



TOWN *of* WAKE FOREST

Board of Adjustment Meeting Agenda March 20, 2025 at 6:00 PM

Notice

In accordance with the requirements of Title II of the Americans with Disability Act of 1990 (ADA), the Town of Wake Forest will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs, or activities. For individuals with impaired hearing, special equipment is available for use during meetings in the Town Hall Board Chambers. Anyone who requires an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a program, service, or activity of the Town of Wake Forest should contact the office of ADA Coordinator [Mickey Rochelle](#) at 919-435-9455 or Deputy Town Clerk [Ella Dowtin](#) at 919-435-9436 as soon as possible, but no later than 48 hours before the scheduled event.

Public Hearing

Those wishing to speak must first register to speak no later than 3pm the day of the meeting at <https://www.wakeforestnc.gov/public-meetings-portal>.

At the appropriate time, the Board of Adjustment Chair will acknowledge those persons who have registered to speak. They will be called upon in the order registered. Speakers will address the Board as a whole, from the podium at the front of the room, and begin their remarks by stating their name and address. While not required, the Chair may ask staff or the applicant to respond. Speakers needing additional information or questions answered will be contacted by the Deputy Town Clerk and provided contact information for the appropriate staff person.

Unless otherwise indicated by the Chair, individual comments shall be limited to three minutes. Groups are encouraged to designate a lead speaker on their behalf, and when addressing the Board, the speaker must first identify the group they are representing and will be given no more than ten minutes to give comments. Once comments have been made, speakers cannot speak again, unless specifically called upon by the Chair. The Chair may, at his/her discretion, interrupt public comment and elect to continue it to another meeting due to, among other reasons, the lateness of the hour or to allow consideration of other items on the agenda.

When public hearings are continued from previous meetings, previous individuals that have spoken, either representing themselves or a group, cannot speak at a continued public hearing, unless specifically called upon by the Chair. Additionally, speakers cannot both represent themselves individually and speak on behalf of a group throughout public hearings, even if held over multiple sessions.

1.Call to Order

2.Adoption of Agenda

3.Approval of Minutes

- 3.A. Approval of Minutes
[BOA minutes 1-16-2025.pdf](#)

4.Old Business

5.New Business

- 5.A. Public Hearing and Consideration of QUASI-JUDICIAL ITEM BOA-24-03 Variance Request for Traditions Townhomes
[BOA-24-03 STAFF REPORT V1.pdf](#)
[Exhibit A - Applicant's Variance Justifications and Exhibits.pdf](#)
[Exhibit B - Application and Agent Authorizations.pdf](#)
[Exhibit C - Aerial and Zoning Maps.pdf](#)
[Exhibit D - Recored Plat \(BM2023 PG1679\).pdf](#)
[Exhibit E - Recored Plat \(BM2024 PG651\).pdf](#)
[Exhibit F - UDO Variance Reference.pdf](#)
[Exhibit G - 2013 and 2023 Street View.pdf](#)
- 5.B. Public Hearing and Consideration of QUASI-JUDICIAL ITEM BOA-24-04 Variance Requests for Chick-fil-A
[BOA-24-04 STAFF REPORT.pdf](#)
[Exhibit A - Applicant's Variance Justifications and Exhibits.pdf](#)
[Exhibit B - Application and Agent Authorizations.pdf](#)
[Exhibit C - Aerial and Zoning Maps.pdf](#)
[Exhibit D - Recored Plat \(BM2016 PG1928\).pdf](#)
[Exhibit E - RZ-14-05 Approval Letter.pdf](#)
[Exhibit F - UDO Variance Reference.pdf](#)
[Exhibit G - 2023 Street View.pdf](#)
[Exhibit H - Approved Construction Plans.pdf](#)
[Exhibit I - Staff's Enhanced Site Plan.pdf](#)

6.Staff Comments

7.Board of Adjustment Comments

8.Adjournment



Board of Adjustment Agenda Item Report

Agenda Item No.: 2025-410-
Submitted by: Ella Dowtin
Submitting Department: Planning
Meeting Date: March 20, 2025

SUBJECT

Approval of Minutes

Recommendation:

Item Summary:

ATTACHMENTS

- [BOA minutes 1-16-2025.pdf](#)



Wake Forest Board of Adjustment Minutes

The Wake Forest Board of Adjustment met on **Thursday, January 16, 2025**, at **6:00 p.m.** in the Board Room at Wake Forest Town Hall, 301 S Brooks Street.

Board of Adjustment Members present: Joseph Longoria, Rick Porter, William Hedrick, Ken Christie, Scott Fultonberg, and Mark Williams

Board of Adjustment Members absent:

Staff Members present: Assistant Planning Director Jennifer Currin, Senior Planner Patrick Reidy, Attorney Sam Slater, and Deputy Town Clerk Ella Downtin

1. Call to Order

Chair Hedrick called the meeting to order at 6:00 p.m.
A quorum was established.

2. Adoption of Agenda

ACTION:

Mover: Mark Williams moved to adopt the agenda as presented, removing item 5.A. BOA-24-05 Variance.

Second: Rick Porter.

Vote: Motion carried 6-0.

3. Approval of Minutes

ACTION:

Mover: Rick Porter moved to approve the December 19, 2024; minutes as presented.

Second: Ken Christie.

Vote: Motion carried 6-0.

4. Old Business

None at the time.

5. New Business

5.A. Public Hearing and Consideration of QUASI-JUDICIAL ITEM BOA-24-05 Variance Requests for 116 Brimfield Springs Lane
This item was removed from the agenda.

5.B. Public Hearing and Consideration on QUASI-JUDICIAL ITEM BOA-24-01 Variance Requests for 0 and 1040 S. Main Street

Attorney Slater asked if there had been any exparte communication about QUASI-JUDICIAL ITEM BOA-24-01 Variance Requests for 0 and 1040 S. Main Street. Board Member Mark Williams responded that he received one phone call from an owner/resident of the Weatherstone Town Homes, generally talked to see if it was going to be a public hearing so that they could speak; nothing was discussed or opinions made about the variances, and nothing was said that would affect his opinion as a Board of Adjustment member.

Attorney Slater asked Mr. Williams if he could affirm his ability to remain impartial in his decision-making. Mr. Williams replied, "Yes, I so do affirm."

Attorney Slater verified that no other board members have any preconceived outcome of the meeting. Ken Christie, Rick Porter, William Hedrick, Scott Fultonberg, and Joseph Longoria stated no.

Attorney Slater swore in Senior Planner Patrick Reidy.

Senior Planner Patrick Reidy presented Quasi-Judicial item BOA-24-01 variance requests.

Discussion

The board discussed the width of the right-of-way and pavement, garbage collection, the length of the condos, the altered plan of the condos making the width of each lot, the agreement with the Applicant and Siena homes, emergency services

being able to turn around, the Mangia Dr. turnaround, and the road length.

Attorney Slater swore in Beth Trahos, Attorney of Fox Rothschild, LLP, and Tommy Cravin, of Priest Craven & Associates.

Beth Trahos, Attorney at Fox Rothschild, LLP, and Tommy Cravin, of Priest Craven & Associates, presented an overview of the zoned urban district (RMX) property.

Discussion

The board further discussed the concerns of restrictions, development under the adjacent properties' previous ordinances, the current UDO, direct access to the public street right of way, alleyway access, conditions of the lot specifics, evidence of the property partnership, whether the properties need to be combined before the variance took effect when the last variance occurred, and the steps and process moving forward.

ACTION:

Mover: Mark Williams moved to close the public hearing.

Seconder: Ken Christie.

Vote: Motion carried 6-0.

ACTION:

Mover: Ken Christie moved to consider and vote on each variance request individually.

Seconder: Rick Porter.

Vote: Motion carried 6-0.

VARIANCE REQUEST #1 – PUBLIC STREET RIGHT-OF-WAY The applicant is requesting relief from Section 4.3.1.A of the Wake Forest Unified Development Ordinance (UDO), which applies to the requirement that all lots must front on a public street right-of-way.

The applicant is requesting a variance to allow the 13 future single-family attached lots to front on a private access easement extension of Mangia Drive instead of a public right-of-way, as shown on Exhibit A prepared by Priest, Craven, and Associates, Inc. and dated May 1, 2024. The existing Mangia Drive is a private street with a public vehicular access easement.

ACTION:

Mover: Ken Christie moved to approve Variance Request #1 based on all four Findings of Facts; with the staff recommended condition, to allow UDO Section 4.3.1.A requires that all lots must front on a public street right-of-way. The properties abut S. Main Street and Highway 98, both public street rights-of-way and controlled access highways by NCDOT. The applicant has provided correspondence in Exhibit A from NCDOT stating that they will not allow an additional driveway connection to either street.

The following note shall be shown on a final plat for the development and recorded at the Wake County Register of Deeds: "A variance (BOA-24-01) was granted by the Wake Forest Board of Adjustment on January 16, 2025.

The variance from Section 4.3.1.A allows the townhomes lots to front on a private street. The variance from Sections 5.5.4.A and 5.5.4.F allows the townhome garages and sidewalks to be front-loaded. The variance from Sections 6.5.1.C allow Mangia Drive block length to extend to a maximum distance of 930' and 6.5.1.E allows the Mangia Drive cul-de-sac to extend a maximum distance of 1,090'. The variance from Sections 1.5, 6.6, and 6.6 allows the extension of Mangia Drive to follow the existing Mangia Drive cross-section instead of the UDO and CTP cross-sections."

Seconders: Rick Porter.

Vote: Motion carried 6-0.

VARIANCE REQUEST #2 - ALLEY The applicant is requesting relief from Section 5.5.4.A and 5.5.4.F of the Wake Forest Unified Development Ordinance (UDO), which applies to narrow lots being accessed via a rear-loaded alley.

ACTION:

Mover: Mark Williams moved to approve Variance Request #2 based on the Finding of Facts, adding the conditions submitted by staff.

The following note shall be shown on a final plat for the development and recorded at the Wake County Register of Deeds: "A variance (BOA-24-01) was granted by the Wake Forest Board of Adjustment on January 16, 2025.

The variance from Section 4.3.1.A allows the townhomes lots to front on a private street. The variance from Sections 5.5.4.A and 5.5.4.F allows the townhome garages and sidewalks to be front-loaded. The variance from Sections 6.5.1.C allow Mangia Drive block length to extend to a maximum distance of 930' and 6.5.1.E allows the Mangia Drive cul-de-sac to extend a maximum distance of 1,090'. The variance from Sections 1.5, 6.6, and 6.6 allows the extension of Mangia Drive to follow the existing Mangia Drive cross-section instead of the UDO and CTP cross-sections."

Seconded: Rick Porter.
Vote: Motion carried 5-1.

Nay
Ken Christie

Aye
Mark Williams
Rick Porter
William Hedrick
Scott Fultonberg
Joseph Longoria

VARIANCE REQUEST #3 – BLOCK LENGTH/CUL-DE-SAC LENGTH The applicant is requesting relief from Sections 6.5.1.C and 6.5.1.E of the Wake Forest Unified Development Ordinance (UDO), which applies to the maximum block length and cul-de-sac length allowed in the RMX zoning district.

The applicant is requesting a variance to allow the extension of the existing Mangia Drive to exceed the maximum allowance for block lengths and cul-de-sac, as shown on Exhibit A prepared by Priest, Craven, and Associates, Inc. and dated May 1, 2024.

The subject property is zoned RMX, which is classified as an Urban District in Section 2.2.2 of the UDO. Section 6.5.1.C of the UDO requires that street block in the Urban zoning districts shall be a maximum of 400' in length. Section 6.5.1.E of the UDO requires that permanent cul-de-sacs shall be a maximum of 400' in length. The existing block length from the intersection of Mangia Drive and Brunello Drive is approximately 402 feet. The proposed extension of Mangia Drive will add 515 feet to its length for a total of 915 feet of block length. The existing Mangia Drive is approximately 560

ACTION:

Mover: Rick Porter moved to approve Variance Request #3 based on the Finding of Facts with staff conditions.

The following note shall be shown on a final plat for the development and recorded at the Wake County Register of Deeds: "A variance (BOA-24-01) was granted by the Wake Forest Board of Adjustment on January 16, 2025.

The variance from Section 4.3.1.A allows the townhomes lots to front on a private street. The variance from Sections 5.5.4.A and 5.5.4.F allows the townhome garages and sidewalks to be front-loaded. The variance from Sections 6.5.1.C allow Mangia Drive block length to extend to a maximum distance of 930' and 6.5.1.E allows the Mangia Drive cul-de-sac to extend a maximum distance of 1,090'. The variance from Sections

1.5, 6.6, and 6.6 allows the extension of Mangia Drive to follow the existing Mangia Drive cross-section instead of the UDO and CTP cross-sections."

Seconder: Mark Williams.

Vote: Motion carried 6-0.

VARIANCE REQUEST #4 – STREET AND RIGHT-OF-WAY WIDTH The applicant is requesting relief from Sections 1.5, 6.6, and 6.7 of the Wake Forest Unified Development Ordinance (UDO), which applies to conformance with required street widths in the Town's Comprehensive Transportation Plan (CTP) and UDO.

Section 1.5 of the UDO requires that the new Mangia Drive meets the CTP cross-section right-of-way and street width requirements, which exceeds the existing Mangia Drive.

Section 6.6 of the UDO requires that the new Mangia Drive be developed as a public right-of-way, rather than be extended as a private access easement.

Section 6.7 of the UDO requires that the new Mangia Drive meets the town street classification and design standards for a public right-of-way, which exceeds the existing Mangia Drive.

The applicant is requesting the variance to allow the extension of the existing Mangia Drive as a private 40' wide easement as the road currently exists, as shown on Exhibit A prepared by Priest, Craven, and Associates, Inc. and dated May 1, 2024.

ACTION:

Mover: Rick Porter moved to approve Variance Request #4 based on the Finding of Facts with the staff conditions.

That the following note shall be shown on a final plat for the development and recorded at the Wake County Register of Deeds: "A variance (BOA-24-01) was granted by the Wake Forest Board of Adjustment on January 16, 2025.

The variance from Section 4.3.1.A allows the townhomes lots to front on a private street. The variance from Sections 5.5.4.A and 5.5.4.F allows the townhome garages and sidewalks to be front-loaded. The variance from Sections 6.5.1.C allow Mangia Drive block length to extend to a maximum distance of 930' and 6.5.1.E allows the Mangia Drive cul-de-sac to extend a maximum distance of 1,090'. The variance from Sections 1.5, 6.6, and 6.6 allows the extension of Mangia Drive to follow the existing Mangia Drive cross-section instead of the UDO and CTP cross-sections."

Seconder: Rick Porter.

Vote: Motion carried 6-0.

ACTION:

Mover: Mark Williams moved to close the public hearing.

Seconded: Ken Christie.

Vote: Motion carried 6-0.

6. Staff Comments

Assistant Planning Director Jennifer Currin suggested that the board members review the BOA handbook.

7. Board of Adjustment Comments
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No comments.

8. Adjournment

ACTION:

Chair Hedrick moved to adjourn at 8:05 p.m.

Duly approved in open session this 20th day of February 2025.

Ella F. Dowtin
Deputy Town Clerk

William Hedrick
Board of Adjustment Chair



Board of Adjustment Agenda Item Report

Agenda Item No.: 2025-368-
Submitted by: Patrick Reidy
Submitting Department: Planning
Meeting Date: March 20, 2025

SUBJECT

Public Hearing and Consideration of QUASI-JUDICIAL ITEM BOA-24-03 Variance Request for Traditions Townhomes

Recommendation:

Item Summary:

ATTACHMENTS

- [BOA-24-03 STAFF REPORT V1.pdf](#)
- [Exhibit A - Applicant's Variance Justifications and Exhibits.pdf](#)
- [Exhibit B - Application and Agent Authorizations.pdf](#)
- [Exhibit C - Aerial and Zoning Maps.pdf](#)
- [Exhibit D - Recored Plat \(BM2023 PG1679\).pdf](#)
- [Exhibit E - Recored Plat \(BM2024 PG651\).pdf](#)
- [Exhibit F - UDO Variance Reference.pdf](#)
- [Exhibit G - 2013 and 2023 Street View.pdf](#)



Staff Report

Case BOA-24-03: Traditions Townhomes

Meeting Date	March 20, 2025
Requested Actions	Consideration of the following item related to Variance application for 506 and 508 Traditions Grande Boulevard (PINs 1851128127 and 1851128139): 1. Request to allow for townhouse lots to exceed the maximum front yard setback.
Case Manager	Patrick Reidy, Senior Planner-Development Services

CASE INFORMATION

Applicant	FLM Engineering, Inc. C/O Jon Frazier PO Box 91727 Raleigh, NC 27675
Property Owners	Eastwood Homes of Raleigh LLC C/O Kevin Hutchins 2857 Westport Road Charlotte, NC 28208
Location	Intersection of Traditions Grande Boulevard and E. Juniper Avenue; Lots 19 and 20, Traditions Townhomes Subdivision
Addresses	506 and 508 Traditions Grande Boulevard
Wake County Tax PIN(s)	1851128127 and 1851128139
Acreage	Each lot is 0.04 acres
Zoning	Neighborhood Mixed-Use (NMX)
Land Use	Vacant
Community Plan (2022)	Mixed Residential
Corporate Limits	This application is in the Town's corporate limits.

Book of Maps/ Page Number	Book BM 2023, Page 1679 – Recorded September 25, 2023 Book BM 2024, Page 651 – Recorded March 18, 2024	
Setbacks	Front	12 feet maximum
	Street Side/ Secondary	12 feet minimum
	Side	0 feet minimum
	Rear	0 feet minimum
See Exhibit B for a copy of the application, Exhibit C for an aerial photograph and zoning map, and Exhibits D and E for a copy of the recorded plats.		

SURROUNDING LAND USES AND ZONING

	Land Use	Zoning
North	Single-Family Attached (Traditions Townhomes)	Neighborhood Mixed-Use (NMX)
South	Single-Family Attached (Traditions Townhomes)	Neighborhood Mixed-Use (NMX)
East	HOA Open Space and alley for townhomes	Neighborhood Mixed-Use (NMX)
West	HOA Open Space (The Willows and Traditions) and Traditions Grande Boulevard ROW	Residential Mixed-Use (RMX)

See Exhibit C for aerial and zoning maps.

VARIANCE REQUEST – MAXIMUM FRONT SETBACK

The applicant is requesting relief from Section 2.2.3.D.1 of the Wake Forest Unified Development Ordinance (UDO), which applies to the principal front setback.

The applicant is requesting a variance to allow Lots 19 and 20 to exceed the maximum front setback of 12 feet to a setback of 20 feet, as shown on Exhibit A prepared by ECLS Global, Inc. and November 16, 2023.

FINDINGS REQUIRED TO GRANT VARIANCE

In granting any variance, the Board of Adjustment must have a concurring vote of four-fifths of its members in accordance with Section 15.13.3 of the Wake Forest Unified Development Ordinance and N.C.G.S. § 160D-406. The Board shall not grant a variance unless and until written findings are made based on all the following conclusions and findings of fact in Section 15.13.3.B of the UDO.

15.13.3.B.1	Finding of Fact: Carrying out the strict letter of the ordinance would result in an unnecessary hardship. It shall not be necessary to demonstrate that, in the absence of the variance, no reasonable use can be made of the property. Staff Analysis: UDO Section 2.2.3.D.1 requires that all lots in the NMZ Zoning District have a maximum setback of 12' from the front property line. An existing electrical transformer is located in front of Lots 19 and 20. Exhibit A includes an e-mail from Wake Electric Municipal Corporation stating that the transformer could not be relocated. The transformer has existed in this location since at least 2013 (see Exhibit G). Based on the topography of the site, a 6' tall retaining wall was added to the front of the Traditions Townhomes lots, including around the transformer. The retaining wall is 14' from the front property line. Exhibit A includes a letter from Venture Engineering, Inc, confirming that all structures including porches, stoops, and steps must be a minimum of 5' away from the retaining wall. In combination with the back of the retaining wall located at 14' and the 5' setback for structures from the wall, a minimum of 19' is required for a townhouse to be located from the front property line, therefore exceeding the 12' maximum requirement. The applicant is requesting one additional foot of setback to provide for a little more room to place the townhome.
15.13.3.B.2	Finding of Fact: The hardship results from conditions that are peculiar to the property, such as location, size, or topography. Hardships resulting from personal circumstances, as well as hardships resulting from conditions that are common to the neighborhood or the general public, may not be the basis for granting a variance. Staff Analysis: The subject properties have an existing transformer located in the front yard. Based on aerial images and street views, the transformer was placed in this location when the Traditions neighborhood was developed and Traditions Grande Boulevard was built in the early 2010's. The retaining wall behind the transformer runs along the front property line for all the other townhomes but goes behind the transformer for the two subject lots. Exhibit A confirms that the transformer cannot be moved. While there are other lots around Wake Forest that have an existing transformer or retaining wall in the front yard, it is not common to find both situations. The site also has an 8' private drainage easement in the front yard. The site has maximum 12' front setbacks and when in combination with the drainage easement, transformer, and retaining wall, adds to this being peculiar to the property.

15.13.3.B.3	Finding of Fact: The hardship did not result from actions taken by the applicant or the property owner. The act of purchasing property with knowledge that circumstances exist that may justify the granting of a variance shall not be regarded as a self-created hardship. Staff Analysis: The constraints on the property are a result of the previously developed Traditions neighborhood and the construction of Traditions Grande Boulevard running underground power along the road. The transformer has been in its location since at least 2013 based on Exhibit G. The developer installed the retaining wall as part of the development. The applicant has not provided information regarding why the retaining wall was installed.
15.13.3.B.4	Finding of Fact: The requested variance is consistent with the spirit, purpose, and intent of this ordinance, such that the public safety is secured, and substantial justice is achieved. Staff Analysis: The applicant is requesting a 20' maximum setback to accommodate the existing transformer and the retaining wall structural setbacks with only a one-foot deviation from the 19' required to be setback from the retaining wall. The purpose of the maximum setback is a create a cohesive and urban street wall moving the structures closer to the street. The entirety of this development's street frontage on Traditions Grande Boulevard is approximately 890' and the two lots requesting the increased front setback total approximately 40', accounting for about 4.5% of the entire streetwall for this development.

STAFF RECOMMENDATION

Staff recommends that the Board of Adjustment conduct an evidentiary hearing in accordance with Section 15.13.3 of the UDO and grant or deny a variance in accordance with the standards of review in Section 15.13.3 (see required findings above). If the Board of Adjustment denies a variance, the motion shall include the specific finding(s) that were not met.

EXHIBITS

- Exhibit A: Applicant's Variance Justifications and Exhibits
- Exhibit B: Variance Application and Agent Authorizations
- Exhibit C: Aerial and Zoning Maps
- Exhibit D: Recorded Plat (BM2023 Page 1679)
- Exhibit E: Recorded Plat (BM2024 Page 651)
- Exhibit F: UDO Variance Reference
- Exhibit G: 2013 and 2023 Street View

February 10, 2025

Patrick Reidy, AICP, CZO
Senior Planner
Town of Wake Forest Development Services
301 S Brooks St.
Wake Forest, NC 27587

**Reference: Traditions Townhomes Lots 19 and 20
Variance Request Findings of Fact**

Dear Mr. Reidy:

MTS RAL LLC is requesting a variance from UDO Section 2.2.3.D.1, the 12-foot maximum principal front setback on Traditions Townhomes Lots 19 and 20 (Wake County PINs 1851128139 and 1851128127, respectively) due to the presence of an existing electrical transformer that cannot be relocated (per the attached e-mail). The transformer and associated retaining wall make it impossible to meet the 12-foot maximum setback. The back of the retaining wall is 14 feet from the principal front property boundary, and no structures can be within 5 feet of the wall (per the attached letter), which equate to a total of 19 feet from the principal front property boundary. MTS RAL LLC is requesting a variance to a 20-foot maximum principal front setback on Lots 19 and 20 to accommodate these existing conditions.

MTS RAL LLC is complying with the Findings of Fact as follows:

- 1. Carrying out the strict letter of the ordinance would result in an unnecessary hardship. It shall not be necessary to demonstrate that, in the absence of the variance, no reasonable use can be made of the property:**

The two lots will be undevelopable if the strict letter of the ordinance is carried out because it is not possible place a dwelling within the 12-foot maximum principal front setback on these lots due to the presence of the existing electrical transformer that cannot be relocated (per the attached e-mail from Wake Electric Membership Corporation). The transformer and associated retaining wall make it impossible to meet the 12-foot maximum setback. The back of the retaining wall is 14 feet from the principal front property boundary, and no structures can be within 5 feet of the wall (per the attached letter by Venture Engineering, Inc.), which equate to a total of 19 feet from the principal front property boundary.

- 2. The hardship results from conditions that are peculiar to the property, such as location, size, or topography. Hardships resulting from personal circumstances, as well as hardships resulting from conditions that are common to the neighborhood or the general public, may not be the basis for granting a variance:**

The hardship results from an existing utility, an electrical transformer and associated retaining wall, that cannot be relocated. The transformer was present prior to development of the site. The retaining wall behind the transformer is a continuation of the retaining wall

along the entire property frontage and must meet required setbacks from the transformer. No new structures can be within 5 feet of the retaining wall.

- 3. The hardship did not result from actions taken by the applicant of the property owner. The act of purchasing property with knowledge that circumstances exist that may justify the granting of a variance shall not be regarded as a self-created hardship:**

The hardship did not result from actions taken by the applicant and property owner, MTS RAL LLC, in that the electrical transformer was existing prior to development of the site. The transformer serves the surrounding area and must remain in its current location.

- 4. The requested variance is consistent with the spirit, purpose, and intent of this ordinance, such that the public safety is secured, and substantial justice is achieved:**

The variance seeks to establish a maximum principal front setback to accommodate the existing conditions while being as close to the principal front property boundary as possible, which is consistent with the spirit, purpose, and intent of the ordinance.

Please let us know if you have any questions or need any additional information.

Sincerely,



Jon D. Frazier, PE, LEED AP
Principal
919.610.1051
jffrazier@flmengineering.com

Attachments: Wake Electric Membership Corporation E-mail
Venture Engineering, Inc. Segmental Retaining Wall Letter

From: [Jim Hayes](#)
To: [Jon Frazier](#)
Cc: [Jim Hayes](#)
Subject: RE: Traditions Grande Blvd Electrical Box
Date: Monday, February 10, 2025 1:50:11 PM
Attachments: [image001.png](#)
[image002.png](#)

Sorry but it can not be relocated,, The Junction Box contains primary feeder cable that was a cut to fit cable (NO SPLICES) at the time it was installed.

I have told the developer over and over it will not be relocated 2 years ago.

Same goes today. That cable serves thousands of our customers .

Hope this helps you out.

Jim Hayes
System Design Supervisor
919-863-646

From: Jon Frazier <jfrazier@flmengineering.com>
Sent: Monday, February 10, 2025 10:28 AM
To: Jim Hayes <Jim.Hayes@wemc.com>
Subject: Traditions Grande Blvd Electrical Box



This email comes from outside the organization.

Do not click links or open attachments unless it is an email you expected to receive.

Hi, Jim.

I'm working with the builders of the Traditions Townhomes on a variance request to the Town of Wake Forest due to the electrical box circled below. Can you provide me with an email or similar that confirms that that box cannot be moved/relocated?

Thanks for your help, and just let me know if you have any questions.

Jon D. Frazier, PE, LEED AP
Principal



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Raleigh, NC 27675
c| 919.610.1051
www.flmengineering.com



*Professional Engineers Specializing in Civil Engineering & Land Development
312 W. Millbrook Road, Suite 237
Raleigh, NC 27609
Phone: 919-602-1894 Fax: 919-676-0301*

September 10, 2024

Re: Traditions Townhomes
Wake Forest, NC
Segmental Retaining Wall

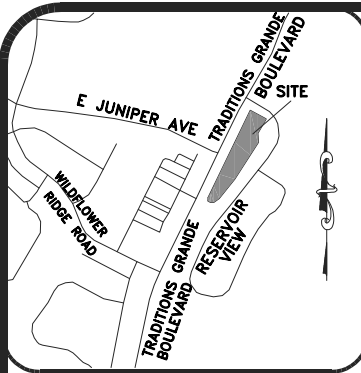
To Whom It May Concern:

Venture Engineering, PA was asked to prepare a memo in regards to the proximity of structures to the retaining wall at the above referenced project. All structures, including but not limited to, porches, stoops and steps, must be a minimum of 5' away from the retaining wall. The only exception to this is sidewalks.

Thanks, and let me know if you have any questions.

VENTURE ENGINEERING, P.A.

Mark J. Magrath, PE
Principal



VICINITY MAP (NTS)

LOT 16 IMPERVIOUS AREA		LOT 17 IMPERVIOUS AREA	
HOUSE	1,316 SQ.FT.	HOUSE	1,182 SQ.FT.
DRIVE TO R/W	177 SQ.FT.	DRIVE TO R/W	159 SQ.FT.
WALK	184 SQ.FT.	WALK	172 SQ.FT.
TOTAL	1,677 SQ.FT.	TOTAL	1,513 SQ.FT.

LOT 18 IMPERVIOUS AREA		LOT 19 IMPERVIOUS AREA	
HOUSE	1,187 SQ.FT.	HOUSE	1,184 SQ.FT.
DRIVE TO R/W	173 SQ.FT.	DRIVE TO R/W	108 SQ.FT.
WALK	166 SQ.FT.	WALK	148 SQ.FT.
TOTAL	1,526 SQ.FT.	TOTAL	1,440 SQ.FT.

LOT 20 IMPERVIOUS AREA		LOT 21 IMPERVIOUS AREA	
HOUSE	1,182 SQ.FT.	HOUSE	1,319 SQ.FT.
DRIVE TO R/W	106 SQ.FT.	DRIVE TO R/W	169 SQ.FT.
WALK	159 SQ.FT.	WALK	135 SQ.FT.
TOTAL	1,447 SQ.FT.	TOTAL	1,623 SQ.FT.

SETBACKS PER PLAT	
B.M. 2024, PG. 651-655	
NMZ ZONING	
FRONT	12' (MAX)
REAR	0'
SIDE STREET	12' (MAX)

NOTE: A VARIANCE OF 6' FROM THE RETAINING WALL WAS REQUESTED FROM THE BUILDER ON LOTS 19 AND LOT 20

- LEGEND**
- AC=AIR CONDITIONING UNIT
 - BOC=BACK OF CURB
 - CATV=CABLE TV
 - CB=CATCH BASIN
 - DW=CONC DRIVEWAY
 - EM=ELECTRIC METER
 - EOP=EDGE OF PAVEMENT
 - FH=FIRE HYDRANT
 - LP=LIGHT POLE
 - MTR=METER
 - N/F=NOW OR FORMERLY
 - PO=PORCH
 - R/W=RIGHT OF WAY
 - SC=CLEANOUT
 - SW=SIDEWALK
 - TP=TELEPHONE PEDESTAL
 - WM=WATER METER
 - EIP=EXISTING IRON PIPE
 - IP=IRON PIPE SET
 - EIR=EXISTING IRON ROD



THIS EXHIBIT MAP IS OF AN EXISTING PARCEL OR PARCELS OF LAND AND DOES NOT CREATE A NEW STREET OR CHANGE AN EXISTING STREET.

PRELIMINARY

NICHOLAS M. FRENCH, PLS L-4817 DATE

THIS MAP IS ONLY INTENDED FOR THE PARTIES AND PURPOSES SHOWN. THIS MAP IS NOT FOR RECORDATION. NO TITLE REPORT PROVIDED.

THIS MAP MAY NOT BE A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY A LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS AND HAS NOT BEEN REVIEWED FOR COMPLIANCE WITH RECORDING REQUIREMENTS FOR PLATS.

GENERAL NOTES:

1. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.

2. AREAS SHOWN HEREON WERE COMPUTED USING THE COORDINATE METHOD.

3. LINES NOT SURVEYED ARE SHOWN AS DASHED LINES FROM INFORMATION REFERENCED ON THE FACE OF THIS SURVEY.

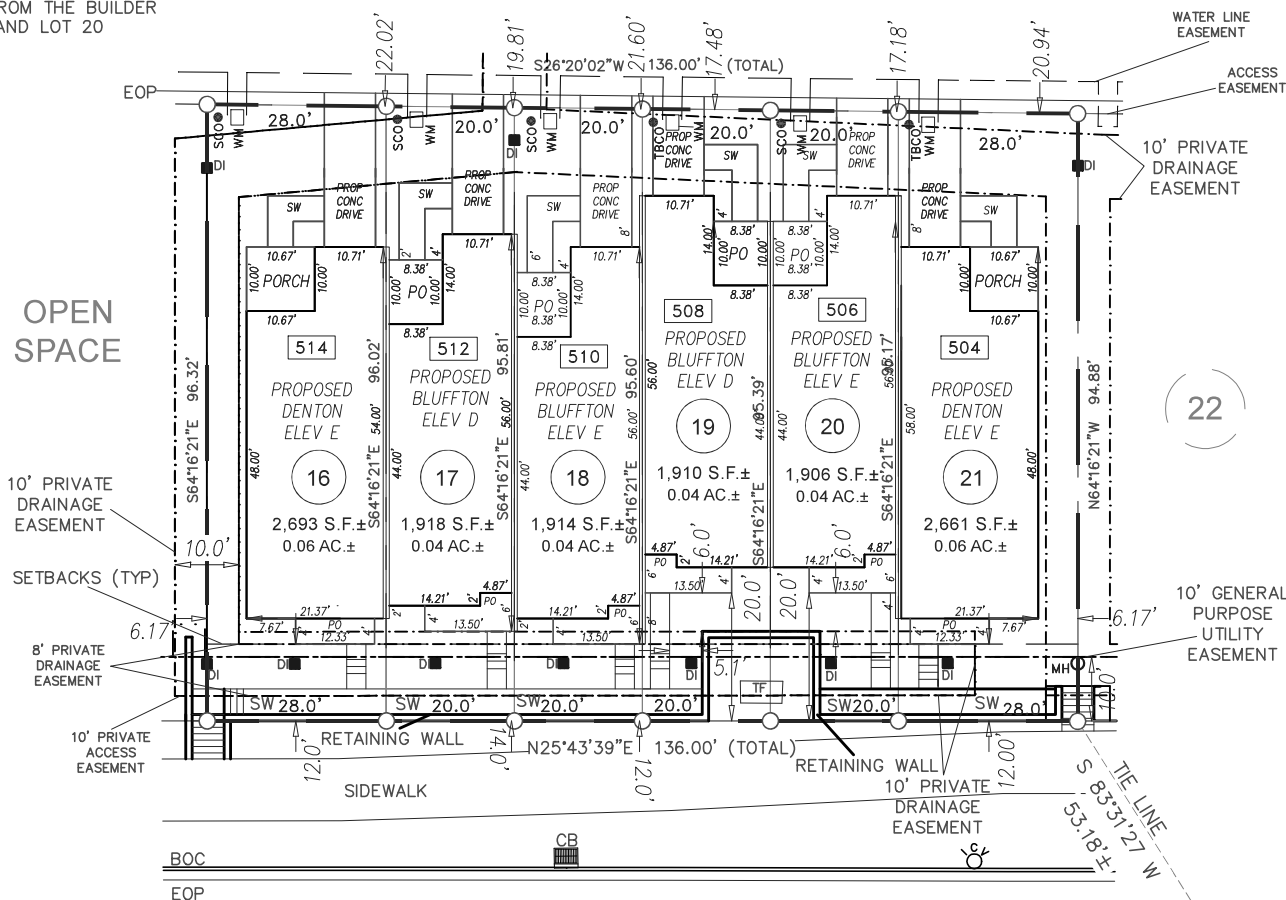
4. PROPERTY MAY BE SUBJECT TO ANY/ALL EASEMENTS AND RESTRICTIONS OF RECORD. THIS SURVEY IS A CORRECT REPRESENTATION OF THE LAND PLATTED AND OR DEEDED AND HAS BEEN PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT. A NORTH CAROLINA LICENSED ATTORNEY-AT-LAW SHOULD BE CONSULTED REGARDING CORRECT OWNERSHIP, WIDTH AND LOCATION OF EASEMENTS, AND OTHER TITLE QUESTIONS REVEALED BY TITLE EXAMINATION.

5. DRIVEWAY IMPERVIOUS CALCULATION SHOWN HEREON CALCULATED TO THE FRONT PROPERTY LINE/RIGHT-OF-WAY.

6. THIS PARCEL IS NOT LOCATED WITHIN A FLOOD HAZARD ZONE AS INDICATED ON CID NO. 370244 PANEL 1851, SUFFIX K TOWN OF WAKE FOREST WITH AN EFFECTIVE DATE OF 07/19/2022.

7. WM, SCO, MANHOLE, BOC, EOP, SIDEWALK & OTHER UTILITIES LOCATIONS PROVIDED BY BUILDER AND HAVE NOT BEEN FIELD LOCATED BY ECLS GLOBAL, INC.

24' ACCESS & UTILITY EASEMENT



TRADITIONS GRANDE BOULEVARD

90' PUBLIC R/W

GRAPHIC SCALE



1 inch = 30 ft.

PRELIMINARY PLOT PLAN

INTERSECTION TRADITIONS GRANDE BLVD. & EAST JUNIPER AVE.

PROJECT:	RES. PROJ. TRADITIONS TOWNHOMES
DRAWN BY:	MTH
SURVEYED BY:	N/A
SCALE:	1"=30'
FIELD WORK:	N/A
DWG DATE:	11-16-2023

FOR
EASTWOOD HOMES
TRADITIONS GRANDE BLVD
LOT 16-21 TRADITIONS TOWNHOMES SUBDIVISION
WAKE FOREST TWP., WAKE CO., NC
B.M. 2024, PG. 651-655

ECLS
GLOBAL, INC.
U.S. VETERAN-OWNED
19 N MCKINLEY ST
COATS, NC 27521
910.897.3257 ECLSGLOBALINC.COM
910.897.2329 (FAX) CO#C-4175



Variance Request Application

(Variance - BOA Workflow)

Town of Wake Forest, NC

301 S. Brooks St.

Wake Forest, NC 27587-2932

TEL (919) 435-9510 | FAX (919) 435-9539

Project Overview

#1476323

Project Title: Traditions Townhomes

Jurisdiction: Town of Wake Forest (Wake County)

Application Type: Variance Request

State: NC

Workflow: Variance - BOA

County: Wake

Checklist - Variance

A submittal checklist is available to view additional documents which are required to submitted with this application. After answering the application questions, you will be asked to upload the required documents.

[VIEW VARIANCE SUBMITTAL CHECKLIST](#)

Missing items will result in the application being declined and returned to the applicant to resubmit. A revised and complete application including all missing items must be received or the application will be not be deemed complete and routed for review.

Please confirm that you have reviewed the associated submittal checklist for this permit and that you will submit all documents required on the submittal checklist: Yes

Pre-Application Meeting

Has a pre-application conference been held?: Yes

*Note: This type of project requires a pre-application conference be completed prior to official submittal. If this has not been completed, please return to the home screen and select **Pre-Application Conference** from the application type drop down list in order to schedule your required meeting.*

Pre-Application Conference Date: 10/26/2023

Staff Member Met With: Patrick Reidy

Pre-application Conference Project Number: N/A

Address & Basic Site Information

Please Note:

In some cases, a parcel address may not verify. In the event that our system is unable to verify the address you enter, please submit the project as an *Unverified Parcel* and provide zoning and land use information as requested below. For verified addresses, the zoning and land use information will be added to the application automatically (you do not need to provide it below).

Project Address or PIN:

- 508 Traditions Grande Blvd (1851128139)
- 506 Traditions Grande Blvd (1851128127)

Tax PIN:

- 1851128139
- 1851128127

Acreage: .08

**Name of Existing Development/Subdivision (if applicable--
for reference only):** Traditions Townhomes

For unverified addresses/parcels only, please provide below 1) the current use of the parcel, 2) the zoning district(s) it is in, and 3) any overlay districts that apply. Reference the [zoning map](#) and the [overlay districts map](#) on the town's website.

Current Use & Zoning (required only if address/parcel is unverified):

*Note: Projects falling outside the limits of the Town or ETJ will be required to submit an annexation petition in conjunction with their project submittal. In this case, please return to the home screen and select **Annexation Petition** from the application type drop down.*

GIS Site Information (Automatically Generated - Not Available for Unverified Addresses)

Parcel Area: GIS Acreage

- 508 Traditions Grande Blvd: 0.04
- 506 Traditions Grande Blvd: 0.04

Current Use: Land Use Development

- 508 Traditions Grande Blvd: Residential
- 506 Traditions Grande Blvd: Residential

Wake Forest (WF): Town Limits

- 508 Traditions Grande Blvd: WF
- 506 Traditions Grande Blvd: WF

Planning and Zoning: Jurisdiction

- 508 Traditions Grande Blvd: WAKE FOREST
- 506 Traditions Grande Blvd: WAKE FOREST

Base District: Zoning

- 508 Traditions Grande Blvd: NMX
- 506 Traditions Grande Blvd: NMX

In SH1-O Overlay:

In SH2-O Overlay:

In Water Supply Watershed Protection Overlay:

In TND Overlay:

In SF Overlay:

In HL-O Overlay:

In MVCP-O Overlay:

In National Register of Historic Places:

In Flood Hazard Area:

Project Contacts

Please enter all project contacts related to your application.

This is an important step to ensure all members of the applicant team receive email notifications associated with the project which may include comments, requested revisions, scheduled meetings or hearings, and final decisions. This also informs Town staff of the team members assigned role with the project.

Project Contact - Applicant

Jon Frazier
FLM Engineering, Inc.
PO Box 91727, Raleigh
Raleigh, NC 27675
P:9196101051
jfrazier@flmengineering.com

Project Contact - Property Owner

EASTWOOD HOMES OF RALEIGH LLC

2857 WESTPORT RD
CHARLOTTE, NC 28208
P:919.630.3312

Variance

Description of Request:

Lot Number(s): 19 and 20

Subdivision : Traditions Townhomes

**Name of Existing Development/Subdivision (if applicable--
for reference only):** Traditions Townhomes

Deed Book: 19031

Page: 247

Number of Variance Requests: 2

UDO Section(s) From Which Applicant is Requesting Relief:
2.2.3.D.1

Description of Request:

MTS RAL LLC is requesting a variance from UDO Section 2.2.3.D.1, the 12-foot maximum principal front setback on Traditions Townhomes Lot 19 due to the presence of an existing electrical transformer that cannot be relocated. The transformer and associated retaining wall make it impossible to meet the 12-foot maximum setback. The back of the retaining wall is 14 feet from the principal front property boundary, and no structures can be within 5 feet of the wall, which equate to a total of 19 feet from the principal front property boundary. MTS RAL LLC is requesting a variance to a 20-foot maximum principal front setback on Lot 19 to accommodate these existing conditions.

UDO Section(s) From Which Applicant is Requesting Relief:

2.2.3.D.1

Description of Request:

MTS RAL LLC is requesting a variance from UDO Section 2.2.3.D.1, the 12-foot maximum principal front setback on Traditions Townhomes Lot 20 due to the presence of an existing electrical transformer that cannot be relocated. The transformer and associated retaining wall make it impossible to meet the 12-foot maximum setback. The back of the retaining wall is 14 feet from the principal front property boundary, and no structures can be within 5 feet of the wall, which equate to a total of 19 feet from the principal front property boundary. MTS RAL LLC is requesting a variance to a 20-foot maximum principal front setback on Lot 20 to accommodate these existing conditions.

UDO Section(s) From Which Applicant is Requesting Relief:**Description of Request:****Description of Request:****UDO Section(s) From Which Applicant is Requesting Relief:**

Variance Findings

The Board of Adjustment shall not grant a variance unless and until it makes all of the following findings. **Please address compliance with the Findings of Fact:**

Carrying out the strict letter of the ordinance would result in an unnecessary hardship. It shall not be necessary to demonstrate that, in the absence of the variance, no reasonable use can be made of the property:

The two lots will be undevelopable if the strict letter of the ordinance is carried out.

The hardship did not result from actions taken by the applicant of the property owner. The act of purchasing property with knowledge that circumstances exist that may justify the granting of a variance shall not be regarded as a self-created hardship:

The hardship did not result from actions taken by the applicant of the property owner in that the utility was existing prior to development of the site.

The hardship results from conditions that are peculiar to the property, such as location, size, or topography. Hardships resulting from personal circumstances, as well as hardships resulting from conditions that are common to the neighborhood or the general public, may not be the basis for granting a variance:

The hardship results from an existing utility that cannot be relocated.

The requested variance is consistent with the spirit, purpose, and intent of this ordinance, such that the public safety is secured, and substantial justice is achieved:

The variance seeks to establish a maximum principal front setback to accommodate the existing conditions while being consistent with the spirit, purpose, and intent of the ordinance, such that the public safety is secured and substantial justice is achieved.

Variance Findings for Floodplain, Watershed and Stormwater Regulation

Is the variance request related to standards for Floodplain, Watershed and Stormwater Regulation?: No

Variances from the standards set forth in this ordinance for flood damage prevention, watershed protection and stormwater regulation may be granted subject to the following additional provisions. **Please address compliance with the Findings of Fact:**

Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result or when the variance will make the structure in violation of other federal, state or local laws:

Variances shall only be issued upon:

a. A determination that the variance is the minimum necessary, considering the flood hazard, to afford relief:

c. A determination that failure to grant the variance would result in exceptional hardship; and:

b. A showing of good and sufficient cause:

d. A determination that the granting of a variance will not result in a substantial increase in flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing laws or ordinances:

In passing upon variances, the Board of Adjustment shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this chapter and:

a. The danger that material may be swept onto other lands to the injury of others:

c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner:

e. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use:

g. The relationship of the proposed use to the land development plan and flood damage prevention program for that area:

i. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site:

b. The danger to life and property due to flooding or erosion damage:

d. The importance of the services provided by the proposed facility to the community:

f. The compatibility of the proposed use with existing and anticipated development:

h. The safety of access to the property in times of flood for ordinary and emergency vehicles:

j. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges:

Agent Authorization Form



TOWN of
WAKE FOREST

The Wake Forest Unified Development Ordinance (UDO) states that applications for development approvals may only be made by the landowner, a lessee or person holding an option or contract to purchase or lease the land, or an authorized agent of the landowner (see [Sec. 15.2.5.C](#)). This agent authorization form must be signed by the landowner and included with any application not submitted by the landowner or lessee as specified above. If more than one landowner is involved, a separate agent authorization form must be submitted by each landowner.

Address(es) and Tax PIN(s) for
which authorization is granted: 1851128139 and 1851128127

Landowner's name*: Eastwood Homes of Raleigh, LLC

Application(s) for which
authorization is granted (e.g.,
Rezoning, Special Use Permit): Variance

Person authorized to submit
application(s) as landowner's
agent (*must be the same
person listed as the applicant
on the application form*): Jon Frazier, FLM Engineering, Inc.

Landowner's Signature: Kevin Hutchins

Date: 01/29/2025

*Please provide below the name, address, and other information
of the person signing this form.*

Name: Kevin Hutchins

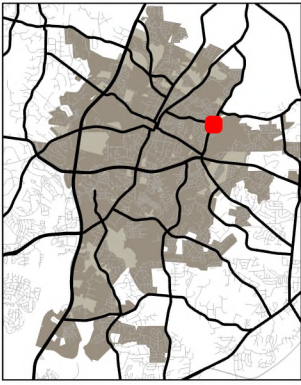
Address: 2857 Westport Rd, Charlotte, NC 28208

Telephone number: (704) 399-4663

Email address: khutchins@eastwoodhomes.com

If signing for a corporation or other entity, please
specify title and/or relationship to the corporation
or other entity (e.g., Member, Executive Officer): Chief Financial Officer

**Owner of record as shown on the latest equalized assessment rolls of Wake County, or, if ownership has recently been transferred, the grantee shown on the recorded deed (a copy of the deed must accompany this form).*



Aerial

BOA-24-03

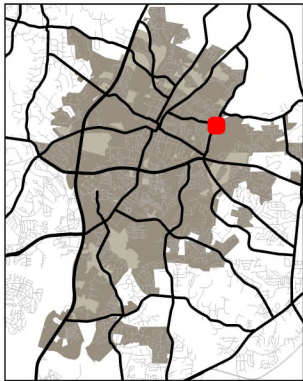
506 & 508 Traditions Grande Blvd

Wake County PIN: 1851128139 & 1851128127

1/29/2025



Subject Area



Zoning

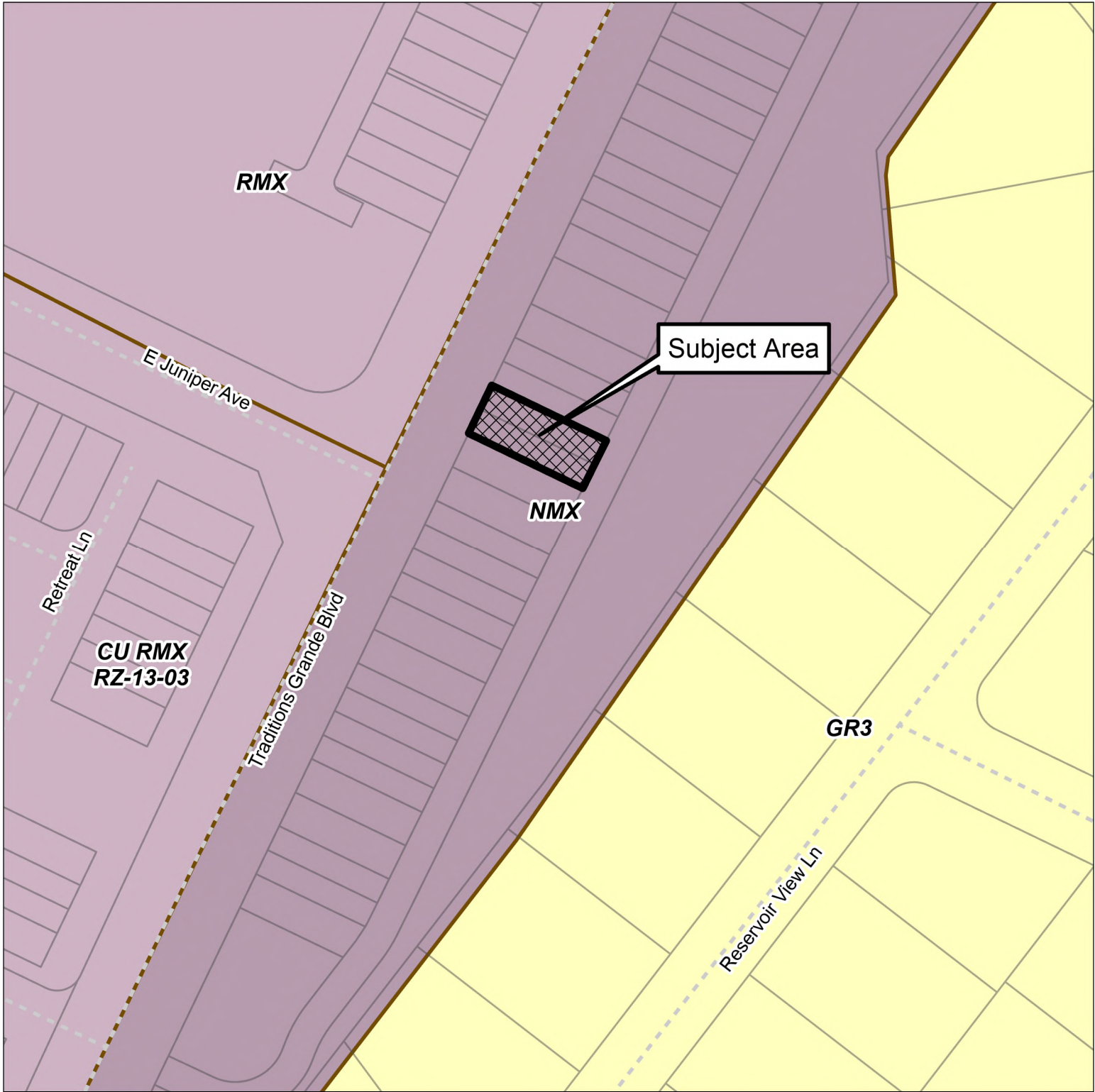


BOA-24-03

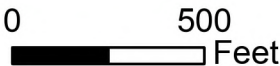
506 & 508 Traditions Grande Blvd

Wake County PIN: 1851128139 & 1851128127

1/29/2025

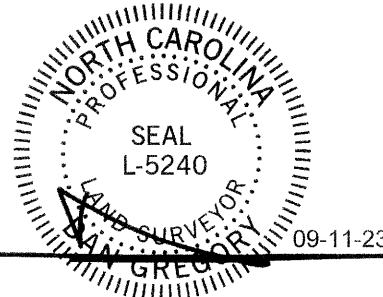


Please note that this map is intended for illustrative purposes only.
For specific inquiries regarding zoning boundaries, contact the
Town Wake Forest Planning Department at 919-435-9510.



BUILDING SETBACKS

NMX SETBACKS	
FRONT:	12' (MAX)
SIDE STREET:	12' (MAX)
SIDE:	N/A
REAR:	0' (MIN)
LOT CALCULATIONS:	
PROPOSED MIN. LOT AREA:	1,840 SQ FT
PROPOSED MIN. LOT WIDTH:	20'



WAKE COUNTY, NC 57
TAMMY L. BRUNNER
REGISTER OF DEEDS
PRESENTED & RECORDED ON
09/25/2023 11:58:35
BOOK: BM2023 PAGE: 01679

STATE OF NORTH CAROLINA - COUNTY OF WAKE

APPROVED FOR RECORDING BY THE TOWN OF WAKE FOREST

I, **Emma Linn**, REVIEW OFFICER OF THE TOWN OF WAKE FOREST, CERTIFY THAT THE MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING.

DATE **9/22/23** REVIEW OFFICER
DATE **9.25.23** ADMINISTRATOR

APPROVED FOR RECORDING BY THE TOWN OF WAKE FOREST.
PLAT MUST BE RECORDED WITHIN 30 DAYS OF APPROVAL.

SEE SHEET 5 FOR LINE & CURVE DATA TABLES

RECORDED IN
BOOK OF MAPS **2023** PAGE **1679**

SCALE: 1" = 40'



EAST JUNIPER AVE.
VARIABLE WIDTH RIGHT-OF-WAY
BM. 2015 PG. 1966

TRADITIONS GRANDE BLVD
90' PUBLIC R/W
BM. 2014 PG. 1388

CMS
CONTROL CORNER
NC GRID (NAD '83/2011)
COORDINATES
N: 811,834.44 FEET
E: 2,151,602.34 FEET

OPEN SPACE
9,226 SF OR 0.2118 AC

CMS
CONTROL CORNER
NC GRID (NAD '83/2011)
COORDINATES
N: 812,288.48 FEET
E: 2,151,821.12 FEET

PROP. 12' SETBACK (TYP.)
PROP. 30' CITY OF RALEIGH
SANITARY SEWER ESMT.

EXISTING 20' CITY OF RALEIGH
SANITARY SEWER EASEMENT
BM. 2018 PG. 74

PRIVATE STORMWATER
CONTROL MEASURE
IN VARIABLE WIDTH MAINTENANCE &
ACCESS EASEMENT
20' CITY OF RALEIGH
WATER LINE EASEMENT

OPEN SPACE
85,193 SF OR 1.9557 AC

PROP. 20' PRIVATE
DRAINAGE ESMT.

LOT 41
BROWNING, JOHN ADAM
BROWNING, DIANA
PIN: 1851220193
DB. 17787 PG. 1634
BM. 2018 PG. 74

LOT 40
MCDUFFIE, JAMES
MCDUFFIE, KUANDA
PIN: 1851220035
DB. 18148 PG. 335
BM. 2018 PG. 74

LOT 39
LARSON, DAVID MICHAEL LARSON,
PAMELA MARIE
PIN: 185119967
DB. 17353 PG. 137
BM. 2017 PG. 1361

LOT 38
ROSA, JOSE
ROSA, AMY
PIN: 185119808
DB. 17123 PG. 923
BM. 2017 PG. 1361

LOT 37
JONES, COREY D
JONES, CRYSTAL M
PIN: 1851118739
DB. 17443 PG. 40
BM. 2017 PG. 1361

LEGEND	
•	EIP = EXISTING IRON PIPE
○	CP = CALCULATED POINT
□	CMS = CONCRETE MONUMENT SET
⊙	SANITARY SEWER MANHOLE
⊕	UTILITY POLE
XXXX	DENOTES ADDRESS
---	ACCESS EASEMENT
---	DRAINAGE EASEMENT
---	LANDSCAPE EASEMENT
---	OVERHEAD ELECTRIC LINE
---	R/W = RIGHT-OF-WAY
---	SANITARY SEWER EASEMENT
---	SANITARY SEWER LINE
---	SIDEWALK EASEMENT
---	SIGHT DISTANCE TRIANGLE
---	TEMP. CONSTRUCTION ESMT.
---	UTILITY EASEMENT

REV.	DATE	DESCRIPTION	BY
2	07-27-2023	REVISED PER COMMENTS #2	CWC
1	01-31-2023	REVISED PER COMMENTS #1	CWC

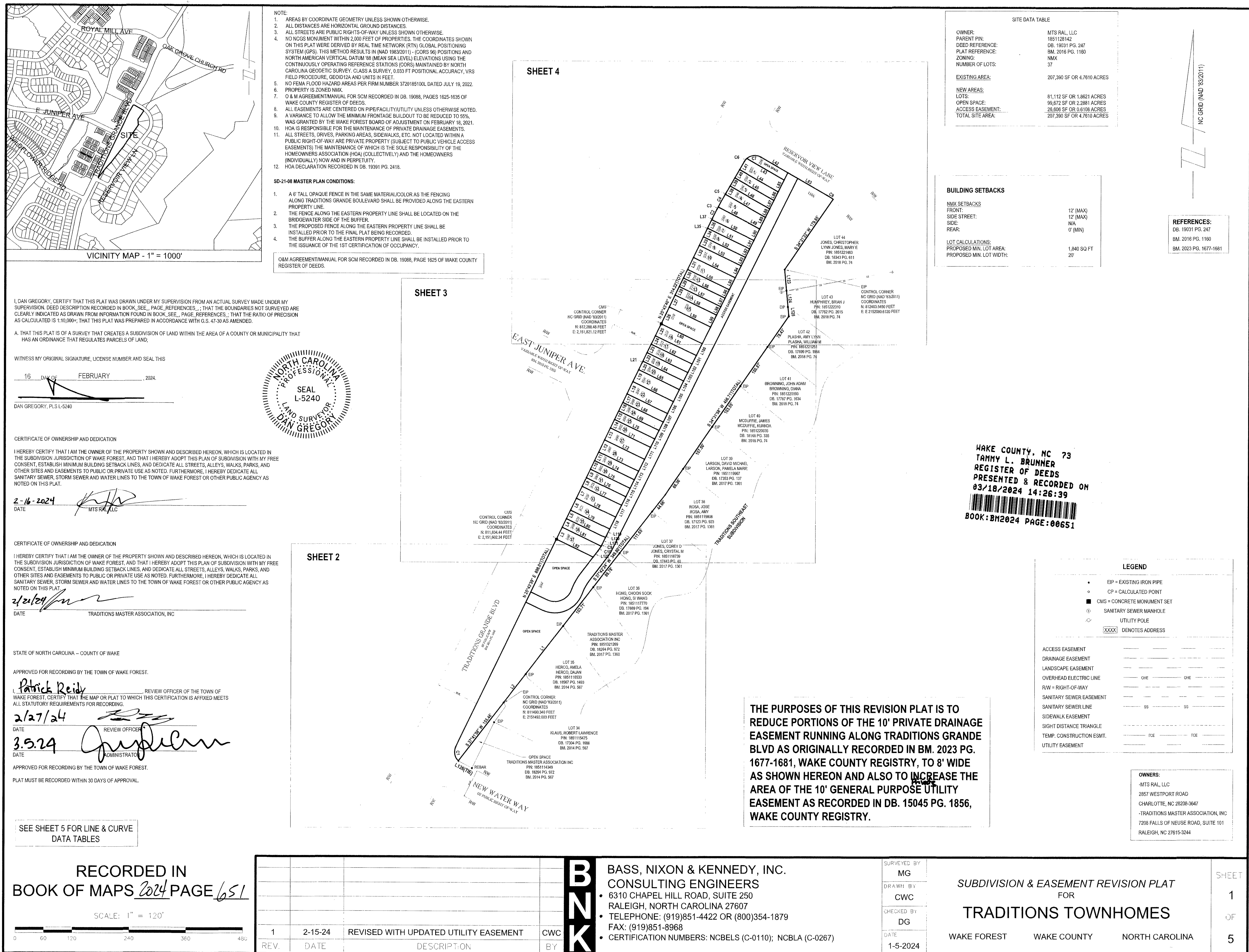
**B
N
K**

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
• 6310 CHAPEL HILL ROAD, SUITE 250
RALEIGH, NORTH CAROLINA 27607
• TELEPHONE: (919)851-4422 OR (800)354-1879
• FAX: (919)851-8968
• CERTIFICATION NUMBERS: NCBELS (C-0110); NCBLA (C-0267)

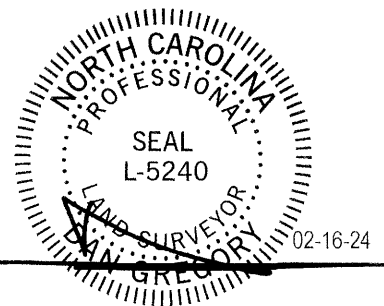
SURVEYED BY	MG
DRAWN BY	CWC
CHECKED BY	DG
DATE	10-26-2022

SUBDIVISION & EASEMENT PLAT
FOR
TRADITIONS TOWNHOMES
WAKE FOREST WAKE COUNTY NORTH CAROLINA

SHEET
3
OF
5



BUILDING SETBACKS	
MAX SETBACKS	
FRONT:	12' (MAX)
SIDE STREET:	12' (MAX)
SIDE:	N/A
REAR:	0' (MIN)
LOT CALCULATIONS:	
PROPOSED MIN. LOT AREA:	1,840 SQ FT
PROPOSED MIN. LOT WIDTH:	20'



STATE OF NORTH CAROLINA - COUNTY OF WAKE

APPROVED FOR RECORDING BY THE TOWN OF WAKE FOREST.

I, Patrick Reidy, REVIEW OFFICER OF THE TOWN OF WAKE FOREST, CERTIFY THAT THE MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING.

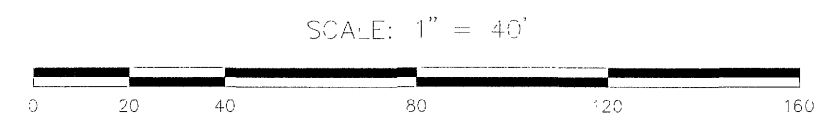
DATE 2/27/24
DATE 3.9.24
REVIEW OFFICER
ADMINISTRATOR

APPROVED FOR RECORDING BY THE TOWN OF WAKE FOREST.

PLAT MUST BE RECORDED WITHIN 30 DAYS OF APPROVAL.

SEE SHEET 5 FOR LINE & CURVE DATA TABLES

RECORDED IN
BOOK OF MAPS 2024 PAGE 652



REV.	DATE	DESCRIPTION	BY
1	2-15-24	REVISED WITH UPDATED UTILITY EASEMENT	CWC



BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
• 6310 CHAPEL HILL ROAD, SUITE 250
RALEIGH, NORTH CAROLINA 27607
• TELEPHONE: (919)851-4422 OR (800)354-1879
FAX: (919)851-8968
• CERTIFICATION NUMBERS: NCBELS (C-0110); NCBLA (C-0267)

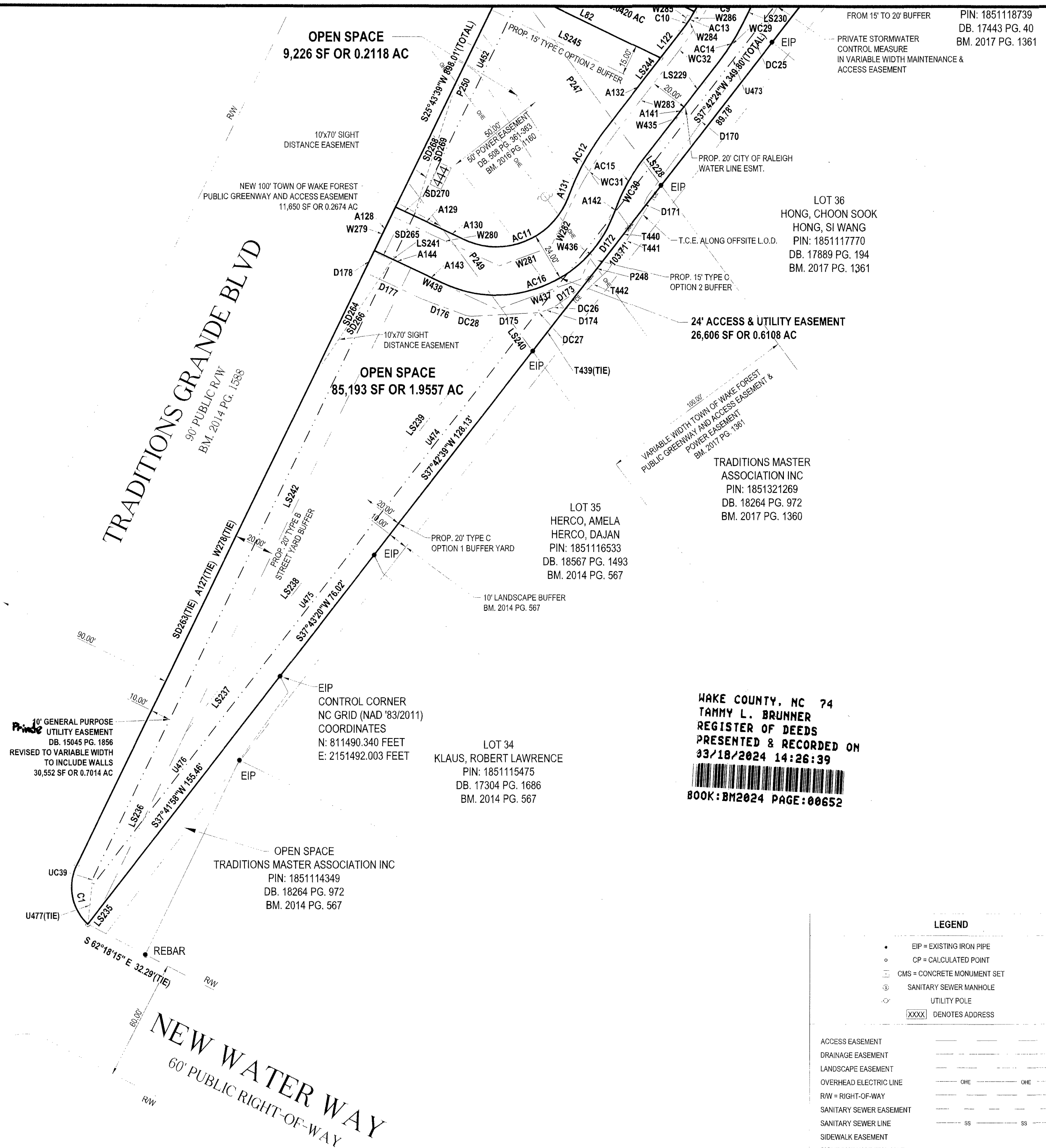
SURVEYED BY	MG
DRAWN BY	CWC
CHECKED BY	DG
DATE	1-5-2024

SUBDIVISION & EASEMENT REVISION PLAT
FOR

TRADITIONS TOWNHOMES

WAKE FOREST WAKE COUNTY NORTH CAROLINA

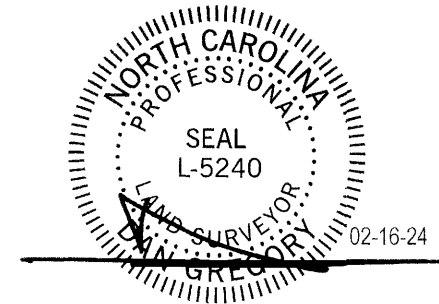
SHEET
2
OF
5



WAKE COUNTY, NC 74
TAMMY L. BRUNNER
REGISTER OF DEEDS
PRESENTED & RECORDED ON
33/18/2024 14:26:39
BOOK: BM2024 PAGE: 00652

LEGEND	
•	EIP = EXISTING IRON PIPE
o	CP = CALCULATED POINT
—	CMS = CONCRETE MONUMENT SET
⊕	SANITARY SEWER MANHOLE
—	UTILITY POLE
XXXX	DENOTES ADDRESS
ACCESS EASEMENT	_____
DRAINAGE EASEMENT	_____
LANDSCAPE EASEMENT	_____
OVERHEAD ELECTRIC LINE	— OHE — OHE —
R/W = RIGHT-OF-WAY	_____
SANITARY SEWER EASEMENT	_____
SANITARY SEWER LINE	— SS — SS —
SIDEWALK EASEMENT	_____
SIGHT DISTANCE TRIANGLE	_____
TEMP. CONSTRUCTION ESMT.	— TCE — TCE —
UTILITY EASEMENT	_____

BUILDING SETBACKS	
NMX SETBACKS	
FRONT:	12' (MAX)
SIDE STREET:	12' (MAX)
SIDE:	N/A
REAR:	0' (MIN)
LOT CALCULATIONS:	
PROPOSED MIN. LOT AREA:	1,840 SQ. FT.
PROPOSED MIN. LOT WIDTH:	20'



WAKE COUNTY, NC 75
TAMMY L. BRUNNER
REGISTER OF DEEDS
PRESENTED & RECORDED ON
03/18/2024 14:26:39
BOOK: B112024 PAGE: 00653

STATE OF NORTH CAROLINA - COUNTY OF WAKE

APPROVED FOR RECORDING BY THE TOWN OF WAKE FOREST.

I, Patrick Reidy, REVIEW OFFICER OF THE TOWN OF WAKE FOREST, CERTIFY THAT THE MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING.

DATE 2/27/24

DATE 3-5-24 REVIEW OFFICER

DATE 3-5-24 ADMINISTRATOR

APPROVED FOR RECORDING BY THE TOWN OF WAKE FOREST.

PLAT MUST BE RECORDED WITHIN 30 DAYS OF APPROVAL.

SEE SHEET 5 FOR LINE & CURVE DATA TABLES

RECORDED IN
BOOK OF MAPS 2024 PAGE 1653

SCALE: 1" = 40'



REV.	DATE	DESCRIPTION	BY
1	2-15-24	REVISED WITH UPDATED UTILITY EASEMENT	CWC



BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
• 6310 CHAPEL HILL ROAD, SUITE 250
RALEIGH, NORTH CAROLINA 27607
• TELEPHONE: (919)851-4422 OR (800)354-1879
FAX: (919)851-8968
• CERTIFICATION NUMBERS: NCBELS (C-0110); NCBLA (C-0267)

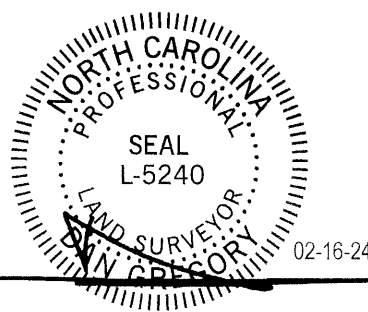
SURVEYED BY	MG
DRAWN BY	CWC
CHECKED BY	DG
DATE	1-5-2024

SUBDIVISION & EASEMENT REVISION PLAT
FOR

TRADITIONS TOWNHOMES

WAKE FOREST WAKE COUNTY NORTH CAROLINA

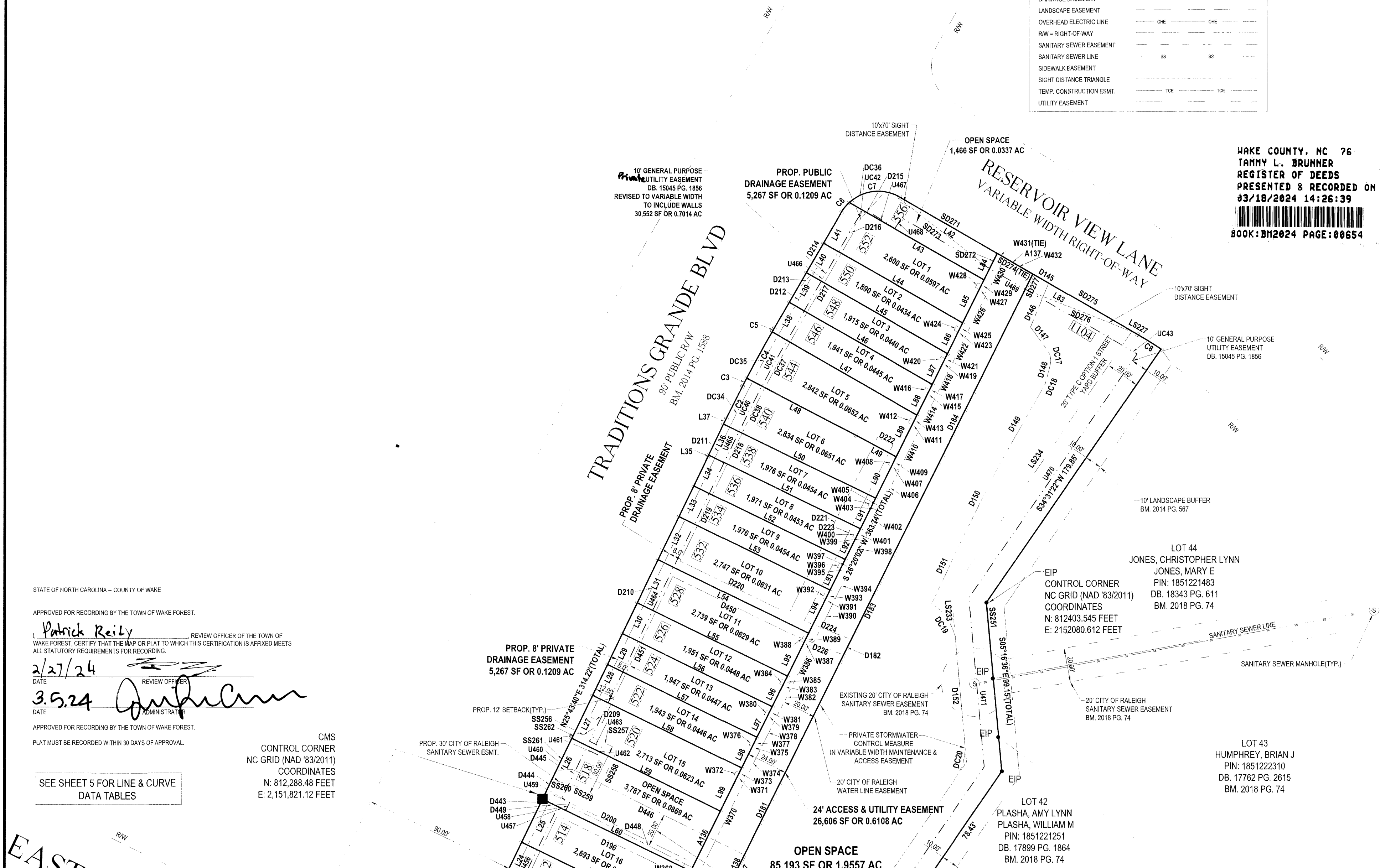
SHEET
3
OF
5



BUILDING SETBACKS	
NMX SETBACKS	
FRONT:	12' (MAX)
SIDE STREET:	12' (MAX)
SIDE:	N/A
REAR:	0' (MIN)
LOT CALCULATIONS:	
PROPOSED MIN. LOT AREA:	1,840 SQ. FT.
PROPOSED MIN. LOT WIDTH:	20'

LEGEND	
•	EIP = EXISTING IRON PIPE
○	CP = CALCULATED POINT
■	CMS = CONCRETE MONUMENT SET
⊕	SANITARY SEWER MANHOLE
⊙	UTILITY POLE
XXXX	DENOTES ADDRESS
ACCESS EASEMENT	
DRAINAGE EASEMENT	
LANDSCAPE EASEMENT	
OVERHEAD ELECTRIC LINE	OHE OHE
RW = RIGHT-OF-WAY	
SANITARY SEWER EASEMENT	
SANITARY SEWER LINE	SS SS
SIDEWALK EASEMENT	
SIGHT DISTANCE TRIANGLE	
TEMP. CONSTRUCTION ESMT.	TCE TCE
UTILITY EASEMENT	

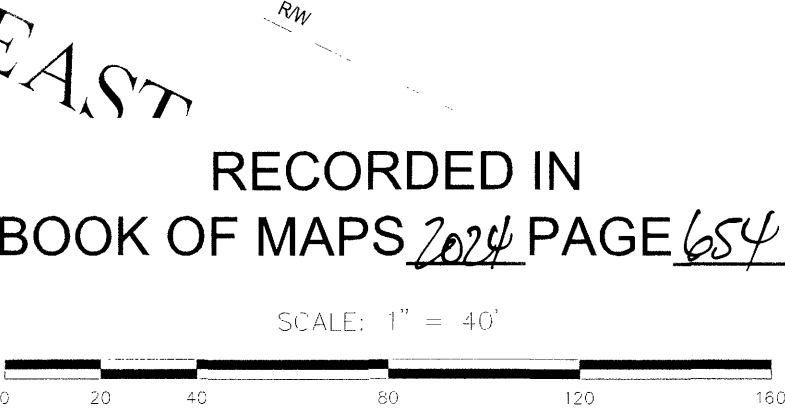
WAKE COUNTY, NC 76
TAMMY L. BRUNNER
REGISTER OF DEEDS
PRESENTED & RECORDED ON
03/18/2024 14:26:39
BOOK: BM2024 PAGE: 00654



STATE OF NORTH CAROLINA - COUNTY OF WAKE
APPROVED FOR RECORDING BY THE TOWN OF WAKE FOREST.
I, Patrick Reilly, REVIEW OFFICER OF THE TOWN OF WAKE FOREST, CERTIFY THAT THE MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING.
DATE 2/27/24
DATE 3.5.24
APPROVED FOR RECORDING BY THE TOWN OF WAKE FOREST.
PLAT MUST BE RECORDED WITHIN 30 DAYS OF APPROVAL.

CMS
CONTROL CORNER
NC GRID (NAD '83/2011)
COORDINATES
N: 812,288.48 FEET
E: 2,151,821.12 FEET

SEE SHEET 5 FOR LINE & CURVE
DATA TABLES



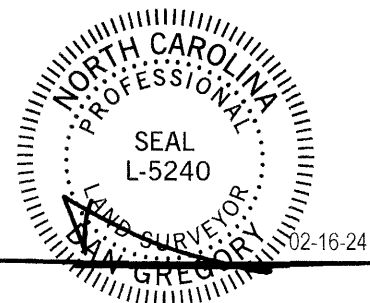
RECORDED IN
BOOK OF MAPS 2024 PAGE 654

REV.	DATE	DESCRIPTION	BY
1	2-15-24	REVISED WITH UPDATED UTILITY EASEMENT	CWC

**B
N
K**

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
• 6310 CHAPEL HILL ROAD, SUITE 250
RALEIGH, NORTH CAROLINA 27607
• TELEPHONE: (919)851-4422 OR (800)354-1879
FAX: (919)851-8968
• CERTIFICATION NUMBERS: NCBELS (C-0110); NCBLA (C-0267)

SURVEYED BY MG	SUBDIVISION & EASEMENT REVISION PLAT FOR TRADITIONS TOWNHOMES	SHEET 4 OF 5
DRAWN BY CWC		
CHECKED BY DG		
DATE 1-5-2024	WAKE FOREST WAKE COUNTY NORTH CAROLINA	



STATE OF NORTH CAROLINA – COUNTY OF WAKE

APPROVED FOR RECORDING BY THE TOWN OF WAKE FOREST.

Patrick Reidy, REVIEW OFFICER OF THE TOWN OF WAKE FOREST, CERTIFY THAT THE MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING.

2/27/24
DATE
35.24
DATE

APPROVED FOR RECORDING BY THE TOWN OF WAKE FOREST.

PLAT MUST BE RECORDED WITHIN 30 DAYS OF APPROVAL.

LINE	BEARING	DISTANCE
L1	S 37°42'39" W	128.13'
L2	S 37°43'20" W	76.02'
L3	N 25°43'39" E	28.00'
L4	N 25°43'39" E	20.00'
L5	N 25°43'39" E	20.00'
L6	N 25°43'39" E	28.00'
L7	N 25°43'39" E	28.00'
L8	N 25°43'39" E	20.00'
L9	N 25°43'39" E	20.00'
L10	N 25°43'39" E	20.00'
L11	N 25°43'39" E	20.00'
L12	N 25°43'39" E	28.00'
L13	N 25°43'39" E	28.00'
L14	N 25°43'39" E	20.00'
L15	N 25°43'39" E	20.00'
L16	N 25°43'39" E	20.00'
L17	N 25°43'39" E	20.00'
L18	N 25°43'39" E	28.00'
L19	N 25°43'39" E	28.00'
L20	N 25°43'39" E	15.96'
L21	N 25°43'53" E	4.04'
L22	N 25°43'39" E	20.00'
L23	N 25°43'39" E	20.00'
L24	N 25°43'39" E	20.00'
L25	N 25°43'39" E	28.00'
L26	N 25°43'40" E	39.39'
L27	N 25°43'40" E	28.00'
L28	N 25°43'40" E	20.00'
L29	N 25°43'40" E	20.00'
L30	N 25°43'40" E	20.00'
L31	N 25°43'40" E	28.00'
L32	N 25°43'40" E	28.00'
L33	N 25°43'40" E	20.00'
L34	N 25°43'40" E	18.79'
L35	N 25°44'12" E	1.21'
L36	N 25°44'13" E	20.00'
L37	N 25°44'14" E	3.56'
L38	N 25°58'36" E	17.58'
L39	N 25°58'36" E	20.00'
L40	N 25°58'36" E	20.00'
L41	N 25°58'36" E	20.00'
L42	S 60°01'04" E	65.95'
L43	N 60°11'02" W	90.94'
L44	N 60°11'02" W	93.85'
L45	N 60°11'02" W	95.12'
L46	N 60°11'02" W	96.39'
L47	N 60°11'02" W	97.66'
L48	N 82°22'46" W	71.93'
L49	N 81°56'19" W	26.86'
L50	N 64°05'38" W	98.88'
L51	N 64°05'38" W	98.88'
L52	N 64°05'38" W	98.47'
L53	N 64°05'38" W	98.25'
L54	N 64°05'38" W	97.96'
L55	N 64°05'38" W	97.66'
L56	N 64°05'38" W	97.45'
L57	N 64°05'38" W	97.24'
L58	N 64°05'38" W	97.03'
L59	N 64°05'38" W	96.73'
L60	N 64°16'21" W	96.32'
L61	N 64°16'21" W	96.02'
L62	N 64°16'21" W	95.81'
L63	N 64°16'21" W	95.60'
L64	N 64°16'21" W	95.39'
L65	N 64°16'21" W	95.17'
L66	N 64°16'21" W	94.96'
L67	N 64°16'21" W	94.58'
L68	N 64°16'21" W	94.37'
L69	N 64°16'21" W	94.16'
L70	N 64°16'21" W	93.95'
L71	N 64°16'21" W	93.74'
L72	N 64°16'21" W	93.44'
L73	N 64°16'21" W	93.14'
L74	N 64°16'21" W	92.93'
L75	N 64°16'21" W	92.72'
L76	N 64°16'21" W	92.51'
L77	N 64°16'21" W	92.30'
L78	N 64°16'21" W	92.00'
L79	N 64°16'21" W	91.70'
L80	N 64°16'21" W	91.49'
L81	N 64°16'21" W	91.13'
L82	N 64°16'21" W	90.07'
L83	S 60°01'04" E	94.80'
L84	S 26°20'02" W	17.36'
L85	S 26°20'02" W	28.05'
L86	S 26°20'02" W	20.04'
L87	S 26°20'02" W	20.04'
L88	S 26°20'02" W	20.04'
L89	S 26°20'02" W	27.23'
L90	S 26°20'02" W	28.99'
L91	S 26°20'02" W	20.00'
L92	S 26°20'02" W	20.00'
L93	S 26°20'02" W	20.00'
L94	S 26°20'02" W	28.00'
L95	S 26°20'02" W	28.00'
L96	S 26°20'02" W	20.00'
L97	S 26°20'02" W	20.00'
L98	S 26°20'02" W	20.00'
L99	S 26°20'02" W	28.00'
L100	S 26°20'02" W	28.00'
L101	S 26°20'02" W	20.00'
L102	S 26°20'02" W	20.00'
L103	S 26°20'02" W	20.00'
L104	S 26°20'02" W	20.00'
L105	S 26°20'02" W	28.00'
L106	S 26°20'02" W	28.00'
L107	S 26°20'02" W	20.00'
L108	S 26°20'02" W	20.00'

LINE	BEARING	DISTANCE
L109	S 26°20'02" W	20.00'
L110	S 26°20'02" W	20.00'
L111	S 26°20'02" W	28.00'
L112	S 26°20'02" W	28.00'
L113	S 26°20'02" W	20.00'
L114	S 26°20'02" W	20.00'
L115	S 26°20'02" W	20.00'
L116	S 26°20'02" W	20.00'
L117	S 26°20'02" W	28.00'
L118	S 26°20'02" W	42.50'
L119	S 26°20'02" W	14.49'
L120	S 26°20'02" W	5.51'
L121	S 26°20'02" W	14.87'
L122	S 37°42'24" W	16.15'
L123	S 05°16'36" E	44.57'
L124	S 05°16'36" E	34.49'
L125	S 05°16'36" E	20.08'
L126	S 62°18'15" E	32.29'

LINE	BEARING	DISTANCE
A127	S 25°43'39" E	326.66'
A128	N 25°43'39" E	24.00'
A129	S 64°53'43" E	24.40'
A130	S 64°53'43" E	13.15'
A131	N 21°24'44" E	6.45'
A132	N 37°42'24" E	61.45'
A133	N 26°20'02" E	20.38'
A134	N 26°20'02" E	14.49'
A135	N 26°20'02" E	28.00'
A136	N 26°20'02" E	810.86'
A137	S 60°01'04" E	24.05'
A138	S 26°20'02" W	809.33'
A139	S 26°20'02" W	42.50'
A140	S 26°20'02" W	20.38'
A141	S 37°42'24" W	61.45'
A142	S 21°24'44" E	6.45'
A143	N 64°53'43" E	13.15'
A144	N 64°53'43" E	24.66'

LINE	BEARING	DISTANCE
D145	S 60°01'04" E	10.64'
D146	S 22°17'23" W	17.82'
D147	S 36°15'56" E	16.81'
D148	S 14°34'06" W	10.29'
D149	S 29°29'52" W	55.80'
D150	S 26°15'18" W	42.76'
D151	S 25°18'50" W	44.96'
D152	S 05°16'36" E	59.34'
D153	S 34°31'58" W	176.25'
D154	S 25°43'39" W	20.52'
D155	S 25°58'40" W	31.43'
D156	S 23°17'48" W	33.17'
D157	S 16°35'51" E	20.37'
D158	S 26°23'40" W	20.48'
D159	S 26°23'40" W	20.48'
D160	S 26°15'32" W	21.72'
D161	S 26°31'00" W	19.94'
D162	S 26°41'58" W	20.14'
D163	S 30°27'12" W	12.87'
D164	N 87°12'26" W	11.96'
D165	S 26°19'01" W	3.76'
D166	S 26°53'51" W	18.73'
D167	S 22°13'37" W	20.44'
D168	S 26°14'53" W	28.71'
D169	S 28°38'24" W	77.55'
D170	S 33°36'11" W	92.09'
D171	S 23°32'24" W	7.51'
D172	S 37°42'24" W	47.21'
D173	S 54°14'13" W	16.28'
D174	S 10°25'03" W	4.68'
D175	S 66°56'19" W	31.47'
D176	N 66°47'36" W	23.34'
D177	N 64°52'10" W	31.01'
D178	N 25°43'39" E	11.70'
D179	N 26°20'02" E	322.96'
D180	N 26°20'02" E	10.00'
D181	N 26°20'02" E	195.58'
D182	N 26°20'02" E	10.03'
D183	N 26°20'02" E	39.86'
D184	N 26°20'02" E	198.77'
D185	N 64°16'21" W	8.00'
D186	N 25°43'39" E	84.92'
D187	S 64°16'21" E	75.17'
D188	N 26°14'40" E	260.01'
D189	N 64°16'21" W	69.53'
D190	S 25°43'39" W	250.92'
D191	N 64°16'21" W	8.00'
D192	N 25°43'39" E	260.92'
D193	S 64°16'21" E	77.94'
D194	N 26°20'02" E	82.97'
D195	N 20°33'10" E	43.29'
D196	N 64°16'21" W	69.51'
D197	S 25°43'39" W	114.91'
D198	N 64°18'59" W	8.00'
D199	N 25°41'01" E	124.92'
D200	N 64°16'21" W	87.04'
D201	S 20°33'10" W	48.23'
D202	S 63°51'39" E	24.57'
D203	S 26°20'02" W	10.00'
D204	N 63°51'39" W	24.26'
D205	S 26°20'02" W	86.81'
D206	S 26°14'40" W	273.25'
D207	N 64°16'21" W	77.08'
D208	S 25°43'39" W	74.92'
D209	N 64°08'13" W	6.00'
D210	N 25°43'40" E	166.73'
D211	N 25°44'28" E	24.77'
D212	N 25°58'36" E	43.16'
D213	S 41°36'24" W	19.84'
D214	N 29°58'36" E	54.44'
D215	S 41°36'24" W	51.17'
D216	S 60°11'30" E	2.28'
D217	N 25°43'39" W	70.97'
D218	S 25°44'28" W	24.77'
D219	S 25°43'40" W	61.83'
D220	S 64°05'36" E	70.47'
D221	S 15°26'04" E	115.44'
D222	S 63°19'15" E	10.00'
D223	S 26°40'45" W	114.95'
D224	S 68°00'06" E	25.63'
D225	S 26°20'02" W	10.03'
D226	N 68°00'06" W	34.47'

LINE	BEARING	DISTANCE
LS227	S 60°01'04" E	3.74'
LS228	N 36°54'24" W	15.58'
LS229	N 37°42'24" E	61.45'
LS230	N 26°20'02" E	14.20'
LS231	N 37°42'24" E	143.65'
LS232	N 34°31'58" E	446.92'
LS233	N 05°16'36" E	94.15'
LS234	N 34°31'22" E	186.03'
LS235	S 37°41'58" W	10.97'
LS236	N 25°43'39" E	96.42'
LS237	N 37°41'58" E	60.18'
LS238	N 37°43'20" E	76.03'
LS239	N 37°42'36" E	133.79'
LS240	S 36°28'49" E	20.79'
LS241	S 64°53'43" E	20.07'
LS242	S 25°43'39" W	255.36'
LS243	N 25°43'39" E	15.00'
LS244	S 37°42'24" W	15.33'
LS245	N 64°16'21" W	82.89'

LINE	BEARING	DISTANCE
SS251	N 05°16'36" W	30.69'
SS252	S 05°16'36" E	30.13'
SS253	S 76°16'05" E	10.86'
SS254	S 64°05'36" E	16.60'
SS255	S 25°54'22" W	30.00'
SS256	N 64°05'36" E	13.40'
SS257	N 76°16'05" E	13.80'
SS258	N 25°43'40" E	26.93'
SS259	N 25°43'40" E	3.74'

LINE	BEARING	DISTANCE
P246	N 25°43'39" E	3.19'
P247	S 36°33'31" E	128.68'
P248	S 37°42'24" W	103.89'
P249	N 36°33'31" W	104.32'
P250	N 25°43'38" E	109.76'

WATER EASEMENT LINE TABLE		
LINE	BEARING	DISTANCE
W263	S 25°43'39" W	288.36
W264	N 25°43'39" E	70.00
W265	S 64°53'43" E	10.00
W266	S 33°50'41" W	70.82
W267	N 25°43'39" E	24.00
W268	N 25°43'39" E	70.00
W269	S 17°35'07" W	70.60
W270	N 64°53'43" E	10.00
W271	S 60°01'04" E	65.56
W272	S 26°20'02" W	10.00
W273	N 52°14'16" W	71.29
W274	S 60°01'04" E	24.05
W275	S 60°01'04" E	70.00
W276	N 68°12'19" W	70.08
W277	N 26°20'02" E	10.00
W278	S 25°43'39" W	337.56
W279	N 25°43'39" E	20.00
W280	S 65°16'21" E	59.09
W281	N 69°43'39" E	27.21
W282	N 24°43'39" E	16.34
W283	S 37°42'24" W	46.66
W284	N 63°39'58" W	6.35
W285	N 26°20'02" E	3.00
W286	S 63°39'58" E	6.70
W287	N 63°39'58" W	7.00
W288	N 26°20'02" E	5.00
W289	S 63°39'58" E	7.00
W290	N 26°20'02" E	17.00
W291	S 63°39'58" W	7.00
W292	N 26°20'02" E	3.00
W293	S 63°39'58" E	7.00
W294	N 26°20'02" E	25.00
W295	S 63°39'58" W	7.00
W296	N 26°20'02" E	3.00
W297	S 63°39'58" W	7.00
W298	N 26°20'02" E	21.67
W299	S 63°39'58" W	7.00
W300	N 26°20'02" E	3.00
W301	S 63°39'58" E	7.00
W302	N 26°20'02" E	17.00
W303	S 63°39'58" W	7.00
W304	N 26°20'02" E	3.00
W305	S 63°39'58" E	7.00
W306	N 26°20'02" E	7.00
W307	S 63°39'58" W	7.00
W308	N 26°20'02" E	3.00

2.2.3. Table of Urban District Development Standard

Base Districts	UR	RMX	NMX RA-HC	UMX	PUD
A. BUILDING TYPE (Section 5.4 – 5.8)	Civic / Institutional Detached House Townhouse	Civic / Institutional Detached House Townhouse Apartment Commercial	Civic / Institutional Townhouse Apartment Commercial	Civic / Institutional Townhouse Apartment Commercial	Civic / Institutional Detached House Townhouse Apartment Commercial
B. PRIVATE FRONTAGE (Section 5.3)					Refer to Section 2.7
1. Common Lawn	Permitted	Permitted	Prohibited	Prohibited	--
2. Porch & Fence	Permitted	Permitted	Prohibited	Prohibited	--
3. Terrace or Light Court	Permitted	Permitted	Permitted	Permitted	--
4. Forecourt	Permitted	Permitted	Permitted	Permitted	--
5. Stoop	Permitted	Permitted	Permitted	Permitted	--
6. Shopfront/Awning	Prohibited	Permitted	Permitted	Permitted	--
7. Gallery	Prohibited	Prohibited	Permitted	Permitted	--
8. Arcade	Prohibited	Prohibited	Permitted	Permitted	--
C. DEVELOPMENT STANDARDS					
1. Max. Density (Units/Acre)	10 du/ac	24 du/ac	n/a	n/a	n/a
2. Open Space (min) per CH 7	5%	5%	2% for projects 5 acres or greater	2% for projects 5 acres or greater	15%
3. Park Space (min) per CH 7	2%	2%	2% for projects 5 acres or greater	2% for projects 5 acres or greater	2%
4. Minimum and Maximum Development Size if not in TND	80 acres maximum	40 acres maximum	n/a	n/a	10 acres minimum
D. PRINCIPAL BUILDING					
1. Principal Front Setback	20 ft max.	18 ft max.	12 ft max (NMX) 5 ft max. (RA-HC)	6 ft max.	Per UDO Section 2.7
2. Street Side/Secondary Front Setback	5 ft min.	5 ft min.	12 ft max.	6 ft max.	Per UDO Section 2.7
3. Side (from adjacent lot) Setback ^{1,2}	5 ft min.	0 ft min.	0 ft min.	0 ft min.	Per UDO Section 2.7
4. Rear Setback	20 ft min. OR 5ft min. w/ rear alley access	5 ft min.	0 ft min.	0 ft min.	Per UDO Section 2.7
5. Frontage Buildout ³	n/a	n/a	60% min.	70% min.	Per UDO Section 2.7

2013



2023





Board of Adjustment Agenda Item Report

Agenda Item No.: 2025-369-
Submitted by: Patrick Reidy
Submitting Department: Planning
Meeting Date: March 20, 2025

SUBJECT

Public Hearing and Consideration of QUASI-JUDICIAL ITEM BOA-24-04 Variance Requests for Chick-fil-A

Recommendation:

Item Summary:

ATTACHMENTS

- [BOA-24-04 STAFF REPORT.pdf](#)
- [Exhibit A - Applicant's Variance Justifications and Exhibits.pdf](#)
- [Exhibit B - Application and Agent Authorizations.pdf](#)
- [Exhibit C - Aerial and Zoning Maps.pdf](#)
- [Exhibit D - Recored Plat \(BM2016 PG1928\).pdf](#)
- [Exhibit E - RZ-14-05 Approval Letter.pdf](#)
- [Exhibit F - UDO Variance Reference.pdf](#)
- [Exhibit G - 2023 Street View.pdf](#)
- [Exhibit H - Approved Construction Plans.pdf](#)
- [Exhibit I - Staff's Enhanced Site Plan.pdf](#)



Staff Report

Case BOA-24-04: Chick-fil-A

Meeting Date	March 20, 2025
Requested Actions	Consideration of the following item related to Variance application for 1010 Forestville Road Traditions Grande Boulevard (PIN 1749690548): 1. Request to allow for drive-thru overhead canopy to encroach into the rear yard setback.
Case Manager	Patrick Reidy, Senior Planner-Development Services

CASE INFORMATION

Applicant	Interplan LLC C/O Michelle Kucaba 220 E. Central Parkway, Suite 4000 Altamonte Springs, FL 32701
Property Owner	Creek Pooh LLC C/O Emily Simmang Chick-fil-A Inc. 5200 Buffinton Road Atlanta, GA 30349
Location	Intersection of Forestville Road and Rogers Road; Lot 2, Shoppes at Heritage Village
Addresses	1010 Forestville Road
Wake County Tax PIN(s)	1749690548
Acreage	1.10 acres
Zoning	Neighborhood Business Conditional District (NB CD) RZ-14-05 (See Exhibit E)
Land Use	Restaurant (Chick-fil-A)
Community Plan (2022)	Designated Corridor Commercial; Located within Activity Center and Commercial Area 7 (Rogers Road Corridor)
Corporate Limits	The subject property is in the Town of Wake Forest's corporate limits.

Book of Maps/ Page Number	Book BM 2016, Page 1928 – Recorded November 14, 2016	
Setbacks	Front	20 feet minimum
	Street Side/ Secondary	20 feet minimum
	Side	15 feet minimum
	Rear	20 feet minimum
See Exhibit B for a copy of the application, Exhibit C for an aerial and zoning maps, and Exhibit D for a copy of the recorded plat.		

SURROUNDING LAND USES AND ZONING

	Land Use	Zoning
North	Infrastructure (SCM for Heritage Station Shopping Center located across Forestville Road)	Residential Mixed-Use (RMX)
South	General Commercial (Shoppes at Heritage Village)	Neighborhood Business Conditional District (NB CD) RZ-14-05
East	Bank (Wells Fargo) and Forestville Road ROW	Neighborhood Business Conditional District (NB CD) RZ-15-08
West	General Commercial (Shoppes at Heritage Village)	Neighborhood Business Conditional District (NB CD) RZ-14-05

See Exhibit C for aerial and zoning maps.

VARIANCE REQUEST – MAXIMUM FRONT SETBACK

The applicant is requesting relief from the minimum rear setback for principal structures in Section 2.2.5.C.4 of the Wake Forest Unified Development Ordinance (UDO). The requested variance is to allow a drive-thru canopy to encroach into the minimum rear setback of 20 feet to a minimum setback of 11 feet, as shown on Exhibit A prepared by Interplan LLC and dated October 29, 2024. Staff has created Exhibit I to give more clarity for what is being proposed.

FINDINGS REQUIRED TO GRANT VARIANCE

In granting any variance, the Board of Adjustment must have a concurring vote of four-fifths of its members in accordance with Section 15.13.3 of the UDO and N.C.G.S. § 160D-406. The Board shall not grant a variance unless and until written findings are made based on all the following conclusions and findings of fact in Section 15.13.3.B of the UDO. Staff analysis is provided for each finding below.

15.13.3.B.1	Finding of Fact: Carrying out the strict letter of the ordinance would result in an unnecessary hardship. It shall not be necessary to demonstrate that, in the absence of the variance, no reasonable use can be made of the property. Staff Analysis: UDO Section 2.2.5.C.4 requires that all principal buildings in the NB Zoning District have a minimum setback of 20' from the rear property line. The existing Chick-fil-A building is set back approximately 31' from the rear property line. A drive-thru lane and a second exit lane are located between the building and the rear property line. As shown in Exhibit G, an existing meal order delivery canopy is attached to the building and covers the drive-thru lane. The existing canopy is set back 20' from the rear property line. The applicant has submitted plans to modify the site to convert the exit lane into a fully functioning second drive-thru lane. As part of that work, the applicant wants to extend a canopy over the second drive-thru lane. The proposed canopy would be set back 11.8' from the rear property line. The requested variance is to allow the canopy to be set back 11' from the property line. Carrying out the strict letter of the ordinance would not allow the second drive-thru lane canopy to be installed if a part of the principal structure. However, if detached from the building as an accessory structure, the canopy could be located where proposed and comply with the minimum rear setback of 10' for accessory structures. It should be noted that Section 4.3.4.B of the UDO only allows for encroachments in the front and street side setbacks.
15.13.3.B.2	Finding of Fact: The hardship results from conditions that are peculiar to the property, such as location, size, or topography. Hardships resulting from personal circumstances, as well as hardships resulting from conditions that are common to the neighborhood or the general public, may not be the basis for granting a variance. Staff Analysis: The applicant's justification statement states that the site is located between a shopping center and a stormwater pond, but it is not uncommon for outparcels to be located next to shopping centers or stormwater ponds. The size and topography of the property are not peculiar for a restaurant use. It is also not uncommon for outparcels to be on their own lot in subdivisions, which require the setbacks to be met.

15.13.3.B.3	Finding of Fact: The hardship did not result from actions taken by the applicant or the property owner. The act of purchasing property with knowledge that circumstances exist that may justify the granting of a variance shall not be regarded as a self-created hardship. Staff Analysis: The applicant has stated that the hardship does not result from actions taken by the applicant or property owner. However, the site was developed in 2019 by Chick-fil-A for this specific use, with the building constructed in its current location in relation to the rear lot line. See Exhibit H for Approved Construction Plans.
15.13.3.B.4	Finding of Fact: The requested variance is consistent with the spirit, purpose, and intent of this ordinance, such that the public safety is secured, and substantial justice is achieved. Staff Analysis: The applicant is requesting an 11' minimum rear setback to accommodate the proposed order delivery canopy. The minimum rear setback is intended to prevent overshadowing of neighboring properties and to ensure adequate space for utilities, parking, and other necessary features at the back of the building, all while maintaining aesthetic consistency within the commercial area. The canopy would be open on three sides and would not create the same visual impact that a building wall would create. There is a retaining wall that is approximately 10' tall on the rear property line, and the shopping center parking lot is on the other side of the retaining wall. Because the subject property functions as an outparcel with only parking abutting it on the shopping center side, allowing a reduction of 9' for the rear setback would not overshadow the neighboring property or be aesthetically inconsistent within the commercial area.

STAFF RECOMMENDATION

Staff recommends that the Board of Adjustment conduct an evidentiary hearing in accordance with Section 15.13.3 of the UDO and grant a variance if the standards of review in Section 15.13.3 (see required findings above) are met, or not grant a variance if all the findings are not met. If the Board of Adjustment does not grant a variance, the motion shall state the specific finding(s) that were not met.

EXHIBITS

- Exhibit A: Applicant's Variance Justifications and Exhibits
- Exhibit B: Variance Application and Agent Authorizations
- Exhibit C: Aerial and Zoning Maps
- Exhibit D: Recorded Plat (BM2016 Page 1928)
- Exhibit E: RZ-14-05 Approval Letter
- Exhibit F: UDO Variance Reference
- Exhibit G: 2023 Street View
- Exhibit H: Approved Construction Plans
- Exhibit I: Staff's Enhanced Site Plan

January 28, 2025

Wake Forest – Board of Adjustments**Patrick Reidy**

301 S. Brooks Street,

Wake Forest

919.435.9515

preidy@wakeforestnc.gov**Reference:**

Chick-fil-A #4239 – Heritage Village

1010 Forestville Road, Wake Forest, NC 27587

IP No.: 2022.00217

Variance Request Narrative

Dear Mr. Reidy,

Chick-fil-A is proposing to make drive-thru modifications to this existing restaurant which includes, a new dual lane fulfillment, new one and a half lane Order Meal Delivery (OMD) Canopy, new curb, striping, parking reconfiguration and installation of a Parallel Drive-thru Cockpit (PDC) expansion.

As proposed the modifications to the property lacks compliance with the Wake Forest Unified Development Ordinance regulations listed within Chapter 2 Section 2.2.5.C.4 – District Provisions – Table of Rural and Suburban District Development Standards (C) Principal Building (4) Rear-Yard Setbacks.

Please accept this narrative to be heard at the Board of Zoning Appeals meeting, to consider the application for a variance from Chapter 2 Section 2.2.5.C.4 to allow for the installation of the one-and-a-half lane Order Meal Delivery (OMD) canopy structure into the required west (rear-yard) building setback area, which as proposed, is encroaching into the twenty foot (20') building setback by nine feet (9'). At this time, our request is a variance to reduce the twenty-foot (20') rear-yard setback to eleven feet (11') on the western property boundary.

Due to the current volume of drive-through traffic on site, the current Chick-fil-A business has prompted the need to increase efficiency with the parking lot and the amount of stacking in the drive-thru lanes. Due to restricted space of the existing developed site, the circumstances limit the ability to effectively mitigate the traffic issues due to the limits posed by the setback requirement.

The proposed multi lane drive-thru and canopy will assist in opening up the full use of the parking lot by increasing the efficiency of the drive-through during peak hours.

It will allow better efficient traffic stacking while alleviating traffic congestion to the site and/or adjacent properties. It will also allow the staff more of an opportunity to keep the traffic flowing while delivering meals in a more efficient manner.

With the drive-thru generating all of the business, the multi lanes and canopies over the ordering points will be critical in expediting the flow of traffic on and off of this site. The placement of this accessory canopy works best as depicted on the site plan in order to maximize drive-thru stacking.

In addition, other drive-thru restaurants typically do not have team members outside in the elements. The proposed canopy expansion will help to keep the team members protected from the sun and rain while still being able to deliver multiple orders at a time. The proposed modifications in combination with Chick-fil-A's approach to operations will aid in serving customers quickly, safely and efficiently.

Relief, if granted, would not result in any detriment to the public or impair the purposes or intent of the Wake Forest unified Development Ordinance. The intent of the improvements is solely to aid in the day-to-day operations of Chick-fil-A, specifically, to increase the speed and efficiency of order delivery, thus decreasing stacking on adjacent public roadways during peak hours, allow for a better flow of traffic on-site and offering an overall increase of safety and protection to our guests and team members.

Additionally, please reference below the variance findings responses provided at the time of application for future reference.

1. Carrying out the strict letter of the ordinance would result in an unnecessary hardship. It shall not be necessary to demonstrate that, in the absence of the variance, no reasonable use can be made of the property:

The existing site limits the ability to effectively mitigate traffic issues as the City's Zoning Regulations allow. Chick-fil-A currently utilizes the single lane order meal delivery canopy system but it does not allow full protection to the employees and guests from inclement weather, nor does it allow the most efficient service possible for meal delivery to guests as we see on other Chick-fil-A sites and surrounding properties. Chick-fil-A does tend to serve a higher number of guests in the restaurant and through the drive-through as other surrounding properties on average but that number continues to increase during peak hours and the site is not utilized to its fullest potential.

2. The hardship results from conditions that are peculiar to the property, such as location, size, or topography. Hardships resulting from personal circumstances, as well as hardships resulting from conditions that are common to the neighborhood or the general public, may not be the basis for granting a variance:

Due to the location between an existing shopping center development and stormwater retaining pond, the circumstances limit the ability to effectively mitigate the traffic issues currently due to the limits posed by the setback requirements. The proposed multi lane order meal delivery (OMD) canopy will assist in opening up the full use of the parking lot by increasing the efficiency of the drive-through during peak hours. It will allow better efficient traffic stacking while alleviating traffic congestion to the site and adjacent property. It will also allow the staff more of an opportunity to keep the traffic flowing while delivering meals in a more efficient manner.

3. The hardship did not result from actions taken by the applicant of the property owner. The act of purchasing property with knowledge that circumstances exist that may justify the granting of a variance shall not be regarded as a self-created hardship:

The special conditions and circumstances do not result from the actions of the applicant. The alleged difficulty or hardship has not been created by the previous actions of any person having an interest in the property. The layout proposed is similar to the existing layout but with improvements to the number of cars able to be serviced in the drive-thru lane effectively and safely by allowing the canopy column encroachment to the building setback requirements. Due to the location and shape of the site the proposed layout is the best configuration to provide for maximum drive thru stacking and efficiency for the site and surrounding properties.

4. The requested variance is consistent with the spirit, purpose, and intent of this ordinance, such that the public safety is secured, and substantial justice is achieved:

Various other drive-thru restaurants typically do not have team members outside in the elements. The proposed canopy expansion will help to keep the team members protected from the sun and rain while still being able to deliver multiple orders at a time. The proposed modifications in combination with Chick-fil-A's approach to operations will aid in serving customers quickly, safely and efficiently.

Relief, if granted, would not result in any detriment to the public or impair the purposes or intent of the Wake Forest unified Development Ordinance. The intent of the improvements is solely to aid in the day-to-day operations of Chick-fil-A, specifically, to increase the speed and efficiency of order delivery, thus decreasing stacking on adjacent public roadways during peak hours, allow for a better flow of traffic on-site and offering an overall increase of safety and protection to our guests and team members.



Chick-fil-A #4239 – Heritage Village

January 28, 2025

Page 4 of 4

Please contact me at 407.645.5008 or via email at mkucaba@interplanllc.com if you have any questions, or if you require any additional information. If I am not available, Sheyanna Day is the Permit Manager and can be contacted at sday@interplanllc.com.

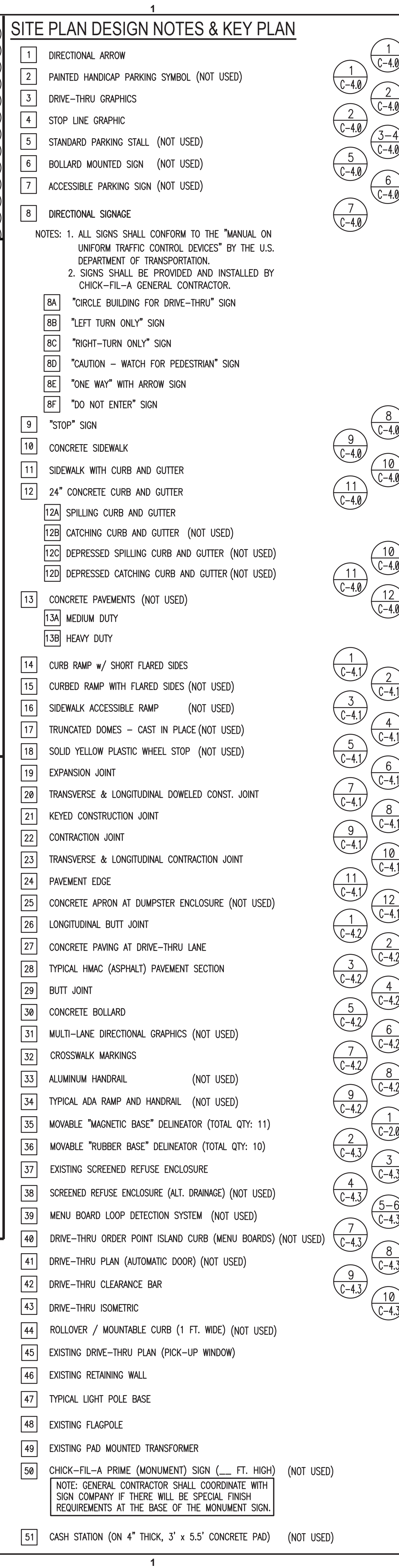
Sincerely,

INTERPLAN LLC

Michelle Kucaba

Michelle Kucaba

Senior Permit Lead / Development Services





Variance Request Application

(Variance - BOA Workflow)

Town of Wake Forest, NC

301 S. Brooks St.

Wake Forest, NC 27587-2932

TEL (919) 435-9510 | FAX (919) 435-9539

Project Overview

#1514434

Project Title: Chick-fil-A #4239 - Heritage Village Variance

Jurisdiction: Town of Wake Forest (Wake County)

Application Type: Variance Request

State: NC

Workflow: Variance - BOA

County: Wake

Checklist - Variance

A submittal checklist is available to view additional documents which are required to submitted with this application. After answering the application questions, you will be asked to upload the required documents.

[VIEW VARIANCE SUBMITTAL CHECKLIST](#)

Missing items will result in the application being declined and returned to the applicant to resubmit. A revised and complete application including all missing items must be received or the application will be not be deemed complete and routed for review.

Please confirm that you have reviewed the associated submittal checklist for this permit and that you will submit all documents required on the submittal checklist: Yes

Pre-Application Meeting

Has a pre-application conference been held?: Yes

*Note: This type of project requires a pre-application conference be completed prior to official submittal. If this has not been completed, please return to the home screen and select **Pre-Application Conference** from the application type drop down list in order to schedule your required meeting.*

Pre-Application Conference Date: 10/14/2024

Staff Member Met With: Planning Staff - Patrick Reidy

Pre-application Conference Project Number: 1494843

Address & Basic Site Information

Please Note:

In some cases, a parcel address may not verify. In the event that our system is unable to verify the address you enter, please submit the project as an *Unverified Parcel* and provide zoning and land use information as requested below. For verified addresses, the zoning and land use information will be added to the application automatically (you do not need to provide it below).

Project Address or PIN: 1010 Forestville Rd (1749690548)

Tax PIN: 1749690548

Acreage: 1.11

Name of Existing Development/Subdivision (if applicable-- for reference only): Chick-fil-A

For unverified addresses/parcels only, please provide below 1) the current use of the parcel, 2) the zoning district(s) it is in, and 3) any overlay districts that apply. Reference the [zoning map](#) and the [overlay districts map](#) on the town's website.

Current Use & Zoning (required only if address/parcel is unverified):

*Note: Projects falling outside the limits of the Town or ETJ will be required to submit an annexation petition in conjunction with their project submittal. In this case, please return to the home screen and select **Annexation Petition** from the application type drop down.*

GIS Site Information (Automatically Generated - Not Available for Unverified Addresses)

Parcel Area: GIS Acreage

- 1010 Forestville Rd: 1.1

Wake Forest (WF): Town Limits

- 1010 Forestville Rd: WF

Base District: Zoning

- 1010 Forestville Rd: NB CD

In SH2-O Overlay:

In TND Overlay:

In HL-O Overlay:

In National Register of Historic Places:

Current Use: Land Use Development

- 1010 Forestville Rd: Commercial

Planning and Zoning: Jurisdiction

- 1010 Forestville Rd: WAKE FOREST

In SH1-O Overlay:

In Water Supply Watershed Protection Overlay:

In SF Overlay:

In MVCP-O Overlay:

In Flood Hazard Area:

Project Contacts

Please enter all project contacts related to your application.

This is an important step to ensure all members of the applicant team receive email notifications associated with the project which may include comments, requested revisions, scheduled meetings or hearings, and final decisions. This also informs Town staff of the team members assigned role with the project.

Project Contact - Applicant

Michelle Kucaba
Interplan LLC
220 E. Central Parkway, Auite 4000
Altamonte Springs, FL 32701
P:407.645.5008
mkucaba@interplanllc.com

Project Contact - Property Owner

CREEK POOH LLC EMILY SIMMANG CHICK-FIL-A INC
5200 BUFFINGTON RD
ATLANTA , GA 30349-2945
P:203.979.6341
meghan.caldwell1@cfacorp.com

Variance

Description of Request:

Subdivision : Shoppes at Heritage Village

Deed Book: 17910

Number of Variance Requests: 1

Description of Request:

At this time our request is a variance to reduce the twenty-foot (20) west side/rear yard setback to eleven feet (11) on the western property boundary.

Description of Request:

Lot Number(s): LO2

Name of Existing Development/Subdivision (if applicable-- for reference only): Chick-fil-A

Page: 1302

UDO Section(s) From Which Applicant is Requesting Relief:
Chapter 4 Section 4.3.4

UDO Section(s) From Which Applicant is Requesting Relief:

UDO Section(s) From Which Applicant is Requesting Relief:

Variance Findings

The Board of Adjustment shall not grant a variance unless and until it makes all of the following findings. **Please address compliance with the Findings of Fact:**

Carrying out the strict letter of the ordinance would result in an unnecessary hardship. It shall not be necessary to demonstrate that, in the absence of the variance, no reasonable use can be made of the property:

The existing site limits the ability to effectively mitigate traffic issues as the City's Zoning Regulations allow. Chick-fil-A currently utilizes the single lane order meal delivery canopy system but it does not allow full protection to the employees and guests from inclement weather, nor does it allow the most efficient service possible for meal delivery to guests as we see on other Chick-fil-A sites and surrounding properties. Chick-fil-A does tend to serve a higher number of guests in the restaurant and through the drive-through as other surrounding properties on average but that number continues to increase during peak hours and the site is not utilized to its fullest potential.

The hardship did not result from actions taken by the applicant of the property owner. The act of purchasing property with knowledge that circumstances exist that may justify the granting of a variance shall not be regarded as a self-created hardship:

The special conditions and circumstances do not result from the actions of the applicant. The alleged difficulty or hardship has not been created by the previous actions of any person having an interest in the property. The layout proposed is similar to the existing layout but with improvements to the number of cars able to be serviced in the drive-thru lane effectively and safely by allowing the canopy column encroachment to the building setback requirements. Due to the corner location and shape of the site the proposed layout is the best configuration to provide for maximum drive thru stacking and efficiency for the site and surrounding properties.

The hardship results from conditions that are peculiar to the property, such as location, size, or topography. Hardships resulting from personal circumstances, as well as hardships resulting from conditions that are common to the neighborhood or the general public, may not be the basis for granting a variance:

Due to the corner location between an existing shopping center development and stormwater retaining pond, the circumstances limit the ability to effectively mitigate the traffic issues currently due to the limits posed by the setback requirements. The proposed multi lane order meal delivery (OMD) canopy will assist in opening up the full use of the parking lot by increasing the efficiency of the drive-through during peak hours. It will allow better efficient traffic stacking while alleviating traffic congestion to the site and adjacent property. It will also allow the staff more of an opportunity to keep the traffic flowing while delivering meals in a more efficient manner.

The requested variance is consistent with the spirit, purpose, and intent of this ordinance, such that the public safety is secured, and substantial justice is achieved:

Various other drive-thru restaurants typically do not have team members outside in the elements. The proposed canopy expansion will help to keep the team members protected from the sun and rain while still being able to deliver multiple orders at a time. A drive-thru door will also be installed as part of this new building in lieu of a drive-thru window allowing team members to also deliver meals to multiple cars at a time. The proposed modifications in combination with Chick-fil-A's approach to operations will aid in serving customers quickly, safely and efficiently.

Relief, if granted, would not result in any detriment to the public or impair the purposes or intent of the Wake Forest unified Development Ordinance. The intent of the improvements is solely to aid in the day-to-day operations of Chick-fil-A, specifically, to increase the speed and efficiency of order delivery, thus decreasing stacking on adjacent public roadways during peak hours, allow for a better flow of traffic on-site and offering an overall increase of safety and protection to our guests and team members.

Variance Findings for Floodplain, Watershed and Stormwater Regulation

Is the variance request related to standards for Floodplain, Watershed and Stormwater Regulation?: No

Variances from the standards set forth in this ordinance for flood damage prevention, watershed protection and stormwater regulation may be granted subject to the following additional provisions. **Please address compliance with the Findings of Fact:**

Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result or when the variance will make the structure in violation of other federal, state or local laws:

Variances shall only be issued upon:

- | | |
|---|--|
| a. A determination that the variance is the minimum necessary, considering the flood hazard, to afford relief: | b. A showing of good and sufficient cause: |
| c. A determination that failure to grant the variance would result in exceptional hardship; and: | d. A determination that the granting of a variance will not result in a substantial increase in flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing laws or ordinances: |

In passing upon variances, the Board of Adjustment shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this chapter and:

- | | |
|--|---|
| a. The danger that material may be swept onto other lands to the injury of others: | b. The danger to life and property due to flooding or erosion damage: |
| c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner: | d. The importance of the services provided by the proposed facility to the community: |
| e. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use: | f. The compatibility of the proposed use with existing and anticipated development: |
| g. The relationship of the proposed use to the land development plan and flood damage prevention program for that area: | h. The safety of access to the property in times of flood for ordinary and emergency vehicles: |
| i. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site: | j. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges: |

Agent Authorization Form



TOWN of
WAKE FOREST

The Wake Forest Unified Development Ordinance (UDO) states that applications for development approvals may only be made by the landowner, a lessee or person holding an option or contract to purchase or lease the land, or an authorized agent of the landowner (see [Sec. 15.2.5.C](#)). This agent authorization form must be signed by the landowner and included with any application not submitted by the landowner or lessee as specified above. If more than one landowner is involved, a separate agent authorization form must be submitted by each landowner.

Address(es) and Tax PIN(s) for which authorization is granted: 1010 Forestville Road, Wake Forest, NC 27587

Landowner's name*: CREEK POOH LLC

Application(s) for which authorization is granted (e.g., Rezoning, Special Use Permit): Variance

Person authorized to submit application(s) as landowner's agent (must be the same person listed as the applicant on the application form): Michelle Kucaba c/o Interplan, LLC

Landowner's Signature: 

Date: 1/30/2025

Please provide below the name, address, and other information of the person signing this form.

Name: Donald Zucker, Manager

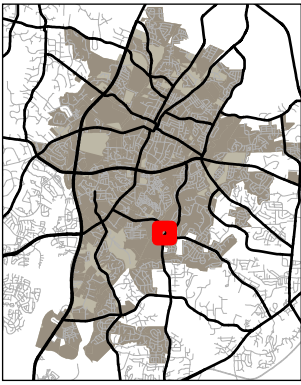
Address: 101 West 55th Street, NY NY 10019

Telephone number: 212-408-0605

Email address: dsullivan@mskyline.com

If signing for a corporation or other entity, please specify title and/or relationship to the corporation or other entity (e.g., Member, Executive Officer): Manager

*Owner of record as shown on the latest equalized assessment rolls of Wake County, or, if ownership has recently been transferred, the grantee shown on the recorded deed (a copy of the deed must accompany this form).



Aerial

BOA-24-04

1010 Forestville Rd

Wake County PIN: 1749690548

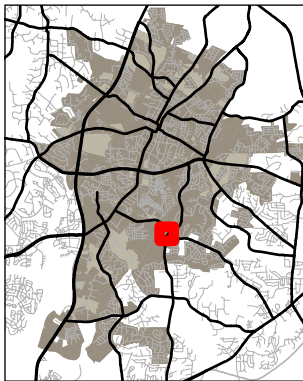
1/29/2025



Please note that this map is intended for illustrative purposes only.
For specific inquiries regarding zoning boundaries, contact the
Town Wake Forest Planning Department at 919-435-9510.

0 500 Feet





Zoning

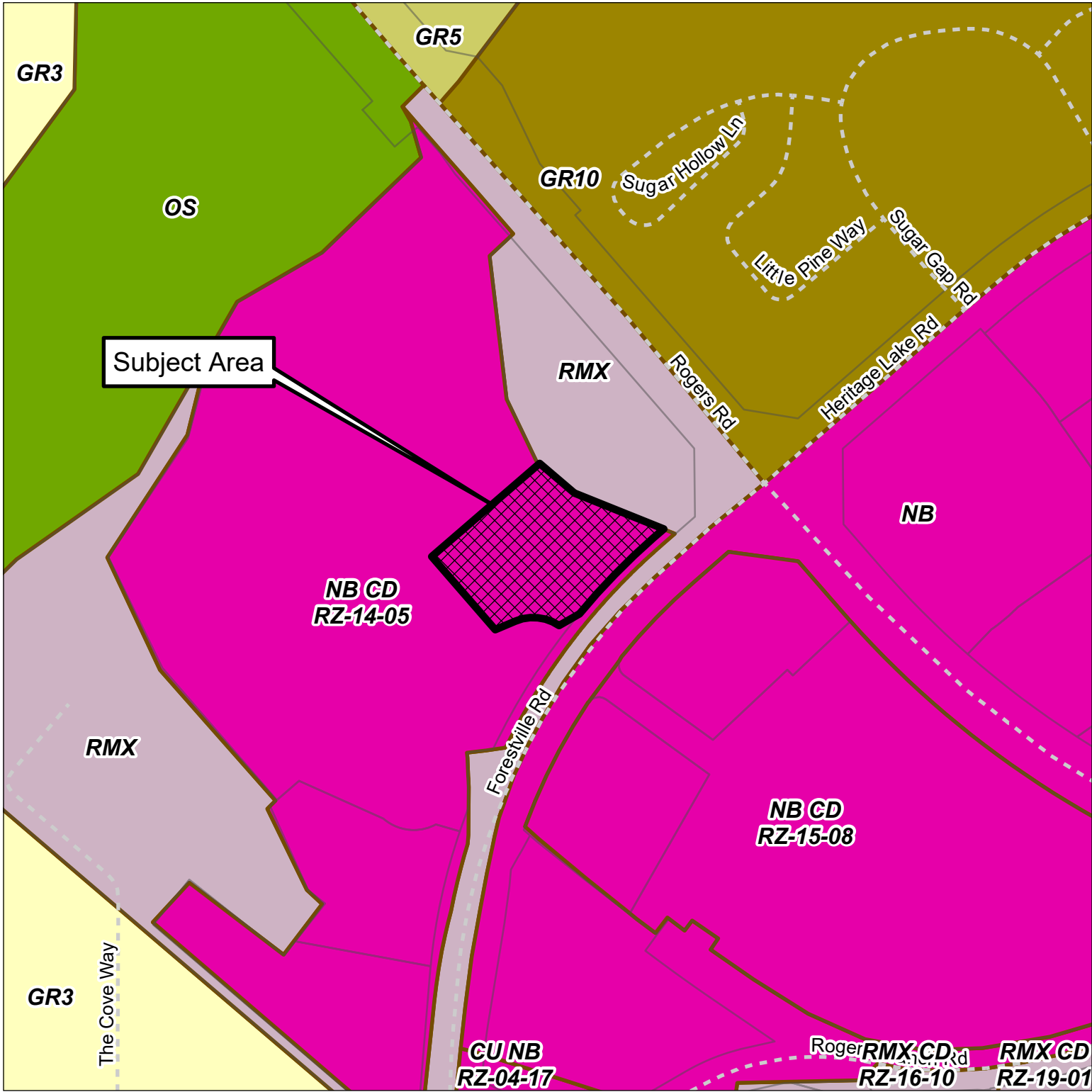


BOA-24-04

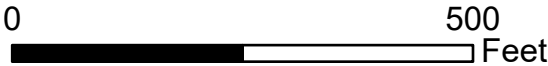
1010 Forestville Rd

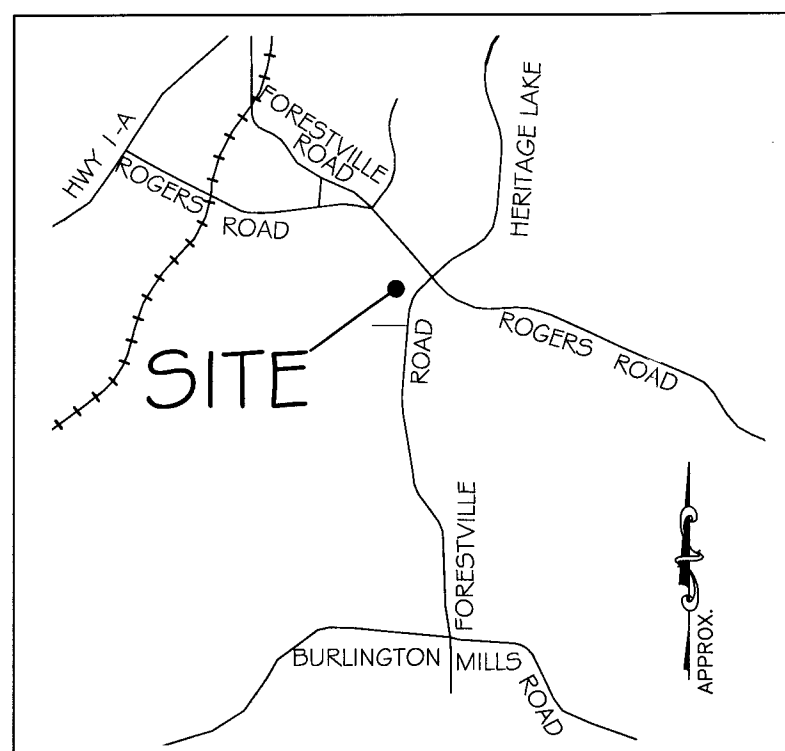
Wake County PIN: 1749690548

1/29/2025



Please note that this map is intended for illustrative purposes only.
For specific inquiries regarding zoning boundaries, contact the
Town Wake Forest Planning Department at 919-435-9510.





VICINITY MAP
SCALE: 1"=±4000'

CERTIFICATE OF SURVEY AND ACCURACY

I, TIMOTHY A. BROTHERS, L-3457, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION, THAT THE BOUNDARIES NOT SURVEYED ARE SHOWN AS BROKEN LINES PLOTTED FROM INFORMATION FOUND IN BOOK PAGE AS SHOWN HEREON; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED. WITNESS MY ORIGINAL SIGNATURE, REGISTRATION NUMBER AND SEAL.

THIS THE 14TH DAY OF NOVEMBER, A.D., 2016

Timothy A. Brothers
(SURVEYOR) (SEAL OR STAMP)
REGISTRATION NUMBER: L-3457



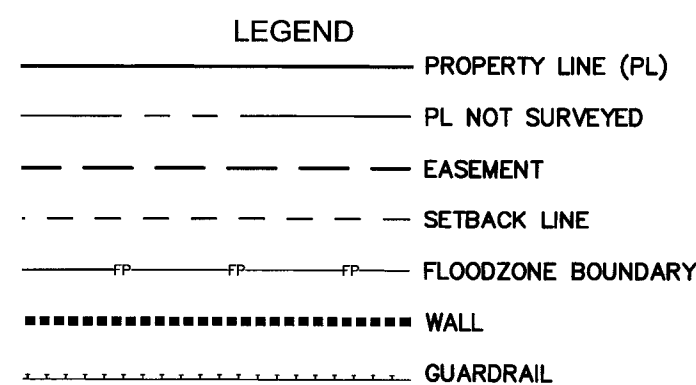
CERTIFICATE OF SURVEY

I, TIMOTHY A. BROTHERS L-3457, a Professional Land Surveyor in the State of North Carolina, do hereby certify to the following:
a. That the survey creates a subdivision of land within the area of a county or municipality that has an ordinance that regulates parcels of land;

PLAT REFERENCE
BOOK OF MAPS 2015 PAGE 1906-1907
BOOK OF MAPS 2003 PAGE 83
BOOK OF MAPS 2002 PAGE 254
BOOK OF MAPS 2001 PAGE 2156
BOOK OF MAPS 2001 PAGE 2151
DEED BOOK 15961 PAGE 1028
DEED BOOK 15961 PAGE 1021
AS SHOWN HEREON

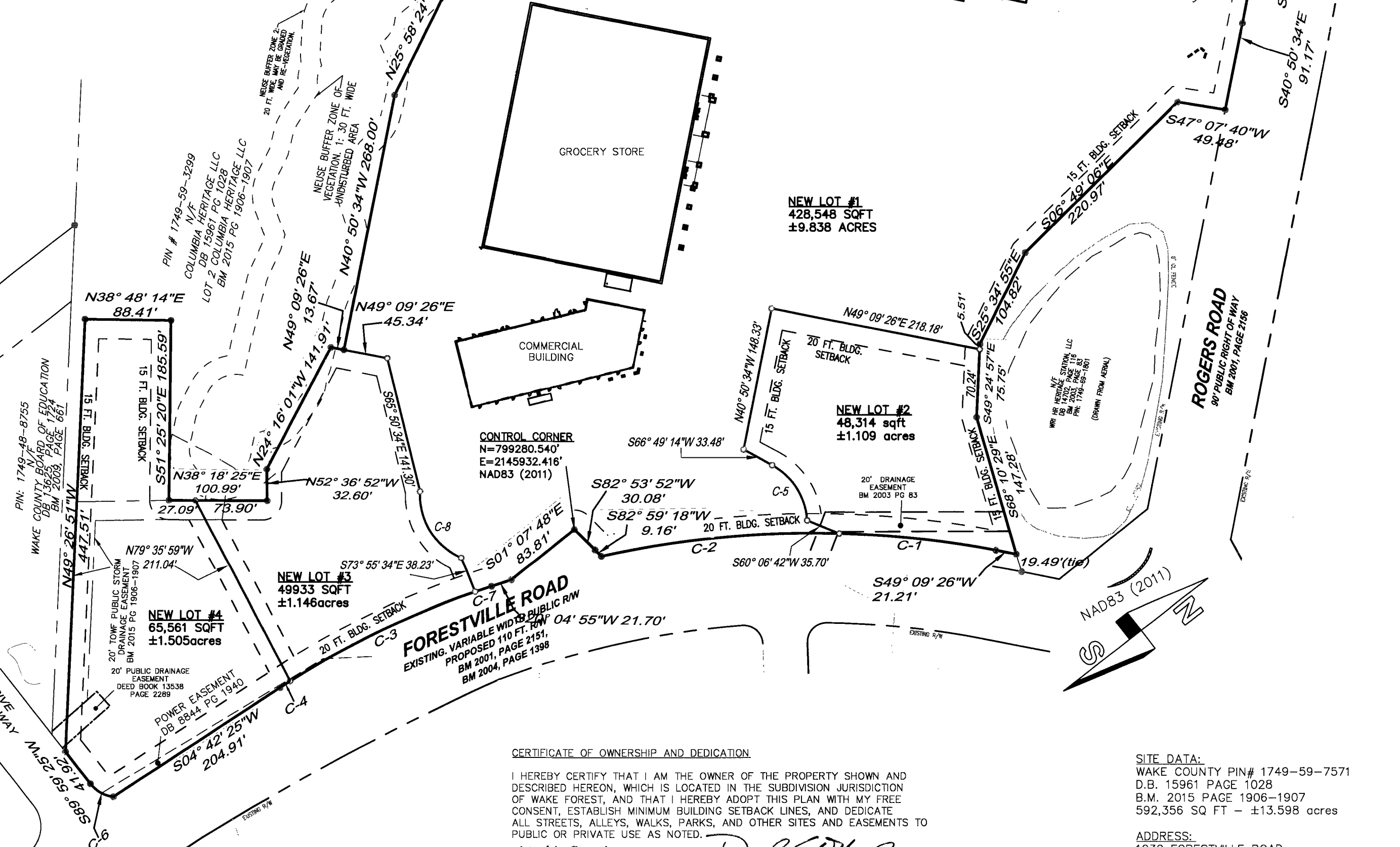
SURVEYORS NOTES:

1. BEARING BASIS TAKEN FROM BOOK OF MAPS 2015, PAGES 1906-1907, WAKE COUNTY REGISTRY AND VERIFIED WITH GPS OBSERVATIONS USING THE NC VRS CONTROL SYSTEM
2. THE BOUNDARY INFORMATION AS PRESENTED HEREON IS COMPILED FROM DATA COLLECTED FROM AN ACTUAL FIELD SURVEY IN CONJUNCTION WITH DOCUMENTS OF PUBLIC RECORD. LINES NOT SURVEYED ARE SHOWN AS BROKEN LINES DERIVED FROM DEEDS AND MAPS OF RECORD AS REFERENCED HEREON.
3. THIS PLAT IS A CORRECT REPRESENTATION OF THE PROPERTY AS SURVEYED IN ACCORDANCE WITH THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA, AS PUBLISHED BY NCBELS.
4. SURVEY CONDUCTED OCTOBER, 2016.
5. PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD IN ADDITION TO ANY SHOWN HEREON. A NORTH CAROLINA LICENSED ATTORNEY-AT-LAW SHOULD BE CONSULTED REGARDING QUESTIONS OF OWNERSHIP AND PURPOSE OF EASEMENTS, RIGHTS-OF-WAY, AND ANY OTHER ENCUMBRANCES OR QUESTIONS OF TITLE AS MAY BE REVEALED OR DISCOVERED BY A THOROUGH TITLE EXAMINATION.
6. ALL DISTANCES ARE HORIZONTAL GROUND MEASUREMENTS IN U.S. SURVEY FEET, UNLESS OTHERWISE NOTED.
7. ALL AREAS SHOWN HEREON COMPUTED BY COORDINATE COMPUTATION.
8. MONUMENTATION SET OR RECOVERED AT CORNERS AS INDICATED.
9. A PORTION OF THE PROPERTY SHOWN ON THIS PLAT IS LOCATED WITHIN A FEMA DESIGNATED "ZONE X" FLOOD AND A PORTION IS LOCATED IN ZONE "AE". THE FLOODPLAIN AREAS ARE DELINEATED HEREON. FLOODPLAIN AREAS ARE AS SHOWN ON NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FOR NORTH CAROLINA, FLOOD INSURANCE RATE MAP (FIRM) # 3720184000J (COMMUNITY ID NO. 370244 - WAKE FOREST, NC) AND FIRM MAP NUMBER 3720174900J (COMMUNITY ID NO. 370244 - WAKE FOREST, NC), BOTH PANELS WITH AN EFFECTIVE DATE OF MAY 2, 2006. THIS STATEMENT IS BASED ON THE RESULTS OF GRAPHIC PLOTTING ONTO THE ABOVE NAMED MAP AND PANEL.
10. CURRENT ZONING: NB CD - RZ-14-05
11. ALL RECORDED DOCUMENTS REFERENCED ARE RECORDED IN THE WAKE COUNTY REGISTER OF DEEDS IN RALEIGH, NC.



PROPERTY CORNER FOUND OR SET
NEW PROPERTY CORNER SET
COMPUTED POINT
CITY OF RALEIGH
TOWN OF WAKE FOREST

C.O.R.
TOWF



WAKE COUNTY, NC 247
LAURA M RIDDICK
REGISTER OF DEEDS
PRESENTED & RECORDED ON
11/14/2016 16:42:13
BOOK: BM2016 PAGE: 01928



RECORDED IN MAP BOOK 2016 PAGE 1928

CERTIFICATE OF OWNERSHIP AND DEDICATION

I HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY SHOWN AND DESCRIBED HEREON, WHICH IS LOCATED IN THE SUBDIVISION JURISDICTION OF WAKE FOREST, AND THAT I HEREBY ADOPT THIS PLAN WITH MY FREE CONSENT, ESTABLISH MINIMUM BUILDING SETBACK LINES, AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS, AND OTHER SITES AND EASEMENTS TO PUBLIC OR PRIVATE USE AS NOTED.

11-11-2016
DATE
OWNER(S) / MANAGER
COLUMBIA HERITAGE, LLC

APPROVED FOR RECORDING BY THE TOWN OF WAKE FOREST

STATE OF NORTH CAROLINA - COUNTY OF WAKE

I, Christine Wake, REVIEW OFFICER OF THE TOWN OF WAKE FOREST, CERTIFY THAT THE MAP OR PLAT TO WHICH THIS CERTIFICATION IS AFFIXED MEETS ALL STATUTORY REQUIREMENTS FOR RECORDING.

11-14-16
DATE
REVIEW OFFICER
11-14-16
DATE
Deeda W. Hammi

APPROVED FOR RECORDING BY THE TOWN OF WAKE FOREST

11-14-16
DATE

SITE DATA:
WAKE COUNTY PIN# 1749-59-7571
D.B. 15961 PAGE 1028
B.M. 2015 PAGE 1906-1907
592,356 SQ FT - ±13.598 acres

ADDRESS:
1030 FORESTVILLE ROAD
WAKE FOREST, NC

OWNER:
COLUMBIA PROPERTIES
1355 TERRELL MILL ROAD SE
SUITE 200
MARIETTA GA 30067-5496

NEW LOT #1
428,548 SQFT
±9.838 ACRES

NEW LOT #2
48,314 SQFT
±1.109 ACRES

NEW LOT #3
49,933 SQFT
±1.148 ACRES

NEW LOT #4
65,561 SQFT
±1.505 ACRES

EDR ENGINEERING

5605 CHAPEL HILL ROAD, SUITE 110
RALEIGH, NORTH CAROLINA 27607
PH: (919) 747-3012 FAX: (919) 324-6614
NORTH CAROLINA LICENSE NO. C-3325

EDR

CLIENT: COLUMBIA PROPERTIES, INC.

SUBDIVISION, SANITARY SEWER EASEMENT DEDICATION AND
SANITARY SEWER EASEMENT ABANDONMENT PLAT

SHOPPES AT HERITAGE VILLAGE
1030 FORESTVILLE ROAD

WAKE FOREST TOWNSHIP, TOWN OF WAKE FOREST
COUNTY OF WAKE, STATE OF NORTH CAROLINA

REVISED

DATE: 10-31-16

DRAWN BY: TAB

CHECKED BY: SMJ

FBK: 26

CHF: SJ

SCALE: 1"=100 FT. 8836.3

1/2

November 19, 2014

Columbia Properties, Inc
1335 Terrell Mill Road, Building 1478, Suite 200
Marietta GA 30067

RE: Case No. RZ-14-05: Shoppes at Heritage Village
Wake Co. Tax Pin Nos.: 1749-59-5552, 1749-69-0660, 1749-59-8301

To Whom It May Concern:

This letter is official notification that on Tuesday, November 18, 2014 the Wake Forest Board of Commissioners voted to approve zoning case number RZ-14-05. As requested in your application, 13.59 acres of land located near the intersection of Rogers Road and Forestville Road was rezoned to NB (CD), Neighborhood Business Conditional District.

As part of this request, a Conditional District Site Master Plan was approved for the "Shoppes at Heritage Village" development which consists of 89,200 square feet of flex / commercial space and three outparcels. An approved copy of this plan attached. The approved plan is considered a condition of the approved Conditional District rezoning. In addition, the Board of Commissioners and the applicant also mutually agreed to the following conditions:

- 1) Building square footage devoted to commercial uses may exceed the 50,000 square foot cap in Chapter 3.5.1(A) of the Unified Development Ordinance.
- 2) Improvements to Forestville Road per Wake Forest Transportation Plan, Traffic Impact Analysis, and NCDOT approvals shall be required prior to the issuance of a Certificate of Occupancy.
- 3) A fee-in-lieu for improvements to Rogers Road must be paid prior to the issuance of a Certificate of Occupancy.

The next step in the development process is to secure a valid construction permit within 2 years from the date of the approval of this case. If this project is not complete or a valid construction permit is not in place at the end of the 2-year period, the Board of Commissioners may take action to rescind the Conditional District, or extend the life of the Conditional District for a specified period of time. The rescission of the Conditional District shall follow the same procedure as outlined in Section 15.15 of the Wake Forest Unified Development Ordinance.

Should you have any questions, please advise (919) 435-9517 or cyokley@wakeforestnc.gov.

Sincerely,

A handwritten signature in dark ink, reading "Charlie Yokley". The signature is fluid and cursive, with a long horizontal stroke extending from the end of the name.

Charlie Yokley, AICP
Senior Planner

Attachment(s)

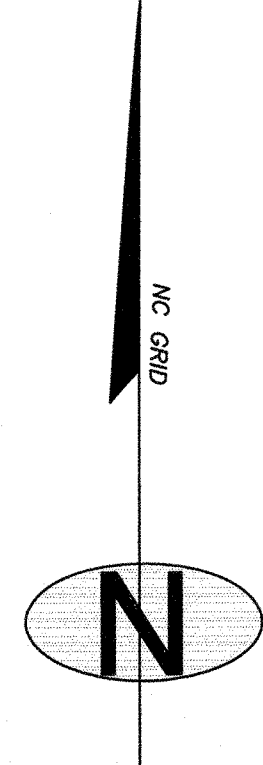
2.2.5. Table of Rural and Suburban District Development Standards

Standard	Open Space (OS)	Rural Holding District (RD)	General Residential (GR3, GR5, GR10)	Neighborhood Business (NB)	Highway Business (HB)	Institutional Campus Development (ICD)	Light Industrial (LI)	Heavy Industrial (HI)
A. DEVELOPMENT STANDARDS								
1. District/Development Area (min)	n/a	n/a	n/a	n/a	n/a	10 acres	10 acres	20 acres
2. Density (max) ¹	n/a	1 unit/acre	GR3: 3 units/acre GR5: 5 units/acre GR10: 10 units/acre	n/a	n/a	determined by adopted master plan	n/a	n/a
3. Open Space (min) per Chapter 7	n/a	10%	10%	n/a	n/a	25%	n/a	n/a
4. Park Space (min) per Chapter 7	n/a	2.5%	2.5%	n/a	n/a	n/a	n/a	n/a
5. Building Floor Area (Max)	n/a	n/a	n/a	50,000 sq ft per building	n/a	n/a	n/a	n/a
6. Development Floor Area (Max)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B. LOT STANDARDS								
1. Lot Area (min) ²	n/a	40,000 sq ft	GR3: 10,000 sq ft GR5: 7,500 sq ft GR10: 5,000 sq ft	None except max. 15 acres for Shopping Centers	20,000 sf	n/a	40,000 sq ft	5 acres
2. Lot Width at Front Setback (min) ³	n/a	60 ft	50 ft	none	150 ft	n/a	n/a	n/a
C. PRINCIPAL BUILDING								
1. Principal Front Setback (min)	20 ft	20 ft	20 ft	20 ft	30 ft	20 ft	30 ft	50 ft
2. Street Side/Secondary Front Setback (min)	20 ft	20 ft	20 ft	20 ft	30 ft	20 ft	30 ft	50 ft
3. Side (from adjacent lot) Setback (min) ⁴	10 ft	10 ft	8 ft	15 ft	10 ft	10 ft	15 ft	30 ft
4. Rear Setback (min)	25 ft	25 ft	25 ft	20 ft	30 ft	20 ft	20 ft	50 ft
D. ACCESSORY STRUCTURE								
1. Side Setback (min)	10 ft	10 ft	5 ft	10 ft	10 ft	10 ft	10 ft	10 ft
2. Rear Setback (min)	10 ft	10 ft	10 ft	10 ft	10 ft	10 ft	10 ft	10 ft
3. Other Standards	n/a	See Section 4.6	See Section 4.6	See Section 4.6	See Section 4.6	See Section 4.6	See Section 4.6	See Section 4.6
E. PARKING CONFIGURATION								
1. Parking Location		By Building Type - See Section 9.3						
2. Specific Restrictions	n/a	n/a	n/a	Parking in Front setback not permitted	Parking in first 10 ft of Front setback not permitted	Parking in Exterior setback not permitted except as part of an approved CD plan	Parking in Front & Exterior setback not permitted	Parking in Exterior setback not permitted

4.3 Basic Lot And Use Standards

- A. Arcades: Building arcades, if provided, should be designed to avoid the swing of car doors parked parallel to the arcade. In addition the sidewalk within the arcade should be sufficient to accommodate the intended uses (i.e. outdoor seating) while providing suitable clearances per the Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- B. Awnings and Canopies: All awnings and canopies, if provided, shall be supported by means of a frame attached directly to the building receiving beneficial use of the awning. In no case shall awnings be supported by a frame attached to a sidewalk or other public right-of-way. Awnings may encroach up to 6 feet into any required front or street setback but shall not encroach into the street tree planting area or across the street edge of the sidewalk.
- C. Bay Windows and Balconies: Bay windows, balconies and similar features projecting from the principal building may encroach up to 3 feet into any required setback.
- D. Cornices and Gutters: Cornices, eave overhangs, and similar projections (including gutters) may encroach up to 2 feet into any required setback.
- E. Fences & Garden Walls: Fences and garden/yard walls may encroach into required setbacks but, if higher than 3.5 feet, may not be placed within the sight visibility triangle of a public street, private street or driveway contained either on the property or on an adjoining property. See Section 6.5.2.G concerning the sight visibility triangle.
- F. Garden Features: Vegetation, landscaping, and minor ornamental yard or garden features, such as retaining walls, fountains, ponds, birdbaths, sculptures, planters, arbors, trellises, and similar landscaping features may be located in any required setback; however, if higher than 3.5 feet, such features may not be placed within the sight visibility triangle of a public street, private street or driveway contained either on the property or on an adjoining property.
- G. Handicapped Ramps: Ramps for handicap accessibility and fire escapes that are required by the North Carolina State Building Code may encroach into any required yard but may not be closer than 3 feet to any property line.
- H. Uncovered Porches, Decks, and Patios: Uncovered and unenclosed porches, decks, patios, and other similar features not exceeding an average finished height above grade of 30 inches may encroach into the side and rear setback to within 5 feet of the property line.
- I. Covered Porches, Covered Decks, and Covered Patios: Covered porches, covered decks, or covered patios (excluding screened-in) not exceeding an average finished height above grade of 30 inches may encroach into front setbacks up to 5 feet but may not be closer than 5 feet to the front property line.
- J. Driveways: Driveways may encroach into any setback to within 2 feet of side property lines. Shared driveways are exempt from this setback requirement.
- K. Public Rights of Way Encroachments (Air Rights): With approval of the town or NCDOT (whichever has authority over a street), upper story balconies or bay windows may encroach into the right of way but shall be a minimum of 3 feet behind the curb.
- L. Signs: Allowable signs may encroach into any setback as permitted in Chapter 11.
- M. Steps and Stairs: Uncovered and unenclosed steps and stairs may encroach up to 6 feet into any required front or street setback but may not be closer than 5 feet to any property line.
- N. Lighting: Required street lighting and any landscape lighting may encroach into any required setback. Any other required site lighting may encroach up to 5 feet into required landscape buffer yards that are greater than 20 feet in width.





LEGEND

- | | | | |
|---|--|---|--|
| CB
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X
Y
Z | CATCH BASIN
CORRUGATED PLASTIC PIPE
CRIMPED TOP PIPE
DROP INLET
INVERT ELEVATION
JUNCTION BOX
MANHOLE
OPEN TOP PIPE
POINT OF BEGINNING
POINT OF COMMENCEMENT
TEMPORARY BENCHMARK
REINFORCED CONCRETE PIPE
SANITARY SEWER
OVERHEAD POWER
IRON PIN FOUND
IRON PIN SET
WATER VALVE
WATER METER
GAS VALVE
GAS METER
TELEPHONE PEDESTAL
MAPLE TREE | — G —
— W —
— OHP —
— E —
— T —
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— S —
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— U —
— V —
— W —
— X —
— Y —
— Z — | QUY WIRE
GAS LINE
WATER LINE
POWER LINE
UNDERGROUND POWER LINE
UNDERGROUND PHONE LINE
FIBER OPTIC
POWER POLE
SANITARY SEWER MANHOLE
STORM SEWER MANHOLE
CATCH BASIN
LIGHT POLE
FIRE HYDRANT
TRANSFORMER |
|---|--|---|--|

UTILITY CONTACTS

Natural Gas

PSNC Energy
N/A; e-mail PDF's
Mr. Matthew Koehl
919-501-7668

Electric

Wake EMC
100 S. Franklin Street
Wake Forest, NC 27588
Mr. Jim Hayes
919-553-6466

Telephone/Cable/Internet

Centurylink
Construction Group
800-526-3557

Storm Water

Town of Wake Forest - Engineering
301 S. Brooks Street
Wake Forest, NC 27587
Mr. Scott Miles
919-435-9442

Traffic Engineering

Town of Wake Forest - Engineering
301 S. Brooks Street
Wake Forest, NC 27587
Mr. Benjamin Baker
919-435-9442

Sanitary Sewer

Raleigh Public Works
222 W. Hargett Street
Raleigh, NC 27601
Mr. Benjamin Baker
919-996-3524

Water

Raleigh Public Works
222 W. Hargett Street
Raleigh, NC 27601
Mr. Benjamin Baker
919-996-3524

NIF
COLUMBIA HERITAGE, LLC
PIN# 1749597644
(DB. 15961, PG. 1028)
(BM. 2016, PG. 1928)

NEW LOT 2

48311.21 Sq. Feet
1.109 Acres

NIF
COLUMBIA HERITAGE OP, LLC
PIN# 1749690548
(DB. 16608, PG. 2044)
(BM. 2016, PG. 1928)

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE	TANGENT
C1	1007.50'	162.46'	162.28'	S 44°04'02" W	9°14'19"	81.40'
C2	70.00'	70.54'	67.59'	N 84°24'57" W	57°44'06"	36.59'

TBM

TOP OF
STORM MH =
263.46'

GENERAL NOTES

This property is in Zone X based on Flood Insurance Rate Map 3720174900J dated 5/2/16. This determination was made by graphically determining the position of said site on said FIRM Map.

Vertical datum for site based on GPS observation using CORs Stations "DURHAM COOP CORs", "JORDAN LAKE CORs" and "NASHVILLE" (NGVD 88)

Contact proper Authorities Before building near utility lines, for easement width and restrictions. Underground Utilities are approximate and should be verified prior to any construction. Locations shown are based on partial markings in the field as well as utility maps.

This survey has been prepared for the exclusive use of the person or entities named hereon. No express or implied warranties with respect to the information shown hereon is to be extended to any persons or entities other than those shown hereon.

Property Zoned NB
Setbacks
Front: 20'
Left Side: 15'
Right Side: 15'
Rear: 20'
Setbacks to be verified by Site Engineer

All matters affecting site shown on recorded plat (BM. 2016, pg. 1928) are shown hereon.

I, Michael S. Perdue, certify that this plat was drawn under my supervision from an actual survey made under my supervision and is Lot 2 of BM. 2016 pg. 1928; that the ratio of precision as calculated 1: 20,000 + and was not adjusted; that this plat was prepared in accordance with G.S. 47-30 as amended. Witness my original signature, registration # and seal this 26th day of March, 2016.

That this survey is of an existing parcels of land, existing structures and buildings and does not create a new street or change existing streets.

Michael S. Perdue, PLS# L-4322

The property shown hereon is Parcel #1749690548
Survey references:

DB. 16608 PG. 2044
BM. 2016, pg. 1928

SURVEYORS CERTIFICATE

* To: Chick-fil-A, Inc. and Chicago Title Insurance Company

This is to certify that this map or plot 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 1-4, 7a-b, 8, 9, 11, 13, 14, 16, 17, 19 and 20 of Table A thereof. The field work was completed on 3/26/18.

Michael S. Perdue PLS #L-4322

Date

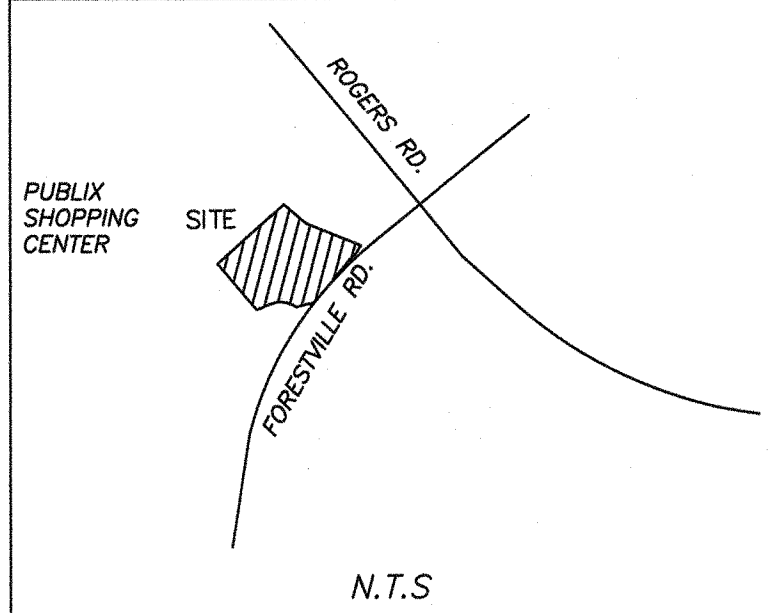
LEGAL DESCRIPTION

Being that certain parcel of land lying and being in Wake Forest, Wake County, North Carolina and being more particularly described as follows:

Commencing at the mitered intersection of the western right-of-way of Rogers Rd. (90' R/W) and the northern right-of-way of Forestville Rd. (Variable R/W); thence with said right-of-way of Forestville Rd. the following calls: along the mitered line S 0°53'53" E a distance of 115.82 to a point; thence S 48°55'54" W a distance of 39.56' to a point; thence N 68°18'18" W a distance of 19.51' to a 1/2" rebar found, said pin being The True Point of Beginning; thence continuing with said right-of-way S 49°00'03" W a distance of 21.09' to a 1/2" rebar found; thence with a curve turning to the left with an arc length of 162.46', with a radius of 1007.50', with a chord bearing of S 44°04'02" W, with a chord length of 162.28' to a mag nail found; thence leaving said right-of-way S 48°56'02" W a distance of 35.76' to a mag nail found; thence with a curve turning to the left with an arc length of 70.54', with a radius of 70.00', with a chord bearing of N 84°24'57" W, with a chord length of 67.59' to a 1/2" rebar found; thence S 66°50'53" W a distance of 33.50' to a 1/2" rebar found; thence N 4°05'41" W a distance of 148.29' to a 1/2" rebar found; thence N 49°03'41" E a distance of 218.21' to a 1/2" rebar found; thence S 49°31'49" E a distance of 70.15' to a point; thence S 68°18'18" E a distance of 147.28' to a 1/2" rebar found, said pin being The True Point of Beginning.

Said Parcel being New Lot 2 (BM 2016, pg. 1928) and having an area of 48311.21 square feet, 1.109 acres

VICINITY MAP



TITLE EXCEPTIONS

Schedule B Section II Title Exceptions

Chicago Title Insurance Company
Commitment #NC251711060V ; Effective Date: Nov. 21, 2017

11. Covenants, conditions, restrictions, easements, and liens provided for in Declaration of Covenants for Heritage Wake Forest Business Park filed for record in Book 1616, Page 638, as affected by Amendment of Property to the Declaration of Covenants for Heritage Wake Forest Business Park recorded in Book 15981, Page 1016, as further amended by Corrected Amendment of Property to the Declaration of Covenants for Heritage Wake Forest Business Park by Franklin Village, LLC and Heritage Wake Forest, Inc. and Columbia Heritage, LLC dated August 17, 2015 recorded in Book 16126, Page 889, as further amended by Amendment to Declaration of Covenants for Heritage Wake Forest Business Park dated October 6, 2016, recorded in Book 16856, Page 526, and any related maps, plans, plat(s) and other document(s) and amendment(s), but excluding any covenants or restrictions, if any, based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law. (AFFECTS SITE)

12. Terms and conditions of Deed of Easement (With General Warranty for a Street Right of Way) to the Town of Wake Forest recorded in Book 13538, Page 2286 and Book 13538, Page 2291, aforesaid records. (DOES NOT AFFECT SITE)

13. Terms and conditions of Drainage Easement and Temporary Construction Easement to the Town of Wake Forest and The Wake County Board of Education recorded in Book 13538, Page 2286, aforesaid records. (DOES NOT AFFECT SITE)

14. Terms and conditions of Electric Line Right of Way Easement to Wake Electric Membership Corporation recorded in Book 8844, page 1940, aforesaid records. (DOES NOT AFFECT SITE)

15. Right of Way Agreement to Public Service Company of North Carolina, Incorporated recorded in Book 9916, page 2789 aforesaid records. (UNABLE TO PLOT)

16. Rights of others in and to the continuous and uninterrupted flow of the waters bounding or crossing the Land and riparian and/or littoral rights incident to the Land, and as shown on Book of Maps 1999, Page 2330 (DOES NOT AFFECT); and Book of Maps 2003, Page 83. (DRAINAGE ESM AFFECTS SITE AS PLOTTED)

17. Terms and conditions of Electric Line Right of Way Easement to Wake Electric Membership Corporation recorded in Book 13716, page 2658 aforesaid records. (AFFECTS SITE)

18. Terms, conditions and restrictions of unrecorded lease as evidenced by Memorandum of Lease between Columbia Heritage, LLC and Public North Carolina LP, dated January 9, 2015 recorded in Book 16006, Page 1653, as amended by Amendment to Memorandum of Lease recorded in Book 16008, Page 2001, and as affected by Subordination, Non-Disturbance and Attornment Agreement between Farm Bureau Life Insurance Company, Public North Carolina, LP and Columbia Heritage, LLC dated November 17, 2016 recorded in Book 16808 Page 2125 aforesaid records. (AFFECTS SITE)

19. Terms, conditions, easements, restrictions and assessments contained in that certain Declaration of Restrictions, Covenants and Conditions and Grant of Easements by Columbia Heritage, LLC dated November 1, 2016, recorded in Book 16808 Page 2007 as amended by First Amendment dated July 14, 2017 recorded in Book 16879 Page 655 aforesaid records. (AFFECTS SITE)

20. Notice of Contract by WIMCO Corp, as Contractor and Columbia Heritage, LLC, as Owner, dated September 15, 2015 recorded in Book 16156, Page 1744 aforesaid records. Note: no legal attached. (N/A)

21. Easements, rights of way, boundary lines and improvements as set forth in Plats recorded in Book of Maps 1999, Page 2330, Book of Maps 2003, Page 83Book of Maps 2015, Page 1906, Book of Maps 2015 Page 1907 and Book of Maps 2016 Page 1928 and Book of Maps 2016 Page 1929 aforesaid records. (AFFECTS SITE AS PLOTTED)

22. Terms, conditions, easements, restrictions and assessments pursuant to Complaint and Declaration of Taking (G.S. 136-104) as evidenced by Memorandum of Action showing Department of Transportation vs. Columbia Heritage, LLC, Branch Banking and Trust Company and Public North Carolina LP, dated May 23, 2016 recorded in Book 16404, Page 1862 as affected by Consent Judgment dated May 20, 2016, May 1, 2017 in Book 16768 Page 868 aforesaid records. (DOES NOT AFFECT SITE)

23. Terms and conditions of Utility Easement from Columbia Heritage, LLC to Public Service Company of North Carolina, Incorporated, dated March 24, 2016, recorded in Book 16555, Page 1992 and recorded in Book 16371 Page 1867 aforesaid records. (DOES NOT AFFECT SITE)

24. Terms and conditions of Ordinance 2017-1 (An Ordinance to Extend the Corporate Limits of the Town of Wake Forest, North Carolina) dated January 27, 2017 recorded in Book 16628, Page 1446 aforesaid records. (AFFECTS SITE)

25. The ALTA 13 endorsement for Leasehold Owner's Policies is attached to the Commitment (and to the Policy, if and when issued).

26. The following exceptions affect Tract Two (Easement) recorded in aforesaid records:

a. All taxes for the fiscal year 2018 and subsequent years, not yet due and payable, and any additional taxes, interest, or penalties for the year 2017 or prior years by virtue of adjustment, re-assessment, reassessment, appeal or other amendment to the tax records for Wake County. Please note that the City of Wake Forest Taxes are incorporated and paid by Wake County.
b. Any encroachment, easement, violation, variation or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the land and not shown by the Public Records.
c. Easements, or claims of easements, not shown by the public records.
d. Rights of tenants, as tenants only in possession of subject property.
e. Any rights, interest or claim that may exist, arise or be asserted under or pursuant to the Perishable Agricultural Commodities Act of 1930, as amended, 7 USC 480a et seq., the Packers and Stockyard Act of 1921, as amended, 7 USC 181 et seq., or any similar state laws.

f. Deed of Trust, Security Agreement, Financing Statement and Fixture Filing with Absolute Assignment of Rents and Leases from Columbia Heritage, LLC to Farm Bureau Life Insurance Company dated November 17, 2016, recorded in Book 16808 Page 2048 aforesaid records. (AFFECTS TRACT 2 (EASEMENT))

g. Absolute Assignment of Rents and Leases from Columbia Heritage, LLC to Farm Bureau Life Insurance Company dated November 17, 2016, recorded in Book 16808 Page 2104 aforesaid records. (AFFECTS TRACT 2 (EASEMENT))

h. UCC Financing Statement naming Columbia Heritage, LLC, as Debtor and Farm Bureau Life Insurance Company, as Secured Party recorded November 18, 2016 in Book 16808 Page 2118 aforesaid records. (AFFECTS TRACT 2 (EASEMENT))

i. Covenants, conditions, restrictions, easements, and liens provided for in Declaration of Covenants for Heritage Wake Forest Business Park filed for record in Book 1616, Page 638, as affected by Amendment of Property to the Declaration of Covenants for Heritage Wake Forest Business Park recorded in Book 15981, Page 1016, as further amended by Corrected Amendment of Property to the Declaration of Covenants for Heritage Wake Forest Business Park by Franklin Village, LLC and Heritage Wake Forest, Inc. and Columbia Heritage, LLC dated August 17, 2015 recorded in Book 16126, Page 889, as further amended by Amendment to Declaration of Covenants for Heritage Wake Forest Business Park dated October 6, 2016, recorded in Book 16856 Page 526, and any related maps, plans, plat(s) and other document(s) and amendment(s) and amendments, but excluding any covenants or restrictions, if any, based upon race, color, religion, sex, sexual orientation, familial status, marital status, disability, handicap, national origin, ancestry, or source of income, as set forth in applicable state or federal laws, except to the extent that said covenant or restriction is permitted by applicable law. (AFFECTS TRACT 2 (EASEMENT))

j. Terms and conditions of Deed of Easement (With General Warranty for a Street Right of Way) to the Town of Wake Forest recorded in Book 13538, Page 2286 and Book 13538, Page 2291, aforesaid records. (DOES NOT AFFECT)

k. Terms and conditions of Drainage Easement and Temporary Construction Easement to the Town of Wake Forest and The Wake County Board of Education recorded in Book 13538, page 2286, aforesaid records. (DOES NOT AFFECT)

l. Terms and conditions of Electric Line Right of Way Easement to Wake Electric Membership Corporation recorded in Book 8844, page 1940, aforesaid records. (DOES NOT AFFECT)

m. Right of Way Agreement to Public Service Company of North Carolina, Incorporated recorded in Book 9916, page 2789 aforesaid records. (UNABLE TO PLOT)

n. Rights of others in and to the continuous and uninterrupted flow of the waters bounding or crossing the Land and riparian and/or littoral rights incident to the Land, and as shown on Book of Maps 1999, Page 2330; and Book of Maps 2003, Page 83. (DRAINAGE ESM AFFECTS SITE AS PLOTTED)

o. Terms and conditions of Electric Line Right of Way Easement to Wake Electric Membership Corporation recorded in Book 13716, page 2658 aforesaid records. (DOES NOT AFFECT)

p. Terms, conditions and restrictions of unrecorded lease as evidenced by Memorandum of Lease between Columbia Heritage, LLC and Public North Carolina LP, dated January 9, 2015 recorded in Book 16006, Page 1653, as amended by Amendment to Memorandum of Lease recorded in Book 16008, Page 2001, and as affected by Subordination, Non-Disturbance and Attornment Agreement between Farm Bureau Life Insurance Company, Public North Carolina, LP and Columbia Heritage, LLC dated November 17, 2016 recorded in Book 16808 Page 2125 aforesaid records.(AFFECTS TRACT 2 (EASEMENT))

q. Terms, conditions, easements, restrictions and assessments contained in that certain Declaration of Restrictions, Covenants and Conditions and Grant of Easements by Columbia Heritage, LLC dated November 1, 2016, recorded in Book 16808 Page 2007 as amended by First Amendment dated July 14, 2017 recorded in Book 16879 Page 655 aforesaid records. (AFFECTS TRACT 2 (EASEMENT))

r. Notice of Contract by WIMCO Corp, as Contractor and Columbia Heritage, LLC, as Owner, dated September 15, 2015 recorded in Book 16156, Page 1744 aforesaid records. Note: no legal attached. (N/A)

s. Easements, rights of way, boundary lines and improvements as set forth in Plats recorded in Book of Maps 1999, Page 2330, Book of Maps 2003, Page 83Book of Maps 2015, Page 1906, Book of Maps 2015 Page 1907 and Book of Maps 2016 Page 1928 and Book of Maps 2016 Page 1929 aforesaid records. (AFFECTS TRACT 2 (EASEMENT))

t. Terms, conditions, rights of way, and easements pursuant to Complaint and Declaration of Taking (G.S. 136-104) as evidenced by Memorandum of Action showing Department of Transportation vs. Columbia Heritage, LLC, Branch Banking and Trust Company and Public North Carolina LP, dated May 23, 2016 recorded in Book 16404, Page 1862 as affected by Consent Judgment dated May 20, 2016, May 1, 2017 in Book 16768 Page 868 aforesaid records.(AFFECTS TRACT 2 (EASEMENT))

u. Terms and conditions of Utility Easement from Columbia Heritage, LLC to Public Service Company of North Carolina, Incorporated, dated March 24, 2016, recorded in Book 16555, Page 1992 and recorded in Book 16371 Page 1867 aforesaid records. (AFFECTS TRACT 2 (EASEMENT))

v. Right of Way Agreement to Public Service Company of North Carolina, Incorporated recorded in Book 9916, page 2789 aforesaid records. (UNABLE TO PLOT)

w. Rights of others in and to the continuous and uninterrupted flow of the waters bounding or crossing the Land and riparian and/or littoral rights incident to the Land, and as shown on Book of Maps 1999, Page 2330; and Book of Maps 2003, Page 83. (DRAINAGE ESM AFFECTS SITE AS PLOTTED)

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NOTICE: NC DENR SELF-INSPECTION PROGRAM

THE CONTRACTOR SHALL BE REQUIRED TO IMPLEMENT THE REQUIREMENTS OF NC DENR FOR THE WEEKLY SELF-MONITORING AND SELF-INSPECTION PROGRAMS. THE SELF-INSPECTION REQUIREMENT AT EACH PHASE IS A NEW REQUIREMENT IN ADDITION TO THE WEEKLY SELF-MONITORING REQUIREMENT.

EFFECTIVE OCTOBER 1, 2010, PERSONS CONDUCTING LAND DISTURBING ACTIVITIES LARGER THAN ONE ACRE MUST INSPECT THEIR PROJECT AFTER EACH PHASE OF THE PROJECT, AND DOCUMENT THE INSPECTION IN WRITING. NOT EVERY PROJECT WILL HAVE ALL THE POSSIBLE PHASES, BUT THE LIST OF PHASES INCLUDES THE FOLLOWING:

- INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROL MEASURES
- CLEARING AND GRUBBING OF EXISTING GROUND COVER
- COMPLETION OF ANY PHASE OF GRADING OF SLOPES OR FILLS
- INSTALLATION OF STORM DRAINAGE FACILITIES
- COMPLETION OF CONSTRUCTION OR DEVELOPMENT
- ESTABLISHMENT OF PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION

A SELF-INSPECTION REPORT FORM IS AVAILABLE ON THE DENR WEBSITE.

EROSION CONTROL/STORMWATER POLLUTION PREVENTION PLAN

THE EROSION CONTROL PLAN SHEET C1A, IN CONJUNCTION WITH THE GRADING AND DRAINAGE PLAN (IF APPLICABLE), AND THE REQUIREMENTS INDICATED FOR EROSION CONTROL ON APPLICABLE DETAIL SHEETS SHALL CONSTITUTE THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHALL INCLUDE THE FOLLOWING PLAN SHEETS:

SHEET C1A EROSION CONTROL PLAN
C3 GRADING, DRAINAGE AND EROSION CONTROL PLAN
C5A & C5B SEDIMENT & EROSION CONTROL DETAILS
C5C STORM DRAINAGE DETAILS

NOTE: SEE GRADING & DRAINAGE PLAN FOR ADDITIONAL EROSION CONTROL REQUIREMENTS AS THEY RELATE TO STORM DRAINAGE FACILITY INSTALLATION.

TOTAL DENUDED/CLEARED AREA = 1.40± ACRES
(L.O.D. - LIMITS OF LAND DISTURBANCE)

Ground Stabilization Requirements		
Site Area Description	Stabilization	Threshold Exceptions
Perimeter ditches, swales, ditches and slopes	7 days	None
High Quality Water (HQW) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10° or less in length and are not steeper than 3:1, 14 days are allowed.
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 30° in length.
All other areas with slopes flatter than 4:1	14 days	None, except for perimeters and HQW Zones.

The NC Construction General Permit (also known as "NCG01") was renewed on April 1, 2019. A NPDES Land Disturbance Permit must be obtained prior to beginning construction and performing any land disturbance activity. The NC DEQ permit is required in addition to the local jurisdiction have MSA review and approval responsibilities and authority. At the conclusion of construction and land disturbance activities, a Notice of Termination (NOT) shall also be submitted to NC DEQ to properly closeout the NPDES permit.

GENERAL DEMOLITION NOTES

WORK INCLUDED

- Demolish existing pavements, concrete curbs, concrete walks and other structures only to the extent necessary to complete the work as indicated on the Drawings.
- Building/Structure demolition shall include removal of all underground foundations and the disconnection and proper capping off of all existing underground utility connection in accordance with applicable codes.
- Remove materials and equipment from site.
- Do not disturb, and identify active utilities if encountered during excavation and site work.
- Reconstruct all pavements, driveways, sidewalks, curbing drainage facilities and other items damaged and/or removed during construction; match existing materials, workmanship and finishes unless indicated otherwise.

PROTECTION

- Do not interfere with use of adjacent buildings. Maintain free and safe passage to and from.
- Prevent movement or settlement of adjacent structures. Provide and place bracing or shoring and be responsible for safety and support of structures. Assume liability for such movement, settlement, damage, or injury.
- Cease operations and notify Engineer immediately if safety of adjacent structures appears to be endangered. Take precautions to properly support structures. Do not resume operations until safety is restored.
- Prevent movement, settlement or collapse of adjacent structures, sidewalks, driveways and trees. Assume liability for such movement, settlement or collapse. Promptly repair damage of no cost to Owner.
- Provide, erect and maintain street boardings, barricades, lighting, and guardrails as required to protect general public, workers, and adjoining property.

MAINTENANCE TRAFFIC

- Do not close or obstruct roadways without appropriate permits and/or written authorization/permission.
- Conduct operations with minimum interference to public or private roadways.

DEMOLITION

- Perform demolition in accordance with applicable authorities having jurisdiction.
- Repair demolition performed in excess of that required, at no cost to Owner.
- Backfill and compact areas excavated, open pits, abandoned below ground utility structures to remain, and holes caused as a result of demolition. Use additional fill material specified within the geotechnical report.
- Rough grade areas affected by demolition to finished subgrade as indicated.
- Remove demolished materials, tools and equipment upon completion of work. Leave site in condition acceptable to Engineer.

THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE DEMOLITION PERMITS AND DISPOSE OF ALL DEMOLITION MATERIALS IN ACCORDANCE WITH APPLICABLE REGULATIONS AT AN APPROVED/PERMITTED OFFSITE FACILITY OR LANDFILL.

NOTICE: EXISTING PAVEMENT REMOVAL

THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING ASPHALT/CONCRETE PAVEMENT AS SHOWN ON THIS DEMOLITION PLAN. EXISTING BASE MATERIAL SHALL REMAIN IN PLACE EXCEPT FOR REMOVAL REQUIRED IN THE PROPOSED PLANTING AND GRASSED AREAS. EXISTING BASE MATERIAL TO REMAIN SHALL BE PROOF ROLLED TO IDENTIFY ANY UNSTABLE SUB-SURFACE GEOTECHNICAL CONDITIONS PRIOR TO PLACING NEW FILL AND/OR BASE MATERIAL REQUIRED TO ESTABLISH FINISHED GRADES. IF UNSTABLE AREAS ARE DISCOVERED, THE CHICK-FIL-A PROJECT MANAGER SHALL BE ADVISED AND REMEDIAL ACTION TAKEN TO CORRECT SAME AS DIRECTED BY CHICK-FIL-A AND GEOTECHNICAL ENGINEER.

NOTICE: MAINTAINING UTILITY SERVICE

THE CONTRACTOR SHALL PERFORM ALL DEMOLITION WORK AND NEW CONSTRUCTION IN A MANNER THAT WILL NOT INTERRUPT EXISTING SERVICE WITHOUT PRIOR COORDINATION AND APPROVAL. SERVICE "DOWNTIME" SHALL BE KEPT TO THE ABSOLUTE MINIMUM. SEE SITE UTILITY PLAN.

EROSION CONTROL - GENERAL CONSTRUCTION REQUIREMENTS

THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE CONTROLS AND MEASURES AS FOLLOWS:

- PREVENT LITTER AND CLEANUP AND PROPERLY DISPOSE OF ALL CONSTRUCTION DEBRIS.
- PROVIDE A CONTAINMENT AREA FOR CONCRETE WASHOUT.
- PROVIDE A CONTAINMENT AREA FOR THE STORAGE OF ALL FUEL, HYDRAULIC FLUIDS, PETROLEUM PRODUCTS AND OTHER CHEMICALS TO PREVENT SPILLS AND TO CONTAIN SPILLS SHOULD THEY OCCUR.
- PROPERLY STORE ALL BUILDING MATERIALS, TO INCLUDE COVERING APPLICABLE BUILDING MATERIALS THAT COULD NEGATIVELY IMPACT STORMWATER RUNOFF QUALITY.
- IMPLEMENT MEASURES THAT WILL PREVENT POLLUTANT SOURCES FROM STORMWATER DISCHARGES LEAVING THE SITE.
- IMPLEMENT APPROPRIATE DUST FILE MANAGEMENT PROCEDURES FOR ALL STORED MATERIALS AND CONSTRUCTION DEBRIS.

CONCRETE TRUCK WASHDOWN AREA (REQUIRED)

IT IS DISCOURAGED TO USE A CONCRETE TRUCK WASHDOWN AREA ON THE SITE, BUT IF ONE IS USED, THE FOLLOWING GUIDANCE SHALL BE IMPLEMENTED:

- DO NOT DISPOSE OF TRUCK WASHDOWN WATER BY DUMPING INTO A SANITARY SEWER, STORM DRAIN OF UNTO SOIL OR PAVEMENT THAT CARRIES STORMWATER RUNOFF.
- THE WASHOUT SHALL BE DISPOSED OF IN THE DESIGNATED "SLURRY" PIT AREA WHERE THE WATER CAN EVAPORATE AND THE CONCRETE WASH RESIDUAL HARDEN, BE BROKEN UP, AND REMOVED.
- THE LOCATION SHALL NOT BE ANY CLOSER THAN 50 FEET FROM A STORM DRAINAGE STRUCTURE, PIPE, OPEN DITCH, OR RECEIVING WATER BODY.
- PUMP EXCESS CONCRETE IN CONCRETE PUMP BINS (IF USED) BACK INTO THE CONCRETE PUMPER TRUCKS AND DISCHARGE INTO DESIGNATED WASHOUT AREA OF PROPERLY DISPOSED OFFSITE.
- CONCRETE WASHOUT FROM CONCRETE PUMPER BINS CAN BE WASHED INTO CONCRETE PUMPER TRUCKS AND DISCHARGED INTO DESIGNATED WASHOUT AREA OR PROPERLY DISPOSED OFFSITE.

NOTICE: INSTALL NEW DRAINAGE FACILITIES DURING INITIAL PHASE IN CONJUNCTION WITH RETAINING WALL CONSTRUCTION TO INTERCEPT PARCEL DRAINAGE

THE SCOPE OF WORK FOR THIS PROJECT REQUIRES INSTALLATION OF DRAINAGE FACILITIES WITHIN THE PARCEL AS SHOWN ON THIS PLAN AND THE GRADING AND DRAINAGE PLAN. DURING INITIAL PHASE OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL THESE DRAINAGE FACILITIES TO PROVIDE MEANS OF INTERCEPTING STORMWATER RUNOFF FROM THE CHICK-FIL-A PARCEL AND FOR TEMPORARY EROSION CONTROL AND FOR PERMANENT DRAINAGE FACILITIES. A TEMPORARY DIVERSION DITCH MUST ALSO BE INSTALLED AND MAINTAINED ALONG THE TOP LEVEL ADJACENT TO THE RETAINING WALL UNTIL CURB AND GUTTER ARE INSTALLED. THE WORK MUST BE PERFORMED IN A MANNER THAT WILL DIRECT RUNOFF FROM THE DIVERSION DITCH INTO THE TEMPORARY SEDIMENT TRAP AT THE PROPOSED DROP INLET AS SHOWN ON THIS DRAWING. GRAVEL SEDIMENT TRAP SHALL REMAIN IN PLACE UNTIL THE PARKING LOT IS PAVED. THE SEDIMENT TRAP SHALL BE MAINTAINED REGULARLY AND SHALL BE INSTALLED SO THAT SEDIMENT WILL NOT ENTER THE STORM DRAINAGE SYSTEM. CONTRACTOR WILL BE RESPONSIBLE TO REMOVE ALL SEDIMENT THAT LEAVES THE SITE.

EROSION CONTROL NOTES & DETAIL KEYS

- E1** BLOCK OR HARDWARE CLOTH AND GRAVEL INLET PROTECTION
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.52 & 6.51) (D52A) (D52B) (CSA) (CSA)
- E1A** INLET PROTECTION SYMBOL
- USE THIS DETAIL FOR STANDARD DROP INLETS AND CURB INLET STRUCTURES BEFORE INLET GRATE IS INSTALLED.
- E1A** ADS FLEX-STORM INLET PROTECTION
ADS FLEX-STORM INLET CONTROL MEASURES FOR EXISTING DROP INLETS (D57) (CSB)
- INSTALL ADS FLEX-STORM INLET PROTECTION MEASURES (OR APPROVED EQUAL) WITH FILTER BAG AT THE EXISTING DRAINAGE STRUCTURE. IN NO CASE SHALL THE PROTECTIVE MEASURE PREVENT OR BLOCK THE FLOW OF STORMWATER INTO THE DRAINAGE SYSTEM WHICH MAY CAUSE PARKING LOT FLOODING. DEVICE SHALL BE MAINTAINED REGULARLY TO INSURE IT IS NOT BLOCKED AND IS CLEANED OUT. DEVICE SHALL ALSO BE INSPECTED BEFORE AND AFTER EACH RAINFALL EVENT.
- E2** SILT FENCE DETAIL
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.62) (D50) (CSA)
- E3** STABILIZED CONSTRUCTION ENTRANCE
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.06) (D51) (CSA)
- E4** SILT FENCE STONE OUTLET DETAIL
(SEE EROSION CONTROL PLAN) (D53) (CSA)
- E5** TEMPORARY EROSION & SEDIMENT CONTROL FOR PARTIALLY INSTALLED STORM DRAINAGE CONDUIT. (D54) (CSB)
- E6** TEMPORARY (DIVERSION) DITCH
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.20) (SEE EROSION CONTROL PLAN) (D55) (CSB)
- E7** TEMPORARY ROCK CHECK DAM
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.83) (SEE EROSION CONTROL PLAN) (D56) (CSB)
- E8** TEMPORARY SEEDING SCHEDULE FOR EROSION CONTROL
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.10) (D58) (CSB)
- E9** SEDIMENT TUBES - (GUTTER EEL BY ACT) OR EQUIVALENT FOR APPLICATIONS: PAVEMENT SURFACES, INSTALL APPLICABLE PRODUCT WITH WEIGHTS (INSTEAD OF STAKES) TO KEEP THE TUBES SECURE. (D59) (CSB)
- E10** TEMPORARY CONCRETE WASHOUT (TOWN OF WAKE FOREST DETAIL #9.76) (SEE EROSION CONTROL PLAN) (D58) (CSB)
- E11** TEMPORARY SLOPE DRAINS
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.32) (SEE EROSION CONTROL PLAN) (D59) (CSB)
- E12** ROCK DOUGHNUT INLET PROTECTION
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.54) (D64) (CSB)

NOTICE: SEDIMENT AND EROSION CONTROL PROCEDURES

- DURING CLEARING AND EARTHWORK ACTIVITIES THE CONTRACTOR SHALL INSTALL EROSION CONTROL DEVICES SPECIFIED AND AS INDICATED ON THE DRAWINGS. DURING EACH PHASE OF SITE CONSTRUCTION THE CONTRACTOR SHALL ADJUST, RELOCATE AND/OR REINSTALL AS APPLICABLE ALL EROSION CONTROL DEVICES AND MEASURES NECESSARY TO PREVENT SOIL EROSION AND SEDIMENT DISCHARGE FROM THE SITE.
- THE CONTRACTOR SHALL INSTALL TEMPORARY GRAVEL DRIVEWAY AT EACH CONSTRUCTION POINT OF ACCESS TO LIMIT DEPOSITS OF EARTH AND OTHER HAULED MATERIALS ONTO THE ADJACENT STREETS OR PARKING LOTS. THE CONTRACTOR SHALL ROUTINELY CLEAN ALL SEDIMENT DEPOSITS AND DEBRIS FROM ADJACENT ROADWAYS AS THEY OCCUR.
- STANDARD INLET PROTECTION AS DETAILED SHALL BE INSTALLED AT ALL DRAINAGE STRUCTURES TO PREVENT SEDIMENT ENTRY INTO NEW STRUCTURES AND CONDUITS. ALL SEDIMENT SHALL BE CLEANED OUT OF STRUCTURES AND CONDUITS. REGULARLY, INLET PROTECTION SHALL REMAIN UNTIL ASPHALT PAVEMENT IS INSTALLED. TEMPORARY REMOVAL TO INSTALL AGGREGATE BASE SHALL BE ALLOWED PROVIDED THE INLET PROTECTION IS REINSTALLED UNTIL PAVING OCCURS.
- SILT FENCE SHALL BE MAINTAINED AROUND THE PERIMETER OF ALL EARTHWORK AREAS TO PREVENT SEDIMENT TRANSPORT ONTO ADJACENT PROPERTIES, AS APPLICABLE.
- INLET PROTECTION AND SILT FENCE FILTER BARRIERS SHALL BE INSTALLED AND MAINTAINED AT EACH DRAINAGE STRUCTURE UNTIL CONSTRUCTION IS COMPLETE AND LANDSCAPING IS INSTALLED.
- THE CONTRACTOR SHALL IMMEDIATELY CLEANUP AND REPAIR ALL EROSION DAMAGE AFTER DISCOVERY AND REINSTATE ADEQUATE CONTROL MEASURES AS NECESSARY PREVENT REOCCURRENCE OF DAMAGE.
- ALL SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND AFTER ANY STORM EVENT OF PRECIPITATION DURING ANY 24-HOUR PERIOD. ALL SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED.
- STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

NOTICE: EROSION CONTROL CONSTRUCTION SEQUENCE

THE CONTRACTOR SHALL FOLLOW THE CONSTRUCTION SEQUENCE LISTED BELOW THROUGHOUT CONSTRUCTION.

- OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE TOWN OF WAKE FOREST.
- SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH EROSION CONTROL INSPECTOR. CONTACT PERSON: SCOTT MILES @ 919-435-9442.
- INSTALL GRAVEL CONSTRUCTION ENTRANCE, SILT FENCE, AND APPLICABLE INLET PROTECTION, SEDIMENT TRAPS, DIVERSION DITCHES, TREE PROTECTION, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES.
- CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
- THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
- FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.
- STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE. STABILIZE THE SITE AS AREAS ARE BROUGHT UP TO FINISHED GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC., AS APPLICABLE. AREAS MUST BE STABILIZED WITHIN 14 CALENDAR DAYS OF BEING BROUGHT TO FINISHED GRADE. FOR SLOPES GREATER THAN 3:1, STABILIZATION MEASURES MUST BE INSTALLED WITHIN (7) DAYS OF COMPLETION OF GRADING AND CONSTRUCTION ACTIVITY IN THIS SPECIFIC AREA. SEE NC DENR STABILIZATION TIME FRAMES.
- COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES. IF THE SITE IS APPROVED, REMOVE ANY REMAINING TEMPORARY MEASURES, SILT FENCE, SEDIMENT BASINS, ETC., AND APPLY GRASSING AND LANDSCAPING AND STABILIZE ANY REMAINING BARE AREAS.
- ALL SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND AFTER ANY STORM EVENT OF PRECIPITATION DURING ANY 24-HOUR PERIOD. ALL SEDIMENT CONTROL DEVICES AND MEASURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N. C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U. S. DEPT. OF AGRICULTURE AND THE CITY/COUNTY EROSION CONTROL ORDINANCE.



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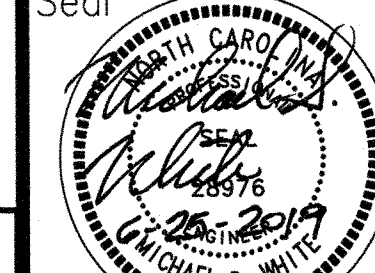
5200 Buffington Rd.
Atlanta Georgia,
30349-2998
PH 404-765-8000
FAX 404-684-8550

Revisions:

Mark Date By

Mark Date By

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G. ROBERT GEORGE AND ASSOCIATES, INC.
CONSULTING ENGINEERS, PLANNERS
AND LAND SURVEYORS
P.O. BOX 32150
CHARLESTON, SOUTH CAROLINA 29417-2150
email: ggeorge@contact.net
(843) 505-4281



STORE
SERIES P12 LS LRG
FSU 04239

1010 FORESTVILLE ROAD
WAKE FOREST, NC 27587

SHEET TITLE

DEMOLITION AND
EROSION CONTROL
PLAN (PHASE 1)
DWG EDITION 03.1

□ Preliminary
□ 80% Submittal
□ For Construction

Job No. : 2036

Store : 04239

Date : 6-25-2019

Drawn By : MSW

Checked By: MSW

Sheet

C-1A

CSG# 2036-DESIGN.DWG

NOTICE: NC DENR SELF-INSPECTION PROGRAM

THE CONTRACTOR SHALL BE REQUIRED TO IMPLEMENT THE REQUIREMENTS OF NC DENR FOR THE WEEKLY SELF-MONITORING AND SELF-INSPECTION PROGRAMS. THE SELF-INSPECTION REQUIREMENT AT EACH PHASE IS A NEW REQUIREMENT IN ADDITION TO THE WEEKLY SELF-MONITORING REQUIREMENT.

EFFECTIVE OCTOBER 1, 2010, PERSONS CONDUCTING LAND DISTURBING ACTIVITIES LARGER THAN ONE ACRE MUST INSPECT THEIR PROJECT AFTER EACH PHASE OF THE PROJECT, AND DOCUMENT THE INSPECTION IN WRITING. NOT EVERY PROJECT WILL HAVE ALL THE POSSIBLE PHASES, BUT THE LIST OF PHASES INCLUDES THE FOLLOWING:

- INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROL MEASURES
- CLEARING AND GRUBBING OF EXISTING GROUND COVER
- COMPLETION OF ANY PHASE OF GRADING OF SLOPES OR FILLS
- INSTALLATION OF STORM DRAINAGE FACILITIES
- COMPLETION OF CONSTRUCTION OR DEVELOPMENT
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EROSION CONTROL/STORMWATER POLLUTION PREVENTION PLAN

THE EROSION CONTROL PLAN SHEET C1A, IN CONJUNCTION WITH THE GRADING AND DRAINAGE PLAN (IF APPLICABLE), AND THE REQUIREMENTS INDICATED FOR EROSION CONTROL ON APPLICABLE DETAIL SHEETS SHALL CONSTITUTE THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHALL INCLUDE THE FOLLOWING PLAN SHEETS:

SHEET	TITLE
C1A	EROSION CONTROL PLAN
C3	GRADING, DRAINAGE AND EROSION CONTROL PLAN
CSA & CSB	SEDIMENT & EROSION CONTROL DETAILS
CSC	STORM DRAINAGE DETAILS

NOTE: SEE GRADING & DRAINAGE PLAN FOR ADDITIONAL EROSION CONTROL REQUIREMENTS AS THEY RELATE TO STORM DRAINAGE FACILITY INSTALLATION.

TOTAL DENUDED/CLEARED AREA = 1.40± ACRES
(L.O.D. - LIMITS OF LAND DISTURBANCE)

Ground Stabilization Requirements		
Site Area Description	Stabilization	Timeframe Exceptions
Perimeter ditches, swales, ditches and slopes	7 days	None
High Quality Water (H2O) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 10° or less in length and are not exposed due to 2:1, 3:1 slope are allowed.
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50° in length.
All other areas with slopes flatter than 4:1	14 days	None, except for perimeter and H2O Zones.

The NC Construction General Permit (also known as "NCG01") was renewed on April 1, 2019. A NPDES Land Disturbance Permit must be obtained prior to beginning construction and performing any land disturbance activity. The NC DEP permit is required in addition to the local jurisdiction have MSA review and approval responsibilities and authority. At the conclusion of construction and land disturbance activities, a Notice of Termination (NOT) shall also be submitted to NC DEP to properly closeout the NPDES permit.

GENERAL DEMOLITION NOTES

WORK INCLUDED

- Demolish existing pavements, concrete curbs, concrete walks and any other structures only to the extent necessary to complete the work as indicated on the Drawings.
- Building/structure demolition shall include removal of all underground foundations and the disconnection and proper capping off of all existing underground utility connection in accordance with applicable codes.
- Remove materials and equipment from site.
- Protect, do not disturb, and identify active utilities if encountered during excavation and site work.
- Reconstruct all pavements, driveways, sidewalks, curbing drainage facilities and other items damaged and/or removed during construction; match existing materials, workmanship and finishes unless indicated otherwise.

PROTECTION

- Do not interfere with use of adjacent buildings. Maintain free and safe passage to and from.
- Prevent movement or settlement of adjacent structures. Provide and place bracing or shoring and be responsible for safety and support of structures. Assume liability for such movement, settlement, damage, or injury.
- Cease operations and notify Engineer immediately if safety of adjacent structures appears to be endangered. Take precautions to properly support structures. Do not resume operations until safety is restored.
- Prevent movement, settlement or collapse of adjacent services, sidewalks, driveways and trees. Assume liability for such movement, settlement or collapse. Promptly repair damage at no cost to Owner.
- Provide, erect and maintain street boardings, barricades, lighting, and guardrails as required to protect general public, workers, and adjoining property.
- Do not close or obstruct roadways without appropriate permits and/or written authorization/permission.
- Conduct operations with minimum interference to public or private roadways.

DEMOLITION

- Perform demolition in accordance with applicable authorities having jurisdiction.
- Repair demolition performed in excess of that required, at no cost to Owner.
- Backfill and compact areas excavated, open pits, abandoned below ground utility structures to remain, and holes caused as a result of demolition. Use additional fill material specified within the geotechnical report.
- Rough grade areas affected by demolition to finished subgrade as indicated.
- Remove demolished materials, tools and equipment upon completion of work. Leave site in condition acceptable to Engineer.

THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE DEMOLITION PERMITS AND DISPOSE OF ALL DEMOLITION MATERIALS IN ACCORDANCE WITH APPLICABLE REGULATIONS AT AN APPROVED/PERMITTED OFF-SITE FACILITY OR LANDFILL.

NOTICE: EXISTING PAVEMENT REMOVAL

THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING ASPHALT/CONCRETE PAVEMENT AS SHOWN ON THIS DEMOLITION PLAN. EXISTING BASE MATERIAL SHALL REMAIN IN PLACE EXCEPT FOR REMOVAL REQUIRED IN THE PROPOSED PLANTING AND GRASSED AREAS. EXISTING BASE MATERIAL TO REMAIN SHALL BE PROOF ROLLED TO IDENTIFY ANY UNSTABLE SUB-SURFACE GEOTECHNICAL CONDITIONS PRIOR TO PLACING NEW FILL AND/OR BASE MATERIAL REQUIRED TO ESTABLISH FINISHED GRADES. IF UNSTABLE AREAS ARE DISCOVERED, THE CHECK-FIL-A PROJECT MANAGER SHALL BE ADVISED AND REMEDIAL ACTION TAKEN TO CORRECT SAME AS DIRECTED BY CHECK-FIL-A AND GEOTECHNICAL ENGINEER.

NOTICE: MAINTAINING UTILITY SERVICE

THE CONTRACTOR SHALL PERFORM ALL DEMOLITION WORK AND NEW CONSTRUCTION IN A MANNER THAT WILL NOT INTERRUPT EXISTING SERVICE WITHOUT PRIOR COORDINATION AND APPROVAL. "SERVICE DOWNTIME" SHALL BE KEPT TO THE ABSOLUTE MINIMUM. SEE SITE UTILITY PLAN.

EROSION CONTROL - GENERAL CONSTRUCTION REQUIREMENTS

THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE CONTROLS AND MEASURES AS FOLLOWS:

- PREVENT LITTER AND CLEANUP AND PROPERLY DISPOSE OF ALL CONSTRUCTION DEBRIS.
- PROVIDE A CONTAINMENT AREA FOR CONCRETE WASHOUT.
- PROVIDE A CONTAINMENT AREA FOR THE STORAGE OF ALL FUEL, HYDRAULIC FLUIDS, PETROLEUM PRODUCTS AND OTHER CHEMICALS TO PREVENT SPILLS AND TO CONTAIN SPILLS SHOULD THEY OCCUR.
- PROPERLY STORE ALL BUILDING MATERIALS, TO INCLUDE COVERING APPLICABLE BUILDING MATERIALS THAT COULD NEGATIVELY IMPACT STORMWATER RUNOFF QUALITY.
- IMPLEMENT MEASURES THAT WILL PREVENT POLLUTANT SOURCES FROM STORMWATER DISCHARGES LEAVING THE SITE.
- IMPLEMENT APPROPRIATE DUST CONTROL MEASURES AS NECESSARY.
- IMPLEMENT APPROPRIATE STOCK PILE MANAGEMENT PROCEDURES FOR ALL STORED MATERIALS AND CONSTRUCTION DEBRIS.

CONCRETE TRUCK WASHDOWN AREA (REQUIRED)

IT IS DISCOURAGED TO USE A CONCRETE TRUCK WASHDOWN AREA ON THE SITE, BUT IF ONE IS USED, THE FOLLOWING GUIDANCE SHOULD BE IMPLEMENTED:

- DO NOT DISPOSE OF TRUCK WASHDOWN WATER BY DUMPING INTO A SANITARY SEWER, STORM DRAIN OF UNTO SOIL OR PAVEMENT THAT CARRIES STORMWATER RUNOFF.
- THE WASHOUT SHALL BE DISPOSED OF IN THE DESIGNATED "SLURRY" PIT AREA WHERE THE WATER CAN EVAPORATE AND THE CONCRETE WASH RESIDUAL HARDEN, BE BROKEN UP, AND REMOVED.
- THE LOCATION SHALL NOT BE ANY CLOSER THAN 50 FEET FROM A STORM DRAINAGE STRUCTURE, PIPE, OPEN DITCH, OR RECEIVING WATER BODY.
- PUMP EXCESS CONCRETE IN CONCRETE PUMP BINS (IF USED) BACK INTO THE CONCRETE PUMPER TRUCKS AND DISCHARGE INTO DESIGNATED WASHOUT AREA OF PROPERLY DISPOSED OF.
- CONCRETE WASHOUT FROM CONCRETE PUMPER BINS CAN BE WASHED INTO CONCRETE PUMPER TRUCKS AND DISCHARGED INTO DESIGNATED WASHOUT AREA OR PROPERLY DISPOSED OFF-SITE.

NOTICE: INSTALL NEW DRAINAGE FACILITIES (DURING INITIAL PHASE) IN CONJUNCTION WITH RETAINING WALL CONSTRUCTION

THE SCOPE OF WORK FOR THIS PROJECT REQUIRES INSTALLATION OF DRAINAGE FACILITIES WITHIN THE PARCEL AS SHOWN ON THIS PLAN AND THE GRADING AND DRAINAGE PLAN. DURING INITIAL PHASE OF CONSTRUCTION, THE CONTRACTOR SHALL INSTALL THESE DRAINAGE FACILITIES TO PROVIDE MEANS OF INTERCEPTING STORMWATER RUNOFF FROM THE CHECK-FIL-A PARCEL AND FOR TEMPORARY EROSION CONTROL AND FOR PERMANENT DRAINAGE FACILITIES. A TEMPORARY DIVERSION DITCH MUST ALSO BE INSTALLED AND MAINTAINED ALONG THE TOP ADJACENT TO THE RETAINING WALL UNTIL CURB AND GUTTER ARE INSTALLED. THE WORK MUST BE PERFORMED IN A MANNER THAT WILL DIRECT RUNOFF FROM THE DIVERSION DITCH INTO THE TEMPORARY SEDIMENT TRAP AT THE PROPOSED DROP INLET AS SHOWN ON THIS DRAWING. GRAVEL SEDIMENT TRAP SHALL REMAIN IN PLACE UNTIL THE PARKING LOT IS PAVED. THE SEDIMENT TRAP SHALL BE MAINTAINED REGULARLY AND SHALL BE INSTALLED SO THAT SEDIMENT WILL NOT ENTER THE STORM DRAINAGE SYSTEM. CONTRACTOR WILL BE RESPONSIBLE TO REMOVE ALL SEDIMENT THAT LEAVES THE SITE.

EROSION CONTROL

INSTALL TEMPORARY STONE SILT PROTECTION AT THE NEW DRAINAGE STRUCTURE TO INTERCEPT STORMWATER RUNOFF. SITE IS TO BE CLEARED AND GRUBBED. NEW DRAINAGE STRUCTURES ARE TO BE INSTALLED AND EACH SUB-WASHDOWN AREA IS TO BE GRADED. EACH NEW CATCH BASIN WITH APPLICABLE INLET PROTECTION MEASURES AND THE BASE AND FIRST COURSE OF PAVING ARE TO BE INSTALLED. ADJUST OR REPAIR AS NECESSARY. THE NEW DRAINAGE FACILITIES EXTEND INTO THE SITE.

PROPOSED RETAINING WALL

RETAINING WALL NEEDS TO BE INSTALLED EARLY DURING THE INITIAL PHASE OF THE CONSTRUCTION SCHEDULE TO ALLOW FOR ROUGH GRADING AND FILLING OF THE OUTPARCEL TO ESTABLISH THE SITE AND BUILDING PAD ELEVATION AND GRADES AND TO ALLOW FOR INSTALLATION OF APPLICABLE EROSION CONTROL MEASURES ON THE SITE RUNNING ALONG THE TOP SIDE OF THE RETAINING WALL.

EROSION CONTROL

INSTALL SILT FENCE STONE OUTLET AT A LOCATION APPROPRIATE TO TOPOGRAPHIC GRADING. ADJUST AS NECESSARY. GRADE AT THE END OF CONSTRUCTION AND REPAIR ALL EROSION AND REPAIR AS NECESSARY.

EROSION CONTROL PHASE 2

INSTALL TEMPORARY DIVERSION DITCH AND BERM TO INTERCEPT RUNOFF. ALSO INSTALL TEMPORARY GRAVEL CHECK DAMS. ADJUST THE LOCATION AND MEASURES AS NECESSARY TO ACCOMMODATE GRADING REQUIREMENTS AND NEW STORMWATER CONSTRUCTION. REMOVE DIVERSION DITCH AND DAMS AFTER CURB & GUTTER AND NEW DRAINAGE FACILITIES ARE INSTALLED.

EROSION CONTROL

INSTALL STANDARD EROSION CONTROL SILT FENCE, SILT FENCE REPRESENTS THE GENERAL LIMITS OF LAND DISTURBANCE.

EROSION CONTROL

ALL SLOPES THAT EXCEED 3:1 SHALL BE COVERED WITH EROSION CONTROL MATING WITHIN 7 DAYS AFTER FINISHED GRADING IS COMPLETE.

EROSION CONTROL

USE THIS AREA FOR THE TEMPORARY STORAGE OF TOP SOIL. AT THE APPROPRIATE TIME, EITHER USE THE TOP SOIL ON SITE WITHIN PLANTING BEDS AND LANDSCAPE ISLANDS PER THE REQUIREMENTS OF THE PERMANENT LANDSCAPE PLAN, OR DISCARD EXCESS TOP SOIL IN AN APPROVED MANNER OFF-SITE. RELOCATE AS NECESSARY. INSTALL SEPARATE SILT FENCE AROUND THE SOIL PILE AS NECESSARY.

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST.

ENGINEER'S DEPARTMENT	DATE
7/13/19	
PUBLIC WORKS DEPARTMENT	DATE
7/13/19	
EROSION & SEDIMENTATION CONTROL	DATE
7/13/19	
ACCESSORY	DATE
6/21/19	
PLANNING DEPARTMENT	DATE
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE
URBAN FORESTER	DATE

EROSION CONTROL NOTES & DETAIL KEYS

- E1** BLOCK OR HARDWARE CLOTH AND GRAVEL INLET PROTECTION NO-DENR STANDARD EROSION CONTROL DETAIL (#6.52 & 6.51) (D52A) (D52B) (CSA) (CSB)
- E1A** INLET PROTECTION SYMBOL
- E1A** ADS FLEX-STORM INLET PROTECTION NO-DENR STANDARD EROSION CONTROL MEASURES FOR EXISTING DROP INLETS (D57) (CSB)
- INSTALL ADS FLEX-STORM INLET PROTECTION MEASURES (OR APPROVED EQUAL) WITH FILTER BAG AT THE EXISTING DRAINAGE STRUCTURE. IN NO CASE SHALL THE PROTECTIVE MEASURE PREVENT OR BLOCK THE FLOW OF STORMWATER INTO THE DRAINAGE SYSTEM WHICH MAY CAUSE PARKING LOT FLOODING. DEVICE SHALL BE MAINTAINED REGULARLY TO INSURE IT IS NOT BLOCKED AND IS CLEANED OUT. DEVICE SHALL ALSO BE INSPECTED BEFORE AND AFTER EACH RAINFALL EVENT.
- E2** SILT FENCE DETAIL NO-DENR STANDARD EROSION CONTROL DETAIL (#6.62) (D50) (CSA)
- E3** STABILIZED CONSTRUCTION ENTRANCE NO-DENR STANDARD EROSION CONTROL DETAIL (#6.06) (D51) (CSA)
- E4** SILT FENCE STONE OUTLET DETAIL (SEE EROSION CONTROL PLAN) (D53) (CSA)
- E5** TEMPORARY EROSION & SEDIMENT CONTROL FOR PARTIALLY INSTALLED STORM DRAINAGE CONDUIT. (D54) (CSB)
- E6** TEMPORARY (OVERFLOW) DITCH NO-DENR STANDARD EROSION CONTROL DETAIL (#6.20) (D55) (CSB)
- E7** TEMPORARY ROCK CHECK DAM NO-DENR STANDARD EROSION CONTROL DETAIL (#6.83) (D56) (CSB)
- E8** TEMPORARY SEEDING SCHEDULE FOR EROSION CONTROL NO-DENR STANDARD EROSION CONTROL DETAIL (#6.10) (D58) (CSB)
- E9** SEDIMENT TUBES - (GUTTER EEL BY ACI) OR EQUIVALENT FOR APPLICATIONS ON PAVEMENT SURFACES. INSTALL APPLICABLE PROTECTIVE MEASURES WITH WEIGHTS (INSTEAD OF STAKES) TO KEEP THE TUBES SECURE. (D59) (CSB)
- E10** TEMPORARY CONCRETE WASHOUT (TOWN OF WAKE FOREST DETAIL #9.76) (SEE EROSION CONTROL PLAN) (D64) (CSB)
- E11** TEMPORARY SLOPE DRAINS NO-DENR STANDARD EROSION CONTROL DETAIL (#6.32) (D59) (CSB)
- E12** ROCK DOUGHNUT INLET PROTECTION NO-DENR STANDARD EROSION CONTROL DETAIL (#6.54) (D64) (CSB)

NOTICE: SEDIMENT AND EROSION CONTROL PROCEDURES

- DURING CLEARING AND EARTHWORK ACTIVITIES THE CONTRACTOR SHALL INSTALL AN EROSION CONTROL DEVICES SPECIFIED AND AS INDICATED ON THE DRAWINGS. DURING EACH PHASE OF SITE CONSTRUCTION THE CONTRACTOR SHALL ADJUST, RELOCATE AND/OR REINSTALL AS APPLICABLE ALL EROSION CONTROL DEVICES AND MEASURES NECESSARY TO PREVENT SOIL EROSION AND SEDIMENT DISCHARGE FROM THE SITE.
- THE CONTRACTOR SHALL INSTALL TEMPORARY GRAVEL DRIVEWAY AT EACH CONSTRUCTION POINT OF ACCESS TO LIMIT DEPOSITS OF EARTH AND OTHER HAULED MATERIALS ONTO THE ADJACENT STREETS OR PARKING LOTS. THE CONTRACTOR SHALL ROUTINELY CLEAN ALL SEDIMENT DEPOSITS AND DEBRIS FROM ADJACENT ROADWAYS AS THEY OCCUR.
- STANDARD INLET PROTECTION AS DETAILLED SHALL BE INSTALLED AT ALL DRAINAGE STRUCTURES TO PREVENT SEDIMENT ENTRY INTO NEW STRUCTURES AND CONDUITS. ALL SEDIMENT SHALL BE CLEANED OUT OF STRUCTURES AND CONDUITS REGULARLY. INLET PROTECTION SHALL REMAIN UNTIL ASPHALT PAVEMENT IS INSTALLED. TEMPORARY REMOVAL TO INSTALL AGGREGATE BASE SHALL BE ALLOWED PROVIDED THE INLET PROTECTION IS REINSTALLED UNTIL PAVING OCCURS.
- SILT FENCE SHALL BE MAINTAINED ALONG THE PERIMETER OF ALL EARTHWORK AREAS TO PREVENT SEDIMENT TRANSPORT ONTO ADJACENT PROPERTIES, AS APPLICABLE.
- INLET PROTECTION AND SILT FENCE FILTER BARRIERS SHALL BE INSTALLED AND MAINTAINED AT EACH DRAINAGE STRUCTURE UNTIL CONSTRUCTION IS COMPLETE AND LANDSCAPING IS INSTALLED.
- THE CONTRACTOR SHALL IMMEDIATELY CLEANUP AND REPAIR ALL EROSION DAMAGE AFTER DISCOVERY AND REINSTALL ADEQUATE CONTROL MEASURES AS NECESSARY TO PREVENT REOCCURRENCE OF DAMAGE.
- ALL SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND AFTER ANY STORM EVENT OF PRECIPITATION EXCEEDING ANY 24-HOUR PERIOD. ALL SEDIMENT CONTROL DEVICES AND MEASURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED.
- STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

NOTICE: EROSION CONTROL CONSTRUCTION SEQUENCE

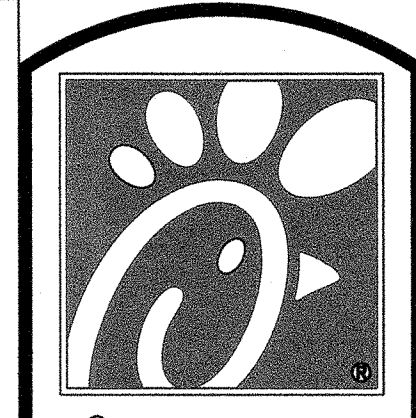
THE CONTRACTOR SHALL FOLLOW THE CONSTRUCTION SEQUENCE LISTED BELOW THROUGHOUT CONSTRUCTION.

- OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE TOWN OF WAKE FOREST.
- SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH EROSION CONTROL INSPECTOR. CONTACT PERSON: SCOTT MILES @ 919-435-9442.
- INSTALL GRAVEL CONSTRUCTION ENTRANCE, SILT FENCE, AND APPLICABLE INLET PROTECTION, SEDIMENT TRAPS, DIVERSION DITCHES, TREE PROTECTION, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES.
- CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
- INSTALL STORMWATER FACILITIES AND DRAINAGE STRUCTURES WITH "INLET PROTECTION" AT ALL DRAINAGE STRUCTURES AS THEY ARE INSTALLED. PROTECT WITH SEDIMENT CONTROL MEASURES AT EACH STRUCTURE IN CONJUNCTION WITH OTHER APPROVED MEASURES AS SHOWN ON THE PLAN (I.E. TEMPORARY DIVERSIONS, CHECK DAMS, SLOPE DRAINS, ETC., IF APPLICABLE).
- THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
- FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.
- STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE. STABILIZE THE SITE AS AREAS ARE BROUGHT UP TO FINISHED GRADE WITH VEGETATION, PLANTING, DITCH LININGS ETC., AS APPLICABLE. AREAS MUST BE STABILIZED WITHIN 14 CALENDAR DAYS OF REACHING FINISHED GRADE. FOR SLOPES GREATER THAN 3:1, STABILIZATION MEASURES MUST BE INSTALLED WITHIN (7) DAYS OF COMPLETION OF GRADING AND CONSTRUCTION ACTIVITY IN THIS SPECIFIC AREA. SEE NC DENR STABILIZATION TIME FRAMES.
- COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES. IF THE SITE IS APPROVED, REMOVE ANY REMAINING TEMPORARY MEASURES, SILT FENCE, SEDIMENT BASINS, ETC., AND APPLY GRASSING AND LANDSCAPING AND STABILIZE ANY REMAINING BARE AREAS.
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Revisions:

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EFFECTIVE OCTOBER 1, 2010, PERSONS CONDUCTING LAND DISTURBING ACTIVITIES LARGER THAN ONE ACRES MUST INSPECT THEIR PROJECT AFTER EACH PHASE OF THE PROJECT, AND DOCUMENT THE INSPECTION IN WRITING. NOT EVERY PROJECT WILL HAVE ALL THE POSSIBLE PHASES, BUT THE LIST OF PHASES INCLUDES THE FOLLOWING:

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- CLEARING AND GRUBBING OF EXISTING GROUND COVER
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C5C	STORM DRAINAGE DETAILS

NOTE: SEE GRADING & DRAINAGE PLAN FOR ADDITIONAL EROSION CONTROL REQUIREMENTS AS THEY RELATE TO STORM DRAINAGE FACILITY INSTALLATION.

TOTAL DENUDED/CLEARED AREA = 1.40± ACRES
(L.O.D. - LIMITS OF LAND DISTURBANCE)

Ground Stabilization Requirements		
Site Area Description	Stabilization	Threshold Exceptions
Perimeter ditches, swales, ditches and slopes	7 days	None
High Quality Water (H2O) Zones	7 days	None
Slopes steeper than 3:1	7 days	If slopes are 1:1 or less in length and are not steeper than 2:1, 14 days are allowed
Slopes 3:1 or flatter	14 days	7 days for slopes greater than 50' in length
All other areas with slopes flatter than 4:1	14 days	None, except for perimeter and H2O Zones.

The NC Construction General Permit (also known as "NCGP") was renewed on April 1, 2019. A NPDES Land Disturbance Permit must be obtained prior to beginning construction and performing any land disturbance activity. The NC DEP permit is required in addition to the local jurisdiction have MS4 review and approval responsibilities and authority. At the conclusion of construction and land disturbance activities, a Notice of Termination (NOT) shall also be submitted to NC DEP to properly closeout the NPDES permit.

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WORK INCLUDED

- Demolition existing pavements, concrete curbs, concrete walks and other structures only to the extent necessary to complete the work as indicated on the Drawings.
- Building/Structure demolition shall include removal of all underground foundations and the disconnection and proper capping off of all existing underground utility connection in accordance with applicable codes.
- Remove materials and equipment from site.
- Protect, do not disturb, and identify active utilities if encountered during excavation and site work.
- Reconstruct all pavements, driveways, sidewalks, curbing drainage facilities and other items damaged and/or removed during construction; match existing materials, workmanship and finishes unless indicated otherwise.

Do not interfere with use of adjacent buildings. Maintain free and safe passage to and from.

Prevent movement or settlement of adjacent structures. Provide and place bracing or shoring and be responsible for safety and support of structures. Assume liability for such movement, settlement, damage, or injury.

Cease operations and notify Engineer immediately if safety of adjacent structures appears to be endangered. Take precautions to properly support structures. Do not resume operations until safety is restored.

Prevent movement, settlement or collapse of adjacent structures, sidewalks, driveways and trees. Assume liability for such movement, settlement or collapse. Promptly repair damage at no cost to Owner.

Protect, erect and maintain street boardings, barricades, lighting, and guardrails to protect general public, workers, and adjoining property.

Do not close or obstruct roadways without appropriate permits and/or written authorization/permission.

Conduct operations with minimum interference to public or private roadways.

DEMOLITION

- Perform demolition in accordance with applicable authorities having jurisdiction.
- Repair demolition performed in excess of that required, at no cost to Owner.
- Backfill and compact areas excavated, open pits, abandoned below ground utility structures to remain, and holes caused as a result of demolition. Use additional fill material specified within the geotechnical report.
- Rough grade areas affected by demolition to finished subgrade as indicated.
- Remove demolished materials, tools and equipment upon completion of work. Leave site in condition acceptable to Engineer.

THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE DEMOLITION PERMITS AND DISPOSE OF ALL DEMOLITION MATERIALS IN ACCORDANCE WITH APPLICABLE REGULATIONS AT AN APPROVED/PERMITTED OFFSITE FACILITY OR LANDFILL.

NOTICE: EXISTING PAVEMENT REMOVAL

THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING ASPHALT/CONCRETE AS SHOWN ON THIS DEMOLITION PLAN. EXISTING BASE MATERIAL SHALL REMAIN IN PLACE EXCEPT FOR REMOVAL REQUIRED IN THE PROPOSED PLANTING AND GRASSED AREAS. EXISTING BASE MATERIAL TO REMAIN SHALL BE PROOF ROLLED TO IDENTIFY ANY UNSTABLE SUB-SURFACE GEOTECHNICAL CONDITIONS PRIOR TO PLACING NEW FILL AND/OR BASE MATERIAL REQUIRED TO ESTABLISH FINISHED GRADES. IF UNSTABLE AREAS ARE DISCOVERED, THE CHICK-FIL-A PROJECT MANAGER SHALL BE ADVISED AND REMEDIAL ACTION TAKEN TO CORRECT SAME AS DIRECTED BY CHICK-FIL-A AND GEOTECHNICAL ENGINEER.

NOTICE: MAINTAINING UTILITY SERVICE

THE CONTRACTOR SHALL PERFORM ALL DEMOLITION WORK AND NEW CONSTRUCTION IN A MANNER THAT WILL NOT INTERRUPT EXISTING SERVICE WITHOUT PRIOR COORDINATION AND APPROVAL. SERVICE DOWNTIME SHALL BE KEPT TO THE ABSOLUTE MINIMUM. SEE SITE UTILITY PLAN.

EROSION CONTROL - GENERAL CONSTRUCTION REQUIREMENTS

THE CONTRACTOR SHALL IMPLEMENT APPROPRIATE CONTROLS AND MEASURES AS FOLLOWS:

- PREVENT LITTER AND CLEANUP AND PROPERLY DISPOSE OF ALL CONSTRUCTION DEBRIS.
- PROVIDE A CONTAINMENT AREA FOR CONCRETE WASHOUT.
- PROVIDE A CONTAINMENT AREA FOR THE STORAGE OF ALL FUEL, HYDRAULIC FLUIDS, PETROLEUM PRODUCTS AND OTHER CHEMICALS TO PREVENT SPILLS AND TO CONTAIN SPILLS SHOULD THEY OCCUR.
- PROPERLY STORE ALL BUILDING MATERIALS, TO INCLUDE COVERING APPLICABLE BUILDING MATERIALS THAT COULD NEGATIVELY IMPACT STORMWATER RUNOFF QUALITY.
- IMPLEMENT MEASURES THAT WILL PREVENT POLLUTANT SOURCES FROM STORMWATER DISCHARGES LEAVING THE SITE.
- IMPLEMENT APPROPRIATE DUST CONTROL MEASURES AS NECESSARY.
- IMPLEMENT APPROPRIATE STOCK PILE MANAGEMENT PROCEDURES FOR ALL STORED MATERIALS AND CONSTRUCTION DEBRIS.

CONCRETE TRUCK WASHDOWN AREA (REQUIRED)

IT IS DISCOURAGED TO USE A CONCRETE TRUCK WASHDOWN AREA ON THE SITE, BUT IF ONE IS USED, THE FOLLOWING GUIDANCE SHALL BE IMPLEMENTED.

- DO NOT DISPOSE OF TRUCK WASHDOWN WATER BY DUMPING INTO A SANITARY SEWER, STORM DRAIN OF UNTO SOIL OR PAVEMENT THAT CARRIES STORMWATER RUNOFF.
- THE WASHOUT SHALL BE DISPOSED OF IN THE DESIGNATED "SLURRY" PIT AREA WHERE THE WATER CAN EVAPORATE AND THE CONCRETE WASH RESIDUAL HARDEN, BE BROKEN UP, AND REMOVED.
- THE LOCATION SHALL NOT BE ANY CLOSER THAN 50 FEET FROM A STORM DRAINAGE STRUCTURE, PIPE, OPEN DITCH, OR RECEIVING WATER BODY.
- PUMP EXCESS CONCRETE IN CONCRETE PUMP BINS (IF USED) BACK INTO THE CONCRETE PUMPER TRUCKS AND DISCHARGE INTO DESIGNATED WASHOUT AREA OF PROPERLY DISPOSED OFFSITE.
- CONCRETE WASHOUT FROM CONCRETE PUMPER BINS CAN BE WASHED INTO CONCRETE PUMPER TRUCKS AND DISCHARGED INTO DESIGNATED WASHOUT AREA OR PROPERLY DISPOSED OFFSITE.

EROSION CONTROL NOTES & DETAIL KEYS

- E1** BLOCK OR HARDWARE CLOTH AND GRAVEL INLET PROTECTION
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.52) (D52A) (D52B) (C5A)
- E1A** **ADS FLEX-STORM INLET PROTECTION**
NC-DENR STANDARD EROSION CONTROL MEASURES FOR EXISTING DROP INLETS
INSTALL ADS FLEX-STORM INLET PROTECTION MEASURES (OR APPROVED EQUAL) WITH FILTER BAG AT THE EXISTING DRAINAGE STRUCTURE. IN NO CASE SHALL THE PROTECTIVE MEASURE PREVENT OR BLOCK THE FLOW OF STORMWATER INTO THE DRAINAGE SYSTEM WHICH MAY CAUSE PARKING LOT FLOODING. DEVICE SHALL BE MAINTAINED REGULARLY TO INSURE IT IS NOT BLOCKED AND IS CLEANED OUT. DEVICE SHALL ALSO BE INSPECTED BEFORE AND AFTER EACH RAINFALL EVENT.
- E2** SILT FENCE DETAIL
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.62) (D50) (C5A)
- E3** STABILIZED CONSTRUCTION ENTRANCE
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.06) (D51) (C5A)
- E4** SILT FENCE STONE OUTLET DETAIL
(SEE EROSION CONTROL PLAN) (D53) (C5A)
- E5** TEMPORARY EROSION & SEDIMENT CONTROL FOR PARTIALLY INSTALLED STORM DRAINAGE CONDUIT. (D54) (C5B)
- E6** TEMPORARY (DIVERSION) DITCH
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.20) (SEE EROSION CONTROL PLAN) (D55) (C5B)
- E7** TEMPORARY ROCK CHECK DAM
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.83) (SEE EROSION CONTROL PLAN) (D56) (C5B)
- E8** TEMPORARY SEEDING SCHEDULE FOR EROSION CONTROL
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.10) (D57) (C5B)
- E9** SEDIMENT TUBES - (GUTTER EEL BY ACI) OR EQUIVALENT
APPLICABLE PRODUCT WITH WEIGHTS (INSTEAD OF STAKES) TO KEEP THE TUBES SECURE. (D58) (C5B)
- E10** TEMPORARY CONCRETE WASHOUT (TOWN OF WAKE FOREST DETAIL #9.76) (SEE EROSION CONTROL PLAN) (D59) (C5C)
- E11** TEMPORARY SLOPE DRAINS
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.32) (SEE EROSION CONTROL PLAN) (D59) (C5C)
- E12** ROCK DOUGHNUT INLET PROTECTION
NC-DENR STANDARD EROSION CONTROL DETAIL (#6.54) (D64) (C5C)

NOTICE: SEDIMENT AND EROSION CONTROL PROCEDURES

- DURING CLEARING AND EARTHWORK ACTIVITIES THE CONTRACTOR SHALL INSTALL AND MAINTAIN EROSION CONTROL DEVICES SPECIFIED AND AS INDICATED ON THE DRAWINGS. DURING EACH PHASE OF SITE CONSTRUCTION THE CONTRACTOR SHALL ADJUST, RELOCATE AND/OR REINSTALL AS APPLICABLE ALL EROSION CONTROL DEVICES AND MEASURES NECESSARY TO PREVENT SOIL EROSION AND SEDIMENT DISCHARGE FROM THE SITE.
- THE CONTRACTOR SHALL INSTALL TEMPORARY GRAVEL DRIVEWAY AT EACH CONSTRUCTION POINT OF ACCESS TO LIMIT DEPOSITS OF EARTH AND OTHER HAULED MATERIALS ONTO THE ADJACENT STREETS OR PARKING LOTS. THE CONTRACTOR SHALL ROUTINELY CLEAN ALL SEDIMENT DEPOSITS AND DEBRIS FROM ADJACENT ROADWAYS AS THEY OCCUR.
- STANDARD INLET PROTECTION AS DETAILED SHALL BE INSTALLED AT ALL DRAINAGE STRUCTURES TO PREVENT SEDIMENT ENTRY INTO NEW STRUCTURES AND CONDUITS. ALL SEDIMENT SHALL BE CLEANED OUT OF STRUCTURES AND CONDUITS REGULARLY. INLET PROTECTION SHALL REMAIN UNTIL ASPHALT PAVEMENT IS INSTALLED. TEMPORARY REMOVAL TO INSTALL AGGREGATE BASE SHALL BE ALLOWED PROVIDED THE INLET PROTECTION IS REINSTALLED UNTIL PAVING OCCURS.
- SILT FENCE SHALL BE MAINTAINED ALONG THE PERIMETER OF ALL EARTHWORK AREAS TO PREVENT SEDIMENT TRANSPORT ONTO ADJACENT PROPERTIES, AS APPLICABLE.
- INLET PROTECTION AND SILT FENCE FILTER BARRIERS SHALL BE INSTALLED AND MAINTAINED AT EACH DRAINAGE STRUCTURE UNTIL CONSTRUCTION IS COMPLETE AND LANDSCAPING IS INSTALLED.
- THE CONTRACTOR SHALL IMMEDIATELY CLEANUP AND REPAIR ALL EROSION DAMAGE AFTER DISCOVERY AND REINSTATE ADEQUATE CONTROL MEASURES AS NECESSARY PREVENT REOCCURRENCE OF DAMAGE.
- ALL SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND AFTER ANY STORM EVENT OF PRECIPITATION EXCEEDING ANY 24-HOUR PERIOD. ALL SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED.
- STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

NOTICE: EROSION CONTROL CONSTRUCTION SEQUENCE

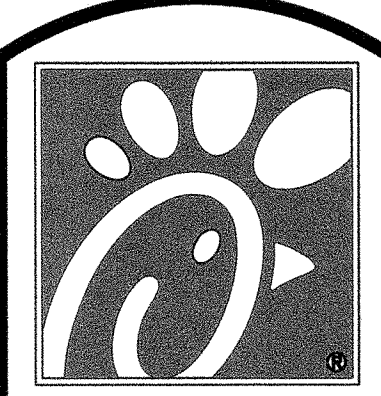
THE CONTRACTOR SHALL FOLLOW THE CONSTRUCTION SEQUENCE LISTED BELOW THROUGHOUT CONSTRUCTION.

- OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE TOWN OF WAKE FOREST.
- SET UP AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH EROSION CONTROL INSPECTOR. CONTACT PERSON: SCOTT MILES @ 919-435-9442.
- INSTALL GRAVEL CONSTRUCTION ENTRANCE, SILT FENCE, AND APPLICABLE INLET PROTECTION, SEDIMENT TRAPS, DIVERSION DITCHES, TREE PROTECTION, AND OTHER MEASURES AS SHOWN ON PLANS, CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES.
- CALL FOR ON-SITE INSPECTION BY INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN.
- INSTALL STORMWATER FACILITIES AND DRAINAGE STRUCTURES WITH "INLET PROTECTION" AT ALL DRAINAGE STRUCTURES AS THEY ARE INSTALLED. PROTECT WITH SEDIMENT CONTROL MEASURES AT EACH STRUCTURE IN CONJUNCTION WITH OTHER APPROVED MEASURES AS SHOWN ON THE PLAN (I.E. TEMPORARY DIVERSIONS, CHECK DAMS, SLOPE DRAINS, ETC., IF APPLICABLE).
- THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
- FOR PHASED EROSION CONTROL PLANS, CONTRACTOR SHALL MEET WITH EROSION CONTROL INSPECTOR PRIOR TO COMMENCING WITH EACH PHASE OF EROSION CONTROL MEASURES.
- STABILIZE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE. STABILIZE THE SITE AS AREAS ARE BROUGHT TO FINISHED GRADE WITH VEGETATION, PAVING, DITCH LININGS, ETC., AS APPLICABLE. AREAS MUST BE STABILIZED WITHIN 14 CALENDAR DAYS OF REACHING FINISHED GRADE. STABILIZATION MEASURES FOR SLOPES GREATER THAN 3:1, STABILIZATION MEASURES MUST BE INSTALLED WITHIN (7) DAYS OF COMPLETION OF GRADING AND CONSTRUCTION ACTIVITY IN THIS SPECIFIC AREA. SEE NC DENR STABILIZATION TIME FRAMES.
- COORDINATE WITH EROSION CONTROL INSPECTOR PRIOR TO REMOVAL OF EROSION CONTROL MEASURES. IF THE SITE IS APPROVED, REMOVE ANY REMAINING TEMPORARY MEASURES, SILT FENCE, SEDIMENT BASINS, ETC. AND APPLY GRASSING AND LANDSCAPING AND STABILIZE ANY REMAINING BARE AREAS.
- ALL SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND AFTER ANY STORM EVENT OF PRECIPITATION DURING ANY 24-HOUR PERIOD. ALL SEDIMENT CONTROL DEVICES AND MEASURES SHALL BE MAINTAINED UNTIL FINAL STABILIZATION HAS BEEN OBTAINED.
- ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N. C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U. S. DEPT. OF AGRICULTURE AND THE CITY/COUNTY EROSION CONTROL ORDINANCE.



BEFORE YOU DIG
NC ONE CALL NUMBER
1-800-632-4949
CAUTION

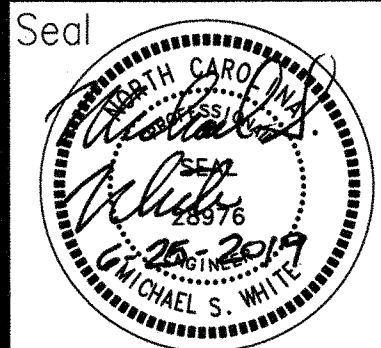
NORTH CAROLINA UTILITIES PROTECTION CENTER
3 DAYS BEFORE DIGGING CALL
TOLL FREE 1-800-632-4949
A ONE CALL SYSTEM FOR COMMUNITY AND JOB SAFETY.



5200 Buffington Rd.
Atlanta Georgia,
30349-2998
PH 404-765-8000
FAX 404-684-8550

Revisions:
Mark Date By

Mark Date By



G. ROBERT GEORGE AND ASSOCIATES, INC.
CONSULTING ENGINEERS, PLANNERS
AND LAND SURVEYORS
P.O. BOX 32159
CHARLESTON, SOUTH CAROLINA 29417-2159
email: ggeorge@contact.net
(843) 566-4861

STORE
SERIES P12 LS LRG
FSU 04239

1010 FORESTVILLE ROAD
WAKE FOREST, NC 27587

SHEET TITLE
EROSION CONTROL
PLAN (PHASE 3)

DWG EDITION 03.1

☐ Preliminary
☐ 80% Submittal
☐ For Construction

Job No. : 2036

Store : 04239

Date : 6-25-2019

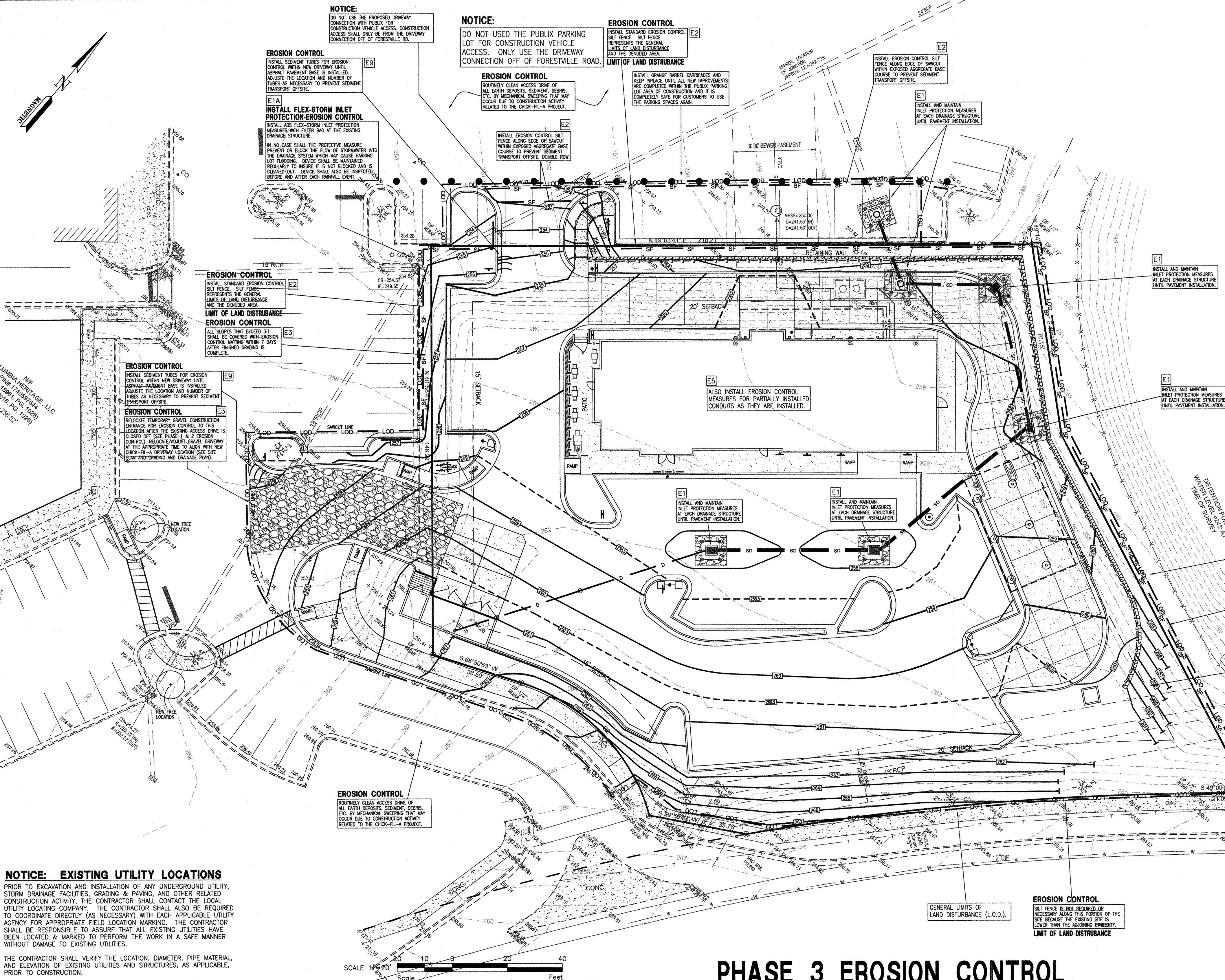
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ORG# 2036-DESIGN.DWG



PHASE 3 EROSION CONTROL

LEGEND	
	PROPERTY LINE, IRON PIN, AND PT 1/4"
	ADJACENT RIGHT-OF-WAY LINE
	CENTERLINE
	NEW CURB & GUTTER
	EXISTING CURB & GUTTER
	EXISTING CONCRETE SIDEWALK
	NEW CONCRETE SIDEWALK
	EXISTING STORM DRAINAGE AND STRUCTURE
	NEW STORM DRAINAGE AND STRUCTURE
	EXISTING CONTOUR LINE
	FINISHED CONTOUR LINE
	EXISTING GRADE
	EXISTING GRADE, TOP OF CURB, OR CONCRETE
	FINISHED SPOT GRADE, FLOW ARROW
	FINISHED SPOT GRADE, MATCH EXISTING GRADE
	EXISTING POWER POLE, OVERHEAD ELECTRIC LINE AND GUY WIRE
	UNDERGROUND GAS SERVICE LINE
	UNDERGROUND TELEPHONE LINE
	EXISTING FENCE LINE
	EXISTING SEWER MAIN AND MANHOLE
	EXISTING WATER MAIN WITH VALVE
	EXISTING GAS MAIN AND VALVE
	EXISTING TELEPHONE LINE AND PEDESTAL
	PROTECTED TREE WITH SIZE & SPECIES
	GRAND TREE WITH SIZE & SPECIES
	PROPOSED LIGHT POLE

NOTICE: NC DENR SELF-INSPECTION PROGRAM

THE CONTRACTOR SHALL BE REQUIRED TO IMPLEMENT THE REQUIREMENTS OF NC DENR FOR THE WEEKLY SELF-MONITORING AND SELF-INSPECTION PROGRAMS. THE SELF-INSPECTION REQUIREMENT AT EACH PHASE IS A NEW REQUIREMENT IN ADDITION TO THE WEEKLY SELF-MONITORING REQUIREMENT.

EFFECTIVE OCTOBER 1, 2010, PERSONS CONDUCTING LAND DISTURBING ACTIVITIES LARGER THAN ONE ACRE MUST INSPECT THEIR PROJECT AFTER EACH PHASE OF THE PROJECT, AND DOCUMENT THE INSPECTION IN WRITING. NOT EVERY PROJECT WILL HAVE ALL THE POSSIBLE PHASES, BUT THE LIST OF PHASES INCLUDES THE FOLLOWING:

INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROL MEASURES
CLEARING AND GRUBBING OF EXISTING GROUND COVER
COMPLETION OF ANY PHASE OF GRADING OF SLOPES OR FILLS
INSTALLATION OF STORM DRAINAGE FACILITIES
COMPLETION OF CONSTRUCTION OR DEVELOPMENT
ESTABLISHMENT OF PERMANENT GROUND COVER SUFFICIENT TO RESTRAIN EROSION

A SELF-INSPECTION REPORT FORM IS AVAILABLE ON THE DENR WEBSITE.

EROSION CONTROL/STORMWATER POLLUTION PREVENTION PLAN

THE EROSION CONTROL PLAN SHEET C1A, IN CONJUNCTION WITH THE GRADING AND DRAINAGE PLAN (IF APPLICABLE), AND THE REQUIREMENTS INDICATED FOR EROSION CONTROL ON APPLICABLE DETAIL SHEETS SHALL CONSTITUTE THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHALL INCLUDE THE FOLLOWING PLAN SHEETS:

SHEET
C1A
C3
C5A & C5B
C5C

NOTICE:

DO NOT USE THE PROPOSED DRIVEWAY CONNECTION WITH PUBLIC FOR CONSTRUCTION VEHICLE ACCESS. CONSTRUCTION ACCESS SHALL ONLY BE FROM THE DRIVEWAY CONNECTION OFF OF FORESTVILLE RD.

SEE EROSION CONTROL PLAN SHEET C1A FOR PRIMARY EROSION CONTROL REQUIREMENTS.

TOTAL DENUDED/CLEARED AREA = 1.40± ACRES
(L.O.D. - LIMITS OF LAND DISTURBANCE)

NOTICE: MANDATORY PRE-CON MEETING

THE CONTRACTOR SHALL COORDINATE WITH AND SCHEDULE A MANDATORY PRE-CONSTRUCTION MEETING WITH THE TOWN OF WAKE FOREST ENGINEERING DEPARTMENT A MINIMUM OF 48 HOURS IN ADVANCE OF BEGINNING ANY CONSTRUCTION ACTIVITY. THE PRE-CON MEETING WILL NOT BE SCHEDULED UNTIL ALL PERMITS HAVE BEEN OBTAINED AND ALL FEES HAVE BEEN PAID. SIGNED CONSTRUCTION DRAWINGS MUST BE PROVIDED A MIN. OF 72 HOURS PRIOR TO THE PRE-CON MEETING FOR REVIEW.

NOTICE: TOWN OF WAKE FOREST EROSION CONTROL REQUIREMENTS

ALL EROSION CONTROL MEASURES SHALL BE PERFORM IN ACCORDANCE WITH THE TOWN OF WAKE FOREST EROSION CONTROL REGULATION AND PROCEDURES.

NOTICE: RCP PIPE SPECIFICATION

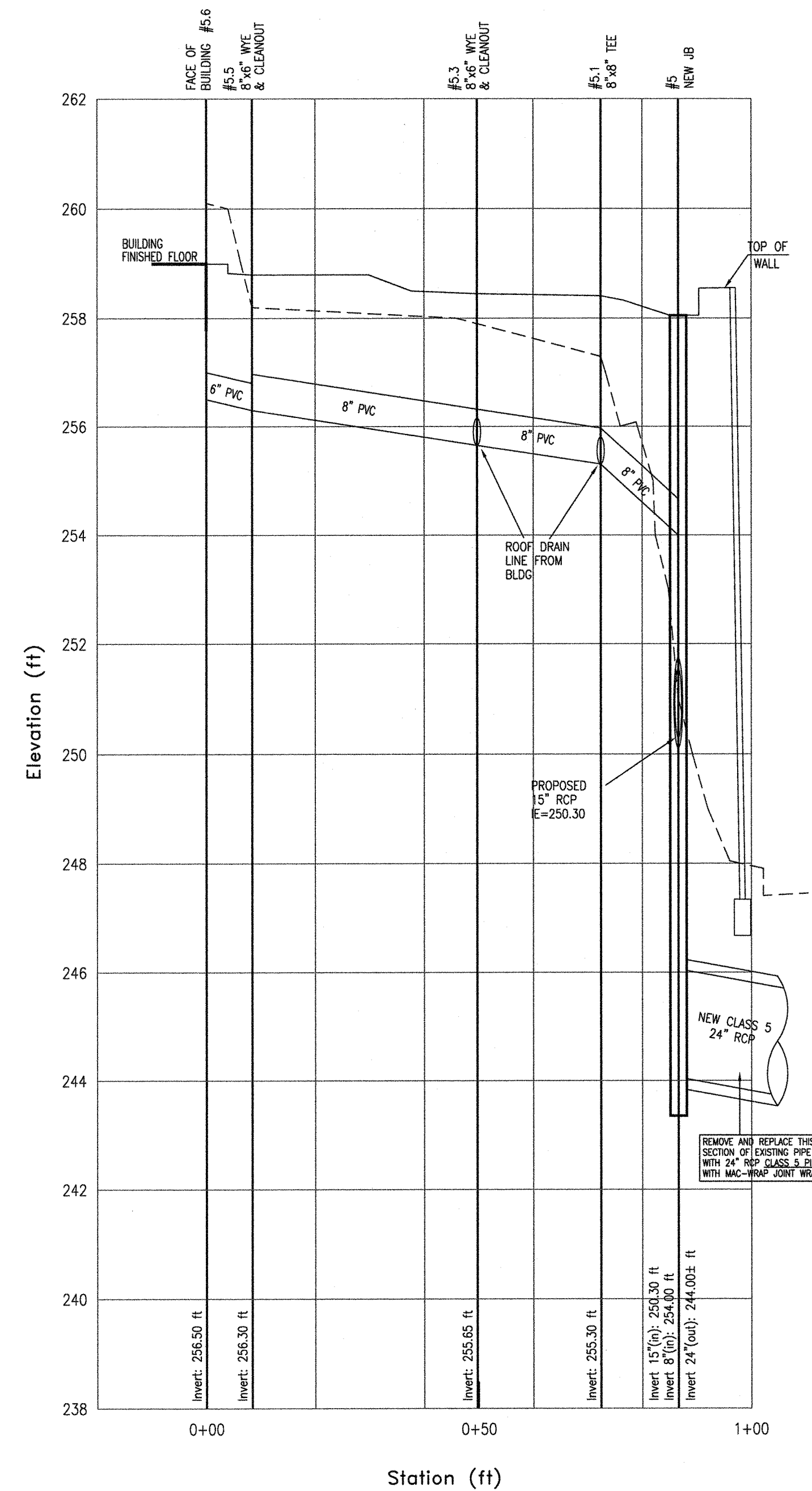
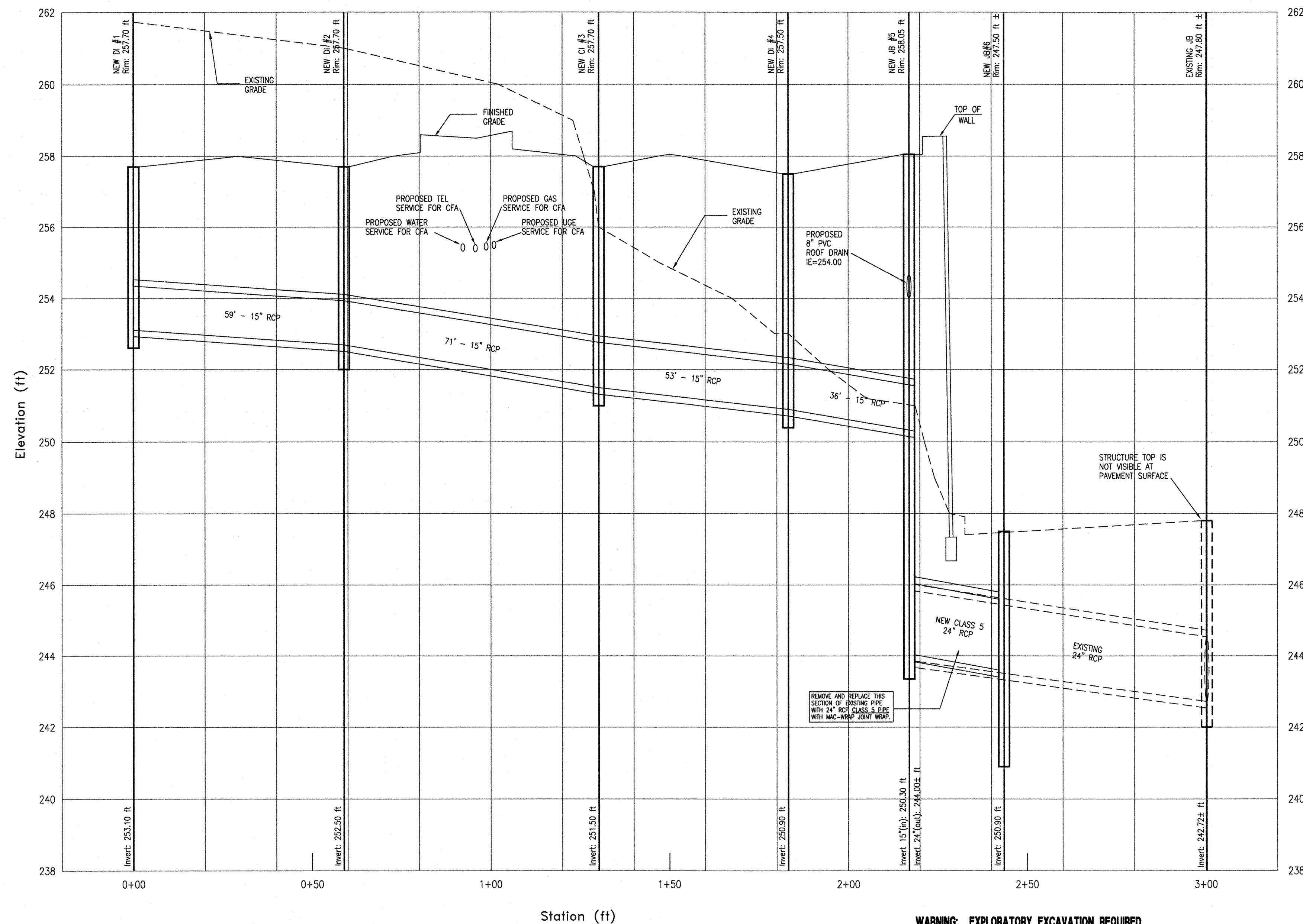
REINFORCED CONCRETE PIPE SHALL BE ASTM C558 FOR CLASS A WALL B (UNLESS INDICATED OTHERWISE ON THE DRAWINGS). SMOOT OR NCOT APPROVED, AS APPLICABLE. JOINTS SHALL BE REINFORCED BELL-AND-SPOUT FOR RUBBER O-RING GASKET, OR CONEAL/RANNECK BITUMINOUS GASKET SEALANT.

ALL RCP CONDUIT JOINTS SHALL BE EXTERNALLY WRAPPED WITH AN EXTRUDED BUTYL ADHESIVE TAPE (MAC-WRAP OR EQUAL) ON PROPERLY PRIMED SURFACES.

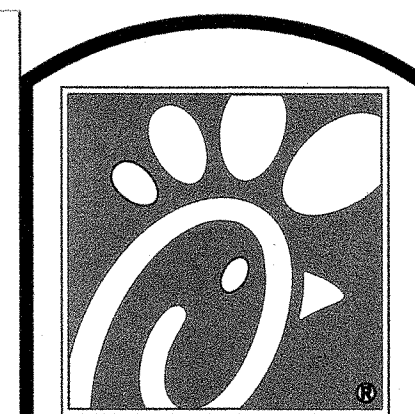
STORMWATER TREATMENT

STORMWATER FROM THE CHICK-FIL-A PARCEL DISCHARGES INTO THE PREVIOUSLY APPROVAL OVERALL DRAINAGE SYSTEM FOR THE SHOPS AT HERITAGE VILLAGE WHICH INCLUDES A HYDRO INTERNATIONAL WATER QUALITY TREATMENT DEVICE (WQV #1) AS SHOWN ON THE APPROVED PLAN - OVERALL DRAINAGE PLAN, SHEET C2.1, SHOPS AT HERITAGE VILLAGE, PREPARED BY PM ENGINEERING, INC., FOR COLUMBIA PROPERTIES, INC.

STORM DRAINAGE SCHEDULE (10 YEAR STORM EVENT)											
(REFERENCE: RAINFALL INTENSITY DATA FOR DURHAM, NC)											
CONDUIT I.D.	STRUCTURE I.D.	A (acres)	C	Tc (min)	INTENSITY (INCHES/HR) (10yr)	GRADE Q REQUIRED (10yr)	GRADE Q AVAILABLE (cfs)	PIPE Q REQUIRED (10yr)	PIPE SIZE/(SLOPE)	PIPE Q AVAILABLE (cfs)	REMARKS
1-2	1	0.186	0.75	5	7.22	1.008	5.5	---	---	---	NEW DROP INLET
		0.186	0.75	5	7.22	---	---	1.008	15" (1.00%)	6.45	NEW 15" RCP (CL 3 WALL B)
		0.313	0.75	5	7.22	1.695	5.5	---	---	---	NEW DROP INLET
		0.499	0.75	5	7.22	---	---	2.702	15" (1.43%)	7.72	NEW 15" RCP (CL 3 WALL B)
		0.121	0.75	5	7.22	0.655	5.5	---	---	---	NEW CURB INLET
3-4	3	0.620	0.75	5	7.22	---	---	3.357	6.45" (1.00%)	---	NEW 15" RCP (O-RING GASKET PIPE)
		0.079	0.95	5	7.22	0.513	5.5	---	---	---	NEW DROP INLET W/ CONC. APRON
4-5	4	0.699	0.77	5	7.22	---	---	3.886	15" (1.76%)	8.56	NEW 15" RCP (O-RING GASKET PIPE)
ROOF DRAINAGE											
5.6-5.5	5.6	0.056	0.95	5	7.22	0.384	N/A	---	---	---	ROOF DOWNSPOUT CONNECTION
		0.056	0.95	5	7.22	---	---	0.384	6" (2.4%)±	1.13	PVC ROOF DRAINAGE CONDUIT (SDR-25)
5.5-5.3	5.5	0.000	N/A	N/A	N/A	---	N/A	---	---	---	JUNCTION WYE CONNECTION
		0.056	0.95	5	7.22	---	---	0.384	8" (1.56%)±	1.96	PVC ROOF DRAINAGE CONDUIT (SDR-25)
5.4-5.3	5.4	0.028	0.95	5	7.22	0.192	N/A	---	---	---	ROOF DOWNSPOUT CONNECTION
		0.028	0.95	5	7.22	---	---	0.192	6" (10.0%)±	2.30	PVC ROOF DRAINAGE CONDUIT (SDR-25)
5.3-5.1	5.3	0.000	N/A	N/A	N/A	N/A	N/A	---	---	---	JUNCTION WYE CONNECTION
		0.094	0.95	5	7.22	---	---	0.576	8" (1.56%)±	1.96	PVC ROOF DRAINAGE CONDUIT (SDR-25)
5.2-5.1	5.2	0.028	0.95	5	7.22	0.192	N/A	---	---	---	ROOF DOWNSPOUT CONNECTION
		0.028	0.95	5	7.22	---	---	0.192	6" (10.0%)±	2.30	PVC ROOF DRAINAGE CONDUIT (SDR-25)
5.1-5	5.1	0.000	N/A	N/A	N/A	N/A	N/A	---	---	---	JUNCTION WYE CONNECTION
		0.112	0.95	5	7.22	---	---	0.768	8" (8.84%)±	4.65	PVC ROOF DRAINAGE CONDUIT (SDR-25)
5-EX. JUNC	5	0.00	N/A	N/A	N/A	N/A	N/A	---	---	---	EXISTING JUNCTION BOX
		0.811	0.81	5	7.22	---	---	4.74	24" (1.39%)	26.68	NEW UNSTAIN 24" RCP



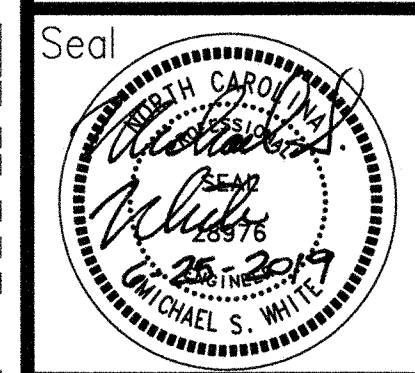
CONSTRUCTION DRAWINGS - TOWN OF WAKE FOREST



5200 Buffington Rd.
 Atlanta Georgia,
 30349-2998
 PH 404-765-8000
 FAX 404-684-8550

Revisions:
 Mark Date By
 1 9-28-2018 MSW
 REVISED PIPE 5-6 TO
 18" RCP

Mark Date By



G. ROBERT GEORGE AND ASSOCIATES, INC.
 CONSULTING ENGINEERS, PLANNERS
 AND LAND SURVEYORS
 P.O. BOX 32158
 CHARLESTON, SOUTH CAROLINA 29417-2158
 email: ggea@comcast.net
 (843) 566-4261

STORE
 SERIES P12 LS LRG
 FSU 04239

1010 FORESTVILLE ROAD
 WAKE FOREST, NC 27587

SHEET TITLE
 STORM
 DRAINAGE
 PROFILES

DWG EDITION 03.1

☐ Preliminary
☐ 80% Submittal
☐ For Construction

Job No. : 2036

Store : 04239

Date : 6-25-2019

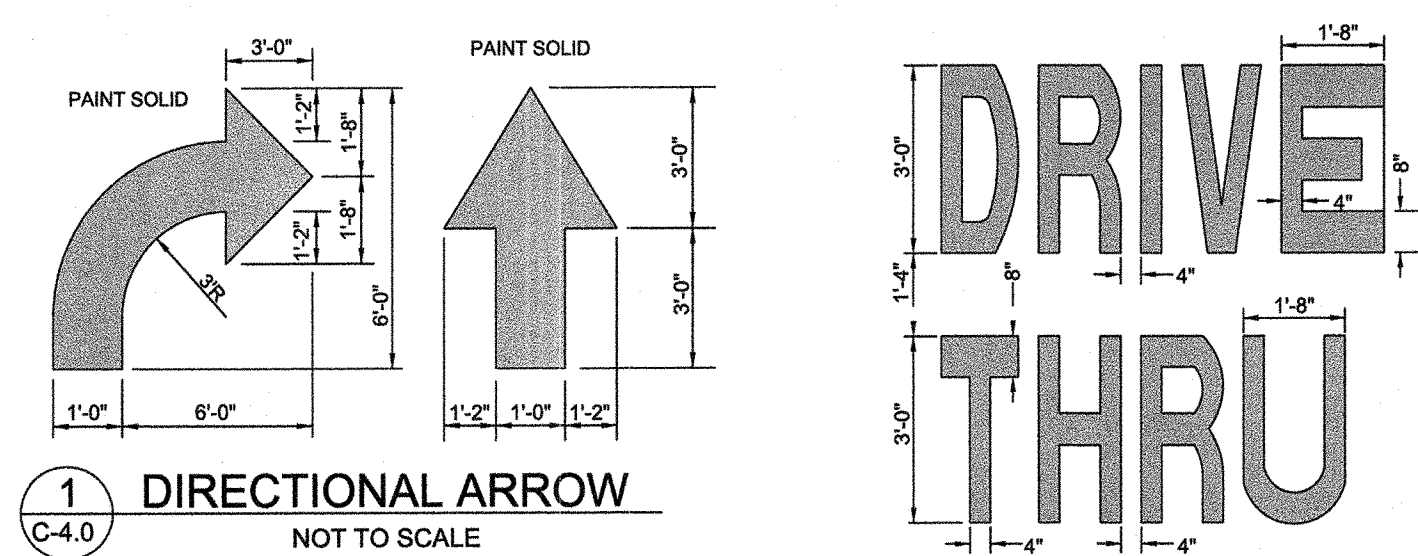
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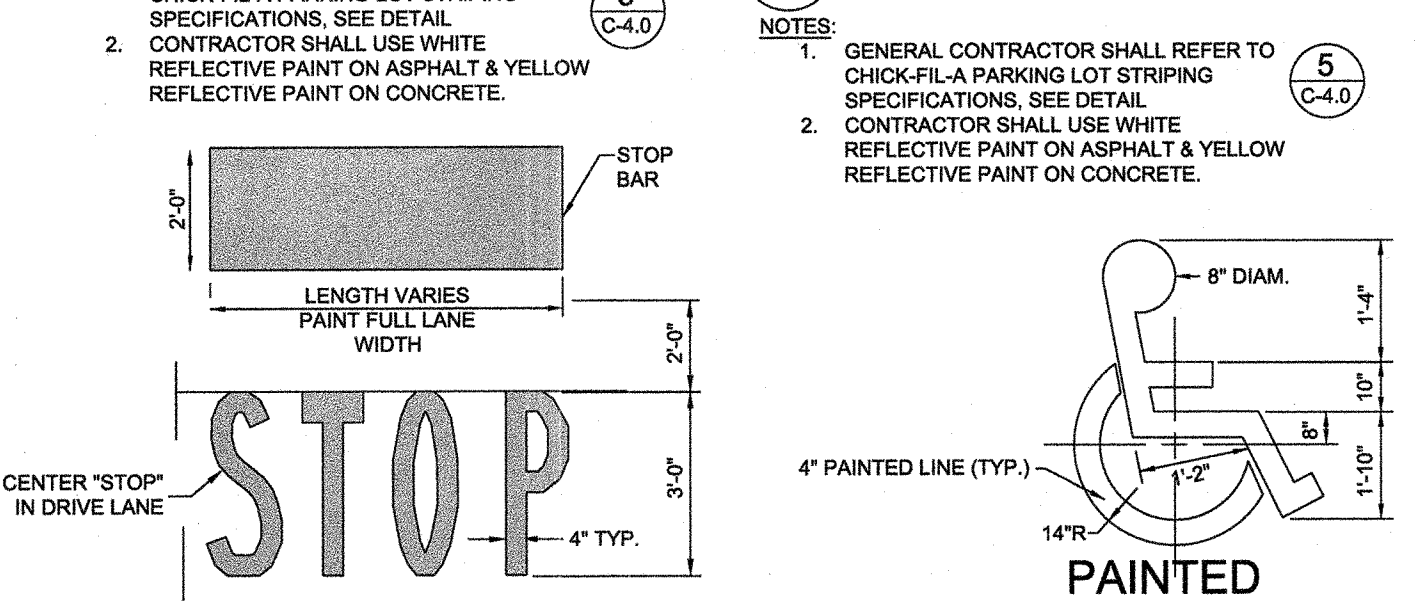
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C3.1

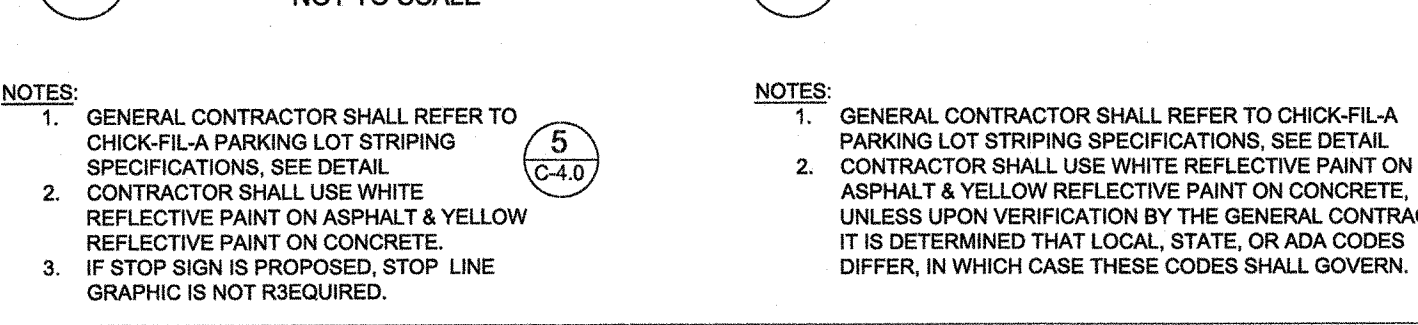
THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST.	
ENGINEERING DEPARTMENT	DATE 7/13/19
PUBLIC WORKS DEPARTMENT	DATE 7/13/19
EROSION & SEDIMENT CONTROL	DATE
FIRE PREVENTION	DATE
ACCESSIBILITY	DATE
PLANNING DEPARTMENT	DATE
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE
URBAN FORESTER	DATE



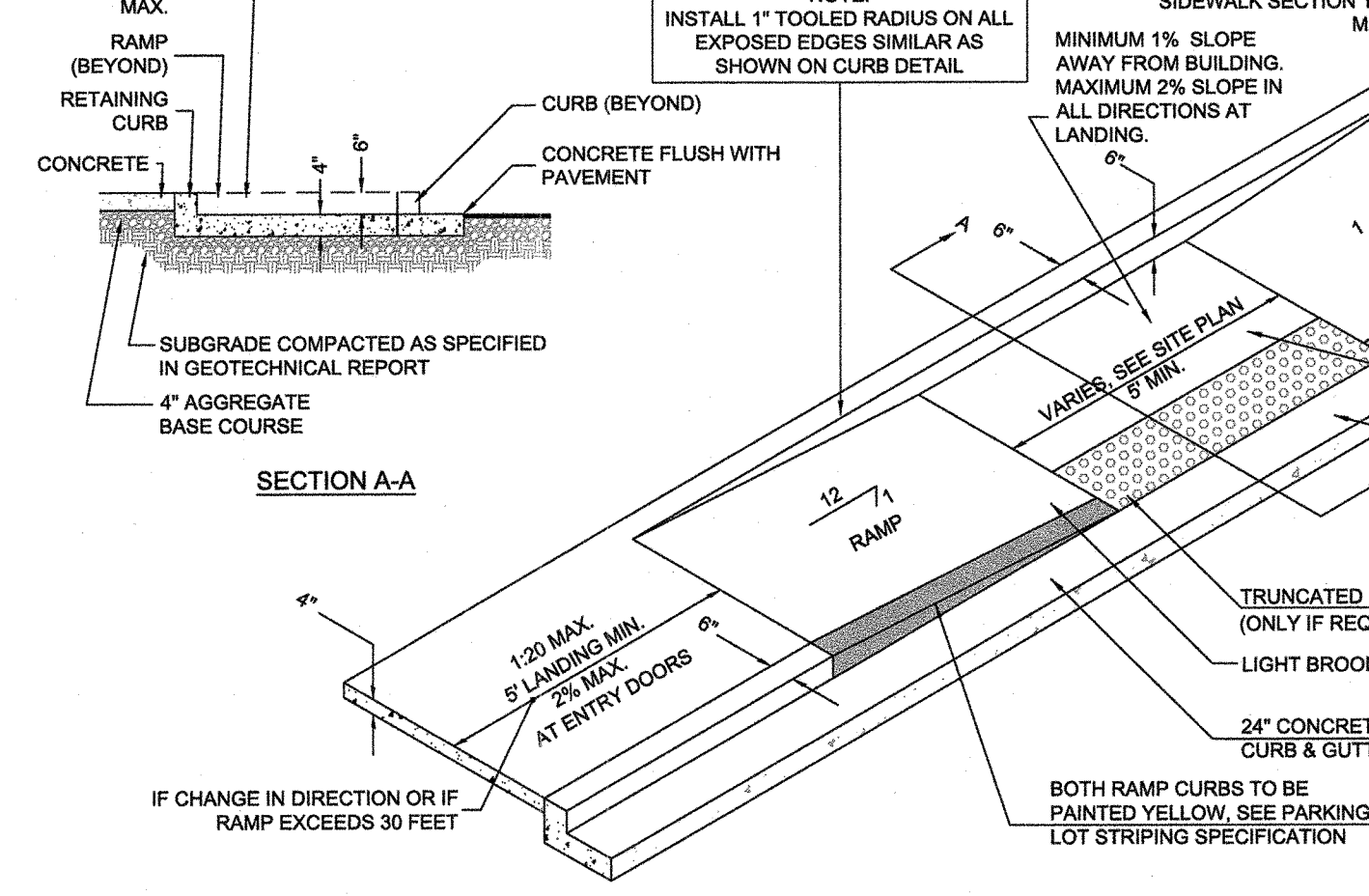
1 DIRECTIONAL ARROW NOT TO SCALE
2 DRIVE-THRU GRAPHICS NOT TO SCALE



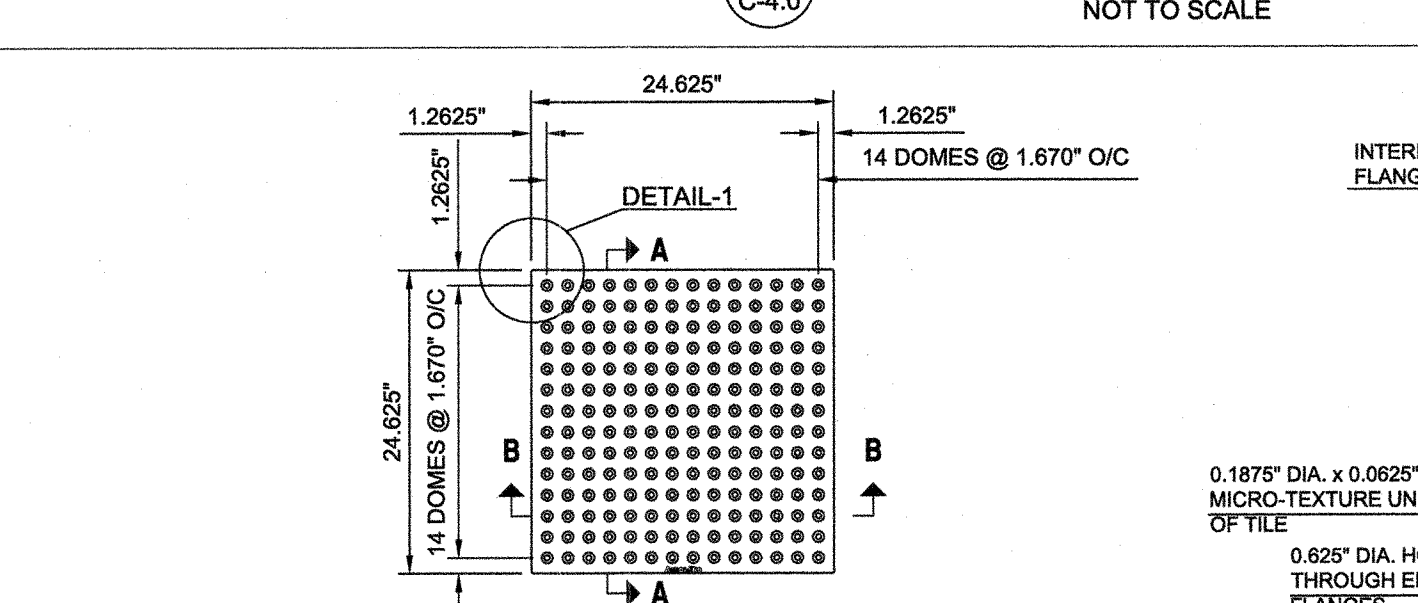
3 STOP LINE GRAPHIC NOT TO SCALE
4 ACCESSIBILITY SYMBOL NOT TO SCALE



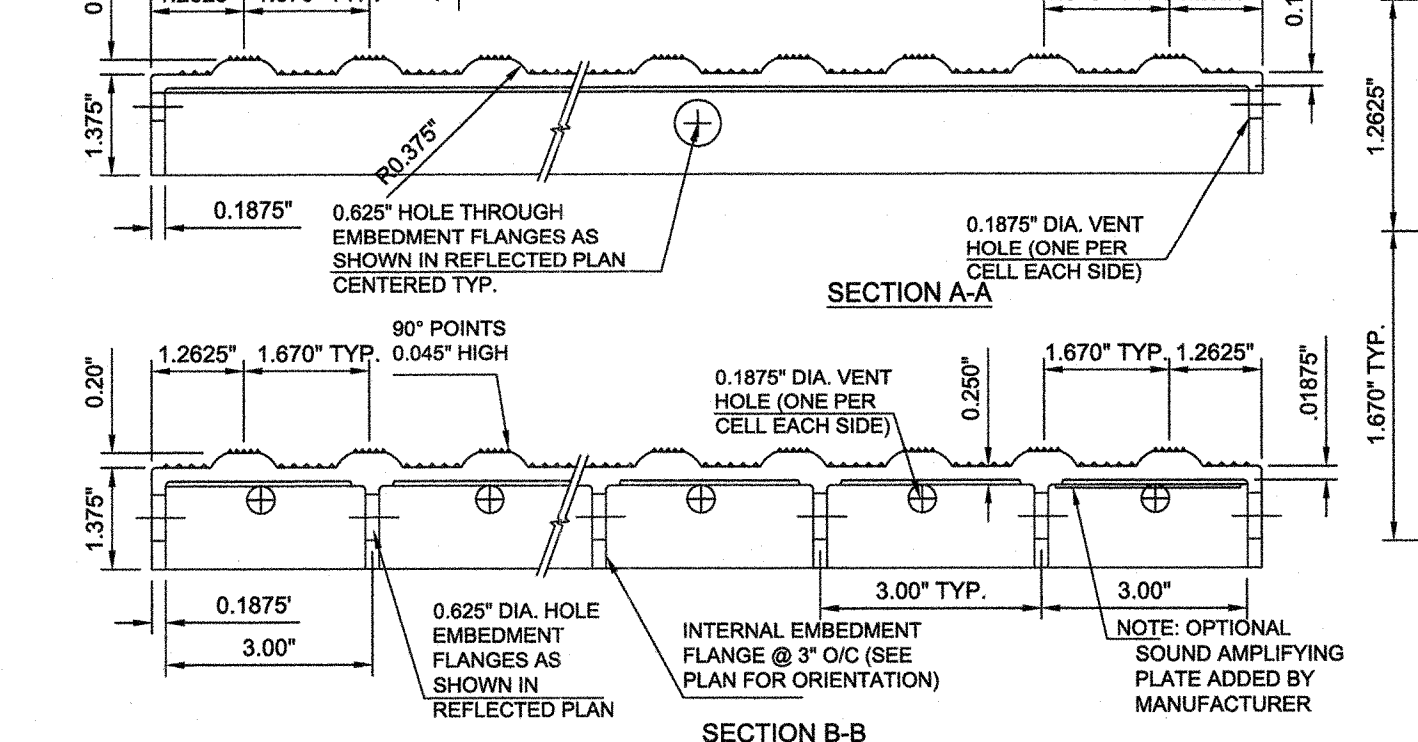
5 STANDARD PARKING STALL NOT TO SCALE



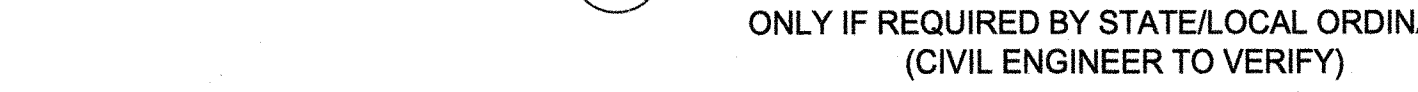
6 CURB RAMP w/ FLARED SIDES NOT TO SCALE
7 CURB RAMP w/ SHORT FLARED SIDES NOT TO SCALE



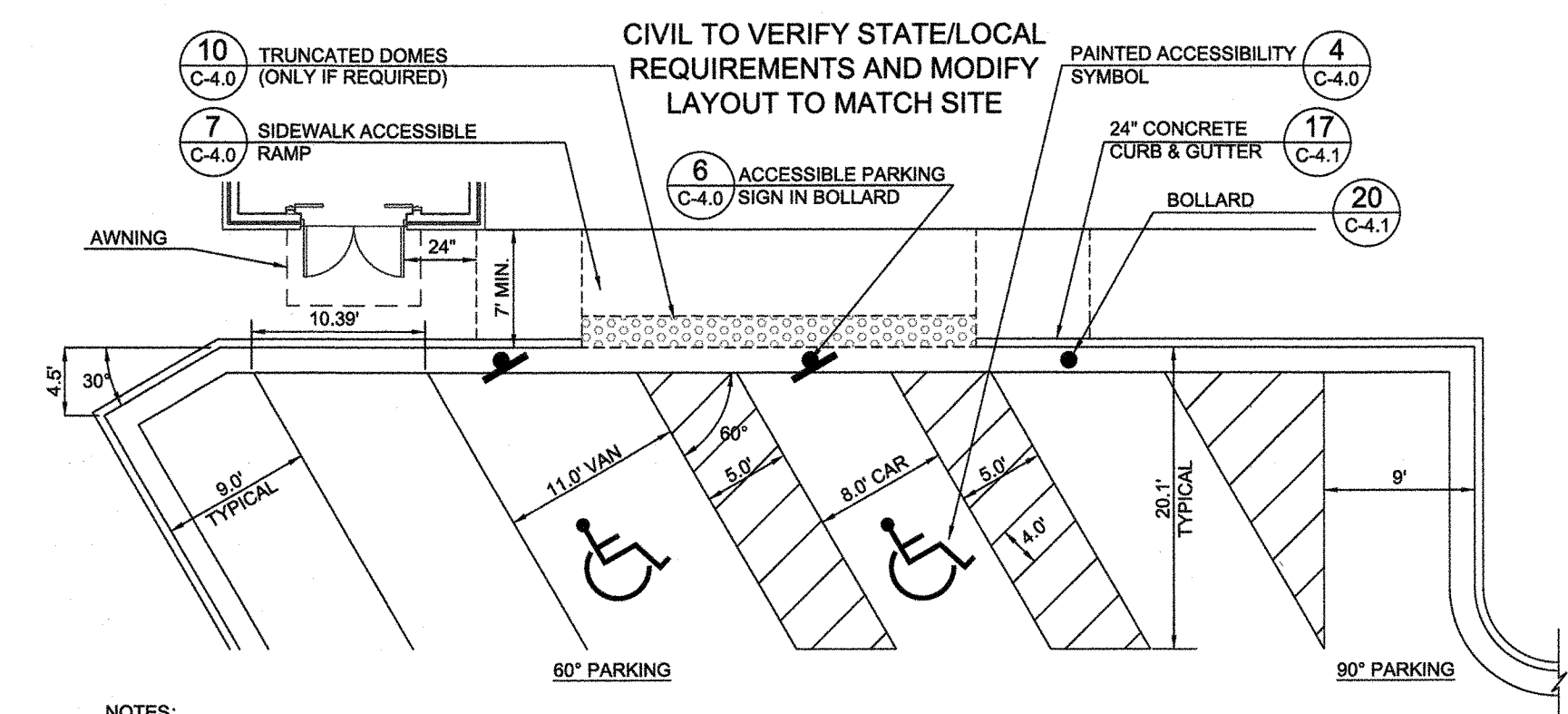
8 RETURNED CURB ACCESSIBLE RAMP NOT TO SCALE



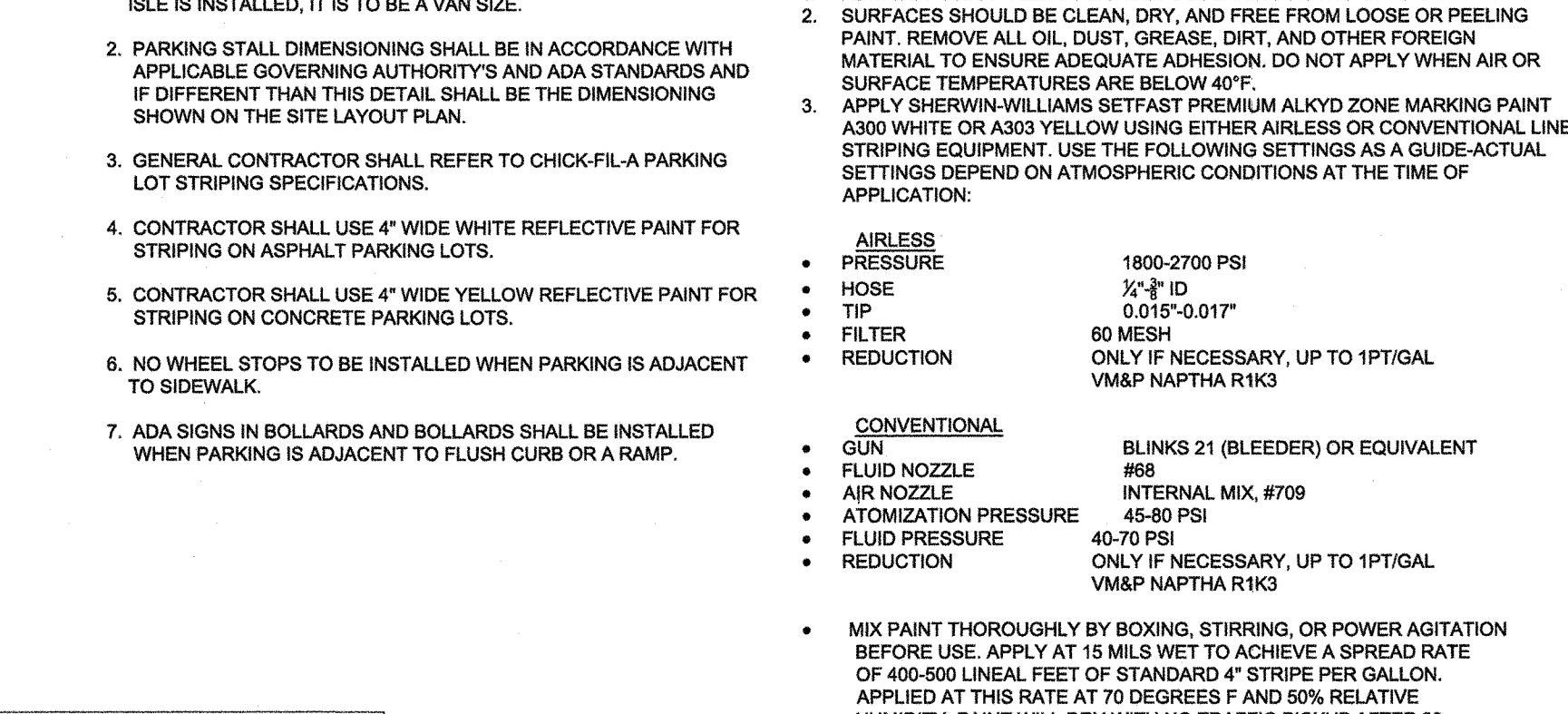
9 SIDEWALK WITH CURB & GUTTER SECTION NOT TO SCALE



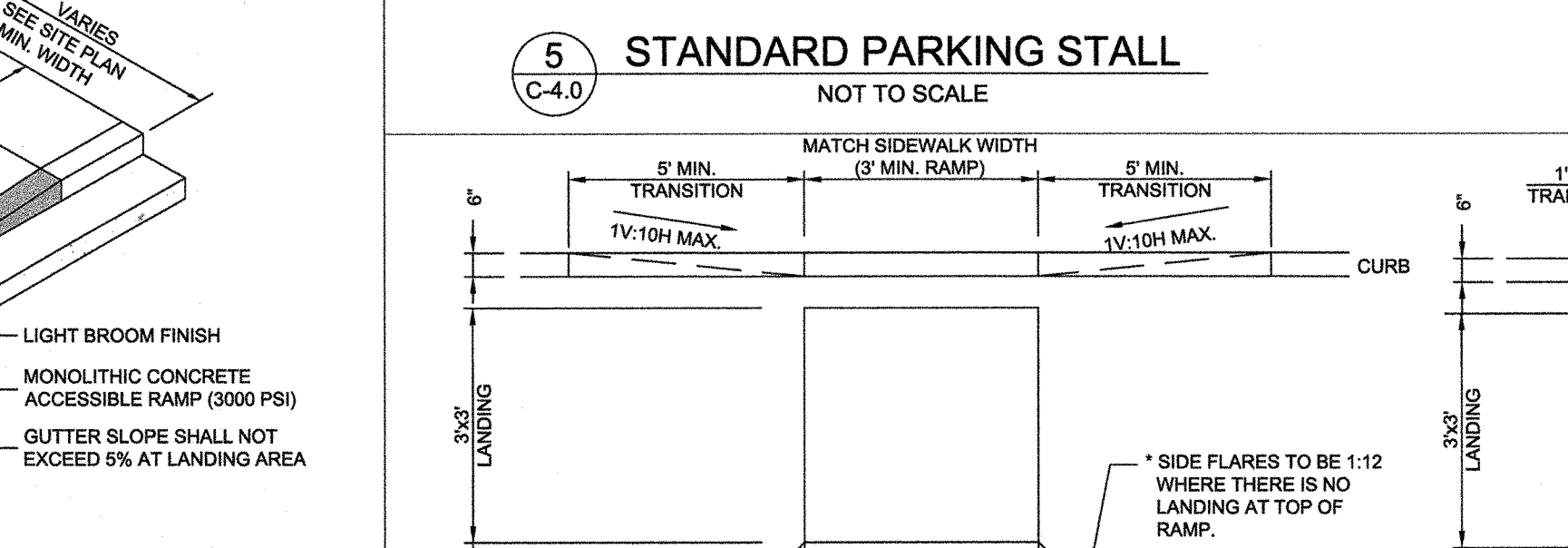
10 TYPICAL CONCRETE SIDEWALK NOT TO SCALE



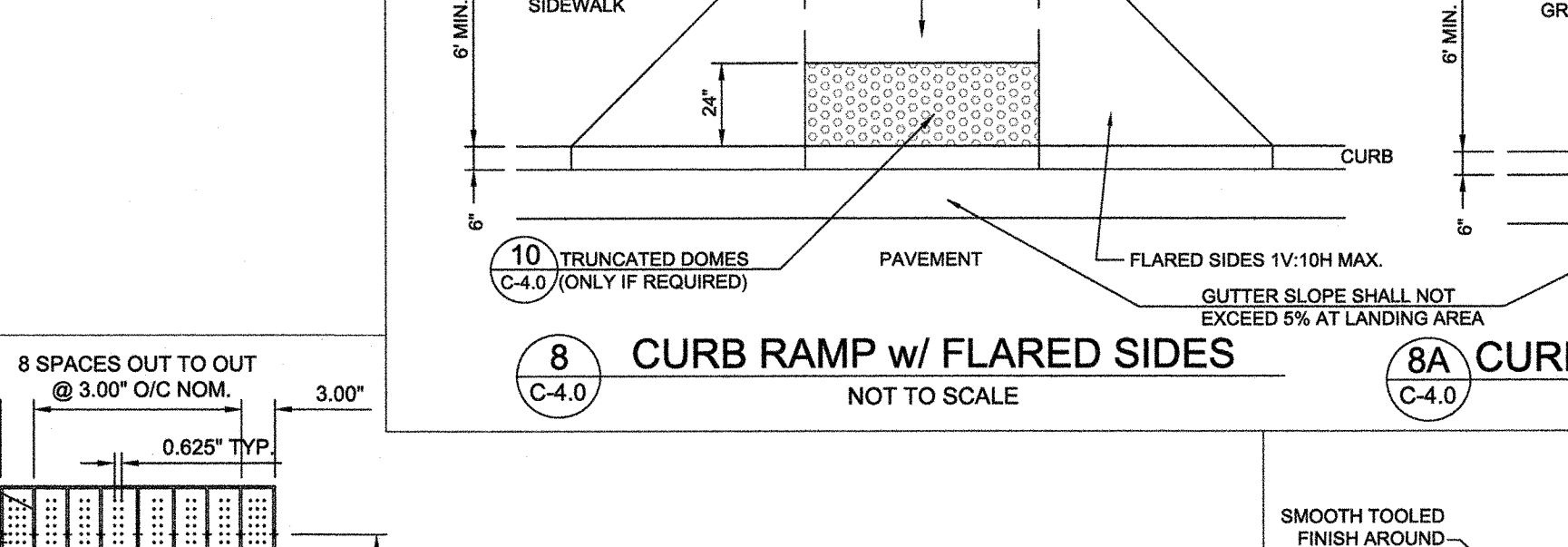
11 TRUNCATED DOMES - CAST IN PLACE NOT TO SCALE



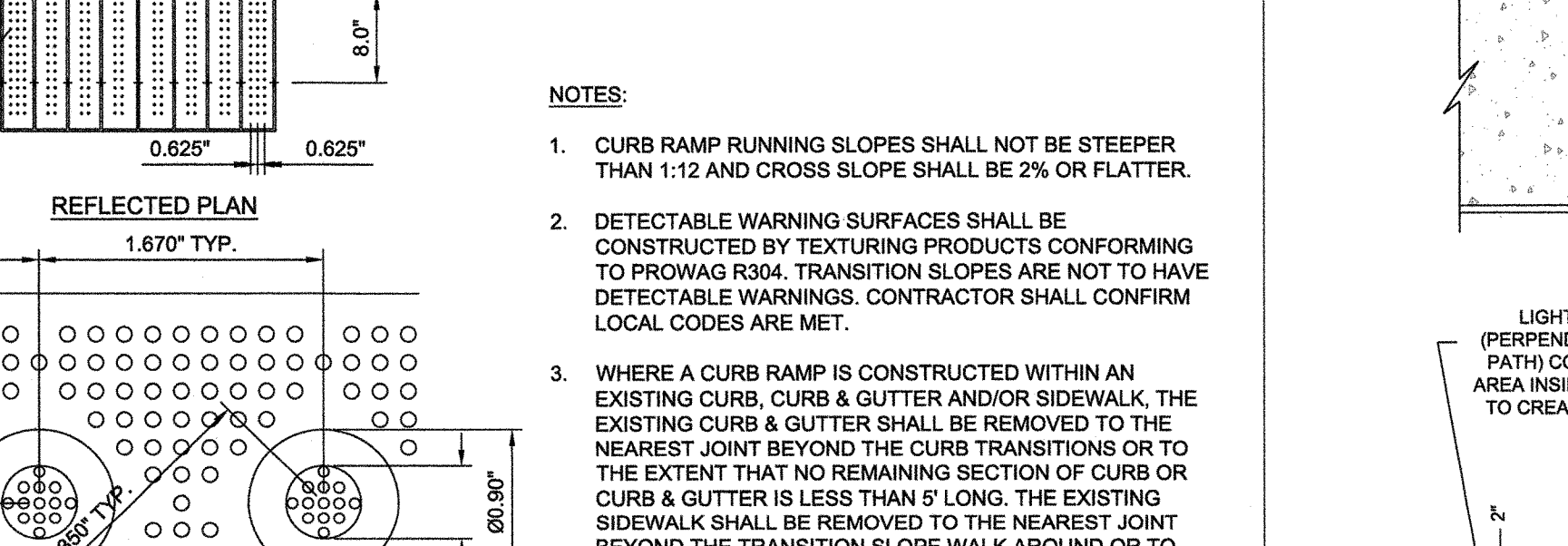
12 TYPICAL CONCRETE SIDEWALK NOT TO SCALE



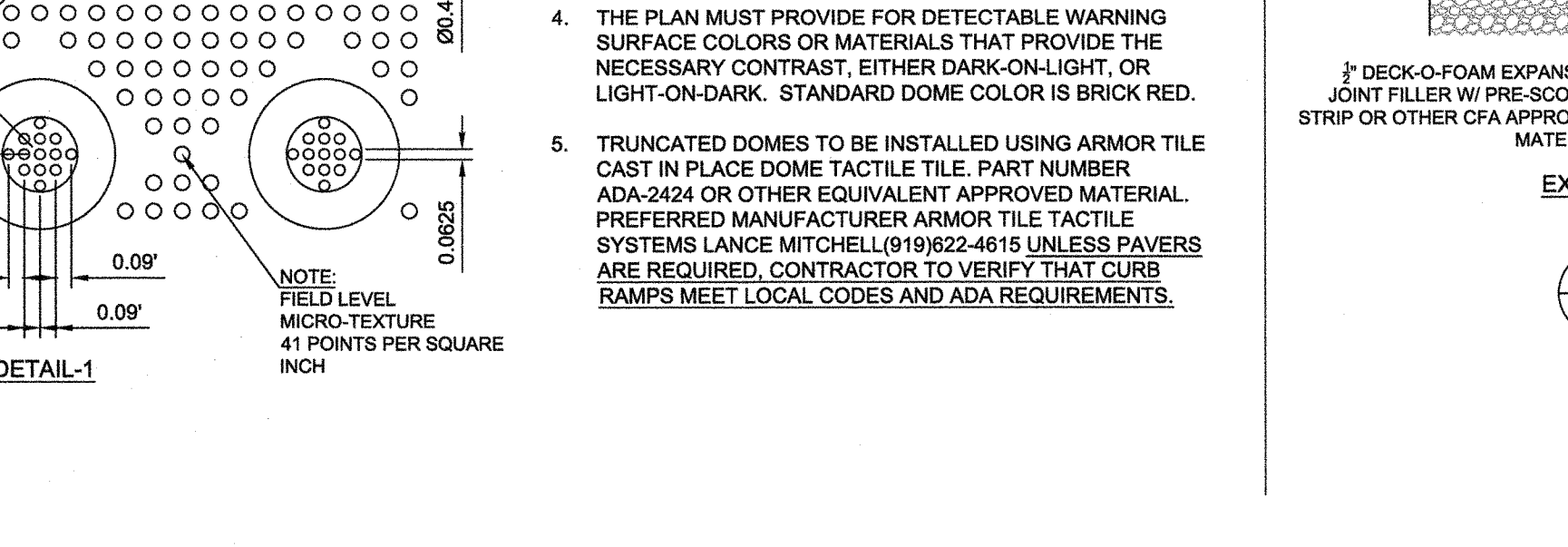
13 DIRECTIONAL SIGNAGE NOT TO SCALE



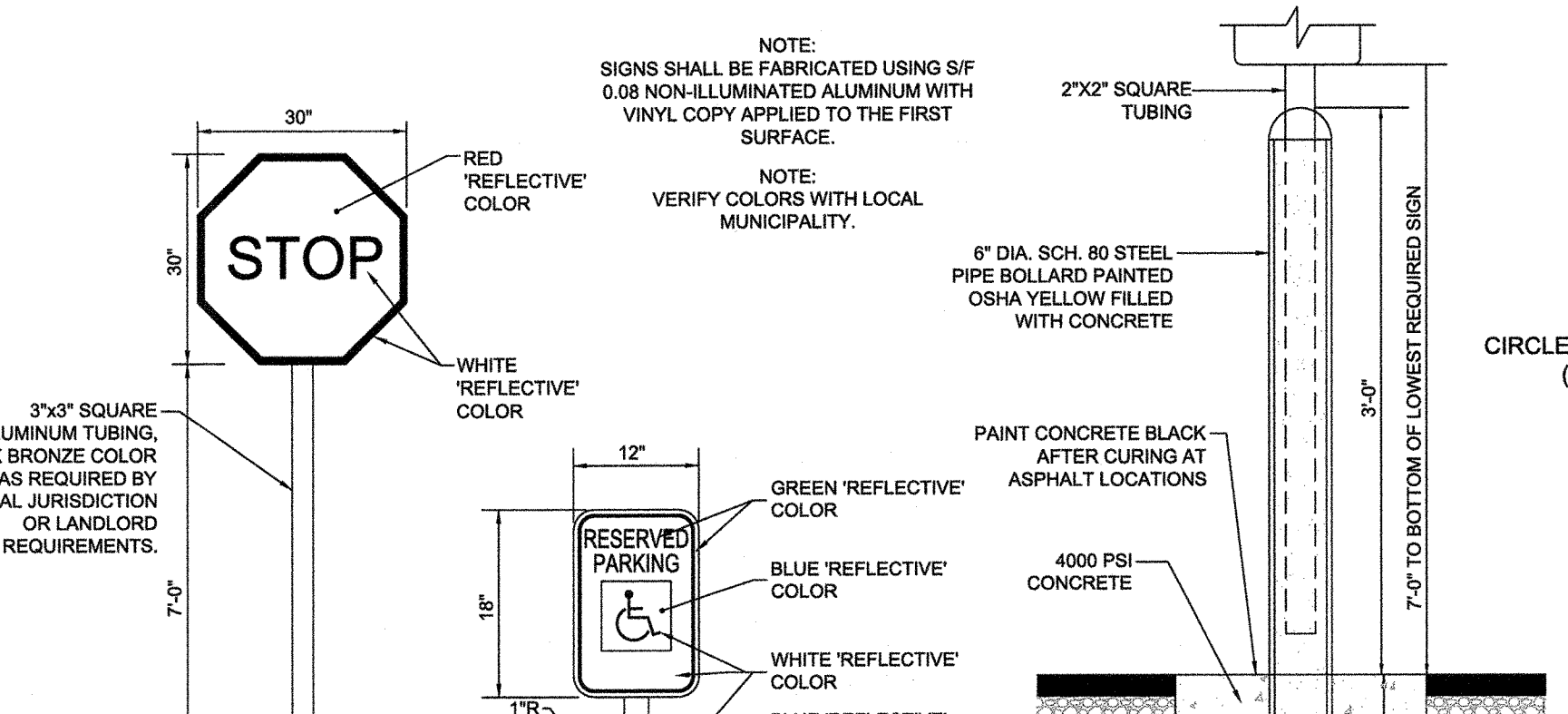
14 STOP SIGN & STANDARD MOUNTING POST (MUTCD R 1-1) NOT TO SCALE



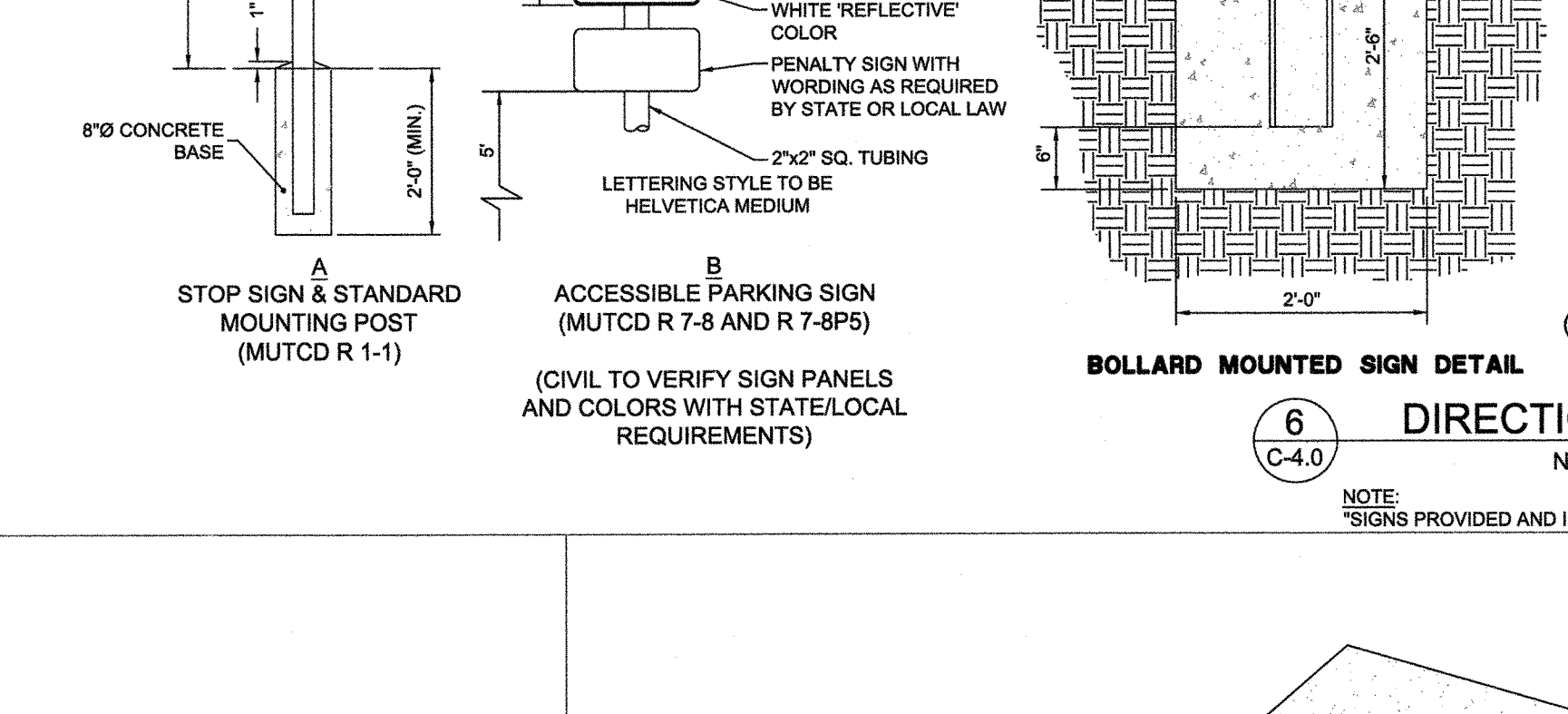
15 ACCESSIBLE PARKING SIGN (MUTCD R 7-8 AND R 7-8PS) NOT TO SCALE



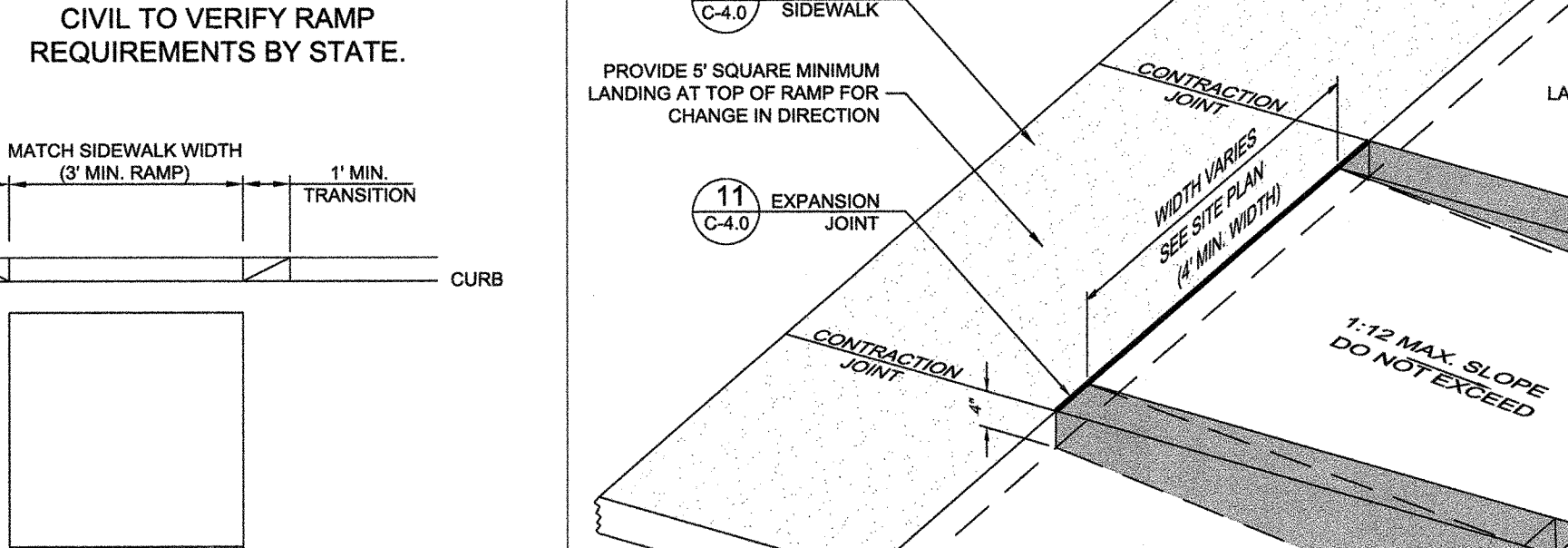
16 BOLLARD MOUNTED SIGN DETAIL NOT TO SCALE



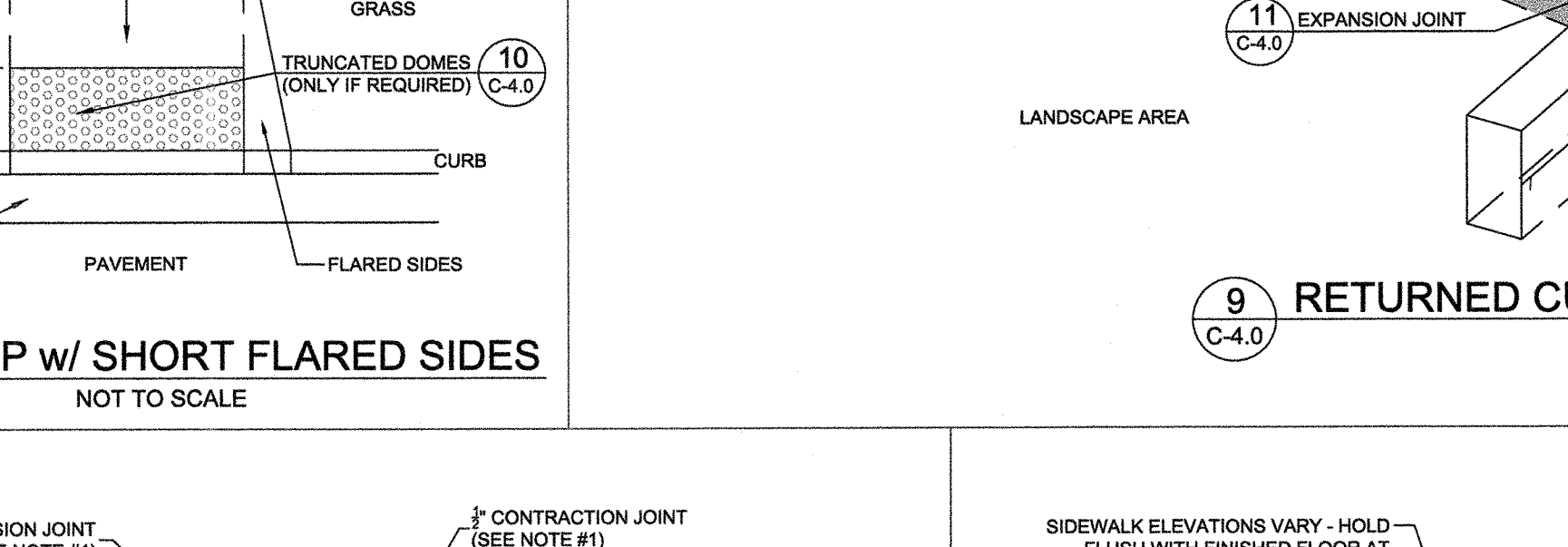
17 STANDARD PARKING STALL NOT TO SCALE



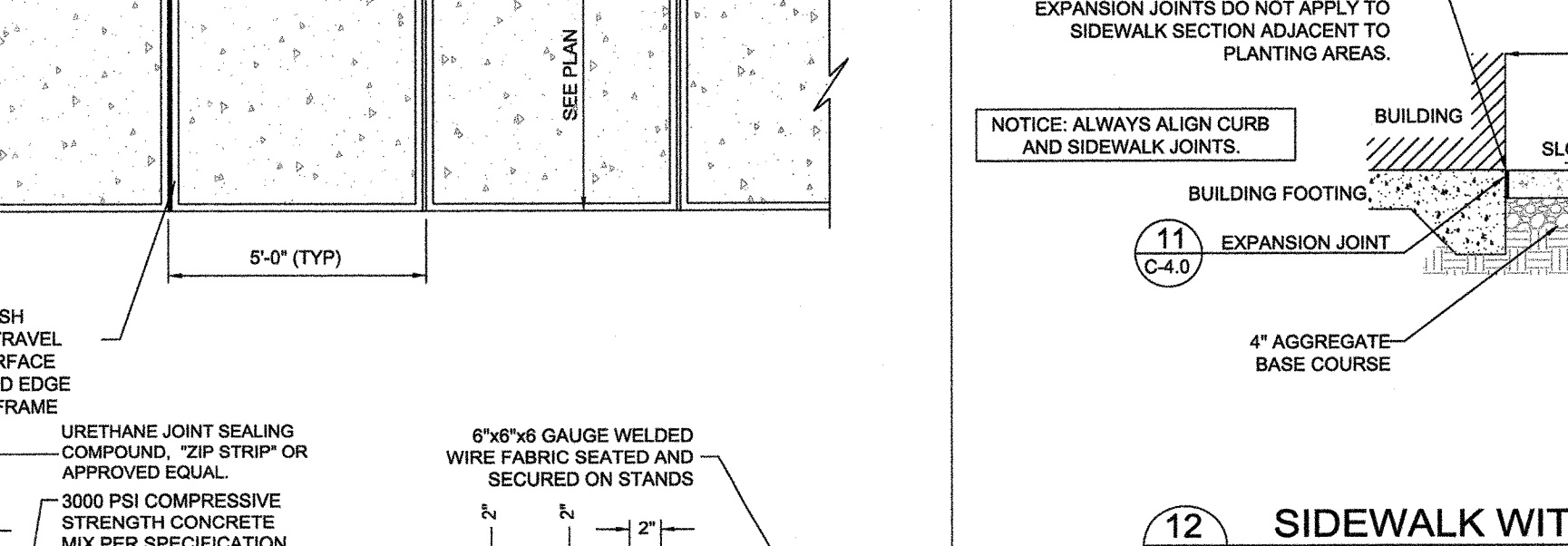
18 CURB RAMP w/ FLARED SIDES NOT TO SCALE
19 CURB RAMP w/ SHORT FLARED SIDES NOT TO SCALE



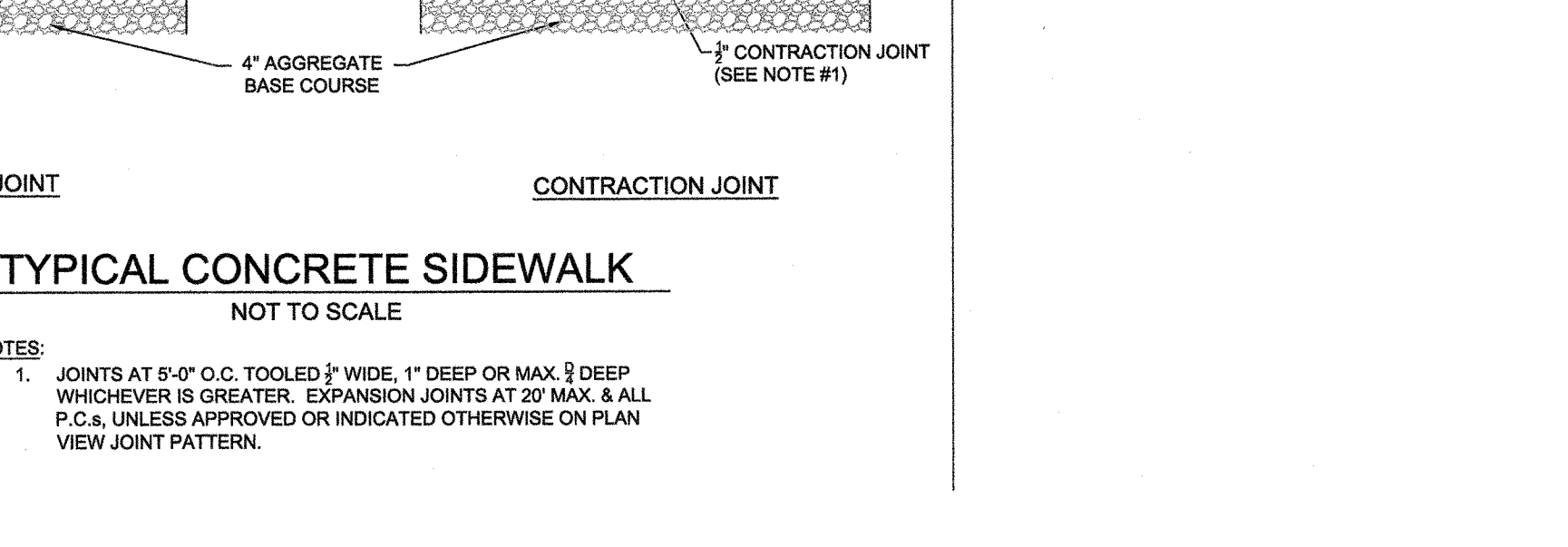
20 RETURNED CURB ACCESSIBLE RAMP NOT TO SCALE



21 SIDEWALK WITH CURB & GUTTER SECTION NOT TO SCALE



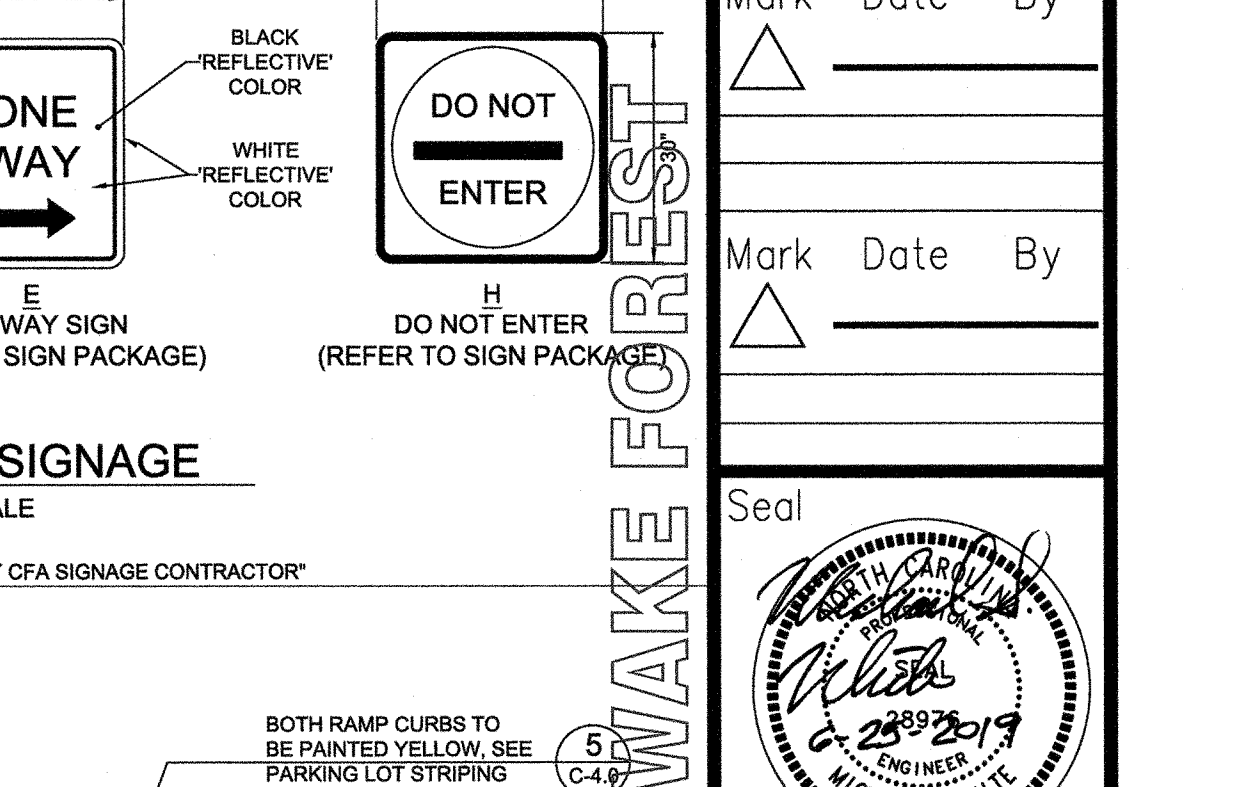
22 TYPICAL CONCRETE SIDEWALK NOT TO SCALE



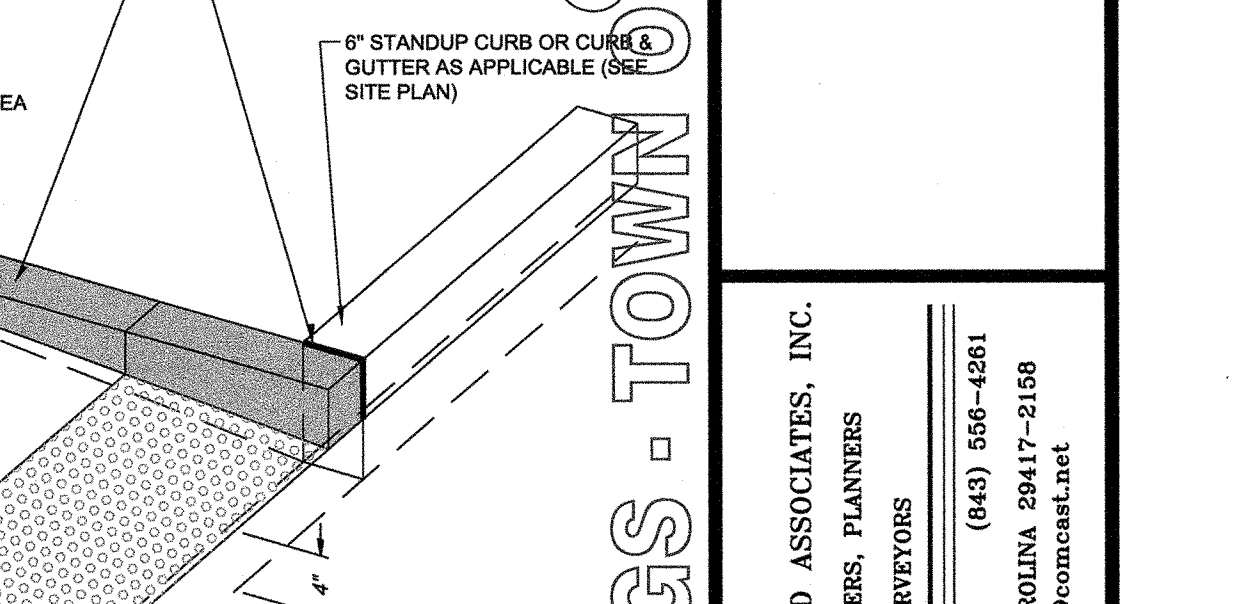
23 TRUNCATED DOMES - CAST IN PLACE NOT TO SCALE



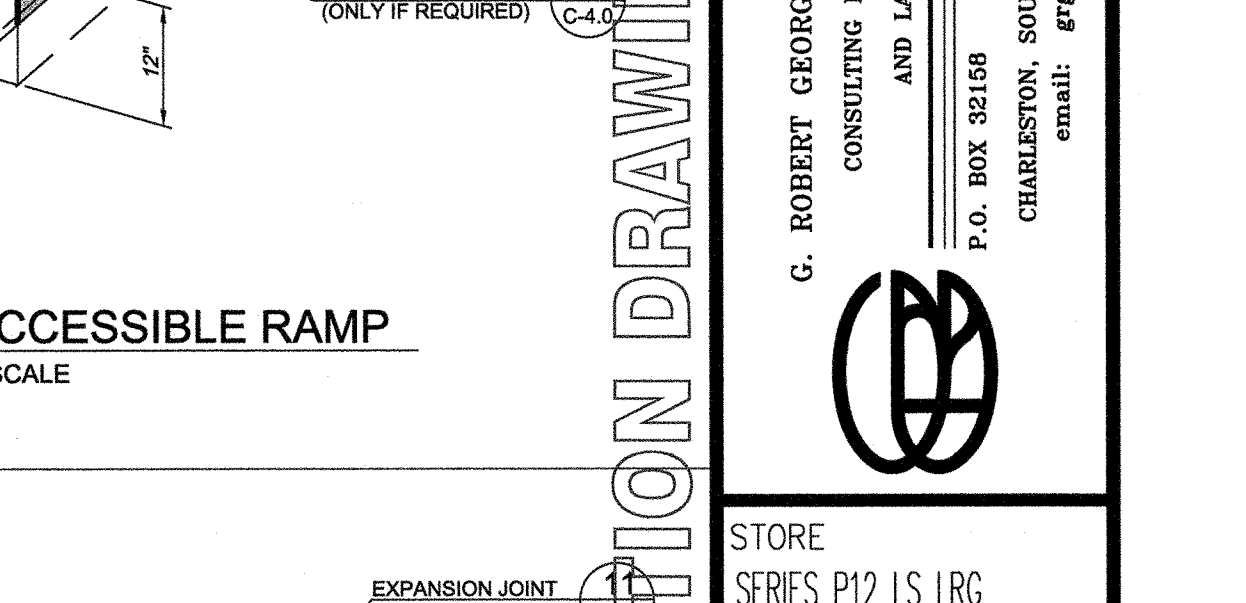
24 DIRECTIONAL SIGNAGE NOT TO SCALE



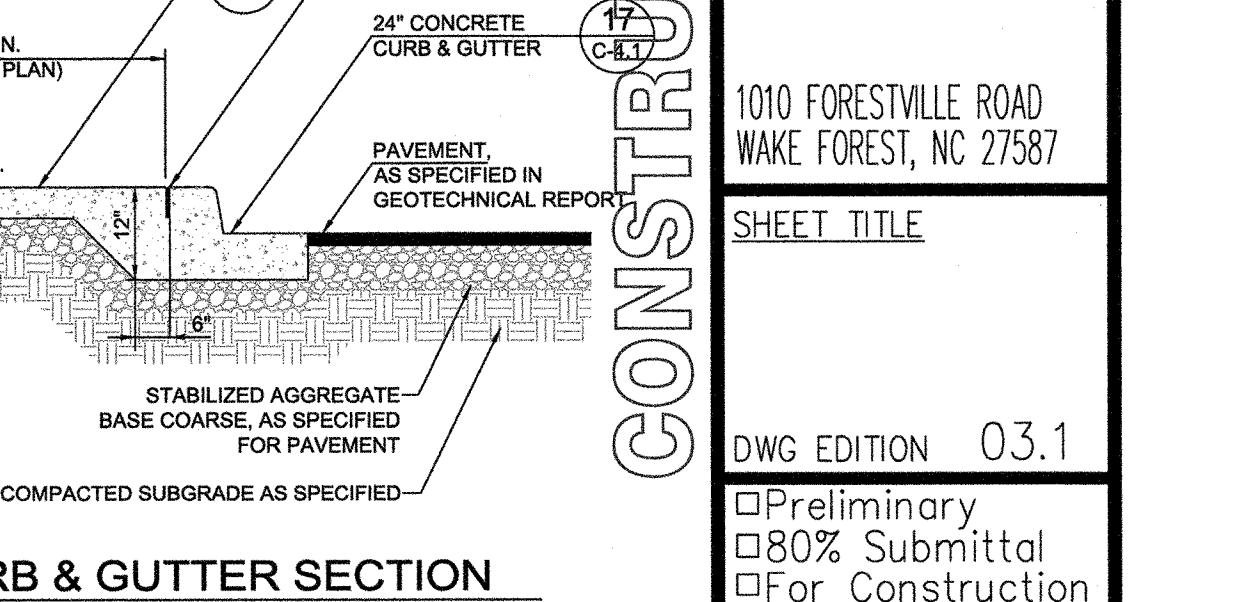
25 STOP SIGN & STANDARD MOUNTING POST (MUTCD R 1-1) NOT TO SCALE



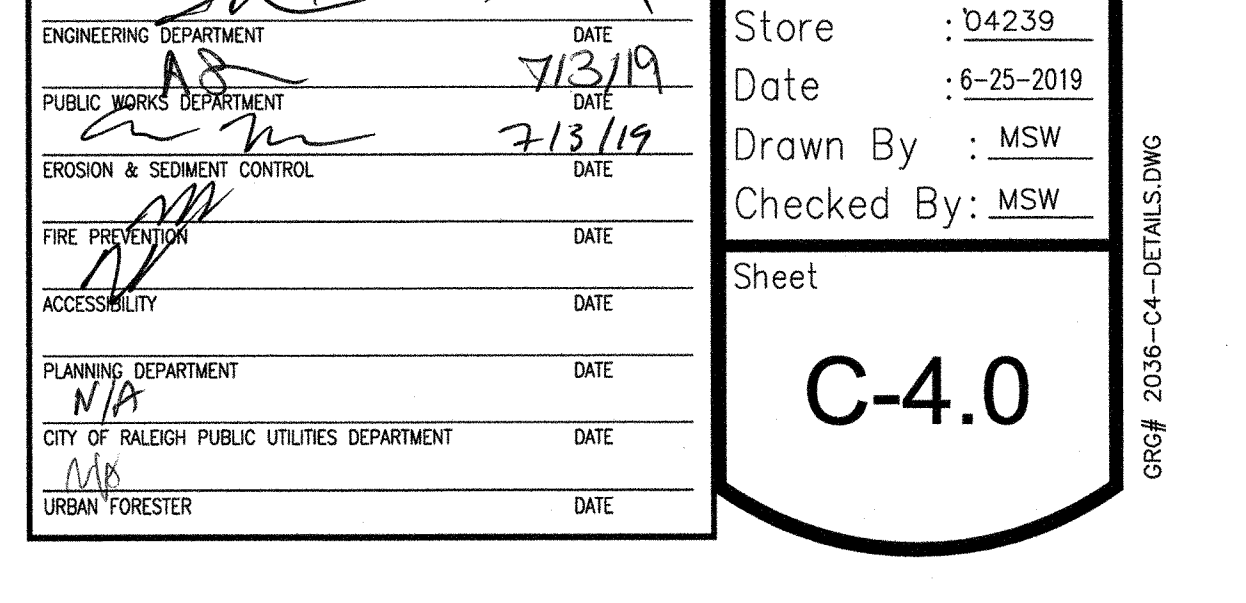
26 ACCESSIBLE PARKING SIGN (MUTCD R 7-8 AND R 7-8PS) NOT TO SCALE



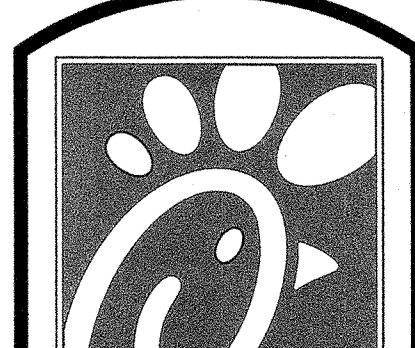
27 BOLLARD MOUNTED SIGN DETAIL NOT TO SCALE



28 STANDARD PARKING STALL NOT TO SCALE



29 CURB RAMP w/ FLARED SIDES NOT TO SCALE
30 CURB RAMP w/ SHORT FLARED SIDES NOT TO SCALE



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Revisions:

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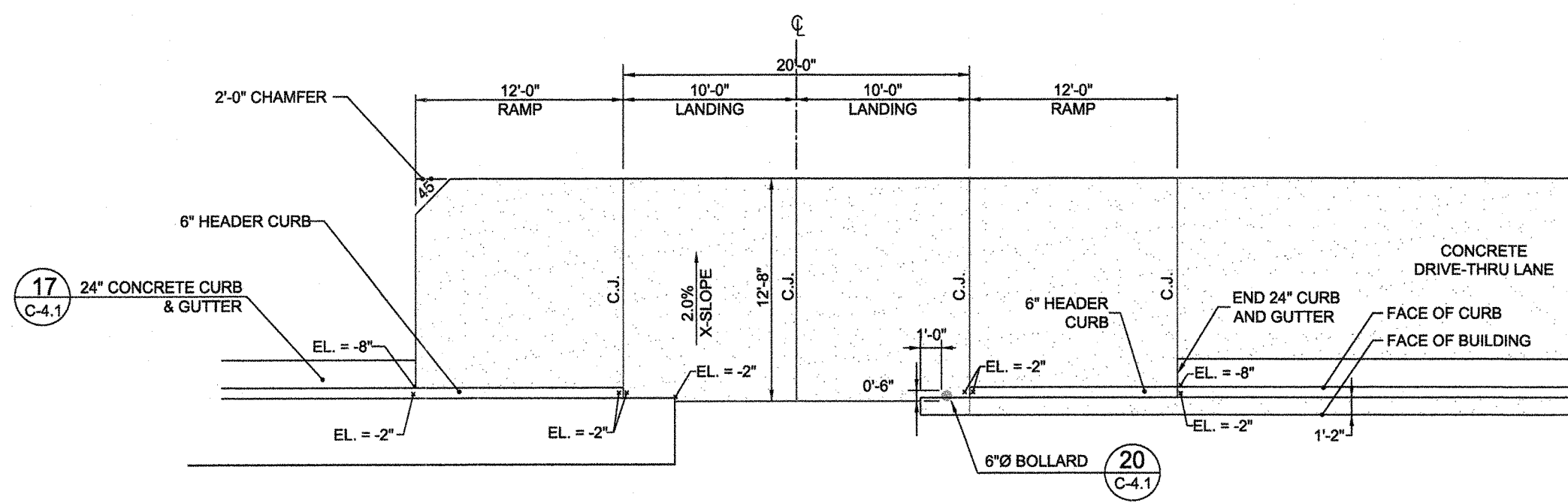
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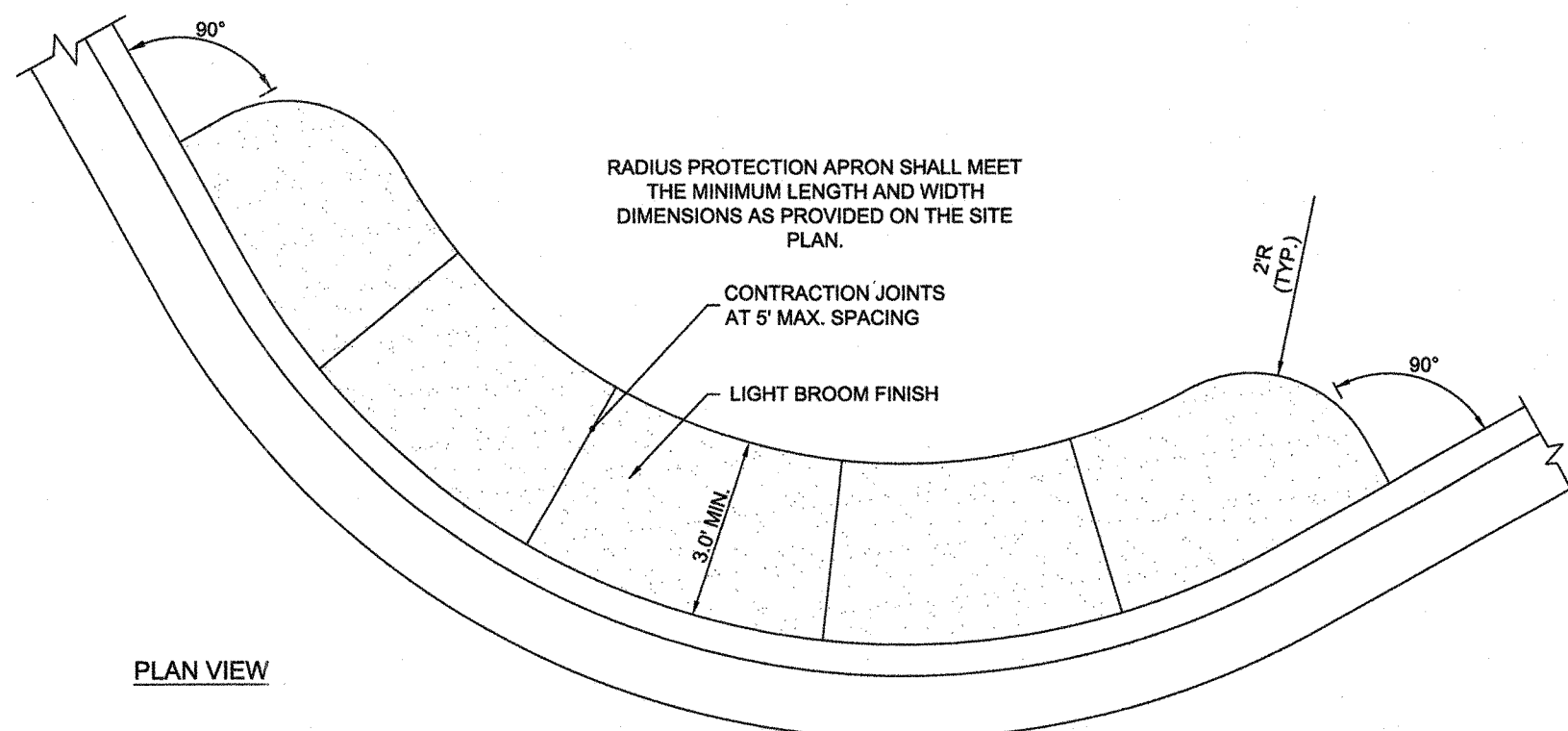
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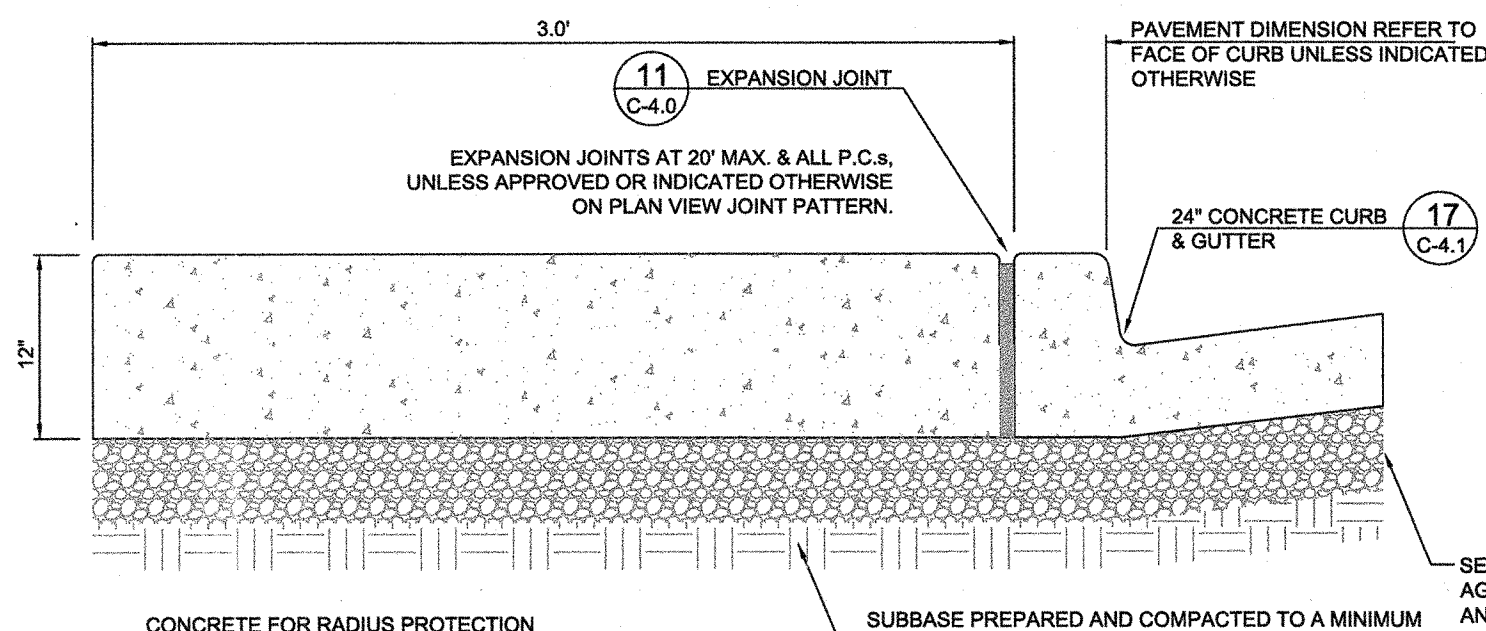


13 DRIVE-THRU PLAN
C-4.1 NOT TO SCALE

NOTE: ALL ELEVATIONS ON THIS DETAIL ARE RELATIVE TO FFE = 0'



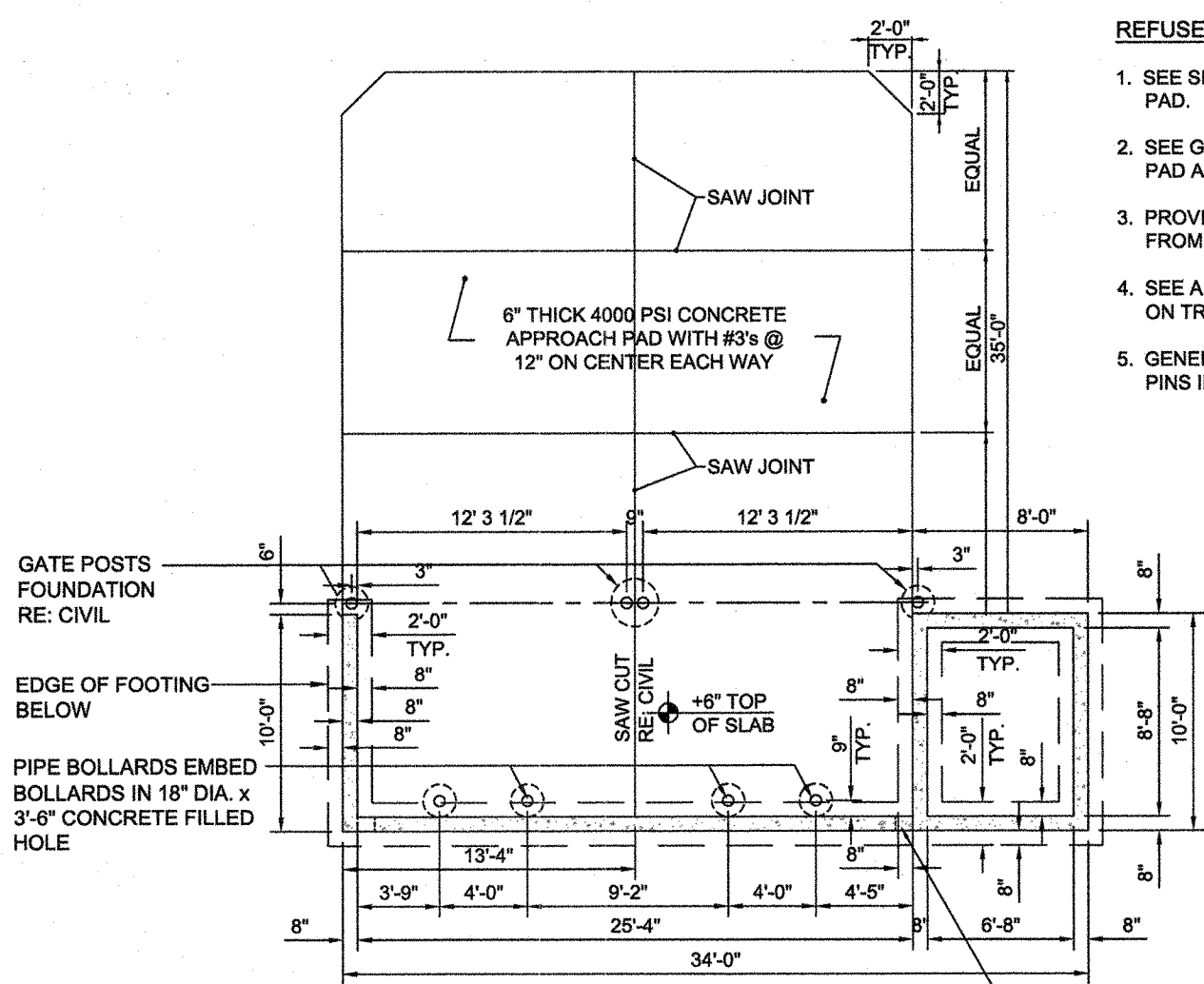
PLAN VIEW



CROSS SECTION

16 LANDSCAPE & IRRIGATION PROTECTOR
C-4.1 NOT TO SCALE

NOTE: 1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.

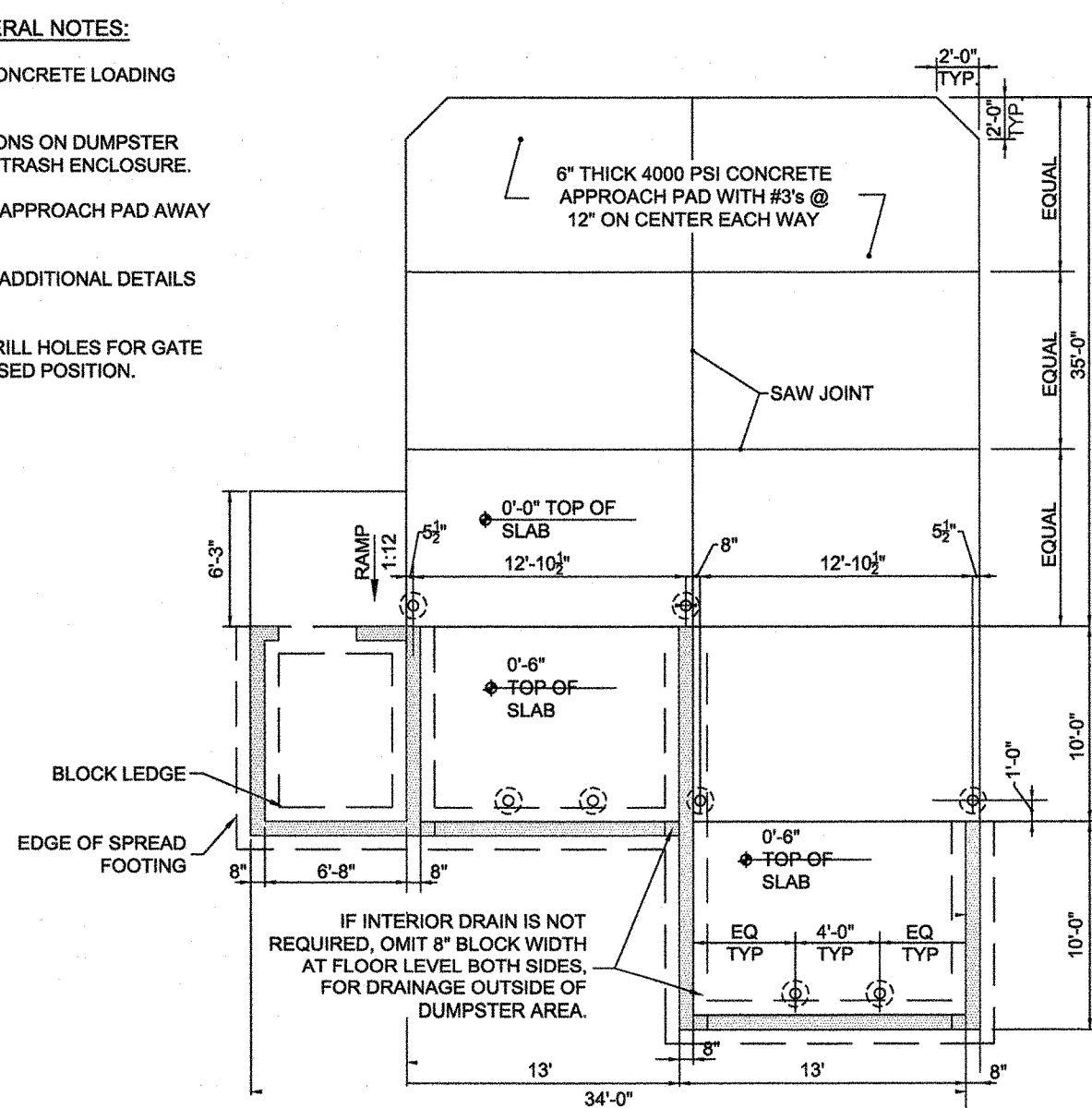


NOTES:
1. ARCHITECT SHALL VERIFY SIZE & COORDINATE WITH STRUCTURAL ENGINEER.
2. RE: CIVIL FOR DRAINAGE.

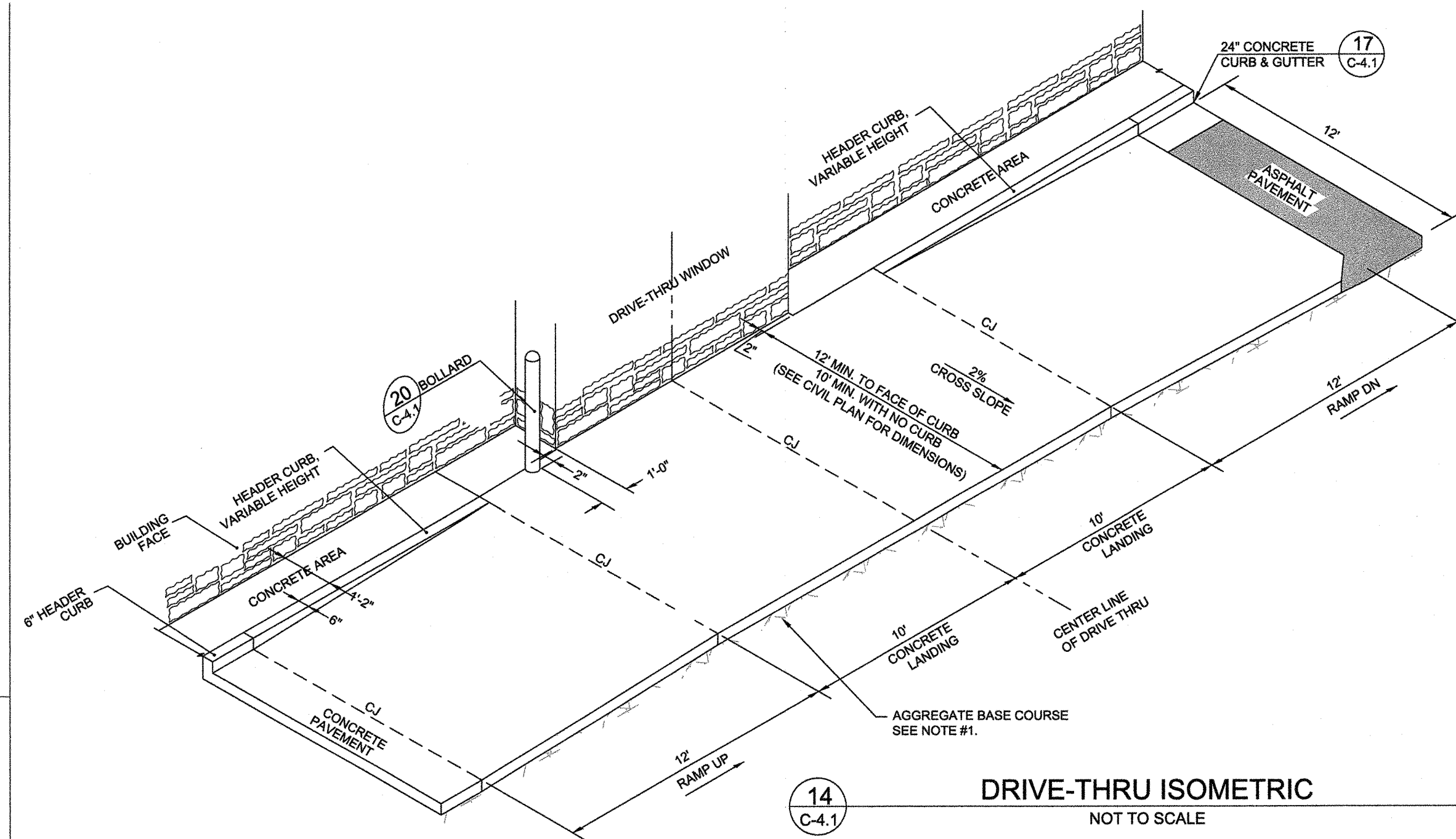
19 SCREENED REFUSE ENCLOSURE FOUNDATION PLAN
C-4.1 NOT TO SCALE

REFUSE ENCLOSURE PLAN GENERAL NOTES:

1. SEE SITE PLAN FOR LAYOUT OF CONCRETE LOADING PAD.
2. SEE GRADING PLAN FOR ELEVATIONS ON DUMPSTER PAD AND DRAINAGE OF INTERIOR TRASH ENCLOSURE.
3. PROVIDE POSITIVE DRAINAGE ON APPROACH PAD AWAY FROM DUMPSTER.
4. SEE ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS ON TRASH ENCLOSURE.
5. GENERAL CONTRACTOR SHALL DRILL HOLES FOR GATE PINS IN BOTH THE OPEN AND CLOSED POSITION.

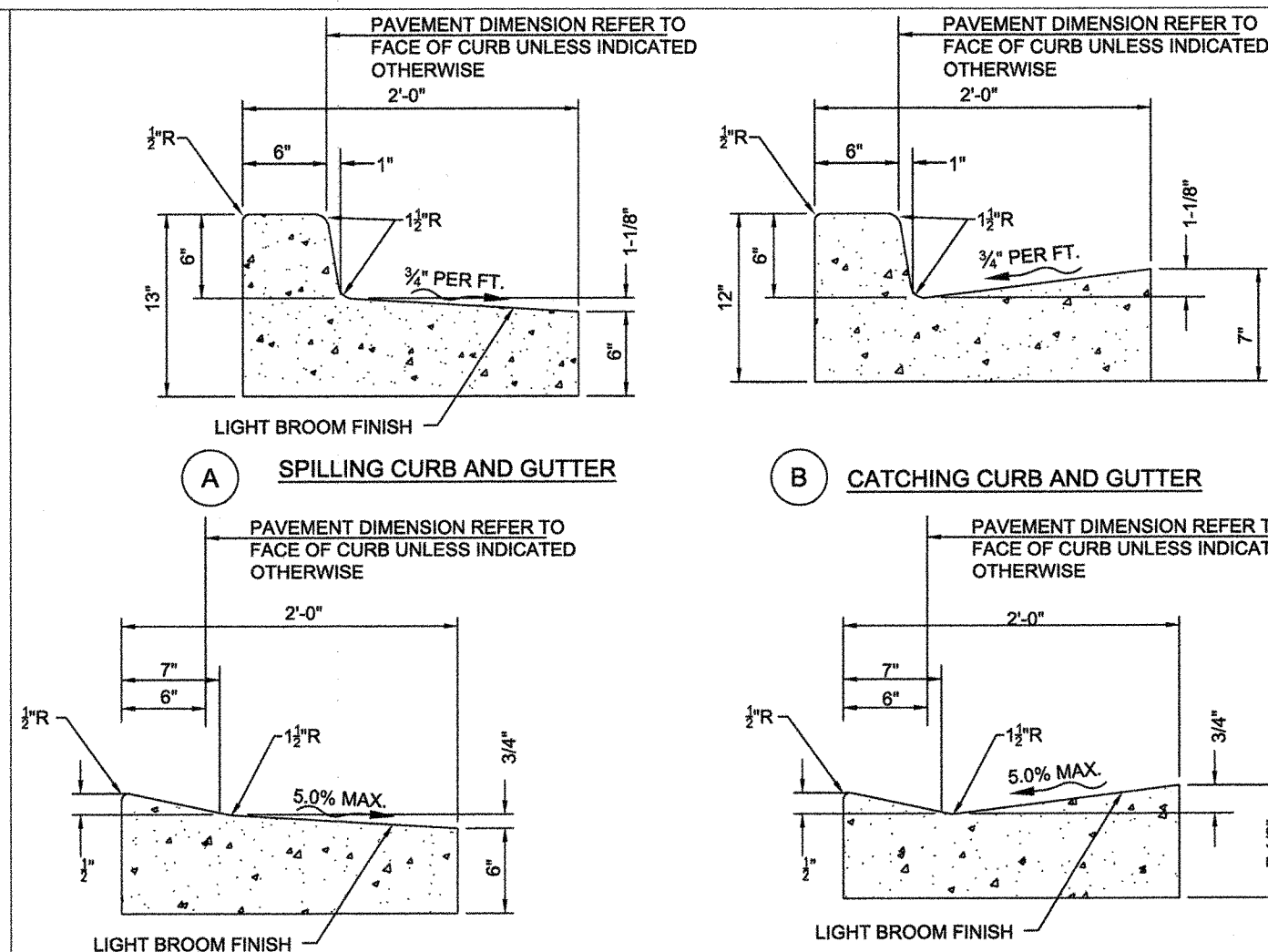


19A REFUSE ENCLOSURE FOUNDATION PLAN (ALT)
C-4.1 NOT TO SCALE



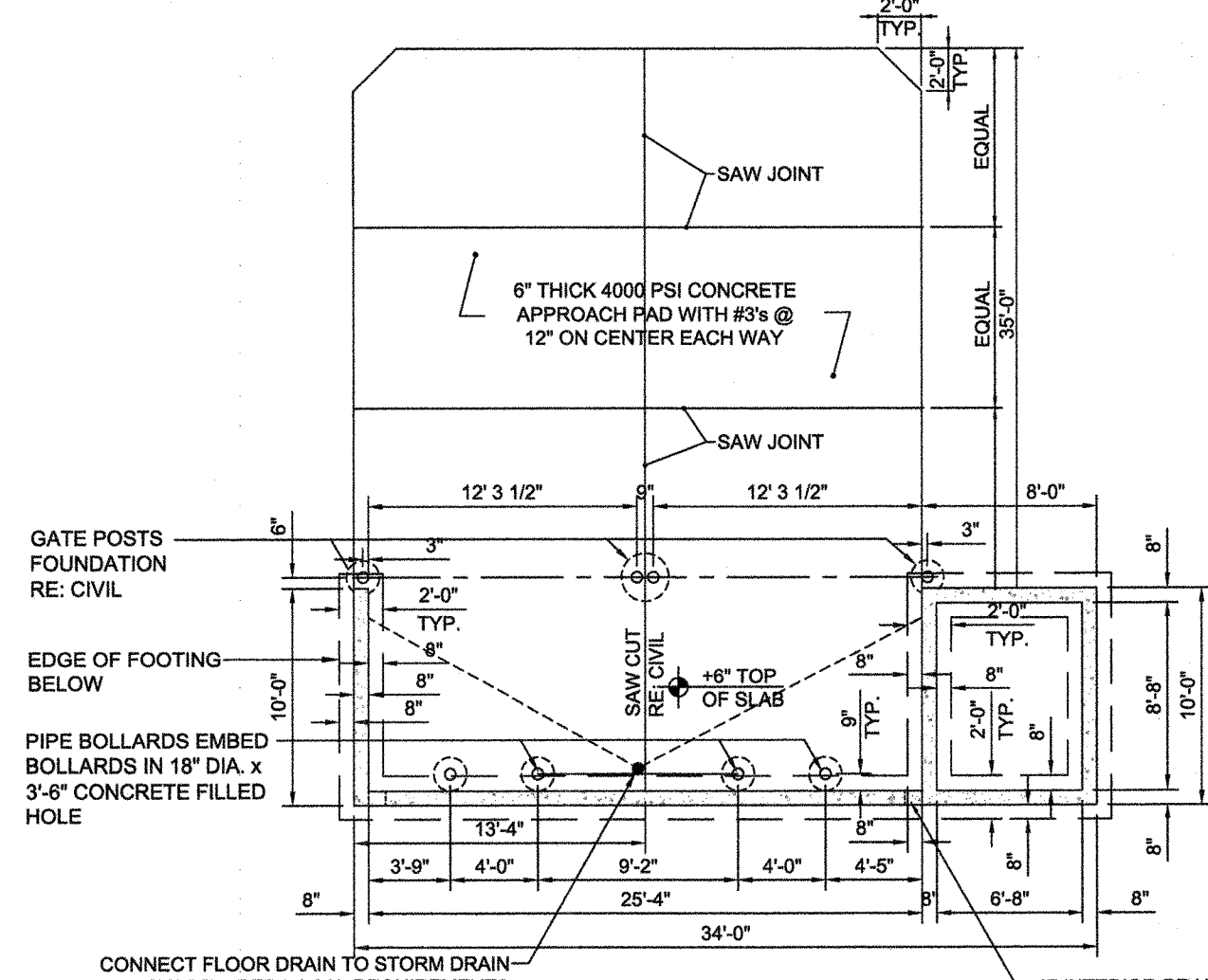
14 DRIVE-THRU ISOMETRIC
C-4.1 NOT TO SCALE

NOTE: 1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.



CONCRETE FOR CURBING SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 P.S.I. AT 28 DAYS.
CONSTRUCTION STAKING FOR CURBING INSTALLATION SHALL BE REFERENCED (CUT OR FILL) TO THE TOP OF CURB.
AT CONTRACTOR'S OPTION THE GUTTER THICKNESS MAY BE INCREASED AT THE EDGE OF PAVEMENT TO MAKE BOTTOM OF GUTTER PARALLEL WITH PAVING OF BASE COURSE.
CONTRACTION JOINTS AT 10'-0" O.C. TOOLED 1/4" (±1/16") WIDE, 1" OR MAX. DIA. DEEP WHICHEVER IS GREATER. EXPANSION JOINTS AT 40' MAX. AND ALL P.C.'s, UNLESS APPROVED OR INDICATED OTHERWISE ON PLAN VIEW JOINT PATTERN.

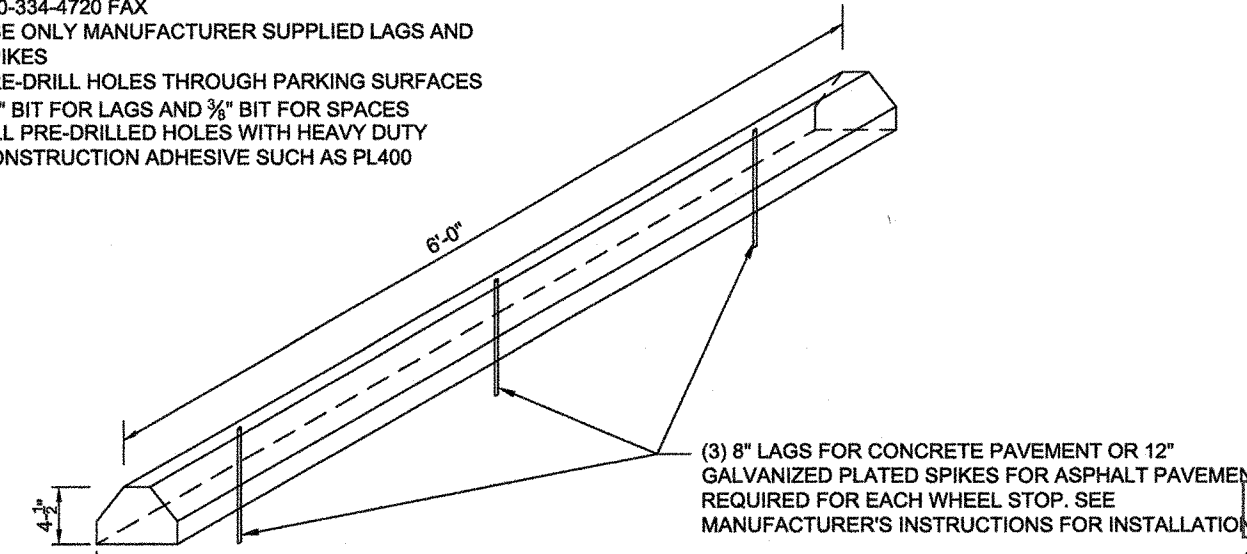
17 24" CONCRETE CURB & GUTTER
C-4.1 NOT TO SCALE



NOTES:
1. ARCHITECT SHALL VERIFY SIZE & COORDINATE WITH STRUCTURAL ENGINEER.
2. RE: CIVIL FOR DRAINAGE.

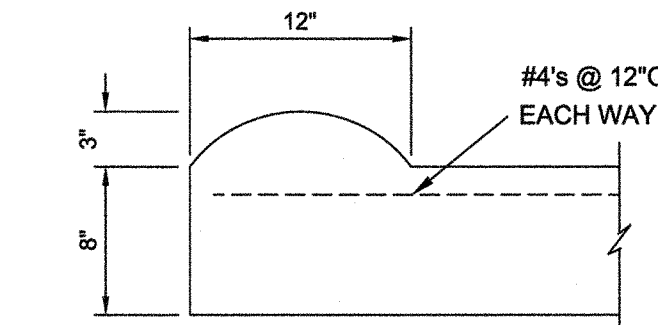
19B REFUSE ENCLOSURE ALTERNATE DRAINAGE PLAN
C-4.1 NOT TO SCALE

- NOTES:
1. MATERIAL: SOLID POLYETHYLENE
 2. WHEEL STOP COLOR: YELLOW
 3. MANUFACTURER - PLASTICS-R-UNIQUE, INC. 352 MILL STREET WADSWORTH, OH 44281 330-334-4820 PHONE 330-334-4720 FAX USE ONLY MANUFACTURER SUPPLIED LAGS AND SPIKES
 4. PRE-DRILL HOLES THROUGH PARKING SURFACES (3/4" BIT FOR LAGS AND 3/8" BIT FOR SPACES)
 5. FILL PRE-DRILLED HOLES WITH HEAVY DUTY CONSTRUCTION ADHESIVE SUCH AS PL400



15 SOLID PLASTIC WHEEL STOP
C-4.1 NOT TO SCALE

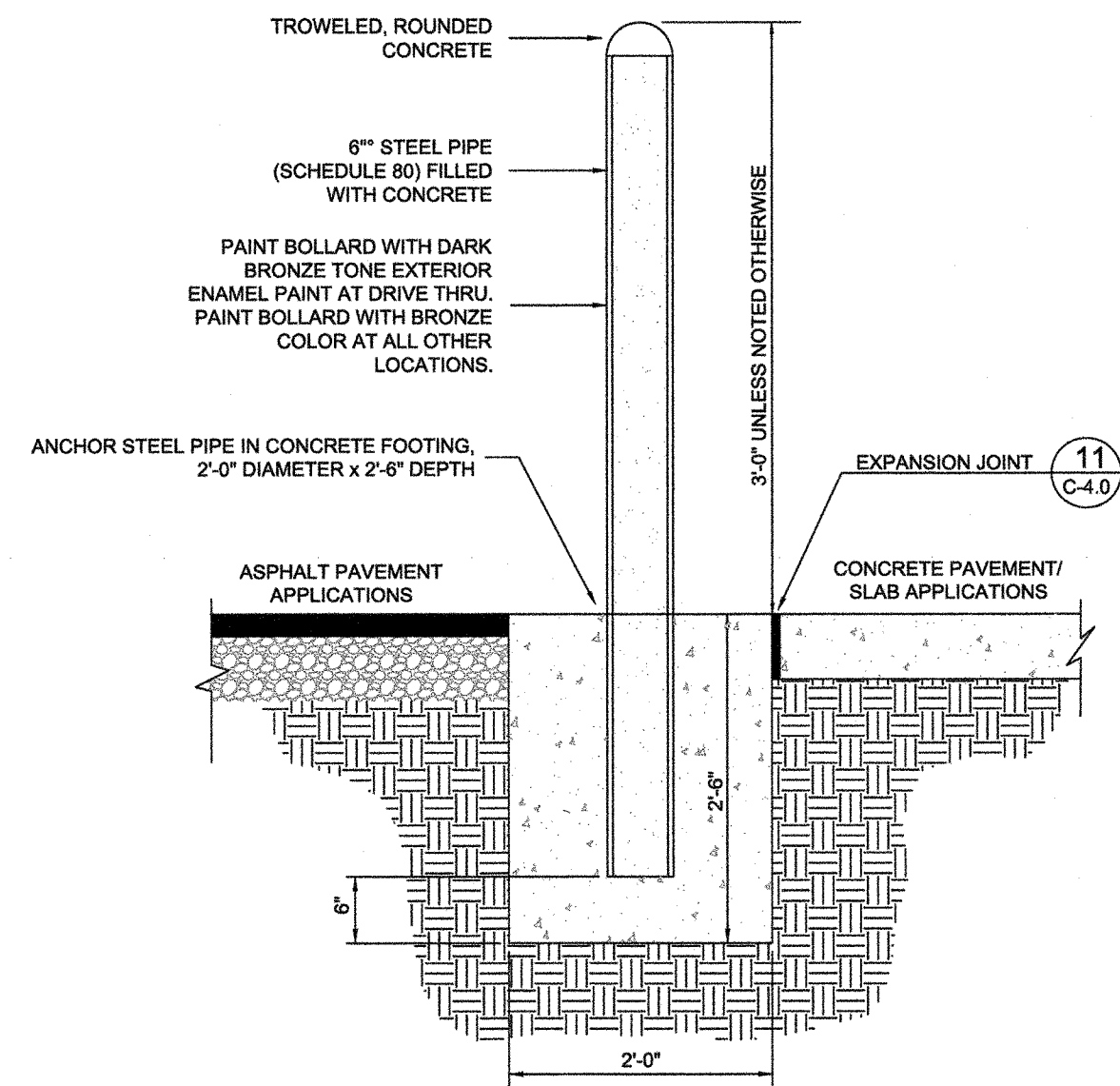
NOTE: WHEEL STOPS ONLY TO BE USED WHEN NO OTHER PRACTICAL OPTION EXISTS



NOTES:
1. PRE-CUT EXPANSION JOINT MATERIAL SHALL BE USED IN ALL EXPANSION JOINTS.
2. DUMMY JOINTS SHALL BE INSTALLED AT 10' INTERVALS, MAXIMUM.
3. INSTALL EXPANSION JOINTS EVERY 40' MAX. AT ENDS OF RADIUS, AND A MINIMUM OF 5' FROM INLET STRUCTURES.
4. BREAK AS NEEDED TO ENSURE POSITIVE DRAINAGE.
5. CONCRETE TO BE 5,000 P.S.I. 6. MOUNTABLE CURB TO BE PAINTED YELLOW.

18 ROLLOVER/MOUNTABLE CURB
C-4.1 NOT TO SCALE

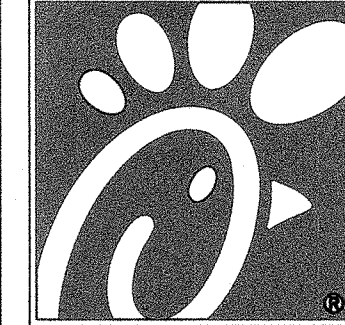
NOTES:
1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.
2. EXPANSION JOINT FILLER SHALL BE FLEXIBLE, LIGHTWEIGHT, NON-STAINING, POLYETHYLENE, CLOSED-CELL EXPANSION JOINT



20 CONCRETE BOLLARD
C-4.1 NOT TO SCALE

NOTE: BOLLARD HEIGHT SHALL BE 5'-0" AT DRIVE-THRU WINDOW

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST.	
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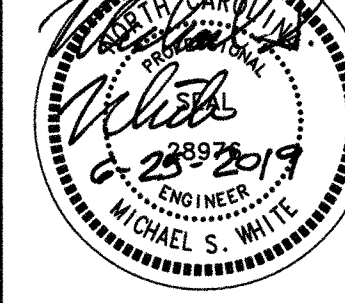


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Seal



G. ROBERT GEORGE AND ASSOCIATES, INC.
CONSULTING ENGINEERS, PLANNERS
AND LAND SURVEYORS
P.O. BOX 32158 (843) 566-4261
CHARLESTON, SOUTH CAROLINA 29417-2158
email: ggeorge@comcast.net

STORE
SERIES P12 LS LRG
FSU 04239

1010 FORESTVILLE ROAD
WAKE FOREST, NC 27587

SHEET TITLE

DWG EDITION 03.1

☐ Preliminary
☒ 80% Submittal
☐ For Construction

Job No. : 2036

Store : 04239

Date : 6-25-2019

Drawn By : MSW

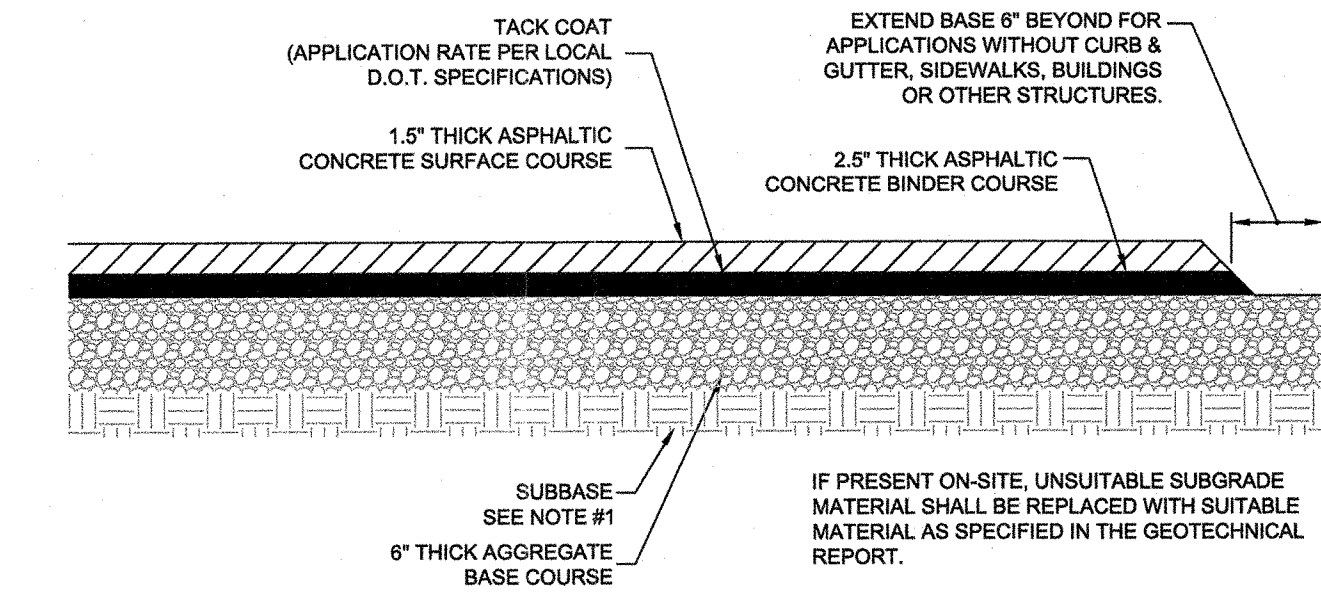
Checked By: MSW

Sheet

C-4.1

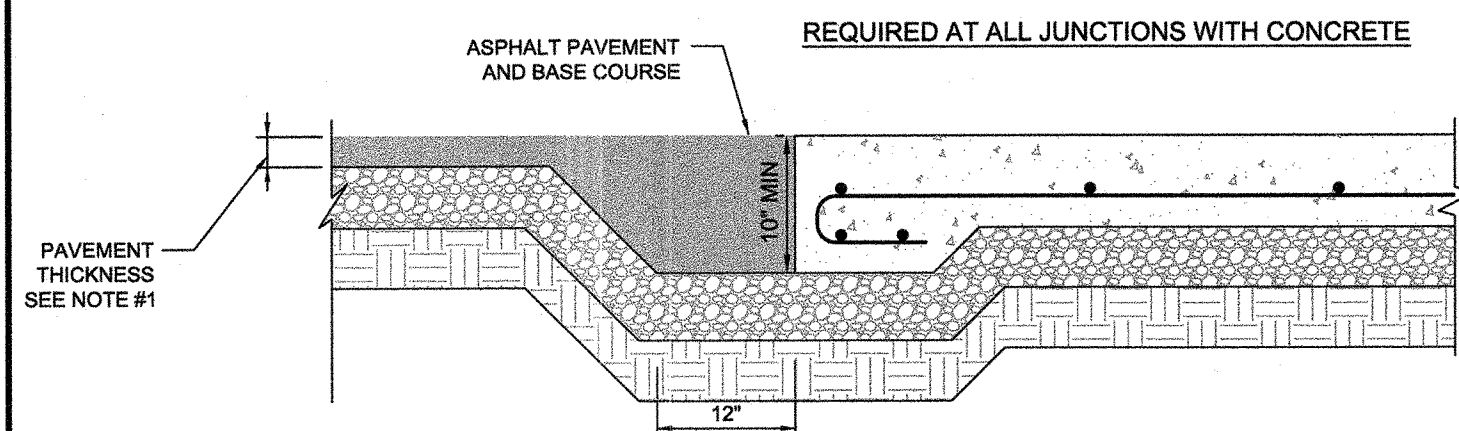
REFERENCE: GEOTECHNICAL ENGINEERING REPORT, C/HOK-FL-A #04095, HARRISBURG, NC
DATED JULY 3, 2017 BY TERRACON CONSULTANTS, INC., PROJECT No. 71175046

PAVEMENT DESIGN SECTIONS	(REGULAR DUTY)	(HEAVY DUTY)
ASPHALT CONCRETE SURFACE COURSE (SCOOT STD)	1.5" INCHES	1.5" INCHES
ASPHALT BINDER COURSE (SCOOT STD)	2.5" INCHES	2.5" INCHES
AGGREGATE BASE COURSE (SCOOT STD)	6" INCHES	8" INCHES



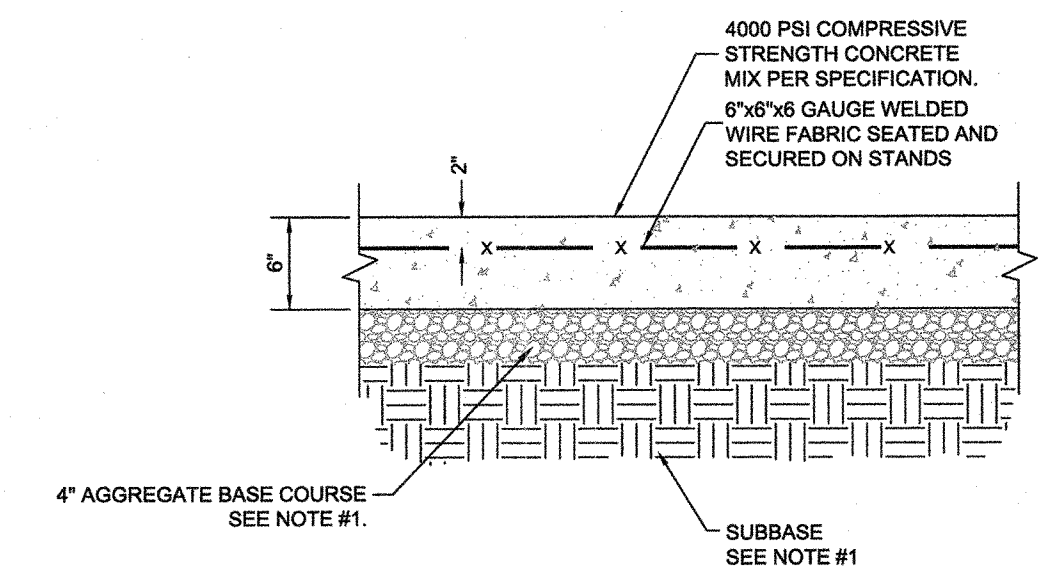
21
C-4.2
TYPICAL PAVEMENT SECTION
NOT TO SCALE

- NOTE:
1. GENERAL CONTRACTOR SHALL REFERENCE SITE SPECIFIC GEOTECHNICAL REPORT FOR PAVEMENT, AGGREGATE, AND SUBGRADE SECTION REQUIREMENTS.
 2. MINIMUM PAVEMENT THICKNESS SHOULD BE 6\"/>



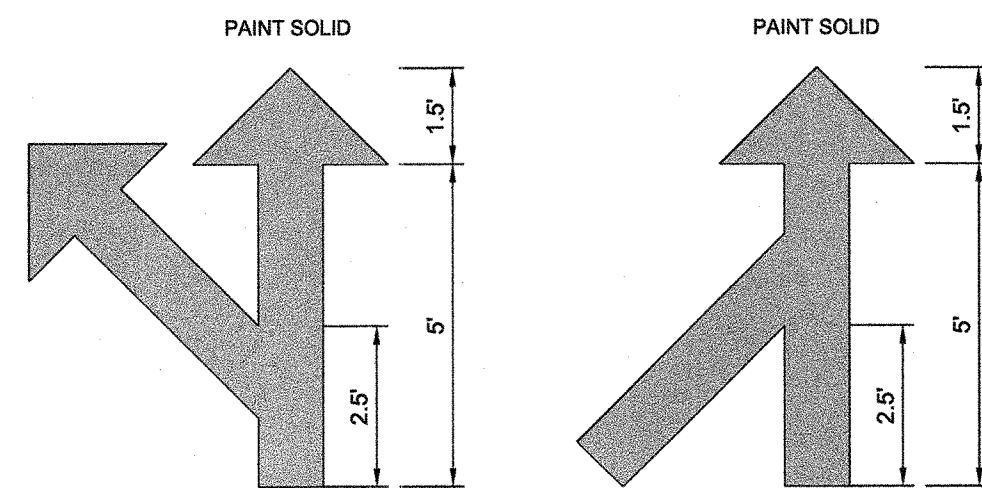
21A
C-4.2
PAVEMENT EDGE DETAIL
NOT TO SCALE

- NOTE:
1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.



25
C-4.2
CONCRETE PAVING DRIVE-THRU LANE
NOT TO SCALE

- NOTE:
1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.



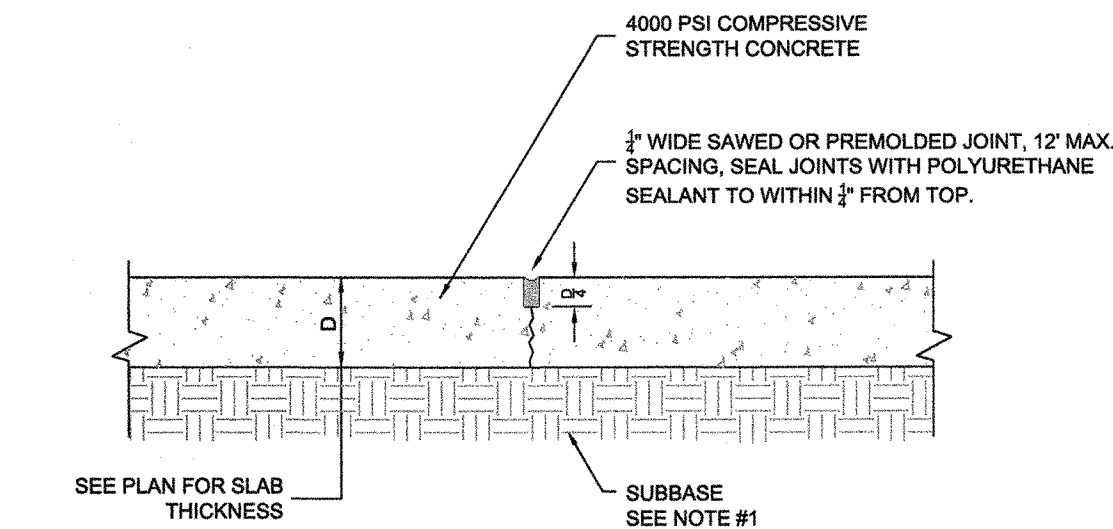
MULTI-LANE SPLIT

MULTI-LANE MERGE

32
C-4.2
MULTI-LANE DIRECTIONAL GRAPHICS
NOT TO SCALE

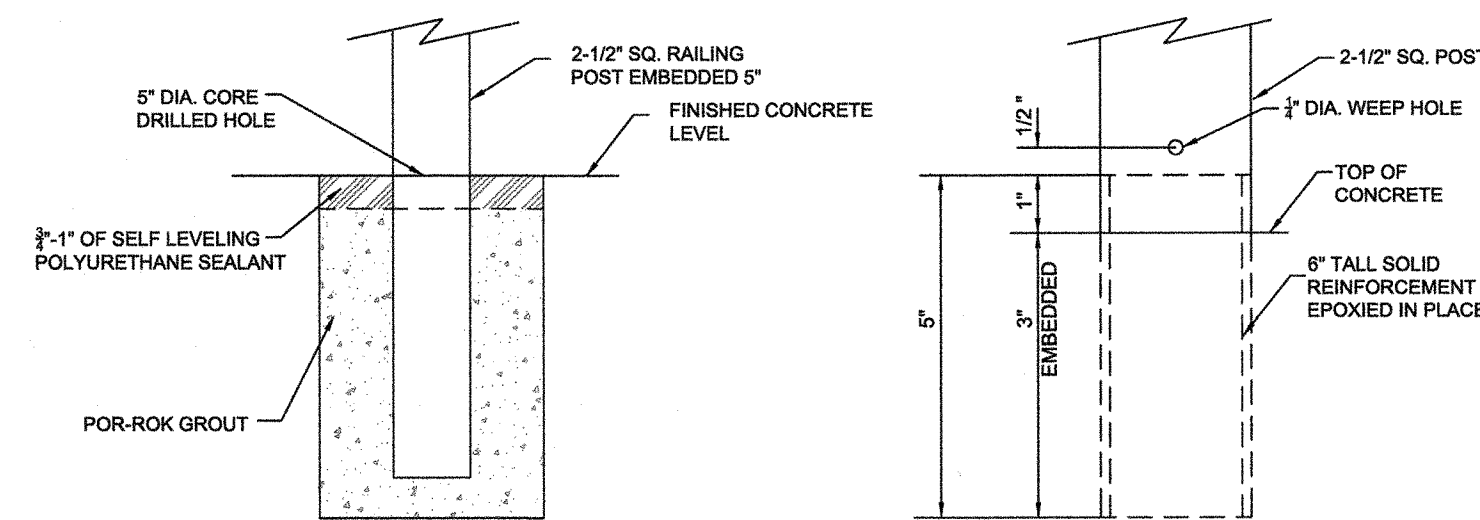
- NOTES:
1. GENERAL CONTRACTOR SHALL REFER TO CHICK-FIL-A PARKING LOT STRIPING SPECIFICATIONS; SEE DETAIL.
 2. CONTRACTOR SHALL USE WHITE REFLECTIVE PAINT ON ASPHALT & YELLOW REFLECTIVE PAINT ON CONCRETE.

5
C-4.0



22
C-4.2
TRANSVERSE AND LONGITUDINAL CONTRACTION JOINT
NOT TO SCALE

- NOTE:
1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.



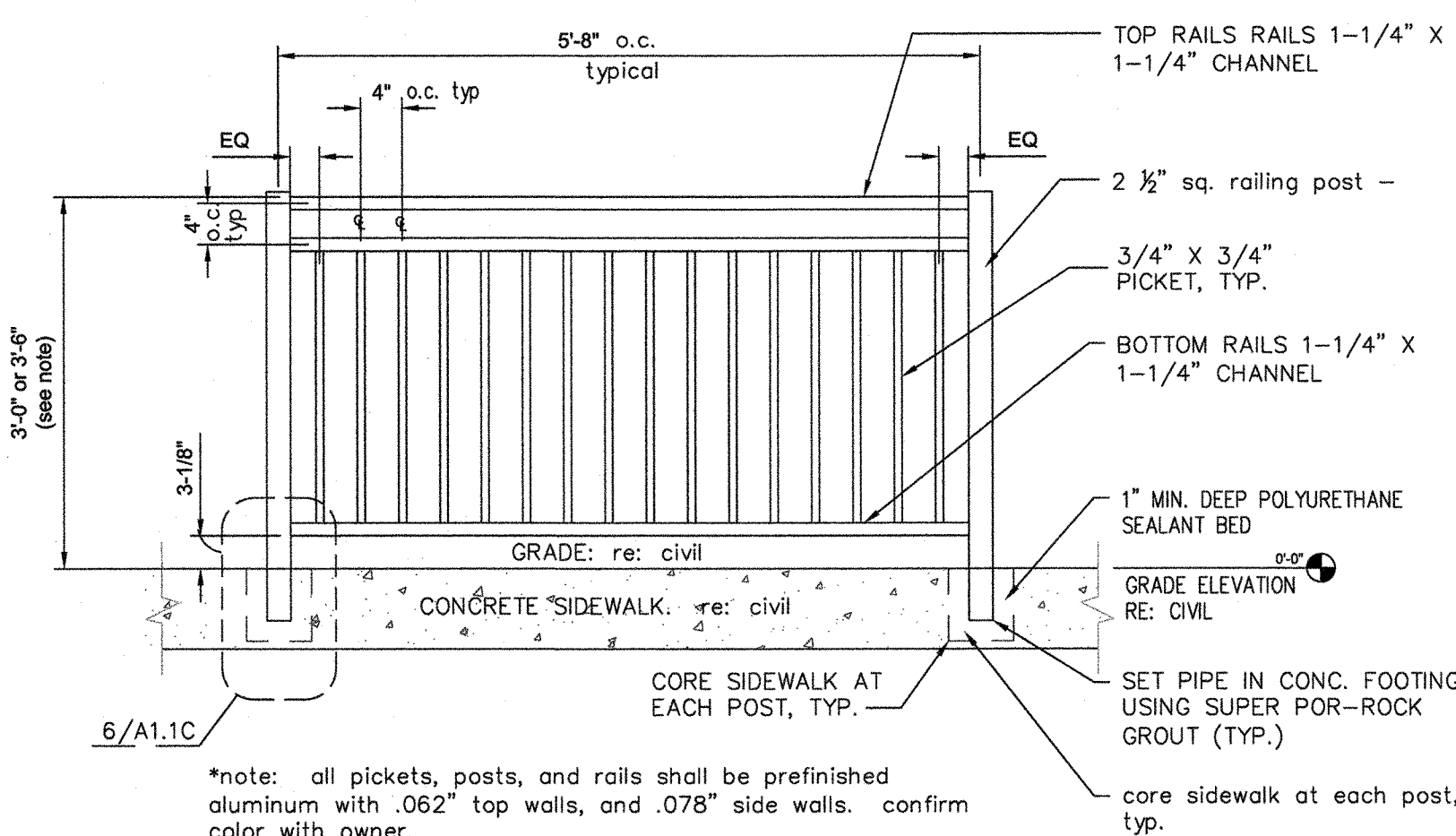
FIELD EMBEDMENT DETAIL

EMBEDDED POST DETAIL

- NOTES:
1. 3\"/>

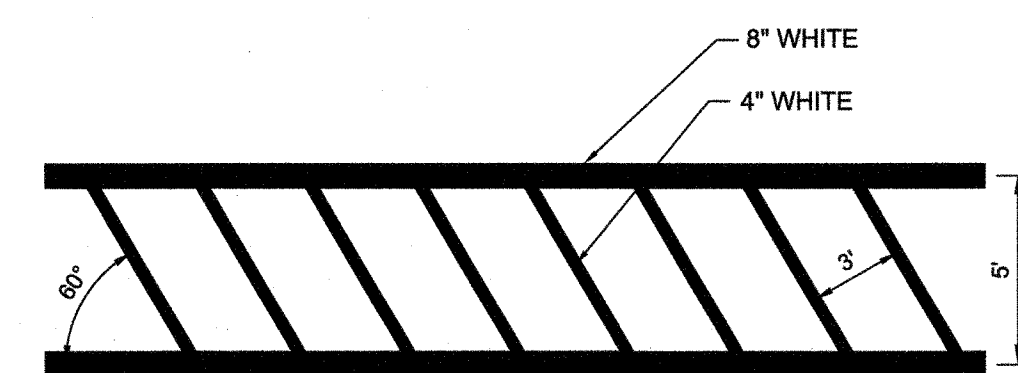
2. ALL ALUMINUM TO BE .062\"/>

- WEEP HOLE NOTE
1. ALL POSTS GROUTED INTO CONCRETE MUST HAVE A 1/2\"/>



26
C-4.2
ALUMINUM HANDRAIL
NOT TO SCALE

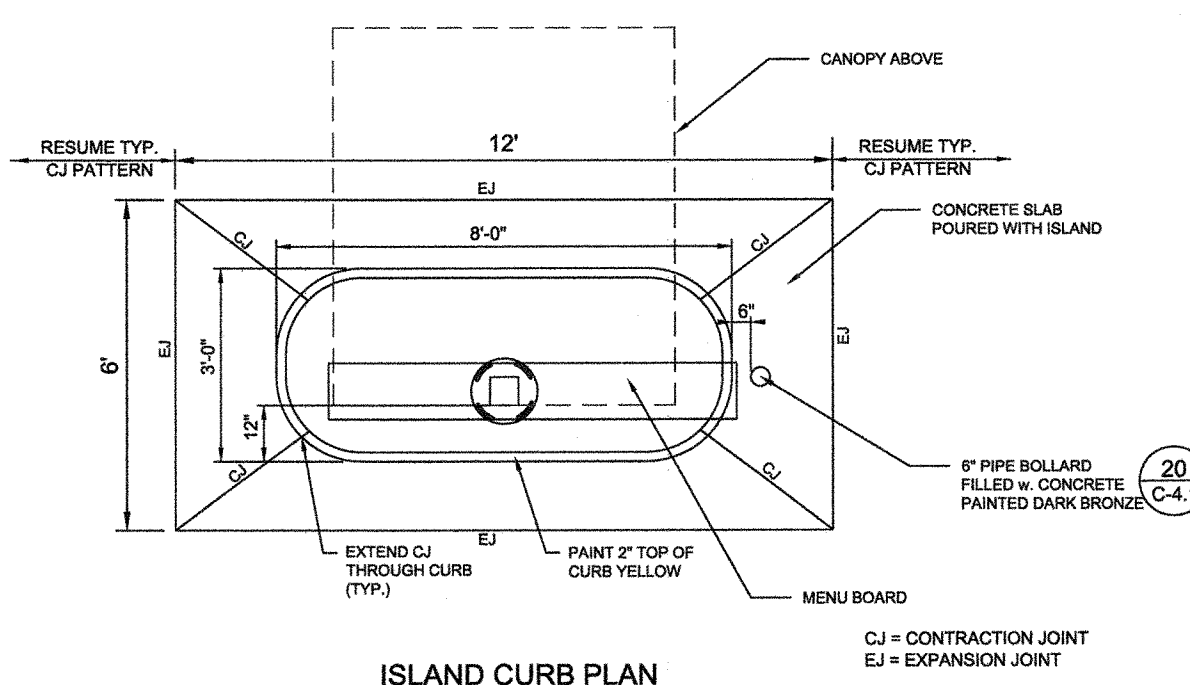
- NOTE:
1. USE ONLY COMMERCIAL GRADE ALUMINUM FENCING WITH BLACK POWDER COAT FINISH



33
C-4.2
CROSSWALK DETAIL
NOT TO SCALE

- NOTES:
1. REFER TO PARKING LOT STRIPING SPECIFICATION
 2. CROSSWALK ALONG AN ACCESSIBLE ROUTE SHALL MAINTAIN A CROSS SLOPE OF 2% MAX AND A RUNNING SLOPE OF 5% MAX.

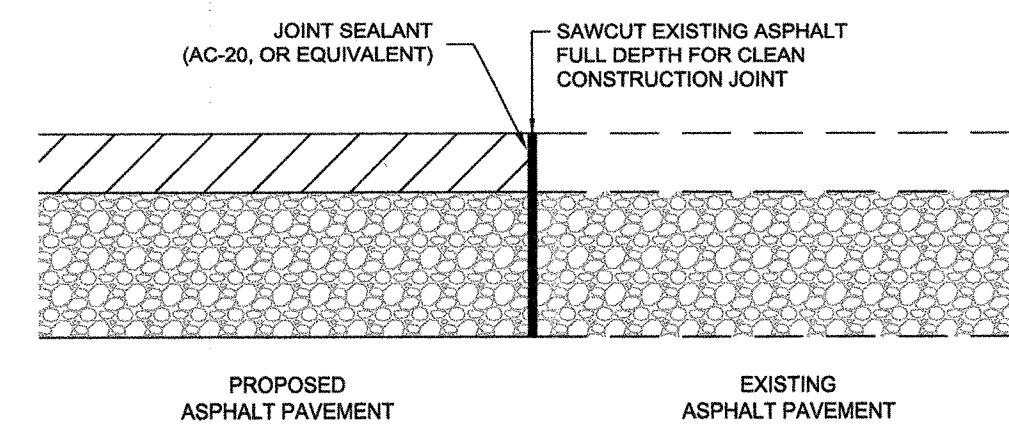
5
C-4.0



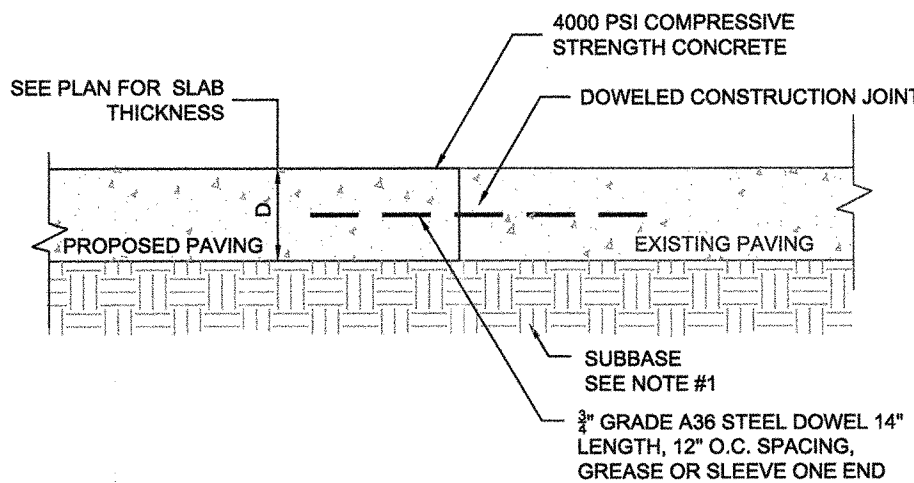
ISLAND CURB PLAN

ISLAND CURB ELEVATION

34
C-4.2
DRIVE THRU ORDER POINT ISLAND CURB
NOT TO SCALE

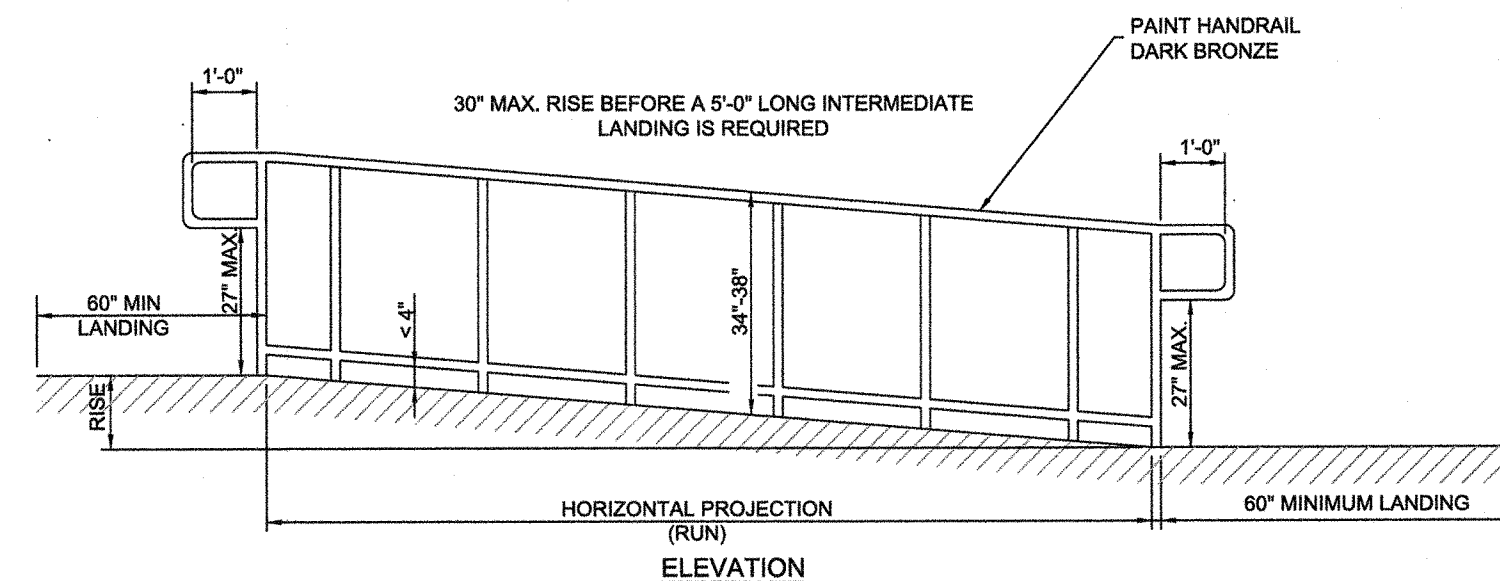


23A
C-4.2
BUTT JOINT
NOT TO SCALE



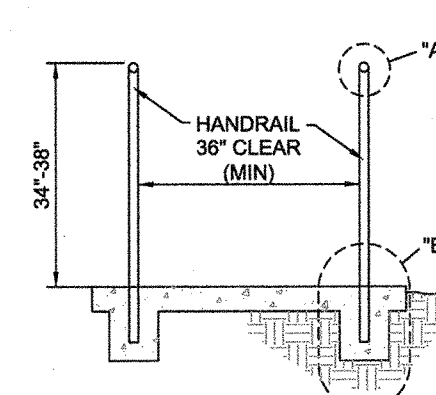
23
C-4.2
TRANSVERSE AND LONGITUDINAL DOWELED CONSTRUCTION JOINT
NOT TO SCALE

- NOTE:
1. GENERAL CONTRACTOR SHALL REFERENCE GEOTECHNICAL REPORT FOR PAVEMENT SECTION REQUIREMENTS.

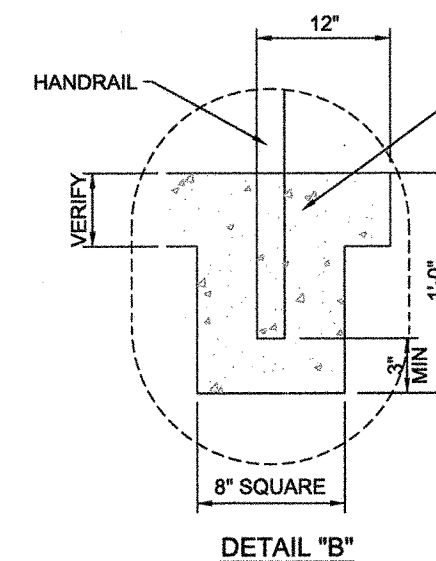


27
C-4.2
TYPICAL ADA RAMP AND HANDRAIL
NOT TO SCALE

- NOTE:
1. USE ONLY COMMERCIAL GRADE ALUMINUM FENCING WITH DARK BRONZE POWDER COAT FINISH



DETAIL "A"



DETAIL "B"

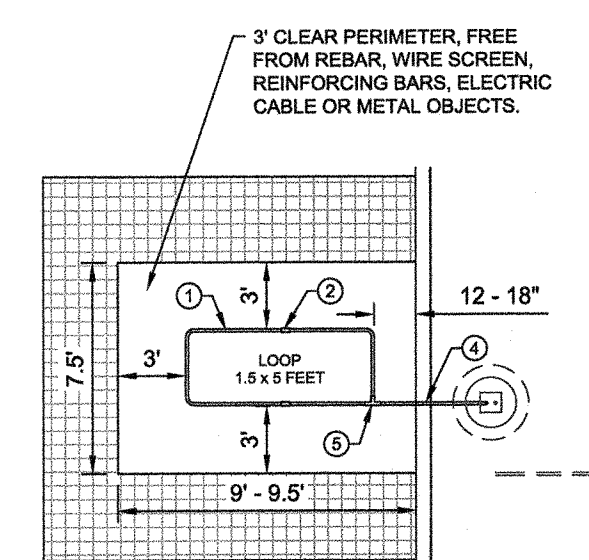
- RAMP
- SECTION 405
- *ANY PART OF AN ACCESSIBLE ROUTE WITH A SLOPE GREATER THAN 1:20 SHALL BE CONSIDERED A RAMP AND SHALL COMPLY WITH 4.8"
 - *THE LEAST POSSIBLE SLOPE SHALL BE USED FOR ANY RAMP."
 - *THE MINIMUM CLEAR WIDTH OF A RAMP SHALL BE 36"
 - *MAXIMUM SLOPE FOR A RAMP SHALL BE 1:12. RISE FOR ANY RAMP RUN SHALL 30" MAXIMUM.

- LANDINGS
- SECTION 405.7
- *LEVEL LANDINGS WILL BE PROVIDED AT TOP AND BOTTOM OF EACH RAMP. LANDING LENGTH SHALL BE MIN. 60" AND BE AS WIDE AS RAMP MIN. 36"
 - *IF RAMP CHANGES DIRECTION LANDING WILL BE MIN. 60"x60"
 - *IF A DOORWAY IS LOCATED AT A LANDING, THEN THE AREA IN FRONT OR THE DOORWAY SHALL COMPLY WITH 404.2.4 AND 404.3.2

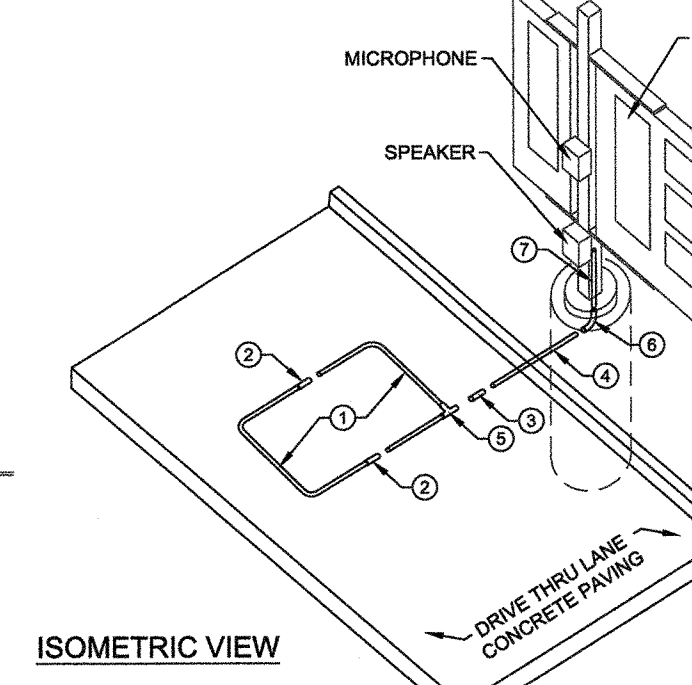
- HANDRAILS
- SECTION 505
- *IF A RAMP HAS A SLOPE GREATER THAN 5% AND A RISE GREATER THAN 6" OR A HORIZONTAL PROJECTION GREATER THAN 72", THEN IT SHALL HAVE HANDRAILS ON BOTH SIDES"
 - *HANDRAIL WILL BE CONSTRUCTED OF WELDED STEEL PIPE - GRIND SMOOTH AND PAINT TO MATCH DARK BRONZE.

- CROSS SLOPE
- SECTION 405.3
- *THE CROSS SLOPE OF RAMP SURFACES SHALL BE NO GREATER THAN 1:50.
 - *NOWHERE SHALL THE CROSS SLOPE OF AN ACCESSIBLE ROUTE EXCEED 1:50.

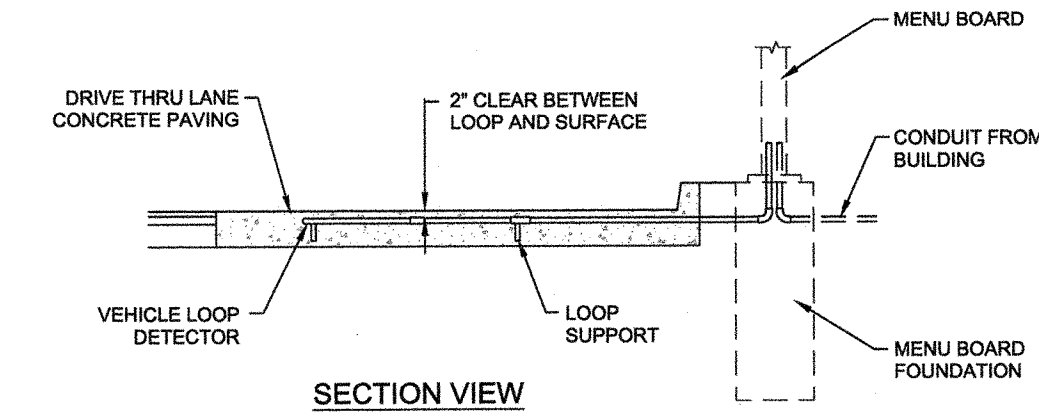
- NOTE: VERIFY ALL STATE AND LOCAL REQUIREMENTS FOR RAMPS AND HANDRAILS.



PLAN VIEW



ISOMETRIC VIEW



SECTION VIEW

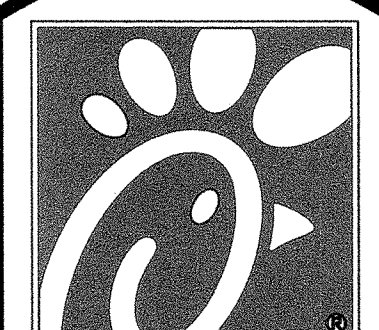
35
C-4.2
MENU BOARD LOOP DETECTION SYSTEM
NOT TO SCALE

- NOTES:
1. LOOP DETECTOR IS MODEL NO. VOL100 VEHICLE DETECTION LOOP MANUFACTURED BY MH ELECTRONICS, INC.
 2. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION.

PARTS LIST

1. PREFAB (FOLDED) LOOP (1\"/>

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE	DATE
TOWN OF WAKE FOREST	7-2-17
ENGINEERING DEPARTMENT	DATE
7/3/17	DATE
PUBLIC WORKS DEPARTMENT	DATE
7/3/17	DATE
EROSION & SEDIMENT CONTROL	DATE
FIRE PROTECTION	DATE
ACCESSIBILITY	DATE
PLANNING DEPARTMENT	DATE
N/A	DATE
CITY OF RALPHI PUBLIC UTILITIES DEPARTMENT	DATE
MA	DATE
URBAN FORESTER	DATE

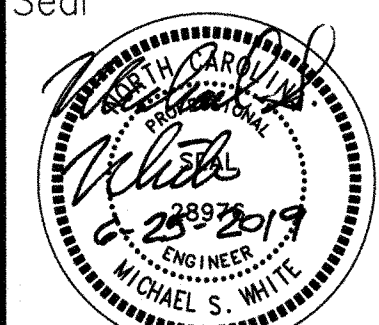


5200 Buffington Rd.
Atlanta Georgia,
30349-2998
PH 404-765-8000
FAX 404-684-8550

Revisions:
Mark Date By

Mark Date By

Seal



G. ROBERT GEORGE AND ASSOCIATES, INC.
CONSULTING ENGINEERS, PLANNERS
AND LAND SURVEYORS
P.O. BOX 32189
(943) 566-4261
CHARLESTON, SOUTH CAROLINA 29417-2166
email: ggeorge@concast.net

STORE
SERIES P12 LS LRG
FSU 04239

1010 FORESTVILLE ROAD
WAKE FOREST, NC 27587

SHEET TITLE

DWG EDITION 03.1

☐ Preliminary
☒ 80% Submittal
☐ For Construction

Job No. : 2036

Store : 04239

Date : 6-25-2019

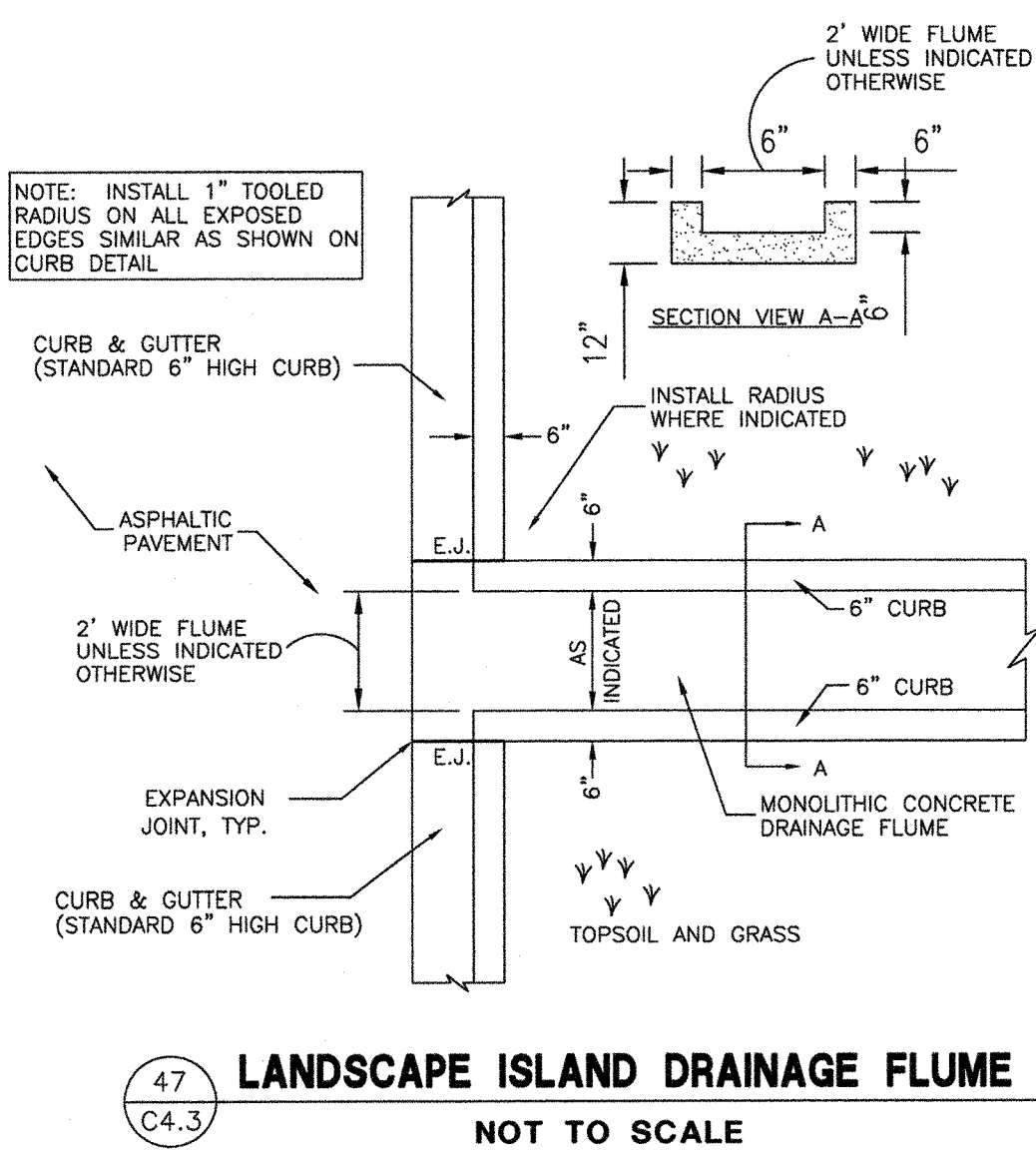
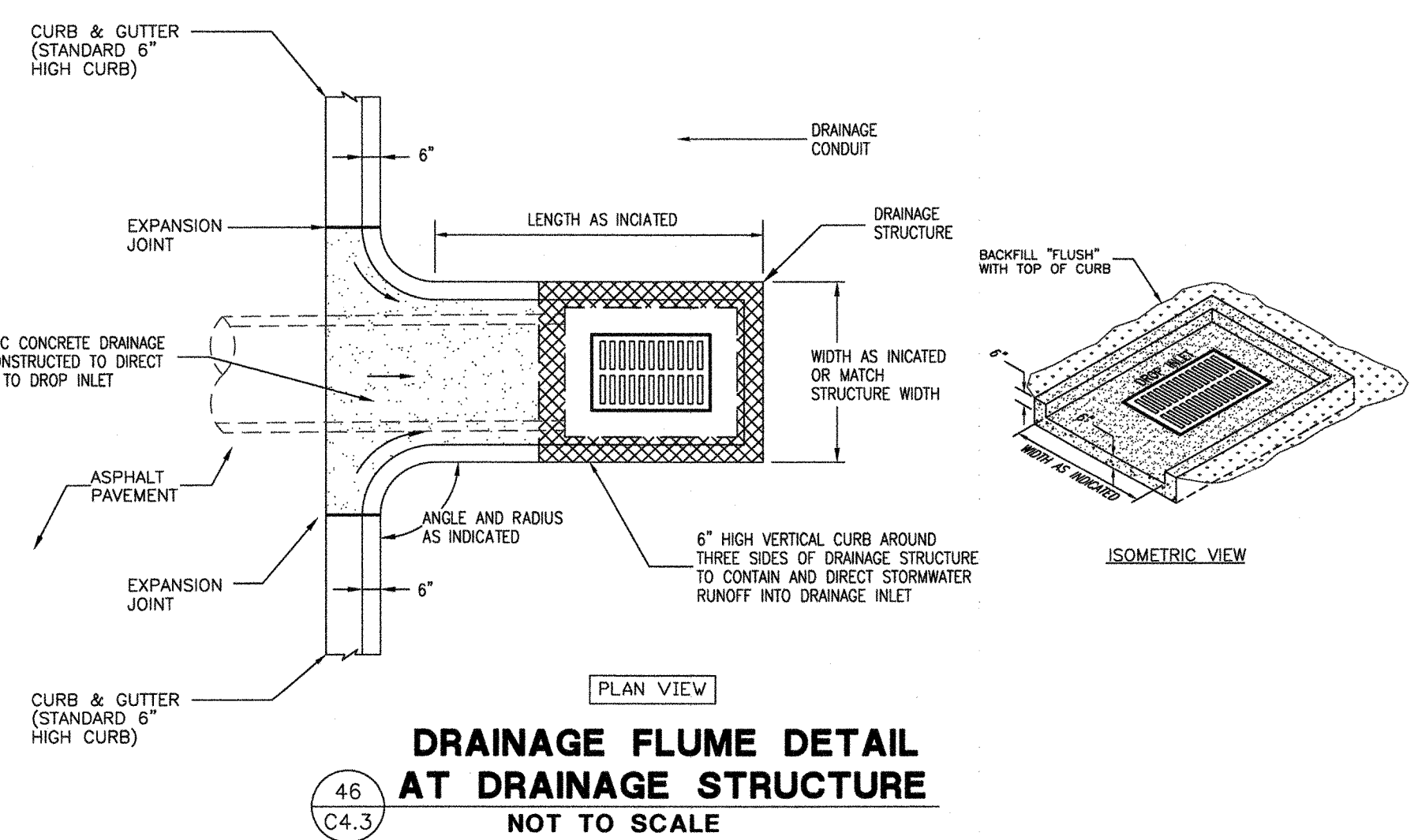
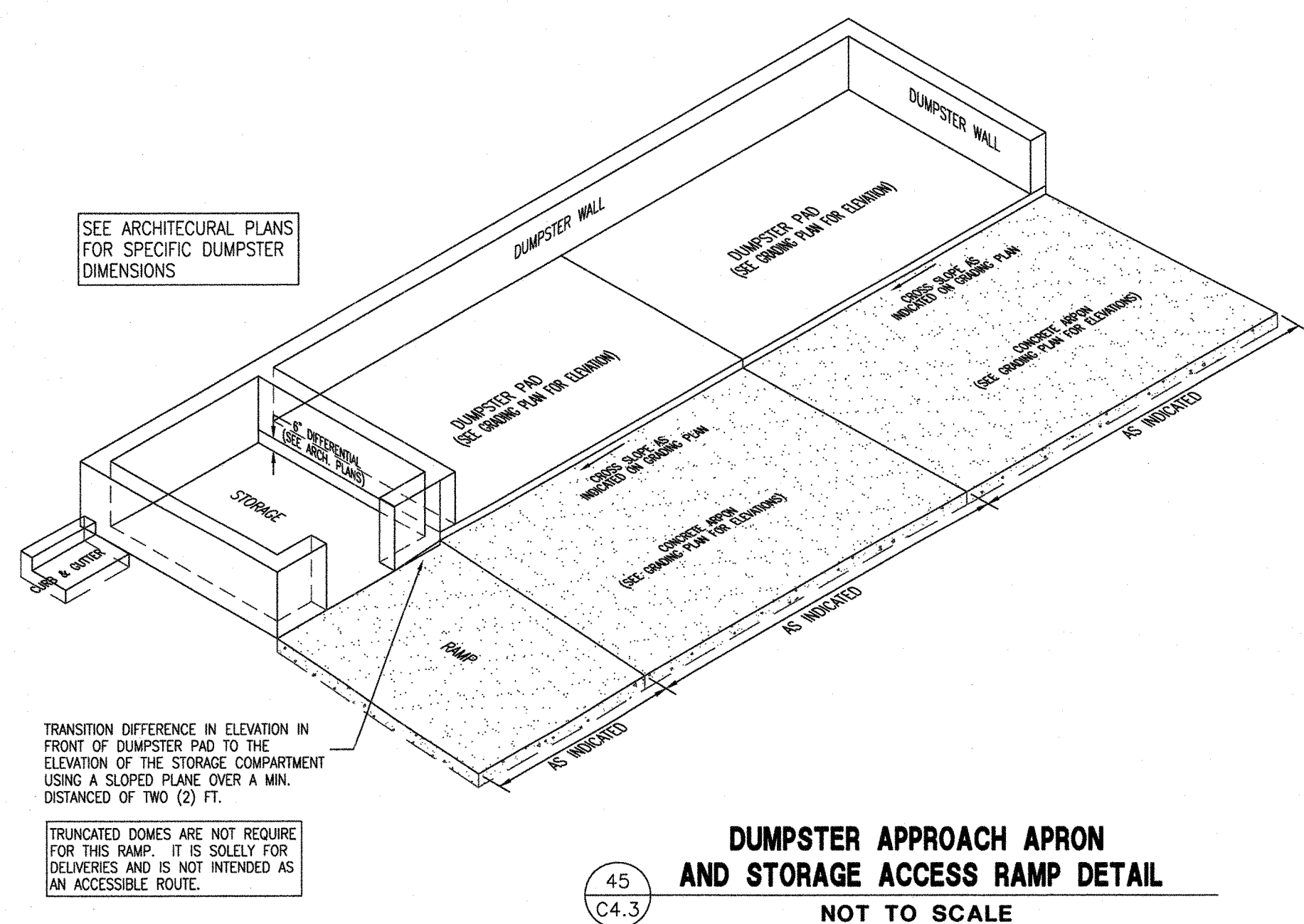
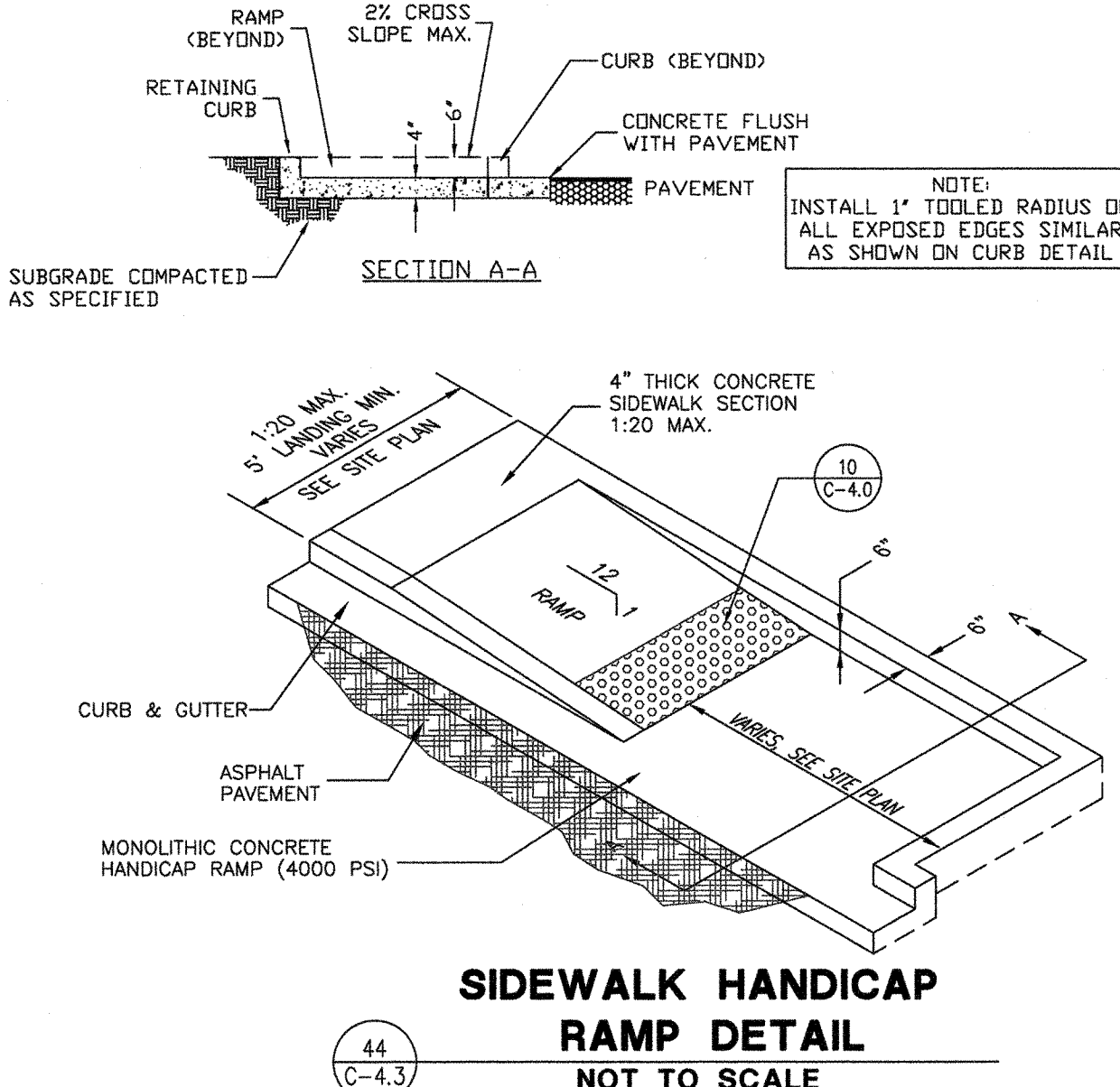
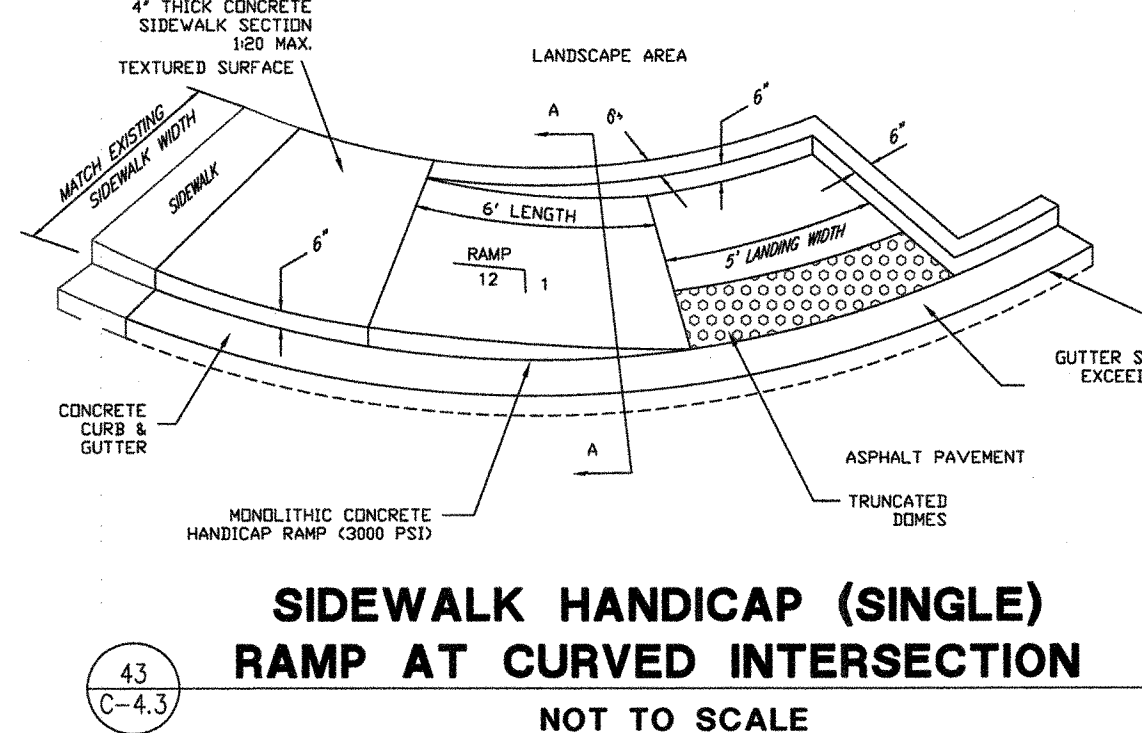
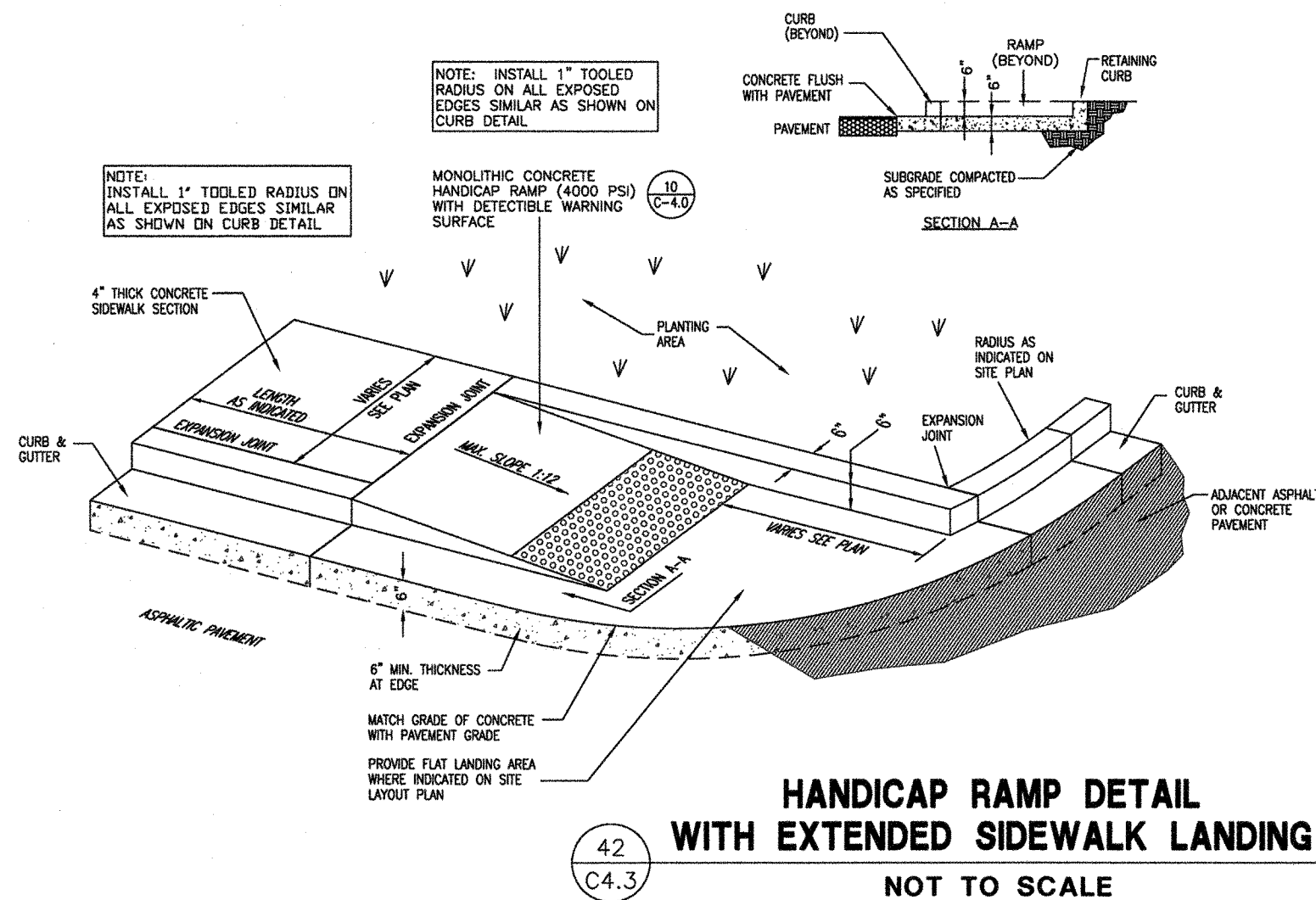
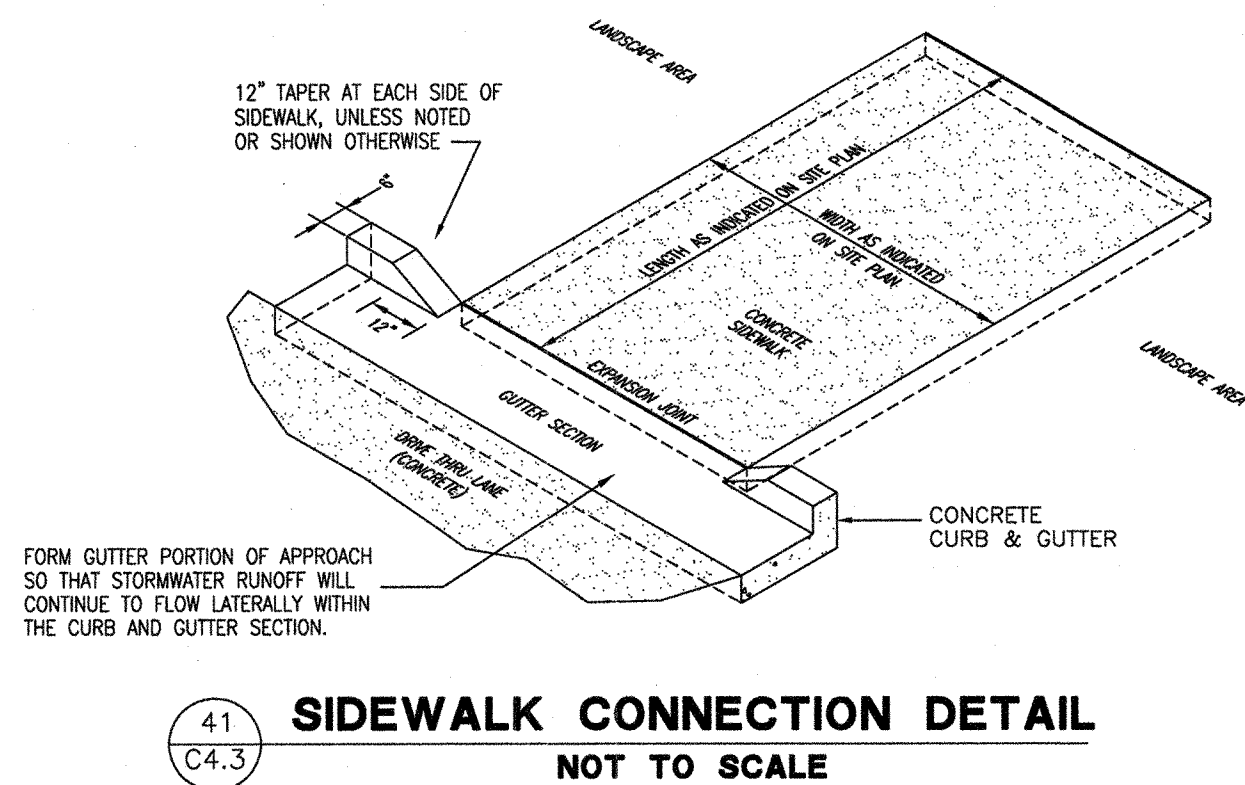
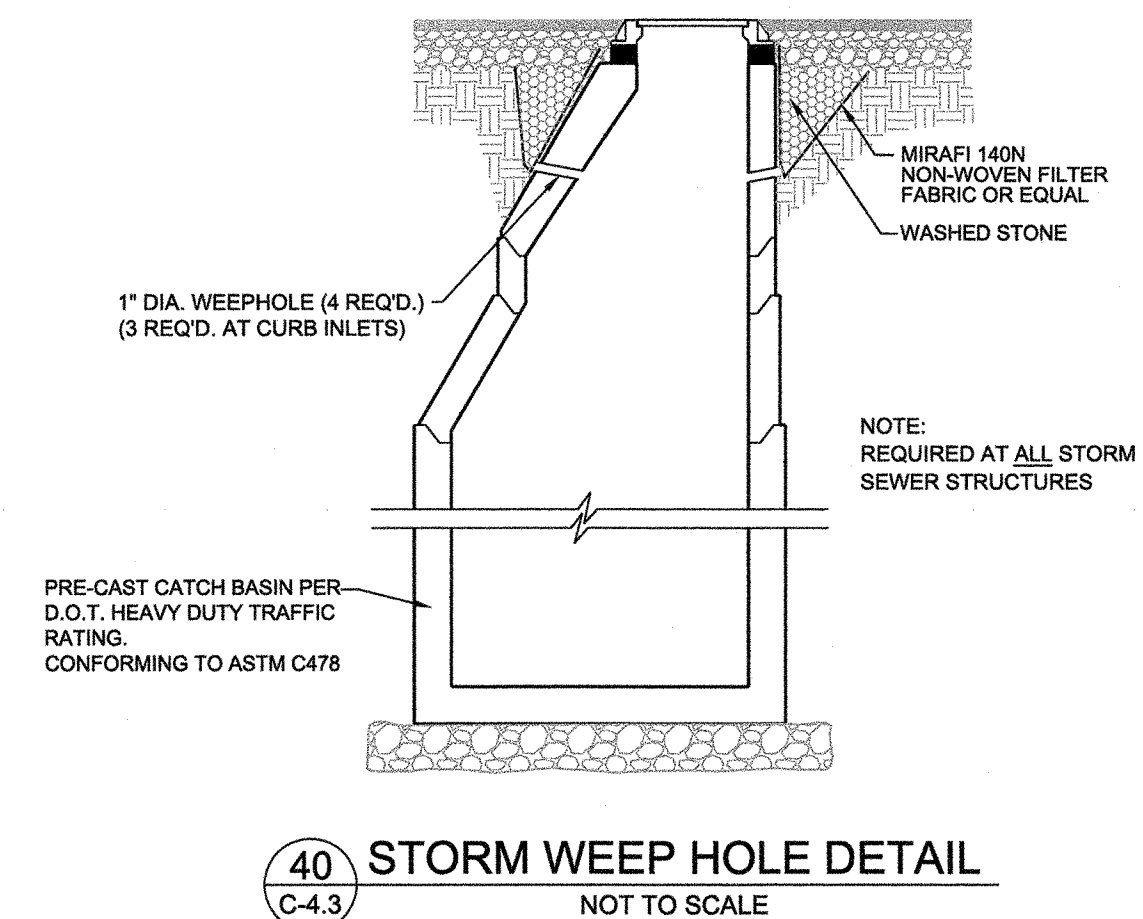
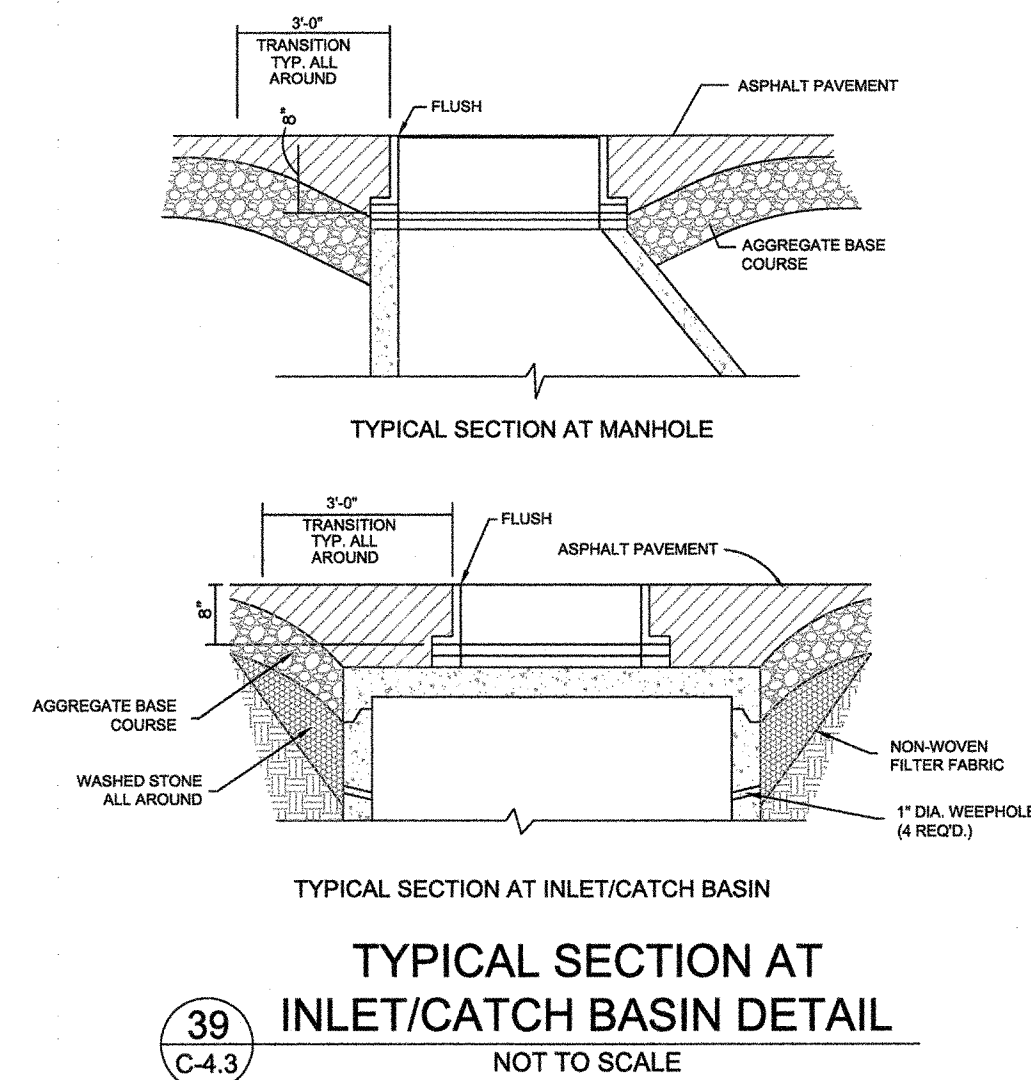
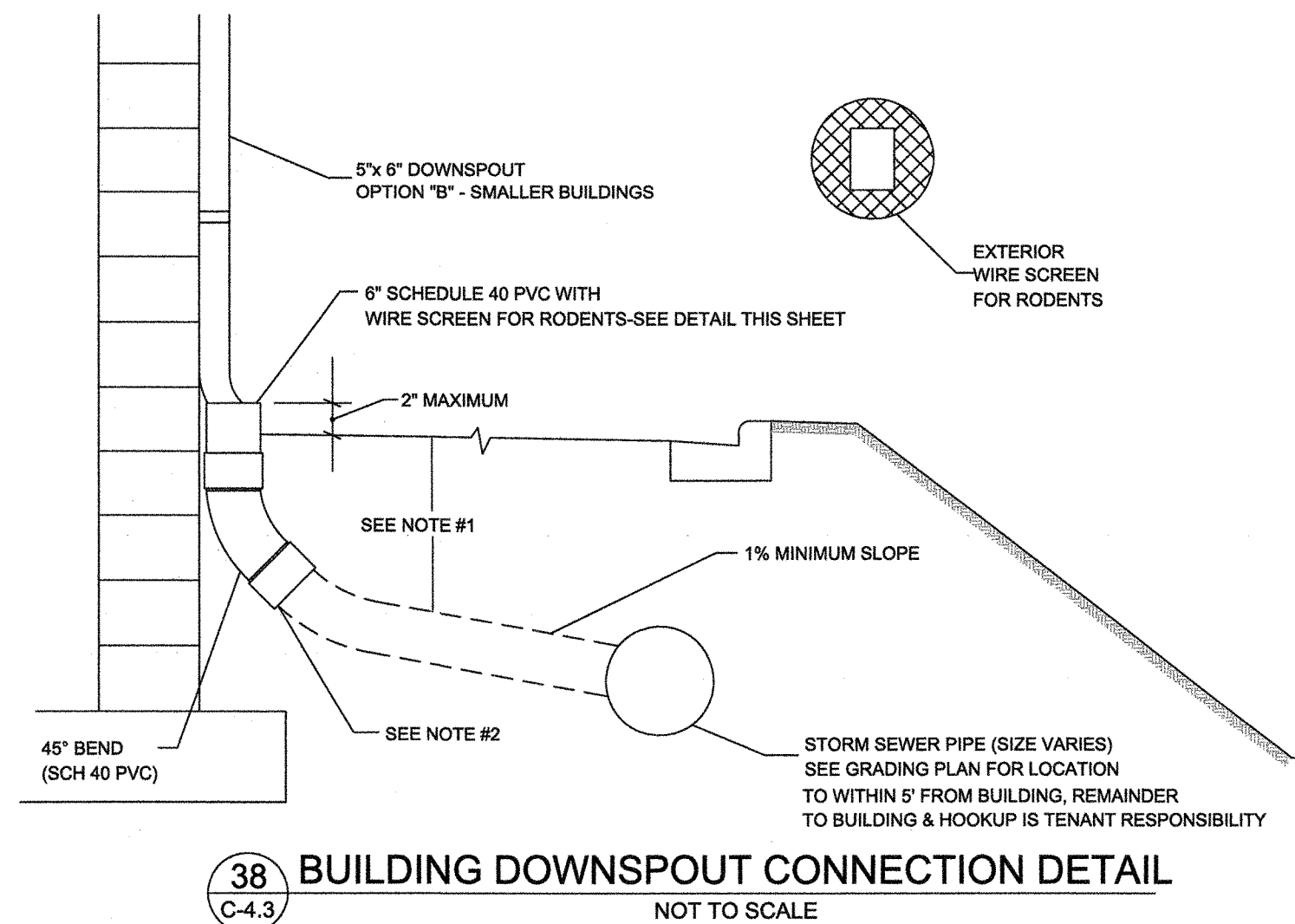
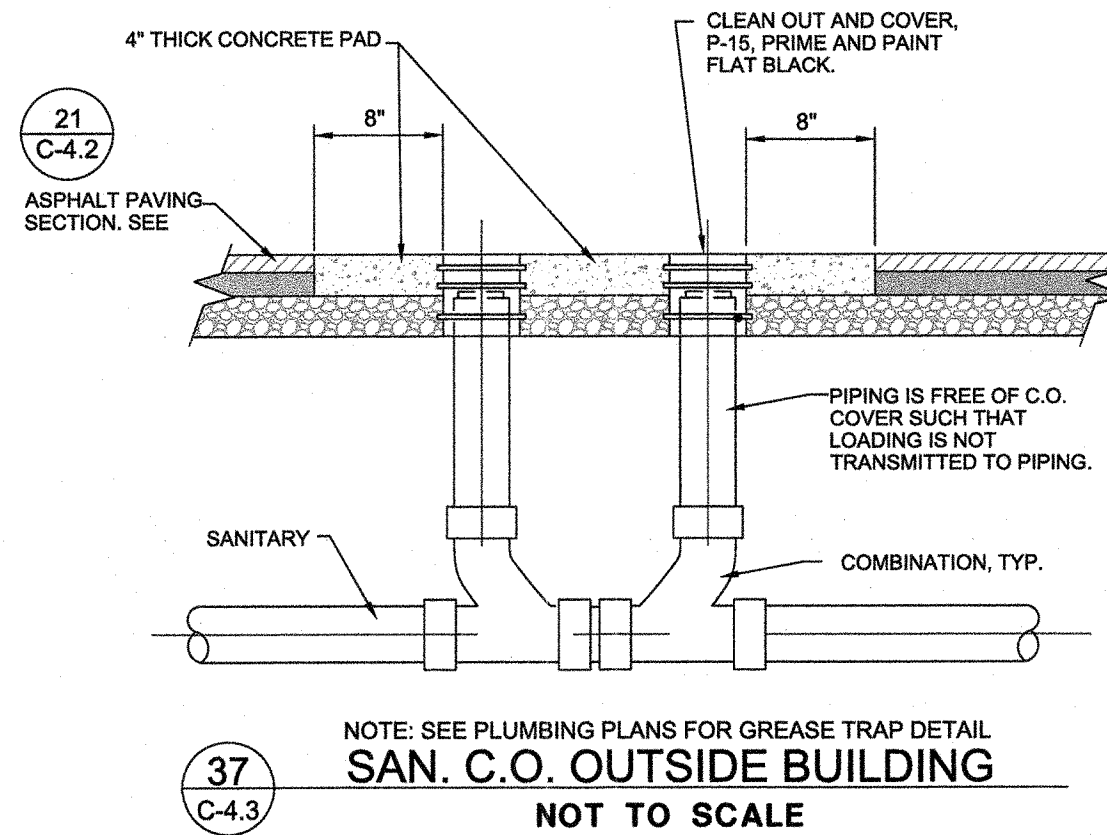
Drawn By : MSW

Checked By: MSW

Sheet

C-4.2

GG# 2036-C4-DETAILS.DWG



THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST.	
ENGINEERING DEPARTMENT	DATE 7/13/19
PUBLIC WORKS DEPARTMENT	DATE 7/13/19
EROSION & SEDIMENT CONTROL	DATE
FIRE PREVENTION	DATE
ACCESSIBILITY	DATE
PLANNING DEPARTMENT	DATE
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE
URBAN FORESTER	DATE

5200 Buffington Rd.
Atlanta Georgia,
30349-2998
PH 404-765-8000
FAX 404-684-8550

Revisions:

Mark	Date	By
△		
△		

Seal

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AND LAND SURVEYORS
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email: ggeorge@comcast.net

STORE
SERIES P12 LS LRG
FSU 04239

1010 FORESTVILLE ROAD
WAKE FOREST, NC 27587

SHEET TITLE

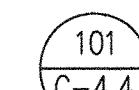
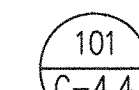
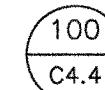
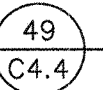
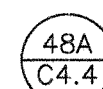
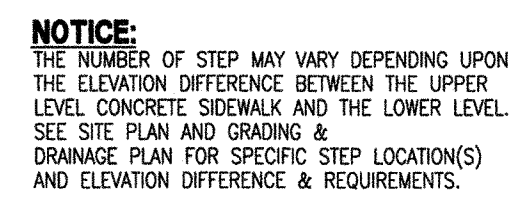
DWG EDITION 03.1

☐ Preliminary
☒ 80% Submittal
☐ For Construction

Job No. : 2036
 Store : 04239
 Date : 6-25-2019
 Drawn By : MSW
 Checked By: MSW

Sheet

C-4.3



6.20

TEMPORARY DIVERSIONS

Definition A temporary ridge or excavated channel or combination ridge and channel constructed across sloping land on a preformed grade.

Purpose To protect work areas from upslope runoff, and to divert sediment-laden water to appropriate traps or stable outlets.

Conditions Where Practice Applies This practice applies to construction areas where runoff can be diverted and disposed of properly to control erosion, sedimentation, or flood damage. Specific locations and conditions include:

- above disturbed existing slopes, and above cut or fill slopes to prevent runoff over the slope;
- across unprotected slopes, as slope breaks, to reduce slope length;
- below slopes to divert excess runoff to stabilized outlets;
- where needed to divert sediment-laden water to sediment traps;
- at or near the perimeter of the construction area to keep sediment from leaving the site; and
- above disturbed areas before stabilization to prevent erosion, and maintain acceptable working conditions.

Planning Considerations It is important that diversions are properly designed, constructed and maintained since they concentrate water flow and increase erosion potential (Figure 6.20a). Particular care must be taken in planning diversion grades. Too much slope can result in excessive velocity in the diversion channel or at the outlet. A change of slope from steeper grade to flatter may cause deposition to occur. The deposition reduces carrying capacity, and may cause overtopping and failure. Frequent inspection and timely maintenance are essential to the proper functioning of diversions.

Sufficient areas must be available to construct and properly maintain diversions. It is usually less costly to excavate a channel and form a ridge or dike on the

Figure 6.20a Temporary earth diversion dike.

6.20.1

6

TEMPORARY DIVERSION (SWALE)
NC DENR STANDARD DETAIL

NOT TO SCALE

Design Criteria

Drainage area—5 acres or less.

Capacity—peak runoff from 10-year storm.

Velocity—See Table 8.05a, Permissible Velocities for Erosion Protection, Appendix 8.05.

Ridge design—

- side slope: 2:1 or flatter
- 3:1 or flatter at points where cross
- top width: 2 ft minimum
- footboard: 0.1 ft minimum
- settlement: 10% of total fill height minimum

Construction Specifications

1. Remove and properly dispose of all trees, brush, stumps, and other obstructive material.

2. Ensure that the minimum constructed cross section meets all design requirements.

3. Ensure that the top of the dike is not lower at any point than the design elevation plus the specified settlement.

4. Provide sufficient room around diversions to permit machine regarding and cleanup.

5. Vegetate the ridge immediately after construction, unless it will remain in place less than 30 working days.

Maintenance

Inspect temporary diversions once a week and after every rainfall. Immediately remove sediment from the flow area and repair the diversion ridge. Carefully check outlets and make timely repairs as needed. When the area protected is permanently stabilized, remove the ridge and the channel to bleed with the natural ground level and appropriately stabilize it.

References

- Surface Stabilization
- 6.10, Temporary Seeding
- 6.11, Permanent Seeding
- 6.14, Mulching
- Outlet Protection
- 6.40, Level Spreader
- 6.41, Outlet Substitution Structure

Figure 6.20b Temporary gravel diversion dike for vehicle crossing (modified from VA B02C).

6.20.2

Practice Standards and Specifications

Channel design—

- shape: parabolic, imperial, or V-shaped
- side slope: 2:1 or flatter
- 3:1 or flatter where vehicles cross

Grades—Either a uniform or a gradually increasing grade is preferred. Sudden decreases in grade accumulate sediment and should be expected to cause overtopping. A large increase in grade may erode.

Outlet—Design the outlet to accept flow from the diversion plus any other contributing areas. Direct sediment-laden runoff and release through a sediment-trapping device (Practice 6.60, Temporary Sediment Trap and Practice 6.61, Sediment Basin). Flow from undisturbed areas can be dispersed by a level spreader (Practice 6.40, Level Spreader).

Small diversions—Where the diversion channel grade is between 0.2 and 3%, a permanent vegetative cover is required. A parabolic channel and ridge 1.5 feet deep and 12 feet wide may be used for diversions with flows up to 5 cfs. This depth does not include footboard or settlement. Side slopes should be 3:1 or flatter, and the top of the dike must be at least 2 feet wide.

Construction Specifications

1. Remove and properly dispose of all trees, brush, stumps, and other obstructive material.

2. Ensure that the minimum constructed cross section meets all design requirements.

3. Ensure that the top of the dike is not lower at any point than the design elevation plus the specified settlement.

4. Provide sufficient room around diversions to permit machine regarding and cleanup.

5. Vegetate the ridge immediately after construction, unless it will remain in place less than 30 working days.

Maintenance

Inspect temporary diversions once a week and after every rainfall. Immediately remove sediment from the flow area and repair the diversion ridge. Carefully check outlets and make timely repairs as needed. When the area protected is permanently stabilized, remove the ridge and the channel to bleed with the natural ground level and appropriately stabilize it.

References

- Surface Stabilization
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- 6.11, Permanent Seeding
- 6.14, Mulching
- Outlet Protection
- 6.40, Level Spreader
- 6.41, Outlet Substitution Structure

Figure 6.20c Temporary erosion & sediment control for partially installed storm drainage conduit.

6.20.3

EXISTING GRADE AROUND TRENCH

PARTIALLY INSTALLED STORM DRAIN

METAL FENCE POST

PARTIALLY INSTALLED STORM DRAIN

WIRE SCREEN WITH 1/4" OPENINGS AND #57 STONE

EXISTING GROUND

EXCAVATED TRENCH FOR PIPE OR STRUCTURE

PLAN VIEW

SECTION VIEW

1/2" DEEP DIAMETER

EXISTING GRADE AROUND PIPE

WIRE SCREEN WITH 1/4" OPENINGS AND #57 STONE

EXCAVATED TRENCH FOR PIPE OR STRUCTURE

ISOMETRIC VIEW

NOTES

1. THIS MEASURE IS BEST USED WHERE STORM DRAIN TIES INTO EXISTING STORM DRAIN SYSTEM AND FLOW OFFSITE UNTREATED.
2. THE OVER FLOW NOT COVERED BY #57 STONE SHALL BE APPROX. 1/2 OF THE PIPE DIAMETER.
3. ATTACH WIRE SCREEN TO METAL FENCE POST ON EACH SIDE OF PIPE.

TEMPORARY EROSION & SEDIMENT CONTROL FOR PARTIALLY INSTALLED STORM DRAINAGE CONDUIT

NOT TO SCALE

6.20.4

FLEXSTORM CATCH-IT FILTERS FOR TEMPORARY INLET PROTECTION

PRODUCT SELECTION AND SPECIFICATION DRAWING

1. ALL FRAMING IS CONSTRUCTED OF PLATES OF GALVANIZED STEEL FOR 1 YEAR MINIMUM SERVICE LIFE.

2. UPON EXPIRING OF THE CONTRACTOR SHALL REMOVE THE FRAME AND REPAIR THE INLET TO THE ORIGINAL CONDITION.

3. FOR WRITTEN SPECIFICATIONS AND MAINTENANCE SCHEDULES VISIT WWW.FLEXSTORM.COM

INSTALLATION

1. REMOVE GRATE
2. FLEX-STORM INLET FILTERS OVER LOW SPOTS OF THE CONCRETE OR CONCRETE STRUCTURE
3. REPLACE GRATE

FLEX-STORM INLET PROTECTION FOR EXISTING DROP INLETS

NOT TO SCALE

6.20.5

6.10

TEMPORARY SEEDING

Definition Planting rapid-growing annual grasses, small grains, or legumes to provide initial, temporary cover for erosion control on disturbed areas.

Purpose To temporarily stabilize denuded areas that will not be brought to final grade for a period of more than 21 calendar days.

Conditions Where Practice Applies On any cleared, unvegetated, or sparsely vegetated soil surface where vegetation cover is needed for less than 1 year. Applications of this practice include diversion dikes, temporary sediment basins, temporary road banks, and topsoil stockpiles.

Planning Considerations Annual plants, which sprout and grow rapidly and survive for only one season, are suitable for establishing initial or temporary vegetative cover. Temporary seeding preserves the integrity of carbon sediment control structures such as dikes, diversions, and the banks of dikes and sediment basins. It can also reduce the amount of maintenance associated with these devices. For example, the frequency of sediment basin cleanouts will be reduced if waterlogged areas, outside the active construction zone, are stabilized.

Specifications Complete grading before preparing seedbeds, and install all necessary erosion control practices such as, dikes, waterways, and basins. Minimize steep slopes because they make seedbed preparation difficult and increase the erosion hazard. If seeds become compacted during grading, loosen them to a depth of 6-8 inches using a ripper, harrow, or chain plow.

SEEDBED PREPARATION Good seedbed preparation is essential to successful plant establishment. A good seedbed is well-paved, loose, and uniform. Where hydroseeding methods are used, the surface may be left with a more irregular surface of large clods and stones.

Liming—Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the

rate of 1 to 1 1/2 tons/acre on coarse-textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.

Fertilizer—Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700-1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not seed and fertilizer more than 30 minutes before application.

Surface roughening—If recent tillage operations have resulted in a loose surface, additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by disking, raking, harrowing, or other suitable methods. Grooves or furrows steeper than 2:1 on the contour before seeding (Practice 6.03, Surface Roughening).

PLANT SELECTION Select an appropriate species or species mixture from Table 6.10a for seeding in late winter and early spring, Table 6.10b for summer, and Table 6.10c for fall.

SEEDING Evenly apply seed using a cyclone seeder (broadcast), drill, catpaw seeder, or hydroseeder. Use seeding rates given in Tables 6.10a-c. Broadcast seeding and hydroseeding are appropriate for steep slopes where equipment cannot be driven. Hand broadcasting is not recommended because of the difficulty in achieving a uniform distribution.

MULCHING Small grains should be planted no more than 1 inch deep, and grasses and legumes no more than 1/2 inch. Broadcast seed must be covered by raking or chain dragging, and then lightly limed with a roller or catpaw. Hydroseeded mixtures should include a wood fiber (cellulose) mulch.

MULCHING The use of an appropriate mulch will help ensure establishment under normal conditions, and is essential to seeding success under harsh site conditions (Practice 6.14, Mulching). Harsh site conditions include:

- seeding in fall for winter cover (wood fiber mulches are not considered adequate for this use);
- slopes steeper than 3:1;
- excessively hot or dry weather;
- adverse soils (shallow, rocky, or high in clay or sand); and
- areas receiving concentrated flow.

If the area to be mulched is subject to concentrated waterflow, as in channels, anchor mulch with netting (Practice 6.14, Mulching).

Table 6.10a Temporary Seeding Recommendations for Late Winter and Early Spring

Species	Rate (lb/acre)
Rye (grain)	120
Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)	50

Table 6.10b Temporary Seeding Recommendations for Summer

Species	Rate (lb/acre)
German millet	40

Table 6.10c Temporary Seeding Recommendations for Fall

Species	Rate (lb/acre)
Rye (grain)	120

6.10.1

6

TEMPORARY SEEDING REQUIREMENTS
NC DENR STANDARD DETAIL

NOT TO SCALE

Design Criteria

Seeding rates—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding dates—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding methods—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding equipment—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding materials—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding results—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding maintenance—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding references—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

6.10.2

Practice Standards and Specifications

Definition A small temporary stone dam constructed across a drainage way.

Purpose To reduce erosion in a drainage channel by reducing the velocity of flow.

Conditions Where Practice Applies This practice may be used as a temporary measure to limit erosion by reducing velocity in small open channels. When needed, they can be used in channels, roadside ditches, and temporary diversions.

Check dams may be used to:

- reduce velocity in small temporary channels that are degrading, but where permanent stabilization is impractical due to their short period of usefulness;
- reduce velocity in small eroding channels where construction delays or weather conditions prevent timely installation of nonerodible liners;
- Do not use check dams in intermittent or perennial streams.

Check dams are an expedient way to reduce gully in the bottom of channels that will be filled or stabilized at a later date. The dams should only be used while permanent stabilization measures are being put into place.

Check dams installed in grass-lined channels may kill the vegetative lining if submerged after it rains too long and/or silt is excessive. All stone and riprap must be removed if mowing is planned as part of vegetative maintenance.

Design Criteria

The following criteria should be used when designing a check dam:

- The drainage area is limited to one half acre.
- Keep a maximum height of 2 feet at the center of the dam.
- Keep the center of the check dam at least 9 inches lower than the outer edges at natural ground elevation.
- Keep the side slopes of the dam at 2:1 or flatter.
- Ensure that the maximum spacing between dams places the toe of the upstream dam at the same elevation as the top of the downstream dam (Figure 6.83a).
- Stabilize outflow area along the channel to resist erosion.
- Use NC DOT Class B stone and line the upstream side of the dam with NC DOT #5 or #57 stone.
- Key the stone into the ditch banks and extend it beyond the abutments a minimum of 1.5 feet to avoid washouts from overflow around the dam.

Figure 6.83a Stone check dams in a channel so that the crest of downstream dam is at elevation of the toe of upstream dam.

6.83.1

6.83

CHECK DAM

Definition A small temporary stone dam constructed across a drainage way.

Purpose To reduce erosion in a drainage channel by reducing the velocity of flow.

Conditions Where Practice Applies This practice may be used as a temporary measure to limit erosion by reducing velocity in small open channels. When needed, they can be used in channels, roadside ditches, and temporary diversions.

Check dams may be used to:

- reduce velocity in small temporary channels that are degrading, but where permanent stabilization is impractical due to their short period of usefulness;
- reduce velocity in small eroding channels where construction delays or weather conditions prevent timely installation of nonerodible liners;
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Check dams installed in grass-lined channels may kill the vegetative lining if submerged after it rains too long and/or silt is excessive. All stone and riprap must be removed if mowing is planned as part of vegetative maintenance.

Design Criteria

The following criteria should be used when designing a check dam:

- The drainage area is limited to one half acre.
- Keep a maximum height of 2 feet at the center of the dam.
- Keep the center of the check dam at least 9 inches lower than the outer edges at natural ground elevation.
- Keep the side slopes of the dam at 2:1 or flatter.
- Ensure that the maximum spacing between dams places the toe of the upstream dam at the same elevation as the top of the downstream dam (Figure 6.83a).
- Stabilize outflow area along the channel to resist erosion.
- Use NC DOT Class B stone and line the upstream side of the dam with NC DOT #5 or #57 stone.
- Key the stone into the ditch banks and extend it beyond the abutments a minimum of 1.5 feet to avoid washouts from overflow around the dam.

Figure 6.83b Stone check dam detail.

6.83.2

6

CONSTRUCTION DRAWINGS - TOWN OF WAKE FOREST

Definition A small temporary stone dam constructed across a drainage way.

Purpose To reduce erosion in a drainage channel by reducing the velocity of flow.

Conditions Where Practice Applies This practice may be used as a temporary measure to limit erosion by reducing velocity in small open channels. When needed, they can be used in channels, roadside ditches, and temporary diversions.

Check dams may be used to:

- reduce velocity in small temporary channels that are degrading, but where permanent stabilization is impractical due to their short period of usefulness;
- reduce velocity in small eroding channels where construction delays or weather conditions prevent timely installation of nonerodible liners;
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Check dams installed in grass-lined channels may kill the vegetative lining if submerged after it rains too long and/or silt is excessive. All stone and riprap must be removed if mowing is planned as part of vegetative maintenance.

Design Criteria

The following criteria should be used when designing a check dam:

- The drainage area is limited to one half acre.
- Keep a maximum height of 2 feet at the center of the dam.
- Keep the center of the check dam at least 9 inches lower than the outer edges at natural ground elevation.
- Keep the side slopes of the dam at 2:1 or flatter.
- Ensure that the maximum spacing between dams places the toe of the upstream dam at the same elevation as the top of the downstream dam (Figure 6.83a).
- Stabilize outflow area along the channel to resist erosion.
- Use NC DOT Class B stone and line the upstream side of the dam with NC DOT #5 or #57 stone.
- Key the stone into the ditch banks and extend it beyond the abutments a minimum of 1.5 feet to avoid washouts from overflow around the dam.

Figure 6.83c Stone check dam detail.

6.83.3

6

TEMPORARY SEEDING REQUIREMENTS
NC DENR STANDARD DETAIL

NOT TO SCALE

Design Criteria

Seeding rates—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding dates—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding methods—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding equipment—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding materials—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding results—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding maintenance—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding references—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Table 6.10a Temporary Seeding Recommendations for Late Winter and Early Spring

Species	Rate (lb/acre)
Rye (grain)	120
Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)	50

Table 6.10b Temporary Seeding Recommendations for Summer

Species	Rate (lb/acre)
German millet	40

Table 6.10c Temporary Seeding Recommendations for Fall

Species	Rate (lb/acre)
Rye (grain)	120

6.10.4

6

TEMPORARY SEEDING REQUIREMENTS
NC DENR STANDARD DETAIL

NOT TO SCALE

Design Criteria

Seeding rates—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding dates—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding methods—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding equipment—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding materials—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding results—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding maintenance—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding references—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Table 6.10a Temporary Seeding Recommendations for Late Winter and Early Spring

Species	Rate (lb/acre)
Rye (grain)	120
Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)	50

Table 6.10b Temporary Seeding Recommendations for Summer

Species	Rate (lb/acre)
German millet	40

Table 6.10c Temporary Seeding Recommendations for Fall

Species	Rate (lb/acre)
Rye (grain)	120

6.10.5

6

TEMPORARY SEEDING REQUIREMENTS
NC DENR STANDARD DETAIL

NOT TO SCALE

Design Criteria

Seeding rates—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding dates—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding methods—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding equipment—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding materials—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding results—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding maintenance—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Seeding references—See Table 6.10a, Temporary Seeding Recommendations for Late Winter and Early Spring, Table 6.10b for Summer, and Table 6.10c for Fall.

Table 6.10a Temporary Seeding Recommendations for Late Winter and Early Spring

Species	Rate (lb/acre)
Rye (grain)	120
Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)	50

Table 6.10b Temporary Seeding Recommendations for Summer

Species	Rate (lb/acre)
German millet	40

Table 6.10c Temporary Seeding Recommendations for Fall

Species	Rate (lb/acre)
Rye (grain)	120

6.10.6

Practice Standards and Specifications

Definition A small temporary stone dam constructed across a drainage way.

Purpose To reduce erosion in a drainage channel by reducing the velocity of flow.

Conditions Where Practice Applies This practice may be used as a temporary measure to limit erosion by reducing velocity in small open channels. When needed, they can be used in channels, roadside ditches, and temporary diversions.

Check dams may be used to:

- reduce velocity in small temporary channels that are degrading, but where permanent stabilization is impractical due to their short period of usefulness;
- reduce velocity in small eroding channels where construction delays or weather conditions prevent timely installation of nonerodible liners;
- Do not use check dams in intermittent or perennial streams.

Check dams are an expedient way to reduce gully in the bottom of channels that will be filled or stabilized at a later date. The dams should only be used while permanent stabilization measures are being put into place.

Check dams installed in grass-lined channels may kill the vegetative lining if submerged after it rains too long and/or silt is excessive. All stone and riprap must be removed if mowing is planned as part of vegetative maintenance.

Design Criteria

The following criteria should be used when designing a check dam:

- The drainage area is limited to one half acre.
- Keep a maximum height of 2 feet at the center of the dam.
- Keep the center of the check dam at least 9 inches lower than the outer edges at natural ground elevation.
- Keep the side slopes of the dam at 2:1 or flatter.
- Ensure that the maximum spacing between dams places the toe of the upstream dam at the same elevation as the top of the downstream dam (Figure 6.83a).
- Stabilize outflow area along the channel to resist erosion.
- Use NC DOT Class B stone and line the upstream side of the dam with NC DOT #5 or #57 stone.
- Key the stone into the ditch banks and extend it beyond the abutments a minimum of 1.5 feet to avoid washouts from overflow around the dam.

Figure 6.83d Stone check dam detail.

6.83.4

6

CONSTRUCTION DRAWINGS - TOWN OF WAKE FOREST

Definition A small temporary stone dam constructed across a drainage way.

Purpose To reduce erosion in a drainage channel by reducing the velocity of flow.

Conditions Where Practice Applies This practice may be used as a temporary measure to limit erosion by reducing velocity in small open channels. When needed, they can be used in channels, roadside ditches, and temporary diversions.

Check dams may be used to:

- reduce velocity in small temporary channels that are degrading, but where permanent stabilization is impractical due to their short period of usefulness;
- reduce velocity in small eroding channels where construction delays or weather conditions prevent timely installation of nonerodible liners;
- Do not use check dams in intermittent or perennial streams.

Check dams are an expedient way to reduce gully in the bottom of channels that will be filled or stabilized at a later date. The dams should only be used while permanent stabilization measures are being put into place.

Check dams installed in grass-lined channels may kill the vegetative lining if submerged after it rains too long and/or silt is excessive. All stone and riprap must be removed if mowing is planned as part of vegetative maintenance.

Design Criteria

The following criteria should be used when designing a check dam:

- The drainage area is limited to one half acre.
- Keep a maximum height of 2 feet at the center of the dam.
- Keep the center of the check dam at least 9 inches lower than the outer edges at natural ground elevation.
- Keep the side slopes of the dam at 2:1 or flatter.
- Ensure that the maximum spacing between dams places the toe of the upstream dam at the same elevation as the top of the downstream dam (Figure 6.83a).
- Stabilize outflow area along the channel to resist erosion.
- Use NC DOT Class B stone and line the upstream side of the dam with NC DOT #5 or #57 stone.
- Key the stone into the ditch banks and extend it beyond the abutments a minimum of 1.5 feet to avoid washouts from overflow around the dam.

Figure 6.83e Stone check dam detail.

6.83.5

Chick-fil-e

5200 Buffington Rd.
Atlanta Georgia,
30349-2998
PH 404-765-8000
FX 404-684-8550

Revisions:

Mark Date By

△

Mark Date By

△

Seal

G. ROBERT GEORGE AND ASSOCIATES, INC.
CONSULTING ENGINEERS, PLANNERS
AND LAND SURVEYORS
P.O. BOX 38168
CHARLESTON, SOUTH CAROLINA 29417-2168
email: gfgasoc@comcast.net

STORE
SERIES P12 LS LRG
FSU 04239

1010 FORESTVILLE ROAD
WAKE FOREST, NC 27587

SHEET TITLE
SEDIMENT &
EROSION CONTROL
DETAILS

DWG EDITION 03.1

□ Preliminary
□ 80% Submittal
□ For Construction

Job No. : 2036

Store : 04239

Date : 6-25-2019

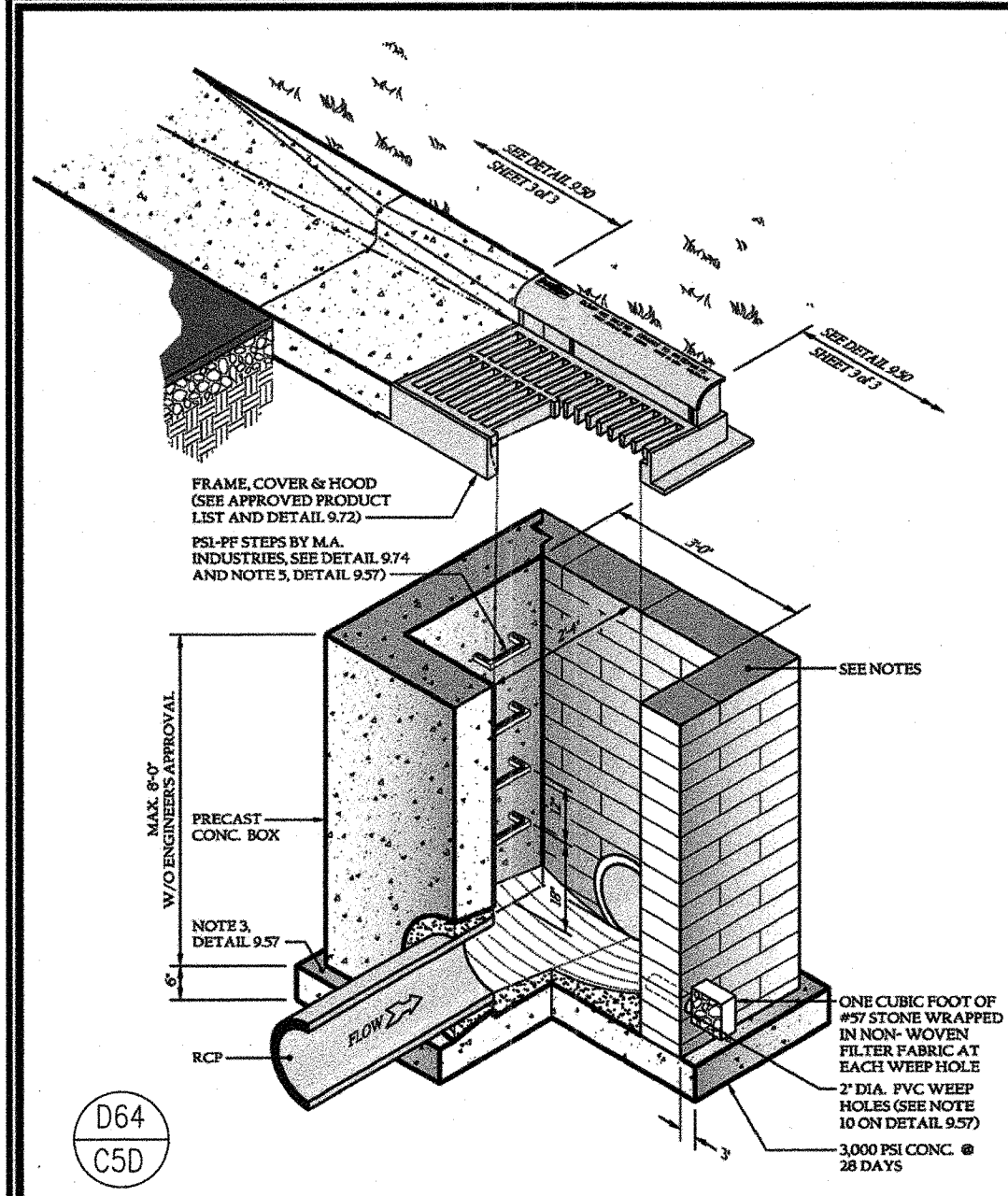
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Checked By: MSW

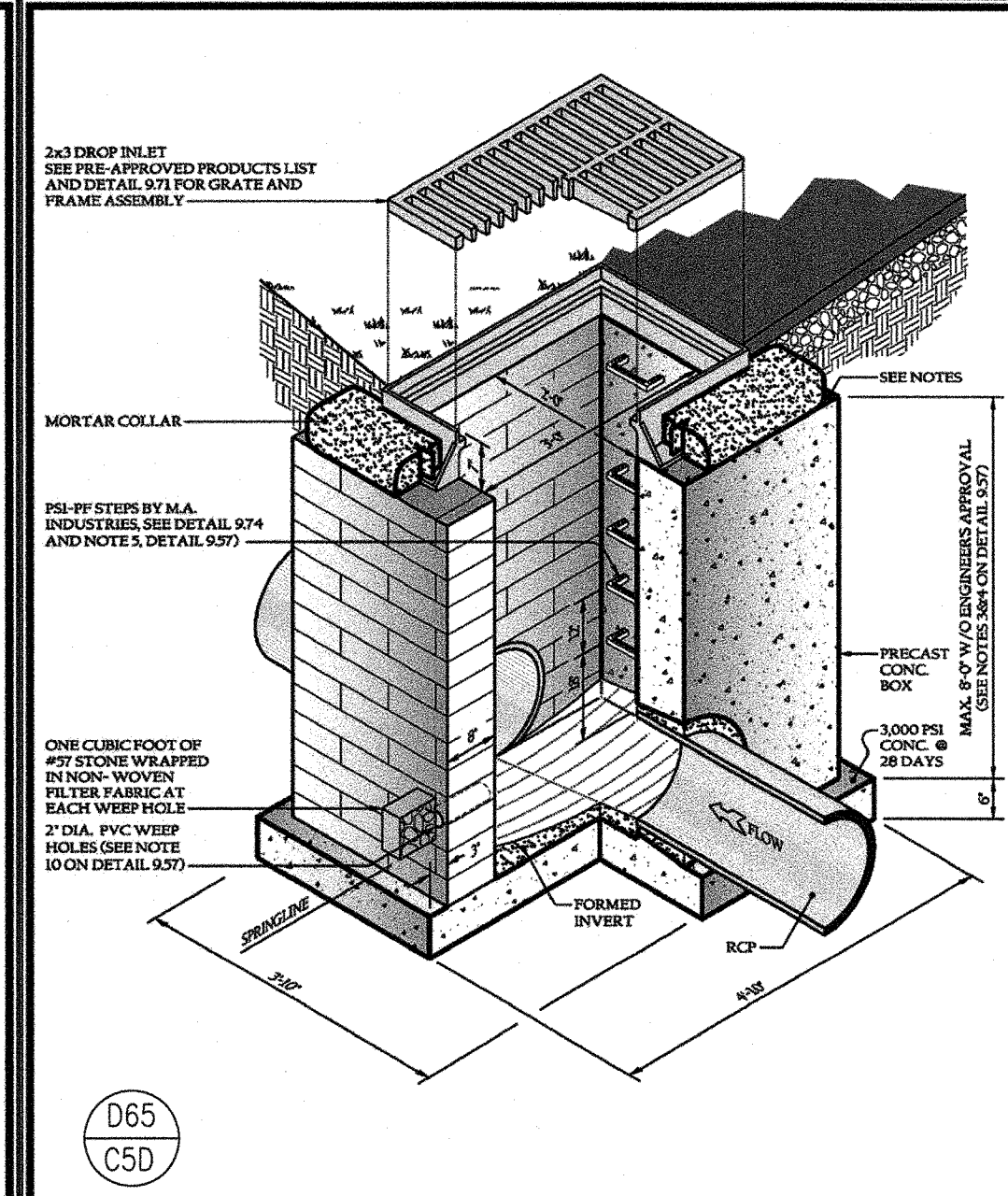
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C-5.0B

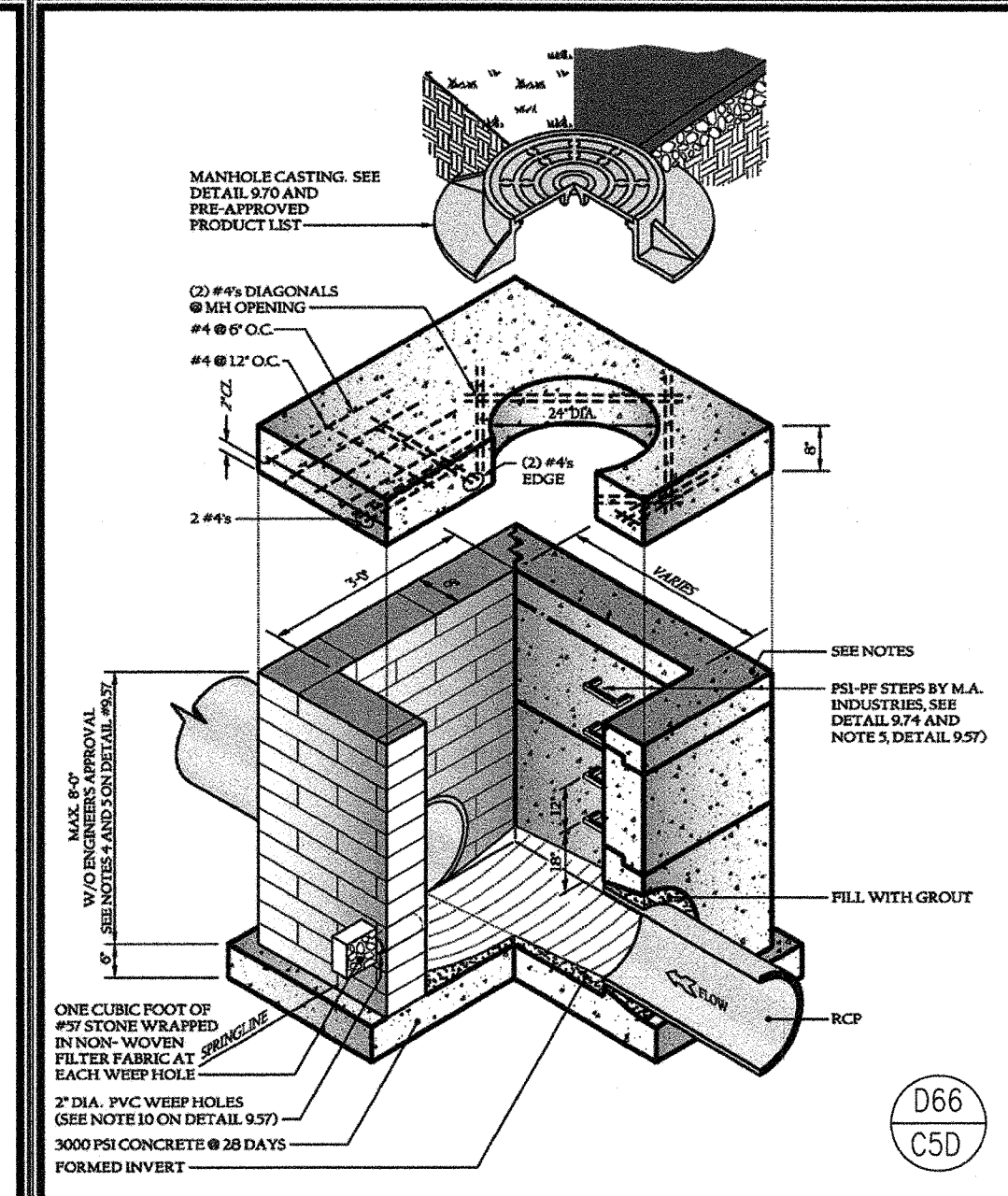
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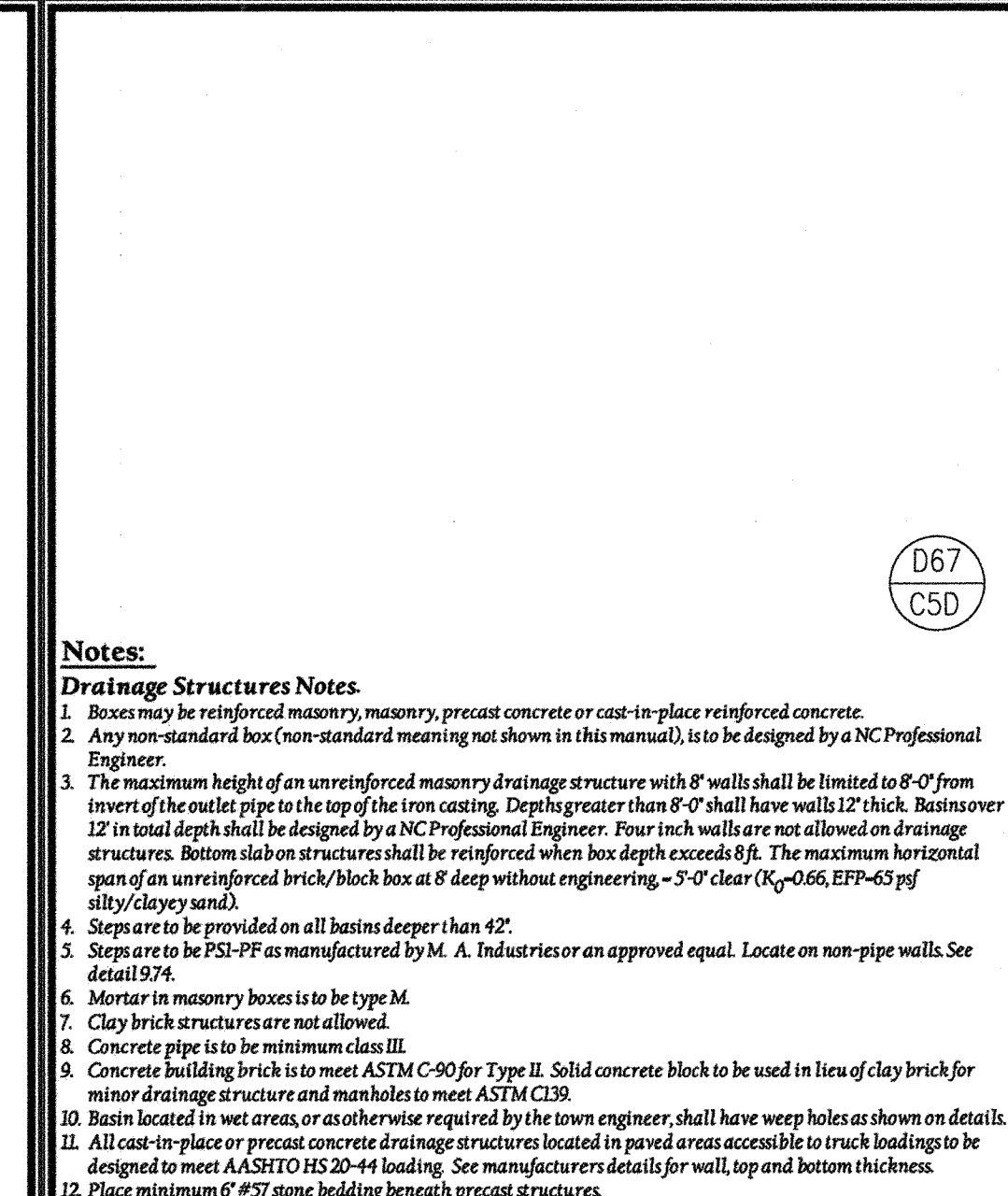
TOWN OF WAKE FOREST, NC
Manual of Specifications, Standards and Design
STD. 2x3 INLET W/HOOD
DETAIL
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Revision: 9.30
Date: Feb. 2015
Sheet: 1 of 3



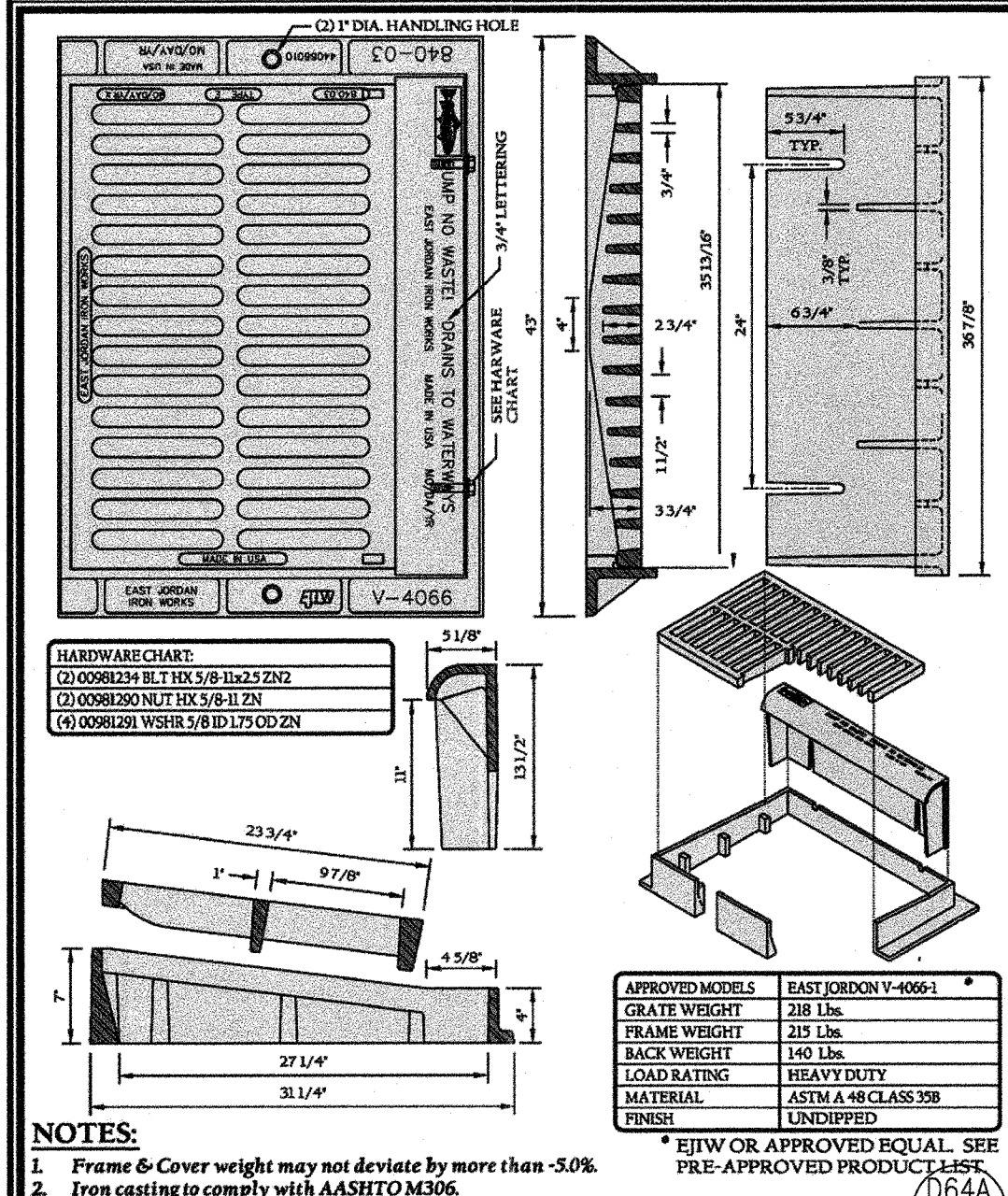
TOWN OF WAKE FOREST, NC
Manual of Specifications, Standards and Design
STANDARD 2x3
CATCH BASIN
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Revision: 9.31
Date: Feb. 2015
Sheet: 1 of 3



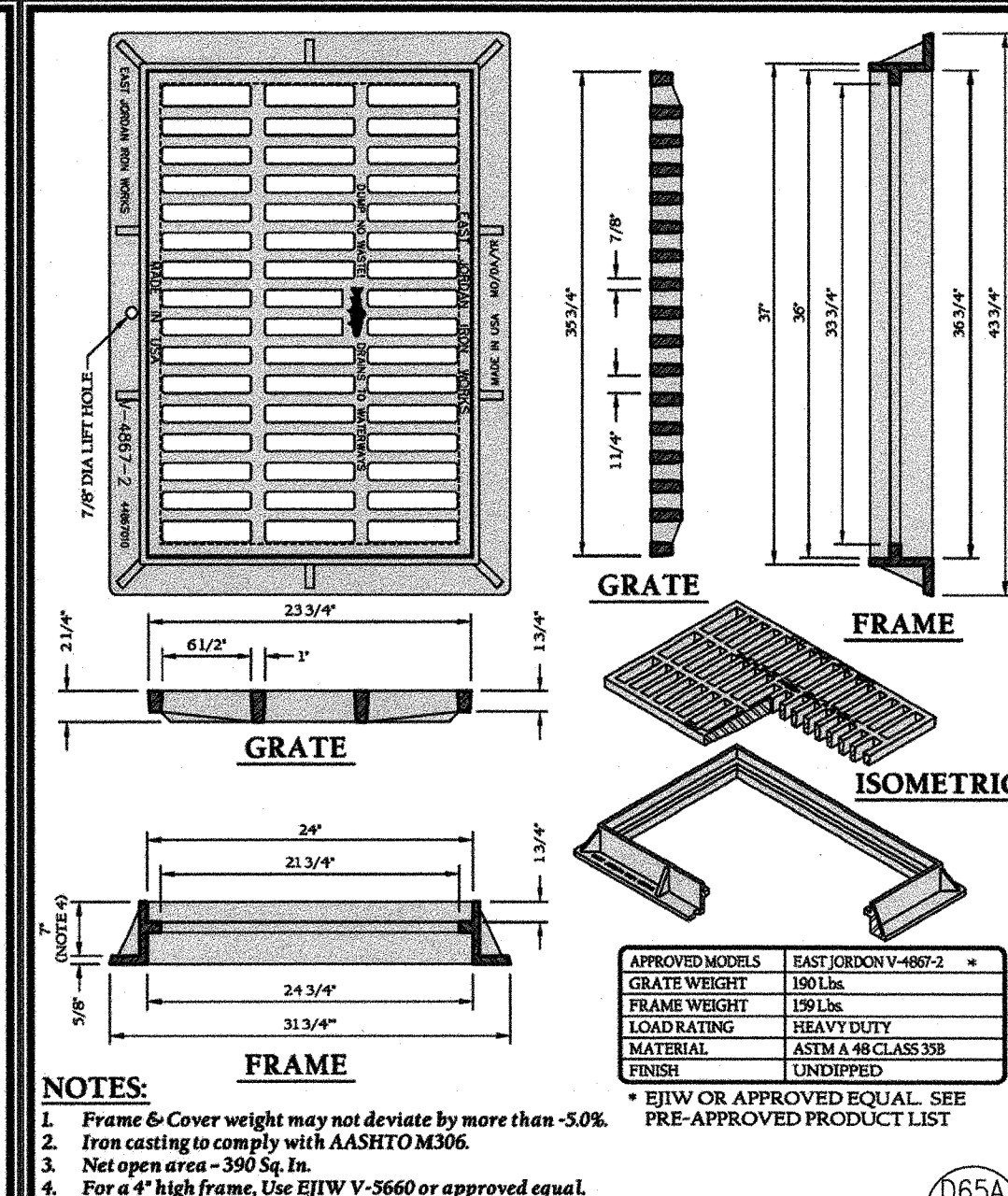
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Manual of Specifications, Standards and Design
STD. M.H.J.B.
VARIABLE LENGTH
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Revision: 9.34
Date: Feb. 2015
Sheet: 1 of 3



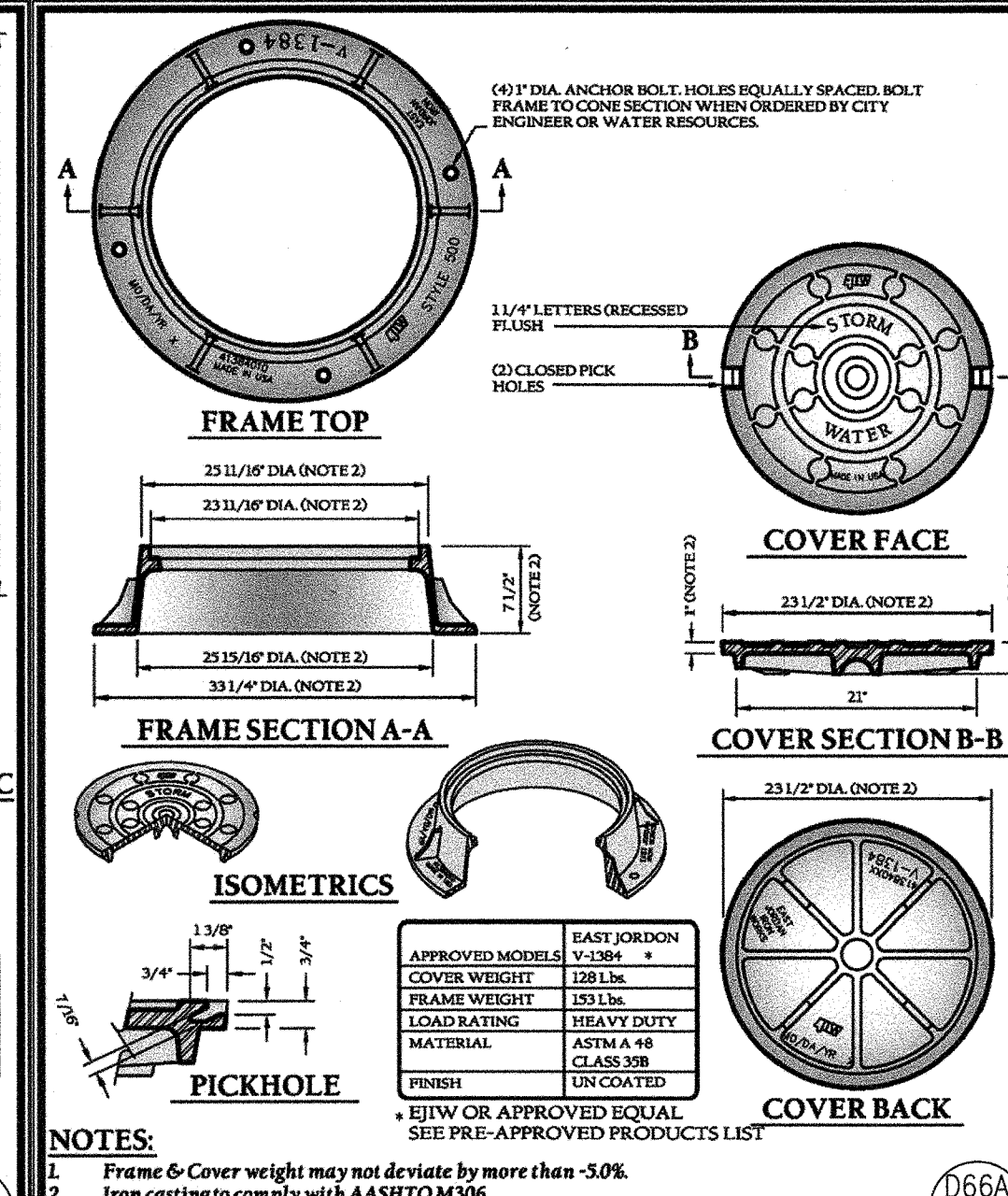
TOWN OF WAKE FOREST, NC
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DRAINAGE STRUCTURE
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Sheet: 1 of 3



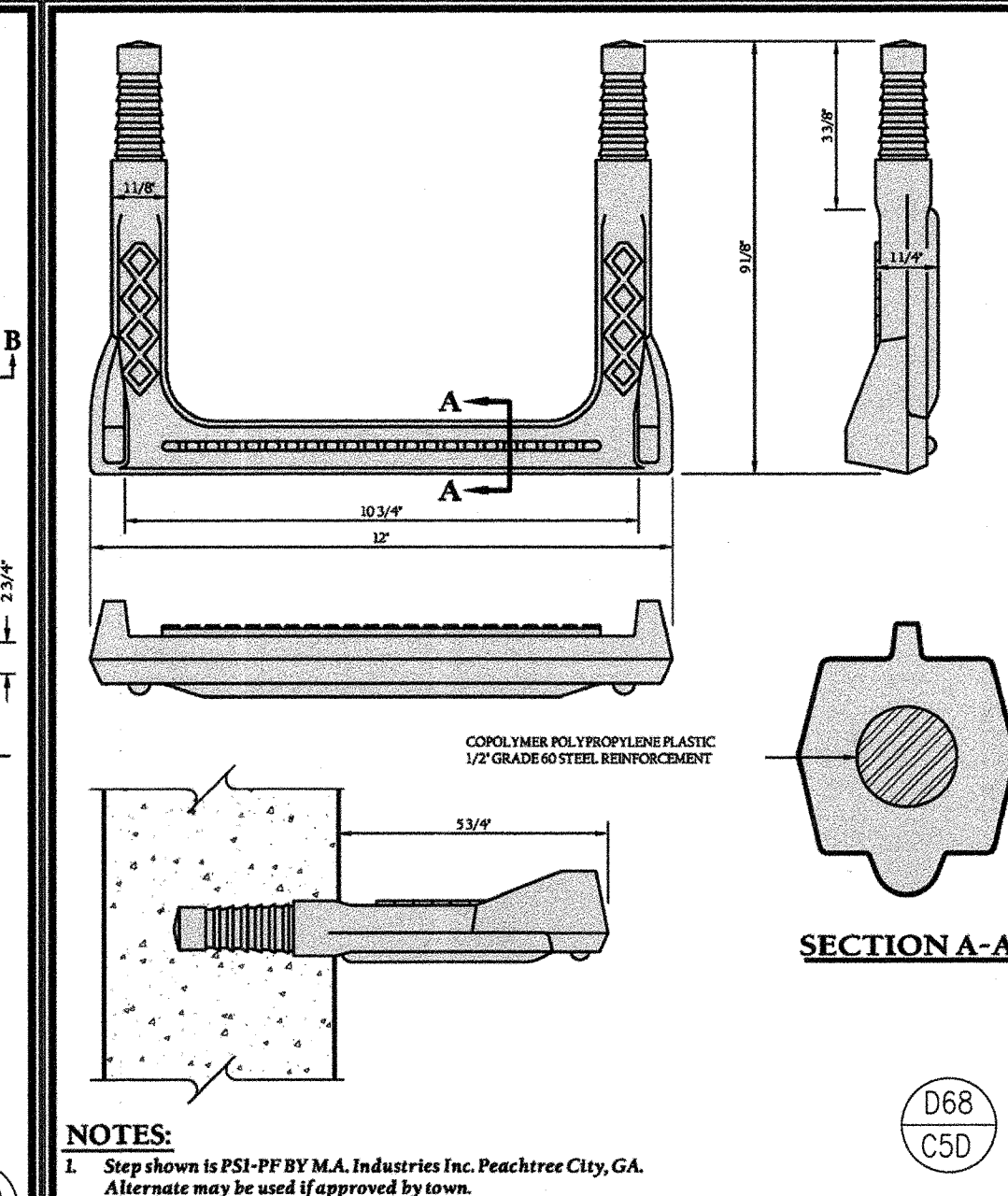
TOWN OF WAKE FOREST, NC
Manual of Specifications, Standards and Design
STANDARD COMBINATION
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Revision: 9.72
Date: Feb. 2015
Sheet: 1 of 1



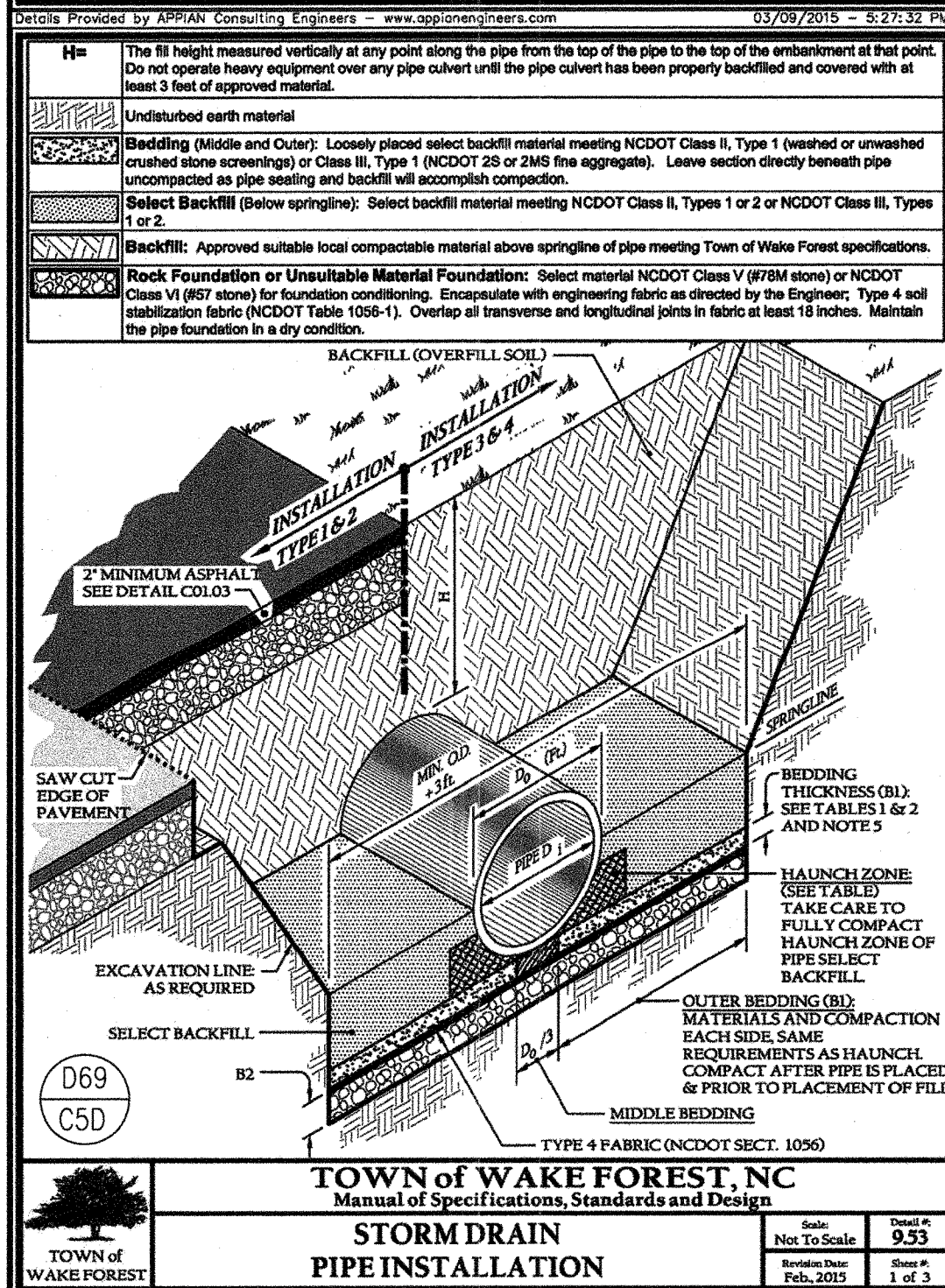
TOWN OF WAKE FOREST, NC
Manual of Specifications, Standards and Design
STANDARD CATCH BASIN
ASSEMBLY FRAME & GRATE
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Revision: 9.71
Date: Feb. 2015
Sheet: 1 of 1



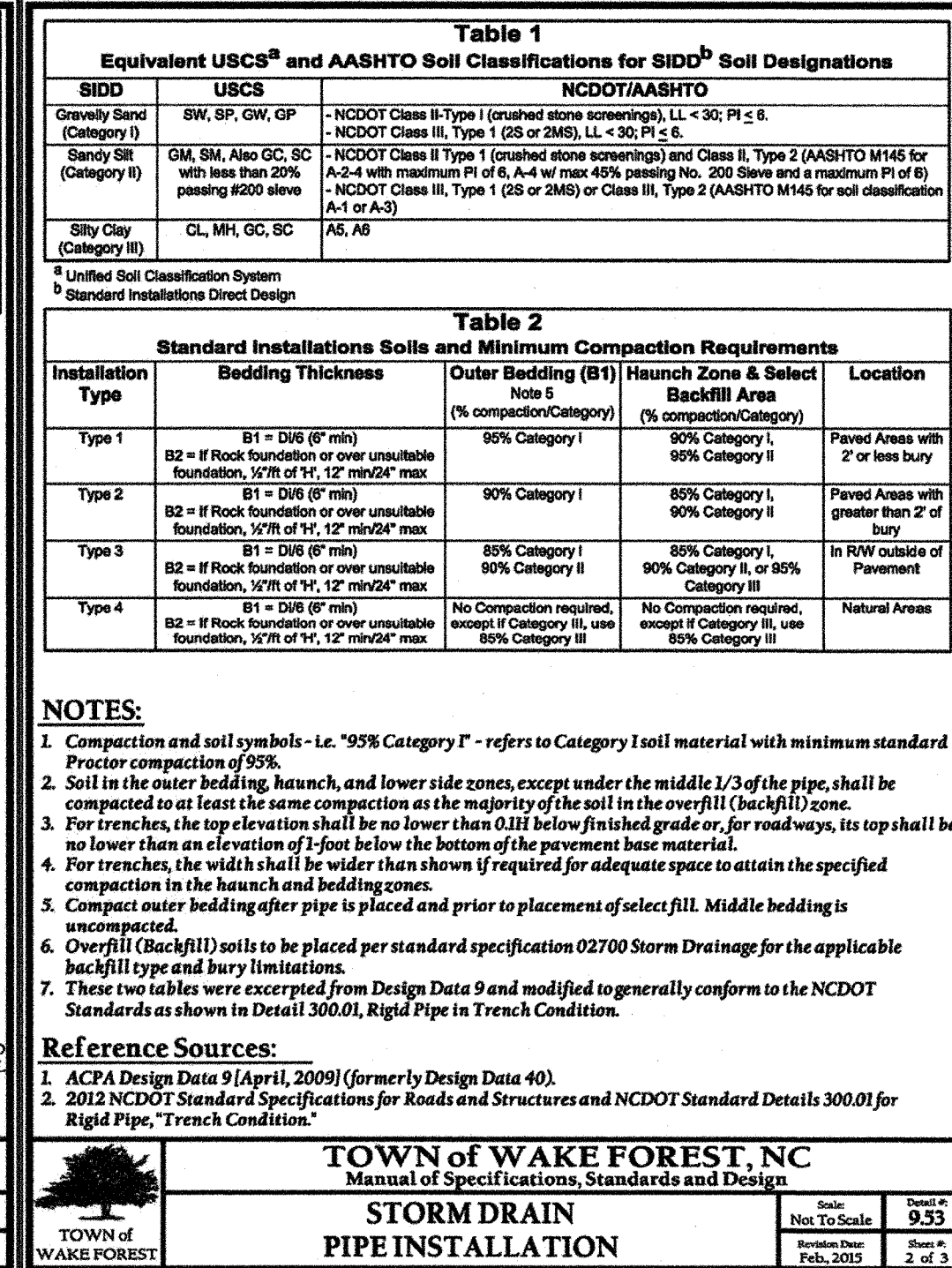
TOWN OF WAKE FOREST, NC
Manual of Specifications, Standards and Design
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Date: Feb. 2015
Sheet: 1 of 1



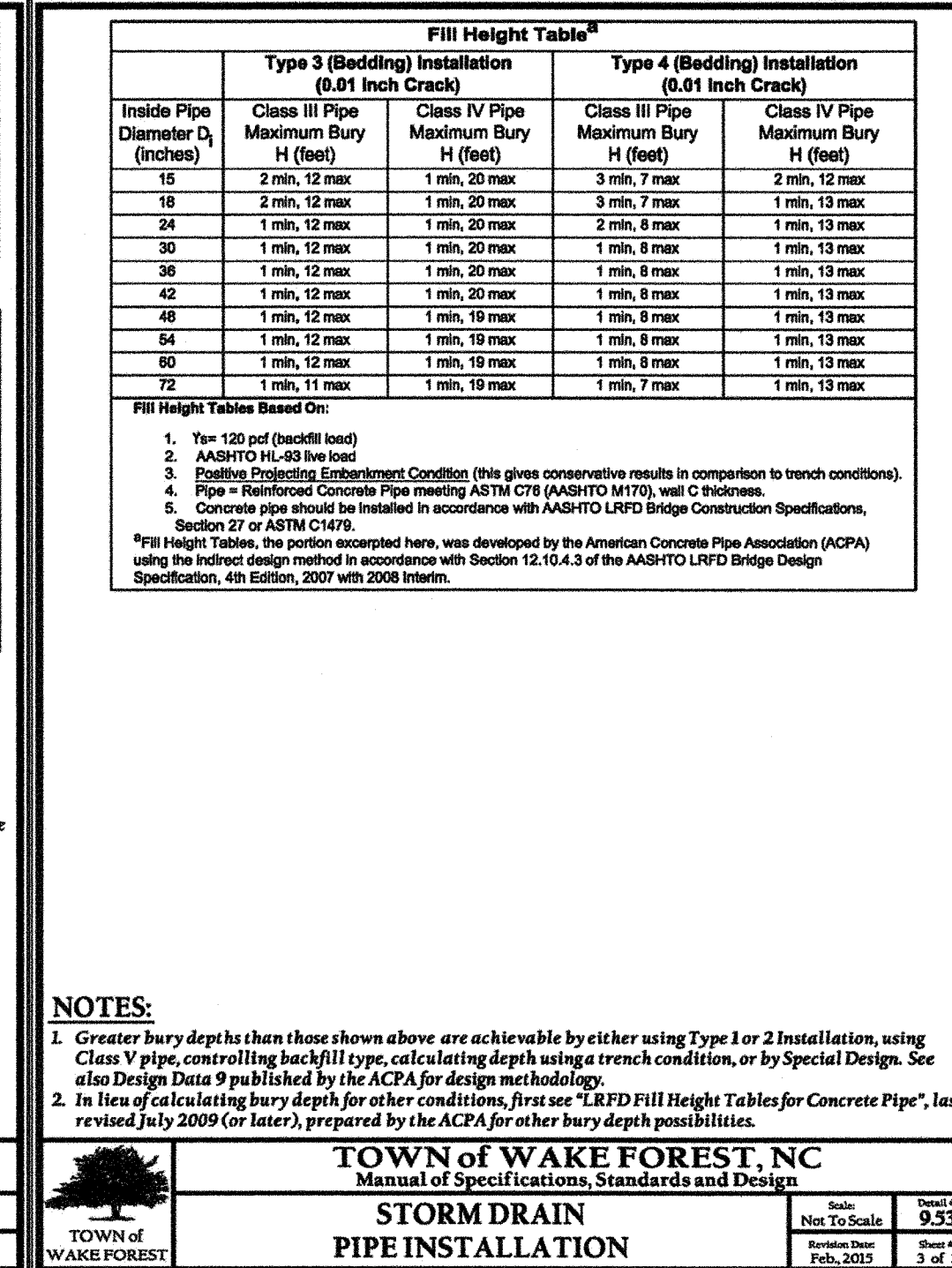
TOWN OF WAKE FOREST, NC
Manual of Specifications, Standards and Design
MANHOLE STEP
DETAIL
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Revision: 9.74
Date: Feb. 2015
Sheet: 1 of 1



TOWN OF WAKE FOREST, NC
Manual of Specifications, Standards and Design
STORM DRAIN
PIPE INSTALLATION
Scale: Not To Scale
Revision: 9.53
Date: Feb. 2015
Sheet: 1 of 3



TOWN OF WAKE FOREST, NC
Manual of Specifications, Standards and Design
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PIPE INSTALLATION
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Revision: 9.53
Date: Feb. 2015
Sheet: 2 of 3

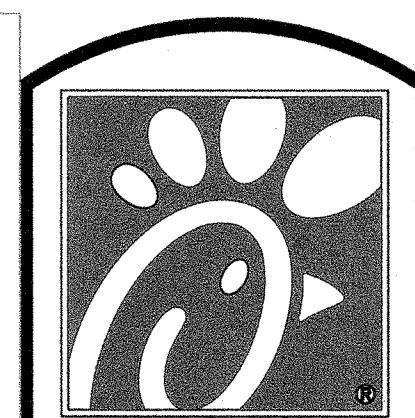


TOWN OF WAKE FOREST, NC
Manual of Specifications, Standards and Design
STORM DRAIN
PIPE INSTALLATION
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Revision: 9.53
Date: Feb. 2015
Sheet: 3 of 3



TOWN OF WAKE FOREST, NC
Manual of Specifications, Standards and Design
STORM DRAIN
PIPE INSTALLATION
Scale: Not To Scale
Revision: 9.53
Date: Feb. 2015
Sheet: 3 of 3

CONSTRUCTION DRAWINGS - TOWN OF WAKE FOREST



Chick-fil-A
5200 Buffington Rd.
Atlanta Georgia,
30349-2998
PH 404-765-8000
FAX 404-684-8550

Revisions:

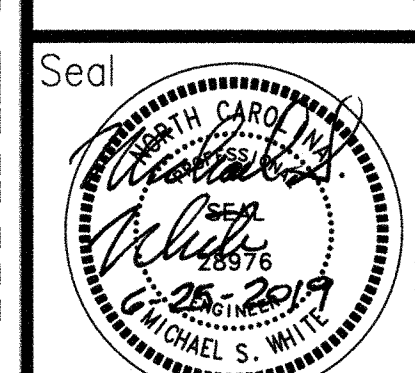
Mark Date By

△

Mark Date By

△

Seal



G. ROBERT GEORGE AND ASSOCIATES, INC.
CONSULTING ENGINEERS, PLANNERS
AND LAND SURVEYORS
P.O. BOX 32158
PH: (843) 556-4261
FAX: (843) 571-0276
CHARLESTON, SOUTH CAROLINA 29417-2158
email: gfga@comcast.net

STORE
SERIES P12 LS LR
FSU 04239

1010 FORESTVILLE ROAD
WAKE FOREST, NC 27587

SHEET TITLE
STORM DRAINAGE
DETAILS

DWG EDITION 03.1

□ Preliminary
□ 80% Submittal
□ For Construction

Job No. : 2036

Store : 04239

Date : 6-25-2019

Drawn By : MSW

Checked By: MSW

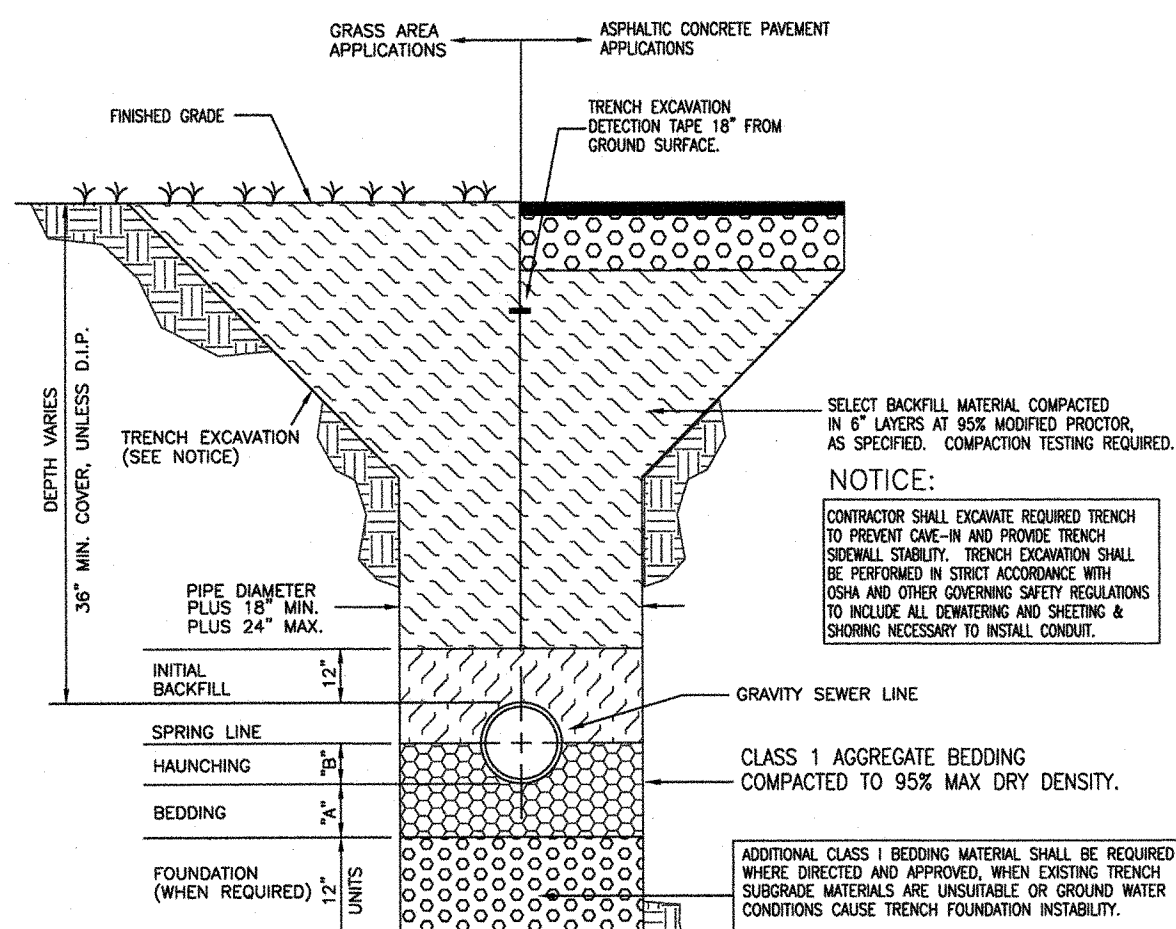
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C-5.0D

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST.	DATE
ENGINEERING DEPARTMENT	7/15/19
PUBLIC WORKS DEPARTMENT	7/13/19
EROSION & SEDIMENT CONTROL	DATE
FIRE PREVENTION	DATE
ACCESSIBILITY	DATE
PLANNING DEPARTMENT	DATE
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE
URBAN FORESTER	DATE

UTILITY CONSTRUCTION NOTES

- WATER DISTRIBUTION AND SANITARY SEWER FACILITIES SHALL BE CONSTRUCTED PURSUANT TO "STANDARD SPECIFICATIONS" OF ORANGE WATER AND SEWER AUTHORITY EXCEPT WHERE PROJECT MATERIAL METHODS AND SPECIFICATIONS ARE MORE STRINGENT AS DETERMINED BY THE ENGINEER'S SPECIFICATIONS. EARTHWORK, TRENCHING AND BACKFILLING SHALL BE AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- SOIL TESTING AND COMPACTION REQUIREMENTS SHALL BE STRICTLY ENFORCED AND SHALL BE PERFORMED AS SPECIFIED. THE UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR ACHIEVING THE REQUIRED DEGREE OF COMPACTION SPECIFIED TO PRECLUDE SUBSIDENCE OF ROADWAY IMPROVEMENTS.
- CONNECTIONS TO EXISTING UTILITIES SHALL NOT COMMENCE UNTIL VERIFICATION OF LOCATION, DIAMETER, ELEVATION, MATERIAL, INVERT ELEVATION AND EXISTING STRUCTURE SIZE AS APPLICABLE HAS BEEN PERFORMED BY THE CONTRACTOR. THE ENGINEER SHALL BE NOTIFIED OF FIELD VERIFICATION PRIOR TO COMMENCING WITH CONNECTION.
- THE CONTRACTOR SHALL NOTIFY THE APPLICABLE WATER & SEWER DEPARTMENT(S) AT LEAST 72 HOURS BEFORE MAKING CONNECTIONS TO EXISTING SEWERS AND WATER MAINS, OR PRESSURE TESTING AND CONNECTION OF NEW AND EXISTING WATER LINES.
- ALL UNDERGROUND UTILITIES SHALL BE INSTALLED PRIOR TO PAVING.
 - D.I.P. SEWER AND WATER MAIN SHALL BE INSTALLED AS INDICATED, OR WHENEVER THE FOLLOWING MINIMUM CONDITIONS CANNOT BE MAINTAINED:
 - 10 FEET HORIZONTAL SEPARATION PIPE TO PIPE BETWEEN WATER AND SEWER LINES.
 - 18 INCHES VERTICAL SEPARATION PIPE TO PIPE BETWEEN WATER AND SEWER LINES. WATER LINES SHALL BE CONSTRUCTED OVER SEWER LINES.
 - THE CONTRACTOR SHALL INSTALL ONE PIPE LENGTH OF D.I.P. SEWER PIPE AT ALL WATER MAIN CROSSINGS WITH LESS THAN 18" VERTICAL SEPARATION FROM THE BOTTOM OF THE WATER MAIN TO THE TOP/CROWN OF THE SEWER LINE. D.I.P. SEWER PIPE SHALL BE CENTERED AT THE WATER LINE CROSSING TO PROVIDE EQUAL DISTANCE TO THE BELL AND WALE ENDS. FERRULO D.I.P. TO PVC COUPLINGS OR APPROVED EQUAL SHALL BE USED AT ALL D.I.P. TO P.V.C. CONNECTIONS.
- SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR SETTING MANHOLE FRAMES CLEANOUTS, VALVES AND OTHER APPLICABLE APPURTENANCES TO REQUIRED FINISHED ROADWAY AND/OR PLANTING AREA FINISHED GRADE ELEVATIONS.
- WHERE 6 INCH DIAMETER SEWER SERVICE LINES ENTER MANHOLES, MATCH CROWN ELEVATIONS WITH OUTLET SEWER CROWN, UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL COORDINATE WITH ORANGE WATER AND SEWER AUTHORITY FOR STANDARDS AND REQUIREMENTS OF INSTALLATION FOR WATER SERVICE, TAP, WATER METER, AND METER BOX. STANDARDS. CONTRACTOR'S BID PRICE SHALL INCLUDE THE COST OF ANY WORK THAT MAY BE REQUIRED BY THE WATER DEPARTMENT, THE DOMESTIC WATER LINE FROM THE CUSTOMER SIDE OF THE WATER METER TO THE BUILDING SHALL BE TYPE K COPPER, UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL INSTALL A BACKFLOW PREVENTER (FEBRO, OR APPROVED EQUAL) FOR EACH WATER SERVICE LINE AS INDICATED ON THE DRAWINGS. INSTALLATION SHALL INCLUDE BOX OR VAULT, AS APPLICABLE. THE CONTRACTOR SHALL COORDINATE WITH THE ORANGE WATER AND SEWER AUTHORITY FOR INSPECTION, TESTING, AND CERTIFICATION OF ALL BACKFLOW PREVENTERS. ALL BACKFLOW PREVENTERS SHALL BE INSTALLED IN ACCORDANCE WITH THE WATER DEPT. STANDARDS/SPECIFICATIONS. THE CONTRACTOR'S BID PRICE SHALL INCLUDE ALL COSTS ASSOCIATED WITH DEVICE INSTALLATION, INSPECTION, TESTING, CERTIFICATION, ETC. TO INCLUDE ANY FEES CHARGED BY CPW.
- THE CONTRACTOR SHALL REFER TO THE LANDSCAPE ARCHITECT DESIGN DRAWINGS FOR THE LOCATION OF IRRIGATION FACILITIES PRIOR TO THE INSTALLATION OF WATER DISTRIBUTION AND SEWER COLLECTION FACILITIES. REPORT ANY CONFLICTS DISCOVERED TO THE ENGINEER PRIOR TO INSTALLATION.



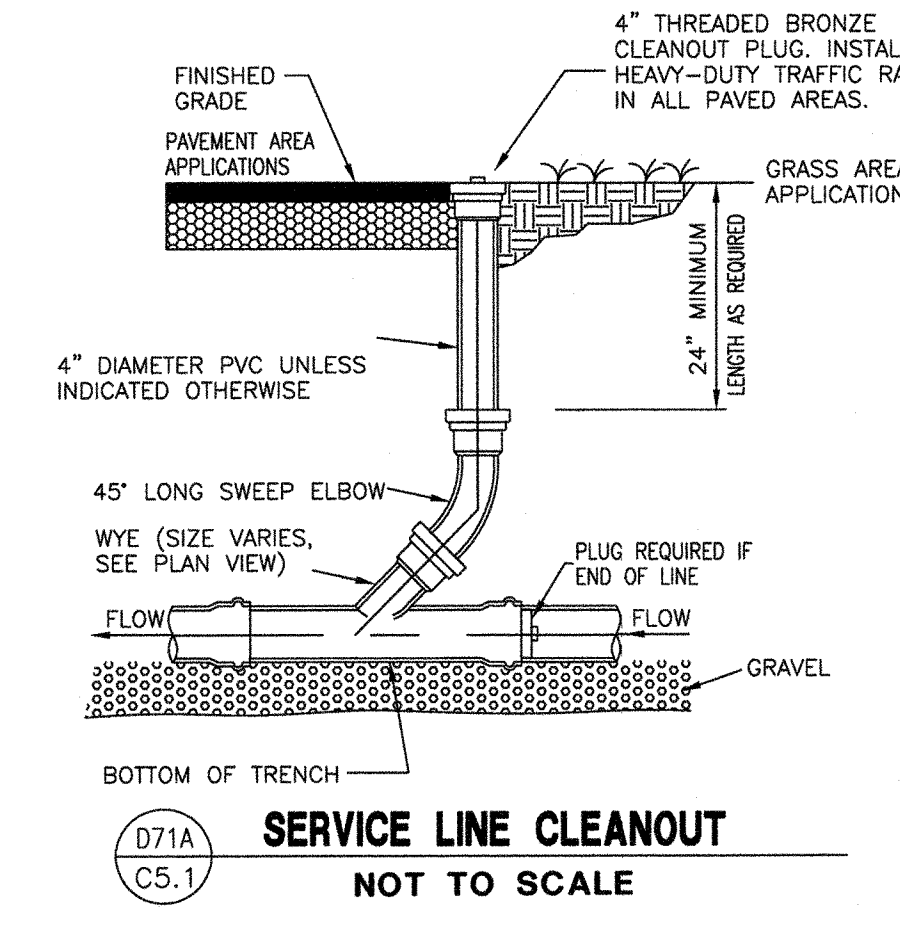
DEPTH SCHEDULE FOR HAUNCHING AND BEDDING

PIPE #	4"-10"	12"-18"	24"	36"
"A"	6"	8"	10"	12"
"B"	EXTEND TO SPRINGLINE			

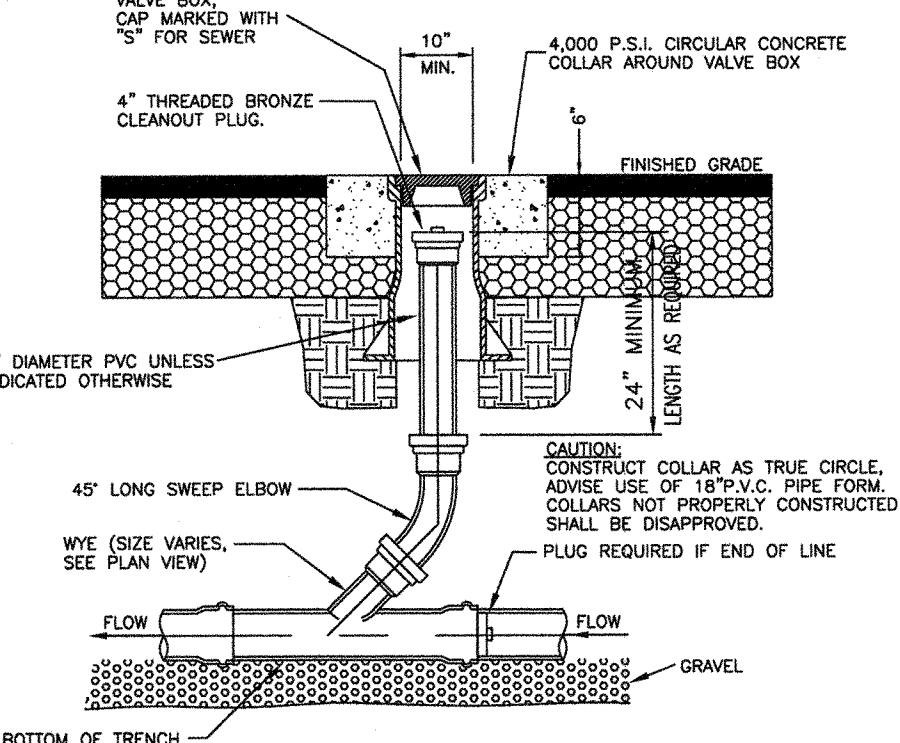
EMBEDMENT COMPACTION SHALL BE THE MINIMUM DENSITIES INDICATED IN TABLE 2 OF ASTM D2922-11R.

TRENCH SECTION FOR SEWER MAIN & GRAVITY SEWER SERVICE LINE
NOT TO SCALE

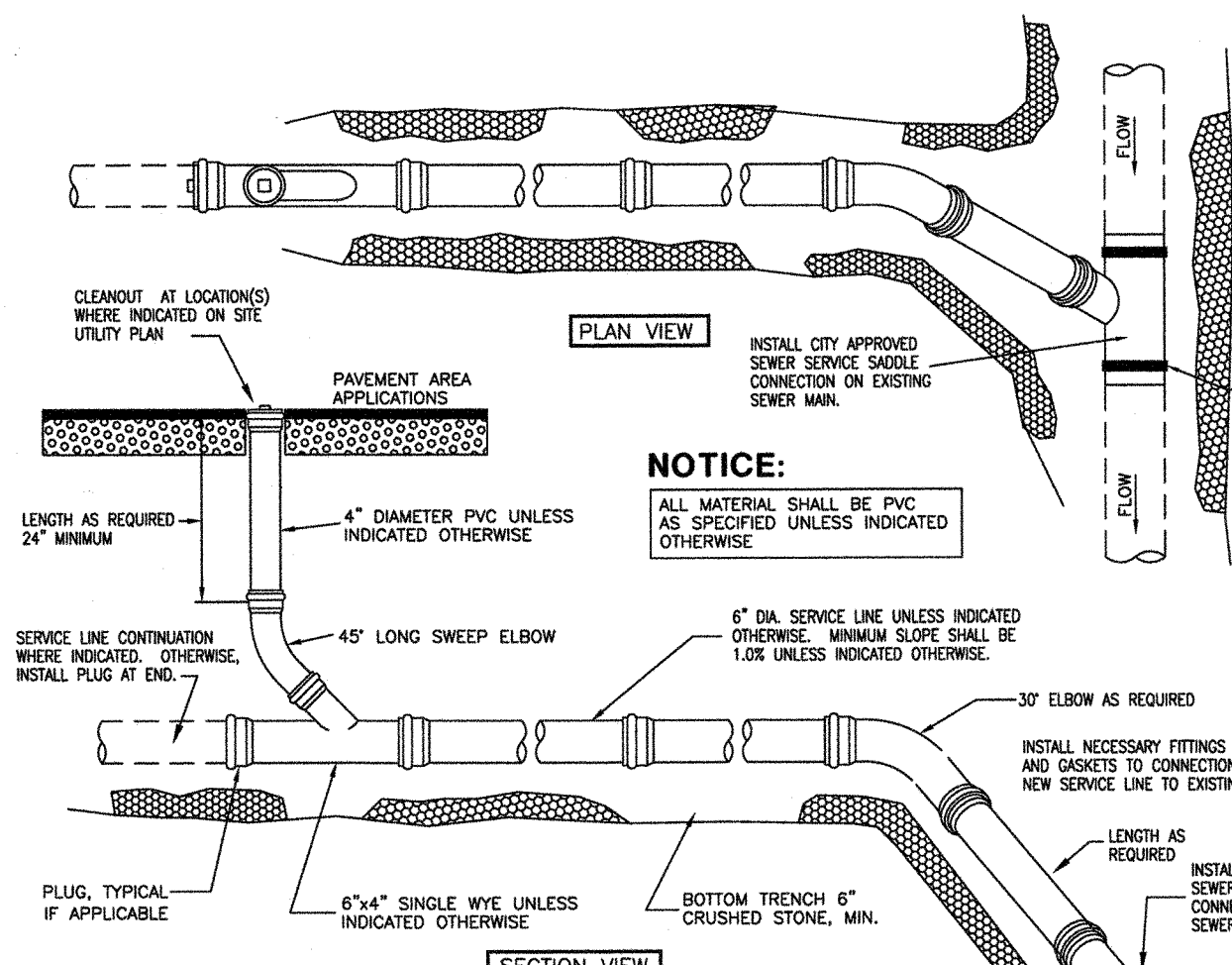
DANGER/WARNING
DEADLY SEWER GASES MAY EXIST WITHIN OPERATIONAL SEWERS. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE O.S.H.A. AND OTHER FEDERAL, STATE, AND LOCAL REGULATIONS WHILE WORKING WITHIN ANY EXISTING SEWER MANHOLE.



SERVICE LINE CLEANOUT
NOT TO SCALE



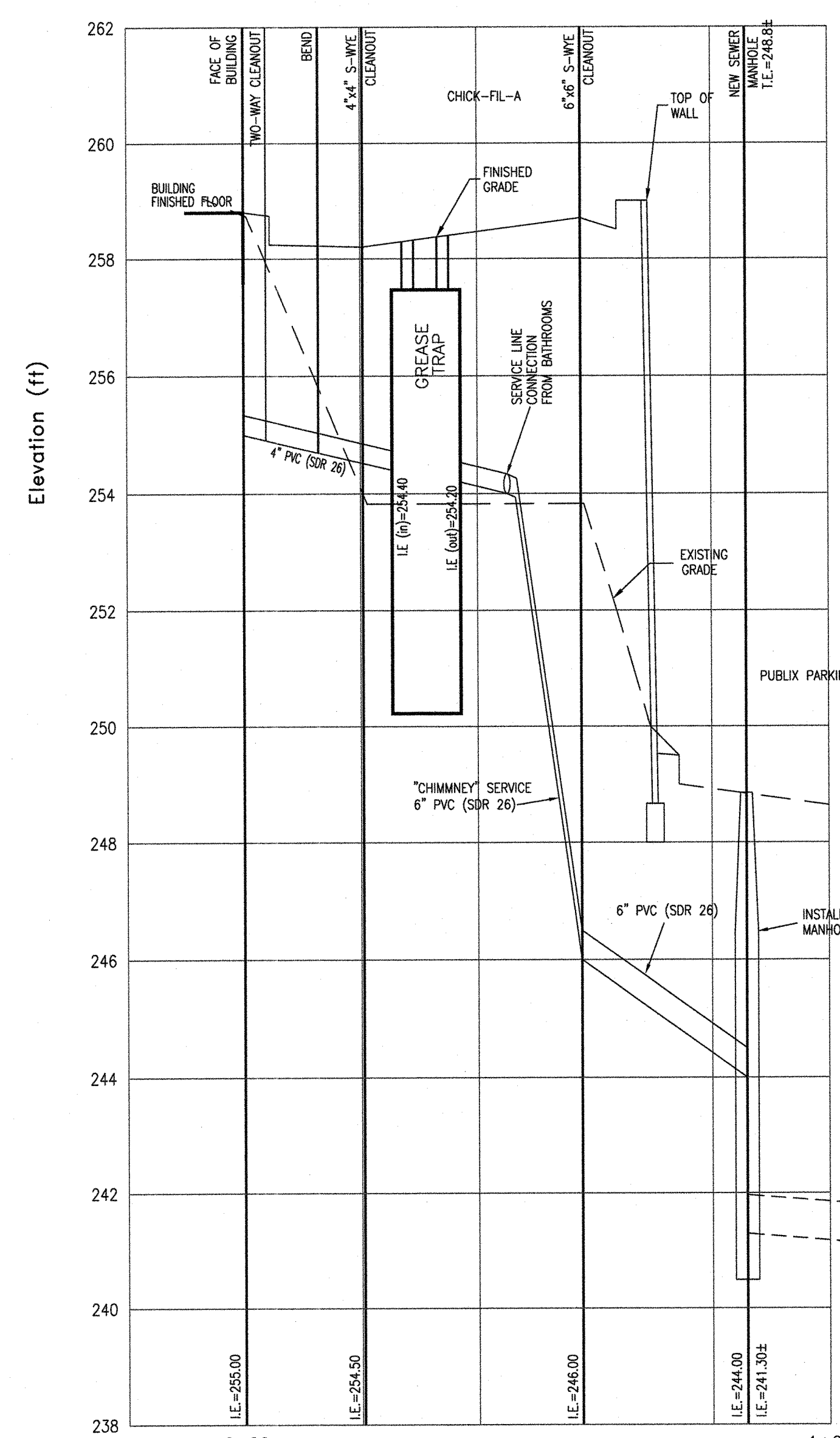
"TRAFFIC RATED" SERVICE LINE CLEANOUT
NOT TO SCALE



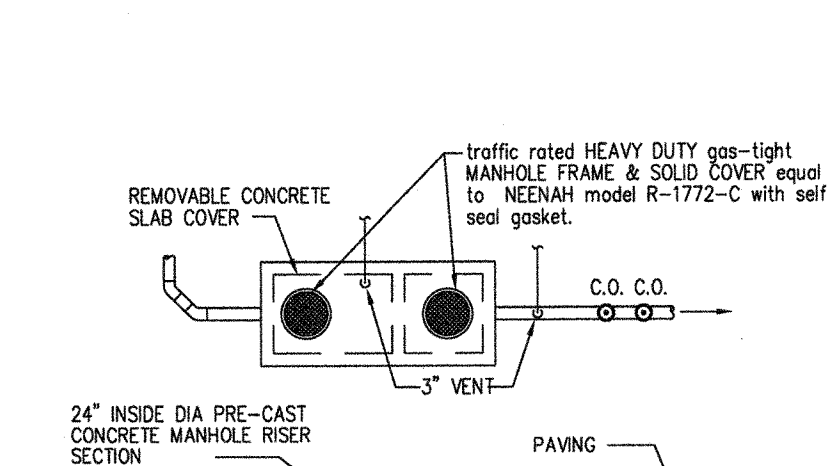
SEWER SERVICE CONNECTION WITH CLEANOUT DETAIL
NOT TO SCALE

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST

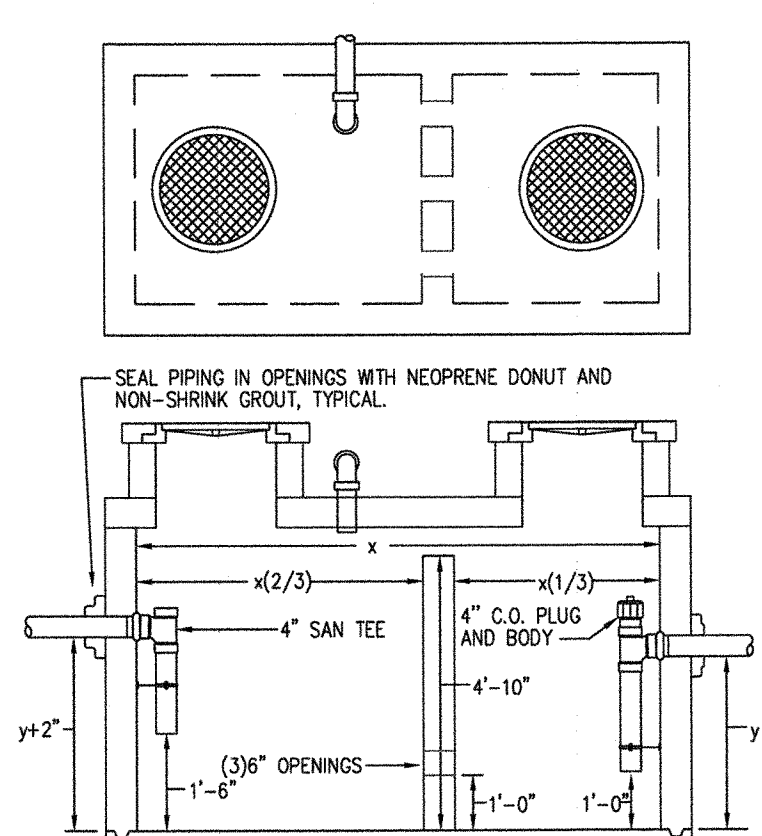
ENGINEERING DEPARTMENT	DATE
AS	7-2-11
PUBLIC WORKS DEPARTMENT	7/3/19
EROSION & SEDIMENT CONTROL	7/12/19
FIRE PREVENTION	
ACCESSIBILITY	
PLANNING DEPARTMENT	7/5/19
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	
URBAN FORESTER	



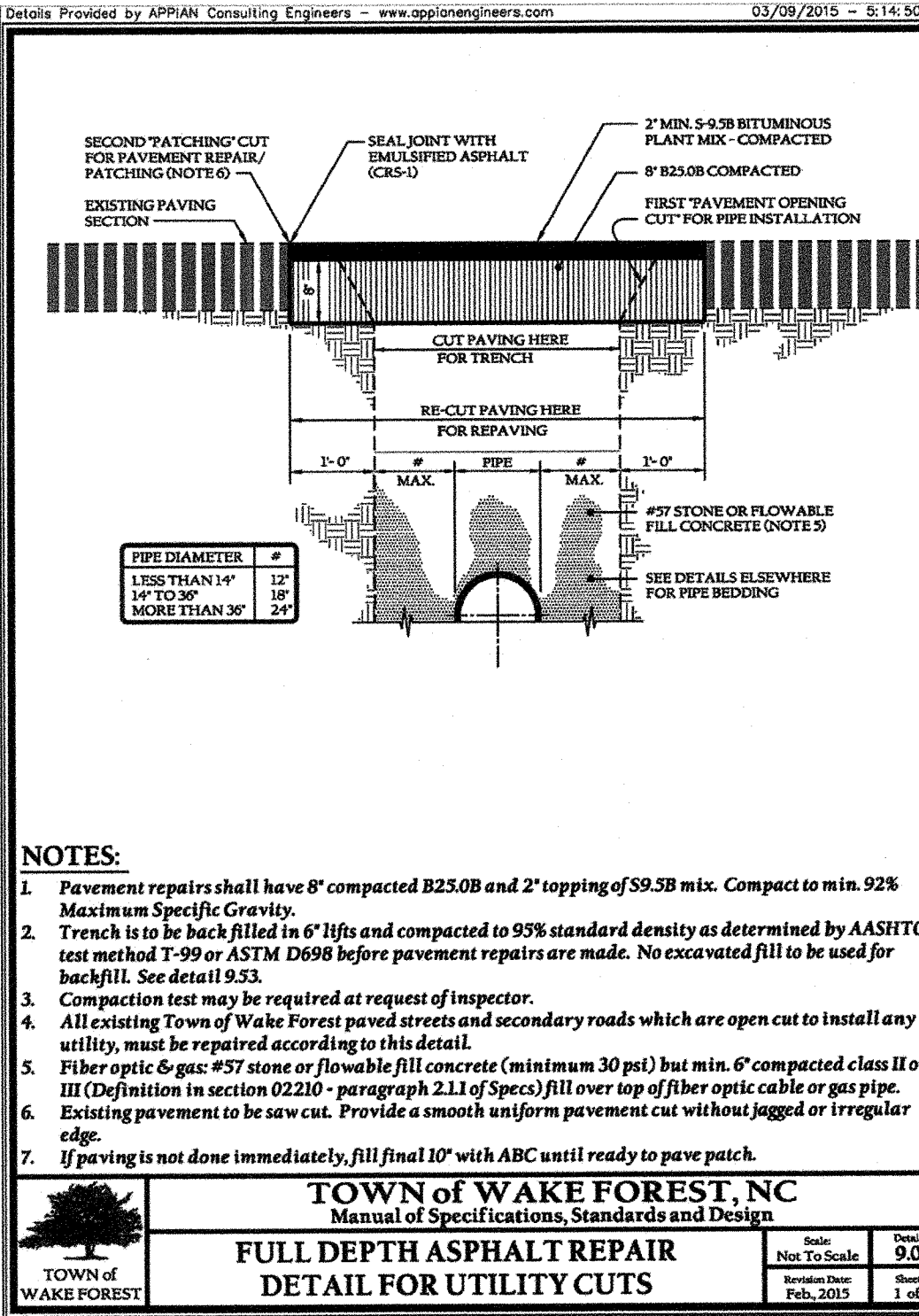
SANITARY SEWER SERVICE PROFILE
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=2' (KITCHEN WASTE)



GREASE INTERCEPTOR DETAIL
SCALE: NONE (NOT TO SCALE)



REFERENCE DRAWING: PLUMBING PLAN SHEET P1 DETAIL #2 FOR GREASE INTERCEPTOR DETAIL

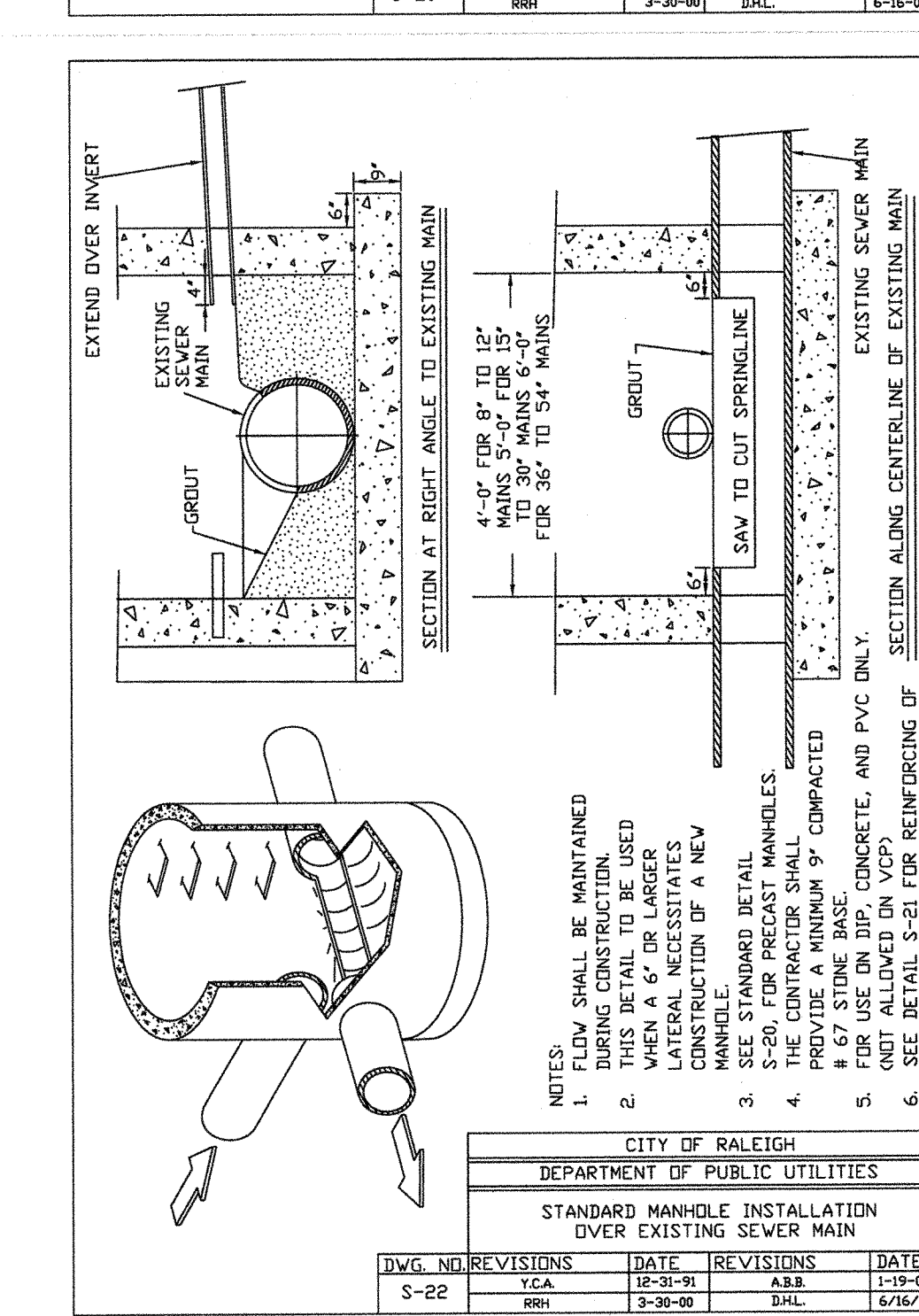
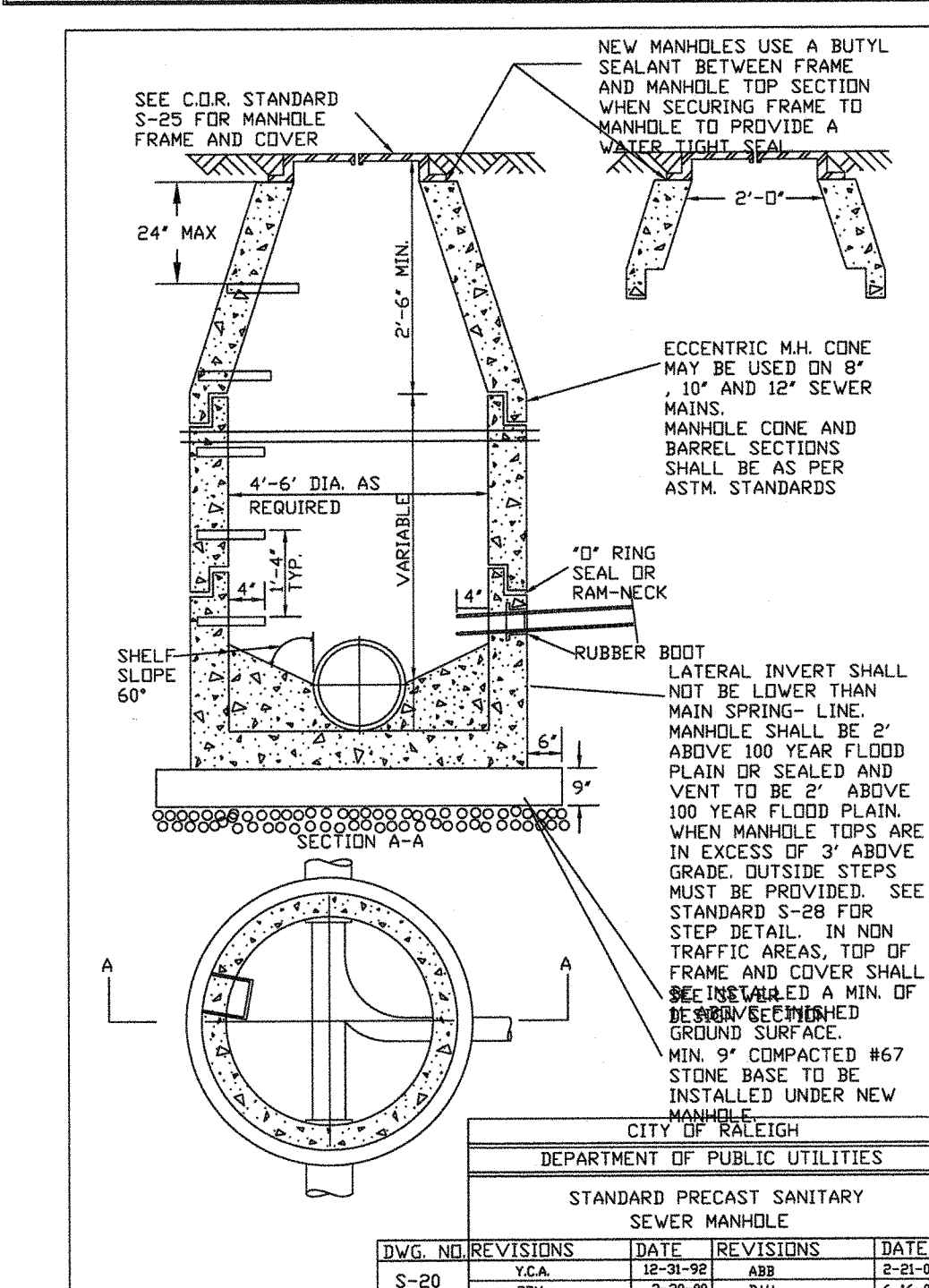


NOTES:
1. Pavement repairs shall have 8" compacted B250B and 2" topping of S9.5B mix. Compact to min. 92% Maximum Specific Gravity.
2. Trench is to be back filled in 6" lifts and compacted to 95% standard density as determined by AASHTO test method T-99 or ASTM D698 before pavement repairs are made. No excavated fill to be used for backfill. See detail S5.3.
3. Compaction test may be required at request of inspector.
4. All existing Town of Wake Forest paved streets and secondary roads which are open cut to install any utility, must be repaired according to this detail.
5. Fiber optic & gas #37 stone or flowable fill concrete (minimum 30 psi) but min. 6" compacted class II or III (Definition in section 02210 - paragraph 2.1.1 of Specs) fill over top of fiber optic cable or gas pipe.
6. Existing pavement to be saw cut. Provide a smooth uniform pavement cut without jagged or irregular edge.
7. If paving is not done immediately, fill final 10" with ABC until ready to pave patch.

TOWN OF WAKE FOREST, NC
Manual of Specifications, Standards and Design

FULL DEPTH ASPHALT REPAIR DETAIL FOR UTILITY CUTS

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-22	YEA	12-21-18	AB	2-21-19
	RRH	3-29-20	DHL	6-16-20

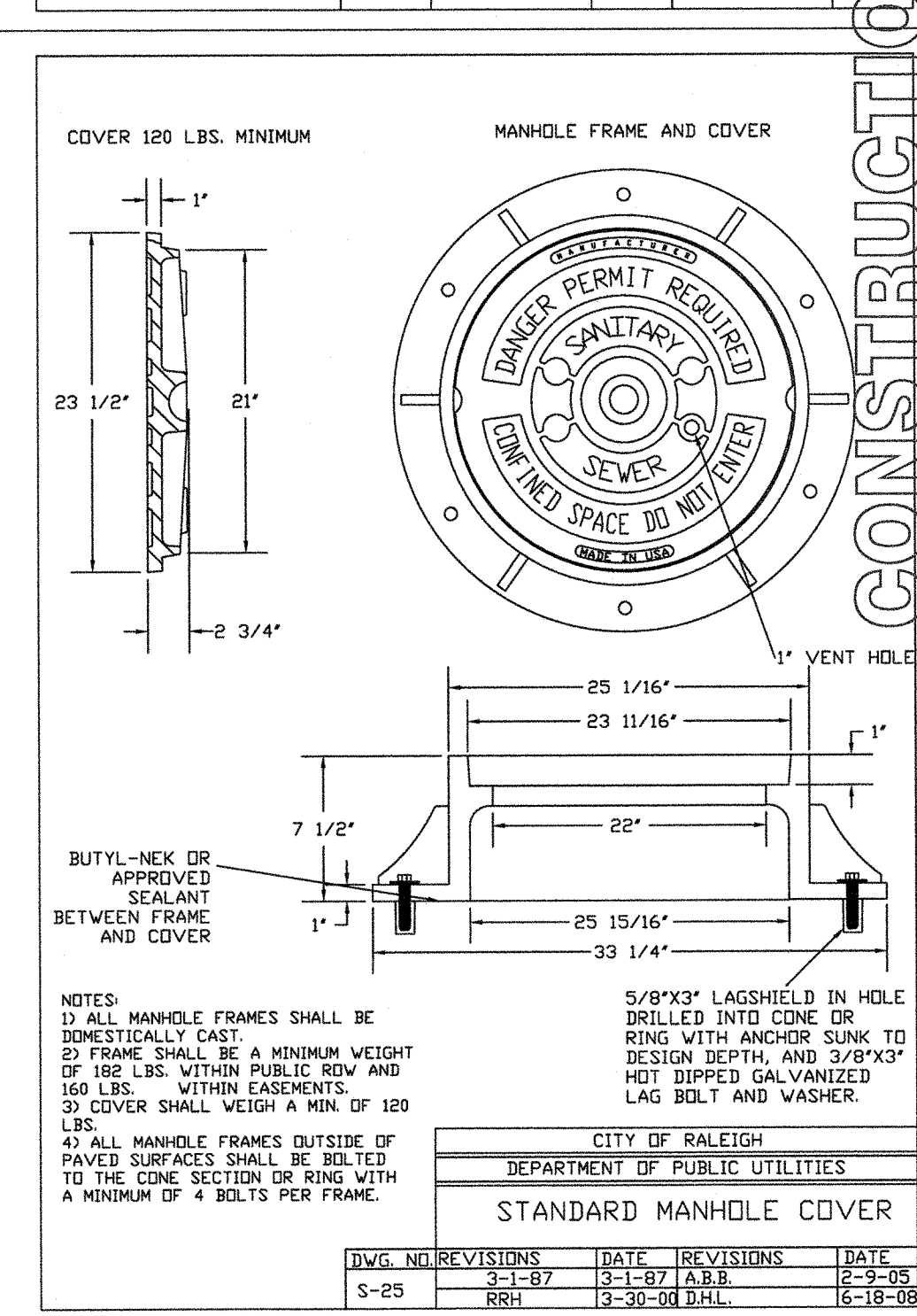
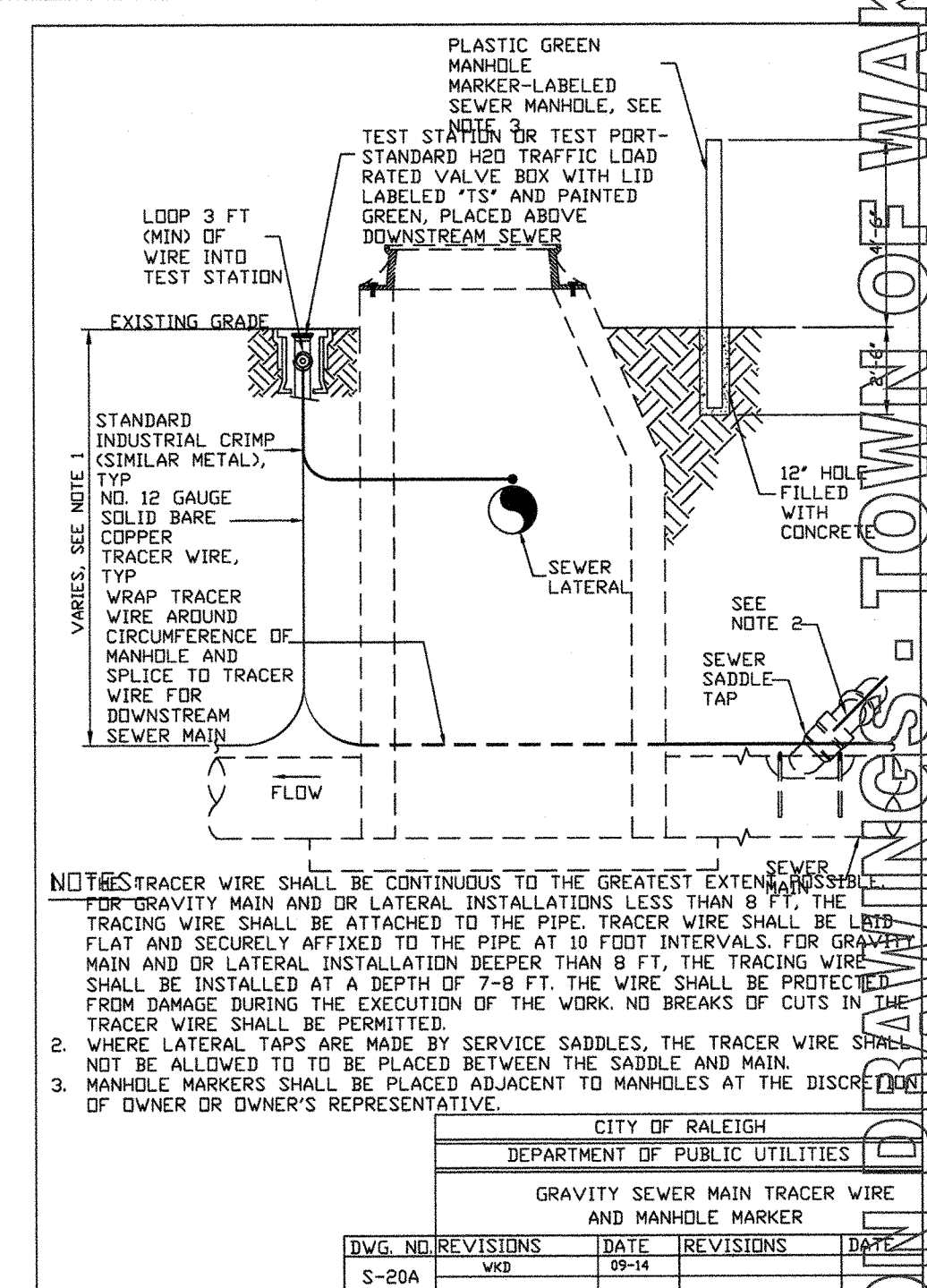
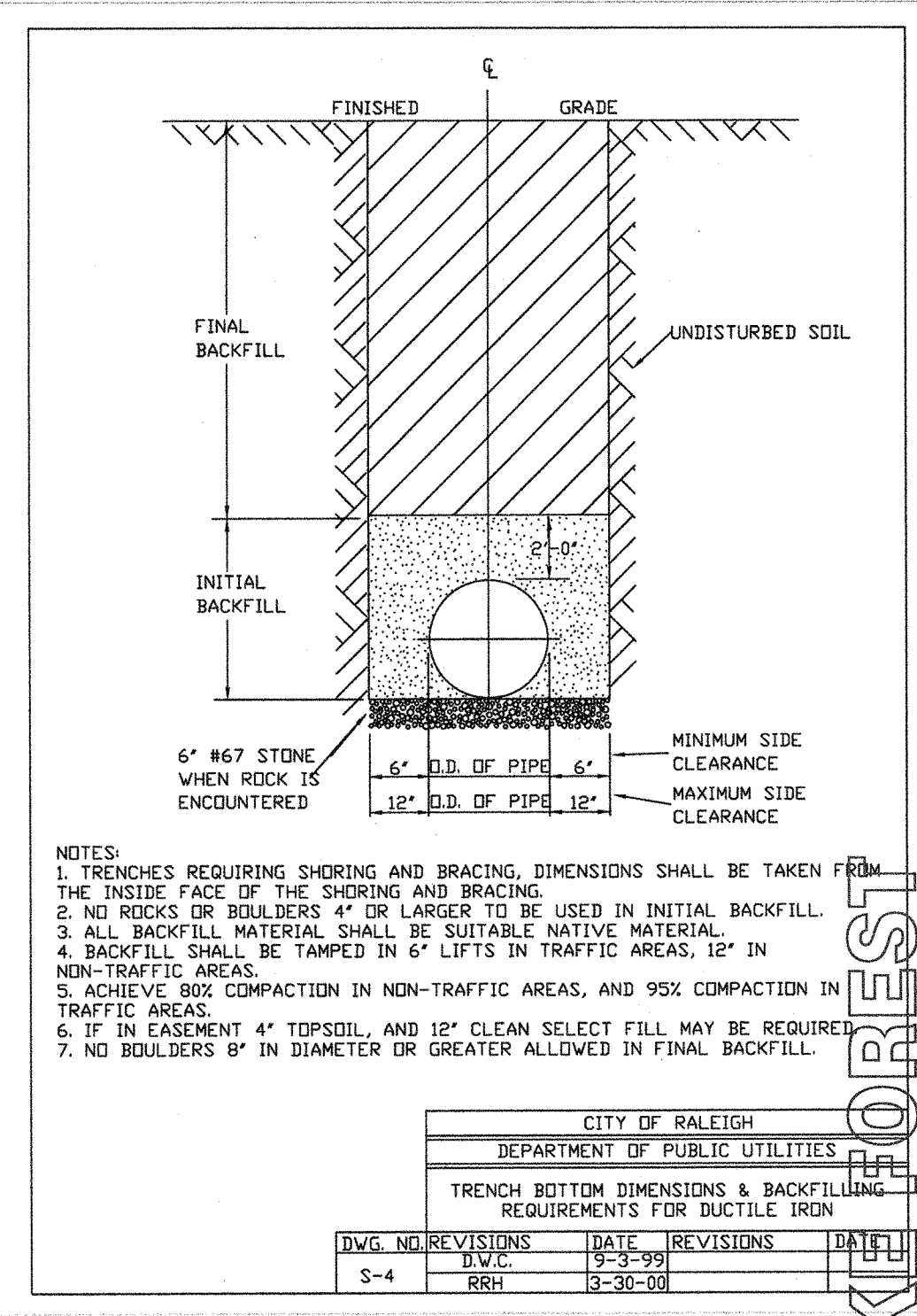


NOTES:
1. DOWEL SHALL BE MAINTAINED DURING CONSTRUCTION.
2. THIS DETAIL TO BE USED FOR ALL MANHOLES IN EXISTING LATERAL NECESSITIES.
3. CONSTRUCTION OF A NEW MANHOLE SHALL BE IN ACCORDANCE WITH DETAIL S-200 FOR PRECAST MANHOLES.
4. THE CONTRACTOR SHALL PROVIDE A MINIMUM 9" COMPACTED S-200 FOR PRECAST MANHOLES.
5. FOR USE IN DIP, CONCRETE AND PVC ONLY. SECTION ALONG CENTERLINE OF EXISTING MAIN FOR USE IN REINFORCING OF EXISTING MAIN.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

STANDARD MANHOLE INSTALLATION OVER EXISTING SEWER MAIN

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-22	YEA	12-21-18	AB	2-21-19
	RRH	3-29-20	DHL	6-16-20



NOTES:
1. MANHOLE FRAMES SHALL BE DOMESTICALLY CAST.
2. ALL MANHOLE FRAMES SHALL BE 180 LBS. WITHIN PUBLIC RDV AND 160 LBS. WITHIN EASEMENTS.
3. COVER SHALL WEIGH A MIN. OF 120 LBS.
4. ALL MANHOLE FRAMES OUTSIDE OF PAVED SURFACES SHALL BE BOLTED TO THE CONE SECTION OR RING WITH A MINIMUM OF 4 BOLTS PER FRAME.

CITY OF RALEIGH
DEPARTMENT OF PUBLIC UTILITIES

STANDARD MANHOLE COVER

DWG. NO.	REVISIONS	DATE	REVISIONS	DATE
S-25	YEA	12-21-18	AB	2-21-19
	RRH	3-29-20	DHL	6-16-20

5200 Buffington Rd.
Atlanta Georgia,
30349-2998
PH 404-765-8000
FAX 404-684-8550

Revisions:

Mark	Date	By
△		

Mark Date By

Seal

G. ROBERT GEORGE AND ASSOCIATES, INC.
CONSULTING ENGINEERS, PLANNERS
AND LAND SURVEYORS
P.O. BOX 92168
(943) 556-4281
CHARLESTON, SOUTH CAROLINA 29417-2168
email: ggeorge@concast.net

STORE
SERIES P12 LS LRG
FSU 04239

1010 FORESTVILLE ROAD
WAKE FOREST, NC 27587

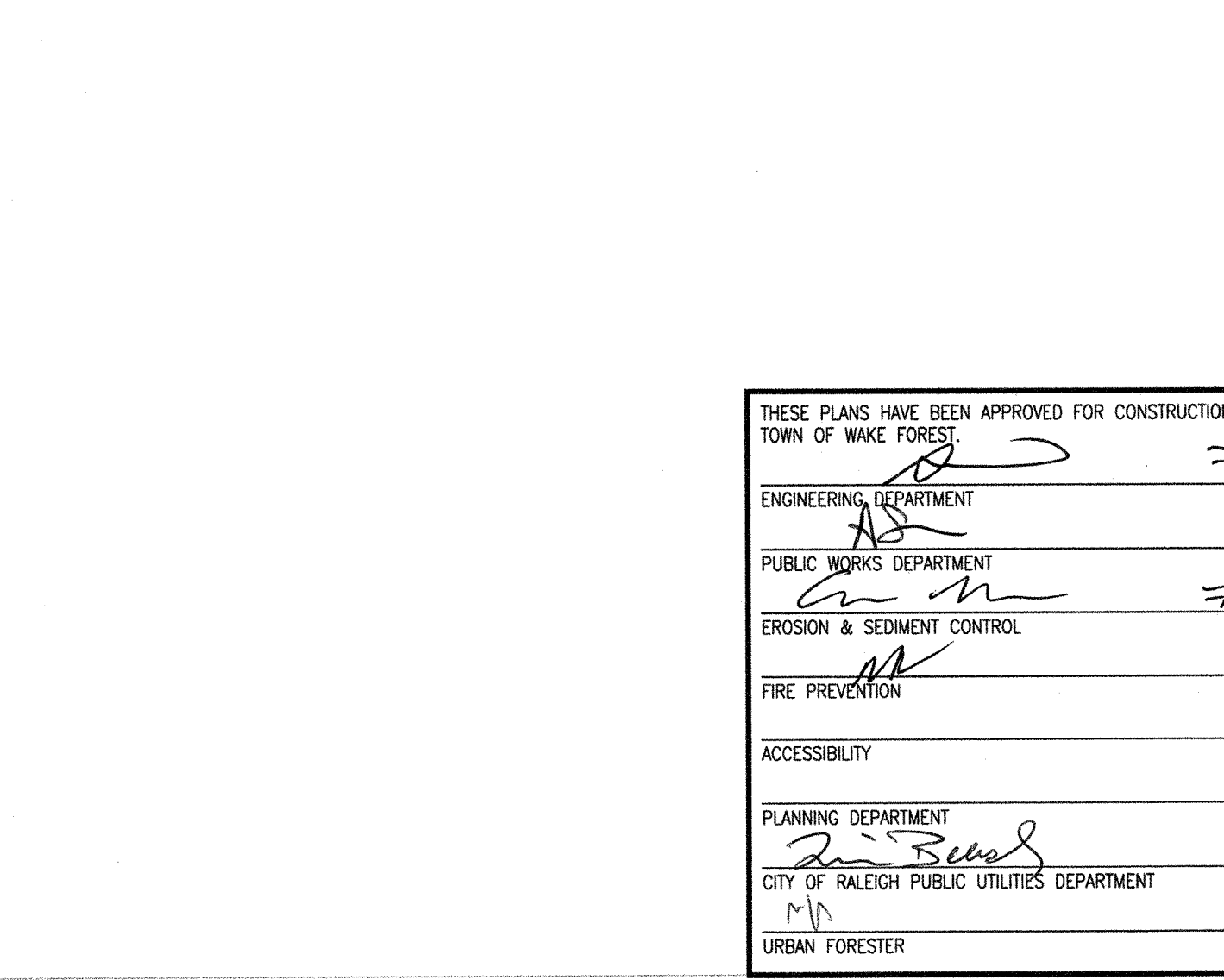
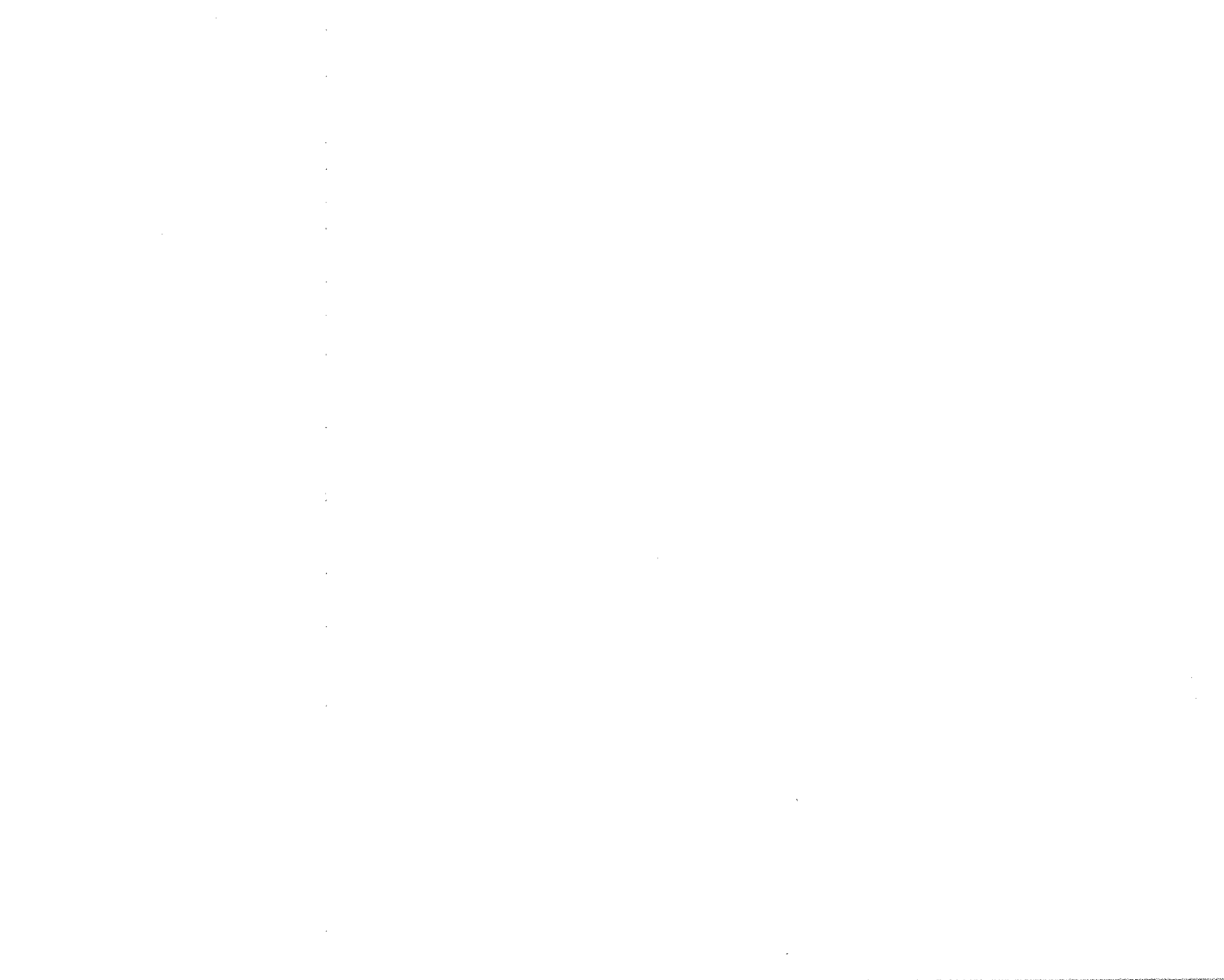
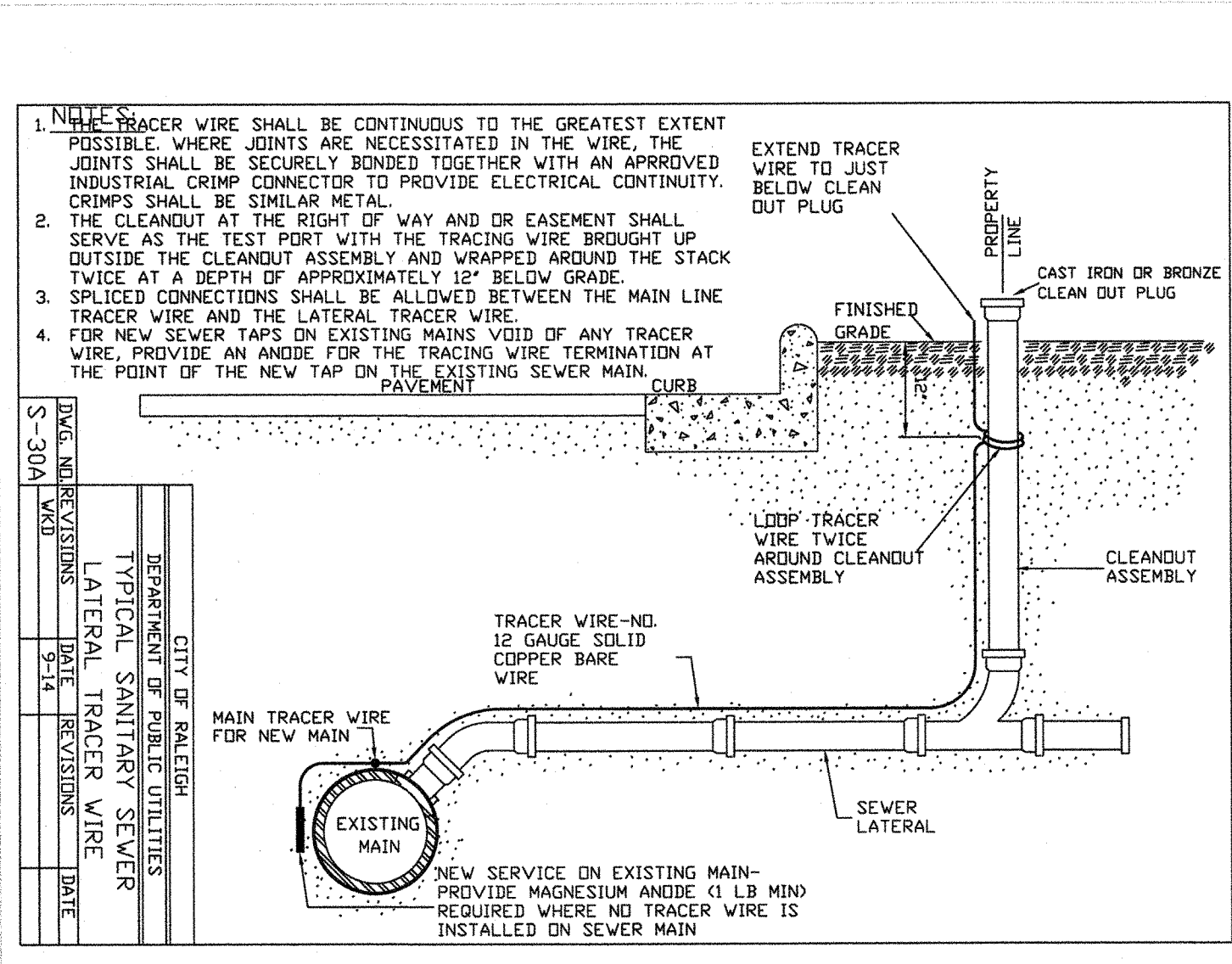
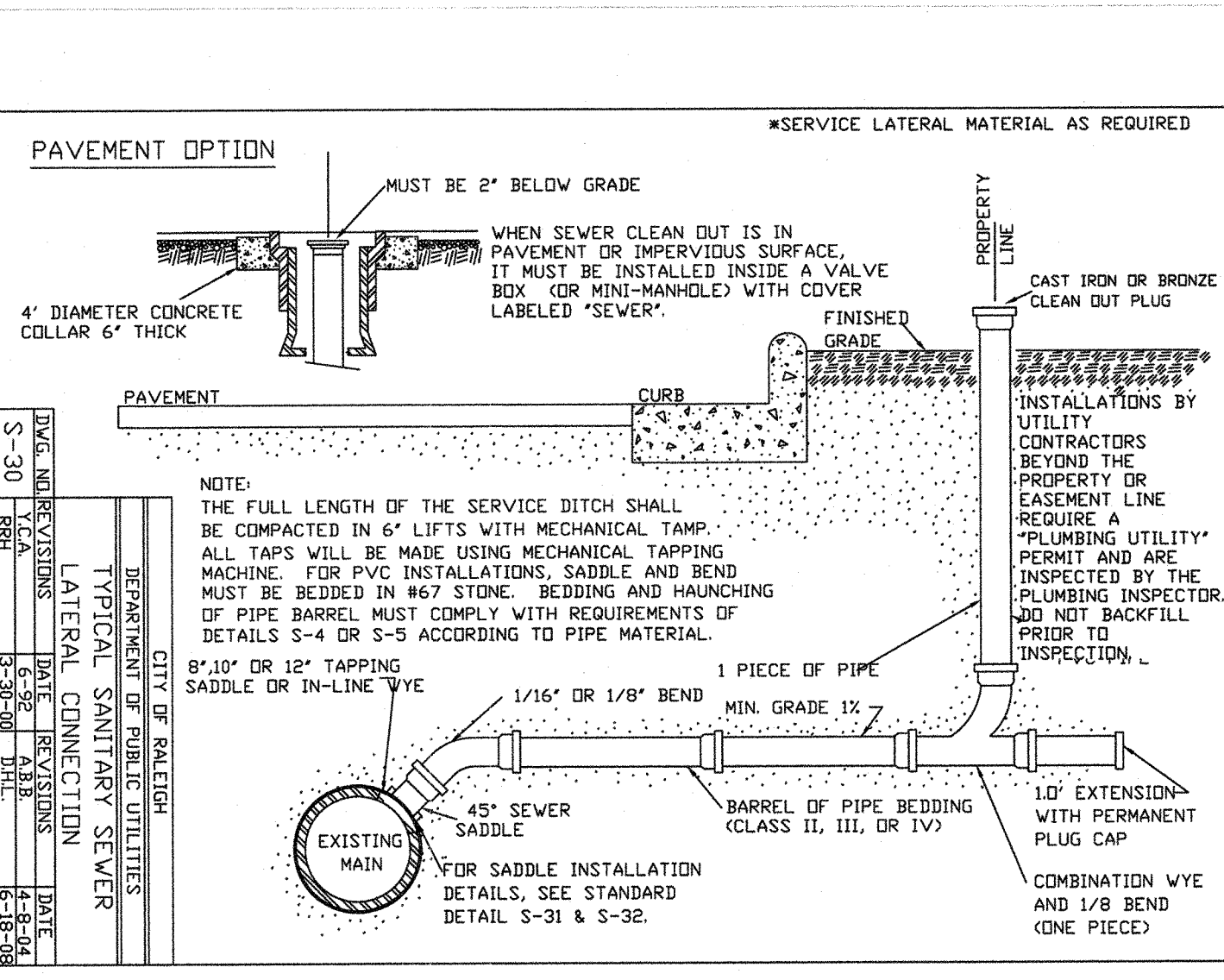
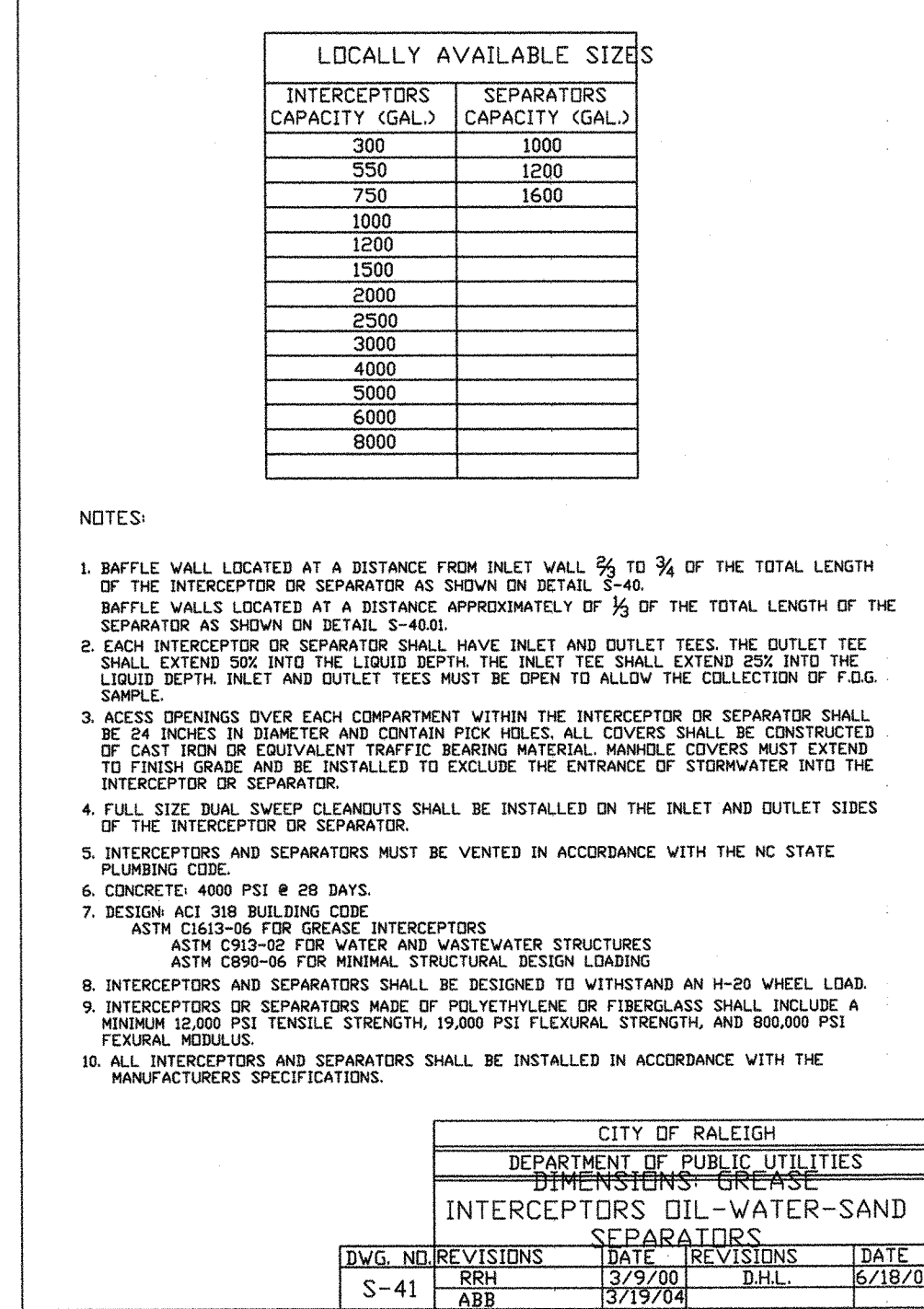
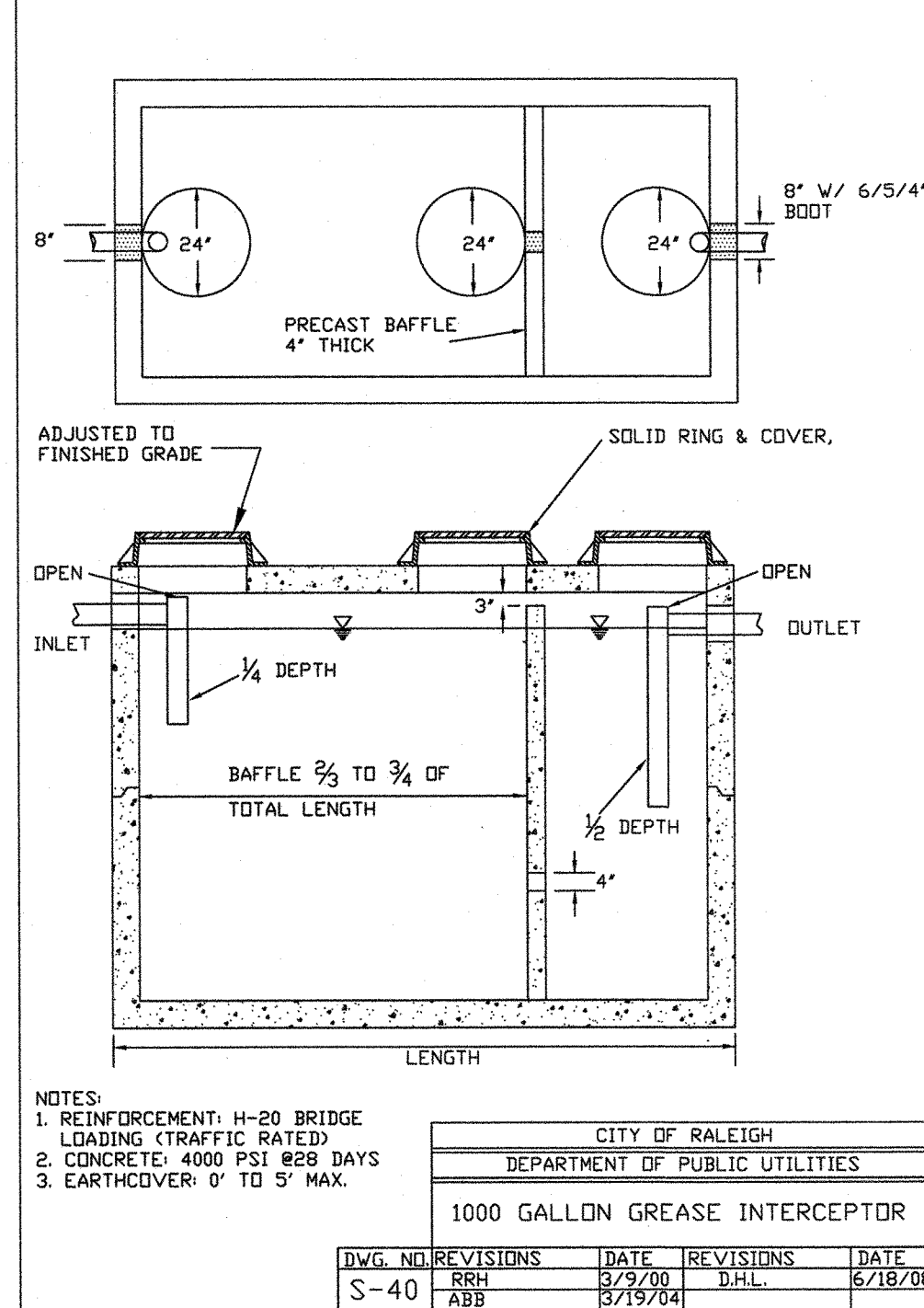
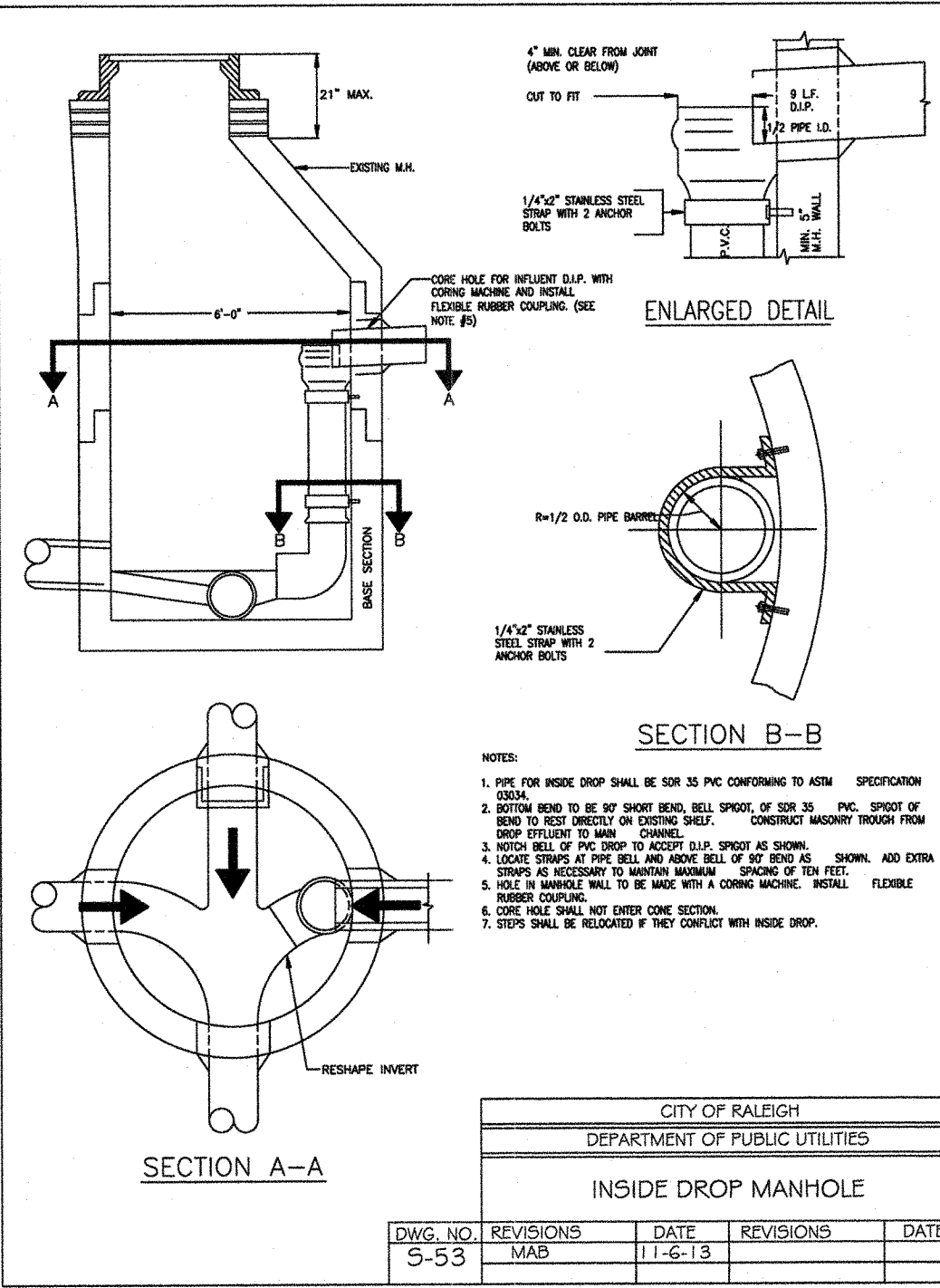
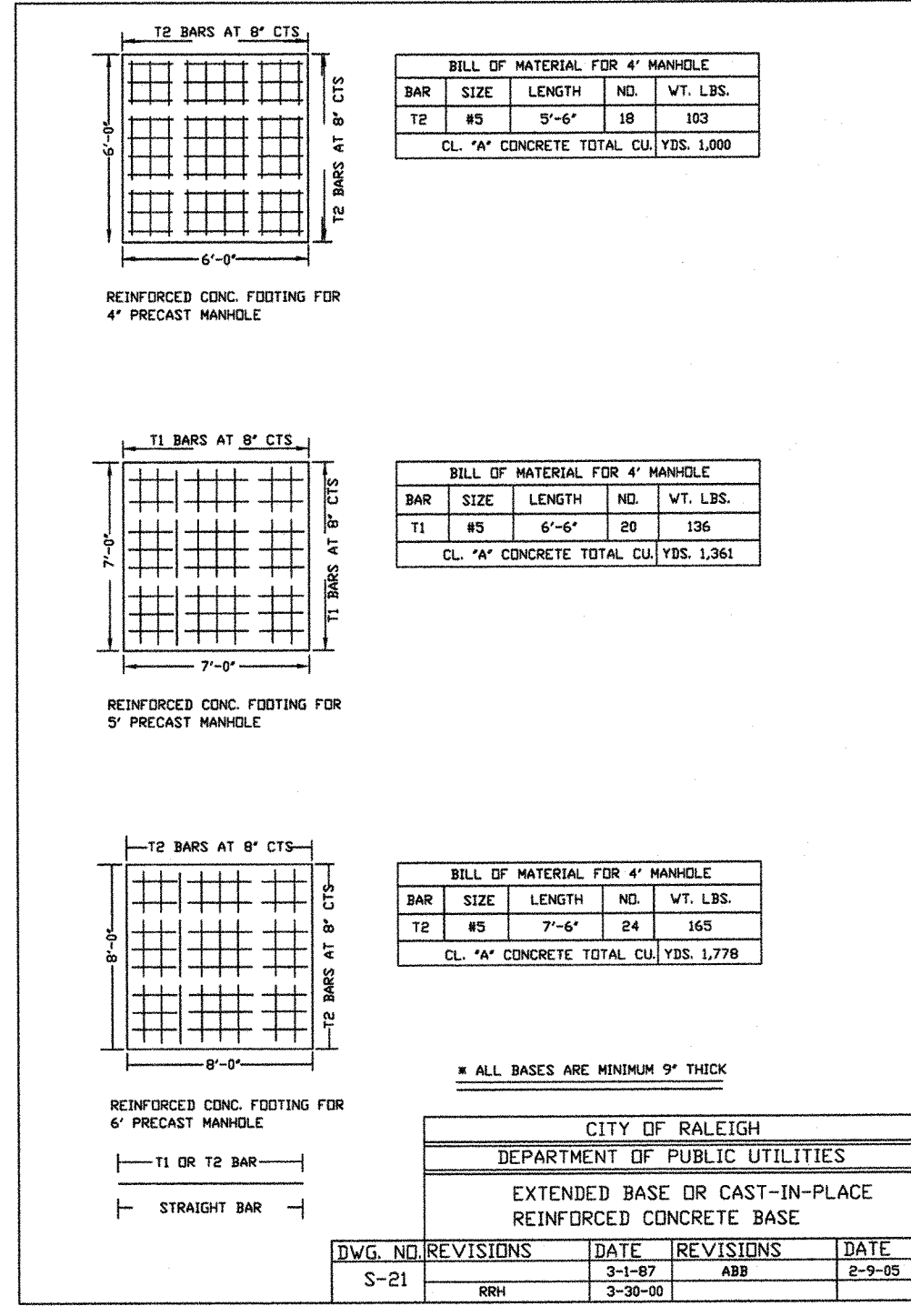
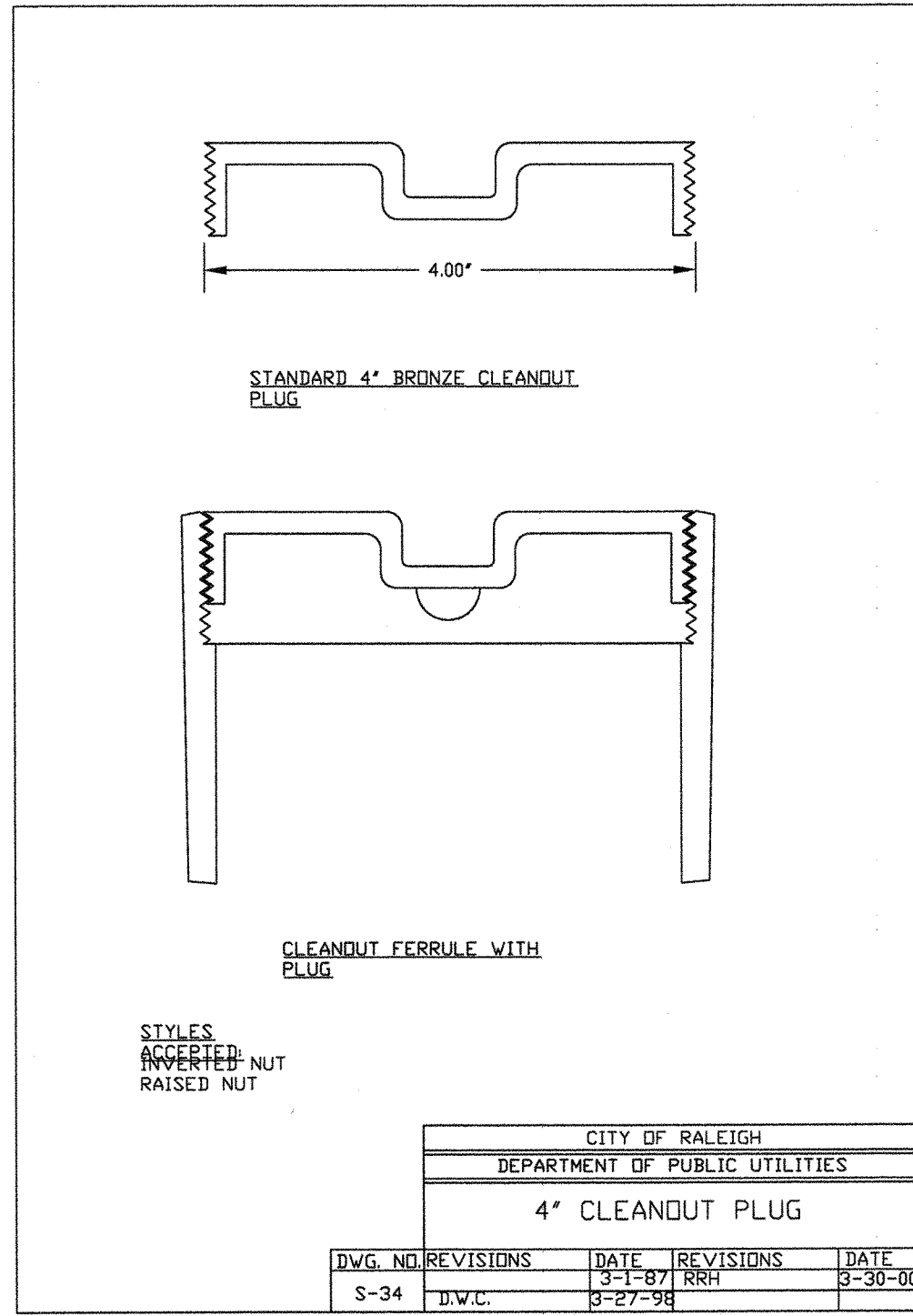
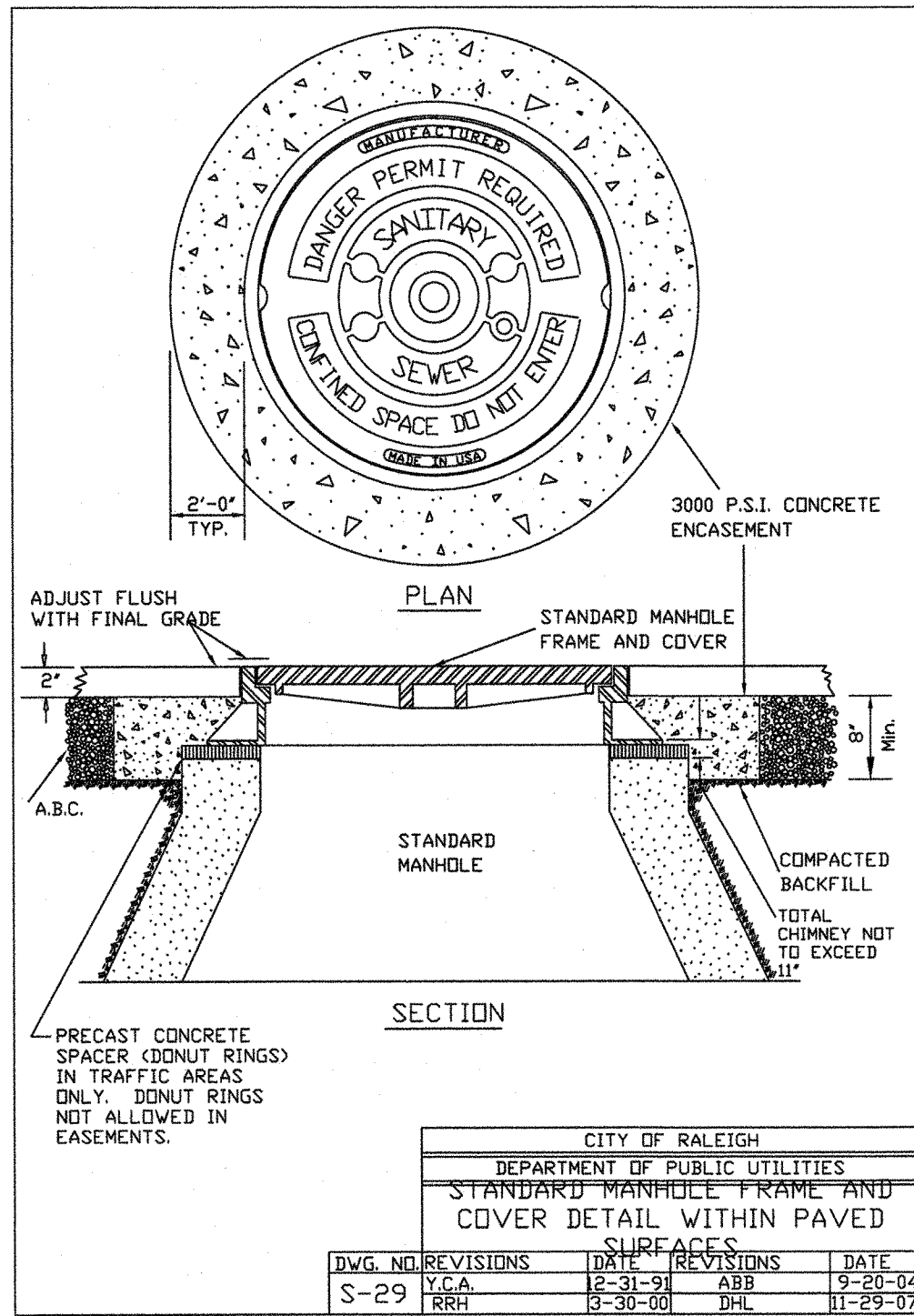
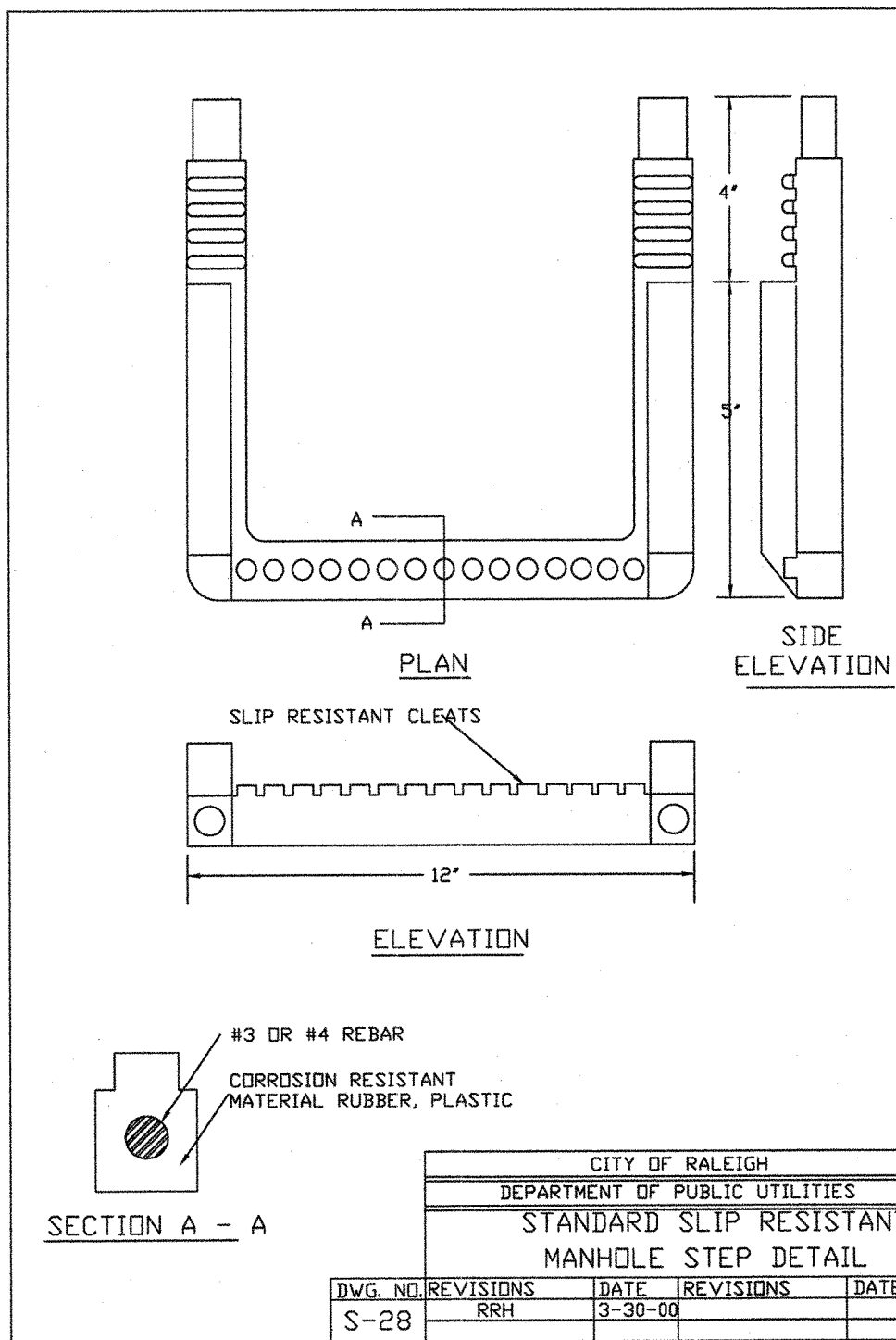
SHEET TITLE
SEWER DETAILS

DWG. EDITION 03.1

☐ Preliminary
☒ 80% Submittal
☐ For Construction

Job No. : 2036
Store : 04239
Date : 6-25-2019
Drawn By : MSW
Checked By: MSW
Sheet

C-5.1



CONSTRUCTION DRAWINGS - TOWN OF WAKE FOREST

5200 Buffington Rd.
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30349-2998
PH 404-765-8000
FAX 404-684-8550

Revisions:

Mark	Date	By
△		

Mark Date By

Seal

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STORE
SERIES P12 LS LRQ
FSU 04239

1010 FORESTVILLE ROAD
WAKE FOREST, NC 27587

SHEET TITLE
SEWER DETAILS

DWG EDITION 03.1

☐ Preliminary
☐ 80% Submittal
☐ For Construction

Job No. : 2036

Store : 04239

Date : 6-25-2019

Drawn By : MSW

Checked By: MSW

Sheet

C-5.2

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE
TOWN OF WAKE FOREST

ENGINEERING DEPARTMENT DATE 7/2-11

PUBLIC WORKS DEPARTMENT DATE 7/13/19

EROSION & SEDIMENT CONTROL DATE 7/13/19

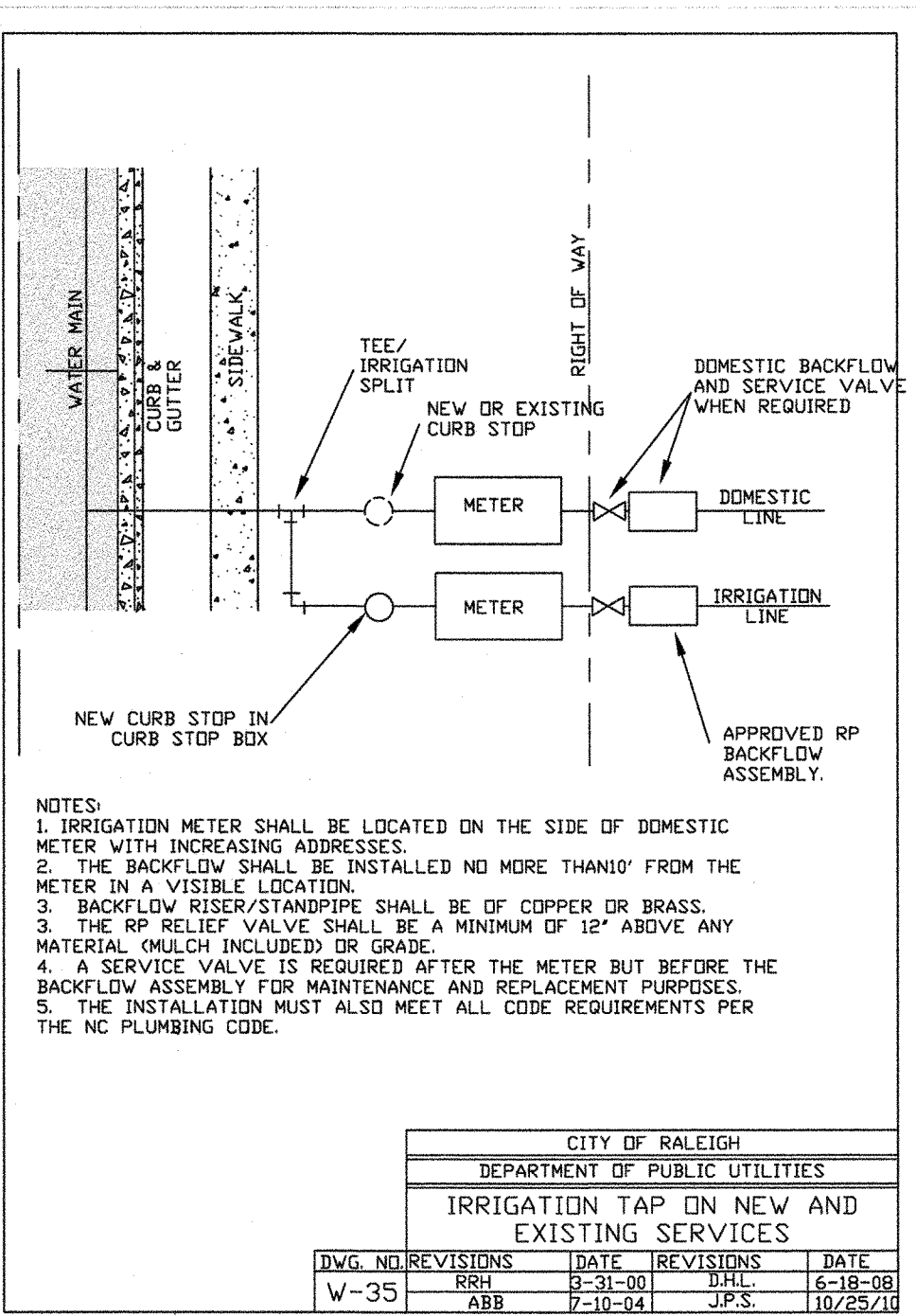
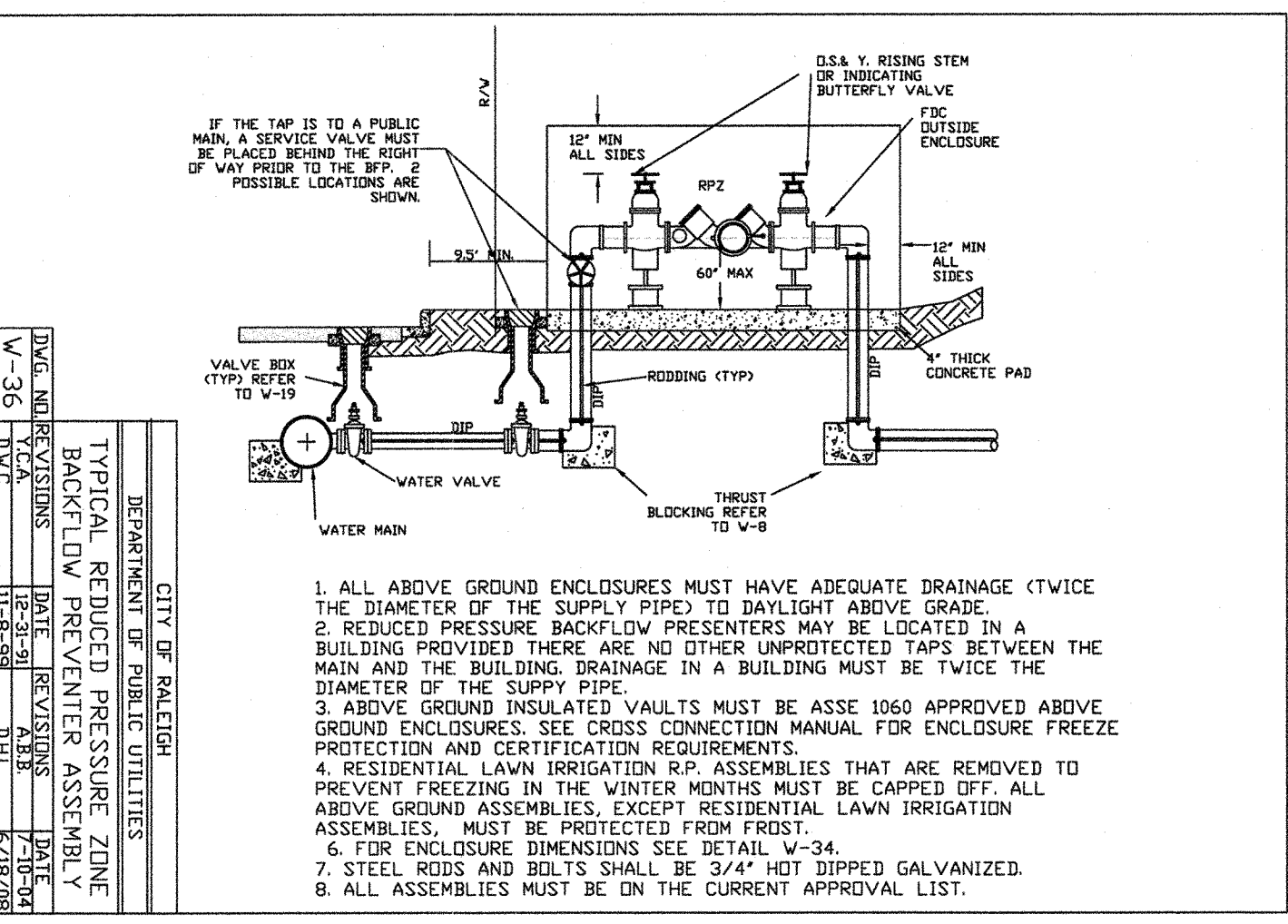
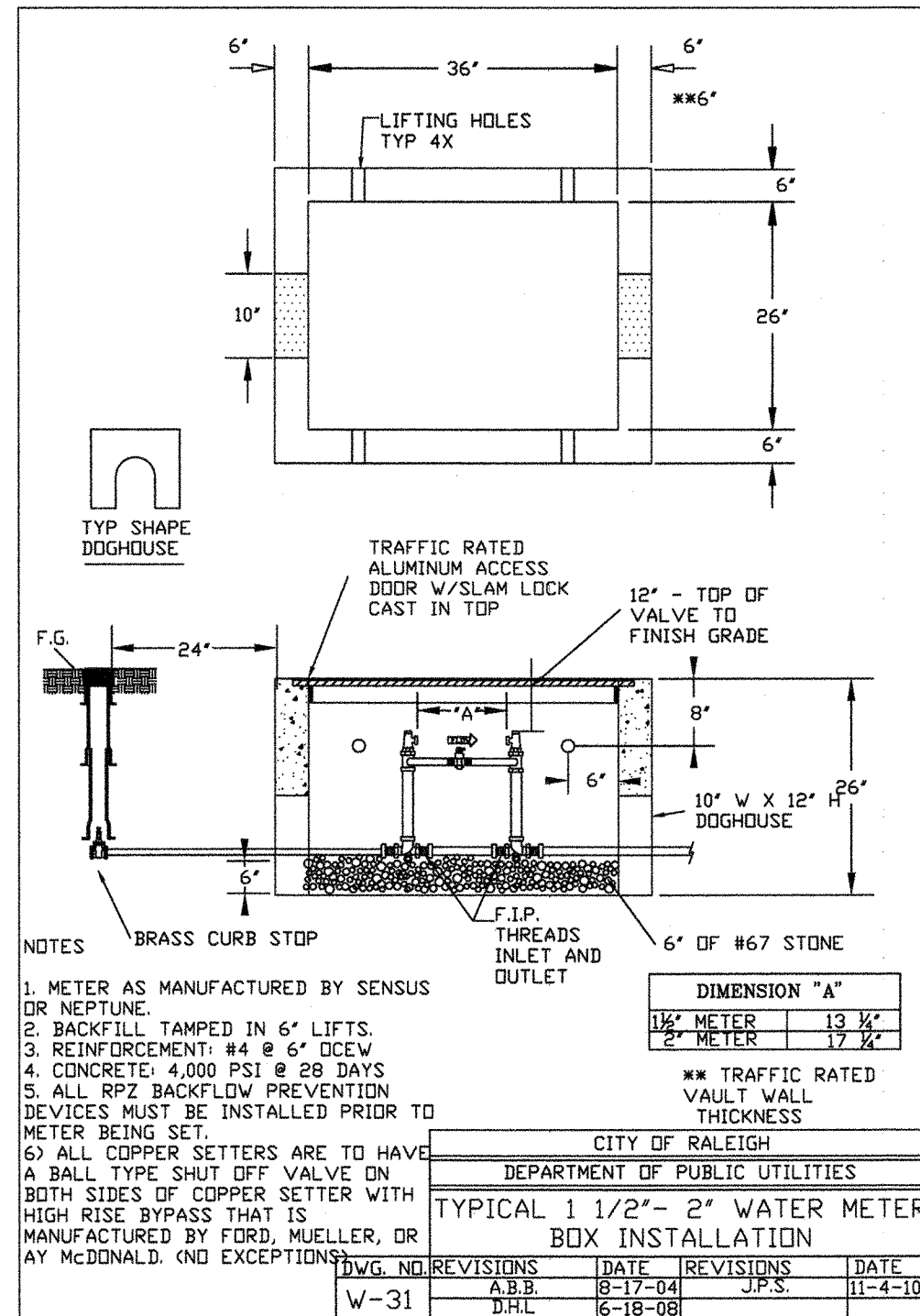
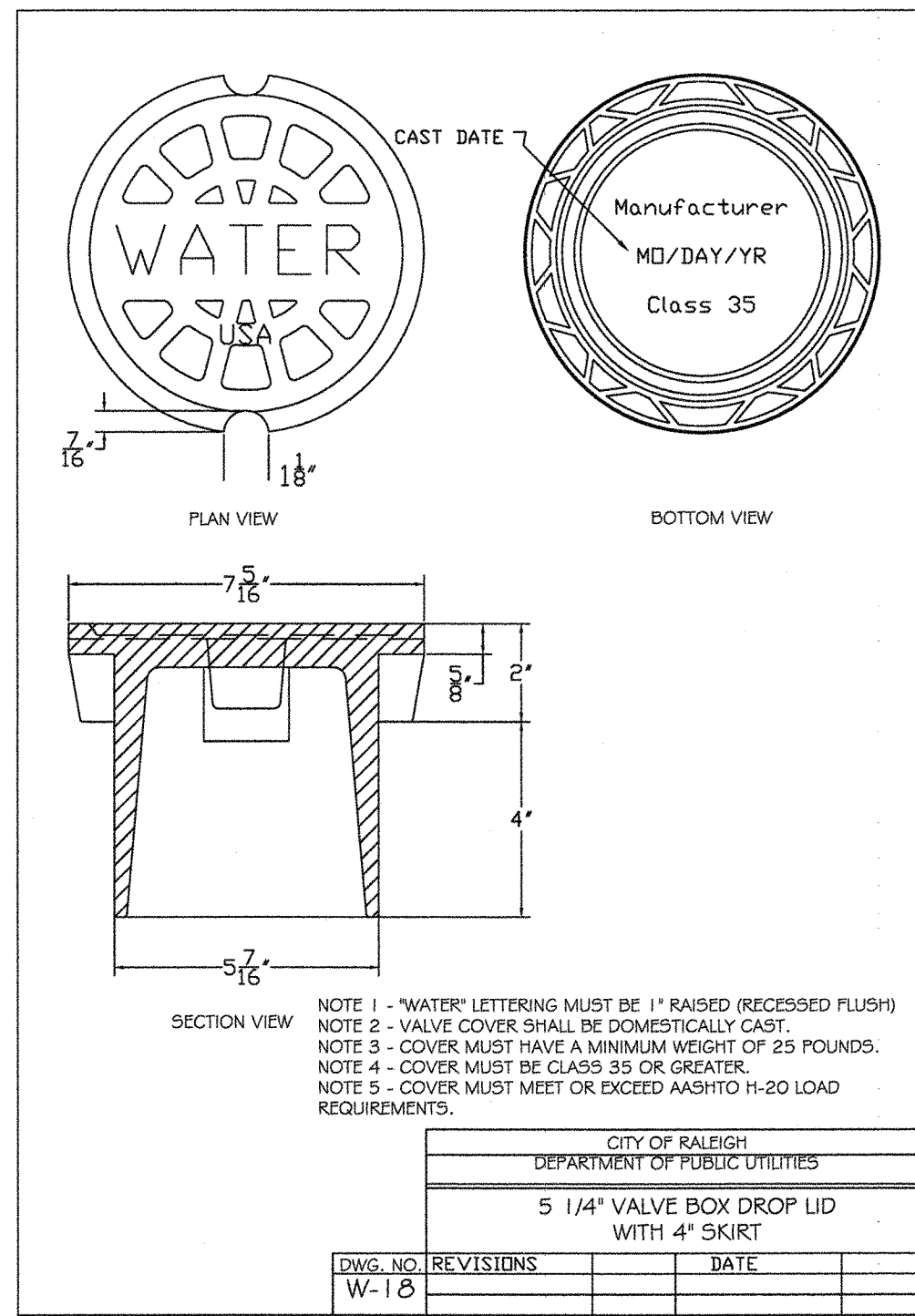
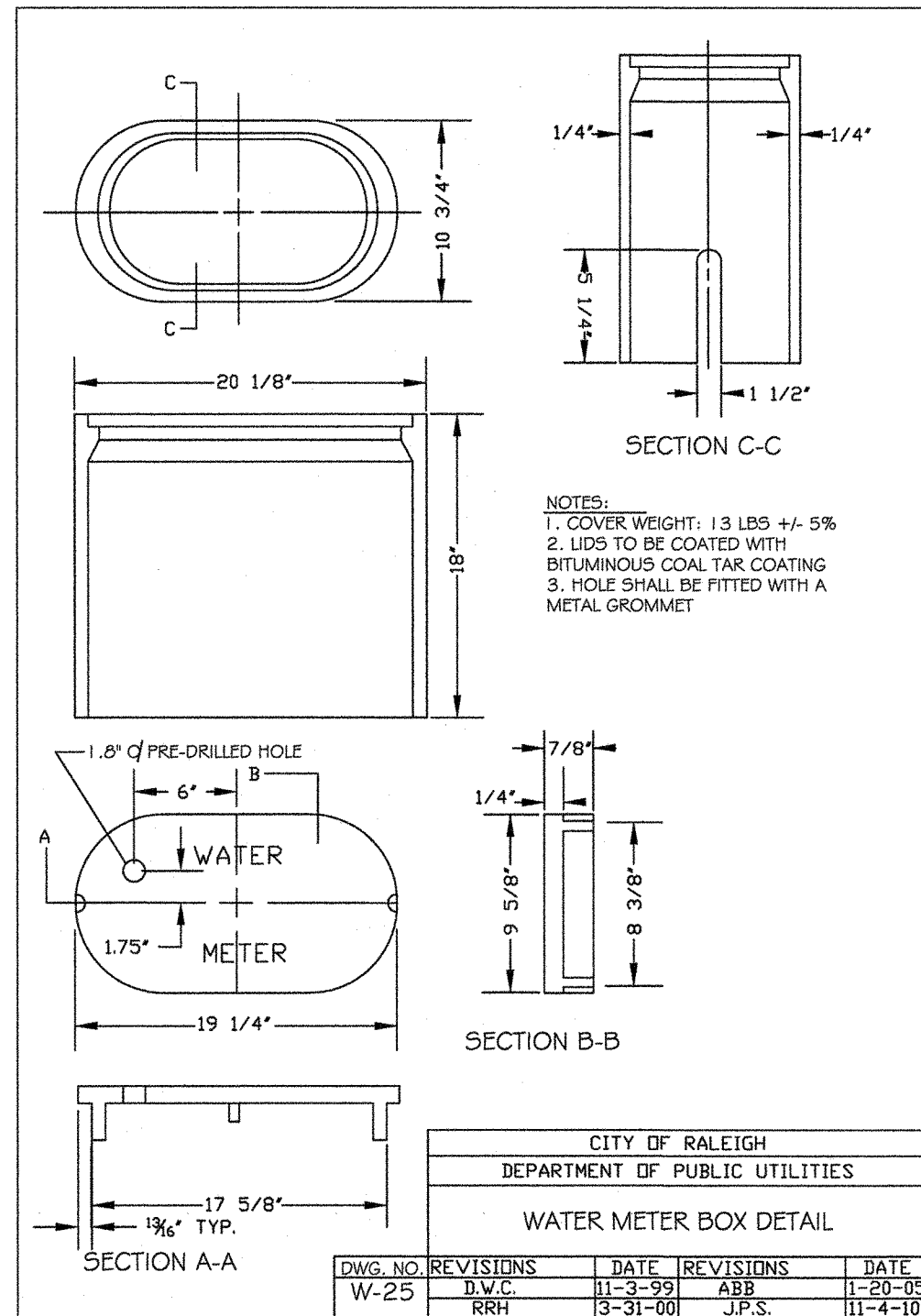
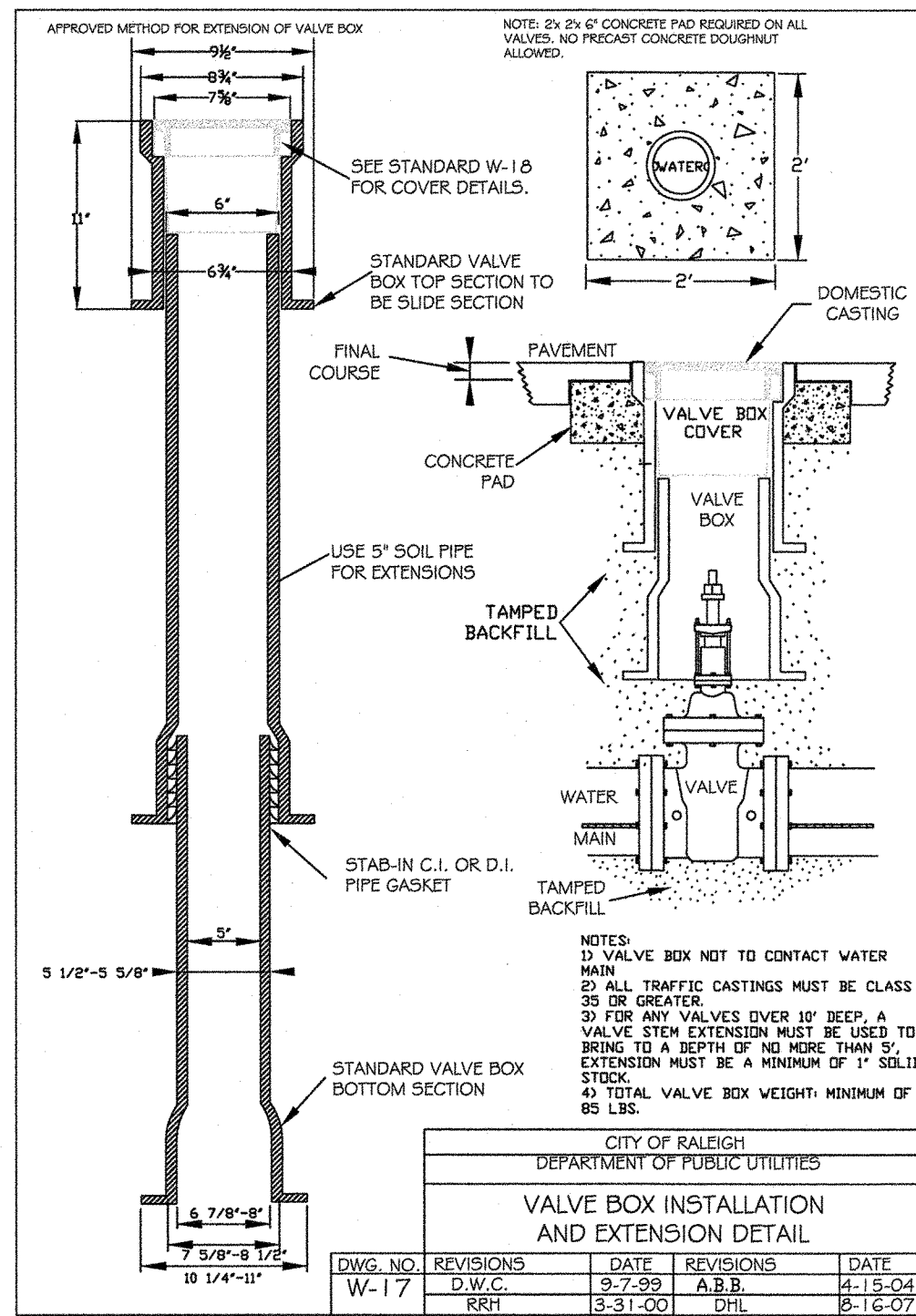
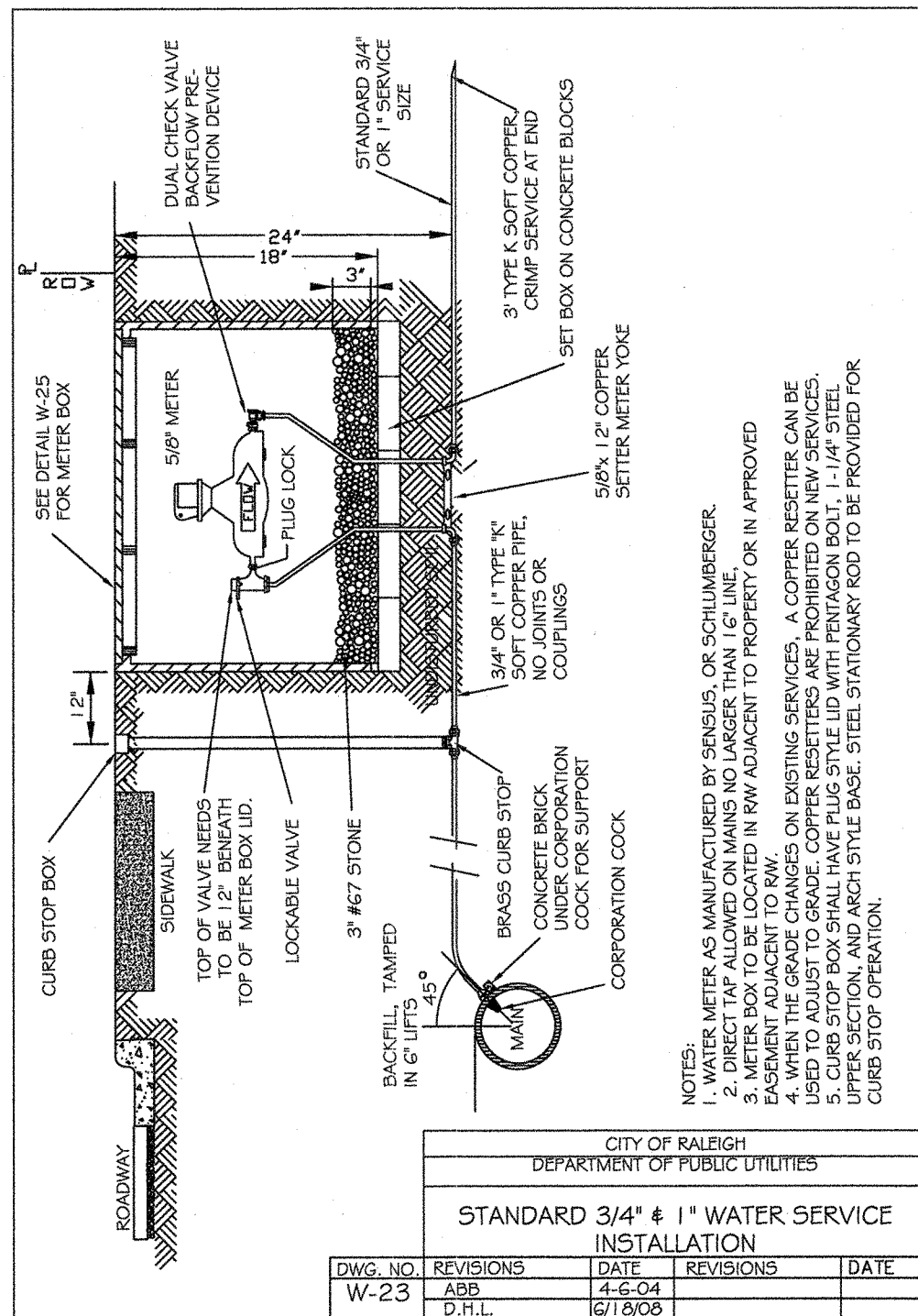
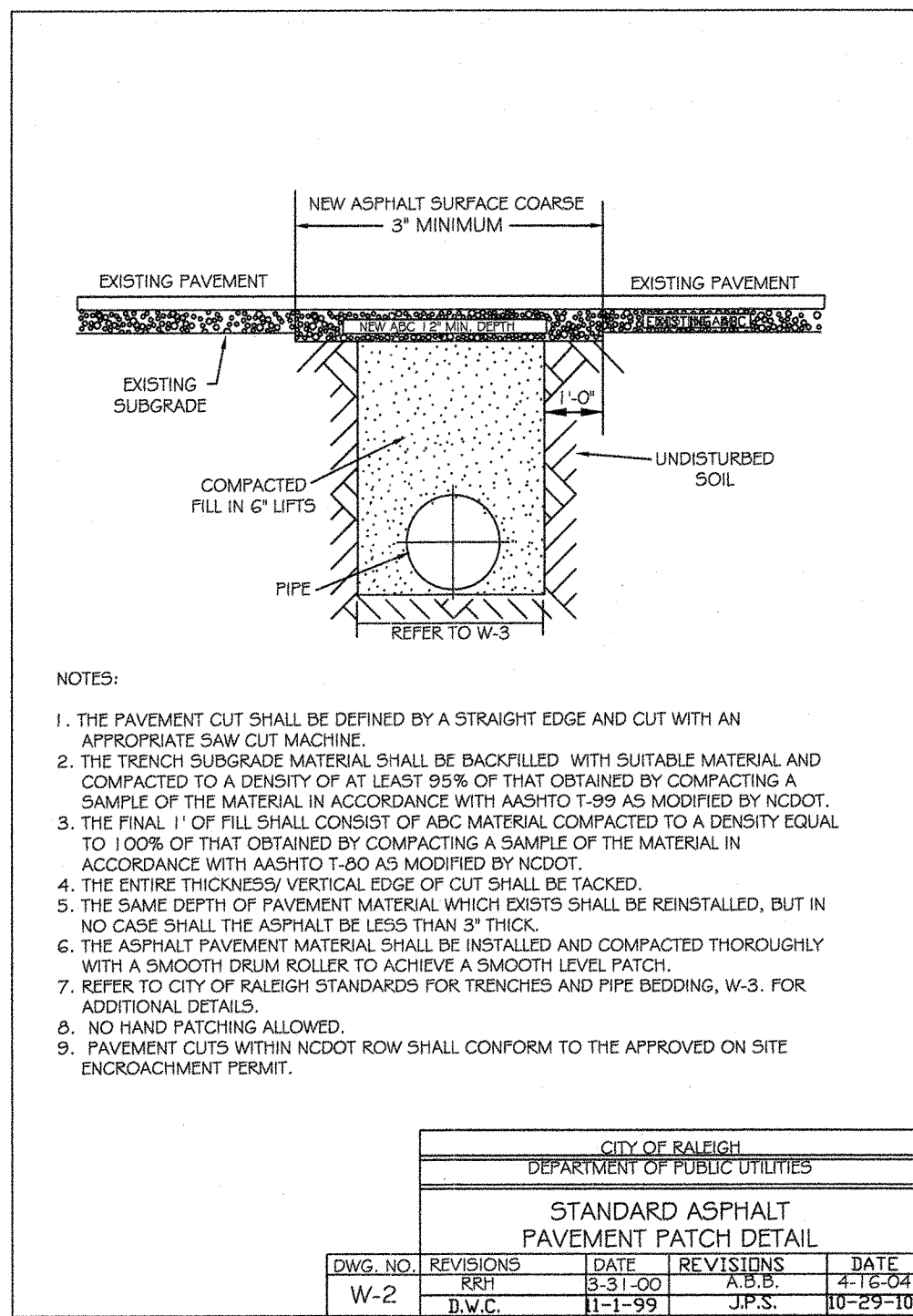
FIRE PREVENTION DATE

ACCESSIBILITY DATE

PLANNING DEPARTMENT DATE 7/5/19

CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT DATE

URBAN FORESTER DATE



THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST.

ENGINEERING DEPARTMENT DATE 7/22/19

PUBLIC WORKS DEPARTMENT DATE 7/13/19

EROSION & SEDIMENT CONTROL DATE 7/13/19

FIRE PREVENTION DATE

ACCESSIBILITY DATE

PLANNING DEPARTMENT DATE 7/13/19

CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT DATE

URBAN FORESTER DATE

Chick-fil-A

5200 Buffington Rd.
Atlanta Georgia,
30349-2998
PH 404-765-8000
FAX 404-684-8550

Revisions:

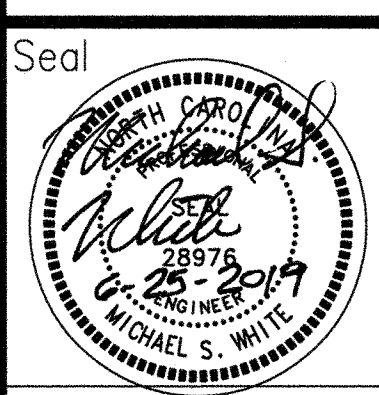
Mark Date By

△

Mark Date By

△

Seal



G. ROBERT GEORGE AND ASSOCIATES, INC.
CONSULTING ENGINEERS, PLANNERS
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P.O. BOX 32168
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CHARLOTTE, SOUTH CAROLINA 29417-2168
email: ggea@comcast.net



STORE
SERIES P12 LS LRG
FSU 04239

1010 FORESTVILLE ROAD
WAKE FOREST, NC 27587

SHEET TITLE
WATER DETAILS

DWG EDITION 03.1

□ Preliminary
□ 80% Submittal
□ For Construction

Job No. : 2036

Store : 04239

Date : 6-25-2019

Drawn By : MSW

Checked By : MSW

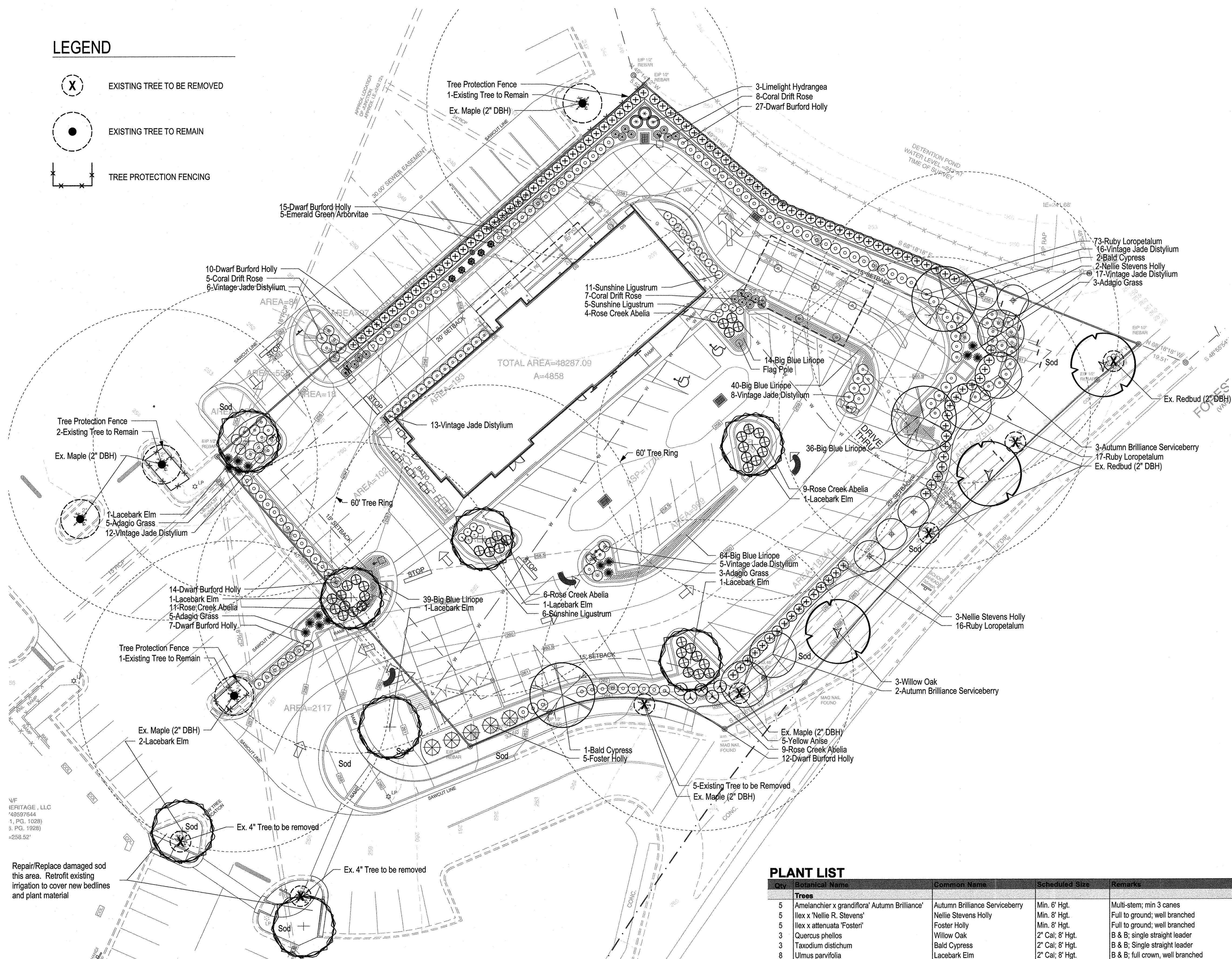
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C-5.3

 EXISTING TREE TO BE REMOVED

 EXISTING TREE TO REMAIN

 TREE PROTECTION FENCING



PLANT LIST				
Qty	Botanical Name	Common Name	Scheduled Size	Remarks
	Trees			
5	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	Min. 6' Hgt.	Multi-stem; min 3 canes
5	Ilex x 'Nellie R. Stevens'	Nellie Stevens Holly	Min. 8' Hgt.	Full to ground; well branched
5	Ilex x attenuata 'Fosteri'	Foster Holly	Min. 8' Hgt.	Full to ground; well branched
3	Quercus phellos	Willow Oak	2" Cal; 8' Hgt.	B & B; single straight leader
3	Taxodium distichum	Bald Cypress	2" Cal; 8' Hgt.	B & B; Single straight leader
8	Ulmus parviflora	Lacebark Elm	2" Cal; 8' Hgt.	B & B; full crown, well branched
	Shrubs			
39	Abelia x 'Rose Creek'	Rose Creek Abelia	3 Gal.	4" OC.
77	Distylium 'Vintage Jade'	Vintage Jade Distylium	3 Gal.	4" OC.
3	Hydrangea paniculata 'Limelight'	Limelight Hydrangea	3 Gal.	5" OC.
85	Ilex cornuta 'Dwarf Burford'	Dwarf Burford Holly	3 Gal. 18" - 24" Hgt.	4" OC.
5	Illicium parviflorum	Yellow Anise	3 Gal. 18" - 24" Hgt.	5" OC.
22	Ligustrum sinense 'Sunshine'	Sunshine Ligustrum	3 Gal.	3" OC.
106	Rubroptalum chinense 'Ruby'	Ruby Loropetalum	3 Gal. 18" - 24" Hgt.	4" OC.
16	Miscanthus sinensis 'Adagio'	Adagio Grass	3 Gal.	3.5" OC.
20	Rosa 'Meijococo'	Coral Drift Rose	3 Gal.	3" OC.
5	Thuja occidentalis 'Smaragd'	Emerald Green Arborvitae	7 Gal.	5" OC. - Single leader; full well branched
	Groundcovers			
193	Liriope muscari 'Big Blue'	Big Blue Liriope	1 Gal.	Plant 18" O.C.
	Other			

LANDSCAPE

1. Landscape Contractor to read and understand the Landscape Specifications (sheet L-102) prior to finalizing bids. The Landscape Specifications shall be adhered to throughout the construction process.
2. Contractor is responsible for locating and protecting all underground utilities prior to digging.
3. Contractor is responsible for protecting existing trees from damage during construction.
4. All tree protection devices to be installed prior to the start of land disturbance, and maintained until final landscaping.
5. All tree protection devices to be protected from sedimentation.
6. All tree protection fencing to be inspected daily, and repaired or replaced as needed.
7. No parking, storage or other construction activities are to occur within tree protection areas.
8. All planting areas shall be cleaned of construction debris (ie. concrete, rock, rubble, building materials, etc.) prior to adding and spreading of the topsoil.
9. General Contractor is responsible for adding a min of 4" clean friable topsoil in all planting beds and all graded areas. Graded areas to be held down the appropriate elevation to account for topsoil depth. See Landscape Specifications for required topsoil characteristics.
10. In all parking lot islands, the Landscape Contractor is responsible to remove all debris, fracture/loosen subgrade to a min. 24" depth. Add topsoil to a 6"-8" bermed height above island curbing; refer to landscape specifications and landscape island detail.
11. Prior to beginning work, the Landscape Contractor shall inspect the subgrade, general site conditions, verify elevations, utility locations, irrigation, approve topsoil provided by the General Contractor and observe the site conditions under which the work is to be done. Notify the General Contractor of any unsatisfactory conditions, work shall not proceed until such conditions have been corrected and are acceptable to the Landscape Contractor.
12. Any deviations from the approved set of plans are to be approved by the Landscape Architect.
13. Landscaping shall be installed in conformance with ANSI Z60.1 the "American Standard for Nursery Stock" and the accepted standards of the American Association of Nurserymen.
14. Existing grass in proposed planting areas shall be killed and removed. Hand rake to remove all rocks and debris larger than 1 inch in diameter, prior to adding topsoil and planting shrubs.
15. Soil to be tested to determine fertilizer and lime requirements prior to laying sod.
16. Annual and perennial beds: add min. 4 inch layer of organic material and till to a min. depth of 12 inches. Mulch annual and perennial beds with 2-3 inch depth of mini nuggets.
17. All shrubs beds (existing and new) to be mulched with a min. 3 inch layer of mulch (double shredded hardwood mulch).
18. Planting holes to be dug a minimum of twice the width of the root ball, for both shrub and tree. Set plant material 2"-3" above finish grade. Backfill planting pit with topsoil and native excavated soil.
19. Sod to be delivered fresh (Cut less than 24 hours prior to arriving on site), laid immediately, rolled, and watered thoroughly immediately after planting. Edge of sod at planting beds are to be "V" trashed; see Landscape Details.
20. Any existing grass disturbed during construction to be fully removed, regraded and replaced. All tire marks and indentations to be repaired.
21. Water thoroughly twice in first 24 hours and apply mulch immediately.
22. The Landscape Contractor shall guarantee all plants installed for one full year from date of acceptance by the owner. All plants shall be alive and at a vigorous rate of growth at the end of the guarantee period. The Landscape Contractor shall not be responsible for acts of God or vandalism. See Landscape Specifications for Warranty requirements/expectations.
23. Any plant that is determined dead, in an unhealthy, unsightly condition, lost its shape due to dead branches, or other symptoms of poor, non-vigorous growth, shall be replaced by the Landscape Contractor. See Landscape Specifications for warranty requirements/expectations.
24. Site to be 100% irrigated in all planting beds and grass area by an automatic underground Irrigation System. See Irrigation Plan L-200 for design. Irrigation as-built shall be provided to the Landscape Architect within 24 hours of irrigation install completion.
25. Stake all evergreen and deciduous trees as shown in the planting detail and as per the Landscape Specifications.
26. Remove stakes and guying from all trees after one year from planting.

A. CANOPY COVERAGE

REQUIRED

1. 1 Canopy and 1 understory tree per 4,000 SF. of site area.
48,351 SF of site area / 4,000 SF = 13 Canopy Trees and 13 Understory Trees

PROVIDED

1. 13 Canopy trees: 3 Oak, 3 Bald Cypress, 6 Elm, 1 Ex. Maple
15 Understory trees: 5 Serviceberry, 5 Foster Holly, 5 Nellie R Stevens Holly

B. INTERIOR PARKING

REQUIRED

1. No parking space shall be further than 60' from a tree.
2. Landscape islands shall be planted with ground cover, shrubs and mulch.

PROVIDED

1. All parking spaces are within 60' of a tree; see 60' tree ring.
2. Landscape islands are planted with shrubs and ground cover; all landscape beds will have mulch.

C. STREET YARD BUFFER

REQUIRED

1. 20' Wide street buffer yard along Forestville Rd.
2. Buffer type "B" option 1, along Forestville Rd: Min. 2 evergreen trees, 1 canopy tree, 2 understory trees and 12 shrubs per 100 LF. 218 LF of frontage / 100 LF = 2.18 multiplier.
2.18 x 2 evergreen trees = 5 Evergreen Trees
2.18 x 1 canopy tree = 3 Canopy Trees
2.18 x 2 understory trees = 5 Understory Trees
2.18 x 12 shrubs = 27 Shrubs
3. Screen parking/loading/service areas visible to public ROW's and adjacent properties with an evergreen hedge that will achieve 4' hgt in 3 years.

PROVIDED

1. 20' wide street buffer yard along Froestville Rd.
2. 5 Evergreen Trees: 5 Nellie R Steven Holly
3 Canopy Trees: 3 Willow Oak
5 Understory Trees: 5 Serviceberry
50 Shrubs: 33 Loropetalum, 17 Vinyan Jade Distylium
3. Parking, loading and service areas visible to public ROW's and adjacent properties are screened with an evergreen hedge. Hedge material: Ruby Loropetalum, Dwarf Burford Holly and Yellow Anse.

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST	
ENGINEERING DEPARTMENT	DATE
PUBLIC WORKS DEPARTMENT	DATE
EROSION & SEDIMENT CONTROL	DATE
FIRE PREVENTION	DATE
ACCESSIBILITY	DATE
PLANNING DEPARTMENT	DATE
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE
URBAN FORESTER	DATE




Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349-2998



770.442.8171 tel
770.442.1123 fax

Manley Land Design, Inc.
51 Old Canton Street
Alpharetta, Georgia 30009
manleylanddesign.com



CHICK-FIL-A
HERITAGE VILLAGE FSU
1010 FORESTVILLE RD
WAKE FOREST, NC 27587

FSU# 04239

<u>REVISION SCHEDULE</u>		
<u>NO.</u>	<u>DATE</u>	<u>DESCRIPTION</u>
1	4/01/19	City Comments
2	5/10/19	City Comments
3	5/17/19	City Comments

MLD PROJECT # 2018208

PRINTED FOR PERMIT

DATE 11.21.18

DRAWN BY _____ ADN _____

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SHEET

Landscape Plan

Επιμέλεια: Γιάννης

1. *Journal of Management Studies*, 1996, 33, 1, 1-14.

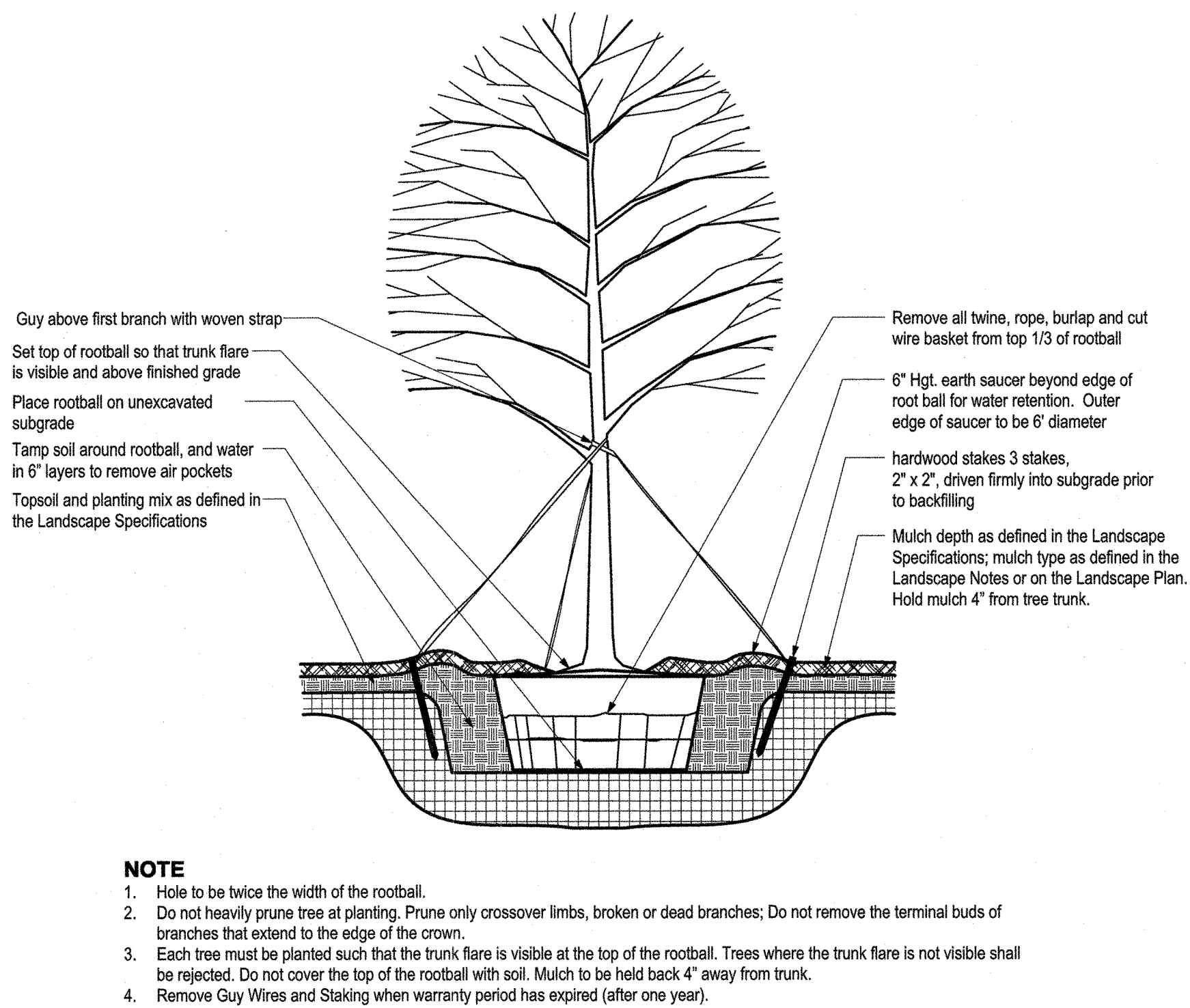
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SHEET NUMBER

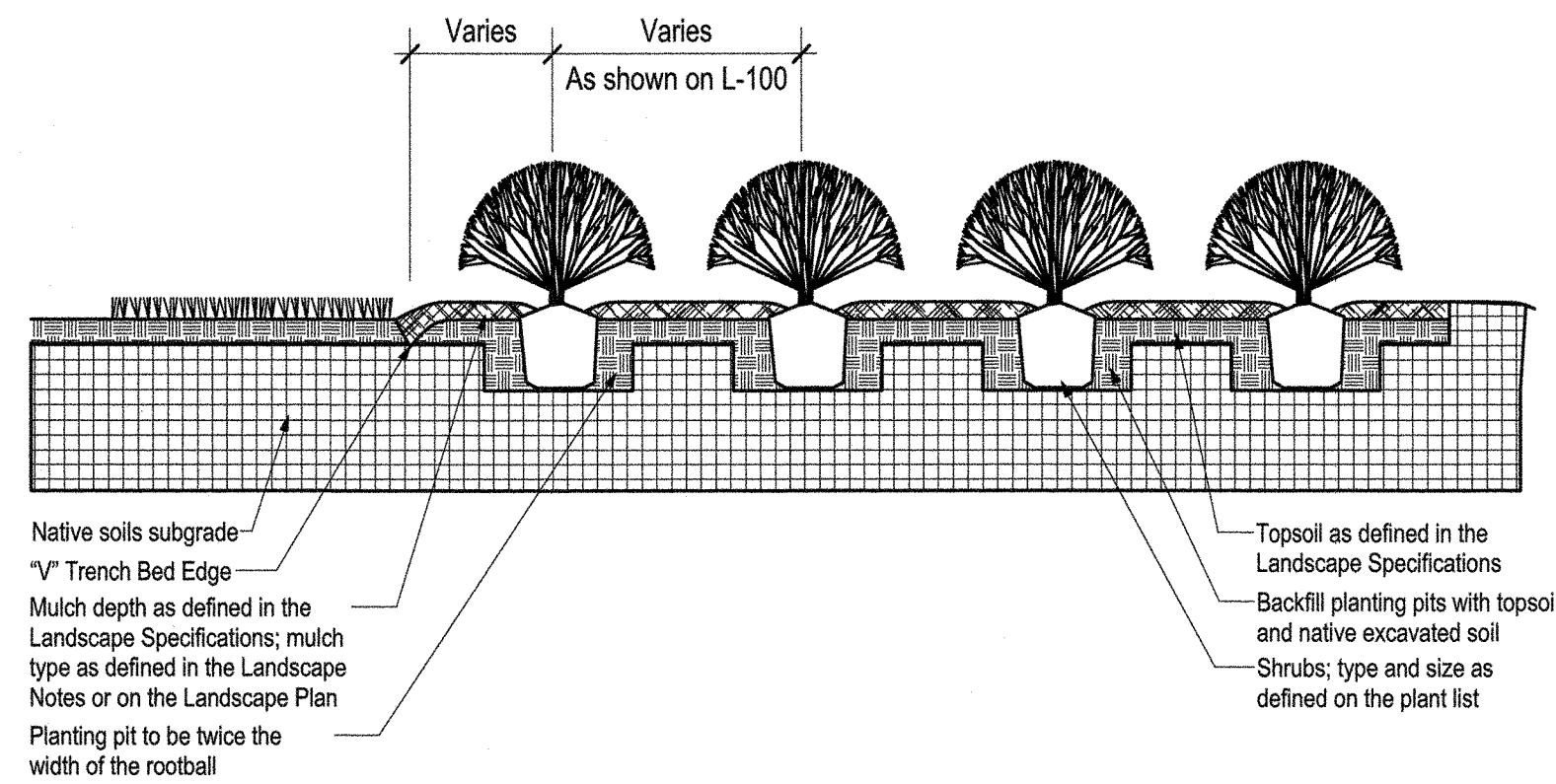
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E 100

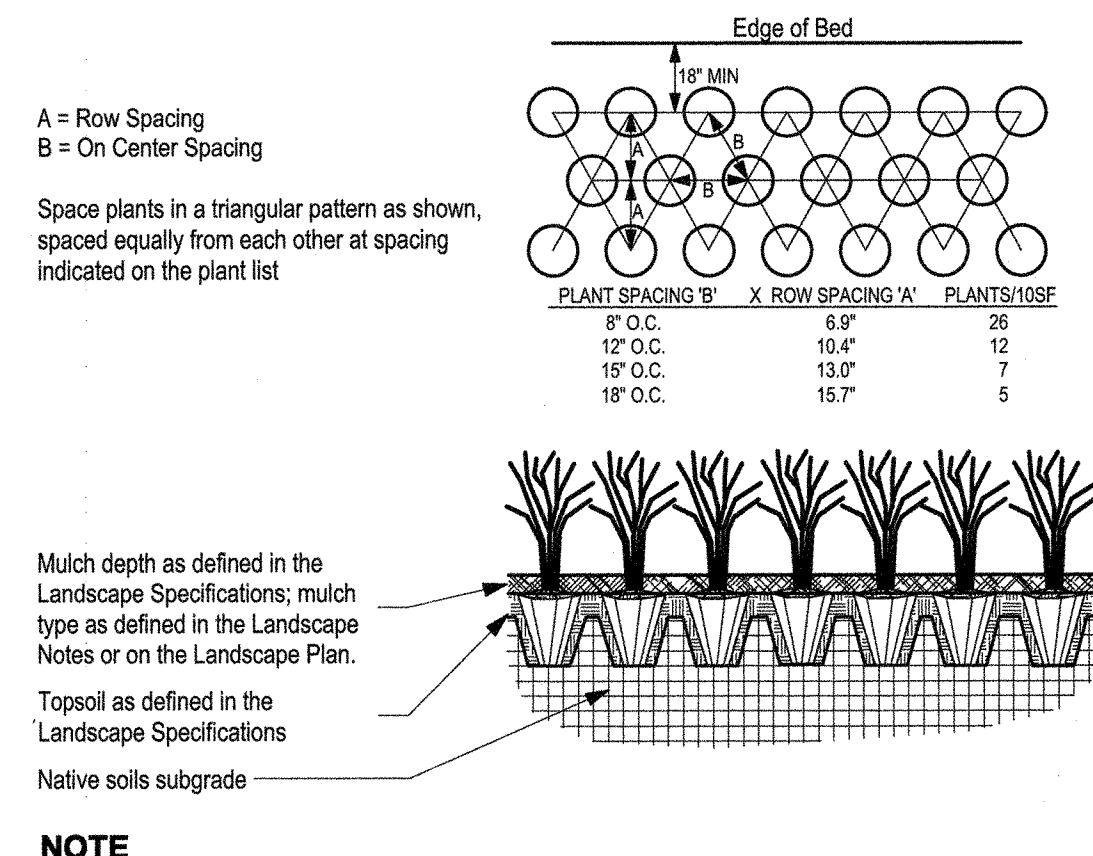
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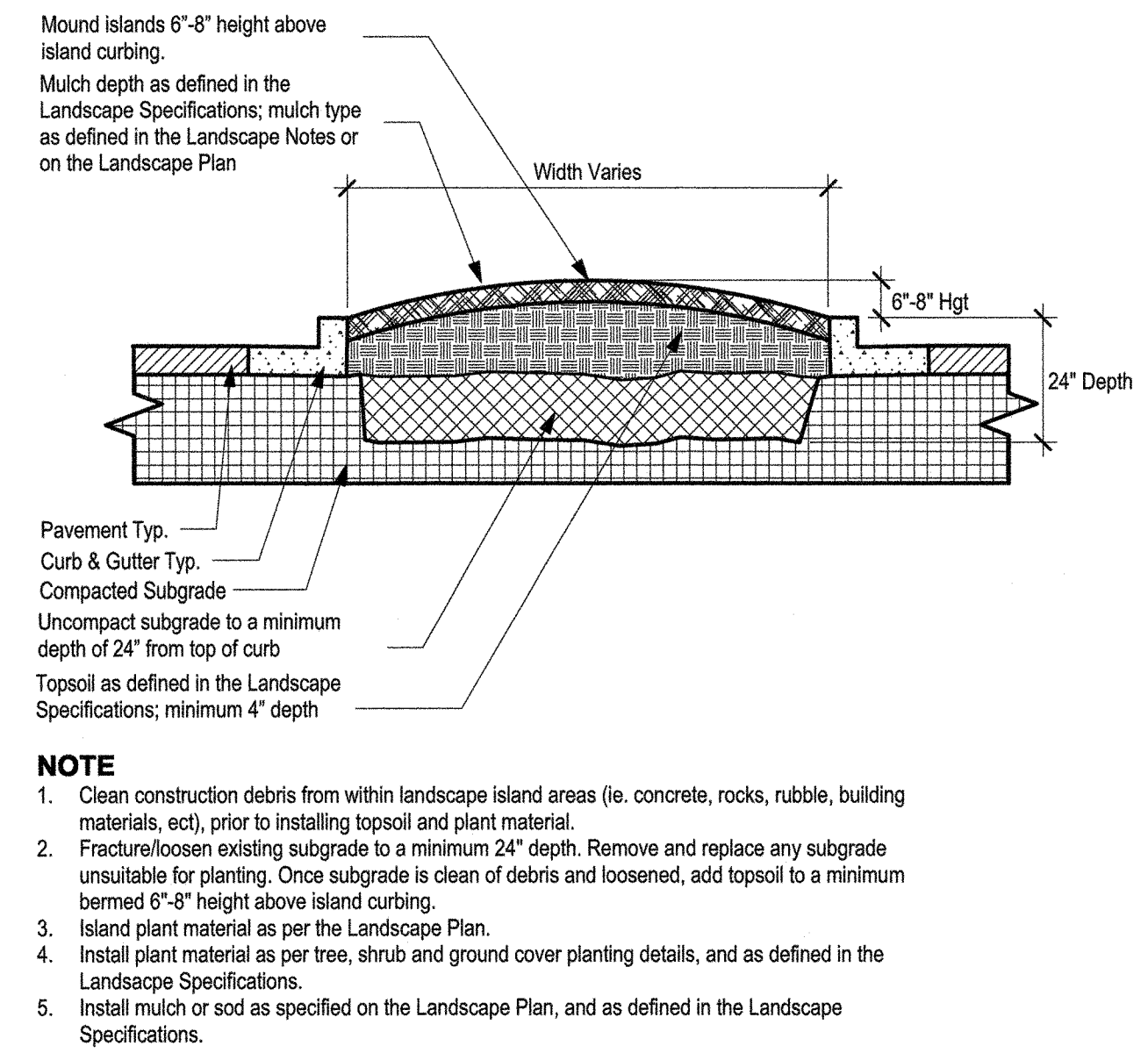
1 TREE PLANTING & STAKING
SCALE: NTS



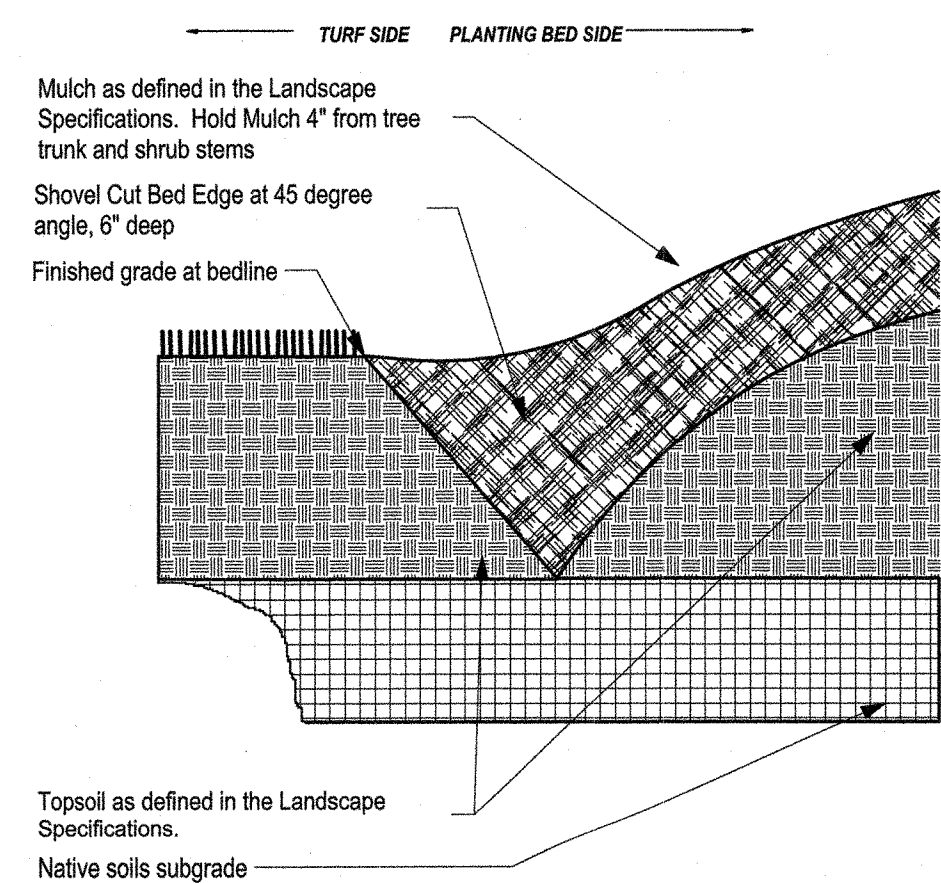
2 SHRUB BED PLANTING DETAIL
SCALE: NTS



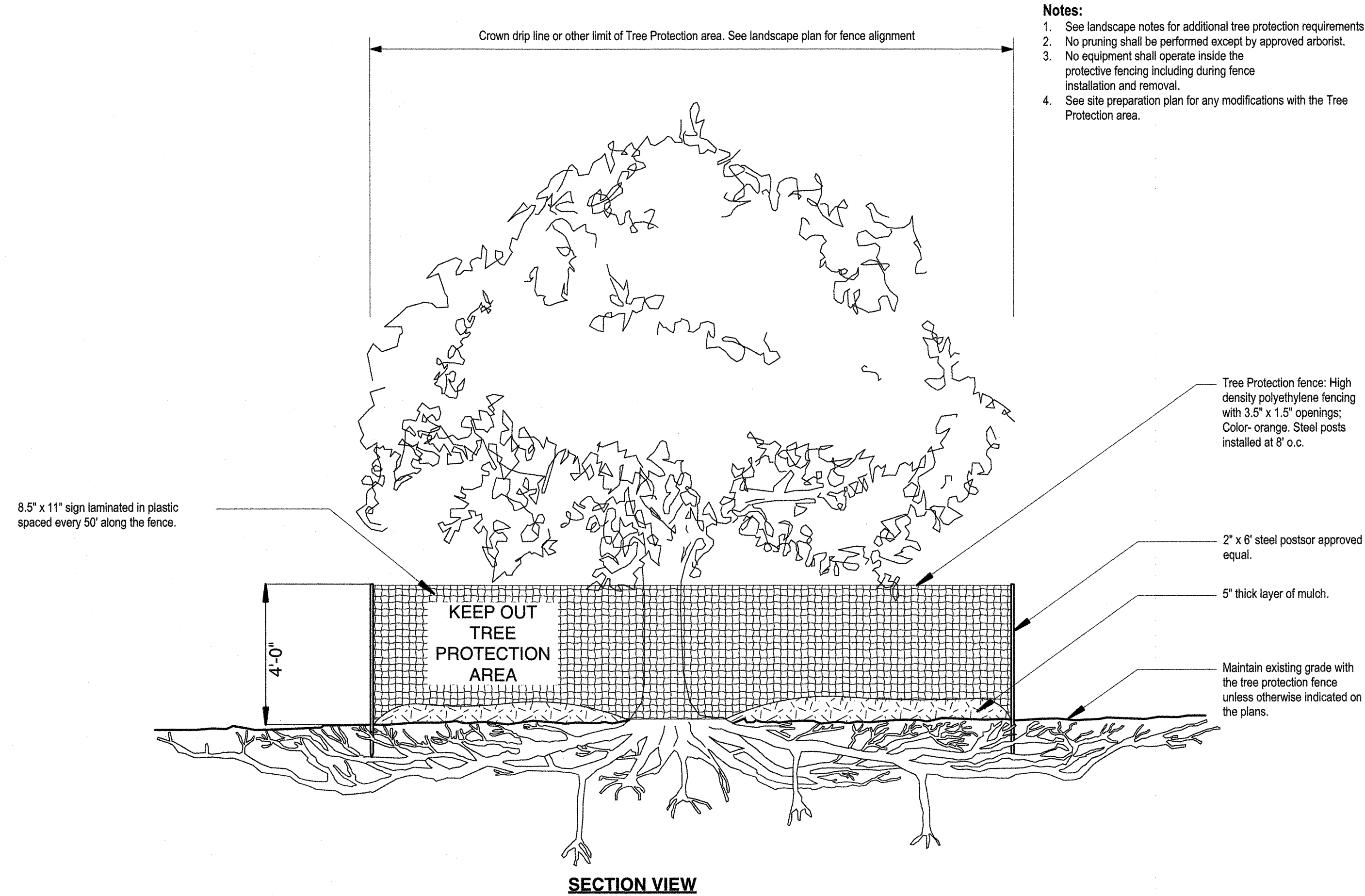
3 GROUNDCOVER PLANTING DETAIL
SCALE: NTS



4 PARKING ISLAND DETAIL
SCALE: NTS



5 "V" TRENCH BED EDGING
SCALE: NTS



6 TREE PROTECTION FENCING DETAIL
SCALE: NTS

THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST.		
ENGINEERING DEPARTMENT	DATE	2-2-19
PUBLIC WORKS DEPARTMENT	DATE	7-3-19
EROSION & SEDIMENT CONTROL	DATE	7-13-19
FIRE PREVENTION	DATE	
ACCESSIBILITY	DATE	
PLANNING DEPARTMENT	DATE	
CITY OF WAKE FOREST PUBLIC UTILITIES DEPARTMENT	DATE	7/1/19
URBAN FORESTER	DATE	



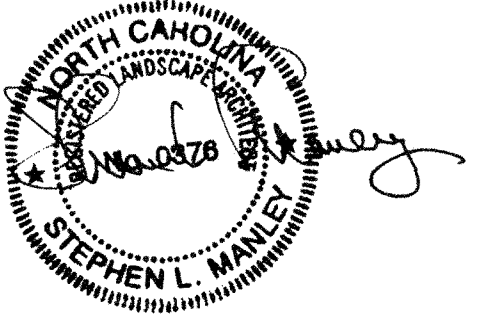
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5200 Buffington Road
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Manley Land Design, Inc.
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manleylanddesign.com



CHICK-FIL-A
HERITAGE VILLAGE FSU
1010 FORESTVILLE RD
WAKE FOREST, NC 27587

FSU# 04239

NO.	DATE	DESCRIPTION
1	4/01/19	City Comments
2	5/10/19	City Comments
3	5/17/19	City Comments

MLD PROJECT #	2018208
PRINTED FOR	PERMIT
DATE	11.21.18
DRAWN BY	ADN

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PERMIT Landscape Details

SHEET NUMBER **L-101**

FULL CUT OFF LED LIGHT FIXTURE

COLOR OF POLES AND FIXTURES SHALL BE DARK BRONZE.

27'

SQUARE STRAIGHT STEEL POLE

24" CONCRETE POLE BASE

FINISHED GRADE

SEE PHOTOMETRIC LUMINAIRE SCHEDULE FOR POLE MODEL NUMBER

E1 SITE LIGHTING POLE DETAIL
N.T.S.

Catalog #		Type
Project		OD
Comments		Date
Prepared by		

AREA / SITE / ROADWAY
LUMINAIRE

Standard NEMA 3-PIN twistlock photocontrol receptacle and NEMA 7-PIN twistlock photocontrol receptacles are available as options.

CERTIFICATION DATA
UL and cUL Wet Location Listed
IP66-Rated
3G Vibration Rated
ISO 9901
DesignLights Consortium® Qualified*

2.31" (70mm)

48.45 (1240.20mm)

36.19 (919.88mm)

EAT•N
Giving Our Own World a Hand

ORDERING INFORMATION							
Sample Name: Part# ASD-0-UNV-73-6A-8Z							
Product Family ¹	Light Emitter ²	Driver ³	Voltage ⁴	Distortion ⁵	Mounting ⁶	Adaptor ⁷	Case ⁸
PHV9444L	LED1 LED10 100 Normal Lumens LED2 LED10 100 Normal Lumens LED3 LED10 100 Normal Lumens LED4 LED10 100 Normal Lumens LED5 LED10 100 Normal Lumens	Q-Dimming 3/10/2	UNV 340-20V 360-20V	1% TH _N 1% 1% TH _N 1% 1% TH _N 1%	All-in-one Mount W/Mini Mount Arm	All-in-one Mount W/Mini Mount Arm	All-in-one Mount W/Mini Mount Arm
Options (Add as Suffix)				Accessories (Order Separately)			
PHV9444-0-0000 Mount Kit				PHV9444-XX-0000 Mount Kit			
PHV9444-0-0000 Mount Kit				PHV9444-XX-0000 Mount Kit			
PHV9444-0-0000 Mount Kit				PHV9444-XX-0000 Mount Kit			
PHV9444-0-0000 Mount Kit				PHV9444-XX-0000 Mount Kit			
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PHV9444-0-0000 Mount Kit				PHV9444-XX-0000 Mount Kit			
PHV9444-0-0000 Mount Kit				PHV9444-XX-0000 Mount Kit			
PHV9444-0-0000 Mount Kit				PHV9444-XX-0000 Mount Kit			
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PHV9444-0-0000 Mount Kit				PHV9444-XX-0000 Mount Kit			
PHV9444-0-0000 Mount Kit				PHV9444-XX-0000 Mount Kit			
PHV9444-0-0000 Mount Kit				PHV9444-XX-0000 Mount Kit			

[illegible]

Stock Sample Number: PRV5-A25-UVV-T3				
Product Family	Light Engine	Voltage	Distribution	Options (Add as Suffix)
PRV5-Prevail	A15-1 LED, 6,100 Nominal Lumens A25-2 LED(s), 10,200 Nominal Lumens A40-2 LED(s), 15,100 Nominal Lumens A40-2 LED(s), 18,900 Nominal Lumens	UVV-Universal (120-277V) 347-347V	T3-Type III T4-Type IV	MSP/DIM-13A-Integrated Sensor for Dimming Operation, Maximum 20' Mounting Height

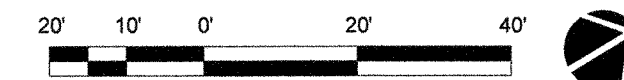
NOTE: Power only 4000K OCT 120-177M. MW standard position are standard non-fused 10W MW and 0.50W diodes.

EAT•N
Powering Business Worldwide

A3 **FIXTURE "OD"**
N.T.S.

TD600018E1
June 19, 2018 2:34 PM

A1 **PHOTOMETRIC PLAN**
1" = 20'-0"



THESE PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE TOWN OF WAKE FOREST.	2-2-19
ENGINEERING DEPARTMENT	DATE
AS	7.3.19
PUBLIC WORKS DEPARTMENT	DATE
mm	7/31/19
EROSION & SEDIMENT CONTROL	DATE
PK	
FIRE PREVENTION	DATE
LD	
ACCESSIBILITY	DATE
PLANNING DEPARTMENT	DATE
N/A	
CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT	DATE
N/A	
URBAN FORESTER	DATE

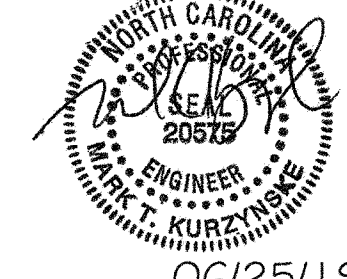


Chick-fil-A
5200 Buffington Road
Atlanta, Georgia
30349-2998



**Kurzynske
& Associates**
2900 Lebanon Pike, Ste 201
Nashville, Tennessee 37214
Telephone: (615) 255-5203
Fax: (615) 255-5207
Email: mail@kurzynske.com

KURZYSKE & ASSOCIATES LICENSE
NO. F-0823, EXPIRES 06/30/19



06/25/19

CHICK-FIL-A
HERITAGE VILLAGE FSU

1010 FORESTVILLE ROAD
WAKE FOREST, NC 27587

FSR#04239
BUILDING TYPE / SIZE: P12 LC LRG
RELEASE:

REVISION SCHEDULE		
NO.	DATE	DESCRIPTION
1	06/16/2019	FOR BID

CONSULTANT PROJECT #	18196.GN.S
PRINTED FOR	PERMIT
DATE	05/14/19
DRAWN BY	BTS

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SHEET
PHOTOMETRIC PLAN

SHEET NUMBER

DEBIT

E-102

DESCRIPTION

The Halo Surface LED Downlight (SLD) incorporates WaveStream™ technology to create an ultra-low profile surface mounting luminaire with the performance and look of a traditional downlight. SLD is designed for installation in many 3-1/2" and 4" round or octagon junction boxes. May also retrofit in 4" aperture IC and Non-IC recessed housings.*

Defined LED wiring connector meets high-efficiency code requirement in recessed downlighting. Suitable for residential or commercial installations. Ideal for closets, storage areas, attic and basements. Compliant with NFPA 70, NEC Section 410.16 (A)(3) and 410.18 (C)(5).

SPECIFICATION FEATURES

CONSTRUCTION

- Die-cast aluminum trim ring and formed aluminum frame

OPTICS

- WaveStream™ technology provides uniform luminance from a low profile flat lens

- AccuAim™ optics provide directional control for the "core-of-light" beam distribution of a traditional downlight

- Precision molded lens features high transmission polymer with UV stabilized protecting film

DESIGNER TRIMS

Accessories (sold separately) SLD designer trims are accessory rings that attach to the SLD for a permanent finish. Refer to SLD accessories specification sheet for details.

- White (Paintable)
- Satin Nickel
- Tuscan Bronze

ELECTRICAL JUNCTION BOX

MOUNTING

- SLD may be used in compatible electrical junction boxes in direct contact with insulation including spray foam insulation

- Suitable for installation in many 3-1/2" and 4" octagon and round electrical junction boxes

Note: Driver consumes 3 cubic inches of junction box.

- Surface mounting in a fire-rated ceiling using an appropriate electrical box offers a cost-effective alternative to fire-rated recessed housings

Note: Fire-rating is per the rating of the ceiling and applicable junction box, not the SLD.

- Installer must ensure compatibility of FL wiring and proper mounting in the electrical junction box. This includes all applicable national and local electrical and building codes.

- Proprietary Slot-N-Lock quick installation system for junction box installation

- Toraxcut with Slot-N-Lock mounting tabs included.

RECESSED HOUSING

MOUNTING

- Pre-installed precision formed friction blades included

- Friction blade design allows the SLD to be installed in any position within the housing aperture (360 degrees)

- Note: Not for use in recessed housings in direct contact with spray foam insulation refer to NEMA L8D 57-2013

LED

- Trilateral linear LED assembly is integrated in trim perimeter

- Color Temperature: 2700K, 3000K, 3500K, 4000K

- CRI options: 80 and 90*

- 80 CRI can be used to comply with California Title 24 High Efficacy requirements. Certified to California Appliance Efficiency Database under JAB

- LD at 80,000 hours projected in accordance with TM-21

- 80 CRI can be used to comply with California Title 24 High Efficacy requirements. Certified to California Appliance Efficiency Database under JAB

- LD at 80,000 hours projected in accordance with TM-21

WARRANTY

Eaton provides a five year limited warranty on the SLD LED

LED CHROMATICITY

- A high chromaticity specification ensures LED color uniformity.

- Every Halo LED is quality tested, measured, and serialized in a permanent record to register lumens, wattage, CRI and CCT.

- Halo LED serialized testing and measurement ensures color and lumen consistency on a per-unit basis, and validates long-term product consistency over time

ELECTRICAL CONNECTIONS

- LED connector is compatible with Halo 4" H989 and H245 Series LED Housings

- LED Connector meets California Title 24 high-efficiency luminaire standard as a non-screw base

- The Included E26 Edison screw-base adapter provides capability for retrofit*

- LED connector is a non-screw-base luminaire disconnect for tool-less installation

LED DRIVER

- Driver is a 120V input high

ENERGY DATA

	80 CRI	90 CRI
Lumens (8000 models)	800	710
Input Voltage	120V	120V
Frequency	50/60 Hz	50/60 Hz
Input Current	0.19 A	0.19 A
Power	12.2 W	12 W
Power Factor	0.95	0.95
Temp. Rise	35 - 40°C	35 - 40°C
Sound Rating	Class A	Class A

NOMENCLATURE

SLD 4058xxWH

405 = 4" SLD

8 = 80 CRI

WH = 3000K

xx = Matte White

SLD 4058xxWH

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8 = 80 CRI

WH = 3000K

xx = Matte White

SLD 4058xxWH

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405 = 4" SLD

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xx = Matte White

SLD 4058xxWH

HALO

page 2

- efficiency, dimmable electronic power supply providing DC power to the LED array

- Driver features high power factor, low THD, and has integral thermal protection in the event of over temperature or internal failure.

- Driver is replaceable if it should be required

DIMMING

- Designed for continuous dimming capability to nominally 5% with many 120V Leading Edge (LE) and Trailing Edge (TE) phase control dimmers. Dimming to 5% is based assuming using dimmers with low end trim adjustment.

- Consult dimmer manufacturer for compatibility and conditions of use. (Note some dimmers require a neutral in the wellbox.)

COMPLIANCE

- cULus Listed ceiling and wall

- cULus Damp Location listed ceiling and wall

- cULus Wet Location Listed, ceiling

- only (shower rated)

- Suitable for use in closets, compliant with NFPA 70, NEC Section 410.16 (A)(3) and 410.18 (C)(5)

- SLD may be used in compatible electrical junction boxes in direct contact with insulation including spray foam insulation

- UL Classified when used in retrofit with listed housings (See Housing Compatibility)

- EMERGENCY meets FCC 47CFR Part 15 Class B limits, and is suitable for use in residential and commercial installations

- Airtight certified per ASTM E283 (not exceeding 2.0 CFM under 57 Pascals pressure difference)

- 80 CRI Can be used to comply with California Title 24 High

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LEGEND

-  PARKING SPACE TOTALS
-  DETAIL NUMBER
-  SHEET NUMBER
-  TRAFFIC DIRECTIONAL ARROW
-  CONCRETE PAVEMENT
-  ASPHALT PAVEMENT
-  OVERHEAD CANOPY
-  PERVIOUS PAVERS

