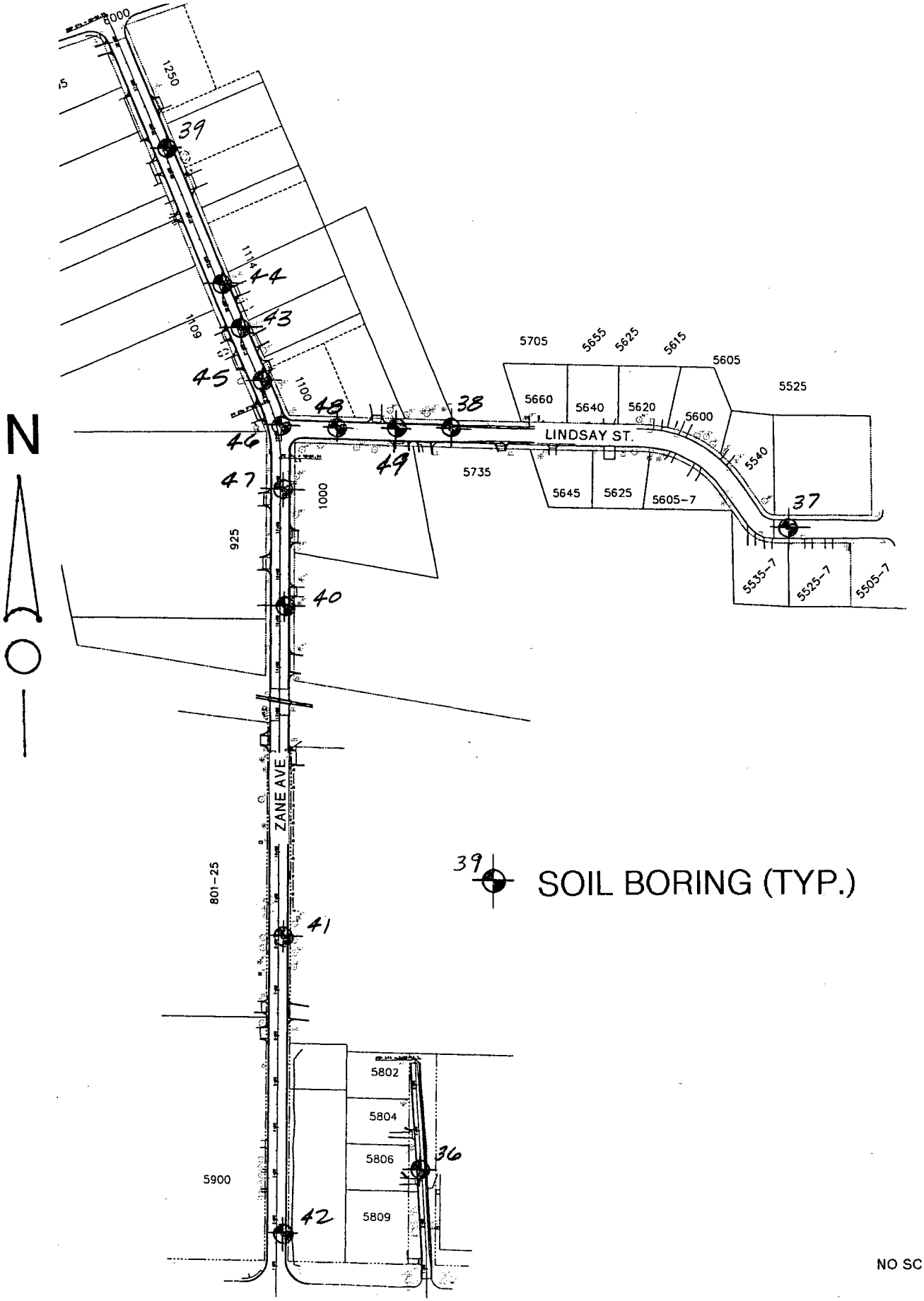
All bids must be accompanied by a Bid Bond as required by the project bid documents. Bid Bonds ensure that only legitimate bids are submitted. A scanned copy of the Bid Bond must be uploaded prior to submitting a bid.

Who do we contact with questions about QuestCDN?

Contact QuestCDN at 952.233.1632 or info@questcdn.com with questions regarding free membership registration, downloading, on-line bidding, or working with digital bid documents.

Appendix H

Geotechnical Investigation



PLOTTED: 11-01-06 @ 10:45 AM

S:\FJ\G\GOLDV\060200\GEOTECHNICAL\GOLDV602_FIG2.DWG
DATE: 11-01-06 TIME: 10:45 am USER: AGAGNERHELM
XREFS:

SEH PHONE: (651) 490-2000 3535 VADNAIS CENTER DR. ST. PAUL, MN 55110	FILE NO. AGOLDV0602.00 DATE: NOV 1, 2006	Boring Location Map 2007 Golden Valley Pavement Management Program Golden Valley, Minnesota	FIGURE A-1

AMERICAN
ENGINEERING
TESTING, INC.

CONSULTANTS
• ENVIRONMENTAL
• GEOTECHNICAL
• MATERIALS
• FORENSICS

REPORT OF SUBSURFACE BORINGS

PROJECT:

SOIL BORINGS AND LABORATORY TESTS
2007 STREETS
GOLDEN VALLEY, MINNESOTA

REPORTED TO:

SEH
3535 VADNAIS CENTER DRIVE
ST. PAUL, MN 55110

ATTN: RON FARMER

AET JOB NO.: 01-02969

DATE: JUNE 12, 2006

INTRODUCTION

On May 9, 2006, American Engineering Testing drilled seven test borings at the referenced project. The scope of services (boring location, depth, etc.) was as requested by SEH.

AUTHORIZED WORK SCOPE

Soil Borings

Procedures

The boring locations were made at the approximate locations selected by SEH.

We have not included a sketch indicating the boring locations as it is our understanding this information will be supplied by others. The surface elevations presented on the attached boring logs were provided by SEH.

The boring and sampling was done using the split-spoon and auger methods. Refer to the attached sheets (Field Sampling and Testing Methods) for additional information.

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All boreholes were backfilled with drill cuttings. The surface at each boring location as patched with blacktop patch.

A field log was maintained for each soil boring. Information on field logs include: contacts between soil layers; geologic identification (driller's opinion) of materials; notes; and other information.

Soil samples were then examined in the laboratory, and soil classification information was added to the field logs. Soil identifications and descriptions are in accordance (generally) with the ASTM Visual-Manual (D2488) system as shown on the attached sheet. The samples will be discarded or returned to the Client at AET's discretion; unless within 30 days' of the report date, the client provides a written request that AET store or ship the samples, at the client's expense.

Typed logs were then prepared from field logs. The typed logs may not contain all information shown on field logs. (Field logs are available for inspection by our client.)

Results

Typed copies of the field logs are enclosed. Refer to the attached logs for a description of the subsurface conditions encountered in the borings. The logs show: the depths to the contacts between the soil layers; the identification and geology of the soils; the surface elevations at the borings; water level measurements; standard penetration resistance (N-column); the results of laboratory tests; and other information. We wish to point out that the split spoon samples were collected using a modified hammer weight calibrated to N_{60} values. For an explanation of this sampling method please refer to the attached Exploration/ Classification Method sheet. Please refer to the other attached sheets for descriptions of terminology used on the logs.

Laboratory Tests

R-value, Atterberg Limits, Standard Proctor, moisture content, sieve analysis, and hydrometer tests were performed on samples selected by SEH. The results of the tests are presented on the attached boring logs, gradation curves, and data sheets.

REMARKS

Subsurface soil and ground water conditions can vary from that encountered in the borings at other locations, depths and times. Refer to the attached sheet for more information regarding limitations of subsurface exploration.

As requested by SEH, this is a factual report only.

To protect the addressee, the public, and ourselves, this report (and all supporting information) is provided for the addressee's own use. No representations are made to parties other than the addressee.

American Engineering Testing, Inc. appreciates this opportunity to be of service to you. If you have any questions or need further help, please call me at (651) 659-1356.

Report Prepared By:

American Engineering Testing, Inc.

Pat Francis
Drilling Manager

LOG OF TEST BORING

JOB NO. 3176372 VERTICAL SCALE 1" = 3' BORING NO. B36

PROJECT CITY OF GOLDEN VALLEY 2007 PAVEMENT MANAGEMENT PROGRAM GOLDEN VALLEY, MINNESO

DEPTH IN FEET	DESCRIPTION OF MATERIAL — SURFACE ELEVATION _____	GEOLOGIC ORIGIN	N or CR	WL	SAMPLE NO.	SAMPLE TYPE	LABORATORY TESTS W	D	LL	PL	Qu or ROD
	FILL, mostly sandy lean clay, black to dark brown, moist - 2" bituminous and 5" aggregate base at surface	Fill			1	HSA					
			4		2	SB					
			3		3	SB					
			2		4	SB					
9.0	SANDY LEAN CLAY, a little gravel, brown to reddish-brown, moist, soft to hard (CL)	Till	6		5	SB					
			10		6	SB					
			17		7	SB					
16.0	End of Boring										

WATER LEVEL MEASUREMENTS

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	BAILED DEPTHS	WATER LEVEL
6-02-06	12:15pm					none

START 6-2-06 COMPLETE 6-2-06 @ 12:15pm

METHOD 3 1/4" Hollow Stem Auger to 14.5'

NORTH: EAST:

CREW CHIEF T. Aldrich

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: 01-02969 LOG OF BORING NO. 37 (p. 1 of 1)

PROJECT: 2007 Streets; Golden Valley, MN

DEPTH IN FEET	SURFACE ELEVATION: 881.8 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-#200
	7.5" Bituminous pavement				SU						
1	FILL, mixture of silty sand and sand with silt, a little gravel, dark brown and brown	FILL	14	M	SS	12					33
2	FILL, mostly clayey sand, a little gravel, gray and brown										
3	CLAYEY SAND WITH GRAVEL, brown, stiff, lenses and laminations of silt (SC)	MIXED ALLUVIUM	11	M	SS	14	20				
4											
5	SANDY SILT, a little gravel, brown, medium dense, lenses and laminations of silt (ML)	FINE ALLUVIUM	18	M	SS	16					60
6											
7	CLAYEY SAND, a little gravel, brown, very stiff (SC)	TILL									
8			20	M	SS	18					
9											
10	CLAYEY SAND, a little gravel, brown, very stiff, lenses and laminations of sand with silt and silt (SC)		19	M	SS	16					49
11											
12	SAND WITH SILT, fine grained, brown mottled, moist, medium dense (SP-SM)										
13		COARSE ALLUVIUM	18	M	SS	14					
14				▼							
15	GRAVEL WITH SILTY SAND, brown, waterbearing, very dense (GP)		57	W	SS	2					
16	**END OF BORING**										
	Note: Collective bag sample taken 1'-4'.										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-14½' 3.25" HSA	5/9/06	3:40	16.0	14.5	14.5		14.0
BORING COMPLETED: 5/9/06							
DR: SD LG: MB Rig: 1C							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: 01-02969 LOG OF BORING NO. 38 (p. 1 of 1)

PROJECT: 2007 Streets; Golden Valley, MN

DEPTH IN FEET	SURFACE ELEVATION: 873.1 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-#200
	6.5" Concrete pavement				SU						
1	FILL, mixture of sand with gravel and silty sand, brown		15	M	SS	12					8
2											
3	FILL, mixture of clayey sand, silty sand and lean clay with sand, a little gravel, brown and black	FILL	9	M	SS	14	12				
4											
5			17	M	SS	6	18				
6											
7											
8			21	M	SS	1					
9											
10	CLAYEY SAND, a little gravel, brown mottled, stiff (SC)		14	M	SS	3					
11											
12	CLAYEY SAND, brownish gray, stiff, laminations of sand (SC)	TILL	13	M	SS	18					44
13											
14											
15	SANDY LEAN CLAY, a little gravel, grayish brown, stiff (CL)		12	M	SS	18					52
16	**END OF BORING**										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-14½' 3.25" HSA	5/9/06	5:00	16.0	14.5	16.0		None
BORING COMPLETED: 5/9/06							
DR: SD LG: MB Rig: 1C							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: 01-02969 LOG OF BORING NO. 39 (p. 1 of 1)

PROJECT: 2007 Streets; Golden Valley, MN

DEPTH IN FEET	SURFACE ELEVATION: 874.0 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-#200
	7.5" Concrete pavement				SU						
1	FILL, mixture of sand with silt and clayey sand, a little gravel, brown	FILL	5	M	SS	12					13
2											
3	CLAYEY SAND, a little gravel, light gray and brown mottled, stiff to firm, laminations of silt and silty sand (SC)		12	M	SS	14	14		27	13	
4											
5			8	M	SS	1					
6	SANDY LEAN CLAY, a little gravel, brown mottled, firm to stiff (CL)										
7											
8			12	M	SS	18	13				
9		TILL									
10	CLAYEY SAND WITH GRAVEl, grayish brown, stiff to very stiff (SC)		14	M	SS	2	12				
11											
12											
13			16	M	SS	18					
14											
15	SILTY SAND, a little gravel, grayish brown, medium dense (SM/SC)		21	M	SS	10					
16	**END OF BORING**										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-14½' 3.25" HSA	5/9/06	2:40	16.0	14.5	16.0		None
BORING COMPLETED: 5/9/06							
DR: SD LG: MB Rig: 1C							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: 01-02969 LOG OF BORING NO. 40 (p. 1 of 1)

PROJECT: 2007 Streets; Golden Valley, MN

DEPTH IN FEET	SURFACE ELEVATION: 873.3 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-#200
	6.5" Concrete pavement				SU						
1	FILL, mixture of sand with silt and clayey sand, a little gravel, brown	FILL	10	M	SS	14			* 22	* 13	* 15 * 38
2	CLAYEY SAND, a little gravel, brown and light gray mottled, stiff, laminations of silt (SC) (may be fill)	MIXED ALLUVIUM OR FILL	11	M	SS	16	14		25	14	
3											
4	CLAYEY SAND, a little gravel, trace roots, gray and brown mottled, stiff, lenses and laminations of sandy lean clay and lean clay (SC) (may be fill)										
5	SILTY SAND, a little to with gravel, fine to medium grained, brownish gray and brown mottled, moist to about 5' then waterbearing, medium dense, lenses and laminations of wet silt (SM)	COARSE ALLUVIUM	14	W	SS	17					36
6											
7											
8			17	W	SS	3					15
9											
10	SANDY LEAN CLAY, a little gravel, gray, firm (CL)	TILL	6	M	SS	12	18				
11											
12	CLAYEY SAND, a little gravel, gray, firm (SC)		7	M	SS	14	17		24	13	
13											
14											
15	CLAYEY SAND, a little gravel, brownish gray, stiff, laminations of silty sand (SC)		10	M	SS	16	18				
16	**END OF BORING**										

Note: Collective bag sample taken 1'-4'.

**Results from tests on collective bag sample:*
Maximum Dry Density = 126.0 pcf
Optimum Moisture = 10.5%

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-14½' 3.25" HSA	5/9/06	11:45	8.5	7.0	7.1		5.0
	5/9/06	12:00	16.0	14.5	15.1		11.6
BORING COMPLETED: 5/9/06							
DR: SD LG: MB Rig: 1C							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: 01-02969 LOG OF BORING NO. 41 (p. 1 of 1)

PROJECT: 2007 Streets; Golden Valley, MN

DEPTH IN FEET	SURFACE ELEVATION: 892.6 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-#200
	6.5" Concrete pavement				SU						
1	FILL, mostly sand with silt, a little silty sand with gravel, brown	FILL	11	M	SS	12					11
2	FILL, mostly sandy lean clay, gray and brown										
3	LEAN CLAY, trace roots, dark grayish brown mottled, stiff (CL)	FINE ALLUVIUM OR TOPSOIL	11	M	SS	16					
4											
5	LEAN CLAY, brown, very stiff, laminations of silt (CL)		17	M	SS	16	20				
6		FINE ALLUVIUM									
7	LEAN CLAY, brown and gray mottled, stiff (CL)										
8			11	M	SS	18	24				
9											
10	CLAYEY SAND, brown mottled, very stiff, lenses of silty sand (SC)	MIXED ALLUVIUM	20	M	SS	18					22
11											
12											
13			17	M	SS	8					
14											
15	SILTY SAND, a little gravel, fine to medium grained, brown, moist, medium dense, laminations of clayey sand (SM)	COARSE ALLUVIUM	20	M	SS	18					
16	**END OF BORING**										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-14½' 3.25" HSA	5/9/06	10:40	16.0	14.5	16.0		None
BORING COMPLETED: 5/9/06							
DR: SD LG: MB Rig: 1C							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: 01-02969 LOG OF BORING NO. 42 (p. 1 of 1)

PROJECT: 2007 Streets; Golden Valley, MN

DEPTH IN FEET	SURFACE ELEVATION: 908.3 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-#200
	8" Bituminous pavement				SU						
1	FILL, mixture of silty sand and clayey sand, a little gravel, brown		21	M	SS	15					24
2	FILL, mostly sand, a little gravel, light brown, moist		12	M	SS	14					22
3	FILL, mixture of sand, silty sand and silt, a little gravel, apparent cobbles, trace roots, light brown and brown										
4											
5			31	M	SS	1					
6											
7	FILL, mostly sand with gravel, light brown										
8			21	M	SS	12					2
9											
10	FILL, mostly gravelly sand, light brown		20	M	SS	2					
11											
12											
13			19	M	SS	10					
14											
15	FILL, mostly gravelly sand, trace roots, brown		16	M	SS	4					
16	**END OF BORING**										
	Note: Collective bag sample taken 1'-4'.										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-14½' 3.25" HSA	5/9/06	9:45	16.0	14.5	16.0		None
BORING COMPLETED: 5/9/06							
DR: SD LG: MB Rig: 1C							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

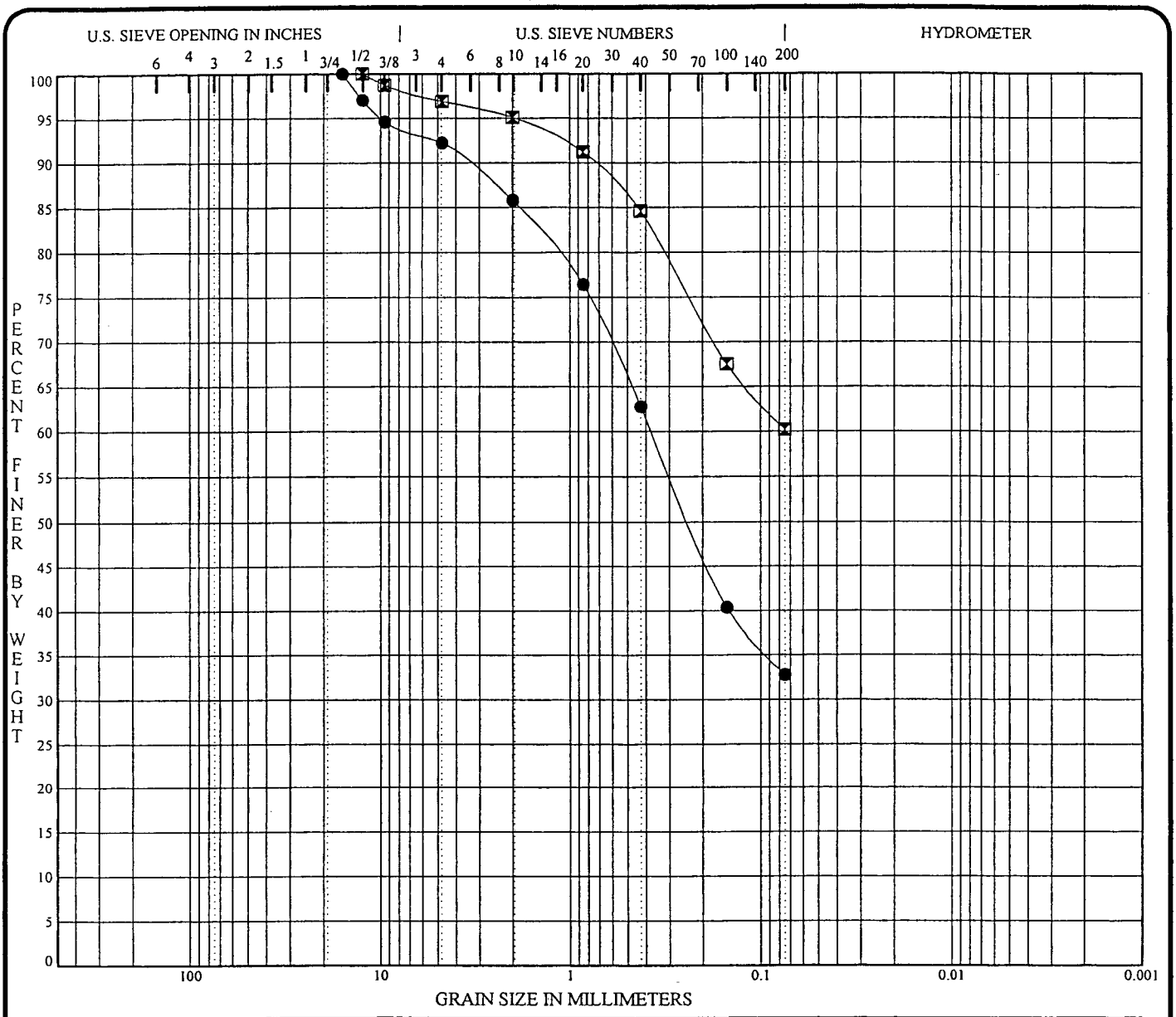
AET JOB NO: 01-02969 LOG OF BORING NO. 43 (p. 1 of 1)

PROJECT: 2007 Streets; Golden Valley, MN

DEPTH IN FEET	SURFACE ELEVATION: 871.9 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-#200
	6.5" Concrete pavement			▼	SU						
1			6	W	SS	10					6
2											
3			8	W	SS	10					
4	FILL, mixture of sand, sand with silt and silty sand, a little gravel, brown, water in fill below about 0.5'										
5			14	W	SS	14					7
6		FILL									
7											
8			6	W	SS	1					
9											
10	FILL, mixture of silt and sand, trace roots, grayish brown and brown, water in fill		2	W	SS	3	39		30	25	
11											
12	SILT, a little gravel, trace roots, dark brownish gray, wet, very loose, laminations of waterbearing sand (ML)	FINE ALLUVIUM									
13			4	M/W	SS	18	28				
14	SAND WITH GRAVEL, medium to fine grained, gray, waterbearing, very loose, laminations of silty sand (SP)	COARSE ALLUVIUM									
15	CLAYEY SAND, a little gravel, gray, firm, laminations of waterbearing sand (SC)	TILL	5	M/W	SS	14	17				
16	**END OF BORING**										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
0-14½' 3.25" HSA	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
	5/9/06	1:00	2.0	0.6	2.0		0.6
	5/9/06	1:40	16.0	14.5	13.8		7.7
BORING COMPLETED: 5/9/06							
DR: SD LG: MB Rig: 1C							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	#37	1.0'							
☒	#37	5.3'							

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	#37	1.0'	16.00	0.37			7.8	59.4	32.8	
☒	#37	5.3'	12.50				3.1	36.7	60.2	

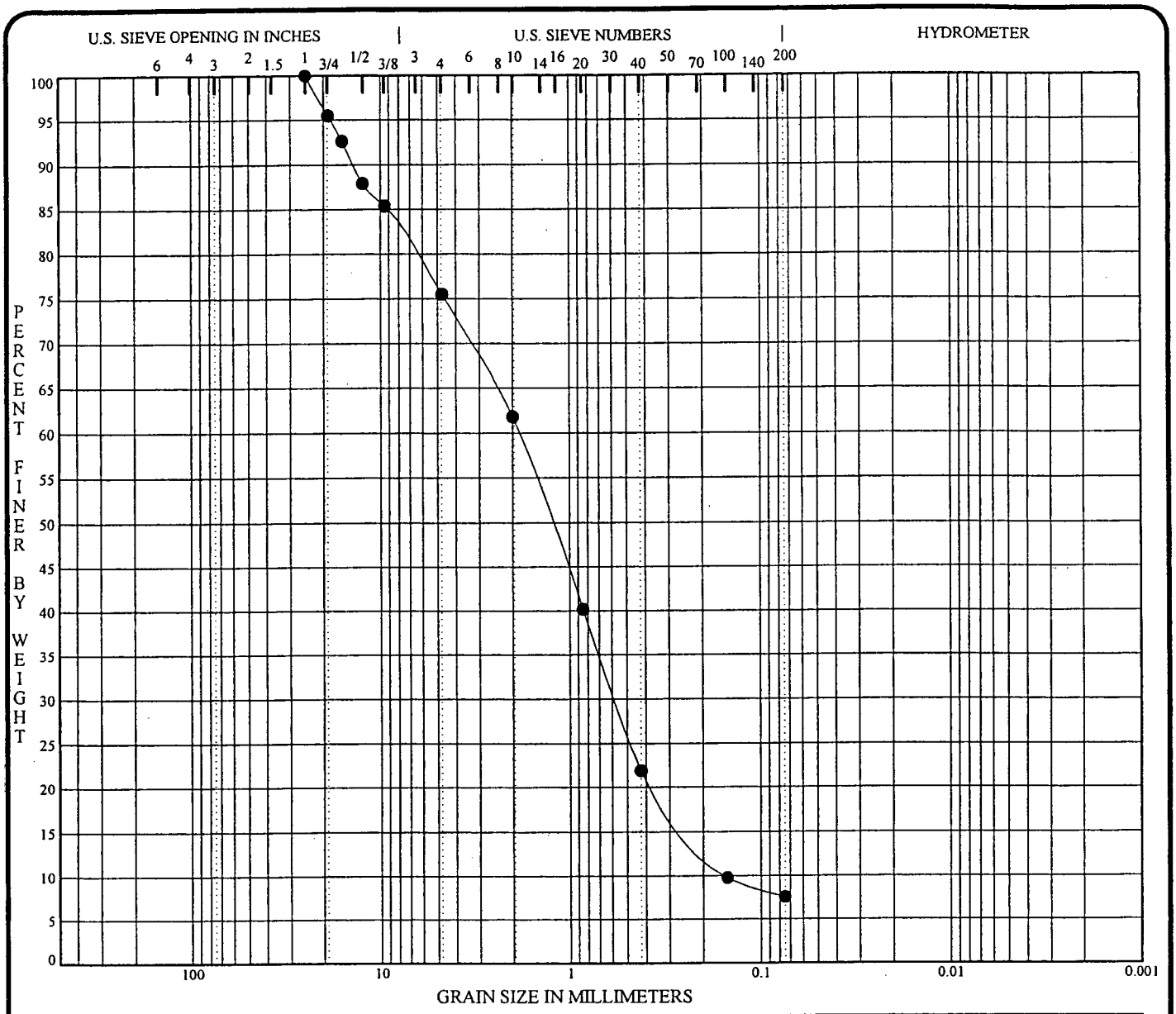
PROJECT Soil Borings; Golden Valley, MN

AET JOB NO. 01-02969

DATE 5/9/06

AMERICAN ENGINEERING TESTING, INC.

GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	#38	1.0'	WELL-GRADED SAND with SILT and GRAVEL		NP	NP	NP	1.17	12.2

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	#38	1.0'	25.00	1.86	0.577	0.1529	24.5	68.0	7.6	

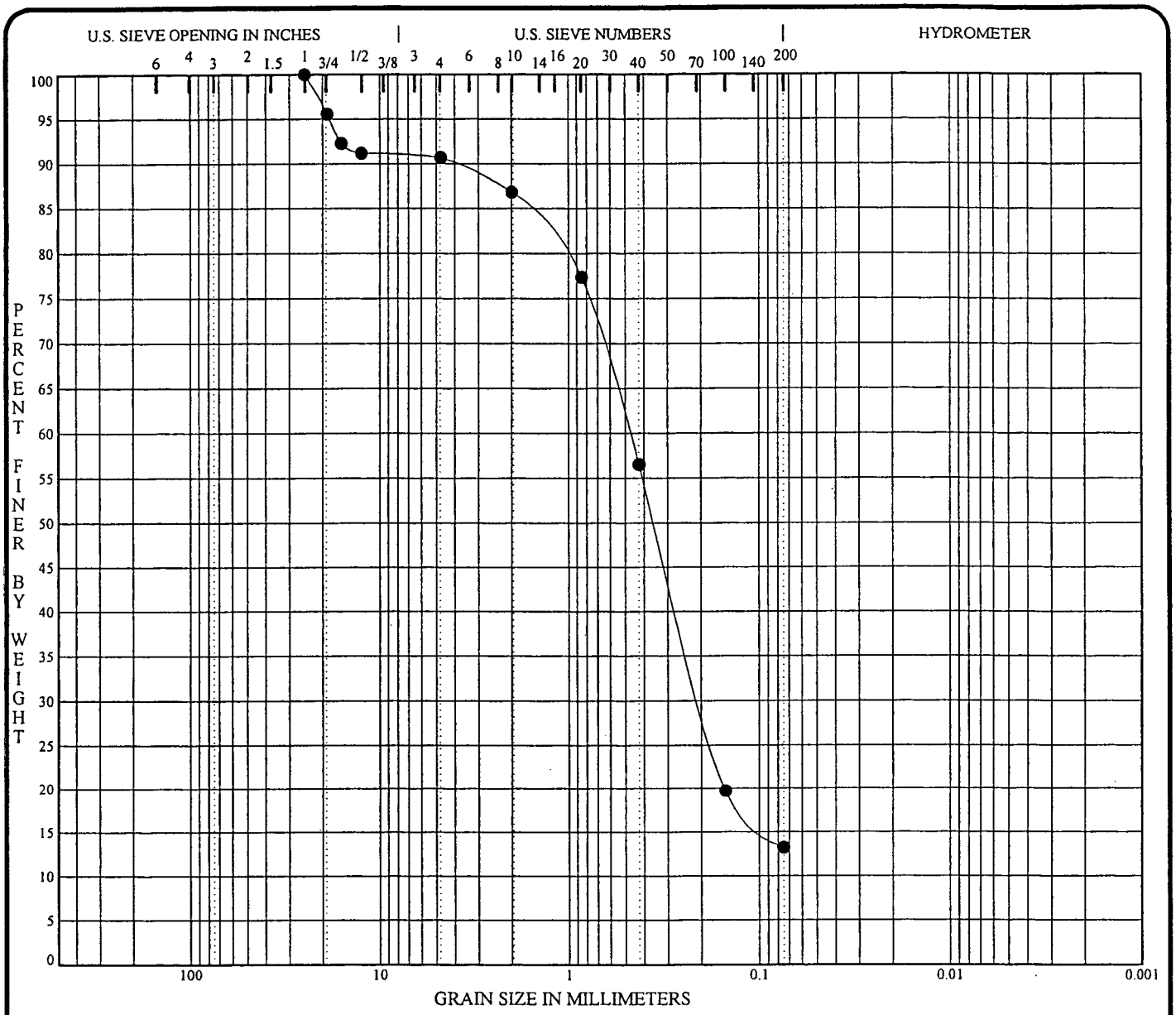
PROJECT Soil Borings; Golden Valley, MN

AET JOB NO. 01-02969

DATE 5/9/06

AMERICAN ENGINEERING TESTING, INC.

GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	#39	1.0'							

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	**#39**	**1.0'**	**25.00**	**0.48**	**0.201**		**9.3**	**77.5**	**13.2**	

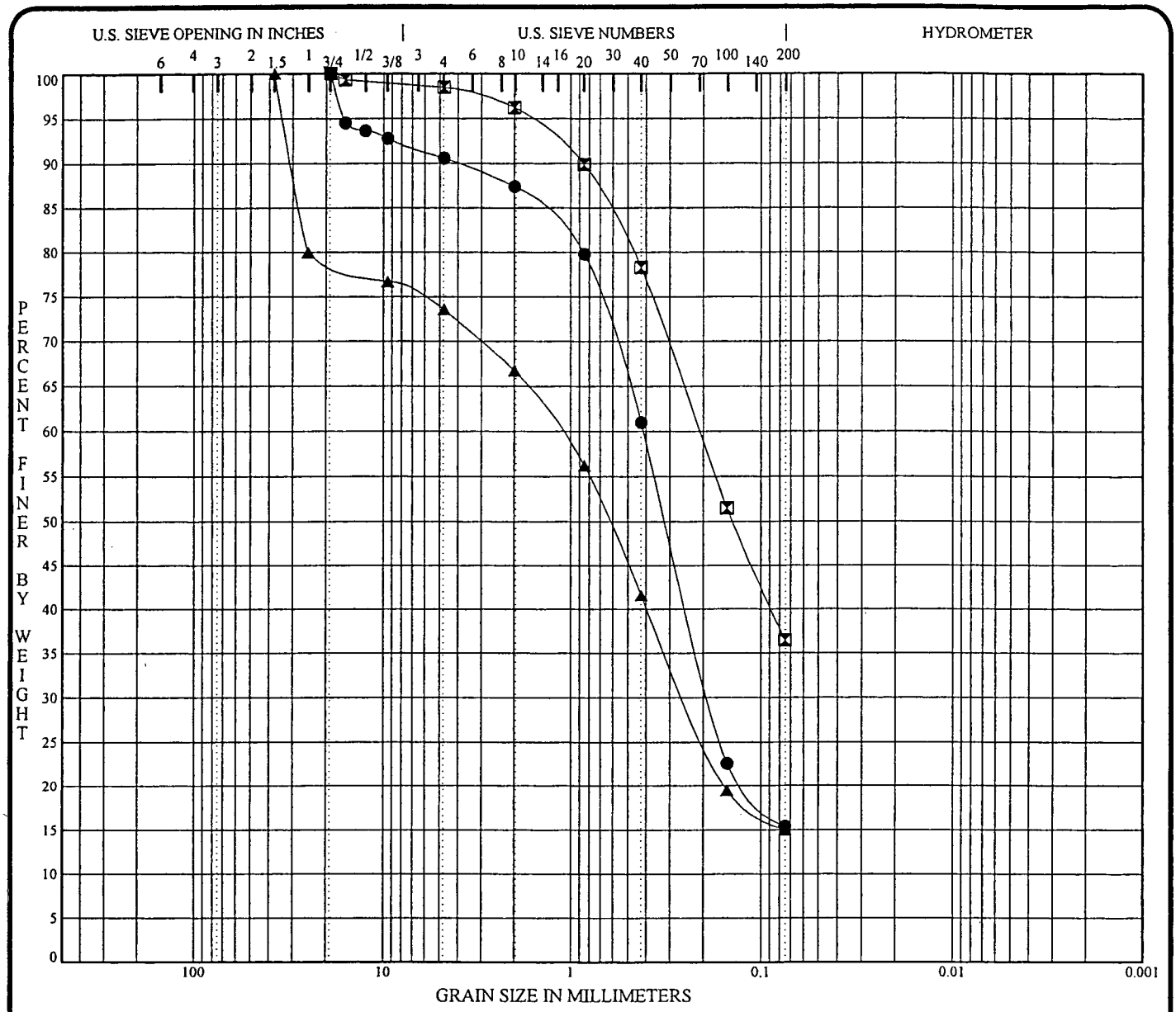
PROJECT **Soil Borings; Golden Valley, MN**

AET JOB NO. **01-02969**

DATE **5/9/06**

AMERICAN ENGINEERING TESTING, INC.

GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
● #40	1.0'							
⊠ #40	5.3'							
▲ #40	7.8'							

Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
● #40	1.0'	19.00	0.41	0.183		9.4	75.1	15.5	
⊠ #40	5.3'	19.00	0.21			1.5	62.0	36.5	
▲ #40	7.8'	37.50	1.16	0.246		26.4	58.6	15.0	

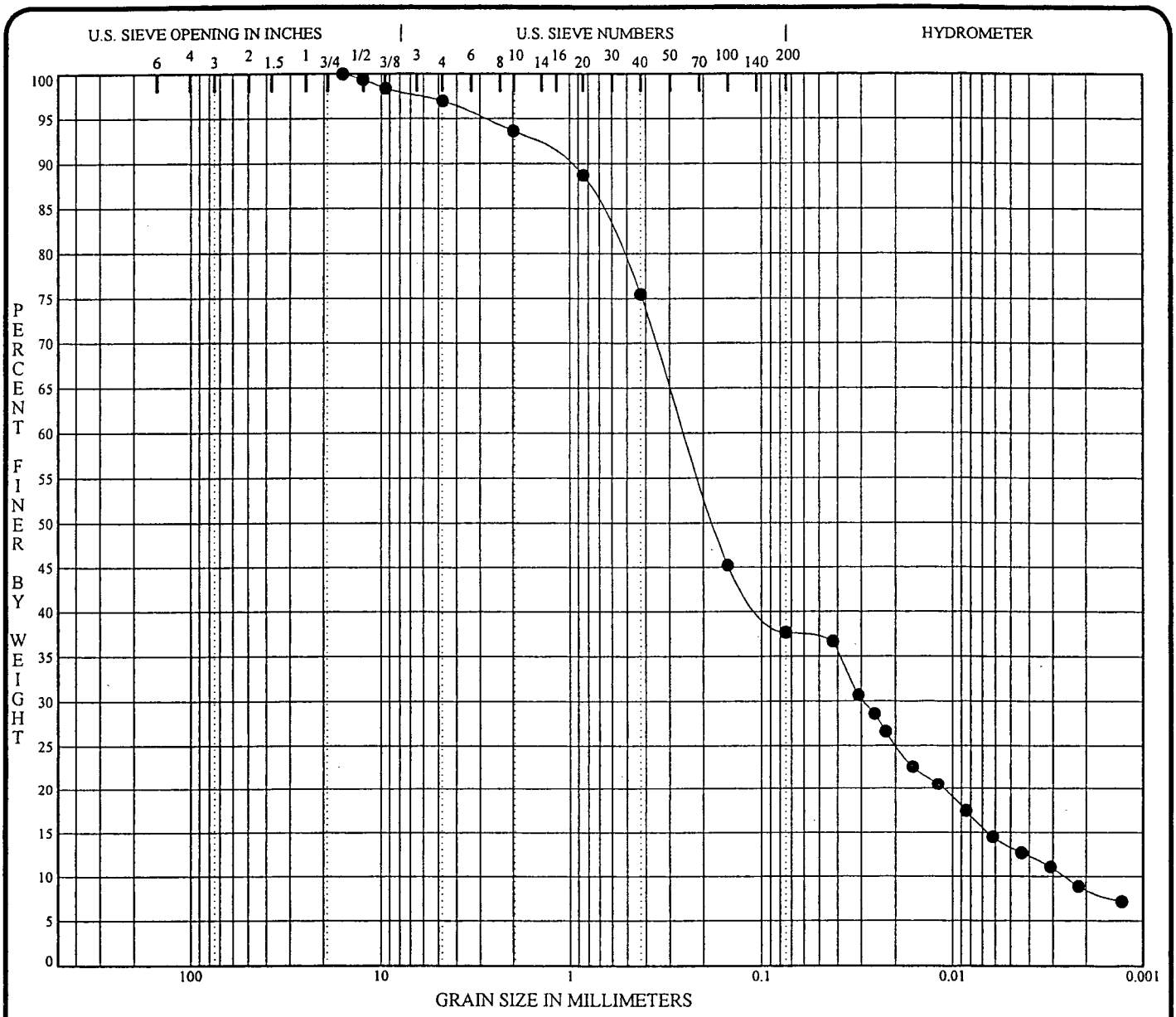
PROJECT **Soil Borings; Golden Valley, MN**

AET JOB NO. **01-02969**

DATE **5/9/06**

AMERICAN ENGINEERING TESTING, INC.

GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	#40	2.5'						1.31	95.5

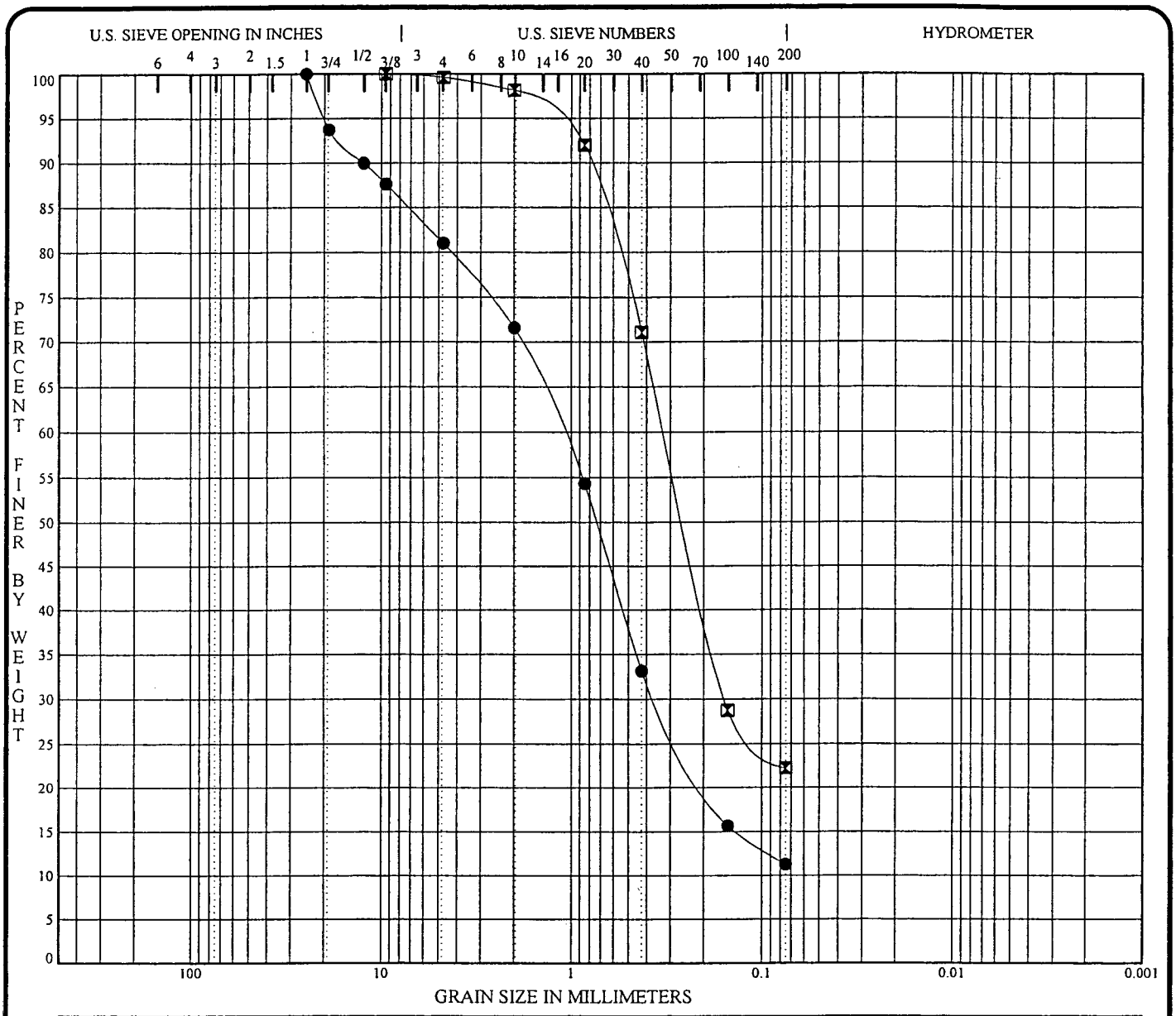
	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	#40	2.5'	16.00	0.25	0.029	0.0026	3.0	59.3	24.3	13.4

PROJECT **Soil Borings; Golden Valley, MN** AET JOB NO. **01-02969**

DATE **5/9/06**

AMERICAN ENGINEERING TESTING, INC.

GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	#41	1.0'						1.79	18.3
⊠	#41	10.3'							

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	#41	1.0'	25.00	1.12	0.352		19.0	69.8	11.3	
⊠	#41	10.3'	9.50	0.32	0.155		0.4	77.3	22.3	

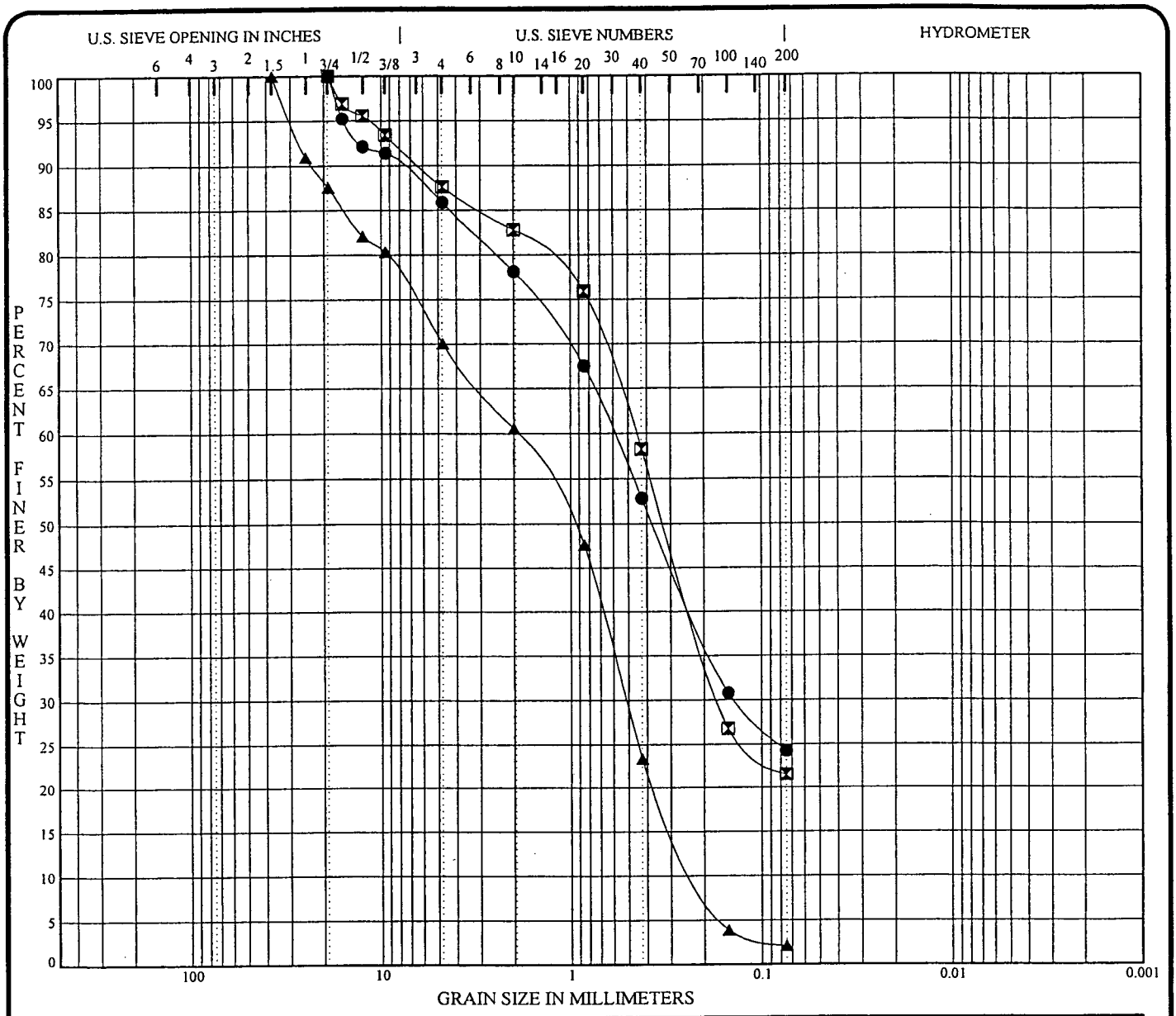
PROJECT **Soil Borings; Golden Valley, MN**

AET JOB NO. **01-02969**

DATE **5/9/06**

AMERICAN ENGINEERING TESTING, INC.

GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	#42	1.0'							
⊠	#42	2.5'							
▲	#42	7.8'	**POORLY GRADED SAND with GRAVEL**					0.66	9.3

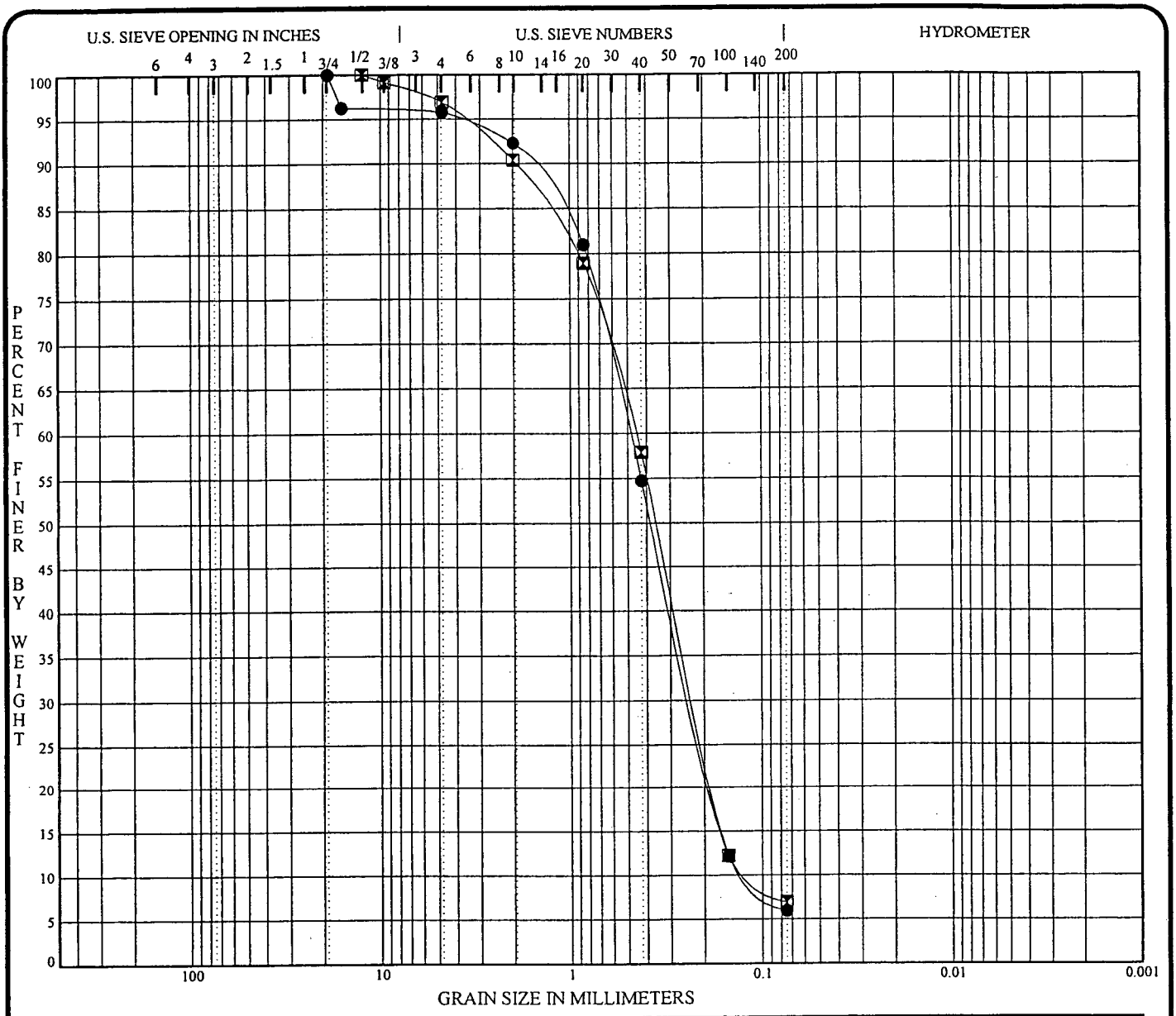
	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	#42	1.0'	19.00	0.60	0.138		14.1	61.6	24.3	
⊠	#42	2.5'	19.00	0.45	0.167		12.4	66.1	21.6	
▲	#42	7.8'	37.50	1.93	0.514	0.2079	29.9	67.9	2.1	

PROJECT **Soil Borings; Golden Valley, MN**

AET JOB NO. 01-02969
DATE 5/9/06

AMERICAN ENGINEERING TESTING, INC.

GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	#43	1.0'						0.94	4.1
☒	#43	5.0'						0.99	4.1

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	#43	1.0'	19.00	0.49	0.232	0.1180	4.2	89.8	6.0	
☒	#43	5.0'	12.50	0.46	0.225	0.1120	3.1	90.0	6.9	

PROJECT **Soil Borings; Golden Valley, MN**

AET JOB NO. **01-02969**

DATE **5/9/06**

AMERICAN ENGINEERING TESTING, INC.

GRADATION CURVES

R - VALUE DATA SHEET

AET J.N. 01-2969

PROJECT NUMBER 33415 BORING NUMBER: B-40 @ 1'-4'

SAMPLE DESCRIPTION: Brown Clayey Sand

Item	SPECIMEN		
	a	b	c
Mold Number	1	2	3
Water added, grams	55	75	44
Initial Test Water, %	9.6	11.4	8.6
Compact Gage Pressure,psi	120	50	190
Exudation Pressure, psi	240	122	410
Height Sample, Inches	2.43	2.61	2.55
Gross Weight Mold, grams	3237	3314	3318
Tare Weight Mold, grams	2083	2116	2118
Sample Wet Weight, grams	1154	1198	1200
Expansion, Inches x 10exp-4	2	0	15
Stability 2,000 lbs (160psi)	38 / 94	57 / 135	25 / 59
Turns Displacement	3.78	3.83	3.38
R-Value Uncorrected	32	11	56
R-Value Corrected	31	11	57
Dry Density, pcf	131.3	124.9	131.2
DESIGN CALCULATION DATA			
Traffic Index Assumed:	4.0	4.0	4.0
G.E. by Stability	0.71	0.91	0.44
G. E. by Expansion	0.07	0.00	0.50

Equilibrium R-Value **31** by EXUDATION

Examined & Checked: 6 /2/ 06

REMARKS:
Gf = 1.25
0.0% Retained on the 3/4" sieve.

REGISTERED PROFESSIONAL ENGINEER STEVEN R. MARVIN 30659 EXP. 3/31/08 CIVIL STATE OF CALIFORNIA

Steven R. Marvin, RCE 30659

The data above is based upon processing and testing samples as received from the field. Test procedures in accordance with Physical Research Section, Office of Research Coordination, Minnesota Department of Highways, Investigation No. 176.

LaBelle • Marvin

R-VALUE GRAPHICAL PRESENTATION

PROJECT NO. 33415 AET# 01-2969

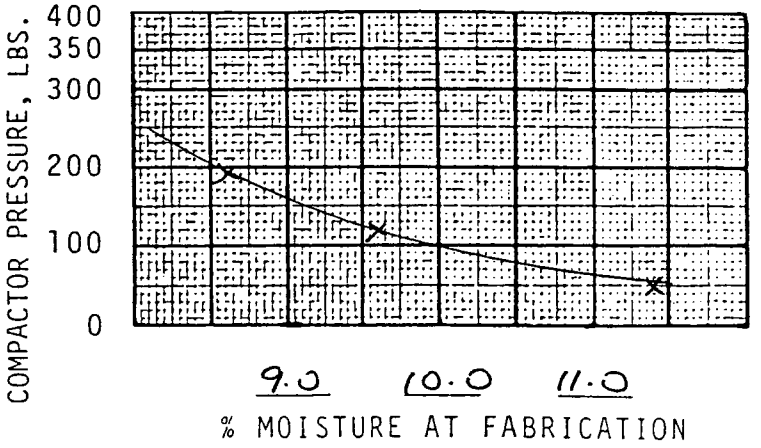
BORING NO. B-40 @ 1'-4'

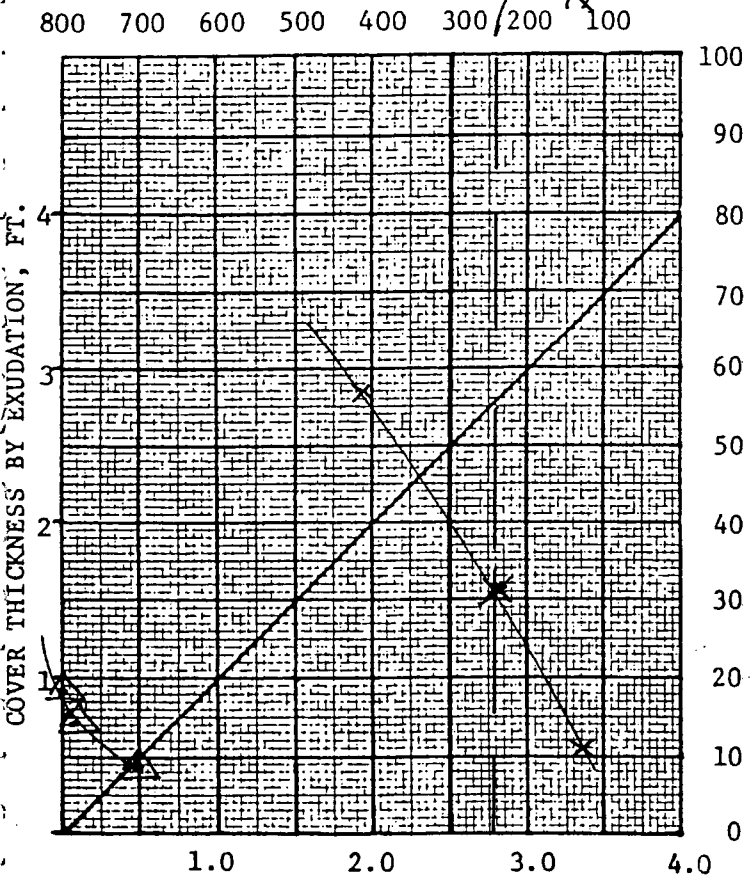
DATE 6-2-06

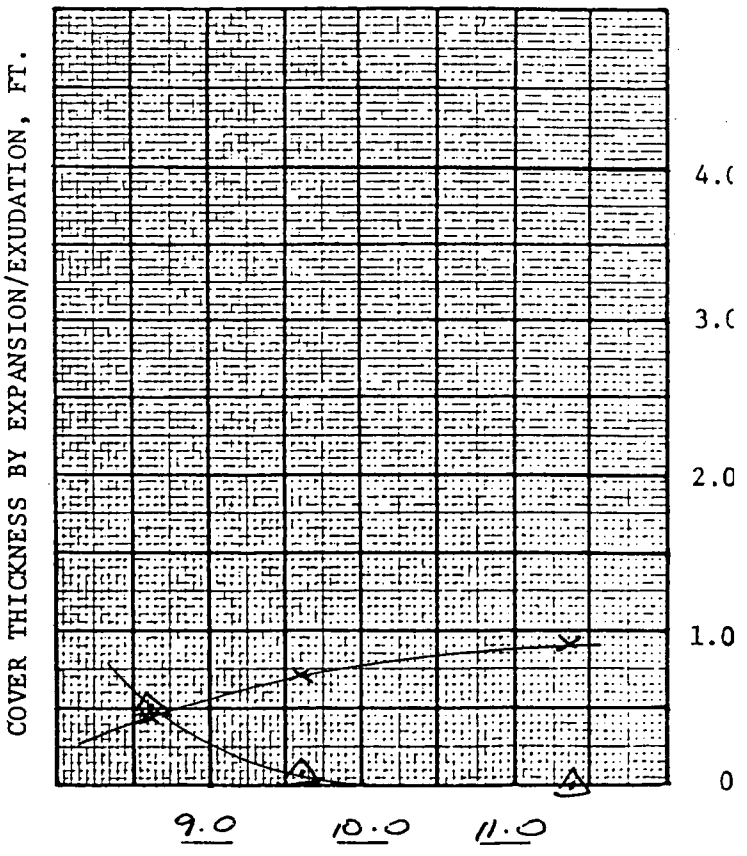
TRAFFIC INDEX Assume 4.0

R-VALUE BY EXUDATION 31

R-VALUE BY EXPANSION [illegible]







R-VALUE vs. EXUD. PRES. — T by EXUDATION

EXUD. T vs. EXPAN. T — T by EXPANSION

REMARKS GF=1.25

LaBelle • Marvin
PROFESSIONAL PAVEMENT ENGINEERING

BORING LOG NOTES

DRILLING AND SAMPLING SYMBOLS

Symbol	Definition
B,H,N:	Size of flush-joint casing
CA:	Crew Assistant (initials)
CAS:	Pipe casing, number indicates nominal diameter in inches
CC:	Crew Chief (initials)
COT:	Clean-out tube
DC:	Drive casing; number indicates diameter in inches
DM:	Drilling mud or bentonite slurry
DR:	Driller (initials)
DS:	Disturbed sample from auger flights
FA:	Flight auger; number indicates outside diameter in inches
HA:	Hand auger; number indicates outside diameter
HSA:	Hollow stem auger; number indicates inside diameter in inches
LG:	Field logger (initials)
MC:	Column used to describe moisture condition of samples and for the ground water level symbols
N (BPF):	Standard penetration resistance (N-value) in blows per foot (see notes)
NQ:	NQ wireline core barrel
PQ:	PQ wireline core barrel
RD:	Rotary drilling with fluid and roller or drag bit
REC:	In split-spoon (see notes) and thin-walled tube sampling, the recovered length (in inches) of sample. In rock coring, the length of core recovered (expressed as percent of the total core run). Zero indicates no sample recovered.
REV:	Revert drilling fluid
SS:	Standard split-spoon sampler (steel; 1⅜" is inside diameter; 2" outside diameter); unless indicated otherwise
SU	Spin-up sample from hollow stem auger
TW:	Thin-walled tube; number indicates inside diameter in inches
WASH:	Sample of material obtained by screening returning rotary drilling fluid or by which has collected inside the borehole after "falling" through drilling fluid
WH:	Sampler advanced by static weight of drill rod and hammer
WR:	Sampler advanced by static weight of drill rod
94mm:	94 millimeter wireline core barrel
▼:	Water level directly measured in boring
▽:	Estimated water level based solely on sample appearance

TEST SYMBOLS

Symbol	Definition
CONS:	One-dimensional consolidation test
DEN:	Dry density, pcf
DST:	Direct shear test
E:	Pressuremeter Modulus, tsf
HYD:	Hydrometer analysis
LL:	Liquid Limit, %
LP:	Pressuremeter Limit Pressure, tsf
OC:	Organic Content, %
PERM:	Coefficient of permeability (K) test; F - Field; L - Laboratory
PL:	Plastic Limit, %
q_p:	Pocket Penetrometer strength, tsf (approximate)
q_c:	Static cone bearing pressure, tsf
q_u:	Unconfined compressive strength, psf
R:	Electrical Resistivity, ohm-cms
RQD:	Rock Quality Designation of Rock Core, in percent (aggregate length of core pieces 4" or more in length as a percent of total core run)
SA:	Sieve analysis
TRX:	Triaxial compression test
VSR:	Vane shear strength, remoulded (field), psf
VSU:	Vane shear strength, undisturbed (field), psf
WC:	Water content, as percent of dry weight
%-200:	Percent of material finer than #200 sieve

STANDARD PENETRATION TEST NOTES

(Calibrated Hammer Weight)

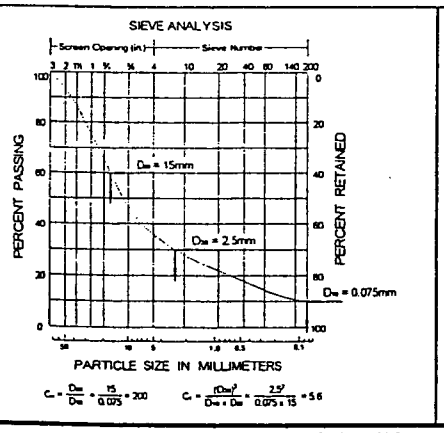
The standard penetration test consists of driving a split-spoon sampler with a drop hammer (calibrated weight varies to provide N_{60} values) and counting the number of blows applied in each of three 6" increments of penetration. If the sampler is driven less than 18" (usually in highly resistant material), permitted in ASTM:D1586, the blows for each complete 6" increment and for each partial increment is on the boring log. For partial increments, the number of blows is shown to the nearest 0.1' below the slash.

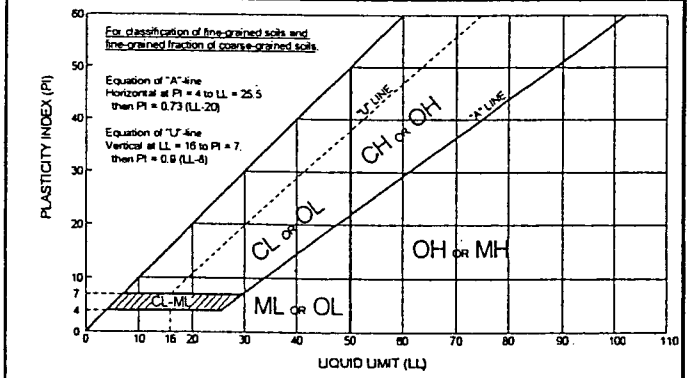
The length of sample recovered, as shown on the "REC" column, may be greater than the distance indicated in the N column. The disparity is because the N-value is recorded below the initial 6" set (unless partial penetration defined in ASTM:D1586 is encountered) whereas the length of sample recovered is for the entire sampler drive (which may even extend more than 18").

UNIFIED SOIL CLASSIFICATION SYSTEM
ASTM Designations: D 2487, D2488

AMERICAN ENGINEERING TESTING, INC.

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests[A]				Soil Classification: Group Symbol	Soil Classification: Group Name[B]
Coarse-Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines[C]	$Cu \geq 4$ and $1 \leq Cc \leq 3^E$	GW	Well graded gravel[F]
			$Cu < 4$ and/or $1 > Cc > 3^E$	GP	Poorly graded gravel[F]
		Gravels with Fines more than 12% fines[C]	Fines classify as ML or MH	GM	Silty gravel[F,G,H]
			Fines classify as CL or CH	GC	Clayey gravel[F,G,H]
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5% fines[D]	$Cu \geq 6$ and $1 \leq Cc \leq 3^E$	SW	Well-graded sand[I]
			$Cu < 6$ or $1 > Cc > 3^E$	SP	Poorly-graded sand[I]
		Sands with Fines more than 12% fines[D]	Fines classify as ML or MH	SM	Silty sand[G,H,I]
			Fines classify as CL or CH	SC	Clayey sand[G,H,I]
Fine-Grained Soils 50% or more passes the No. 200 sieve (see Plasticity Chart below)	Silts and Clays Liquid limit less than 50	inorganic	PI>7 and plots on or above "A" line[J]	CL	Lean clay[K,L,M]
			PI<4 or plots below "A" line[J]	ML	Silt[K,L,M]
		organic	Liquid limit–oven dried / Liquid limit – not dried < 0.75	OL	Organic clay[K,L,M,N] / Organic silt[K,L,M,O]
	Silts and Clays Liquid limit 50 or more	inorganic	PI plots on or above "A" line	CH	Fat clay[K,L,M]
			PI plots below "A" line	MH	Elastic silt[K,L,M]
		organic	Liquid limit–oven dried / Liquid limit – not dried < 0.75	OH	Organic clay[K,L,M,P] / Organic silt[K,L,M,Q]
Highly organic soil			Primarily organic matter, dark in color, and organic in odor	PT	Peat[R]





Plasticity Chart

Notes

[A] Based on the material passing the 3-in (75-mm) sieve.

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols:
GW-GM well-graded gravel with silt
GW-GC well-graded gravel with clay
GP-GM poorly graded gravel with silt
GP-GC poorly graded gravel with clay

[D] Sands with 5 to 12% fines require dual symbols:
SW-SM well-graded sand with silt
SW-SC well-graded sand with clay
SP-SM poorly graded sand with silt
SP-SC poorly graded sand with clay

[E] $Cu = D_{60} / D_{10}$, $Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot is hatched area, soils is a CL-ML silty clay.

[K] If soil contains 15 to 29% plus No. 200 add "with sand" or "with gravel", whichever is predominant.

[L] If soil contains ≥30% plus No. 200, predominantly sand, add "sandy" to group name.

[M] If soil contains ≥30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI≥4 and plots on or above "A" line.

[O] PI<4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.

[R] Fiber Content description shown below.

ADDITIONAL TERMINOLOGY NOTES USED BY AET FOR SOIL IDENTIFICATION AND DESCRIPTION

Grain Size

Term	Particle Size
Boulders	Over 12"
Cobbles	3" to 12"
Gravel	#4 sieve to 3"
Sand	#200 to #4 sieve
Fines (silt & clay)	Pass #200 sieve

Gravel Percentages

Term	Percent
A Little Gravel	3% - 14%
With Gravel	15% - 29%
Gravelly	30% - 50%

Consistency of Plastic Soils

Term	N-Value, BPF
Very Soft	less than 2
Soft	2 - 4
Firm	5 - 8
Stiff	9 - 15
Very Stiff	16 - 30
Hard	Greater than 30

Relative Density of Non-Plastic Soils

Term	N-Value, BPF
Very Loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	Greater than 50

Moisture/Frost Condition (MC Column)

D (Dry): Absense of moisture, dusty, dry to touch.

M (Moist): Damp, although free water not visible. Soil may still have a high water content (over "optimum").

W (Wet/ Waterbearing): Free water visible intended to describe non-plastic soils. Waterbearing usually relates to sands and sand with silt.

F (Frozen): Soil frozen

Layering Notes

Laminations: Layers less than ½" thick of differing material or color.

Lenses: Pockets or layers greater than ½" thick of differing material or color.

Fiber Content of Peat

Term	Fiber Content (Visual Estimate)
Fibric Peat:	Greater than 67%
Hemic Peat:	33 – 67%
Sapric Peat:	Less than 33%

Organic/Roots Description (if no lab tests)

Soils are described as *organic*, if soil is not peat and is judged to have sufficient organic fines content to influence the soil properties. *Slightly organic* used for borderline cases.

With roots: Judged to have sufficient quantity of roots to influence the soil properties.

Trace roots: Small roots present, but not judged to be in sufficient quantity to significantly affect soil proper

AMERICAN ENGINEERING TESTING, INC.

CONSULTANTS
• ENVIRONMENTAL
• GEOTECHNICAL
• MATERIALS
• FORENSICS

REPORT OF SUBSURFACE BORINGS

PROJECT:

2007 STREETS
ZANE AVENUE & LINDSAY AVENUE
GOLDEN VALLEY, MINNESOTA

REPORTED TO:

SEH
3535 VADNAIS CENTER DRIVE
ST. PAUL, MN 55110

ATTN: RON FARMER

AET JOB NO.: 01-03163

DATE: OCTOBER 13, 2006

INTRODUCTION

During the period of September 21 to 26, 2006, American Engineering Testing drilled six test borings for the referenced project. The scope of services (boring location, depth, etc.) was as requested by SEH.

AUTHORIZED WORK SCOPE

Soil Borings

Procedures

The boring locations were made at the approximate locations selected by SEH.

We have not included a sketch indicating the boring locations as it is our understanding this information will be supplied by others. The surface elevations presented on the attached boring logs were provided by SEH.

The boring and sampling was done using the split-spoon and auger methods. Refer to the attached sheets (Field Sampling and Testing Methods) for additional information.

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All boreholes were backfilled with drill cuttings. The surface at each boring location was patched with concrete mix.

A field log was maintained for each soil boring. Information on field logs include: contacts between soil layers; geologic identification (driller's opinion) of materials; notes; and other information.

Soil samples were then examined in the laboratory, and soil classification information was added to the field logs. Soil identifications and descriptions are in accordance (generally) with the STM Visual-Manual (D2488) system as shown on the attached sheet. The samples will be discarded or returned to the Client at AET's discretion; unless within 30 days' of the report date, the client provides a written request that AET store or ship the samples, at the client's expense.

Typed logs were then prepared from field logs. The typed logs may not contain all information shown on field logs. (Field logs are available for inspection by our client.)

Results

Typed copies of the field logs are enclosed. Refer to the attached logs for a description of the subsurface conditions encountered in the borings. The logs show: the depths to the contacts between the soil layers; the identification and geology of the soils; the surface elevations at the borings; water level measurements; standard penetration resistance (N-column); the results of laboratory tests; and other information. We wish to point out that the split spoon samples were collected using a modified hammer weight calibrated to N_{60} values. For an explanation of this sampling method please refer to the attached Exploration/ Classification Method sheet. Please refer to the other attached sheets for descriptions of terminology used on the logs.

Laboratory Tests

Moisture content and sieve analysis tests were performed on samples selected by SEH. The results of the tests are presented on the attached boring logs and gradation curves.

REMARKS

Subsurface soil and ground water conditions can vary from that encountered in the borings at other locations, depths and times. Refer to the attached sheet for more information regarding limitations of subsurface exploration.

As requested by SEH, this is a factual report only.

To protect the addressee, the public, and ourselves, this report (and all supporting information) is provided for the addressee's own use. No representations are made to parties other than the addressee.

American Engineering Testing, Inc. appreciates this opportunity to be of service to you. If you have any questions or need further help, please call me at (651) 659-1356.

Report Prepared By:

American Engineering Testing, Inc.

Pat Francis
Drilling Manager

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: 01-03163 LOG OF BORING NO. 44 (p. 1 of 1)

PROJECT: 2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN

DEPTH IN FEET	SURFACE ELEVATION: 872.7 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-#200
	6.5" Concrete pavement				SU						
1	FILL, mostly sand, a little gravel, brown										
	FILL, mixture of clayey sand and silty sand, a little gravel, brownish gray and brown		9	M	SS	14					28
2											
3	FILL, mixture of clayey sand and sand with silt, light gray and brown, water in fill below about 4'		9	M	SS	16					25
4		FILL		▼							
5	FILL, mostly sand with silt and gravel, brown, water in fill		12	W	SS	8					9
6											
7											
8			8	M	SS	16					
9	CLAYEY SAND, a little gravel, gray to brownish gray, firm to stiff to firm, lenses and laminations of waterbearing sand (SC)	TILL									
10			11	M	SS	8					
11											
12											
13			8	M/W	SS	14					
14											
15			8	M	SS	18					
16	**END OF BORING**										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
0-14½' 3.25" HSA	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
	9/21/06	**1:45**	**6.0**	**4.5**	**5.0**		**4.0**
	9/21/06	**2:00**	**16.0**	**14.5**	**16.0**		**None**
BORING COMPLETED: **9/21/06**	**9/21/06**	**2:40**	**16.0**	**14.5**	**14.0**		**4.0**
DR: **SS** LG: **MB** Rig: **1C**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: 01-03163 LOG OF BORING NO. 45 (p. 1 of 1)

PROJECT: 2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN

DEPTH IN FEET	SURFACE ELEVATION: 871.8 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-#200
	8" Concrete pavement				SU						
1	FILL, mostly sand with silt, a little silty sand, brown and dark brown		1	M	SS	12					10
2											
3	FILL, mostly silty sand with gravel, light gray and light brown		13	M	SS	14					13
4											
5	FILL, mostly sand with silt and gravel, light gray and light brown, water in fill below about 6'	FILL	6	W/M	SS	10					
6				▼							
7											
8	CLAYEY SAND, a little gravel, gray to brownish gray, firm to soft to firm, lenses and laminations of waterbearing sand (SC)	TILL	5	M	SS	16					
9											
10			6	M	SS	1					
11											
12											
13			4	M	SS	17					
14											
15			7	M	SS	18					
16	**END OF BORING**										

DEPTH: DRILLING METHOD

0-14½' 3.25" HSA

DR: SS LG: MB Rig: 1C

BORING COMPLETED: 9/21/06

WATER LEVEL MEASUREMENTS

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
9/21/06	12:05	16.0	14.5	15.9		15.8
9/21/06	12:40	16.0	14.5	14.8		6.3

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: 01-03163 LOG OF BORING NO. 46 (p. 1 of 1)

PROJECT: 2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN

DEPTH IN FEET	SURFACE ELEVATION: 871.1 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-#200
	8" Concrete pavement				SU						
1	FILL, mostly sand, a little silty sand, brown, a little dark brown		16	M	SS	12					20
2	FILL, mixture of silty sand and sand with silt, a little gravel, brown, light gray and light brown	FILL	17	M	SS	15					27
3											
4											
5	SAND WITH SILT, fine grained, light brownish gray, moist, medium dense, laminations of silty sand (SP-SM) (may be fill)	COARSE ALLUVIUM OR FILL	14	M	SS	14					
6											
7											
8	SAND WITH GRAVEL, medium to fine grained, light grayish brown, moist to about 7.5' then waterbearing, medium dense, lenses of waterbearing sand (SP)	COARSE ALLUVIUM	12	W	SS	12					
9											
10	GRAVELLY SAND, possible cobbles, medium to fine grained, light brownish gray, waterbearing, medium dense (SP)		13	W	SS	10					
11											
12											
13	SANDY LEAN CLAY, a little gravel, brownish gray, firm, laminations of sand (CL)	TILL	8	M	SS	12					
14											
15	CLAYEY SAND, a little gravel, brown, stiff (SC)		13	M	SS	16					
16	**END OF BORING**										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-14½' 3.25" HSA	9/26/06	12:00	8.5	7.0	8.2		8.0
	9/26/06	12:10	16.0	14.5	15.8		15.7
BORING COMPLETED: 9/26/06	9/26/06	12:40	16.0	14.5	10.0		7.8
DR: SS LG: MB Rig: 1C							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: 01-03163 LOG OF BORING NO. 47 (p. 1 of 1)

PROJECT: 2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN

DEPTH IN FEET	SURFACE ELEVATION: 871.6 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-#200
	8" Concrete pavement				SU						
1	FILL, mostly sand and a little clayey sand, light brown and a little brown		16	M	SS	16					
2											
3	FILL, mostly clayey sand, a little gravel, pieces of concrete, brown and gray, water in fill below' about 4'	FILL	12	M	SS	14	14				
4				▼							
5			16	M	SS	17	13				
6											
7											
8	SAND WITH SILT, a little gravel, fine to medium grained, brown, waterbearing, medium dense (SP-SM)		26	W	SS	14					
9											
10	DOLOSTONE GRAVEL WITH SILTY SAND, apparent cobbles, light brownish gray, waterbearing, very dense (GP/GM)	COARSE ALLUVIUM	50/.3	W	SS	1					
11											
12											
13	CLAYEY SAND, a little gravel, brown, stiff (SC)	TILL	13	M/W	SS	14					
14											
15			13	M	SS	16					
16	**END OF BORING**										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS							NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG
0-14½' 3.25" HSA	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL	
	9/26/06	9:45	8.5	7.0	8.5		6.6	
	9/26/06	10:10	16.0	14.5	15.8		12.7	
BORING COMPLETED: 9/26/06	9/26/06	10:40	16.0	14.5	14.5		4.4	
DR: SS LG: MB Rig: 1C								

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

AET JOB NO: 01-03163 LOG OF BORING NO. 48 (p. 1 of 1)

PROJECT: 2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN

DEPTH IN FEET	SURFACE ELEVATION: 871.8 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-#200
	7.5" Concrete pavement				SU						
1			19	M	SS	15					
2	FILL, mixture of silty sand, sand with silt and lean clay with sand, a little gravel, brown and gray	FILL									
3			8	M	SS	16					27
4											
5	SAND WITH SILT, a little gravel, medium to fine grained, light gray, moist, medium dense, lenses of lean clay (SP-SM) (may be fill)	COARSE ALLUVIUM OR FILL	13	M	SS	12					
6											
7				▼							
8	CLAYEY SAND, a little gravel, brownish gray, stiff to soft, lenses and laminations of waterbearing sand (SC)	TILL	9	W	SS	10					
9											
10			4	W	SS	10					
11											
12	CLAYEY SAND, a little gravel, brownish gray, firm to stiff (SC)										
13			7	M	SS	10					
14											
15			9	M	SS	12					
16	**END OF BORING**										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
0-14½' 3.25" HSA	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
	9/21/06	**9:55**	**8.5**	**7.0**	**8.5**		**7.0**
	9/21/06	**10:05**	**16.0**	**14.5**	**15.5**		**15.4**
BORING COMPLETED: **9/21/06**	**9/21/06**	**11:00**	**16.0**	**14.5**	**15.4**		**15.1**
DR: **SS** LG: **MB** Rig: **1C**							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG

AMERICAN ENGINEERING TESTING, INC.

SUBSURFACE BORING LOG

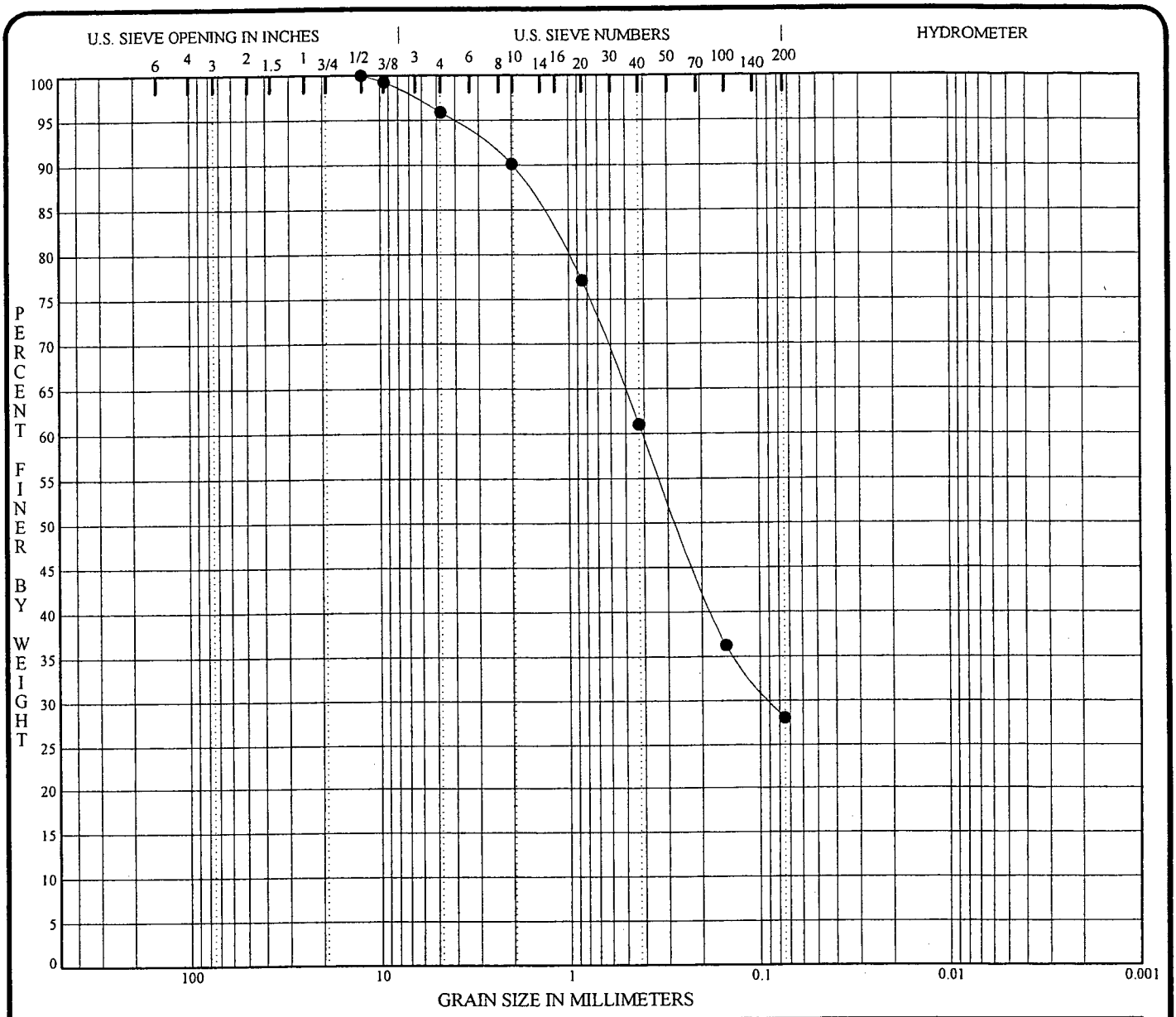
AET JOB NO: 01-03163 LOG OF BORING NO. 49 (p. 1 of 1)

PROJECT: 2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN

DEPTH IN FEET	SURFACE ELEVATION: 872.6 MATERIAL DESCRIPTION	GEOLOGY	N	MC	SAMPLE TYPE	REC IN.	FIELD & LABORATORY TESTS WC	DEN	LL	PL	%-#200
	7.5" Concrete pavement				SU						
1	FILL, mostly sand with silt and gravel, brown		16	M	SS	12					22
2	FILL, mixture of clayey sand and sand with silt, a little gravel, dark brown and brown	FILL									
3			25	M	SS	18					
4											
5	LEAN CLAY, light brownish gray, firm, laminations of sand with silt (CL) (may be fill)	FINE ALLUVIUM OR FILL	7	M	SS	14					
6											
7	SAND WITH SILT, a little gravel, fine to medium grained, light brownish gray, moist, loose, lenses and laminations of clayey sand (SP-SM) (may be fill)	COARSE ALLUVIUM OR FILL									
8			9	M	SS	14					
9				▼							
10	LEAN CLAY WITH SAND, gray, firm, laminations of waterbearing sand with gravel (CL)	TILL OR MIXED ALLUVIUM	6	M/W	SS	12					
11											
12	SAND, a little gravel, gray, waterbearing, medium dense (SP)	COARSE ALLUVIUM									
13			11	W	SS	1					
14											
15	GRAVELLY SAND, medium to fine grained, brown, waterbearing, medium dense, laminations of clayey sand (SP)		11	W	SS	14					
16	**END OF BORING**										

DEPTH: DRILLING METHOD	WATER LEVEL MEASUREMENTS						
	DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	DRILLING FLUID LEVEL	WATER LEVEL
0-14½' 3.25" HSA	9/21/06	9:10	11.0	9.5	10.3		9.2
	9/21/06	9:20	16.0	14.5	14.0		9.5
BORING COMPLETED: 9/21/06	9/21/06	10:10	16.0	14.5	13.5		9.3
DR: SS LG: MB Rig: 1C							

NOTE: REFER TO THE ATTACHED SHEETS FOR AN EXPLANATION OF TERMINOLOGY ON THIS LOG



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	44	1.6'							

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	44	1.6'	12.50	0.41	0.088		4.1	67.9	28.1	

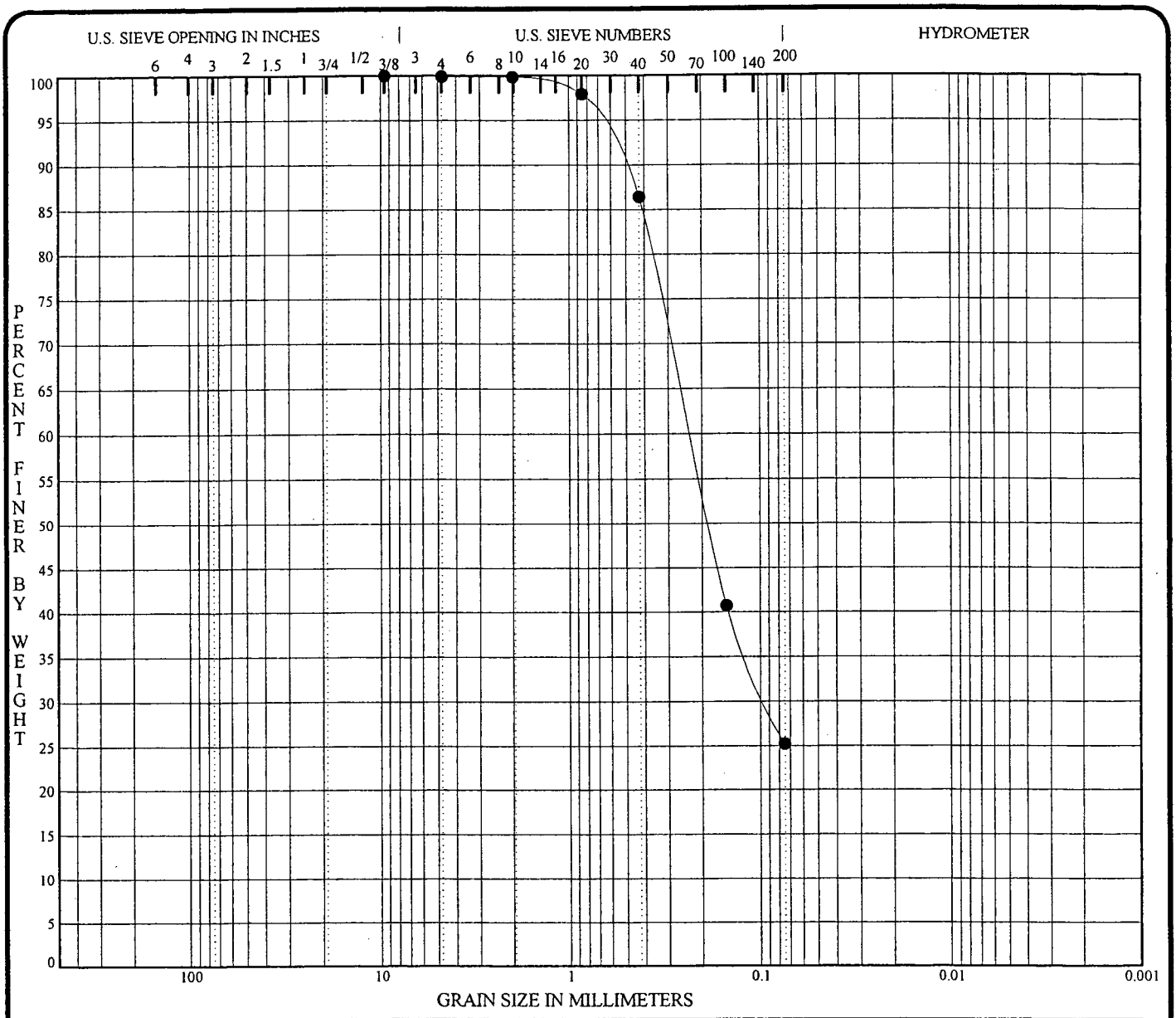
PROJECT **2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN**

AET JOB NO. **01-03163**

DATE **9/21/06**

AMERICAN ENGINEERING TESTING, INC.

GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	44	2.8'							

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	44	2.8'	9.50	0.23	0.093		0.1	74.7	25.2	

PROJECT **2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN**

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DATE **9/21/06**

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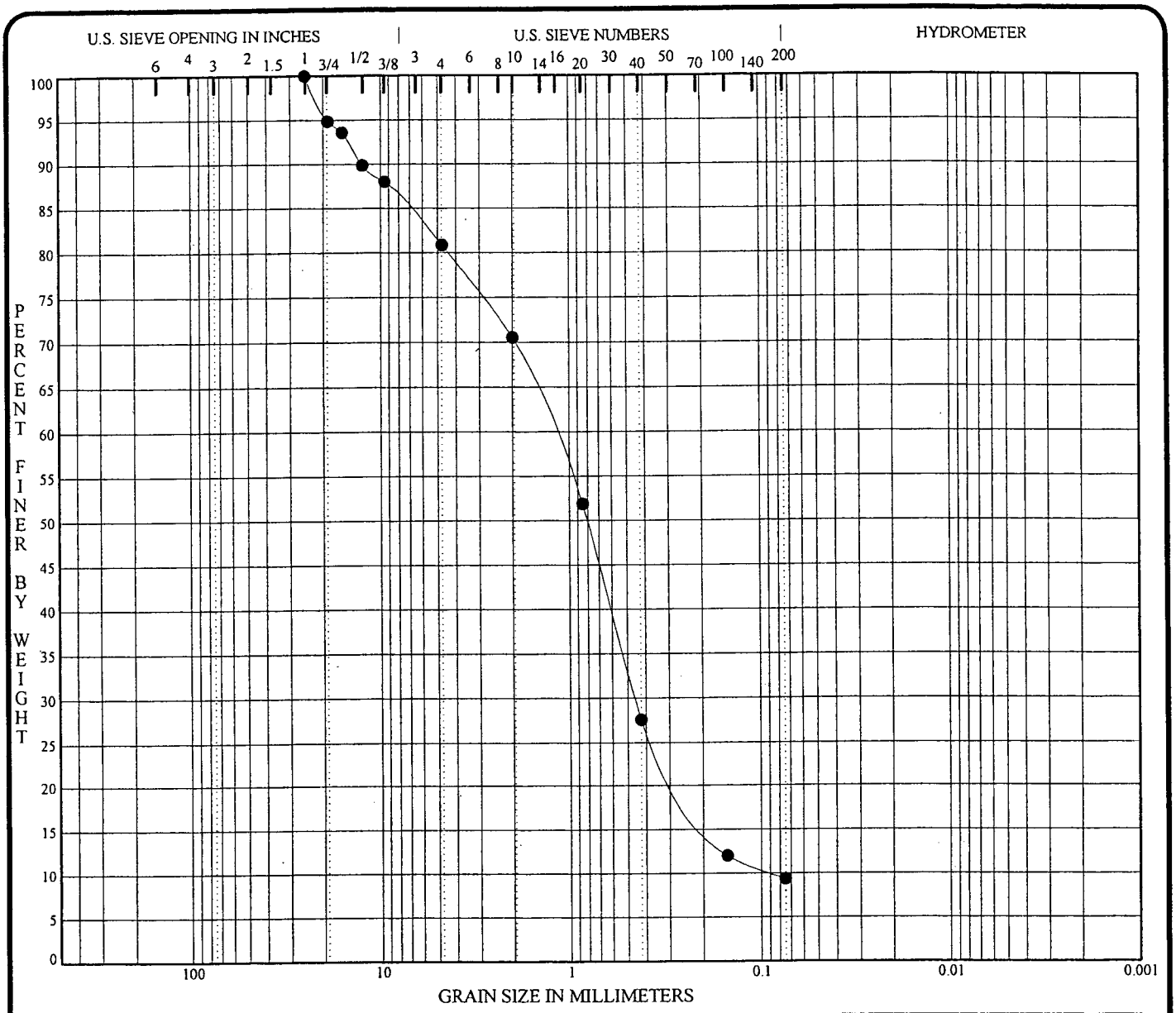
GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	44	5.3'						1.89	13.9

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	44	5.3'	25.00	1.23	0.455	0.0889	19.1	71.5	9.3	

PROJECT **2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN**

AET JOB NO. **01-03163**

DATE **9/21/06**

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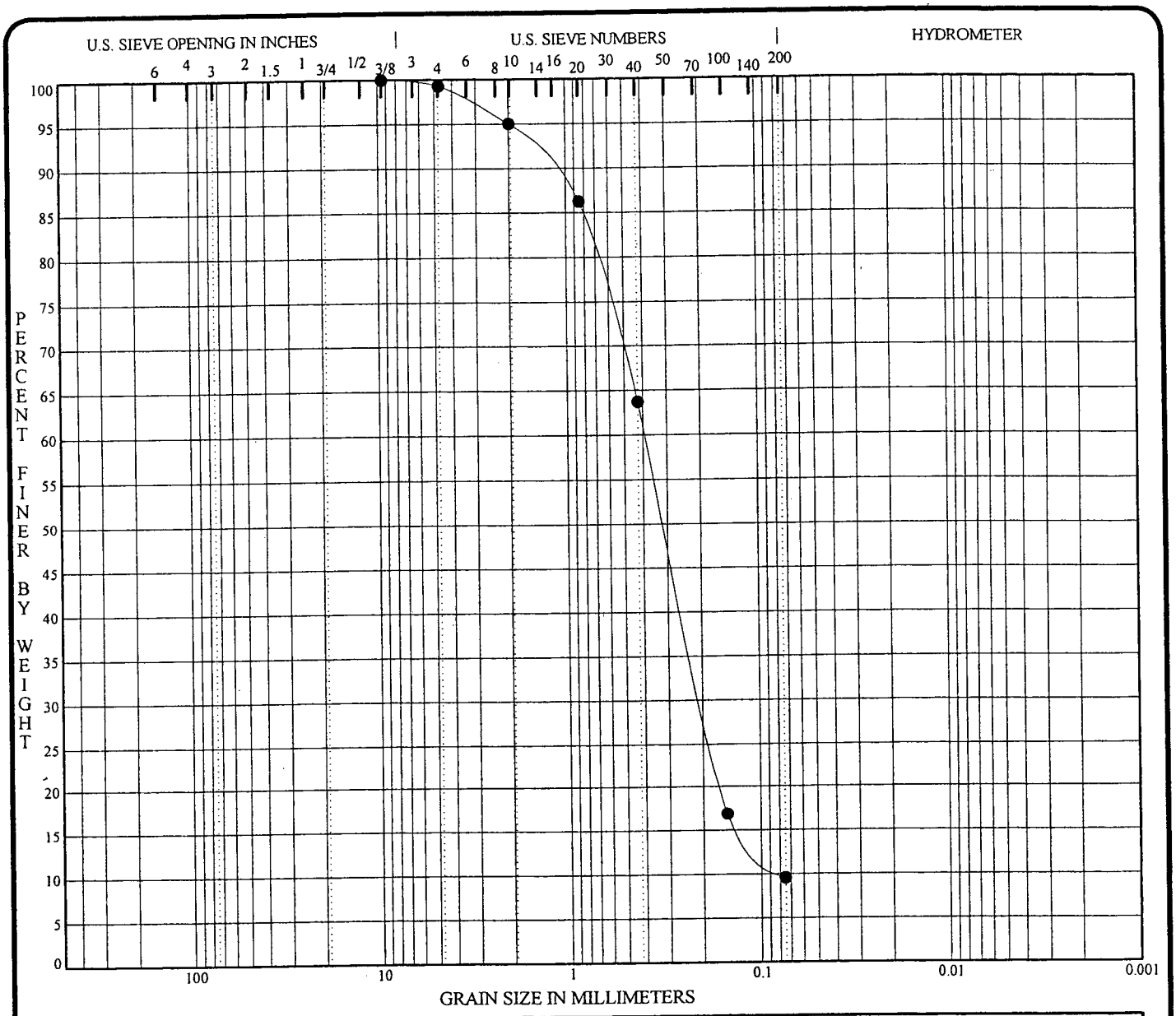
GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	45	1.7'						1.32	5.0

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	45	1.7'	9.50	0.39	0.201	0.0782	0.7	89.7	9.6	

PROJECT **2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN**

AET JOB NO. **01-03163**

DATE **9/21/06**

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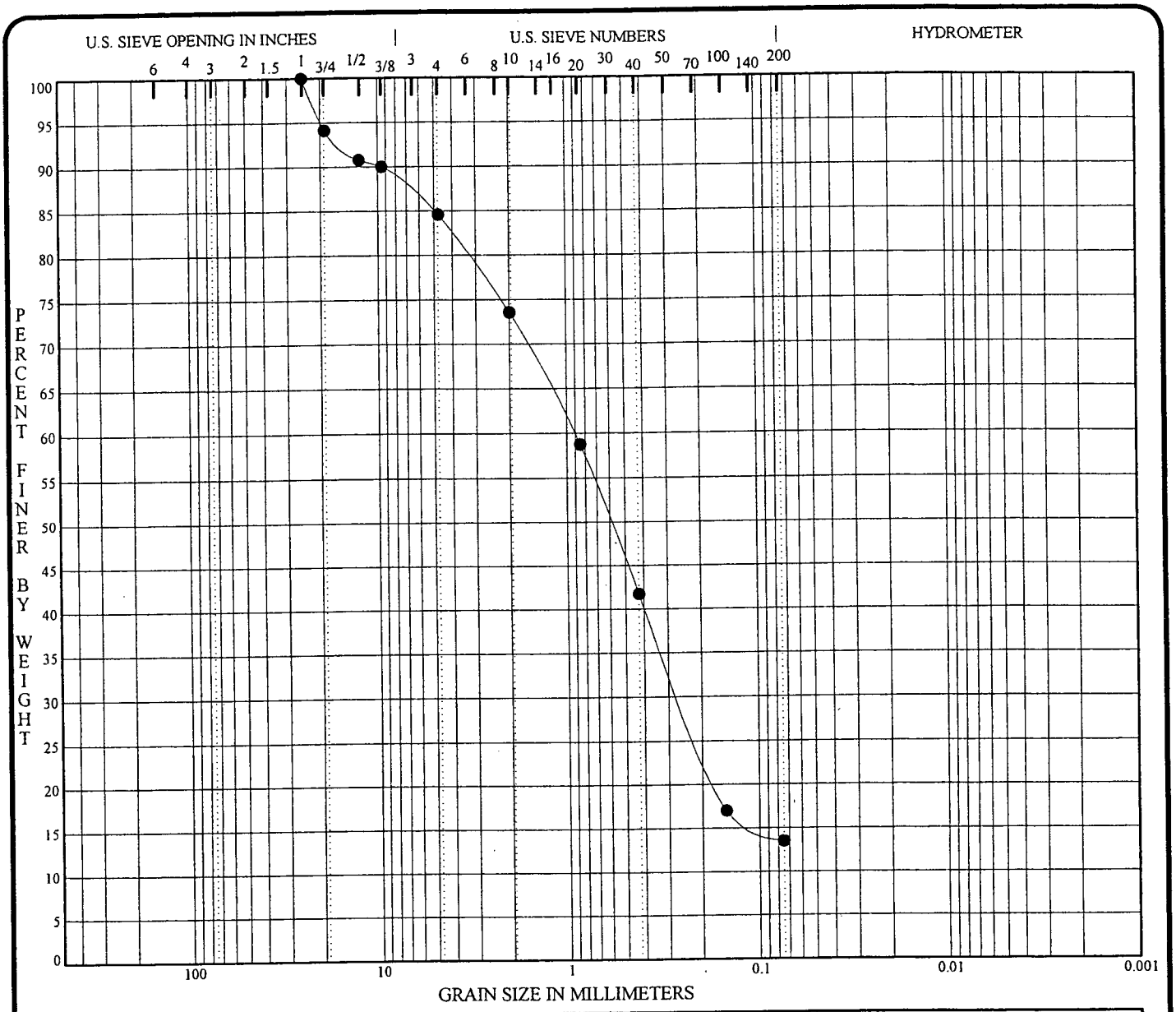
GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	45	2.8'							

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	45	2.8'	25.00	0.91	0.259		15.4	71.1	13.5	

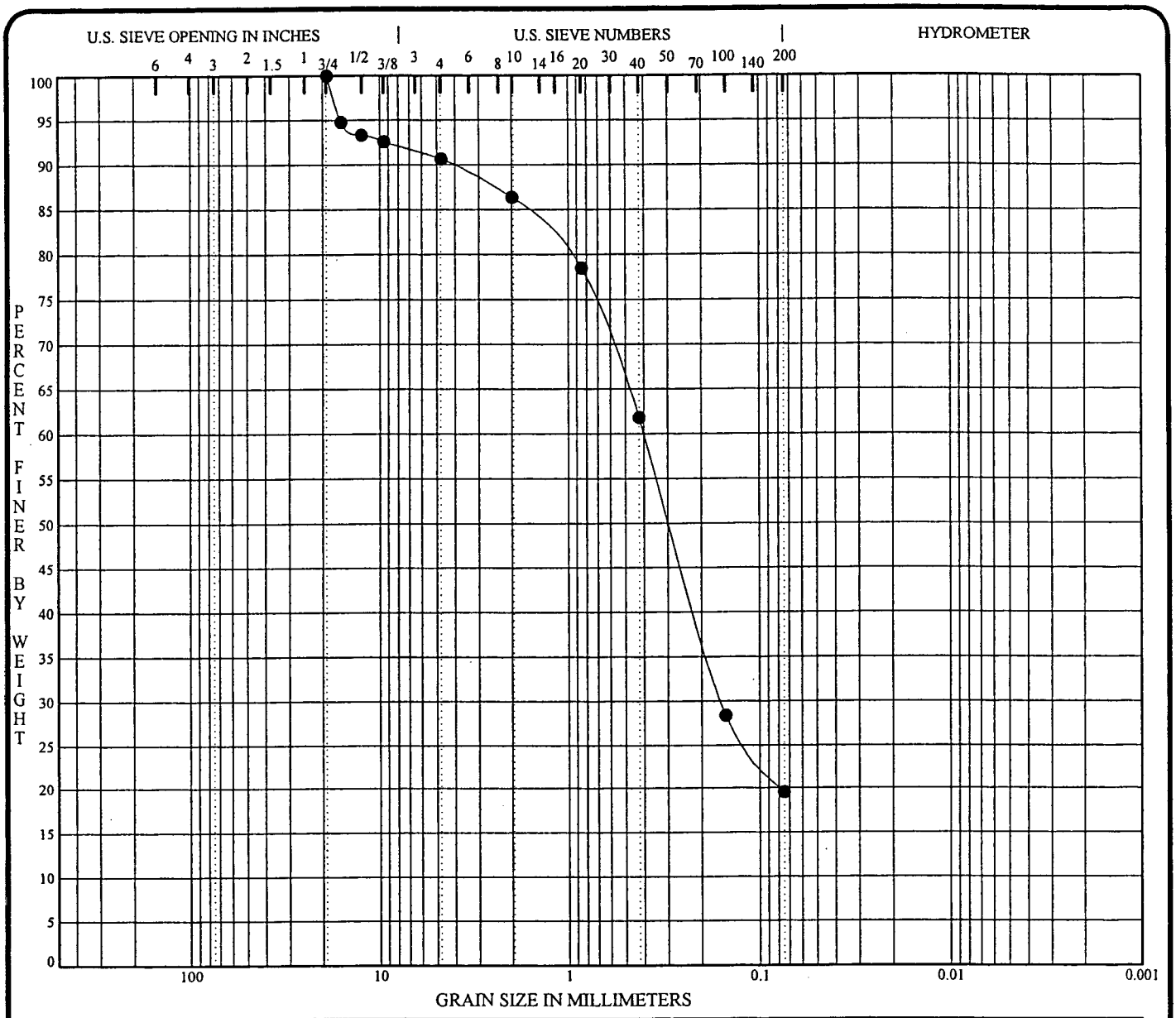
PROJECT 2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN

AET JOB NO. 01-03163

DATE 9/21/06

AMERICAN ENGINEERING TESTING, INC.

GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	46	1.5'							

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	46	1.5'	19.00	0.40	0.158		9.3	71.1	19.5	

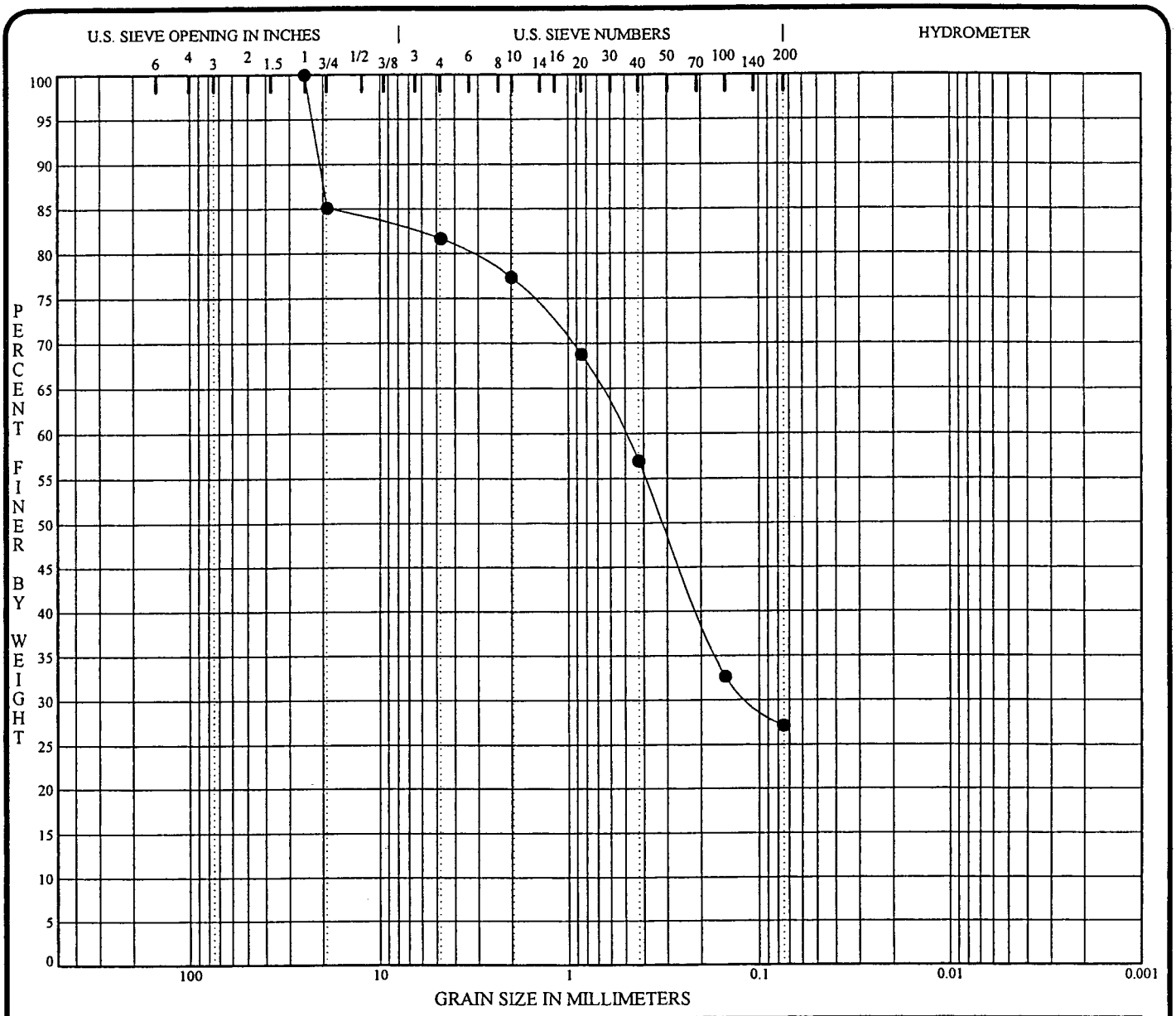
PROJECT **2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN**

AET JOB NO. **01-03163**

DATE **9/26/06**

AMERICAN ENGINEERING TESTING, INC.

GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	46	2.8'							

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	46	2.8'	25.00	0.51	0.107		18.3	54.5	27.2	

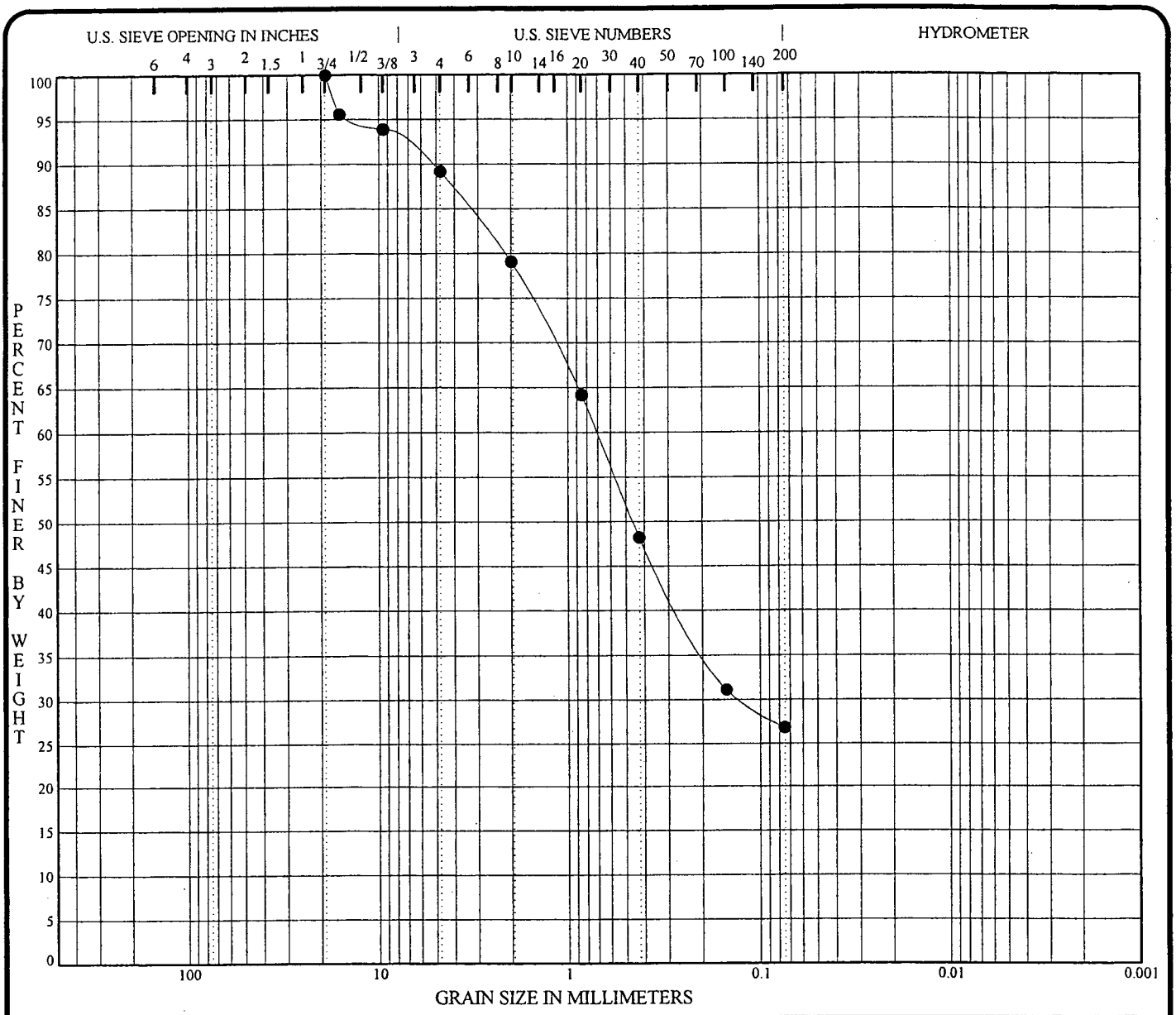
PROJECT **2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN**

AET JOB NO. **01-03163**

DATE **9/26/06**

AMERICAN ENGINEERING TESTING, INC.

GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	48	2.8'							

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	48	2.8'	19.00	0.71	0.125		10.8	62.4	26.8	

PROJECT **2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN**

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DATE **9/21/06**

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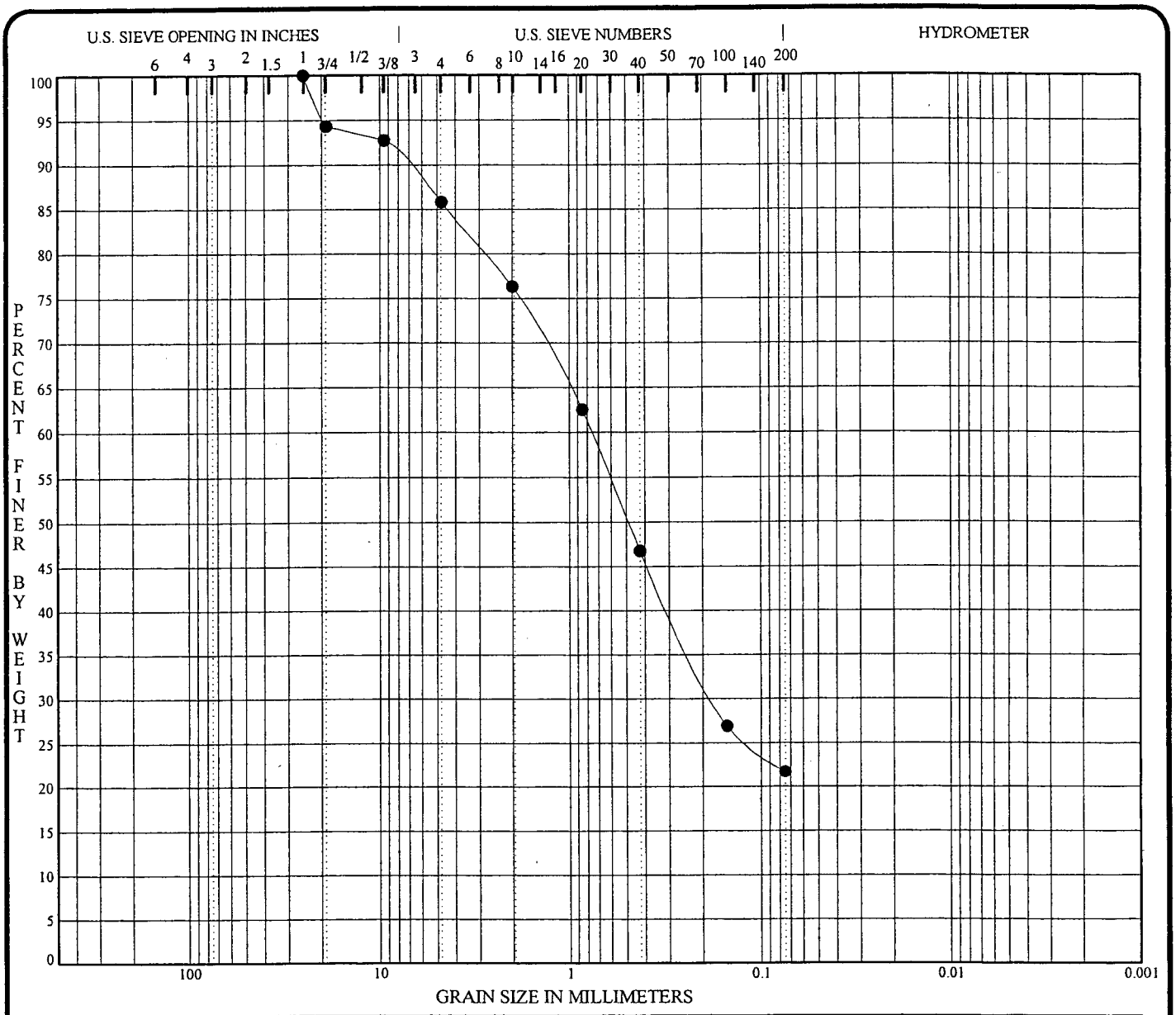
GRADATION CURVES



COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

	Specimen Identification		Classification	MC%	LL	PL	PI	Cc	Cu
●	49	1.6'							

	Specimen Identification		D100	D60	D30	D10	%Gravel	%Sand	%Silt	%Clay
●	49	1.6'	25.00	0.76	0.176		14.2	64.1	21.7	

PROJECT **2007 Streets, Zane Avenue & Lindsay Avenue; Golden Valley, MN**

AET JOB NO. **01-03163**

DATE **9/21/06**

AMERICAN ENGINEERING TESTING, INC.

GRADATION CURVES

BORING LOG NOTES

DRILLING AND SAMPLING SYMBOLS

Symbol	Definition
B,H,N:	Size of flush-joint casing
CA:	Crew Assistant (initials)
CAS:	Pipe casing, number indicates nominal diameter in inches
CC:	Crew Chief (initials)
COT:	Clean-out tube
DC:	Drive casing; number indicates diameter in inches
DM:	Drilling mud or bentonite slurry
DR:	Driller (initials)
DS:	Disturbed sample from auger flights
FA:	Flight auger; number indicates outside diameter in inches
HA:	Hand auger; number indicates outside diameter
HSA:	Hollow stem auger; number indicates inside diameter in inches
LG:	Field logger (initials)
MC:	Column used to describe moisture condition of samples and for the ground water level symbols
N (BPF):	Standard penetration resistance (N-value) in blows per foot (see notes)
NQ:	NQ wireline core barrel
PQ:	PQ wireline core barrel
RD:	Rotary drilling with fluid and roller or drag bit
REC:	In split-spoon (see notes) and thin-walled tube sampling, the recovered length (in inches) of sample. In rock coring, the length of core recovered (expressed as percent of the total core run). Zero indicates no sample recovered.
REV:	Revert drilling fluid
SS:	Standard split-spoon sampler (steel; 1⅜" is inside diameter; 2" outside diameter); unless indicated otherwise
SU	Spin-up sample from hollow stem auger
TW:	Thin-walled tube; number indicates inside diameter in inches
WASH:	Sample of material obtained by screening returning rotary drilling fluid or by which has collected inside the borehole after "falling" through drilling fluid
WH:	Sampler advanced by static weight of drill rod and hammer
WR:	Sampler advanced by static weight of drill rod
94mm:	94 millimeter wireline core barrel
▼:	Water level directly measured in boring
▽:	Estimated water level based solely on sample appearance

TEST SYMBOLS

Symbol	Definition
CONS:	One-dimensional consolidation test
DEN:	Dry density, pcf
DST:	Direct shear test
E:	Pressuremeter Modulus, tsf
HYD:	Hydrometer analysis
LL:	Liquid Limit, %
LP:	Pressuremeter Limit Pressure, tsf
OC:	Organic Content, %
PERM:	Coefficient of permeability (K) test; F - Field; L - Laboratory
PL:	Plastic Limit, %
q_p:	Pocket Penetrometer strength, tsf (approximate)
q_c:	Static cone bearing pressure, tsf
q_u:	Unconfined compressive strength, psf
R:	Electrical Resistivity, ohm-cms
RQD:	Rock Quality Designation of Rock Core, in percent (aggregate length of core pieces 4" or more in length as a percent of total core run)
SA:	Sieve analysis
TRX:	Triaxial compression test
VSR:	Vane shear strength, remoulded (field), psf
VSU:	Vane shear strength, undisturbed (field), psf
WC:	Water content, as percent of dry weight
%-200:	Percent of material finer than #200 sieve

STANDARD PENETRATION TEST NOTES

(Calibrated Hammer Weight)

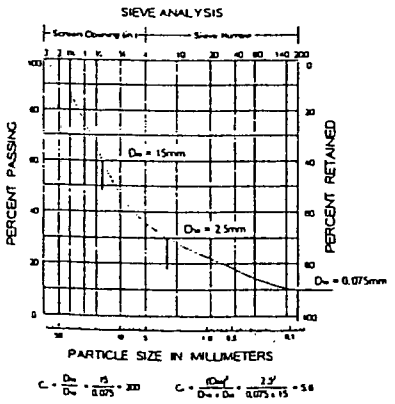
The standard penetration test consists of driving a split-spoon sampler with a drop hammer (calibrated weight varies to provide N_{60} values) and counting the number of blows applied in each of three 6" increments of penetration. If the sampler is driven less than 18" (usually in highly resistant material), permitted in ASTM:D1586, the blows for each complete 6" increment and for each partial increment is on the boring log. For partial increments, the number of blows is shown to the nearest 0.1' below the slash.

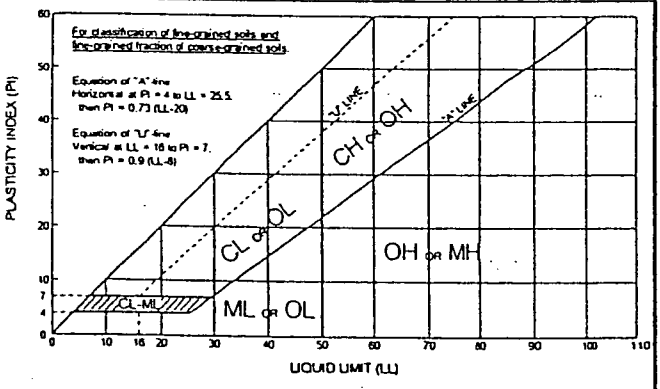
The length of sample recovered, as shown on the "REC" column, may be greater than the distance indicated in the N column. The disparity is because the N-value is recorded below the initial 6" set (unless partial penetration defined in ASTM:D1586 is encountered) whereas the length of sample recovered is for the entire sampler drive (which may even extend more than 18").

UNIFIED SOIL CLASSIFICATION SYSTEM
ASTM Designations: D 2487, D2488

AMERICAN ENGINEERING TESTING, INC.

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests[A]				Soil Classification: Group Symbol	Soil Classification: Group Name[B]
Coarse-Grained Soils More than 50% retained on No. 200 sieve	Gravels More than 50% coarse fraction retained on No. 4 sieve	Clean Gravels Less than 5% fines[C]	$Cu \geq 4$ and $1 \leq Cc \leq 3^E$	GW	Well graded gravel[F]
			$Cu < 4$ and/or $1 > Cc > 3^E$	GP	Poorly graded gravel[F]
		Gravels with Fines more than 12% fines[C]	Fines classify as ML or MH	GM	Silty gravel[F,G,H]
			Fines classify as CL or CH	GC	Clayey gravel[F,G,H]
	Sands 50% or more of coarse fraction passes No. 4 sieve	Clean Sands Less than 5% fines[D]	$Cu \geq 6$ and $1 \leq Cc \leq 3^E$	SW	Well-graded sand[I]
			$Cu < 6$ or $1 > Cc > 3^E$	SP	Poorly-graded sand[I]
		Sands with Fines more than 12% fines[D]	Fines classify as ML or MH	SM	Silty sand[G,H,I]
			Fines classify as CL or CH	SC	Clayey sand[G,H,I]
Fine-Grained Soils 50% or more passes the No. 200 sieve (see Plasticity Chart below)	Silts and Clays Liquid limit less than 50	inorganic	PI>7 and plots on or above "A" line[J]	CL	Lean clay[K,L,M]
			PI<4 or plots below "A" line[J]	ML	Silt[K,L,M]
		organic	Liquid limit–oven dried / Liquid limit – not dried < 0.75	OL	Organic clay[K,L,M,N] / Organic silt[K,L,M,O]
	Silts and Clays Liquid limit 50 or more	inorganic	PI plots on or above "A" line	CH	Fat clay[K,L,M]
			PI plots below "A" line	MH	Elastic silt[K,L,M]
		organic	Liquid limit–oven dried / Liquid limit – not dried < 0.75	OH	Organic clay[K,L,M,P] / Organic silt[K,L,M,Q]
Highly organic soil			Primarily organic matter, dark in color, and organic in odor	PT	Peat[K]





Plasticity Chart

Notes

[A] Based on the material passing the 3-in (75-mm) sieve.

[B] If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

[C] Gravels with 5 to 12% fines require dual symbols:
GW-GM well-graded gravel with silt
GW-GC well-graded gravel with clay
GP-GM poorly graded gravel with silt
GP-GC poorly graded gravel with clay

[D] Sands with 5 to 12% fines require dual symbols:
SW-SM well-graded sand with silt
SW-SC well-graded sand with clay
SP-SM poorly graded sand with silt
SP-SC poorly graded sand with clay

[E] $Cu = D_{60} / D_{10}$, $Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$

[F] If soil contains ≥15% sand, add "with sand" to group name.

[G] If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

[H] If fines are organic, add "with organic fines" to group name.

[I] If soil contains ≥15% gravel, add "with gravel" to group name.

[J] If Atterberg limits plot is hatched area, soils is a CL-ML silty clay.

[K] If soil contains 15 to 29% plus No. 200 add "with sand" or "with gravel", whichever is predominant.

[L] If soil contains ≥30% plus No. 200, predominantly sand, add "sandy" to group name.

[M] If soil contains ≥30% plus No. 200, predominantly gravel, add "gravelly" to group name.

[N] PI≥4 and plots on or above "A" line.

[O] PI<4 or plots below "A" line.

[P] PI plots on or above "A" line.

[Q] PI plots below "A" line.

[R] Fiber Content description shown below.

ADDITIONAL TERMINOLOGY NOTES USED BY AET FOR SOIL IDENTIFICATION AND DESCRIPTION

Grain Size

Term	Particle Size
Boulders	Over 12"
Cobbles	3" to 12"
Gravel	#4 sieve to 3"
Sand	#200 to #4 sieve
Fines (silt & clay)	Pass #200 sieve

Gravel Percentages

Term	Percent
A Little Gravel	3% - 14%
With Gravel	15% - 29%
Gravelly	30% - 50%

Consistency of Plastic Soils

Term	N-Value, BPF
Very Soft	less than 2
Soft	2 - 4
Firm	5 - 8
Stiff	9 - 15
Very Stiff	16 - 30
Hard	Greater than 30

Relative Density of Non-Plastic Soils

Term	N-Value, BPF
Very Loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	Greater than 50

Moisture/Frost Condition (MC Column)

D (Dry): Absense of moisture, dusty, dry to touch.

M (Moist): Damp, although free water not visible. Soil may still have a high water content (over "optimum").

W (Wet/ Waterbearing): Free water visible intended to describe non-plastic soils. Waterbearing usually relates to sands and sand with silt.

F (Frozen): Soil frozen

Layering Notes

Laminations: Layers less than ½" thick of differing material or color.

Lenses: Pockets or layers greater than ½" thick of differing material or color.

Fiber Content of Peat

Term	Fiber Content (Visual Estimate)
Fibric Peat:	Greater than 67%
Hemic Peat:	33 – 67%
Sapric Peat:	Less than 33%

Organic/Roots Description (if no lab tests)

Soils are described as *organic*, if soil is not peat and is judged to have sufficient organic fines content to influence the soil properties. *Slightly organic* used for borderline cases.

With roots: Judged to have sufficient quantity of roots to influence the soil properties

Trace roots: Small roots present, but not judged to be in sufficient quantity to significantly affect soil propert

Appendix I

Suspension/Debarments Notice to Bidders

MINNESOTA DEPARTMENT OF TRANSPORTATION
NOTICE TO BIDDERS:
SUSPENSIONS/DEBARMENTS
THIS NOTICE APPLIES TO STATE-FUNDED AND FEDERALY-FUNDED PROJECTS

Do not use suspended or debarred parties as subcontractors or material suppliers on this project!
Both the federal government and the State of Minnesota suspend and debar vendors. Review the list of suspended and debarred vendors before submitting a bid or a request to sublet. If your bid is based on using a suspended or debarred vendor, you will not be entitled to additional compensation for replacing the suspended or debarred vendor with a qualified vendor.

State Suspensions and Debarments
The State of Minnesota's list of suspended and debarred vendors is maintained by the Minnesota Department of Administration, Office of State Procurement, and can be found at this link: https://mn.gov/admin/osp/government/suspended-debarred/index2.jsp . This list includes parties suspended and debarred by the Minnesota Department of Transportation and the Minnesota Department of Administration.

Federal Suspensions and Debarments
The federal government maintains a searchable database of suspensions and debarments, called the System for Award Management (SAM), which is found at this link: https://www.sam.gov/SAM/ . You can use the "Search Records" function without registering for an account.

September 29, 2023

Appendix J

State Funded Contract Special Provisions Division A - Labor

STATE FUNDED ONLY CONSTRUCTION CONTRACTS
SPECIAL PROVISIONS DIVISION A - LABOR

I. INTRODUCTION

A. **Policy Statement.** It is in the public interest that public buildings and other public works projects be constructed and maintained by the best means and the highest quality of labor reasonably available and that persons working on public works projects be compensated according to the real value of the services they perform.[1]

B. **State Regulations Govern.** This Contract is subject to the Minnesota Prevailing Wage Act[2], Minnesota Fair Labor Standards Act[3], Minnesota Rules[4], Minnesota Department of Labor and Industry (MnDLI) Wage Decision(s), and the MnDLI Truck Rental Rate Schedule.

C. **Purpose.** These provisions: (1) outline your obligations under state and federal laws, rules and regulations; (2) explain the requirements necessary to demonstrate compliance; and (3) explain the processes that the Department will undertake to ensure compliance.

D. **Questions or Resources.** Please visit the Minnesota Department of Transportation (MnDOT) Labor Compliance Unit (LCU) website at: www.dot.state.mn.us/const/labor.

II. DEFINITIONS

Many of the terms used in these provisions are defined in MnDOT's Standard Specifications for Construction,[5] unless defined below.

A. **Apprentice.** A Worker at least 16 years of age who is employed to learn an apprenticeable trade or occupation in a registered apprenticeship program.[6]

B. **Bona Fide.** Made or carried out in good faith; authentic.[7]

C. **Certified Payroll Report (CPR).** A report comprised of two components; (1) a payroll report, and (2) a statement of compliance report.[8]

D. **Contractor.** An individual or business entity that is engaged in construction or construction service-related activities including trucking activities either directly or indirectly through a Contract, or by Subcontract with the Prime Contractor, or by a further Subcontract with any other person or business entity performing Work.[9]

E. **Employer.** An individual, partnership, association, corporation, business trust, or other business entity that hires a Worker.[10]

F. **Fringe Benefit.** An employment benefit given in addition to a Worker's wages or salary.[11]

G. **Independent Truck Owner/Operator (ITO).** An individual, partnership, or principal stockholder of a corporation who owns or holds a vehicle under lease and who contracts that vehicle and the owner's services to an entity which provides construction services to a public works project.[12]

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[1] Minn. Stat. 177.41
[2] Minn. Stat. 177.41 to 177.44
[3] Minn. Stat. 177.21 to 177.35
[4] Minn. R. 5200.1000 to 5200.1120
[5] MnDOT Standard Specifications for Construction, Section 1103
[6] Minn. Stat. 178.011, Subdivision 2
[7] The American Heritage College Dictionary, Third Edition, 2000
[8] Minn. R. 5200.1106, Subpart 10
[9] Minn. R. 5200.1106, Subpart 2(D)
[10] Minn. Stat. 177.42, Subdivision 7
[11] The American Heritage College Dictionary, Third Edition, 2000
[12] Minn. R. 5200.1106, Subpart 7(A)

H. **Journeyworker.** A person who has attained a level of skill, abilities, and competencies recognized within and industry as having mastered the skills and competencies required for the trade or occupation.[13]

I. **Prime Contractor.** An individual or business entity that enters into a Contract with the Department.[14]

J. **Subcontract.** A Contract that assigns some obligations of a prior Contract to another party.[15]

K. **Substantially In Place.** Mineral aggregate is deposited on the project site directly or through spreaders where it can be spread from or compacted at the location where it was deposited.[16]

L. **Total Prevailing Wage Rate.** The sum of the prevailing hourly "basic" and "fringe" rate that is established in a Wage Decision.

M. **Trucking Broker (Broker).** An individual or business entity, the activities of which include, but are not limited to: contracting to provide trucking services in the construction industry to users of such services, contracting to obtain such services from providers of trucking services, dispatching the providers of the services to do Work as required by the users of the services, receiving payment from the users in consideration of the trucking services provided, and making payment to the providers for the services.[17]

N. **Trucking Firm/Multiple Truck Owner (MTO).** Any legal business entity that owns more than one vehicle and hires the vehicles out for services to Trucking Brokers or Contractors on public works projects.[18]

O. **Truck Rental Rate Schedule.** A document prepared by the MnDLI through a Contractor survey process that identifies the required hourly Total Prevailing Wage Rate and operating cost for various types of trucks that perform hauling activities (Work) under a Contract that is funded in whole or in part with state funds.[19]

P. **Wage Decision.** A document prepared by the MnDLI through a Contractor survey process that identifies the required hourly basic rate of pay and hourly Fringe Benefits for various labor classifications that perform Work under a Contract that is funded in whole or in part with state funds.[20]

Q. **Work (Work).** All construction activities associated with a public works project, including any required hauling activities on-the-site-of or to-or-from a public works project and conducted pursuant to a Contract, regardless of whether the construction activity or Work is performed by the Prime Contractor, subcontractor, Trucking Broker, Trucking Firm (MTO), ITO, independent contractor, or employee or agent of any of the foregoing entities.[21]

R. **Worker (Laborer or Mechanic).** A Worker in a construction industry labor class identified in or pursuant to Minnesota Rules 5200.1100, Master Job Classifications.[22]

III. APPLICATION & UNDERSTANDING

A. **Provisions & Prevailing Wage Rates Apply.** These provisions, along with the prevailing Wage Decision(s) that are incorporated into the Contract, apply to all Contractors contracting to do all or part of the Work.[23]

[13] Minn. Stat. 178.011, Subdivision 9
[14] Minn. R. 5200.1106, Subpart 2(C)
[15] The American Heritage College Dictionary, Third Edition, 2000
[16] Minn. R. 5200.1106, Subpart 5(C)
[17] Minn. R. 5200.1106, Subpart 7(C)
[18] Minn. R. 5200.1106, Subpart 7(B)
[19] Minn. R. 5200.1105
[20] Minn. R. 5200.1020 to 5200.1060
[21] Minn. R. 5200.1106, Subpart 2(A)
[22] Minn. R. 5200.1106, Subpart 5(A)
[23] Minn. Stat. 177.44, Subdivision 1

B. **Truck Rental Rates Apply.** The Truck Rental Rate Schedule incorporated into the Contract applies to all hired trucking entities that perform covered hauling activities related to the project.[24]

C. **Prevailing Wage Terms Must Be Included in All Contracts.** The Prime Contractor is required to ensure that all subcontractors performing Work receive the Contract Wage Decision(s), Truck Rental Rate Schedule, and a copy of these provisions with their written Subcontracts, agreements and/or purchase orders.[25]

D. **Responsible for Understanding All Requirements.** Each Contractor is responsible for understanding all laws, rules, regulations, plans, and specifications that are incorporated physically, or by reference, into the Contract.[26]

E. **E-Verify.** For services valued in excess of $50,000, the Contractor certifies that as of the date of services performed on behalf of State, the Contractor will have implemented or be in the process of implementing the federal E-Verify program for all newly hired employees in the United States who will perform work under the contract. The Prime Contractor is responsible to collect all subcontractor certifications and may do so utilizing the E-Verify Subcontractor Certification Form available at http://www.mmd.admin.state.mn.us/doc/EverifySubCertForm.doc. All subcontractor certifications must be kept on file with the Prime Contractor and made available to the State upon request.

IV. VENDOR REGISTRATION

Vendor Registration Required. A Contractor that performs Work, supplies material, or product must be registered with MnDOT. The Contractor must complete and submit a vendor form[27] to the MnDOT LCU[28], along with all applicable documentation that is required. This registration process is separate and distinct from other state agency requirements.

V. LABOR CLASSIFICATIONS

A. **Labor Classification Assignment.** A Worker must be paid at least the Total Prevailing Wage Rate in the same or most similar trade or occupation.[29] To determine the appropriate labor classification for a Worker, a Contractor must refer to the Wage Decision(s) incorporated into the Contract, the labor classification descriptions for laborers and special crafts established in Minnesota Rules or the United States Department of Labor's Dictionary of Occupational Titles.[30]

B. **Labor Classification Clarification & Disputes.** A Contractor needing assistance in determining a labor classification must submit a Classification Clarification Request[31] to the MnDOT LCU for a written decision. If the Contractor chooses to contest the classification assignment, it must provide written notice to the MnDOT LCU. The MnDOT LCU will forward the matter to the MnDLI for a final ruling.

C. **Performing Work in Multiple Labor Classifications.** For Workers performing Work in multiple labor classifications, the Contractor must compensate at a minimum the Total Prevailing Wage Rate, and report the hours worked, in each applicable labor classification.[32]

VI. WAGE DECISION(S) & WAGE RATE(S)

A. **Applicability of a Highway and Heavy Wage Decision.** A highway and heavy Wage Decision applies to a Worker that is engaged in a construction activity or performing Work to construct or maintain a highway or other public works project, such as a road, street, airport runway, bridge,

[24] Minn. Stat. 177.44, Subdivision 3
[25] MnDOT Standard Specifications for Construction, Section 1801
[26] MnDOT Standard Specifications for Construction, Section 1701
[27] www.dot.state.mn.us/const/labor/documents/forms/contractorform2016.pdf or www.dot.state.mn.us/const/labor/documents/forms/truckvendorform2016.pdf
[28] lcusupport.dot@state.mn.us
[29] Minn. Stat. 177.44, Subdivision 1
[30] Minn. R. 5200.1101 and 1102 and US DOL Dictionary of Occupational Titles
[31] http://www.dot.state.mn.us/const/labor/documents/forms/classification-clarification-request.pdf
[32] Minn. Stat. 177.44, Subdivision 1

power plant, dam or utility[33] that is external to a sheltered enclosure (structure). This includes, but is not limited to, the following Work: site clearing; grading; excavating backfilling; paving; curbs; gutters; sidewalks; culverts; bridges; lighting systems; traffic management systems; installing of utilities out from an exterior meter; fuel islands; communication towers; or other activities similar to highway and/or heavy Work.

B. **Applicability of a Commercial Wage Decision.** A commercial Wage Decision applies to a Worker that is engaged in a construction activity or performing Work to construct a sheltered enclosure (structure) with walk-in access for the purpose of housing persons, machinery, equipment or supplies.[34] This includes, but is not limited to, the following Work: constructing foundations, aprons, stoops; framing walls; installing windows, doors, tiling, plumbing, electrical, HVAC systems; roofing; installing utilities into the building from an exterior meter.

C. **Pay According to Wage Decision(s).**

1. **Contract with One Wage Decision.** If the Contract contains one Wage Decision, the Contractor must examine the Wage Decision and compensate the Worker at a minimum the Total Prevailing Wage Rate for the appropriate labor classification(s).

2. **Contract with Multiple Highway/Heavy Wage Decisions.** If the Contract contains multiple Highway/Heavy Wage Decisions, the Contractor must examine each Wage Decision and compensate the Worker, at a minimum, the Total Prevailing Wage Rate that is the greatest[35] for the appropriate labor classification(s).

3. **Contract with Highway/Heavy and Commercial Wage Decision(s).** If the Contract contains a Highway/Heavy and Commercial Wage Decision(s), the Contractor must first determine which Wage Decision is applicable to the Worker. The Contractor must then compensate the Worker, at a minimum, the Total Prevailing Wage Rate for the appropriate labor classification(s).

D. **Must Pay Total Prevailing Wage Rate.** A Contractor must compensate each Worker, at a minimum, the Total Prevailing Wage Rate(s) for all hours worked on the project for the appropriate labor classification(s).[36]

E. **Missing Wage Rate.** If a Wage Decision fails to include a wage rate for a labor classification(s) that will be utilized on a project, the Contractor must obtain a wage rate prior to furnishing an estimate, quote or bid.[37]

1. **Wage Rate Request.** A Contractor must complete a Request for Rate Assignment form[38] and submit it to the MnDOT LCU[39] for processing.

2. **No Contract Price Adjustment for Missing Wage Rate.** If MnDLI determines that a higher wage rate applies, the Department will not reimburse the Contractor.

F. **Salaried Worker.** A salaried Worker is not exempt from these Provisions. A Contractor must convert the Worker's salary to an average hourly rate of pay by dividing the Worker's salary by the total number of hours Worked (government and non-government) during the pay period.[40] A salaried Worker must be included on a CPR.

G. **Reduction in Standard (Private) Contractual Regular Rate of Pay Prohibited.** A Contractor must not reduce a Worker's standard, contractual regular rate of pay when the prevailing wage rate(s) certified by the MnDLI is less.[41]

[33] Minn. R. 5200.1010, Subdivision 3
[34] United States Department of Labor All Agency Memorandum #130
[35] Minn. Stat. 177.44, Subdivision 4
[36] Minn. Stat. 177.44,Subdivision 1
[37] Minn. R. 5200.1030, Subpart 2a(C)
[38] http://www.dot.state.mn.us/const/labor/documents/forms/request-for-rate-assignment.doc
[39] lcusupport.dot@state.mn.us
[40] Refer to Appendix A
[41] Minn. Stat. 181.03, Subdivision 1(2)

H. **Prohibited Payment Practices.** A Contractor is prohibited from taking (accepting) a rebate for the purpose of reducing or otherwise decreasing the value of the compensation paid.

I. **Prohibited Deductions.** No deductions, direct or indirect, may be made for the items listed below which when subtracted from wages would reduce the wages below Minnesota's minimum wage rate as established in section 177.24[42]

1. **Uniforms.** Purchased or rented uniforms or specifically designed clothing that is required by the Employer, by the nature of employment, or by statute, or as a condition of employment, which is not generally appropriate for use except in that employment.

2. **Equipment.** Purchased or rented equipment used in employment, except tools of a trade, a motor vehicle, or any other equipment which may be used outside the employment. The cost of the Worker's use of equipment used outside of employment, such as tools, a motor vehicle, cell phone, may be deducted only if an agreement between the Employer and employee existed prior to the deduction.

3. **Supplies.** Consumable supplies required in the course of employment.

4. **Travel Expenses.** Travel expenses in the course of employment except those incurred in traveling to and from the employee's residence and place of employment.

VII. HOURS OF WORK

A. **Work Performed Under the Contract.** A Worker performing Work is subject to prevailing wage for all hours associated with the Contract[43], unless the Worker is exempt under state law.[44]

B. **Wait Time Subject to Prevailing Wage.** A Worker who is required to remain on the project and is waiting to Work because of the fault of the Contractor is considered "engaged to wait" and subject to prevailing wage for the time spent, unless the Worker is completely relieved of duty and free to leave the project for a defined period of time.

VIII. FRINGE BENEFITS

A. **Funded Fringe Benefit Plan Criteria.** In order for a funded Fringe Benefit (e.g., health/medical insurance, disability insurance, life insurance, pension, etc.) to be considered and creditable towards the Total Prevailing Wage Rate it must be:[45]

1. a contribution irrevocably made by a Contractor on behalf of an Worker to a financially responsible trustee, third person, fund, plan, or program;

2. carried out under a financially responsible plan or program;

3. legally enforceable;

4. communicated in writing to the Worker; and

5. made available to the Worker once he/she has met all eligibility requirements.

B. **Unfunded Fringe Benefit Plan Criteria.** In order for a unfunded Fringe Benefit (e.g., vacation, holiday, sick leave, etc.) to be considered and creditable towards the Total Prevailing Wage Rate it must be:[46]

1. reasonably anticipated to provide a benefit;

2. a commitment that can be legally enforced;

[42] Minn. Stat. 177.24, Subdivision 4(1-4)
[43] Minn. Stat. 177.44, Subdivision 1
[44] Minn. Stat. 177.44, Subdivision 2 or Minn. R. 5200.1106, Subpart 4
[45] Minn. Stat. 177.42, Subdivision 6
[46] Minn. Stat. 177.42, Subdivision 6

3. carried out under a financially responsible plan or program;

4. communicated in writing to the Worker; and

5. made available to the Worker once he/she has met all eligibility requirements.

C. **Fringe Benefit Contributions for Hours Worked.** A Contractor that provides Fringe Benefits to a Worker must make contributions, not less than quarterly[47], for all hours worked,[48] including overtime hours, unless it's a defined benefit or contribution plan that provides for immediate participation and immediate or essentially immediate vesting **(see subpart D2 of this section)**.

D. **Hourly Fringe Benefit Credit.** An hourly Fringe Benefit credit toward the Total Prevailing Wage Rate must be determined separately for each Worker based on one or more of the following methods:

1. **Monthly, Quarterly or Annual Computation Methods.** A Contractor must compute its monthly, quarterly or annual cost of a particular Fringe Benefit and divide that amount by the estimated total number of hours worked (government and non-government) during the time frame used.[49] Typical plans that require monthly, quarterly or annual computations include but are not limited to: health/medical insurance, disability insurance, life insurance, vacation, holiday, sick leave and defined benefit or contribution pension plans that do not provide for immediate participation and immediate or essentially immediate vesting.

2. **Fringe Benefit Credit not Requiring Monthly, Quarterly or Annual Computation Methods.** A defined benefit or contribution pension plan that allows for a higher hourly rate of contribution for government work (prevailing wage) than non-government (non-prevailing wage) will be fully credited only if the plan provides for immediate participation and immediate or essentially immediate vesting.

E. **Wages In Lieu of Fringe Benefits.** A Contractor that does not provide full Fringe Benefits must compensate a Worker the difference between the Total Prevailing Wage Rate and the rate actually paid for the appropriate labor classification(s). The compensation paid is considered wages and subject to tax liabilities.

1. **Overtime**. The cash equivalent (wages paid) made in lieu of Fringe Benefits is excluded from the overtime calculation requirement, unless the cash equivalent (wages paid) is part of the Worker's standard straight time wage.

F. **Administrative Costs Not Creditable.** Administrative expenses incurred by a Contractor in connection with the administration of a Bona Fide Fringe Benefit plan are not creditable towards the Total Prevailing Wage Rate.

G. **Federal, State & Local Fringe Benefit Credit Prohibited.** No credit is allowed for benefits required by federal, state or local law, such as: worker's compensation, unemployment compensation, and social security contributions.[50]

IX. OVERTIME

A. **Overtime after 8 Hours per Day or 40 Hours per Week.** A Contractor must not permit or require a Worker to work longer than the prevailing hours of labor unless the Worker is paid for all hours in excess of the prevailing hours at a rate of at least 1.5 times the hourly basic rate of pay.[51] The prevailing hours of labor is defined as not more than 8 hours per day and more than 40 hours per week.[52]

[47] 29 CRF, Part 5.5(a)(1)(i)
[48] Government and non-government Work
[49] Refer to Appendix B
[50] Minn. Stat. 177.42, Subdivision 6
[51] Minn. Stat. 177.44, Subdivision 1 and Refer to Appendix D
[52] Minn. Stat. 177.42, Subdivision 4

B. **Wages in Lieu of Fringe Benefits Overtime.** Wages paid in Lieu of Fringe Benefits must be paid for all hours worked under the contract.

C. **Multiple Labor Classifications and Overtime.** A Worker employed in multiple labor classifications throughout a workweek must be compensated at the applicable labor classification overtime rate in effect during the hours worked in excess of 8 hours per day or 40 hours per week.

D. **Federal Fair Labor Standards Act (FLSA) and Overtime.** A Contractor subject to the FLSA may be subject to additional overtime compensation requirements.

X. PAYROLLS AND STATEMENTS

A. **Reporting.** Each Contractor that is performing Work must submit a CPR(s) to the Department.

1. **Payroll Report (Paper).** Each Contractor performing Work must submit a paper (written) payroll report to the Department. The payroll report is available on the MnDOT LCU website.[53]

2. **Statement of Compliance (Paper).** Each Contractor's paper (written) payroll report must include a paper (written) "Statement of Compliance Form". The "Statement of Compliance Form" must: (1) state whether or not Fringe Benefits are provided to a Worker; (2) provide a description of each benefit, the hourly contribution made on behalf of each Worker, along with fund/plan information; and (3) a signature attesting that the payroll and Fringe Benefit information provided is truthful and accurate.[54]

3. **Electronic Reporting.** If the Contract is subject to electronic reporting, each Contractor performing Work must submit a CPR(s) using the AASHTOWare, Civil Rights Labor (CRL) system. Refer to the **Special Provisions Division S – "Electronic Submission of Payrolls and Statements"** which is incorporated into and found elsewhere in the Contract for detailed requirements.

B. **Biweekly Payroll Reporting and Payment of Wages.** A CPR(s) must be submitted no later than 14 calendar days after the end of each Contractor's pay period[55] to the Department. A Contractor must pay its employees at least once every 14 calendar days.[56]

C. **Payroll Report Data.** Each payroll report must include all Workers that performed Work and provide at a minimum the following information:[57]

1. Contractor's name, address, and telephone number.

2. State project number.

3. Contract number (if applicable).

4. Project number.

5. Payroll report number.

6. Project location.

7. Workweek end date.

8. Each Worker's name, home address, and social security number.[58]

9. Labor classification(s) title(s) and optional three-digit code for each Worker.

[53] www.dot.state.mn.us/const/labor/certifiedpayroll.html
[54] Minn. R. 5200.1106, Subpart 10
[55] Minn. Stat. 177.43, Subdivision 3
[56] Minn. Stat. 177.30 (a)(4)
[57] Minn. Stat. 177.30 (a)(1-4) and Minn. R. 5200.1106, Subpart 10
[58] Minn. R. 5200.1106, Subpart 10A & Minn. Stat. 13.355, Subdivision 1

10. Hours worked daily and weekly in each labor classification, including overtime hours, for each Worker.

11. Wage rate paid to each Worker for straight time and overtime.

12. Authorized legal deductions for each Worker.

13. Project gross amount, weekly gross amount, and net wages paid to each Worker.

D. **Prime Contractor to Ensure Compliance.** The Prime Contractor must review the CPR(s) submitted by each lower tier Contractor and sign the "Statement of Compliance Form".[59] The Prime Contractor must ensure that each lower tier Contractor's CPR(s) include all Workers that performed Work and accurately reflect labor classifications, hours worked, regular and overtime rates of pay, gross earnings for the project and Fringe Benefits.[60]

E. **Retention of CPR(s).** The Prime Contractor must keep its written CPR(s), including those of all lower tier Contractors, for three (3) years after the final payment is issued.[61]

F. **Retention of Employment-Related Records.** Each Contractor must keep employee records, including, but not limited to: Fringe Benefit statements, time cards, payroll ledgers, check registers and canceled checks[62] for at least three (3) years after the final payment is issued.[63] Other laws may have longer retention requirements.

G. **Detailed Earning Statement.** At the end of each pay period, each Contractor must provide every Worker, in writing or by electronic means, an accurate, detailed earnings statement.[64]

H. **Reports and Records Request.** Upon a request from the Department, the Prime Contractor must promptly furnish copies of CPR(s) for its Workers and those of all lower tier Contractors, along with employment-related records, documents, and agreements that the Department considers necessary to determine compliance.[65]

XI. APPRENTICES, TRAINEES AND HELPERS

A. **Apprentice.** An Apprentice will be permitted to Work at less than the prevailing basic hourly rate only if the Apprentice is:

1. Registered with the U.S. Department of Labor (DOL), Bureau of Apprenticeship and Training or MnDLI Division of Voluntary Apprenticeship.[66]

2. Performing Work of the trade, as described in the apprenticeship agreement.

3. Compensated according to the rate specified in the program for the level of progress.[67]

4. Supervised by a Journeyworker from the same company, in accordance with the program ratio requirements.[68]

B. **Ratio Requirement.** If an approved apprenticeship program fails to define a ratio allowance, the first Apprentice must be supervised by a Journeyworker within the same trade or occupation. Any subsequent Apprentice must be supervised by an additional three Journeyworkers.[69]

[59] MnDOT Standard Specifications for Construction, Section 1701
[60] MnDOT Standard Specifications for Construction, Section 1801
[61] Minn. Stat. 177.30 (a)(5)
[62] Minn. R. 5200.1106, Subpart 10
[63] Minn. Stat. 177.30 (a)(5)
[64] Minn. Stat. 181.032
[65] Minn. Stat. 177.44, Subdivision 7; Minn. Stat. 177.33(a)(5)
[66] Minn. R. 5200.1070, Subpart 1
[67] Minn. R. 5200.1070, Subpart 1 and Refer to Appendix C
[68] Minn. Stat. 178.036, Subdivision 5
[69] Minn. Stat. 178.036, Subdivision 5

C. **Failure to Comply with Apprenticeship Requirements.** If a Contractor fails to demonstrate compliance with the terms established in this section, the Contractor must compensate the Apprentice not less than the applicable Total Prevailing Wage Rate for the actual classification of labor performed.[70]

D. **Trainee and Helper.** A trainee or helper is not exempt from prevailing wage under state law. The Contractor must assign the trainee or helper a labor classification that is the "same or most similar"[71] and compensate the trainee or helper for the actual Work performed regardless of the trainee's or helper's skill level.

XII. INDEPENDENT CONTRACTORS, OWNERS, SUPERVISORS, AND FOREMAN

A. **Independent Contractor.** An independent contractor (IC) that is not an Independent Truck Owner/Operator (ITO), who is performing Work must be properly classified and compensated.[72] The IC must submit a CPR(s) to the Department. If the IC does not receive an hourly wage, but instead a weekly, biweekly, monthly or quarterly distribution for performance, the IC must calculate its hourly rate of pay by dividing the weekly, biweekly, monthly, or quarterly company distribution by all hours worked during that time frame and report the information on a CPR. If necessary, the Department may request documentation from the IC to determine how the hourly wage rate was calculated.[73]

B. **Owners, Supervisors and Foreman.** An owner, supervisor, or foreman performing Work is subject to prevailing wage and must be properly classified, compensated and reported.[74]

XIII. TRUCKING

A. **Covered Hauling Activities.** A Contractor must ensure that all Workers, including hired Trucking Brokers, MTOs and ITOs are paid the applicable Total Prevailing Wage Rate or truck rental rate for the following Work:

1. The hauling of any or all stockpiled or excavated materials on the project work site to other locations on the same project even if the truck leaves the work site at some point.[75]

2. The delivery of materials from a non-commercial establishment to the project and the return haul to the starting location either empty or loaded.[76]

3. The delivery of materials from another construction project site to the public works project and the return haul, either empty or loaded. Construction projects are not considered commercial establishments.[77]

4. The hauling required to remove any materials from the project to a location off the project site and the return haul, either empty or loaded from other than a commercial establishment.[78]

5. The delivery of materials or products by trucks hired by a Contractor, subcontractor, or agent thereof, from a commercial establishment.[79]

6. The delivery of sand, gravel, or rock, by or for a commercial establishment, which is deposited "substantially in place," either directly or through spreaders from the transporting vehicles is work under the contract. In addition, the return haul to the off-site facility empty or loaded is also considered work under the contract.[80]

[70] Minn. R. 5200.1070, Subpart 3
[71] Minn. Stat. 177.44, Subdivision 1
[72] Minn. Stat. 177.44, Subdivision 1
[73] Minn. Stat. 177.30(a)(5); Minn. Stat. 181.723
[74] Minn. Stat. 177.44, Subdivision 1
[75] Minn. R. 5200.1106, Subpart 3B(1)
[76] Minn. R. 5200.1106, Subpart 3B(2)
[77] Minn. R. 5200.1106, Subpart 3B(3)
[78] Minn. R. 5200.1106, Subpart 3B(4)
[79] Minn. R. 5200.1106, Subpart 3B(5)
[80] Minn. R. 5200.1106, Subpart 3B(6)

B. **Hauling Activities Not Subject to Prevailing Wage or Truck Rental Rates.** A Contractor may exclude a Worker, including hired Trucking Brokers, MTOs and ITOs from prevailing wage or truck rental rates for the Work described in (1-2) of this section. However, this Work may be considered hours worked and subject to standard compensation pursuant to the Minnesota Fair Labor Standards Act.

1. The delivery of processed or manufactured goods to a public works project by the employees of a commercial establishment including truck owner-operators hired by and paid by the commercial establishment, unless it is the delivery of mineral aggregate that is incorporated into the work under the contract by depositing the material substantially in place.[81]

2. The delivery of oil offsite, as an example, to a Prime Contractor's permanent (commercial) asphalt mixing facility that is not to, from, or on the project Work site.[82]

C. **Repair, Maintenance & Waiting to Load Time.** An ITO and MTO must be paid the truck rental rate for time spent repairing or maintaining the truck owner-operator's equipment, and for waiting to load or unload if the repair, maintenance, or wait time is the fault of the Trucking Broker, Contractor, its agent or employees.[83]

D. **Month End Trucking Report.** A Contractor that acquires the services of an ITO or MTO must submit a "MnDOT – MTO and/or ITO Month-End Trucking Report", and a "MnDOT – Month-End Trucking Statement of Compliance Form" to the Department for each month hauling activities are performed under the Contract.[84] The forms are available on the MnDOT LCU website.[85]

E. **Broker Fee.** A truck broker contracting to provide trucking services directly to a prime contractor or subcontractor is allowed to assess a broker fee.

XIV. OFF-SITE FACILITIES

A. **Off-Site Facility Activities Subject to Prevailing Wage.** A Contractor must ensure that all Workers performing Work at a covered off-site facility are paid the applicable Total Prevailing Wage Rate for the following Work:

1. The processing or manufacturing of material at a Prime Contractor's off-site facility that is not a separately held commercial establishment.[86]

2. The processing or manufacturing of material at an off-site facility that is not considered a commercial establishment.[87]

B. **Off-Site Facility Activities Not Subject to Prevailing Wage.** A Contractor may exclude a Worker from prevailing wage for the following work:

1. The processing or manufacturing of material or products by or for a commercial establishment.[88]

2. The work performed by Workers employed by the owner or lessee of a gravel or borrow pit that is a commercial establishment, even if the screening, washing or crushing machines are portable.[89]

XV. SUBCONTRACTING PART OF THE CONTRACT

[81] Minn. R. 5200.1106, Subpart 4(C)
[82] J.D. Donovan, Inc. vs. Minnesota Department of Transportation, 878 N.W.2d 1 (2016)
[83] Minn. R. 5200.1106, Subpart 8(A)(1)
[84] Minn. R. 5200.1106, Subpart 10
[85] http://www.dot.state.mn.us/const/labor/forms.html
[86] ALJ Findings of Fact, Conclusions of Law, and Recommendation, Conclusions (7), Case #12-3000-11993-2
[87] Minn. R. 5200.1106, Subpart 3(A)
[88] Minn. R. 5200.1106, Subpart 4(A)
[89] Minn. R. 5200.1106, Subpart 4(B)

The Prime Contractor must include the Contract Special Provisions, Wage Decision(s) and Truck Rental Rate Schedule in all Subcontracts, agreements and purchase orders with lower tier Contractors.[90] This requirement also applies to all lower tier subcontractors.

XVI. SITE OF WORK REQUIREMENTS

A. **Poster Board.** The Prime Contractor must construct and display a poster board containing all required posters. The poster board must be accurate, legible, and accessible to all project Workers from the first day of Work until the project is one hundred percent (100%) complete.[91] A poster board at an off-site location, or inside a construction trailer, does not meet this requirement.

B. **How to Obtain a Poster Board.** The Prime Contractor may obtain the required posters and the necessary contact information that is required to be inserted on each poster by visiting the MnDOT LCU website.[92]

C. **Employee Interviews.** The Contractor must permit representatives from the Department or other governmental entities[93] to interview Workers at any time during working hours on the project.[94]

XVII. CHILD LABOR

A. **No Worker under the Age of 18.** No Worker under the age of 18 is allowed to perform Work on a Project Site, except pursuant to Section XVII B below.[95]

B. **Parental Supervision.** A Worker under the age of 18 may perform Work on a Project Site if all of the following criteria are met:

1. The Contractor (Employer) is not subject to FLSA.
2. The Worker is employed in a corporation owned solely by one or both parents.
3. The Worker is supervised by the parent(s).
4. The Worker is not working in a hazardous occupation.[96]

C. **Removal of Minor from Project.** The Engineer or inspector may remove a Worker that appears to be under the age of 18 from the Project Site until the Contractor or Worker can demonstrate proof of age and compliance with all applicable federal and state regulations.[97]

XVIII. NON-COMPLIANCE AND ENFORCEMENT

A. **Case-by-Case Enforcement.** The Department has the authority to enforce the prevailing wage law on a case-by-case.[98]

B. **Prime Contractor Responsible for Unpaid Wages.** The Prime Contractor will be held liable for any unpaid wages to its Workers or those of any lower tier Contractor.[99]

C. **Enforcement Options.** If evidence shows that a Contractor has violated prevailing wage requirements, or these Special Provisions, the Department may, after written notice, implement one or more of the following:

[90] MnDOT Standard Specifications for Construction, Section 1801
[91] Minn. Stat. 177.44, Subdivision 5
[92] www.dot.state.mn.us/const/labor/posterboards
[93] MnDLI, U.S. DOL, , U.S. Department of Transportation, Federal Highways Administration
[94] MnDOT Standard Specifications for Construction, Section 1511
[95] Minn. R. 5200.0910, Subpart F; 29 CFR Part 570.2(a)(ii)
[96] Minn. R. 5200.0930, Subpart 4
[97] Minn. Stat. 181A.06, Subdivision 4; MnDOT Standard Specifications for Construction, Section 1701
[98] *See* International Union of Operating Engineers, Local 49 v. MnDOT, No. C6-97-1582, 1998 WL 74281, at *2 (Minn. App. Feb. 24, 1998)
[99] MnDOT Standard Specifications for Construction, Section 1801

1. **Withholding Payment.** The Department may withhold from the Prime Contractor payments relating to prevailing wage underpayments.[100]

2. **Non-Responsible Contractor.** The Department may reject a bid from a Prime Contractor that has received two (2) or more Determination Letters within a three (3) year period from the Department finding an underpayment by the Contractor to its own employees.[101]

3. **Default.** The Department may take the prosecution of the Work out of the hands of the Prime Contractor, place the Contractor in default, and terminate the Contract for failure to comply.[102]

4. **Suspension or Debarment.** The Department may refer violations and matters of non-compliance by a Contractor to the Minnesota Department of Administration for suspension or debarment proceedings.[103]

5. **County Attorney.** The Department may refer suspected criminal violations by Contractor to the appropriate local county attorney for prosecution.[104]

6. **Financial Penalties.** Any Contractor who violates the state prevailing wage law is guilty of a misdemeanor and may be fined not more than $300 or imprisoned not more than 90 days or both. Each day that the violation continues is a separate offense.[105] A Contractor may be fined up to $1,000 for each failure to maintain records.[106]

7. **False Claims Act Violation.** All required payroll and certification reports are legal documents; knowing falsification of the documents by a Contractor may result in civil action and/or criminal prosecution[107] and may be grounds for debarment proceedings.[108]

8. **Compliance Order.** The Department may request that MnDLI issue a compliance order to a Contractor for violations of the state prevailing wage law. If the Contractor is found to have committed a violation, liquidated damages and other costs may be assessed against the Employer.[109]

9. **Private Right of Action.** The Department may direct an employee to pursue a civil action in district court against its Employer for failure to comply with the proper payment of wages.[110] If the Employer is found to have committed a violation, liquidated damages and other costs may be assessed against the Employer.[111]

10. **Fringe Benefits; Misdemeanor.** A Contractor that is obligated to deposit Fringe Benefit contributions on behalf of a Worker into a financially responsible trustee, third person, fund, plan, or program and fails to make timely contributions is guilty of a gross misdemeanor or other violations under federal law.[112]

[100] MnDOT Standard Specifications for Construction, Section 1906
[101] Minn. Stat. 16C.285
[102] MnDOT Standard Specifications for Construction, Section 1808
[103] Minn. R. 1230.1150, Subpart 2(A)(4)
[104] Minn. Stat. 177.44, Subdivision 7
[105] Minn. Stat. 177.44, Subdivision 6
[106] Minn. Stat. 177.30(b)
[107] Minn. Stat. 15C.02; , Minn. Stat. 161.315; Minn. Stat. 177.32; Minn. Stat. 177.43, Subdivision 5, Minn. Stat. 609.63
[108] Minn. Stat. 161.315 and Minn. Stat. 609.63
[109] Minn. Stat. 177.43, Subdivision 6a
[110] Minn. Stat. 177.27, Subdivision 8
[111] Minn. Stat. 177.27, Subdivision 10
[112] Minn. Stat. 181.74, Subdivision 1

THE FOLLOWING APPENDICES ARE FOR EXPLANATORY PURPOSES ONLY. FOR SPECIFIC QUESTIONS, PLEASE CONTACT LCU.[113]

APPENDIX A SALARIED WORKER WAGE COMPUTATION

Salaried Workers. In order to convert the Worker's salary into an hourly rate of pay, divide the employee's weekly, bi-weekly or monthly earnings by the total number of hours Worked (government and non-government), including overtime hours for the time period used.[114]

$800.00 (weekly salary) / 40 (total weekly hours) = $20.00

$1,600.00 (bi-weekly salary) / 80 (total bi-weekly hours) = $20.00

$3,200.00 (monthly salary) / 160 (total monthly hours) = $20.00

APPENDIX B FRINGE BENEFIT CREDIT

Fringe Benefit Credit Calculation. The Employer contributes monthly ($600.00) for medical insurance on behalf of a Worker. In order to calculate the projected hourly credit that the Employer can take, the Employer should: (1) add the monthly contributions for each Worker, (2) multiply by twelve (12) months, and (3) divide the total cost of the benefit by the total hours worked (government and non-government)[115] (see annual example below). Quarterly and monthly examples are also provided.

Annual: **($600.00) x (12 months) = $7,200.00**
($7,200.00) / (2080 hours) = $3.46 per hour credit

Quarterly: **($600.00) x (3 months) = $1,800.00**
($1,800.00) / (520 hours) = $3.46 per hour credit

Monthly: **($600.00) x (1 month) = $600.00**
($600.00) / (173 hours) = $3.47 per hour credit

End of Year Self-Audit. At the end of the calendar year, the Contractor must conduct an audit to determine if the hourly fringe benefit credit taken for each Worker was accurate. The Contractor must calculate the total annual fringe benefits paid on behalf of each Worker and divide that amount by the total number of hours worked (government and non-government) by that Worker. If the hourly fringe benefit credit was less than what was reported on a CPR, the contractor must compensate the Worker the hourly difference, multiplied by the total hours worked under the Contract.

APPENDIX C APPRENTICE RATE OF PAY

State Requirements. The Apprentice must be compensated according his/her level of progress, which is expressed as a percentage of the Journeyworker wage that is established in the program.

Journeyworker Wage Established in Program = $25.00

Apprentice Level of Progress = 60%

($25.00) * (.60) = $15.00

[113] lcusupport.dot@state.mn.us or (651) 366-4238
[114] United States Department of Labor Field Operation Handbook, Section 15f08
[115] United States Department of Labor Field Operation Handbook, Section 15f12

Overtime Hourly Rate of Pay. Here is the formula to calculate the required minimum overtime.[116]

OT = (PW * .5) + (HW) + (RF) + (F)

Definition of OT Acronyms

OT: overtime.
PW: the basic hourly prevailing wage rate established in a federal and/or state prevailing Wage Decision.
HW: hourly wage rate paid to a Worker.
RF: remaining fringe, which means the difference between the Contract hourly Fringe Benefit rate and the actual hourly Fringe Benefit rate paid by the Contractor to a third party on behalf of a Worker.
F: Fringe Benefit contributions that are bona-fide and contributed by an Employer to a third party on behalf of a Worker.

The Total Prevailing Wage Rate for a Worker is $30.00, which is comprised of an hourly basic rate of $20.00 and an hourly fringe rate of $10.00. The table below includes various hourly basic and Fringe Benefit payments that a Contractor could potentially make to a Worker.

OT CALCULATION FORMULA AND EXAMPLES
OT = (PW * .5) + (HW) + (RF) + (F)

Hourly Wage Paid	Fringe Benefits Paid	Payment To Employee (PW * .5) + (HW) + (RF)	Fringe Payment + (F)	Total Payment = OT
$ 20.00	$ 10.00	($ 20.00 * .5) + ($ 20.00) + ($ 0.00) = $ 30.00	+ $ 10.00	= $ 40.00
$ 18.00	$ 12.00	($ 20.00 * .5) + ($ 18.00) + ($ 0.00) = $ 28.00	+ $ 12.00	= $ 40.00
$ 22.00	$ 8.00	($ 20.00 * .5) + ($ 22.00) + ($ 0.00) = $ 32.00	+ $ 8.00	= $ 40.00
$ 30.00	$ 0.00	($ 20.00 * .5) + ($ 30.00) + ($ 0.00) = $ 40.00	+ $ 0.00	= $ 40.00
$ 24.00	$ 4.00	($ 20.00 * .5) + ($ 24.00) + ($ 2.00) = $ 36.00	+ $ 4.00	= $ 40.00

Regarding the last example the Contractor would be required to pay an additional $2.00 to the Worker, which is wages in lieu of fringe for a straight time hourly rate of $26.00 not $24.00.

A Contractor subject to the Fair Labor Standards Act (FLSA) may be subject to additional overtime compensation requirements.

[116] United States Department of Labor Field Operation Handbook, Section 15k

Appendix K

Prevailing Wages for State Funded Construction Projects

MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY PREVAILING WAGES FOR STATE FUNDED CONSTRUCTION PROJECTS

THIS NOTICE MUST BE POSTED ON THE JOBSITE IN A CONSPICUOUS PLACE

Construction Type: Highway and Heavy

Region Number: 09

Counties within region:

- ANOKA-02
- CARVER-10
- CHISAGO-13
- DAKOTA-19
- HENNEPIN-27
- RAMSEY-62
- SCOTT-70
- WASHINGTON-82

Effective: 2023-11-20 Revised: 2024-02-05

This project is covered by Minnesota prevailing wage statutes. Wage rates listed below are the minimum hourly rates to be paid on this project.

All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at a rate of one and one half (1 1/2) times the basic hourly rate. *Note: Overtime pay after eight (8) hours on the project must be paid even if the worker does not exceed forty (40) hours in the work week.*

Violations on MnDOT highways and road projects should be reported to:

Department of Transportation
Office of Construction
Transportation Building MS650
John Ireland Blvd
St. Paul, MN 55155
(651) 366-4209

All other prevailing wage violations and questions should be sent to:

Department of Labor and Industry
Prevailing Wage Section
443 Lafayette Road N
St Paul, MN 55155
(651) 284-5091
DLI.PrevWage@state.mn.us

LABOR CODE AND CLASS		EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE
LABORERS (101 - 112) (SPECIAL CRAFTS 701 - 730)					
101	LABORER, COMMON (GENERAL LABOR WORK)	2023-11-20	38.90	23.49	62.39
		2024-05-01	41.63	24.24	65.87
102	LABORER, SKILLED (ASSISTING SKILLED CRAFT JOURNEYMAN)	2023-11-20	38.90	23.49	62.39
		2024-05-01	41.63	24.24	65.87

LABOR CODE AND CLASS		EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE
103	LABORER, LANDSCAPING (GARDENER, SOD LAYER AND NURSERY OPERATOR)	2023-11-20	28.29	20.41	48.70
		2024-05-01	30.04	21.16	51.20
104	FLAG PERSON	2023-11-20	38.90	23.49	62.39
		2024-05-01	41.63	24.24	65.87
105	WATCH PERSON	2023-11-20	35.50	22.94	58.44
		2024-05-01	38.23	23.69	61.92
106	BLASTER	2023-11-20	22.08	6.87	28.95
107	PIPELAYER (WATER, SEWER AND GAS)	2023-11-20	42.40	23.49	65.89
		2024-05-01	45.13	24.24	69.37
108	TUNNEL MINER	2023-11-20	40.40	23.49	63.89
		2024-05-01	43.13	24.24	67.37
109	UNDERGROUND AND OPEN DITCH LABORER (EIGHT FEET BELOW STARTING GRADE LEVEL)	2023-11-20	40.40	23.49	63.89
		2024-05-01	43.13	24.24	67.37
110	SURVEY FIELD TECHNICIAN (OPERATE TOTAL STATION, GPS RECEIVER, LEVEL, ROD OR RANGE POLES, STEEL TAPE MEASUREMENT; MARK AND DRIVE STAKES; HAND OR POWER DIGGING FOR AND IDENTIFICATION OF MARKERS OR MONUMENTS; PERFORM AND CHECK CALCULATIONS; REVIEW AND UNDERSTAND CONSTRUCTION PLANS AND LAND SURVEY MATERIALS). THIS CLASSIFICATION DOES NOT APPLY TO THE WORK PERFORMED ON A PREVAILING WAGE PROJECT BY A LAND SURVEYOR WHO IS LICENSED PURSUANT TO MINNESOTA STATUTES, SECTIONS 326.02 TO 326.15.	2023-11-20	38.90	23.49	62.39
		2024-05-01	41.63	24.24	65.87
111	TRAFFIC CONTROL PERSON (TEMPORARY SIGNAGE)	2023-11-20	38.90	23.49	62.39

LABOR CODE AND CLASS		EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE
		2024-05-01	41.63	24.24	65.87
112	QUALITY CONTROL TESTER (FIELD AND COVERED OFF-SITE FACILITIES; TESTING OF AGGREGATE, ASPHALT, AND CONCRETE MATERIALS); LIMITED TO MN DOT HIGHWAY AND HEAVY CONSTRUCTION PROJECTS WHERE THE MN DOT HAS RETAINED QUALITY ASSURANCE PROFESSIONALS TO REVIEW AND INTERPRET THE RESULTS OF QUALITY CONTROL TESTERS. SERVICES PROVIDED BY THE CONTRACTOR.	2023-11-20	16.28	4.07	20.35
SPECIAL EQUIPMENT (201 - 204)					
201	ARTICULATED HAULER	2023-11-20	42.49	25.20	67.69
		2024-04-29	44.67	26.40	71.07
202	BOOM TRUCK	2023-11-20	44.94	25.20	70.14
		2024-04-29	47.25	26.40	73.65
203	LANDSCAPING EQUIPMENT, INCLUDES HYDRO SEEDER OR MULCHER, SOD ROLLER, FARM TRACTOR WITH ATTACHMENT SPECIFICALLY SEEDING, SODDING, OR PLANT, AND TWO-FRAMED FORKLIFT (EXCLUDING FRONT, POSIT-TRACK, AND SKID STEER LOADERS), NO EARTHWORK OR GRADING FOR ELEVATIONS	2023-11-20	28.29	20.41	48.70
		2024-05-01	30.04	21.16	51.20
204	OFF-ROAD TRUCK	2023-11-20	42.49	25.20	67.69
		2024-04-29	44.67	26.40	71.07
205	PAVEMENT MARKING OR MARKING REMOVAL EQUIPMENT (ONE OR TWO PERSON OPERATORS); SELF-PROPELLED TRUCK OR TRAILER MOUNTED UNITS.	2023-11-20	32.04	21.96	54.00
HIGHWAY/HEAVY POWER EQUIPMENT OPERATOR					

LABOR CODE AND CLASS		EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE
GROUP 2		2023-11-20	43.38	25.20	68.58
		2024-04-29	45.61	26.40	72.01
302	HELICOPTER PILOT (HIGHWAY AND HEAVY ONLY)				
303	CONCRETE PUMP (HIGHWAY AND HEAVY ONLY)				
304	ALL CRANES WITH OVER 135-FOOT BOOM, EXCLUDING JIB (HIGHWAY AND HEAVY ONLY)				
305	DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR OTHER SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS THREE CUBIC YARDS AND OVER MANUFACTURER.S RATED CAPACITY INCLUDING ALL ATTACHMENTS. (HIGHWAY AND HEAVY ONLY)				
306	GRADER OR MOTOR PATROL				
307	PILE DRIVING (HIGHWAY AND HEAVY ONLY)				
308	TUGBOAT 100 H.P. AND OVER WHEN LICENSE REQUIRED (HIGHWAY AND HEAVY ONLY)				
GROUP 3		2023-11-20	42.81	25.20	68.01
		2024-04-29	45.01	26.40	71.41
309	ASPHALT BITUMINOUS STABILIZER PLANT				
310	CABLEWAY				
311	CONCRETE MIXER, STATIONARY PLANT (HIGHWAY AND HEAVY ONLY)				
312	DERRICK (GUY OR STIFFLEG)(POWER)(SKIDS OR STATIONARY) (HIGHWAY AND HEAVY ONLY)				
313	DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS, UP TO THREE CUBIC YARDS MANUFACTURER.S RATED CAPACITY INCLUDING ALL ATTACHMENTS (HIGHWAY AND HEAVY ONLY)				
314	DREDGE OR ENGINEERS, DREDGE (POWER) AND ENGINEER				
315	FRONT END LOADER, FIVE CUBIC YARDS AND OVER INCLUDING ATTACHMENTS. (HIGHWAY AND HEAVY ONLY)				
316	LOCOMOTIVE CRANE OPERATOR				
317	MIXER (PAVING) CONCRETE PAVING, ROAD MOLE, INCLUDING MUCKING OPERATIONS, CONWAY OR SIMILAR TYPE				
318	MECHANIC . WELDER ON POWER EQUIPMENT (HIGHWAY AND HEAVY ONLY)				
319	TRACTOR . BOOM TYPE (HIGHWAY AND HEAVY ONLY)				
320	TANDEM SCRAPER				
321	TRUCK CRANE . CRAWLER CRANE (HIGHWAY AND HEAVY ONLY)				
322	TUGBOAT 100 H.P AND OVER (HIGHWAY AND HEAVY ONLY)				
GROUP 4		2023-11-20	42.49	25.20	67.69
		2024-04-29	44.67	26.40	71.07
323	AIR TRACK ROCK DRILL				
324	AUTOMATIC ROAD MACHINE (CMI OR SIMILAR) (HIGHWAY AND HEAVY ONLY)				
325	BACKFILLER OPERATOR				
326	CONCRETE BATCH PLANT OPERATOR (HIGHWAY AND HEAVY ONLY)				
327	BITUMINOUS ROLLERS, RUBBER TIRED OR STEEL DRUMMED (EIGHT TONS AND OVER)				
328	BITUMINOUS SPREADER AND FINISHING MACHINES (POWER), INCLUDING PAVERS, MACRO SURFACING AND MICRO SURFACING, OR SIMILAR TYPES (OPERATOR AND SCREED PERSON)				
329	BROKK OR R.T.C. REMOTE CONTROL OR SIMILAR TYPE WITH ALL ATTACHMENTS				

LABOR CODE AND CLASS		EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE
330	CAT CHALLENGER TRACTORS OR SIMILAR TYPES PULLING ROCK WAGONS, BULLDOZERS AND SCRAPERS				
331	CHIP HARVESTER AND TREE CUTTER				
332	CONCRETE DISTRIBUTOR AND SPREADER FINISHING MACHINE, LONGITUDINAL FLOAT, JOINT MACHINE, AND SPRAY MACHINE				
333	CONCRETE MIXER ON JOBSITE (HIGHWAY AND HEAVY ONLY)				
334	CONCRETE MOBIL (HIGHWAY AND HEAVY ONLY)				
335	CRUSHING PLANT (GRAVEL AND STONE) OR GRAVEL WASHING, CRUSHING AND SCREENING PLANT				
336	CURB MACHINE				
337	DIRECTIONAL BORING MACHINE				
338	DOPE MACHINE (PIPELINE)				
339	DRILL RIGS, HEAVY ROTARY OR CHURN OR CABLE DRILL (HIGHWAY AND HEAVY ONLY)				
340	DUAL TRACTOR				
341	ELEVATING GRADER				
342	FORK LIFT OR STRADDLE CARRIER (HIGHWAY AND HEAVY ONLY)				
343	FORK LIFT OR LUMBER STACKER (HIGHWAY AND HEAVY ONLY)				
344	FRONT END, SKID STEER OVER 1 TO 5 C YD				
345	GPS REMOTE OPERATING OF EQUIPMENT				
346	HOIST ENGINEER (POWER) (HIGHWAY AND HEAVY ONLY)				
347	HYDRAULIC TREE PLANTER				
348	LAUNCHER PERSON (TANKER PERSON OR PILOT LICENSE)				
349	LOCOMOTIVE (HIGHWAY AND HEAVY ONLY)				
350	MILLING, GRINDING, PLANNING, FINE GRADE, OR TRIMMER MACHINE				
351	MULTIPLE MACHINES, SUCH AS AIR COMPRESSORS, WELDING MACHINES, GENERATORS, PUMPS (HIGHWAY AND HEAVY ONLY)				
352	PAVEMENT BREAKER OR TAMPING MACHINE (POWER DRIVEN) MIGHTY MITE OR SIMILAR TYPE				
353	PICKUP SWEEPER, ONE CUBIC YARD AND OVER HOPPER CAPACITY(HIGHWAY AND HEAVY ONLY)				
354	PIPELINE WRAPPING, CLEANING OR BENDING MACHINE				
355	POWER PLANT ENGINEER, 100 KWH AND OVER (HIGHWAY AND HEAVY ONLY)				
356	POWER ACTUATED HORIZONTAL BORING MACHINE, OVER SIX INCHES				
357	PUGMILL				
358	PUMPCRETE (HIGHWAY AND HEAVY ONLY)				
359	RUBBER-TIRED FARM TRACTOR WITH BACKHOE INCLUDING ATTACHMENTS (HIGHWAY AND HEAVY ONLY)				
360	SCRAPER				
361	SELF-PROPELLED SOIL STABILIZER				
362	SLIP FORM (POWER DRIVEN) (PAVING)				
363	TIE TAMPER AND BALLAST MACHINE				
364	TRACTOR, BULLDOZER (HIGHWAY AND HEAVY ONLY)				
365	TRACTOR, WHEEL TYPE, OVER 50 H.P. WITH PTO UNRELATED TO LANDSCAPING (HIGHWAY AND HEAVY ONLY)				
366					

LABOR CODE AND CLASS		EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE
	TRENCHING MACHINE (SEWER, WATER, GAS) EXCLUDES WALK BEHIND TRENCHER (HIGHWAY AND HEAVY ONLY)				
367	TUB GRINDER, MORBARK, OR SIMILAR TYPE				
368	WELL POINT DISMANTLING OR INSTALLATION (HIGHWAY AND HEAVY ONLY)				
GROUP 5		2023-11-20	39.33	25.20	64.53
		2024-04-29	41.36	26.40	67.76
369	AIR COMPRESSOR, 600 CFM OR OVER (HIGHWAY AND HEAVY ONLY)				
370	BITUMINOUS ROLLER (UNDER EIGHT TONS)				
371	CONCRETE SAW (MULTIPLE BLADE) (POWER OPERATED)				
372	FORM TRENCH DIGGER (POWER)				
373	FRONT END, SKID STEER UP TO 1C YD				
374	GUNITE GUNALL (HIGHWAY AND HEAVY ONLY)				
375	HYDRAULIC LOG SPLITTER				
376	LOADER (BARBER GREENE OR SIMILAR TYPE)				
377	POST HOLE DRIVING MACHINE/POST HOLE AUGER				
378	POWER ACTUATED AUGER AND BORING MACHINE				
379	POWER ACTUATED JACK				
380	PUMP (HIGHWAY AND HEAVY ONLY)				
381	SELF-PROPELLED CHIP SPREADER (FLAHERTY OR SIMILAR)				
382	SHEEP FOOT COMPACTOR WITH BLADE . 200 H.P. AND OVER				
383	SHOULDERING MACHINE (POWER) APSCO OR SIMILAR TYPE INCLUDING SELF-PROPELLED SAND AND CHIP SPREADER				
384	STUMP CHIPPER AND TREE CHIPPER				
385	TREE FARMER (MACHINE)				
GROUP 6		2023-11-20	38.06	25.20	63.26
		2024-04-29	40.02	26.40	66.42
387	CAT, CHALLENGER, OR SIMILAR TYPE OF TRACTORS, WHEN PULLING DISK OR ROLLER				
388	CONVEYOR (HIGHWAY AND HEAVY ONLY)				
389	DREDGE DECK HAND				
390	FIRE PERSON OR TANK CAR HEATER (HIGHWAY AND HEAVY ONLY)				
391	GRAVEL SCREENING PLANT (PORTABLE NOT CRUSHING OR WASHING)				
392	GREASER (TRACTOR) (HIGHWAY AND HEAVY ONLY)				
393	LEVER PERSON				
394	OILER (POWER SHOVEL, CRANE, TRUCK CRANE, DRAGLINE, CRUSHERS, AND MILLING MACHINES, OR OTHER SIMILAR HEAVY EQUIPMENT) (HIGHWAY AND HEAVY ONLY)				
395	POWER SWEEPER				
396	SHEEP FOOT ROLLER AND ROLLERS ON GRAVEL COMPACTION, INCLUDING VIBRATING ROLLERS				
397	TRACTOR, WHEEL TYPE, OVER 50 H.P., UNRELATED TO LANDSCAPING				

LABOR CODE AND CLASS		EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE
TRUCK DRIVERS					
GROUP 1		2023-11-20	31.25	17.50	48.75
601	MECHANIC . WELDER				
602	TRACTOR TRAILER DRIVER				
603	TRUCK DRIVER (HAULING MACHINERY INCLUDING OPERATION OF HAND AND POWER OPERATED WINCHES)				
GROUP 2		2023-11-20	34.70	21.76	56.46
604	FOUR OR MORE AXLE UNIT, STRAIGHT BODY TRUCK				
GROUP 3		2023-11-20	34.60	21.76	56.36
605	BITUMINOUS DISTRIBUTOR DRIVER				
606	BITUMINOUS DISTRIBUTOR (ONE PERSON OPERATION)				
607	THREE AXLE UNITS				
GROUP 4		2023-11-20	37.54	21.76	59.30
608	BITUMINOUS DISTRIBUTOR SPRAY OPERATOR (REAR AND OILER)				
609	DUMP PERSON				
610	GREASER				
611	PILOT CAR DRIVER				
612	RUBBER-TIRED, SELF-PROPELLED PACKER UNDER 8 TONS				
613	TWO AXLE UNIT				
614	SLURRY OPERATOR				
615	TANK TRUCK HELPER (GAS, OIL, ROAD OIL, AND WATER)				
616	TRACTOR OPERATOR, UNDER 50 H.P.				
SPECIAL CRAFTS					
701	HEATING AND FROST INSULATORS	2023-11-20	47.10	24.40	71.50
702	BOILERMAKERS	2023-11-20	44.37	30.55	74.92
		2024-01-01	46.00	31.93	77.93
703	BRICKLAYERS	2023-11-20	45.47	25.76	71.23
		2024-05-01	48.51	25.76	74.27
704	CARPENTERS	2023-11-20	43.58	27.91	71.49
		2024-05-01	47.08	27.91	74.99
705	CARPET LAYERS (LINOLEUM)				

LABOR CODE AND CLASS		EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE
		FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
706	CEMENT MASONS	2023-11-20	45.17	24.22	69.39
		2024-04-29	48.57	24.22	72.79
707	ELECTRICIANS	2023-11-20	52.00	32.80	84.80
711	GROUND PERSON	2023-11-20	35.60	18.92	54.52
712	IRONWORKERS	2023-11-20	43.00	34.11	77.11
		2024-04-28	46.00	34.11	80.11
713	LINEMAN	2023-11-20	50.86	23.57	74.43
714	MILLWRIGHT	2023-11-20	40.39	33.37	73.76
		2024-05-01	43.44	33.37	76.81
715	PAINTERS (INCLUDING HAND BRUSHED, HAND SPRAYED, AND THE TAPING OF PAVEMENT MARKINGS)	2023-11-20	38.70	22.76	61.46
716	PILEDRIVER (INCLUDING VIBRATORY DRIVER OR EXTRACTOR FOR PILING AND SHEETING OPERATIONS)	2023-11-20	43.53	27.91	71.44
		2024-05-01	47.03	27.91	74.94
717	PIPEFITTERS . STEAMFITTERS	2023-11-20	53.94	33.30	87.24
		2024-05-01	57.14	33.30	90.44
719	PLUMBERS	2023-11-20	52.60	31.10	83.70
721	SHEET METAL WORKERS	2023-11-20	44.46	29.17	73.63
723	TERRAZZO WORKERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
724	TILE SETTERS	2023-11-20	34.76	23.29	58.05
725	TILE FINISHERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			

LABOR CODE AND CLASS		EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE
727	WIRING SYSTEM TECHNICIAN	2023-11-20	44.61	20.16	64.77
728	WIRING SYSTEMS INSTALLER	2023-11-20	31.25	16.34	47.59
729	ASBESTOS ABATEMENT WORKER	2023-11-20	37.63	23.36	60.99
		2024-01-01	39.86	24.11	63.97
730	SIGN ERECTOR	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			

Appendix L

Notice of Truck Rental Rate Certification and Effective Date

DEPARTMENT OF LABOR AND INDUSTRY

Dec. 18, 2023

Notice of truck rental rate certification and effective date

The Department of Labor and Industry (DLI) commissioner has certified the minimum truck rental rates for state-funded highway projects effective Dec. 18, 2023. This certification follows the publication of the Notice of Truck Rental Rate Determination in the State Register on Nov. 27, 2023, and the informal conference held pursuant to Minnesota Rules, part 5200.1105 on Dec. 11, 2023.

According to Minnesota Rules, part 5200.1105, the purpose of the informal conference was for DLI to obtain further input regarding the determined rates prior to the certification. No written input regarding the determination was received by DLI prior to the informal conference.

The truck rental rate is determined for each equipment type by adding the average hourly cost of operating the vehicle to the certified prevailing-wage rate for the driver. The average hourly operating costs are determined by voluntary survey of truck owner operators, trucking contractors and trucking firms. Cost data used in DLI's analysis must be representative of five trucking firms of various size and five independent truck owner operators for each type of truck.

The determination of the minimum truck rental rates by region are as follows.

Three-axle units

Region	Effective date	607 driver rate	Operating cost	Truck rental rate
Region 1	Certification date	$58.61	$37.35	$95.96
	Increase May 1, 2024	$61.54	$37.35	$98.89
Region 2	Certification date	$51.97	$37.35	$89.32
	Increase May 1, 2024	$54.57	$37.35	$91.92
Region 3	Certification date	$45.02	$37.35	$82.37
Region 4	Certification date	$51.97	$37.35	$89.32

Region	Effective date	607 driver rate	Operating cost	Truck rental rate
	Increase May 1, 2024	$54.57	$37.35	$91.92
Region 5	Certification date	$39.50	$37.35	$76.85
Region 6	Certification date	$54.16	$37.35	$91.51
Region 7	Certification date	$46.65	$37.35	$84.00
Region 8	Certification date	$32.16	$37.35	$69.51
Region 9	Certification date	$56.36	$37.35	$93.71
Region 10	Certification date	$55.96	$37.35	$93.31

Four or more axle units

Region	Effective date	604 driver rate	Operating cost	Truck rental rate
Region 1	Certification date	$58.71	$51.50	$110.21
	Increase May 1, 2024	$61.65	$51.50	$113.15
Region 2	Certification date	$52.11	$51.50	$103.61
	Increase May 1, 2024	54.72	$51.50	$106.22
Region 3	Certification date	$38.51	$51.50	$90.01
Region 4	Certification date	$53.73	$51.50	$105.23
Region 5	Certification date	$44.00	$51.50	$95.50
Region 6	Certification date	$54.26	$51.50	$105.76

Region 7	Certification date	$46.20	$51.50	$97.70
Region 8	Certification date	$43.75	$51.50	$95.25
Region 9	Certification date	$56.46	$51.50	$107.96
Region 10	Certification date	$56.06	$51.50	$107.56

Tractor

Region	Effective date	602 driver rate	Operating cost	Tractor-only truck rental rate	Plus trailer operating cost	Tractor trailer rental rate
Region 1	Certification date	$59.29	$54.96	$114.25	$11.46	$125.71
	Increase May 1, 2024	$62.25	$54.96	$117.21	$11.46	$128.67
Region 2	Certification date	$52.66	$54.96	$107.62	$11.46	$119.08
	Increase May 1, 2024	$55.29	$54.96	$110.25	$11.46	$121.71
Region 3	Certification date	$48.35	$54.96	$103.31	$11.46	$114.77
Region 4	Certification date	$38.30	$54.96	$93.26	$11.46	$104.72
Region 5	Certification date	$42.00	$54.96	$96.96	$11.46	$108.42
Region 6	Certification date	$39.50	$54.96	$94.46	$11.46	$105.92
Region 7	Certification date	$45.40	$54.96	$100.36	$11.46	$111.82
Region 8	Certification date	$48.45	$54.96	$103.41	$11.46	$114.87
Region 9	Certification date	$48.75	$54.96	$103.71	$11.46	$115.17

Region 10	Certification date	$48.45	$54.96	$103.41	$11.46	$114.87

The current operating costs and truck rental rates may be reviewed by accessing DLI's website at https://dli.mn.gov/business/employment-practices/prevailing-wage-minimum-truck-rental-rates. Questions about the truck rental rates or the informal conference notice below can be answered by calling 651-284-5192.

The minimum truck rental rate for these four types of trucks in the State's 10 highway and heavy construction areas will be effective for all highway and heavy construction projects financed in whole or part with state funds advertised for bid on or after the day the notice of certification is published in the *State Register*.

Sincerely,

Nicole Blissenbach

DLI commissioner

Appendix M

Union Pacific Railroad Pipeline Crossing Agreement 03328-47

July 19, 2022
Folder: 03328-47

JEFF OLIVER
CITY OF GOLDEN VALLEY
7800 GOLDEN VALLEY ROAD
GOLDEN VALLEY MN 55427

Re: Proposed Underground Twelve Inch (12") Plastic Pipeline Encased In A Twenty Four Inch (24") Steel Casing For Transporting And Conveying Potable Water Pipeline Crossing of Railroad Property at Mile Post 4.28 on the Golden Valley Industrial Lead at or near Golden Valley, Hennepin County, Minnesota

Jeff Oliver:

Attached is an original of the agreement covering your use of the Railroad Company's right of way. Please return the executed agreement via email. For any payment(s), please follow the accompanying instructions.

An original copy of the fully-executed document will be returned to you, when approved and processed by the Railroad Company.

- Payment in the amount of **One Thousand Two Hundred Fifty Dollars ($1,250.00)** is due and payable to Union Pacific Railroad Company upon your execution of the agreement. Please include your payment, **with Folder No. 03328-47 noted on that document.** If you require formal billing, you may consider this letter as a formal bill and that 94-6001323 is this Corporation's correct Federal Taxpayer Identification Number.

- Railroad Protective Liability Insurance (RPLI) may be obtained from any insurance company which offers such coverage. Union Pacific has also worked with a national broker, Marsh USA, to make available RPLI to you or your contractor. You can find additional information, premium quotes, and application forms at (uprr.marsh.com).

If we have not received the executed documents within six months from the date of this letter, this proposed offer of an agreement is withdrawn and becomes null and void.

If you have any questions, please contact me at jasorian@up.com.

Sincerely,

Justin Soriano
Analyst Finance

Pipeline Crossing 080808
Last Modified: 06/05/18
Form Approved, AVP-Law

Folder No. 03328-47

PIPELINE CROSSING AGREEMENT

Mile Post: 4.28, Golden Valley Industrial Lead
Location: Golden Valley, Hennepin County, Minnesota

THIS AGREEMENT ("Agreement") is made and entered into as of July 19, 2022, ("Effective Date") by and between **UNION PACIFIC RAILROAD COMPANY**, a Delaware corporation, ("Licensor") and **CITY OF GOLDEN VALLEY**, to be addressed at 7800 Golden Valley Road, Golden Valley, Minnesota 55427 ("Licensee").

IT IS MUTUALLY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

Article 1. LICENSOR GRANTS RIGHT.

A. In consideration of the license fee to be paid by Licensee set forth below and in further consideration of the covenants and agreements to be performed by Licensee, Licensor hereby grants to Licensee the right to construct and thereafter, during the term hereof, maintain and operate underground twelve inch (12") plastic pipeline encased in a twenty four inch (24") steel casing for transporting and conveying potable water only, including any appurtenances required for the operation of said pipeline (collectively, "Licensee's Facilities") across Licensor's real property, trackage, or other facilities located in Golden Valley, Hennepin County, State of Minnesota ("Railroad Property"). The specific specifications and limited purpose for Licensee's Facilities on, along, across and under Railroad Property are described in and shown on the Print and Specifications dated April 18, 2022, attached hereto as **Exhibit A** and made a part hereof.

B. Licensee represents and warrants that Licensee's Facilities will (i) only be used for underground twelve inch (12") plastic pipeline encased in a twenty four inch (24") steel casing for transporting and conveying potable water, and (ii) not be used to convey any other substance, any fiber optic cable, or for any other use, whether such use is currently technologically possible, or whether such use may come into existence during the life of this Agreement.

C. Licensee acknowledges that if it or its contractor provides Licensor with digital imagery depicting Licensee's Facilities ("Digital Imagery"), Licensee authorizes Licensor to use the Digital Imagery in preparing **Exhibit A**. Licensee represents and warrants that through a license or otherwise, it has the right to use the Digital Imagery and to permit Licensor to use the Digital Imagery in said manner.

Article 2. LICENSE FEE.

Upon execution of this Agreement, the Licensee shall pay to the Licensor a one-time License Fee of **One Thousand Two Hundred Fifty Dollars ($1,250.00)**.

Article 3. TERM.

This Agreement shall take effect as of the Effective Date first herein written and shall continue in full force and effect until terminated as provided in the "TERMINATION; REMOVAL OF LICENSEE'S FACILITIES" Section of **Exhibit B**.

Article 4. LICENSEE'S COMPLIANCE WITH GENERAL TERMS.

Licensee represents and warrants that all work on Licensee's Facilities performed by Licensee or its contractors will strictly comply with all terms and conditions set forth herein, including the General Terms and Conditions, attached hereto as Exhibit B and made a part hereof.

Article 5. INSURANCE.

A. During the term of this Agreement, Licensee shall fully comply or cause its contractor(s) to fully comply with the insurance requirements described in **Exhibit C**, attached hereto and made a part hereof. Upon request only, Licensee shall send copies of all insurance documentation (e.g., certificates, endorsements, etc.) to Licensor at the address listed in the "NOTICES" Section of this Agreement.

B. If Licensee is subject to statute(s) limiting its insurance liability and/or limiting its ability to obtain insurance in compliance with **Exhibit C** of this Agreement, those statutes shall apply.

Article 6. DEFINITION OF LICENSEE.

For purposes of this Agreement, all references in this Agreement to Licensee will include Licensee's contractors, subcontractors, officers, agents and employees, and others acting under its or their authority (collectively, a "Contractor"). If a Contractor is hired by Licensee to perform any work on Licensee's Facilities (including initial construction and subsequent relocation, maintenance, and/or repair work), then Licensee shall provide a copy of this Agreement to its Contractor(s) and require its Contractor(s) to comply with all terms and conditions of this Agreement, including the indemnification requirements set forth in the "INDEMNITY" Section of **Exhibit B**. Licensee shall require any Contractor to release, defend, and indemnify Licensor to the same extent and under the same terms and conditions as Licensee is required to release, defend, and indemnify Licensor herein.

Article 7. ATTORNEYS' FEES, EXPENSES, AND COSTS.

If litigation or other court action or similar adjudicatory proceeding is undertaken by Licensee or Licensor to enforce its rights under this Agreement, all fees, costs, and expenses, including, without limitation, reasonable attorneys' fees and court costs, of the prevailing Party in such action, suit, or proceeding shall be reimbursed or paid by the Party against whose interest the judgment or decision is rendered. The provisions of this Article shall survive the termination of this Agreement.

Article 8. WAIVER OF BREACH.

The waiver by Licensor of the breach of any condition, covenant or agreement herein contained to be kept, observed and performed by Licensee shall in no way impair the right of Licensor to avail itself of any remedy for any subsequent breach thereof.

Article 9. ASSIGNMENT.

A. Licensee shall not assign this Agreement, in whole or in part, or any rights herein granted, without the written consent of Licensor, which must be requested in writing by Licensee. Any assignment or attempted transfer of this Agreement or any of the rights herein granted, whether voluntary, by operation of law, or otherwise, without Licensor's written consent, will be absolutely void and may result in Licensor's termination of this Agreement pursuant to the "TERMINATION; REMOVAL OF LICENSEE'S FACILITIES" Section of **Exhibit B.**

B. Upon Licensor's written consent to any assignment, this Agreement will be binding upon and inure to the benefit of the parties thereto, successors, heirs, and assigns, executors, and administrators.

Article 10. SEVERABILITY.

Any provision of this Agreement which is determined by a court of competent jurisdiction to be invalid or unenforceable shall be invalid or unenforceable only to the extent of such determination, which shall not invalidate or otherwise render ineffective any other provision of this Agreement.

Article 11. NOTICES.

Except Licensee's commencement of work notice(s) required under **Exhibit B**, all other notices required by this Agreement must be in writing, and (i) personally served upon the business address listed below ("Notice Address"), (ii) sent overnight via express delivery by a nationally recognized overnight delivery service such as Federal Express Corporation or United Parcel Service to the Notice Address, or (iii) by certified mail, return receipt requested to the Notice Address. Overnight express delivery notices will be deemed to be given upon receipt. Certified mail notices will be deemed to be given three (3) days after deposit with the United States Postal Service.

If to Licensor: Union Pacific Railroad Company
Attn: Analyst – Real Estate Utilities (Folder No. 03328-47)
1400 Douglas Street, MS 1690
Omaha, Nebraska 68179

If to Licensee: CITY OF GOLDEN VALLEY
7800 Golden Valley Road
Golden Valley, Minnesota 55427

Article 12. SPECIAL PROVISION – CONSTRUCTION OBSERVATION.

Licensor requires Licensee to provide monitoring of tracks and construction observation through Licensor approved observer named below during all construction and installation work. Licensee is to directly coordinate services with the named inspector:

Railpros Field Services
Email: RP.Utility@railpros.com
Phone (682)223-5271

[Signature Page Follows]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the date first herein written.

UNION PACIFIC RAILROAD COMPANY

By: _____

Justin Soriano
Analyst Finance

CITY OF GOLDEN VALLEY

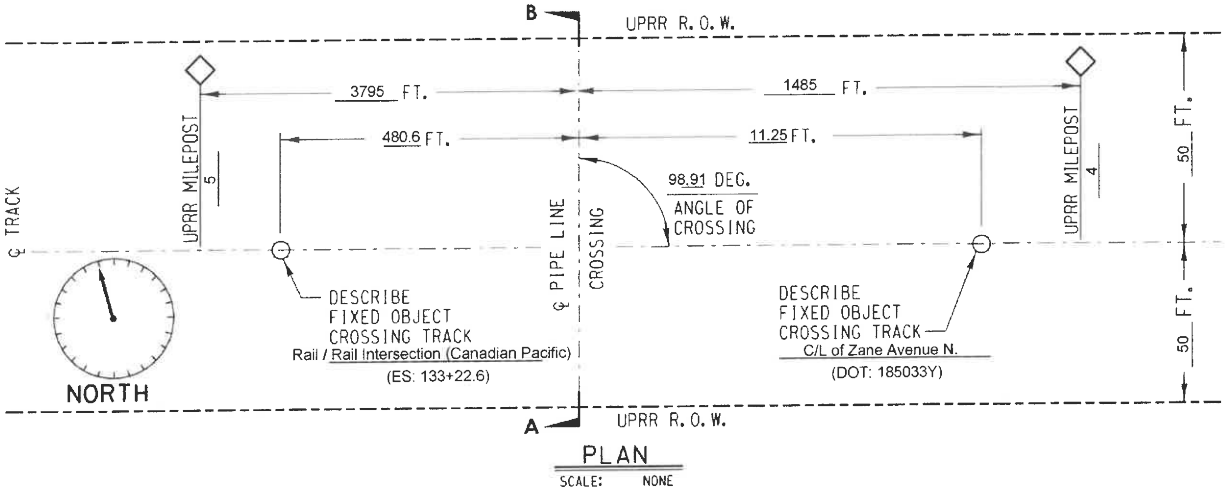
By: _____

Name Printed: JEFF OLIVER PE

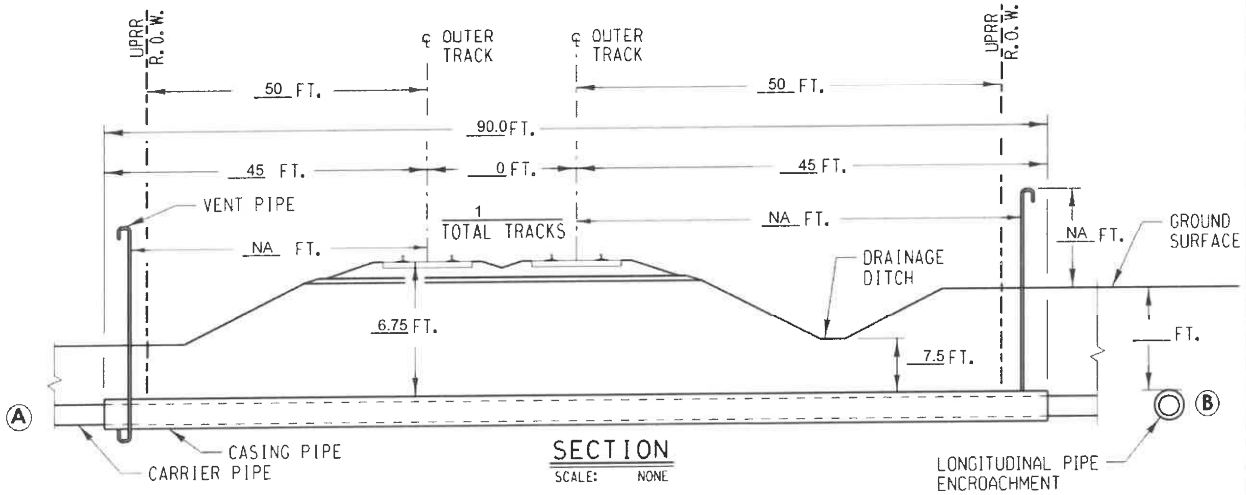
Title: CITY ENGINEER

NON-FLAMMABLE LIQUID PIPELINE

☑ CROSSING
☐ ENCROACHMENT
☐ BOTH



PLAN
SCALE: NONE



SECTION
SCALE: NONE

NOTES:
1) ALL DIMENSIONS MEASURED PERPENDICULAR TO THE CENTERLINE OF TRACK
2) REFER TO AREMA VOLUME 1. CHAPTER 1. PART 5. SECTION 5.1

A) METHOD OF INSTALLATION BORED AND JACKED
B) DIST. FROM CENTERLINE OF TRACK TO PIPE ENCROACHMENT _____.
C) SIGNS PROVIDED? SIGNS WILL NOT BE PROVIDED
D) CARRIER MATERIAL PLASTIC. IF RCP, CLASS V? NA.
COMMODITY TO BE CONVEYED WATER (POTABLE).
OPERATIONAL PRESSURE 100 PSI. MAOP 100 PSI.
WALL THICKNESS (INCH)/ SCHEDULE 18. DIAMETER 12 IN.
CATHODIC/COATING PROTECTION NO
E) CASING MATERIAL STEEL PIPE. IF RCP, CLASS V? NA.
TOTAL LENGTH CASING PIPE: 90 FT.
WALL THICKNESS 0.4375 IN. DIAMETER 24 IN.
CATHODIC/COATING PROTECTION YES
CASING PIPE IS OPEN AT THE ENDS.
F) DISTANCE FROM CENTERLINE OF TRACK TO NEAR FACE OF BORING AND JACKING PITS WHEN MEASURED AT RIGHT ANGLES
35 AND 35.

UNION PACIFIC **BUILDING AMERICA®**

EXHIBIT "A"

SUBDIVISION: Golden Valley Ind. Ld.	
TRACK TYPE: MAINLINE	
M.P.: 4.28	LAT.: 44.988495
E.S.M.: 128+42 ±	LONG.: -93.355106
NEAREST CITY: GOLDEN VALLEY / COUNTY: HENNEPIN / STATE: MN	
APPLICANT: CITY OF GOLDEN VALLEY	
FILE NO.: 0332847	DATE: 04/18/2022

EXHIBIT B

GENERAL TERMS AND CONDITIONS

Section 1. LIMITATION AND SUBORDINATION OF RIGHTS GRANTED.

A. The foregoing grant is subject and subordinate to the prior and continuing right and obligation of Licensor to use and maintain its entire property including the right and power of Licensor to construct, maintain, repair, renew, use, operate, change, modify or relocate railroad tracks, signal, communication, fiber optics, or other wirelines, pipelines and other facilities upon, along or across any or all parts of its property, all or any of which may be freely done at any time or times by Licensor without liability to Licensee or to any other party for compensation or damages.

B. The foregoing grant is also subject to all outstanding superior rights (including those in favor of licensees and lessees of Railroad Property) and the right of Licensor to renew and extend the same, and is made without covenant of title or for quiet enjoyment. It shall be Licensee's sole obligation to obtain such additional permission, license and grants necessary on account of any such existing rights.

Section 2. ENGINEERING REQUIREMENTS; PERMITS.

A. Licensee's Facilities will be designed, constructed, operated, maintained, repaired, renewed, modified, reconstructed, removed, or abandoned in place on Railroad Property by Licensee or its contractor to Licensor's satisfaction and in strict conformity with: (i) Licensor's current engineering standards and specifications, including those for shoring and cribbing to protect Licensor's railroad operations and facilities ("UP Specifications"), except for variances approved in advance in writing by Licensor's Assistant Vice President Engineering – Design or its authorized representative ("UP Engineering Representative"); (ii) such other additional safety standards as Licensor, in its sole discretion, elects to require, including, without limitation, American Railway Engineering and Maintenance-of-Way Association ("AREMA") standards and guidelines (collectively, "UP Additional Requirements"); and (iii) all applicable laws, rules, and regulations, including any applicable Federal Railroad Administration and Federal Energy Regulatory Commission regulations and enactments (collectively, "Laws"). If there is any conflict between UP Specifications, UP Additional Requirements, and Laws, the most restrictive will apply.

B. Licensee shall keep the soil over Licensee's Facilities thoroughly compacted, and maintain the grade over and around Licensee's Facilities even with the surface of the adjacent ground.

C. If needed, Licensee shall secure, at Licensee's sole cost and expense, any and all necessary permits required to perform any work on Licensee's Facilities.

Section 3. NOTICE OF COMMENCEMENT OF WORK; EMERGENCIES.

A. Licensee and its contractors are strictly prohibited from commencing any work associated with Licensee's Facilities without Licensor's written approval that the work will be in strict compliance with the "ENGINEERING REQUIREMENTS; PERMITS" Section of this Exhibit B. Upon Licensor's approval, Licensee shall contact both of Licensor's field representatives ("Licensor's Field Representatives") at least ten (10) days before commencement of any work on Licensee's Facilities.

B. Licensee shall not commence any work until: (1) Licensor has determined whether flagging or other special protective or safety measures ("Safety Measures") are required for performance of the work pursuant to the "FLAGGING" Section of this **Exhibit B** and provided Licensee written authorization to commence work; and (2) Licensee has complied with the "PROTECTION OF FIBER OPTIC CABLE SYSTEMS" Section of this **Exhibit B**.

C. If, at any time, an emergency arises involving Licensee's Facilities, Licensee or its contractor shall immediately contact Licensor's Response Management Communications Center at (888) 877-7267.

Section 4. FLAGGING.

A. Following Licensee's notice to Licensor's Field Representatives required under the "NOTICE OF COMMENCEMENT OF WORK; EMERGENCIES" Section of this **Exhibit B**, Licensor shall inform Licensee if Safety Measures are required for performance of the work by Licensee or its contractor on Railroad Property. If Safety Measures are required, no work of any kind may be performed by Licensee or its contractor(s) until arrangements for the Safety Measures have been made and scheduled. If no Safety Measures are required, Licensor will give Licensee written authorization to commence work.

B. If any Safety Measures are performed or provided by Licensor, including but not limited to flagging, Licensor shall bill Licensee for such expenses incurred by Licensor, unless Licensor and a federal, state, or local governmental entity have agreed that Licensor is to bill such expenses to the federal, state, or local governmental entity. Additional information regarding the submission of such expenses by Licensor and payment thereof by Licensee can be found in the "LICENSEE'S PAYMENT OF EXPENSES" Section of this **Exhibit B**. If Licensor performs any Safety Measures, Licensee agrees that Licensee is not relieved of any of responsibilities or liabilities set forth in this Agreement.

C. For flagging, the rate of pay per hour for each flagger will be the prevailing hourly rate in effect for an eight-hour day for the class of flagmen used during regularly assigned hours and overtime in accordance with Labor Agreements and Schedules in effect at the time the work is performed. In addition to the cost of such labor, a composite charge for vacation, holiday, health and welfare, supplemental sickness, Railroad Retirement and unemployment compensation, supplemental pension, Employees Liability and Property Damage, and Administration will be included, computed on actual payroll. The composite charge will be the prevailing composite charge in effect at the time the work is performed. One and one-half times the current hourly rate is paid for overtime, Saturdays and Sundays, and two and one-half times current hourly rate for holidays. Wage rates are subject to change, at any time, by law or by agreement between Licensor and its employees, and may be retroactive as a result of negotiations or a ruling of an authorized governmental agency. Additional charges on labor are also subject to change. If the wage rate or additional charges are changed, Licensee (or the governmental entity, as applicable) shall pay on the basis of the new rates and charges.

D. Reimbursement to Licensor will be required covering the full eight-hour day during which any flagger is furnished, unless the flagger can be assigned to other railroad work during a portion of such day, in which event reimbursement will not be required for the portion of the day during which the flagger is engaged in other railroad work. Reimbursement will also be required for any day not actually worked by the flaggers following the flaggers' assignment to work on the project for which Licensor is required to pay the flaggers and which could not reasonably be avoided by Licensor by assignment of such flaggers to other work, even though Licensee may not be working during such time. When it becomes necessary for Licensor to bulletin and assign an employee to a flagging position in compliance with union collective bargaining agreements, Licensee must provide Licensor a minimum of

five (5) days notice prior to the cessation of the need for a flagger. If five (5) days notice of cessation is not given, Licensee will still be required to pay flagging charges for the days the flagger was scheduled, even though flagging is no longer required for that period. An additional ten (10) days notice must then be given to Licensor if flagging services are needed again after such five day cessation notice has been given to Licensor.

Section 5. SAFETY.

A. Safety of personnel, property, rail operations and the public is of paramount importance in the prosecution of any work on Railroad Property performed by Licensee or its contractor, and takes precedence over any work on Licensee's Facilities to be performed Licensee or its contractors. Licensee shall be responsible for initiating, maintaining and supervising all safety operations and programs in connection with any work on Licensee's Facilities. Licensee and its contractor shall, at a minimum comply, with Licensor's then current safety standards located at the below web address ("Licensor's Safety Standards") to ensure uniformity with the safety standards followed by Licensor's own forces. As a part of Licensee's safety responsibilities, Licensee shall notify Licensor if it determines that any of Licensor's Safety Standards are contrary to good safety practices. Licensee and its contractor shall furnish copies of Licensor's Safety Standards to each of its employees before they enter Railroad Property.

Union Pacific Current Safety Requirements

B. Licensee shall keep the job site on Railroad Property free from safety and health hazards and ensure that their employees are competent and adequately trained in all safety and health aspects of the work.

C. Licensee represents and warrants that all parts of Licensee's Facilities within and outside of the limits of Railroad Property will not interfere whatsoever with the constant, continuous, and uninterrupted use of the tracks, property, and facilities of Licensor, and nothing shall be done or suffered to be done by Licensee at any time that would in any manner impair the safety thereof.

D. Licensor's operations and work performed by Licensor's personnel may cause delays in Licensee's or its contractor's work on Licensee's Facilities. Licensee accepts this risk and agrees that Licensor shall have no liability to Licensee or any other person or entity for any such delays. Licensee must coordinate any work on Railroad Property by Licensee or any third party with Licensor's Field Representatives in strict compliance with the "NOTICE OF COMMENCEMENT OF WORK; EMERGENCIES" Section of this **Exhibit B**.

E. Licensor shall have the right, if it so elects, to provide any support it deems necessary for the safety of Licensor's operations and trackage during Licensee's or its contractor's construction, maintenance, repair, renewal, modification, relocation, reconstruction, or removal of Licensee's Facilities. In the event Licensor provides such support, Licensor shall invoice Licensee, and Licensee shall pay Licensor as set forth in the "LICENSEE'S PAYMENT OF EXPENSES" Section of this **Exhibit B**.

F. Licensee may use unmanned aircraft systems ("UAS") to inspect Licensee's Facilities only upon the prior authorization from and under the direction of Licensor's Field Representatives. Licensee represents and warrants that its use of UAS on Railroad Property will comply with Licensor's then-current Unmanned Aerial Systems Policy and all applicable laws, rules and regulations, including any applicable Federal Aviation Administration regulations and enactments pertaining to UAS.

Section 6. PROTECTION OF FIBER OPTIC CABLE SYSTEMS.

Fiber optic cable systems may be buried on Railroad Property. Protection of the fiber optic cable systems is of extreme importance since any break could disrupt service to users resulting in business interruption and loss of revenue and profits. In addition to the notifications required under the "NOTICE OF COMMENCEMENT OF WORK; EMERGENCIES" Section of this **Exhibit B**, Licensee shall visit up.com/CBUD to complete and submit the required form to determine if fiber optic cable is buried anywhere on Railroad Property to be used by Licensee. If it is, Licensee shall telephone the telecommunications company(ies) involved, and arrange for a cable locator, make arrangements for relocation or other protection of the fiber optic cable, all at Licensee's expense, and will not commence any work on Railroad Property until all such protection or relocation has been completed.

Section 7. LICENSEE'S PAYMENT OF EXPENSES.

A. Licensee shall bear the entire cost and expense of the design, construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities.

B. Licensee shall fully pay for all materials joined, affixed to and labor performed on Railroad Property in connection with the construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities, and shall not permit or suffer any mechanic's or materialman's lien of any kind or nature to be enforced against the property for any work done or materials furnished thereon at the instance or request or on behalf of Licensee. Licensee shall promptly pay or discharge all taxes, charges, and assessments levied upon, in respect to, or on account of Licensee's Facilities, to prevent the same from becoming a charge or lien upon any property of Licensor, and so that the taxes, charges, and assessments levied upon or in respect to such property shall not be increased because of the location, construction, or maintenance of Licensee's Facilities or any improvement, appliance, or fixture connected therewith placed upon such property, or on account of Licensee's interest therein. Where such tax, charge, or assessment may not be separately made or assessed to Licensee but shall be included in the assessment of the property of Licensor, then Licensee shall pay to Licensor an equitable proportion of such taxes determined by the value of Licensee's property upon property of Licensor as compared with the entire value of such property.

C. As set forth in the "FLAGGING" Section of this **Exhibit B**, Licensor shall have the right, if it so elects, to provide any Safety Measures Licensor deems necessary for the safety of Licensor's operations and trackage during Licensee's or its contractor's construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities, including, but not limited to supervision, inspection, and flagging services. In the event Licensor provides such Safety Measures, Licensor shall submit an itemized invoice to Licensee's notice recipient listed in the "NOTICES" Article of this Agreement. Licensee shall pay to Licensor the total amount listed on such invoice within thirty (30) days of Licensee's receipt of such invoice.

Section 8. MODIFICATIONS TO LICENSEE'S FACILITIES.

A. This grant is subject to Licensor's safe and efficient operation of its railroad, and continued use and improvement of Railroad Property (collectively, "Railroad's Use"). Accordingly, Licensee shall, at its sole cost and expense, modify, reconstruct, repair, renew, revise, relocate, or remove (individually, "Modification", or collectively, "Modifications") all or any portion of Licensee's Facilities as Licensor may designate or identify, in its sole discretion, in the furtherance of Railroad's Use.

B. Upon any Modification of all or any portion of Licensee's Facilities to another location on Railroad Property, Licensor and Licensee shall execute a Supplemental Agreement to this Pipeline

Agreement to document the Modification(s) to Licensee's Facilities on Railroad Property. If the Modifications result in Licensee's Facilities moving off of Railroad Property, this Agreement will terminate upon Licensee's completion of such Modification(s) and all requirements contained within the "TERMINATION; REMOVAL OF LICENSEE'S FACILITIES" Section of this **Exhibit B**. Any such Modification(s) off of Railroad Property will not release Licensee from any liability or other obligation of Licensee arising prior to and upon completion of any such Modifications to the Licensee's Facilities.

Section 9. RESTORATION OF RAILROAD PROPERTY.

In the event Licensee, in any manner moves or disturbs any property of Licensor in connection with the construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities, then, Licensee shall, as soon as possible and at Licensee's sole cost and expense, restore Licensor's property to the same condition as the same were before such property was moved or disturbed.

Section 10. INDEMNITY.

A. Definitions. As used in this Section:

1. "Licensor" includes Licensor, its affiliates, its and their officers, directors, agents and employees, and other railroad companies using Railroad Property at or near the location of Licensee's installation and their officers, directors, agents, and employees.

2. "Licensee" includes Licensee and its agents, contractors, subcontractors, sub-subcontractors, employees, officers, and directors, or any other person or entity acting on its behalf or under its control.

3. "Loss" includes claims, suits, taxes, loss, damages (including punitive damages, statutory damages, and exemplary damages), costs, charges, assessments, judgments, settlements, liens, demands, actions, causes of action, fines, penalties, interest, and expenses of any nature, including court costs, reasonable attorneys' fees and expenses, investigation costs, and appeal expenses.

B. Licensee shall release, defend, indemnify, and hold harmless Licensor from and against any and all Loss, even if groundless, fraudulent, or false, that directly or indirectly arises out of or is related to Licensee's construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, removal, presence, use, or operation of Licensee's Facilities, including, but not limited to, any actual or alleged:

1. Bodily harm or personal injury (including any emotional injury or disease) to, or the death of, any person(s), including, but not limited to, Licensee, Licensor, any telecommunications company, or the agents, contractors, subcontractors, sub-subcontractors, or employees of the foregoing;

2. Damage to or the disturbance, loss, movement, or destruction of Railroad Property, including loss of use and diminution in value, including, but not limited to, any telecommunications system(s) or fiber optic cable(s) on or near Railroad Property, any property of Licensee or Licensor, or any property in the care, custody, or control of Licensee or Licensor;

3. Removal of person(s) from Railroad Property;

4. Any delays or interference with track or Railroad's Use caused by Licensee's activity(ies) on Railroad Property, including without limitation the construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities or any part thereof, any activities, labor, materials, equipment, or machinery in conjunction therewith;

5. Right(s) or interest(s) granted pursuant to this Agreement;

6. Contents escaping from Licensee's Facilities, including without limitation any actual or alleged pollution, contamination, breach, or environmental Loss;

7. Licensee's breach of this Agreement or failure to comply with its provisions, including, but not limited to, any violation or breach by Licensee of any representations and warranties Licensee has made in this Agreement; and

8. Violation by Licensee of any law, statute, ordinance, governmental administrative order, rule, or regulation, including without limitation all applicable Federal Railroad Administration regulations.

C. THE FOREGOING OBLIGATIONS SHALL APPLY TO THE FULLEST EXTENT PERMITTED BY LAW FOR THE BENEFIT OF LICENSOR TO LOSSES CAUSED BY, ARISING FROM, RELATING TO, OR RESULTING FROM, IN WHOLE OR IN PART, THE NEGLIGENCE OF LICENSOR, AND SUCH NEGLIGENCE OF LICENSOR SHALL NOT LIMIT, DIMINISH, OR PRECLUDE LICENSEE'S OBLIGATIONS TO LICENSOR IN ANY RESPECT. NOTWITHSTANDING THE FOREGOING, SUCH OBLIGATION TO INDEMNIFY LICENSOR SHALL NOT APPLY TO THE EXTENT THE LOSS IS CAUSED BY THE SOLE, ACTIVE AND DIRECT NEGLIGENCE, GROSS NEGLIGENCE, OR WILLFUL MISCONDUCT OF LICENSOR AS DETERMINED IN A FINAL JUDGMENT BY A COURT OF COMPETENT JURISDICTION.

Section 11. TERMINATION; REMOVAL OF LICENSEE'S FACILITIES.

A. If Licensee does not use the right herein granted on Licensee's Facilities for one (1) year, or if Licensee continues in default in the performance of any provision of this Agreement for a period of thirty (30) days after written notice from Licensor to Licensee specifying such default, Licensor may, at its sole discretion, terminate this Agreement by written notice to Licensee at the address listed in the "NOTICES" Article of this Agreement. This Agreement will not terminate until Licensee complies with Paragraphs "C" and "D" of this Section found below.

B. In addition to the provisions of Paragraph "A" above, this Agreement may be terminated by written notice given by either party, without cause, upon thirty (30) days written notice to the non-terminating party at the address listed in the "NOTICES" Article of this Agreement. This Agreement will not terminate until Licensee complies with Paragraphs "C" and "D" of this Section found below.

C. Prior to the effective date of any termination described in this Section, Licensee shall submit an application to Licensor's online Utility Contracts System at this link for Licensee's removal, or if applicable, abandonment in place of Licensee's Facilities located on Railroad Property ("Removal/Abandonment Work"). Upon the UP Engineering Representative's approval of Licensee's application for the Removal/Abandonment Work, Licensor and Licensee shall execute a separate consent document that will govern Licensee's performance of the Removal/Abandonment Work from those portions of Railroad

Property not occupied by roadbed and/or trackage ("Consent Document"). Licensee shall then restore the impacted Railroad Property to the same or reasonably similar condition as it was prior to Licensee's installation of Licensee's Facilities. For purposes of this Section, Licensee's (i) performance of the Removal/Abandonment Work, and (ii) restoration work will hereinafter be collectively referred to as the "Restoration Work".

D. Following Licensee's completion of the Restoration Work, Licensee shall provide a written certification letter to Licensor at the address listed in the "NOTICES" Article of this Agreement which certifies that the Restoration Work has been completed in accordance with the Consent Document. Licensee shall report to governmental authorities, as required by law, and notify Licensor immediately if any environmental contamination is discovered during Licensee's performance of the Restoration Work. Upon discovery, the Licensee shall initiate any and all removal, remedial and restoration actions that are necessary to restore the property to its original, uncontaminated condition. Licensee shall provide written certification to Licensor at the address listed in the "NOTICES" Article of this Agreement that environmental contamination has been remediated and the property has been restored in accordance with Licensor's requirements. Upon Licensor's receipt of Licensee's restoration completion certifications, this Agreement will terminate.

E. In the event that Licensee fails to complete any of the Restoration Work, Licensor may, but is not obligated, to perform the Restoration Work. Any such work actually performed by Licensor will be at the cost and expense of Licensee. In the event that Licensor performs any of the Restoration Work, Licensee shall release Licensor from any and all Loss (defined in the "INDEMNITY" Section of this **Exhibit B**) arising out of or related to Licensor's performance of the Restoration Work.

F. Termination of this Agreement for any reason will not affect any of rights or obligations of the parties which may have accrued, or liabilities or Loss (defined in the "INDEMNITY" Section of this **Exhibit B**), accrued or otherwise, which may have arisen prior to such termination.

EXHIBIT C

INSURANCE REQUIREMENTS

In accordance with Article 5 of this Agreement, Licensee shall (1) procure and maintain at its sole cost and expense, or (2) require its Contractor(s) to procure and maintain, at their sole cost and expense, the following insurance coverage:

A. **Commercial General Liability Insurance**. Commercial general liability (CGL) with a limit of not less than $2,000,000 each occurrence and an aggregate limit of not less than $4,000,000. CGL insurance must be written on ISO occurrence form CG 00 01 12 04 (or a substitute form providing equivalent coverage).

The policy must also contain the following endorsement, WHICH MUST BE STATED ON THE CERTIFICATE OF INSURANCE:

- Contractual Liability Railroads ISO form CG 24 17 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Railroad Company Property" as the Designated Job Site.

B. **Business Automobile Coverage Insurance**. Business auto coverage written on ISO form CA 00 01 10 01 (or a substitute form providing equivalent liability coverage) with a limit of not less $2,000,000 for each accident, and coverage must include liability arising out of any auto (including owned, hired, and non-owned autos).

The policy must contain the following endorsements, WHICH MUST BE STATED ON THE CERTIFICATE OF INSURANCE:

- "Coverage For Certain Operations In Connection With Railroads" ISO form CA 20 70 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Railroad Company Property" as the Designated Job Site.

C. **Workers' Compensation and Employers' Liability Insurance**. Coverage must include but not be limited to:

- Licensee's statutory liability under the workers' compensation laws of the state(s) affected by this Agreement.
- Employers' Liability (Part B) with limits of at least $500,000 each accident, $500,000 disease policy limit $500,000 each employee.

If Licensee is self-insured, evidence of state approval and excess workers' compensation coverage must be provided. Coverage must include liability arising out of the U. S. Longshoremen's and Harbor Workers' Act, the Jones Act, and the Outer Continental Shelf Land Act, if applicable.

D. **Environmental Liability Insurance**. Environmental Legal Liability Insurance (ELL) applicable to bodily injury, property damage, including loss of use of damaged property or of property that has not been physically injured or destroyed, cleanup costs, and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims, or compliance with statute, all in connection with any loss arising from the insured's performance under this Agreement. Except with respect to the limits of insurance, and any rights or duties specifically assigned to the first named insured, this insurance must apply as if each named insured were the only named insured; and separately to the

additional insured against which claim is made or suit is brought. Coverage shall be maintained in an amount of at least $2,000,000 per loss, with an annual aggregate of at least $4,000,000.

Licensee warrants that any retroactive date applicable to ELL insurance coverage under the policy is the same as or precedes the Effective Date of this Agreement, and that continuous coverage will be maintained for a period of five (5) years beginning from the time the work under this Agreement is completed or if coverage is cancelled for any reason the policies extended discovery period, if any, will be exercised for the maximum time allowed.

E. **Railroad Protective Liability Insurance**. Licensee must maintain for the duration of work "Railroad Protective Liability" insurance written on ISO occurrence form CG 00 35 12 04 (or a substitute form providing equivalent coverage) on behalf of Licensor only as named insured, with a limit of not less than $2,000,000 per occurrence and an aggregate of $6,000,000. The definition of "JOB LOCATION" and "WORK" on the declaration page of the policy shall refer to this Agreement and shall describe all WORK or OPERATIONS performed under this Agreement. Notwithstanding the foregoing, Licensee does not need Railroad Protective Liability Insurance after its initial construction work is complete and all excess materials have been removed from Licensor's property; PROVIDED, however, that Licensee shall procure such coverage for any subsequent maintenance, repair, renewal, modification, reconstruction, or removal work on Licensee's Facilities.

F. **Umbrella or Excess Insurance**. If Licensee utilizes umbrella or excess policies, and these policies must "follow form" and afford no less coverage than the primary policy.

Other Requirements

G. All policy(ies) required above (except business automobile, workers' compensation and employers' liability) must include Licensor as "Additional Insured" using ISO Additional Insured Endorsement CG 20 26 (or substitute form(s) providing equivalent coverage). The coverage provided to Licensor as additional insured shall not be limited by Licensee's liability under the indemnity provisions of this Agreement. BOTH LICENSOR AND LICENSEE EXPECT THAT LICENSOR WILL BE PROVIDED WITH THE BROADEST POSSIBLE COVERAGE AVAILABLE BY OPERATION OF LAW UNDER ISO ADDITIONAL INSURED FORM CG 20 26.

H. Punitive damages exclusion, if any, must be deleted (and the deletion indicated on the certificate of insurance), unless (a) insurance coverage may not lawfully be obtained for any punitive damages that may arise under this Agreement, or (b) all punitive damages are prohibited by all states in which this Agreement will be performed.

I. Licensee waives all rights of recovery, and its insurers also waive all rights of subrogation of damages against Licensor and its agents, officers, directors and employees for damages covered by the workers' compensation and employers' liability or commercial umbrella or excess liability obtained by Licensee required in this Agreement, where permitted by law. This waiver must be stated on the certificate of insurance.

J. All insurance policies must be written by a reputable insurance company acceptable to Licensor or with a current Best's Insurance Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the work is to be performed.

K. The fact that insurance is obtained by Licensee will not be deemed to release or diminish the liability of Licensee, including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by Licensor from Licensee or any third party will not be limited by the amount of the required insurance coverage.

Appendix N

Union Pacific Railroad Pipeline Encroachment Agreement 0783985

February 22, 2024
Project: 0783985

CITY OF GOLDEN VALLEY

RE: Proposed Construction of One (1) Underground Pipeline Crossing With One Hundred Twenty Five Feet (125') Of Underground Pipeline Encroachment For Transporting And Conveying Storm Sewer Only Between Mile Posts 4.27 and 4.29 on the Golden Valley Industrial Lead at or near Golden Valley, Hennepin County, Minnesota

Attached is an original of the agreement covering your use of the Railroad Company's right of way. Please return the executed agreement via email. For any payment(s), please follow the accompanying instructions.

An original copy of the fully-executed document will be returned to you, when approved and processed by the Railroad Company.

- Payment in the amount of Twenty Two Thousand Nine Hundred Ninety Dollars **($22,990.00)** is due and payable to Union Pacific Railroad Company upon your execution of the agreement. Please include your payment, **with Project No. 0783985 noted on that document.** If you require formal billing, you may consider this letter as a formal bill and that 946001323 is this Corporation's correct Federal Taxpayer Identification Number.

- Railroad Protective Liability Insurance (RPLI) may be obtained from any insurance company which offers such coverage. Union Pacific has also worked with a national broker, Marsh USA, to make available RPLI to you or your contractor. You can find additional information, premium quotes, and application forms at (uprr.marsh.com).

If we have not received the executed documents within six months from the date of this letter, this proposed offer of an agreement is withdrawn and becomes null and void.

If you have any questions, please contact me at ksjones@up.com.

Sincerely,

Kris Jones
Senior Analyst Real Estate -Contracts

LONGITUDINAL AND CROSSING PIPELINE AGREEMENT

Between Mile Posts 4.27 and 4.29, Golden Valley Industrial Lead
Location: Golden Valley, Hennepin County, Minnesota

THIS AGREEMENT ("Agreement") is made and entered into as of February 22, 2024, ("Effective Date") by and between **UNION PACIFIC RAILROAD COMPANY**, a Delaware corporation, ("Licensor") and **CITY OF GOLDEN VALLEY**, to be addressed at 7800 Golden Valley Road, Golden Valley, Minnesota 55427 ("Licensee").

IT IS MUTUALLY AGREED BY AND BETWEEN THE PARTIES HERETO AS FOLLOWS:

Article 1. LICENSOR GRANTS RIGHT.

A. In consideration of the license fee to be paid by Licensee set forth below and in further consideration of the covenants and agreements to be performed by Licensee, Licensor hereby grants to Licensee the right to construct and thereafter, during the term hereof, maintain and operate one (1) underground pipeline crossing with one hundred twenty five feet (125') of underground longitudinal pipeline for transporting and conveying storm sewer only, including any appurtenances required for the operation of said pipeline (collectively, "Licensee's Facilities") across Licensor's real property, trackage, or other facilities located in Golden Valley, Hennepin County, State of Minnesota ("Railroad Property"). The specific specifications and limited purpose for Licensee's Facilities on, along, across and under Railroad Property are described in and shown on the Print and Specifications dated February 19, 2024, attached hereto as **Exhibit A-1 and Exhibit A-2** and made a part hereof.

B. Licensee represents and warrants that Licensee's Facilities will (i) only be used for one (1) underground pipeline crossing with one hundred twenty five feet (125') of underground longitudinal pipeline for transporting and conveying storm sewer , and (ii) not be used to convey any other substance, any fiber optic cable, or for any other use, whether such use is currently technologically possible, or whether such use may come into existence during the life of this Agreement.

C. Licensee acknowledges that if it or its contractor provides Licensor with digital imagery depicting Licensee's Facilities ("Digital Imagery"), Licensee authorizes Licensor to use the Digital Imagery in preparing **Exhibit A-1 and Exhibit A-2**. Licensee represents and warrants that through a license or otherwise, it has the right to use the Digital Imagery and to permit Licensor to use the Digital Imagery in said manner.

Article 2. LICENSE FEE.

Upon execution of this Agreement, the Licensee shall pay to the Licensor a one-time License Fee of Twenty Two Thousand Nine Hundred Ninety Dollars ($22,990.00).

Article 3. TERM.

This Agreement shall take effect as of the Effective Date first herein written and shall continue in full force and effect until terminated as provided in the "TERMINATION; REMOVAL OF LICENSEE'S FACILITIES" Section of **Exhibit B**.

Article 4. LICENSEE'S COMPLIANCE WITH GENERAL TERMS.

Licensee represents and warrants that all work on Licensee's Facilities performed by Licensee or its contractors will strictly comply with all terms and conditions set forth herein, including the General Terms and Conditions, attached hereto as Exhibit B and made a part hereof.

Article 5. INSURANCE.

A. During the term of this Agreement, Licensee shall fully comply or cause its contractor(s) to fully comply with the insurance requirements described in **Exhibit C**, attached hereto and made a part hereof. Upon request only, Licensee shall send copies of all insurance documentation (e.g., certificates, endorsements, etc.) to Licensor at the address listed in the "NOTICES" Section of this Agreement.

B. If Licensee is subject to statute(s) limiting its insurance liability and/or limiting its ability to obtain insurance in compliance with **Exhibit C** of this Agreement, those statutes shall apply.

Article 6. DEFINITION OF LICENSEE.

For purposes of this Agreement, all references in this Agreement to Licensee will include Licensee's contractors, subcontractors, officers, agents and employees, and others acting under its or their authority (collectively, a "Contractor"). If a Contractor is hired by Licensee to perform any work on Licensee's Facilities (including initial construction and subsequent relocation, maintenance, and/or repair work), then Licensee shall provide a copy of this Agreement to its Contractor(s) and require its Contractor(s) to comply with all terms and conditions of this Agreement, including the indemnification requirements set forth in the "INDEMNITY" Section of **Exhibit B**. Licensee shall require any Contractor to release, defend, and indemnify Licensor to the same extent and under the same terms and conditions as Licensee is required to release, defend, and indemnify Licensor herein.

Article 7. ATTORNEYS' FEES, EXPENSES, AND COSTS.

If litigation or other court action or similar adjudicatory proceeding is undertaken by Licensee or Licensor to enforce its rights under this Agreement, all fees, costs, and expenses, including, without limitation, reasonable attorneys' fees and court costs, of the prevailing Party in such action, suit, or proceeding shall be reimbursed or paid by the Party against whose interest the judgment or decision is rendered. The provisions of this Article shall survive the termination of this Agreement.

Article 8. WAIVER OF BREACH.

The waiver by Licensor of the breach of any condition, covenant or agreement herein contained to be kept, observed and performed by Licensee shall in no way impair the right of Licensor to avail itself of any remedy for any subsequent breach thereof.

Article 9. ASSIGNMENT.

A. Licensee shall not assign this Agreement, in whole or in part, or any rights herein granted, without the written consent of Licensor, which must be requested in writing by Licensee. Any assignment or attempted transfer of this Agreement or any of the rights herein granted, whether voluntary, by operation of law, or otherwise, without Licensor's written consent, will be absolutely void and may result in Licensor's termination of this Agreement pursuant to the "TERMINATION; REMOVAL OF LICENSEE'S FACILITIES" Section of **Exhibit B.**

B. Upon Licensor's written consent to any assignment, this Agreement will be binding upon and inure to the benefit of the parties thereto, successors, heirs, and assigns, executors, and administrators.

Article 10. SEVERABILITY.

Any provision of this Agreement which is determined by a court of competent jurisdiction to be invalid or unenforceable shall be invalid or unenforceable only to the extent of such determination, which shall not invalidate or otherwise render ineffective any other provision of this Agreement.

Article 11. NOTICES.

Except Licensee's commencement of work notice(s) required under **Exhibit B**, all other notices required by this Agreement must be in writing, and (i) personally served upon the business address listed below ("Notice Address"), (ii) sent overnight via express delivery by a nationally recognized overnight delivery service such as Federal Express Corporation or United Parcel Service to the Notice Address, or (iii) by certified mail, return receipt requested to the Notice Address. Overnight express delivery notices will be deemed to be given upon receipt. Certified mail notices will be deemed to be given three (3) days after deposit with the United States Postal Service.

If to Licensor: Union Pacific Railroad Company
Attn: Analyst – Real Estate Utilities (Project No. 0783985)
1400 Douglas Street, MS 1690
Omaha, Nebraska 68179

If to Licensee:CITY OF GOLDEN VALLEY
7800 Golden Valley Road
Golden Valley, Minnesota 55427

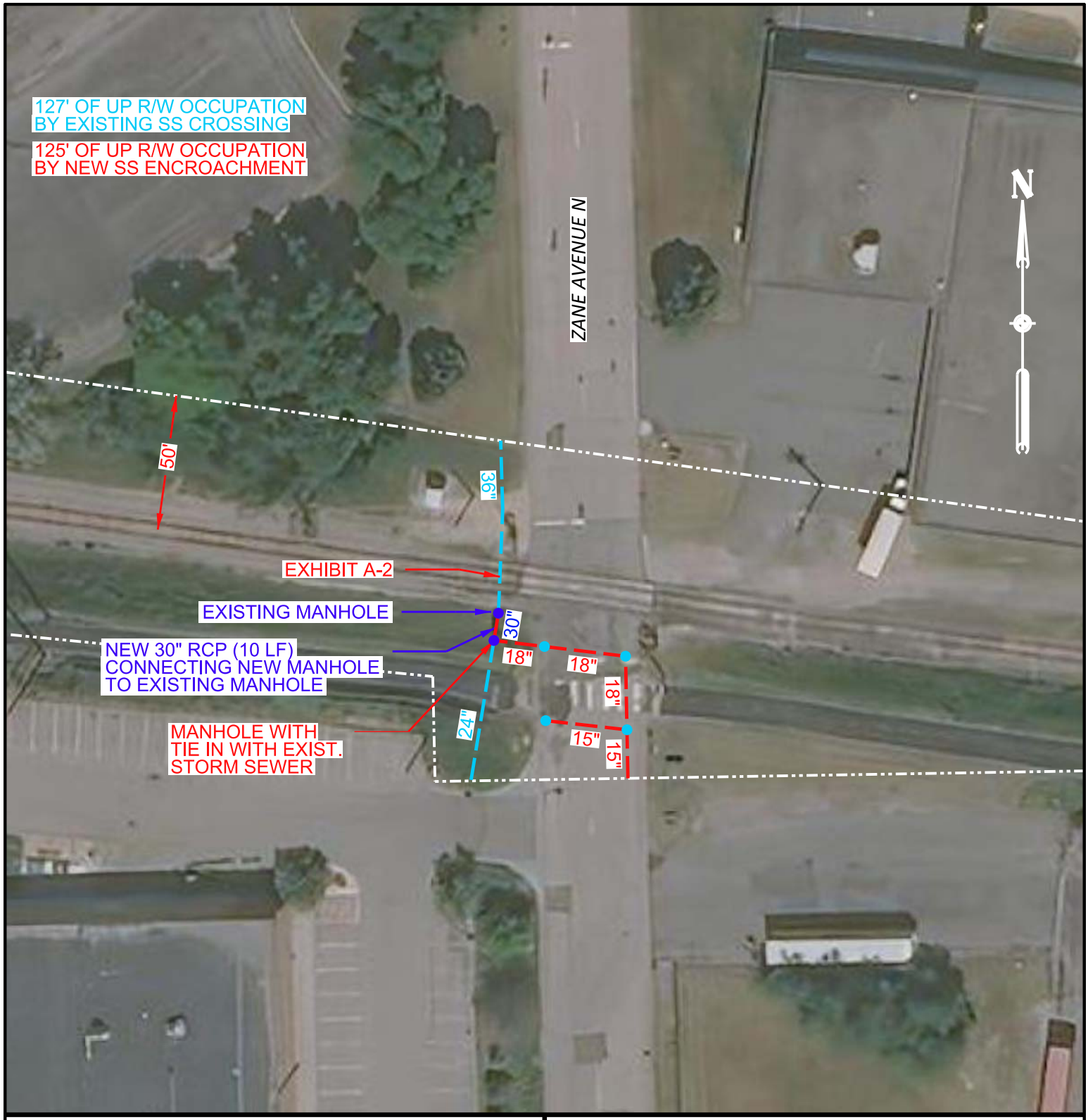
Article 12. SPECIAL PROVISION – CONSTRUCTION OBSERVATION.

Licensor requires Licensee to provide monitoring of tracks and construction observation through Licensor approved observer named below during all construction and installation work. Licensee is to directly coordinate services with the named inspector:

Railpros Field Services
Email: RP.Utility@railpros.com
Phone (682)223-5271

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the date first herein written.

UNION PACIFIC RAILROAD COMPANY	**CITY OF GOLDEN VALLEY**
By: _____	By: _____
Jim Hild *Director Real Estate* - Contracts	Name Printed: _____ Title: _____



LEGEND:

PIPELINE ENCROACHMENT (RCP STORM SEWER, NEW)

STORM SEWER CATCH BASIN

PIPELINE CROSSING (RCP STORM SEWER, EXISTING)

UPRRCO. R/W OUTLINED

CADD FILENAME	0332849.dgn
SCAN FILENAME	X

NOTE: BEFORE YOU BEGIN ANY WORK, SEE AGREEMENT FOR FIBER OPTIC PROVISIONS.

EXHIBIT "A-1"

UNION PACIFIC RAILROAD COMPANY

GOLDEN VALLEY, HENNEPIN, MN

M.P. 4.27 to 4.29 - GOLDEN VALLEY IND LD

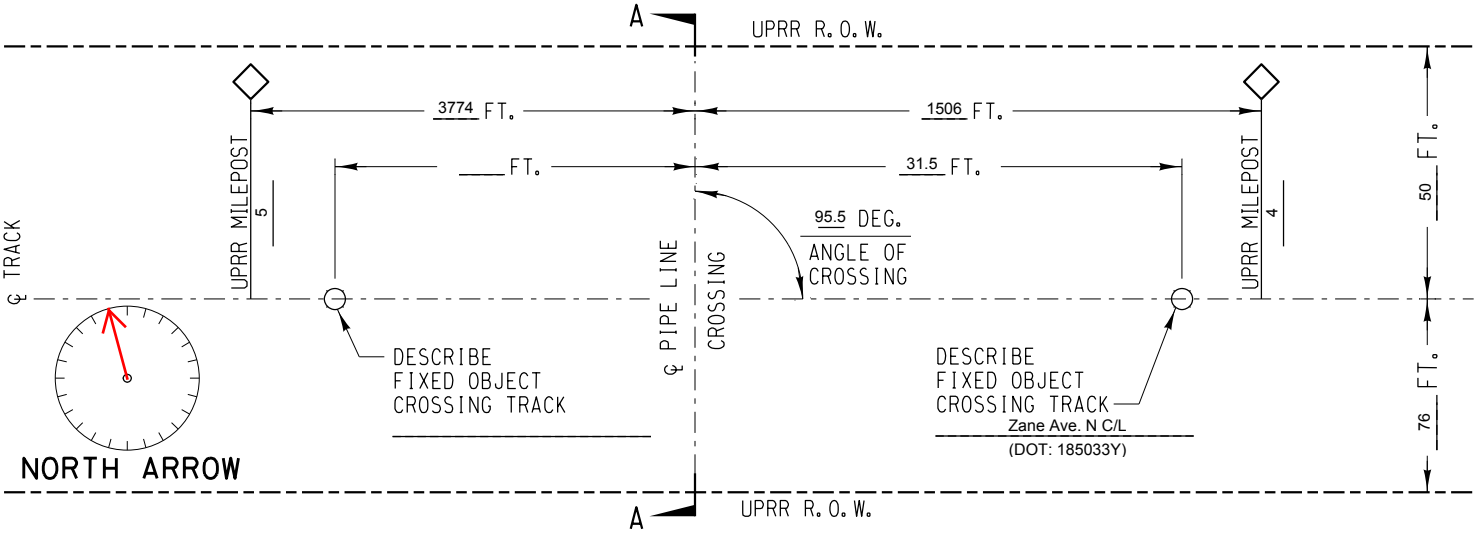
MSL V-201 / 1A
SCALE: 1" = 50'

OFFICE OF REAL ESTATE
OMAHA, NEBRASKA DATE: 2/19/2024

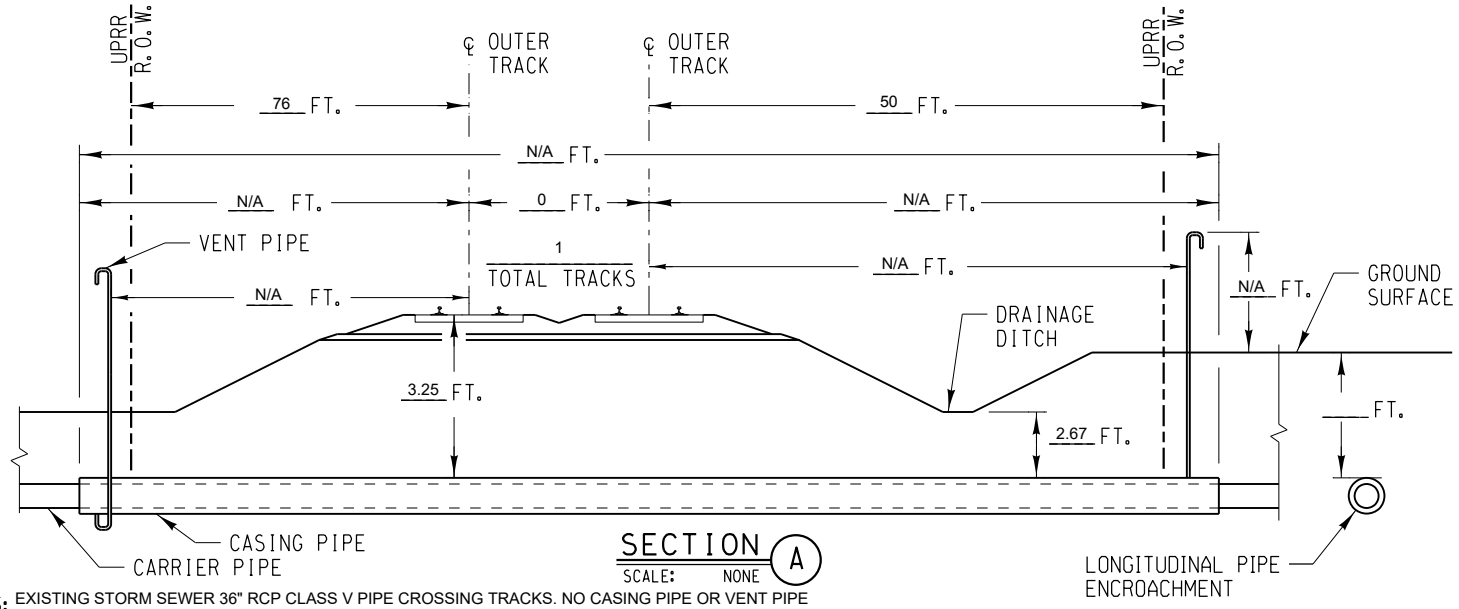
JDB FILE: 3328-49

NON-FLAMMABLE LIQUID PIPELINE

☑ CROSSING
☐ ENCROACHMENT
☐ BOTH



PLAN
SCALE: NONE



SECTION A
SCALE: NONE

NOTES: EXISTING STORM SEWER 36" RCP CLASS V PIPE CROSSING TRACKS. NO CASING PIPE OR VENT PIPE
1) ALL DIMENSIONS MEASURED PERPENDICULAR TO THE CENTERLINE OF TRACK.
2) REFER TO AREMA VOLUME 1, CHAPTER 1, PART 5, SECTION 5.3.

A) METHOD OF INSTALLATION Existing Pipeline
B) DIST. FROM CENTERLINE OF TRACK TO PIPE ENCROACHMENT N/A.
C) SIGNS PROVIDED? N/A.
D) CARRIER MATERIAL EXISTING 36" RCP CLASS V. IF RCP, CLASS V? YES.
COMMODITY TO BE CONVEYED Storm Sewer.
OPERATIONAL PRESSURE N/A PSI. MAOP N/A PSI.
WALL THICKNESS (INCH)/ SCHEDULE 4.75" . DIAMETER 36 IN.
CATHODIC/COATING PROTECTION NO
E) CASING MATERIAL N/A. IF RCP, CLASS V? N/A.
TOTAL LENGTH CASING PIPE: N/A FT.
WALL THICKNESS N/A IN. DIAMETER N/A IN.
CATHODIC/COATING PROTECTION N/A
CASING PIPE IS N/A AT THE ENDS.
F) DISTANCE FROM CENTERLINE OF TRACK TO NEAR FACE OF BORING AND JACKING PITS WHEN MEASURED AT RIGHT ANGLES
EXISTING AND EXISTING.

UNION PACIFIC **BUILDING AMERICA®**

EXHIBIT "A"-2

SUBDIVISION: Golden Valley Ind. Ld.	
TRACK TYPE: MAINLINE	
M.P.: 4.29	LAT.: 44.988509
E.S.M.: 127+91	LONG.: -93.355258
NEAREST CITY: Golden Valley	COUNTY: Hennepin / STATE: MN
APPLICANT: CITY OF GOLDEN VALLEY	
FILE NO.: 3328-49	DATE: 2 / 19 / 20

EXHIBIT B

GENERAL TERMS AND CONDITIONS

Section 1. LIMITATION AND SUBORDINATION OF RIGHTS GRANTED.

A. The foregoing grant is subject and subordinate to the prior and continuing right and obligation of Licensor to use and maintain its entire property including the right and power of Licensor to construct, maintain, repair, renew, use, operate, change, modify or relocate railroad tracks, signal, communication, fiber optics, or other wirelines, pipelines and other facilities upon, along or across any or all parts of its property, all or any of which may be freely done at any time or times by Licensor without liability to Licensee or to any other party for compensation or damages.

B. The foregoing grant is also subject to all outstanding superior rights (including those in favor of licensees and lessees of Railroad Property) and the right of Licensor to renew and extend the same, and is made without covenant of title or for quiet enjoyment. It shall be Licensee's sole obligation to obtain such additional permission, license and grants necessary on account of any such existing rights.

Section 2. ENGINEERING REQUIREMENTS; PERMITS.

A. Licensee's Facilities will be designed, constructed, operated, maintained, repaired, renewed, modified, reconstructed, removed, or abandoned in place on Railroad Property by Licensee or its contractor to Licensor's satisfaction and in strict conformity with: (i) Licensor's current engineering standards and specifications, including those for shoring and cribbing to protect Licensor's railroad operations and facilities ("UP Specifications"), except for variances approved in advance in writing by Licensor's Assistant Vice President Engineering – Design or its authorized representative ("UP Engineering Representative"); (ii) such other additional safety standards as Licensor, in its sole discretion, elects to require, including, without limitation, American Railway Engineering and Maintenance-of-Way Association ("AREMA") standards and guidelines (collectively, "UP Additional Requirements"); and (iii) all applicable laws, rules, and regulations, including any applicable Federal Railroad Administration and Federal Energy Regulatory Commission regulations and enactments (collectively, "Laws"). If there is any conflict between UP Specifications, UP Additional Requirements, and Laws, the most restrictive will apply.

B. Licensee shall keep the soil over Licensee's Facilities thoroughly compacted, and maintain the grade over and around Licensee's Facilities even with the surface of the adjacent ground.

C. If needed, Licensee shall secure, at Licensee's sole cost and expense, any and all necessary permits required to perform any work on Licensee's Facilities.

Section 3. NOTICE OF COMMENCEMENT OF WORK; EMERGENCIES.

A. Licensee and its contractors are strictly prohibited from commencing any work associated with Licensee's Facilities without Licensor's written approval that the work will be in strict compliance with the "ENGINEERING REQUIREMENTS; PERMITS" Section of this Exhibit B. Upon Licensor's approval, Licensee shall contact both of Licensor's field representatives ("Licensor's Field Representatives") at least ten (10) days before commencement of any work on Licensee's Facilities.

B. Licensee shall not commence any work until: (1) Licensor has determined whether flagging or other special protective or safety measures ("Safety Measures") are required for performance of the work pursuant to the "FLAGGING" Section of this **Exhibit B** and provided Licensee written

authorization to commence work; and (2) Licensee has complied with the "PROTECTION OF FIBER OPTIC CABLE SYSTEMS" Section of this **Exhibit B**.

C. If, at any time, an emergency arises involving Licensee's Facilities, Licensee or its contractor shall immediately contact Licensor's Response Management Communications Center at (888) 877-7267.

Section 4. FLAGGING.

A. Following Licensee's notice to Licensor's Field Representatives required under the "NOTICE OF COMMENCEMENT OF WORK; EMERGENCIES" Section of this **Exhibit B**, Licensor shall inform Licensee if Safety Measures are required for performance of the work by Licensee or its contractor on Railroad Property. If Safety Measures are required, no work of any kind may be performed by Licensee or its contractor(s) until arrangements for the Safety Measures have been made and scheduled. If no Safety Measures are required, Licensor will give Licensee written authorization to commence work.

B. If any Safety Measures are performed or provided by Licensor, including but not limited to flagging, Licensor shall bill Licensee for such expenses incurred by Licensor, unless Licensor and a federal, state, or local governmental entity have agreed that Licensor is to bill such expenses to the federal, state, or local governmental entity. Additional information regarding the submission of such expenses by Licensor and payment thereof by Licensee can be found in the "LICENSEE'S PAYMENT OF EXPENSES" Section of this **Exhibit B**. If Licensor performs any Safety Measures, Licensee agrees that Licensee is not relieved of any of responsibilities or liabilities set forth in this Agreement.

C. For flagging, the rate of pay per hour for each flagger will be the prevailing hourly rate in effect for an eight-hour day for the class of flagmen used during regularly assigned hours and overtime in accordance with Labor Agreements and Schedules in effect at the time the work is performed. In addition to the cost of such labor, a composite charge for vacation, holiday, health and welfare, supplemental sickness, Railroad Retirement and unemployment compensation, supplemental pension, Employees Liability and Property Damage, and Administration will be included, computed on actual payroll. The composite charge will be the prevailing composite charge in effect at the time the work is performed. One and one-half times the current hourly rate is paid for overtime, Saturdays and Sundays, and two and one-half times current hourly rate for holidays. Wage rates are subject to change, at any time, by law or by agreement between Licensor and its employees, and may be retroactive as a result of negotiations or a ruling of an authorized governmental agency. Additional charges on labor are also subject to change. If the wage rate or additional charges are changed, Licensee (or the governmental entity, as applicable) shall pay on the basis of the new rates and charges.

D. Reimbursement to Licensor will be required covering the full eight-hour day during which any flagger is furnished, unless the flagger can be assigned to other railroad work during a portion of such day, in which event reimbursement will not be required for the portion of the day during which the flagger is engaged in other railroad work. Reimbursement will also be required for any day not actually worked by the flaggers following the flaggers' assignment to work on the project for which Licensor is required to pay the flaggers and which could not reasonably be avoided by Licensor by assignment of such flaggers to other work, even though Licensee may not be working during such time. When it becomes necessary for Licensor to bulletin and assign an employee to a flagging position in compliance with union collective bargaining agreements, Licensee must provide Licensor a minimum of five (5) days notice prior to the cessation of the need for a flagger. If five (5) days notice of cessation is not given, Licensee will still be required to pay flagging charges for the days the flagger was scheduled, even though flagging is no longer required for that period. An additional ten (10) days notice must then be given to Licensor if flagging services are needed again after such five day cessation notice has been given to Licensor.

Section 5. SAFETY.

A. Safety of personnel, property, rail operations and the public is of paramount importance in the prosecution of any work on Railroad Property performed by Licensee or its contractor, and takes precedence over any work on Licensee's Facilities to be performed Licensee or its contractors. Licensee shall be responsible for initiating, maintaining and supervising all safety operations and programs in connection with any work on Licensee's Facilities. Licensee and its contractor shall, at a minimum comply, with Licensor's then current safety standards located at the below web address ("Licensor's Safety Standards") to ensure uniformity with the safety standards followed by Licensor's own forces. As a part of Licensee's safety responsibilities, Licensee shall notify Licensor if it determines that any of Licensor's Safety Standards are contrary to good safety practices. Licensee and its contractor shall furnish copies of Licensor's Safety Standards to each of its employees before they enter Railroad Property.

Union Pacific Current Safety Requirements

B. Licensee shall keep the job site on Railroad Property free from safety and health hazards and ensure that their employees are competent and adequately trained in all safety and health aspects of the work.

C. Licensee represents and warrants that all parts of Licensee's Facilities within and outside of the limits of Railroad Property will not interfere whatsoever with the constant, continuous, and uninterrupted use of the tracks, property, and facilities of Licensor, and nothing shall be done or suffered to be done by Licensee at any time that would in any manner impair the safety thereof.

D. Licensor's operations and work performed by Licensor's personnel may cause delays in Licensee's or its contractor's work on Licensee's Facilities. Licensee accepts this risk and agrees that Licensor shall have no liability to Licensee or any other person or entity for any such delays. Licensee must coordinate any work on Railroad Property by Licensee or any third party with Licensor's Field Representatives in strict compliance with the "NOTICE OF COMMENCEMENT OF WORK; EMERGENCIES" Section of this **Exhibit**

E. Licensor shall have the right, if it so elects, to provide any support it deems necessary for the safety of Licensor's operations and trackage during Licensee's or its contractor's construction, maintenance, repair, renewal, modification, relocation, reconstruction, or removal of Licensee's Facilities. In the event Licensor provides such support, Licensor shall invoice Licensee, and Licensee shall pay Licensor as set forth in the "LICENSEE'S PAYMENT OF EXPENSES" Section of this **Exhibit B**.

F. Licensee may use unmanned aircraft systems ("UAS") to inspect Licensee's Facilities only upon the prior authorization from and under the direction of Licensor's Field Representatives. Licensee represents and warrants that its use of UAS on Railroad Property will comply with Licensor's then-current Unmanned Aerial Systems Policy and all applicable laws, rules and regulations, including any applicable Federal Aviation Administration regulations and enactments pertaining to UAS.

Section 6. PROTECTION OF FIBER OPTIC CABLE SYSTEMS.

Fiber optic cable systems may be buried on Railroad Property. Protection of the fiber optic cable systems is of extreme importance since any break could disrupt service to users resulting in business interruption and loss of revenue and profits. In addition to the notifications required under the "NOTICE OF COMMENCEMENT OF WORK; EMERGENCIES" Section of this **Exhibit B**, Licensee shall complete the required form at up.com/CBUD to determine if fiber optic cable is buried anywhere on Railroad Property to be used by Licensee. If it is, Licensee shall telephone the telecommunications company(ies) involved, and arrange for a cable locator, make arrangements for relocation or other protection of the fiber optic cable, all at Licensee's expense, and will not commence any work on Railroad Property until all such protection or relocation has been completed.

Section 7. LICENSEE'S PAYMENT OF EXPENSES.

A. Licensee shall bear the entire cost and expense of the design, construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities.

B. Licensee shall fully pay for all materials joined, affixed to and labor performed on Railroad Property in connection with the construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities, and shall not permit or suffer any mechanic's or materialman's lien of any kind or nature to be enforced against the property for any work done or materials furnished thereon at the instance or request or on behalf of Licensee. Licensee shall promptly pay or discharge all taxes, charges, and assessments levied upon, in respect to, or on account of Licensee's Facilities, to prevent the same from becoming a charge or lien upon any property of Licensor, and so that the taxes, charges, and assessments levied upon or in respect to such property shall not be increased because of the location, construction, or maintenance of Licensee's Facilities or any improvement, appliance, or fixture connected therewith placed upon such property, or on account of Licensee's interest therein. Where such tax, charge, or assessment may not be separately made or assessed to Licensee but shall be included in the assessment of the property of Licensor, then Licensee shall pay to Licensor an equitable proportion of such taxes determined by the value of Licensee's property upon property of Licensor as compared with the entire value of such property.

C. As set forth in the "FLAGGING" Section of this **Exhibit B**, Licensor shall have the right, if it so elects, to provide any Safety Measures Licensor deems necessary for the safety of Licensor's operations and trackage during Licensee's or its contractor's construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities, including, but not limited to supervision, inspection, and flagging services. In the event Licensor provides such Safety Measures, Licensor shall submit an itemized invoice to Licensee's notice recipient listed in the "NOTICES" Article of this Agreement. Licensee shall pay to Licensor the total amount listed on such invoice within thirty (30) days of Licensee's receipt of such invoice.

Section 8. MODIFICATIONS TO LICENSEE'S FACILITIES.

A. This grant is subject to Licensor's safe and efficient operation of its railroad, and continued use and improvement of Railroad Property (collectively, "Railroad's Use"). Accordingly, Licensee shall, at its sole cost and expense, modify, reconstruct, repair, renew, revise, relocate, or remove (individually, "Modification", or collectively, "Modifications") all or any portion of Licensee's Facilities as Licensor may designate or identify, in its sole discretion, in the furtherance of Railroad's Use.

B. Upon any Modification of all or any portion of Licensee's Facilities to another location on Railroad Property, Licensor and Licensee shall execute a Supplemental Agreement to this Pipeline Agreement to document the Modification(s) to Licensee's Facilities on Railroad Property. If the Modifications result in Licensee's Facilities moving off of Railroad Property, this Agreement will terminate upon Licensee's completion of such Modification(s) and all requirements contained within the "TERMINATION; REMOVAL OF LICENSEE'S FACILITIES" Section of this **Exhibit B**. Any such Modification(s) off of Railroad Property will not release Licensee from any liability or other obligation of Licensee arising prior to and upon completion of any such Modifications to the Licensee's Facilities.

Section 9. RESTORATION OF RAILROAD PROPERTY.

In the event Licensee, in any manner moves or disturbs any property of Licensor in connection with the construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities, then, Licensee shall, as soon as possible and at Licensee's sole cost

and expense, restore Licensor's property to the same condition as the same were before such property was moved or disturbed.

Section 10. INDEMNITY.

A. Definitions. As used in this Section:

1. "Licensor" includes Licensor, its affiliates, its and their officers, directors, agents and employees, and other railroad companies using Railroad Property at or near the location of Licensee's installation and their officers, directors, agents, and employees.

2. "Licensee" includes Licensee and its agents, contractors, subcontractors, sub-subcontractors, employees, officers, and directors, or any other person or entity acting on its behalf or under its control.

3. "Loss" includes claims, suits, taxes, loss, damages (including punitive damages, statutory damages, and exemplary damages), costs, charges, assessments, judgments, settlements, liens, demands, actions, causes of action, fines, penalties, interest, and expenses of any nature, including court costs, reasonable attorneys' fees and expenses, investigation costs, and appeal expenses.

B. Licensee shall release, defend, indemnify, and hold harmless Licensor from and against any and all Loss, even if groundless, fraudulent, or false, that directly or indirectly arises out of or is related to Licensee's construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, removal, presence, use, or operation of Licensee's Facilities, including, but not limited to, any actual or alleged:

1. Bodily harm or personal injury (including any emotional injury or disease) to, or the death of, any person(s), including, but not limited to, Licensee, Licensor, any telecommunications company, or the agents, contractors, subcontractors, sub-subcontractors, or employees of the foregoing;

2. Damage to or the disturbance, loss, movement, or destruction of Railroad Property, including loss of use and diminution in value, including, but not limited to, any telecommunications system(s) or fiber optic cable(s) on or near Railroad Property, any property of Licensee or Licensor, or any property in the care, custody, or control of Licensee or Licensor;

3. Removal of person(s) from Railroad Property;

4. Any delays or interference with track or Railroad's Use caused by Licensee's activity(ies) on Railroad Property, including without limitation the construction, maintenance, modification, reconstruction, repair, renewal, revision, relocation, or removal of Licensee's Facilities or any part thereof, any activities, labor, materials, equipment, or machinery in conjunction therewith;

5. Right(s) or interest(s) granted pursuant to this Agreement;

6. Contents escaping from Licensee's Facilities, including without limitation any actual or alleged pollution, contamination, breach, or environmental Loss;

7. Licensee's breach of this Agreement or failure to comply with its provisions, including, but not limited to, any violation or breach by Licensee of any representations and warranties Licensee has made in this Agreement; and

8. Violation by Licensee of any law, statute, ordinance, governmental administrative order, rule, or regulation, including without limitation all applicable Federal Railroad Administration regulations.

C. THE FOREGOING OBLIGATIONS SHALL APPLY TO THE FULLEST EXTENT PERMITTED BY LAW FOR THE BENEFIT OF LICENSOR TO LOSSES CAUSED BY, ARISING FROM, RELATING TO, OR RESULTING FROM, IN WHOLE OR IN PART, THE NEGLIGENCE OF LICENSOR, AND SUCH NEGLIGENCE OF LICENSOR SHALL NOT LIMIT, DIMINISH, OR PRECLUDE LICENSEE'S OBLIGATIONS TO LICENSOR IN ANY RESPECT. NOTWITHSTANDING THE FOREGOING, SUCH OBLIGATION TO INDEMNIFY LICENSOR SHALL NOT APPLY TO THE EXTENT THE LOSS IS CAUSED BY THE SOLE, ACTIVE AND DIRECT NEGLIGENCE, GROSS NEGLIGENCE, OR WILLFUL MISCONDUCT OF LICENSOR AS DETERMINED IN A FINAL JUDGMENT BY A COURT OF COMPETENT JURISDICTION.

Section 11. TERMINATION; REMOVAL OF LICENSEE'S FACILITIES.

A. If Licensee does not use the right herein granted on Licensee's Facilities for one (1) year, or if Licensee continues in default in the performance of any provision of this Agreement for a period of thirty (30) days after written notice from Licensor to Licensee specifying such default, Licensor may, at its sole discretion, terminate this Agreement by written notice to Licensee at the address listed in the "NOTICES" Article of this Agreement. This Agreement will not terminate until Licensee complies with Paragraphs "C" and "D" of this Section found below.

B. In addition to the provisions of Paragraph "A" above, this Agreement may be terminated by written notice given by either party, without cause, upon thirty (30) days written notice to the non-terminating party at the address listed in the "NOTICES" Article of this Agreement. This Agreement will not terminate until Licensee complies with Paragraphs "C" and "D" of this Section found below.

C. Prior to the effective date of any termination described in this Section, Licensee shall submit an application to Licensor's online Utility Contracts System at this link for Licensee's removal, or if applicable, abandonment in place of Licensee's Facilities located on Railroad Property ("Removal/Abandonment Work"). Upon the UP Engineering Representative's approval of Licensee's application for the Removal/Abandonment Work, Licensor and Licensee shall execute a separate consent document that will govern Licensee's performance of the Removal/Abandonment Work from those portions of Railroad Property not occupied by roadbed and/or trackage ("Consent Document"). Licensee shall then restore the impacted Railroad Property to the same or reasonably similar condition as it was prior to Licensee's installation of Licensee's Facilities. For purposes of this Section, Licensee's (i) performance of the Removal/Abandonment Work, and (ii) restoration work will hereinafter be collectively referred to as the "Restoration Work".

D. Following Licensee's completion of the Restoration Work, Licensee shall provide a written certification letter to Licensor at the address listed in the "NOTICES" Article of this Agreement which certifies that the Restoration Work has been completed in accordance with the Consent Document. Licensee shall report to governmental authorities, as required by law, and notify Licensor immediately if any environmental contamination is discovered during Licensee's performance of the Restoration Work. Upon discovery, the Licensee shall initiate any and all removal, remedial and restoration actions that are necessary to restore the property to its original, uncontaminated condition. Licensee shall provide written certification to Licensor at the address listed in the "NOTICES" Article of this Agreement that environmental contamination has been remediated and the property has been

restored in accordance with Licensor's requirements. Upon Licensor's receipt of Licensee's restoration completion certifications, this Agreement will terminate.

E. In the event that Licensee fails to complete any of the Restoration Work, Licensor may, but is not obligated, to perform the Restoration Work. Any such work actually performed by Licensor will be at the cost and expense of Licensee. In the event that Licensor performs any of the Restoration Work, Licensee shall release Licensor from any and all Loss (defined in the "INDEMNITY" Section of this **Exhibit B**) arising out of or related to Licensor's performance of the Restoration Work.

F. Termination of this Agreement for any reason will not affect any of rights or obligations of the parties which may have accrued, or liabilities or Loss (defined in the "INDEMNITY" Section of this **Exhibit B)**, accrued or otherwise, which may have arisen prior to such termination.

EXHIBIT C

INSURANCE REQUIREMENTS

In accordance with Article 5 of this Agreement, Licensee shall (1) procure and maintain at its sole cost and expense, or (2) require its Contractor(s) to procure and maintain, at their sole cost and expense, the following insurance coverage:

A. **Commercial General Liability Insurance**. Commercial general liability (CGL) with a limit of not less than $2,000,000 each occurrence and an aggregate limit of not less than $4,000,000. CGL insurance must be written on ISO occurrence form CG 00 01 12 04 (or a substitute form providing equivalent coverage).

The policy must also contain the following endorsement, WHICH MUST BE STATED ON THE CERTIFICATE OF INSURANCE:

- Contractual Liability Railroads ISO form CG 24 17 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Railroad Company Property" as the Designated Job Site.

B. **Business Automobile Coverage Insurance**. Business auto coverage written on ISO form CA 00 01 10 01 (or a substitute form providing equivalent liability coverage) with a limit of not less $2,000,000 for each accident, and coverage must include liability arising out of any auto (including owned, hired, and non-owned autos).

The policy must contain the following endorsements, WHICH MUST BE STATED ON THE CERTIFICATE OF INSURANCE:

- "Coverage For Certain Operations In Connection With Railroads" ISO form CA 20 70 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Railroad Company Property" as the Designated Job Site.

C. **Workers' Compensation and Employers' Liability Insurance**. Coverage must include but not be limited to:

- Licensee's statutory liability under the workers' compensation laws of the state(s) affected by this Agreement.

- Employers' Liability (Part B) with limits of at least $500,000 each accident, $500,000 disease policy limit $500,000 each employee.

If Licensee is self-insured, evidence of state approval and excess workers' compensation coverage must be provided. Coverage must include liability arising out of the U. S. Longshoremen's and Harbor Workers' Act, the Jones Act, and the Outer Continental Shelf Land Act, if applicable.

D. **Environmental Liability Insurance**. Environmental Legal Liability Insurance (ELL) applicable to bodily injury, property damage, including loss of use of damaged property or of property that has not been physically injured or destroyed, cleanup costs, and defense, including costs and expenses incurred in the investigation, defense, or settlement of claims, or compliance with statute, all in connection with any loss arising from the insured's performance under this Agreement. Except with respect to the limits of insurance, and any rights or duties specifically assigned to the first named insured, this insurance must apply as if each named insured were the only named insured; and separately to the additional insured against which claim is made or suit is brought. Coverage shall be maintained in an amount of at least $2,000,000 per loss, with an annual aggregate of at least $4,000,000.

Licensee warrants that any retroactive date applicable to ELL insurance coverage under the policy is the same as or precedes the Effective Date of this Agreement, and that continuous coverage

will be maintained for a period of five (5) years beginning from the time the work under this Agreement is completed or if coverage is cancelled for any reason the policies extended discovery period, if any, will be exercised for the maximum time allowed.

E. **Railroad Protective Liability Insurance**. Licensee must maintain for the duration of work "Railroad Protective Liability" insurance written on ISO occurrence form CG 00 35 12 04 (or a substitute form providing equivalent coverage) on behalf of Licensor only as named insured, with a limit of not less than $2,000,000 per occurrence and an aggregate of $6,000,000. The definition of "JOB LOCATION" and "WORK" on the declaration page of the policy shall refer to this Agreement and shall describe all WORK or OPERATIONS performed under this Agreement. Notwithstanding the foregoing, Licensee does not need Railroad Protective Liability Insurance after its initial construction work is complete and all excess materials have been removed from Licensor's property; PROVIDED, however, that Licensee shall procure such coverage for any subsequent maintenance, repair, renewal, modification, reconstruction, or removal work on Licensee's Facilities.

F. **Umbrella or Excess Insurance**. If Licensee utilizes umbrella or excess policies, and these policies must "follow form" and afford no less coverage than the primary policy.

Other Requirements

G. All policy(ies) required above (except business automobile, workers' compensation and employers' liability) must include Licensor as "Additional Insured" using ISO Additional Insured Endorsement CG 20 26 (or substitute form(s) providing equivalent coverage). The coverage provided to Licensor as additional insured shall not be limited by Licensee's liability under the indemnity provisions of this Agreement. BOTH LICENSOR AND LICENSEE EXPECT THAT LICENSOR WILL BE PROVIDED WITH THE BROADEST POSSIBLE COVERAGE AVAILABLE BY OPERATION OF LAW UNDER ISO ADDITIONAL INSURED FORM CG 20 26.

H. Punitive damages exclusion, if any, must be deleted (and the deletion indicated on the certificate of insurance), unless (a) insurance coverage may not lawfully be obtained for any punitive damages that may arise under this Agreement, or (b) all punitive damages are prohibited by all states in which this Agreement will be performed.

I. Licensee waives all rights of recovery, and its insurers also waive all rights of subrogation of damages against Licensor and its agents, officers, directors and employees for damages covered by the workers' compensation and employers' liability or commercial umbrella or excess liability obtained by Licensee required in this Agreement, where permitted by law. This waiver must be stated on the certificate of insurance.

J. All insurance policies must be written by a reputable insurance company acceptable to Licensor or with a current Best's Insurance Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the work is to be performed.

K. The fact that insurance is obtained by Licensee will not be deemed to release or diminish the liability of Licensee, including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by Licensor from Licensee or any third party will not be limited by the amount of the required insurance coverage.

Appendix O

RailPros Project and Billing Form

Customer Project Information Sheet

Project Information	
Please fill in each cell for processing	
UPRR Agreement Folder Number(s) (example 1234-56):	03328-47
Section One:	
Estimated Start Date for Construction On, Under, or Above UPRR ROW:	
Union Pacific's Third Party Flagging Policy:	www.up.com/real_estate/third-party-flagging/index.htm
Estimated Duration (in days) for Flagger (CIC):	
Estimated Duration (in days) for RailPros Observer:	
Estimated Work Schedule (example Mon. – Sat.):	
Daily Start Time / End Time (example 0700 to 1700 etc.):	
Section Two:	
Field Contact Person(s):	
Mobile Phone Number(s):	
Email Address(s):	
Project's Location (City / State):	GOLDEN VALLEY/MINNESOTA
Railroad Subdivision:	GOLDEN VALLEY IND. LD.
Railroad Mile Post(s) (MP):	4.28
Section Three:	
Project Description (example HDD, Jack and Bore, Encroachment, Underground or Overhead Pipeline / Wireline crossing, etc.):	
What type of equipment will be used?	
How close will the equipment be to the tracks (in feet)?	
If instructed by the Railroad, please have all the on-site personnel complete the Railroad Safety Training listed below:	
"Safety is Union Pacific's #1 priority and extends to all who come on Union Pacific properties." Union Pacific Property Access Training (UP-PAT) can be found here: UP: UP Property Access Training	

By checking this box, I acknowledge that if any ground will be disturbed or excavated upon UPRR property, that I will comply with UPRR Specifications and contact the local UPRR representatives (MTM and/or MSM), in accordance with my UPRR Agreement.

☐ I acknowledge

Additional Comments:

Customer Billing Information Sheet

Section Four Billing Information (Responsible Party):				
Please fill in each cell for processing				
Company Name:				
Contact Name:				
Street Address:				
City / State / Zip Code:				
Phone Number:				
Contact Name Email Address:				
Do you need a W-9?				
How would you like to receive the RailPros Invoice(s)?	Email ☐	Hard Copy Mailed ☐	Other ☐	
If Other, please explain and give directions:				
PO # to be listed on RailPros Invoices:				
Company Information (if different than above):				
Company Name:				
Contact Name / Email Address:				
Phone Number:				
Street Address:				
City / State / Zip Code:				

Section Five Prevailing Wage Information:		
Does your project involve Prevailing Wage requirements? If you select yes, please complete the portion below and email the supporting documentation that details the PW rates for the County the work will take in (the documents are required to create the Flagging paperwork):	No ☐	Yes ☑
If you select yes, you be asked to review RailPros position statement (pdf that will be emailed to you) on Flagging services.		
PW Project Name:	Zane Avenue N	
PW Project Number:	SAP 128-408-002	
PW City / County / State:	Golden Valley/Hennepin/MN	
Certified Payroll Information:		
Contact Name:		
Phone Number:		
Email Address:		

Additional Comments:

Observation Rates:

The daily rates for Observation services to be provided under this Agreement are based on eight (8) hours per day and will be as follows:

- **Mobilization/Administrative Fee**.....$1,000 per Observer Required (each project will incur a fee for travel and administrative costs per Observer). 24 Hour continuous work requires two Observers. Project must be cancelled 4 business days prior to the scheduled start date to avoid additional mobilization fee. Multiple mobilization fees or additional labor fees will be charged if the project cannot be constructed in consecutive days (Monday through Saturday at a minimum) or if there is a delay during installation.

- **Construction Observation Fees**.....$1,400/Standard 8-hour day. Overtime rate after 8 hours is $200 per hour (all scheduling requests require a minimum 10-business days' notification).

- **Surcharge Fee**.....Activity in certain regions of the U.S. has created high demand for hotel rooms and increased related travel costs. The Project falls within such a region, therefore a surcharge of **$200.00 per day** will be added to the invoice.

Flagging Rates:

The rates for Flagging services are as follows:

Standard WorkDay:	
Standard 8 hour day	$1,018.00
Overtime rate per hour after 8 hours	$135.00
Nights, Weekends, and Holidays:	
Standard 8 hour day	$1,285.00
Overtime rate per hour after 8 hours	$154.00

In the event of cancellation, if RailPros Management is given less than 24 hours' notice, it is considered a billable day. Cancellations must be made in writing to UP.Info@RailPros.com.

This quote is based on RailPros standard labor rates and does not take into any account prevailing wage requirements. If prevailing wages are applicable for this project, RailPros will re-quote based on the prevailing wage requirements.

Invoices are submitted upon completion of the job or at month's end. On-going jobs are billed on a monthly basis. Payments of invoices are due upon receipt. Invoices are subject to a 1.5% fee for every 30 days the payment is delinquent. RailPros accepts payment for services via Visa, MasterCard, Discover and American Express without additional fees. We encourage you to use this free and convenient service with no processing fees. Please refer to the second page of this document for credit card payments. Please contact RailPros at 877-315-0513 X116 or UP.Info@railpros.com for more information.

This quote is valid for 30 days and is subject to the attached Services Agreement (SA).
You may indicate your acceptance of this quote and the SA by signing and returning both documents via email.

*****Regional Surcharge for additional travel and Per Diem costs (effective February 10, 2018):***

Activity in the Permian Basin and nearby area has created a high demand for hotel rooms and increased other related travel expenses. As a result, we have instituted a regional surcharge to recover a portion of the increased costs. The regional surcharge is applied as follows:

- *Per Diem – An additional $240 will be charged for each flagging day. In the event of a late notice cancellation (described in detail below) the additional Per Diem cost will also apply.*
- *Mobilization and Demobilization – An additional $180 will be assessed for each mobilization or demobilization event in which there is a cessation of flagging services (non-continuous flagging days).*

Appendix P

Union Pacific Railroad Third-Party Flagging Policy

Union Pacific's Third Party Flagging Policy

Union Pacific (UP) frequently receives requests from outside parties to work on or near its property for projects unrelated to railroad operations. Safety protection is required to ensure nearby trains and people working are kept safe. When it is determined that assistance is required (i.e. flagging) to provide a safe work environment, it is the outside party's responsibility to use a qualified vendor, as well as ensure the vendor is approved by UP. The approval process ensures outside parties understand and comply with applicable safety rules and processes. The following are approved vendors to consider. UP also will consider alternative qualified vendors provided they meet requirements.

Union Pacific Approved List

RailPros

- Email: UP.info@railpros.com
- Phone: 877-315-0513, ext. 116

National Railroad Safety Services

- Email: UP.request@nrssinc.net
- Phone 877-984-6777
- https://www.nrssinc.net/contacts

Appendix Q

Union Pacific Railroad Work Plan Form

WORK PLAN

Union Pacific Railroad Folder Number:

Date Submitted to RailPros Field Services:

Work Plan Directions:
This project has been identified by Union Pacific Railroad (UPRR) as requiring third party construction observation. RailPros will be providing the Construction Observation services for this project and is here to assist in moving this project to completion.

The Union Pacific Railroad Real Estate Agreement outlines the requirements and standards for this installation. This work plan describes the specific details of the project, in terms of the site layout, schedule, means and methods, and general requirements, to ensure compliance with the agreement. This work plan, once released, is the basis that the Construction Observer will assess the work. Any field changes from the work plan shall be submitted via email to utilities.office.staff@railpros.com for review and must meet or exceed UPRR and/or AREMA standards.

Work Plan Submittal Check List: **(Please check off all requirements in list, or strike through text if item is not required)**

1. ***Engineering Plan and Profile (Exhibit A does not qualify)***:
    a. Mark locations of launch and receiving locations.
    b. Dimension the distances from the centerline of track and any existing utilities.
    c. Dimension depth of excavation.
    d. Railroad right of way and railroad tracks clearly outlined

2. ***Track Monitoring Plan (if required):***
    a. See attached Track Monitoring Guideline (pdf)

3. ***HDD Installations Only:***
    a. Inadvertent Return Contingency Plan (Frac-Out Plan)
    b. HDD Plan Requirements

4. ***Shoring Plan Only for excavation within UPRR property and Zone A or Zone B:***
    a. Calculations for shoring within zone a.
    b. Cut sheets for proprietary systems as applicable.
    c. Description of shoring to include but is not limited to:
    d. Exploration (pot holing)
    e. Demolition
    f. Excavation
    g. Fall protection/confined space entry
    h. Work process
    i. Backfill
    j. Close-out
    k. Contingencies which include weather events and hazmat
    l. Reference the following link to assure compliance. Https://www.up.com/cs/groups/public/@uprr/@customers/@industrialdevelopment/@operationsspecs/@specifications/documents/up_pdf_nativedocs/pdf_up_str_temp-shoring.pdf

Prime Contractor Contact Name:
Email Address:
Phone Number:
Note: The field contact will be asked to sign the daily report to verify hours.
Sub-Contractor (if performing the installation) Contact Name:
Email Address:
Phone Number:
Note: The field contact will be asked to sign the daily report to verify hours.

Project Information

Item	Response	Item	Response
Lat/Long (Decimal Form)		Number of Tracks	
Method of Installation (HDD, Jack and Bore, Etc.)		Casing Pipe Length	
Depth from top of pipe to base of rail		Casing Pipe Type	
Distance from face of receiving pit to Nearest Track CL		Casing Pipe Diameter	
Distance from face of jacking pit to Nearest Track CL		Casing Pipe Thickness	
Excavation depth of jacking pit from base of rail		Carrier Pipe Type	
Excavation depth of receiving pit from base of rail		Carrier Pipe Diameter	
Estimated Start Date		Carrier Pipe Thickness	
Estimated Project Duration (on, under, or above UPRR property)		Is the crossing within a roadway?	
Will there be hot work within UPRR ROW? (welding, open flame, cutting, etc.)		Will there be abandonment work within UPRR ROW?	

Description of Work: Provide a description of Means and Methods the contractor will use to complete the authorized work on, under, or above UPRR property. Excavation or potholing within 15 feet of track centerline is not acceptable, unless approved by UPRR Engineering.	
Equipment:	Machine Make & Model:
Description of Process: 1. 2. 3. 4. 5. 6. 7. 8.	
Please review the following link to ensure compliance with all UPRR PPE Requirements. **https://www.up.com/cs/groups/public/@uprr/@suppliers/documents/up_pdf_nativedocs/pdf_up_supplier_safety_req.pdf**	

Track Monitoring: Track Monitoring Plan is required in accordance with the UPRR Track Monitoring Guideline (attached). If work is occurring in more than one (1) shift, Track Monitoring is required during all shifts. Send track monitoring data to utilities.office.staff@railpros.com.	
Survey Company:	
Name of Surveyor:	Instrument:
Will you be using adhesive targets for the track monitoring? Yes or No	
Description of Process: 1. 2. 3. 4. 5. 6. 7. 8.	
Please review the following link to ensure compliance with all UPRR PPE Requirements. https://www.up.com/cs/groups/public/@uprr/@suppliers/documents/up_pdf_nativedocs/pdf_up_supplier_safety_req.pdf	

Appendix R

Union Pacific Railroad Guidelines for Track & Ground Monitoring

Union Pacific Railroad

GUIDELINES FOR
TRACK & GROUND MONITORING

CALL BEFORE YOU DIG
1-800-336-9193

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1. Introduction

A. Purpose

1. The purpose of these Guidelines is to inform 3rd party Applicants, Contractors and others outside of the Railroad of the requirements and standards for the monitoring of track movement, both vertical and horizontal, and ground movement due to surrounding construction.
2. This document governs at all locations where the Railroad operates, regardless of track ownership or track status, either active or out of service.

2. Track and Ground Monitoring

A. General track and ground monitoring requirements

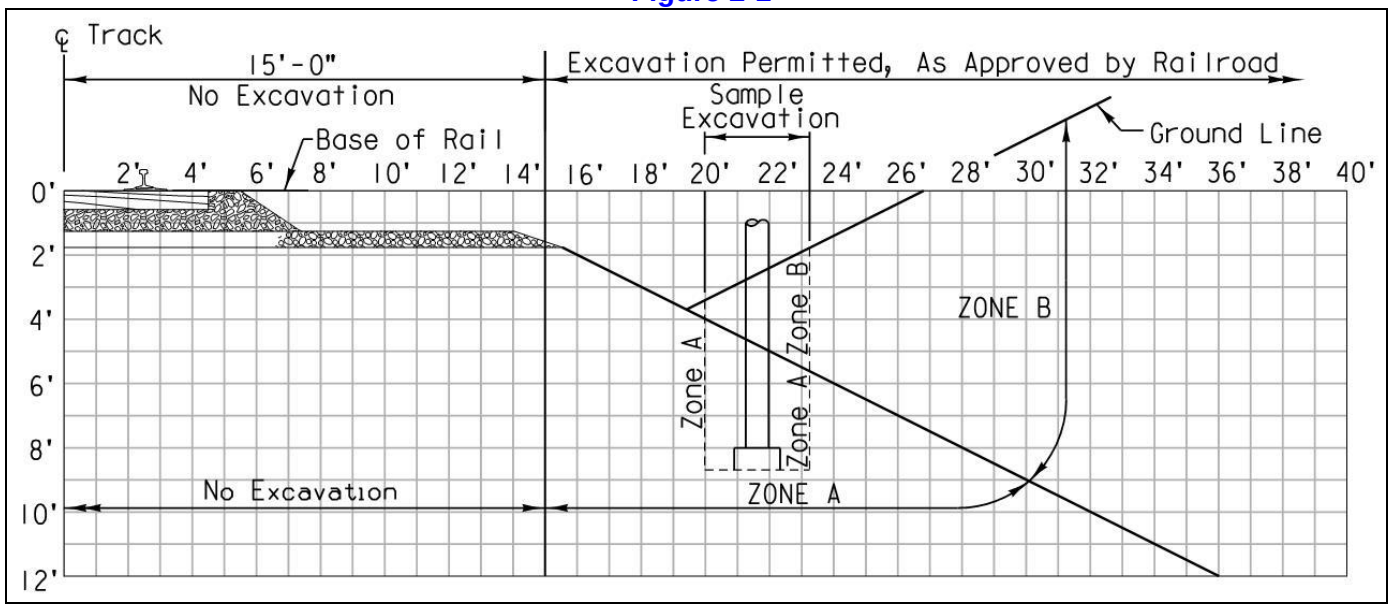
1. Track and ground monitoring are required for any of the following three conditions:
   i. For crossings with pipe diameter and depth (below base of rail) as shown below in Table 2-1.
   ii. For shoring within Zone A of any track, as shown below in Figure 2-1.
   iii. Additional monitoring may be required by the Railroad on a case by case basis.
2. Monitoring schedule
   i. Monitoring shall commence once any construction activity is within Zone A. See Figure 2-1.
   ii. Monitoring shall continue, after installation is complete, for 7 days or as required by the Railroad.
      a. For large and/or shallow pipeline installations monitoring may be required for up to 30 days.
3. General requirements
   i. Temporary lighting may also be required by the Railroad to identify tripping hazards to train crewmen and other Railroad personnel.
   ii. Any excavation, holes or trenches on the Railroad property shall be covered, guarded and/or protected. Handrails, fence, or other barrier methods must meet OSHA and FRA requirements.

Table 2-1

Depth, feet (below base of rail)	<=6	<=12	<=18	<=24	<=30	<=36	<=42	<=48	<=54	<=60	>60
<=5	X	X	X	X	X	X	X	X	X	X	X
<=10	X	X	X	X	X	X	X	X	X	X	X
<=15	X	X	X	X	X	X	X	X	X	X	X
<=20			X	X	X	X	X	X	X	X	X
<=25					X	X	X	X	X	X	X
<=30								X	X	X	X
>30										X	X

X = Monitoring is required

Figure 2-1



B. Track Monitoring

1. Track Deflection Limits
   i. The top of rail shall not permanently deflect more than ¼ inch vertical or horizontal. This is not an "allowable" deflection. All estimated deflection should be eliminated to the greatest extent possible prior to construction.
2. Targets
   i. Track monitoring shall not require track access other than to place the track monitoring targets.
   ii. Monitoring targets should be placed such that monitoring is possible when a train is present. However, monitoring during the passing of a train is not required as the train will temporarily deflect the track.
   iii. Adhesive backed reflective targets may be attached to the side of the rail temporarily. Targets should be removed once monitoring phase is complete.
   iv. Note, there are normal and temporary vertical track deflections caused by the passage of a train which should be noted and established prior to construction.
3. Monitoring Plan
   i. If the top of rail does deflect more than 1/4 inch, either vertical or horizontal, all operations shall stop until the matter is resolved.
   ii. Provide established contingency plan, See Section 2.D, in the event of ground loss and/or the rail deviates ¼ inch vertical or horizontal.
   iii. Establish a bench mark in the vicinity of the construction. Establish locations for shooting elevations on the top of rail at each area of construction.
      a. Example locations for shooting rail elevations would be at:
         - At the centerline of an under track crossing.
         - At both outside edges of the crossing. ie. For a wide excavation.
         - At multiple locations from the crossing/excavation edge but no less than 10, 20, 30, 40 and 50 feet from the crossing.
   iv. Monitoring shall be continuous and recorded in a field log book dedicated for this purpose. Copies of these field log entries can be made available to all concerned parties upon request at any time during construction.

C. Ground Monitoring

1. Provide means for monitoring ground settlement. Submit monitoring plan for Railroad review.
2. Ground monitoring points should be in alignment above the proposed construction activities.

D. Contingency Plans

1. The Contractor shall supply Contingency Plan(s), which anticipate reaching the Threshold and Shutdown values, for all construction activities which may result in horizontal and/or vertical track deflection.
   i. Track monitoring values:
      a. Threshold value = 1/8 inch permanent vertical or horizontal deflection
      b. Shutdown value = 1/4 inch permanent vertical or horizontal deflection
2. The Contingency Plans shall provide means and methods, with options if necessary.
3. The Contractor should anticipate the need to implement each Contingency Plan with required materials, equipment and personnel.
   i. Once the Threshold value is met, the contractor shall determine the appropriate Contingency Plan(s) and immediately discuss this plan with, and receive approval confirmation from, the Railroad or authorized Railroad representative.
   ii. Once the Shutdown value is met all project work shall stop and the chosen Contingency Plan shall commence.
      a. The Railroad may choose to allow and/or require the immediate implementation of specific approved Contingency Plans, submitted by the Contractor, once the Shutdown value is met.

3. Excavation Requirements

A. Shoring Design

1. For temporary earth retention design requirements on the Right-of-Way, see the Railroad Guidelines for Temporary Shoring. http://www.up.com/real_estate/roadxing/industry/index.htm

B. Excavation Safety

1. Guardrails
    i. Guardrails shall be provided to surround unattended excavations on Railroad Right-of-Way per OSHA Standard Number 1926.502 as follows:
        a. The guardrail height shall be at least 42 inches above the walking surface.
        b. The smallest dimension for openings in the guardrail shall be no greater than 19 inches.
        c. Guardrail systems shall be capable of withstanding, without failure, a force of at least 200 pounds applied within 2 inches of the top edge, in any outward or downward direction, at any point along the top edge of the guardrail.

4. Glossary

Applicant: Any party proposing to install a new, and/or abandon existing, pipelines or Wirelines on Railroad right-of-way or other Railroad operating location, regardless of track being active or out of service. This includes any contractor, employee or consultant hired by said party.

Call Before You Dig: A Union Pacific Railroad 24-hr by 7-day communication center to assist in protecting, documenting and notifying callers of other utilities installed within the Railroad right-of-way.

1-800-336-9193

Crossing: Refers to a Utility which is crossing the Railroad track(s).

Carrier Pipe: Pipe used to transport the product.

Casing Pipe: Pipe through which the carrier pipe is installed.

Cover: Distance from either the base of rail or finished grade to the top of Pipeline or Wireline.

Encroachment: Utilities on Railroad right-of-way which are generally oriented parallel with Railroad right-of-way and/or track.

Centerline of Track: An imaginary line, that runs down the center of the two rails of a track.

Construction Documents: Design plans and calculations, project and/or standard specifications, geotechnical report and drainage report.

Construction Window: A timeframe in which construction or maintenance can be performed by the Contractor with the required presence of a Flagman.

Contractor: The individual, partnership, corporation or joint venture and all principals and representatives (including Applicant's subcontractors) with whom the contract is made by the Applicant for the construction of the Grade Separation Project.

Facility: Refers to the Applicant's pipeline, wireline, poles, manholes, handholes, splice boxes, storage tanks and other such structures which exist as part of the Applicant's infrastructure.

Flagman (Flagging): A qualified employee of the Railroad providing protection to and from Railroad operations per Railroad requirements.

Guidelines: Information contained in this document.

Industry Track: A secondary track designed to allow access to industries along the main track.

Main Track: A principle track, designated by Timetable or special instructions, upon which train movements are generally authorized and controlled by the train dispatcher. Main Track must not be occupied without proper authority.

Railroad Load: Cooper E-80 loading.

Railroad: Refers to Union Pacific Railroad.

Railroad Manager of Track Maintenance (MTM): Railroad representative responsible for maintenance of the track and supporting subgrade.

Right-of-Entry Agreement: An agreement between the Railroad and an Applicant or a Contractor allowing access to Railroad property.

Right-of-Way: The private property limits owned by the Railroad.

Tracks: The rails, ties and ballast and roadbed that compose the traveling surface used by trains.

Utility: Refers to a pipeline or wireline.

Wireline: Refers to electric power and communication utility systems including, but not limited to, all associated conductors, cables, support structures, and equipment.

Appendix S

Union Pacific Railroad Guidelines for Temporary Shoring

GUIDELINES FOR TEMPORARY SHORING

EMAIL BEFORE YOU DIG
UP.COM/CBUD

EMERGENCIES
1-888-877-7267

CALL BEFORE YOU DIG
1-800-533-2891

EMERGENCIES
1-800-832-5452

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1. INTRODUCTION

1.1 PURPOSE

a. The purpose of these guidelines is to inform public agencies, design engineers, contractors and inspectors of current Railroad standards and requirements concerning design and construction of temporary shoring.

1.2 SCOPE

a. This guideline governs on the Railroad Right-of-Way. This includes the limits of property owned, controlled and/or operated upon by the Railroad.

b. All requirements addressed within this document shall constitute minimum requirements for all projects or works on the Railroad Right-of-Way. The applicability of each requirement for any given project will be subjected to the Railroad's discretion.

c. Where laws or orders of authority prescribe a higher degree of protection or restriction than specified herein, the higher degree so prescribed shall control.

d. These guidelines supplement the current American Railway Engineering and Maintenance-of-Way Association (AREMA) Manual for Railway Engineering. For items covered within these guidelines and AREMA, the more restrictive shall control.

   i. **It is the requirement for the Contractor and designer developing Railroad shoring systems to have a copy of the AREMA Manual. Visit www.arema.org to obtain the Manual for Railway Engineering.**

e. These guidelines supersede all previous Railroad guidelines for temporary shoring and are subject to revision without notice.

f. In addition to this guideline, all excavations shall also be governed by each individual Railroad requirements, Federal, State and Local laws, rules and regulations concerning construction safety.

g. These guidelines are provided as a reference and cannot be taken as authority to construct without prior review and written approval of the Railroad. See Section 2.9 for review process.

2. GENERAL CRITERIA

2.1 SAFETY & RAILROAD OPERATIONS

a. Projects shall be designed such that construction activities and phasing will not compromise safety nor impact Railroad operations.

b. Emergency Railroad phone numbers are to be obtained from a Railroad representative prior to the start of any work and shall be posted at the job site.

2.2 SHORING REMOVAL

a. The Contractor is responsible for planning and executing all procedures necessary to construct, maintain and remove the temporary shoring system in a safe and controlled manner.

2.3 RAILROAD FLAGGING

a. A flagman is required when any work is performed within 25 feet of track centerline. If the Railroad provides flagging or other services, the Contractor shall not be relieved of any responsibilities or liabilities as set forth in any document authorizing the work. No work is allowed within 50 feet of track centerline when a train passes the work site, and all personnel must clear the area within 25 feet of track centerline and secure all equipment when trains are present.

2.4 CALL BEFORE YOU DIG & EXISTING UTILITIES

a. Call Before You Dig: Appropriate measures for the installation and protection of fiber optic, or other cables, shall be addressed in the plans and contract documents. For specific Railroad requirements and additional information refer to:

   BNSF: www.bnsf.com or call 1-800-533-2891.

   UPRR: www.up.com/cbud

b. Relocation of utilities or communication lines not owned by the Railroad shall be coordinated with the respective utility owners. Utility relocation plans must then be submitted to the Railroad utility representative(s) for review and prior approval must be secured before work can proceed. The Railroad will not be responsible for costs associated with any utility, signal, or communication line relocation or adjustments.

c. Abandonment of utilities must follow the UPRR Guidelines For Abandonment of Subsurface Utility Structures or the BNSF Utility Accommodation Policy.

2.5 APPLICANT & CONTRACTOR RESPONSIBILITIES

a. The Applicant and Contractor must verify with the Railroad's Local Representative their receipt of the latest version of these guidelines prior to developing Construction Documents.

b. Construction shall NOT impact Railroad operations, functions and facilities:
   i. The Applicant and Contractor shall develop design plans, including, without limitation, all procedures necessary to construct and maintain the proposed shoring project, which cause no interruption to Railroad operations during and after construction.
   ii. Work shall also not impede drainage or other functions of the Railroad.
   iii. Any rail traffic outages or curfews thought to be required for the installation or removal of any portions of a shoring system must be requested by submittal to the Railroad for prior consideration long in advance of mobilization and construction. Such requests may not be granted.
   iv. Unapproved and unscheduled interruptions to Railroad operations may result in your removal from Railroad Right-of-Way, and your authorization to re-enter revoked.

c. Railroad approved design and construction plans:
   i. The Contractor shall install the temporary shoring system per the plans approved by the Railroad.
   ii. Any deviation from the Railroad approved plans requires resubmittal and prior approval by the Railroad prior to proceeding with said deviation. Approval from the Railroad may not be granted.

d. The Contractor must monitor the track, ground and shoring for movement. See Section 2.6 for monitoring.

e. The Applicant and Contractor shall be jointly responsible for the design, construction and performance of the temporary structure.

f. The Contractor must review the temporary shoring plans to ensure that the proposed method of construction is compatible with the existing site and soil conditions. Removal of the shoring system must also be addressed.

g. The Contractor must obtain a valid right of entry permit from the Railroad and comply with all Railroad requirements when working on Railroad property.

h. The Contractor is responsible to protect the Railroad ballast and subballast from contamination.

i. The Contractor shall comply with all State and Federal Laws, county or municipal ordinances and regulations which in any manner affect the work.

j. All removed soils will become the responsibility of the Contractor and shall be disposed of outside the Railroad Right-of-Way according to the applicable Federal, State and Local regulations.

k. The project engineer and the Contractor shall evaluate the quality of materials furnished and work performed.

l. The Applicant, at its expense, shall be solely responsible for all costs, design, construction, future replacement, maintenance, and serviceability of the proposed shoring project, except as noted otherwise in the Construction & Maintenance (C & M) Agreement with the Railroad.

m. The Applicant shall be responsible for obtaining all Federal, State, Local and other permits for construction of the shoring project.

   i. The Engineer-of-Record shall be registered in the state of the project location. The Engineer-of-Record may be Applicant's in-house staff or a consultant retained by the Applicant. The Contractor shall not employ the Engineer-of-Record as the Contractor's Engineer-of-Record or as a specialty engineer, with the exception of design build projects.

n. The Applicant and/or the Engineer-of-Record have the ultimate responsibility and liability for the Construction Documents and liability for damages to Railroad property during and after construction of the shoring.

o. The Contractor is responsible to comply with the construction documents prepared by the Applicant. The Contractor shall comply with Railroad requirements stated in the C & M Agreement prior to the commencement of any construction. The Contractor shall develop work plans that ensure the track(s) remain open to train traffic per Railroad requirements as stated in the C & M Agreement and meet the requirements of the Railroad Right-of-Entry Agreement (if applicable).

p. The Applicant and Contractor is responsible for the security and safety of all people including the general public and trespassers, and the protection of Railroad infrastructure within the limits of the proposed shoring project. Any damage to Railroad property such as track, signal equipment or structure could result in a train derailment. All damages must be reported immediately to the Railroad Local Representative and to the local Railroad Track Maintenance Representative.

q. The Applicant and Contractor are required to meet all safety standards as defined by the Railroad, Federal Railroad Administration (FRA), Division of Occupational Safety and Health Administration (OSHA), Local, State and Federal Governments and the State Railroad Regulatory Body.

2.6 TRACK, GROUND & SHORING MONITORING:

The Contractor must monitor the track, ground and shoring for movement to ensure proper performance of the shoring system and the safe operation of trains. Record top of rail elevations and track alignment for the duration of the project. After the project is complete additional track and ground monitoring may be required as deemed necessary by the Railroad.

a. Track & Ground Monitoring requirements: In addition to Table 2:
   - For UPRR, see the Union Pacific Railroad Guidelines for Track & Ground Monitoring.
   - For BNSF, subject to direction of the BNSF project engineer for the project

   ii. Deflection Limits (Table 2), Section 3.8k, for both track and shoring deflection limits.
   - Displacements exceeding the limits defined in Table 2 must be immediately reported to the Railroad. All work on the project must stop and the Railroad may take any action necessary to ensure safe passage of trains. The Contractor must immediately submit a corrective action plan to the Railroad for review and approval. The Railroad must review and approve the proposed repair procedure. The repair must be inspected by the Railroad before any work on the project can proceed.

b. Any damage to Railroad property such as track, signal equipment or structure could result in a train derailment. All damage must be reported immediately to the Railroad representative in charge of the project and to the Railroad Track Maintenance Representative.

2.7 RAILROAD RIGHT-OF-WAY

a. The Railroad Right-of-Way accommodates existing tracks, drainage systems, multiple utilities, access roads, Railroad support facilities and space for future track(s).

b. The proposed project shall not limit existing or future Railroad operating capacity and utility accommodations within the Railroad Right-of-Way.

c. Limits of Railroad Right-of-Way are to be located by the Applicant and identified on the plans.

2.8 CONSTRUCTION AND MAINTENANCE AGREEMENT

a. Prior to construction on Railroad Right-of-Way, Applicants must have an executed a C & M Agreement with the Railroad.

b. The C & M agreement shall, at a minimum, include a funding source, cost estimate, insurance and indemnification requirements, method of payment, responsibility for design, construction, ownership, maintenance and future replacement.

c. The Applicant shall own, maintain and replace the proposed project at no cost to the Railroad and with no interruption to Railroad operations during construction, maintenance and future replacement of the structure.

d. The Railroad shall, at its own expense, be responsible for ownership and maintenance of ballast and track components only.

e. The Applicant shall provide, at no cost to the Railroad, traffic control and/or detours to allow occupation of the roadway by the Railroad or its contractor(s) to perform periodic inspections as required.

f. The Applicant is responsible for performing the work in accordance with the terms specified in the C & M Agreement.

2.9 RAILROAD REVIEW PROCESS

a. <u>How to Communicate with the Railroad</u>

   i. All design and construction submittals shall be sent to the Railroad Representative who will pass them along for Railroad review.

b. <u>Railroad Compensation Agreement</u>:

   i. Prior to any review, the Railroad Local Representative shall receive written notice from the Applicant agreeing to pay all costs associated with the Railroad's (or its consultant's) review of the design plans, construction documents and construction monitoring phase. This is often referred to as the Preliminary Engineering Agreement (PE Agreement).

   ii. The estimated costs of such PE Agreement shall not be the upper limit of the costs but will provide a guideline for budgeting purposes. Regardless, all actual costs incurred by the Railroad (or its consultants) during the review of design plans, construction documents, and construction monitoring submittals shall be fully recoverable from the Applicant.

c. <u>Railroad Review Duration</u>

   i. Review of design submittals and resubmittals by the Railroad (or its consultants) will require a minimum of 4 weeks each individual submission to the Railroad.

   ii. To expedite the review process of the temporary shoring plans, drawings submitted to the Railroad shall be in accordance with these Guidelines. Otherwise, longer review times shall be expected.

   iii. To avoid impacting the construction schedule, the Contractor should schedule submittals at least 4 to 6 months in advance.

   iv. Partial, incomplete or inadequate designs will be rejected, thus delaying the approval.

   v. Revised submittals will follow the same procedure as the initial submittal until all issues are resolved.

d. Applicant and Engineer of Record Review

i. Before providing submittals for the Railroad to review, the applicant and or Engineer of Record must first review and approve the submittal for compliance with the project specifications, AREMA Manual, these Guidelines and structural capacity. Exceptions or proposed alternatives, if any, must be clearly communicated and identified for all submittals involved.

ii. Drawings and calculations must be signed and stamped by a licensed professional engineer familiar with railway loadings and is licensed in the state where the shoring system is intended for use.

e. Construction May Commence Only When:

i. The Contractor must not begin construction of any component of the shoring system affecting the Railroad Right-of-Way until written Railroad approval has been received.

2.10 APPROVAL EXPIRATION

a. Written approval of Final Plans will be valid for two years from the date of approval by the Railroad unless otherwise provided in the C&M Agreement. If construction of the approved structure has not begun within this period, the Railroad shall have the right to perform a design review, at the cost of the Applicant, to confirm compliance with the Railroad's then-current Guidelines before a Railroad Right-of–Entry Agreement is issued to begin construction.

3. DESIGN

3.1 GENERAL DESIGN REQUIREMENTS

a. Shoring Zones (see Figure 1 below):

i. All dimensions are measured perpendicular to the centerline of track.

ii. For ALL excavations within Zone A, shoring plans shall be accompanied by design calculations.

iii. All shoring within the limits of Zone A must be placed prior to the start of excavation.

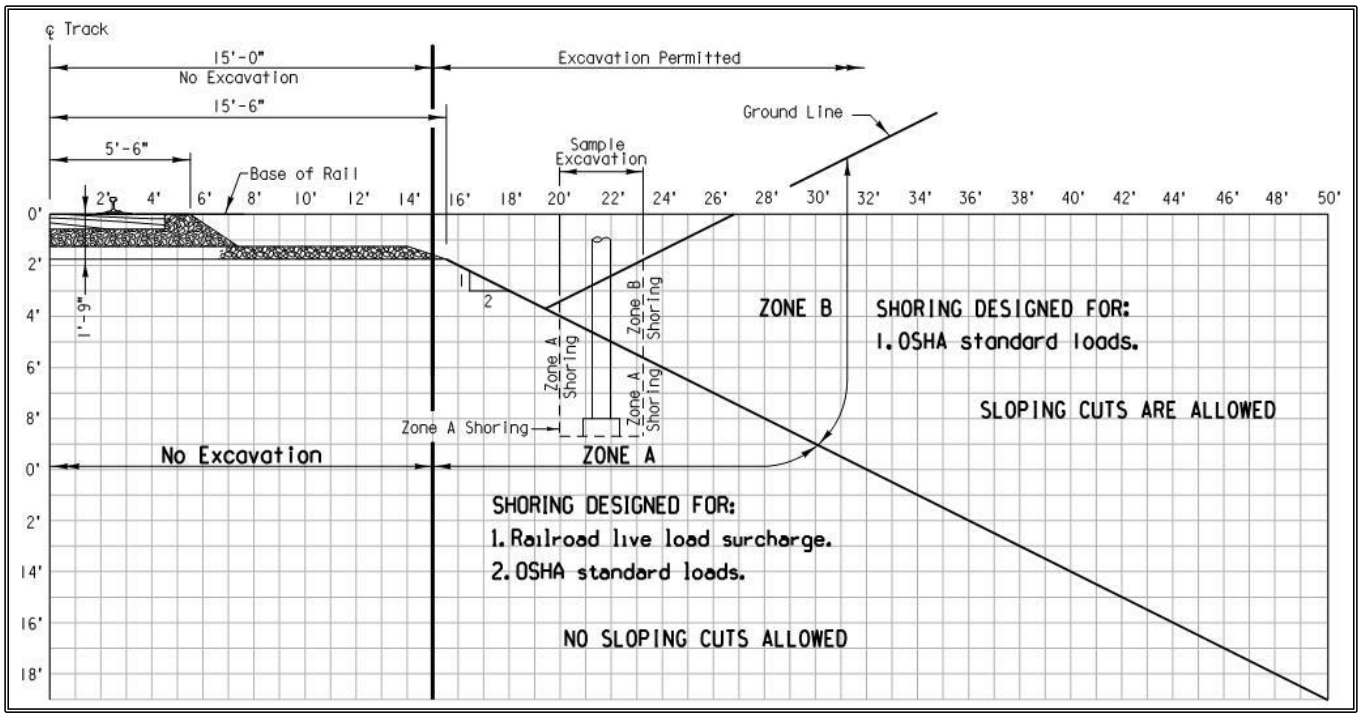


FIGURE 1

b. Excavation Limits: No excavation shall be permitted closer than 15’-0” measured at a right angle from the centerline of track to the trackside of shoring system.

c. Evaluate slope and stability conditions to ensure the Railroad embankment will not be adversely affected. Local and global stability conditions must also be evaluated.

d. Lateral clearances must provide sufficient space for construction of the required Railroad ditches parallel to the standard Railroad roadbed section. The size of ditches will vary depending upon the flow and terrain and should be designed accordingly.

e. Protect Open Excavations:

   i. Any excavation, holes or trenches on the Railroad property shall be covered, guarded and/or protected. Handrails, fence, or other barrier methods must meet OSHA and FRA requirements. Temporary lighting may also be required by the Railroad to identify tripping hazards to train crewmen and other Railroad personnel.

f. The most stringent project specifications shall be used of the Public Utilities Commission Orders, Department of Industrial Safety, OSHA, FRA, AREMA, BNSF, UPRR or other governmental agencies.

g. Secondhand material is not acceptable unless the Engineer of Record submits a full inspection report which verifies the material properties and condition of the secondhand material. The report must be signed and sealed by the Engineer of Record.

h. Shoring Removal:

   i. All components of the shoring system are to be removed when the shoring is no longer needed to the extent that there is no impact to Railroad operations. All voids must be filled and compacted properly, and drainage facilities restored. See compaction requirements in Section 3.5c.

   ii. If the shoring cannot be completely removed, it shall be removed at least 3.0 feet below the final finished grade or at least 3.0 feet below the base of rail, whichever is lower, unless otherwise specified by the Railroad and only if approved by the Railroad.

   iii. No traffic during unsupported excavations resulting from shoring removal.

i. Soldier piles may be installed in predrilled holes if the requirements of AREMA, Vol. 2, Ch. 8, Article 28.5.4.3 and the following are met:

   i. Slurry and drilling fluid type materials are not acceptable as backfill for soldier piles in drilled holes.

   ii. Concrete and flowable backfill may be used but might prevent removal of the embedded piles. If width of the drilled hole will be relied on for passive resistance, the concrete backfill shall have a minimum compressive strength of 3,000 psi, and a minimum coverage of at least 3.0 inches between the edge of the pile and drilled hole.

   iii. Compacted pea gravel material is allowed as backfill if the groundwater level is below the bottom of the drilled hole, the diameter of the hole is at least 12 inches greater than the diagonal width of the pile, and the pea gravel is placed in successive lifts of 8 inches or less in thickness and either consolidated by vibrating the pile or being dry rodded between each lift. The design passive resistance shall be based on the lessor of that derived from either the surrounding subsurface soils or the pea gravel. The pea gravel shall be assumed to have a friction angle no greater than 34 degrees.

   iv. Temporary or permanent casing is used to support the sides of the drilled hole for holes drilled within 25 feet from centerline of track, or 2 times the hole diameter plus 15 feet from centerline of track, whichever is greater. The thickness and strength of the steel casing shall be sufficient to support the loads described in Section 3.7, and shall be specified on the plans.

j. Tieback & Soil Nail Anchor Rods

   i. Soil Nails are defined as drilled-in ground anchors that require ground and wall movement to occur before fully utilized, and Tiebacks are defined as tie rods and drilled-in ground anchors that are prestressed after installation.

ii. Tiebacks & Soil Nails are not approved to permanently retain Railroad embankment supporting tracks.

iii. Tiebacks & Soil Nails installed below active tracks shall be cased during anchor installation.

iv. Tiebacks & Soil Nails shall be installed a minimum of 6 feet below base of rail, unless comprised of fiberglass or fully removed after the shoring is no longer needed. Additionally, the upper surface of the grouted tieback or soil nail shall be no less than 3.5 feet below base of rail.

v. Tiebacks & Soil Nails shall be designed for gravity placement of grout unless pressure grouting can be proven to not cause an unacceptable risk of track heave.

vi. For shoring that will extend above existing grade, which will result in the shoring being backfilled with compacted fill, settlement of the backfill, and associated impacts to shoring and adjacent structures, shall be evaluated. If tieback tie rods will be installed within the compacted backfill, the tie rods shall be placed in the bottom of pipe sleeves that have sufficient diameter to prevent vertical loading on the tie rods from backfill settlement. The pipe sleeves shall also have sufficient strength to support overburden backfill and surcharge loads.

vii. The contractor is responsible for providing an approved test method to verify the capacity of anchored or tieback systems. The manufacturers recommendations for testing must be satisfied. Systems which support the Railroad embankment will be considered high risk in determining the percentage of elements to be proof tested.

viii. Cement-grouted anchors tiebacks shall be installed, tested and stressed in accordance with the project specifications, AREMA requirements, FHWA-IF-99-015, Geotechnical Engineering Circular 4, Ground Anchors and Anchored Systems.

k. The proximity of existing structures shall be evaluated when determining shoring installation methods. Installation of shoring by vibratory or impact hammers has the potential to cause dynamically induced subsidence of existing structures and track. The Railroad may dictate shoring installation methods as required on a case by case basis.

3.2 INFORMATION REQUIRED

a. Plans and calculations shall be submitted, signed and stamped by a Licensed Professional Engineer familiar with Railroad loadings and who is licensed in the state where the shoring system is intended for use. See Section 3.9 for requirements on plan submittals. In addition to plans and calculations, the following information is also required.

b. Field Survey

i. The field survey shall be referenced to the centerline of track(s) and top of rail elevations. Existing grades and alignment of tracks and roads shall be surveyed. The location of existing utilities shall also be determined.

c. Drainage

i. The drainage pattern of the site before and after construction should be analyzed and adequate drainage provisions should be incorporated into the plans and specifications. Consideration should be given to groundwater seepage as well as surface drainage.

ii. Drainage provisions for backfill should be compatible with the assumed water conditions in design.

d. Geotechnical Report – See Section 3.5, Subsurface Characterization.

e. Assumed Loading – See Section 3.7, Applied Loads and Calculations.

f. Structural Design Calculations – See Section 3.8, Structural Design Calculations.

3.3 DESIGN PROCEDURE

a. Shoring design should generally adhere to the following procedure:

Step 1) Determine proposed excavation location and depth.

Step 2) Establish subsurface and surface conditions at proposed shoring location. See Section 3.5 for requirements.

Step 3) Select shoring type (see Section 3.6)

Step 4) Determine Applied Loads

- Lateral Driving Pressures on back side of shoring, which would consist of the following:
  - Earth pressure (Active, At-Rest, Apparent) (see Sections 3.7c.i, 3.7c.ii, and 3.7c.iii)
  - Surcharge pressures (see Section 3.7c.iv)
  - Hydrostatic pressure (see Section 3.7c.v)
- Lateral Resisting Pressures on the front side of shoring, which would consist of the following:
  - Passive earth pressure (see Section 3.7d.i).
  - Passive earth pressure reductions (e.g., seepage uplift) (see Section 3.7d.ii)
  - Resisting loads from braces and tiebacks

Step 5) Perform Structural Design Calculations

- Perform stability analysis to establish the minimum embedment depth of shoring and anchor/brace loads (see Section 3.8j).
  - For complex shoring designs, perform global and basal heave stability analyses (see Section 3.8j).
- Verify deflection is within that allowable (see Section 3.8k).
- Verify strength of structural elements are not exceeded (see Section 3.8i)

3.4 (Step 1) EXCAVATION LOCATION

a. See Figure 1, Section 3.1b for excavation limits.

b. Shoring systems should be located as far from the Railroad track and structures as possible.

3.5 (Step 2) SUBSURFACE CHARACTERIZATION

a. Subsurface exploration.

i. Sufficient borings shall be made along the length of the structure to determine, with a reasonable degree of certainty, the subsurface conditions. Irregularities found during the initial soil boring program may dictate that additional borings be performed.

ii. In general, borings should be performed within 50 feet of the planned location of shoring, or closer as necessary. If the planned shoring is longer than 250 feet in length, additional borings shall be performed along the length of the shoring on an average spacing of 250 feet.

iii. Borings shall be performed to a depth sufficient to fully characterize the soils adjacent to and below the proposed shoring.

iv. Unless otherwise stated in these guidelines, subsurface investigation shall also be made in accordance with the provisions of AREMA, Vol. 2, Ch. 8, Part 22, Geotechnical Subsurface Investigation.

b. Type of backfill and backfill properties.

i. Backfill is defined as material behind the wall, whether undisturbed ground or compacted fill, that contributes to the pressure against the wall.

ii. The compacted fill may be classified with reference to the soil types described in AREMA Vol. 2, Ch. 8, Articles 5.2.5 and 5.3.2. However, the unit weight used in design shall be representative of the actual unit weight of the material as measured by laboratory testing.

c. Backfill placement and compaction.
   i. The compacted fill shall meet the latest version requirements of Section 31 23 26 of the UPRR General Conditions and Specifications (UPRR) or BNSF Standard Construction Specifications (BNSF).
   ii. No dumping of backfill material shall be permitted in such a way that the successive layers slope downward toward the wall. The layers shall be horizontal or shall slope downward away from the wall.
   iii. If the wall is not free to rotate (i.e., is anchored or braced) and achieve an active condition during compaction of the backfill, the induced earth pressure due to compaction shall be evaluated. The assumed earth pressure shall be no less than the at-rest earth pressure (see Section 3.7c.ii).

d. Stress states and corresponding soil strength properties.
   i. Saturated cohesive soils (clays and some silts) can reside in two different stress states while shoring is in service:
      - Undrained / Total Stress: A short-term condition where the undrained shear strength (S_u) of the soil should be used for analysis.
      - Drained / Effective Stress: A long-term condition where drained effective friction angle (ϕ') and effective cohesion (c') of the soil should be used for analysis.
   ii. It is impossible to accurately predict how long saturated cohesive soils will remain in an undrained / total stress state before pore pressures dissipate and the soil achieves a drained / effective stress state. For this reason, the Undrained Cohesive soil state shall only control for design when it results in a higher factor of safety for the shoring design than that estimated for the Drained Cohesive soil state. This will generally only be the case when the cohesive soils are relatively soft.
   iii. It is noted that cohesive soils can also reside in an "unsaturated" state, where the soil can be characterized by an unsaturated shear strength. The unsaturated shear strength of a cohesive soil can vary drastically as it's moisture content increases or decreases. Given the impossibility of predicting moisture content changes for soils exposed to weather and groundwater fluctuations, the unsaturated shear strength of the soil shall not be used for design.
   iv. Saturated and unsaturated cohesionless soils (some silts, sands, and gravels) should be assumed to always reside in a drained / effective stress state.

e. A Geotechnical Report summarizing the existing and proposed subsurface conditions shall be provided by a Licensed Professional Engineer. The Geotechnical Report shall include:
   i. Boring location plan showing the location of each boring in relation to tracks and the proposed shoring.
   ii. Boring logs that indicate the elevation and depth of each layer of soil encountered, USCS classification of each layer of soil, an indication of whether the soil is fill or natural soil, the depth/elevation of groundwater, results of in-situ testing, index properties of the soil layers as determined by laboratory testing (e.g., moisture, density, sand content, plasticity, unconfined strength, etc.)
   iii. Results of all laboratory testing. Laboratory testing shall include at a minimum: moisture content, density, unconfined compression tests on clay/rock, and direct shear or triaxial compression testing on soils to determine the effective cohesion and internal angle of friction.

iv. Recommended soil properties for the design of shoring for each layer of soil as follows:
    - Top/bottom elevation of soil layer
    - Moist (γ) and effective (γ') unit weight
    - Undrained shear strength (S_u) of cohesive soils
    - Effective cohesion (c') and friction angle (ϕ')
    - Active and passive earth pressure coefficients
    - Parameters for p-y curve generation, if necessary.

v. If required, allowable bearing capacity for spread footings.

vi. Compaction recommendations for backfill, optimum moisture content and maximum density of fill material, and design parameters for the compacted fill. See Sections 3.5b and 3.5c.

vii. Water table elevation to be assumed on both sides of the shoring system.

viii. Dewatering recommendations, as needed, and proposed flownets or zones of groundwater influence.

3.6 (Step 3) SHORING TYPES

a. Shoring/Trench Box is a prefabricated shoring system which is installed as the excavation progresses. This system is allowed in special applications only, typically where Railroad live load surcharge is not present unless it can be shown that the over excavation outside the box will be filled and compacted before the presence of Railroad live load.

b. Anchored systems with tiebacks are discouraged, as the tiebacks will be an obstruction to future utility installations and may also damage existing utilities. If used, see Section 3.1.j for design requirements for tiebacks and soil nails.

c. Sheet Pile Wall (Anchored) is a structure designed to provide lateral support for a soil mass and derives stability from passive resistance of the soil in which the sheet pile is embedded and the tensile resistance of tiebacks.

d. Sheet Pile Wall (Cantilevered) is a structure designed to provide lateral support for a soil mass and derives stability from passive resistance of the soil in which the sheet pile is embedded. Cantilever sheet pile walls shall be used only in granular soils or stiff clays. The maximum height of wall above the excavation line shall be 10 feet in Zone A (see Figure 1) and 12 feet in Zone B.

e. Soldier Pile with Lagging Wall (Anchored) is a structure designed to provide lateral support for a soil mass and derives stability from passive resistance of the soil/rock in which the soldier beam is embedded and from the tensile resistance of tiebacks. Soldier beams include steel H-piles, wide flange sections or other fabricated sections that are driven or set in drilled holes. Lagging refers to the members spanning between soldier beams.

f. Soldier Pile with Lagging Wall (Cantilever) is a structure designed to provide lateral support for a soil mass and derives stability from passive resistance of the soil/rock in which the soldier beam is embedded. The maximum height of the wall above the excavation line shall be 8 feet for Zone A (see Figure 1) and 12 feet for Zone B.

g. Braced Excavation is a structure designed to provide lateral support for a soil mass and derives stability from passive resistance of the soil in which the vertical members are embedded and from the structural capacity of the bracing members. For purposes of these guidelines, the vertical members of the braced excavation system include steel sheet piling or soldier beams comprised of steel H-piles, wide flange sections, or other fabricated sections that are driven or installed in drilled holes. Wales are horizontal structural members designed to transfer lateral loads from the vertical members to struts or rakers. Struts and rakers are structural compression members that support the lateral loads from the wales and transfer the load to either another side of a shored excavation (struts) or to a reaction pile/thrust block (raker).

h. Cofferdam is an enclosed temporary structure used to keep water and soil out of an excavation for a permanent structure such as a bridge pier or abutment or similar structure. Cofferdams may be

constructed of timber, steel, concrete or a combination of these. These guidelines consider cofferdams primarily constructed with steel sheet piles.

3.7 (Step 4) APPLIED LOADS AND CALCULATIONS

a. For shoring design submittal, all design criteria, temporary and permanent loading must be clearly stated in the design calculations and on the contract and record plans.

b. Applied loading will consist of driving pressures/forces on the back of the shoring and resisting pressures/forces on the front of the shoring.

- Driving pressure will generally consist of:
  - Active, At-Rest & Apparent pressures. (Sections 3.7c.i, 3.7c.ii, 3.7c.iii)
  - Surcharge (Section 3.7c.iv)
  - Hydrostatic pressures (Section 3.7c.v).
- Resisting pressure will generally consist of:
  - Passive earth pressure (3.7d.i) and brace/tieback loading.

c. **Driving Pressures/Loads**:

i. **Active Earth Pressure**

- Use for cantilever walls and flexible walls with only one row of tiebacks/braces (i.e., flexible anchored bulkheads), if the minimum deflection criteria per AREMA Vol. 2, Ch. 8, Article 20.1.2.d is met. If the minimum deflection criteria for flexible anchored bulkheads is not met, use Apparent Earth Pressure for top-down shoring construction (Section 3.7c.iii), and At-Rest Earth Pressure for walls that are backfilled (Section 3.7c.ii).
- The active earth pressure may be computed by the Rankine, Coulomb or Log-Spiral theories. The active earth pressure may also be based on general soil type per AREMA Vol. 2, Ch. 8, Part 20, Table 8-20-3 as provided in the Appendix.
- For interface friction angles used for Coulomb and Log-Spiral theories, the interface friction angle shall not be greater than one-half of the effective friction angle of the soil, or that consistent with published values for specific types of soil in contact with either steel or concrete (e.g., **NAVFAC DM7.02, Chapter 3, Table 1**).
- The backslope of the retained soil shall be considered when calculating the active earth pressure.
- See Section 3.5b. Subsurface Characterization, for further requirements for computing earth pressure from compacted backfill.

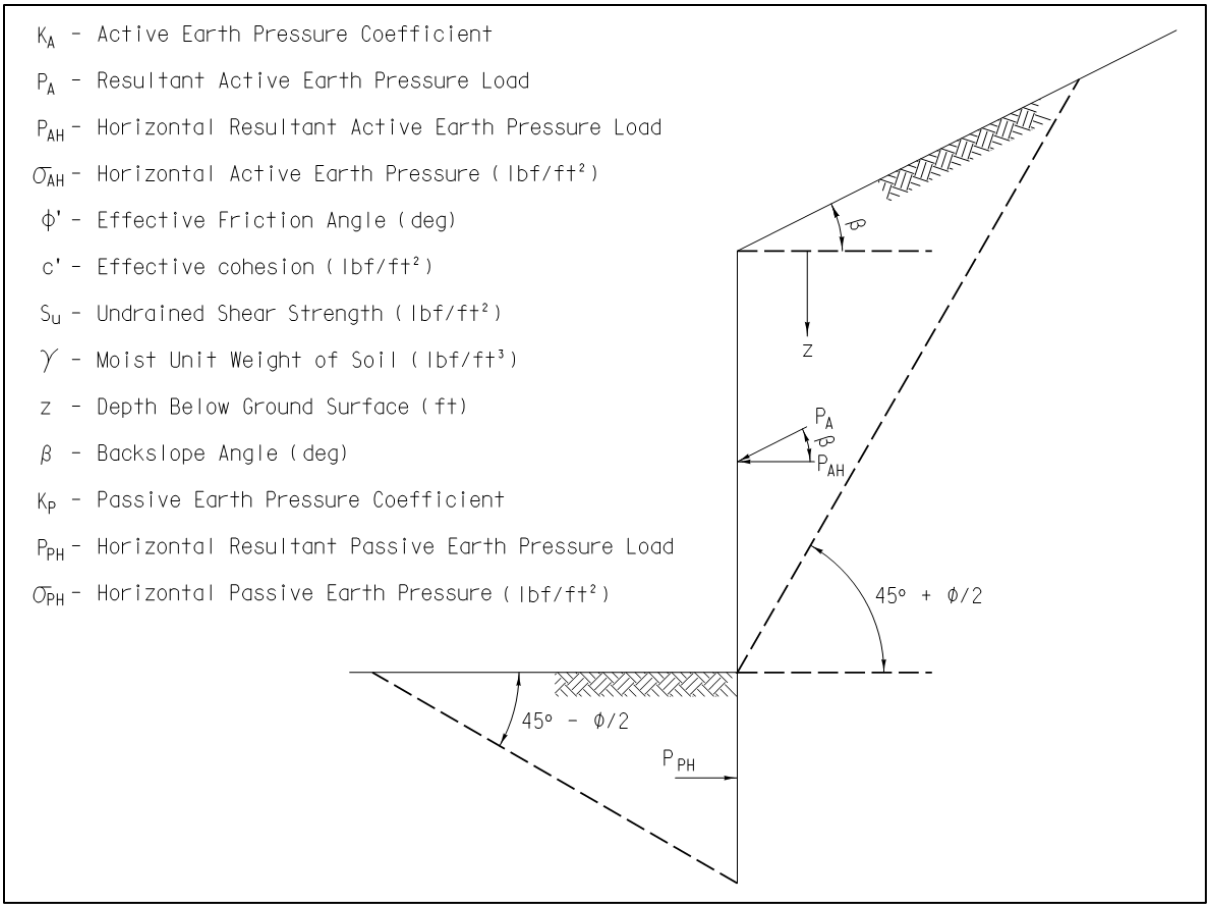


FIGURE 2

- NON-COHESIVE SOILS

  Level Backslope (Rankine)

$$\sigma_{AH} = K_A \gamma z \quad ,where \quad K_A = tan^2\left(45 - \frac{\phi'}{2}\right)$$

  Sloping Backslope (Rankine)

$$\sigma_{AH} = K_A \gamma z \cos\beta \quad ,where \quad K_A = \cos\beta\left(\frac{cos\beta - \sqrt{cos^2\beta - cos^2\phi'}}{cos\beta + \sqrt{cos^2\beta - cos^2\phi'}}\right)$$

- COHESIVE SOILS & FRACTURED ROCK

  Drained Cohesive & Fractured Rock - Level & Sloping Backslope (Rankine/Bell)

  - Use these drained equations unless the undrained equations below result in greater earth pressures in the shoring design.

$$\sigma_{AH} = K_A \gamma z - 2c'\sqrt{K_A}$$

$$K_A = tan^2\left(45 - \frac{\phi'}{2}\right), For\ Level\ Backslope$$

$$K_A = \cos\beta\left(\frac{cos\beta - \sqrt{cos^2\beta - cos^2\phi'}}{cos\beta + \sqrt{cos^2\beta - cos^2\phi'}}\right), For\ Sloping\ Backslope$$

- Effective Cohesion Note: Effective cohesion shall be assumed to be zero, unless local experience by a Licensed Geotechnical Engineer indicates the fully softened strength of the clay will have an effective cohesion greater than zero.
- Fractured Rock Note: The active earth pressure for fractured rock and intermediate geomaterials (e.g., weak shales, sandstone, etc.) shall be based on either the rock mass effective cohesion and friction angle, or mass shear strength. The mass strength parameters shall be determine using a methodology that accounts for rock type, intact strength, spacing and conditions of joints, rock quality designation (RQD), geological strength index (GSI), and/or rock mass rating (RMR).

Undrained Cohesive – Level Ground (Rankine/Bell)

- Only use undrained when it results in a higher earth pressure in the shoring design. Otherwise use the Drained equations above.
- Assumes ϕ=0 and c'=S_u

$$\sigma_{AH} = \gamma z - 2S_u$$

or

$$\sigma_{AH} = K_A \gamma z \quad ,where \quad K_A = 1 - \frac{2S_u}{\gamma z}$$

Very Soft to Medium Clays/Silts

- Where the Stability Number $N_s = \gamma * H/S_{ub}$ is greater than 4, active earth pressure shall be estimated as the greater of that determined using the equations above for drained (effective) and undrained (total stress) conditions, or the equations directly below. The factor of safety against basal heave shall also be analyzed per Section 3.8j.ii3.8. For N_s > 6, the global stability of the shoring shall also be evaluated by a limit-equilibrium method of slices per Section 3.8j.ii.

  - For 4 < N_s < 5.14, $K_A = 0.22$
  - For N_s > 5.14 (Henkel, 1971), $K_A = 1 - \frac{4S_u}{\gamma H} + 2\sqrt{2}\frac{d}{H}\left(1 - \frac{5.14S_{ub}}{\gamma H}\right) \geq 0.22$

  Where:

  S_u = Undrained strength of retained soil (lbf/ft^2)
  S_{ub} = Undrained strength of soil below excavation base (lbf/ft^2)
  γ = Total unit weight of retained soil (lbf/ft^3)
  H = Total excavation depth (ft)
  d = Depth of potential base failure surface below base of excavation (ft)
  (The lessor of either the thickness of soft to medium stiff clay below the bottom of excavation, or the width of the excavation divided by the square root of 2. See Figure 3 below.)

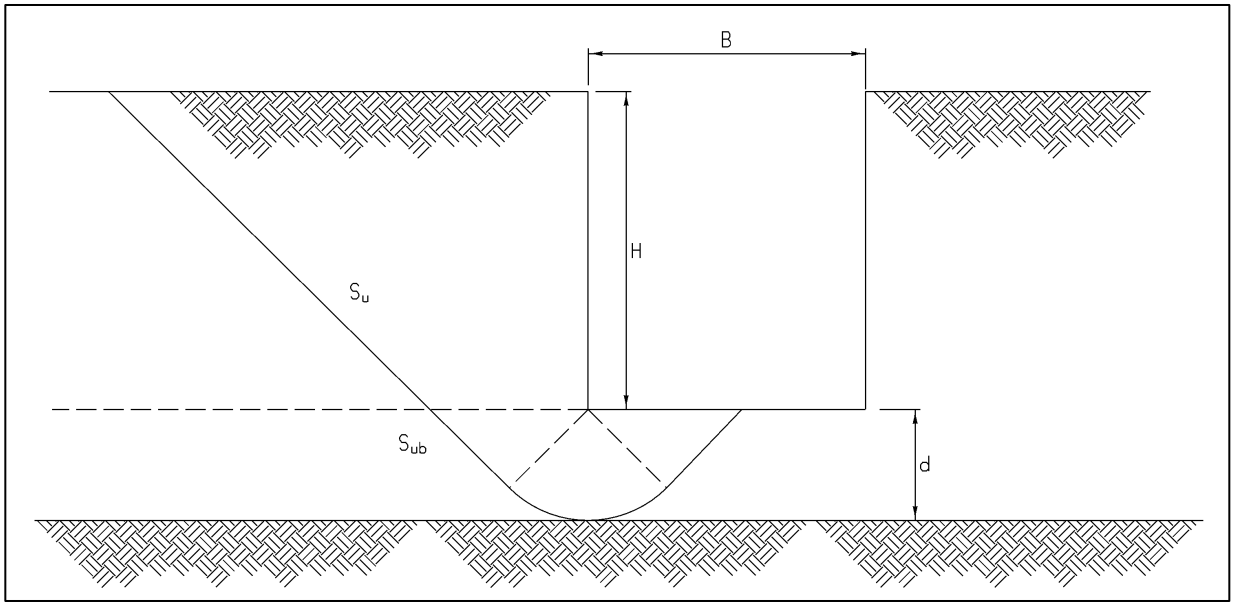


FIGURE 3

ii. **At-Rest Earth Pressure.**

- Used for rigid walls (e.g., reinforced concrete walls) that deflect less than that indicated in Table 1.

Table 1 - When to Use At-Rest Earth Pressure

Type of Backfill	Wall Deflection / Wall Height
Dense sand	0.001
Medium dense sand	0.002
Loose sand	0.004
Compacted Silt	0.002
Compacted lean clay	0.010
Compacted fat clay	0.010

(Clough & Duncan, 1991)

- At-Rest earth pressure shall also be used for walls that are restrained above the dredge line by braces/tiebacks and are backfilled with compacted fill. See also Section 3.8j.ii.
- At-Rest earth pressure shall be calculated as follows:

Level Ground

$$\sigma_{0H} = K_0 \gamma z \ , \ where \ \ K_0 = (1 - sin\phi')OCR^{(sin\phi')}$$

Sloping Backslope

$$\sigma_{0H} = K_0 \gamma z (1 + sin \beta)$$

Where:

σ_{0H} – Horizontal At-Rest Earth Pressure (lbf/ft^2)
K_0 – At-Rest Earth Pressure Coefficient
ϕ' – Effective Friction Angle (deg)
OCR – Over-Consolidation Ratio
β – Backslope Angle (deg)

iii. **Apparent Earth Pressure**

- Use for braced excavations with single or multiple levels of braces/tiebacks.
- Use equations determined per AREMA Vol. 2, Ch. 8, Article 28.5.4.1 or **FHWA-IF-99-015, Sections 5.2.4** (sands), **5.2.5** (stiff to hard clays) and **5.2.6** (soft to medium clays).
- For braced excavations that bottom out in very soft to medium stiff clays/silts, where the Stability Number $N_s = \gamma * H/S_{ub}$ is greater than 4, the requirements of Section 3.7c.i for very soft to medium clays shall also apply if they control for design.

iv. **Surcharge Loads**

- Loads include but are not limited to: Railroad vertical and centrifugal loading, railroad service vehicles (HS-20 truck), roadway loading, fills placed above the top of shoring, construction equipment, crane pads, future grading and paving, structures, material storage piles, and snow.
- Dead load assumptions to be used for design:
  - Spoil pile: must be included assuming a minimum height of two feet of soil adjacent to the excavation.
  - Track: use 200 lbs/linear-ft for rails, inside guardrails and fasteners.
  - Roadbed: ballast, including track ties, use 120 lbs per cubic foot.
- For specific applications of the Cooper E80 live load, refer to in Appendix 5.1, which illustrates Live Load Pressure Due to Cooper E80.
- Additional analysis for centrifugal force calculations as described in AREMA Vol. 2, Ch. 15, Article 1.3.6. Centrifugal Loads are required where shoring is located along the outer side of curved track and track curvature exceeds three degrees.
- Lateral pressure from to infinite and uniform surcharge load.
  - The surcharge can effectively be treated as another soil layer, whereby the vertical surcharge pressure is multiplied by the active or at-rest earth pressure coefficient as shown below:

$$\sigma_{UA} = K_A q \quad or \quad \sigma_{U0} = K_0 q$$

Where:

σ_{UA} – Uniform lateral surcharge pressure for active condition (lbf/ft^2)

σ_{U0} – Uniform lateral surcharge pressure for at-rest condition (lbf/ft^2)

K_A - Active earth pressure coefficient

K_0 – At-rest earth pressure coefficient

q - Uniform surcharge load (lbf/ft^2)

- Lateral pressure from to point, line, uniform strip, and rectangular-area surcharge loads.
  - Equations shall be based on Boussinesq theory (i.e., elastic theory) and a rigid wall condition.
  - For point loads, see **AREMA, Vol. 2 , Ch. 8, Article 20.3.2.4**.
  - For line loads, see **AREMA, Vol. 2 , Ch. 8, Article 20.3.2.3**.
  - For rectangular loads, see **NAVFAC DM7.02, Figure 11**.
  - For uniform strip loads, see Case I (Cooper E80 loading parallel to walls) in Appendix 5.1, or **AREMA, Vol. 2 , Ch. 8, Article 20.3.2.2.**
- Trial Wedge method per AREMA, Vol. 2 , Ch. 8, Article C5.3.2.II may also be used.

v. **Hydrostatic Pressure Due to Unbalanced Groundwater Levels.**

- Hydrostatic pressure shall be assumed on secant/tangent pile and sheet pile shoring if the base of the excavation extends below the water table and no drainage system is installed behind the shoring.
- Weep holes are not considered an effective drainage system, unless the soil behind the shoring above the dredge line is uniformly free-draining granular material.

d. **Resisting Pressures/Loads:**

i. Passive earth pressure

- The passive earth pressure, P_p, below the excavation line may be computed by Rankine or Log-Spiral theories, but not the Coulomb theory.
- For Log-Spiral theory, the interface friction angle shall not be greater than one-half of the effective friction angle of the soil, or that consistent with published values for specific types of soil in contact with either steel or concrete.
- The passive earth pressure for cohesionless soils (sands, gravels and some silts), uncontrolled fill, and mixed layers of cohesive and cohesionless soil shall be calculated based on the effective friction angle of the soil.
- The passive earth pressure for cohesive (clay and some silts) soils and controlled backfill shall be calculated for the effective stress condition (see Section 3.5d.i for definition), unless the resulting earth pressure for the total stress condition (i.e., S_u) is less.
- For conditions where the slope in front of the shoring slopes down and away from the wall, the slope in front of the wall shall be considered when calculating passive pressure. If the ground in front of the shoring slopes upwards away from the wall, the ground level shall be assumed to be level for analysis.
- For reference, Rankine equations are provided below:

K_P – Passive Earth Pressure Coefficient

σ_{PH} – Horizontal Passive Earth Pressure (lbf/ft^2)

ϕ' – Effective Friction Angle (deg)

c' – Effective cohesion (lbf/ft^2)

S_u – Undrained Shear Strength (lbf/ft^2)

γ – Moist Unit Weight of Soil (lbf/ft^3)

z – Depth Below Ground Surface (ft)

β – Front Slope Angle (deg)

NON-COHESIVE SOILS

Level Frontslope (Rankine)

$$\sigma_{PH} = K_P \gamma z \ , where \ \ K_P = tan^2\left(45 + \frac{\phi'}{2}\right)$$

Sloping Frontslope (Rankine)

- Use only if ground is sloping down and away from shoring (i.e., β is negative)

$$\sigma_{PH} = K_P \gamma z \cos\beta \ , where \ \ K_P = \cos\beta\left(\frac{cos\beta + \sqrt{cos^2\beta - cos^2\phi'}}{cos\beta - \sqrt{cos^2\beta - cos^2\phi'}}\right)$$

COHESIVE SOILS & FRACTURED ROCK

Drained Cohesive & Fractured Rock - Level & Sloping Backslope (Bell's)

$$\sigma_{PH} = K_P \gamma z + 2c'\sqrt{K_P}$$

$$K_P = tan^2\left(45 + \frac{\phi'}{2}\right), For\ Level\ Frontslope$$

$$K_P = \cos\beta\left(\frac{cos\beta + \sqrt{cos^2\beta - cos^2\phi'}}{cos\beta - \sqrt{cos^2\beta - cos^2\phi'}}\right), For\ Sloping\ Frontslope$$

- Effective cohesion shall be assumed to be zero unless local experience by a Licensed Geotechnical Engineer indicates the fully softened strength of the clay will have an effective cohesion greater than zero.
- The passive resistance for fractured rock and intermediate geomaterials (e.g., weak shales, sandstone, etc.) shall be based on either the rock mass effective cohesion and friction angle, or mass shear strength. The mass strength parameters shall be determine using a methodology that accounts for rock type, intact strength, spacing and conditions of joints, rock quality designation (RQD), geological strength index (GSI), and/or rock mass rating (RMR).

Undrained Cohesive – Level Ground (Rankine/Bell)

- Only use undrained when it results in a lower earth pressure in the shoring design. Otherwise use Drained equations above.
- Assumes ϕ=0 and c'=S_u

$$\sigma_{PH} = \gamma z + 2S_u$$

or

$$\sigma_{PH} = K_P \gamma z \quad where \quad K_P = 1 + \frac{2S_u}{\gamma z}$$

- For soldier pile walls, the upper 1.5 pile/shaft diameters of passive resistance in soil below the excavation line shall be ignored per AREMA, Vol. 2, Ch. 8, Article 28.5.3.2.a.
- Allowable arching factors for soldier pile walls shall comply with AREMA, Vol. 2, Ch. 8, Article 28.5.3.2.a.
- As noted in Section 3.1i.ii above, the width of the drilled hole for a soldier pile shall not be assumed to provide passive resistance unless the concrete backfill has a minimum compressive strength of 3,000 psi, and a minimum coverage of at least 3.0 inches between the edge of the pile and drilled hole.
- P-y curve methods shall use a P-multiplier less than 1 to account for group effects on sheet and soldier pile walls when piles are spaced less than 3.5D apart on center, and for slopes in front of the wall.

ii. Seepage pressures on bulkheads and cofferdams.

- Where the imbalance of water levels results in water seeping under the bottom of shoring and upward into the excavation, the seepage pressures on the wall and base of excavation shall be based on flownet or equivalent analyses, and the passive resistance reduced accordingly. See AREMA, Vol. 2, Ch. 8, Article 20.3.5 or FHWA-IF-99-015 Section 5.2.9 for further detail.

3.8 (Step 5) STRUCTURAL DESIGN CALCULATIONS

a. Temporary shoring is defined by AREMA, Vol. 2, Ch. 8, Article 28.1.1, and is anticipated to be in service for not more than an 18-month period. Earth retention structures that are anticipated to be in service for more than 18 months shall be designed per AREMA as permanent structures.

b. Calculations shall be performed for each stage of construction, when one or more rows of braces/tiebacks are being implemented. The calculations shall be performed for each stage of excavation before the braces/tiebacks are installed for that stage.

c. Calculations shall be performed by one of two methods:

   1. Classical Method: A sum of forces and moments analysis whereby driving and resisting pressures are balanced. Driving pressures are applied from the top to the bottom of the back side of the shoring. For braced excavations, Apparent earth pressure will be applied from the top down to the excavation line, and below the excavation line, Active earth pressure will be applied down to the bottom of the shoring on the back side of the shoring. Resisting pressures/forces are applied from the excavation line to the bottom of the front side of the shoring. To achieve an acceptable factor of safety for embedment, the passive resistance will be reduced as required in Section 3.8j.i. It is noted that all AREMA requirements are based on an assumption that the Classical Method will be used for design.
   2. P-y Method: A force-deflection analysis (i.e., Winkler beam analysis) whereby the soil below the excavation line on both sides of the shoring is characterized as springs. Driving earth pressures are generally only applied above the excavation line. However, surcharge loads are generally applied to the bottom of the shoring elements. Minimum embedment is based on the base of the shoring reaching fixity as required in Section 3.8j.i.

d. Calculations shall be in English units. If Metric units are used, all controlling dimensions, elevations, design criteria assumptions, and material stresses shall be expressed in dual units, with English units to be in parentheses.

e. List all assumptions used to design the temporary shoring system, and provide references for equations, tables, figures, and design criteria obtained from design manuals and guidelines.

f. Computerized calculations and programs must clearly indicate the input and output data. List all equations used in determining the output.

g. Example calculations with values must be provided to support computerized output and match the calculated computer result.

h. Provide a simple free body diagram showing all controlling dimensions and applied loads on the temporary shoring system.

i. Documents and manufacturer's recommendations which support the design assumptions must be included with the calculations.

j. **Embedment depth and stability.**

   i. The minimum depth of embedment is that required to balance driving and resisting pressures/loads.

      - The minimum factor of safety for balancing active and passive pressures shall be 1.5 (See AREMA, Vol. 2, Ch. 8, Article 20.5.1.a). The factor of safety is achieved by reducing the passive earth pressure resistance by a factor of 0.67. A calculated factor of safety based on shallow penetration into strong soil layer is not acceptable.
      - Note, some commercially available software packages add ~ 30% length to the embedment computed for moment equilibrium in order to achieve force equilibrium. This additional length added by the software is not the required factor of safety noted above. Additional embedment, beyond the 30% added by the software package, is required to achieve the specified factor of safety.

- The minimum embedment for p-y methods shall be based on both the shoring meeting the deflection limit criteria in Table 2 over the full height of the shoring, and a moment reversal (i.e., moment diagram passes through zero twice) being achieve below the excavation line.

ii. In special circumstances, as indicated in these guidelines, minimum embedment might also be controlled by basal heave or global stability.

- The minimum factor of safety against basal heave shall be 1.5 for temporary structures. See FHWA-IF-99-015, Section 5.8.2 for further details on methodology.
- The minimum factor of safety for global stability shall be 1.3 when using a limit-equilibrium method of slices. (See AREMA, Vol. 2, Ch. 8, Article 20.4.1.c). The global stability analyses shall consider failure surfaces that pass both below and through non-continuous shoring (e.g., soldier piles) located below the dredge line, as well as both through and behind wall anchors. See FHWA IF-99-015, Section 5.7.3 for further details on methodology.
- Global stability shall also be analyzed for slopes steeper than 2(H):1(V) that are above, adjacent or below shoring.

iii. Multiple tiers of shoring should not be used if the active wedge of the lower wall overlies the passive wedge of the upper wall.

- If there is active/passive overlap between tiers of shoring, or the shoring will be supporting an existing retaining wall, the effect of loading of the upper wall/shoring on the lower wall shall be evaluated. This will require estimating the bearing, sliding and/or passive resistance demand of the upper wall, and applying those demands in part or fully to the lower wall. In addition, any loading in front of or behind the upper wall that is not fully supported by the wall, would also need to be applied to the shoring. Lastly, a global stability analysis per Section 3.8j.ii shall be performed to determine the external stability of the multi-tiered wall/shoring system.

k. **Deflection limits**.

i. Calculated total deflections of any part of the temporary shoring system and top of rail elevation shall not exceed the criteria outlined in Table 2 Deflection Criteria. Include the accumulated elastic deflection of all of the wall elements (piles, anchors, lagging, walers, strut/raker restraints, etc.), as well as the deflection due to the passive deflection of the resisting soil mass.

Table 2 - Deflection Criteria

Horizontal distance from shoring to track C/L measured at a right angle from track	Maximum horizontal movement of shoring system	Maximum acceptable horizontal or vertical movement of rail
15’ < S < 18’	3/8”	1/4”
18’ < S < 25’	1/2”	1/4”
S > 25’	1% of shoring height above excavation line	-

ii. Braced excavations should be designed for conditions in which the ground surface on all sides is relatively uniform in elevation. If the ground surface elevation varies significantly from one side of the excavation to the other, the deflection of the higher braced shoring towards the side with lower braced shoring shall be evaluated. This analysis would approximate that required for shoring supported by rakers, where the lower shoring acts as the raker thrust block, such that the passive deflection of the lower shoring is added to the higher shoring deflection and the resulting sum is verified to not exceed the deflection criteria in Table 2.

l. **Strength design.**

i. Shall be performed using the Service Load Design method. Allowable Stresses based on AREMA requirements are as follows:

- Structural Steel Allowable Stress: See AREMA, Vol. 2, Ch. 15, Section 1.4, Table 15-1-11 For common shoring components, generally 0.55 of the yield strength of the steel.
- Sheet Pile Sections: 2/3 of yield strength for steel. (AREMA, Vol. 2, Ch. 8, Article 20.5.7)
- Concrete: 1/3 of Compressive strength. (AREMA, Vol. 2, Ch. 8, Article 20.5.7)
- Anchor Rods: 1/2 of yield strength for steel. (AREMA, Vol. 2, Ch. 8, Article 20.5.7)

ii. AISC allowances for increasing allowable stress due to temporary loading conditions are not acceptable.

iii. Structures and structural members shall be designed to have design strengths at all sections at least equal to the required strengths calculated for the loads and forces in such combinations as stipulated in AREMA, Vol. 2, Ch. 8, Article 2.2.4b, which represents various combinations of loads and forces to which a structure may be subjected. Each part of the structure shall be proportioned for the group loads that are applicable, and the maximum design required shall be used.

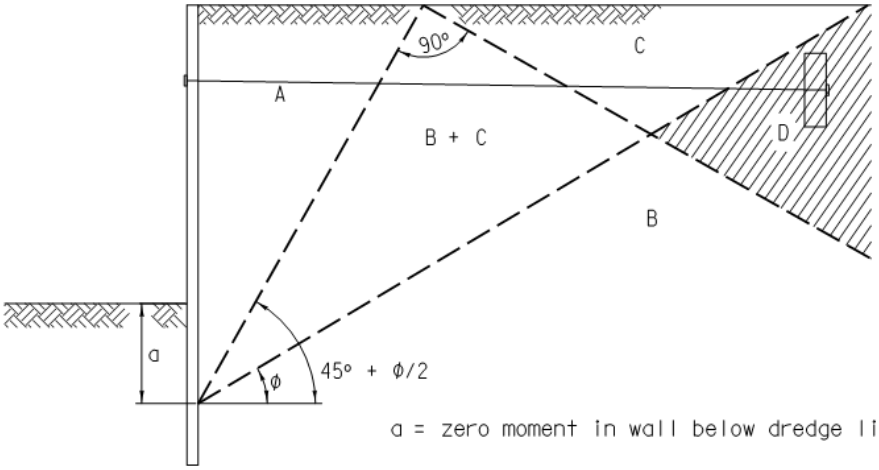
iv. In braced excavations, the connections between struts and wales shall be designed to resist both axial demands as well as the vertical demands from the self-weight of the members and any incidental vertical loads applied during construction.

v. Stiffeners shall be provided at points of bearing concentrated load. (See AREMA Vol. 2, Ch.15, Article 1.7.7).

m. Gravity type temporary shoring systems must also be analyzed for settlement, overturning, sliding, bearing capacity per AREMA, Vol. 2, Ch. 8, Part 5**,** and global stability per the requirements in Section 3.8j.ii.

n. Anchor blocks and deadman for tiebacks shall be designed for a safety factor of 2.0, where safety factor is derived as the ratio of the net passive resistance (passive earth pressure minus active earth pressure) on the anchor block to the load on tie rod. To utilize the full allowable anchor capacity, the minimum length of the tie rod shall be as shown in Figure 4. If site constraints prevent the minimum length of tie rods from being implemented, the anchor capacity shall be reduced as Indicated in Figure 4. For deriving anchor block capacity where minimum tie rod length is achieved, NAVFAC DM7.02 or CalTrans 2011 may be referenced.

i. For sheet and soldier pile deadman, p-y methods may be used. The sum of the estimated deflection of the deadman pile and shoring shall be less than that indicated in Section 3.8k.

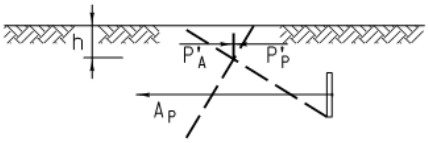


Cohesionless Soil

For Cohesionless soils, anchor resistance in each zone is as follows:

A - No Anchor resistance available

B - Anchor block resistance is reduced by $P'_P - P'_A$



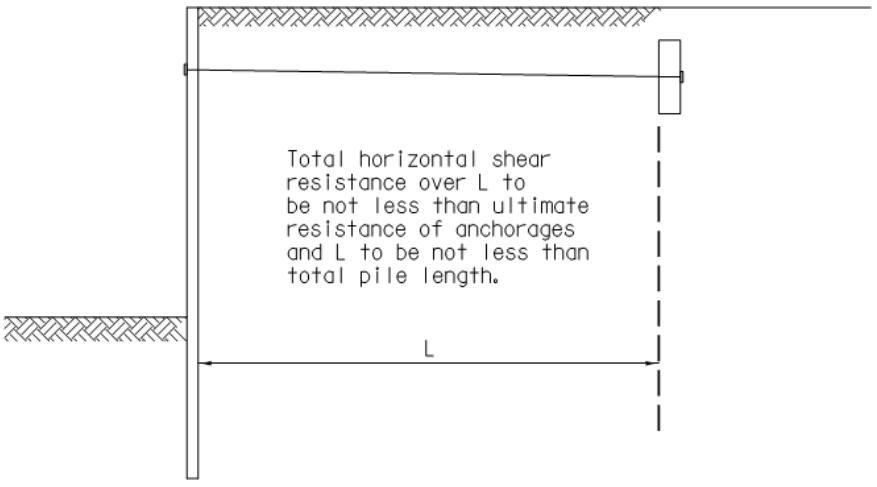
$$P'_P = \frac{1}{2} h^2 \gamma \tan^2\left(45° + \frac{\Phi}{2}\right)$$

$$P'_A = \frac{1}{2} h^2 \gamma \tan^2\left(45° - \frac{\Phi}{2}\right)$$

C - Anchor block achieves full resistance but pressure is increased on the wall by ΔP_P.
(See ΔP_P force diagram in Theoretical Soil Mechanics, pgs. 232-233 or NAVFAC DM7.02, Figure 20)

B + C - Anchor block resistance is reduced by $P'_P - P'_A$ and pressure is increased on the wall by ΔP_P.

D - Anchor block achieves full resistance without adding additional load to the wall



Cohesive Soil or Stratum of Cohesive Extending Below Anchor to Wall (Dismuke, 1991)

FIGURE 4

3.9 DESIGN PLAN REQUIREMENTS

a. Shoring design plans shall be in English units. If Metric units are used, all controlling dimensions, elevations, design criteria assumptions, and material stresses shall be expressed in dual units, with English units to be in parentheses. The shoring plans must completely identify the site constraints and the shoring system, and must be signed and stamped by a Licensed Professional Engineer, registered in the state where the work will be performed. Use the design templates provided in the appendix as an example to show the required information, specifications and drawings. The specific requirements of the plan submittals are as follows:

i. **General plan view should show:**

- Railroad Right-of-Way and North arrow.
- Position of all railroad tracks and identify each track as mainline, siding, spur, etc.
- Spacing between all existing tracks.
- Location of all access roadways, drainage ditches and direction of flow.
- Contours of existing grade elevations.
- Footprint of proposed structure, proposed shoring system and any existing structures if applicable.
- Proposed horizontal construction clearances. The minimum allowable is 15 feet measured at a right angle from centerline of track. In curved track the temporary horizontal construction clearances shall increase either 6 inches total or 1.5 inches for every degree of curve, whichever is greater, per Section 4.4.1.2 of the BNSF-UPRR Guidelines for Railroad Grade Separation Projects.
- Location of existing and proposed utilities.
- Location of soil borings used for design.
- Specifications for all elements of the proposed shoring.
- Detailed view of shoring along with controlling elevations and dimensions.

ii. **Typical sections and elevations perpendicular to adjacent track alignment should show:**

- Top of rail and/or top of tie elevations for all tracks.
- Offset from the outside face of shoring system to the centerline of all tracks at all changes in horizontal alignment.
- All structural components, controlling elevations and dimensions of shoring system.
- All drainage ditches and controlling dimensions.
- All slopes, existing structures and other facilities which may surcharge the shoring system.
- Location of all existing and proposed utilities.
- Total depth of shoring system.
- For shoring with tiebacks/bracing, elevations for each temporary stage of shoring construction.
- The assumed groundwater elevation.
- The extent of the Zone A envelope as it overlies the proposed shoring.

iii. **General notes**

- Design loads to be based on the AREMA manual and Cooper E80 loading.
- Pressure due to embankment surcharges.
- ASTM designation and yield strength for each material.
- Maximum allowable bending stress for structural steel is 0.55Fy.
- Temporary overstress allowances are not acceptable.
- All timber members shall be Douglas Fir grade 2 or better.
- In-situ soil classification.
- Backfill soil classification.
- Soil properties used for design.
- Active and passive soil coefficients.
- Fill and backfill compaction criteria.
- Slopes without shoring shall not be steeper than 2 horizontal to 1 vertical.
- Dredge line elevation.
- Shoring deflection to be calculated and meet Railroad requirements.
- Rail, ground and shoring movement monitoring requirements.

iv. **Miscellaneous:**

- Project name, location, GPS coordinates, track owner, railroad line segment, milepost and subdivision in the title block.
- A detailed construction sequence outlining the installation and removal of the temporary shoring system.
- A description of the tieback installation including

drilling, casing, grouting, stressing information and testing procedures, anchor capacity, type of tendon, anchorage hardware, minimum unbonded lengths, minimum anchor lengths, angle of installation, tieback locations, spacing, and distance below bottom of tie.

- All details for construction of drainage facilities associated with the shoring system shall be clearly indicated.
- Details and descriptions of all shoring system members and connection details.
- Handrail and protective fence details along the excavation.
- Railroad and other “CALL BEFORE YOU DIG” numbers and web sites
- Construction clearance diagram.

4. DEFINITIONS

Access Road:

A road used and controlled by the Railroad for maintenance, inspection and repair.

Applicant:

Any party proposing a temporary retaining structure project on Railroad Right-of-Way or other Railroad operating location, regardless of track being active or out of service. Includes all agents working on behalf of the Applicant.

AREMA:

The current edition of the American Railway Engineering and Maintenance-of-Way Association Manual for Railway Engineering.

AASHTO:

The current edition of the American Association of State Highway and Transportation Officials Standard Specifications for Highway Bridges.

BNSF:

Burlington Northern Sante Fe Railway

C & M Agreement:

A Construction and Maintenance Agreement that has been negotiated between the Railroad and the Applicant that addresses all the duties and responsibilities of each party regarding the construction of the proposed grade separation and the maintenance requirements after construction of the said structure.

Construction Documents:

Design plans and calculations, project and/or standard specifications, geotechnical report and drainage report.

Construction Window:

A timeframe in which construction or maintenance can be performed by the Contractor with the required presence of a Flagman.

Contractor:

The individual, partnership, corporation or joint venture and all principals and representatives (including Applicant’s subcontractors) with whom the contract is made by the Applicant for the construction of the Grade Separation Project.

Crossover:

A track connection which allows trains and on-track equipment to cross from one track to another.

Engineer-of-Record:

The licensed Professional Engineer that develops the criteria and concept for the project and is responsible for the preparation of the Plans and Specifications.

Final Plans:

100% plans signed & stamped by the Engineer-of-Record.

Flagman:

A qualified employee of the Railroad providing protection to and from Railroad operations per Railroad requirements.

Guidelines:

Information contained in this document or referenced in AREMA or AASHTO.

Grade Separation Project:

A project that includes an Overhead or Underpass Structure that crosses the Railroad Right-of-Way or other Railroad operating location regardless of track status being active or out of service.

Main Track:

A principle track, designated by Timetable or special instructions, upon which train movements are generally authorized and controlled by the train dispatcher. Main Track must not be occupied without proper authority.

Multiple Main Tracks:

Two or more parallel or adjacent Main Tracks.

Overhead Structure:

A Roadway and/or Trail Structure over the Railroad Right-of-Way.

Railroad Local Representative / Railroad Representative:

The individual designated by the Railroad as the primary point of contact for the project.

Railroad:

Refers to BNSF Railway and/or Union Pacific Railroad.

Railroad Track Maintenance Representative (UPRR=MTM, BNSF=RDM):

Railroad representative responsible for maintenance of the track and supporting subgrade.

Railroad Right-of-Entry Agreement:

An agreement between the Railroad and an Applicant or a Contractor allowing access to Railroad property.

Railroad Right-of-Way:

The limits of property owned, controlled and/or operated upon by the Railroad.

Shoofly:

A temporary track built to bypass an obstruction or construction site.

Siding:

A track connected to the Main Track used for storing or passing trains.

Timetable:

A Railroad publication with instructions on train, engine or equipment movement. It also contains other essential Railroad information.

Trail:

A pathway impacting Railroad Right-of-Way or other Railroad operating locations regardless of track status being active or out of service. This includes pedestrian, bicycle, approved motorized recreational equipment and equestrian uses.

Underpass Structure:

Railroad Structure over a Roadway and/or Trail.

UPRR:

Union Pacific Railroad

Yard:

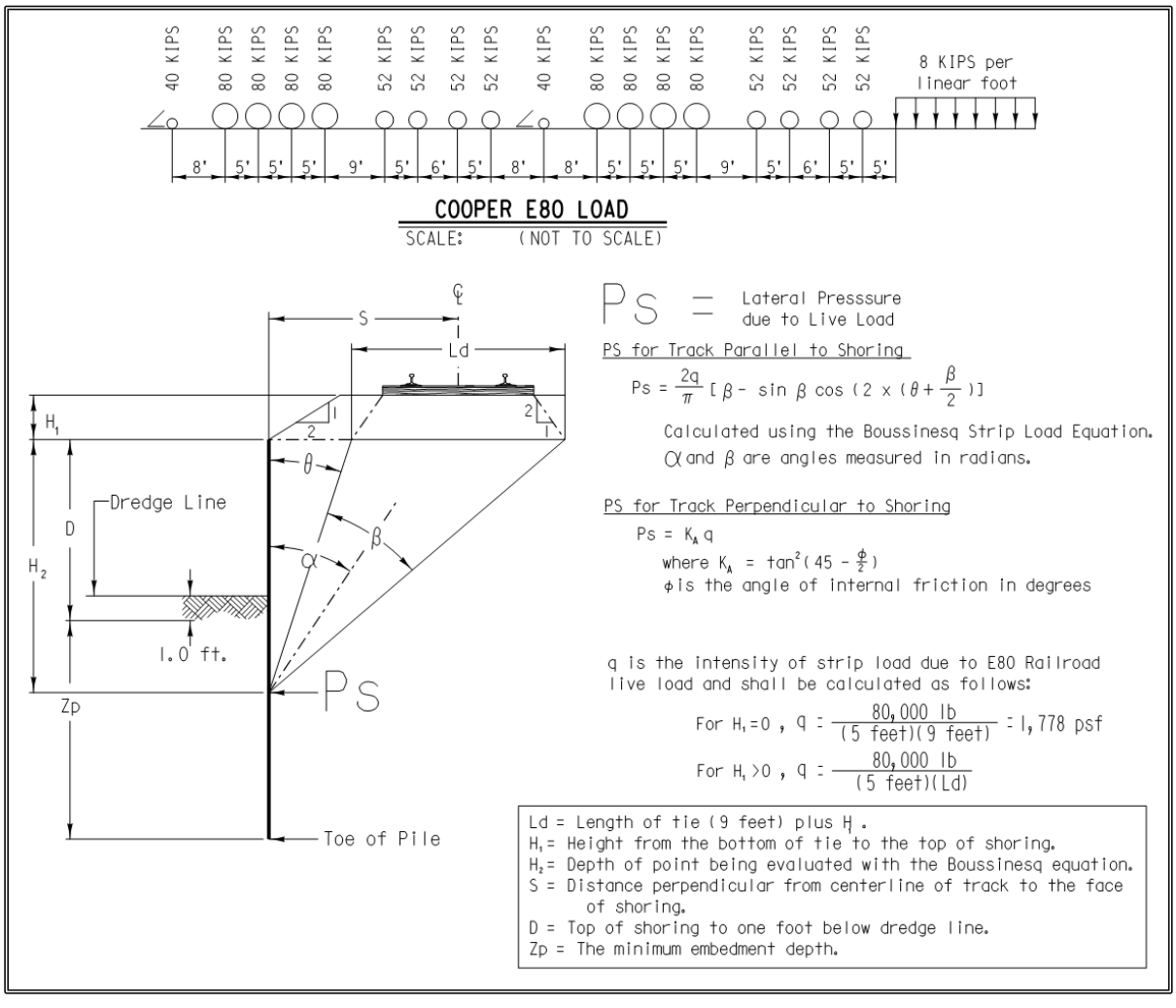
A system of tracks of defined limits, other than main tracks and sidings, for storing and sorting cars and other purposes.

Yard Limits:

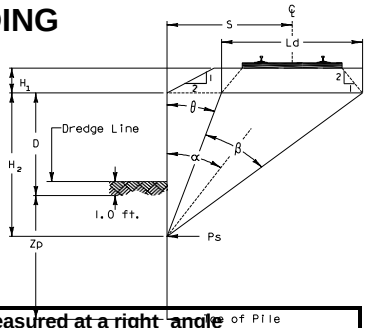
A portion of main track designated by “yard limit” signs and included in the timetable special instructions or a track bulletin.

5. APPENDIX

5.1 LIVE LOAD PRESSURE DUE TO COOPER E80 LOADING



5.2 CHART – LIVE LOAD PRESSURE DUE TO E80 LOADING



This chart identifies the active pressure and resulting forces due to E80 liveload.

1. Select distance S from track centerline to face of shoring.
2. Select depth H_2 below base of tie.
3. Read Ps, M, R and $\bar{Z}$ from the table.
4. Use the procedure outlined in the sample problem to determine values at non-tabulated points.

$$Ps = \frac{2q}{\pi}[\beta - \sin\beta\cos(2\alpha)] \quad \textbf{where q = 1778 psf}$$

Boussinesq surcharge pressure E80 live load for H_1=0

Depth below top of shoring H_2 (ft)	Variables		Horizontal distance (S) from shoring to track CL measured at a right angle									
			12	14	16	18	20	22	24	26	28	30
2	**Ps**	(psf)	**305**	**220**	**166**	**130**	**105**	**86**	**72**	**61**	**53**	**46**
	α	(radians)	1.38	1.41	1.44	1.45	1.47	1.48	1.48	1.49	1.50	1.50
	β	(radians)	0.14	0.10	0.07	0.06	0.05	0.04	0.03	0.03	0.02	0.02
	z	(ft)	1.32	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
	M	(ft-lbs/ft)	215	152	114	89	71	58	49	41	36	31
	R	(lbs/ft)	317	226	170	132	106	87	73	62	53	46
4	**Ps**	(psf)	**496**	**381**	**299**	**240**	**197**	**164**	**138**	**118**	**102**	**89**
	α	(radians)	1.21	1.27	1.31	1.34	1.36	1.38	1.40	1.41	1.43	1.44
	β	(radians)	0.25	0.19	0.14	0.11	0.09	0.07	0.06	0.05	0.05	0.04
	z	(ft)	2.59	2.61	2.63	2.64	2.64	2.65	2.65	2.65	2.65	2.66
	M	(ft-lbs/ft)	1,609	1,165	882	692	557	459	384	327	281	244
	R	(lbs/ft)	1,141	840	643	508	411	339	285	242	209	182
6	**Ps**	(psf)	**558**	**461**	**381**	**317**	**266**	**225**	**193**	**167**	**146**	**128**
	α	(radians)	1.06	1.13	1.19	1.23	1.27	1.29	1.32	1.34	1.35	1.37
	β	(radians)	0.33	0.25	0.20	0.16	0.13	0.11	0.09	0.08	0.07	0.06
	z	(ft)	3.77	3.83	3.88	3.90	3.92	3.94	3.95	3.96	3.96	3.97
	M	(ft-lbs/ft)	4,944	3,674	2,830	2,244	1,822	1,508	1,269	1,082	933	813
	R	(lbs/ft)	2,214	1,696	1,332	1,070	877	731	618	529	458	400
8	**Ps**	(psf)	**535**	**476**	**414**	**358**	**309**	**268**	**234**	**205**	**181**	**160**
	α	(radians)	0.94	1.02	1.08	1.13	1.17	1.21	1.24	1.26	1.29	1.30
	β	(radians)	0.37	0.29	0.24	0.19	0.16	0.14	0.12	0.10	0.09	0.08
	z	(ft)	4.84	4.97	5.06	5.11	5.16	5.19	5.21	5.23	5.24	5.26
	M	(ft-lbs/ft)	10,481	8,006	6,286	5,051	4,141	3,452	2,920	2,501	2,165	1,892
	R	(lbs/ft)	3,316	2,641	2,134	1,751	1,456	1,228	1,047	903	786	689
10	**Ps**	(psf)	**474**	**449**	**411**	**370**	**329**	**293**	**260**	**232**	**207**	**186**
	α	(radians)	0.83	0.92	0.99	1.04	1.09	1.13	1.17	1.19	1.22	1.24
	β	(radians)	0.38	0.32	0.26	0.22	0.19	0.16	0.14	0.12	0.10	0.09
	z	(ft)	5.81	6.02	6.16	6.26	6.34	6.39	6.44	6.47	6.50	6.52
	M	(ft-lbs/ft)	18,145	14,227	11,385	9,280	7,689	6,463	5,502	4,736	4,117	3,610
	R	(lbs/ft)	4,328	3,571	2,964	2,482	2,099	1,792	1,544	1,341	1,175	1,037
12	**Ps**	(psf)	**404**	**403**	**386**	**360**	**331**	**302**	**274**	**248**	**225**	**204**
	α	(radians)	0.75	0.83	0.90	0.96	1.01	1.06	1.10	1.13	1.16	1.18
	β	(radians)	0.38	0.33	0.28	0.24	0.20	0.18	0.15	0.13	0.12	0.11
	z	(ft)	6.68	6.97	7.18	7.34	7.46	7.55	7.61	7.67	7.71	7.75
	M	(ft-lbs/ft)	27,703	22,237	18,121	14,980	12,550	10,641	9,121	7,895	6,894	6,068
	R	(lbs/ft)	5,207	4,424	3,763	3,214	2,762	2,389	2,080	1,823	1,608	1,427
14	**Ps**	(psf)	**338**	**351**	**349**	**337**	**319**	**298**	**276**	**255**	**234**	**215**
	α	(radians)	0.68	0.76	0.83	0.89	0.94	0.99	1.03	1.07	1.10	1.13
	β	(radians)	0.38	0.33	0.28	0.25	0.22	0.19	0.17	0.15	0.13	0.12
	z	(ft)	7.46	7.85	8.13	8.35	8.51	8.64	8.74	8.82	8.89	8.94
	M	(ft-lbs/ft)	38,880	31,856	26,395	22,116	18,729	16,021	13,831	12,043	10,568	9,339
	R	(lbs/ft)	5,948	5,178	4,499	3,913	3,414	2,990	2,631	2,327	2,068	1,847
16	**Ps**	(psf)	**280**	**301**	**310**	**308**	**300**	**286**	**271**	**254**	**237**	**220**
	α	(radians)	0.62	0.70	0.77	0.83	0.88	0.93	0.97	1.01	1.04	1.07
	β	(radians)	0.36	0.32	0.28	0.25	0.22	0.20	0.18	0.16	0.14	0.13
	z	(ft)	8.17	8.64	9.01	9.29	9.51	9.68	9.82	9.93	10.03	10.10
	M	(ft-lbs/ft)	51,411	42,880	36,066	30,598	26,183	22,590	19,644	17,207	15,175	13,468
	R	(lbs/ft)	6,563	5,829	5,158	4,560	4,034	3,576	3,179	2,837	2,540	2,284

Continued

Depth below top of shoring H_2 (ft)	Variables		Horizontal distance (S) from shoring to track CL measured at a right angle									
			12	14	16	18	20	22	24	26	28	30
18	**Ps**	(psf)	**231**	**256**	**271**	**277**	**276**	**269**	**259**	**247**	**234**	**220**
	α	(radians)	0.57	0.64	0.71	0.77	0.82	0.87	0.92	0.96	0.99	1.02
	β	(radians)	0.35	0.31	0.28	0.25	0.23	0.20	0.18	0.16	0.15	0.13
	z	(ft)	8.80	9.37	9.81	10.16	10.44	10.67	10.85	11.00	11.12	11.22
	M	(ft-lbs/ft)	65,062	55,110	46,976	40,313	34,834	30,304	26,536	23,384	20,728	18,477
	R	(lbs/ft)	7,072	6,386	5,739	5,145	4,609	4,132	3,710	3,338	3,012	2,725
20	**Ps**	(psf)	**191**	**217**	**236**	**246**	**250**	**249**	**244**	**237**	**227**	**217**
	α	(radians)	0.52	0.59	0.66	0.72	0.77	0.82	0.87	0.91	0.94	0.98
	β	(radians)	0.33	0.30	0.28	0.25	0.23	0.21	0.19	0.17	0.15	0.14
	z	(ft)	9.37	10.03	10.56	10.98	11.32	11.59	11.82	12.01	12.16	12.30
	M	(ft-lbs/ft)	79,641	68,368	58,973	51,137	44,586	39,093	34,465	30,548	27,216	24,367
	R	(lbs/ft)	7,493	6,859	6,245	5,668	5,135	4,651	4,214	3,822	3,474	3,163
22	**Ps**	(psf)	**159**	**184**	**204**	**217**	**225**	**228**	**227**	**223**	**217**	**210**
	α	(radians)	0.49	0.55	0.62	0.67	0.73	0.77	0.82	0.86	0.90	0.93
	β	(radians)	0.31	0.29	0.27	0.25	0.23	0.21	0.19	0.17	0.16	0.14
	z	(ft)	9.89	10.64	11.24	11.73	12.14	12.47	12.74	12.97	13.17	13.33
	M	(ft-lbs/ft)	94,986	82,497	71,913	62,945	55,341	48,878	43,370	38,658	34,611	31,122
	R	(lbs/ft)	7,842	7,260	6,684	6,131	5,611	5,128	4,685	4,283	3,918	3,590
24	**Ps**	(psf)	**133**	**157**	**176**	**191**	**202**	**207**	**210**	**209**	**206**	**201**
	α	(radians)	0.45	0.52	0.58	0.63	0.68	0.73	0.78	0.82	0.85	0.89
	β	(radians)	0.30	0.28	0.26	0.24	0.22	0.20	0.19	0.17	0.16	0.15
	z	(ft)	10.35	11.19	11.87	12.44	12.90	13.29	13.62	13.89	14.13	14.32
	M	(ft-lbs/ft)	110,969	97,366	85,670	75,625	66,997	59,577	53,183	47,661	42,875	38,716
	R	(lbs/ft)	8,132	7,600	7,064	6,540	6,037	5,564	5,122	4,715	4,342	4,001
26	**Ps**	(psf)	**112**	**134**	**153**	**168**	**180**	**188**	**192**	**194**	**193**	**191**
	α	(radians)	0.42	0.48	0.54	0.60	0.65	0.69	0.74	0.78	0.82	0.85
	β	(radians)	0.28	0.27	0.25	0.23	0.22	0.20	0.19	0.17	0.16	0.15
	z	(ft)	10.78	11.69	12.45	13.09	13.62	14.07	14.44	14.77	15.04	15.28
	M	(ft-lbs/ft)	127,485	112,863	100,135	89,071	79,460	71,105	63,836	57,499	51,963	47,113
	R	(lbs/ft)	8,376	7,890	7,393	6,899	6,418	5,959	5,524	5,118	4,741	4,393
28	**Ps**	(psf)	**94**	**114**	**132**	**148**	**160**	**169**	**175**	**179**	**180**	**180**
	α	(radians)	0.40	0.46	0.51	0.56	0.61	0.66	0.70	0.74	0.78	0.81
	β	(radians)	0.27	0.26	0.24	0.23	0.21	0.20	0.19	0.17	0.16	0.15
	z	(ft)	11.17	12.16	12.99	13.70	14.29	14.80	15.23	15.60	15.91	16.19
	M	(ft-lbs/ft)	144,448	128,896	115,211	103,191	92,642	83,385	75,258	68,113	61,823	56,274
	R	(lbs/ft)	8,581	8,137	7,677	7,214	6,758	6,315	5,892	5,491	5,115	4,764
30	**Ps**	(psf)	**80**	**98**	**115**	**130**	**142**	**152**	**160**	**165**	**167**	**168**
	α	(radians)	0.37	0.43	0.48	0.53	0.58	0.63	0.67	0.71	0.74	0.78
	β	(radians)	0.26	0.25	0.23	0.22	0.21	0.20	0.18	0.17	0.16	0.15
	z	(ft)	11.52	12.59	13.49	14.26	14.92	15.48	15.97	16.38	16.75	17.06
	M	(ft-lbs/ft)	161,789	145,388	130,819	117,903	106,466	96,343	87,381	79,443	72,404	66,153
	R	(lbs/ft)	8,755	8,349	7,925	7,492	7,060	6,636	6,227	5,834	5,462	5,112
32	**Ps**	(psf)	**69**	**85**	**101**	**115**	**127**	**137**	**145**	**151**	**155**	**157**
	α	(radians)	0.35	0.41	0.46	0.51	0.55	0.60	0.64	0.68	0.71	0.75
	β	(radians)	0.25	0.24	0.22	0.21	0.20	0.19	0.18	0.17	0.16	0.15
	z	(ft)	11.85	12.98	13.95	14.79	15.51	16.13	16.67	17.13	17.54	17.89
	M	(ft-lbs/ft)	179,452	162,274	146,888	133,136	120,859	109,909	100,144	91,432	83,655	76,706
	R	(lbs/ft)	8,904	8,532	8,140	7,736	7,329	6,925	6,531	6,150	5,785	5,438

5.3 TABLES FOR SOIL SPECIFICATIONS

Table 8-20-1. Granular Soils

Descriptive Term for Relative Density	Standard Penetration Test Blows per Foot "N"
Very Loose	0 – 4
Loose	4 – 10
Medium	10 – 30
Dense	30 – 50
Very Dense	Over 50

Table 8-20-2. Silt and Clay Soils

Descriptive Term for Consistency	Unconfined Compressive Strength Tons per Square Foot
Very Soft	Less than 0.25
Soft	0.25 – 0.50
Medium	0.50 – 1.00
Stiff	1.00 – 2.00
Very Stiff	2.00 – 4.00
Hard	Over 4.00

Table 8-20-3. Unit Weights of Soils, and Coefficients of Earth Pressure

Type of Soil	Unit Weight of Moist Soil, γ (Note 1)		Unit Weight of Submerged Soil, γ' (Note 1)		Coefficient of Active Earth Pressure, K_a				Coefficient of Passive Earth Pressure, K_p		
					For Backfill	For Soils in Place	Friction Angles (Note 2)		For Soils in Place	Friction Angles (Note 2)	
	Minimum	Maximum	Minimum	Maximum			ϕ	δ		ϕ	δ
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Clean Sand:											
Dense	110	140	65	78		0.20	38	20	9.0	38	25
Medium	110	130	60	68		0.25	34	17	7.0	34	23
Loose	90	125	56	63	0.35	0.30	30	15	5.0	30	20
Silty Sand:											
Dense	110	150	70	88		0.25			7.0		
Medium	95	130	60	68		0.30			5.0		
Loose	80	125	50	63	0.50	0.35			3.0		
Silt and Clay (Note 3)	$\frac{165(1+w)}{1+2.65w}$		$\frac{103}{1+2.65w}$		1.00	$1-\frac{q_u}{\bar{p}+\gamma z}$			$1+\frac{q_u}{\bar{p}+\gamma z}$		

Note 1: In pounds per cubic foot.

Note 2: These angles, expressed in degrees, are ϕ, the angle of internal friction, and δ, the angle of wall friction, and are used in estimating the coefficients under which they are listed.

Note 3: The symbol γ represents γ or γ', whichever is applicable; $\bar{p}$ is the effective unit pressure on the top surface of the stratum; q_u is the unconfined compressive strength; w is the natural water content, in percentage of dry weight; and z is the depth below the top surface of the stratum.

6. REFERENCES

a. The following list of references used in these guidelines are placed here in alphabetical order for your convenience.

i. AREMA Manual for Railway Engineering, 2019, American Railway Engineering and Maintenance-of-Way Association.

ii. Clough and Duncan, 1991, “Earth Pressures,” Foundation Engineering Handbook, 2nd Edition, Fang, Chapter 6.

iii. CalTrans Trenching and Shoring Manual, 2011, Revision 1, State of California Department of Transportation, Office of Structures Construction.

iv. Dismuke, T.D., 1991, “Retaining Structures and Excavations,” Foundation Engineering Handbook, 2nd Edition, Fang, Chapter 12.

v. FHWA-IF-99-015, Geotechnical Engineering Circular 4, Ground Anchors and Anchored Systems, June 1999, Federal Highway Administration, Office of Bridge Technology.

vi. Henkel, D. J., 1971, "The Calculation of Earth Pressures in Open Cuts in Soft Clays.” The Arup Journal, Vol. 6, No. 4, pp. 14-15.

vii. NAVFAC DM7.02, Foundations and Earth Structures, September 1986, Department of the Navy, Naval Facilities Engineering Command.

viii. Terzaghi, K., 1943, Theoretical Soil Mechanics, John Wiley & Sons, Inc., New York, NY.

Appendix T

Union Pacific Railroad Contractor Safety Requirements

UNION PACIFIC RAILROAD COMPANY

Contractor Minimum Safety Requirements

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POLICY STATEMENT and INTRODUCTION

It is Union Pacific Railroad's policy to conduct its business in a manner that addresses the safety of employees, contractors, customers and the communities we serve. Union Pacific will strive to prevent all incidents, accidents, injuries and occupational illnesses through the active participation of all stakeholders. The company is committed to continuous efforts to identify and manage safety risks associated with its activities.

Accordingly, **Union Pacific's policy is to**:

- Encourage and support:
- Employee engagement in workplace safety;
- A Total Safety Culture;
- Care for employees;

Maintain infrastructure and equipment, establish documented safety management systems, provide training and conduct operations in a manner aimed at safeguarding people and property;

Communicate with employees, contractors, communities and customers with respect to their roles and responsibilities surrounding rail safety.

Comply with all applicable laws, regulations, rules and instructions.

Respond quickly, effectively, and with care to emergencies, accidents, or incidents in cooperation with authorized government agencies;

Undertake appropriate reviews and evaluations of its operations to measure progress, foster compliance with this policy and continually improve.

****

The term "**Contractor**", "**Contractor-in-Charge**" and "**Contractor Personnel**" as used in this document or other reference materials applies to all non-employees at the work site including contract personnel, third party vendors, subcontractors and others within Railroad work areas owned, leased or used by Union Pacific.

Depending on the type of work and the work location, there are many specific safety regulations, including but not limited to OSHA, FRA, FMCSA requirements, that Union Pacific requires its Contractors to follow. Contractors should also be prepared to comply with all safety requirements found in their agreements to perform work for Union Pacific.

These safety and operational requirements are minimum safety standards required by Union Pacific and are not intended to be inclusive of all safety requirements required by rule, policy or regulation. All contractors, third party vendors and subcontractor operations must meet these standards as they apply to the work being performed under agreements with Union Pacific and are to comply with additional, specific safety requirements called for in connection with the work performed for Union Pacific.

SECTION 1: GENERAL SAFETY REQUIREMENTS

1.1 Union Pacific requires its contractors to follow the same safety rules that govern Union Pacific employees. These include, but are not limited to, requirements related to work gear, equipment, and safety conduct, reporting, prohibitions against weapons, drugs & alcohol, and fires.

1.2 Railroad management is authorized to take any actions necessary to prevent injuries to any person, damage to railroad property, disruption of railroad operation, and the safety of the public.

1.3 The Contractor is responsible for the safety of its personnel, subcontractors, and any vendors or material/delivery drivers working on behalf of the Contractor.

1.4 Contractor Personnel must be familiar with and obey all rules, regulations, and instructions applicable to their duties and work location prior to performing work. The Contractor is responsible for training Contractor Personnel to be prepared to work in compliance with all applicable standards and requirements.

1.5 Any questions regarding this information should be directed to the Union Pacific manager in charge of the work location.

SECTION 2: CORE RESPONSIBILITIES

2.1 Contractor Personnel are empowered to work safely and must:

- Be responsible for personal safety and accountable for their behavior;
- Correct or protect any unsafe condition or practice and report to proper authority;
- Maintain situational awareness;
- Work within the limits of physical capabilities. Excessive force must not be used to accomplish tasks;
- Comply with instructions pertinent to their work responsibilities.

2.2 Instructions, Rules and Standard Work:

Copies of the current UPRR Safety Rules, General Code of Operating Practices, standard work, site-specific directives can be obtained from the UPRR manager in charge of each work location. Any questions or concerns should be addressed to the UPRR manager in charge of each work location.

Contractors who have access to Union Pacific's internal website may access timetables, subdivision general orders, and system general orders by selecting **Departments**, then select **Operations Support**. Next select **UP Rule Books**, and then click on the desired link from the **Electronic Rules, Bulletins and Timetable (ERT)** page.

2.3 Identification and Permission to Enter Work Site:

- All Contractor Personnel must have a valid contractor badge and/or an eRailsafe Badge where applicable or readily show identification showing employment with the Contractor.
- Contractor Personnel must conduct themselves in a safe manner that does not expose Union Pacific, themselves or any other person to risk of property damage and /or personal injury. This includes compliance with all Union Pacific rules related to working on or around tracks and equipment.
- Permission granted to enter upon Union Pacific premises will be used solely in connection with an authorized purpose and will terminate once that purpose is accomplished.

2.4 Job Briefings:

Must be conducted with all individuals involved in the task before work begins and if the work plan or work group changes.

The job briefing must:

- Consider existing and potential hazards that might be involved as a result of:
  - Weather,
  - Scope of work; and
  - Tools and equipment.
- Identify PPE requirements.
- Review electronic device use restrictions.
- Assign responsibility.
- Explain group / individual assignments, while considering abilities and experience.
- Be aware of work groups and equipment in work area.
- Identify job location.
- Verify understanding of instructions and assignments.

For complex jobs:

- Brief only a portion of the job, and
- Conduct additional briefing(s) as the job progresses.

2.5 Personal Protective Equipment and Proper Attire:

Protective Equipment (PPE) used on duty must:

- Be approved by the Safety Department;
- Only be used as intended;
- Be used where conditions of the job require and in accordance with rules; instructions, or directions from supervisor;
- Not be altered or used if altered.

Anyone entering designated areas or working near others wearing PPE must also wear the required PPE. Keep all PPE issued in good condition, properly fitted, and replace as required in order to maintain the intended protection.

Wear clothing that allows the person to perform duties safely and efficiently. Contractors must wear PPE high visible outerwear color defined by the employing Union Pacific department.

Clothing must not:

- Interfere with vision, hearing and free use of hands and/or feet;
- Block peripheral vision. When hooded sweatshirts and/or coats or similar type clothing are worn, they must be secured around the face to prevent the blocking of peripheral vision;
- Be torn, baggy, ragged, loose, or worn so that it could snag easily or catch on cars, engines, tools, machinery or other equipment but must allow freedom of movement. This includes neckties or similar clothing.

When working outside, Contractor Personnel must wear:

- Pants that cover the legs;
- Shirts with at least quarter-length sleeves that cover the back, shoulders, chest, abdomen and provide protection from sun, insects, abrasions or scratches.

Jewelry that may affect one's safe performance of their duties must not be worn.
Hair, including beards, must be worn in a manner to permit safe performance of duties.

2.6 Use of Electronic Devices:

Contractor Personnel shall not use an electronic device while on duty if that use would interfere with the performance of safety-related duties.

The restrictions in 49 CFR §220 and Union Pacific Rules 2.21 and 74.3 regarding electronic device use apply to Contractor Personnel. The rules do not affect the use of railroad radios under FRA regulations.

Contractor Personnel authorized to use work-related electronic devices are prohibited from using such devices when:

- In a red zone or work location where safety sensitive duties are being performed.
  Red Zone is defined as: Anytime an employee is working within an area where there is the potential to be struck by moving equipment, when required to work on under or between equipment, when working with or around machinery or when entering control operator/train dispatcher work stations;
- Operating any equipment;
- Any Contractor Personnel are on the ground fouling the track or on moving or rolling equipment;
- Anyone is assisting in preparation of a train, engine or on-track equipment for movement.
- It is necessary to verbally obtain or release mandatory directives when radio communication is available;
- Fueling a vehicle;
- Standing or walking on a roadway.

Unless required to be powered on for purposes of timely, automated updating or transmission of information, work-related electronic devices must be powered off with any earpiece removed from the ear, and stowed when not in use.

Operators of over the road trucks, passenger vehicles and repair type vehicles are permitted to use cell phones only when a hands free device is used along with voice activated or speed dialing or when parked in designated parking areas. The use of a cell phone for anything other than voice communication is prohibited while operating a motor vehicle.

Use of electronic devices is permitted only in break areas, office areas or in parked passenger or over the road type vehicles in designated parking areas. Gate lanes are not designated parking areas for this purpose.

2.7 Fire Prevention:

No open fires are permitted on railroad property or in connection with any railroad project or activity. Fire prevention is accomplished by:

- Maintaining good housekeeping;
- Not allowing the accumulation of combustible materials and debris;
- Ensuring that fire doors, windows, stairways, fire escapes, passageways, and roadways are in good condition, not blocked, and free from obstruction;
- Maintaining access to firefighting equipment;
- Ensuring that catalytic converters, exhaust systems, and exhaust gases do not come in contact with dry grass, weeds, or flammable material.

Immediately correct and/or inform a supervisor of a potential fire hazard.

2.8 Smoking:

Smoking, including the use of electronic smoking devices, is prohibited at the following locations and activities:

1. All Union Pacific property, whether owned or leased, including mechanical facilities, along the right-of-way, in office buildings, and all service unit facilities and yards;
2. In or near building entrances and contiguous sidewalks;
3. In locomotive cabs, cabooses, bunk cars, company vehicles, and similar equipment;
4. In meetings held at off-site locations.

2.9 Weapons:

Union Pacific employees and all other **individuals on Company property or involved in Union Pacific business off Company property are prohibited from possessing or hiding weapons in facilities, equipment, or vehicles used in operations while on such property, or on their persons, which includes but is not limited to grips, suitcases, gym bags and purses. This prohibition applies even if the individual is licensed to carry a concealed handgun under state law.** Only Union Pacific Police and on-duty law enforcement officers acting in an official capacity are authorized to possess weapons on Company property.

A "**weapon**" shall mean any device, instrument, material or substance (animate or inanimate) that is used to threaten, or is capable of causing, death or bodily injury. This prohibition includes but is not limited to firearms, knives with a blade longer than three inches, tasers, stun guns and pepper sprays. Union Pacific Police are authorized to make the final determination of whether a particular item constitutes a weapon under this policy.

2.10 Drugs and Alcohol:

Contractor Personnel must not have any prohibited substances in their bodily fluids when reporting for duty, while on duty or while on Union Pacific property.

The use or possession of alcoholic beverages while on duty or on Union Pacific property is prohibited. The use or possession of intoxicants, over-the-counter or prescription drugs, narcotics, controlled substances, or medication that may adversely affect safe performance is prohibited while on duty or on Union Pacific property.

Prohibited drugs include “controlled substances” on Schedule I through V of the Federal Controlled Substances Act, as revised. Controlled substances are listed in 21 CFR Part 1308. The controlled substances list includes illegal drugs (Schedule I) and those that are distributed only by medical practitioner’s prescription or other authorization (Schedules II through IV, and some drugs on Schedule V), and certain preparations for which distribution is through documented over-the-counter sales (Schedule V only).

2.11 Reporting:

All cases of personal injury, while on duty or on company property, must be **immediately reported** to the proper manager and the prescribed form completed. All cases of occupational illness must be **immediately reported** to the proper manager and the prescribed form completed. Because railroads are required by federal regulations to report injuries and occupational illnesses that meet certain medical treatment criteria, Contractor Personnel must report to their manager any medical treatment they receive that was directly related to their injury or illness, including any follow-up visits.

Contractor Personnel must immediately contact the Union Pacific Railroad Response Management Communications Center (RMCC) at 1-888-UPRRCOP (877-7267) or local law enforcement authorities to remove trespassers, etc. on company property. All environmental hazards caused by or observed by the contractor should be reported to **RMCC** and the local Union Pacific manager responsible for the facility as soon as practical. This does not relieve the Contractor of any obligations to properly report injuries in accordance with any laws or regulations (e.g., OSHA requirements).

SECTION 3: VEHICLE OPERATIONS

3.1 Seat Belts:

All vehicle occupants must use seat belts, where provided. This includes:

- Company vehicles;
- Privately-owned vehicles used on company business;
- Leased, rented or contract vehicles;
- Hi-rail vehicles on and off the rail;
- Operating material handling or utility type vehicles, if so equipped (i.e. forklifts, mobile cranes, mules, utility trucks, etc).

The driver must not move a vehicle until assured all passengers are seated and have their seat belts fastened in proper restraining position.

Exception: Seat belt use is not required if vehicle is not exceeding 5 mph and vehicle is used during the task of inspecting cars, coupling air hoses or changing brake shoes.

3.2 Driver Responsibilities:

Drivers are required to:

- Know and observe all local, state, and federal laws and regulations governing vehicle operation;
- Use courtesy, consideration, and common sense to prevent accidents and control situations encountered that cannot be provided for in the law;
- Obey posted speed limits. Not to exceed a safe and prudent speed for their vehicle when weather, traffic, road conditions, vehicle load or any other prevailing conditions necessitates operating at a lower speed;
- Ensure that required emergency equipment and tools are in the vehicle.
- Maintain good housekeeping;
- Ensure loose items are not kept on the dash or rear window shelf;
- Ensure tools, equipment, material and freight are properly secured;
- Ensure Gross Vehicle Weight Rating (GVWR) of vehicle is not exceeded;
- Ensure headlights or running lights are on while vehicle is moving.

Drivers must not drive when suffering fatigue, lack of sleep, illness, or any other physical condition which may affect alertness and ability to operate the vehicle safely.

3.3 Operating Yard Vehicles:

Only qualified, authorized drivers are permitted to operate yard vehicles. Compliance with other vehicle rules including speed and inspection also apply to operating all vehicles.
Reckless or careless driving is prohibited. Operators of vehicles must not:

- Make adjustments or disable any speed limiting devices;
- Park the vehicle foul of any railroad track;
- Park vehicle to foul a portion of a roadway unless proper warning to approaching traffic is provided;
- Cut through empty parking stalls;
- Pull through parking stalls;
- Cross over yellow crane safety distance lines;
- Drive under or park under overhead cranes;
- Enter a protected work area;
- Pass any vehicle on the right side of the roadway.

3.4 Back-Up Moves:

Work must be planned to minimize back-up moves and to avoid driving into areas requiring back-up moves. No back-up move is allowed when a forward move can safely be made. Employee(s) in the cab of a vehicle must not distract the driver with unnecessary conversation or other distractions until the back-up move is completed. Before initiating a back-up move, the driver must walk to the rear of the vehicle to confirm that it is safe to move unless a second person is directing the move in accordance with Union Pacific safety rule requirements.

3.5 Crossings:

Drivers must approach railroad crossings prepared to stop. Before crossing track(s) where visibility is impaired by railroad equipment or other obstruction that prevents a clear view of approaching trains, the driver of the vehicle must:

- Stop the vehicle and verify (by either a flagman or personal observation) there will be no movement on the track(s) being crossed, or
- Use an alternate crossing.

Vehicles designed to transport 16 or more passengers including the driver or placarded vehicles must stop at all highway railroad crossings at grade.

Drivers must stop before proceeding over any crossing within a yard. This includes crossings where no stop sign is posted. Only one stop is required for multiple crossings.

SECTION 4: CRITICAL RULES

"**Critical rules**" are applicable to Union Pacific employees and Contractor Personnel. Noncompliance with these rules could potentially result in serious or life-threatening consequences for Contractor Personnel performing safety sensitive work or the public or could compromise safe railroad operations. These rules include repeated or deliberate failure to comply with instructions.

Each department or work area must comply with the specific regulatory, rules and policy requirements associated with the work performed. It is the Contractor's responsibility to ensure all Contractor Personnel are trained regarding the rules, policies and regulations applicable to their work prior to performing their duties. Rules, policies and regulations are updated periodically, and it is the responsibility of the Contractor to be in compliance with the most recent versions of those requirements.

SECTION 5: TRAINING AND COMPLIANCE WITH 49 C.F.R. §243

All Contractor Personnel must be trained in accordance with all regulatory and Union Pacific safety requirements prior to performing work. The Contractor is responsible for ensuring all Contractor Personnel have in their possession any required identification, certifications and licenses necessary when performing work for Union Pacific.

Contractors who employ Personnel who perform safety-related railroad work as defined in **49 C.F. R. §243** for Union Pacific must ensure that any person they employ is trained and qualified to comply with any relevant Federal railroad safety laws, regulations, and orders, as well as any relevant railroad rules and procedures promulgated to implement those Federal railroad safety laws, regulations, and orders. Part 243 contains the general minimum training and qualification requirements for each category and subcategory of safety-related railroad work. **Contractors must certify their compliance with the contents of 49 C.F.R. §243, including those aspects of training that are specific to the Union Pacific's rules and procedures.**

SECTION 6: INFORMATION SECURITY & COMPANY PROPERTY

All physical property and business information the Company acquires and produces, in any form, constitutes a corporate asset. The ownership, usage, dissemination, storage, or formulation of information, as well as all physical and computer systems used to process, transmit, or store data, belong to the Company. It is the responsibility of every user to guard against unauthorized use or disclosure of Company assets. Anyone working for or on behalf of a Union Pacific may not divert to his or her personal benefit any invention, know-how, technology or computer program developed or learned of in the course of his or her employment.

Each person who is issued a User ID is responsible for the confidentiality of the password, and for any action performed with that User ID. Once a User ID is assigned, it shall identify the same person on all systems. A User ID and password is the individual's computer security credentials. A User ID and password are an individual's authorization for secure access and to track the identity of the user when accessing UP computer systems. Loaning out use of security credentials or sharing passwords with others is strictly prohibited. Each individual is personally accountable for all activity that is associated with an assigned computer security credentials.

SECTION 7: AUDIT

Contractors are responsible for audit, oversight and any periodic testing required by regulation or Union Pacific. Contractors are subject to safety audits by Union Pacific management and supervisors at any time.

EXISTING

- RIGHT OF WAY
- PERMANENT EASEMENT
- PROPERTY LINE
- HORIZONTAL CONTROL POINT
- BENCHMARK
- SURVEY MARKER
- SOIL BORING
- SANITARY SEWER AND MANHOLE
- FORCE MAIN AND LIFT STATION
- SANITARY SEWER SERVICE & CLEANOUT
- WATER MAIN, HYDRANT, VALVE AND MANHOLE
- WATER SERVICE AND CURB STOP BOX
- STORM SEWER, MANHOLE AND CATCH BASIN
- CULVERT AND APRON ENDWALL
- GAS MAIN, VALVE, VENT AND METER
- HANDHOLE
- BURIED FIBER OPTIC CABLE AND MANHOLE
- BURIED PHONE CABLE, PEDESTAL AND MANHOLE
- BURIED TV CABLE, PEDESTAL AND MANHOLE
- BURIED ELECTRIC CABLE, PEDESTAL, MANHOLE, TRANSFORMER AND METER
- OVERHEAD WIRE, POLE AND GUY WIRE
- LIGHT POLE
- TRAFFIC SIGNAL
- STREET NAME SIGN
- SIGN (NON STREET NAME)
- RAILROAD TRACKS
- DECIDUOUS AND CONIFEROUS TREE
- BUSH / SHRUB AND STUMP
- EDGE OF WOODED AREA
- WETLAND
- BUILDING
- FENCE (UNIDENTIFIED)
- BARBED WIRE FENCE
- CHAIN LINK FENCE
- ELECTRIC WIRE FENCE
- WOOD FENCE
- WOVEN WIRE FENCE
- PLATE BEAM GUARDRAIL
- CABLE GUARDRAIL
- POST / BOLLARD
- RETAINING WALL

PROPOSED

- STREET CENTERLINE
- RIGHT-OF-WAY
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- CONSTRUCTION LIMITS
- SANITARY SEWER, BULKHEAD AND MANHOLE
- FORCE MAIN
- SANITARY SERVICE AND CLEANOUT
- WATER MAIN, TEE, HYDRANT, BULKHEAD AND VALVE
- WATER VALVE MANHOLE, REDUCER, BEND AND CROSS
- WATER SERVICE AND CURB STOP BOX
- STORM SEWER, MANHOLE AND CATCH BASIN
- CULVERT AND APRON ENDWALL
- DRAIN TILE
- DITCH / SWALE
- RIPRAP
- STREET NAME SIGN
- SIGN (NON STREET NAME)
- RETAINING WALL

NOTE:
THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22 ENTITLED "STANDARD GUIDELINES FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES."

THE CONTRACTOR SHALL CALL THE ONE CALL SYSTEM AT 811 BEFORE COMMENCING EXCAVATION.

Know what's **below.** **Call** before you dig.

MINNESOTA DEPARTMENT OF TRANSPORTATION

CITY OF

GOLDEN VALLEY,

MINNESOTA

CONSTRUCTION PLANS FOR

EXCAVATION, GRADING, CONCRETE CURB & GUTTER, CONCRETE SIDEWALK, BITUMINOUS PAVING, STORM SEWER, SANITARY SEWER REPAIR, & WATER MAIN REPLACEMENT

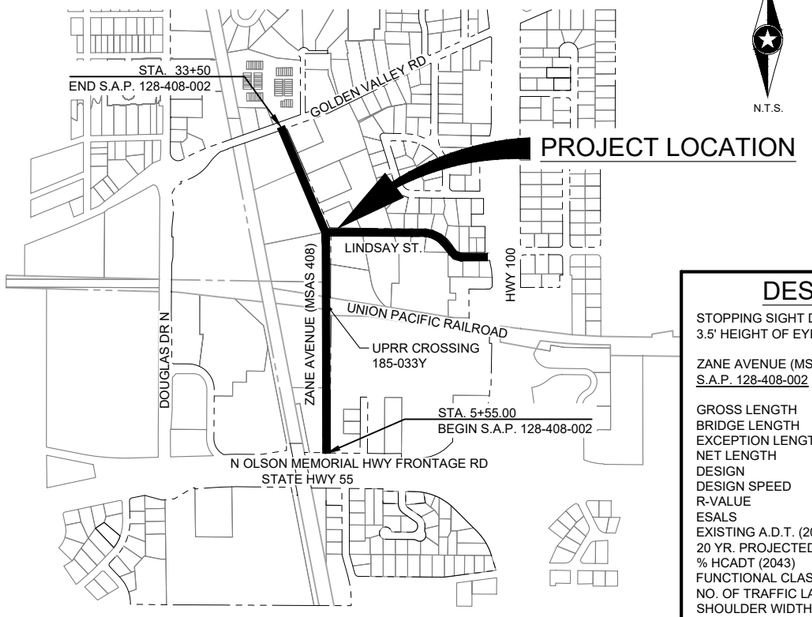
ZANE AVENUE & LINDSAY STREET IMPROVEMENTS

CITY PROJECT NO. 23-02

S.A.P. 128-408-002

S.A.P. 128-408-002 LOCATED ON ZANE AVENUE (MSAS 408) FROM NORTH OLSON MEMORIAL HIGHWAY FRONTAGE ROAD TO GOLDEN VALLEY ROAD

SECTION 33 TOWNSHIP 118 RANGE 21



PROJECT LOCATION

CITY OF GOLDEN VALLEY, HENNEPIN COUNTY

DESIGN DESIGNATION

STOPPING SIGHT DISTANCE BASED ON:
3.5' HEIGHT OF EYE — 2' HEIGHT OF OBJECT

ZANE AVENUE (MSAS 408)
S.A.P. 128-408-002

GROSS LENGTH	2,795 FEET 0.529 MILES
BRIDGE LENGTH	0 FEET 0.000 MILES
EXCEPTION LENGTH	0 FEET 0.000 MILES
NET LENGTH	2,795 FEET 0.529 MILES
DESIGN	10 TON
DESIGN SPEED	30 M.P.H.
R-VALUE	30
ESALS	1,044,000
EXISTING A.D.T. (2023)	1,200
20 YR. PROJECTED A.D.T. (2043)	1,309
% HCADT (2043)	10.56 %
FUNCTIONAL CLASSIFICATION	URBAN COLLECTOR
NO. OF TRAFFIC LANES	2 - 12'
SHOULDER WIDTH	N/A
NO. OF PARKING LANES	0

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN EXCEPT AS MODIFIED BY THE SPECIFICATIONS FOR THIS PROJECT.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
EQ1-EQ3	STATEMENT OF ESTIMATED QUANTITIES
CN1	CONSTRUCTION NOTES
D1-D15	STANDARD DETAILS
TB1	EXISTING SANITARY SEWER STRUCTURE SCHEDULE
TB2	EXISTING STORM SEWER STRUCTURE SCHEDULE
TB3	EXISTING WATER MAIN TABULATION
TB4	SANITARY SEWER REPAIR TABULATION
TB5	PROPOSED STORM SEWER STRUCTURE SCHEDULE
TB6-TB7	PROPOSED WATER MAIN TABULATION
E1-E4	SWPPP & EROSION CONTROL PLAN
A1-A2	ALIGNMENT PLAN & TABULATION
TY1	TYPICAL SECTIONS
ID1	INTERSECTION DETAILS
ID2-ID6	DRIVEWAY DETAILS
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CS1	CONSTRUCTION SEQUENCING PLAN
CS2	LUCE LINE TRAIL DETOUR PLAN
	GRADING PLAN
G1-G4	ZANE AVENUE
G5-G6	LINDSAY STREET
G7	UPRR CROSSING AT ZANE AVENUE
	UTILITY PLAN (SANITARY SEWER & WATER MAIN)
U1-U4	ZANE AVENUE
U5-U6	LINDSAY STREET
	STORM SEWER PLAN
S1-S4	ZANE AVENUE
S5-S6	LINDSAY STREET
S7-S9	STORM SEWER PROFILES
S10	STORM SEWER PROFILES - UPRR CROSSING AT ZANE AVENUE
	CROSS SECTIONS
X1-X27	CROSS SECTIONS

THIS PLAN CONTAINS 103 SHEETS.

APPROVED:

CITY ENGINEER OF GOLDEN VALLEY — DATE

RECOMMENDED FOR APPROVAL:

DISTRICT STATE AID ENGINEER: REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY — DATE

RECOMMENDED FOR APPROVAL:

APPROVED FOR STATE AID FUNDING STATE AID ENGINEER — DATE

GOLDEN VALLEY, MINNESOTA

SEH
PHONE: 651.490.2000
3535 VADNAIS CENTER DRIVE
ST. PAUL, MN 55110-5196
www.sehinc.com

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Signature — STEPHEN PRALL

Date: 5/7/2024 — Lic. No. 54949

FILE NO. GOLDV-163618

1 of 103

S.A.P. 128-408-002

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STATEMENT OF ESTIMATED QUANTITIES

LINE	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITY	ZANE AVENUE N. PARTICIPATING S.A.P. 128-408-002			ZANE AVENUE N. NON-PARTICIPATING			LINDSAY STREET NON-PARTICIPATING			
					ROADWAY	SIDEWALK	STORM SEWER	ROADWAY	SANITARY SEWER	WATER MAIN	ROADWAY	STORM SEWER	SANITARY SEWER	WATER MAIN
1	2021.501	MOBILIZATION	LS	1.00	0.44	0.04	0.10		0.02	0.12	0.18	0.02	0.03	0.05
2	2101.502	CLEARING	EACH	12	7						5			
3	2101.502	GRUBBING	EACH	12	7						5			
4	2101.505	CLEARING	ACRE	0.30	0.30									
5	2101.505	GRUBBING	ACRE	0.30	0.30									
6	2104.502	REMOVE BOLLARDS	EACH	2							2			
7	2104.502	REMOVE GATE VALVE	EACH	3						3				
8	2104.502	REMOVE GATE VALVE & BOX	EACH	32						22				10
9	2104.502	REMOVE HYDRANT	EACH	12						9				3
10	2104.502	REMOVE DRAINAGE STRUCTURE	EACH	14			10					4		
11	2104.502	REMOVE SIGN TYPE C	EACH	41	36						5			
12	2104.502	SALVAGE BOULDER	EACH	1							1			
13	2104.502	SALVAGE SIGN TYPE C	EACH	5	5									
14	2104.502	SALVAGE SIGN TYPE SPECIAL	EACH	6	2			3			1			
15	2104.502	SALVAGE MAILBOX SUPPORT	EACH	15							15			
16	2104.503	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LF	370	137						233			
17	2104.503	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LF	1733	1353						380			
18	2104.503	REMOVE SEWER PIPE (STORM)	LF	605			471					134		
19	2104.503	REMOVE SEWER PIPE (SANITARY)	LF	416					140				276	
20	2104.503	REMOVE CURB & GUTTER	LF	9444	6592						2852			
21	2104.503	SALVAGE CHAIN LINK FENCE	LF	110	110									
22	2104.503	REMOVE SANITARY SERVICE PIPE	LF	97									97	
23	2104.503	REMOVE WATER SERVICE PIPE	LF	760						187				573
24	2104.503	REMOVE WATER MAIN	LF	4804						3249				1555
25	2104.504	REMOVE CONCRETE DRIVEWAY PAVEMENT	SY	825	501						324			
26	2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SY	1482	1298						184			
27	2104.504	REMOVE BITUMINOUS PAVEMENT	SY	2760	1651						1109			
28	2104.518	REMOVE CONCRETE WALK	SF	1002	1002									
29	2104.602	REMOVE MANHOLE (SANITARY)	EACH	2									2	
30	2104.602	REMOVE MANHOLE (WATERMAIN)	EACH	3						3				
31	2104.602	REMOVE CASTING (CASTING AND COVER - STORM)	EACH	15			11					4		
32	2104.602	REMOVE CASTING (CASTING AND COVER - WATER MAIN)	EACH	3			3							
33	2104.602	REMOVE CASTING (FRAME- SANITARY)	EACH	13					7				6	
34	2104.602	SALVAGE CASTING (COVER- SANITARY)	EACH	13					7				6	
35	2104.603	SALVAGE LANDSCAPE EDGING-BRICK	LF	72	12						60			
36	2104.603	SALVAGE MODULAR BLOCK RETAINING WALL	LF	10							10			
37	2104.604	REMOVE CONCRETE PAVEMENT (CRUSH & SALVAGE FOR TEMP. STABILZATION)	SY	15550	10772						4778			
38	2104.618	SALVAGE CONCRETE PAVERS	SF	84	84									
39	2104.618	REMOVE LANDSCAPING MULCH	SF	207	115						92			
40	2106.507	EXCAVATION - COMMON (EV)	CY	22840	16131						6709			
41	2106.507	EXCAVATION - SUBGRADE (EV)	CY	750	500						250			
42	2106.609	SELECT GRANULAR BORROW MOD 5%	TON	31210	21580						9630			
43	2108.504	GEOTEXTILE FABRIC TYPE V	SY	12600	7223		2290				2408	679		
44	2118.609	AGGREGATE SURFACING SPECIAL (3" MINUS - TEMPORARY DRIVEWAYS)	TON	2174	1832						342			
45	2123.610	STREET SWEEPING (WITH PICKUP BROOM)	HR	54	36						18			
46	2211.509	AGGREGATE BASE CLASS 5	TON	7931	5714						2217			
47	2301.602	DRILL & GROUT REINF BAR (EPOXY COATED)	EACH	247		247								
48	2331.603	JOINT ADHESIVE (MASTIC)	LF	14646	9643						5003			
49	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GAL	1335	1024						311			
50	2360.509	TYPE SP 9.5 WEARING COURSE MIX (4,F)	TON	2513	1966						547			
51	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2,C)	TON	3139	2307						832			
52	2360.609	TYPE SP 9.5 WEARING COURSE MIX (2,C) - DRIVEWAYS AND TRAILS	TON	442	351						91			
53	2451.609	COARSE FILTER AGGREGATE (DRAIN TILE)	TON	1307	1008						299			
54	2451.609	PIPE BEDDING MATERIAL	TON	2477					55	1751			55	616
55	2451.609	CRUSHED ROCK	TON	150			100		10			30	10	
56	2502.602	6" PVC PIPE DRAIN CLEANOUT ASSEMBLY	EACH	21	13						8			
57	2502.603	6" PERF PVC PIPE DRAIN (W/ SOCK)	LF	4676	3607						1069			
58	2503.503	6" DUCTILE IRON PIPE SEWER CL 52	LF	97									97	
59	2503.503	8" DUCTILE IRON PIPE SEWER CL 52	LF	140					140					
60	2503.503	10" DUCTILE IRON PIPE SEWER CL 52	LF	276									276	
61	2503.503	51" SPAN RC PIPE-ARCH SEWER CLASS IIIA	LF	60			60							
62	2503.503	12" RC PIPE SEWER DESIGN 3006 CLASS V	LF	52			52							
63	2503.503	15" RC PIPE SEWER DESIGN 3006 CLASS V	LF	791			638					153		
64	2503.503	18" RC PIPE SEWER DESIGN 3006 CLASS V	LF	76			76							
65	2503.503	18" RC PIPE SEWER DESIGN 3006 CLASS III	LF	603			422					181		
66	2503.503	21" RC PIPE SEWER DESIGN 3006 CLASS III	LF	425			256					169		
67	2503.503	24" RC PIPE SEWER DESIGN 3006 CLASS III	LF	259			259							
68	2503.503	27" RC PIPE SEWER DESIGN 3006 CLASS III	LF	52			52							
69	2503.503	30" RC PIPE SEWER DESIGN 3006 CLASS V	LF	10			10							

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SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date
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Rev.#	Revision Issue Description	Date
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SEH

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

STEPHEN PRALL

DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) **CITY PROJECT NO. 23-02**

STATEMENT OF ESTIMATED QUANTITIES
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

EQ1

STATEMENT OF ESTIMATED QUANTITIES

LINE	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITY	ZANE AVENUE N. PARTICIPATING S.A.P. 128-408-002			ZANE AVENUE N. NON-PARTICIPATING			LINDSAY STREET NON-PARTICIPATING			
					ROADWAY	SIDEWALK	STORM SEWER	ROADWAY	SANITARY SEWER	WATER MAIN	ROADWAY	STORM SEWER	SANITARY SEWER	WATER MAIN
70	2503.503	48" RC PIPE SEWER DESIGN 3006 CLASS III	LF	16			16							
71	2503.603	12" HDPE PIPE SEWER	LF	8			8							
72	2503.602	CONNECT TO EXISTING SANITARY SEWER	EACH	6					5				1	
73	2503.602	CONNECT TO EXISTING MANHOLES (STORM SEWER)	EACH	2			1					1		
74	2503.602	CONNECT TO EXISTING STORM SEWER	EACH	7			7							
75	2503.602	CONNECT TO EXISTING SANITARY SEWER SERVICE	EACH	3									3	
76	2503.602	6" CLEAN-OUT ASSEMBLY (SANITARY)	EACH	3									3	
77	2503.602	CONSTRUCT BULKHEAD	EACH	2			2							
78	2503.603	CLEAN PIPE SEWER	LF	341					132				209	
79	2503.603	4" PVC PIPE SEWER (SDR-35)	LF	273							273			
80	2503.603	6" PVC PIPE SEWER (SDR-35)	LF	1691							1691			
81	2503.603	LINING SEWER PIPE 8"	LF	1556					646				910	
82	2503.603	LINING SEWER PIPE 9"	LF	1620					1331				289	
83	2504.601	TEMPORARY WATER SYSTEM	LS	1.00						0.72				0.28
84	2504.602	CONNECT TO EXISTING WATERMAIN	EACH	17						13				4
85	2504.602	HYDRANT	EACH	12						9				3
86	2504.602	ADJUST VALVE BOX - WATER	EACH	1										1
87	2504.602	1" CORPORATION STOP	EACH	18						1				17
88	2504.602	2" CORPORATION STOP	EACH	4						4				
89	2504.602	4" GATE VALVE & BOX	EACH	3						2				1
90	2504.602	6" GATE VALVE & BOX	EACH	17						14				3
91	2504.602	8" GATE VALVE & BOX	EACH	9						3				6
92	2504.602	10" GATE VALVE & BOX	EACH	1						1				
93	2504.602	12" GATE VALVE & BOX	EACH	6						6				
94	2504.602	1" SADDLE (STAINLESS STEEL)	EACH	18						1				17
95	2504.602	2" SADDLE (STAINLESS STEEL)	EACH	4						4				
96	2504.602	1" CURB STOP & BOX	EACH	18						1				17
97	2504.602	2" CURB STOP & BOX	EACH	4						4				
98	2504.602	HYDRANT MARKER	EACH	12						9				3
99	2504.603	4" PVC WATERMAIN	LF	80						40				40
100	2504.603	6" PVC WATERMAIN	LF	336						306				30
101	2504.603	8" PVC WATERMAIN	LF	1549						52				1497
102	2504.603	10" PVC WATERMAIN	LF	45						45				
103	2504.603	12" PVC WATERMAIN	LF	2783						2783				
104	2504.603	1" TYPE PE PIPE (SIDR 7 WATER SERVICE)	LF	625						45				580
105	2504.603	2" TYPE PE PIPE (SIDR 7 WATER SERVICE)	LF	147						147				
106	2504.603	24" STEEL CASING PIPE (JACKED)	LF	90						90				
107	2504.604	4" POLYSTYRENE INSULATION	SY	1372					245	324			408	395
108	2504.608	DUCTILE IRON FITTINGS (EPOXY COATED)	LB	5929						3672			1001	1256
109	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 48-4020	EACH	20			18					2		
110	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 54-4020	EACH	4			4							
111	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 60-4042	EACH	1			1							
112	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 66-4042	EACH	1			1							
113	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 72-4020	EACH	3			3							
114	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 84-4020	EACH	1			1							
115	2506.502	CONSTRUCT DRAINAGE STRUCTURE DES 96-4020	EACH	1			1							
116	2506.602	CONSTRUCT DRAINAGE STRUCTURE DES 48-4020 (W/ 4' SUMP)	EACH	2			1					1		
117	2506.602	CONSTRUCT DRAINAGE STRUCTURE DES 54-4020 (W/ 4' SUMP)	EACH	2			2							
118	2506.602	CONSTRUCT DRAINAGE STRUCTURE DES 72-4020 (W/ 4' SUMP)	EACH	1								1		
119	2506.602	CONSTRUCT DRAINAGE STRUCTURE DES STD. 2X3	EACH	17			13					4		
120	2506.602	CONSTRUCT DRAINAGE STRUCTURE DES 4007 (SANITARY)	EACH	2									2	
121	2506.602	CASTING ASSEMBLY (DRIVEWAY CURB STOP)	EACH	2										2
122	2506.602	CASTING ASSEMBLY (NEENAH R-3067-L)	EACH	48			40					8		
123	2506.602	CASTING ASSEMBLY (NEENAH R-3237)	EACH	1			1							
124	2506.602	CASTING ASSEMBLY (NEENAH R-2573)	EACH	1			1							
125	2506.602	CASTING ASSEMBLY (NEENAH R-1733) (STORM)	EACH	2			2							
126	2506.602	CASTING ASSEMBLY (NEENAH R-4342)	EACH	2			2							
127	2506.602	CASTING ASSEMBLY SPECIAL (FRAME ONLY - NEENAH R-1733)	EACH	12					7				5	
128	2506.602	CASTING ASSEMBLY SPECIAL (FRAME ONLY - NEENAH R-1733-1)	EACH	1									1	
129	2506.602	INSTALL CASTING (SALVAGED COVER) (SANITARY)	EACH	13					7				6	
130	2506.602	CASTING ASSEMBLY (MCDONALD 74M "A" SERIES)	EACH	24	13						8		3	
131	2506.602	ADJUST FRAME AND RING CASTING (STORM)	EACH	8			6					2		
132	2506.602	ADJUST FRAME AND RING CASTING (GATE VALVE MANHOLE)	EACH	1						1				
133	2506.603	RECONSTRUCT SANITARY STRUCTURE	LF	16.90					15.25				1.65	
134	2511.602	PLACE BOULDER	EACH	1							1			
135	2521.518	4" CONCRETE WALK	SF	15596		15596								
136	2521.518	6" CONCRETE WALK	SF	3284		3284								
137	2531.503	CONCRETE CURB & GUTTER DESIGN B612	LF	341	341									
138	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LF	6656	4174						2482			

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SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
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DATE 5/7/2024

STEPHEN PRALL

LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

STATEMENT OF ESTIMATED QUANTITIES
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

STATEMENT OF ESTIMATED QUANTITIES

LINE	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITY	ZANE AVENUE N. PARTICIPATING S.A.P. 128-408-002			ZANE AVENUE N. NON-PARTICIPATING			LINDSAY STREET NON-PARTICIPATING			
					ROADWAY	SIDEWALK	STORM SEWER	ROADWAY	SANITARY SEWER	WATER MAIN	ROADWAY	STORM SEWER	SANITARY SEWER	WATER MAIN
139	2531.503	CONCRETE CURB & GUTTER DESIGN D412	LF	31	31									
140	2531.503	CONCRETE CURB DESIGN B6	LF	110	110									
141	2531.504	6" CONCRETE DRIVEWAY PAVEMENT	SY	519	27						492			
142	2531.603	CONCRETE SILL	LF	2096		2096								
143	2531.604	8" CONCRETE DRIVEWAY PAVEMENT (HIGH EARLY)	SY	725	642						83			
144	2531.604	7" COMMERCIAL CROSS GUTTER DRIVEWAY (HIGH EARLY)	SY	944	776						168			
145	2531.618	TRUNCATED DOMES	SF	534		534								
146	2540.602	INSTALL SALVAGED MAILBOX AND SUPPORT	EACH	15							15			
147	2540.603	LANDSCAPE EDGING	LF	24	12						12			
148	2540.603	INSTALL SALVAGED LANDSCAPE EDGING-BRICK	LF	72	12						60			
149	2540.603	INSTALL SALVAGED MODULAR BLOCK RETAINING WALL	LF	10							10			
150	2540.618	INSTALL CONCRETE PAVERS	SF	84	84									
151	2540.618	CONCRETE PAVERS (F&I)	SF	100	100									
152	2557.603	INSTALL CHAIN LINK FENCE	LF	110	110									
153	2563.601	TRAFFIC CONTROL	LS	1.00	0.44	0.04	0.10		0.02	0.12	0.18	0.02	0.03	0.05
154	2564.502	INSTALL SIGN TYPE C	EACH	5	5									
155	2564.518	SIGNS PANELS TYPE C	SF	284.15	201.90			33.00			49.25			
156	2564.518	SIGN TYPE SPECIAL	SF	62.00	33.00						29.00			
157	2564.602	INSTALL SIGN TYPE SPECIAL	EACH	2	2									
158	2571.502	CONIFEROUS TREE 6' HT B&B	EACH	4	2						2			
159	2571.502	DECIDUOUS TREE 2.5" CAL B&B	EACH	14	8						6			
160	2571.502	DECIDUOUS SHRUB NO 5 CONT	EACH	7	2						5			
161	2571.602	CONIFEROUS SHRUB NO 5 CONT	EACH	5	2						3			
162	2572.603	TEMPORARY FENCE (TREE PROTECTION FENCING)	LF	100	100									
163	2573.501	STABILIZED CONSTRUCTION EXIT	LS	1.00	0.44	0.04	0.10		0.02	0.12	0.18	0.02	0.03	0.05
164	2573.501	EROSION CONTROL SUPERVISOR	LS	1.00	0.44	0.04	0.10		0.02	0.12	0.18	0.02	0.03	0.05
165	2573.503	SILT FENCE, TYPE MS	LF	1019	1019									
166	2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LF	91	78						13			
167	2575.604	SODDING TYPE LAWN (W/ 4" TOPSOIL)	SY	11543	7101						4442			
168	2575.604	MULCH MATERIAL, TYPE SPECIAL (4" THICK)	SY	225	125						100			
169	2575.604	HYDRAULIC MULCH MATRIX (W/ 4" TOPSOIL, SEED & HYDRAULIC MULCH)	SY	722	722									
170	2573.502	STORM DRAIN INLET PROTECTION	EACH	85	58						27			
171	2582.603	4" SOLID LINE YELLOW - MULTI-COMPONENT (WR)	LF	400	400									
172	2582.603	24" SOLID LINE WHITE - MULTI-COMPONENT (WR)	LF	122	110						12			
173	2582.603	4" BROKEN LINE YELLOW - MULTI-COMPONENT (WR)	LF	550	550									
174	2582.618	PAVEMENT MESSAGE - MULTI-COMPONENT (WR)	SF	124	124									
175	2582.618	CROSSWALK MULTI COMP (WR)	SF	744	744									
176	SPEC PROV	F&I MANHOLE BAFFLE (STORM)	SF	81.50			46.50					35.00		
BID ALTERNATE A - SANITARY SEWER SERVICE WYE SEALING VIA GROUT PACKER INJECTION METHOD														
177	SPEC PROV	CHEMICAL GROUT	GAL	155					60				95	
178	SPEC PROV	SEAL 8" MAIN TO 6" LATERAL W/ 3' BLADDER	EACH	17					3				14	
179	SPEC PROV	SEAL 9" MAIN TO 6" LATERAL W/ 3' BLADDER	EACH	14					9				5	
BID ALTERNATE B - SANITARY SEWER WYE LINERS														
180	SPEC PROV	SERVICE WYE LINER - 8" MAIN X 6" WYE	EACH	17					3				14	
181	SPEC PROV	SERVICE WYE LINER - 9" MAIN X 6" WYE	EACH	14					9				5	

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DATE 5/7/2024 STEPHEN PRALL LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

STATEMENT OF ESTIMATED QUANTITIES ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

EQ3

CONSTRUCTION NOTES

PROTECT ALL FACILITIES (INCLUDING PRIVATE UTILITIES) NOT DESIGNATED FOR REMOVAL.

CONTRACTOR SHALL MINIMIZE INTERRUPTION OF WATER MAIN SERVICE TO ADJACENT PROPERTIES. CONTRACTOR SHALL NOTIFY PROPERTY OWNERS 48 HOURS IN ADVANCE OF WATER MAIN SERVICE DISRUPTION. CONTRACTOR SHALL COORDINATE SERVICE INTERRUPTION WITH THE CITY.

ANY USE OF TRENCH BOX, SHEETING, SHORING OR OTHER METHODS OR MEANS OF CONSTRUCTION NECESSARY TO COMPLETE CONSTRUCTION WITHIN THE CONSTRUCTION LIMITS OR SLOPE EASEMENTS SHOWN WILL BE CONSIDERED TO BE INCIDENTAL & NO DIRECT COMPENSATION WILL BE MADE THEREFORE.

COMPACTION OF GRADING ITEMS, INCLUDING AGGREGATE BASE, SHALL BE ACCOMPLISHED BY THE "QUALITY COMPACTION METHOD".

BACKFILLING OF CURBS WITH ON-SITE MATERIAL IS INCIDENTAL.

WHEN CONNECTION TO EXISTING CURB IS REQUIRED, THE EDGE OF EXISTING CURB SHALL BE SAWCUT TO A NEAT LINE. THIS SHALL BE CONSIDERED INCIDENTAL.

PROPOSED WORK OUTSIDE OF THE RIGHT-OF-WAY IS COVERED BY A TEMPORARY "RIGHT OF ENTRY" AN AGREEMENT BETWEEN THE CITY OF GOLDEN VALLEY AND THE PROPERTY OWNER.

WATER, GAS, ELECTRIC, FIBER OPTIC, TELEPHONE/COMMUNICATION, SEWER, & TV CABLE LINES SHOWN ON THE DRAWINGS ARE PLOTTED FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION, BUT MAY NOT REFLECT ACTUAL LOCATIONS OR ELEVATIONS. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES BEFORE BEGINNING CONSTRUCTION WHICH MAY BE AFFECTED BY A UTILITY CONFLICT. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE TO THE OWNERS OF ALL KNOWN UTILITIES BEFORE STARTING ANY OPERATIONS AFFECTING THOSE PROPERTIES, OR BEGINNING EXCAVATION IN THE VICINITY OF THOSE PROPERTIES, THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 1507 IN THE MNDOT STANDARD SPECIFICATIONS. THE CONTRACTOR IS HEREBY REMINDED OF HIS RESPONSIBILITY UNDER STATE LAW TO CONTACT ALL UTILITIES THAT MAY HAVE FACILITIES IN THE AREA. CONTACT MUST BE MADE THROUGH GOPHER STATE ONE-CALL.

ALL USES OF THE WORD "INCIDENTAL" IN THESE CONSTRUCTION DOCUMENTS SHALL BE CONSTRUED TO MEAN INCIDENTAL WORK FOR WHICH NO DIRECT COMPENSATION SHALL BE MADE.

DEWATERING DURING UTILITY CONSTRUCTION SHALL BE CONSIDERED INCIDENTAL.

IN ORDER TO MAINTAIN TEMPORARY VEHICLE ACCESS DURING CONSTRUCTION, EXISTING CONCRETE PAVEMENT SHALL BE REMOVED HALF AT A TIME ON EACH STREET AS NEEDED TO REPLACE EXISTING WATER MAIN. EXISTING CONCRETE PAVEMENT SHALL BE CRUSHED ON SITE AND USED AS A TEMPORARY DRIVING SURFACE UNTIL STREET SUBCUTTING BEGINS. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.

CONTRACTOR SHALL PROVIDE & MAINTAIN ALL EROSION CONTROL MEASURES AS SHOWN ON THESE PLANS & SPECIFICATION, & WILL IMPLEMENT ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY, OR AS DIRECTED BY ENGINEER, IN ORDER TO PROTECT ADJACENT PROPERTY.

ALL DIMENSIONS SHALL BE TO FACE OF CURB UNLESS STATED OTHERWISE.

ADA PEDESTRIAN RAMP LAYOUTS IN THIS PLAN ARE ONLY FOR GUIDANCE AND ESTIMATING QUANTITIES. TYPE OF RAMP SHALL BE CONSTRUCTED TO MATCH FIELD CONDITIONS AND OBTAIN ADA COMPLIANCY.

APPROXIMATE EXCAVATION DEPTH

APPROXIMATE EXCAVATION DEPTH IS HEREBY DEFINED AS THE TOP OF THE SUBGRADE MATERIAL OR THE BOTTOM OF THE GRANULAR MATERIAL. VERTICAL TAPERS FOR CHANGES IN "APPROXIMATE EXCAVATION DEPTHS" SHALL BE 20:1.

SUITABLE MATERIALS

SUITABLE MATERIALS SHALL BE ALL GRANULAR SOILS ENCOUNTERED ON THE PROJECT FROM BORROW, NOT DEFINED AS BEING UNSUITABLE BY THE ENGINEER, EXCEPT THAT ONLY SELECT GRANULAR MATERIAL SHALL BE USED WHERE SPECIFIED AS SUCH IN THE PLANS.

UNSUITABLE MATERIALS

UNSUITABLE MATERIALS ARE ALL MATERIALS DETERMINED BY THE ENGINEER AS BEING UNSUITABLE FOR GRANULAR BORROW OR STRUCTURAL BACKFILL FOR ROADWAY CONSTRUCTION.

PROVIDE FOR THE REMOVAL & DISPOSAL, OFF SITE, OF ANY INPLACE SURFACING OR OTHER STRUCTURES THAT WOULD INTERFERE WITH CONSTRUCTION. ALL SUCH MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR & SHALL EITHER BE RECYCLED TO THE EXTENT ALLOWED OR DISPOSED OF OUTSIDE THE RIGHT OF WAY IN ACCORDANCE WITH SPECIFICATION 2104.3D. PROVIDE FOR SAW CUTTING AS DEEMED NECESSARY BY THE ENGINEER.

ALL EXCAVATED MATERIAL SHALL BE USED ONSITE FOR BORROW ITEMS IF IT MEETS GRADATION REQUIREMENTS, UNLESS DIRECTED OTHERWISE BY THIS PLAN OR AS DIRECTED BY THE ENGINEER.

ALL TOPSOIL STRIPPING WILL BE CONSIDERED INCIDENTAL AND PAID FOR UNDER THE BID ITEM COMMON EXCAVATION.

IN FILL SECTIONS, TOPSOIL & OTHER UNSUITABLE MATERIALS ARE NOT ALLOWED BENEATH THE ROADWAY.

TEST ROLLING WILL BE REQUIRED ON THIS PROJECT AS DIRECTED BY THE ENGINEER & SHALL BE CONSIDERED INCIDENTAL.

PLACE A MINIMUM OF 0.33 FEET OF TOPSOIL ON ALL AREAS SCHEDULED FOR TURF RESTORATION OR SOD INSTALLATION.

TURF RESTORATION REQUIREMENTS ON THIS PROJECT ARE AS FOLLOWS:

1. ALL BOULEVARDS SHALL BE RESTORED WITH SOD UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. ZANE AVENUE STA 5+55 RT TO STA 10+60 RT SHALL BE RESTORED WITH HYDROSEEDING (W/ SEED MIXTURE 25-131) AS NOTED IN SHEET E3, OR AS DIRECTED BY THE ENGINEER.
3. ZANE AVENUE STA 11+75 LT TO 17+25 RT SHALL BE RESTORED WITH SEED MIXTURE 38-631 AS NOTED IN SHEET E3, OR AS DIRECTED BY THE ENGINEER.

TEMPORARY WATER SYSTEM REQUIREMENTS ON THIS PROJECT ARE AS FOLLOWS:

1. THE WATER MAIN INSTALLATION AND TEMPORARY WATER DISTRIBUTION SHALL BE COMPLETED IN A MANNER SO FIRE PROTECTION CAN BE MAINTAINED, INCLUDING FIRE PROTECTION SUPPLY TO INDIVIDUAL BUILDINGS.
4. THE MINIMUM PIPE SIZE FOR THE TEMPORARY WATER MAIN PIPE ON ZANE AVENUE AND THE WESTERNMOST 500' OF LINDSAY STREET (COMMERCIAL PROPERTIES) IS EQUAL TO OR GREATER THAN THE DIAMETER OF THE LARGEST CONNECTING SERVICE OF THAT SEGMENT, BUT NOT LESS THAN SIX-INCHES.
5. THE CONTRACTOR MAY PROVIDE TWO SEPARATE TEMPORARY SYSTEMS; ONE FOR DOMESTIC AND ONE FOR FIRE PROTECTION.
6. THE MINIMUM PIPE SIZE FOR DOMESTIC TEMPORARY WATER MAIN PIPE SERVICING ANY COMMERCIAL PROPERTY SHALL BE THREE-INCH FOR PROPERTIES WITH SEPARATE DOMESTIC AND FIRE WATER CONNECTIONS OR WITHOUT AN INTERNAL FIRE SUPPRESSION SYSTEM, AS DIRECTED BY ENGINEER.
7. CONTRACTOR SHALL TEMPORARILY CONNECT TO ALL WATER SERVICES LAGER THAN 2" UNDERGROUND AT THE EXISTING WATER SERVICE, UNLESS DIRECTED BY THE ENGINEER.
8. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS.

TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT.
THE FOLLOWING STANDARD PLATES APPROVED BY THE DEPARTMENT OF

STANDARD PLATES

3000M	REINFORCED CONCRETE PIPE (6 SHEETS)
3006H	GASKET JOINT FOR R.C. PIPE (2 SHEETS)
3007F	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3145G	CONCRETE PIPE OR PRECAST BOX CULVERT TIES
4010I	CONCRETE ADJUSTING RINGS
4011E	PRECAST CONCRETE BASE
4020J	MANHOLE OR CATCH BASIN FOR USE WITH OR WITHOUT TRAFFIC LOADS (2 SHEETS)
4022A	MANHOLE OR CATCH BASIN COVER - 3' X 2' OPENING FOR USE WITH OR WITH TRAFFIC LOADS
7038A	DETECTABLE WARNING SURFACE TRUNCATED DOMES
7100H	CONCRETE CURB & GUTTER (DESIGN B & V)
7102K	CONCRETE CURB & GUTTER (DESIGN D, S, & R)
7111J	INSTALLATION OF CATCH BASIN CASTINGS (CONCRETE CURB AND GUTTER)

BASIS OF ESTIMATED QUANTITIES

2106.609	SELECT GRANULAR BORROW (5% MOD)	1.8 TONS/CU YD
2211.509	AGGREGATE BASE CLASS 5	1.8 TONS/CU YD
2357.506	BITUMINOUS MATERIAL FOR TACK COAT	0.05 GAL/S.Y.
2360.509	BITUMINOUS PAVEMENT	113 #/SQ YD/INCH
2451.609	COARSE FILTER AGGREGATE (DRAINTILE)	1.75 TONS/CU YD
2451.609	CRUSHED ROCK FOR STABILIZATION	2 TONS/CU YD

COMMON EXCAVATION
22,840 CY (EV)
26,267 CY (LV)
- ZANE AVENUE 16,131 CY (EV)
- LINDSAY STREET 6,709 CY (EV)

EMBANKMENT
1,221 CY (CV) TOPSOIL BORROW
1,588 CY (LV) TOPSOIL BORROW
- ZANE AVENUE 751 CY (CV)
- LINDSAY STREET 470 CY (CV)

NOTES:

1. 130% SHRINKAGE FACTOR USED FROM LOOSE VOLUME (LV) TO COMPACTED VOLUME (CV). 115% EXPANSION FACTOR USED FROM EXCAVATED VOLUME (EV) TO LOOSE VOLUME (LV).
2. ALL EXCAVATED MATERIAL NOT USED ON SITE SHALL BE THE PROPERTY OF THE CONTRACTOR.
3. EXISTING CONCRETE AND BITUMINOUS PAVEMENT IS EXCLUDED FROM THE COMMON EXCAVATION QUANTITY. PAVEMENT REMOVAL IS PAID UNDER THE "REMOVE CONCRETE PAVEMENT (CRUSH AND SALVAGE)" AND "REMOVE BITUMINOUS PAVEMENT" BID ITEMS RESPECTIVELY.
4. TOPSOIL IS CONSIDERED INCIDENTAL.

UTILITIES	
THE FOLLOWING UTILITY COMPANIES HAVE FACILITIES WITHIN THE PROJECT AREA.	
IF A LINE IS ENCOUNTERED PLEASE CONTACT THE SERVICE PROVIDER LISTED BELOW.	
ARVIG	CENTER POINT ENERGY
5130 WINNETKA AVE N	6161 GOLDEN VALLEY ROAD
NEW HOPE, MN 55428	GOLDEN VALLYE, MN, 55422
ANDY KLINNERT -952.236.5666	AMIR FAZLOVIC
andy.klinnert@arvig.com	amir.fazlovic@centerpointenergy.com
CENTURYLINK (LUMEN)	COMCAST
325 CEDAR ST #325	4255 LEXINGTON AVE
ST PAUL, MN 55101	ARDEN HILLS, MN 55126
RANDALL OLSON	McClay Lyford
randall.olson@lumen.com	mcclay_lyford@comcast.com
rallison@terratechllc.net	
MET COUNCIL	XCEL ENERGY (ELECTRIC)
3565 KENNEBEC DR	414 NICOLLET MALL
EAGAN, MN 55122	MINNEAPOLIS, MN 55401
MANKING LEE - 651-602-4313	DAVID FITCH - 612-344-7023
Manking.Lee@metc.state.mn.us	david.m.fitch@xcelenergy.com
XCEL ENERGY (LIGHTING)	ZAYO
414 NICOLLET MALL	5005 CHESHIRE PARKWAY N
MINNEAPOLIS, MN 55401	PLYMOUTH, MN 55446
ALICIA KRAMPERT	STEVE SENGER - 952-230-9660
Alicia.J.Krampert@xcelenergy.com	steven.senger@zayo.com
CITY OF GOLDEN VALLEY	
7800 GOLDEN VALLEY ROAD	
GOLDEN VALLEY, MN 55427	
R.J. KAKACH - 763-593-8043	
rkakach@goldenvalleymn.gov	

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SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	
Drawn By	SRP							
Designed By	SRP							
Checked By	SDH							

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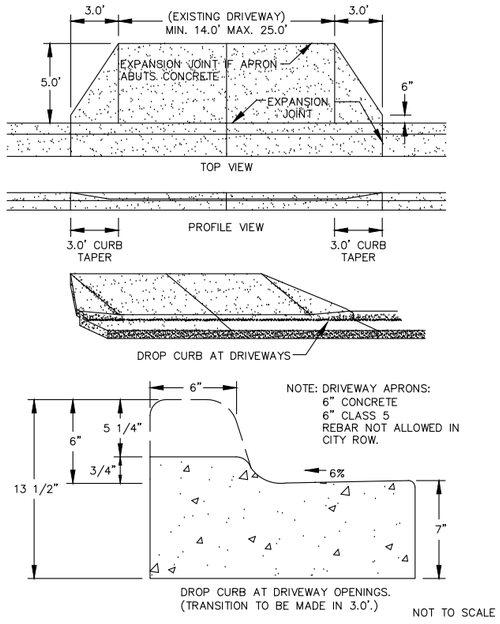
DATE 5/7/2024 STEPHEN PRALL LICENSE NO. 54949

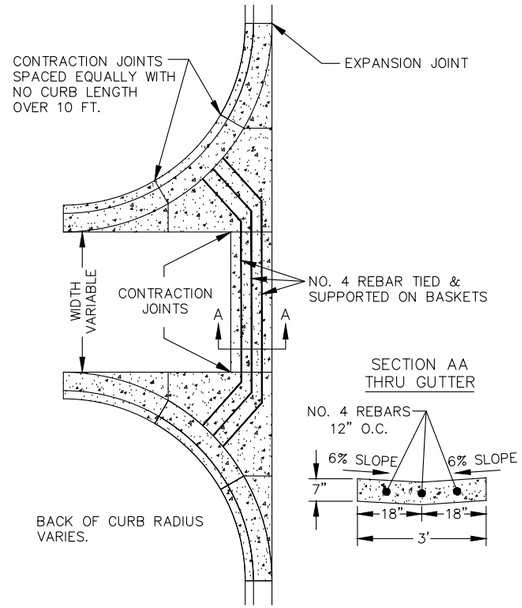
GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

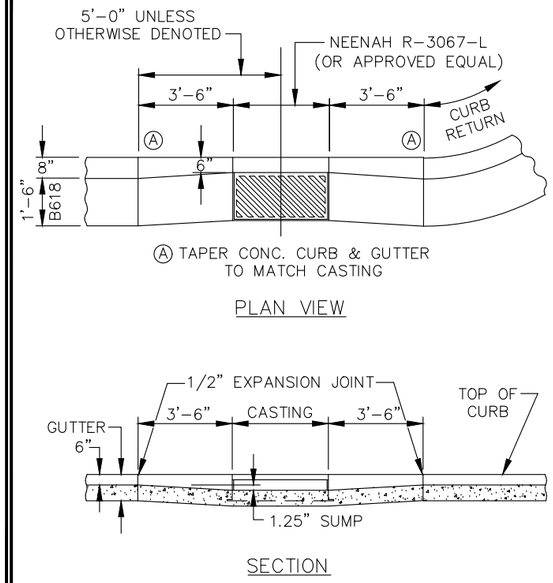
CONSTRUCTION NOTES, STANDARD PLATES, BASIS OF ESTIMATED QUANTITIES ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS



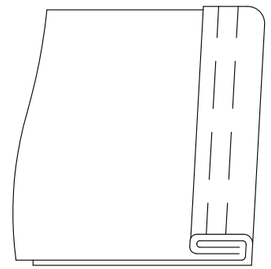
APPROVED JANUARY 1, 2018	DRIVEWAY APPROACH WITH CONCRETE APRON (B618)	GV-STRT-030
CITY ENGINEER REG 23110		



APPROVED JANUARY 1, 2018	COMMERCIAL CROSS GUTTER DRIVEWAY H-PATTERN	GV-STRT-050
CITY ENGINEER REG 23110		



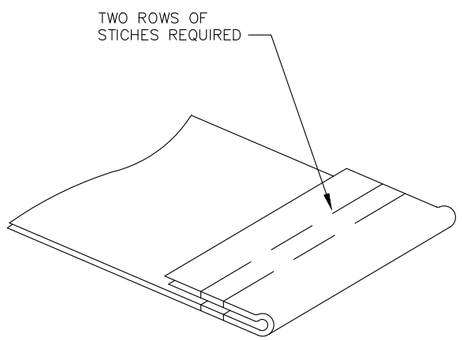
APPROVED JANUARY 1, 2018	CATCH BASIN INSTALLATION FOR B618 CURB & GUTTER	GV-STRT-070
CITY ENGINEER REG 23110		



FOR USE WITH TYPE V GEOTEXTILE FABRIC

THIS SEAM TYPE REQUIRES THE MATING OF TWO PARALLEL SECTIONS OF GEOTEXTILE WHICH ARE THEN TURNED TWICE IN THE SAME DIRECTION (HENCE "DOUBLE J") TO CREATE A THICKNESS OF 6 PLIES WHICH IS THEN SEWN WITH 2 ROWS OF STITCHES. THIS SEAM ALSO ENCAPSULATES THE SELVAGE SO THAT IT CANNOT BE USED AS A STITCHING SURFACE.

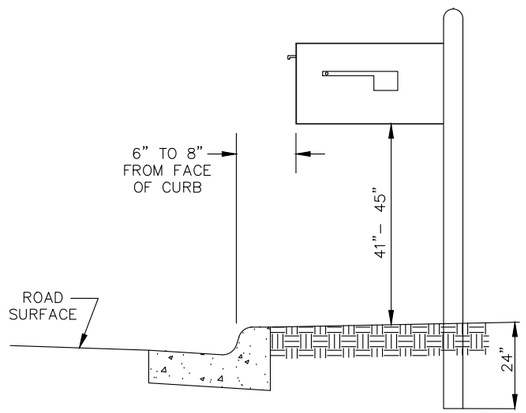
APPROVED JANUARY 1, 2018	GEOTEXTILE "DOUBLE J" SEAM	GV-STRT-170
CITY ENGINEER REG 23110		



SEWN "J" SEAM

FOR USE WITH TYPE VI GEOTEXTILE FABRIC.

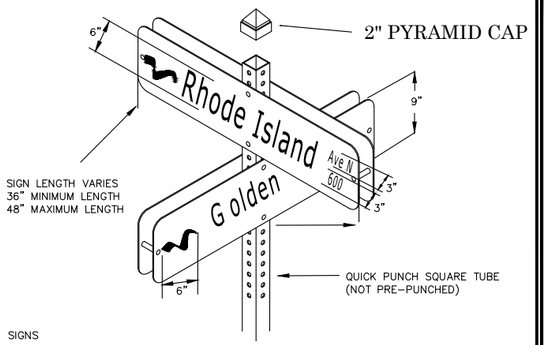
APPROVED JANUARY 1, 2018	GEOTEXTILE "J" SEAM	GV-STRT-180
CITY ENGINEER REG 23110		



NOTE:
BOTTOM OF MAILBOX SHOULD BE 41-45 INCHES ABOVE GRADE. FACE OF MAILBOX SHOULD BE BETWEEN 6 AND 8 INCHES FROM FACE OF CURB.

MAILBOX AND POST SHOULD MEET CURRENT UNITED STATES POST OFFICE GUIDELINES.

APPROVED JANUARY 1, 2018	TYPICAL MAILBOX PLACEMENT	GV-STRT-190
CITY ENGINEER REG 23110		



SIGNS

SIGNS SHALL BE MADE OF FLAT ALUMINUM THAT IS .080 THICK AND 9" HIGH WITH 1.5" RADIUS CORNERS AND TELESPAR PUNCHING.

SIGNS SHALL BE SINGLE FACE DG3 DIAMOND GRADE SHEETING.

PUBLIC STREET SIGNS SHALL HAVE A GREEN BACKGROUND WITH WHITE LETTERING, .5" E 450 SERIES BORDER, AND 6" CITY LOGO ON LEFT.

SIGNS SHALL HAVE .75" OF GREEN BACKGROUND ON ALL SIDES OF THE SIGN LEGEND.

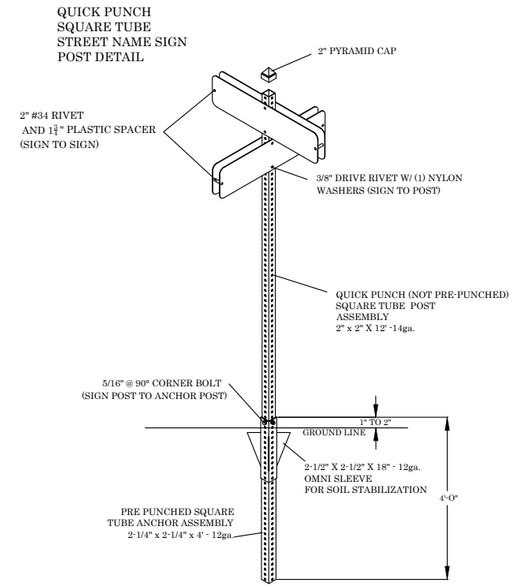
STREET NAMES SHALL BE 6" UPPER CASE AND 4.5" LOWER CASE USING CLEARVIEW ONE FONT WITH .375" MARGINS.

STREET SUFFIXES AND BLOCK NUMBERS SHALL BE 3" UPPER CASE AND 2.25" LOWER CASE USING CLEARVIEW ONE FONT WITH .375" MARGINS.

A 6" ARROW SHALL BE ON THE RIGHT IF APPLICABLE.

ALL SIGNS SHALL CONFORM TO ALL REQUIREMENTS OF THE CURRENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MN MUTCD).

APPROVED JANUARY 1, 2018	TYPICAL STREET SIGN	GV-STRT-210
CITY ENGINEER REG 23110		



APPROVED JANUARY 1, 2018	QUICK PUNCH SQUARE TUBE STREET NAME SIGN POST	GV-STRT-220
CITY ENGINEER REG 23110		

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date
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Rev.#	Revision Issue Description	Date
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SEH

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE 5/7/2024

STEPHEN PRALL

LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

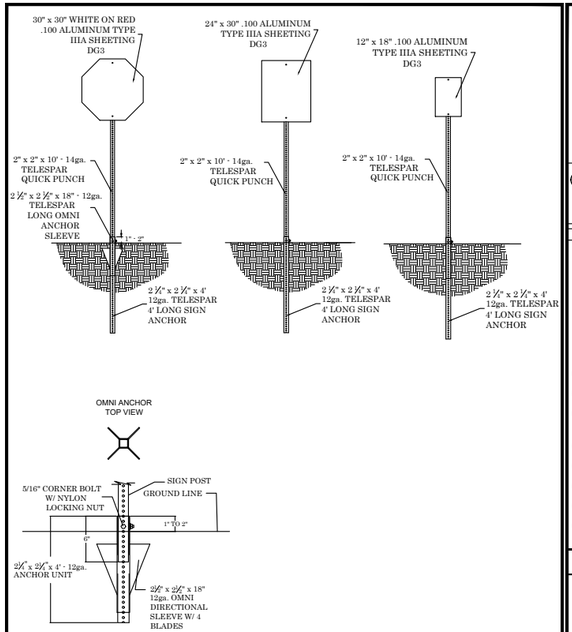
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

CONSTRUCTION DETAILS
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

D1

of 103

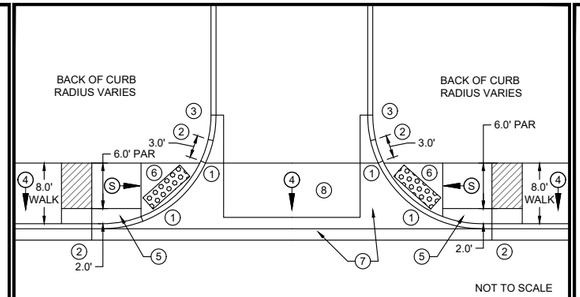
Save: 2/23/2024 3:35 PM sprall Plot: 4/16/2024 7:36 AM X:\FJG\GOLDV\163618\5-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet\GV163618DT1.dwg



APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110

SQUARE TUBE SIGN STANDARD WITH OMNI BASE

Golden Valley
GV-STRT-230



NOTES

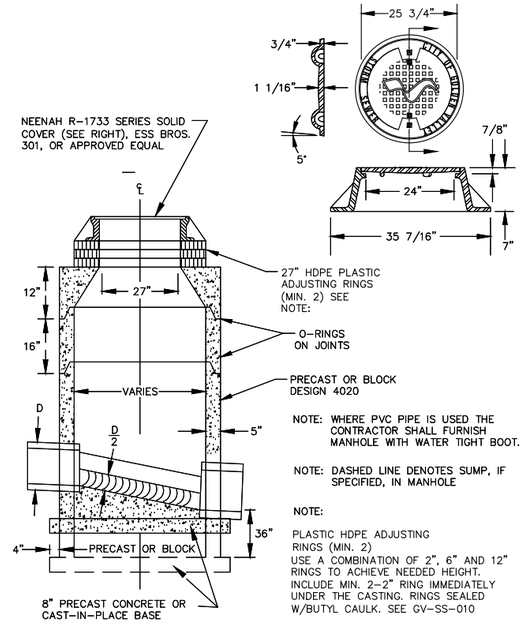
1. 0" CURB. SEE MNDOT STANDARD PLANS FOR PEDESTRIAN CURB DIMENSIONS.
2. MATCH FULL CURB HEIGHT
3. MATCH EXISTING CURB TYPE. IF NO EXISTING CURB, END CURB AT BACK EDGE OF WALK AND CONTINUE PAVEMENT TO MATCH POINT
4. 1.50% TYP. CROSS SLOPE MAY NOT EXCEED 2.0%.
5. WALKABLE SURFACE. 8.0% MAX. LONGITUDINAL SLOPE AND 2.0% MAX. CROSS SLOPE
6. MAX. 2.0% IN ALL DIRECTIONS
7. COMMERCIAL CROSS GUTTER DRIVEWAY. SEE GV-STRT-050
7. COMMERCIAL CONCRETE DRIVEWAY PAVEMENT

LEGEND

(S) INDICATES DRIVEWAY RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%

LANDING AREA - 4' X 4' MIN. (5' X 5' PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

COMMERCIAL DRIVEWAY ENTRANCE WITH SIDEWALK



NOTE: WHERE PVC PIPE IS USED THE CONTRACTOR SHALL FURNISH MANHOLE WITH WATER TIGHT BOOT.

NOTE: DASHED LINE DENOTES SUMP, IF SPECIFIED, IN MANHOLE

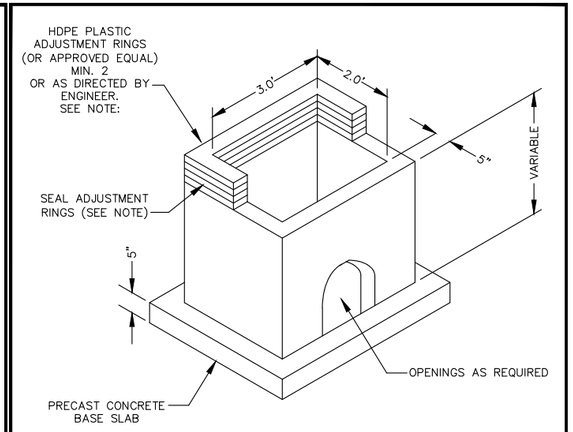
NOTE:

PLASTIC HDPE ADJUSTING RINGS (MIN. 2) USE A COMBINATION OF 2", 6" AND 12" RINGS TO ACHIEVE NEEDED HEIGHT. INCLUDE MIN. 2-2" RING IMMEDIATELY UNDER THE CASTING. RINGS SEALED W/BUTYL CAULK. SEE GV-SS-010

APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110

STANDARD STORM SEWER MANHOLE DES 4020 WITH CASTING & COVER

Golden Valley
GV-ST-010



NOTE:

CASTINGS SHALL BE NEENAH R3067-L WITH "L" TYPE GRATE.

IF MORE THAN 5 - 2" RINGS ARE NEEDED CONTRACTOR SHALL USE A COMBINATION OF 2", 6" AND 12" RINGS TO ACHIEVE NEEDED HEIGHT.

REINFORCING AND CONCRETE ARE TO BE IN ACCORDANCE WITH ASTM SPECIFICATION C478.

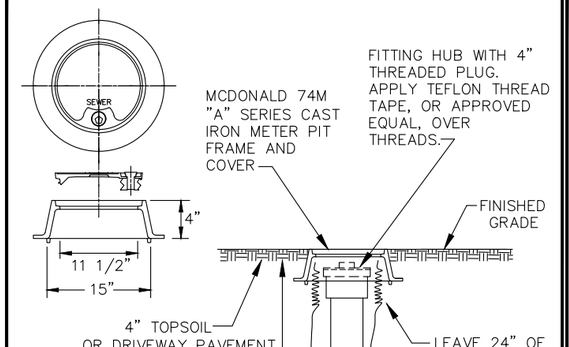
NOTE:

PLASTIC HDPE ADJUSTING RINGS (MIN. 2) USE A COMBINATION OF 2", 6" AND 12" RINGS TO ACHIEVE NEEDED HEIGHT. INCLUDE MIN. 2-2" RING IMMEDIATELY UNDER THE CASTING. RINGS SEALED W/BUTYL CAULK. SEE GV-SS-010

APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110

CATCH BASIN DESIGN K

Golden Valley
GV-ST-020



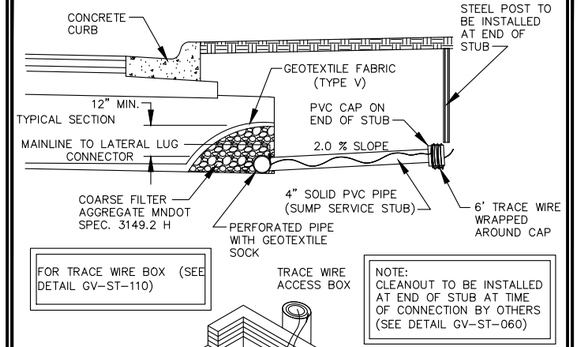
NOTE:

FOR TRACER WIRE INSTALLATION REQUIREMENTS, REFER TO THE MINNESOTA RURAL WATER ASSOCIATION STANDARD DETAILS.

APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110

TYPICAL DRAINTILE CLEANOUT ASSEMBLY

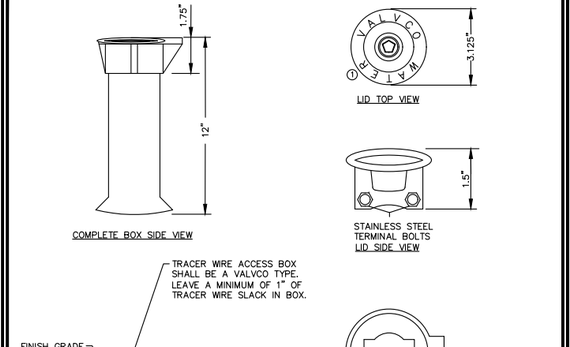
Golden Valley
GV-ST-050



APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110

SUB-GRADE & SUMP DRAINAGE PIPES WITH SERVICE STUB

Golden Valley
GV-ST-070



① TRACER WIRE ACCESS BOX SHALL BE MANUFACTURED WITH THE FOLLOWING TEXT AND COLOR

- WATER = BLUE
- STORM SEWER =GREEN
- SANITARY SEWER = GREEN
- ALL OTHER OTHER UTILITIES SHALL HAVE NO TEXT AND BE PAINTED BY THE CONTRACTOR IN THE FIELD WITH ENAMEL PAINT CONSISTENT WITH THE AMERICAN PUBLIC WORKS ASSOCIATION COLOR CODE.

NOTES:

CASTING CONFORMS TO: ASTM SPECIFICATION A-48 CLASS 30

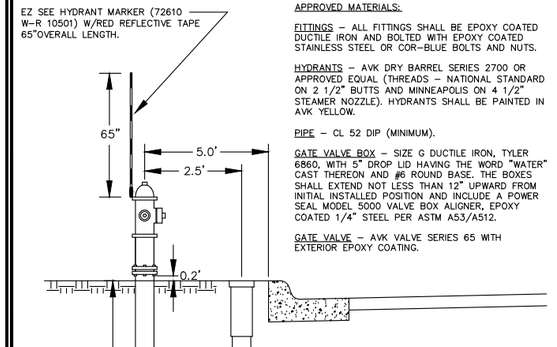
ABS SHAFT CONFORMS TO: ASTM SPECIFICATIONS D-1788

TRACER WIRE ACCESS BOXES SHALL BE MANUFACTURED BY CP TEST SERVICES - VALVCO, INC. AND SHALL INCLUDE AN SP-BRACKET MANUFACTURED BY COPPERHEAD INDUSTRIES.

APPROVED JANUARY 15, 2020
CITY ENGINEER REG 23110

TRACE WIRE ACCESS BOX

Golden Valley
GV-ST-110



APPROVED MATERIALS:

FITTINGS - ALL FITTINGS SHALL BE EPOXY COATED DUCTILE IRON AND BOLTED WITH EPOXY COATED STAINLESS STEEL OR COR-BLUE BOLTS AND NUTS.

HYDRANTS - AVK DRY BARREL SERIES 2700 OR APPROVED EQUAL (THREADS - NATIONAL STANDARD ON 2 1/2" BUTTS AND MINNEAPOLIS ON 4 1/2" STEAMER NOZZLE). HYDRANTS SHALL BE PAINTED IN AVK YELLOW.

PIPE - CL 52 DIP (MINIMUM).

GATE VALVE BOX - SIZE G DUCTILE IRON, TYLER 6860, WITH 5" DROP LID HAVING THE WORD "WATER" CAST THEREON AND #6 ROUND BASE. THE BOXES SHALL EXTEND NOT LESS THAN 12" UPWARD FROM INITIAL INSTALLED POSITION AND INCLUDE A POWER SEAL MODEL 5000 VALVE BOX ALIGNER, EPOXY COATED 1/4" STEEL PER ASTM A53/A512.

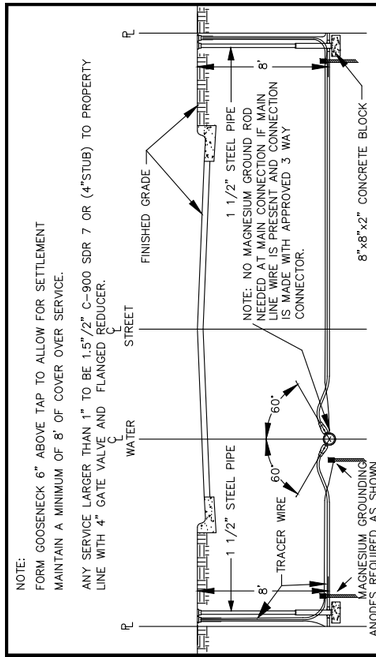
GATE VALVE - AVK VALVE SERIES 65 WITH EXTERIOR EPOXY COATING.

INSTALL 2 - 3/4" THREADED RODS AT SPRING LINE OF EACH SECTION OF PIPE. COVER ALL RODS WITH POLY ENCASEMENT OR APPROVED CORROSION INHIBITOR. MEGALUG GLANDS MAY BE SUBSTITUTED FOR RODS (RODDING IS REQUIRED IF MORE THAN ONE PIPE LENGTH IS USED BETWEEN THE VALVE AND THE TEE).

APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110

TYPICAL HYDRANT INSTALLATION

Golden Valley
GV-WM-010



NOTE:
FORM GOOSENECK 6" ABOVE TAP TO ALLOW FOR SETTLEMENT
MAINTAIN A MINIMUM OF 8' OF COVER OVER SERVICE.

ANY SERVICE LARGER THAN 1" TO BE 1.5"/2" C-900 SDR 7 OR (4"STUB) TO PROPERTY LINE WITH 4" GATE VALVE AND FLANGED REDUCER.

CURB STOP – 1" CURB STOP AY MCDONALD 76104 OR (PLASTIC 76104-33)

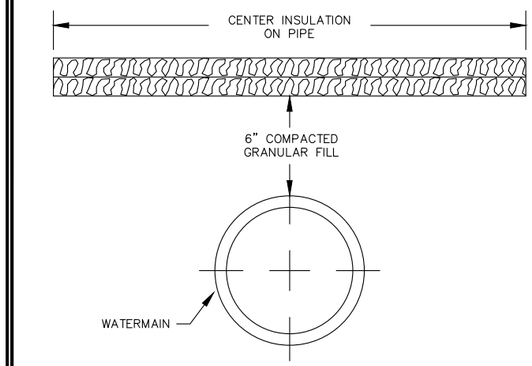
CURB BOX – AY MCDONALD SERIES 5622A 8 CURB BOX COMPLETE W/5623LTW LID– NO EXTENSION

CORPORATION STOP – 1" AY MCDONALD 74701B OR (PLASTIC 74701B-33)

TAPS – 1" SMITH-BLAIR SERIES 372 STAINLESS STEEL SERVICE SADDLE

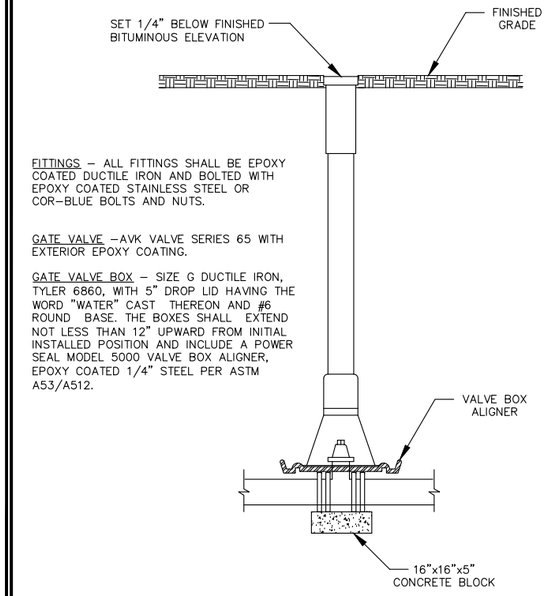
WATER SERVICE – COPPER TYPE K OR C900 (PLASTIC W/ 1" SS INSERT AY MCDONALD 6136) W/TRACER WIRE AS SHOWN OR MINNESOTA RURAL WATER ASSOCIATION STANDARDS.

APPROVED JANUARY 1, 2018	TYPICAL WATER SERVICE (ON 6" TO 8" MAIN)	GV-WM-020
CITY ENGINEER REG 23110		



NOTE:
MINIMUM 2" PER FOOT UNDER 8' OF COVER – 2" THICK HIGH DENSITY POLYSTYRENE INSULATION (MINIMUM TOTAL R VALUE OF 20) LAYERS WITH JOINTS STAGGERED AND EXTENDING A MINIMUM OF 2' EACH WAY FROM WATERMAIN C/L OR AS DIRECTED BY THE ENGINEER.

APPROVED JANUARY 1, 2018	WATERMAIN INSULATION	GV-WM-050
CITY ENGINEER REG 23110		

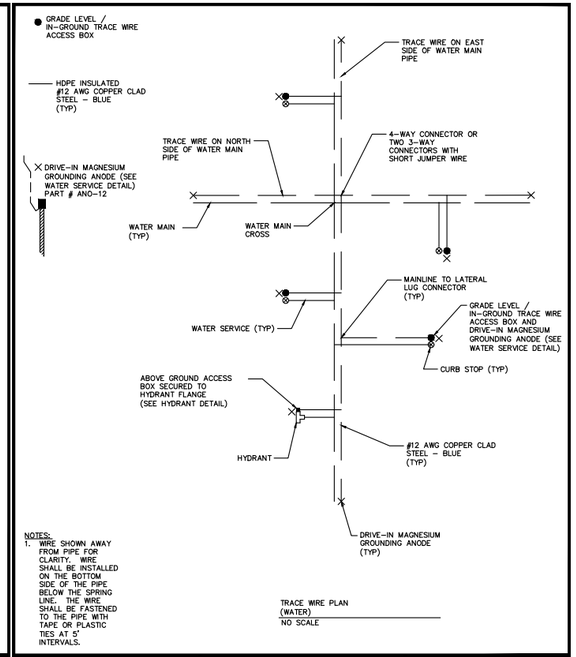


FITTINGS – ALL FITTINGS SHALL BE EPOXY COATED DUCTILE IRON AND BOLTED WITH EPOXY COATED STAINLESS STEEL OR COR–BLUE BOLTS AND NUTS.

GATE VALVE –AVK VALVE SERIES 65 WITH EXTERIOR EPOXY COATING.

GATE VALVE BOX – SIZE G DUCTILE IRON, TYLER 6860, WITH 5" DROP LID HAVING THE WORD "WATER" CAST THEREON AND #6 ROUND BASE. THE BOXES SHALL EXTEND NOT LESS THAN 12" UPWARD FROM INITIAL INSTALLED POSITION AND INCLUDE A POWER SEAL MODEL 5000 VALVE BOX ALIGNER, EPOXY COATED 1/4" STEEL PER ASTM A53/A512.

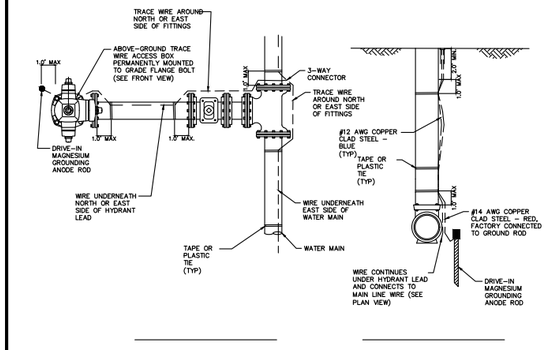
APPROVED JANUARY 1, 2018	TYPICAL GATE VALVE INSTALLATION	GV-WM-060
CITY ENGINEER REG 23110		



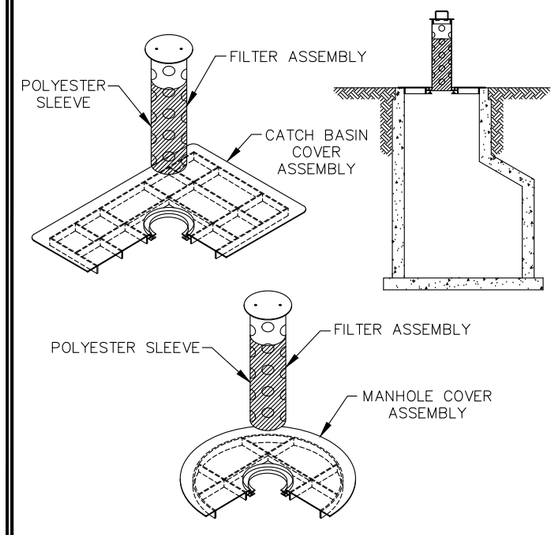
NOTES:
1. WIRE SHOWN AWAY FROM PIPE FOR CLARITY. WIRE SHALL BE INSTALLED ON THE BOTTOM SIDE OF THE PIPE BELOW THE SPRING LINE. THE WIRE SHALL BE FASTENED TO THE PIPE WITH TAPE OR PLASTIC TIES AT 5' INTERVALS.

TRACE WIRE PLAN (WATER)
NO SCALE

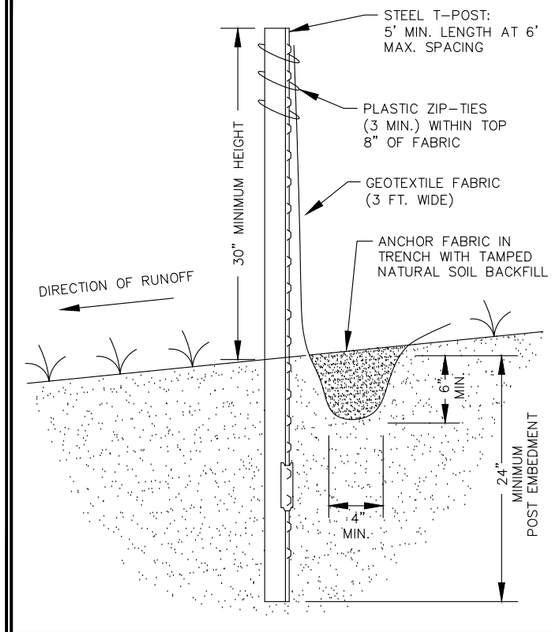
APPROVED JANUARY 1, 2018	TRACER WIRE PLAN (WATER) MINNESOTA RURAL WATER ASSOCIATION STANDARD DETAIL	GV-WM-070
CITY ENGINEER REG 23110		



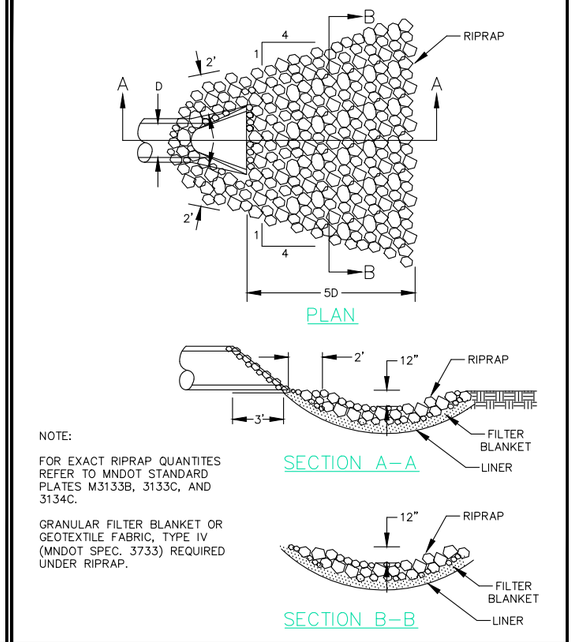
APPROVED JANUARY 1, 2018	TRACER WIRE PLAN (HYDRANT) MINNESOTA RURAL WATER ASSOCIATION STANDARD DETAIL	GV-WM-080
CITY ENGINEER REG 23110		



APPROVED DECEMBER 31, 2015	TEMPORARY WIMCO™ INLET PROTECTION OR APPROVED EQUAL	GV-EC-010
CITY ENGINEER REG 23110		



APPROVED DECEMBER 31, 2015	INSTALLATION OF HEAVY DUTY SILT FENCE	GV-EC-020
CITY ENGINEER REG 23110		



NOTE:

FOR EXACT RIPRAP QUANTITES REFER TO MNDOT STANDARD PLATES M3133B, 3133C, AND 3134C.

GRANULAR FILTER BLANKET OR GEOTEXTILE FABRIC, TYPE IV (MNDOT SPEC. 3733) REQUIRED UNDER RIPRAP.

APPROVED DECEMBER 31, 2015	RIPRAP AT OUTLETS	GV-EC-070

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date
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Rev.#	Revision Issue Description	Date
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

CONSTRUCTION DETAILS ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

D3
of 103

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NOTES:

A) MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE MAY BE NECESSARY.

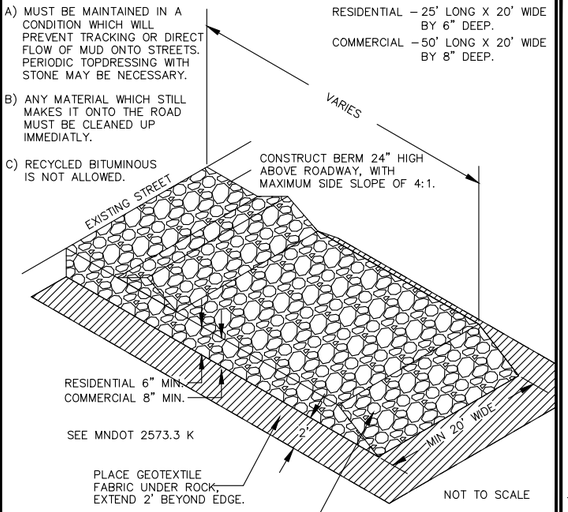
B) ANY MATERIAL WHICH STILL MAKES IT ONTO THE ROAD MUST BE CLEANED UP IMMEDIATLY.

C) RECYCLED BITUMINOUS IS NOT ALLOWED.

MINIMUM DIMENSIONS

RESIDENTIAL – 25' LONG X 20' WIDE BY 6" DEEP.

COMMERCIAL – 50' LONG X 20' WIDE BY 8" DEEP.

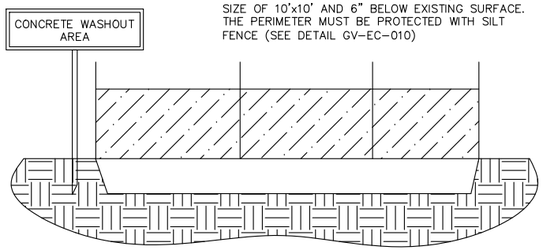


APPROVED FEBRUARY 27, 2020
CITY ENGINEER REG 23110

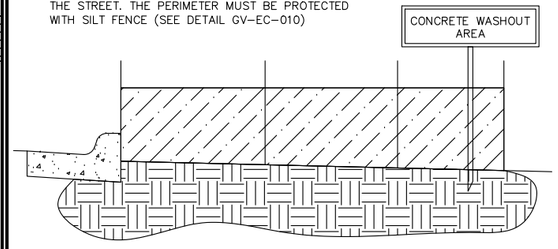
ROCK CONSTRUCTION ENTRANCE

Golden Valley
GV-EC-080

OPEN AREA:
THE AREA MUST BE CLEARLY MARKED, A MINIMUM SIZE OF 10'x10' AND 6" BELOW EXISTING SURFACE. THE PERIMETER MUST BE PROTECTED WITH SILT FENCE (SEE DETAIL GV-EC-010)



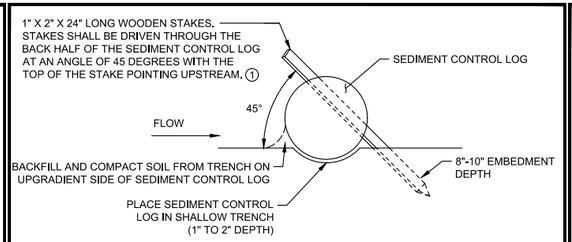
BEHIND CURB:
THE AREA MUST BE CLEARLY MARKED, A MINIMUM SIZE OF 10'x10' AND 6" BELOW CURB, SLOPING AWAY FROM THE STREET. THE PERIMETER MUST BE PROTECTED WITH SILT FENCE (SEE DETAIL GV-EC-010)



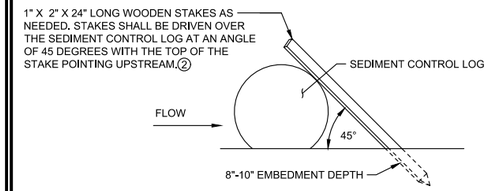
APPROVED DECEMBER 31, 2015
CITY ENGINEER REG 23110

CONCRETE WASHOUT AREA

Golden Valley
GV-EC-100



TYPES: STRAW, WOOD FIBER, OR COIR



TYPES: WOOD CHIP, COMPOST, OR ROCK

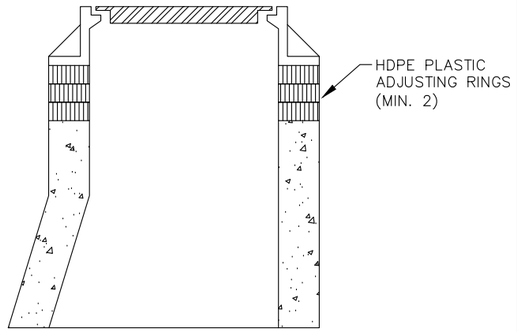
NOTES:

(1) SPACE BETWEEN STAKES SHALL BE A MAXIMUM OF 1' FOR DITCH CHECKS OR 2' FOR OTHER APPLICATIONS.

(2) PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL.

NTS

SEDIMENT CONTROL LOGS

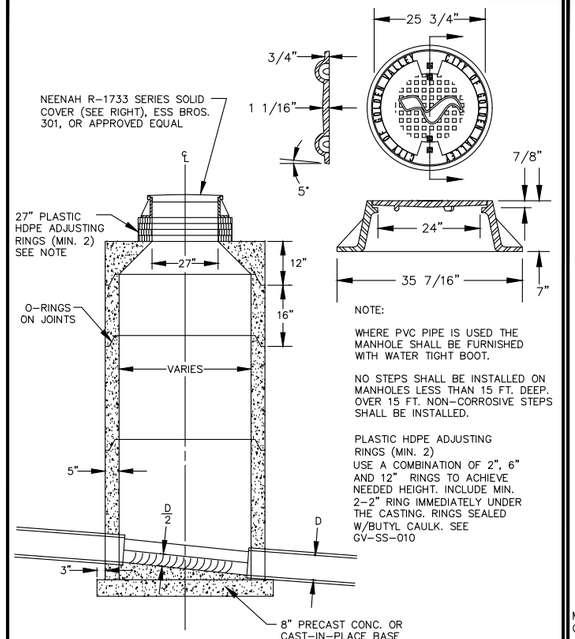


NOTE:
MANHOLE OR CATCH BASIN ADJUSTING RINGS–ADJUSTING RINGS SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) PRODUCED BY LADTECH OR AN APPROVED EQUAL. THE RINGS SHALL PROVIDE A MINIMUM ADJUSTMENT OF 4" USING MINIMUM OF 2 – 2" IMMEDIATELY UNDER THE CASTING RINGS AND USE A COMBINATION OF 2", 6" QND 12" RINGS TO ACHIEVE NEEDED HEIGHT. JOINTS BETWEEN STRUCTURE, RINGS AND CASTING SHALL BE SEALED WITH A CONTINUOUS BEAD OF BUTYL CAULK. SOLID REINFORCED CONCRETE ADJUSTING RINGS MAY BE USED IN SPECIAL SITUATIONS ONLY WITH PRIOR WRITTEN APPROVAL BY THE CITY ENGINEER.

APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110

MANHOLE OR CATCH BASIN DETAIL

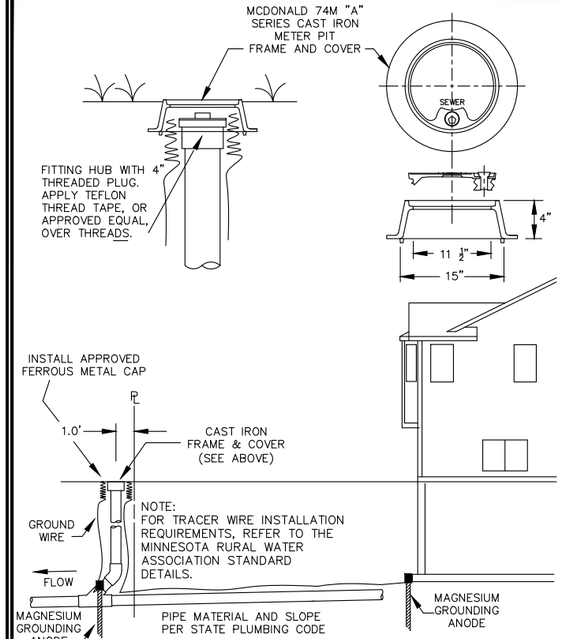
Golden Valley
GV-SS-010



APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110

STANDARD SANITARY SEWER MANHOLE WITH CASTING & CASTING

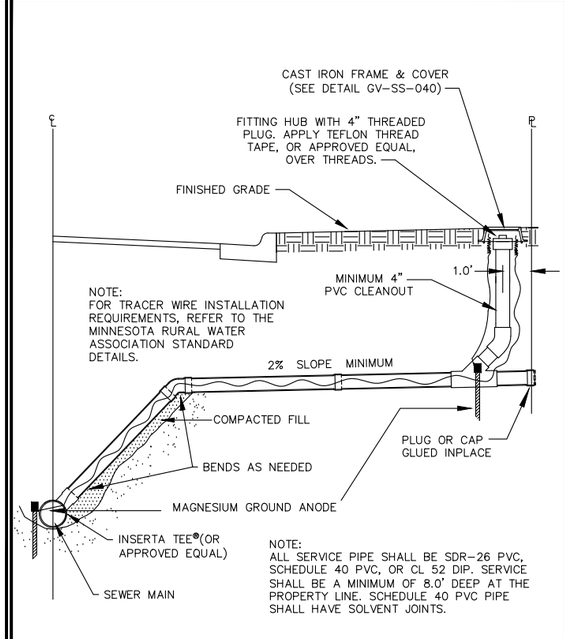
Golden Valley
GV-SS-020



APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110

SANITARY SEWER SERVICE PROPERTY LINE TO HOUSE

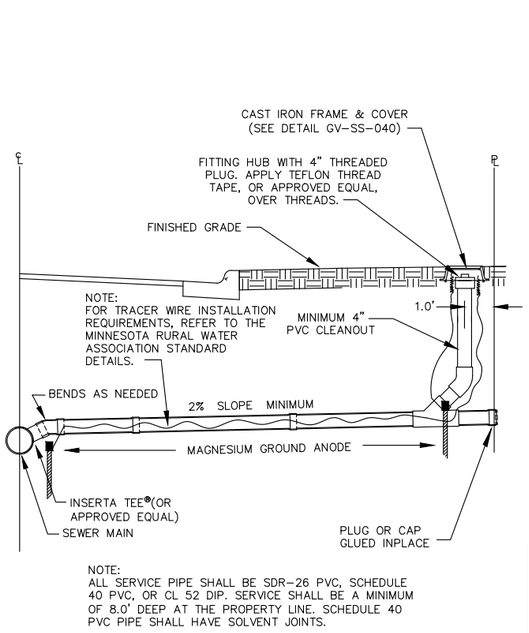
Golden Valley
GV-SS-040



APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110

SANITARY SEWER SERVICE WITH RISER (DEEP SERVICE)

Golden Valley
GV-SS-050



APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110

SANITARY SEWER SERVICE (MAIN TO PROPERTY LINE)

Golden Valley
GV-SS-070

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date
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Rev.#	Revision Issue Description	Date
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SEH

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE 5/7/2024

STEPHEN PRALL
LICENSE NO. 54949

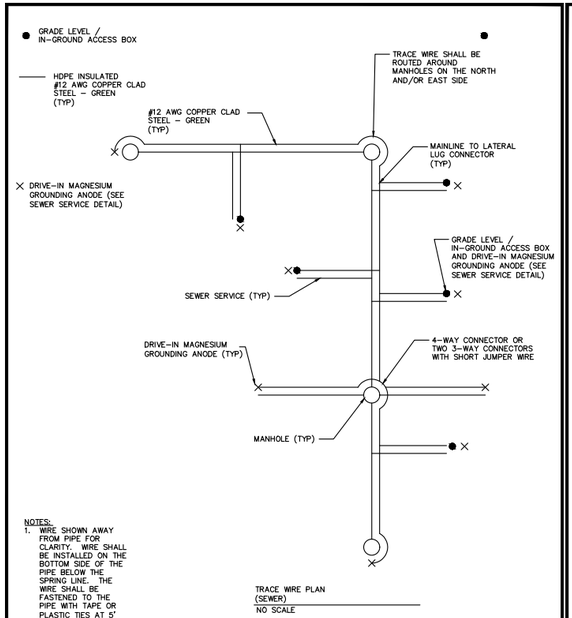
GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

CONSTRUCTION DETAILS
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

D4
of 103

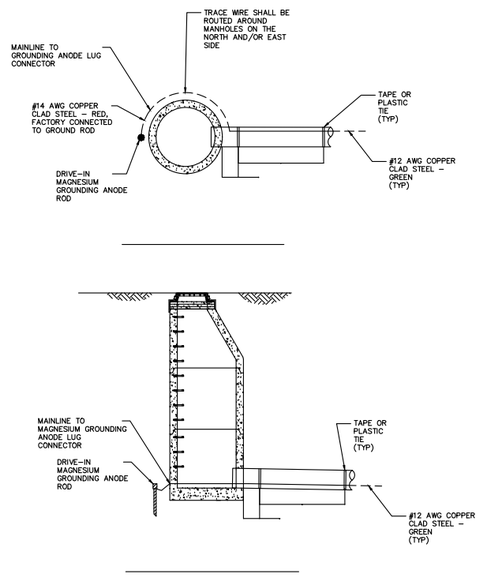
Save: 2/23/2024 3:35 PM sprall Plot: 4/16/2024 7:40 AM X:\F\J\G\GOLDV\163618\5-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet\GV163618DT1.dwg



APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110

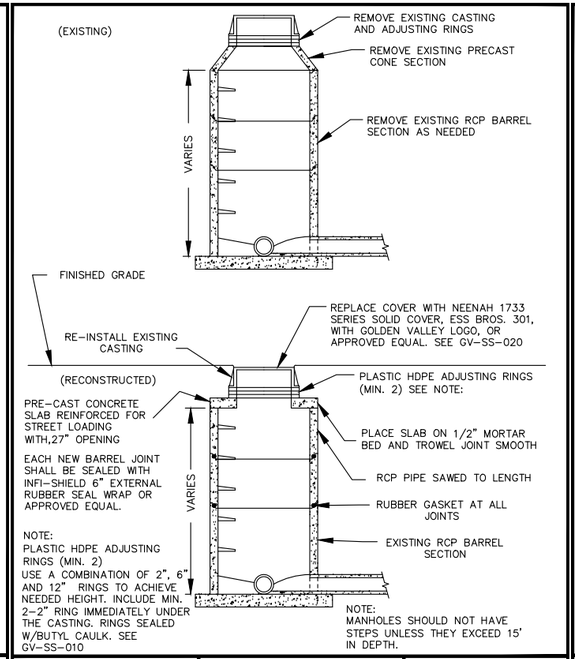
TRACE WIRE PLAN (SEWER)
MINNESOTA RURAL WATER ASSOCIATION STANDARD DETAIL

GV-SS-090



TRACE WIRE PLAN (SEWER MANHOLE)
MINNESOTA RURAL WATER ASSOCIATION STANDARD DETAIL

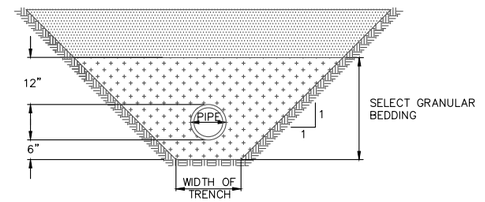
GV-SS-110



APPROVED JANUARY 1, 2018
CITY ENGINEER REG 23110

SANITARY SEWER MANHOLE RECONSTRUCTION

GV-SS-120

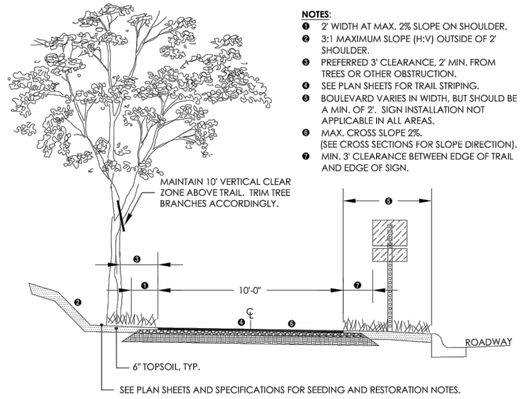


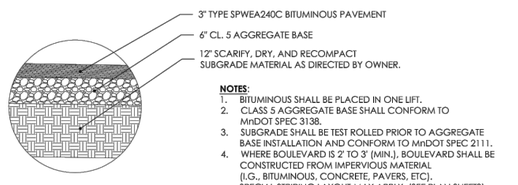
NOTES:

1. USE FOR WATER MAIN AND STORM SEWER AS DIRECTED BY THE ENGINEER.
2. CONTRACTOR SHALL CONSTRUCT TRENCH AND PROVIDE PROTECTIVE MEASURES AS REQUIRED TO COMPLY WITH OSHA REGULATIONS.
3. COMPACTION OF BACKFILL MATERIALS SHALL BE IN ACCORDANCE WITH MN/DOT SPECIFICATION 2105.3F1.

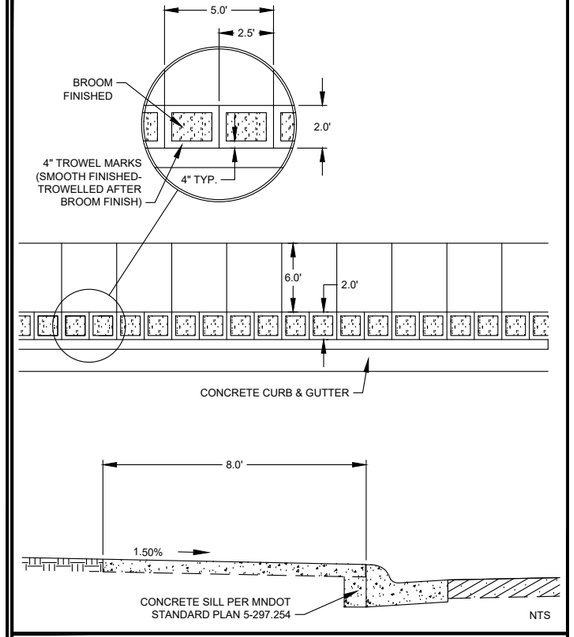
PIPE BEDDING FOR UTILITIES

PIPE BEDDING FOR UTILITIES





TR-1 TYPICAL TRAIL SECTION 10' URBAN
NTS



SIDEWALK WITH 2' SHOULDER

SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	
Drawn By	SRP	.			.			
Designed By	SRP	.			.			
Checked By	SDH	.			.			

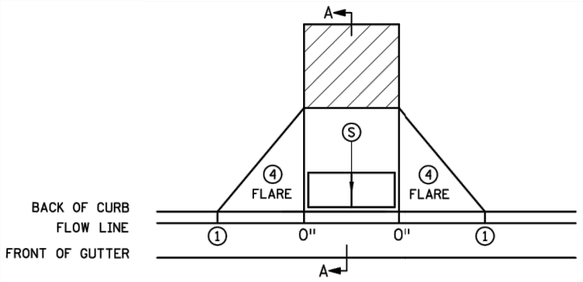
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

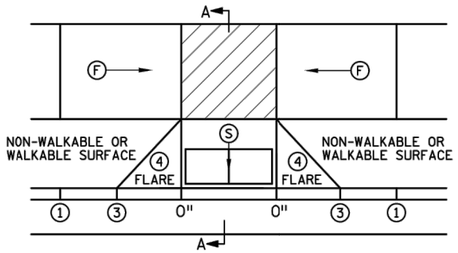
CONSTRUCTION DETAILS
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

D5
of 103

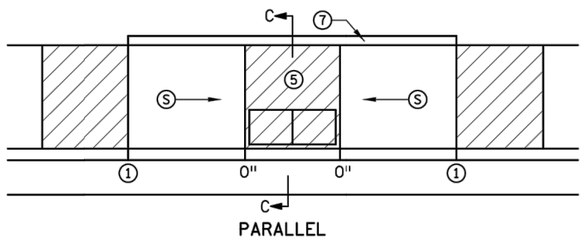
Save: 2/23/2024 3:35 PM sprall Plot: 4/16/2024 7:41 AM X:\F-J\G\GOLDV\163618\5-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet\GV163618DT1.dwg



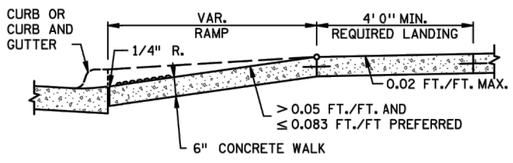
PERPENDICULAR



TIERED PERPENDICULAR

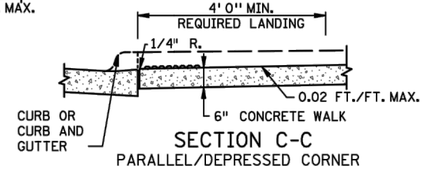


PARALLEL



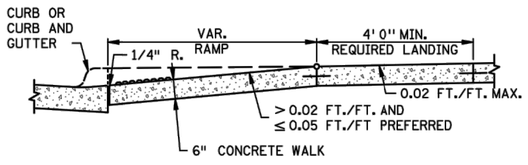
SECTION A-A

PERPENDICULAR/TIERED/DIAGONAL



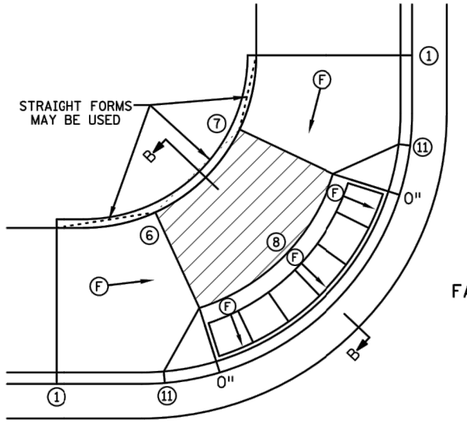
SECTION C-C

PARALLEL/DEPRESSED CORNER

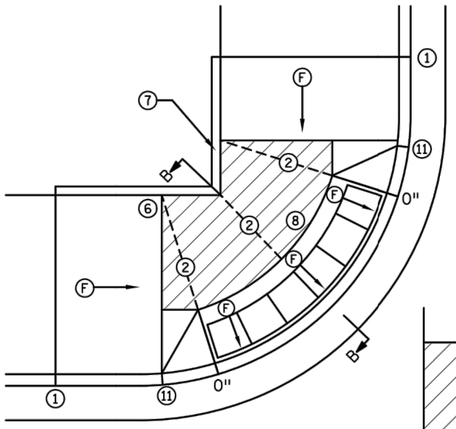


SECTION B-B

FAN

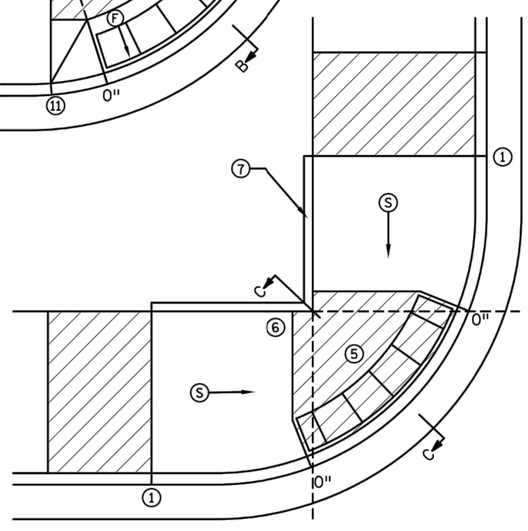


FAN ⑩



MODIFIED FAN ⑩

USED WHEN RIGHT-OF-WAY
IS CONSTRAINED



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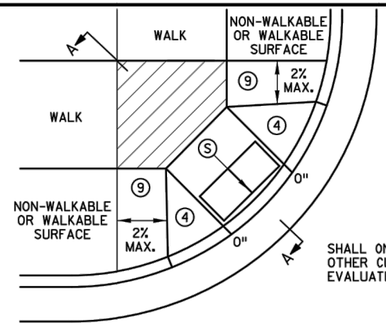

DIAGONAL

SHALL ONLY BE USED AFTER ALL OTHER CURB RAMP TYPES HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE GREATER THAN 2%.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE, ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL RUNNING SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH. (EXCEPT AS STATED IN ⑥ BELOW.

TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 OF 6 FOR ALL SEPARATELY POURED INITIAL LANDINGS.

WHEN SIDEWALK IS AT BACK OF CURB, TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

MAINTAIN POSITIVE BOULEVARD DRAINAGE TO TOP OF CURB.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 3" FROM THE BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

① MATCH FULL HEIGHT CURB.
② 4' MINIMUM DEPTH LANDING REQUIRED ACROSS TOP OF RAMP.
③ 3" HIGH CURB WHEN USING A 3' LONG RAMP, 4" HIGH CURB WHEN USING A 4' LONG RAMP.
④ SEE SHEET 4 OF 6, TYPICAL SIDE TREATMENT OPTIONS, FOR DETAILS ON FLARES AND RETURNED CURBS.
⑤ DETECTABLE WARNINGS MAY BE PART OF THE 4' X 4' MIN. LANDING AREA IF IT IS NOT FEASIBLE TO CONSTRUCT THE LANDING OUTSIDE OF THE DETECTABLE WARNING AREA.
⑥ THE GRADE BREAK SHALL BE PERPENDICULAR TO THE BACK OF WALK. THIS WILL ENSURE THAT THE GRADE BREAK IS PERPENDICULAR TO THE DIRECTION OF TRAVEL. (TYPICAL FOR ALL)
⑦ WHEN ADJACENT TO GRASS, GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS LESS THAN 5% RUNNING SLOPE SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.
⑧ A 7' MIN TOP RADIUS GRADE BREAK IS REQUIRED TO BE CONSTRUCTIBLE.
⑨ PAVE FULL WALK WIDTH.
⑩ "S" SLOPES ON FANS SHALL ONLY BE USED WHEN ALL OTHER FEASIBLE OPTIONS HAVE BEEN EVALUATED AND DEEMED IMPRACTICAL.
⑪ INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3" CURB HEIGHT. REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

- (S) ↓ — INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.
- (F) ↓ — INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.
- LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.
- X" CURB HEIGHT

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 1 OF 6

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

Save: 4/5/2023 3:06 PM sprall Plot: 4/16/2024 7:41 AM X:\F-JG\GOLDV\163618\5-final-dsgn\51-drawings\10-Civil\cadd\dgn\sheet\GV163618DT2.dwg

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
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Rev.#	Revision Issue Description	Date
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SEH

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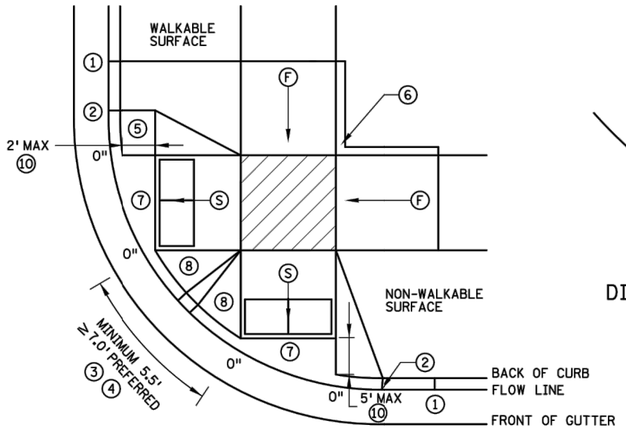
STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

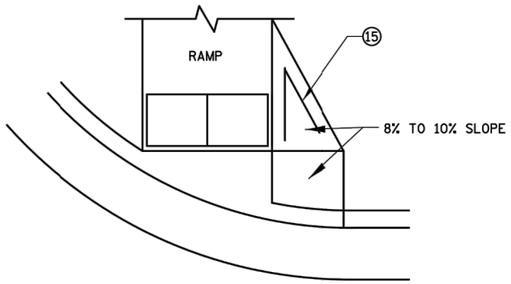
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

MNDOT STANDARD PLAN
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

D6
of 103

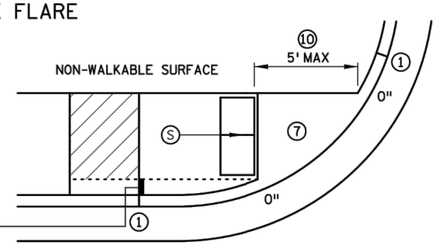


COMBINED DIRECTIONAL

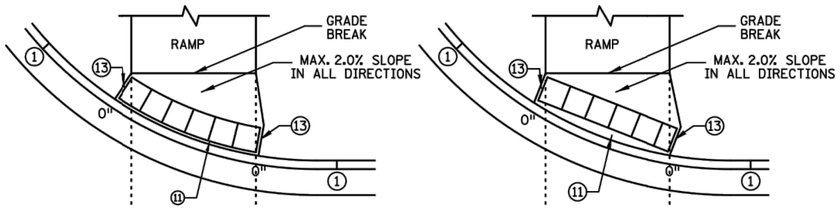


DIRECTIONAL RAMP WALKABLE FLARE

IF NON-CONCRETE BLVD. IS CONSTRUCTED AND IS LESS THAN 2' IN WIDTH AT TOP OF CURB TRANSITION, PAVE CONCRETE RAMP WIDTH TO ADJACENT BACK OF CURB.

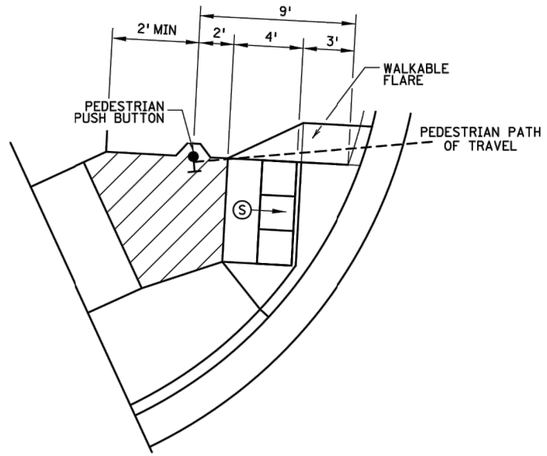


STANDARD ONE-WAY DIRECTIONAL ⑨



DETECTABLE WARNING PLACEMENT WHEN SETBACK CRITERIA IS EXCEEDED ⑫

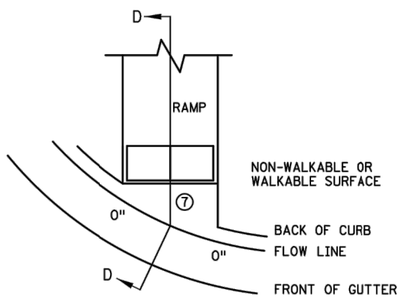
ONE-WAY DIRECTIONAL WITH DETECTABLE WARNING AT BACK OF CURB

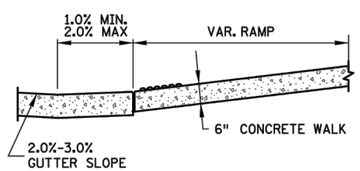


SEMI-DIRECTIONAL RAMP ③④⑨

3' DOME SETBACK, 4' LONG RAMP AND PUSH BUTTON 9' FROM THE BACK OF CURB

PRIMARILY USED FOR APS APPLICATIONS WHERE THE PAR DOES NOT CONTINUE PAST THE PUSH BUTTON (DEAD-END SIDEWALK)





SECTION D-D

CURB FOR DIRECTIONAL RAMPS ⑭

NOTES:

LANDINGS SHALL BE LOCATED ANYWHERE THE PEDESTRIAN ACCESS ROUTE (PAR) CHANGES DIRECTION, AT THE TOP OF RAMPS THAT HAVE RUNNING SLOPES GREATER THAN 5.0%, AND IF THE APPROACHING WALK IS INVERSE GRADE.

INITIAL CURB RAMP LANDINGS SHALL BE CONSTRUCTED WITHIN 15' FROM THE BACK OF CURB, WITH 6' FROM THE BACK OF CURB BEING THE PREFERRED DISTANCE. ONLY APPLICABLE WHEN THE INITIAL RAMP RUNNING SLOPE IS OVER 5.0%.

SECONDARY CURB RAMP LANDINGS ARE REQUIRED FOR EVERY 30" OF VERTICAL RISE WHEN THE LONGITUDINAL SLOPE IS GREATER THAN 5.0%.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PAR. 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOP GRADE BREAK OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL. THUS BOTH SIDES OF A SLOPED WALKING SURFACE MUST BE EQUAL LENGTH.

TO ENSURE INITIAL RAMPS AND INITIAL LANDINGS ARE PROPERLY CONSTRUCTED, LANDINGS SHALL BE CAST SEPARATELY. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON SHEET 6 AND THE ADA SPECIAL PROVISION (PROSECUTION OF WORK).

TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

WHEN THE BOULEVARD IS 4' WIDE OR LESS, THE TOP OF CURB TAPER SHALL MATCH THE RAMP SLOPES TO REDUCE NEGATIVE BOULEVARD SLOPES FROM THE TOP BACK OF CURB TO THE PAR.

ALL RAMP TYPES SHOULD HAVE A MINIMUM 3' LONG RAMP LENGTH.

4' MINIMUM WIDTH OF DETECTABLE WARNING IS REQUIRED FOR ALL RAMPS. DETECTABLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MIN. OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE PAR WIDTH OF SHARED-USE PATHS AND THE ENTIRE PAR WIDTH OF THE WALK WITH THE EXCEPTION OF 3" MAXIMUM ON EACH OUTSIDE EDGE WHICH ENSURES THE DETECTABLE WARNINGS ARE ENCASED IN CONCRETE WHEN ADJACENT TO TURF. WHEN ADJACENT TO CONCRETE FLARES 0" - 3" OFFSET IS ALLOWED.

WHEN DESIGNING OR ORDERING RECTANGULAR DETECTABLE WARNING SURFACES SHOULD BE 6" LESS THAN THE INCOMING PAR. ARC LENGTH OF THE RADIAL DETECTABLE WARNINGS SHOULD NOT BE GREATER THAN 20 FEET.

RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 3" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB. SEE NOTES ⑩ & ⑪ FOR INFORMATION REGARDING RECTANGULAR DETECTABLE WARNING PLACEMENT.

① MATCH FULL CURB HEIGHT.

② 3" HIGH CURB WHEN USING A 3' LONG RAMP
4" HIGH CURB WHEN USING A 4' LONG RAMP.

③ 3" MINIMUM CURB HEIGHT (5.5' MIN. DISTANCE REQUIRED BETWEEN DOMES)
4" PREFERRED (7' MIN. DISTANCE REQUIRED BETWEEN DOMES).

④ THE "BUMP" IN BETWEEN THE RAMPS SHOULD NOT BE IN THE PATH OF TRAVEL FOR COMBINED DIRECTIONAL RAMPS. IF THIS OCCURS MODIFY THE RAMP LOCATION OR SWITCH RAMP TO A FAN/DEPRESSED CORNER.

⑤ WHEN USING CONCRETE PAVED FLARES ON THE OUTSIDE OF DIRECTIONAL RAMPS, AND ADJACENT TO A WALKABLE SURFACE, DIRECTIONAL RAMP FLARES SHALL BE USED. SEE THE DETAIL ON THIS SHEET.

⑥ GRADING SHALL ALWAYS BE USED WHEN FEASIBLE. V CURB, IF USED, SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS. WHEN ADJACENT TO PARKING LOTS, CONCRETE OR BITUMINOUS TAPERS SHOULD BE USED OVER V CURB TO REDUCE TRIPPING HAZARDS AND FACILITATE SNOW & ICE REMOVAL.

⑦ MAX. 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK AND DRAIN TO FLOW LINE. SHALL BE CONSTRUCTED INTEGRAL WITH CURB AND GUTTER.

⑧ 8% TO 10% WALKABLE FLARE.

⑨ PLACE DOMES AT THE BACK OF CURB WHEN ALLOWABLE SETBACK CRITERIA IS EXCEEDED.

⑩ FRONT EDGE OF DETECTABLE WARNING SHALL BE SET BACK 2' MAXIMUM WHEN ADJACENT TO WALKABLE SURFACE, AND 5' MAXIMUM WHEN ADJACENT TO NON-WALKABLE SURFACE WITH ONE CORNER SET 3" FROM BACK OF CURB. A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

⑪ RECTANGULAR DETECTABLE WARNINGS MAY BE SETBACK UP TO 9" FROM THE BACK OF CURB WITH CORNERS SET 3" FROM BACK OF CURB. IF 9" SETBACK IS EXCEEDED USE RADIAL DETECTABLE WARNINGS.

⑫ FOR DIRECTIONAL RAMPS WITH THE DETECTABLE WARNINGS PLACED AT THE BACK OF CURB, THE DETECTABLE WARNINGS SHALL COVER THE ENTIRE WIDTH OF THE WALK/PATH. THIS ENSURES A DETECTABLE EDGE AND HELPS ELIMINATE THE CURB TAPER OBSTRUCTING THE PATH OF PEDESTRIAN TRAVEL.

⑬ THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE BACK OF CURB. MAINTAIN 3" BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑭ TO BE USED FOR ALL DIRECTIONAL RAMPS, EXCEPT WHERE DOMES ARE PLACED ALONG THE BACK OF CURB.

⑮ PLACE 2 NO. 4 BARS 4 INCHES FROM SIDE OF FORMS WITH A MINIMUM 2 INCHES OF CONCRETE COVER ALONG EACH SIDE OF FLARE (INCIDENTAL).

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

(S) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

(F) INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

X" CURB HEIGHT

REVISION:
APPROVED: 11-04-2021
JEFFREY PERKINS OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250	2 OF 6
APPROVED: 11-04-2021	
REVISED:	

THOMAS STYRBICKI STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (T.H.) SHEET NO. OF SHEETS

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date
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Rev.#	Revision Issue Description	Date
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SEH

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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

MNDOT STANDARD PLAN
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

D7
of 103

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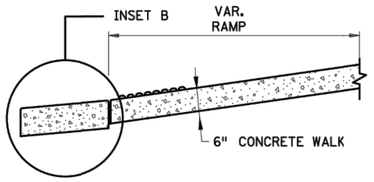
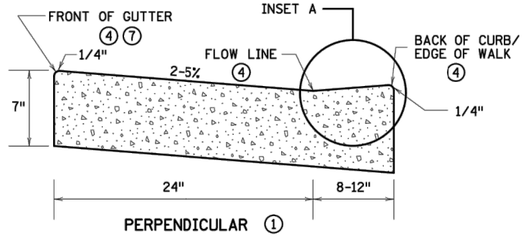
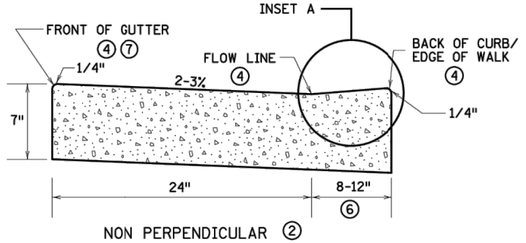
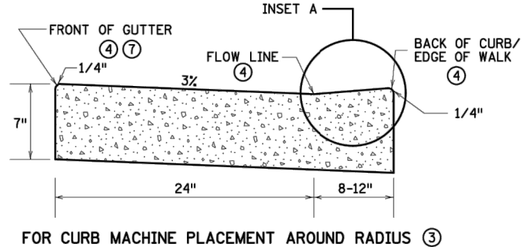




PERPENDICULAR ①

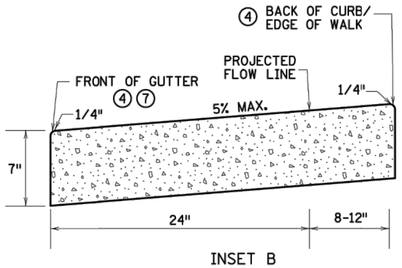


NON PERPENDICULAR ②

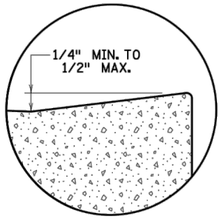


FOR CURB MACHINE PLACEMENT AROUND RADIUS ③
(REGARDLESS OF RAMP TYPE)

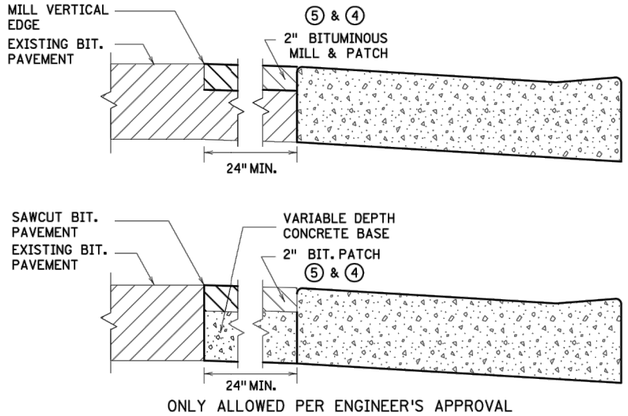
PEDESTRIAN ACCESS ROUTE CURB & GUTTER DETAIL



INSET B
OUTFLOW GUTTER ⑧



INSET A

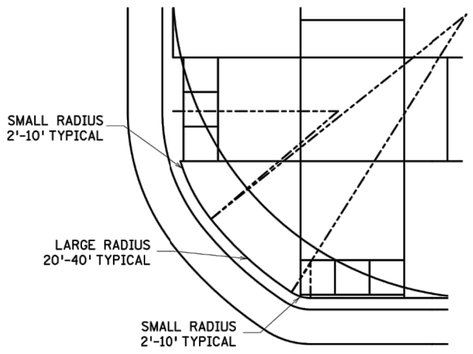


ONLY ALLOWED PER ENGINEER'S APPROVAL

PAVEMENT TREATMENT OPTIONS IN FRONT OF CURB & GUTTER

FOR USE ON CURB RAMP RETROFITS

ADA CURB EXTENSION WITH COMPOUND RADIUS (BUMP OUT) ⑪



COMBINED DIRECTIONAL ⑩
(COMPOUND RADIUS)

NOTES:

POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR) AT A 2% MAXIMUM.
NO PONDING SHALL BE PRESENT IN THE PAR.
ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN 1/4 INCH.

① FOR USE AT CURB CUTS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: PERPENDICULAR, TIERED PERPENDICULAR, PARALLEL, AND DIAGONAL RAMPS.

② FOR USE AT CURB RAMPS WHERE THE PEDESTRIAN'S PATH OF TRAVEL IS ASSUMED NON PERPENDICULAR TO THE GUTTER FLOW LINE. RAMP TYPES INCLUDE: FANS & DEPRESSED CORNERS.

③ BEGIN GUTTER SLOPE TRANSITION 10' OUTSIDE OF ALL CURB RAMPS.

④ THERE SHALL BE NO VERTICAL DISCONTINUITIES GREATER THAN 1/4".

⑤ ELEVATION CHANGE TAKES PLACE FROM THE EXISTING TO NEW FRONT OF GUTTER. PATCH IS USED TO MATCH THE NEW GUTTER FACE INTO THE EXISTING ROADWAY.

⑥ VARIABLE WIDTH FOR DIRECTIONAL CURB APPLICATIONS. SEE SHEET 2 FOR DIRECTIONAL CURB SLOPE REQUIREMENTS.

⑦ TOP FRONT OF GUTTER SHALL BE CONSTRUCTED FLUSH WITH PROPOSED ADJACENT PAVEMENT ELEVATION. TOP 1.5" OF THE GUTTER FACE MUST BE A FORMED EDGE. PAR GUTTER SHALL NOT BE OVERLAID.

⑧ SHOULD BE USED AT VERTICALLY CONSTRAINED AREAS WHEN AT A DRAINAGE HIGH POINT OR SUPER ELEVATED ROADWAY SEGMENTS.

⑨ DRILL AND GROUT NO. 4 EPOXY-COATED 18" LONG TIE BARS AT 30" CENTER TO CENTER INTO EXISTING CONCRETE PAVEMENT 1' MINIMUM FROM ALL JOINTS.

⑩ HELPS PROVIDE TWO SEPARATE RAMPS, REDUCES THE DOME SETBACK LENGTH AND MINIMIZES DIRECTIONAL CURB. THIS RADIUS DESIGN CLOSELY FOLLOWS THE TURNING VEHICLE PATH WHILE OPTIMIZING CURB RAMP LENGTH.

⑪ CURB EXTENSIONS SHOULD BE USED IN VERTICALLY CONSTRAINED AREAS, USUALLY IN DOWNTOWN ROADWAY SEGMENTS WHERE ON-STREET PARKING IS AVAILABLE. CURB EXTENSIONS SHOULD BE CONSIDERED FOR APS INTERSECTIONS WHERE SPACE IS LIMITED.
PUSH BUTTONS MUST MEET APS CRITERIA AS DESCRIBED IN THE PUSH BUTTON LOCATION DETAIL SHEET.

REVISION:
APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 3 OF 6

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date
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SEH

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GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

MNDOT STANDARD PLAN
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

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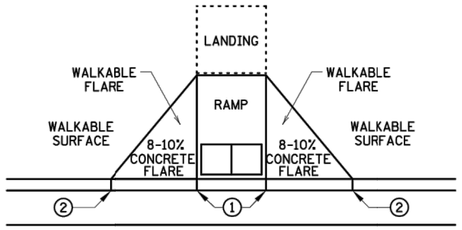
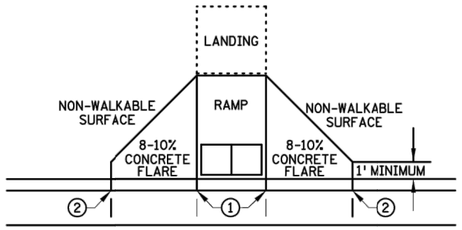
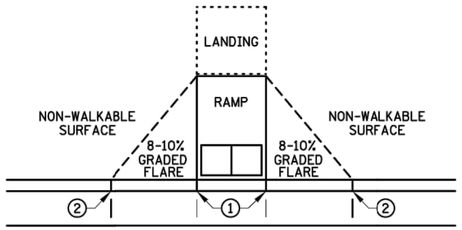


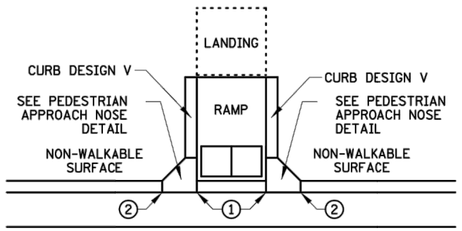
PAVED FLARES
ADJACENT TO WALKABLE SURFACE



PAVED FLARES
ADJACENT TO NON-WALKABLE SURFACE

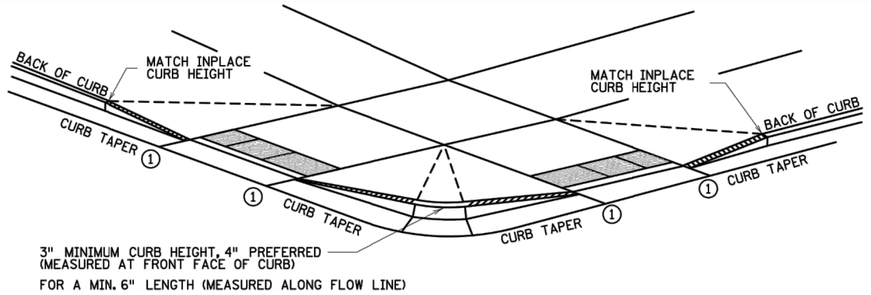


GRADED FLARES

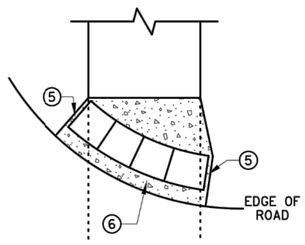


RETURNED CURB ④

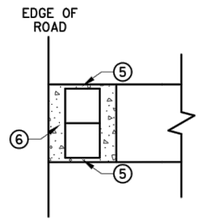
TYPICAL SIDE TREATMENT OPTIONS ③ ⑩



DETECTABLE EDGE WITH ⑦
CURB AND GUTTER

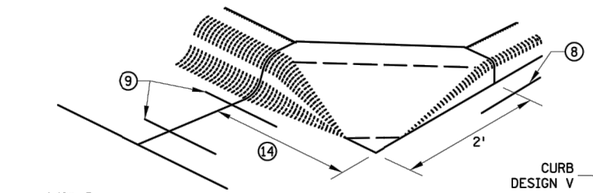


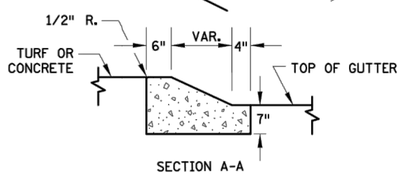
RADIAL DETECTABLE WARNING



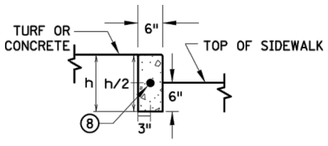
RECTANGULAR DETECTABLE WARNING

DETECTABLE EDGE WITHOUT CURB AND GUTTER





SECTION A-A



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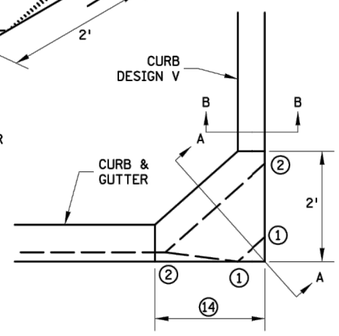
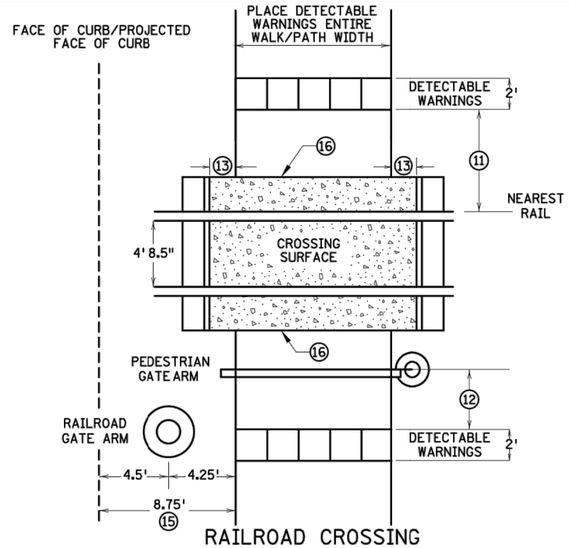


PEDESTRIAN APPROACH
NOSE DETAIL
(FOR RETURNED CURB
SIDE TREATMENT)



RAILROAD CROSSING
PLAN VIEW

NOTES:

INTERMEDIATE CURB HEIGHTS TAPER SHALL RISE AT 8-10% TO A MINIMUM 3 INCH CURB HEIGHT. INCREASE CURB TAPER LENGTH AT LESS THAN 8% OR REDUCE INTERMEDIATE CURB HEIGHT TO 2+ INCHES IF NECESSARY TO MATCH ADJACENT BOULEVARD OR SIDEWALK GRADES.

SEE STANDARD PLATE 7038 AND THIS SHEET FOR ADDITIONAL DETAILS ON DETECTABLE WARNING.

A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP WITHOUT RAISED OBSTACLES THAT COULD MISTAKENLY BE TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.

CONCRETE FLARE LENGTHS ADJACENT TO NON-WALKABLE SURFACES SHOULD BE LESS THAN 8' LONG MEASURED ALONG THE RAMPS FROM THE BACK OF CURB.

① 0" CURB HEIGHT. SEE INSET A ON SHEET 3 OF 6.

② FULL CURB HEIGHT.

③ SIDE TREATMENTS ARE APPLICABLE TO ALL RAMP TYPES AND SHOULD BE IMPLEMENTED AS NEEDED AS FIELD CONDITIONS DICTATE. THE ENGINEER SHALL DETERMINE THE RAMP SIDE TREATMENTS BASED ON MAINTENANCE OF BOTH ROADWAY AND SIDEWALK, ADJACENT PROPERTY CONSIDERATIONS, AND MITIGATING CONSTRUCTION IMPACTS.

④ TYPICALLY USED FOR MEDIANS AND ISLANDS.

⑤ WHEN NO CONCRETE FLARES ARE PROPOSED, THE CONCRETE WALK SHALL BE FORMED AND CONSTRUCTED PERPENDICULAR TO THE EDGE OF ROADWAY. MAINTAIN 3" MAX. BETWEEN EDGE OF DOMES AND EDGE OF CONCRETE.

⑥ IF NO CURB AND GUTTER IS PLACED IN RURAL SECTIONS, DETECTABLE WARNINGS SHALL BE PLACED 1' FROM THE EDGE OF BITUMINOUS ROADWAY AND/OR BITUMINOUS SHARED-USE PATH TO PROVIDE VISUAL CONTRAST.

⑦ ALL CONSTRUCTED CURBS MUST HAVE A CONTINUOUS DETECTABLE EDGE FOR THE VISUALLY IMPAIRED. THIS DETECTABLE EDGE REQUIRES DETECTABLE WARNINGS WHEREVER THERE IS ZERO-INCH HIGH CURB. CURB TAPERS ARE CONSIDERED A DETECTABLE EDGE WHEN THE TAPER STARTS WITHIN 3" OF THE EDGE OF THE DETECTABLE WARNINGS. AND UNIFORMLY RISES TO A 3-INCH MINIMUM CURB HEIGHT. ANY CURB NOT PART OF A CURB TAPER AND LESS THAN 3 INCHES IN HEIGHT IS NOT CONSIDERED A DETECTABLE EDGE AND THEREFORE IS NOT COMPLIANT WITH ACCESSIBILITY STANDARDS.

⑧ DRILL AND GROUT 1 - NO. 4 12" LONG REINFORCEMENT BAR (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE V CURB.

⑨ DRILL AND GROUT 2 - NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) WITH 3" MIN. COVER. REINFORCEMENT BARS ARE NOT NEEDED IF THE APPROACH NOSE IS POURED INTEGRAL WITH THE CURB AND GUTTER.

⑩ SIDE TREATMENT EXAMPLES SHOWN ARE WHEN THE INITIAL LANDING IS APPROXIMATELY LEVEL WITH THE FULL HEIGHT CURB (I.E. 6' LONG RAMP FOR 6" HIGH CURB). WHEN THE INITIAL LANDING IS MORE THAN 1" BELOW FULL HEIGHT CURB REFER TO SHEETS 1 & 2 TO MODIFY THE CURB HEIGHT TAPERS AND MAINTAIN POSITIVE BOULEVARD DRAINAGE. CONSTRUCT THESE TAPERS AT 0"-3" AT 8-10%, THEN LESS THAN 5% FROM 3" CURB TO FULL CURB HEIGHT.

⑪ NEAREST EDGE OF DETECTABLE WARNING SURFACES SHALL BE PLACED 12' MINIMUM TO 15' MAXIMUM FROM THE NEAREST RAIL. FOR SKEWED RAILWAYS IN NO INSTANCE SHALL THE DETECTABLE WARNING BE CLOSER THAN 12' MEASURED PERPENDICULAR TO THE NEAREST RAIL.

⑫ WHEN PEDESTRIAN GATES ARE PROVIDED, DETECTABLE WARNING SURFACES SHALL BE PLACED ON THE SIDE OF THE GATES OPPOSITE THE RAIL, 2' FROM THE APPROACHING SIDE OF THE GATE ARM. THIS CRITERIA GOVERNS OVER NOTE ⑪.

⑬ CROSSING SURFACE SHALL EXTEND 2' MINIMUM PAST THE OUTSIDE EDGE OF WALK OR SHARED-USE PATH.

⑭ 3' FOR MEDIANS AND SPLITTER ISLANDS. NOSE CAN BE REDUCED TO 2' ON FREE RIGHT ISLANDS.

⑮ SIDEWALK TO BE PLACED 8.75' MIN. FROM THE FACE OF CURB/PROJECTED FACE OF CURB. THIS ENSURES MIN. CLEARANCE BETWEEN THE SIDEWALK AND GATE ARM COUNTERWEIGHT SUPPORTS.

⑯ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 4 OF 6

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

SEH Project GOLDV 163618
Drawn By SRP
Designed By SRP
Checked By SDH

Rev.# | Revision Issue Description | Date | Rev.# | Revision Issue Description | Date

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MNDOT STANDARD PLAN
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

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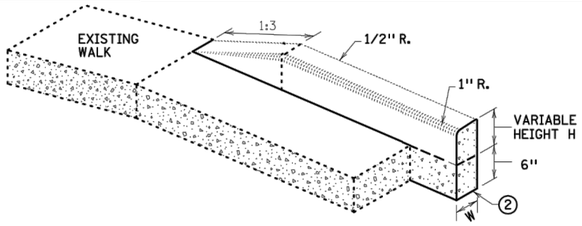
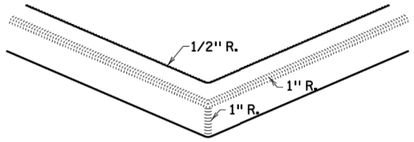
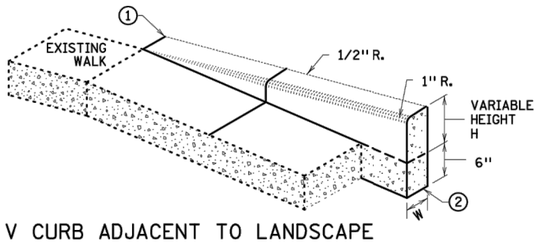


V CURB ADJACENT TO LANDSCAPE
CURB WITHIN SIDEWALK LIMITS



V CURB INTERSECTION

CONCRETE CURB DESIGN V	
CURB HEIGHT H	CURB WIDTH W
<6"	4"
≥6"	6"



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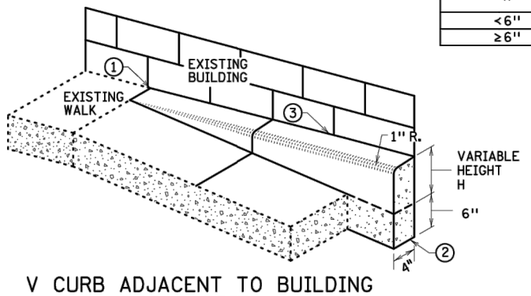
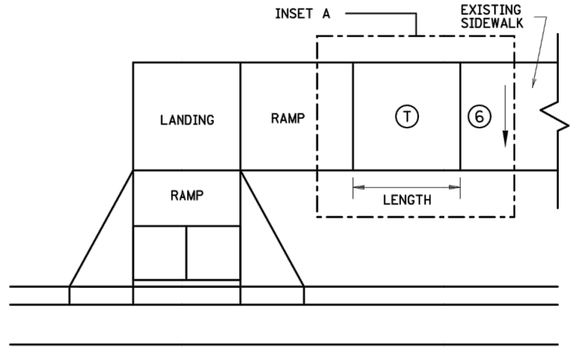
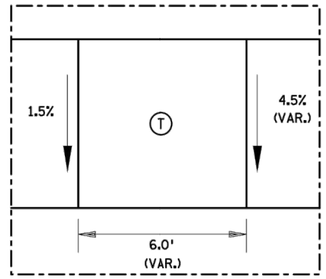
CURB OUTSIDE SIDEWALK LIMITS



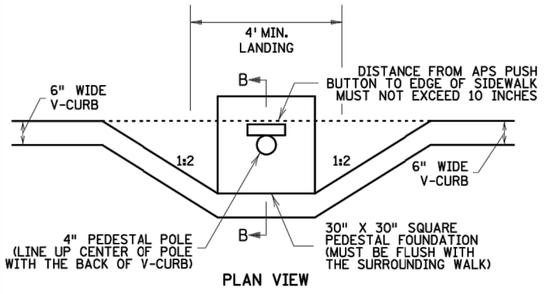
V CURB ADJACENT TO BUILDING OR BARRIER



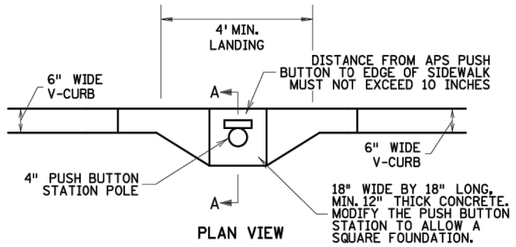


TRANSITION PANEL ④⑤

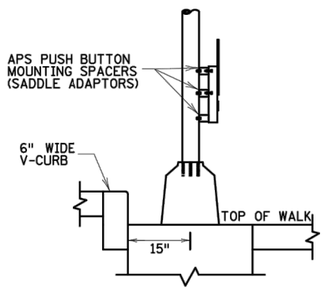
INSET A



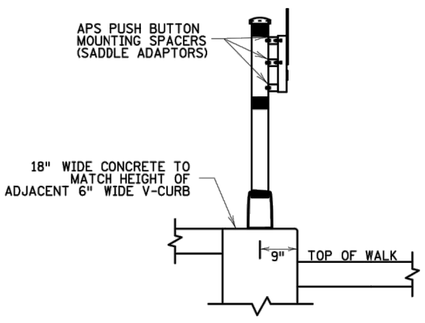
PLAN VIEW



PLAN VIEW



SECTION B-B



SECTION A-A

SIGNAL PEDESTAL & PUSH BUTTON (V-CURB)

PUSH BUTTON STATION (V-CURB)

NOTES:

A WALKABLE FLARE IS AN 8-10% CONCRETE FLARE THAT IS REQUIRED WHEN THE FLARE IS ADJACENT TO A WALKABLE SURFACE, OR WHEN THE PEDESTRIAN PATH OF TRAVEL OF A PUSH BUTTON TRAVERSES THE FLARE.

ALL V CURB CONTRACTION JOINTS SHALL MATCH CONCRETE WALK JOINTS.

WHERE RIGHT-OF-WAY ALLOWS, USE OF V CURB SHOULD BE MINIMIZED. GRADING ADJACENT TURF OR SLOPING ADJACENT PAVEMENT IS PREFERRED.

V CURB SHALL BE PLACED OUTSIDE THE SIDEWALK LIMITS WHEN RIGHT OF WAY ALLOWS.

V CURB NEXT TO BUILDING SHALL BE A 4" WIDTH AND SHALL MATCH PREVIOUS TOP OF SIDEWALK ELEVATIONS.

① END TAPERS AT TRANSITION SECTION SHALL MATCH INPLACE SIDEWALK GRADES.

② ALL V CURB SHALL MATCH BOTTOM OF ADJACENT WALK.

③ CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM ½" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.

④ THE MAX. RATE OF CROSS SLOPE TRANSITIONING IS 1' LINEAR FOOT OF SIDEWALK PER HALF PERCENT CROSS SLOPE. WHEN PAR WIDTH IS GREATER THAN 6' OR THE RUNNING SLOPE IS GREATER THAN 5%, DOUBLE THE CALCULATED TRANSITION LENGTH.

⑤ TRANSITION PANELS ARE TO ONLY BE USED AFTER THE RAMP, OR IF NEEDED, LANDING ARE AT THE FULL CURB HEIGHT (TYPICAL SECTION).

⑥ EXISTING CROSS SLOPE GREATER THAN 2.0%.

LEGEND

THESE LONGITUDINAL SLOPE RANGES SHALL BE THE STARTING POINT. IF SITE CONDITIONS WARRANT, LONGITUDINAL SLOPES UP TO 8.3% OR FLATTER ARE ALLOWED.

Ⓢ INDICATES PEDESTRIAN RAMP - SLOPE SHALL BE BETWEEN 5.0% MINIMUM AND 8.3% MAXIMUM IN THE DIRECTION SHOWN AND THE CROSS SLOPE SHALL NOT EXCEED 2.0%.

LANDING AREA - 4' X 4' MIN. (5' X 5' MIN. PREFERRED) DIMENSIONS AND MAX 2.0% SLOPE IN ALL DIRECTIONS. LANDING SHALL BE FULL WIDTH OF INCOMING PARS.

Ⓣ TRANSITION PANEL(S) - TO BE USED FOR TRANSITIONING THE CROSS-SLOPE OF A RAMP TO THE EXISTING WALK CROSS-SLOPE. RATE OF TRANSITION SHOULD BE 0.5% PER 1 LINEAR FOOT OF WALK. SEE THIS SHEET FOR ADDITIONAL INFORMATION.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 5 OF 6

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

MNDOT STANDARD PLAN
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

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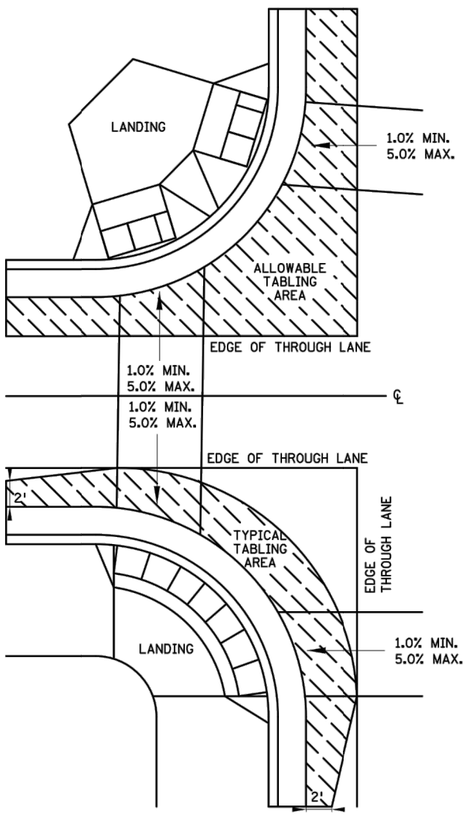
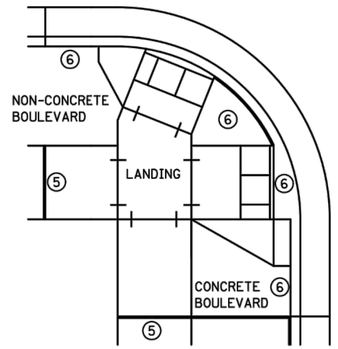
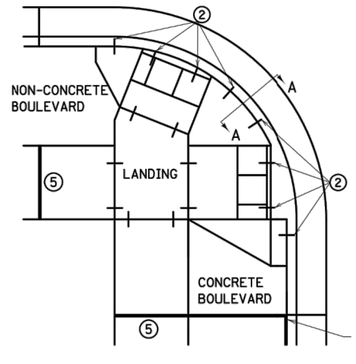


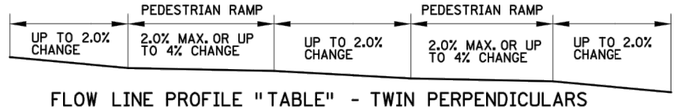
CURB LINE AND ROAD CROSSING ADJUSTMENTS



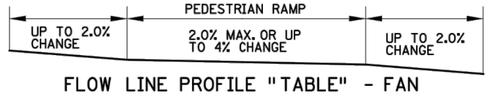
EXPANSION MATERIAL PLACEMENT
FOR CONCRETE ROADWAYS



CURB LINE REINFORCEMENT ④
PLACEMENT ON BITUMINOUS ROADWAYS

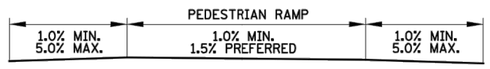


FLOW LINE PROFILE "TABLE" - TWIN PERPENDICULARS

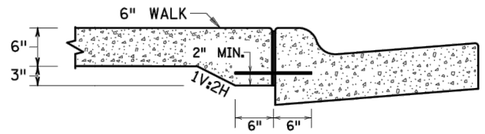


FLOW LINE PROFILE "TABLE" - FAN

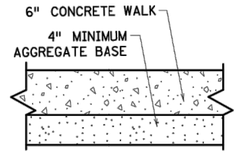
FLOW LINE PROFILE RAISE - TWIN PERPENDICULARS



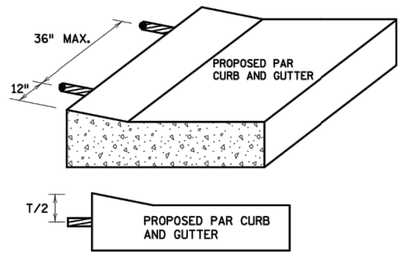
FLOW LINE PROFILE RAISE - FAN



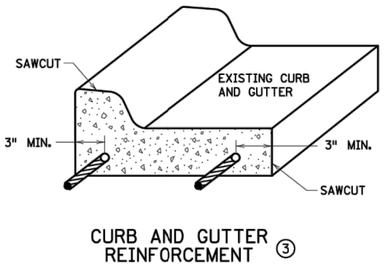
SECTION VIEW A-A
THICKENED SECTION
THROUGH CURB RAMP FLARES



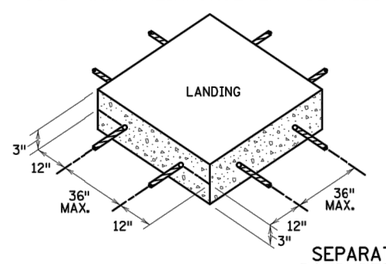
TYPICAL SIDEWALK SECTION
WITHIN INTERSECTION CORNER

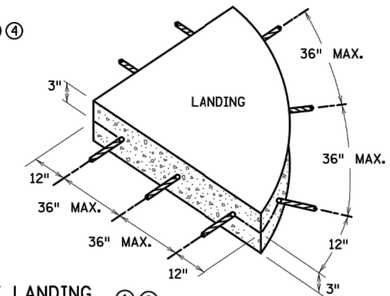


CURB RAMP REINFORCEMENT DETAILS ②④



CURB AND GUTTER
REINFORCEMENT ③





SEPARATE LANDING
POUR REINFORCEMENT ①②

GENERAL NOTES:

"TABLING" OF CROSSWALKS MEANS MAINTAINING LESS THAN 2% CROSS SLOPE WITHIN A CROSSWALK, IS REQUIRED WHEN A ROADWAY IS IN A STOP OR YIELD CONDITION AND THE PROJECT SCOPE ALLOWS.

RECONSTRUCTION PROJECTS: ON FULL PAVEMENT REPLACEMENT PROJECTS "TABLING" OF ENTIRE CROSSWALK SHALL OCCUR WHEN FEASIBLE.

MILL & OVERLAY PROJECTS: "TABLING" OF FLOW LINES, IN FRONT OF THE PEDESTRIAN RAMP, IS REQUIRED WHEN THE EXISTING FLOW LINE IS GREATER THAN 2%. WARPING OF THE BITUMINOUS PAVEMENT CAN NOT EXTEND INTO THE THROUGH LANE. TABLE THE FLOW LINE TO 2% OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA;

1) 1.0% MIN. CROSS-SLOPE OF THE ROAD
2) 5.0% MAX. CROSS-SLOPE OF THE ROAD
3) "TABLE" FLOW LINE UP TO 4% CHANGE FROM EXISTING SLOPE IN FRONT OF PEDESTRIAN RAMP
4) UP TO 2% CHANGE IN FLOW LINE FROM EXISTING SLOPE BEYOND THE PEDESTRIAN CURB RAMP

STAND-ALONE ADA RETROFITS: FOLLOW MILL & OVERLAY CRITERIA ABOVE HOWEVER ALL PAVEMENT WARPING IS DONE WITH BITUMINOUS PATCHING ON BITUMINOUS ROADWAYS AND FULL-DEPTH APRON REPLACEMENT ON CONCRETE ROADWAYS.

RAISING OF CURB LINES SHOULD OCCUR IN VERTICALLY CONSTRAINED AREAS. RAISE THE CURB LINES ENOUGH TO ALLOW COMPLIANT RAMPS OR AS MUCH AS POSSIBLE WHILE ADHERING TO THE FOLLOWING CRITERIA;

1) 1.0% MIN. AND 5.0% MAXIMUM CROSS-SLOPE OF THE ROAD
2) 1.0% MIN. FLOW LINE (ON EITHER SIDE OF PEDESTRIAN RAMP) TO MAINTAIN POSITIVE DRAINAGE
3) 5.0% RECOMMENDED MAX. FLOW LINE
4) LONGITUDINAL THROUGH LANE ROADWAY TAPERS SHOULD BE 1" VERTICAL PER 15' HORIZONTAL

NOTES:

① TO ENSURE RAMPS AND LANDINGS ARE PROPERLY CONSTRUCTED, ALL INITIAL LANDINGS AT A TOP OF A RAMPED SURFACE (RUNNING SLOPE GREATER THAN 2%) SHALL BE FORMED AND PLACED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. FOLLOW SIDEWALK REINFORCEMENT DETAILS ON THIS SHEET FOR ALL SEPARATELY POURED INITIAL LANDINGS.

② DRILL AND GROUT NO. 4 12" LONG REINFORCEMENT BARS (EPOXY COATED) AT 36" MAXIMUM CENTER TO CENTER MINIMUM 12" SPACING FROM CONSTRUCTION JOINTS. BARS TO BE ADJUSTED TO MATCH RAMP GRADE. BARS TO BE PAID BY EACH.

③ DRILL AND GROUT 2 - NO. 4 X 12" LONG (6" EMBEDDED) REINFORCEMENT BARS (EPOXY COATED). REINFORCEMENT REQUIRED FOR ALL CONSTRUCTION JOINTS. BARS TO BE PAID BY EACH.

④ THIS CURB LINE REINFORCEMENT DETAIL SHALL BE USED ON BITUMINOUS ROADWAYS. FOR CONCRETE ROADWAYS, SEE NOTE 6.

⑤ CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE.

⑥ USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.250 | 6 OF 6

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

PEDESTRIAN CURB RAMP DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date
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Rev.#	Revision Issue Description	Date
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SEH

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

MNDOT STANDARD PLAN
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

D11
of 103

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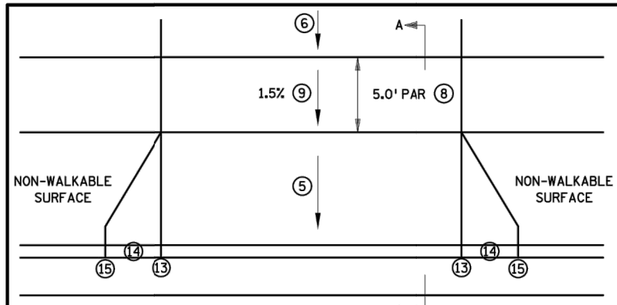
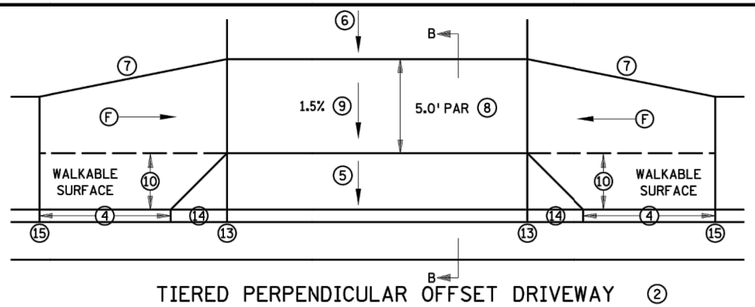
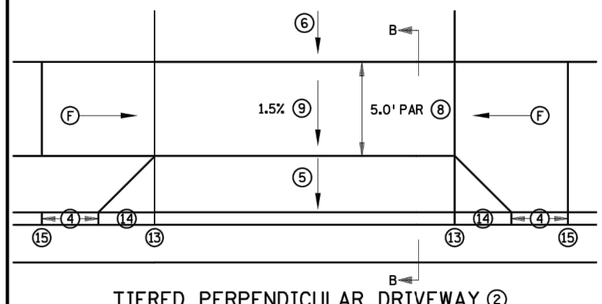


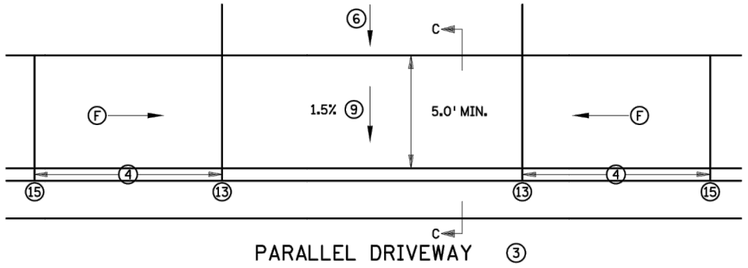
PERPENDICULAR DRIVEWAY ①



TIERED PERPENDICULAR OFFSET DRIVEWAY ②



TIERED PERPENDICULAR DRIVEWAY ②



PARALLEL DRIVEWAY ③

LEGEND	
(F)	INDICATES DRIVEWAY RAMP - SLOPE SHALL BE GREATER THAN 2.0% AND LESS THAN 5.0% IN THE DIRECTION SHOWN AND CROSS SLOPE SHALL NOT EXCEED 2.0%

NOTES:

ALL SIDEWALK AND BOULEVARD WIDTHS SHALL BE MEASURE FROM BACK OF CURB.

IN URBAN ROADWAY SECTIONS, 6" CURB HEIGHT SHOULD BE USED WHEN 6' OR GREATER BOULEVARD WIDTH IS PROPOSED. WHEN BOULEVARD IS LESS THAN 6' WIDE, 4" CURB HEIGHT SHOULD BE USED.

MAINTAIN EXISTING DRAINAGE PATTERNS FLOWING TO PUBLIC RIGHT OF WAY.

ACQUIRE ADEQUATE L3 TO ALLOW FOR A CONTINUOUS PAR PROFILE (UNIFORM TYPICAL SIDEWALK SECTION) THROUGH THE DRIVEWAY APRON.

IN NO CASE SHALL SIDEWALK PROFILES EXCEED 5.0%, EXCEPT SIDEWALK PROFILES CAN MATCH ROADWAY GRADE IF ROADWAY GRADE IS GREATER THAN 5.0%. RAMPS FOR DRIVEWAYS ARE REQUIRED TO FOLLOW THE ABOVE SIDEWALK CRITERIA.

CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS WITHIN THE PEDESTRIAN ACCESS ROUTE (PAR). 1/4" DEEP VISUAL JOINTS SHALL BE USED AT THE TOPS OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

DRIVEWAY TYPES FROM MOST PREFERRED TO LEAST PREFERRED ARE AS FOLLOWS: PERPENDICULAR, TIERED PERPENDICULAR, TIERED PERPENDICULAR OFFSET & PARALLEL.

① PERPENDICULAR DRIVEWAYS ARE THE STANDARD AND STARTING POINT FOR ALL DRIVEWAY DESIGN AND CONSTRUCTION. SHOULD BE USED TO ACHIEVE CONTINUOUS PAR PROFILE THROUGH THE DRIVEWAY. OBTAINING A PERPENDICULAR DRIVEWAY DESIGN BECOMES MORE CRITICAL WITH STEEP ROADWAY PROFILES.

② TO BE USED WHEN PERPENDICULAR DRIVEWAY DESIGN CANNOT BE ACHIEVED, THE DRIVEWAY PAR IS BELOW ROADWAY CURB HEIGHT. THIS DRIVEWAY TYPE CAN BE USED FOR BOTH PAVED (AS SHOWN) AND GRASS BOULEVARDS.

③ TO BE USED WHEN PERPENDICULAR AND TIERED PERPENDICULAR DRIVEWAY DESIGN CANNOT BE ACHIEVED. CAN BE USED FOR STEEP NEGATIVE SLOPED DRIVEWAYS. DW CURB TYPE 2 SHOULD BE USED TO RAISE PAR ABOVE GUTTER AND REDUCE "ROLLER COASTER" EFFECT. 4" HIGH ROADWAY CURB SHOULD BE USED TO REDUCE "ROLLER COASTER" EFFECT ESPECIALLY WHEN MULTIPLE DRIVEWAYS ARE PRESENT.

④ TOP OF CURB SHALL MATCH PROPOSED ADJACENT WALK GRADE.

⑤ 8% STANDARD, 10% MAX. FOR COMMERCIAL AND 12% MAX. FOR RESIDENTIAL. SEE GENERAL NOTES ON SHEET 2 FOR MORE INFORMATION.

⑥ S3 8% MAXIMUM, IF THE SLOPE IS EXCEEDED OR CONTINUED FOR MORE THAN 5', ANALYZE VEHICLE TEMPLATES FOR VERTICAL CLEARANCE. IF EXISTING DRIVEWAY IS NEGATIVELY DRAINING, S3 CAN BECOME SLIGHTLY MORE NEGATIVE TO ACHIEVE PERPENDICULAR DRIVEWAY DESIGN IF THE VERTICAL CLEARANCE IS ACHIEVED IN VEHICLE TEMPLATES.

⑦ 1:3 MIN. 1:5 PREFERRED FOR DRIVEWAY RETROFIT PROJECTS. 1:10 PREFERRED FOR SIDEWALK REPLACEMENT PROJECTS.

⑧ 5.0' MIN. PAR WIDTH IS THE STANDARD THROUGH DRIVEWAYS. IF FEASIBLE WIDEN DRIVEWAY PAR WIDTH TO MATCH APPROACHING SIDEWALK PAR WIDTHS. IN VERTICALLY CONSTRAINED AREAS PAR WIDTHS CAN INCREMENTALLY BE REDUCED TO 4.5' OR 4' MIN AFTER ALL OTHER OPTIONS HAVE BEEN APPLIED.

⑨ THE PEDESTRIAN ACCESS ROUTE, MAY NOT EXCEED 0.02 FT./FT. AS CONSTRUCTED.

⑩ SIDEWALK OFFSET TO BE LESS THAN OR EQUAL TO HALF THE APPROACHING SIDEWALK WIDTH.

⑪ INTEGRAL DRIVEWAY APRON TO BE POURED MONOLITHICALLY/INTEGRAL WITH THE CURB AND GUTTER. SEE SHEET 2 FOR MORE INFORMATION.

⑫ SEE SHEET 2 FOR CURB TYPE INFORMATION.

⑬ 0" CURB IS AT FLOW LINE. SEE DRIVEWAY TABLE FOR BACK OF CURB HEIGHTS.

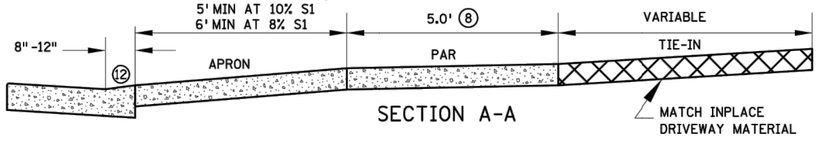
⑭ 3' LONG AT 8-10% PREFERRED FOR INITIAL CURB TAPER. REDUCE CURB TAPER SLOPE IF NECESSARY TO MATCH ADJACENT SIDEWALK GRADES.

⑮ MATCH FULL CURB HEIGHT.

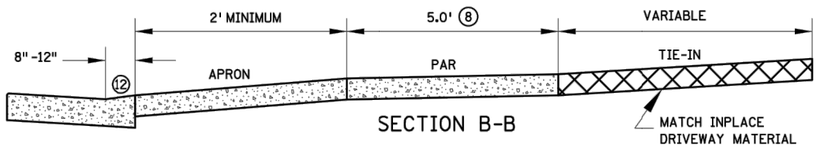
⑯ 1:2 TAPER RATE ON INTEGRAL DRIVEWAY APRONS.

⑰ SEE SHEET 4 FOR WHEN 6" WALK IS REQUIRED.

WITH 4" CURB HEIGHT;
3' MIN AT 10% S1
4' MIN AT 8% S1
WITH 6" CURB HEIGHT;
5' MIN AT 10% S1
6' MIN AT 8% S1



SECTION A-A



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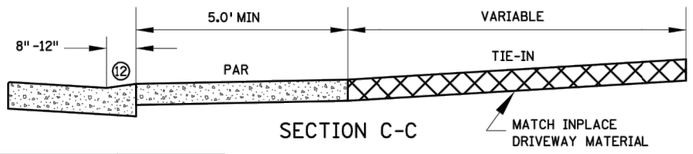

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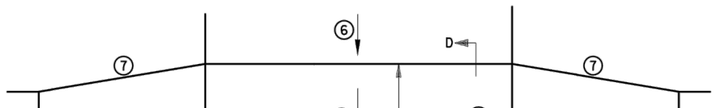
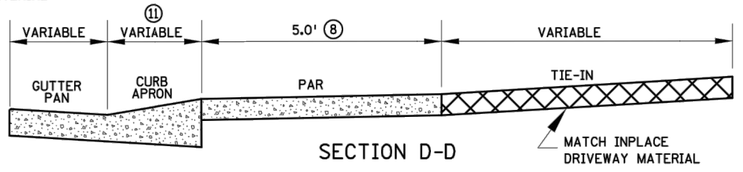


INTEGRAL DRIVEWAY APRON



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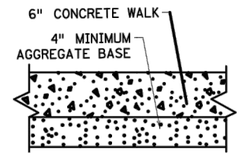
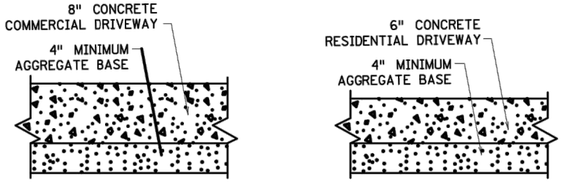


TYPICAL SIDEWALK SECTION ⑰



TYPICAL DRIVEWAY SECTIONS

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.254 | 1 OF 4

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

DRIVEWAY AND SIDEWALK DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

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SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date
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STEPHEN PRALL

DATE 5/7/2024 LICENSE NO. 54949

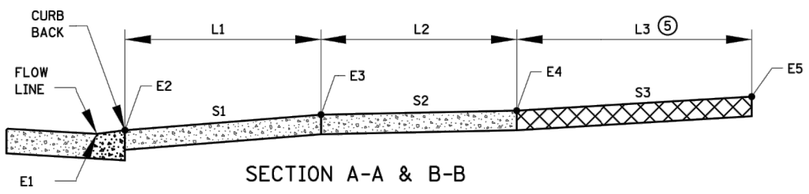
GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

MNDOT STANDARD PLAN ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

DRIVEWAY TABLE (1)

STATION	SIDE	DRIVEWAY TYPE (2)	CURB TYPE (3)	E1	E2	L1 FT	S1 %	E3	L2 FT	S2 (4) %	E4	L3 (5) FT	S3 %	EXISTING (6) %	E5	COMMENTS



SECTION A-A & B-B

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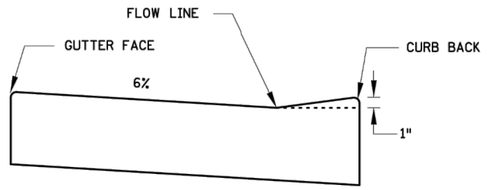
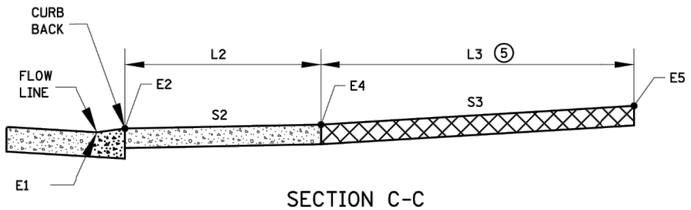


DW CURB TYPE 1

STANDARD CURB AT DRIVEWAY



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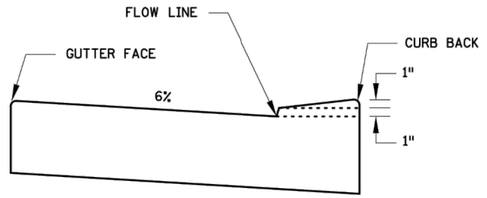
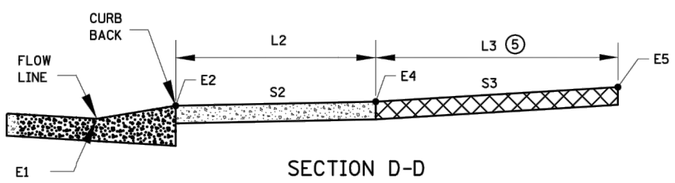


DW CURB TYPE 2

VERTICALLY CONSTRAINED



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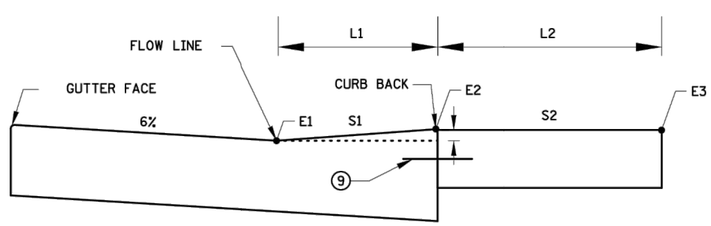

INTEGRAL DRIVEWAY APRON (IDA)

NOTES:

ALL SIDEWALK AND BOULEVARD WIDTHS SHALL BE MEASURED FROM BACK OF CURB.

DW CURB TYPE 1 SHALL BE USED WHEN THE DRIVEWAY ACTS AS A PEDESTRIAN RAMP. THE MAX. APRON SLOPE MUST ADHERE TO ADA CRITERIA AS WELL. DW CURB TYPE 1 SHOULD BE USED IF THERE IS ON STREET PARKING.

WHERE ROADWAY DRAINAGE IS A CONCERN (NEGATIVE SLOPED APRON) DW CURB TYPE 2 CAN BE USED TO HELP KEEP THE WATER ON PUBLIC RIGHT OF WAY.

S1 8% STANDARD, 10% MAX. COMMERCIAL AND 12% MAX. RESIDENTIAL. IF EXISTING GRADES ARE STEEPER DO NOT MAKE GRADES APPRECIABLY WORSE BY USING BEST PRACTICES SUCH AS DRIVEWAY CURB HEIGHTS, EXTENDING L3 AND/OR STEEPEN S3.

S3 8% MAXIMUM, IF THIS SLOPE IS EXCEEDED OR CONTINUED FOR MORE THAN 5', ANALYZE VEHICLE TEMPLATES FOR VERTICAL CLEARANCE. SEE FACILITY DESIGN GUIDE, CHAPTER 6, FOR GEOMETRIC DESIGNS OF DRIVEWAYS.

(1) EXAMPLE SHOWN TO BE INCLUDED IN PLAN FOR EACH DRIVEWAY THAT HAS PAR THROUGH IT.

(2) REFERS TO THE FOLLOWING TYPES; PERPENDICULAR DRIVEWAY, TIERED PERPENDICULAR OFFSET DRIVEWAY, TIERED PERPENDICULAR DRIVEWAY, PARALLEL DRIVEWAY, AND INTEGRAL DRIVEWAY APRON.

(3) DW CURB TYPE 1 IS THE STANDARD AND SHALL BE THE STARTING POINT FOR ALL PERPENDICULAR AND TIERED DRIVEWAYS. DW CURB TYPE 2 SHALL ONLY BE USED AFTER UTILIZING BEST PRACTICES SUCH AS MAXIMIZING S1, S3, AND L3.

(4) SHOULD BE DESIGNED AT 1.5%.

(5) ACQUIRE ADEQUATE L3 TO ALLOW FOR CONTINUOUS PAR PROFILE (UNIFORM SIDEWALK SECTION) THROUGH THE DRIVEWAY APRON.

(6) PROVIDE INPLACE TIE-IN SLOPE INFORMATION AT BACK OF PROPOSED WALK (S3 AREA).

(7) INFORMATION TO BE INCORPORATED INTO DRIVEWAY TABLE WHEN INTEGRAL DRIVEWAY APRON IS USED. OTHER CURB HEIGHTS & CURB APRON LENGTHS CAN BE USED.

(8) L1 & S1 FOR INTEGRAL DRIVEWAY APRON IS TO FLOWLINE. 12.5% IS MAXIMUM PREFERRED SLOPE.

(9) TIE ADJACENT SECTIONS. CONCRETE DRIVEWAY APRON AND CONCRETE DRIVEWAY SIDEWALK SHALL BE CONSTRUCTED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. DRILL AND GROUT OR CAST IN-PLACE THROUGH HOLES IN THE FORMS NO. 4 X 12" LONG TIE BARS (EPOXY COATED). 36" MAXIMUM SPACING WITH 2" MINIMUM CONCRETE COVER PLACED 1' MINIMUM FROM ADJACENT CONSTRUCTION JOINT.

TYPICAL INTEGRAL DRIVEWAY APRON (7)

CURB TYPE	L1 FT	E2	S1 (8) %
IDA 216	1.33	+0.16	12.5
IDA 220	1.67	+0.16	10
IDA 324	2	+0.24	12.5
IDA 432	2.67	+0.33	12.5

REVISION:

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.254 | 2 OF 4

APPROVED: 11-04-2021
REVISED:

THOMAS STYBRICKI
STATE DESIGN ENGINEER

DRIVEWAY AND SIDEWALK DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
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STEPHEN PRALL

DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

MNDOT STANDARD PLAN
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

D13
of 103

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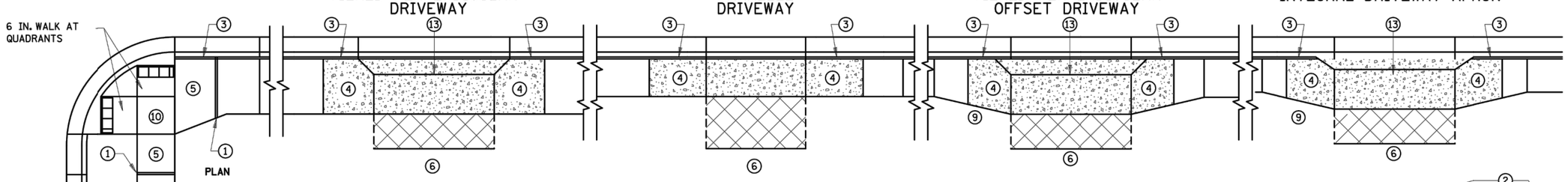
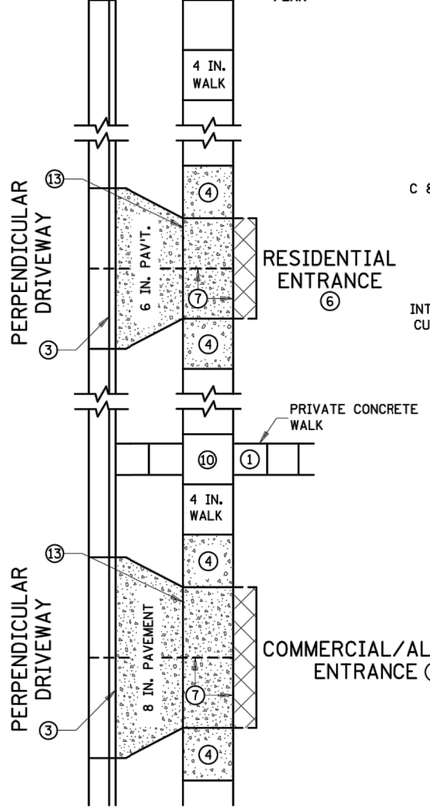
TIERED PERPENDICULAR DRIVEWAY

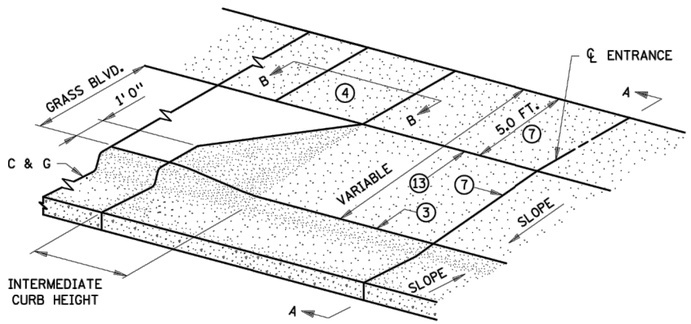
PARALLEL DRIVEWAY

TIERED PERPENDICULAR OFFSET DRIVEWAY

INTEGRAL DRIVEWAY APRON

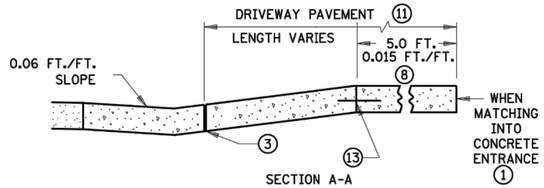




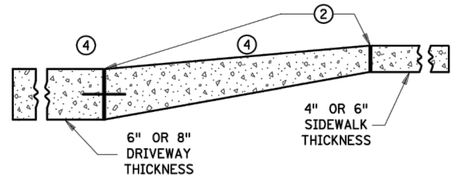


HALF PLAN PERSPECTIVE

PERPENDICULAR DRIVEWAYS WITH GRASS BOULEVARDS



SECTION THRU DRIVEWAY



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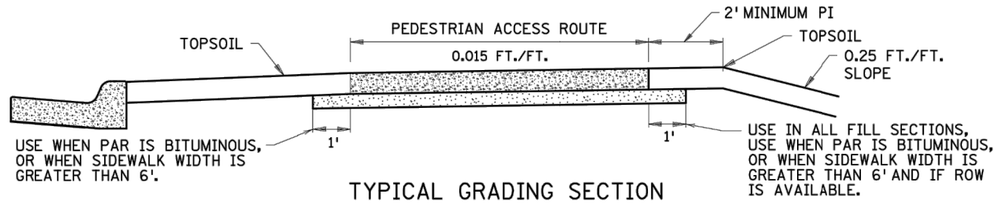
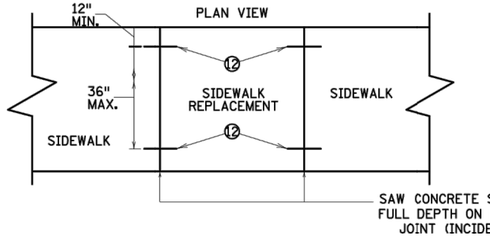
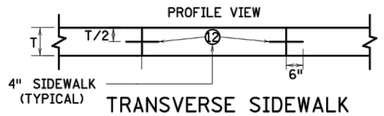


TYPICAL GRADING SECTION

(NOT USED WHEN CONFINED BY CURB, BUILDING, WALL, ETC.)





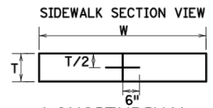
TRANSVERSE SIDEWALK TIE BAR REINFORCEMENT

RETROFITS ONLY

SIDEWALK LONGITUDINAL JOINT TIE BAR TABLE				
SIDEWALK WIDTH, W	SIDEWALK THICKNESS, T	TIE BAR SIZE	LENGTH	SPACING
> 7'	4"	No. 4	12"	24"
>10'	6"	No. 4	12"	36"

FOR 4" CONCRETE ONLY: CAST IN PLACE BARS MUST BE SUPPORTED WITH P-STAKES OR REINFORCEMENT BASKETS FOR FULL WIDTH CONCRETE PLACEMENTS.

FOR 6" CONCRETE ONLY: DRILL AND GROUT OR CAST IN PLACE THROUGH HOLES IN THE FORMS REQUIRED FOR STAGED ADJACENT CONCRETE PLACEMENTS.



LONGITUDINAL SIDEWALK REINFORCEMENT JOINTS

NOTES:

ALL SIDEWALK AND BOULEVARD WIDTHS SHALL BE MEASURED FROM BACK OF CURB.

TO MINIMIZE SIDEWALK "ROLLER COASTER" EFFECT IT IS DESIRABLE TO KEEP THE PAR ELEVATION CONTINUOUS OR AT LEAST IN THE UPPER HALF OF CURB HEIGHT. 4" HIGH CURB SHOULD BE USED INSTEAD OF 6" HIGH CURB TO HELP THIS PROBLEM WHEN APPLICABLE.

4" HIGH ADJACENT CURB IS PREFERRED WHEN BOULEVARDS 4' OR LESS ARE PRESENT MEASURED FROM THE BACK OF CURB. WHEN THE DRIVEWAY IS SLOPING DOWN FROM THE ROADWAY (NEGATIVE) 4" HIGH ADJACENT CURB SHOULD ALSO BE USED.

SEE FACILITY DESIGN GUIDE, CHAPTER 6, FOR GEOMETRIC DESIGN OF DRIVEWAYS.

① CONSTRUCT WITH EXPANSION MATERIAL PER MNDOT SPECIFICATION 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE. DRIVEWAY EXPANSION SHALL BE PLACED AT TOP OR BOTTOM OF TRANSITION PANEL.

② CONSTRUCT WITH EXPANSION MATERIAL MNDOT PER SPEC. 3702 TYPES A-E. EXPANSION MATERIAL SHALL MATCH FULL HEIGHT OF ADJACENT CONCRETE. MAXIMUM ONE EXPANSION PER DRIVEWAY PLACED AT EITHER TOP OR BOTTOM OF CONCRETE THICKNESS TRANSITION. IF MULTIPLE DRIVEWAYS EXIST PLACE ONE EXPANSION BETWEEN EACH DRIVEWAY. IF NO DRIVEWAY EXIST PLACE A MAXIMUM OF ONE EXPANSION PER 150' OF SIDEWALK RUN.

③ USE AN APPROVED TYPE F (1/4 INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.

④ TRANSITION DRIVEWAY THICKNESS TO WALK THICKNESS. IF THERE IS A CONSTRUCTION JOINT AND NO EXPANSION IS USED, INSTALL TIE BARS.

⑤ TRANSITION CURB RAMP THICKNESS TO WALK THICKNESS.

⑥ MATCH INPLACE DRIVEWAY WIDTH, MATERIAL TYPE AND THICKNESS.

⑦ FORM CONTRACTION JOINT AS NEEDED TO PRODUCE APPROXIMATELY SQUARE PANELS. CONCRETE PANEL SIZE SHOULD NOT EXCEED 1 1/2 : 1 LENGTH X WIDTH. 81 SF FOR 6" CONCRETE DRIVEWAY WITH 9'X9' MAXIMUM PANEL SIZE. 144 SF FOR 8" CONCRETE DRIVEWAY WITH 12'X12' MAXIMUM PANEL SIZE. MATCH DRIVEWAY APRON AND SIDEWALK JOINTS.

⑧ THE PEDESTRIAN ACCESS ROUTE CROSS-SLOPE, SHALL NOT EXCEED 0.02 FT./FT. AS CONSTRUCTED.

⑨ 1:10 MIN. SIDEWALK OFFSET TAPER REQUIRED FOR SIDEWALK REPLACEMENT PROJECTS. 1:3 MIN. AND 1:5 MIN. PREFERRED SIDEWALK OFFSET TAPER FOR DRIVEWAY REPLACEMENT.

⑩ LANDING REQUIRED, SEE NEXT SHEET FOR MORE INFORMATION.

⑪ CONCRETE DRIVEWAY APRON AND CONCRETE DRIVEWAY SIDEWALK SECTIONS SHALL BE CONSTRUCTED SEPARATELY IN AN INDEPENDENT CONCRETE POUR. ENGINEER'S APPROVAL REQUIRED FOR MONOLITHIC PLACEMENTS.

⑫ DRILL AND GROUT NO. 4 X 12" LONG TIE BARS (EPOXY COATED). 36" MAXIMUM SPACING BETWEEN BARS COVER PLACED 1' MINIMUM FROM ADJACENT CONSTRUCTION JOINTS. 1' MINIMUM FROM ADJACENT CONCRETE JOINTS. BARS TO BE ADJUSTED TO MATCH SIDEWALK GRADES. TO BE PAID BY EACH.

⑬ DRILL AND GROUT OR CAST IN-PLACE THROUGH HOLES IN THE FORMS NO. 4 X 12" LONG TIE BARS (EPOXY COATED). 36" MAXIMUM SPACING BETWEEN BARS WITH 2" MINIMUM CONCRETE COVER PLACED 1' MINIMUM FROM ADJACENT CONSTRUCTION JOINTS. 1' MINIMUM FROM ADJACENT CONCRETE JOINTS.

REVISION: 12-23-2021

APPROVED: 11-04-2021

JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.254 | 3 OF 4

APPROVED: 11-04-2021
REVISED: 12-23-2021

THOMAS STYRBICKI
STATE DESIGN ENGINEER

DRIVEWAY AND SIDEWALK DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

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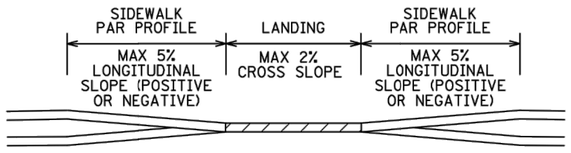
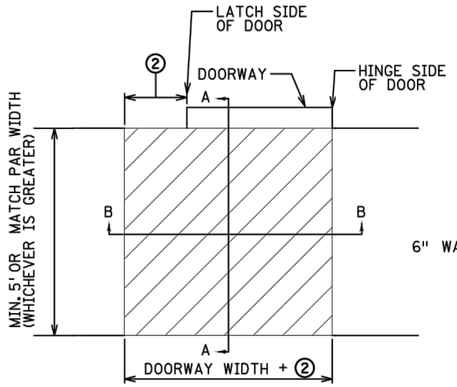
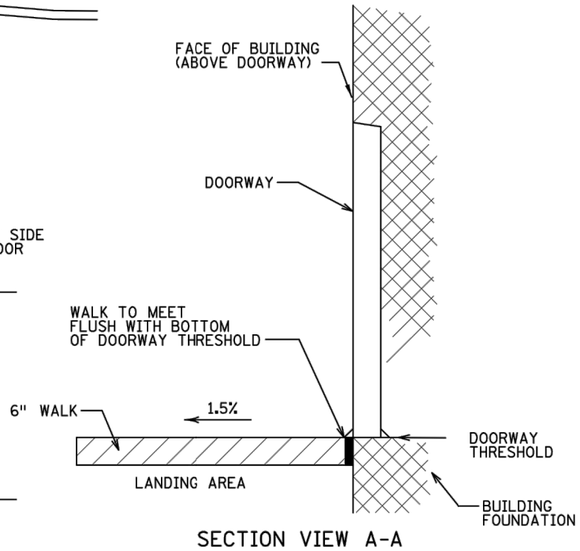


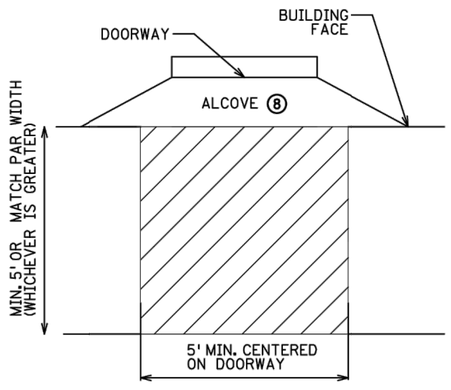
SECTION VIEW B-B



PLAN VIEW DOORWAY

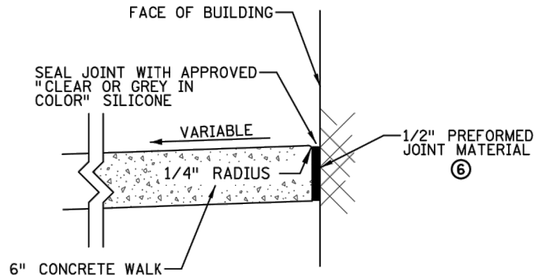


SECTION VIEW A-A

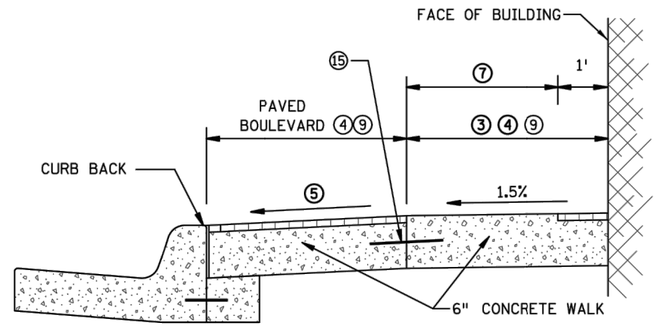


PLAN VIEW DOORWAY WITH ALCOVE

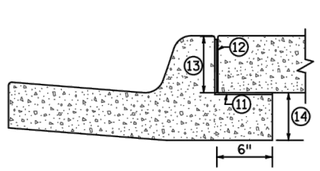
SIDEWALK LANDING REQUIREMENTS ①



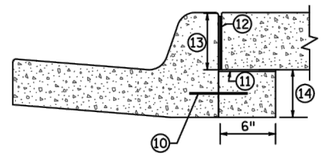
BUILDING JOINT SEAL (INCIDENTAL)



DOWNTOWN SIDEWALK TYPICAL SECTION



SLIP FORM SILL



FIXED FORM SILL

SILL CURB SHOULD BE USED AT ALL LOCATIONS WHEN CONCRETE WALK IS AT BACK OF CURB, INCLUDING PAVED BOULEVARD.

SILL CURB SHALL NOT BE USED IN CURB RAMP AND DRIVEWAY AREAS, INCLUDING CONCRETE FLARES.

SILL CURB WITH 4" WALK CAN USE FIXED OR SLIP FORM OPTIONS.

NOTES:

6" WALK IS REQUIRED:
1) IN ALL SIDEWALK LOCATIONS WHERE VARIABLE SLOPED CONCRETE BOULEVARDS ARE PAVED, SUCH AS COMMERCIAL (STORE FRONT, DOWNTOWN) AREAS.
2) ANYTIME DRILL AND REINFORCEMENT IS USED TO TIE LONGITUDINAL JOINTS TOGETHER.
3) TO ELIMINATE LONGITUDINAL JOINT WHEN INCREASING PANEL SIZE OVER 36SF.
4) AT LOCATIONS WHERE MAINTENANCE EQUIPMENT WILL SUBJECT CONCRETE TO HEAVY LOADS.

ALL SIDEWALK AND BOULEVARD WIDTHS SHALL BE MEASURED FROM BACK OF CURB.

FIELD ADJUST SIDEWALK PROFILES TO MEET ALL DOORWAY THRESHOLDS.

SIDEWALK MUST MAINTAIN POSITIVE DRAINAGE AWAY FROM THE BUILDING TO THE ROADWAY.

SEE SPECIAL PROVISIONS FOR SILICONE SPECIFICATIONS.

① LANDING CRITERIA IS REQUIRED FOR ALL DOORS, STEPS, AND PRIVATE WALKS. FEASIBILITY DECREASES WITH NARROWER BOULEVARDS AND STEEPER SIDEWALK PROFILES.
② 18" MIN. WHEN DOOR SWINGS OUTWARD FROM BUILDING. 12" MIN WHEN DOOR SWINGS INWARD FROM BUILDING.
③ 6' MIN. PAR REQUIRED WHEN ADJACENT TO BUILDINGS.
④ 2/3 PAR TO 1/3 BOULEVARD SHOULD BE USED WHEN FEASIBLE. HOLD UNIFORM BOULEVARD WIDTH. 4' PREFERRED MINIMUM BOULEVARD.
⑤ 1%-5% FOR THE MAJORITY OF THE BLOCK, WITH EXCEPTIONS UP TO 8% IN CONSTRAINED AREAS.
⑥ CONSTRUCT USING APPROVED EXPANSION MATERIAL PER MNDOT TYPE A-E EXPANSION. LEAVE A MINIMUM ½" TOP GAP AND SEAL WITH MNDOT APPROVED SILICONE PER MNDOT SPEC 3722.
⑦ TO MINIMIZE VIBRATION AND ROLLING RESISTANCE, AREA SHALL BE FREE OF PAVERS, STAMPED CONCRETE, AND/OR EXCESSIVE JOINTING.
⑧ 2% MAX. PER BUILDING CODE. IF GREATER THAN 2%, FLATTEN AS FEASIBLE.
⑨ FORM CONTRACTION JOINTS AS NEEDED TO PRODUCE APPROXIMATELY SQUARE PANEL SIZE. CONRETE PANEL SIZE SHOULD NOT EXCEED 1½ : 1 LENGTH X WIDTH.
⑩ DRILL AND GROUT NO. 4 X 8" LONG TIE BARS (EPOXY COATED). 36" MAXIMUM SPACING BETWEEN BARS WITH 2" MINIMUM CONCRETE COVER PLACED 1' MINIMUM FROM ADJACENT CONSTRUCTION JOINTS. 1' MINIMUM FROM ADJACENT CONCRETE JOINTS. TIE BARS SHALL BE EMBEDDED 4" WITH 2" MINIMUM CONCRETE COVER AND ARE INCIDENTAL TO SILL PLACEMENT.
⑪ FURNISH AND INSTALL THE FULL WIDTH OF THE TOP OF SILL A MINIMUM 2ML THICK POLYTHENE SHEETING.
⑫ USE AN APPROVED TYPE F (¼ INCH THICK) SEPARATION MATERIAL. SEPARATION MATERIAL SHALL MATCH FULL HEIGHT DIMENSION OF ADJACENT CONCRETE.
⑬ DIMENSION TO BE SAME AS SIDEWALK THICKNESS, 4" MIN.
⑭ 6" WALK: 5" MIN. FOR B424; 7" MIN. FOR B624
4" WALK: 7" MIN. FOR B424; 9" MIN. FOR B624
⑮ DRILL AND GROUT NO. 4 X 12" LONG TIE BARS (EPOXY COATED). 36" MAXIMUM SPACING BETWEEN BARS WITH 2" MINIMUM CONCRETE COVER PLACED 1' MINIMUM FROM ADJACENT CONCRETE JOINTS.

REVISION:

APPROVED: 11-04-2021
JEFFREY PERKINS
OPERATIONS DIVISION

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.254 | 4 OF 4

APPROVED: 11-04-2021
REVISED:

THOMAS STYRBICKI
STATE DESIGN ENGINEER

DRIVEWAY AND SIDEWALK DETAILS

STATE PROJ. NO. (TH) SHEET NO. OF SHEETS

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
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SEH

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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

MNDOT STANDARD PLAN
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

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EXISTING SANITARY SEWER STRUCTURE SCHEDULE

LINE	STRUCTURE NO.	LOCATION			STREET	DESIGN							LEAVE AS IS	EXISTING RIM ELEVATION	PROPOSED RIM ELEVATION	REMARKS
		STATION	OFFSET (FT)			REMOVE CASTING FRAME & SALVAGE COVER (EA)	F & I CASTING FRAME (NEENAH R-1733) (EA)	INSTALL SALVAGED COVER (EA)	RECONSTRUCTION (LF)	REMOVE SAN. PIPE. (LF)	REMOVE SAN. SERVICE PIPE. (LF)	REMOVE MH. (EA)				
			LT	RT												
NON-PARTICIPATING (ZANE AVENUE N)																
1	2198	7+80.08	0.40		ZANE AVENUE	1	1	1						908.07	908.20	
2	2197	11+56.29	0.30		ZANE AVENUE	1	1	1	3.75					896.45	896.62	INFILTRATING TOP BARREL SECTION. SALVAGE TOP SLAB. REPLACE 2.00' BARREL SECTION
3	2196	14+80.10	0.60		ZANE AVENUE	1	1	1	3.50					887.61	887.80	INFILTRATING CONE SECTION. REMOVE 2.00' CONE. INSTALL PRECAST TOP SLAB AND 1.5' BARREL SECTION
4	2195	18+08.58	1.10		ZANE AVENUE	1	1	1	4.00					877.90	877.97	SALVAGE CONE. INSTALL 1.00' SECTION BELOW SALVAGED CONE.
5	2058	27+35.55		0.50	ZANE AVENUE	1	1	1		100				872.62	872.50	
6	2057	30+56.03		0.30	ZANE AVENUE	1	1	1	4.00	40				874.13	874.18	SALVAGE CONE. INSTALL 1.00' SECTION BELOW SALVAGED CONE.
7	2055A	33+03.67	3.50		ZANE AVENUE	1	1	1						880.22	880.02	
8	2055	33+55.73		0.30	ZANE AVENUE								X	N/A	N/A	GOLDEN VALLEY ROAD
NON-PARTICIPATING (ZANE AVENUE N) SUBTOTALS						**7**	**7**	**7**	**15.25**	**140**	**0**	**0**	**1**			
NON-PARTICIPATING (LINDSAY STREET)																
9	2059	40+07.09	0.70		LINDSAY STREET	1		1		276	62	1		N/A	N/A	REPLACE MANHOLE
10	2060	42+83.15	0.80		LINDSAY STREET	1		1			35	1		N/A	N/A	CRACKING BLOCK BARREL. REPLACE MANHOLE
11	2061	45+43.12	0.70		LINDSAY STREET	1	1	1						874.04	874.26	REPAIR DOGHOUSE
12	2062	47+96.12	0.90		LINDSAY STREET	1	1	1	1.65					876.95	876.88	REPAIR DOGHOUSE. REMOVE 0.75' CONE. INSTALL PRECAST TOP SLAB
13	2063	49+84.48	1.30		LINDSAY STREET	1	1	1						879.29	879.08	
14	2064	50+84.46		0.60	LINDSAY STREET	1	1	1						880.56	880.27	
15	2760	51+03.48		33.20	LINDSAY STREET								X	N/A	N/A	OFF STREET IN EASEMENT
16	2761	51+40.63		41.70	LINDSAY STREET								X	N/A	N/A	OFF STREET IN EASEMENT
17	2762	52+68.97		33.50	LINDSAY STREET								X	N/A	N/A	OFF STREET IN EASEMENT
18	3099	54+22.17		44.80	LINDSAY STREET								X	N/A	N/A	LILAC DRIVE
NON-PARTICIPATING (LINDSAY STREET) SUBTOTALS						**6**	**4**	**6**	**1.65**	**276**	**97**	**2**	**4**			
NON-PARTICIPATING TOTALS						**13**	**11**	**13**	**16.90**	**416**	**97**	**2**	**5**			

NOTES:
1. THE CONTRACTOR IS REQUIRED TO FIELD VERIFY ALL STRUCTURE DIAMETERS PRIOR TO RECONSTRUCTING MANHOLES. STRUCTURES ARE ASSUMED TO BE 42" DIAMETER.
2. ADJUSTMENT RINGS SHALL BE THE SAME DIAMETER AS TOP SLAB OPENING.

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SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	SEH	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. STEPHEN PRALL DATE 5/7/2024 LICENSE NO. 54949
Drawn By	SRP	.			.				
Designed By	SRP	.			.				
Checked By	SDH	.			.				

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

EXISTING SANITARY SEWER STRUCTURE SCHEDULE ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

EXISTING STORM SEWER STRUCTURE SCHEDULE

LINE	STRUCTURE. NO.	LOCATION			STREET	REMOVE			LEAVE AS IS	EXISTING RIM ELEVATION	PROPOSED RIM ELEVATION	REMARKS
		STATION	OFFSET (FT)			CB (EA)	PIPE (LF)	CASTING & COVER (EA)				
			LT	RT								
S.A.P. 128-408-001 (ZANE AVENUE N)												
1	102	6+10.72		18.6	ZANE AVE N	X	40	X				
2	101	6+10.57	21.00		ZANE AVE N	X		X				
3	49	18+10.86		21.30	ZANE AVE N	X	40	X				
4	50	18+15.80	18.80		ZANE AVE N	X	14	X				
5	51	18+18.08	31.80		ZANE AVE N		11	X		877.20	877.20	BULKHEAD EAST INVERT (FROM CB50)
6	52	18+56.42	29.50		ZANE AVE N				X	874.07	874.07	
7	42	23+61.01	20.00		ZANE AVE N	X	80	X				DOUBLE PRECAST CURB OPENING CATCH BASIN
8	41	23+62.34		22.20	ZANE AVE N	X	43	X				
9	43	24+22.48	27.40		ZANE AVE N				X	871.24	871.24	BULKHEAD SOUTHEAST INVERT (FROM CB42)
10	34	24+30.00	17.10		ZANE AVE N	X		X				
11	35	24+46.09		22.30	ZANE AVE N	X	43	X				
12	36	25+72.84		21.10	ZANE AVE N	X		X				
13	37	26+29.75		21.40	ZANE AVE N	X	200	X				
S.A.P. 128-408-001 (ZANE AVENUE N) SUBTOTALS						**10**	**471**	**11**	**2**			
NON-PARTICIPATING (LINDSAY STREET)												
7	33	40+41.51	20.40		LINDSAY STREET	X	34	X				
6	32	40+57.38		19.30	LINDSAY STREET	X	40	X				
4	30	45+14.95	20.60		LINDSAY STREET	X	20	X				
3	29	45+15.26		19.00	LINDSAY STREET	X	40	X				
5	31	45+15.66	40.80		LINDSAY STREET				X	873.99	873.99	
NON-PARTICIPATING (LINDSAY STREET) SUBTOTALS						**4**	**134**	**4**	**1**			
TOTALS						**14**	**605**	**15**	**3**			

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SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	SEH
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DATE 5/7/2024 STEPHEN PRALL LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) **CITY PROJECT NO. 23-02**

EXISTING STORM SEWER STRUCTURE SCHEDULE
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

EXISTING WATER MAIN TABULATION

LOCATION			ITEM	REMOVE HYDRANT (EA)	REMOVE HYDRANT MARKER (EA)	ADJUST GATE VALVE BOX (EA)	REMOVE GATE VALVE & BOX (EA)	REMOVE GATE VALVE & MH (EA)	REMOVE WATER MAIN PIPE (LF)	REMOVE WATER SERVICE PIPE (LF)	REMARKS
STREET	STATION	OFFSET (FT)									
NON-PARTICIPATING (ZANE AVENUE N)											
ZANE AVE N	5+61.45 - 33+46.70	2.64 LT - 11.48 LT	12" CIP						2784		
ZANE AVE N	6+06.33	10.95 LT	12" VALVE MH					1			
ZANE AVE N	6+19.81	24.65 LT	HYDRANT	1	1		1		14		
ZANE AVE N	8+90.92	11.78 LT	4" SERVICE			1	1		20		
ZANE AVE N	10+04.49	23.83 LT	HYDRANT	1	1		1		13		
ZANE AVE N	11+79.66	7.16 LT	10" SERVICE				1		45		
ZANE AVE N	13+93.94	23.39 LT	HYDRANT	1	1		1		13		
ZANE AVE N	16+57.14	30.02 RT	HYDRANT	1	1		2		42		
ZANE AVE N	17+13.80	12.97 LT	8" SERVICE				1		14		
ZANE AVE N	17+75.20	21.30 LT	HYDRANT	1	1		1		10		
ZANE AVE N	17+85.32	10.95 LT	12" GV				1				
ZANE AVE N	18+81.94	9.64 LT	12" VALVE MH					1			
ZANE AVE N	19+30.54	7.02 LT	6" SERVICE				1		40		VERIFY SIZE
ZANE AVE N	20+78.33	30.54 RT	1" SERVICE							40	
ZANE AVE N	21+60.35	20.79 LT	HYDRANT	1	1		1		11		
ZANE AVE N	22+03.04	29.29 LT	8" SERVICE				1		20		
ZANE AVE N	22+08.59	28.73 LT	4" SERVICE				1		20		
ZANE AVE N	25+06.00	8.38 LT	6" SERVICE				1		40		VERIFY SIZE
ZANE AVE N	25+51.96	21.49 LT	HYDRANT	1	1		1		14		
ZANE AVE N	25+82.12	30.22 RT	2" SERVICE							40	VERIFY SIZE AND LOCATION
ZANE AVE N	25+93.98	29.76 LT	6" SERVICE				1		20		VERIFY SIZE AND LOCATION
ZANE AVE N	28+73.85	30.61 RT	2" SERVICE							40	VERIFY SIZE AND LOCATION
ZANE AVE N	28+78.82	7.62 LT	6" SERVICE				1		40		
ZANE AVE N	29+36.97	21.30 LT	HYDRANT	1	1		1		13		
ZANE AVE N	29+43.84	29.25 RT	2" SERVICE							40	VERIFY SIZE AND LOCATION
ZANE AVE N	31+90.74	29.00 LT	2" SERVICE							18	
ZANE AVE N	31+91.59	12.57 LT	8" SERVICE				1		18		
ZANE AVE N	32+17.54	14.90 RT	6" SERVICE				1		43		VERIFY LOCATION
ZANE AVE N	33+12.02	26.44 LT	HYDRANT	1	1		1		15		
ZANE AVE N	33+23.24	11.22 LT	12" VALVE MH					1			
NON-PARTICIPATING (ZANE AVENUE N) SUBTOTALS				**9**	**9**	**1**	**22**	**3**	**3249**	**178**	
NON-PARTICIPATING (LINDSAY STREET)											
LINDSAY STREET	40+00.00 - 54+10.76	8.01 - 16.24 RT	8" CIP						1425		
LINDSAY STREET	40+40.97	8.21 RT	8" GV				1				
LINDSAY STREET	42+46.25	23.05 RT	HYDRANT	1	1		1		15		
LINDSAY STREET	43+02.72	28.26 LT	8" SERVICE				1		39		
LINDSAY STREET	43+06.69	29.92 RT	(2) 8" SERVICES				2		49		
LINDSAY STREET	44+13.03	30.13 LT	1" SERVICE							39	VERIFY SIZE AND LOCATION
LINDSAY STREET	45+82.9	31.13 LT	1" SERVICE							40	
LINDSAY STREET	46+06.98	29.98 RT	1" SERVICE							20	
LINDSAY STREET	46+81.39	30.77 LT	1" SERVICE							40	
LINDSAY STREET	47+23.70	28.88 RT	1" SERVICE							20	
LINDSAY STREET	47+94.57	9.52 RT	8" GV				1				
LINDSAY STREET	48+17.22	30.91 LT	1" SERVICE							41	
LINDSAY STREET	48+18.88	22.67 RT	HYDRANT	1	1		1		13		
LINDSAY STREET	49+12.97	31.76 LT	1" SERVICE							40	
LINDSAY STREET	49+16.37	28.53 RT	1" SERVICE							20	
LINDSAY STREET	50+17.08	29.19 LT	1" SERVICE							42	
LINDSAY STREET	50+84.61	29.38 RT	1" SERVICE							15	
LINDSAY STREET	51+43.30	47.20 RT	1" SERVICE							29	
LINDSAY STREET	51+44.41	47.14 RT	1" SERVICE							29	
LINDSAY STREET	52+03.50	27.73 LT	1" SERVICE							36	VERIFY LOCATION
LINDSAY STREET	52+54.13	28.59 RT	1" SERVICE							20	
LINDSAY STREET	52+54.93	28.68 RT	1" SERVICE							20	
LINDSAY STREET	52+97.85	37.98 LT	1" SERVICE							47	
LINDSAY STREET	52+99.53	37.97 LT	1" SERVICE							47	
LINDSAY STREET	53+46.78	21.90 RT	HYDRANT	1	1		1		14		
LINDSAY STREET	53+63.78	8.06 RT	8" GV				1				
LINDSAY STREET	54+08.19	16.49 RT	8" GV				1				
NON-PARTICIPATING (LINDSAY STREET) SUBTOTALS				**3**	**3**	**0**	**10**	**0**	**1555**	**545**	
NON-PARTICIPATING TOTALS				**12**	**12**	**1**	**32**	**3**	**4804**	**723**	

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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

EXISTING WATER MAIN TABULATION
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

PROPOSED SANITARY SEWER STRUCTURE SCHEDULE

STRUC. NO.	STREET	STATION	OFFSET		NEW STRUC. TYPE AND BUILD TO TOP OF CASTING	DIA.	F& I CASTING FRAME R-1733 (EA)	F& I CASTING FRAME R-1733-1 (EA)	TOP OF CASTING ELEV.	OUTLET ELEV.	DRAINS TO			6" INLINE CLEAN-OUT (EA)	10" X 6" WYE (EA)	6" DIP CL 52 (LF)	8" DIP CL 52 (LF)	10" DIP CL 52 (LF)	CONNECT TO EX. SANITARY PIPE (EA)	CONNECT TO EX. SANITARY SERVICE (EA)	REMARKS
			LT	RT	MANHOLE (FT)						STRUC. NO.	GRADE	INLET ELEV.								
NON-PARTICIPATING (ZANE AVENUE N)																					
	ZANE AVENUE																140		5		SANITARY SEWER REPAIRS
NON-PARTICIPATING (ZANE AVENUE N) SUBTOTALS					**0.00**	**0**	**0**	**0**						**0**	**0**	**0**	**140**	**0**	**5**	**0**	
NON-PARTICIPATING (LINDSAY STREET)																					
2060	LINDSAY STREET	42+83.15	0.80		4.39	48"	1		872.53	868.14	2059	0.28%	867.36	2	2	62		276	1	2	INSTALL SALVAGED COVER
2059	LINDSAY STREET	40+07.09	0.70		3.57	48"		1	870.83	867.26				1		35				1	R-1733-1 (4" CASTING). INSTALL SALVAGED COVER
NON-PARTICIPATING (LINDSAY STREET) SUBTOTALS					**7.96**	**2**	**1**	**1**						**3**	**2**	**97**	**0**	**276**	**1**	**3**	
NON-PARTICIPATING TOTALS					**7.96**	**2**	**1**	**1**						**3**	**2**	**97**	**140**	**276**	**6**	**3**	

SANITARY SEWER REPAIR TABULATION

REPAIR NO.	STREET	LOCATION	8" CIP LINING (LF)	8" DIP LINING (LF)	8" VCP LINING (LF)	9" VSP LINING (LF)	DEFECT
NON-PARTICIPATING (ZANE AVENUE N)							
1	ZANE AVENUE	MH 2198 TO MH 2197				377	ROOTS, FRACTURE, BREAK
2	ZANE AVENUE	MH 2197 TO MH 2196				325	FRACTURES, BREAK
3	ZANE AVENUE	MH 2196 TO MH 2195				329	FRACTURE, CRACKS
4	ZANE AVENUE	MH 2059 TO MH 2058	325				SAGS
5	ZANE AVENUE	MH 2058 TO MH 2057	321				SAGS
6	ZANE AVENUE	MH 2057 TO MH 2055A				248	BREAKS, FRACTURE, CRACK, INFILTRATION, MINERAL DEPOSITS
7	ZANE AVENUE	MH 2055A TO MH2055				52	
NON-PARTICIPATING (ZANE AVENUE N) SUBTOTALS			**646**	**0**	**0**	**1331**	
NON-PARTICIPATING (LINDSAY STREET)							
8	LINDSAY STREET	MH 2061 TO MH 2060	260				
9	LINDSAY STREET	MH 2062 TO MH 2061	253				
10	LINDSAY STREET	MH 2063 TO MH 2062				189	
11	LINDSAY STREET	MH 2064 TO MH 2063				100	OBSTACLE
12	LINDSAY STREET	MH 2760 TO MH 2064		40			
13	LINDSAY STREET	MH 2761 TO MH 2760			50		
14	LINDSAY STREET	MH 2762 TO MH 2761			144		PROTRUDING TAP
15	LINDSAY STREET	MH 3099 TO MH 2762			163		PROTRUDING TAP
NON-PARTICIPATING (LINDSAY STREET) SUBTOTALS			**513**	**40**	**357**	**289**	
NON-PARTICIPATING TOTALS			**1159**	**40**	**357**	**1620**	

SANITARY SEWER SERVICE WYE SEALING VIA GROUT PACKER INJECTION METHOD (BID ALTERNATE A)

BID ITEMS	NON-PARTICIPATING STREETS		NON-PARTICIPATING TOTALS
	ZANE AVENUE	LINDSAY STREET	
SEAL 9" MAIN TO 6" LATERAL W/ 3' BLADDER (EACH)	9	5	14
SEAL 8" MAIN TO 6" LATERAL W/ 3' BLADDER (EACH)	3	14	17
CHEMICAL GROUT (GAL)	60	95	155

SANITARY SEWER WYE LINERS (BID ALTERNATE B)

BID ITEMS	NON-PARTICIPATING STREETS		NON-PARTICIPATING TOTALS
	ZANE AVENUE	LINDSAY STREET	
SERVICE WYE LINER - 9" MAIN X 6" WYE (EACH)	9	5	14
SERVICE WYE LINER - 8" MAIN X 6" WYE (EACH)	3	14	17

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		Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
SEH Project	GOLDV 163618	.			.		
Drawn By	SRP	.			.		
Designed By	SRP	.			.		
Checked By	SDH	.			.		

SEH

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STEPHEN PRALL

DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

SANITARY SEWER REPAIR TABULATION ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

PROPOSED STORM SEWER STRUCTURE SCHEDULE

STRUC. NO.	STREET	STATION	OFFSET		NEW STRUC. TYPE AND BUILD TO TOP OF CASTING		SUMP (FT)	SAFL BAFL (SF)	DIA.	CASTING ASSEMBLY R-3067-L (EA)	CASTING ASSEMBLY R-3237 (EA)	CASTING ASSEMBLY R-2573 (EA)	CASTING ASSEMBLY R-1733 (EA)	CASTING ASSEMBLY R-4342 (EA)	TOP OF CASTING ELEV.	OUTLET ELEV.	DRAINS TO			12" HDPE (LF)	12" RCP CL.V (LF)	15" RCP CL.V (LF)	18" RCP CL.III (LF)	18" RCP CL.V (LF)	21" RCP CL.III (LF)	24" RCP CL.III (LF)	27" RCP CL.III	30" RCP CL.V (LF)	48" RCP CL.III (LF)	51" RCP ARCH (LF)	CONNECT TO EX. STORM PIPE (EA)	CONNECT TO EX. DRAINAGE STRUCTURE (EA)	REMARKS
			LT	RT	CATCH BASIN (FT)	CATCH BASIN/ MANHOLE (FT)											STRUC. NO.	GRADE	INLET ELEV.															
S.A.P. 128-408-001 (ZANE AVENUE N)																																	
ST-10	ZANE AVENUE	6+15.45		15.00	3.34				2'X3'	1					970.82	904.48	ST-11	1.00%	904.18		30													
ST-11	ZANE AVENUE	6+11.30	15.00			3.66			48"	1					907.84	904.18	EX	1.00%	904.10		8											1		
ST-20	ZANE AVENUE	16+70.44	15.00		4.00				2'X3'	1					881.32	877.32	ST-22	0.75%	877.09			30												
ST-21	ZANE AVENUE	17+77.79	15.00		4.00				2'X3'	1					878.00	874.00	ST-23	0.75%	874.00			30												
ST-22	ZANE AVENUE	16+70.44		15.00		4.33			48"	1					881.32	876.99	ST-23	3.11%	873.77			103												
ST-23	ZANE AVENUE	17+73.89		15.00		8.40	4.00	12.00	48"	1					878.07	873.67	ST-24	0.75%	873.47					27										
ST-24	ZANE AVENUE	18+01.13		15.00		4.18			48"	1					877.55	873.37	ST-25	1.50%	872.92					30										
ST-25	ZANE AVENUE	18+05.37	15.00			4.75			48"	1					877.65	872.89	ST-26	1.50%	872.61					19										
ST-26	ZANE AVENUE	18+07.80	33.70			6.68			60"				1		879.19	872.51	EXMH51	0.56%	872.45							8		10			1	1		
EXMH51	ZANE AVENUE													1	877.20																		BULKHEAD EAST NVERT
ST-30	ZANE AVENUE	20+76.55	15.00		4.00				2'X3'	1					872.49	868.49	ST-34	0.91%	868.20			32												
ST-31	ZANE AVENUE	21+61.70	15.00		3.73				2'X3'	1					871.75	868.02	ST-36	1.00%	867.63			39												
ST-32	ZANE AVENUE	22+19.47	15.00		4.00				2'X3'	1					871.25	867.25	ST-37	1.22%	866.88			30												
ST-33	ZANE AVENUE	23+42.13	15.00		4.00				2'X3'	1					870.34	866.34	ST-40	2.00%	866.14			10												
ST-34	ZANE AVENUE	20+86.86		15.00		4.29			48"	1					872.40	868.10	ST-35	0.75%	867.80				40											
ST-35	ZANE AVENUE	21+36.98		15.00		4.35			72"	1					872.05	867.70	ST-36	0.75%	867.63				10											
ST-36	ZANE AVENUE	21+36.98		15.00		4.44			72"	1					871.97	867.53	ST-37	0.75%	866.88				86											
ST-37	ZANE AVENUE	22+23.02		15.00		4.44			48"	1					871.22	866.78	ST-38	1.00%	865.60				119											
ST-38	ZANE AVENUE	23+41.91		15.00		4.77			48"	1					870.27	865.50	ST-39	1.00%	865.40						10									
ST-39	ZANE AVENUE	23+51.91		15.00		8.90	4.00	17.25	54"	1					870.20	865.30	ST-40	1.00%	865.00						30									
ST-40	ZANE AVENUE	23+51.91	15.00			5.43			54"	1					870.33	864.90	ST-41	1.00%	864.70						20									
ST-41	ZANE AVENUE	23+51.91	34.90			11.78			72"				1		871.57	859.79	EX			8										16		3		
ST-50	ZANE AVENUE	29+19.73	15.00		4.01				2'X3'	1					873.07	869.07	ST-51	0.50%	868.92			30												
ST-51	ZANE AVENUE	27+48.67	15.00		3.91				2'X3'	1					872.21	868.30	ST-65	0.50%	868.15			30												
ST-52	ZANE AVENUE	26+72.66	15.00		3.35				2'X3'	1					871.83	868.48	ST-67	0.50%	868.33			30												
ST-53	ZANE AVENUE	25+13.11	15.00		4.00				2'X3'	1					871.03	867.03	ST-54	2.00%	866.83			10												
ST-54	ZANE AVENUE	25+03.11	15.00			6.49			48"	1					870.98	864.49	ST-70	1.00%	864.19			30												
ST-55	ZANE AVENUE	24+20.90	15.00			4.00			2'X3'	1					870.57	866.57	ST-73	1.00%	866.47			10												
ST-56	ZANE AVENUE	32+00.10	15.00			5.55			48"	1					876.88	871.33	ST-57	0.50%	871.18		14	30												
ST-57	ZANE AVENUE	32+00.10		15.00		5.81			48"	1					876.88	871.08	ST-58	0.76%	870.22			113												
ST-58	ZANE AVENUE	30+86.96		15.00		4.10			48"	1					874.22	870.12	ST-59	0.65%	869.59			81												
ST-59	ZANE AVENUE	30+06.33		15.00		4.01			48"	1					873.50	869.49	ST-63	0.50%	869.18				62											
ST-60	ZANE AVENUE	29+81.23		34..90		3.42			2'X3'	1					873.55	870.13	ST-62	1.50%	869.58				36											
ST-61	ZANE AVENUE	29+63.25		65.60		4.00			48"			1			874.32	870.32	ST-62	2.06%	869.58				36											GRATE TYPE C
ST-62	ZANE AVENUE	29+44.82		34.80		4.07			66"	1					873.54	868.48	ST-63	1.50%	868.18				20											
ST-63	ZANE AVENUE	29+44.82		15.00		4.11			48"		1				873.19	869.08	ST-64	0.60%	868.93						25									
ST-64	ZANE AVENUE	29+19.73		15.00		4.24			48"	1					873.07	868.83	ST-65	0.60%	867.80						171									
ST-65	ZANE AVENUE	27+48.67		15.00		4.51			54"	1					872.21	867.70	ST-67	0.50%	867.32							76								
ST-66	ZANE AVENUE	26+72.66		27.60		4.18			48"					1	871.75	867.57	ST-67	2.00%	867.32				13											
ST-67	ZANE AVENUE	26+72.66		15.00		4.62			54"	1					871.83	867.22	ST-68	0.65%	866.96							39								
ST-68	ZANE AVENUE	26+33.40		15.00		4.78			48"	1					871.64	866.86	ST-69	0.65%	866.48							58								
ST-69	ZANE AVENUE	25+75.74		15.00		7.34			48"	1					871.35	864.00	ST-70	0.75%	863.42							78								
ST-70	ZANE AVENUE	24+97.94		15.00		7.63			54"	1					870.96	863.32	ST-71	0.50%	863.12								42							
ST-71	ZANE AVENUE	24+57.38		15.70		11.73	4.00	17.25	54"	1					870.75	863.02	ST-72	0.50%	862.97								10							
ST-72	ZANE AVENUE	24+47.92		16.50		9.73			96"	1					870.68	860.95	ST-73	0.86%	860.64											52	1			
ST-73	ZANE AVENUE	24+31.43	15.00			10.04			84"	1					870.63	860.64	EXMH43	1.00%	860.56											8	1		BULKHEAD SE 21" INVERT IN EX MH 43
S.A.P. 128-408-001 (ZANE AVENUE N) SUBTOTALS					**42.34**	**194.76**	**12.00**	**46.50**		**40**	**1**	**1**	**2**	**2**						**8**	**52**	**638**	**422**	**76**	**256**	**259**	**52**	**10**	**16**	**60**	**7**	**1**		
NON-PARTICIPATING (LINDSAY STREET)																																	
ST-80	LINDSAY STREET	40+63.19		15.00	5.75				2'X3'	1					870.70	864.95	ST-75	0.50%	864.77			36												
ST-81	LINDSAY STREET	41+69.45		15.00	6.02				2'X3'	1					871.44	865.42	ST-74	0.50%	865.27			30												
ST-82	LINDSAY STREET	43+56.45		15.00	6.64				2'X3'	1					872.70	866.06	ST-73	0.50%	865.90			31												
ST-83	LINDSAY STREET	43+50.42	15.00			6.74			48"	1					872.64	895.90	ST-74	0.35%	895.27				181											
ST-84	LINDSAY STREET	41+69.45	15.00			6.17			48"	1					871.44	865.27	ST-75	0.40%	864.77						125									
ST-85	LINDSAY STREET	40+44.22	15.00			9.62	4.00	23.00	72"	1					870.39	864.77	ST-68	0.50%	864.55						44									
ST-90	LINDSAY STREET	45+14.75		15.00	2.99				2'X3'	1					873.72	870.73	ST-81	1.67%	870.23			30												
ST-93	LINDSAY STREET	45+14.75	15.00			7.59	4.00	12.00	48"	1					873.72	870.13	EX	1.90%	869.64			26											1	
NON-PARTICIPATING (LINDSAY STREET) SUBTOTALS					**21.40**	**30.12**	**8.00**	**35.00**		**8**	**0**	**0**	**0**	**0**						**0**	**0**	**153**	**181**	**0**	**169**	**0**	**0**	**0**	**0**	**0**	**0**	**1**		
			TOTALS		**63.74**	**224.88**	**20.00**	**81.50**		**48**	**1**	**1**	**2**	**2**						**8**	**52**	**791**	**603**	**76**	**425**	**259**	**52**	**10**	**16**	**60**	**7**	**2**		

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

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STEPHEN PRALL

DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

PROPOSED STORM SEWER STRUCTURE SCHEDULE
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

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PROPOSED WATER MAIN TABULATION

LOCATION			F&I STAINLESS STEEL SADDLE (EA)	F&I CORP. STOP		F&I CURB STOP & BOX		F&I GATE VALVE & BOX					F&I HYDRANT (EA)	F&I HYDRANT MARKER (EA)	FITTING TYPE	FITTING WEIGHT (LB)	CONNECT TO EXISTING WATER MAIN (EA)	F&I PVC WATER MAIN C-900					F&I 24" STEEL CASING PIPE (LF)	F&I SIDR 7-PE SERVICE		REMARKS
STREET	STATION	OFFSET (FT)		1" (EA)	2" (EA)	1" (EA)	2" (EA)	4" (EA)	6" (EA)	8" (EA)	10" (EA)	12" (EA)						4" (LF)	6" (LF)	8" (LF)	10" (LF)	12" (LF)		1" (LF)	2" (LF)	
NON-PARTICIPATING (ZANE AVENUE N)																										
ZANE AVENUE	5+61.45 - 33+46.70	4.73 LT - 11.48 LT																				2783				
ZANE AVENUE	5+61.45	11.48 LT													12" DIA. LONG SLEEVE	82	1									
ZANE AVENUE	5+72.62	11.40 LT										1														
ZANE AVENUE	5+91.77	11.17 LT													(4) 12" 22.5 BENDS	340										LOWER WATER MAIN
ZANE AVENUE	6+17.55	20.67 LT							1				1	1	12" X 6" TEE	113			10							
ZANE AVENUE	8+92.42	25.27 LT						1							12" X 4" TEE	98	1	20								
ZANE AVENUE	10+04.47	20.67 LT							1				1	1	12" X 6" TEE	113			10							
ZANE AVENUE	11+79.85	32.76 RT									1				12" X 10" TEE, 10" HDPE TO PVC COUPLING	201	1				45					
ZANE AVENUE	14+04.00	20.67 LT							1				1	1	12" X 6" TEE	113			10							
ZANE AVENUE	16+37.15	27.17 RT							1				1	1	12" X 6" TEE	113			38							
ZANE AVENUE	17+13.04	24.02 LT								1					12" X 8" TEE	123	1			14						
ZANE AVENUE	17+68.12	11.00 LT										1														
ZANE AVENUE	17+72.79	22.67 LT							1				1	1	12" X 6" TEE	113			12							
ZANE AVENUE	17+83.23 - 18+73.23	11.00 LT																					90			REMOVE EXISTING CASING PIPE
ZANE AVENUE	18+78.83	11.00 LT										1														
ZANE AVENUE	19+30.52	29.31 RT							1						12" X 6" TEE	113	1		42							VERIFY SIZE, NO RECORD
ZANE AVENUE	20+78.33	30.98 RT	1	1		1																		42		
ZANE AVENUE	21+69.48	20.67 LT							1				1	1	12" X 6" TEE	113			10							
ZANE AVENUE	22+02.91	28.29 LT								1					12" X 8" TEE	123	1			20						
ZANE AVENUE	22+08.56	28.28 LT						1							12" X 4" TEE	98	1	20								
ZANE AVENUE	23+98.21	7.66 LT										1														
ZANE AVENUE	24+04.81	6.60 LT													12" X 8" TEE	123										
ZANE AVENUE	24+14.74	4.73 LT													12" 22.5 BEND	85										
ZANE AVENUE	24+19.50	5.67 LT										1														
ZANE AVENUE	25+05.94	29.12 RT							1						12" X 6" TEE	113	1		40							VERIFY SIZE, NO RECORD
ZANE AVENUE	25+40.92	20.67 LT							1				1	1	12" X 6" TEE	113			10							
ZANE AVENUE	25+82.12	29.22 RT	1		1		1																		40	VERIFY SIZE AND LOCATION
ZANE AVENUE	25+93.98	28.76 LT							1						12" X 6" TEE	113	1		18							VERIFY SIZE AND LOCATION
ZANE AVENUE	28+73.85	29.61 RT	1		1		1																		40	VERIFY SIZE AND LOCATION
ZANE AVENUE	28+78.84	29.62 RT							1						12" X 6" TEE	113	1		40							
ZANE AVENUE	29+43.84	29.71 RT	1		1		1																		42	VERIFY SIZE AND LOCATION
ZANE AVENUE	29+59.20	20.67 LT							1				1	1	12" X 6" TEE	113			10							
ZANE AVENUE	31+90.10	27.96 LT	1		1		1																		18	
ZANE AVENUE	31+92.10	27.96 LT								1					12" X 8" TEE	123	1			18						
ZANE AVENUE	32+17.79	30.07 RT							1						12" X 6" TEE	113	1		43							VERIFY LOCATION
ZANE AVENUE	33+11.78	23.66 LT							1				1	1	12" X 6" TEE	113			13							
ZANE AVENUE	33+34.79	9.77 LT										1														
ZANE AVENUE	33+46.70	9.13 LT													12" DIA. LONG SLEEVE	82	1									
NON-PARTICIPATING (ZANE AVENUE N) SUBTOTALS			**5**	**1**	**4**	**1**	**4**	**2**	**14**	**3**	**1**	**6**	**9**	**9**		**3060**	**13**	**40**	**306**	**52**	**45**	**2783**	**90**	**42**	**140**	

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SEH Project GOLDV 163618
Drawn By SRP
Designed By SRP
Checked By SDH

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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

PROPOSED WATER MAIN TABULATION
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

PROPOSED WATER MAIN TABULATION

LOCATION			F&I STAINLESS STEEL SADDLE (EA)	F&I CORP. STOP		F&I CURB STOP & BOX		F&I GATE VALVE & BOX					F&I HYDRANT (EA)	F&I HYDRANT MARKER (EA)	FITTING TYPE	FITTING WEIGHT (LB)	CONNECT TO EXISTING WATER MAIN (EA)	F&I PVC WATER MAIN C-900					F&I 24" STEEL CASING PIPE (LF)	F&I SIDR 7-PE SERVICE		REMARKS
STREET	STATION	OFFSET (FT)		1" (EA)	2" (EA)	1" (EA)	2" (EA)	4" (EA)	6" (EA)	8" (EA)	10" (EA)	12" (EA)						4" (LF)	6" (LF)	8" (LF)	10" (LF)	12" (LF)		1" (LF)	2" (LF)	
NON-PARTICIPATING (LINDSAY STREET)																										
LINDSAY STREET	40+00.00 - 54+10.76	8.01 - 16.24 RT																		1418						
LINDSAY STREET	40.01.95	10.00 RT								1																
LINDSAY STREET	42+17.32	20.67 RT							1				1	1	8" X 6" TEE	75			10							
LINDSAY STREET	42+81.40	28.93 RT								1					8" X 8" TEE	87	1			20						
LINDSAY STREET	43+02.72	28..26 LT								1					8" X 8" TEE	87	1			39						
LINDSAY STREET	43+06.69	28.93 RT								1					8" X 8" TEE	87	1			20						
LINDSAY STREET	44+13.00	29.13 LT						1							8" X 4" TEE, 4" CAP	70		40								
LINDSAY STREET	45+29.91	10.00 RT								1																
LINDSAY STREET	45+82.90	31.13 LT	1	1		1																		40		
LINDSAY STREET	46+06.98	29.98 RT	1	1		1																		20		
LINDSAY STREET	46+81.39	30.77 LT	1	1		1																		40		
LINDSAY STREET	46+90.22	18.67 RT							1				1	1	8" X 6" TEE	75			10							
LINDSAY STREET	47+23.70	28.88 RT	1	1		1																		20		
LINDSAY STREET	48+02.10	9.82 RT													8" 11.25 BEND	40										
LINDSAY STREET	48+17.22	30.91 LT	1	1		1																		42		
LINDSAY STREET	48+72.78	10.00 RT													8" 11.25 BEND	40										
LINDSAY STREET	48+94.81	10.00 RT													8" 11.25 BEND	40										
LINDSAY STREET	49+12.97	31.76 LT	1	1		1																		40		
LINDSAY STREET	49+16.37	28.53 RT	1	1		1																		20		
LINDSAY STREET	49+64.17	10.00 RT													8" 11.25 BEND	40										
LINDSAY STREET	49+86.20	10.00 RT													8" 11.25 BEND	40										
LINDSAY STREET	50+17.08	29.19 LT	1	1		1																		40		
LINDSAY STREET	50+84.61	29.38 RT	1	1		1																		20		
LINDSAY STREET	50+86.64	10.71 RT													8" 11.25 BEND	40										
LINDSAY STREET	51+10.64	10.60 RT													8" 11.25 BEND	40										
LINDSAY STREET	51+33.68	10.60 RT													8" 11.25 BEND	40										
LINDSAY STREET	51+43.30	47.20 RT	1	1		1																		40		
LINDSAY STREET	51+44.41	47.14 RT	1	1		1																		40		
LINDSAY STREET	51+57.06	10.64 RT													8" 11.25 BEND	40										
LINDSAY STREET	51+77.21	10.31 RT													8" 11.25 BEND	40										
LINDSAY STREET	51+86.98	18.67 RT							1				1	1	8" X 6" TEE	75			10							
LINDSAY STREET	52+03.50	27.73 LT	1	1		1																		40		VERIFY LOCATION
LINDSAY STREET	52+54.13	28.59 RT	1	1		1																		20		
LINDSAY STREET	52+54.93	28.68 RT	1	1		1																		20		
LINDSAY STREET	52+97.85	37.98 LT	1	1		1																		45		
LINDSAY STREET	52+99.53	37.97 LT	1	1		1																		45		
LINDSAY STREET	53+38.26	27.54 RT	1	1		1																		20		
LINDSAY STREET	54+05.69	16.74 RT													8" 22.5 BEND	44										
LINDSAY STREET	54+08.20	16.46 RT								1																
LINDSAY STREET	54+10.76	16.24 RT													8" DIA. LONG SLEEVE	46	1									
NON-PARTICIPATING (LINDSAY STREET) SUBTOTALS			**17**	**17**	**0**	**17**	**0**	**1**	**3**	**6**	**0**	**0**	**3**	**3**		**1046**	**4**	**40**	**30**	**1497**	**0**	**0**	**0**	**552**	**0**	
NON-PARTICIPATING TOTALS			**22**	**18**	**4**	**18**	**4**	**3**	**17**	**9**	**1**	**6**	**12**	**12**		**4106**	**17**	**80**	**336**	**1549**	**45**	**2783**	**90**	**594**	**140**	

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SEH Project GOLDV 163618
Drawn By SRP
Designed By SRP
Checked By SDH

Rev.#	Revision Issue Description	Date
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Rev.#	Revision Issue Description	Date
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

PROPOSED WATER MAIN TABULATION
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

SWPPP SUMMARY/OVERVIEW:
THIS STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN DEVELOPED TO ADDRESS THE REQUIREMENTS OF NPDES PERMIT MN R100001. THIS SWPPP INCLUDES A COMBINATION OF NARRATIVE AND PLAN SHEETS THAT DESCRIBE THE TEMPORARY AND PERMANENT STORM WATER MANAGEMENT PLAN FOR THE PROJECT.

PROJECT INFORMATION:

LOCATION:	GOLDEN VALLEY, MN
LATITUDE/LONGITUDE:	44.989562, -93.355102
PROJECT DESCRIPTION:	EXCAVATION, GRADING, CONCRETE CURB & GUTTER, CONCRETE SIDEWALK, BITUMINOUS PAVING, STORM SEWER, SANITARY SEWER REPAIR, & WATER MAIN REPLACEMENT
SOIL DISTURBING ACTIVITIES:	GRADING, STREET RECONSTRUCTION, UTILITY REHABILITATION

CONTACTS:

OWNER:	CITY OF GOLDEN VALLEY
CONTACT:	JEFF OLIVER
ADDRESS:	7800 GOLDEN VALLEY ROAD, GOLDEN VALLEY, MN 55427
PHONE:	763.593.8034
EMAIL:	JOLIVER@GOLDENVALLEYMN.GOV

ENGINEER:	SHORT ELLIOTT HENDRICKSON INC. (SEH)
CONTACT:	STEVE PRALL
PHONE:	651.318.0359
EMAIL:	SPRALL@SEHINC.COM
PROJECT NO.:	23-02

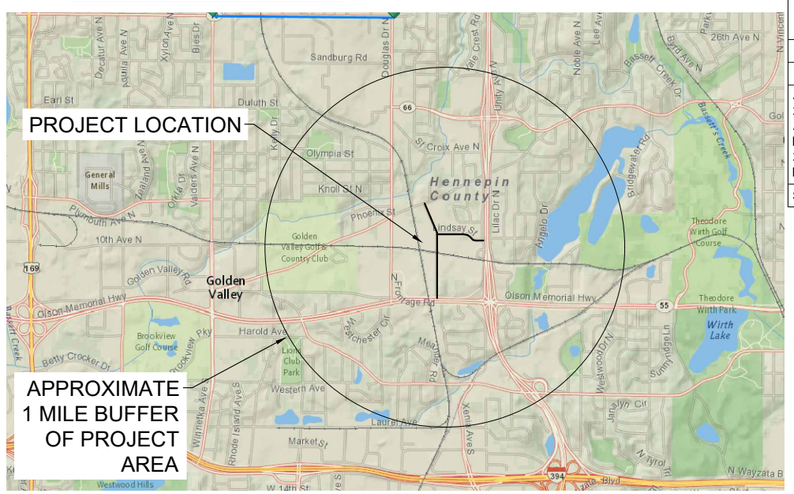
KNOWLEDGEABLE PERSON/CHAIN OF RESPONSIBILITY
THE CONTRACTOR SHALL IDENTIFY A PERSON KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BMPS WHO WILL COORDINATE WITH ALL CONTRACTORS, SUBCONTRACTORS, AND OPERATORS ON-SITE TO OVERSEE THE IMPLEMENTATION OF THE SWPPP.

CONTRACTOR	X
CONTACT	X
PHONE	X
EMAIL	X

THE CONTRACTOR SHALL ESTABLISH A CHAIN OF RESPONSIBILITY FOR ALL CONTRACTORS AND SUB-CONTRACTORS ON SITE TO ENSURE THE SWPPP IS BEING PROPERLY IMPLEMENTED AND MAINTAINED. THE CONTRACTOR SHALL PROVIDE THE CHAIN OF RESPONSIBILITY TO THE OWNER AND ATTACH TO THE SWPPP PRIOR TO ANY CONSTRUCTION ACTIVITY.

PROJECT LOCATION MAP, INCLUDING ALL RECEIVING WATERS WITHIN ONE MILE OF PROJECT SITE AND ARROWS SHOWING OVERLAND FLOW.

https://pca-gis02.pca.state.mn.us/csw/index.html


PROJECT LOCATION
APPROXIMATE 1 MILE BUFFER OF PROJECT AREA
Golden Valley
Hennepin County
Sandburg Rd
Duluth St
Olympia St
Knoll St N
Phoebe St
Lindsay St
Golden Valley Golf & Country Club
Theodore Wirth Golf Course
Theodore Wirth Park
Wirth Lake
Olson Memorial Hwy
Golden Valley Rd
Harold Ave
Brookview Golf Course
Lions Club Park
Western Ave
Laurel Ave
Market St
Meadow Lake
Westwood Dr N
Sunnyslope Ln
Nyyrol Ln
N Wayzata Blvd
Westwood Hills
St Croix Ave N
Bridgewater Rd
Bassett Creek Dr
Bassett's Creek
26th Ave N
Plymouth Ave N
10th Ave N
General Mills
Earl St
Douglas Dr
Xerxes Ave N
Decatur Ave N
Bass Dr
Zane Ave N
Vera Cruz Ave N
Noble Ave N
Lee Ave N
Lilac Dr N
Angelo Dr
Fernbrook Ln
Rhode Island Ave S
Winnetka Ave S
Xerxes Ave S
Jersey Ave S
Jersey Cir
Nyyrol Trl
W 14th St
Betty Crocker Dr
Brookview Pky
Meadow Lake Rd
Winchester Cir
Fernbrook Ln
Olympia Cir
Duluth Cir
Bass Creek
Bassett Creek
Golden Valley Rd
Olson Memorial Hwy
Plymouth Ave N
Harold Ave
Market St
Laurel Ave
Western Ave
Sandburg Rd
Duluth St
Olympia St
Knoll St N
Phoebe St
Lindsay St
Golden Valley Rd
Olson Memorial Hwy
Harold Ave
Market St
Laurel Ave
Western Ave
Meadow Lake Rd
Westwood Dr N
Sunnyslope Ln
Nyyrol Ln
N Wayzata Blvd
W 14th St
St Croix Ave N
Bridgewater Rd
Bassett Creek Dr
26th Ave N
Plymouth Ave N
10th Ave N
Earl St
Douglas Dr
Xerxes Ave N
Decatur Ave N
Bass Dr
Zane Ave N
Vera Cruz Ave N
Noble Ave N
Lee Ave N
Lilac Dr N
Angelo Dr
Fernbrook Ln
Rhode Island Ave S
Winnetka Ave S
Xerxes Ave S
Jersey Ave S
Jersey Cir
Nyyrol Trl
Betty Crocker Dr
Brookview Pky
Meadow Lake Rd
Winchester Cir

EROSION PREVENTION MEASURES AND TIMING:
THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION PREVENTION MEASURES FOR THE PROJECT.

EROSION PREVENTION MEASURES SHOWN ON PLANS ARE THE ABSOLUTE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL EROSION PREVENTION MEASURES AS NECESSARY TO PROPERLY MANAGE THE PROJECT AREA.

THE CONTRACTOR SHALL PLAN AND IMPLEMENT APPROPRIATE CONSTRUCTION PRACTICES AND CONSTRUCTION PHASING TO MINIMIZE EROSION AND RETAIN VEGETATION WHENEVER POSSIBLE.

THE PERMITTEE SHALL DELINEATE AREAS NOT TO BE DISTURBED. PERMITTEE(S) MUST MINIMIZE THE NEED FOR DISTURBANCE OF PORTIONS OF THE PROJECT WITH STEEP SLOPES. WHEN STEEP SLOPES MUST BE DISTURBED, PERMITTEES MUST USE TECHNIQUES SUCH AS PHASING AND STABILIZATION PRACTICES DESIGNED FOR STEEP SLOPES.

THE CONTRACTOR SHALL STABILIZE OF ALL EXPOSED SOILS IMMEDIATELY TO LIMIT SOIL EROSION. IN NO CASE SHALL ANY EXPOSED AREAS, INCLUDING STOCK PILES, HAVE EXPOSED SOILS FOR MORE THAN 7 DAYS WITHOUT PROVIDING TEMPORARY OR PERMANENT STABILIZATION. STABILIZATION MUST BE COMPLETED WITHIN 7 DAYS AFTER CONSTRUCTION ACTIVITY HAS CEASED. TEMPORARY STOCKPILES WITHOUT SIGNIFICANT CLAY, SILT, OR ORGANIC COMPONENTS DO NOT REQUIRE STABILIZATION.

DRAINAGE PATHS, DITCHES, AND/OR SWALES SHALL HAVE TEMPORARY OR PERMANENT STABILIZATION WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER OR 24 HOURS AFTER CONSTRUCTION ACTIVITY IN THE DITCH/SWALE HAS TEMPORARILY OR PERMANENTLY CEASED.

THE CONTRACTOR SHALL COMPLETE THE STABILIZATION OF ALL EXPOSED SOILS WITHIN 24 HOURS THAT LIE WITHIN 200 FEET OF PUBLIC WATERS PROMULGATED "WORK IN WATER RESTRICTIONS" BY THE MN DNR DURING SPECIFIED FISH SPAWNING TIMES.

THE CONTRACTOR SHALL IMPLEMENT EROSION CONTROL BMPS AND VELOCITY DISSIPATION DEVICES ALONG CONSTRUCTED STORMWATER CONVEYANCE CHANNELS AND OUTLETS.

THE CONTRACTOR SHALL STABILIZE TEMPORARY AND/OR PERMANENT DRAINAGE DITCHES OR SWALES WITHIN 200 LINEAL FEET FROM PROPERTY EDGE, OR DISCHARGE POINT(S) WITHIN 24 HOURS AFTER CONNECTING TO A SURFACE WATER OR PROPERTY EDGE.

TEMPORARY OR PERMANENT DITCHES OR SWALES USED AS A SEDIMENT CONTAINMENT SYSTEM DURING CONSTRUCTION MUST BE STABILIZED WITHIN 24 HOURS AFTER NO LONGER BEING USED AS A SEDIMENT CONTAINMENT SYSTEM.

THE CONTRACTOR SHALL NOT UTILIZE HYDROMULCH, TACKIFIER, POLYACRYLAMIDE OR SIMILAR EROSION PREVENTION PRACTICES AS A FORM OF STABILIZATION FOR TEMPORARY OR PERMANENT DRAINAGE DITCHES OR SWALE SECTION WITH A CONTINUOUS SLOPE OF GREATER THAN 2 PERCENT.

THE CONTRACTOR SHALL ENSURE PIPE OUTLETS HAVE TEMPORARY OR PERMANENT ENERGY DISSIPATION WITH IN 24 HOURS OF CONNECTION TO A SURFACE WATER.

THE CONTRACTOR SHALL DIRECT DISCHARGES FROM BMPS TO VEGETATED AREAS TO INCREASE SEDIMENT REMOVAL AND MAXIMIZE STORMWATER INFILTRATION. VELOCITY DISSIPATION DEVICES MUST BE USED TO PREVENT EROSION WHEN DIRECTING STORMWATER TO VEGETATED AREAS.

SEDIMENT CONTROL MEASURES AND TIMING:
THE CONTRACTOR IS RESPONSIBLE FOR ALL SEDIMENT CONTROL MEASURES FOR THE PROJECT.

SEDIMENT CONTROL MEASURES SHOWN ON PLANS ARE THE ABSOLUTE MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL SEDIMENT CONTROL MEASURES AS NECESSARY TO PROPERLY MANAGE THE PROJECT AREA.

THE CONTRACTOR SHALL ENSURE SEDIMENT CONTROL MEASURES ARE ESTABLISHED ON ALL DOWN GRADIENT PERIMETERS BEFORE ANY UPGRADIENT LAND DISTURBING ACTIVITIES BEGIN. THESE MEASURES SHALL REMAIN IN PLACE UNTIL FINAL STABILIZATION HAS BEEN ESTABLISHED.

A FLOATING SILT CURTAIN PLACED IN THE WATER IS NOT A SEDIMENT CONTROL BMP EXCEPT WHEN WORKING ON A SHORELINE OR BELOW THE WATERLINE. IMMEDIATELY AFTER THE SHORT TERM CONSTRUCTION ACTIVITY IS COMPLETE, PERMITTEE(S) MUST INSTALL AN UPLAND PERIMETER CONTROL PRACTICE IF EXPOSED SOILS STILL DRAIN TO A SURFACE WATER.

THE CONTRACTOR SHALL ENSURE SEDIMENT CONTROL PRACTICES REMOVED OR ADJUSTED FOR SHORT-TERM ACTIVITIES BE RE-INSTALLED IMMEDIATELY AFTER THE SHORT-TERM ACTIVITY HAS BEEN COMPLETED. SEDIMENT CONTROL PRACTICES MUST BE REINSTALLED BEFORE THE NEXT PRECIPITATION EVENT EVEN IF THE SHORT-TERM ACTIVITY IS NOT COMPLETE.

THE CONTRACTOR SHALL ENSURE STORM DRAIN INLETS ARE PROTECTED BY APPROPRIATE BMPS DURING CONSTRUCTION UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.

THE CONTRACTOR SHALL PROVIDE SILT FENCE OR OTHER EFFECTIVE SEDIMENT CONTROL AT THE BASE OF THE STOCKPILES.

THE CONTRACTOR SHALL INSTALL PERIMETER CONTROL AROUND ALL STAGING AREAS, BORROW PITS, AND AREAS CONSIDERED ENVIRONMENTALLY SENSITIVE.

THE CONTRACTOR SHALL ENSURE VEHICLE TRACKING BE MINIMIZED WITH EFFECTIVE BMPS. WHERE THE BMPS FAIL TO PREVENT SEDIMENT FROM TRACKING ONTO STREETS THE CONTRACTOR SHALL CONDUCT STREET SWEEPING TO REMOVE ALL TRACKED SEDIMENT.

THE CONTRACTOR SHALL IMPLEMENT CONSTRUCTION PRACTICES TO MINIMIZE SOIL COMPACTION.

THE CONTRACTOR SHALL ENSURE ALL CONSTRUCTION ACTIVITY REMAIN WITHIN PROJECT LIMITS AND THAT ALL IDENTIFIED RECEIVING WATER BUFFERS ARE MAINTAINED.

RECEIVING WATER	NATURAL BUFFER	IS THE BUFFER BEING ENCROACHED ON?	REASON FOR BUFFER ENCROACHMENT
ALL RECEIVING WATERS	AT LEAST 50 FT	NO	N/A

A 50 FOOT NATURAL BUFFER MUST BE PRESERVED OR PROVIDE REDUNDANT (DOUBLE) PERIMETER SEDIMENT CONTROLS IF NATURAL BUFFER IS INFEASIBLE.

THE CONTRACTOR SHALL NOT UTILIZE SEDIMENT CONTROL CHEMICALS ON SITE.

INSPECTION AND MAINTENANCE:
ALL INSPECTIONS, MAINTENANCE, REPAIRS, REPLACEMENTS, AND REMOVAL OF BMPS IS TO BE CONSIDERED INCIDENTAL TO THE BMP BID ITEMS.

THE PERMITTEE(S) IS RESPONSIBLE FOR COMPLETING SITE INSPECTIONS, AND BMP MAINTENANCE TO ENSURE COMPLIANCE WITH THE PERMIT REQUIREMENTS.

THE PERMITTEE(S) SHALL INSPECT THE CONSTRUCTION SITE ONCE EVERY 7 DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.

THE PERMITTEE(S) SHALL DOCUMENT A WRITTEN SUMMARY OF ALL INSPECTIONS AND MAINTENANCE ACTIVITIES CONDUCTED WITHIN 24 HOURS OF OCCURRENCE. RECORDS OF EACH ACTIVITY SHALL INCLUDE THE FOLLOWING:

-DATE AND TIME OF INSPECTIONS;
-NAME OF PERSON(S) CONDUCTING INSPECTION;
-FINDINGS AND RECOMMENDATIONS FOR CORRECTIVE ACTIONS IF NECESSARY;
-CORRECTIVE ACTIONS TAKEN;
-DATE AND AMOUNT OF RAINFALL EVENTS;
-POINTS OF DISCHARGE OBSERVED DURING INSPECTION AND DESCRIPTION OF THE DISCHARGE
-AMENDMENTS MADE TO THE SWPPP.

THE PERMITTEE(S) SHALL SUBMIT A COPY OF THE WRITTEN INSPECTIONS TO THE ENGINEER AND OWNER ON A MONTHLY BASIS. IF MONTHLY INSPECTION REPORTS ARE NOT SUBMITTED, MONTHLY PAYMENTS MAY BE HELD.

THE CONTRACTOR SHALL DOCUMENT AMENDMENTS TO THE SWPPP AS A RESULT OF INSPECTION(S) WITHIN 7 DAYS.

THE CONTRACTOR SHALL KEEP THE SWPPP, ALL INSPECTION REPORTS, AND AMENDMENTS ONSITE. THE CONTRACTOR SHALL DESIGNATE A SPECIFIC ONSITE LOCATION TO KEEP THE RECORDS

THE CONTRACTOR IS RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF TEMPORARY AND PERMANENT WATER QUALITY BMP'S, AS WELL AS EROSION AND SEDIMENT CONTROL BMP'S.

THE CONTRACTOR SHALL INSPECT EROSION PREVENTION AND SEDIMENTATION CONTROL BMPS TO ENSURE INTEGRITY AND EFFECTIVENESS. ALL NONFUNCTIONAL BMPS SHALL BE REPAIRED, REPLACED, OR SUPPLEMENTED WITH FUNCTIONAL BMPS WITHIN 24 HOURS OF FINDING. THE CONTRACTOR SHALL INVESTIGATE AND COMPLY WITH THE FOLLOWING INSPECTION AND MAINTENANCE REQUIREMENTS:

PERIMETER CONTROL DEVICES, INCLUDING SILT FENCE SHALL BE REPAIRED, OR REPLACED, WHEN THEY BECOME NONFUNCTIONAL OR THE SEDIMENT REACHES 1/2 OF THE DEVICE HEIGHT. THESE REPAIRS SHALL BE MADE WITHIN 24 HOURS OF DISCOVERY.

TEMPORARY AND PERMANENT SEDIMENT BASINS SHALL BE DRAINED AND THE SEDIMENT REMOVED WHEN THE DEPTH OF SEDIMENT COLLECTED IN THE BASIN REACHES 1/2 THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY.

SURFACE WATERS, INCLUDING DRAINAGE DITCHES AND CONVEYANCE SYSTEMS, MUST BE INSPECTED FOR EVIDENCE OF EROSION AND SEDIMENT DEPOSITION. THE CONTRACTOR SHALL REMOVE ALL DELTAS AND SEDIMENT DEPOSITED IN SURFACE WATERS, INCLUDING DRAINAGE WAYS, CATCH BASINS, AND OTHER DRAINAGE SYSTEMS. THE CONTRACTOR SHALL RE-STABILIZE THE AREAS WHERE SEDIMENT REMOVAL RESULTS IN EXPOSED SOIL. REMOVAL AND STABILIZATION MUST TAKE PLACE WITHIN 7 DAYS OF DISCOVERY, UNLESS PRECLUDED BY LEGAL, REGULATORY, OR PHYSICAL CONSTRAINTS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL LOCAL, REGIONAL, STATE AND FEDERAL AUTHORITIES AND OBTAIN ANY APPLICABLE PERMITS, PRIOR TO CONDUCTING ANY WORK IN SURFACE WATERS.

CONSTRUCTION SITE VEHICLE EXIT LOCATIONS SHALL BE INSPECTED DAILY FOR EVIDENCE OF SEDIMENT TRACKING ONTO PAVED SURFACES. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES WITHIN 24 HOURS OF DISCOVERY.

IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFF-SITE ACCUMULATIONS OF SEDIMENT MUST BE REMOVED IN A MANOR AND AT A FREQUENCY SUFFICIENT TO MINIMIZE OFF-SITE IMPACTS.

EROSION PREVENTION BMP SUMMARY:
SEE EROSION AND SEDIMENT CONTROL PLAN SHEET AND BID FORM FOR TYPE, LOCATION, AND QUANTITY OF EROSION PREVENTION BMPS.

SEDIMENT CONTROL BMP SUMMARY:
SEE EROSION AND SEDIMENT CONTROL PLAN SHEETS AND BID FORM FOR TYPE, LOCATION, AND QUANTITY OF SEDIMENT CONTROL BMPS.

DEWATERING AND BASIN DRAINING ACTIVITIES:
THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL DEWATERING AND SURFACE DRAINAGE REGULATIONS.

WATER FROM DEWATERING ACTIVITIES SHALL DISCHARGE TO A TEMPORARY AND/OR PERMANENT SEDIMENT BASIN.

IF WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN, IT SHALL BE TREATED WITH OTHER APPROPRIATE BMPS, TO EFFECTIVELY REMOVE SEDIMENT.

DISCHARGE THAT CONTAINS OIL OR GREASE MUST BE TREATED WITH AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE PRIOR TO DISCHARGE.

WATER FROM DEWATERING SHALL BE DISCHARGED IN A MANNER THAN DOES NOT CAUSE NUISANCE CONDITIONS, EROSION, OR INUNDATION OF WETLANDS.

BACKWASH WATER USED FOR FILTERING SHALL BE HAULED AWAY FOR DISPOSAL, RETURNED TO THE BEGINNING OF TREATMENT PROCESS, OR INCORPORATED INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. THE CONTRACTOR SHALL REPLACE AND CLEAN FILTER MEDIAS USED IN DEWATERING DEVICES WHEN REQUIRED TO MAINTAIN ADEQUATE FUNCTION.

POLLUTION PREVENTION MANAGEMENT MEASURES:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POLLUTION PREVENTION MANAGEMENT MEASURES.

ALL POLLUTION PREVENTION MEASURES ARE CONSIDERED INCIDENTAL TO THE MOBILIZATION BID ITEM, UNLESS OTHERWISE NOTED.

THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER DISPOSAL, IN COMPLIANCE WITH MPCA DISPOSAL REQUIREMENTS, OF ALL HAZARDOUS MATERIALS, SOLID WASTE, AND PRODUCTS ON-SITE.

THE CONTRACTOR SHALL ENSURE BUILDING PRODUCTS THAT HAVE THE POTENTIAL TO LEAK POLLUTANTS ARE KEPT UNDER COVER TO PREVENT THE DISCHARGE OF POLLUTANTS.

THE CONTRACTOR SHALL ENSURE PESTICIDES, HERBICIDES, INSECTICIDES, FERTILIZERS, TREATMENT CHEMICALS, AND LANDSCAPE MATERIALS ARE COVERED TO PREVENT THE DISCHARGE OF POLLUTANTS.

THE CONTRACTOR SHALL ENSURE HAZARDOUS MATERIALS AND TOXIC WASTE IS PROPERLY STORED IN SEALED CONTAINERS TO PREVENT SPILLS, LEAKS, OR OTHER DISCHARGE. STORAGE AND DISPOSAL OF HAZARDOUS WASTE OR HAZARDOUS MATERIALS MUST BE IN COMPLIANCE WITH MINN. R. CH. 7045 INCLUDING SECONDARY CONTAINMENT AS APPLICABLE.

THE CONTRACTOR SHALL ENSURE ASPHALT SUBSTANCES USED ON-SITE SHALL ARE APPLIED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

THE CONTRACTOR SHALL ENSURE PAINT CONTAINERS AND CURING COMPOUNDS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT AND/OR CURING COMPOUNDS SHALL NOT BE DISCHARGED INTO THE STORM SEWER SYSTEM AND SHALL BE PROPERLY DISPOSED OF ACCORDING TO MANUFACTURE'S INSTRUCTION.

THE CONTRACTOR SHALL ENSURE SOLID WASTE BE STORED, COLLECTED AND DISPOSED OF PROPERLY IN COMPLIANCE WITH MINN. R. CH. 7035.

THE CONTRACTOR SHALL ENSURE POTABLE TOILETS ARE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER. SANITARY WASTE MUST BE DISPOSED OF PROPERLY IN ACCORDANCE WITH MINN. R, CH. 7041.

THE CONTRACTOR SHALL MONITOR ALL VEHICLES ON-SITE FOR LEAKS AND RECEIVE REGULAR PREVENTION MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE.

THE CONTRACTOR SHALL ENSURE WASHOUT WASTE MUST CONTACT THE GROUND AND BE PROPERLY DISPOSED OF IN COMPLIANCE WITH MPCA RULES.

THE CONTRACTOR SHALL INCLUDE SPILL KITS WITH ALL FUELING SOURCES AND MAINTENANCE ACTIVITIES. SECONDARY CONTAINMENT MEASURES SHALL BE INSTALLED AND MAINTAINED BY THE CONTRACTOR.

THE CONTRACTOR SHALL ENSURE SPILLS ARE CONTAINED AND CLEANED UP IMMEDIATELY UPON DISCOVERY. SPILLS LARGE ENOUGH TO REACH THE STORM WATER CONVEYANCE SYSTEM SHALL BE REPORTED TO THE MINNESOTA DUTY OFFICER AT 1.800.422.0798.

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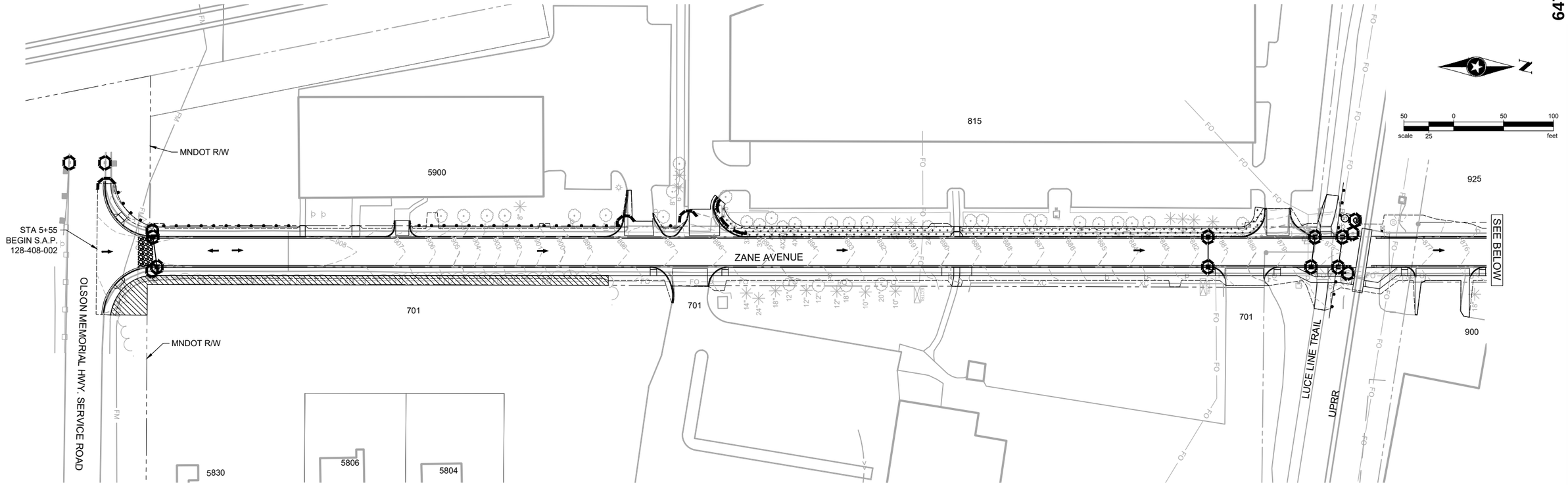
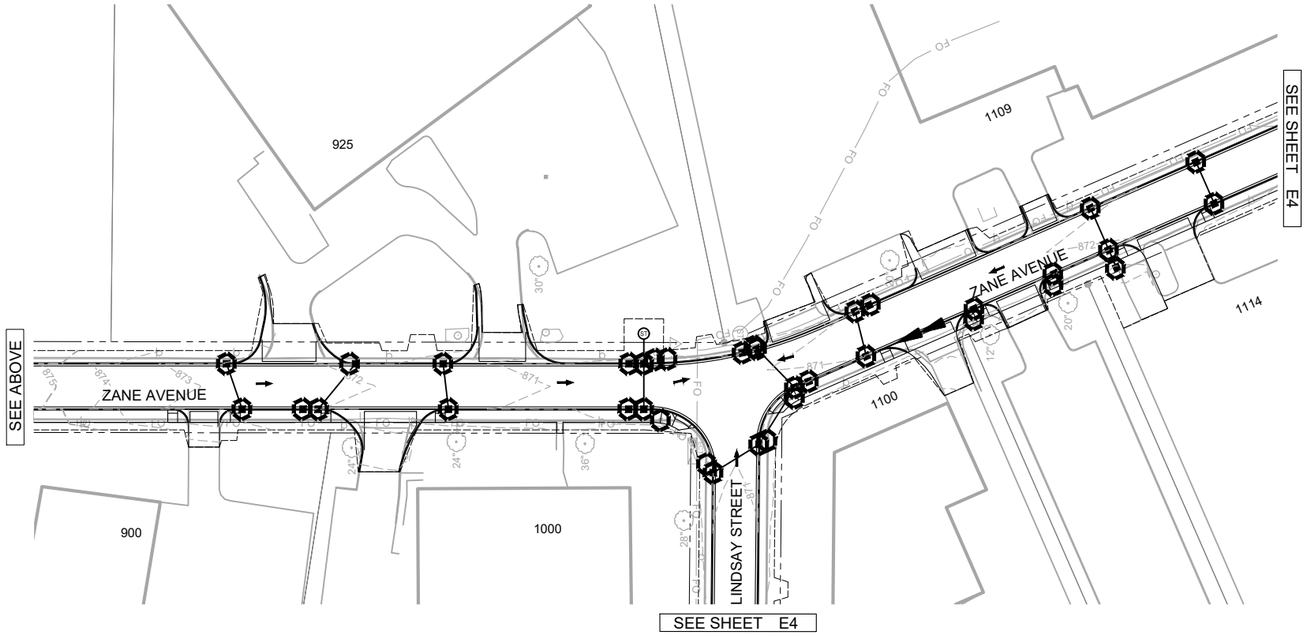
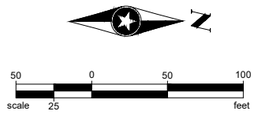


ZANE AVENUE





EROSION CONTROL

- EXISTING AND PROPOSED DRAINAGE DIRECTIONAL FLOW ARROW
- STORM DRAIN INLET PROTECTION
- ROCK CONSTRUCTION ENTRANCE
- HYDROSEEDING (INCLUDES 4" TOPSOIL, SEED MIX 25-131, FERTILIZER, & TYPE HYDRAULIC MULCH)
- SEEDING (INCLUDES 4" TOPSOIL, SEED MIX 38-631, & FERTILIZER) ROLLED EROSION PREVENTION CATEGORY 10)
- SEDIMENT CONTROL LOG (TYPE STRAW)
- SILT FENCE

NOTES:

1. TO PREVENT DUSTY CONDITIONS AND SEDIMENT ENTERING THE STORM SEWER, CONTRACTOR MUST CLEAN STREETS ON A DAILY BASIS DURING CONSTRUCTION HOURS (7AM-7PM) UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
2. ADDITIONAL STREET CLEANING MAY BE REQUIRED AS DIRECTED BY THE ENGINEER AND WILL BE INCIDENTAL TO DAILY SWEEPING. THE ADDITIONAL SWEEPING WILL BE PERFORMED WITHIN FOUR (4) HOURS OF ENGINEER'S DIRECTION.
3. FAILURE TO PERFORM STREET CLEANING WILL RESULT IN CLEANING BY THE CITY OF GOLDEN VALLEY AND COSTS DEDUCTED FROM MONIES DUE TO CONTRACTOR.
4. CONTRACTOR MUST PLACE PROTECTION ON ALL INLETS AND REMOVE AS DIRECTED BY THE ENGINEER FOLLOWING BITUMINOUS WEAR PAVING (INCIDENTAL).
5. ALL DISTURBED AREAS SHALL BE RESTORED WITH 4" TOPSOIL AND SOD UNLESS SHOWN OTHERWISE OR DIRECTED BY THE ENGINEER.
6. EXPOSED SOIL SHALL BE TEMPORARILY STABILIZED USING SEED WITH MULCH AND/OR EROSION CONTROL BLANKET, OR BY HYDROSEEDING AS DIRECTED BY THE ENGINEER.
7. TEMPORARY OR PERMANENT MULCH MUST BE UNIFORMLY APPLIED BY MECHANICAL OR HYDRAULIC MEANS AND STABILIZED BY DISK ANCHORING OR USE OF HYDRAULIC SOIL STABILIZERS.
8. TEMPORARY VEGETATION COVERS SHOULD CONSIST OF SUITABLE, FAST GROWING, DENSE GRASS SEED (MNDOT 25-141) APPLIED AT 1.5 TIMES THE RATE PER ACRE SPECIFIED BY MNDOT 2575.3.
9. PROJECT DOES NOT IMPACT ANY WETLANDS.
10. STEEP SLOPES (>3:1) SHALL BE STABILIZED IMMEDIATELY AFTER REACHING FINAL GRADE, AS DIRECTED BY THE ENGINEER.
11. ADDITIONAL PERIMETER CONTROL TO BE INSTALLED, AS NECESSARY, AS DIRECTED BY ENGINEER.

SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	SRP	.			.		
Designed By	SRP	.			.		
Checked By	SDH	.			.		

SEH

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

STEPHEN PRALL

DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

SEDIMENT & EROSION CONTROL PLAN ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

E3

of 103

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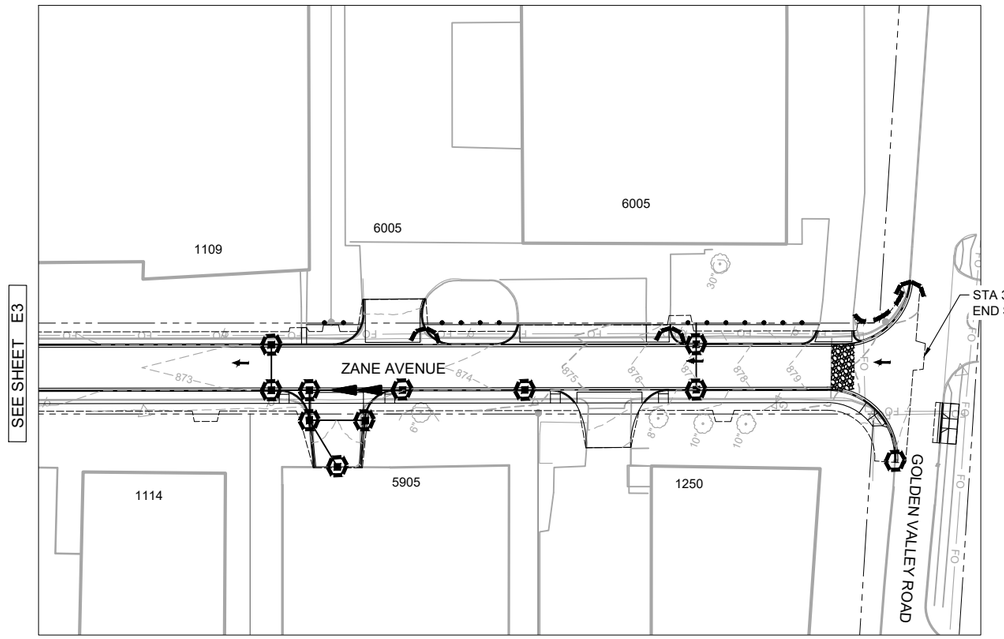

ZANE AVENUE

EROSION CONTROL

EXISTING AND PROPOSED DRAINAGE DIRECTIONAL FLOW ARROW

STORM DRAIN INLET PROTECTION

ROCK CONSTRUCTION ENTRANCE

HYDROSEEDING (INCLUDES 4" TOPSOIL, SEED MIX 25-131, FERTILIZER, & TYPE HYDRAULIC MULCH)

SEEDING (INCLUDES 4" TOPSOIL, SEED MIX 38-631, & FERTILIZER) ROLLED EROSION PREVENTION CATEGORY 10)

SEDIMENT CONTROL LOG (TYPE STRAW)

SILT FENCE

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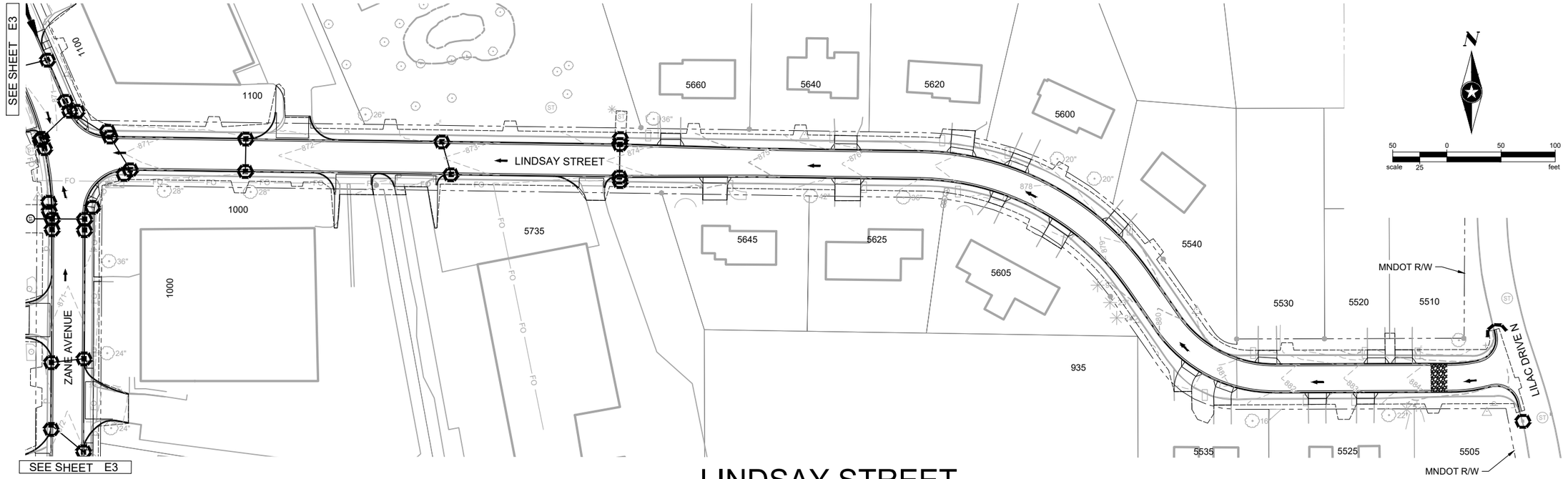

LINDSAY STREET

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date

Rev.#	Revision Issue Description	Date

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STEPHEN PRALL

DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

SEDIMENT & EROSION CONTROL PLAN ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

E4

of 103

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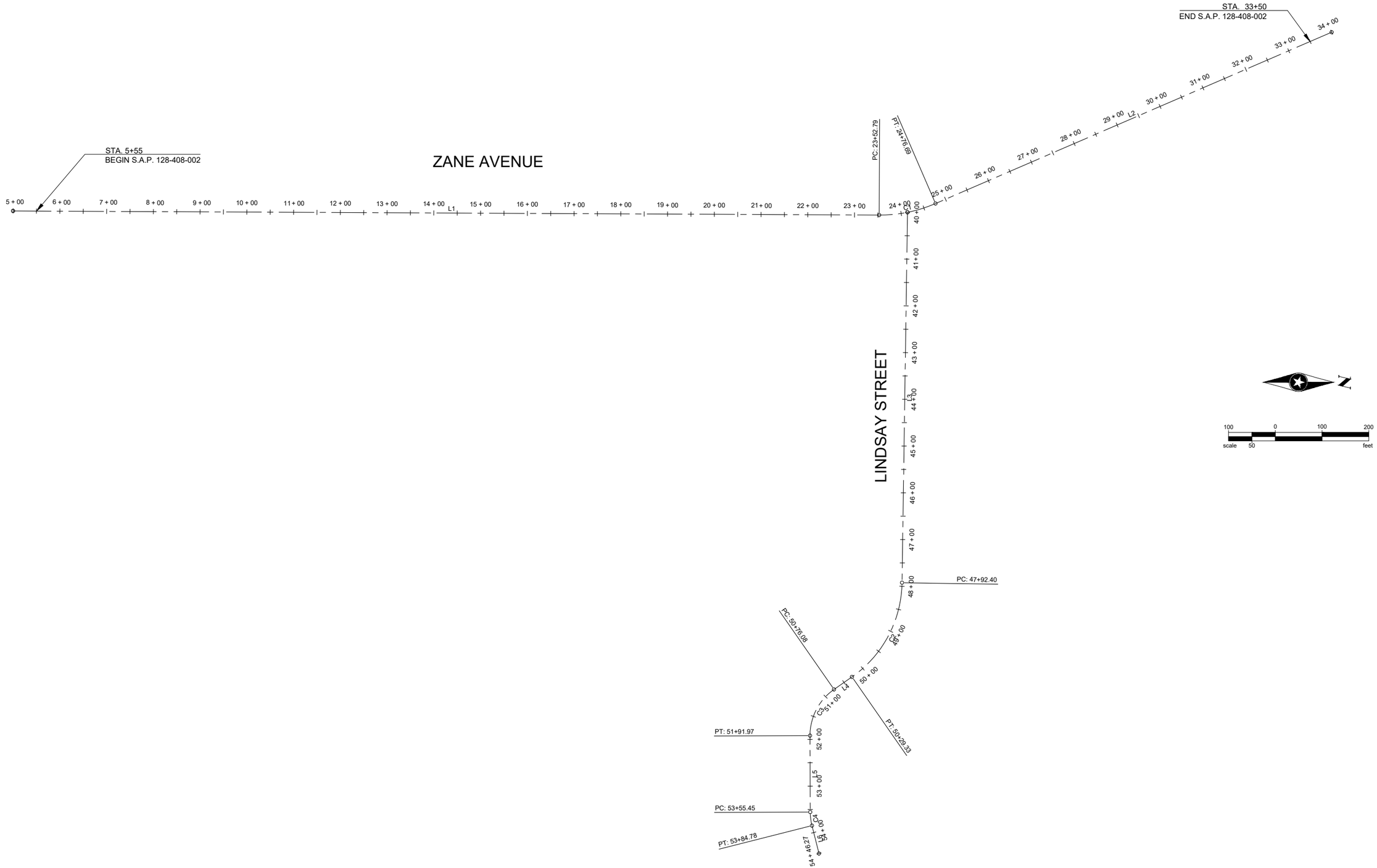

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SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	SEH	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Drawn By	SRP	.			.				Stephen Prall
Designed By	SRP	.			.				DATE 5/7/2024 STEPHEN PRALL LICENSE NO. 54949
Checked By	SDH	.			.				

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

ALIGNMENT PLAN
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

A1
of 103

ALIGNMENT TABULATION - ZANE AVENUE N (S.A.P. 128-408-002)

POINT ID	POINT	STATION	DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING	START STATION	END STATION	START NORTHING	START EASTING	END NORTHING	END EASTING
L1		5+00.00				1852.79	170638.5927	507295.8796	N 00° 16' 22" E	5+00.00	23+52.79	170638.5927	507295.8796	172491.3634	507304.6990
C1		23+52.79	023° 39' 44"	300.00	62.84	123.89	172491.3634	507304.6990		23+52.79	24+76.69	172491.3634	507304.6990	172611.8847	507280.0509
L2		24+76.69				923.31	172611.8847	507280.0509	N 23° 23' 22" W	24+76.69	34+00.00	172611.8847	507280.0509	173459.3283	506913.5160

ALIGNMENT TABULATION - LINDSAY ST

POINT ID	POINT	STATION	DELTA	RADIUS	TANGENT	LENGTH	NORTHING	EASTING	BEARING	START STATION	END STATION	START NORTHING	START EASTING	END NORTHING	END EASTING
L3		40+00.00				792.40	172551.9627	507298.8522	S 89° 09' 14" E	40+00.00	47+92.40	172551.9627	507298.8522	172540.2619	508091.1699
C2		47+92.40	054° 17' 55"	250.00	128.20	236.92	172540.2619	508091.1699		47+92.40	50+29.33	172540.2619	508091.1699	172433.1658	508292.6278
L4		50+29.33				46.75	172433.1658	508292.6278	S 34° 51' 19" E	50+29.33	50+76.08	172433.1658	508292.6278	172394.7999	508319.3477
C3		50+76.08	055° 19' 55"	120.00	62.91	115.89	172394.7999	508319.3477		50+76.08	51+91.97	172394.7999	508319.3477	172343.3813	508418.2115
L5		51+91.97				163.49	172343.3813	508418.2115	N 89° 48' 46" E	51+91.97	53+55.45	172343.3813	508418.2115	172343.9154	508581.6968
C4		53+55.45	014° 00' 16"	120.00	14.74	29.33	172343.9154	508581.6968		53+55.45	53+84.78	172343.9154	508581.6968	172347.5771	508610.7247
L6		53+84.78				61.48	172347.5771	508610.7247	N 75° 48' 30" E	53+84.78	54+46.27	172347.5771	508610.7247	172362.6507	508670.3318

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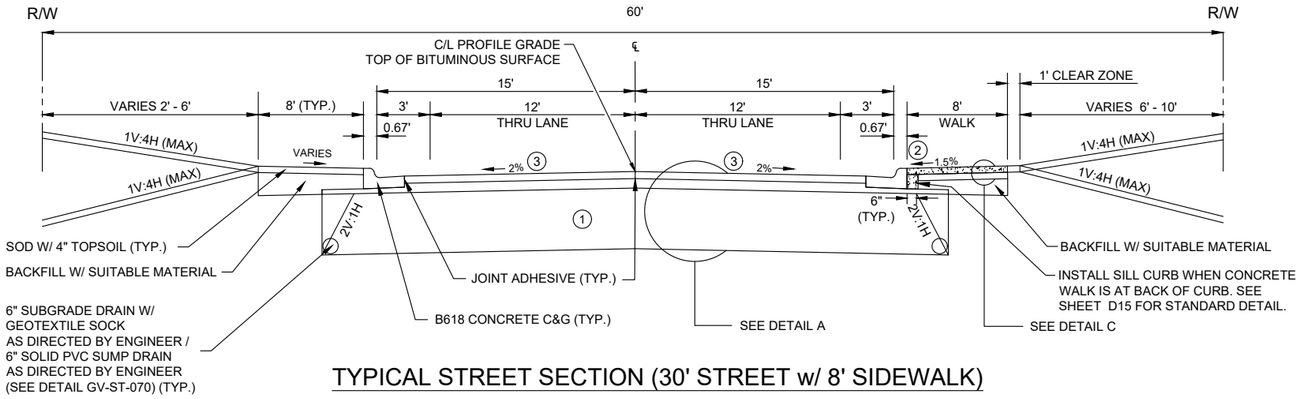
STEPHEN PRALL

DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

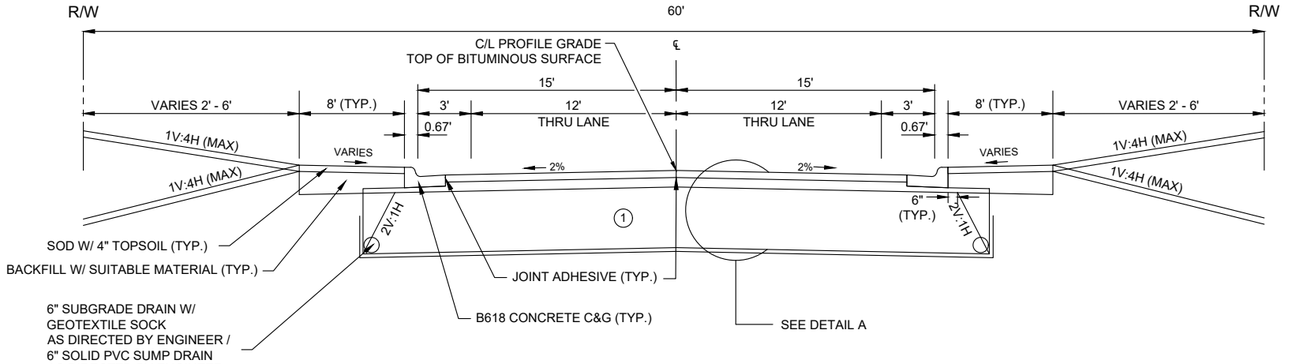
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

ALIGNMENT TABULATION
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS



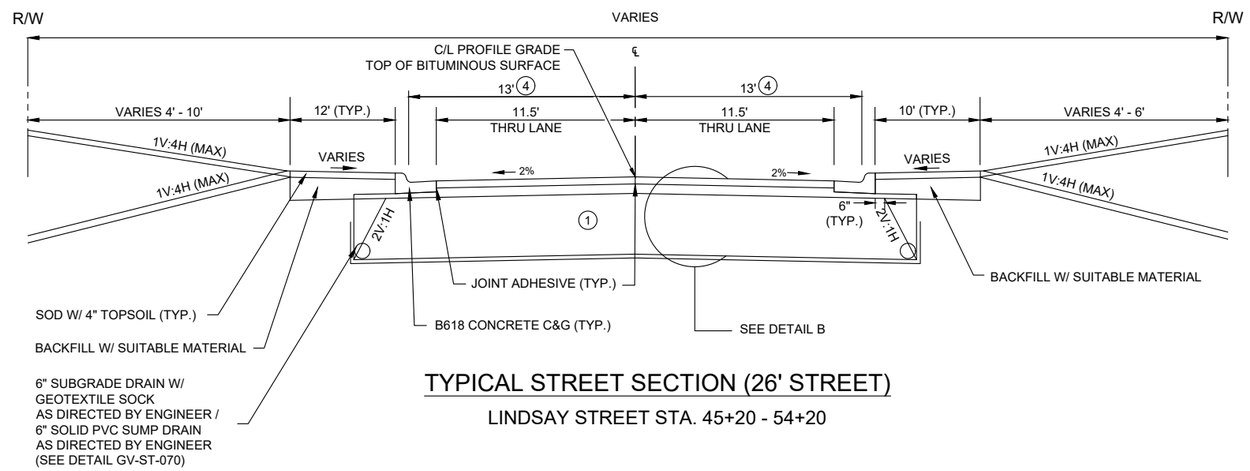
TYPICAL STREET SECTION (30' STREET w/ 8' SIDEWALK)

ZANE AVENUE (S.A.P. 128-408-02) STA. 5+55 - 33+50



TYPICAL STREET SECTION (30' STREET)

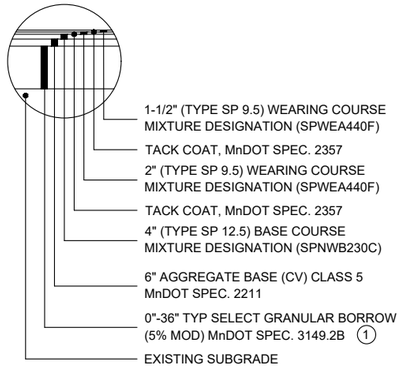
LINDSAY STREET STA. 40+00 - 45+20



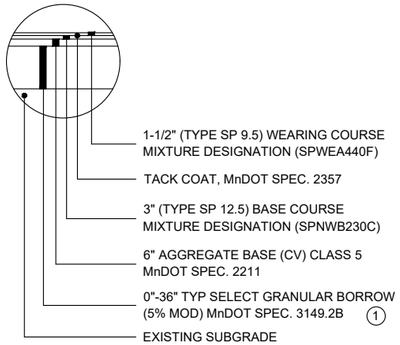
TYPICAL STREET SECTION (26' STREET)

LINDSAY STREET STA. 45+20 - 54+20

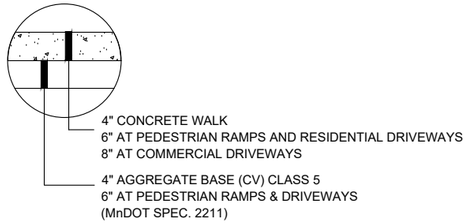
DETAIL A



DETAIL B



DETAIL C



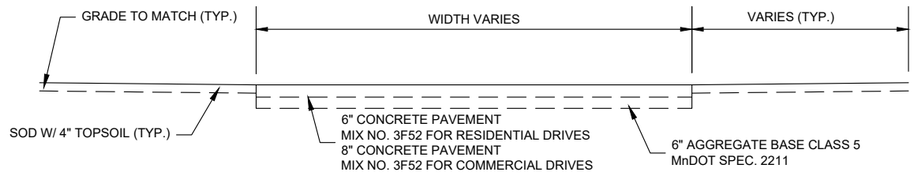
(1) EXCAVATION FOR SUBCUT IS PAID AS COMMON EXCAVATION.

THE ENGINEER SHALL MAKE FIELD DETERMINATIONS OF SUBGRADE SUITABILITY AND, IF NECESSARY, SHALL DIRECT THE CONTRACTOR TO VARY THE DEPTH OF COMMON EXCAVATION, SELECT GRANULAR BORROW AND GEOTEXTILE FABRIC TYPE V.

(2) 3' CLEAR ZONE

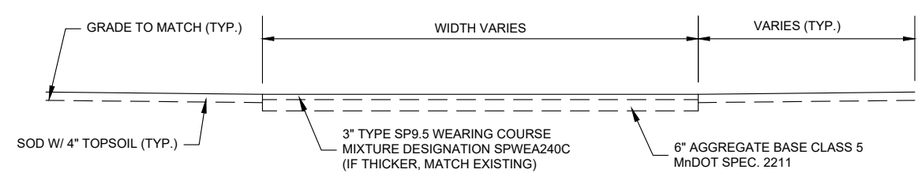
(3) ZANE AVE. N (STA 17+00 TO STA 19+00) TO HAVE VARYING CROSS SLOPE TO MATCH RAILROAD. SEE GRADING PLAN SHEET G2.

(4) LINDSAY STREET ROAD WIDTH TRANSITIONS FROM 30' F-F TO 26' F-F BETWEEN STA 45+20 TO STA 46+40



EXCAVATION FOR SUBCUT UNDER PAVEMENT IS PAID AS COMMON EXCAVATION.

TYPICAL SECTION - CONCRETE DRIVEWAY REPLACEMENT



EXCAVATION FOR SUBCUT UNDER PAVEMENT IS PAID AS COMMON EXCAVATION.

TYPICAL SECTION - BITUMINOUS DRIVEWAY REPLACEMENT

SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	
Drawn By	SRP	.			.			
Designed By	SRP	.			.			
Checked By	SDH	.			.			

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DATE 5/7/2024 STEPHEN PRALL LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

TYPICAL SECTIONS
ZANE AVENUE AND LINDSAY STREET
IMPROVEMENTS

TY1

of 103

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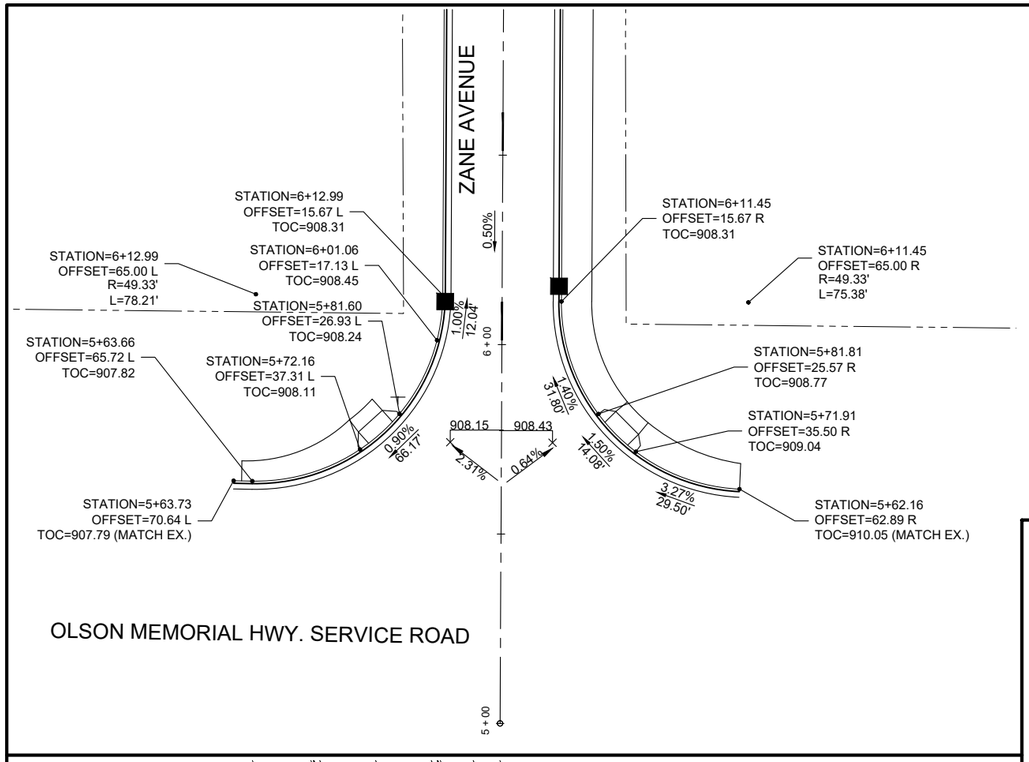
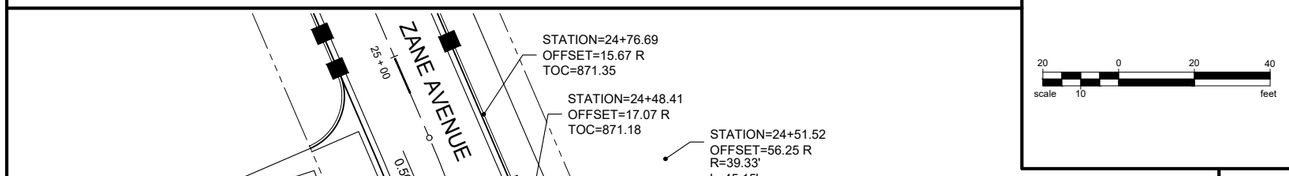
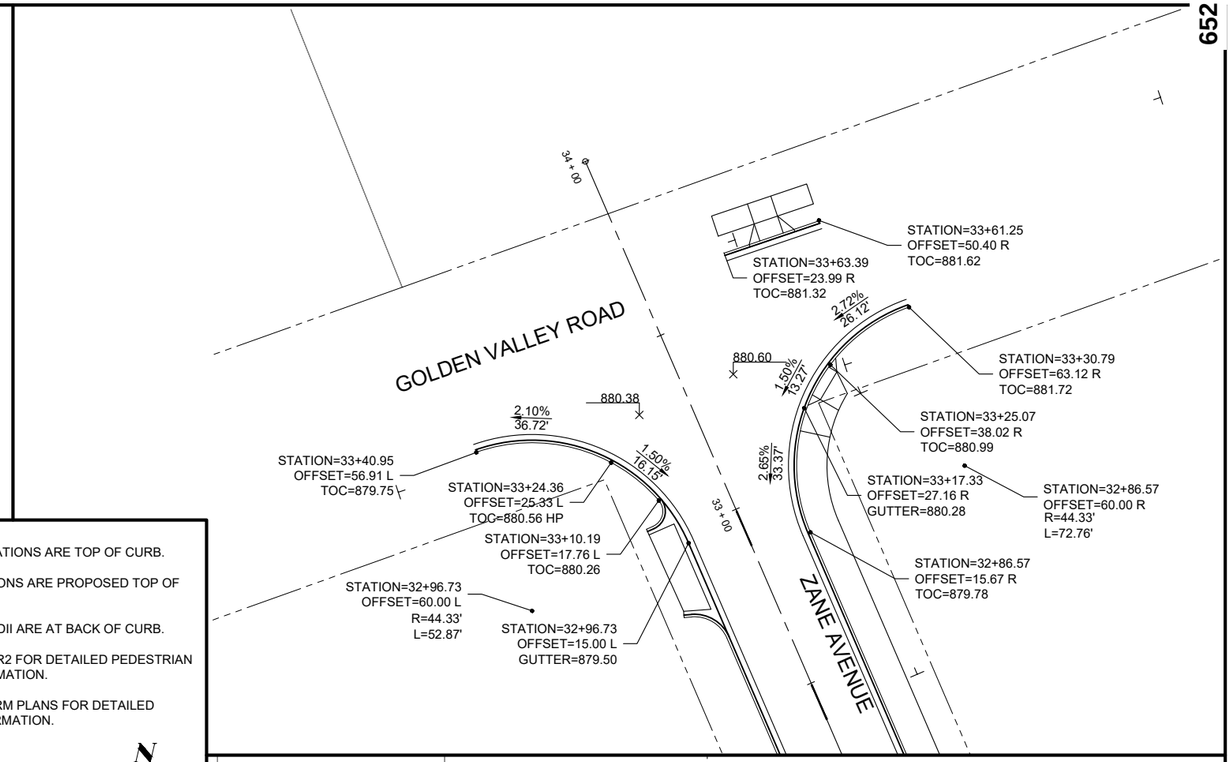
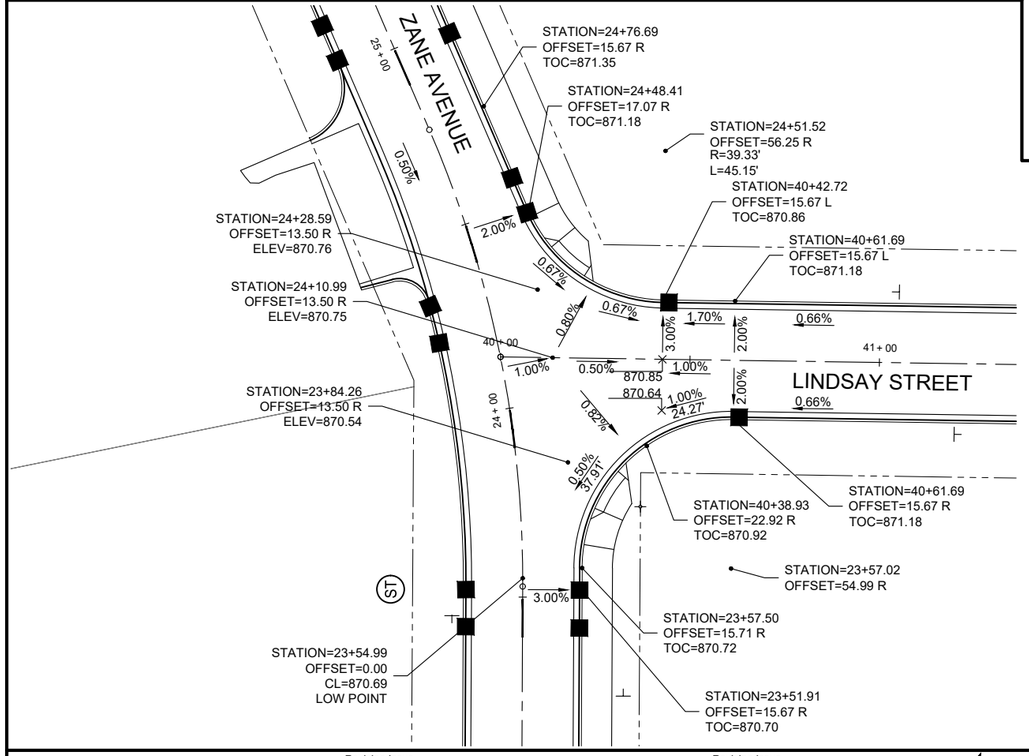


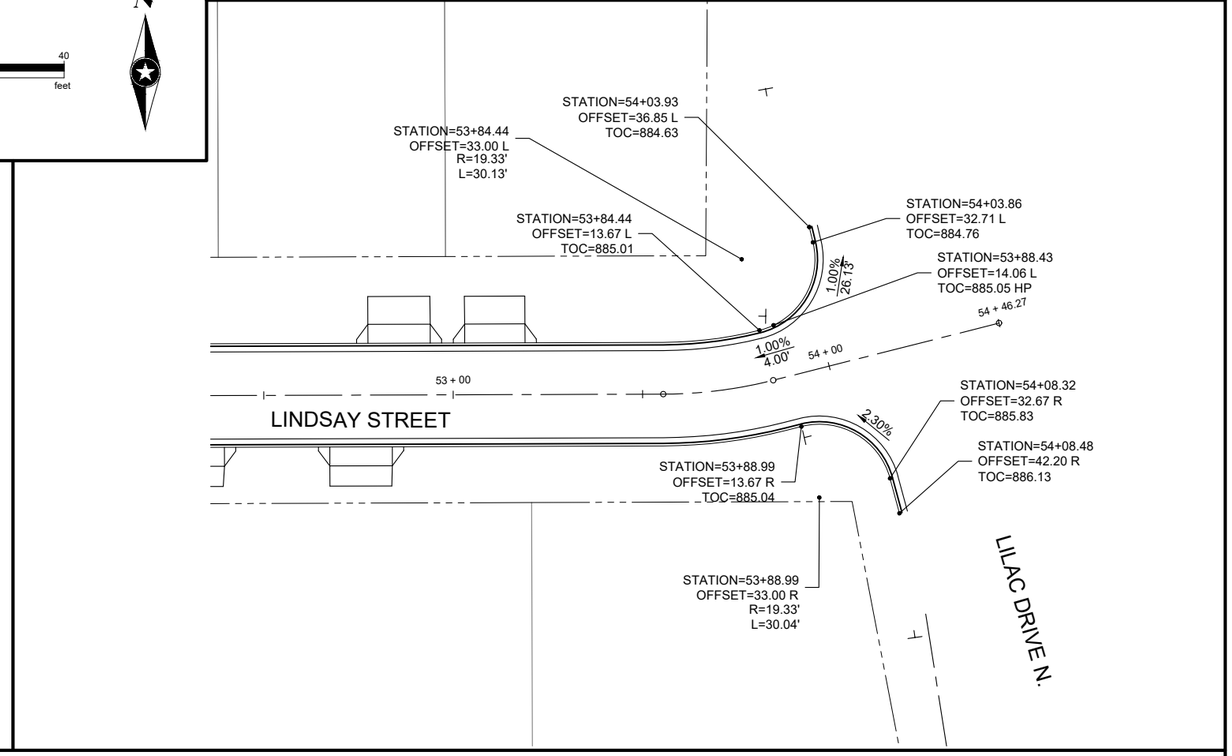
NOTES:

1. ALL CURB LINE ELEVATIONS ARE TOP OF CURB.
2. ALL STREET ELEVATIONS ARE PROPOSED TOP OF BITUMINOUS.
3. LENGTH OF CURB RADII ARE AT BACK OF CURB.
4. SEE SHEETS PR1 & PR2 FOR DETAILED PEDESTRIAN RAMP DESIGN INFORMATION.
5. SEE GRADING & STORM PLANS FOR DETAILED PROJECT LIMIT INFORMATION.









		Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
SEH Project	GOLDV 163618	.			.		
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GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

INTERSECTION DETAILS
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

ID1

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STA=12+05.65
OFF=40.00 L
R=24.33' B/C
L=9.45'

STA=12+05.65
OFF=15.67 L
TOC=895.75

STA=12+10.20
OFF=51.11 L
R=36.33'
L=32.67'

STA=11+89.07
OFF=44.96 L
R=14.33' B/C
L=14.50'

R24.33

1.00%
9.45'

STA=11+96.43
OFF=17.48 L
TOC=895.84 (HP)

12 + 00

R36.33

6.17%
32.67'

STA=11+78.41
OFF=54.54 L
TOC=892.93
(MATCH EX.)

R14.33

6.17%
14.50'

STA=11+75.31
OFF=40.96 L
TOC=893.82

STA=11+44.47
OFF=28.14 L
TOC=896.65

11.17'
6.91%

STA=11+38.33
OFF=19.56 L
TOC=897.38 (HP)

STA=11+48.07
OFF=38.55 L
TOC=895.88 (MATCH EX.)

R19.33

10.55'
6.91%

STA=11+30.75
OFF=25.00 L
R=9.33' B/C
L=18.46'

8.86'
1.00%

STA=11+30.75
OFF=15.67 L
TOC=897.29

STA=11+16.61
OFF=30.38 L
TOC=898.37

R19.33

5.03%
9.60'

5.03%
11.90'

STA=11+22.75
OFF=20.19 L
TOC=897.77

STA=11+13.91
OFF=38.77 L
TOC=898.82
(MATCH EX.)

5.03%
8.89'

11 + 00

ZANE AVENUE

STA=10+86.77
OFF=61.73 L
TOC=897.69
(MATCH EX.)

STA=10+83.17
OFF=32.30 L
TOC=899.07 (HP)

4.65%
5.23'

4.65%
24.46'

1.00%
27.66'

R24.47

STA=10+86.59
OFF=56.52 L
TOC=897.93

STA=10+64.03
OFF=35.00 L
R=19.33' B/C
L=27.66'

STA=10+64.03
OFF=15.67 L
TOC=898.79

1.50%

STA.=11+89.46
OFF.=15.67 R
TOC=896.08

STA=11+88.96
OFF=35.00 R
R=19.33' B/C
L=27.51'

2.45%
18.26'

STA=11+72.48
OFF=23.67 R
GUT=896.10

STA=11+69.46
OFF=34.69 R
TOC=896.38 (MATCH EX.)

1.50%

1.86%
11.81'

896.57

1.50%

4.60%
28.27'

OUTFALL

R34.33

STATION=11+32.01
OFFSET=50.90 R
TOC=896.24 (MATCH EX.)

0.73%
18.73'

STA=11+26.74
OFF=23.67 R
GUT=897.05

R19.33

STA=11+10.26
OFF=35.00 R
R=19.33' B/C
L=18.73'

STATION=11+10.26
OFFSET=15.67 R
TOC=897.71

STA=10+98.35
OFF=44.14 R
R=34.33' B/C
L=28.27'

STA=18+22.03
OFF=103.38 L
R=99.33' B/C
L=14.80'

STA=17+77.79
OFF=25.00 L
R=9.33' B/C
L=4.80'

STA=17+77.79
OFF=15.67 L
TOC=878.50

STA=17+72.80
OFF=40.32 L
R=19.33' B/C
L=18.78'

9.73%
4.80'

STA=17+73.21
OFF=16.87 L
TOC=878.96

STA=17+53.65
OFF=43.77 L
TOC=882.45 (MATCH EX.)

9.73%
14.80'

STA=17+60.91
OFF=25.08 L
TOC=880.40

9.73%
2.23'

9.73%
16.79'

STA=17+53.51
OFF=41.54 L
TOC=882.23

STA=17+27.69
OFF=43.73 L
TOC=882.86
(MATCH EX.)

5.14%
6.85'

STA=17+26.83
OFF=36.93 L
TOC=882.51

5.14%
35.14'

STA=17+02.69
OFF=15.67 L
TOC=880.70

STA=17+02.69
OFF=40.00 L
R=24.33' B/C
L=35.14'

17 + 00

STA=17+41.70
OFF=15.67 R
TOC=879.36

1.50%

STA=17+41.70
OFF=30.00 R
R=14.33' B/C
L=15.95'

3.89%
15.95'

STA=17+31.34
OFF=33.77 R
BIT.=880.40 (MATCH EX.)

7.62%
12.07'

STA=17+28.11
OFF=23.67 R
GUT.=879.48

1.50%

880.22

STA=16+88.41
OFF=33.70 R
BIT.=881.30 (MATCH EX.)

1.50%

3.86%
8.80'

OUTFALL

STA=16+72.50
OFF=15.67 R
TOC=881.75

1.82%
15.95'

STA=16+86.09
OFF=23.67 R
GUT.=880.96

STA=16+72.50
OFF=30.00 R
R=14.33' B/C
L=15.95'

1.50%

NOTES:
1. ALL CURB LINE ELEVATIONS ARE TOP OF CURB.
2. ALL STREET ELEVATIONS ARE PROPOSED TOP OF BITUMINOUS.
3. LENGTH OF CURB RADII ARE AT BACK OF CURB.
4. SEE SHEETS PR1 & PR2 FOR DETAILED PEDESTRIAN RAMP DESIGN INFORMATION.
5. SEE GRADING & STORM PLANS FOR DETAILED PROJECT LIMIT INFORMATION.

N

20 0 20 40
scale 10 feet

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SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date

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DATE 5/7/2024

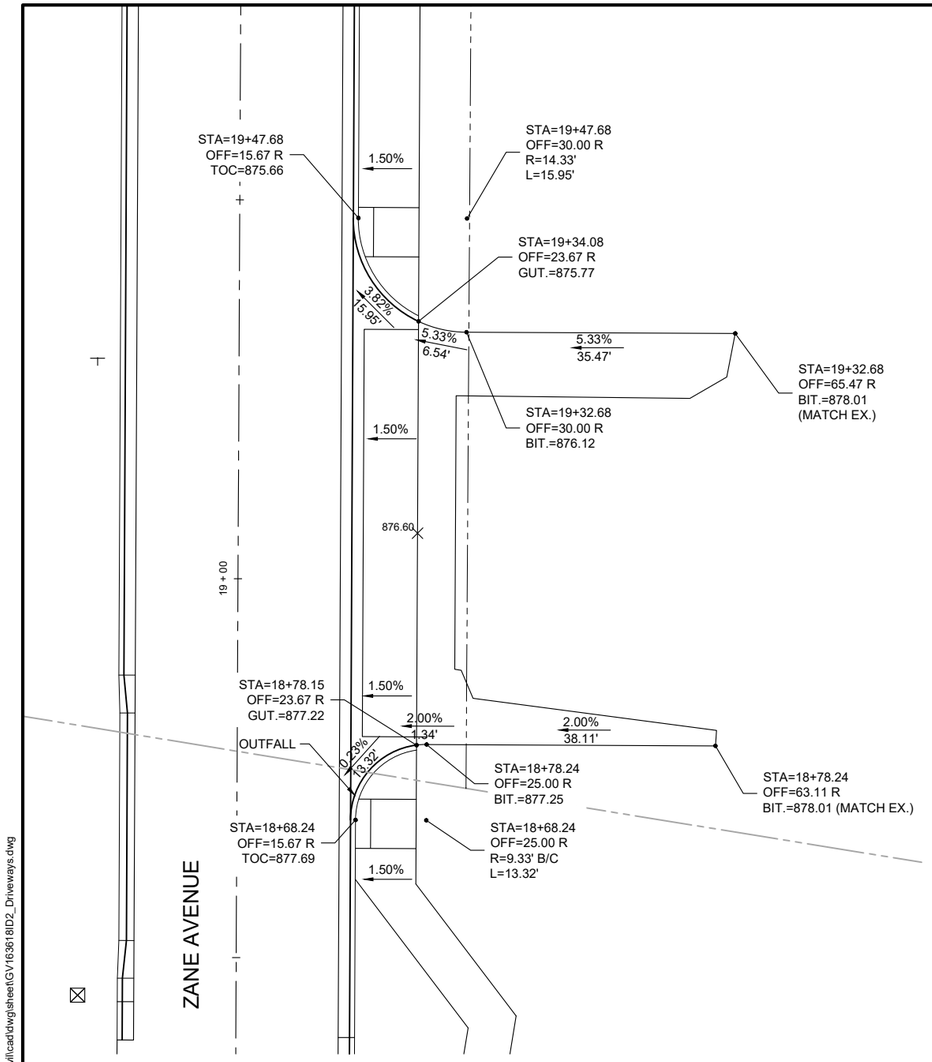
STEPHEN PRALL
LICENSE NO. 54949

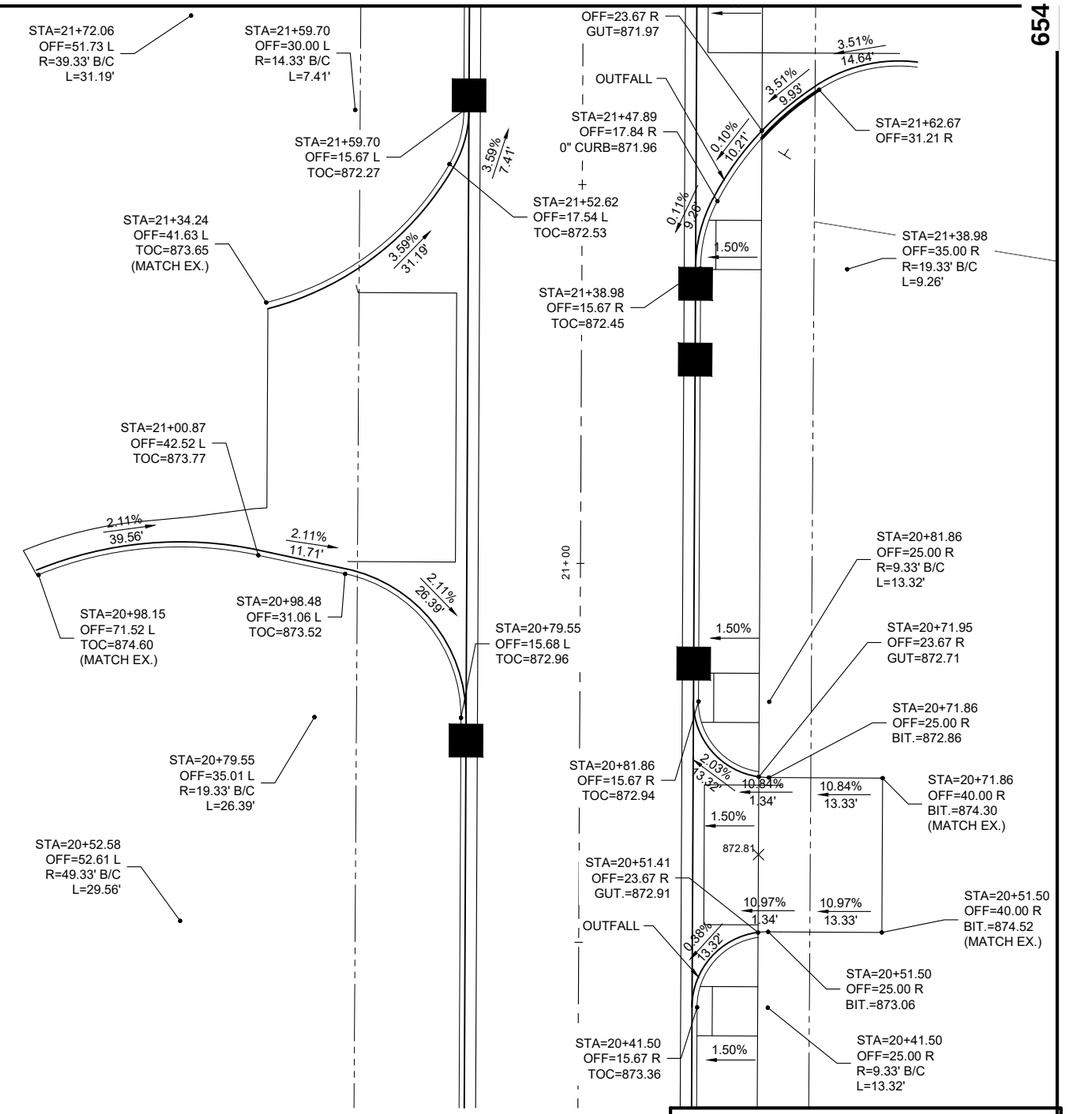
GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

DRIVEWAY DETAILS
ZANE AND LINDSAY IMPROVEMENTS

ID2





NOTES:

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2. ALL STREET ELEVATIONS ARE PROPOSED TOP OF BITUMINOUS.
3. LENGTH OF CURB RADII ARE AT BACK OF CURB.
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N

scale 20 0 20 40 feet

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GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

DRIVEWAY DETAILS
ZANE AND LINDSAY IMPROVEMENTS

ID3

of 103

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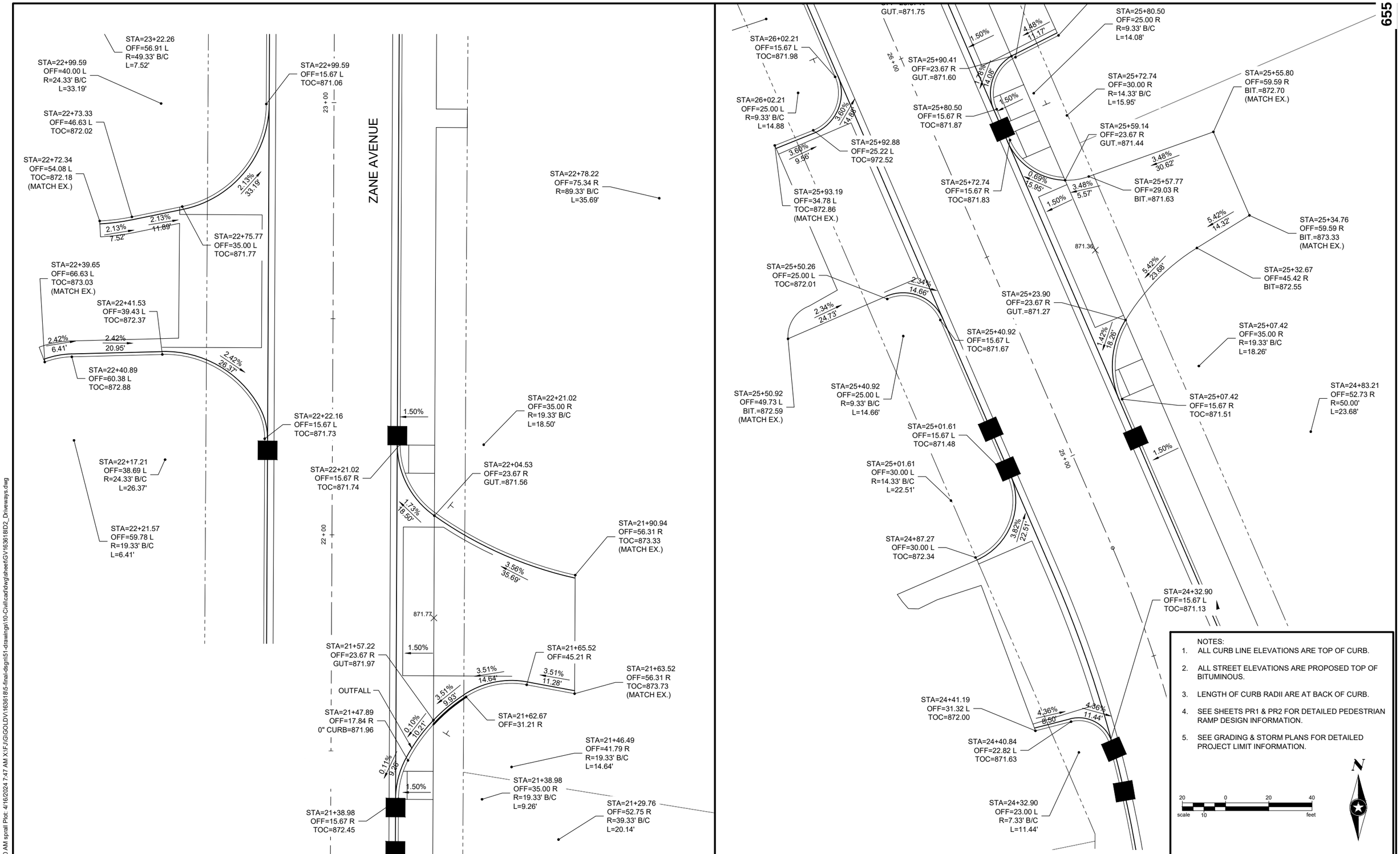

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SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
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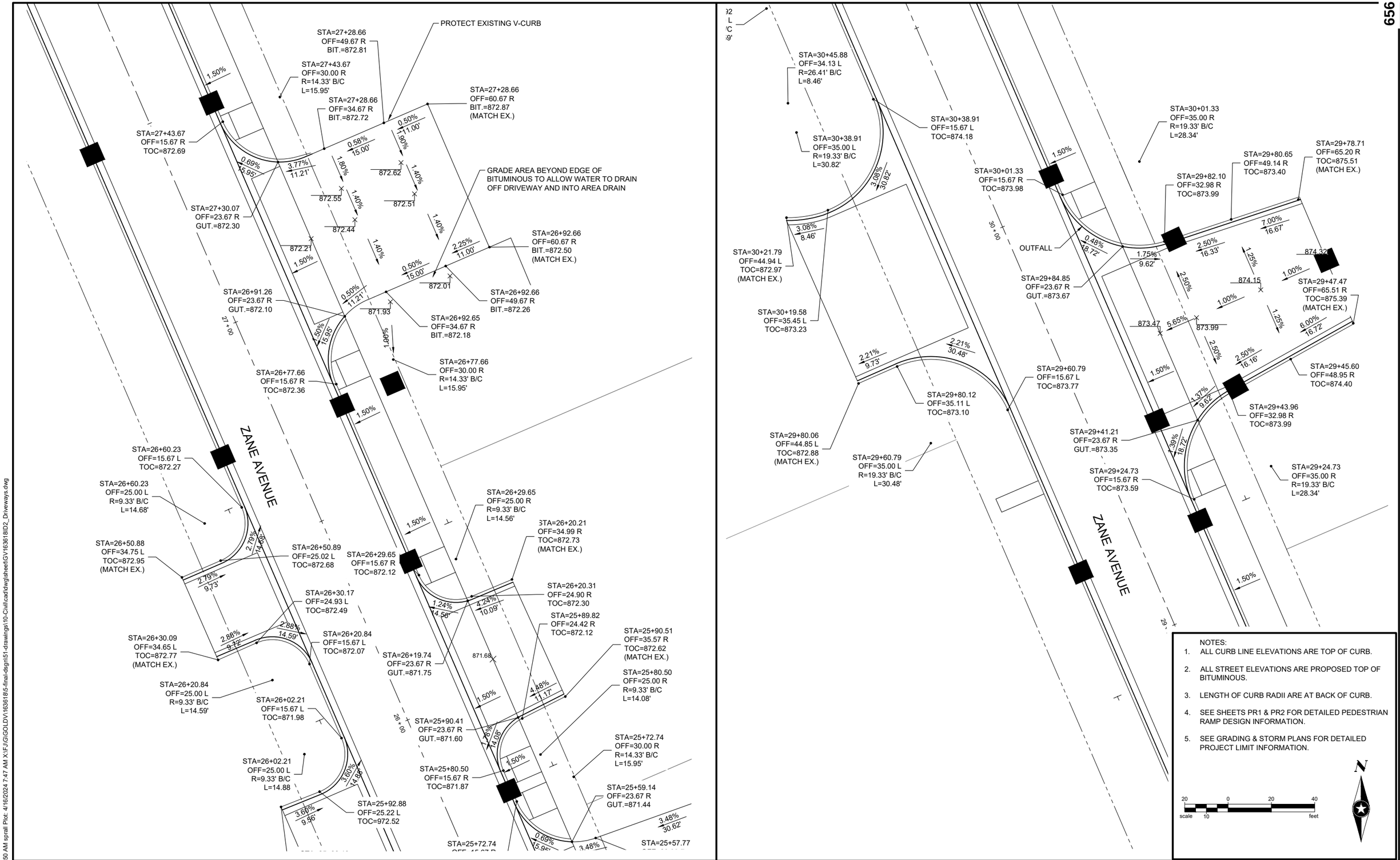
Designed By	SRP	.			.			DATE 5/7/2024 LICENSE NO. 54949
Checked By	SDH	.			.			

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

DRIVEWAY DETAILS
ZANE AND LINDSAY IMPROVEMENTS

ID4



NOTES:

1. ALL CURB LINE ELEVATIONS ARE TOP OF CURB.
2. ALL STREET ELEVATIONS ARE PROPOSED TOP OF BITUMINOUS.
3. LENGTH OF CURB RADII ARE AT BACK OF CURB.
4. SEE SHEETS PR1 & PR2 FOR DETAILED PEDESTRIAN RAMP DESIGN INFORMATION.
5. SEE GRADING & STORM PLANS FOR DETAILED PROJECT LIMIT INFORMATION.

N

20 0 20 40
scale 10 feet

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Drawn By	SRP	.			.				S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02		of 103
Designed By	SRP	.			.			STEPHEN PRALL			
Checked By	SDH	.			.			DATE 5/7/2024 LICENSE NO. 54949			

NOTES:
1. ALL CURB LINE ELEVATIONS ARE TOP OF CURB.
2. ALL STREET ELEVATIONS ARE PROPOSED TOP OF BITUMINOUS.
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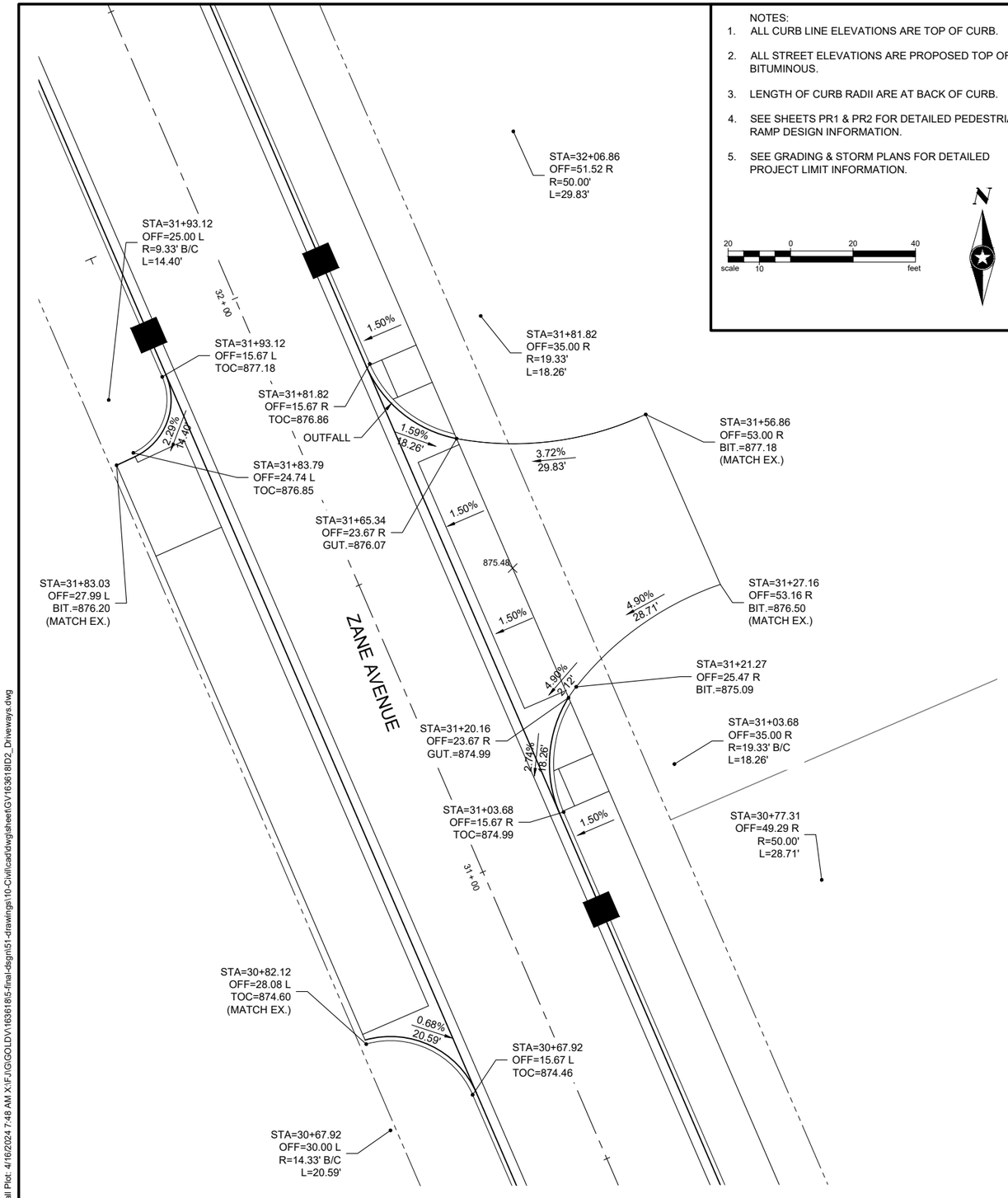
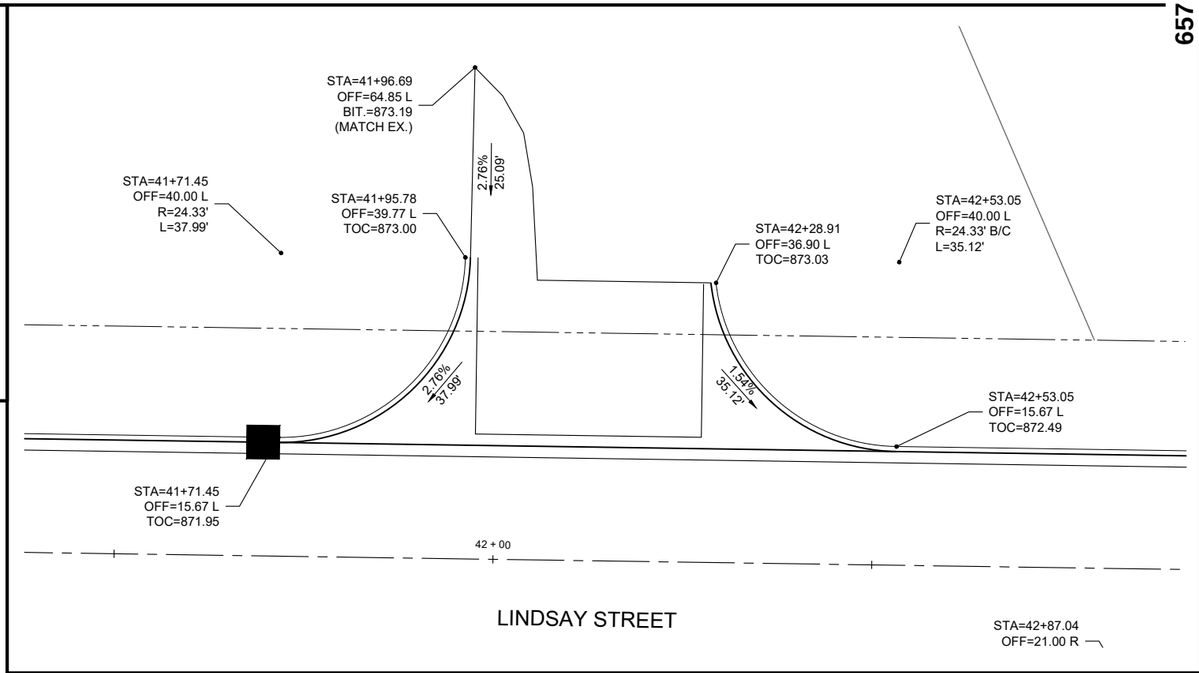
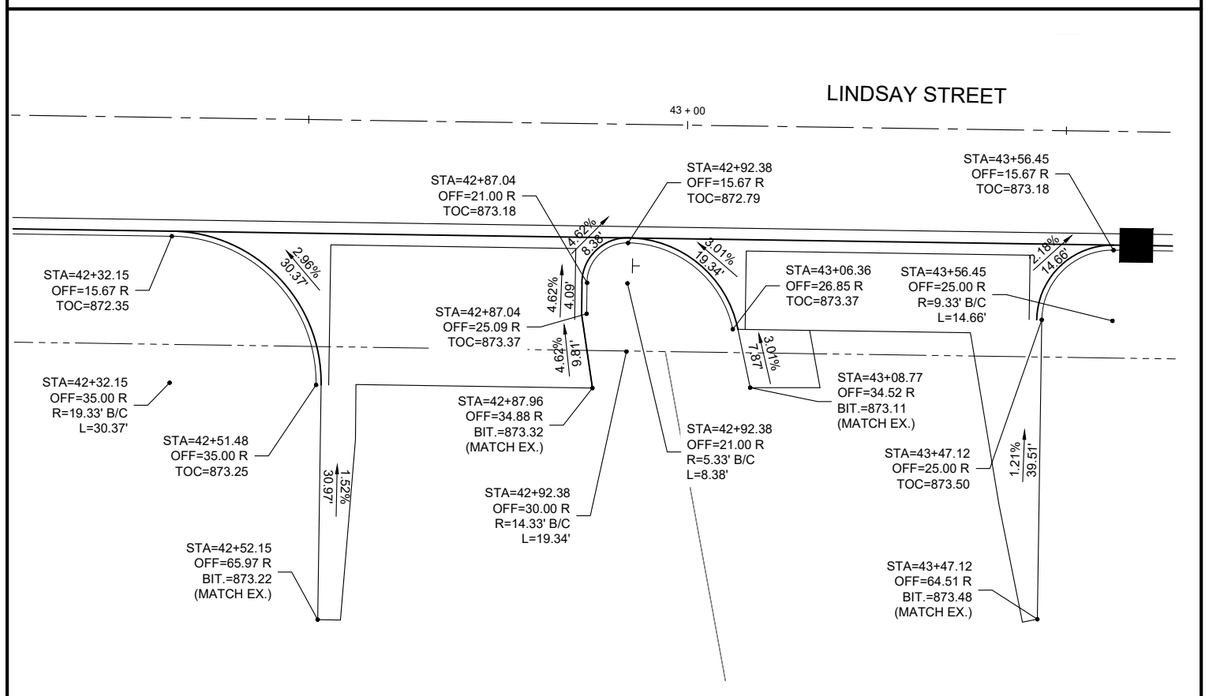
4. SEE SHEETS PR1 & PR2 FOR DETAILED PEDESTRIAN RAMP DESIGN INFORMATION.
5. SEE GRADING & STORM PLANS FOR DETAILED PROJECT LIMIT INFORMATION.







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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

DRIVEWAY DETAILS
ZANE AND LINDSAY IMPROVEMENTS

ID6
of 103

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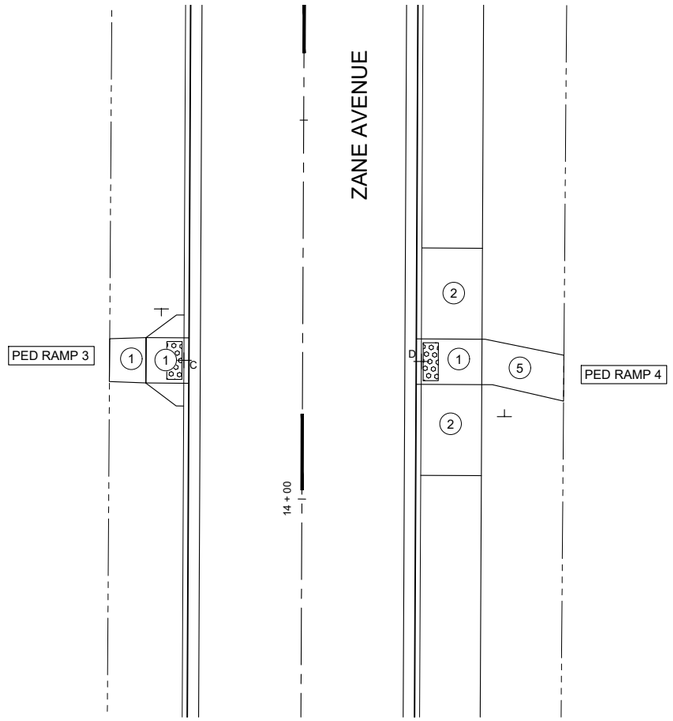

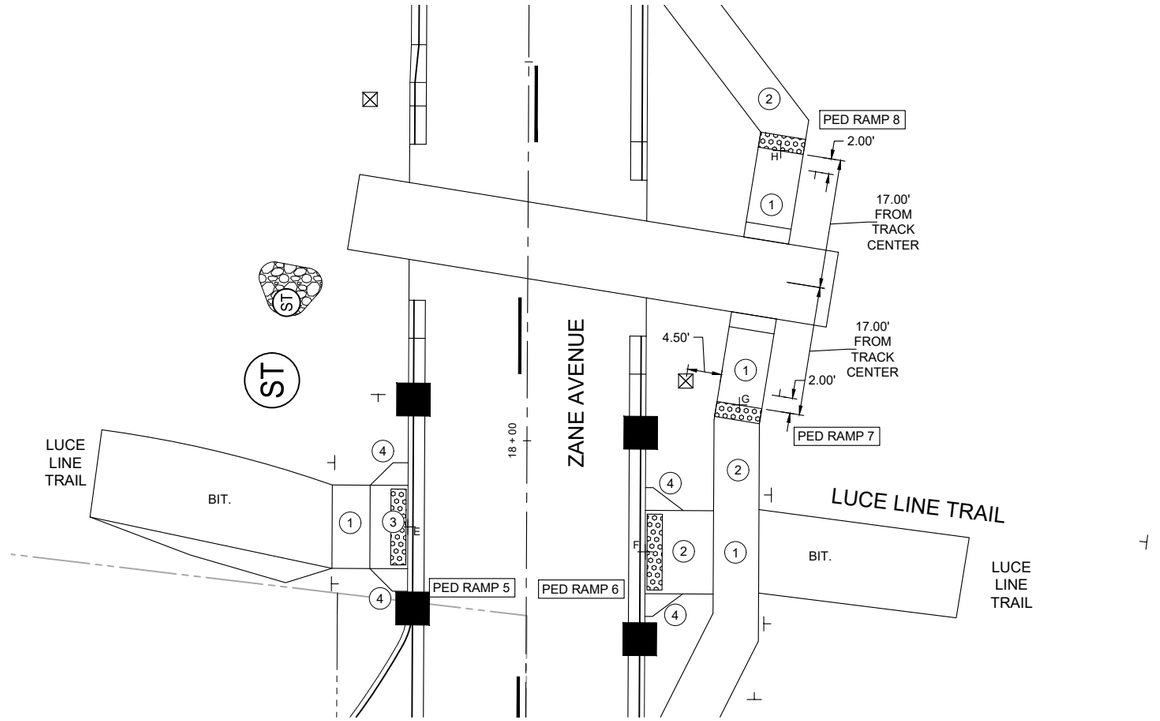

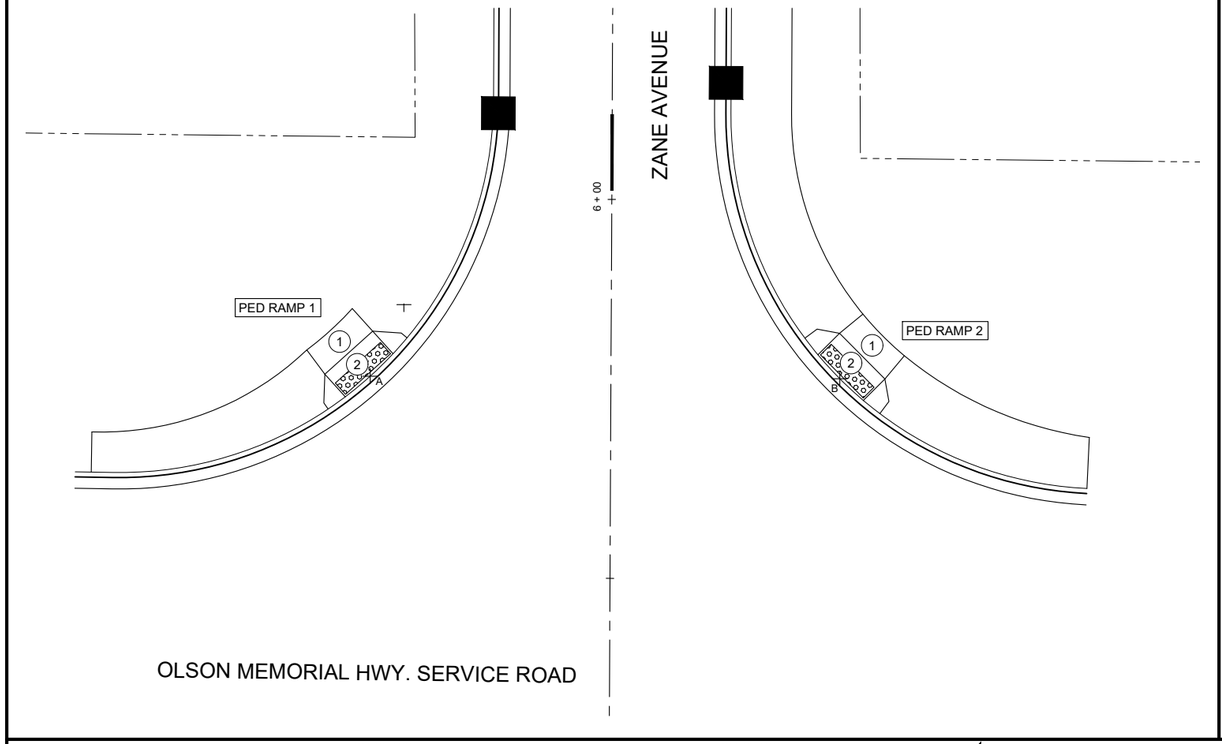

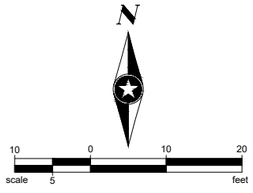

PED RAMP #	POINT #	STA.	OFF.	ELEV.	CURB HT.	PAR WIDTH ALONG BACK OF CURB	COMMENTS
1	A	5+76.51	31.78 LT	907.87	0"	8'	CENTERLINE OF PAR AT BACK OF CURB
2	B	5+76.55	30.24 RT	908.38	0"	8'	CENTERLINE OF PAR AT BACK OF CURB
3	C	14+18.21	15.67 LT	889.41	0"	6'	CENTERLINE OF PAR AT BACK OF CURB
4	D	14+18.21	15.67 RT	889.41	0"	6'	CENTERLINE OF PAR AT BACK OF CURB
5	E	17+88.54	15.67 LT	877.84	0"	11'	CENTERLINE OF PAR AT BACK OF CURB
6	F	17+85.39	15.67 RT	877.87	0"	11'	CENTERLINE OF PAR AT BACK OF CURB
7	G	18+04.84	28.01 RT	877.74	0"	6'	CENTERLINE OF PAR AT TRACK SIDE OF DOMES
8	H	18+38.42	33.31 RT	877.71	0"	6'	CENTERLINE OF PAR AT TRACK SIDE OF DOMES

KEY	
1	MAX SLOPE 2% IN ANY DIRECTION
2	TAPER (MAX SLOPE 5% ALONG PAR & 2% PERPENDICULAR TO PAR)
3	TAPER (MAX SLOPE 8.33% ALONG PAR & 2% PERPENDICULAR TO PAR)
4	3 FT CURB TAPER AT BACK OF CURB (6" CURB HEIGHT TO 0" CURB HEIGHT)
5	MAXIMUM RAMP RUNNING SLOPE OF 8.33% (2% MAXIMUM CROSS SLOPE)

TRUNCATED DOMES

NOTES:

1. WHEN CONSTRUCTING PEDESTRIAN RAMPS, SEE MNDOT STANDARD PEDESTRIAN CURB RAMP DETAILS ON SHEETS D6-D15.
2. A MAXIMUM ALLOWABLE SLOPE ALONG THE GUTTERLINE OF THE PAR IS 2%.
3. DRILL AND GROUT REINFORCEMENT BARS (EPOXY COATED) TO TIE CONCRETE PEDESTRIAN RAMPS TO THE BACK OF THE CURB AND TO ANY ADJACENT CONCRETE LANDINGS. SEE MNDOT STANDARD PEDESTRIAN CURB RAMP DETAILS (SHEET D11).

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DATE 5/7/2024

STEPHEN PRALL

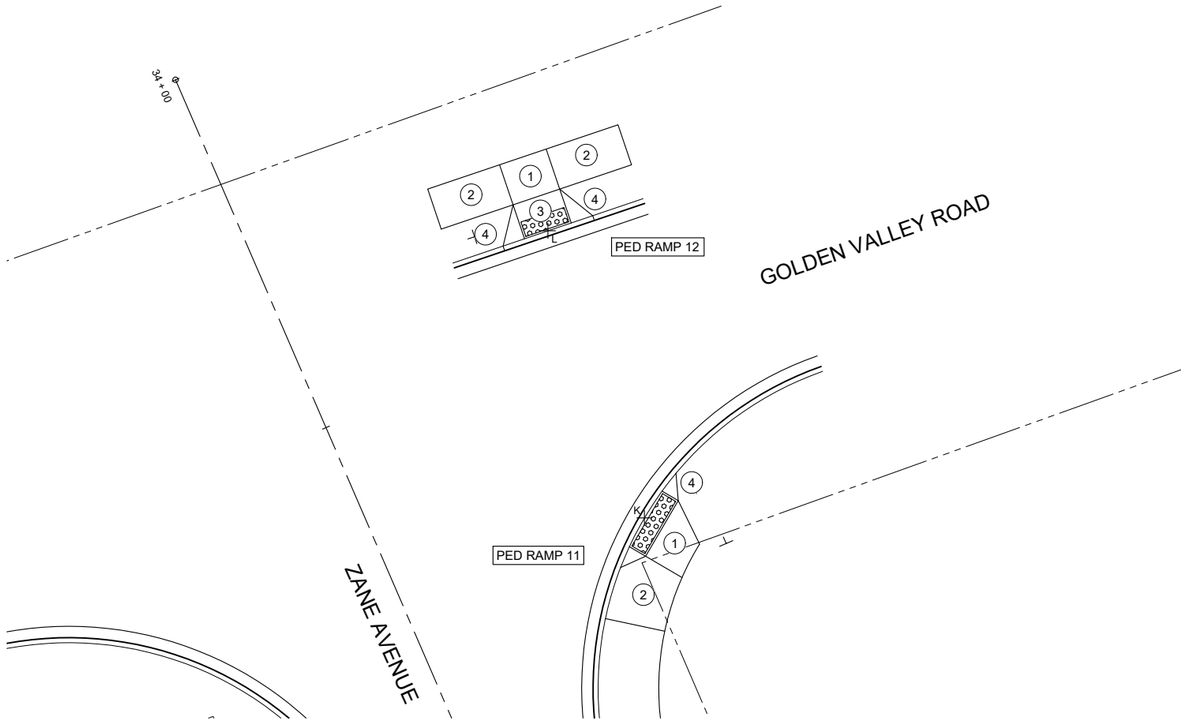
LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

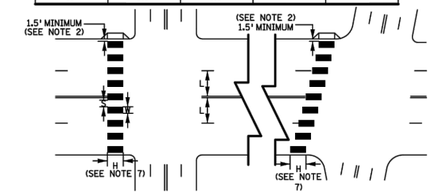
PEDESTRIAN RAMP DETAILS ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

PR1



PEDESTRIAN CROSSWALK MARKINGS

(L) WIDTH OF INSIDE LANE	(W) WIDTH OF PAINTED AREA	(S) WIDTH OF SPACE	ALTERNATE (W) WIDTH OF PAINTED AREA	ALTERNATE (S) WIDTH OF SPACE
9'	2.0'	2.5'	—	—
10'	2.5'	2.5'	2.0'	3.0'
11'	2.5'	3.0'	2.0'	3.5'
12'	3.0'	3.0'	2.5'	3.5'
13'	3.0'	3.5'	—	—



NOTES:

1. PAINTED AREAS TO BE CENTERED ON CENTERLINE AND LANE LINES.
2. A MINIMUM OF 1.5 FT. CLEAR DISTANCE SHALL BE LEFT ADJACENT TO THE CURB FACE. IF LAST PAINTED AREA FALLS INTO THIS DISTANCE IT MUST BE OMITTED.
3. ON TWO LANE TWO WAY STREETS, USE SPACING SHOWN FOR AN 11 FT. INSIDE LANE.
4. FOR DIVIDED ROADWAYS, ADJUSTMENTS IN SPACING OF THE BLOCKS SHOULD BE MADE IN THE MEDIAN SO THAT THE BLOCKS ARE MAINTAINED IN THEIR PROPER LOCATION ACROSS THE TRAVELED PORTION OF THE ROADWAY.
5. AT SKEWED CROSSWALKS, THE BLOCKS ARE TO REMAIN PARALLEL TO THE LANE LINES AS SHOWN.
6. THE BLOCKS SHALL BE PLACED SO THAT THEY ARE NOT LOCATED IN THE WHEEL PATH OF THE VEHICLES.
7. THE BLOCKS SHALL BE A MINIMUM OF 6' LONG AND AT LEAST AS LONG AS THE TRUNCATED DOMES, FOR FANNED TRUNCATED DOMES THE BLOCKS SHALL BE AT LEAST AS LONG AS THE APPROACHING SIDEWALK OR SHARED USE PATH.
8. THE ALTERNATE (W) AND (S) MAY BE USED WHEN BLOCKS LONGER THAN 6' (H) ARE USED.

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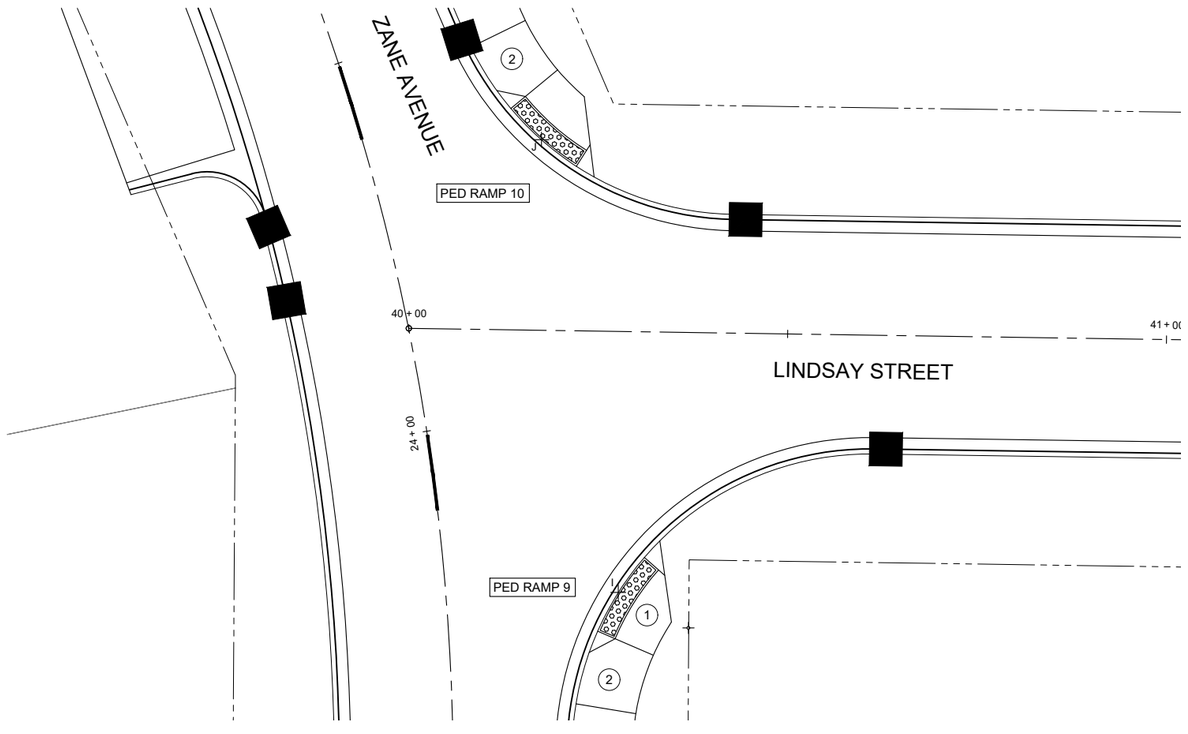

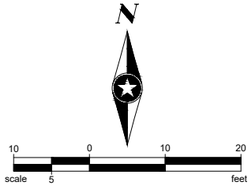

PED RAMP #	POINT #	STA.	OFF.	ELEV.	CURB HT.	PAR WIDTH ALONG BACK OF CURB	COMMENTS
9	I	23+76.63	22.70 RT	870.34	0"	11'	CENTERLINE OF PAR AT BACK OF CURB
10	J	24+33.24	22.76 RT	870.56	0"	11'	CENTERLINE OF PAR AT BACK OF CURB
11	5	33+22.36	33.63 RT	880.41	0"	9'	CENTERLINE OF PAR AT BACK OF CURB
12	L	33+62.20	37.19 RT	881.03	0"	6'	CENTERLINE OF PAR AT BACK OF CURB

KEY	
1	MAX SLOPE 2% IN ANY DIRECTION
2	TAPER (MAX SLOPE 5% ALONG PAR & 2% PERPENDICULAR TO PAR)
3	TAPER (MAX SLOPE 8.33% ALONG PAR & 2% PERPENDICULAR TO PAR)
4	3 FT CURB TAPER AT BACK OF CURB (6" CURB HEIGHT TO 0" CURB HEIGHT)
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TRUNCATED DOMES

NOTES:

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2. A MAXIMUM ALLOWABLE SLOPE ALONG THE GUTTERLINE OF THE PAR IS 2%.
3. DRILL AND GROUT REINFORCEMENT BARS (EPOXY COATED) TO TIE CONCRETE PEDESTRIAN RAMPS TO THE BACK OF THE CURB AND TO ANY ADJACENT CONCRETE LANDINGS. SEE MNDOT STANDARD PEDESTRIAN CURB RAMP DETAILS (SHEET D11).

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DATE 5/7/2024 STEPHEN PRALL LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

PEDESTRIAN RAMP DETAILS ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

PR2

PERMANENT PAVEMENT MARKING PLAN

NOTES & GUIDELINES

GENERAL INFORMATION:

1. SEE 2582 IN THE SPECIAL PROVISIONS FOR PAVEMENT MARKING SPOTTING RESPONSIBILITIES.
2. EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS, AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY AN AGENCY PLACED YIELD SIGN, STOP SIGN OR TRAFFIC SIGNAL. THE BREAK POINT IS TO BE AT THE START OF THE MAINLINE RADIUS.
3. DO NOT APPLY THE PAVEMENT MARKINGS WHEN WEATHER AND OTHER CONDITIONS CAUSE A FILM OF DUST OR DEBRIS TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL IS APPLIED.
4. THE FILLING OF TANKS, POURING OF MATERIALS OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENT SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.

PERMANENT SIGNING SUMMARY

TAB	SHEET NO	ITEM NO	ITEM	UNIT	S.A.P. 128-408-002 SIGNING QUANTITIES	NON-PARTICIPATING SIGNING QUANTITIES	TOTAL SIGNING QUANTITIES
ST-A	SS3-SS4	2104	REMOVE SIGN	EACH	36	5	41
ST-A	SS3-SS4	2104	SALVAGE SIGN	EACH	5		5
ST-B	SS3-SS4	2104	SALVAGE SIGN TYPE SPECIAL	EACH	2	4	6
ST-A	SS3-SS4	2564	INSTALL SIGN	EACH	5		5
ST-B	SS3-SS4	2564	INSTALL SIGN TYPE SPECIAL	EACH	2		2
ST-A	SS3-SS4	2564	SIGN TYPE C	SQ FT	201.90	82.25	284.15
ST-B	SS3-SS4	2564	SIGN TYPE SPECIAL	SQ FT	33.00	29.00	62.00

PERMANENT PAVEMENT MARKING SUMMARY

ITEM NO	ITEM	UNIT	TOTAL QUANTITIES	S.A.P. 128-408-002 (ZANE AVENUE) QUANTITIES			NON-PARTICIPATING (LINDSAY STREET) QUANTITIES		
				TOTAL	YELLOW	WHITE	TOTAL	YELLOW	WHITE
2582	4" SOLID LINE MULTI COMP (WR)	LF	400	400	400				
2582	4" BROKEN LINE MULTI COMP (WR)	LF	550	550	550				
2582	24" SOLID LINE MULTI COMP (WR)	LF	122	110		110	12		12
2582	CROSSWALK MULTI COMP (WR)	SF	744	744		744			
2582	PAVT MSSG MULTI COMP (WR)	SF	124	124		124			

SIGNING AND PERMANENT PAVEMENT MARKING PLAN INDEX

SS1	PERMANENT PAVEMENT MARKING TITLE SHEET
SS1	PERMANENT PAVEMENT MARKING TABULATIONS
SS3-SS4	SIGNING AND STRIPING PLANS
SS5-SS9	DETAILS

SYMBOLS & MATERIALS LEGEND

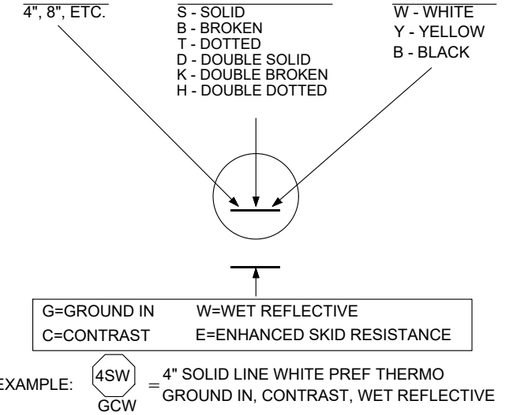
BROKEN LINE - 50' CYCLE (10' LINE, 40' GAP)

CROSSWALK BLOCK (MULTI COMP)

PAVEMENT MESSAGE (RAILROAD CROSSING) - PREFORM THERMOPLASTIC GROUND IN

STRIPING KEY

CIRCLE-MULTI COMP



EXAMPLE: 4SW / GCW = 4" SOLID LINE WHITE PREF THERMO GROUND IN, CONTRAST, WET REFLECTIVE

SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	
Drawn By	SRP	.			.			
Designed By	SRP	.			.			
Checked By	SDH	.			.			

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

STEPHEN PRALL

DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

SIGNING AND STRIPING TITLE SHEET ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

SS1

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SIGN AND DELINEATOR / MARKER — ST-A

	SIGN NUMBER	STATION	OFFSET	PANEL				SUPPORT			REMOVE SIGN TYPE C	SIGN PANELS TYPE C	SALVAGE SIGN TYPE C	INSTALL SIGN TYPE C
				PANEL CODE	LEGEND	SIZE (W x H)	MOUNTING HEIGHT	TYPE	RISER POST SIZE	NUMBER OF POSTS				
						INCHES	FEET		INCHES		EACH	SQ FT	EACH	EACH
	S.A.P. 128-408-002 (ZANE AVENUE)													
(5)	S-1	5+85.96	27.36 LT	R1-1	STOP	30 x 30	7	SQ-SOIL	2	1	1	6.25		
	S-2	7+40.00	18.67 LT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1		4.00		
	S-3	7+40.00	26.67 RT	R2-1	SPEED LIMIT 30	24 x 30	7	SQ-SOIL	2	1		5.00		
				R8-3	NO PARKING	24 x 24						4.00		
	S-4	9+55.00	18.67 RT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1		4.00		
	S-5	9+55.00	26.67 RT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1		4.00		
	S-6	10+33.00	30.41 RT		STOP AHEAD						1			
(1)	S-7	11+75.00	26.67 RT	R1-1	STOP	18 x 18	5	SQ-SOIL	2	1			1	1
	S-8	12+45.00	26.67 RT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1		4.00		
	S-9	12+45.00	18.67 LT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1		4.00		
	S-10	12+91.00	26.67 RT	W11-2	PEDESTRIAN CROSSING	30 x 30	7	SQ-SOIL	2	1	1	6.25		
				W16-9P	AHEAD PLAQUE	24 x 12						2.00		
	S-11	14+11.00	26.67 RT	W11-2	PEDESTRIAN CROSSING	30 x 30	7	SQ-SOIL	2	1	1	6.25		
				W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12						2.00		
	S-12	14+25.00	18.67 LT	W11-2	PEDESTRIAN CROSSING	30 x 30	7	SQ-SOIL	2	1	1	6.25		
				W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12						2.00		
	S-13	15+45.00	18.67 LT	W11-2	PEDESTRIAN CROSSING	30 x 30	7	SQ-SOIL	2	1	1	6.25		
				W16-9P	AHEAD PLAQUE	24 x 12						2.00		
	S-14	15+45.00	26.67 RT	W11-15	COMBINED BICYCLE/PEDESTRIAN CROSSING	30 x 30	7	SQ-SOIL	2	1	1	6.25		
				D11-1	BIKE ROUTE	24 x 18						3.00		
	S-15	16+23.00	26.67 RT	W10-1	RR ADVANCE WARNING	36 DIA	7	SQ-SOIL	2	2	1	7.07		
	S-16	16+47.00	18.67 LT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1	1	4.00		
	S-17	16+49.00	24.02 RT		EQUIPMENT CROSSING						1			
	S-18	17+66.00	30.32 RT	W11-15	COMBINED BICYCLE/PEDESTRIAN CROSSING	30 x 30	7	SQ-SOIL	2	1	1	6.25		
				W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12						2.00		
	S-19	17+76.00	31.37 RT	R5-3	NO MOTOR VEHICLES	24 x 24	5	SQ-SOIL	2	1			1	1
	S-20	17+81.00	25.73 LT	R1-1	STOP	18 x 18	5	SQ-SOIL	2	1			1	1
	S-21	17+87.00	81.86 RT	W10-2R	RR PARALLEL TRACKS RIGHTINTERSECTION	18 x 18	5	SQ-SOIL	2	1		2.25		
	S-22	17+93.00	32.29 RT	R1-1	STOP	18 x 18	5	SQ-SOIL	2	1			1	1
	S-23	17+97.00	25.36 LT	R5-3	NO MOTOR VEHICLES	24 x 24	5	SQ-SOIL	2	1			1	1
	S-24	18+02.00	21.02 LT		EQUIPMENT CROSSING						1			
	S-25	18+06.00	19.67 LT	W11-15	COMBINED BICYCLE/PEDESTRIAN CROSSING	30 x 30	7	SQ-SOIL	2	1	1	6.25		
				W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12						2.00		
	S-26	18+06.00	33.26 RT	R15-1	GRADE CROSSING (CROSSBUCK)	24 x 4.5	5	SQ-SOIL	2	1		0.75		
				R1-1	STOP	18 x 18						2.25		
				R15-8	LOOK	18 x 9						1.13		
	S-27	18+07.00	74.51 LT	W10-2L	RR PARALLEL TRACKS LEFT INTERSECTION	18 x 18	5	SQ-SOIL	2	1		2.25		
(3)	S-28	18+08.00	20.92 RT	R15-1	GRADE CROSSING (CROSSBUCK)	48 x 9								
	S-29	18+36.00	37.93 RT	R15-1	GRADE CROSSING (CROSSBUCK)	24 x 4.5	5	SQ-SOIL	2	1		0.75		
				R1-1	STOP	18 x 18						2.25		
				R15-8	LOOK	18 x 9						1.13		
(3)	S-30	18+46.00	20.92 LT	R15-1	GRADE CROSSING (CROSSBUCK)	48 x 9								
	S-31	19+29.00	18.67 LT	W11-15	COMBINED BICYCLE/PEDESTRIAN CROSSING	30 x 30	7	SQ-SOIL	2	1	1	6.25		
				D11-1	BIKE ROUTE	24 x 18						3.00		
	S-32	19+42.00	20.78 LT		NO PARKING ANY TIME						1			
	S-33	19+82.00	26.67 RT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1	1	4.00		
	S-34	20+04.00	18.67 LT	W10-1	RR ADVANCE WARNING	36 DIA	7	SQ-SOIL	2	2	1	7.07		
				R8-3	NO PARKING	24 x 24						4.00		
	S-35	21+84.00	20.01 LT		NO PARKING ANY TIME						1			
	S-36	22+30.00	24.52 RT		NO PARKING ANY TIME						1			
	S-37	23+24.00	26.67 RT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1	1	4.00		
	S-38	23+45.00	18.67 LT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1	1	4.00		
	S-39	24+79.00	25.86 RT		NO PARKING ANY TIME						1			
	S-40	25+45.00	21.54 LT		NO PARKING ANY TIME						1			
	S-41	25+77.00	26.67 RT	W11-2	PEDESTRIAN CROSSING	30 x 30	7	SQ-SOIL	2	1	1	6.25		
				W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12						2.00		
	S-42	26+08.00	18.67 LT	W11-2	PEDESTRIAN CROSSING	30 x 30	7	SQ-SOIL	2	1	1	6.25		
				W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12						2.00		
	S-43	26+38.00	26.67 RT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1	1	4.00		
	S-44	26+61.00	18.67 LT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1	1	4.00		
	S-45	27+72.00	23.37 RT		NO PARKING						1			
	S-46	28+90.00	18.67 LT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1	1	4.00		
	S-47	29+20.00	26.67 RT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1	1	4.00		
	S-48	30+52.00	21.76 RT		NO PARKING ANY TIME						1			
	S-49	30+94.00	23.34 RT		NO PARKING ANY TIME						1			
	S-50	32+15.00	18.67 LT	R2-1	SPEED LIMIT 30	24 x 30	7	SQ-SOIL	2	1	1	5.00		
				R8-3	NO PARKING	24 x 24						4.00		
	S-51	32+41.00	26.67 RT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1	1	4.00		
	S-52	32+66.00	22.68 LT		NO PARKING ANY TIME						1			
(5)	S-53	33+15.00	42.41 RT	R1-1	STOP	30 x 30	7	SQ-SOIL	2	1	1	6.25		
										S.A.P. 128-408-002 (ZANE AVENUE) SUBTOTAL		36	201.9	5	5
										TOTAL		41	284.15	5	5

SPECIFIC NOTE(S):
(1) PRIVATELY OWNED.
(2) MOUNT BACK TO BACK.
(3) BY OTHERS.
(4) SIGN PLACED ON GOLDEN VALLEY ROAD. STATIONING REFERENCED IS ZANE AVENUE.
(5) INSTALL STREET NAME SIGN ABOVE STOP SIGN.

SIGN AND DELINEATOR / MARKER — ST-

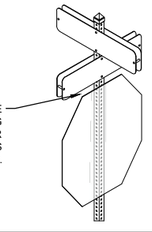
	SIGN NUMBER	STATION	OFFSET	PANEL				SUPPORT			REMOVE SIGN TYPE C	SIGN PANELS TYPE C	SALVAGE SIGN TYPE C	INSTA SIGN TYPE C
				PANEL CODE	LEGEND	SIZE (W x H)	MOUNTING HEIGHT	TYPE	RISER POST SIZE	NUMBER OF POSTS				
						INCHES	FEET		INCHES		EACH	SQ FT	EACH	EACH
	NON-PARTICIPATING (ZANE AVENUE)													
(4)	S-54	33+23.54	41.51 RT	W11-2	PEDESTRIAN CROSSING	30 x 30	7	SQ-SOIL	2	1		6.25		
				W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12						2.00		
(4)	S-55	33+39.49	80.00 LT	W11-2	PEDESTRIAN CROSSING	30 x 30	7	SQ-SOIL	2	1		6.25		
				W16-9P	AHEAD PLAQUE	24 x 12						2.00		
(4)	S-56	33+55.25	146.00 RT	W11-2	PEDESTRIAN CROSSING	30 x 30	8	SQ-SOIL	2	1		6.25		
				W16-9P	AHEAD PLAQUE	24 x 12						2.00		
(4)	S-57	33+65.33	28.00 RT	W11-2	PEDESTRIAN CROSSING	30 x 30	8	SQ-SOIL	2	1		6.25		
				W16-7PL	DOWN ARROW LEFT PLAQUE	24 x 12						2.00		
										NON-PARTICIPATING (ZANE AVENUE) SUBTOTAL		33.00		
	NON-PARTICIPATING (LINDSAY STREET)													
	S-58	41+05.00	18.67 LT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1	1	4.00		
	S-59	41+20.00	18.67 RT	R2-1	SPEED LIMIT 30	24 x 30	7	SQ-SOIL	2	1	1	5.00		
				R8-3	NO PARKING	24 x 24						4.00		
	S-60	42+93.00	18.67 RT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1		4.00		
	S-61	42+93.00	18.67 LT	R8-3	NO PARKING	24 x 24	7	SQ-SOIL	2	1	1	4.00		
	S-62	45+20.00	18.67 RT	R5-2	NO TRUCKS	24 x 24	7	SQ-SOIL	2	1		4.00		
				R7-2 MOD.	NO PARKING RIGHT	18 x 24						3.00		
	S-63	45+20.00	18.67 LT	R5-2	NO TRUCKS	24 x 24	7	SQ-SOIL	2	1		4.00		
				R7-2 MOD.	NO PARKING LEFT	18 x 24						3.00		
	S-64	50+59.00	21.95 RT		CURVE LEFT						1			
	S-65	53+87.00	16.85 LT	R5-2	NO TRUCKS	24 x 24	7	SQ-SOIL	2	1		4.00		
(2)(5)	S-66	53+89.00	16.67 RT	R1-1	STOP	30 x 30	7	SQ-SOIL	2	1	1	6.25		
				R5-2	NO TRUCKS	24 x 24						4.00		
										NON-PARTICIPATING (LINDSAY STREET) SUBTOTAL	5	49.25		
										TOTAL	41	284.15	5	5

SPECIFIC NOTE(S):
(1) PRIVATELY OWNED.
(2) MOUNT BACK TO BACK.
(3) BY OTHERS.
(4) SIGN PLACED ON GOLDEN VALLEY ROAD. STATIONING REFERENCED IS ZANE AVENUE.
(5) INSTALL STREET NAME SIGN ABOVE STOP SIGN.

SIGN TYPE SPECIAL — ST-B

	SIGN NUMBER	STATION	OFFSET	PANEL				SUPPORT			SIGN TYPE SPECIAL	SALVAGE SIGN TYPE SPECIAL	INSTALL SIGN TYPE SPECIAL
				PANEL CODE	LEGEND	SIZE (W x H)	MOUNTING HEIGHT	TYPE	RISER POST SIZE	NUMBER OF POSTS			
						INCH	FEET		INCHES		SQ FT	EACH	EACH
	S.A.P. 128-408-002 (ZANE AVENUE)												
(1)	S-501	5+85.96	27.36 LT		STREET NAME (Zane Ave N 600)	40 x 9					5.00		
					STREET NAME (Olson Memorial Hwy 5900)	48 x 9					6.00		
(2)	S-502	21+54.00	26.67 RT		SPECIAL							2	2
	S-503	23+72.00	31.63 RT		STREET NAME (Zane Ave N 1100)	40 x 9	7	SQ	2	1	5.00		
					STREET NAME (Lindsay St 5900)	48 x 9					6.00		
(1)	S-504	33+15.00	42.41 RT		STREET NAME (Zane Ave N 1300)	40 x 9					5.00		
					STREET NAME (Golden Valley Rd 6000)	48 x 9					6.00		
										S.A.P. 128-408-002 (ZANE AVENUE) SUBTOTAL	33.00	2	2
	NON-PARTICIPATING (ZANE AVENUE)												
	S-501	5+92.17	35.27 LT		STREET NAME (Zane Ave N 600)							1	
					STREET NAME (Olson Memorial Hwy 5900)								
	S-503	23+72.00	31.63 RT		STREET NAME (Zane Ave N 1100)							1	
					STREET NAME (Lindsay St 5900)								
	S-504	33+24.33	34.45 LT		STREET NAME (Zane Ave N 1300)							1	
					STREET NAME (Golden Valley Rd 6000)								
										NON-PARTICIPATING (ZANE AVENUE) SUBTOTAL		3	
	NON-PARTICIPATING (LINDSAY STREET)												
(1)	S-505	53+89.00	16.67 RT		STREET NAME (Lilac Dr N 1000)	40 x 9					5.00	1	
					STREET NAME (Lindsay St 5500)	48 x 9					6.00		
(3)	S-506	54+01.66	75.00 LT		NO RIGHT TURN FOR TRUCKS	36 x 36	7	SQ	2	1	9.00		
(3)	S-507	54+04.40	75.00 RT		NO LEFT TURN FOR TRUCKS	36 x 36	7	SQ	2	1	9.00		
										NON-PARTICIPATING (LINDSAY STREET) SUBTOTAL	29.00	1	
										TOTAL	62.00	6	2

SPECIFIC NOTE(S):
(1) INSTALL ON TOP OF STOP SIGN. SEE DETAIL BELOW.
(2) PRIVATELY OWNED.
(3) SIGN PLACED ON LILAC DRIVE IN THE WEST BOULEVARD. STATIONING REFERENCED IS LINDSAY STREET.



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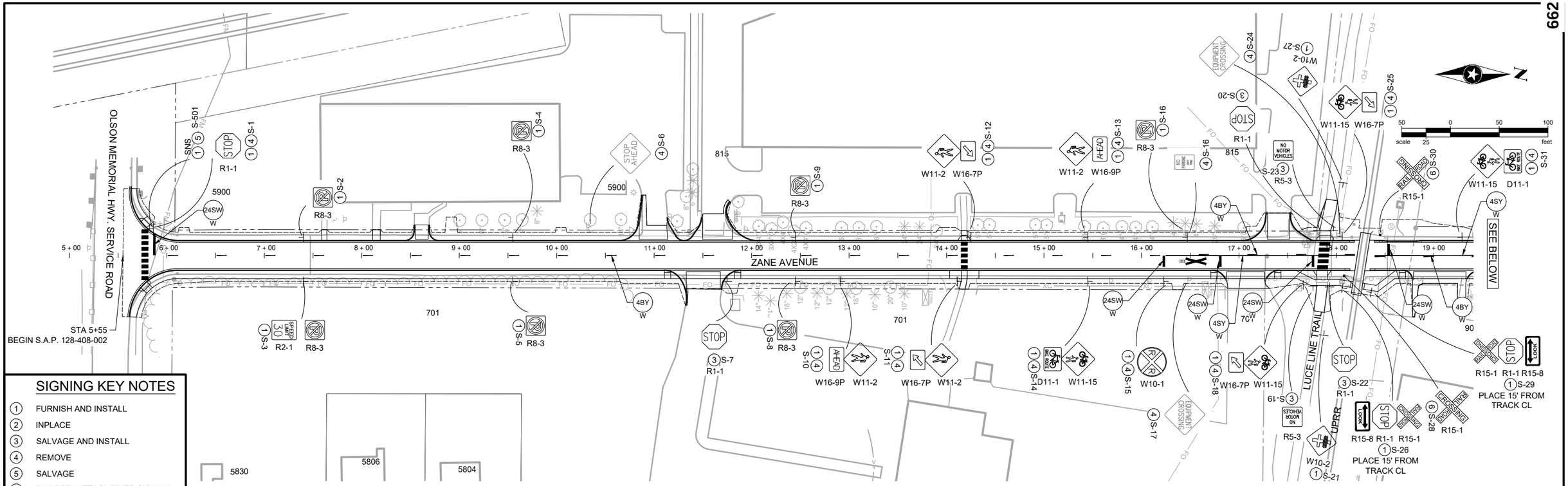
SEH Project GOLDV 163618
Drawn By SRP
Designed By SRP
Checked By SDH

Rev.# | Revision Issue Description | Date

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

SIGNING TABULATIONS ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

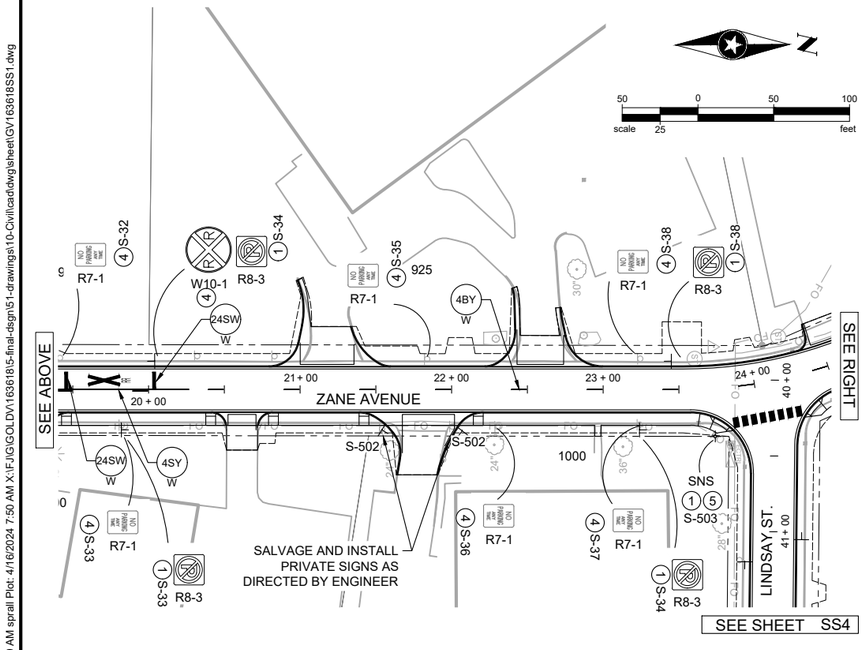


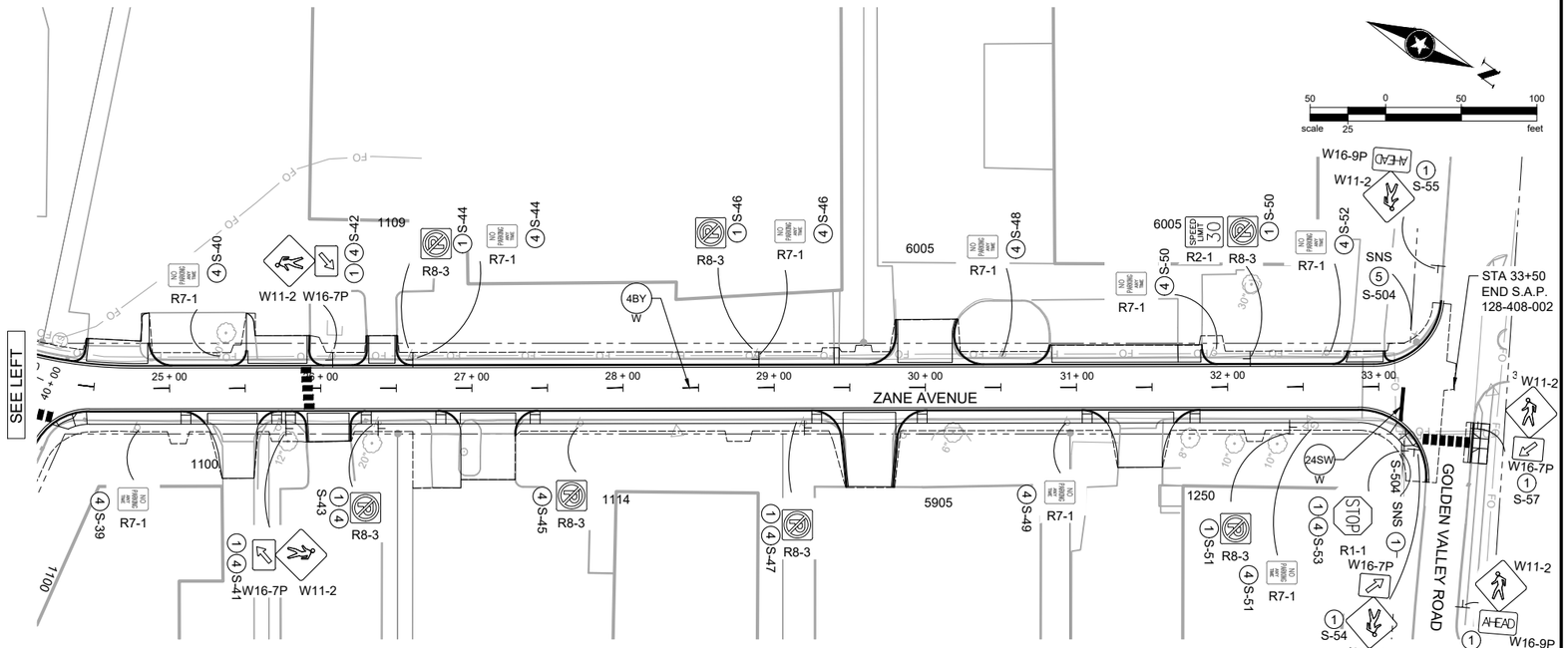
ZANE AVENUE

SIGNING KEY NOTES

1. FURNISH AND INSTALL
2. INPLACE
3. SALVAGE AND INSTALL
4. REMOVE
5. SALVAGE
6. BY UPRR (ATTACHED TO SIGNAL)

SNS STREET NAME SIGN





SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	SRP	.			.		
Designed By	SRP	.			.		
Checked By	SDH	.			.		

SEH

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

SIGNING AND STRIPING PLAN
ZANE AVENUE
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

SS3
of 103

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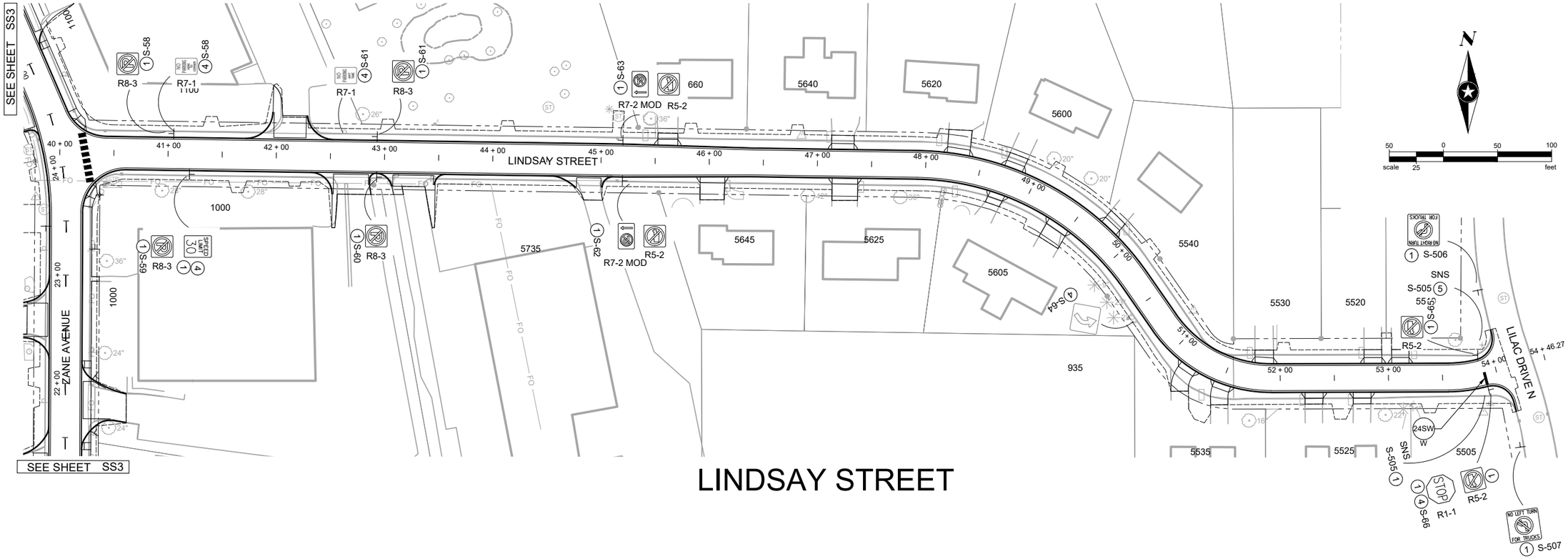

SIGNING KEY NOTES

1. FURNISH AND INSTALL
2. INPLACE
3. SALVAGE AND INSTALL
4. REMOVE
5. SALVAGE
6. BY UPRR (ATTACHED TO SIGNAL)

SNS STREET NAME SIGN

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date

Rev.#	Revision Issue Description	Date

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STEPHEN PRALL

DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

SIGNING AND STRIPING PLAN
LINDSAY STREET
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

SS4

of 103

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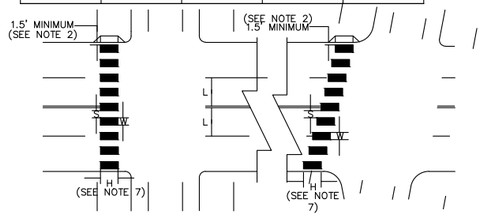
PEDESTRIAN CROSSWALK MARKINGS

(L) WIDTH OF INSIDE LANE	(W) WIDTH OF PAINTED AREA	(S) WIDTH OF SPACE	ALTERNATE (W) WIDTH OF PAINTED AREA	ALTERNATE (S) WIDTH OF SPACE
9'	2.0'	2.5'	—	—
10'	2.5'	2.5'	2.0'	3.0'
11'	2.5'	3.0'	2.0'	3.5'
12'	3.0'	3.0'	2.5'	3.5'
13'	3.0'	3.5'	—	—

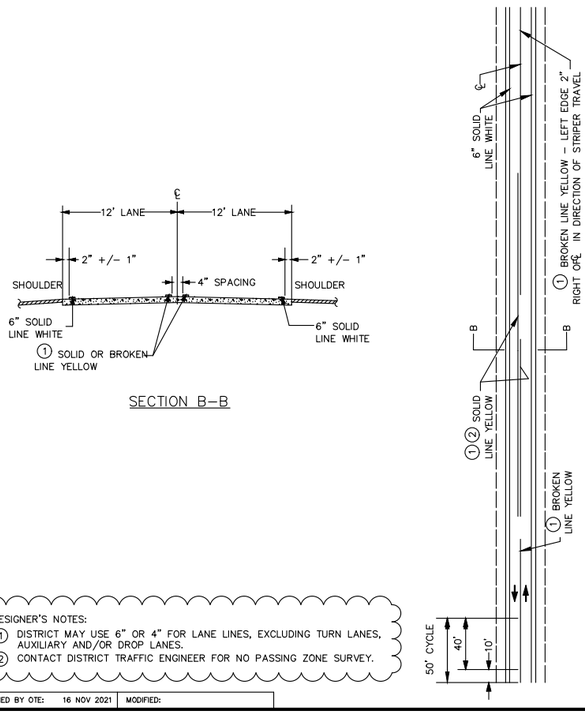


NOTES:

1. PAINTED AREAS TO BE CENTERED ON CENTERLINE AND LANE LINES.
2. A MINIMUM OF 1.5 FT. CLEAR DISTANCE SHALL BE LEFT ADJACENT TO THE CURB FACE. IF LAST PAINTED AREA FALLS INTO THIS DISTANCE IT MUST BE OMITTED.
3. ON TWO LANE TWO WAY STREETS, USE SPACING SHOWN FOR AN 11 FT. INSIDE LANE.
4. FOR DIVIDED ROADWAYS, ADJUSTMENTS IN SPACING OF THE BLOCKS SHOULD BE MADE IN THE MEDIAN SO THAT THE BLOCKS ARE MAINTAINED IN THEIR PROPER LOCATION ACROSS THE TRAVELED PORTION OF THE ROADWAY.
5. AT SKEWED CROSSWALKS, THE BLOCKS ARE TO REMAIN PARALLEL TO THE LANE LINES AS SHOWN.
6. THE BLOCKS SHALL BE PLACED SO THAT THEY ARE NOT LOCATED IN THE WHEEL PATH OF THE VEHICLES.
7. THE BLOCKS SHALL BE A MINIMUM OF 6' LONG AND AT LEAST AS LONG AS THE TRUNCATED DOMES, FOR FANNED TRUNCATED DOMES THE BLOCKS SHALL BE AT LEAST AS LONG AS THE APPROACHING SIDEWALK OR SHARED USE PATH.
8. THE ALTERNATE (W) AND (S) MAY BE USED WHEN BLOCKS LONGER THAN 6' (H) ARE USED.

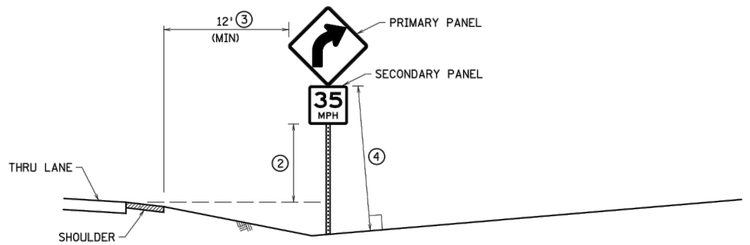
PUBLISHED BY OTE: 16 NOV 2021 | MODIFIED:

TWO–LANE, TWO–WAY

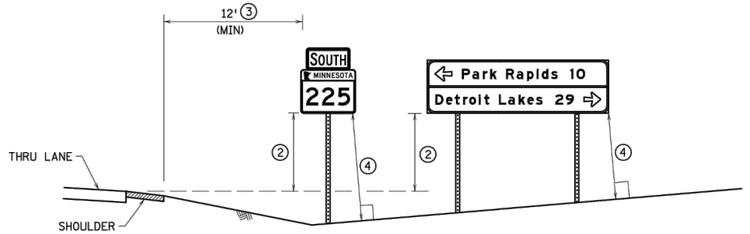


DESIGNER'S NOTES:
① DISTRICT MAY USE 6" OR 4" FOR LANE LINES, EXCLUDING TURN LANES, AUXILIARY AND/OR DROP LANES.
② CONTACT DISTRICT TRAFFIC ENGINEER FOR NO PASSING ZONE SURVEY.

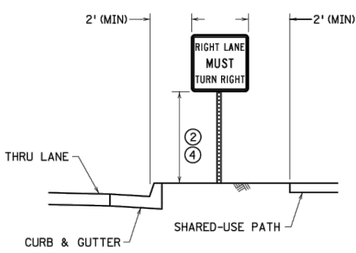
PUBLISHED BY OTE: 16 NOV 2021 | MODIFIED:



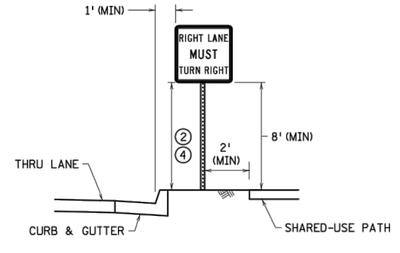
PRIMARY AND SECONDARY PANELS



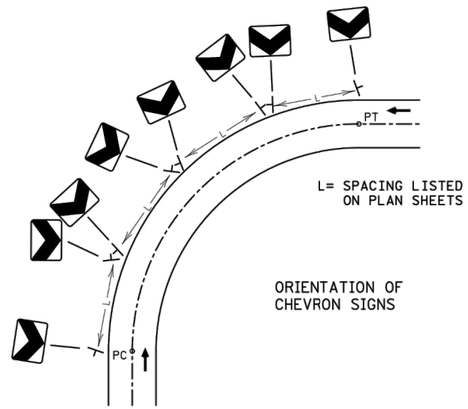
STANDARD LOCATIONS



BOULEVARD LOCATIONS
6' TO 12' WIDE



BOULEVARD LOCATIONS ①
LESS THAN 6' WIDE



ORIENTATION OF CHEVRON SIGNS

NOTES:

PLACE SIGNS AND ORIENT THEM APPROXIMATELY AS SHOWN IN THE PLAN, AT RIGHT ANGLES TO THE DIRECTION OF, AND FACING THE TRAFFIC THEY ARE INTENDED TO SERVE, UNLESS OTHERWISE SPECIFIED. TO AVOID SPECULAR GLARE, TURN SIGNS APPROXIMATELY THREE DEGREES AWAY FROM APPROACHING TRAFFIC.

IF A SIGN NEEDS TO BE REPOSITIONED FROM THE PROPOSED PLAN LOCATION IN ORDER TO AVOID CONFLICTS WITH UTILITIES OR OBSTACLES, CONTACT THE PROJECT ENGINEER.

MOUNT SIGN FACES PLUMB.

LATERAL CLEARANCES GIVEN APPLY TO RIGHT AND/OR LEFT SIDE INSTALLATION.

ERECT OR CONSTRUCT SIGN SUPPORT SO THAT NO PORTION OF THE SIGN PANEL IS WITHIN 8.5' OF THE RAIL OF A RAILROAD TRACK.

PLACE SIGNS SUCH THAT OBSTACLES DO NOT BLOCK THEM FROM BEING VIEWED BY THE APPROACHING TRAFFIC.

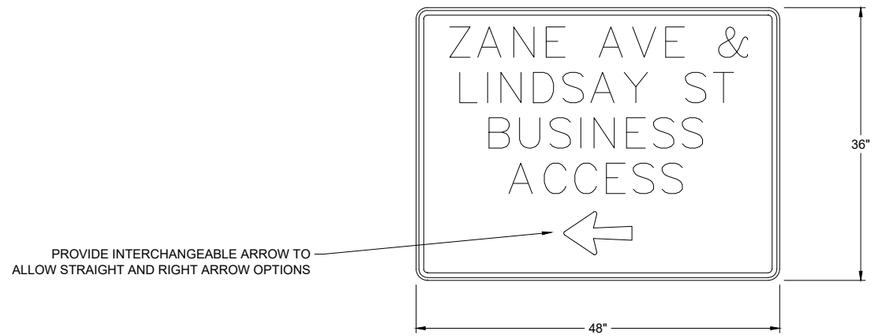
PLACE SIGNS A MINIMUM OF 10' FROM THE NEAREST OBSTACLE. OBSTACLES MAY INCLUDE, BUT ARE NOT LIMITED TO, LIGHT POLES, TREES, SIGNS, AND BUILDINGS. SIGNS MAY BE PLACED CLOSER TO SIGNS IN TIGHT AREAS, BUT NO MORE THAN TWO POSTS IN A 7' DIAMETER CIRCLE.

① TO BE USED ONLY WHEN BOULEVARD IS TOO NARROW TO OBTAIN ADEQUATE CURBED LOCATION SIGN OFFSETS.

② ALL SIGN MOUNTING HEIGHTS ARE MEASURED VERTICALLY FROM THE BOTTOM OF THE LOWEST SIGN PANEL TO THE TOP OF THE CURB, OR IN ABSENCE OF CURB, TO THE NEAR EDGE OF THE THRU-LANE PAVEMENT. SEE SIGN TABULATIONS.

③ MINIMUM OFFSET MAY BE REDUCED TO AT LEAST 6' FROM SHOULDER AND AT LEAST 12' FROM THRU LANE IF SITE CONDITIONS PROHIBIT A 12' OFFSET FROM SHOULDER.

④ CRASHWORTHY HEIGHT IS AT LEAST 7' FOR BREAKAWAY STRUCTURES AND AT LEAST 4' FOR BENDABLE STRUCTURES. SEE SPECIFIC SQUARE TUBE BASE STRUCTURE PLAN FOR CRASH RESPONSE TYPE. THE CRASHWORTHY HEIGHT IS MEASURED TO THE BOTTOM OF THE PRIMARY SIGN PANEL EXCLUDING ANY SECONDARY SIGN PANELS, MARKERS, DELINEATORS, AND REFERENCE LOCATION SIGN PANELS. ANY SECONDARY SIGN PANELS MOUNTED TO MORE THAN ONE POST ARE CONSIDERED PRIMARY SIGN PANELS FOR CRASHWORTHY PURPOSES.



PROVIDE INTERCHANGEABLE ARROW TO ALLOW STRAIGHT AND RIGHT ARROW OPTIONS

REVISION: 04-08-2022
APPROVED: 02-28-2022
BRIAN DAHLSON
STATE TRAFFIC ENGINEER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.701 | 1 OF 1
APPROVED: 02-28-2022
REVISED: 04-08-2022
THOMAS STYBRICKI
STATE DESIGN ENGINEER

STANDARD SIGN PLACEMENT

STATE PROJ. NO. | (T.H.) | SHEET NO. OF SHEETS

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
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SEH

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

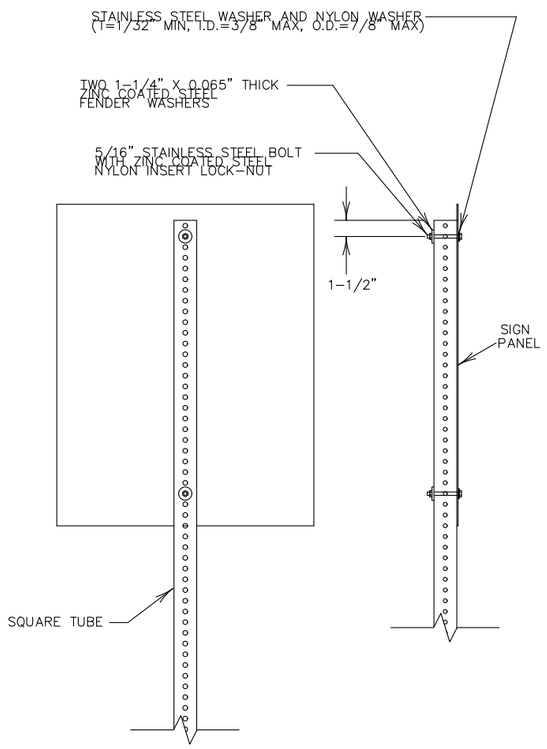
DATE 5/7/2024 | STEPHEN PRALL | LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

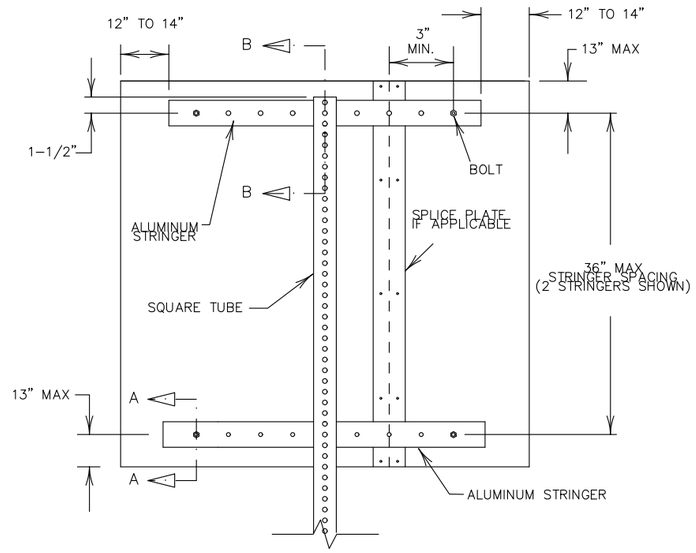
SIGNING AND STRIPING DETAILS ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

SS5
of 103

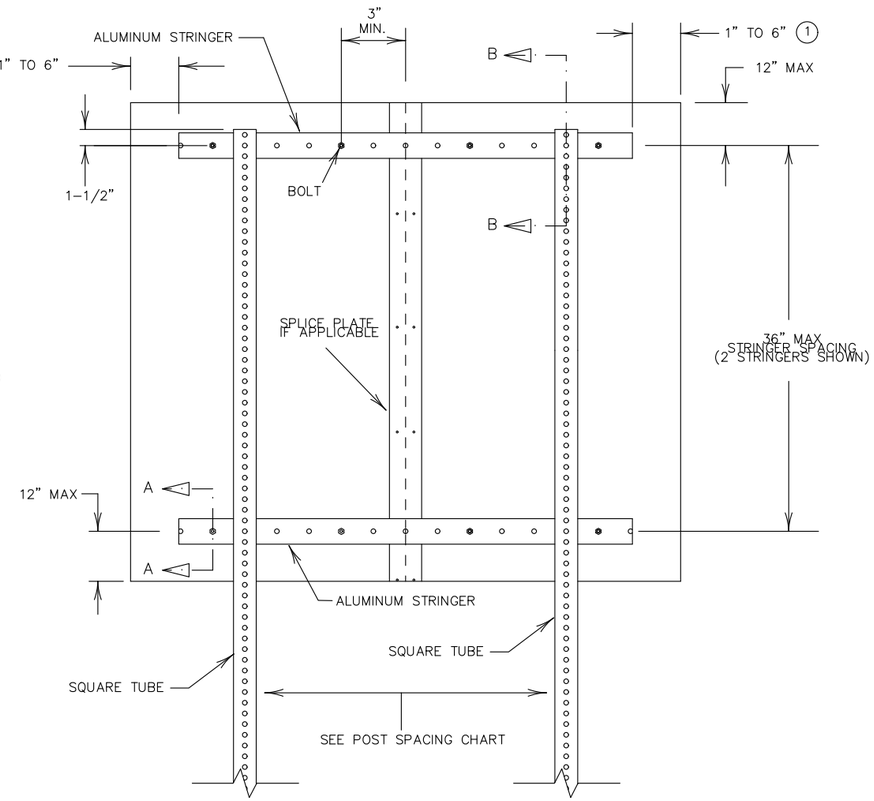
Save: 2/23/2024 1:30 PM sprall Plot: 4/16/2024 7:50 AM X:\F-J\G\GOLDV\1636185-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet\GV1636185S_DT.dwg



FOR SIGN PANELS UP TO 30" WIDE

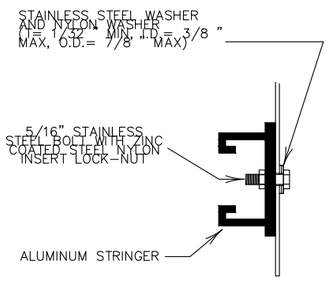


FOR SIGN PANELS 36" WIDE OR GREATER ON ONE POST

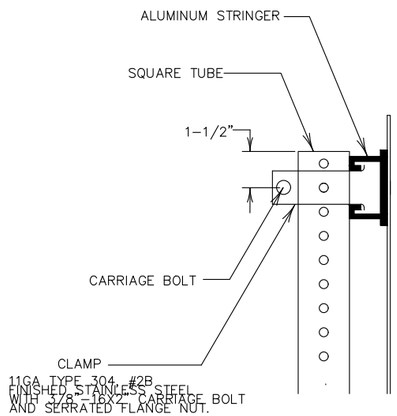


FOR SIGN PANELS ON TWO OR MORE POSTS

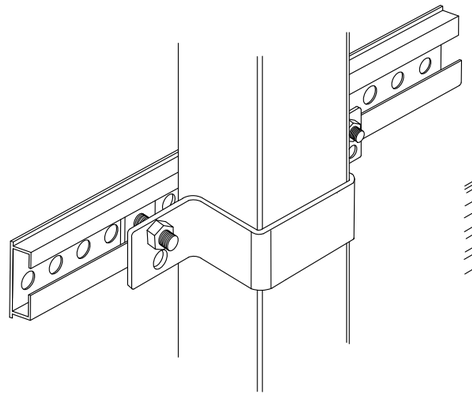
(1) IF POST SPACING REQUIRES PLACEMENT OF A POST WITHIN THIS AREA, EXTEND STRINGERS AS NEEDED TO ACCOMMODATE THE STRINGER TO POST CLAMP.



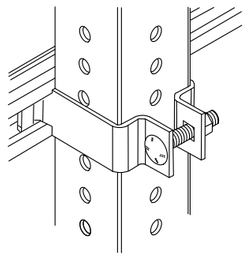
VIEW A-A



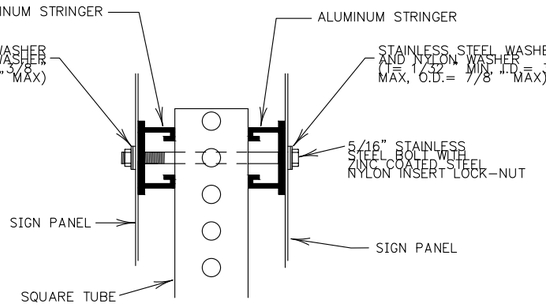
VIEW B-B



CLAMP DETAIL
4" SQUARE TUBE



CLAMP DETAIL
2" AND 2½" SQUARE TUBE



BACK TO BACK
SIGN MOUNTING WITH STRINGERS

NOTES:
1. BOLT SIGN PANELS TO STRINGERS OR RISER POSTS AT NO GREATER THAN 24 INCH SPACING OR ACCORDING TO THE MNDOT STANDARD SIGNS AND MARKINGS MANUAL FOR MOUNTING HOLES (PUNCH CODES) INFORMATION.
2. STRINGERS SHALL BE CENTERED ON SIGN PANEL.

REV 7/01/21

SQUARE TUBE SIGN MOUNTING DETAILS

1 OF 3

DRAWN BY: | CHECKED BY: | CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER LIC. NO. _____ DATE _____ | STATE PROJ. NO. (T.H. SHEET NO. OF SHEETS

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
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SEH

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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

SIGNING DETAILS
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

SS6
of 103

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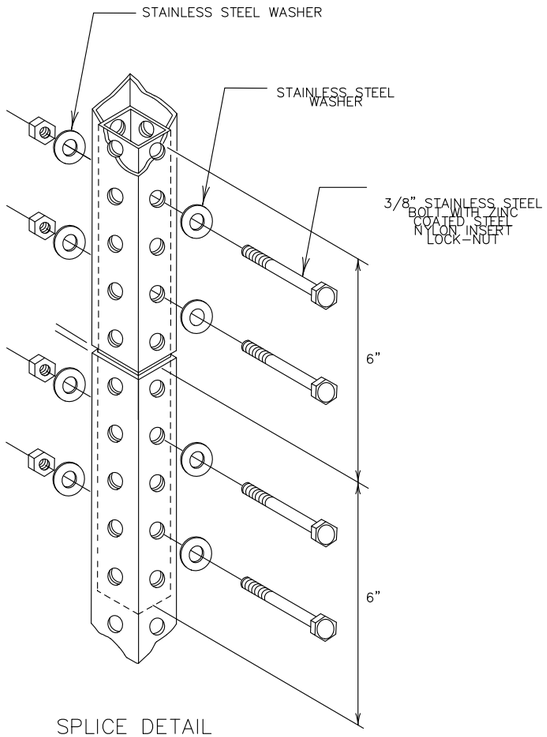

SPLICE DETAIL

NO MORE THAN ONE SPLICE PER POST.
WHEN USED MUST BE PLACED AT LEAST 8 FEET ABOVE GROUND. THE PREFERRED PLACEMENT LOCATION IS BEHIND THE SIGN PANEL.
INTERIOR POST STUD SHALL BE ONE SIZE SMALLER FOR A TIGHT FIT. IE RISER POST IS 2-1/2", INTERIOR POST IS 2-3/16". IF RISER POST IS 2", INTERIOR POST IS 1-3/4".

PANEL WIDTH	SQUARE TUBE POST SPACING						
	2 POSTS	3 POSTS	4 POSTS	5 POSTS	6 POSTS	7 POSTS	8 POSTS
(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)
42	15						
48	21						
54	30						
60	36						
66	36						
72	42						
78	42						
84	48						
90	48	42					
96	48	42					
102	54	42					
108	54	42					
114	60	42					
120	60	48					
126	66	48					
132	66	48	42				
138	72	48	42				
144	72	48	42				
150	78	54	42				
156	78	54	42				
162	84	54	42				
168	84	60	48				
174	90	60	48	42			
180	90	60	48	42			
186	96	66	48	42			
192	96	66	48	42			
198	102	66	54	42			
204	102	72	54	42			
210	108	72	54	42			
216	108	72	54	48	42		
222	114	78	60	48	42		
228	114	78	60	48	42		
234	120	78	60	48	42		
240	120	84	60	48	42		
246		84	66	54	42		
252		84	66	54	42		
258		90	66	54	42	42	
264		90	66	54	48	42	
270		90	72	54	48	42	
276		96	72	60	48	42	
282		96	72	60	48	42	
288		96	72	60	48	42	
294		102	78	60	54	42	
300		102	78	60	54	42	42
306		102	78	66	54	42	42
312		108	78	66	54	48	42
318		108	84	66	54	48	42
324		108	84	66	54	48	42
330		114	84	66	60	48	42
336		114	84	72	60	48	42

DISTANCES ARE CENTER-TO-CENTER OF POSTS

REV 7/01/21

SQUARE TUBE
SIGN MOUNTING DETAILS

2 OF 3

DRAWN BY: | CHECKED BY: | CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER LIC. NO. _____ DATE _____ | STATE PROJ. NO. (T.H.) SHEET NO. OF SHEETS

SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date
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SIGNING DETAILS
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

SS7
of 103

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NUMBER OF ALUMINUM STRINGERS FOR 2–1/2 INCH OR SMALLER POSTS

PANEL HEIGHT (INCHES)	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324	330	336
120	0	0	0	0	4	4	4	4					4																																												
114	0	0	0	0	4	4	4	4	4				4	4																																										
108	0	0	0	0	4	4	4	4	4	4			4	4	4					4	4																																				
102	0	0	0	0	4	4	4	4	4	4	4		4	4	4	4	4			4	4	4	4					4	4	4																										
96	0	0	0	0	3	3	3	3	3	3	3	3		3	3	3	3	3		3	3	3	3	3	3	3		3	3	3	3	3	3	3		3	3	3	3	3															
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	1 POST									2 POST										3 POST										4 POST										5 POST										6 POST					

PANEL WIDTH (INCHES)

NUMBER OF STRINGERS FOR 4 INCH POSTS

PANEL HEIGHT (INCHES)	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324	330	336
144			5	5	5	5	5	6	6	5	5	5	5	5	5	6	6	6	6	7	5	5	5	5	6	6	6	6	6	7	5	5	6	6	6	6	6	6	7	7																	
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132			4	4	4	4	5	5	6	7	7	4	4	5	5	5	5	6	6	6	7	7	5	5	5	5	6	6	6	6	6	6	7	7	7	5	6	6	6	6	6	7	7	7	7											
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	1 POST																			2 POST																					3 POST																	

PANEL WIDTH (INCHES)

4 POST

REV 7/01/21

SQUARE TUBE
SIGN MOUNTING DETAILS

3 OF 3

DRAWN BY: | CHECKED BY: | CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER LIC. NO._____ DATE _____ | STATE PROJ. NO. (T.H.) SHEET NO. OF SHEETS

SEH Project	GOLDV 163618
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Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date
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Rev.#	Revision Issue Description	Date
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE 5/7/2024

STEPHEN PRALL
LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

SIGNING DETAILS
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

SS8
of 103

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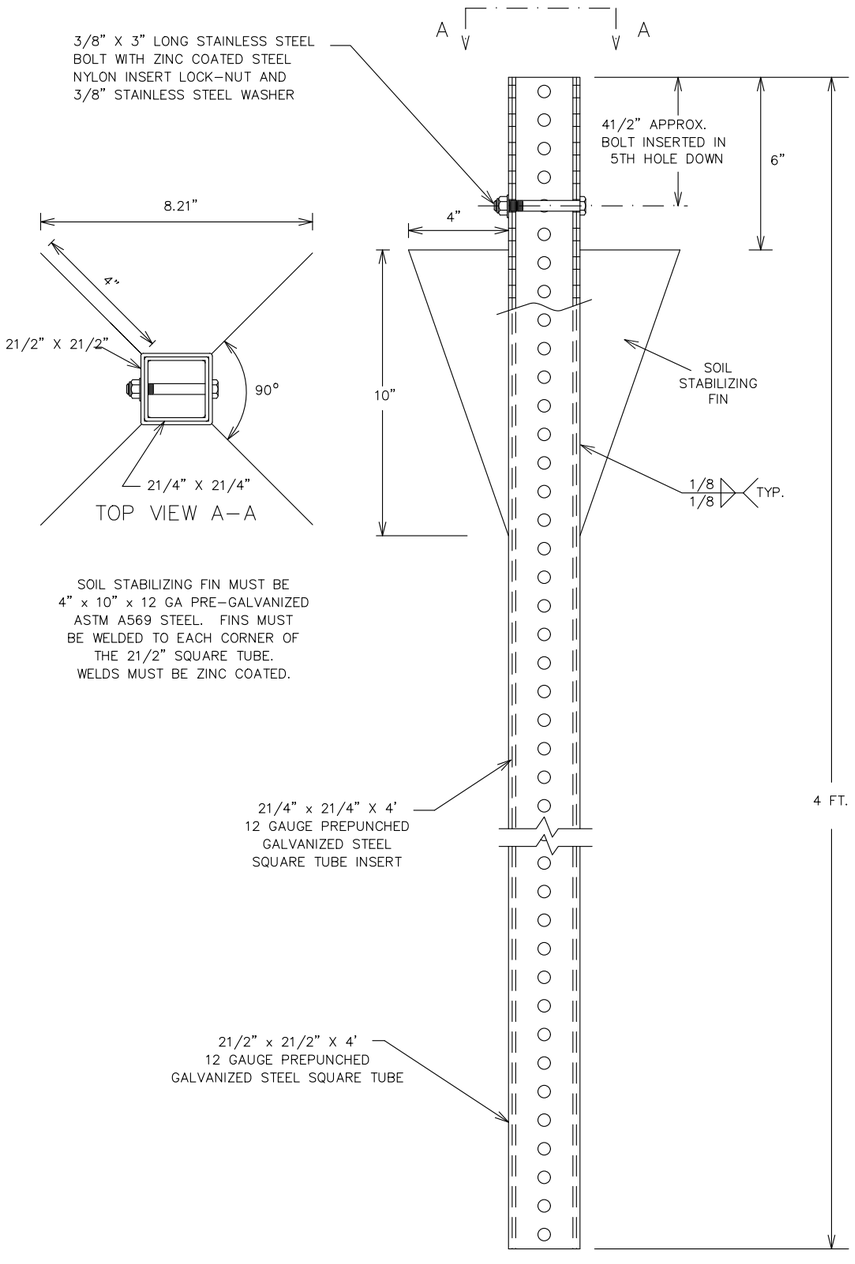
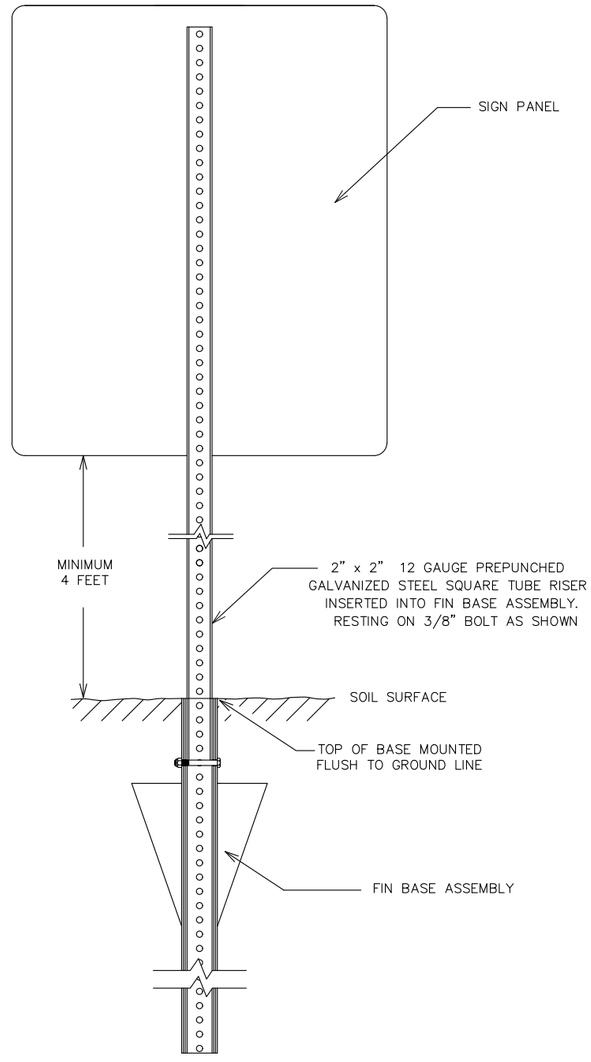


SOIL STABILIZING FIN MUST BE 4" x 10" x 12 GA PRE-GALVANIZED ASTM A569 STEEL. FINS MUST BE WELDED TO EACH CORNER OF THE 21/2" SQUARE TUBE. WELDS MUST BE ZINC COATED.

FIN BASE ASSEMBLY



FIN BASE IN SOIL

NOTES:

1. THE CRASH RESPONSE TYPE FOR THIS STRUCTURE IS BENDABLE.
2. TO MEET CRASHWORTHY REQUIREMENTS THE DISTANCE BETWEEN THE BOTTOM OF THE SIGN PANEL AND THE GROUND SURFACE BELOW ANY PORTION OF THE SIGN PANEL MUST BE A MINIMUM OF 4 FEET. SEE TABULATIONS FOR MOUNTING HEIGHT.
3. FOR SIGN PANEL MOUNTING DETAILS SEE SQUARE TUBE SIGN MOUNTING DETAILS.
4. SQUARE TUBE SIGN POSTS PER MnDOT SPEC. 3402.

REV 4/20/21

FIN BASE

FOR 2 INCH SQUARE TUBE RISER POST IN SOIL

DRAWN BY: | CHECKED BY: | CERTIFIED BY _____ LICENSED PROFESSIONAL ENGINEER LIC. NO. _____ DATE _____ | STATE PROJ. NO. (T.H. SHEET NO. OF SHEETS

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STEPHEN PRALL

DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

SIGNING DETAILS ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

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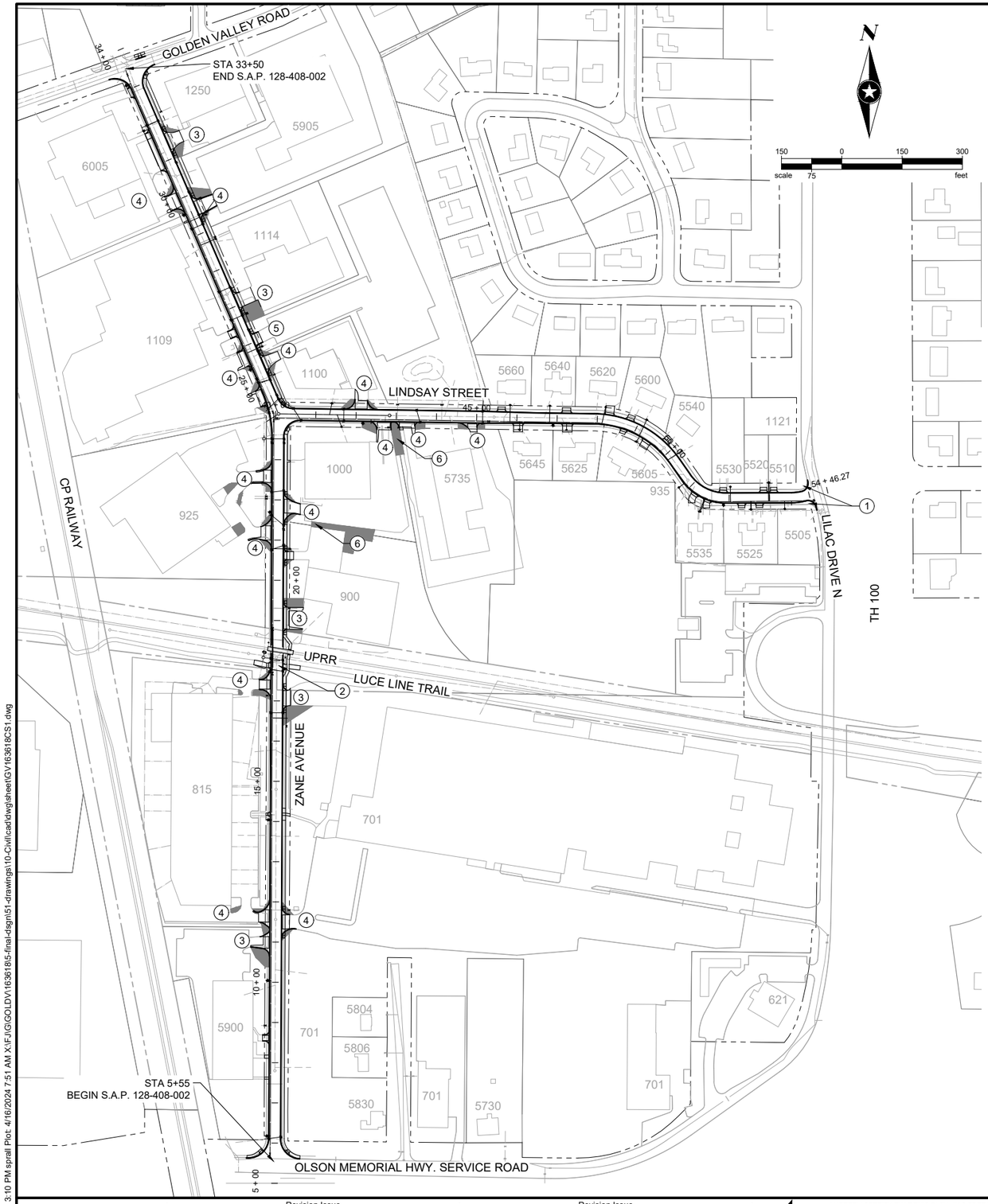


NOTES:

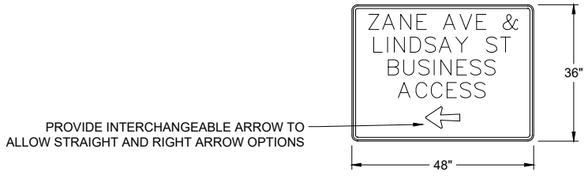
1. CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES DURING CONSTRUCTION IN ACCORDANCE WITH THE CURRENT MINNESOTA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MMUTCD) AND ITS SUPPLEMENTS, AND AS IT MAY BE DEEMED NECESSARY BY THE ENGINEER.
2. CONTRACTOR SHALL SUBMIT A TEMPORARY TRAFFIC CONTROL PLAN FOR ALL PHASES, A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL FURNISH A MINIMUM OF SIX (6) TEMPORARY TRAFFIC CONTROL SIGNS THAT READ "ZANE AVE AND LINDSAY ST BUSINESS ACCESS", AS DIRECTED BY ENGINEER, AT VARIOUS LOCATIONS WITHIN THE CITY. SEE BELOW.
4. IT IS SUGGESTED TO COMPLETE ALL IMPROVEMENTS WITHIN UPRR'S RIGHT-OF-WAY IN THE FIRST PHASE, ASSUMING NECESSARY PERMITS/AGREEMENTS HAVE BEEN OBTAINED/APPROVED.
5. CONTRACTOR SHALL MAINTAIN TWO-WAY TRAFFIC THROUGHOUT PROJECT CONSTRUCTION, UNLESS OTHERWISE DIRECTED BY ENGINEER. FLAGGERS MAY BE USED AROUND ACTIVE CONSTRUCTION, AS DIRECTED BY ENGINEER WHERE ADEQUATE DRIVING LANE WIDTH IS NOT POSSIBLE.
6. CONTRACTOR MAY CONVERT ROADWAY INTO A ONE-WAY ROAD, AS DIRECTED BY ENGINEER, DURING WATER MAIN CONSTRUCTION OR OTHER ENGINEER-APPROVED CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL PLACE APPROPRIATE SIGNS AT PROJECT EXTENTS, INCLUDING ALTERNATE ROUTE INFORMATION.
7. CONTRACTOR SHALL MAINTAIN A MINIMUM LANE WIDTH OF 11' FOR ANY LANE OPEN TO TRAFFIC DURING CONSTRUCTION, UNLESS OTHERWISE APPROVED BY ENGINEER.
8. ZANE AVENUE (5+50 - 33+50): WHEN ENTIRE WIDTH OF ROADWAY MUST BE CLOSED FOR UTILITY INSTALLATION OR OTHER ENGINEER-APPROVED REASONS, CONTRACTOR SHALL PROVIDE A FLAGGER AT THE NORTHERN AND SOUTHERN PROJECT EXTENTS INFORMING DRIVERS WHERE THE CLOSURE IS AND PROVIDE ALTERNATIVE ROUTES, IF REQUIRED. "ROAD CLOSED AHEAD" SIGNS SHALL BE PLACED ON ZANE AVENUE AT THE INTERSECTION OF LINDSAY STREET.
9. LINDSAY STREET (40+00 - 45+20): WHEN ENTIRE WIDTH OF ROADWAY MUST BE CLOSED FOR UTILITY INSTALLATION OR OTHER ENGINEER APPROVED REASONS, CONTRACTOR SHALL PROVIDE A FLAGGER AT THE WESTERN END OF LINDSAY STREET INFORMING DRIVERS WHERE THE CLOSURE IS AND PROVIDE ALTERNATIVE ROUTES, IF REQUIRED. "ROAD CLOSED AHEAD" SIGNS SHALL BE PLACED AT THE EASTERN END OF LINDSAY STREET.
10. CONTRACTOR SHALL TEMPORARILY WIDEN COMMERCIAL DRIVEWAY ENTRANCES WITH AGGREGATE SURFACING (3" MINUS LIMESTONE), AS DIRECTED BY ENGINEER, TO MAINTAIN TRUCK ACCESS TO COMMERCIAL PROPERTIES THROUGHOUT CONSTRUCTION. WHERE REQUIRED BY ENGINEER, CONTRACTOR SHALL ALSO CONSTRUCT ADDITIONAL TEMPORARY DRIVEWAYS WITH AGGREGATE SURFACING, AS DIRECTED BY ENGINEER, TO MAINTAIN ACCESS TO COMMERCIAL PROPERTIES. CONTRACTOR SHALL REMOVE TEMPORARY AGGREGATE SURFACING PRIOR TO TURF RESTORATION, OR AS DIRECTED BY ENGINEER.
11. COMMERCIAL DRIVEWAY CROSS GUTTER AND COMMERCIAL CONCRETE DRIVEWAY PAVEMENT SHALL BE POURED IN TWO HALVES, USING HIGH-EARLY STRENGTH CONCRETE, AS DIRECTED BY ENGINEER, TO MAINTAIN BUSINESS ACCESS WHILE CONCRETE CURES.
12. CONTRACTOR SHALL NOTIFY ENGINEER OF PLANS TO CLOSE OR REDUCE ACCESS TO A COMMERCIAL PROPERTY A MINIMUM 7 DAYS IN ADVANCE.
13. CONTRACTOR SHALL BE REQUIRED TO SCHEDULE HIS DAILY WORK TO ENSURE THAT ALL EXCAVATIONS ARE FILLED IN COMPLETELY; ADEQUATE DRAINAGE IS PROVIDED TO PREVENT ANY WATER FROM STANDING ON THE PROJECT SITE; AND AN ADEQUATE DRIVING SURFACE WITH CLASS 5 IS PROVIDED AT THE COMPLETION OF WORK EACH DAY.
14. PORTABLE CONCRETE BARRIERS SHALL BE USED WHEN EXCAVATION DEPTHS GREATER THAN 3 FEET ARE WITHIN 8 FEET OF THE EDGE OF TRAVELED WAY, UNLESS OTHERWISE APPROVED BY ENGINEER.

KEYNOTES

1. CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY "NO TRUCKS" SIGNS. ALL CONSTRUCTION TRAFFIC SHALL ENTER AND EXIT PROJECT AREA VIA ZANE AVENUE AT EITHER GOLDEN VALLEY ROAD OR OLSON MEMORIAL HWY. SERVICE ROAD, UNLESS OTHERWISE APPROVED BY ENGINEER.
2. CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS FOR LUCE LINE TRAIL CROSSING WITH CLASS 5 AT ALL TIMES. WHEN ACTIVE WORK PREVENTS SAFE PEDESTRIAN CROSSING, AS DIRECTED BY ENGINEER, "TRAIL CLOSED" SIGNS SHALL BE PLACED PRIOR TO BEGINNING WORK. SEE SHEET CS2 FOR LUCE LINE TRAIL DETOUR DETAILS.
3. SINGLE ACCESS TO COMMERCIAL PROPERTY. CONTRACTOR SHALL PROVIDE AND MAINTAIN ADDITIONAL TEMPORARY CLASS 5 ACCESS, AS DIRECTED BY ENGINEER. ADDITIONAL LOCATIONS MAY BE REQUIRED, AS DIRECTED BY ENGINEER.
4. MULTIPLE ENTRANCES TO COMMERCIAL PROPERTY. CONTRACTOR MAY, AS DIRECTED BY ENGINEER, TEMPORARILY CLOSE ONE OR MORE ENTRANCES PROVIDED THAT ONE ENTRANCES IS ACCESSIBLE TO THE SATISFACTION OF THE ENGINEER AT ALL TIMES .
5. EMPLOYEE PARKING ONLY, NO TRUCK ACCESS. POUR CONCRETE CROSS GUTTER AND DRIVEWAY IN TWO HALVES AS DESCRIBED IN THE NOTES SECTION ABOVE.
6. CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY AGGREGATE SURFACING (3" MINUS LIMESTONE) CONNECTING DRIVEWAYS OR PARKING LOTS, AS DIRECTED BY ENGINEER.

LEGEND

TEMPORARY AGGREGATE SURFACING (3" MINUS LIMESTONE) AT COMMERCIAL DRIVEWAYS FOR VEHICLE ACCESS. MIN. 8" THICK, OR AS DIRECTED BY ENGINEER. NOTE: ACTUAL AREAS MAY DIFFER AND SHALL BE DETERMINED IN THE FIELD BY ENGINEER.



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Designed By	SRP	.			.		
Checked By	SDH	.			.		

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STEPHEN PRALL

DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

CONSTRUCTION SEQUENCING ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

CS1

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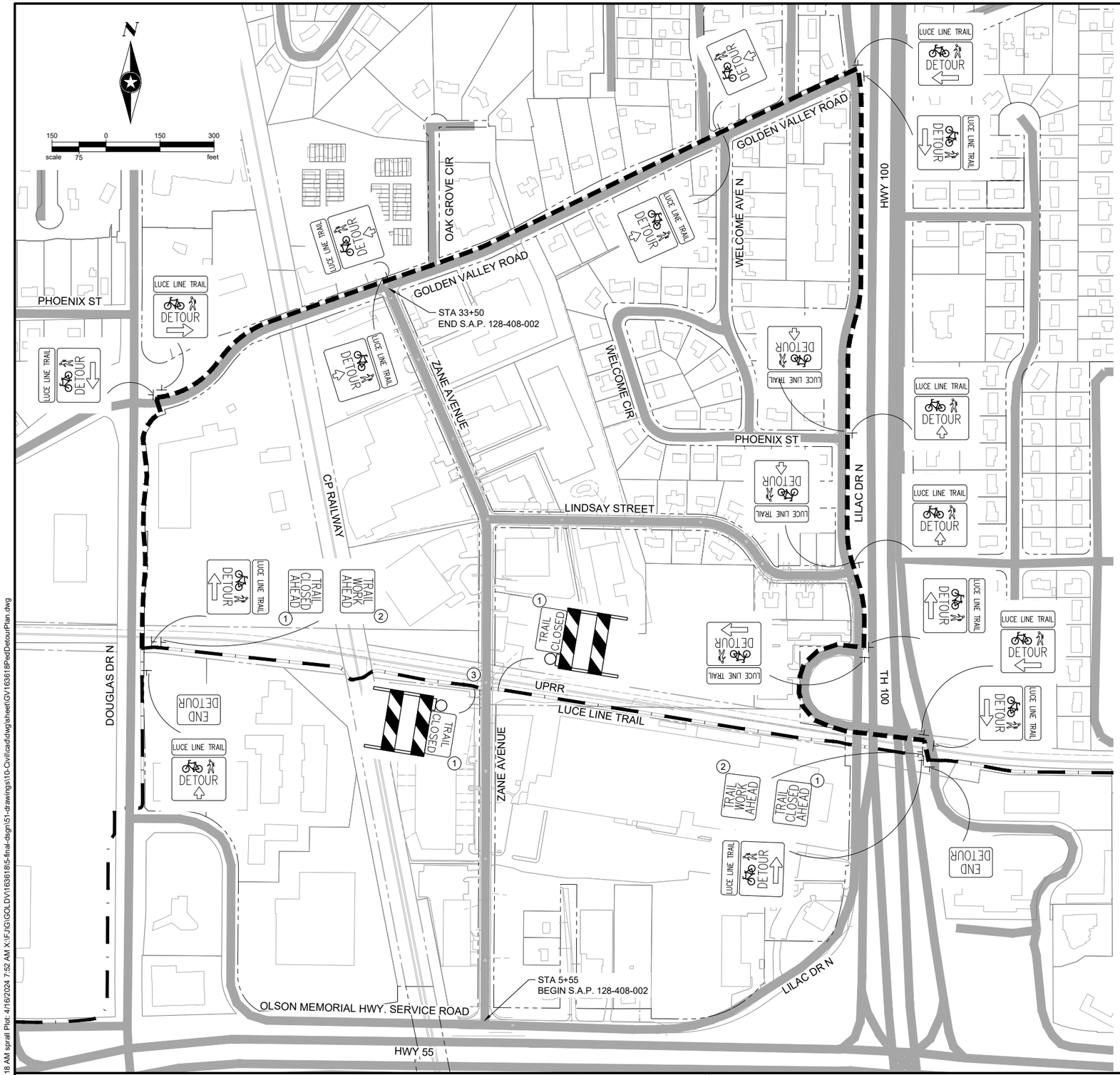

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KEYNOTES

1. PLACE "TRAIL CLOSED AHEAD" AND "TRAIL CLOSED" SIGNS WHEN TRAIL CROSSING AT ZANE AVENUE IS IMPASSABLE DUE TO CONSTRUCTION ACTIVITIES, AS DIRECTED BY ENGINEER.
2. SIGNS TO REMAIN FOR DURATION OF CONSTRUCTION, UNLESS TRAIL MARKED AS "CLOSED" AS DESCRIBED IN KEYNOTE 1, OR AS DIRECTED BY ENGINEER.
3. CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS FOR LUCE LINE TRAIL CROSSING WITH CLASS 5 AT ALL TIMES. WHEN ACTIVE WORK PREVENTS SAFE PEDESTRIAN CROSSING, AS DIRECTED BY ENGINEER, "TRAIL CLOSED" SIGNS SHALL BE PLACED PRIOR TO BEGINNING WORK (SEE KEYNOTES 1 AND 2).

LEGEND

- LUCE LINE TRAIL DETOUR
- LUCE LINE TRAIL
- ROAD

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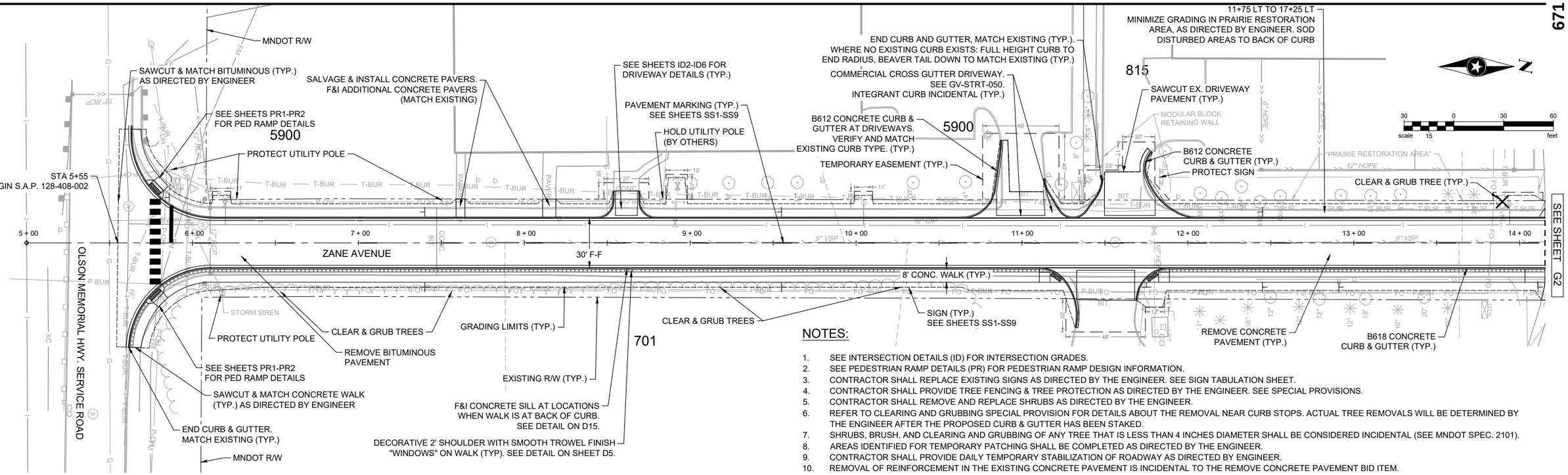
STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

LUCE LINE TRAIL DETOUR PLAN ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

CS2
of 103



NOTES:

1. SEE INTERSECTION DETAILS (ID) FOR INTERSECTION GRADES.
2. SEE PEDESTRIAN RAMP DETAILS (PR) FOR PEDESTRIAN RAMP DESIGN INFORMATION.
3. CONTRACTOR SHALL REPLACE EXISTING SIGNS AS DIRECTED BY THE ENGINEER. SEE SIGN TABULATION SHEET.
4. CONTRACTOR SHALL PROVIDE TREE FENCING & TREE PROTECTION AS DIRECTED BY THE ENGINEER. SEE SPECIAL PROVISIONS.
5. CONTRACTOR SHALL REMOVE AND REPLACE SHRUBS AS DIRECTED BY THE ENGINEER.
6. REFER TO CLEARING AND GRUBBING SPECIAL PROVISION FOR DETAILS ABOUT THE REMOVAL NEAR CURB STOPS. ACTUAL TREE REMOVALS WILL BE DETERMINED BY THE ENGINEER AFTER THE PROPOSED CURB & GUTTER HAS BEEN STAKED.
7. SHRUBS, BRUSH, AND CLEARING AND GRUBBING OF ANY TREE THAT IS LESS THAN 4 INCHES DIAMETER SHALL BE CONSIDERED INCIDENTAL (SEE MNDOT SPEC. 2101).
8. AREAS IDENTIFIED FOR TEMPORARY PATCHING SHALL BE COMPLETED AS DIRECTED BY THE ENGINEER.
9. CONTRACTOR SHALL PROVIDE DAILY TEMPORARY STABILIZATION OF ROADWAY AS DIRECTED BY ENGINEER.
10. REMOVAL OF REINFORCEMENT IN THE EXISTING CONCRETE PAVEMENT IS INCIDENTAL TO THE REMOVE CONCRETE PAVEMENT BID ITEM.

BENCHMARK EL. 911.30
TNH NW QUAD SERVICE RD & ZANE AVE

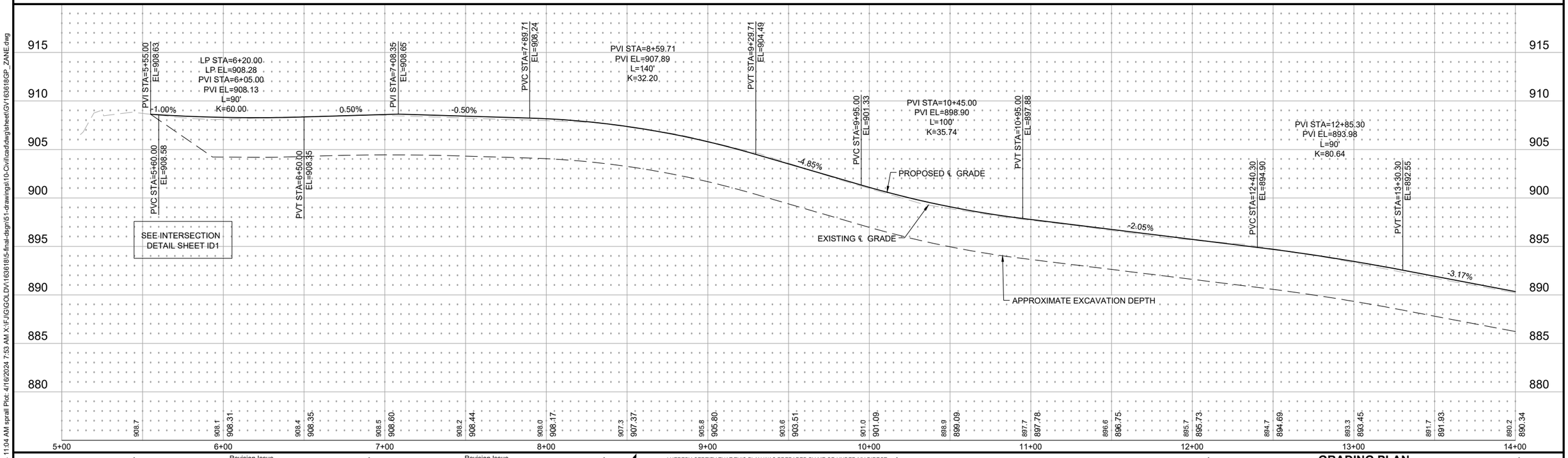
NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

LEGEND:

⊠ DENOTES TREE TO BE REMOVED SEE NOTE 7

ZANE AVENUE

BENCHMARK EL. 893.68
TNH STA.13+94, 23.4' LT.



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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

GRADING PLAN
ZANE AVENUE
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

G1
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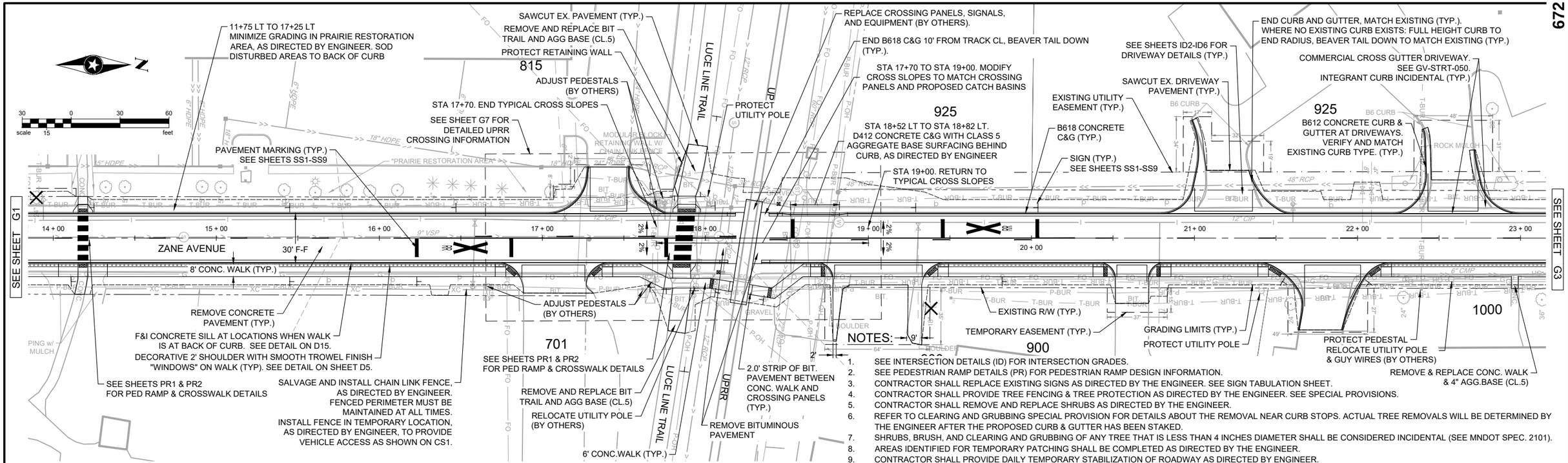
SEE SHEET G1

SEE SHEET G3



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8. AREAS IDENTIFIED FOR TEMPORARY PATCHING SHALL BE COMPLETED AS DIRECTED BY THE ENGINEER.
9. CONTRACTOR SHALL PROVIDE DAILY TEMPORARY STABILIZATION OF ROADWAY AS DIRECTED BY ENGINEER.
10. REMOVAL OF REINFORCEMENT IN THE EXISTING CONCRETE PAVEMENT IS INCIDENTAL TO THE REMOVE CONCRETE PAVEMENT BID ITEM.

LEGEND:

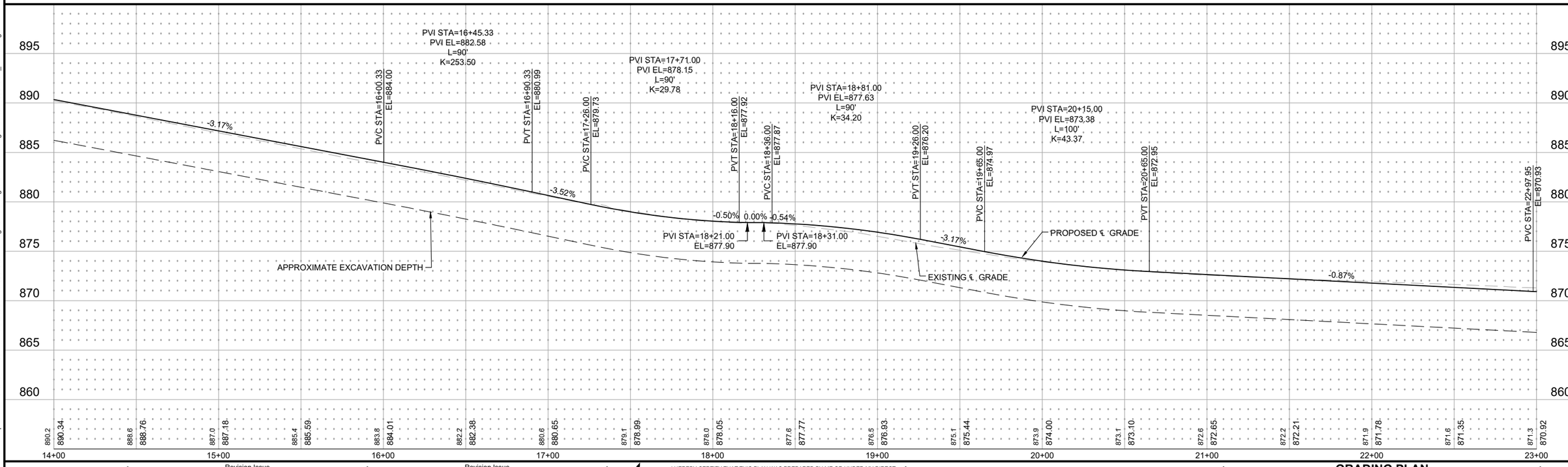
DENOTES TREE TO BE REMOVED SEE NOTE 7

NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

BENCHMARK EL. 885.60
TNH STA.16+57, 30.0' RT.

BENCHMARK EL. 875.69
TNH STA.21+60, 20.8' LT.

ZANE AVENUE



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Checked By	SDH

Rev.#	Revision Issue Description	Date

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

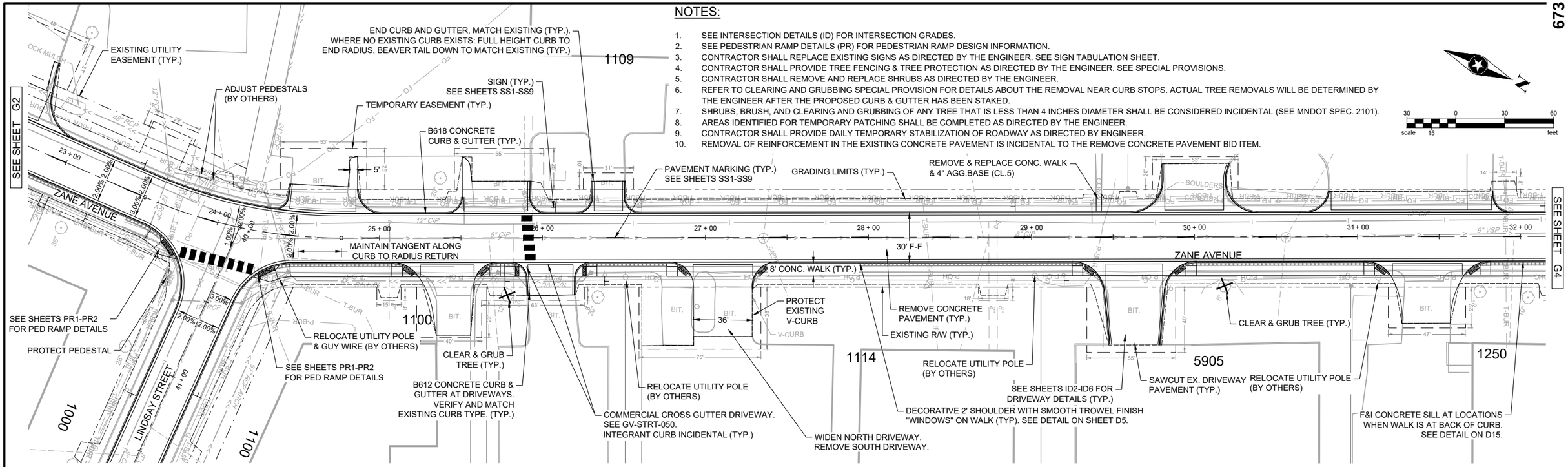
GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

GRADING PLAN
ZANE AVENUE
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

NOTES:

1. SEE INTERSECTION DETAILS (ID) FOR INTERSECTION GRADES.
2. SEE PEDESTRIAN RAMP DETAILS (PR) FOR PEDESTRIAN RAMP DESIGN INFORMATION.
3. CONTRACTOR SHALL REPLACE EXISTING SIGNS AS DIRECTED BY THE ENGINEER. SEE SIGN TABULATION SHEET.
4. CONTRACTOR SHALL PROVIDE TREE FENCING & TREE PROTECTION AS DIRECTED BY THE ENGINEER. SEE SPECIAL PROVISIONS.
5. CONTRACTOR SHALL REMOVE AND REPLACE SHRUBS AS DIRECTED BY THE ENGINEER.
6. REFER TO CLEARING AND GRUBBING SPECIAL PROVISION FOR DETAILS ABOUT THE REMOVAL NEAR CURB STOPS. ACTUAL TREE REMOVALS WILL BE DETERMINED BY THE ENGINEER AFTER THE PROPOSED CURB & GUTTER HAS BEEN STAKED.
7. SHRUBS, BRUSH, AND CLEARING AND GRUBBING OF ANY TREE THAT IS LESS THAN 4 INCHES DIAMETER SHALL BE CONSIDERED INCIDENTAL (SEE MNDOT SPEC. 2101).
8. AREAS IDENTIFIED FOR TEMPORARY PATCHING SHALL BE COMPLETED AS DIRECTED BY THE ENGINEER.
9. CONTRACTOR SHALL PROVIDE DAILY TEMPORARY STABILIZATION OF ROADWAY AS DIRECTED BY ENGINEER.
10. REMOVAL OF REINFORCEMENT IN THE EXISTING CONCRETE PAVEMENT IS INCIDENTAL TO THE REMOVE CONCRETE PAVEMENT BID ITEM.



BENCHMARK EL. 875.36
TNH STA.25+52, 21.7' LT.

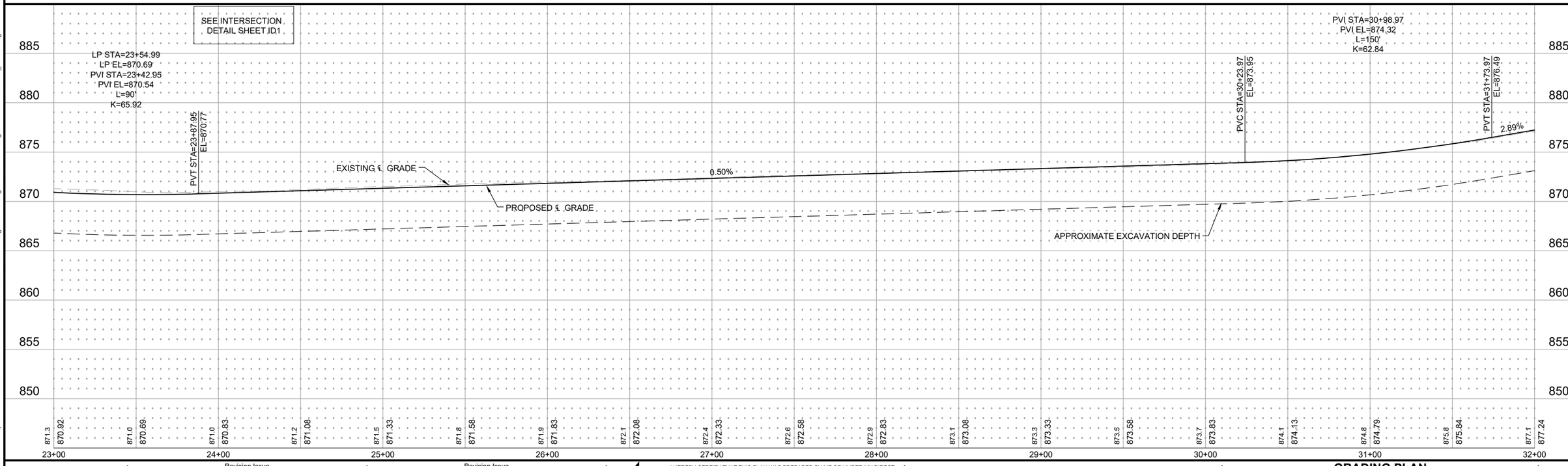
NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

LEGEND:

⊠ DENOTES TREE TO BE REMOVED SEE NOTE 7

ZANE AVENUE

BENCHMARK EL. 876.25
TNH STA.29+37, 22.0' LT.



SEH Project	GOLDV 163618
Drawn By	SRP
Designed By	SRP
Checked By	SDH

Rev.#	Revision Issue Description	Date

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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

GRADING PLAN
ZANE AVENUE
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

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of 103

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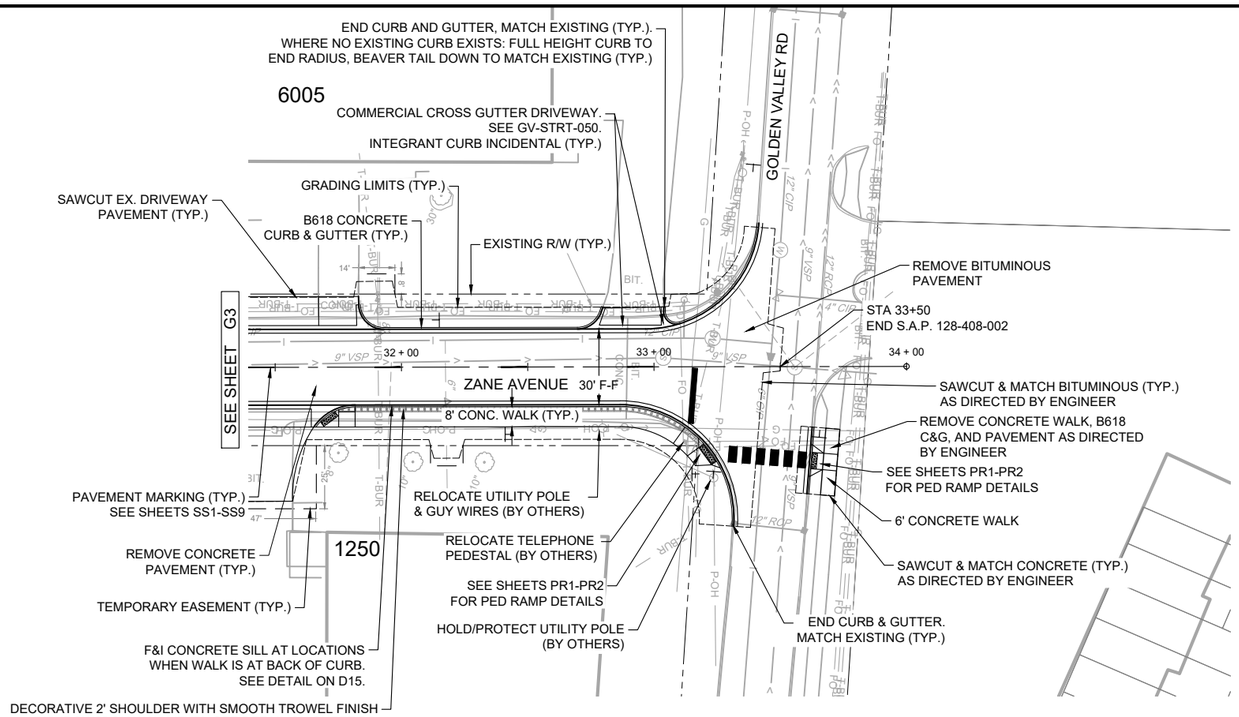
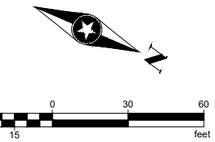


ZANE AVENUE



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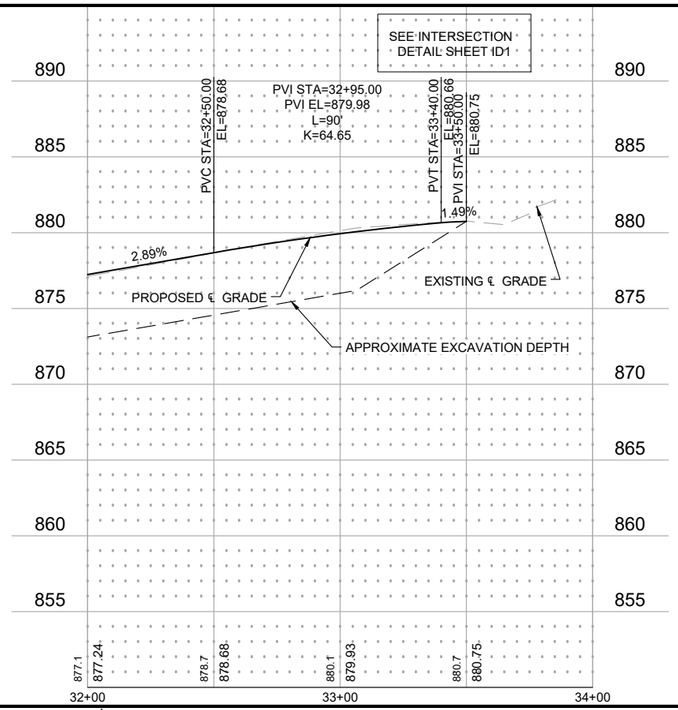
NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

LEGEND:

⊠ DENOTES TREE TO BE REMOVED SEE NOTE 7

BENCHMARK EL. 883.69
TNH SW QUAD GOLDEN VALLEY RD & ZANE AVE



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SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	
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Designed By	SRP	.			.			
Checked By	SDH	.			.			

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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

GRADING PLAN
ZANE AVENUE
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

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NOTES:

1. SEE INTERSECTION DETAILS (ID) FOR INTERSECTION GRADES.
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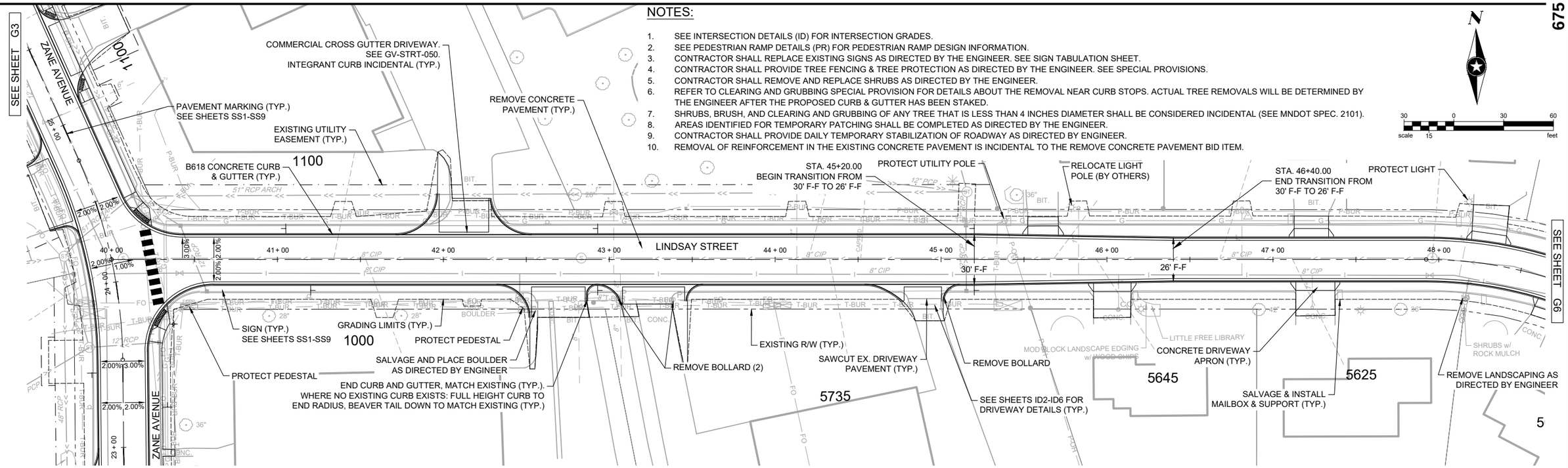
scale 15 feet



NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

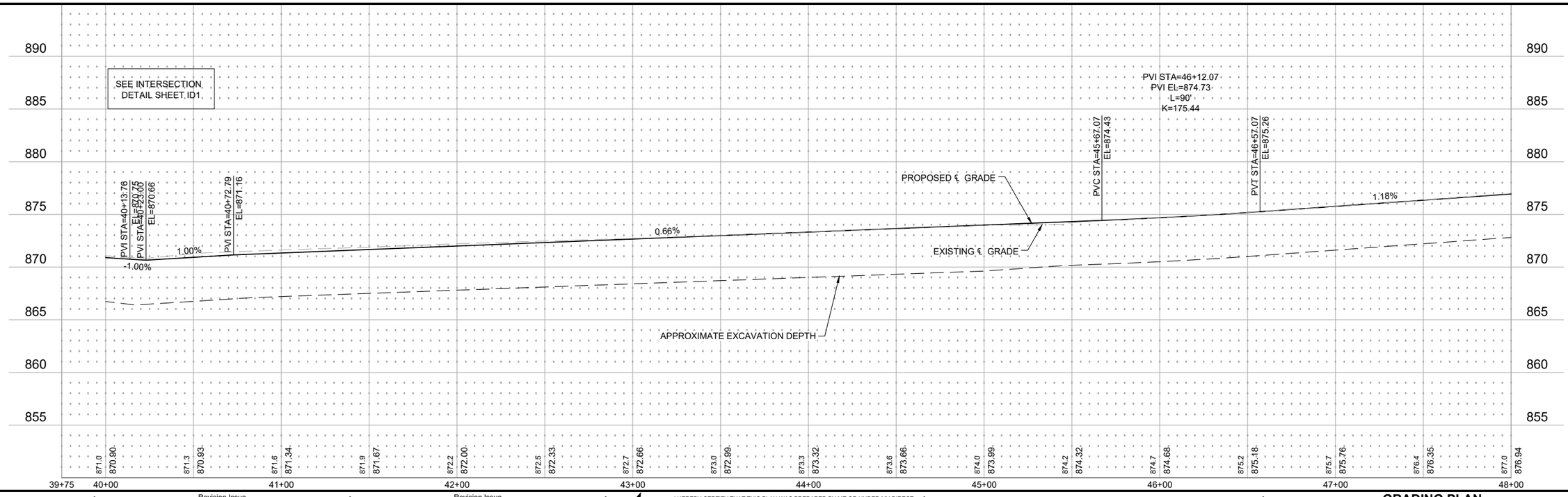
LEGEND:

⊗ DENOTES TREE TO BE REMOVED SEE NOTE 7

LINDSAY STREET

BENCHMARK EL. 875.89
TNH STA.42+46, 23.0' RT.

BENCHMARK EL. 881.31
TNH STA.48+18, 22.6' RT.



SEH Project	GOLDV 163618
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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

GRADING PLAN
LINDSAY STREET
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

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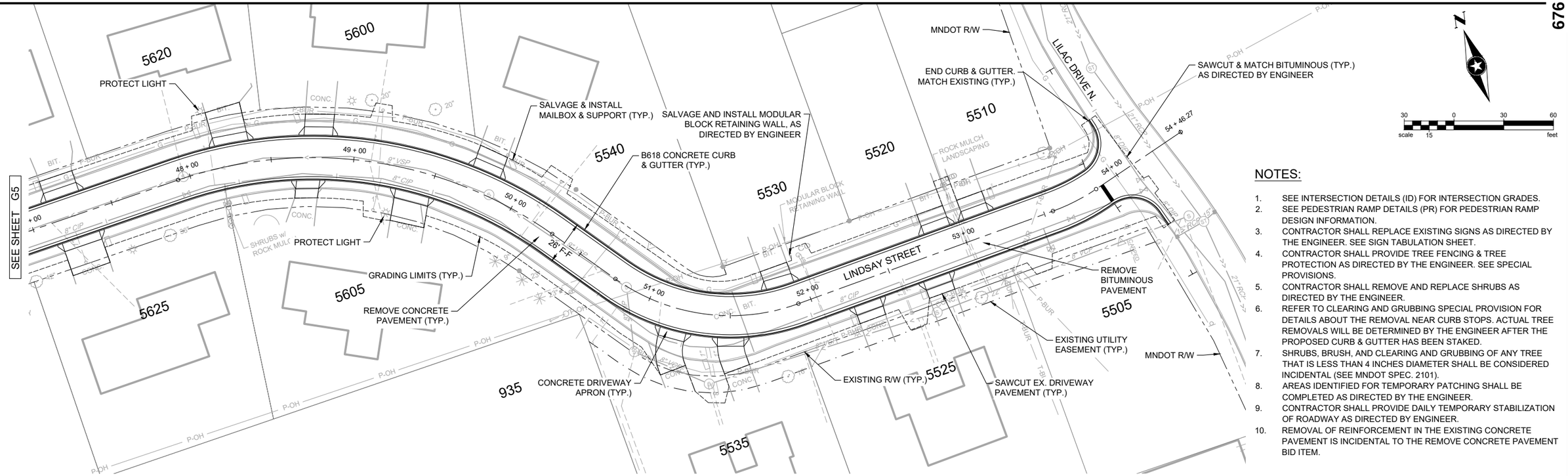

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BENCHMARK EL. 881.31
TNH STA.48+18, 22.6' RT.

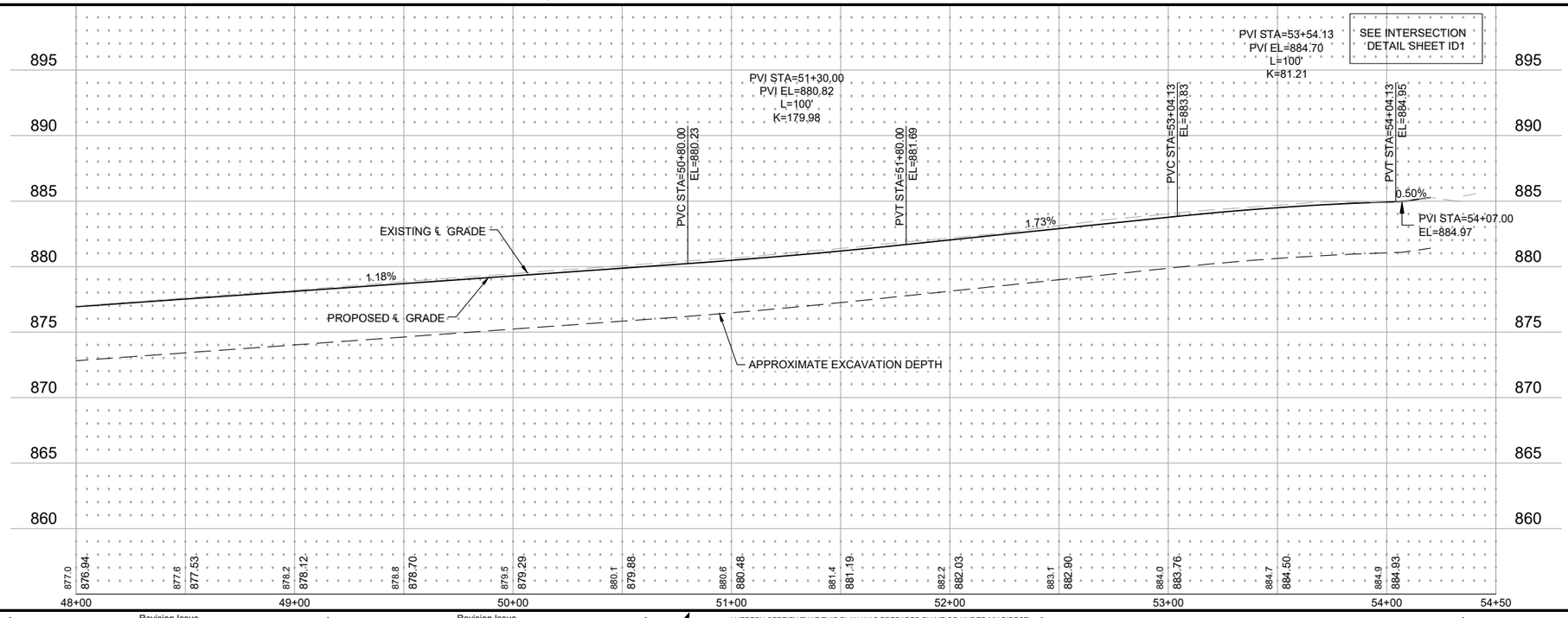
NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

LEGEND:

⊗ DENOTES TREE TO BE REMOVED SEE NOTE 7

LINDSAY STREET

BENCHMARK EL. 889.75
TNH STA.53+50, 21.9' RT.



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STEPHEN PRALL
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GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

GRADING PLAN
LINDSAY STREET
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

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of 103

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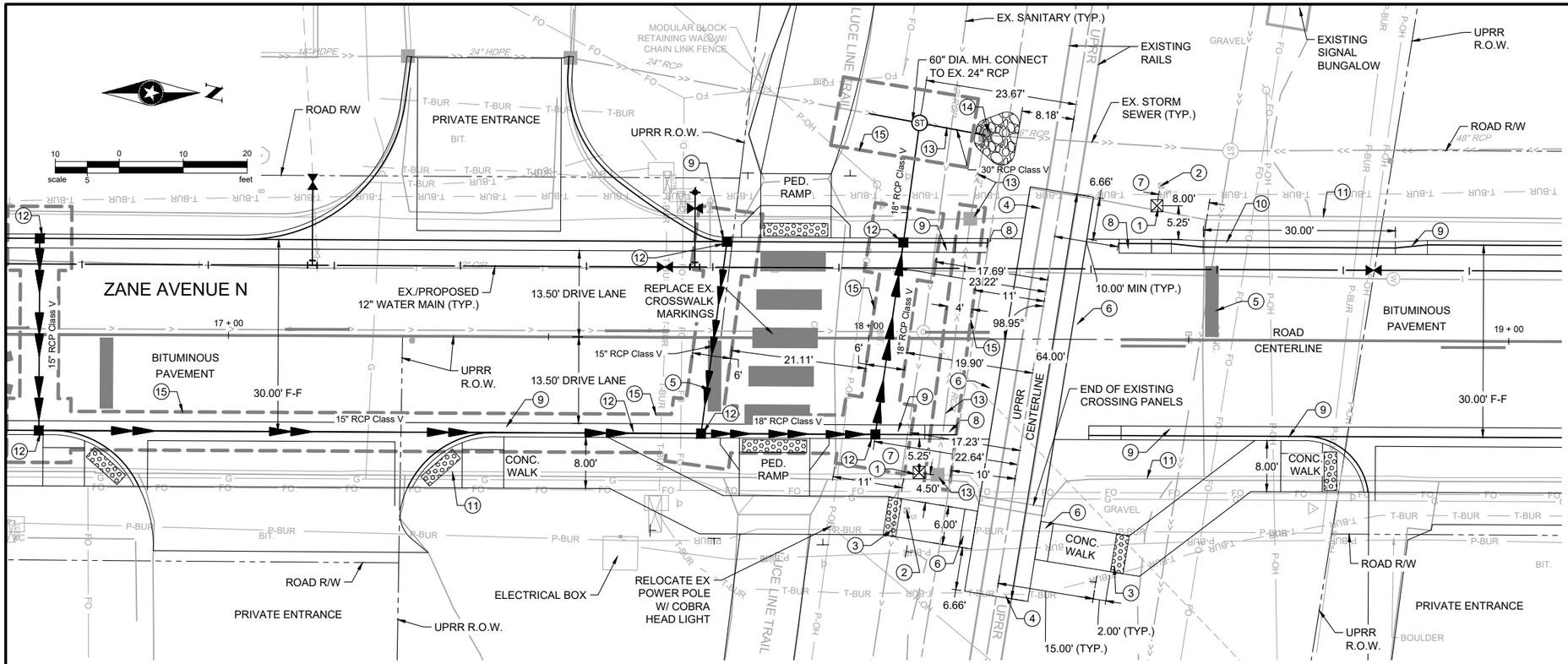
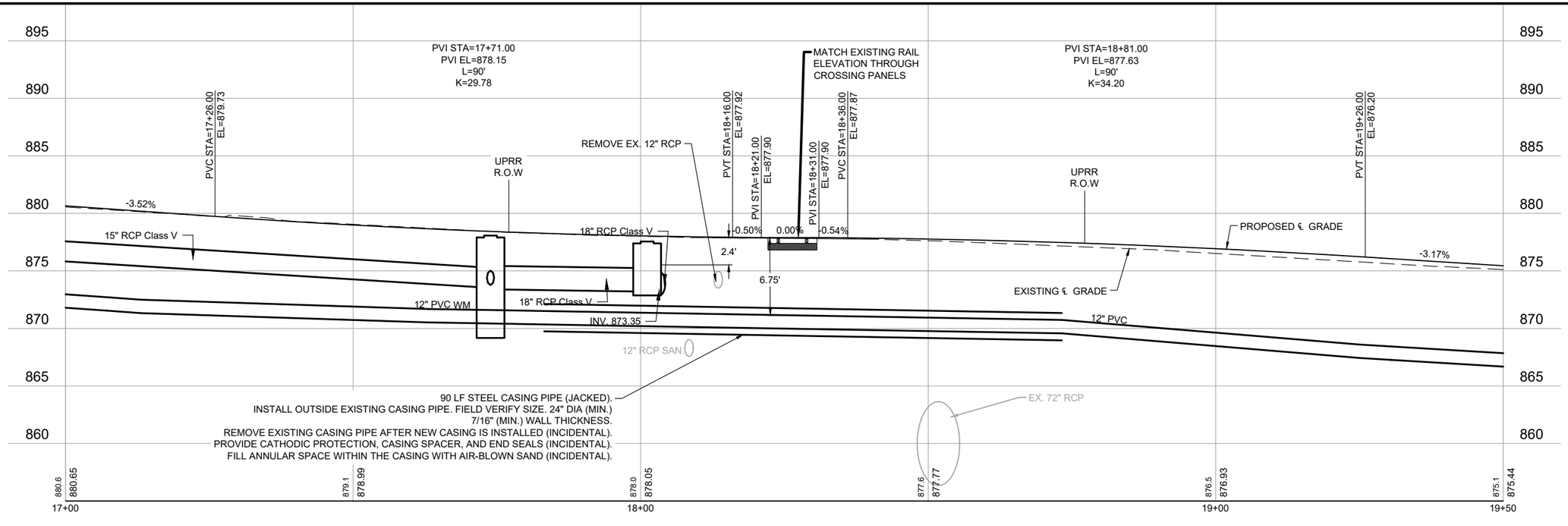


KEY NOTES

1. UPRR TO RELOCATE VEHICULAR DEVICE WITH GATE ARM
2. EX. VEHICULAR DEVICE WITH GATE ARM
3. MIN. 2' DETECTABLE WARNING STRIP
4. UPRR TO REPLACE AND EXTEND CROSSING PANELS MIN.3' FROM EDGE OF TRAVELED WAY.
5. REPLACE EX. 24" STOP LINE - MIN. 8' IN ADVANCE OF NEAREST RAILROAD TRAFFIC CONTROL DEVICE
6. MIN. 24" STRIP OF ASPHALT BETWEEN CROSSING SURFACE AND ROADWAY
7. UNPAVED AREA (CLASS 5) AROUND DEVICES FOR MAINTENANCE ACCESS.
8. MIN. 10' FROM CENTER OF TRACK, TAPERED CURB
9. B618 CONCRETE CURB AND GUTTER (FULL HEIGHT)
10. D412 CONCRETE CURB AND GUTTER (SURMOUNTABLE FOR MAINTENANCE ACCESS)
11. EX. CURB AND GUTTER
12. STORM SEWER CATCH BASIN
13. REMOVE EX. STORM SEWER (CB OR RCP PIPE)
14. CONNECT TO EXISTING CATCH BASIN/MANHOLE. FURNISH AND INSTALL NEW "BEEHIVE" GRATE ON EXISTING CATCH BASIN/MANHOLE ADD 3 CU YD RIPRAP. RE-GRADE AROUND CB TO DRAIN.
15. APPROXIMATE STORM SEWER EXCAVATION LIMITS. DEPTH VARIES, SEE SHEET S10 FOR PROFILE VIEWS. APPROXIMATELY 4.5' DEEP EXCAVATIONS

NOTE: CONTRACTOR SHALL PROVIDE SHORING, TRACK MONITORING, AND GROUND MONITORING AS REQUIRED BY UPRR AND SUBMIT ASSOCIATED PLANS TO ENGINEER PRIOR TO CONSTRUCTION



UPRR M.P. 4.28
X-ING 185-033Y

SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	
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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

GRADING PLAN
UPRR CROSSING AT ZANE AVENUE
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

G7
of 103

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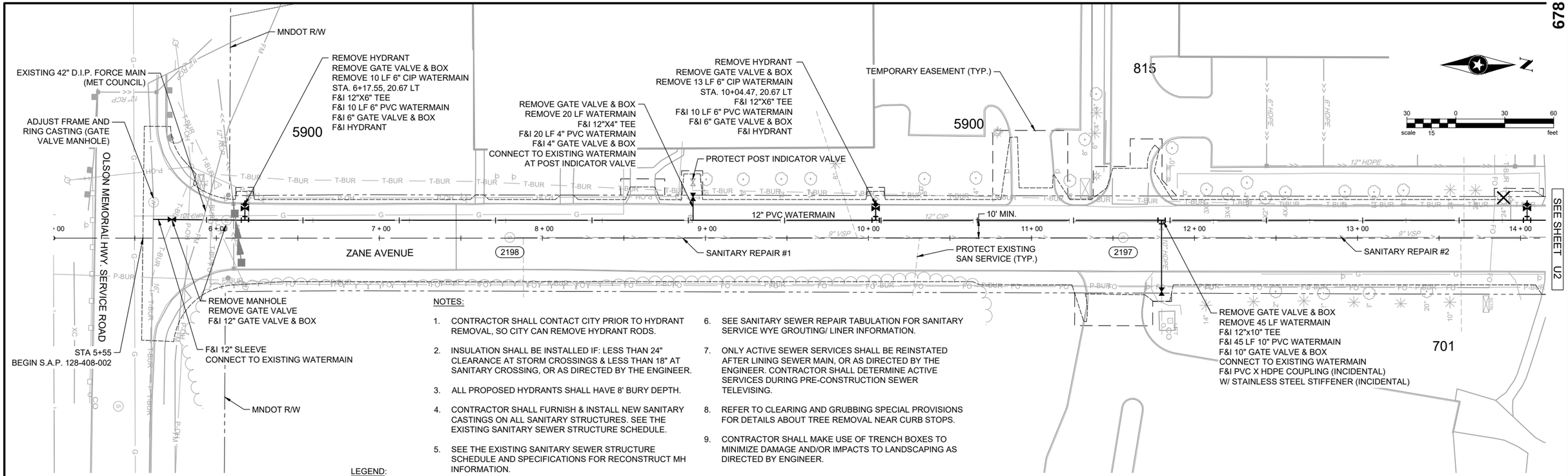


NOTES:

1. CONTRACTOR SHALL CONTACT CITY PRIOR TO HYDRANT REMOVAL, SO CITY CAN REMOVE HYDRANT RODS.
2. INSULATION SHALL BE INSTALLED IF: LESS THAN 24" CLEARANCE AT STORM CROSSINGS & LESS THAN 18" AT SANITARY CROSSING, OR AS DIRECTED BY THE ENGINEER.
3. ALL PROPOSED HYDRANTS SHALL HAVE 8' BURY DEPTH.
4. CONTRACTOR SHALL FURNISH & INSTALL NEW SANITARY CASTINGS ON ALL SANITARY STRUCTURES. SEE THE EXISTING SANITARY SEWER STRUCTURE SCHEDULE.
5. SEE THE EXISTING SANITARY SEWER STRUCTURE SCHEDULE AND SPECIFICATIONS FOR RECONSTRUCT MH INFORMATION.
6. SEE SANITARY SEWER REPAIR TABULATION FOR SANITARY SERVICE WYE GROUTING/ LINER INFORMATION.
7. ONLY ACTIVE SEWER SERVICES SHALL BE REINSTATED AFTER LINING SEWER MAIN, OR AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL DETERMINE ACTIVE SERVICES DURING PRE-CONSTRUCTION SEWER TELEVISING.
8. REFER TO CLEARING AND GRUBBING SPECIAL PROVISIONS FOR DETAILS ABOUT TREE REMOVAL NEAR CURB STOPS.
9. CONTRACTOR SHALL MAKE USE OF TRENCH BOXES TO MINIMIZE DAMAGE AND/OR IMPACTS TO LANDSCAPING AS DIRECTED BY ENGINEER.

LEGEND:

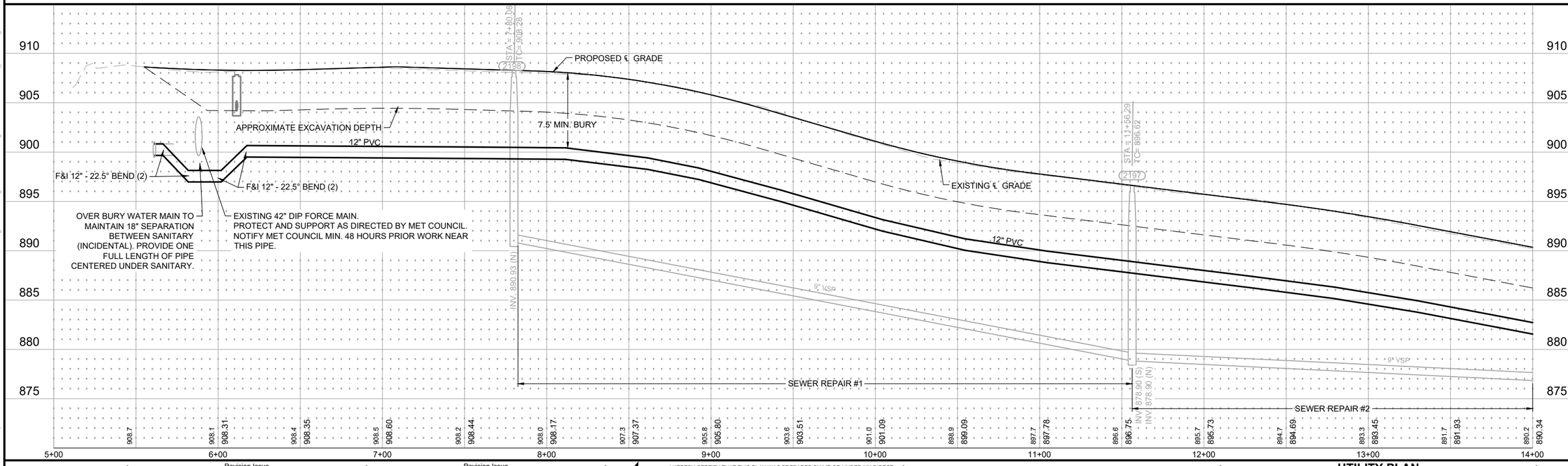
⊗ DENOTES TREE TO BE REMOVED SEE NOTE 8

BENCHMARK EL. 911.30
TNH NW QUAD FRONTAGE RD & ZANE AVE

BENCHMARK EL. 893.68
TNH STA.13+94, 23.4' LT.

NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

ZANE AVENUE



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Drawn By	SRP							STEPHEN PRALL	S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02		of 103
Designed By	SRP							DATE 5/7/2024 LICENSE NO. 54949			
Checked By	SDH										

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SEE SHEET U1

SEE SHEET U3

REMOVE HYDRANT
REMOVE GATE VALVE & BOX
REMOVE 13 LF 6" CIP WATERMAIN
STA. 14+04.00, 20.67 LT
F&I 12"X6" TEE
F&I 10 LF 6" PVC WATERMAIN
F&I 6" GATE VALVE & BOX
F&I HYDRANT

EXIST. R/W (TYP.)

10' MIN.

12" PVC WATERMAIN

SANITARY REPAIR #2

PROTECT EXISTING SAN SERVICE (TYP.)

SANITARY REPAIR #3

GRADING LIMITS (TYP.)

REMOVE HYDRANT
REMOVE GATE VALVE & BOX (2)
REMOVE 42 LF 6" CIP WATERMAIN
STA. 16+37.15, 27.17 RT
F&I 12"X6" TEE
F&I 38 LF 6" PVC WATERMAIN
F&I 6" GATE VALVE & BOX
F&I HYDRANT

REMOVE HYDRANT
REMOVE GATE VALVE & BOX
REMOVE 10 LF 6" CIP WATERMAIN
STA. 17+72.79, 22.67 LT
F&I 12"X6" TEE
F&I 12 LF 6" PVC WATERMAIN
F&I 6" GATE VALVE & BOX
F&I HYDRANT

REMOVE GV & BOX
REMOVE 14 LF WM
F&I 12"x8" TEE
F&I 14 LF 8" PVC WM
F&I 8" GV & BOX
F&I 8" SLEEVE
CONNECT TO EXISTING WM

REMOVE GATE VALVE & BOX
F&I GATE VALVE & BOX

REMOVE WATER SERVICE PIPE
F&I 40 LF 1" PE PIPE
F&I 1" CORPORATION STOP
F&I CURB STOP AND BOX
F&I SADDLE
F&I 2-1" STAINLESS STEEL INSERTS (INCIDENTAL)
CONNECT TO EXISTING WATER SERVICE (TYP.)

EXISTING UTILITY EASEMENT (TYP.)

REMOVE MANHOLE
REMOVE GATE VALVE
F&I 12" GATE VALVE & BOX

REMOVE GATE VALVE & BOX
REMOVE 42 LF WATERMAIN
F&I 12"x6" TEE
F&I 6" GATE VALVE & BOX
F&I 42 LF 6" PVC WATERMAIN
F&I 6" SLEEVE
CONNECT TO EXISTING WATERMAIN

90 LF STEEL CASING PIPE (JACKED).
INSTALL OUTSIDE EXISTING CASING PIPE.
FIELD VERIFY SIZE. 24" DIA (MIN.)
7/16" (MIN.) WALL THICKNESS.
REMOVE EXISTING CASING PIPE AFTER NEW CASING IS INSTALLED (INCIDENTAL).
PROVIDE CATHODIC PROTECTION, CASING SPACER, AND END SEALS (INCIDENTAL).
FILL ANNULAR SPACE WITHIN THE CASING WITH AIR-BLOWN SAND (INCIDENTAL).

REMOVE GATE VALVE & BOX
REMOVE 20 LF 8" WATERMAIN
F&I 12"x8" TEE
F&I 20 LF 8" PVC WATERMAIN
F&I 8" GATE VALVE & BOX
CONNECT TO EXISTING WATERMAIN

REMOVE HYDRANT
REMOVE GATE VAVLE & BOX
REMOVE 11 LF 6" CIP WATERMAIN
STA. 21+69.48, 20.67 LT
F&I 12"X6" TEE
F&I 10 LF 6" PVC WATERMAIN
F&I 6" GATE VALVE & BOX
F&I HYDRANT

REMOVE GATE VALVE & BOX
REMOVE 20 LF WATERMAIN
F&I 12"X4" TEE
F&I 4" GATE VALVE & BOX
F&I 20 LF 4" PVC WATERMAIN
CONNECT TO EXISTING WATERMAIN

TEMPORARY EASEMENT (TYP.)

ZANE AVENUE

LUCE LINE TRAIL

UPRR

scale 15 — 30 0 30 60 feet

NOTES:

1. CONTRACTOR SHALL CONTACT CITY PRIOR TO HYDRANT REMOVAL, SO CITY CAN REMOVE HYDRANT RODS.
2. INSULATION SHALL BE INSTALLED IF: LESS THAN 24" CLEARANCE AT STORM CROSSINGS & LESS THAN 18" AT SANITARY CROSSING, OR AS DIRECTED BY THE ENGINEER.
3. ALL PROPOSED HYDRANTS SHALL HAVE 8' BURY DEPTH.
4. CONTRACTOR SHALL FURNISH & INSTALL NEW SANITARY CASTINGS ON ALL SANITARY STRUCTURES. SEE THE EXISTING SANITARY SEWER STRUCTURE SCHEDULE.
5. SEE THE EXISTING SANITARY SEWER STRUCTURE SCHEDULE AND SPECIFICATIONS FOR RECONSTRUCT MH INFORMATION.
6. SEE SANITARY SEWER REPAIR TABULATION FOR SANITARY SERVICE WYE GROUTING/ LINER INFORMATION.
7. ONLY ACTIVE SEWER SERVICES SHALL BE REINSTATED AFTER LINING SEWER MAIN, OR AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL DETERMINE ACTIVE SERVICES DURING PRE-CONSTRUCTION SEWER TELEVISING.
8. REFER TO CLEARING AND GRUBBING SPECIAL PROVISIONS FOR DETAILS ABOUT TREE REMOVAL NEAR CURB STOPS.
9. CONTRACTOR SHALL MAKE USE OF TRENCH BOXES TO MINIMIZE DAMAGE AND/OR IMPACTS TO LANDSCAPING AS DIRECTED BY ENGINEER.

LEGEND:

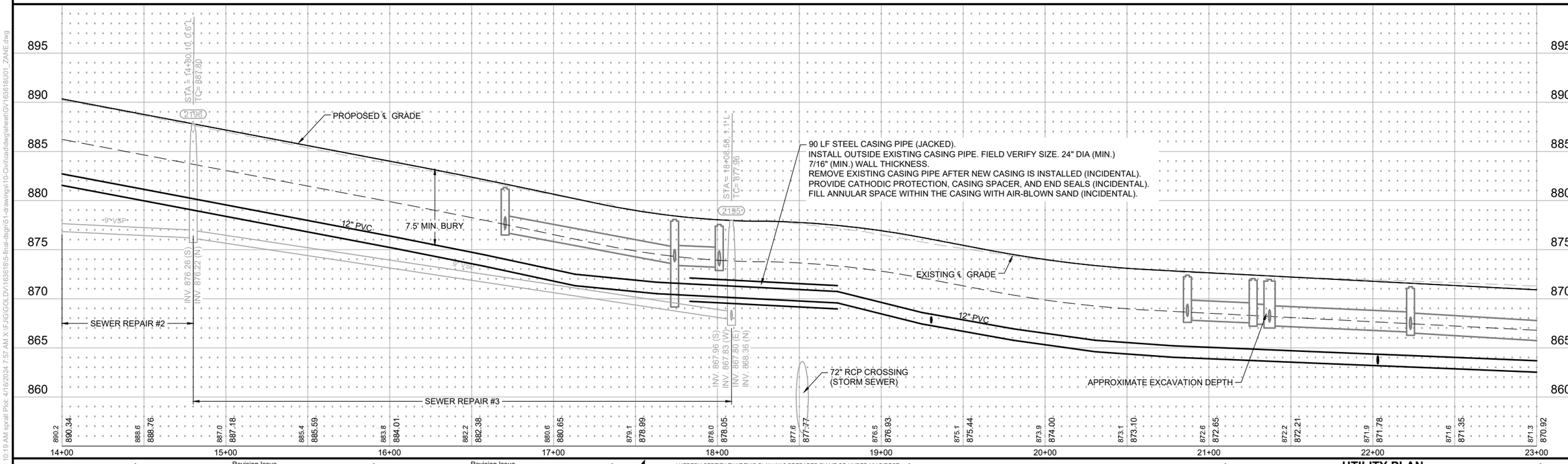
DENOTES TREE TO BE REMOVED
SEE NOTE 8

NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

BENCHMARK EL. 885.60
TNH STA.16+57, 30.0' RT.

BENCHMARK EL. 875.69
TNH STA.21+60, 20.8' LT.

ZANE AVENUE



SEH Project	GOLDV 163618
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Checked By	SDH

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Rev.#	Revision Issue Description	Date
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

UTILITY PLAN
ZANE AVENUE
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

U2
of 103

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REMOVE 35 LF SANITARY SERVICE PIPE
F&I 35LF 6" DUCTILE IRON PIPE SEWER CL 52
F&I 6" CLEANOUT ASSEMBLY W/ 6" SDR-26 RISER.
16 SQ YD 4" INSULATION.
CONNECT TO EXISTING SANITARY SERVICE

EXISTING UTILITY EASEMENT (TYP.)

SEE SHEET U2

REMOVE 20 LF WATERMAIN
F&I 12"x6" TEE
F&I 20 LF 6" PVC WATERMAIN
F&I 6" GATE VALVE & BOX
F&I 6" SLEEVE
CONNECT TO EXISTING WATERMAIN
THIS EXISTING WATER SERVICE LOCATION IS APPROXIMATE AND SIZE IS ESTIMATED (FIELD VERIFY)

REMOVE HYDRANT
REMOVE GATE VALVE & BOX
REMOVE 14 LF 6" CIP WATERMAIN
STA. 25+40.92, 20.67 LT
F&I 12"X6" TEE
F&I 10 LF 6" PVC WATERMAIN
F&I 6" GATE VALVE & BOX
F&I HYDRANT

F&I 12" GATE VALVE & BOX

8" DIP SAN

12" PVC WATERMAIN

F&I 12"-22½° BEND

SANITARY REPAIR #4

F&I 12" GATE VALVE & BOX
F&I 12"x8" TEE

REMOVE MANHOLE
F&I MANHOLE

REMOVE GATE VALVE & BOX
REMOVE 40 LF WATERMAIN
F&I 12"x6" TEE
F&I 40 LF 6" PVC WATERMAIN
F&I 6" GATE VALVE & BOX
F&I 6" SLEEVE
CONNECT TO EXISTING WATERMAIN

TEMPORARY EASEMENT (TYP.)

THIS EXISTING WATER SERVICE LOCATION IS APPROXIMATE AND SIZE IS ESTIMATED (FIELD VERIFY)

REMOVE WATER SERVICE PIPE
F&I 40 LF 2" PE PIPE
F&I 2" CORPORATION STOP
F&I CURB STOP AND BOX
F&I SADDLE
F&I 2-2" STAINLESS STEEL INSERTS (INCIDENTAL)
CONNECT TO EXISTING WATER SERVICE (TYP.)

10' MIN.

SANITARY REPAIR #5

4" INSULATION (TYP.)

THIS EXISTING WATER SERVICE LOCATION IS APPROXIMATE AND SIZE IS ESTIMATED (FIELD VERIFY)

REMOVE GV & BOX
REMOVE 40 LF WM
F&I 12"x6" TEE
F&I 40 LF 6" PVC WM
F&I 6" GV & BOX
F&I 6" SLEEVE
CONNECT TO EXISTING WM

REMOVE HYDRANT
REMOVE GATE VALVE & BOX
REMOVE 13 LF 6" CIP WATERMAIN
STA. 29+59.20, 20.67 LT
F&I 12"X6" TEE
F&I 10 LF 6" PVC WATERMAIN
F&I 6" GATE VALVE & BOX
F&I HYDRANT

EXIST. R/W (TYP.)

8" DIP SAN

SANITARY REPAIR #6

PROTECT EXISTING SAN SERVICE (TYP.)

GRADING LIMITS (TYP.)

THIS EXISTING WATER SERVICE LOCATION IS APPROXIMATE AND SIZE IS ESTIMATED (FIELD VERIFY)

SEE SHEET U4

SEE SHEET U5

NOTES:

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9. CONTRACTOR SHALL MAKE USE OF TRENCH BOXES TO MINIMIZE DAMAGE AND/OR IMPACTS TO LANDSCAPING AS DIRECTED BY ENGINEER.

LEGEND:

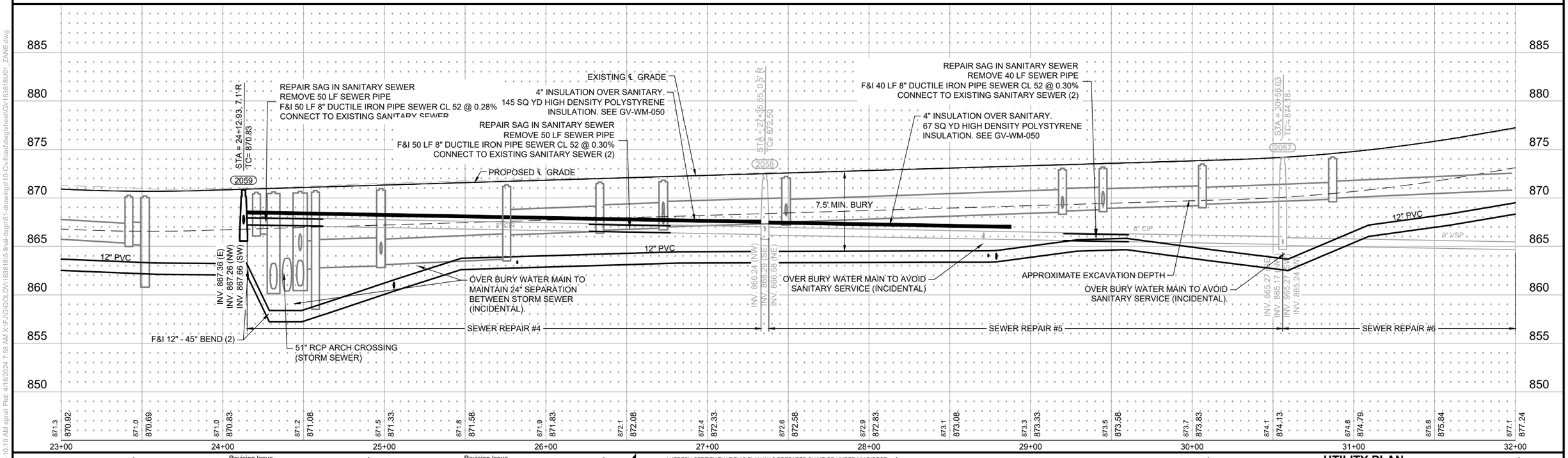
⊠ DENOTES TREE TO BE REMOVED SEE NOTE 8

NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

BENCHMARK EL. 875.36
TNH STA.25+52, 21.7' LT.

BENCHMARK EL. 876.25
TNH STA.29+37, 22.0' LT.

ZANE AVENUE



SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
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Designed By	SRP						
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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

UTILITY PLAN
ZANE AVENUE
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

U3
of 103

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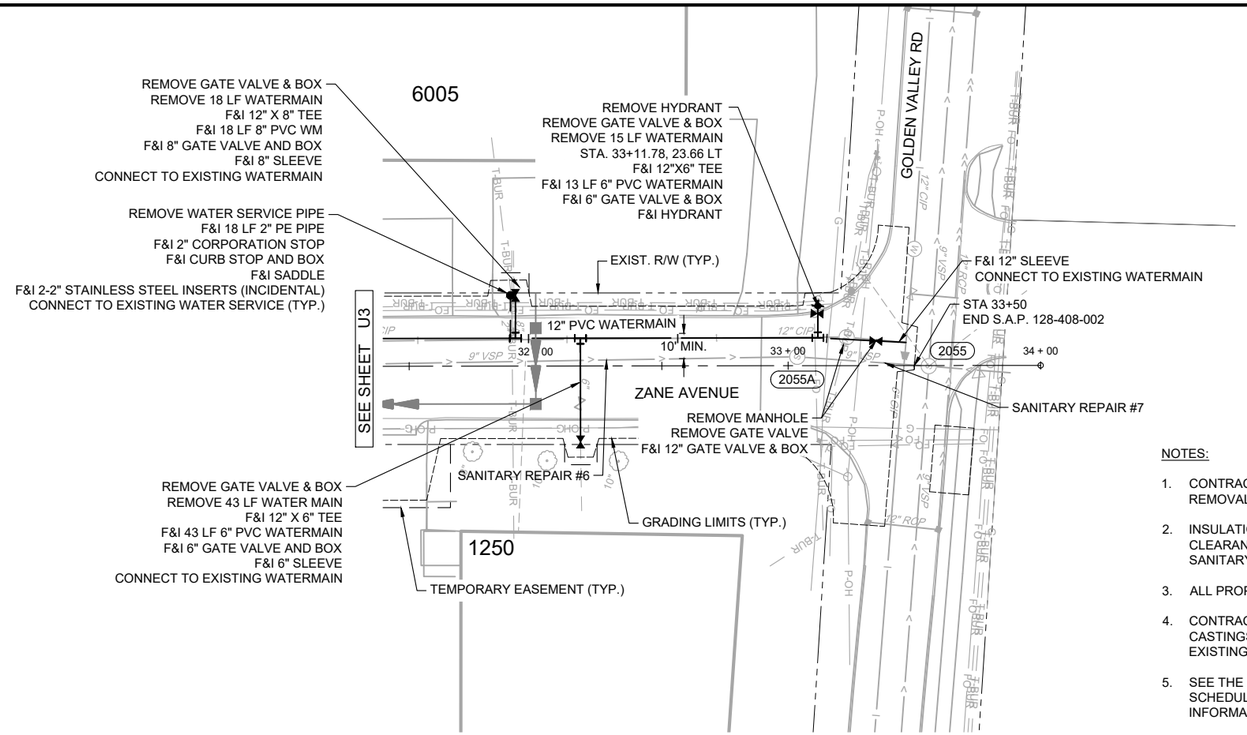

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ZANE AVENUE

NOTES:

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LEGEND:

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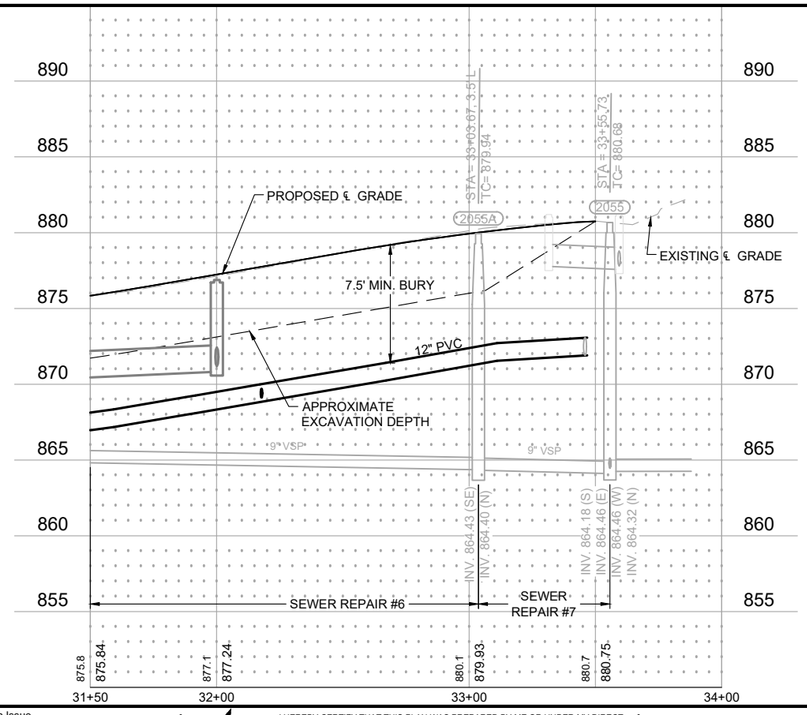
BENCHMARK EL. 883.69
TNH SW QUAD GOLDEN VALLEY RD & ZANE AVE



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Drawn By	SRP	.			.			STEPHEN PRALL DATE 5/7/2024 LICENSE NO. 54949			of 103
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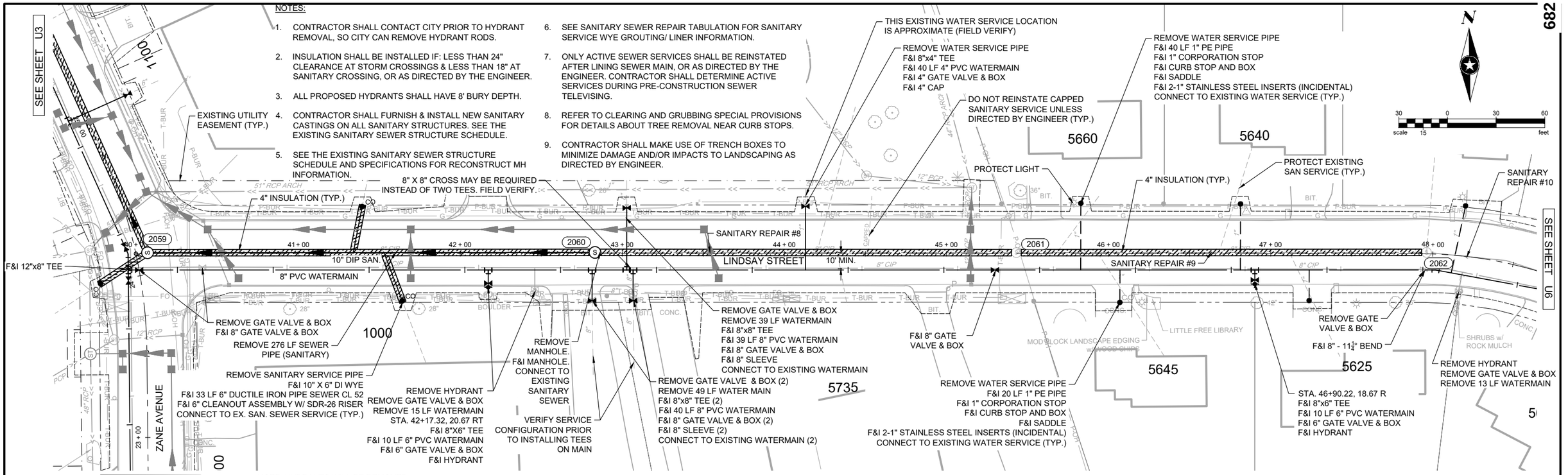
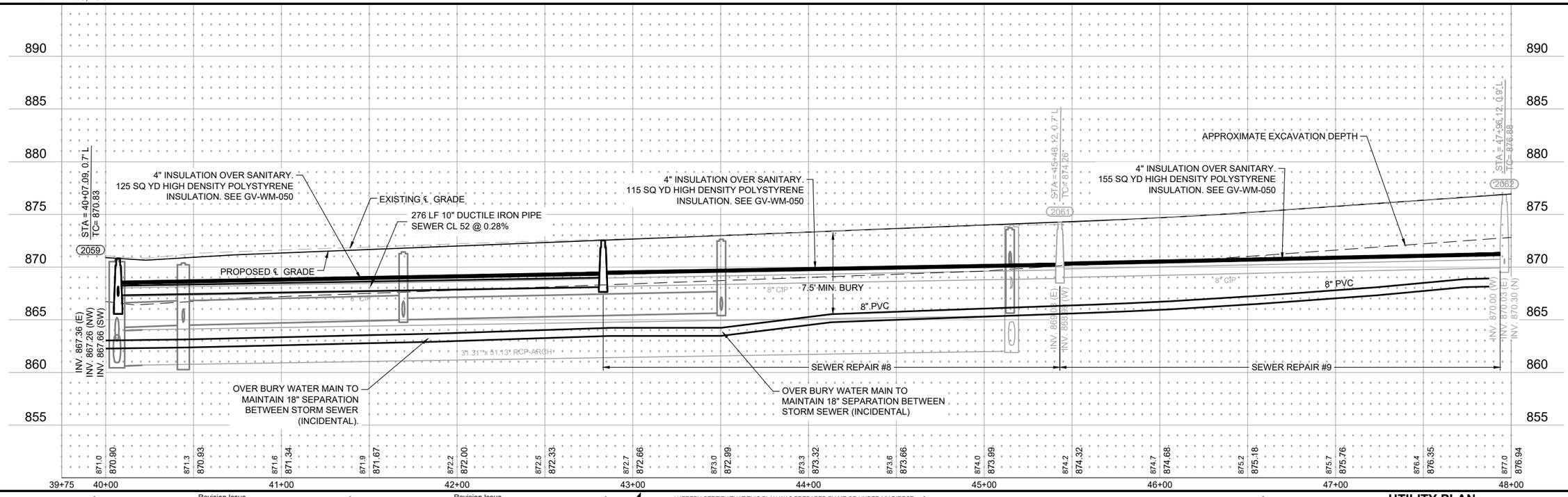


NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

LINDSAY STREET

BENCHMARK EL. 875.89
TNH STA.42+46, 23.0' RT.

BENCHMARK EL. 881.31
TNH STA.48+18, 22.6' RT.



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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

UTILITY PLAN
LINDSAY STREET
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

U5
of 103

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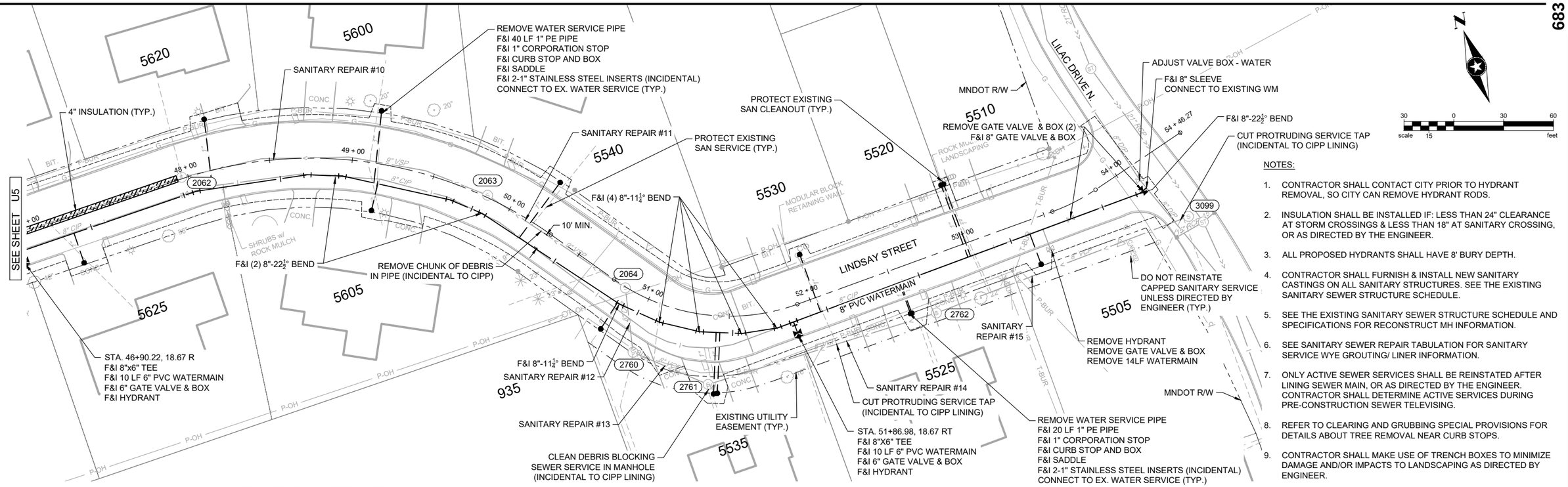

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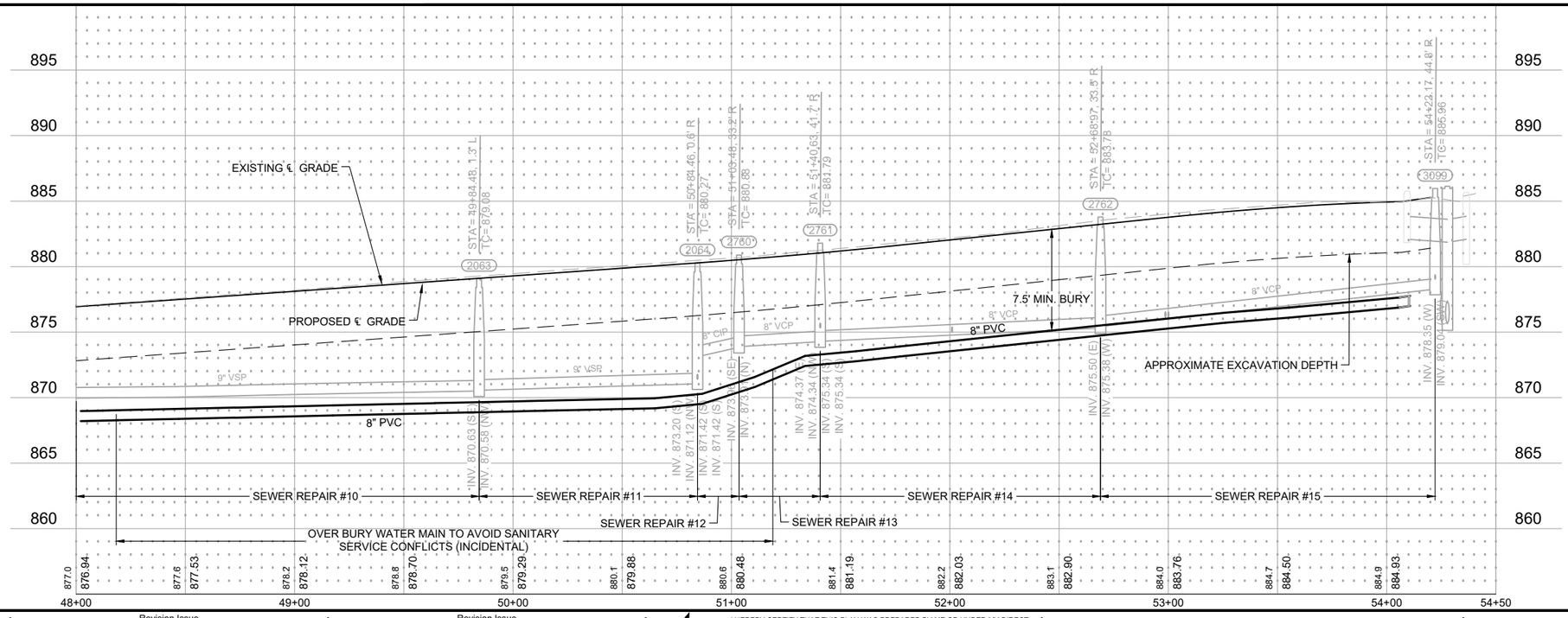
BENCHMARK EL. 881.31
TNH STA.48+18, 22.6' RT.

NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

LINDSAY STREET

BENCHMARK EL. 889.75
TNH STA.53+50, 21.9' RT.



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Drawn By	SRP								
Designed By	SRP								
Checked By	SDH								

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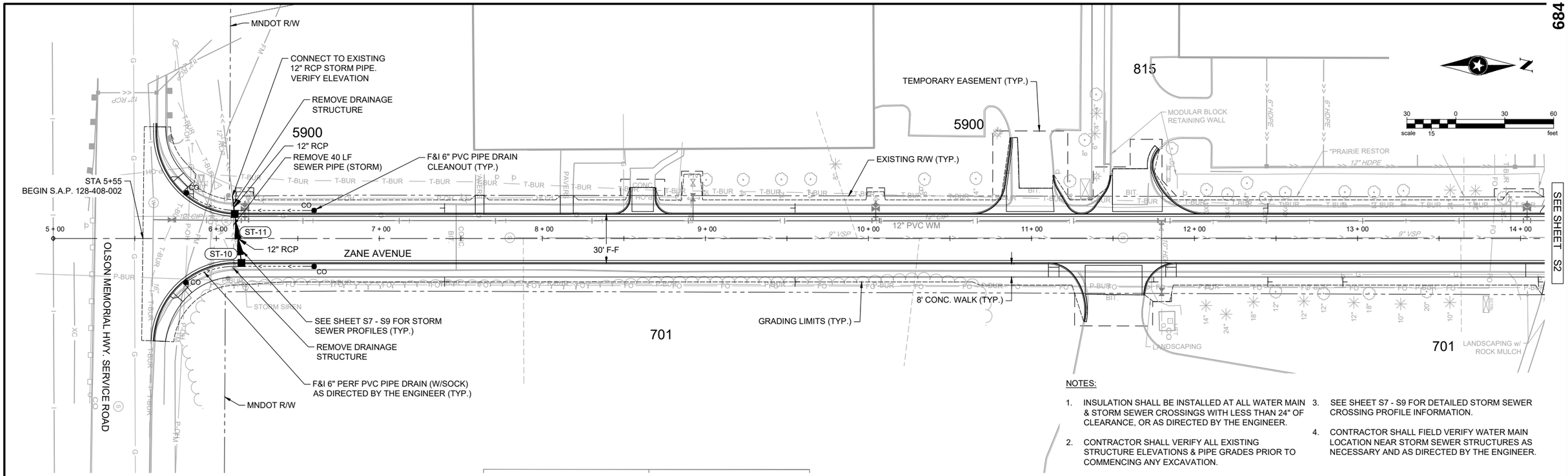


SEE SHEET S2

NOTES:

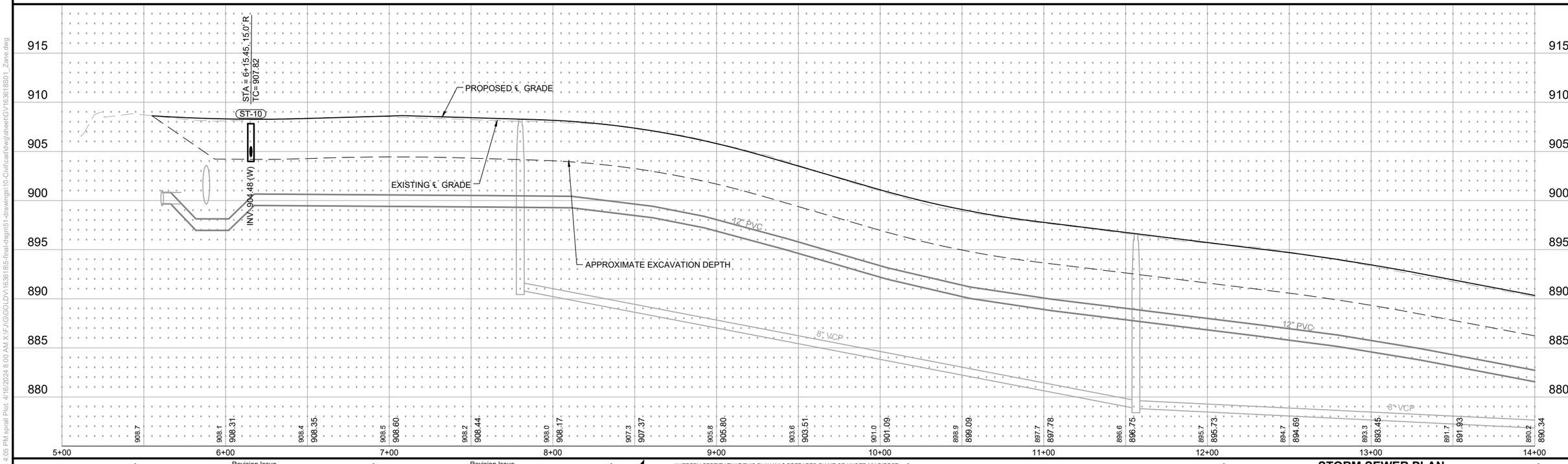
1. INSULATION SHALL BE INSTALLED AT ALL WATER MAIN & STORM SEWER CROSSINGS WITH LESS THAN 24" OF CLEARANCE, OR AS DIRECTED BY THE ENGINEER.
2. CONTRACTOR SHALL VERIFY ALL EXISTING STRUCTURE ELEVATIONS & PIPE GRADES PRIOR TO COMMENCING ANY EXCAVATION.
3. SEE SHEET S7 - S9 FOR DETAILED STORM SEWER CROSSING PROFILE INFORMATION.
4. CONTRACTOR SHALL FIELD VERIFY WATER MAIN LOCATION NEAR STORM SEWER STRUCTURES AS NECESSARY AND AS DIRECTED BY THE ENGINEER.

BENCHMARK EL. 911.30
TNH NW QUAD FRONTAGE RD & ZANE AVE

NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

ZANE AVENUE

BENCHMARK EL. 893.68
TNH STA.13+94, 23.4' LT.



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Designed By	SRP								
Checked By	SDH								

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

STORM SEWER PLAN
ZANE AVENUE
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

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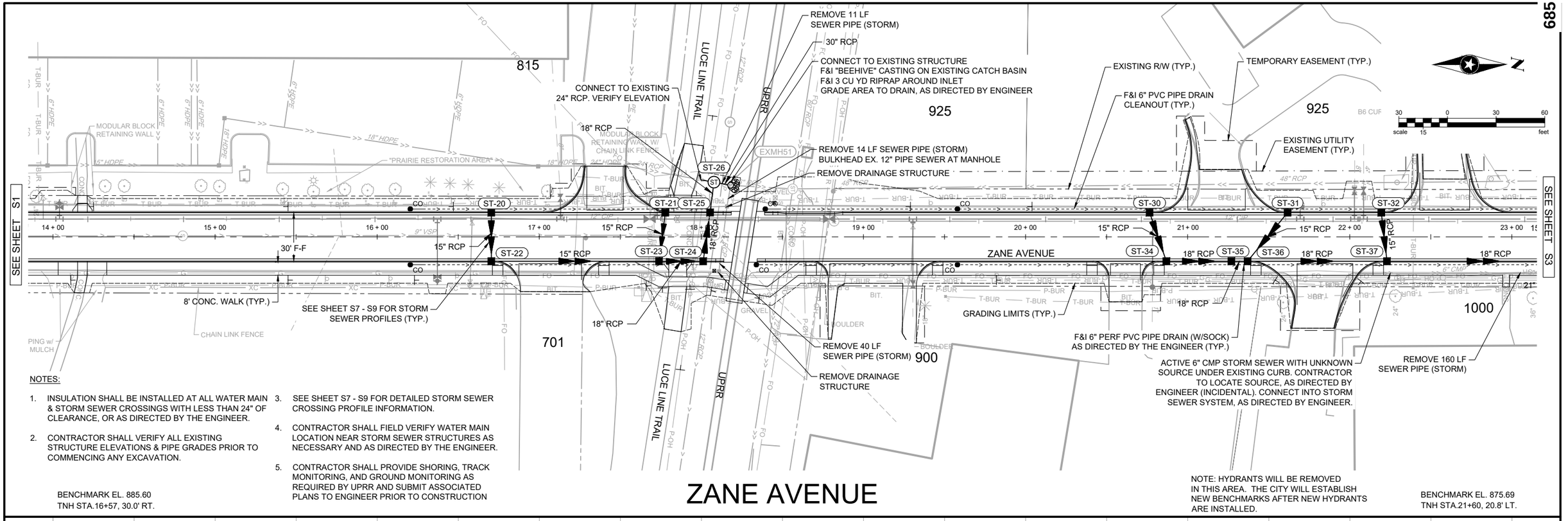

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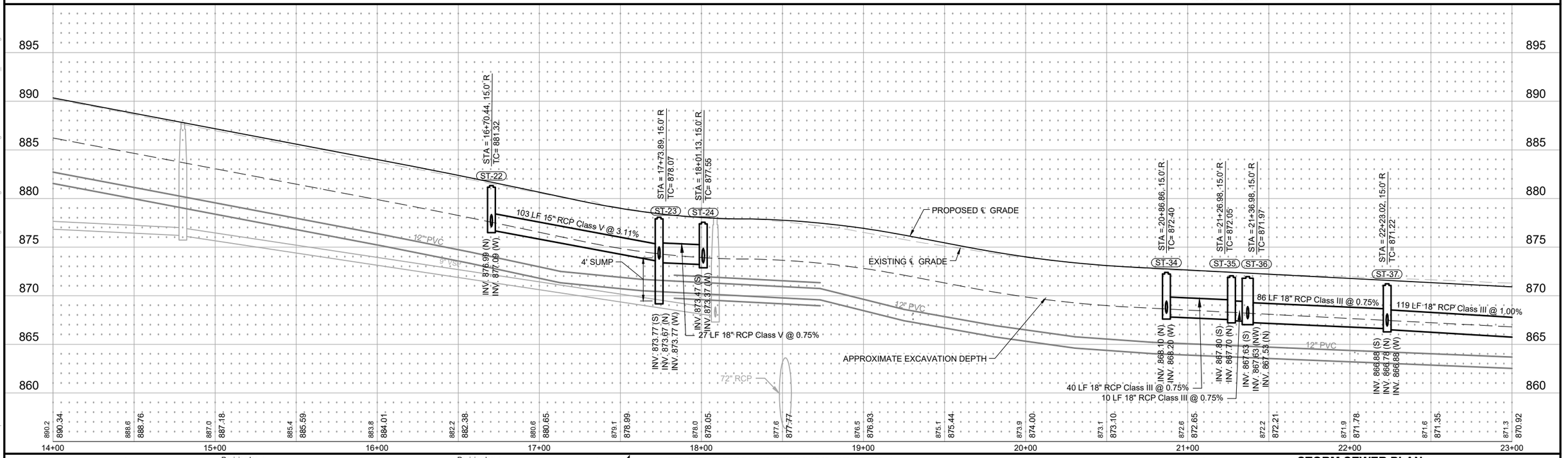
4. CONTRACTOR SHALL FIELD VERIFY WATER MAIN LOCATION NEAR STORM SEWER STRUCTURES AS NECESSARY AND AS DIRECTED BY THE ENGINEER.
5. CONTRACTOR SHALL PROVIDE SHORING, TRACK MONITORING, AND GROUND MONITORING AS REQUIRED BY UPRR AND SUBMIT ASSOCIATED PLANS TO ENGINEER PRIOR TO CONSTRUCTION

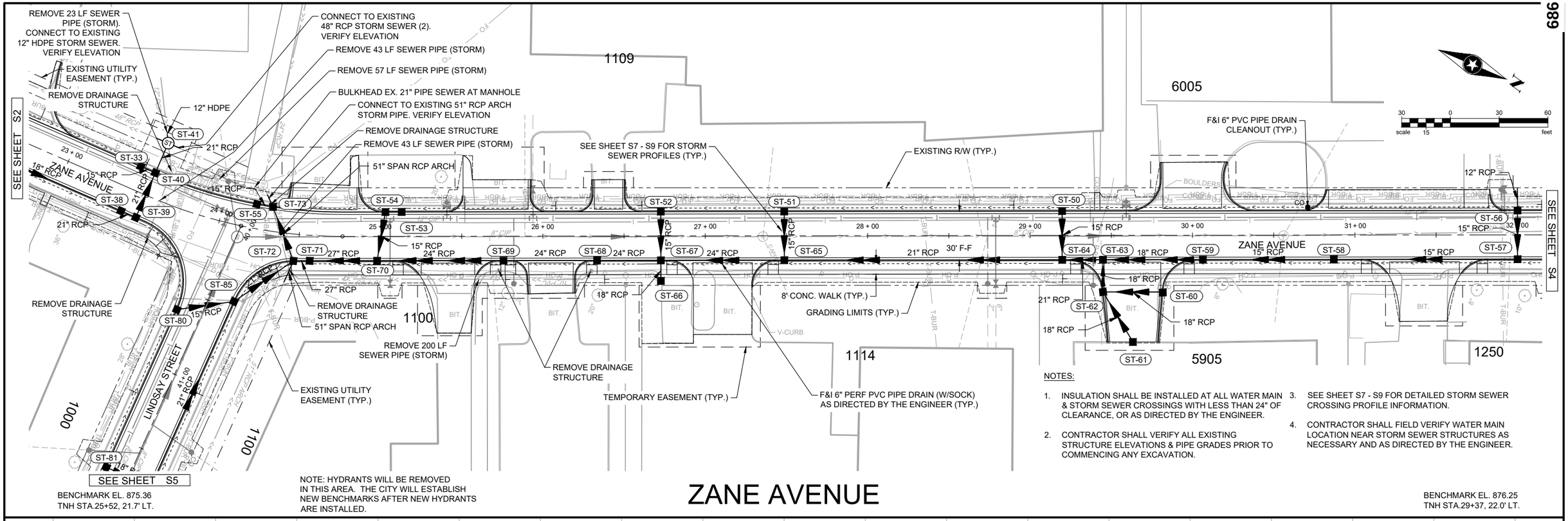
BENCHMARK EL. 885.60
TNH STA.16+57, 30.0' RT.

NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

BENCHMARK EL. 875.69
TNH STA.21+60, 20.8' LT.

ZANE AVENUE





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TNH STA.25+52, 21.7' LT.

NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

ZANE AVENUE

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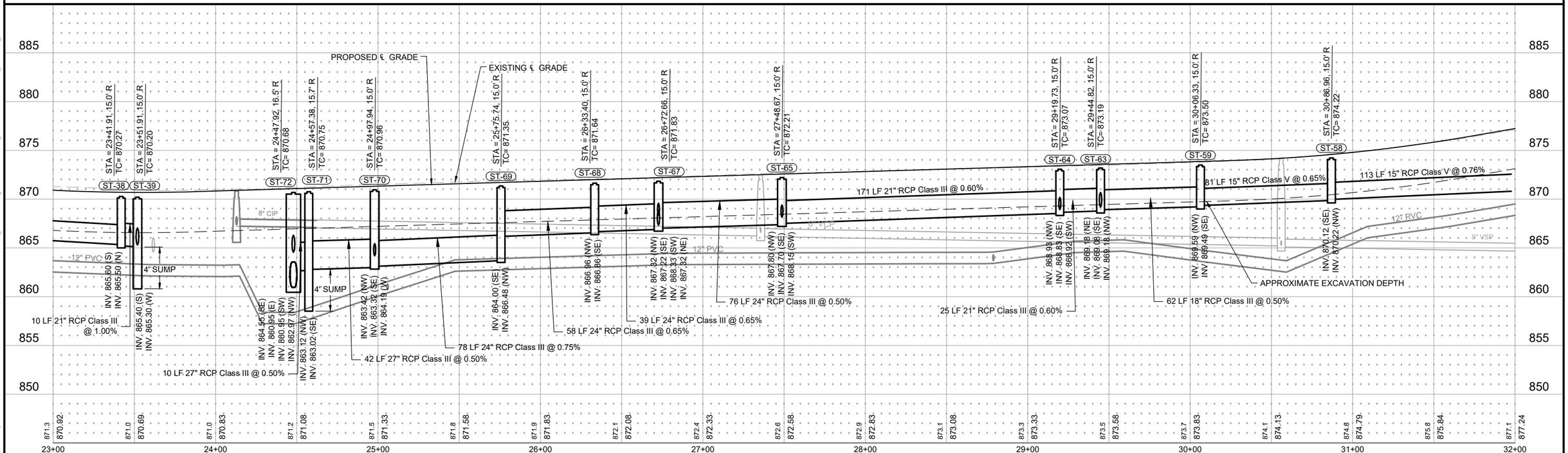
TNH STA.29+37, 22.0' LT.



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Designed By	SRP
Checked By	SDH

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STEPHEN PRALL
DATE 5/7/2024 LICENSE NO. 54949

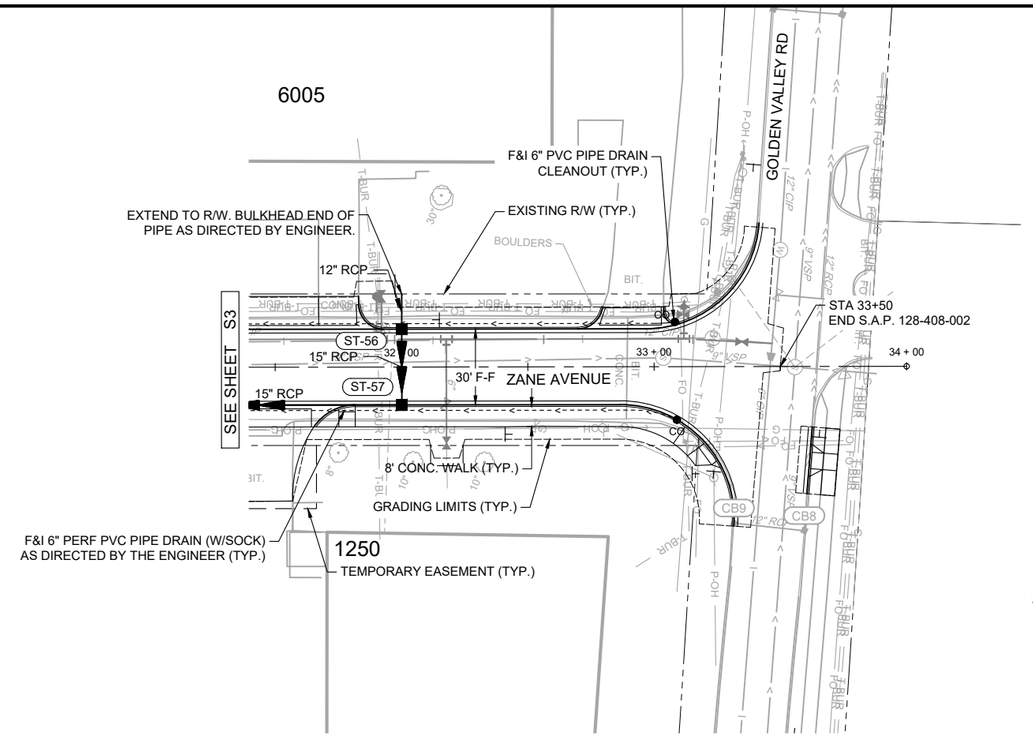
GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

STORM SEWER PLAN
ZANE AVENUE
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

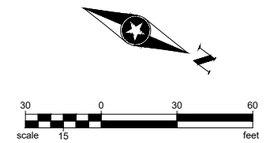
S3
of 103

Save: 2/21/2024 4:05 PM sprall Plot: 4/16/2024 8:01 AM X:\F-J\G\GOLDV\163618\5-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet\GV163618S01_Zane.dwg



NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

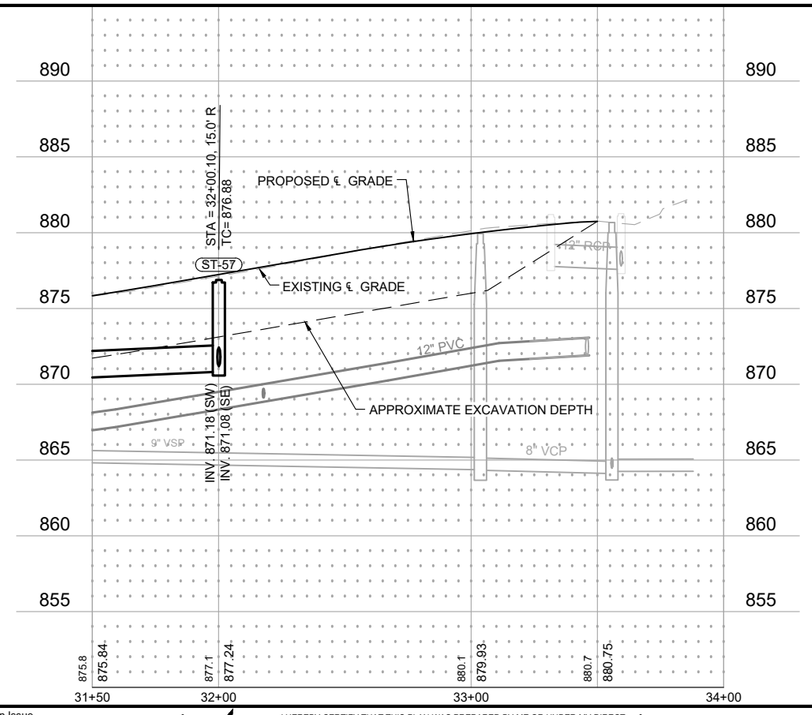
ZANE AVENUE



NOTES:

1. INSULATION SHALL BE INSTALLED AT ALL WATER MAIN & STORM SEWER CROSSINGS WITH LESS THAN 24" OF CLEARANCE, OR AS DIRECTED BY THE ENGINEER.
2. CONTRACTOR SHALL VERIFY ALL EXISTING STRUCTURE ELEVATIONS & PIPE GRADES PRIOR TO COMMENCING ANY EXCAVATION.
3. SEE SHEET S7 - S9 FOR DETAILED STORM SEWER CROSSING PROFILE INFORMATION.
4. CONTRACTOR SHALL FIELD VERIFY WATER MAIN LOCATION NEAR STORM SEWER STRUCTURES AS NECESSARY AND AS DIRECTED BY THE ENGINEER.

BENCHMARK EL. 883.69
TNH SW QUAD GOLDEN VALLEY RD & ZANE AVE



SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	
Drawn By	SRP	.			.			
Designed By	SRP	.			.			
Checked By	SDH	.			.			

SEH

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

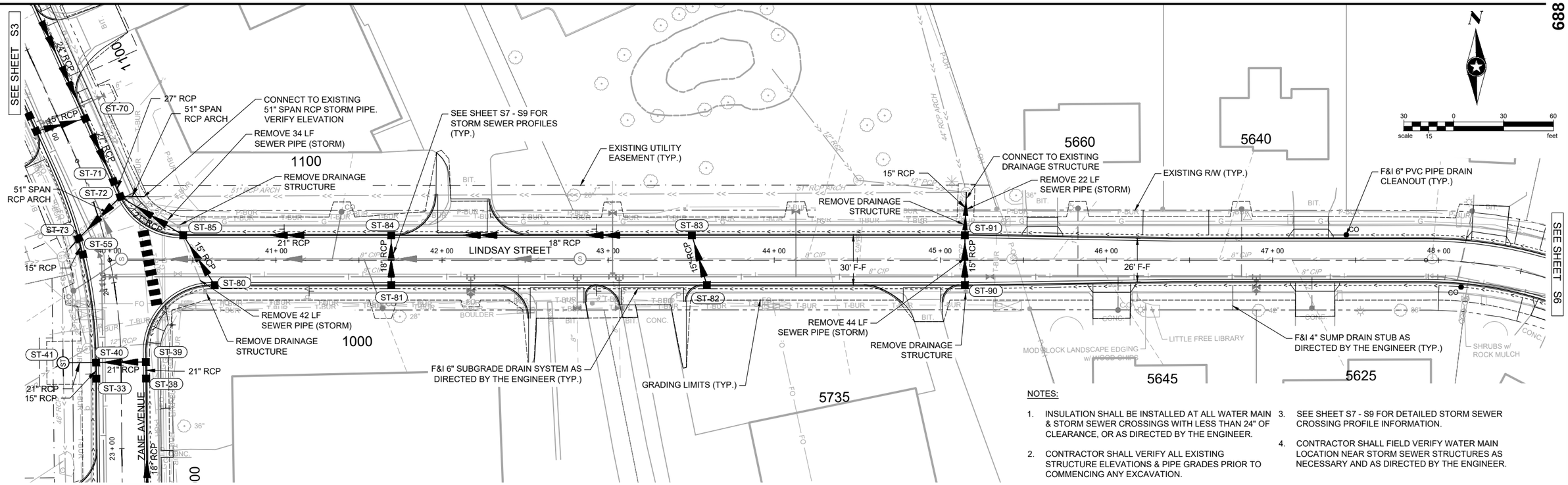
DATE 5/7/2024 STEPHEN PRALL LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

STORM SEWER PLAN
ZANE AVENUE
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

S4
of 103

Save: 2/21/2024 4:05 PM sprall Plot: 4/16/2024 8:01 AM X:\F-J\G\GOLDV\163618\5-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet\GV163618S01_Zane.dwg



BENCHMARK EL. 875.89
TNH STA.42+46, 23.0' RT.

NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

BENCHMARK EL. 881.31
TNH STA.48+18, 22.6' RT.

NOTES:

1. INSULATION SHALL BE INSTALLED AT ALL WATER MAIN & STORM SEWER CROSSINGS WITH LESS THAN 24" OF CLEARANCE, OR AS DIRECTED BY THE ENGINEER.
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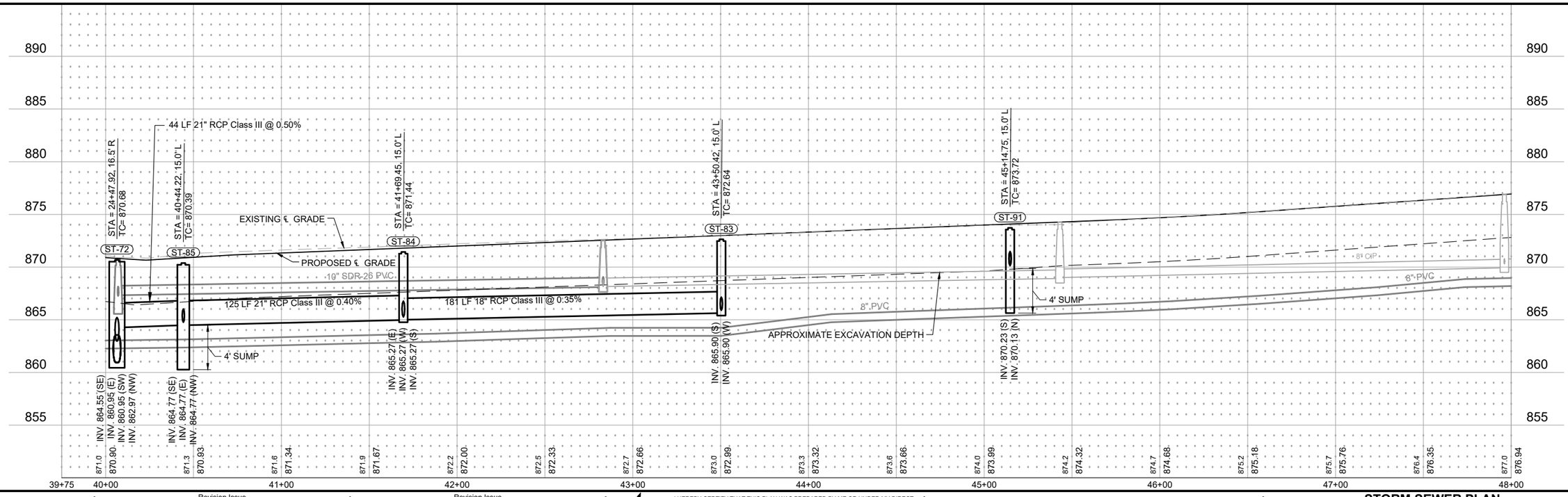
LINDSAY STREET



SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	**GOLDEN VALLEY, MINNESOTA**
Drawn By	SRP	.			.			STEPHEN PRALL	**S.A.P. 128-408-002 (ZANE AVE.)** **CITY PROJECT NO. 23-02**
Designed By	SRP	.			.			DATE 5/7/2024 LICENSE NO. 54949	**STORM SEWER PLAN LINDSAY STREET ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS**
Checked By	SDH	.			.				

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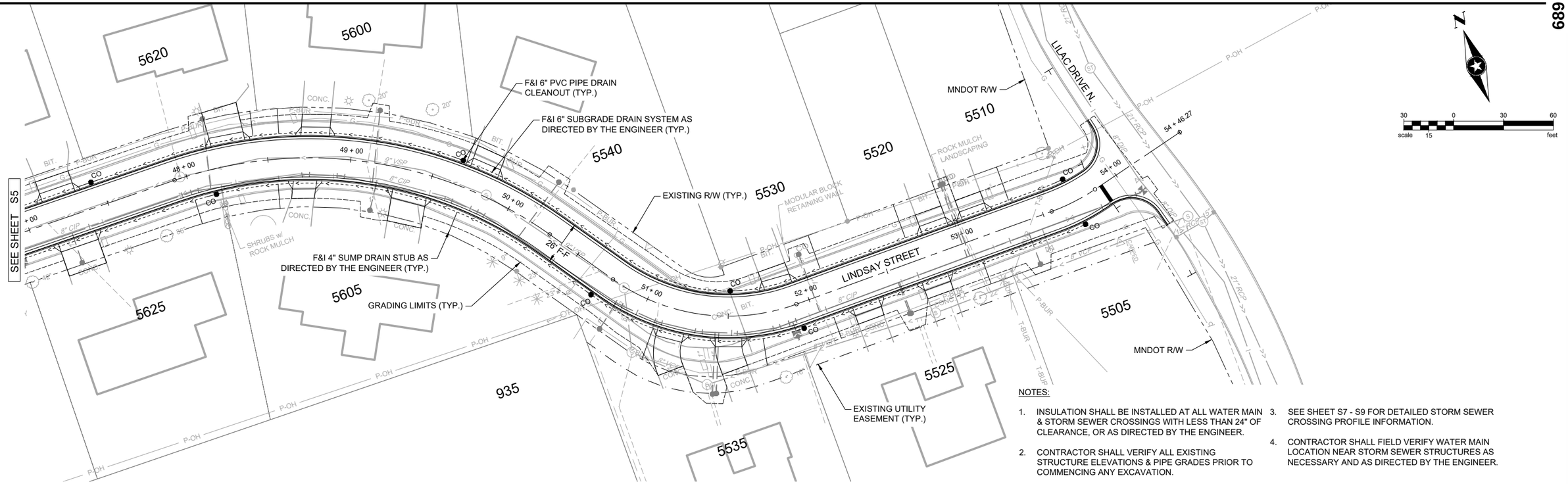

NOTES:

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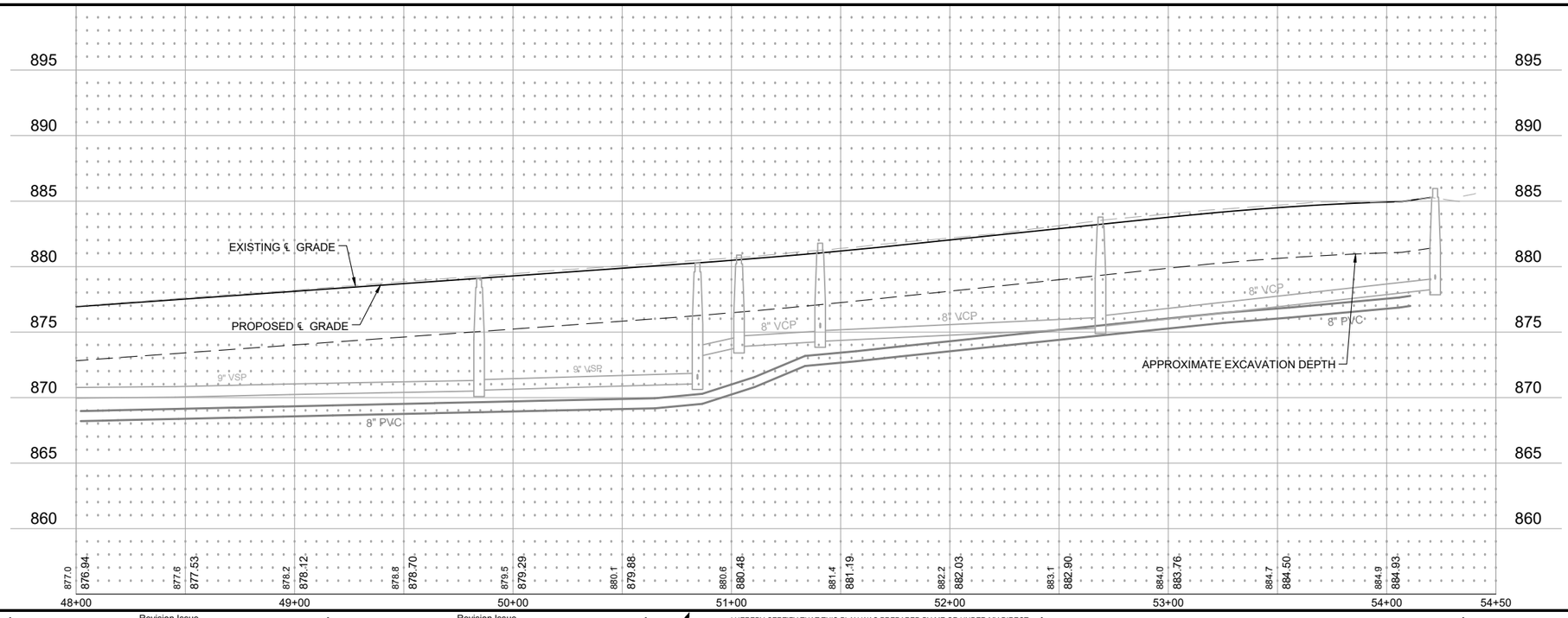
4. CONTRACTOR SHALL FIELD VERIFY WATER MAIN LOCATION NEAR STORM SEWER STRUCTURES AS NECESSARY AND AS DIRECTED BY THE ENGINEER.

BENCHMARK EL. 881.31
TNH STA.48+18, 22.6' RT.

NOTE: HYDRANTS WILL BE REMOVED IN THIS AREA. THE CITY WILL ESTABLISH NEW BENCHMARKS AFTER NEW HYDRANTS ARE INSTALLED.

LINDSAY STREET

BENCHMARK EL. 889.75
TNH STA.53+50, 21.9' RT.



SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	**GOLDEN VALLEY, MINNESOTA**	**STORM SEWER PLAN LINDSAY STREET ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS**	S6
Drawn By	SRP							STEPHEN PRALL	S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02		of 103
Designed By	SRP							DATE 5/7/2024 LICENSE NO. 54949			
Checked By	SDH										

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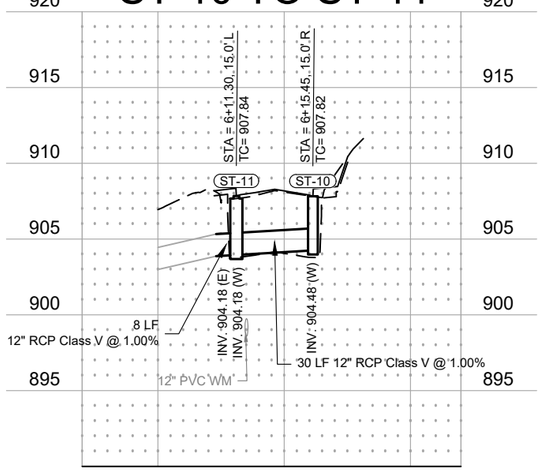
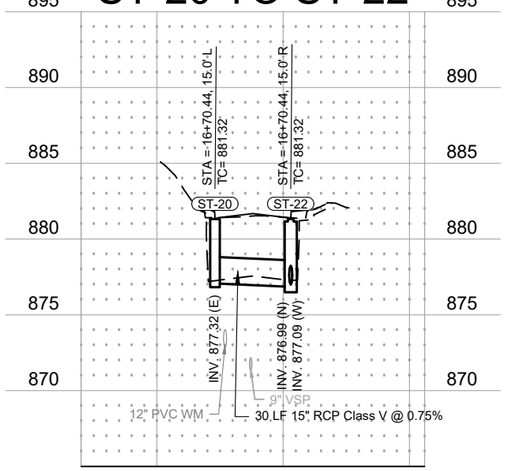
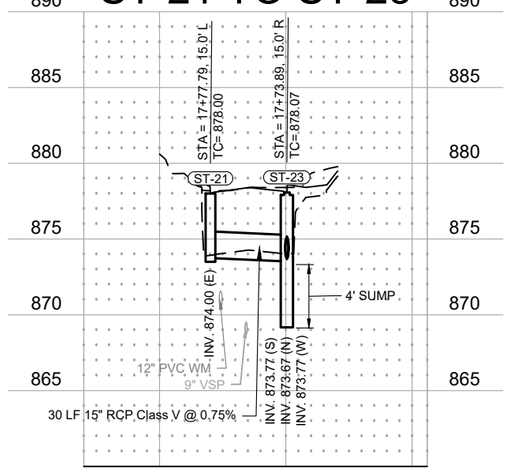
ST-10 TO ST-11



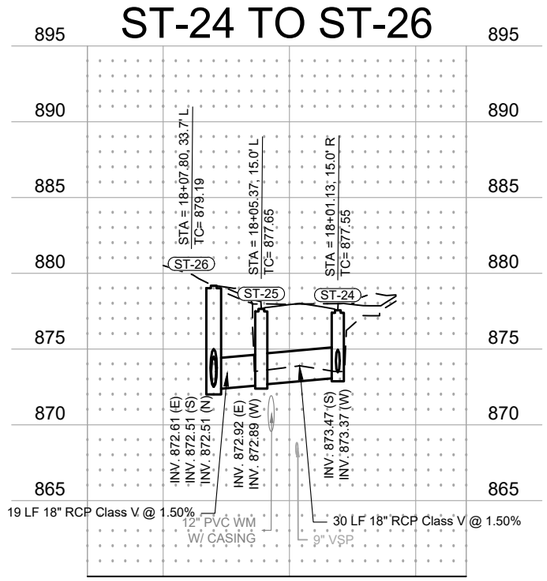
ST-20 TO ST-22



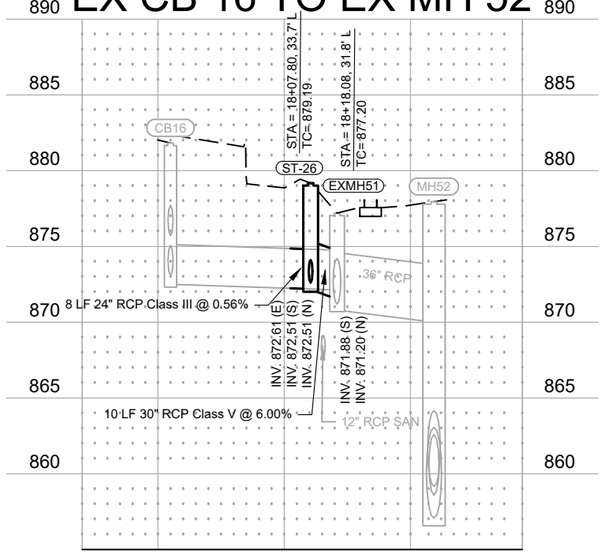
ST-21 TO ST-23



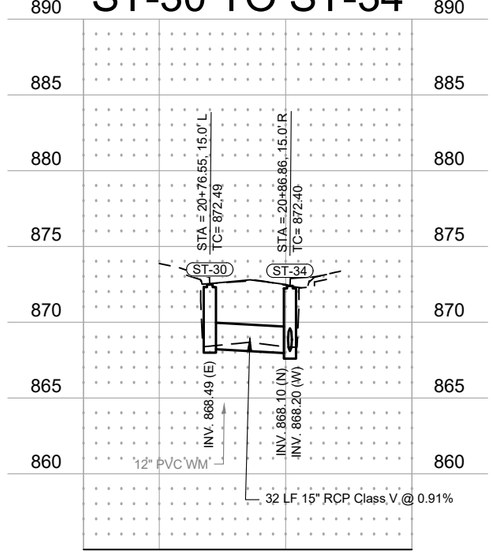
ST-24 TO ST-26



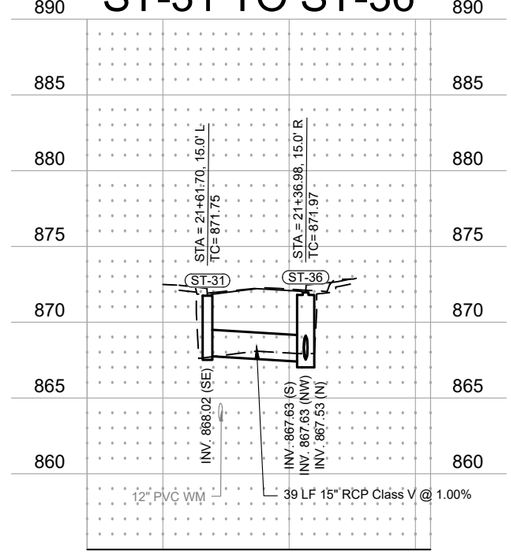
EX CB 16 TO EX MH 52



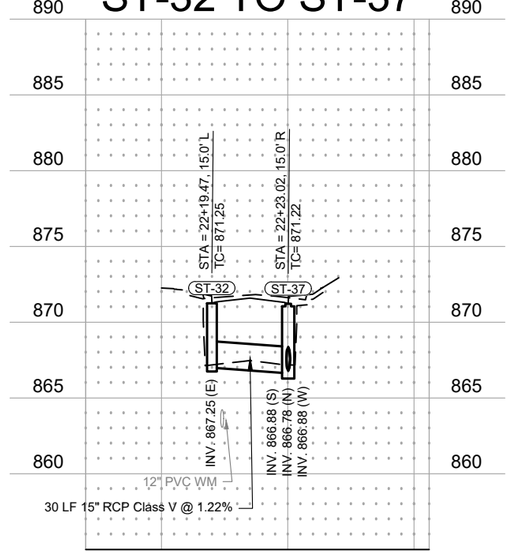
ST-30 TO ST-34



ST-31 TO ST-36



ST-32 TO ST-37



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SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date	
Drawn By	SRP	.			.			
Designed By	SRP	.			.			
Checked By	SDH	.			.			

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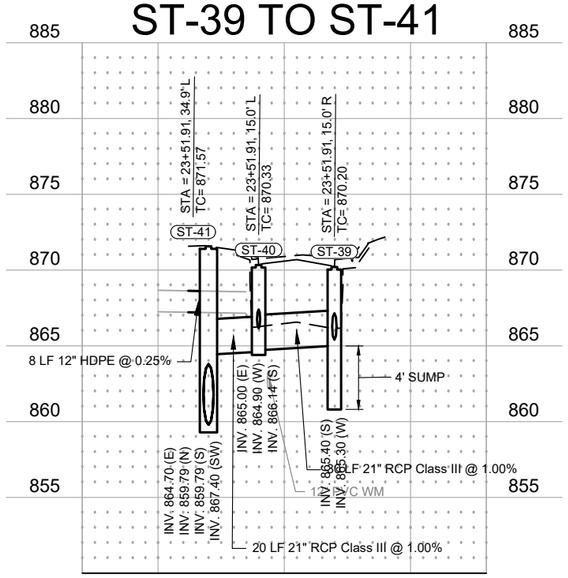
DATE 5/7/2024 STEPHEN PRALL LICENSE NO. 54949

GOLDEN VALLEY, MINNESOTA

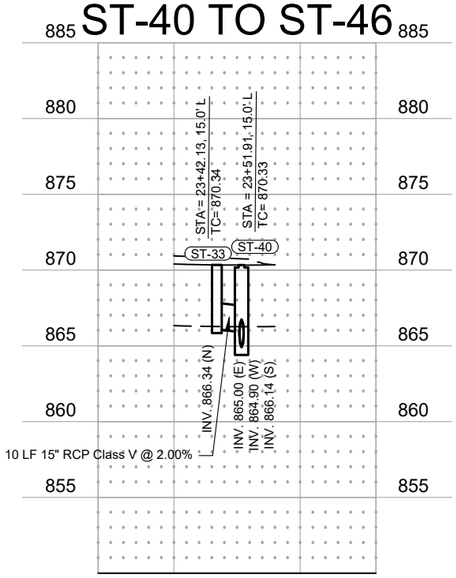
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

STORM SEWER PROFILES
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

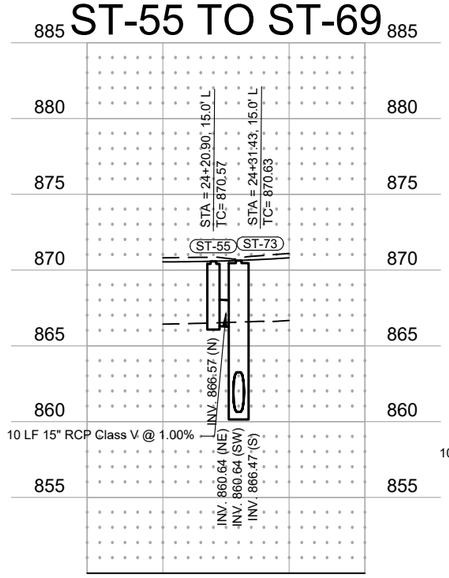
ST-39 TO ST-41



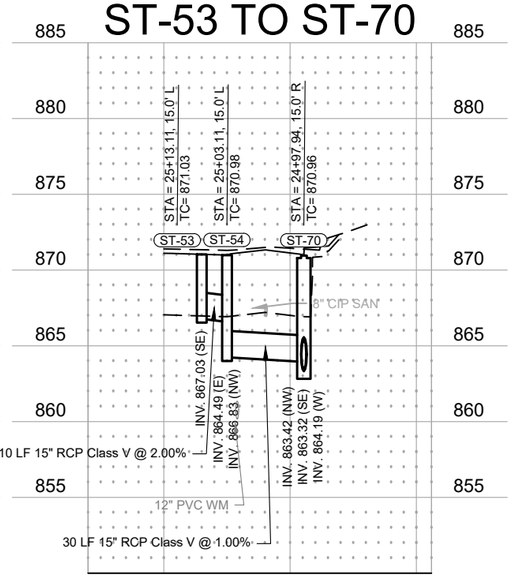
ST-40 TO ST-46



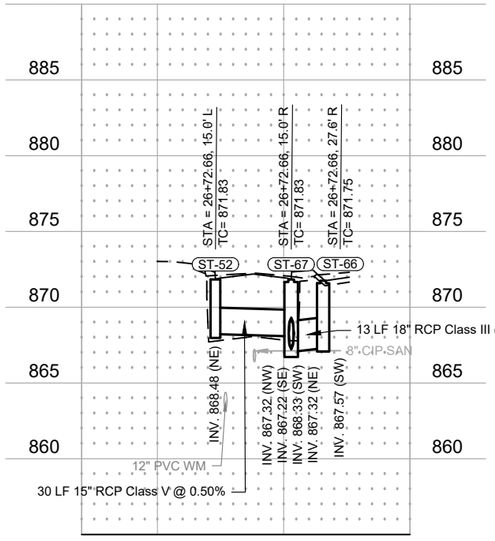
ST-55 TO ST-69



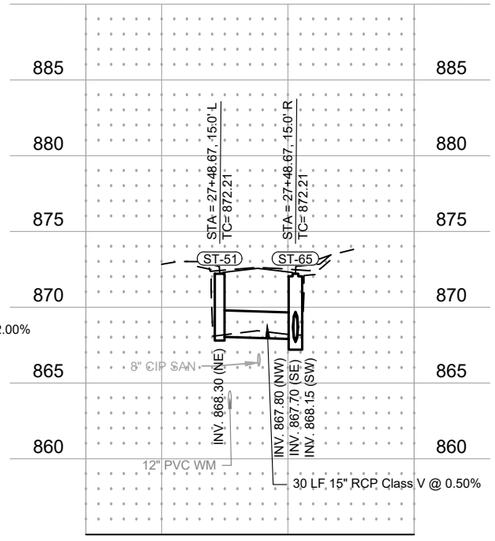
ST-53 TO ST-70



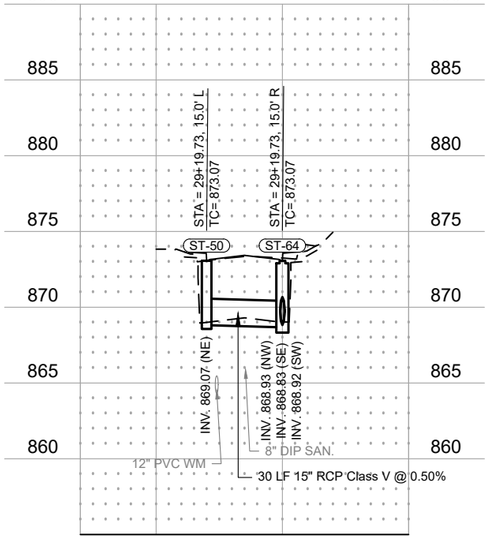
ST-52 TO ST-66



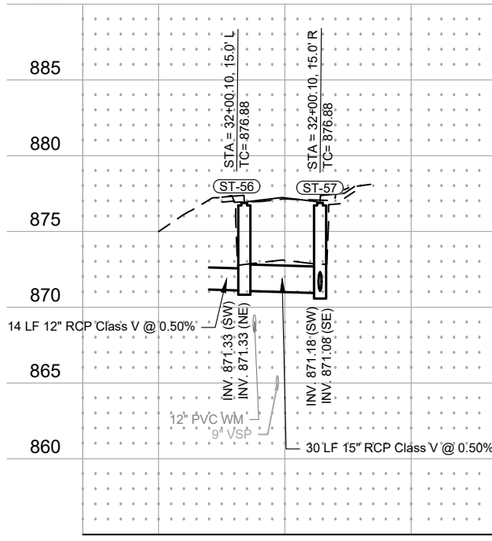
ST-51 TO ST-65



ST-50 TO ST-64



ST-56 TO ST-57



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SEH Project	GOLDV 163618	Rev.#	Revision Issue Description	Date	Rev.#	Revision Issue Description	Date
Drawn By	SRP	.			.		
Designed By	SRP	.			.		
Checked By	SDH	.			.		

SEH

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DATE 5/7/2024 STEPHEN PRALL LICENSE NO. 54949

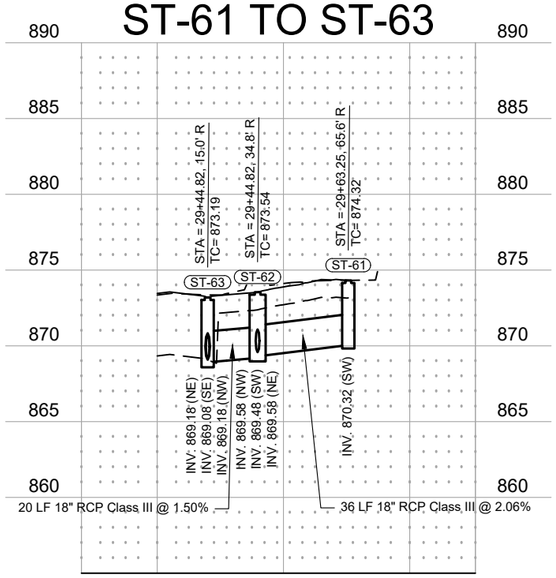
GOLDEN VALLEY, MINNESOTA

S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

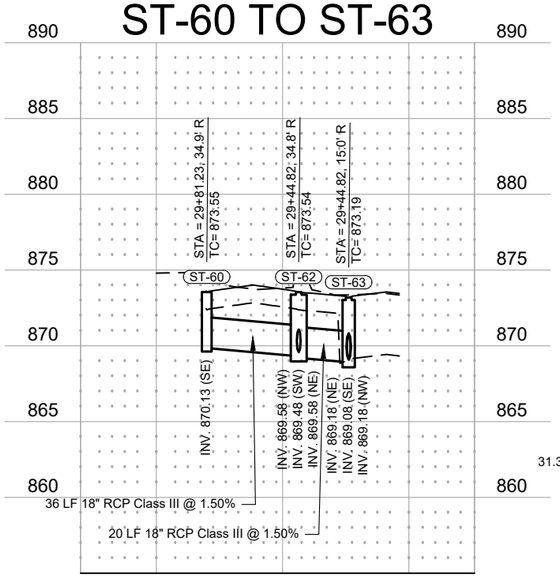
STORM SEWER PROFILES ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

S8

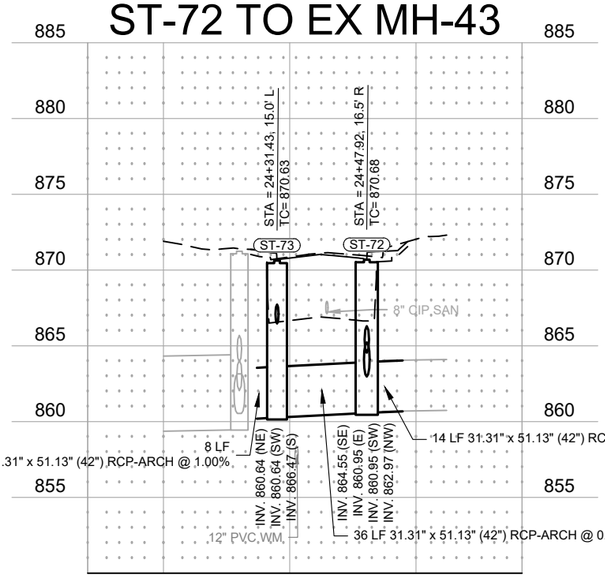
ST-61 TO ST-63



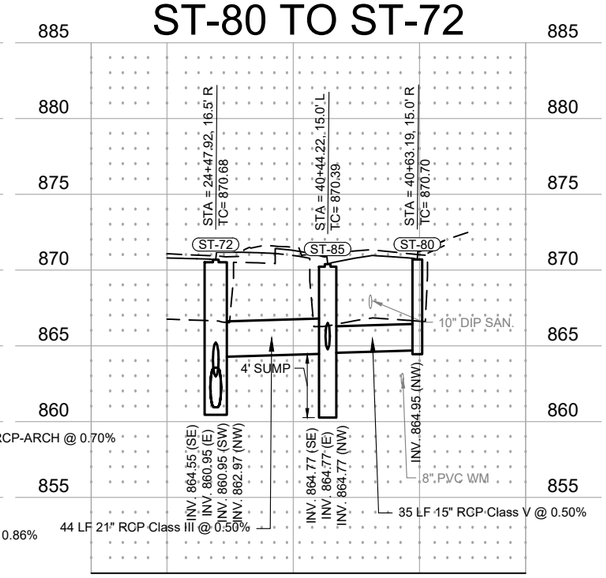
ST-60 TO ST-63



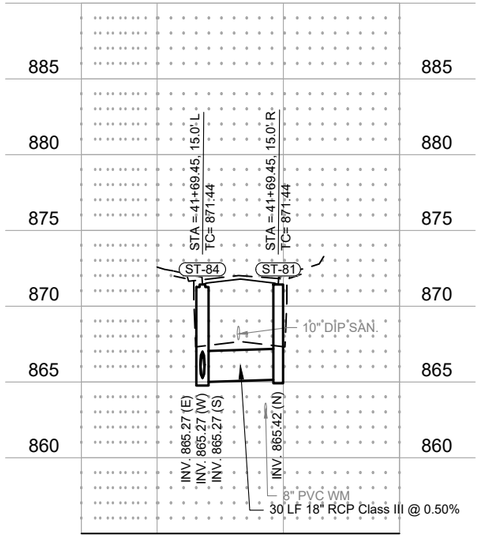
ST-72 TO EX MH-43



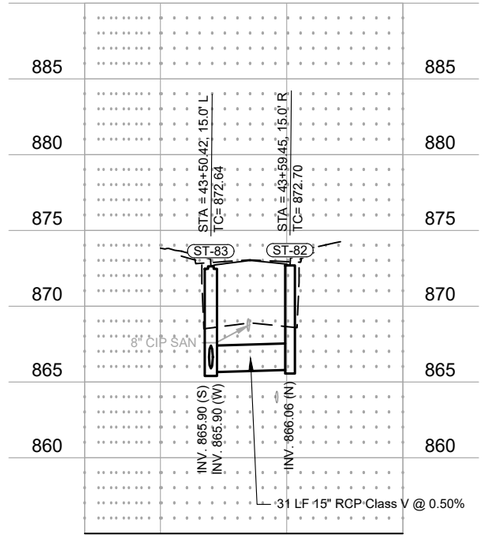
ST-80 TO ST-72



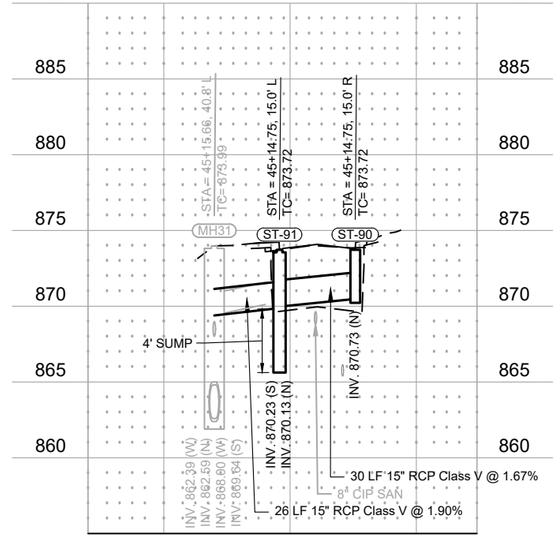
ST-81 TO ST-84



ST-82 TO ST-83



ST-90 TO EX MH-31



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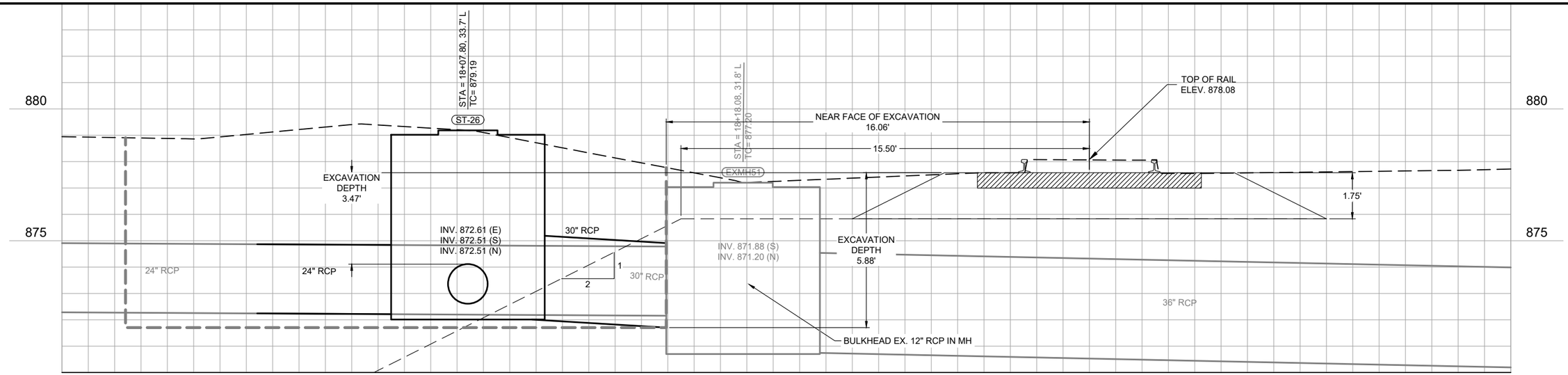
GOLDEN VALLEY, MINNESOTA

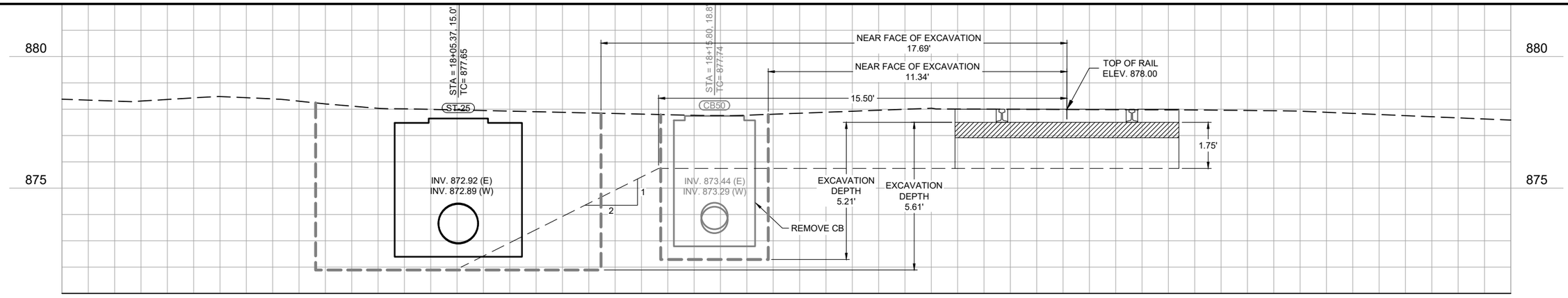
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

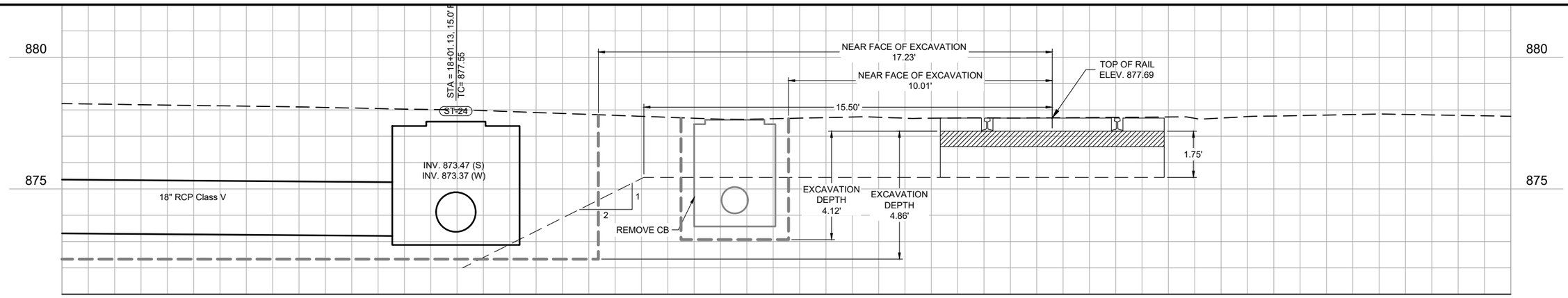
STORM SEWER PROFILES
ZANE AVENUE AND LINDSAY STREET IMPROVEMENTS

S9

of 103







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Designed By	SRP	.			.			
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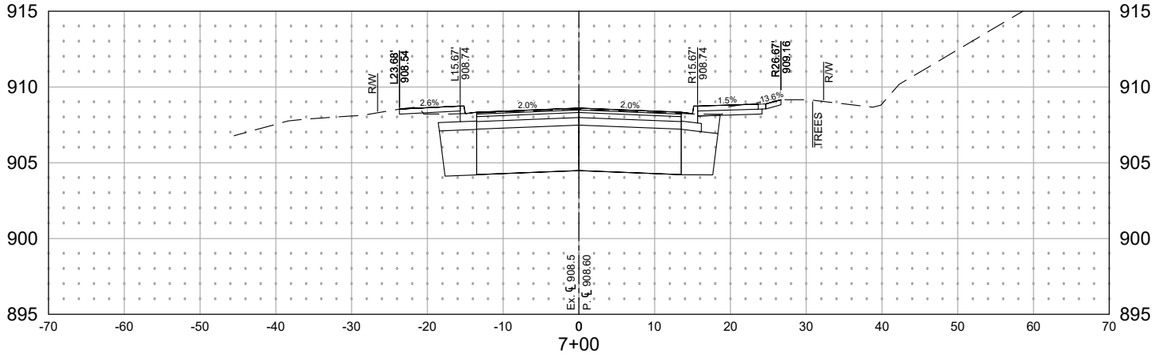
GOLDEN VALLEY, MINNESOTA

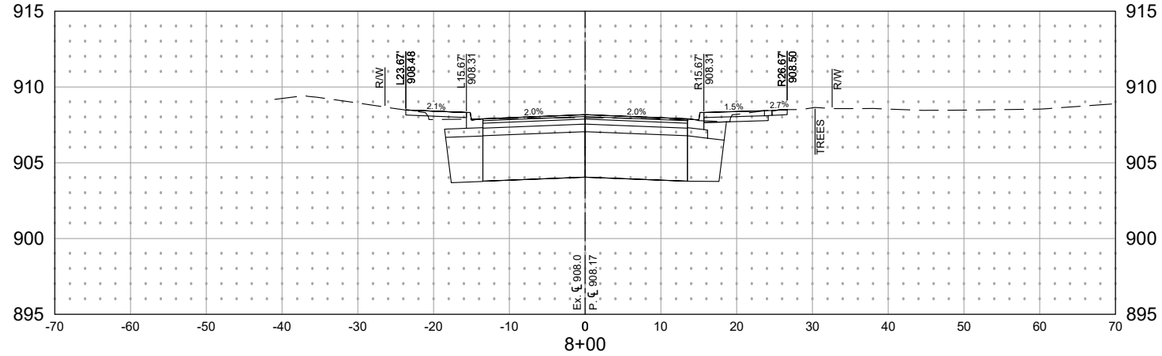
S.A.P. 128-408-002 (ZANE AVE.) CITY PROJECT NO. 23-02

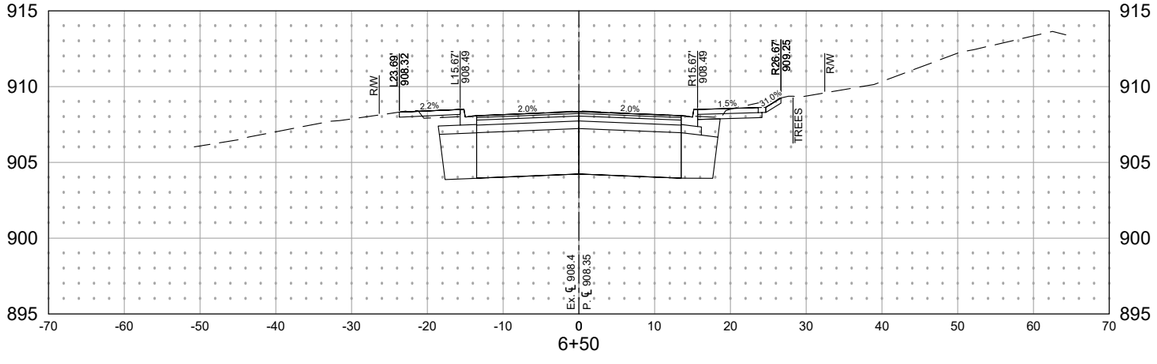
STORM SEWER PROFILES
UPRR CROSSING AT ZANE AVENUE
ZANE AVENUE AND LINDSAY STREET
IMPROVEMENTS

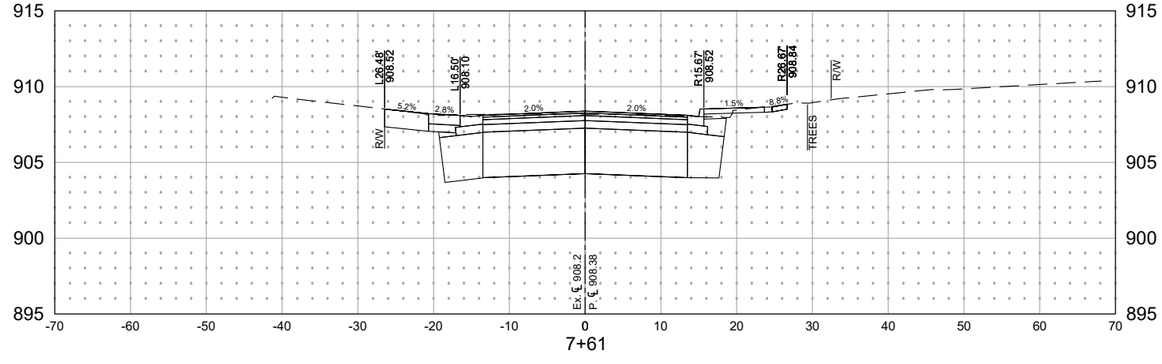
S10
of 103

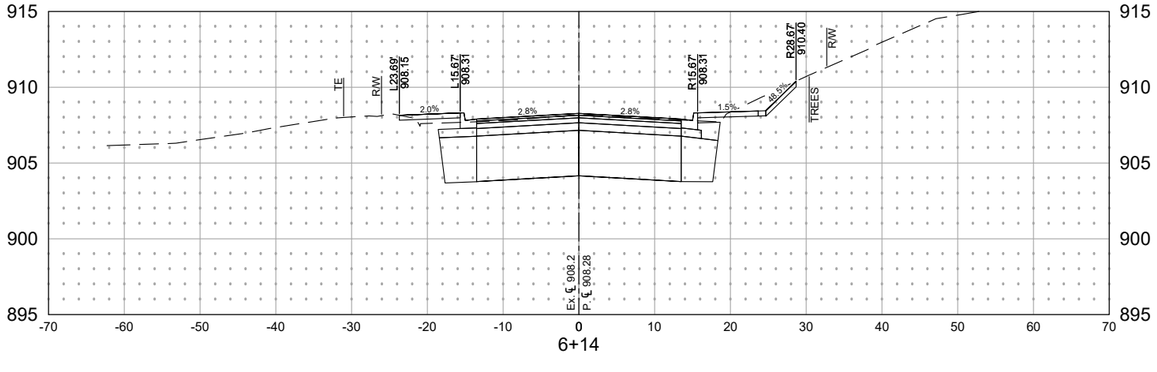
Save: 2/12/2024 1:38 PM sprall Plot: 4/16/2024 8:05 AM X:\FI\G\GOLDV\163618\5-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet\GV163618GP_RRXing.dwg

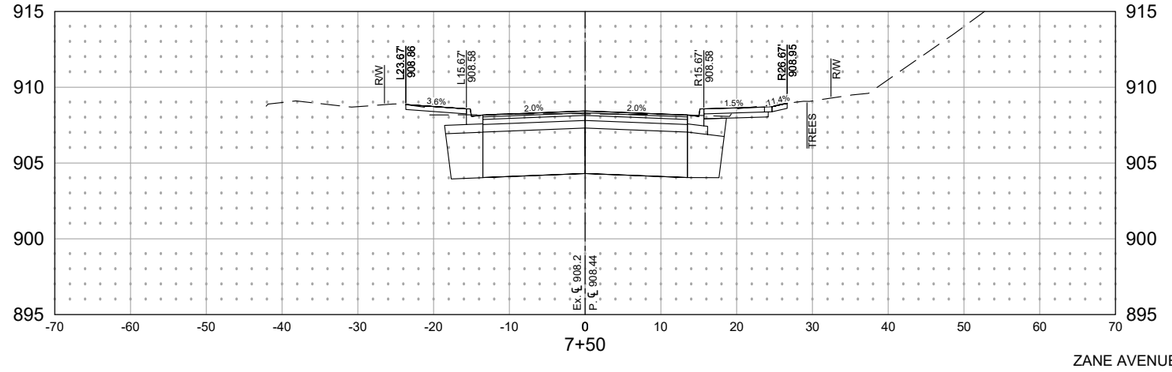










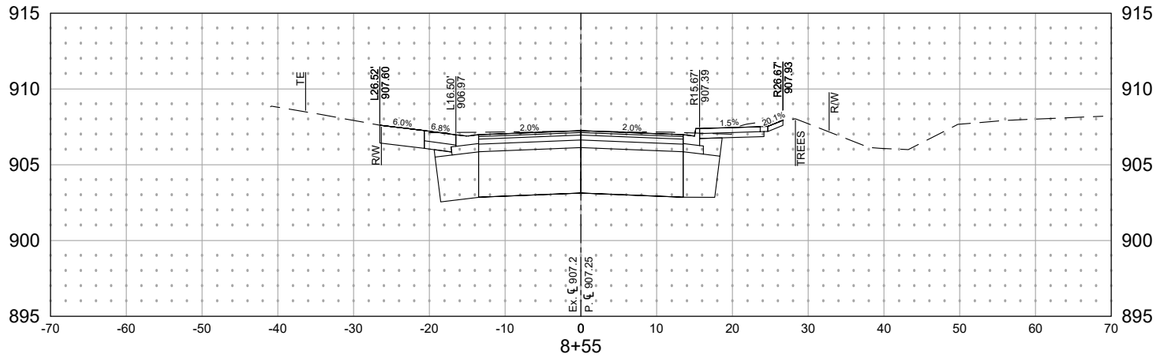


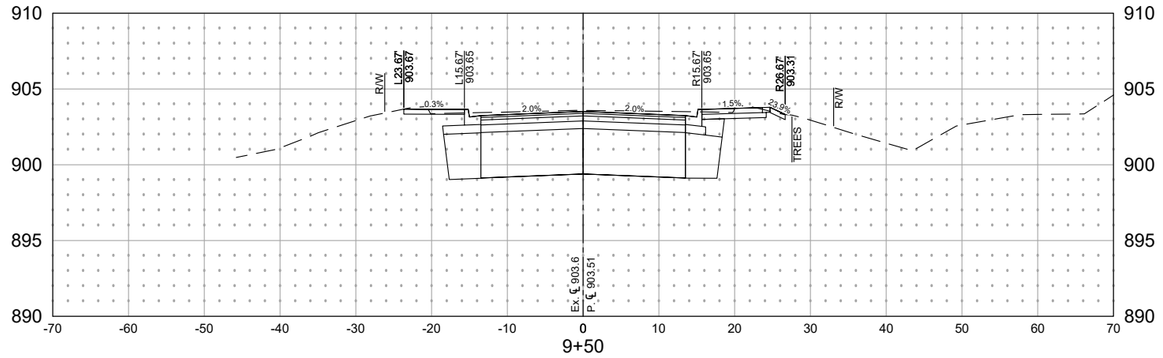
ZANE AVENUE
6+14 - 8+00

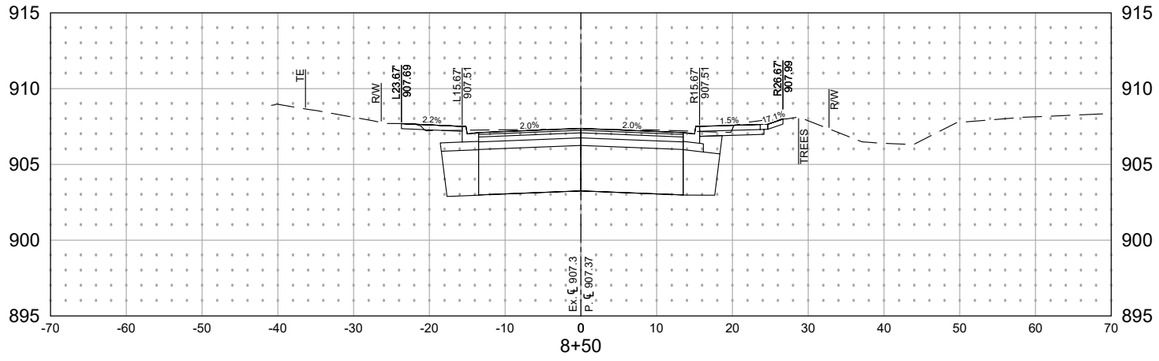
CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

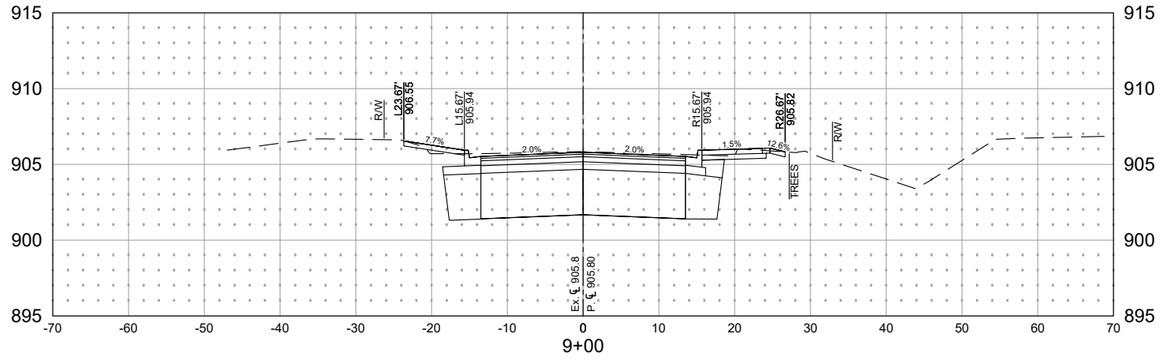
Sheet No. X1 Of103 Sheets

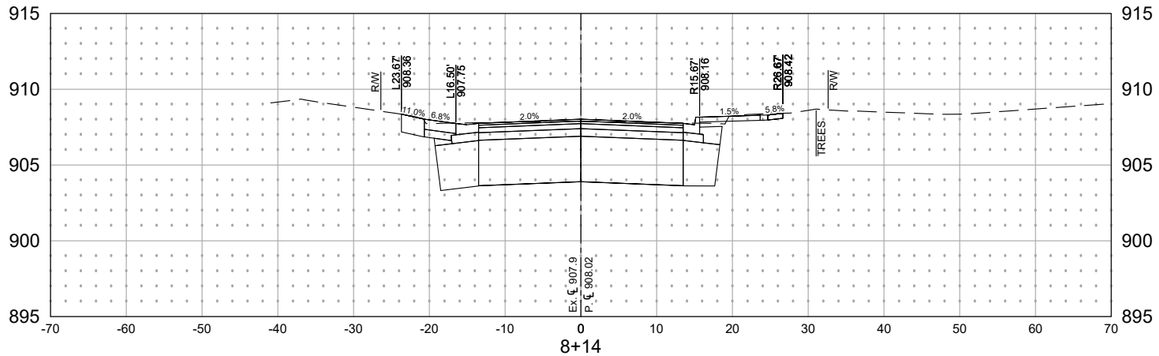
Save: 1/10/2024 7:53 AM sprall Plot: 4/16/2024 8:06 AM X:\FJ\G\GOLDV\163618\5-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet\GV163618X01_Zane.dwg

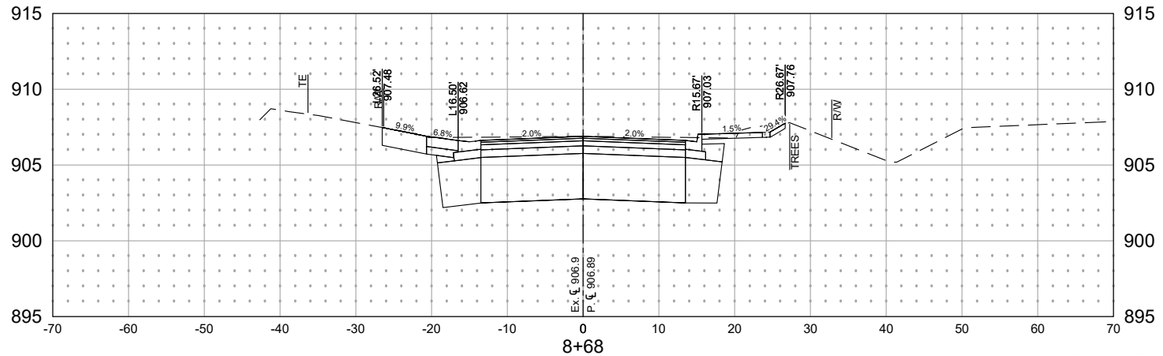












ZANE AVENUE
8+14 - 9+50

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X2 Of103 Sheets

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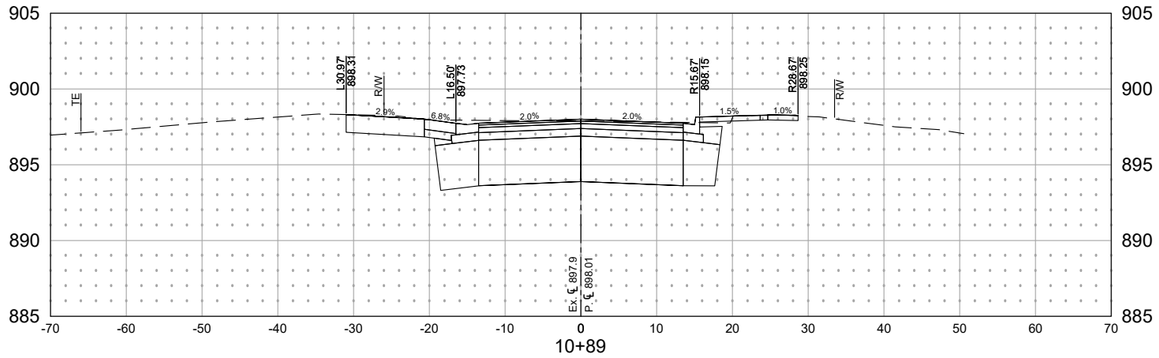
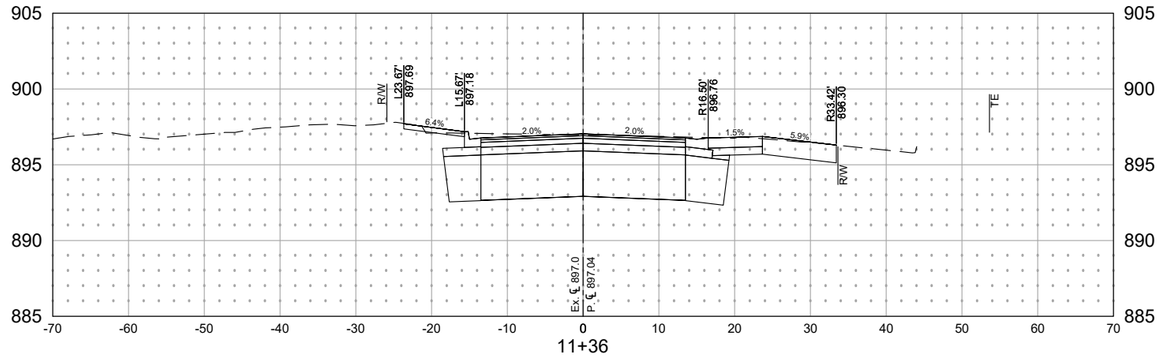
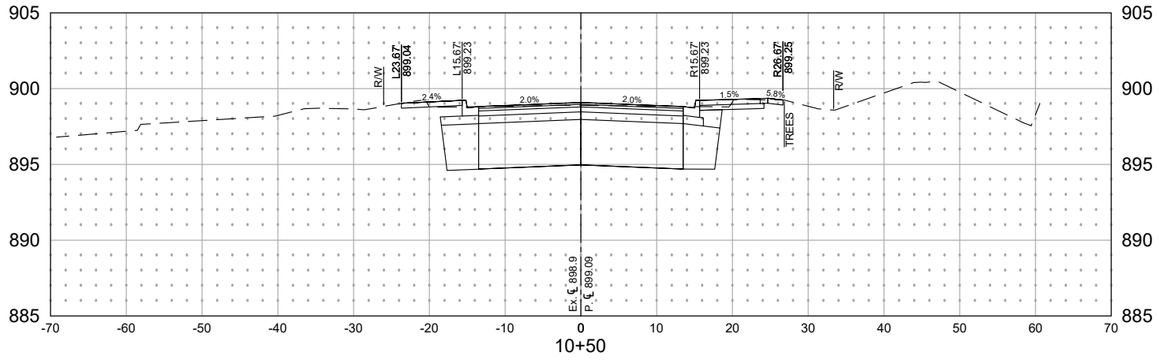


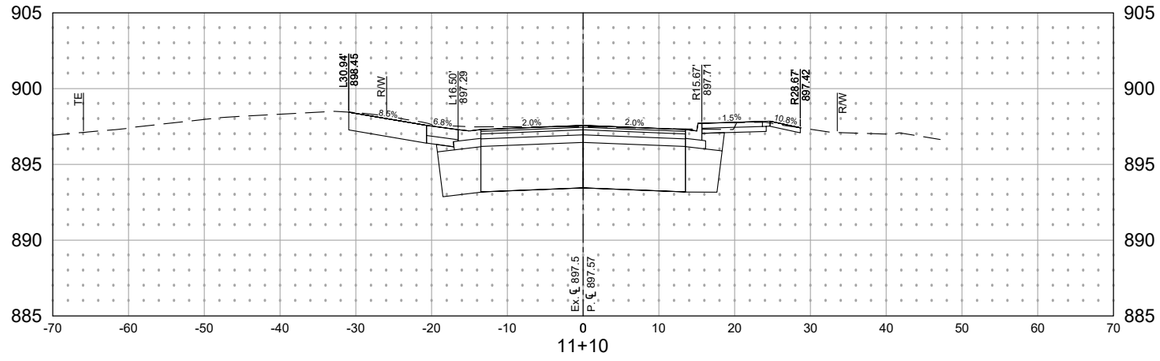
10+89



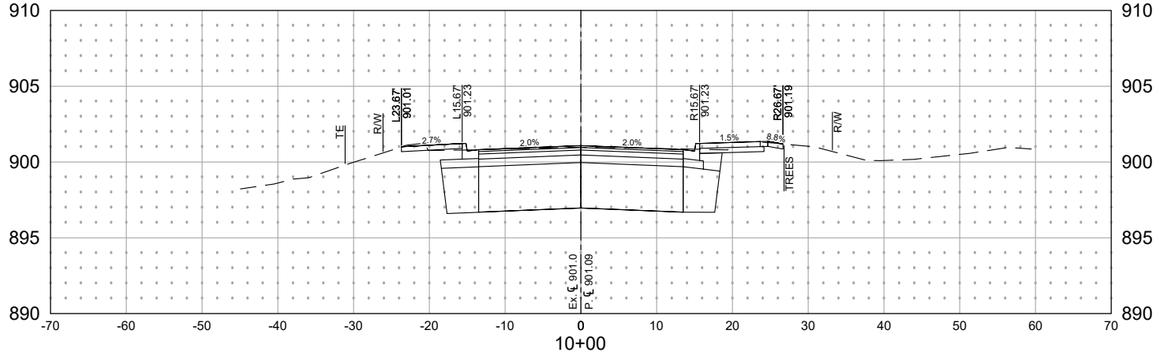
11+36



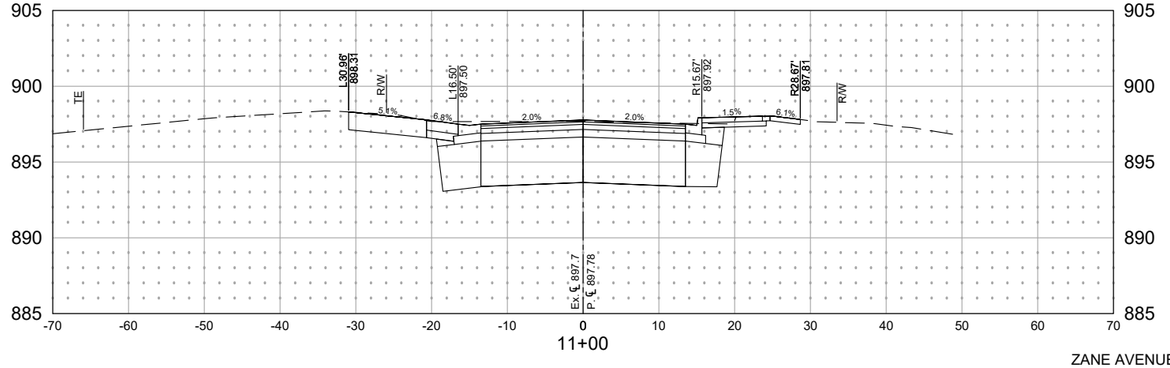
10+50



11+10



10+00



11+00

ZANE AVENUE
10+00 - 11+36

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X3 Of103 Sheets

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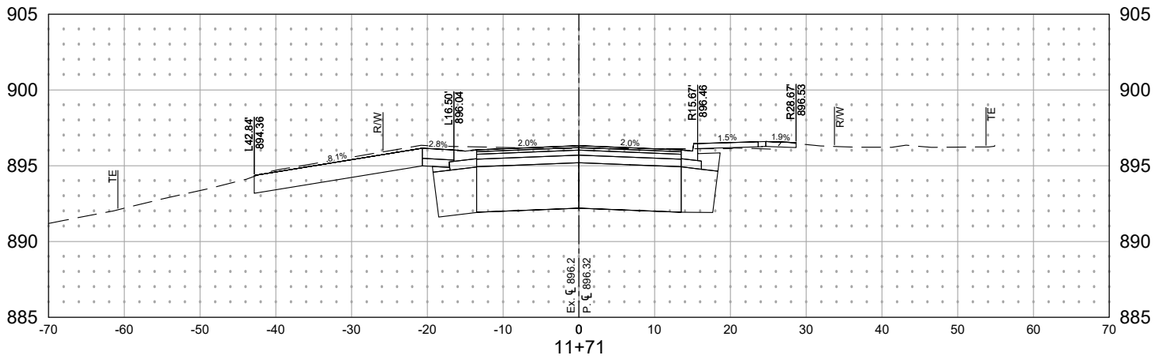

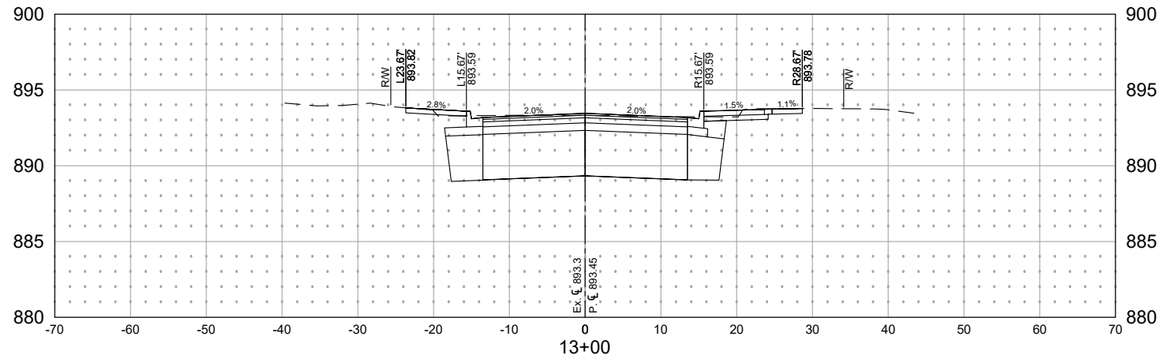

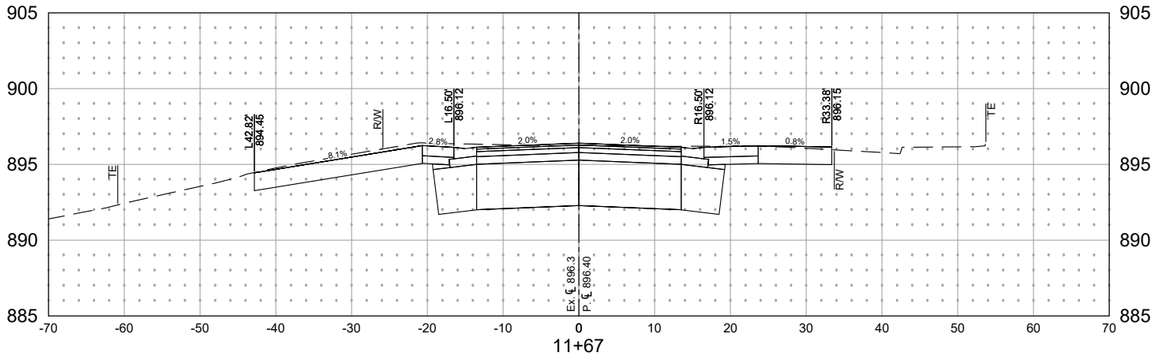

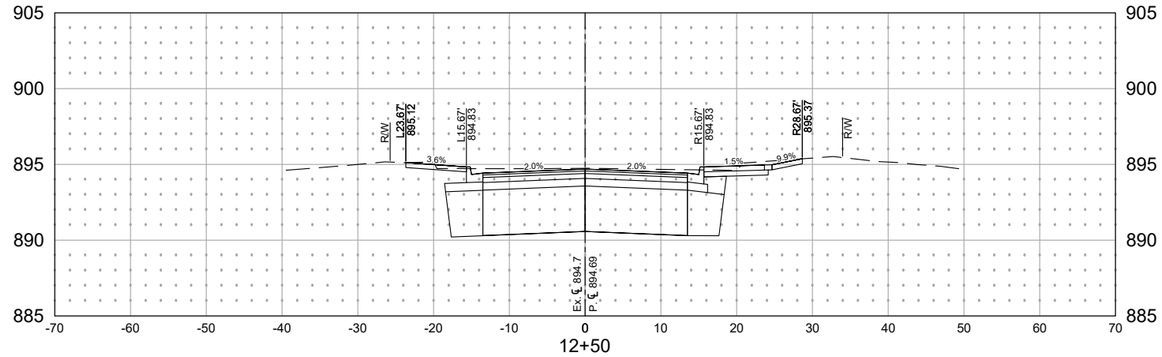

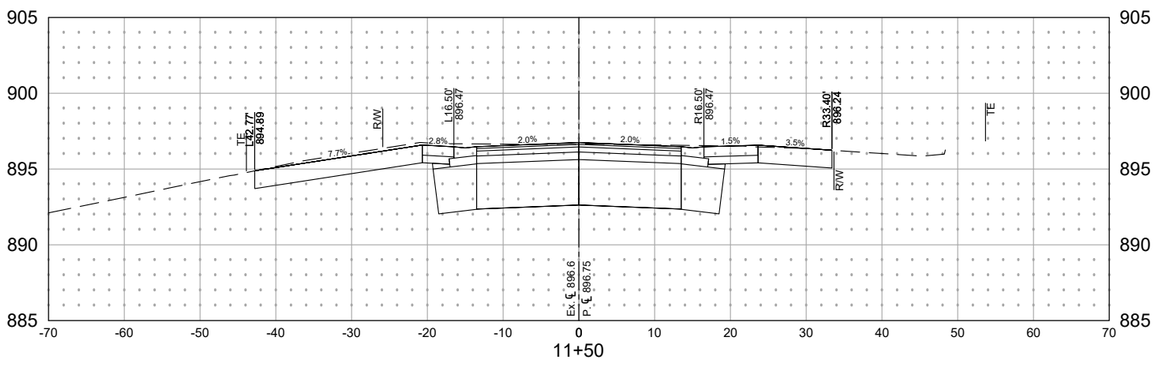

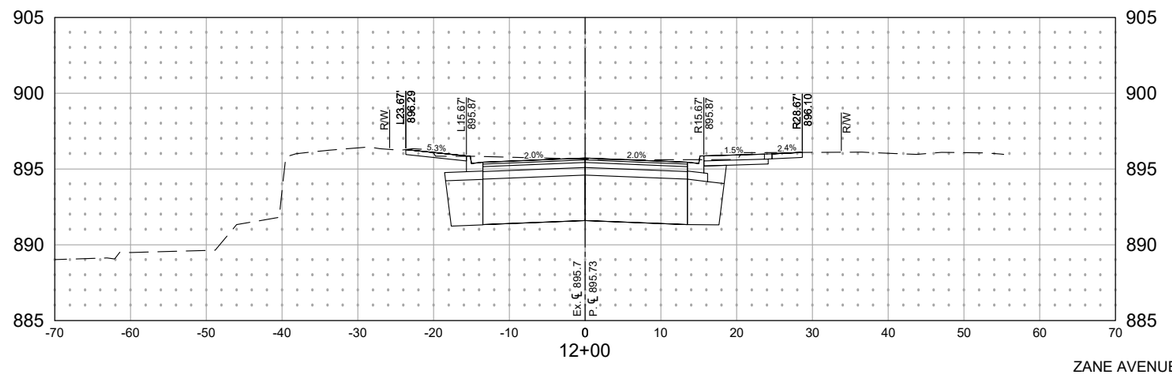

ZANE AVENUE
11+50 - 13+00

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X4 Of103 Sheets

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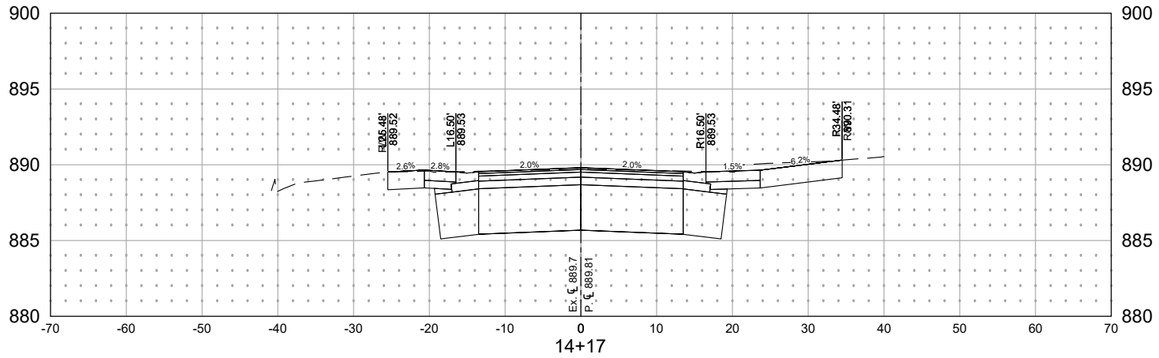
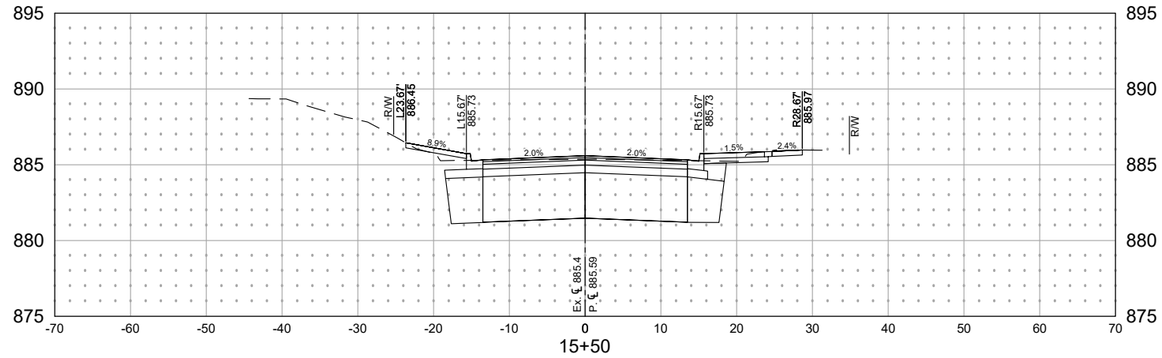
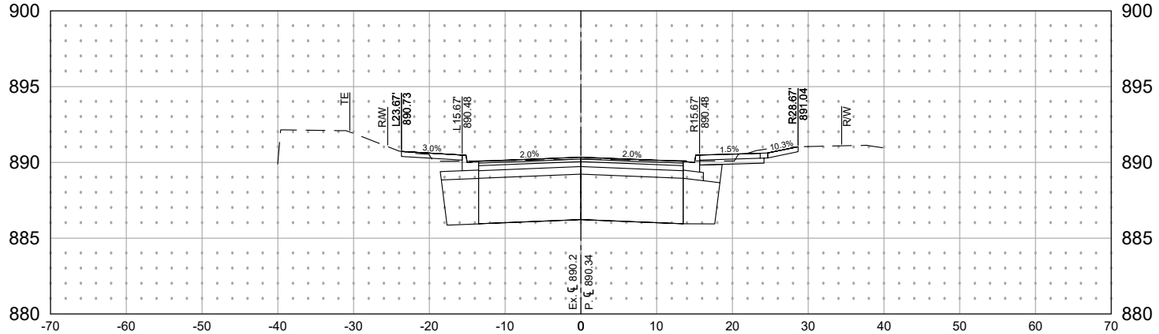


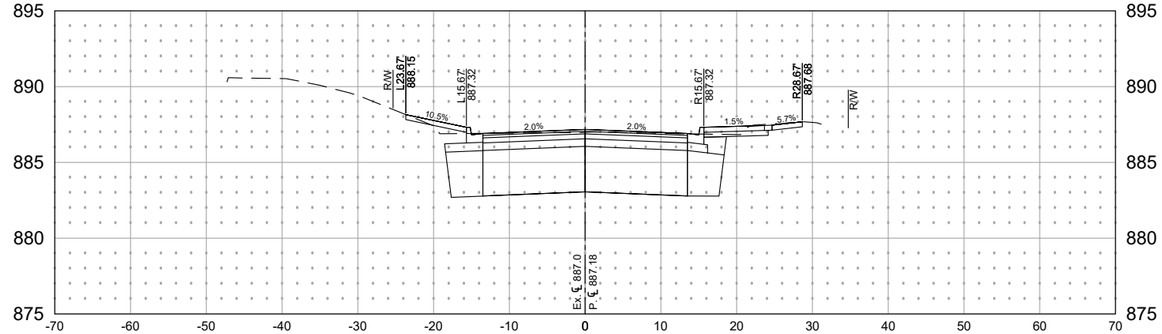
14+17



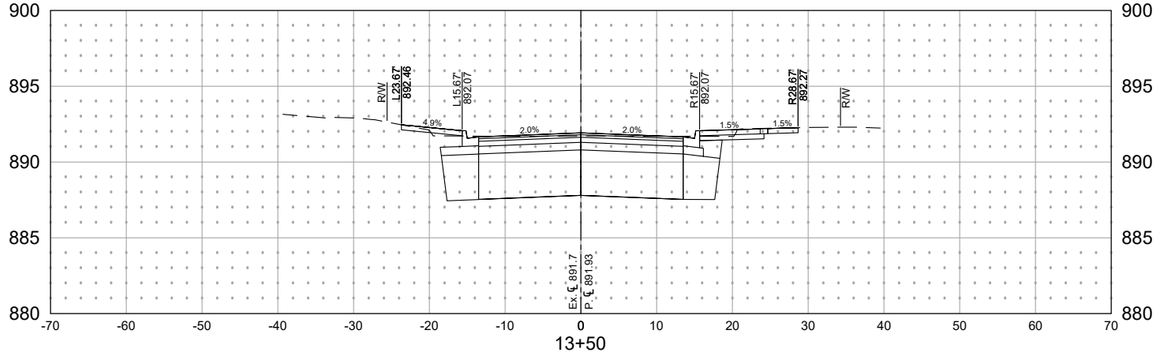
15+50



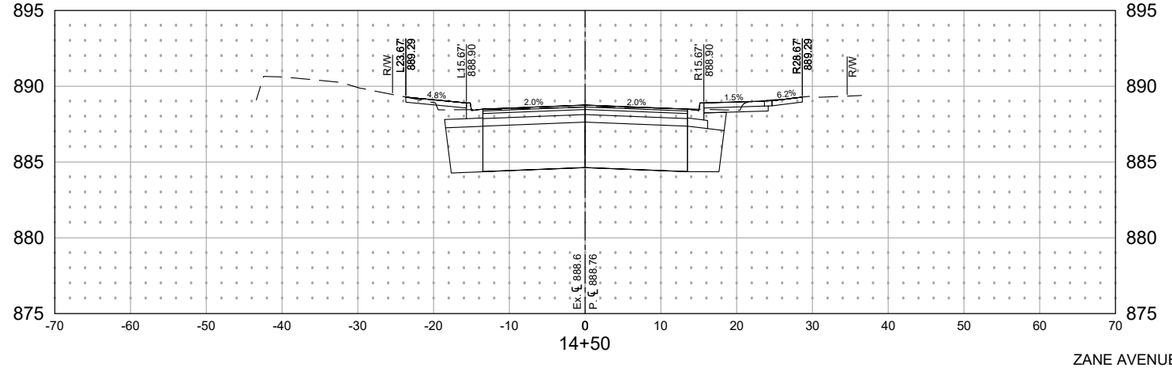
14+00



15+00



13+50



14+50

ZANE AVENUE
13+50 - 15+50

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X5 Of103 Sheets

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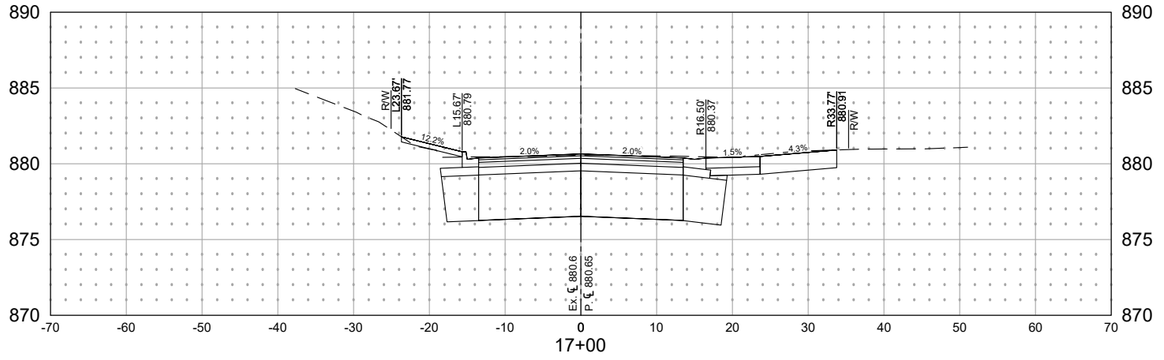

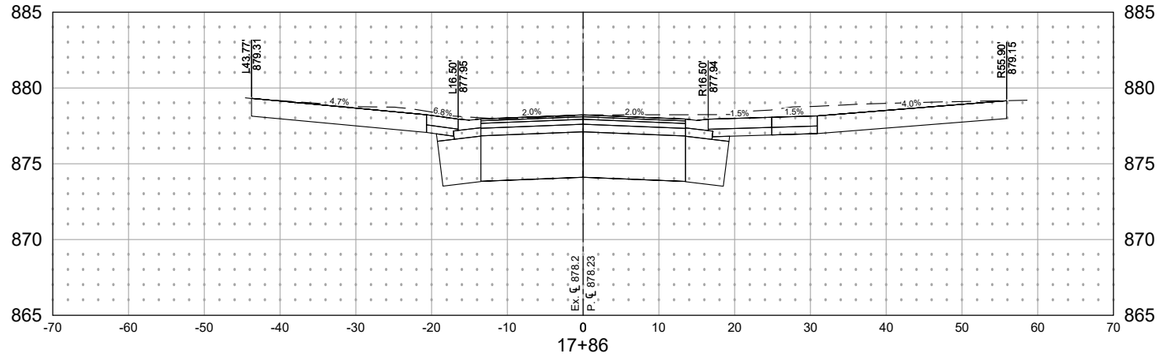

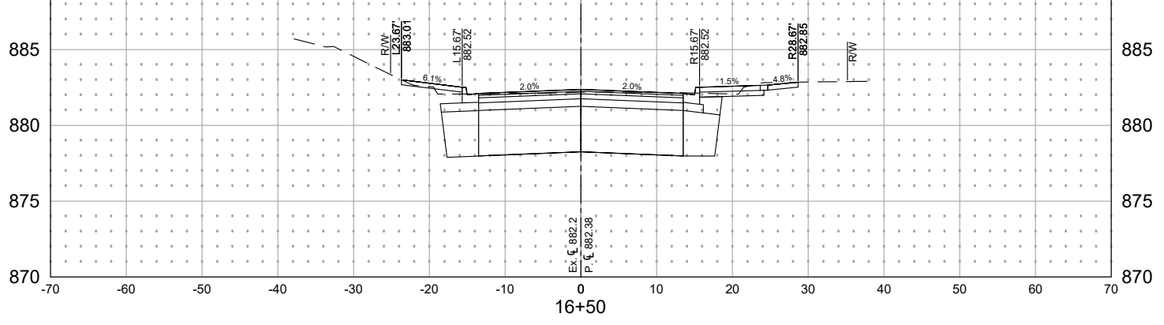

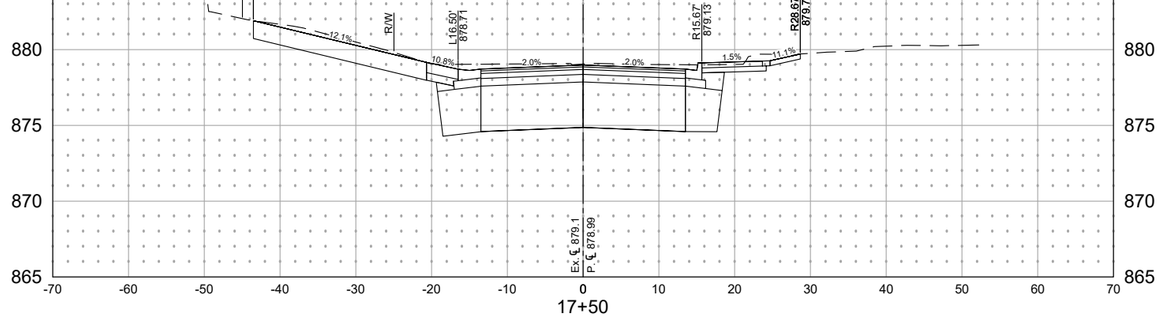

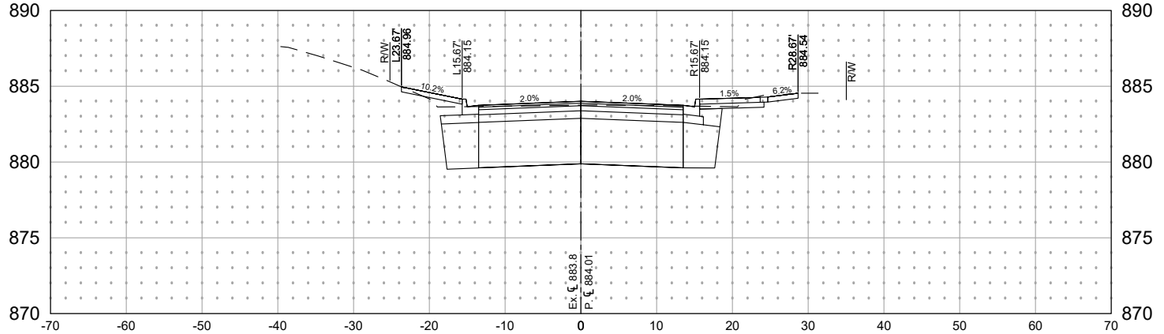

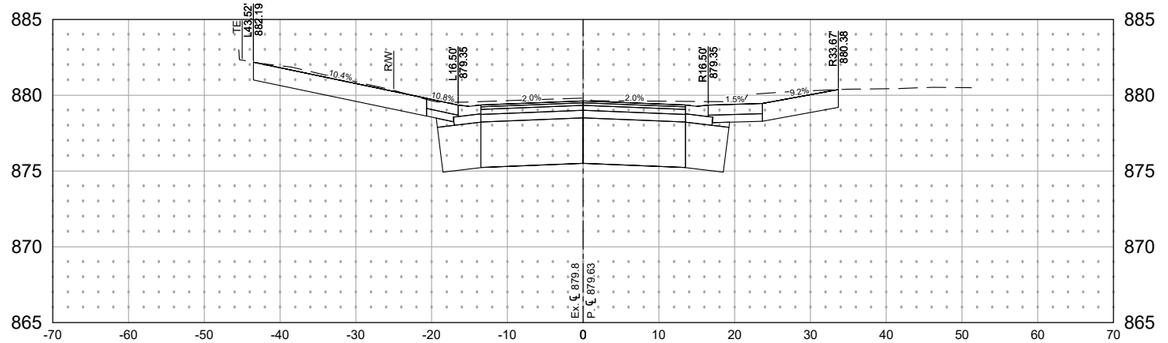

ZANE AVENUE
16+00 - 17+86

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X6 Of103 Sheets

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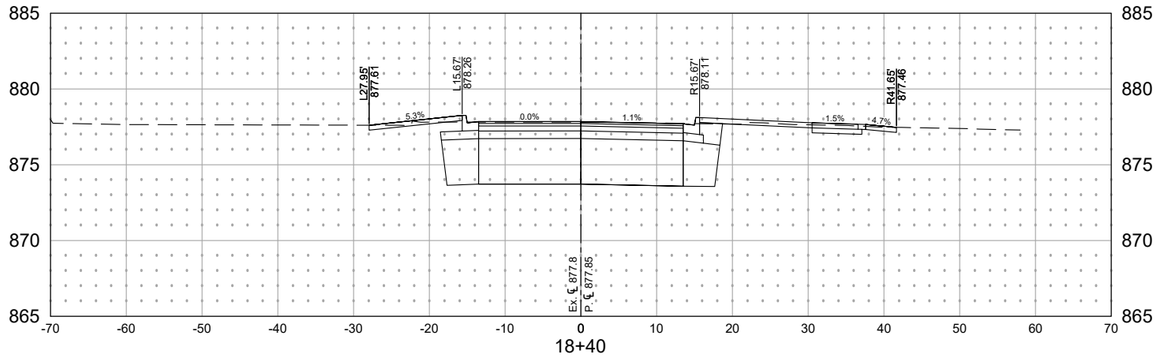

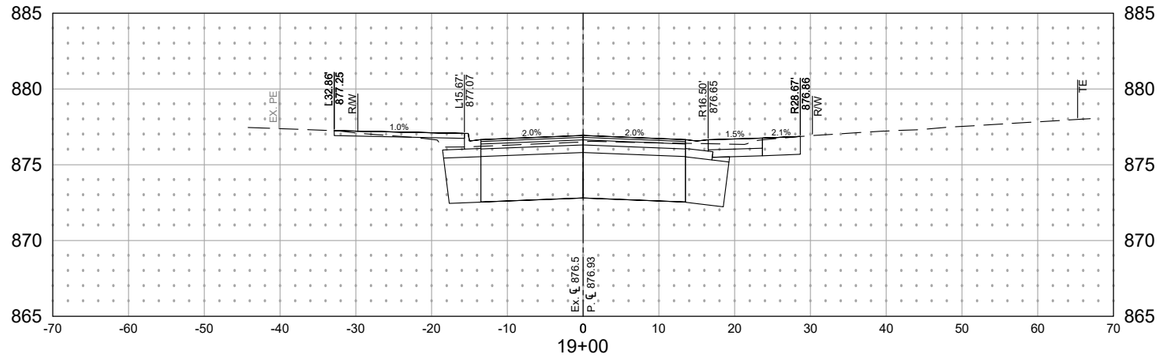

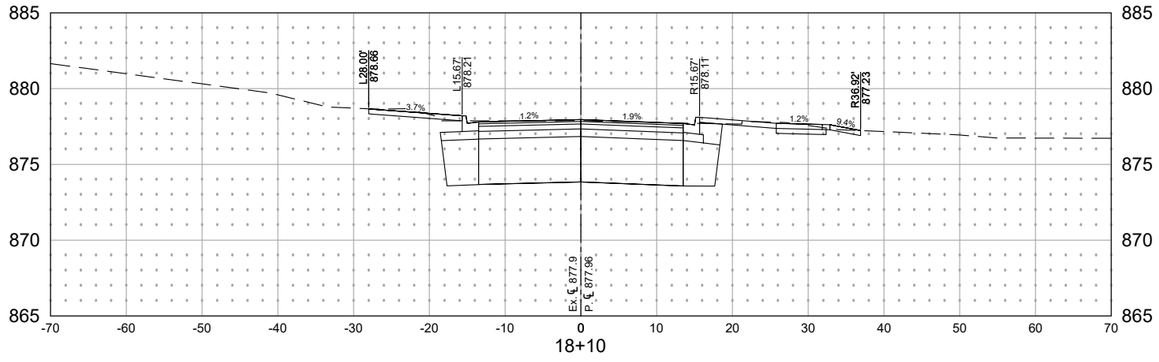

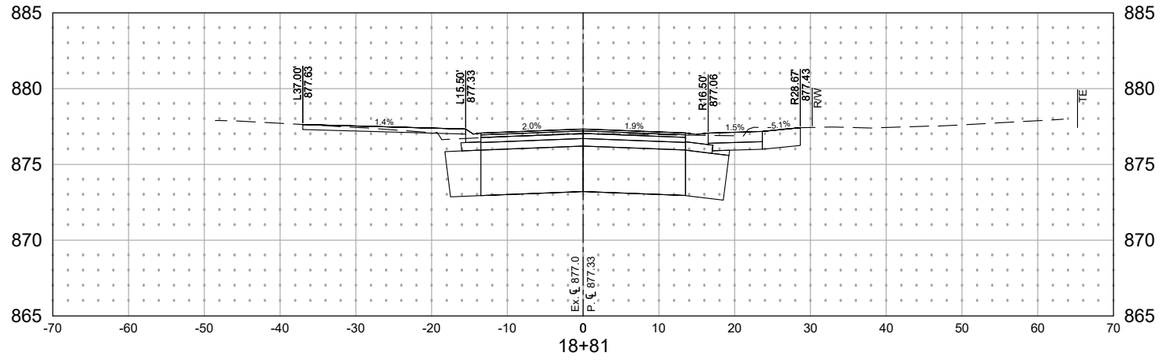

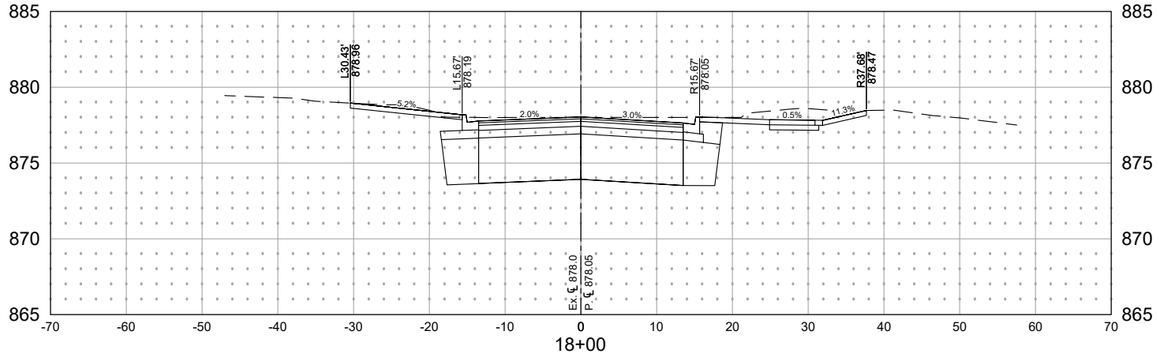

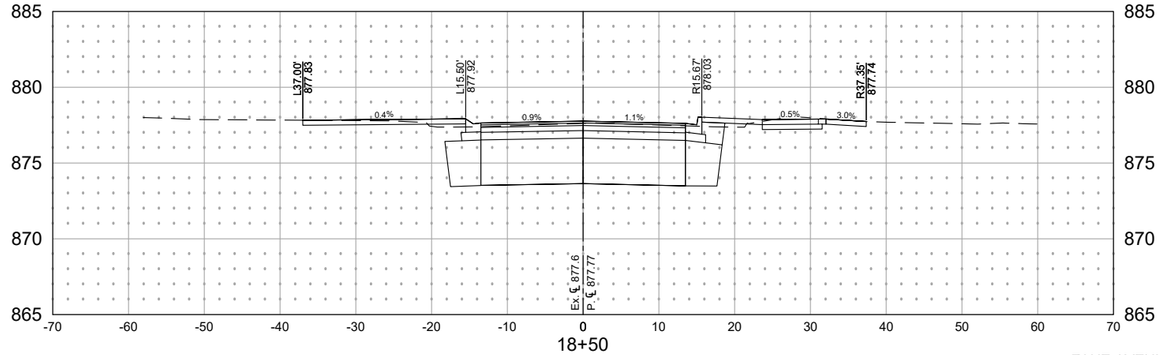

ZANE AVENUE
18+00 - 19+00

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X7 Of103 Sheets

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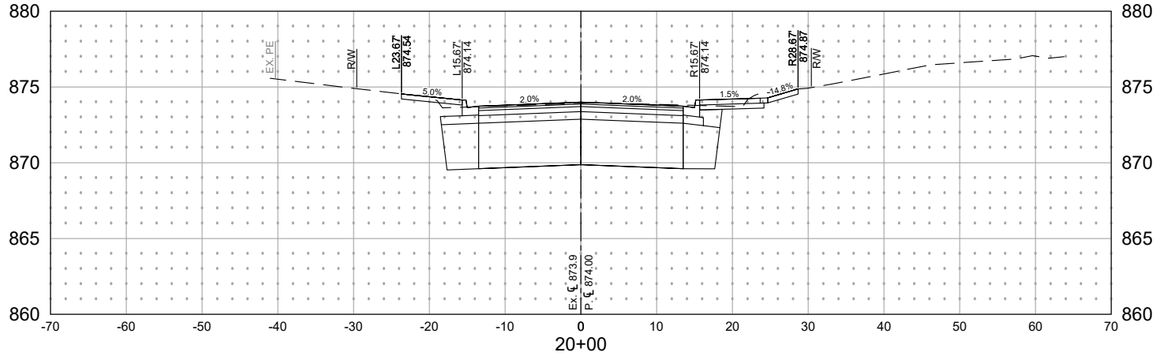

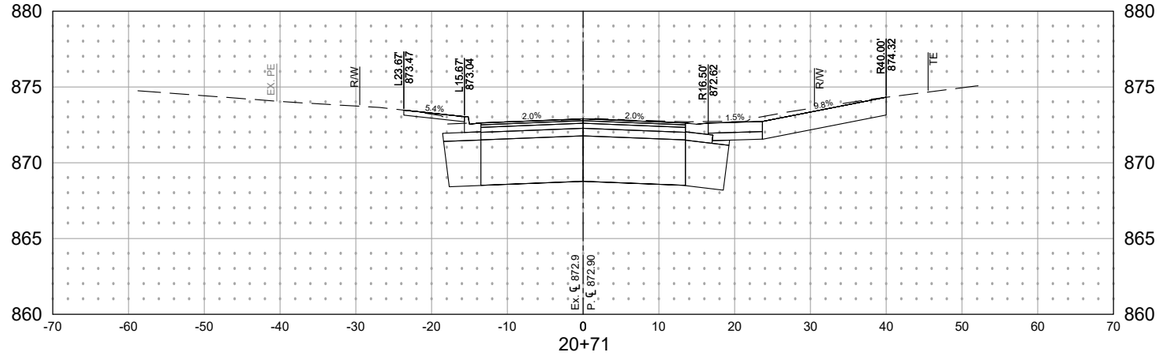

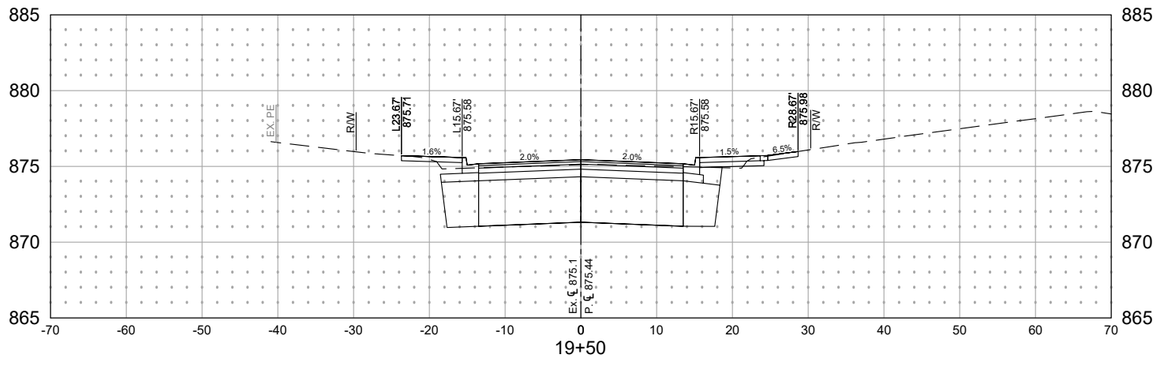

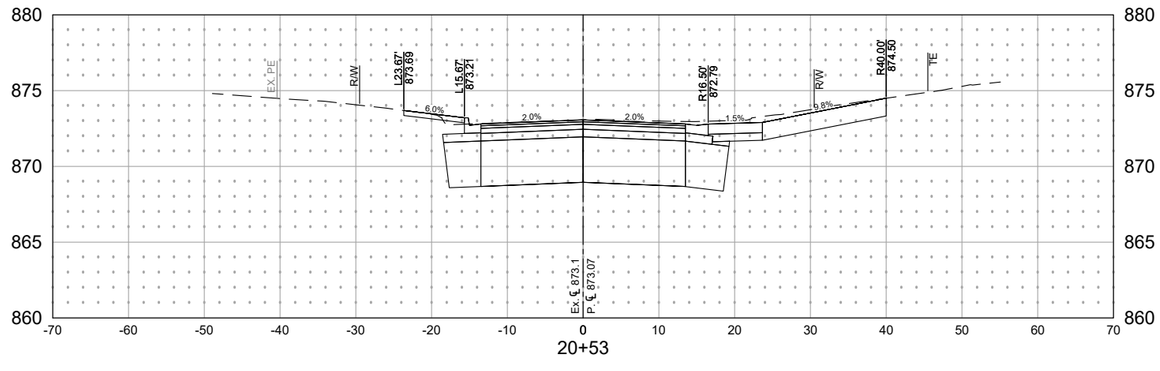

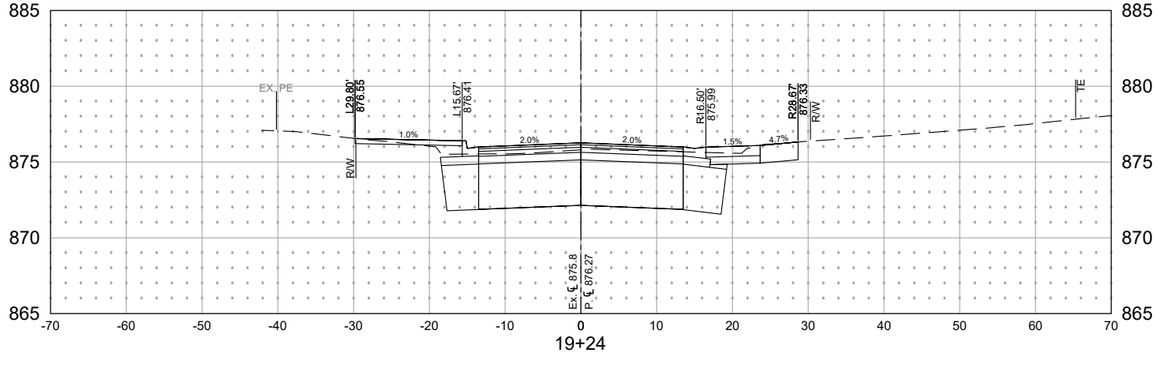

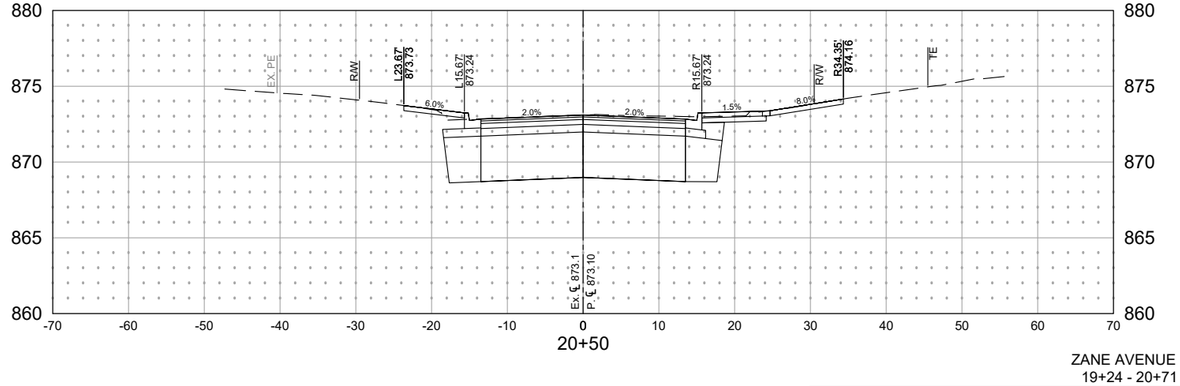

ZANE AVENUE
19+24 - 20+71

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X8 Of103 Sheets

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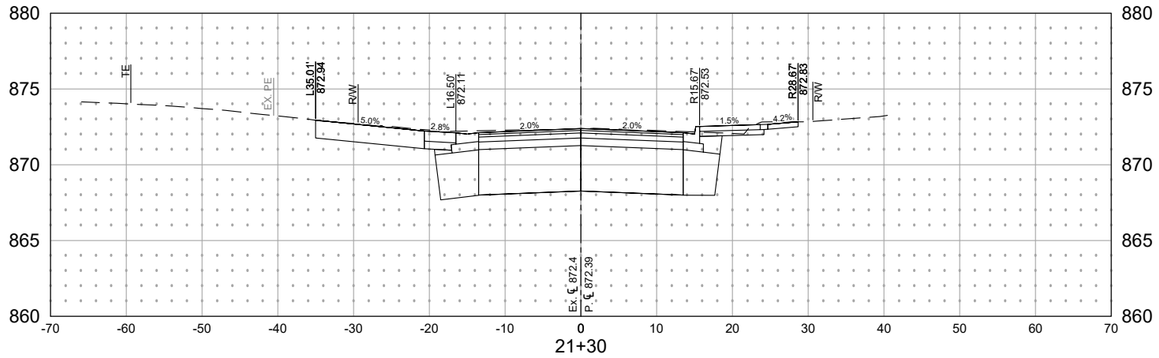
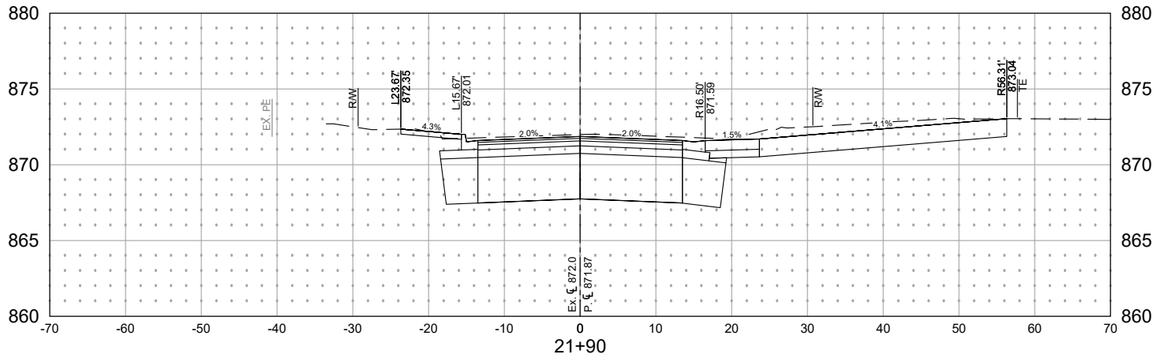
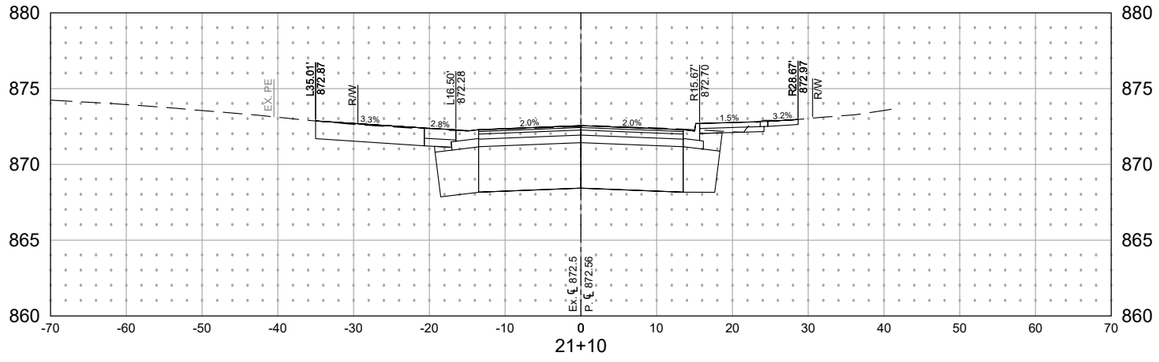
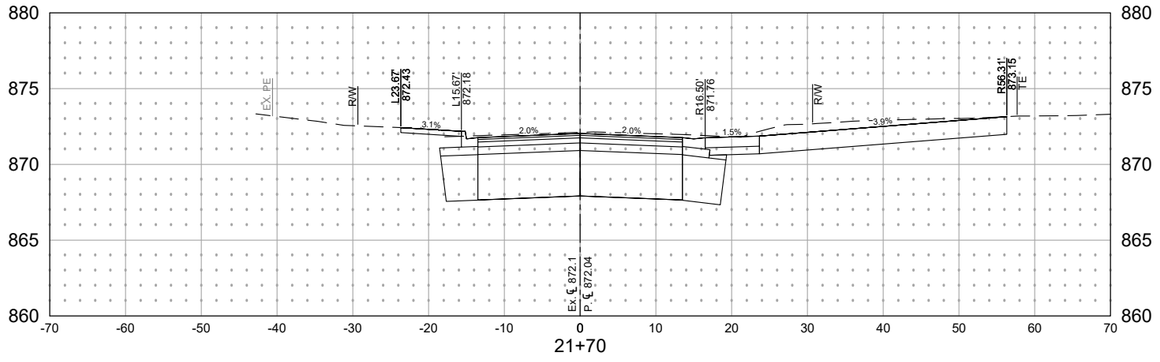
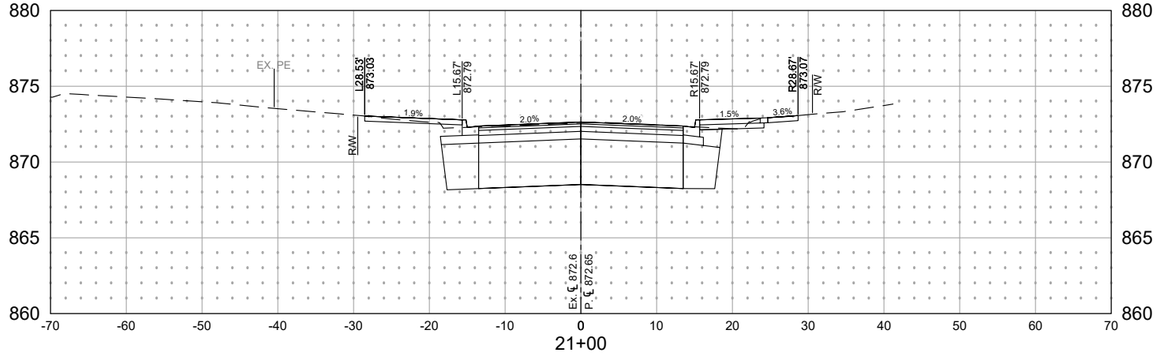
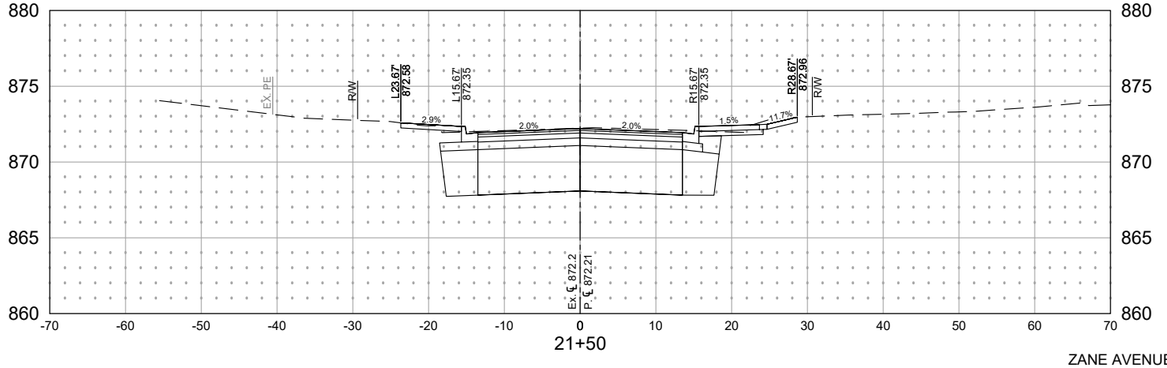










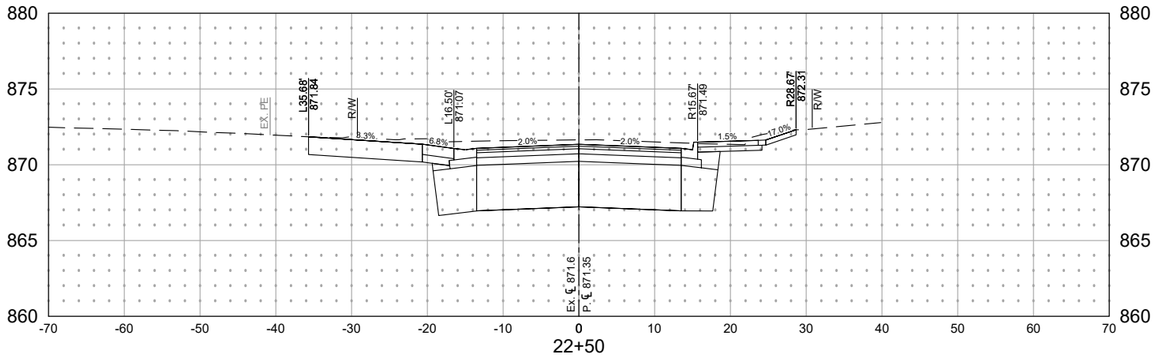


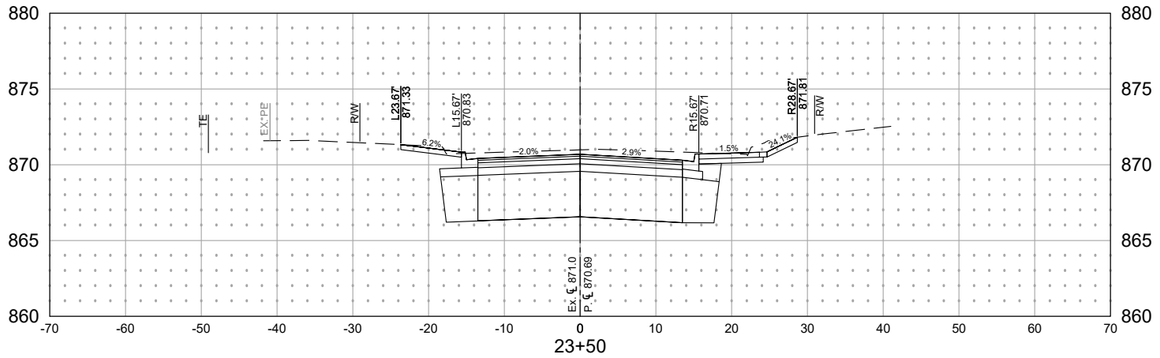
ZANE AVENUE
21+00 - 21+90

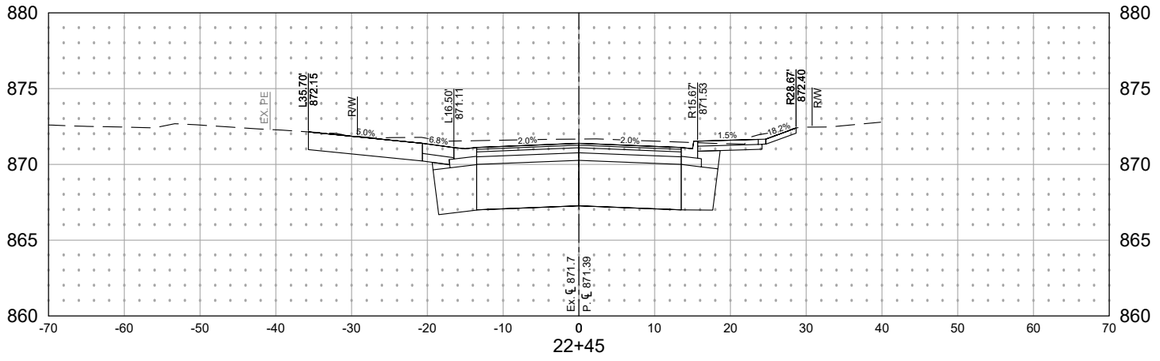
CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

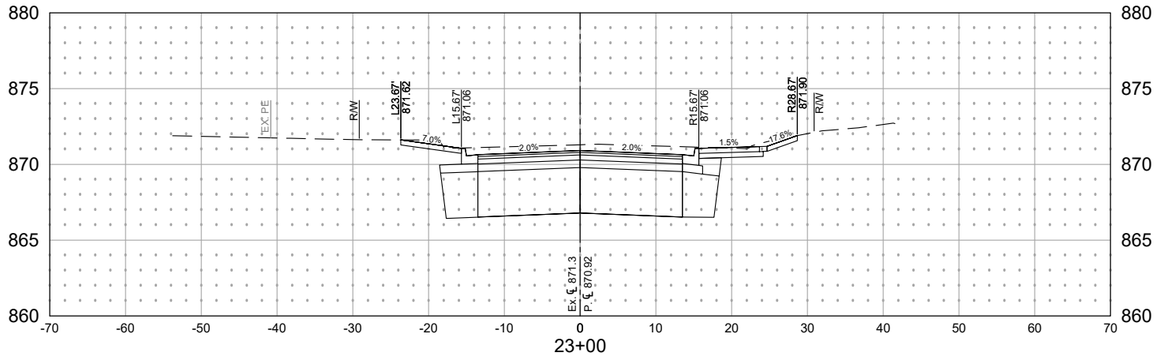
Sheet No. X9 Of103 Sheets

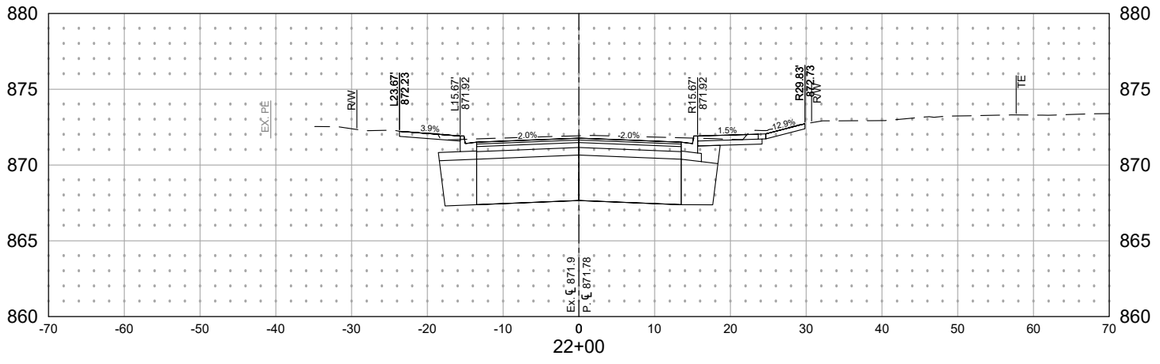
Save: 1/10/2024 7:53 AM sprall Plot: 4/16/2024 8:08 AM X:\FJG\GOLDV\16361B5-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet\GV16361BX01_Zane.dwg

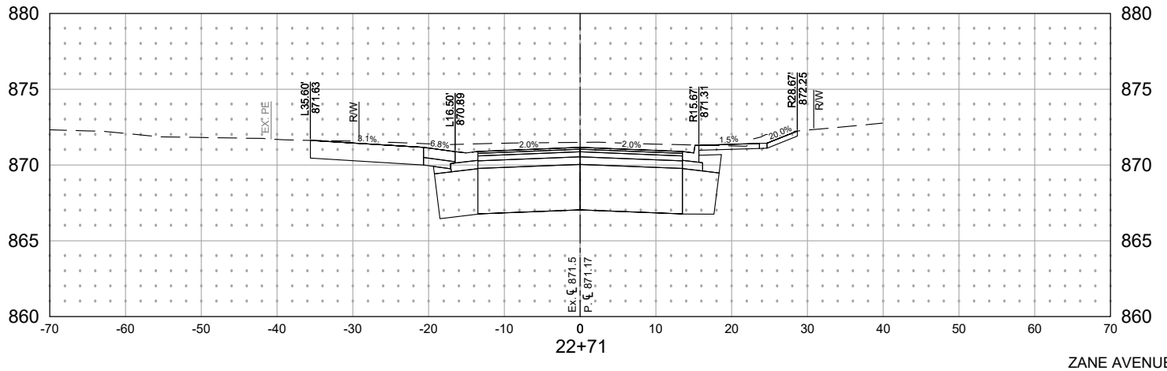












ZANE AVENUE
22+00 - 23+50

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X10 Of103 Sheets

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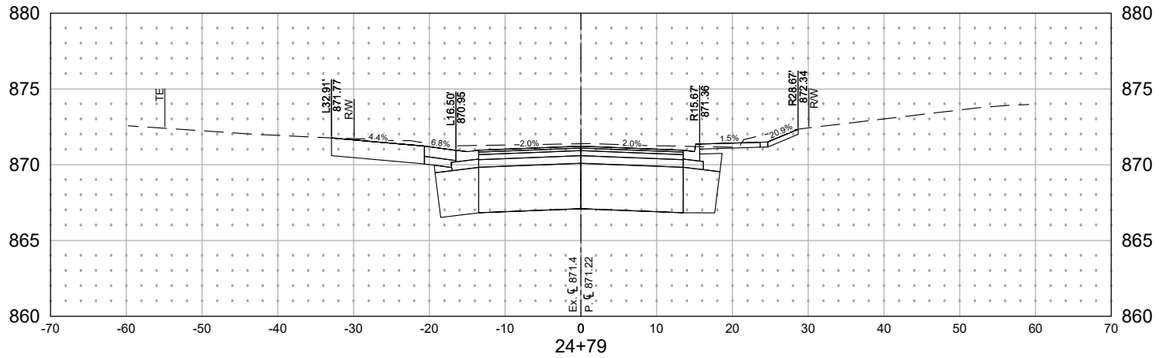
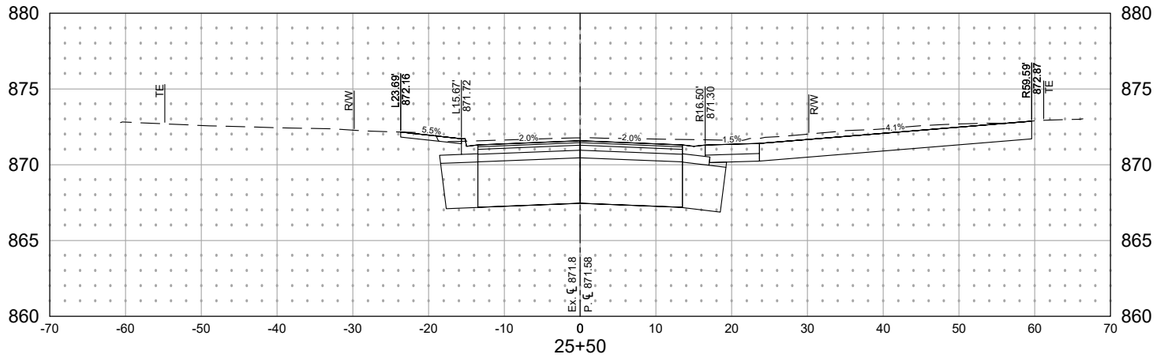
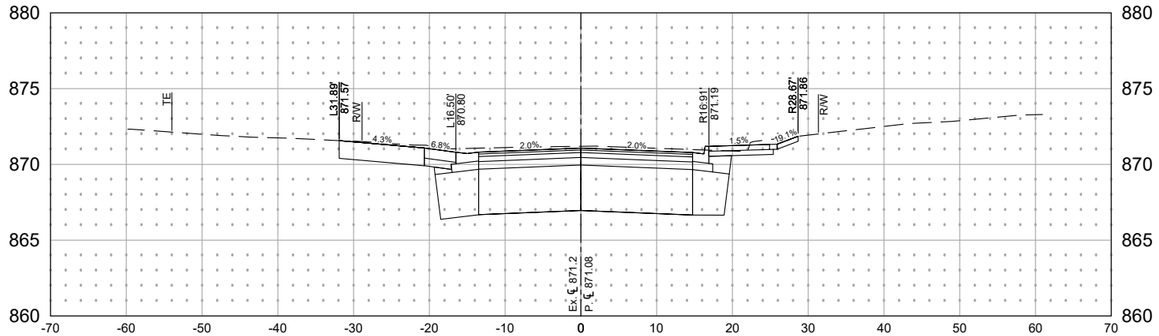


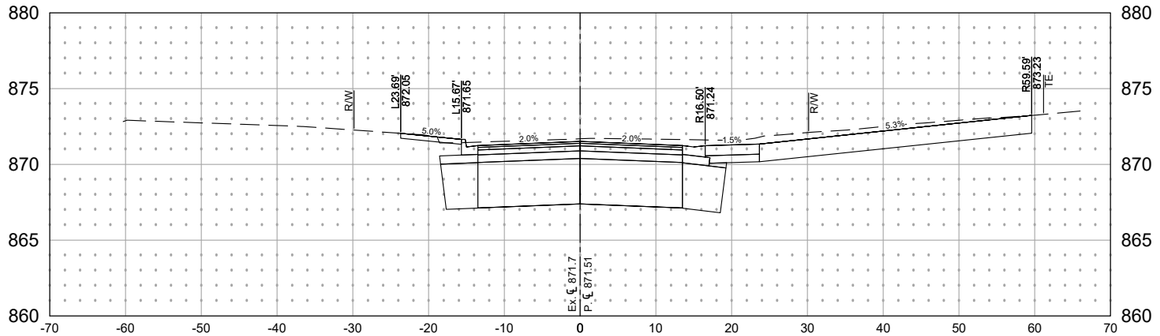
24+79



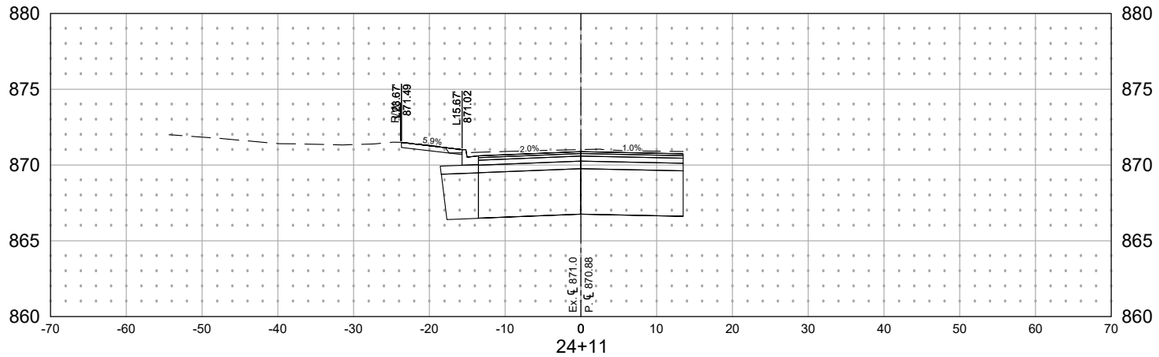
25+50



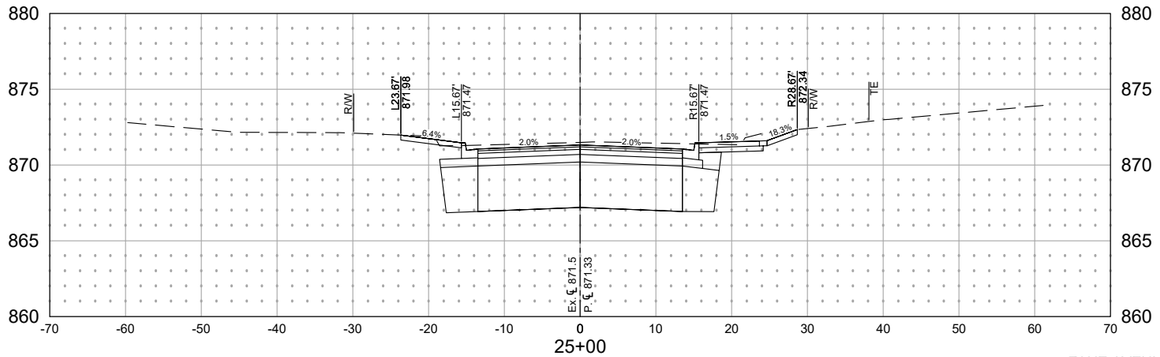
24+50



25+37



24+11



25+00

ZANE AVENUE
24+11 - 25+50

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X11 Of103 Sheets

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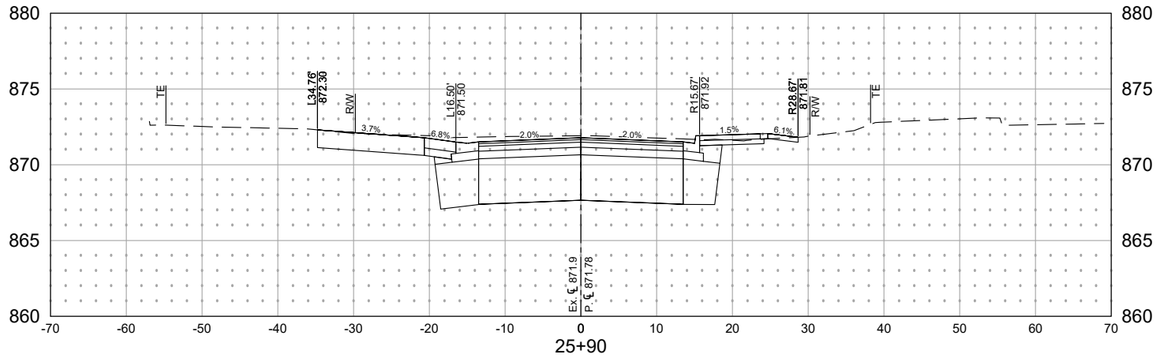

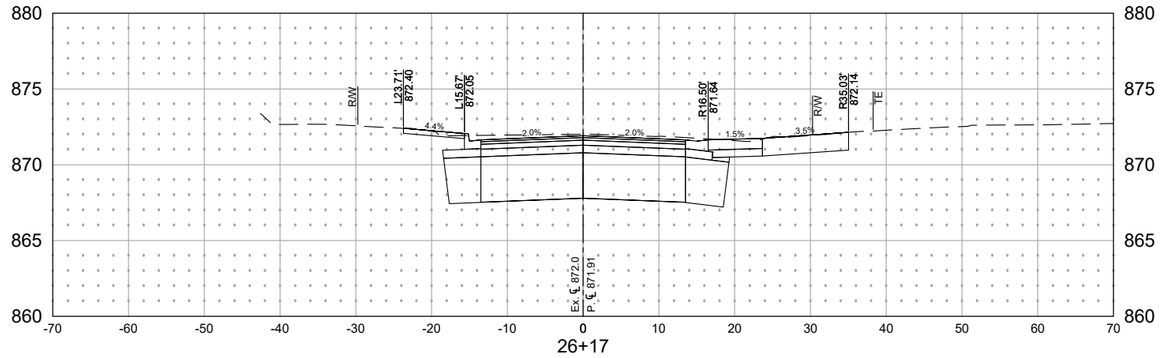

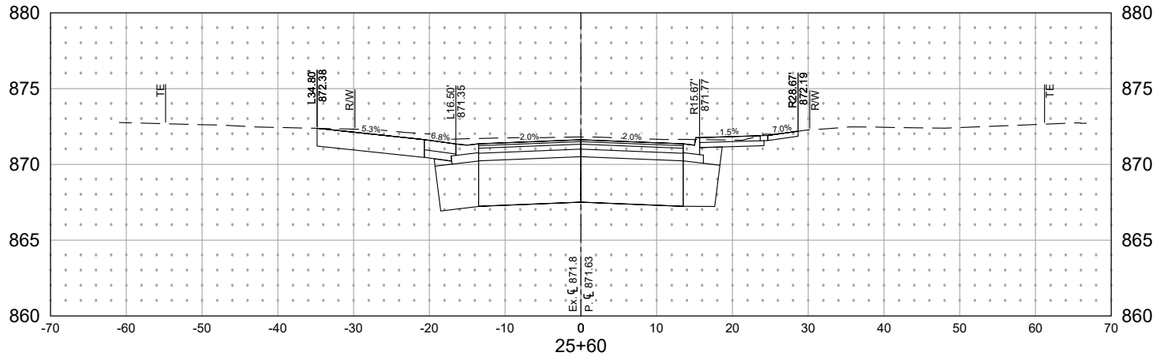

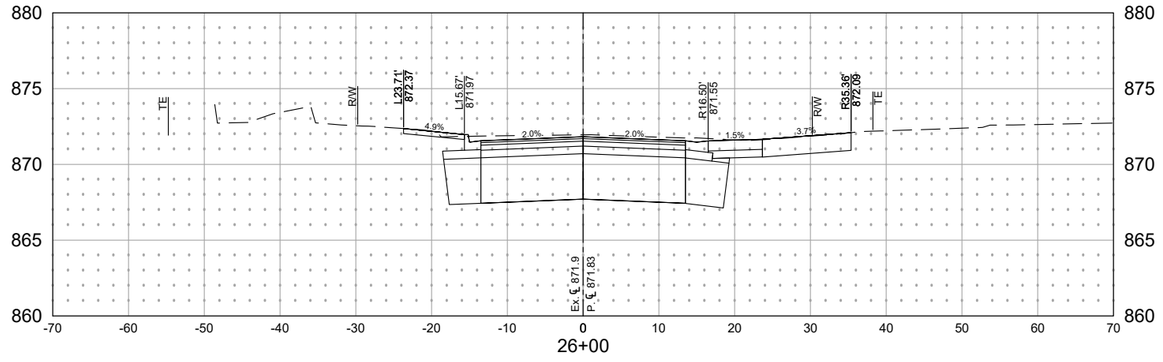

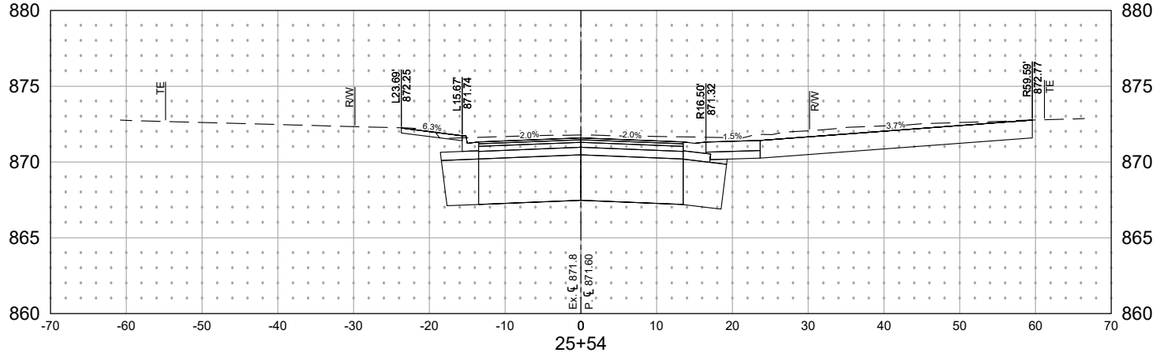

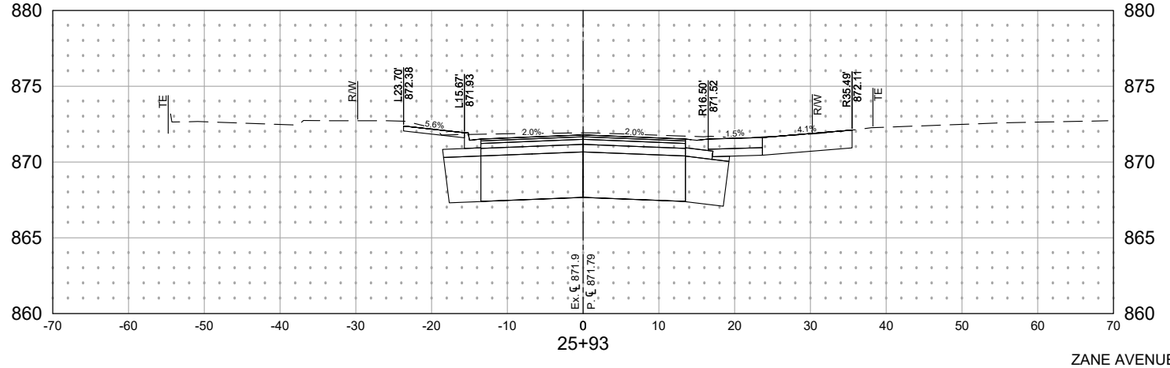

ZANE AVENUE
25+54 - 26+17

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X12 Of103 Sheets

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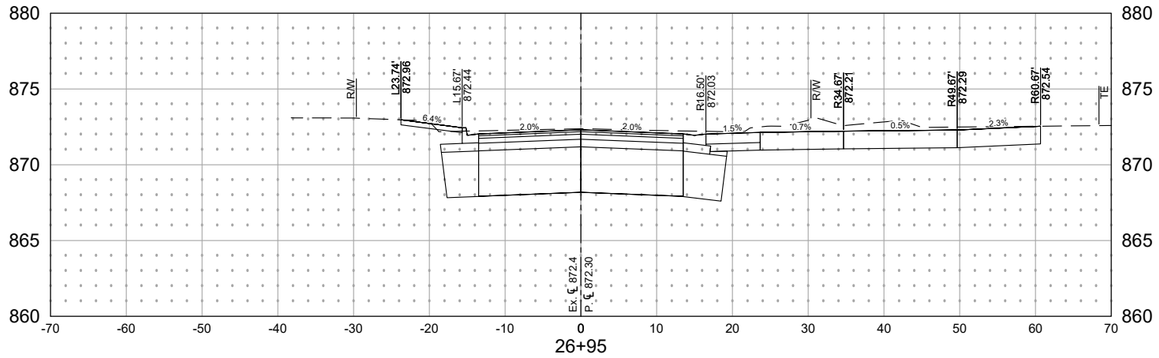

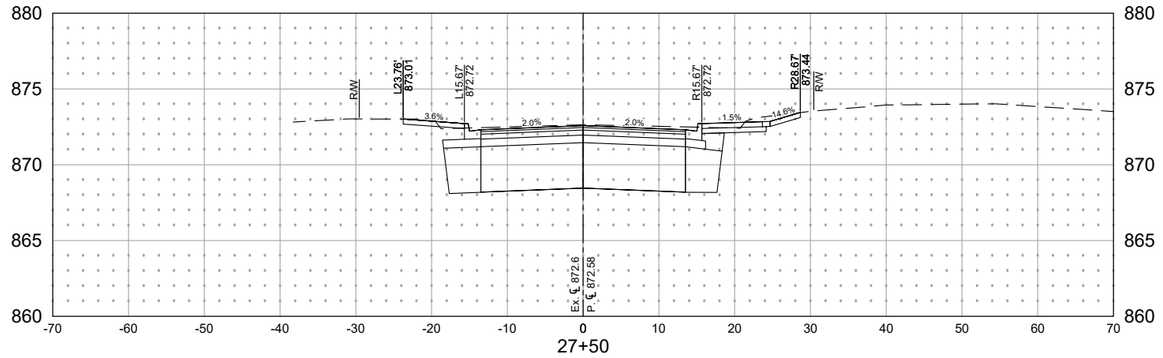

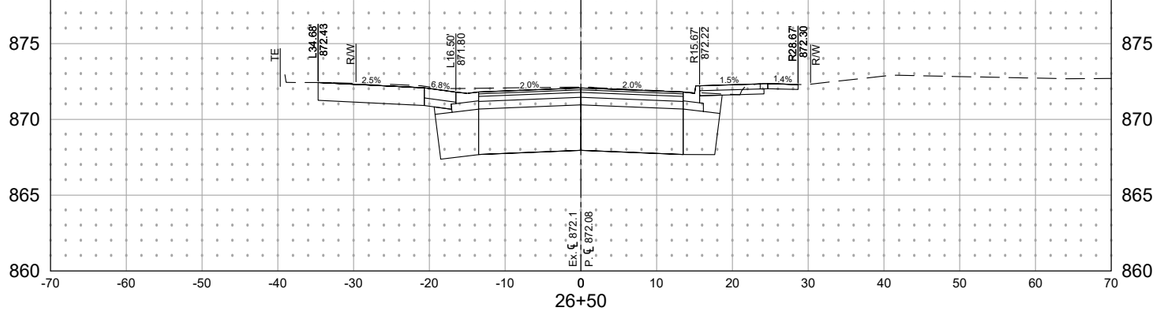

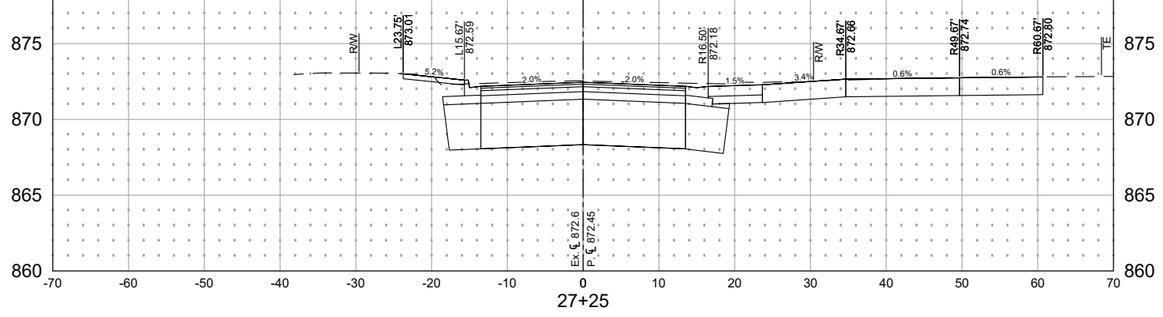

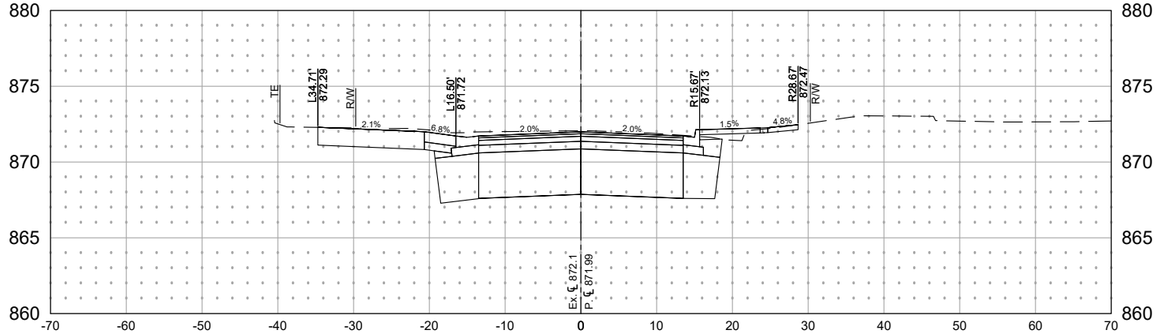

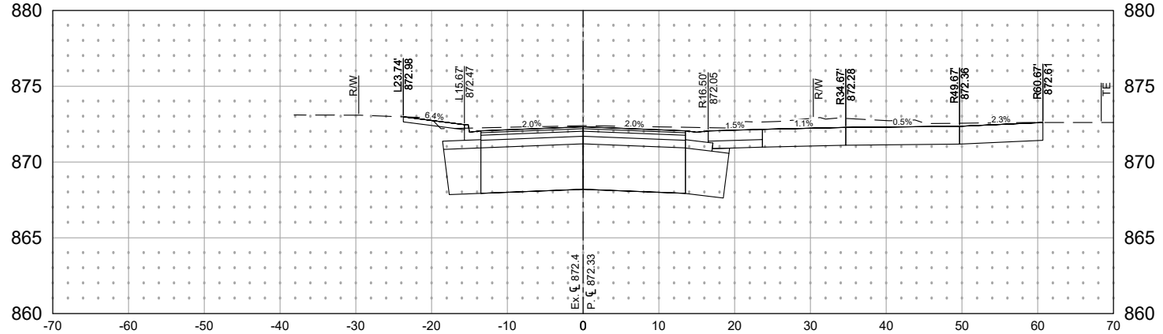

ZANE AVENUE
26+33 - 27+50

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X13 Of103 Sheets

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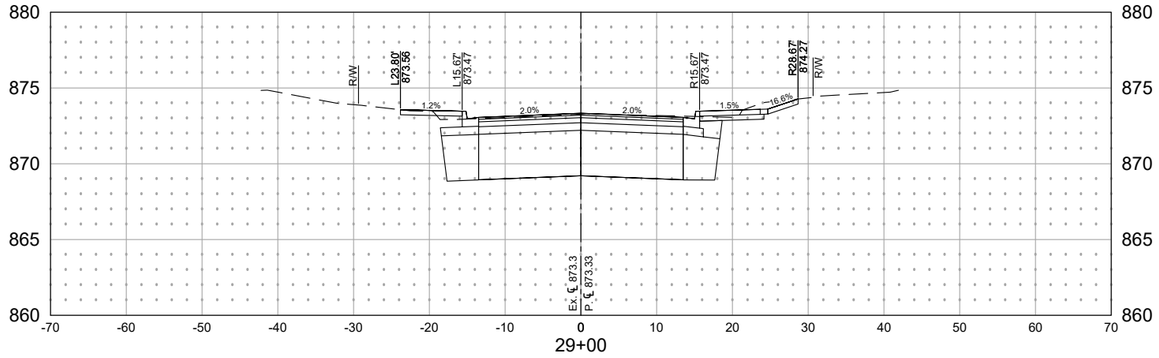
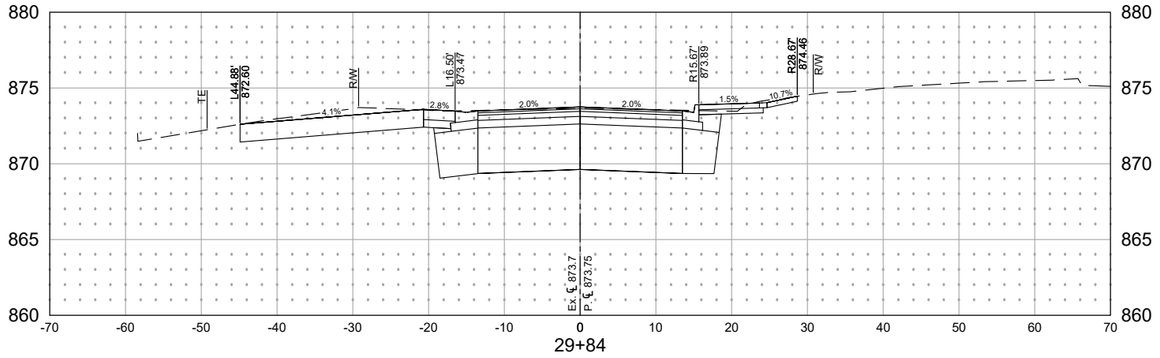
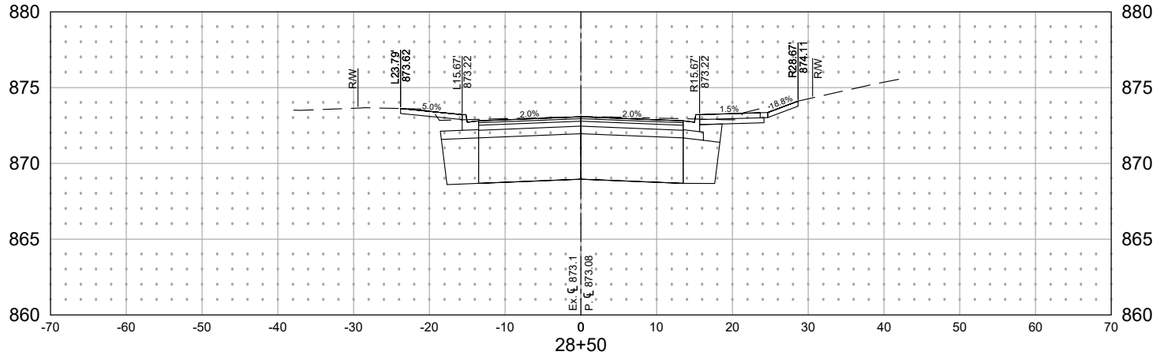


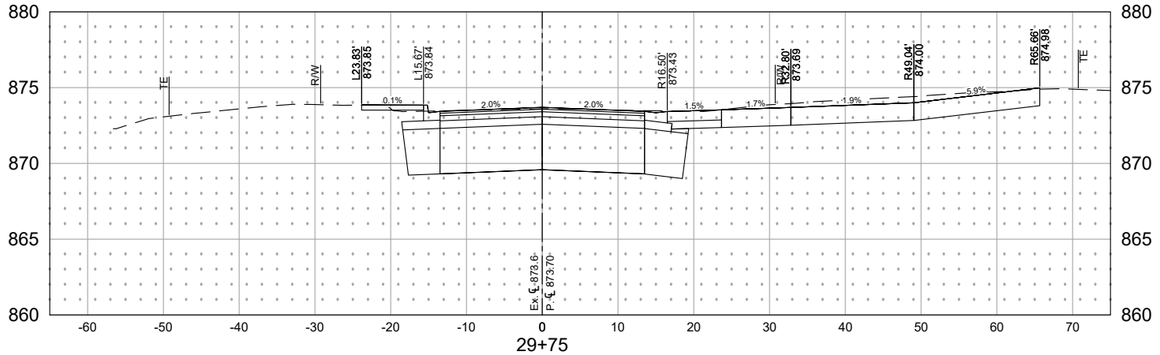
29+00



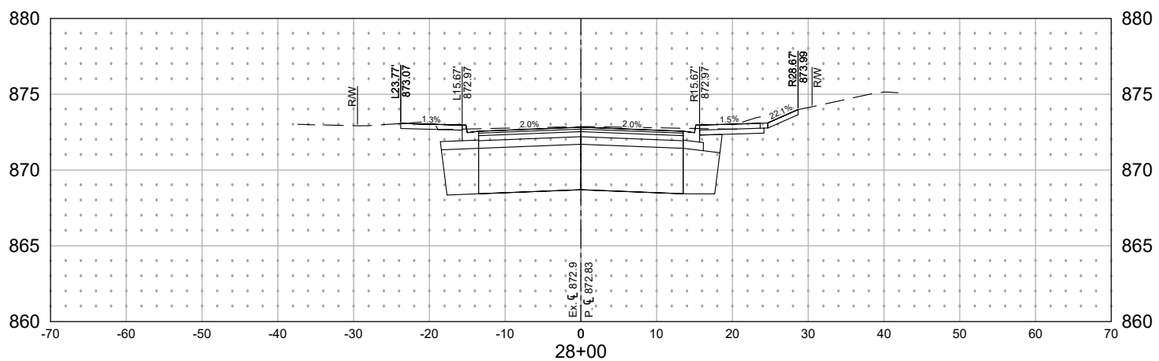
29+84



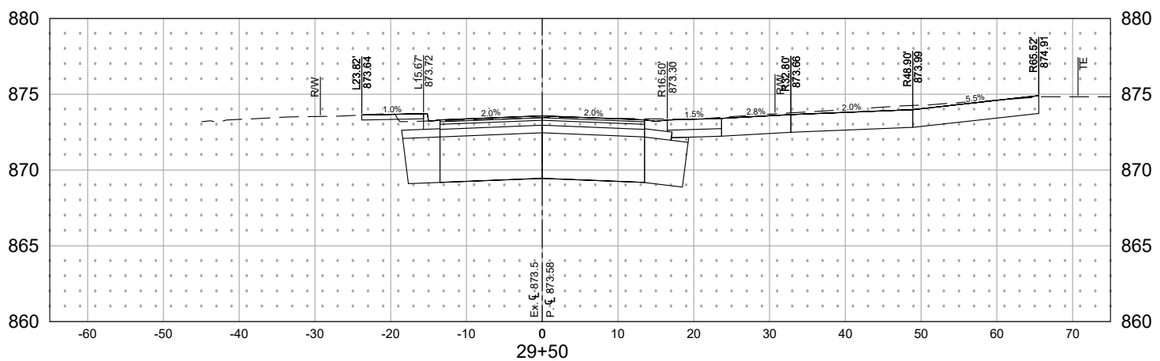
28+50



29+75



28+00



29+50

ZANE AVENUE
28+00 - 29+84

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X14 Of103 Sheets

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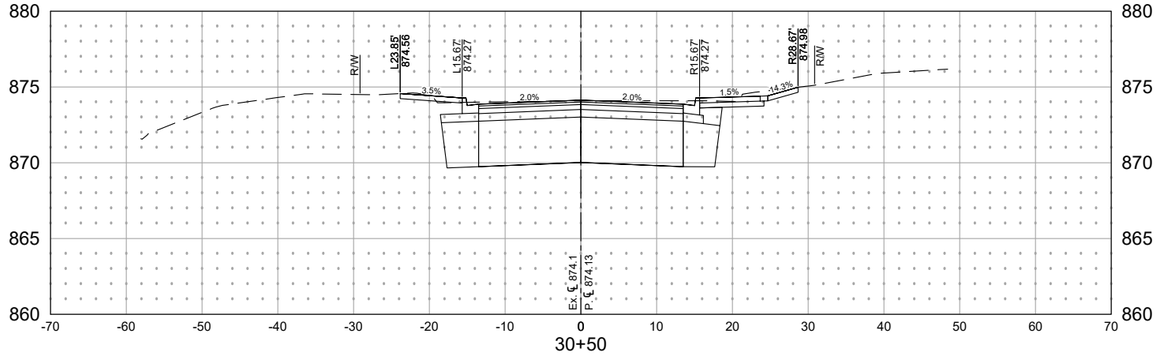
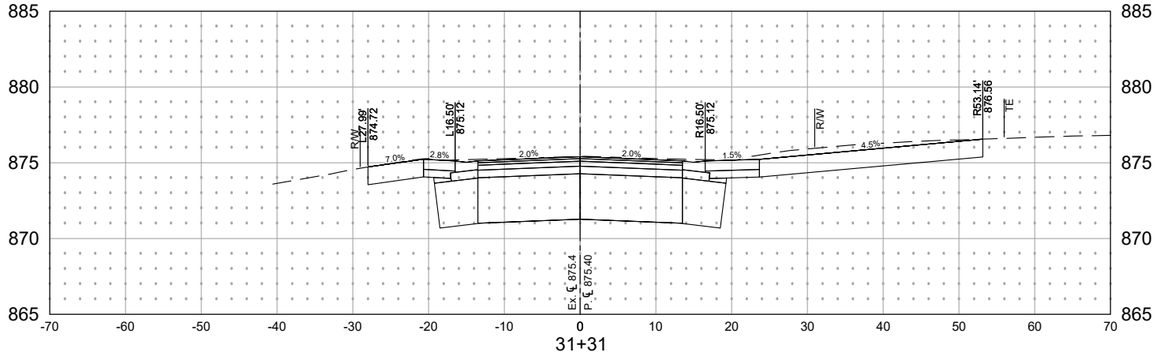
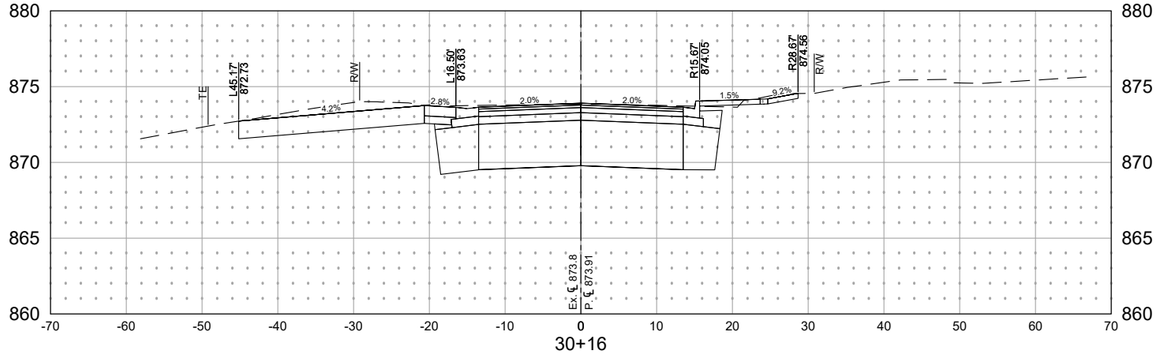


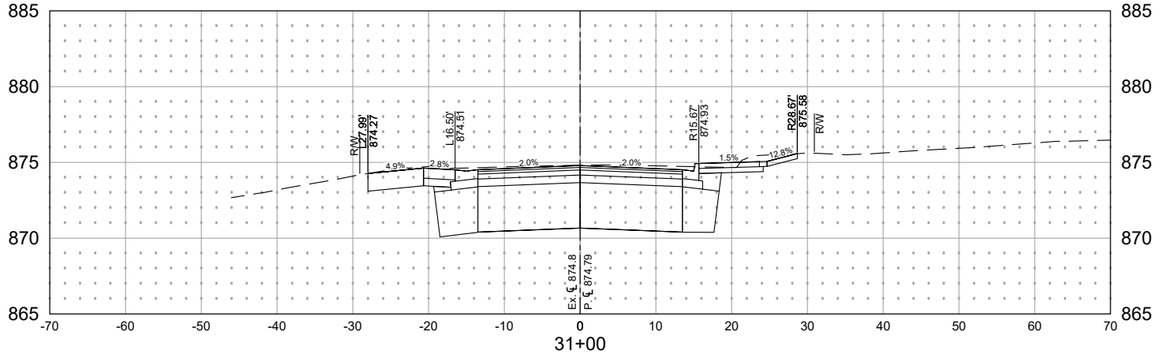
30+50



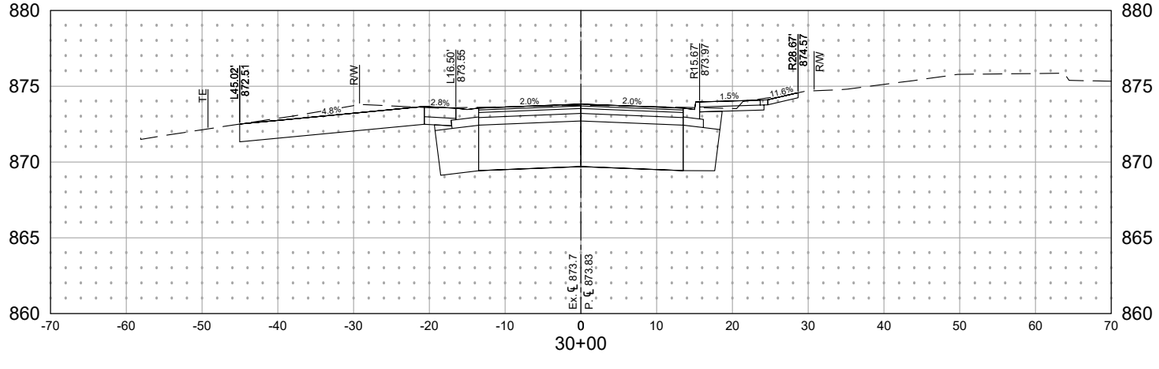
31+31



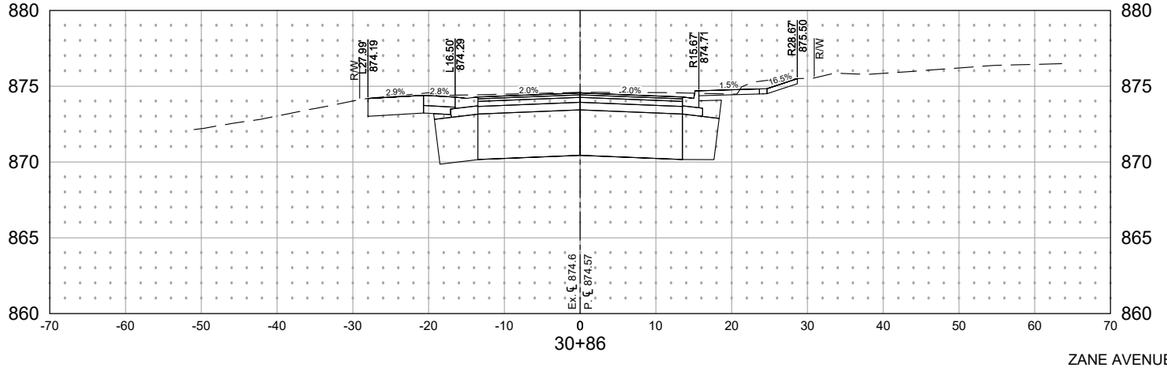
30+16



31+00



30+00



30+86

ZANE AVENUE
29+75 - 30+86

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X15 Of103 Sheets

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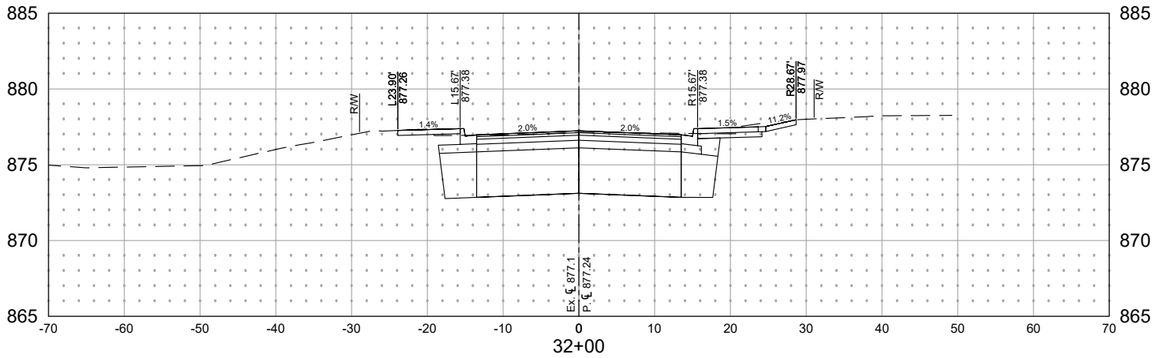
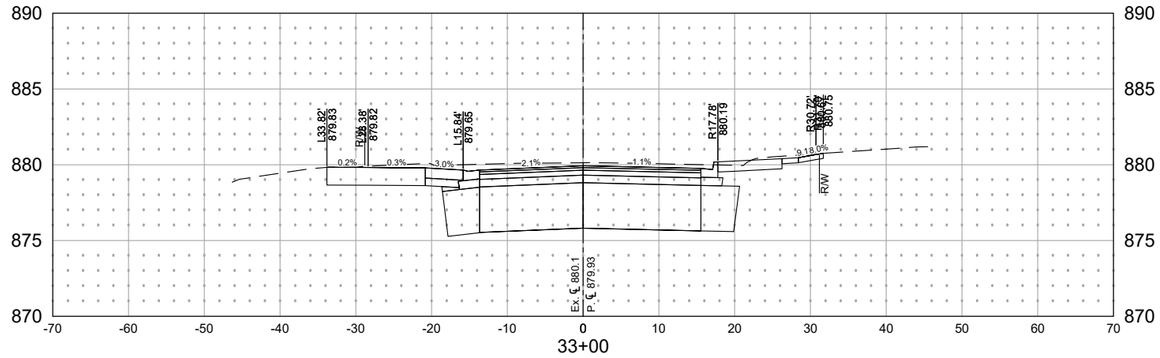
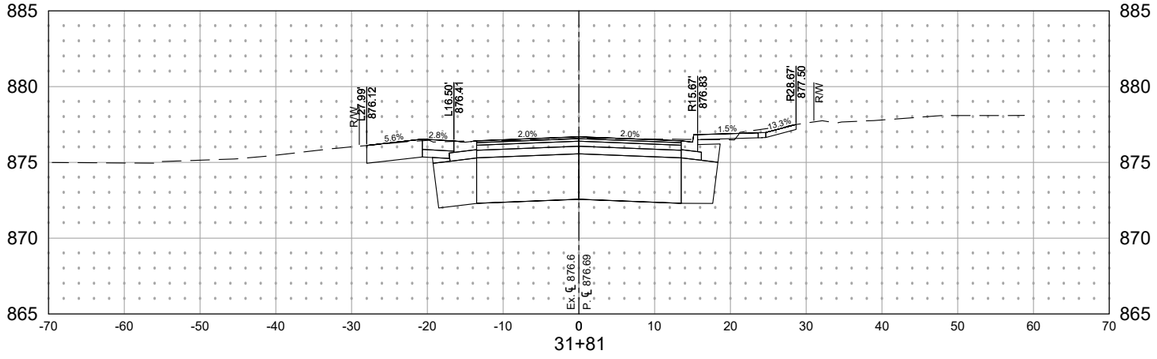


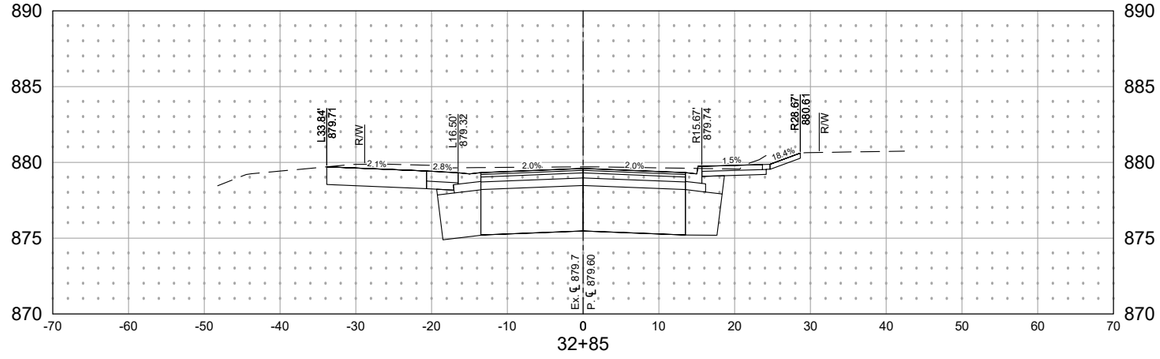
32+00



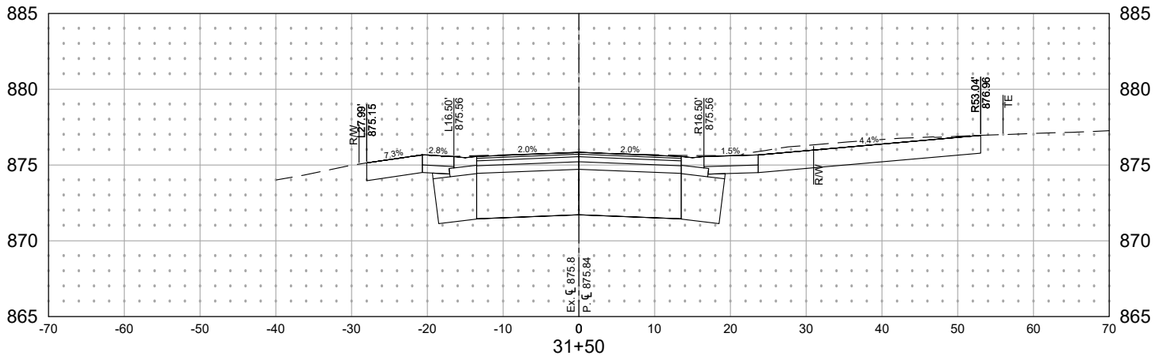
33+00



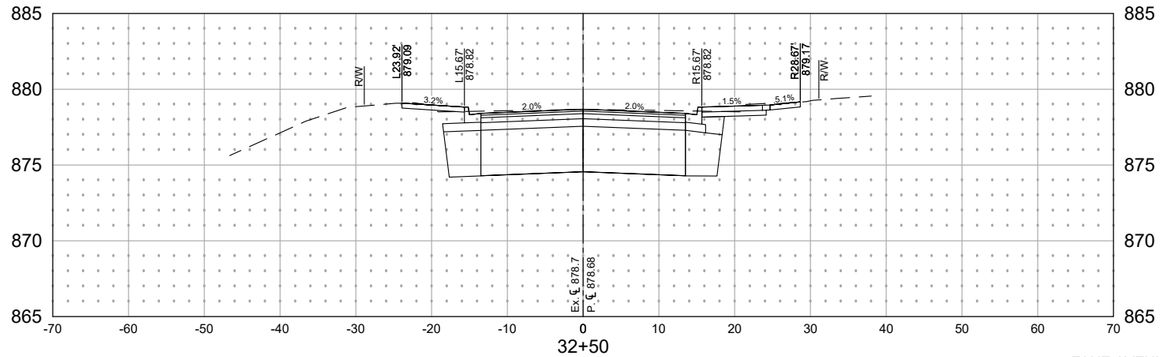
31+81



32+85



31+50



32+50

ZANE AVENUE
31+50 - 33+00

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X16 Of103 Sheets

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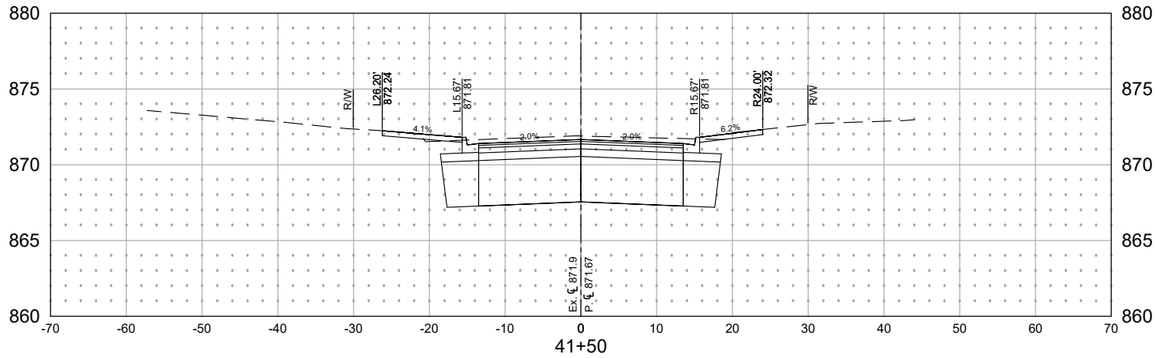
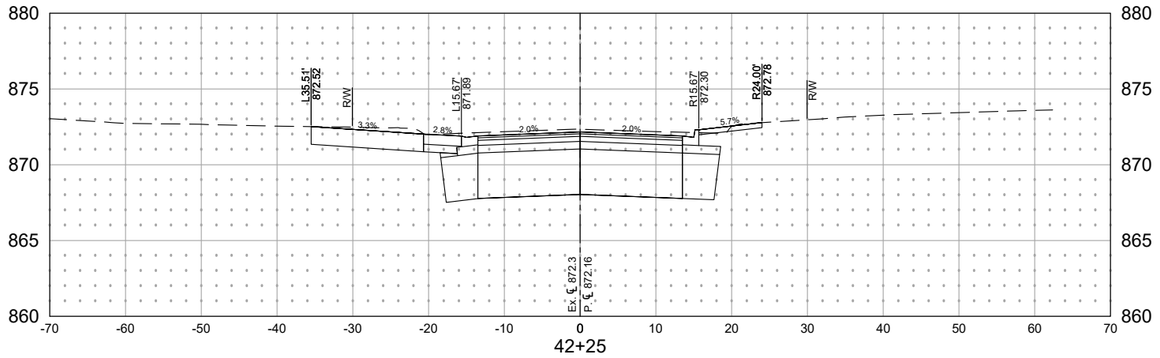
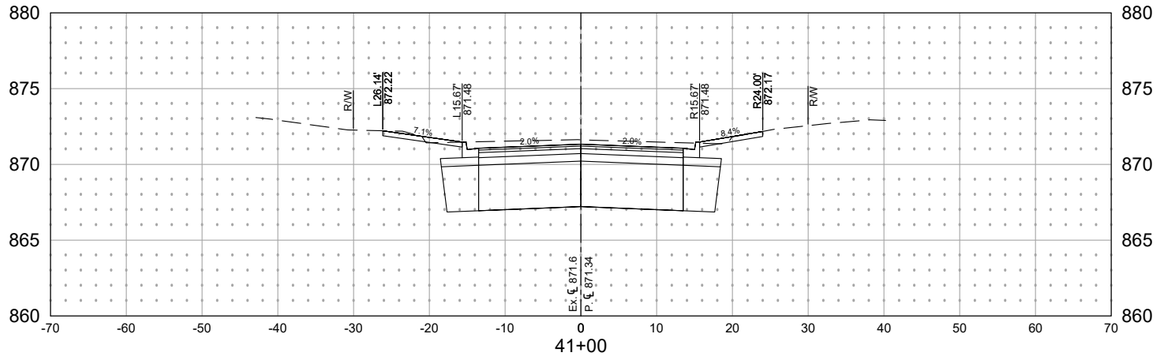


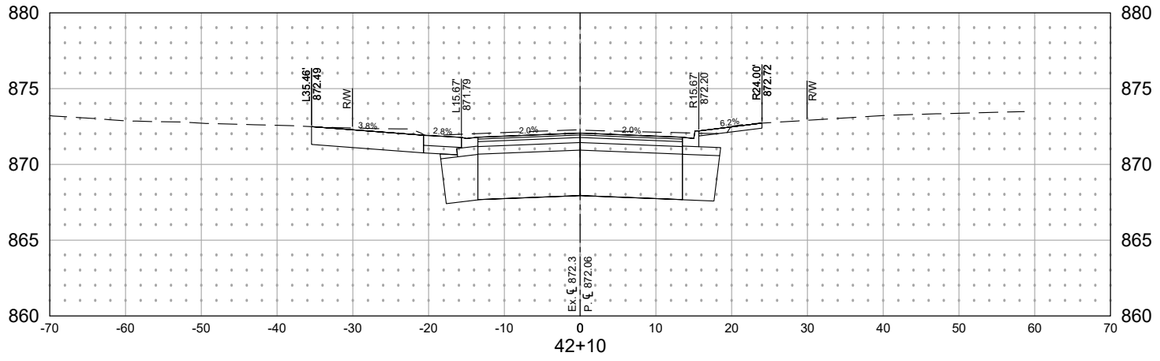
41+50



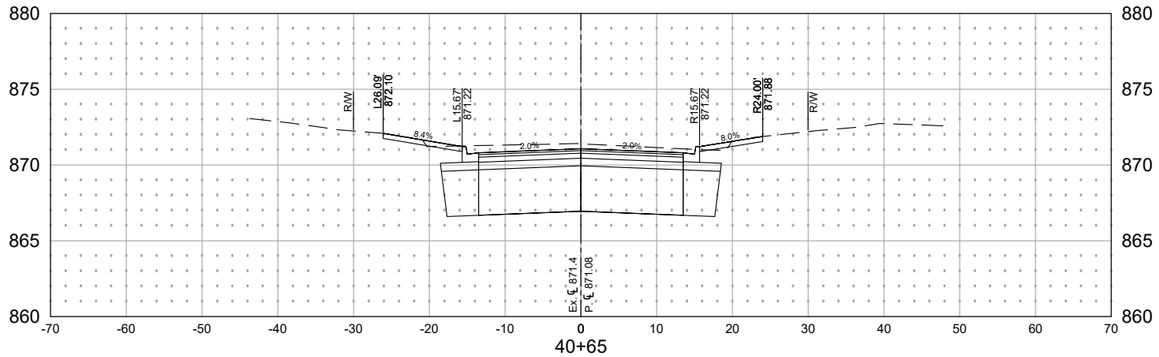
42+25



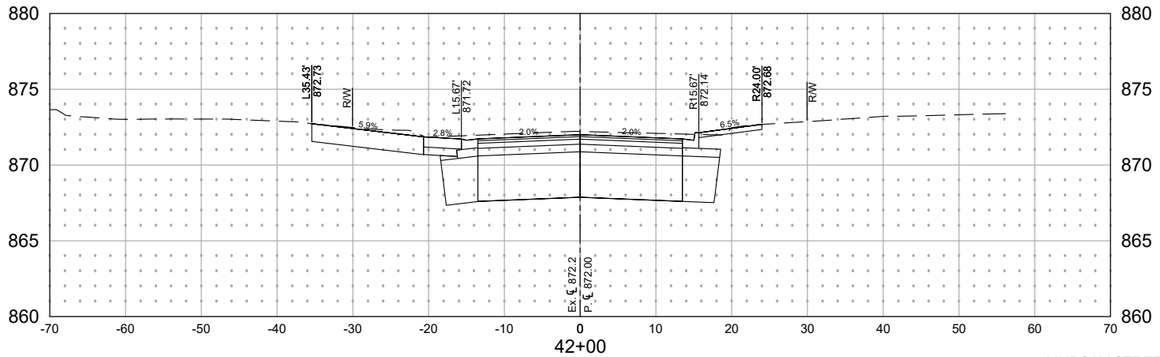
41+00



42+10



40+65



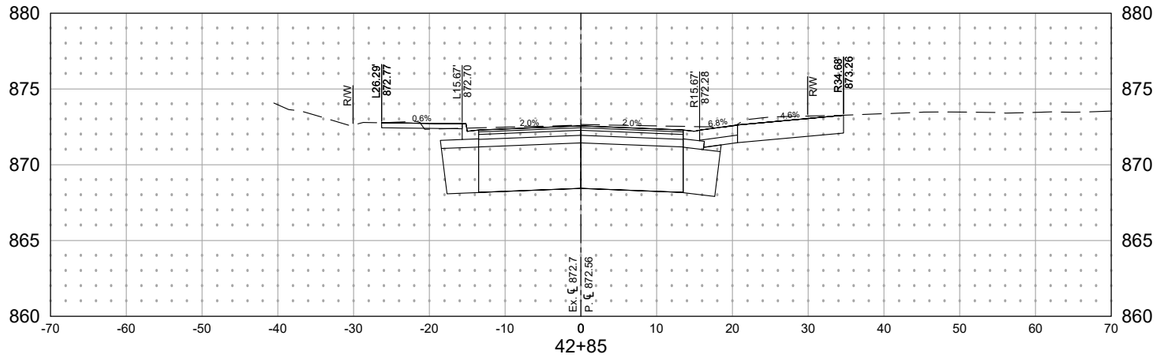
42+00

LINDSAY STREET
40+65 - 42+25

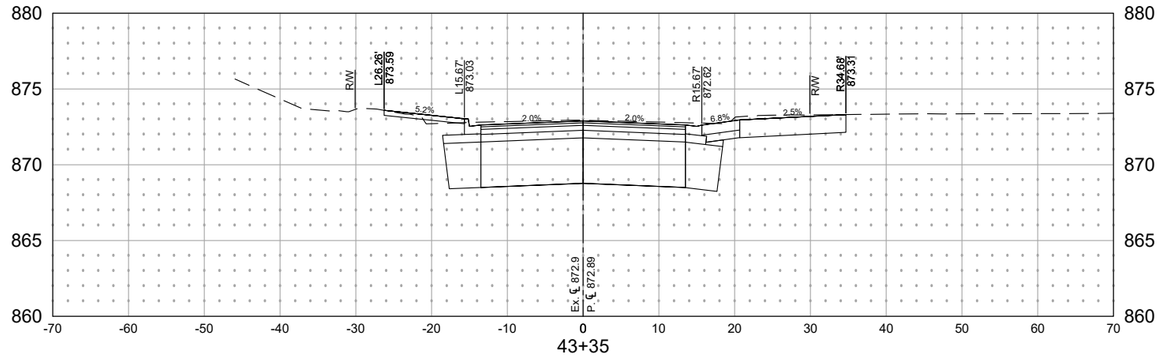
CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X17 Of103 Sheets

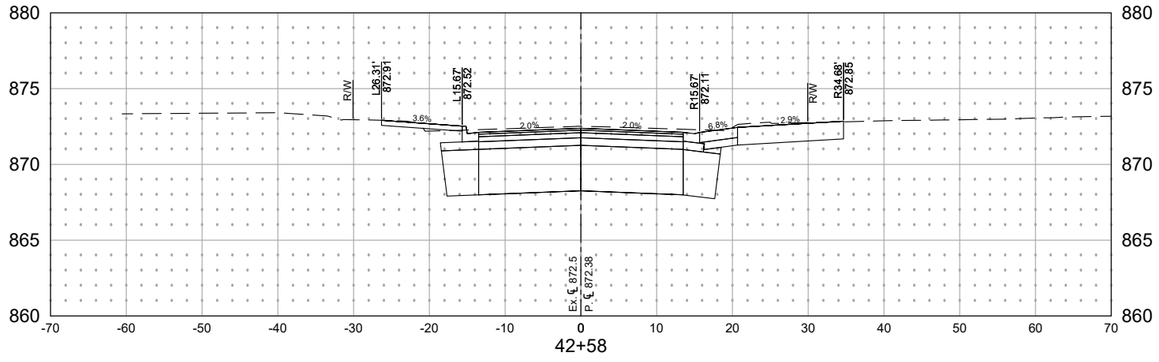
Save: 1/10/2024 8:23 AM sprall Plot: 4/16/2024 8:12 AM X:\FJG\GOLDV\16361B5-final-dsgn\51-drawings\10-Civil\cad\dwg\sheet\GV16361BX02_Lindsay.dwg



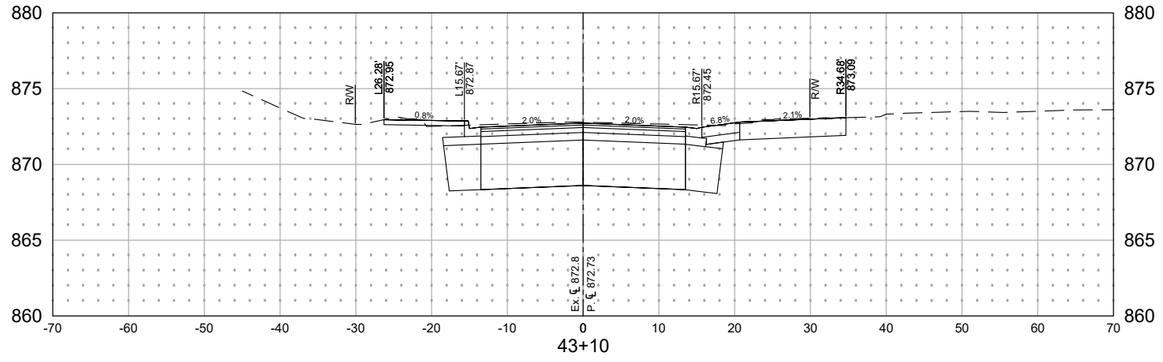
42+85



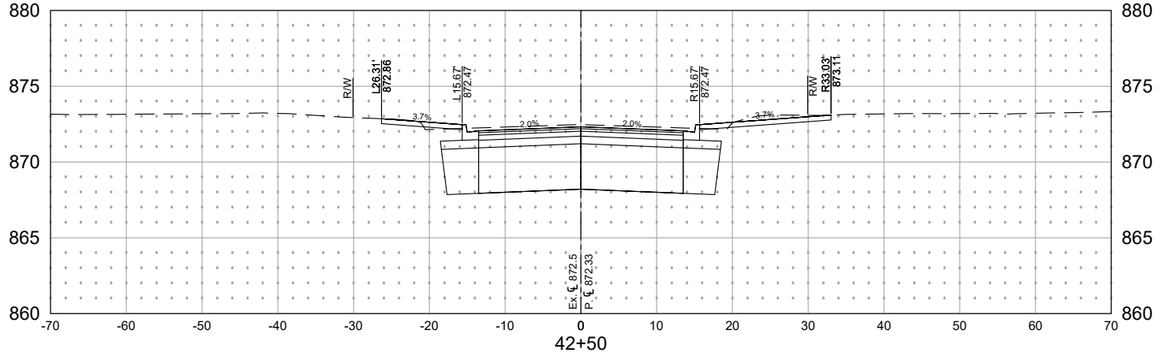
43+35



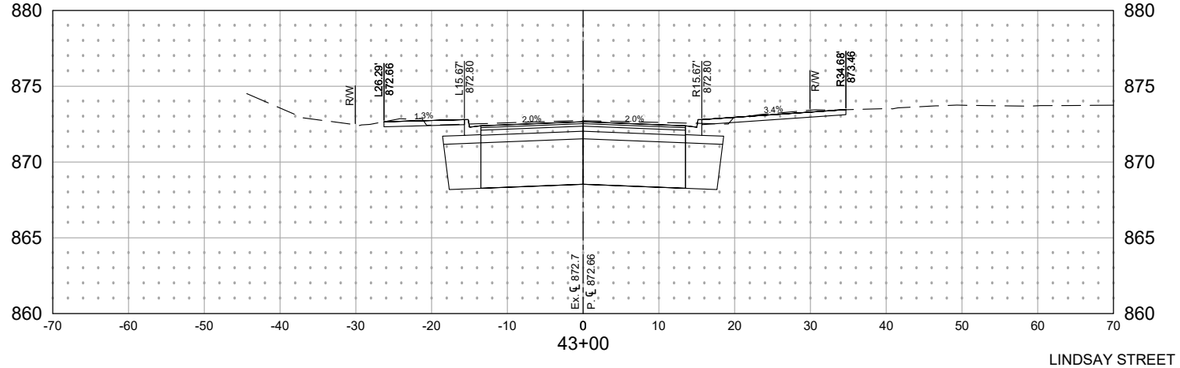
42+58



43+10



42+50



43+00

LINDSAY STREET
42+50 - 43+35

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X18 Of103 Sheets

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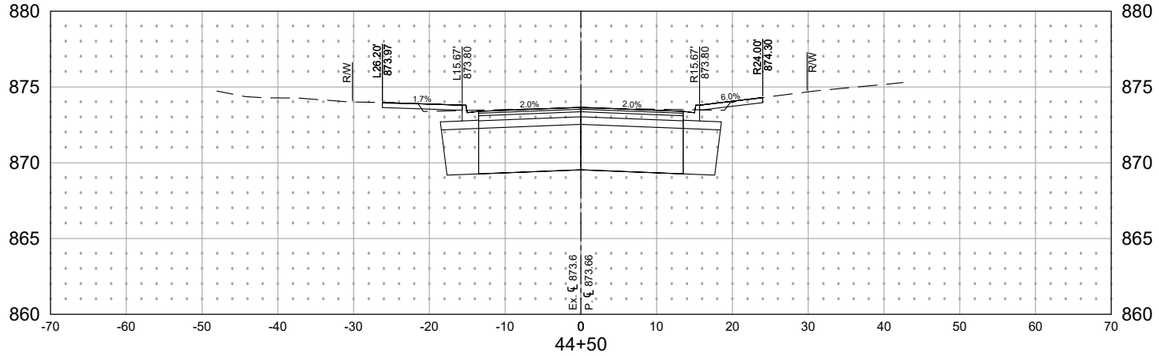

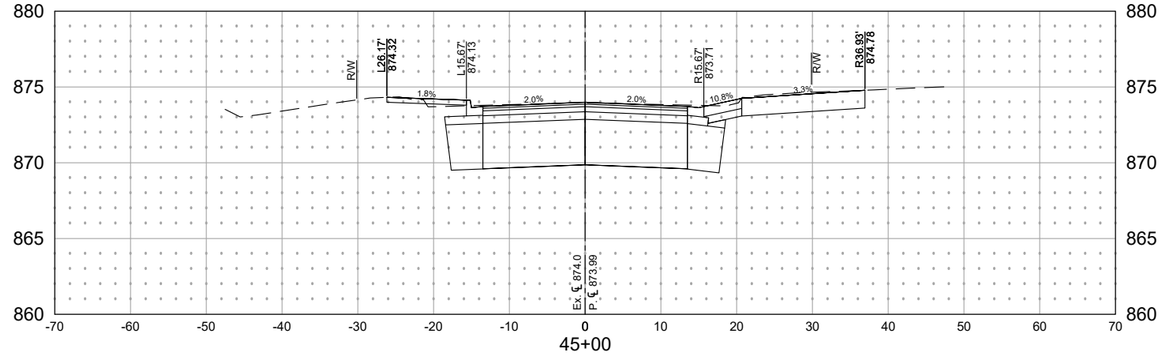

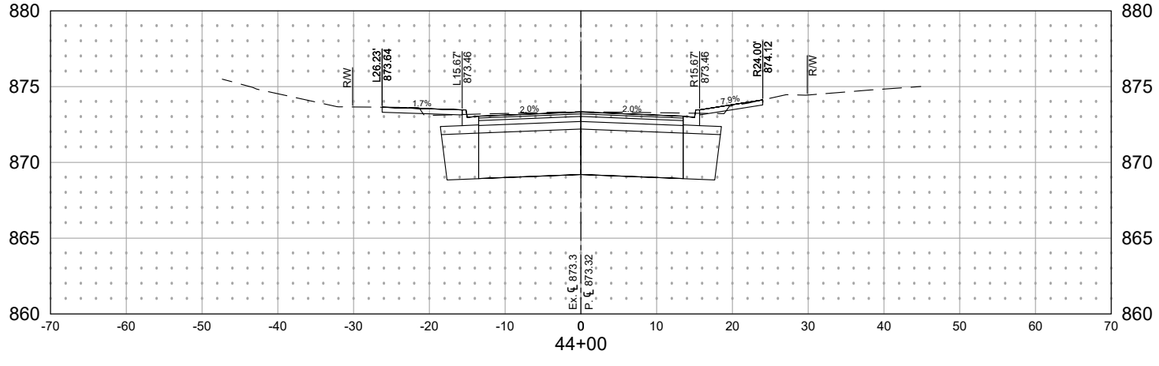

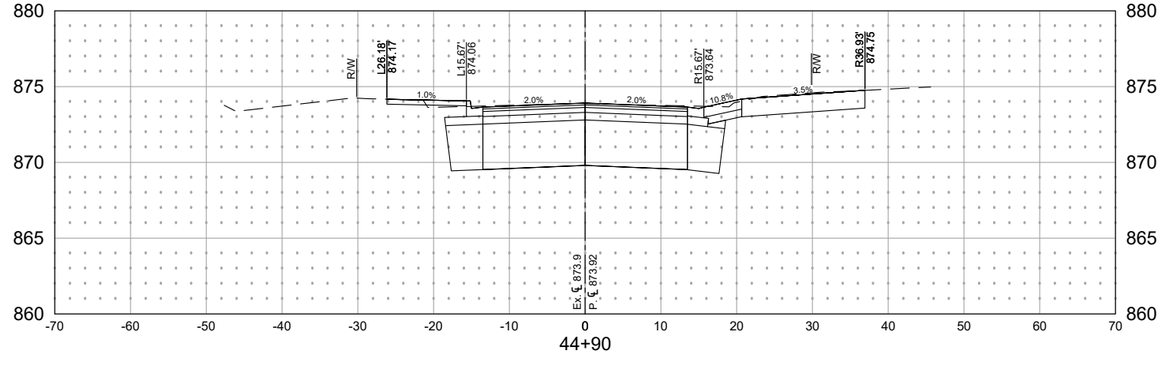

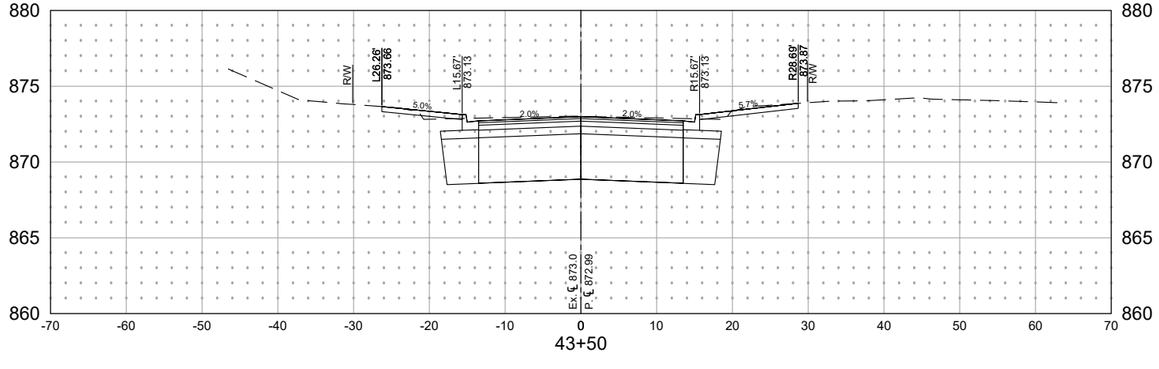

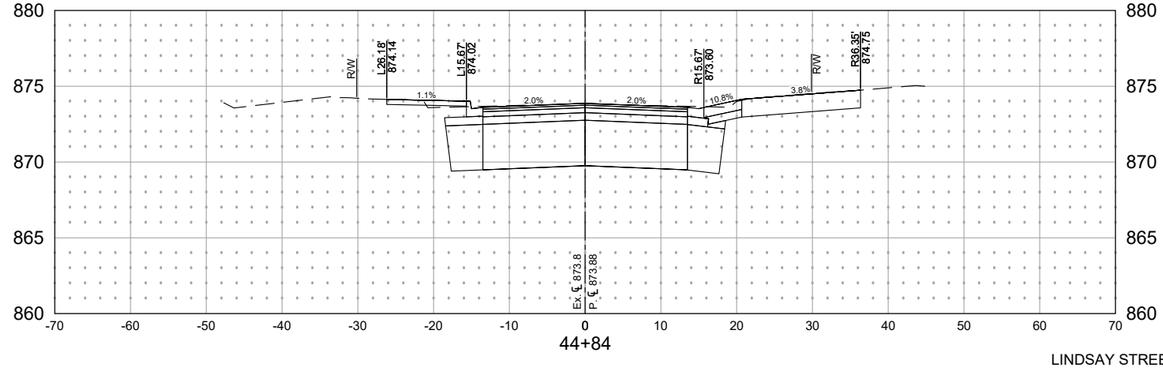

LINDSAY STREET
43+50 - 45+00

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X19 Of103 Sheets

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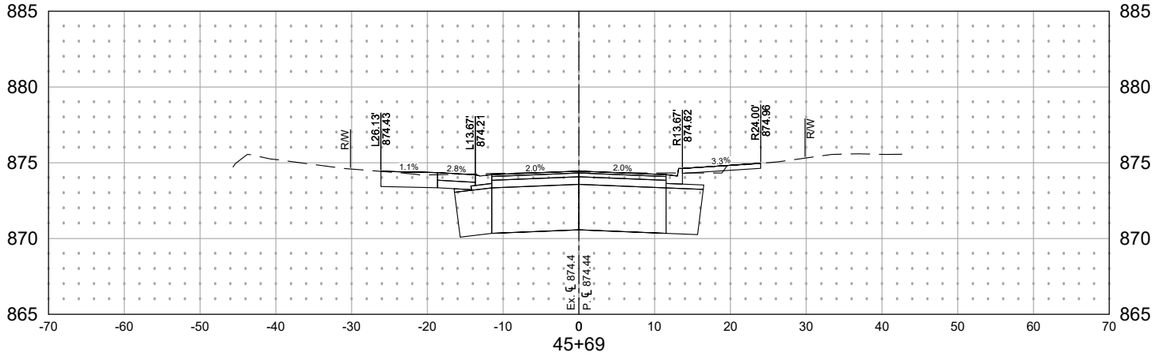

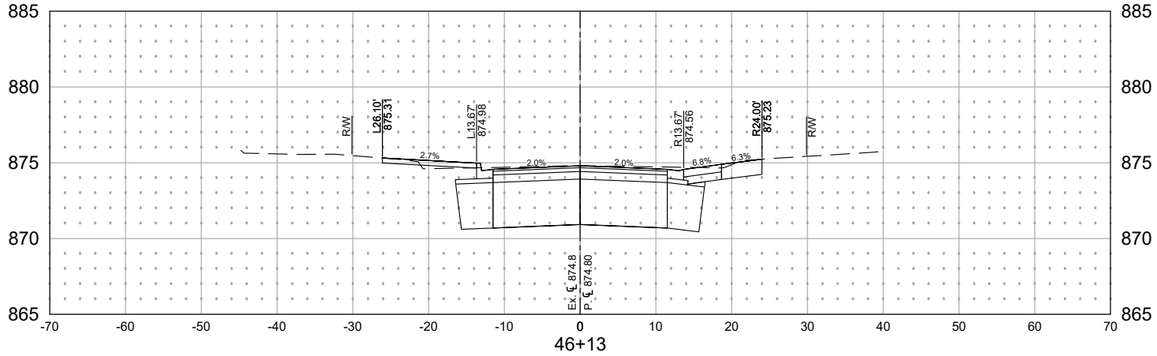

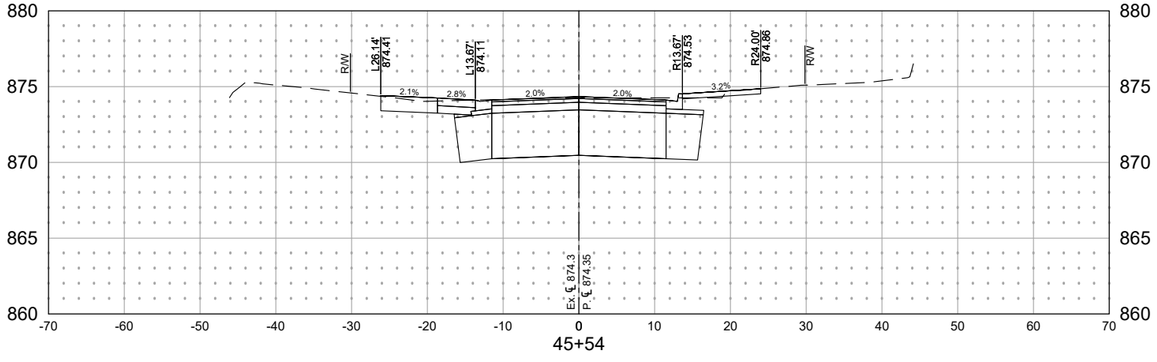

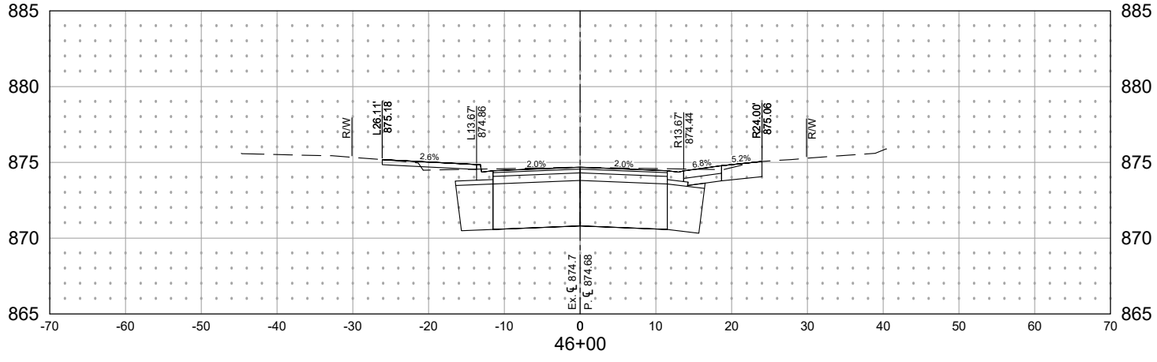

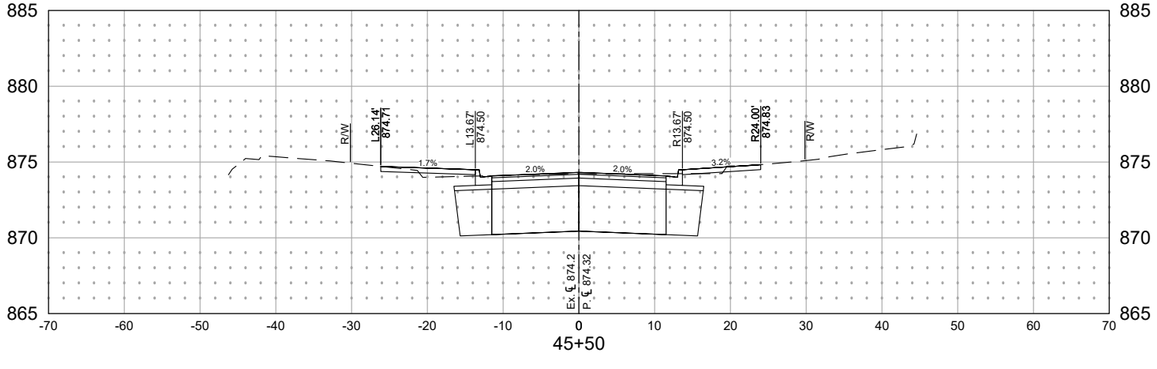

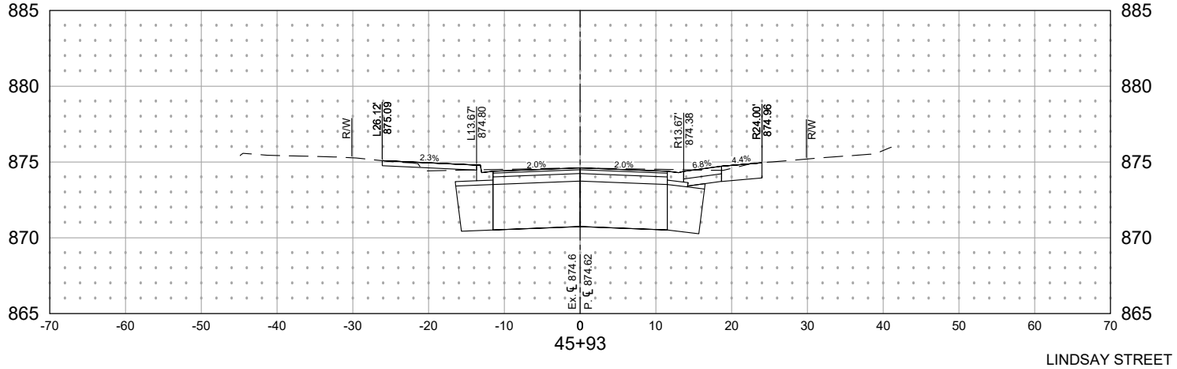

LINDSAY STREET
45+50 - 46+13

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X20 Of103 Sheets

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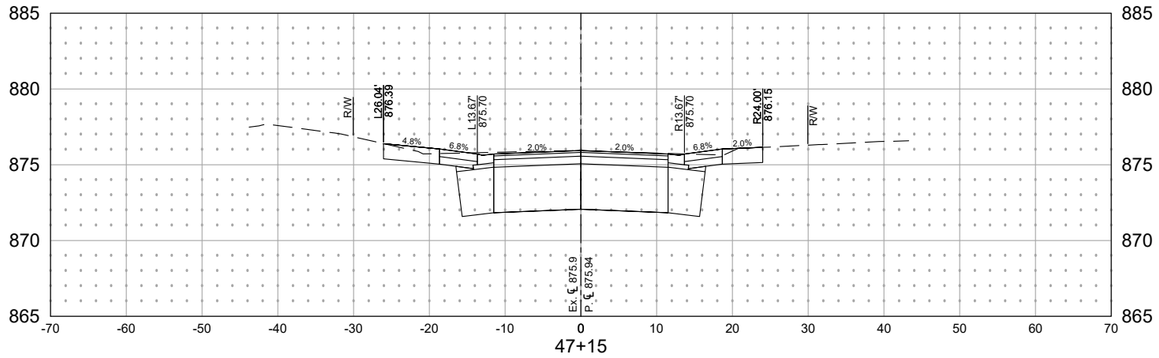
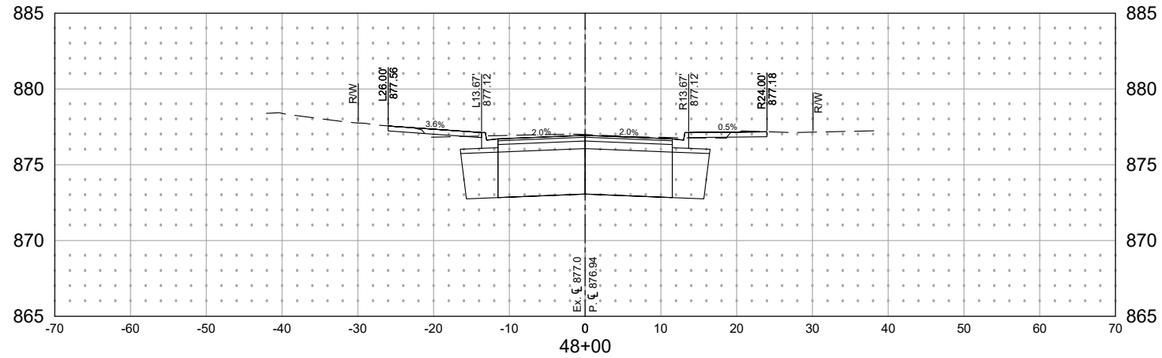
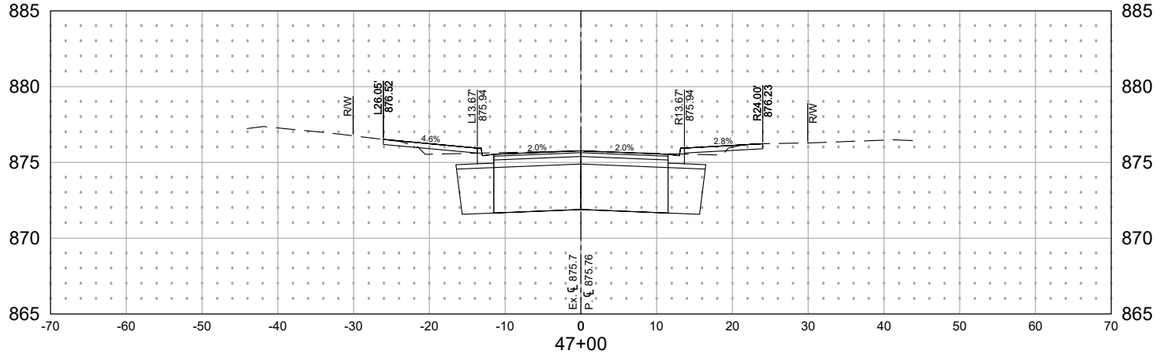


47+15



48+00



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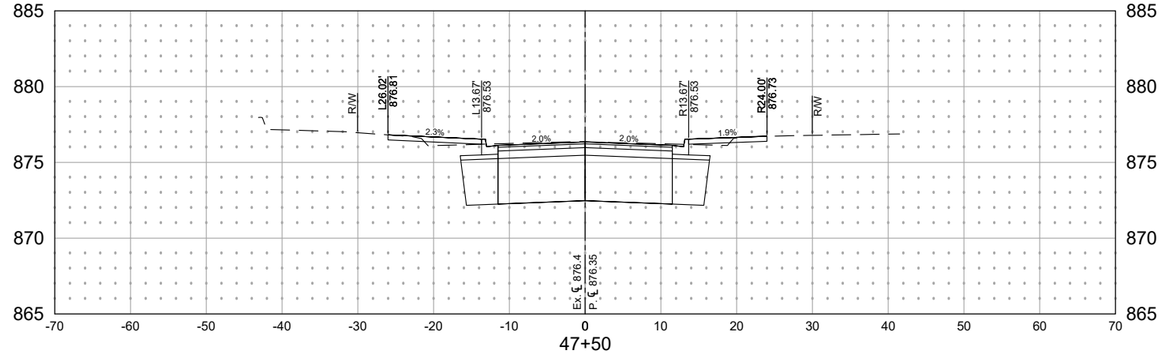

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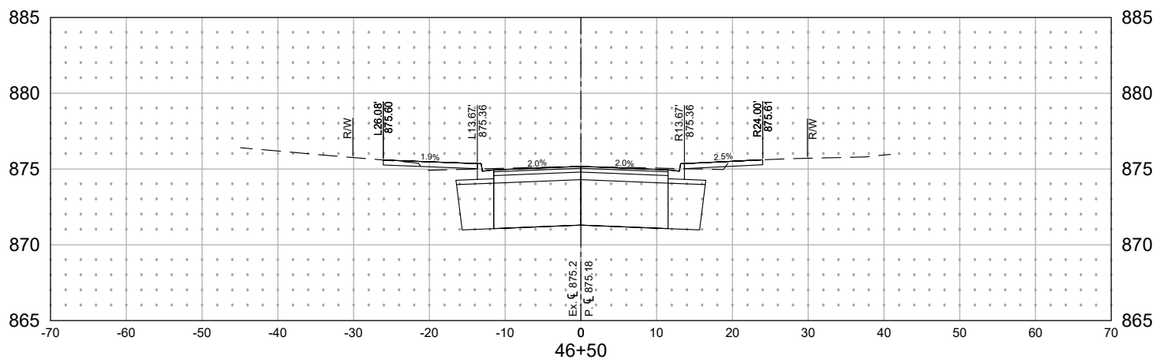
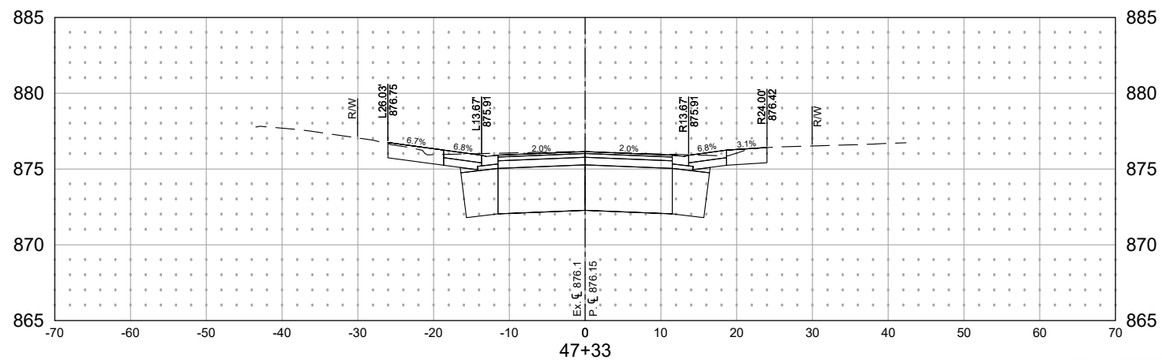


46+50



47+33

LINDSAY STREET
46+50 - 48+00

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X21 Of103 Sheets

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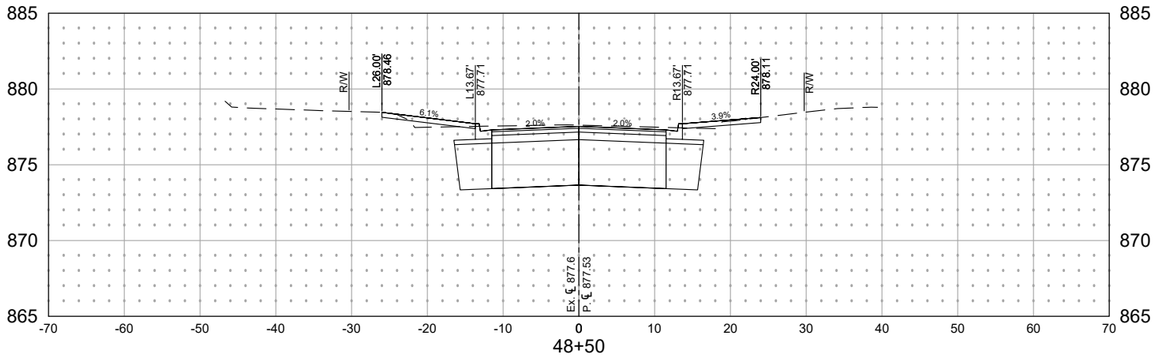
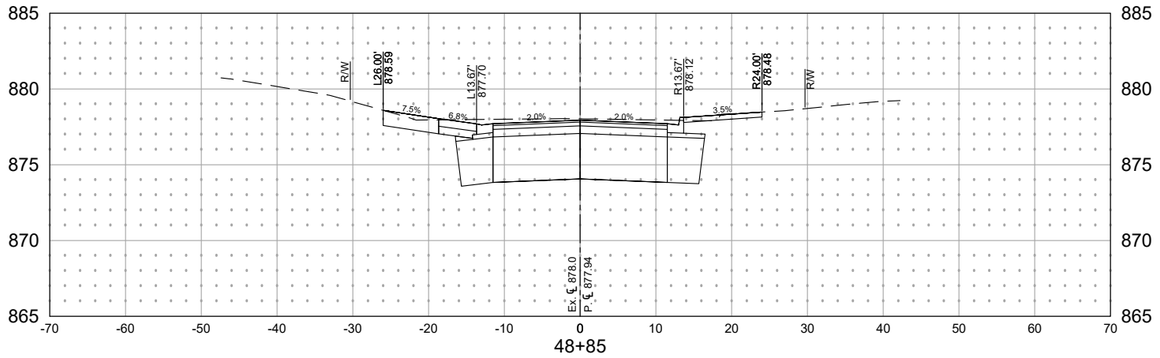
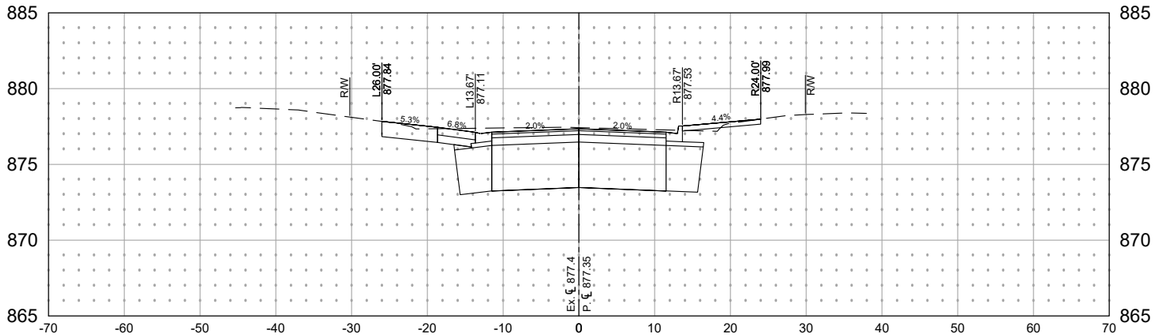


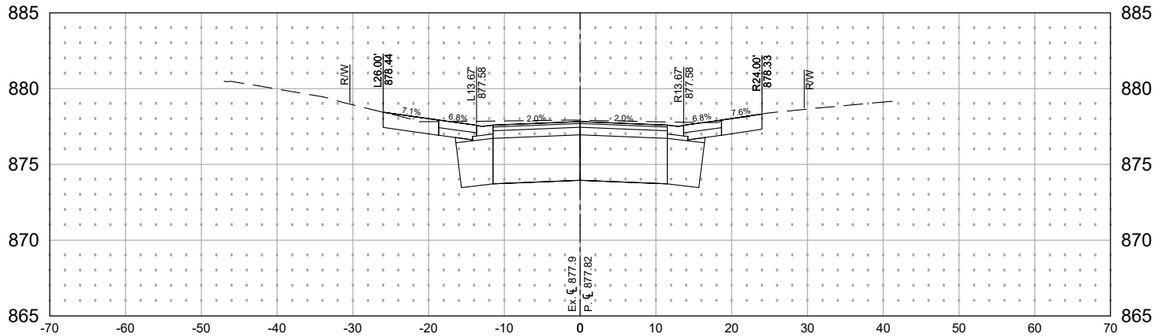
48+50



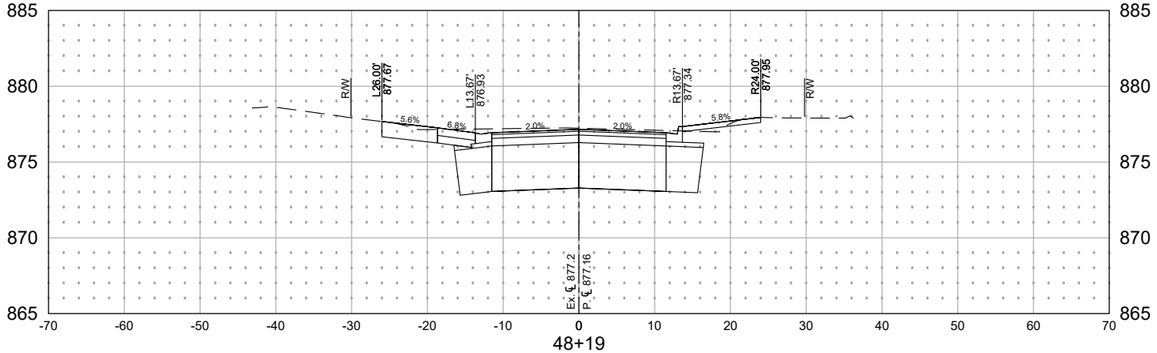
48+85



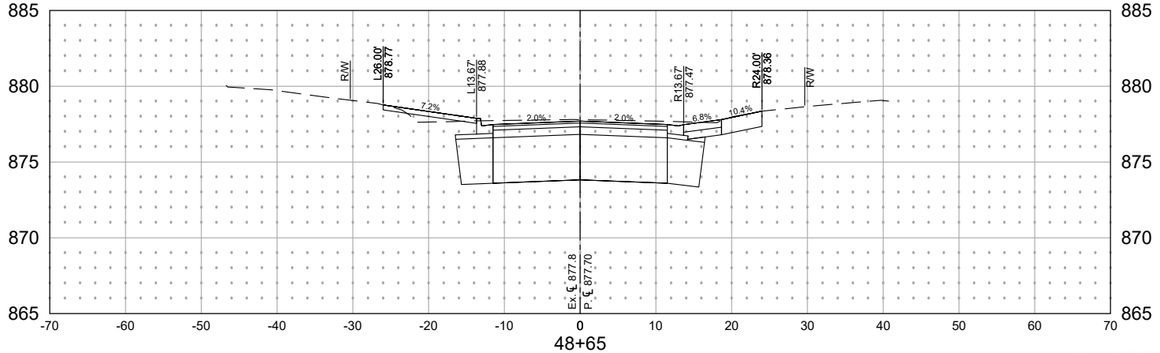
48+35



48+75



48+19



48+65

LINDSAY STREET
48+19 - 48+85

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X22 Of103 Sheets

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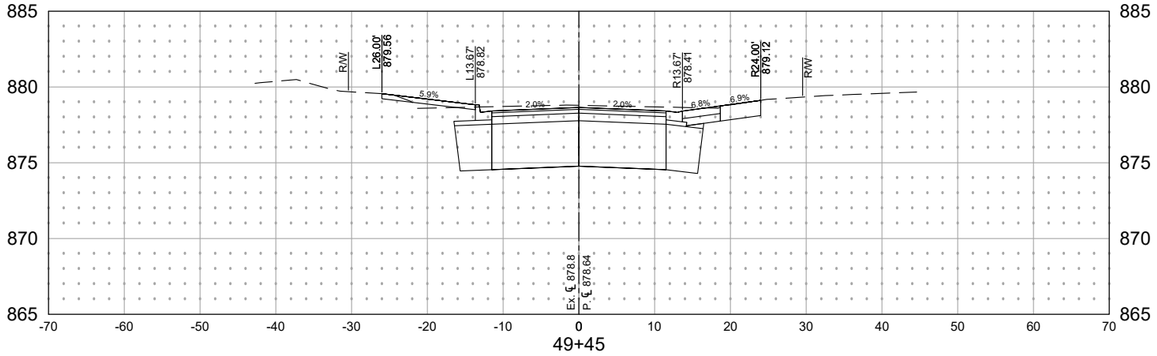
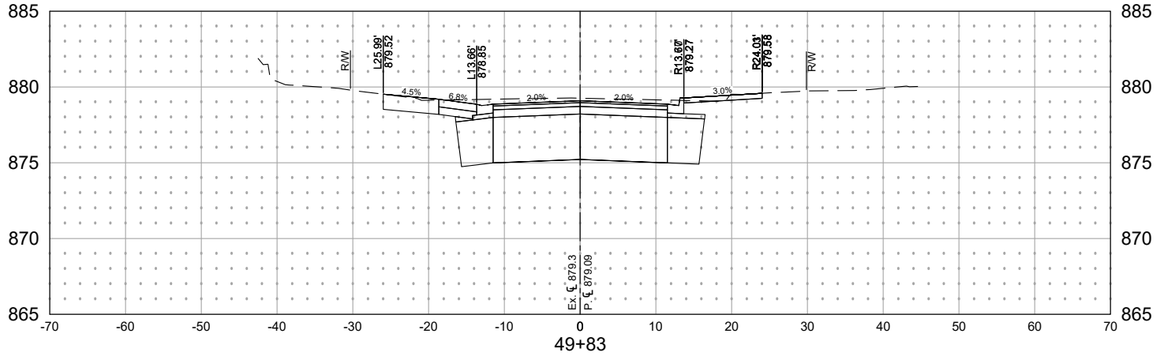
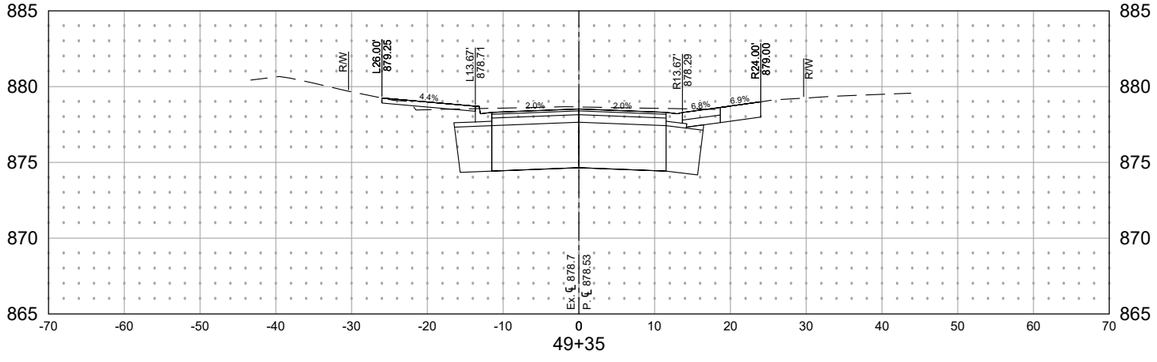


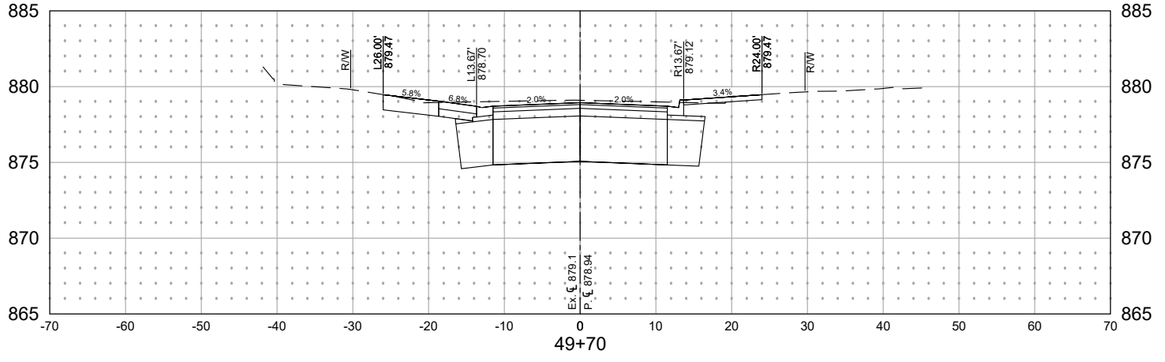
49+45



49+83



49+35



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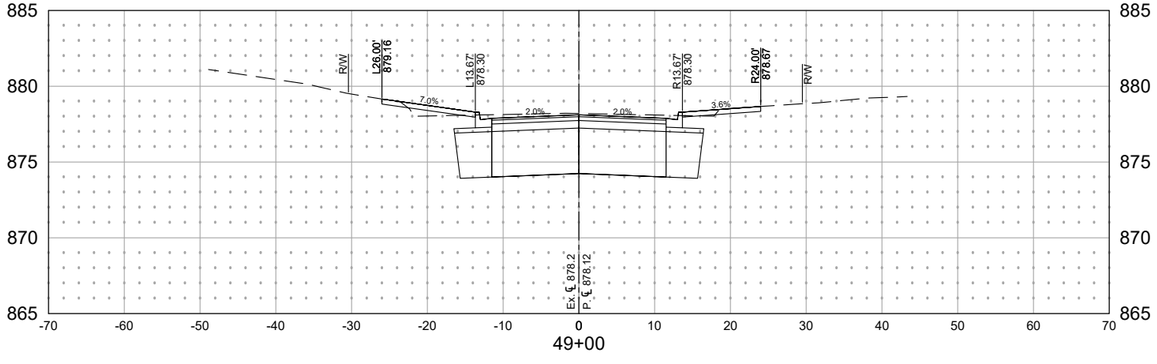
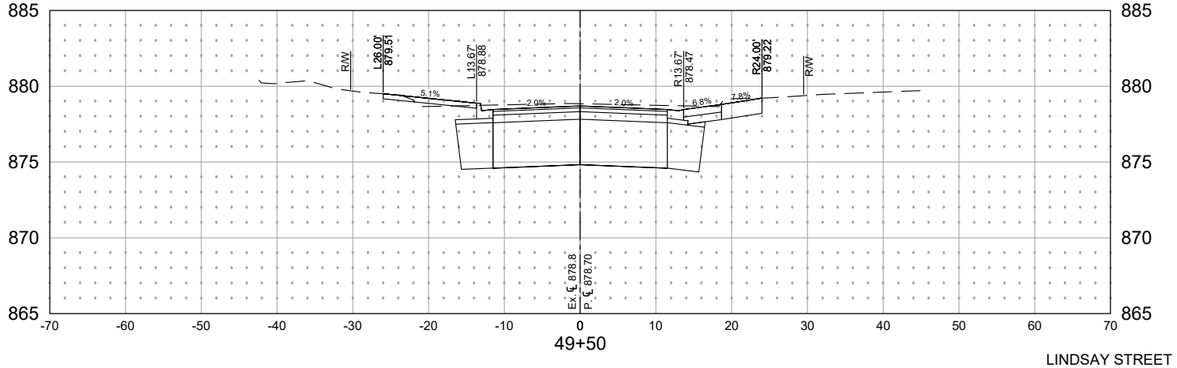


49+00



49+50

LINDSAY STREET
49+00 - 49+83

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X23 Of103 Sheets

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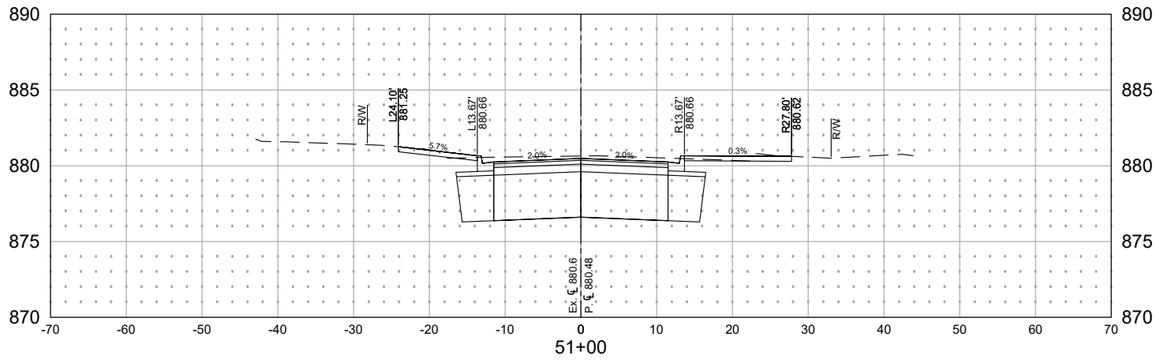

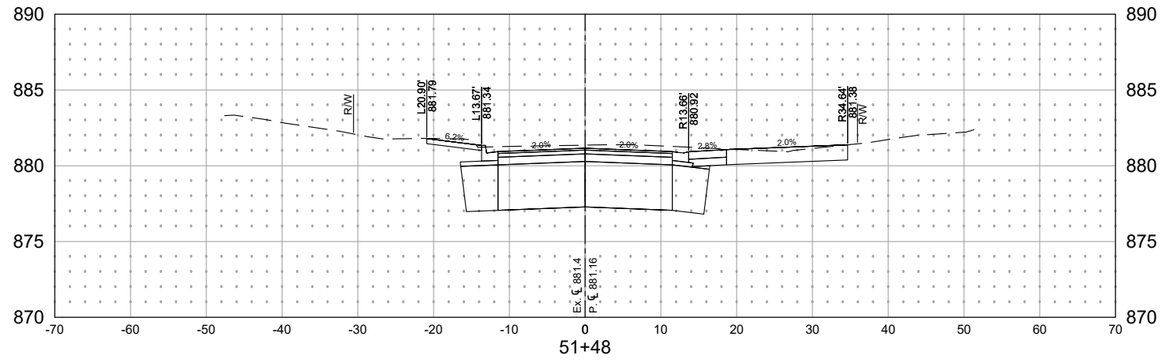

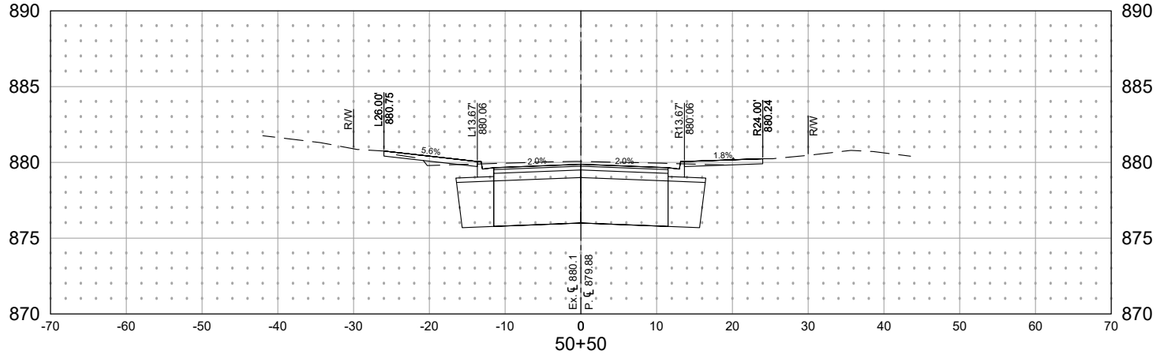

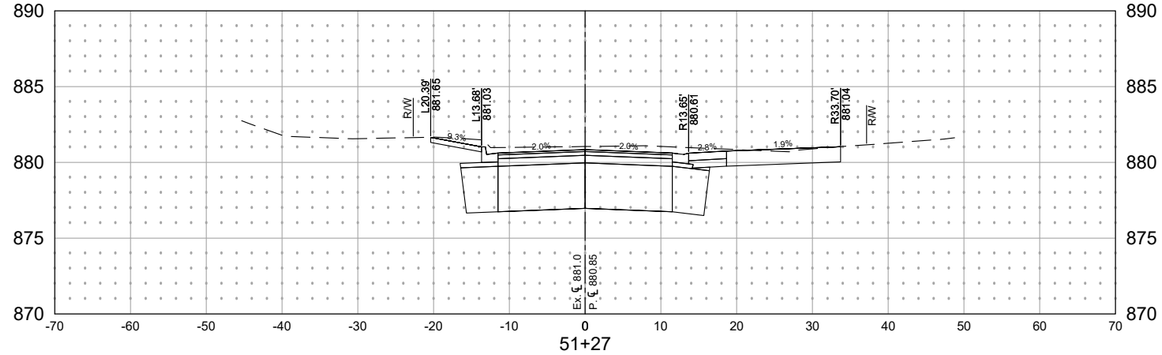

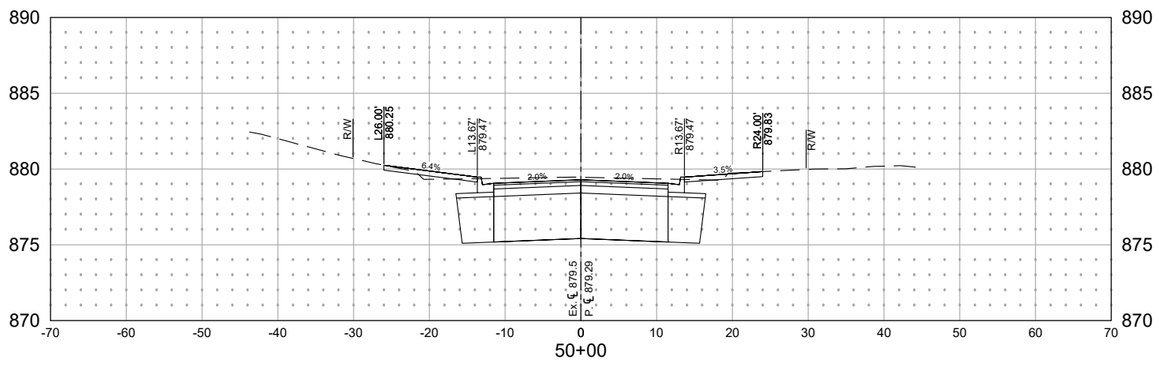

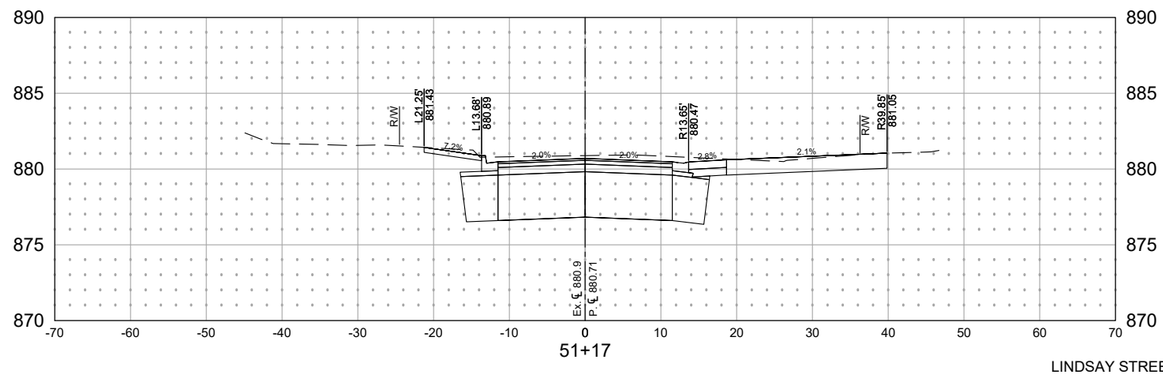

LINDSAY STREET
50+00 - 51+48

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X24 Of103 Sheets

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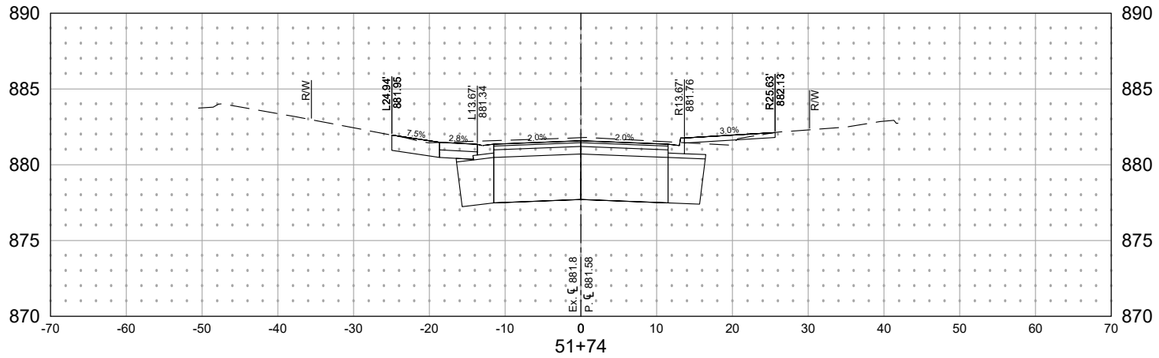

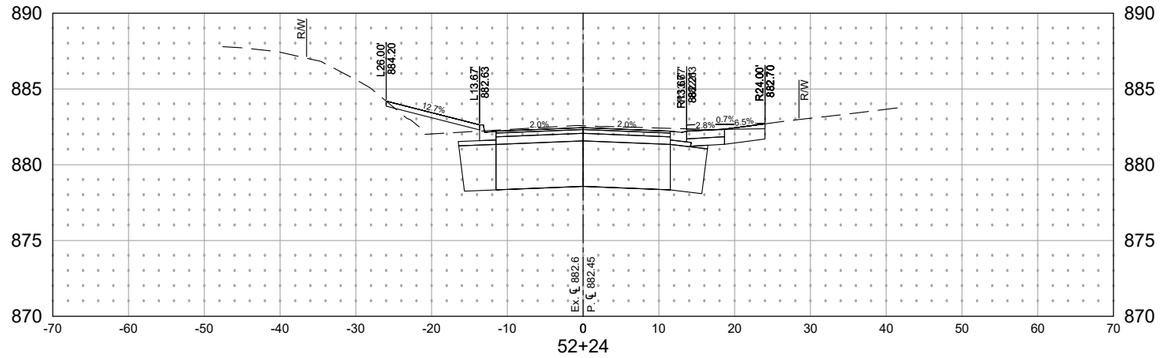

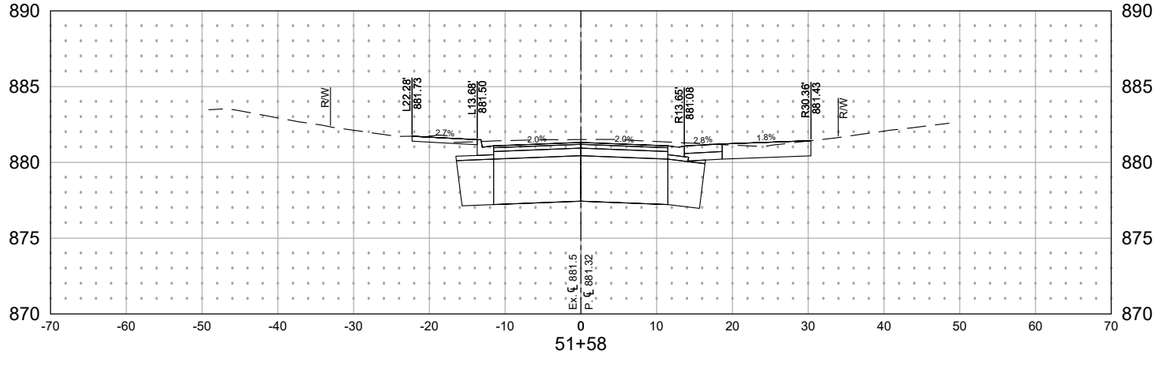

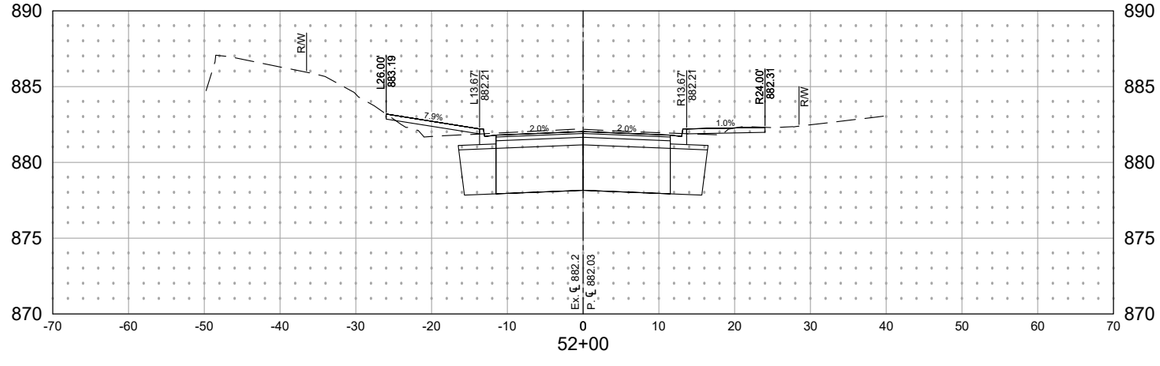

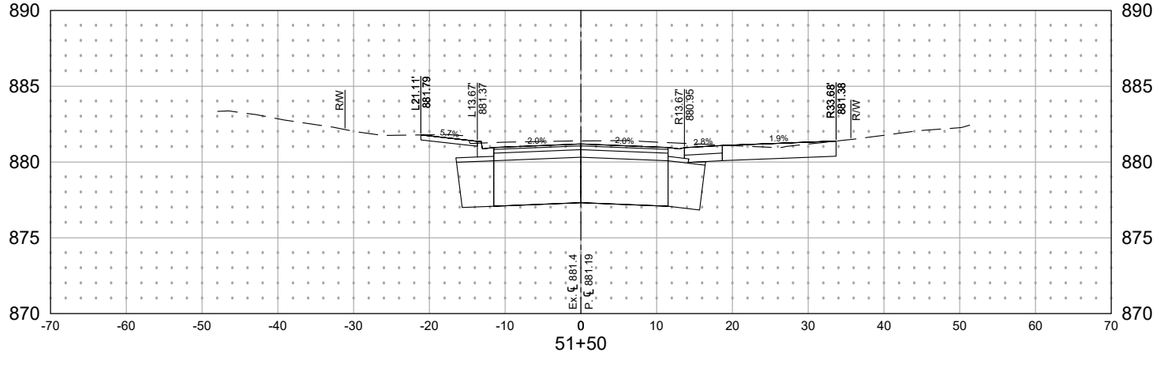

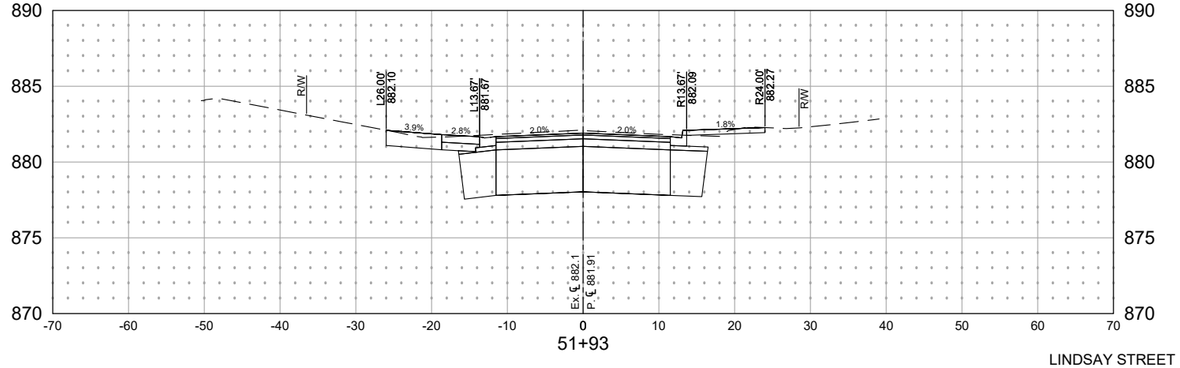

LINDSAY STREET
51+50 - 52+24

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X25 Of103 Sheets

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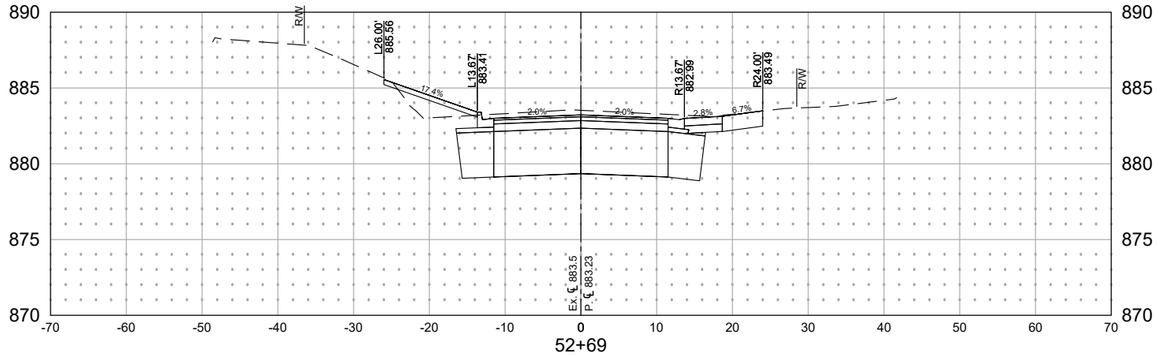

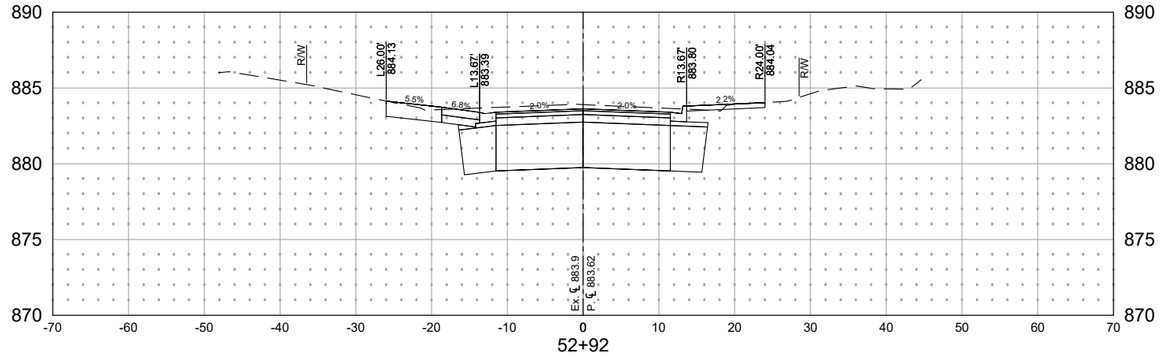

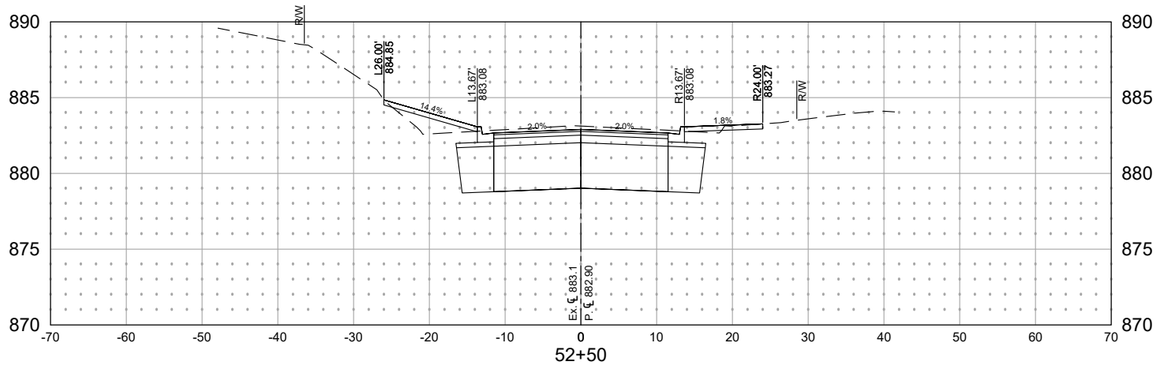

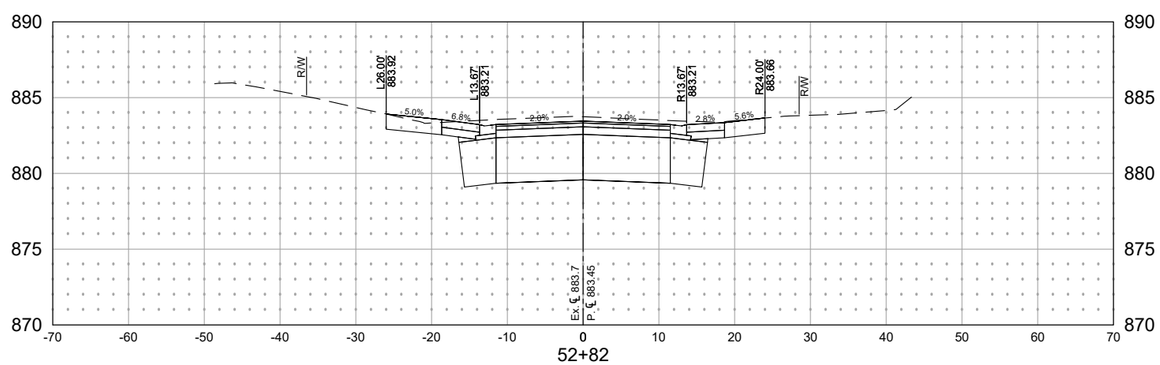

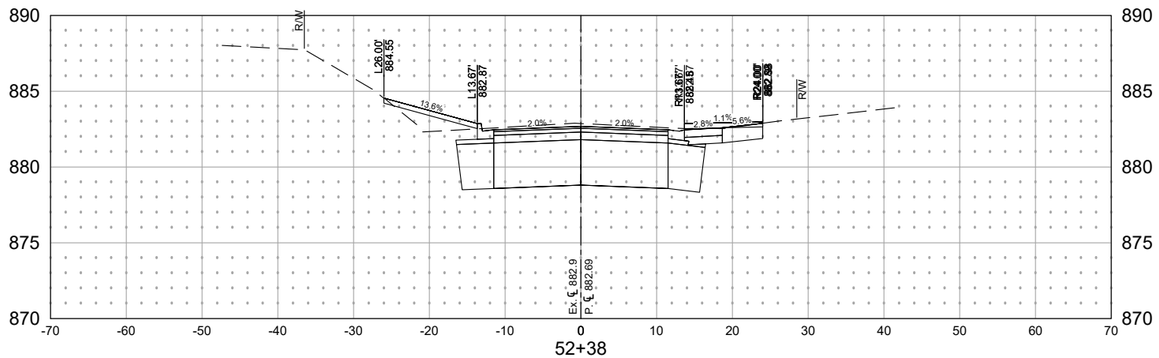

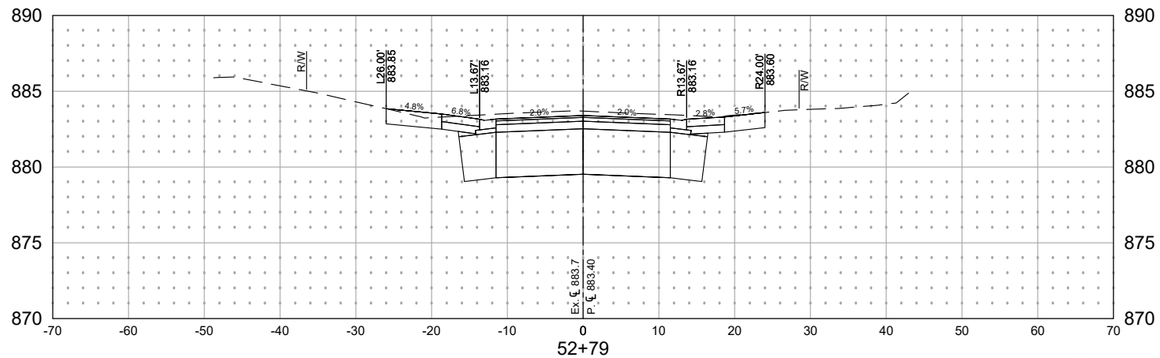

LINDSAY STREET
52+38 - 52+92

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X26 Of103 Sheets

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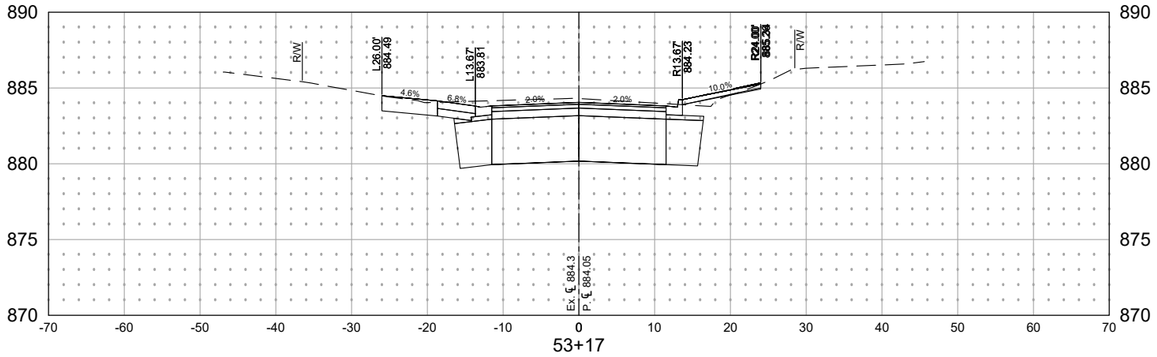

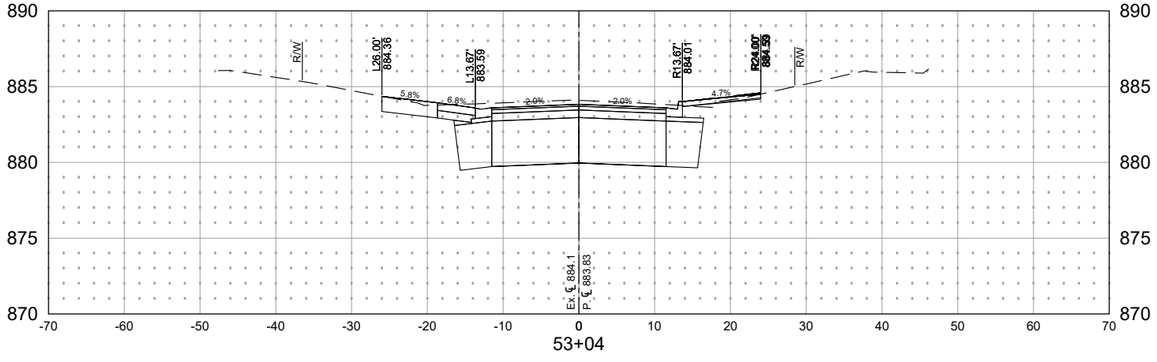

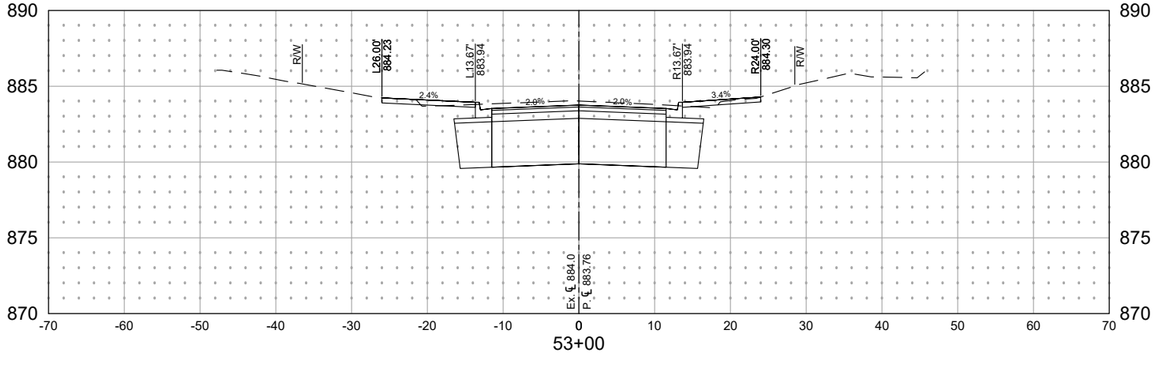

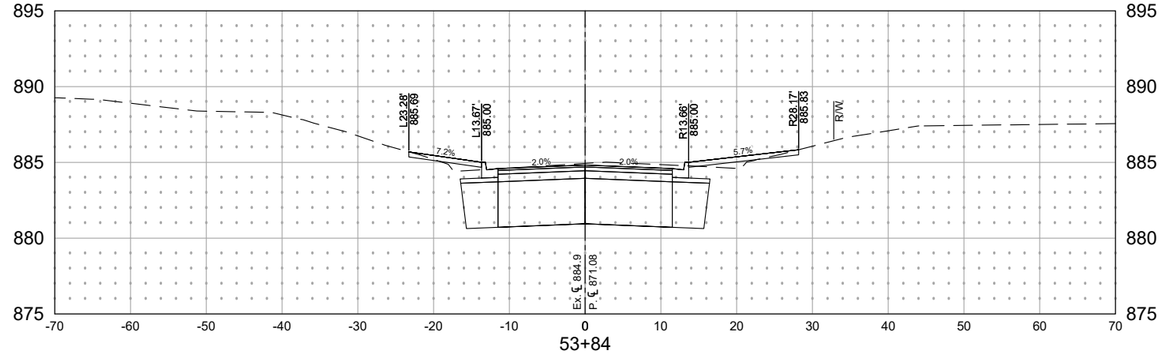

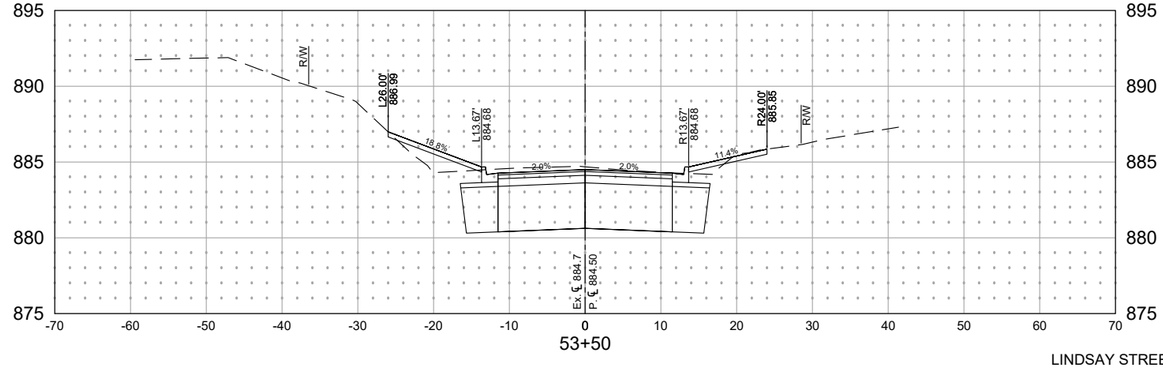

LINDSAY STREET
53+00 - 53+84

CITY PROJECT NO. 23-02
S.A.P. 128-408-002 (ZANE AVE.)

Sheet No. X27 Of103 Sheets

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RESOLUTION NO. 24-032

A RESOLUTION ACCEPTING FEASIBILITY STUDY AND ORDERING CONSTRUCTION OF CERTAIN PROPOSED PUBLIC IMPROVEMENTS ON PROJECT NO. 23-02: ZANE AVENUE AND LINDSAY STREET RECONSTRUCTION

WHEREAS, pursuant to Resolution of the City Council No. 21-76 adopted October 5, 2021 a report has been prepared by Short Elliott Hendrickson, Inc. (the "Feasibility Study") with reference to proposed Improvement No. 23-02, the improvement of the following streets:

All properties in the NW ¼, and N ½ of the SW ¼, of Section 33, Township 118 North, Range 21 West of the 5th Principal Meridian; within the City of Golden Valley, Hennepin County, Minnesota, that are adjacent to the following streets:

- Zane Avenue North: Olson Memorial Highway Frontage Road North to Golden Valley Road
- Lindsay Street: Zane Avenue North to Lilac Drive

by improving said streets; and

WHEREAS, the Feasibility Study provides information regarding whether the proposed improvement is necessary, cost-effective, and feasible; whether it should best be made as proposed or in connection with some other improvement; the estimated cost of the improvement as recommended; and a description of the methodology used to calculate individual assessments for affected parcels; and

WHEREAS, a public hearing was held on Improvement No. 23-02 on this day May 7, 2024 at 6:30 pm at Golden Valley City Hall, ten days' mailed notice and two weeks' published notice of the hearing was given, and all persons desiring to be heard were given an opportunity to be heard thereon.

NOW THEREFORE, **BE IT RESOLVED,** BY THE CITY COUNCIL OF THE CITY OF GOLDEN VALLEY, MINNESOTA that this Council approves as follows:

1. The Feasibility Study is hereby approved.

2. Such improvement is necessary, cost-effective, and feasible as detailed in the feasibility report.

3. Such improvement is hereby ordered.

4. The City Engineer is hereby designated as the engineer for this improvement. The engineer has prepared plans and specifications for the making of such improvement.

5. The City Clerk shall prepare an Advertisement for Bids and cause to be inserted in the official paper an advertisement for bids upon the making of such improvement under such approved plans and specifications. The advertisement shall be published for 14 days, shall specify the work to be done, shall state that bids will be received by the clerk until 10 am on June 13, 2024, at which time they will be publicly opened in the city council chambers of the city hall by the city engineer, will then be tabulated, and will be considered by the council on July 16, 2024. Any bidder whose responsibility is questioned during consideration of the bid will be given an opportunity to address the council on the issue of responsibility. No bids will be considered unless sealed and filed with the clerk and accompanied by a cash deposit, cashier's check, bid bond or certified check payable to the City of Golden Valley for 5% percent of the amount of such bid.

6. The council will consider the assessment of abutting properties for at least 20% of the cost of the improvement pursuant to Minnesota Statutes, Chapter 429 at an estimated total cost of the improvement of $10,050,000.

Passed by the City Council of the City of Golden Valley, Minnesota this 7th day of May, 2024.

_____
Roslyn Harmon, Mayor

Attested:

_____
Theresa Schyma, City Clerk

EXECUTIVE SUMMARY

Community Development

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

4C. Public Hearing Regarding a Request for Approval of a Land Use Map Amendment, Zoning Map Amendment, Final Plat and Conditional Use Permit at 6100 Golden Valley Road

Prepared By

Kendra Lindahl, Planning Consultant
Alma Flores, Community Development Director
Darren Groth, Assistant Community Development Director

Summary

The applicant (GV 6100 Holdings LLC) is requesting approval to allow the existing building and site to be reused as a daycare (Yellow Brick Road Early Childhood Development Center) at 6100 Golden Valley Road. The building was originally constructed in the 1960s and has most recently been used as a learning center. In order to allow the improvements for Yellow Brick Road Early Childhood Development Center, the applicant is requesting approval of:

1. An amendment to the Future Land Use Map to reclassify the property from Medium Density Residential back to Office,
2. A Zoning Map amendment to reclassify the property from R-3 (Medium Density Residential) to Office,
3. A Final Plat and
4. A conditional use permit for a child care center.

The Planning Commission held an informal public hearing and voted unanimously to recommend approval of all requests.

Financial or Budget Considerations

N/A

Legal Considerations

The City Attorney has reviewed and approved the title work for the subdivision.
The City Attorney has not reviewed the individual ordinances and resolutions; however, they were created using an approved template without changes to the template.

Equity Considerations

The applicant's request was part of an informal public hearing at the March 25, 2024 Planning Commission meeting which provided in person and remote options for residents to participate in the

process consistent with Equity Pillar 2 for Inclusive and Effective Community Engagement.

Recommended Action

1. Motion to adopt Resolution No. 24-033 amending the Comprehensive Plan's Land Use Plan Map Designating 6100 Golden Valley Road as Office.
2. Motion to adopt Ordinance No. 781 amending the Zoning Map to Rezone 6100 Golden Valley Road as Office.
3. Motion to adopt Resolution No. 24-034 approving Plat for YBR Addition.
4. Motion to adopt Ordinance No. 782 amending the City Code to allow a Conditional Use Permit for a child care center at 6100 Golden Valley Road.
5. Motion to approve Conditional Use Permit No. 24-005 for GV 6100 Holdings LLC on behalf of Yellow Brick Road Early Childhood Development Center for a child care center at 6100 Golden Valley Road.

Motion to approve the Comprehensive Plan Amendment and Zoning Amendment (Item 1 & 2) require a 4/5 vote. All other motions require a simple majority.

Supporting Documents

- Resolution No. 24-033 - Future Land Use Map Amendment
- Ordinance No. 781 - Rezoning 6100 Golden Valley Road
- Resolution No. 24-034 - Approval of Plat
- Ordinance No. 782 - CUP - Yellow Brick Road Early Childhood Development Center
- CUP 24-005 - 6100 Golden Valley Road
- Planning Commission Meeting Minutes - 03-25-2024

RESOLUTION NO. 24-033

RESOLUTION FOR AMENDMENT TO THE COMPREHENSIVE PLAN'S FUTURE LAND USE PLAN MAP DESIGNATING 6100 GOLDEN VALLEY ROAD AS OFFICE

WHEREAS, the City Council has met at the time and place specified in a notice duly published with respect to the subject matter hereof and has heard all interested persons, and it appearing in the interest of the public that the Future Land Use Plan Map as heretofore adopted and enacted by the City of Golden Valley be amended; and

WHEREAS, the area affected is legally described as follows:

Parcel 1:
Lot 10, Auditor's Subdivision No. 346, Hennepin County, Minnesota except that part thereof embraced within the plat of Hidden Village.

Parcel 2:
That part of the Northwest Quarter of the Northwest Quarter of Section 33, Township 118, Range 21 West, Hennepin County, Minnesota, lying North of 19th Avenue North and East of the Easterly right of way boundary of the Robbinsdale Extension of the Minneapolis, Northfield & Southern Railway, said right of way boundary being a straight line lying in a Northwesterly and Southeasterly direction and being parallel with and distant Eastwardly 50 feet measured at right angles thereto from the center line of the Robbinsdale Extension Main track of the Minneapolis, Northfield & Southern Railway, said center line intersecting the North line of said Section 33 at a point 550 feet East of the Northwest corner of said Section 33 with a Northwesterly including angle of 78 degrees 10 minutes except that part thereof embraced within the plat of Hidden Village.
Torrens Property

NOW, THEREFORE, BE IT RESOLVED, by the City Council for the City of Golden Valley, that pursuant to the provision of Sec. 113-28 of the City Code for the City of Golden Valley, and subject to review and approval by the Metropolitan Council for conformity with regional systems plan as provided in state law, the Future Land Use Plan Map for the City of Golden Valley is hereby amended by designating the property at 6100 Golden Valley Road as Office.

_____
Roslyn Harmon, Mayor

ATTEST:

_____
Theresa Schyma, City Clerk

ORDINANCE NO. 781
AN ORDINANCE AMENDING THE CITY CODE CHAPTER 113
AMENDING THE ZONING MAP TO REZONE 6100 GOLDEN VALLEY ROAD
GV 6100 HOLDINGS LLC, APPLICANT

The City Council for the City of Golden Valley hereby ordains as follows:

Section 1. City Code Chapter 113 entitled “Zoning” is amended in Section 113-56, Subd. b by changing the zoning designation of the property at 6100 Golden Valley Road from R-3 (Medium Density Residential) to Office.

Section 2. The tract of land affected by this ordinance is legally described as follows:

Parcel 1:
Lot 10, Auditor's Subdivision No. 346, Hennepin County, Minnesota except that part thereof embraced within the plat of Hidden Village.

Parcel 2:
That part of the Northwest Quarter of the Northwest Quarter of Section 33, Township 118, Range 21 West, Hennepin County, Minnesota, lying North of 19th Avenue North and East of the Easterly right of way boundary of the Robbinsdale Extension of the Minneapolis, Northfield & Southern Railway, said right of way boundary being a straight line lying in a Northwesterly and Southeasterly direction and being parallel with and distant Eastwardly 50 feet measured at right angles thereto from the center line of the Robbinsdale Extension Main track of the Minneapolis, Northfield & Southern Railway, said center line intersecting the North line of said Section 33 at a point 550 feet East of the Northwest corner of said Section 33 with a Northwesterly including angle of 78 degrees 10 minutes except that part thereof embraced within the plat of Hidden Village.
Torrens Property

Section 3. City Code Chapter 1 entitled “General Provisions” and Sec. 1-8 entitled “General Penalty; Continuing Violations” are hereby adopted in their entirety, by reference, as though repeated verbatim herein.

Section 4. Approval of the Rezoning is contingent upon City Council approval of the Land Use Plan Amendment and review by the Metropolitan Council for conformity with regional systems plan as provided in state law.

Section 4. This ordinance shall take effect from and after its passage and publication as required by law.

Adopted by the City Council this 7th day of May, 2024.

_____
Roslyn Harmon, Mayor

ATTEST:

_____
Theresa Schyma, City Clerk

RESOLUTION NO. 24-034

RESOLUTION FOR APPROVAL OF PLAT
YBR ADDITION

WHEREAS, the City Council for the City of Golden Valley, pursuant to due notice, has heretofore conducted a public hearing on the proposed plat to be known as YBR Addition covering the following described tracts of land:

Parcel 1:
Lot 10, Auditor's Subdivision No. 346, Hennepin County, Minnesota except that part thereof embraced within the plat of Hidden Village.

Parcel 2:
That part of the Northwest Quarter of the Northwest Quarter of Section 33, Township 118, Range 21 West, Hennepin County, Minnesota, lying North of 19th Avenue North and East of the Easterly right of way boundary of the Robbinsdale Extension of the Minneapolis, Northfield & Southern Railway, said right of way boundary being a straight line lying in a Northwesterly and Southeasterly direction and being parallel with and distant Eastwardly 50 feet measured at right angles thereto from the center line of the Robbinsdale Extension Main track of the Minneapolis, Northfield & Southern Railway, said center line intersecting the North line of said Section 33 at a point 550 feet East of the Northwest corner of said Section 33 with a Northwesterly including angle of 78 degrees 10 minutes except that part thereof embraced within the plat of Hidden Village.
Torrens Property

WHEREAS, all persons present were given the opportunity to be heard.

NOW, THEREFORE, BE IT RESOLVED, by the City Council for the City of Golden Valley, that said proposed plat be, and the same hereby is, accepted and approved, and the proper officers of the City are hereby authorized and instructed to sign the original of said plat and to do all other things necessary and proper in the premises.

Adopted by the City Council this 7th day of May, 2024.

_____
Roslyn Harmon, Mayor

ATTEST:

_____
Theresa Schyma, City Clerk

ORDINANCE NO. 782
AN ORDINANCE AMENDING THE CITY CODE
Approval of Conditional Use Permit Number 24-005
Yellow Brick Road Early Childhood Development Center
GV 6100 Holdings LLC, Applicant

The City Council for the City of Golden Valley hereby ordains as follows:

Section 1. City Code Chapter 113 entitled “Zoning” is amended in Section 113-55, Subd. b, and Section 113-95, by approving a Conditional Use Permit for a certain tract of land located at 6100 Golden Valley Road, thereby allowing for a child care center in an Office Zoning District.

This Conditional Use Permit is approved based on the application materials and plans submitted by the applicant, staff memos, public comments and information presented to the Planning Commission and City Council, and findings recommended by the Planning Commission. This Conditional Use Permit is approved pursuant to City Code Section 113-30, Subd. g, and adopted by the City Council on May 7, 2024.

This Conditional Use Permit is subject to all of the terms of the permit to be issued including, but not limited to, the following specific conditions:

1. The applicant shall follow the conditions in the March 25, 2024 Planning Commission Staff Report presented by Lindahl.
2. The applicant shall monitor site parking and, when requested by the City, provide information about how site parking will be managed, if cueing or parking begins to impact access on Golden Valley Road.
3. A City Stormwater Management permit is required for the construction. That permit will require submittal of civil drawings with demolition, grading/stormwater, utility, site, etc. for review and approval by staff.
4. The applicant shall submit a snow management plan for the site.
5. Open turf areas shall use pervious materials.

Section 2. The tract of land affected by this ordinance is legally described as follows:

Parcel 1:
Lot 10, Auditor's Subdivision No. 346, Hennepin County, Minnesota except that part thereof embraced within the plat of Hidden Village.

Parcel 2:
That part of the Northwest Quarter of the Northwest Quarter of Section 33, Township 118, Range 21 West, Hennepin County, Minnesota, lying North of 19th Avenue North and East of the Easterly right of way boundary of the Robbinsdale Extension of the Minneapolis, Northfield & Southern Railway, said right of way boundary being a straight line lying in a Northwesterly and Southeasterly direction and being parallel with and distant Eastwardly 50 feet measured at right angles thereto from the center line of the Robbinsdale Extension Main track of the Minneapolis, Northfield & Southern Railway, said center line intersecting the North line of said Section 33 at a

point 550 feet East of the Northwest corner of said Section 33 with a Northwesterly including angle of 78 degrees 10 minutes except that part thereof embraced within the plat of Hidden Village.
Torrens Property

Section 3. City Code Chapter 1 entitled “General Provisions” and Sec. 1-8 entitled “General Penalty; Continuing Violations” are hereby adopted in their entirety, by reference, as though repeated verbatim herein.

Section 4. This ordinance shall take effect from and after its passage and publication as required by law.

Adopted by the City Council this 7th day of May, 2024.

_____
Roslyn Harmon, Mayor

ATTEST:

_____
Theresa Schyma, City Clerk

(Top 3 inches reserved for recording data)

CITY OF GOLDEN VALLEY
CONDITIONAL USE PERMIT
No. 24-005

Date of Approval: May 7, 2024, by the City Council in accordance with Sec. 113-55, Subd. b and Section 113-95 of City Code

Issued To: GV 6100 Holdings LLC on behalf of Yellow Brick Road Early Childhood Development Center

Approved Location: 6100 Golden Valley Road, Golden Valley, MN

Approved Conditional Use: To allow for a child care center in the Office zoning district

Legal Description: Lot 1, Block 1, YBR Addition, Hennepin County, Minnesota

Check here if all or part of the described real property is Registered (Torrens) [x]

Conditions of Approval:

1. The applicant shall follow the conditions in the March 25, 2024 Planning Commission Staff Report presented by Lindahl.
2. The applicant shall monitor site parking and, when requested by the City, provide information about how site parking will be managed, if cueing or parking begins to impact access on Golden Valley Road.
3. A City Stormwater Management permit is required for the construction. That permit will require submittal of civil drawings with demolition, grading/stormwater, utility, site, etc. for review and approval by staff.
4. The applicant shall submit a snow management plan for the site.
5. Open turf areas shall use pervious materials.

This permit does not exempt the property owner or occupant from compliance with all provisions of city code, or any other applicable regulations, laws, and ordinances.

City of Golden Valley, a Minnesota municipal corporation

By: _____
Alma Flores, Community Development Director

State of Minnesota)
) ss
County of Hennepin)

This instrument was acknowledged before me on _____, 2024, by Alma Flores Community Development Director of the City of Golden Valley, a municipal corporation.

(Stamp)

_____
(signature of notarial officer)

My commission expires: _____
(month/day/year)

THIS INSTRUMENT WAS DRAFTED BY:
City of Golden Valley
7800 Golden Valley Road
Golden Valley, MN 55427
(763) 593-8000

CITY OF GOLDEN VALLEY
PLANNING COMMISSION MEETING MINUTES

Monday, March 25, 2024 – 6:30 p.m. | City Hall Council Chamber
7800 Golden Valley Road Golden Valley, MN 55427

1. CALL TO ORDER

AND LAND ACKNOWLEDGEMENT: Chair Brookins called the meeting to order at 6:32 p.m. and read the Land Acknowledgement.

a. Regular Members Present: Brookins, Ruby, McCormick, Cohen, and Segelbaum

b. Regular Members Absent: Barnstorff and Meredith

c. Student Member, Status: Benjamin Fricke, Present

d. Staff Members Present: Alma Flores, Community Development Director
Darren Groth, Assistant Community Development Director
Christine Costello, Housing & Econ. Dev. Manager
Maria Cisneros, City Attorney
Kendra Lindahl, City Planning Consultant

e. Council Liaison Present: None

2. APPROVAL OF AGENDA: Cohen motioned to approve as presented, Ruby seconded. Commission voted 5-0 to approve. Motion carried.

3. APPROVAL OF MINUTES: March 11, 2024, Regular Meeting Minutes.
Item Continued to next meeting.

4. STAFF INTRODUCTIONS: Darren Groth, Assistant Community Development Director
Christine Costello, Housing & Econ. Dev. Manager

5. INFORMAL PUBLIC HEARING FOR MINOR SUBDIVISION LOCATED AT 227 PAISELY LANE AND 220 EDGEWOOD AVENUE NORTH

a. Lindahl introduced and presented the agenda item to the Commission.
b. Staff recommended approval of Minor Subdivision, subject to the findings and conditions in the report.
c. Discussion ensued.
d. The applicant spoke in favor of the request.
e. Chair Brookins opened the public hearing at 6:45 p.m.
f. Three citizens spoke in opposition to the request.
g. Chair Brookins closed the public hearing at 6:55 p.m.
h. Chair Brookins requested a motion.
i. Ruby moved to approve the motion, as recommended by staff.
j. Cohen seconded.
k. The Commission voted 5-0 to recommend APPROVAL.

6. INFORMAL PUBLIC HEARING FOR ZONING MAP AMENDMENT, FUTURE LAND USE PLAN AMENDMENT, PRELIMINARY PLAT, AND CUP LOCATED AT 6100 GOLDEN VALLEY ROAD

a. Lindahl introduced and presented the agenda item to the Commission.
b. Staff recommends approval of the following based on the findings and conditions in the staff report.
c. Discussion ensued.
d. The applicant spoke in favor of the request.
e. Chair Brookins opened the public hearing at 7:33 p.m.
f. No comments were provided during the hearing.
g. Chair Brookins closed the public hearing at 7:33 p.m.
h. Ruby moved to approve the motion for the Future Land Use Plan Amendment to change the guided land from Medium Density Residential to Office
i. McCormick seconded.
j. The Commission voted 5-0 to recommend APPROVAL of the Future Land Use Plan Amendment.
k. Ruby moved to approve the motion for the Zoning Map Amendment to rezone the property from R-3 to Office.
l. McCormick seconded.
m. The Commission voted 5-0 to recommend APPROVAL of the Zoning Map Amendment.
n. Ruby moved to approve the motion for the Preliminary Plat.
o. McCormick seconded.
p. The Commission voted 5-0 to recommend APPROVAL of the Preliminary Plat.
q. Commission Ruby moved to approve the Conditional Use Permit, with the following five (5) conditions:
    i. The applicant shall follow the conditions in the Staff Report presented by Lindahl.
    ii. The applicant shall monitor site parking and, when requested by the City, provide information about how site parking will be managed, if cueing or parking begins to impact access on Golden Valley Road.
    iii. A City Stormwater Management permit is required for the construction. That permit will require submittal of civil drawings with demolition, grading/stormwater, utility, site, etc. for review and approval by staff.
    iv. The applicant shall submit a snow management plan for the site.
    v. Open turf areas shall use pervious materials.
r. Segelbaum seconded.
s. The Commission voted 5-0 to recommend APPROVAL, with conditions.

7. INFORMAL PUBLIC HEARING FOR ZONING ORDINANCE TEXT AMENDMENT FOR SACRED COMMUNITIES.

a. Lindahl introduced and presented the agenda item to the Commission.
b. Staff recommends approval of the following based on the findings and conditions in the staff report.
c. Discussion ensued.
d. No person was present to speak at the public hearing.
e. Cisneros spoke to add clarification to the agenda item.
f. Ruby moved to approve the motion for the Zoning Ordinance Text Amendment, with the following condition:
    i. Staff shall hold a public meeting once a permit application is submitted.
g. Segelbaum seconded.
h. The Commission voted 4-1 (Brookins) to recommend APPROVAL, with conditions.

8. COUNCIL LIAISON REPORT: None

9. STAFF UPDATES: None

10. OTHER BUSINESS: None

11. ADJOURNMENT: Chair Brookins adjourned the meeting at 8:45 p.m.

Approved by: _____
Commissioner McCormick,
Secretary

Attest By:

Darren Groth, AICP, CPM
Community Development Asst. Director

EXECUTIVE SUMMARY

Community Development

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

4D. Public Hearing and Consideration of Ordinance No. 783 - Approving Conditional Use Permit No. 24-0003 to Allow for Laboratories at 201 General Mills Boulevard

Prepared By

Christine Costello, Housing & Economic Development Manager

Summary

The Applicant, 201 Golden Valley Blvd. LLC., purchased the existing building at 201 General Mills Boulevard in 2019. The Applicant made renovations to the building and moved into the building in March 2020, then shortly after the COVID-19 pandemic changed the office environment. As employers came out of the pandemic the office environment continued to evolve, allowing for office users to continue a hybrid schedule or remain completely remote. Thus office buildings, such as the Applicant's building needed to consider other appropriate office tenants such as the use of laboratories (medical, dental, or research and development) as a prospective tenant(s) in the building. Within the Office (O) Zoning District, laboratories (medical, dental, or research and development) are a conditional use and requires City Council's approval of a Conditional Use Permit (CUP).

For more details on the existing site conditions, proposal details, and City staff review, please refer to the copy of staff's memo to the Planning Commission attached with this item. The Planning Commission held an informal public hearing on the Applicant's request on April 8th. To clarify some of the details in the Planning Commission staff report, it references one prospective tenants request to use the building for office and laboratory space. The CUP will allow for laboratories (medical, dental, or research and development) use for any prospective tenant(s) of the building. A CUP runs with the land and would allow any future prospective tenants whether occupying all or a portion of the building to have laboratory space if needed.

The Planning Commission recommended approval of the CUP with a vote of 7-to-0. The draft minutes are attached to this report.

<u>Evaluation</u>

The findings and recommendations for a Conditional Use Permit are based upon any or all of the following factors (which need to be weighed equally), as outlined in Code Code Section 113-30(d):

Factors of Conditional Use Permit	Findings
1. Demonstrated Need for Proposed Use	Standard met. The Applicant is looking to lease the building to prospective tenant(s) is interested in the building and being able to use space for medical, dental, or research and development laboratory space. Prospective tenant(s) use will be conducted wholly within the building. There are no expansion plans of the building or parking lot.
2. Consistency with the Comprehensive Plan	Standard met. The Comprehensive Plan guides parcel for Office uses and Laboratories (medical, dental, or research and development) use falls under the heading of Offices and Financial Institutions in the City's Use Table.
3. Effect Upon Property Values	Standard met. There are no anticipated changes to property values as the existing building will be used in a manner consistent with the City Code.
4. Effect on Traffic Flow and Congestion	Standard met. The Average Daily Trip (ADT) counts are taken every four years. In 2022, the ADT was 3,945 trips, in 2017, the ADT was 8,883 trips. The prospective tenant may potentially increase the ADT count but it is not anticipated to exceed counts from 2017.
5. Effect of Increase in Population and Density	Standard met. There will be a potential increase of employees in the area and potentially new homeowners and/or renters. With a limited housing stock , the densities may stay the same or increase along with new housing stock as desired outcome of the Comprehensive Plan.
6. Compliance with the City's Mixed-Income Housing Policy	Not applicable.
7. Increase in Noise Level	Standard met. The CUP would not enable a prospective tenant to generate excessive noise and all uses must adhere to the existing Minnesota State Noise Pollution Control Rules.
8. Generation of Odors, Dust, Smoke, Gas, or Vibration	Standard met. The prospective tenant is not anticipated to generate odor, dust, smoke, gas, or vibrations since the use is wholly conducted within the building.
9. Any Increase in Pests or Vermin	Standard met. the prospective tenant is not anticipated to attract rodents.
10. Visual Appearance	Standard met. The prospective tenant will be potentially adding additional HVAC units on the roof and will screen the units from view per City Code Section 113-157(e)(1)d.

Factors of Conditional Use Permit	Findings
11. Other Effects Upon the General Public Health, Safety, and Welfare	Standard met.

Based on the findings above, staff recommends approval of the Conditional Use Permit no. 24-0003 subject to the following conditions:

1. At the time of building permit application, the perspective tenant shall provide any proposed chemical inventory and mitigation measures to the Building Division and Fire Department for review.

Failure to comply with the above conditions shall be grounds for revocation of the CUP. Consistent with State Statutes, a certified copy of the CUP must be recorded with Hennepin County by the Applicant.

Legal Considerations

The legal standards for evaluation of a conditional use permit are the factors listed above. The City must make findings in response to each factor and may make its approval of the permit contingent upon conditions as it determines they are necessary in order to prevent or minimize the impacts to the surrounding area. However, any condition must have a "rational nexus" - or a reasonable connection - to the problem that it is purporting to address. Also, the measure of the solution being advanced must bear a "rough proportionality" to the burden being imposed on the City by the private action. In other words, the fix must align with the problem it is supposed to be solving. This did not require legal review from the City Attorney.

Equity Considerations

This item did not require equity review since it falls under general course of business for the planning department.

Recommended Action

Motion to adopt Ordinance No. 783 approving Conditional Use Permit No. 24-0003 to allow for laboratories (medical, dental, or research and development) at 201 General Mills Boulevard.

This vote is a simple majority.

Supporting Documents

- 201 General Mills Blvd - CUP 24-0003 - PC Memo
- Planning Commission Meeting Minutes - 04-08-2024
- CUP 24-0003 - 201 General Mills Blvd
- Ordinance No. 783 - CUP Approval - 201 General Mills Blvd

city of golden valley

MEMORANDUM

COMMUNITY DEVELOPMENT
Planning Division
763-593-8095 / 763-593-8109 (fax)

Date:	April 8, 2024
To:	Golden Valley Planning Commission
Prepared By:	Christine Costello, Housing & Economic Development Manager
Reviewed By:	Alma Flores, Community Development Director Darren Groth, Assistant Community Development Director Kendra Lindahl, Planning Consultant
Subject:	Conditional Use Permit (CUP) Informal Public Hearing

Case Information

Property address:	201 General Mills Blvd
Applicant(s):	201 General Mills Blvd, LLC
Property owner(s):	201 General Mills Blvd, LLC
Zoning District:	Office (O)
Lot size:	19.44 acres
Current use:	Office
Proposed use:	Office and Laboratories (medical, dental, or research and development)
Future land use:	Office
Adjacent uses:	Single-Family and Office (north); Golf Course (east); Office (south), and Multi-Family (west)
Site Aerial:	2022 Aerial Photo (Hennepin County)

Summary

The Applicant is requesting the use of the existing, vacant building for office space and Laboratories (medical, dental, or research and development). Offices, excluding medical and dental, is a permitted use in the 'O' Zoning District and Laboratories (medical, dental, or research and development) is permissible after first obtaining a Conditional Use Permit (CUP) for the use. The applicant seeks the CUP for Laboratories (medical, dental, or research and development) to allow for a conversion of interior space.

Existing Conditions

The subject site at 201 General Mills Boulevard has an existing 90,000 square foot building and a surface parking striped for up to 620 vehicles. The building was constructed in 1998, as part of the General Mills campus. In 2019, the Applicant purchased the property and made extensive renovations to the building. The office building is nearly vacant and in order to attract a prospective tenant(s).

PROPOSAL

The Applicant is proposing to lease approximately 50,000 square feet of the building for office and laboratory space to a prospective tenant. The remaining 40,000 square feet is not included in this proposal and is intended to stay as office space, office storage, and amenity areas.

The prospective tenant is anticipated to employ approximately 200 workers and plans for an average of 25 visitors per work week. The hours of operation will be from 6 a.m. to 8 p.m. The zoning ordinance requires Offices, excluding medical and dental uses to provide 1 parking space per 250 s.f. of gross floor area, which equates to 200 parking spaces for the office use. The zoning ordinance section on off-street parking space requirements does not provide a for the minimum number of required off-street parking spaces for laboratories (medical, dental, or research and development). Per Section 113-151(c)(1) of the ordinance, the City shall determine the necessary sparking spaces considering all the factors. It was determined that a prospective tenant with demand for 225 parking spaces, assuming 200 workers and 25 average

visitors, will meet the required minimum parking space requirement since the overall site contains 620 parking spaces.

The Applicant and prospective tenant have no plans to expand the building or parking lot footprint of the property. In addition, no changes are being made to the parking lot lighting which was upgraded to more energy efficient lighting in 2020.

Neighborhood Notification and Public Comments

City Code Section 113-30(c) requires that applications for a conditional use permit be referred to the Planning Commission to hold an informal public hearing. In addition, all property owners within 500 feet of the subject site shall be notified of the informal public hearing by the U.S. mail, not less than 10 days prior to the date of this informal public hearing. Notice to property owners was mailed out March 28, 2024. As of April 5, 2024, Staff received inquiries from two property owners who received the notice.

Staff Analysis

Overall, staff in multiple departments reviewed the project and did not have significant concerns about the use since the prospective tenant use would be interior to the building and no building or parking lot expansion is proposed. The site has ample parking and is currently under parked from when the building was at full capacity. The site is located a short distance from Highway 55 and I-394 and the prospective tenant would employ approximately 200 individuals, which is less than the building's capacity and parking spaces provided. General Mills Boulevard is a collector street, designed to connect major traffic generators, job centers and neighborhoods. General Mills Boulevard is at a level of service (LOS) A and B and project to remain that into 2040 per the City's Comprehensive Plan.

The building's sewer connections were inspected in 2014, and the Inflow and Infiltration is compliant. A prospective tenant such as a laboratory (medical, dental, or research and development) may require an updated Inflow and Infiltration Inspection.

As part of staff's review, options for sustainability for the site were identified for the Applicant and any current or prospective tenant(s). It was noted that portions of the subject property are located in the floodplain. The Applicant's site plan indicates that the building is high enough in elevation to be located outside of the FEMA mapped floodplain and outside of the Bassett Creek Watershed Management Commission jurisdiction floodplain. However, on the official FEMA Flood Insurance Rate Map the building appears to be in a floodplain. If the Applicant is interested in changing the official map to show that the building is out, and to pay lower premiums for flood insurance, the applicant may retain a licensed surveyor to complete a FEMA Letter of Map Change. In addition, if the Applicant is interested in opportunities for improve energy efficiency, renewable energy, EV charging City staff can be of assistance.

Evaluation

Per State Statute 462.3595, the Planning Commission can only consider the general and specific standards set out in the zoning ordinance related to the proposed use and a conditional use

permit. The zoning ordinance does not provide any specific conditions for approval for laboratories including medical, dental, or research and development. Therefore, the Planning Commission per City Code Section 113-30(d) shall make findings and recommendations for a CUP to the City Council based upon any or all of the following factors (which need not be weighed equally):

Factor	Staff Finding
1. Demonstrated Need for Proposed Use	Standard met. The applicant is looking to lease the building and a prospective tenant is interested in the building and being able to use some of the space for medical, dental, or research and development laboratory space. The prospective tenant use will be conducted wholly within the building, there will be no expansion of the building or parking lot.
2. Consistency with the Comprehensive Plan	Standard met. The Comprehensive Plan guides the parcel for Office use and Laboratories (medical, dental, or research and development) use falls under the heading of Offices and Financial Institutions in the City's Use Table.
3. Effect upon Property Values	Standard met. There are no anticipated changes to property values as the existing building will be used in a manner consistent with the City Code.
4. Effect on Traffic Flow and Congestion	Standard met. The Average Daily Trip (ADT) counts are taken every four years. In 2022, the ADT was 3,945 trips, and in 2017, the ADT was 8,883 trips. The prospective tenant may potentially increase the 2022 ADT count but is not anticipated to exceed the counts from 2017.
5. Effect of Increases in Population and Density	Standard met. There will be a potential increase of employees in the area and potentially new homeowners and/or renters. With a limited housing stock, the densities may stay the same or increase along with new housing stock as a desired outcome of the Comprehensive plan. .
6. Compliance with the City's Mixed-Income Housing Policy	Not applicable.

7. Increase in Noise Levels	Standard met. The CUP would not enable a prospective tenant to generate excessive noise and all uses must adhere to the existing Minn. State Noise Pollution Control Rules.
8. Generation of Odors, Dust, Smoke, Gas, or Vibration	Standard met. The prospective tenant is not anticipated to generate odor, dust, smoke, gas, or vibrations since the use is conducted wholly within the building.
9. Any Increase in Pests or Vermin	Standard met. The prospective tenant is not anticipated to attract rodents.
10. Visual Appearance	Standard met. The prospective tenant will be potentially adding additional HVAC units on the roof and will screen the units from view per City Code Section 113-157(e)(1)d.
11. Other Effects upon the General Public Health, Safety, and Welfare	Standard met.

Recommended Action
Based on the findings above, staff recommends **approval** of the Conditional Use Permit, subject to the following condition(s):

1. At the time of building permit application, the perspective tenant shall provide any proposed chemical inventory and any mitigation measures to the Building Division and Fire Department for review.

Failure to comply with one or more of the above conditions shall be grounds for revocation of the CUP. Consistent with State statute, a certified copy of the CUP must be recorded with Hennepin County.

Attachments
CUP Planning Application (2 pages)
Narrative (4 pages)
Blocking Diagram (2 pages)
Site Plan (1 page)

Planning | 7800 Golden Valley Road, Golden Valley, MN 55427-4588
763-593-8095 | TTY: 763-593-3968 | www.goldenvalleymn.gov | planning@goldenvalleymn.gov

city of golden valley

PLANNING APPLICATION

Conditional Use Permit

Street address of properties in this application:

APPLICANT INFORMATION

Name (individual, or corporate entity):
201 GM Blvd, LLC (Jim Sorboro)

Address:
201 General Mills Boulevard, Golden Valley, MN 55426

Phone number:	Email address:
612-617-6256	jim.sorboro@eqh.com

Authorized Representative (if other than applicant):

Name:

Address:

Phone number:	Email address:

Property Owner (if other than applicant):

Name:
201 GM Blvd, LLC (Jim Sorboro)

Address:
201 General Mills Boulevard, Golden Valley, MN 55426

Phone number:	Email address:
	jim.sorboro@eqh.com

SITE INFORMATION

Total area of property (in acres):	Current zoning of property:
20	Business Office

Proposed conditional use(s) requiring permit:

Research Labs

Provide a brief description of all proposed uses for this property:

Office and Research Labs for approximately 200 personnel.

PROPOSED

Number of off-street car parking spaces: 620
Number of bicycle parking spaces: 0
Percent impervious surface: 42.83%
Percent building coverage: 7.43%
Percent open space: 49.74%

Number of residential units: 0
Number of employees: 200
Hours of operation: 6:00am-8:00pm
Building height: 34'
Gross floor area: 90,000 sqft

Planning | 7800 Golden Valley Road, Golden Valley, MN 55427-4588
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Conditional Use Permit (cont.)

REQUIRED ATTACHMENTS

- ❒ **Narrative outlining how the proposed plan meets the 10 factors of evaluation** listed in the Conditional Use Permit Section of Golden Valley Zoning Code, Section 113-30. List all proposed uses of the property and how much space (in square feet) will be devoted to each use, the number of employees, the number of potential customers or visitors, hours of operation, how well this type of use has been accepted at other locations, what the site will look like, and any special measures to be taken by the applicant to address any impacts to surrounding properties.
- ❒ **I/I compliance:** Before application submittal, the property must be in compliance with the City's Inflow/Infiltration (I/I) requirements. Contact the Public Works Division at 763-593-8030 for I/I inspection and compliance information. An application will not be accepted until the property receives an I/I compliance certificate.
- ❒ **Legal description of property**
- ❒ **Copies of all documents**, including covenants, by-laws of owners association, and Abstract of Title or Registered Property Certificate, submitted to City Attorney for examination
- ❒ **Application fee:** $400
- ❒ **Application fee for Home Occupation:** $75
- ❒ **Resubmission if CUP previously denied:** $50
- ❒ **25 copies** (five large-sized plans, 20 11"x17"-sized plans) and one CD of each of the following:
  - ❒ **Exterior site plan,** drawn to a scale of 1"=20' or larger, with all use areas, access points, and special features or equipment clearly indicated
  - ❒ **Interior floor plan,** draw to a scale of 1"=20' or larger, with all use areas, access points, and special features or equipment clearly indicated
  - ❒ **Other documents may be required** or encouraged for City staff to make a complete evaluation of the proposal. Please consult with City Planning staff by calling 763-593-8095, or email planning@goldenvalleymn.gov before submitting this application.

SIGNATURES

To the best of my knowledge, the statements contained in this application and its attachments are true and correct. Please include printed name, signature, and date for applicant, authorized representative (if other than applicant), or property owner (if other than applicant). The property owner(s) signature is required for this application.

Name of Applicant (please print): Jim Sorboro

Signature: _____ **Date:** 3/21/24

Authorized Representative (if other than applicant)

Name (please print): _____

Signature: _____ **Date:** _____

Property Owner (if other than applicant—required)

Name (please print): _____

Signature: _____ **Date:** _____

This document is available in alternate formats upon a 72-hour request. Please call 763-593-8006 (TTY: 763-593-3968) to make a request. Examples of alternate formats may include large print, electronic, Braille, audiocassette, etc.

whitney

architects

April 4, 2024

attn: Alma Flores

re: Research Lab – Conditional Use Permit – Required Attachments

Compliance with 11 Factors of Evaluation

1. **Demonstrated need for proposed use**
   This potential Research Lab believes the Golden Valley property suits its needs and will revitalize a vacant building.

2. **Consistency with comprehensive plan of the city**
   Because this is a nearly vacant existing facility, this Research Lab will be bringing new jobs to fill it.

3. **Effect upon property values in the neighboring area**
   Because of the new professional jobs being created, property values should only be enhanced.

4. **Effect of any anticipated traffic generation upon the current traffic flow and congestion in area**
   Because the building currently has more than 600 parking spaces and the Research Lab will have approximately 200 employees, there should be little effect on congestion.

5. **Effect of any increase in population and density upon surrounding land**
   Again because there are fewer employees than before there should be no increase in density.

6. **Compliance with the City's Mixed-Income Housing Policy.**
   Not applicable

7. **Increase in noise levels to be caused by the proposed use.**
   Proposed uses will not contribute to any increase in noise levels.

8. **Any Odors, dust, smoke, gas, or vibration to be caused by the proposed use.**
   None of the above elements will be a part of this Research Lab's occupation or

processes on the site.

9. **Any increase in pests, including flies, rats, or other animals or vermin in the area to be caused by the proposed use.**
   None of the above listed animals or insects will be increased by this Research Lab's occupation or processes on the site.

10. **Visual appearance of any proposed structure or use.**
    This Research Lab will be adding additional HVAC units on the roof of the existing building. This Research Lab will furnish the approximate screening to mask their appearance.

11. **Any other effect upon the general public health, safety, and welfare of the City and its residents.**
    There are no other negative effects this Research Lab will have upon the public health, safety, and welfare of the city of Golden Valley and its residents.

The proposed uses by this Research Lab. for the 201 GM Drive property are research labs and office space. Of the 90,000 sq. ft, approximately 50,000 sq. ft. will be dedicated to labs and the remainder to office storage and amenity areas.

Approximately 200 employees will utilize the space and an average of 25 visitors per week are expected to come to the space. Hours of operation will be nominally 6am-8pm.

See photo below of the current site which has been there since 1998. There will be no further impacts to the surrounding areas because of the Research Lab's occupancy.

The following lab types this Research Lab will develop in the building are the following:
First floor

1. ACS Chemistry general analytics lab
2. ACS Chemistry mass spec. lab
3. Biosafety lab
4. Biomedical electromechanical lab
5. Metrology and calibration lab
6. Bio Glass laundry lab
7. Chemistry practice lab
8. Electromechanical U+V lab
9. Disposable materials testing lab

Second floor

1. Innovation lab
2. Validation lab
3. R+D lab
4. R+D rapid prototype lab
5. Machine shop
6. Compliance labs
7. Agile labs

Legal Descriptions of Property:
Lot 1, Block 1, Campus View, except that part thereof lying southerly of the following described line: Commencing at the northeast corner of said Lot 1; thence South 0 degrees 03 minutes 47 seconds East, assumed bearing along the east line of said Lot 1, a distance of 839.46 feet to the point of beginning of the line to be described; thence South 65 degrees 02 minutes 15 seconds West a distance of 110.28 feet; thence South 49 degrees 37 minutes 46 seconds West a distance of 146.67 feet; thence southwesterly and westerly a distance of 91.66 feet along a tangential curve concave to the north having a radius of 80.00 feet and a central angle of 65 degrees 38 minutes 37 seconds; thence North 64 degrees 43 minutes 37 seconds West tangent to said curve a distance of 871.56 feet to the westerly line of said Lot 1 and there terminating.

Torrens Property-Certificate of Title No. 1481583

Registered Property Certificate:
See attached Certificate of Title.

Thank you,

whitney inc.

name: Matt Churchill

title: Principal | Architect of Record

date: **4**-4-24

cc: Mark Stenftenagel, Mary Esche, Melissa Bogusch

LABORATORY LEGEND

LAB BENCH

EQUIPMENT ZONE

FUME HOOD/BSC

OPENING

LAB SPACE

LAB SUPPORT SPACE

ROOM LEGEND

BIO MED

AB BIO-MED SATELLITE HAZ
L BSL1 MEDIA KITCHEN
M BSL1 CCI
N BSL2 MICRO "SOIL"
O BSL2 MICRO "CLEAN"
E BSL2 CHAMBER ROOM
A BIO MED ELECTRO-MECHANICAL V&V

GENERAL CHEMISTRY

P GEN CHEM ANALYTICAL
Q GEN CHEM MASS SPEC
R/T PARTICLE LAB/WEIGHING

ROOM LEGE

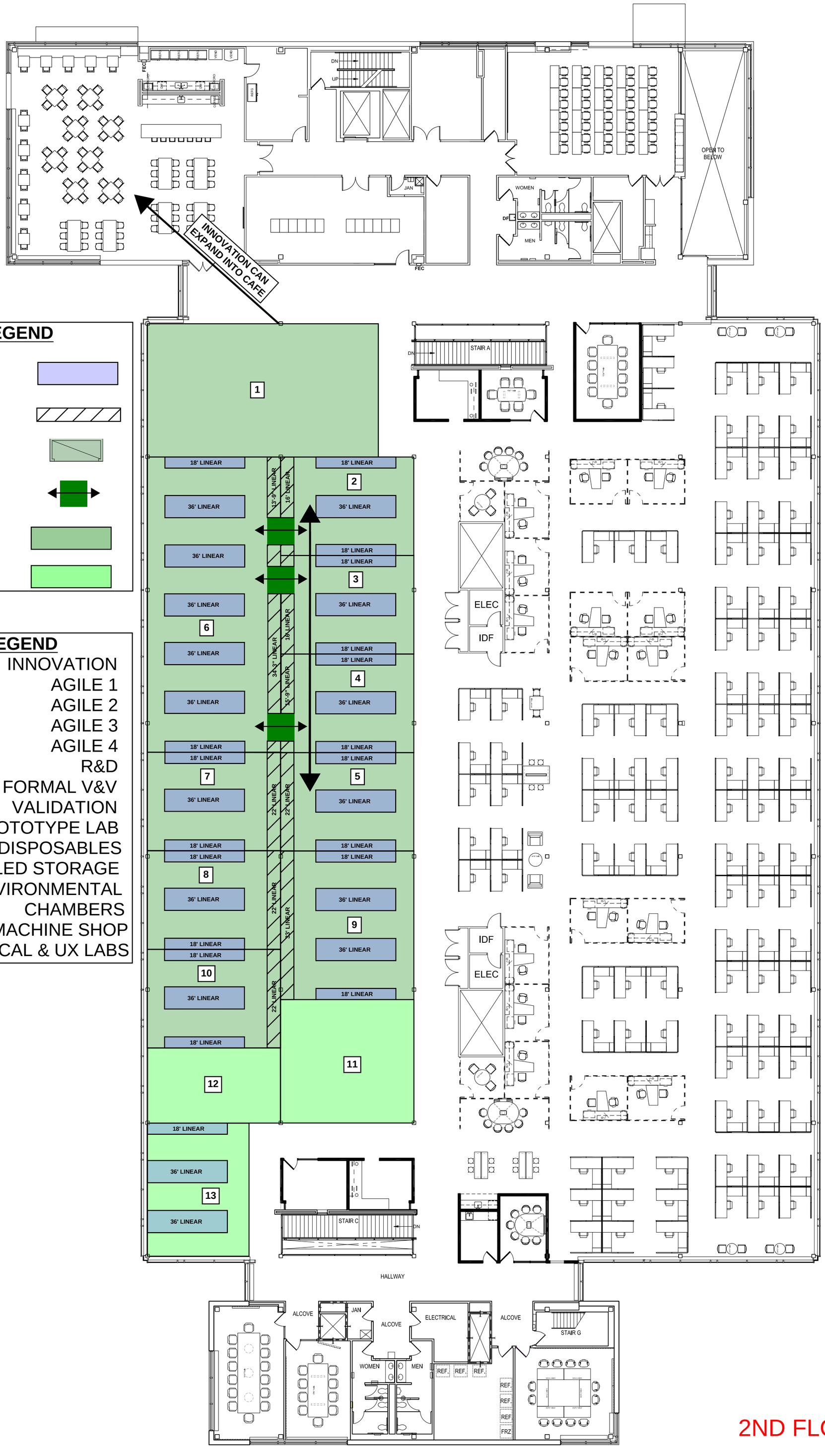
STORAG

AA CHEMICAL HAZ
AB ACS SUPPL
U SAMPLE
W
Z R&D CHEM

ENGINEER

C ELECTRO-M
D
S NON-BIO
Y METROLOGY
G DISPOSA
F DISPOS
K DISPOS
I

1ST FLOOR



LABORATORY LEGEND

- LAB BENCH
- EQUIPMENT ZONE
- FUME HOOD/BSC
- OPENING
- LAB SPACE
- LAB SUPPORT SPACE

LINEAR FEET EQUIPMENT ZONE		ROOM LEGEND
-	1	INNOVATION
16'	2	AGILE 1
16'	3	AGILE 2
15'-9"	4	AGILE 3
15'-9"	5	AGILE 4
48'	6	R&D
22'	7	FORMAL V&V
22'	8	VALIDATION
33'	9	PROTOTYPE LAB
22'	10	DISPOSABLES
-	11	CONTROLLED STORAGE & ENVIRONMENTAL CHAMBERS
-	12	MACHINE SHOP
-	13	CMPL, FAI, CAL & UX LABS

2ND FLOOR

ALTA/NSPS LAND TITLE SURVEY FOR:
GENERAL MILLS, INC.

LEGAL DESCRIPTION:

Lot 1, Block 1, Campus View, except that part thereof lying southerly of the following described line:

Commencing at the northeast corner of said Lot 1; thence South 0 degrees 03 minutes 47 seconds East, assumed bearing along the east line of said Lot 1, a distance of 839.46 feet to the point of beginning of the line to be described; thence South 65 degrees 02 minutes 15 seconds West a distance of 110.28 feet; thence South 49 degrees 37 minutes 46 seconds West a distance of 146.67 feet; thence southwesterly and westerly a distance of 91.66 feet along a tangential curve concave to the north having a radius of 80.00 feet and a central angle of 65 degrees 38 minutes 37 seconds; thence North 64 degrees 43 minutes 37 seconds West tangent to said curve a distance of 871.56 feet to the westerly line of said Lot 1 and there terminating.

NOTES:

1. The orientation of this bearing system is based on the Hennepin County coordinate grid (NAD 83–2011 Adj.).
2. The total area of the property described hereon is 923,238 square feet or 21.194628 acres.
3. The legal description and easement information used in the preparation of this survey were based on the Commitment for Title Insurance prepared by First American Title Insurance Company, Commitment No. NCS–931224–MPLS dated October 17, 2018.
4. Existing utilities, services and underground structures shown hereon were located either physically, from existing records made available to us, by resident testimony, or by locations provided by Gopher State One Call, per Ticket No. 183101663. However, lacking excavation, the exact location of underground features cannot be accurately, completely and reliably depicted. Where additional or more detailed information is required, the client is advised that excavation may be necessary. Other utilities and services may be present and verification and location of all utilities and services should be obtained from the owners of the respective utilities prior to any design, planning or excavation.
5. No zoning report or letter was received from the client pursuant to Optional Table A item 6(b), as set forth in the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys.
6. BENCHMARK: Top of Minnesota Department of Transportation Geodetic Monument "2789 BH" GSID Station #101706
   Elevation = 898.64 feet. (NGVD 29)
7. As of the date of this survey the property described hereon contains a total of 594 parking spaces of which 586 are standard spaces and 8 are designated handicapped spaces.
8. As of the date of this survey there is no observable evidence of current earth moving work, building construction or building additions on the property described hereon.
9. Wetland information was taken from the Plat of Campus View
10. Pursuant to Optional Item 10A as set forth in the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys there was no determination made regarding division or party walls.

SURVEY ITEMS PER SCHEDULE B:

ITEM 8: Easements for sanitary sewer purposes in favor of the City of Golden Valley as contained in Final Certificate dated August 12, 1958, recorded August 29, 1958 as Document No. 567847. Said easements affect the surveyed property and are depicted hereon.

ITEM 9: Drainage and utility easements as shown on the recorded plat of Campus View recorded April 8, 1993 as Document No. 2362705. Said drainage and utility easements affect the surveyed property and are depicted hereon.

ITEM 10: Easement for ponding and storm drainage purposes in favor of the City of Golden Valley as contained in Quit Claim Deed dated April 15, 2003, recorded April 18, 2003 as Document No. 3721134. Said easement for ponding and storm drainage affects the surveyed property and is depicted hereon.

ITEM 11: Easement for street, sidewalk, trail and utility purposes in favor of the City of Golden Valley as contained in Quit Claim Deed dated April 15, 2003, recorded April 21, 2003 as Document No. 3722128. Said easement for street, sidewalk, trail and utility purposes affects the surveyed property and is depicted hereon.

ITEM 12: Easements for gas utility purposes and incidental rights in favor of CenterPoint Energy Minnegasco as contained in Easement dated December 19, 2003, recorded February 23, 2004 as Document No. 3923553. Said easement for gas utility purposes affect the surveyed property and are depicted hereon.

ITEM 13: Terms and conditions of Stormwater Quality Treatment Facility Maintenance Agreement between the City of Golden Valley and General Mills, Inc. dated March 1, 2012, recorded March 26, 2012 as Document No. 14939501. Said terms and conditions of stormwater quality treatment facility maintenance agreement affects the surveyed property, however there are no graphical matters to depict hereon.

ITEM 14: Easement for ponding and storm drainage purposes in favor of the City of Golden Valley as contained in Quit Claim Deed dated March 1, 2012, recorded April 5, 2012 as Document No. 14942276. Said easement for ponding and storm drainage purposes affects the surveyed property and is depicted hereon.

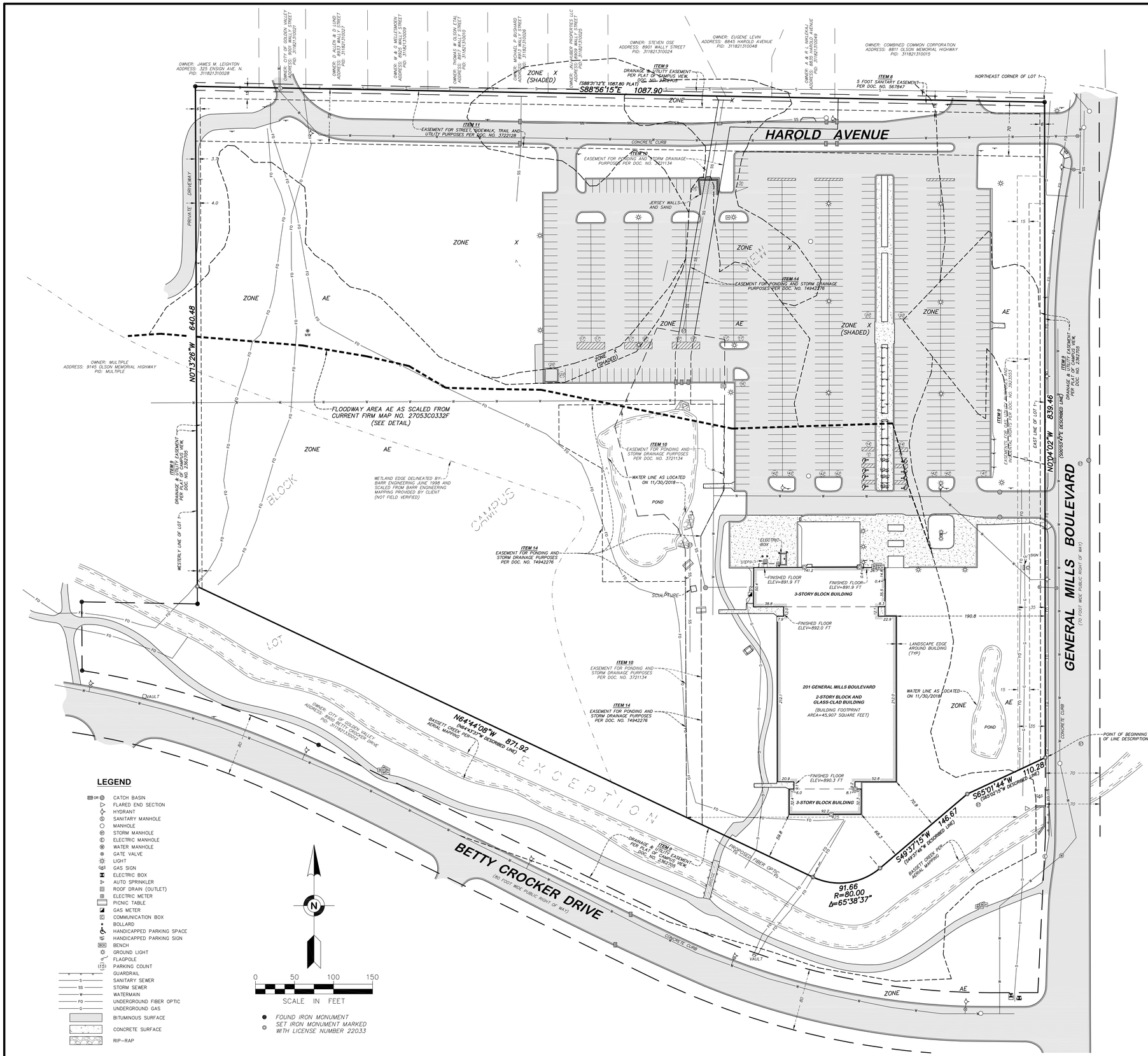
CERTIFICATION:

To First American Title Insurance Company and General Mills, Inc. a Delaware corporation:

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 6(b), 7(a), 7(b)(1), 8, 9, 10(a), 11, 13, 14, 16 and 18 of Table A thereof. The field work was completed on December 3, 2018.

Date of Plat or Map: December 6, 2018

Lee J. Nord
Minnesota License No. 22033



LEGEND

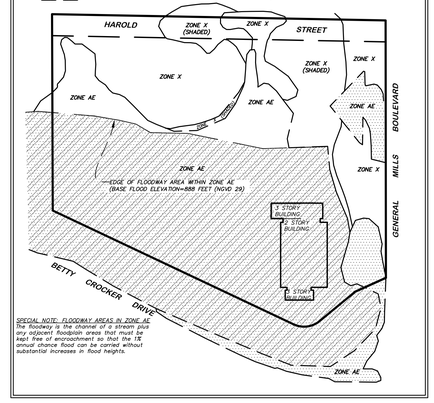
- CATCH BASIN
- FLARED END SECTION
- HYDRANT
- SANITARY MANHOLE
- MANHOLE
- STORM MANHOLE
- ELECTRIC MANHOLE
- WATER MANHOLE
- GATE VALVE
- LIGHT
- GAS SIGN
- ELECTRIC BOX
- AUTO SPRINKLER
- ROOF DRAIN (OUTLET)
- ELECTRIC METER
- PICNIC TABLE
- GAS METER
- COMMUNICATION BOX
- BOLLARD
- HANDICAPPED PARKING SPACE
- HANDICAPPED PARKING SIGN
- BENCH
- GROUND LIGHT
- FLAGPOLE
- (175) PARKING COUNT
- GUARDRAIL
- S — SANITARY SEWER
- SS — STORM SEWER
- W — WATERMAIN
- FO — UNDERGROUND FIBER OPTIC
- G — UNDERGROUND GAS
- BITUMINOUS SURFACE
- CONCRETE SURFACE
- RIP–RAP

FEMA FLOOD ZONE DETAIL

According to the Federal Emergency Management Agency Web Site the property lies within Flood Zone AE (base flood elevations determined), Zone X shaded (areas of 0.2% annual chance flood, areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood), Zone X (areas determined to be outside the 0.2% annual chance floodplain) as shown on Federal Flood Insurance Map No. 27053C0332F dated November 4, 2016.

DENOTES SPECIAL FLOOD HAZARD AREA SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

DENOTES FLOODWAY AREAS WITHIN ZONE AE (SEE SPECIAL NOTE)



SPECIAL NOTE: FLOODWAY AREAS IN ZONE AE
The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

FIELD BOOK	PAGE
2699	63

DRAWING NAME: 38316 ALTA NGVD 29.dwg
JOB NO. 38316
FILE NO. 952

FIELDWORK CHIEF: TC
DRAWN BY: LS
CHECKED BY: LJN

REVISIONS

NO.	DATE	DESCRIPTION
1	02/25/19	Added floor elevations and additional utilities
2	03/12/19	Updated delineated wetland edge as provided by client

ALTA/NSPS LAND TITLE SURVEY

SURVEY FOR:
GENERAL MILLS, INC.

PROPERTY ADDRESS:
201 GENERAL MILLS BOULEVARD
GOLDEN VALLEY, MINNESOTA 55427

Egan, Field & Nowak, Inc.
land surveyors since 1872
1229 Tyler Street NE, Suite 100
Minneapolis, Minnesota 55413
PHONE: (612) 466-3300
FAX: (612) 466-3383
WWW.EFNSURVEY.COM
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CITY OF GOLDEN VALLEY
PLANNING COMMISSION MEETING MINUTES

Monday, April 8, 2024 – 6:30 p.m. | City Hall Council Chamber
7800 Golden Valley Road Golden Valley, MN 55427

1. CALL TO ORDER

AND LAND ACKNOWLEDGEMENT: Chair Brookins called the meeting to order at 6:34 p.m. and read the Land Acknowledgement.

a. Regular Members Present: Brookins, McCormick, Barnstorff, Cohen, Meredith, and Segelbaum

b. Regular Members Absent: Ruby

c. Student Member, Status: Benjamin Fricke, Present

d. Staff Members Present: Alma Flores, Community Development Director
Darren Groth, Assistant Community Development Director
Christine Costello, Housing & Econ. Dev. Manager
Kendra Lindahl, City Planning Consultant

e. Council Liaison Present: None

2. APPROVAL OF AGENDA: Cohen motioned to add Item b. under Other Business to discuss the April 22, 2024 meeting date, McCormick seconded.
Commission voted 6-0 to approve.

3. APPROVAL OF MINUTES: Cohen motioned to approve the March 25, 2024, Regular Meeting Minutes with two corrections. First, Chair Brookins' name was misspelled and second, the address for the first Informal Public Hearing was incorrect. Meredith seconded, as amended.
Commission voted 6-0 to approve the amended minutes.

4. INFORMAL PUBLIC HEARING FOR A CONDITIONAL USE PERMIT (CUP) FOR LABORATORIES (MEDICAL, DENTAL, OR RESEARCH AND DEVELOPMENT) LOCATED AT 201 GENERAL MILLS BLVD

a. Groth opened the staff presentation for this agenda item and introduced Costello.
b. Costello presented the staff report, findings/conclusions, and recommendations. She mentioned the proposed use, prospective tenants, and the fact that the applicant did not currently have plans to expand. No significant concerns were shared by other departments.
c. Based on findings, staff Recommends approval of the Conditional Use Permit, subject to the condition that: "*At the time of building permit application, the prospective tenants shall provide any proper chemical inventory and any mitigation measures to the Building Division and Fire Department for review*."

DRAFT

d. The commissioners had a few questions for staff regarding the CUP request.
e. Commissioner Segelbaum inquired why laboratory use was a conditional use and whether the application needed to be reviewed by Bassett Creek Watershed.
f. Costello stated that most likely for a conditional use was required due to the potential use of chemicals and to ensure both Building Division and the Fire Department were aware of potential life safety hazards. Costello continued that Sustainability staff reviewed application and Bassett Creek Watershed review was not required. That if there was a potential for any chemical release that would be handled by the Minnesota Pollution Control Agency (MPCA) with notification to the watershed.
g. Commissioner Cohen inquired if signage for the building was being asked for as part of the application.
h. Costello responded that the applicant did not submit any signage package so if they wanted to signage for the building, they would need to follow the City's Sign Code requirements.
i. Commissioner Segelbaum lastly inquired about whether the applicant would be leasing portions for the parking lot to other users for new auto storage, etc.
j. Costello stated that the applicant would be best to answer that question.
k. The applicant, 201 General Mills Blvd LLC, sent representatives to speak about the proposal. The first representative to speak was Josh Huempfner, from Upland Real Estate Group, and Dan Day, the Corporate Facilities Director for the building owner was the second. Dan clarified that the building was not currently vacant and is partially being used for office space. Dan also clarified for the Commissioners that in the Summer/Fall of 2020 they leased a portion of the parking lot as another revenue stream during the pandemic. There was concern from the neighbors and a notice was received from the City that it was not allowed use. They removed the use from the site and have no plans to add that type of use in the future, they want to maintain all available parking for any prospective tenants for the building.
l. Matt Churchill from Whitney Architects was the final applicant representative to speak. Matt stated that the proposal would be for a biopharma med-tech type business that was managing existing equipment, predominantly Research and Development for new technology.
m. Chair Brookins opened the public hearing at 6:51 p.m.
n. No one was present to speak on the request.
o. Chair Brookins closed the public hearing at 6:52 p.m.
p. Chair Brookins requested a motion.
q. Cohen moved to approve the motion, with the standards and condition recommended by staff and presented by Costello in her staff report.
r. Barnstorff seconded.
s. The Commission voted 6-0 to recommend APPROVAL, as moved.

5. COUNCIL LIAISON REPORT: None

6. OTHER BUSINESS:

a. Discussion on past meeting topic of Board of Zoning Appeals, and next meeting for May 21st, 2024.
b. Cohen asked to reschedule the April 22, 2024, meeting due to that date falling on a holiday. Groth updated the commission that there are no items for neither the April 22 nor the May 13 meeting. Chair Brookins asked staff to cancel both meetings.
c. Groth asked the commission about using Granicus software for agendas, the format for meeting minutes, and commissioner training.

7. ADJOURNMENT: Chair Brookins adjourned the meeting at 7:21 p.m.

Approved by: _____
Commissioner McCormick, Secretary

A? est By:

_____
Darren Groth, AICP, CPM
Community Development Asst. Director

DRAFT

(Top 3 inches reserved for recording data)

CITY OF GOLDEN VALLEY
CONDITIONAL USE PERMIT
No. 24-0003

Date of Approval:	May 7, 2024, by the City Council in accordance with Sec. 113-55, Subd. b and Section 113-88 of City Code
Issued To:	201 GM Blvd., LLC
Approved Location:	201 General Mills Boulevard, Golden Valley, MN
Approved Conditional Use:	To allow for laboratories (medical, dental, or research and development)
Legal Description:	Lot 1, Block 1, Campus View, except that part thereof lying southerly of the following described line: Commencing at the northeast corner of said Lot 1; thence South 0 degrees 03 minutes 47 seconds East, assumed bearing along the east line of said Lot 1, a distance of 839.46 feet to the point of beginning of the line to be described; thence South 65 degrees 02 minutes 15 seconds West a distance of 110.28 feet; thence South 49 degrees 37 minutes 46 seconds West a distance of 146.67 feet; thence southwesterly and westerly a distance of 91.66 feet along a tangential curve concave to the north having a radius of 80.00 feet and a central angle of 65 degrees 38 minutes 37 seconds; thence North 64 degrees 43 minute 37 seconds West tangent to said curve a distance of 871.56 feet to the westerly line of said Lot 1 and there terminating.

Check here if all or part of the described real property is Registered (Torrens) ☐

Conditions of Approval:

1. At the time of building permit application, the perspective tenant shall provide any proposed chemical inventory and any mitigation measures to the Building Division and Fire Department for review.

This permit does not exempt the property owner or occupant from compliance with all provisions of city code, or any other applicable regulations, laws, and ordinances.

City of Golden Valley, a Minnesota municipal corporation

By: _____
Alma Flores, Community Development Director

State of Minnesota)
) ss
County of Hennepin)

This instrument was acknowledged before me on _____, 2024, by Alma Flores Community Development Director of the City of Golden Valley, a municipal corporation.

(Stamp)

_____
(signature of notarial officer)

My commission expires: _____
(month/day/year)

THIS INSTRUMENT WAS DRAFTED BY:
City of Golden Valley
7800 Golden Valley Road
Golden Valley, MN 55427
(763) 593-8000

ORDINANCE NO. 783
AN ORDINANCE AMENDING THE CITY CODE
Approval of Conditional Use Permit Number 24-0003
201 General Mills Blvd., LLC., Applicant

The City Council for the City of Golden Valley hereby ordains as follows:

Section 1. City Code chapter 113 entitled "Zoning" is amended in Section 113-55 Subd. (b) by approving a Condition Use Permit for 201 General Mills Boulevard, thereby allowing laboratories (medical, dental, or research and development) within the Office Zoning District.

This Conditional Use Permit is approved based on the application materials and plans submitted by the applicant, staff memos, public comments and information presented to the Planning Commission and City Council, and findings recommended by the Planning Commission. This Conditional Use Permit is approved pursuant to City Code Section 113-30, Subd. g, and adopted by the City Council on May 7, 2024.

This Conditional Use Permit is subject to all of the terms of the permit to be issued including, but not limited to, the following specific conditions:

1. At the time of building permit application, the perspective tenant shall provide any proposed chemical inventory and any mitigation measures to the Building Division and Fire Department for review.

Section 2. The tracts of land affected by this ordinance are legally described as:

Lot 1, Block 1, Campus View, except that part thereof lying southerly of the following described line: Commencing at the northeast corner of said Lot 1; thence South 0 degrees 03 minutes 47 seconds East, assumed bearing along the east line of said Lot 1, a distance of 839.46 feet to the point of beginning of the line to be described; thence South 65 degrees 02 minutes 15 seconds West a distance of 110.28 feet; thence South 49 degrees 37 minutes 46 seconds West a distance of 146.67 feet; thence southwesterly and westerly a distance of 91.66 feet along a tangential curve concave to the north having a radius of 80.00 feet and a central angle of 65 degrees 38 minutes 37 seconds; thence North 64 degrees 43 minute 37 seconds West tangent to said curve a distance of 871.56 feet to the westerly line of said Lot 1 and there terminating.

Section 3. City Code Chapter 1 entitled "General Provisions" and Sec. 1-8 entitled "General Penalty; Continuing Violations" are hereby adopted in their entirety, by reference, as though repeated verbatim herein.

Section 4. This ordinance shall take effect form and after its passage and publication as required by law.

Adopted by the City Council this 7th day of May, 2024.

_____
Roslyn Harmon, Mayor

ATTEST:

_____
Theresa Schyma, City Clerk

EXECUTIVE SUMMARY

Community Development

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item

4E. Public Hearing to Authorize Submittal of Applications to DEED's Minnesota Investment Fund (MIF) and Job Creation Fund (JCF) Programs for Baxter Healthcare Corporation, Resolution Nos. 24-035 and 24-036

Prepared By

Christine Costello, Housing & Economic Development Manager

Summary

In February 2024 the Minnesota Department of Employment and Economic Development (DEED) approached the City of Golden Valley regarding a request for proposal (RFP) for a company interested in locating in Golden Valley, Minnesota or Chicago, Illinois. In partnership with DEED and GreaterMSP, Golden Valley responded to the RFP to be considered as a potential location in Minnesota. The company, Baxter Healthcare Corporation (Baxter), currently has a small presence in Plymouth, but would look to consolidate existing and future operations at 201 General Mills Boulevard. The location would become one of the company's R&D Centers of Excellence, and be 1 of 4 globally. Baxter would be making a $30-40 MM dollar investment and creating an additional 100 new jobs over the next two years. The combination of their existing workforce in Plymouth would bring a total of 170 jobs to Golden Valley. Applications to DEED's Minnesota Investment Fund and Job Creation Fund programs will assist the company in purchasing lab and technical equipment to build out space at 201 General Mills Boulevard.

The requested actions before City Council allow for the City to assist Baxter Healthcare Corporation in applying for DEED's Minnesota Investment Fund (MIF) program and Job Creation Fund (JCF) program. This is the first step in the process for the company to be considered eligible for these two State financing programs. Below is an explanation of the City and company's role for each program if the applications are approved by the State.

<u>Minnesota Investment Fund (MIF) Program</u>

MIF provides dollars to local units of government in the form of grants. Cities then provide low interest or forgivable loans to help businesses retain and create high-quality jobs with a focus on engineering, manufacturing, and technology-related industries. The State determines the type of assistance a company receives, including interest rates and term, based on the number of jobs being created and overall investment in the community where the company locates or expands. MIF dollars can be used in the purchase of any fixed assets including real estate, machinery, and equipment. In this application, DEED's preliminary approval indicated the award will be $2,000,000 in MIF funds, and is structured that if the company meets its job creation and retention goals, $1,210,000 of the loan will

be forgivable.

MIF is structured as a pass-through program meaning that the funds are awarded to the City as a grant and then passed on to the company as a repayable loan. The City will enter into a grant agreement with the State and a loan agreement with the company that details ongoing obligations as they relate to the MIF dollars. The company then has two years to fulfill the job creation obligations stated in the loan agreement. If the company meets all goals in two years, the forgivable portion of the loan will be given. **If the company does not meet job and wage goals, the funds will be paid back to the City, who returns it to the State. The City will be responsible for submitting an annual report detailing the progress the company has made toward job creation goals. Reporting is completed in partnership with the company.**

As part of the application, the City of Golden Valley is required to hold a public hearing concerning submittal of the MIF application to DEED. Additionally, the City must adopt a resolution to act as the legal sponsor for the project and will enter into a grant agreement with the State of Minnesota.

Job Creation Fund (JCF) Program

JCF provides financial incentives to new and expanding businesses that meet certain job creation and capital investment targets. The program is available to businesses engaged in manufacturing, warehousing, distribution, technology-related industries, and other eligible activities. JCF is the State's pay for performance grant. The amount of award a business received at the end of its two-year reporting period is determined by the number of jobs created by the company. Unlike other State programs, JCF does not provide funding up front to a business but rather provides funding after a business has completed their reporting period. JCF does not require the City to provide ongoing jobs reporting unlike the MIF program.

With assistance from the City, the company will submit a JCF application and required supporting documents to DEED. Then DEED evaluates the application and notifies the City and business of approval or denial. If approved, DEED will formally designate the business as a JCF business and determine an award amount. Awards in excess of $500,000 requires DEED to hold a public hearing, not the City.

After the State's public hearing (if applicable), DEED drafts a business subsidy agreement specifying project goals and duration of the agreement and sends it to the business for signature. The business then returns the agreement to DEED for final signature by the DEED Commissioner. Through the duration of the business subsidy agreement, the City will continue to provide assistance to the designated JCF business. This assistance includes collecting required reporting information and submitting progress reports, annual reports, request for payment, and providing updates to the business regarding annually adjusted wages. Prior to application submittal, the City must adopt a resolution to act as the legal sponsor for the project and enter into a grant agreement with the State of Minnesota.

Financial or Budget Considerations

MIF and JCF

The administration of the MIF and JCF process will use budgeted staff time to ensure the company completes all required reporting for the State programs. The MIF and JCF programs will have no impact on City or HRA budget, since MIF funds are a pass-through program and JCF funds are distributed directly to the business. The City is able to retain a portion of the non-forgivable loan from

MIF. Those MIF funds can come back to the City to be used for a revolving loan fund program that is in compliance with State guidelines. This would be Golden Valley's opportunity to establish a revolving loan fund and policy to use for future employment and economic activities in the community. Staff will work with Finance to establish a RLF policy to ensure it meets State requirements for use and future reporting. The RLF policy will need to be in place before funds are released to the company. The company per the MIF process has two years to create the 100 positions so the RLF policy will need to be in place for the end of two years and funds are disbursed.

Revolving Loan Fund (RLF) Guidelines

The City of Golden Valley may establish a RLF with the funds received through the repayment of a loan provided from a state-funded Minnesota Investment Fund (MIF). The State confirmed that Golden Valley can retain 40% of the non-forgivable portion of the loan, but it is limited to $100,000 per MIF award. The purpose of the RLF is to provide financial and technical assistance for the creation and retention of new employment. The State has provided objectives for the funds as well as eligible and ineligible expenditures that are listed on the attachment titled, *Operating Guidelines for Revolving Loan Funds Seeded by State Minnesota Investment Fund Awards*. By retaining the non-forgivable portion of the loan Golden Valley can establish a RLF to improve our employment and economic opportunities in the community. Golden Valley will continue to work with DEED staff and Finance to fully understand how retained funds can be used to support future business development projects in the City.

In addition, there are no limits on MIF and JCF projects that can be applied for in a calendar year, so if another project were to be brought forward in Golden Valley it would be eligible to apply to both State programs.

Legal Considerations

The City Attorney reviewed the attached resolutions to ensure they met City Code and policies. In addition, if the State approves the applications for MIF and JCF and awards funding to the company, the City Attorney will review and negotiate all grant agreements on behalf of the City. This has been standard process for agreements with the State.

Equity Considerations

Equity will review all agreements if funding is awarded to ensure that Golden Valley's equity pillar of providing unbiased programs and services is met in all agreements.

Recommended Action

If the conditional use permit (CUP) to allow laboratories (medical, dental, research and development) at 201 General Mills Boulevard is approved as part of Item No. 4D, below are the suggested action steps for MIF and JCF consideration:

1. Conduct and close a public hearing for the Minnesota Investment Fund (MIF) application to ensure public testimony is received prior to consideration.
2. Motion to approve Resolution No. 24-035 authorizing submittal of an application to the Minnesota Department of Employment and Economic Development's Minnesota Investment Fund (MIF) program for Baxter Healthcare Corporation.
3. Motion to approve Resolution No. 24-036 supporting a Job Creation Fund (JCF) application in connection with Baxter Healthcare Corporation.

Simple Majority Vote is needed.

Supporting Documents

- Operating Guidelines for Revolving Loan Funds Seeded by State MIF Awards
- Resolution No. 24-035 - Authorizing Submittal of MIF Application
- Resolution No. 24-036 - Authorizing Submittal of JCF Application

OPERATING GUIDELINES FOR
REVOLVING LOAN FUNDS SEEDED BY
STATE MINNESOTA INVESTMENT FUND AWARDS

A local unit of government may establish a Revolving Loan Fund (RLF) with funds from a variety of sources. The guidelines outlined in this document pertain only to a RLF seeded with funds received through the repayment of a loan provided from the state-funded Minnesota Investment Fund (MIF) or Economic Recovery Fund programs administered through the Department of Employment and Economic Development or its predecessors.

The local government must follow the RLF guidelines that were submitted with the initial MIF application and approved by your DEED Senior Loan Officer. Although the guidelines provide the policies and procedures for the reuse of these funds, the RLF policies and procedures must also adhere to the same requirements that are followed by the state's Minnesota Investment Fund program. In addition to the local government's underwriting criteria, the guidelines from Minn. Stat. 116J.8731 (some of which is summarized below) and from the Minnesota Business Subsidy Law (Minn. Stat. 116J. 993 and 116J.994) must be included in the policies and procedures

General Purposes and Guidelines for RLFs Seeded by the Minnesota Investment Fund

Purpose and Goals

The purpose of the RLF is to provide financial and technical assistance for the creation and retention of new employment. These objectives may be accomplished through the following means:

1. Create/retain permanent private sector jobs to fuel above-average economic growth consistent with environmental protection;
2. Investment in technology and equipment that increase productivity and provide for higher wages;
3. Leverage of private investment to ensure economic renewal and competitiveness;
4. Increase the local tax base to guarantee a diversified industry mix;
5. Improve the quality of existing jobs, based on increases in wages or improvements in the job duties, training, or education associated with those jobs;
6. Improve employment and economic opportunities and create a reasonable standard of living; and
7. Enhance productivity growth through improved manufacturing or new technologies.

One way to meet these objectives is to assist businesses that have location options outside Minnesota. These firms bring income into the state and raise the overall standard of living.

Eligible Expenditures

The MIF-seeded funds may be used in a variety of ways include example noted below. More information is available in Minn. Stat. 116J.8731 and through conversations with your loan officer.

1. Provide loans, loan guarantees, interest buy-downs, and other forms of participation, ensuring that RLF funds are matched by private financing.
2. Fund strategic investments in renewable energy market development. Any expenditure for external marketing for renewable energy market development is not subject to the matching requirements listed above.
3. Provide entrepreneurs with training, other technical assistance, and financial assistance as defined by federal guidelines.

Eligible Projects
Assistance must be evaluated on the existence of the following conditions as noted in Minn. Stat. 116J.8731:

1. Creation or retention of jobs, or the improvement of jobs as measured by wages, skills or knowledge;
2. Increase in the tax base;
3. Attraction of private funds to the project;
4. Incapacity of local communities and finance partners to finance project;
5. Results in higher wage levels or workforce skills;
6. Supports development of microenterprises, as defined by federal guidelines, through technical assistance or financial assistance.
7. Need for assistance to retain existing business;
8. Importance of assistance to attract out-of-state business; and
9. The project promotes or advances the green economy.

The assistance cannot meet solely 7. or 8.; other conditions must also be present.

Eligible Activities
RLF's may be used to fund a variety of business activities including:

1. Acquisition of land
2. Construction or rehabilitation of facilities
3. Site improvements
4. Utilities or infrastructure
5. Machinery and Equipment
6. Training
7. Working capital

Advance approval from DEED is necessary if the local government would like to provide financing for activities not listed above. Approval is more likely to occur in projects that relate to business development and involve other local government funds.

Ineligible Activities
In contrast to federal MIF funds, there are industry limitations on how state MIF RLFs may be used. State MIF RLFs may not be used for the operation, construction or expansion of a casino, a sport facility that that has a professional sports team as a principal tenant or any firm engaged in retailing merchandise. All assistance should follow the approved RLF guidelines. Please call your loan officer to discuss any prospective financing.

Wage Goals
Businesses receiving RLF-State MIF assistance must pay each employee total compensation, including benefits not mandated by law, that on an annualized basis is equal to at least 110 % of the federal poverty level for a family of four, which as of February 1, 2015 is $12.82 per hour. Each year's compensation level changes and can be found on DEED's Business Finance MIF website.

Other Eligible Uses of the Funds
Minn. Stat. 116J.8731 allows local governments to loan or grant RLF funds to a regional development commission, other regional entities, or a certain statewide community capital funds to provide the local match required for capitalization of a regional or statewide RLF. Unlike federal MIF funds, state MIF funds held by local governments never lose their state identify and must follow all applicable laws and regulations.

The local government must request permission from the DEED before it can commit to providing funds to any of these organizations. The local government **does not** have the authority to turn over to another entity, such as Port Authority, Economic Development Authority, Housing Authority, etc. revolving loan funds for any purpose; these entities may administer MIF transactions provided the MIF grantee still maintains control over the RLF.

Conflict of Interest

Minn. Stat. 471.87 and 471.88 provide guidance on conflict of interest in a MIF transaction. An actual conflict of interest shall be deemed to exist when a decision on a MIF transaction would compromise a duty to another party or if special advantage is deemed to occur. Potential conflict of interests should also be considered.

Business Subsidy Law

As mentioned on page 1, Minn. Stat. 116J.993 and 116J.994 must be followed in the administration of RLF-State MIF. These sections pertain to the definition of a business subsidy, public purpose of the subsidy, criteria, subsidy agreements, wage and job goals, timing of the project, public notice and hearing requirements, failure to meet goals, and reporting of information regarding the outcomes of the subsidy.

Job Listing Requirements

Per Minn. Stat. 116L.66, a business that receives grants or loans in an amount greater than $200,000 must agree to list any vacant or new positions related to the financial assistance on the MinnesotaWorks.net job bank website.

Prevailing Wage

Per Minn. Stat. 116J.871, laborers and mechanics at the project site during construction, installation, remodeling, and repairs must be paid the state prevailing wage if the financial assistance is greater than $500,000 for a loan. All contracts for publicly owned infrastructure using the RLF must comply with the prevailing wage provisions.

Data Privacy

The provision of any information related to any applications for assistance is guided by Minn. Stat. 13.591, particularly Subd 1 and 2.

These operating guidelines provide a summary of how to administer revolving loan funds seeded with repayments from Minnesota Investment Fund loans. Specific transactions and RLF administration should be discussed with your DEED Senior Loan Officer. Other applicable state and federal laws and rules must also be followed.

RESOLUTION NO. 24-035

A RESOLUTION AUTHORIZING THE SUBMITTAL OF AN APPLICATION TO THE MINNESTOA DEPARTMENT OF EMPLOYMENT AND ECONOMIC DEVELOPMENT UNDER THE MINNESOTA INVESTMENT FUND (MIF) PROGRAM FOR BAXTER HEALTHCARE CORPORATION

WHEREAS, the City of Golden Valley, Minnesota desires to act as legal sponsor for a project from Baxter Healthcare Corporation to be submitted to the Minnesota Department of Economic Development to apply for the Minnesota Investment Fund (MIF) program; and

WHEREAS, the City of Golden Valley has the legal authority to apply for financial assistance, and the institutional, managerial, and financial capability to administer the proposed project; and

WHEREAS, the City of Golden Valley has not violated any Federal, State, or local laws pertaining to fraud, bribery, kickbacks, collusion, conflict of interest or other unlawful or corrupt proactive; and

WHEREAS, the City of Golden Valley has obtained credit reports and credit information on the company. Upon review by the City of Golden Valley and Ehlers Inc., no adverse findings of concern regarding, but not limited to, tax liens, judgements, court actions, and filings with state, federal and other regulatory agencies were identified. Failure to disclose any adverse information could result in revocation or other legal action.

NOW, THEREFORE, BE IT RESOLVED, that the City of Golden Valley shall act as legal sponsor for the project contained in the Minnesota Investment Fund Application to be submitted on or about May 7, 2024, and that the Mayor and City Manager are hereby authorized to apply to the Department of Employment and Economic Development for funding of this project on behalf of the company.

BE IT FURTHER RESOLVED, that upon approval of its application by the State, the City of Golden Valley may enter into a Grant Contract with the State of Minnesota for the approved project, and that the City of Golden Valley certifies that it will comply with all applicable laws, statutes, regulations and rules as stated in the Grant Contract and described in the Project Compliance Certification of the Application.

BE IT FURTHER RESOLVED, that the Mayor and City Manager are hereby authorized to execute the Grant Contract and amendments thereto, in the form approved by the City Attorney, as are necessary to implement the project on behalf of the City of Golden Valley.

Passed by the City Council of the City of Golden Valley, Minnesota this 7th day of May, 2024.

_____
Roslyn Harmon, Mayor

Attested:

_____
Theresa Schyma, City Clerk

RESOLUTION NO. 24-036

A RESOLUTION AUTHORIZING SUPPORT OF THE MINNESOTA DEPARTMENT OF EMPLOYMENT AND ECONOMIC DEVELOPMENT (DEED) JOB CREATION FUND (JCF) APPLICATION IN CONNECTION WITH BAXTER HEALTHCARE CORPORATION

WHEREAS, the City of Golden Valley, Minnesota (the "City"), desires to assist Baxter Healthcare Corporation, which is proposing to improve a facility in the City; and

WHEREAS, the City of Golden Valley understands that Baxter Healthcare Corporation, through and with the support of the City, intends to submit to the Minnesota Department of Employment and Economic Development an application for an award and/or rebate from the Job Creation Fund Program; and

WHEREAS, the City of Golden Valley held a City Council meeting on May 7, 2024 to consider this matter; and

NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Golden Valley, Minnesota, that, after due consideration, the Mayor of the City of Golden Valley, Minnesota hereby adopts the following findings of fact related to the project proposed by the Baxter Healthcare Corporation, and its application for an award and/or rebate from the Job Creation Fund Program and express the approval.

The City Council hereby finds and adopts the reasons and facts supporting the following findings of fact for the approval of the Job Creation Fund Program application:

1. That the project is in the public interest because it will encourage the growth and commerce and industry, prevent the movement of current and future operations to locations outside of Minnesota, result in increased employment in Minnesota, and preserve to enhance the state and local tax base as the project intends to:
    a. Create 100 new full-time jobs in the next two years.
    b. Assist in the redevelopment of a 90,000 square foot building that will house a research facility to support customers and manufacturing globally.
2. That the proposed project, in the opinion of the City Council, would not reasonably be expected to occur solely through private investment within the reasonably foreseeable future.
    a. The company's option to locate the project outside the State of Minnesota to aid in the expansion of the business' lines of production and overall operations.
    b. The company's willingness to work the City and State of Minnesota to advertise and recruit for new employees in the region.
3. That the proposed project conforms to the general plan for development or redevelopment of the City as a whole including:

    a. The proposed project is consistent with the City of Golden Valley's Comprehensive Plan and zoning requirements.
4. That the proposed project will afford maximum opportunity, consistent with the sound needs of the City as a whole, for the redevelopment or development of the project by private enterprise.
    a. The project will fill an existing vacancy within Golden Valley's office market.
    b. The addition of highly-skilled positions will advance the innovation economy in Golden Valley as well as retain existing Baxter Healthcare Corporation positions through new investment in both human talent and physical structure.
5. The new jobs would also be expected to positively impact other Golden Valley and regional businesses through indirect and direct spending by the new employees and by businesses benefiting from the enhanced sales as a result of the incremental spending in the local and regional economy.

Passed by the City Council of the City of Golden Valley, Minnesota this 7th day of May, 2024.

_____
Roslyn Harmon, Mayor

Attested:

_____
Theresa Schyma, City Clerk

EXECUTIVE SUMMARY

City Administration

763-512-2345 / 763-512-2344 (fax)

Golden Valley City Council Meeting

May 7, 2024

Agenda Item
6A. Review of Council Calendar

Prepared By
Theresa Schyma, City Clerk

Summary
The Council will review upcoming city meetings, events, and holiday closures.

Legal Considerations
This item does not require legal review.

Equity Considerations
This item does not require equity review.

Recommended Action
No action is required on this item.

Supporting Documents

- Review of Council Calendar

Review of Council Calendar

Event	Event Time	Location
MAY		
Thursday, May 9		
Arbor Day Event (Tree Planting)	9:00 AM	Good Shepherd School 145 Jersey Avenue South
Tuesday, May 14		
HRA Work Session	6:30 PM	Hybrid - Council Conference Room
Council Work Session	6:30 PM	Hybrid - Council Conference Room
Thursday, May 16		
Board/Commission Recognition Event	6:00 PM - 7:30 PM	Brookview - Valley Room
Tuesday, May 21		
City Council Meeting	6:30 PM	Hybrid - Council Chambers
Saturday, May 18		
Run Meadowbrook Run	7:00 AM	Brookview Park
Monday, May 27		
City Offices Closed for Observance of Memorial Day		
JUNE		
Tuesday, June 4		
Special HRA Meeting	6:30 PM	Hybrid - Council Chambers
City Council Meeting	6:30 PM	Hybrid - Council Chambers
Thursday, June 6		
Golden Valley Business Connections	8:00 AM - 9:30 AM	MRA - The Management Association, 5980 Golden Hills Drive
Saturday, June 8		
Golden Valley Pride Festival	12:00 PM - 6:00 PM	Brookview Park
Tuesday, June 11		
Council Work Session	6:30 PM	Hybrid - Council Conference Room
Sunday, June 16		
Market in the Valley - Opening Day	9:00 AM - 1:00 PM	City Hall Campus
Tuesday, June 18		
HRA Meeting	6:30 PM	Hybrid - Council Chambers
City Council Meeting	6:30 PM	Hybrid - Council Chambers
Wednesday, June 19		
City Offices Closed for Observance of Juneteenth		
Friday, June 21		
Kumbayah: The Juneteenth Story Live Play	11:00 AM (pre-show activities begin at 10:30 AM)	Northrop, 84 Church St SE, Minneapolis
Sunday, June 23		
Market in the Valley	9:00 AM - 1:00 PM	City Hall Campus
Sunday, June 30		
Market in the Valley	9:00 AM - 1:00 PM	City Hall Campus
JULY		
Tuesday, July 2		
City Council Meeting	6:30 PM	Hybrid - Council Chambers
Thursday, July 4		
City Offices Closed for Observance of Independence Day		