

PRECAST CONCRETE STONE-FILLED RETAINING WALLS STONE STRONG[®] RETAINING WALL SYSTEM

Codes & Standards:

THE DESIGN AND DETAILING OF THE RETAINING WALL(S) ARE GENERALLY BASED ON THE FOLLOWING CODES AND STANDARDS:

- **IBC-2018:** INTERNATIONAL BUILDING CODE
- **VCC-2018:** VIRGINIA CONSTRUCTION CODE
- **NCMA-2010:** DESIGN MANUAL FOR SEGMENTAL RETAINING WALLS (3RD EDITION).



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Wall Summary		
No.	Length, LF	Max. Exposed Height, FT
1	110.00	4.67

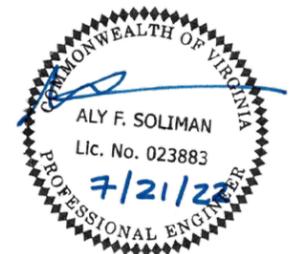
TIMBER RETAINING WALL REPLACEMENT SITE RETAINING WALL No. 1 419 MAPLE AVENUE E Vienna, VA 22180

Prepared For:
MTR Earth Consulting, LLC
20369 Hacienda Court
Boca Raton, FL. 33498



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A.F.S.
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	AFS Geo Consultants, LLC Geotechnical Consulting and Retaining Wall Design	7820 LakeLand Valley Dr. Springfield, VA 22153 Tel: (703) 249-4655 Fax: (703) 249-4656
	Project: 419 MAPLE AVENUE Vienna, VA 22180	

Rev. No.	Description	By:	Date:	Date Drawn:	Project:	Sheet:
				07/21/2022	419 MAPLE AVENUE Vienna, VA 22180	1
				Designed By: AFS		
				Drawn By: AAA		
				Checked By: AFS		
					Project No.:	VA22028
					Title:	COVER SHEET SOUTHERN WALL

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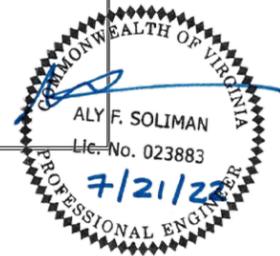
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1. PROPERTIES OF Stone Strong® RETAINING WALL FACING UNITS SHALL CONFORM TO THOSE PRESENTED IN THE Stone Strong® PRODUCT LITERATURE.
2. GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS OF AASHTO M-288-06, CLASS III (e.g., MIRAFI 140N OR EQUIVALENT).
3. THE WALL BASE (I.E., GRANULAR LEVELING PAD) SHALL CONSIST OF VDOT No. 57 CRUSHED AGGREGATE, OR No. 57 RECYCLED CONCRETE, OR EQUIVALENT.
4. CONSTRUCTION OF THE RETAINING WALL COMPONENTS (I.E., PRECAST CONCRETE UNITS, UNIT FILL, DRAINAGE AGGREGATE, DRAINAGE PIPES, AND BACKFILL) SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS. PRIOR TO START OF WALL CONSTRUCTION, THE CONTRACTOR SHALL REVIEW THE MANUFACTURER'S INSTALLATION MANUAL FOR PRECAST CONCRETE STONE-FILLED RETAINING WALLS.
5. THE GRAVITY WALL DESIGN WAS PERFORMED USING THE Stone Strong Systems® DESIGN SOFTWARE (VERSION 6.3), USING THE ALLOWABLE STRESS DESIGN (ASD) APPROACH. THE REINFORCED WALL DESIGN WAS PERFORMED USING BOTH THE VESPA MSE WALL DESIGN SOFTWARE AND A GLOBAL STABILITY ANALYSIS APPROACH.
6. THESE DRAWINGS HAVE BEEN PREPARED BY AFS Geo Consultants, LLC SOLELY FOR THE USE OF RECOMMENDED Stone Strong® WALL INSTALLATION CONTRACTORS.
7. RETAINED BACKFILL SHALL BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING 8 INCHES IN COMPACTED LIFT THICKNESS AND COMPACTED TO A MINIMUM OF 95 PERCENT MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698 (STANDARD PROCTOR DENSITY). COMPACTION OF THE NO. 57 CRUSHED AGGREGATE, IF USED IN THE RETAINED BACKFILL ZONE, MAY BE ACHIEVED BY A MINIMUM OF TWO PASSES OF A VIBRATORY ROLLER OR UNTIL THERE IS NO VISIBLE MOVEMENT OF THE AGGREGATE, AS DETERMINED BY THE GEOTECHNICAL TESTING AGENCY. COMPACTION TESTING IS NOT REQUIRED FOR THE NO. 57 STONE BACKFILL.
8. HEAVY COMPACTION EQUIPMENT SHALL NOT BE OPERATED WITHIN THREE FEET OF THE WALL FACE. HAND OPERATED EQUIPMENT SHALL BE USED WITHIN THREE FEET OF FACING UNITS. IMPACT TYPE COMPACTORS SHALL BE KEPT CLEAR OF THE WALL FACE. A REDUCED LIFT THICKNESS OF 4 INCHES SHALL BE USED WITHIN THREE FEET OF THE WALL FACE.
9. ALL WALL DIMENSIONS, WALL STEPS, ETC. ARE APPROXIMATE. CONTRACTOR SHALL ADJUST DIMENSIONS AS REQUIRED TO MEET ACTUAL FIELD CONDITIONS.
10. THE DESIGN OF THE PRECAST BLOCK RETAINING WALL IS BASED ON A RECENT FIELD SURVEY PROVIDED BY THE CONTRACTOR/WALL INSTALLER. DETAILED TOPOGRAPHIC OR SITE GRADING PLANS WERE NOT AVAILABLE FOR THIS DESIGN. THE CONTRACTOR SHALL ADJUST THE WALL GRADES AND DIMENSIONS TO MEET ACTUAL FIELD CONDITIONS, AS APPROVED BY THE PROJECT CIVIL ENGINEER. AFS GEO CONSULTANTS, LLC SHALL BE GIVEN THE OPPORTUNITY TO REVIEW ANY CHANGES TO THE PROPOSED GRADING IN THE VICINITY OF THE RETAINING WALL, TO DETERMINE IF REDESIGN OF THE WALL IS REQUIRED.
11. ALL TEMPORARY EXCAVATIONS SHALL COMPLY WITH OSHA REGULATIONS (BY OTHERS).
12. THE FOLLOWING SOIL PARAMETERS HAVE BEEN USED FOR THE DESIGN OF THIS RETAINING WALL:

Soil Design Parameters Precast Block Gravity Retaining Wall						
Material	Description	γ (pcf)	Φ (degrees)	C (psf)	Max. Applied Bearing Pressure	Comments
Foundation Soils	Firm/Approved Natural Granular Soils, or Approved Compacted Granular Structural Fill (Note d.)	120 ±	$\Phi_f = 28$	0	2,500 psf (See Wall Elevation)	
Retained Backfill	Compacted Fill (SM, SP, or more Granular per ASTM D-2487) LL < 40, PI < 20 % Fines = 50 % MAX.	120 ±	$\Phi_{rt} = 30$	0		
Unit Fill (Loose)	No. #57 Crushed Aggregate, or #57 Recycled Concrete, or Equivalent Free-Draining Material.	110	$\Phi = 35$	0		

NOTES:

- a. Design parameters are based on the limited subsurface data included in the Geotechnical Engineering Report, dated February 20, 2006, by ATC Associates, Inc. and the recent Report of Geotechnical Parameters, dated October 18, 2019, by Hillis-Carnes Engineering Associates.
- b. C = Cohesion, Φ = Friction Angle, γ = Moist Unit Weight, N/A = Not Applicable, LL = Liquid Limit, and PI = Plasticity Index.
- c. The retained backfill material shall be substantially free of shale or other soft, poor durability particles. If processed material/aggregate is used, the material shall have a magnesium sulfate soundness loss of less than 30 percent after four (4) cycles, as determined by ASTM C88 - 13.
- d. AFS Geo Consultants, LLC shall be notified immediately if the actual soil conditions in the field are not as indicated by the above table, or not as anticipated by the Geotechnical Reports/Test Borings, as determined by the Owner's/Developer's Geotechnical Engineer/Testing Agency.
- e. Bearing capacity and settlement of the foundation soils are the responsibility of the Owner's Geotechnical Engineer. Any unsuitable/undocumented loose soils or existing fill/debris encountered at the retaining wall's subgrade shall be removed and replaced under the direction of the Owner's/Developer's Geotechnical Engineer/Testing Agency.
- f. Design is based on the following minimum safety factors:
 Sliding = 1.50 Overturning = 1.50 Global Stability = 1.30



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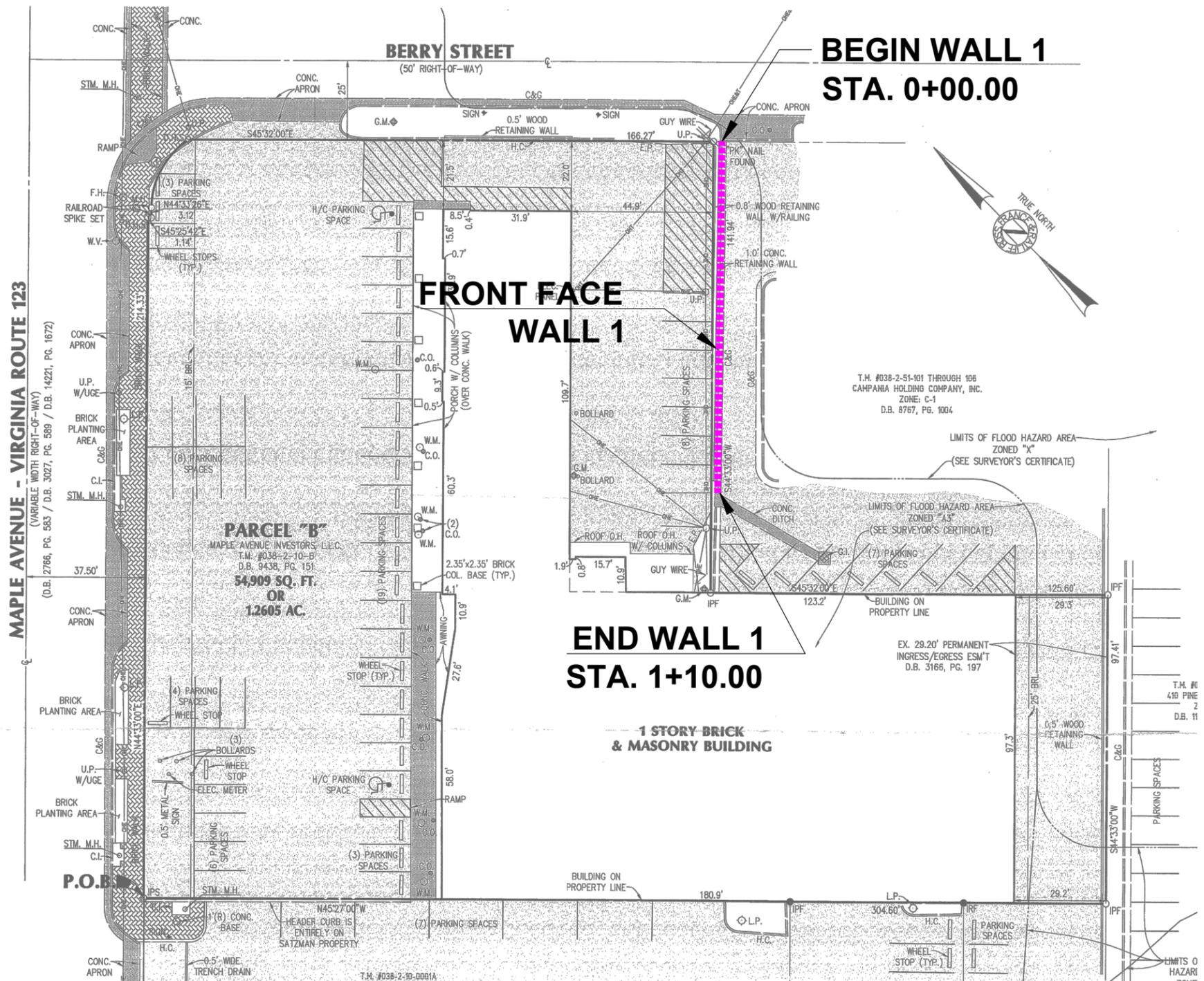
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 Fax: (703) 249-4656

Rev. No.	Description	By:	Date:	Date Drawn: 07/21/2022	Project:	419 MAPLE AVENUE Vienna, VA 22180	Sheet: 2
				Designed By: AFS	GENERAL NOTES		Project No.: VA22028
				Drawn By: AAA			
				Checked By: AFS			

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NOTE:

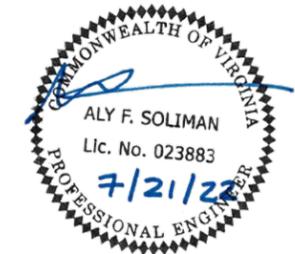
REFER TO THE APPROVED CIVIL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING EXISTING TOPOGRAPHY AND EXISTING/PROPOSED UTILITIES THAT MAY IMPACT THE CONSTRUCTION OF THE RETAINING WALL.

RETAINING WALL PLAN VIEW
SCALE: 1"=40'

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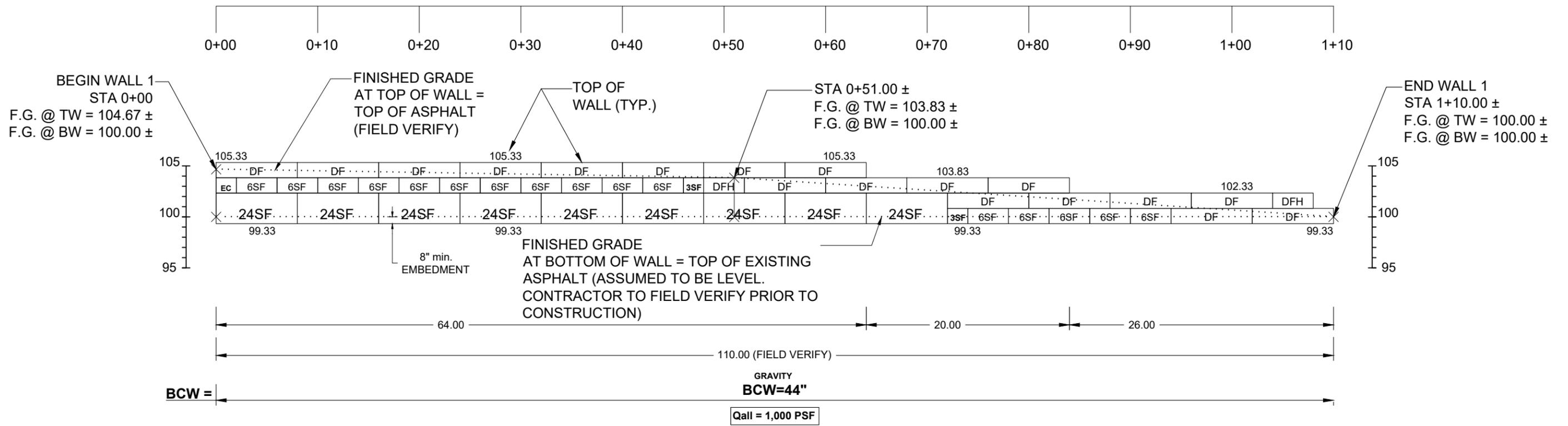


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 Geotechnical Consulting and Retaining Wall Design

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					Title:	RETAINING WALL PLAN VIEW
					Sheet:	3
					Project No.:	VA22028

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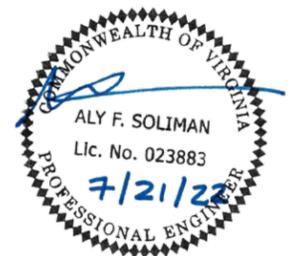
LEGEND:

- Qall APPLIED (SERVICE) VERTICAL BEARING PRESSURE
- F.G. @TW FINISHED GRADE AT TOP OF WALL
- F.G. @ BW FINISHED GRADE AT BOTTOM OF WALL
- BCW WIDTH OF BOTTOM COURSE OF STONE STRONG UNITS (INCHES)

ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED
 ALL STATIONS ARE ALONG THE FRONT FACE OF WALL, AT THE BOTTOM COURSE.

ELEVATION - RETAINING WALL 1 - FRONT FACE

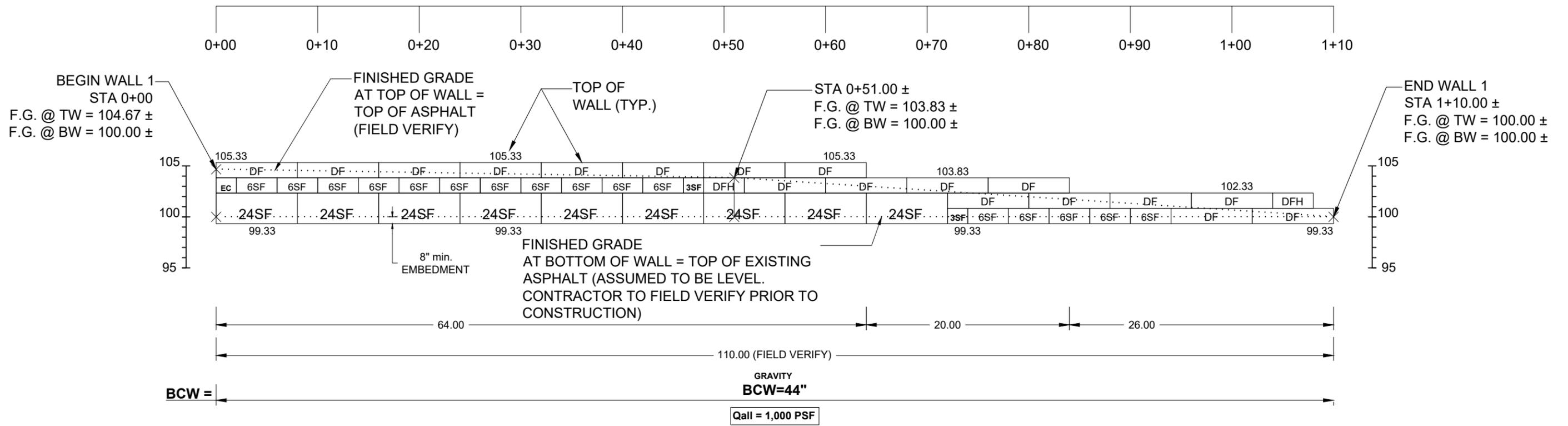
SCALE 1"=10'



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				07/01/2022	419 MAPLE AVENUE Vienna, VA 22180 ELEVATION - WALL 1
				Designed By: AFS	
				Drawn By: AAA	
				Checked By: AFS	
					Sheet: 4
					Project No.: VA22028

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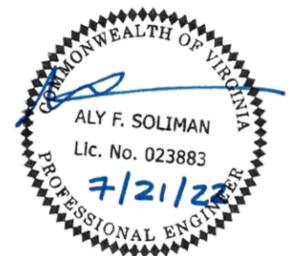
LEGEND:

- Qall APPLIED (SERVICE) VERTICAL BEARING PRESSURE
- F.G. @TW FINISHED GRADE AT TOP OF WALL
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ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED
 ALL STATIONS ARE ALONG THE FRONT FACE OF WALL, AT THE BOTTOM COURSE.

ELEVATION - RETAINING WALL 1 - FRONT FACE

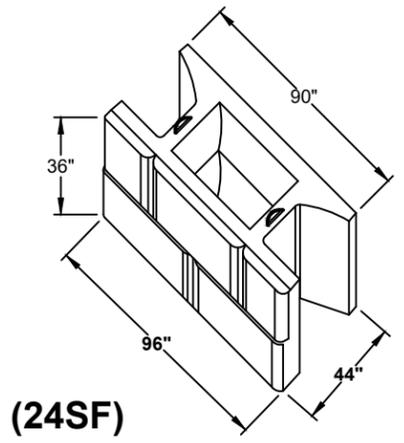
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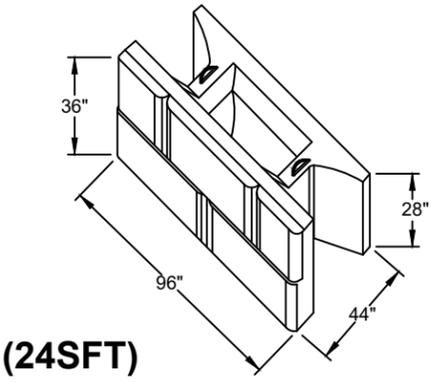
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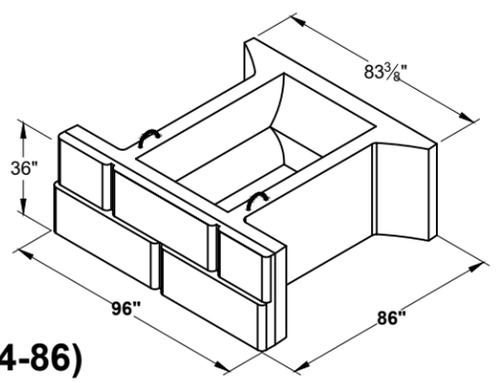
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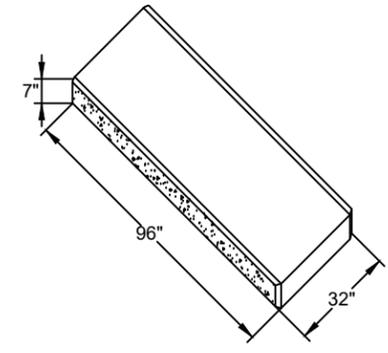
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STONE STRONG 24SF UNIT
CHISELED GRANITE FACE
 NOT TO SCALE



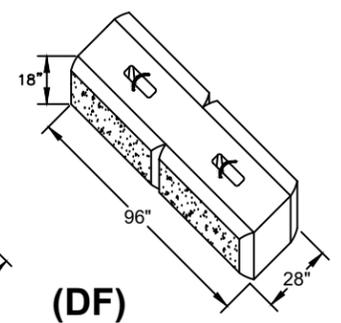
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CHISELED GRANITE FACE
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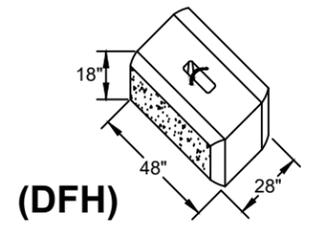
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STONE STRONG 24-86 UNIT
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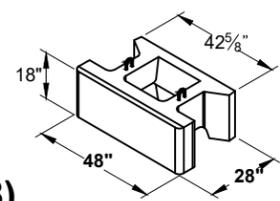
CAP BLOCK
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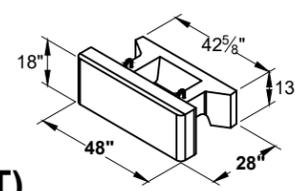
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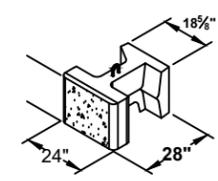
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STONE STRONG DUAL FACE HALF UNIT
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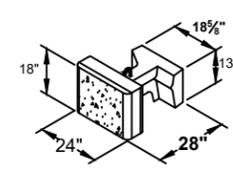
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STONE STRONG 6-28 UNIT
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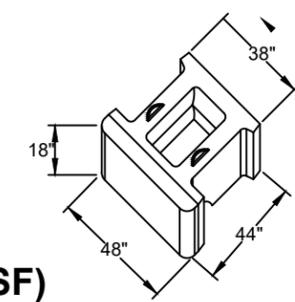
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STONE STRONG 6-28 TOP UNIT
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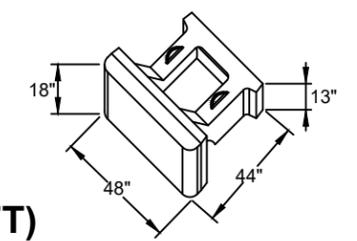
STONE STRONG 3-28 UNIT
 NOT TO SCALE



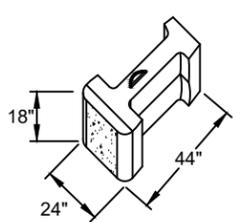
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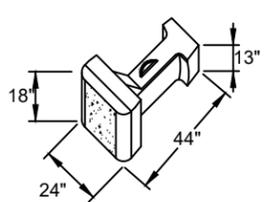
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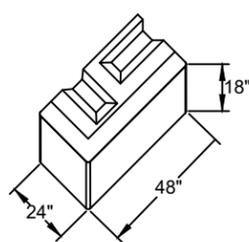
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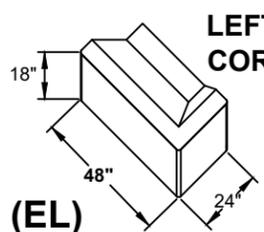
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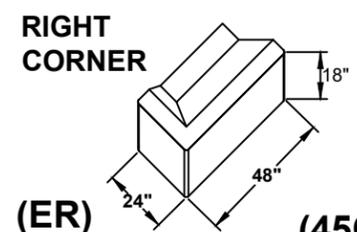
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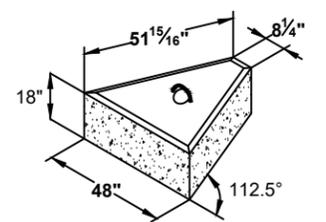
(EC)
STONE STRONG END/CORNER UNIT
 NOT TO SCALE



(EL)
STONE STRONG END UNITS
 NOT TO SCALE



(ER)
STONE STRONG END UNITS
 NOT TO SCALE



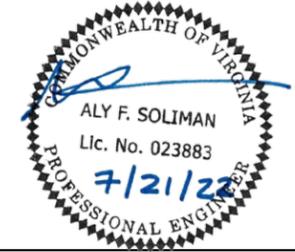
(45C)
STONE STRONG 45-DEGREE CORNER UNIT
 NOT TO SCALE

NOTES:

- DF UNIT ENDS MAY BE FIELD MITERED (**DFx**) FOR INSTALLATION AT WALL CORNERS OR ALONG ON A RADIUS.
- DF UNITS MAY BE CUT OR FORMED, AS NEEDED, FOR LENGTHS BETWEEN 4.0 FEET AND 8.0 FEET, AS ARRANGED WITH THE LOCAL BLOCK PRODUCER.

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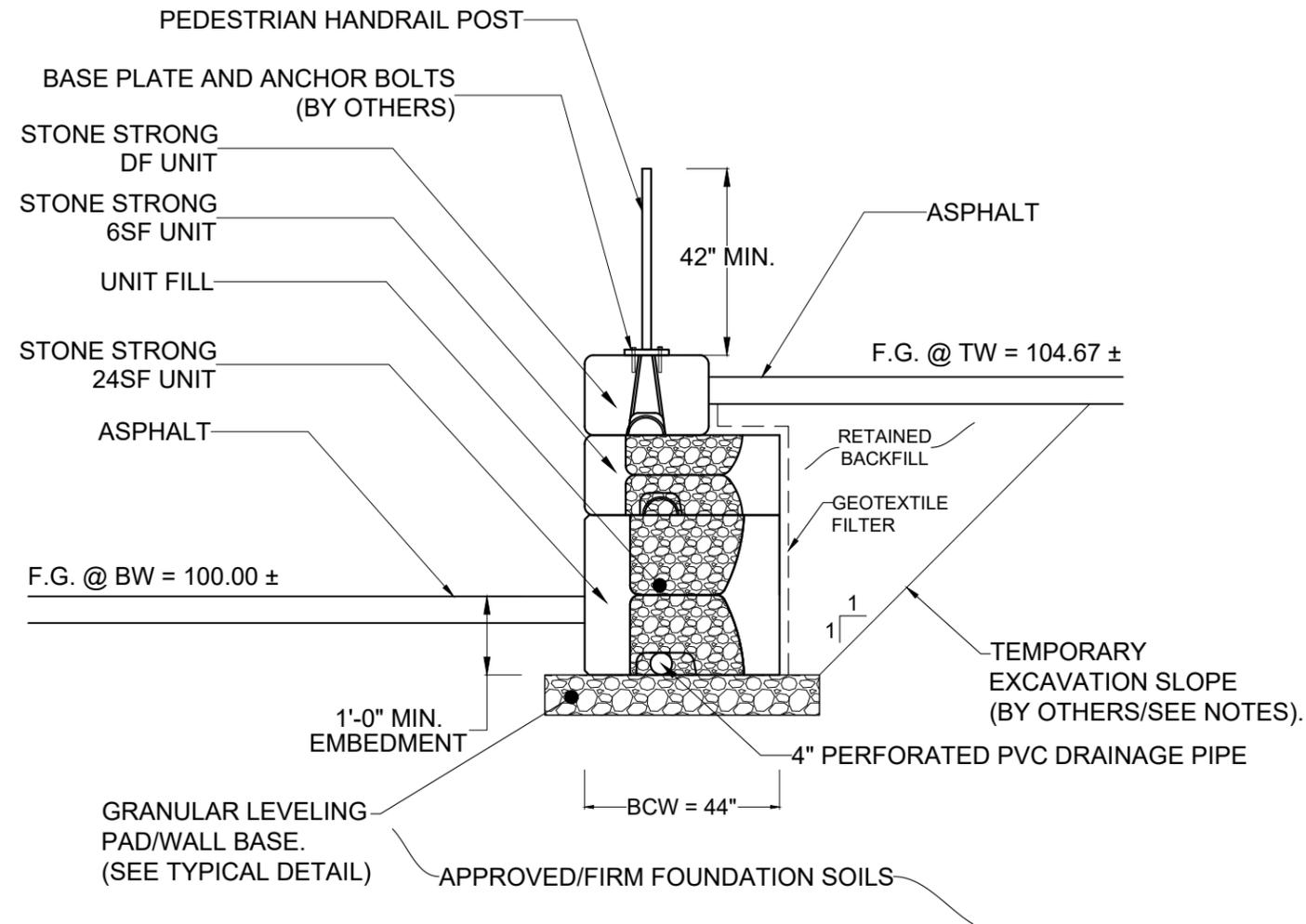
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				07/21/2022	419 MAPLE AVENUE Vienna, VA 22180 StoneStrong Standard Units
				Designed By: AAA	
				Drawn By: AAA	
				Checked By: AFS	
					Sheet: 5 Project No.: VA22028

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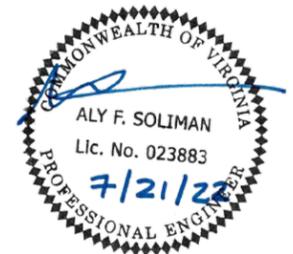


TYPICAL SECTION
NOT TO SCALE

NOTES:

1. TEMPORARY EXCAVATION SLOPES (IF APPLICABLE) SHALL MEET OSHA REQUIREMENTS, STABILITY OF TEMPORARY EXCAVATION SLOPES IS THE RESPONSIBILITY OF THE CONTRACTOR.
2. OUTLET PERFORATED DRAINAGE PIPES INTO A NEARBY STORM STRUCTURE, OR DAYLIGHT AT LOW ENDS OF WALL, OR USE WEEP HOLES THROUGH THE FACING UNITS (AS SHOWN), AS APPLICABLE. OUTLET DESIGN/SELECTION BY OTHERS.
3. WRAP ALL PERFORATED DRAINAGE PIPES SURROUNDED BY SOIL BACKFILL WITH NO. 57 STONE AND GEOTEXTILE (12" x 12" MIN.), AS APPLICABLE. ALL OUTLET PIPES SHALL BE SOLID/NON-PERFORATED.
4. A FENCE, A HANDRAIL, OR OTHER MEANS OF PERMANENT FALL PROTECTION WILL BE INSTALLED ALONG THE TOP OF THE RETAINING WALL(S) WHERE THE EXPOSED RETAINING WALL HEIGHT IS 30 INCHES OR GREATER, OR AS REQUIRED BY LOCAL AUTHORITIES.
5. THE CONTRACTOR SHALL ENSURE ALL SURROUNDING STRUCTURES/EXISTING SLOPES/ROADWAYS ARE PROTECTED FROM THE EFFECTS OF WALL EXCAVATION. STABILITY OF EXISTING STRUCTURES, DURING CONSTRUCTION, IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

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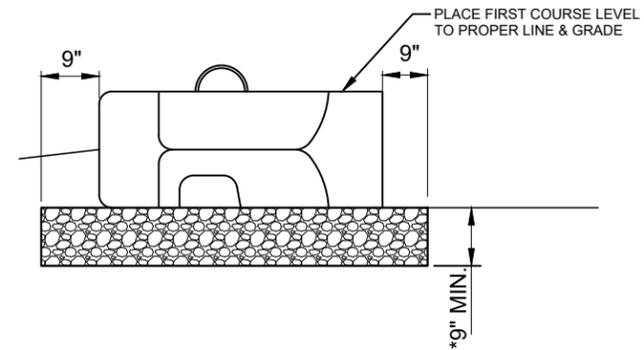
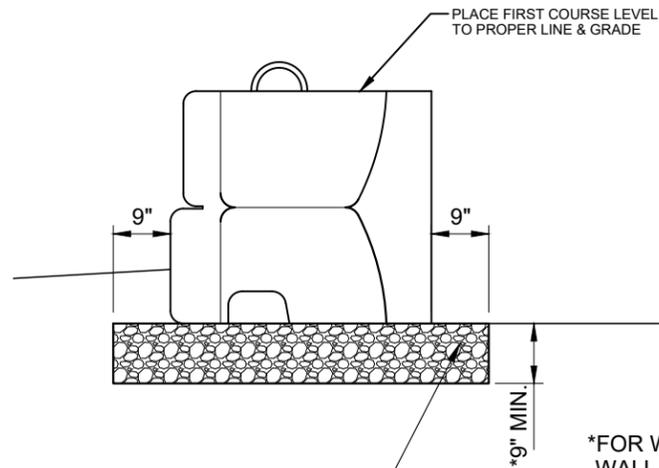
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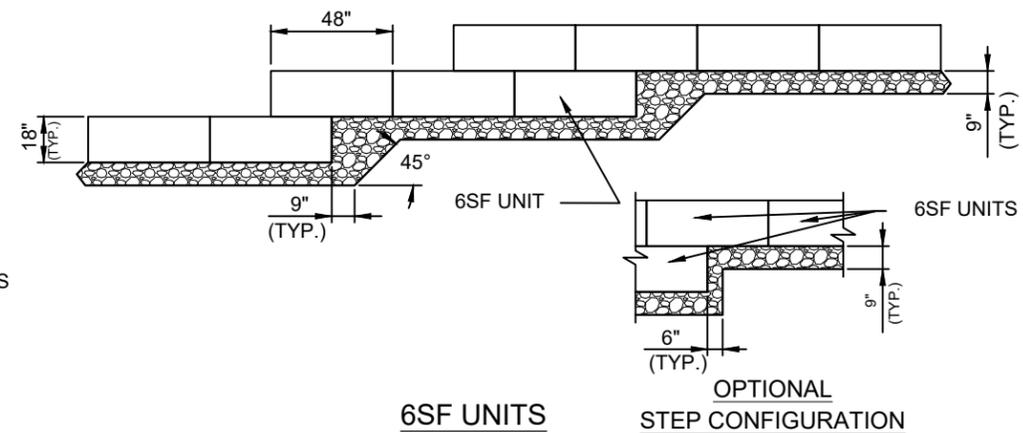
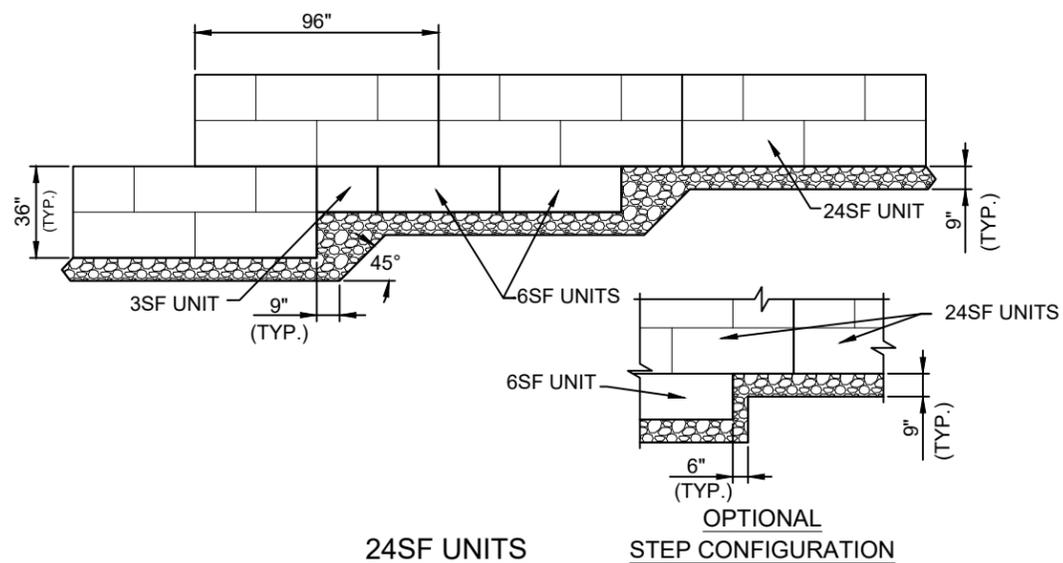


*FOR WALL HEIGHTS OF 6' OR LESS,
WALL BASE THICKNESS MAY BE REDUCED TO 6".

WALL BASE
(SEE NOTE 3 ON SHEET 2)

TYPICAL WALL BASE DETAIL

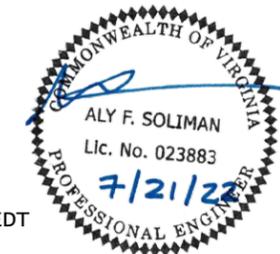
NOT TO SCALE



TYPICAL BOTTOM OF WALL STEPS

NOT TO SCALE

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A.F.S.
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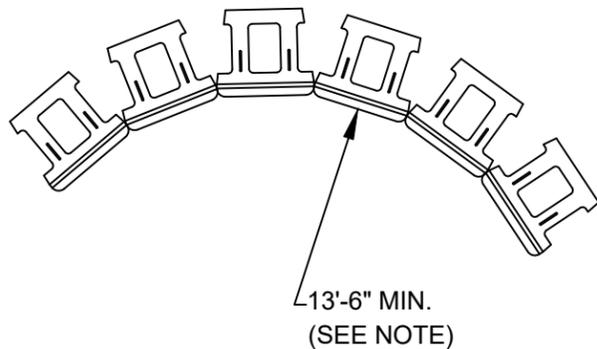
8/11/2022 | 11:13:57 AM EDT



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Springfield, VA 22153
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Rev. No.	Description	By:	Date:	Date Drawn:	Project:	
				07/21/2022	419 MAPLE AVENUE Vienna, VA 22180	
				Designed By: AFS		
				Drawn By: AAA		
				Checked By: AFS		
					Title:	TYPICAL WALL DETAILS 1 OF 2
					Sheet:	7
					Project No.:	VA22028

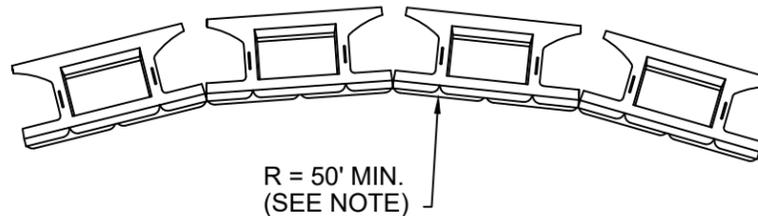
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Minimum Concave Radius		
Wall Height (ft)	Total # of Courses	Reqd. Radius at Top Course
3	2	13' 8"
4 1/2	3	13' 10"
6	4	14' 0"
7 1/2	5	14' 2"
9	6	14' 4"
10 1/2	7	14' 6"
12	8	14' 8"

NOTE:
MINIMUM RADIUS AT LOWEST COURSE.
RADIUS INCREASES 2" PR COURSE
ABOVE, AS SHOWN ON TABLE.

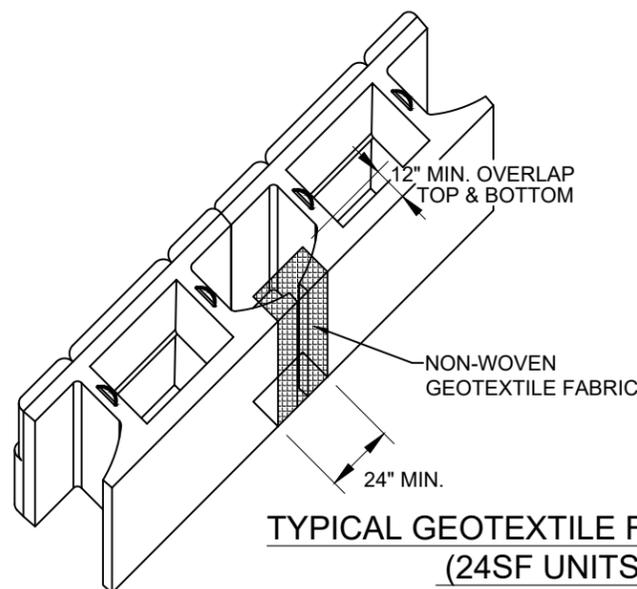
MINIMUM CONCAVE RADIUS
(6SF UNITS SHOWN)
NOT TO SCALE



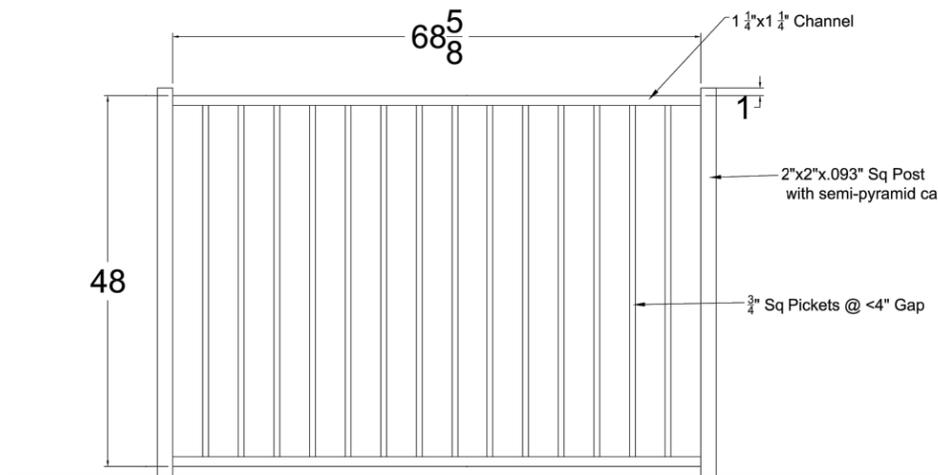
Minimum Concave Radius		
Wall Height (ft)	Total # of Courses	Reqd. Radius at Top Course
6	2	46' 4"
9	3	46' 8"
12	4	47' 0"
15	5	47' 4"
18	6	47' 8"
21	7	48' 0"
24	8	48' 4"

NOTE:
MINIMUM RADIUS AT LOWEST COURSE.
RADIUS INCREASES 2" PR COURSE
ABOVE, AS SHOWN ON TABLE.

MINIMUM CONCAVE RADIUS
(24SF UNITS SHOWN)
NOT TO SCALE



TYPICAL GEOTEXTILE FABRIC PLACEMENT
(24SF UNITS SHOWN)
NOT TO SCALE

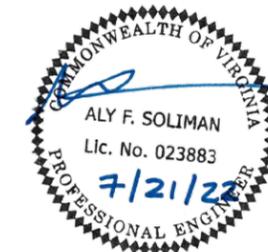


Notes:

1. Pre-fabricated aluminum using commercial grade components
2. All Parts finished smooth and powder-coated in Semi-Gloss Black
3. Panel lengths can be shortened to fit smaller spans b/w posts
4. Affix rail brackets to posts where elevation changes occur

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TYPICAL PEDESTRIAN HANDRAIL DETAIL
SCALE: N.T.S



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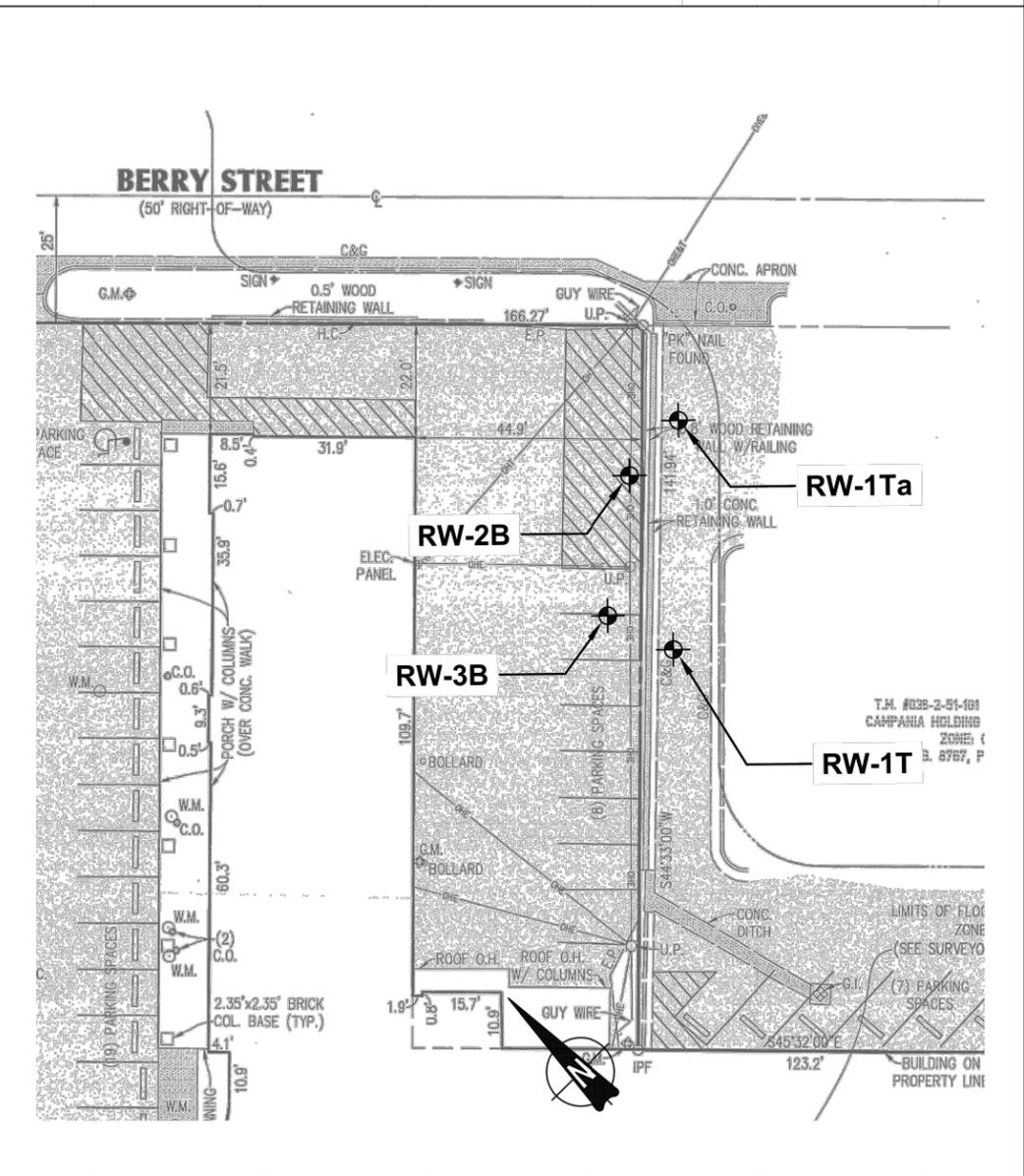
Rev. No.	Description	By:	Date:	Date Drawn:	Project:	
				07/21/2022	419 MAPLE AVENUE Vienna, VA 22180	
				Designed By: AFS		
				Drawn By: AAA		
				Checked By: AFS		
					Title:	TYPICAL WALL DETAILS 2 OF 2
					Sheet:	8
					Project No.:	VA22028

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Subject: Boring Location Plan (N.T.S) Date: 06/21/2022 By: AAA Page
 Project: VA22028 419 Maple Avenue E, Vienna, VA 22180 Rev.: By:

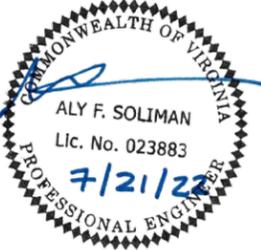


Hand-Auger Boring Investigation Notes:

1. Four (4) shallow Hand-Auger Test Borings were performed by AFS Geo to evaluate subsurface conditions along the retaining wall.
2. Dynamic Cone Penetration (DCP) testing was performed in the Hand-Auger Test Borings at the depth intervals shown on the boring logs.
3. The Hand-Auger Test Borings were performed on June 19 & 20, 2022.
4. Groundwater observations were made in the three test borings up to 24 hours following the completion of the drilling activities.

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Rev. No.	Description	By:	Date:	Date Drawn:	Project:	
				07/21/2022	419 MAPLE AVENUE Vienna, VA 22180	
				Designed By: AFS		
				Drawn By: AFS		
				Checked By: AFS		
					Title: GEOTECHNICAL DATA 1 OF 3	Sheet: 9 Project No.: VA22028

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AFS Geo Consultants, LLC

Hand Auger Log

Project: 419 Maple Avenue E		Project Number: VA22028		Client: MTR Earth Consulting, LLC		Test Hole No. RW-1T	
Address, City, State 419 Maple Avenue E, Vienna, VA 22180				Groundwater Level Readings: During Hand Augering: DRY At Completion: DRY After Completion: 6/19/2022 WET 30 Minutes 6/20/2022 WET 1 Day			
Logged By: AAA		Date Started: 6/19/2022		At Completion: 6/19/2022		30 Minutes	
Reviewed By: AFS		Date Completed: 6/19/2022		6/20/2022		1 Day	
		Bakfilled: 6/20/2022		Ground Surface Elevation: 104.00 ±			

Depth (feet)	Sample Type	Sample Number	DCP Blow Counts (blows/1.75 inches)	Graphic Log	Material Description	Moisture Content (%)	% Passing the #200 Sieve	Liquid Limit
1	<input checked="" type="checkbox"/>	S-1	4-5-10		6" Asphalt Dark brown LEAN CLAY (FILL), moist.			
2	<input checked="" type="checkbox"/>	S-2						
3	<input checked="" type="checkbox"/>	S-3						
4	<input checked="" type="checkbox"/>	S-4	15-15-16		Wet and contains gravel below 4'			
5	<input checked="" type="checkbox"/>	S-5						
6	<input checked="" type="checkbox"/>	S-6						
7	<input checked="" type="checkbox"/>	S-7	8-14-16					
8	<input checked="" type="checkbox"/>	S-8						
8					Hand auger hole terminated at 8.00 ft. EL 96 Installed a solid 3" PVC pipe for groundwater monitoring.			

- Standard Penetration Split Spoon Sampler (SPT)
- Disturbed Soil Sample
- Shelby Tube
- DCP Dynamic Cone Penetration Test
- Ground water at Completion
- Groundwater At time of Drilling

AFS Geo Consultants, LLC

Hand Auger Log

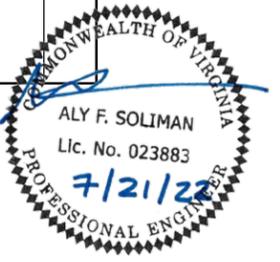
Project: 419 Maple Avenue E		Project Number: VA22028		Client: MTR Earth Consulting, LLC		Test Hole No. RW-1Ta	
Address, City, State 419 Maple Avenue E, Vienna, VA 22180				Groundwater Level Readings: During Hand Augering: DRY At Completion: DRY After Completion: 6/20/2022 DRY 30 Minutes 6/20/2022 DRY 1 Day			
Logged By: AAA		Date Started: 6/20/2022		At Completion: 6/20/2022		30 Minutes	
Reviewed By: AFS		Date Completed: 6/20/2022		6/20/2022		1 Day	
		Bakfilled: 6/20/2022		Ground Surface Elevation: 105.00 ±			

Depth (feet)	Sample Type	Sample Number	DCP Blow Counts (blows/1.75 inches)	Graphic Log	Material Description	Moisture Content (%)	% Passing the #200 Sieve	Liquid Limit
1	<input checked="" type="checkbox"/>	S-1	4-5-4		6" Asphalt Brown LEAN CLAY (FILL), moist, contains rock fragments.			
2	<input checked="" type="checkbox"/>	S-2						
3	<input checked="" type="checkbox"/>	S-3						
3					Encountered a wood deadman at bottom of boring.			
4					Hand auger hole terminated at 3.00 ft. EL 102 Hand auger hole terminated upon encountering auger refusal . Installed a solid 3" PVC pipe for groundwater monitoring.			
5								
6								
7								
8								
9								
10								
11								
12								
13								
15								

- Standard Penetration Split Spoon Sampler (SPT)
- Disturbed Soil Sample
- Shelby Tube
- DCP Dynamic Cone Penetration Test
- Ground water at Completion
- Groundwater At time of Drilling

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A.F.S.



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Rev. No.	Description	By:	Date:	Date Drawn: 07/21/2022	Project: 419 MAPLE AVENUE Vienna, VA 22180
				Designed By: AAA	Title: GEOTECHNICAL DATA 2 OF 3
				Drawn By: AAA	
				Checked By: AFS	
					Sheet: 10
					Project No.: VA22028

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AFS Geo Consultants, LLC Hand Auger Log

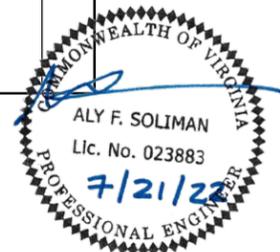
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Address, City, State 419 Maple Avenue E, Vienna, VA 22180				Groundwater Level Readings: During Hand Augering: DRY At Completion: DRY After Completion: 6/19/2022 WET 30 Minutes 6/20/2022 WET 1 Day				
Logged By: AAA		Date Started: 6/19/2022		Date Completed: 6/19/2022		Date Bakfilled: 6/20/2022		
Reviewed By: AFS		Date Completed: 6/19/2022		Date Bakfilled: 6/20/2022		Ground Surface Elevation: 100.00 ±		
Depth (feet)	Sample Type	Sample Number	DCP Blow Counts (blows/1.75 inches)	Graphic Log	Material Description	Moisture Content (%)	% Passing the #200 Sieve	Liquid Limit
1	<input checked="" type="checkbox"/>	S-1			6" Asphalt Brown LEAN CLAY (FILL), moist.			
2	<input checked="" type="checkbox"/>	S-2						
3	<input checked="" type="checkbox"/>	S-3	6-8-14		Light brown silty SAND (FILL), moist contains gravel.			
4	<input checked="" type="checkbox"/>	S-4			Wet			
5	<input checked="" type="checkbox"/>	S-5	18-30-37					
6	<input checked="" type="checkbox"/>	S-6			Hand auger hole terminated at 5.50 ft. EL 94.5 Hand auger hole terminated upon encountering auger refusal . Installed a solid 3" PVC pipe for groundwater monitoring.			
7	<input checked="" type="checkbox"/>							
8	<input checked="" type="checkbox"/>							
9	<input checked="" type="checkbox"/>							
10	<input checked="" type="checkbox"/>							
11	<input checked="" type="checkbox"/>							
12	<input checked="" type="checkbox"/>							
13	<input checked="" type="checkbox"/>							
14	<input checked="" type="checkbox"/>							
15	<input checked="" type="checkbox"/>							

- Standard Penetration Split Spoon Sampler (SPT)
- Disturbed Soil Sample
- Shelby Tube
- DCP Dynamic Cone Penetration Test
- Ground water at Completion
- Groundwater At time of Drilling

AFS Geo Consultants, LLC Hand Auger Log

Project: 419 Maple Avenue E		Project Number: VA22028		Client: MTR Earth Consulting, LLC		Test Hole No. RW-3B		
Address, City, State 419 Maple Avenue E, Vienna, VA 22180				Groundwater Level Readings: During Hand Augering: DRY At Completion: DRY After Completion: 6/19/2022 WET 30 Minutes 6/20/2022 WET 1 Day				
Logged By: AAA		Date Started: 6/19/2022		Date Completed: 6/19/2022		Date Bakfilled: 6/20/2022		
Reviewed By: AFS		Date Completed: 6/19/2022		Date Bakfilled: 6/20/2022		Ground Surface Elevation: 100.00 ±		
Depth (feet)	Sample Type	Sample Number	DCP Blow Counts (blows/1.75 inches)	Graphic Log	Material Description	Moisture Content (%)	% Passing the #200 Sieve	Liquid Limit
1	<input checked="" type="checkbox"/>	S-1			6" Asphalt Brown lean clay (FILL), moist.			
2	<input checked="" type="checkbox"/>	S-2						
3	<input checked="" type="checkbox"/>	S-3	8-14-17		Light brown silty SAND (SM), moist contains gravel.			
4	<input checked="" type="checkbox"/>	S-4			Wet and gravel below 4'			
5	<input checked="" type="checkbox"/>	S-5	14-50+					
6	<input checked="" type="checkbox"/>	S-6			Hand auger hole terminated at 5.50 ft. EL 94.5 Hand auger hole terminated upon encountering auger refusal . Installed a solid 3" PVC pipe for groundwater monitoring.			
7	<input checked="" type="checkbox"/>							
8	<input checked="" type="checkbox"/>							
9	<input checked="" type="checkbox"/>							
10	<input checked="" type="checkbox"/>							
11	<input checked="" type="checkbox"/>							
12	<input checked="" type="checkbox"/>							
13	<input checked="" type="checkbox"/>							
14	<input checked="" type="checkbox"/>							
15	<input checked="" type="checkbox"/>							

- Standard Penetration Split Spoon Sampler (SPT)
- Disturbed Soil Sample
- Shelby Tube
- DCP Dynamic Cone Penetration Test
- Ground water at Completion
- Groundwater At time of Drilling



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				07/21/2022	419 MAPLE AVENUE Vienna, VA 22180	GEOTECHNICAL DATA 3 OF 3	11
				Designed By: AAA			Project No.: VA22028
				Drawn By: AAA			
				Checked By: AFS			