

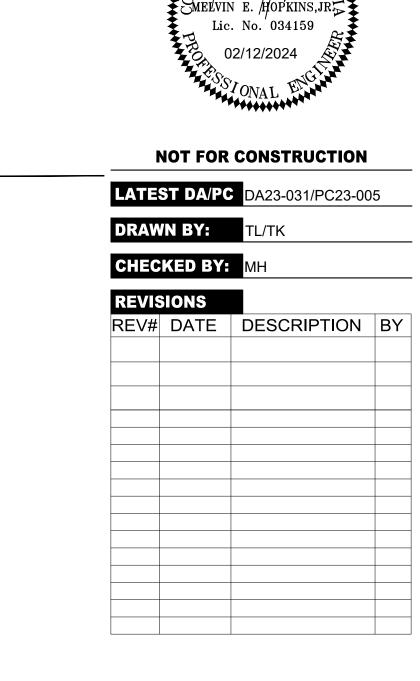
**BID SET** 

02/12/2024

SERVICE

CARWASH





THE AUTO SUPERSTORE

CARMAX THE AUTO SUPERSTORE
CARMAX THE AUTO SUPERSTORE
CARMAX THE AUTO SUPERSTORE
CARMAX THE AUTO SUPERSTORE
(12800 TUCKAHOE OREEK PKWY. RICHMOND. VA 23238
(804)747-0422

SERVICE & CARWASH

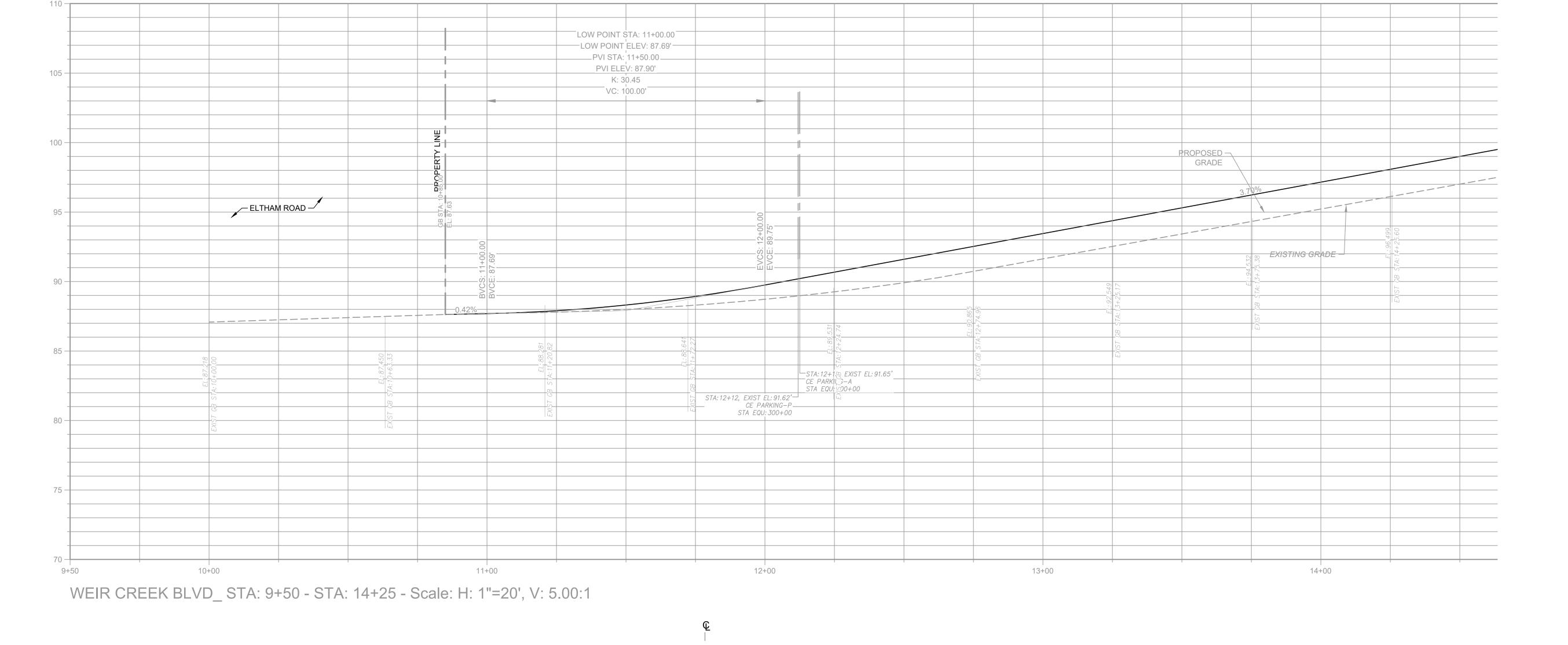
STORE NO 4007
16931 BLDG - 1, ELTHAM RD E
NEW KENT CO., VIRGINIA 23089

S & E
20-22195.02
02/12/2024

WEIR CREEK
BOULEVARD PLAN &
PROFILE

PROFIL

SHEET NO. C-101



TYPICAL ROADWAY SECTION N.T.S.

EXIST. GROUND LINE MINIMUM PAVEMENT DESIGN REQUIREMENT

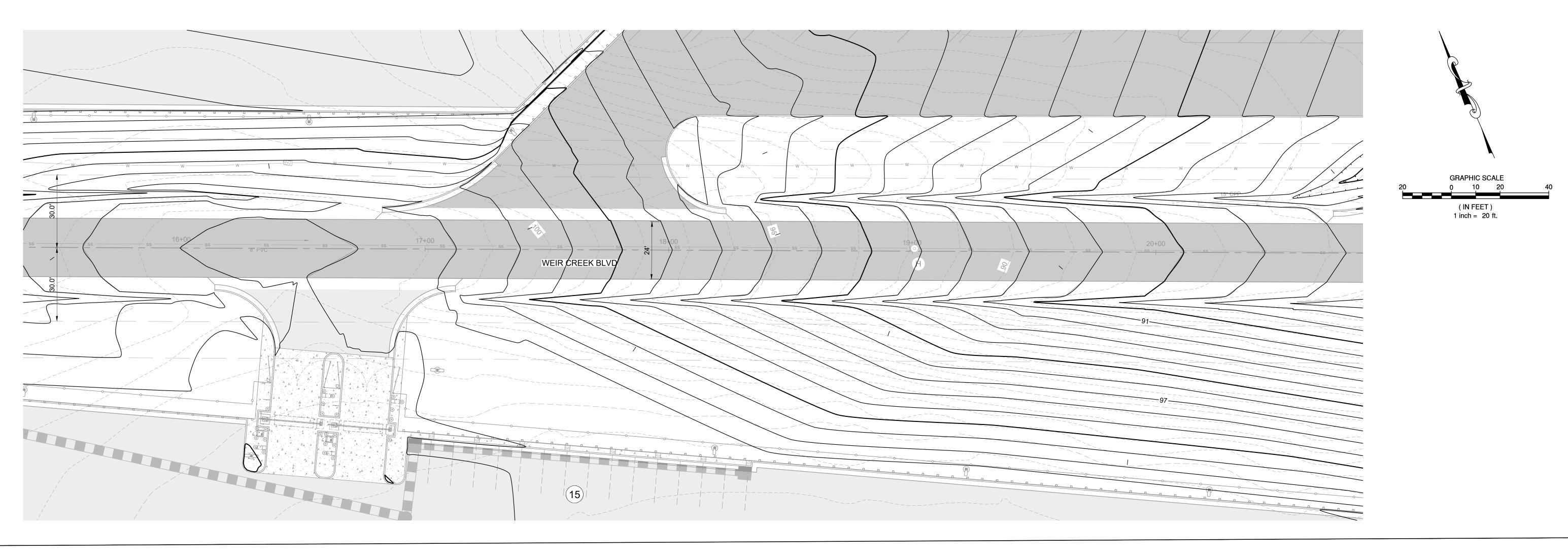
3" BM-25 ASPHALT

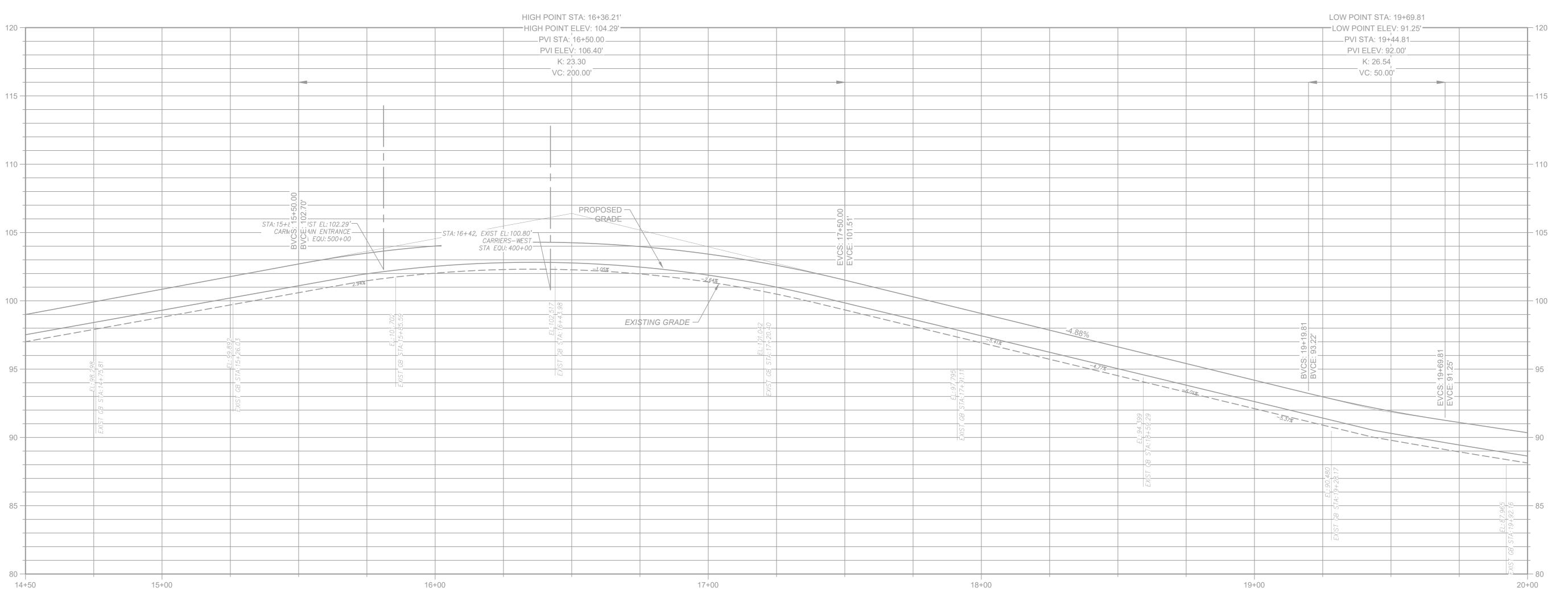
8" VDOT 21-A STONE SURFACE

2" SM-9.5A ASPHALT

EXIST. GROUND LINE







WEIR CREEK BLVD, STA 14+25 - STA 19+00 - Scale: H: 1"=20', V: 5.00:1

BID SET 02/12/2024 SERVICE & CARWASH



NOT FOR CONSTRUCTION

LATEST DA/PC

DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH

REV# DATE DESCRIPTION BY

THE AUTO SUPERSTORE

ARMAX THE AUTO SUPERSTORE WEST COAST, INC.
2800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
304)747-0422

SERVICE & CARWASH

STORE NO 4007

16931 BLDG - 1, ELTHAM RD E

16931 BLDG - 1, FLTHAM RD E

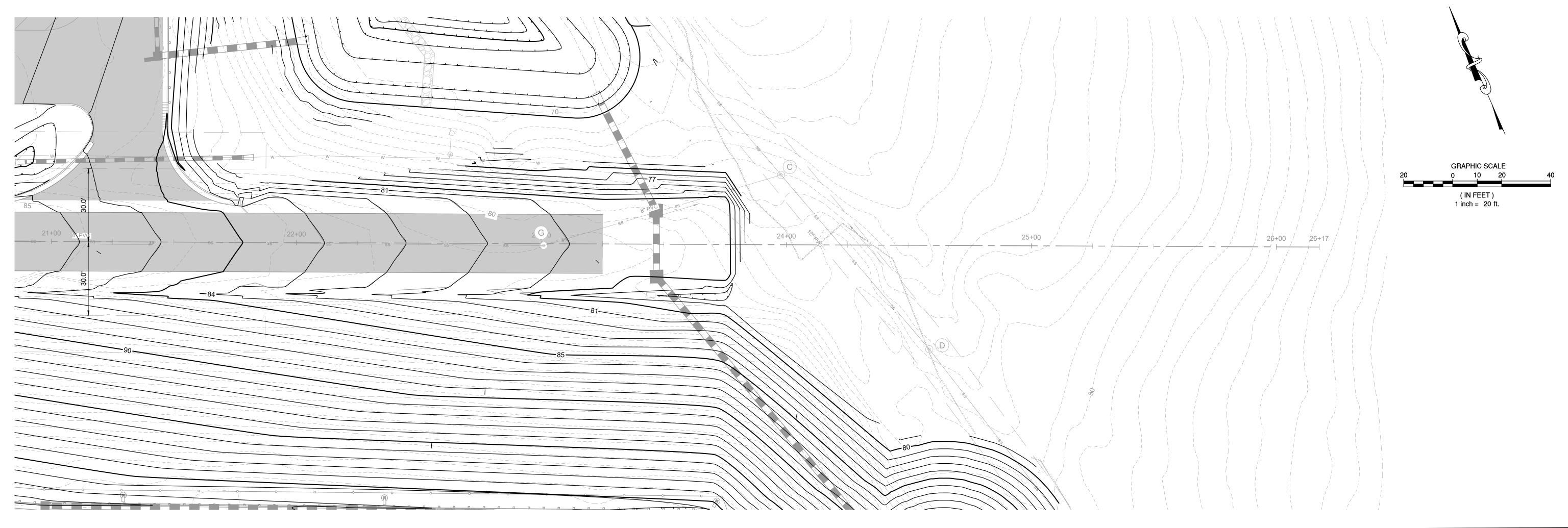
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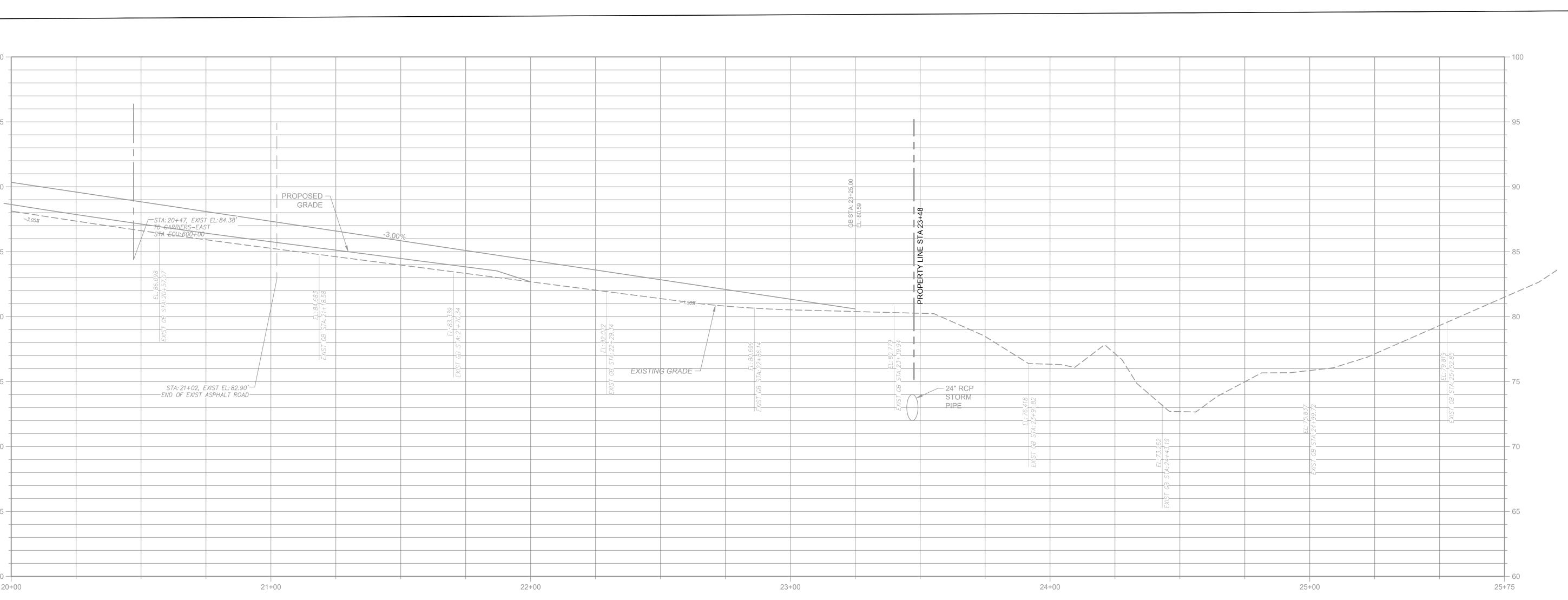
PROJECT NO. 20-22195.02

DATE 02/12/2024

WEIR CREEK BOULEVARD PLAN & PROFILE

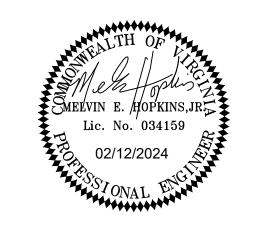






WEIR CREEK BLVD, STA: 19+00 - STA: 23+75 - Scale: H: 1"=20', V: 5.00:1

BID SET 02/12/2024 SERVICE & CARWASH



NOT FOR CONSTRUCTION

LATEST DA/PCDA23-031/PC23-005DRAWN BY:TL/TK

CHECKED BY: MH

REVIS	DATE	DESCRIPTION	В
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			-

THE AUTO SUPERSTORE

SECTION SUPERSTORE

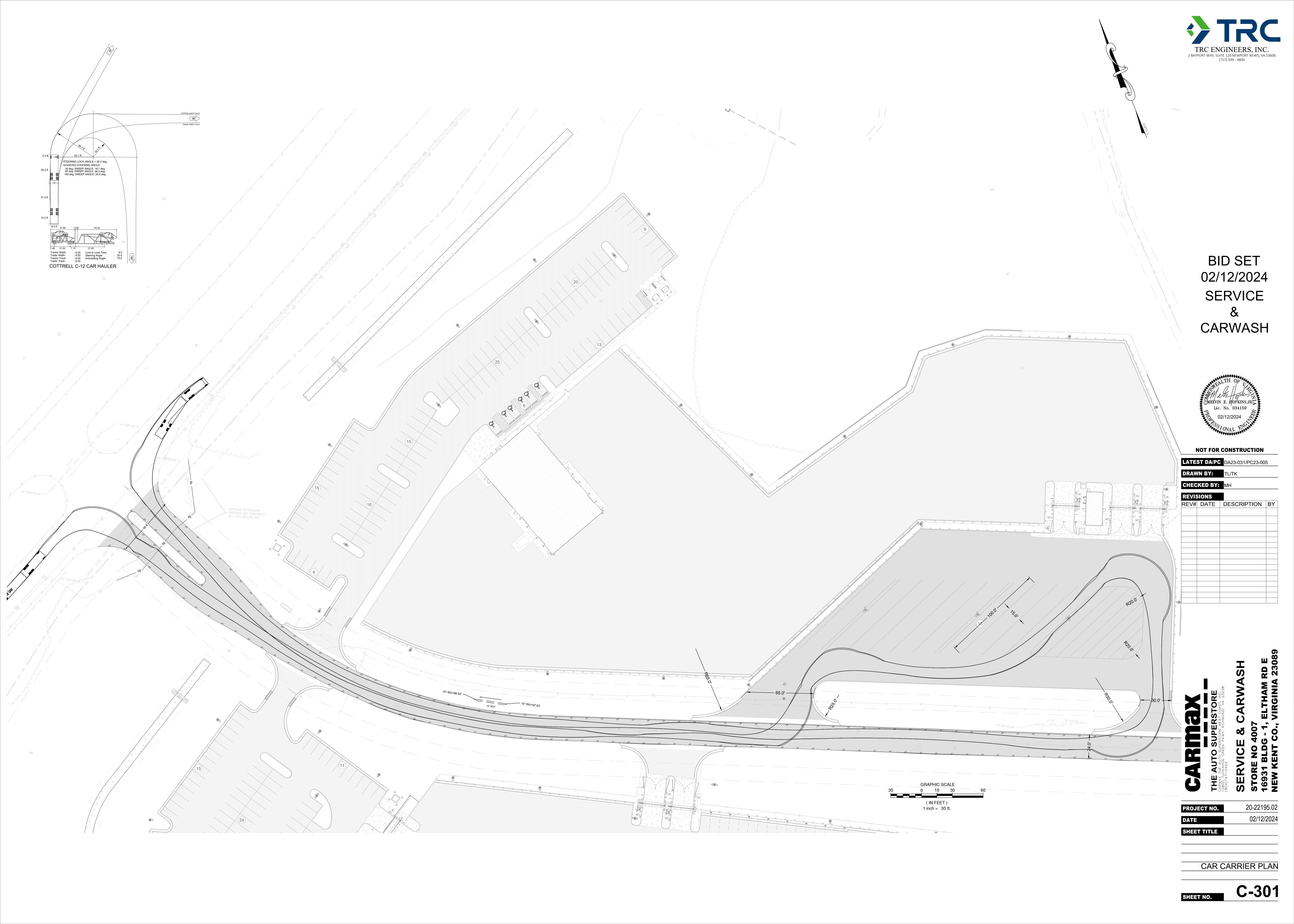
SECTI

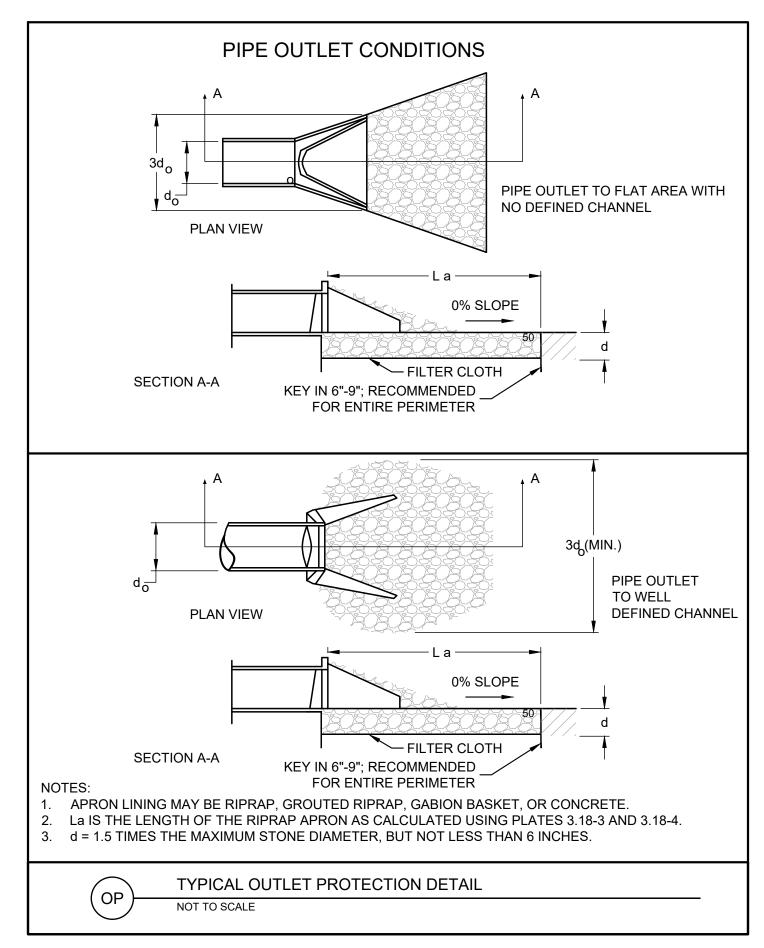
PROJECT NO.
DATE

WEIR CREEK BOULEVARD PLAN & PROFILE

20-22195.02

02/12/2024





ORIGINAL GROUND SURFACE

VDOT #1 COARSE

67 C.Y (MIN.)

DRY STORAGE/ACRE

67 C.Y WET STORAGE/ACRE

AGGREGATE \(^\)

CLASS I RIPRAP —

FILTER FABRIC -

TEMPORARY SEDIMENT TRAP

NOT TO SCALE

**CROSS SECTION** 

SEDIMENT TRAP OUTLET

EXCAVATED

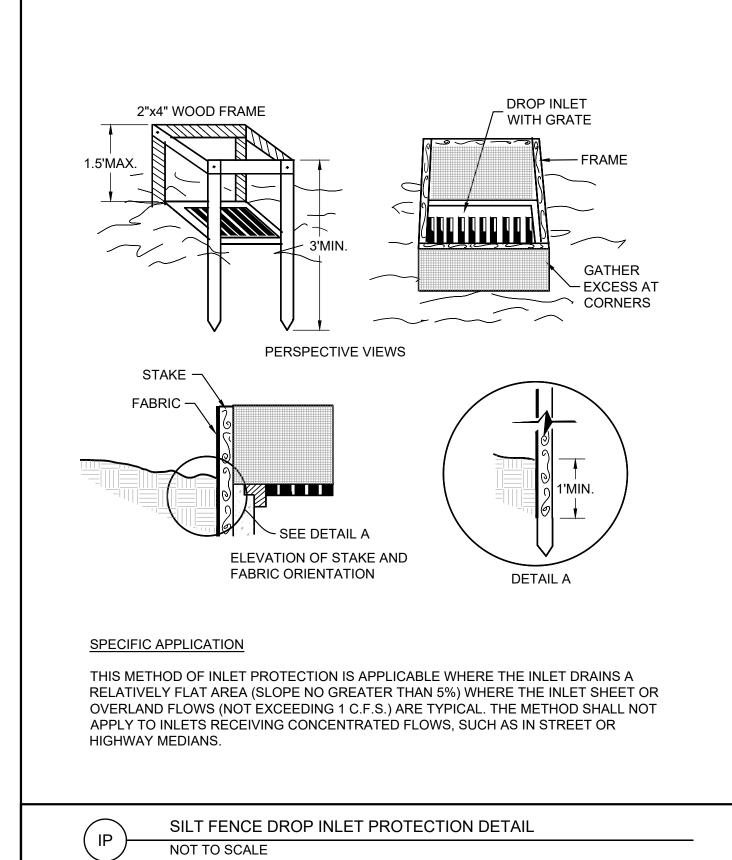
**AGGREGATE** 

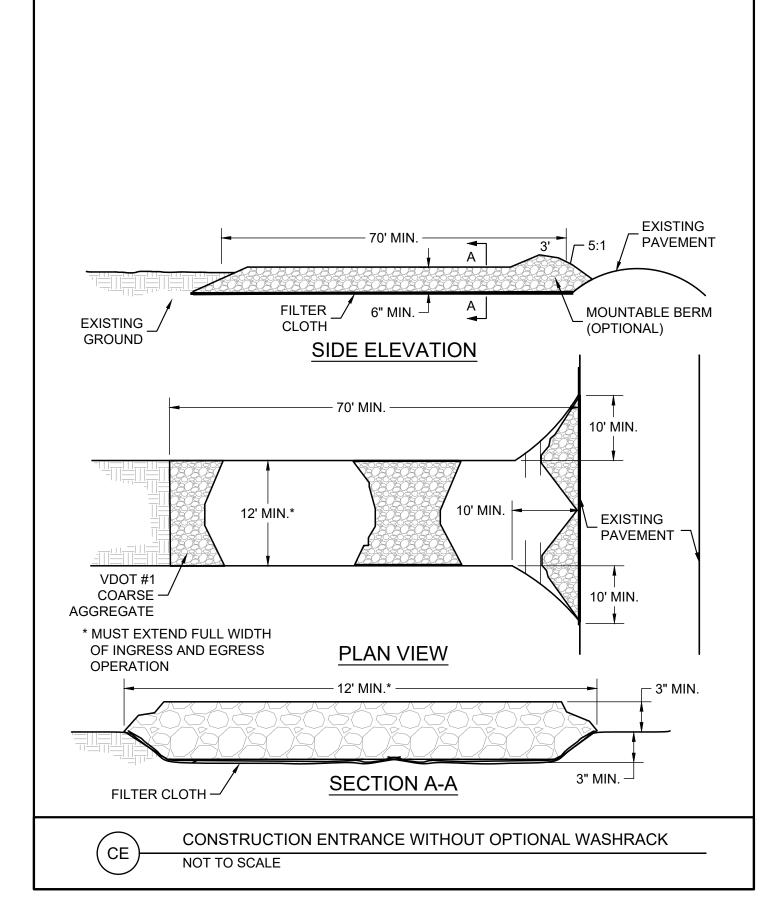
P SEE PLAN

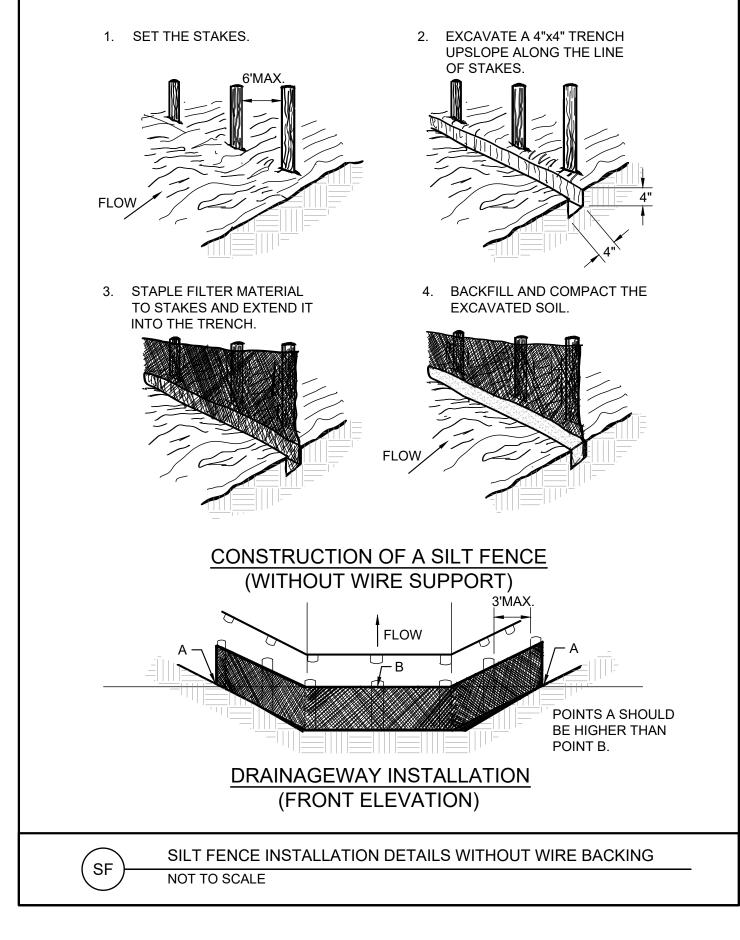
CLASS I RIPRAP

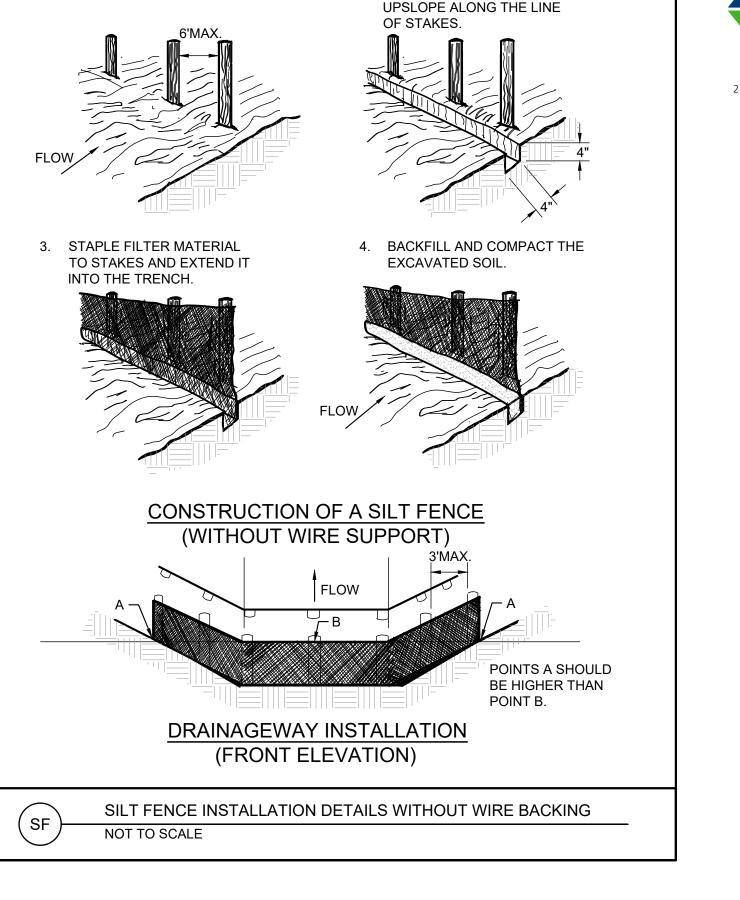
- FILTER FABRIC

DIVERSION









← ENDWALL

---- CULVERT

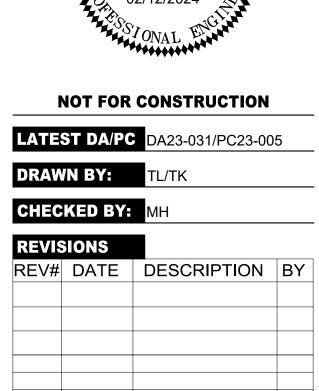
TOE OF

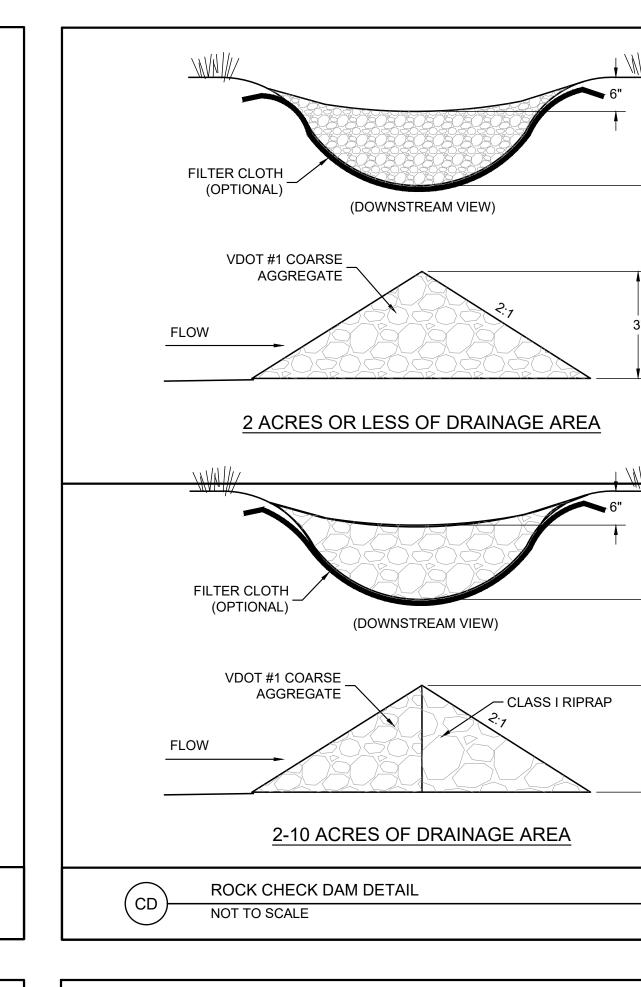
TOE OF



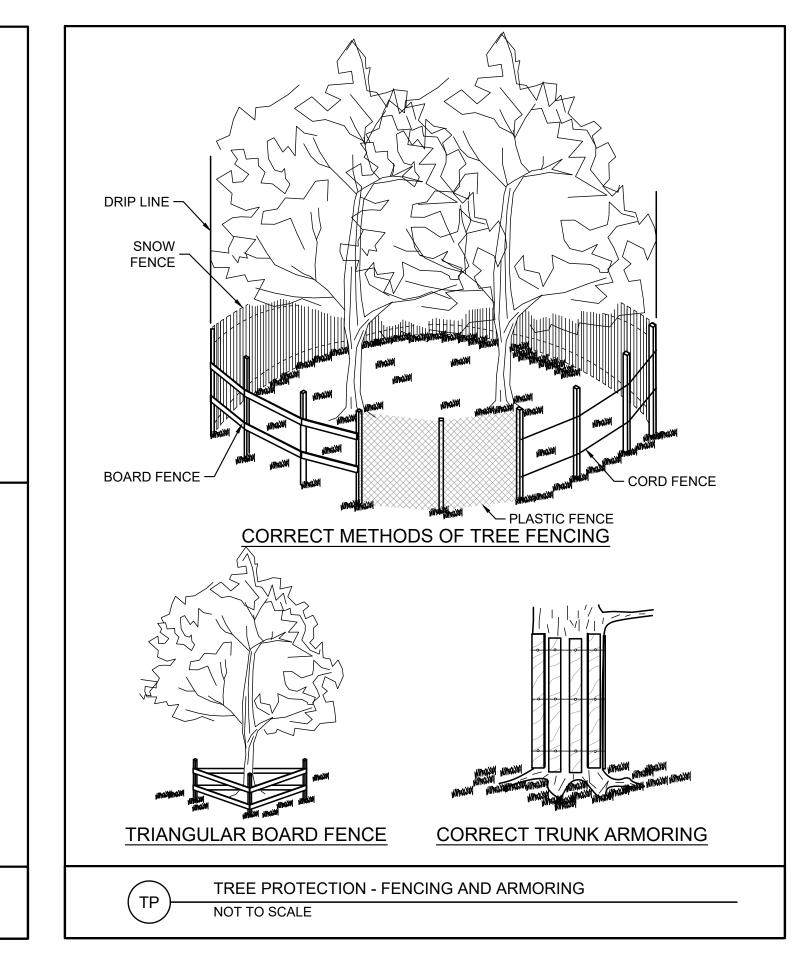


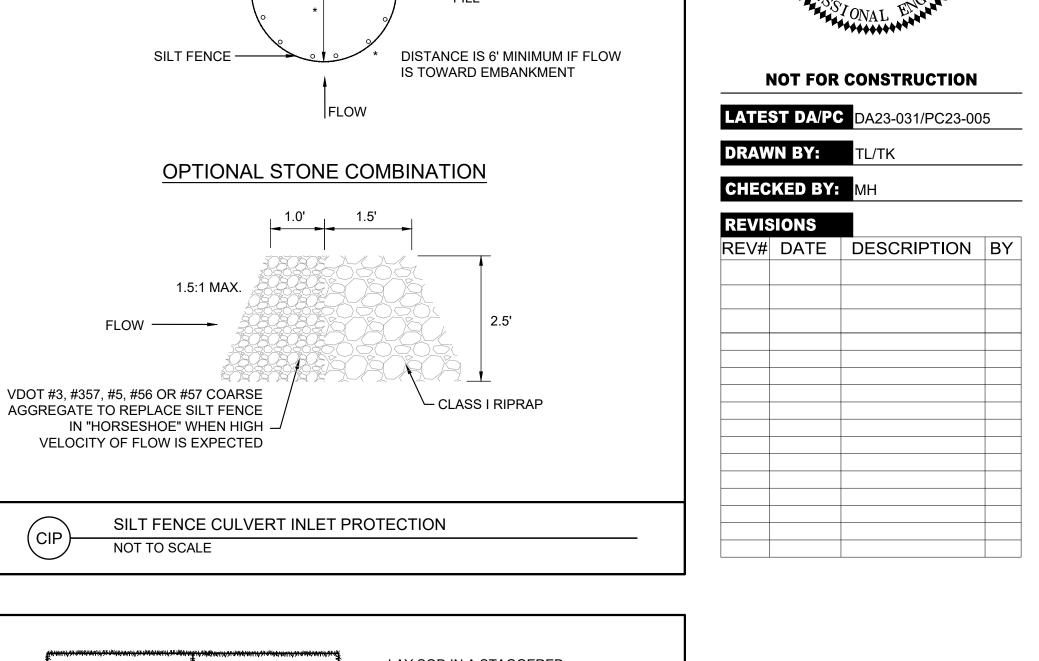


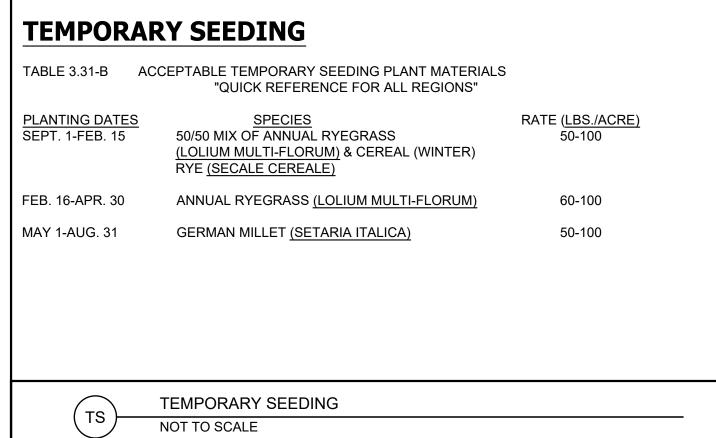


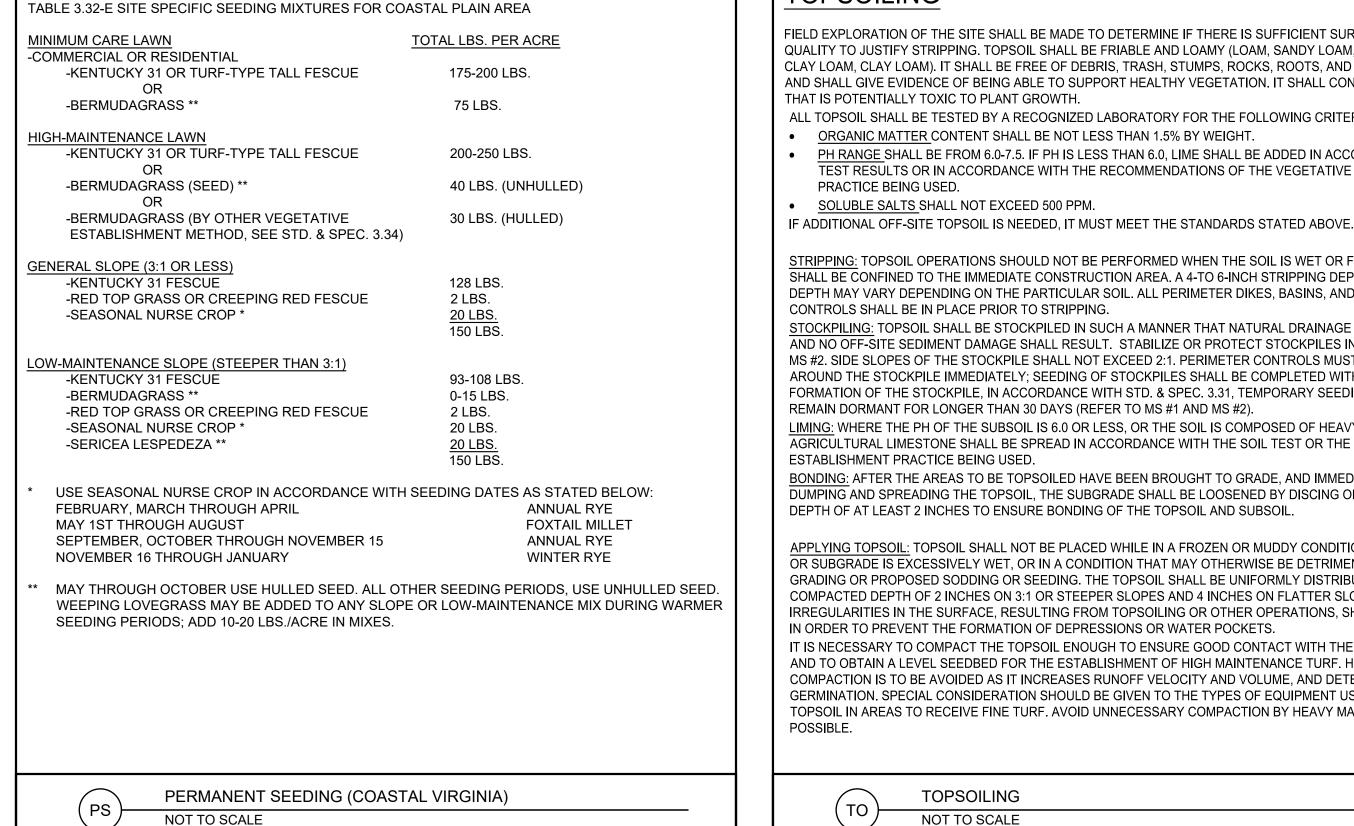


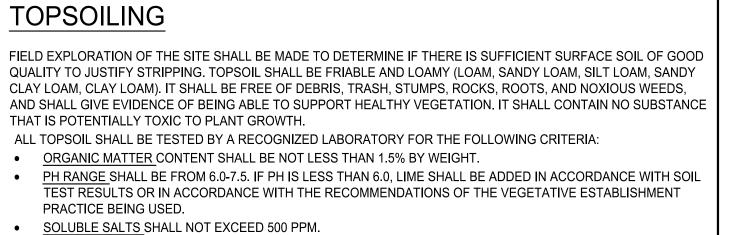
PERMANENT SEEDING











STRIPPING: TOPSOIL OPERATIONS SHOULD NOT BE PERFORMED WHEN THE SOIL IS WET OR FROZEN. STRIPPING SHALL BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA. A 4-TO 6-INCH STRIPPING DEPTH IS COMMON, BUT DEPTH MAY VARY DEPENDING ON THE PARTICULAR SOIL. ALL PERIMETER DIKES, BASINS, AND OTHER SEDIMENT CONTROLS SHALL BE IN PLACE PRIOR TO STRIPPING.

STOCKPILING: TOPSOIL SHALL BE STOCKPILED IN SUCH A MANNER THAT NATURAL DRAINAGE IS NOT OBSTRUCTED AND NO OFF-SITE SEDIMENT DAMAGE SHALL RESULT. STABILIZE OR PROTECT STOCKPILES IN ACCORDANCE WITH MS #2. SIDE SLOPES OF THE STOCKPILE SHALL NOT EXCEED 2:1. PERIMETER CONTROLS MUST BE PLACED AROUND THE STOCKPILE IMMEDIATELY; SEEDING OF STOCKPILES SHALL BE COMPLETED WITHIN 7 DAYS OF THE FORMATION OF THE STOCKPILE. IN ACCORDANCE WITH STD. & SPEC. 3.31, TEMPORARY SEEDING IF IT IS TO REMAIN DORMANT FOR LONGER THAN 30 DAYS (REFER TO MS #1 AND MS #2).

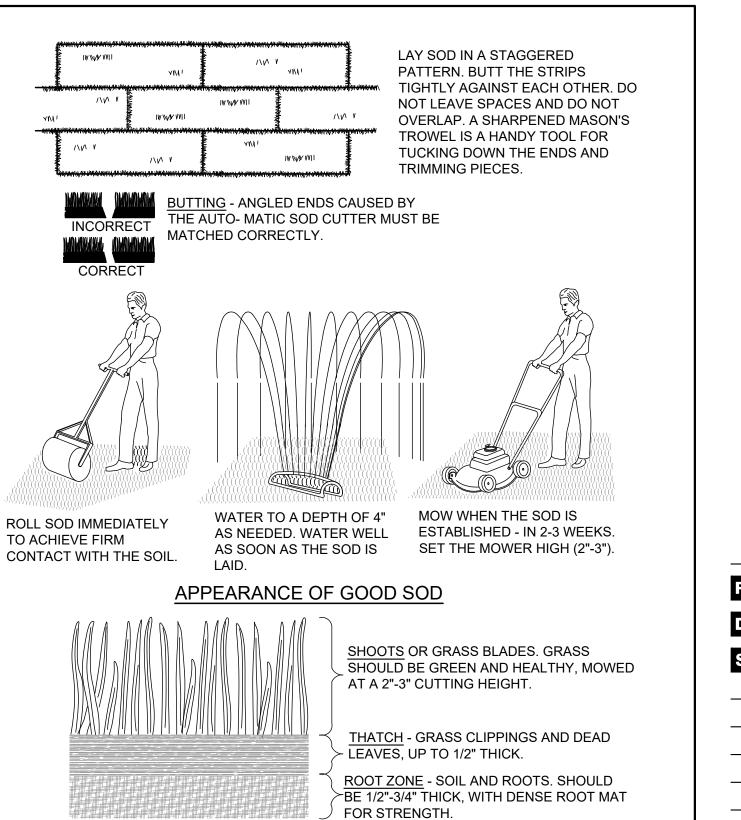
LIMING: WHERE THE PH OF THE SUBSOIL IS 6.0 OR LESS, OR THE SOIL IS COMPOSED OF HEAVY CLAYS, AGRICULTURAL LIMESTONE SHALL BE SPREAD IN ACCORDANCE WITH THE SOIL TEST OR THE VEGETATIVE ESTABLISHMENT PRACTICE BEING USED. BONDING: AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO

DUMPING AND SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENED BY DISCING OR SCARIFYING TO A DEPTH OF AT LEAST 2 INCHES TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL. APPLYING TOPSOIL: TOPSOIL SHALL NOT BE PLACED WHILE IN A FROZEN OR MUDDY CONDITION, WHEN TOPSOIL

OR SUBGRADE IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING OR PROPOSED SODDING OR SEEDING. THE TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED TO A MINIMUM COMPACTED DEPTH OF 2 INCHES ON 3:1 OR STEEPER SLOPES AND 4 INCHES ON FLATTER SLOPES. ANY IRREGULARITIES IN THE SURFACE, RESULTING FROM TOPSOILING OR OTHER OPERATIONS, SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.

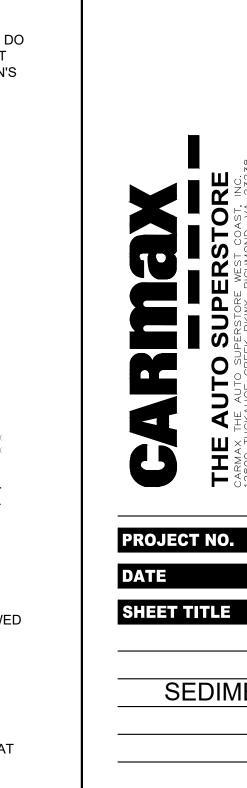
IT IS NECESSARY TO COMPACT THE TOPSOIL ENOUGH TO ENSURE GOOD CONTACT WITH THE UNDERLYING SOIL AND TO OBTAIN A LEVEL SEEDBED FOR THE ESTABLISHMENT OF HIGH MAINTENANCE TURF. HOWEVER, UNDUE COMPACTION IS TO BE AVOIDED AS IT INCREASES RUNOFF VELOCITY AND VOLUME, AND DETERS SEED GERMINATION. SPECIAL CONSIDERATION SHOULD BE GIVEN TO THE TYPES OF EQUIPMENT USED TO PLACE TOPSOIL IN AREAS TO RECEIVE FINE TURF. AVOID UNNECESSARY COMPACTION BY HEAVY MACHINERY WHENEVER POSSIBLE.

TOPSOILING NOT TO SCALE



SODDING

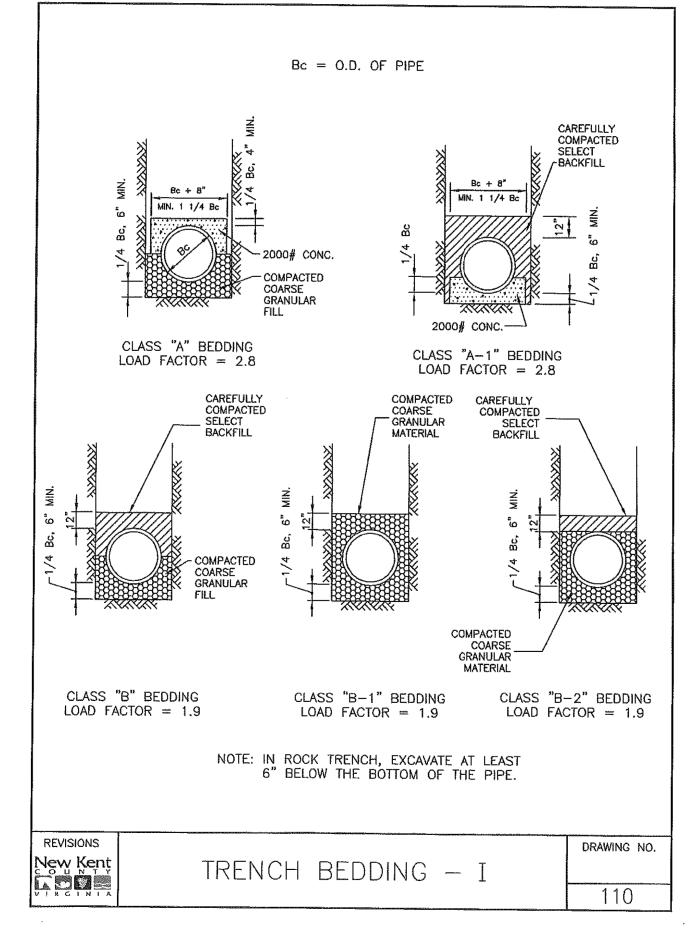
NOT TO SCALE



**EROSION AND** SEDIMENT CONTROL DETAILS

20-22195.02

02/12/2024



PIPE SIZE

| 24 | 63° | 65° | 68° | 71° | 80° | 84° | 88° |

 18
 44°
 46°
 48°
 51°
 57°

 21
 47°
 49°
 51°
 54°
 61°
 64°

 24
 51°
 53°
 54°
 57°
 64°
 67°
 71°

MINIMUM ANGLE FOR COMBINATIONS NOT GIVEN MAY BE DERIVED BY

MANHOLE SIZING AND MINIMUM ANGLE TABLE

New Kent

12 34° 36° 38° 41°

5 37' 39' 41' 44'

8 | 10 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 | 42 | 48 | 54

59° 64° 67° 70° 73° 76° 78° 81° 87°

THICK-WALL OR NON-FLOAT PIPE MUST BE CALCULATED.

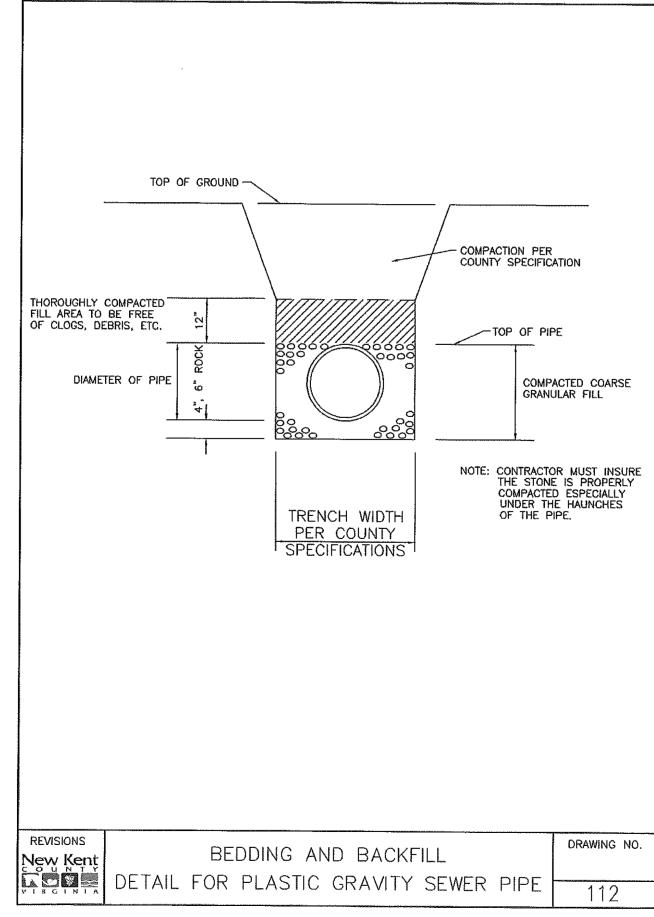
★ D=PIPE DIAMETER W=PIPE WALL THICKNESS

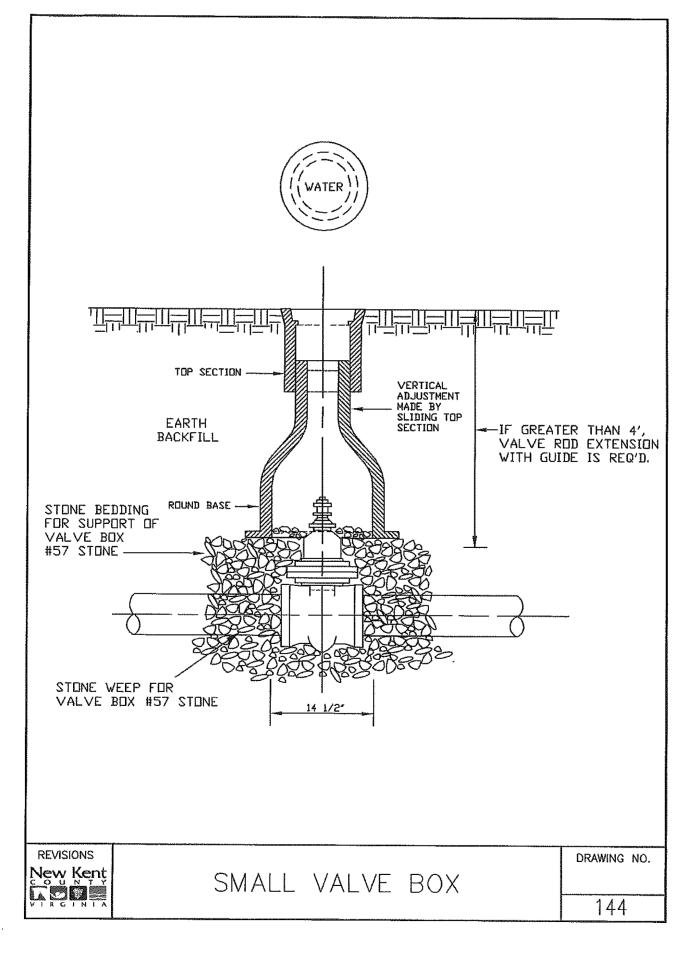
PIPE 18' AND OVER IS ASSUMED TO BE CONCRETE.

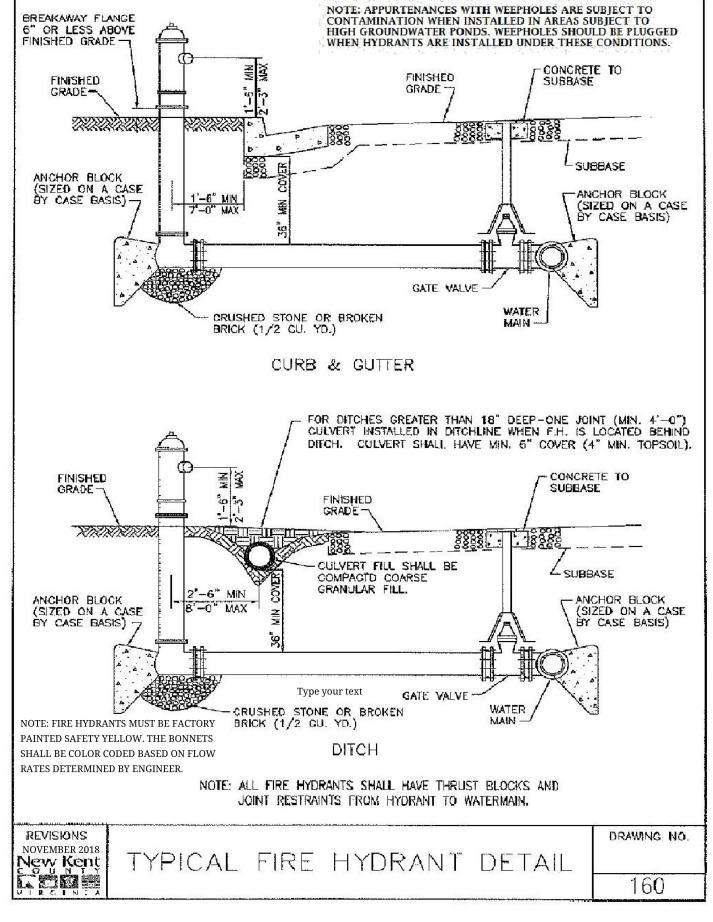
② 42' PIPE WILL BE ALLOWED
IN 72' MH WHERE THE CALCULATION
ALLOWS IT. FOR EXAMPLE, STRAIGHT
THRU OR MIN. ANGLE OVER 92' FOR
TWO 42' PIPES.

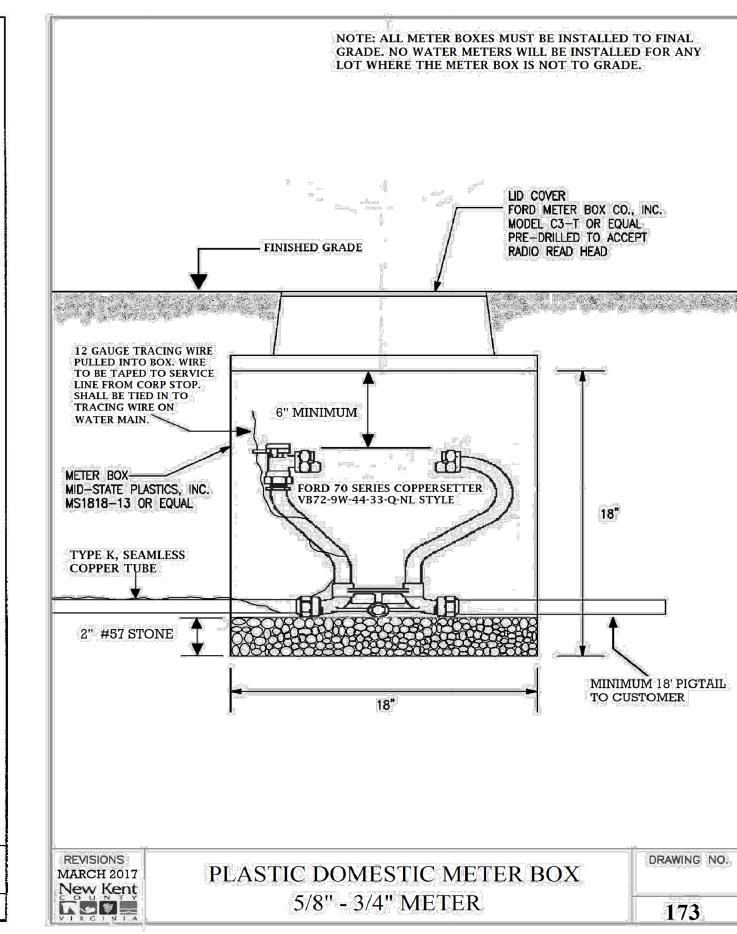
DRAWING NO.

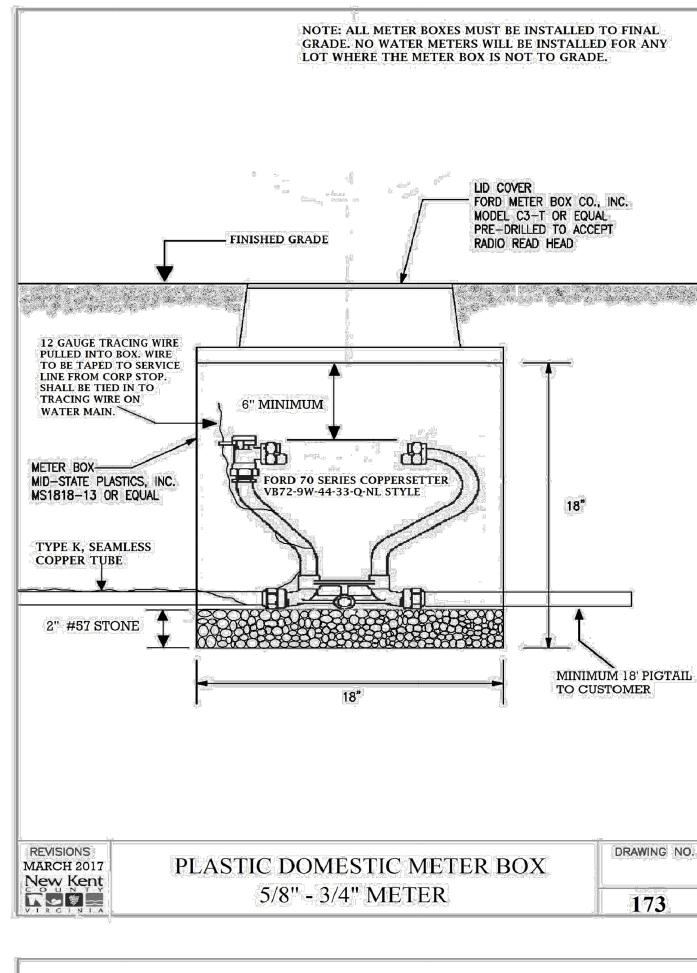
415





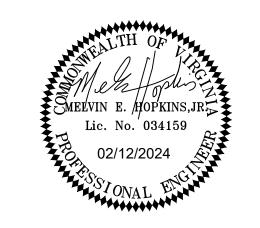


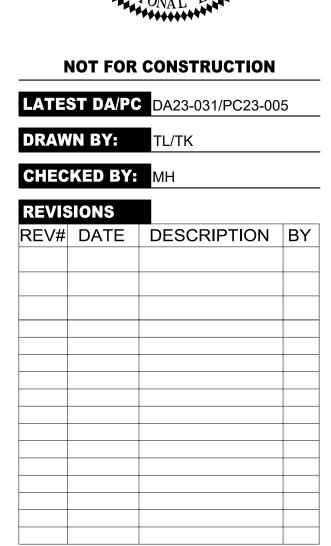




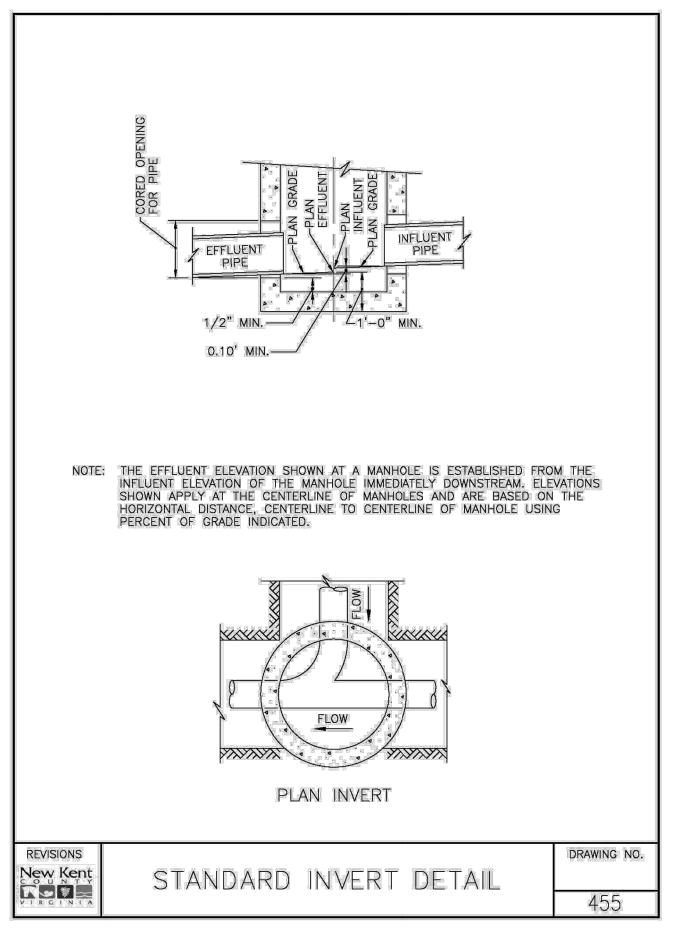


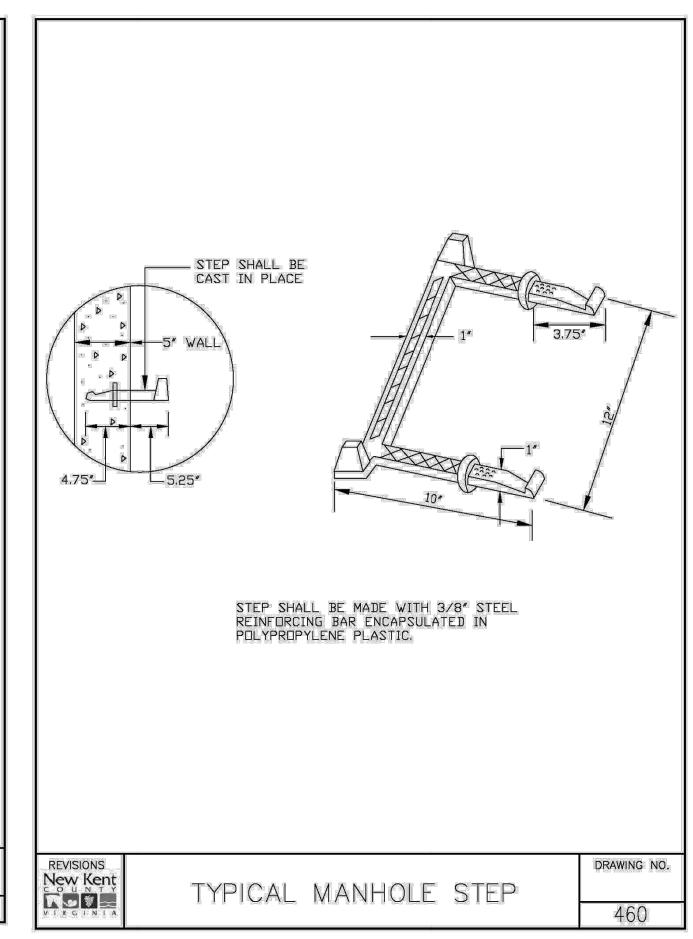
2 BAYPORT WAY, SUITE 120 NEWPORT NEWS, VA 23606 (757) 599 - 9800

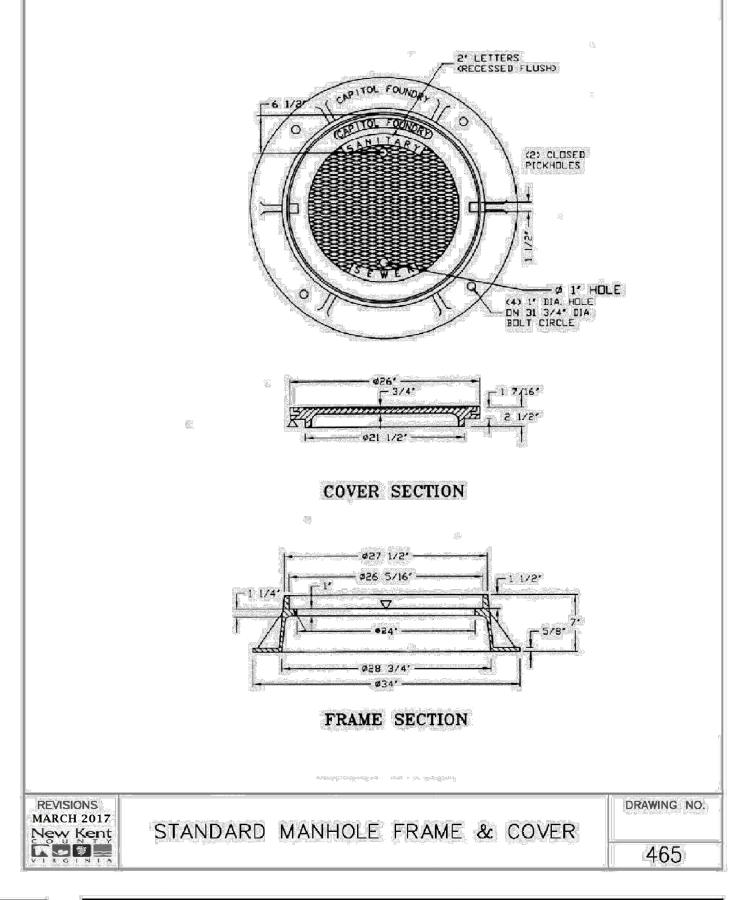


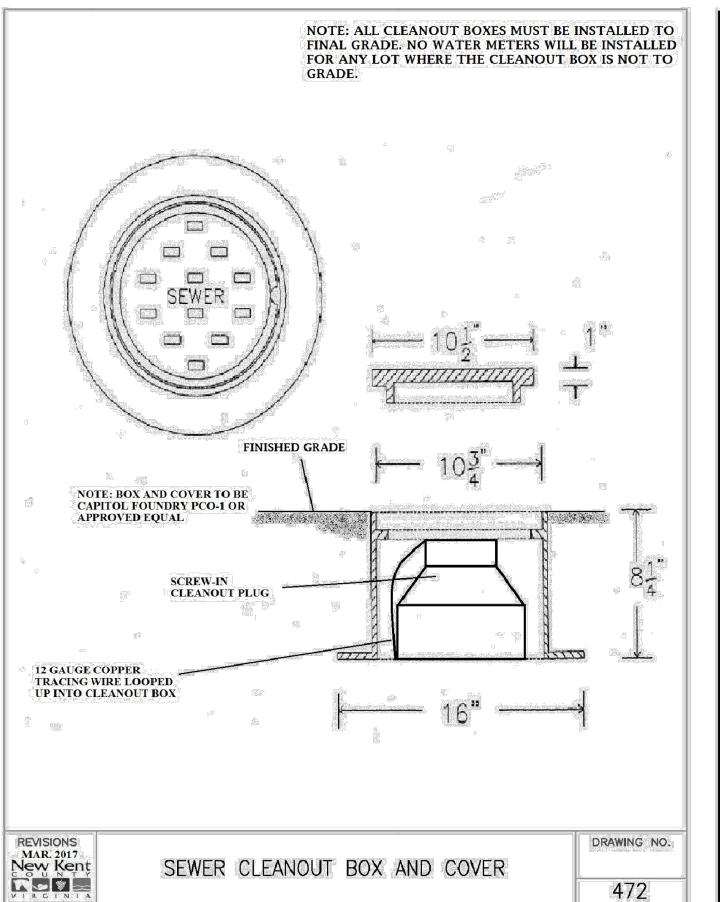


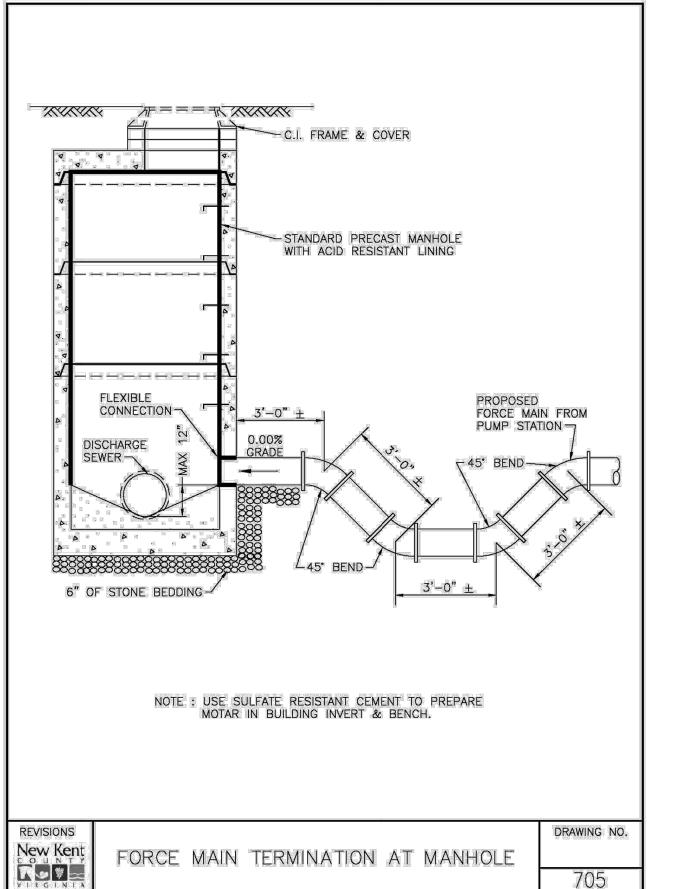
NOTES:  ① MINIMUM ANGLE BETWEEN INFLUENT AND EFFLUENT PIPES IS 90°, EXCEPT BY SPECIAL DESIGN.  ② EXCEPTIONS TO THE MINIMUM	2 1/2" WALL  48" MANHOLE  —8" WALL
EXAMPLE: 48" MANHOLE, EXISTING 24" IN, EXISITING 24" DUT, NEW 18" IN, DETAIL 415 INDICATES A MINIMUM ANGLE OF 80" BETWEEN THE EXISTING 24 AND THE NEW 18" (IN), RESULTING IN APPROXIMATE 6" OF INTERIOR MANHOL REMAINING BETWEEN THE 2 PIPES.	(IN)
	2 of 2
REVISIONS  New Kent MANHOLE SIZING AND MINIMUM ANGLE TABLE	DRAWING NO.
MANHOLE SIZING AND MINIMUM ANGLE TABLE	416
VGA-02-100-100-100-100-100-100-1	<u> </u>

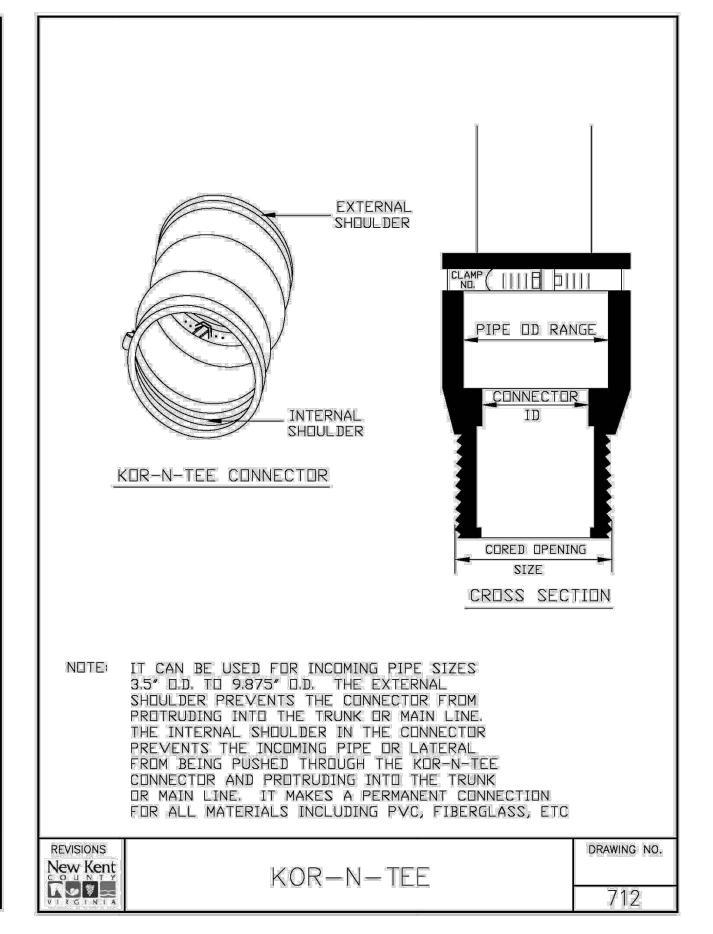


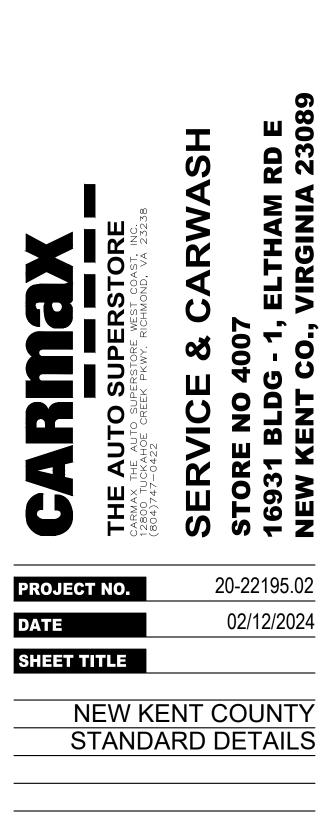






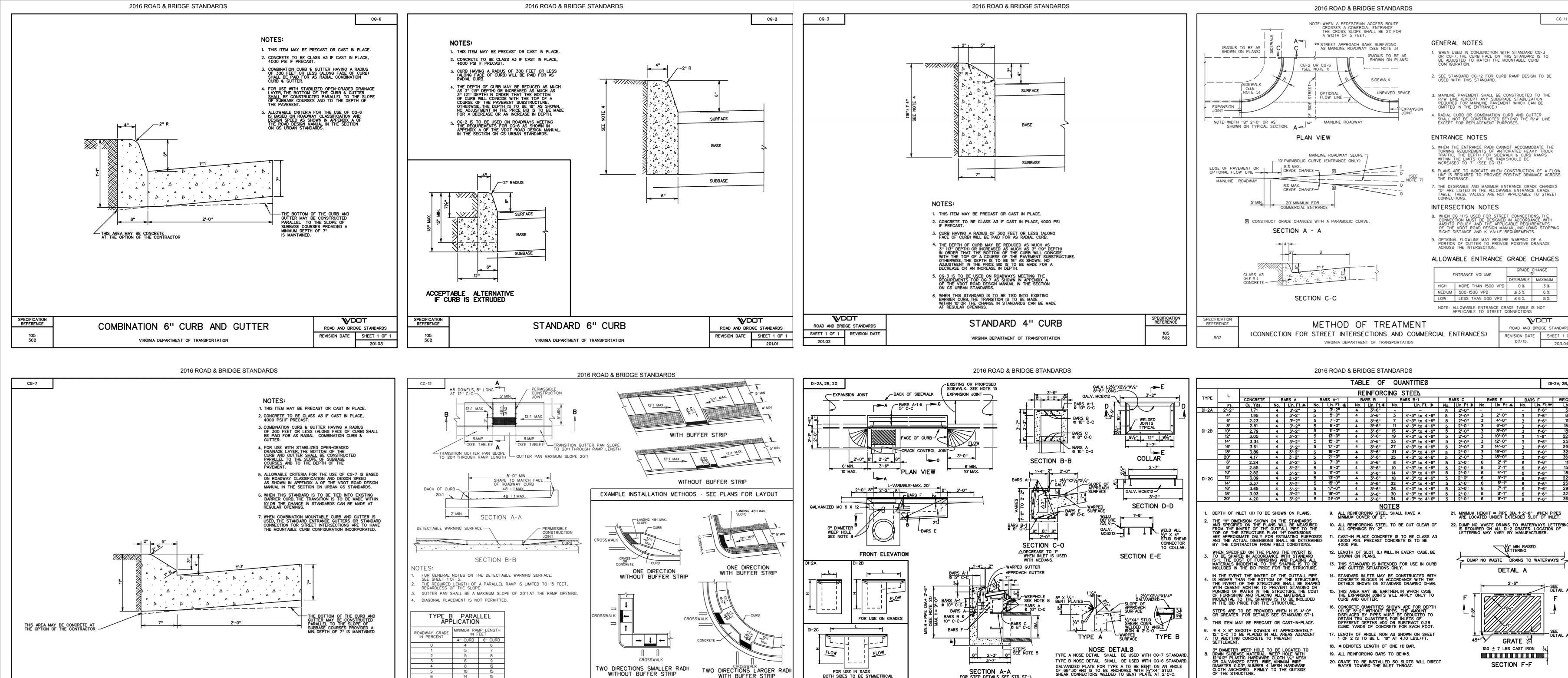


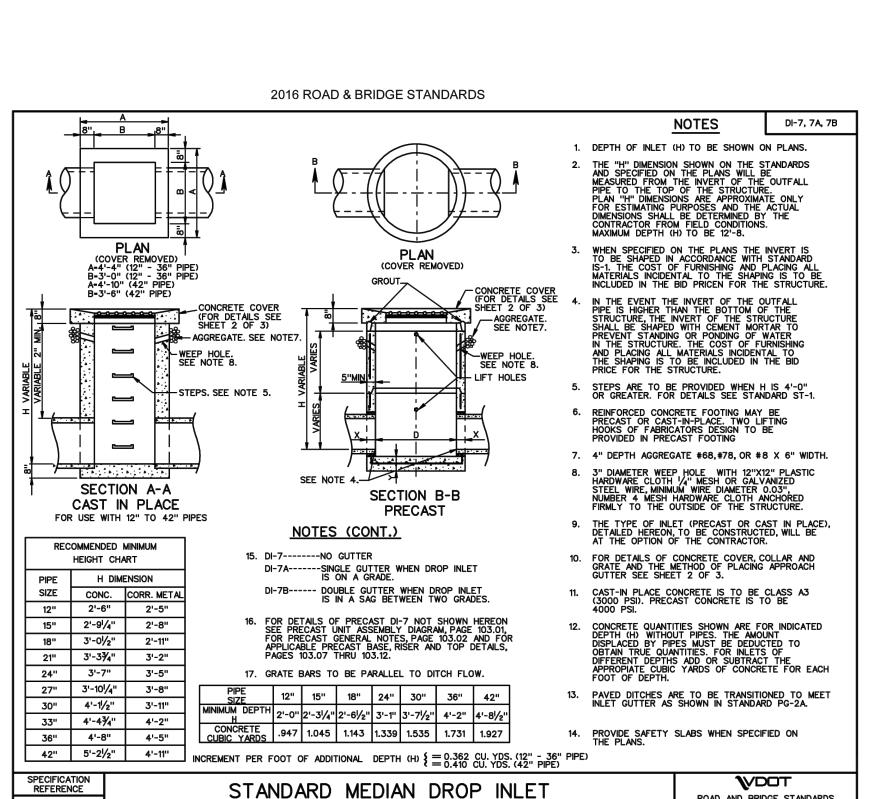




C-502

SHEET NO.





12" TO 42" PIPE

VIRGINIA DEPARTMENT OF TRANSPORTATION

2016 ROAD & BRIDGE STANDARDS

ROAD AND BRIDGE STANDARDS

REVISION DATE SHEET 1 OF 3

104.22

COMBINATION 4" CURB AND GUTTER

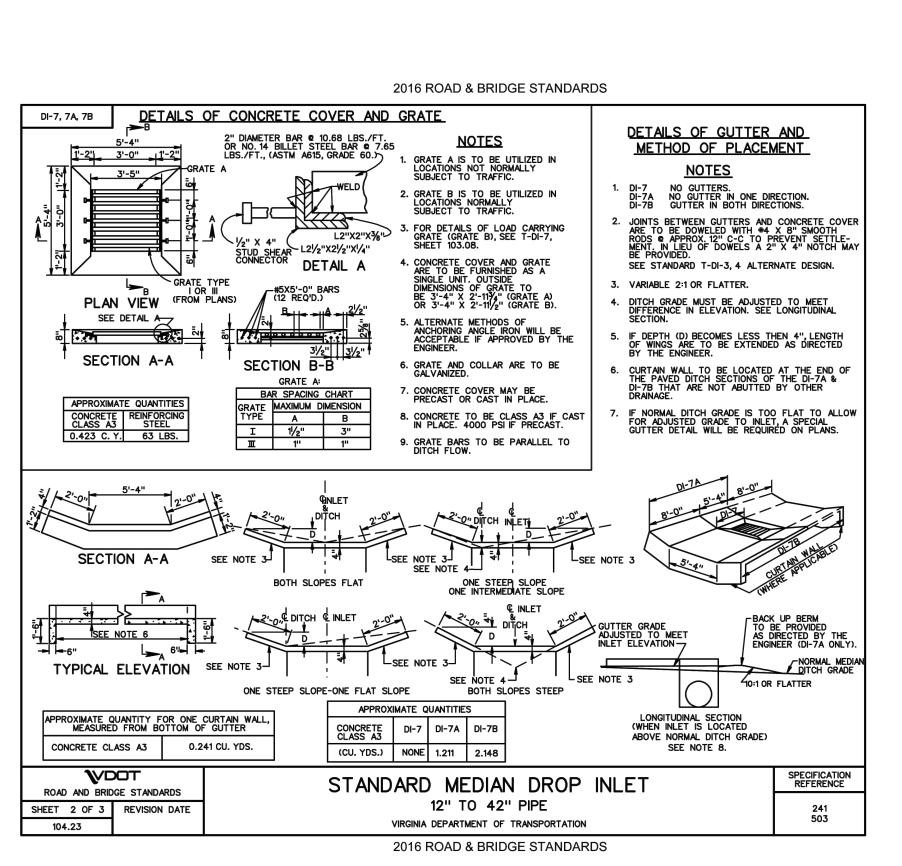
VIRGINIA DEPARTMENT OF TRANSPORTATION

**₩**DOT

ROAD AND BRIDGE STANDARDS

SHEET 1 OF 1 REVISION DATE

201.04



VDOT

ROAD AND BRIDGE STANDARDS

SHEET 3 OF 5 REVISION DATE

04/19

CROSSWALK

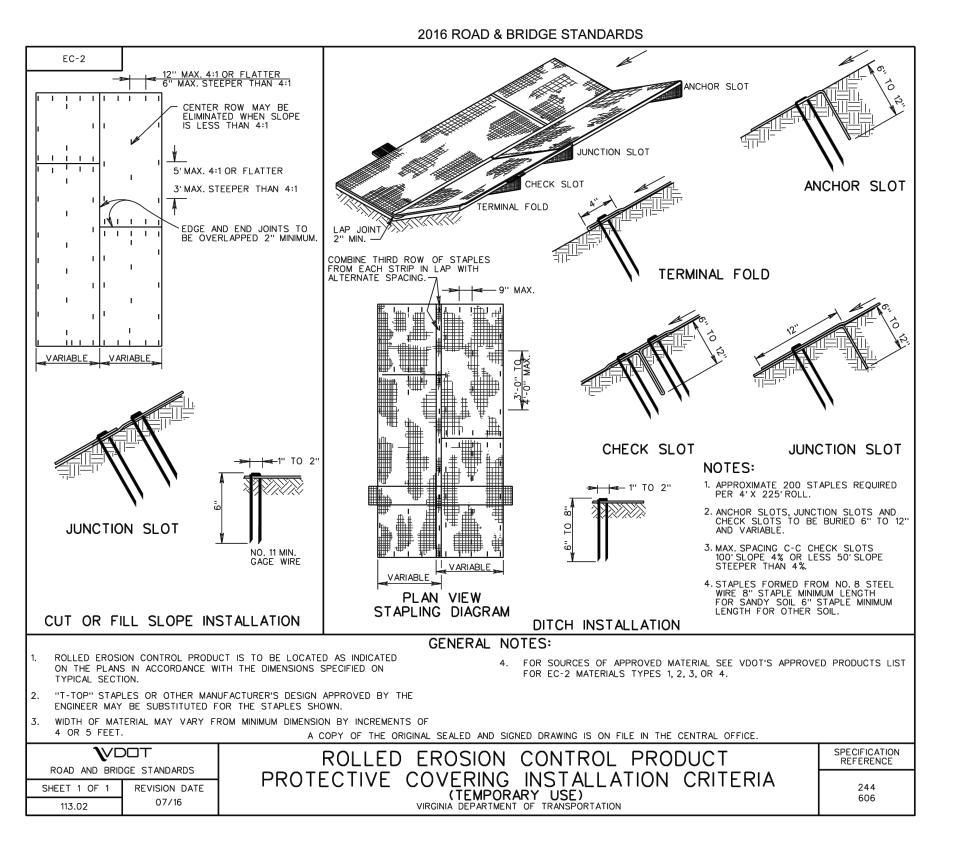
TWO DIRECTIONS SMALLER RADII

WITHOUT BUFFER STRIP

CG-12 DETECTABLE WARNING SURFACE

TYPE B (PARALLEL) APPLICATION

VIRGINIA DEPARTMENT OF TRANSPORTATION



SECTION A-A FOR STEP DETAILS SEE STD. ST-

STANDARD CURB DROP INLET

12" - 24" PIPE: MAXIMUM DEPTH (H) - 9'

VIRGINIA DEPARTMENT OF TRANSPORTATION

FOR USE IN SAGS

**V**DOT

ROAD AND BRIDGE STANDARD8

SHEET 1 OF 2 REVISION DATE

104.05

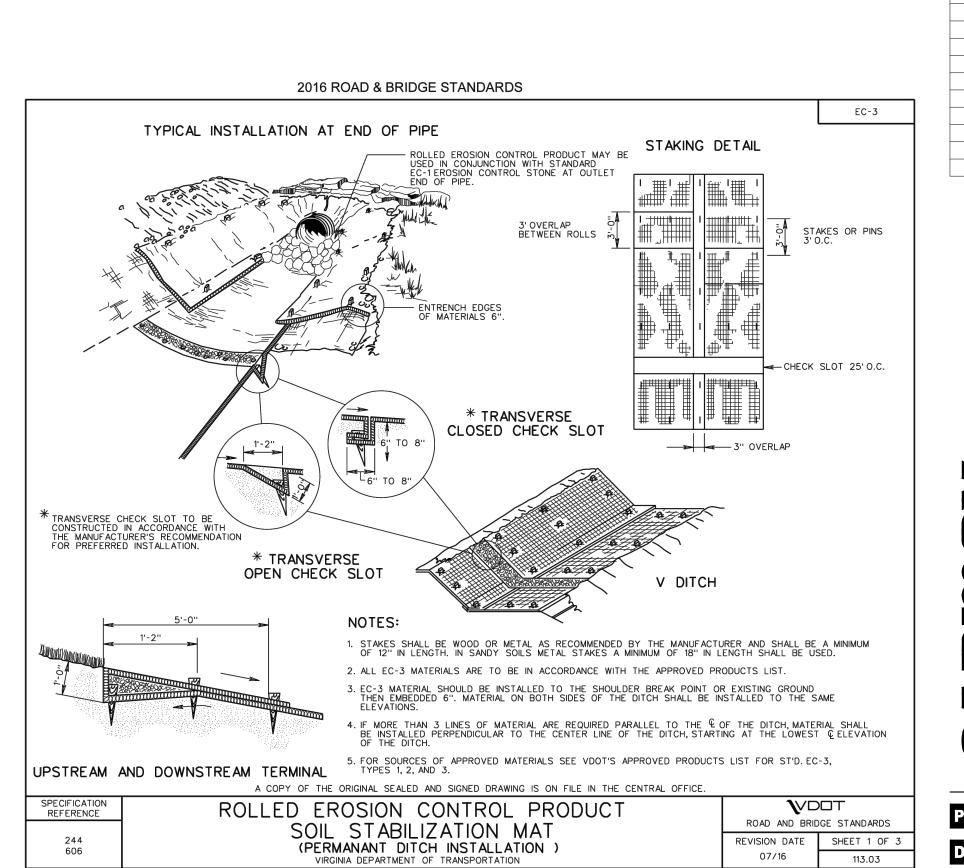
BOTH SIDES TO BE SYMMETRICAL

TYPE B NOSE DETAIL SHALL BE USED WITH CG-6 STANDARD.

GALVANIZED PLATE FOR TYPE A TO BE BENT ON AN ANGLE
OF 68° 30' AND IS TO BE ANCHORED WITH 1/2"X4" STUD
SHEAR CONNECTORS WELDED TO BENT PLATE AT 2' C-C.

SPECIFICATION REFERENCE

PECIFICATION REFERENCE



STANDARD CURB DROP INLET

12" - 24" PIPE: MAXIMUM DEPTH (H)=9"

VIRGINIA DEPARTMENT OF TRANSPORTATION



**BID SET** 02/12/2024 **SERVICE CARWASH** 

**WDOT** 

ROAD AND BRIDGE STANDARDS

REVISION DATE SHEET 1 OF 1

DI-2A, 2B, 2C

07/15

DETAIL A

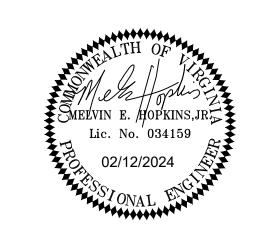
GRATE 🗐

SECTION F-F

**V**DOT

ROAD AND BRIDGE STANDARDS

SHEET 2 OF 2

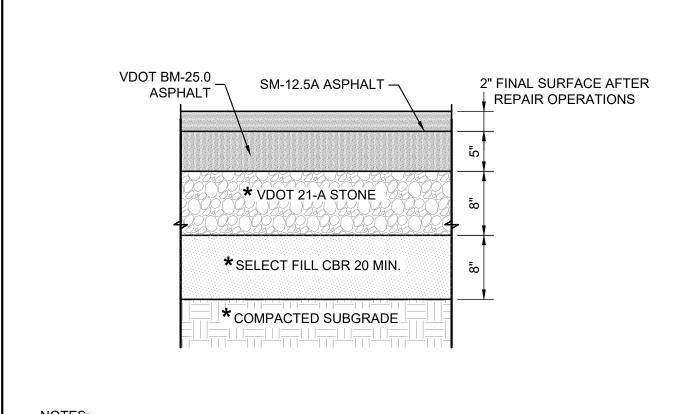


**NOT FOR CONSTRUCTION LATEST DA/PC** DA23-031/PC23-005 DRAWN BY: CHECKED BY: **REVISIONS** REV# DATE | DESCRIPTION | BY

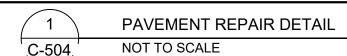
20-22195.02 PROJECT NO.

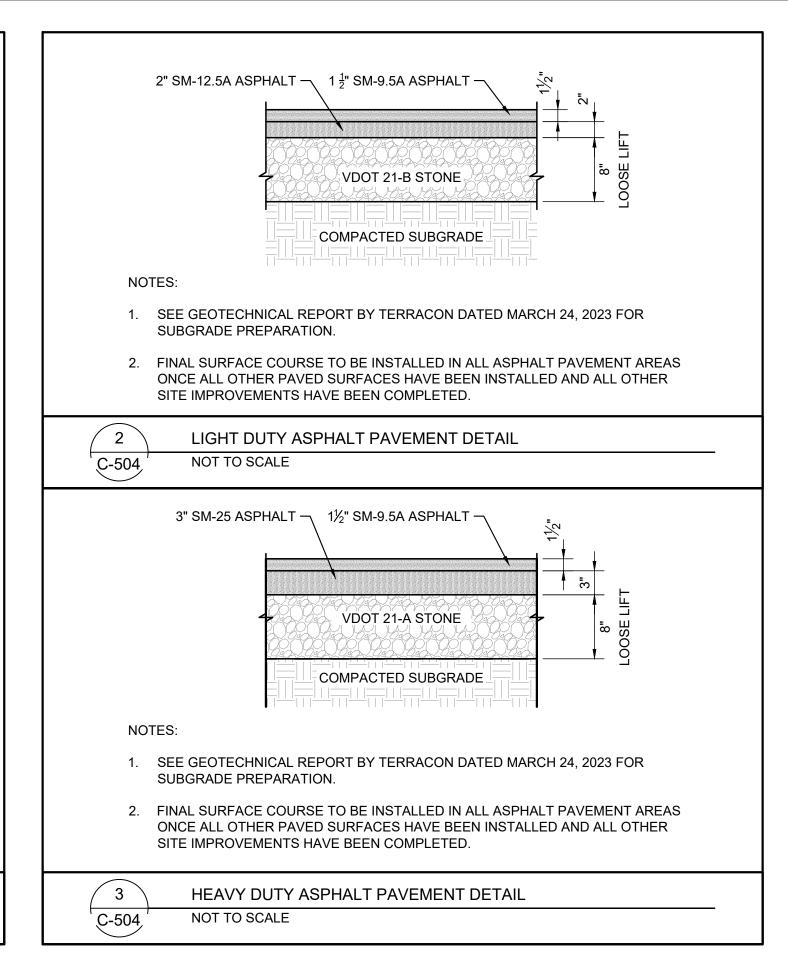
02/12/2024 SHEET TITLE

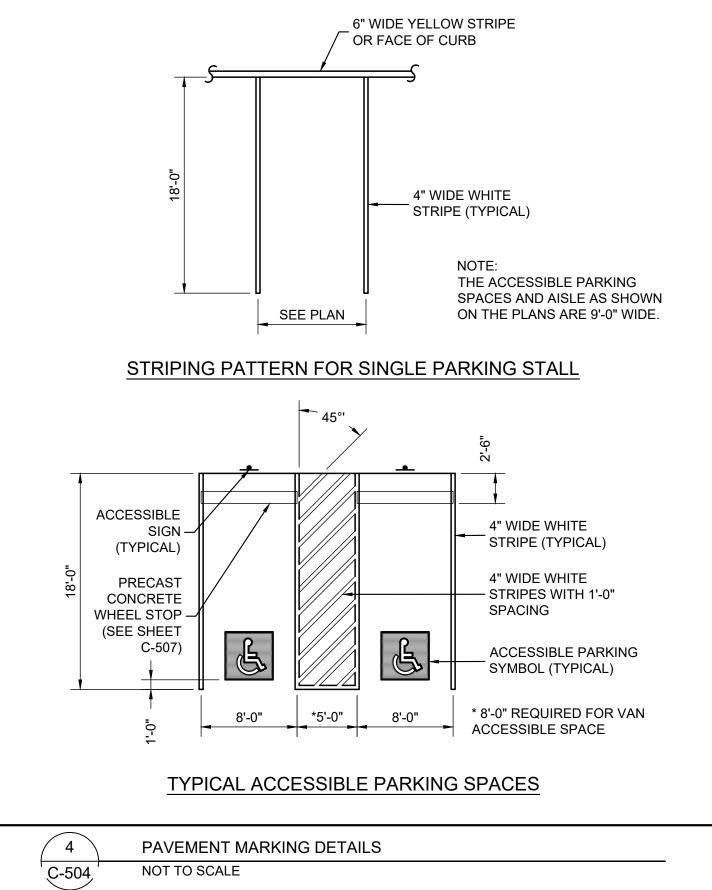
**VDOT DETAILS** 

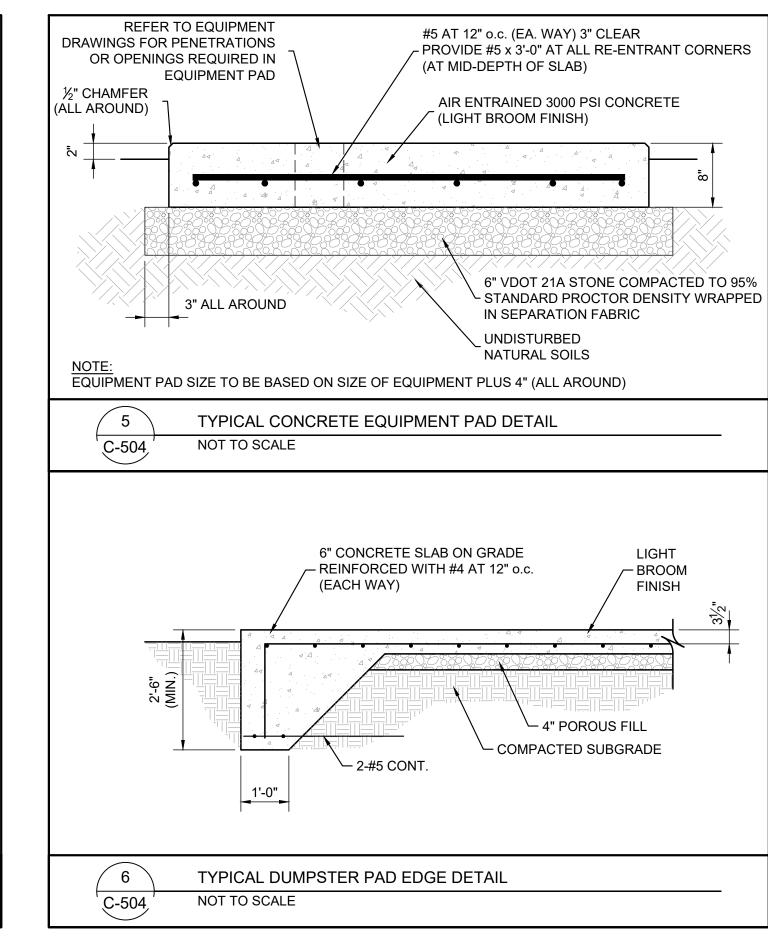


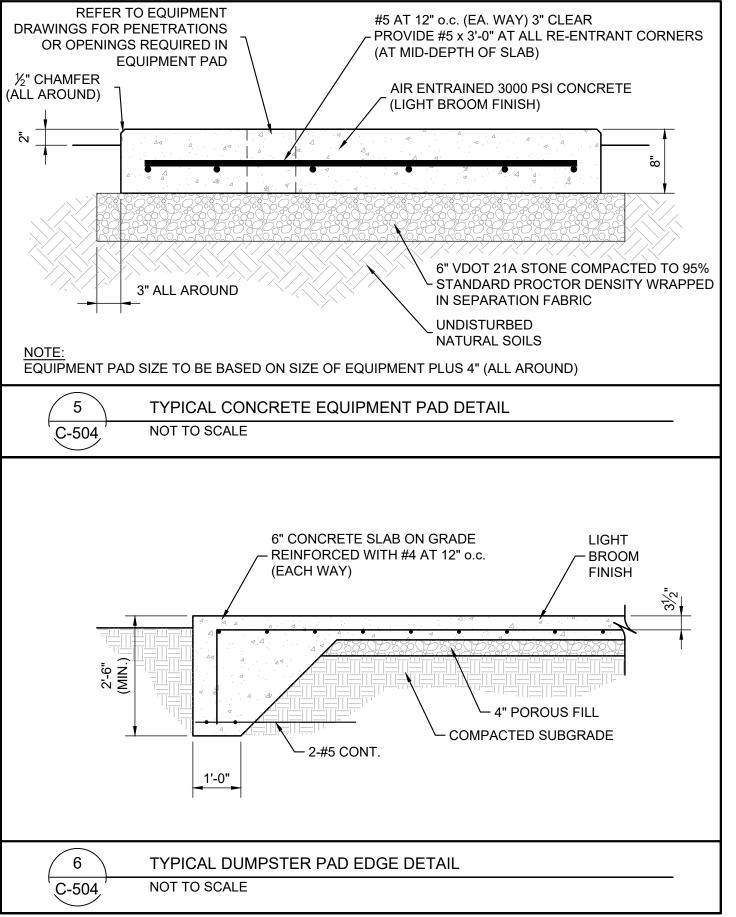
- 1. TO BE USED WHERE ASPHALT PAVEMENT CUTS (TRENCHES) AND REPAIRS/PATCHES ARE REQUIRED. ASPHALT TO BE SAW CUT MINIMUM 6" OUTSIDE OF REPAIR AREA ON ALL SIDES.
- 2. CONTRACTOR SHALL COMPACT VDOT 21A AND SELECT FILL MATERIAL IN 8" LOOSE LIFTS AND COMPACT MATERIAL TO 95% OF STANDARD PROCTOR AND WITHIN 2%, PLUS OR MINUS, OF OPTIMUM MOISTER CONTENT.
- 3. CONTRACTOR SHALL REPAIR AREAS IN THE ASPHALT DRIVEWAY AND OTHER PAVED AREAS WHERE THERE ARE DEPRESSIONS, CRACKING AND OR ALLIGATORING.
- 4. THE CONTRACTOR IS REQUIRED TO MARK AREAS OF NEEDED IMPROVEMENT, QUANTIFY AND CATEGORIZE NEEDED IMPROVEMENTS AND REQUEST THE ENGINEERS CONCURRENCE WITH NEEDED PAVEMENT REPAIRS.
- 5. NEEDED REPAIRS INCLUDE PAVEMENT PATCH, AC LIQUID FOR SEALING CRACKS AND TACK COATING PRIOR TO FINAL PAVEMENT OVERLAY.
- 6. THE ENTIRE SURFACE OF THE ASPHALT DRIVE SHALL BE SWEPT CLEAN OF SEDIMENT AND DEBRIS THEN APPLY TAC COATING AFTER ALL REPAIRS ARE MADE AND BEFORE FINAL  $1\frac{1}{2}$ " SURFACE OVERLAY.
- \*7. CONTRACTOR TO COMPACT VIA JUMPING JACK OR SOME OTHER EQUIVALENT COMPACTING METHOD THAT YIELDS A SUBGRADE WHICH DOES NOT PUMP.

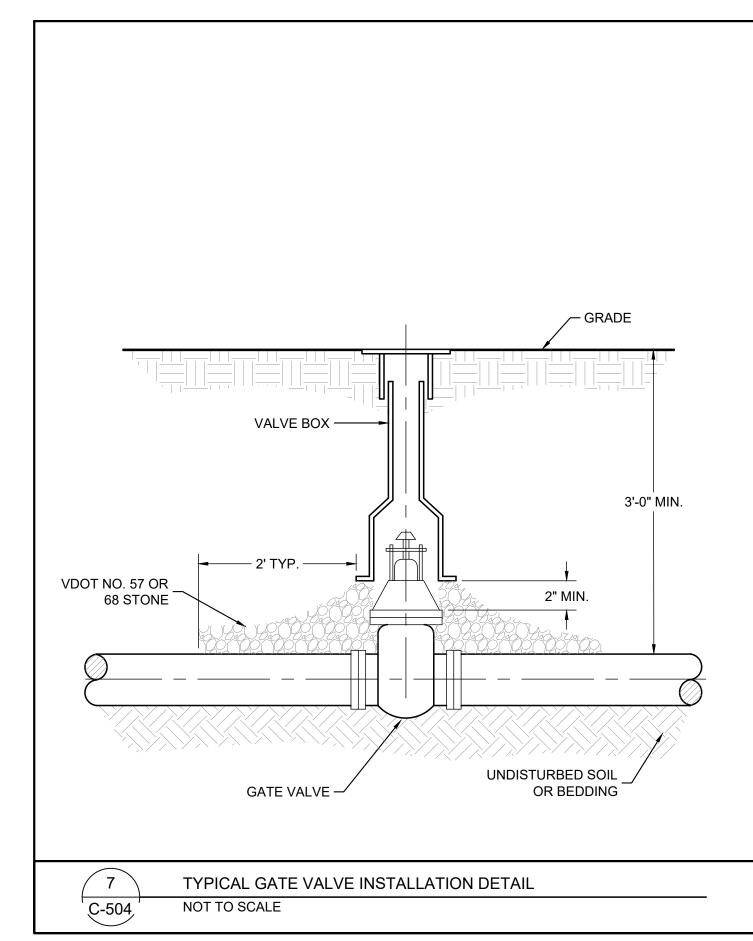


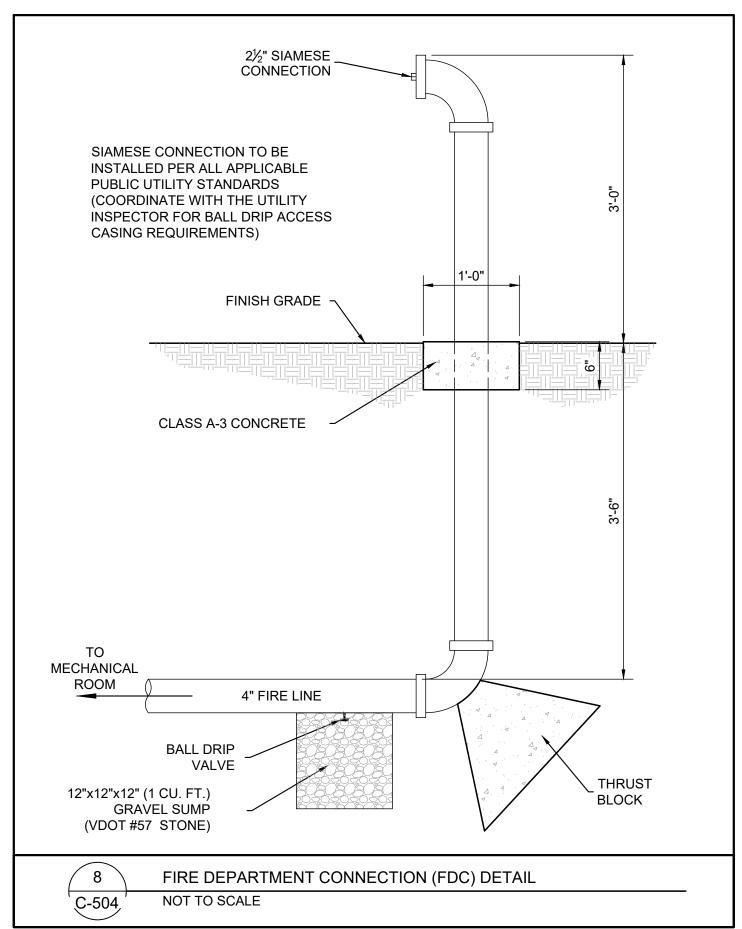


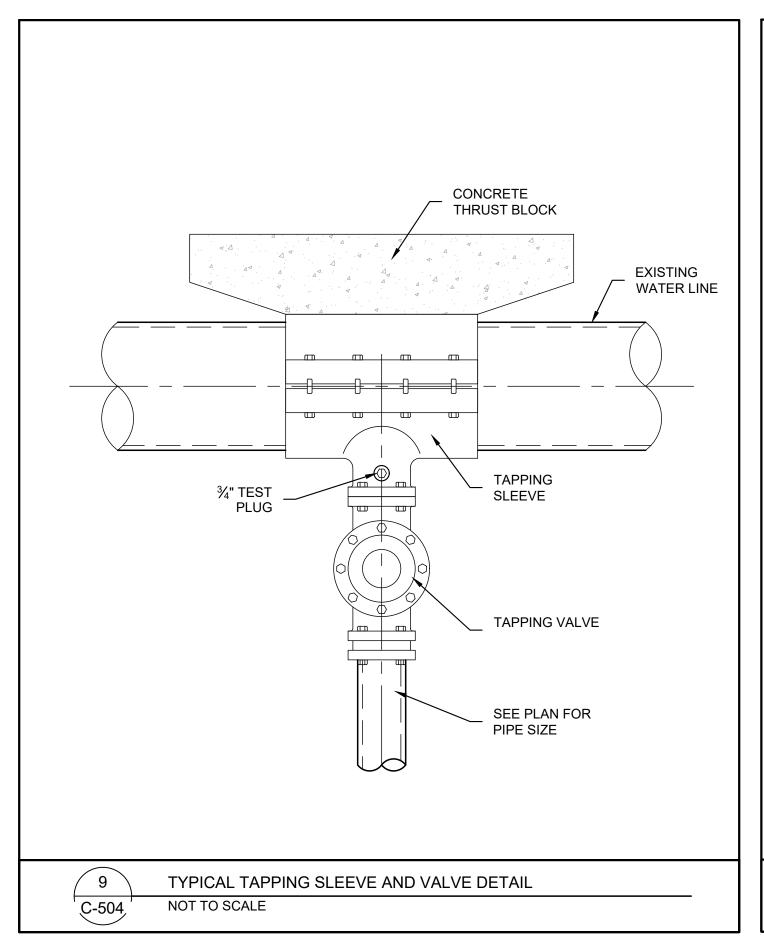


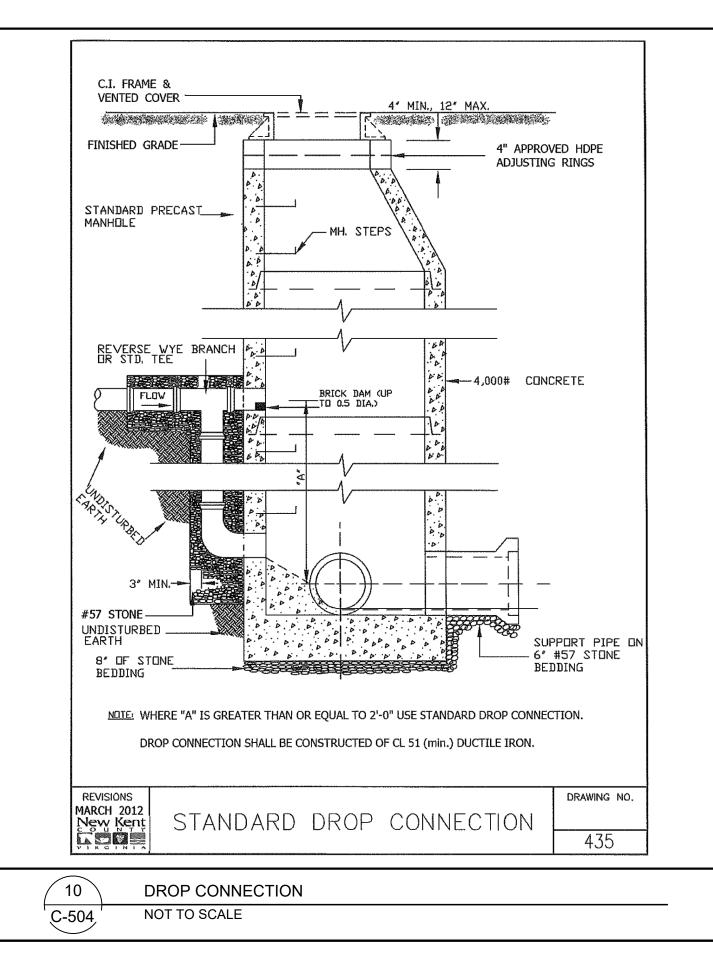


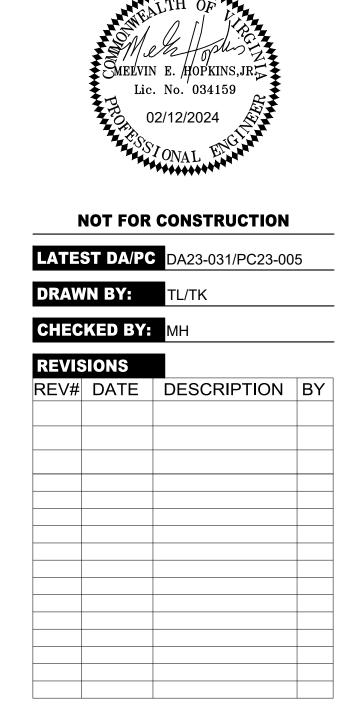










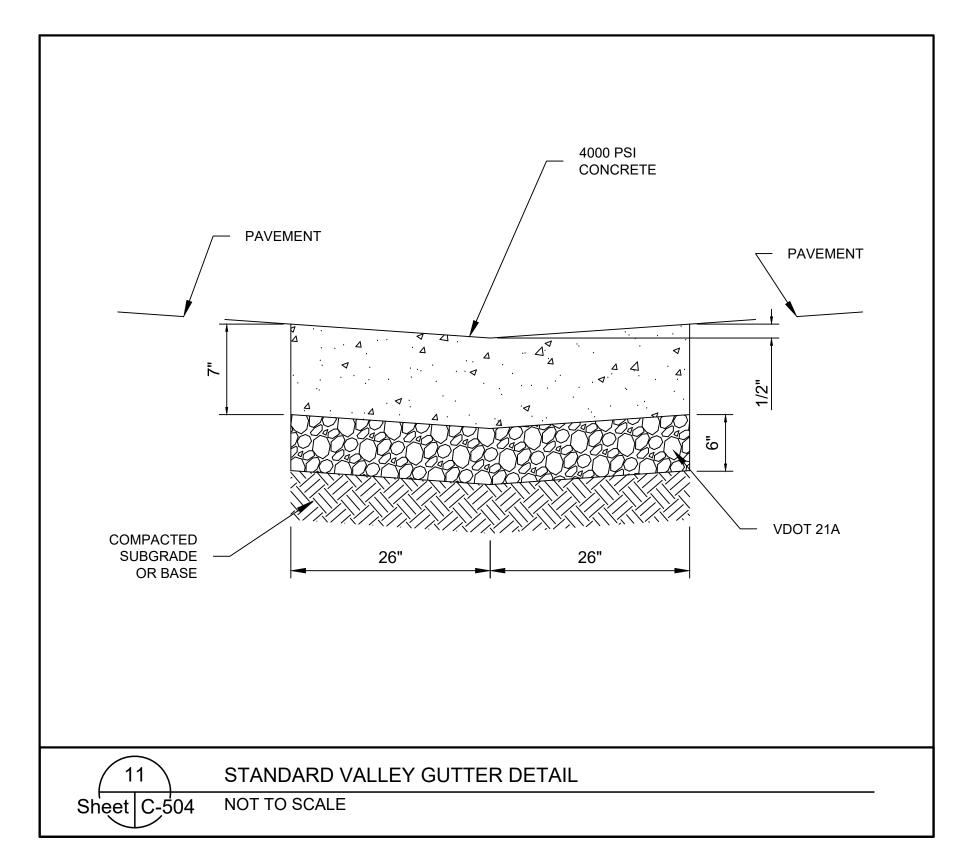


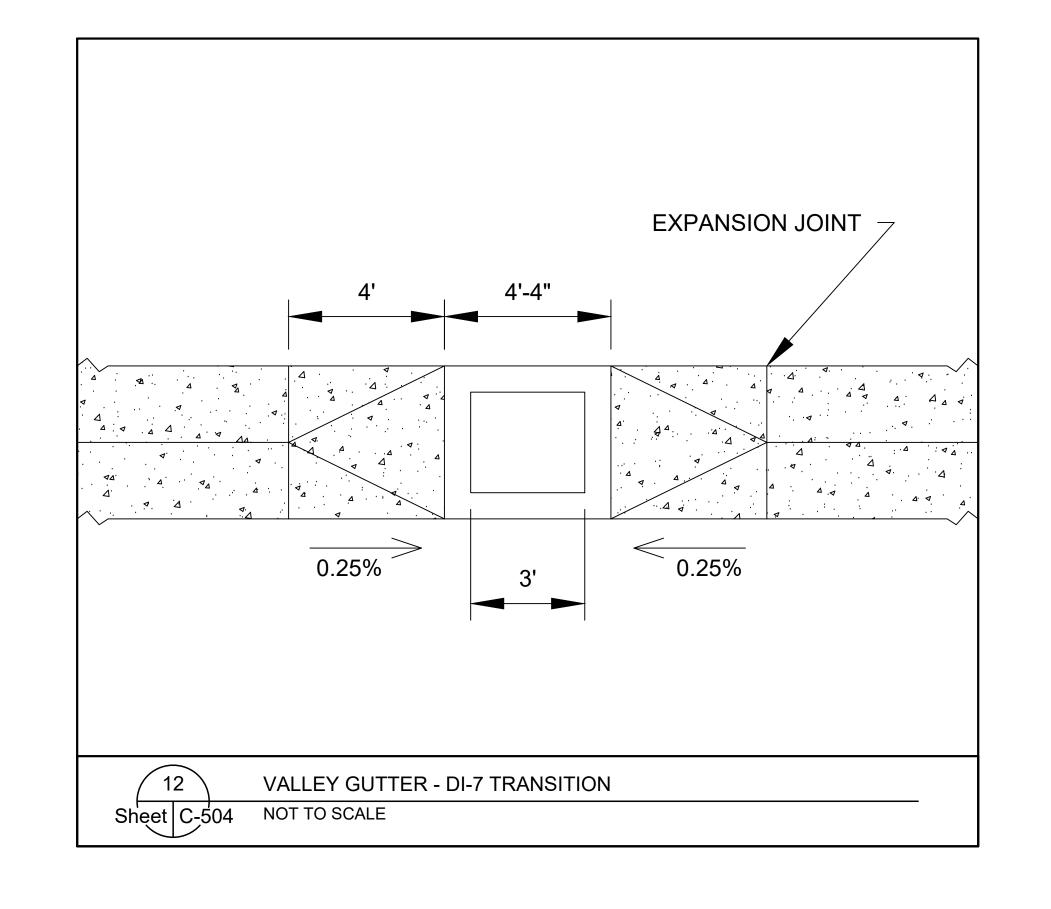
2 BAYPORT WAY, SUITE 120 NEWPORT NEWS, VA 23606

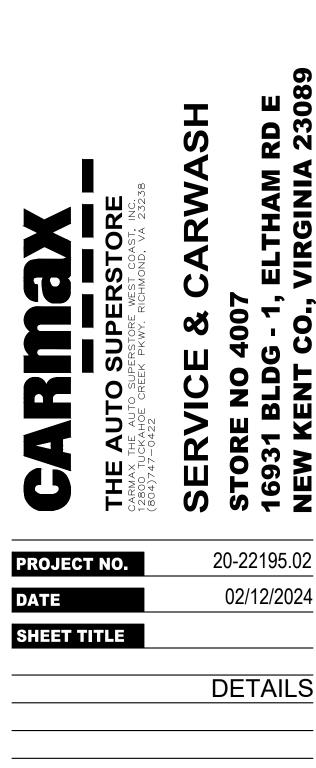
(757) 599 - 9800

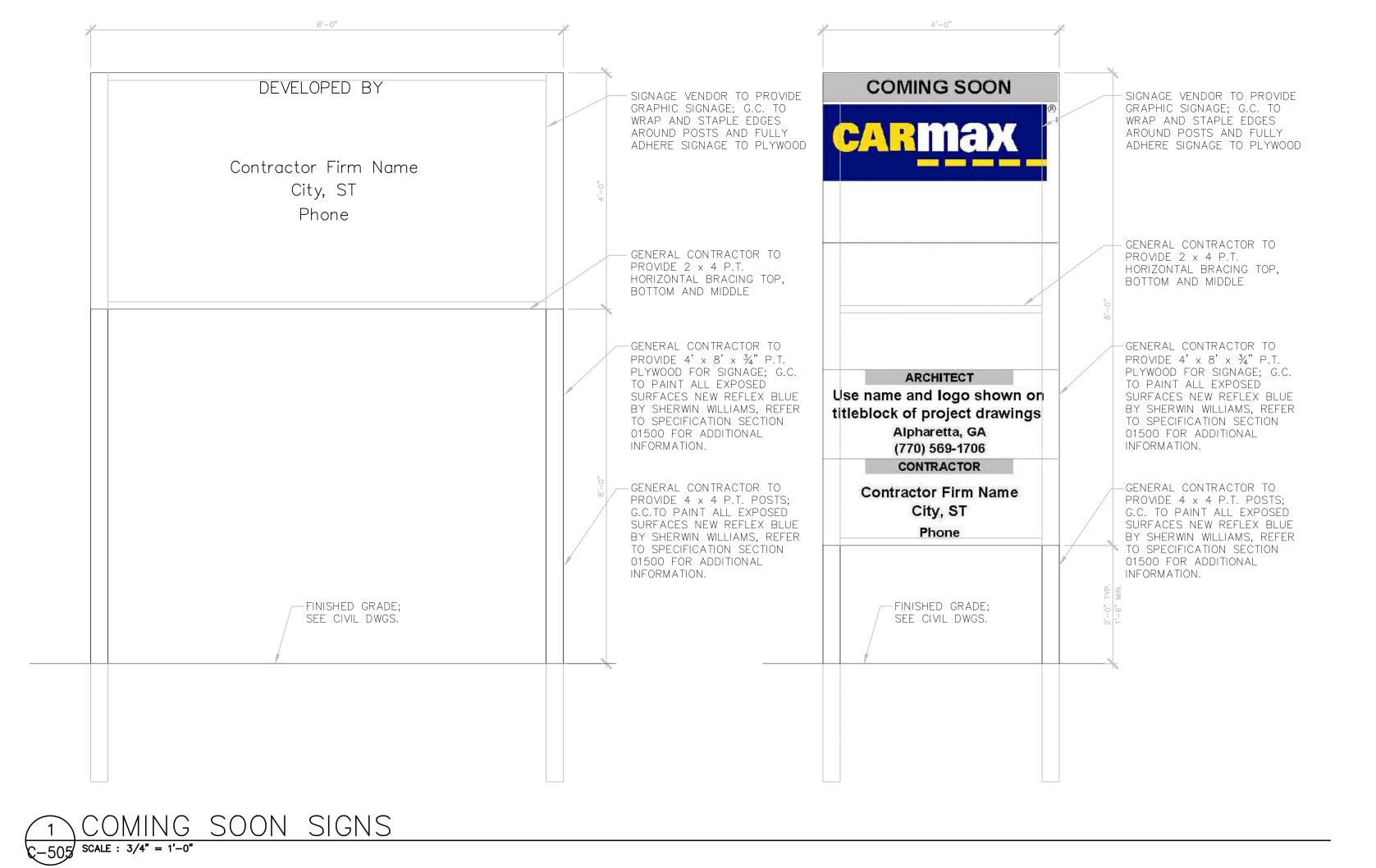
**BID SET** 

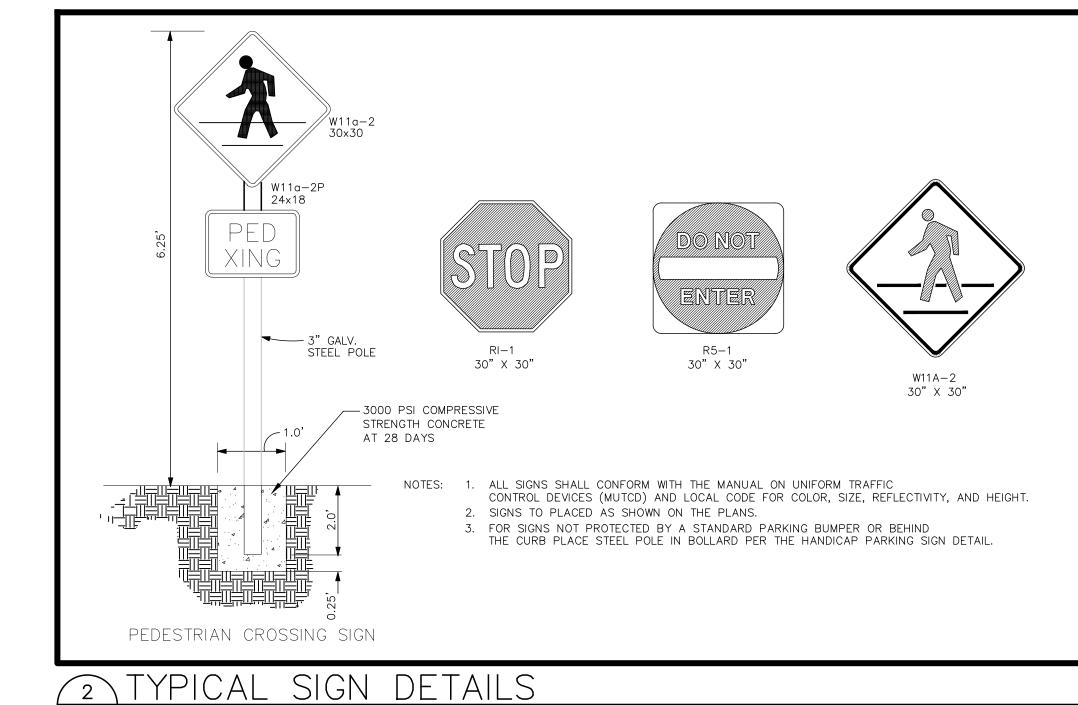
02/12/2024

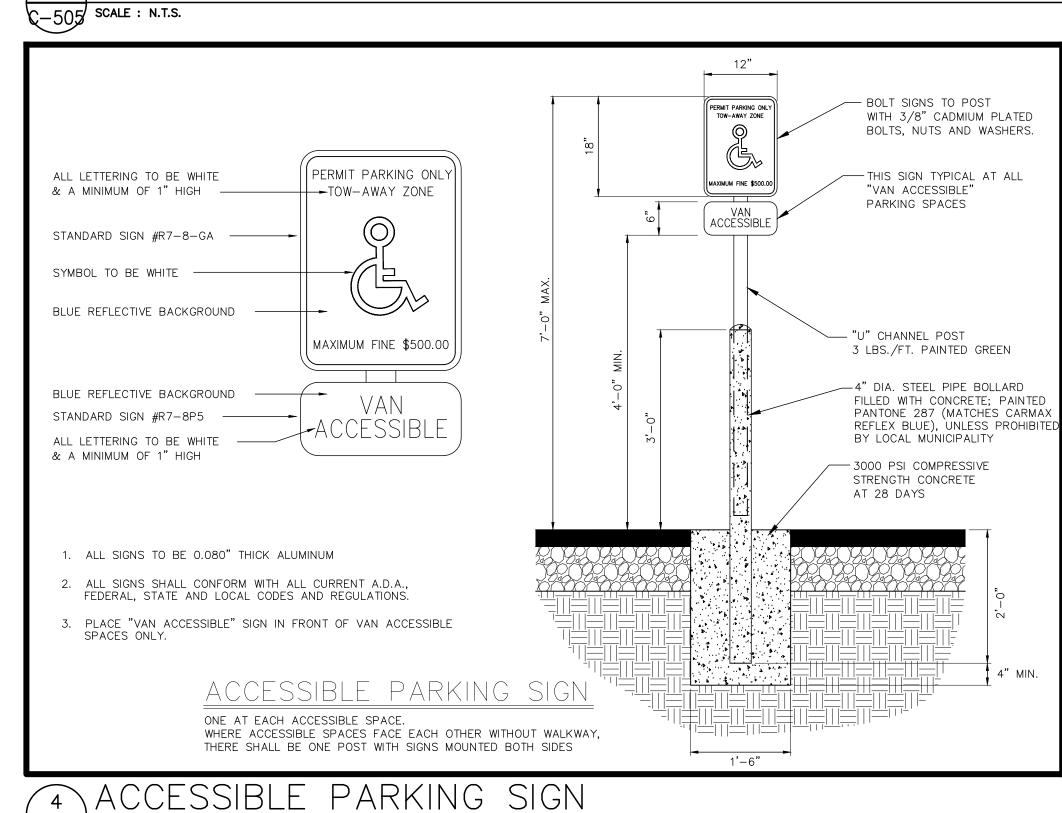












 $\frac{3}{4}$ "  $\times$   $\frac{3}{4}$ " SQ. TUBE -W/ FLAT CAPS —

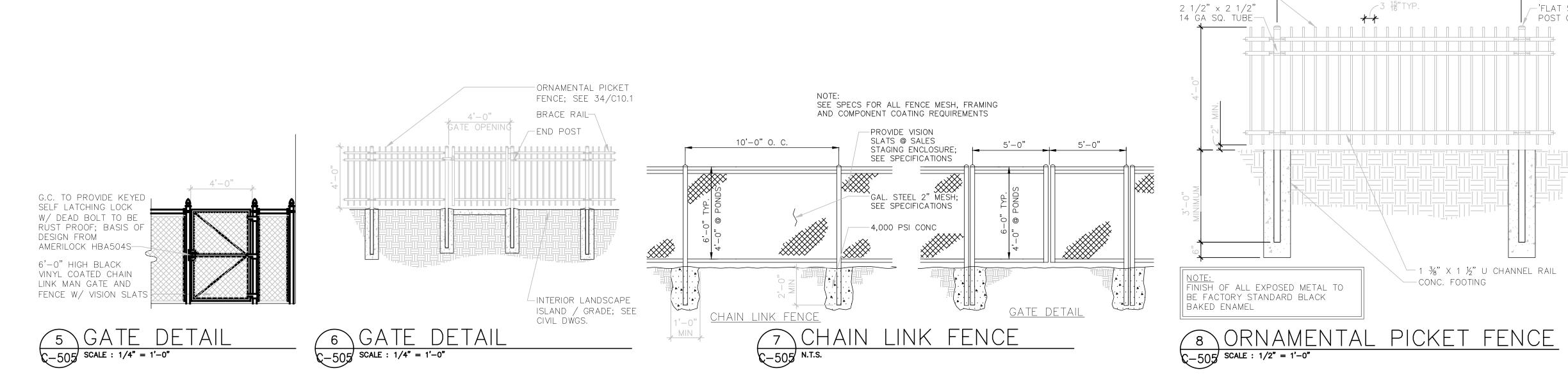
8'-0" N.T.S.

 $\sqrt{3} \frac{15}{16}$ "TYP.

POST CAP

─ 1 ¾" X 1 ½" U CHANNEL RAIL

-CONC. FOOTING



13/8" DIA. DROP ROD

3 HINGE & LATCH C-505 N.T.S.

15%" DIA. OR 1%" GATE UPRIGHT

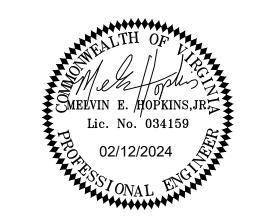
LATCH BOLT (ACCEPTS PADLOCK)

C-505 SCALE : N.T.S.

GUIDE-(3) REQUIRED 36" DIA. CARRIAGE BOLT



**BID SET** 02/12/2024 SERVICE **CARWASH** 



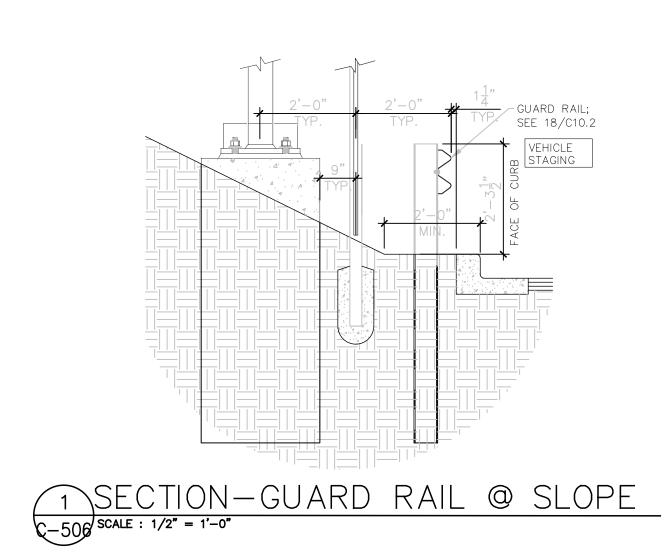
**NOT FOR CONSTRUCTION LATEST DA/PC** DA23-031/PC23-005 DRAWN BY:

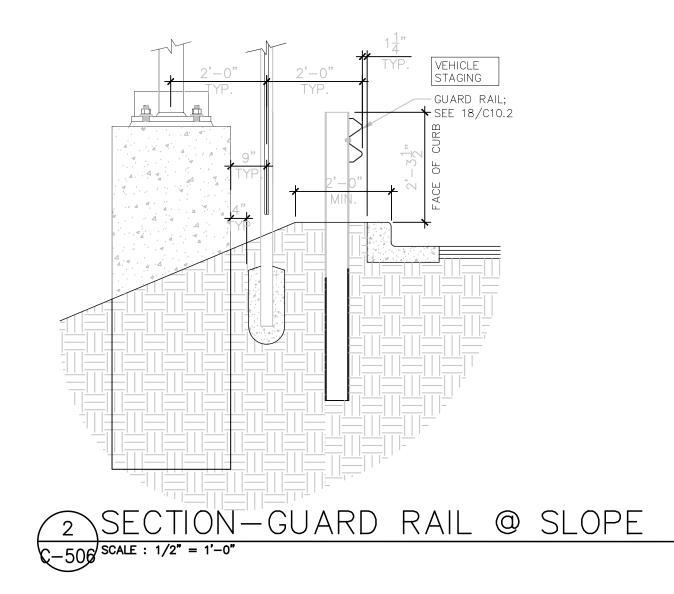
	SIONS		
REV#	DATE	DESCRIPTION	BY

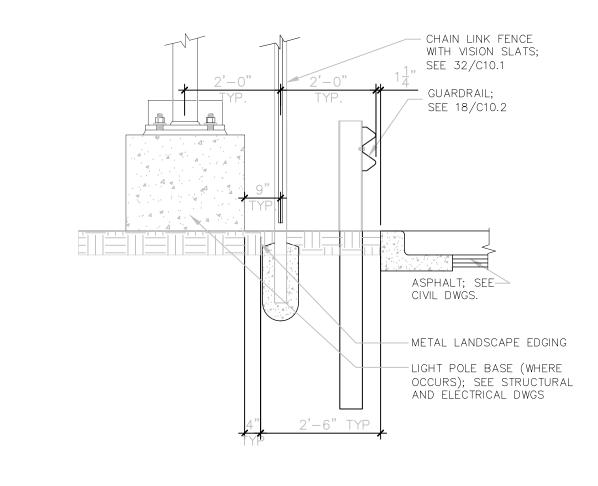
20-22195.02 PROJECT NO. 02/12/2024

DETAILS





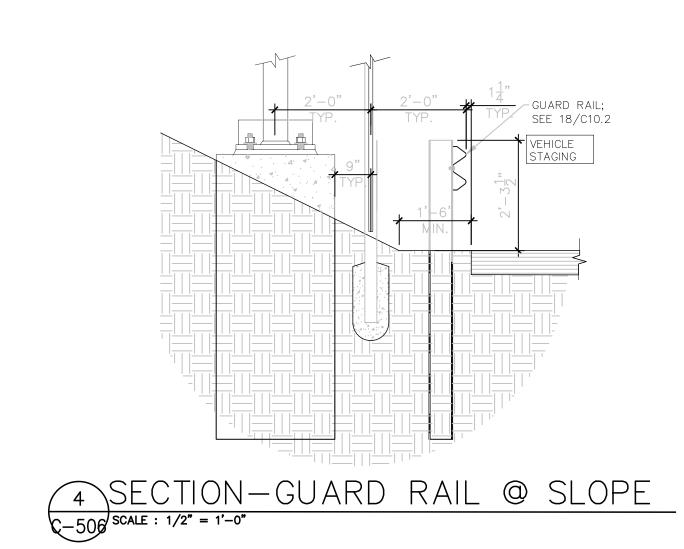


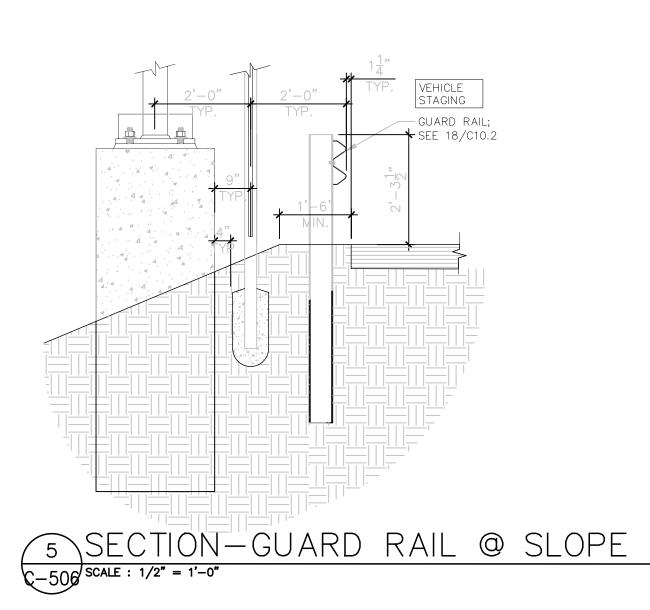


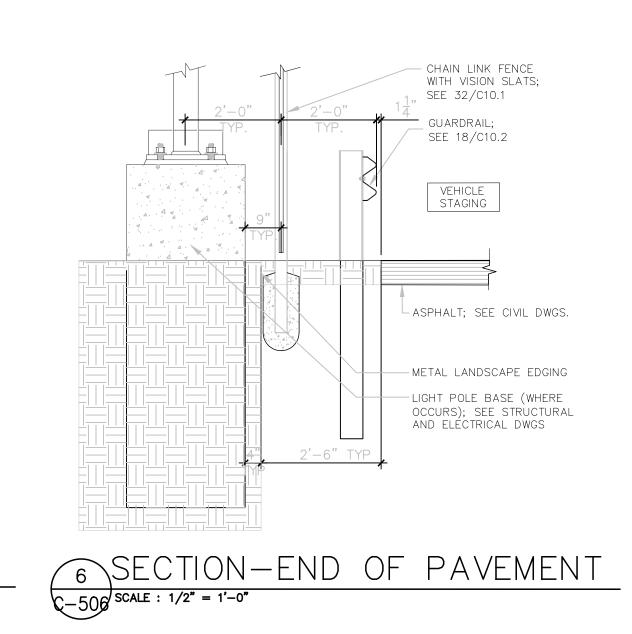
SECTION—END OF

3 PAVEMENT w/CURB

C-506 SCALE: 1/2" = 1'-0"











NOT FOR CONSTRUCTION					
LATE	ST DA/PC	DA23-031/PC23-00	5		
DRAV	VN BY:	TL/TK			
CHEC	KED BY:	МН			
REVIS	SIONS				
REV#	DATE	DESCRIPTION	BY		

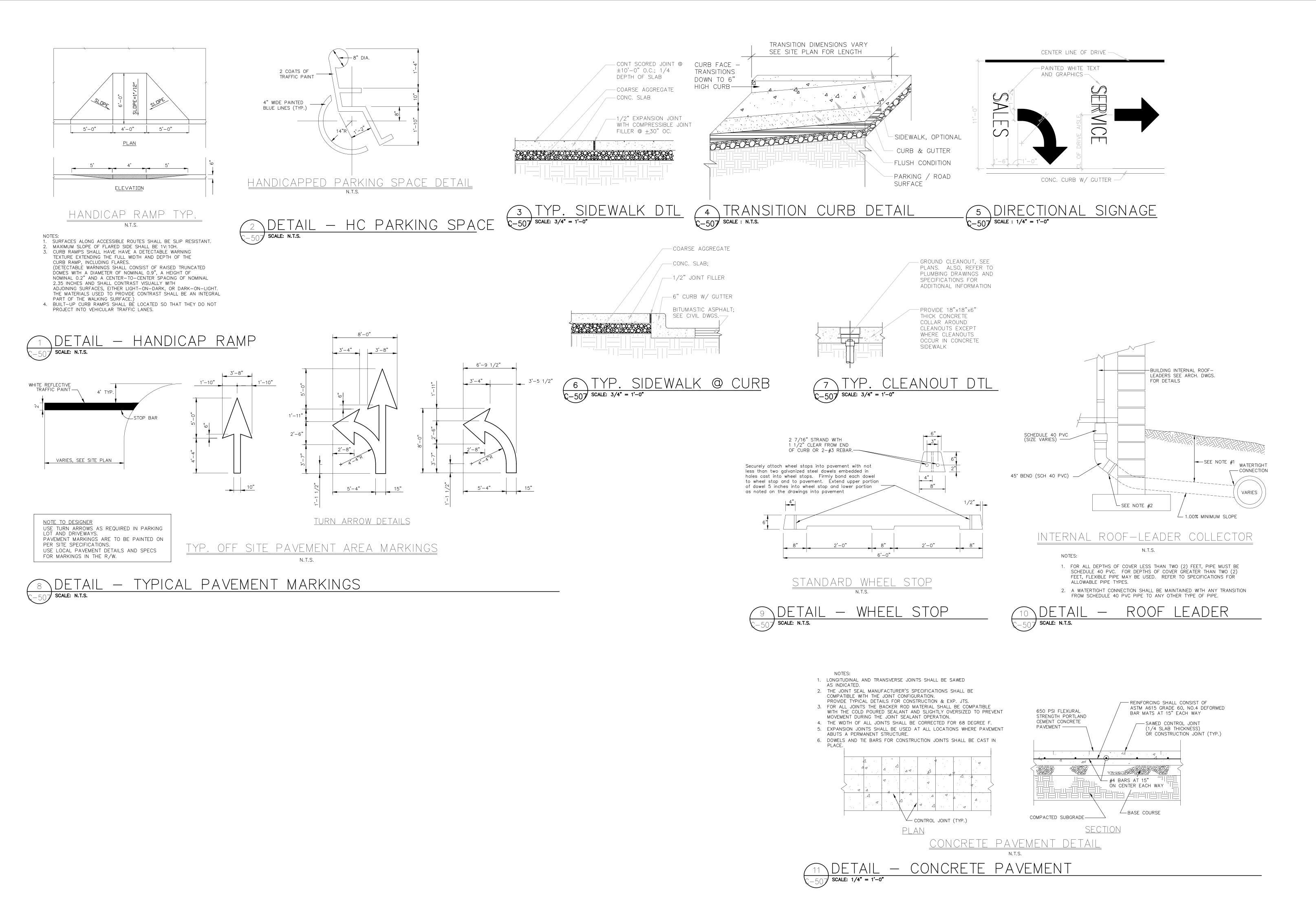
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PROJECT NO.	20-22195.0
DATE	02/12/202
SHEET TITLE	

DETAILS









NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

REVISIONS
REV# DATE DESCRIPTION BY

AUTO SUPERSTORE

X THE AUTO SUPERSTORE
X THE AUTO SUPERSTORE WEST COAST, INC.
TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
47-0422

ERVICE & CARWASH

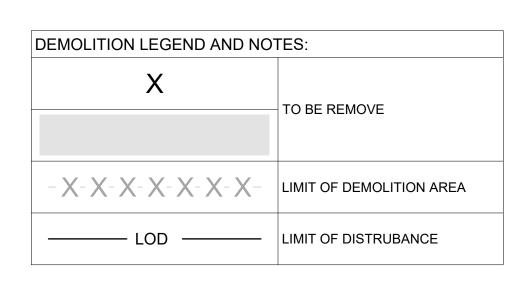
DJECT NO. 20-22195.02

02/12/2024

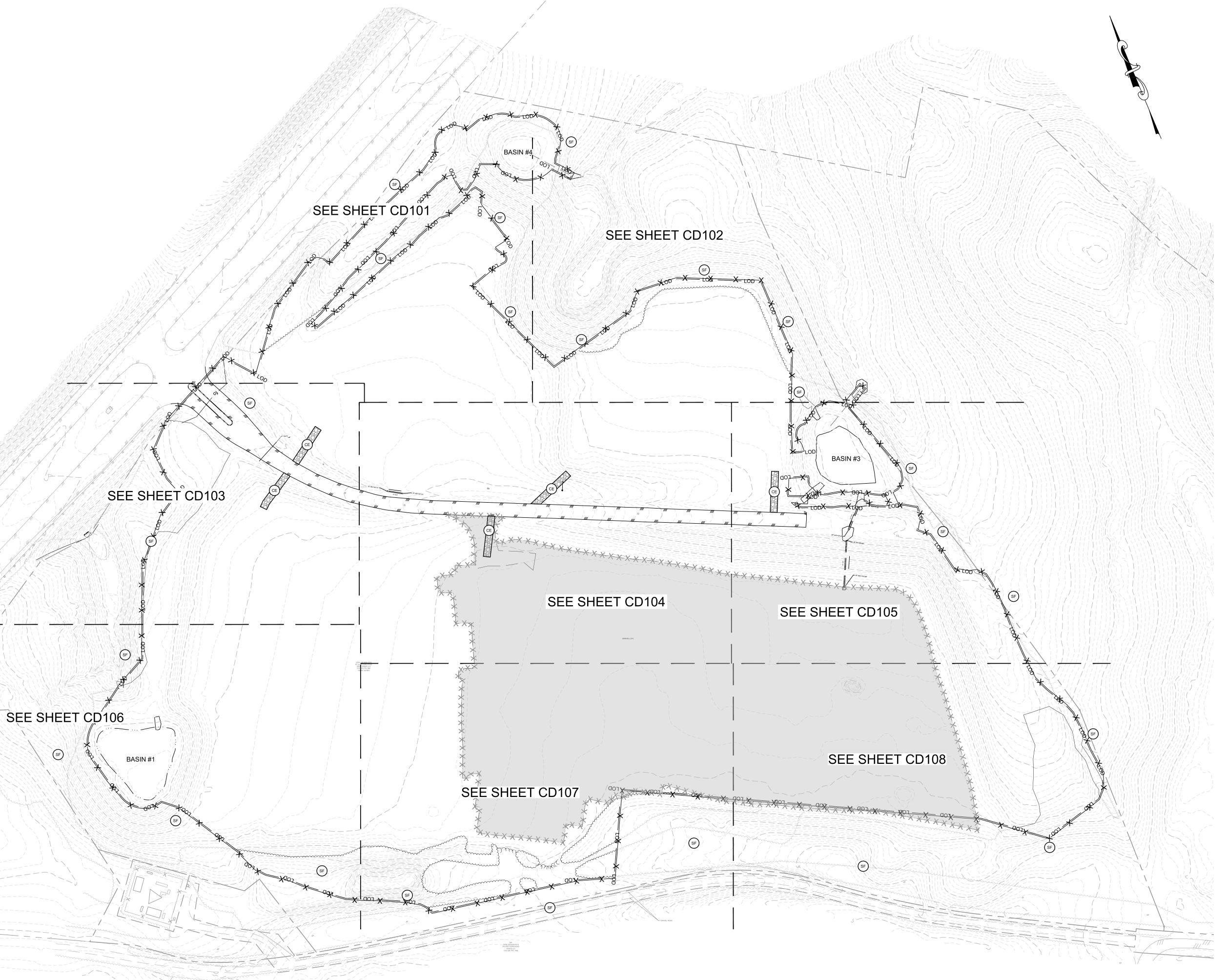
DETAILS

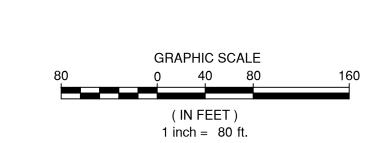
C-50





EROSION & SEDIMENT LEGEND:						
NO	TITLE	KEY	SYMBOL			
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE				
3.05	SILT FENCE	SF	—X—X—			
3.31	TEMPORARY SEEDING	TS	ALL APPLICABLE AREA			
3.39	DUST CONTROL	DC	ALL APPLICABLE AREA			







NOT FOR CONSTRUCTION

LATEST DA/PC

DA23-031/PC23-00

TL/TK

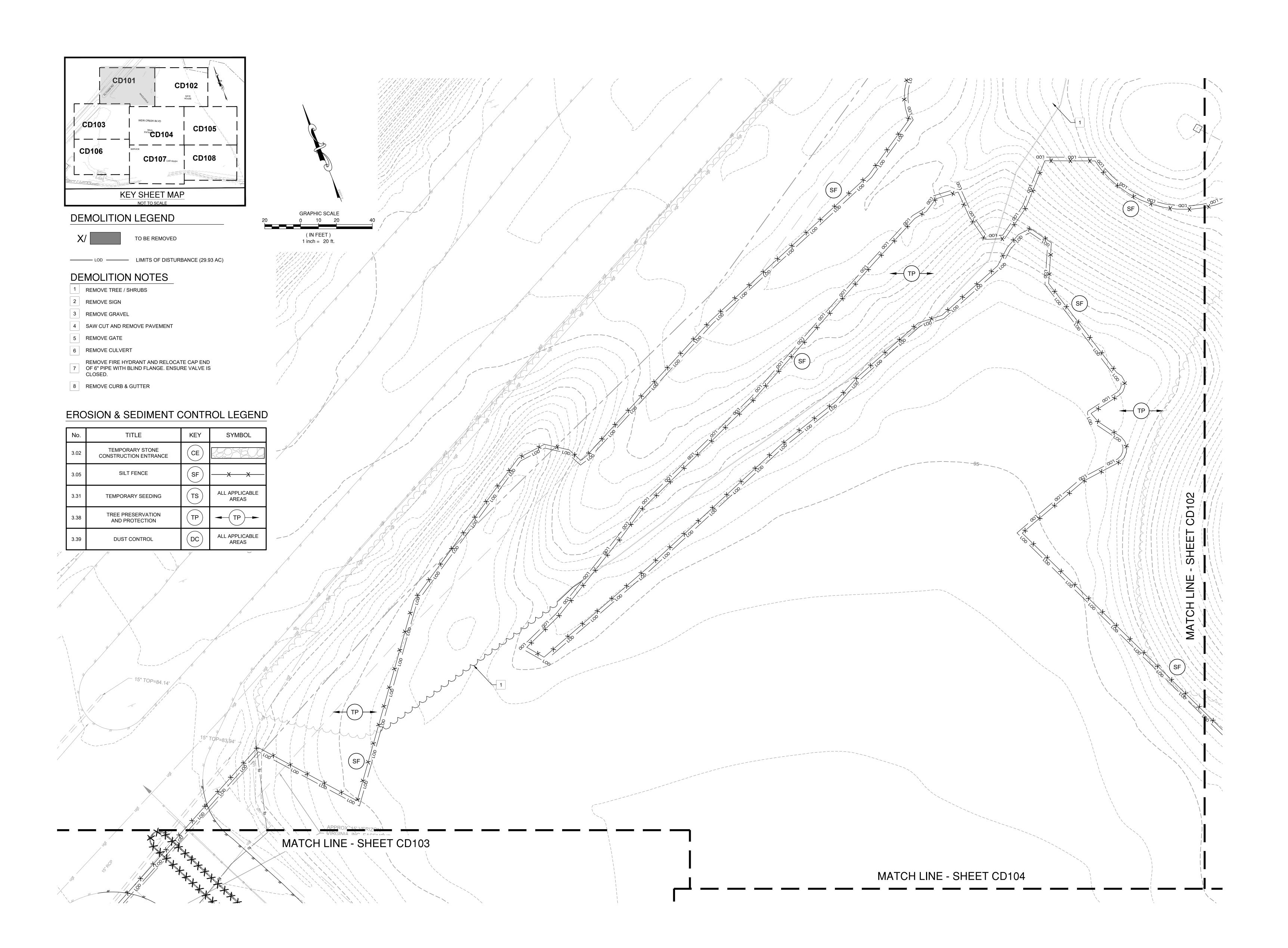
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REV#	DATE	DESCRIPTION	BY



ROJECT NO.	20-22195
ATE	02/12/20
HEET TITLE	

OVERALL DEMOLITION AND E&S CONTROL PH. I PLAN







NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

REVISIONS
REV# DATE DESCRIPTION BY

THE AUTO SUPERSTORE

ARMAX THE AUTO SUPERSTORE WEST COAST, INC.
2800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
804)747-0422

SERVICE & CARWASH

STORE NO 4007

PROJECT NO.

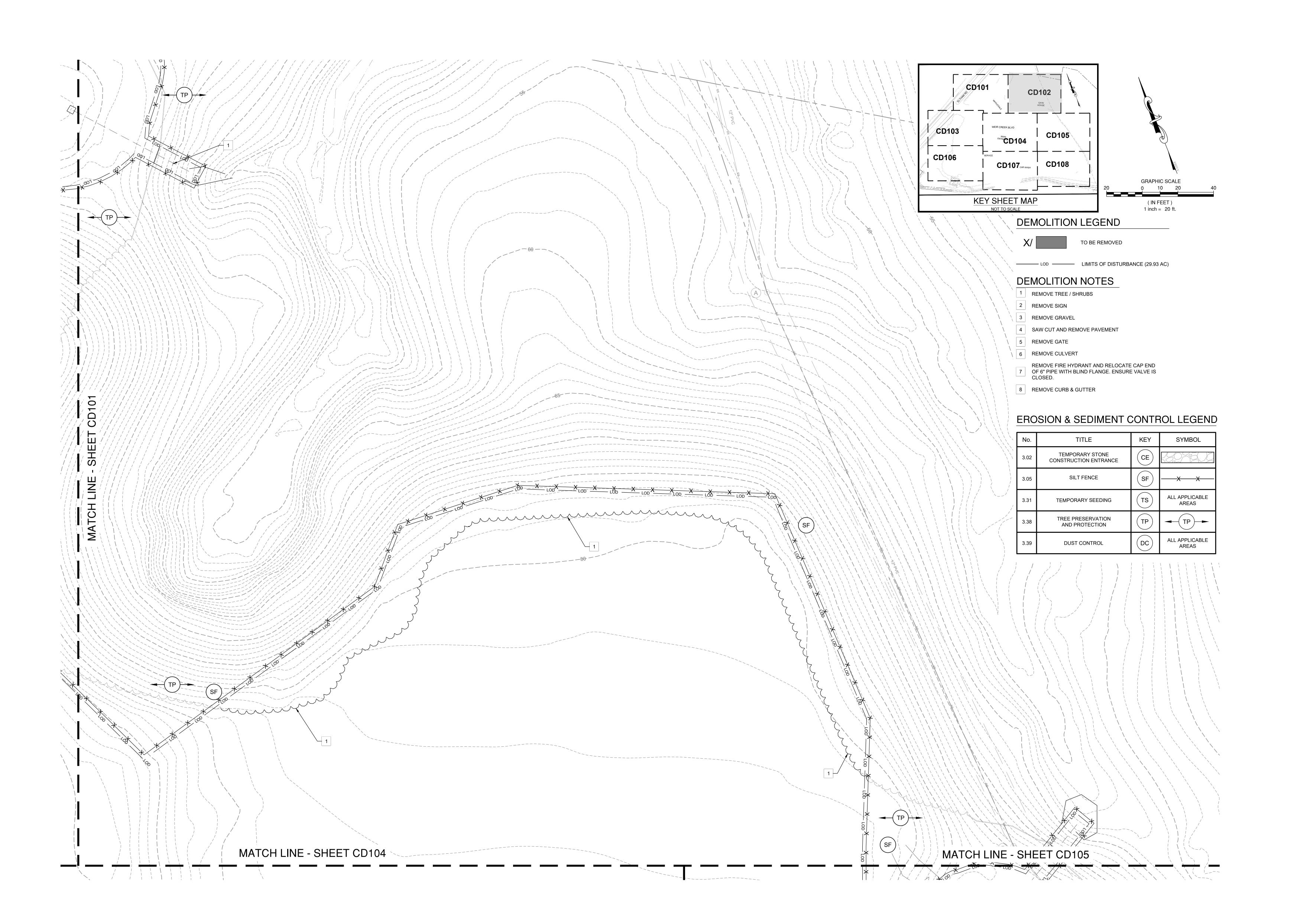
DATE

SHEET TITLE

20-22195.02 02/12/2024

DEMOLITION AND E&S CONTROL PH. I PLAN







NOT FOR CONSTRUCTION

LATEST DA/PC

DA23-031/PC23-005

HECKED BY: MH

	REVISIONS						
REV#	DATE	DESCRIPTION	BY				
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CARPERSTORE
CARMAX THE AUTO SUPERSTORE
(804)747-0422
(804)747-0422
SERVICE & CARWASH

STORE NO 4007

16931 BLDG-1. ELTHAM RD E

PROJECT NO.

DATE

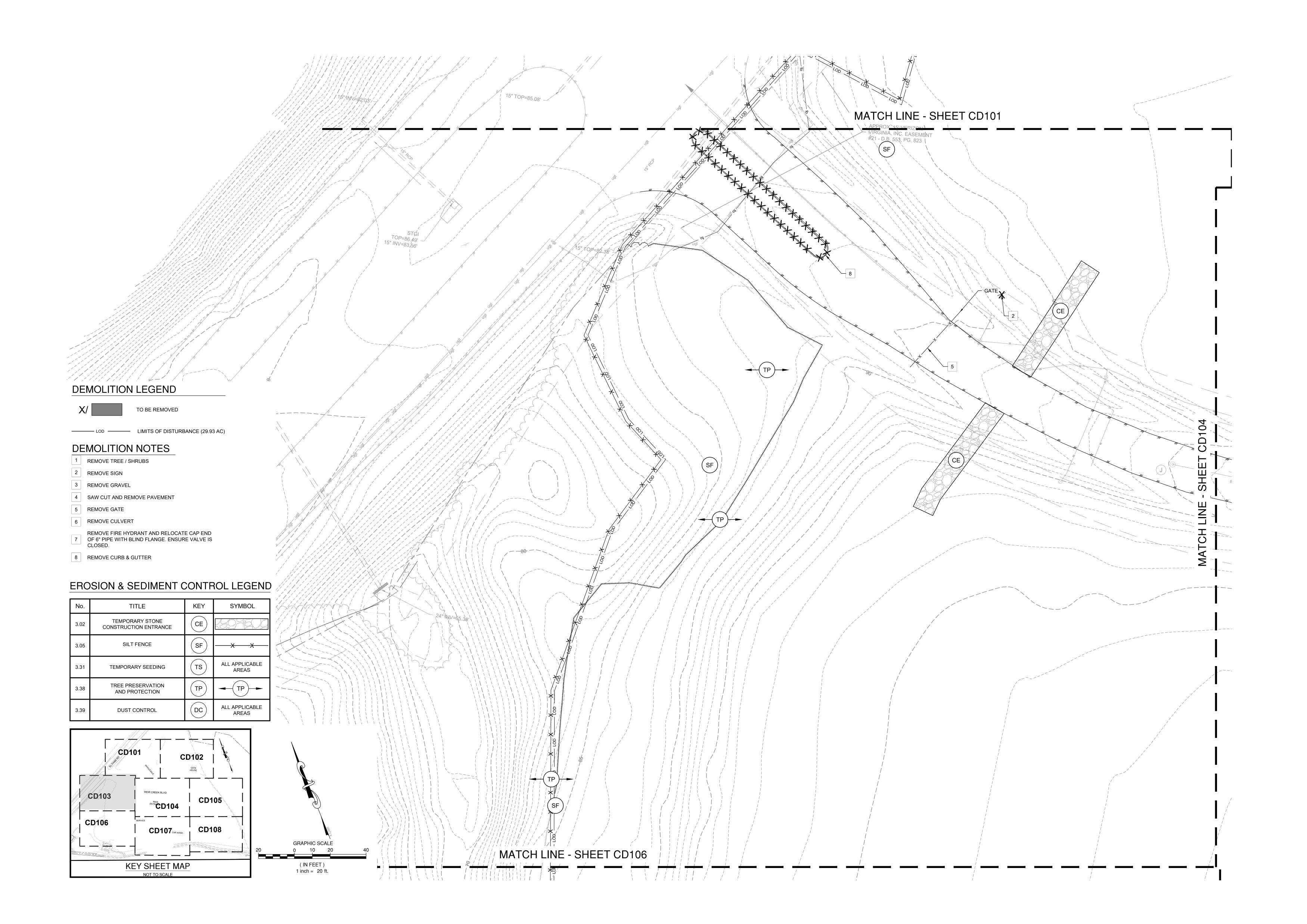
SHEET TITLE

DEMOLITION AND E&S CONTROL PH. I PLAN

20-22195.02

02/12/2024







NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH

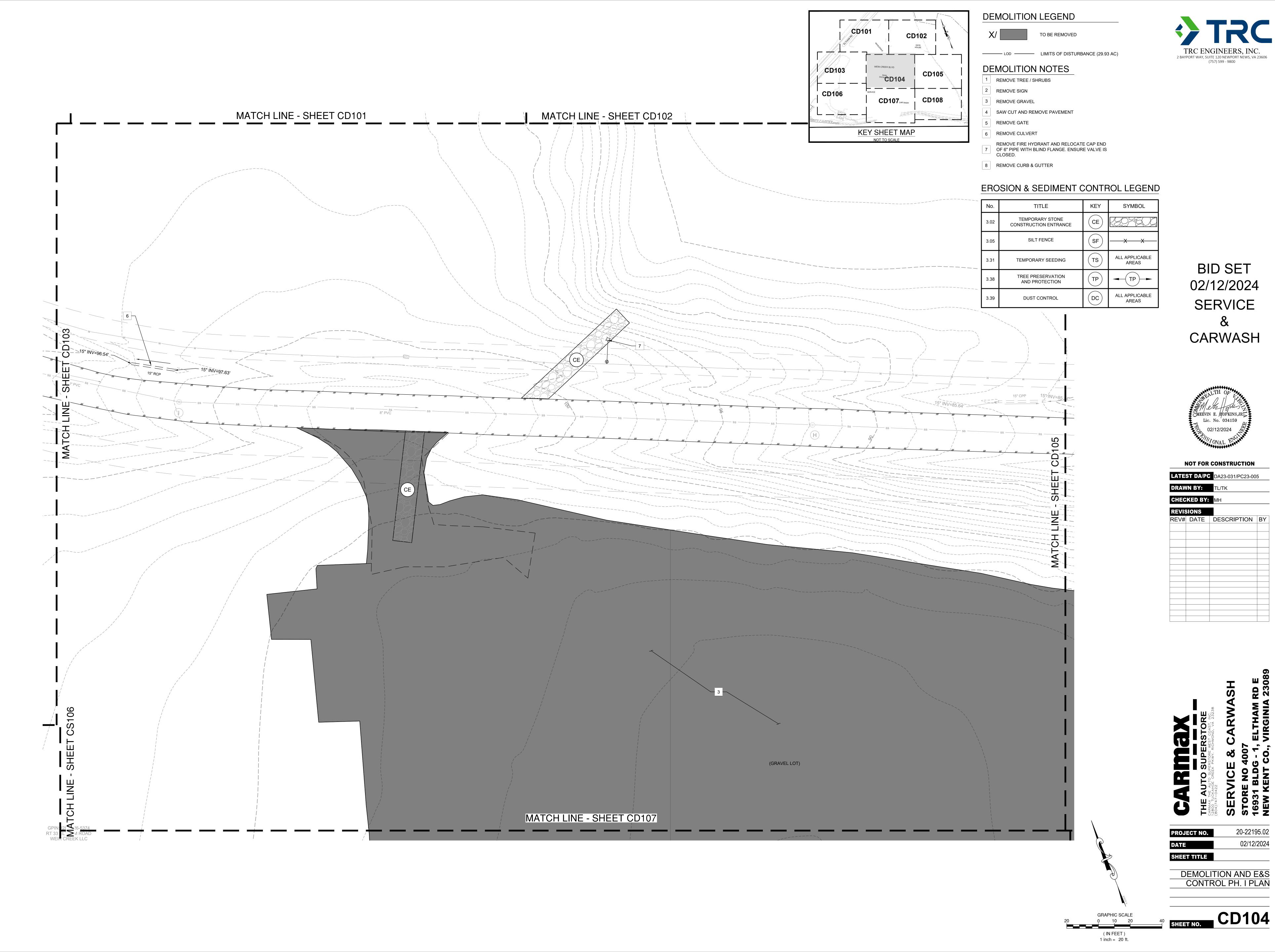
REVIS	SIONS		
REV#	DATE	DESCRIPTION	BY

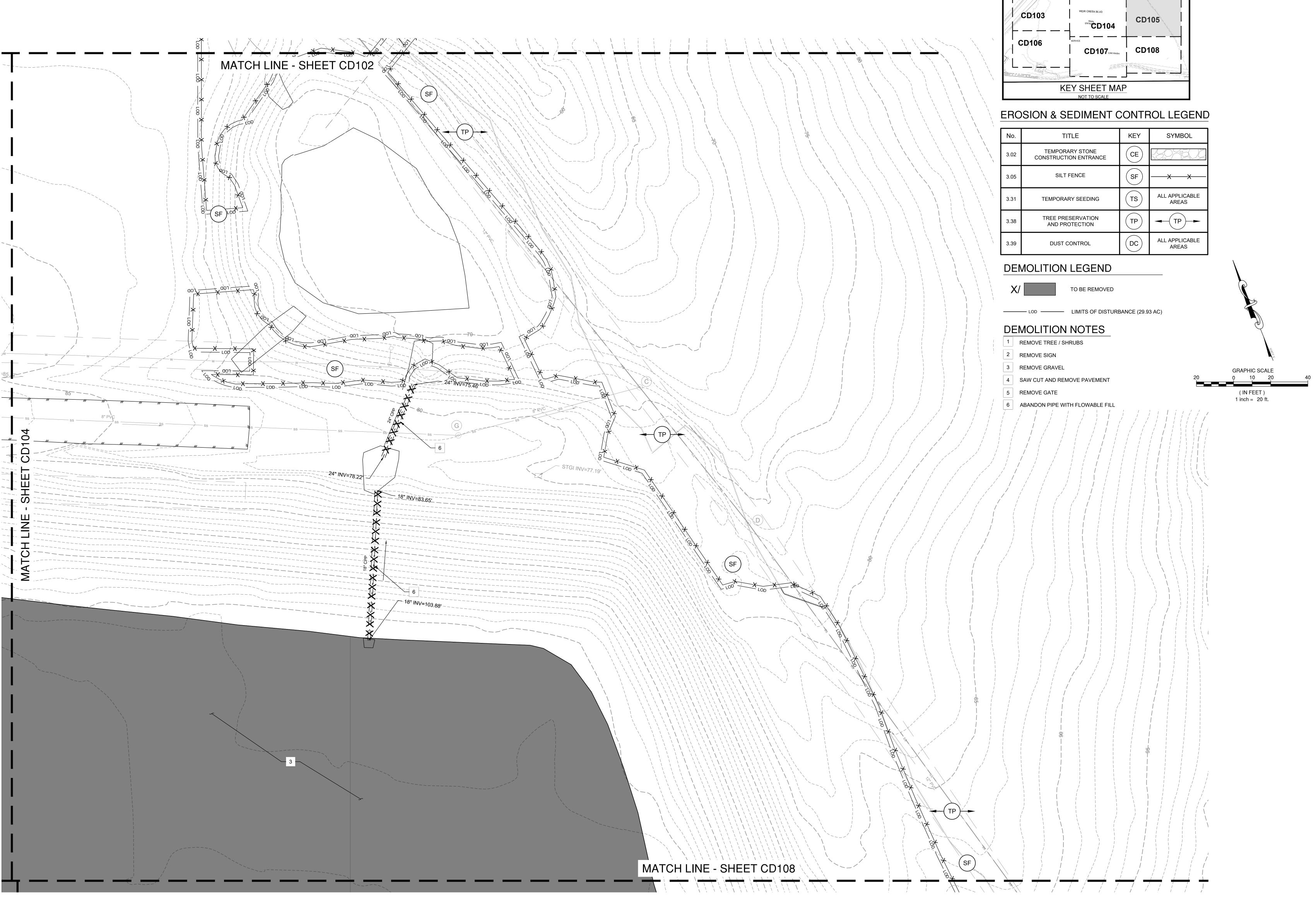
 PROJECT NO.
 20-22195.02

 DATE
 02/12/2024

 SHEET TITLE

DEMOLITION AND E&S
CONTROL PH. I PLAN



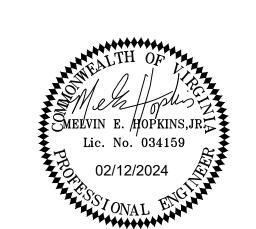




CD102

BID SET 02/12/2024 SERVICE

CARWASH



NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH

REV# DATE DESCRIPTION BY

THE AUTO SUPERSTORE
ARMAX THE AUTO SUPERSTORE
ARMAX THE AUTO SUPERSTORE WEST COAST, INC.
2800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
S04)747-0422
SERVICE & CARWASH
STORE NO 4007

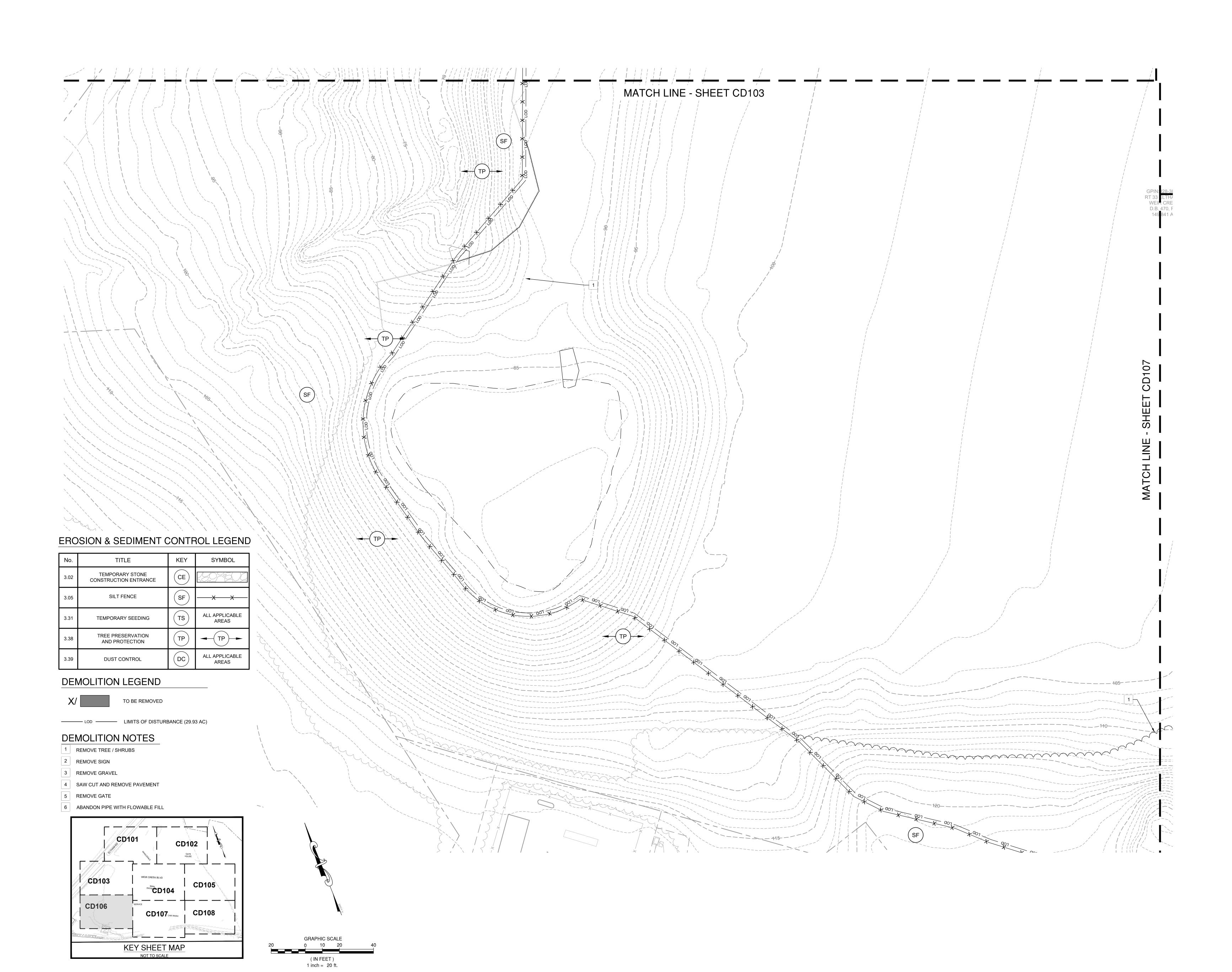
PROJECT NO. 20-22195.02

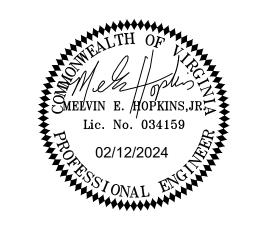
DATE 02/12/2024

SHEET TITLE

DEMOLITION AND E&S CONTROL PH. I PLAN







NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH

REVIS	IONS		
REV#	DATE	DESCRIPTION	BY

THE AUTO SUPERSTORE

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 PROJECT NO.
 20-22195.02

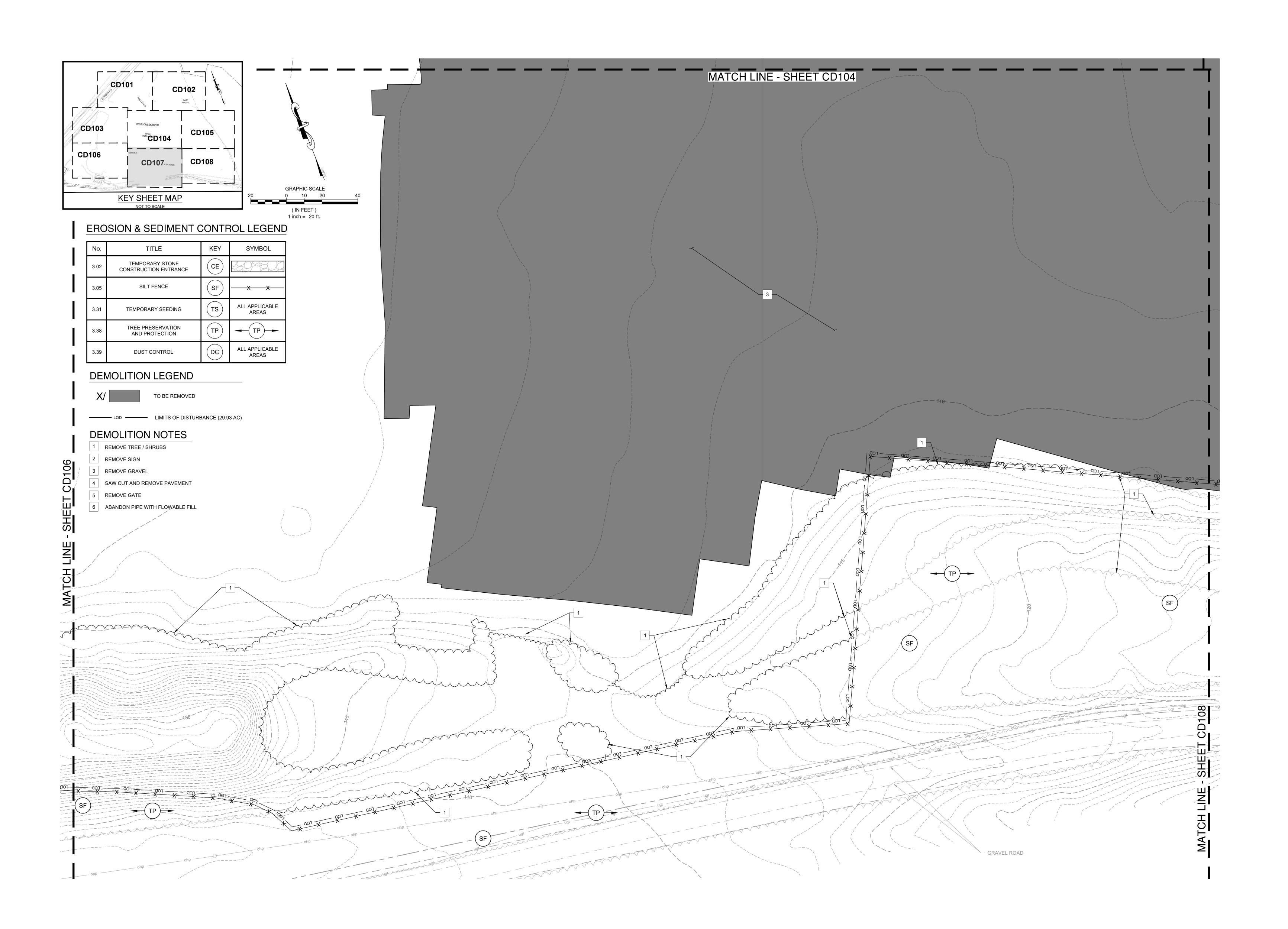
 DATE
 02/12/2024

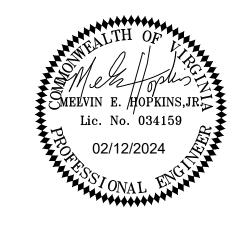
 SHEET TITLE

DEMOLITION AND E&S CONTROL PH. I PLAN

SHEET NO.







NOT FOR CONSTRUCTION

LATEST DA/PC

DA23-031/PC23-005

TL/TK

REVISIONS
REV# DATE DESCRIPTION BY

CLARING SUPERSTORE

THE AUTO SUPERSTORE
SARMAX THE AUTO SUPERSTORE WEST COAST, INC.
12800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
(804)747-0422
SERVICE & CARWASH

STORE NO 4007
16931 BLDG - 1, ELTHAM RD E

PROJECT NO.

DATE

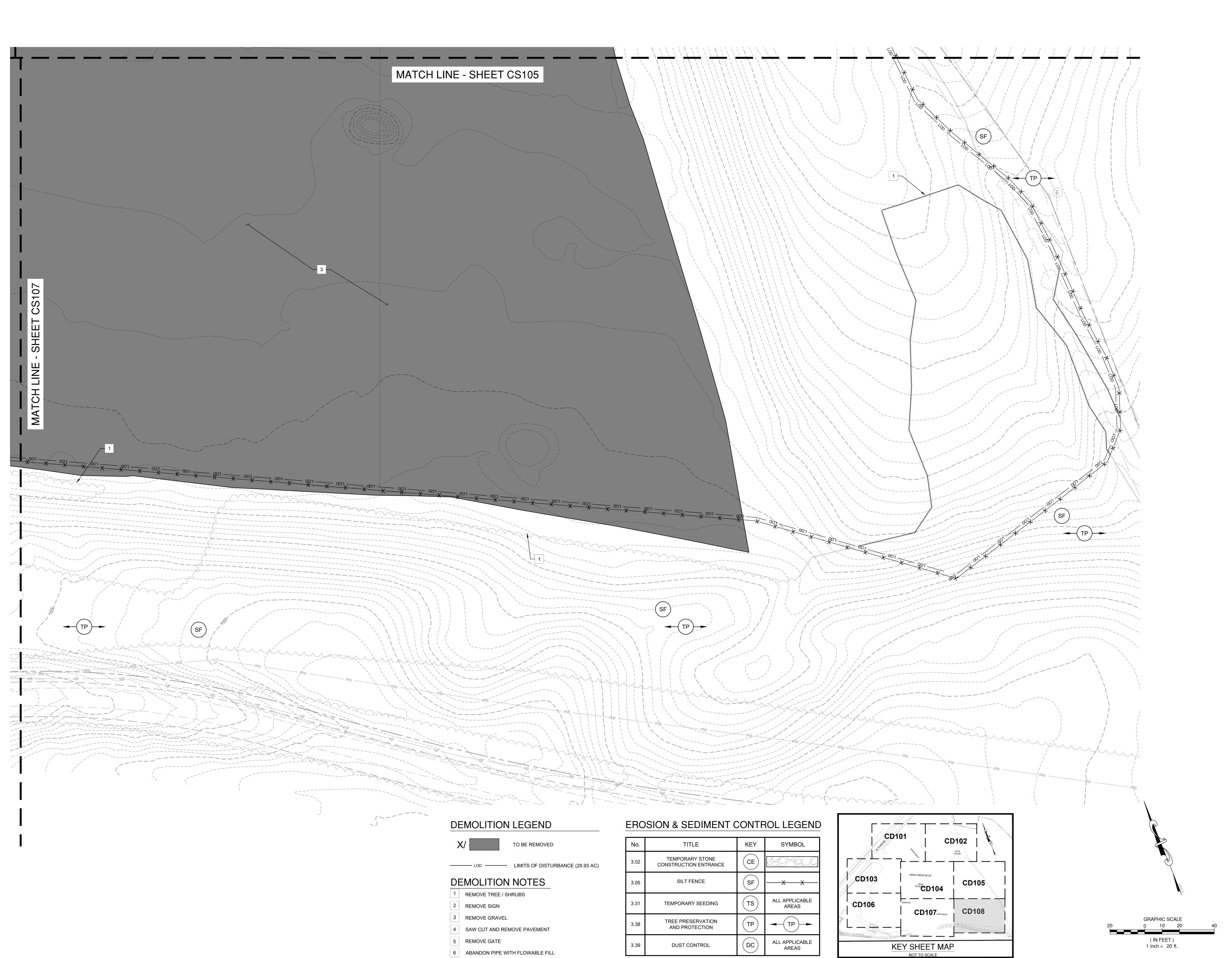
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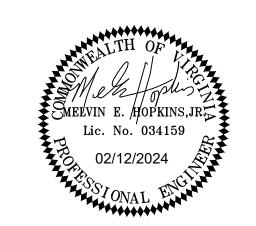
DEMOLITION AND E&S
CONTROL PH. I PLAN

20-22195.02

02/12/2024







NOT FOR CONSTRUCTION

ATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH

	SIONS	
REV#	DATE	DESCRIPTION

E AUTO SUPERSTORE
AT THE AUTO SUPERSTORE
AT THE AUTO SUPERSTORE
AT THE AUTO SUPERSTORE WEST COAST, INC.
TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
ERVICE & CARWASH

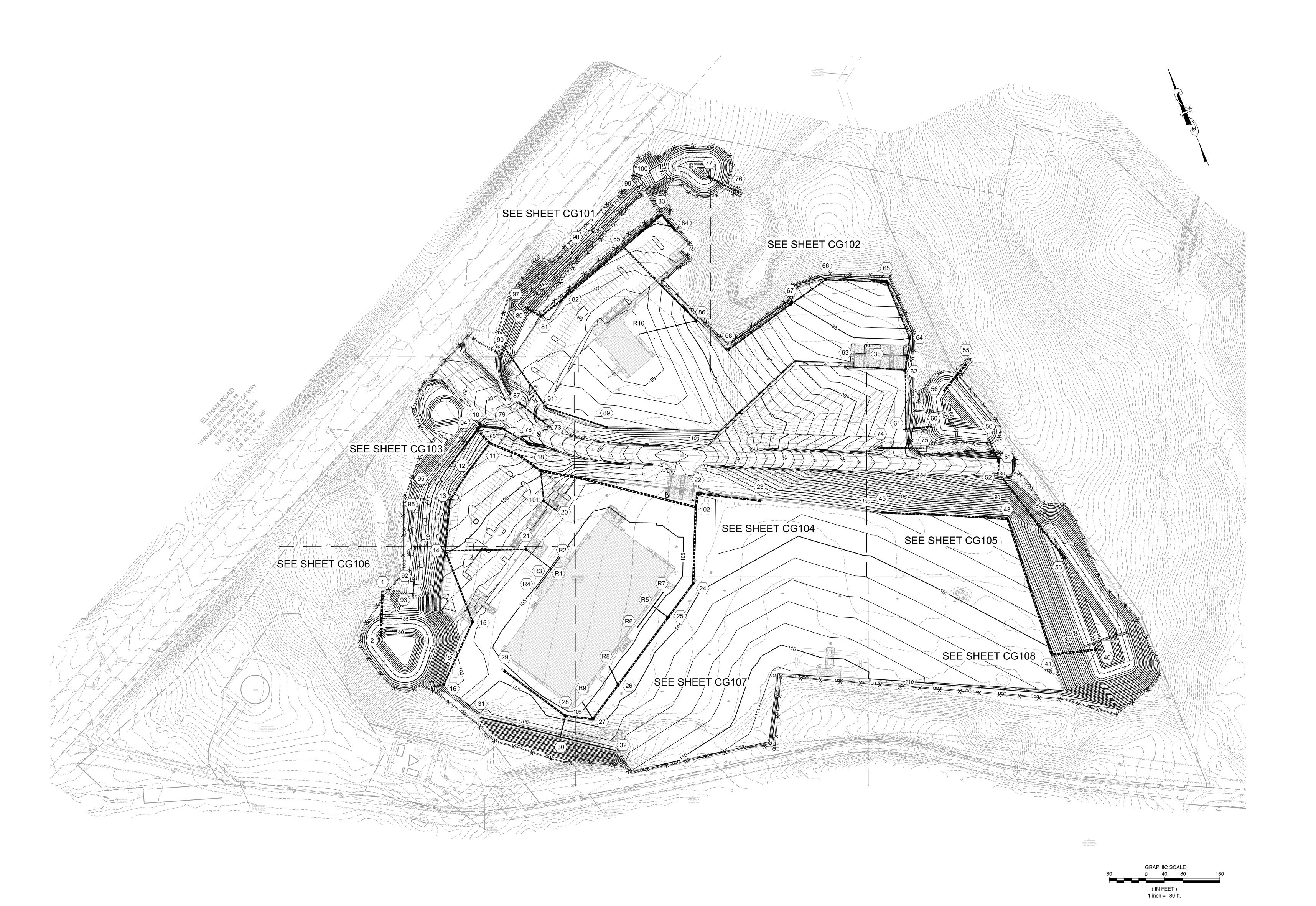
PROJECT NO. 20-22195.02

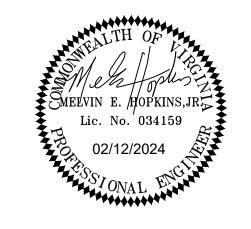
DATE 02/12/2024

SHEET TITLE

DEMOLITION AND E&S CONTROL PH. I PLAN







NOT FOR CONSTRUCTION **LATEST DA/PC** DA23-031/PC23-005 DRAWN BY: TL/TK

	SIONS		
REV#	DATE	DESCRIPTION	BY
I .			

PROJECT NO.

20-22195.02 02/12/2024 SHEET TITLE

OVERALL GRADING DRAINAGE AND E&S PH. II PLAN

1	36" VDOT ES1 TOP: 80.81 INV. IN: 77.31 (FROM #2, 36" RCP, SW)
2	DI-1 TOP: 85.00 INV. OUT: 79.50 (TO #1, 36" RCP,NE)
10	36" VDOT ES1 TOP: 91.50 INV. IN: 88.00 (FROM #11, 36" RCP, S)
14	DI-2A, L=2.2' TOP: 99.70 INV. IN: 95.62 (FROM #15, 24" RCP, S) INV. IN: 95.62 (FROM #21, 15" RCP, E) INV. OUT: 95.62 (TO #13, 24" RCP,NE)
15	DI-7 TOP: 103.73 INV. IN: 96.05 (FROM #16, 24" RCP, SW) INV. OUT: 96.05 (TO #14, 24" RCP,N)
16	DI-7 TOP: 102.22 INV. OUT: 97.55 (TO #15, 24" RCP,NE)
17	DI-2A, L=2.2' TOP: 97.85 INV. IN: 92.00 (FROM #18, 36" RCP, SE) INV. OUT: 92.00 (TO #11, 36" RCP,NW)
18	DI-2A, L=2.2' TOP: 101.15 INV. IN: 93.80 (FROM #19, 36" RCP, SE) INV. IN: 97.17 (FROM #101, 15" RCP, S) INV. OUT: 93.70 (TO #17, 36" RCP,NW)
19	DI-2A, L=2.2' TOP: 104.23 INV. IN: 96.65 (FROM #102, 36" RCP, SE) INV. OUT: 96.55 (TO #18, 36" RCP,NW)
20	DI-2A, L=2.2' TOP: 103.92 INV. OUT: 97.65 (TO #101, 15" RCP,NW)
21	DI-7 TOP: 103.72 INV. IN: 100.58 (FROM #R1, 6" PVC, SE) INV. OUT: 99.24 (TO #14, 15" RCP,W)
22	DI-7 TOP: 103.75 INV. IN: 98.03 (FROM #23, 24" RCP, SE) INV. OUT: 98.03 (TO #102, 36" RCP,SW)
23	DI-7 TOP: 103.21 INV. OUT: 98.71 (TO #22, 24" RCP,NW)
24	DI-7 TOP: 104.42 INV. IN: 98.34 (FROM #25, 24" RCP, SW) INV. OUT: 98.24 (TO #102, 36" RCP,NE)
25	DI-7 TOP: 104.15 INV. IN: 98.81 (FROM #26, 24" RCP, SW) INV. IN: 102.30 (FROM #R5, 12" PVC, NW INV. OUT: 98.71 (TO #24, 24" RCP,NE)
26	DI-7 TOP: 104.15 INV. IN: 99.64 (FROM #27, 24" RCP, SW) INV. IN: 102.27 (FROM #R8, 12" PVC, N) INV. OUT: 99.54 (TO #25, 24" RCP,NE)
27	DI-7 TOP: 104.42 INV. IN: 100.00 (FROM #28, 24" RCP, NW INV. IN: 102.07 (FROM #R9, 12" PVC, N) INV. OUT: 100.01 (TO #26, 24" RCP,NE)
28	DI-7 TOP: 104.65 INV. IN: 100.34 (FROM #29, 24" RCP, NW INV. IN: 101.50 (FROM #30, 12" PVC, SW INV. OUT: 100.24 (TO #27, 24" RCP,SE)
29	DI-7 TOP: 104.79 INV. OUT: 101.00 (TO #28, 24" RCP,SE)
30	C.O. TOP: 107.20 INV. IN: 105.14 (FROM #31, 6" PVC, NW) INV. IN: 105.14 (FROM #32, 6" PVC, SE) INV. OUT: 105.14 (TO #28, 12" PVC,NE)
31	C.O. TOP: 106.99 INV. OUT: 105.50 (TO #30, 6" PVC,SE)
32	C.O. TOP: 107.35 INV. OUT: 105.38 (TO #30, 6" PVC,NW)
38	DI-2A, L=2.2' TOP: 86.50 INV. IN: 82.84 (FROM #63, 15" RCP, NW) INV. OUT: 82.84 (TO #62, 15" RCP,SE)
40	36" VDOT ES1 TOP: 87.50 INV. IN: 84.00 (FROM #41, 36" RCP, W)
41	DI-2A, L=2.2' TOP: 105.26 INV. IN: 93.98 (FROM #42, 36" RCP, N) INV. OUT: 93.98 (TO #40, 36" RCP,E)
42	DI-2A, L=2.2' TOP: 103.20 INV. IN: 94.66 (FROM #43, 36" RCP, N) INV. OUT: 94.66 (TO #41, 36" RCP,S)
43	DI-2A, L=2.2' TOP: 100.55 INV. IN: 95.53 (FROM #44, 24" RCP, NW) INV. OUT: 95.53 (TO #42, 36" RCP,S)
44	DI-2A, L=2.2' TOP: 101.78 INV. IN: 96.80 (FROM #45, 24" RCP, NW) INV. OUT: 96.70 (TO #43, 24" RCP,SE)

STRC. NUMBER	STRC. DATA  DI-2A, L=2.2'
45	TOP: 102.89 INV. OUT: 97.81 (TO #44, 24" RCP,SE
50	24" VDOT ES1 TOP: 64.41 INV. IN: 62.04 (FROM #51, 24" RCP, S
51	DI-7 TOP: 80.54 INV. IN: 71.91 (FROM #52, 24" RCP, 8 INV. OUT: 70.85 (TO #50, 24" RCP,N)
52	DI-7 TOP: 80.17 INV. IN: 72.27 (FROM #53, 24" RCP, S INV. OUT: 72.17 (TO #51, 24" RCP,NE
53	DI-1 TOP: 84.01 INV. OUT: 77.75 (TO #52, 24" RCP,N)
55	36" VDOT ES1 TOP: 63.50 INV. IN: 60.00 (FROM #56, 36" RCP, \$
56	48 IN. MH TOP: 66.24 INV. OUT: 62.00 (TO #55, 36" RCP,NE
60	24" VDOT ES1 TOP: 72.38 INV. IN: 70.00 (FROM #61, 24" RCP, \
61	DI-2B, L= 6' TOP: 85.44 INV. IN: 72.19 (FROM #62, 15" RCP, I INV. OUT: 72.19 (TO #60, 24" RCP,E)
62	DI-7 TOP: 86.58 INV. IN: 74.31 (FROM #64, 15" RCP, N INV. IN: 82.23 (FROM #38, 15" RCP, N INV. OUT: 74.21 (TO #61, 15" RCP,S)
63	DI-2A, L=2.2' TOP: 87.26 INV. OUT: 83.99 (TO #38, 15" RCP,SE
64	DI-7 TOP: 84.75 INV. IN: 74.68 (FROM #65, 15" RCP, N INV. OUT: 74.68 (TO #62, 15" RCP,SN
65	DI-1 TOP: 79.73 INV. IN: 75.44 (FROM #66, 15" RCP, I INV. OUT: 75.34 (TO #64, 15" RCP,S)
66	DI-7 TOP: 81.58 INV. IN: 76.76 (FROM #67, 15" RCP, V INV. OUT: 76.66 (TO #65, 15" RCP, SI
67	DI-7 TOP: 85.32 INV. IN: 81.29 (FROM #68, 15" RCP, V INV. OUT: 81.19 (TO #66, 15" RCP,E)
68	DI-7 TOP: 92.78 INV. OUT: 86.50 (TO #67, 15" RCP,E)
73	15" VDOT ES1 TOP: 94.04 INV. OUT: 92.50 (TO #87, 15" RCP,N
74	15" VDOT ES1 TOP: 85.75 INV. OUT: 84.30 (TO #75, 15" RCP,SI
75	15" VDOT ES1 TOP: 80.04 INV. IN: 78.50 (FROM #74, 15" RCP, I
76	24" VDOT ES1 TOP: 60.38 INV. IN: 58.00 (FROM #77, 24" RCP, I
77	DI-1 TOP: 66.00 INV. OUT: 62.00 (TO #76, 24" RCP,SE
78	15" VDOT ES1 TOP: 92.87 INV. OUT: 91.33 (TO #79, 15" RCP,N)
79	15" VDOT ES1 TOP: 92.54 INV. IN: 91.00 (FROM #78, 15" RCP, 9
80	21" VDOT ES1 TOP: 89.88 INV. IN: 87.50 (FROM #81, 24" RCP, \$
81	DI-2A, L=2.2' TOP: 96.78 INV. IN: 87.72 (FROM #82, 24" RCP, I INV. OUT: 87.62 (TO #80, 24" RCP,N
83	DI-2A, L=2.2' TOP: 94.61 INV. IN: 90.79 (FROM #84, 15" RCP, S INV. OUT: 90.79 (TO #85, 15" RCP,W
86	DI-7 TOP: 93.95 INV. IN: 89.80 (FROM #R10, 6" PVC, INV. OUT: 89.70 (TO #85, 18" RCP,N
87	15" VDOT ES1 TOP: 92.04 INV. IN: 90.50 (FROM #73, 15" RCP, S

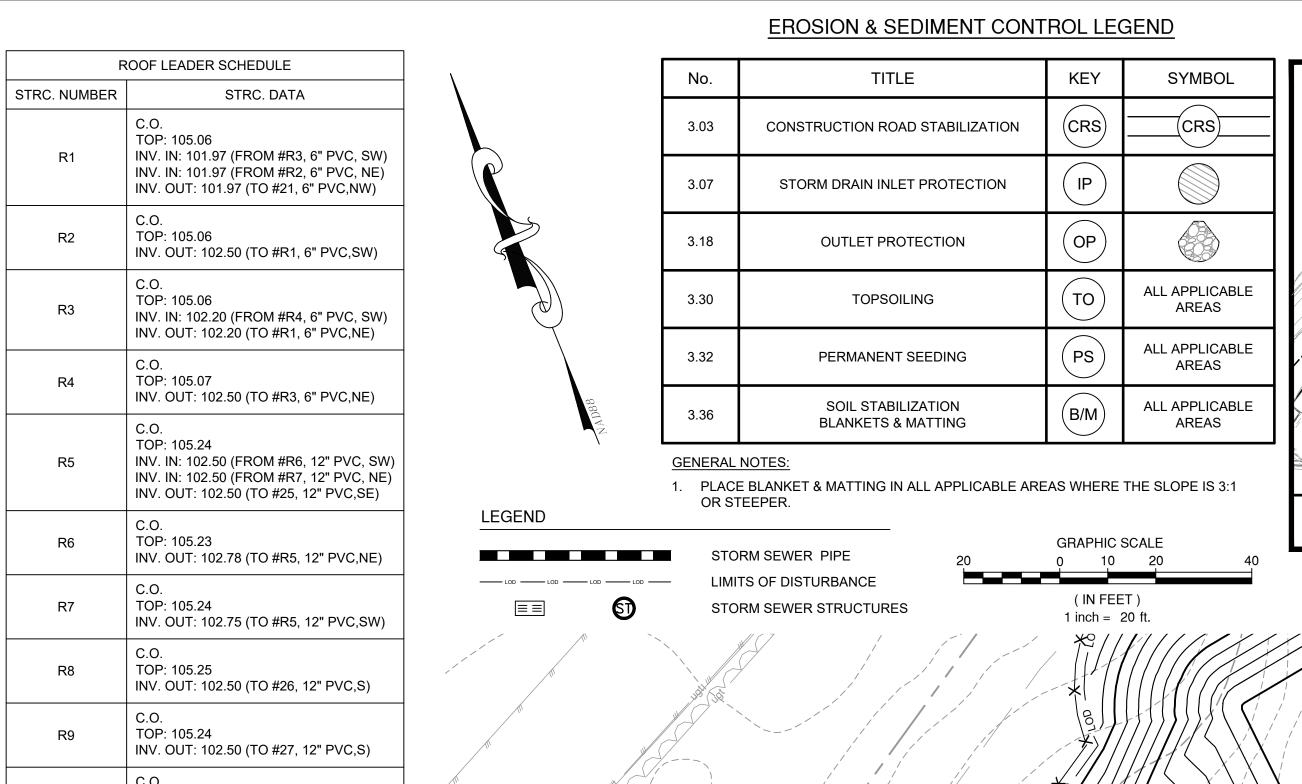
		STORM I	PIPE					STORM	PIP
PE	SIZE	LENGTH	SLOPE	MATERIAL	1	PIPE	SIZE	LENGTH	SI
<b>7-18</b>	36"	57 LF	2.96%	RCP	-	83-84	15"	43 LF	0.
3-19	36"	84 LF	3.27%	RCP	-	10-11	36"	43 LF	3.
-102	36"	262 LF	0.30%	RCP	-	11-17	36"	70 LF	2.
2-23	24"	136 LF	0.50%	RCP	-	56-55	36"	74 LF	2.
-102	36"	30 LF	0.50%	RCP		2-1	36"	89 LF	2.
5-26	24"	183 LF	0.40%	RCP		77-76	24"	73 LF	5.
6-27	24"	92 LF	0.40%	RCP		73-87	15"	71 LF	2.
3-29	24"	164 LF	0.40%	RCP		R4-R3	6"	30 LF	1.
0-41	36"	99 LF	10.05%	RCP		R3-R1	6"	23 LF	1.0
1-42	36"	136 LF	0.50%	RCP		R1-R2	6"	29 LF	1.8
2-43	36"	174 LF	0.50%	RCP		21-14	15"	175 LF	2.
3-44	24"	147 LF	0.80%	RCP		R1-21	6"	70 LF	2.
1-45	24"	126 LF	0.80%	RCP		R9-27	12"	43 LF	1.
I-12	24"	75 LF	1.74%	RCP		R10-86	6"	127 LF	4.
2-13	24"	76 LF	1.97%	RCP		31-30	6"	178 LF	0.
3-14	24"	110 LF	1.93%	RCP		30-28	12"	47 LF	7.
l-15	24"	165 LF	0.26%	RCP		32-30	6"	122 LF	0.
5-16	24"	150 LF	1.00%	RCP		R8-26	12"	45 LF	0.
2-38	15"	61 LF	1.00%	RCP		R6-R5	12"	56 LF	0.
3-63	15"	70 LF	1.65%	RCP		R5-25	12"	41 LF	0.
1-25	24"	92 LF	0.40%	RCP		R7-R5	12"	37 LF	0.
7-28	24"	60 LF	0.40%	RCP		61-60	24"	57 LF	3.
-101	15"	31 LF	0.50%	RCP		74-75	15"	89 LF	6.
5-66	15"	132 LF	0.92%	RCP		78-79	15"	66 LF	0.
6-67	15"	94 LF	4.71%	RCP		53-52	24"	233 LF	2.
3-67	15"	166 LF	3.14%	RCP		52-51	24"	27 LF	0.
5-64	15"	132 LF	0.50%	RCP		51-50	24"	49 LF	17
1-62	15"	70 LF	0.53%	RCP					
1-62	15"	127 LF	1.58%	RCP					
)-81	24"	39 LF	0.30%	RCP					
1-82	24"	85 LF	0.30%	RCP					
2-85	24"	149 LF	0.30%	RCP					

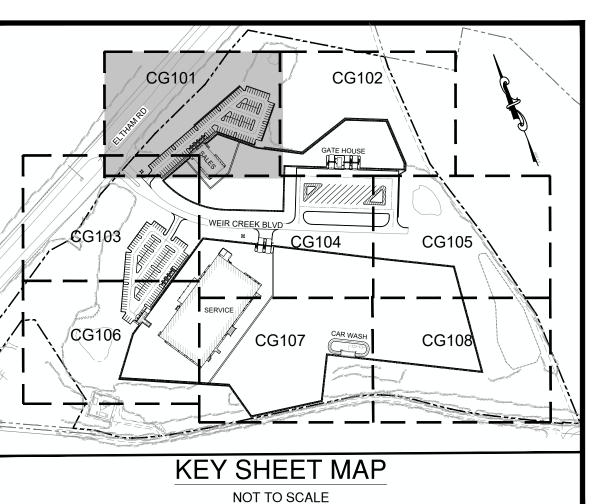
PIPE	SIZE	LENGTH	SLOPE	MATERIAL
83-84	15"	43 LF	0.50%	RCP
10-11	36"	43 LF	3.48%	RCP
11-17	36"	70 LF	2.86%	RCP
56-55	36"	74 LF	2.70%	RCP
2-1	36"	89 LF	2.47%	RCP
77-76	24"	73 LF	5.45%	RCP
73-87	15"	71 LF	2.82%	RCP
R4-R3	6"	30 LF	1.00%	PVC
R3-R1	6"	23 LF	1.00%	PVC
R1-R2	6"	29 LF	1.80%	PVC
21-14	15"	175 LF	2.07%	RCP
R1-21	6"	70 LF	2.00%	PVC
₹9-27	12"	43 LF	1.00%	PVC
R10-86	6"	127 LF	4.73%	PVC
31-30	6"	178 LF	0.20%	PVC
30-28	12"	47 LF	7.75%	PVC
32-30	6"	122 LF	0.20%	PVC
R8-26	12"	45 LF	0.50%	PVC
R6-R5	12"	56 LF	0.50%	PVC
R5-25	12"	41 LF	0.50%	PVC
R7-R5	12"	37 LF	0.68%	PVC
61-60	24"	57 LF	3.85%	RCP
74-75	15"	89 LF	6.50%	RCP
78-79	15"	66 LF	0.50%	RCP
53-52	24"	233 LF	2.35%	RCP
52-51	24"	27 LF	0.94%	RCP
51-50	24"	49 LF	17.98%	RCP

R10

TOP: 99.30

INV. OUT: 95.80 (TO #86, 6" PVC,E)



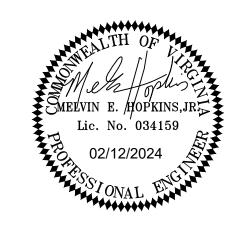


CRS

MATCH LINE - SHEET CG104



**BID SET** 02/12/2024 SERVICE CARWASH



PEVIO	SIONS		
IN-VI			
REV#	DATE	DESCRIPTION	BY

20-22195.02 PROJECT NO. 02/12/2024 SHEET TITLE

GRADING, DRAINAGE, AND E&S PH. II PLAN

	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	15'VERIZEDAN A			<del>-</del>
	MATCH LINE -	SHEET CG1	03 TC98.00		,
`\ X			7C97.74 T.	¬TC97.32	
\			1037.74	C97.26	

## EROSION & SEDIMENT CONTROL LEGEND

No.	TITLE	KEY	SYMBOL
3.03	CONSTRUCTION ROAD STABILIZATION	CRS	CRS
3.07	STORM DRAIN INLET PROTECTION	(IP)	
3.18	OUTLET PROTECTION	OP	
3.30	TOPSOILING	ТО	ALL APPLICABLE AREAS
3.32	PERMANENT SEEDING	PS	ALL APPLICABLE AREAS
3.36	SOIL STABILIZATION BLANKETS & MATTING	B/M)	ALL APPLICABLE AREAS

BID SET 02/12/2024 SERVICE & CARWASH



NOT FOR CONSTRUCTION

DRAWN BY: TL/TK

CHECKED BY: MH

REV#	DATE	DESCRIPTION	BY

HE AUTO SUPERSTORE

WAY THE AUTO SUPERSTORE

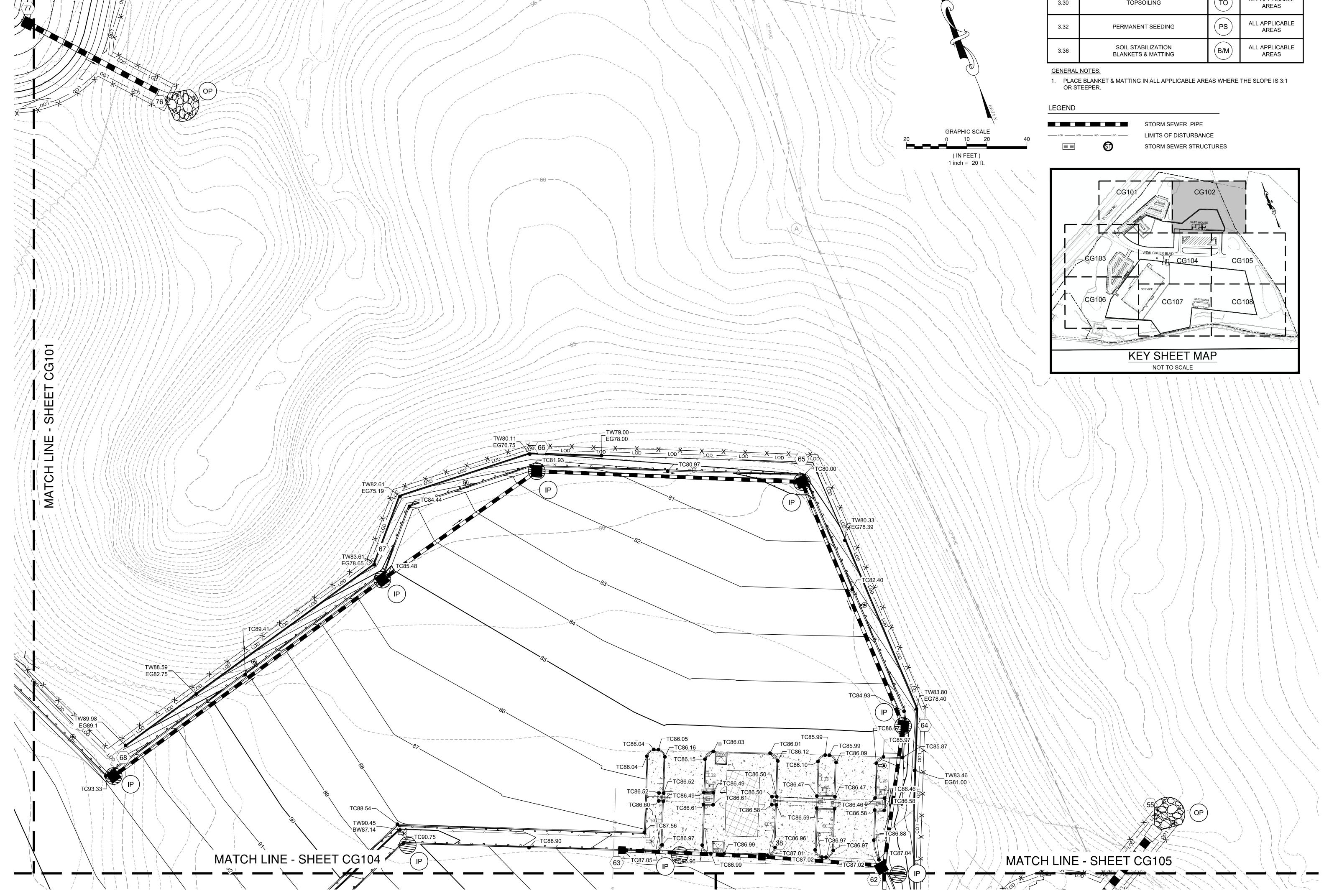
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PROJECT NO. 20-22195.02

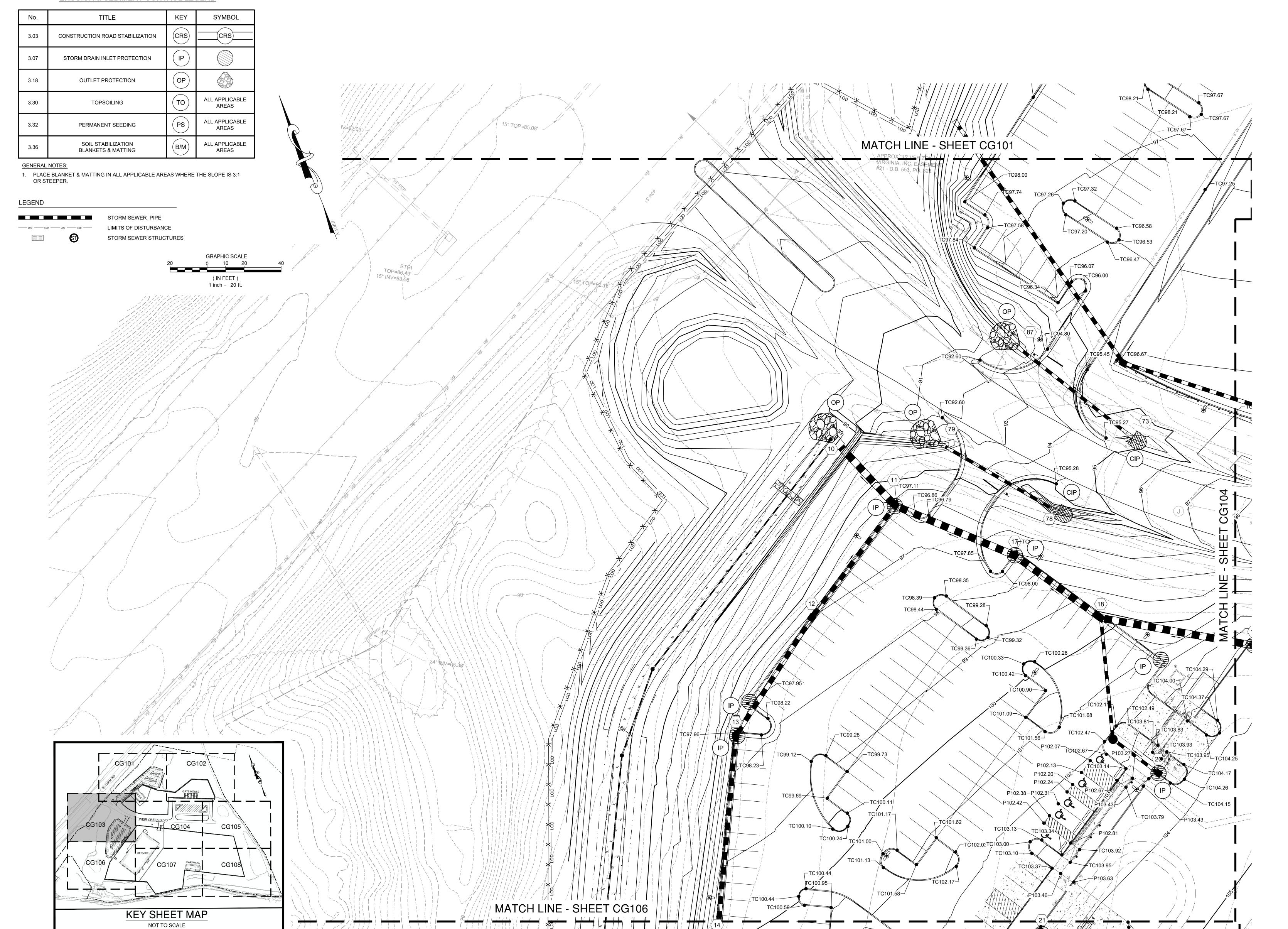
DATE 02/12/2024

SHEET TITLE

GRADING, DRAINAGE, AND E&S PH. II PLAN

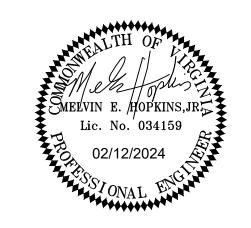


## EROSION & SEDIMENT CONTROL LEGEND





BID SET 02/12/2024 SERVICE & CARWASH



NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH

DESCRIPTION B'	DATE	REV#

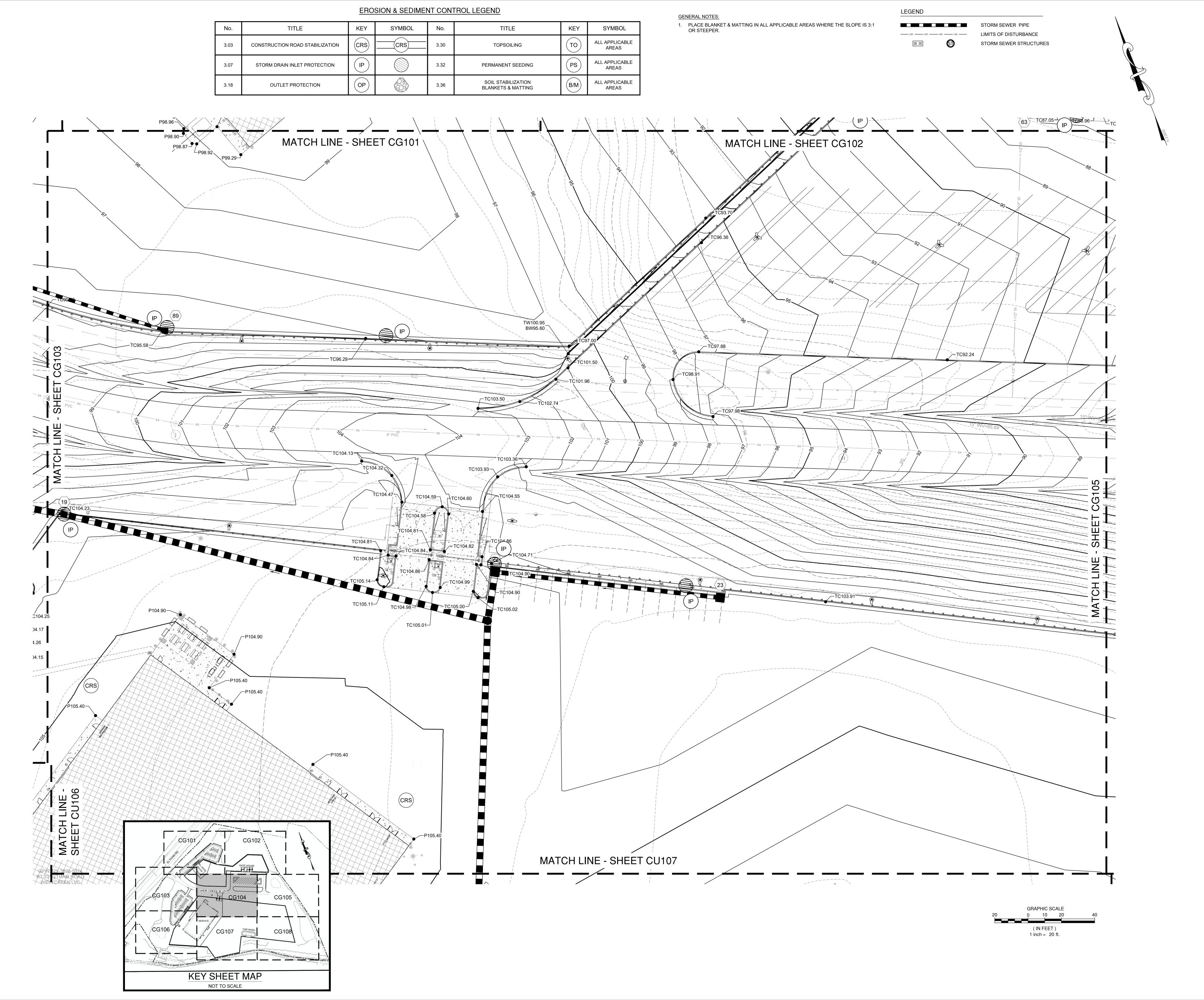
THE AUTO SUPERSTORE
ARMAX THE AUTO SUPERSTORE
SECOND CKAHOE CREEK PKWY. RICHMOND, VA 23238
04)747-0422
SERVICE & CARWASH
STORE NO 4007
6931 BLDG - 1, ELTHAM RD E

 PROJECT NO.
 20-22195.02

 DATE
 02/12/2024

 SHEET TITLE

GRADING, DRAINAGE, AND E&S
PH. II PLAN







NOT FOR CONSTRUCTION **LATEST DA/PC** DA23-031/PC23-005 DRAWN BY: TL/TK

CHECKED BY: MH						
REVISIONS						
REV#	DATE	DESCRIPTION	BY			
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20-22195.02 PROJECT NO. 02/12/2024 SHEET TITLE

GRADING, DRAINAGE, AND E&S
PH. II PLAN

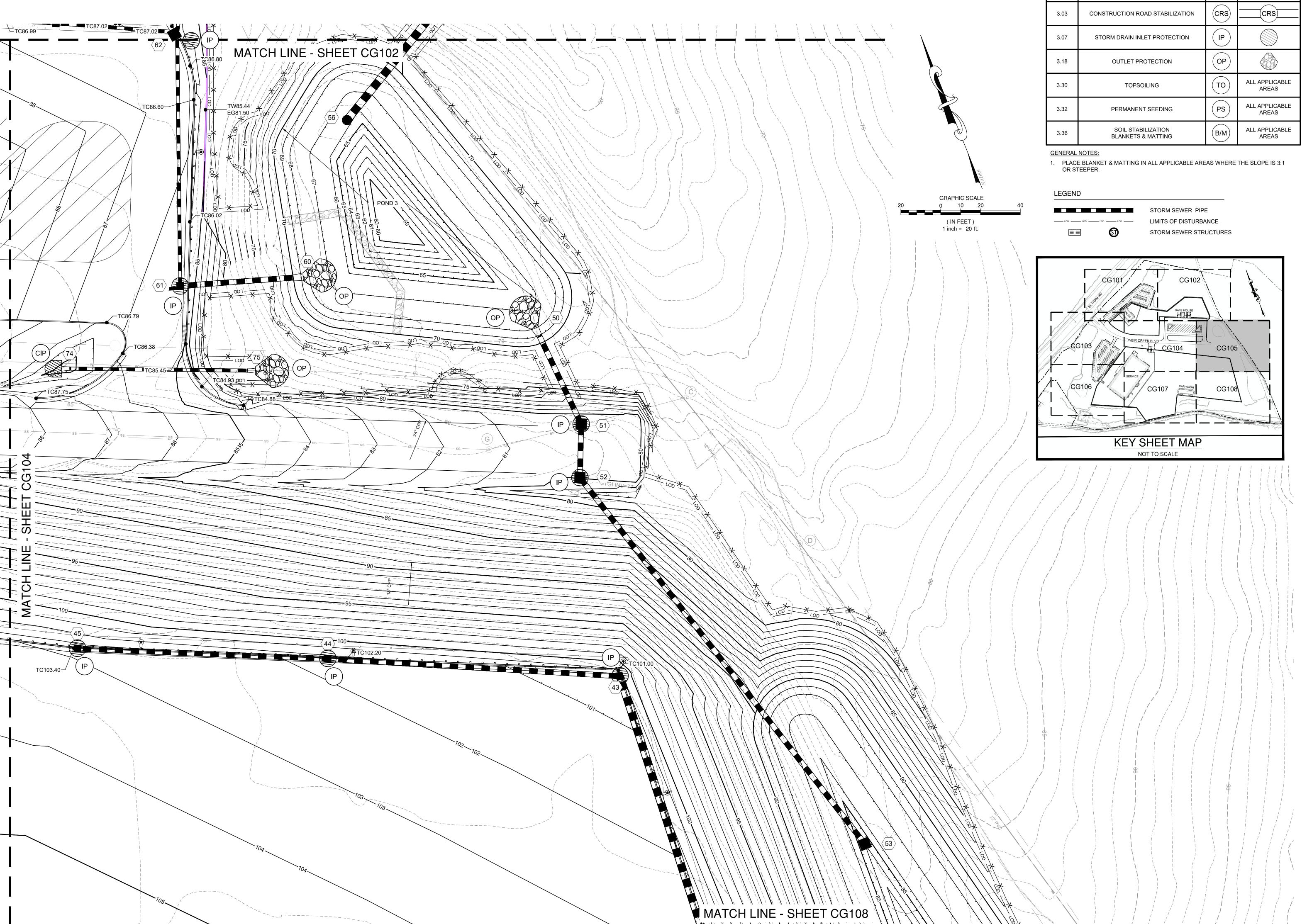


**BID SET** 

02/12/2024

SERVICE

CARWASH



## **EROSION & SEDIMENT CONTROL LEGEND**

No.	TITLE	KEY	SYMBOL
3.03	CONSTRUCTION ROAD STABILIZATION	CRS	CRS
3.07	STORM DRAIN INLET PROTECTION	(IP)	
3.18	OUTLET PROTECTION	OP	
3.30	TOPSOILING	ТО	ALL APPLICABLE AREAS
3.32	PERMANENT SEEDING	PS	ALL APPLICABLE AREAS
3.36	SOIL STABILIZATION BLANKETS & MATTING	B/M)	ALL APPLICABLE AREAS

NOT FOR CONSTRUCTION

**LATEST DA/PC** DA23-031/PC23-005 **DRAWN BY:** TL/TK

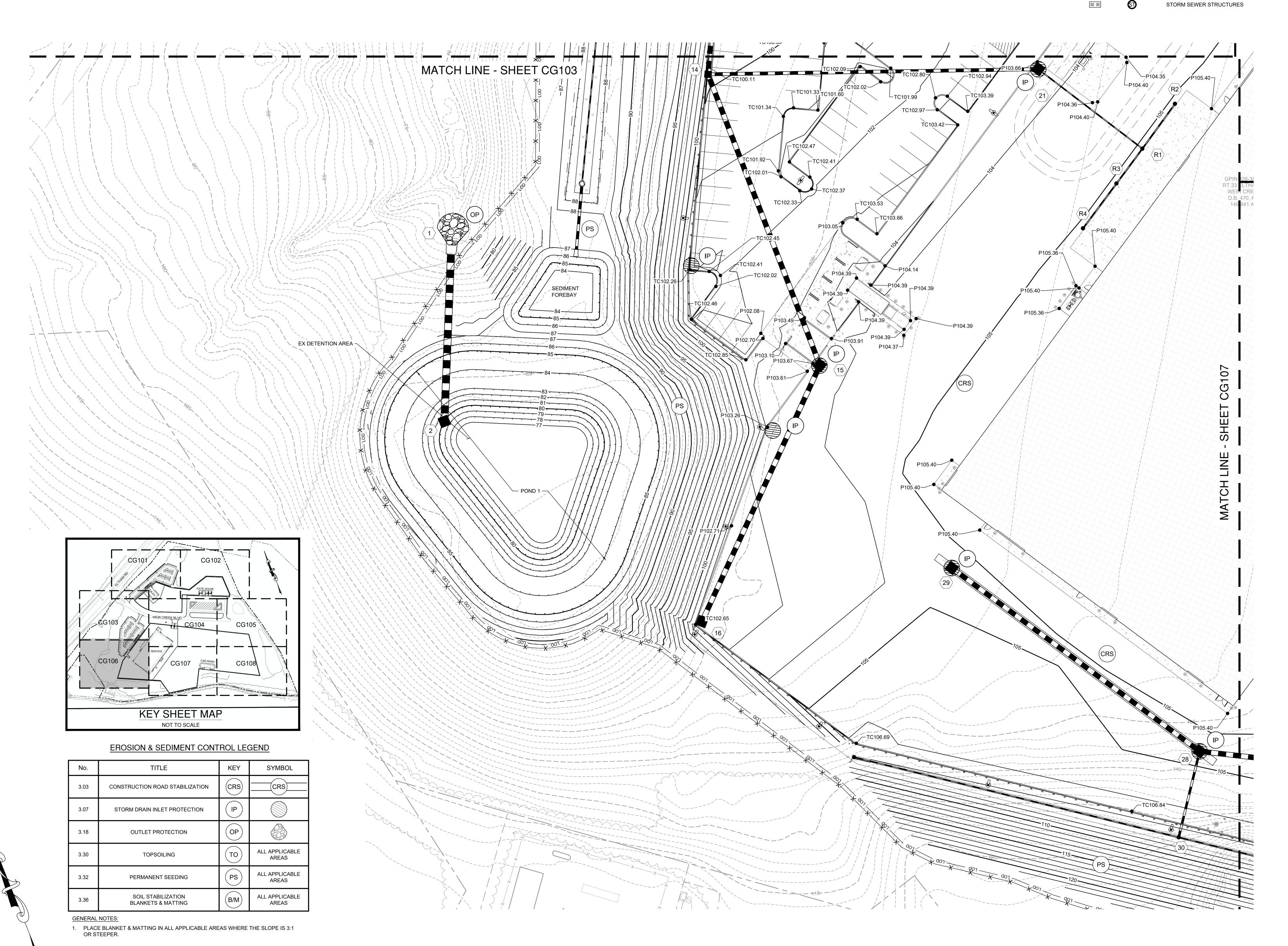
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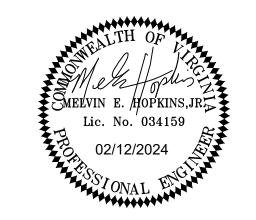
REV#	DATE	DESCRIPTION	BY

PROJECT NO.	20-22195.02
DATE	02/12/2024
SHEET TITLE	

GRADING, DRAINAGE, AND E&S
PH. II PLAN







NOT FOR CONSTRUCTION

LATEST DA/PC

DA23-031/PC23-005

TL/TK

CHECKED BY: MH

REVISIONS
REV# DATE DESCRIPTION BY

AUTO SUPERSTORE
THE AUTO SUPERSTORE WEST COAST, INC.
JCKAHOE CREEK PKWY. RICHMOND, VA 23238
RVICE & CARWASH

RE NO 4007

31 BLDG - 1, ELTHAM RD E

PROJECT NO. 20-22195.02

DATE 02/12/2024

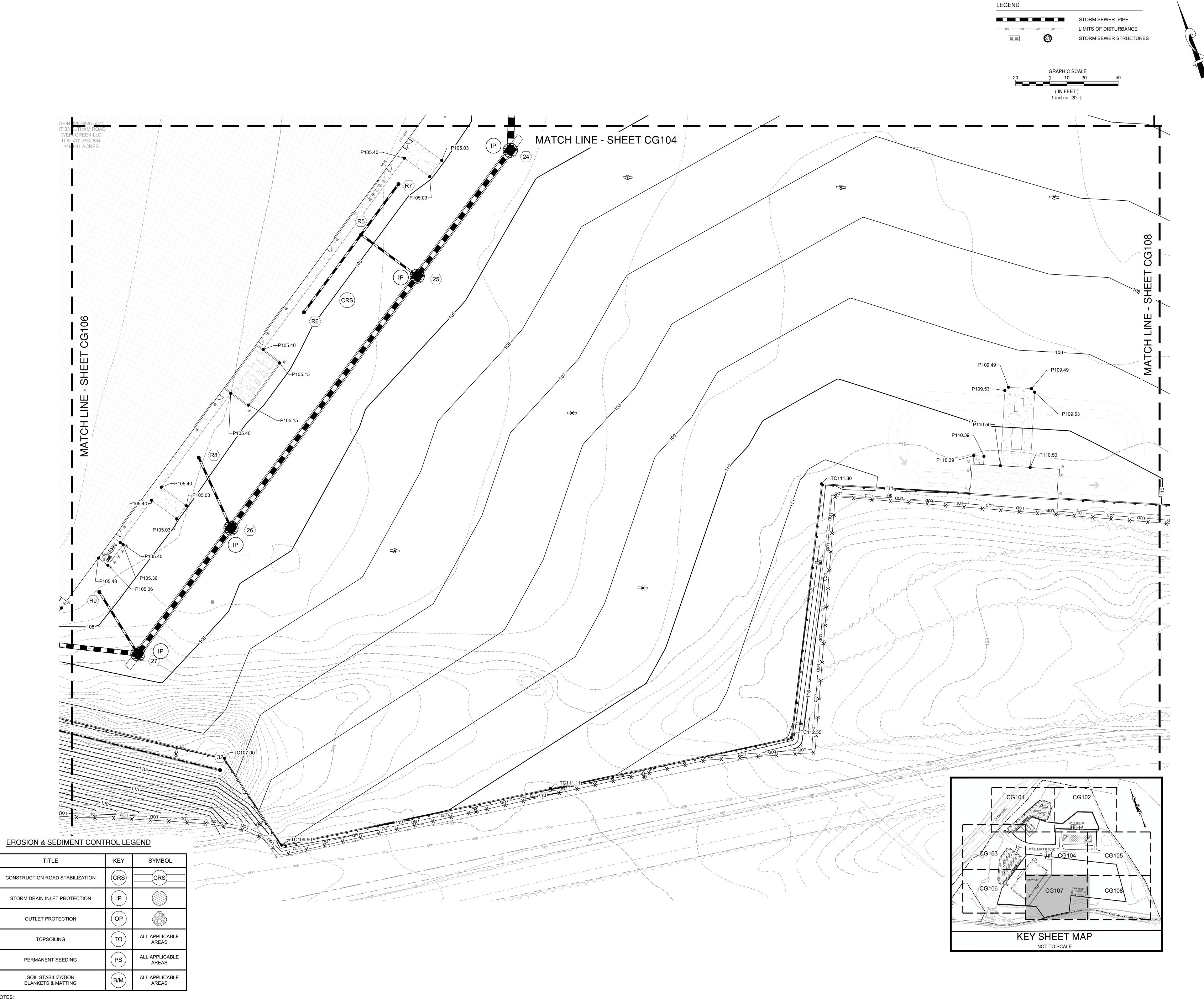
SHEET TITLE

GRADING, DRAINAGE, AND E&S
PH. II PLAN

SHEET NO. CG106

GRAPHIC SCALE

( IN FEET ) 1 inch = 20 ft.



TRC ENGINEERS, INC.
2 BAYPORT WAY, SUITE 120 NEWPORT NEWS, VA 23606
(757) 599 - 9800

**BID SET** 02/12/2024 SERVICE CARWASH



DRAWN BY: TL/TK

CHECKED BY: M REV# DATE DESCRIPTION BY

20-22195.02 PROJECT NO. 02/12/2024 SHEET TITLE

GRADING, DRAINAGE, AND E&S PH. II PLAN

SHEET NO. CG107

PLACE BLANKET & MATTING IN ALL APPLICABLE AREAS WHERE THE SLOPE IS 3:1 OR STEEPER.

TITLE

3.03

3.07

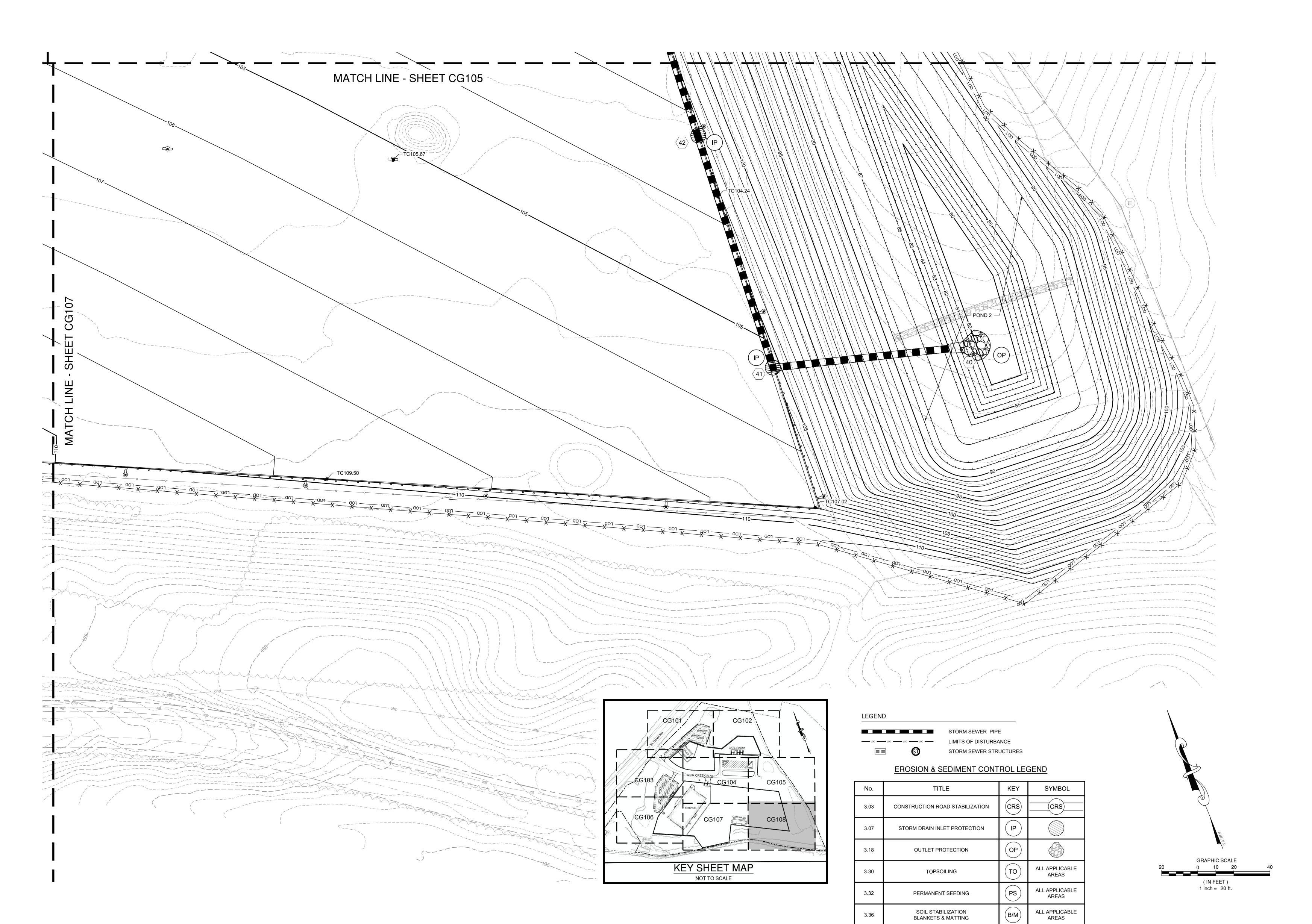
3.18

3.30

3.32

3.36



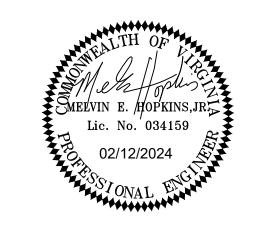


**GENERAL NOTES:** 

OR STEEPER.

1. PLACE BLANKET & MATTING IN ALL APPLICABLE AREAS WHERE THE SLOPE IS 3:1

BID SET 02/12/2024 SERVICE & CARWASH



NOT FOR CONSTRUCTION

LATEST DA/PC

DA23-031/PC23-005

TL/TK

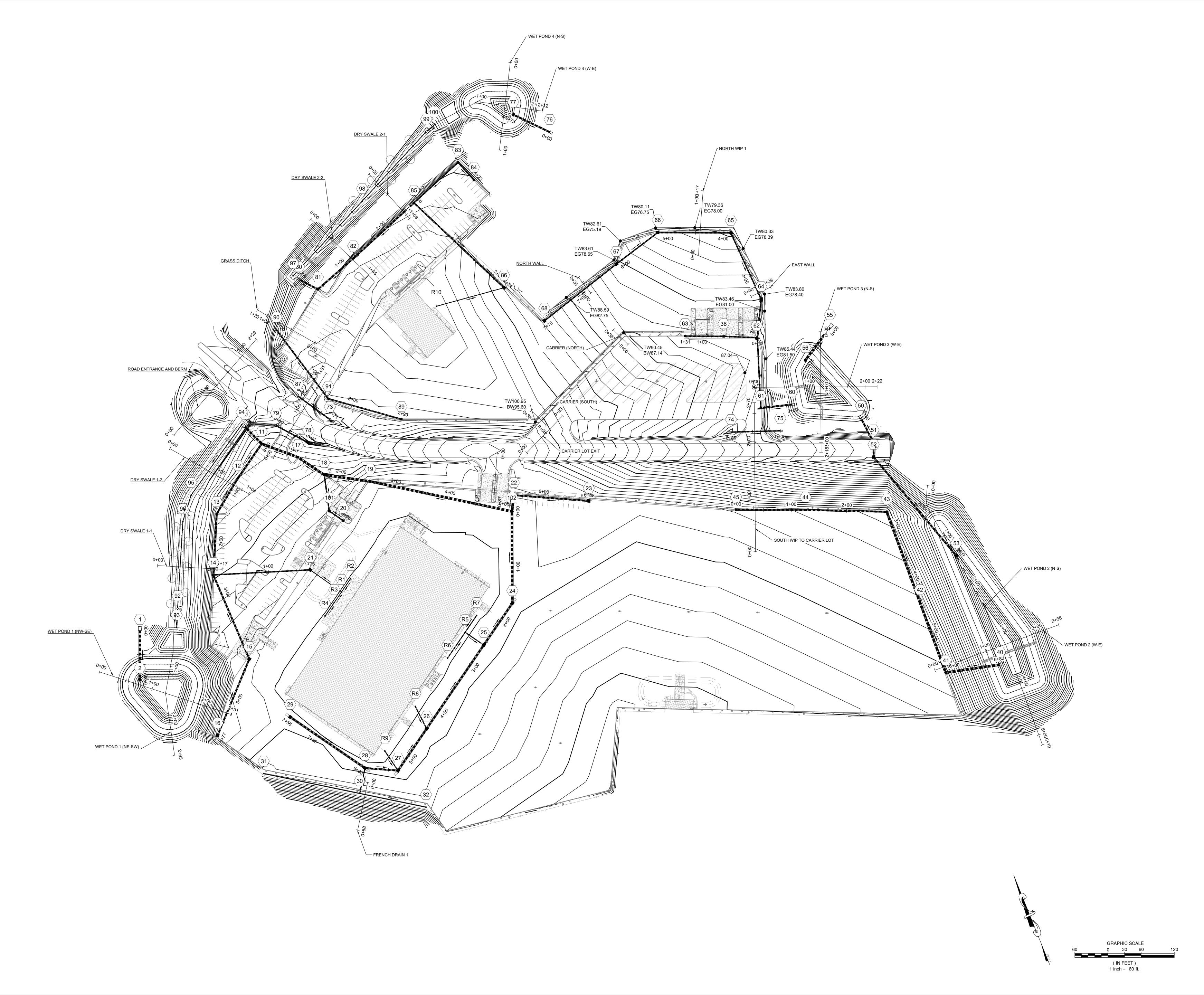
REVISIONS							
REV#	DATE	DESCRIPTION	BY				

THE AUTO SUPERSTORE
ARMAX THE AUTO SUPERSTORE WEST COAST, INC.
1800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
104)747-0422

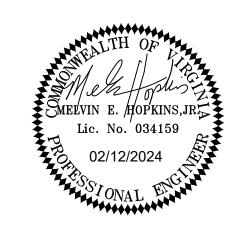
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SHEET TITLE

GRADING, DRAINAGE, AND E&S
PH. II PLAN







NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH

REVISIONS

REV# DATE DESCRIPTION BY

REV# DATE DESCRIPTION

THE AUTO SUPERSTORE

CARMAX THE AUTO SUPERSTORE
(SOAT, INC.)
(SOA) 747-0422

SERVICE & CARWASH

STORE NO 4007

16931 BLDG - 1, ELTHAM RD E

NEW KENT CO., VIRGINIA 23089

PROJECT NO. 20-22195.02

DATE 02/12/2024

SHEET TITLE

STORMWATER MANAGEMENT PLAN

	RM STRUCTURE SCHEDULE
STRC. NUMBER	STRC. DATA
R10	TOP: 99.30 INV. OUT: 95.80 (TO #86, 6" PVC,E)
R2	C.O. TOP: 105.06 INV. OUT: 102.50 (TO #R1, 6" PVC,SW)
R3	C.O. TOP: 105.06 INV. IN: 102.20 (FROM #R4, 6" PVC, SW) INV. OUT: 102.20 (TO #R1, 6" PVC,NE)
R1	C.O. TOP: 105.06 INV. IN: 101.97 (FROM #R3, 6" PVC, SW) INV. IN: 101.97 (FROM #R2, 6" PVC, NE) INV. OUT: 101.97 (TO #21, 6" PVC,NW)
R4	C.O. TOP: 105.07 INV. OUT: 102.50 (TO #R3, 6" PVC,NE)
R6	C.O. TOP: 105.23 INV. OUT: 102.78 (TO #R5, 12" PVC,NE)
R5	C.O. TOP: 105.24 INV. IN: 102.50 (FROM #R6, 12" PVC, SW) INV. IN: 102.50 (FROM #R7, 12" PVC, NE) INV. OUT: 102.50 (TO #25, 12" PVC,SE)
R7	C.O. TOP: 105.24 INV. OUT: 102.75 (TO #R5, 12" PVC,SW)
R9	C.O. TOP: 105.24 INV. OUT: 102.50 (TO #27, 12" PVC,S)
R8	C.O. TOP: 105.25 INV. OUT: 102.50 (TO #26, 12" PVC,S)
1	36" VDOT ES1 TOP: 80.81 INV. IN: 77.31 (FROM #2, 36" RCP, SW)
2	DI-1 TOP: 85.00 INV. OUT: 79.50 (TO #1, 36" RCP,NE)
10	36" VDOT ES1 TOP: 91.50 INV. IN: 88.00 (FROM #11, 36" RCP, S)
11	DI-2A, L=2.2' TOP: 96.15 INV. IN: 90.00 (FROM #17, 36" RCP, SE) INV. IN: 90.49 (FROM #12, 24" RCP, SW) INV. OUT: 89.50 (TO #10, 36" RCP,N)
12	DI-2A, L=2.2' TOP: 96.89 INV. IN: 91.90 (FROM #13, 24" RCP, SW) INV. OUT: 91.80 (TO #11, 24" RCP,NE)
13	DI-2A, L=2.2' TOP: 97.51 INV. IN: 93.50 (FROM #14, 24" RCP, SW) INV. OUT: 93.40 (TO #12, 24" RCP,NE)
14	DI-2A, L=2.2' TOP: 99.70 INV. IN: 95.62 (FROM #15, 24" RCP, S) INV. IN: 95.62 (FROM #21, 15" RCP, E) INV. OUT: 95.62 (TO #13, 24" RCP,NE)
15	DI-7 TOP: 103.73 INV. IN: 96.05 (FROM #16, 24" RCP, SW) INV. OUT: 96.05 (TO #14, 24" RCP,N)
16	DI-7 TOP: 102.22 INV. OUT: 97.55 (TO #15, 24" RCP,NE)
17	DI-2A, L=2.2' TOP: 97.85 INV. IN: 92.00 (FROM #18, 36" RCP, SE) INV. OUT: 92.00 (TO #11, 36" RCP,NW)
18	DI-2A, L=2.2' TOP: 101.15 INV. IN: 93.80 (FROM #19, 36" RCP, SE) INV. IN: 97.17 (FROM #101, 15" RCP, S) INV. OUT: 93.70 (TO #17, 36" RCP,NW)
19	DI-2A, L=2.2' TOP: 104.23 INV. IN: 96.65 (FROM #102, 36" RCP, SE) INV. OUT: 96.55 (TO #18, 36" RCP,NW)
20	DI-2A, L=2.2' TOP: 103.92 INV. OUT: 97.65 (TO #101, 15" RCP,NW)
21	DI-7 TOP: 103.72 INV. IN: 100.58 (FROM #R1, 6" PVC, SE) INV. OUT: 99.24 (TO #14, 15" RCP,W)

STC	STORM STRUCTURE SCHEDULE			
STRC. NUMBER	STRC. DATA	STRC.	NUMBER	STRC. DATA
22	DI-7 TOP: 103.75 INV. IN: 98.03 (FROM #23, 24" RCP, SE) INV. OUT: 98.03 (TO #102, 36" RCP,SW)		60	24" VDOT ES1 TOP: 72.38 INV. IN: 70.00 (FROM #61, 24" RCP, W)
23	DI-7 TOP: 103.21 INV. OUT: 98.71 (TO #22, 24" RCP,NW)		61	DI-2B, L= 6' TOP: 85.44 INV. IN: 72.19 (FROM #62, 15" RCP, N) INV. OUT: 72.19 (TO #60, 24" RCP,E)
24	DI-7 TOP: 104.42 INV. IN: 98.34 (FROM #25, 24" RCP, SW) INV. OUT: 98.24 (TO #102, 36" RCP,NE)		62	DI-7 TOP: 86.58 INV. IN: 74.31 (FROM #64, 15" RCP, NE) INV. IN: 82.23 (FROM #38, 15" RCP, NW) INV. OUT: 74.21 (TO #61, 15" RCP,S)
25	DI-7 TOP: 104.15 INV. IN: 98.81 (FROM #26, 24" RCP, SW) INV. IN: 102.30 (FROM #R5, 12" PVC, NW) INV. OUT: 98.71 (TO #24, 24" RCP,NE)		63	DI-2A, L=2.2' TOP: 87.26 INV. OUT: 83.99 (TO #38, 15" RCP,SE)
26	DI-7 TOP: 104.15 INV. IN: 99.64 (FROM #27, 24" RCP, SW) INV. IN: 102.27 (FROM #R8, 12" PVC, N)		64	DI-7 TOP: 84.75 INV. IN: 74.68 (FROM #65, 15" RCP, N) INV. OUT: 74.68 (TO #62, 15" RCP,SW)
27	DI-7 TOP: 104.42 INV. IN: 100.00 (FROM #28, 24" RCP, NW)		65	DI-1 TOP: 79.73 INV. IN: 75.44 (FROM #66, 15" RCP, NW) INV. OUT: 75.34 (TO #64, 15" RCP,S)
	INV. IN: 102.07 (FROM #R9, 12" PVC, N) INV. OUT: 100.01 (TO #26, 24" RCP,NE)		66	DI-7 TOP: 81.58 INV. IN: 76.76 (FROM #67, 15" RCP, W) INV. OUT: 76.66 (TO #65, 15" RCP,SE)
28	TOP: 104.65 INV. IN: 100.34 (FROM #29, 24" RCP, NW) INV. IN: 101.50 (FROM #30, 12" PVC, SW) INV. OUT: 100.24 (TO #27, 24" RCP,SE)		67	DI-7 TOP: 85.32 INV. IN: 81.29 (FROM #68, 15" RCP, W) INV. OUT: 81.19 (TO #66, 15" RCP,E)
29	DI-7 TOP: 104.79 INV. OUT: 101.00 (TO #28, 24" RCP,SE)		68	DI-7 TOP: 92.78 INV. OUT: 86.50 (TO #67, 15" RCP,E)
30	C.O. TOP: 107.20 INV. IN: 105.14 (FROM #31, 6" PVC, NW) INV. IN: 105.14 (FROM #32, 6" PVC, SE) INV. OUT: 105.14 (TO #28, 12" PVC,NE)		73	15" VDOT ES1 TOP: 94.04 INV. OUT: 92.50 (TO #87, 15" RCP,NW)
31	C.O. TOP: 106.99 INV. OUT: 105.50 (TO #30, 6" PVC,SE)		74	15" VDOT ES1 TOP: 85.75 INV. OUT: 84.30 (TO #75, 15" RCP,SE)
32	C.O. TOP: 107.35 INV. OUT: 105.38 (TO #30, 6" PVC,NW)		75	15" VDOT ES1 TOP: 80.04 INV. IN: 78.50 (FROM #74, 15" RCP, NW)
38	DI-2A, L=2.2' TOP: 86.50 INV. IN: 82.84 (FROM #63, 15" RCP, NW)		76	24" VDOT ES1 TOP: 60.38 INV. IN: 58.00 (FROM #77, 24" RCP, NW)
40	INV. OUT: 82.84 (TO #62, 15" RCP,SE)  36" VDOT ES1 TOP: 87.50		77	DI-1 TOP: 66.00 INV. OUT: 62.00 (TO #76, 24" RCP,SE)
41	DI-2A, L=2.2' TOP: 105.26		78	TOP: 92.87 INV. OUT: 91.33 (TO #79, 15" RCP,NW)
	INV. IN: 93.98 (FROM #42, 36" RCP, N) INV. OUT: 93.98 (TO #40, 36" RCP,E)  DI-2A, L=2.2'		79	TOP: 92.54 INV. IN: 91.00 (FROM #78, 15" RCP, SE)
42	TOP: 103.20 INV. IN: 94.66 (FROM #43, 36" RCP, N) INV. OUT: 94.66 (TO #41, 36" RCP,S)		80	21" VDOT ES1 TOP: 89.88 INV. IN: 87.50 (FROM #81, 24" RCP, SE)
43	TOP: 100.55 INV. IN: 95.53 (FROM #44, 24" RCP, NW) INV. OUT: 95.53 (TO #42, 36" RCP,S)		81	TOP: 96.78 INV. IN: 87.72 (FROM #82, 24" RCP, E) INV. OUT: 87.62 (TO #80, 24" RCP,NW)
44	DI-2A, L=2.2' TOP: 101.78 INV. IN: 96.80 (FROM #45, 24" RCP, NW) INV. OUT: 96.70 (TO #43, 24" RCP,SE)		82	DI-2A, L=2.2' TOP: 96.55 INV. IN: 88.07 (FROM #85, 24" RCP, E) INV. OUT: 87.97 (TO #81, 24" RCP,W)
45	DI-2A, L=2.2' TOP: 102.89 INV. OUT: 97.81 (TO #44, 24" RCP,SE)		83	DI-2A, L=2.2' TOP: 94.61 INV. IN: 90.79 (FROM #84, 15" RCP, S) INV. OUT: 90.79 (TO #85, 15" RCP,W)
50	24" VDOT ES1 TOP: 64.41 INV. IN: 62.04 (FROM #51, 24" RCP, S)		84	DI-2A, L=2.2' TOP: 95.07 INV. OUT: 91.00 (TO #83, 15" RCP,N)
51	DI-7 TOP: 80.54 INV. IN: 71.91 (FROM #52, 24" RCP, SW) INV. OUT: 70.85 (TO #50, 24" RCP,N)		85	DI-2A, L=2.2' TOP: 95.43 INV. IN: 90.25 (FROM #83, 15" RCP, E) INV. IN: 88.62 (FROM #86, 18" RCP, SE)
52	DI-7 TOP: 80.17 INV. IN: 72.27 (FROM #53, 24" RCP, S) INV. OUT: 72.17 (TO #51, 24" RCP,NE)		86	DI-7 TOP: 93.95 INV. IN: 89.80 (FROM #R10, 6" PVC, W)
53	DI-1 TOP: 84.01 INV. OUT: 77.75 (TO #52, 24" RCP,N)		87	15" VDOT ES1 TOP: 92.04
55	36" VDOT ES1 TOP: 63.50 INV. IN: 60.00 (FROM #56, 36" RCP, SW)			INV. IN: 90.50 (FROM #73, 15" RCP, SE)

48 IN. MH TOP: 66.24 INV. OUT: 62.00 (TO #55, 36" RCP,NE)

STORM STRUCTURE SCHEDULE		STORM STRUCTURE SCHEDULE		
BER	STRC. DATA	STRC. NUMBER	STRC. DATA	
	24" VDOT ES1 TOP: 72.38 INV. IN: 70.00 (FROM #61, 24" RCP, W)	89	DI-2A, L=2.2' TOP: 95.11 INV. OUT: 91.27 (TO #91, 18" RCP,NW)	
	DI-2B, L= 6' TOP: 85.44 INV. IN: 72.19 (FROM #62, 15" RCP, N) INV. OUT: 72.19 (TO #60, 24" RCP,E)	90	18" VDOT ES1 TOP: 91.83 INV. IN: 90.00 (FROM #91, 18" RCP, S)	
	DI-7 TOP: 86.58 INV. IN: 74.31 (FROM #64, 15" RCP, NE) INV. IN: 82.23 (FROM #38, 15" RCP, NW)	91	DI-2A, L=2.2' TOP: 95.74 INV. IN: 90.72 (FROM #89, 18" RCP, SE INV. OUT: 90.62 (TO #90, 18" RCP,N)	
	INV. OUT: 74.21 (TO #61, 15" RCP,S)  DI-2A, L=2.2' TOP: 87.26	92	30" TOP: 88.13 INV. IN: 85.13 (FROM #96, 6" PVC, NE) INV. OUT: 85.13 (TO #93, 15" HDPE,SW	
	DI-7 TOP: 84.75 INV. IN: 74.68 (FROM #65, 15" RCP, N)	93	15" VDOT ES1 TOP: 86.32 INV. IN: 84.94 (FROM #92, 15" HDPE, N	
	INV. OUT: 74.68 (TO #62, 15" RCP,SW) DI-1	94	C.O. TOP: 88.97 INV. OUT: 86.97 (TO #95, 6" PVC,SW)	
	TOP: 79.73 INV. IN: 75.44 (FROM #66, 15" RCP, NW) INV. OUT: 75.34 (TO #64, 15" RCP,S)	95	C.O. TOP: 88.19 INV. IN: 86.19 (FROM #94, 6" PVC, NE) INV. OUT: 86.19 (TO #96, 6" PVC,SW)	
	TOP: 81.58 INV. IN: 76.76 (FROM #67, 15" RCP, W) INV. OUT: 76.66 (TO #65, 15" RCP,SE)	96	C.O. TOP: 87.93 INV. IN: 85.93 (FROM #95, 6" PVC, NE)	
	DI-7 TOP: 85.32 INV. IN: 81.29 (FROM #68, 15" RCP, W) INV. OUT: 81.19 (TO #66, 15" RCP,E)	97	C.O. TOP: 86.84 INV. OUT: 84.84 (TO #98, 6" PVC,NE)	
	DI-7 TOP: 92.78 INV. OUT: 86.50 (TO #67, 15" RCP,E)	98	C.O. TOP: 81.18 INV. IN: 79.18 (FROM #97, 6" PVC, SW)	
	15" VDOT ES1 TOP: 94.04		INV. OUT: 79.18 (TO #99, 6" PVC,NE)	
	1NV. OUT: 92.50 (TO #87, 15" RCP,NW)  15" VDOT ES1 TOP: 85.75 INV. OUT: 84.30 (TO #75, 15" RCP,SE)	99	30" TOP: 76.91 INV. IN: 73.91 (FROM #98, 6" PVC, SW) INV. OUT: 73.91 (TO #100, 15" HDPE,E	
	15" VDOT ES1 TOP: 80.04 INV. IN: 78.50 (FROM #74, 15" RCP, NW)	100	15" VDOT ES1 TOP: 75.15 INV. IN: 73.78 (FROM #99, 15" HDPE, W	
	24" VDOT ES1 TOP: 60.38 INV. IN: 58.00 (FROM #77, 24" RCP, NW)	101	48 IN. MH TOP: 103.06 INV. IN: 97.50 (FROM #20, 15" RCP, SE INV. OUT: 97.50 (TO #18, 15" RCP,N)	
	DI-1 TOP: 66.00 INV. OUT: 62.00 (TO #76, 24" RCP,SE)	102	48 IN. MH TOP: 104.36 INV. IN: 97.88 (FROM #22, 36" RCP, NE	
	15" VDOT ES1 TOP: 92.87 INV. OUT: 91.33 (TO #79, 15" RCP,NW)		INV. IN: 97.55 (FROM #24, 36" RCP, SW INV. OUT: 97.44 (TO #19, 36" RCP,NW)	
	15" VDOT ES1 TOP: 92.54 INV. IN: 91.00 (FROM #78, 15" RCP, SE)			
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STORM PIPE				
PIPE	SIZE	LENGTH	SLOPE	MATERIAL
65-66	15"	132 LF	0.92%	RCP
66-67	15"	94 LF	4.71%	RCP
68-67	15"	166 LF	3.14%	RCP
65-64	15"	132 LF	0.50%	RCP
64-62	15"	70 LF	0.53%	RCP
61-62	15"	127 LF	1.58%	RCP
80-81	24"	39 LF	0.30%	RCP
81-82	24"	85 LF	0.30%	RCP
82-85	24"	149 LF	0.30%	RCP
83-84	15"	43 LF	0.50%	RCP
10-11	36"	43 LF	3.48%	RCP
11-17	36"	70 LF	2.86%	RCP
17-18	36"	57 LF	2.96%	RCP
18-19	36"	84 LF	3.27%	RCP
19-102	36"	262 LF	0.30%	RCP
22-23	24"	136 LF	0.50%	RCP
22-102	36"	30 LF	0.50%	RCP
25-26	24"	183 LF	0.40%	RCP
26-27	24"	92 LF	0.40%	RCP
28-29	24"	164 LF	0.40%	RCP
40-41	36"	99 LF	10.05%	RCP
41-42	36"	136 LF	0.50%	RCP
42-43	36"	174 LF	0.50%	RCP
43-44	24"	147 LF	0.80%	RCP
44-45	24"	126 LF	0.80%	RCP
11-12	24"	75 LF	1.74%	RCP
12-13	24"	76 LF	1.97%	RCP
13-14	24"	110 LF	1.93%	RCP
14-15	24"	165 LF	0.26%	RCP
15-16	24"	150 LF	1.00%	RCP
62-38	15"	61 LF	1.00%	RCP
38-63	15"	70 LF	1.65%	RCP
24-25	24"	92 LF	0.40%	RCP
27-28	24"	60 LF	0.40%	RCP
20-101	15"	31 LF	0.50%	RCP
53-52	24"	233 LF	2.35%	RCP
52-51	24"	27 LF	0.94%	RCP
51-50	24"	49 LF	17.98%	RCP
56-55	36"	74 LF	2.70%	RCP
2-1	36"	89 LF	2.47%	RCP

PIPE	SIZE	LENGTH	SLOPE	MATERIAL
77-76	24"	73 LF	5.45%	RCP
73-87	15"	71 LF	2.82%	RCP
R4-R3	6"	30 LF	1.00%	PVC
R3-R1	6"	23 LF	1.00%	PVC
R1-R2	6"	29 LF	1.80%	PVC
21-14	15"	175 LF	2.07%	RCP
R1-21	6"	70 LF	2.00%	PVC
R9-27	12"	43 LF	1.00%	PVC
R10-86	6"	127 LF	4.73%	PVC
31-30	6"	178 LF	0.20%	PVC
30-28	12"	47 LF	7.75%	PVC
32-30	6"	122 LF	0.20%	PVC
R8-26	12"	45 LF	0.50%	PVC
R6-R5	12"	56 LF	0.50%	PVC
R5-25	12"	41 LF	0.50%	PVC
R7-R5	12"	37 LF	0.68%	PVC
61-60	24"	57 LF	3.85%	RCP
74-75	15"	89 LF	6.50%	RCP
78-79	15"	66 LF	0.50%	RCP
85-83	15"	108 LF	0.50%	RCP
86-85	18"	224 LF	0.48%	RCP
90-91	18"	156 LF	0.40%	RCP
91-89	18"	138 LF	0.40%	RCP
92-93	15"	35 LF	0.54%	HDPE
94-95	6"	157 LF	0.50%	PVC
95-96	6"	49 LF	0.53%	PVC
96-92	6"	158 LF	0.51%	PVC
97-98	6"	184 LF	3.07%	PVC
98-99	6"	171 LF	3.08%	PVC
99-100	15"	17 LF	0.78%	HDPE
101-18	15"	66 LF	0.50%	RCP
102-24	36"	166 LF	0.42%	RCP



BID SET 02/12/2024 SERVICE & CARWASH



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LATEST DA/PC DA23-031/PC23-005

DA23-031/PODRAWN BY: TL/TK

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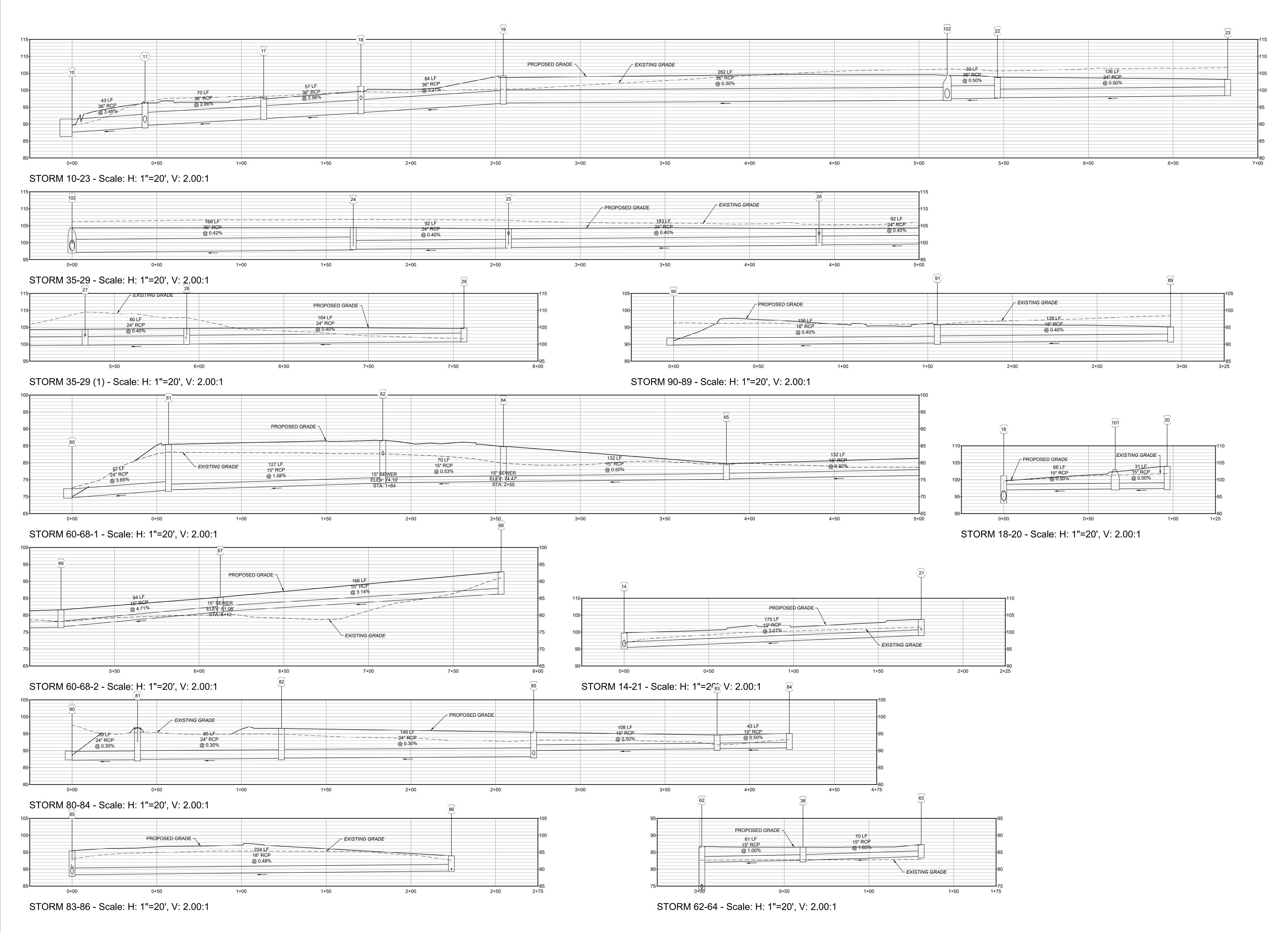
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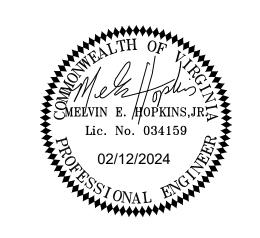
PROJECT NO.
DATE

SHEET TITLE
STORM STRUCTURE
AND PIPE TABLE

20-22195.02

02/12/2024





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LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH

REVISIONS

REV# DATE DESCRIPTION BY



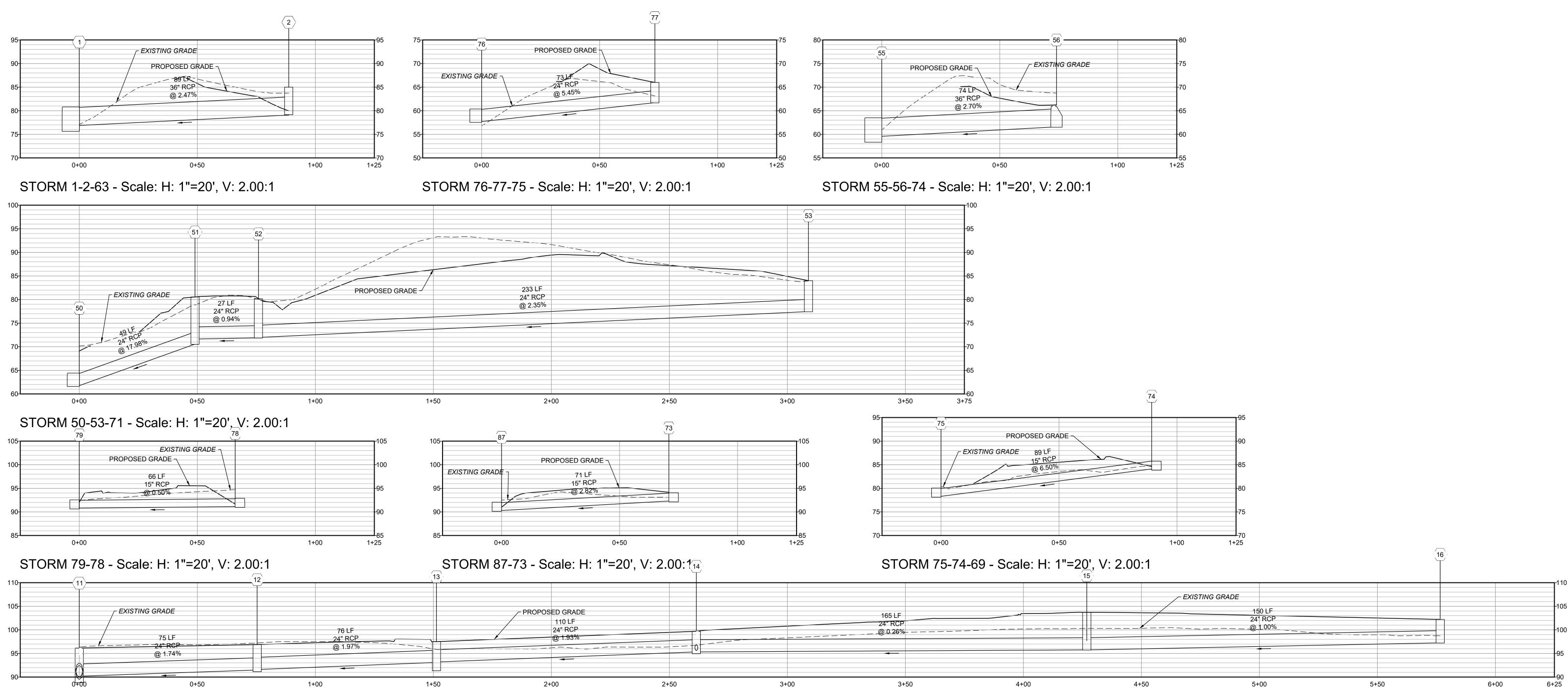
 PROJECT NO.
 20-22195.02

 DATE
 02/12/2024

 SHEET TITLE

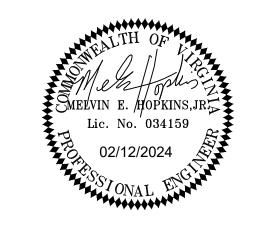
STORM PROFILES





STORM 11-16 - Scale: H: 1"=20', V: 2.00:1

BID SET 02/12/2024 SERVICE & CARWASH



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LATEST DA/PC

DA23-031/PC23-005

TL/TK

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REVISIONS

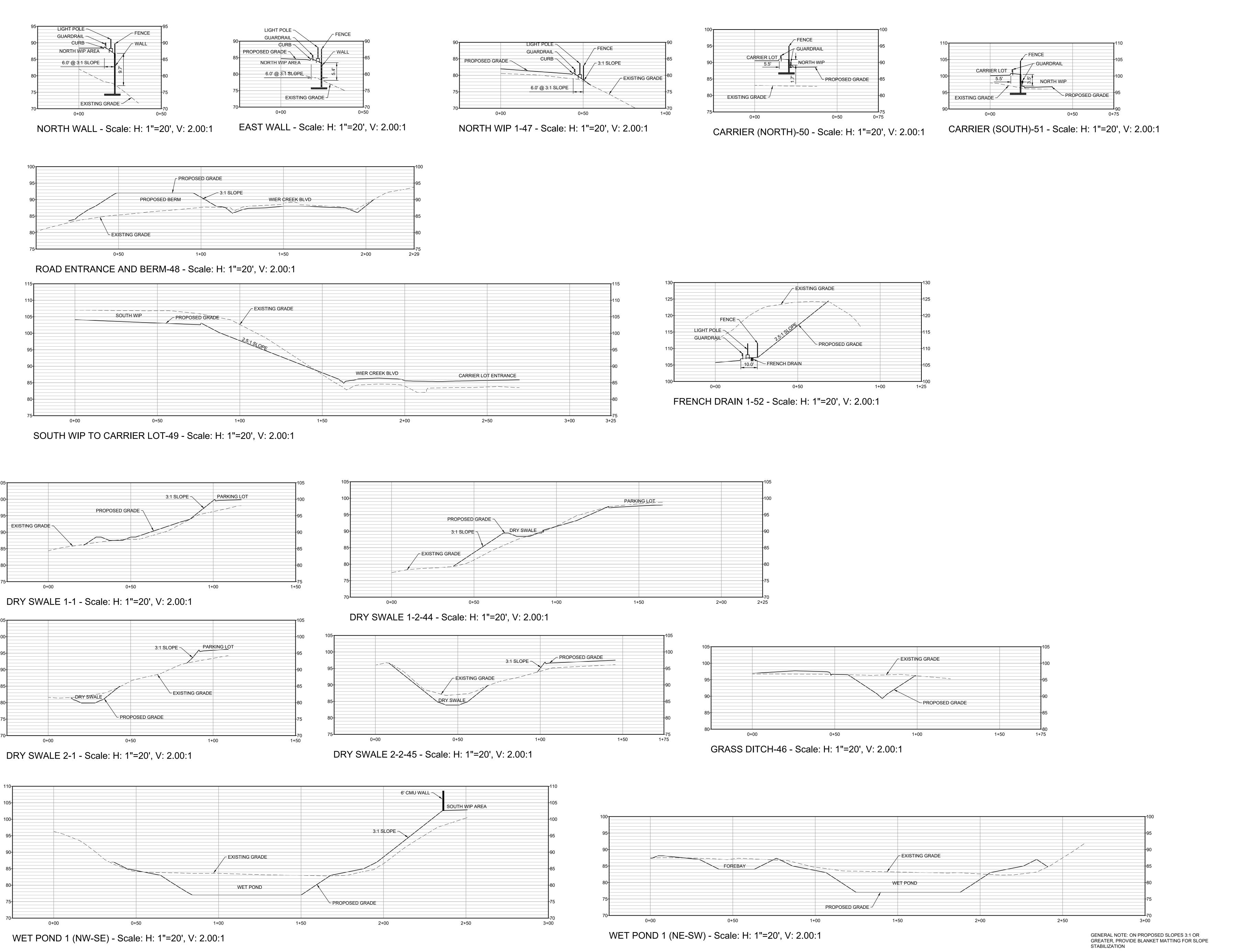
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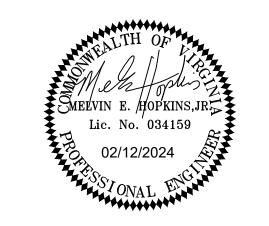
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DATE	0:
SHEET TITLE	

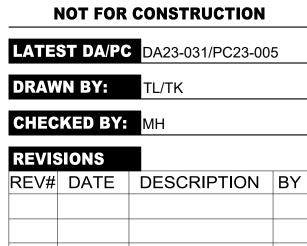
STORM PROFILES

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THE AUTO SUPERSTORE

CARMAX THE AUTO SUPERSTORE

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CARMAX THE AUTO SUPERSTORE

STORE OF THE AUTO SUPERSTORE

SERVICE & CARWASH

STORE NO 4007

16931 BLDG - 1, ELTHAM RD E

NEW KENT CO., VIRGINIA 23089

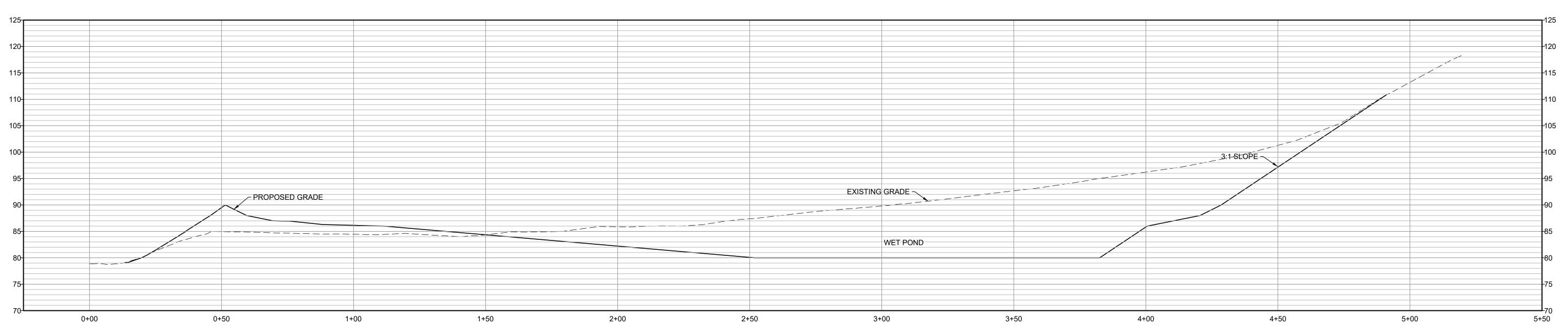
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 20-22195.02

 DATE
 02/12/2024

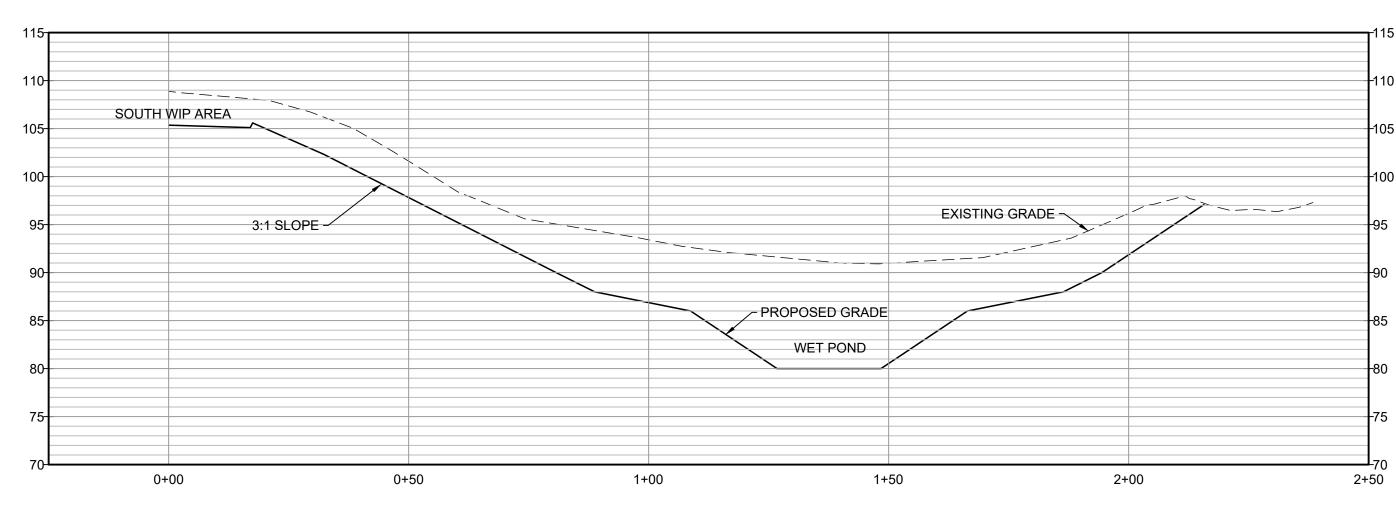
 SHEET TITLE

STORMWATER MANAGEMENT SECTIONS

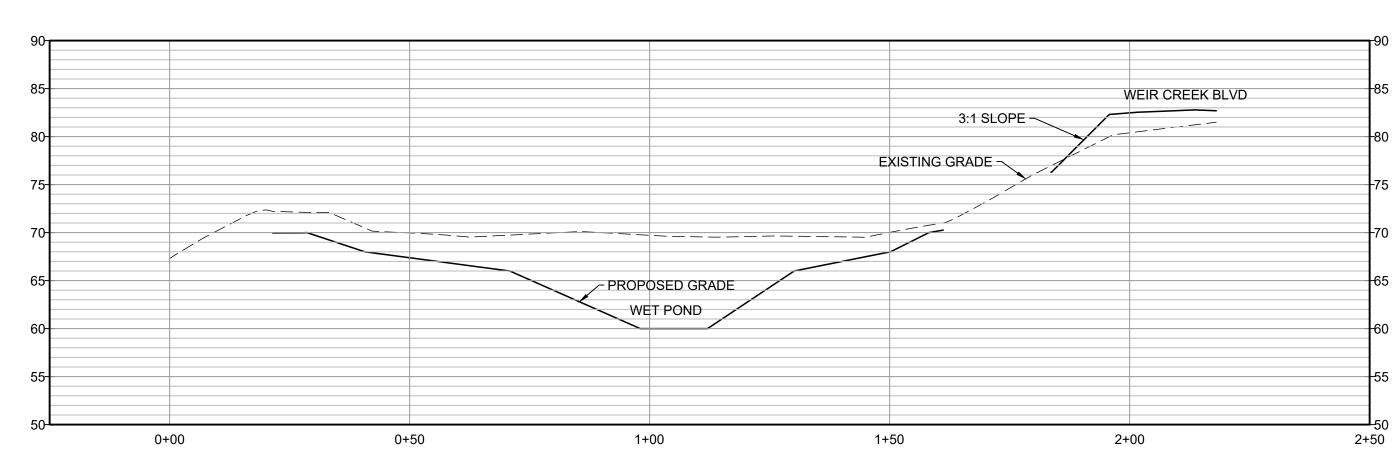




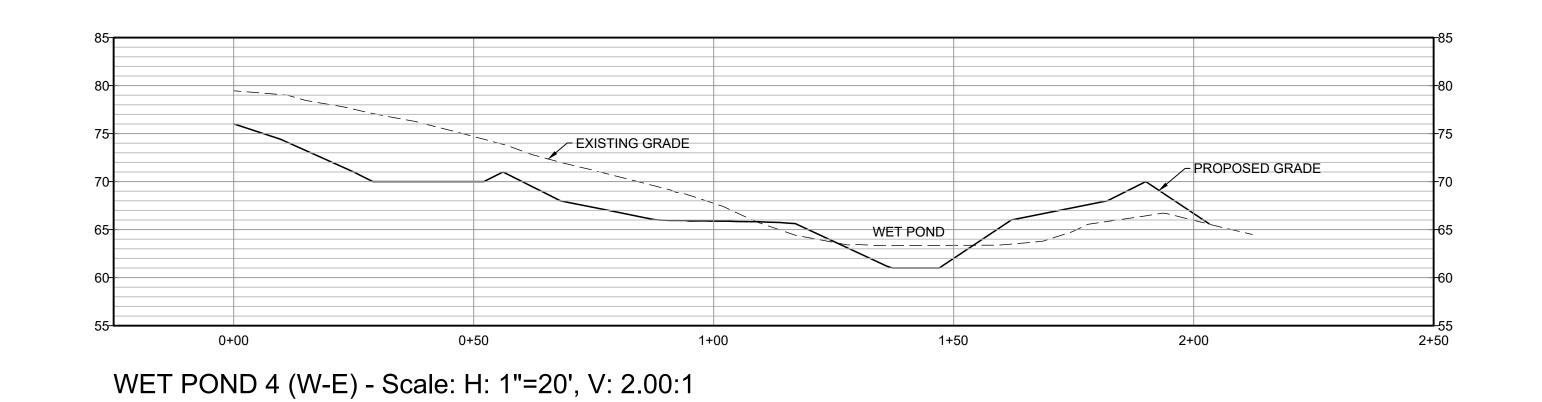
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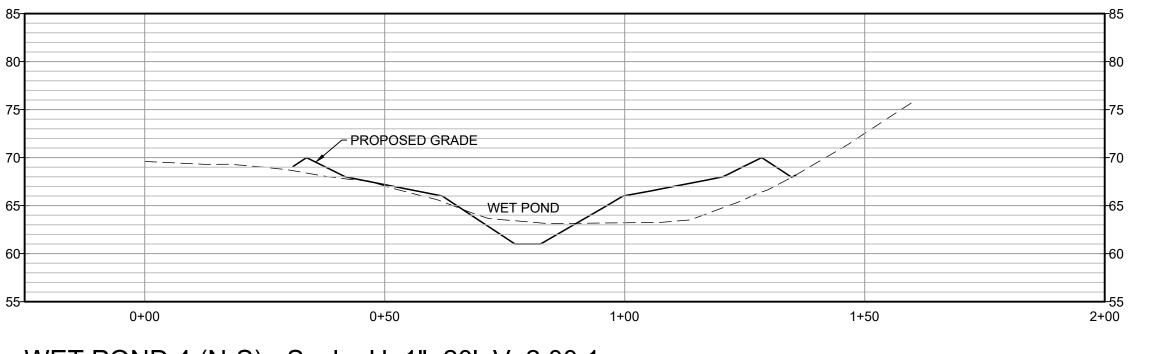
WET POND 2 (W-E) - Scale: H: 1"=20', V: 2.00:1



WET POND 3 (N-S) - Scale: H: 1"=20', V: 2.00:1

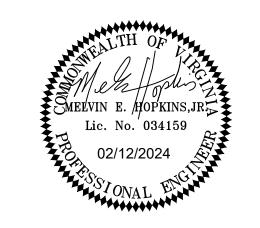


95
90
NORTH WIF AREA
RETAINING WALL
85
80
75
70
65
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65
60
65
85
WET POND 3 (W-E) - Scale: H: 1"=20', V: 2.00:1



WET POND 4 (N-S) - Scale: H: 1"=20', V: 2.00:1

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LATEST DA/PC

DA23-031/PC23-005

TL/TK

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REVISIONS						
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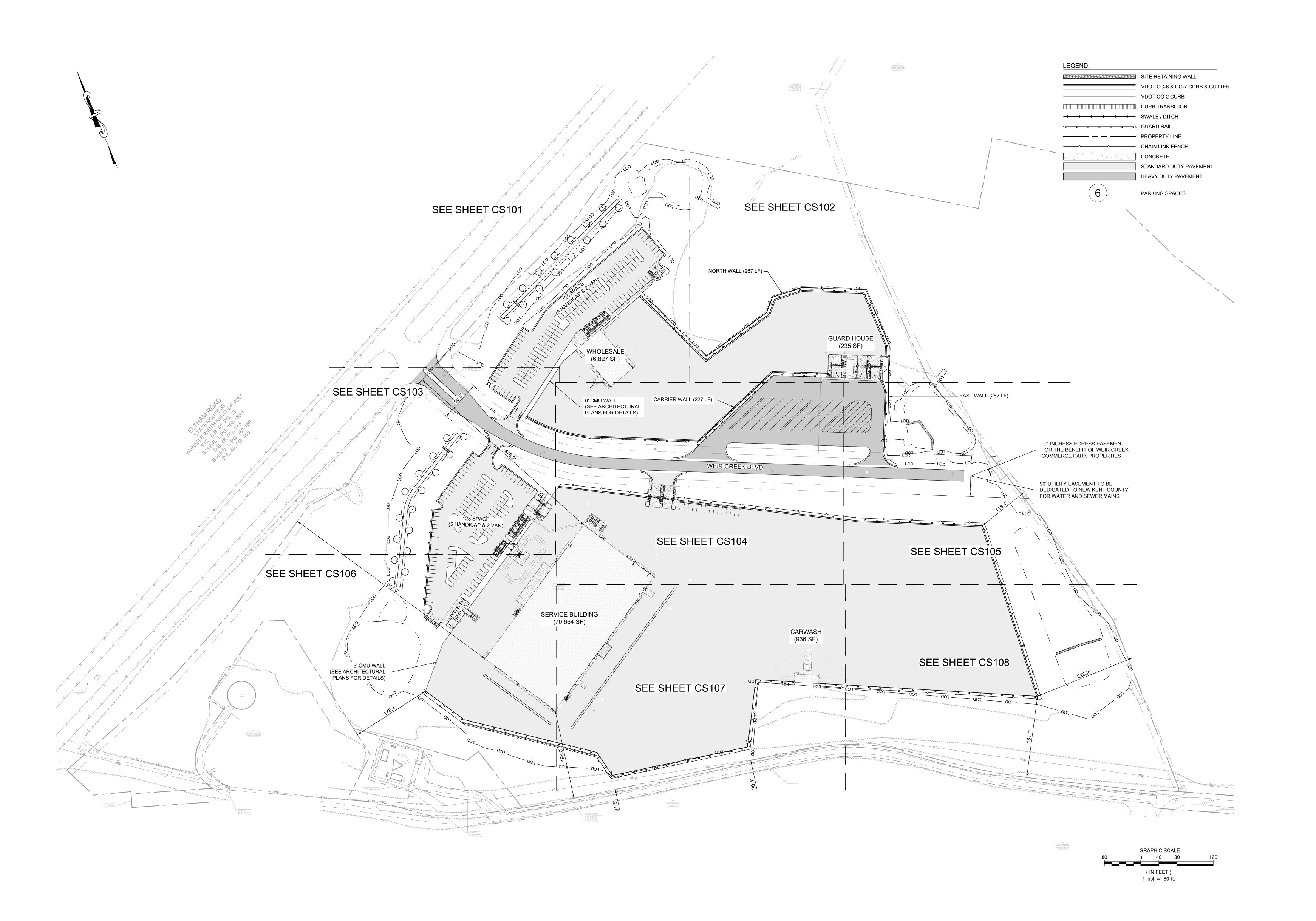
THE AUTO SUPERSTORE
CARMAX THE AUTO SUPERSTORE
(SOA) TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
(SO4)747-0422
SERVICE & CARWASH
STORE NO 4007
16931 BLDG - 1, ELTHAM RD E
NEW KENT CO., VIRGINIA 23089

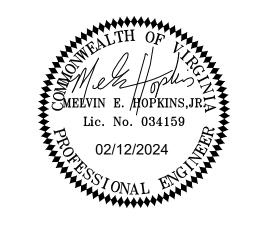
 PROJECT NO.
 20-22195.02

 DATE
 02/12/2024

STORMWATER MANAGEMENT SECTIONS







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LATEST DA/PC DA23-031/PC23-005

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THE AUTO SUPERSTORE
CARMAX THE AUTO SUPERSTORE
SARMAX THE AUTO SUPERSTORE WEST COAST, INC.
12800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
(804)747-0422
SERVICE & CARWASH
STORE NO 4007
16931 BLDG - 1, ELTHAM RD E

PROJECT NO. 20-22195.02

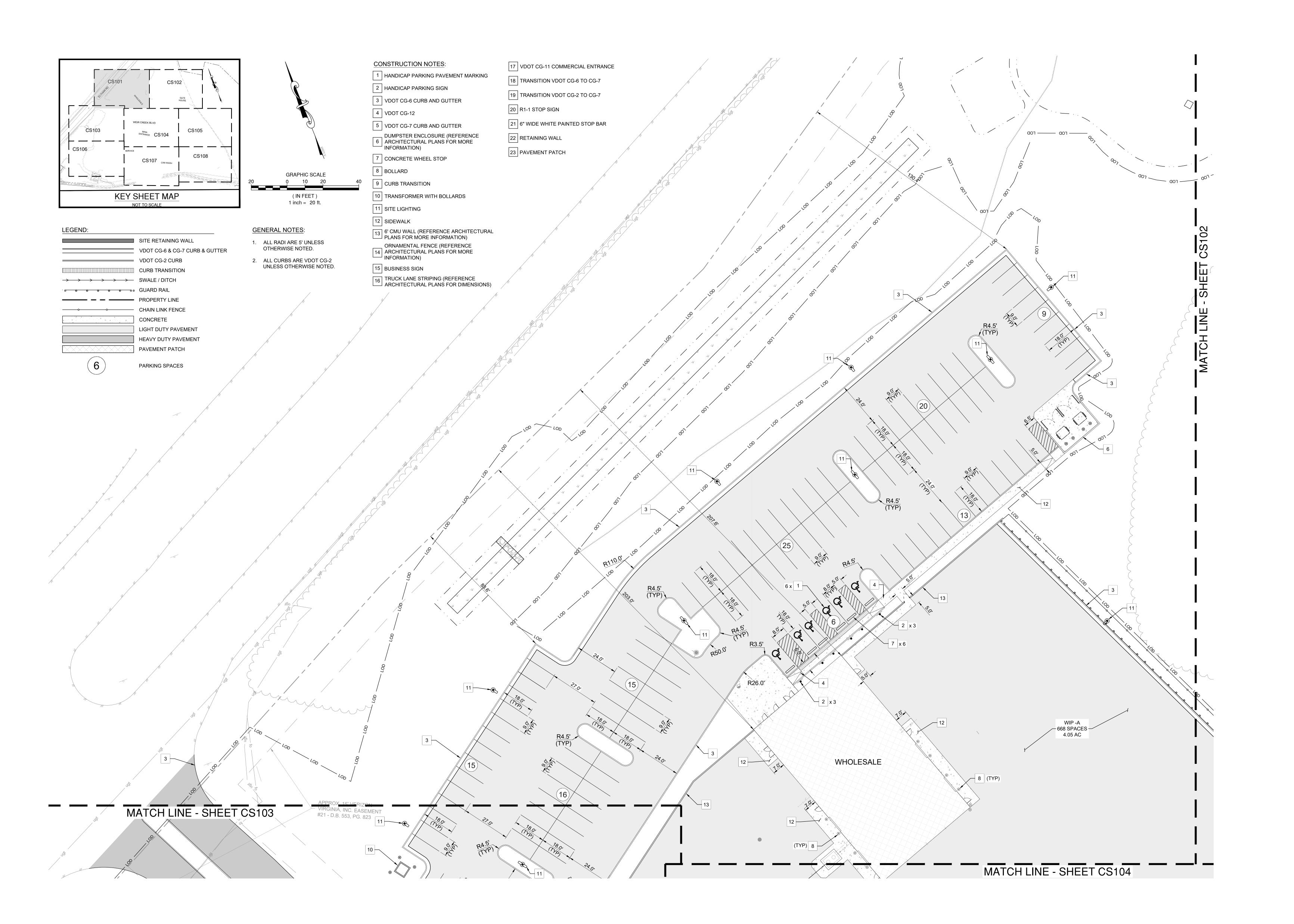
DATE 02/12/2024

SHEET TITLE

OVERALL SITE LAYOUT

PLAN







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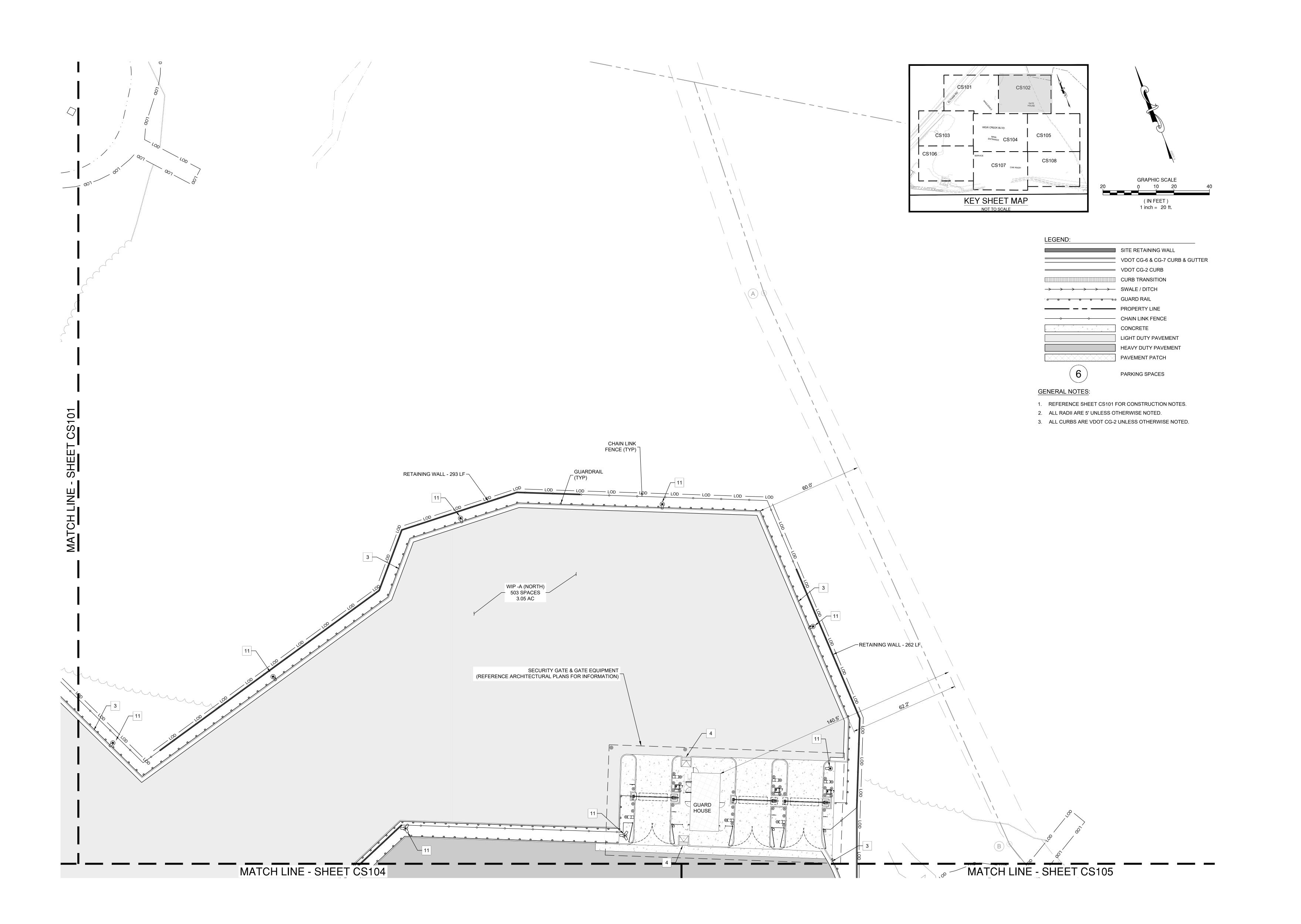
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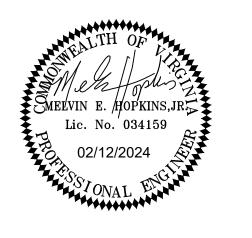
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SITE LAYOUT PLAN

02/12/2024







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LATEST DA/PC DA23-031/PC23-005

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PROJECT NO.

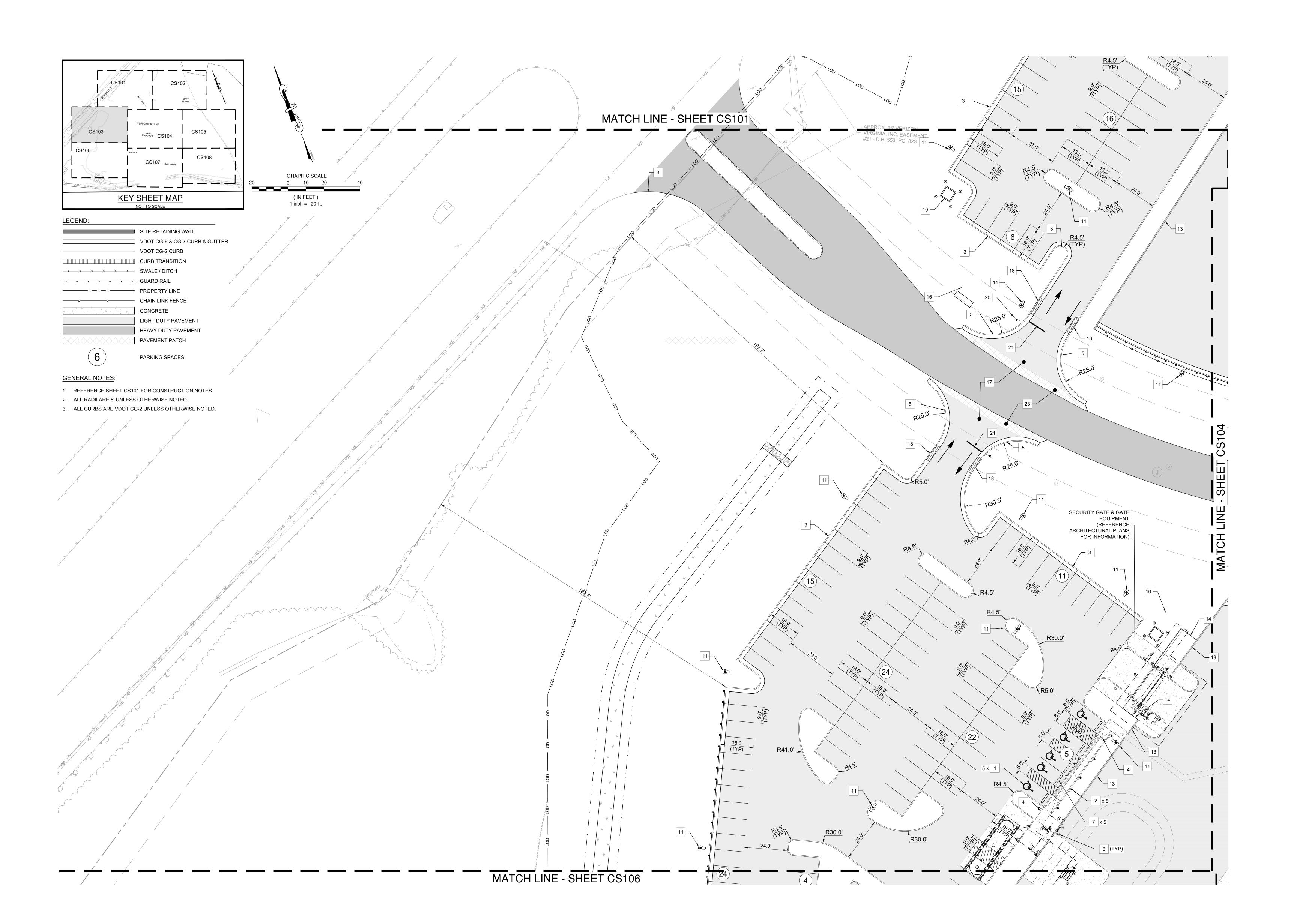
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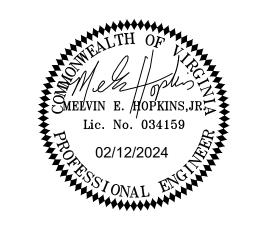
SITE LAYOUT PLAN

20-22195.02

02/12/2024







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LATEST DA/PC DA23-031/PC23-005

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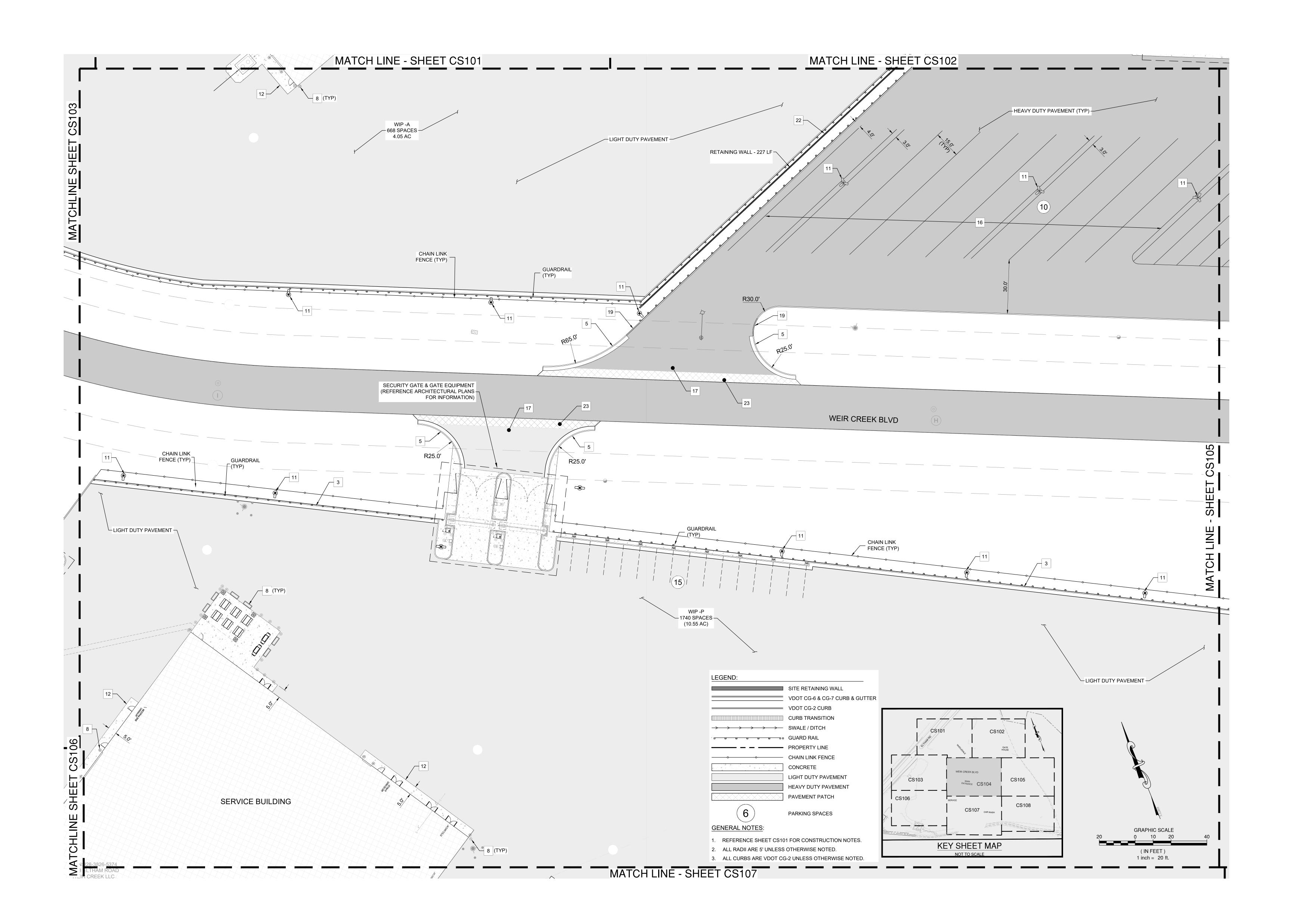
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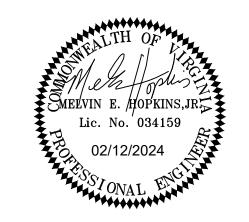
PROJECT NO.	20-22195.02
DATE	02/12/2024
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SITE LAYOUT PLAN









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LATEST DA/PC

DA23-031/PC23-005

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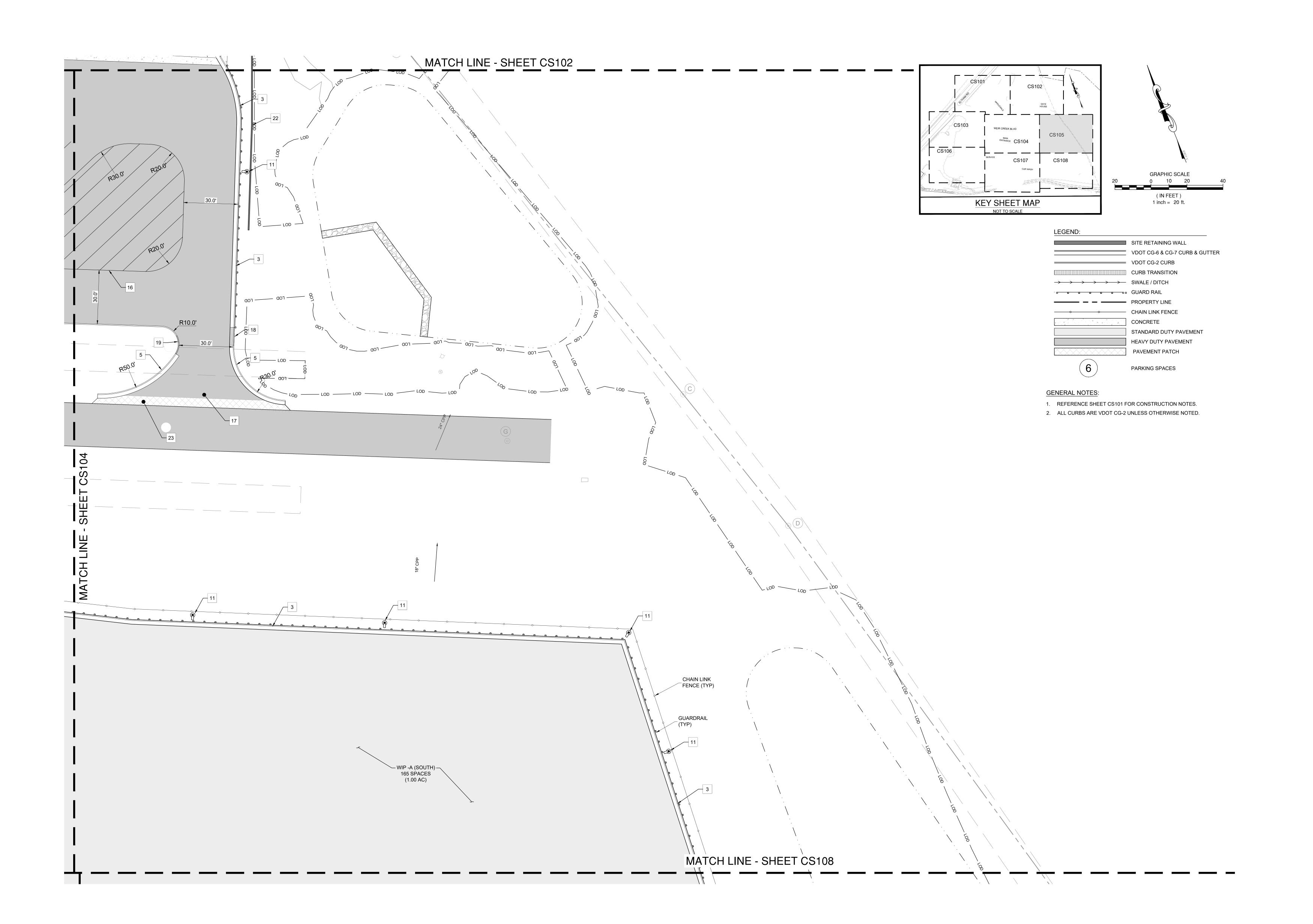
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PROJECT NO.	20-22195.02
DATE	02/12/2024
SHEET TITLE	

SITE LAYOUT PLAN







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THE AUTO SUPERSTORE

CARMAX THE AUTO SUPERSTORE

CARMAX THE AUTO SUPERSTORE WEST COAST, INC.
12800 TUCKAHOE CREEK PKWY, RICHMOND, VA 23238
(804)747-0422
SERVICE & CARWASH

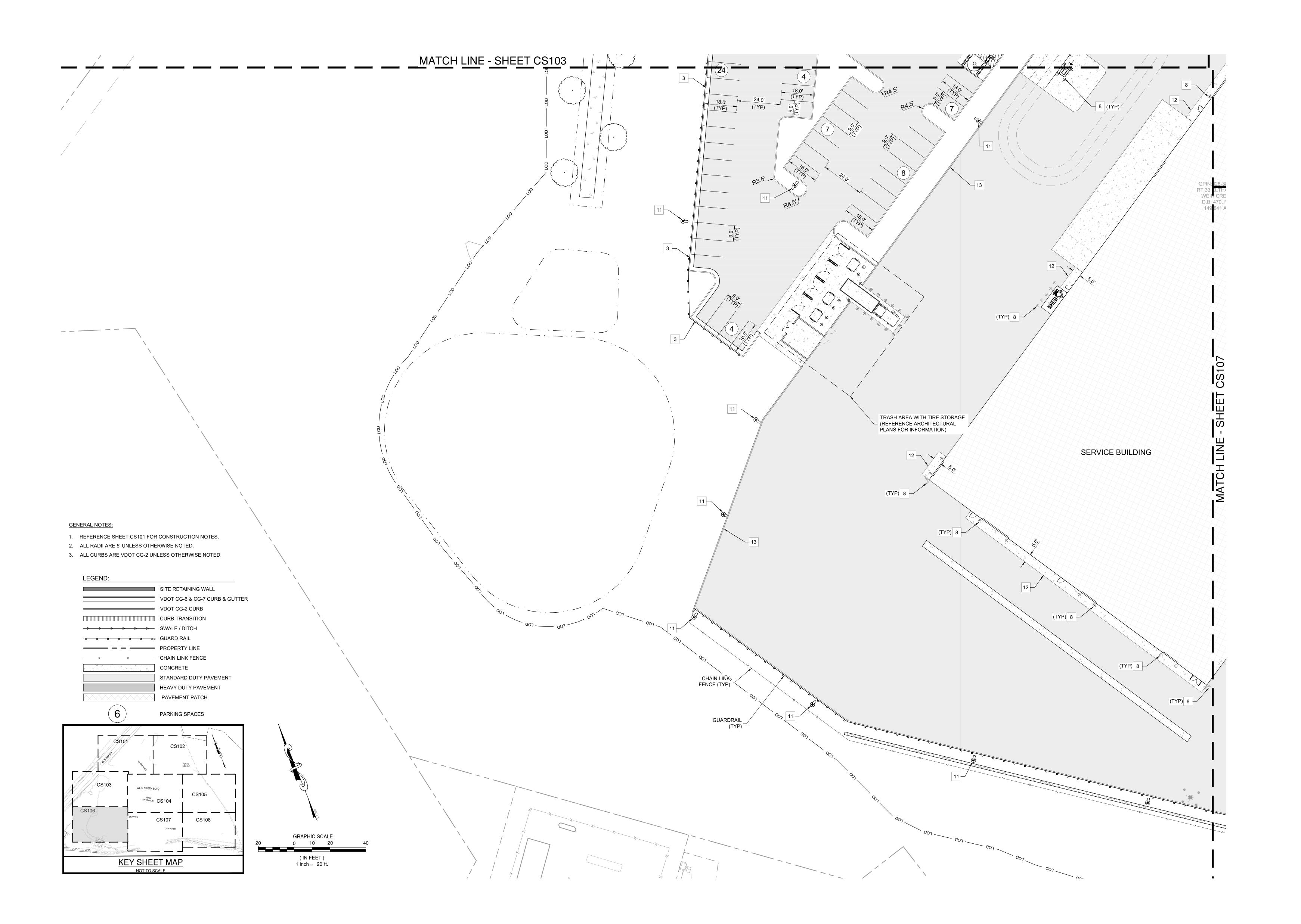
STORE NO 4007
16931 BLDG - 1, ELTHAM RD E
NEW KENT CO., VIRGINIA 23089

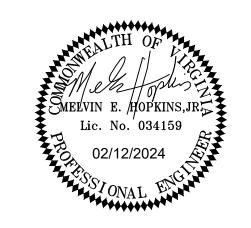
 PROJECT NO.
 20-22195.02

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 02/12/2024

SITE LAYOUT PLAN







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LATEST DA/PC

DA23-031/PC23-005

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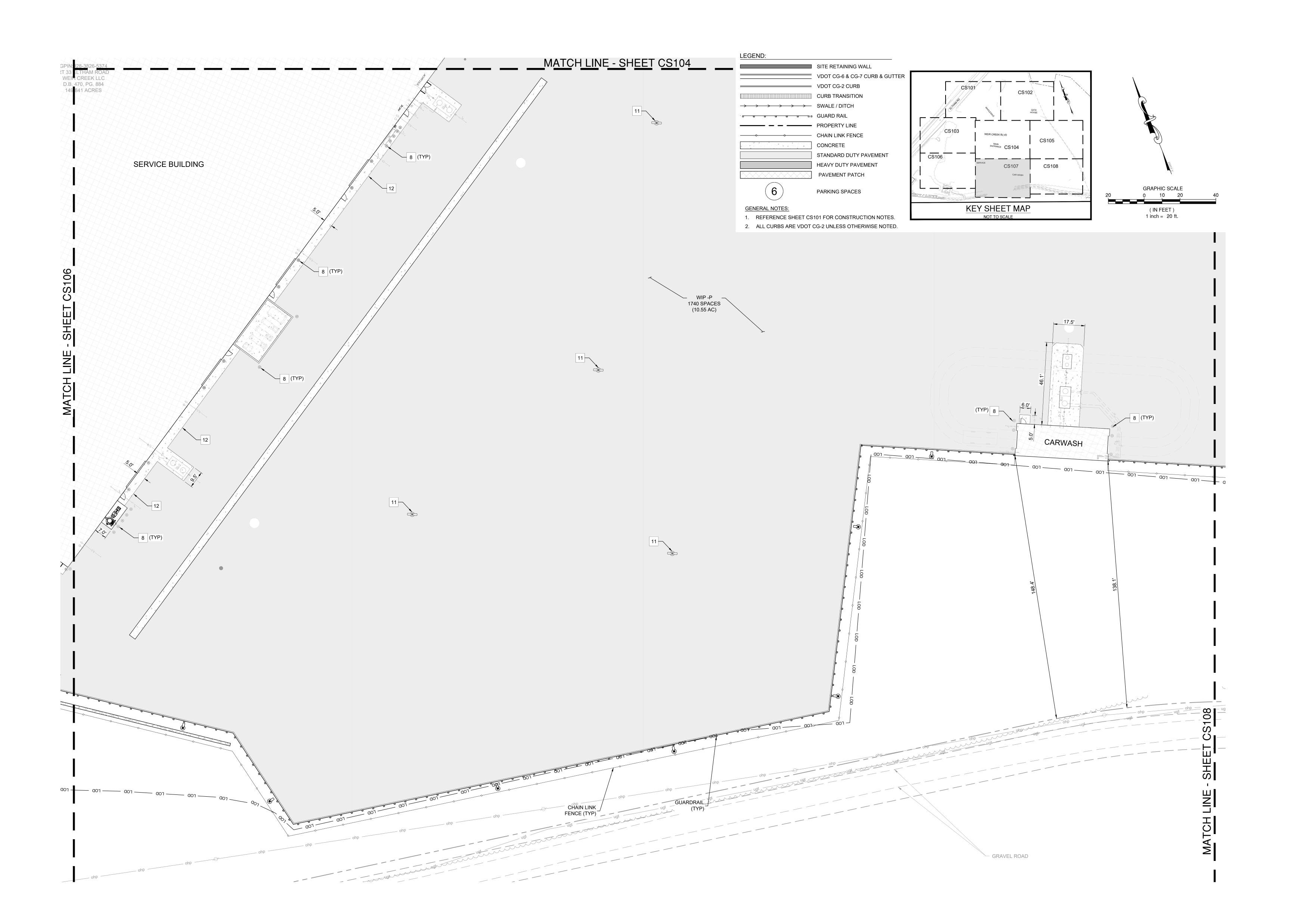
THE AUTO SUPERSTORE
ARMAX THE AUTO SUPERSTORE
ARMAX THE AUTO SUPERSTORE
S2800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
S34)747-0422
SCHOOLE & CARWASH
STORE NO 4007
I6931 BLDG - 1, ELTHAM RD E

PROJECT NO. 20-22195.02

DATE 02/12/2024

SITE LAYOUT PLAN







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THE AUTO SUPERSTORE

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SERVICE REST COAST, INC.

SERVICE & CARWASH

STORE NO 4007

16931 BLDG - 1, ELTHAM RD E

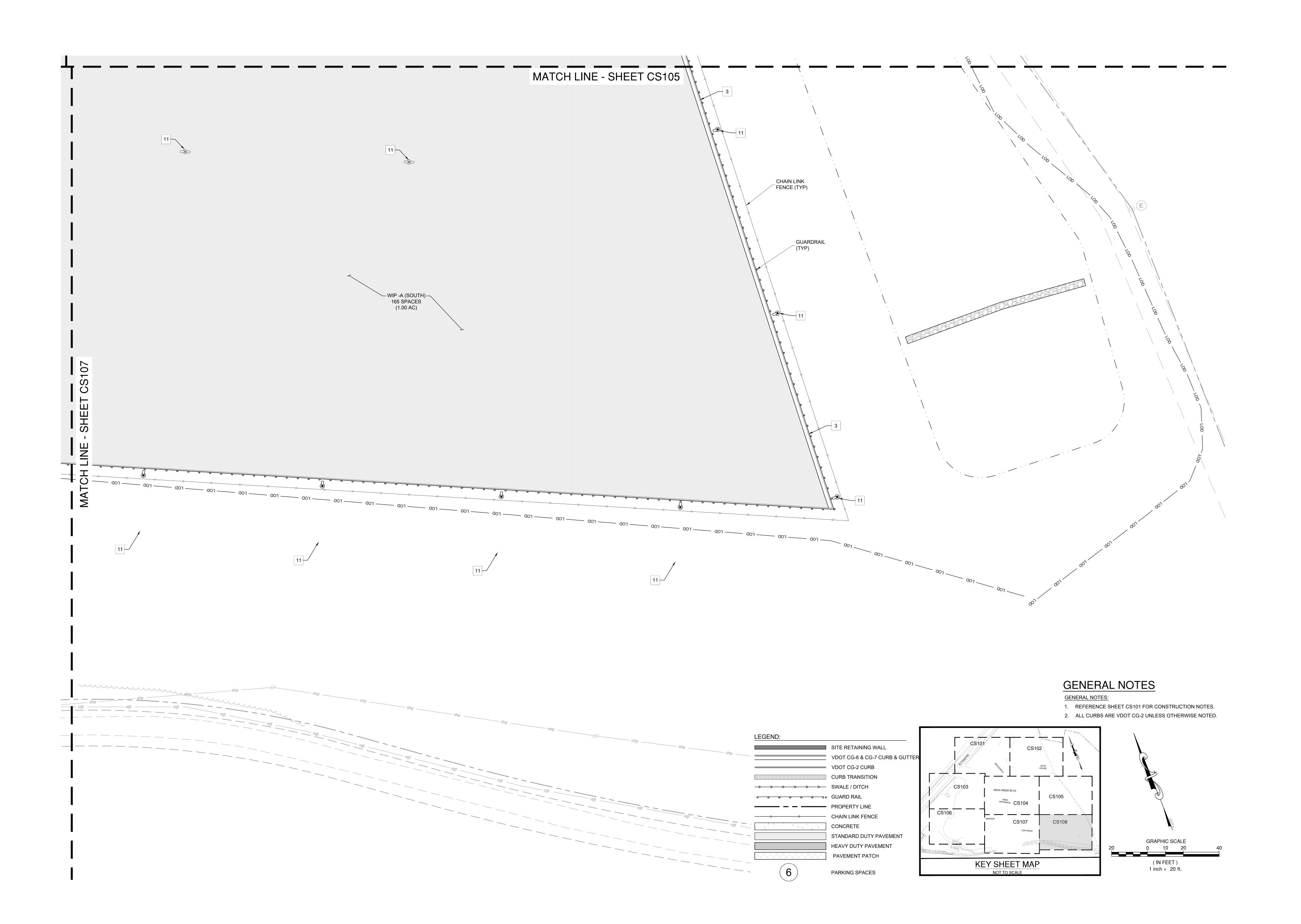
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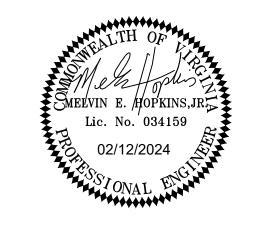
PROJECT NO.	20-22
DATE	02/12
SHEET TITLE	

SITE LAYOUT PLAN









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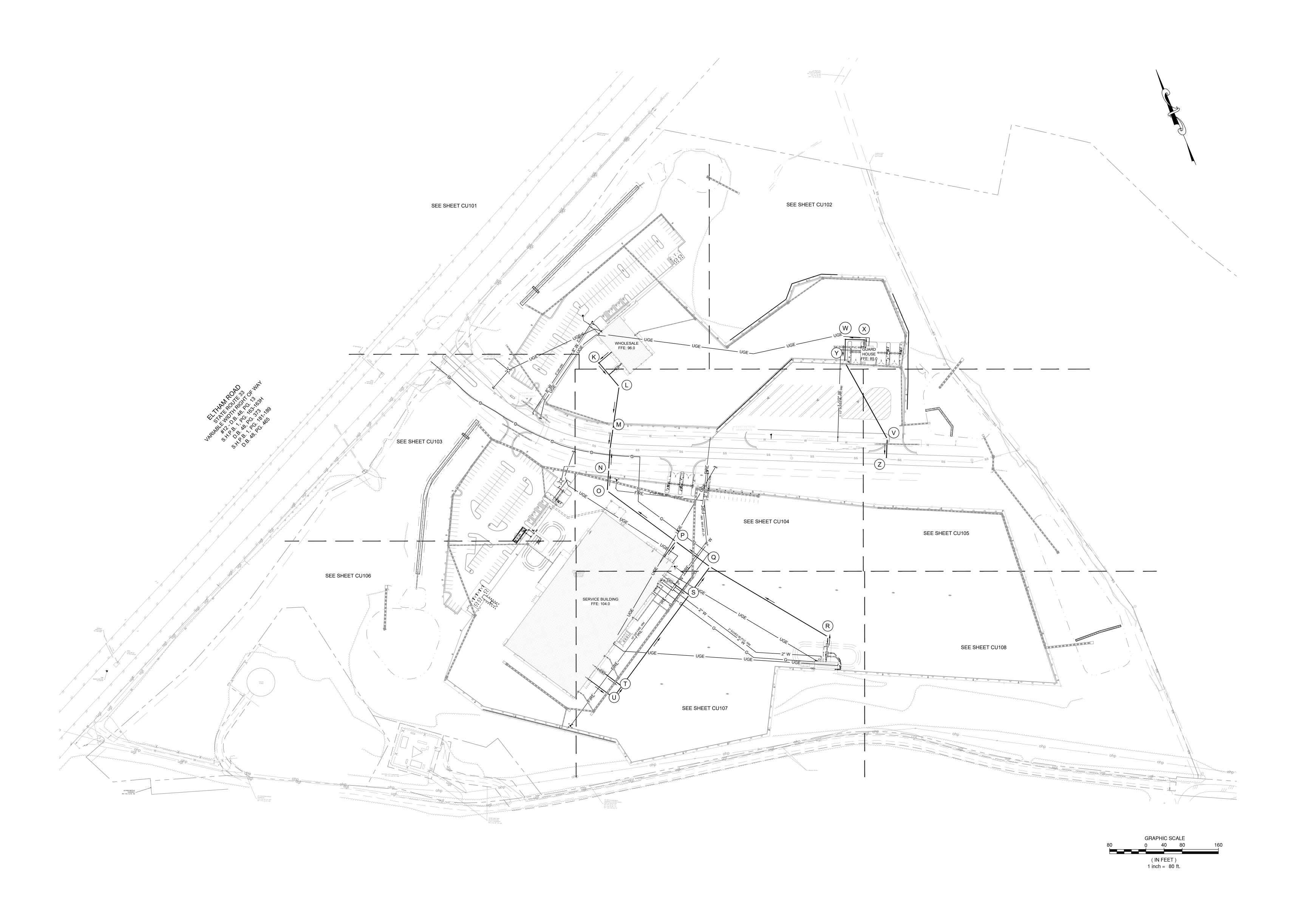
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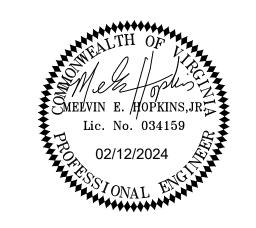
 DATE
 02/12/2024

 SHEET TITLE

SITE LAYOUT PLAN







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REV# DATE DESCRIPTION BY

THE AUTO SUPERSTORE
ARMAX THE AUTO SUPERSTORE
ARMAX THE AUTO SUPERSTORE WEST COAST, INC.
2800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
S04)747-0422
SERVICE & CARWASH
STORE NO 4007
6931 BLDG - 1, ELTHAM RD E

PROJECT NO.

DATE

SHEET TITLE

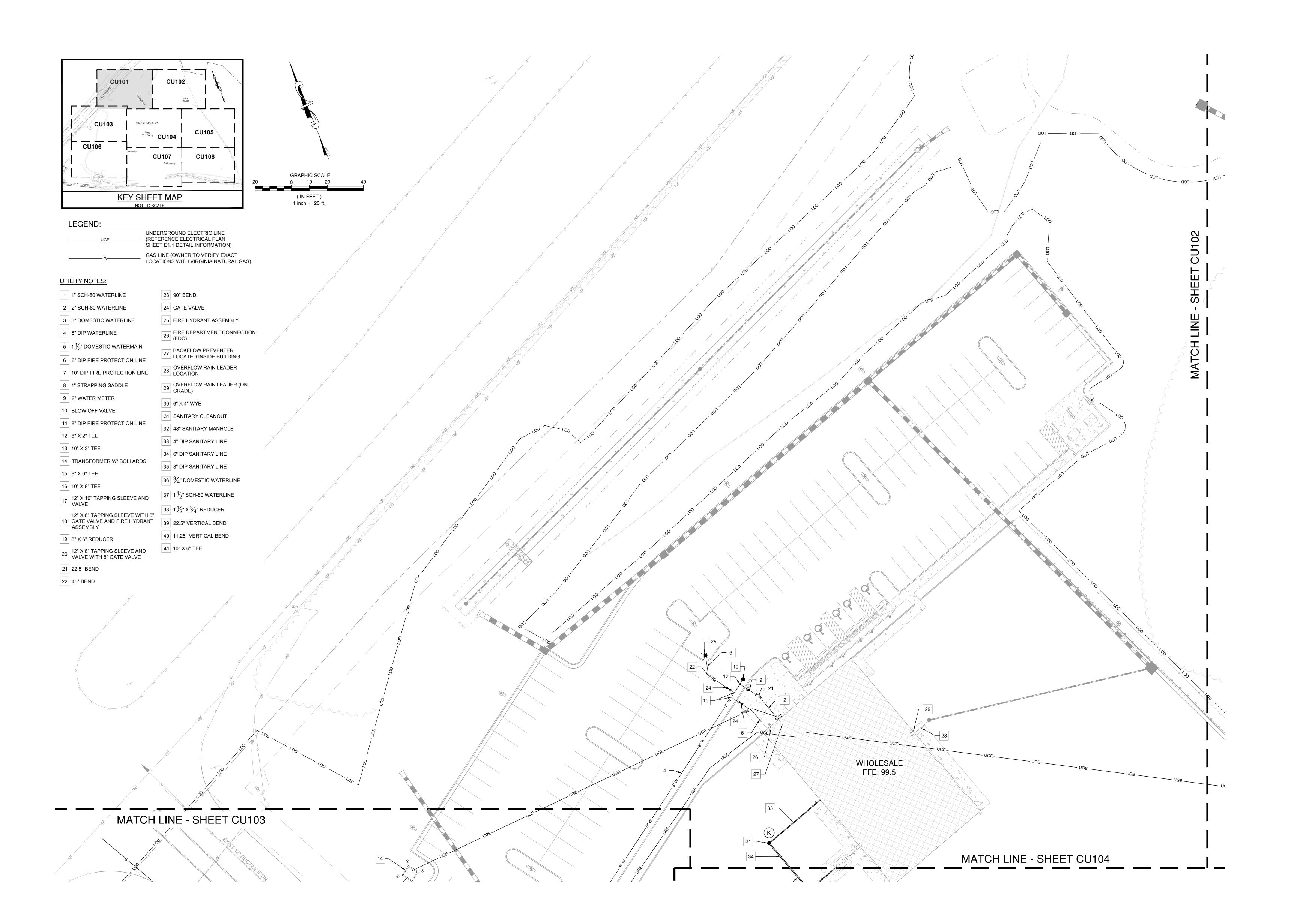
OVERALL UTILITY PLAN

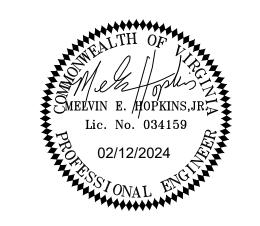
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SHEET NO.







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LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

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REV#	DATE	DESCRIPTION	BY

THE AUTO SUPERSTORE

ARMAX THE AUTO SUPERSTORE WEST COAST, INC.
2800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
304)747-0422

SERVICE & CARWASH

STORE NO 4007

16931 BLDG - 1, ELTHAM RD E

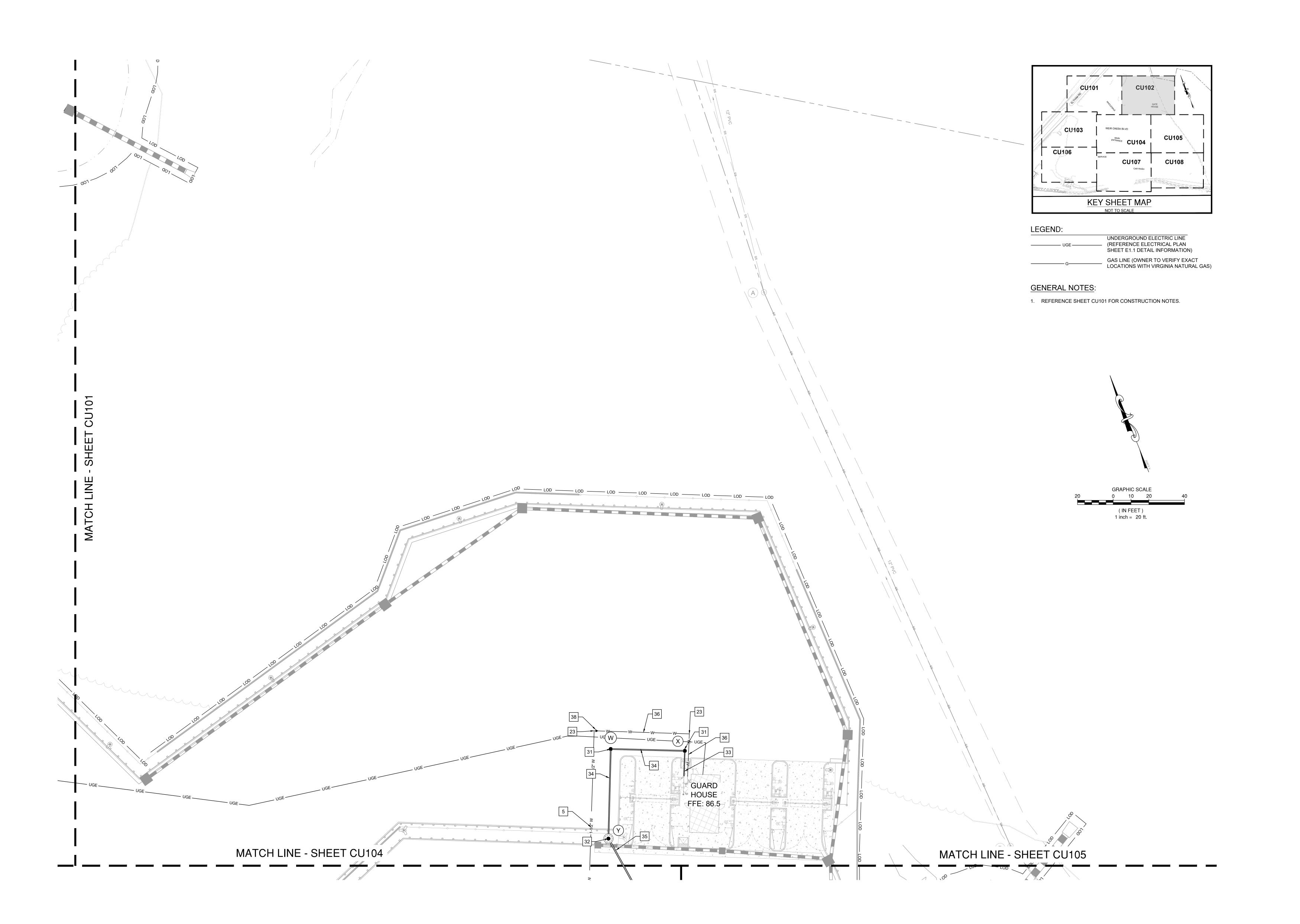
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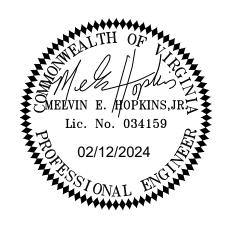
PROJECT NO.	20-22195.02
DATE	02/12/2024

UTILITY PLAN









NOT FOR CONSTRUCTION

LATEST DA/PC

DA23-031/PC23-005

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TL/TK

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SOO TUCKAHOE CREEK PKWY. RICHMOND, VA 23238

O4)747-0422

SERVICE & CARWASH

STORE NO 4007

6931 BLDG - 1, ELTHAM RD E

PROJECT NO.

DATE

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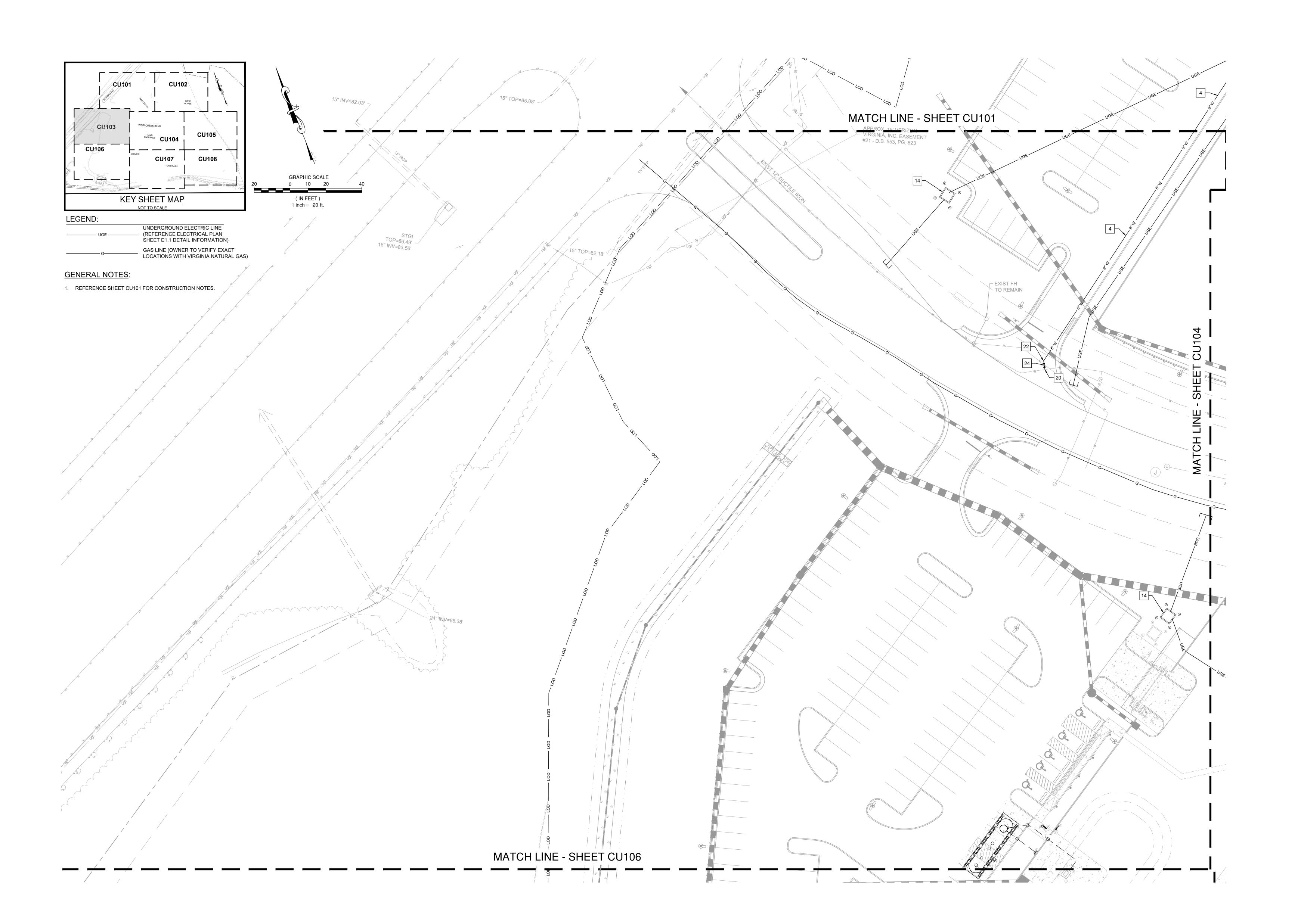
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UTILITY PLAN

20-22195.02

02/12/2024







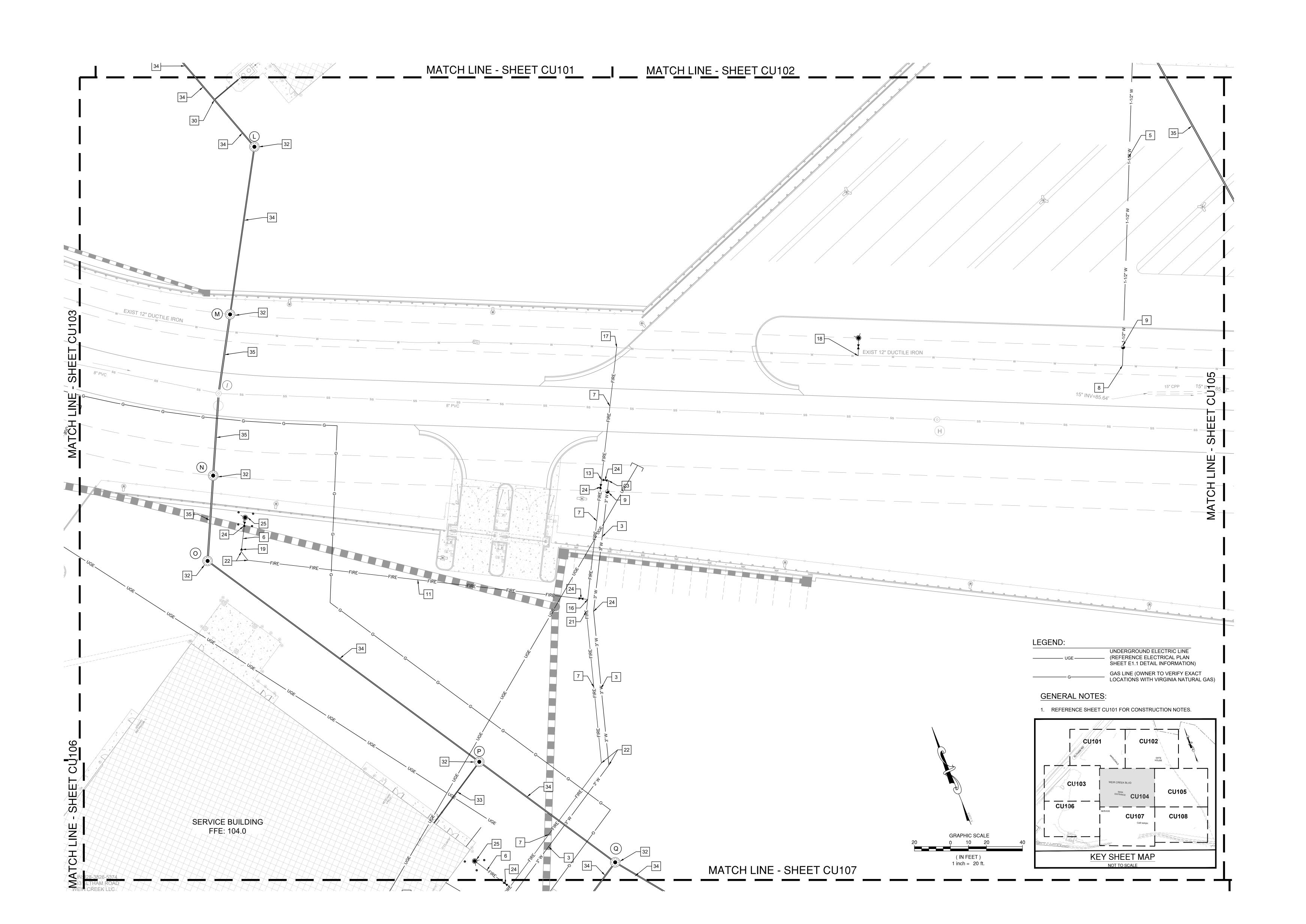
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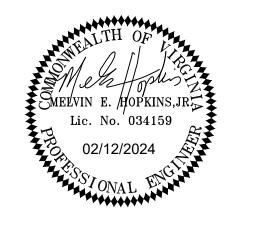
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DATE	02/12/2024
SHEET TITLE	

UTILITY PLAN









NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

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AUTO SUPERSTORE

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X THE AUTO SUPERSTORE WEST COAST, INC.
TUCKAHOE CREEK PKWY. RICHMOND. VA 23238
47-0422

IRVICE & CARWASH

ORE NO 4007

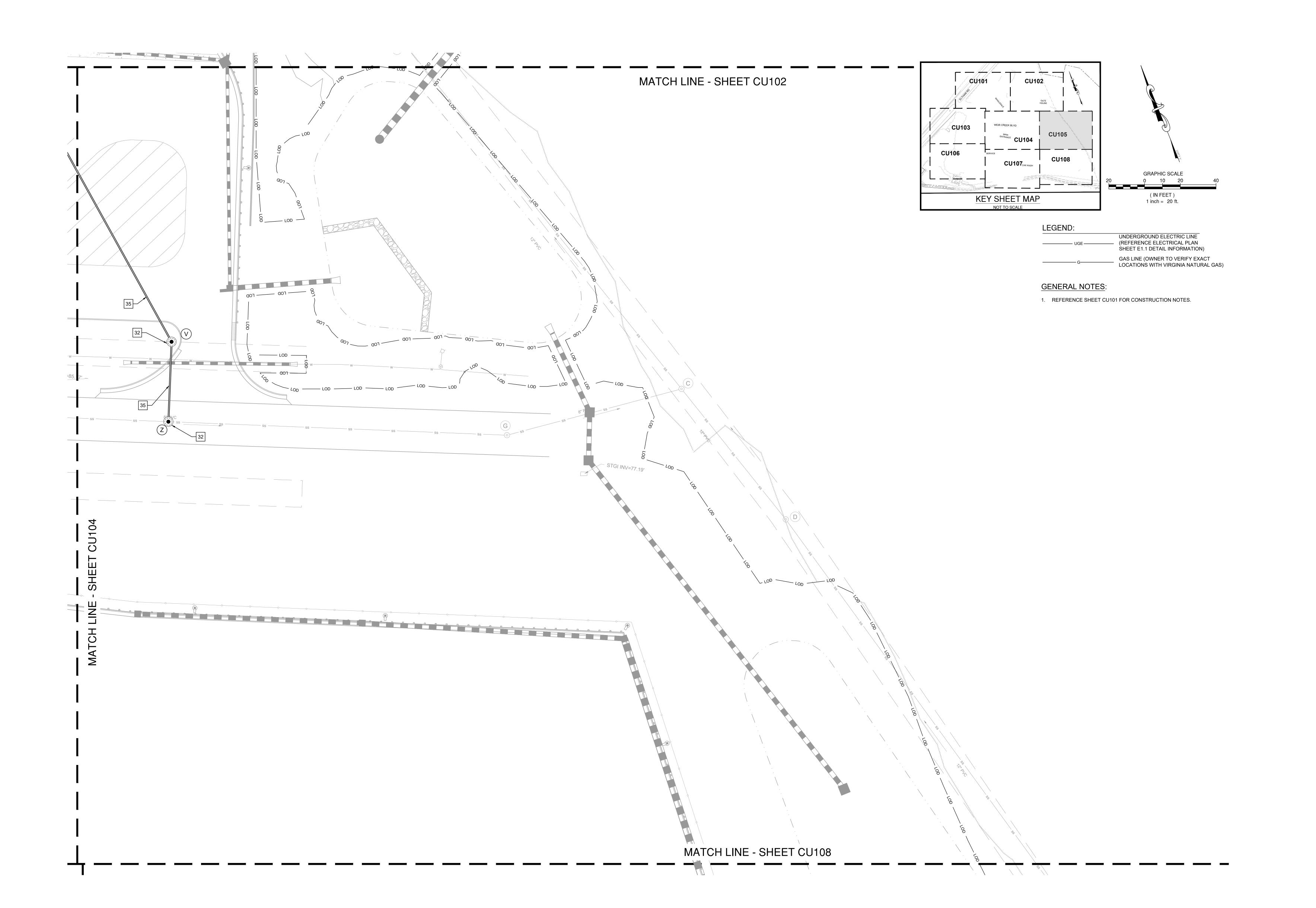
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PROJECT NO.	20-22195.02
DATE	02/12/2024
SHEET TITLE	

UTILITY PLAN









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LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY:

REV# DATE DESCRIPTION BY

THE AUTO SUPERSTORE
CARMAX THE AUTO SUPERSTORE
SOFT TOKE AUTO SUPERSTORE WEST COAST, INC.
12800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
(804)747-0422
SERVICE & CARWASH
STORE NO 4007
16931 BLDG - 1, ELTHAM RD E

PROJECT NO.

DATE

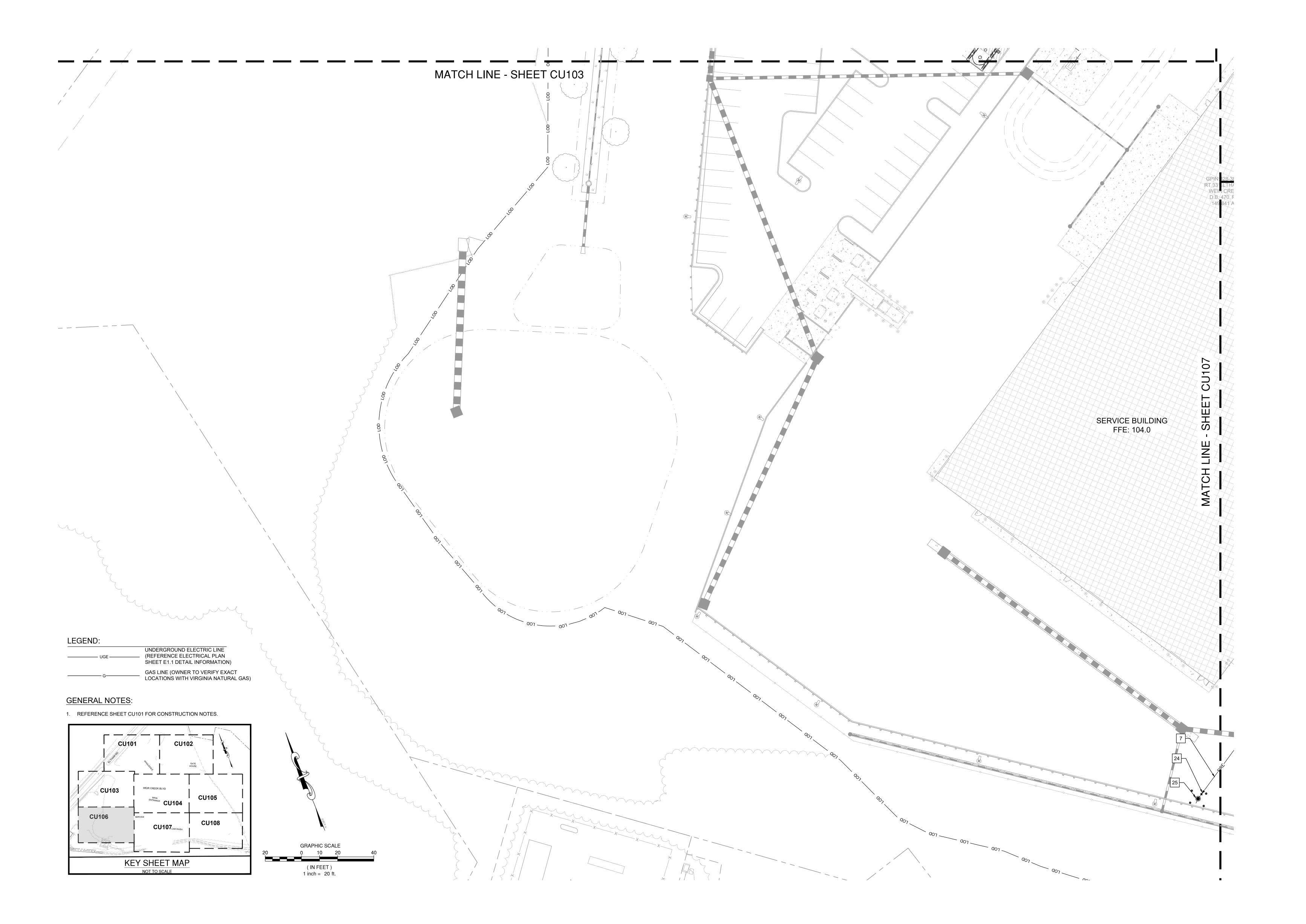
SHEET TITLE

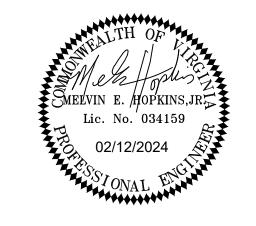
02/12/2024

20-22195.02

UTILITY PLAN







NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH

REVIS	DATE	DESCRIPTION	BY
KEV#	DATE	DESCRIPTION	DI

THE AUTO SUPERSTORE

ARMAX THE AUTO SUPERSTORE WEST COAST, INC.
2800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
304)747-0422

SERVICE & CARWASH

STORE NO 4007

16931 BLDG - 1, ELTHAM RD E

16931 BLDG - 1, ELTHAM RD E

16931 BLDG - 1, ELTHAM RD E

PROJECT NO.
DATE

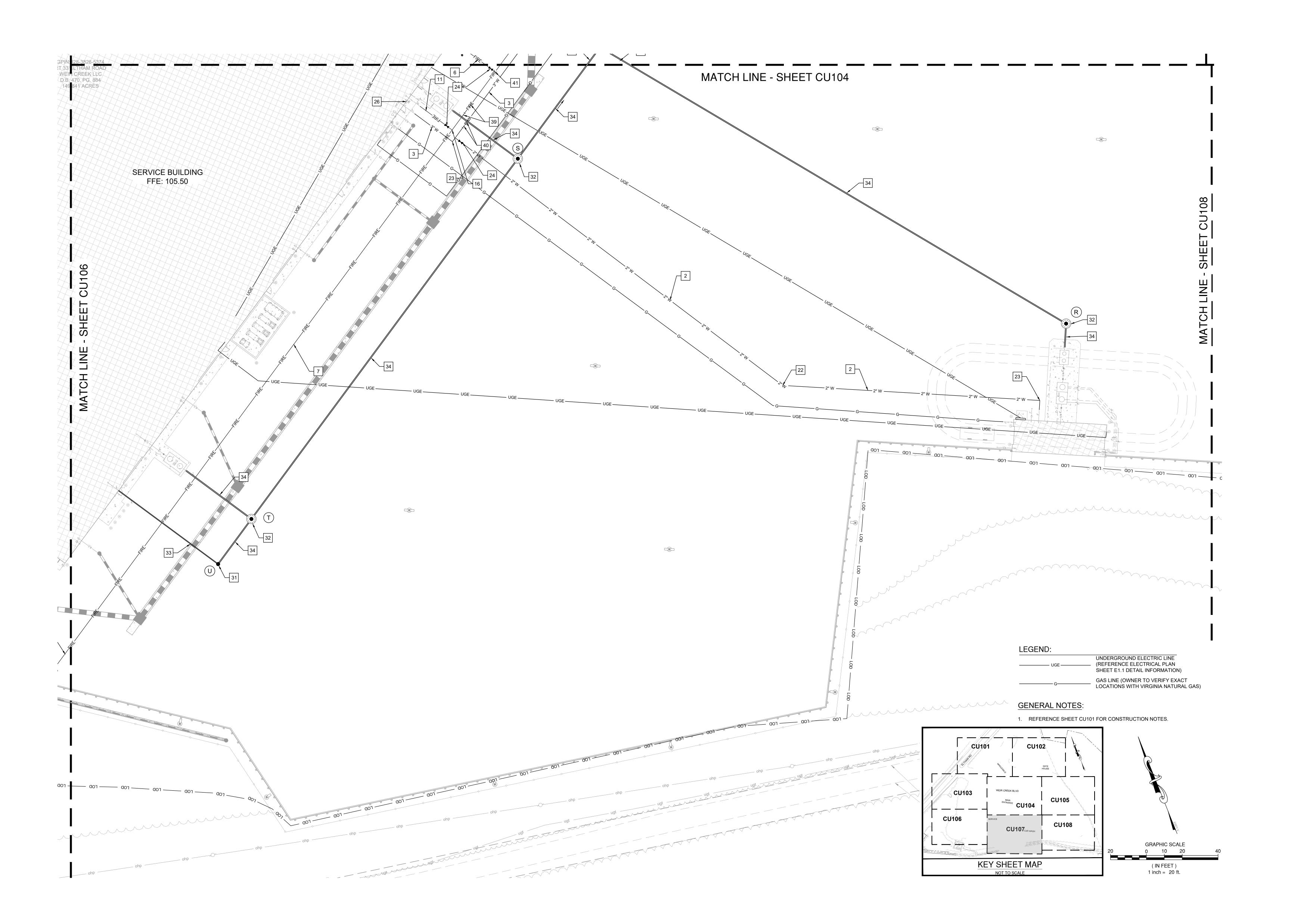
UTILITY PLAN

20-22195.02

02/12/2024

SHEET NO.







NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH

REV#	DATE	DESCRIPTION

THE AUTO SUPERSTORE

ARMAX THE AUTO SUPERSTORE WEST COAST, INC.
1800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
04)747-0422

SERVICE & CARWASH

STORE NO 4007

6931 BLDG - 1, ELTHAM RD E

1EW KENT CO., VIRGINIA 23089

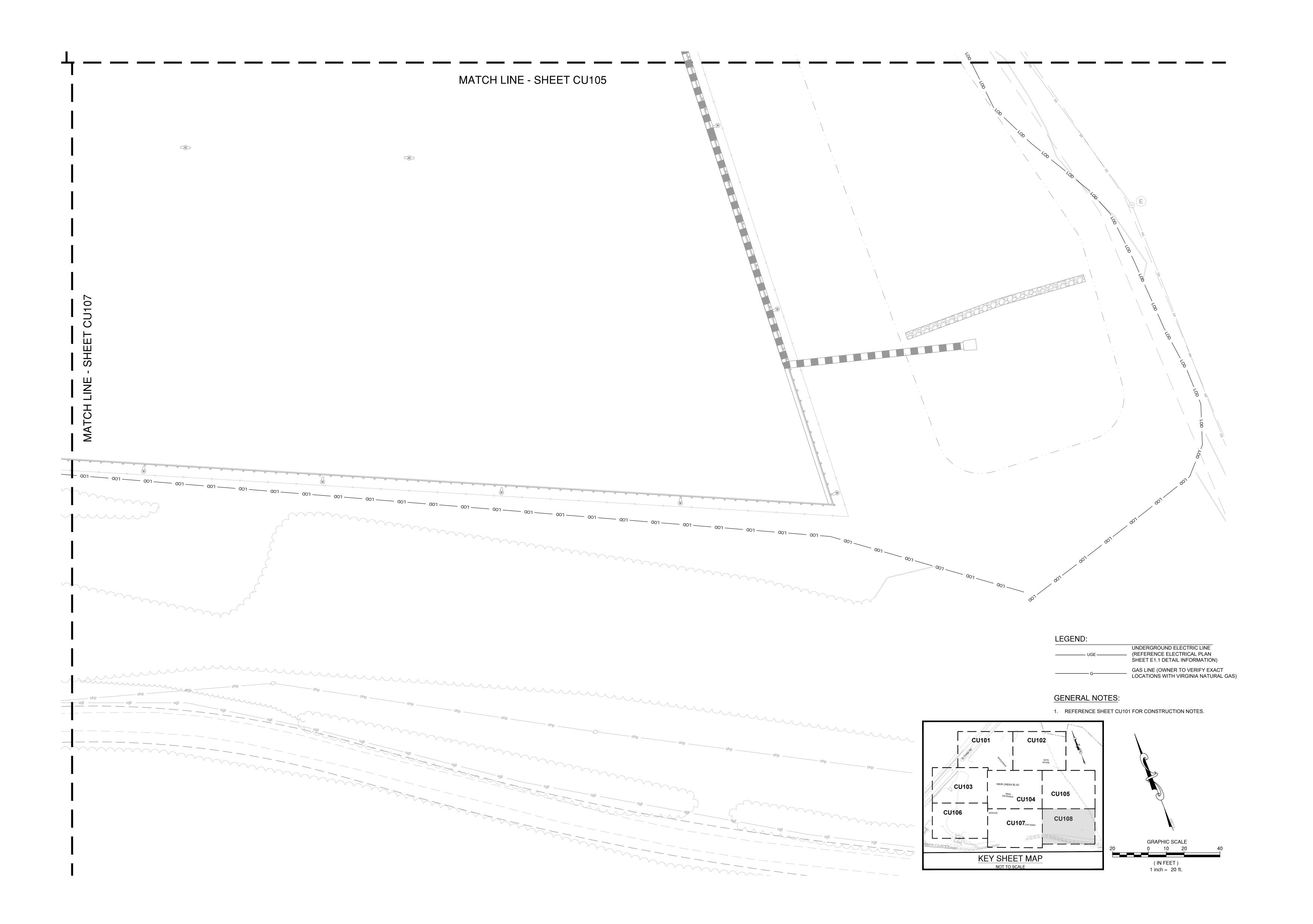
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 20-22195.02

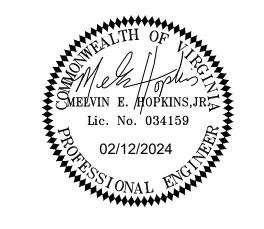
 DATE
 02/12/2024

 SHEET TITLE

UTILITY PLAN







NOT FOR CONSTRUCTION

LATEST DA/PC

DA23-031/PC23-005

DRAWN BY:

TL/TK

CHECKED BY:

MH

REVISIONS

REV#	DATE	DESCRIPTION	BY

THE AUTO SUPERSTORE

RMAX THE AUTO SUPERSTORE
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SERVICE & CARWASH

TORE NO 4007

6931 BLDG - 1, ELTHAM RD E

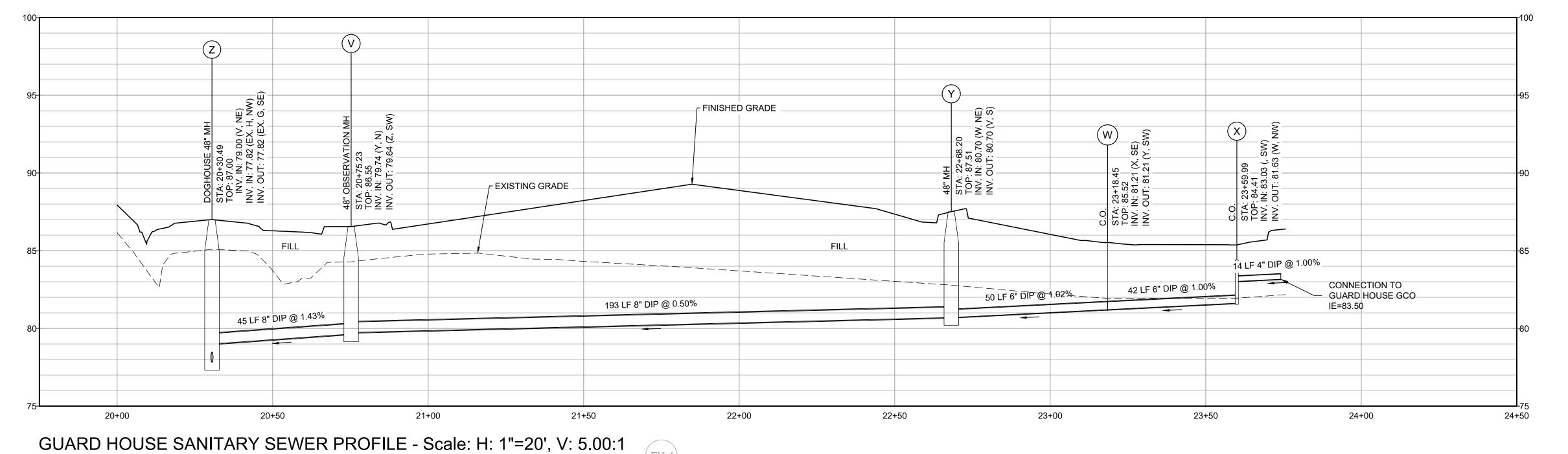
EW KENT CO. VIRGINIA 23089

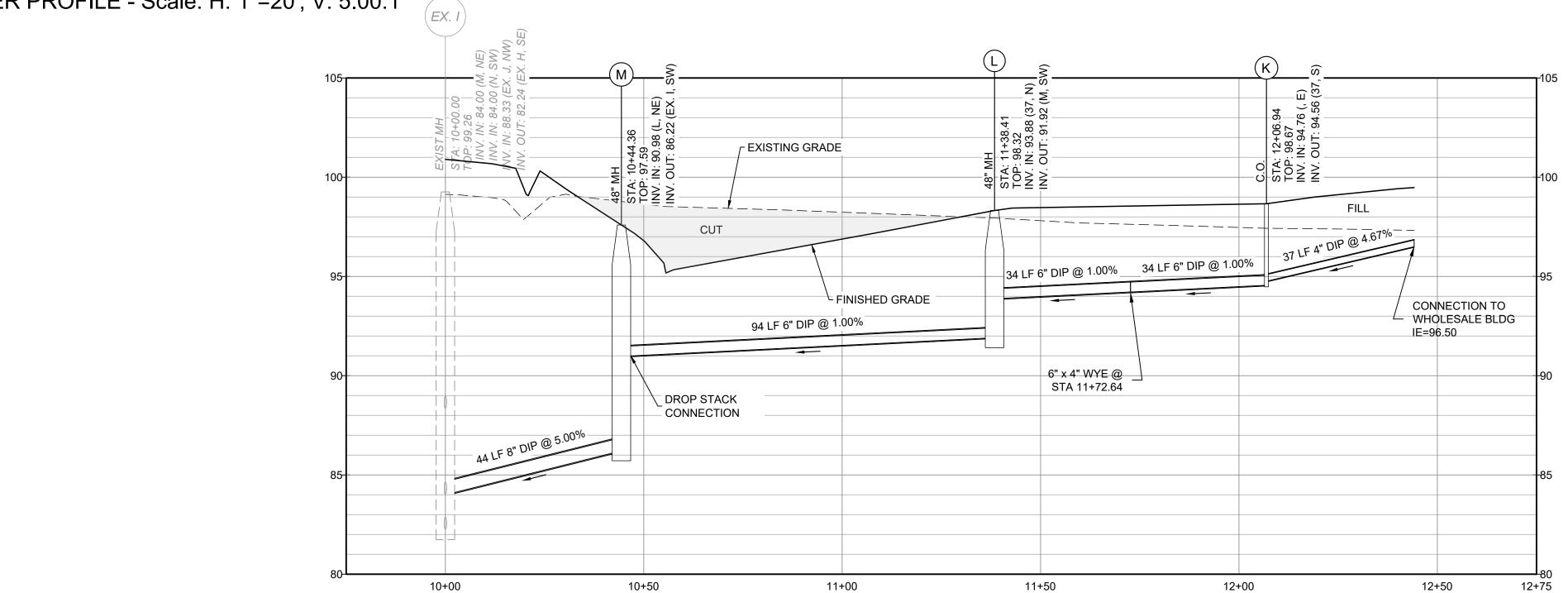
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UTILITY PLAN

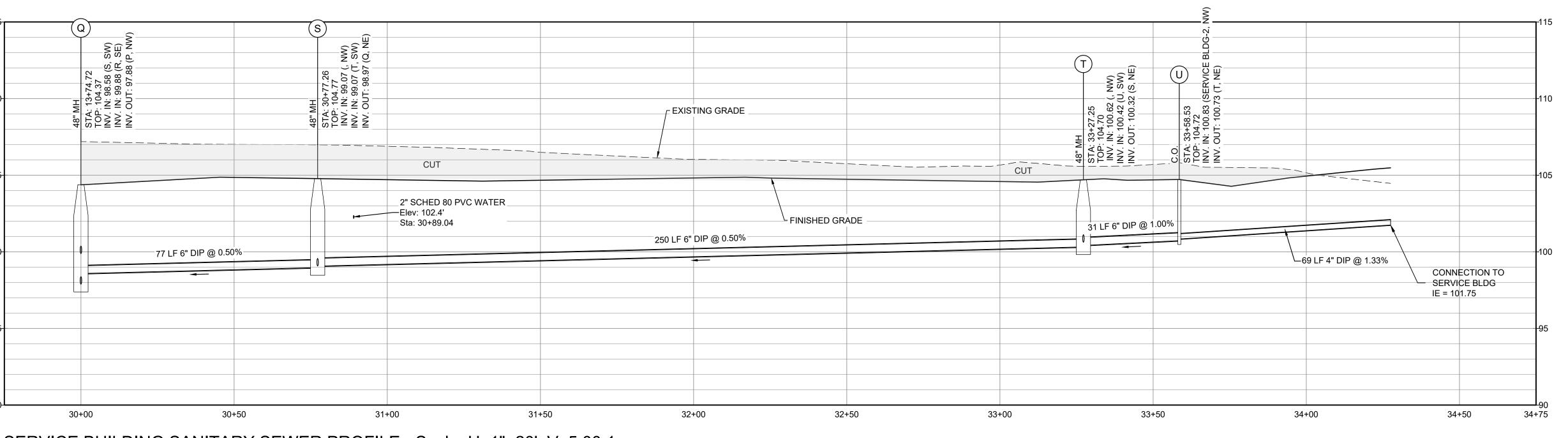
## **GENERAL NOTE:**

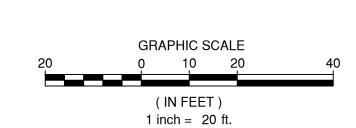
- 1. PERFORM TEST PITS WHERE PIPES CROSS EXISTING UTILITIES, AND IMMEDIATELY NOTIFY ENGINEER OF RECORD IF ANY DISCREPANCIES EXIST.
- 2. ALL CLEAN OUTS SHALL BE H20 RATED.
- 3. ALL EXISTING MANHOLE COVERS TO BE ADJUSTED UPWARD WITH APPROPRIATE RISER, RING AND COVER. CONTRACTOR TO EXCAVATE DOWN TO NEAREST RISER JOINT TO DETERMINE APPROPRIATE NEW RISER HEIGHT. PROVIDE A SHOP DRAWING FOR EACH MANHOLE.





WHOLESALE BUILDING SANITARY SEWER PROFILE - Scale: H: 1"=20', V: 5.00:1





SERVICE BUILDING SANITARY SEWER PROFILE - Scale: H: 1"=20', V: 5.00:1



**BID SET** 02/12/2024 SERVICE CARWASH



NOT FOR CONSTRUCTION **LATEST DA/PC** DA23-031/PC23-005

DRAWN BY: TL/TK CHECKED BY: M

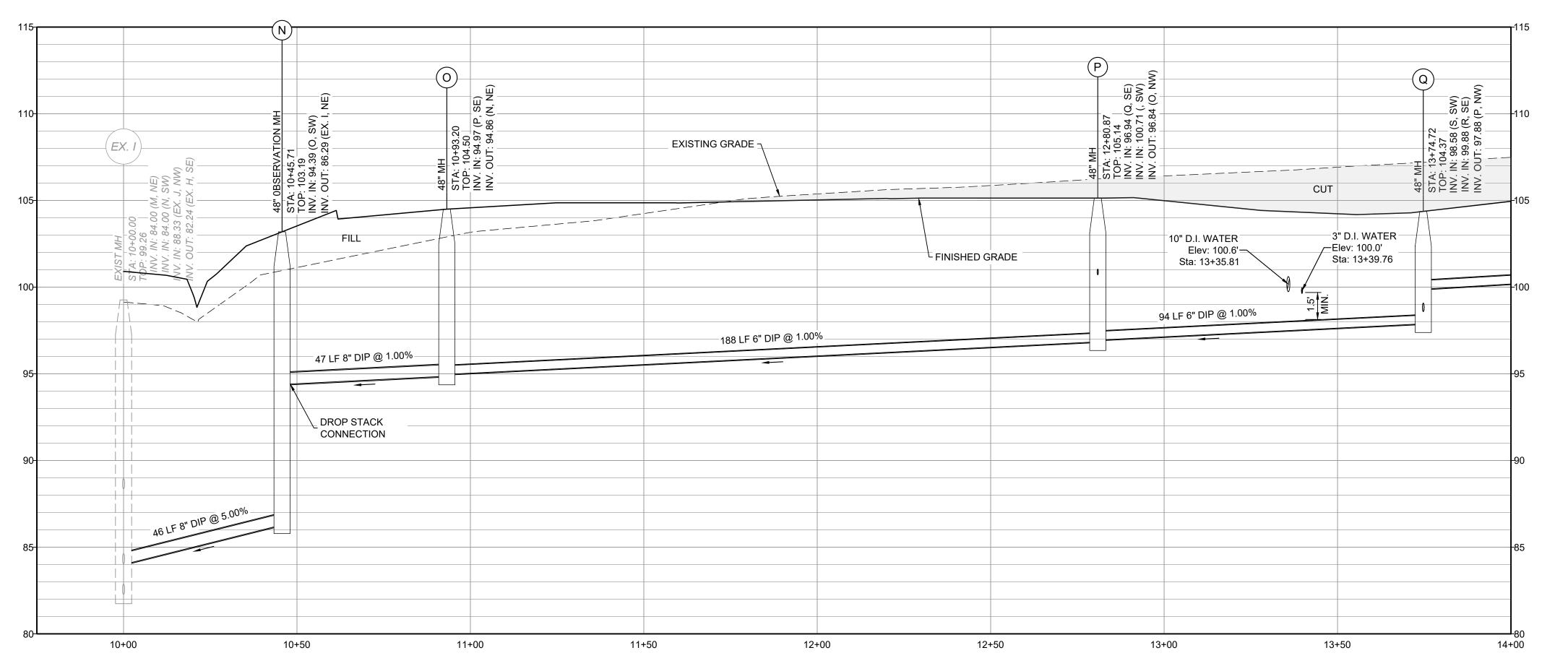
**REVISIONS** REV# DATE DESCRIPTION BY

20-22195.02 PROJECT NO. 02/12/2024

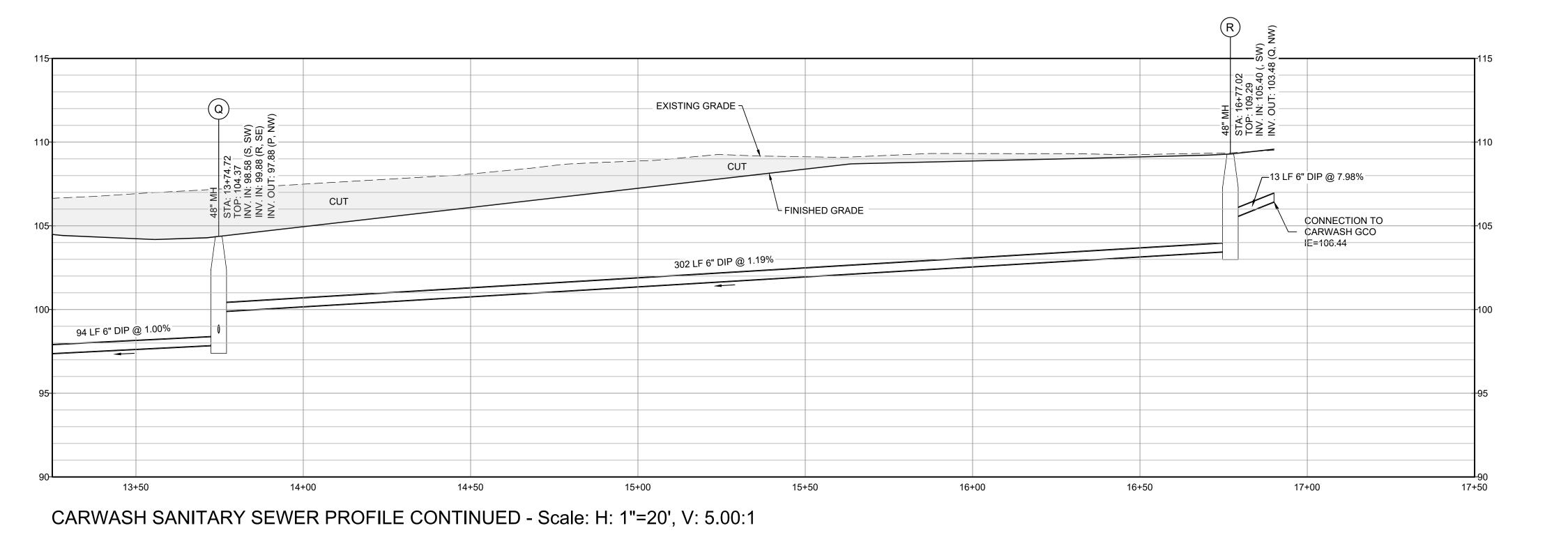
SANITARY SEWER PROFILES

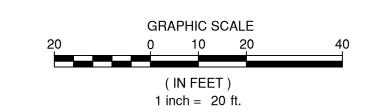
#### **GENERAL NOTE:**

- 1. PERFORM TEST PITS WHERE PIPES CROSS EXISTING UTILITIES, AND IMMEDIATELY NOTIFY ENGINEER OF RECORD IF ANY DISCREPANCIES EXIST.
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CARWASH SANITARY SEWER PROFILE - Scale: H: 1"=20', V: 5.00:1





TRC ENGINEERS, INC.
2 BAYPORT WAY, SUITE 120 NEWPORT NEWS, VA 23606
(757) 599 - 9800

BID SET 02/12/2024 SERVICE & CARWASH



NOT FOR CONSTRUCTION

LATEST DA/PC

DA23-031/PC23-005

TL/TK

CHECKED BY: MH

REVISIONS

REV# DATE DESCRIPTION BY

THE AUTO SUPERSTORE

CARMAX THE AUTO SUPERSTORE
STORE OF STORE OF

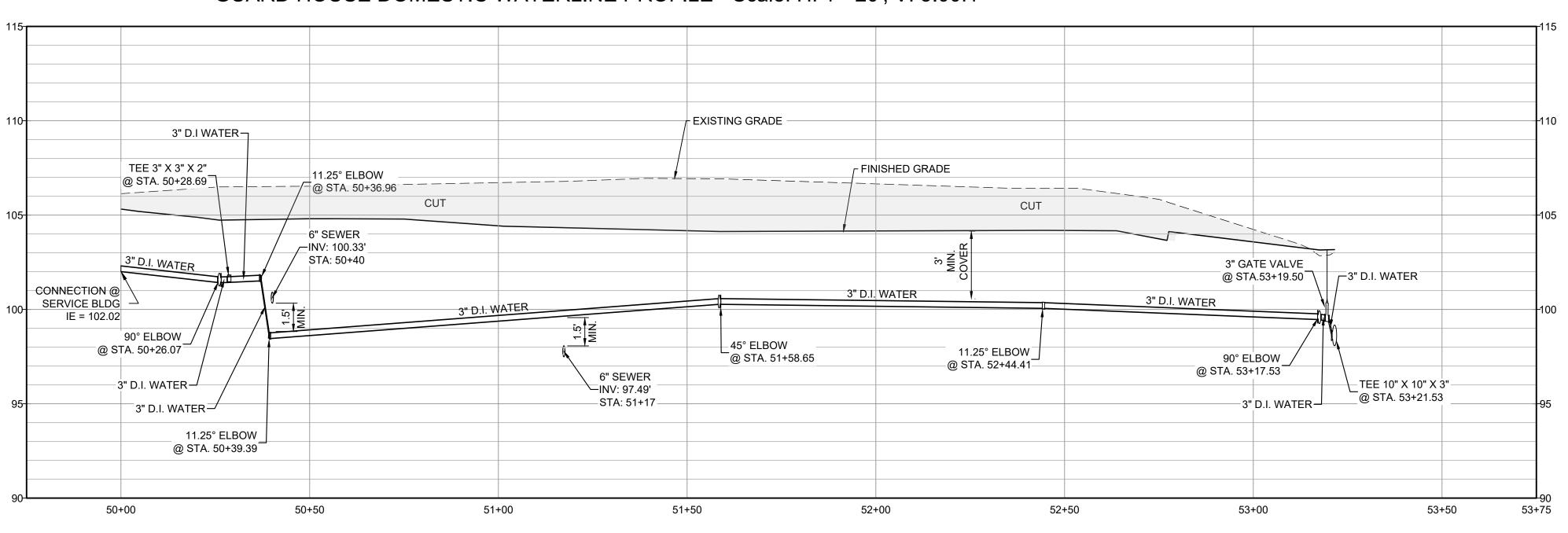
ROJECT NO.	20-22195.02
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SANITARY SEWER PROFILES

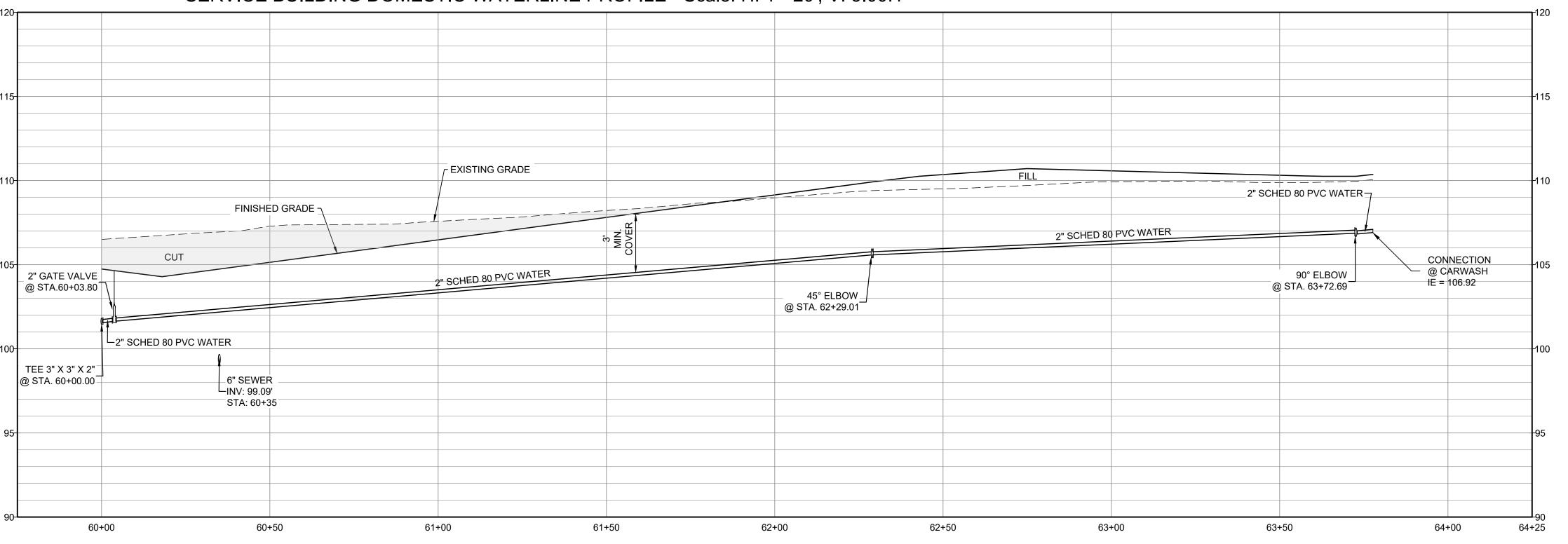
CU202

WHOLESALE BUILDING DOMESTIC WATERLINE PROFILE - Scale: H: 1"=20', V: 5.00:1

GUARD HOUSE DOMESTIC WATERLINE PROFILE - Scale: H: 1"=20', V: 5.00:1

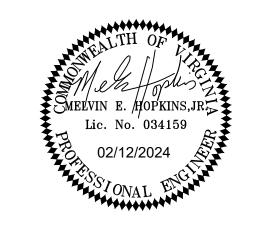


SERVICE BUILDING DOMESTIC WATERLINE PROFILE - Scale: H: 1"=20', V: 5.00:1



CARWASH DOMESTIC WATERLINE PROFILE - Scale: H: 1"=20', V: 5.00:1

**BID SET** 02/12/2024 SERVICE CARWASH



NOT FOR CONSTRUCTION **LATEST DA/PC** DA23-031/PC23-005

**DRAWN BY:** TL/TK **CHECKED BY:** 

**REVISIONS** REV# DATE DESCRIPTION BY

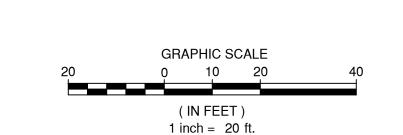
20-22195.02

02/12/2024

PROJECT NO.

WATERLINE PROFILES

SHEET NO. CU203

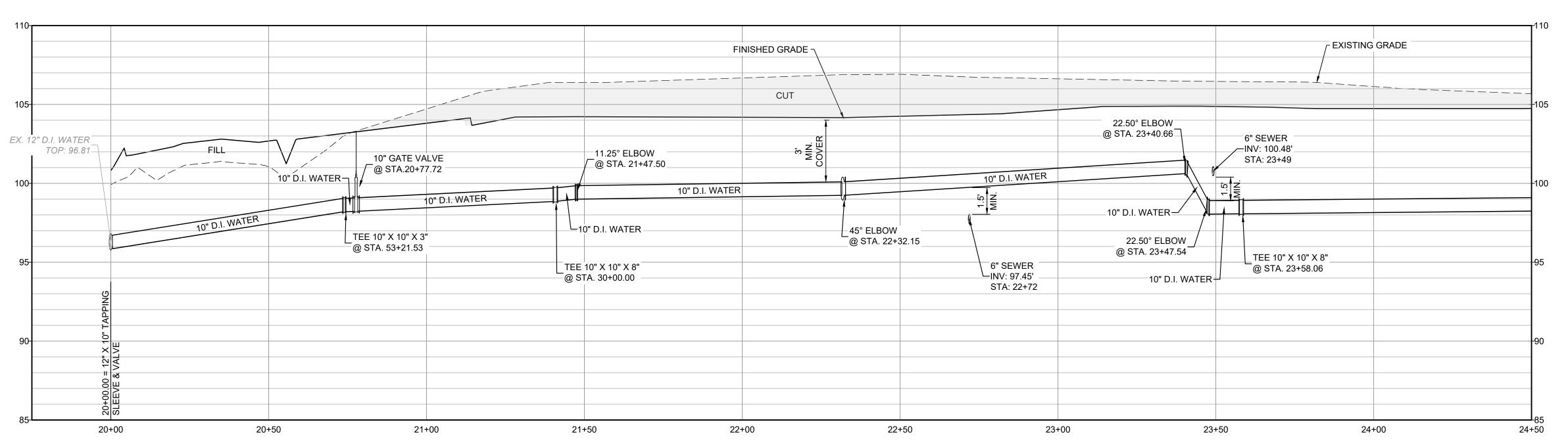


## **GENERAL NOTE:**

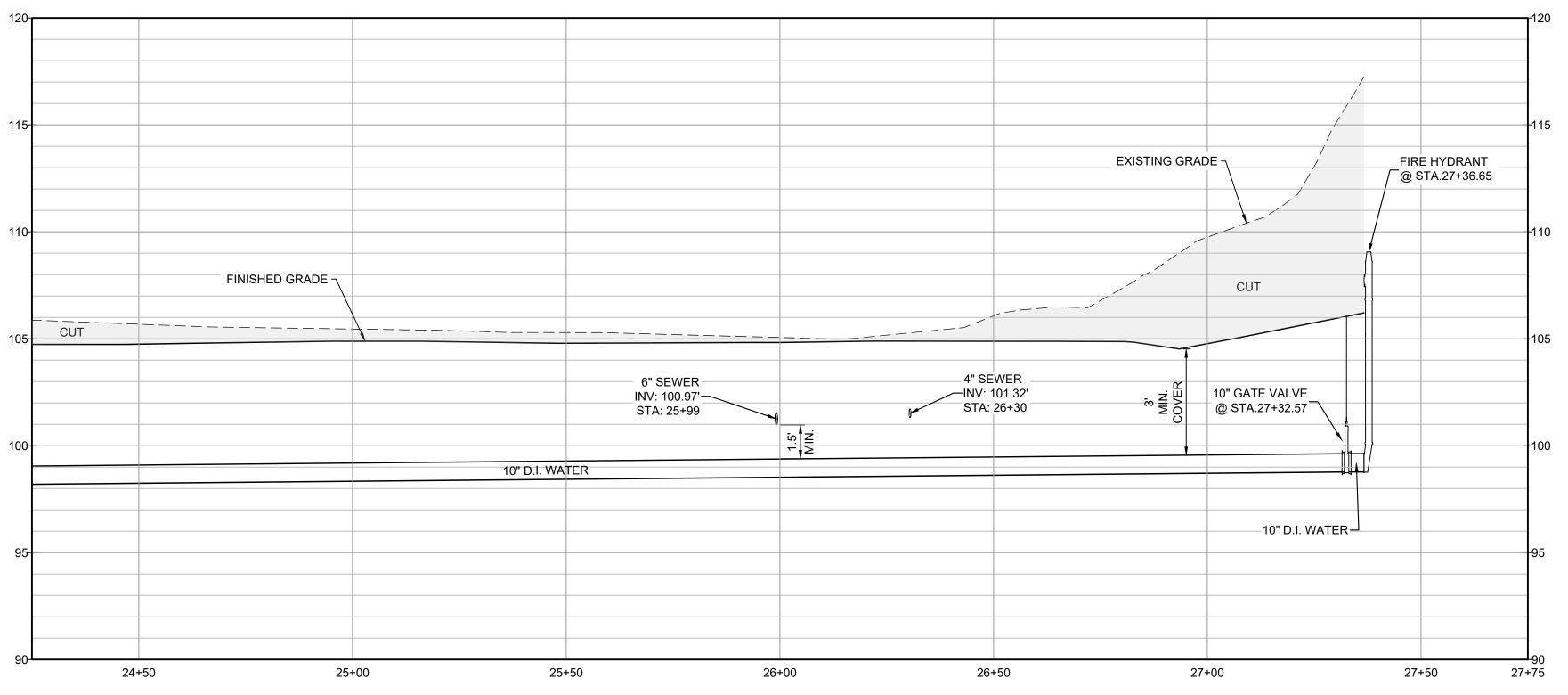
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## GENERAL NOTE:

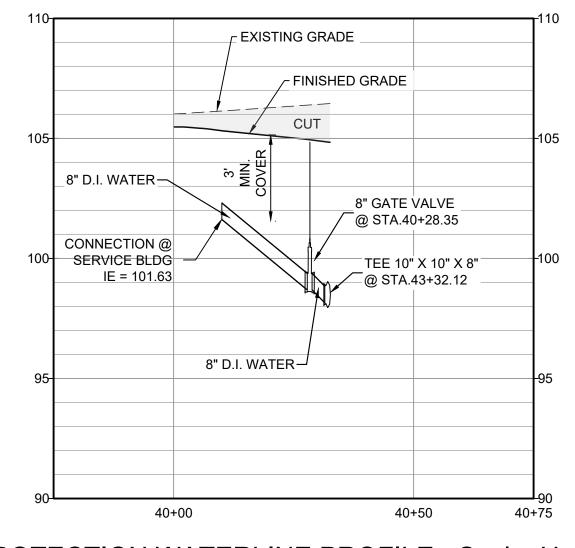
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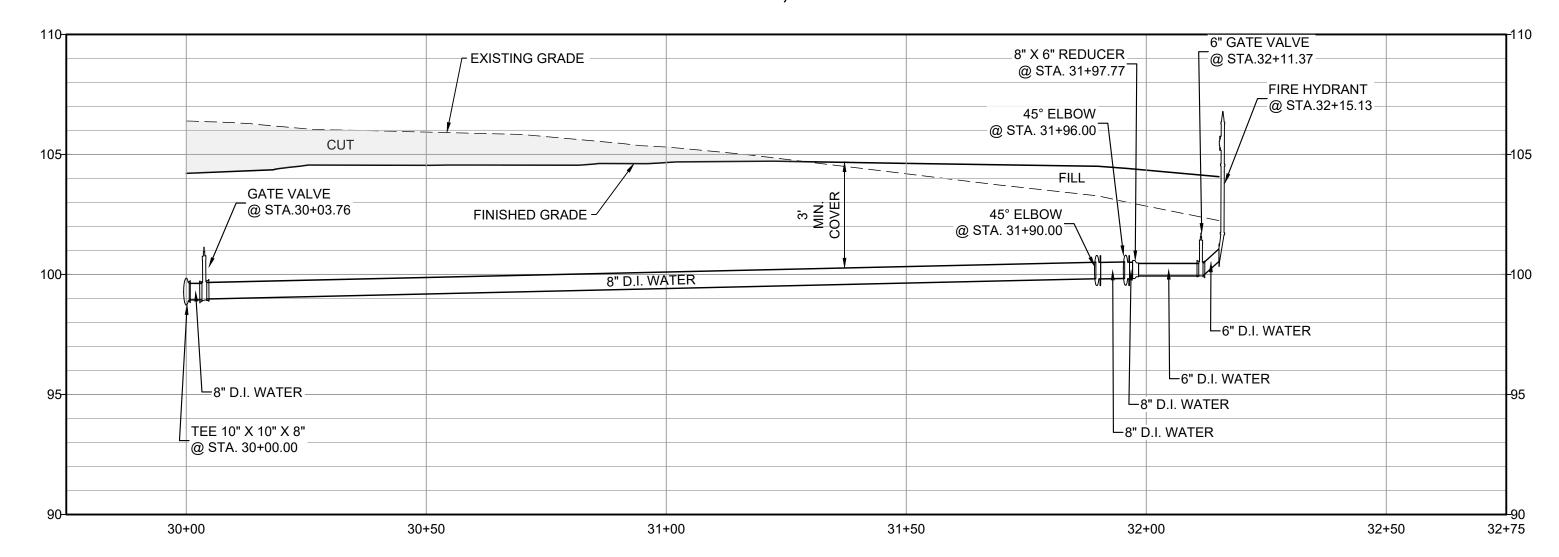


10" FIRE PROTECTION WATERLINE PROFILE - Scale: H: 1"=20', V: 5.00:1



10" FIRE PROTECTION WATERLINE PROFILE CONTINUED - Scale: H: 1"=20', V: 5.00:1





GRAPHIC SCALE
20 0 10 20 40

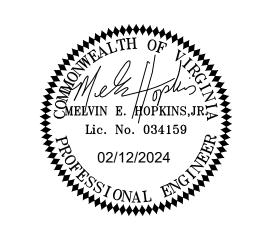
1 inch = 20 ft.

8" DIP FIRE PROTECTION WATERLINE PROFILE - Scale: H: 1"=20', V: 5.00:1

8" DIP FIRE HYDRANT WATERLINE PROFILE - Scale: H: 1"=20', V: 5.00:1



BID SET 02/12/2024 SERVICE & CARWASH



NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH
REVISIONS

REV#	DATE	DESCRIPTION	В
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			_

THE AUTO SUPERSTORE
CARMAX THE AUTO SUPERSTORE
(SO4)747-0422
SERVICE & CARWASH

STORE NO 4007
16931 BLDG - 1, ELTHAM RD E
NEW KENT CO., VIRGINIA 23089

 PROJECT NO.
 20-22195.02

 DATE
 02/12/2024

 SHEET TITLE

WATERLINE PROFILES









NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH

REV# DATE DESCRIPTION BY

FHE AUTO SUPERSTORE

SEGO TUCKAHOE CREEK PKWY. RICHMOND, VA 23238

SERVICE & CARWASH

STORE NO 4007

PROJECT NO.

DATE

SHEET TITLE

SITE LIGHTING PLAN

20-22195.02

02/12/2024

\* \* \*

CONTACT INFORMATION

CIVIL ENGINEERING FIRM

CARMAX OWNER: CONTACT: MATT SQUARZINNI TELEPHONE: 804-747-0422

CLIENT: PIEPER O'BRIEN HERR ARCHITECTS

CONTACT: IAN HALSEY, ASSOCIATE | PROJECT MANAGER

TELEPHONE: O: 770-569-1706 x 237 ian.halsey@poharchitects.com

2 BAYPORT WAY SUITE 120

**NEWPORT NEWS, VIRGINIA 23601** 

CONTACT: MELVIN HOPKINS, P.E. TELEPHONE NO. 757.812.9818

MHOPKINS@TRCCOMPANIES.COM

SITE DATA:

SITE LOCATION: RT 33 ELTHAM ROAD

NEW KENT COUNTY, VIRGINIA TOTAL SITE AREA: 43.62 AC (LOT 2 - 42.62 AC, LOT 1 -1.0AC)

TOTAL DISTURBED AREA: PRE-IMPERVIOUS AREA (WITHIN LOD): POST-IMPERVIOUS AREA (WITHIN LOD):

20.47 AC 23.15 AC GREEN SPACE: IND-INDUSTRIAL ZONING:

GPIN/PARCEL ID: 128-3826-5374 **EXISTING USE:** UNDEVELOPED

PROPOSED USE: INDUSTRIAL

ZONE X, LOCATED ON FIRM PANEL #I0140 & #I0250 FLOOD ZONE:

**BUILDING CONSTRUCTION TYPE:** BUILDING SETBACKS: EXISTING BUILDING HEIGHT:

SERVICE BUILDING: 24', WHOLESALE BUILDING: 19.33' (75' MAXIMUM) PROPOSED BUILDING HEIGHT: **BUILDING SQUARE FOOTAGE:** 78,960 (INCLUDES GUARD HOUSE & CARWASH)

COMMERCIAL

WHOLESALE BUILDING: SERVICE BUILDING:

SANITARY SEWER: NEW KENT COUNTY PUBLIC UTILITIES NEW KENT COUNTY PUBLIC WORKS REFUSE:

PARKING DATA REQUIRED PARKING:

1 SPACE PER 300 SQ. FT. (OFFICE) + 1 SPACE PER 1,000 SQ. FT. (ASSEMBLY) + 1 SPACE PER 15,000 SQ. FT. (WHOLESALE)

70' (FRONT), 30' (SIDE), 30' (REAR)

WHOLESALE BUILDING

ASSEMBLY: 2,036 SF/1000 SF = 2 SPACES OFFICE: 5,089 SF/300 SF = 17 SPACES

SERVICE BUILDING

ASSEMBLY: 3,209 SF/1000 SF = 3 SPACES WAREHOUSE: 67,455 SF/15,000 = 4 SPACES

STANDARD: 26 SPACES

HANDICAP: 2 (2 VAN ACCESSIBLE)

**EXISTING PARKING SPACES:** 

STANDARD SPACES: 245; 119 (WHOLESALE) + 126 (CUSTOMER/EMPLOYEE) PARKING SPACES PROVIDED: ADA SPACES (CAR): 7

ADA SPACES (VAN):

**RECEIVING WATERS:** 

STORMWATER CRITERIA:

SOIL TYPE:

PAMUNKEY RIVER-MILL CREEK 020801061102

19B - KEMPVILLE-EMPORIA COMPLEX COMPLEX

26D - NEVARC-REMLIK COMPLEX COMPLEX 26F - NEVARC-REMLIK COMPLEX COMPLEX

34B - SLANGLE-EMPORIA COMPLEX, HSG C.

CHESAPEAKE BAY PRESERVATION AREA: YES

I HEREBY CERTIFY THAT I AM THE RESPONSIBLE LAND DISTURBER FOR THIS PROJECT AND THAT I HAVE A VALID CERTIFICATION FROM THE STATE OF VIRGINIA 013459 SIGNATURE CERTIFICATION # MELVIN E. HOPKINS JR. 02/12/2024 NAME (PRINT) DATE

RESPONSIBLE LAND DISTURBER (RLD) FOR THE PURPOSES OF PLAN REVIEW IS MELVIN E. HOPKINS JR., P.E. OF TRC PE#013459. CONTRACTOR TO PROVIDE THE RLD NAME AND CERTIFICATION NUMBER OF THE INDIVIDUAL OF RESPONSIBLE CHARGE PRIOR TO CONSTRUCTION.

## TRC ASSOCIATES REVIEW

THESE PLANS HAVE BEEN SUBJECTED TO TECHNICAL AND QUALITY REVIEWS BY:

NAME: TURI LIPKINS NAME: MELVIN HOPKINS, P.E. 02/12/2024 PROJECT MANAGER NAME: TIMOTHY K. DEAN, P.E. QUALITY REVIEWER

**STORE NO.: 4007** 

RT 33 ELTHAM ROAD NEW KENT COUNTY, VIRGINIA

\* \* \*



**VICINITY MAP** 1"=2000'

## PROJECT DESCRIPTION

THIS PROJECT IS DESCRIBED AS THE DEVELOPMENT OF A NEW AUTOMOTIVE WHOLESALE FACILITY AND ASSOCIATED SITE AND UTILITY IMPROVEMENTS IN NEW KENT COUNTY, VIRGINIA. SITE IMPROVEMENTS INCLUDE A NEW WHOLESALE BUILDING, VEHICLE MAINTENANCE AND SERVICE BUILDING, ACCESS DRIVES, VEHICLE PARKING AND STORAGE AREAS, FUELING AREA, LANDSCAPING AND ASSOCIATED SITE AND UTILITY IMPROVEMENTS TO SUPPORT THE PROPOSED DEVELOPMENT. AN EXISTING ENTRANCE DRIVE AND ROADWAY HAS BEEN PREVIOUSLY CONSTRUCTED TO THE WEIR CREEK COMMERCE PARK AND WILL BE USED AS THE MAIN ENTRY TO THE PROJECT SITE. BASED ON THE INFORMATION PROVIDED, WE FURTHER ASSUME THE PROJECT SITE AREA WILL BE LIMITED TO THE APPROXIMATE 50-ACRE PROJECT AREA WHICH WILL BE SUBDIVIDED FROM THE PARENT PARCEL.

FEBRUARY 12, 2024

\* \* \* \* \* \* \*

\* \* \* \* \* \* \*

TRC PROJECT #527075

THESE DOCUMENTS, INCLUDING DRAWINGS AND SPECIFICATIONS, WERE PREPARED BY TRC, PURSUANT TO A CONTRACT BY AND BETWEEN TRC AND CENTERPOINT INTEGRATED SOLUTIONS, LLC. WITH RESPECT TO THE PROJECT DESCRIBED IN SAID CONTRACT. ANY REUSE OR MODIFICATION OF SAID DOCUMENTS (WHETHER HARD COPY OR ELECTRONIC) WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY TRC FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT THE SOLE RISK OF THE INDIVIDUAL OR ENTITY UTILIZING SAID DOCUMENTS, DRAWINGS AND SPECIFICATIONS AND SUCH USE IS WITHOUT THE AUTHORIZATION OF TRC. TRC SHALL HAVE NO LEGAL LIABILITY RESULTING FROM ANY AND ALL CLAIMS, DAMAGES, LOSSES, AND EXPENSES, INCLUDING ATTORNEY'S FEES ARISING OUT OF THE UNAUTHORIZED USE OF THESE DOCUMENTS, DRAWINGS, SPECIFICATIONS, REPORTS, AND STUDIES PREPARED AS A RESULT OF THE AFORESAID CONTRACT.





**BID SET** 

02/12/2024

SERVICE

CARWASH

	SHEET LIST		SHEET LIST
Sheet Number	Sheet Title	Sheet Number	Sheet Title
G-001	COVER SHEET	CU204	WATERLINE PROFILES
G-002	GENERAL NOTES, ABBREVATION, & LEGEND	CG100	OVERALL GRADING DRAINAGE AND E&S PH.
G-003	EROSION AND SEDIMENT CONTROL NOTES		PLAN
G-004	SITE NPDES DATA	CG101	GRADING, DRAINAGE, AND E&S PH. II PLAN
G-005	SITE NPDES DATA	CG102	GRADING, DRAINAGE, AND E&S PH. II PLAN
V-101	TOPOGRAPHIC SURVEY	CG103	GRADING, DRAINAGE, AND E&S PH. II PLAN
V-102	TOPOGRAPHIC SURVEY	CG104	GRADING, DRAINAGE, AND E&S PH. II PLAN
V-103	TOPOGRAPHIC SURVEY	CG105	GRADING, DRAINAGE, AND E&S PH. II PLAN
		CG106	GRADING, DRAINAGE, AND E&S PH. II PLAN
V-104	TOPOGRAPHIC SURVEY	CG107	GRADING, DRAINAGE, AND E&S PH. II PLAN
CD100	OVERALL DEMOLITION AND E&S CONTROL PH. I	CG108	GRADING, DRAINAGE, AND E&S PH. II PLAN
CD101	DEMOLITION AND E&S CONTROL PH. I PLAN	CG109	STORMWATER MANAGEMENT PLAN
CD102	DEMOLITION AND E&S CONTROL PH. I PLAN	CG110	STORM STRUCTURE AND PIPE TABLE
CD103	DEMOLITION AND E&S CONTROL PH. I PLAN	CG201	STORM PROFILES
CD104	DEMOLITION AND E&S CONTROL PH. I PLAN	CG202	STORM PROFILES
CD104 CD105	DEMOLITION AND E&S CONTROL PH. I PLAN	CG301	STORMWATER MANAGEMENT SECTIONS
CD103	DEMOLITION AND E&S CONTROL PH. I PLAN	CG302	STORMWATER MANAGEMENT SECTIONS
CD107	DEMOLITION AND E&S CONTROL PH. I PLAN	C-101	WEIR CREEK BOULEVARD PLAN & PROFILE
CD107 CD108		C-102	WEIR CREEK BOULEVARD PLAN & PROFILE
CS100	DEMOLITION AND E&S CONTROL PH. I PLAN  OVERALL SITE LAYOUT PLAN	C-103	WEIR CREEK BOULEVARD PLAN & PROFILE
	SITE LAYOUT PLAN	C-301	CAR CARRIER PLAN
CS101		C-501	EROSION AND SEDIMENT CONTROL DETAILS
CS102	SITE LAYOUT PLAN	C-502	NEW KENT COUNTY STANDARD DETAILS
CS103	SITE LAYOUT PLAN	C-503	VDOT DETAILS
CS104	SITE LAYOUT PLAN	C-504	DETAILS
CS105	SITE LAYOUT PLAN	C-505	DETAILS
CS106	SITE LAYOUT PLAN	C-506	DETAILS
CS107	SITE LAYOUT PLAN	C-507	DETAILS
CS108	SITE LAYOUT PLAN	LP-100	OVERALL PLANTING PLAN
CU100	OVERALL UTILITY PLAN	LP-101	PLANTING PLAN
CU101	UTILITY PLAN	LP-102	PLANTING PLAN
CU102	UTILITY PLAN	LP-103	PLANTING PLAN
CU103	UTILITY PLAN	LP-104	PLANTING PLAN
CU104	UTILITY PLAN	LP-105	PLANTING PLAN
CU105	UTILITY PLAN	LP-106	PLANTING PLAN
CU106	UTILITY PLAN	LP-107	PLANTING PLAN
CU107	UTILITY PLAN	LP-108	PLANTING PLAN
CU108	UTILITY PLAN	LP-500	LANDSCAPING NOTES & SCHEDULES
CU201	SANITARY SEWER PROFILES	LP-501	PLANTING DETAILS
CU202	SANITARY SEWER PROFILES	L-101	IRRIGATION PLAN
CU203	WATERLINE PROFILES	ES101	SITE LIGHTING PLAN

COUNTY APPROVAL STAMPS

02/12/2024 **NOT FOR CONSTRUCTION LATEST DA/PC** DA23-031/PC23-005 **DRAWN BY:** TL/TK CHECKED BY: **REVISIONS** 

REV# DATE | DESCRIPTION | BY

MEĽVIN E. ÆOPKINS,JR

Lic. No. 034159

20-22195.02 PROJECT NO. 02/12/2024 SHEET TITLE

**COVER SHEET** 

#### **GENERAL NOTES**

- 1. DIMENSIONS AND RADII ARE TO FACE OF CURB, WHERE APPLICABLE, UNLESS OTHERWISE INDICATED.
- 2. REGULATORY LAND DISTURBANCE IS GREATER THAN 1.0 AC, AND THE PROJECT IS LOCATED IN A CBPA, THEREFORE A VSMP PERMIT AND A CONSTRUCTION GENERAL PERMIT (VAR10) ARE REQUIRED. A SWPPP AND APPLICABLE APPLICATIONS WILL BE PROVIDED UPON PLAN APPROVAL.
- 3. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND AT HIS EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
- 4. ALL PAVING MATERIALS AND DRAINAGE STRUCTURES SHALL BE BUILT AND INSTALLED IN ACCORDANCE WITH VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS, EXCEPT WHERE UNIQUE DESIGNS ARE PROVIDED HEREIN, PROVIDED WITH ARCHITECTURAL PLANS AND OR SPECIFICATIONS FROM AN APPROVED SOURCE AS REFERRED TO.
- 5. THE LOCATION OF EXISTING SEWER, WATER OR GAS LINES, CONDUITS OR OTHER STRUCTURES ACROSS, UNDERNEATH, OR OTHERWISE ALONG THE LINE OF PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS, AND IF SHOWN ARE ONLY APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS, IF THERE APPEARS TO BE A CONFLICT, OR UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLANS. FOR ASSISTANCE IN LOCATING EXISTING UTILITIES CALL "MISS UTILITY", 1-800-552-7001. COORDINATE WITH SITE ENGINEER AND OR ASSIGNED OWNER REPRESENTATIVE FOR RESOLUTION TO CONFLICTING INFORMATION PRIOR TO PROCEEDING WITH CONSTRUCTION ACTIVITY.
- 6. WHERE PAVEMENT IS BEING REMOVED, THE CONTRACTOR SHALL REMOVE AGGREGATE BASE MATERIAL TO SUB-GRADE. SEE DETAIL ON SHEET C-504.
- 7. DAMAGE TO UTILITIES (INCLUDING UNDERGROUND) OR PROPERTY OF OTHERS BY CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS BY CONTRACTOR AT NO COST TO OWNER
- 8. EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO THEIR ORIGINAL CONDITION/OR BETTER.
- 9. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL DITCHES, PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURES IN OPERABLE CONDITION.
- THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED.
- 11. ALL PROPOSED UTILITIES ARE TO BE INSTALLED UNDERGROUND INCLUDING ELECTRIC, TELEPHONE AND CATV.
- 12. ALL UNDERGROUND UTILITIES (WATER, SANITARY SEWER, ELECTRICITY, TELEPHONE, ETC.) SHALL BE INSTALLED AND TESTED SATISFACTORILY PRIOR TO COMMENCING ANY PAVING OPERATIONS WHERE SUCH UTILITIES ARE WITHIN THE LIMITS OF PAVEMENT.
- 13. ALL NEW GROUND COVER AND LANDSCAPING SHALL BE PROPERLY MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. DEAD PLANT MATERIALS SHALL BE REMOVED IN A REASONABLE TIME AND REPLACED DURING THE NORMAL PLANTING SEASON.
- 14. UNLESS OTHERWISE NOTED, ALL CONCRETE PIPE SHALL BE REINFORCED CONCRETE PIPE, CLASS III.
- 15. ALL EXCAVATION FOR UNDERGROUND PIPE INSTALLATION MUST COMPLY WITH OSHA STANDARDS FOR THE CONSTRUCTION INDUSTRY (29 CFR PART 1926).
- 16. VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK.
- 17. DEVIATIONS FROM, OR CHANGES TO THESE PLANS WILL NOT BE ALLOWED, UNLESS OTHERWISE APPROVED BY THE OWNER & ENGINEER.
- 18. MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UTILITIES A MINIMUM OF 2 WEEKS PRIOR TO AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO THE PLANS IF NECESSARY. THE EXISTENCE AND/OR LOCATION OF UTILITIES SHOWN ON THESE PLANS MAY BE ONLY APPROXIMATELY CORRECT. TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN HEREON AND ANY OTHER EXISTING UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. MAKE EVERY EFFORT TO IDENTIFY AND PROTECT ALL UNDERGROUND UTILITIES. FAILURE TO DO SO COULD RESULT IN HAVING TO REPAIR DAMAGED UTILITIES AT CONTRACTORS EXPENSE. IF A UTILITY IS DAMAGED DURING CONSTRUCTION, STOP WORK IMMEDIATELY AND NOTIFY THE ENGINEER.
- 19. PROPERLY SECURE THE CONSTRUCTION AREA AT ALL TIMES AGAINST UNAUTHORIZED ENTRY AND ADEQUATELY PROTECT EQUIPMENT, MATERIALS, AND COMPLETED WORK FROM THEFT AND VANDALISM. THE OWNER IS NOT RESPONSIBLE FOR THE LOSS OF ANY MATERIAL STORED AT THE SITE.
- 20. ALL TURF AREAS THAT ARE IMPACTED OR DISTURBED BY VEHICLES, EQUIPMENT, OR ACTIVITY SHALL BE REPAIRED, REGRADED, AND RESEEDED TO THE SATISFACTION OF THE OWNER. ANY AREAS COMPACTED BY CONSTRUCTION TRAFFIC SHALL BE TILLED PRIOR TO SEEDING.
- 21. PERFORM ALL WORK USING DIMENSIONS SHOWN ON THESE PLANS. DO NOT USE SCALES, RULERS, DIVIDERS, MAP WHEELS OR OTHER MEASURING DEVICES TO DETERMINE SPATIAL RELATIONSHIPS ON THESE DRAWINGS.
- 22. WHERE HANDICAP ACCESSIBLE PATHS ARE INDICATED, GRADING SHALL MEET THE FOLLOWING CRITERIA: SLOPE ALONG DIRECTION OF TRAVEL SHALL NOT EXCEED 5.0%, CROSS SLOPE SHALL NOT EXCEED 2.0%, AND DIFFERENCE IN ELEVATION BETWEEN ADJACENT SURFACES SHALL NOT EXCEED 1/4".

## E & S / DEMOLITION NOTES

- 1. A COMBINATION OF SILT FENCE, INLET PROTECTION, OUTLET PROTECTION AND CONSTRUCTION
- ENTRANCES WILL PREVENT SEDIMENT LADEN RUNOFF FROM LEAVING THE SITE.
- NO CONSTRUCTION VEHICLES WILL BE ALLOWED TO PARK ON ANY PUBLIC STREET.
   SAWCUT PAVEMENT IN A NEAT STRAIGHT LINE.

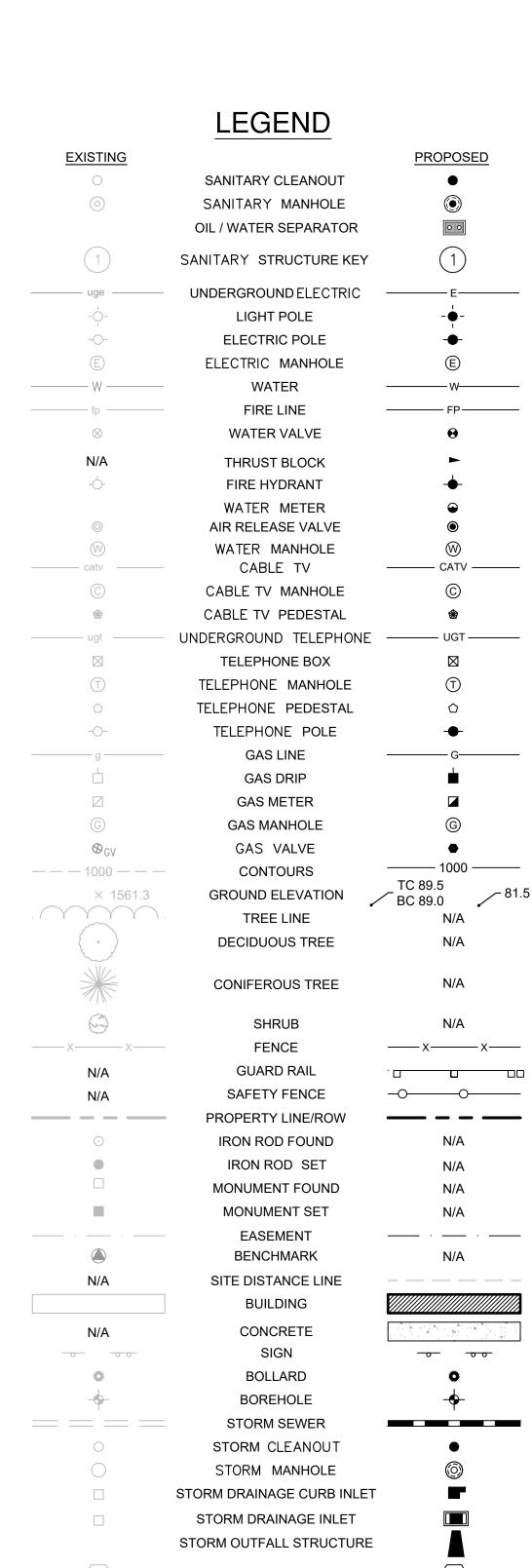
### **ABBREVIATIONS AND SYMBOLS**

EACH FACE

SYMBOLS		ELEV.	ELEVATION	R	RADIUS
		EOP	EDGE OF PAVEMENT	RCP	REINFORCED CONCRETE PIPE
@	AT CENTERLINE	EX.	EXISTING	RD	ROOF DRAIN
ር ዊ	PROPERTY LINE	EXP.	EXPANSION	REQ'D.	REQUIRED
Ø	DIAMETER	E.W.	EACH WAY	R/W	RIGHT-OF-WAY
0	DEGREE	FC	FACE OF CURB	S	SLOPE
ABBREVIA	TIONS	FF	FINISHED FLOOR	GALV.	SANITARY
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		FL	FLOW LINE	SF	SQUARE FOOT (FEET)
Α	AREA	FT	FOOT (FEET)	SPEC	SPECIFICATION
ABA	ARCHITECTURAL BARRIERS ACT	GA	GAUGE	SPECS	SPECIFICATIONS
AC	ACRE(S)	G.T.	GREASE TRAP	SQ.	SQUARE
AWWA	AMERICAN WATER WORKS	GS/G	GROUND SHOT	STM	STORM
D.O.	ASSOCIATION	HP	HIGH POINT	STD.	STANDARD
BC	BACK OF CURB	ID	INSIDE DIAMETER	SW	SIDEWALK
BLDG.	BUILDING	INV.	INVERT	SWM	STORM WATER MANAGEMENT
BOTT.	BOTTOM	JT.	JOINT	SY	SQUARE YARD(S)
CF	CUBIC FEET	LAT	LATERAL	TC	TOP OF CURB
CG	CURB AND GUTTER	LB	POUND	TDC	TURNED DOWN CURB
C.I.	CAST IRON	LBS	POUNDS	TEMP.	TEMPORARY
CI	CURB INLET	LF	LINEAR FOOT (FEET)	TS	TOP OF STONE
CIP	CAST IN PLACE	MAT'L.	MATERIAL	TW	TOP OF WALL
CJ	CONSTRUCTION JOINT	MAX.	MAXIMUM	TYP.	TYPICAL
CLR.	CLEAR	MFR.	MANUFACTURER	UNO	UNLESS NOTED OTHERWISE
C.O.	CLEANOUT	MG	MATCH GRADE	VAR.	VARIABLE
CONC.	CONCRETE	MH	MANHOLE	VDOT	VIRGINIA DEPARTMENT OF
CONT.	CONTINUOUS	MIN.	MINIMUM		TRANSPORTATION
CY	CUBIC YARD(S)	M.J.	MECHANICALLY JOINED	VESCH	VIRGINIA EROSION AND
D.B.	DEED BOOK	O.C.	ON CENTER		SEDIMENT CONTROL HANDBOOK
D.I./DI	DUCTILE IRON	OD	OUTSIDE DIAMETER	VNG	VIRGINIA NATURAL GAS
DI	DROP INLET	Р	PAVERS/CONCRETE/PAVEMENT	W/M	WATER MAIN
DIA.	DIAMETER	PB	PARCEL BOOK	WV	WATER VALVE
DS	DOWNSPOUT	PL	PROPERTY LINE	WWF	WELDED WIRE FABRIC
GALV.	GALVANIZED	PSI	POUNDS PER SQUARE INCH		
EA.	EACH	DT	DOINT OF TANCENCY		

POINT OF TANGENCY

POLYVINYL CHLORIDE



STORM STRUCTURE KEY

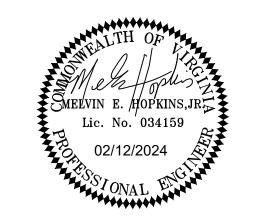
SANITARY SEWER

SANITARY FORCE MAIN

SOIL TYPE BOUNDARY



BID SET 02/12/2024 SERVICE & CARWASH



NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH

REVISIONS

REV# DATE DESCRIPTION BY

REV#	DATE	DESCRIPTION	BY

THE AUTO SUPERSTORE

ARMAX THE AUTO SUPERSTORE
ARMAX THE AUTO SUPERSTORE
ARMAX THE AUTO SUPERSTORE
ARMAX THE AUTO SUPERSTORE WEST COAST, INC.
2800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
304)747-0422
SERVICE & CARWASH
STORE NO 4007
16931 BLDG - 1, ELTHAM RD E

PROJECT NO. 20-22195.02

DATE 02/12/2024

SHEET TITLE

GENERAL NOTES, ABBREVATION, & LEGEND

G-002

## STATE MINIMUM STANDARDS FOR EROSION CONTROL

#### GENERAL EROSION AND SEDIMENT CONTROL NOTES

- ES-1 UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 9VAC25-840 EROSION AND SEDIMENT CONTROL REGULATIONS.
- ES-2 THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
- ES-3 ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
- ES-4 A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- ES-5 PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NO LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
- ES-6 THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
- ES-7 ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- ES-8 DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
- ES-9 THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

#### MINIMUM STANDARDS

#### A VESCP MUST BE CONSISTENT WITH THE FOLLOWING CRITERIA, TECHNIQUES AND METHODS:

- MS-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.
- MS-2 DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
- MS-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.
- MS-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.
- MS-5 STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
- MS-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 THAT 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 TWENTY-FIVE 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.
- MS-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.
- MS-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.
- MS-9 WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE
- MS-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.
- MS-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.
- MS-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.
- MS-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.
- MS-14 ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
- MS-15 THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
- MS-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 THESE REGULATIONS.
  - F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH
- MS-17 WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED 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
- MS-18 ALL TEMPORARY EROSION 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. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- MS-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:
- 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.

- 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
- (2A) 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.
- (2B) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-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
- (2C) PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
- IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
- (1) IMPROVE THE CHANNEL TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL THE BED OR BANKS; OR
- (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES; OR
- (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 TEN-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.
- THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
- ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT 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.
- OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATERS 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.
- 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.
- 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. 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.
- 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
- (1) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE
- YEAR, 24-HOUR STORM; AND (3) 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 (§ 62.1-44:52 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS. UNLESS SUCH LAND DISTURBING ACTIVITIES (i) ARE IN ACCORDANCE WITH PROVISIONS FOR TIME LIMITS ON APPLICABILITY OF APPROVED DESIGN CRITERIA IN 9VAC25-870-47 OR GRANDFATHERING IN 9VAC-25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATION, IN WHICH CASE THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF §62.1-44.15:52A OF THE ACT SHALL APPLY, OR (ii) AREA EXEMPT PURSUANT § 62.1-44.15:34 C 7 OF THE ACT.
- COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF MINIMUM STANDARD 19.

## **EROSION CONTROL NARRATIVE**

PROJECT DESCRIPTION THIS PROJECT IS DESCRIBED AS THE DEVELOPMENT OF A NEW AUTOMOTIVE WHOLESALE FACILITY AND ASSOCIATED SITE AND UTILITY IMPROVEMENTS IN NEW KENT COUNTY, VIRGINIA. SITE IMPROVEMENTS INCLUDE A NEW WHOLESALE BUILDING, VEHICLE MAINTENANCE AND SERVICE BUILDING, ACCESS DRIVES, VEHICLE PARKING AND STORAGE AREAS, FUELING AREA, LANDSCAPING AND ASSOCIATED SITE AND UTILITY IMPROVEMENTS TO SUPPORT THE PROPOSED DEVELOPMENT. AN EXISTING ENTRANCE DRIVE AND ROADWAY HAS BEEN PREVIOUSLY CONSTRUCTED TO THE WEIR CREEK COMMERCE PARK AND WILL BE USED AS THE MAIN ENTRY TO THE PROJECT SITE. BASED ON THE INFORMATION PROVIDED, WE FURTHER ASSUME THE PROJECT SITE AREA WILL BE LIMITED TO THE APPROXIMATE 50-ACRE PROJECT AREA WHICH WILL BE SUBDIVIDED FROM THE PARENT PARCEL.

#### EXISTING CONDITIONS THE EXISTING SITE CONDITION IS A PREVIOUSLY CLEARED AND ROUGH GRADED WITH GRAVEL AND COMPACTED SOILS. SITE IS CURRENTLY USED FOR CONSTRUCTION STAGING.

THE SOILS ON THE SITE, PER USDA NRCS SOIL MAPPING, ARE CLASSIFIED AS 19B - KEMPVILLE-EMPORIA COMPLEX COMPLEX, HSG B, 26D - NEVARC-REMLIK COMPLEX COMPLEX, HSG D, 26F - NEVARC-REMLIK COMPLEX COMPLEX, HSG D, AND 34B - SLANGLE-EMPORIA COMPLEX, HSG C.

THE SUBJECT PROPERTY IS BORDERED BY NEW KENT COUNTY WATER STORAGE TANK AND ROUTE 33 (ELTHAM ROAD) TO THE WEST, UNDEVELOPED AREAS AND THE NEW KENT SOLID WASTE CONVENIENCE CENTER TO THE SOUTH, THE HENRICO CO. REGIONAL JAIL TO THE SOUTH AND EAST, AND UNDEVELOPED AREAS TO THE NORTH

## AND EAST.

<u>CRITICAL EROSION AREAS</u> NO CRITICAL EROSION AREA IDENTIFIED FOR THIS SITE.

## STRUCTURAL PRACTICES

- 1. TEMPORARY CONSTRUCTION ENTRANCE 3.02 A STONE PAD, LOCATED AT THE POINT OF VEHICULAR INGRESS AND EGRESS TO THE CONSTRUCTION SITE THE PURPOSE IS TO PREVENT OR REDUCE THE AMOUNT OF MUD TRANSPORTED TO THE PUBLIC ROAD. SEDIMENT DISLODGED OR WASHED FROM THE VEHICLE SHOULD BE CONTAINED WITHIN A PROPER SEDIMENT TRAPPING AREA. ALL VEHICLES ENTERING AND EXISTING A DISTURBED AREA SHALL USE THE ENTRANCE.
- TO BE INSTALLED DOWN SLOPE OF DISTURBED AREAS TO FILTER SEDIMENT LADEN RUNOFF.
- TO BE INSTALLED ON EXISTING INLETS PRIOR TO CONSTRUCTION AND ALL PROPOSED INLETS AS THEY ARE INSTALLED TO FILTER SEDIMENT LADEN RUNOFF BEFORE ENTERING STORM DRAIN INLETS AND PIPING
- CULVERT INLET PROTECTION WILL BE INSTALLED AROUND EXISTING CULVERTS TO PREVENT THE BUILDUP OF SEDIMENT DURING CONSTRUCTION
- SEDIMENT TRAP 3.13 A SEDIMENT TRAP WILL BE INSTALLED TO TREAT SEDIMENT-LADEN RUNOFF BEFORE IT LEAVES THE SITE
- TO BE INSTALLED ON EXISTING OUTLETS PRIOR TO CONSTRUCTION AND ALL PROPOSED OUTLETS AS THEY ARE INSTALLED TO PREVENT SCOURING AT STORMWATER OUTLETS, TO PROTECT THE OUTLET STRUCTURE AND TO MINIMIZE THE POTENTIAL FOR DOWNSTREAM EROSION.
- ROCK CHECK DAM 3.20 TO REDUCE THE VELOCITY OF CONCENTRATED STORMWATER FLOWS. THEREBY REDUCING EROSION OF THE SWALE OR DITCH.
- INSTALL TEMPORARY FENCE AROUND TREES OR VEGETATION TO REMAIN TO PREVENT DAMAGE DURING CONSTRUCTION. FENCING SHALL BE INSTALLED ALONG DRIPLINE OF TREE WHERE POSSIBLE.

#### **VEGETATIVE PRACTICES**

GENERAL: A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED BY CONCRETE, PAVEMENT OR LANDSCAPED MULCHED BEDS. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM. MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION. NEW VEGETATION SHALL BE MAINTAINED FOR ONE FULL YEAR AFTER PLANTING. NEW SEEDING SHALL BE SUPPLIED WITH ADEQUATE MOISTURE, ESPECIALLY LATE IN THE SEASON, AND IN ABNORMALLY HOT OR DRY WEATHER. STABILIZATION PRACTICES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE APPROPRIATE VESCH STD. & SPEC. AND AS PER THE EROSION AND SEDIMENT CONTROL PLAN. SELECTION OF THE APPROPRIATE SEED MIXTURE FOR TEMPORARY SEEDING WILL DEPEND UPON THE TIME OF YEAR IT IS APPLIED.

- A 2" TO 4" LAYER OF TOPSOIL SHALL BE APPLIED TO ALL LANDSCAPED AND GRASSED AREAS. THE TOPSOIL SHALL BE FREE OF ROCKS AND DEBRIS. TOPSOIL ALLOWS A STRONGER AND HEALTHIER STAND OF GRASS TO ESTABLISH QUICKLY TO STABILIZE UNPAVED AREAS OF THE SITE.
- TEMPORARY SEEDING 3.31 TEMPORARY SEEDING SHALL BE APPLIED OVER ALL DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN 14 DAYS. AREAS SHALL BE RESEEDED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION WHICH IS CAPABLE OF PREVENTING EROSION. TEMPORARY SEEDING MIXES AND MAINTENANCE PROCEDURES SHALL BE AS DESCRIBED IN VESCH STD. & SPEC. 3.31.
- PERMANENT SEEDING 3.32 PERMANENT SEEDING SHALL BE APPLIED TO ALL AREAS WITHIN SEVEN (7) DAYS OF ACHIEVING FINAL GRADE WHICH WILL NOT RECEIVE HARDSCAPE OR OTHER LANDSCAPE. PERMANENT SEEDING SHALL ALSO BE USED ON ALL AREAS NOT AT FINAL GRADE BUT WILL BE LEFT DORMANT FOR A PERIOD OF MORE THAN ONE (1) YEAR. IF CONFLICTS EXIST BETWEEN THE PROJECT SPECIFICATIONS AND THE VESCH STD. & SPEC. 3.32, THE MORE STRINGENT REQUIREMENT SHALL APPLY. PERMANENT SEEDING MIXES AND RATES, SOIL TESTING REQUIREMENTS AND MAINTENANCE PROCEDURES ARE FOUND IN VESCH STD. & SPEC. 3.32.
- APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO THE SOIL SURFACE TO PREVENT EROSION BY PROTECTING THE SOIL SURFACE FROM RAINDROP IMPACT AND REDUCING THE VELOCITY OF OVERLAND FLOW. IT IS ALSO USED TO FOSTER THE GROWTH OF VEGETATION BY INCREASING AVAILABLE MOISTURE AND PROVIDING INSULATION AGAINST EXTREME HEAT AND COLD. MULCHING WILL BE APPLIED THROUGHOUT CONSTRUCTION ON DENUDED AREAS. APPLICATION RATES AND MULCHING TYPES ARE FOUND IN VESCH STD. & SPEC. 3.35.
- DUST CONTROL 3.39 DUST CONTROL MEASURES SHALL BE USED OVER THE ENTIRE SITE TO REDUCE SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBANCE, DEMOLITION, AND CONSTRUCTION ACTIVITIES.

## MANAGEMENT STRATEGIES

- 1. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
- 2. THE CONSTRUCTION ENTRANCE, THE PROPOSED SILT FENCES AND INLET PROTECTION MUST BE INSTALLED FIRST WITH MINIMAL AMOUNTS OF CLEARING AND GRADING.
- 3. DUST CONTROL OR OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER GRADING.
- 4. THE CONTRACTOR (JOB SUPERINTENDENT) SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
- WITHIN 30 DAYS AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED ONLY WITH THE APPROVAL OF THE COUNTY ENVIRONMENTAL INSPECTOR. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

#### PERMANENT STABILIZATION

PERMANENT STABILIZATION SHALL BE APPLIED TO ALL DISTURBED AREAS THAT ARE TO BE LEFT DORMANT FOR A YEAR OR MORE. ALL AREAS WITHIN THE LIMITS OF DISTURBANCE SHALL BE STABILIZED WITH PERMANENT SEEDING, LANDSCAPING OR PAVEMENT FOLLOWING THE FINAL GRADING (SEE PERMANENT SEEDING TABLE SHEET C-500).

#### **EROSION CONTROL SEQUENCE OF CONSTRUCTION**

#### PHASE 1 OBTAIN REQUIRED PERMITTING.

- INSTALL TREE PROTECTION, SILT FENCE, AND CONSTRUCTION ENTRANCE.
- CONTACT THE INSPECTOR TO SCHEDULE A PRE-CONSTRUCTION MEETING. 4. INSTALL REMAINING PHASE 1 EROSION CONTROL DEVICES. THE EXISTING SEDIMENT TRAPS ON SITE WILL BE USED TO MANAGE STORMWATER DURING CONSTRUCTION AS DESIGNED PER THE
- PREVIOUSLY APPROVED PLANS. 5. LAND DISTURBANCE OUTSIDE OF THE PRELIMINARY LIMITS OF DISTURBANCE MAY NOT OCCUR UNTIL THE INITIAL ESC MEASURES INSTALLATION HAS BEEN APPROVED BY THE ENVIRONMENTAL
- 6. ALL STOCKPILES MUST BE SEEDED AND MULCHED IMMEDIATELY UPON CONSTRUCTION. 7. PERFORM CLEARING AND COMPLETE DEMOLITION AS INDICATED.
- PHASE 2
- 8. CONSTRUCT THE PROPOSED BUILDINGS. 9. INSTALL STORM DRAINAGE STRUCTURES AND SITE UTILITIES.
- 10. PERFORM PAVING AND HARDSCAPE OPERATIONS.

THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

- 11. CONSTRUCT IMPROVEMENTS WITHIN THE ACCESS ROAD. 12. INSPECT AND ADJUST AS NECESSARY ALL EROSION CONTROL DEVICES IN ORDER TO MAINTAIN
- PROPER FUNCTION. PROVIDE TEMPORARY SEEDING FOR ANY DISTURBED AREAS INACTIVE FOR MORE THAN 14 DAYS.
- 13. STABILIZE SITE DURING AND AT THE CONCLUSION OF CONSTRUCTION PER VESCH STDS.
- 14. ONCE ALL AREAS HAVE BEEN STABILIZED, AND ONLY WITH THE APPROVAL OF THE OWNER, REMOVE ALL REMAINING EROSION CONTROL DEVICES.

## MAINTENANCE

- PRIOR TO ANY LAND DISTURBING ACTIVITY, A LAND DISTURBANCE PERMIT MUST BE SECURED. IN GENERAL, ALI EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED PER THE REQUIREMENTS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. DURING CONSTRUCTION, THE CONTRACTOR'S DESIGNATED RLD WILL BE RESPONSIBLE FOR INSPECTIONS AND REPAIR OF DAMAGED EROSION/SEDIMENT CONTROL MEASURES.
- THE STONE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD OFF OF THE SITE. THE STONE MAY NEED TO BE WASHED AND REWORKED OR ADDITIONAL STONE ADDED TO ENSURE THE ENTRANCE IS PROPERLY FUNCTIONING.
- 2. THE SILT FENCE AND INLET PROTECTION BARRIERS SHALL BE CHECKED FOR UNDERMINING AND DETERIORATION OF OR DAMAGE TO THE FABRIC. DAMAGES SHALL BE IMMEDIATELY REPAIRED. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES ONE HALF THE HEIGHT OF THE a. LOW POINTS IN THE SILT FENCE SHALL BE CHECKED FOR DAMAGE CAUSED BY PONDING WATER. IF DAMAGE IS FOUND, ADDITIONAL ROWS OF SILT FENCE SHALL BE PLACED BEHIND AND PARALLEL TO
- 3. THE STORM DRAIN INLET/OUTLET PROTECTION SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED ONCE IT HAS REACHED ONE HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FOR THE BLOCKS, CLEANED

THE PRIMARY ROW AT INCREMENTS OF ONE FOOT AS REQUIRED.

THE SEEDED AND MULCHED AREAS SHALL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED. REFER TO ESC TECHNICAL BULLETIN #4. PROVIDE REMEDIAL STABILIZATION AND SEEDING FOR A PERIOD OF ONE YEAR AFTER CONSTRUCTION.

## MAINTENANCE PLAN FOR DRY SWALE

ROUTINE AND NON-ROUTINE MAINTENANCE IS REQUIRED TO ENSURE THE LONG-TERM PERFORMANCE OF THE PROPOSED FACILITIES. THE OWNER IS RESPONSIBLE FOR ALL MAINTENANCE OF STORMWATER FACILITIES.

ROUTINE MAINTENANCE - THE DRY SWALE FACILITY WILL BE INSPECTED AFTER HEAVY RAIN EVENTS (0.25-INCHES), BETWEEN THE TIME OF CONSTRUCTION AND FULL VEGETATION ESTABLISHMENT. INSPECTION FOR OTHER CONDITIONS WILL BE PERFORMED TWICE PER YEAR. WHEN NECESSARY, REPAIRS WILL BE PERFORMED WITHIN THIRTY DAYS OF DEFICIENCY REPORT.

- 1. SITE INSPECTIONS INSPECTIONS ARE TO BE PERFORMED REGULARLY AS PART OF MAINTAINING A PROPERLY FUNCTIONING FACILITY. THE OWNER SHALL KEEP A RECORD OF INSPECTION TIME, CONDITION OF THE FACILITY, ACTIONS REQUIRED AND WHEN THE ACTION WAS TAKEN.
- 2. GRASS MOWING THE GRASS SHOULD BE MAINTAINED AT A HEIGHT OF 3-9 INCHES YEAR AROUND.
- 3. BANK STABILIZATION ANY AREAS THAT HAVE BECOME UNSTABLE SHOULD BE PROTECTED AND RESTABILIZED.
- 4. WEED CONTROL ANY WEEDS AND OR UNDESIRABLE INVASIVE PLANTS FOUND GROWING WITHIN THE BMP AREA SHOULD BE REMOVED IMMEDIATELY.
- 5. INSECT AND MOSQUITO CONTROL INSECT ACTIVITY, INCLUDING MOSQUITO DEVELOPMENT SHOULD BE MONITORED. OWNER SHALL NOT ALLOW PERMANENT SHALLOW PONDING TO DEVELOP NOR TALL GRASS. 6. TRASH AND OTHER LITTER - SHALL BE REMOVED FROM THE BMP AREA. DO NOT ALLOW INFLOW AND OUTFALL OPENINGS TO BE
- OBSTRUCTED. 7. VEGETATION - SURVIVAL SHALL BE MONITORED TO ENSURE ADEQUATE REVEGETATED AND DEAD PLANTS & TREE DEBRIS SHALL
- BE REMOVED IMMEDIATELY. THE OWNER SHALL MAINTAIN 95% VEGETATIVE COVER YEAR ROUND. 8. EROSION MINIMIZATION - ALL ERODED AREAS SHALL BE FINE GRADED AND COVERED WITH SOIL RETENTION MATTING AND
- SEEDED DURING THE GROWING SEASON. 9. VECTOR CONTROL - ALL ANIMAL BURROWS SHALL BE BACKFILLED AND COMPACTED, AND THE ANIMAL REMOVED FROM THE BMP
- 10. INSPECT DRY SWALE FOR EVIDENCE OF UNDERCUTTING OR EROSION AND REMOVE ANY TRASH OR SEDIMENT BUILDUP.
- 11. INSPECT SIDE SLOPES AND GRASS FILTER STRIPS FOR EVIDENCE OF ANY RILL OR GULLY EROSION AND REPAIR.
- 12. REMOVE SEDIMENT BUILDUP IN INFILTRATION AREA AND UPSTREAM SIDE OF PLUNGE POOLS. REMOVE ALL TRASH AND DEBRIS WHEN INSPECTING. EXCESS SEDIMENT BUILDUP MAY REQUIRE REMOVAL OF MEDIA AND REINSTALL A FULL SECTION OF NEW MEDIA.
- REVIEWED BY A PROFESSIONAL ENGINEER. REGULAR REMOVAL OF SEDIMENT ON THE UPSTREAM SIDE IS REQUIRED. REGULAR INVESTIGATION OF THE DOWNSTREAM FOR EROSION IS REQUIRED. OWNER TO CHECK MONTHLY AND AFTER SIGNIFICANT RAIN EVENTS. RESEED AS NECESSARY.

13. NON-ROUTINE MAINTENANCE OF OUTFALL STRUCTURES - ANY REPAIRS MADE TO THE MEDIA AND OBSERVATION WELL SHALL BE

- 14. THE DRAW DOWN RATE SHOULD BE MEASURED AT THE OBSERVATION WELL FOR THREE DAYS FOLLOWING A STORM EVENT IN EXCESS OF 1 INCH IN DEPTH. IF STANDING WATER IS STILL OBSERVED IN THE WELL AFTER THREE DAYS THIS IS A CLEAR SIGN THAT CLOGGING IS A PROBLEM.
- 16. LOOK FOR AND REMOVE ANY WEEDY GROWTH ON THE PEA GRAVEL SURFACE. EXCESSIVE GROWTH IS AN INDICATOR OF SEDIMENT DEPOSITION AND POSSIBLE CLOGGING. REPLACE PEA GRAVEL WHEN EXCESSIVE CLOGGING OCCURS.
- 17. IN THE EVENT CLOGGING OF THE FACILITY IS PERVASIVE, REPLACEMENT OF THE MEDIA SECTION IN FULL,IS REQUIRED AND SHALL BE REVIEWED BY AN ENGINEER AND OR COUNTY INSPECTOR WHEN REPLACED.

15. INSPECT THE CONDITION OF THE OBSERVATION WELL BI ANNUALLY AND MAKE SURE IT IS CAPPED. REPLACE CAP IF MISSING.

### MAINTENANCE PLAN FOR GRASS CHANNELS

AND SEEDED DURING THE GROWING SEASON.

SIGNIFICANT RAIN EVENTS. RESEED AS NECESSARY.

FROM THE BMP AREA.

NEEDED REPAIRS.

ROUTINE AND NON-ROUTINE MAINTENANCE IS REQUIRED TO ENSURE THE LONG-TERM PERFORMANCE OF THE PROPOSED FACILITIES. THE OWNER IS RESPONSIBLE FOR ALL MAINTENANCE OF STORMWATER FACILITIES.

ROUTINE MAINTENANCE - THE GRASS CHANNELS WILL BE INSPECTED AFTER HEAVY RAIN EVENTS (0.25-INCHES), BETWEEN

THE TIME OF CONSTRUCTION AND FULL VEGETATION ESTABLISHMENT. INSPECTION FOR OTHER CONDITIONS WILL BE

PERFORMED TWICE PER YEAR. WHEN NECESSARY, REPAIRS WILL BE PERFORMED WITHIN THIRTY DAYS OF DEFICIENCY 1. SITE INSPECTIONS - INSPECTIONS ARE TO BE PERFORMED REGULARLY AS PART OF MAINTAINING A PROPERLY

FUNCTIONING FACILITY. THE OWNER SHALL KEEP A RECORD OF INSPECTION TIME, CONDITION OF THE FACILITY,

- ACTIONS REQUIRED AND WHEN THE ACTION WAS TAKEN. 2. GRASS MOWING - THE GRASS SHOULD BE MAINTAINED AT A HEIGHT OF 3-9 INCHES YEAR AROUND.
- BANK STABILIZATION ANY AREAS THAT HAVE BECOME UNSTABLE SHOULD BE PROTECTED AND RESTABILIZED.
- 4. WEED CONTROL ANY WEEDS AND OR UNDESIRABLE INVASIVE PLANTS FOUND GROWING WITHIN THE BMP AREA SHOULD BE REMOVED IMMEDIATELY.

INSECT AND MOSQUITO CONTROL - INSECT ACTIVITY, INCLUDING MOSQUITO DEVELOPMENT SHOULD BE MONITORED.

- OWNER SHALL NOT ALLOW PERMANENT SHALLOW PONDING TO DEVELOP NOR TALL GRASS.
- TRASH AND OTHER LITTER SHALL BE REMOVED FROM THE BMP AREA. DO NOT ALLOW INFLOW AND OUTFALL OPENINGS TO BE OBSTRUCTED.
- SHALL BE REMOVED IMMEDIATELY. THE OWNER SHALL MAINTAIN 90% TURF COVER YEAR ROUND AND RESEED AS

8. EROSION MINIMIZATION - ALL ERODED AREAS SHALL BE FINE GRADED AND COVERED WITH SOIL RETENTION MATTING

VEGETATION - SURVIVAL SHALL BE MONITORED TO ENSURE ADEQUATE TURF COVER. DEAD PLANTS & TREE DEBRIS

- 9. VECTOR CONTROL ALL ANIMAL BURROWS SHALL BE BACKFILLED AND COMPACTED, AND THE ANIMAL REMOVED
- 10. INSPECT GRASS CHANNEL PERIODICALLY FOR EVIDENCE OF UNDERCUTTING OR EROSION AND REMOVE ANY TRASH OR SEDIMENT BUILDUP.
- 11. INSPECT SIDE SLOPES AND GRASS FILTER STRIPS FOR EVIDENCE OF ANY RILL OR GULLY EROSION AND REPAIR. 12. INSPECT CHECK DAM ANNUALLY FOR TIMBER AND OR ROCK FAILURE. CONSULT WITH ENGINEER PRIOR TO ANY

14. NON-ROUTINE MAINTENANCE OF OUTFALL STRUCTURES - ANY REPAIRS MADE TO THE OUTFALL SHALL BE REVIEWED

BY A PROFESSIONAL ENGINEER. REGULAR REMOVAL OF SEDIMENT ON THE UPSTREAM SIDE IS REQUIRED. REGULAR

INVESTIGATION OF THE DOWNSTREAM FOR EROSION IS REQUIRED. OWNER TO CHECK MONTHLY AND AFTER

13. REMOVE SEDIMENT BUILDUP IN GRASS CHANNEL AREA AND UPSTREAM SIDE OF THE CHECK DAM MAY BE REQUIRED. REMOVE ALL TRASH AND DEBRIS WHEN INSPECTING. EXCESS SEDIMENT BUILDUP MAY REQUIRE REMOVAL OF ROCK CHECK DAM, UNDERCUTTING SEDIMENT THEN REINSTALLING ROCK.

**BID SET** 

2 BAYPORT WAY, SUITE 120 NEWPORT NEWS, VA 23606

(757) 599 - 9800



**NOT FOR CONSTRUCTION** 

**LATEST DA/PC** DA23-031/PC23-005 DRAWN BY:

CHECKED BY:

REVISIONS REV# DATE | DESCRIPTION | BY

20-22195.02 PROJECT NO. 02/12/2024 SHEET TITLE

> **EROSION AND** SEDIMENT CONTROL

#### **SAMPLING**

The majority of the stormwater from the developed portions of the Carmax Facility Development will be routed to the 4 Basins on-site retention pond(s), located just (north, south, east or west) of the proposed facility and will out-fall to the (north, south, east or west) where it will continue as sheet flow via the existing drainage paths to the receiving waters. A small amount of the developed portion of the site, storm water will by-pass the detention pond(s) via sheet flow to the (north, south, east or west). Sampling of the outfalls will be utilized for the required site storm water monitoring. The surface water drainage area of the project is approximately \_\_\_\_\_ acres of land (\_\_\_\_\_ square miles) and the proposed project area of disturbance is acres of land (see attached USGS map for activity location and receiving waters). Therefore, the required effluent NTU appropriate to the outfall is NTU, based on the guidelines provided in Appendix B of the permit.

#### Sampling Methods

Samples will be collected in accordance with the methodology outlined in the EPA guidance document named "NPDES Storm Water Sampling Guidance Document - EPA 833-B-92-001," an excerpt of which is included. All samples taken will be "grab samples." The samples collected are for a particular time and represent conditions at that moment.

The samples at this site are anticipated to be collected with an automatic sampler. All samples will be collected from the sampler no later than one business day after they are taken. The sample containers will be large-mouthed plastic jars with a minimum sample size of 100 milliliters. All sampling equipment will be thoroughly cleaned before any samples are taken, and care will be taken during sampling to avoid contamination by not stirring excess bottom debris in the channel or outfall, and by avoiding floating debris in the channel. Sample bottles will be labeled prior to sampling, if taken to a laboratory for testing. All samples will be taken in an area where the water is well mixed.

The samples will be well mixed prior to any transfer to a secondary container. (i.e. turbidity test vial). Samples will be analyzed within 48 hours of collection for turbidity in NTU in accordance with methodology and test procedures described in 40 CFR Part 136: EPA Method I-3860-85. A sampling narrative is required, which includes (for each sampling location) precise sampling methodology and the analytical method used to collect and analyze the samples. Operation of meters for turbidity analyses will follow manufacture's specifications. Samples taken from the Carmax Facility Development construction site are anticipated to be tested with an on site meter by qualified personnel. As necessary, samples will be submitted to an analytical laboratory for testing.

Monitoring records will be maintained for all sampling events. These records will include at a minimum:

- \* The facility name and address:
- \* Name of the analyst; \* Location of sample;
- \* Sample ID;
- \* Date and time of measurement:
- \* Date and time of analysis; and \* Name/model number of the analyzer instrument
- \* The analytical method used to collect and analyze the samples including quality control/quality assurance procedures. The narrative must include precise sampling methodology for each sampling location.

For all samples sent to a laboratory for analysis, a chain of custody will be implemented. If sampling equipment malfunctions or if vandalism, equipment loss, or other unforeseen circumstances prevent the collection of a sample, the situation will be reported in the sampling report and in the monthly report to (provide the name of the Governing Municipal Agency).

#### **Sampling Frequency**

All samples must be collected within 45 minutes of the accumulation of the specified rainfall amount. If discharge from an outfall begins after a minimum accumulation of rainfall, then a sample must be collected within 45 minutes of the first discharge from the outfall after a qualifying event. Sampling after each qualifying event will continue until the (NOT) is submitted with the final sampling data. Qualifying events are defined as:

1). For each area of the site that discharges to a receiving stream, the first rain event that reaches or exceeds 0.5 inch and allows for monitoring during normal business hours\* (Monday thru Friday, 8:00 AM to 5:00 PM and Saturday, 8:00 AM to 5:00 PM when construction activity is being conducted by the Primary permittee) that occurs after all clearing and grubbing operations have been completed in the drainage area of the location selected as the representative sampling location; and

b). In addition to (a) above, for each area of the site that discharges to a receiving stream, the first rain event that reaches or exceeds 0.5 inch and allows for monitoring during normal business hours\* that occurs either 90 days after the first sampling event or after all mass grading operations have been completed in the drainage area of the location selected as the representative sampling location, whichever comes first;

c). At the time of sampling performed pursuant to (a) and (b) above, if BMPs are found to be properly designed, installed and maintained, no further action is required. If BMPs in any area of the site that discharges to a receiving stream are not properly designed, installed and maintained, corrective action shall be defined and implemented within 2 business days, and turbidity samples shall be taken from discharges from that area of the site for each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours\* until the selected turbidity standard is attained, or until post-storm event inspections determine that BMPs are properly designed, installed and maintained; and

1). Existing construction activities, i.e., those that are occurring on or before the effective date of this permit, that have met the sampling required by (a) above shall sample in accordance with (b). Those existing construction activities that have met the sampling required by (b) above shall not be required to conduct additional sampling other than as required by (c) above.

\*Note that the Permittee may choose to meet the requirements of (a) and (b) above by collecting turbidity samples from any rain event that reaches or exceeds 0.5 inch and allows for monitoring at any time of the day or week.

After construction is completed and the disturbed land has been stabilized, the final sampling event will take place within 45 minutes of the first storm of at least 0.5 inches or more within a 24-hour period.

If it is determined that BMP's are not properly designed, installed, or maintained in accordance with the permit, qualifying events will be re-defined as any storm greater than 0.5 inches in a 24 hour period. Sampling at this schedule will continue until the first rainfall event after the BMP's are deemed properly designed, installed, and maintained.

Any analysis of additional sampling taken beyond the minimum frequency defined above must be included in the sampling reports sent to (provide the name of the Governing Municipal Agency). Multiple samples taken in the same location may be averaged to comply with the standards outlined in the permit, but no analyzed data may be eliminated from the reporting.

## Sampling Narrative

There are \_\_\_\_\_ proposed monitoring/sampling location shown on the Erosion, Sedimentation & Pollution Control Plan. The following is a narrative describing the proposed monitoring/sampling locations:

Sampling Point #1: Station #1 is located at the outlet pipe of the storm water management Detention Pond #1 that has been designed to attenuate the storm water runoff from the subject site. This location is designated as an out-fall sampling point for discharge from the proposed detention pond. (see the USGS Quadrant Map for activity location and receiving waters). The allowable NTU limit for this sampling station is \_\_\_\_\_ NTU's.

Sampling Point #2: Station #2 is located at the outlet pipe of the storm water management Detention Pond #2 that has been designed to attenuate the storm water runoff from the subject site. This location is designated as an out-fall sampling point for discharge from the proposed detention pond. (see the USGS Quadrant Map for activity location and receiving waters). The allowable NTU limit for this sampling station is NTU's.

#### **BMP MAINTENANCE** (Note: Modify as applicable to the BMP's installed on the subject project)

#### Permittee Requirements

To maintain the efficiency of the BMPs, maintenance procedures will follow those specified in the (provide the name of the applicable erosion control document mandated by the State in which the project is to be constructed).

Construction Entrance/Exit (Co) - The construction entrance/exit will be inspected each day that construction activity occurs. Efforts must be made to prevent dirt, sediment, or mud flow onto any paved area. Maintenance to the entrance/exit may include top dressing of the road with 1.5 to 3.5-inch stone. Clean out and/or repair of any structures in place to trap sediment. Any material that escapes from the site onto any paved area including public rights-of-way will be immediately removed.

Disturbed Area Stabilization (Ds1, Ds2, Ds3) - Mulch or temporary grassing must be monitored to ensure that a continuous 90% cover is maintained. After seeding of permanent vegetation, the planted area must be monitored to ensure germination of the entire area.

Erosion Control Matting and Blankets (Mb) - All erosion control blankets and matting should be inspected periodically following installation, particularly after rainstorms to check for erosion and undermining. Any dislocation or failure should be repaired immediately. If washouts or breakage occurs, einstall the material after repairing damage to the slope or ditch. Continue to monitor these areas until they become permanently stabilized.

ilt Fences and haybales (Sd1) - The barriers will be inspected weekly and after each rain event, with repairs or replacement being performed as needed. Additional barriers will be installed on site as needed to trap sediment. Sediment will be removed once it accumulates to one-half the original height of the barrier. The filter fabric will be replaced if it becomes deteriorated to a point where its effectiveness is reduced (approximately every 6 months). Sediment controls will remain until the site is permanently stabilized. Once the site is permanently stabilized, all sediment accumulated behind a barrier must be removed and properly salvaged or disposed of prior to removal of the barrier.

Inlet Sediment Traps (Sd2) - The barriers will be inspected weekly and after each rain event, with repairs or replacement being performed as needed. Additional barriers will be installed on site as needed to trap sediment. Sediment will be removed once it accumulates to one-half the original height of the barrier. The filter fabric will be replaced if it becomes deteriorated to a point where its effectiveness is reduced (approximately every 6 months). Sediment controls will remain until the site is permanently stabilized. Once the site is permanently stabilized, all sediment accumulated behind a barrier must be removed and properly salvaged or disposed of prior to removal of the barrier.

Storm Drain Outlet Protection (St) - Inspect riprap outlet structures weekly and after each rain event to determine if any erosion around or below the riprap has taken place or if stones have been dislodged. Conduct all needed repairs immediately to prevent further damage.

Filter Ring (Fr) - The filter ring must be kept clear of trash and debris. This will require continuous monitoring and maintenance, which includes sediment removal when one-half full. Structures are temporary and should be removed when the land-disturbing project has been stabilized.

Retrofit (Rt) - Repair all damages caused by soil erosion or construction equipment at or before the end of each working day. Sediment shall be removed from the pond when it reaches the specified depth on the silt gauge. Sediment shall not enter adjacent streams or drainage ways during sediment removal or disposal. The sediment shall not be deposited downstream from the embankment, adjacent to stream or floodplain.

#### REPORTING

All monitoring results will be submitted to the (provide the name of the appropriate Governing Municipal Agency) at the address noted below, by the fifteenth day of the month following the reporting period. Reporting periods are months during which samples are taken in accordance with the GAR 100001 permit. Upon written notification, the (provide the name of the appropriate Governing Municipal Agency) may require the permittee to submit the monitoring results on a more frequent basis. Results for the Carmax Facility Development project, which is located in (City or Town), (State), will be submitted by return receipt certified mail (or similar service) to the following address:

(Provide the name and address of the appropriate Governing Municipal Agency)

#### (phone number)

These monitoring reports will, at minimum, include:

- The date, exact place, and time of sampling; \* The name of the qualified personnel conducting the sampling;
- \* The date the analyses were performed;
- \* The time the analyses were initiated; The name of the individual conducting the analyses;
- \* References and written procedures, when available, for the analytical techniques or methods used;
- \* The results of the analyses, including the bench sheets, instrument readouts, computer disks or tapes, etc. used to determine these results; \* Results which exceed 1000 NTU shall be reported as "exceeds 1000 NTU."

If no qualifying rain event occurs during a month, a monitoring report must be filed detailing such. The monitoring reports will continue to be filed with (provide the name of the Governing Municipal Agency) until the (NOT) is submitted. The (NOT) for the Carmax Facility Development project will be submitted once all construction activities have ceased, final stabilization techniques have been implemented, and the site is in compliance with the permit. The (NOT) will include the following information corresponding to the information previously submitted in the (NOI):

- The permittee's legal name, address, and phone number;
- The site/project name, site location, and GPS location of the site; \* The NPDES permit number for the storm water discharge associated with construction activity identified by the (NOT);
- \* A copy of the final monitoring report; and
- \* The name of all receiving waters. \* Certification statement signed by a corporate officer.

## **DOCUMENT PRESERVATION**

The Erosion, Sedimentation and Pollution Control Plan and the Comprehensive Monitoring Program Plan will be retained at the corporate offices of

The following record documents should be maintained for a period of at least 3 years after the date of final stabilization including:

\* Copy of (NOI), including any backup information and all data used to complete the (NOI) \* Copy of (NOT), including any backup information

- \* Site plans \* Inspection summaries
- \* Monitoring reports including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation.

The document preservation period for these records will be extended if a written request is received from (provide the name of the Governing Municipal Agency). The Carmax Facility Development project records will be maintained at the corporate offices of Carmax, (i.e., primary permittee) once all construction activities on site have ceased.

The Erosion, Sedimentation and Pollution Control Plan and the Comprehensive Monitoring Program Plan were developed to be a dynamic document. It should represent current site conditions. Documentation may include adding an addendum page to the Plans or making written corrections for small changes. All major changes and amendments to the Erosion, Sedimentation and Pollution Control Plan and the Comprehensive Monitoring Program Plan, such as changing sampling locations, must be certified by a licensed professional.

#### SITE DESCRIPTION

This Comprehensive Monitoring Plan (CMP) has been prepared to meet the requirements under the General Permit No. GAR 100001 for Authorization to Discharge under the National Pollutant Discharge Elimination System (NPDES), Storm Water Discharges Associated with Construction Activities For Stand Alone Construction Projects, under the State of \_\_\_\_\_\_, Environmental Protection Division (EPD). The Carmax Facility Development Site Activities will disturb an area of approximately \_\_\_\_\_\_ acres, subsequently, a Notice of Intent (NOI), Erosion, Sedimentation and Pollution Control Plan (ES&PC), Comprehensive Monitoring Plan (CMP), and a Notice of Termination (NOT) are required for the site. The ES&PC Plan and the (CMP) will be kept at the corporate offices of Carmax and will be updated when erosion controls on site are modified to improve erosion and sediment control. The (NOT) will be submitted after Construction and final site stabilization is completed.

Carmax has identified the need to construct the s.f. automobile dealership facility in (City or Town), (State). The proposed project is located acre tract of land in (City or Town), (State). Currently, the majority of the site is (give brief description of the existing site conditions, wooded, partially developed, etc...). The surface water body that will be receiving the proposed discharge from this site (is or is not)located on the subject property. The receiving surface water body for storm water runoff from this site is (provide description of receiving waters). Please see the site USDA Quad map for reference.

The project includes construction of the s.f. Sales and Service buildings with the accompanying vehicle parking area, storm water management facilities, and other infrastructure to support the facility. The proposed site is located in a generally area of (City or Town), (State). The site is bound on the north by , on the east by drainage basins, in which basin drains to the (north, south, east or west The site is comprised of

as sheet flow and the basin drains to the (north, south, east or west) as sheet flow. The Carmax Facility Development Site construction activities will disturb approximately acres of land. Final stabilization of the construction area is anticipated to occur 12 months after the beginning of construction. For additional information see the Site Map and Anticipated Activity Schedule included on the attached drawings.

Erosion and sedimentation control requirements for this site were explained in the accompanying ES&PC Plan dated \_ monitoring program details the monitoring and reporting steps required under the permit. Storm water from the Carmax Facility Development Site will ultimately be routed from the proposed storm water management conveyance systems into the existing drainage swales which exit the subject property along its (northern, southern, eastern or western) property boundary lines. Outfall sampling will be utilized for the required site storm water monitoring; this is discussed in further detail in Section 9, Sampling. The location of the outfall, streams or other bodies of water, receiving waters, and sampling locations are indicated on the Comprehensive Monitoring Program Plan (CMP1.0).

#### RAINFALL MONITORING

Rainfall measurements will be measured and recorded daily by automatic rain gauges. The gauges are to be mounted away from any other obstructions and inspected to ensure they are free from obstructions and debris. One gauge is to be utilized for each sampling device and inspected during the rainfall events to record the time the qualifying event occurs. One gauge must be designated as the primary measuring point for the purpose of daily rainfall neasurements. If this gauge fails, another gauge may be used until a replacement is installed.

The design of the rainfall gauges requires the adjustment for the rainfall sensor to trigger the automatic sampler (if used as anticipated, please see Section 9 - Sampling). The sensor must be adjusted for the appropriate qualifying event. Sampling shall occur for the following events:

a. For each area of the site that discharges to a receiving stream, the first rain event that reaches of exceeds 0.5 inch and allows for monitoring during normal business hours\* (Monday thru Friday, 8:00 AM to 5:00 PM and Saturday 8:00 AM to 5:00 PM when construction activity is being conducted by the Primary permittee) that occurs after all clearing and grubbing operations have been completed in the drainage area of the location selected as the representative sampling location;

b. In addition to (a.) above, for each area of the site that discharges to a receiving stream, the first rain event that reaches or exceeds 0.5 inch and allows for monitoring during normal business hours\* that occurs either 90 days after the first sampling event or after all mass grading operations have been completed in the drainage area of the location selected as the representative sampling location, whichever comes first;

c. At the time of sampling performed pursuant to (a.) and (b.) above, if BMPs are found to be properly designed, installed and maintained, no further action is required. If BMPs in any area of the site that discharges to a receiving stream are not properly designed, installed and maintained, corrective action shall be defined and implemented within 2 business days, and turbidity samples shall be taken from discharges from that area of the site of each subsequent rain event that reaches or exceeds 0.5 inch during normal business hours\* until the selected turbidity standard is attained, or until post-storm event inspections determine that BMPs are properly designed, installed and maintained; and

Existing construction activities, i.e., those that are occurring on or before the effective date of this permit, that have met the sampling required by (a.) above shall sample in accordance with (b.). Those existing construction activities that have met the sampling required by (b.) above shall not be required to conduct additional sampling other than as required by (c.) above.

\* Note that the Permittee may choose to meet the requirements of (a.) and (b.) above by collecting turbidity samples from any rain event that reaches of exceeds 0.5 inch and allows for monitoring at any time of the day or week.

### INSPECTIONS

## Permittee Requirements

1). Each day when any type of construction activity has taken place, qualified personnel (i.e., a person who has successfully completed an erosion and sediment control short course approved by the (provide the name of the Governing Municipal Agency) shall:

Inspect all areas at the site where petroleum products are stored, used, or handled for spills and leaks from vehicles and equipment. \* Inspect all locations at the site where vehicles enter or exit the site for evidence of off-site sediment tracking.

\* Measure rainfall once each twenty-four hour period at the site. These inspections must be conducted until a Notice of Termination is submitted.

2). Qualified personnel (provided by the primary permittee) shall inspect at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater:

\* Disturbed areas of the site that have not undergone final stabilization. \* Areas used for storage of materials that are exposed to precipitation that have not undergone final stabilization.

permit no. GAR 100001. These inspections must be conducted until a Notice of Termination is submitted.

\* Structural control measures. Erosion and sediment control measures identified in the Plan applicable to the site shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving water(s). For areas of a site that have undergone final stabilization, the permittee must comply with Part IV.D.3.a.(3) of the general

3). Qualified personnel (provided by the primary permittee) shall inspect at lease once per month (until a Notice of Termination is received by (provide the name of the Governing Municipal Agency)) the areas of the site that have undergone final stabilization. These areas shall be inspected for evidence of, or the potential for, pollutants entering the drainage system and the receiving water(s). Erosion and sediment control measures identified on the Erosion, Sedimentation and Pollution Control Plans (provide appropriate sheet numbers), shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant

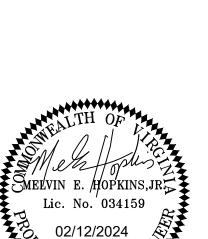
4). Based on the results of each inspection, the site description and the pollution prevention and control measures identified in the Erosion, Sedimentation and Pollution Control Plans (provide appropriate sheet numbers), the Plans shall be revised as appropriate not later than seven (7) calendar days following each inspection. Implementation of such changes shall be made as soon as practical but in no case later than seven (7) calendar days following each

A report summarizing the scope of each inspection, will, at a minimum, include the name of the qualified personnel making the inspection, the date of the inspection, major observations during the inspection relating to the implementation of the Erosion, Sedimentation and Pollution Control Plan (provide appropriate sheet numbers), and any foreseen revisions to the plan, shall be made and retained at the site or be readily available at a designated alternate location until the entire site or that portion of a construction project that has been phased has undergone final stabilization and a Notice of Termination is submitted to EPD. The reports will also identify any incidents of non-compliance. Where the report does not identify any incidents of non-compliance, the report shall contain a certification that the facility is in compliance with the Erosion, Sedimentation and Pollution Control Plan and this permit. The report shall be signed in accordance with Part V.G. of the GAR 100001 permit. Reports of all inspections will be retained and readily available at the corporate offices of Carmax.

**BID SET** 02/12/2024

**SERVICE** 

CARWASH



**NOT FOR CONSTRUCTION** 

**LATEST DA/PC** DA23-031/PC23-005

**DRAWN BY:** TL/TK

CHECKED BY:

**REVISIONS** REV# DATE | DESCRIPTION | BY

<u>0</u>

SITE NPDES DATA

20-22195.02

02/12/2024

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TURBIDITY
EPA Method 180.1 (Nephelometric)
Approved for NPDES and SDWA
Issued 1971; Editorial revisions 1974 and 1978
Store no. 00076
1. Scope and Application
1.1 This method is applicable to drinking, surface, and saline waters in the range of turbidity from 0 to 40 nephelometric turbidity units (NTU). Higher
values may be obtained with dilution of the sample.
NOTE 1: NTU's are considered comparable to the previously reported Formazin Turbidity Units (FTU) and Jackson Turbidity Units (JTU).
2.1 This method is based upon a comparison of the intensity of light scattered by the sample under defined conditions with the intensity of light scattered
by a standard reference suspension. The higher, the intensity of scattered light, the higher the turbidity. Readings, in NTU's, are made in a nephelometer
designed according to specifications outlined in Apparatus. A standard suspension of FormaTin, prepared under closely defined conditions, is used to
2.1.1 Formazin polymer is used as the turbidity reference suspension for water because it is more reproducible than other types of standards previously
2.1.2 A commercially available polymer standard is also approved for use for the National Interim Primary Drinking Water Regulations. This standard
is identified as AMCO-AEPA-1 available from Amoco Standard International, Inc.
3. Sample Handling and Preservation
3.1 Preservation of the sample is not practical; analysis should begin as soon as possible. Refrigeration or icing to 4°C, to minimize
microbiological decomposition of solids, is recommended.
4.1 The presence of floating debris and coarse sediments which settle out rapidly will give low readings. Finely divided air bubbles will affect the
4.2 The presence of true color, that is the color of water which is due to dissolved substances which absorb light, will cause turbidities to be low,
although this effect is generally not significant with finished waters.
5.1 The turbidimeter shall consist of a nephelometer with light source for illuminating the sample and one or more photo-electric detectors with a
readout device to indicate the intensity of light scattered at right angles to the path of the incident light The turbidimeter should be so designed that little
stray light reaches the detector in the absence of turbidity and should be free from significant drift after a short warm-up period.
5.2 The sensitivity of the instrument should permit detection of a turbidity difference of 0.02 unit or less in waters having turbidities less than 1 unit
The instrument should measure from 0 to 40 units turbidity. Several ranges will be necessary to obtain both adequate coverage and sufficient sensitivity
5.3 The sample tubes to be used with the available instrument must be of clear, colorless glass. They should be kept scrupulously clean, both inside
and out, and discarded when they become scratched or etched. They must not be handled at all where the Light strikes them, but should be provided with
sufficient extra length, or with a protective case, so that they may be handled.
5.4 Differences in physical design of turbidimeters will cause differences in measured values for turbidity even though the same suspension is used for
calibration. To minimize such differences, the following design criteria should be observed:
5.4.1 Light source: Tungsten lamp operated at a color temperature between 2200-3000° K.
5.4.2 Distance traversed by incident light and scattered light within the sample tube: Total not to exceed 10 cm.
5.4.3 Detector: Centered at 90° to the incident light path and not to exceed \pm 30^{\circ} from 90°. The Detector and filter system, if used, shall have a spectral
peak response between 400 and 600 nm.
5.5 The Hatch Turbidimeter, Model 2100 and 2100A, is in wide use and has been found to be reliable; however, other instruments meeting the above
design criteria are acceptable.
6.1 Turbidity-free water: Pass distilled water through a 0.45u pore size membrane filter if such filtered water shows a lower turbidity than the distilled
6.2 Stock formazin turbidity suspension:
Solution. 1: Dissolve 1.00g hydrazine sulfate, (NH2),*H2SO4, in distilled water and dilute to 100 ml in a volumetric flask.
Solution 2: Dissolve 10.00g hexamemylenetetramine in distilled water and dilute to 100 ml in a volumetric flask.
In a 100 ml volumetric flask, mix 5.0 ml Solution 1 with 5.0 ml Solution 2. Allow to stand 24 hours at 25 \pm 3°C, then dilute to the mark and mix.
6.3 Standard formazin turbidity suspension: Dilute 10.00ml stock turbidity suspension to 100ml with turbidity-free water. The turbidity of this
suspension is defined as 40 units. Dilute portions of the standard turbidity suspension with turbidity-free water as required.
6.3.1 A new stock turbidity suspension should be prepared each month. The standard turbidity suspension and dilute turbidity standards should be
prepared weekly by dilution of the stock turbidity suspension.
6.4 The AMCO-AEPA-1 standard as supplied requires no preparation or dilution prior to use.
7.1 Turbidimeter calibration: The manufacturer's operating instructions should be followed. Measure standards on the turbidimeter covering the range
of interest. If the instrument is already calibrated in standard turbidity units, this procedure will check the accuracy of the calibration scales. At least one
standard should be run in each instrument range to be used. Some instruments permit adjustments of sensitivity so that scale values will correspond to
turbidities. Reliance on a manufacturer's solid scattering standard for setting overall instrument sensitivity for all ranges is not an acceptable practice
unless the turbidimeter has been shown to be free of drift on all ranges. If a pre-calibrated scale is not supplied, then calibration curves should be
prepared for each range of the instrument.
7.2 Turbidities less than 40 units: Shake the sample to thoroughly disperse the solids. Wait until air bubbles disappear, then pour the sample into the
turbidimeter tube. Read the turbidity directly from the instrument scale or from the appropriate calibration curve.
7.3 Turbidities exceeding 40 units: Dilute the sample with one or more volumes of turbidity-free water until the turbidity falls below 40 units. The
turbidity of the original sample is then computed from the turbidity of the diluted sample and the dilution factor. For example, if 5 volumes of
turbidity-free water were added to 1 volume of sample, and the diluted sample showed a turbidity of 30 units, then the turbidity of fee original sample
7.3.1 The Hach Turbidimeters, Models 2100 and 2100A, are equipped with 5 separate scales: 0-0.2, 0-1.0, 0-100, and 0-1000 NTU. The upper scales are
to be used only as indicators of required dilution volumes to reduce readings to less than 40 NTU. NOTE 2: Comparative work performed in the
MDQAR Laboratory indicates a progressive error on sample turbidities in excess of 40 units.
8. Calculation
8.1 Multiply sample readings by appropriate dilution to obtain final reading.
8.2 Report results as follows:
                                     Record to Nearest:
                0,0-1.0
                1-10
                10-40
                40-100
                100-400
                400-1000
                 >1000
9. Precision and Accuracy
9.1 In a single laboratory (EMSL), using surface water samples at levels of 26, 41, 75 and 180 NTU, the standard deviations were \pm 0.60, \pm 0.94, \pm 1.2
and \pm 4.7 units, respectively.
9.2 Accuracy data are not available at this time.
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Excerpts from NPDES Storm Water Sampling Guidance Document (Page 67-70; 119-123)
United States Environmental Protection Agency
Office of Water (EN-336)
EPA 833-B-92-001
July 1992
equipment.
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3.2.6 Measuring Rainfall 6. Health and Safety Many types of instruments have been developed to measure the amount and intensity of precipitation. All forms of precipitation are measured on the basis Storm water sampling activities may occur when the sampling environment and/or storm water discharges create hazardous conditions. Hazardous of depth of the water that would accumulate on a level surface if precipitation remained where it fell. There are two types of rain gauges - standard and conditions associated with sampling include: recording gauges. A standard rain gauge collects the rainfall so that the amount of rain can be easily measured. The standard gauge for the NWS has a collector, which is 8 inches in diameter. Rain flows from the collector into a cylindrical measuring tube inside the overflow can. The measuring tube has · Hazardous weather conditions (e.g. wind, lightning, flooding, etc.) a cross-sectional area one-tenth the size of the collector so that 0.1-inch of rainfall will fill 1 inch of the measuring tube. While this standard gauge is both · Sampling in confined spaces (e.g. manholes) accurate and easy to use, any open receptacle with vertical sides can be an effective rain gauge. Standard rain gauges are simple and inexpensive; · Hazards associated with chemicals however, with a standard gauge, there is no way to record the changes in the intensity of the rainfall without making frequent observations of the gauge · Biological hazards (e.g. rodents and snakes) during the storm. · Physical hazards (e.g. traffic, falling objects, sharp edges, slippery footing, and the potential for lifting injuries from opening or removing access panels an manhole covers, etc.) The second type of gauge is the recording rain gauge, which provides a permanent record of the amount of rainfall which accumulates over time. These common types of recording gauges are: It is essential that sampling personnel be aware of these hazards. Sampling personnel should be trained to evaluate potentially hazardous situations and develop ways for handling them. Since sampling hazards can be life threatening, safety must be the highest priority for all personnel. This chapter <u>Tipping Bucket Gauge</u> - Water caught in a collector is funneled into a two-component bucket; a know quantity of rain fills one compartment, outlines general health and safety issues and concerns. Additional references discussed below should be consulted for more specific guidance to avoid overbalancing the bucket and emptying it into a reservoir. This moves the second bucket into place beneath the funnel. The tipping of the bucket engages adverse health and safety situations. an electric circuit, which records the event. Weighing Type Gauge - Water is weighed when it falls into a bucket placed on the platform of a spring or lever balance. The weight of the contents is 6.1 General Training Requirements recorded on a chart, showing the accumulation of precipitation. Float Recording Gauge - Water is measured by the rise of a float that is placed in the receiver. These gauges may be self-siphoning, or may need to be Preparation and training of all sampling personnel should be completed before beginning any sampling task. Extreme care should be taken to allow for emptied periodically by hand. safety precautions including proper equipment and appropriate operational techniques, sufficient time to accomplish the task, training on potential hazards, and emergency procedures. EPA's Order 1440.2 sets out the policy, responsibilities, and mandatory requirements for the safety of personnel Recording rain gauges provide a permanent record of rainfall, and they can be used to determine variations in rainfall intensity over time without making who are involved in sampling activities. This order, which is found within the EPD NPDES Compliance Monitoring Inspector Training: Sampling frequent observations during the storm. But recording gauges are more complicated mechanically than standard gauges, making them more costly, less manual provides further guidance to applicants' storm water sampling personnel. Basic emergency precautions include having access to both local durable, and more difficult to operate. emergency phone numbers and communication equipment (i.e. phones or radios), and ensuring that personnel are trained in first aid and carry first aid Although all gauges are subject to error, most errors can be minimized. To minimize errors, the gauge should be placed on a level surface that is not windswept and is away from trees or buildings that might interfere with the path of rainfall. When taking measurements, other factors contributing to 6.2 Necessary Safety Equipment error should also be considered: mistakes in reading the scale, dents in the collector rim (which change the receiving area), measuring sticks that may retain some of the water, and water lost to evaporation. In the case of tipping bucket gauges, water may not be collected while the bucket is still tipping. Exhibit 6-1 contains a list of safety equipment that may be appropriate depending on the characteristics of the sampling site. The most common source of inaccuracy is changes in data that are attributable to wind. It is possible to assess wind errors by comparing measurements of Exhibit 6-1: List of Safety Equipment gauges that are protected from wind with those that are not. Flashlight18-inch traffic cones, Meters (for oxygen, explosivity, toxic gasses)Insect/rodent repellant, Ladder, Ventilation equipment, Safety harness50 feet of ½ inch nylon rope, Hard hat, Safety shoes, Safety goggles, Rain wear, Coveralls, Gloves (rubber)qRespiratorFirst aid kit, Reflective 3.3 Grab Sample Collection vestsSelf-contained breathing apparatus, Source: Adapted from NPDES Compliance Monitoring Inspector Training: Sampling, U.S. EPA, August 1990 Section 3.1.2 discussed both the parameters that must be monitored by grab samples and the conditions under which grab sampling is required. This section explains how to collect grab samples. The entire sample is collected at an uninterrupted interval (i.e. grabbed at one time). A grab sample 6.3 Hazardous Weather Conditions provides information on the characterization of storm water at a given time and may be collected either manually or automatically as discussed below. Common sense should dictate whether sampling be conducted during adverse weather conditions. No sampling personnel should place themselves in 3.3.1 How to Manually Collect Grab Samples danger during high winds, lightening storms, or flooding conditions which might be unsafe. Under extreme conditions, a less hazardous storm event should be sampled. A manual grab is collected by inserting a container under a downcurrent of a discharge with the container opening facing upstream. Generally, simplified equipment and procedures can be used. In most cases, the sample container itself may be used to collect the sample. Less accessible outfalls may require 6.4 Sampling in Confined Spaces the use of poles and buckets to collect grab samples. To ensure the manual grab samples are representative of the storm water discharged, the procedure set forth in Exhibit 3-17 should be followed. Confined spaces encountered by storm water sampling personnel typically include manholes and deep, unventilated ditches. A confined space is generally defined as a space that is somewhat enclosed with limited access and inadequate ventilation. Exhibit 3-17. Recommended Operating Procedures for Taking Grab Samples The National Institute of Occupational Safety and Health (NIOSH) has developed a manual entitled "Working in Confined Spaces" which should be Label sample containers before sampling event consulted prior to confined space entry. Also, several states have developed specific procedures, which should be consulted. Unless they have been Take a cooler with ice to the sampling point trained for confined space entry, sampling personnel should avoid entry under all circumstances. Take the grab from the horizontal and vertical center of the channel Avoid stirring up the bottom sediments in the channel 6.4.1 Hazardous Conditions in Confined Spaces Hold the container so the opening faces upstream Avoid touching the inside of the container to prevent contamination Confined spaces pose a threat to sampling personnel because of low oxygen, explosivity, and toxic gases. When entering a confined space, a qualified Keep the sample free from uncharacteristic floating debris person should ensure that the atmosphere is safe by sampling to test for oxygen levels, potential flammable hazards, and toxic materials known or Transfer samples into proper containers (e.g. from bucket to sample container), however, fecal coliform, fecal streptococcus, phenols, and O&G should suspected to be present. If atmospheric conditions are detected, the confined space should be ventilated or sampling personnel should use a remain in original containers self-contained air supply and wear a lifeline. At least one person should remain outside of the confined space in the event that problems arise. If If taking numerous grabs, keep the samples separate and labeled clearly atmospheric testing has not been properly conducted, the confined space should not be entered. Manholes can also pose a threat to safety because of the Use safety precautions (see Chapter 6) small confined area, slippery surfaces, sharp objects, unsafe ladders, etc. Specialized equipment may be needed, particularly in situations where storm water discharges are inaccessible or where certain parameters are monitored. 6.4.2 Special Training Requirements Personnel should not enter into a confined space unless trained in confined space entry techniques. Such training covers hazard recognition, the use of When sampling for O&G and VOCs equipment that safely and securely houses O&G bottles or VOC vials should be used. This may be necessary respiratory equipment and atmospheric testing devices, use of special equipment and tools, and emergency rescue procedures. In addition, at least one because: (1) O&G will adhere to containers and thus should not be transferred from one container to another; and (2) excessive aeration during sampling member of the sampling crew should be certified in basic first aid and Cardiopulmonary Resuscitation (CPR). Sampling personnel should, on an annual may result in the partial escape of VOCs. basis, practice confined space rescues. Since facilities sometimes use sample bottles that already contain preservatives (as provided by correct laboratories), extreme care should be taken when filling them to avoid spills, splatters, or washout of preservatives. 6.4.3 Permit System All equipment and containers that come into contact with the sample must be clean to avoid contamination. Additionally, sample collection equipment If entry into a confined space is necessary, an entry permit system should be developed which includes a written procedure. This permit should include. and container materials should be totally unreactive to prevent leaching of pollutants. Cleaning procedures are discussed in detail in Section 3.5. 3.3.2 How to Collect Grab Samples by Automatic Sampler · Description of work to be done · Hazards that may be encountered Grab samples can also be collected using programmed automatic samplers. Automatic samplers come equipped with computers that can be programmed · Location and description of the confined space to collect grab samples. Programming for grabs is specific to the type of automatic sampler. Some samplers are portable and have been developed · Information on atmospheric conditions at confined space specifically to sample for storm water discharges. These samplers are frequently attached to a rain gauge and/or a flow sensor. Such samplers can be · Personnel training and emergency procedures programmed to initiate sample collection by one or more of the following conditions: (1) depth of flow in a channel; (2) rainfall in inches; (3) flow rate; · Names of sampling personnel (4) time; (5) external signal; and (6) combinations of the first three conditions. For example, an automatic sampler could be used to collect a sample at 15-minute intervals after its sensors indicate that rainfall has begun. The manual developed by NIOSH discusses this permit system in more detail. Furthermore, the Occupational Safety and Health Administration (OSHA) proposed a rule on June 5, 1989 (54 FR 24080) that would implement a permit system. When using an automatic sampler, planning is very important. First, all equipment must be properly cleaned, particularly the tubing and the sample containers. There are several different types of tubing available, including rubber and Tygon tubing. Tygon tubing is commonly used since it does not leach contaminants. Deionized water should be drawn through the sampler to remove any remaining pollutant residuals prior to taking samples. Tubing should also be drawn through the sampler to remove any remaining pollutant residuals prior to taking samples. Tubing should also be replaced periodically to avoid algae or bacterial growth. Sampling personnel should also use adequate and appropriate containers to ensure they are properly cleaned. Section 3.5 contains information on cleaning procedures, which should be followed for all equipment. Additionally, the utilization of blanks (a control used to verify the accuracy of analytical results)

Excerpts from NPDES Storm Water Sampling Guidance Document (Page 67-70; 119-123)

is recommended to determine if cross-contamination of sampling equipment has occurred. Samplers should also be programmed, set up, and supplied

with a source of power. Properly charged batteries should be readily available for portable samplers in advance of a storm event, and as a backup power

supply in case of power failure. Finally, although automatic samplers may be useful in some situations, several parameters are not amenable to collection

by automatic sampler. These pollutants include fecal streptococcus, fecal coliforms, oil and grease, and VOCs which should be collected manually, not

automatically, as discussed in Section 3.1.2.

**End of Applicable Section** 

**United States Environmental Protection Agency** 

Office of Water (EN-336)

EPA 833-B-92-001

July 1992

## 6.5 Chemical Hazards

Sampling personnel can also be at risk of exposure to hazardous chemicals - either chemical in the actual storm water discharge or the chemicals that have been placed in the sample collection containers for sample preservation. Therefore, direct contact with the preservatives and the storm water (if hazardous chemicals are suspected to be present) should be avoided. Sampling personnel should wear gloves and safety glasses to avoid skin and eye exposure to harmful chemicals. Sampling personnel should be trained to avoid exposure and instructed as to what to do if exposure occurs (e.g. flush the eyes, rinse the skin, ventilate the area, etc.).

6.6 Biological Hazards Storm water sampling personnel may also encounter biological hazards such as rodents, snakes, and insects. The sampling crew should remain alert to these hazards. As mentioned in Section 6.2 necessary sampling equipment, for certain locations, should include repellent and a first aid kit.

## 6.7 Physical Hazards

The sampling crew should be aware of a number of physical hazards that could cause incidents at the sampling site. These hazards include traffic hazards, sharp edges, falling objects, slippery footing, and lifting injuries from removing manhole covers. Sampling personnel should pay close attention in order to prevent these safety hazards at all times.

If the sample point is in a manhole, a street gutter, or a ditch near the street, particular attention must be given to marking off the work area to warn oncoming traffic of the presence of the sampling crew. Traffic cones, warning signs, and barricades should be placed in appropriate places around the sampling point.

## **End of Applicable Section**

(757) 599 - 9800

**BID SET** 02/12/2024 CARWASH



**NOT FOR CONSTRUCTION** 

**LATEST DA/PC** DA23-031/PC23-005

**DRAWN BY:** TL/TK

CHECKED BY:

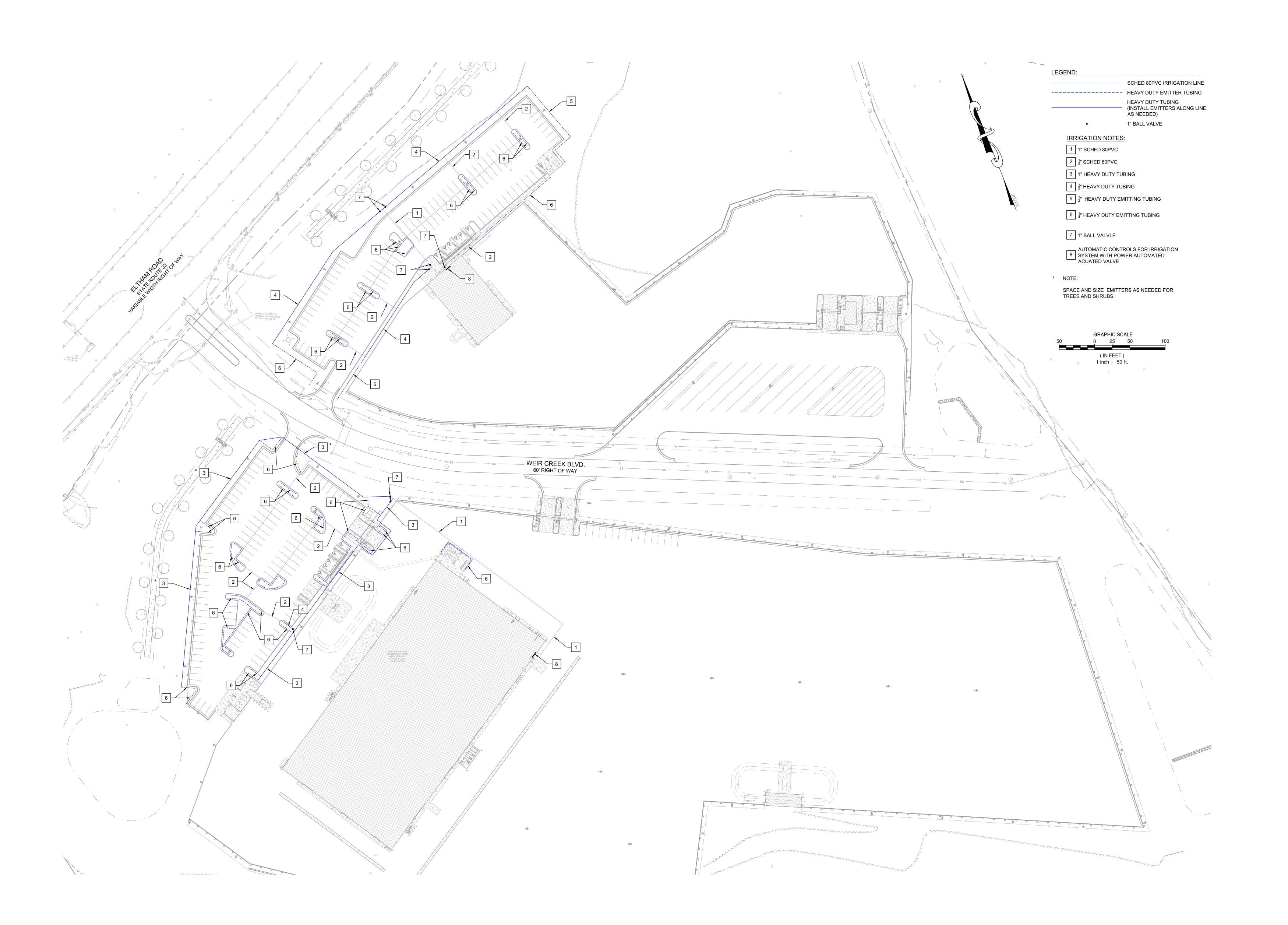
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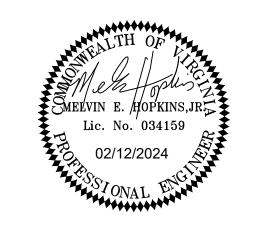
SITE NPDES DATA

20-22195.02

02/12/2024







NOT FOR CONSTRUCTION

LATEST DA/PC DA23-031/PC23-005

DRAWN BY: TL/TK

CHECKED BY: MH

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REV#	DATE	DESCRIPTION	BY

FARMATHE AUTO SUPERSTORE

THE AUTO SUPERSTORE
SOUTHWANDE CREEK PKWY. RICHMOND, VA 23238

SHOTH OF AUTO SUPERSTORE
SOUTHWANDE

TORE NO 4007

6931 BLDG - 1, ELTHAM RD E

PROJECT NO. 20-22195.02

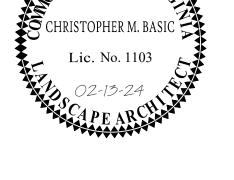
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IRRIGATION PLAN

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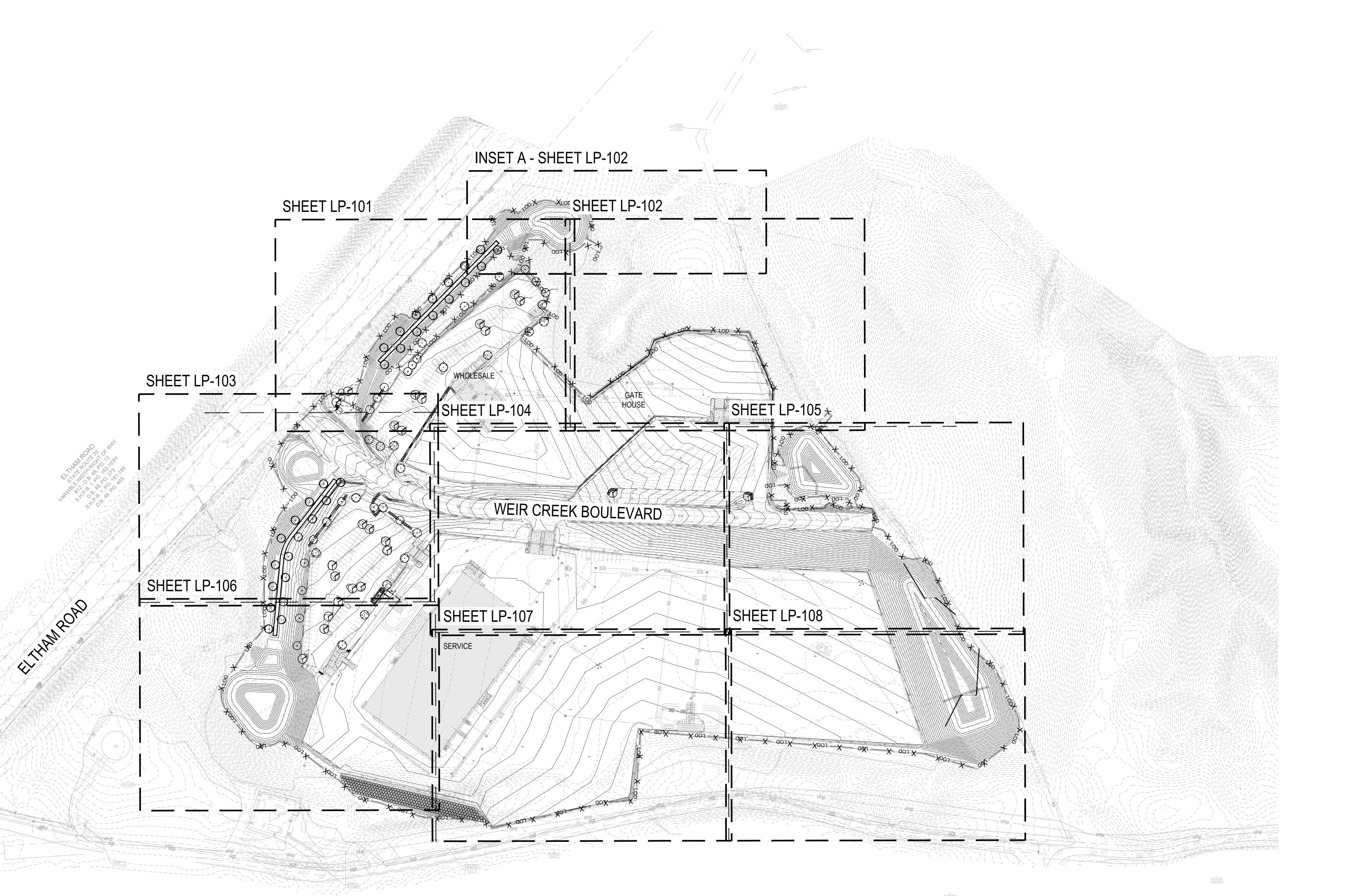
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OVERALL PLANTING
PLAN

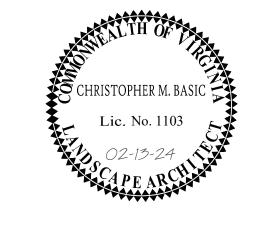
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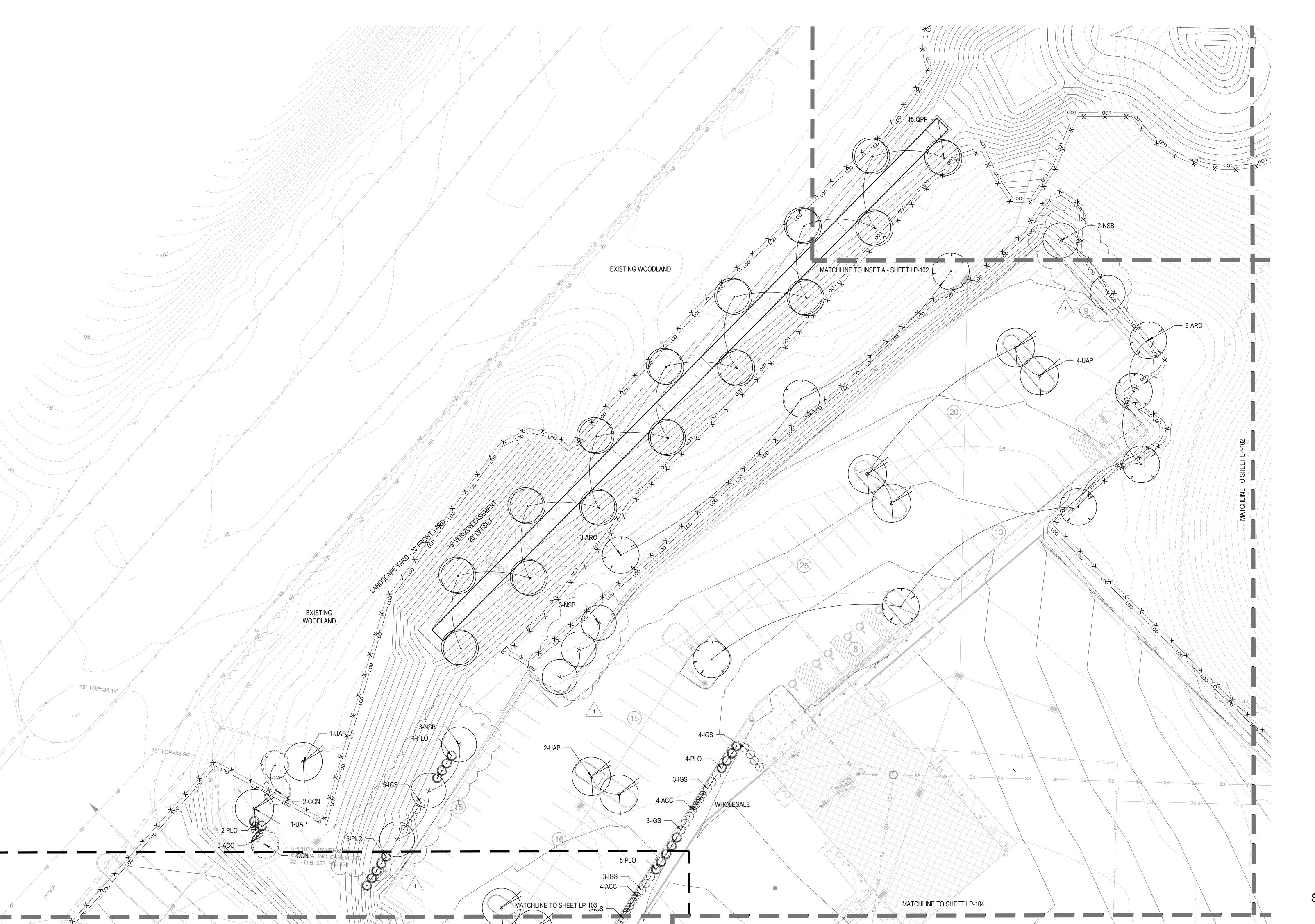
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PROJECT NO.

20-22195.02 12/20/2023 SHEET TITLE

PLANTING PLAN





## **Kimley** Whorn © 2024 KIMLEY-HORN AND ASSOCIATES, INC. 4350 NEW TOWN AVENUE, SUITE 101, WILLIAMSBURG, VA 23188 PHONE: 757-565-2306 WWW.KIMLEY-HORN.COM

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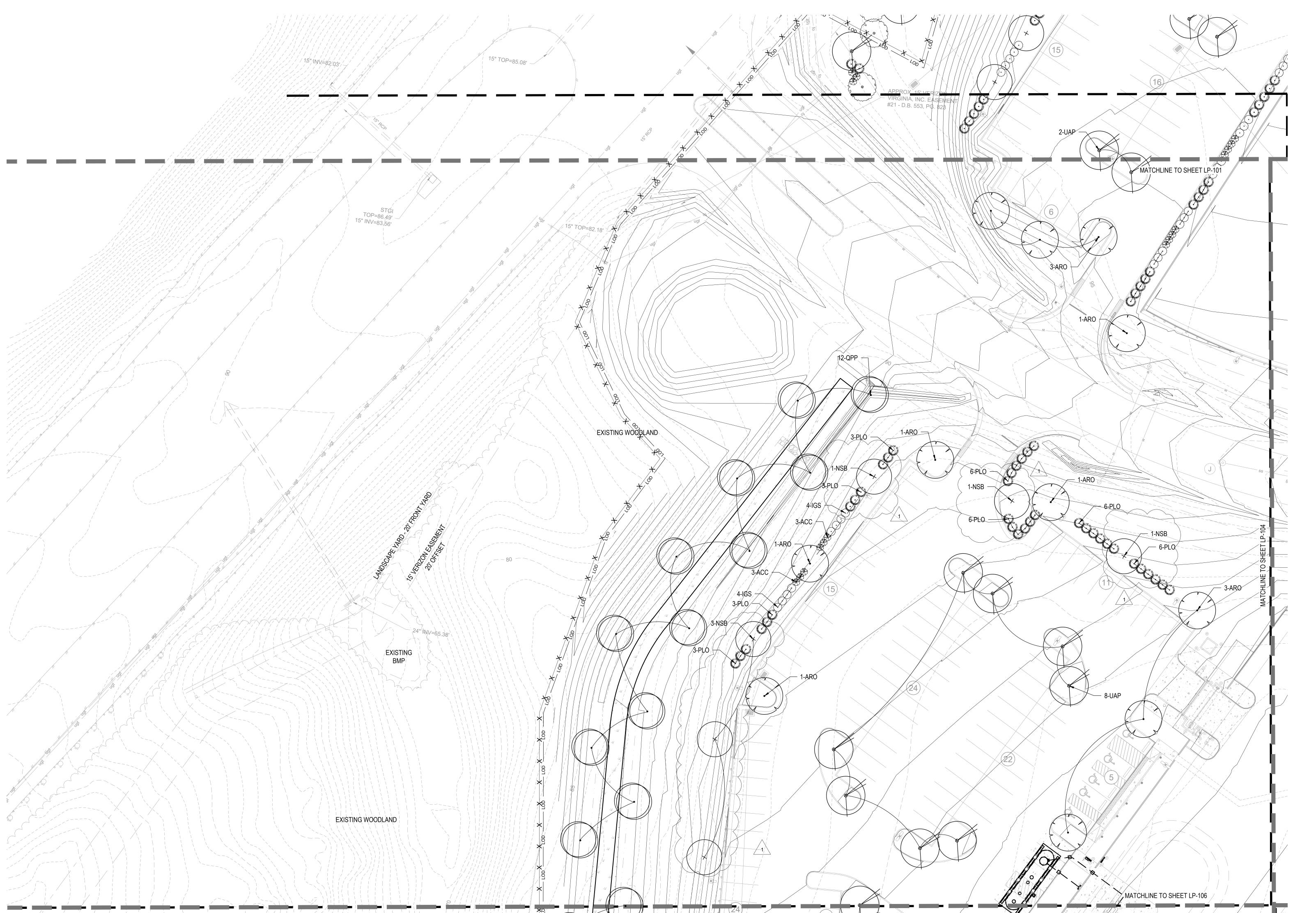
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PLANTING PLAN

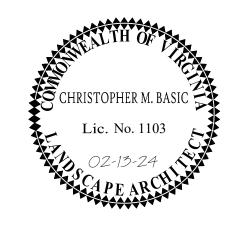






## **Kinley» Horn**© 2024 KIMLEY-HORN AND ASSOCIATES, INC. 4350 NEW TOWN AVENUE, SUITE 101, WILLIAMSBURG, VA 23188 PHONE: 757-565-2306 WWW.KIMLEY-HORN.COM

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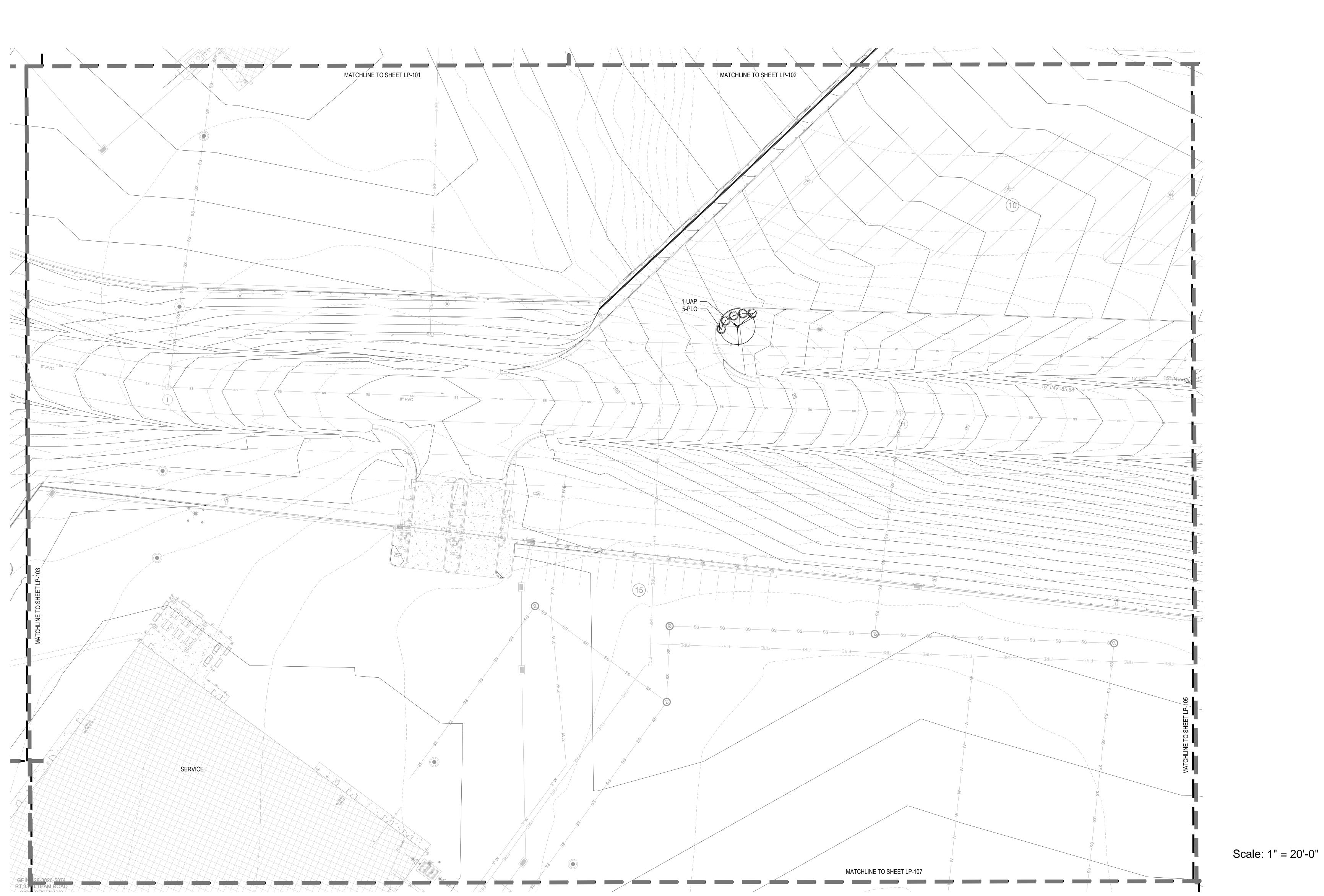


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CARMAX THE AUTO SUPERSTORE
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T2800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
(804)747-0422
SERVICE & CARWASH
STORE NO 4007
16931 BLDG - 1, ELTHAM RD E
NEW KENT CO., VIRGINIA 2308

PROJECT NO. 20-22195.02

DATE 12/20/2023

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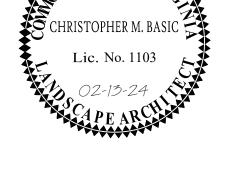
PLANTING PLAN





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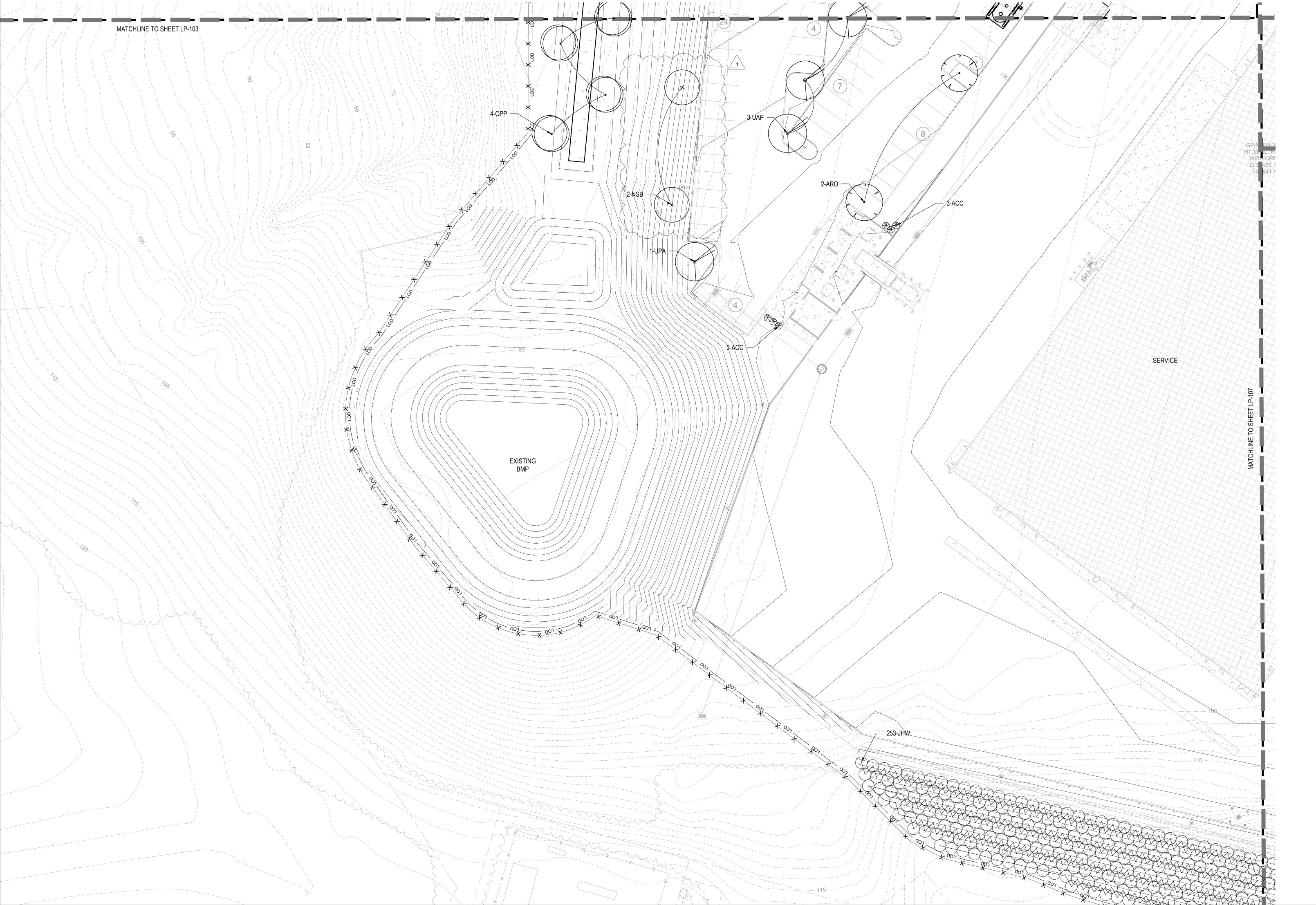
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TUCKAHOE CREEK PKWY. RICHMOND, VA 23238

PROJECT NO.
DATE

NO. 20-22195.02 12/20/2023

PLANTING PLAN







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CKAHOE CREEK PKWY. RICHMOND, VA 23238
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PLANTING PLAN

12/20/2023

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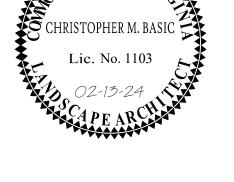


MATCHLINE TO SHEET LP-104



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THE AUTO SUPERSTORE
2800 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
SO4)747-0422
STORE NO 4007

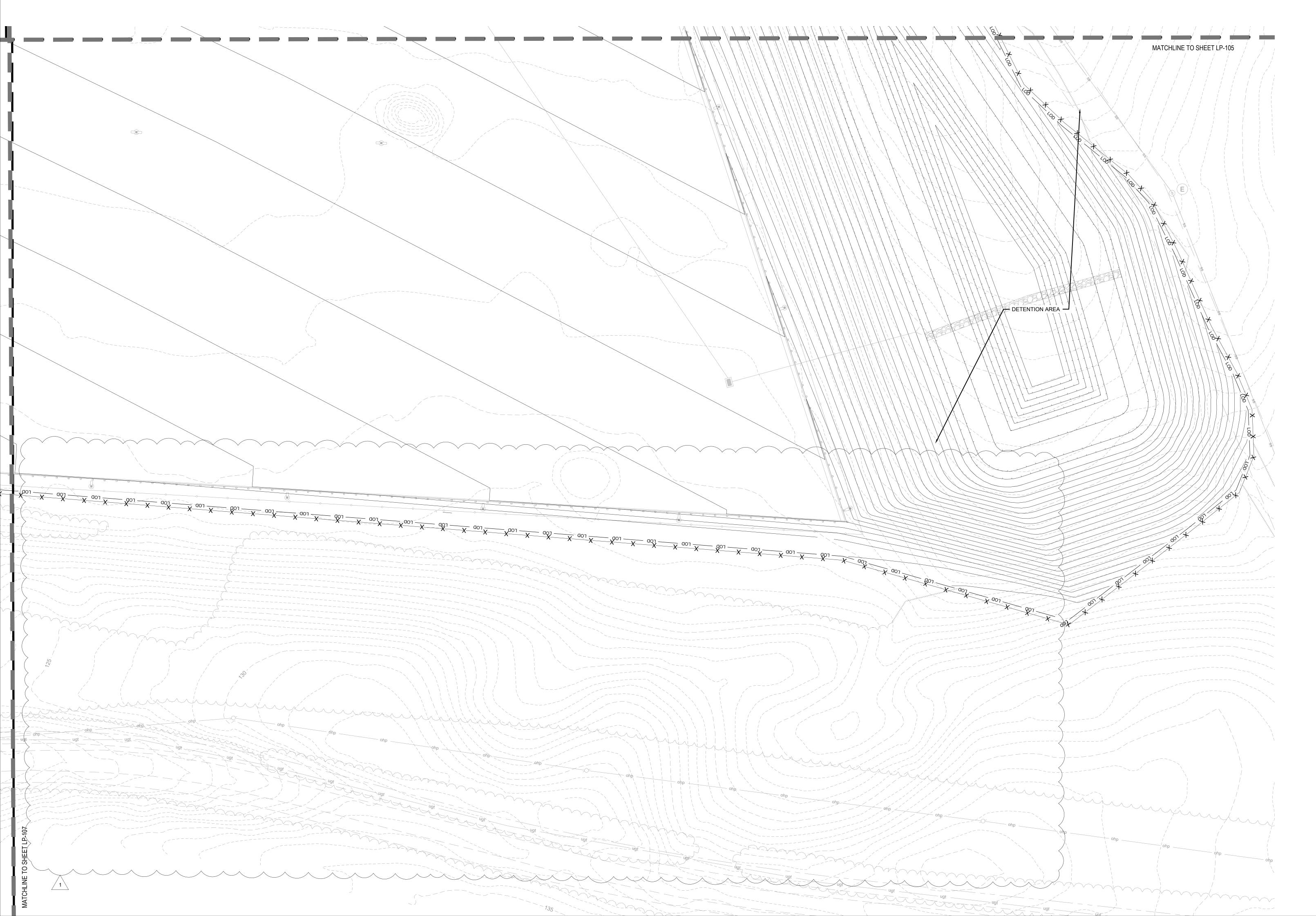
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20-22195.02 12/20/2023

PLANTING PLAN



#### **GENERAL LANDSCAPE NOTES:**

- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING DEPTHS AND AVOIDING CONFLICT WHEN TRENCHING OVER OR ACROSS AREAS WHERE UTILITIES EXIST
- 2. THE CONTRACTOR IS REQUIRED TO CONTACT 'MISS UTILITY' (1-800-552-7001) 48 HOURS PRIOR TO THE COMMENCEMENT OF WORK ON THE SITE. NO WORK IS TO BEGIN UNTIL ALL UTILITIES ARE MARKED. IF UTILITY LINE/TREE CONFLICTS ARE EVIDENT, PLEASE CONTACT LANDSCAPE ARCHITECT.
- 3. VERIFICATION OF THE ACCURACY OF THE TOTAL QUANTITIES SHOWN IN THE MASTER PLANT SCHEDULE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. IN THE EVENT OF DISCREPANCY, THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT PRIOR TO BID. ANY PLANT SUBSTITUTIONS PROPOSED REQUIRE THE APPROVAL OF THE OWNER OR LANDSCAPE ARCHITECT.
- 4. ALL PLANTS SHALL BE NURSERY GROWN, WELL BRANCHED, TRUE TO TYPE SPECIMEN MATERIAL FREE OF INSECT INFESTATION, INJURY, DISEASE OR OTHER DEFECTS. PLANTS ARE TO CONFORM TO STANDARDS SET IN AMERICAN STANDARD FOR NURSERY STOCK AND SHALL MEET OR EXCEED MEASUREMENTS SPECIFIED IN THE PLANT SCHEDULE.
- THE CONTRACTOR SHALL WARRANT ALL NEW PLANTINGS, INCLUDING SEEDING AND SOD, FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. ALL REPLACEMENT PLANTS SHALL CONFORM TO ORIGINAL SPECIFICATIONS. WHEN PLANTING OPERATIONS MUST BE PERFORMED OUTSIDE THE NORMAL PLANTING SEASON FOR THE LOCALITY, THIS WARRANTY MAY BE RENEGOTIATED WITH THE OWNER PRIOR TO PLANTING.
- 6. PLANTING AND BED PREPARATION ARE TO BE CONDUCTED UNDER FAVORABLE WEATHER CONDITIONS. UNDER NO CIRCUMSTANCES SHALL SOIL BE WORKED, DRIVEN OVER, OR WALKED UPON WHILE IN A WET CONDITION.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR REPORTING TO THE OWNER CONDITIONS ON SITE THAT VARY FROM THE PLANS AND THAT EFFECT INSTALLATION.
- 8. PRUNE ONLY BROKEN OR CROSSING BRANCHES. DO NOT THIN TREE CANOPIES.
- 9. CONTRACTOR IS RESPONSIBLE FOR WATERING AND INSECT CONTROL UNTIL THE DATE OF FINAL INSPECTION. REPLANTING, WHEN RESULTING FROM SITE DISTURBANCE BY OTHERS, SHALL BE AT ADDITIONAL AN CHARGE.
- 10. THE WORK AREA IS TO BE KEPT REASONABLY NEAT AND CLEAN AND ALL DEBRIS HAULED AWAY AND DISPOSED OF LEGALLY, OFF SITE, IN A TIMELY MANNER.
- 11. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM ALL WORK IN A MANNER THAT PROTECTS COMPLETED WORK BY OTHERS, SUCH AS CURBS, UTILITIES, STORM DRAINAGE, FENCES, DRIVEWAY APRONS, DRIVES, VEGETATION, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF SATISFACTORY REPAIR OF ALL DAMAGE IN KIND RESULTING FROM HIS FAILURE TO COMPLY.

## LANDSCAPE SPECIFICATIONS:

- 1. PLANT MATERIAL SHALL CONFORM IN SIZE AND GRADE TO AMERICAN STANDARDS FOR NURSERY STOCK. PLANT MATERIALS SHALL BE OF STANDARD QUALITY OF THEIR SPECIES OR VARIETY PLANTS SHALL BE CAREFULLY LABELED AND SIZES NOTED. RIGHT IS RESERVED TO REJECT PLANTS CONSIDERED AS UNSATISFACTORY. REJECTED PLANTS SHALL BE REMOVED FROM SITE PLANTS SHOULD NOT BE PRUNED PRIOR TO DELIVERY. HEADING- BACK PLANTS TO MEET SIZES INDICATED IN DRAWING SCHEDULE WILL NOT BE PERMITTED.
- 2. GRASS SEED / SOD ALL PERMANENT GRASS SEED / SOD SHALL BE LISTED ON THE CURRENT VIRGINIA TURF GRASS VARIETY RECOMMENDATIONS AND BE BLUE TAG CERTIFIED.
- 3. PLANT PIT SOIL MIX
  - A. POTTING SOIL B. FERTILIZER
  - 1.  $\frac{1}{4}$  TOP SOIL 1. 10-6-4 AT 5 POUNDS PER 100 S.F. OF BED AREA
  - 2. ½ NATIVE SOIL
  - 3.  $\frac{1}{4}$  LEAF LITTER AND COMPOST

## 4. PLANTS AND TREES

- A. CONTRACTOR SHALL STAKE THE LOCATION OF EACH TREE AND SHRUB IN ACCORDANCE WITH THE LOCATIONS SHOWN ON THE DRAWING. STAKING AND LAYOUT SHALL BE DONE SUFFICIENTLY IN ADVANCE OF PLANTING OPERATION TO PERMIT THE CONTRACTING OFFICER TO CHECK, REVISE IF DESIRED, AND APPROVE THE LOCATIONS BEFORE DIGGING OPERATIONS BEGIN.
- B. EXCAVATE PLANTING BEDS AND POCKETS TO A DEPTH REQUIRED FOR PLANTING. AT LEAST  $\frac{2}{3}$  OF BALL BELOW FINISHED GRADE.
- C. REMOVE THE BURLAP, TWINE, AND WIRE BASKETS FROM THE TOP  $\frac{1}{2}$  OF ALL B&B ROOT BALLS. NO PLASTIC TWINE OR BURLAP SHALL BE PERMITTED ON B&B PLANTS. PLANTING PITS SHALL BE THE SAME DEPTH AS ROOT BALLS.
- D. ANY ROCK OR OTHER UNDERGROUND OBSTRUCTION SHALL BE REMOVED TO DEPTH NECESSARY TO PERMIT PLANTING ACCORDING TO SPECIFICATION.
- E. PLANTS SHALL BE TREATED AT THE TIME OF PLANTING WITH ANTI- DESICCANT AS SPECIFIED IN FULL ACCORDANCE WITH THE DIRECTIONS FURNISHED BY THE MANUFACTURER.
- F. IN GENERAL, CONTRACTOR SHALL THOROUGHLY WATER ALL PLANTED AREAS AFTER PITS BEFORE PLANTING. CONTRACTOR SHALL MAKE NECESSARY ARRANGEMENTS IN ADVANCE OF START OF WORK TO INSURE THAT AN ADEQUATE SUPPLY OF WATER AND
- PLANTING AND IN DRY WEATHER. USE ENOUGH WATER TO THOROUGHLY SOAK ALL TREE WATERING EQUIPMENT ARE AVAILABLE WHEN REQUIRED.

## 5. MULCHING

A. MULCH TOP OF ROOT BALL AND SAUCER WITHIN 48 HOURS TO A MINIMUM DEPTH OF 2" AND TO A DEPTH NOT TO EXCEED 3'.

## LANDSCAPE SPECIFICATIONS (CONT.):

- B. ALL SHADE AND FLOWERING TREES SHALL BE MULCHED WITH 3 INCHES THICK (SETTLED AND COVERING AN AREA TWELVE INCHES GREATER THAN THE DIAMETER OF PIT.
- C. ALL PLANTINGS ARE TO BE PROVIDED WITH A 3" DEPTH OF SHREDDED HARDWOOD BARK MULCH (2" DEPTH IN GROUND COVER AREAS). MULCH TO BED LINES WHERE SHOWN. HEDGES ARE TO BE MULCHED AS CONTINUOUS BEDS OF THE WIDTH SHOWN ON PLAN (PLANTS ARE NOT TO BE MULCHED INDIVIDUALLY). TREES SHALL BE MULCHED WITHIN A MINIMUM THREE (3) FOOT RADIUS OF EACH TRUNK. REMULCH EXISTING PLANTINGS. NO MULCH IS TO BE PLACED IN PLANT CROWNS OR AGAINST TREE TRUNKS.

#### 6. GUYING AND STAKING

- A. ALL TREES 2 1/2" IN CALIPER OR OVER, SHALL BE STAKED. ALL TREES LESS THAN 2 1/2" CALIPER SHALL BE STAKED BY USING 2 BRACING STAKES EQUALLY SPACED ABOUT THE TREE AT LEAST 12" FROM THE TRUNK AND IN THE CASE OF B&B TREES AT LEAST 6" OUTSIDE THE PERIMETER OF THE ROOT BALL.
- B. ALL STREET TREES ARE TO BE STAKED PLACING THE STAKES PARALLEL TO THE SIDEWALK AS NOT TO CONFLICT WITH PEDESTRIAN MOVEMENTS.
- C. GUYING SHALL BE DONE PURSUANT TO THE DETAIL SHOWN. WIRE GUYING AND HOSE APPLICATIONS ARE NOT PERMITTED.

#### 7. PLANT MAINTENANCE

- A. MAINTENANCE SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS PLANTED AND SHALL CONTINUE FOR 12 MONTHS AFTER THE LAST PLANT HAS BEEN INSTALLED.
- B. ALL PLANTS SHALL BE KEPT IN A GROWING, HEALTHY CONDITION BY WATERING, PRUNING SHEARING, SPRAYING, TIGHTENING OF GUYS, STRAIGHTENING OF PLANTS WHICH LEAN OR SAG. LIFTING PLANTS WHICH DEVELOP MORE THAN NORMAL SETTLEMENT. WEEDING. AND BY ANY OTHER NECESSARY OPERATION OF MAINTENANCE. KEEP ALL PLANTING AREAS FREE OF WEEDS AND UNDESIRABLE GRASSES.
- C. DURING THE MAINTENANCE PERIOD, PLANTS IN AN UNHEALTHY OR BADLY IMPAIRED CONDITION SHALL BE REMOVED AND REPLACED IMMEDIATELY USING SPECIFIED MATERIAL
- D. WATERING ALL PLANTS SHALL BE WATERED IMMEDIATELY AFTER PLANTING UNTIL THE SOIL IS SATURATED. PLANTS SHALL BE WATERED A MINIMUM OF EVERY TWO WEEKS. SHOULD THE SOILS DRY, UNTIL ACCEPTANCE BY THE OWNER, DURING DRY CONDITIONS WATER AS REQUIRED TO MAINTAIN PLANTS IN A WILT FREE CONDITION.

## ACCEPTANCE AND GUARANTEE

A. ANY PLANT REQUIRED UNDER THIS CONTRACT THAT IS DEAD OR WITHOUT SATISFACTORY GROWTH, AS DETERMINED BY THE CONTRACTING OFFICER. SHALL BE REMOVED AND REPLACED BY THE NEXT SPECIFIED PLANTING SEASON. ANY REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED AND REPLANTED IN THE SAME LOCATION FROM WHICH THE DEAD PLANT WAS REMOVED AND SHALL BE REPLACED AT NO ADDITIONAL

CODE PLANTING T	TABLE					
		SITE PEI	RIMETER BUFFER REQUIREM	ENTS		
TRANSITIONAL BUF				1		
	REQUIRED LF	CODE REQUIREMENT	CALCULATION	PLANT TYPE	QTY. REQUIRED	QTY. PROVIDED
75' TYPE C		Buffer screening type C shall	0 / 15 = 0	3 3	0	
	EXISTING LF	consist of a minimum 75-foot-wide	Quantity Multiplier = 0		0	
		visual buffer that shall average		Small Deciduous, Ornamental,	0	(
		one large evergreen tree plus two		or Evergreen Tree		
	0.00	medium evergreen trees plus				
		three small deciduous,				
		ornamental, or evergreen trees for				
		every 15 linear feet.				
LANDSCAPE YARD	t e					
LOCATION	REQUIRED LF	CODE REQUIREMENT	CALCULATION	PLANT TYPE	QTY. REQUIRED	QTY. PROVIDED
FRONT YARD	1,184.47	Yard Width: 20';	108.86 x 20 = 2,177.2 SF	Tree	5	Ę
	EXISTING LF	1 Tree per 500 sq. ft.;	2,177.2 / 500 = 4.35	Shrub	5	
	1,075.61	1 shrub per 500 sq. ft.	Quantity Multiplier = 5			
	LF TO PLANT					
	108.86					
			PARKING AREA			
WHOLESALE PARKI	ING					
		CODE REQUIREMENT	CALCULATION	PLANT TYPE	QTY. REQUIRED	QTY. PROVIDED
		2 Trees per 10 Spaces;	140 / 10 = 14	St	28	
		4 Shrubs per 10 Spaces	Quantity Multiplier = 14		56	
SERVICE PARKING		- Common por Company	Canada Antara Para	3		
	TOTAL SPACES	CODE REQUIREMENT	CALCULATION	PLANT TYPE	QTY. REQUIRED	QTY. PROVIDED
		2 Trees per 10 Spaces;	132 / 10 = 13.2		28	
		4 Shrubs per 10 Spaces	Quantity Multiplier = 14		56	
GATE HOUSE PARK		Tomaso per 10 opases	Quantity Manupiler 14	Onido		30
		CODE REQUIREMENT	CALCULATION	PLANT TYPE	QTY. REQUIRED	QTY. PROVIDED
	Secretary and the second secon	2 Trees per 10 Spaces;	10 / 10 = 1		2	
	10	4 Shrubs per 10 Spaces	Quantity Multiplier = 1	150 600000		

VNI∪D.	Y TREES					
Code	Botanical Name	Common Name	Quantity	Min. Size	Cont.	Notes
ARO	Acer rubrum 'October Glory'	October Glory' Maple 1	22	10' ht./2.25" cal.	B&B	
NSB	Nyssa sylvatica 'JFS-red'	Firestarter Tupelo	16	10' ht./2.25" cal.	B&B	
UAP	Ulmus americana 'Princeton'	Princeton' Elm	24	10' ht./2.25" cal.	B&B	
		Subtotal	62			
ORNAM	IENTAL TREES				·	
Code	Botanical Name	Common Name	Quantity	Min. Size	Cont.	Notes
CCN	Carpinus caroliniana 'Native Flame'	Native Flame' American Hornbean	3	8' ht./1.75" cal.	B&B	
		Subtotal	3			
SHRUB	S	•			•	
Code	Botanical Name	Common Name	Quantity	Min. Size	Cont.	Notes
ACC	Abelia x 'Canyon Creek'	Canyon Creek' Abelia	27	18" spread	#3	
IGS	llex glabra 'Shamrock'	Shamrock' Inkberry	34	18" spread	#3	
PLO	Prunus laurocerasus 'Otto Luyken'	Otto Luyken' Laurel	75	18" spread	#3	
		Subtotal	136			
SHRUB	S				·	
Code	Botanical Name	Common Name	Quantity	Min. Size	Cont.	Notes
JHW	Juniperus horizontalis 'Wiltonii'	Creeping Juniper	359	6' o.c.	#3	

560

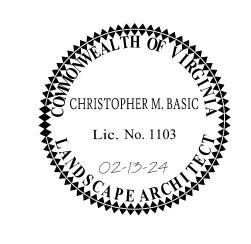
Plant Total



## 4350 NEW TOWN AVENUE, SUITE 101, WILLIAMSBURG, VA 23188

PHONE: 757-565-2306 WWW.KIMLEY-HORN.COM

**BID SET** 02/12/2024 SERVICE **CARWASH** 



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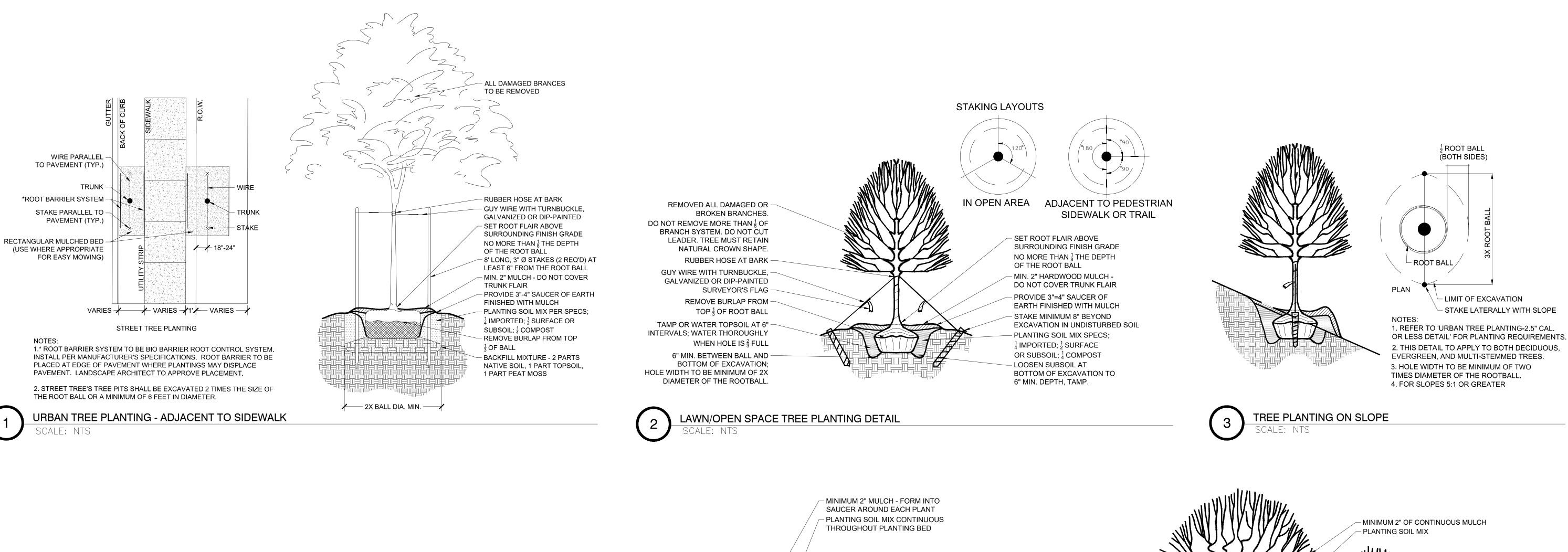
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PLANTING PLAN

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- 3" MULCH

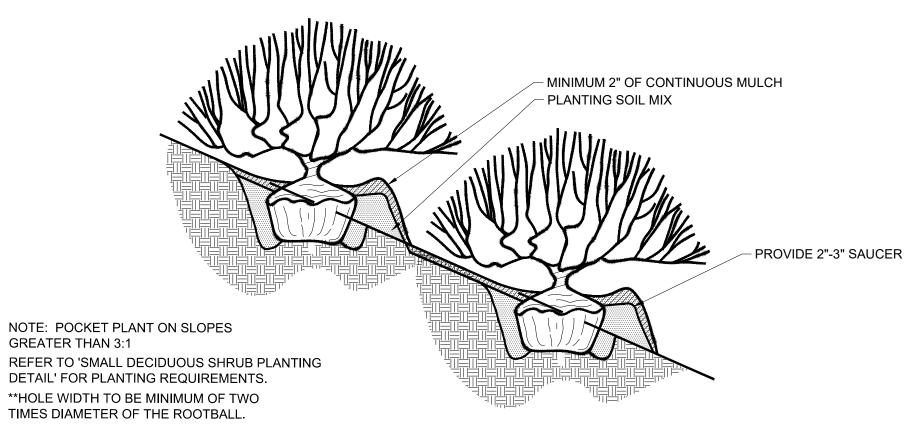
- 3" EARTH BERM TO

- LOOSEN SUBSOIL AT

6" MIN. DEPTH, TAMP.

BOTTOM OF EXCAVATION TO

FORM SAUCER





REMOVE BURLAP FROM -

TAMP OR WATER TOPSOIL AT 6" -

INTERVALS; WATER THOROUGHLY

HOLE WIDTH TO BE MINIMUM OF 2X

DIAMETER OF THE ROOTBALL.

TOP  $\frac{1}{3}$  OF ROOT BALL

WHEN HOLE IS  $\frac{2}{3}$  FULL

6" MIN. BETWEEN BALL AND -

BOTTOM OF EXCAVATION;

SMALL EVERGREEN SHRUB PLANTING

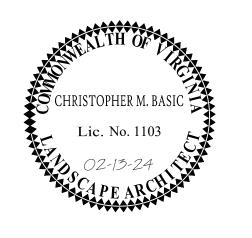




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PHONE: 757-565-2306 WWW.KIMLEY-HORN.COM

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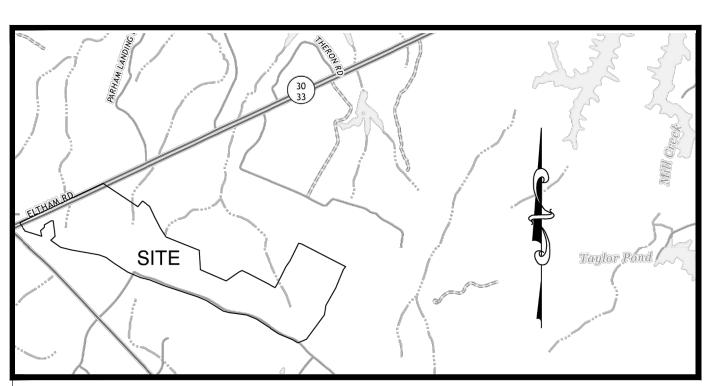
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PROJECT NO.

20-22195.02 12/20/2023

PLANTING DETAILS





**VICINITY MAP** SCALE: 1"=2,000'

#### SURVEYOR'S CERTIFICATE

DATED: <u>06/01/2023</u>

TO CENTERPOINT INTEGRATED SOLUTIONS LLC, CARMAX, AND THE FIRST AMERICAN TITLE INSURANCE COMPANY NATIONAL COMMERCIAL SERVICES:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE "MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS," JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS IN 2021. AND INCLUDES ITEMS 1-5. 6(A), 6(B), 7(A), 7(B)(1), 8, 9, 11(A), 1(B), 13, 14, 16-20 OF TABLE A, THEREOF. THE FIELD WORK WAS PERFORMED BETWEEN 01/16/2023 AND 03/09/2023.

Bay M. Brown	
BARRY M. BROWN	REGISTRATION NO. [3108]

1.) SOURCE OF MERIDIAN: NAD83 BASED UPON GPS OBSERVATION BY TRC ENGINEERS, INC. ON 01/16/2023. 2.) VERTICAL DATUM: NAVD88 BASED UPON GPS OBSERVATION BY TRC ENGINEERS, INC. ON 01/16/2023. 3.) UTILITIES SHOWN ARE BASED UPON:

X SUE QUALITY LEVEL B, ASCE 38-02 - FIELD DESIGNATION OF UNDERGROUND UTILITIES PERFORMED BY TRC ENGINEERS, INC. AND VISIBLE EVIDENCE IN CONJUNCTION WITH COMPILED RECORDS. 4.) THIS ALTA/NSPS LAND TITLE SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF BARRY M. BROWN L.S., FROM AN AERIAL TOPOGRAPHIC SURVEY PERFORMED BY KUCERA INTERNATIONAL INC. ON 02/17/2023 AND AUGMENTED WITH ITEMS FIELD LOCATED BY TRC ENGINEERS, INC. BETWEEN 01/16/2023 AND 03/09/2023, INCLUDING UTILITIES, RIM AND INVERT ELEVATIONS OF SANITARY AND STORM, MONUMENTS, ETC.

5.) THIS AERIAL TOPOGRAPHIC SURVEY WAS PERFORMED FOR THE PURPOSE OF DEPICTING TOPOGRAPHY. THIS SURVEY MEETS 18VAC10-20-382 CONTOUR ACCURACY STANDARDS AND MAY NOT DEPICT ALL PHYSICAL IMPROVEMENTS ON THE PROPERTY. 6.) CONTOUR INTERVAL: 1'.

7.) THE PROPERTY SHOWN HEREON IS LOCATED IN FLOOD ZONE X BASED ON A SCALED LOCATION ON FIRM PANEL #51127C0140D EFFECTIVE DATE 10/21/2021 AND FIRM PANEL #51127C0250D EFFECTIVE DATE 10/21/2021. THIS FLOOD DETERMINATION IS NOT A RECOMMENDATION BY TRC ENGINEERS, INC. TO NOT PURCHASE OR PURCHASE FLOOD INSURANCE COVERAGE AND DOES NOT IMPLY THAT THE REFERENCED PROPERTY WILL OR WILL NOT BE FREE FROM FLOOD DAMAGE. 8.) CURRENT ZONING: INDUSTRIAL (IND)

THE FOLLOWING RESTRICTIONS ARE PER THE CURRENT ZONING ORDINANCE AND ARE NOT INTENDED TO BE RESTRICTIVE COVENANTS RUNNING WITH THE LAND. MAXIMUM HEIGHT -

70' FRONT SETBACK LINES -0' SIDE 30' REAR

9.) DUE TO NATURAL CAUSES, BOUNDARY LINES ALONG NATURAL WATER BOUNDARIES ARE SUBJECT TO CHANGE AND THE BOUNDARY AS SHOWN MAY OR MAY NOT REPRESENT THE ACTUAL LOCATION OF THE LIMIT OF TITLE.

10.) WETLANDS INFORMATION WAS PROVIDED BY TERRACON. THE INFORMATION DEPICTED ON THIS FIGURE IS FOR INFORMATIONAL PURPOSES ONLY AND WAS NOT PREPARED FOR, AND IS NOT SUITABLE FOR, LEGAL OR ENGINEERING PURPOSES.

SCHEDULE B EXCEPTIONS:

THIS SURVEY WAS PREPARED IN CONJUNCTION WITH TITLE INSURANCE COMMITMENT NO. NCS-1160230-CHI2, DATED 12/27/2022, ISSUED BY FIRST AMERICAN TITLE COMPANY NATIONAL COMMERCIAL SERVICES. THE PROPERTY IS SUBJECT TO THE FOLLOWING EASEMENTS AND RIGHTS OF INGRESS AND EGRESS, DESIGNATED IN BRACKETS WITH THE CORRESPONDING NUMBER IN SCHEDULE B, PART II OF THE ABOVE REFERENCED COMMITMENT.

## **EXCEPTIONS:**

ITEMS 1-3, 20, AND 28 ARE NOT SURVEY MATTERS AND ARE NOT ADDRESSED ON THE FACE OF THE PLAT

4.) VIRGINIA ELECTRIC AND POWER COMPANY EASEMENT: D.B. 30, PG. 152; NON-LOCATABLE BASED UPON DOCUMENTATION PROVIDED.

5.) VIRGINIA ELECTRIC AND POWER COMPANY EASEMENT: D.B. 34, PG. 101; SHOWN ON PLAT. 6.) VIRGINIA ELECTRIC AND POWER COMPANY EASEMENT: D.B. 34, PG. 113; SHOWN ON PLAT.

7.) NEW KENT COUNTY EASEMENT: D.B. 35, PG. 438; LAND CONVEYANCE ALONG EAST SIDE OF PROPOSED ROUTE 33 (DATED 1949). NON-LOCATABLE BASED UPON DOCUMENTATION PROVIDED.

8.) VIRGINIA ELECTRIC AND POWER COMPANY EASEMENT: D.B. 38, PG. 346; SHOWN ON PLAT. 9.) VIRGINIA ELECTRIC AND POWER COMPANY EASEMENT: D.B. 39, PG. 60; SHOWN ON PLAT

10). COMMONWEALTH OF VIRGINIA EASEMENT: D.B. 46, PG. 194; SHOWN ON PLAT.

11.) COMMONWEALTH OF VIRGINIA EASEMENT: D.B. 46, PG. 334; SHOWN ON PLAT 12.) CERTIFICATE OF TAKE GRANTED TO THE STATE HIGHWAY COMMISSIONER OF VIRGINIA: D.B. 48, PG. 13 AND S.H.P.B. 1, PGS. 163-163H; AS

AMENDED BY ORDER OF CERTIFICATE RECORDED IN D.B. 48, PG. 373 AND S.H.P.B. 1, PGS. 181-189; AND CONFIRMED BY ORDER RECORDED IN D.B. 48, PG. 465; SHOWN ON PLAT.

13.) VIRGINIA ELECTRIC AND POWER COMPANY EASEMENT: D.B. 52, PG. 112; NON-LOCATABLE BASED UPON DOCUMENTATION PROVIDED. 14.) VIRGINIA ELECTRIC AND POWER COMPANY EASEMENT: D.B. 52, PG. 179; NON-LOCATABLE BASED UPON DOCUMENTATION PROVIDED.

15.) VIRGINIA ELECTRIC AND POWER COMPANY EASEMENT: D.B. 52, PG. 195; NON-LOCATABLE BASED UPON DOCUMENTATION PROVIDED.

16.) VIRGINIA ELECTRIC AND POWER COMPANY EASEMENT: D.B. 218, PG. 13; SHOWN ON PLAT

17.) VIRGINIA ELECTRIC AND POWER COMPANY EASEMENT: D.B. 218, PG. 18; SHOWN ON PLAT 18.) BOARD OF SUPERVISORS OF NEW KENT COUNTY, VIRGINIA EASEMENT: D.B. 221, PG. 520 AND CORRECTED IN D.B. 234, PG. 87; APPROX.

LOCATION SHOWN ON PLAT.

19.) BELL ATLANTIC - VIRGINIA, INC. EASEMENT: D.B. 227, PG. 734; NON-LOCATABLE BASED UPON DOCUMENTATION PROVIDED. 21.) VERIZON VIRGINIA, INC. EASEMENT: D.B. 553, PG. 823; APPROX. LOCATION SHOWN ON PLAT.

22.) MEMORANDUM OF COMMUNICATIONS SITE LEASE AGREEMENT: D.B. 587, PG. 298; SHOWN ON PLAT

23.) VIRGINIA NATURAL GAS, INC. EASEMENT: D.B. 609, PG. 243; SHOWN ON PLAT. 24.) MEMORANDUM OF ANTENNA SITE AGREEMENT: D.B. 630, PG. 1380; SHOWN ON PLAT.

25.) MATTERS SHOWN ON PLAT: P.B. 16, PG. 35; SHOWN ON PLAT. 26.) MATTERS SHOWN ON PLAT: P.B. 17. PG. 37: SHOWN ON PLAT

27.) MATTERS SHOWN ON PLAT: P.B. 19, PG. 108; SHOWN ON PLAT

	LINE TABL	E
LINE	BEARING	DISTANCE
L1	N 70°38'17" E	303.86'
L2	N 63°51'11" E	200.57'
L3	N 58°06'57" E	288.57'
L4	N 83°50'29" E	93.54'
L5	N 54°34'11" E	192.57'
L6	N 63°50'00" E	299.14'
L7	N 67°25'46" E	252.10'
L8	N 57°48'40" E	150.47'
<u></u>	N 63°51'30" E	103.66'
L10	S 57°03'14" E	767.75'
L11	N 32°51'55" E	158.23'
L12	S 55°03'41" E	_
		178.49
L13	S 24°08'58" E	319.15
L14	S 30°09'13" E	341.51'
L15	S 46°50'30" E	67.00'
L16	S 67°24'34" E	728.41'
L17	S 04°41'17" E	394.22'
L18	S 66°24'26" E	613.70'
L19	N 51°37'46" E	395.05'
L20	S 62°31'51" E	800.62'
L21	N 27°39'35" E	1062.91
L22	S 63°33'41" E	1051.54'
L23	S 36°44'22" W	50.17'
L24	S 22°23'52" W	258.37'
L25	S 19°31'44" W	163.67'
L26	S 27°24'30" W	82.59'
L27	S 27°21'16" W	63.30'
L28	S 33°52'02" W	12.76'
L29	S 33°52'02" W	113.91'
L30	S 25°04'40" W	151.29'
L31	S 07°01'48" W	193.89'
L32	S 33°30'40" W	184.57'
L33	S 39°06'41" W	421.92'
L34	S 55°59'02" W	105.23'
L35	S 84°31'58" W	115.68'
	N 69°47'53" W	138.42'
L36		_
L37	N 55°46'24" W	290.40'
L38	N 83°10'59" W	118.05'
L39	N 57°42'49" W	262.48'
L40	N 72°42'17" W	760.27'
L41	N 66°20'16" W	163.10'
L42	N 80°25'52" W	34.68'
L43	N 63°58'22" W	127.22'
L44	N 61°48'20" W	14.54'
L45	S 27°21'42" W	5.00'
L46	N 61°48'20" W	255.79
L47	N 52°42'17" W	51.06
L48	N 80°12'26" W	518.64'
L49	N 64°43'06" W	12.50'
L50	N 52°23'53" W	100.98'
L51	N 63°25'47" W	80.06'
L52	N 49°22'49" E	111.65'
L53	N 10°45'31" W	352.73'
L54	N 70°47'34" W	46.91'
L55	S 57°19'54" W	208.42'
L55 L56	S 32°40'06" E	42.00'
	S 57°19'54" W	
L57		86.11'
L58	S 32°40'06" E	13.42'
L59	N 63°25'47" W	10.10'
L60	N 72°04'22" W	171.83'
L61	N 17°02'08" E	5.02'

LINE TABLE

*			CURVE TABLE		
CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD LENGTH	CHORD BEARING
C1	420.00'	101.49'	13°50'41"	101.24'	N 62°52'33" W
C2	955.40'	243.70'	14°36'53"	243.04'	N 62°47'08" W
23	1160.55'	555.20'	27°24'36"	549.92'	N 69°28'42" W
C4	798.59'	355.00'	25°28'10"	352.08'	N 70°26'54" W
C5	388.47'	101.64'	14°59'27"	101.35'	N 65°12'35" W
26	1154.12'	128.25'	6°22'00"	128.18'	N 69°31'17" W
<b>C7</b>	851.96'	209.56'	14°05'35"	209.03'	N 73°23'03" W
<u> </u>	440.18'	134.73'	17°32'11"	134.20'	N 71°39'47" W
C9	1477.97'	234.76'	9°06'03"	234.51'	N 57°15'19" W
C10	532.88'	255.79'	27°30'10"	253.34'	N 66°27'21" W
C11	1980.00'	226.59'	6°33'25"	226.47'	N 76°55'44" W

**SEWER TABLE** 

12" INV IN=44.20' (S)

12" INV IN=58.88' (SE)

STRUCTURE FULL

12" INV IN=69.35' (SE)

12" INV IN=87.87' (SE)

12" INV OUT=67.35' (NW)

12" INV OUT=86.84' (NW)

12" INV IN=114.18' (SW)

8" INV IN=73.92' (NW)

8" INV OUT=73.70' (E)

8" INV IN=82.21' (NW)

8" INV OUT=82.15' (SE)

8" INV IN=88.33' (NW)

8" INV OUT=82.24' (SE)

8" INV OUT=89.18' (SE)

12" INV OUT=113.75' (NW)

12" INV OUT=58.61' (N)

RIM=68.41'

RIM=76.32'

OF WATER

RIM=76.23'

RIM=81.57'

RIM=92.10'

RIM=99.26'

12" INV OUT=42.85' (N)

## LEGEND

N 69°11'00" W

S 12°19'54" W

	LLGLINE	,	
	PROPERTY LINE	$\bigcirc$	TELEPHONE PEDESTAL
	CONTOUR	T	TELEPHONE MANHOLE
ohp	OVERHEAD POWER		TELEPHONE BOX
—— ss ——⊙—— ss ——	SANITARY SEWER AND MANHOLE	<b>-</b>	FIRE HYDRANT
	STORM LINE AND MANHOLE	$\otimes$	WATER VALVE
	STORM LINE AND INLET	$\Theta$	WATER METER
uge	UNDERGROUND ELECTRIC	4	ELECTRIC BOX
ugt	UNDERGROUND TELEPHONE	<b>(E)</b>	ELECTRIC MARKER
w	WATERLINE	E	ELECTRICAL MANHOLE
	ASPHALT	Ø	UTILITY POLE
7///////	BUILDING	Ε	ELECTRIC HANDHOLE
xx	FENCE		LIGHT POLE
	EDGE OF WATER	$\bigstar$	BENCHMARK
	EDGE OF GRAVEL	$\odot$	ROD FOUND
	TREELINE		MONUMENT FOUND
>	GUY WIRE	<del>-</del> o-	SIGN (1-POST)
		-0-0	SIGN (2-POST)

### DESCRIPTION OF PARCEL

ALL OF THOSE LOTS OR PARCELS OF LAND LOCATED IN NEW KENT COUNTY, VIRGINIA, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A MONUMENT FOUND AT THE INTERSECTION OF THE SOUTHERN RIGHT OF WAY OF ELTHAM ROAD AND THE NORTHERN EDGE OF OLD ROUTE 634; THENCE, CONTINUING ALONG THE SOUTHERN RIGHT OF WAY OF ELTHAM ROAD NORTH 70°38'17" EAST A DISTANCE OF 303.86 FEET TO A MONUMENT FOUND; THENCE, NORTH 63°51'11" EAST A DISTANCE OF 200.57 FEET TO A MONUMENT FOUND; THENCE, NORTH 58°06'57" EAST A DISTANCE OF 288.57 FEET TO A BROKEN MONUMENT FOUND: THENCE, NORTH 83°50'29" EAST A DISTANCE OF 93.54 FEET TO A POINT: THENCE, NORTH 54°34'11" EAST A DISTANCE OF 192.57 FEET TO A POINT: THENCE, NORTH 63°50'00" EAST A DISTANCE OF 299.14 FEET TO A MONUMENT FOUND; THENCE, NORTH 67°25'46" EAST A DISTANCE OF 252.10 FEET TO A MONUMENT FOUND; THENCE, NORTH 57°48'40" EAST A DISTANCE OF 150.47 FEET TO A MONUMENT FOUND; THENCE, NORTH 63°51'30" EAST A DISTANCE OF 103.66 FEET TO A ROD FOUND: THENCE, DEPARTING THE SOUTHERN RIGHT OF WAY OF ELTHAM ROAD SOUTH 57°03'14" EAST A DISTANCE OF 767.75 FEET TO A ROD FOUND; THENCE, NORTH 32°51'55" EAST A DISTANCE OF 158.23 FEET TO A ROD FOUND; THENCE, SOUTH 55°03'41" EAST A DISTANCE OF 178.49 FEET TO A ROD FOUND; THENCE, SOUTH 24°08'58" EAST A DISTANCE OF 319.15 FEET TO A POINT; THENCE, SOUTH 30°09'13" EAST A DISTANCE OF 341.51 FEET TO A ROD FOUND; THENCE, SOUTH 46°50'30" EAST A DISTANCE OF 67.00 FEET TO A ROD FOUND; THENCE, SOUTH 67°24'34" EAST A DISTANCE OF 728.41 FEET TO A ROD FOUND: THENCE, SOUTH 04°41'17" EAST A DISTANCE OF 394.22 FEET TO A ROD FOUND; THENCE, SOUTH 66°24'26" EAST A DISTANCE OF 613.70 FEET TO A POINT; THENCE, NORTH 51°37'46" EAST A DISTANCE OF 395.05 FEET TO A POINT; THENCE, SOUTH 62°31'51" EAST A DISTANCE OF 800.62 FEET TO A POINT; THENCE, NORTH 27°39'35" EAST A DISTANCE OF 1062.91 FEET TO A ROD FOUND; THENCE, SOUTH 63°33'41" EAST A DISTANCE OF 1051.54 FEET TO A ROD FOUND AT THE APPROXIMATE CENTERLINE OF AN ANCIENT WOODS ROAD; THENCE, CONTINUING ALONG THE APPROXIMATE CENTERLINE OF SAID ANCIENT WOODS ROAD SOUTH 36°44'22" WEST A DISTANCE OF 50.17 FEET TO A ROD FOUND; THENCE, SOUTH 22°23'52" WEST A DISTANCE OF 258.37 FEET TO A ROD FOUND; THENCE, SOUTH 19°31'44" WEST A DISTANCE OF 163.67 FEET TO A POINT; THENCE, SOUTH 27°24'30" WEST A DISTANCE OF 82.59 FEET TO A POINT; THENCE, SOUTH 27°21'16" WEST A DISTANCE OF 63.30 FEET TO A ROD FOUND; THENCE, SOUTH 33°52'02" WEST A DISTANCE OF 12.76 FEET TO A ROD FOUND; THENCE, SOUTH 33°52'02" WEST A DISTANCE OF 113.91 FEET TO A ROD FOUND; THENCE, SOUTH 25°04'40" WEST A DISTANCE OF 151.29 FEET TO A POINT; THENCE, SOUTH 07°01'48" WEST A DISTANCE OF 193.89 FEET TO A POINT; THENCE, SOUTH 33°30'40" WEST A DISTANCE OF 184.57 FEET TO A T-BAR FOUND; THENCE, SOUTH 39°06'41" WEST A DISTANCE OF 421.92 FEET TO A T-BAR FOUND; THENCE, SOUTH 55°59'02" WEST A DISTANCE OF 105.23 FEET TO A PIPE FOUND; THENCE, SOUTH 84°31'58" WEST A DISTANCE OF 115.68 FEET TO A BENT PIPE FOUND ON THE NORTHERN RIGHT OF WAY OF POLISH TOWN ROAD; THENCE, CONTINUING ALONG THE NORTHERN RIGHT OF WAY OF POLISH TOWN ROAD WITH A CURVE TO THE LEFT WITH AN ARC LENGTH OF 101.49', A RADIUS OF 420.00', A DELTA ANGLE OF 13°50'41", A CHORD BEARING OF NORTH 62°52'33" WEST, AND A CHORD LENGTH OF 101.24' TO A POINT; THENCE, NORTH 69°47'53" WEST A DISTANCE OF 138.42 FEET TO A POINT; THENCE, WITH A CURVE TO THE RIGHT WITH AN ARC LENGTH OF 243.70', A RADIUS OF 955.40', A DELTA ANGLE OF 14°36'53", A CHORD BEARING OF NORTH 62°47'08" WEST, AND A CHORD LENGTH OF 243.04' TO A POINT; THENCE, NORTH 55°46'24" WEST A DISTANCE OF 290.40 FEET TO A POINT; THENCE, WITH A CURVE TO THE LEFT WITH AN ARC LENGTH OF 555.20', A RADIUS OF 1160.55', A DELTA ANGLE OF 27°24'36", A CHORD BEARING OF NORTH 69°28'42" WEST, AND A CHORD LENGTH OF 549.92' TO A ROD FOUND; THENCE, NORTH 83°10'59" WEST A DISTANCE OF 118.05 FEET TO A ROD FOUND; THENCE, WITH A CURVE TO THE RIGHT WITH AN ARC LENGTH OF 355.00', A RADIUS OF 798.59', A DELTA ANGLE OF 25°28'10", A CHORD BEARING OF NORTH 70°26'54" WEST, AND A CHORD LENGTH OF 352.08' TO A POINT; THENCE, NORTH 57°42'49" WEST A DISTANCE OF 262.48 FEET TO A POINT; THENCE, WITH A CURVE TO THE LEFT WITH AN ARC LENGTH OF 101.64', A RADIUS OF 388.47', A DELTA ANGLE OF 14°59'27", A CHORD BEARING OF NORTH 65°12'35" WEST, AND A CHORD LENGTH OF 101.35' TO A POINT; THENCE, NORTH 72°42'17" WEST A DISTANCE OF 760.27 FEET TO A POINT; THENCE, WITH A CURVE TO THE RIGHT WITH AN ARC LENGTH OF 128.25', A RADIUS OF 1154.12', A DELTA ANGLE OF 06°22'00", A CHORD BEARING OF NORTH 69°31'17" WEST, AND A CHORD LENGTH OF 128.18' TO A POINT; THENCE, NORTH 66°20'16" WEST A DISTANCE OF 163.10 FEET TO A POINT; THENCE, WITH A CURVE TO THE LEFT WITH AN ARC LENGTH OF 209.56', A RADIUS OF 851.96', A DELTA ANGLE OF 14°05'35", A CHORD BEARING OF NORTH 73°23'03" WEST, AND A CHORD LENGTH OF 209.03' TO A POINT; THENCE, NORTH 80°25'52" WEST A DISTANCE OF 34.68 FEET TO A POINT: THENCE, WITH A CURVE TO THE RIGHT WITH AN ARC LENGTH OF 134.73', A RADIUS OF 440.18', A DELTA ANGLE OF 17°32'11", A CHORD BEARING OF NORTH 71°39'47" WEST, AND A CHORD LENGTH OF 134.20' TO A POINT; THENCE, NORTH 63°58'22" WEST A DISTANCE OF 127.22 FEET TO A POINT; THENCE, NORTH 61°48'20" WEST A DISTANCE OF 14.54 FEET TO A POINT; THENCE, SOUTH 27°21'42" WEST A DISTANCE OF 5.00 FEET TO A POINT AT THE INTERSECTION OF THE NORTHERN RIGHT OF WAY OF POLISH TOWN ROAD AND THE NORTHERN EDGE OF OLD ROUTE 634; THENCE, CONTINUING ALONG THE NORTHERN EDGE OF OLD ROUTE 634 NORTH 61°48'20" WEST A DISTANCE OF 255.79 FEET TO A POINT; THENCE, WITH A CURVE TO THE RIGHT WITH AN ARC LENGTH OF 234.76', A RADIUS OF 1477.97', A DELTA ANGLE OF 09°06'03", A CHORD BEARING OF NORTH 57°15'19" WEST, AND A CHORD LENGTH OF 234.51' TO A POINT; THENCE, NORTH 52°42'17" WEST A DISTANCE OF 51.06 FEET TO A POINT; THENCE, WITH A CURVE TO THE LEFT WITH AN ARC LENGTH OF 255.79', A RADIUS OF 532.88', A DELTA ANGLE OF 27°30'10", A CHORD BEARING OF NORTH 66°27'21" WEST, AND A CHORD LENGTH OF 253.34' TO A POINT; THENCE, NORTH 80°12'26" WEST A DISTANCE OF 518.64 FEET TO A POINT; THENCE, WITH A CURVE TO THE RIGHT WITH AN ARC LENGTH OF 226.59', A RADIUS OF 1980.00', A DELTA ANGLE OF 06°33'25", A CHORD BEARING OF NORTH 76°55'44" WEST, AND A CHORD LENGTH OF 226.47' TO A POINT; THENCE, WITH A COMPOUND CURVE TO THE RIGHT WITH AN ARC LENGTH OF 78.83', A RADIUS OF 505.67', A DELTA ANGLE OF 08°55'55", A CHORD BEARING OF NORTH 69°11'00" WEST, AND A CHORD LENGTH OF 78.75' TO A POINT; THENCE, NORTH 64°43'06" WEST A DISTANCE OF 12.50 FEET TO A POINT; THENCE, NORTH 52°23'53" WEST A DISTANCE OF 100.98 FEET TO A ROD FOUND; THENCE, NORTH 63°25'47" WEST A DISTANCE OF 80.06 FEET TO A POINT; THENCE, DEPARTING THE NORTHERN EDGE OF OLD ROUTE 634 NORTH 49°22'49" EAST A DISTANCE OF 111.65 FEET TO A POINT; THENCE, NORTH 10°45'31" WEST A DISTANCE OF 352.73 FEET TO A POINT: THENCE, NORTH 70°47'34" WEST A DISTANCE OF 46.91 FEET TO A POINT; THENCE, SOUTH 57°19'54" WEST A DISTANCE OF 208.42 FEET TO A POINT; THENCE, SOUTH 32°40'06" EAST A DISTANCE OF 42.00 FEET TO A POINT; THENCE, SOUTH 57°19'54" WEST A DISTANCE OF 86.11 FEET TO A POINT; THENCE, WITH A CURVE TO THE LEFT WITH AN ARC LENGTH OF 109.95', A RADIUS OF 70.00', A DELTA ANGLE OF 89°59'39", A CHORD BEARING OF SOUTH 12°19'54" WEST, AND A CHORD LENGTH OF 98.99' TO A POINT; THENCE, SOUTH 32°40'06" EAST A DISTANCE OF 13.42 FEET TO A POINT ON THE NORTHERN EDGE OF OLD ROUTE 634; THENCE, CONTINUING ALONG THE NORTHERN EDGE OF OLD ROUTE 634 NORTH 63°25'47" WEST A DISTANCE OF 10.10 FEET TO A ROD FOUND; THENCE, NORTH 72°04'22" WEST A DISTANCE OF 171.83 FEET TO A ROD FOUND; THENCE, NORTH 17°02'08" EAST A DISTANCE OF 5.02 FEET TO A ROD FOUND; THENCE, NORTH 73°24'31" WEST A DISTANCE OF 82.71 FEET TO A ROD FOUND; THENCE, NORTH 25°11'46" WEST A DISTANCE OF 80.72 FEET TO A MONUMENT FOUND AT THE INTERSECTION OF THE NORTHERN EDGE OF OLD ROUTE 634 AND THE SOUTHERN RIGHT OF WAY OF ELTHAM ROAD; SAID MONUMENT BEING THE TRUE POINT OF BEGINNING AND CONTAINING 149.841 ACRES, MORE OR LESS.

**BID SET** 02/12/2024 SERVICE CARWASH

2 BAYPORT WAY, SUITE 120 NEWPORT NEWS, VA 23606 (757) 599 - 9800



**NOT FOR CONSTRUCTION** 

**LATEST DA/PC** DA23-031/PC23-005

**DRAWN BY:** TL/TK

**CHECKED BY:** 

REVIS	SIONS		
REV#	DATE	DESCRIPTION	BY

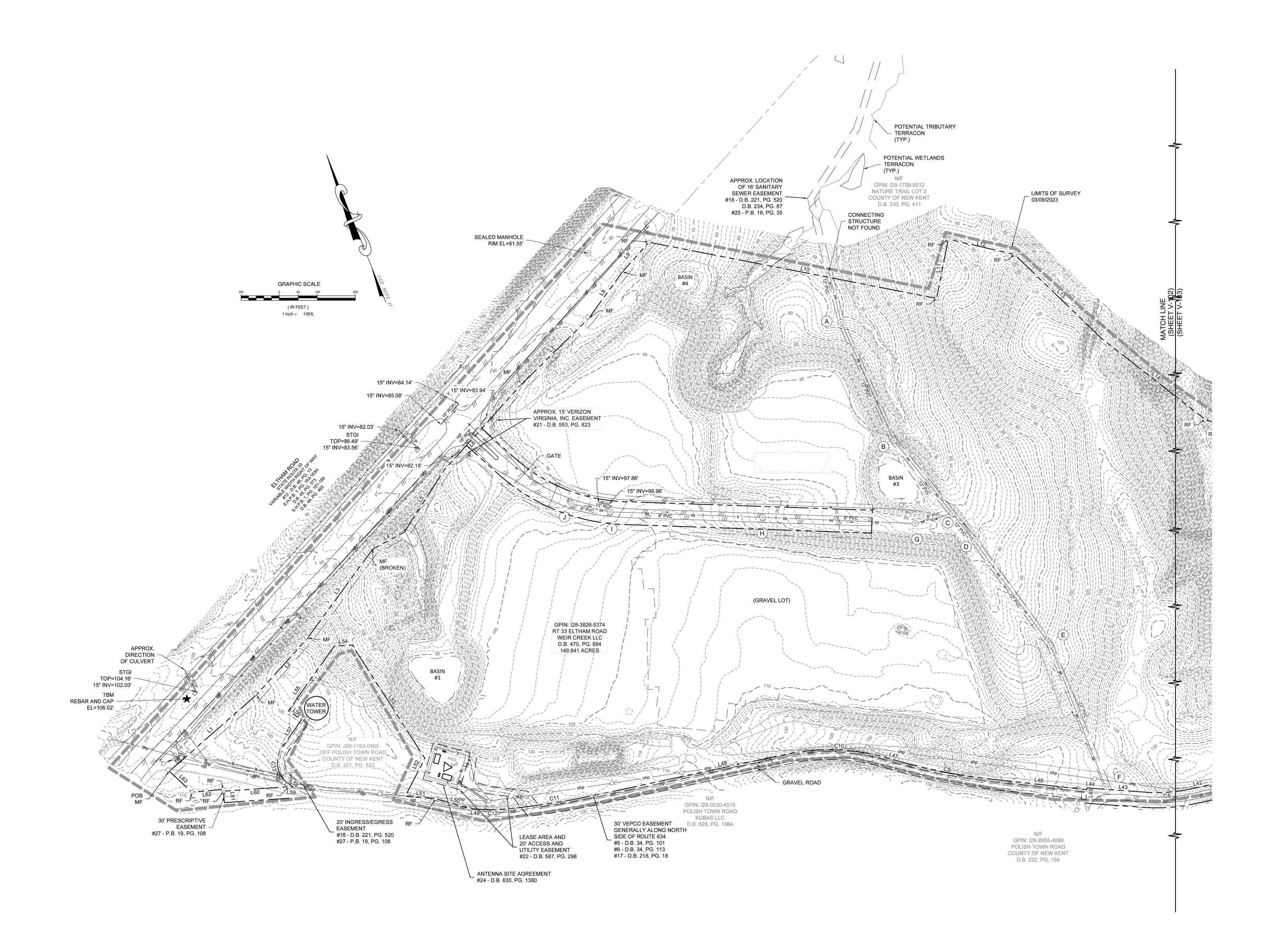
PROJECT NO.

**TOPOGRAPHIC SURVEY** 

20-22195.02

02/12/2024







NOT FOR CONSTRUCTION

LATEST DA/PC

DA23-031/PC23-005

TL/TK

REVIS	IONS		
REV#	DATE	DESCRIPTION	BY
			-

TEAUTO SUPERSTORE

MAX THE AUTO SUPERSTORE
MAX THE AUTO SUPERSTORE
MAX THE AUTO SUPERSTORE WEST COAST, INC.
500 TUCKAHOE CREEK PKWY. RICHMOND, VA 23238
FORE NO 4007
FORE NO 4007
FORE NO 4007
FORE NO 4007
FW KENT CO. VIRGINIA 23089

PROJECT NO.

DATE

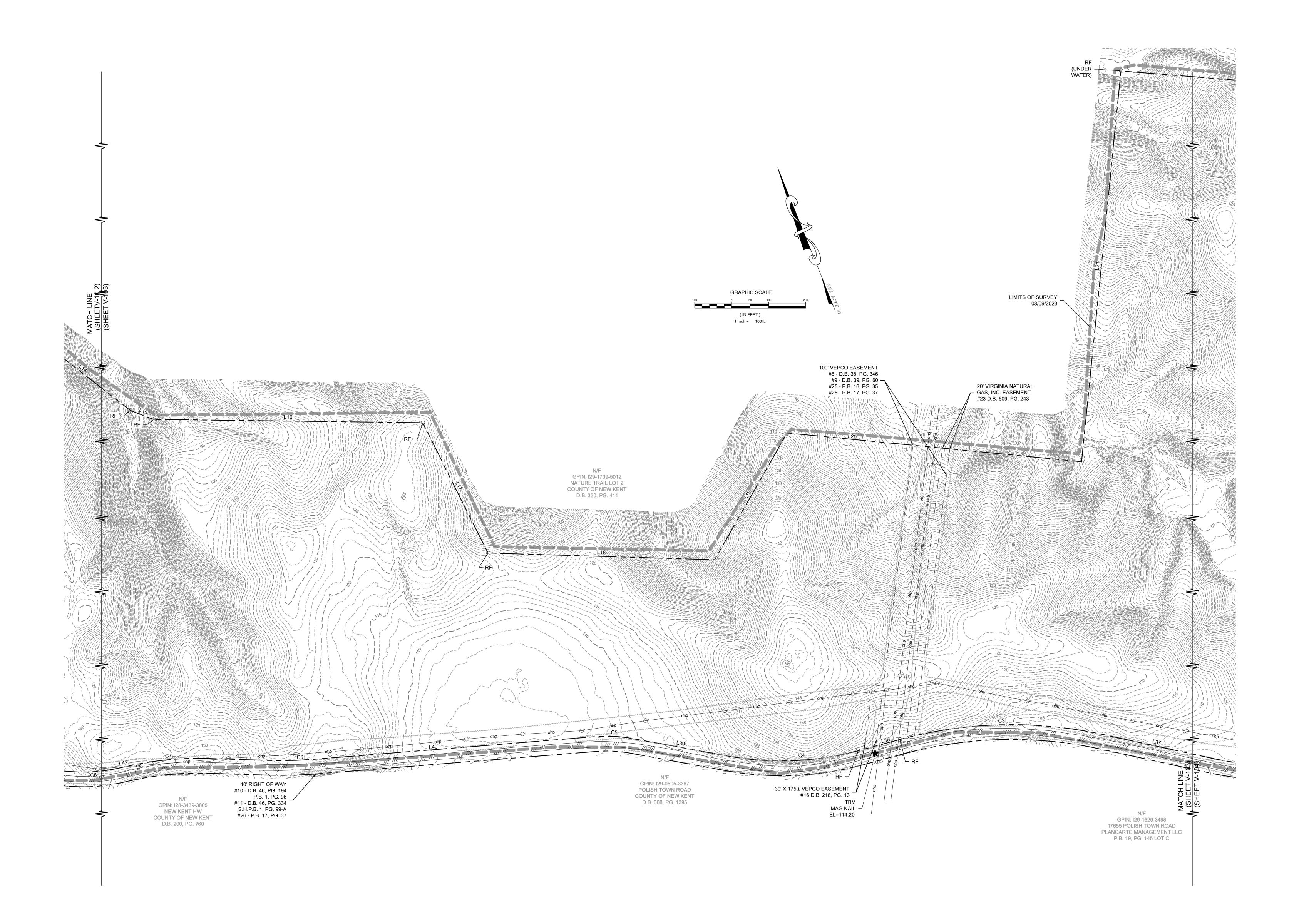
DATE 02/12/2024
SHEET TITLE

TOPOGRAPHIC SURVEY

20-22195.02

SHEET NO. V-102







**NOT FOR CONSTRUCTION LATEST DA/PC** DA23-031/PC23-005 **DRAWN BY:** TL/TK CHECKED BY:

**REVISIONS** REV# DATE DESCRIPTION BY

PROJECT NO.

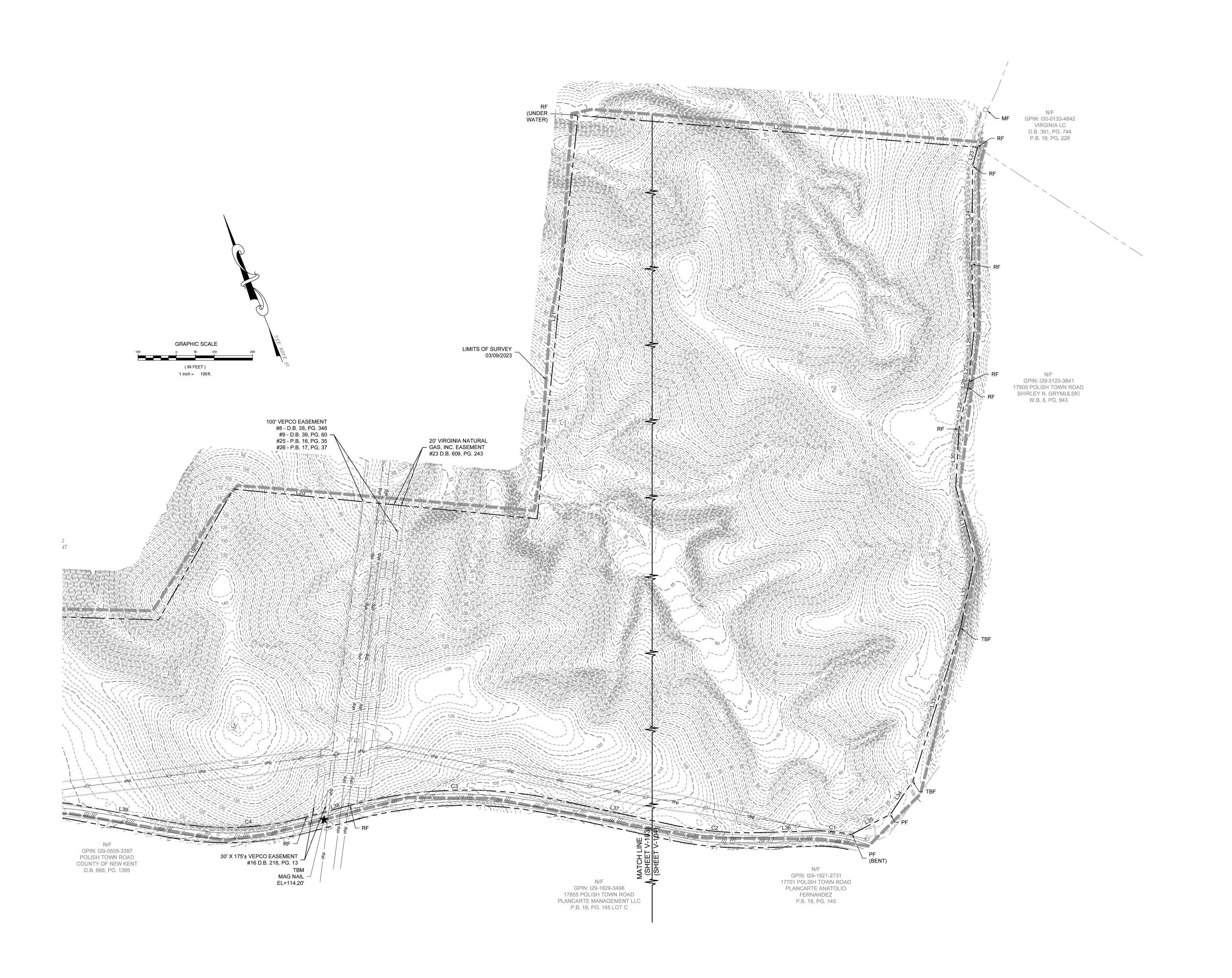
SHEET TITLE TOPOGRAPHIC SURVEY

20-22195.02

02/12/2024

SHEET NO. V-103







NOT FOR CONSTRUCTION

RFV#	DATE	DESCRIPTION	E
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PROJECT NO. SHEET TITLE

20-22195.02 02/12/2024

TOPOGRAPHIC SURVEY