CITY OF CHARLES TOWN
PLANNING COMMISSION
AGENDA • JUNE 26, 2023

Committee Meeting **CITY HALL** **7:00 PM**
101 E Washington Street, Charles Town, WV 25414

1. CALL TO ORDER

2. APPROVAL OF MINUTES

2.1 : May 22, 2023 draft minutes
May 22 2023 Planning Commission Minutes.docx

3. UNFINISHED BUSINESS

4. NEW BUSINESS

4.1 : **Public Hearing** – WV2023-04: Ali Hadavand. Waiver for casino parking requirements.
1. Staff Report.pdf
2. Revised plans.pdf
3. Application.pdf

4.2 : **Public Hearing** – BR2023-02: Stanley Martin Homes LLC. Applying for a bond initiation for their Stone Springs project.
1. Staff Report.pdf
2. Master Bond Amount.pdf
3. Phase 1 Bond amount.pdf
4. Application.pdf
5. Final Plat.pdf

4.3 :

Public Hearing – SLD2023-06/Tri-State Investment Properties LLC. A sketch plan for the expansion of an existing daycare facility.

1. Staff Report.pdf
2. Plans.pdf
3. Revised Narrative.pdf
4. Application.pdf

4.4 : Preliminary Plan Review: Norborne Glebe Pool (SLD2022-06).
1. Staff report.pdf
2. Plans.pdf
3. Application.pdf

4.5 : Sketch Plan completeness review: Happy Retreat parking lot (SLD 2023-07)
1. Staff Report.pdf

2. Plans.pdf
3. Application.pdf

5. ADJOURNMENT

6. NOTICE: The Public May View the Meeting Live by Clicking on the Event Link at:

https://www.charlestownwv.us/government/agendas-and-minutes/

Planning Commission
101 East Washington Street
Charles Town, WV 25414

Meeting: 06/26/23
Department: Planning Commission
Category: Report
Initiator:

SCHEDULED

AGENDA ITEM (ID #)

May 22, 2023 draft minutes

ATTACHMENTS:

- May 22 2023 Planning Commission Minutes.docx

CITY OF CHARLES TOWN

PLANNING COMMISSION MEETING

MINUTES • May 22, 2023

Regular Meeting **Council Chambers** **7:00 PM**

101 East Washington Street, Charles Town, WV 25414

1) CALL TO ORDER

Present: Jessica Derr – Acting Chair
Angie Cummings - Secretary
Kevin Long
Jeff Hynes

Absent: Ann Paonessa

Meeting started at 7:00 pm. Angie Cummings arrived at 7:20 pm.

2) APPROVAL OF MINUTES

2.1 : February 27 minutes
- Pg. 5: Minor grammatical changes.

2.2 : March 27 minutes:
- Pg. 10: Line 2, Sentence 1: Minor grammatical changes.

2.3 : April 24 minutes
- Approve as presented.

Motion to approve minutes subject to changes:

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Jeff Hynes
SECONDER:	Jessica Derr
AYES:	Jessica Derr, Angie Cummings, Kevin Long, Jeff Hynes

3) UNFINISHED BUSINESS

No unfinished business.

4) NEW BUSINESS

4.1 WV-2023-03: A waiver request by Stanley Martin Homes LLC. (Public Hearing)

On 03/27/2023, commission approved the preliminary plan from Stanley Martin Homes, LLC under the condition that the applicant apply for the following waivers:

1. Relief from Subdivision Ordinance Section 1333.07.C, requiring driveways be at least 40 feet from an intersection.

2. Relief from Subdivision Ordinance Section 1333.15.B, requiring a buffer between townhomes and single-family detached units.

3. Relief from Subdivision Ordinance Section 1333.20.K, requiring electric meters for townhomes be located in the rear of units.

Staff gave a presentation.

Motion to open public hearing.

RESULT:	**APPROVED**
MOVER:	Jeff Hynes
SECONDER:	Angie Cummings
AYES:	Kevin Long, Angie Cummings, Jessica Derr, Jeff Hynes
	NAYS:

Public comments: No public comments.

Motion to close public hearing.

RESULT:	**APPROVED**
MOVER:	Jeff Hynes
SECONDER:	Angie Cummings
AYES:	Jeff Hynes, Angie Cummings, Kevin Long, Jessica Derr
	NAYS:

Motion to approve the three requested waivers:.

RESULT:	**APPROVED**
MOVER:	Jeff Hynes
SECONDER:	Angie Cummings
AYES:	Jeff Hynes, Angie Cummings, Kevin Long, Jessica Derr
	NAYS:

4.2 BR2023-01: MDHI Charles Town LLC (Public Hearing) is seeking to establish a bond for work to be performed for the Huyett Rd Storage Facility. Estimated bond value is $1,492,269.65

- Staff presentation.
- Commissioners asked if bond included materials needed for stormwater control. Staff confirmed that it did.

Motion to open public hearing.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Jeff Hynes
SECONDER:	Angie Cummings
AYES:	Jeff Hynes, Angie Cummings, Kevin Long, Jessica Derr
	NAYS:

Public comments:

- John Miles of Huyett Road was opposed to the storage facility use. Concerned about traffic impacts with proximity to the high school and new Sheetz. Claimed that these storage facilities attract criminal activity.

- Bobbi Waldner of Spruce Hill was opposed to the storage facility use. Concerned about traffic impacts, pest control issues, and stormwater management impact.

- Carolyn Brady was opposed to the storage facility use. Does not consider the storage facility compatible with a residential neighborhood.

- Joe Zink owns adjoining property, and was concerned about light pollution and traffic impacts at all hours of the day.

- Aaron Waldner of Spruce Hill was opposed to the storage facility use. Concerned about traffic impact, vermin, stormwater impact, and crime.

Motion to close public hearing.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Jeff Hynes
SECONDER:	Angie Cummings
AYES:	Angie Cummings, Jeff Hynes, Kevin Long, Jessica Derr
	NAYS:

Jeff Hynes explained to the attendees that the plans for the building had already been approved. Division of Highways had reviewed the plans. Stormwater and erosion and sediment control plans had already been approved. This public hearing was held with the aim of figuring out how much money should be allotted for site improvements, such as stormwater control facilities. All approved conditions must be met in order for the bond to be fulfilled.

Jessica Derr then explained that holding the money in a bond allows for the city to pull the money if conditions of the bond are not met.

Motion to recommend approval of the bond request:

RESULT:	**APPROVED**
MOVER:	Jeff Hynes
SECONDER:	Kevin Long
AYES:	Kevin Long, Jessica Derr, Jeff Hynes
NAYS:	Angie Cummings

4.3 TXA2023-05 Parking and Loading Standards (Public Hearing): A text amendment to Subdivision and Land Development Ordinance Section 1333.23.J, to exempt properties within the Historic Overlay District from on-site parking requirements.

Staff gave a presentation.

Commissioner Hynes asked if the item had come to a work session or been brought up previously. Staff explained that this text amendment had not been to a work session nor discussed prior, but was created following recent action needing Board of Zoning Appeals review, for approval of apartments in an existing structure.

Motion to open public hearing.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Angie Cummings
SECONDER:	Jeff Hynes
AYES:	Jeff Hynes, Angie Cummings, Jessica Derr, Kevin Long
	NAYS:

No public comment.

Motion to close public hearing.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Jeff Hynes
SECONDER:	Angie Cummings
AYES:	Jeff Hynes, Angie Cummings, Jessica Derr, Kevin Long
	NAYS:

Commissioners Hynes and Long expressed a desire to move this item to a work session for additional consideration.

Motion to table discussion.

RESULT:	**APPROVED [UNANIMOUS]**
MOVER:	Jeff Hynes

SECONDER:	Kevin Long
AYES:	Jeff Hynes, Kevin Long, Angie Cummings, Jessica Derr

4.4 SLD2023-06 Tri-State Daycare - Completeness Review

Staff gave a presentation.

Motion to deem the application complete:

RESULT:	**APPROVED**
MOVER:	Jeff Hynes
SECONDER:	Angie Cummings
AYES:	Jeff Hynes, Angie Cummings, Kevin Long, Jessica Derr
	NAYS:

4.5 Staff Update: Hillside major subdivision and land development - traffic impact

Staff gave a presentation.

Commissioners inquired into which intersections were studied, when the roundabout at Charles Town Road/Hillside Drive intersection would be complete, and when the developer planned to start building homes. Staff answered that the intersection of concern was the Charles Town Road/Hillside Drive intersection and that the WV Division of Highways anticipates having the roundabout completed in 2025. The applicant stated that they expected to begin construction of dwelling units in late 2024.

No action by the Commission was required.

5) ADJOURNMENT

RESULT:	**APPROVED**
MOVER:	Jeff Hynes
SECONDER:	Angie Cummings
AYES:	Jeff Hynes, Angie Cummings, Kevin Long, Jessica Derr
	NAYS:

Meeting adjourned by Jessica Derr.

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Planning Commission
101 East Washington Street
Charles Town, WV 25414

Meeting: 06/26/23
Department: Planning Commission
Category: Report
Initiator:

SCHEDULED

AGENDA ITEM (ID #)

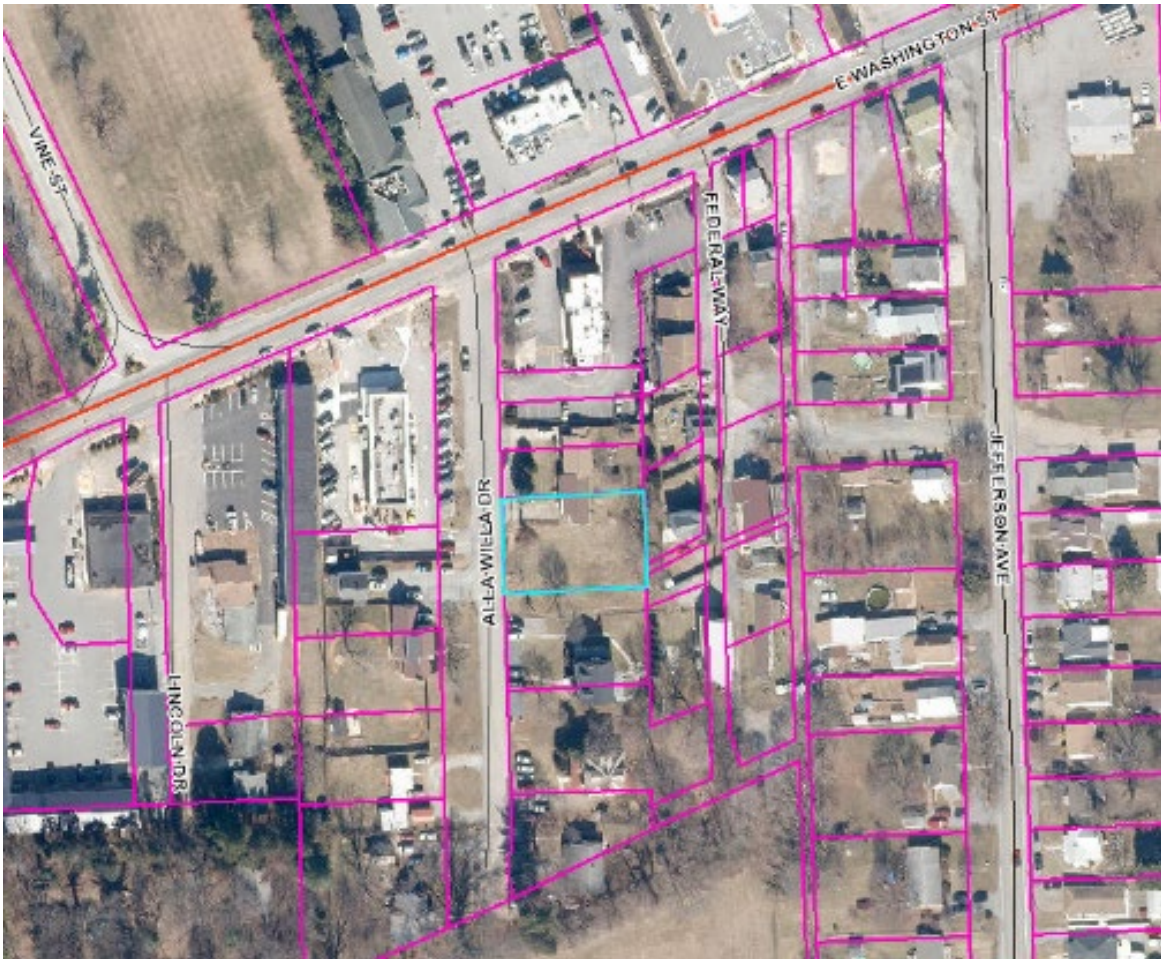
Public Hearing – WV2023-04: Ali Hadavand. Waiver for casino parking requirements.

ATTACHMENTS:

- 1. Staff Report.pdf
- 2. Revised plans.pdf
- 3. Application.pdf

Waiver Request
Waiver2023-04

Date: For the June 26, 2023 Planning Commission Meeting
Applicant: Ali Hadavand
Property Owner: Shirley Rockwell
Report by: James Newman, City Planner, Zoning/Subdivision Administrator.
Proposal: Development of site as a casino, and merger of two parcels into one.
Property Location: TD 03 / Map: 7 / Pcl: 12, located on Alla Willa Drive.
Current Zoning: General Commercial (GC).

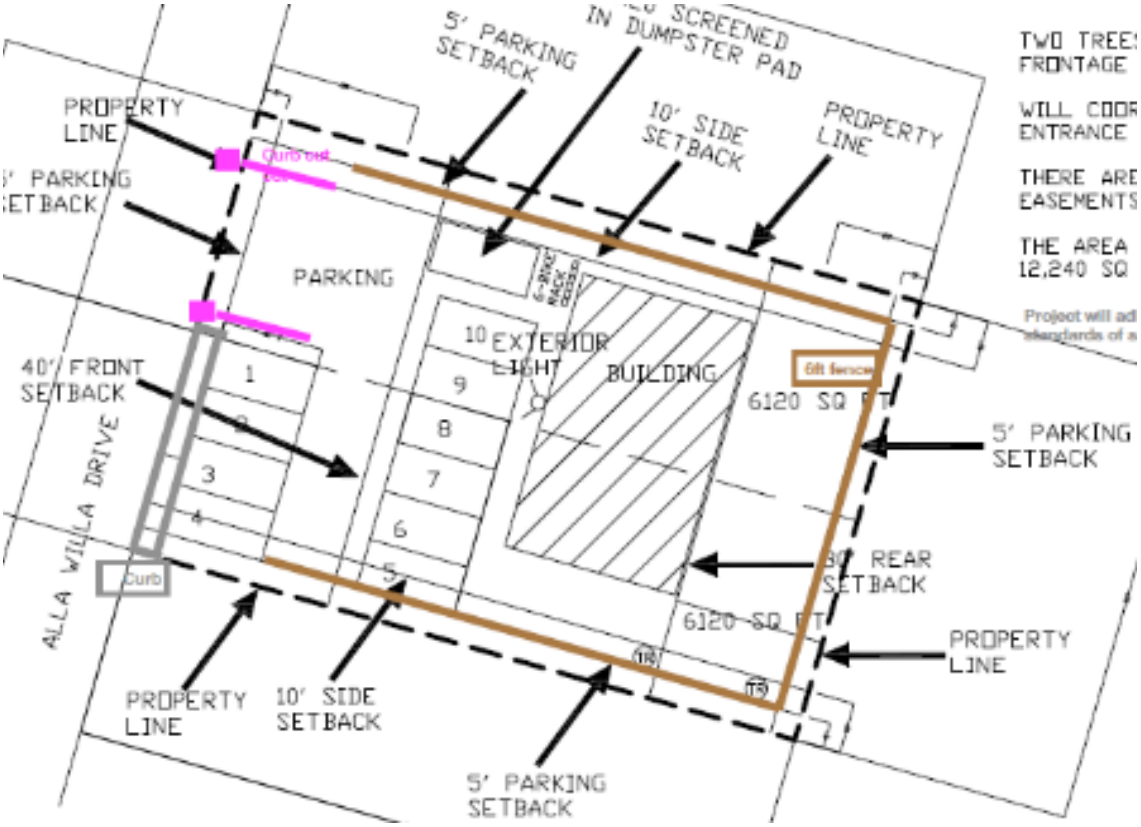


REQUEST

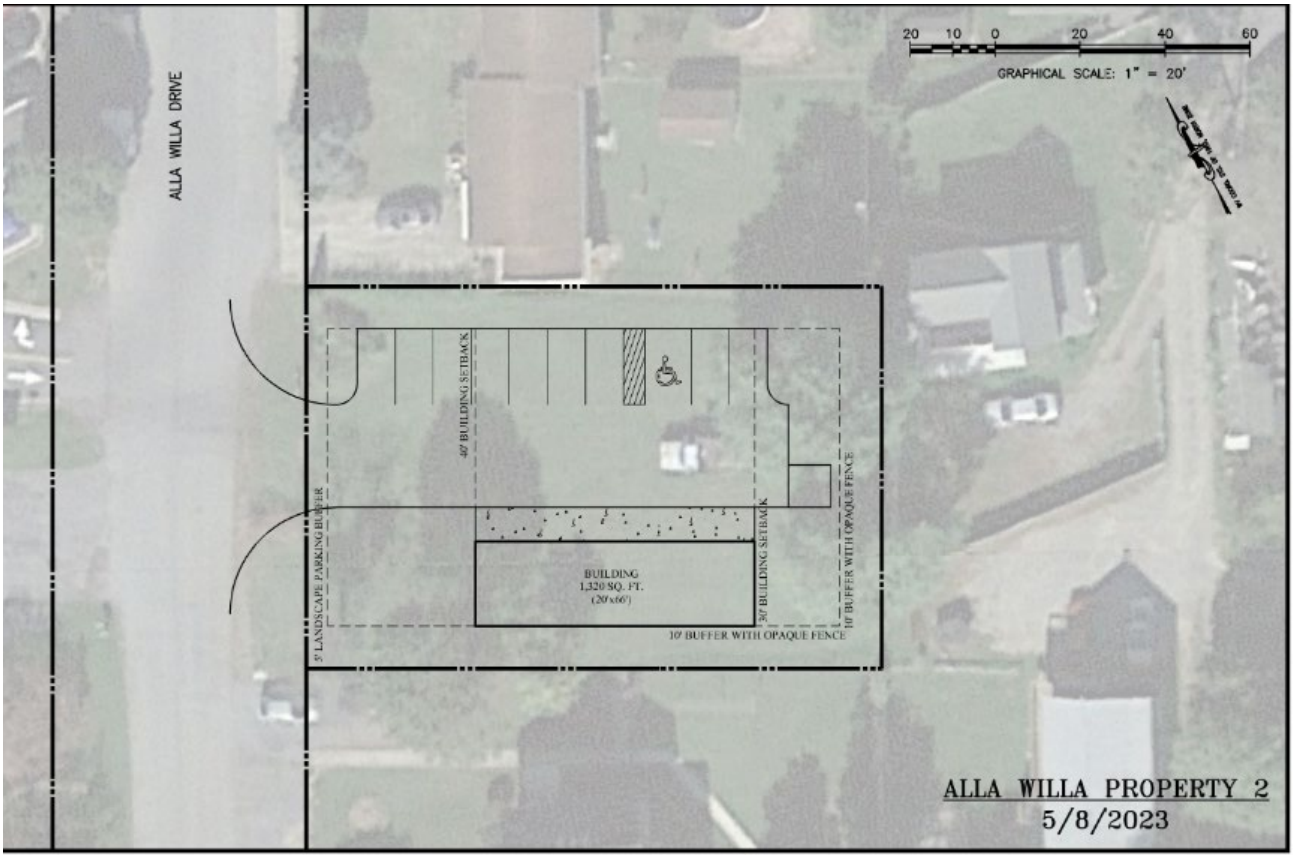
On April 24th, 2023, the Planning Commission voted to approve a sketch plan for a casino on the property the property , subject to the condition that the applicant also apply for waivers from parking requirements.

The applicant is requesting a waiver from parking requirements.

APPROVED SKETCH PLAN LAYOUT



REVISED LAYOUT



CODE REQUIREMENTS

Minimum off-street parking requirements are contained in the Subdivision and Land Development Ordinance, as described in Table 1333.23. J. :

ITE Code	Specific Land Use	Minimum Off-Street Parking Space Requirements
473	Casino/Video Lottery Establishment	35.3 spaces per 1,000 sq. ft. GFA and 1.42 spaces per gaming position

Page 22 of the Zoning Ordinance lists permitted uses. Casino/video lottery establishment are listed in the same category. The Zoning ordinance does not define either term. Where uses are not explicitly defined, the Zoning Administrator must refer to the latest Trip Generation Manual of the Institute of Traffic Engineers.

The 9th Edition of the Trip Generation Manual defines a casino as:

> CASINO/VIDEO LOTTERY ESTABLISHMENT – *Businesses that provide electronic or manually-controlled slot machines. These facilities exist for the primary purpose of deriving revenue from gaming operations. Full food service is generally not provided at these facilities; however, refreshments and alcoholic beverages may be served. These facilities do not include full-service casinos or casino/hotel facilities.*

Since approval of the sketch plan in April, the applicant has found a new engineering firm to do work. They have proposed a revised layout with 10 parking spaces. Based on the Code parking requirement, the applicant needs to provide:

1. Building size 1,320 sq. ft. / 35.3 = 37.3 spaces
2. 10 gaming positions / 1.42 = 7.04

A total of 44.34 spaces are required. Based on the average size of a parking space at 9 ft. wide x 18 ft. deep (162 sq. ft.), the required 44 parking spaces would occupy 7,128 sq. ft. The size of the parcel is 12,626 sq. ft. Over half of the property (56%) would have to be dedicated to parking if the waiver is not granted. The applicant is seeking to have only 10 spaces.

WAIVER CRITERIA

Section 1331.12.B covers waivers, and states:

1. *Adjustments that may be made to the requirements of this Ordinance to unusual site conditions in order to achieve a better design. Waivers may not be used to circumvent the process requirements of this Ordinance. The Planning Commission shall have the authority to grant a waiver to allow a modification, change, or an alternative solution to a requirement of this Ordinance. Please note that economic hardship along is not sufficient reason to grant an exception from the requirements.*

2. *Waivers from the minimum standards in this Ordinance may be granted by the Planning Commission only when the Planning Commission finds that granting a waiver will be consistent with all of the following criteria and the exception is the minimum necessary to afford relief:*

   a. That the design of the project will provide public benefit such as a reduction in City maintenance cost, greater open space, parkland consistent with the City parks plan, or benefits of a similar nature;

   b. The waiver, if granted, will not adversely affect the public health, safety or welfare, or the rights of adjacent property owners or residents;

   c. That the waiver, if granted, will be in keeping with the intent and purpose of this Ordinance; and

   d. That the waiver, if granted, will result in a project of better quality and/or character. No process or procedural waivers will be granted

WAIVER CRITERIA REVIEW

While the request does not meet the 'unusual site conditions' under subsection 1 above, it is fairly debatable as to whether or not it meets the requirements of subsection 2, outlined here:

a. That the design of the project will provide public benefit such as a reduction in City maintenance cost, greater open space, parkland consistent with the City parks plan, or benefits of a similar nature;

The waiver would result in a decrease of impervious surface, resulting in reduced storm-water runoff, reduced heat absorption by the smaller blacktop footprint, and less overall development of a small site.

b. The waiver, if granted, will not adversely affect the public health, safety or welfare, or the rights of adjacent property owners or residents;

The project has not yet been built; approval of the waiver would not negatively impact the proposed development, and would not cause any negative impact on adjacent properties.

The applicant is specifically seeking to reduce their parking burden to an amount of spaces they feel is appropriate for their business.

c. That the waiver, if granted, will be in keeping with the intent and purpose of this Ordinance;

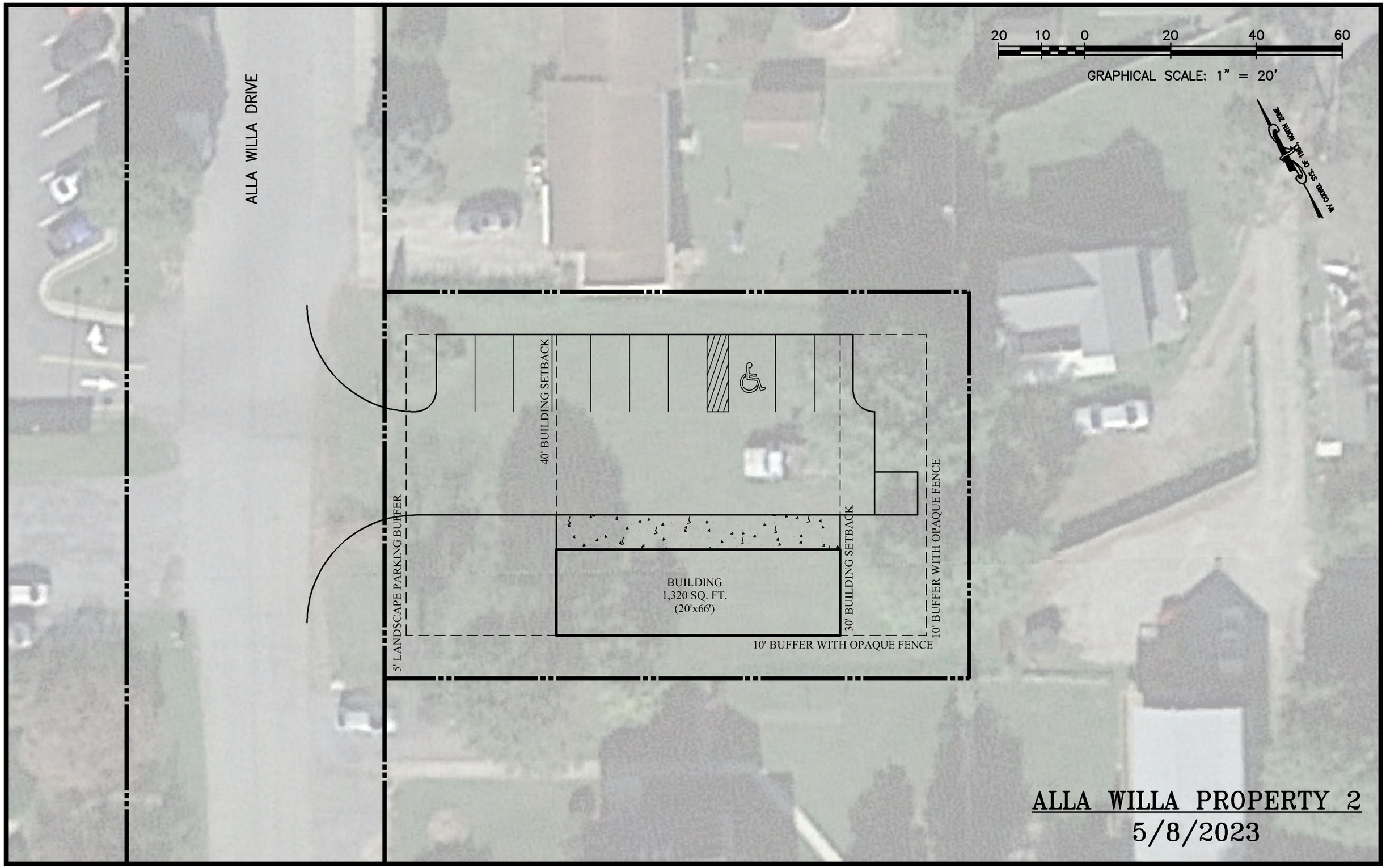
The purpose of the Ordinance is to regulate physical development of land for the improvement of the health, safety, comfort, morals, and general public welfare of our citizens. The applicant's waiver request does not appear to lead to undue harm.

d. That the waiver, if granted, will result in a project of better quality and/or character. No process or procedural waivers will be granted.

If granted, the waiver would permit a parking lot that does not take up more than half of the lot size, and which is better suited to the small size of both the lot and the principal structure. The effect is to be a less obtrusive commercial use.

CONCLUSION

The applicant has requested a waiver per the request of the Planning Commission. The waiver would reduce parking for a commercial use. The waiver request is reasonable, and staff recommends **approval**.



ALLA WILLA PROPERTY 2

5/8/2023

Waiver Application No._____

WAIVER APPLICATION

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE
SECTION 1331.12, (V) REQUIREMENTS

To assist staff in the review of a waiver application to the Planning Commission (PC), the applicant must supply all of the information contained in this application form. This application must be signed by all owners of the real estate which is the subject of the application. The owners may designate one or more professional agents to represent them in the application process using the spaces provided on this form.

Incomplete applications will be subject to scheduling delay. Applicants are encouraged to meet with staff prior to filing. A public hearing will be scheduled within 45 days of the receipt of a completed application.

Approval of a waiver by the Planning Commission does not relieve the applicant from other requirements including, but not limited to, signs(s), building, zoning and use permits or site plans.

As part of this application, the following must be provided:

1. $150.00 Application Fee.
2. A Completed Application.
3. As applicable, supporting documents included, but not limited to site plan or depiction of the requested Waiver.

It is the applicant's responsibility to make a good-faith effort to provide the Subdivision Administrator, as applicable, with a current list containing the accurate names and mailing addresses of all interested parties. For purposes of this provision, "interested parties" shall mean Landowners of Adjacent Property. The applicant shall provide the addresses in order to comply with Section 1331.12.B of the Subdivision Ordinance

Legal Notices

The following shall occur at least 15 days prior to the Public Hearing: notice of the hearing shall be advertised by the Planning Commission as a Class I legal advertisement in the local newspaper, posting of a sign upon the property, and letters to adjacent and confronting land owners within 100 feet of the subject property.

Definition of a Waiver

Adjustments that may be made to the requirements of this Ordinance to unusual site conditions in order to achieve a better design. Waivers may not be used to circumvent the process requirements of this Ordinance.

The Charles Town Subdivision Ordinance

To grant a Waiver as permitted in the Subdivision Ordinance, the Planning Commission makes findings as specified in Section 1331.12(B)(2).

In order to issue a Waiver, the Commission must make the following written findings regarding the Waiver sought and all of the following can be met:

A waiver request may be granted by the Planning Commission only when it shall be determined that:

1. That the design of the project will provide public benefit such as a reduction in City maintenance cost, greater open space, parkland consistent with the City parks plan, or benefits of a similar nature;
2. The waiver, if granted, will not adversely affect the public health, safety or welfare, or the rights of adjacent property owners or residents;
3. That the waiver, if granted, will be in keeping with the intent and purpose of this Ordinance; and
4. That the waiver, if granted, will result in a project of better quality and/or character.

Note:

Additional exhibits may be required by the Subdivision Administrator or Planning Commission such as a lot location survey or site plan showing existing and proposed Structures, easements, watercourses, curb cuts and description of the uses of adjacent property that are necessary to describe existing or proposed conditions.

1. DATE April 24, 20 23

2. APPLICANT'S NAME* Ali Hadavand

   Address: 1927 Rock Cliff Dr

   Telephone Number (304) 279-4747 Fax Number (___)

   Email Address hadavand1979@gmail.com

3. PROPERTY OWNER'S NAME_____

   Address: _____

   Telephone Number (___)_____Fax Number (___)_____

   Email Address _____

4. LEGAL DESCRIPTION OF THE SUBJECT PROPERTY (list all parcels that apply)

   Property Address: _____

   Tax Map # and Parcel: _____

   Deed Book and Page #: _____

   Property Area in Square Feet or Acres:_____

5. DESCRIPTION OF THE EXISTING (OR FORMER) USE(S) OF THE PROPERTY AND CURRENT ZONING:

   lot 3a and 4a deed book 390 page 85

6. DESCRIPTION OF PROJECT AND PROPOSED USE(S) OF THE PROPERTY:

   It's currently just land and proposed to put a slot machine parlor on this property.

*Applicants include: Property owner(s), Engineer(s), Surveyor(s), or Consultant(s)

7. DESCRIPTION OF ANY PROPOSED WORK TO BE DONE TO THE PROPERTY:

See sketch plan.

8. DESCRIPTION OF THE WAIVER REQUEST:

This property falls under a casino business plan which requires a lot more parking than what this property can accomodate. I'm requesting a waiver on the number of spaces required by this ordinance.

9. LIST THE APPLICABLE SECTION(S) OF THE SUBDIVISION ORDINANCE FROM WHICH THE WAIVER IS REQUESTED:

Table 1333.23(J)

10. JUSTIFICATION FOR THE REQUEST:

A) Explain how the design of the project will provide public benefit such as a reduction in City maintenance costs, greater open space, parkland consistent with the City Parks Plan or benefits of a similar nature;

35.3 spaces per 1,000 sq. ft. GFA and 1.42 spaces per gaming position is not necessary for a slot machine parlor.

B) Explain how the waiver, if granted, will not adversely affect the public health, safety, welfare or the rights of adjacent property owners or residents;

35.3 spaces per 1,000 sq. ft. GFA and 1.42 spaces per gaming position would not make my neighbors happy is it would tremendously increase traffic.

C) Explain how the waiver, if granted, will be in keeping with the intent and purpose of this Ordinance; and;

Ordinance will be changed as well in the future.

D) Explain how the waiver, if granted, will result in a project of better quality and/or character.

The amount of space will not be needed which wouldn't even fit on this small lot.

11. INTERESTED PARTY ADDRESSES, FOR PUBLIC NOTICE (including across street) (Interested parties are defined as adjacent properties within 100 feet).

Owner	# and Street	City, State, Zip
N/A		

12. PARCEL HISTORY (List all pending or previously approved applications on the subject parcels inventoried above, including previous site plan applications if this application is a site plan amendment)

Application No.	Project Name and Phase	Status	Approval Date
N/A			

13. HAS THE PROPERTY BEEN THE SUBJECT OF ANY COURT ACTION?

☐ Yes (Please specify nature of all proceedings and current status and attach any documents showing court decisions, etc.)

_____

_____

_____

_____

_____

☒ No

APPLICANT CERTIFICATION

I certify that, to the best of my knowledge, the submitted information and statements are true and correct. I also certify that I have received and read Section 1331.12 of the Charles Town S/LD Ordinance and relevant provisions of the Charles Town City Code.

Signature of Applicant



_____ Date 4/26/2023

Signature of Property Owner (If different than Applicant)

_____ Date _____

Please submit an original completed Application and specified number of Site Plan copies to the following:

Subdivision Administrator
City of Charles Town
101 E. Washington Street
Charles Town, WV 25414

FOR CITY USE ONLY

Application Number:_____ Date Application Received:_____

Fee: $_____ Paid:$_____ Check No._____

Receipt No._____

Subdivision Administrator Approval:_____ Date:_____

Planning Commission Approval:_____ Date:_____

Comments/Conditions:_____

_____

_____

_____

_____

_____

Planning Commission
101 East Washington Street
Charles Town, WV 25414

SCHEDULED

AGENDA ITEM (ID #)

Meeting: 06/26/23
Department: Planning Commission
Category: Report
Initiator:

Public Hearing – BR2023-02: Stanley Martin Homes LLC. Applying for a bond initiation for their Stone Springs project.

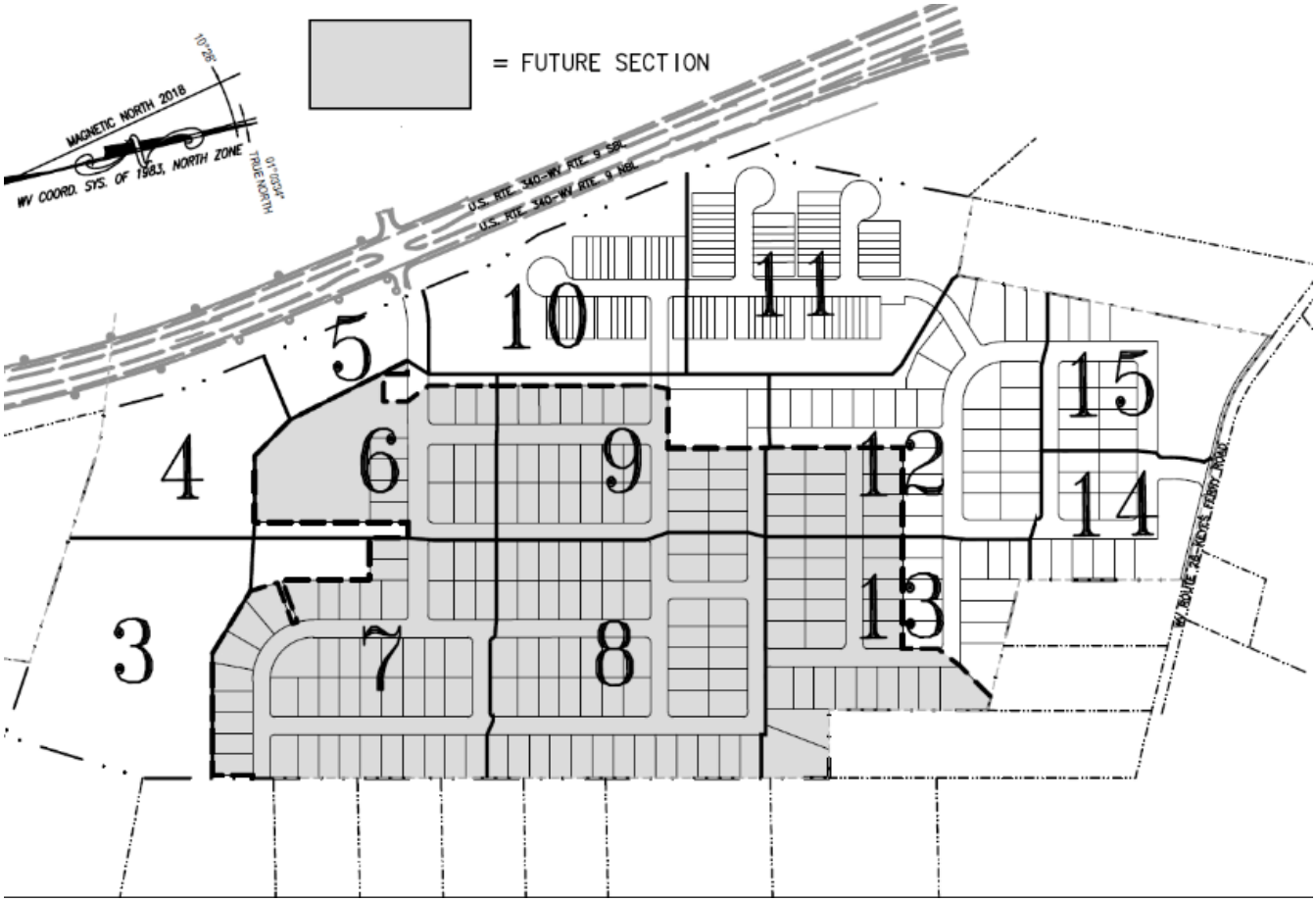
ATTACHMENTS:

- 1. Staff Report.pdf
- 2. Master Bond Amount.pdf
- 3. Phase 1 Bond amount.pdf
- 4. Application.pdf
- 5. Final Plat.pdf

Bond Initiation Request

Date: For the June 26, 2023 Planning Commission meeting
Applicant: Stanley Martin Homes LLC
Report by: James Newman, City Planner, Zoning/Subdivision Administrator.
Proposal: A bond initiation in the amount of $12,633,605.45

Stone Spring Development



BACKGROUND

The applicant, Stanley Martin Homes LLC, has submitted a bond initiation request for the Stone Spring housing development. The applicant is requesting a master bond initiation in the amount of $12,633,605.45. This amount will cover both performance bond issues (road paving, street lights, etc.) and land disturbance requirements (such as silt fencing).

The Phase One amount (covering areas **not** shaded in the image above) bond initiation amount is for $5,029,592.24. This is part of the overall $12.6 million master bond.

Upon review of the request the City Engineer, Kimley-Horn, has determined that the bond initiation amount is a reasonable request.

Performance bonds shall be required for public and other physical Improvements to be constructed under an approved Final S/LD Application. Such Improvements shall include, without limitation, Road, curb, gutter, sidewalk, trails, storm Drainage, traffic signalization and control, water and sanitary sewer infrastructure, and any other site-related Improvements required by the City of Charles Town for vehicular and pedestrian ingress and egress, for public access roadways, for Structures necessary to insure stability of critical slopes, for necessary utilities, and for Stormwater Management Facilities.

BOND COMMITTEE

At their May 24, 2023 meeting, the City's Bond Committee discussed the application and recommend approval of the Performance Bond and Land Disturbance bonds as presented.

RECOMMENDATION

The City Engineer and City Staff have reviewed the bond reduction request and recommend the bond initiation request be **approved**.

CITY OF CHARLES TOWN

PUBLIC IMPROVEMENT BOND UNIT COST LIST AND BOND REDUCTION FORM

This form shall be used to calculate the amount of the bond required to guarantee public improvements to be constructed under the approved Final S/LD Application. This form shall also be used in calculating the amount of bond reductions to be approved by the Planning Commission. Note: No bond shall be reduced until completion of at least thirty (30) percent of the physical Improvements secured by the bond.

PROJECT NAME:	Stone Springs Subdivision
PREPARED BY:	Integrity Federal Services
DATE OF SUBMISSION	4/28/2023

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
MOBILIZATION GENERAL									
Mobilization	LS	$6,250.00	1	$6,250.00					
Field Office	EA	$3,000.00	1	$3,000.00					
Job Sign	EA	$1,150.00	1	$1,150.00					
SURVEYING									
Steel Pipe Property Corner Marker Incl. Survey	EA	$275.00	673	$185,075.00					
R.O.W. MONUMENTS SURVEYED IN PLACE									
RM -- 1	EA	$825.00		$0.00					
RM -- 2	EA	$575.00		$0.00					
EARTHWORK EXCAVATION									
Regular Bulk used as Fill	CY	$3.86	156,567	$604,348.62					
Rock, Rip	CY	$17.30		$0.00					
Rock, Blast	CY	$38.48		$0.00					
BORROW MATERIAL									
Buy, Load, Haul 10 Mi. Select Material	CY	$28.90	117,425	$3,393,589.73					
Fill and Compaction of On-site Borrow	CY	$5.95		$0.00					
UNSUITABLE MATERIAL									
Load and Haul, 20 mi R/T	CY	$21.95		$0.00					
Dump Charge	CY	$37.50		$0.00					
Site Grading	SY	$0.75		$0.00					
CLEAR & GRUB									
Light	AC	$6,675.00	3.05	$20,358.75					
Moderate	AC	$9,750.00		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
Heavy	AC	$12,250.00		$0.00					
Very Heavy	AC	$14,250.00		$0.00					
			LANDSCAPING						
Seeding	SY	$0.77	48,981	$37,715.37					
Sodding	SY	$3.64		$0.00					
			PLANTING SHRUBS						
18”	EA	$40.00		$0.00					
24”	EA	$70.00		$0.00					
			TREES						
6’ – 8’ (1-2 in. Caliper)	EA	$400.00	631	$252,400.00					
8’ – 10’ (2.5-3 in. Caliper)	EA	$700.00		$0.00					
Tree Protection	LF	$9.00		$0.00					
		MISCELLANEOUS SITE IMPROVEMENTS							
RETAINING WALLS									
Timber Wall (Less Than 6 ft)	LF	$325.00		$0.00					
Dry Rubble RW-1 (H=6')	LF	$450.00		$0.00					
Mortared Rubble RW-1A (H=6')	LF	$535.00		$0.00					
Concrete Gravity RW-2 (H=6')	LF	$339.00		$0.00					
Concrete Gravity RW-3 (H=6')	LF	$378.00		$0.00					
FENCING									
Std. Fence (H=5’) FR-5	LF	$9.31		$0.00					
Farm Fence (H=5’) FR-3A	LF	$10.90		$0.00					
Chain Link Fence (H=6’)FR 2-B	LF	$14.52		$0.00					
Board Fence (H=6’)	LF	$19.35		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
TOT LOTS									
Tot Lot	EA	$16,495.00		$0.00					
			STORM DRAINAGE						
STORM SEWER									
NOTE: All pipe unit prices include trench, excavation, bedding, pipe, & backfill									
Rock Excavation for All Pipe Types									
Less than 1,500 CY (Blasting)	CY	$110.00		$0.00					
More than 1,500 CY (Blasting)	CY	$90.00		$0.00					
Less than 1,500 CY (Hoe Ram)	CY	$135.00		$0.00					
More than 1,500 CY (Hoe Ram)	CY	$110.00		$0.00					
Trench De-watering									
Trench De-watering	LF	$2.95		$0.00					
		RCP CLASS III ROUND T & G W/MASTIC							
12" Pipe (RCP III)									
0' – 8' Cut	LF	$44.50		$0.00					
8' – 14' Cut	LF	$62.50		$0.00					
Add cost for Class IV	LF	$0.85		$0.00					
O-Ring	LF	$5.50		$0.00					
15" Pipe (RCP III)									
0' – 10' Cut	LF	$49.75		$0.00					
10' – 16'	LF	$77.50		$0.00					
Add Cost for Class IV	LF	$0.95		$0.00					
O-Ring	LF	$5.50		$0.00					
18" Pipe (RCP III)									
0' – 10' Cut	LF	$50.00		$0.00					
10' – 16' Cut	LF	$80.00		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
Add Cost for Class IV	LF	$2.00		$0.00					
O-Ring	LF	$7.00		$0.00					
21" Pipe (RCP III)									
0' – 10' Cut	LF	$57.50		$0.00					
10' – 16' Cut	LF	$87.50		$0.00					
Add Cost for Class IV	LF	$2.75		$0.00					
O-Ring	LF	$13.00		$0.00					
24" Pipe (RCP III)									
0' – 10' Cut	LF	$67.50		$0.00					
10' – 16' Cut	LF	$95.00		$0.00					
Add Cost for Class IV	LF	$3.15		$0.00					
O-Ring	LF	$14.00		$0.00					
27" Pipe (RCP III)									
0' – 10' Cut	LF	$60.00		$0.00					
10' – 16' Cut	LF	$95.00		$0.00					
Add Cost for Class IV	LF	$4.00		$0.00					
O-Ring	LF	$15.00		$0.00					
30" Pipe (RCP III)									
0' – 10' Cut	LF	$82.50		$0.00					
10' – 16' Cut	LF	$125.00		$0.00					
Add Cost for Class IV	LF	$6.00		$0.00					
O-Ring	LF	$17.25		$0.00					
33" Pipe (RCP III)									
0' – 12' Cut	LF	$115.00		$0.00					
10' – 18' Cut	LF	$160.00		$0.00					
Add Cost for Class IV	LF	$6.50		$0.00					
O-Ring	LF	$21.95		$0.00					
36" Pipe (RCP III)									
0' – 12' Cut	LF	$120.00		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
12’ – 18’ Cut	LF	$175.00		$0.00					
Add Cost for Class IV	LF	$7.75		$0.00					
O-Ring	LF	$22.75		$0.00					
42” Pipe (RCP III)									
0’ – 12’ Cut	LF	$140.00		$0.00					
12’ – 18’ Cut	LF	$200.00		$0.00					
Add Cost for Class IV	LF	$12.00		$0.00					
O-Ring	LF	$35.45		$0.00					
48” Pipe (RCP III)									
0’ – 12’ Cut	LF	$155.00		$0.00					
12’ – 18’ Cut	LF	$215.00		$0.00					
Add Cost for Class IV	LF	$12.50		$0.00					
O-Ring	LF	$43.35		$0.00					
54” Pipe (RCP III)									
0’ – 12’ Cut	LF	$190.00		$0.00					
12’ – 18’ Cut	LF	$275.00		$0.00					
Add Cost for Class IV	LF	$18.75		$0.00					
O-Ring	LF	$44.45		$0.00					
60” Pipe (RCP III)									
0’ – 12’ Cut	LF	$225.00	434	$97,650.00					
12’ – 18’ Cut	LF	$335.00	31	$10,385.00					
Add Cost for Class IV	LF	$22.50		$0.00					
O-Ring	LF	$48.65		$0.00					
ELLIPTICAL PIPE – RCP CLASS III									
23” X 14” (18” Equiv-RCP III									
0’ – 10’ Cut	LF	$75.00		$0.00					
10’ – 16’ Cut	LF	$110.00		$0.00					
Add Cost for Class IV	LF	$16.45		$0.00					
O-Ring	LF	$43.35		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
30" X 19" (24" Equiv-RCP III)									
0' – 10' Cut	LF	$90.00		$0.00					
10' – 16' Cut	LF	$130.00		$0.00					
Add Cost for Class IV	LF	$5.95		$0.00					
O-Ring	LF	$43.35		$0.00					
38" X 24" (30" Equiv-RCP III)									
0' – 10' Cut	LF	$120.00		$0.00					
10' – 16' Cut	LF	$167.50		$0.00					
Add Cost for Class IV	LF	$8.45		$0.00					
O-Ring	LF	$51.35		$0.00					
45" X 29" (36" Equiv-RCP III)									
0' – 10' Cut	LF	$165.00		$0.00					
10' – 16' Cut	LF	$235.00		$0.00					
Add Cost for Class IV	LF	$11.35		$0.00					
O-Ring	LF	$53.35		$0.00					
53" X 34" (42" Equiv-RCP III)									
0' – 12' Cut	LF	$210.00		$0.00					
10' – 18' Cut	LF	$300.00		$0.00					
Add Cost for Class IV	LF	$15.35		$0.00					
O-Ring	LF	$58.95		$0.00					
72"									
0' – 12' Cut	LF	$255.00	307	$78,285.00					
10' – 18' Cut	LF	$375.00		$0.00					
Add Cost for Class IV	LF	$18.35	307	$5,633.45					
O-Ring	LF	$69.95		$0.00					
HDPE PIPE									
8" Pipe									
0'-8' Cut	LF	$28.65		$0.00					
8'-14' Cut	LF	$43.15		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
12" Pipe									
0'-8' Cut	LF	$38.95		$0.00					
8'-14' Cut	LF	$57.75		$0.00					
15" Pipe									
0'-8' Cut	LF	$50.25	5525	$277,631.25					
8'-16' Cut	LF	$74.85	1432	$107,185.20					
18" Pipe									
0'-8' Cut	LF	$66.00	1123	$74,118.00					
8'-16' Cut	LF	$98.55	428	$42,179.40					
24" Pipe									
0'-8' Cut	LF	$76.90	1025	$78,822.50					
8'-16' Cut	LF	$115.25	319	$36,764.75					
30" Pipe									
0'-8' Cut	LF	$91.33	1620	$147,954.60					
8'-16' Cut	LF	$137.27	123	$16,884.21					
36" Pipe									
0'-8' Cut	LF	$101.68	978	$99,443.04					
8'-16' Cut	LF	$152.33	109	$16,603.97					
42" Pipe									
0'-8' Cut	LF	$113.99	262	$29,865.38					
8'-16' Cut	LF	$171.00		$0.00					
48" Pipe									
0'-8' Cut	LF	$129.55		$0.00					
8'-16' Cut	LF	$195.66		$0.00					
STORM STRUCTURES									
END SECTIONS									
End Section (ES-1), Concrete Pipe Size									
15”	EA	$485.00	1	$485.00					

BOND ESTIMATE						BOND REDUCTION		City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
18”	EA	$565.00	2	$1,130.00				
21”	EA	$645.00		$0.00				
24”	EA	$755.00		$0.00				
27”	EA	$1,065.00		$0.00				
30”	EA	$1,195.00	1	$1,195.00				
36”	EA	$1,765.00	1	$1,765.00				
42”	EA	$1,795.00	1	$1,795.00				
48”	EA	$2,135.00		$0.00				
54”	EA	$2,795.00		$0.00				
60”	EA	$3,455.00	2	$6,910.00				
ENDWALLS								
EW-1(Pre-cast) Round Pipe Size								
15”	EA	$800.00	1	$800.00				
18”	EA	$1,337.00		$0.00				
24”	EA	$2,021.00		$0.00				
30”	EA	$2,133.00	1	$2,133.00				
36”	EA	$2,366.00	8	$18,928.00				
EW-1 Cast in Place [Round Pipe Size]								
15”	EA	$852.00		$0.00				
18”	EA	$1,053.00		$0.00				
24”	EA	$1,495.00		$0.00				
30”	EA	$2,144.00		$0.00				
36”	EA	$2,383.00		$0.00				
EW-1A (Pre-Cast) Elliptical Pipe Size								
23” X 14” (18”)	EA	$695.00		$0.00				
30” X 19” (24”)	EA	$969.00		$0.00				
38” X 24” (30”)	EA	$1,165.00		$0.00				
45” X 29” (36”)	EA	$1,445.00		$0.00				

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
53" X 34" (42")	EA	$1,840.00		$0.00					
EW-1A (Cast in Place) Elliptical Pipe Size									
23" X 14" (18")	EA	$667.00		$0.00					
30" X 19" (24")	EA	$939.00		$0.00					
38" X 24" (30")	EA	$1,247.00		$0.00					
45" X 29" (36")	EA	$1,618.00		$0.00					
53" X 34" (42")	EA	$2,109.00		$0.00					
EW-2 (PreCast) Round Pipe Size									
42"	EA	$5,445.00		$0.00					
48"	EA	$5,695.00		$0.00					
54"	EA	$6,660.00		$0.00					
60"	EA	$7,140.00	8	$57,120.00					
72"	EA	$7,990.00	6	$47,940.00					
84"	EA	$9,490.00		$0.00					
EW-2 (Cast in Place) Round Pipe Size									
42"	EA	$4,723.00		$0.00					
48"	EA	$6,039.00		$0.00					
54"	EA	$6,972.00		$0.00					
60"	EA	$8,179.00		$0.00					
72"	EA	$10,713.00		$0.00					
84"	EA	$12,288.00		$0.00					
(EW-6PC) [Double Pipe] Pipe Size									
2-15"	EA	$999.00		$0.00					
2-18"	EA	$1,235.00		$0.00					
2-24"	EA	$1,510.00		$0.00					
2-30"	EA	$2,165.00		$0.00					
2-36"	EA	$2,647.00		$0.00					
			MANHOLES						

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
Standard Brick Manhole Std Frame & Cover (MH-1)									
6' Depth	EA	$3,750.00	11	$41,250.00					
Depth below 6'	VF	$163.00	24	$3,912.00					
Standard Precast Manhole Std Frame & Cover (MH-2)									
6' Depth	EA	$3,100.00		$0.00					
Depth below 6'	VF	$177.00		$0.00					
Additional Cost (Amounts in parentheses to be added to the above unit costs)									
Watertight Fr/Cover (Add 110)	EA	$579.00		$0.00					
Heavy Duty Fr/Cover (Add 82)	EA	$599.00		$0.00					
			DROP INLETS						
Cast in Place 48"									
Drop Inlet (DI-1) 12" – 24" Pipe0-10 VF	EA	$3,697.00	1	$3,697.00					
Drop Inlet (DI-1A) 12" – 24" Pipe 10-20 VF	EA	$5,593.00	4	$22,372.00					
Drop Inlet (DI-2) 12" – 24" Pipe0-10 VF, 10' throat	EA	$6,911.00		$0.00					
Drop Inlet (DI-2A) 12" – 24" Pipe 10-20 VF, 10' throat	EA	$8,833.00		$0.00					
			CURB DROP INLETS						
Curb Drop Inlet (DI-3A)									
12"-30" Pipe (Invert Depth (H) =0'-8') Inlet Length 2'-6"	EA	$4,088.00		$0.00					
Curb Drop Inlet (DI-3AA)									
12"-30" Pipe (Invert Depth (H) =8'-20') Inlet Length 2'-6"	EA	$5,357.00		$0.00					
Curb Drop Inlet (DI-3B & DI-12) 12"-30" Pipe (Invert Depth (H) =0'-8') Inlet Length									
4'	EA	$4,279.00		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
6’	EA	$4,573.00	104	$475,592.00					
8’	EA	$4,889.00	19	$92,891.00					
10'	EA	$5,052.00	30	$151,560.00					
12’	EA	$5,227.00	8	$41,816.00					
16’	EA	$5,543.00		$0.00					
20’	EA	$5,859.00		$0.00					
Curb Drop Inlet (DI-3BB) 12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length									
4’	EA	$4,276.00		$0.00					
6’	EA	$4,848.00		$0.00					
8’	EA	$5,429.00		$0.00					
10'	EA	$5,732.00		$0.00					
12’	EA	$6,011.00		$0.00					
16’	EA	$6,296.00		$0.00					
20’	EA	$6,599.00		$0.00					
Curb Drop Inlet (DI-3C) 12”-30” Pipe (Invert Depth (H) =0’-8’) Inlet Length									
6’	EA	$4,013.00		$0.00					
8’	EA	$4,588.00		$0.00					
10'	EA	$4,893.00		$0.00					
12’	EA	$5,178.00		$0.00					
16’	EA	$5,766.00		$0.00					
20’	EA	$6,339.00		$0.00					
Curb Drop Inlet (DI-3CC) 12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length									
6’	EA	$4,746.00		$0.00					
8’	EA	$5,293.00		$0.00					
10'	EA	$5,627.00		$0.00					
12’	EA	$5,988.00		$0.00					
16’	EA	$6,772.00		$0.00					
20’	EA	$7,465.00		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
Curb Drop Inlet (DI-3D)									
12”-30” Pipe (Invert Depth (H) =0’-8’) Inlet Length 2’-6”	EA	$3,633.00		$0.00					
Curb Drop Inlet (DI-3DD)									
12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length 2’-6”	EA	$4,367.00		$0.00					
Curb Drop Inlet (DI-3E) 12”-30” Pipe (Invert Depth (H) =0’-8’) Inlet Length									
4’	EA	$4,093.00		$0.00					
8’	EA	$4,756.00		$0.00					
10’	EA	$5,724.00		$0.00					
12'	EA	$5,833.00		$0.00					
16’	EA	$6,072.00		$0.00					
20’	EA	$6,709.00		$0.00					
Curb Drop Inlet (DI-3EE) 12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length									
6’	EA	$7,562.00		$0.00					
8’	EA	$7,869.00		$0.00					
10'	EA	$7,999.00		$0.00					
12’	EA	$8,166.00		$0.00					
16’	EA	$8,471.00		$0.00					
20’	EA	$8,767.00		$0.00					
Curb Drop Inlet (DI-3F) 12”-30” Pipe Inlet Length (Invert Depth (H)=0’-8’)									
6’	EA	$3,765.00		$0.00					
8’	EA	$4,419.00		$0.00					
10’	EA	$4,749.00		$0.00					
12’	EA	$5,085.00		$0.00					
16’	EA	$5,742.00		$0.00					
20’	EA	$6,395.00		$0.00					
Curb Drop Inlet (DI-3FF) 12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length									

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
6’	EA	$8,077.00		$0.00					
8’	EA	$8,288.00		$0.00					
10'	EA	$8,480.00		$0.00					
12’	EA	$8,669.00		$0.00					
16’	EA	$9,047.00		$0.00					
20’	EA	$9,446.00		$0.00					
Curb Drop Inlet (DI-4A) 36”–48” Pipe (Invert Depth (H)=0’-8’) Inlet Length									
4’	EA	$4,868.00		$0.00					
Curb Drop Inlet (DI-4AA) 36”–48” Pipe (Invert Depth (H)=0’-8’) Inlet Length									
4'	EA	$6,817.00		$0.00					
Curb Drop Inlet (DI-4B) 36”-48” Pipe (Invert Depth (H) =0’-8’) Inlet Length									
6’	EA	$5,172.00		$0.00					
8’	EA	$5,499.00		$0.00					
10'	EA	$5,698.00		$0.00					
12’	EA	$5,870.00		$0.00					
16’	EA	$6,221.00		$0.00					
20’	EA	$6,571.00		$0.00					
Curb Drop Inlet (DI-4BB) 36”-48” Pipe (Invert Depth (H) =8’-20') Inlet Length									
6’	EA	$10,292.00		$0.00					
8’	EA	$10,643.00		$0.00					
10'	EA	$10,810.00		$0.00					
12’	EA	$10,974.00		$0.00					
16’	EA	$11,309.00		$0.00					
20’	EA	$11,669.00		$0.00					
Curb Drop Inlet (DI-4C) 36”-48” Pipe (Invert Depth (H) =0’-8’) Inlet Length									
8’	EA	$5,612.00		$0.00					
10'	EA	$5,794.00		$0.00					
12’	EA	$5,968.00		$0.00					
16’	EA	$6,315.00		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
20’	EA	$6,657.00		$0.00					
Curb Drop Inlet (DI-4CC) 36”-48” Pipe (Invert Depth (H) =8’-20’) Inlet Length									
8’	EA	$13,371.00		$0.00					
10’	EA	$13,693.00		$0.00					
12’	EA	$14,097.00		$0.00					
16’	EA	$14,712.00		$0.00					
20’	EA	$15,365.00		$0.00					
Curb Drop Inlet (DI-4D)									
36”-48” Pipe (Invert Depth (H) =0’-8’) Inlet Length 4'	EA	$4,933.00		$0.00					
Curb Drop Inlet (DI-4DD)									
36”-48” Pipe (Invert Depth (H) =8’-16’) Inlet Length 4'	EA	$9,455.00		$0.00					
Curb Drop Inlet (DI-4E) 36”-48” Pipe (Invert Depth (H) =0’-8’) Inlet Length									
6’	EA	$5,267.00		$0.00					
8’	EA	$5,605.00		$0.00					
10’	EA	$5,896.00		$0.00					
12'	EA	$6,233.00		$0.00					
16’	EA	$6,996.00		$0.00					
20’	EA	$7,695.00		$0.00					
Curb Drop Inlet (DI-4EE) 36”-48” Pipe (Invert Depth (H) =8’-16’) Inlet Length									
6’	EA	$9,165.00		$0.00					
8’	EA	$9,495.00		$0.00					
10'	EA	$9,839.00		$0.00					
12’	EA	$10,167.00		$0.00					
16’	EA	$10,838.00		$0.00					
20’	EA	$11,483.00		$0.00					
Curb Drop Inlet (DI-4F) 36”-48" Pipe Inlet Length (Invert Depth (H)=0’-8’)									

BOND ESTIMATE					BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
8’	EA	$5,877.00		$0.00				
10'	EA	$6,209.00		$0.00				
12’	EA	$6,568.00		$0.00				
16’	EA	$7,259.00		$0.00				
20’	EA	$7,963.00		$0.00				
Curb Drop Inlet (DI-4FF) 36”-48” Pipe (Invert Depth (H) =8’-16’) Inlet Length								
8’	EA	$8,866.00		$0.00				
10'	EA	$9,147.00		$0.00				
12’	EA	$9,435.00		$0.00				
16’	EA	$9,997.00		$0.00				
20’	EA	$10,584.00		$0.00				
Median Drop Inlets - CIP								
Median Drop Inlet **(DI-6A)** 12”-24” Pipe Inlet (H=8’)	EA	$4,205.00		$0.00		$0.00		
Median Drop Inlet **(DI-6B)** 12”-24” Pipe Inlet (H=8’)	EA	$4,267.00		$0.00		$0.00		
Median Drop Inlet **(DI-6C)** 30”-48” Pipe Inlet (H=10’)	EA	$5,589.00		$0.00		$0.00		
Median Drop Inlet **(DI-6D)** 30”-48” Pipe Inlet (H=10’)	EA	$5,692.00		$0.00		$0.00		
Median Drop Inlet **(DI-7)** Type III Top 12”-42” Pipe Inlet (H=10’)	EA	$5,748.00		$0.00		$0.00		
Median Drop Inlet **(DI-7A)** Type III Top 12”-42” Pipe Inlet (H=10’)	EA	$6,338.00		$0.00		$0.00		
Median Drop Inlet **(DI-7B)** Type III Top 12”-42” Pipe Inlet (H=10’)	EA	$6,797.00		$0.00		$0.00		

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
MISCELLANEOUS INLETS									
Ditch Drop Inlet, **(DI-5)** Type III Tip 12"-42" Pipe Inlet (H=8')	EA	$5,226.00		$0.00					
Standard Yard Inlet **(YI-1)** 12"-48" Pipe (Invert Depth (H)=0'-8') Inlet Length 4'(No Aprons)	EA	$4,749.00		$0.00					
Add Yard Inlet Apron	THROAT	$255.00		$0.00					
Standard Yard Inlet **(YI-3)** 12"-48" Pipe (Invert Depth (H)=0'-8') Inlet Length 4'(No Aprons)	EA	$5,127.00		$0.00					
Add Yard Inlet Apron	THROAT	$255.00		$0.00					
CULVERTS									
Single Box Culvert (BC-1A) Fills to 25'									
4' X 4'	LF	$336.00		$0.00					
5' x 5"	LF	$410.00		$0.00					
6' X 6'	LF	$498.00		$0.00					
8' X 8'	LF	$699.00		$0.00					
10' X 10'	LF	$845.00		$0.00					
Double Box Culvert (BC-2b) Fills to 25'									
4' X 4'	LF	$566.00		$0.00					
5' x 5"	LF	$705.00		$0.00					
6' X 6'	LF	$854.00		$0.00					
8' X 8'	LF	$1,148.00		$0.00					
10' X 10'	LF	$1,411.00		$0.00					
Oversized Single Box Culvert (BBC-1) Fills to 25'									

BOND ESTIMATE						BOND REDUCTION		City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
12' X 6'	LF	$1,026.00		$0.00				
12' X 8'	LF	$1,144.00		$0.00				
12' X 10'	LF	$1,239.00		$0.00				
12' X 12'	LF	$1,348.00		$0.00				
Triple Box Culvert (BC-3B) Fills to 25'								
4' X 4'	LF	$779.00		$0.00				
5' x 5"	LF	$965.00		$0.00				
6' X 6'	LF	$1,211.00		$0.00				
8' X 8'	LF	$1,633.00		$0.00				
10' X 10'	LF	$2,488.00		$0.00				
Quadruple Box Culvert (BC-4B) Fills to 25'								
4' X 4'	LF	$987.00		$0.00				
5' x 5"	LF	$1,225.00		$0.00				
6' X 6'	LF	$1,523.00		$0.00				
8' X 8'	LF	$1,497.00		$0.00				
10' X 10'	LF	$2,835.00		$0.00				
Standard Wing for Box Culvert (1 Side Only) Height of Box								
4'	EA	$675.00		$0.00				
5'	EA	$995.00		$0.00				
6'	EA	$1,337.00		$0.00				
8'	EA	$2,489.00		$0.00				
10'	EA	$3,315.00		$0.00				
Standard Wing for Oversized Box Culvert(BBC-W) Height of Box								
6'	EA	$1,351.00		$0.00				
8'	EA	$2,189.00		$0.00				
10'	EA	$3,269.00		$0.00				
12'	EA	$4,763.00		$0.00				
MISCELLANEOUS STORM								

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
Connection to Existing Structure									
15"-36" Pipe	EA	$735.00	1	$735.00					
42"- 60" Pipe	EA	$1,125.00		$0.00					
Casing Pipe, Bore and Jack (3/8" wall)									
22" ID (6"-8" Carrier Pipe)	LF	$411.00		$0.00					
24" ID (10" Carrier Pipe)	LF	$451.00		$0.00					
30" ID (12" Carrier Pipe)	LF	$569.00		$0.00					
Plug Pipe									
6" –12" Pipe	EA	$142.00		$0.00					
15"-36" Pipe	EA	$323.00		$0.00					
42"- 60" Pipe	EA	$522.00		$0.00					
Pavement Edge Pipe									
Standard Pipe Underdrain	LF	$19.00		$0.00					
Riprap									
Dry, Class I, 18"	SY	$47.87	990	$47,391.30					
Dry, Class II, 18"	SY	$51.46		$0.00					
Grouted, Class I, 18"	SY	$69.97		$0.00					
Filter Fabric									
Class I	SY	$3.50	990	$3,465.00					
Class II	SY	$3.00		$0.00					
Class III	SY	$2.25		$0.00					
Gabions (No excavation)									
Mattress	CY	$130.00		$0.00					
Revetment	CY	$164.33		$0.00					
Wall	CY	$212.25		$0.00					
Paved Ditch (4" Thick)									
Concrete (Non-reinforced)	SY	$62.00		$0.00					
Bituminous Concrete(4")	SY	$30.00		$0.00					
Sodded Ditch									

BOND ESTIMATE					BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
Sodded Ditch (Incl Fine Grading)	SY	$9.86		$0.00				
STREET CONSTRUCTION								
ROADS AND PARKING								
Soil Stabilization	**Inches**							
Cement 6%	SY/Inch Depth	$2.70		$0.00				
Depth (in Inches):								
Lime 6%	SY/Inch Depth	$1.89		$0.00				
Depth (in Inches):								
Subbase, Aggregated Material								
Base Type I	SY/Inch Depth	$1.75		$0.00				
Depth (in Inches):								
Bituminous Concrete								
Base Course	SY/Inch Depth	$5.59	50,410	$2,254,335.20				
Depth (in Inches):	8							
Intermediate Course	SY/Inch Depth	$5.49	46,692	$769,017.24				
Depth (in Inches):	3							
Top Course	SY/Inch Depth	$5.49	46,692	$512,678.16				
Depth (in Inches):	2							
Prime Coat	SY	$1.10		$0.00				
Tack Coat	SY	$1.10		$0.00				
Driveway Restoration								
4” Concrete & 4” Gravel	SY	$79.95		$0.00				

BOND ESTIMATE						BOND REDUCTION		City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
2” S-5 & 7 6” Gravel	SY	$31.96		$0.00				
Shoulders, Type I								
Aggregated Base, 4”	SY	$11.50	655	$7,532.50				
Concrete Curbing								
Curb & Gutter CG6 & CG7	LF	$22.50	28,466	$640,485.00				
Curb Cut, CG-12 Detectable Surf.	EA	$569.00	55	$31,295.00				
Entrances/Driveways								
Commercial Entrance CG-11	SY	$52.88		$0.00				
Commercial Entrance CG-13	SY	$64.67		$0.00				
Residential Driveway Apron	SY	$51.79	325	$16,831.75				
Guardrails								
Std. Blocked-out W beam (GR2)	LF	$42.50		$0.00				
Std. W beam, Weak Post GR8	LF	$28.50	1113	$31,720.50				
Terminal, GR-6 (L=12’-6”)	EA	$2,929.00		$0.00				
Terminal, GR-7 (L=6’-3”)	EA	$2,659.00		$0.00				
Type I, GR-8 Terminal (L=25’)	EA	$1,399.00	2	$2,798.00				
Type II, GR-8 Terminal (L=13’-6”)	EA	$695.00		$0.00				
Terminal, MB-4 (L=37’-6”)	EA	$3,495.00		$0.00				
Type I, MB-5 Terminal (L=27’-1)	EA	$2,925.00		$0.00				
Type II, MB-5 Terminal (L=13’-6)	EA	$1,675.00	2	$3,350.00				
Miscellaneous								
Trash enclosure - Brick 6' high	LF	$325.00		$0.00				
Reinforced Concrete Pad 6" to 8"	SY	$62.00		$0.00				
Striping 4" width (VDOT Type	LF	$2.25	2,032	$4,572.00				

BOND ESTIMATE						BOND REDUCTION		City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
B)								
Concrete Wheel Stops	EA	$70.00		$0.00				
Parking Lot Striping	EA	$50.00	24	$1,200.00				
Sign Island	EA	$850.00		$0.00				
Traffic Barricade	LF	$43.45		$0.00				
Street Name Signs	EA	$435.00	32	$13,920.00				
Traffic Control Signs	EA	$375.00	51	$19,125.00				
Street Light (pole, bracket, light)	EA	$4,285.00	42	$179,970.00				
SIDEWALKS AND TRAILS								
Sidewalk								
Concrete 4” w/WWF, No base	SY	$45.23		$0.00				
Bitum. Conc, 2” w/4” Base	SY	$30.00	11,603	$348,090.00				
4” Conc, No Reinf., No Base	SY	$41.00		$0.00				
HANDRAIL								
Handrail 3 Rail 1-1/4” #4 Finish	LF	$96.50		$0.00				
Wood Chip Trail								
Trails(Incl Excavation & Grading) Wood chip, 4’ wide	SY	$17.69		$0.00				
Bituminous Trail								
6’ to 10' wide	SY	$49.25		$0.00				
CRITICAL SLOPE STABILIZATION								
Paved Flume	SY	$67.00		$0.00				
Stmwtr Conc Channel-Excav	SY	$7.75		$0.00				
ADD Grass Lined-seeded	SY	$5.37		$0.00				
ADD Grass Lined-sodded	SY	$10.89		$0.00				
Outlet Protection								
Non-grouted Riprap 18”	SY	$52.00		$0.00				
Concrete 4”	SY	$53.50		$0.00				

BOND ESTIMATE					BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
Level Spreader	SY	$4.44		$0.00				
Struc Streambank Protection								
Non-grouted Riprap 18"	SY	$58.00		$0.00				
Gabions	CY	$147.00		$0.00				
Vegetative Erosion Control								
Sodding incl Fertilizing – Banks	SY	$7.77		$0.00				
Sodding incl Fertilizing – Flat	SY	$5.36		$0.00				
Seeding incl Fertilizing	SY	$2.44		$0.00				
Soding W/Soil Treat & Watering	SY	$3.25		$0.00				
Seeding W/Soil Treat & Watering	SY	$6.46		$0.00				
Straw Mulch w/Tack	SY	$1.40		$0.00				
Jute Mesh	SY	$1.77		$0.00				
			SPECIAL ITEMS					
FEMA Processing LOMR/CLOMR	EA	$7,500.00		$0.00				
As Built (Record Drawings)	EA	$9,500.00	1	$9,500.00				
SWM/BMP POND	LS	See Note 1	1	$125,000.00				
SIGNALIZATION	LS	See Note 2						
Subtotal								

TOTAL ESTIMATE OF COMPLETED WORK:	$ -	0%	
TOTAL:	$		11,485,095.87
+10% CONTINGENCIES	$		1,148,509.59
GRAND TOTAL:	$		12,633,605.45
+4% INFLATION FACTOR	$		505,344.22



CITY OF CHARLES TOWN

PUBLIC IMPROVEMENT BOND UNIT COST LIST AND BOND REDUCTION FORM

This form shall be used to calculate the amount of the bond required to guarantee public improvements to be constructed under the approved Final S/LD Application. This form shall also be used in calculating the amount of bond reductions to be approved by the Planning Commission. Note: No bond shall be reduced until completion of at least thirty (30) percent of the physical Improvements secured by the bond.

PROJECT NAME:	Stone Springs Subdivision - Phase 1
PREPARED BY:	Integrity Federal Services
DATE OF SUBMISSION	5/26/2023

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
MOBILIZATION GENERAL									
Mobilization	LS	$6,250.00	1	$6,250.00					
Field Office	EA	$3,000.00	1	$3,000.00					
Job Sign	EA	$1,150.00	1	$1,150.00					
SURVEYING									
Steel Pipe Property Corner Marker Incl. Survey	EA	$275.00	145	$39,875.00					
R.O.W. MONUMENTS SURVEYED IN PLACE									
RM -- 1	EA	$825.00		$0.00					
RM -- 2	EA	$575.00		$0.00					
EARTHWORK EXCAVATION									
Regular Bulk used as Fill	CY	$3.86	56,364	$217,565.04					
Rock, Rip	CY	$17.30		$0.00					
Rock, Blast	CY	$38.48		$0.00					
BORROW MATERIAL									
Buy, Load, Haul 10 Mi. Select Material	CY	$28.90		$0.00					
Fill and Compaction of On-site Borrow	CY	$5.95	56,364	$335,365.80					
UNSUITABLE MATERIAL									
Load and Haul, 20 mi R/T	CY	$21.95		$0.00					
Dump Charge	CY	$37.50		$0.00					
Site Grading	SY	$0.75		$0.00					
CLEAR & GRUB									
Light	AC	$6,675.00	3.05	$20,358.75					
Moderate	AC	$9,750.00		$0.00					

BOND ESTIMATE						BOND REDUCTION		City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
Heavy	AC	$12,250.00		$0.00					
Very Heavy	AC	$14,250.00		$0.00					
			LANDSCAPING						
Seeding	SY	$0.77	48,981	$37,715.37					
Sodding	SY	$3.64		$0.00					
			PLANTING SHRUBS						
18”	EA	$40.00		$0.00					
24”	EA	$70.00		$0.00					
			TREES						
6’ – 8’ (1-2 in. Caliper)	EA	$400.00	330	$132,000.00					
8’ – 10’ (2.5-3 in. Caliper)	EA	$700.00		$0.00					
Tree Protection	LF	$9.00		$0.00					
			MISCELLANEOUS SITE IMPROVEMENTS						
RETAINING WALLS									
Timber Wall (Less Than 6 ft)	LF	$325.00		$0.00					
Dry Rubble RW-1 (H=6')	LF	$450.00		$0.00					
Mortared Rubble RW-1A (H=6')	LF	$535.00		$0.00					
Concrete Gravity RW-2 (H=6')	LF	$339.00		$0.00					
Concrete Gravity RW-3 (H=6')	LF	$378.00		$0.00					
FENCING									
Std. Fence (H=5’) FR-5	LF	$9.31		$0.00					
Farm Fence (H=5’) FR-3A	LF	$10.90		$0.00					
Chain Link Fence (H=6’)FR 2-B	LF	$14.52		$0.00					
Board Fence (H=6’)	LF	$19.35		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
TOT LOTS									
Tot Lot	EA	$16,495.00		$0.00					
			STORM DRAINAGE						
STORM SEWER									
NOTE: All pipe unit prices include trench, excavation, bedding, pipe, & backfill									
Rock Excavation for All Pipe Types									
Less than 1,500 CY (Blasting)	CY	$110.00		$0.00					
More than 1,500 CY (Blasting)	CY	$90.00		$0.00					
Less than 1,500 CY (Hoe Ram)	CY	$135.00		$0.00					
More than 1,500 CY (Hoe Ram)	CY	$110.00		$0.00					
Trench De-watering									
Trench De-watering	LF	$2.95		$0.00					
		RCP CLASS III ROUND T & G W/MASTIC							
12" Pipe (RCP III)									
0' – 8' Cut	LF	$44.50		$0.00					
8' – 14' Cut	LF	$62.50		$0.00					
Add cost for Class IV	LF	$0.85		$0.00					
O-Ring	LF	$5.50		$0.00					
15" Pipe (RCP III)									
0' – 10' Cut	LF	$49.75		$0.00					
10' – 16'	LF	$77.50		$0.00					
Add Cost for Class IV	LF	$0.95		$0.00					
O-Ring	LF	$5.50		$0.00					
18" Pipe (RCP III)									
0' – 10' Cut	LF	$50.00		$0.00					
10' – 16' Cut	LF	$80.00		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
Add Cost for Class IV	LF	$2.00		$0.00					
O-Ring	LF	$7.00		$0.00					
21" Pipe (RCP III)									
0' – 10' Cut	LF	$57.50		$0.00					
10' – 16' Cut	LF	$87.50		$0.00					
Add Cost for Class IV	LF	$2.75		$0.00					
O-Ring	LF	$13.00		$0.00					
24" Pipe (RCP III)									
0' – 10' Cut	LF	$67.50		$0.00					
10' – 16' Cut	LF	$95.00		$0.00					
Add Cost for Class IV	LF	$3.15		$0.00					
O-Ring	LF	$14.00		$0.00					
27" Pipe (RCP III)									
0' – 10' Cut	LF	$60.00		$0.00					
10' – 16' Cut	LF	$95.00		$0.00					
Add Cost for Class IV	LF	$4.00		$0.00					
O-Ring	LF	$15.00		$0.00					
30" Pipe (RCP III)									
0' – 10' Cut	LF	$82.50		$0.00					
10' – 16' Cut	LF	$125.00		$0.00					
Add Cost for Class IV	LF	$6.00		$0.00					
O-Ring	LF	$17.25		$0.00					
33" Pipe (RCP III)									
0' – 12' Cut	LF	$115.00		$0.00					
10' – 18' Cut	LF	$160.00		$0.00					
Add Cost for Class IV	LF	$6.50		$0.00					
O-Ring	LF	$21.95		$0.00					
36" Pipe (RCP III)									
0' – 12' Cut	LF	$120.00		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
12’ – 18’ Cut	LF	$175.00		$0.00					
Add Cost for Class IV	LF	$7.75		$0.00					
O-Ring	LF	$22.75		$0.00					
42” Pipe (RCP III)									
0’ – 12’ Cut	LF	$140.00		$0.00					
12’ – 18’ Cut	LF	$200.00		$0.00					
Add Cost for Class IV	LF	$12.00		$0.00					
O-Ring	LF	$35.45		$0.00					
48” Pipe (RCP III)									
0’ – 12’ Cut	LF	$155.00		$0.00					
12’ – 18’ Cut	LF	$215.00		$0.00					
Add Cost for Class IV	LF	$12.50		$0.00					
O-Ring	LF	$43.35		$0.00					
54” Pipe (RCP III)									
0’ – 12’ Cut	LF	$190.00		$0.00					
12’ – 18’ Cut	LF	$275.00		$0.00					
Add Cost for Class IV	LF	$18.75		$0.00					
O-Ring	LF	$44.45		$0.00					
60” Pipe (RCP III)									
0’ – 12’ Cut	LF	$225.00	434	$97,650.00					
12’ – 18’ Cut	LF	$335.00	31	$10,385.00					
Add Cost for Class IV	LF	$22.50		$0.00					
O-Ring	LF	$48.65		$0.00					
ELLIPTICAL PIPE – RCP CLASS III									
23” X 14” (18” Equiv-RCP III									
0’ – 10’ Cut	LF	$75.00		$0.00					
10’ – 16’ Cut	LF	$110.00		$0.00					
Add Cost for Class IV	LF	$16.45		$0.00					
O-Ring	LF	$43.35		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
30" X 19" (24" Equiv-RCP III)									
0' – 10' Cut	LF	$90.00		$0.00					
10' – 16' Cut	LF	$130.00		$0.00					
Add Cost for Class IV	LF	$5.95		$0.00					
O-Ring	LF	$43.35		$0.00					
38" X 24" (30" Equiv-RCP III)									
0' – 10' Cut	LF	$120.00		$0.00					
10' – 16' Cut	LF	$167.50		$0.00					
Add Cost for Class IV	LF	$8.45		$0.00					
O-Ring	LF	$51.35		$0.00					
45" X 29" (36" Equiv-RCP III)									
0' – 10' Cut	LF	$165.00		$0.00					
10' – 16' Cut	LF	$235.00		$0.00					
Add Cost for Class IV	LF	$11.35		$0.00					
O-Ring	LF	$53.35		$0.00					
53" X 34" (42" Equiv-RCP III)									
0' – 12' Cut	LF	$210.00		$0.00					
10' – 18' Cut	LF	$300.00		$0.00					
Add Cost for Class IV	LF	$15.35		$0.00					
O-Ring	LF	$58.95		$0.00					
72"									
0' – 12' Cut	LF	$255.00	307	$78,285.00					
10' – 18' Cut	LF	$375.00		$0.00					
Add Cost for Class IV	LF	$18.35	307	$5,633.45					
O-Ring	LF	$69.95		$0.00					
HDPE PIPE									
8" Pipe									
0'-8' Cut	LF	$28.65		$0.00					
8'-14' Cut	LF	$43.15		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
12" Pipe									
0'-8' Cut	LF	$38.95		$0.00					
8'-14' Cut	LF	$57.75		$0.00					
15" Pipe									
0'-8' Cut	LF	$50.25	2718	$136,579.50					
8'-16' Cut	LF	$74.85		$0.00					
18" Pipe									
0'-8' Cut	LF	$66.00	520	$34,320.00					
8'-16' Cut	LF	$98.55	213	$20,991.15					
24" Pipe									
0'-8' Cut	LF	$76.90	238	$18,302.20					
8'-16' Cut	LF	$115.25		$0.00					
30" Pipe									
0'-8' Cut	LF	$91.33	1000	$91,330.00					
8'-16' Cut	LF	$137.27		$0.00					
36" Pipe									
0'-8' Cut	LF	$101.68	666	$67,718.88					
8'-16' Cut	LF	$152.33	35	$5,331.55					
42" Pipe									
0'-8' Cut	LF	$113.99	134	$15,274.66					
8'-16' Cut	LF	$171.00		$0.00					
48" Pipe									
0'-8' Cut	LF	$129.55		$0.00					
8'-16' Cut	LF	$195.66		$0.00					
STORM STRUCTURES									
END SECTIONS									
End Section (ES-1), Concrete Pipe Size									
15”	EA	$485.00	1	$485.00					

BOND ESTIMATE						BOND REDUCTION		City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
18”	EA	$565.00	2	$1,130.00				
21”	EA	$645.00		$0.00				
24”	EA	$755.00		$0.00				
27”	EA	$1,065.00		$0.00				
30”	EA	$1,195.00	1	$1,195.00				
36”	EA	$1,765.00	1	$1,765.00				
42”	EA	$1,795.00	1	$1,795.00				
48”	EA	$2,135.00		$0.00				
54”	EA	$2,795.00		$0.00				
60”	EA	$3,455.00	2	$6,910.00				
ENDWALLS								
EW-1(Pre-cast) Round Pipe Size								
15”	EA	$800.00	1	$800.00				
18”	EA	$1,337.00		$0.00				
24”	EA	$2,021.00		$0.00				
30”	EA	$2,133.00	1	$2,133.00				
36”	EA	$2,366.00	8	$18,928.00				
EW-1 Cast in Place [Round Pipe Size]								
15”	EA	$852.00		$0.00				
18”	EA	$1,053.00		$0.00				
24”	EA	$1,495.00		$0.00				
30”	EA	$2,144.00		$0.00				
36”	EA	$2,383.00		$0.00				
EW-1A (Pre-Cast) Elliptical Pipe Size								
23” X 14” (18”)	EA	$695.00		$0.00				
30” X 19” (24”)	EA	$969.00		$0.00				
38” X 24” (30”)	EA	$1,165.00		$0.00				
45” X 29” (36”)	EA	$1,445.00		$0.00				

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
53" X 34" (42")	EA	$1,840.00		$0.00					
EW-1A (Cast in Place) Elliptical Pipe Size									
23" X 14" (18")	EA	$667.00		$0.00					
30" X 19" (24")	EA	$939.00		$0.00					
38" X 24" (30")	EA	$1,247.00		$0.00					
45" X 29" (36")	EA	$1,618.00		$0.00					
53" X 34" (42")	EA	$2,109.00		$0.00					
EW-2 (PreCast) Round Pipe Size									
42"	EA	$5,445.00		$0.00					
48"	EA	$5,695.00		$0.00					
54"	EA	$6,660.00		$0.00					
60"	EA	$7,140.00	8	$57,120.00					
72"	EA	$7,990.00	6	$47,940.00					
84"	EA	$9,490.00		$0.00					
EW-2 (Cast in Place) Round Pipe Size									
42"	EA	$4,723.00		$0.00					
48"	EA	$6,039.00		$0.00					
54"	EA	$6,972.00		$0.00					
60"	EA	$8,179.00		$0.00					
72"	EA	$10,713.00		$0.00					
84"	EA	$12,288.00		$0.00					
(EW-6PC) [Double Pipe] Pipe Size									
2-15"	EA	$999.00		$0.00					
2-18"	EA	$1,235.00		$0.00					
2-24"	EA	$1,510.00		$0.00					
2-30"	EA	$2,165.00		$0.00					
2-36"	EA	$2,647.00		$0.00					
			MANHOLES						

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
Standard Brick Manhole Std Frame & Cover (MH-1)									
6' Depth	EA	$3,750.00	5	$18,750.00					
Depth below 6'	VF	$163.00	11	$1,793.00					
Standard Precast Manhole Std Frame & Cover (MH-2)									
6' Depth	EA	$3,100.00		$0.00					
Depth below 6'	VF	$177.00		$0.00					
Additional Cost (Amounts in parentheses to be added to the above unit costs)									
Watertight Fr/Cover (Add 110)	EA	$579.00		$0.00					
Heavy Duty Fr/Cover (Add 82)	EA	$599.00		$0.00					
			DROP INLETS						
Cast in Place 48"									
Drop Inlet (DI-1) 12" – 24" Pipe0-10 VF	EA	$3,697.00		$0.00					
Drop Inlet (DI-1A) 12" – 24" Pipe 10-20 VF	EA	$5,593.00	3	$16,779.00					
Drop Inlet (DI-2) 12" – 24" Pipe0-10 VF, 10' throat	EA	$6,911.00		$0.00					
Drop Inlet (DI-2A) 12" – 24" Pipe 10-20 VF, 10' throat	EA	$8,833.00		$0.00					
			CURB DROP INLETS						
Curb Drop Inlet (DI-3A)									
12"-30" Pipe (Invert Depth (H) =0'-8') Inlet Length 2'-6"	EA	$4,088.00		$0.00					
Curb Drop Inlet (DI-3AA)									
12"-30" Pipe (Invert Depth (H) =8'-20') Inlet Length 2'-6"	EA	$5,357.00		$0.00					
Curb Drop Inlet (DI-3B & DI-12) 12"-30" Pipe (Invert Depth (H) =0'-8') Inlet Length									
4'	EA	$4,279.00		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
6’	EA	$4,573.00	39	$178,347.00					
8’	EA	$4,889.00	10	$48,890.00					
10'	EA	$5,052.00	11	$55,572.00					
12’	EA	$5,227.00	7	$36,589.00					
16’	EA	$5,543.00		$0.00					
20’	EA	$5,859.00		$0.00					
Curb Drop Inlet (DI-3BB) 12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length									
4’	EA	$4,276.00		$0.00					
6’	EA	$4,848.00		$0.00					
8’	EA	$5,429.00		$0.00					
10'	EA	$5,732.00		$0.00					
12’	EA	$6,011.00		$0.00					
16’	EA	$6,296.00		$0.00					
20’	EA	$6,599.00		$0.00					
Curb Drop Inlet (DI-3C) 12”-30” Pipe (Invert Depth (H) =0’-8’) Inlet Length									
6’	EA	$4,013.00		$0.00					
8’	EA	$4,588.00		$0.00					
10'	EA	$4,893.00		$0.00					
12’	EA	$5,178.00		$0.00					
16’	EA	$5,766.00		$0.00					
20’	EA	$6,339.00		$0.00					
Curb Drop Inlet (DI-3CC) 12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length									
6’	EA	$4,746.00		$0.00					
8’	EA	$5,293.00		$0.00					
10'	EA	$5,627.00		$0.00					
12’	EA	$5,988.00		$0.00					
16’	EA	$6,772.00		$0.00					
20’	EA	$7,465.00		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
Curb Drop Inlet (DI-3D)									
12”-30” Pipe (Invert Depth (H) =0’-8’) Inlet Length 2’-6”	EA	$3,633.00		$0.00					
Curb Drop Inlet (DI-3DD)									
12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length 2’-6”	EA	$4,367.00		$0.00					
Curb Drop Inlet (DI-3E) 12”-30” Pipe (Invert Depth (H) =0’-8’) Inlet Length									
4’	EA	$4,093.00		$0.00					
8’	EA	$4,756.00		$0.00					
10’	EA	$5,724.00		$0.00					
12'	EA	$5,833.00		$0.00					
16’	EA	$6,072.00		$0.00					
20’	EA	$6,709.00		$0.00					
Curb Drop Inlet (DI-3EE) 12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length									
6’	EA	$7,562.00		$0.00					
8’	EA	$7,869.00		$0.00					
10'	EA	$7,999.00		$0.00					
12’	EA	$8,166.00		$0.00					
16’	EA	$8,471.00		$0.00					
20’	EA	$8,767.00		$0.00					
Curb Drop Inlet (DI-3F) 12”-30” Pipe Inlet Length (Invert Depth (H)=0’-8’)									
6’	EA	$3,765.00		$0.00					
8’	EA	$4,419.00		$0.00					
10’	EA	$4,749.00		$0.00					
12’	EA	$5,085.00		$0.00					
16’	EA	$5,742.00		$0.00					
20’	EA	$6,395.00		$0.00					
Curb Drop Inlet (DI-3FF) 12”-30” Pipe (Invert Depth (H) =8’-20’) Inlet Length									

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
6’	EA	$8,077.00		$0.00					
8’	EA	$8,288.00		$0.00					
10'	EA	$8,480.00		$0.00					
12’	EA	$8,669.00		$0.00					
16’	EA	$9,047.00		$0.00					
20’	EA	$9,446.00		$0.00					
Curb Drop Inlet (DI-4A) 36”–48” Pipe (Invert Depth (H)=0’-8’) Inlet Length									
4’	EA	$4,868.00		$0.00					
Curb Drop Inlet (DI-4AA) 36”–48” Pipe (Invert Depth (H)=0’-8’) Inlet Length									
4'	EA	$6,817.00		$0.00					
Curb Drop Inlet (DI-4B) 36”-48” Pipe (Invert Depth (H) =0’-8’) Inlet Length									
6’	EA	$5,172.00		$0.00					
8’	EA	$5,499.00		$0.00					
10'	EA	$5,698.00		$0.00					
12’	EA	$5,870.00		$0.00					
16’	EA	$6,221.00		$0.00					
20’	EA	$6,571.00		$0.00					
Curb Drop Inlet (DI-4BB) 36”-48” Pipe (Invert Depth (H) =8’-20') Inlet Length									
6’	EA	$10,292.00		$0.00					
8’	EA	$10,643.00		$0.00					
10'	EA	$10,810.00		$0.00					
12’	EA	$10,974.00		$0.00					
16’	EA	$11,309.00		$0.00					
20’	EA	$11,669.00		$0.00					
Curb Drop Inlet (DI-4C) 36”-48” Pipe (Invert Depth (H) =0’-8’) Inlet Length									
8’	EA	$5,612.00		$0.00					
10'	EA	$5,794.00		$0.00					
12’	EA	$5,968.00		$0.00					
16’	EA	$6,315.00		$0.00					

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
20’	EA	$6,657.00		$0.00					
Curb Drop Inlet (DI-4CC) 36”-48” Pipe (Invert Depth (H) =8’-20’) Inlet Length									
8’	EA	$13,371.00		$0.00					
10'	EA	$13,693.00		$0.00					
12’	EA	$14,097.00		$0.00					
16’	EA	$14,712.00		$0.00					
20’	EA	$15,365.00		$0.00					
Curb Drop Inlet (DI-4D)									
36”-48” Pipe (Invert Depth (H) =0’-8’) Inlet Length 4'	EA	$4,933.00		$0.00					
Curb Drop Inlet (DI-4DD)									
36”-48” Pipe (Invert Depth (H) =8’-16’) Inlet Length 4'	EA	$9,455.00		$0.00					
Curb Drop Inlet (DI-4E) 36”-48” Pipe (Invert Depth (H) =0’-8’) Inlet Length									
6'	EA	$5,267.00		$0.00					
8’	EA	$5,605.00		$0.00					
10'	EA	$5,896.00		$0.00					
12'	EA	$6,233.00		$0.00					
16’	EA	$6,996.00		$0.00					
20’	EA	$7,695.00		$0.00					
Curb Drop Inlet (DI-4EE) 36”-48” Pipe (Invert Depth (H) =8’-16’) Inlet Length									
6’	EA	$9,165.00		$0.00					
8’	EA	$9,495.00		$0.00					
10'	EA	$9,839.00		$0.00					
12’	EA	$10,167.00		$0.00					
16’	EA	$10,838.00		$0.00					
20’	EA	$11,483.00		$0.00					
Curb Drop Inlet (DI-4F) 36”-48" Pipe Inlet Length (Invert Depth (H)=0’-8’)									

BOND ESTIMATE						BOND REDUCTION		City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
8’	EA	$5,877.00		$0.00				
10'	EA	$6,209.00		$0.00				
12’	EA	$6,568.00		$0.00				
16’	EA	$7,259.00		$0.00				
20’	EA	$7,963.00		$0.00				
Curb Drop Inlet (DI-4FF) 36”-48” Pipe (Invert Depth (H) =8’-16’) Inlet Length								
8’	EA	$8,866.00		$0.00				
10'	EA	$9,147.00		$0.00				
12’	EA	$9,435.00		$0.00				
16’	EA	$9,997.00		$0.00				
20’	EA	$10,584.00		$0.00				
Median Drop Inlets - CIP								
Median Drop Inlet **(DI-6A)** 12”-24” Pipe Inlet (H=8’)	EA	$4,205.00		$0.00		$0.00		
Median Drop Inlet **(DI-6B)** 12”-24” Pipe Inlet (H=8’)	EA	$4,267.00		$0.00		$0.00		
Median Drop Inlet **(DI-6C)** 30”-48” Pipe Inlet (H=10’)	EA	$5,589.00		$0.00		$0.00		
Median Drop Inlet **(DI-6D)** 30”-48” Pipe Inlet (H=10’)	EA	$5,692.00		$0.00		$0.00		
Median Drop Inlet **(DI-7)** Type III Top 12”-42” Pipe Inlet (H=10’)	EA	$5,748.00		$0.00		$0.00		
Median Drop Inlet **(DI-7A)** Type III Top 12”-42” Pipe Inlet (H=10’)	EA	$6,338.00		$0.00		$0.00		
Median Drop Inlet **(DI-7B)** Type III Top 12”-42” Pipe Inlet (H=10’)	EA	$6,797.00		$0.00		$0.00		

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
MISCELLANEOUS INLETS									
Ditch Drop Inlet, **(DI-5)** Type III Tip 12"-42" Pipe Inlet (H=8')	EA	$5,226.00		$0.00					
Standard Yard Inlet **(YI-1)** 12"-48" Pipe (Invert Depth (H)=0'-8') Inlet Length 4'(No Aprons)	EA	$4,749.00		$0.00					
Add Yard Inlet Apron	THROAT	$255.00		$0.00					
Standard Yard Inlet **(YI-3)** 12"-48" Pipe (Invert Depth (H)=0'-8') Inlet Length 4'(No Aprons)	EA	$5,127.00		$0.00					
Add Yard Inlet Apron	THROAT	$255.00		$0.00					
CULVERTS									
Single Box Culvert (BC-1A) Fills to 25'									
4' X 4'	LF	$336.00		$0.00					
5' x 5"	LF	$410.00		$0.00					
6' X 6'	LF	$498.00		$0.00					
8' X 8'	LF	$699.00		$0.00					
10' X 10'	LF	$845.00		$0.00					
Double Box Culvert (BC-2b) Fills to 25'									
4' X 4'	LF	$566.00		$0.00					
5' x 5"	LF	$705.00		$0.00					
6' X 6'	LF	$854.00		$0.00					
8' X 8'	LF	$1,148.00		$0.00					
10' X 10'	LF	$1,411.00		$0.00					
Oversized Single Box Culvert (BBC-1) Fills to 25'									

BOND ESTIMATE					BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
12' X 6'	LF	$1,026.00		$0.00				
12' X 8'	LF	$1,144.00		$0.00				
12' X 10'	LF	$1,239.00		$0.00				
12' X 12'	LF	$1,348.00		$0.00				
Triple Box Culvert (BC-3B) Fills to 25'								
4' X 4'	LF	$779.00		$0.00				
5' x 5"	LF	$965.00		$0.00				
6' X 6'	LF	$1,211.00		$0.00				
8' X 8'	LF	$1,633.00		$0.00				
10' X 10'	LF	$2,488.00		$0.00				
Quadruple Box Culvert (BC-4B) Fills to 25'								
4' X 4'	LF	$987.00		$0.00				
5' x 5"	LF	$1,225.00		$0.00				
6' X 6'	LF	$1,523.00		$0.00				
8' X 8'	LF	$1,497.00		$0.00				
10' X 10'	LF	$2,835.00		$0.00				
Standard Wing for Box Culvert (1 Side Only) Height of Box								
4'	EA	$675.00		$0.00				
5'	EA	$995.00		$0.00				
6'	EA	$1,337.00		$0.00				
8'	EA	$2,489.00		$0.00				
10'	EA	$3,315.00		$0.00				
Standard Wing for Oversized Box Culvert(BBC-W) Height of Box								
6'	EA	$1,351.00		$0.00				
8'	EA	$2,189.00		$0.00				
10'	EA	$3,269.00		$0.00				
12'	EA	$4,763.00		$0.00				
MISCELLANEOUS STORM								

BOND ESTIMATE						BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION		QUANTITY	EXTENSION	%COMPLETE	% Approved
Connection to Existing Structure									
15"-36" Pipe	EA	$735.00	1	$735.00					
42"- 60" Pipe	EA	$1,125.00		$0.00					
Casing Pipe, Bore and Jack (3/8" wall)									
22" ID (6"-8" Carrier Pipe)	LF	$411.00		$0.00					
24" ID (10" Carrier Pipe)	LF	$451.00		$0.00					
30" ID (12" Carrier Pipe)	LF	$569.00		$0.00					
Plug Pipe									
6" –12" Pipe	EA	$142.00		$0.00					
15"-36" Pipe	EA	$323.00		$0.00					
42"- 60" Pipe	EA	$522.00		$0.00					
Pavement Edge Pipe									
Standard Pipe Underdrain	LF	$19.00		$0.00					
Riprap									
Dry, Class I, 18"	SY	$47.87	957	$45,811.59					
Dry, Class II, 18"	SY	$51.46		$0.00					
Grouted, Class I, 18"	SY	$69.97		$0.00					
Filter Fabric									
Class I	SY	$3.50	957	$3,349.50					
Class II	SY	$3.00		$0.00					
Class III	SY	$2.25		$0.00					
Gabions (No excavation)									
Mattress	CY	$130.00		$0.00					
Revetment	CY	$164.33		$0.00					
Wall	CY	$212.25		$0.00					
Paved Ditch (4" Thick)									
Concrete (Non-reinforced)	SY	$62.00		$0.00					
Bituminous Concrete(4")	SY	$30.00		$0.00					
Sodded Ditch									

BOND ESTIMATE					BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
Sodded Ditch (Incl Fine Grading)	SY	$9.86		$0.00				
STREET CONSTRUCTION								
ROADS AND PARKING								
Soil Stabilization	**Inches**							
Cement 6%	SY/Inch Depth	$2.70		$0.00				
Depth (in Inches):								
Lime 6%	SY/Inch Depth	$1.89		$0.00				
Depth (in Inches):								
Subbase, Aggregated Material								
Base Type I	SY/Inch Depth	$1.75		$0.00				
Depth (in Inches):								
Bituminous Concrete								
Base Course	SY/Inch Depth	$5.59	28,010	$1,252,607.20				
Depth (in Inches):	8							
Intermediate Course	SY/Inch Depth	$5.49	24,292	$400,089.24				
Depth (in Inches):	3							
Top Course	SY/Inch Depth	$5.49	24,292	$266,726.16				
Depth (in Inches):	2							
Prime Coat	SY	$1.10		$0.00				
Tack Coat	SY	$1.10		$0.00				
Driveway Restoration								
4” Concrete & 4” Gravel	SY	$79.95		$0.00				

BOND ESTIMATE						BOND REDUCTION		City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
2” S-5 & 7 6” Gravel	SY	$31.96		$0.00				
Shoulders, Type I								
Aggregated Base, 4”	SY	$11.50	655	$7,532.50				
Concrete Curbing								
Curb & Gutter CG6 & CG7	LF	$22.50	12,492	$281,070.00				
Curb Cut, CG-12 Detectable Surf.	EA	$569.00	19	$10,811.00				
Entrances/Driveways								
Commercial Entrance CG-11	SY	$52.88		$0.00				
Commercial Entrance CG-13	SY	$64.67		$0.00				
Residential Driveway Apron	SY	$51.79	142	$7,354.18				
Guardrails								
Std. Blocked-out W beam (GR2)	LF	$42.50		$0.00				
Std. W beam, Weak Post GR8	LF	$28.50	1113	$31,720.50				
Terminal, GR-6 (L=12’-6”)	EA	$2,929.00		$0.00				
Terminal, GR-7 (L=6’-3”)	EA	$2,659.00		$0.00				
Type I, GR-8 Terminal (L=25’)	EA	$1,399.00	2	$2,798.00				
Type II, GR-8 Terminal (L=13’-6”)	EA	$695.00		$0.00				
Terminal, MB-4 (L=37’-6”)	EA	$3,495.00		$0.00				
Type I, MB-5 Terminal (L=27’-1)	EA	$2,925.00		$0.00				
Type II, MB-5 Terminal (L=13’-6)	EA	$1,675.00	2	$3,350.00				
Miscellaneous								
Trash enclosure - Brick 6' high	LF	$325.00		$0.00				
Reinforced Concrete Pad 6" to 8"	SY	$62.00		$0.00				
Striping 4" width (VDOT Type	LF	$2.25		$0.00				

BOND ESTIMATE						BOND REDUCTION		City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
B)								
Concrete Wheel Stops	EA	$70.00		$0.00				
Parking Lot Striping	EA	$50.00	24	$1,200.00				
Sign Island	EA	$850.00		$0.00				
Traffic Barricade	LF	$43.45		$0.00				
Street Name Signs	EA	$435.00	17	$7,395.00				
Traffic Control Signs	EA	$375.00	29	$10,875.00				
Street Light (pole, bracket, light)	EA	$4,285.00	20	$85,700.00				
SIDEWALKS AND TRAILS								
Sidewalk								
Concrete 4” w/WWF, No base	SY	$45.23		$0.00				
Bitum. Conc, 2” w/4” Base	SY	$30.00	4,891	$146,730.00				
4” Conc, No Reinf., No Base	SY	$41.00		$0.00				
HANDRAIL								
Handrail 3 Rail 1-1/4” #4 Finish	LF	$96.50		$0.00				
Wood Chip Trail								
Trails(Incl Excavation & Grading) Wood chip, 4’ wide	SY	$17.69		$0.00				
Bituminous Trail								
6’ to 10' wide	SY	$49.25		$0.00				
CRITICAL SLOPE STABILIZATION								
Paved Flume	SY	$67.00		$0.00				
Stmwtr Conc Channel-Excav	SY	$7.75		$0.00				
ADD Grass Lined-seeded	SY	$5.37		$0.00				
ADD Grass Lined-sodded	SY	$10.89		$0.00				
Outlet Protection								
Non-grouted Riprap 18”	SY	$52.00		$0.00				
Concrete 4”	SY	$53.50		$0.00				

BOND ESTIMATE					BOND REDUCTION			City Use Only
ITEM	UNIT	UNIT COST	QUANTITY	EXTENSION	QUANTITY	EXTENSION	%COMPLETE	% Approved
Level Spreader	SY	$4.44		$0.00				
Struc Streambank Protection								
Non-grouted Riprap 18"	SY	$58.00		$0.00				
Gabions	CY	$147.00		$0.00				
Vegetative Erosion Control								
Sodding incl Fertilizing – Banks	SY	$7.77		$0.00				
Sodding incl Fertilizing – Flat	SY	$5.36		$0.00				
Seeding incl Fertilizing	SY	$2.44		$0.00				
Soding W/Soil Treat & Watering	SY	$3.25		$0.00				
Seeding W/Soil Treat & Watering	SY	$6.46		$0.00				
Straw Mulch w/Tack	SY	$1.40		$0.00				
Jute Mesh	SY	$1.77		$0.00				
			SPECIAL ITEMS					
FEMA Processing LOMR/CLOMR	EA	$7,500.00		$0.00				
As Built (Record Drawings)	EA	$9,500.00	1	$9,500.00				
SWM/BMP POND	LS	See Note 1	1	$125,000.00				
SIGNALIZATION	LS	See Note 2						
Subtotal								

TOTAL ESTIMATE OF COMPLETED WORK:	$ -	0%	
TOTAL:		$4,572,357.22	
+10% CONTINGENCIES	$	457,235.72	
GRAND TOTAL:	$	5,029,592.94	
+4% INFLATION FACTOR	$	201,183.72	

Bond Request No._____

BOND REQUEST AND REDUCTION

To assist the Subdivision Administrator in the review of a Bond Request Application, the Applicant must utilize this form to supply the City with the information prescribed under Article 1335 and Section 1332 of the Subdivision and Land Development Ordinance. The submission of this form, along with the prescribed information and required fees, shall serve as the Applicant's Bond Request Application as required by Ordinance Article 1335.

1. DATE April 28, 2023

2. APPLICATION TYPE ☒ Bond | Initiation ☐ Bond | Reduction

☐ Bond | Reallocation ☐ Bond | Release**

3. PROJECT NAME Stone Spring Subdivision

Address Keyes Ferry Road & Route 340

4. APPLICANT'S NAME* Stanley Martin Homes, LLC

Address 14200 Meadow Park Drive, Suite 100N, Chantilly, VA 20151

Telephone Number (703) 636-9232 Fax Number (___)

Email Address webersj@stanleymartin.com

5. PROPERTY OWNER'S NAME Springfield Partners, LLC

Address 59 Franklin Street, Annapolis, MD 21401

Telephone Number (301) 758-4541 Fax Number (___)

Email Address tbaum@conduitstpartners.com

*Applicants include: Property owner(s), Engineer(s), Surveyor(s), or Consultant(s)

**Requires a Public Hearing and landscaping surety for one year after release

Bond Request No._____

6. DESCRIPTION OF REQUETED INITIATION, REDUCTION, OR RELEASE:

Initiation of Bond for Stone Spring Subdivision.

7. A) CURRENT BOND AMOUNT_____

B) PROPOSED BOND AMOUNT $12,633,605.45

8. PARCEL INVENTORY: (List all parcels that are part of this application):

Tax Map No.	Parcel No.	Deed Book	Page No.	Zoning District
15	1	451	745	NR Neighborhood Residential

9. PARCEL HISTORY: (List all pending or previously approved applications on the subject parcels inventoried above, including previous plat applications if this application is an amendment)

Application No.	Project Name and Phase	Status	Approval Date

10. BOND RELEASE ATTACHMENTS.

The following shall be included with this request:

A. To the extent not previously submitted pursuant to bond reduction request, copies of inspection and test reports if work was inspected and tested by a third-party inspector.

B. Certification that all bonded Improvements, other than Improvements accepted by West Virginia Department of Highways (WVDOH), have been completed in accordance with the approved plans, profiles, and specifications and the requirements of any applicable manual. For Improvements to be accepted for maintenance by WVDOH, such Certification shall state that the Improvements have been installed and inspected in accordance with WVDOH's requirements.

C. A copy of the City-approved As-Built Drawings as required for facilities within public rights-of-way or Easements submitted pursuant to Section 1332.10 of this Ordinance.

Date of As-Builts _____ Prepared By _____

D. A letter from a Professional Engineer or Professional Land Surveyor certifying that property corners and Monuments have been set as required under this Ordinance.

E. Documentation of acceptance by WVDOH for public roadways and rights-of-way, or a maintenance and indemnification agreement and bond approved by the Planning Commission for public roadways that have been completed in accordance with WVDOH standards but which, due to factors other than their quality of construction, are not eligible for acceptance by WVDOH.

F. For private roadways, a letter of acceptance by the entity responsible for maintenance and a Latent Defects Indemnification Agreement and Bond in accordance with this Section.

G. Private Roadway Maintenance Bonds. Before a Performance Agreement and surety for private roadway construction shall be released, a Latent Defects Indemnification Agreement and Bond shall be provided by the applicant/Developer and approved by the Planning Commission. The guarantee provided by such Agreement and Bond must be for a period of two (2) years following the date of performance bond release, and must be in an amount equal to no less than 5% of the original performance bond estimate in accordance with Section 1335.07 (F) of the Subdivision Ordinance.

H. Landscaping Surety. Surety is required to ensure the landscaping shown on the Major S/LD plans is maintained for one (1) year. The one (1) year shall start from the date at which the surety for the site has been released, with the exception of this landscaping surety. The landscaping surety amount shall not be less than $5,000.00 or 10% of the total landscaping cost for the project, which every is greater.

DocuSign Envelope ID: BB565BB4-21E0-44D6-85EE-030C39564A52

Bond Request No._____

APPLICANT CERTIFICATION

I certify that, to the best of my knowledge, the submitted information and statements are true and correct. I also certify that I have received and read Article 1335 of the S/LD Ordinance.

Signature of Applicant _____ Date 4/25/2023

Signature of Property Owner (If different than Applicant)

_____ Date 4/25/2023 | 4:20 PM EDT

80AC8927FE4B437...

Please submit an original completed Application, 1 digital copy and 1 paper copy of the As-Built Plans (if applicable) to the following:

Subdivision Administrator
City of Charles Town
101 E. Washington Street
Charles Town, WV 25414

Please also send a copy of the completed Application as well as the As-Builts to the following:

Hatch/Chester Engineers
Attn: Elizabeth Adamowicz
705 Quince Orchard Road, Suite 310
Gaithersburg, MD 20878

FOR CITY USE ONLY

Application Number:_____ Date Application Received:_____

Fee: $_____ Check No._____

Receipt No._____

Site Inspection Date:_____ Inspector:_____

Subdivision Administrator Approval:_____ Date:_____

Engineer Approval:_____ Date:_____

Planning Commission Approval:_____ Date:_____

City Council Approval:_____ Date:_____

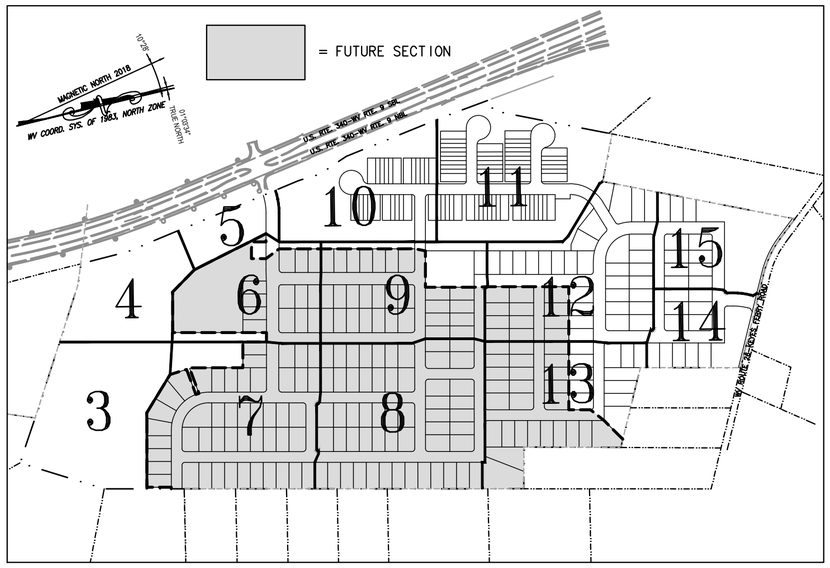
Comments:_____

_____

_____

_____

_____

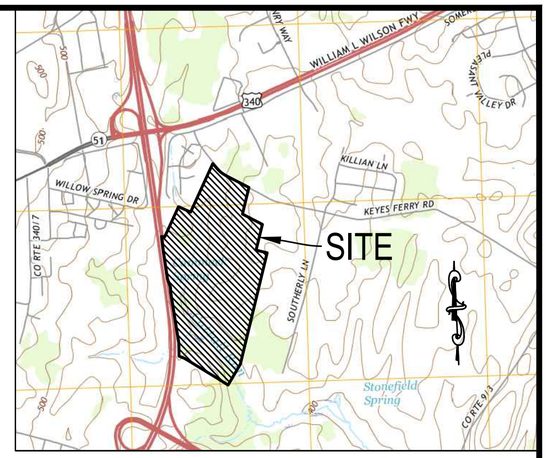


SHEET LAYOUT MAP

SCALE: 1" = 500'

NOTES:

1. THE PROPERTY DELINEATED ON THIS PLAT IS SHOWN ON JEFFERSON COUNTY, CHARLES TOWN CORPORATION, MAP 15 AS PARCEL 1.
2. THE PROPERTY LOCATED IN DISTRICT 03 AND SHOWN ON MAP 15 AS PARCEL 1 IS IN THE NAME OF SPRINGFIELD PARTNERS, LLC BY DEED RECORDED IN DEED BOOK 1249, PAGE 647 OF THE LAND RECORDS OF JEFFERSON COUNTY, WV.
3. NO TITLE REPORT FURNISHED.
4. THE PROPERTY SHOWN ON THIS PLAT IS LOCATED IN FLOOD ZONE X (UNSHADED), AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD, ACCORDING TO COMMUNITY PANEL 54037C0137E OF THE FEMA FLOOD INSURANCE RATE MAP FOR JEFFERSON COUNTY, WEST VIRGINIA, DATED DECEMBER 18, 2009.
5. THE CURRENT NATIONAL WETLANDS INVENTORY MAP DOES NOT SHOW WETLANDS/SENSITIVE AREAS ON THE SUBJECT PROPERTY.
6. ALL KNOWN EXISTING AND PROPOSED EASEMENTS AND RIGHTS-OF-WAY FOR THIS SECTION ARE SHOWN HEREIN. THERE ARE FUTURE EASEMENTS AND/OR RIGHTS-OF-WAY PROPOSED TO CONNECT WITH ADJOINING PROPERTIES.
7. A BLANKET EASEMENT SHALL BE GIVEN TO THE APPROPRIATE PUBLIC SERVICE DISTRICT IN ALL SUBDIVISION RIGHTS-OF-WAY FOR THE PURPOSE OF CONSTRUCTION AND MAINTENANCE OF WATER AND/OR SEWER LINES AND FACILITIES.
8. PRIVATE WELLS AND/OR PRIVATE SEPTIC SYSTEMS FOR DOMESTIC USE ARE PROHIBITED WHERE CENTRAL WATER AND/OR SANITARY SEWER SERVICE IS AVAILABLE.
9. UNLESS OTHERWISE NOTED, BUILDING SETBACKS ARE AS FOLLOWS:
   FRONT: 25 FEET
   SIDE: 10 FEET
   REAR: 20 FEET
11. LOT ACCESS IS LIMITED TO INTERIOR ROADS ONLY.
12. ALL RESIDENTIAL AND NON-RESIDENTIAL BUILDING LOTS SHALL HAVE STABILIZED CONSTRUCTION ENTRANCES INSTALLED PRIOR TO BEGINNING CONSTRUCTION ON THE LOT.
13. A COMMON INTEREST OWNERSHIP AGREEMENT MUST BE ESTABLISHED TO PROVIDE FOR THE MAINTENANCE OF COMMONLY OWNED LAND. THIS COMMON INTEREST OWNERSHIP AGREEMENT MUST BE DEVELOPED IN ACCORDANCE WITH THE UNIFORM COMMON INTEREST OWNERSHIP ACT OF WEST VIRGINIA.
14. SERVICE LATERALS TO INDIVIDUAL LOTS OR SITES SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF THE FINISHED ROAD PAVEMENT SURFACE.
15. SECTION 1 INCLUDES:
   -SINGLE-FAMILY LOTS 148-156, 184-192 AND 202-248
   -TOWNHOUSE LOTS V1-V77
   -COMMERCIAL LOTS 2 AND 3
   -OPEN SPACE PARCELS A AND B
   -COMMON AREA
   -ROAD RIGHT-OF-WAY
   -ROAD IMPROVEMENT ESM'T PARCEL (ALONG KEYES FERRY ROAD)
   -STREAM VALLEY PARK DEDICATION
16. FUTURE SECTION INCLUDES:
   -SINGLE-FAMILY LOTS 1-147, 157-183 AND 193-201
   -COMMERCIAL LOT 1
   -ROAD RIGHT-OF-WAY



VICINITY MAP

SCALE: 1" = 2000'

ACCEPTANCE STATEMENT: OWNER/DEVELOPER
SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

STANLEY MARTIN HOMES, LLC
14200 PARK MEADOW DRIVE, SUITE 100N
CHANTILLY, VA 20151

THE OWNER AND DEVELOPER, IN SIGNING THIS PLAT, AGREES TO ABIDE BY ALL CONDITIONS, TERMS, AND SPECIFICATIONS PROVIDED HEREON; AND TO COMPLETE ALL THE IMPROVEMENTS REQUIRED BY THE PRELIMINARY PLAT.

_____ DATE: _____
SPRINGFIELD PARTNERS, LLC

_____ DATE: _____
STANLEY MARTIN HOMES

THIS PLAT WAS APPROVED BY THE CITY OF CHARLES TOWN, ON THE _____ DAY OF _____, 20___, SUBJECT TO ANY CONDITIONS SPECIFIED HEREON.

ALL EXPENSES INCURRED WITH RESPECT TO IMPROVEMENTS FOR ALL UTILITY SERVICES, PAVING, GRADING, LANDSCAPING, CURBS, GUTTERS, SIDEWALKS, ROAD LIGHTING, ROAD SIGNS, FLOOD PROTECTION DEVICES, DRAINAGE STRUCTURES AND ALL OTHER IMPROVEMENTS THAT MAY BE REQUIRED SHALL BE IN THE RESPONSIBILITY OF THE SUBDIVIDER AND NOT THE CITY.

_____ _____
SECRETARY OF THE PLANNING COMMISSION DATE

LIST OF APPROVALS:

CITY OF CHARLES TOWN WATER AVAILABILITY LETTER:
DATED: 03/30/23

CITY OF CHARLES TOWN SEWER AVAILABILITY LETTER:
DATED: 03/30/23

WV DEPARTMENT OF HIGHWAYS
PERMIT # _____
DATE: _____

STATE HEALTH PERMITS
PERMIT #: 21703
DATE: 05/17/23
PERMIT #: 21703
DATE: 05/17/23

JEFFERSON COUNTY ADDRESSING
APPROVED: ✓

WV NPDES PERMIT
APPROVED: 03/22/23
PERMIT #WVR111983

SHEET INDEX

SHEET 1	COVER SHEET
SHEET 2	CURVE AND LINE TABLE, MONUMENT TABLE, LEGEND AND DETAIL
SHEETS 3-15	SINGLE-FAMILY LOTS, TOWNHOUSE LOTS, COMMERCIAL LOTS, STREET DEDICATION, OPEN SPACE PARCELS, STREAM VALLEY PARK DEDICATION, DEDICATION OF VARIOUS EASEMENTS
SHEET 16	SECTION LAYOUT MAP

SECTION 1 AREA TABULATION:

SINGLE-FAMILY LOTS (65)	495,888	SQ. FT. OR	11.38402 AC.
TOWNHOUSE LOTS (77)	233,408	SQ. FT. OR	5.35831 AC.
COMMERCIAL LOTS (2)	131,781	SQ. FT. OR	3.02527 AC.
RIGHT-OF-WAY	349,366	SQ. FT. OR	8.02034 AC.
ROAD IMPROVEMENT ESM'T PARCEL	7,478	SQ. FT. OR	0.17167 AC.
OPEN SPACE PARCELS (OSP) (2)	440,735	SQ. FT. OR	10.11788 AC.
COMMON AREA	38,464	SQ. FT. OR	0.88301 AC.
STREAM VALLEY PARK DEDICATION	707,731	SQ. FT. OR	16.24727 AC.
TOTAL AREA	2,404,851	SQ. FT. OR	55.20778 AC.

FUTURE SECTION AREA TABULATION:

SINGLE-FAMILY LOTS (183)	1,371,145	SQ. FT. OR	31.47715 AC.
COMMERCIAL LOTS (1)	124,195	SQ. FT. OR	2.85112 AC.
RIGHT-OF-WAY	407,886	SQ. FT. OR	9.36377 AC.
TOTAL AREA	1,903,226	SQ. FT. OR	43.69206 AC.

TOTAL SITE AREA TABULATION:

SECTION 1 TOTAL AREA	2,404,851	SQ. FT. OR	55.20778 AC.
FUTURE SECTION TOTAL AREA	1,903,226	SQ. FT. OR	43.69206 AC.
TOTAL SITE AREA	4,308,077	SQ. FT. OR	98.89984 AC.

SURVEYOR'S CERTIFICATE:

I, DENNIS R. MALONEY, JR., A PROFESSIONAL SURVEYOR IN THE STATE OF WEST VIRGINIA HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON IS A TRUE AND CORRECT SURVEY TO THE ACCURACY REQUIRED BY THE CITY OF CHARLES TOWN, AND THAT THE MONUMENTS HAVE BEEN PLACED AS SHOWN HEREON.

_____
DENNIS R. MALONEY, JR., P.S. No. 2392 DATE

DENNIS R. MALONEY JR. LICENSED No. 2392 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

PRELIMINARY

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

STANLEY MARTIN HOMES, LLC
14200 PARK MEADOW DRIVE, SUITE 100N
CHANTILLY, VA 20151

FINAL PLAT
OF
STONE SPRING SECTION 1

DEED BOOK 1249, PAGE 647
TAX MAP 15 - PARCEL 1 - CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
SCALE: AS NOTED DATE: APRIL 30, 2023

Gordon
William H. Gordon Associates, Inc.
ENGINEERS • SURVEYORS • LAND PLANNERS • LANDSCAPE ARCHITECTS
148 South Queen Street, Suite 201
Martinsburg, West Virginia 25401
(304) 725-8456

2665-0206		CAD	ACAD FILE: 2665-0206_RP01.DWG	SHEET 1 OF 16

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CURVE TABLE

CURVE	ARC LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD BEARING
C1	174.80'	440.00'	22°45'42"	88.57'	173.65'	S51°17'08"E
C2	178.77'	450.00'	22°45'42"	90.58'	177.60'	S51°17'08"E
C3	82.19'	340.50'	13°49'51"	41.30'	82.00'	S20°27'19"W
C4	21.21'	13.50'	90°00'00"	13.50'	19.09'	N58°32'23"E
C5	59.56'	178.50'	19°07'00"	30.06'	59.28'	S03°58'53"W
C6	18.23'	13.50'	77°21'52"	10.81'	16.88'	N33°06'19"E
C7	181.47'	178.50'	58°14'52"	99.45'	173.75'	S42°39'49"W
C8	21.21'	13.50'	90°00'00"	13.50'	19.09'	N58°32'23"E
C9	33.55'	25.00'	76°52'47"	19.84'	31.08'	S38°01'13"E
C10	253.31'	56.50'	256°52'47"	71.18'	88.51'	S51°58'47"W
C11	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C12	21.21'	13.50'	90°00'00"	13.50'	19.09'	N58°32'23"E
C13	33.55'	25.00'	76°52'47"	19.84'	31.08'	S38°01'13"E
C14	253.31'	56.50'	256°52'47"	71.18'	88.51'	S51°58'47"W
C15	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C16	33.55'	25.00'	76°52'47"	19.84'	31.08'	N51°58'47"E
C17	253.31'	56.50'	256°52'47"	71.18'	88.51'	S38°01'13"E
C18	21.21'	13.50'	90°00'00"	13.50'	19.09'	S58°32'23"W
C19	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C20	20.42'	13.00'	90°00'00"	13.00'	18.38'	N58°32'23"E
C21	107.65'	330.50'	18°39'43"	54.30'	107.17'	N85°47'28"W
C22	83.63'	269.50'	17°46'44"	42.15'	83.29'	N85°20'59"W
C23	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C24	274.89'	175.00'	90°00'00"	175.00'	247.49'	S31°27'37"E
C25	21.21'	13.50'	90°00'00"	13.50'	19.09'	S31°27'37"E
C26	21.21'	13.50'	90°00'00"	13.50'	19.09'	S31°27'37"E
C27	21.21'	13.50'	90°00'00"	13.50'	19.09'	S31°27'37"E
C28	21.21'	13.50'	90°00'00"	13.50'	19.09'	S31°27'37"E
C29	67.47'	279.50'	13°49'51"	33.90'	67.31'	S20°27'19"W
C30	21.21'	13.50'	90°00'00"	13.50'	19.09'	S58°32'23"W
C31	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C32	21.21'	13.50'	90°00'00"	13.50'	19.09'	N58°32'23"E
C33	21.21'	13.50'	90°00'00"	13.50'	19.09'	S31°27'37"E
C34	21.21'	13.50'	90°00'00"	13.50'	19.09'	S58°32'23"W
C35	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C36	21.21'	13.50'	90°00'00"	13.50'	19.09'	N58°32'23"E
C37	190.85'	121.50'	90°00'00"	121.50'	171.83'	S31°27'37"E
C38	130.63'	128.50'	58°14'52"	71.59'	125.08'	S42°39'49"W
C39	18.73'	13.50'	79°29'48"	11.23'	17.26'	N68°27'51"W
C40	148.74'	178.50'	47°44'40"	79.00'	144.48'	S52°35'17"E
C41	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C42	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C43	21.21'	13.50'	90°00'00"	13.50'	19.09'	N58°32'23"E
C44	21.21'	13.50'	90°00'00"	13.50'	19.09'	S31°27'37"E
C45	21.21'	13.50'	90°00'00"	13.50'	19.09'	S58°32'23"W
C46	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C47	21.21'	13.50'	90°00'00"	13.50'	19.09'	N58°32'23"E
C48	21.21'	13.50'	90°00'00"	13.50'	19.09'	S31°27'37"E
C49	21.21'	13.50'	90°00'00"	13.50'	19.09'	S58°32'23"W
C50	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C51	21.21'	13.50'	90°00'00"	13.50'	19.09'	N58°32'23"E
C52	21.21'	13.50'	90°00'00"	13.50'	19.09'	S31°27'37"E

CURVE TABLE

CURVE	ARC LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHORD BEARING
C53	21.21'	13.50'	90°00'00"	13.50'	19.09'	S58°32'23"W
C54	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C55	21.21'	13.50'	90°00'00"	13.50'	19.09'	N58°32'23"E
C56	21.21'	13.50'	90°00'00"	13.50'	19.09'	S31°27'37"E
C57	21.21'	13.50'	90°00'00"	13.50'	19.09'	S58°32'23"W
C58	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C59	21.21'	13.50'	90°00'00"	13.50'	19.09'	N58°32'23"E
C60	21.21'	13.50'	90°00'00"	13.50'	19.09'	S31°27'37"E
C61	21.21'	13.50'	90°00'00"	13.50'	19.09'	S58°32'23"W
C62	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C63	21.21'	13.50'	90°00'00"	13.50'	19.09'	N58°32'23"E
C64	21.21'	13.50'	90°00'00"	13.50'	19.09'	S31°27'37"E
C65	21.21'	13.50'	90°00'00"	13.50'	19.09'	S58°32'23"W
C66	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C67	21.21'	13.50'	90°00'00"	13.50'	19.09'	N58°32'23"E
C68	21.21'	13.50'	90°00'00"	13.50'	19.09'	S31°27'37"E
C69	21.21'	13.50'	90°00'00"	13.50'	19.09'	S58°32'23"W
C70	21.21'	13.50'	90°00'00"	13.50'	19.09'	N31°27'37"W
C71	21.21'	13.50'	90°00'00"	13.50'	19.09'	N58°32'23"E
C72	196.35'	125.00'	90°00'00"	125.00'	176.78'	S31°27'37"E
C73	17.67'	13.50'	74°58'26"	10.35'	16.43'	N51°01'36"E
C74	3.54'	13.50'	15°01'34"	1.78'	3.53'	S83°58'24"E
C75	25.85'	25.00'	59°14'24"	14.21'	24.71'	S46°50'25"E
C76	7.70'	25.00'	17°38'24"	3.88'	7.67'	S08°24'02"E
C77	230.59'	56.50'	233°50'33"	111.27'	100.75'	S63°29'54"W
C78	22.72'	56.50'	23°02'15"	11.51'	22.56'	S64°56'30"E
C79	3.54'	13.50'	15°01'34"	1.78'	3.53'	N68°56'50"W
C80	17.67'	13.50'	74°58'26"	10.35'	16.43'	N23°56'50"W
C81	17.67'	13.50'	74°58'26"	10.35'	16.43'	N51°01'36"E
C82	3.54'	13.50'	15°01'34"	1.78'	3.53'	S83°58'24"E
C83	4.29'	25.00'	9°49'45"	2.15'	4.28'	S71°32'45"E
C84	29.26'	25.00'	67°03'03"	16.56'	27.62'	S33°06'21"E
C85	3.54'	13.50'	15°01'34"	1.78'	3.53'	N68°56'50"W
C86	17.67'	13.50'	74°58'26"	10.35'	16.43'	N23°56'50"W
C87	4.52'	25.00'	10°22'11"	2.27'	4.52'	N18°43'28"E
C88	29.02'	25.00'	66°30'36"	16.39'	27.42'	N57°09'52"E
C89	250.81'	56.50'	254°20'38"	74.51'	90.04'	S36°45'08"E
C90	2.50'	56.50'	2°32'10"	1.25'	2.50'	N14°48'28"E
C91	46.78'	175.00'	15°18'57"	23.53'	46.64'	S05°52'54"W
C92	15.02'	175.00'	4°55'02"	7.51'	15.01'	S04°14'05"E
C93	60.30'	175.00'	19°44'30"	30.45'	60.00'	S16°33'51"E
C94	60.30'	175.00'	19°44'30"	30.45'	60.00'	S36°18'21"E
C95	60.30'	175.00'	19°44'30"	30.45'	60.00'	S56°02'52"E
C96	32.20'	175.00'	10°32'30"	16.14'	32.15'	S71°11'22"E
C97	179.33'	121.50'	84°34'08"	110.50'	163.49'	S34°10'33"E
C98	11.52'	121.50'	5°25'52"	5.76'	11.51'	S10°49'27"W
C99	53.18'	178.50'	17°04'10"	26.79'	52.98'	S37°15'02"E
C100	51.50'	178.50'	16°31'48"	25.93'	51.32'	S54°03'01"E
C101	44.07'	178.50'	14°08'42"	22.15'	43.96'	S69°23'16"E
C102	11.52'	125.00'	5°16'43"	5.76'	11.51'	S73°49'15"E
C103	184.83'	125.00'	84°43'17"	113.98'	168.45'	S28°49'15"E

LINE TABLE

LINE	BEARING	DISTANCE
L1	N18°04'21"W	19.80'
L2	N27°22'14"E	11.62'
L3	N13°32'23"E	26.98'
L4	N13°32'23"E	26.98'
L5	N27°22'14"E	12.83'
L6	N72°00'51"E	17.90'
L7	N31°27'37"W	15.76'
L8	S36°50'24"W	44.79'
L9	S13°32'23"W	12.50'
L10	N76°27'37"W	57.56'
L11	S58°32'23"W	20.00'
L12	S36°02'23"W	20.00'
L13	S26°57'04"W	60.95'
L15	N32°12'49"W	28.96'
L16	N31°27'34"W	28.49'
L17	S87°27'19"E	15.27'
L18	N43°49'24"E	104.36'
L19	S83°18'24"W	159.90'
L20	N48°29'37"W	400.00'
L21	N58°38'08"W	154.02'
L22	N17°39'39"W	67.22'
L23	S52°00'55"W	60.22'
L24	S13°32'23"W	32.50'
L25	N76°27'37"W	284.00'
L26	S13°32'23"W	32.50'
L27	N13°32'23"E	32.50'
L28	N76°27'41"W	2.21'
L29	N13°32'23"E	62.19'
L30	N13°32'23"E	68.00'
L31	S76°27'37"E	47.93'
L32	N13°32'19"E	11.12'
L33	N09°00'51"W	118.54'
L34	N03°32'24"W	71.35'
L35	N18°38'39"E	84.79'
L36	N73°50'37"E	32.81'
L37	N59°43'58"E	37.30'
L38	N45°37'19"E	33.20'
L39	S76°27'37"E	94.05'
L40	N18°02'05"W	24.59'
L41	S35°02'36"E	30.92'
L42	S26°23'09"E	16.50'
L43	N58°32'23"E	14.34'
L44	S31°27'37"E	14.34'
L45	N32°46'48"E	38.77'
L46	N53°38'35"W	35.45'

LINE TABLE

LINE	BEARING	DISTANCE
L47	N36°21'25"E	10.18'
L48	N35°24'04"W	17.96'
L49	N52°50'35"W	122.98'
L50	N72°57'31"W	40.63'
L51	N48°05'20"W	56.54'
L52	N48°05'20"W	58.37'
L53	N72°57'31"W	39.77'
L54	N52°50'35"W	129.60'
L55	N35°24'04"W	14.44'
L56	S36°21'25"W	4.24'
L57	N53°38'35"W	34.32'
L58	N45°36'16"W	46.00'
L59	N22°24'45"W	10.44'
L60	N24°35'15"E	160.20'
L61	N20°24'45"W	1.46'
L62	S13°32'23"W	12.50'
L63	S38°03'48"W	20.00'
L64	N07°17'53"W	98.72'
L65	N03°10'41"W	79.99'
L66	N58°32'23"E	28.49'
L67	S63°38'10"W	32.10'
L68	N62°07'22"E	30.92'
L69	N51°43'33"W	52.90'
L70	N58°32'23"E	28.49'
L71	N62°07'22"E	30.92'
L72	N25°01'43"E	115.82'
L73	N13°35'20"E	25.00'
L74	S76°27'37"E	119.50'
L75	N61°56'11"W	93.18'
L76	S25°01'43"W	119.36'
L77	N31°27'37"W	28.49'
L78	S24°56'18"W	120.35'
L79	S18°46'05"W	153.00'
L80	N31°27'37"W	35.86'
L81	N45°36'16"W	188.10'
L82	N80°38'10"E	126.51'
L83	N44°32'37"W	98.04'
L84	N31°30'50"W	59.66'
L85	S25°21'21"W	115.88'
L86	N13°32'23"E	1.86'
L87	N49°57'23"W	85.74'
L88	N12°08'40"W	28.34'
L89	N76°18'10"W	10.99'
L90	S64°38'45"E	28.39'

CONTROL MONUMENTS

POINT	NORTHING	EASTING	FULL DESCRIPTION
324	291,087.003	2,439,344.463	CONC MON
334	291,867.930	2,440,456.190	CONC MON
337	292,453.029	2,440,397.084	CONC MON
340	293,083.044	2,440,177.089	CONC MON
344	293,225.742	2,440,042.824	CONC MON
353	293,215.087	2,439,628.764	CONC MON
356	292,721.334	2,439,514.175	CONC MON
359	292,440.804	2,439,259.875	CONC MON
363	292,431.720	2,439,026.369	CONC MON
368	292,178.798	2,439,008.825	CONC MON
382	291,208.031	2,439,102.433	CONC MON
396	291,548.600	2,440,327.862	CONC MON
399	291,167.410	2,440,016.464	CONC MON
401	291,666.595	2,439,837.869	CONC MON
435	292,024.161	2,439,593.854	CONC MON
443	292,276.958	2,439,727.246	CONC MON
471	292,826.845	2,440,042.878	CONC MON
472	292,925.877	2,439,631.634	CONC MON
505	290,575.350	2,439,850.635	CONC MON
518	290,448.492	2,440,110.166	CONC MON
539	291,039.123	2,440,256.603	CONC MON
578	292,164.770	2,440,327.668	CONC MON
651	291,590.207	2,439,106.470	CONC MON
674	291,858.938	2,439,119.755	CONC MON
783	291,789.553	2,439,598.503	CONC MON
803	291,670.854	2,440,091.413	CONC MON
806	291,877.499	2,440,202.890	CONC MON
830	291,971.632	2,440,025.554	CONC MON
852	292,490.692	2,440,027.119	CONC MON
872	292,617.486	2,439,744.059	CONC MON
897	293,086.626	2,439,918.748	CONC MON
923	290,987.309	2,439,959.208	CONC MON
1008	291,020.234	2,439,630.274	CONC MON
1024	292,113.255	2,439,232.426	CONC MON

LEGEND:

○ RE-BAR FD	= RE-BAR & CAP FOUND
○ PKNF	= P.K. NAIL FOUND
○	= 36"X $\frac{5}{8}$" RE-BAR & CAP TO BE SET, UNLESS OTHERWISE NOTED
■	= 4"X4" CONCRETE MONUMENT TO BE SET
AC.	= ACRES
BRL	= BUILDING RESTRICTION LINE
D.B., PG.	= DEED BOOK, PAGE
DRN.	= DRAINAGE
DIST.	= DISTRICT
ESM'T	= EASEMENT
EX.	= EXISTING
OSP	= OPEN SPACE PARCEL
PAR.	= PARCEL
P.C., SL.	= PLAT CABINET, SLIDE
R.O.W.	= RIGHT-OF-WAY
SWM	= STORM WATER MANAGEMENT
SQ. FT.	= SQUARE FEET
SAN. SEW.	= SANITARY SEWER
STM.	= STORM
TOT	= TOTAL

= FUTURE SECTION

LEGEND:

- TRACT BOUNDARY
- ADJACENT PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- PROPOSED PROPERTY LINE
- PROPOSED RIGHT-OF-WAY LINE
- PROPOSED BUILDING RESTRICTION LINE
- PROPOSED EASEMENT LINE

DENNIS R. MALONEY JR. LICENSED No. 738 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

PRELIMINARY

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

STANLEY MARTIN HOMES, LLC
14200 PARK MEADOW DRIVE, SUITE 100N
CHANTILLY, VA 20151

FINAL PLAT
OF
STONE SPRING SECTION 1

DEED BOOK 1249, PAGE 647
TAX MAP 15 – PARCEL 1 – CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
SCALE: N/A DATE: APRIL 30, 2023

Gordon
William H. Gordon Associates, Inc.
ENGINEERS • SURVEYORS • LAND PLANNERS • LANDSCAPE ARCHITECTS
148 South Queen Street, Suite 201
Martinsburg, West Virginia 25401
(304) 725-8456

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MATCHLINE – SEE SHEET 4

MATCHLINE SEE SHEET 6

MATCHLINE SEE SHEET 7

N/F WILSON
CTD MI0 P8
D.B. 933 PG. 469

N38°38'01"W 647.28'

JEFFERSON COUNTY LIMITS

CHARLES TOWN CITY LIMITS

N:289850.00
E:2439650.00

PALUSTRINE WETLANDS (TYP.)

PERENNIAL STREAM

STREAM

APPROXIMATE LOCATION OF 100-YEAR FLOOD PLAIN (TYP.)

STREAM VALLEY PARK DEDICATION
707731 SQ. FT.
16.24726 AC.

PERENNIAL STREAM

STREAM

N/F LANGLET
CTCD MI5 P8.1
D.B. 1030 PG. 343

N57°43'08"W 221.38'

N:289850.00
E:2440050.00

S30°37'52"W 410.82'

312.32'

S13°32'23"W 1954.07' (TOT)

N/F LANGLET
CTCD MI5 P7
D.B. 1030 PG. 343

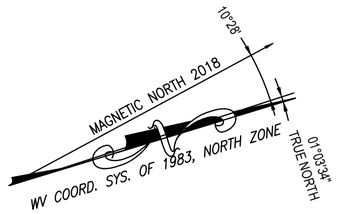
N:289250.00
E:2440050.00

N15°09'33"W 207.65' (TOT)

N76°27'37"W 347.78' (TOT)

MATCHLINE – SEE SHEET 7

N/F LANGLET
CTCD MI5 P4.8
D.B. 1030 PG. 343



50' 25' 0 50' 100' 150'

GRAPHIC SCALE: 1"=50'



PRELIMINARY

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

STANLEY MARTIN HOMES, LLC
14200 PARK MEADOW DRIVE, SUITE 100N
CHANTILLY, VA 20151

FINAL PLAT
OF
STONE SPRING SECTION 1

DEED BOOK 1249, PAGE 647
TAX MAP 15 – PARCEL 1 – CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
SCALE: 1" = 50' DATE: APRIL 30, 2023

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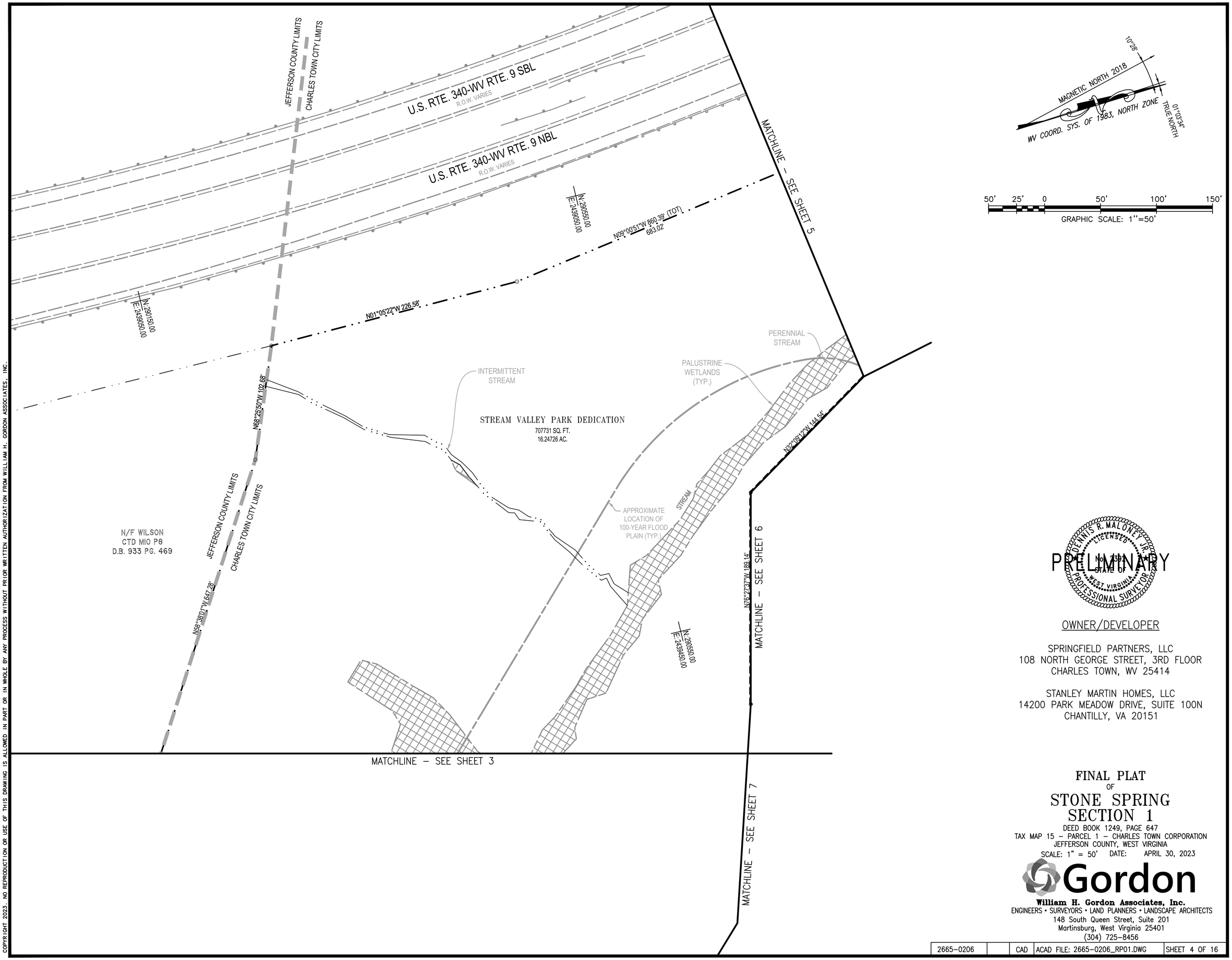

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DENNIS R. MALONEY JR. LICENSED No. 739 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

PRELIMINARY

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
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CHANTILLY, VA 20151

FINAL PLAT
OF
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JEFFERSON COUNTY, WEST VIRGINIA
SCALE: 1" = 50' DATE: APRIL 30, 2023

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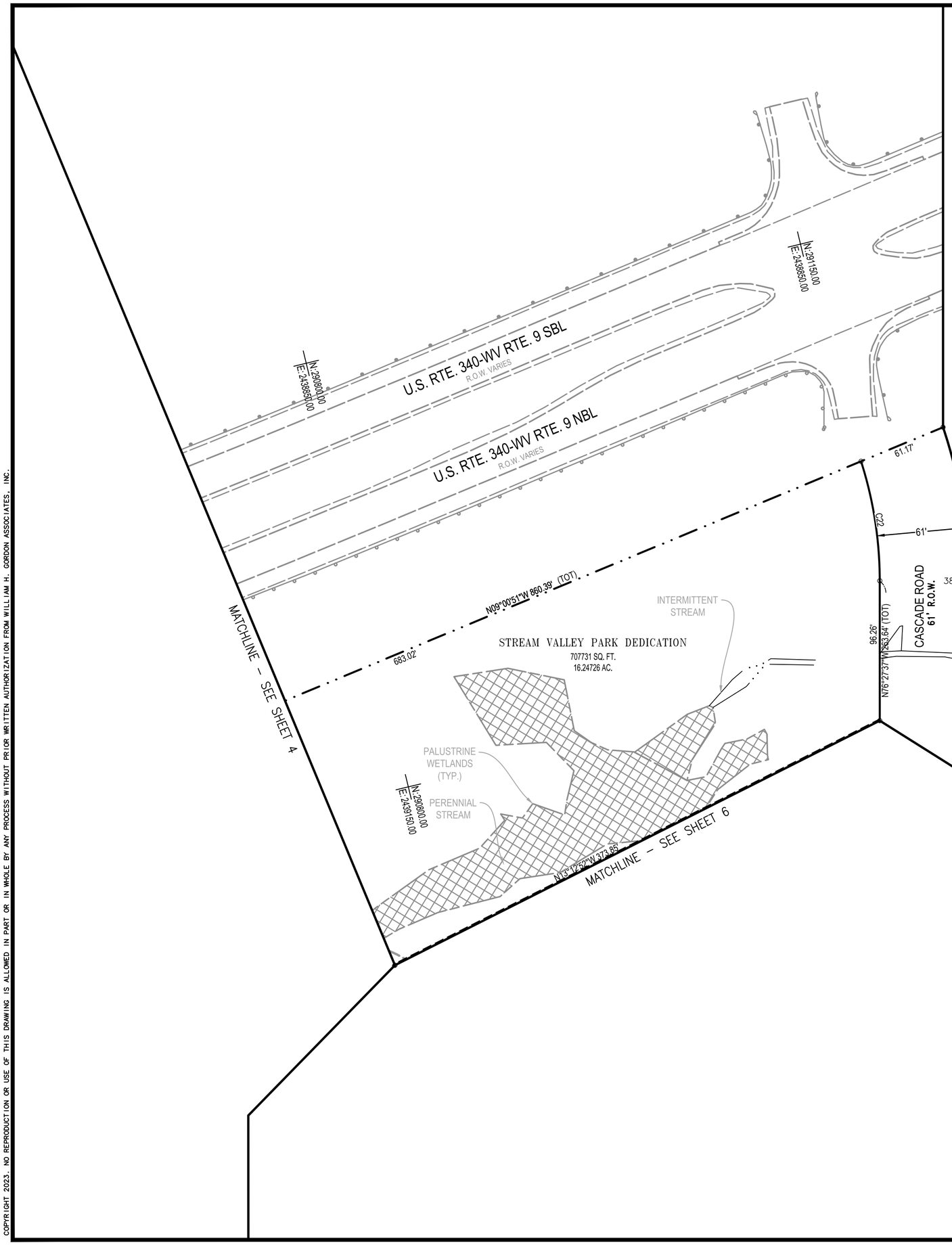

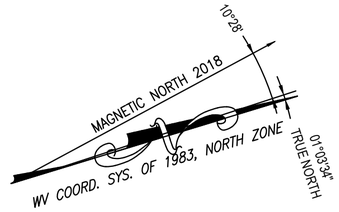

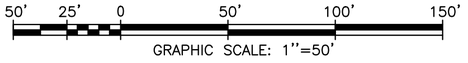

PRELIMINARY

DENNIS R. MALONEY JR. LICENSED No. 1393 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

STANLEY MARTIN HOMES, LLC
14200 PARK MEADOW DRIVE, SUITE 100N
CHANTILLY, VA 20151

FINAL PLAT
OF
STONE SPRING SECTION 1

DEED BOOK 1249, PAGE 647
TAX MAP 15 – PARCEL 1 – CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
SCALE: 1" = 50' DATE: APRIL 30, 2023

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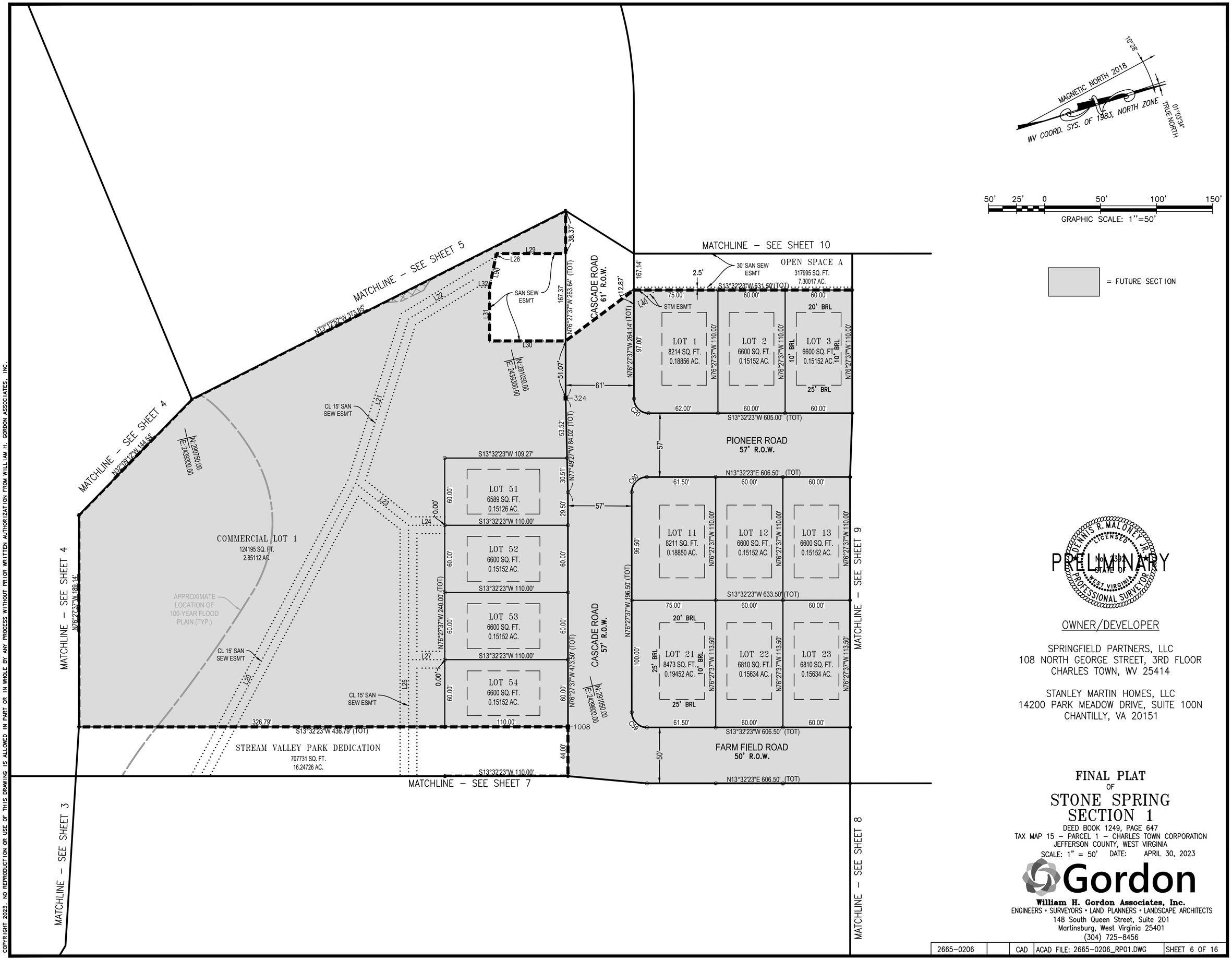

PRELIMINARY

DENNIS R. MALONEY JR. LICENSED No. 19817 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

STANLEY MARTIN HOMES, LLC
14200 PARK MEADOW DRIVE, SUITE 100N
CHANTILLY, VA 20151

FINAL PLAT
OF
STONE SPRING SECTION 1

DEED BOOK 1249, PAGE 647
TAX MAP 15 – PARCEL 1 – CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
SCALE: 1" = 50' DATE: APRIL 30, 2023

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MATCHLINE SEE SHEET 4

MATCHLINE – SEE SHEET 6

MATCHLINE SEE SHEET 9

MATCHLINE – SEE SHEET 3

MATCHLINE – SEE SHEET 8

FARM FIELD ROAD
50' R.O.W.

CASCADE ROAD
57' R.O.W.

MAYVIEW STREET
50' R.O.W.

MAYVIEW STREET
50' R.O.W.

HOLCOMB LANE
50' R.O.W.

UPLAND ROAD
50' R.O.W.

STREAM VALLEY PARK DEDICATION
707731 SQ. FT.
16.24726 AC.

APPROXIMATE LOCATION OF 100-YEAR FLOOD PLAIN (TYP.)

CL 15' SAN SEW ESM'T

CL 20' STM ESM'T

STM ESM'T

LOT 55 6600 SQ. FT. 0.15152 AC.
LOT 56 6600 SQ. FT. 0.15152 AC.
LOT 57 8473 SQ. FT. 0.19452 AC.
LOT 58 6810 SQ. FT. 0.15634 AC.
LOT 59 6810 SQ. FT. 0.15634 AC.
LOT 60 6810 SQ. FT. 0.15634 AC.
LOT 61 9497 SQ. FT. 0.21802 AC.
LOT 62 10839 SQ. FT. 0.24883 AC.
LOT 63 9495 SQ. FT. 0.21798 AC.
LOT 64 9515 SQ. FT. 0.21844 AC.
LOT 65 8095 SQ. FT. 0.18584 AC.
LOT 66 6810 SQ. FT. 0.15634 AC.
LOT 67 6810 SQ. FT. 0.15634 AC.
LOT 68 6810 SQ. FT. 0.15634 AC.
LOT 69 6810 SQ. FT. 0.15634 AC.
LOT 70 12369 SQ. FT. 0.28394 AC.
LOT 71 6810 SQ. FT. 0.15634 AC.
LOT 72 6810 SQ. FT. 0.15634 AC.
LOT 73 6810 SQ. FT. 0.15634 AC.
LOT 74 6810 SQ. FT. 0.15634 AC.
LOT 75 6810 SQ. FT. 0.15634 AC.
LOT 76 6810 SQ. FT. 0.15634 AC.
LOT 77 8871 SQ. FT. 0.20364 AC.
LOT 31 8473 SQ. FT. 0.19452 AC.
LOT 32 6810 SQ. FT. 0.15634 AC.
LOT 33 6810 SQ. FT. 0.15634 AC.
LOT 41 8473 SQ. FT. 0.19452 AC.
LOT 42 6810 SQ. FT. 0.15634 AC.
LOT 43 6810 SQ. FT. 0.15634 AC.
LOT 85 8869 SQ. FT. 0.20360 AC.
LOT 86 6810 SQ. FT. 0.15634 AC.
LOT 87 6810 SQ. FT. 0.15634 AC.
LOT 88 6810 SQ. FT. 0.15634 AC.
LOT 89 6810 SQ. FT. 0.15634 AC.
LOT 90 6810 SQ. FT. 0.15634 AC.
LOT 91 6810 SQ. FT. 0.15634 AC.
LOT 92 6810 SQ. FT. 0.15634 AC.
LOT 93 8871 SQ. FT. 0.20364 AC.
LOT 101 9656 SQ. FT. 0.22166 AC.
LOT 102 7410 SQ. FT. 0.17011 AC.
LOT 103 7410 SQ. FT. 0.17011 AC.
LOT 104 7410 SQ. FT. 0.17011 AC.
LOT 105 7410 SQ. FT. 0.17011 AC.
LOT 106 7410 SQ. FT. 0.17011 AC.
LOT 107 7410 SQ. FT. 0.17011 AC.
LOT 108 7410 SQ. FT. 0.17011 AC.
LOT 109 7410 SQ. FT. 0.17011 AC.
LOT 110 7410 SQ. FT. 0.17011 AC.

N/F LANGLET
CTCD MI5 P4.8
D.B. 1030 PG. 343

N/F MILLS
CTD M9 P4.20
D.B. 1032 PG. 76

N/F KEEL
CTD M9 P4.16
D.B. 489 PG. 28

N/F ROLL
CTD M9 P4.15
D.B. 489 PG. 43

CHARLES TOWN CITY LIMITS

JEFFERSON COUNTY LIMITS

MAGNETIC NORTH 2018
10°28'
01°03'34" TRUE NORTH
WV COORD. SYS. OF 1983, NORTH ZONE

50' 25' 0 50' 100' 150'
GRAPHIC SCALE: 1"=50'

= FUTURE SECTION

PRELIMINARY

DENNIS R. MALONEY JR. LICENSED No. 1392 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

STANLEY MARTIN HOMES, LLC
14200 PARK MEADOW DRIVE, SUITE 100N
CHANTILLY, VA 20151

FINAL PLAT
OF
STONE SPRING SECTION 1

DEED BOOK 1249, PAGE 647
TAX MAP 15 – PARCEL 1 – CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
SCALE: 1" = 50' DATE: APRIL 30, 2023

Gordon
William H. Gordon Associates, Inc.
ENGINEERS • SURVEYORS • LAND PLANNERS • LANDSCAPE ARCHITECTS
148 South Queen Street, Suite 201
Martinsburg, West Virginia 25401
(304) 725-8456

2665-0206		CAD	ACAD FILE: 2665-0206_RP01.DWG	SHEET 7 OF 16

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MATCHLINE SEE SHEET 6

FARM FIELD ROAD
50' R.O.W.

MATCHLINE – SEE SHEET 9

MATCHLINE – SEE SHEET 7

MATCHLINE SEE SHEET 12

MATCHLINE – SEE SHEET 13

MATCHLINE – SEE SHEET 13

N13°32'23"E 606.50' (TOT)

S13°32'23"W 633.50' (TOT)

S13°32'23"W 606.50' (TOT)

S76°27'37"E 200.00' (TOT)

N13°32'23"E 430.00' (TOT)

S13°32'23"W 457.00' (TOT)

S13°32'23"W 430.00' (TOT)

S13°32'23"W 113.50'

S13°32'23"W 200.00' (TOT)

N13°32'23"E 200.00' (TOT)

N13°32'23"E 1397.50' (TOT)

S13°32'23"W 1954.07' (TOT)

N76°27'37"W 113.50'

N76°27'37"W 200.00' (TOT)

N76°27'37"W 783.19' (TOT)

N76°27'37"W 378.50' (TOT)

S76°27'37"E 534.45' (TOT)

S76°27'37"E 546.50' (TOT)

N76°27'37"W 337.00' (TOT)

S76°27'37"E 310.00' (TOT)

N76°27'37"W 310.00' (TOT)

S76°27'37"E 180.95' (TOT)

N76°27'37"W 123.50'

LOT 34
6810 SQ. FT.
0.15634 AC.

LOT 35
6810 SQ. FT.
0.15634 AC.

LOT 36
6810 SQ. FT.
0.15634 AC.

LOT 37
6810 SQ. FT.
0.15634 AC.

LOT 38
6810 SQ. FT.
0.15634 AC.

LOT 39
6810 SQ. FT.
0.15634 AC.

LOT 40
8871 SQ. FT.
0.20364 AC.

LOT 44
6810 SQ. FT.
0.15634 AC.

LOT 45
6810 SQ. FT.
0.15634 AC.

LOT 46
6810 SQ. FT.
0.15634 AC.

LOT 47
6810 SQ. FT.
0.15634 AC.

LOT 48
6810 SQ. FT.
0.15634 AC.

LOT 49
6810 SQ. FT.
0.15634 AC.

LOT 50
8871 SQ. FT.
0.20364 AC.

LOT 78
8871 SQ. FT.
0.20364 AC.

LOT 79
6810 SQ. FT.
0.15634 AC.

LOT 80
6810 SQ. FT.
0.15634 AC.

LOT 81
6810 SQ. FT.
0.15634 AC.

LOT 82
6810 SQ. FT.
0.15634 AC.

LOT 83
6810 SQ. FT.
0.15634 AC.

LOT 84
8871 SQ. FT.
0.20364 AC.

LOT 94
8871 SQ. FT.
0.20364 AC.

LOT 95
6810 SQ. FT.
0.15634 AC.

LOT 96
6810 SQ. FT.
0.15634 AC.

LOT 97
6810 SQ. FT.
0.15634 AC.

LOT 98
6810 SQ. FT.
0.15634 AC.

LOT 99
6810 SQ. FT.
0.15634 AC.

LOT 100
8871 SQ. FT.
0.20364 AC.

LOT 130
6810 SQ. FT.
0.15634 AC.

LOT 141
6810 SQ. FT.
0.15634 AC.

LOT 131
8871 SQ. FT.
0.20364 AC.

LOT 142
8871 SQ. FT.
0.20364 AC.

LOT 132
8871 SQ. FT.
0.20364 AC.

LOT 143
8871 SQ. FT.
0.20364 AC.

LOT 133
6810 SQ. FT.
0.15634 AC.

LOT 144
6810 SQ. FT.
0.15634 AC.

LOT 134
6810 SQ. FT.
0.15634 AC.

LOT 145
6810 SQ. FT.
0.15634 AC.

LOT 135
6810 SQ. FT.
0.15634 AC.

LOT 146
6810 SQ. FT.
0.15634 AC.

LOT 136
8871 SQ. FT.
0.20364 AC.

LOT 147
8871 SQ. FT.
0.20364 AC.

LOT 111
7410 SQ. FT.
0.17011 AC.

LOT 112
7410 SQ. FT.
0.17011 AC.

LOT 113
7410 SQ. FT.
0.17011 AC.

LOT 114
7410 SQ. FT.
0.17011 AC.

LOT 115
7410 SQ. FT.
0.17011 AC.

LOT 116
7410 SQ. FT.
0.17011 AC.

LOT 117
7410 SQ. FT.
0.17011 AC.

LOT 118
7410 SQ. FT.
0.17011 AC.

LOT 119
7410 SQ. FT.
0.17011 AC.

LOT 120
7410 SQ. FT.
0.17011 AC.

LOT 121
7410 SQ. FT.
0.17011 AC.

LOT 122
7410 SQ. FT.
0.17011 AC.

LOT 123
7410 SQ. FT.
0.17011 AC.

MAYVIEW STREET
50' R.O.W.

HOLCOMB LANE
50' R.O.W.

ATWATER ROAD
50' R.O.W.

OSGOOD ROAD
50' R.O.W.

FORTUNA ROAD
50' R.O.W.

UPLAND ROAD
50' R.O.W.

CHARLES TOWN CITY LIMITS

JEFFERSON COUNTY LIMITS

STM ESM'T

20' STM ESM'T

25' BRL

20' BRL

10' BRL

N: 291275.00
E: 2439075.00

N: 291275.00
E: 2440275.00

N: 291015.00
E: 2439375.00

399

396

401

334

830

803

806

N/F ROLL
CTD M9 P4.15
D.B. 489 PG. 43

N/F GESSFORD
CTD M9 P4.18
D.B. 1015 PG. 542

N/F KOSKI
CTD M9 P4.10
D.B. 562 PG. 686

10°28'

MAGNETIC NORTH 2018

WV COORD. SYS. OF 1983, NORTH ZONE

01°03'34"
TRUE NORTH

50' 25' 0 50' 100' 150'

GRAPHIC SCALE: 1"=50'

= FUTURE SECTION

PRELIMINARY

DENNIS R. MALONEY JR. LICENSED No. 1380 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

STANLEY MARTIN HOMES, LLC
14200 PARK MEADOW DRIVE, SUITE 100N
CHANTILLY, VA 20151

FINAL PLAT
OF
STONE SPRING SECTION 1

DEED BOOK 1249, PAGE 647
TAX MAP 15 – PARCEL 1 – CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
SCALE: 1" = 50' DATE: APRIL 30, 2023

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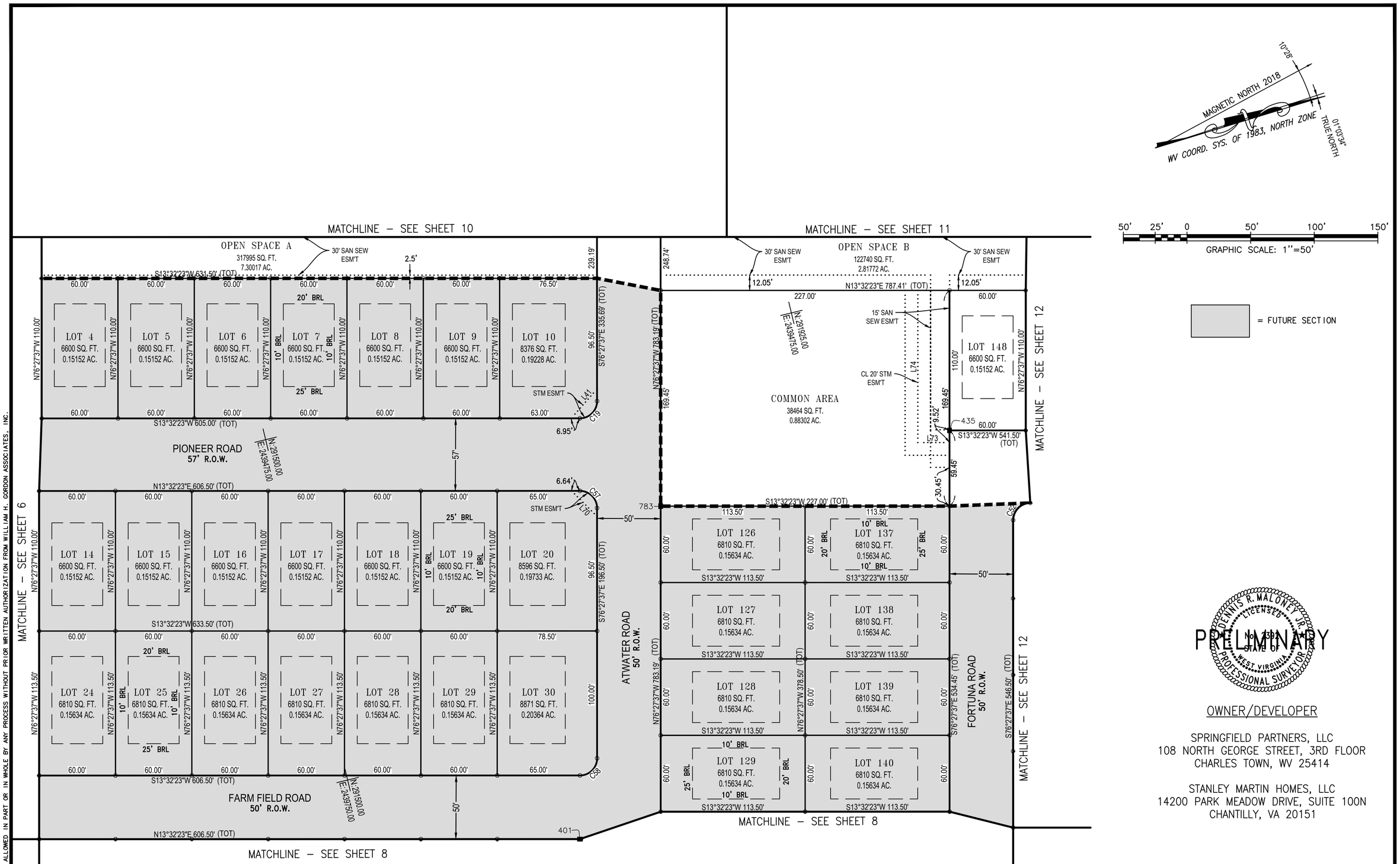

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DENNIS R. MALONEY, JR. LICENSED No. 1393 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

PRELIMINARY

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

STANLEY MARTIN HOMES, LLC
14200 PARK MEADOW DRIVE, SUITE 100N
CHANTILLY, VA 20151

FINAL PLAT
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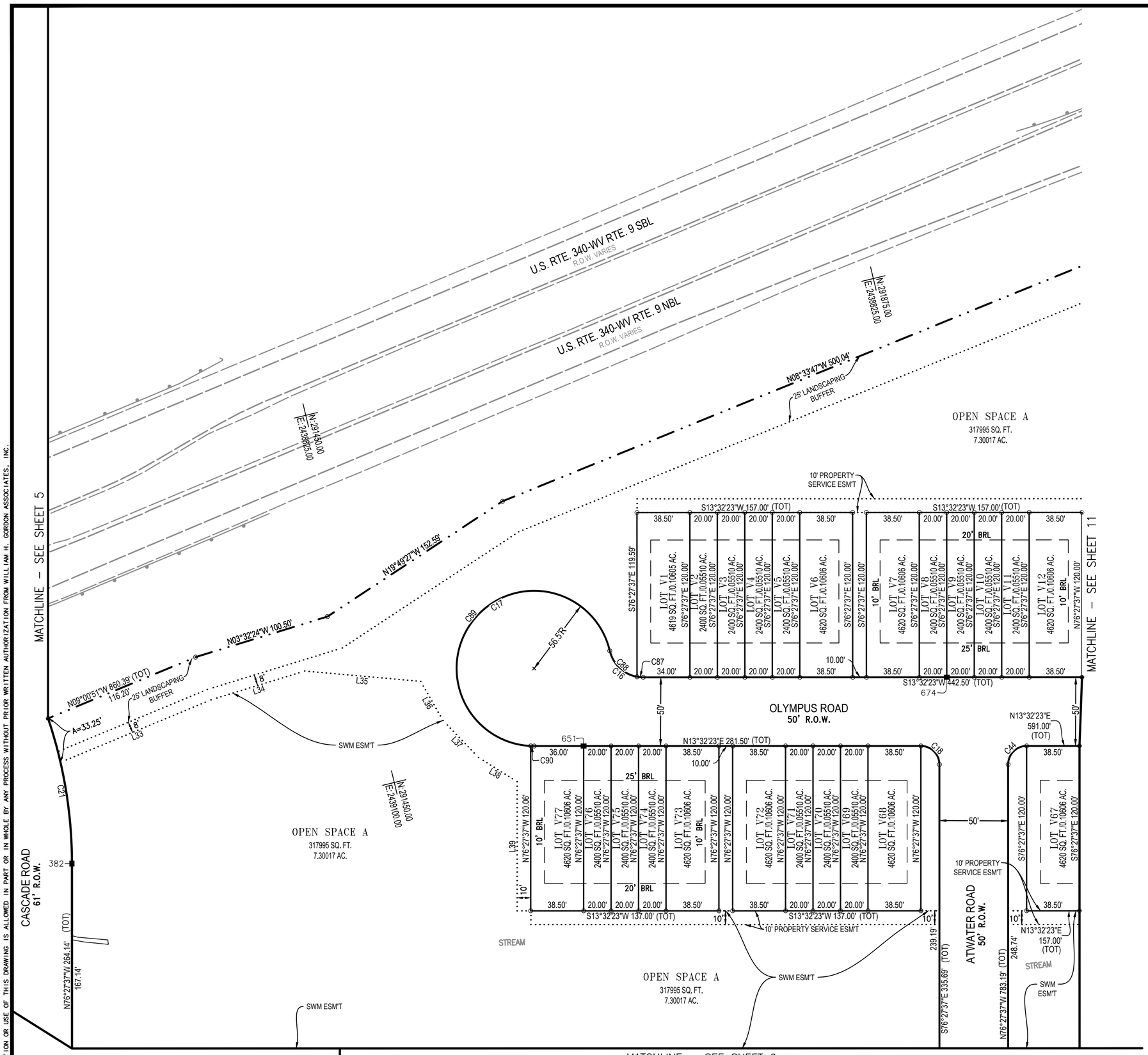

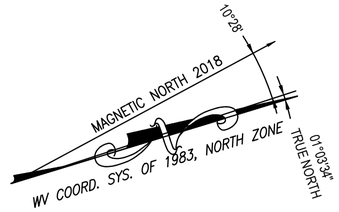

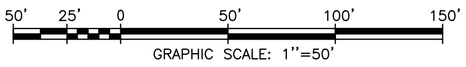

PRELIMINARY

DENNIS R. MALONEY, JR. LICENSED No. 1383 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
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STANLEY MARTIN HOMES, LLC
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FINAL PLAT
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STONE SPRING SECTION 1

DEED BOOK 1249, PAGE 647
TAX MAP 15 – PARCEL 1 – CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
SCALE: 1" = 50' DATE: APRIL 30, 2023

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U.S. RTE. 340-WV RTE. 9 SBL
R.O.W. VARIES

U.S. RTE. 340-WV RTE. 9 NBL
R.O.W. VARIES

10°28'
MAGNETIC NORTH 2018
WV COORD. SYS. OF 1983, NORTH ZONE
01°03'34" TRUE NORTH

50' 25' 0 50' 100' 150'
GRAPHIC SCALE: 1"=50'

N/F CITY OF CHARLESTOWN
CTD MI5 P9.7
D.B. H30 PG. 404

N:292600.00
E:2438925.00

N06°43'42"W 226.66'
25' LANDSCAPING BUFFER
N08°33'47"W 500.04'
S79°54'29"E 63.83'
N24°34'43"E 568.30'

OPEN SPACE A
317995 SQ. FT.
7.30017 AC.

CL 15' W/L ESM'T

EX. 10' CITY OF CHARLES TOWN PERMANENT UTILITY ESM'T (D.B. 1178, PG. 567)

CHARLES TOWN CITY LIMITS
JEFFERSON COUNTY LIMITS

STREAM

N/F GATESTONE INC.
CTD M9 P11
D.B. 665 PG. 633

N24°34'43"E 911.50' (TOT)
55.34'

S65°25'17"E 225.80'

ARTEMIS ROAD
50' R.O.W.

APOLLO ROAD
50' R.O.W.

OLYMPUS ROAD
50' R.O.W.

LOT V22 4440 SQ. FT./0.10193 AC. S13°32'23"W 120.00'
LOT V21 2400 SQ. FT./0.05510 AC. S13°32'23"W 120.00'
LOT V20 2400 SQ. FT./0.05510 AC. S13°32'23"W 120.00'
LOT V19 2400 SQ. FT./0.05510 AC. S13°32'23"W 120.00'
LOT V18 2400 SQ. FT./0.05510 AC. S13°32'23"W 120.00'
LOT V17 2400 SQ. FT./0.05510 AC. S13°32'23"W 120.00'
LOT V16 2400 SQ. FT./0.05510 AC. S13°32'23"W 120.00'
LOT V15 2400 SQ. FT./0.05510 AC. S13°32'23"W 120.00'
LOT V14 2400 SQ. FT./0.05510 AC. S13°32'23"W 120.00'
LOT V13 4619 SQ. FT./0.10605 AC. S13°32'23"W 119.54'
S13°32'23"W 442.50' (TOT)
MATCHLINE – SEE SHEET 10

LOT V39 4653 SQ. FT./0.10681 AC. N13°32'23"E 120.00'
LOT V38 2400 SQ. FT./0.05510 AC. N13°32'23"E 120.00'
LOT V37 2400 SQ. FT./0.05510 AC. N13°32'23"E 120.00'
LOT V36 2400 SQ. FT./0.05510 AC. N13°32'23"E 120.00'
LOT V35 2400 SQ. FT./0.05510 AC. N13°32'23"E 120.00'
LOT V34 2400 SQ. FT./0.05510 AC. N13°32'23"E 120.00'
LOT V33 2400 SQ. FT./0.05510 AC. N13°32'23"E 120.00'
LOT V32 2400 SQ. FT./0.05510 AC. N13°32'23"E 120.00'
LOT V31 2400 SQ. FT./0.05510 AC. N13°32'23"E 120.00'
LOT V30 4619 SQ. FT./0.10605 AC. N13°32'23"E 119.54'
S13°32'23"W 223.00'

LOT V40 4541 SQ. FT./0.10425 AC. N13°32'23"E 120.00'
LOT V41 2399 SQ. FT./0.05508 AC. N13°32'23"E 120.00'
LOT V42 2399 SQ. FT./0.05508 AC. N13°32'23"E 120.00'
LOT V43 2399 SQ. FT./0.05508 AC. N13°32'23"E 120.00'
LOT V44 2400 SQ. FT./0.05509 AC. N13°32'23"E 120.00'
LOT V45 4619 SQ. FT./0.10604 AC. S13°32'23"W 119.54'
S13°32'23"W 120.46'

LOT V66 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V65 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V64 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V63 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V62 4620 SQ. FT./0.10606 AC. S76°27'37"E 120.00'
LOT V61 4620 SQ. FT./0.10606 AC. S76°27'37"E 120.00'
LOT V60 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V59 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V58 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V57 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V56 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V55 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V54 4620 SQ. FT./0.10606 AC. S76°27'37"E 120.00'
LOT V53 4620 SQ. FT./0.10606 AC. S76°27'37"E 120.00'
LOT V52 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V51 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V50 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V49 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V48 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V47 2400 SQ. FT./0.05510 AC. S76°27'37"E 120.00'
LOT V46 4620 SQ. FT./0.10606 AC. S76°27'37"E 120.00'
N13°32'23"E 591.00' (TOT)
N13°32'23"E 69.83'
N13°32'23"E 157.00' (TOT)
N13°32'23"E 197.00' (TOT)
N13°32'23"E 197.00' (TOT)
N76°27'37"W 120.00'

OPEN SPACE A
317995 SQ. FT.
7.30017 AC.

OPEN SPACE B
122740 SQ. FT.
2.81772 AC.

SWM ESM'T

10' PROPERTY SERVICE ESM'T

MATCHLINE – SEE SHEET 9

MATCHLINE – SEE SHEET 12

PRELIMINARY
DENNIS R. MALONEY JR. LICENSED No. 1380 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

STANLEY MARTIN HOMES, LLC
14200 PARK MEADOW DRIVE, SUITE 100N
CHANTILLY, VA 20151

FINAL PLAT
OF
STONE SPRING SECTION 1

DEED BOOK 1249, PAGE 647
TAX MAP 15 – PARCEL 1 – CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
SCALE: 1" = 50' DATE: APRIL 30, 2023

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N/F GATESTONE INC.
CTD M9 P11
D.B. 665 PG. 633

MATCHLINE – SEE SHEET 11

OPEN SPACE A
317995 SQ. FT.
7.30017 AC.

OPEN SPACE B
122740 SQ. FT.
2.81772 AC.

OLYMPUS ROAD
50' R.O.W.

ANGUS ROAD
57' R.O.W.

TIPTON ROAD
57' R.O.W.

FORTUNA ROAD
50' R.O.W.

EMPIRE LANE
50' R.O.W.

DOVE ROAD
50' R.O.W.

HOLLY ROAD
57' R.O.W.

MATCHLINE – SEE SHEET 9

MATCHLINE – SEE SHEET 13

MATCHLINE – SEE SHEET 14

MATCHLINE – SEE SHEET 15

MATCHLINE SEE SHEET 6

LOT 149 6600 SQ. FT. 0.15152 AC.
LOT 150 6600 SQ. FT. 0.15152 AC.
LOT 151 6600 SQ. FT. 0.15152 AC.
LOT 152 6600 SQ. FT. 0.15152 AC.
LOT 153 6600 SQ. FT. 0.15152 AC.
LOT 154 6600 SQ. FT. 0.15152 AC.
LOT 155 6600 SQ. FT. 0.15152 AC.
LOT 156 8289 SQ. FT. 0.19029 AC.
LOT 157 8473 SQ. FT. 0.19452 AC.
LOT 158 6810 SQ. FT. 0.15634 AC.
LOT 159 6810 SQ. FT. 0.15634 AC.
LOT 160 6810 SQ. FT. 0.15634 AC.
LOT 166 8473 SQ. FT. 0.19452 AC.
LOT 167 6810 SQ. FT. 0.15634 AC.
LOT 168 6810 SQ. FT. 0.15634 AC.
LOT 169 6810 SQ. FT. 0.15634 AC.
LOT 175 8473 SQ. FT. 0.19452 AC.
LOT 176 6810 SQ. FT. 0.15634 AC.
LOT 177 6810 SQ. FT. 0.15634 AC.
LOT 178 6810 SQ. FT. 0.15634 AC.
LOT 184 8548 SQ. FT. 0.19624 AC.
LOT 185 6870 SQ. FT. 0.15771 AC.
LOT 186 6870 SQ. FT. 0.15771 AC.
LOT 187 6870 SQ. FT. 0.15771 AC.
LOT 241 8934 SQ. FT. 0.20511 AC.
LOT 242 10336 SQ. FT. 0.23728 AC.
LOT 243 16193 SQ. FT. 0.37174 AC.
LOT 244 9366 SQ. FT. 0.21502 AC.
LOT 245 8664 SQ. FT. 0.19890 AC.
LOT 214 11684 SQ. FT. 0.26823 AC.
LOT 215 6600 SQ. FT. 0.15152 AC.
LOT 216 6600 SQ. FT. 0.15152 AC.
LOT 217 6600 SQ. FT. 0.15152 AC.
LOT 218 6600 SQ. FT. 0.15152 AC.
LOT 219 8211 SQ. FT. 0.18850 AC.
LOT 220 8471 SQ. FT. 0.19447 AC.
LOT 221 6810 SQ. FT. 0.15634 AC.
LOT 222 6810 SQ. FT. 0.15634 AC.
LOT 223 6810 SQ. FT. 0.15634 AC.
LOT 224 6810 SQ. FT. 0.15634 AC.
LOT 225 6810 SQ. FT. 0.15634 AC.
LOT 226 8473 SQ. FT. 0.19452 AC.

CL 15' SAN SEW ESM'T
STM ESM'T
30' SAN SEW ESM'T
EX. 10' CITY OF CHARLES TOWN PERMANENT UTILITY ESM'T (D.B. 1178, PG. 567)
20' BRL
25' BRL
10' BRL

N24°34'43"E 911.50' (TOT)
N65°25'17"W 133.19'
S77°47'14"W 114.06' (TOT)
N71°47'14"E 172.63'
S38°09'13"E 121.60'
N53°26'45"W 80.50'
N43°34'21"E 112.50'
S76°27'37"E 29.66'
N13°32'23"E 787.41' (TOT)
S13°32'23"W 541.50' (TOT)
S13°32'23"W 432.50' (TOT)
S13°32'23"W 88.50'
S13°32'23"W 113.50'
S13°32'23"W 110.00'
N13°32'23"E 423.00' (TOT)
S13°32'23"W 200.00' (TOT)
N13°32'23"E 201.00' (TOT)
N13°32'23"E 196.50' (TOT)
N13°32'23"E 547.50' (TOT)
S76°27'37"E 546.50' (TOT)
N76°27'37"W 546.50' (TOT)
S76°27'37"E 52.88'
S76°27'37"E 161.96'
S76°27'37"E 150.25'
S76°27'37"E 138.55'
N76°27'37"W 449.45' (TOT)
N76°27'37"W 423.00' (TOT)
N76°27'37"W 110.00'
N76°27'37"W 673.50' (TOT)

N: 292250.00
E: 2439900.00
N: 292700.00
E: 2439550.00

MAGNETIC NORTH 2018
10°28'
WV COORD. SYS. OF 1983, NORTH ZONE
01°03'34" TRUE NORTH

50' 25' 0 50' 100' 150'
GRAPHIC SCALE: 1"=50'

= FUTURE SECTION

PRELIMINARY

DENNIS R. MALONEY JR. LICENSED STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR No. 1391

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

STANLEY MARTIN HOMES, LLC
14200 PARK MEADOW DRIVE, SUITE 100N
CHANTILLY, VA 20151

FINAL PLAT
OF
STONE SPRING SECTION 1

DEED BOOK 1249, PAGE 647
TAX MAP 15 – PARCEL 1 – CHARLES TOWN CORPORATION
JEFFERSON COUNTY, WEST VIRGINIA
SCALE: 1" = 50' DATE: APRIL 30, 2023

Gordon
William H. Gordon Associates, Inc.
ENGINEERS • SURVEYORS • LAND PLANNERS • LANDSCAPE ARCHITECTS
148 South Queen Street, Suite 201
Martinsburg, West Virginia 25401
(304) 725-8456

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MATCHLINE – SEE SHEET 12

MATCHLINE – SEE SHEET 9

MATCHLINE – SEE SHEET 14

FORTUNA ROAD
50' R.O.W.

EMPIRE LANE
50' R.O.W.

ANGUS ROAD
50' R.O.W.

VERNON STREET
50' R.O.W.

LOT 161
6810 SQ. FT.
0.15634 AC.

LOT 162
6810 SQ. FT.
0.15634 AC.

LOT 163
6810 SQ. FT.
0.15634 AC.

LOT 164
6810 SQ. FT.
0.15634 AC.

LOT 165
8871 SQ. FT.
0.20364 AC.

LOT 170
6810 SQ. FT.
0.15634 AC.

LOT 171
6810 SQ. FT.
0.15634 AC.

LOT 172
6810 SQ. FT.
0.15634 AC.

LOT 173
6810 SQ. FT.
0.15634 AC.

LOT 174
8871 SQ. FT.
0.20364 AC.

LOT 179
6810 SQ. FT.
0.15634 AC.

LOT 180
6810 SQ. FT.
0.15634 AC.

LOT 181
6810 SQ. FT.
0.15634 AC.

LOT 182
6810 SQ. FT.
0.15634 AC.

LOT 183
8871 SQ. FT.
0.20364 AC.

LOT 188
6870 SQ. FT.
0.15771 AC.

LOT 189
6870 SQ. FT.
0.15771 AC.

LOT 190
6870 SQ. FT.
0.15771 AC.

LOT 191
6870 SQ. FT.
0.15771 AC.

LOT 192
8949 SQ. FT.
0.20544 AC.

LOT 205
9693 SQ. FT.
0.22253 AC.

LOT 206
8988 SQ. FT.
0.20635 AC.

LOT 207
6900 SQ. FT.
0.15840 AC.

LOT 208
6900 SQ. FT.
0.15841 AC.

LOT 204
8810 SQ. FT.
0.20224 AC.

LOT 203
7926 SQ. FT.
0.18195 AC.

LOT 202
12459 SQ. FT.
0.28601 AC.

LOT 193
9656 SQ. FT.
0.22166 AC.

LOT 194
7410 SQ. FT.
0.17011 AC.

LOT 195
7411 SQ. FT.
0.17013 AC.

LOT 196
7423 SQ. FT.
0.17040 AC.

LOT 197
7439 SQ. FT.
0.17077 AC.

LOT 198
7455 SQ. FT.
0.17114 AC.

LOT 199
7471 SQ. FT.
0.17151 AC.

LOT 200
7487 SQ. FT.
0.17188 AC.

LOT 201
14008 SQ. FT.
0.32157 AC.

LOT 125
14143 SQ. FT.
0.32468 AC.

LOT 124
22609 SQ. FT.
0.51903 AC.

N13°32'23"E 200.00' (TOT)

S13°32'23"W 201.00' (TOT)

N13°32'23"E 547.50' (TOT)

S13°32'23"W 168.92' (TOT)

S13°32'23"W 154.19'

S13°32'23"W 139.46'

S13°32'23"W 124.73'

S13°32'23"W 541.50' (TOT)

S13°32'23"W 181.39' (TOT)

S13°47'45"W 451.23' (TOT)
JEFFERSON COUNTY LIMITS

S13°35'52"W 467.39' (TOT)

S34°41'21"W 194.09'

N13°32'23"E 1397.50' (TOT)

S76°16'09"E 194.45' (TOT)

S13°32'23"W 1954.07' (TOT)
JEFFERSON COUNTY LIMITS

CHARLES TOWN CITY LIMITS

S82°39'59"E 382.84' (TOT)
JEFFERSON COUNTY LIMITS

N/F J. RUSSELL FRITTS INC.
CTD #9 P1.5
D.B. 649 PG. 312

N/F FLUHARTY
CTD M9 PI.5
D.B. 960 PG. 380

N/F LANAGAN
CTD M9 PI.2
D.B. 856 PG. 1

N/F FEAGANS
CTD M9 P4.9
D.B. 1062 PG. 460

N/F KOSKI
CTD M9 P4.10
D.B. 562 PG. 686

N:292200.00
E:2440500.00

MAGNETIC NORTH 2018
10°28'
WV COORD. SYS. OF 1983, NORTH ZONE
01°03'34"
TRUE NORTH

50' 25' 0 50' 100' 150'
GRAPHIC SCALE: 1"=50'

= FUTURE SECTION

PRELIMINARY

DENNIS R. MALONEY JR.
LICENSED
No. 1383
STATE OF
WEST VIRGINIA
PROFESSIONAL SURVEYOR

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

STANLEY MARTIN HOMES, LLC
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FINAL PLAT
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STONE SPRING SECTION 1

DEED BOOK 1249, PAGE 647
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JEFFERSON COUNTY, WEST VIRGINIA
SCALE: 1" = 50' DATE: APRIL 30, 2023

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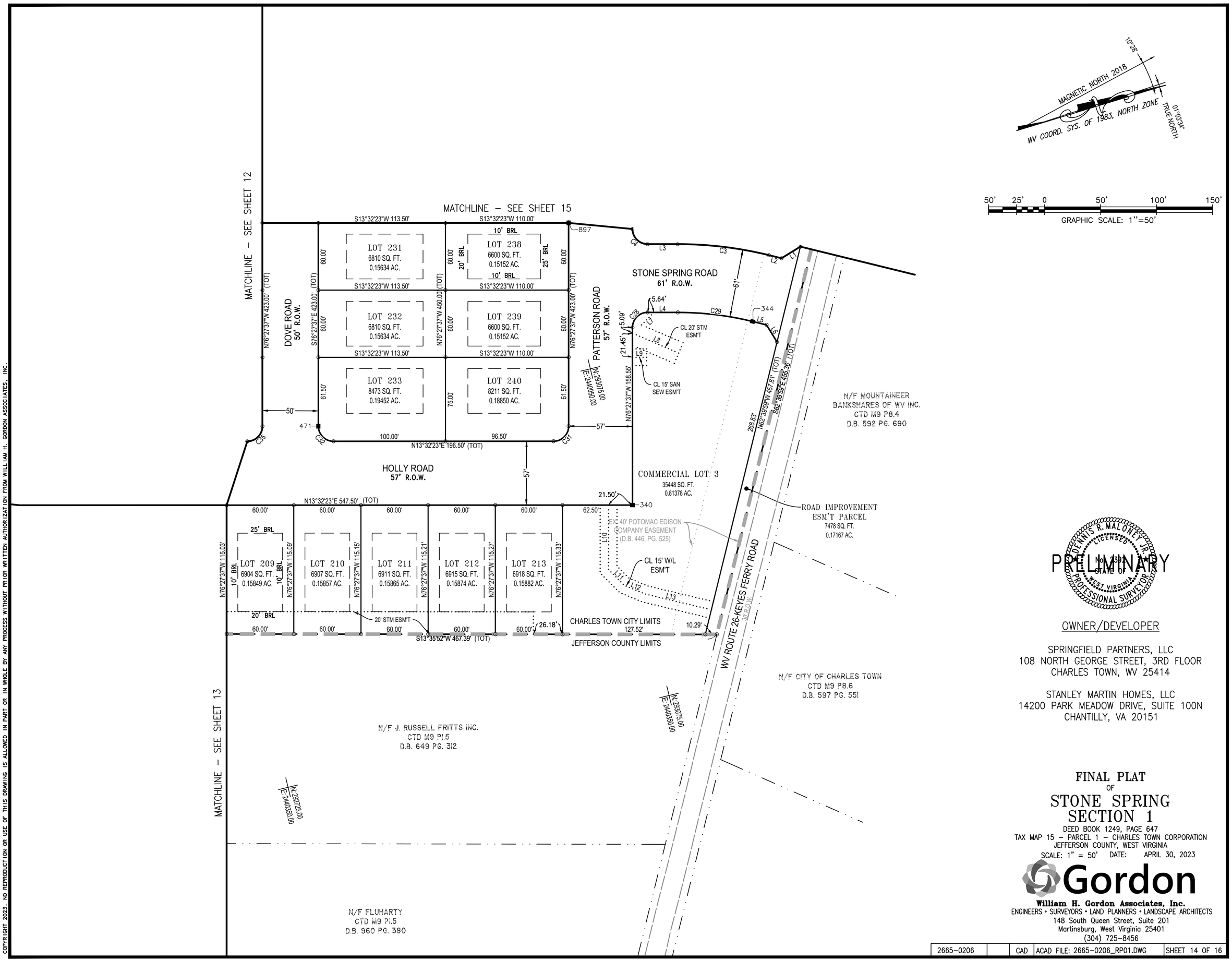

PRELIMINARY

DENNIS R. MALONEY JR. LICENSED No. 1383 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

OWNER/DEVELOPER

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108 NORTH GEORGE STREET, 3RD FLOOR
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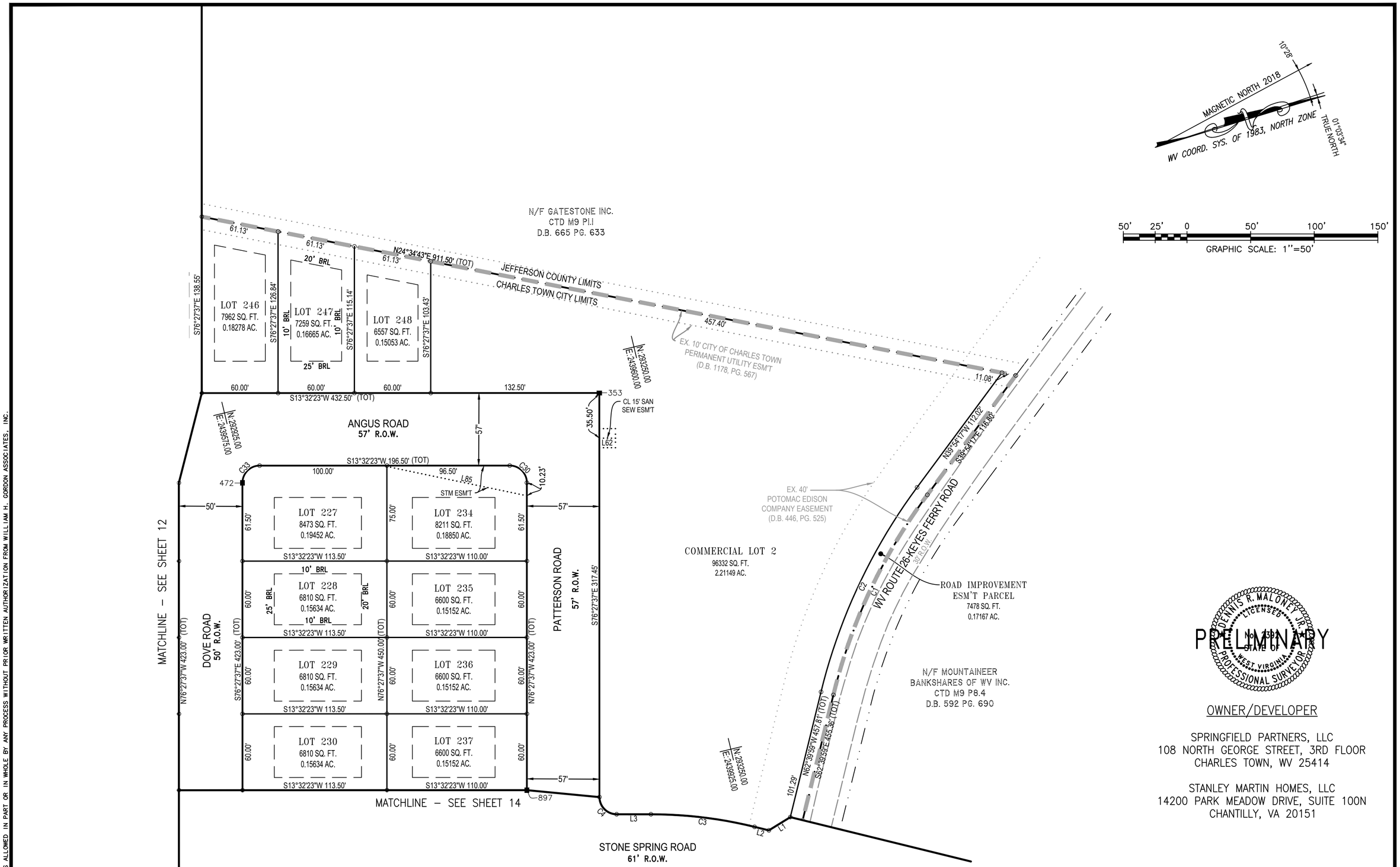

PRELIMINARY

DENNIS R. MALONEY JR. LICENSED No. 1351 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

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14200 PARK MEADOW DRIVE, SUITE 100N
CHANTILLY, VA 20151

FINAL PLAT
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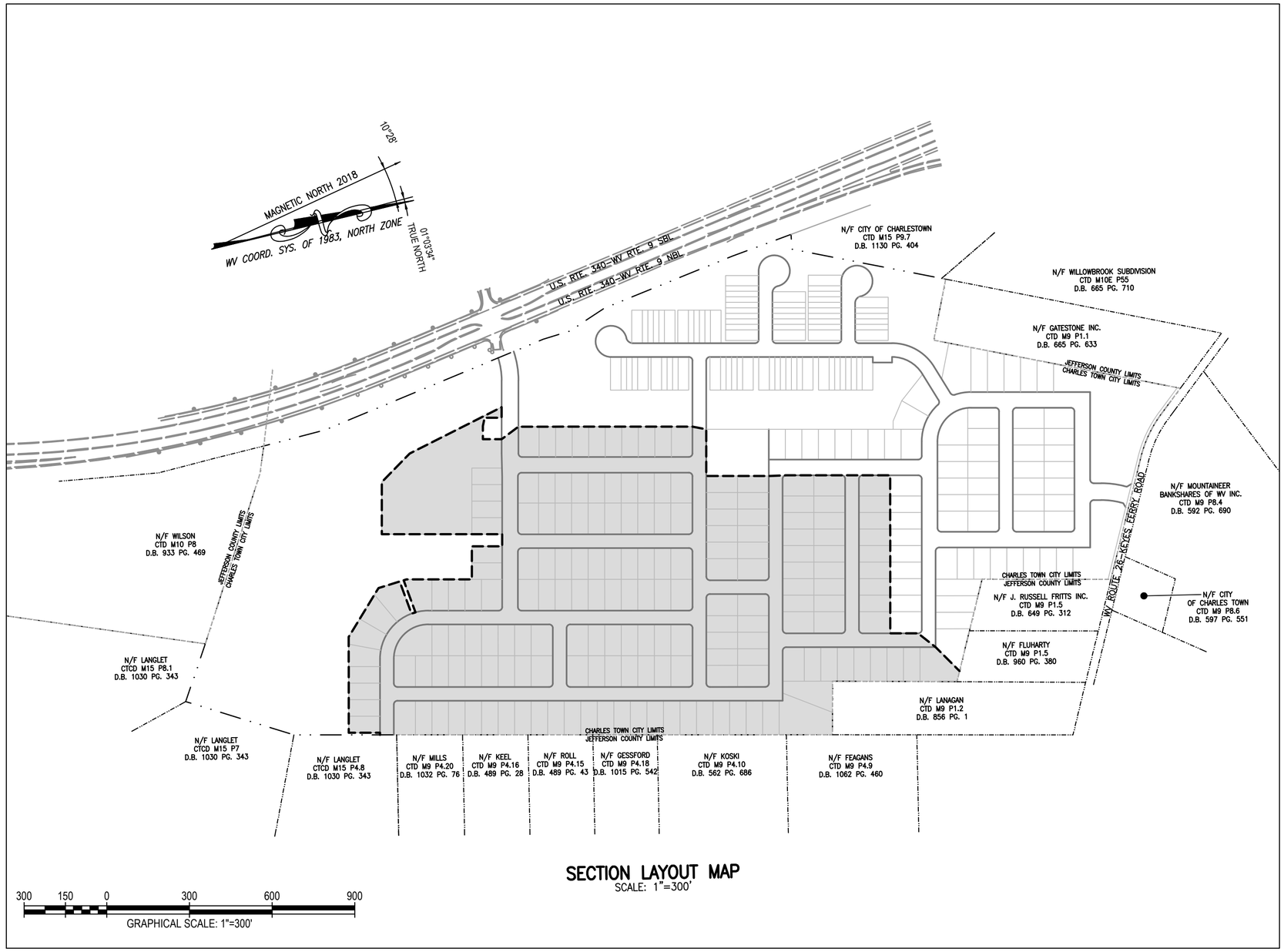

SECTION LAYOUT MAP
SCALE: 1"=300'

= FUTURE SECTION

PRELIMINARY

DENNIS R. MALONEY, JR. LICENSED No. 1383 STATE OF WEST VIRGINIA PROFESSIONAL SURVEYOR

OWNER/DEVELOPER

SPRINGFIELD PARTNERS, LLC
108 NORTH GEORGE STREET, 3RD FLOOR
CHARLES TOWN, WV 25414

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148 South Queen Street, Suite 201
Martinsburg, West Virginia 25401
(304) 725-8456

Planning Commission
101 East Washington Street
Charles Town, WV 25414

Meeting: 06/26/23
Department: Planning Commission
Category: Report
Initiator:

SCHEDULED

AGENDA ITEM (ID #)

Public Hearing – SLD2023-06/Tri-State Investment Properties LLC. A sketch plan for the expansion of an existing daycare facility.

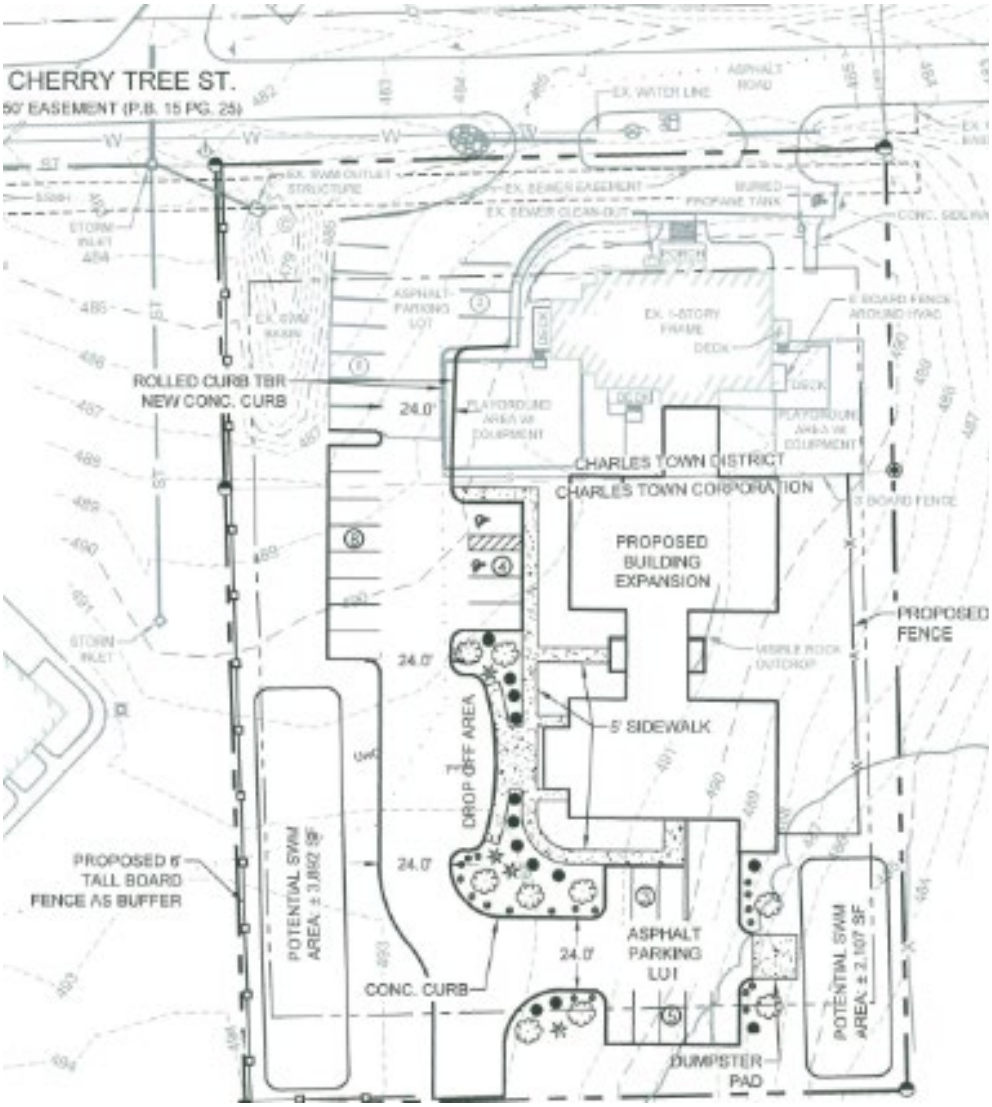
ATTACHMENTS:

- 1. Staff Report.pdf
- 2. Plans.pdf
- 3. Revised Narrative.pdf
- 4. Application.pdf

Sketch Plan Report

SLD2023-06

Date: For the June 26, 2023 Planning Commission meeting.
Applicant: Christopher Hill
Property Owner: Tri-State Investment Properties LLC
Report by: James Newman, City Planner, Zoning/Subdivision Administrator.
Proposal: Expansion of an existing daycare center
Property Location: TD 02 / Map: 10 / Pcl: 9.002, located on Cherry Tree Drive
Current Zoning: Property lies on the County/City boundary. Portion in the City is zoned General Commercial.



PROJECT OVERVIEW

The property is 1.6 acres in size. The applicant has an existing day-care on site, and is seeking to expand the use.

HISTORY

On December 27, 2022, the Planning Commission approved a waiver to allow a boundary line adjustment to be reviewed by staff as a minor subdivision application. The boundary line adjustment was subsequently approved by the Zoning Administrator on January 9, 2023.

The Jefferson County Geographic Information Systems (GIS) website has not yet been updated to reflect the approved boundary line adjustment.

On May 22, 22023, the Planning Commission voted to deem the application complete.

ZONING REVIEW

The portion of the site within the City is zoned General Commercial.

Setbacks

Front: 40 ft.
Sides: 10 ft. (25 ft. where adjoining a residential zoning district).
Rear: 30 ft

Density

Not applicable.

Open Space

No requirement.

Parking

Required parking for a day-care center is .24 parking spaces per student. Total enrollment aim is for 105 children with 23 staff positions; currently has 46 children and nine staff.

Currently has 12 spaces, including one handicap space. Total enrollment of 105 children necessitates 25.2 spaces. Plans show 32 spaces, of which three are handicap spaces.

Traffic Impact

The application states that there will be a maximum of 23 employees and 105 staff at full occupancy.

Per the ITE 10th Edition, a Day Care Center (ITE Code 565) has the following trip generation:

- Weekday Traffic Volume – 21.38 VPD/Per Employee
- AM Peak Hour – 4.49 Vehicle/Employee
- PM Peak Hour – 4.36 Vehicle/Employee

With the proposed number of 23 employees, the trips generated at peak hours are:

- Weekday Traffic Vehicles – 492 VPD
- AM Peak Hour – 104 Vehicles
- PM Peak Hour – 101 Vehicles

Based on Code Section 1333.06.B. a traffic impact study is required whenever the proposed land development is projected to generate 100 or more trips per hour during peak hours. Both the AM and pm peak hours are expected to exceed that amount.

The applicant has provided an updated narrative stating there will be a maximum of 18 employees and 105 students at full occupancy.

Per the ITE 10th Edition, a Day Care Center (ITE Code 565) has the following trip generation:

- Weekday Traffic Volume – 21.38 VPD/Per Employee
- AM Peak Hour – 4.49 Vehicle/Employee
- PM Peak Hour – 4.36 Vehicle/Employee

With the proposed number of 18 employees, the trips generated at peak hours are:

- Weekday Traffic Vehicles – 385 VPD
- AM Peak Hour – 81 Vehicles
- PM Peak Hour – 79 Vehicles

Street Connections

There is an existing entrance onto Cherry Tree St. No additional entrances/curb-cuts are proposed as part of this plan.

Landscaping

In parking lots with over 25 spaces, there must be one tree shade tree planted per every 10 parking spaces. Additionally, at least 5% of the parking to must be devoted to interior landscaping The plan shows a break in the parking lot that could be used as a landscaping area. Landscaping is not required to be shown in detail on a sketch plan.

Buffers

A 6ft. tall opaque buffer is required between residential and non-residential uses. The plans show a proposed 6 ft. tall wooden fence as the buffer, which meets Code requirements.

Stormwater

Stormwater control facilities are not required to be shown on a sketch plan; they are required on a preliminary and final plan. The City's Engineering firm, Kimley-Horn, had no comments at this stage about stormwater control facilities.

Utilities

Plans show water, gas, and sewer utility lines and locations/easements.

Dumpster

The dumpster must be fenced on three sides. The dumpster cannot be oriented towards the street; additional details for layout and screening will be required at the preliminary plan stage.

COMPREHENSIVE PLAN

The 2040 Comprehensive Plan identifies this property as Mixed Use Commercial.

CONCLUSION

The application and design are in conformance with Code requirements. The applicant has provided a narrative with a number of employees which would not require a traffic impact study. Based on the provided information, and conformance with Code requirements, the sketch plan should be **approved**.

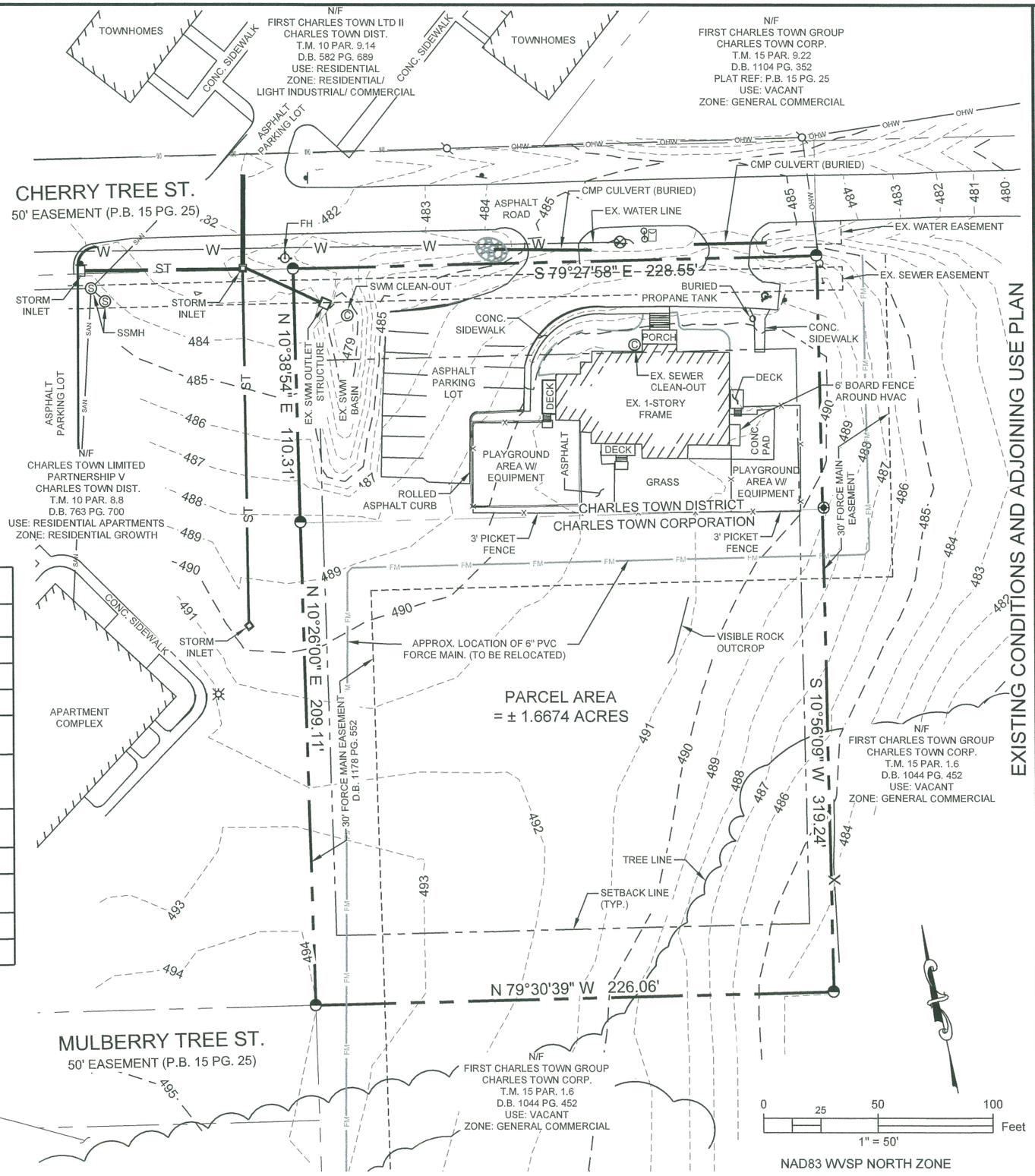


TABLE 1322.10, GC DISTRICT BULK AND AREA REGULATIONS		
	REQUIRED	PROVIDED
MAXIMUM DENSITY	NO REQUIREMENT	N/A
MINIMUM LOT SIZE	NO REQUIREMENT	1.6674 ACRES
MINIMUM LOT WIDTH	NO REQUIREMENT	226.06'
MINIMUM FRONT YARD SETBACK	40 FEET	40 FEET
MINIMUM SIDE YARD SETBACK	10 FEET (25 FEET WHEN ADJOINING RESIDENTIAL DISTRICT	NON-RESIDENTIAL: 40' RESIDENTIAL: 106'
MINIMUM REAR YARD SETBACK	30 FEET	82 FEET
MAXIMUM LOT COVERAGE	90%	45%
MINIMUM REQUIRED OPEN SPACE	NO REQUIREMENT	0
MAXIMUM BUILDING HEIGHT	55 FEET	30 FEET
MAXIMUM STORIES	5 STORIES	1 STORY

RICHARD WM. KLEIN
REGISTERED
7624
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

5/10/23

ALPHA ASSOCIATES, INC.
535 W. KING STREET
MARTINSBURG, WV 25401
PHONE: 304-264-0051
TOLLFREE: 877-264-0051
www.thinkALPHAfirst.com

SKETCH PLAN

FOR

TINY TREASURES DAYCARE AND LEARNING CENTER

BUILDING EXPANSION

CITY OF CHARLES TOWN T.M. 10 PAR. 9.20 D.B. 1228 PG. 138
JEFFERSON COUNTY, WEST VIRGINIA

OWNER/DEVELOPER:
TRI-STATE, LLC

ADDRESS:
PO BOX 1
KEARNEYSVILLE, WV 25430

PHONE:
410-206-4791

ATTN:
CHRISTOPHER HILL

PROJ. NO.:	2304028.00
DATE:	5/10/2023
SHEET NO.:	1 OF 2

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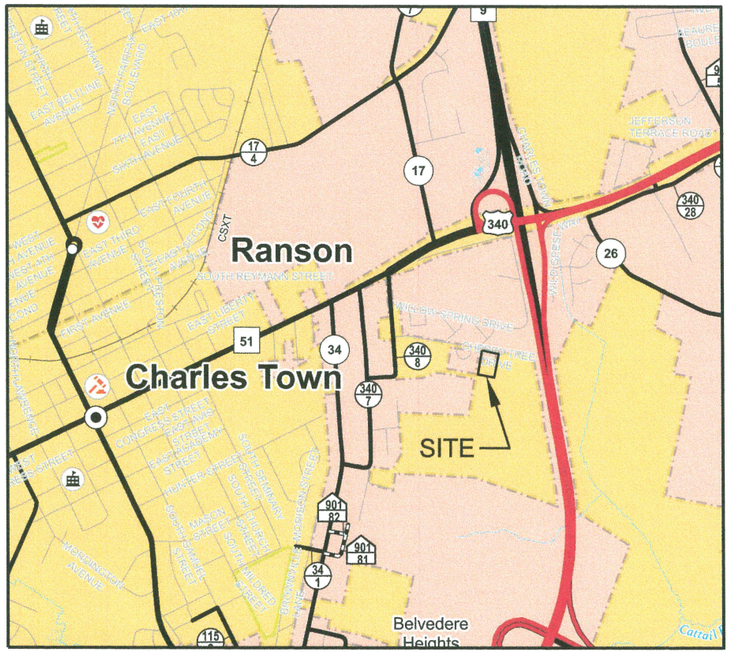
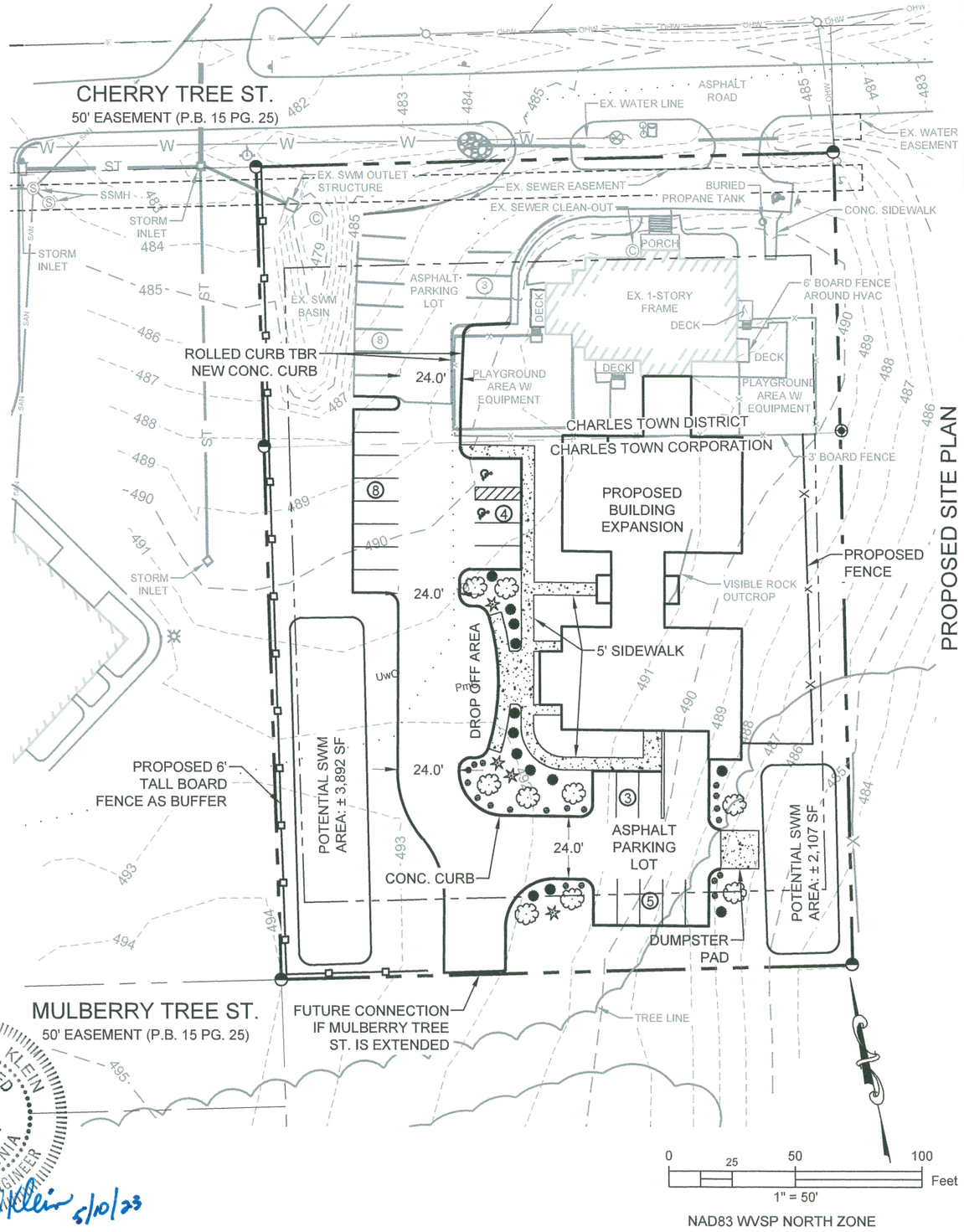


VICINITY / ZONING MAP SCALE: 1" = 2000'

NOTES:

1. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY BE SUBJECT TO RECORDED OR UNRECORDED RIGHT-OF-WAYS, EASEMENTS, RESTRICTIONS OR EXEMPTIONS NOT SHOWN HEREON.
2. THIS PROPERTY IS DESIGNATED TO BE IN FLOOD ZONE X, AN AREA OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD, PER FEMA MAP PANEL 54037C0137E, EFFECTIVE DATE 12/18/2009.
3. SOURCE OF CONTOURS: TOPOGRAPHY SURVEY BY ALPHA ASSOCIATES, APRIL 2023.
4. SOURCE OF BOUNDARY: PLAT OF BOUNDARY LINE ADJUSTMENT DATED SEPT. 7, 2022 RECORDED IN THE OFFICE OF THE COUNTY CLERK OF JEFFERSON COUNTY IN P.B. 26 PG. 158.
5. SITE SPANS JEFFERSON COUNTY AND CHARLES TOWN JURISDICTIONAL LINES. PORTION TO BE DEVELOPED IN CHARLES TOWN CORP. IS ZONED GENERAL COMMERCIAL.
6. PUBLIC WATER AND SEWER CURRENTLY SERVE THE EXISTING STRUCTURE AND ARE PROVIDED BY CHARLES TOWN UTILITY BOARD.
7. IT IS THE INTENT OF THE DEVELOPER TO EXPAND THE EXISTING SWM BASIN TO ACCOMMODATE THE BUILDING EXPANSION.
8. PARKING TABULATION
   REQUIRED: 0.24 SPACES PER STUDENT
   0.24 X 105 = 25.2 SPACES REQUIRED
   EXISTING: 12 SPACES (1 OF WHICH IS HANDICAP)
   PROPOSED: 20 SPACES (2 OF WHICH ARE HANDICAP, 1 BEING VAN ACCESSIBLE)
   TOTAL POST CONSTRUCTION: 32 SPACES, 3 OF WHICH ARE HANDICAP
9. THE EXISTING USE OF THE PROPERTY IS A DAY CARE CENTER. THIS PLAN PROPOSES AN ADDITION / EXPANSION OF THE DAY CARE CENTER. NO OPEN SPACE OR PUBLIC RECREATION AREAS ARE PROPOSED WITH THIS PROJECT.
10. THERE ARE NO PUBLIC TRAILS OR CROSSWALKS REQUIRED OR PROPOSED
11. SWM ESTIMATED - 6,000 SF
    SENSITIVE ENVIRONMENTAL AREA - 0
    PUBLIC R/W - 0
12. FOR COVENANTS, RESTRICTIONS, EASEMENTS, ETC. THAT MAY APPLY, SEE PLAT RECORDED IN PLAT BOOK 15, PAGE 25.
13. AS CHERRY TREE STREET IS A COUNTY ROAD, WHICH IS BUILT AS AN OPEN SECTION STREET WITH OPEN DITCHES FOR DRAINAGE, IN ORDER TO ADD A SIDEWALK, THE STREET WOULD NEED TO BE COMPLETELY REBUILT WITH STORM DRAINS, CURB & GUTTER, AND SIDEWALK. THEREFORE, THE DEVELOPER IS NOT PROPOSING A SIDEWALK.



RICHARD WM. KLEIN REGISTERED 7624 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

Richard W Klein 5/10/23

ALPHA ASSOCIATES, INC.
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SKETCH PLAN

FOR

TINY TREASURES DAYCARE AND LEARNING CENTER BUILDING EXPANSION

CITY OF CHARLES TOWN T.M. 10 PAR. 9.20 D.B. 1228 PG. 138
JEFFERSON COUNTY, WEST VIRGINIA

OWNER/DEVELOPER:
TRI-STATE, LLC

ADDRESS:
PO BOX 1
KEARNEYSVILLE, WV 25430

PHONE:
410-206-4791

ATTN:
CHRISTOPHER HILL

PROJ. NO.:	2304028.00
DATE:	5/10/2023
SHEET NO.:	2 OF 2

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248 Cherry Tree Drive • Charles Town, WV 25414 • 304-885-8518

June 21, 2023

TO: Whom it may concern

RE: Proposed Expansion of Daycare Center

MEMO: Tiny Treasures Daycare and Learning Center, at this time, proposes to expand onto their facility to better accommodate the community and address a growing waitlist of over 73 children waiting to receive childcare in the Charles Town and surrounding communities. We are currently at full capacity, licensed for 47 children. Our expansion is currently drawn and pending several reviews from agencies to add staff and children positions which will total 18 staff and 105 children after the addition. Our age groups vary from infancy (6 weeks) to school age.

Sincerely,

Amanda Hill

Owner

Sketch Plan Application No._____

SKETCH PLAN APPLICATION

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE
ARTICLE 1332, SUBDIVISION AND LAND DEVELOPMENT APPLICATION & APPROVAL REQUIREMENTS

To assist the Subdivision Administrator in the review of a Sketch Plan Application, the Applicant must utilize this form to supply the City with the information prescribed under Section 1332.03 of the Charles Town S/LD Ordinance. The submission of this form, along with the prescribed information and required fees, shall serve as the Applicant's Sketch Plan Application as required by Ordinance Section 1332.03. Applicant is responsible to ensure the standards of Ordinance Section 1332.04, Sketch Plan Requirements, are met and provided herein is a checklist of the Sketch Plan requirements.

1. DATE April 21, 20 23

2. APPLICATION TYPE*

☒ Zoning Use Permit, Special Exception Use and Sketch Plan requirements found in the Supplemental Regulations of the Zoning Ordinance
- Submit Three (3) 11" x 17" copies of the Sketch Plan shall be submitted and in Adobe PDF format

☐ Major S/LD Development
- Submit Three (3) 18" x 24" copies of the Sketch Plan shall be submitted and in Adobe PDF format

*There are two types of Sketch Plan submissions:

1. For Zoning Use Permit, Special Exception Use and Sketch Plan requirements found in the Supplemental Regulations of the Zoning Ordinance. Submission standards are found in Section 1332.04(D).
2. For a Sketch Plan for a Major S/LD application, submission standards are found in Section 1332.04(E)

3. APPLICANT'S NAME* Christopher Hill

Address: 248 CHERRY TREE DRIVE CHARLES TOWN, WV 25414

Telephone Number (410)206-4791 Fax Number (___)

Email Address chris@tristatewv.com

4. PROPERTY OWNER'S NAME Tri-State Investment Properties, LLC.

Address: PO Box 1 Kearneysville, WV 25430

Telephone Number (410)206-4791 Fax Number (___)

Email Address chris@tristatewv.com

5. LEGAL DESCRIPTION OF THE SUBJECT PROPERTY (list all parcels that apply)

Property Address: 248 CHERRY TREE DRIVE CHARLES TOWN, WV 25414

Tax Map # and Parcel: Map 10 Parcel 9.20

Deed Book and Page #: 1228/138

Property Area in Square Feet or Acres: 1.6674 acres

6. DESCRIPTION OF PROJECT AND PROPOSED USE(S) OF THE PROPERTY:

Current property located in county is zoned as Residential Growth, and is operating as an approved daycare facility providing care for 46 children aged 6 weeks to 5 years old and employing 9 staff. Due to high demand and lack of childcare in the area, we propose to construct an addition to be licensed for an additional 59 children. The center will care for a total 105 children and propvide 23 staff positions.

7. DESCRIPTION OF THE EXISTING (OR FORMER) USE(S) OF THE PROPERTY AND CURRENT ZONING:

Currently the existing center is in county jurisdiction. The addition will span into the city jurisdiction that is zoned as general commercial.

*Applicants include: Property owner(s), Engineer(s), Surveyor(s), or Consultant(s)

8. ARE THERE ANY ANTICIPATED WAIVERS OR VARIANCES? IF YES, PROVIDE DETAILS.

No

9. HAS THE PROPERTY BEEN THE SUBJECT OF ANY COURT ACTION?

☐ Yes (Please specify nature of all proceedings and current status and attach any documents showing court decisions, etc.)

☒ No

10. PARCEL HISTORY (List all pending or previously approved applications on the subject parcels inventoried above, including previous site plan applications if this application is a site plan amendment)

Application No.	Project Name and Phase	Status	Approval Date

11. INTERESTED PARTY ADDRESSES, FOR PUBLIC NOTICE (including across street)
(Interested parties are defined as adjacent properties within 100 feet).

Owner	# and Street	City, State, Zip
First Charles Town Group	PO Box 183	Charles Town, WV 25414
Charles Town Limited Partnership	PO Box 547	Charles Town, WV 25414
Charles Town LTD III	PO Box 547	Charles Town, WV 25414

APPLICANT CERTIFICATION

I certify that, to the best of my knowledge, the submitted information and statements are true and correct. I also certify that I have received and read Section 1332.02 of the Charles Town S/LD Ordinance and relevant provisions of the Charles Town City Code.

Signature of Applicant

_____ Date 04/20/2023

Signature of Property Owner (If different than Applicant)

_____ Date _____

Please submit an original completed Application and specified number of Site Plan copies to the following:

Subdivision Administrator
City of Charles Town
101 E. Washington Street
Charles Town, WV 25414

FOR CITY USE ONLY

Application Number:_____ Date Application Received:_____

Fee: $_____ Paid:$_____ Check No._____

Receipt No._____

Subdivision Administrator Approval:_____ Date:_____

Planning Commission Approval:_____ Date:_____

Comments:_____

_____

_____

_____

_____

_____

CHARLES TOWN, WEST VIRGINIA
Department of Community Development
Division of Planning and Zoning
101 East Washington Street, P.O. Box 14
Charles Town, West Virginia 25414

Phone: (304) 725-2311

Fax (304) 725-1014

File Number: _____
Staff Initials: _____
Fees Paid: _____

https://goo.gl/KGzDMZ

Sketch Plan Review Checklist
Amended 2017 Subdivsion Ordinance

(please check one) _____**Major S/LD Application** or
_____**Zoning Use Permit, Special Exception Use, or Sketch Plan (requirements found in the Supplemental Regulations of the Zoning Ordinance)**

Project Name: Daycare Expansion

Property Owner Information					
Property Owner:					
Mailing Address:					
City:		State:		Zip Code:	
Phone Number:		Email:			
Signature:				Date:	

Applicant's Registered Engineer or Surveyor or Design Consultant					
Name:					
Mailing Address:					
City:		State:		Zip Code:	
Phone Number:		Email:			

Physical Property Details					
Physical Address:					
City:		State:		Zip Code:	
Tax District:		Map No:		Parcel No:	
Parcel Size:		Deed Book:		Page No:	

Zoning of Subject Property			**Is the Project to Be:**	**Is Property In:**
Urban Reserve (UR)	Residential Medium-High Density (R-15)	Neighborhood Commercial (NC)	Planned Unit Development (PUD)	Historic Overlay District (HOD)
General Commercial (GC)	Old Town Residential (OT-R)			Floodplain Overlay District (FOD)
Old Town Mixed Use Commercial (OT-MUC)	Neighborhood Residential (NR)			

City Use Only	1st Review	2nd Review	3rd Review	4th Review
Submittal Date				
Zoning Administrator				
City Planner				
GIS/Addressing				
Return Date				

Conditions of Approval (Attach Additional Comments As Needed)

Instructions

1. This checklist is provided as a quick reference guide only. The Consultant/Developer is responsible for reading the regulations and fully complying with all the requirements. All references to the Subdivision Ordinance and Zoning Ordinance are cited for informational purposes only.

2. The checklist shall be completed by the Engineer/Surveyor or Design Consultant and attached to the Sketch Plan review submission.

Requried Submittal Information

_____ 1 Check for Applciation Fees

_____ 1 Completed Application and Checklist (Signed by owner)

_____ 3 Sets of Sketch Plans and Adobe PDF Format

Sub-Section	*Ordinance Requirements: (See instructions on page 2)*	Engineer /Surveyor	1st Review	2nd Review	3rd Review	4th Review	Review Key
							✓ Ok
							O Incomplete
							N/A Not Applicable
							X Unacceptable
Sub-Section	**SUBDIVISION ORDINANCE Section 1332.04, Sketch Plan Requirements**						
A	**THERE ARE TWO TYPES OF SKETCH PLAN SUBMISSIONS: Sections in Red and Blue are depict the different types.**						
A1 and D	For: **• Zoning Use Permit** **• Special Exception Use** **• Sketch Plan requirements found in the Supplemental Regulations of the Zoning Ordinance** The following information shall be provided for Sketch Plan review:						
D1	Three (3) 11" x 17" copies of the Sketch Plan shall be submitted and in Adobe PDF format.						
D2	The Sketch Plan shall be drawn to a 1"=50' scale						
D2	The Sketch Plan must illustrate the following elements in such a way that the Subdivision Administrator or authorized designee can determine if the proposed Subdivision or Land Development meets the criteria of this Ordinance, **as applicable:**						
D2a	Existing conditions, including boundary lines of the property						
D2b	A land use plan, showing the location, arrangement and approximate boundaries of all proposed land uses						
D2c	Vicinity map, north arrow, scale (written and graphic) and date						
D2d	Name of proposed project or other identifying title and date plan was prepared. Name and address of the Engineer, Surveyor, Architect, Landscape Architect, Land Planner or Property Owner who prepared the plan						
D2e	Current zoning and total area of the property						
D2f	Maximum and proposed density						
D2g	Available utilities						
D2h	All existing sanitary sewer facilities and combined sewer facilities						
D2i	Depict location or statement of proposed water and sewer supply and other utility improvements						
D2j	Existing covenants						
D2k	General layout of any proposed number of Lots, average Lot sizes and any proposed commercial uses, including any associated parking. Include proposed height of structures						
D2l	Statement of total acreage of the tract being subdivided or developed						
D2m	Location of proposed Street layout, including connections to adjoining streets or vacant lots						
D2n	The location of sidewalks, trails and crosswalks						
D2o	Proposed open space and/or recreation areas, including notes on the plan describing the proposed use, activity area and/or improvement						
D2p	Any other information requested by the Subdivision Administrator in order for the Subdivision Administrator to make an accurate determination.						
A2 and E	For a **Major S/LD Application.** The following information shall be provided for Sketch Plan review:						
E1	Three (3) 18" x 24" copies of the Sketch Plan shall be submitted and in Adobe PDF format.						
E2	The Sketch Plan shall be drawn to a 1"=50' scale						
E2	The Sketch Plan must illustrate the following elements in such a way that the Subdivision Administrator or authorized designee can determine if the proposed Subdivision or Land Development meets the criteria of this Ordinance:						
E2a	Existing conditions, including boundary lines of the property						
E2b	A land use plan, showing the location, arrangement and approximate boundaries of all proposed land uses						

	Ordinance Requirements: (See instructions on page 2)	Engineer /Surveyor	1st Review	2nd Review	3rd Review	4th Review	Review Key	
							✓	Ok
							O	Incomplete
							N/A	Not Applicable
							X	Unacceptable
E2c	Vicinity Map, North arrow, scale (written and graphic) and date							
E2d	Names of the abutting owners, adjoining lot lines and structures on abutting lots within 100 feet of the property							
E2e	Title of the proposed project; the date, month and year the plan was prepared or revised; the name of the applicant(s), owner(s), and contract owner(s) and the name and address of the Engineer, Surveyor, Architect, Landscape Architect, or Land Planner who prepared the plan, including firm name							
E2f	Current zoning and total area of the property							
E2g	Maximum and proposed density based on the Net Buildable Land Area							
E2h	Available utilities							
E2i	All existing sanitary sewer facilities and combined sewer facilities							
E2j	Depict location or statement of proposed water and sewer supply and other utility improvements							
E2k	Existing covenants							
E2l	General layout of any proposed number of Lots, average Lot sizes and any proposed commercial uses, including any associated parking. Include proposed height of structures							
E2m	Statement of total acreage of the tract being subdivided or developed, including the Net Buildable Land Area							
E2n	The approximate acreage in common open space, in each use and housing type and in roads, streets or rights-of-way for the total development							
E2o	The proposed number of dwelling units of each type in each in the total development							
E2p	Location of proposed Street layout, including connections to adjoining streets or vacant lots							
E2q	The location of sidewalks, trails and crosswalks, as may be applicable							
E2r	Proposed open space and/or recreation areas, including notes on the plan describing the proposed use, activity area and/or improvement. The amount, approximate boundaries and location of common open space, with the percentage of the total acreage of the site to be placed in common open space							
E2s	The location of environmental sensitive land to be included in common open space							
E2t	Notes indicating any modifications, waivers, variances, special exceptions and/or conditional uses that are required							
E2u	The location and extent of proposed buffers							
E2v	The proposed location, arrangement, and right-of-way widths of roads and streets, including roads and streets providing access to adjoining parcels. The location and arrangement of street entrances, driveways and parking areas							
E2w	Calculations describing all proposed bonus factors with the location of and specifications for bonus improvements, when proposed							
E2x	Any other information requested by the Subdivision Administrator in order for the Subdivision Administrator to make an accurate determination							
Sub-Section	**SUBDIVISION ORDINANCE Section 1333.01, General Site Planning and Design Specifications**							
D1d	There is **no** requirement that a Sketch Plan or Preliminary Plat show phasing.							

Planning Commission
101 East Washington Street
Charles Town, WV 25414

SCHEDULED

Meeting: 06/26/23
Department: Planning Commission
Category: Report
Initiator:

AGENDA ITEM (ID #)

Preliminary Plan Review: Norborne Glebe Pool (SLD2022-06).

ATTACHMENTS:

- 1. Staff report.pdf
- 2. Plans.pdf
- 3. Application.pdf

Preliminary Plan Report
SLD2022-06

Date: For the June 26, 2023 Planning Commission meeting
Applicant: Greenway Engineering
Property Owner: Arcadia Land Inc.
Report by: James Newman, City Planner, Zoning/Subdivision Administrator.
Proposal: Major Subdivision and Land Development.
Property Location: Located on Candlewood Drive in areas outlined and crosshatched below.
Current Zoning: Neighborhood Residential



PROJECT OVERVIEW

The development of 3.38 acres for a pool and 1,977 sq. ft. poolhouse, basketball court, pickleball court, tot lot, and parking lot.

SKETCH PLAN

The sketch plan was approved by the Planning Commission on April 24, 2023. The preliminary plan is **generally in conformance** with the sketch plan.

ZONING REVIEW

The property is zoned Neighborhood Residential (NR).

Lot Coverage

In the NR zoning district, up to 70% of a lot may be developed. This project will develop 64.5% of the site. The site is 5.49 acres in size, and 3.55 acres will be developed.

Open Space

Requirement: 10%. Applicant is providing 70.4% / 2.38 acres.

Setbacks

Front : 30 ft.
Sides: 10 ft.
Rear: 20 ft.

Parking

The Subdivision Ordinance does not provide required parking for pools; no minimum parking is presented in Table 1333.23.J.

Per Section 1333.23.J., "*the Planning Commission will consider an applicant's proposed alternative parking program requirements as a substitute to the requirements specified in Table 1333.23(J).*"

The applicant is proposing 40 parking spaces. They have used the guidelines of Prince William County, since there are no listed requirements in the Charles Town Code.

Landscaping

In parking lots with over 25 spaces, there must be one tree shade tree planted per every 10 parking spaces. This plan meets that requirement.

At least 5% of the parking to must be devoted to interior landscaping. This plan meets that requirement.

A row of shrubbery (with a minimum planting height of 18 inches) is required between the parking lot and the street; this detail can added to the final plan.

The pool is surrounded by a fence, with three access gates.

Lighting

Applicant is proposing lighting in conformance with the City's lighting standards. There are eight light poles. The poles are less than 33 feet in height (16 ft. maximum proposed), with a colonial style light. While meeting maximum height requirements, the proposed light design does not meet the City's requirement for an acorn style top; proposed design is for a colonial post top.

The Planning Commission may approve alternative lighting post designs/styles. No waiver is required for alternative lighting styles.

The lighting must not exceed an average of 0.8 footcandles at the property line; the lighting plan conforms to this requirement. The maximum average lighting must not exceed 3-foot candles; the lighting plan conforms to this requirement.

Stormwater

Stormwater plans are reviewed by the City's engineering firm Kimley-Horn. They have raised no concerns about the proposed plans, and the applicant has addressed their comments.

RECOMMENDATION

Applicant is proposing a pool and 1,977 sq. ft. poolhouse, basketball court, pickleball court, tot lot, and parking lot.

Approval by the Planning Commission is not a public hearing, and is for the benefit of the Planning Commission to ensure the Preliminary Plat and Plan is in substantial compliance with the sketch plan.

Due to general conformance with the sketch plan and zoning and subdivision regulations, the Planning Commission should vote to **approve** the preliminary plan, subject to the following condition:

1. That lighting shall mimic the design of downtown Charles Town, using acorn style tops.

NORBORNE GLEBE

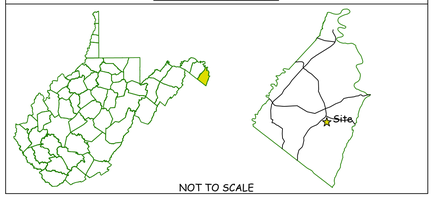
POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT

MAJOR SLD 2022-06-SP

CHARLES TOWN CORP. DISTRICT (3) - MAP 12 - PARCEL 215
DEED BOOK 1173 - PAGE 85
CITY OF CHARLES TOWN
JEFFERSON COUNTY, WEST VIRGINIA
ZONED NEIGHBORHOOD RESIDENTIAL (NR)

GENERAL LOCATION



Plan Revisions

Revision	Date	Comment
1	05/26/2023	PER CITY, CTUB, & CLIENT COMMENTS**
2	06/01/2023	PER NPDES PERMIT
3	06/14/2023	PER CTUB COMMENTS
4	06/15/2023	PER CITY COMMENTS

STATE & LOCAL PERMITS

AGENCY	PERMIT #/APPROVAL DATE
WVDEP	WVR1101047 / 03/28/2022
WVDOH	05-02-0050 /01-23-2021

CALL "MISS UTILITY"

MISS UTILITY OF WEST VIRGINIA (MUWV) AT 811 OR 1-800-245-4848, 48 HOURS PRIOR TO THE START OF WORK. EXCAVATORS MUST NOTIFY ALL PUBLIC UTILITY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATING OR BLASTING AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL COUNTY REQUIREMENTS, WEST VIRGINIA CODE AND REGULATIONS.

UTILITY NOTICE (AS NEEDED)

Contractors shall notify all public utility operators who maintain underground utility lines in the area of proposed excavating or blasting at least two (2) working days, but not more than ten (10) working days, prior to commencement of excavation or demolition. Names and telephone numbers of the operators of underground utility lines appear below. These numbers shall also be used to serve in an emergency condition.

Water: Charles Town Utility Board
832 S. George Street
Charles Town, WV 25414
(304) 725-2316

Sewer: Charles Town Utility Board
832 S. George Street
Charles Town, WV 25414
(304) 725-2316

Power: Potomac Edison
P.O.Box 3615
Akron, OH 44309
(800) 686-0011

Phone: Frontier Communications
1108 N. Mildred Street
Ranson, WV 25438
(304) 728-8500

Soil Conservation: Eastern Panhandle Conservation District
151 Aikens Center, Suite 2
Martinsburg, WV 25404
(304) 263-4376



VICINITY MAP

SCALE: 1" = 400'

Sheet List Table

Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL NOTES
3	ADJOING OWNER INFORMATION & PHASING KEY
3A	EXISTING CONDITIONS
4	E&S PHASE I
5	TRAIL E&S PHASE I
6	E&S PHASE II
7	TRAIL E&S PHASE II
8	E&S NARRATIVE
9	E&S DETAILS
10	LAYOUT & UTILITY PLAN
11	GRADING PLAN
12	TRAIL LAYOUT PLAN
13	PRELIMINARY PLAN
14	UTILITY PROFILES
15	LANDSCAPE PLAN
16	CITY OF CHARLES TOWN AND CURB RAMP DETAILS
17	CTUB DETAILS
18	LIGHTING PLAN
19	SITE DETAILS
20	SWM PLAN
21	SWM DETAILS
22	SWM COMPS

****REVISION NARRATIVE 05/26/2023**

1. ADDED PICKLEBALL COURT.
2. ADDED HALF COURT BASKETBALL.
3. REVISED TRAILS AND SIDEWALKS FOR CONNECTIVITY WITH NEW RECREATIONAL AMENITIES AND TO TIE INTO EXISTING SIDEWALK AND ACCESSIBLE ROUTE.
4. REVISED WATERLINE SERVICE AND SANITARY LATERAL CONNECTION INTO BUILDING.
5. UPDATED LIMITS OF DISTURBANCE AND E&S CONTROLS.

Charles Town - Complete List of Waivers/Variances

Ordinance	Section of Ordinance	Description of Waiver or Variance	Date Granted

"This property is in an area designated as a special flood area, as shown on Community Map/panel Number 54037C0138E, Effective date 12/18/2009."

OWNER/DEVELOPER
ARCADIA LAND, INC
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WEST VIRGINIA 25414
(443) 286-2786

STATEMENT OF ACCURACY

"The Engineer and/or Surveyor, in signing this plat/plan, attests to the best of his or her knowledge, is plan is complete and accurate."

RANDY L. KEPLER, P.E. Date
GREENWAY ENGINEERING INC.

STATEMENT OF ACCEPTANCE

"The developer, in signing this plat/plan, agrees to abide by all conditions, terms and specifications provided heron; and to complete all the improvements required by the Preliminary Plat and Plan or site plan."

ARCADIA LAND, INC. Date
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WEST VIRGINIA 25414

ENGINEER/SURVEYOR'S CERTIFICATION

"The plat represents a survey made by him/her; all Monuments and improvements indicated thereon actually exist, and that their location, size and material are correctly shown; he/she is familiar with all requirements of this Ordinance; and, to his/her best knowledge and belief, all requirements of this Ordinance have been fully complied therewith."

CHRIS BLAIR, PLS Date
GREENWAY ENGINEERING, INC.

PRELIMINARY PLAN AND PLAT APPROVAL

"This Preliminary Plan was approved by the City of Charles Town, on the _____ day of _____, 20_____, subject to any conditions specified hereon.

All expenses incurred with respect to improvements for all utility services, paving, grading, landscaping, curbs, gutters, sidewalks, road lighting, road signs, flood protection devices, drainage structures and all other improvements that may be required shall be the responsibility of the subdivider and not the City.

Secretary of the Planning Commision Date

APPROVALS

PRELIMINARY PLAT APPROVAL DATE

PLANNING COMMISSION DATE

ZONING ADMINISTRATOR DATE

THESE PLANS ARE IN CONFORMANCE WITH CITY OF CHARLES TOWN STANDARDS AND ORDINANCES. ANY DEVIATION OR CHANGE IN THESE PLANS SHALL BE APPROVED BY THE ZONING ADMINISTRATOR PRIOR TO CONSTRUCTION

704 Foxcroft Avenue
Martinsburg, West Virginia 25401
Telephone: (304) 433-3511
Fax: (540) 722-8528
www.greenwayeng.com

GREENWAY ENGINEERING
PROUDLY SERVING VIRGINIA & WEST VIRGINIA
OFFICES IN: WINCHESTER, VA & MARTINSBURG, WV

COVER SHEET
NORBORNE GLEBE
POOL
PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT
CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

RANDY L. KEPLER REGISTERED 17223 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

DATE: 04/26/2023
SCALE: AS NOTED
DESIGNED BY: AM/CW
FILE NO. 4542A
SHEET 1 OF 22
22-06-SP

LIST OF SERVICES: CIVIL ENGINEERING I GIS I LAND SURVEYING I ENVIRONMENTAL I ANALYTICAL LABORATORY I QUALITY CONTROL TESTING & INSPECTIONS

GENERAL NOTES

1. **Methods and materials used in the construction of the improvements herein shall conform to current Jefferson County Construction Standards and Specifications and/or current WVDOT Standards and Specifications.**

2. **The Engineer shall not have control over or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures nor for safety precautions and programs in connection with work shown on these plans. The Engineer is not responsible for the contractor's schedules or failure to carry out the work. The Engineer is not responsible for acts or omissions of the contractor, subcontractor, or their agents or employees, or any other person performing portions of the work.**

3. **The Contractor, Owner or Developer shall be responsible for securing any third party inspection/testing service to insure construction compliance with these plans and specifications. It is Greenway Engineering's recommendation that a third party inspection/testing service be employed to ensure that project is completed and materials installed meet the details and specifications in these plans.**

4. **The location of existing utilities shown in these plans are taken from existing records and available asbuilt data. It shall be the contractors responsibility to verify the exact horizontal and vertical location of all existing utilities as needed prior to construction. The contractor shall be responsible for the digging of all test holes that may be required, whether recommended or not by these plans, to determine the exact location and elevation of existing utilities. If any conflicts arising from this existing utility verification or if during the course of construction, any object of an unusual nature is encountered, the contractor shall cease work in that area and immediately notify Greenway Engineering at (540) 662-4185 and/or the proper authority. Greenway Engineering or any engineer associated with these plans shall not be responsible or liable for any construction cost that may be associated with the installation or reinstallation any utility or other improvements if not notified of any discrepancies between actual field conditions and the approved plan.**

5. **The approval of these plans in no way relieve the developer, the contractor, or their agents of any legal responsibility which may be required by the code of West Virginia or any other ordinance enacted by the County nor does it guarantee the issuance of any required permit by the County, WVDOT or any other Agency.**

6. **An approved set of plans and all applicable permits must be available at the construction site at all times during construction. A representative of the developer must be available at all times.**

7. **The contractor shall provide adequate means of cleaning mud from trucks and/or other equipment prior to entering public streets, and it is the contractors responsibility to clean streets, allay dust, and to take whatever measures are necessary to insure that public streets are maintained in a clean, mud and dust free condition at all times.**

8. **The developer will be responsible for any damage to the existing streets and utilities which occurs as a result of his construction project within or contiguous to the existing right-of-way.**

9. **Warning signs, markers, barricades or flagmen should be in accordance with the State and Federal Manual on Uniform Traffic Control Devices (MUTCD).**

10. **All unsuitable material shall be removed from the construction limits of the site plan before placing embankment.**

11. **All pavement sections shown on these approved plans are based on a minimum CBR value of 6 and are for preliminary design only. Final pavement design shall be based upon actual field tested CBR values. The Contractor or Developer shall be responsible for field tests per WVDOT standards to obtain actual CBR values for final design. Final pavement designs will be approved by WVDOT and/or the Owner/Developer, which ever applicable, prior to installation.**

12. **All springs shall be capped and piped to the nearest storm sewer manholes or curb inlet. The pipe shall be minimum 6" diameter.**

13. **When grading is proposed within easements of utilities, letters of permission from all involved companies must be provided to the City prior to issuance of grading and/or site development permits.**

14. **a. Notification shall be given to the Jefferson County Public Sewer District two weeks prior to construction so they can arrange to have a project representative during construction. The District would like to be in the pre-construction project meetings with the contractor.**

    b. Notification shall be given to the City of Charles Town Utility Board prior to construction of water lines. Information should also be obtained from the appropriate authority concerning permits, cut sheets, and connections to existing lines.

15. **The Developer and/or Contractor shall be responsible to supply all utility companies with copies of the approved plans and advise them that all grading shall conform to the approved plans, and further that the utility companies shall be responsible for honoring these plans and the finished grades in the installation of their utility lines.**

16. **All utilities to be located underground.**

17. **Contractors shall notify operators who maintain underground utility lines in the area of proposed excavating or blasting at least two (2) working days, but not more than ten (10) working days, prior to commencement of excavation or demolition.**

18. **The developer will be responsible for the relocation of any utilities which is required as a result of his project. The relocation should be done prior to construction.**

19. **All parking lot/street light and dry utility design shall be performed and provided separately by others. All dry utility and or lighting information shown hereon is as specified by others and is included for informational purposes only, as directed by the Owner, Developer and/or public agency requirements. Greenway Engineering has not performed the lighting and/or dry utility design and does not warrant and is not responsible for the degree and/or adequacy of illumination on this project or the adequacy of the dry utility to service the site.**

20. **All sanitary sewers, water mains and appurtenances shall be constructed in accordance with the current standards and specifications of Jefferson County.**

21. **All stormwater piping and structures shown on these plans are only accurate to the inlet or manhole locations as shown hereon. Detail design of stormwater structures were not provided to Greenway Engineering. Actual pipe alignments will be based upon developed structural shop drawings as provided by the manufacturer. Contractor shall make adjustments to pipe alignments base on provided shop drawings. Greenway Engineering will not be held responsible or liable for any discrepancies or changes caused by the structural design. Contractor may submit shop drawings to Greenway Engineering for review and approval at contractor's expense. Shop drawings will be reviewed for compliance with design plans. The Owner or Developer will be responsible for any redesign as a result of structural shop drawing design.**

22. **Controlled fills shall be compacted to 95% of maximum density as determined by method "A" per standard proctor AASHTO-T99, ASTM-D698, or VTM-1 as applicable. Density shall be certified by a registered professional engineer and results submitted to Jefferson County, prior to pavement construction. If a geotechnical report has been prepared, it should supersede the requirements in this note.**

23. **Refer to Geotechnical Engineer for methods, materials and details for construction of all earthwork activities.**

24. **Any retaining wall 2 ft. or greater in height shall require the issuance of a separate building permit.**

25. **Construction debris shall be containerized. No less than one litter receptacle shall be provided at the construction site.**

26. **Greenway Engineering, Inc. (GE) issued this plan set based on project criteria dictated by the client and municipal codes. This plan set is not considered complete or appropriate for construction until ALL necessary agencies have given approval AND this plan set is signed and sealed by a licensed professional. Any work, planning, scheduling, material purchases and/or construction prior to approvals and licensed/professional sealing will be performed at the risk of the personnel authorizing work. GE shall be held harmless from any costs, time delay and/or material changes incurred on work started before this plan set receives approvals and seals.**

WATER AND SEWER NOTES

1. Easements shall be given to the Charles Town Utility Board for the construction and maintenance of sewer facilities, as depicted herein.

2. Installation and maintenance of water and sewer lines shall be in accordance with the WV Department of Health, , the City of Charles Town, and the Charles Town Utility Board requirements.

3. Complete water lateral prior to final paving.

4. Water lines to have a minimum of forty-two inches (42") of cover to crown of pipe. Water lines to have seal of the National Sanitation Foundation. Mechanical joints or slip-on joints with rubber gaslets are preferred by the Health Department.

5. Provide concrete thrust blocking at all water line intersections and direction changes.

6. All water mains must be AWWA C900, CL235 PVC. All sanitary sewer to be PVC ASTM 3034 SDR-35 unless otherwise specified.

7. Water easements are to be dedicated to the Charles Town Utility Board.

8. Storm drain easements are to be dedicated to the City of Charles Town.

9. Sanitary sewer and force main easements are to be dedicated to the Charles Town Utility Board.

10. A horizontal separation of at least 10 foot must be maintained between sanitary sewer and potable water lines except when they are crossing. When water and sewer lines cross, the water line shall be at least 18 inches above the sewer line.

Summary of Water Requirements - Charles Town Utility Board, Charles Town, WV

1. All water mains must be AWWA C900, CL235 PVC. Line extensions must have permitted approval prior to installation.
2. All service lines to be minimum 200 PSI PVC or copper. Final Line size will depend on the type of service. The City will not allow any galvanized lines or fittings. A standard shut off valve must be installed on the property side of the meter for the owner's use; the meter valve is for the city use only.
3. All meters, vaults, and crooks will be set at the property line; the CTUB will install the meters.
4. All service lines will be no deeper than 36" at the meter location to allow access to the setter by the meter installers. Deeper service lines may be acceptable if a crossing conflict is encountered or site conditions dictate.
5. The CTUB will supply the meters, setter and boxes. All non-metallic lines will be installed with tracer ribbon. (Located 6" above the newly installed service line with 3" wide detectable tape.)
6. All multi-meter installations, such as a business or apartment complex are to be set in an outside vault, or an accessible mechanical room, and are to be supplied by the owner. These areas are to be inspected prior to the availability of water service.
7. Fire Hydrants must be American Darling Mark B62B 5-1/4" valve opening with 6" base or equal.
8. Valves are to be AWWA C515 gate valves resilient seated opening left. Valve boxes must be screw type Tyler #562S or equal. All valve riser sleeves are to be cast iron with cap. PVC risers to be approved on a use basis by the CTUB Water Representatives.
9. All valves, bends (45's, 22's and 90's), tees and elbows shall have mechanical restraints (such as mega lugs) and thrust blocks.
10. The CTUB must inspect all work. The contractor must give 24-hour notice to the CTUB for an inspection request. The CTUB may request as-built sketches, photos etc. (as back up)
11. All West Virginia Public Service Commission and WV Health Department, rules and regulations, applying to water and sewer must be followed, and all local state and federal permits and approvals must be obtained prior to performing any water or sewer extensions or upgraded work.

Submittals

1. Prior to the installation of any material or equipment on the project supplied by the Contractor, the Contractor shall submit to the City, three (3) copies of all shop drawings, laying schedules, manufacturer specifications, certification and drawings in accordance with the General Conditions. (Water/Sewer) One copy is for the application file. One copy is for the final inspection compliance. One copy is for inspection review or comments to be completed prior to beginning work. A copy of a current WV Contractors License and proof of Liability Insurance must accompany the submittal.

2. City will require as-built drawings and a copy of submittals for all pipe and and appurtenances used on the project. As-builts shall be furnished in both PDF and AutoCAD formats. An O&M Manual containing, at a minimum, all submittals is to be furnished.

Field Copies of Construction Information

The Contractor shall keep a minimum of one (1) complete copy of the Contract construction plans and specifications (including all revisions and addendums), and all shop drawings issued at the project site. All information shall be kept in a neat and good order and shall be made available for the City's Representative to use at his request.

Open Excavation

1. The depth of trenches shall be such that the location of the proposed pipes will conform with the lines and grades shown on the plans. The shape of all trenches above and within the pipe zone, the construction methods employed, the general protections requirements, the general excavation requirements, the general trenching requirements, and the minimum regulations for trench shoring, shall conform with the regulations set forth under OSHA Regulations 29CFR part 1926 650, 651 & 652. No trenching excavation work shall be performed which is not in accordance with those regulations.
2. The shape of the trenches in the "pipe zone" (which shall be construed to be that portion of the trench between the trench bottom and an elevation 1 foot above the top of the pipe) shall conform to the configuration identified as "Typical Bedding" on Pipe Bedding Drawing #1. The contractor is herein advised that if trench widths in the pipe zone exceed the outside diameter of the pipe plus two feet, and if the City determines that such excessive widths will result in a structural loading for which the pipe is not designed, he shall be required to bed the pipe on a concrete cradle at no additional cost.
3. The Contractor shall shape trenches which are located adjacent to existing above ground or underground structures and/or facilities or in other confined areas, so that such structures and facilities are properly protected against damage or disturbance from settlement or displacement. Adequate sheeting, shoring and/or bracing shall be installed and maintained to provide such protection and the Contractor shall be responsible for all damages resulting to such proposed and existing structures, pipelines, and/or facilities as the result of his failure to use and maintain adequate trench wall support, as well as a result of any other construction activities. The bottoms of all trenches shall be excavated to a depth of 6 inches below the bottom of the proposed lines to accommodate the bedding hereinafter specified.

Pipe Installation

1. Before any pipe is installed in trenches, it shall be inspected for damage and the inside of the pipe shall be swabbed to remove loose dirt and foreign objects, No damaged pipe will be permitted to be installed.
2. All pipes shall be installed to the lines and grades shown on the drawings. No pipes shall be constructed in trenches in which water flows or is pooled and, all pipes shall be carefully handled in the ditch to keep the jointing ends and materials free from dirt during installation. During shut down periods and at the end of each day, all open ends of pipe shall be suitably plugged to prevent the inflow of water, dirt, foreign objects, etc.

Pipe Bedding and Pipe Zone Backfill Material

All proposed pipelines shall be supported on stone dust or #10's small diameter stone. The material shall be placed to a minimum depth of 6 inches below the bottom of the pipe and 6 inches above of the top of the pipe. The material shall be placed in the pipe zone in such a manner as to not disturb, displace, or otherwise misalign the installed pipelines.

Backfill Material Above the Pipe Zone

The material used above the pipe zone shall be such that a satisfactory compaction can be made. At no time shall material bigger than 2 inches in diameter be used. But any material used must be approved by the City before hand. After approval, the entire depth within the backfilled area shall be compacted to provide the minimum percentage of density specified for each area of classification.

Special Backfill Material Below the Pipe Zone

Where muck, quicksand, soft clay, swampy or other material is encountered in the trench bottom, which in the opinion of the City is unsuitable for pipe foundation subgrade or backfill, such material shall be removed to a depth satisfactory to the City. The trench shall then be backfilled to grade with acceptable City approved material, mechanically compacted in successive layers.

Ductile Iron Pipe and Fittings

Ductile iron pipe and fittings under this Contract shall be furnished by the Contractor. All pipes will be slip type joint unless otherwise noted and all fittings will be mechanical joint.

PVC Pipe and Fittings

No glue joints are to be used within the CTUB water or JCPSD right of way. Onsite sewer laterals are to be schedule 40 PVC Pipe or equivalent.

Fire Hydrants

Hydrants shall be furnished and installed complete where shown on the drawings and as approved by the CTUB. This installation shall be adapted to the location of the hydrant so as to make the best installation possible. (note: hydrants no-more than 500 ft apart)

Service Connections for Water Lines

1. Service connections shall be made as indicated on the Contract Drawings.
2. The Contractor shall furnish all fittings required to make the necessary connections. All service line connections shall be made in the presence of the CTUB representative.

Valves and Boxes

Each valve installed underground shall be equipped with a valve box furnished by the Contractor and installed by the Contractor.

Anchoring and Blocking

1. All bends in excess of 10 deg, plugs, caps, tees, and wyes branches along pipelines shall be adequately blocked or anchored to prevent the lines from pulling apart under pressure (see typical concrete blocking).
2. Lugged fitting and tie rods, clamps collars, restrained joints, and anchoring fittings may be substituted in lieu of blocking after having received the approval of the CTUB. Concrete used for blocking and anchoring pipelines in trenches shall consist of concrete as specified elsewhere in these specifications.

Pressure and Leakage Tests

All pipeline shall be tested by the Contractor according with AWWA and witnessed by the CTUB Representative. The Contractor shall furnish all equipment, apparatus, temporary blocking, pumps, taps and gauges to conduct the tests.

Blow Off

Blow off valves shall not be installed.

WATER AND SEWER NOTES (CONT.)

Minimum Pipe Size and System Design

1. The minimum size of water pipe shall be six-inch diameter. This may be increased at the discretion of the City if hydraulic modeling indicates that a larger size is needed to provide pressure and/or fireflow in the area.
2. Dead ends shall be minimized by looping of all mains.
3. Where dead-end mains occur they should be provided with a fire hydrant, for flushing purposes.
4. No flushing device shall be directly connected to any sewer.

Separation of Water Services & Mains from Other Utilities

5 foot horizontal separation from all non-sewer utility lines - electric, phone etc.

Parallel Installation

1. Normal conditions - Water mains shall be laid at least ten feet horizontally from any sanitary sewer, storm sewer or sewer manhole, whenever possible; the distance shall be measured edge-to-edge.
2. Unusual conditions - When local conditions prevent a horizontal separation of 10 feet, a water main may be laid closer to a storm sewer provided that:
   A. The bottom of the water main is at least 18 inches above the top of the sewer
   B. Where this vertical separation cannot be obtained, the water main will be sleeved and all voids will be filled.

Crossings

1. Normal conditions - Water mains crossing house sewers, storm sewers or sanitary sewer shall be laid to provide a separation of at least 18 inches between the bottom of the water main and the top of the sewer, whenever possible.
2. Unusual conditions - When local conditions prevent a vertical separation as described, the following construction shall be used:
3. Water mains passing under sewer shall be protected by providing:
   A. A vertical separation of at least 18 inches between the bottom of the sewer and the top of the water main.
   B. Adequate structural support for the sewers to prevent excessive deflection of the joints and settling on and breaking the water mains;
   C. That the length of the water pipe be centered at the point of crossing so that the joints will be equidistant and as far as possible from the sewer.
   D. Water line shall be sleeved and the void area filled.
4. Sewer manholes - No water pipe shall pass through or come within 5 feet of any part of a sewer manhole.

Private Fire Protection Service

No pipe or fixtures connected with a private fire service served by the CTUB shall be connected with pipes or fixtures supplied with water from any other source.

WVDOT NOTES

WV1. **All work, construction methods and materials shall conform with the West Virginia Division of Highways "STANDARD SPECIFICATIONS ROADS AND BRIDGES Adopted January 1, 2000" and Supplemental Specifications dated January 1, 2001.**
All work on this project shall also conform with The Soil Conservation Service Erosion and Sediment Control Regulations and any other state, federal, or local regulations applicable. In the event of conflict between any of these standards, specifications, or plans, the most stringent shall govern.

WV2. **All construction shall comply with the latest U.S. Department of Labor Occupational Safety & Health Administration.**

WV3. **When working on WVDOT right-of-way, all traffic control, whether permanent or temporary, shall be in accordance with "Traffic Control for Street and Highway Construction and Maintenance Operations" dated November 1994 as published by WVDOT.**

WV4. **Design features relating to construction or to regulation, control and safety of traffic may be subject to change as deemed necessary by WVDOT.**

WV5. **Prior to initiation of work, Contractor shall be responsible for acquiring all necessary WVDOT land use permits for any work on WVDOT right-of-way.**

WV6. **If required by the local WVDOT Residency Office, a preconstruction conference must be arranged and held by the engineer and/or developer with the attendance of the contractor, various County agencies, utility companies and WVDOT prior to initiation of work.**

WV7. **Contractor shall notify the local WVDOT Residency Office when work is to begin or cease for any undetermined length of time. WVDOT will also require 48 hours notice for any inspection.**

WV8. **The Contractor will be responsible for maintaining adequate access to the project from the adjacent public roadway through construction and maintenance of a construction entrance in accordance with the Soil Conservation Service Erosion & Sediment Control Handbook. Furthermore, access to other properties affected by this project shall be maintained through construction.**

WV9. **Contractor shall ensure adequate drainage is achieved and maintained on the site during and at the end of construction.**

WV10. **All water and sewer lines within existing or proposed WVDOT right-of-way are to have minimum 36" cover and, when possible, to be installed under roadway drainage facilities.**

WV11. **Any unusual subsurface conditions encountered during the course of construction shall be immediately brought to the attention of the engineer and WVDOT. Work shall cease in that vicinity until an adequate design can be determined by the engineer and approved by WVDOT.**

WV12. **All undercut areas and borrow material shall be inspected and approved by WVDOT Inspector prior to placement of fill.**

WV13. **All roadway fill, base, subsurface material and backfill of utility/storm sewer trenches shall be compacted in 6" lifts to 98% of theoretical maximum density as determined by AASHTO T-99 Method A, within plus or minus 2% of optimum moisture for the full width of any dedicated street right-of-way. At the direction of WVDOT Inspector density tests performed by a qualified independent agency shall be conducted as required in the WVDOT Road and Bridge Specifications. A copy of all tests shall be submitted to WVDOT prior to final WVDOT approval.**

WV15. **The installation of any entrances and mailboxes within any dedicated street right-of-way shall meet WVDOT minimum design standards and is the developer's responsibility.**

WV16. **If required by the local WVDOT Residency Office, copies of all invoices for materials within any dedicated street right-of-way must be provided to the WVDOT Inspector prior to acceptance of work. Unit and total prices may be obscured.**

WV17. **Prior to acceptance by WVDOT of any streets, any required street signage and/or pavement markings must be installed by the developer.**

WV18. **WVDOH District 5 Permit #05-05-0130.**

LEGEND

EXISTING INTERMEDIATE CONTOUR — 330
EXISTING INDEX CONTOUR — 330
PROPOSED CONTOUR — 400
EXISTING EDGE OF PAVEMENT
PROPOSED EDGE OF PAVEMENT
EXISTING CURB AND GUTTER
PROPOSED CURB AND GUTTER
TRANSITION TO REVERSE CURB
EXISTING TELEPHONE LINE — T
PROPOSED TELEPHONE LINE — T
EXISTING STORM SEWER WITH INLET
PROPOSED STORM SEWER WITH INLET
EXISTING SANITARY SEWER WITH MANHOLE — S
PROPOSED SANITARY SEWER WITH MANHOLE — S
PROPOSED SAN. LAT. CLEANOUT — S
EXISTING ELECTRIC SERVICE — E
PROPOSED ELECTRIC SERVICE — E
EXISTING GAS LINE — G
PROPOSED GAS LINE — G
EXISTING WATERLINE W/ TEE — W
PROPOSED WATERLINE W/ TEE — W
EXISTING FIRE HYDRANT/VALVE/METER
PROPOSED FIRE HYDRANT/VALVE/METER
PROPOSED REDUCER — W
PROPERTY LINE
EXISTING EASEMENT
PROPOSED EASEMENT
PROPOSED CENTERLINE
EXISTING CENTERLINE
EXISTING TREE LINE
FLOW LINE
FENCELINE — X
EXISTING UTILITY POLE/GUIDE WIRE
EXISTING TELEPHONE PEDESTAL
SIGNS
PARKING INDICATOR
INDICATES THE NUMBER OF TYP. PARKING SPACES — 12
HANDICAP PARKING
VEHICLES PER DAY COUNT — 100
PROPOSED BUILDING ENTRANCE
SANITARY MANHOLE IDENTIFIER — 12
STORM DRAIN STRUCTURE IDENTIFIER — 6
EXISTING SPOT ELEVATION — ×735.4
PROPOSED SPOT ELEVATION — ×35.5
LIGHT POLE

PROJECT NOTES

Zoning and Area Tabulations - Pool

Street Address	Candlewood Drive
Parcel Identification No:	03 12020900000000
Zoned	NR (Neighborhood Residential)
Total Area	3.380 AC
Sensitive Areas	0.000 AC
Parking/Pool Areas	0.970 AC
SWM Areas	0.000 AC
Maxiumum Lot Coverage	70%
Total Lot Coverage	29%
Required Parking (Per Prince William County DCSM)	
Pool = 1 Space per 150 SF Surface Area	
4,971 SF Surface Area / 150 =	33 Spaces
Pool House = 1 Space per 250 SF	
1,674 SF / 250 =	7 Spaces
Total Required Parking	40 Spaces
Total Proposed Parking	40 Spaces
Minimum Lot Size	6000 SF
Front Yard Setback	5 FT
Rear Yard Setback	15 FT
Side Yard Setback	20 FT
Maximum Building Height	40 FT
Maximum Building Stories	3 Stories

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GREENWAY ENGINEERING
PROUDLY SERVING VIRGINIA & WEST VIRGINIA
OFFICES IN: WINCHESTER, VA & MARTINSBURG, WV

GENERAL NOTES

NORBORNE GLEBE

POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT
CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
4	06/15/2023

RANDY L. KEPLER REGISTERED 17223 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

DATE: 04/26/2023
SCALE: N/A
DESIGNED BY: AM/CW
FILE NO. 4542A
SHEET 2 OF 22
22-06-SP



KEY TO ADJOINING PROPERTY OWNERS

KEY	TAX IDENTIFICATION NO.	CURRENT OWNER	ADDRESS	CITY/STATE	DEED BOOK NUMBER	DEED BOOK PAGE	LAND USE
1	T.M. 3-10-70	BRANDON & VALERIE SMITH	667 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	1261	714	Residential 1 Family
2	T.M. 3-10-71	KELLY A. MATTINGLY	665 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	1174	558	Residential 1 Family
3	T.M. 3-10-28	TODD NOLTE	645 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	1089	173	Residential 1 Family
4	T.M. 3-10-27	ALBERT W. & LINDA T. CRAVEN	619 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	9522	44	Residential 1 Family
5	T.M. 3-10-26	NANCY C. MYERS	603 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	941	103	Residential 1 Family
6	T.M. 3-10-25	NATHAN & SHELLY SPITZER	591 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	1034	323	Residential 1 Family
7	T.M. 2-18A-31	PERRY L. PAYTON II	567 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	1117	372	Residential 1 Family
8	T.M. 2-18A-30	NICHOLAS P. & SOPHIA M. RAVIZZA	555 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	1246	522	Residential 1 Family
9	T.M. 2-18A-29	KATHLEEN M. MATTHEWS	539 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	1190	175	Residential 1 Family
10	T.M. 2-18A-28	DANIEL P. SHANNON	523 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	920	545	Residential 1 Family
11	T.M. 2-18A-27	JEDEDIAH J. & SARAH M. TUTTLE	32 MOUNTAINSIDE COURT	HARPERS FERRY, WV 25425	1196	88	Residential 1 Family
12	T.M. 2-18A-26	MELISSA G. & EUGENE V., KING	489 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	927	303	Residential 1 Family
13	T.M. 2-18A-25	RONALD E. & AMARILIZ R. KELLEY	473 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	1017	23	Residential 1 Family
14	T.M. 2-18A-24	JEFFREY J. KISH	455 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	974	490	Residential 1 Family
15	T.M. 2-18A-23	JACK C. MCBRIDE	439 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	1239	92	Residential 1 Family
16	T.M. 2-18A-22	TODD & NANCY LANDIS	423 CROSSWINDS DRIVE	CHARLES TOWN, WV 25414	1191	369	Residential 1 Family
17	T.M. 2-18A-SWIM	CROSSWINDS HOMEOWNERS ASSOC.	PO BOX 232	CHARLES TOWN, WV 25414	951	108	Residential Vacant
18	T.M. 2-17-22	DR ACQUISITIONS LLC	60 THOMAS DRIVE	FREDERICK, MD 21702	994	667	Inactive Farm
19	T.M. 2-19-1	HIGH HORIZONS FARM INC	336 ROSEMONT WAY	CHARLES TOWN, WV 25414	1208	227	Active Farm
20	T.M. 2-16-51	TABUENA PHILOMELA & ERNESTO R.H. STUART	111 FOXHALL ROAD	CHARLES TOWN, WV 25414	1137	157	Residential 1 Family
21	T.M. 2-16-50	JOSEPH V. & JENNIFER R. DAGG	107 FOXHALL ROAD	CHARLES TOWN, WV 25414	1234	630	Residential 1 Family
22	T.M. 2-16-49	ROBERT M. & BRENDA J. VINCENT	85 FOXHALL ROAD	CHARLES TOWN, WV 25414	1092	240	Residential 1 Family
23	T.M. 2-16-48	WILLIAM H. & CHRISTINE M. KINGERY	59 FOXHALL ROAD	CHARLES TOWN, WV 25414	900	116	Residential 1 Family
24	T.M. 2-16-47	WILLIAM R. & CAROLYN M. LIPSCOMB	43 FOXHALL ROAD	CHARLES TOWN, WV 25414	1140	378	Residential 1 Family
25	T.M. 2-16-39	DANIEL L. & LINDA A. COLLIE	416 EASTLAND DRIVE	CHARLES TOWN, WV 25414	1237	35	Residential 1 Family
26	T.M. 2-16-38	RAY & JENNIFER P. KOHLHEPP	448 EASTLAND DRIVE	CHARLES TOWN, WV 25414	845	458	Residential 1 Family
27	T.M. 2-16-94	MAURICE SMITH	502 EASTLAND DRIVE	CHARLES TOWN, WV 25414	1174	733	Residential 1 Family
28	T.M. 2-16-95	RYAN D. & ASHLEY A. VALASEK	550 EASTLAND DRIVE	CHARLES TOWN, WV 25414	1247	135	Residential 1 Family
29	T.M. 2-16-96	MARTIN E. & JACQUELINE M. CLINE	558 EASTLAND DRIVE	CHARLES TOWN, WV 25414	949	675	Residential 1 Family
30	T.M. 2-16-97	ERIC J. & SHERI R. BUTTERSWORTH	590 EASTLAND DRIVE	CHARLES TOWN, WV 25414	945	566	Residential 1 Family

KEY TO ADJOINING PROPERTY OWNERS

KEY	TAX IDENTIFICATION NO.	CURRENT OWNER	ADDRESS	CITY/STATE	DEED BOOK NUMBER	DEED BOOK PAGE	LAND USE
31	T.M. 2-16-16.5	PATRICK L. & BETH A. MARRONE	1032 OLD CAVE RD	CHARLES TOWN, WV 25414	1139	565	Inactive Farm
32	T.M. 2-16-16.4	PATRICK L. & BETH A. MARRONE	1032 OLD CAVE RD	CHARLES TOWN, WV 25414	1139	565	Inactive Farm
33	T.M. 2-16-15	JUNE R. H. & JAMES A. THOMAS, JR	5345 SAMUEL STREET	CHARLES TOWN, WV 25414	1046	492	Active Farm
34	T.M. 2-16-14.3	JUNE R. H. THOMAS	5345 SAMUEL STREET	CHARLES TOWN, WV 25414	1125	646	Active Farm
35	T.M. 2-16-14.4	JOSEPH M. & EILEEN L. DILLON	1248 OLD CAVE ROAD	CHARLES TOWN, WV 25414	799	524	Active Farm
36	T.M. 3-12-216	CHARLES TOWN BOARD OF PARKS AND REC	PO BOX 14	CHARLES TOWN, WV 25414	1029	131	Active Farm
37	T.M. 3-12-237.1	BRAD BISHOP	55 FRASER CT	CHARLES TOWN, WV 25414	1238	241	Inactive Farm
38	T.M. 3-12-17	PEACH TREE INVESTMENTS LLC	36 BAKERTON ROAD	HARPERS FERRY, WV 25425	1103	493	Vacant Commercial Land
39	T.M. 3-12-13	MEGAN C. CURFMAN	14864 CHARLES TOWN ROAD	CHARLES TOWN, WV 25414	1167	265	Residential 1 Family
40	T.M. 2-17-15	JOSE E. SALVERON	14892 CHARLES TOWN ROAD	CHARLES TOWN, WV 25414	1250	83	Residential 1 Family
41	T.M. 2-17-16	JOSEPH LEBIDA III	14896 CHARLES TOWN ROAD	CHARLES TOWN, WV 25414	958	244	Residential 1 Family
42	T.M. 2-17-18	DAVID L. & CHERYL J. WILT	10199 CHARLES TOWN ROAD	RANSON, WV 25438	769	534	Residential 2 Family
43	T.M. 2-17-20	DAVID L. & CHERYL J. WILT	10199 CHARLES TOWN ROAD	RANSON, WV 25438	769	534	Mobile Home

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OFFICES IN: WINCHESTER, VA & MARTINSBURG, WV

ADJOINING OWNER INFORMATION & PHASING KEY

NORBORNE GLEBE
POOL
PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT
CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
1	05/26/2023

RANDY L. KESLER
REGISTERED
17223
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: 04/26/2023

SCALE: 1" = 200'

DESIGNED BY: AM/CW

FILE NO. 4542A

SHEET 3 OF 22

22-06-SP

200 0 200 400
SCALE: 1" = 200'

CAMPBELL DRIVE

SEATON LANE

SANTMYER WAY

CANDLEWOOD DRIVE

TD: 3/MAP: 12/PCL: 99
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
CORP DOUGLAS J
295 CAMPBELL DR
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 142
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
FRANCO IDALIA & LUIS M
325 CAMPBELL DR
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 143
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
WELSH ALBERT E & SEON SHIN
339 CAMPBELL DR
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 153
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
PAYAMPS MANUEL D & CAROLYN E
22 SEATON LN
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 209
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
NORBORNE GLEBE HOMEOWNERS ASSOCIATION INC
340 EDMOND RD STE E
KEARNEYSVILLE, WV 25430

TD: 3/MAP: 12/PCL: 209
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
8.47 AC

TD: 3/MAP: 12/PCL: 209
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
8.47 AC
(3.38 AC PORTION TO BE PLATTED WITH POOL)

TD: 3/MAP: 12/PCL: 209.3
ZONED: NR
LAND USE: COMMERCIAL VACANT
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
24 AC.

TD: 3/MAP: 12/PCL: 209.9
ZONED: NR
LAND USE: LARGE LOT RESIDENTIAL VANCANT
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
2.68 AC
(3.71 AC PORTION TO BE PLATTED WITH
BOUNDARY LINE ADJUSTMENT)

N 57°24'36" W
288.1500'

S 88°49'01" E
37.1500'

N 00°06'59" E
93.6500'

S 88°49'01" E
150.1000'

N 56°06'15" E
129.0000'

EX 8" PVC WATERLINE

EX F.H.

C1

C2

C3

C4

15" STM

18" STM

24" STM

30 15 0 30 60
SCALE: 1" = 30'

704 Foxcroft Avenue
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EXISTING CONDITIONS

NORBORNE GLEBE

POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT

CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
1	05/26/2023

RANDY L KEPLER
REGISTERED
17223
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: 04/26/2023

SCALE: 1" = 30'

DESIGNED BY: AM/CW

FILE NO. 4542A

SHEET 3A OF 22

22-06-SP

THIS SHEET FOR EROSION AND SEDIMENT CONTROL ONLY!!!

CAMPBELL DRIVE

SEATON LANE

SANTMYER WAY

CANDLEWOOD DRIVE

AREA TO MH2
A=0.46 AC.

AREA TO MH3
A=0.26 AC.

AREA TO SF
A=0.88 AC.

AREA TO SF
A=0.26 AC.

MATCHLINE
SEE SHEET 5

TD: 3/MAP: 12/PCL: 209
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
8.47 AC

TD: 3/MAP: 12/PCL: 99
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
CORP DOUGLAS J
295 CAMPBELL DR
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 142
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
FRANCO IDALIA & LUIS M
325 CAMPBELL DR
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 143
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
WELSH ALBERT E & SEON SHIN
339 CAMPBELL DR
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 209
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
NORBORNE GLEBE HOMEOWNERS ASSOCIATION INC
340 EDMOND RD STE E
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TD: 3/MAP: 12/PCL: 153
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
PAYAMPS MANUEL D & CAROLYNE
22 SEATON LN
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 209
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
8.47 AC
(3.38 AC PORTION TO BE PLATTED WITH POOL)

TD: 3/MAP: 12/PCL: 209.9
ZONED: NR
LAND USE: LARGE LOT RESIDENTIAL VANCANT
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
2.66 AC
(3.71 AC PORTION TO BE PLATTED WITH BOUNDARY LINE ADJUSTMENT)

TD: 3/MAP: 12/PCL: 209.3
ZONED: NR
LAND USE: COMMERCIAL VACANT
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
24 AC

EX 8" PVC WATERLINE

EX F.H.

EROSION/SEDIMENT CONTROL LEGEND

KEY	SYMBOL	DESCRIPTION
SF	x	SILT FENCE
LOD		LIMITS OF DISTURBANCE
IP		INLET PROTECTION
OP		OUTLET PROTECTION
CE		CONSTRUCTION ENTRANCE
DD		TEMPORARY DIVERSION DIKE
		DRAINAGE DIVIDES

30 15 0 30 60
SCALE: 1" = 30'

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E&S PHASE I

NORBORNE GLEBE

POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT

CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
1	05/26/2023

RANDY L KEPLER
REGISTERED
17223
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: 04/26/2023

SCALE: 1" = 30'

DESIGNED BY: AM/CW

FILE NO. 4542A

SHEET 4 OF 22

22-06-SP

THIS SHEET FOR EROSION AND SEDIMENT CONTROL ONLY!!!

MATCHLINE SEE SHEET 4

MATCHLINE SEE BELOW

MATCHLINE SEE ABOVE

LOD

SF

REVERE DRIVE

CAMPBELL DRIVE

TD: 3/MAP: 12/PCL: 46
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
BRITCH TAD A & BRITTANY H
106 HAVERSACK CIRCLE
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 47
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
HARRIS RAYE ANNE
120 HAVERSACK CIRCLE
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 48
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
LARKIN BRYAN S
132 HAVERSACK CIRCLE
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 49
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
MILLS JEREMY & MARLEN
148 HAVERSACK CIRCLE
CHARLES TOWN, WV 25414

30 15 0 30 60
SCALE: 1" = 30'

EROSION/SEDIMENT CONTROL LEGEND

KEY	SYMBOL	DESCRIPTION
SF	x	SILT FENCE
LOD		LIMITS OF DISTURBANCE
IP		INLET PROTECTION
OP		OUTLET PROTECTION
CE		CONSTRUCTION ENTRANCE
DD		TEMPORARY DIVERSION DIKE
		DRAINAGE DIVIDES

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TRAIL E&S PHASE I

NORBORNE GLEBE

POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT
CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
1	05/26/2023

RANDY L KEPLER
REGISTERED
17223
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: 04/26/2023

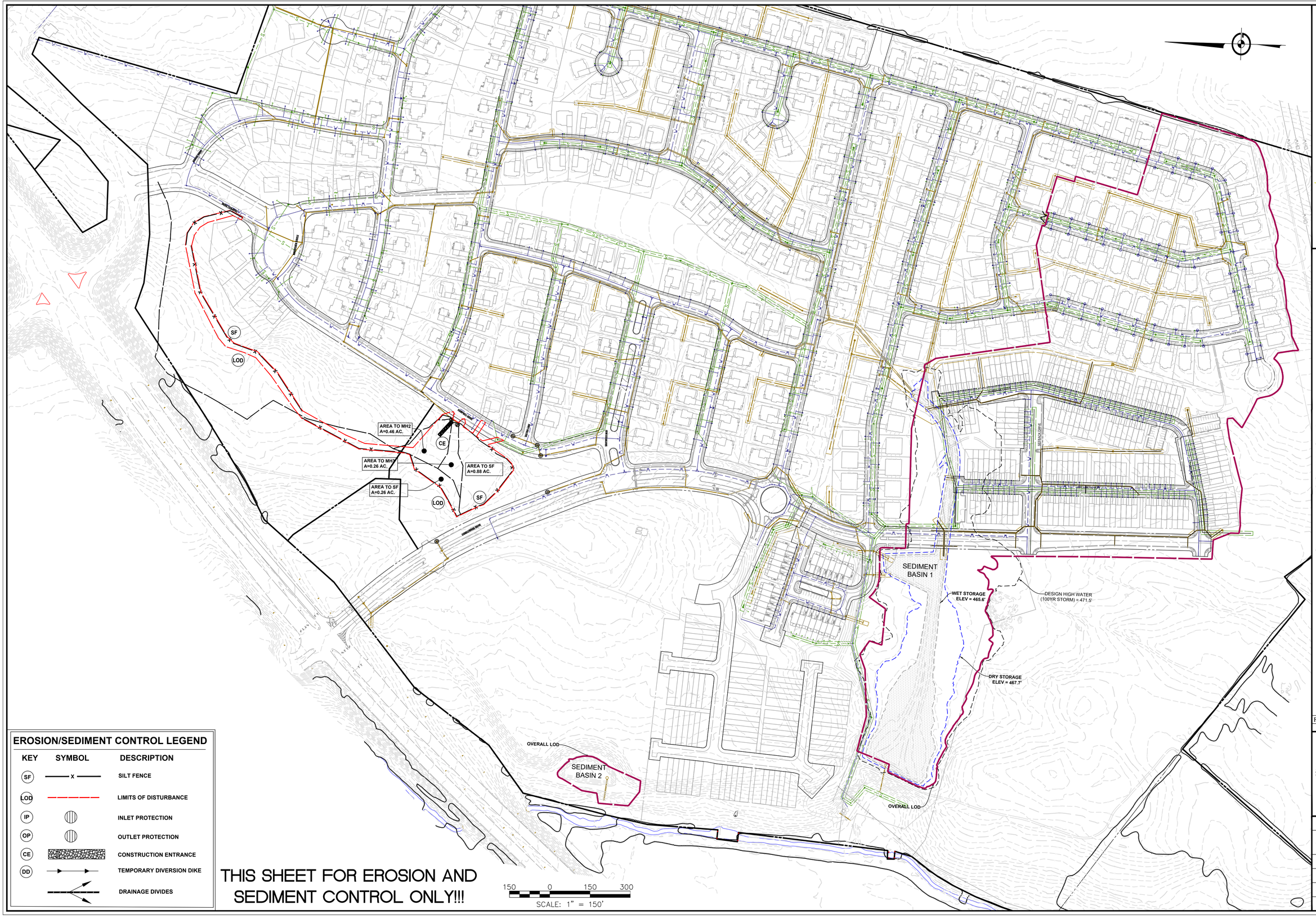
SCALE: 1" = 30'

DESIGNED BY: AM/CW

FILE NO. 4542A

SHEET 5 OF 22

22-06-SP



EROSION/SEDIMENT CONTROL LEGEND

KEY	SYMBOL	DESCRIPTION
SF	x	SILT FENCE
LOD		LIMITS OF DISTURBANCE
IP		INLET PROTECTION
OP		OUTLET PROTECTION
CE		CONSTRUCTION ENTRANCE
DD		TEMPORARY DIVERSION DIKE
		DRAINAGE DIVIDES

THIS SHEET FOR EROSION AND SEDIMENT CONTROL ONLY!!!

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OVERALL E&S PHASE 1

NORBORNE GLEBE

POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT

CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
2	06/01/2023

RANDY L. KEPLER
REGISTERED
17223
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: 04/26/2023

SCALE: 1" = 150'

DESIGNED BY: AM/CW

FILE NO. 4542A

SHEET 5A OF 22

22-06-SP

THIS SHEET FOR EROSION AND SEDIMENT CONTROL ONLY!!!

MATCHLINE
SEE SHEET 7

CAMPBELL DRIVE

SEATON LANE

SANTMYER WAY

CANDLEWOOD DRIVE

AREA TO MH2
A=0.46 AC.

AREA TO MH3
A=0.45 AC.

AREA TO EX. MH
A=0.59 AC.

AREA TO EX. MH
A=0.41 AC.

AREA TO EX. MH
A=0.66 AC.

IP

LOD

SF

CE

EX 8" PVC WATERLINE

8" SANITARY

EX F.H

TD: 3/MAP: 12/PCL: 99
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
CORP DOUGLAS J
295 CAMPBELL DR
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 142
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LAND USE: RURAL/AGRICULTURAL
FRANCO IDALIA & LUIS M
325 CAMPBELL DR
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 143
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
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CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 209
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
8.47 AC

TD: 3/MAP: 12/PCL: 209
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
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TD: 3/MAP: 12/PCL: 153
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
PAYAMPS MANUEL D & CAROLYNE
22 SEATON LN
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 209
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
8.47 AC
(3.38 AC PORTION TO BE PLATTED WITH POOL)

TD: 3/MAP: 12/PCL: 209.9
ZONED: NR
LAND USE: LARGE LOT RESIDENTIAL VANCANT
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
2.68 AC
(3.71 AC PORTION TO BE PLATTED WITH BOUNDARY LINE ADJUSTMENT)

TD: 3/MAP: 12/PCL: 209.3
ZONED: NR
LAND USE: COMMERCIAL VACANT
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
.24 AC

30 15 0 30 60
SCALE: 1" = 30'

EROSION/SEDIMENT CONTROL LEGEND

KEY	SYMBOL	DESCRIPTION
SF	x	SILT FENCE
LOD		LIMITS OF DISTURBANCE
IP		INLET PROTECTION
OP		OUTLET PROTECTION
CE		CONSTRUCTION ENTRANCE
DD		TEMPORARY DIVERSION DIKE
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E&S PHASE II

NORBORNE GLEBE

POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT

CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
1	05/26/2023

RANDY L. KEPLER
REGISTERED
17223
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: 04/26/2023

SCALE: 1" = 30'

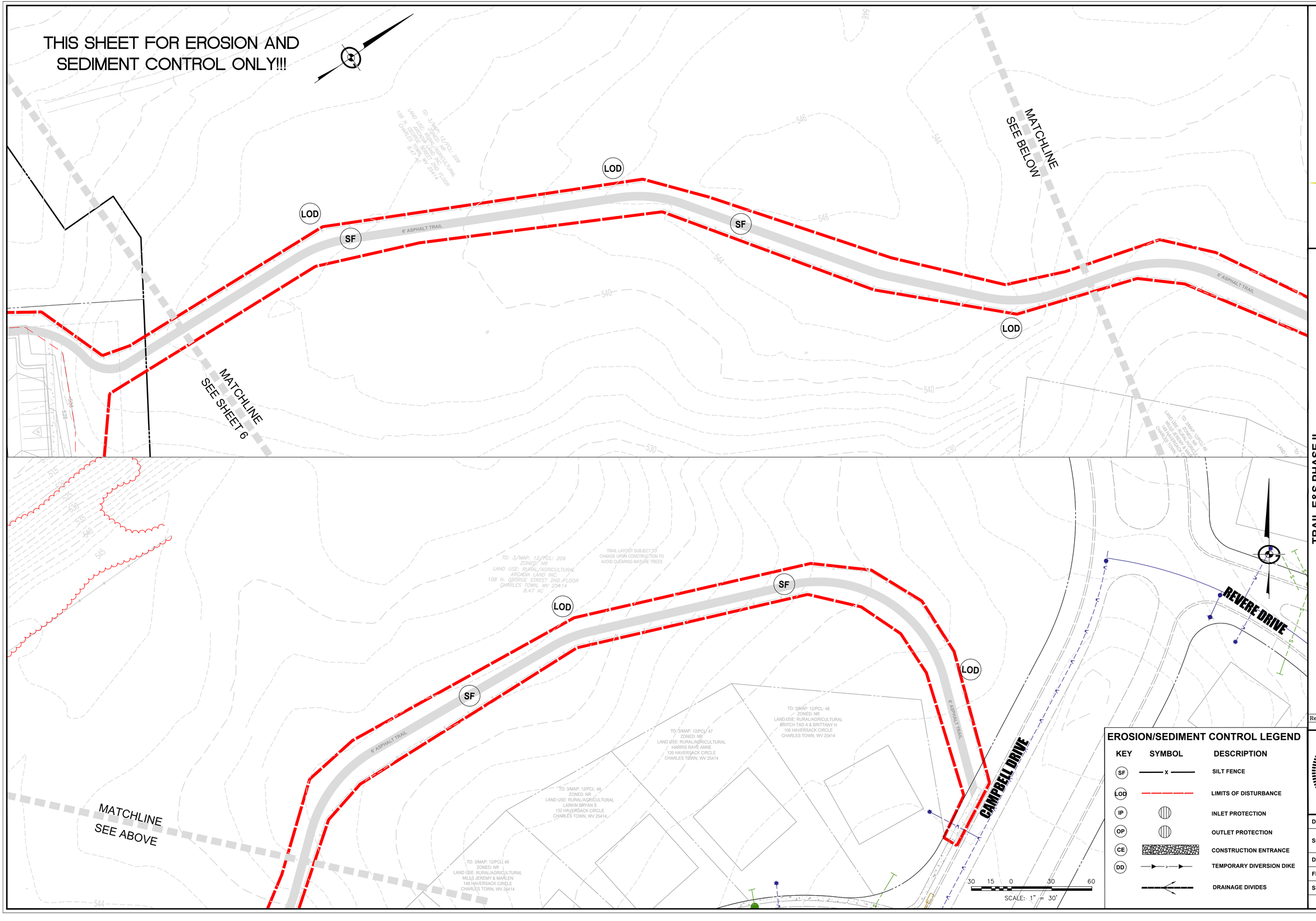
DESIGNED BY: AM/CW

FILE NO. 4542A

SHEET 6 OF 22

22-06-SP

THIS SHEET FOR EROSION AND SEDIMENT CONTROL ONLY!!!



EROSION/SEDIMENT CONTROL LEGEND

KEY	SYMBOL	DESCRIPTION
SF	x	SILT FENCE
LOD		LIMITS OF DISTURBANCE
IP		INLET PROTECTION
OP		OUTLET PROTECTION
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TRAIL E&S PHASE II
NORBORNE GLEBE
POOL
PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT
CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
1	05/26/2023

RANDY L. KEPLER
REGISTERED
17223
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: 04/26/2023
SCALE: 1" = 30'
DESIGNED BY: AM/CW
FILE NO. 4542A
SHEET 7 OF 22
22-06-SP

EROSION AND SEDIMENT CONTROL NARRATIVE

Description: The Project delineated hereon is located in the City of Charles Town, WV. This plan proposes construction of the Pool and associated roads and utilities. Approximately 2.75 acres will be disturbed for construction.

Date of construction: Construction will begin following plan approval and is estimated to take up to 2 years to complete the project.

Offsite areas: Top soil will be stripped from graded areas and stockpiled for use in final grading and permanent stabilization. Stockpiles will be kept on site and clear of all construction activities. The stockpiles will be be stabilized with temporary seeding and protected with silt fence.

Erosion And Sediment Control Measures: Unless otherwise indicated, all vegetative and structural erosion and sediment control measures shall be constructed and maintained according to the minimum standards and specifications of the West Virginia Erosion and Sediment Control Handbook.

Management Strategies:

Construction shall be sequenced such that grading operations will begin and end as quickly as possible.

The site superintendent shall be responsible for the installation and maintenance of all erosion and sediment control measures. Maintenance of these measures throughout the project is critical to the effectiveness of the program.

After areas above controls have been stabilized, the controls shall be cleaned up and removed.

Electric power, telephone, storm, sanitary, water & gas supply trenches (as applicable) are to be compacted, seeded and mulched within four (4) days after backfilling. No more than 500 feet are to be open at any one time.

All cut and fill slopes are to be seeded and mulched within four (4) days of completion of grading.

Drainage swales shall be stabilized with check dams until vegetation has been well established, at which time the temporary check dams shall be removed.

Devices listed above are considered minimum erosion and sediment controls. Additional control measures may be necessary due to contractor phasing or other unforeseen conditions. It is the contractor's responsibility to provide additional measures to those shown, as needed, in order to control erosion and contain sediment on site. All measures shall be installed according to the standards and specifications in the West Virginia erosion and sediment control handbook.

Maintenance Program:

All control measures shall be inspected daily by the site superintendent or his representative and within 24 hours after any storm event greater than 0.25 inches of rain per 24-hour period. Any damaged structural measures are to be repaired by the end of the day. Seeded areas shall be checked regularly to ensure that a good stand of grass is maintained. All areas shall be fertilized and reseeded as needed until grass is established.

Trapped sediment is to be removed as required to maintain 50% trap efficiency and disposed of by spreading on site.

Inlet protection shall be checked regularly for sediment build-up. If the gravel outlet is clogged by sediment, it shall be removed and cleaned or replaced immediately.

The contractor is responsible for keeping existing public roads in a clean, dust and mud free, condition at all times.

Erosion and sediment control program:

1. Hold pre-construction meeting on site with inspector.
2. Install construction entrance.
3. Clearing and grubbing for sediment control devices only.
4. Placement of sediment control devices.
5. Obtain inspector's approval prior to beginning grading operations.
6. Clear and grub remainder of site.
7. Rough grade site.
8. Install drainage devices with sediment control.
9. Final grading.
10. Restoration and stabilization of disturbed areas.
11. Remove erosion and sediment control measures with the approval of the inspector.

Note: City of Charles Town Public Officials retain the right to add and/or modify these erosion and sediment control measures during the construction process, within reason, to ensure adequate protection to the public and the environment.

Seeding schedule (soil stabilization):

1. All permanent seeding shall be in accordance with the West Virginia Erosion & Sediment Control Manual.
2. Spread topsoil at a minimum depth of four (4) inches.
3. Incorporate pulverized agricultural limestone into the topsoil at a rate of 92 lbs. per 1,000 square feet (2 tons per acre).
4. Fertilize with 10-10-10 fertilizer at a rate of 23 lbs per 1,000 square feet (1,000 lbs per acre).
5. Seed all areas with a seed mix consisting of 67% Kentucky 31 Tall Fescue and 33% Red Top Clover.
6. Mulch all seeded areas with straw mulch applied at a rate of 3,500 lbs per acre anchored with cutback or emulsified asphalt applied at a rate of 200 gallons per acre.

Dust control:

1. Temporary seeding shall be applied to all disturbed areas subject to little or no construction traffic.
2. All haul roads and other heavy traffic routes shall be sprinkled with water until the surface is wet and repeated as needed to control dust.

Stormwater Management Narrative:

The existing Stormwater Management Facility was approved to service the full build out of the development within its drainage area. The existing pond, as designed, meets the 1999 Virginia Stormwater Management Handbook, which is one of the practices allowable by the City of Charles Town Code. Chapter 2 of the VSMH states sites are allowed to use the Technology-based water quality criteria so that for land development, "the post developed stormwater runoff from the impervious cover shall be treated by an appropriate BMP as required by the post-developed condition percent impervious cover as specified in Table 2-3." Table 2-3 allows an Extended Detention facility to be utilized when the impervious cover is from 22-37%. Our conservative calculations have the existing pond and it contributing drainage area (both currently developed and the proposed full build-out of the remaining drainage area) to be 37% impervious and therefore meeting the technology based criteria. No additional measures are anticipated.

MINIMUM CONSTRUCTION STANDARDS

An erosion and sediment control program adopted with this plan must be consistent with the VSECH for 9VAC25-840-40 minimum standards:

1. Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven days to denuded areas that may not be at final grade but will remain dormant for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.
2. During construction of the project, soil stock piles and borrow areas shall be stabilized or protected with sediment trapping measures. The applicant is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as borrow areas and soil intentionally transported from the project site.
3. A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that is uniform, mature enough to survive and will inhibit erosion.
4. Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land-disturbing activity and shall be made functional before upslope land disturbance takes place.
5. Stabilization measures shall be applied to earthen structures such as dams, dikes and diversions immediately after installation.
6. Sediment traps and sediment basins shall be designed and constructed based upon the total drainage area to be served by the trap or basin.
   a. The minimum storage capacity of a sediment trap shall be 134 cubic yards per acre of drainage area and the trap shall only control drainage areas less than three acres.
   b. Surface runoff from disturbed areas that is comprised of flow from drainage areas greater than or equal to three acres shall be controlled by a sediment basin. The minimum storage capacity of a sediment basin shall be 134 cubic yards per acre of drainage area. The outfall system shall, at a minimum, maintain the structural integrity of the basin during a 100-year storm of 24-hour duration. Runoff coefficients used in runoff calculations shall correspond to a bare earth condition or those conditions expected to exist while the sediment basin is utilized.
7. Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. Slopes that are found to be eroding excessively within one year of permanent stabilization shall be provided with additional slope stabilizing measures until the problem is corrected.
8. Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure.
9. Whenever water seeps from a slope face, adequate drainage or other protection shall be provided.
10. All storm sewer inlets that are made operable during construction shall be protected so that sediment-laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment.
11. Before newly constructed stormwater conveyance channels or pipes are made operational, adequate outlet protection and any required temporary or permanent channel lining shall be installed in both the conveyance channel and receiving channel.
12. When work in a live watercourse is performed, precautions shall be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction. Nonerodible material shall be used for the construction of causeways and cofferdams. Earthen fill may be used for these structures if armored by nonerodible cover materials.
13. When a live watercourse must be crossed by construction vehicles more than twice in any six-month period, a temporary vehicular stream crossing constructed of nonerodible material shall be provided.
14. All applicable federal, state and local requirements pertaining to working in or crossing live watercourses shall be met.
15. The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse is completed.
16. Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria:
   a. No more than 500 linear feet of trench may be opened at one time.
   b. Excavated material shall be placed on the uphill side of trenches.
   c. Effluent from dewatering operations shall be filtered or passed through an approved sediment trapping device, or both, and discharged in a manner that does not adversely affect flowing streams or off-site property.
   d. Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization.
   e. Restabilization shall be accomplished in accordance with this chapter.
   f. Applicable safety requirements shall be complied with.
17. Where construction vehicle access routes intersect paved or public roads, provisions shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or public road surface, the road surface shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by shoveling or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after sediment is removed in this manner. This provision shall apply to individual development lots as well as to larger land-disturbing activities.
18. All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed, unless otherwise authorized by the VESCP authority. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.
19. Properties and waterways downstream from development sites shall be protected from sediment deposition, erosion and damage due to increases in volume, velocity and peak flow rate of stormwater runoff for the stated frequency storm of 24-hour duration in accordance with the following standards and criteria. Stream restoration and relocation projects that incorporate natural channel design concepts are not man-made channels and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels:
   a. Concentrated stormwater runoff leaving a development site shall be discharged directly into an adequate natural or man-made receiving channel, pipe or storm sewer system. For those sites where runoff is discharged into a pipe or pipe system, downstream stability analyses at the outfall of the pipe or pipe system shall be performed.
   b. Adequacy of all channels and pipes shall be verified in the following manner:

(1) The applicant shall demonstrate that the total drainage area to the point of analysis within the channel is one hundred times greater than the contributing drainage area of the project in question; or

(2) (a) Natural channels shall be analyzed by the use of a two-year storm to verify that stormwater will not overtop channel banks nor cause erosion of channel bed or banks.

(b) All previously constructed man-made channels shall be analyzed by the use of a 10-year storm to verify that stormwater will not overtop its banks and by the use of a two-year storm to demonstrate that stormwater will not cause erosion of channel bed or banks; and

(c) Pipes and storm sewer systems shall be analyzed by the use of a 10-year storm to verify that stormwater will be contained within the pipe or system.

   c. If existing natural receiving channels or previously constructed man-made channels or pipes are not adequate, the applicant shall:

(1) Improve the channels to a condition where a 10-year storm will not overtop the banks and a two-year storm will not cause erosion to the channel, the bed, or the banks; or

(2) Improve the pipe or pipe system to a condition where the 10-year storm is contained within the appurtenances;

(3) Develop a site design that will not cause the pre-development peak runoff rate from a two-year storm to increase when runoff outfalls into a natural channel or will not cause the pre-development peak runoff rate from a 10-year storm to increase when runoff outfalls into a man-made channel; or

(4) Provide a combination of channel improvement, stormwater detention or other measures which is satisfactory to the VESCP authority to prevent downstream erosion.

   d. The applicant shall provide evidence of permission to make the improvements.
   e. All hydrologic analyses shall be based on the existing watershed characteristics and the ultimate development condition of the subject project.
   f. If the applicant chooses an option that includes stormwater detention, he shall obtain approval from the VESCP of a plan for maintenance of the detention facilities. The plan shall set forth the maintenance requirements of the facility and the person responsible for performing the maintenance.
   g. Outfall from a detention facility shall be discharged to a receiving channel, and energy dissipators shall be placed at the outfall of all detention facilities as necessary to provide a stabilized transition from the facility to the receiving channel.
   h. All on-site channels must be verified to be adequate.
   i. Increased volumes of sheet flows that may cause erosion or sedimentation on adjacent property shall be diverted to a stable outlet, adequate channel, pipe or pipe system, or to a detention facility.
   j. In applying these stormwater management criteria, individual lots or parcels in a residential, commercial or industrial development shall not be considered to be separate development projects. Instead, the development, as a whole, shall be considered to be a single development project. Hydrologic parameters that reflect the ultimate development condition shall be used in all engineering calculations.
   k. All measures used to protect properties and waterways shall be employed in a manner which minimizes impacts on the physical, chemical and biological integrity of rivers, streams and other waters of the state.
   l. Any plan approved prior to July 1, 2014, that provides for stormwater management that addresses any flow rate capacity and velocity requirements for natural or man-made channels shall satisfy the flow rate capacity and velocity requirements for natural or man-made channels if the practices are designed to (i) detain the water quality volume and to release it over 48 hours; (ii) detain and release over a 24-hour period the expected rainfall resulting from the one year, 24-hour storm; and (iii) reduce the allowable peak flow rate resulting from the 1.5, 2, and 10-year, 24-hour storms to a level that is less than or equal to the peak flow rate from the site assuming it was in a good forested condition, achieved through multiplication of the forested peak flow rate by a reduction factor that is equal to the runoff volume from the site when it was in a good forested condition divided by the runoff volume from the site in its proposed condition, and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels as defined in any regulations promulgated pursuant to § 62.1-44.15:54 or 62.1-44.15:65 of the Act.
   m. For plans approved on and after July 1, 2014, the flow rate capacity and velocity requirements of § 62.1-44.15:52 A of the Act and this subsection shall be satisfied by compliance with water quantity requirements in the Stormwater Management Act (§ 62.1-44.15:24 et seq. of the Code of Virginia) and attendant regulations, unless such land-disturbing activities are in accordance with 9VAC25-870-48 of the Virginia Stormwater Management Program (VSMP) Regulation or are exempt pursuant to subdivision C 7 of § 62.1-44.15:34 of the Act.
   n. Compliance with the water quantity minimum standards set out in 9VAC25-870-66 of the Virginia Stormwater Management Program (VSMP) Regulation shall be deemed to satisfy the requirements of this subdivision 19.

SOIL TABULATIONS

MAP UNIT SYMBOL	MAP UNIT NAME	ACRES IN AOI	PERCENT OF AOI
PmB	Poplimento silt loam, 3 to 8 percent slopes	1.0	15.5%
PmC	Poplimento silt loam, 8 to 15 percent slopes	0.0	0.4%
PpB	Poplimento silt loam, 3 to 8 percent slopes, very rocky	4.4	68.2%
PpC	Popliment silt loam, 8 to 15 percent slopes, very rocky	0.9	14.4%
PrC	Poplimento-Rock outcrop complex, 8 to 15 percent slopes	0.1	1.5%
TOTALS FOR AREA OF INTEREST		**6.5**	**100%**

SEEDING

TABLE 3.31-B
ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS
"QUICK REFERENCE FOR ALL REGIONS"

Planting Dates	Species	Rate (lbs./acre)
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (Lolium multi-florum) & Cereal (Winter) Rye (Secal cereale)	50 - 100
Feb. 16 - Apr. 30	Anual Ryegrass (Lolium multi-florum)	60 - 100
May 1 - Aug. 31	German Millet (Setaria italica)	50

TABLE 3.32-C
SITE SPECIFIC PERMANENT SEEDING MIXTURES
FOR APPALACHIAN/MOUNTAIN AREA

	Total Lbs. Per Acre
Minimum Care Lawn	
- Commercial or Residential	200-250 lbs.
- Kentucky 31 or Turf-Type Tall Fescue	90-100%
- Improved Perennial Ryegrass *	0-10%
- Kentucky Bluegrass	0-10%
High-Maintenance Lawn	
Minimum of three (3) up to five (5) varieties of bluegrass from approved list for use in Virginia.	125 lbs.
General Slope (3:1 or less)	
- Kentucky 31 Fescue	128 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop**	20 lbs.
	150 lbs
Low-Maintenance Slope (Steeper than 3:1)	
- Kentucky 31 Fescue	108 lbs.
- Red Top Grass	2 lbs.
- Seasonal Nurse Crop**	20 lbs.
- Crownvetch ***	20 lbs.
	150 lbs

* Perennial Ryegrass will germinate faster and at lower soil temperatures than fescue, thereby providing cover and erosion resistance for seedbed.

** Use seasonal nurse crop in accordance with seeding dates as stated below:

March, April through May 15th.....Annual Rye
May 16th through August 15th.....Foxtail Millet
August 16th through Sept./Oct.....Annual Rye
November through February.....Winter Rye

*** If Flatpea is used, increase to 30 lbs./acre. All legume seed must be properly inoculated. Weeping Lovegrass may also be included in any slope or low-maintance mixtures during warmer seeding periods; add 10-20 lbs/acre in mixes.

Seeding
Seed shall be evenly applied with a broadcast seeder, drill, cultipacker seeder or hydroseeder. Small grains shall be planted no more than one inch deep. Grasses and legumes shall be planted with no less than 1/4" soil cover.



PUBLIC NOTICE SIGN

N.T.S.

For Info on NPDES Stormwater Permit
To comment on Sediment Control Plan:
Call: 800-654-5227
or
DEP.Plan@wv.gov
DEP 601 57TH Street SE, Charleston WV 25304

Application date:

NORBORNE GLEBE POOL
(XXX) XXX-XXXX

NOTES:
1. THE SIGN WILL BE A MINIMUM 0F 24"X24" WITH 1.6" AND 0.8" LETTERS.

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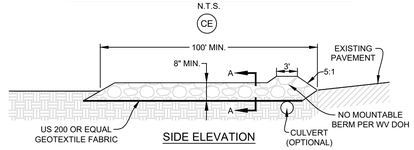
SHEET 8 OF 22
22-06-SP

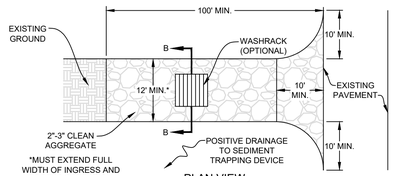
ROCK CONSTRUCTION ENTRANCE

N.T.S.

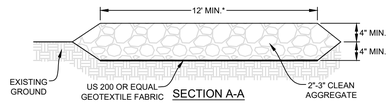
CE



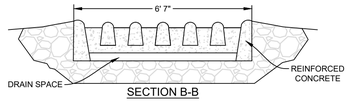
SIDE ELEVATION



PLAN VIEW



SECTION A-A



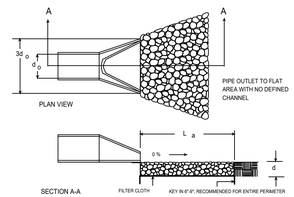
SECTION B-B

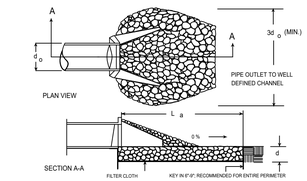
(MODIFIED) SOURCE: ADAPTED FROM THE 1983 MARYLAND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL AND VA. DSWC.

PIPE OUTLET CONDITIONS

N.T.S.

OP





NOTES: 1. APRON LINING MAY BE RIPRAP, GROUTED RIPRAP, GABION BASKET, OR CONCRETE.
2. La IS THE LENGTH OF THE RIPRAP APRON AS CALCULATED USING PLATES 3.18-3 AND 3.18-4.
3. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER, BUT NOT LESS THAN 6 INCHES.

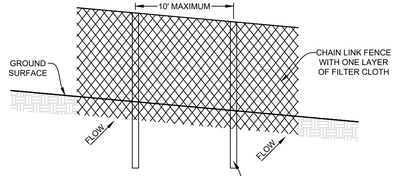
Source: Va. DSWC

Plate 3.18-1

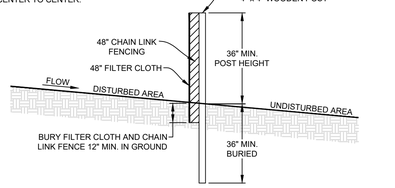
SUPER SILT FENCE

N.T.S.

SSF (1)



NOTE:
FENCE POST SPACING SHALL NOT EXCEED 10' CENTER TO CENTER.

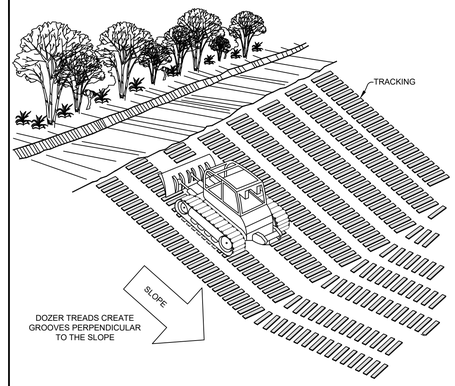


NOTES:
1. SUPER SILT FENCE IS A TEMPORARY BARRIER OF GEOTEXTILE FABRIC OVER CHAIN LINK FENCE.
2. SUPER SILT FENCE SHOULD BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE.
3. ENDS SHALL BE EXTENDED UPHILL A MINIMUM OF 2 VERTICAL FEET.
4. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH WIRE TIES OR STAPLES. GEOTEXTILE FABRIC SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 24" AT THE TOP AND MID-SECTIONS.
5. GEOTEXTILE FABRIC AND CHAIN LINK FENCE SHALL BE EMBEDDED A MINIMUM OF 12" INTO THE GROUND. WHEN 2 SECTIONS OF GEOTEXTILE FABRIC ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
6. METAL POSTS AS SPECIFIED BY WV DOT CAN BE REPLACED BY PRESSURE-TREATED 4" x 4" POSTS.
7. SUPER SILT FENCE SHOULD BE INSPECTED AT A MINIMUM ONCE EVERY 7 CALENDAR DAYS OR WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES OF RAIN PER 24 HOUR PERIOD. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

(MODIFIED) SOURCE: WEST VIRGINIA EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL.

SLOPE TRACKING

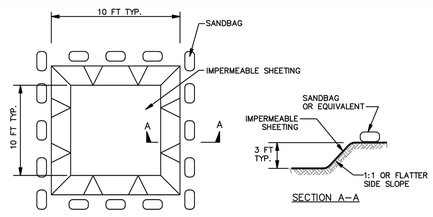
N.T.S.



NOTES:
1. TRACKING SLOPES ARE DONE BY RUNNING TRACKED MACHINERY UP AND DOWN THE SLOPE, LEAVING TREAD MARKS PARALLEL TO THE CONTOUR. IF A BULLDOZER IS USED, THE BLADE SHOULD BE UP.

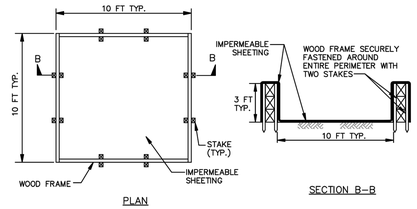
WASHOUT H-6

N.T.S.



PLAN

EXCAVATED WASHOUT STRUCTURE



PLAN

WASHOUT STRUCTURE WITH WOOD PLANKS

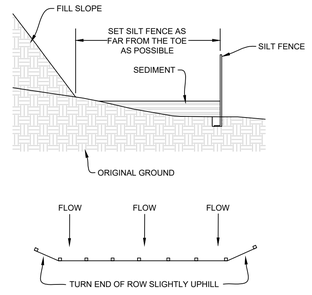
1 OF 2

SOURCE: MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION & SEDIMENT CONTROL

SILT FENCE PLACEMENT

N.T.S.

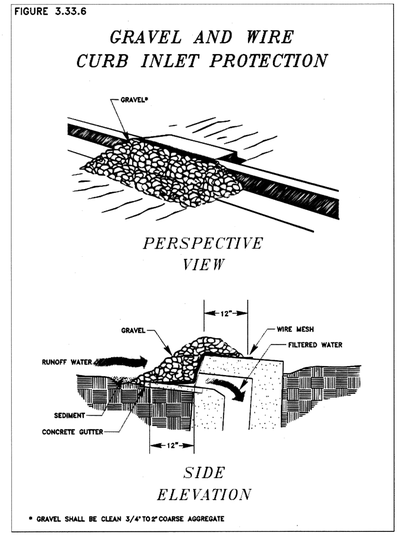
SF



Slope - Percent	Maximum Slope Length (ft) Above Fence		
	Standard (18" High) Silt Fence	Reinforced (30" High) Silt Fence	Super Silt Fence
2 (or less)	150	500	1000
5	100	250	550
10	50	150	325
15	35	100	215
20	25	70	175
25	20	55	135
30	15	45	100
35	15	40	85
40	15	35	75
45	10	30	60
50	10	25	50

FIGURE 3.33.6

GRAVEL AND WIRE CURB INLET PROTECTION



* GRAVEL SHALL BE CLEAN 3/4" TO 2" COARSE AGGREGATE

3.33-12

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NORBORNE GLEBE

POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT

CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
1	05/26/2023

RANDY L KEPLER
REGISTERED
17223
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: 04/26/2023

SCALE: N/A

DESIGNED BY: AM/CW

FILE NO. 4542A

SHEET 9 OF 22

22-06-SP

CAMPBELL DRIVE

SEATON LANE

SANTMYER WAY

CANDLEWOOD DRIVE

TD: 3/MAP: 12/PCL: 99
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
CORP DOUGLAS J
295 CAMPBELL DR
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 142
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
FRANCO IDALIA & LUIS M
325 CAMPBELL DR
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 143
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
WELSH ALBERT E & SEON SHIN
339 CAMPBELL DR
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 153
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
PAYAMPS MANUEL D & CAROLYN E
22 SEATON LN
CHARLES TOWN, WV 25414

TD: 3/MAP: 12/PCL: 209
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
NORBORNE GLEBE HOMEOWNERS ASSOCIATION INC
340 EDMOND RD STE E
KEARNEYSVILLE, WV 25430

TD: 3/MAP: 12/PCL: 209
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
8.47 AC

TD: 3/MAP: 12/PCL: 209
ZONED: NR
LAND USE: RURAL/AGRICULTURAL
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
8.47 AC
(3.38 AC PORTION TO BE PLATTED WITH POOL)

TD: 3/MAP: 12/PCL: 209.3
ZONED: NR
LAND USE: COMMERCIAL VACANT
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
24 AC

TD: 3/MAP: 12/PCL: 209.9
ZONED: NR
LAND USE: LARGE LOT RESIDENTIAL VANCANT
ARCADIA LAND INC.
108 N. GEORGE STREET 2ND FLOOR
CHARLES TOWN, WV 25414
2.68 AC
(3.71 AC PORTION TO BE PLATTED WITH
BOUNDARY LINE ADJUSTMENT)

POOLHOUSE
1,977 SF
FF=530.50

POOL
4,600 SF
ELEV=531.00

BASKETBALL COURT
1,245 SF
ELEV=529.50

PICKLE BALL COURT
1,963 SF
ELEV=528.50

TOT LOT
2,250 SF
ELEV=529.50

EMERGENCY ACCESS DRIVE
(6" CONC. 3500 PSI W/ #4 REBAR
12"x12" EACH WAY)

FENCE

6' DOUBLE GATE

3' GATE

GATE

DECK 4" CONC. W/ BROOM FINISH

6' FENCE

6' ASPHALT TRAIL

PROPOSED PROPERTY LINE

EX. BOUNDARY LINE TO BE VACATED

LOD

5' FRONT YARD

20' SIDE YARD

15' SIDE YARD

1" WATER METER

1-TAP EX MAIN

1" WAT SERV

6" SAN LAT

6" PVC WATERLINE

EX 8" PVC WATERLINE

EX F.H.

5' SIDEWALK

FLOWLINE

CG-6R

CG-6

C1

C2

C3

C4

C5

N 13°24'58" W
286.1500'

S 31°13'16" W
191.1431'

S 68°49'01" E
37.1500'

N 00°06'09" E
93.6500'

S 89°49'49" E
150.1000'

N 89°06'09" E
129.0900'

N 89°06'09" E
104.7112'

S 31°13'16" W
104.7112'

R=22.5'

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SCALE: 1" = 30'

DESIGNED BY: AM/CW

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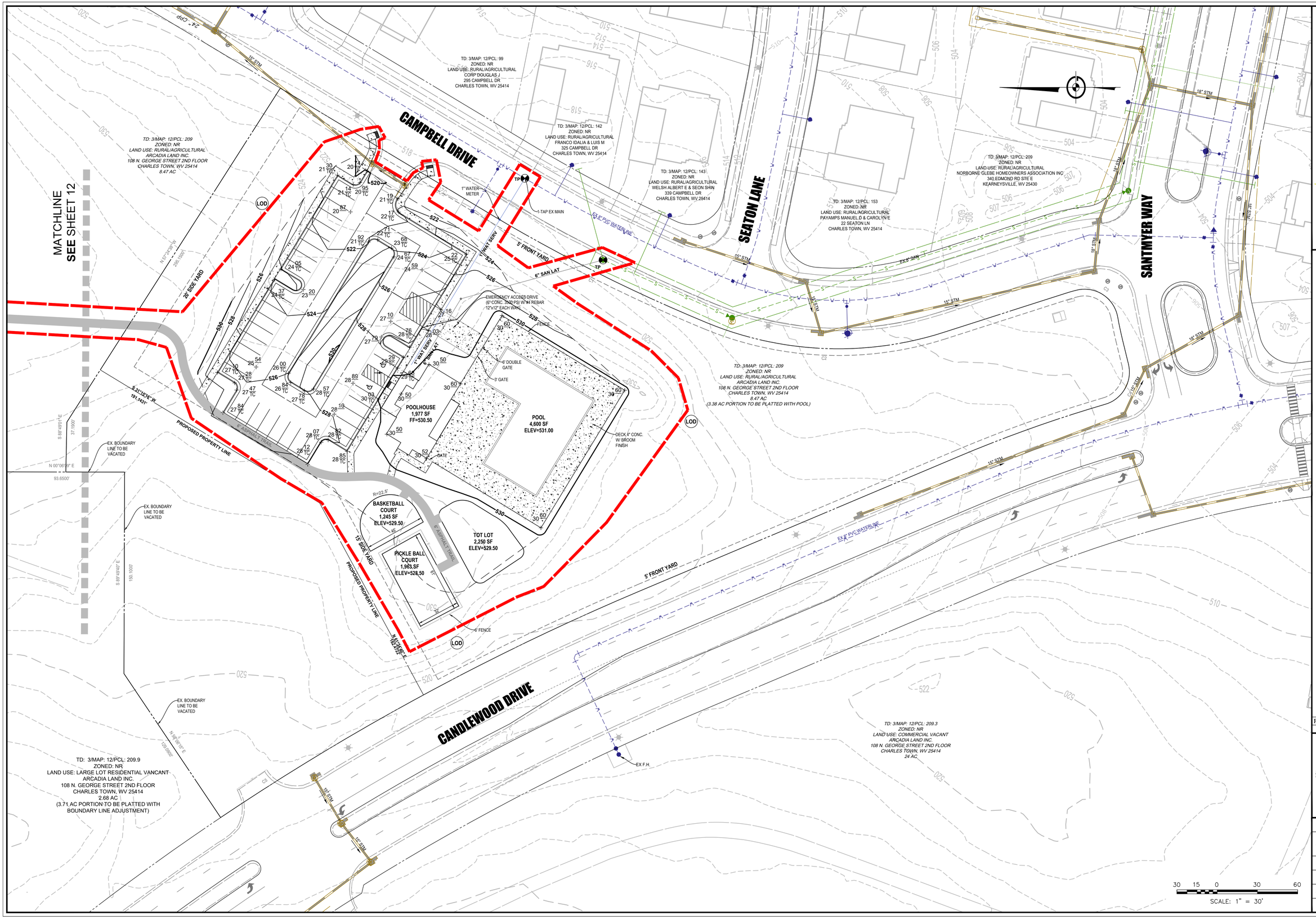
SHEET 10 OF 22

22-06-SP

NOTE:
1. ALL PROPOSED UTILITIES SHALL BE LOCATED UNDERGROUND.

30 15 0 30 60
SCALE: 1" = 30'



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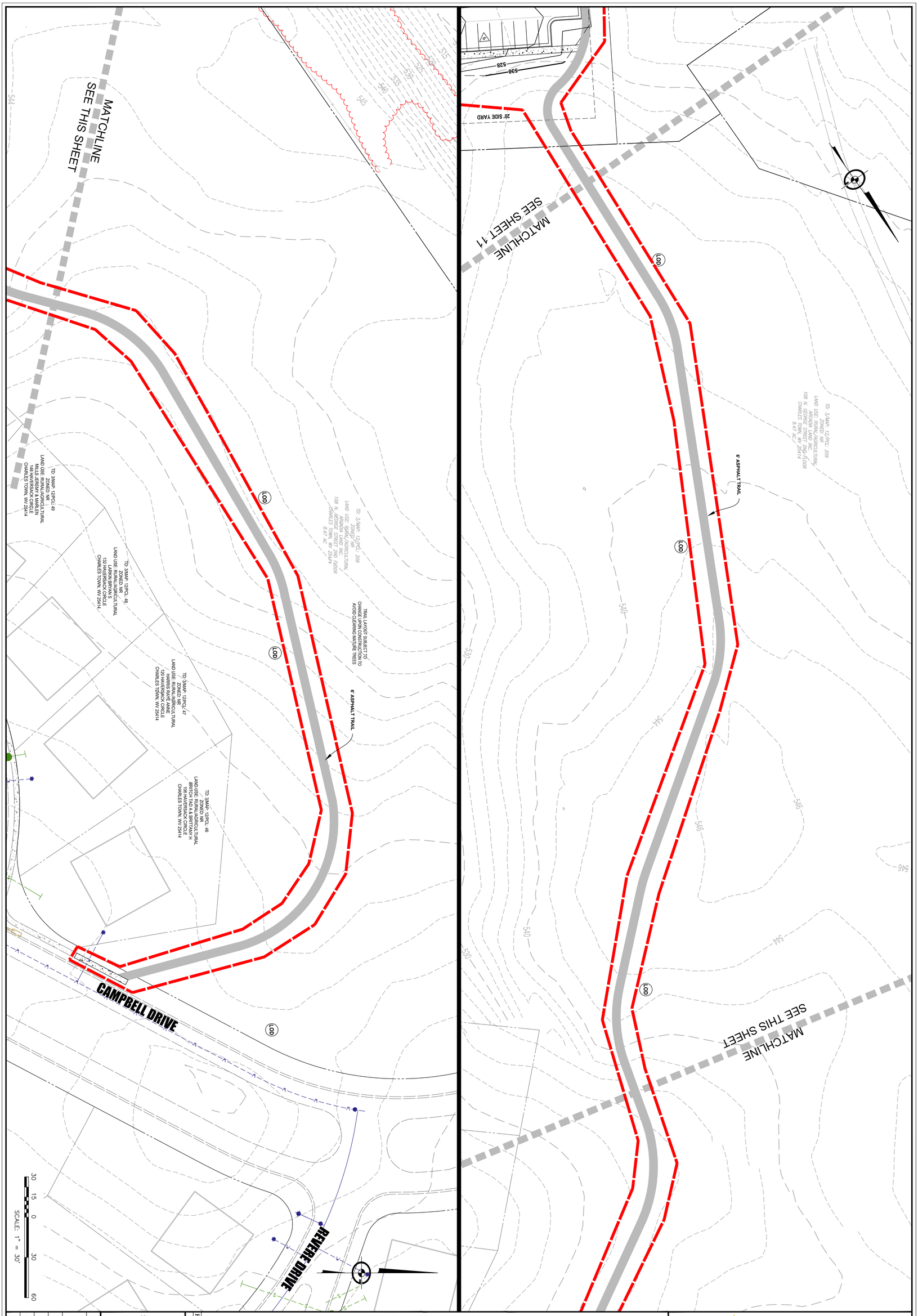
SHEET 11 OF 22

22-06-SP



TRAIL LAYOUT PLAN

NORBORNE GLEBE

POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT

CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
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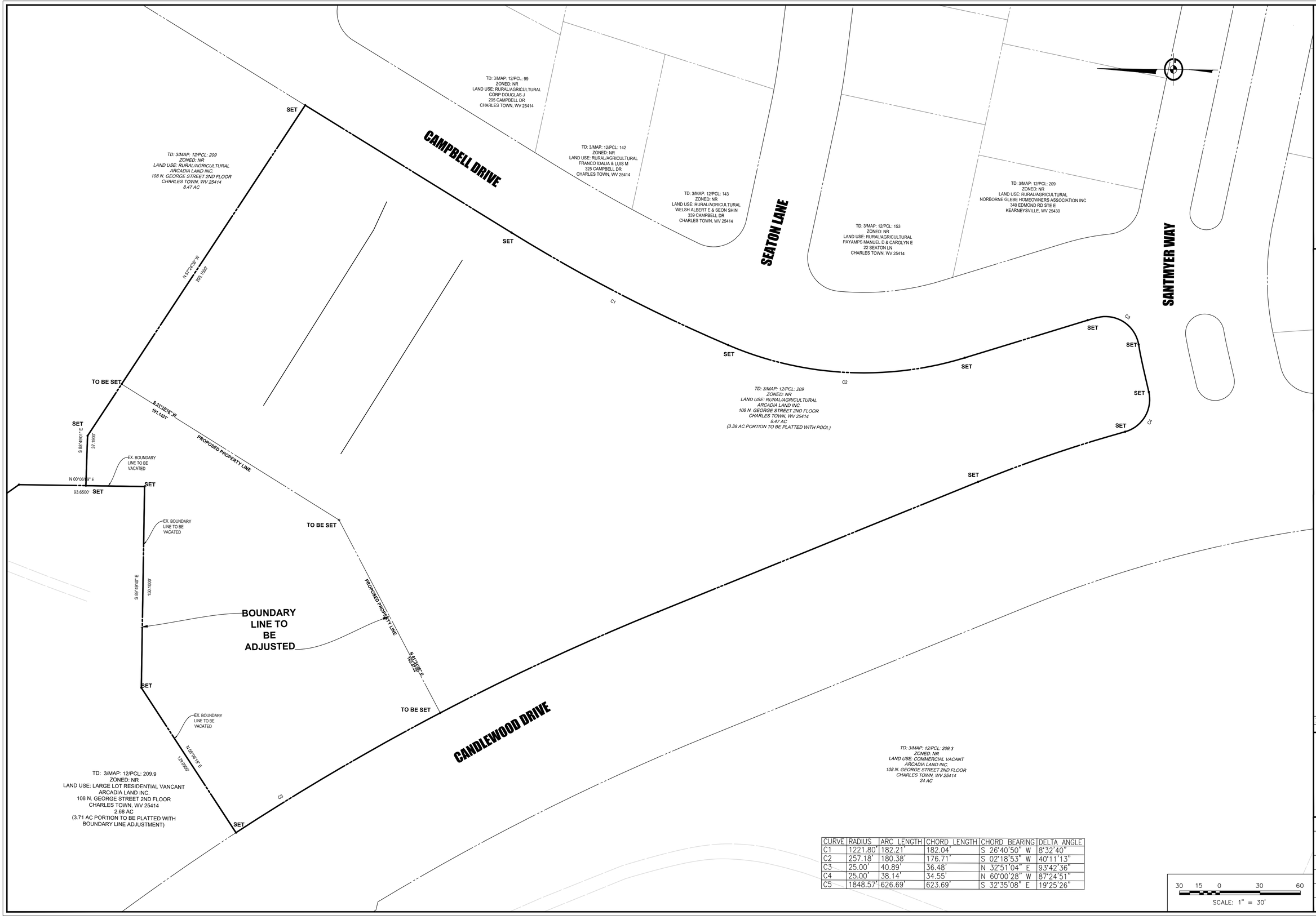

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	1221.80'	182.21'	182.04'	S 26°40'50" W	8°32'40"
C2	257.18'	180.38'	176.71'	S 02°18'53" W	40°11'13"
C3	25.00'	40.89'	36.48'	N 32°51'04" E	93°42'36"
C4	25.00'	38.14'	34.55'	N 60°00'28" W	87°24'51"
C5	1848.57'	626.69'	623.69'	S 32°35'08" E	19°25'26"

30 15 0 30 60
SCALE: 1" = 30'

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PRELIMINARY PLAN

NORBORNE GLEBE

POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT

CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
1	05/26/2023

RANDY L. KEPLER
REGISTERED
17223
STATE OF
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PROFESSIONAL ENGINEER

DATE: 04/26/2023

SCALE: 1" = 30'

DESIGNED BY: AM/CW

FILE NO. 4542A

SHEET 13 OF 22

22-06-SP

STORM INLET CALCULATIONS

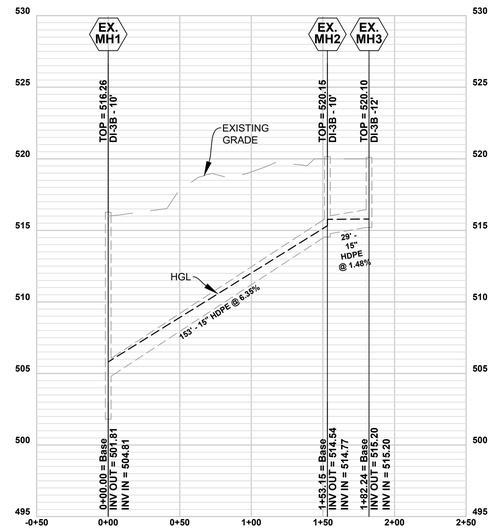
Inlet Structure Name	Inlet ID	Length (ft)	DA (AC)	C	CA	I (in/hr)	Q (cfs)	Qb (cfs)	Qt (cfs)	S (ft/ft)	Sx (ft/ft)	T (ft)	W (ft)	W/T	Sw (ft/ft)	Sw/Sx	Eo	a	S'w = a/(12W)	Se=Sx+S'w(Eo) (ft/ft)	Lt (ft)	L, Spec Length	L/Lt	E (%)	Qi (cfs)	Qb, Co (cfs)	Sag Inlets Only: Ponding Depth (ft)	Curb Opening Height (ft)	d/h	T @ Sag
MH2	DI-3B - 10'	10.00	0.46	0.63	0.29	6.54	1.90	0.00	1.90	0.01	0.02	7.05	2.00	0.28	0.08	4.17	0.75	3.52	0.15	0.13	9.09	10.00	1.10	1.00	1.90	0.00	0.27	-	-	-
MH1	DI-3B - 10'	10.00	0.00	0.50	0.00	6.54	0.00	0.00	0.00	0.01	0.02	0.00	2.00	0.00	0.08	4.17	0.00	3.52	0.15	0.02	0.00	10.00	1.00	0.00	0.00	0.00	0.00	-	-	-

STORM SEWER PIPE CALCULATIONS

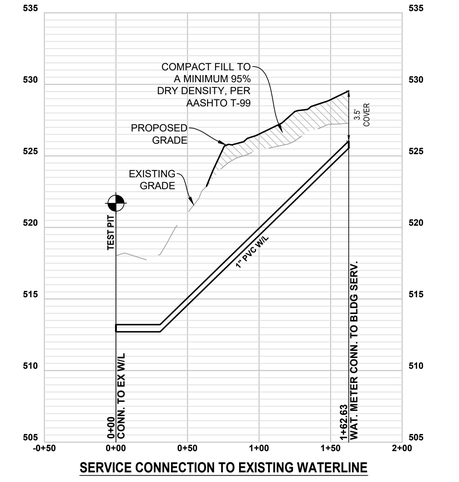
From	To	DA (Acres)	Runoff Coef. C	CA (Increm.)	CA (Accum.)	Tc (min)	Rainfall (in/hr)	Runoff Q, (cfs)	Invert Up (ft)	Invert Down (ft)	Length (ft)	Slope (%)	Diameter (in)	Capacity (cfs)	Velocity (fps)	Increm Flow Time (min)	Flow Time (min)	Pipe Material
MH3	MH2	0.45	0.63	0.28	0.28	5.00	6.54	1.85	515.20	514.77	29.09	1.48	15.00	9.15	5.55	0.09	0.09	HDPE
MH2	MH1	0.46	0.63	0.29	0.57	5.00	6.54	3.74	514.54	504.81	153.15	6.35	15.00	18.97	11.41	0.22	0.22	HDPE

HYDRAULIC GRADE LINE CALCULATIONS

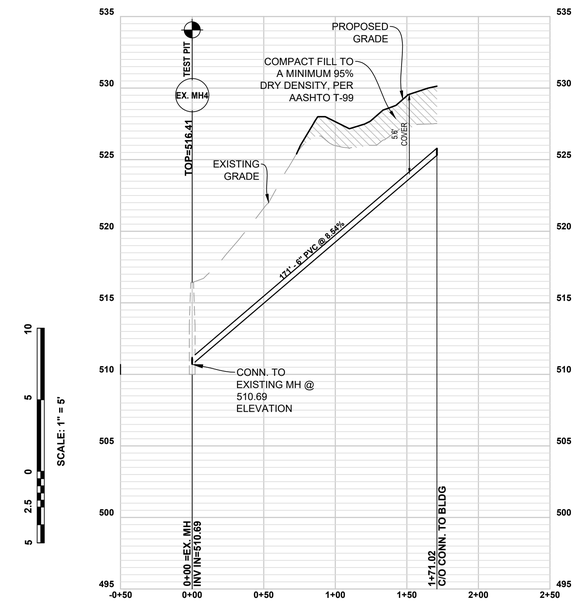
Inlet No.	Outlet W.S.E. (ft)	Do (in)	Qo (cfs)	Lo (ft)	Sfo (%)	Hf (ft)	JUNCTION LOSS: Vo (fps)	Ho (ft)	Qi (cfs)	Vi (fps)	QiVi	Vi^2/2g	Hi (ft)	Angle (deg)	K	Hb (ft)	Ht (ft)	1.3Ht (ft)	0.5Ht (ft)	Final H (ft)	Inlet W.S.E. (ft)	Rim Elev (ft)
MH3	515.77	15.00	1.85	29.09	0.07	0.02	5.55	0.14								0.14	0.19	0.09	0.21	515.88	520.10	
MH2	505.81	15.00	3.74	153.15	0.30	0.45	11.41	0.51	1.85	5.55	10.28	0.48	0.17	6.06	0.08	0.04	0.71	0.92	0.46	1.38	506.73	520.15



EXISTING STM. MANHOLE 1 TO MH 3



SERVICE CONNECTION TO EXISTING WATERLINE



SANITARY LATERAL CONN. TO EXISTING MH4

SCALE: 1" = 5'

50 25 0 50 100

SCALE: 1" = 50'

NOTE:
EXISTING UTILITIES SHOWN PER PREVIOUS DESIGN DATA. CONTRACTOR TO FIELD VERIFY FIELD CONDITIONS.

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POOL
PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT
CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
3	06/14/2023

RANDY L. KEPLER — REGISTERED — 17223 — STATE OF WEST VIRGINIA — PROFESSIONAL ENGINEER

DATE: 04/26/2023

SCALE: H:1"=50' V:1"=5"

DESIGNED BY: AM/CW

FILE NO. 4542A

SHEET 14 OF 22

22-06-SP

GENERAL CONDITIONS - CODE COMPLIANT LANDSCAPE PLAN

SCOPE OF WORK
THE LANDSCAPE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR AND EQUIPMENT TO COMPLETE ALL LANDSCAPE WORK AS SHOWN ON THE PLANS AND SPECIFICATIONS.

NOTE: IF CONTRACTOR BIDS ACCORDING TO THE PLANT LIST, HE/SHE SHOULD THOROUGHLY CHECK THE PLANT LIST QUANTITIES WITH THE SYMBOLS DRAWN ON THE PLAN, TO BE SURE THERE ARE NO DISCREPANCIES. IF THERE IS A DISCREPANCY BETWEEN THE DRAWING AND THE LIST ON THE PLANS, THE DRAWING TAKES PRECEDENCE.

STANDARDS
ALL PLANT MATERIAL WILL CONFORM TO THE CURRENT ISSUE OF THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION (ANLA).PLANT MATERIAL MUST BE SELECTED FROM NURSERIES THAT HAVE BEEN INSPECTED AND CERTIFIED BY STATE PLANT INSPECTORS.COLLECTED MATERIAL MAY BE USED ONLY WHEN APPROVED BY OWNER'S REPRESENTATIVE.NOMENCLATURE WILL BE IN ACCORDANCE WITH HORTUS III BY L.H. BAILEY.

SUBSTITUTIONS: PRE-BID
IT IS THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY TO MAKE EVERY REASONABLE EFFORT TO FIND THE PLANTS SPECIFIED BY THE LANDSCAPE ARCHITECT. THE LANDSCAPE CONTRACTOR MAY OFFER SUBSTITUTIONS TO THE LANDSCAPE ARCHITECT FOR HIS/HER CONSIDERATION. THE LANDSCAPE CONTRACTOR WILL NOTIFY THE LANDSCAPE ARCHITECT IF THERE ARE KNOWN
DISEASES OR INSECT RESISTANT SPECIES THAT CAN BE SUBSTITUTED FOR A SELECTED PEST-PRONE PLANT. THE CONTRACTOR SHALL SUBMIT A BASE BID AS PER PLAN PLUS PRICE CLARIFICATIONS FOR ALL RECOMMENDED SUBSTITUTIONS.

SUBSTITUTIONS: POST-BID
IT IS THE INTENT TO ELIMINATE POST-BID SUBSTITUTIONS. HOWEVER, IN THE EVENT THAT THE CONTRACT MATERIAL HAS BECOME UNAVAILABLE, AN APPROPRIATE SUBSTITUTION MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE.

UTILITIES AND UNDERGROUND FEATURES
THE LANDSCAPE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AND/OR THE GENERAL CONTRACTOR IN ADVANCE OF CONSTRUCTION TO LOCATE UTILITIES.

TREES AND/OR SHRUBS SHALL NOT BE PLACED WITHIN WATER AND SEWER EASEMENTS

IF THERE IS A CONFLICT WITH UTILITIES AND THE PLANTING, THE LANDSCAPE ARCHITECT SHALL BE RESPONSIBLE FOR RELOCATING PLANTS PRIOR TO THE PLANTING PROCESS. ANY COST DUE TO RELOCATING AFTER PLANTING SHALL BE BORNE BY THE OWNER. IF PLANTS ARE TO BE INSTALLED IN AREAS THAT SHOW OBVIOUS POOR DRAINAGE, AND THE PLANTS ARE INAPPROPRIATE FOR THAT CONDITION, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AND OWNER. IF THEY DEEM NECESSARY, THE PLANTS SHALL BE RELOCATED, THE CONTRACT SHALL BE ADJUSTED TO ALLOW FOR DRAINAGE CORRECTION AT A NEGOTIATED COST, OR THE PLANT SELECTION MODIFIED BY THE LANDSCAPE ARCHITECT TO ACCOMMODATE THE POOR DRAINAGE.

WARRANTY
THE STANDARD WARRANTY IS FOR ONE (1) YEAR PERIOD, EXCLUDING BULBS, SOD AND ANNUALS, COMMENCING ON THE DATE OF INITIAL ACCEPTANCE. ALL PLANTS SHALL BE ALIVE AND IN SATISFACTORY GROWTH AT THE END OF THE GUARANTEE PERIOD. ANY MATERIAL THAT IS 25% DEAD OR MORE SHALL BE CONSIDERED DEAD AND MUST BE REPLACED AT NO CHARGE. A TREE SHALL BE CONSIDERED DEAD WHEN THE MAIN LEADER HAS DIED BACK, OR 25% OF THE CROWN IS DEAD. REPLACEMENTS SHALL BE MADE DURING THE NEXT PLANTING PERIOD. REPLACEMENTS SHALL BE OF THE SAME TYPE, SIZE AND QUALITY AS ORIGINAL SPECIES UNLESS OTHERWISE NEGOTIATED.

CONTAINER - GROWN STOCK
1. THE SIZE OF CONTAINER-GROWN SHRUBS IS MEASURED BY HEIGHT AND WIDTH OF THE PLANT.
CONTAINER-GROWN TREES
ARE MEASURED BY THE SAME STANDARDS LISTED IN B.3. ABOVE. THE ROOT SYSTEM OF CONTAINER-GROWN PLANTS SHALL
BE WELL DEVELOPED AND WELL DISTRIBUTED THROUGH OUT THE CONTAINER.

2. ALL CONTAINER-GROWN TREES AND SHRUBS THAT HAVE CIRCLING (GIRDLING) AND MATTED ROOTS SHALL BE TREATED IN
THE FOLLOWING MANNER PRIOR TO PLANTING: SEPARATE THE ROOTS BY HAND, UNTANGLING SO CIRCLING ROOTS WILL NOT
DAMAGE FUTURE OF THE PLANT. SEE PLANTING PROCEDURES FOR ALL CONTAINER-GROWN TREES & SHRUBS IN THIS SECTION.

3. ALL CONTAINER-GROWN PLANTS SHOULD BE GROUPED AND WATERED DAILY UNTIL THEY ARE PLANTED IN THE

LANDSCAPE, THE SOIL SHALL BE KEPT MOIST WITH THE EQUIVALENT OF ONE-INCH OF RAINFALL PER WEEK.

4. PRUNING SHALL BE DONE BEFORE PLANTING OR DURING THE PLANTING OPERATION. PRUNING DETAIL FOR TREES IN THIS SECTION.

5. ALL PLANT MATERIAL IN TRANSIT SHALL BE COVERED TO KEEP MATERIAL FROM DRYING OUT. THE COVERING SHALL COMPLY WITH THE STATE AND LOCAL LAWS PERTAINING TO THE TRANSPORT OF MATERIALS.

6. TREES SHALL BE PLACED IN AN UPRIGHT POSITION WITH THE ROOTBALL COVERED BY MULCH AND KEPT MOIST. TREES AND SHRUBS SHOULD NOT BE LEFT ON SITE UNPLANTED FOR MORE THAN 24-HOURS WITHOUT ADEQUATE WATER TO INSURE ROOT SURVIVAL.

INSPECTION
A. PLANTS MAY BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR OWNER'S REPRESENTATIVE AT THE PLACE OF GROWTH OR HOLDING YARD FOR CONFORMITY TO SPECIFICATION REQUIREMENTS AS TO QUALITY, SIZE AND VARIETY.

B. PLANTS DAMAGED IN HANDLING OR TRANSPORTATION CAN BE REJECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.

C. STATE NURSERY INSPECTION CERTIFICATES SHALL BE FURNISHED TO THE LANDSCAPE ARCHITECT UPON REQUEST.

STANDARDS
A. PLANTS WILL BE IN ACCORDANCE WITH THE CURRENT ANLA'S STANDARDS AND CONFORM IN GENERAL TO REPRESENTATIVE SPECIES.

B. BALLED AND BURLAPPED (B&B)
1. BALLED AND BURLAPPED PLANTS SHALL BE DUG WITH FIRM ROOT BALLS FREE OF NOXIOUS WEEDS. THERE SHOULD BE NO EXCESS SOIL ON TOP OF THE ROOTBALL OR AROUND THE TRUNK
2. BALL SIZES SHALL BE IN ACCORDANCE WITH ANLA STANDARDS.
3. CALIPER AND HEIGHT MEASUREMENT: IN SIZE GRADING B&B SINGLE TRUNK TREES, CALIPER SHALL TAKE PRECEDENCE OVER HEIGHT. CALIPER OF THE TRUNK SHALL BE TAKEN 6" ABOVE GROUND LEVEL (UP TO AND INCLUDING 4" CALIPER SIZE) AND 12" ABOVE THE GROUND LEVEL FOR LARGER TREES. FOR MULTIPLE-TRUNK TREES, HEIGHT MEASUREMENT SHALL TAKE PRECEDENCE OVER CALIPER.

NOTES:

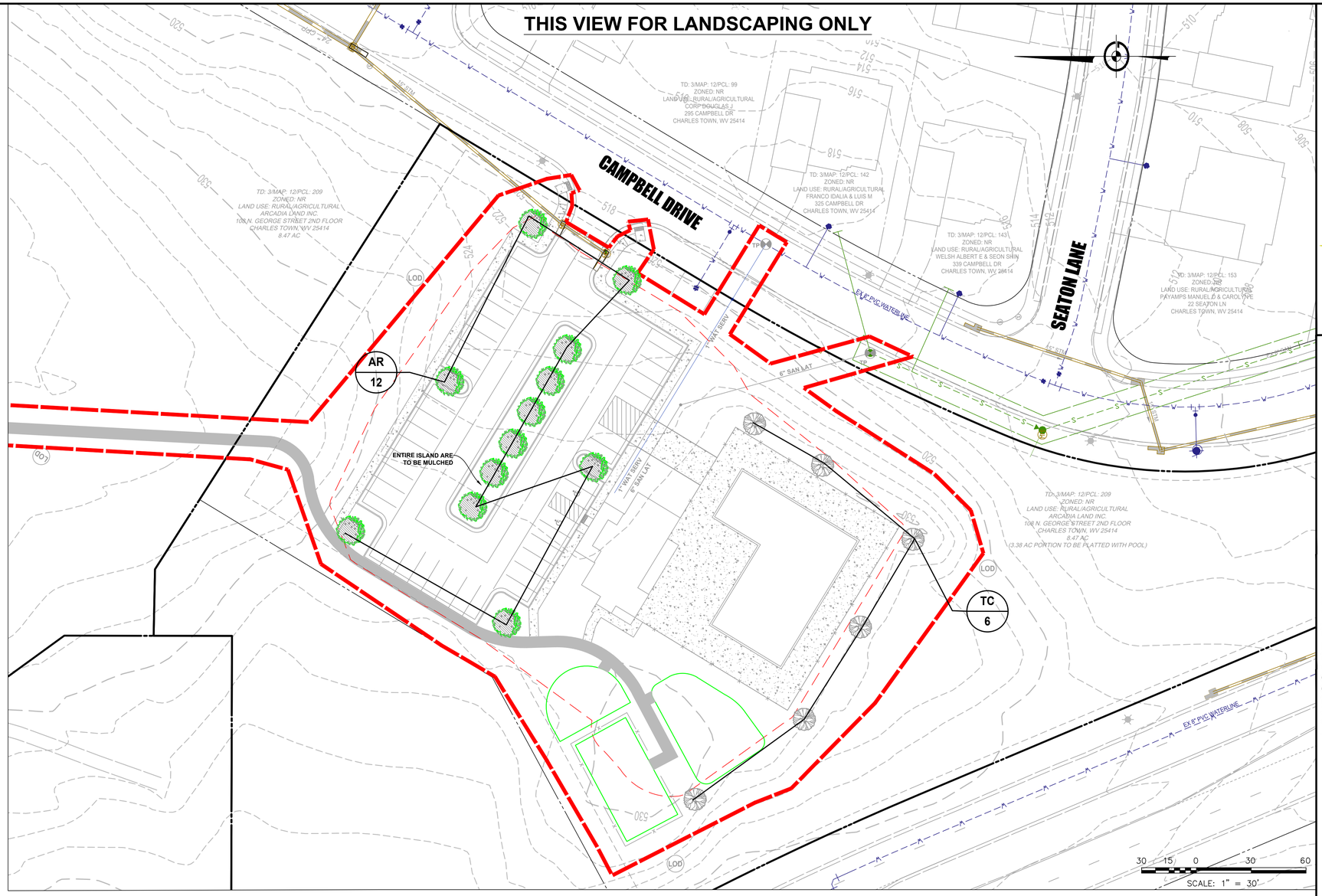
1) ALL PLANTING SHALL CONFORM WITH SECTION 1333.15, BUFFER AND SCREENING STANDARDS,AND/OR SECTION 1333.16, LANDSCAPING STANDARDS OF THE CHARLESTOWN SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

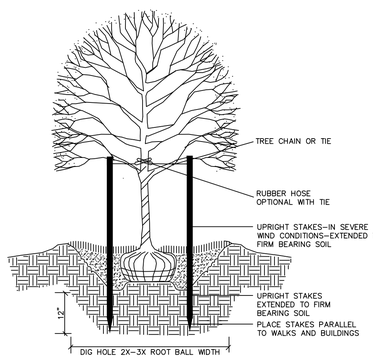
2) ANY PLANT SUBSTITUTIONS MUST BE APPROVED IN WRITING BY THE CHARLESTOWN DEPARTMENT OF COMMUNITY DEVELOPMENT ZONING AND PLANNING DIVISION.

3) ANY TREES LOCATED ON AN INDIVIDUAL LOT WILL BE INSTALLED PRIOR TO THE REQUEST FOR AN OCCUPANCY PERMIT FOR THAT SPECIFIC LOT. ALL OTHER LANDSCAPING SHOWN ON THIS PLAN WILL BE INSTALLED PRIOR TO BOND RELEASE.

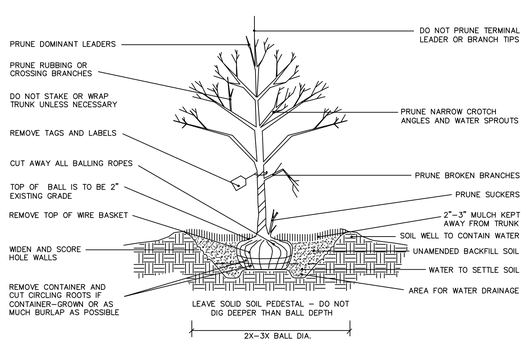
4.) ALL GRADED/DISTURBED AREAS WITHIN THE PROJECT LIMITS EXCEPT FOR BUT NOT LIMITED TO WALKS, ROADS, DRIVES, TEMPORARY EASEMENTS UNDER CULTIVATION, AND AREAS DESIGNATED AS PLANTING BEDS SHALL BE SODDED OR SEEDED

THIS VIEW FOR LANDSCAPING ONLY





TREE PLANTING – VERTICAL STAKES
TREES <4" CAL. SCALE: NOT TO SCALE



TREE PLANTING DETAIL
TREES <4" CAL. SCALE: NOT TO SCALE

PLANT SCHEDULE

ABB	BOTANIC NAME	COMMON NAME	QUANTITY	SIZE
PROPOSED TREE PLANTINGS				
Ar*	Acer Rubrum 'Franksred'	Red Sunset Red Maple	12	2" cal, B&B
Tc*	Tilia chordata 'Greenspire'	Greenspire Littleleaf Linden	6	2" cal, B&B

18 total trees

POOL PARKING LOT LANDSCAPING:
1 TREE SHALL BE PROVIDED FOR EVERY 2,000 SQUARE FEET OF IMPERVIOUS AREA FOR THE FIRST 100,000 SQUARE FEET OF THE TOTAL SITE.
24,252 SQFT PARKING LOT AREA: 24,252/2000 SQFT= 12 TREES REQ

POOL AREA:
1 TREE SHALL BE PROVIDED FOR EVERY 2,OOO SQUARE FEET OF IMPERVIOUS ARE FOR THE FIRST 100,000 SQUARE FEET OF THE TOTAL SITE.
12,694 SQFT POOL AREA: 12,694/2000 SQFT= 6 TREES REQ

LEGEND

Deciduous Trees (Street Trees/Parking Lot Landscaping)

Deciduous Trees (Street Trees/Parking Lot Landscaping)

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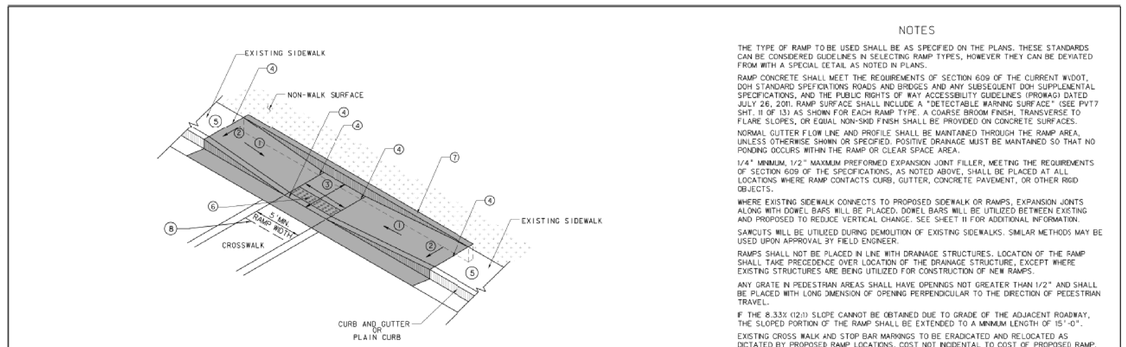
LANDSCAPE PLAN
NORBORNE GLEBE
POOL
PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT
CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
1	05/26/2023

RANDY L KEPLER REGISTERED 17223 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

DATE: 04/26/2023
SCALE: 1" = 30'
DESIGNED BY: AM/CWM
FILE NO. 4542A
SHEET 15 OF 22
22-06-SP



TYPE III RAMP

LEGEND

1. 8.33% (12:1) MAXIMUM RAMP SLOPE INCLUDING CONSTRUCTION TOLERANCE SLOPE OF RAMP SHALL CARRY THROUGH TO FACE OF CURB
2. CROSS SLOPE: 2.00% MAXIMUM INCLUDING CONSTRUCTION TOLERANCE
3. CURB RAMPS REQUIRE A (5'-0") MINIMUM TURNING SPACE WHERE PEDESTRIANS PERFORM TURNING MANEUVERS WITH A MAXIMUM CROSS SLOPE OF 2% AND LONGITUDINAL SLOPE MATCHING ROADWAY
4. GRADE BREAK REQUIRED TO BE FLUSH (0") AND PERPENDICULAR TO PEDESTRIAN PATH OF TRAVEL
5. IF SIDEWALK IS EXISTING AND NON-COMPLIANT SEE "TRANSITION TO EXISTING NON-COMPLIANT SIDEWALK" DETAIL SHEET 12
6. DETECTABLE WARNING SURFACE SEE "DETECTABLE WARNING SURFACE (DWS)" DETAIL SHEET 11
7. CURB WALL OR CHEEK WALL AS DICTATED BY FIELD CONDITIONS. SEE "EXISTING ADJACENT SURFACE TRANSITION" DETAIL SHEET 13
8. CLEAR SPACE - WIDTH OF CURB RAMP AND EXTENDING 4' MINIMUM
9. 3/4" CHAMFER EDGE

PAY LIMITS FOR CURB RAMPS (EXCLUDING DWS)

NOTES

THE TYPE OF RAMP TO BE USED SHALL BE AS SPECIFIED ON THE PLANS. THESE STANDARDS CAN BE CONSIDERED GUIDELINES IN SELECTING RAMP TYPES, HOWEVER THEY CAN BE DEVIATED FROM WITH A SPECIAL DETAIL AS NOTED IN PLANS.

RAMP CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 609 OF THE CURRENT WDOT, DOH STANDARD SPECIFICATIONS ROADS AND BRIDGES AND ANY SUBSEQUENT DOH SUPPLEMENTAL SPECIFICATIONS, AND THE PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG) DATED JULY 26, 2011. RAMP SURFACE SHALL INCLUDE A "DETECTABLE WARNING SURFACE" (SEE PVT7 SHT. 11 OF 13) AS SHOWN FOR EACH RAMP TYPE. A COARSE BROOM FINISH, TRANSVERSE TO FLARE SLOPES, OR EQUAL NON-SKID FINISH SHALL BE PROVIDED ON CONCRETE SURFACES.

NORMAL GUTTER FLOW LINE AND PROFILE SHALL BE MAINTAINED THROUGH THE RAMP AREA, UNLESS OTHERWISE SHOWN OR SPECIFIED. POSITIVE DRAINAGE MUST BE MAINTAINED SO THAT NO PONDING OCCURS WITHIN THE RAMP OR CLEAR SPACE AREA.

1/4" MINIMUM, 1/2" MAXIMUM PREFORMED EXPANSION JOINT FILLER, MEETING THE REQUIREMENTS OF SECTION 609 OF THE SPECIFICATIONS, AS NOTED ABOVE, SHALL BE PLACED AT ALL LOCATIONS WHERE RAMP CONTACTS CURB, GUTTER, CONCRETE PAVEMENT, OR OTHER RIGID OBJECTS.

WHERE EXISTING SIDEWALK CONNECTS TO PROPOSED SIDEWALK OR RAMPS, EXPANSION JOINTS ALONG WITH DOWEL BARS WILL BE PLACED. DOWEL BARS WILL BE UTILIZED BETWEEN EXISTING AND PROPOSED TO REDUCE VERTICAL CHANGE. SEE SHEET 11 FOR ADDITIONAL INFORMATION.

SAWCUTS WILL BE UTILIZED DURING DEMOLITION OF EXISTING SIDEWALKS. SIMILAR METHODS MAY BE USED UPON APPROVAL BY FIELD ENGINEER.

RAMPS SHALL NOT BE PLACED IN LINE WITH DRAINAGE STRUCTURES. LOCATION OF THE RAMP SHALL TAKE PRECEDENCE OVER LOCATION OF THE DRAINAGE STRUCTURE, EXCEPT WHERE EXISTING STRUCTURES ARE BEING UTILIZED FOR CONSTRUCTION OF NEW RAMPS.

ANY GRATE IN PEDESTRIAN AREAS SHALL HAVE OPENINGS NOT GREATER THAN 1/2" AND SHALL BE PLACED WITH LONG DIMENSION OF OPENING PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.

IF THE 8.33% (12:1) SLOPE CANNOT BE OBTAINED DUE TO GRADE OF THE ADJACENT ROADWAY, THE SLOPED PORTION OF THE RAMP SHALL BE EXTENDED TO A MINIMUM LENGTH OF 15'-0".

EXISTING CROSS WALK AND STOP BAR MARKINGS TO BE ERADICATED AND RELOCATED AS DICTATED BY PROPOSED RAMP LOCATIONS. COST NOT INCIDENTAL TO COST OF PROPOSED RAMP.

CURB RAMP WIDTH SHALL MATCH SIDEWALK WIDTH PLUS CLEARANCE. TYPICAL SIDEWALK WIDTH IS 5'. MINIMUM RAMP WIDTHS LESS THAN 5' REQUIRE DIVISION/DISTRICT ENGINEER APPROVAL. WIDTHS LESS THAN 4' REQUIRE AN EXCEPTION JUSTIFICATION REPORT. SEE SHEET 11 FOR INFORMATION REGARDING RAMP THICKNESS.

GRADE BREAKS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.

CLEAR SPACE- BEYOND THE BOTTOM GRADE BREAK, A CLEAR SPACE THE WIDTH OF THE CURB RAMP AND EXTENDING 4' MINIMUM INTO THE ABUTTING ROADWAY SHALL BE PROVIDED WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING AND WHOLLY OUTSIDE THE PARALLEL TRAVEL LANE. SURFACE TO MATCH EXISTING. ANY CLEAR SPACE WORK TO BE COMPLETED WILL BE INCIDENTAL TO THE COST OF THE RAMP.

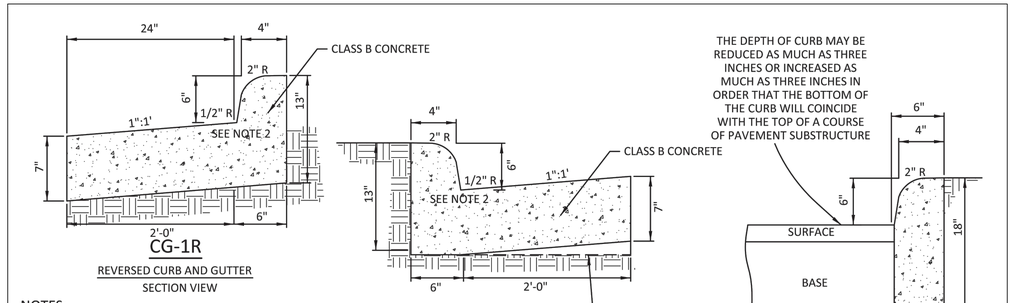
ALL CURB RAMPS SHALL BE CONSTRUCTED TO PROVIDE ACCESS TO EXISTING OPERABLE PARTS. AN EXAMPLE OF THIS WOULD BE PEDESTRIAN PUSH BUTTONS.

NOT TO SCALE

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS STANDARD DETAIL	
PREPARED 1-4-1999	SIDEWALK RAMPS (Sheet 5 of 13) TYPE III RAMP
REVISIONS DATE	
7/2020	
10/2020	
5/2021	
	STANDARD SHEET PVT 7

TYPICAL COMBINATION CURB AND GUTTER

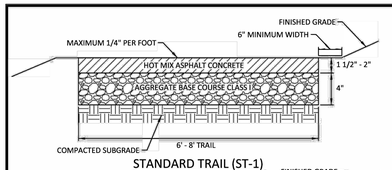
N.T.S.



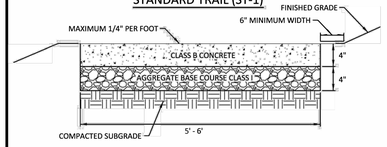
NOTES:

1. THE USE OF CG-1R SHALL NOT BE UTILIZED WITHIN THE LIMITS OF PUBLIC RIGHT OF WAY.
2. A MAXIMUM OF A 2" RADIUS IS ACCEPTABLE WITH CURB AND GUTTER.
3. SUBGRADE FOR ALL CURB AND GUTTER SHALL BE COMPACTED TO 95 PERCENT DENSITY AT OPTIMUM MOISTURE TO THE FULL WIDTH OF RIGHT OF WAY IN ACCORDANCE WITH AASHTO, T99.

(MODIFIED) SOURCE: CITY OF CHARLES TOWN DETAIL CG-1, CG-1R, AND CG-2)



STANDARD TRAIL (ST-1)



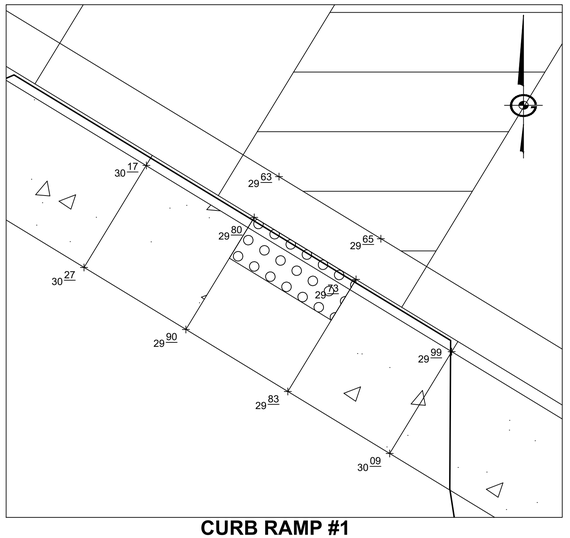
STANDARD SIDEWALK (SW-1)

NOTES:

1. ALL PEDESTRIAN AND BIKE TRAILS LOCATED OUTSIDE OF CITY OF CHARLESTOWN RIGHT OF WAY SHALL BE A MINIMUM OF 5' IN WIDTH FOR SIDEWALKS, 6' FOR ALL PEDESTRIAN TRAILS, AND 8' FOR ALL BIKE TRAILS.
2. A PRIVATE ACCESS EASEMENT SHALL BE PROVIDED FOR ALL SIDEWALKS AND TRAILS OUTSIDE OF CITY OF CHARLES TOWN RIGHT OF WAY AND SHALL INCLUDE A MINIMUM OF 3' OF WIDTH ON BOTH SIDES OF THE TRAIL OR SIDEWALK.
3. THE MAXIMUM GRADE FOR ALL PEDESTRIAN TRAILS SHALL BE 10%.
4. THE MAXIMUM GRADE FOR ALL BIKE TRAILS SHALL BE 8%, EXCEPT UP TO 15% IS ALLOWED FOR DISTANCES OF LESS THAN 150 FEET.
5. APPROPRIATE LIGHTING AND SIGNAGE, LANDSCAPING, BUFFERING AND DRAINAGE MEASURES, ALONG WITH CONSIDERATIONS FOR SECURITY SHALL BE INCORPORATED IN THE DESIGN OF THESE FACILITIES.

NOT TO SCALE

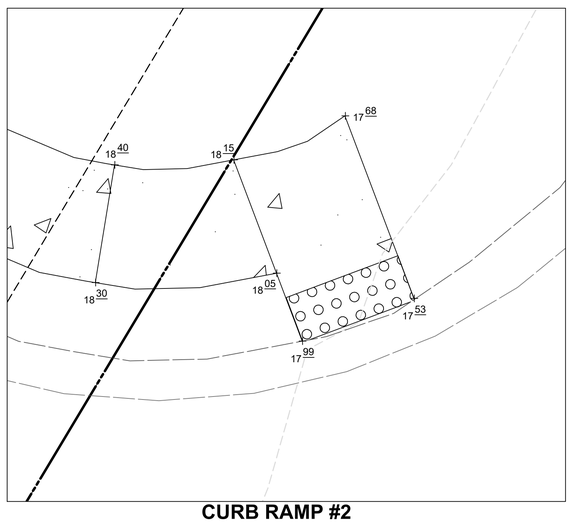
	TRAIL AND TYPICAL SIDEWALK City of Charles Town	ST-1 SW-1



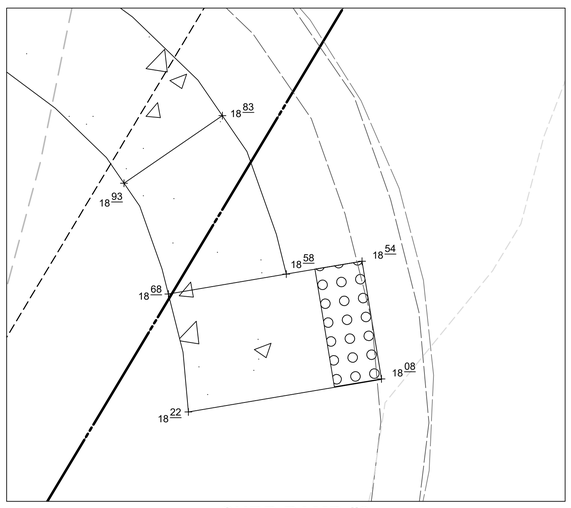
CURB RAMP #1

3 1.5 0 3 6

SCALE: 1" =3'



CURB RAMP #2



CURB RAMP #3

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CITY OF CHARLES TOWN AND CURB RAMP DETAILS

NORBORNE GLEBE

POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT

CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
1	05/26/2023

RANDY L. KEPLER REGISTERED 17223 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

DATE: 04/26/2023

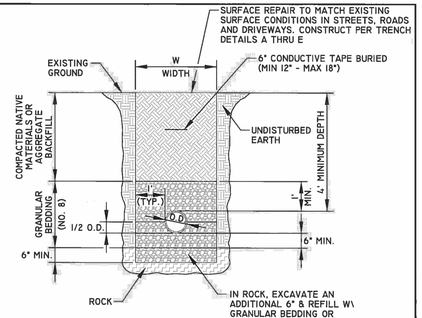
SCALE: AS NOTED

DESIGNED BY: AM/CW

FILE NO. 4542A

SHEET 16 OF 22

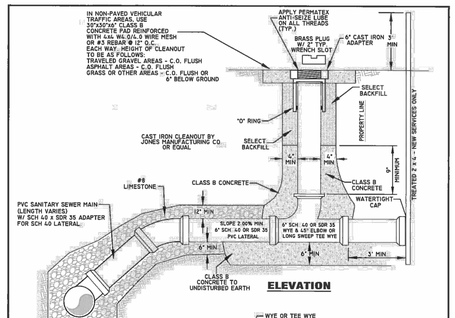
22-06-SP



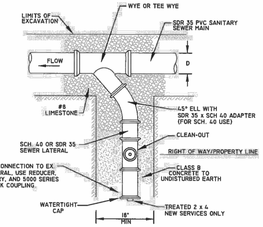
NOTES:

1. W = MAXIMUM PERMISSIBLE TRENCH WIDTH, BASED UPON, W = O.D. + 24", UNLESS APPROVED BY THE ENGINEER.
2. TRENCHES TO BE SHEETED AND BRACED AS REQUIRED.
3. PROVIDE BEARING FOR FULL LENGTH OF BARREL, DIG HOLES FOR THE BELL.
4. BACKFILL ON SIDES TO 1/2 O.D. OF PIPE TO HOLD PIPE IN PLACE PRIOR TO PLACING ADDITIONAL BEDDING.
5. BACKFILL TO BE COMPACTED IN 6" LAYERS TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE (+2%) IN ROADS AND STREETS. COMPACT TO MATCH EXISTING GROUND IN OTHER AREAS.
6. MAINTAIN MINIMUM OF 4' OF COVER TO THE TOP OF PIPE.
7. A CASING PIPE SHALL BE REQUIRED IN ROAD CROSSINGS WHERE SHOWN ON PLANS
8. ALL WATER LINES REQUIRE PERMIT FROM APPLICABLE REGULATORY ENTITIES. PERMIT REQUIREMENTS SUPERCEDE WHAT IS SHOWN ON THIS DETAIL.

Charles Town Utility Board 832 S. George Street, P.O. Box 359, Charles Town, WV 25414 Phone: (304) 725-2316 • Fax: (304) 725-4313	SEWER LINE TRENCH DETAIL	Standard Detail No. S-1 NOT TO SCALE SEPTEMBER 2015

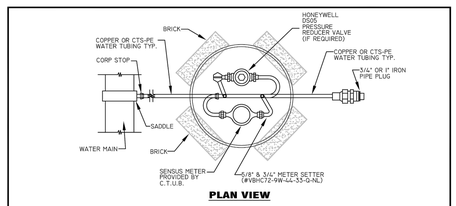


ELEVATION

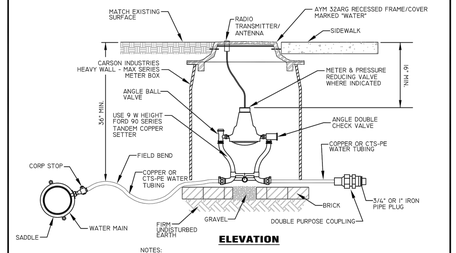


PLAN

Charles Town Utility Board 832 S. George Street, P.O. Box 359, Charles Town, WV 25414 Phone: (304) 725-2316 • Fax: (304) 725-4313	NEW LATERAL CONNECTION DETAIL	Standard Detail No. S-13 NOT TO SCALE SEPTEMBER 2015



PLAN VIEW

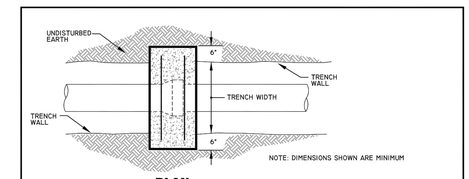


ELEVATION

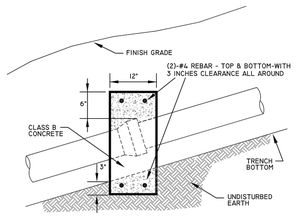
NOTES:

1. ALL BOLTS TO BE STAINLESS STEEL
2. CONNECT NEW METER SETTER TO EXISTING SERVICE LINES FOR LOCATIONS REQUIRING ONLY METER REPLACEMENT
3. PRESSURE REDUCING VALVE REQUIRED IF STATIC SYSTEM PRESSURES EXCEED 100 PSI
4. ALL METERS TO BE SENSUS RADIO READ PLACED AT PROPERTY LINE.

Charles Town Utility Board 832 S. George Street, P.O. Box 359, Charles Town, WV 25414 Phone: (304) 725-2316 • Fax: (304) 725-4313	METERED CONNECTION DETAIL	Standard Detail No. W-1 NOT TO SCALE APRIL 2015



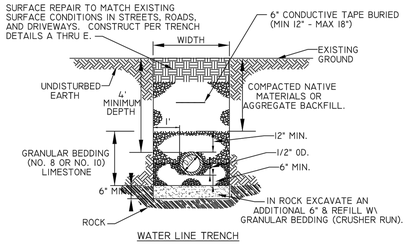
PLAN



SECTION

1. PROVIDE ANCHORS ON GRADES OF 20% AND GREATER OR WHERE SPECIFIED.
2. PROVIDE ANCHORS 36 FT. O.C. ON GRADES BETWEEN 20% AND 34%.
3. PROVIDE ANCHORS 24 FT. O.C. ON GRADES BETWEEN 34% AND 50%.
4. PROVIDE ANCHORS 16 FT. O.C. ON GRADES 50% OR GREATER.
5. WHEN NECESSARY EXTEND ANCHOR TO 12" BELOW FINISH GRADE TO PREVENT WASHOUT OF BACKFILL BY SURFACE WATER.
6. ANCHORS SHALL BE PLACED AT JOINTS NOT TO EXCEED O.C. DISTANCES.

Charles Town Utility Board 832 S. George Street, P.O. Box 359, Charles Town, WV 25414 Phone: (304) 725-2316 • Fax: (304) 725-4313	SLOPE ANCHOR DETAIL	Standard Detail No. W-16 NOT TO SCALE APRIL 2015

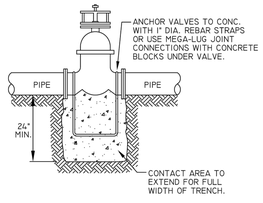


WATER LINE TRENCH

NOTES:

1. W = MAXIMUM PERMISSIBLE TRENCH WIDTH, BASED UPON, W = O.D. + 24", UNLESS APPROVED BY THE ENGINEER.
2. TRENCHES TO BE SHEETED AND BRACED AS REQUIRED.
3. PROVIDE BEARING FOR FULL LENGTH OF BARREL, DIG HOLES FOR THE BELL.
4. BACKFILL TO BE COMPACTED IN 6" LAYERS TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE (+2%) IN ROADS AND STREETS. COMPACT TO MATCH EXISTING GROUND IN OTHER AREAS.
5. MAINTAIN MINIMUM OF 4' OF COVER TO THE TOP OF PIPE.
6. A CASING PIPE SHALL BE REQUIRED IN ROAD CROSSINGS WHERE SHOWN ON PLANS
7. ALL WATER LINES REQUIRE PERMIT FROM APPLICABLE REGULATORY ENTITIES. PERMIT REQUIREMENTS SUPERCEDE WHAT IS SHOWN ON THIS DETAIL.

Charles Town Utility Board 832 S. George Street, P.O. Box 359, Charles Town, WV 25414 Phone: (304) 725-2316 • Fax: (304) 725-4313	WATER LINE TRENCH DETAIL	Standard Detail No. W-9 NOT TO SCALE APRIL 2015



Charles Town Utility Board 832 S. George Street, P.O. Box 359, Charles Town, WV 25414 Phone: (304) 725-2316 • Fax: (304) 725-4313	WATER VALVES DETAIL	Standard Detail No. W-3 NOT TO SCALE APRIL 2015

0.99

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CTUB DETAILS

NORBORNE GLEBE

POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT

CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date
3	06/14/2023

RANDY L. KEPLER
REGISTERED
17223
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: 04/26/2023

SCALE: N/A

DESIGNED BY: AM/CW

FILE NO. 4542A

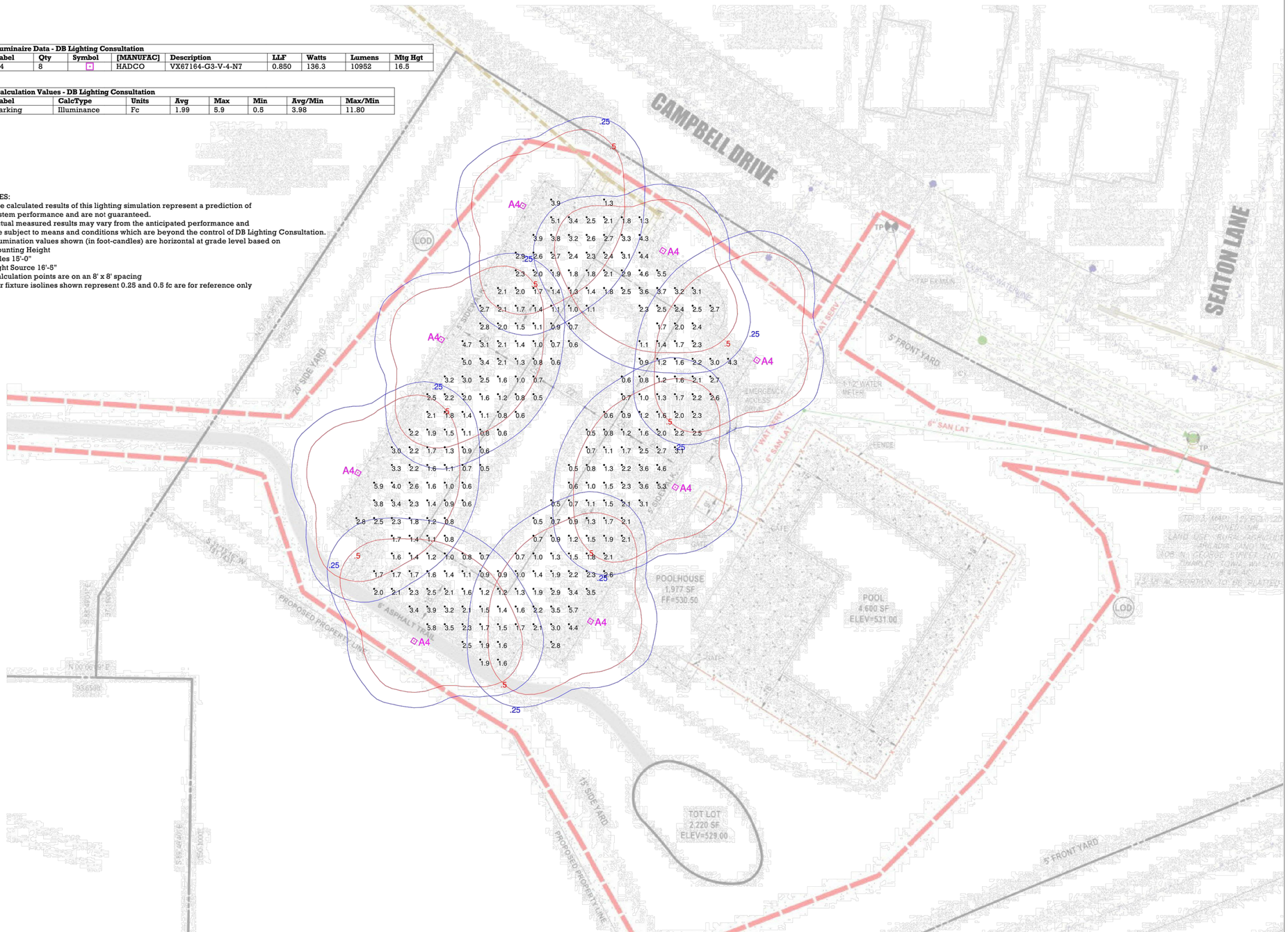
SHEET 17 OF 22

22-06-SP

Luminaire Data - DB Lighting Consultation								
Label	**Qty**	**Symbol**	**[MANUFAC]**	**Description**	**LLF**	**Watts**	**Lumens**	**Mtg Hgt**
A4	8		HADCO	VX67164-G3-V-4-N7	0.850	136.3	10952	16.5

Calculation Values - DB Lighting Consultation							
Label	**CalcType**	**Units**	**Avg**	**Max**	**Min**	**Avg/Min**	**Max/Min**
Parking	Illuminance	Fc	1.99	5.9	0.5	3.98	11.80

NOTES:
1. The calculated results of this lighting simulation represent a prediction of system performance and are not guaranteed.
2. Actual measured results may vary from the anticipated performance and are subject to means and conditions which are beyond the control of DB Lighting Consultation.
3. Illumination values shown (in foot-candles) are horizontal at grade level based on
   Mounting Height
   Poles 15'-0"
   Light Source 16'-5"
4. Calculation points are on an 8' x 8' spacing
5. Per fixture isolines shown represent 0.25 and 0.5 fc are for reference only



Scale: 1 inch= 20 Ft.

DB Lighting Consultation (DBLC) assumes no responsibility for any errors in the IES files, background images, or other information provided to DBLC to be used in these calculations.
Actual or measured results may vary due to manufacturer tolerances, component malfunctions, obstructions, varying surface reflectance's and other field conditions.
The owner assumes all responsibility for compliance with federal, state and/or local codes and regulations.

Prepared For:
Dan Murphy

Prepared by:
DB Lighting Consultation
407-924-4113

Greenway Engineering
151 Windy Hill Ln.,
Winchester, VA 22602

Revisions			
Rev	Date	Comments
..	.....	.....
..	.....	.....
..	.....	.....
..	.....	.....
..	.....	.....

Project Name: **Norborne Glebe Parking**
Project ID Number: **2023-700**
Date: **04/20/2023**

24" x 36"
Page 1 of 1

NOTE:
FIXTURE TYPE AND COUNT TO BE CONFIRMED BY OWNER AND POWER COMPANY PRIOR TO ORDERING.

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LIGHTING PLAN

NORBORNE GLEBE

POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT

CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date

RANDY L KEPLER
REGISTERED
17223
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: 04/26/2023
SCALE: N/A
DESIGNED BY: AM/CW
FILE NO. 4542A
SHEET 18 OF 22
22-06-SP

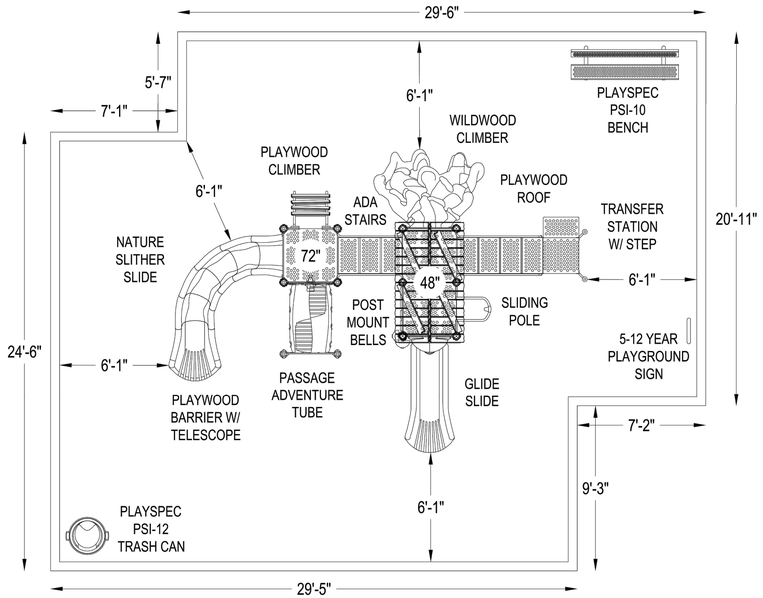
Potomac Edison, WV EMU

Picture	Description	Wattage	Type	Lumens
	Open Luminaire (note 5)	100	HPS	9500
	Open Luminaire	100	HPS	9500
	Cobra Head	~~175~~	~~MV~~	~~8150~~
		100	HPS	9500
		200	HPS	22000
		400	HPS	50000
		400	MH	36000
		1000	MH	90000
	Shoebox	100	HPS	9500
		200	HPS	22000
		400	HPS	50000
		100	HPS	9500
		200	HPS	22000
		400	HPS	50000
		100	HPS	9500
		200	HPS	22000
		400	HPS	50000
		400	MH	36000
		400	MH	36000
		400	MH	36000
		1000	MH	90000
		1000	MH	90000
	Floodlight	200	HPS	22000
		400	HPS	50000
		400	MH	36000
		1000	MH	90000
	Colonial Post Top	100	HPS	9500
		175	MH	11600

Notes:
1. Use specified Lighting or an approved equal.
2. Light pole base detail to be provided by the lighting designer/contractor.

SECTION 1333.14. LIGHTING STANDARDS
(A) Public Street Lighting. Street lights are required for all new Public Streets in accordance with the following standards:
1. Lights shall be provided along all City Streets and shall conform to Article 926, Underground Utilities, of the Charles Town Codified Ordinance.
2. Lights shall be provided at all entrances, intersections, and Cul-de-sacs.
3. Lights shall be spaced no more than two hundred (200) feet apart in residential areas, and no more than three hundred (300) feet apart in non-residential areas.
4. Lights shall use a white metal halide lighting system.
5. Lights shall conform to the power provider's requirements pertaining to watts, lumens, downlight reflectors and residential shields.
6. Lights shall be mounted on flat black poles with acorn style tops, unless otherwise specified by the Planning Commission.
7. Lights proposed within Land Developments and Subdivisions shall be provided without any installation or equipment costs incurred by the City of Charles Town.

NOTE: AN EQUIVALENT TOT LOT MAY BE USED DUE TO AVAILABILITY.



*PLAYGROUND SUPERVISION REQUIRED

PLAYWORLD

PLAYGROUND SPECIALISTS INC.
29 APPLES CHURCH RD
THURMONT, MD 21788

EQUIPMENT SIZE: **X' x Y' x Z'**

USE ZONE: **X' x Y'**

AREA: **931 SqFt.** PERIMETER: **130 Ft.**

FALL HEIGHT: **6 Ft.**

USER CAPACITY: **32** AGE GROUP: **5-12**

ADA SCHEDULE

	Total Elevated Play Activities:	X	
	Total Ground-Level Play Activities:	X	
	Accessible Elevated Activities	Accessible Ground-Level Activities	Accessible Ground-Level Play Types
Required	X	X	X
Provided	X	X	X

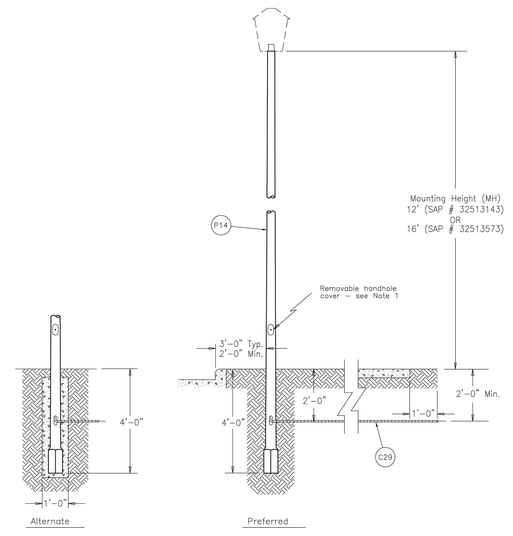
✓ ASTM F1487-11
✓ CPSC #325

PROJECT NO: **P021218-12B** SCALE: **1/4"=1'-0"**

DRAWN BY: **SSHEEHY** Paper Size **B**

DATE: **16-FEB-18**

Upper Lakes Area 3



Notes:
1. Future page to be added for connection and fusing details.
2. Luminares should be grounded to neutral terminal if not grounded by manufacturer.
3. Install concrete foundation in poor soil conditions such as soft clay, heavy silt, or areas where standing water is common. Round fiber forms should be used for concrete foundation.
4. For field identification of high intensity discharge (HID) lamps, see Standard 16-020.

APPROVED BY: *AAC 2016*

Embedded Fiberglass Post For Post Top Luminaires

FirstEnergy
Construction Std. 16–210 REV. 1 DATE 8/16

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Martinsburg, West Virginia 25401
Telephone: (304) 262-5141
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SITE DETAILS

NORBORNE GLEBE

POOL

PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT

CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date

RANDY L. KEPLER
REGISTERED
17223
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: 04/26/2023

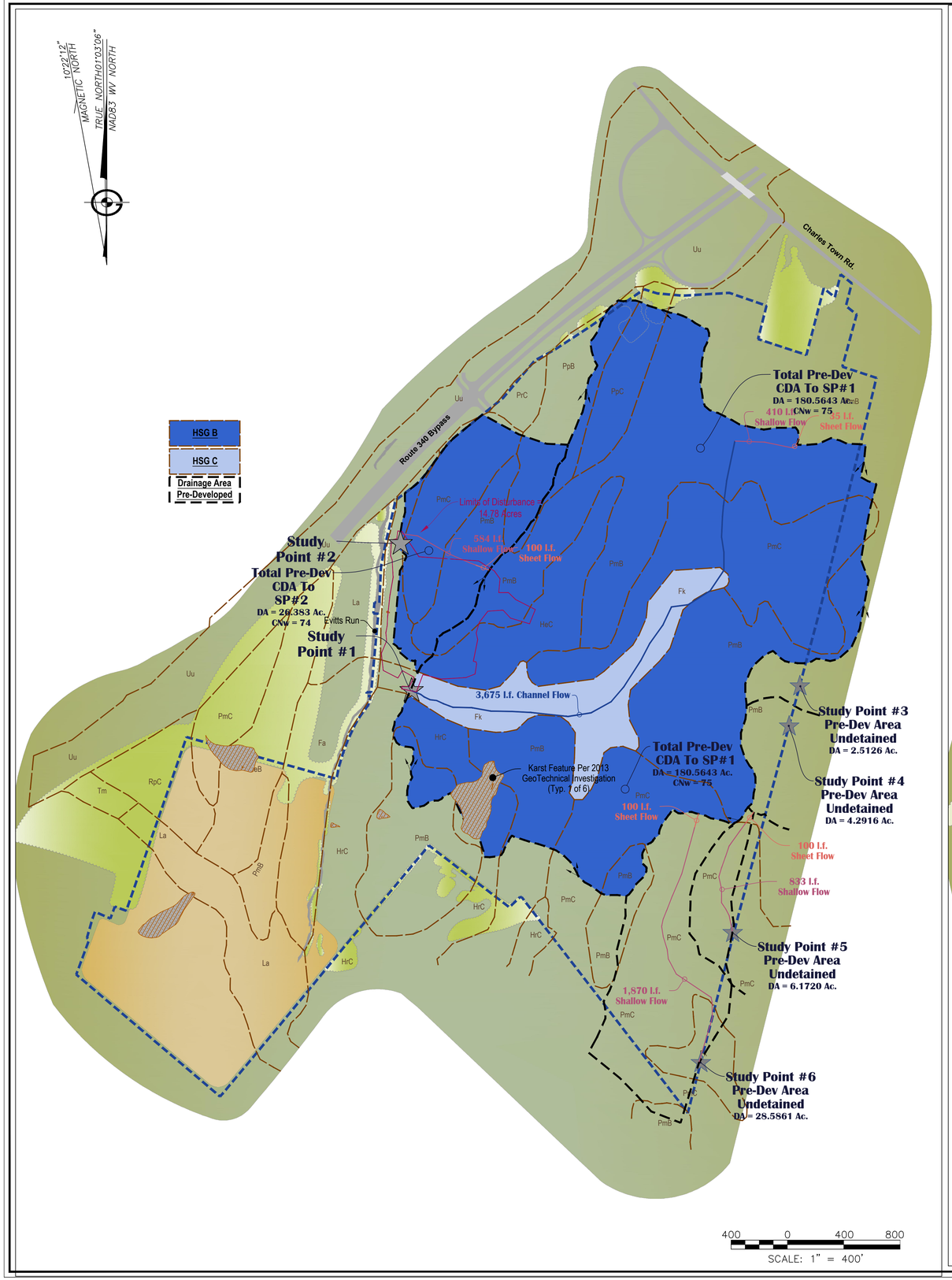
SCALE: N/A

DESIGNED BY: AM/CW

FILE NO. 4542A

SHEET 19 **OF** 22

22-06-SP





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SWM PLAN
NORBORNE GLEBE
POOL
PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT
CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date

RANDY L. KEPLER REGISTERED 17223 STATE OF WEST VIRGINIA PROFESSIONAL ENGINEER

DATE: 04/26/2023

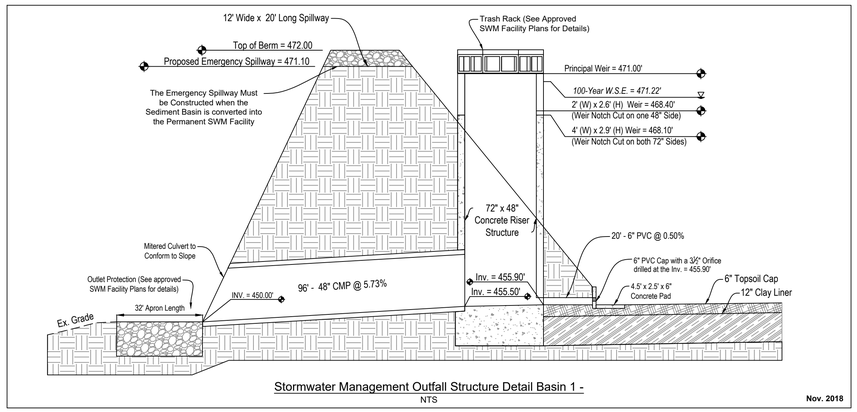
SCALE: 1"=400'

DESIGNED BY: AM/CW

FILE NO. 4542A

SHEET 20 OF 22

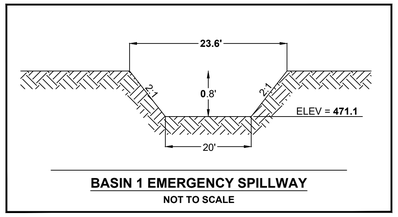
22-06-SP



Stormwater Management Outfall Structure Detail Basin 1 -

NTS

Nov. 2018



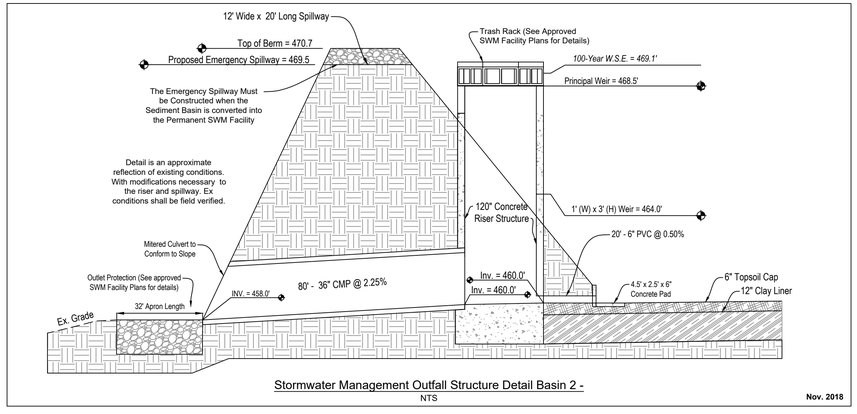
BASIN 1 EMERGENCY SPILLWAY

NOT TO SCALE

Notes:

- **Area within design high water area to remain at grades shown on E&S Phase I plan until stabilization and transition to E&S Phase II plan
- Contractor to coordinate with Geotechnical Engineer to ensure wet area is stable and can hold water prior to construction

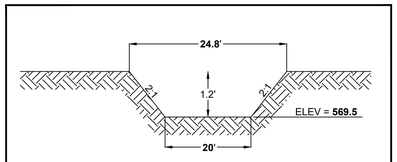
SEDIMENT BASIN 1 VOLUMES			
Elevation	C.Y.	C.F.	Acre-Ft
458	98	2,640.6	0.06062
459	315	8,504.8	0.19524
460	714	19,286.9	0.44277
461	1,391	37,559.4	0.86225
462	2,553	68,916.6	1.58211
463	4,397	118,718.2	2.72539
464	6,956	187,813.5	4.31161
465	10,697	288,821.0	6.63042
466	15,561	420,136.3	9.645
467	21,971	593,214.7	13.61833
468	30,182	814,907.6	18.70771
469	40,793	1,101,407.2	25.28483
470	53,725	1,450,562.8	33.30034
471	69,875	1,886,611.1	43.31063
472	89,143	2,406,868.7	55.2541



Stormwater Management Outfall Structure Detail Basin 2 -

NTS

Nov. 2018



BASIN 2 EMERGENCY SPILLWAY

NOT TO SCALE

Notes:

- **Area within design high water area to remain at grades shown on E&S Phase I plan until stabilization and transition to E&S Phase II plan
- Contractor to coordinate with Geotechnical Engineer to ensure wet area is stable and can hold water prior to construction

SEDIMENT BASIN 2 VOLUMES			
Elevation	C.Y.	C.F.	Acre-Ft
462	510	13,770.9	0.31614
463	846	22,846.2	0.52448
464	1,218	32,878.1	0.75478
465	1,626	43,899.1	1.00778
466	2,072	55,943.2	1.28428
467	2,557	69,045.1	1.58506
468	3,083	83,245.5	1.91105
469	3,651	98,584.8	2.2632
470	4,263	115,093.9	2.64219
470.7	4,718	127,387.6	2.92442

SWM Facility Data Reference Note:
The Outfall Structure Dimensions and Elevations are Design Elevations referenced from the Approved "Site Plan for Stormwater Management Facility - Norborne Glebe" dated 2001.

Storage Volumes represent the current constructed state of the SWM Facility. These Volumes were derived from 2' interval contours and spot elevations, from a 2013 Aerial Survey. Modified to represent construction of 14A.

The Facility was constructed as a Sediment Basin, had achieved stabilization and was in functional operation. The facility is unaltered from this condition as of November, 2018.

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SWM DETAILS

NORBORNE GLEBE

POOL

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CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date

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STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: 04/26/2023

SCALE: N/A

DESIGNED BY: AM/CW

FILE NO. 4542A

SHEET 21 OF 22

22-06-SP

Study Point #1			
Pre-Development Weighted Curve Number (CNw)			
Drainage Area	Soils Group	Land Use	CN
161.378 Ac.	HSG B	Farmstead	74
19.186 Ac.	HSG C	Farmstead	82
Total D.A. = 180.564			CNw = 75

Study Point #1						
Pre-Development Time of Concentration (Tc) Calculation						
Segment	Segment Length	Segment Slope (%)	Flow Velocity	Manning s "n"	Surface	Time of Concentration
Sheet Flow	35 lf	2.00%	0.09 fps	0.240	Dense Grass	6.5 mins.
Shallow Concentrated	410 lf	2.50%	2.55 fps		Unpaved	2.7 mins.
					(Kv=16.1 fps)	
Channel Flow	3,675 lf	1.00%	1.60 fps	0.080	Capacity = 32.01 cfs	38.3 mins.
Area = 20.0 sf, Perim = 25.0', r= 0.80'						
					Total Tc =	47.5 Minutes

Study Point #1		
Pre-Development Discharge Summary		
24 Hour Storm Event	Inflow = Outlow	Peak Elevation
	(cfs)	(feet)
1 Year	48.42	454.50
2 Year	77.15	454.74
5 Year	125.80	455.03
10 Year	170.60	455.25
25 Year	239.12	455.52
50 Year	299.15	455.72
100 Year	366.55	455.92

Post-Development Study Point #1			
Weighted Curve Number (CNw)			
Drainage Area (Acres)	Land Use*	Soils Group	CN
32.238	Paved Road & R/W Area	HSG B	94
1.165	Paved Road & R/W Area	HSG C	96
19.387	Open Space - Good Grass cover	HSG B	61
3.762	Open Space - Good Grass cover	HSG C	74
2.013	Open Spaces - Medians in R/W	HSG B	61
7.123	SWM Area, 100% Impervious	HSG C	98
1.709	SFA Lots, 65% Impervious	HSG B	85
0.105	SFA Lots, 65% Impervious	HSG C	90
112.373	SFD Lots, 38% Impervious	HSG B	75
8.979	SFD Lots, 38% Impervious	HSG C	83
8.318	Commercial Lots, 85% Impervious	HSG B	92
Total D.A. = 197.172 Ac.			CNw = 79

Study Point #1						
Post-Development Time of Concentration (Tc) Calculation						
Segment	Segment Length	Segment Slope (%)	Flow Velocity	Manning s "n"	Surface	Time of Concentration
Sheet Flow	30 lf	3.30%	0.15 fps	0.150	Short Grass	3.2 mins.
Shallow Concentrated	997 lf	1.80%	2.16 fps		Unpaved	7.7 mins.
					(Kv=16.1 fps)	
Pipe Flow	275 lf	0.75%	6.76 fps	0.012	Capacity = 21.22 cfs	0.7 mins.
24" HDPE (Ex. Str. # 200 - Ex. Str.# 501, Area = 3.1 sf, Permim. 6.3' r=0.50'						
Channel Flow	430 lf	0.65%	12.35 fps	0.028	Capacity = 293.30 cfs	0.6 mins.
mooth Alum. (Ex. Str. # 600 - Ex. Str.# 200, Area = 23.8 sf, Permim. 17.3' r=1.38'						
Channel Flow	1,469 lf	0.50%	6.24 fps	0.035	Capacity = 1,030.39 cfs	3.9 mins.
Area = 165 sf, Permim. 55.0' r=3.00'						
Total Flow Length = 3,201 lf					Total Tc =	16.1 Minutes

Study Point #1					
Post-Development Discharge Summary					
24 Hour Storm Event	Inflow	Primary Outflow	Peak Elevation	Storage	Storage
	(cfs)	(cfs)	(feet)	(cubic feet)	(Acre-feet)
1 Year	75.81	0.95	466.91	508,476	11.6730
2 Year	108.73	1.08	468.12	741,130	17.0140
5 Year	162.65	12.36	468.65	867,672	19.9190
10 Year	217.37	32.95	469.15	994,301	22.8260
25 Year	296.71	80.71	469.57	1,239,195	28.4480
50 Year	365.70	120.12	470.61	1,427,026	32.7600
100 Year	442.72	171.17	471.22	1,629,492	37.4080

Study Point #2			
Pre-Development Weighted Curve Number (CNw)			
Drainage Area	Soils Group	Land Use	CN
26.383 Ac.	HSG B	Farmstead	74
Total D.A. = 26.383			CNw = 74

Study Point #2					
Pre-Development Time of Concentration (Tc) Calculation					
Segment	Segment Length	Segment Slope (%)	Manning s "n"	Surface	Time of Concentration
Sheet Flow	100 lf	5.00%	0.240	Dense Grass	10.4 mins.
Shallow Concentrated	584 lf	6.00%		Short Grass Pasture	5.7 mins.
				Total Tc =	16.1 Minutes

Study Point #2	
Pre-Development Discharge Summary	
24 Hour Storm Event	Inflow = Outlow
	(cfs)
1 Year	7.16
2 Year	10.92
5 Year	17.28
10 Year	23.17
25 Year	32.26
50 Year	41.59
100 Year	51.40

Study Point #2	
Post-Development Time of Concentration (Tc) Calculation	
Total Flow Length = 1,035 lf	Total Tc = 5 Minutes

Post-Development Study Point #2			
Weighted Curve Number (CNw)			
Drainage Area (Acres)	Land Use*	Soils Group	CN
0.322	Paved Road & R/W Area	HSG B	94
1.234	Open Space - Good Grass cover	HSG B	61
1.28	SFD Lots, 37% Impervious	HSG B	75
15.291	Commercial Lots, 85% Impervious	HSG B	92
Total D.A. = 18.127 Ac.			CNw = 89

Study Point #2					
Post-Development Discharge Summary					
24 Hour Storm Event	Inflow	Primary Outflow	Peak Elevation	Storage	Storage
	(cfs)	(cfs)	(feet)	(cubic feet)	(Acre-feet)
1 Year	16.99	4.67	464.88	42,558	0.9770
2 Year	22.31	9.85	465.84	53,971	1.2390
5 Year	30.44	16.51	466.70	65,035	1.4930
10 Year	37.38	21.32	467.32	73,529	1.6880
25 Year	47.41	26.28	468.24	86,989	1.9970
50 Year	55.83	35.69	468.69	93,872	2.1550
100 Year	65.01	52.69	469.06	99,535	2.2850

Study Point #3			
Pre-Development Weighted Curve Number (CNw)			
Drainage Area	Soils Group	Land Use	CN
2.513	HSG B	Farmstead	74
Total D.A. = 2.513			CNw = 74

Study Point #3		
Pre-Development Time of Concentration (Tc) Calculation		
Total Flow Length = 398 lf	Total Tc =	5 Minutes

Study Point #3		
Pre-Development Discharge Summary		
24 Hour Storm Event	Flow	Runoff Volumes
	(cfs)	(acre-ft)
1 Year	0.76	0.116
2 Year	1.26	0.174
5 Year	2.12	0.274
10 Year	2.91	0.367
25 Year	4.13	0.510
50 Year	5.21	0.637
100 Year	6.42	0.781

Post-Development Study Point #3			
Weighted Curve Number (CNw)			
Drainage Area (Acres)	Land Use*	Soils Group	CN
0.26	Paved Road & R/W Area	HSG B	94
0.7	SFD Lots, 37% Impervious	HSG B	75
Total D.A. = 0.96 Ac.			CNw = 77

Study Point #3		
Post-Development Time of Concentration (Tc) Calculation		
Total Flow Length = 260 lf	Total Tc =	5 Minutes

Study Point #3		
Post-Development Discharge Summary		
24 Hour Storm Event	Flow	Runoff Volumes
	(cfs)	(acre-ft)
1 Year	0.54	0.070
2 Year	0.78	0.098
5 Year	1.16	0.143
10 Year	1.51	0.184
25 Year	2.02	0.245
50 Year	2.46	0.298
100 Year	2.94	0.358

Study Point #4			
Pre-Development Weighted Curve Number (CNw)			
Drainage Area	Soils Group	Land Use	CN
4.29	HSG B	Farmstead	74
Total D.A. = 4.29			CNw = 74

Study Point #4		
Pre-Development Time of Concentration (Tc) Calculation		
Total Flow Length = 364 lf	Total Tc =	5 Minutes

Study Point #4		
Pre-Development Discharge Summary		
24 Hour Storm Event	Flow	Runoff Volumes
	(cfs)	(acre-ft)
1 Year	1.29	0.198
2 Year	2.15	0.298
5 Year	3.61	0.468
10 Year	4.97	0.627
25 Year	7.06	0.871
50 Year	8.89	1.088
100 Year	10.96	1.334

Post-Development Study Point #4			
Weighted Curve Number (CNw)			
Drainage Area (Acres)	Land Use*	Soils Group	CN
1.6	SFD Lots, 37% Impervious	HSG B	75
Total D.A. = 1.60 Ac.			CNw = 75

Study Point #4		
Post-Development Time of Concentration (Tc) Calculation		
Total Flow Length = 600 lf	Total Tc =	5 Minutes

Study Point #4		
Post-Development Discharge Summary		
24 Hour Storm Event	Flow	Runoff Volumes
	(cfs)	(acre-ft)
1 Year	0.54	0.079
2 Year	0.87	0.118
5 Year	1.43	0.183
10 Year	1.95	0.244
25 Year	2.74	0.337
50 Year	3.43	0.419
100 Year	4.21	0.512

Study Point #5			
Pre-Development Weighted Curve Number (CNw)			
Drainage Area	Soils Group	Land Use	CN
6.172	HSG B	Farmstead	74
Total D.A. = 6.172 Ac			CNw = 74

Study Point #5						
Pre-Development Time of Concentration (Tc) Calculation						
Segment	Segment Length	Segment Slope (%)	Manning s "n"	Surface	Time of Concentration	
Sheet Flow	100 lf	3.00%	0.240	Dense Grass	12.8 mins.	
Shallow Concentrated	833 lf	5.00%		Short Grass Pasture	8.9 mins.	
					Total Tc =	21.7 Minutes

Study Point #5		
Pre-Development Discharge Summary		
24 Hour Storm Event	Flow	Runoff Volumes
	(cfs)	(acre-ft)
1 Year	1.86	0.284
2 Year	2.86	0.428
5 Year	4.53	0.673
10 Year	6.05	0.900
25 Year	8.36	1.252
50 Year	10.38	1.563
100 Year	12.63	1.916

Post-Development Study Point #5			
Weighted Curve Number (CNw)			
Drainage Area (Acres)	Land Use*	Soils Group	CN
0.052	Paved Road & R/W Area	HSG B	94
4.145	Farmsteads	HSG B	74
1.015	SFD Lots, 37% Impervious	HSG B	75
Total D.A. = 18.127 Ac.			CNw = 74

Study Point #5						
Post-Development Time of Concentration (Tc) Calculation						
Segment	Segment Length	Segment Slope (%)	Manning s "n"	Surface	Time of Concentration	
Sheet Flow	100	3.00%	0.240	Dense Grass	12.8 mins.	
Shallow Concentrated	930 lf	5.00%		Short Grass Pasture	9.9 mins.	
					Total Tc =	18.4 Minutes

Study Point #5		
Post-Development Discharge Summary		
24 Hour Storm Event	Flow	Runoff Volumes
	(cfs)	(acre-ft)
1 Year	1.59	0.240
2 Year	2.45	0.362
5 Year	3.88	0.569
10 Year	5.19	0.761
25 Year	7.18	1.058
50 Year	8.92	1.321
100 Year	10.85	1.620

Pre-Development Weighted Curve Number (CNw)			
Drainage Area	Soils Group	Land Use	CN
28.586	HSG B	Farmstead	74
Total D.A. = 28.586 Ac			CNw = 74

Study Point #6						
Pre-Development Time of Concentration (Tc) Calculation						
Segment	Segment Length	Segment Slope (%)	Manning s "n"	Surface	Time of Concentration	
Sheet Flow	100 lf	3.30%	0.240	Dense Grass	12.3 mins.	
Shallow Concentrated	1,870 lf	3.00%		Short Grass Pasture	25.7 mins.	
					Total Tc =	38.0 Minutes

Study Point #6		
Pre-Development Discharge Summary		
24 Hour Storm Event	Flow	Runoff Volumes
	(cfs)	(acre-ft)
1 Year	8.12	1.309
2 Year	13.02	1.973
5 Year	21.31	3.104
10 Year	28.95	4.154
25 Year	40.62	5.778
50 Year	50.84	7.217
100 Year	82.32	8.850

Post-Development Study Point #6			
Weighted Curve Number (CNw)			
Drainage Area (Acres)	Land Use*	Soils Group	CN
0.141	Paved Road & R/W Area	HSG B	94
23.306	Farmsteads	HSG B	74
0.681	SFD Lots, 37% Impervious	HSG B	75
Total D.A. = 24.128 Ac.			CNw = 74

Study Point #6						
Post-Development Time of Concentration (Tc) Calculation						
Segment	Segment Length	Segment Slope (%)	Manning s "n"	Surface	Time of Concentration	
Sheet Flow	100	3.00%	0.240	Dense Grass	12.8 mins.	
Shallow Concentrated	1,587 lf	3.00%		Short Grass Pasture	21.8 mins.	
					Total Tc =	34.6 Minutes

Study Point #6			
Post-Development Discharge Summary			
24 Hour Storm Event	Flow	Runoff Volumes	
	(cfs)	(acre-ft)	
1 Year	7.15	1.112	
2 Year	11.37	1.675	
5 Year	18.49	2.633	
10 Year	25.02	3.523	
25 Year	35.00	4.898	
50 Year	43.73	6.117	
100 Year	53.51	7.500	

SEDIMENT BASIN 1 VOLUMES			
Elevation	C.Y.	C.F.	Acre-Ft
458	98	2,640.6	0.06062
459	315	8,504.8	0.19524
460	714	19,286.9	0.44277
461	1,391	37,559.4	0.86225
462	2,553	68,916.6	1.58211
463	4,397	118,718.2	2.72539
464	6,956	187,813.5	4.31161
465	10,697	288,821.0	6.63042
466	15,561	420,136.3	9.645
467	21,971	593,214.7	13.61833
468	30,182	814,907.6	18.70771
469	40,793	1,101,407.2	25.28483
470	53,725	1,450,562.8	33.30034
471	69,875	1,886,611.1	43.31063
472	89,143	2,406,868.7	55.2541

SEDIMENT BASIN 2 VOLUMES			
Elevation	C.Y.	C.F.	Acre-Ft
462	510	13,770.9	0.31614
463	846	22,846.2	0.52448
464	1,218	32,878.1	0.75478
465	1,626	43,899.1	1.00778
466	2,072	55,943.2	1.28428
467	2,557	69,045.1	1.58506
468	3,083	83,245.5	1.91105
469	3,651	98,584.8	2.2632
470	4,263	115,093.9	2.64219
470.7	4,718	127,387.6	2.92442

704 Foxcroft Avenue
Martinsburg, West Virginia 25401
Telephone: (304) 262-5411
Fax: (540) 722-9528
www.greenwayeng.com

GREENWAY ENGINEERING
PROUDLY SERVING VIRGINIA & WEST VIRGINIA
OFFICES IN: WINCHESTER, VA & MARTINSBURG, WV

SWM COMPS
NORBORNE GLEBE
POOL
PRELIMINARY SUBDIVISION/LAND DEVELOPMENT PLAT
CITY OF CHARLES TOWN-JEFFERSON COUNTY, WV

Rev. No.	Date

ANDY L. KEPLER
REGISTERED
17223
STATE OF
WEST VIRGINIA
PROFESSIONAL ENGINEER

DATE: 04/26/2023
SCALE: N/A
DESIGNED BY: AM/CW
FILE NO. 4542A
SHEET 22 OF 22
22-06-SP

S/LD Application No._____

NORBORNE GLEBE POOL

SUBDIVISION AND LAND DEVELOPMENT APPLICATION

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE
ARTICLE 1332, SUBDIVISION AND LAND DEVELOPMENT APPLICATION & APPROVAL REQUIREMENTS

To assist the Subdivision Administrator in the review of a Subdivision and Land Development (S/LD) Application, the Applicant must utilize this form to supply the City with the information prescribed under Section 1332.03 of the Charles Town Subdivision Ordinance. The submission of this form, along with the prescribed information and required fees, shall serve as the Applicant's S/LD Application as required by Ordinance Section 1332.03.

1. DATE April 24, 20 23

2. APPLICATION TYPE

☐ Minor Subdivision | Final S/LD Plan

☐ Major Subdivision Development*
- Preliminary S/LD Plan and Final Plat

☐ Major Land Development**
- Preliminary S/LD Plan

☒ Major Subdivision and Land Development***
- Preliminary S/LD Plan and Final Plat

*Conventional Subdivision – A Preliminary Plan and Plat Approval and a Final Plan and Plat Approval is required.

**No Division/Merger of Land – A Preliminary Plan and Plat Approval is required for the submission of a building or multiple buildings on one lot where there is no subdivision of land (commonly referred to as a site plan).

***A Preliminary Plan and Plat Approval and a Final Plan and Plat Approval is required for the submission of a building or multiple buildings that will require the merger, adjustment or subdivision of land.

3. APPLICANT'S NAME* Arcadia Land, Inc

Address: 108 N. George Street 2nd Floor

Telephone Number (443 286-2786 Fax Number ( )

Email Address gendler@arcadiacompanies.com

4. PROPERTY OWNER'S NAME Same as above

Address:

Telephone Number ( ) Fax Number ( )

Email Address

5. LEGAL DESCRIPTION OF THE SUBJECT PROPERTY (list all parcels that apply)

Property Address: Located at Campbell Drive and Seaton Lane

Tax Map # and Parcel: 03 12021500000000

Deed Book and Page #: 1173/85

Property Area in Square Feet or Acres: 8.47 AC

6. DESCRIPTION OF PROJECT AND PROPOSED USE(S) OF THE PROPERTY:

This project will be the construction of a pool

7. DESCRIPTION OF THE EXISTING (OR FORMER) USE(S) OF THE PROPERTY AND CURRENT ZONING:

Existing use is undeveloped property within a larger subdivision. The current zoning is residential.

*Applicants include: Property owner(s), Engineer(s), Surveyor(s), or Consultant(s)

8. ARE THERE ANY ANTICIPATED WAIVERS OR VARIANCES? IF YES, PROVIDE DETAILS.

_____

_____

_____

9. PARCEL HISTORY (List all pending or previously approved applications on the subject parcels inventoried above, including previous site plan applications if this application is a site plan amendment)

Application No.	Project Name and Phase	Status	Approval Date
SLD-2013-04	Norborne Glebe Phase 5	Subdivision Plan Approved	1/14/2014
SLD-2017-05	Norborne Glebe Phase 7-8	Subdivision Plan Approved	9/25/2018
SLD 2016-01	Norborne Glebe Phase 6	Subdivision Plan Approved	9/25/2018
SLD 2017-14	Norborne Glebe Phase 14A	Subdivision Plan Approved	9/25/2018
SLD 2021-02	Norborne Glebe Phase 14B	Subdivision Plan Approved	2/28/2022
SLD2021-05	Norborne Glebe Phase 9&10	Subdivision Plan Approved	10/13/2022
SLD 2022-03	Norborne Glebe Phase 15	Subdivision Plan Approved	3/27/2023

10. HAS THE PROPERTY BEEN THE SUBJECT OF ANY COURT ACTION?

☐ Yes (Please specify nature of all proceedings and current status and attach any documents showing court decisions, etc.)

_____

_____

_____

_____

_____

☒ No

11. PLAN/PLAT SUBMISSION TO OTHER AGENCIES (Documentation of all required approvals must be attached to this Application or submitted prior to Preliminary S/LD Application approval)

Agency (Specify others as applicable)	Submittal Date	Approval/Permit Issued	Date of Approval/Issuance
City of Charles Town			
City of Charles Town Utility Board			
Jefferson County Planning and Zoning Department			
Jefferson County Addressing Office			
Jefferson County Board of Education			
WV Department of Environmental Protection			
WV Department of Transportation, Division of Highways			
WV State Historic Preservation Office			
WV Office of Environmental Health Services			
U.S. Army Corps of Engineers			

12. FEE CALCULATION (Per Fee Schedule) $200 Filing Fee

$ 500 Escrow

AMOUNT PAID $700

APPLICANT CERTIFICATION

I certify that, to the best of my knowledge, the submitted information and statements are true and correct. I also certify that I have received and read Section 1332.03 of the Charles Town S/LD Ordinance and relevant provisions of the Charles Town City Code.

Signature of Applicant

_____ Date _____

Signature of Property Owner (If different than Applicant)

_____ Date _____

Please submit an original completed Application and specified number of Plan/Plat (Three (3) copies at 24" x 36", Adobe PDF format, and Five (5) copies at 11" x 17") copies to the following:

Subdivision Administrator
City of Charles Town
101 E. Washington Street
Charles Town, WV 25414

FOR CITY USE ONLY

Application Number:_____ Date Application Received:_____

Fee: $_____ Paid:$_____ Check No._____

Receipt No._____

Subdivision Administrator Approval:_____ Date:_____

Planning Commission Approval:_____ Date:_____

Comments/Conditions:_____

_____

_____

_____

_____

_____

Planning Commission
101 East Washington Street
Charles Town, WV 25414

SCHEDULED

AGENDA ITEM (ID #)

Meeting: 06/26/23
Department: Planning Commission
Category: Report
Initiator:

Sketch Plan completeness review: Happy Retreat parking lot (SLD 2023-07)

ATTACHMENTS:

- 1. Staff Report.pdf
- 2. Plans.pdf
- 3. Application.pdf

Sketch Plan Completeness Report

SLD2023-07

Applicant: Stromberg, Garrigan, and Associates Inc.

Property Owner: Parcel 3-5-6 is owned by Friends of Happy Retreat. Parcel 3-5-6.0001 is owned by the City of Charles Town Board of Parks and Recreation Commission.

Report by: James Newman, City Planner, Zoning/Subdivision Administrator.

Proposal: Construction of a parking lot.

Property Location: TD 3 / Map: 5 / Pcl: 6, 6.0001, located on Mordington Avenue.

Current Zoning: Old Town Residential.



PROJECT OVERVIEW

The property is 12.3 acres in size. The applicant has an existing cultural center on site, and is seeking to expand the parking lot.

ZONING REVIEW

The property is zoned Old Town Residential. The proposed use of the property as a Cultural Center is permitted in that Zoning District via a Special Use Permit.

There is no required minimum lot size for existing lots of record. The proposed structure expansion conforms to the Zoning setback requirements. Up to 70% of the lot may be developed. Density and building height requirements are non-applicable. Landscaping is required for the parking lot.

DEFINITION

A Cultural Center is defined as:

A use providing for display, performance, or enjoyment of heritage, history, or the arts. This use allows for the combination of the uses as follows, but is not limited to: museums, art performances, corporate retreats, art galleries, historic interpretation/reenactment, cultural activities, weddings, or interpretive sites, but does not include commercially-operated businesses.

ADJACENT USES AND ZONING

Adjacent uses comprise residential units, as well as the Jefferson County Board of Education offices. All adjacent residential units are zoned Old Town Residential; the Board of Education offices are zoned Old Town Mixed Use Commercial.

SKETCH PLAN COMPLETENESS

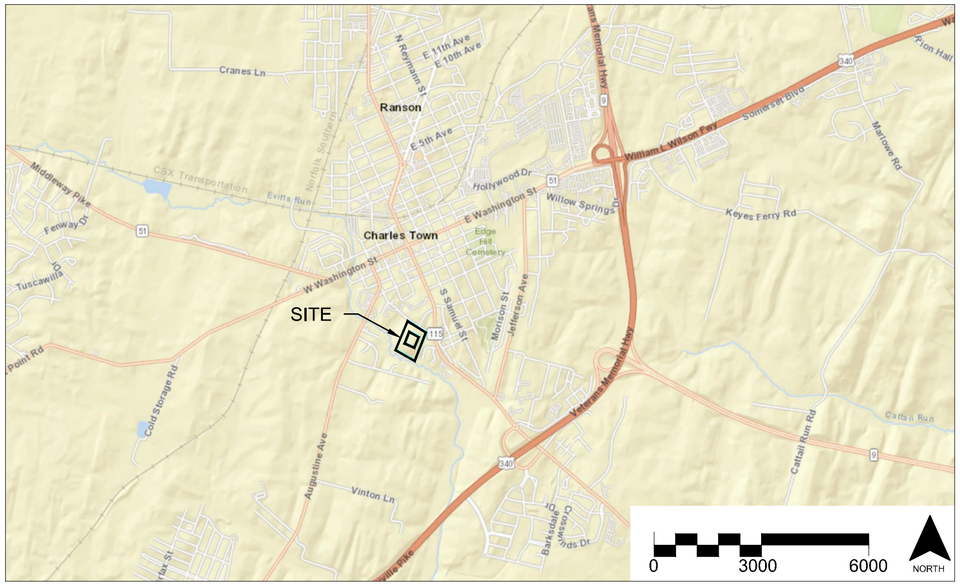
The sketch plan meets the requirement of being a complete application as stated in Subdivision Ordinance Section 1332.03.C.2.C. This does not mean the subdivision application meets the criteria for approval; it merely means that the application is deemed complete by staff, per the technical requirements of the Ordinance.

CONCLUSION

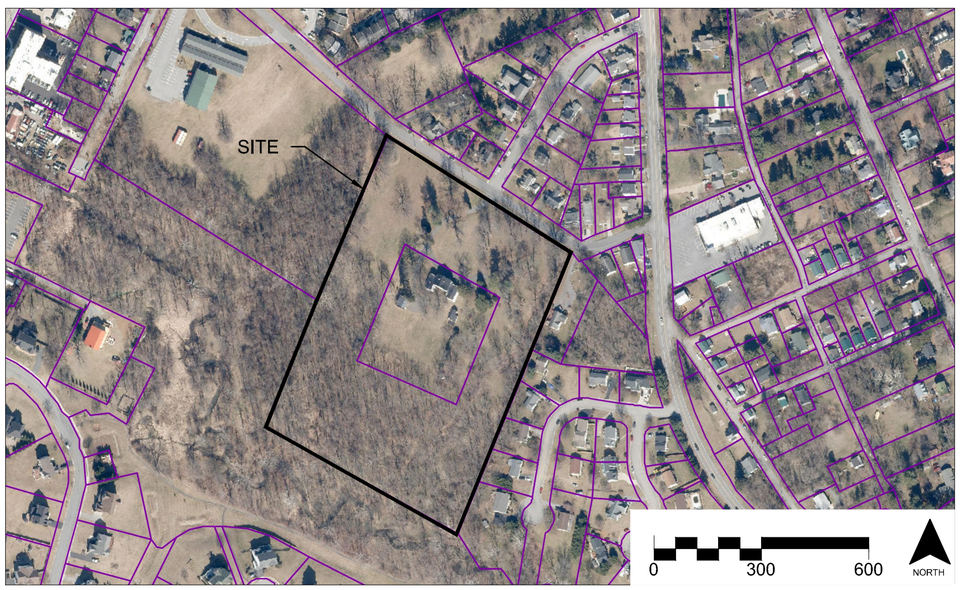
Staff deems the application **complete**; the Planning Commission should vote to determine the application is complete. If deemed complete, a public hearing would be scheduled for July 24, 2023.

HAPPY RETREAT PARKING LOT & CIRCULATION PROJECT

JUNE 2023
600 MORDINGTON AVENUE
CHARLES TOWN, WV 25414



VICINITY MAP
SCALE: 1"=3000'



SITE LOCATION (2022 AERIAL)
SCALE:1"=300'

SKETCH PLAN SUBMISSION (NOT FOR CONSTRUCTION)

SITE INFORMATION:

Current Zoning	OT-R Old Town Residential
Total Area of the Property	12.313 Acres
Total Acreage of the Project/Tract	2.5 Acres

APPLICANT:

LANDSCAPE ARCHITECTURE URBAN DESIGN
STROMBERG/GARRIGAN & ASSOCIATES

Stromberg/Garrigan & Associates
Suite 300
102 E. Main Street
Somerset, PA. 15501
(814) 443-1073

OWNER:

Friends of Happy Retreat
P.O. Box 1427
Charles Town, WV 25414

CONSULTANT INFORMATION:

LANDSCAPE ARCHITECT/SITE DEVELOPMENT/LAND PLANNING:

LANDSCAPE ARCHITECTURE URBAN DESIGN
STROMBERG/GARRIGAN & ASSOCIATES

Stromberg/Garrigan & Associates
Suite 300
102 E. Main Street
Somerset, PA. 15501
(814) 443-1073

SURVEYOR:

THRASHER

The Thrasher Group, Inc.
600 White Oaks Blvd
P.O. Box 940
Bridgeport, WV 26330
(304) 624-4108

INDEX

Sheet Number	Sheet Title
SK1-00	Cover Sheet
SK2-00	Existing Conditions
SK3-00	Site Improvement Plan

DRAWING PREPARED BY:
STROMBERG/GARRIGAN & ASSOCIATES, INC.
102E MAIN STREET, SUITE 300
SOMERSET, PA 1550

NAME: *MICHAEL STROMBERG*

DATE: *06/16/2023*

S/G/A
STROMBERG/GARRIGAN & ASSOCIATES, INC.
LANDSCAPE ARCHITECTURE & URBAN DESIGN
102 E. MAIN STREET, SOMERSET, PA. 15501
P. 814.443.1073 F. 814.444.0484 WWW.S-GA.COM

PROJECT TITLE:

HAPPY RETREAT PARKING LOT & CIRCULATION

PROJECT ADDRESS:

600 MORDINGTON AVE
CHARLES TOWN, WV 25414

OWNER:

Friends of Happy Retreat
P.O. Box 1427
Charles Town, WV 25414

STAMP:

REVISIONS:

NO.	DATE	REMARKS

NOTE: DO NOT SCALE FROM DRAWINGS. VERIFY ALL DIMENSIONS ON SITE.

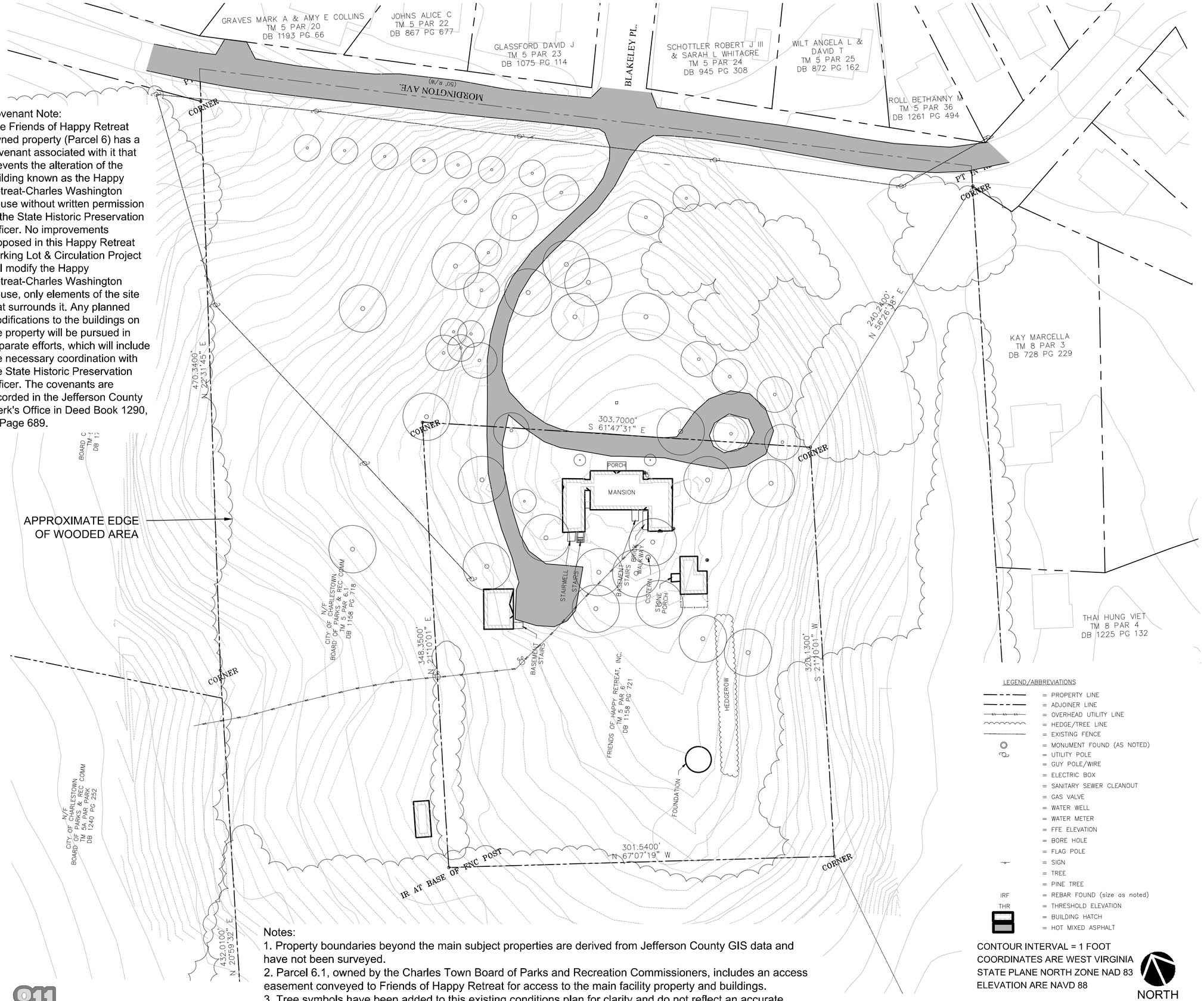
DRAWN BY: FH/HF
CHECKED BY: MS
JOB #: 22012
DATE: 06/16/2023
SCALE: AS SHOWN

SHEET TITLE:

COVER SHEET

SK1-00

Covenant Note:
The Friends of Happy Retreat owned property (Parcel 6) has a covenant associated with it that prevents the alteration of the building known as the Happy Retreat-Charles Washington House without written permission of the State Historic Preservation Officer. No improvements proposed in this Happy Retreat Parking Lot & Circulation Project will modify the Happy Retreat-Charles Washington House, only elements of the site that surrounds it. Any planned modifications to the buildings on the property will be pursued in separate efforts, which will include the necessary coordination with the State Historic Preservation Officer. The covenants are recorded in the Jefferson County Clerk's Office in Deed Book 1290, at Page 689.



Notes:
1. Property boundaries beyond the main subject properties are derived from Jefferson County GIS data and have not been surveyed.
2. Parcel 6.1, owned by the Charles Town Board of Parks and Recreation Commissioners, includes an access easement conveyed to Friends of Happy Retreat for access to the main facility property and buildings.
3. Tree symbols have been added to this existing conditions plan for clarity and do not reflect an accurate depiction of the extents of tree canopies.

LEGEND/ABBREVIATIONS

- = PROPERTY LINE
- = ADJOINER LINE
- = OVERHEAD UTILITY LINE
- = HEDGE/TREE LINE
- = EXISTING FENCE
- = MONUMENT FOUND (AS NOTED)
- = UTILITY POLE
- = GUY POLE/WIRE
- = ELECTRIC BOX
- = SANITARY SEWER CLEANOUT
- = GAS VALVE
- = WATER WELL
- = WATER METER
- = FFE ELEVATION
- = BORE HOLE
- = FLAG POLE
- = SIGN
- = TREE
- = PINE TREE
- IRF = REBAR FOUND (size as noted)
- THR = THRESHOLD ELEVATION
- = BUILDING HATCH
- = HOT MIXED ASPHALT

CONTOUR INTERVAL = 1 FOOT
COORDINATES ARE WEST VIRGINIA STATE PLANE NORTH ZONE NAD 83
ELEVATION ARE NAVD 88

NORTH

50 0 50 100
SCALE: 1" = 50'-0"

811 Know what's below Call before you dig
CALL BEFORE YOU DIG IN WEST VIRGINIA 1-800-245-4848

SKETCH PLAN SUBMISSION (NOT FOR CONSTRUCTION)

NOTE: The base plan is derived from a survey generated by The Thrasher Group, Inc., Surveying dated 1/2023.

S/G/A
STROMBERG/GARRIGAN & ASSOCIATES, INC.
LANDSCAPE ARCHITECTURE & URBAN DESIGN
102 E. MAIN STREET, SOMERSET, PA. 15501
P. 814.443.1073 F. 814.444.0484 WWW.S-GA.COM

PROJECT TITLE:

HAPPY RETREAT PARKING LOT & CIRCULATION

PROJECT ADDRESS:

600 MORDINGTON AVE
CHARLES TOWN, WV 25414

OWNER:

Friends of Happy Retreat
P.O. Box 1427
Charles Town, WV 25414

SURVEYOR:

THRASHER
600 WHITE OAKS BLVD. P.O. BOX 940
BRIDGEPORT WV 26330
www.thrashereng.com
PHONE
(304) 624-4108
FAX
(304) 624-7831

STAMP:

REVISIONS:

NO.	DATE	REMARKS

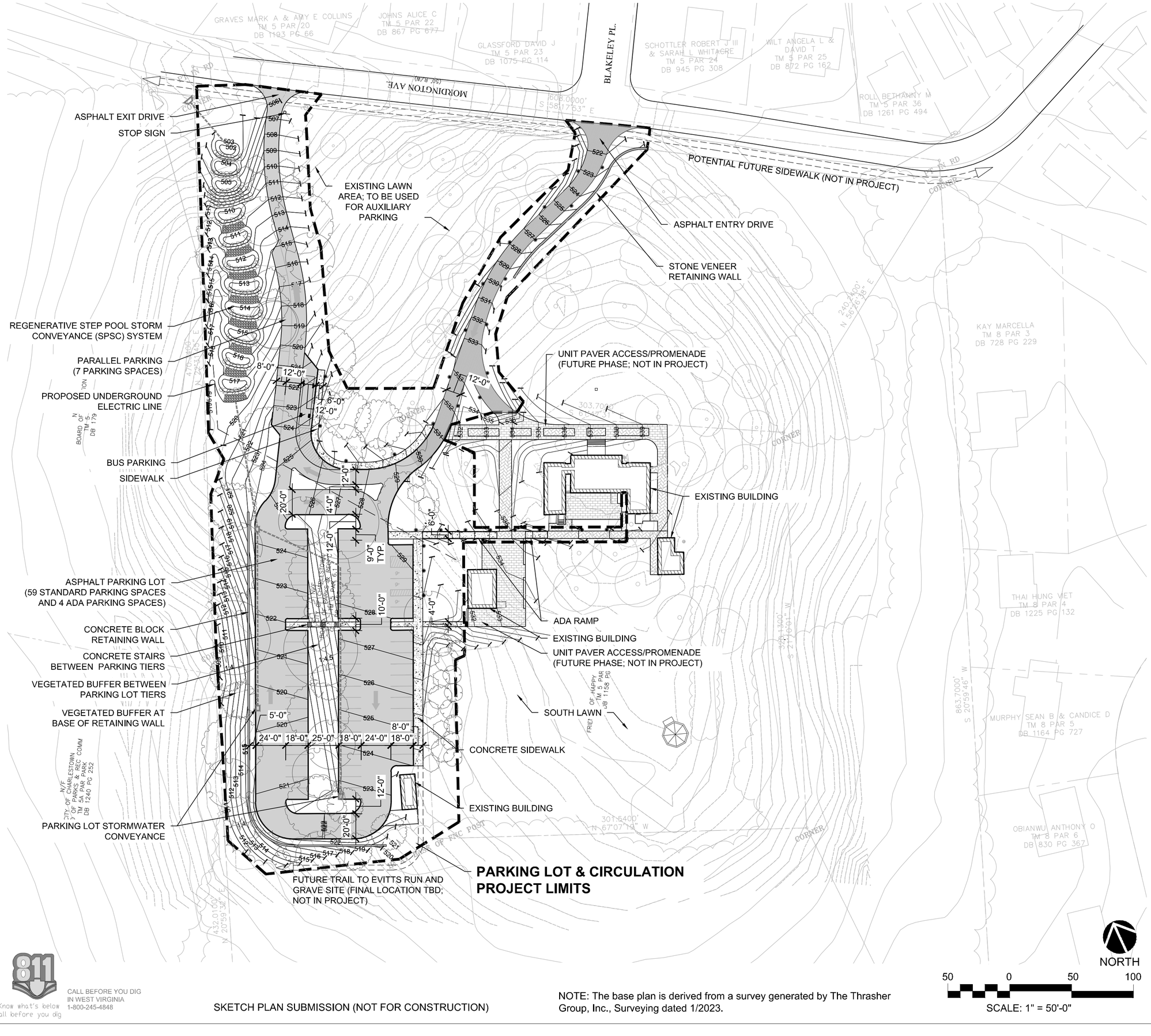
NOTE: DO NOT SCALE FROM DRAWINGS. VERIFY ALL DIMENSIONS ON SITE.

DRAWN BY: FH/HF
CHECKED BY: MS
JOB #: 22012
DATE: 05/31/2023
SCALE: AS SHOWN

SHEET TITLE:

EXISTING CONDITIONS

SK2-00



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PROJECT TITLE:

HAPPY RETREAT PARKING LOT & CIRCULATION

PROJECT ADDRESS:

600 MORDINGTON AVE
CHARLES TOWN, WV 25414

OWNER:

Friends of Happy Retreat
P.O. Box 1427
Charles Town, WV 25414

STAMP:

REVISIONS:

NO.	DATE	REMARKS

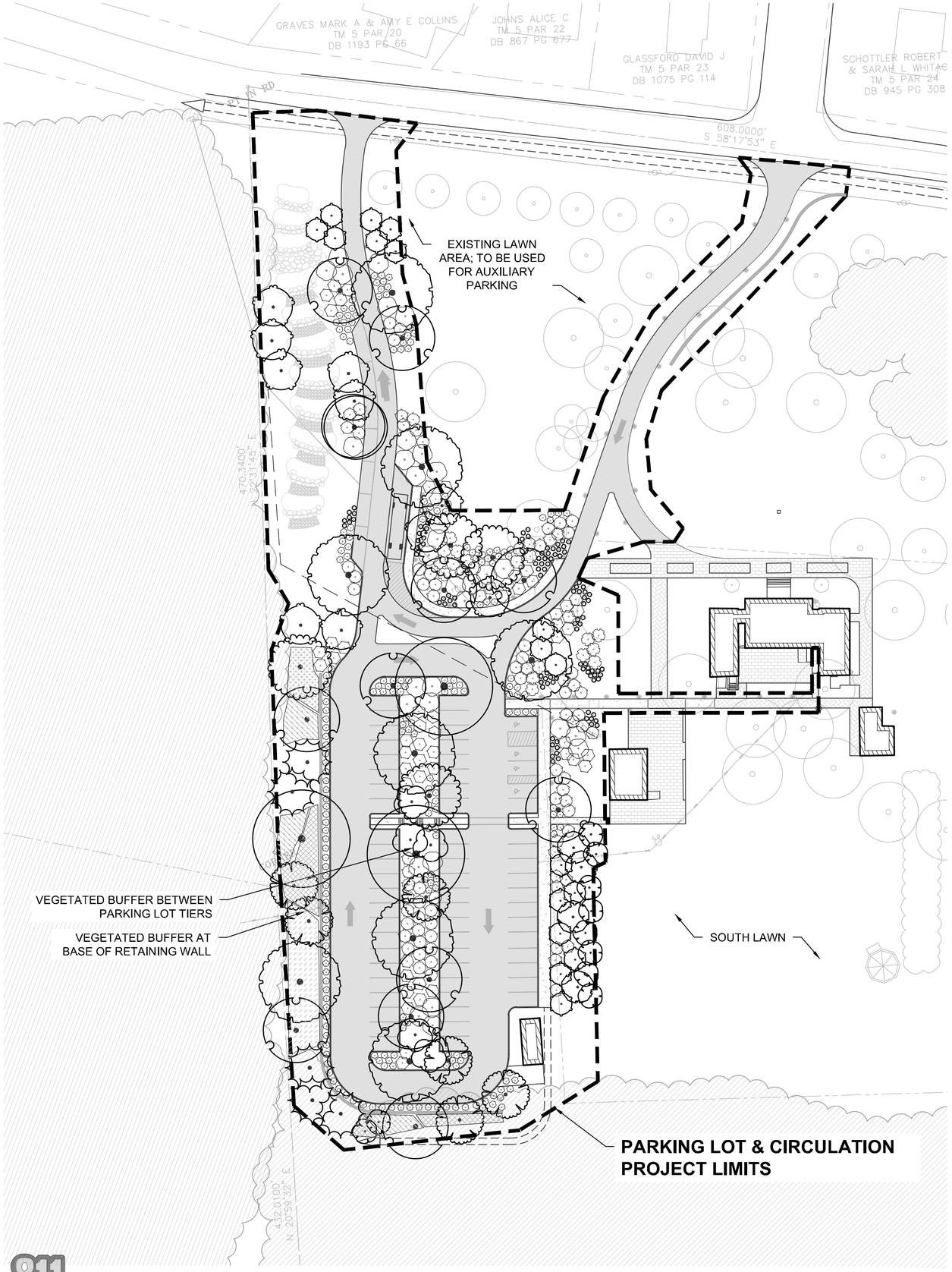
NOTE: DO NOT SCALE FROM DRAWINGS.
VERIFY ALL DIMENSIONS ON SITE.

DRAWN BY: FH/HF
CHECKED BY: MS
JOB #: 22012
DATE: 06/16/2023
SCALE: AS SHOWN

SHEET TITLE:

SITE IMPROVEMENT PLAN

SK3-00



PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
	CG	6	Carya glabra / Pignut Hickory	2" Cal.
	CF	10	Cornus florida / Flowering Dogwood	1" Cal.
	HV	5	Hamamelis virginiana / Common Witch Hazel	10 gal.
	IT	17	Ilex montana / Mountain Holly	7 gal.
	IO	4	Ilex opaca / American Holly	10 gal.
	NS	10	Nyssa sylvatica / Tupelo	1.5" Cal.
	PS	5	Pinus strobus / White Pine	15 gal.
	PO	1	Platanus occidentalis / American Sycamore	1.5" Cal.
	QA	3	Quercus alba / White Oak	3" Cal.
	QC	4	Quercus coccinea / Scarlet Oak	2" Cal.
	QM	11	Quercus montana / Chestnut Oak	2" Cal.
	QR	8	Quercus rubra / Red Oak	2" Cal.

SHRUBS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	SPACING
	CAL SWE	21	Calycanthus floridus / Sweetshrub	---	96" o.c.
	COR KLS	101	Cornus sericea 'Kelseyi' / Kelsey's Dwarf Red Twig Dogwood	---	36" o.c.
	FA	179	Fothergilla gardenii 'Mt. Airy' / Mt. Airy Dwarf Witchalder	---	48" o.c.
	HQ	56	Hydrangea quercifolia / Oakleaf Hydrangea	---	96" o.c.
	KL	81	Kalmia latifolia / Mountain Laurel	---	96" o.c.
	VP	40	Vaccinium pallidum / Blueberry	---	48" o.c.
	VB	32	Viburnum prunifolium / Blackhaw Viburnum	---	144" o.c.

SHRUB AREAS	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	SPACING
	GYL BA2	49	Gaylussacia baccata / Black Huckleberry	---	60" o.c.
	KAL LAT	10	Kalmia latifolia / Mountain Laurel	---	96" o.c.
	PHY NI2	27	Physocarpus opulifolius / Ninebark	---	96" o.c.
	VAC PAL	60	Vaccinium pallidum / Blueberry	---	60" o.c.

NORTH

50 0 50 100

SCALE: 1" = 50'-0"

811 Know what's below Call before you dig

CALL BEFORE YOU DIG IN WEST VIRGINIA 1-800-245-4848

SKETCH PLAN SUBMISSION (NOT FOR CONSTRUCTION)

NOTE: The base plan is derived from a survey generated by The Thrasher Group, Inc., Surveying dated 1/2023.

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PROJECT TITLE:

HAPPY RETREAT PARKING LOT & CIRCULATION

PROJECT ADDRESS:

600 MORDINGTON AVE
CHARLES TOWN, WV 25414

OWNER:

Friends of Happy Retreat
P.O. Box 1427
Charles Town, WV 25414

STAMP:

REVISIONS:

NO.	DATE	REMARKS

NOTE: DO NOT SCALE FROM DRAWINGS. VERIFY ALL DIMENSIONS ON SITE.

DRAWN BY: AMS
CHECKED BY: MS
JOB #: 22012
DATE: 06/16/2023
SCALE: AS SHOWN

SHEET TITLE:

PLANTING PLAN

SK4-00

Sketch Plan Application No._____

RECEIVED
JUN 1 2023
BY:

SKETCH PLAN APPLICATION

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE
ARTICLE 1332, SUBDIVISION AND LAND DEVELOPMENT APPLICATION & APPROVAL REQUIREMENTS

To assist the Subdivision Administrator in the review of a Sketch Plan Application, the Applicant must utilize this form to supply the City with the information prescribed under Section 1332.03 of the Charles Town S/LD Ordinance. The submission of this form, along with the prescribed information and required fees, shall serve as the Applicant's Sketch Plan Application as required by Ordinance Section 1332.03. Applicant is responsible to ensure the standards of Ordinance Section 1332.04, Sketch Plan Requirements, are met and provided herein is a checklist of the Sketch Plan requirements.

1. DATE June 1, 2023

2. APPLICATION TYPE*

☐ Zoning Use Permit, Special Exception Use and Sketch Plan requirements found in the Supplemental Regulations of the Zoning Ordinance
- Submit Three (3) 11" x 17" copies of the Sketch Plan shall be submitted and in Adobe PDF format

☑ Major S/LD Development
- Submit Three (3) 18" x 24" copies of the Sketch Plan shall be submitted and in Adobe PDF format

*There are two types of Sketch Plan submissions:

1. For Zoning Use Permit, Special Exception Use and Sketch Plan requirements found in the Supplemental Regulations of the Zoning Ordinance. Submission standards are found in Section 1332.04(D).
2. For a Sketch Plan for a Major S/LD application, submission standards are found in Section 1332.04(E)

3. APPLICANT'S NAME* Stromberg / Garrigan & Associates, Inc. (Michael Stromberg)

Address: 102 E Main Street, Suite 300, Somerset, PA 15501

Telephone Number (814) 443-1073 Fax Number (814) 444-0484

Email Address mstromberg@s-ga.com

4. PROPERTY OWNER'S NAME Friends of Happy Retreat, Inc. (Bill Senseney)

Address: P.O. Box 1427, Charles Town, WV 25414

Telephone Number (304) 724-7956 Fax Number ( )

Email Address billsenseney@hotmail.com

5. LEGAL DESCRIPTION OF THE SUBJECT PROPERTY (list all parcels that apply)

Property Address: 600 Mordington Avenue, Charles Town, WV

Tax Map # and Parcel: Tax Map #5, Parcel 6 (FOHR); Tax Map #5, Parcel 6.1 (CTBPRC)

Deed Book and Page #: DB 1158, Page 721 (FOHR); DB 1158, Page 718 (CTBPRC)

Property Area in Square Feet or Acres: 12.313 acres total (2.313 acres FOHR, 10 acres CTBPRC)

6. DESCRIPTION OF PROJECT AND PROPOSED USE(S) OF THE PROPERTY:

The Happy Retreat facility is a cultural heritage site and currently hosts occasional events on the property. The goal of this project is to create improved access and a permanent parking facility for the site so it is better equipped to hold events on a more frequent basis. No new building structures are proposed as a part of this project, only supporting infrastructure for vehicles and pedestrians, plus the associated earthwork and stormwater management needed for the improvements. The effort is led by Friends of Happy Retreat but will require approval from the Charles Town Board of Parks & Recreation Commissioners (CTBPRC), which owns 10 acres of the 12.3 acre facility.

7. DESCRIPTION OF THE EXISTING (OR FORMER) USE(S) OF THE PROPERTY AND CURRENT ZONING:

Current zoning is Old Town Residential. The site is a historic site and the former home of Charles Washington dating back to the 18th century. It was used as a home by a series of other owners in the intervening years. other owners in the intervening years. It is now owned by non-profit Friends of Happy Retreat, Inc. (Parcel 6) and the Charles Town Board of Park and Recreation Commisioners (Parcel 6.1) after a 2015 subdivision and conveyance of the property. It is now being preserved as a cultural heritage site.

*Applicants include: Property owner(s), Engineer(s), Surveyor(s), or Consultant(s)

8. ARE THERE ANY ANTICIPATED WAIVERS OR VARIANCES? IF YES, PROVIDE DETAILS.

No waivers/variances are anticipated at this time, however, final parking generation requirements for the future restored Happy Retreat facility are being reviewed. While this effort is being led by Friends of Happy Retreat, the CT Board of Parks & Rec will have to approve actions on their portions of the property. FOHR last met with CTBPRC on 4/27/2023 to review the plans for the project.

9. HAS THE PROPERTY BEEN THE SUBJECT OF ANY COURT ACTION?

☐ Yes (Please specify nature of all proceedings and current status and attach any documents showing court decisions, etc.)

☑ No

10. PARCEL HISTORY (List all pending or previously approved applications on the subject parcels inventoried above, including previous site plan applications if this application is a site plan amendment)

Application No.	Project Name and Phase	Status	Approval Date

11. INTERESTED PARTY ADDRESSES, FOR PUBLIC NOTICE (including across street)
(Interested parties are defined as adjacent properties within 100 feet).

Owner	# and Street	City, State, Zip
Charles Town Board of Parks & Rec Comm	(Evitts Run)	Charles Town, WV 25414
Board of Education	110 Mordington Avenue	Charles Town, WV 25414
Graves, Mark A & Amy E Collins Johns, Alice C	185 Mordington Avenue 187 Mordington Avenue	Charles Town, WV 25414
Glassford, David J Schottler, Robert J III & Sarah L Whitacre	144 Blakeley Place 145 Blakeley Place	Charles Town, WV 25414
Wilt, Angela L & David T Roll, Bethanny M	611 Mordington Avenue 621 Mordington Avenue	Charles Town, WV 25414
Kay, Marcella	620 Mordington Avenue	Charles Town, WV 25414
Thai Hung Viet	6602 Patrick Ct	Centreville, VA 20120
Murphy, Sean B & Candice D Obianwu, Anthony O	131 Springdale Drive 141 Springdale Drive	Charles Town, WV 25414
Solomon, Diana L Mayfield, Jennifer W & Mitchell D.	151 Springdale Drive 161 Springdale Drive	Charles Town, WV 25414

APPLICANT CERTIFICATION

I certify that, to the best of my knowledge, the submitted information and statements are true and correct. I also certify that I have received and read Section 1332.02 of the Charles Town S/LD Ordinance and relevant provisions of the Charles Town City Code.

Signature of Applicant

Michael Stromberg Date 6/1/2023

Signature of Property Owner (If different than Applicant)

William Cadney Date 6/1/2023

PRESIDENT
FRIENDS OF
HAPPY RETREAT

Please submit an original completed Application and specified number of Site Plan copies to the following:

Subdivision Administrator
City of Charles Town
101 E. Washington Street
Charles Town, WV 25414

FOR CITY USE ONLY

Application Number:_____ Date Application Received:_____

Fee: $_____ Paid:$_____ Check No._____

Receipt No._____

Subdivision Administrator Approval:_____ Date:_____

Planning Commission Approval:_____ Date:_____

Comments:_____

_____

_____

_____

_____

_____

CHARLES TOWN, WEST VIRGINIA
Department of Community Development
Division of Planning and Zoning

101 East Washington Street, P.O. Box 14
Charles Town, West Virginia 25414

Phone: (304) 725-2311 Fax (304) 725-1014

File Number: _____
Staff Initials: _____
Fees Paid: _____

https://goo.gl/KGzDMZ

Sketch Plan Review Checklist
Amended 2017 Subdivsion Ordinance

(please check one) ✓ **Major S/LD Application** or
_____ **Zoning Use Permit, Special Exception Use, or Sketch Plan (requirements found in the Supplemental Regulations of the Zoning Ordinance)**

Project Name: Happy Retreat Parking Lot & Circulation Project

Property Owner Information

Property Owner:	Friends of Happy Retreat, Inc.				
Mailing Address:	P.O. Box 1427				
City:	Charles Town	State:	WV	Zip Code:	25414
Phone Number:	304-724-7956	Email:	billsenseney@hotmail.com		
Signature:	Walter Washington PRESIDENT			Date:	6/1/2023

Applicant's Registered Engineer or Surveyor or Design Consultant

Name:	Stromberg / Garrigan & Associates, Inc.				
Mailing Address:	102 E Main Street, Suite 300				
City:	Somerset	State:	PA	Zip Code:	15501
Phone Number:	757-228-1962	Email:	mstromberg@s-ga.com		

Physical Property Details

Physical Address:	600 Mordington Avenue				
City:	Charles Town	State:	WV	Zip Code:	25414
Tax District:		Map No:	5	Parcel No:	6 & 6.1
Parcel Size:	12.313 total acres	Deed Book:	1158	Page No:	718 & 721

Zoning of Subject Property			Is the Project to Be:	Is Property In:
Urban Reserve (UR)	Residential Medium-High Density (R-15)	Neighborhood Commercial (NC)	Planned Unit Development (PUD)	Historic Overlay District (HOD)
General Commercial (GC)	Old Town Residential (OT-R)		No	Floodplain Overlay District (FOD)
Old Town Mixed Use Commercial (OT-MUC)	Neighborhood Residential (NR)			

City Use Only	1st Review	2nd Review	3rd Review	4th Review
Submittal Date				
Zoning Administrator				
City Planner				
GIS/Addressing				
Return Date				

Conditions of Approval (Attach Additional Comments As Needed)

Instructions

1. This checklist is provided as a quick reference guide only. The Consultant/Developer is responsible for reading the regulations and fully complying with all the requirements. All references to the Subdivision Ordinance and Zoning Ordinance are cited for informational purposes only.

2. The checklist shall be completed by the Engineer/Surveyor or Design Consultant and attached to the Sketch Plan review submission.

Requried Submittal Information

_____ 1 Check for Applciation Fees (check to be delivered separately)
✓ 1 Completed Application and Checklist (Signed by owner)
✓ 3 Sets of Sketch Plans and Adobe PDF Format

Sub-Section	Ordinance Requirements: (See instructions on page 2)	Engineer /Surveyor	1st Review	2nd Review	3rd Review	4th Review
	SUBDIVISION ORDINANCE **Section 1332.04, Sketch Plan Requirements**					
A	**THERE ARE TWO TYPES OF SKETCH PLAN SUBMISSIONS:** **Sections in Red and Blue are depict the different types.**					
A1 and D	For: • **Zoning Use Permit** • **Special Exception Use** • **Sketch Plan requirements found in the Supplemental Regulations of the Zoning Ordinance** The following information shall be provided for Sketch Plan review:					
D1	Three (3) 11" x 17" copies of the Sketch Plan shall be submitted and in Adobe PDF format.					
D2	The Sketch Plan shall be drawn to a 1"=50' scale					
D2	The Sketch Plan must illustrate the following elements in such a way that the Subdivision Administrator or authorized designee can determine if the proposed Subdivision or Land Development meets the criteria of this Ordinance, **as applicable:**					
D2a	Existing conditions, including boundary lines of the property					
D2b	A land use plan, showing the location, arrangement and approximate boundaries of all proposed land uses					
D2c	Vicinity map, north arrow, scale (written and graphic) and date					
D2d	Name of proposed project or other identifying title and date plan was prepared. Name and address of the Engineer, Surveyor, Architect, Landscape Architect, Land Planner or Property Owner who prepared the plan					
D2e	Current zoning and total area of the property					
D2f	Maximum and proposed density					
D2g	Available utilities					
D2h	All existing sanitary sewer facilities and combined sewer facilities					
D2i	Depict location or statement of proposed water and sewer supply and other utility improvements					
D2j	Existing covenants					
D2k	General layout of any proposed number of Lots, average Lot sizes and any proposed commercial uses, including any associated parking. Include proposed height of structures					
D2l	Statement of total acreage of the tract being subdivided or developed					
D2m	Location of proposed Street layout, including connections to adjoining streets or vacant lots					
D2n	The location of sidewalks, trails and crosswalks					
D2o	Proposed open space and/or recreation areas, including notes on the plan describing the proposed use, activity area and/or improvement					
D2p	Any other information requested by the Subdivision Administrator in order for the Subdivision Administrator to make an accurate determination.					
A2 and E	For a **Major S/LD Application**. The following information shall be provided for Sketch Plan review:					
E1	Three (3) 18" x 24" copies of the Sketch Plan shall be submitted and in Adobe PDF format.	✓				
E2	The Sketch Plan shall be drawn to a 1"=50' scale	✓				
E2	The Sketch Plan must illustrate the following elements in such a way that the Subdivision Administrator or authorized designee can determine if the proposed Subdivision or Land Development meets the criteria of this Ordinance:					
E2a	Existing conditions, including boundary lines of the property	✓				
E2b	A land use plan, showing the location, arrangement and approximate boundaries of all proposed land uses	✓				

Review Key	
✓	Ok
O	Incomplete
N/A	Not Applicable
X	Unacceptable

	Ordinance Requirements: (See instructions on page 2)	Engineer /Surveyor	1st Review	2nd Review	3rd Review	4th Review	Review Key
							✓ Ok
							O Incomplete
							N/A Not Applicable
							X Unacceptable
E2c	Vicinity Map, North arrow, scale (written and graphic) and date	✓					
E2d	Names of the abutting owners, adjoining lot lines and structures on abutting lots within 100 feet of the property	✓					
E2e	Title of the proposed project; the date, month and year the plan was prepared or revised; the name of the applicant(s), owner(s), and contract owner(s) and the name and address of the Engineer, Surveyor, Architect, Landscape Architect, or Land Planner who prepared the plan, including firm name	✓					
E2f	Current zoning and total area of the property	✓					
E2g	Maximum and proposed density based on the Net Buildable Land Area	N/A					
E2h	Available utilities	✓					
E2i	All existing sanitary sewer facilities and combined sewer facilities	✓					
E2j	Depict location or statement of proposed water and sewer supply and other utility improvements	✓					
E2k	Existing covenants	✓					
E2l	General layout of any proposed number of Lots, average Lot sizes and any proposed commercial uses, including any associated parking. Include proposed height of structures	N/A					
E2m	Statement of total acreage of the tract being subdivided or developed, including the Net Buildable Land Area	N/A					
E2n	The approximate acreage in common open space, in each use and housing type and in roads, streets or rights-of-way for the total development	N/A					
E2o	The proposed number of dwelling units of each type in each in the total development	N/A					
E2p	Location of proposed Street layout, including connections to adjoining streets or vacant lots	✓					
E2q	The location of sidewalks, trails and crosswalks, as may be applicable	✓					
E2r	Proposed open space and/or recreation areas, including notes on the plan describing the proposed use, activity area and/or improvement. The amount, approximate boundaries and location of common open space, with the percentage of the total acreage of the site to be placed in common open space	N/A					
E2s	The location of environmental sensitive land to be included in common open space	N/A					
E2t	Notes indicating any modifications, waivers, variances, special exceptions and/or conditional uses that are required	✓					
E2u	The location and extent of proposed buffers	✓					
E2v	The proposed location, arrangement, and right-of-way widths of roads and streets, including roads and streets providing access to adjoining parcels. The location and arrangement of street entrances, driveways and parking areas	N/A					
E2w	Calculations describing all proposed bonus factors with the location of and specifications for bonus improvements, when proposed	N/A					
E2x	Any other information requested by the Subdivision Administrator in order for the Subdivision Administrator to make an accurate determination	N/A					
Sub-Section	**SUBDIVISION ORDINANCE Section 1333.01, General Site Planning and Design Specifications**						
D1d	There is **no** requirement that a Sketch Plan or Preliminary Plat show phasing.						