

**GENERAL NOTES**

OWNER/ DEVELOPER:  
TOWN OF VIENNA  
DEPARTMENT OF PUBLIC WORKS  
127 CENTER STREET, SOUTH  
VIENNA, VA 22180

1. THE EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE INFORMATION. IF DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHOULD ENCOUNTER UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS, THEY SHOULD IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE UTILITY AND ASSURE THE CONTINUANCE OF SERVICE. THE ENGINEER DOES NOT CERTIFY TO THE LOCATION OR EXISTENCE OF ANY UNDERGROUND UTILITY SHOWN ON THIS PLAN. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 PRIOR TO COMMENCEMENT OF ANY EXCAVATION.

2. TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON THE FIELD RUN SURVEY PERFORMED BY URBAN, LTD IN OCTOBER, 2021. HORIZONTAL DATUM IS NAD1983 AND VERTICAL DATUM IS NAVD1988.

3. SUBSURFACE UTILITIES SHOWN PER FIELD LOCATION OF MARKED LOCATIONS.

4. NO TITLE REPORT FURNISHED.

5. CLEARING AND GRADING SHALL BE IN ACCORDANCE WITH THE GRADING AND EROSION CONTROL PLANS AND STANDARDS SET FORTH BY THE VIRGINIA EROSION AND SEDIMENTATION CONTROL HANDBOOK. ALL LAND ON OR OFF-SITE WHICH IS DISTURBED BY THIS IMPROVEMENT AND WHICH IS NOT BEING BUILT UPON OR SURFACED SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION.

6. THE CONTRACTOR SHALL PROVIDE ADEQUATE MEANS OF CLEANING TRUCKS AND/OR OTHER EQUIPMENT PRIOR TO ENTERING THE TOWN STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN STREETS, ALLAY DUST AND TO TAKE WHATEVER MEASURES NECESSARY TO INSURE THAT THE ROAD IS MAINTAINED IN A CLEAN, MUD AND DUST FREE CONDITION AT ALL TIMES. SEE SILTATION AND EROSION CONTROL PLANS/NARRATIVE FOR ADDITIONAL INFORMATION.

7. THE CONTRACTOR SHALL PROTECT AND ADJUST, AS REQUIRED, ALL EXISTING MANHOLES AND VALVES WITHIN THE LIMITS OF DISTURBANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE THAT MAY OCCUR BY HIS FAILURE TO PROPERLY PROTECT THE EXISTING MANHOLES AND VALVES.

8. IF APPLICABLE, ANY UTILITIES AND UTILITY POLES TO BE BRACED DUE TO THIS IMPROVEMENT SHALL BE DONE AT THE EXPENSE OF THE CONTRACTOR PURSUANT TO THE TOWN'S PAY ITEM SCHEDULE. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND SCHEDULING ALL UTILITY WORK REQUIRED. THE TOWN WILL COORDINATE WITH DOMINION VIRGINIA POWER IN REGARDS TO RELOCATING ANY POLES DUE TO THIS IMPROVEMENT.

9. ALL STORM SEWER STRUCTURES AND PIPING WITHIN THE AREA OF CONSTRUCTION SHALL BE CLEANED OUT FOLLOWING THE COMPLETION OF CONSTRUCTION.

10. ANY DAMAGE TO EXISTING STREETS, PUBLIC UTILITIES OR PRIVATE UTILITIES, INCLUDING BUT NOT LIMITED TO, VALVE BOXES, WATER METER LIDS, FRAMES OR CROOKS AND WATER LATERALS, DUE TO THIS IMPROVEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

11. ALL CONSTRUCTION DUE TO THIS IMPROVEMENT IS TO BE PERFORMED IN ACCORDANCE WITH THE STANDARDS SET FORTH BY THE STATE OF VIRGINIA AND THE TOWN OF VIENNA.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE TOWN AND THE ENGINEER/SURVEYOR OF ANY CHANGES OR CONDITIONS ATTACHED TO PERMITS OBTAINED FROM TOWN OF VIENNA, OR ANY OTHER AUTHORITY ISSUING PERMITS.

13. A SMOOTH GRADE SHALL BE MAINTAINED FROM CENTERLINE TO THE CURB AND GUTTER TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR PONDING OF WATER ON ANY ROAD OR PARKING AREA.

14. PLANS MAY NOT INCLUDE MINOR SITE FEATURES SUCH AS MAILBOXES, PRIVATE LIGHTING FIXTURES, SIGNS, ETC. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM A PRE-CONSTRUCTION SURVEY OF THE PROPOSED STREETS TO LOCATE THESE PRIVATE FEATURES AND RELOCATE THEM AS NECESSARY.

15. THE CONTRACTOR SHALL INSPECT ALL EXISTING UTILITIES FOR NECESSARY REPAIRS PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES. IF ANY SUCH UTILITY REPAIRS ARE REQUIRED, THE CONTRACTOR WILL COORDINATE THESE REPAIRS WITH THE TOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING OR PROPOSED UTILITIES THAT OCCURS DURING CONSTRUCTION ACTIVITIES. DAMAGED UTILITIES SHALL BE REPAIRED IN A TIMELY FASHION TO LIMIT THE INTERRUPTION OF SERVICE TO THE AFFECTED RESIDENTS.

16. THE CONTRACTOR SHALL NOTIFY THE TOWN AND ENGINEER OF ANY DISCREPANCIES BETWEEN EXISTING FIELD CONDITIONS AND THOSE SHOWN ON THE CONTRACT DOCUMENTS THAT IMPACT PROPOSED CONSTRUCTION ACTIVITIES.

17. ALL CONCRETE AND PAVEMENT DEMOLITION/REMOVAL SHALL EMPLOY SAW CUT JOINTS.

18. ROOT PRUNING SHALL BE TO THE DEPTH OF EXCAVATION, OR 24 INCHES, WHICHEVER IS LESS. A TRENCHER OR VIBRATORY PLOW SHALL BE USED TO PRUNE ALL ROOTS. ROOTS OVER ONE AND ONE-HALF INCHES (1.5") IN DIAMETER SHALL BE CLEANLY CUT BY HAND.

19. A ROOT BIOSTIMULANT SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS TO ALL TREES THAT ARE ROOT PRUNED.

20. CONCRETE PIPE TO BE CLASS III UNLESS OTHERWISE SPECIFIED.

21. SIGHT DISTANCE TO BE MAINTAINED BY CONTRACTOR DURING CONSTRUCTION.

22. THE CONTRACTOR SHALL PROVIDE A SMOOTH GRADE FROM THE LIMITS OF DISTURBANCE TO THE BACK OF SIDEWALK.

23. VDOT STD. IS-1, INLET SHAPING, TO BE UTILIZED ON ALL PROPOSED OR MODIFIED EXISTING STORM STRUCTURES.

24. AIR QUALITY PERMIT NOT REQUIRED PER STATE AIR POLLUTION CONTROL BOARD REGULATION AQR VII, SECTION 2.706 (G)(2)(1).

25. ALL FINISHED GRADING, SEEDING, SODDING OR PAVING SHALL BE DONE IN SUCH A MANNER TO PRECLUDE THE PONDING OF WATER ON THE SITE.

26. THE CONTRACTOR SHALL INSURE THAT ALL CONSTRUCTION CONFORMS WITH CURRENT FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS, INCLUDING FEDERAL REGULATIONS CONTAINED WITHIN "THE AMERICANS WITH DISABILITIES ACT," ENACTED ON JULY 26, 1990 (AKA "ADA").

27. ALL EARTHWORK OPERATIONS SHALL CONFORM TO THE GEOTECHNICAL NOTES AND DETAILS IF PROVIDED.

28. PRIOR TO ANY LAND DISTURBANCE ACTIVITY WITHIN THE AREA OF WASHINGTON GAS, AND F.C.W.A. MAJOR TRANSMISSION LINES, THE CONTRACTOR MUST NOTIFY THESE UTILITY COMPANIES IN ADVANCE TO ASSURE THEY CAN INSPECT AND APPROVE THE CONSTRUCTION ACTIVITY.

29. NO VISIBLE EVIDENCE OF ANY PLACE OF BURIAL OR HISTORIC SITE WAS ENCOUNTERED ON THE PROPERTY BY THIS FIRM. IF ANY GRAVE YARD OR HISTORIC SITE IS ENCOUNTERED DURING CONSTRUCTION THE CONTRACTOR SHALL CEASE WORK IN THE AREA IMMEDIATELY AND NOTIFY THE OWNER AND ENGINEER.

30. ALL CONSTRUCTION INVOLVING PROBLEM SOIL MUST BE PERFORMED UNDER THE FULL-TIME INSPECTION OF THE GEOTECHNICAL ENGINEER.

31. THE GEOTECHNICAL ENGINEER SHALL FURNISH A WRITTEN OPINION TO THE TOWN AS TO WHETHER OR NOT WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE APPROVED PLANS PRIOR TO THE ISSUANCE OF ANY OCCUPANCY OR USE PERMIT.

32. ALL CLEARING, GRADING AND ACTUAL CONSTRUCTION ACTIVITY SHALL BE LIMITED TO BETWEEN THE HOURS OF 7:00 A.M. AND 6:00 P.M., MONDAY THROUGH FRIDAY, AND BETWEEN 8:00 A.M. AND 6:00 P.M., SATURDAY. CONSTRUCTION ACTIVITY ON SUNDAY SHALL BE PROHIBITED. CONTRACTOR SHALL CONFIRM HOURS WITH TOWN OF VIENNA PRIOR TO CONSTRUCTION AND ADJUSTMENTS MAY BE MADE DUE TO CLOSE PROXIMITY OF A NEARBY SCHOOL.

33. ALL RUNOFF MUST SHEET FLOW ACROSS PROPERTY LINES UNLESS APPROVED OTHERWISE BY THE DIRECTOR OF PUBLIC WORKS.

34. ALL PRIVATE STORM DRAINS (I.E. ROOF DRAINS, SUMP PUMP ETC.) MUST DAYLIGHT AT A MINIMUM OF 10 FEET FROM A PROPERTY LINE.

35. PRIOR TO THE REMOVAL OF ANY TREES, THE APPLICANT OR THEIR REPRESENTATIVE SHALL CONTACT THE TOWN OF VIENNA ARBORIST AT 703-255-6360 TO COORDINATE HAVING THE TOWN ARBORIST ONSITE DURING ALL TREE REMOVAL.

36. TREE PROTECTION FOR ANY TREE, AS SHOWN ON PLAN, MUST BE INSTALLED PRIOR TO ANY SITE WORK.

37. WHERE CONFLICTS REQUIRE RELOCATION OF EXISTING UTILITIES (E.G. AT&T, MCI, C&P, VEPCO, MEDIA GENERAL) UTILITY COMPANIES SHALL BE NOTIFIED.

38. ALL EXISTING TOWN OF VIENNA TRAFFIC CONTROL EQUIPMENT WILL BE RELOCATED BY THE CONTRACTOR AS NECESSARY PER VDOT REQUIREMENTS.

39. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS AND UTILITIES WHICH OCCUR AS A RESULT OF PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO THE SITE.

40. ANY EXISTING C&G AND PAVEMENT TO REMAIN THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED/REPAIRED TO TOWN OF VIENNA SATISFACTION. C&G TO BE SAW CUT, OTHERWISE REMOVE TO THE NEAREST JOINT.

41. THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE OWNER OF COMPLYING WITH OTHER APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.

42. STANDARD UD-2, UD-3, & UD-4 TO BE UTILIZED IN CONSTRUCTION WITH STANDARD PIPE UNDER DRAIN. UD-2, UD-3, & UD-4 TO BE INSTALLED IN ACCORDANCE WITH VDOT SECTION 108.02, 108.03, AND 108.05.

43. STANDARD GUARDRAILS AND/OR HANDRAILS SHALL BE INSTALLED AT HAZARDOUS LOCATIONS AS DESIGNATED DURING FIELD REVIEW BY THE TOWN OF VIENNA INSPECTOR.

44. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. IF REQUIRED, THE DEVELOPER SHALL SUBMIT A SIGNING, STRIPING AND/OR SIGNALIZATION PLAN TO THE VDOT LAND DEVELOPMENT SECTION A MINIMUM OF 30 DAYS PRIOR TO PERMIT APPLICATION. THE DEVELOPER SHALL NOT COMMENCE CONSTRUCTION OF ANY PAVEMENT COURSE WITHOUT AN APPROVED STRIPING PLAN.

45. A 4" (MIN.) LAYER OF STONE IS REQUIRED BENEATH CURB AND GUTTER.

46. ADDITIONAL DITCH LININGS OR SILTATION AND EROSION CONTROL MEASURES SHALL BE PROVIDED, AS DETERMINED NECESSARY BY THE TOWN DURING FIELD REVIEW. ALL COSTS SHALL BE ASSUMED BY THE CONTRACTOR.

47. OVERLAY OF EXISTING PAVEMENT SHALL BE MINIMUM OF 1.25" DEPTH, ANY COSTS ASSOCIATED WITH PAVEMENT OVERLAY, OR THE MILLING OF EXISTING PAVEMENT TO OBTAIN REQUIRED DEPTH, SHALL BE ASSUMED BY THE CONTRACTOR.

# TOWN OF VIENNA DEPARTMENT OF PUBLIC WORKS FAIRFAX COUNTY, VIRGINIA

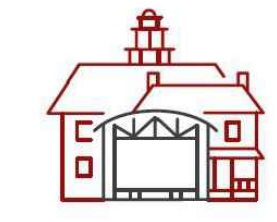
## ELMAR DRIVE SE & SW SIDEWALK IMPROVEMENT PLAN

### 100% DESIGN CONSTRUCTION DRAWINGS



VICINITY MAP  
SCALE : 1" = 200'

OWNER/DEVELOPER:



TOWN OF VIENNA

since 1899

TOWN OF VIENNA  
DEPARTMENT OF PUBLIC WORKS  
127 CENTER ST. S.  
VIENNA, VA 22180

**SURVEY NOTES**

TOPOGRAPHICAL SURVEY PERFORMED BY FIELD RUN SURVEY BY URBAN, LTD PERFORMED IN OCTOBER, 2021.

**VERTICAL**  
NOTE: ELEVATIONS SHOWN HEREON ARE BASED ON STATIC GPS OBSERVATIONS AS PROCESSED BY THE NATIONAL GEODETIC SURVEY, ONLINE POSITIONING USER SERVICE (OPUS), AND ARE REFERENCED TO NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

**HORIZONTAL**  
NOTE: BEARINGS AND COORDINATES SHOWN HEREON ARE BASED ON STATIC GPS OBSERVATIONS AS PROCESSED BY THE NATIONAL GEODETIC SURVEY, ONLINE POSITIONING USER SERVICE (OPUS), AND ARE REFERENCED TO VIRGINIA STATE GRID NORTH ZONE NAD 83 - US SURVEY FOOT.

**UTILITIES**  
UNDERGROUND UTILITIES LOCATIONS WERE MARKED AND MAPPED INTO THE BASE BY URBAN, LTD.

## SHEET INDEX

- COVER SHEET
- NOTES AND DETAILS
- NOTES AND DETAILS
- EXISTING CONDITIONS AND DEMOLITION PLAN
- EXISTING CONDITIONS AND DEMOLITION PLAN
- SITE PLAN
- SITE PLAN
- PAVEMENT IMPROVEMENT PLAN
- PAVEMENT IMPROVEMENT PLAN
- EROSION AND SEDIMENT CONTROL PLAN PH I & PH II
- EROSION AND SEDIMENT CONTROL PLAN PH I & PH II
- EROSION AND SEDIMENT CONTROL NARRATIVE AND DETAILS
- VRRM SPREADSHEET & BMP NARRATIVE

**NOTICE REQUIRED**  
CONTRACTORS SHALL NOTIFY OPERATORS WHO MAINTAIN UNDERGROUND UTILITY LINES IN THE AREA OF PROPOSED EXCAVATION OR BLASTING AT LEAST TWO WORKING DAYS, BUT NOT MORE THAN TEN WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION OR DEMOLITION.

**CONTACT "MISS UTILITY" AT  
1-800-552-7001  
FOR THESE UTILITIES**

VIRGINIA ELECTRIC & POWER CO. A.T.&T. CO. COLUMBIA GAS TRANSMISSION CO. FAIRFAX CO. SAN. SEWER DIV. TRANSCO GAS PIPELINE CO. COLUMBIA GAS OF VIRGINIA CONTINENTAL TELEPHONE OF VIRGINIA	COLONIAL PIPELINE CO. FAIRFAX CO. WATER AUTHORITY WASHINGTON GAS LIGHT CO. PRINCE WILLIAM ELEC. CO-OP. PLANTATION PIPELINE CO. C & P TELEPHONE CO.
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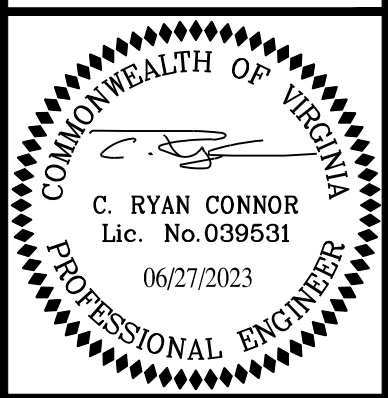
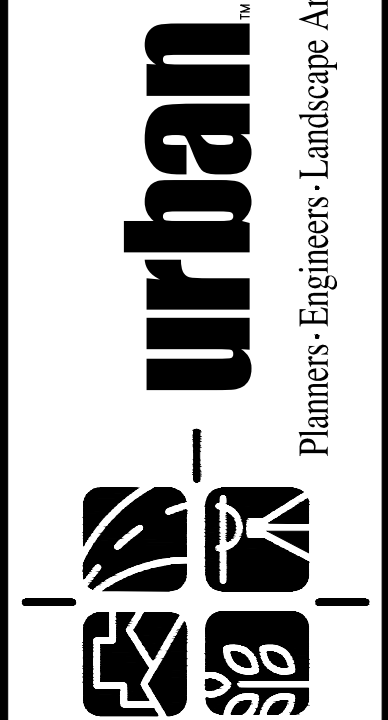
**CONTACT THESE UTILITIES**

TRI-COUNTY ELEC. CO-OP 1-777-2151 FALLS CHURCH WATER SER. 1-241-5078	LOUDOUN WATER 571-291-7880 FAIRFAX CITY WATER SER. 385-7916
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**EMERGENCY DIAL 911  
POLICE - FIRE - RESCUE**  
777-1021 777-2222

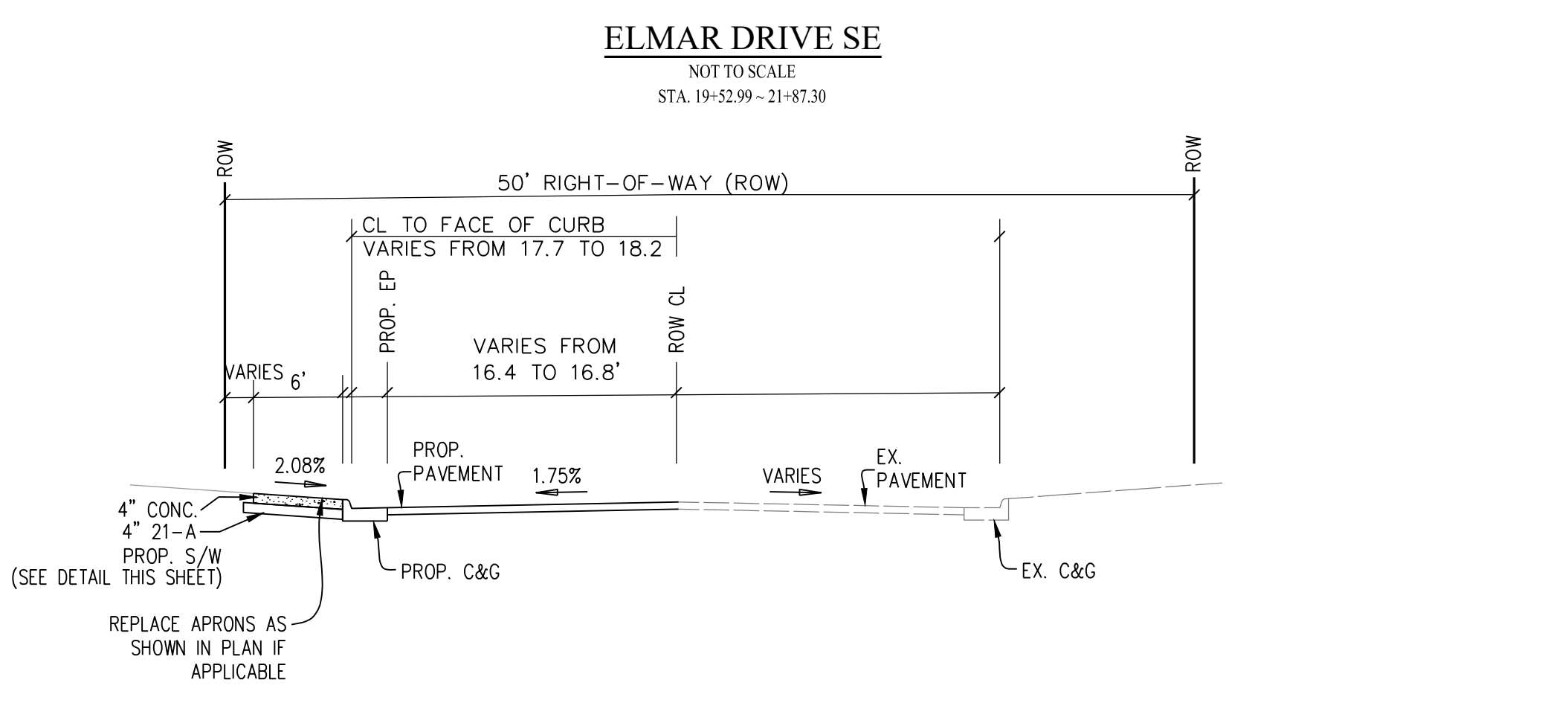
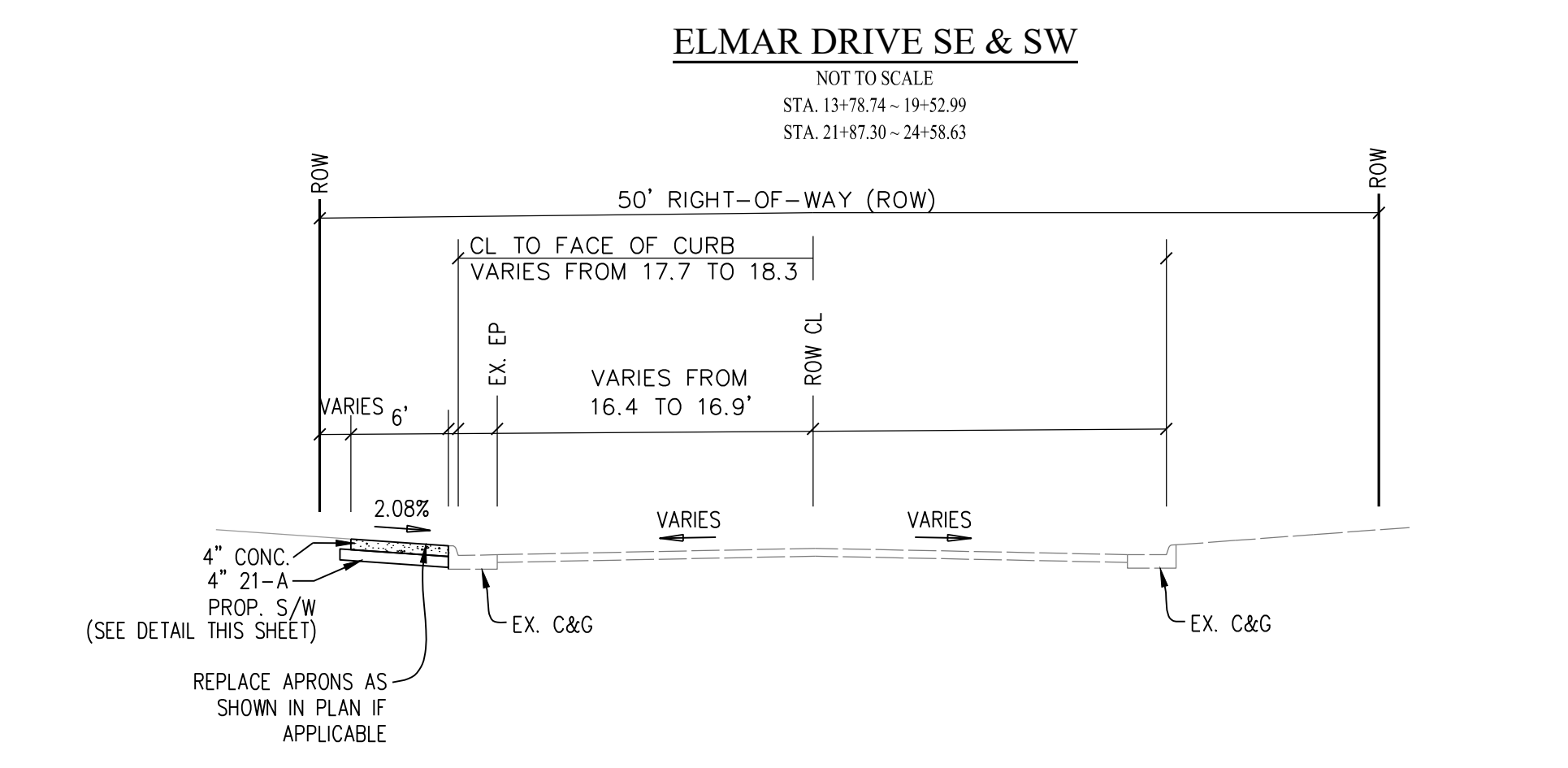
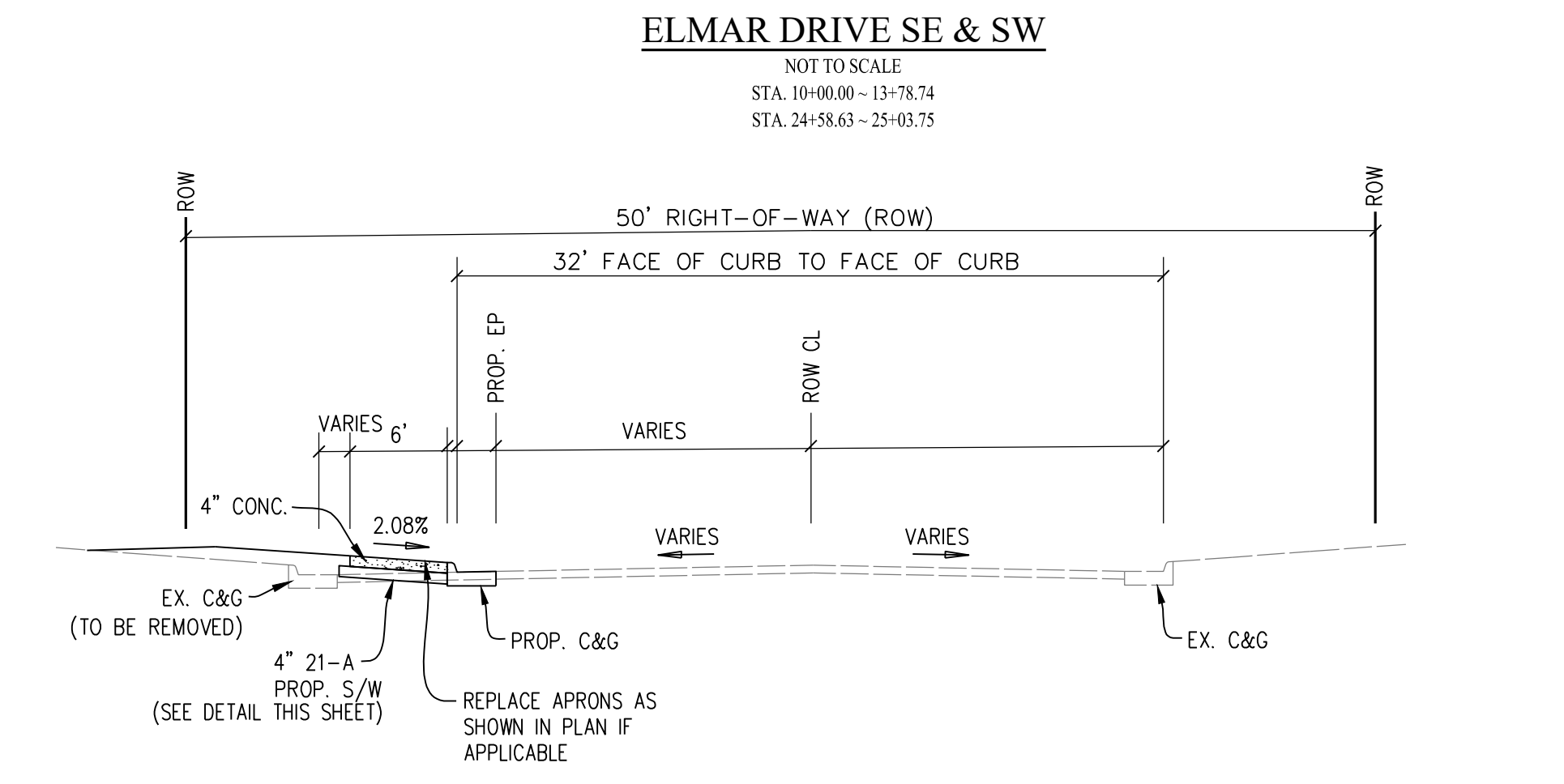
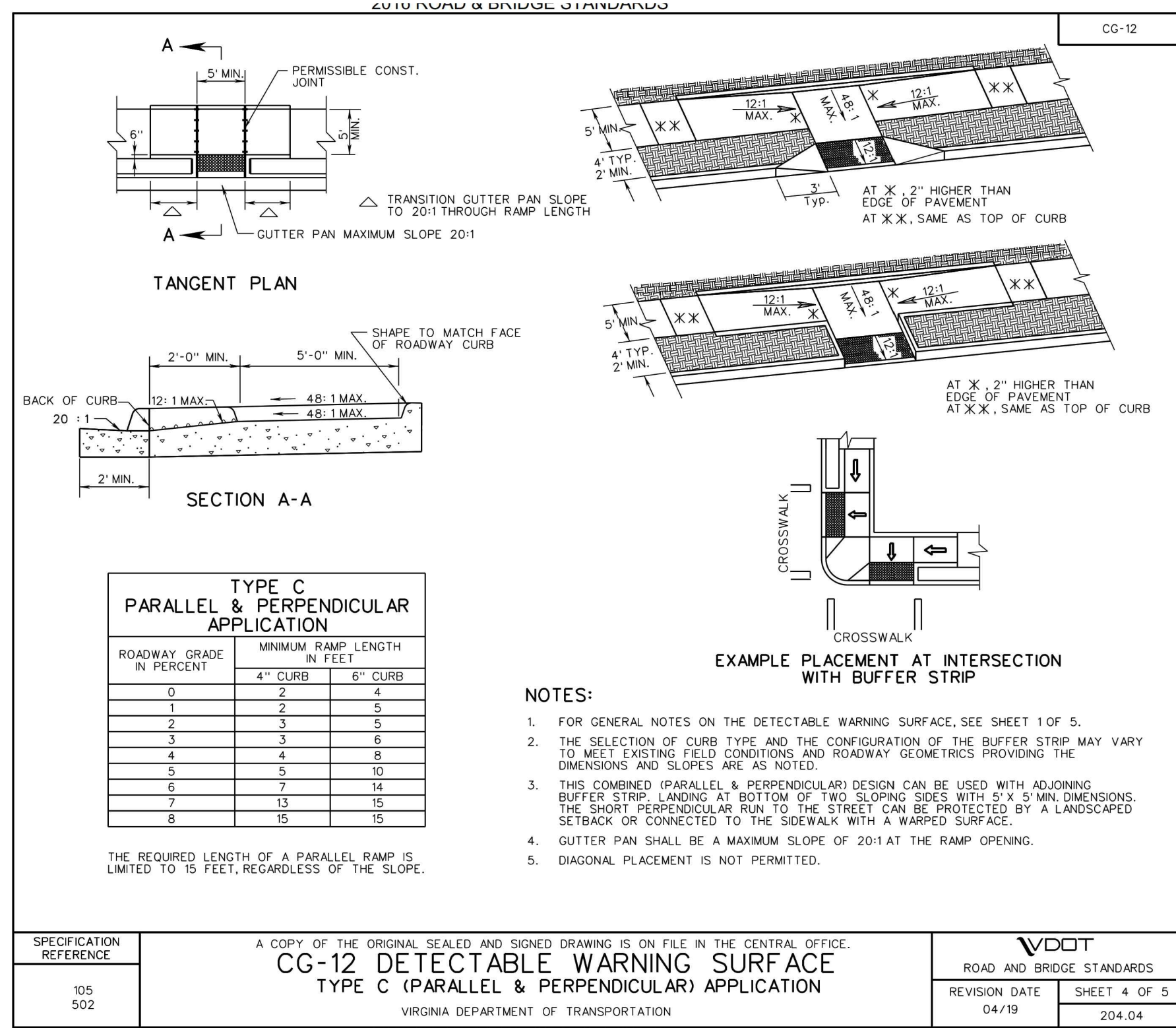
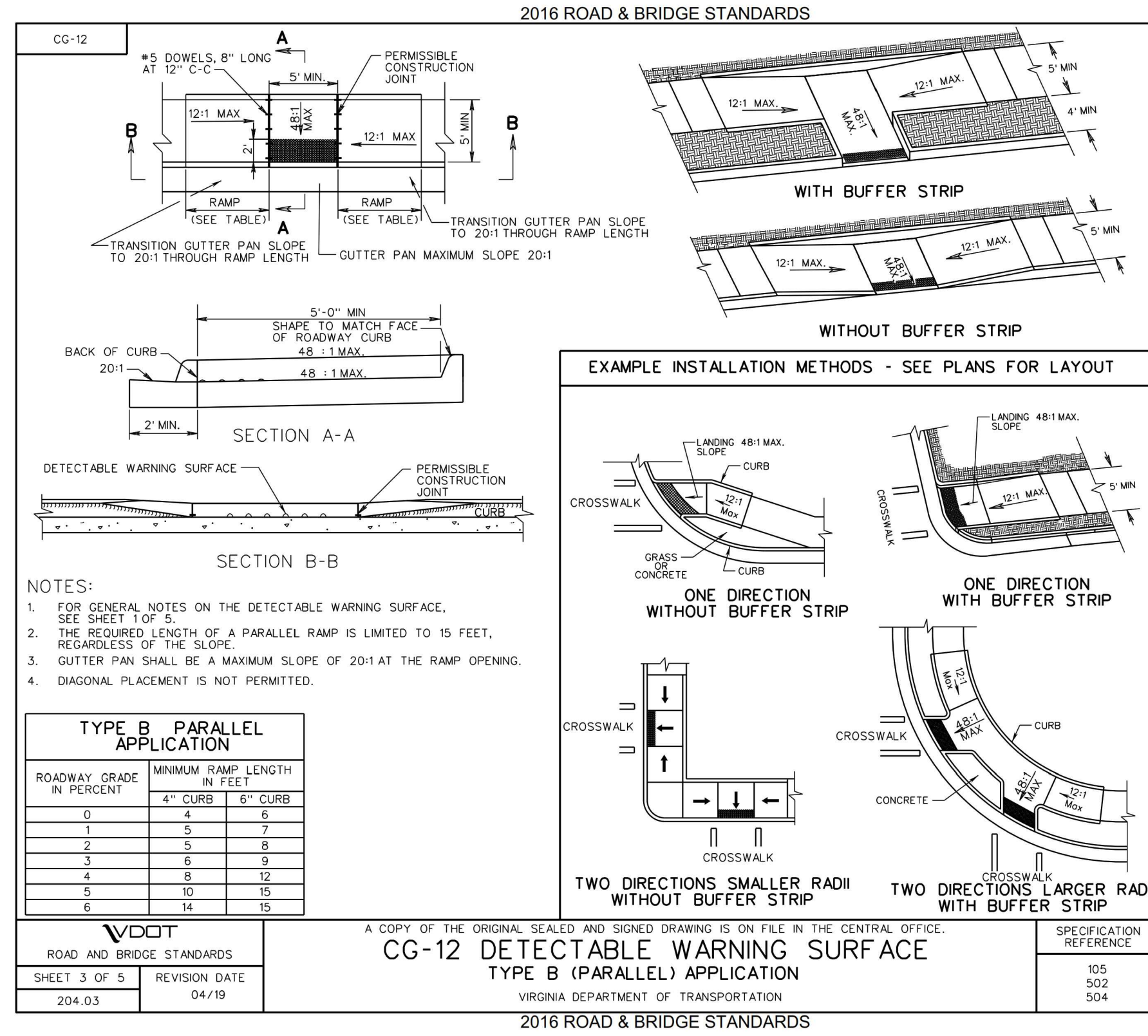
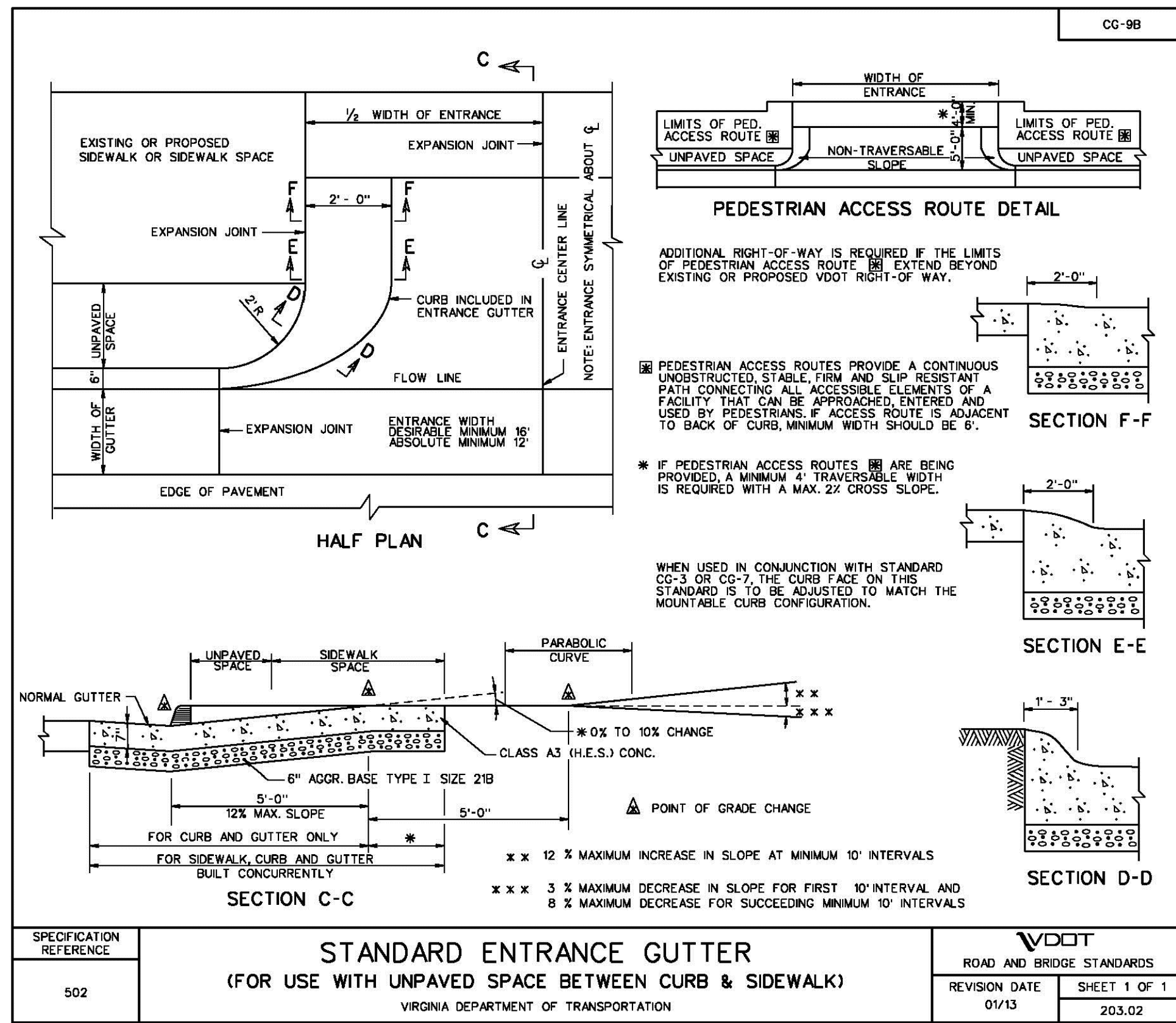
PLAN DATE	REVISIONS
12-08-22	
04-19-23	
06-27-23	
06-27-23	100% PLAN SUBMISSION
04-19-23	95% PLAN SUBMISSION
12-08-22	50% PLAN SUBMISSION
No.	DATE DESCRIPTION REV BY APPROVED DATE

Urban, Ltd.  
7712 Little River Turnpike  
Suite 200  
Falls Church, Virginia 22003  
Tel: 703.642.8800  
Fax: 703.642.8251  
www.urban-lltd.com



**COVER SHEET**  
**ELMAR DRIVE SE & SW**  
**SIDEWALK IMPROVEMENT PLAN**  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
DATE: NOVEMBER, 2022  
SCALE: AS NOTED  
C.I. N/A

SHEET  
1  
OF  
13  
FILE No.  
PP-2600



EXISTING	DESCRIPTION	PROPOSED
---	INDEX CONTOUR	---
---	INTERMEDIATE CONTOUR	---
---	EDGE OF PAVEMENT	---
---	CURB AND GUTTER	---
---	TRANSITION FROM SPILL TO CATCH CURB	---
---	HEADER CURB	---
---	PROPERTY LINE	---
---	DEPARTING PROPERTY LINE	---
---	LOT LINE	---
---	RIGHT-OF-WAY	---
---	CENTERLINE	---
---	FLOOD PLAIN	---
---	LIMIT OF DISTURBANCE	---
---	TREE LINE	---
---	FLOW LINE OF SWALE	---
---	STREAM	---
---	OVERLAND RELIEF PATHWAY	---
---	FENCE LINE	---
---	EASEMENT	---
---	WATER LINE	---
---	REUSE WATER MAIN	---
---	WATER VALVE	---
---	REDUCER	---
---	SANITARY SEWER	---
---	STORM SEWER	---
---	ELECTRIC SERVICE	---
---	TELEPHONE SERVICE	---
---	GAS LINE	---
---	IRRIGATION LINE	---
---	OVERHEAD WIRE	---
---	FIBER OPTIC LINE	---
---	UNKNOWN LINE	---
+	SPOT ELEVATION	+
U	UTILITY POLE	U
G	GUY WIRE	G
M	MAILBOX	M
S	SIGN	S
AS	SANITARY SEWER IDENTIFIER	AS
SD	STORM DRAIN IDENTIFIER	SD
E	EASEMENT IDENTIFIER	E
W	WATER METER	W
WV	WATER VALVE	WV
FH	FIRE HYDRANT	FH
CV	COMMUNICATION VAULT (MANHOLE)	CV
CP	COMMUNICATION PEDESTAL	CP
P	PARKING INDICATOR	P
INDICATES THE NUMBER OF TYPICAL PARKING SPACES	STREET LIGHT	INDICATES THE NUMBER OF TYPICAL PARKING SPACES
TEST PIT REQUIRED	CRITICAL SLOPE	TEST PIT REQUIRED
CRITICAL SLOPE	HANDICAP RAMP	CRITICAL SLOPE
HANDICAP RAMP	DENOTES CLEAR SIGHT TRIANGLE	HANDICAP RAMP
DENOTES CLEAR SIGHT TRIANGLE	DECIDUOUS TREE	DENOTES CLEAR SIGHT TRIANGLE
DECIDUOUS TREE	BENCHMARK	DECIDUOUS TREE
BENCHMARK	NEW ASPHALT	DECIDUOUS TREE
NEW ASPHALT	ASPHALT TRAIL	NEW ASPHALT
ASPHALT TRAIL	CONCRETE SIDEWALK	ASPHALT TRAIL
CONCRETE SIDEWALK	END WALLS	CONCRETE SIDEWALK
END WALLS	END SECTIONS	END WALLS
END SECTIONS	STOP SIGN	END SECTIONS
STOP SIGN	STREET SIGN	STOP SIGN
STREET SIGN	GEO	STREET SIGN
GEO		GEO

**LEGEND**

PLAN DATE: 12-08-2022  
04-19-2023  
06-27-2023

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www.urban-land.com

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Planners - Engineers - Landscape Architects - Land Surveyors

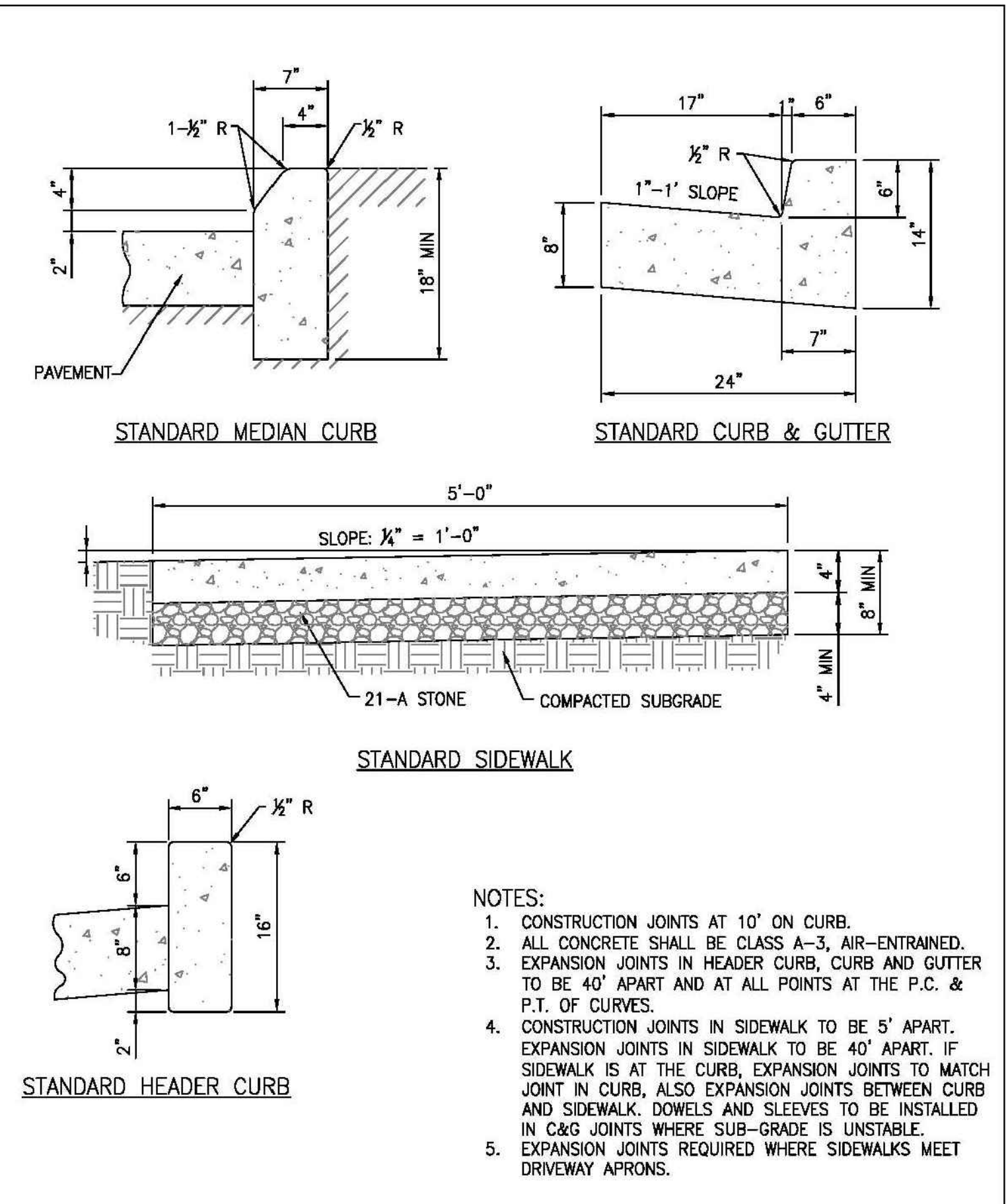
COMMONWEALTH OF VIRGINIA  
C. RYAN CONNOR  
Lic. No. 039531  
06/27/2023  
PROFESSIONAL ENGINEER

**NOTES AND DETAILS**  
ELMAR DRIVE SE & SW  
SIDEWALK IMPROVEMENT PLAN  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA

DATE: NOVEMBER, 2022  
SCALE: N/A  
C.I. N/A

SHEET 2 OF 13  
FILE No. PP-2600

NO.	DATE	DESCRIPTION	REVISIONS
3	06-27-23	100% PLAN SUBMISSION	
2	04-19-23	95% PLAN SUBMISSION	
1	12-08-22	50% PLAN SUBMISSION	



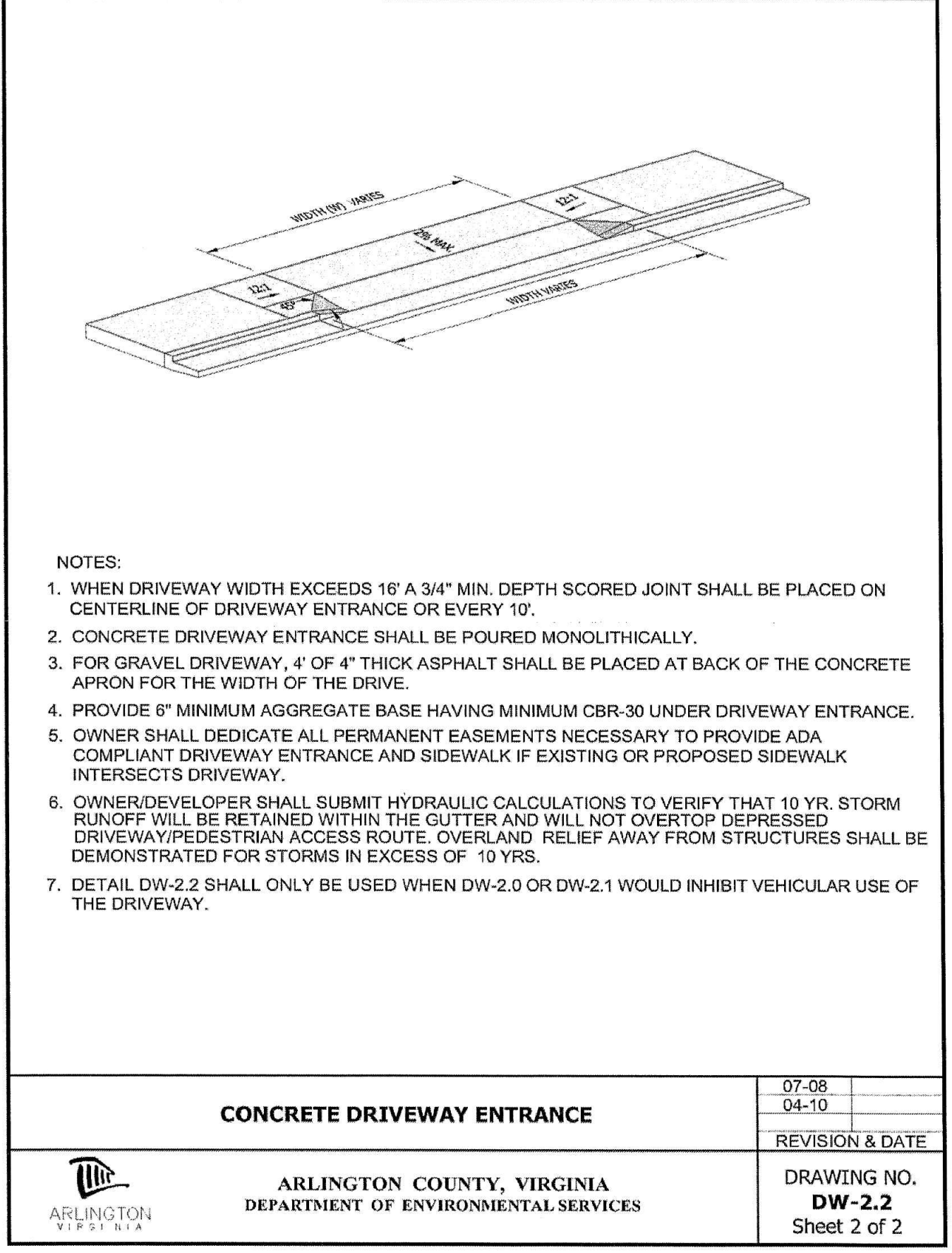
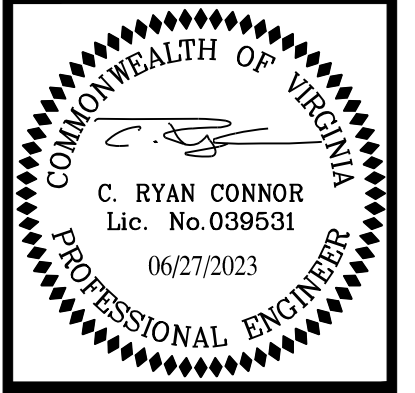
- NOTES:**
1. CONSTRUCTION JOINTS AT 10' ON CURB.
  2. ALL CONCRETE SHALL BE CLASS A-3, AIR-ENTRAINED.
  3. EXPANSION JOINTS IN HEADER CURB, CURB AND GUTTER TO BE 40' APART AND AT ALL POINTS AT THE P.C. & P.T. OF CURVES.
  4. CONSTRUCTION JOINTS IN SIDEWALK TO BE 5' APART. EXPANSION JOINTS IN SIDEWALK TO BE 40' APART. IF SIDEWALK IS AT THE CURB, EXPANSION JOINTS TO MATCH JOINT IN CURB, ALSO EXPANSION JOINTS BETWEEN CURB AND SIDEWALK. DOWELS AND SLEEVES TO BE INSTALLED IN C&G JOINTS WHERE SUB-GRADE IS UNSTABLE.
  5. EXPANSION JOINTS REQUIRED WHERE SIDEWALKS MEET DRIVEWAY APRONS.

**STANDARD CURB, GUTTER & SIDEWALK**  
 TOWN OF VIENNA  
 DEPARTMENT OF PUBLIC WORKS  
 PREPARED: 11-10-2010  
 REVISED: 5-18-2011

PLAN DATE	DESCRIPTION	REV. BY	APPROVED	DATE
12-08-2012				
04-19-2013				
06-27-2013	100% PLAN SUBMISSION			
04-09-23	95% PLAN SUBMISSION			
12-08-22	30% PLAN SUBMISSION			
No.	DATE	DESCRIPTION	REV. BY	APPROVED

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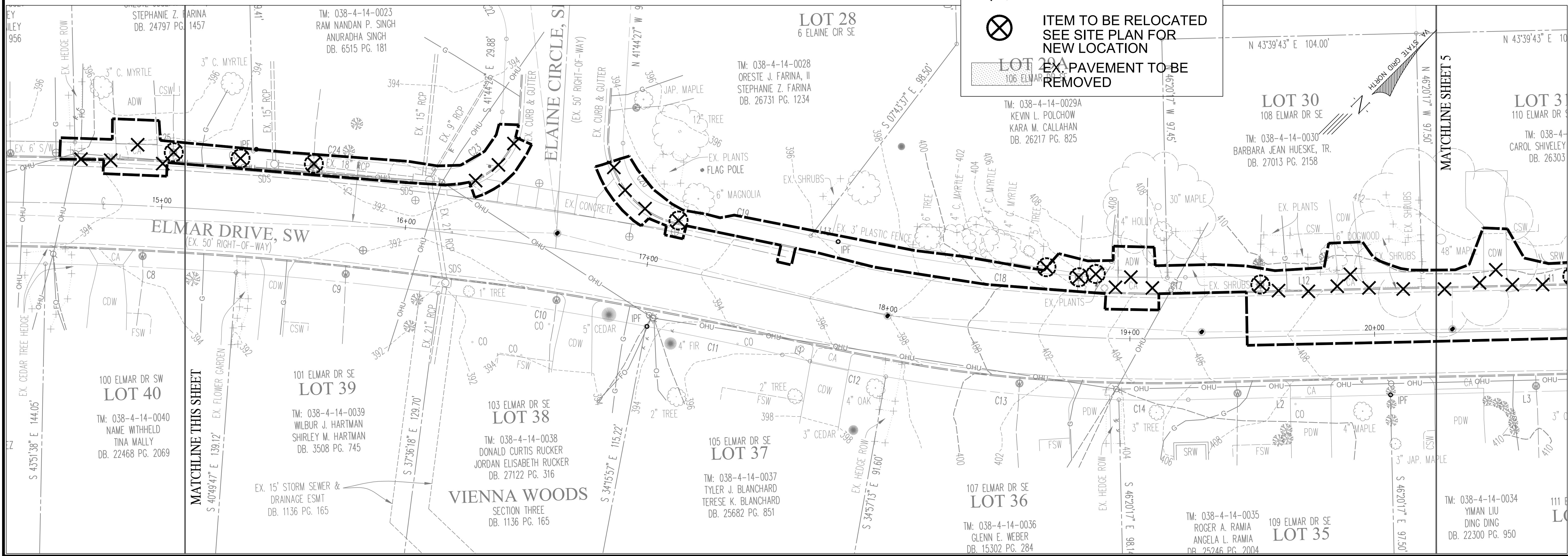
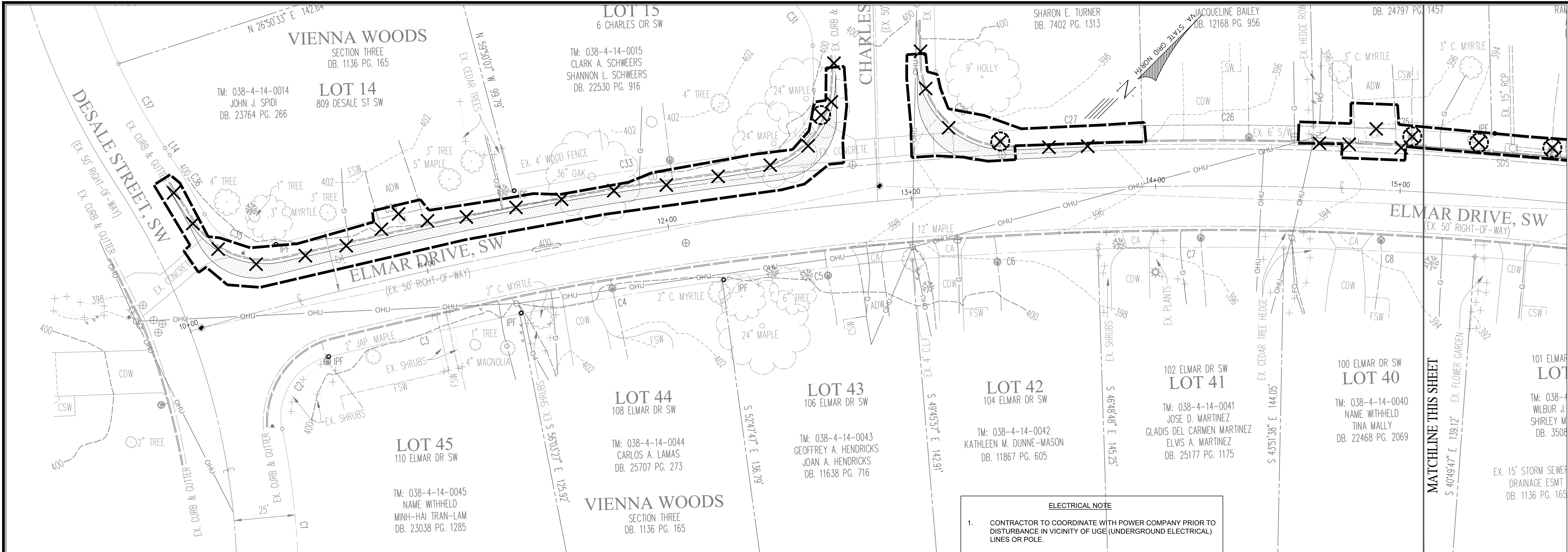


- NOTES:**
1. WHEN DRIVEWAY WIDTH EXCEEDS 16' A 3/4" MIN. DEPTH SCORED JOINT SHALL BE PLACED ON CENTERLINE OF DRIVEWAY ENTRANCE OR EVERY 10'.
  2. CONCRETE DRIVEWAY ENTRANCE SHALL BE POURED MONOLITHICALLY.
  3. FOR GRAVEL DRIVEWAY, 4" OF 4" THICK ASPHALT SHALL BE PLACED AT BACK OF THE CONCRETE APRON FOR THE WIDTH OF THE DRIVE.
  4. PROVIDE 6" MINIMUM AGGREGATE BASE HAVING MINIMUM CBR-30 UNDER DRIVEWAY ENTRANCE.
  5. OWNER SHALL DEDICATE ALL PERMANENT EASEMENTS NECESSARY TO PROVIDE ADA COMPLIANT DRIVEWAY ENTRANCE AND SIDEWALK IF EXISTING OR PROPOSED SIDEWALK INTERSECTS DRIVEWAY.
  6. OWNER/DEVELOPER SHALL SUBMIT HYDRAULIC CALCULATIONS TO VERIFY THAT 10 YR. STORM RUNOFF WILL BE RETAINED WITHIN THE GUTTER AND WILL NOT OVERTOP DEPRESSED DRIVEWAY/PEDESTRIAN ACCESS ROUTE. OVERLAND RELIEF AWAY FROM STRUCTURES SHALL BE DEMONSTRATED FOR STORMS IN EXCESS OF 10 YRS.
  7. DETAIL DW-2.2 SHALL ONLY BE USED WHEN DW-2.0 OR DW-2.1 WOULD INHIBIT VEHICULAR USE OF THE DRIVEWAY.

**CONCRETE DRIVEWAY ENTRANCE**  
 ARLINGTON COUNTY, VIRGINIA  
 DEPARTMENT OF ENVIRONMENTAL SERVICES  
 DRAWING NO. DW-2.2  
 Sheet 2 of 2

**CONCRETE DRIVEWAY ENTRANCE**  
 ARLINGTON COUNTY, VIRGINIA  
 DEPARTMENT OF ENVIRONMENTAL SERVICES  
 DRAWING NO. DW-2.2  
 Sheet 1 of 2

NOTES AND DETAILS  
 ELMAR DRIVE SE & SW  
 SIDEWALK IMPROVEMENT PLAN  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA  
 SCALE: N/A  
 C.I. N/A  
 DATE: NOVEMBER, 2022



**ELECTRICAL NOTE**

1. CONTRACTOR TO COORDINATE WITH POWER COMPANY PRIOR TO DISTURBANCE IN VICINITY OF UGE (UNDERGROUND ELECTRICAL) LINES OR POLE.

✕ ITEM TO BE REMOVED

⊗ ITEM TO BE RELOCATED  
SEE SITE PLAN FOR  
NEW LOCATION

▨ EX PAVEMENT TO BE  
REMOVED

NO.	DATE	DESCRIPTION	REV. BY	APPROVED	DATE
3	08-27-23	100% PLAN SUBMISSION			
2	04-09-23	15% PLAN SUBMISSION			
1	12-08-22	30% PLAN SUBMISSION			

PLANDATE:	12-08-2022
	04-19-2023
	06-27-2023

Urban, Ltd.  
712 Little River Turnpike  
Annandale, Virginia 22003  
Tel: 703.642.8800  
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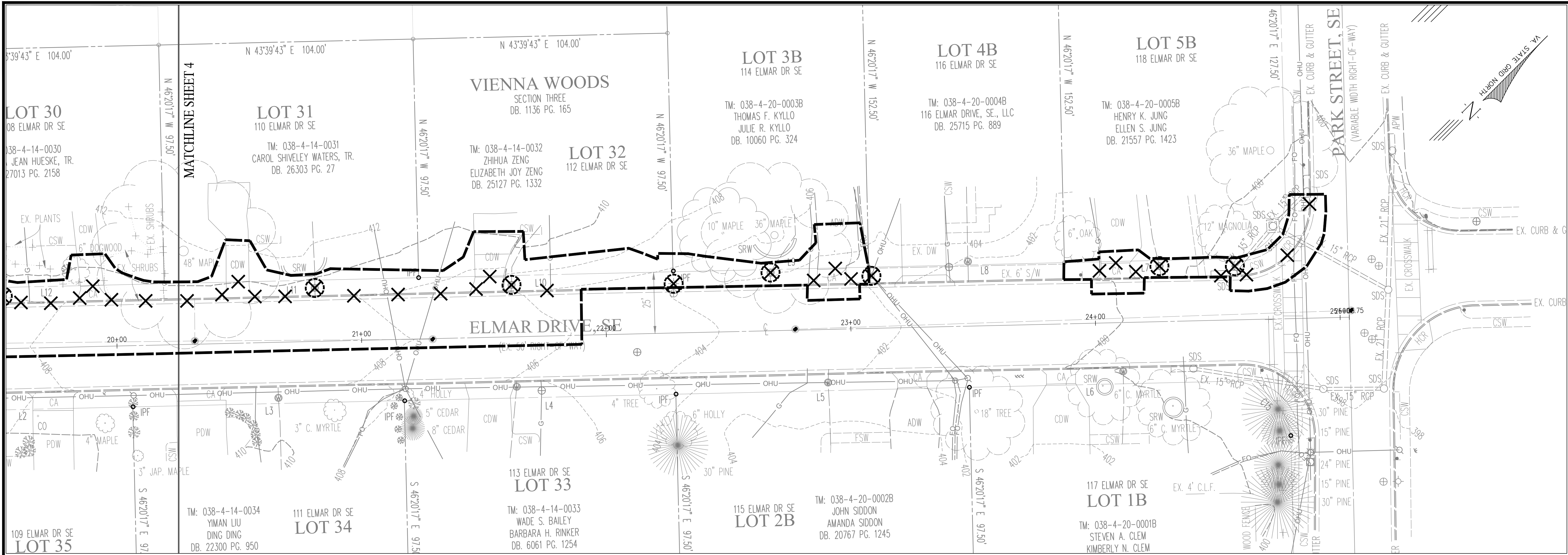
COMMONWEALTH OF VIRGINIA  
C. RYAN CONNOR  
Lic. No. 039631  
06/27/2023  
PROFESSIONAL ENGINEER

EXISTING CONDITIONS AND DEMOLITION PLAN  
ELMAR DRIVE SE & SW  
SIDEWALK IMPROVEMENT PLAN  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA

DATE: NOVEMBER, 2022  
SCALE: 1"=20'  
C.I. 2'

SHEET  
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OF  
13

FILE No.  
PP-2600



**ELECTRICAL NOTE**

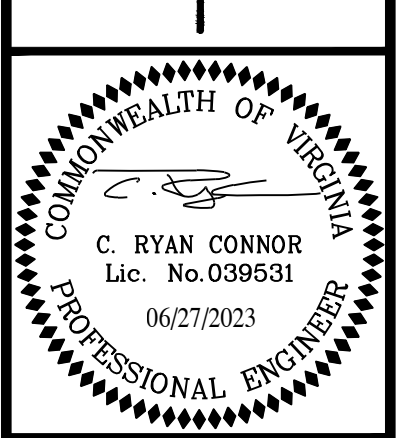
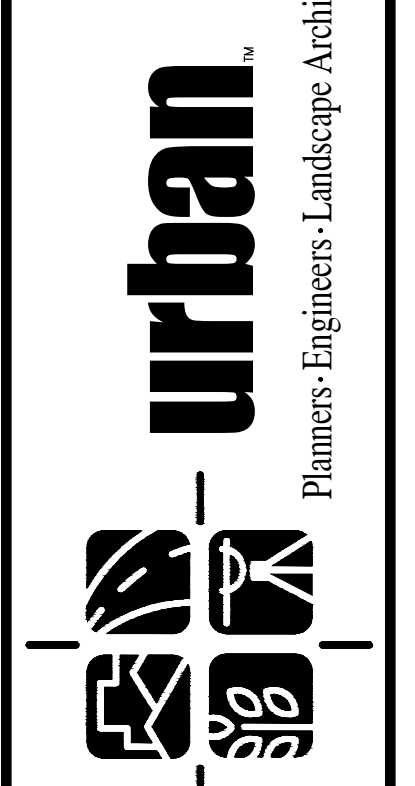
- CONTRACTOR TO COORDINATE WITH POWER COMPANY PRIOR TO DISTURBANCE IN VICINITY OF UGE (UNDERGROUND ELECTRICAL) LINES OR POLE.

- ITEM TO BE REMOVED
- ITEM TO BE RELOCATED  
SEE SITE PLAN FOR NEW LOCATION
- EX. PAVEMENT TO BE REMOVED

NO.	DATE	DESCRIPTION	REV. BY	APPROVED	DATE
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2	04-09-23	15% PLAN SUBMISSION			
3	08-27-23	100% PLAN SUBMISSION			

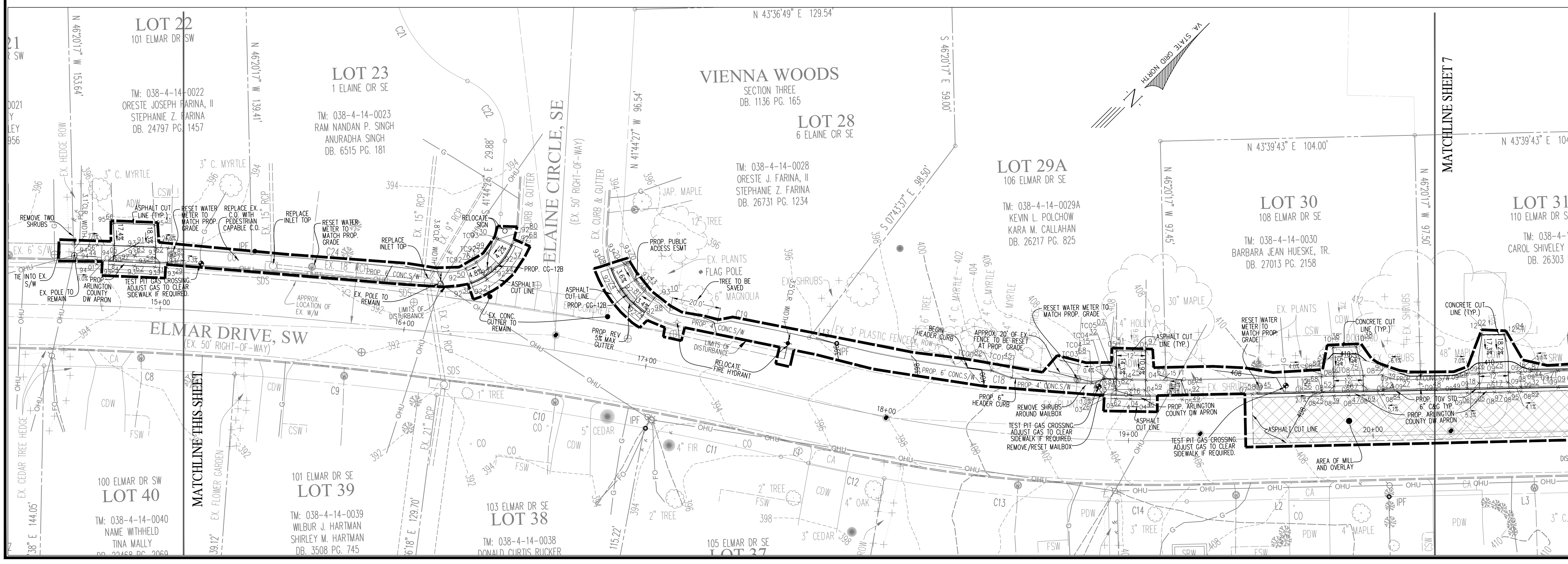
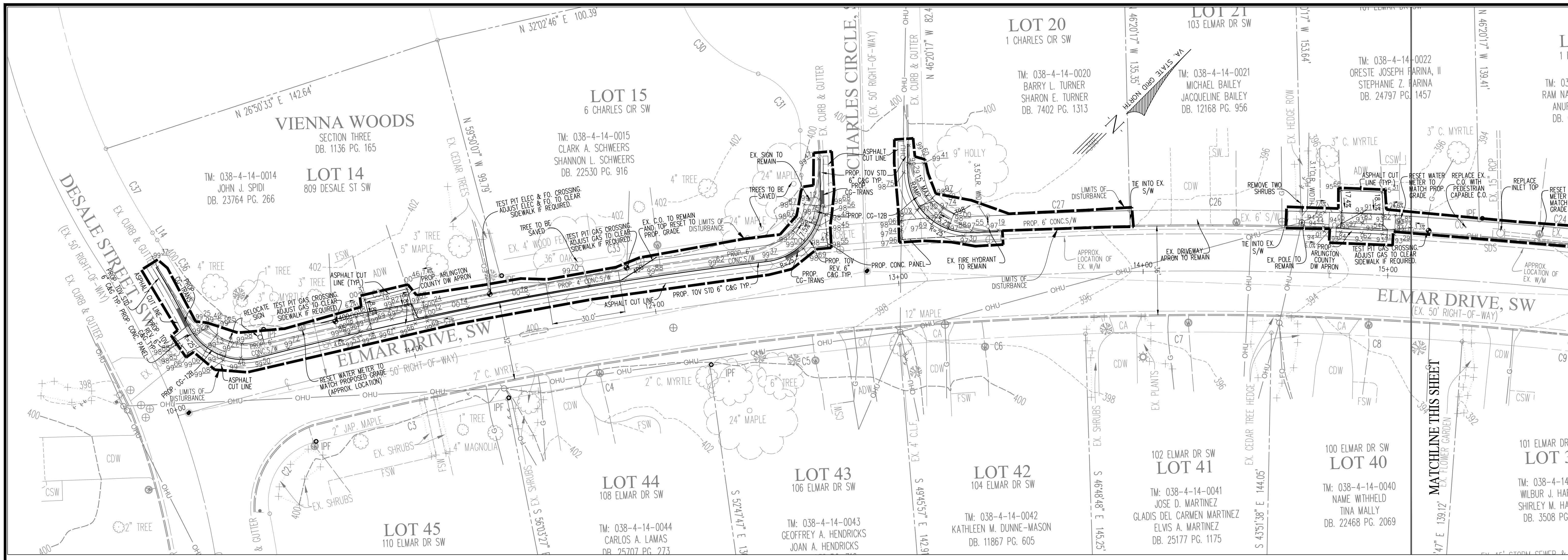
PLANDATE:	12-08-2022
	04-19-2023
	06-27-2023

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EXISTING CONDITIONS AND DEMOLITION PLAN  
**ELMAR DRIVE SE & SW  
 SIDEWALK IMPROVEMENT PLAN**  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA  
 SCALE: 1"=20'  
 DATE: NOVEMBER, 2022  
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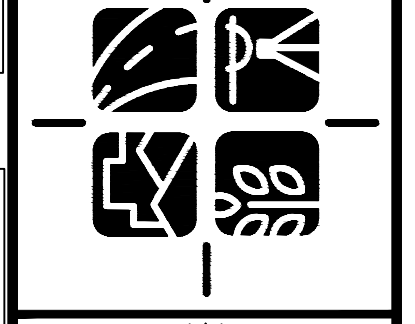
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 OF  
 13  
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 PP-2600



No.	DATE	DESCRIPTION	REVISIONS
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1	12-08-22	30% PLAN SUBMISSION	

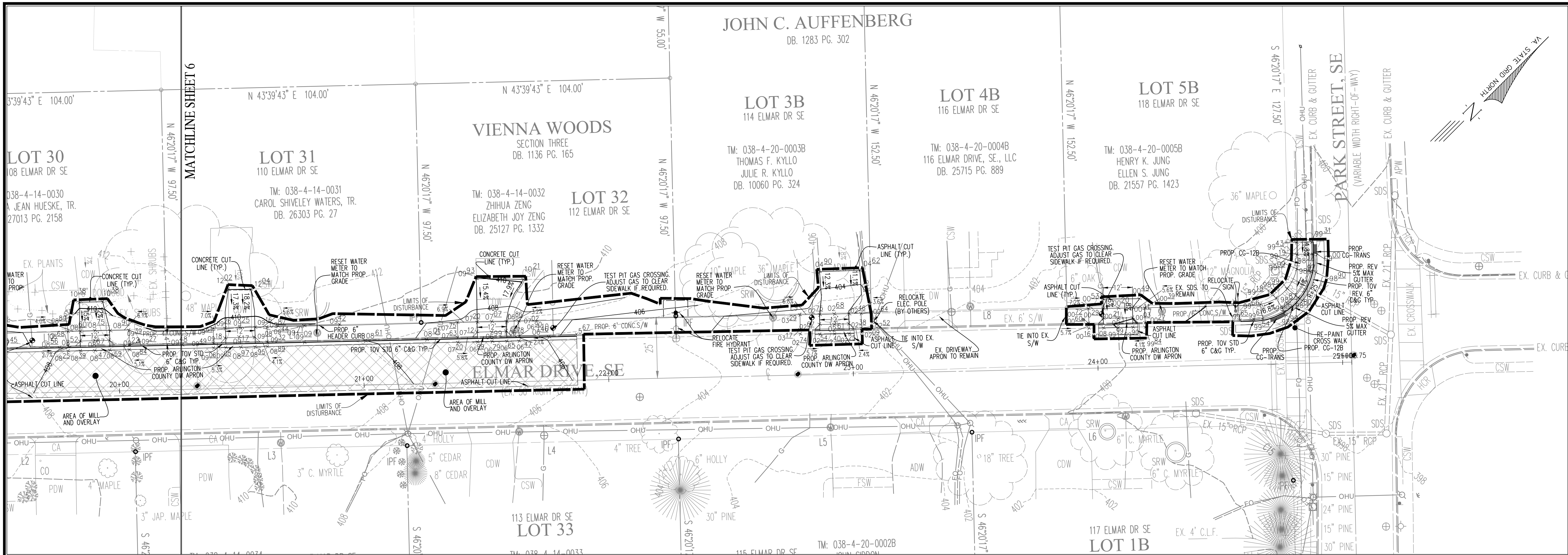
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 06-27-2023

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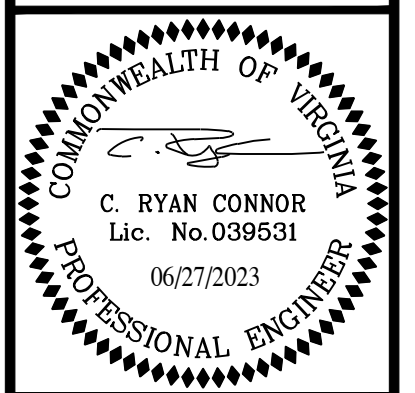
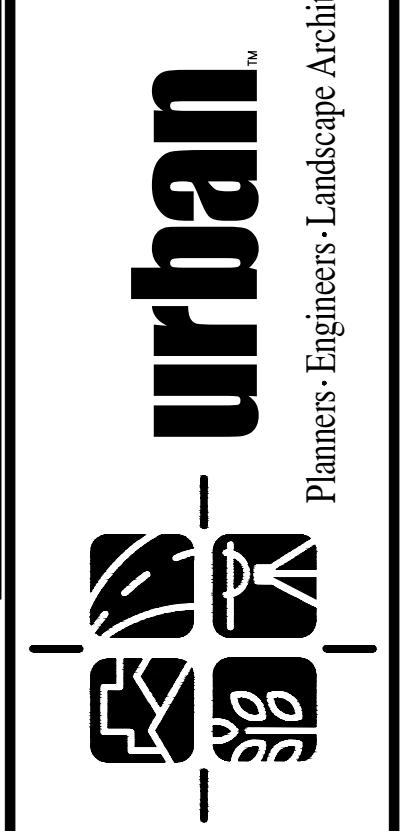
SITE PLAN  
 ELMAR DRIVE SE & SW  
 SIDEWALK IMPROVEMENT PLAN  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA  
 DATE: NOVEMBER, 2022  
 SCALE: 1"=20'  
 SHEET 6 OF 13  
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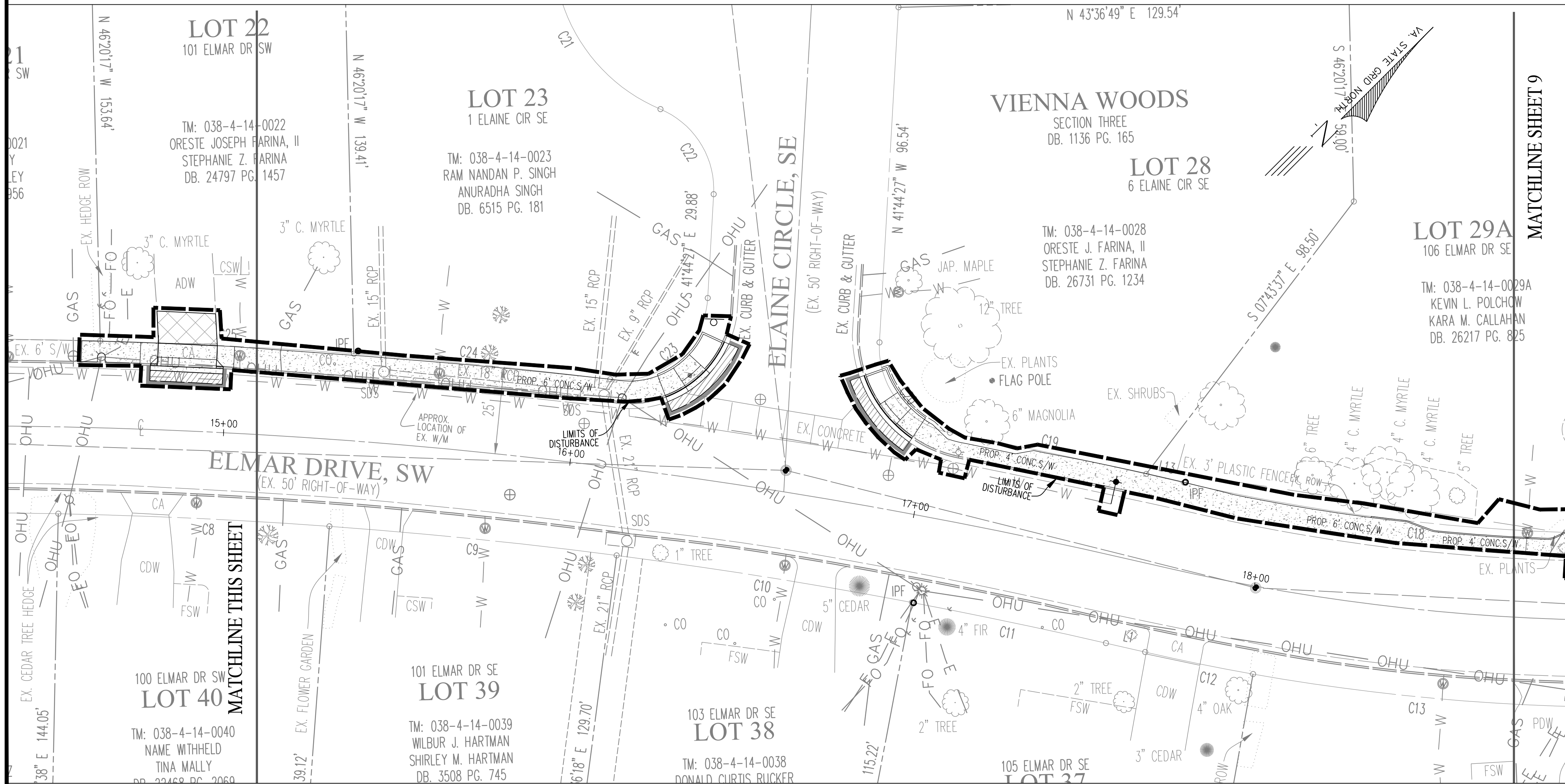
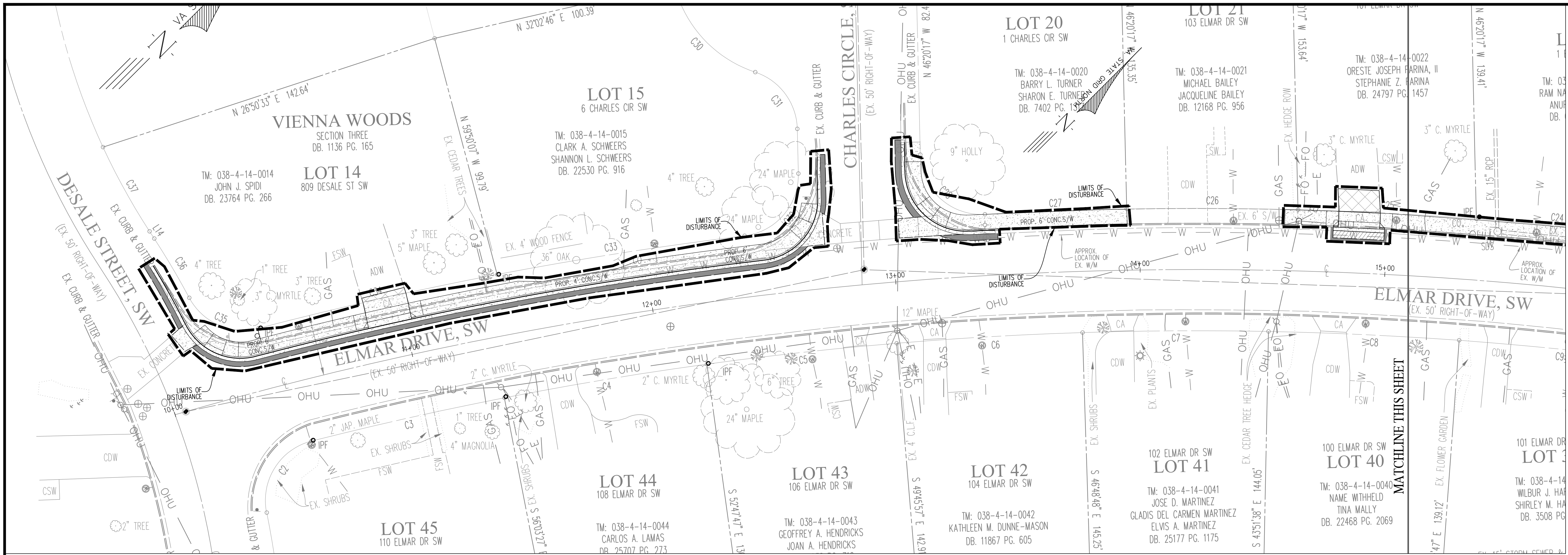
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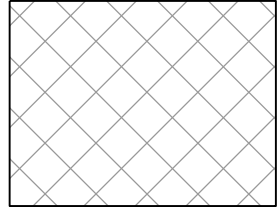
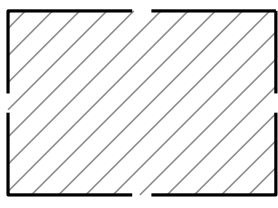

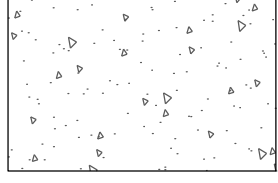


**SITE PLAN**  
**ELMAR DRIVE SE & SW**  
**SIDEWALK IMPROVEMENT PLAN**  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA  
 SCALE: 1"=20'  
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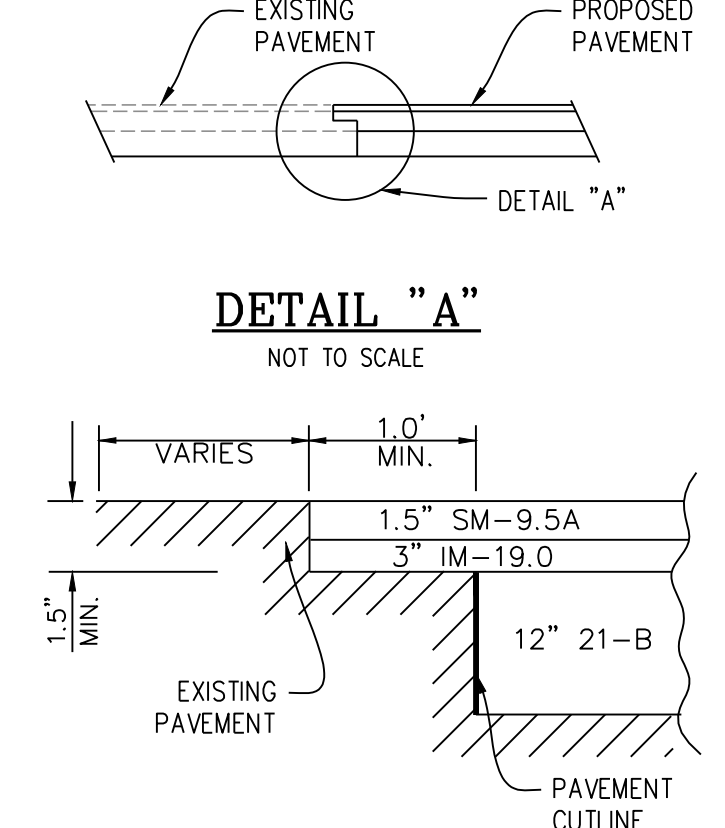
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 OF  
 13  
 FILE No.  
 PP-2600



**PAVEMENT LEGEND**

-  PROPOSED ASPHALT
-  ASPHALT REPAIR AT EXISTING ELEVATION.
-  MINIMUM PAVEMENT WEDGING AREA.
-  PROPOSED CONCRETE (CURB & GUTTER, CG-12, ETC)

**TYPICAL PAVEMENT WEDGING DETAIL**  
TO BE USED FOR PAVEMENT ADDITIONS

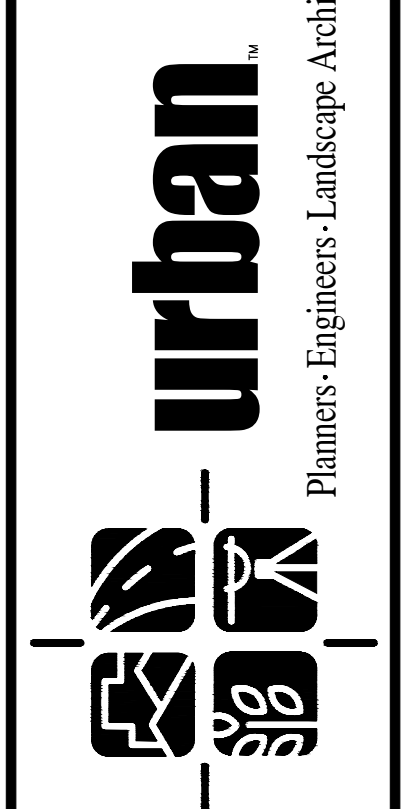


NOTE:  
BOTTOM AND ALL SIDES OF CUT TO BE PREPARED WITH ASPHALT PRIOR TO PLACING ASPHALT MIX.  
PAVEMENT WEDGING REQUIRED AT ALL CUTLINES.

NO.	DATE	DESCRIPTION	REVISIONS
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PLANDATE:  
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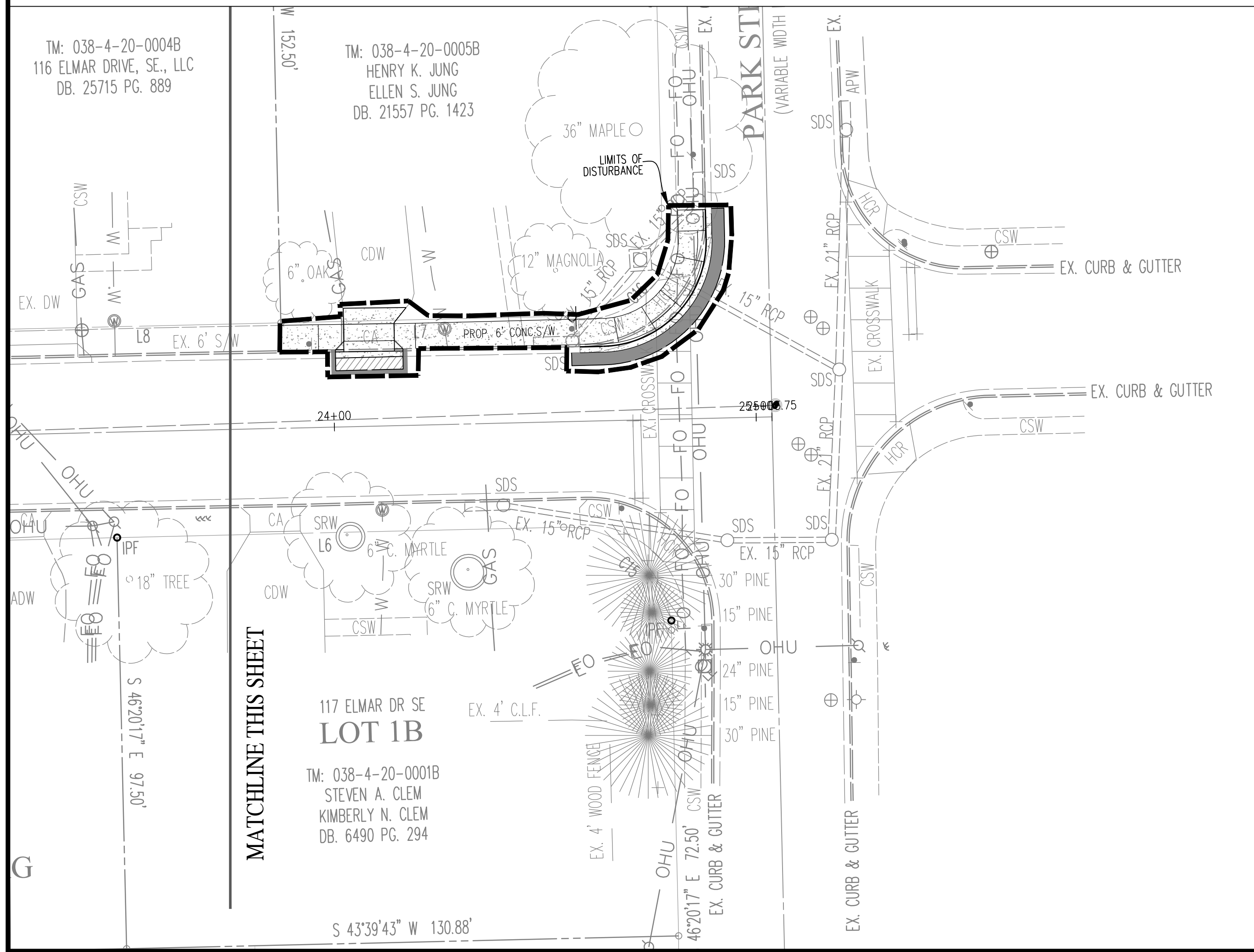
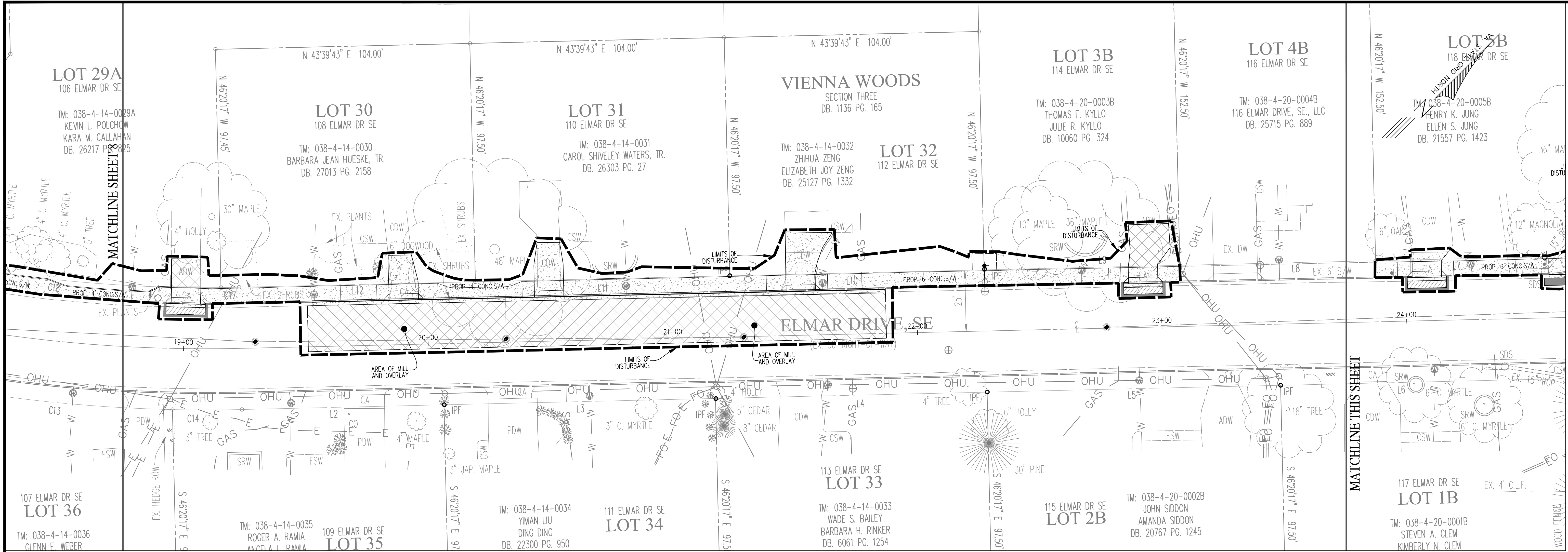
COMMONWEALTH OF VIRGINIA  
C. RYAN CONNOR  
Lic. No. 039531  
06/27/2023  
PROFESSIONAL ENGINEER

PAVEMENT IMPROVEMENT PLAN  
**ELMAR DRIVE SE & SW**  
**SIDEWALK IMPROVEMENT PLAN**  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA

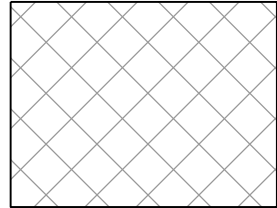
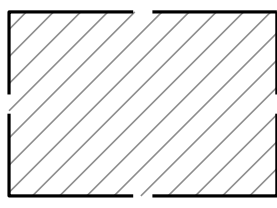

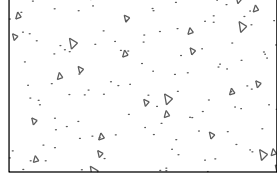
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SCALE: 1"=20'  
C.I. = 2'

SHEET 8 OF 13  
FILE No. PP-2600



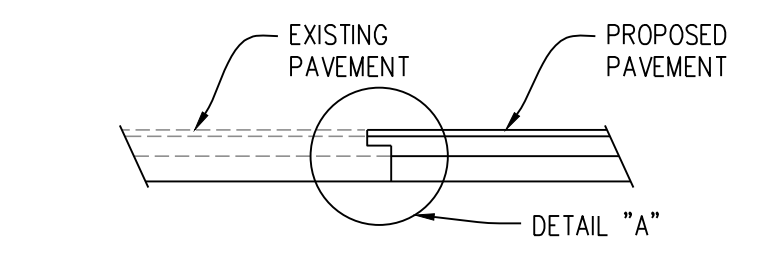


**PAVEMENT LEGEND**

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-  PROPOSED CONCRETE (CURB & GUTTER, CG-12, ETC)

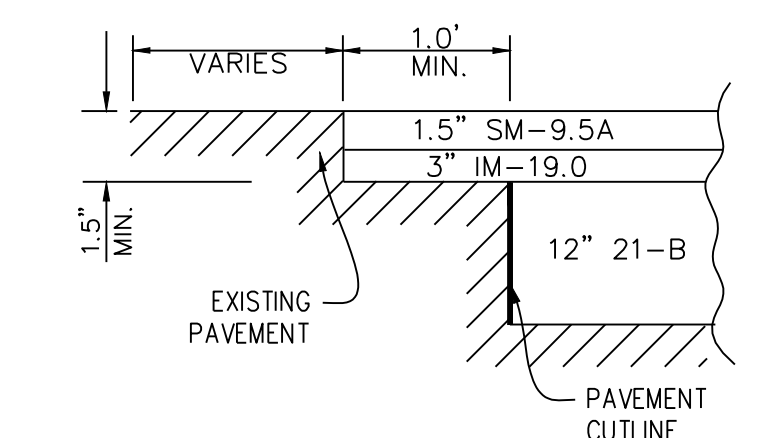
**TYPICAL PAVEMENT WEDGING DETAIL**

TO BE USED FOR PAVEMENT ADDITIONS



**DETAIL "A"**

NOT TO SCALE



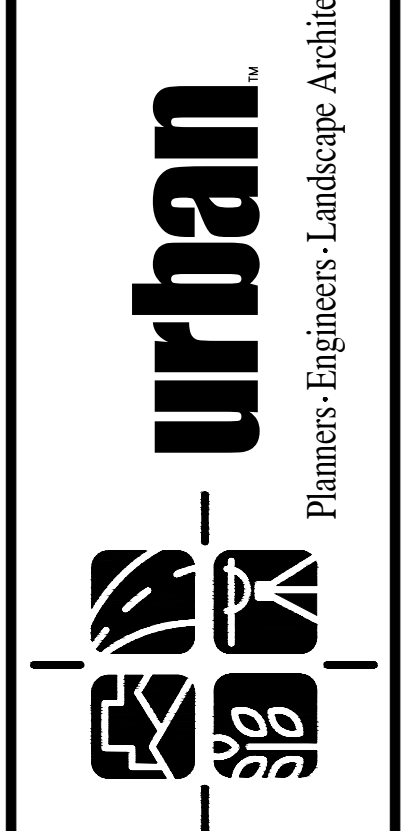
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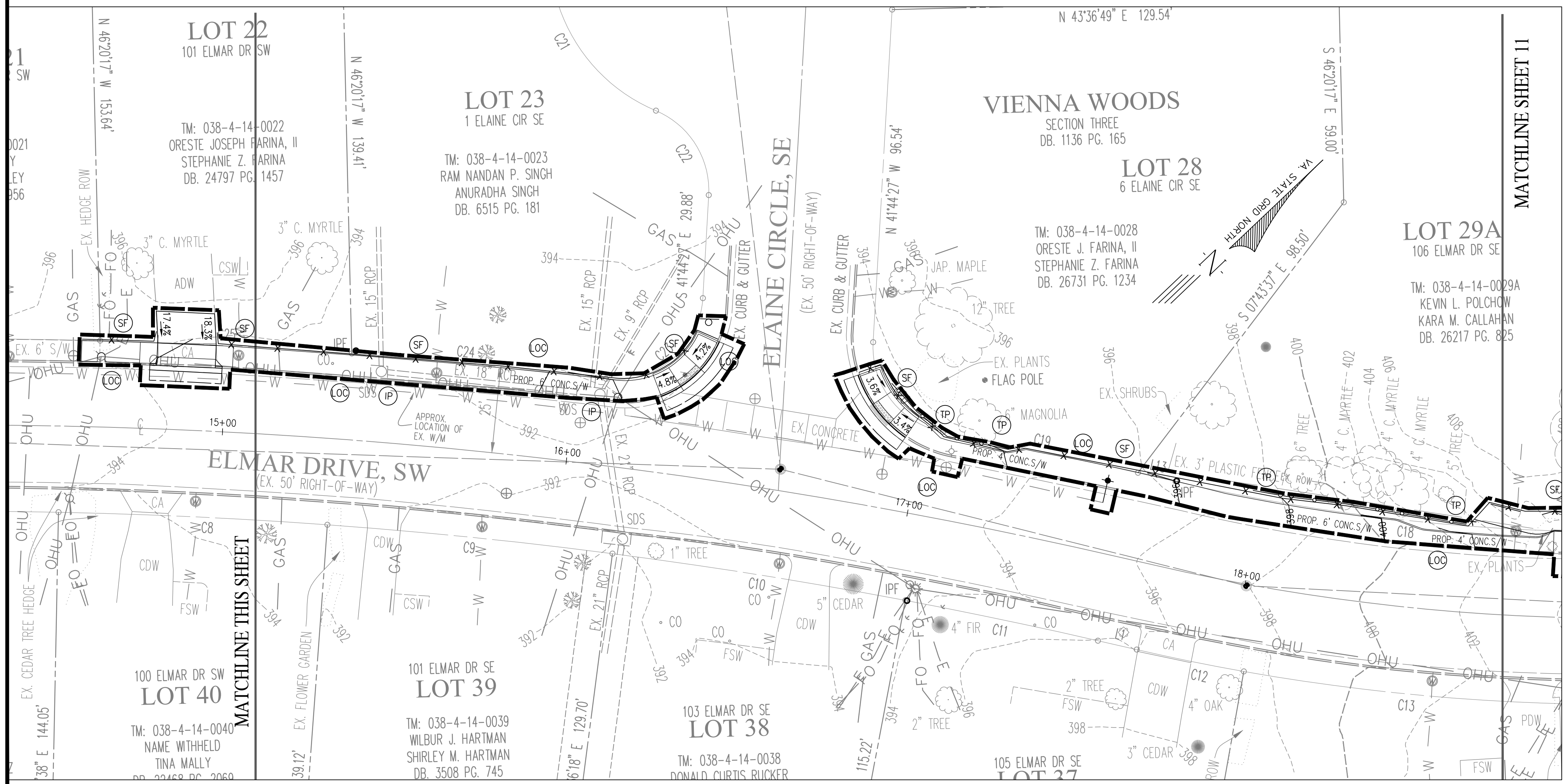
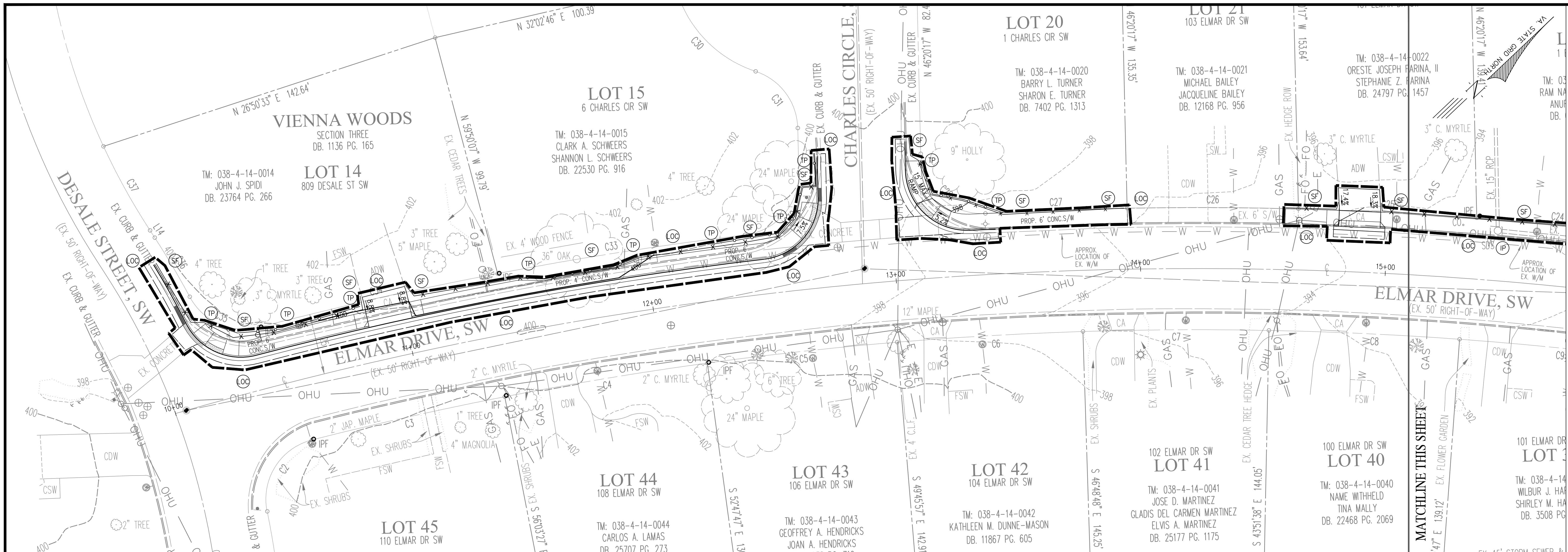
PLANDATE:  
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06/27/2023  
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PAVEMENT IMPROVEMENT PLAN  
**ELMAR DRIVE SE & SW**  
**SIDEWALK IMPROVEMENT PLAN**  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
DATE: NOVEMBER, 2022  
SCALE: 1"=20'  
C.I. = 2'  
SHEET  
9  
OF  
13  
FILE No.  
PP-2600



**EROSION AND SEDIMENT CONTROL LEGEND**

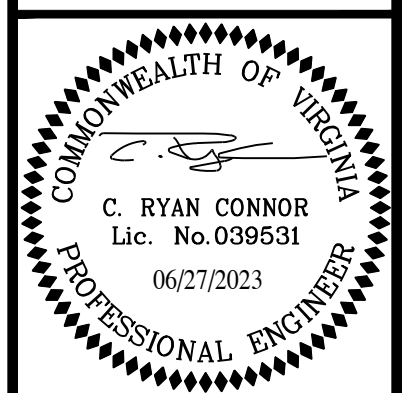
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3.07	STORM DRAIN INLET PROTECTION	IP	⊙
3.38	TREE PROTECTION	TP	— —
	LIMITS OF CLEARING & GRADING	LOC	— —

**REVISIONS**

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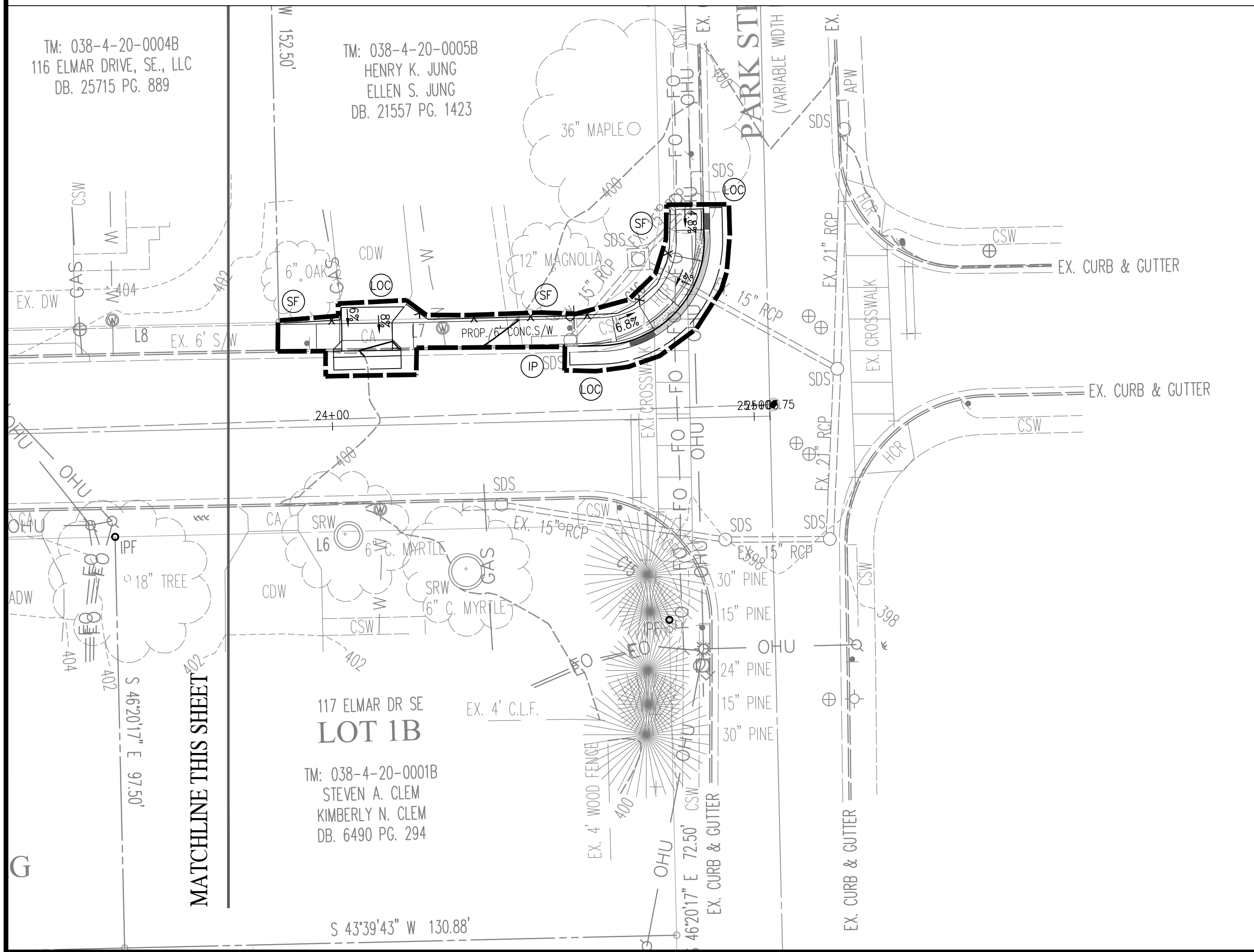
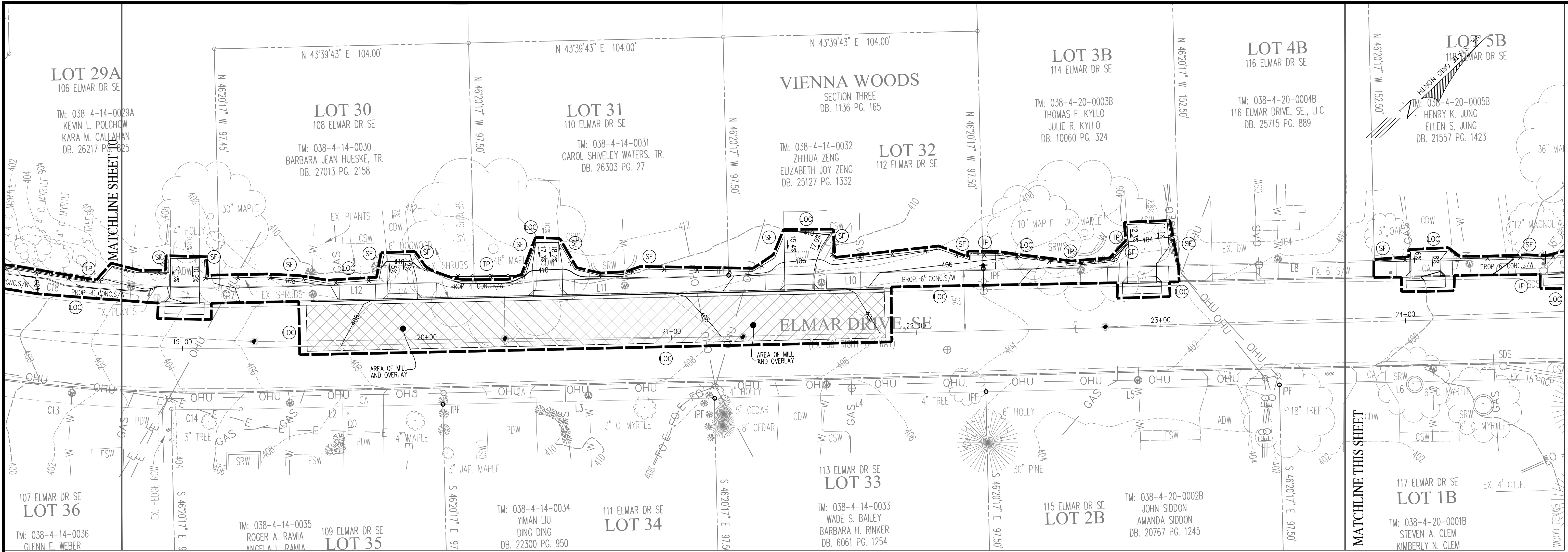
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**EROSION AND SEDIMENT CONTROL PHI I & PHI II**  
**ELMAR DRIVE SE & SW**  
**SIDEWALK IMPROVEMENT PLAN**  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA

DATE: NOVEMBER, 2022  
SCALE: 1"=20'  
SHEET 10 OF 13  
FILE No. PP-2600



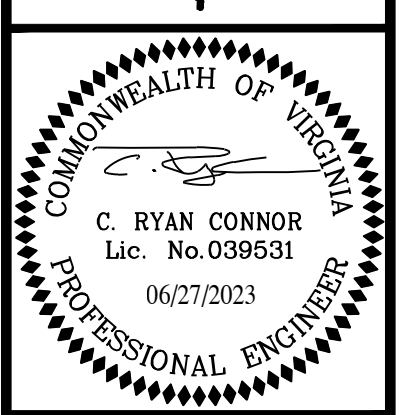
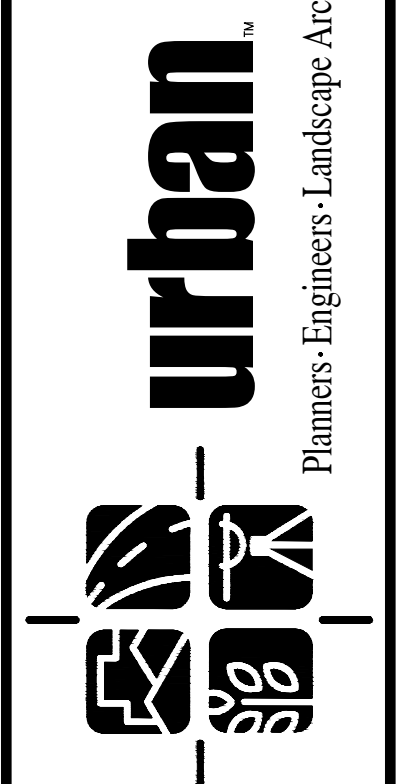
**EROSION AND SEDIMENT CONTROL LEGEND**

3.05	SILT FENCE	SF	XXXXX
3.07	STORM DRAIN INLET PROTECTION	IP	⊗
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	LIMITS OF CLEARING & GRADING	LOC	---

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EROSION AND SEDIMENT CONTROL PH I & PH II  
**ELMAR DRIVE SE & SW**  
**SIDEWALK IMPROVEMENT PLAN**  
 TOWN OF VIENNA  
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 SHEET 11 OF 13  
 FILE No. PP-2600

# EROSION AND SEDIMENT CONTROL NARRATIVE

## PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF A SIDEWALK IMPROVEMENT PLAN FOR THE EXISTING ELMAR DRIVE. IMPROVEMENTS INCLUDE ROAD RESURFACING, CURB AND GUTTER, SIDEWALK, DRIVEWAY ENTRANCES AND CG-12 DETECTABLE WARNING SURFACES. THE TOTAL DISTURBED ACREAGE FOR THE PROJECT IS 0.52 ACRES.

## EXISTING SITE CONDITIONS

THE SITE IS AN EXISTING ROAD, ELMAR DRIVE, WITH CURB & GUTTER, DRIVEWAY ENTRANCES, AND FRONT YARDS CONTAINING UTILITY POLES, FIRE HYDRANTS, WATER METERS, ETC.

## ADJACENT PROPERTIES

THE SITE IS SURROUNDED ON ALL SIDES BY SINGLE-FAMILY LOTS.

## OFF-SITE AREAS

THERE IS CONSTRUCTION ON OFFSITE AREAS ADJACENT TO ROADWAY. EROSION AND SEDIMENT CONTROL DEVICES WILL BE PLACED OFFSITE AS SHOWN ON PLAN.

## SOILS INFORMATION

SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS
105B	WHEATON - GLENELG COMPLEX	GOOD	GOOD	HIGH	IVB
105C	WHEATON - GLENELG COMPLEX	GOOD	GOOD	HIGH	IVB
107B	WHEATON - MEADOWVILLE COMPLEX	FAIR - W, B	MARGINAL - W, S	MEDIUM	IVB

## CRITICAL EROSION AREAS

THERE ARE NO CRITICAL AREAS ASSOCIATED WITH THIS PROJECT. NO SLOPES ARE GREATER THAN 15%, AND THERE ARE NO RESOURCE PROTECTION AREAS WITHIN THE PROJECT LIMITS.

## EROSION AND SEDIMENT CONTROL MEASURES

THE EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT AREA ARE DESCRIBED IN DETAIL IN THE EROSION AND SEDIMENT CONTROL PROGRAM ON THIS SHEET.

## OVERALL MANAGEMENT STRATEGY

THE OVERALL STRATEGY FOR THIS SITE IS TO TREAT THE ONSITE RUNOFF WITH PERIMETER SILT FENCE AND INLET PROTECTION.

## EROSION CONTROL PROGRAM (GENERAL GUIDELINES)

NOT MORE THAN 75% OF THE SITE IS TO BE DENUDED AT ONE TIME. TEMPORARY SEEDING AND MULCHING ARE TO BE APPLIED TO ANY AREA WITHIN THE SITE NOT CONTINUOUSLY WORKED FOR 5 DAYS AFTER CLEARING AND ROUGH GRADING. IN ADDITION, THE CONTRACTOR SHALL TAKE THE FOLLOWING STEPS TO MINIMIZE THE VOLUME OF SILT:

- CONTRACTOR SHALL EVALUATE THE SITE TO DETERMINE EXTENSIVE CUT AND FILL AREAS AND SHALL WORK THOSE AREAS TO MINIMIZE THE EXTENT OF HEAVY EQUIPMENT WORK. CONTRACTOR SHALL STRIVE TO BRING AREAS TO GRADE (ROUGH OR FINISH) AND TO STABILIZE, BY TEMPORARY OR PERMANENT VEGETATION, THESE DISTURBED AREAS PRIOR TO BEGINNING WORK IN OTHER AREAS.
- FILL AREAS SHALL BE COMPACTED COMPLETELY PRIOR TO THE END OF EACH WORK DAY. FILL SLOPE SURFACES SHALL BE LEFT ROUGHENED TO REDUCE SHEET EROSION OF THE SLOPES. CONTRACTOR SHALL REDIRECT CONCENTRATED RUNOFF, BY EARTH BERMS OR OTHER DEVICES, AROUND ACTIVELY DISTURBED AREAS TO STABILIZE OUTLETS.
- CUT SLOPE, AS NECESSARY, SHALL BE PROTECTED FROM CONCENTRATED FLOW BY BERMS ABOVE THE SLOPE AND DIRECTED AROUND THE DISTURBED AREA TO STABILIZED OUTLETS.
- IN NEW PAVEMENT AREAS, PLACE THE AGGREGATE BASE STONE ON THE FINISH SUBGRADE AT THE EARLIEST POSSIBLE TIME.
- MATERIALS AND METHODS USED IN CONSTRUCTION AND MAINTENANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES REQUIRED SHALL CONFORM TO THE CONSTRUCTION STANDARDS AND SPECIFICATIONS IN CHAPTER 3 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH), THIRD EDITION, 1992, AS WELL AS ANY OTHER APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
- WHERE APPROPRIATE AND FEASIBLE, AREAS IN WHICH NATURAL GRADES ARE NOT IMPACTED BY PROPOSED GRADING OR STOCKPILE AREAS, SHALL BE LEFT WITH THEIR EXISTING VEGETATION IN PLACE. ALL AREAS SUBJECT TO GRADING SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL.
- PERMANENT OR 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 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN 1 YEAR.

## SEDIMENT CONTROL PROGRAM (PHASE I)

- INSTALL PERIMETER CONTROLS AS SHOWN ON THE PHASE I PLAN (SILT FENCE, ETC.) PERIMETER CONTROLS MUST BE APPROVED IN WRITING BY THE TOWN E & S INSPECTOR BEFORE CLEARING OF THE SITE CAN TAKE PLACE
- COMMENCE CONSTRUCTION OF ALL UTILITIES AND GRADING OF THE SITE.

## SEDIMENT CONTROL PROGRAM (PHASE II)

- COMMENCE CONSTRUCTION OF CURB AND GUTTER, PAVEMENT, AND SIDEWALK AS SHOWN ON THE CONSTRUCTION PLANS.
- INLET PROTECTION (IP) SHALL BE PROVIDED AT STORM DRAIN INLETS AS THEY ARE CONSTRUCTED.
- PERMANENTLY STABILIZE UNPAVED AREAS WITH SOD (PER SEC. 3.33 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK).
- THE CONTROL MEASURES MAY NOT BE REMOVED UNTIL ALL OF THE DISTURBED AREAS HAVE BEEN STABILIZED AND ONLY AS APPROVED AND DIRECTED BY THE INSPECTOR.

## MAINTENANCE

THE FOLLOWING IS A PROGRAM OF MAINTENANCE FOR THE MECHANICAL AND PERMANENT CONTROLS SPECIFIED IN THIS NARRATIVE AND ON THE PLAN:

- THE SITE SUPERINTENDENT, OR HIS REPRESENTATIVE, SHALL MAKE A VISUAL INSPECTION OF ALL MECHANICAL CONTROLS AND NEWLY STABILIZED AREAS (I.E., SEEDED OR SODDEN AREAS) ON A DAILY BASIS (ESPECIALLY AFTER A HEAVY RAINFALL) TO INSURE THAT ALL CONTROLS ARE IN PLACE AND THAT NONE HAVE BEEN DAMAGED. ANY DAMAGED CONTROL SHALL BE REPAIRED PRIOR TO END OF THE WORK DAY TO INCLUDE RESEEDING OR RESETTING, IF NECESSARY. WHEN IT IS CLEAR THAT PLANTS HAVE NOT GERMINATED ON AN AREA OR HAVE DIED, THESE AREAS MUST BE RE-SEEDING IMMEDIATELY TO PREVENT EROSION DAMAGE.
- AFTER ALL CONSTRUCTION OPERATIONS HAVE ENDED AND ALL DISTURBED AREAS ARE STABILIZED, MECHANICAL SEDIMENT CONTROLS SHALL BE REMOVED AND GROUND SHALL BE RESTORED ESTABLISHMENT OF VEGETATION, TO ITS NATURAL OR PROPOSED CONDITION. REMOVAL OF ANY CONTROL IS CONTINGENT UPON APPROVAL BY THE TOWN INSPECTOR.

## PERMANENT STABILIZATION

AFTER CONSTRUCTION IS COMPLETE ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH SEC. 3.32 AND 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

## STORMWATER MANAGEMENT

N/A

## ADDITIONAL NOTES

- THE TOWN INSPECTOR SHALL HAVE THE AUTHORITY TO DIRECT THE ADDITION OR DELETION OF EROSION AND SEDIMENT CONTROLS AS SITE CONDITIONS WARRANT.
- EARTHEN STRUCTURES ARE TO BE STABILIZED IMMEDIATELY UPON COMPLETION.

## EROSION AND SEDIMENT CONTROL MEASURES:

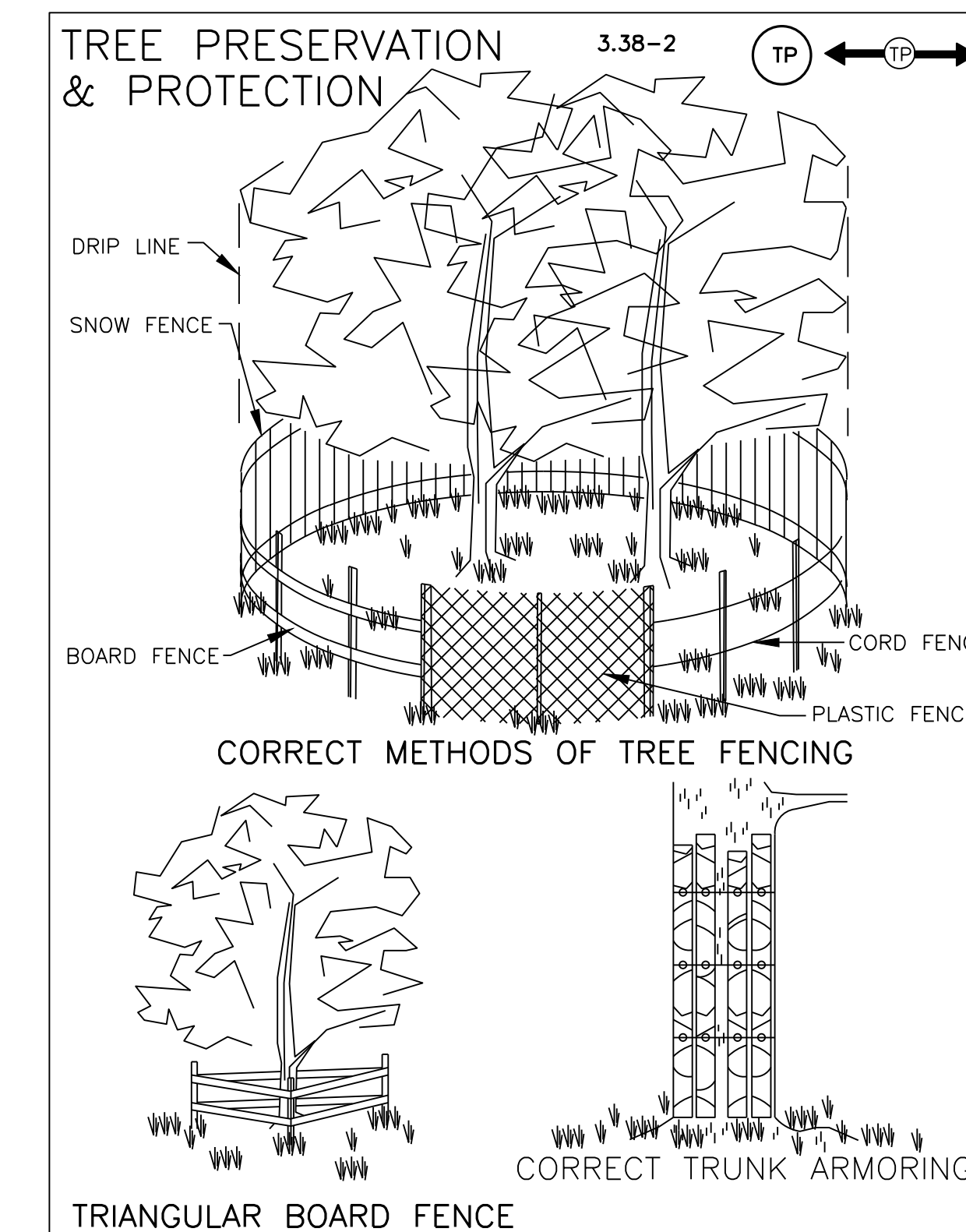
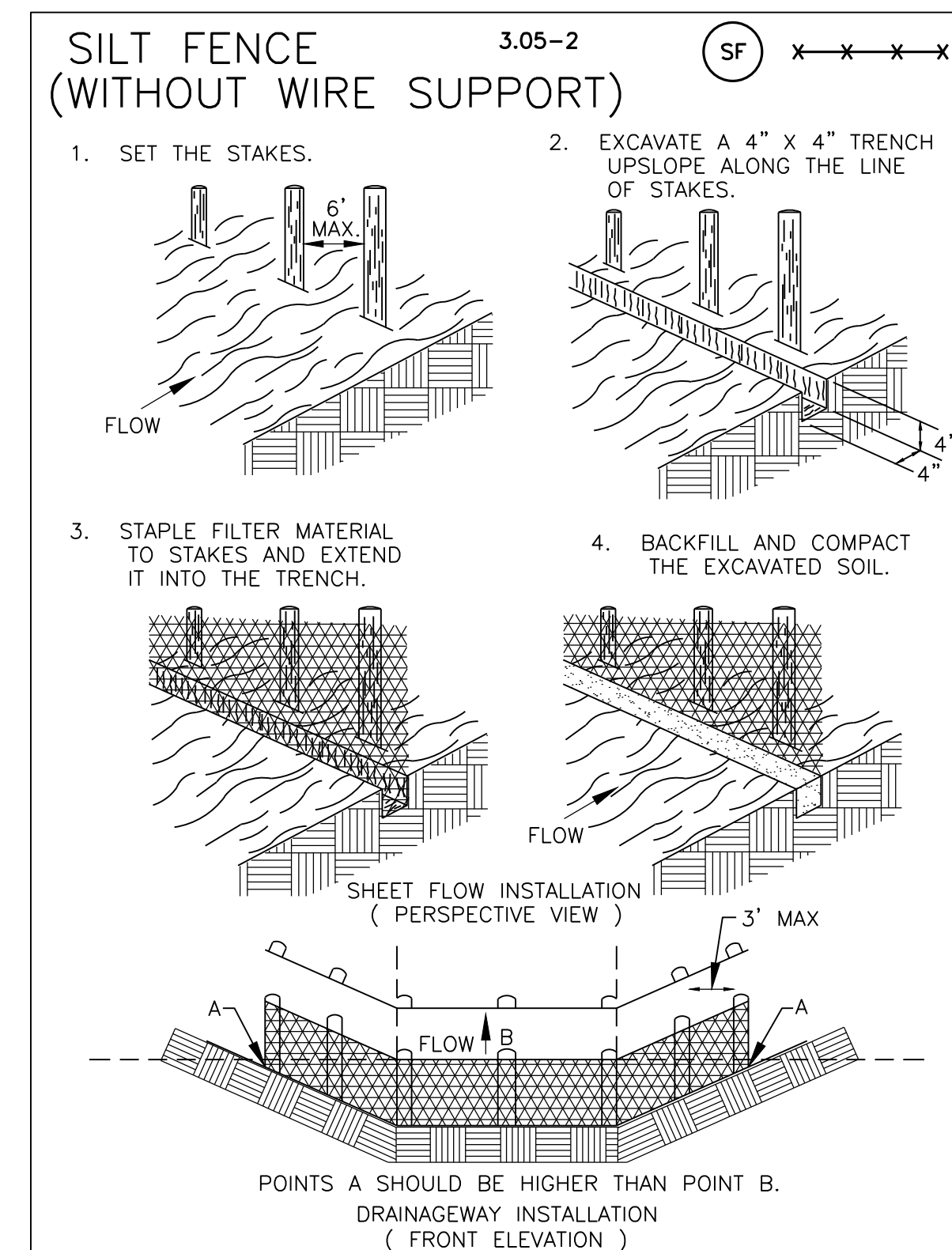
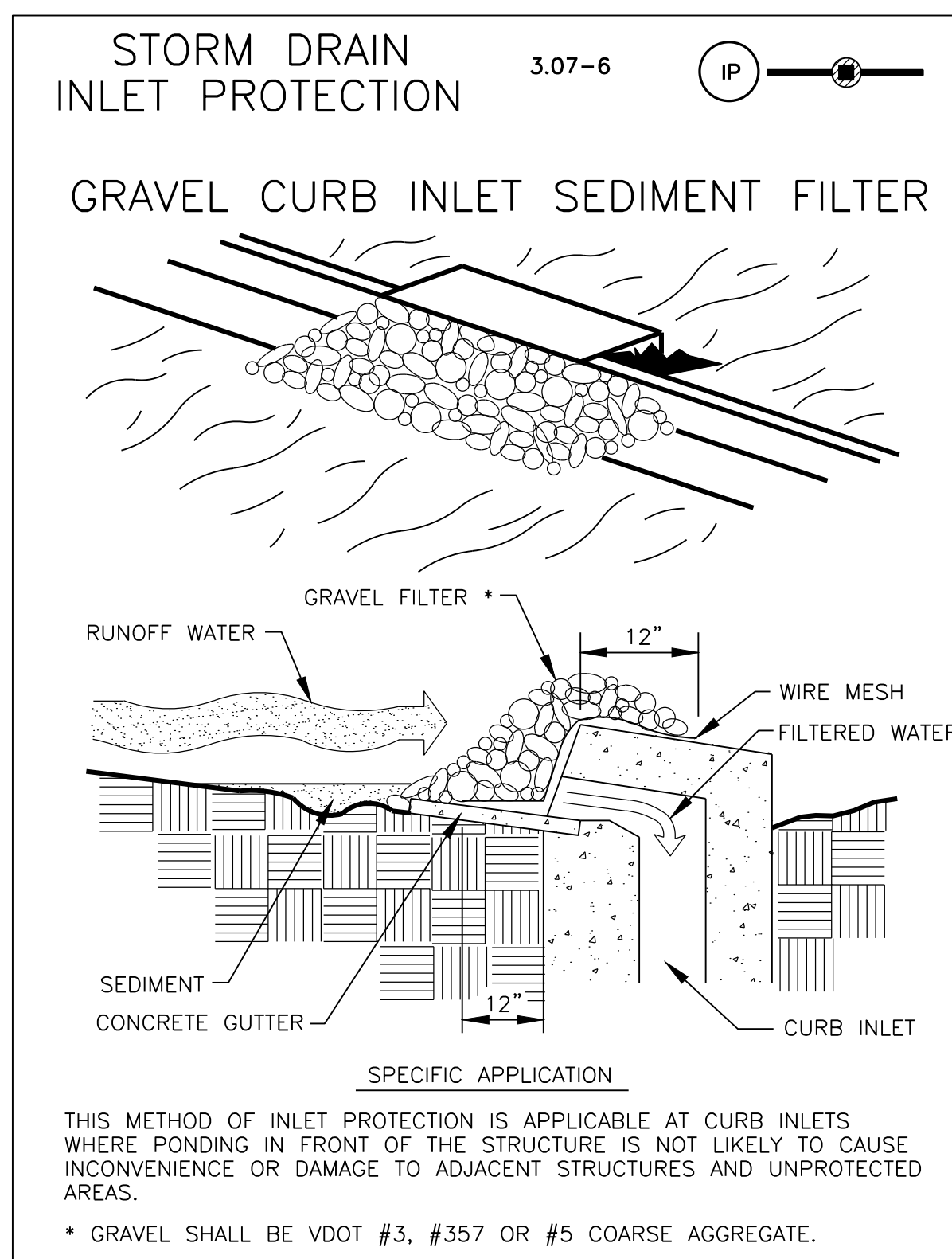
UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VESCH.

THE STRUCTURAL PRACTICES PROPOSED WITH THIS PLAN ARE AS FOLLOWS:

- SILT FENCE - 3.05**  
A TEMPORARY SEDIMENT BARRIER CONSISTING OF A SYNTHETIC FILTER FABRIC STRETCHED ACROSS AND ATTACHED TO SUPPORTING POSTS AND ENTRENCHED.
- STORM DRAIN INLET PROTECTION - 3.07**  
A SEDIMENT FILTER OR AN EXCAVATED IMPOUNDING AREA AROUND A STORM DRAIN DROP INLET OR CURB INLET.
- TOPSOILING - 3.30**  
PRESERVING AND REUSING THE SURFACE LAYER OF SOIL FROM AREAS TO BE GRADED.
- TEMPORARY SEEDING - 3.31**  
THE ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS BY SEEDING WITH APPROPRIATE RAPIDLY GROWING ANNUAL PLANTS.
- SODDING - 3.33**  
STABILIZING FINE-GRADED DISTURBED AREAS BY ESTABLISHING PERMANENT GRASS STANDS WITH SOD
- MULCHING - 3.35**  
APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO THE SOIL SURFACE.
- TREE PROTECTION - 3.38**  
PROTECTION OF DESIRABLE TREES FROM MECHANICAL AND OTHER INJURY DURING LAND DISTURBING AND CONSTRUCTION ACTIVITY.
- DUST CONTROL - 3.39**  
REDUCING SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBING, DEMOLITION, AND CONSTRUCTION ACTIVITIES, BY SPRAYING FROM A WATER TRUCK OR OTHER APPROVED METHOD.

## GENERAL LAND CONSERVATION NOTES

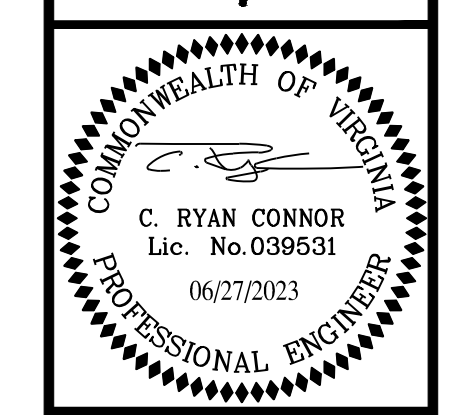
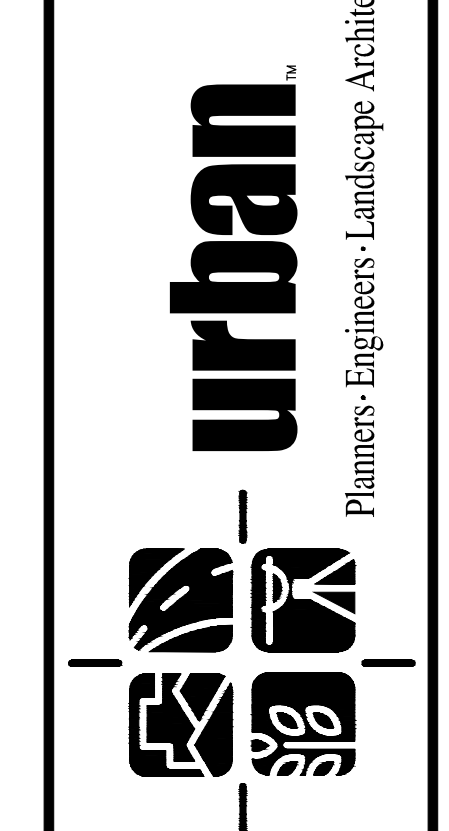
- ALL LAND CONSERVATION ACTIVITIES SHALL BE PERFORMED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- NO DISTURBED AREA WILL REMAIN DENUDED FOR MORE THAN 14 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE TOWN.
- ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.
- ALL STORM SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL. NO MORE THAN 500 FEET ARE TO BE OPEN AT ONE TIME.
- ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS AFTER BACKFILL.
- ALL TEMPORARY EARTH BERMS, AND DIVERSIONS ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.
- DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION DEVICES, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
- AT THE COMPLETION OF CONSTRUCTION, ALL TEMPORARY SILTATION AND EROSION CONTROLS SHALL BE REMOVED AND ALL DISTURBED AREAS SHALL BE STABILIZED.



NO.	DATE	DESCRIPTION	REV. BY	APPROVED
3	06-27-23	100% PLAN SUBMISSION		
2	04-19-23	95% PLAN SUBMISSION		
1	12-08-22	30% PLAN SUBMISSION		

PLAN DATE	DATE
12-08-2022	04-19-2023
04-19-2023	06-27-2023

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 www.urban-llc.com



EROSION AND SEDIMENT CONTROL NARRATIVE & DETAILS  
 ELMAR DRIVE SE & SW  
 SIDEWALK IMPROVEMENT PLAN  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA  
 C.I. N/A  
 DATE: NOVEMBER, 2022  
 SCALE: N/A

SHEET  
 12  
 OF  
 13  
 FILE No.  
 PP-2600

# BMP SITE REQUIREMENT COMPUTATIONS

Project Name: **Town of Vienna Elmar Drive SE & SW**  
 Date: **4/19/2023**  
 Linear Development Project? **No**

CLEAR ALL  
(Ctrl+Shift+R)

data input cells  
 constant values  
 calculation cells  
 final results

## Site Information

### Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area (acres) → **0.52**

Maximum reduction required:	<b>10%</b>
The site's net increase in impervious cover (acres) is:	<b>0.12</b>
Post-Development TP Load Reduction for Site (lb/yr):	<b>0.28</b>

Check:  
 BMP Design Specifications List: 2013 Draft Stds & Specs  
 Linear project? **No**  
 Land cover areas entered correctly? **✓**  
 Total disturbed area entered? **✓**

### Pre-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) — undisturbed, protected forest/open space or reforested	0.00	0.00	0.00	0.01	0.01
Managed Turf (acres) — disturbed, graded for yards or other turf to be	0.00	0.00	0.00	0.21	0.21
Impervious Cover (acres)	0.00	0.00	0.00	0.30	0.30
<b>Totals</b>					<b>0.52</b>

### Post-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) — undisturbed, protected forest/open space or reforested	0.00	0.00	0.00	0.00	0.00
Managed Turf (acres) — disturbed, graded for yards or other turf to be	0.00	0.00	0.00	0.10	0.10
Impervious Cover (acres)	0.00	0.00	0.00	0.42	0.42
<b>Totals</b>					<b>0.52</b>

### Constants

Annual Rainfall (inches)	<b>43</b>
Target Rainfall Event (inches)	<b>1.00</b>
Total Phosphorus (TP) EMC (mg/L)	<b>0.26</b>
Total Nitrogen (TN) EMC (mg/L)	<b>1.86</b>
Target TP Load (lb/acre/yr)	<b>0.41</b>
TP (unitless correction factor)	<b>0.90</b>

### Runoff Coefficients (Rv)

	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

### LAND COVER SUMMARY — PRE-REDEVELOPMENT

Land Cover Summary-Pre	Listed	Adjusted <sup>1</sup>
Forest/Open Space Cover (acres)	0.01	0.00
Weighted Rv (forest)	0.05	0.00
% Forest	2%	0%
Managed Turf Cover (acres)	0.21	0.10
Weighted Rv (turf)	0.25	0.25
% Managed Turf	40%	25%
Impervious Cover (acres)	0.30	0.30
Rv (impervious)	0.95	0.95
% Impervious	58%	75%
<b>Total Site Area (acres)</b>	<b>0.52</b>	<b>0.40</b>
Site Rv	<b>0.65</b>	<b>0.78</b>

### LAND COVER SUMMARY — POST DEVELOPMENT

Land Cover Summary-Post (Final)	Land Cover Summary-Post	Land Cover Summary-Post
Post Re-Dev. & New Impervious	Post-Development	Post-Development New Impervious
Forest/Open Space Cover (acres)	0.00	0.00
Weighted Rv (forest)	0.00	0.00
% Forest	0%	0%
Managed Turf Cover (acres)	0.10	0.10
Weighted Rv (turf)	0.25	0.25
% Managed Turf	19%	25%
Impervious Cover (acres)	0.42	0.30
Rv (impervious)	0.95	0.95
% Impervious	81%	75%
<b>Total Re-Dev. Site Area (acres)</b>	<b>0.40</b>	
Final Post Dev Site Rv	<b>0.82</b>	
Final Post-Development Treatment Volume (acre-ft)	0.0353	0.0095
Final Post-Development TP Load (lb/yr) <sup>2</sup>	0.97	0.26
Final Post-Development TP Load per acre (lb/acre/yr)	1.86	1.77
Max. Reduction Required (Based on Pre-Development Load)	10%	
TP Load Reduction Required for Redeveloped Area (lb/yr)	0.07	
TP Load Reduction Required for New Impervious Area (lb/yr)		0.21

### Treatment Volume and Nutrient Load

	Pre-Development	Post-Development
Pre-Development Treatment Volume (acre-ft)	0.0282	0.0258
Pre-Development Treatment Volume (cubic feet)	1,227	1,125
Pre-Development TP Load (lb/yr)	0.77	0.71
Pre-Development TP Load per acre (lb/acre/yr)	1.48	1.77
Baseline TP Load (lb/yr)		0.16

<sup>1</sup> Adjusted Land Cover Summary: Pre-Development land cover minus previous land cover (forest/open space or managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-Development acreage (minus acreage of new impervious cover).

Column 1 shows load reduction requirement for new impervious cover (based on new development load time, 0.41 lb/acre/year).

### Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr) **0.28**

### Nitrogen Loads (Informational Purposes Only)

Pre-Development TN Load (lb/yr)	5.51	Final Post-Development TN Load (Post-Development & New Impervious) (lb/yr)	6.92
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NOTE: THE COMPUTATIONS SHOWN ON THIS SHEET WERE DETERMINED USING VERSION 3.0 OF THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM) RE-DEVELOPMENT COMPLIANCE SPREADSHEET RELEASED MAY, 2016.

### BMP NARRATIVE

THE DRAINAGE AREA UTILIZED IN THE WATER QUALITY COMPUTATIONS CONSISTS OF SITE DISTURBANCE AREA. THE MAJORITY OF THIS SITE DRAINS TO THE EXISTING INLETS AND INTO THE EXISTING STORM SYSTEM WITHIN THE PUBLIC ROW.

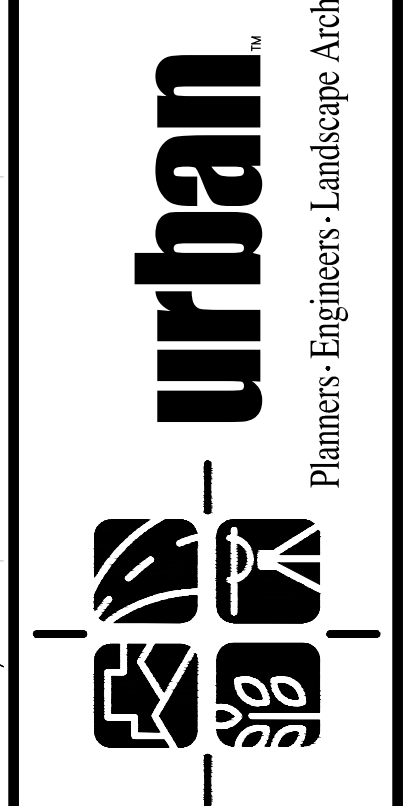
PER THE BMP CALCULATIONS ON THIS SHEET AND IN COMPLIANCE WITH VSM (VRRM) WATER QUALITY CONTROL REQUIREMENTS, THE PHOSPHORUS REMOVAL REQUIREMENT OF 0.28 POUNDS/YEAR IS TO BE OFFSET BY EITHER THE PURCHASE OF NUTRIENT CREDITS OR THE USE OF EXCESS IN OTHER TOWN PROJECTS, AT THE DISCRETION OF THE TOWN ENGINEER.



No.	DATE	DESCRIPTION	REVISIONS
3	06-27-23	100% PLAN SUBMISSION	
2	04-19-23	95% PLAN SUBMISSION	
1	12-08-22	30% PLAN SUBMISSION	

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Planners - Engineers - Landscape Architects - Land Surveyors



VRRM SPREADSHEET & WATER QUALITY NARRATIVE  
 ELMAR DRIVE SE & SW  
 SIDEWALK IMPROVEMENT PLAN  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA

DATE: NOVEMBER, 2022  
 SCALE: 1" = 40'  
 SHEET 13 OF 13  
 FILE No. PP-2600