

**GENERAL NOTES**

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

- 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.
- TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON THE FIELD RUN SURVEY PERFORMED BY URBAN, LTD IN OCT, 2021. HORIZONTAL DATUM IS NAD1983 AND VERTICAL DATUM IS NAVD1988.
- SUBSURFACE UTILITIES SHOWN PER MISS UTILITY MARK OUT FIELD LOCATION.
- NO TITLE REPORT FURNISHED.
- 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.
- 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.
- 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.
- 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.
- ALL STORM SEWER STRUCTURES AND PIPING WITHIN THE AREA OF CONSTRUCTION SHALL BE CLEANED OUT FOLLOWING THE COMPLETION OF CONSTRUCTION.
- ANY DAMAGE TO EXISTING STREETS, PUBLIC UTILITIES OR PRIVATE UTILITIES, INCLUDING BUT NOT LIMITED TO, VALVE BOXES, WATER METER LIDS, FRAMES OR CROCKS AND WATER LATERALS, DUE TO THIS IMPROVEMENT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- ALL CONCRETE AND PAVEMENT DEMOLITION/REMOVAL SHALL EMPLOY SAW CUT JOINTS.
- 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.
- A ROOT BIOSTIMULANT SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS TO ALL TREES THAT ARE ROOT PRUNED.
- CONCRETE PIPE TO BE CLASS III UNLESS OTHERWISE SPECIFIED.
- SIGHT DISTANCE TO BE MAINTAINED BY CONTRACTOR DURING CONSTRUCTION.
- THE CONTRACTOR SHALL PROVIDE A SMOOTH GRADE FROM THE LIMITS OF DISTURBANCE TO THE BACK OF SIDEWALK.
- VDOT STD. IS-1, INLET SHAPING, TO BE UTILIZED ON ALL PROPOSED OR MODIFIED EXISTING STORM STRUCTURES.
- AIR QUALITY PERMIT NOT REQUIRED PER STATE AIR POLLUTION CONTROL BOARD REGULATION ACOR VII, SECTION 2.706 (G)(2)(1).
- ALL FINISHED GRADING, SEEDING, SODDING OR PAVING SHALL BE DONE IN SUCH A MANNER TO PRECLUDE THE PONDING OF WATER ON THE SITE.
- 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").
- ALL EARTHWORK OPERATIONS SHALL CONFORM TO THE GEOTECHNICAL NOTES AND DETAILS IF PROVIDED.
- 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.

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

**TOWN OF VIENNA NOTES**

- NOTIFY THE TOWN OF VIENNA DEPARTMENT OF PUBLIC WORKS AT 703-255-6380 WHEN WORK IS TO BE STARTED.
- ALL CONTRACTOR GENERATED DEBRIS MUST BE HAULED AWAY BY THE CONTRACTOR OR OWNER.
- ALL RUNOFF MUST SHEET FLOW ACROSS PROPERTY LINES UNLESS APPROVED OTHERWISE BY THE DIRECTOR OF PUBLIC WORKS.
- ALL PRIVATE STORM DRAINS (I.E. ROOF DRAINS, SUMP PUMP ETC.) MUST DAYLIGHT AT A MINIMUM OF 10 FEET FROM A PROPERTY LINE.
- 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.
- TREE PROTECTION FOR ANY TREE, AS SHOWN ON PLAN, MUST BE INSTALLED PRIOR TO ANY SITE WORK.

**ROAD CONSTRUCTION NOTES**

- ALL CONSTRUCTION SHALL CONFORM TO CURRENT TOWN OF VIENNA AND VDOT STANDARDS AND SPECIFICATIONS.
- THE LOCATIONS OF EXISTING UTILITIES ON THESE DRAWINGS ARE GENERALLY APPROXIMATE. IT IS THE CONTRACTOR WHO IS RESPONSIBLE TO ENSURE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES IN THE AREA OF CONSTRUCTION PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL NOTIFY THE OWNER AND URBAN ENGINEERING & ASSOC. OF ANY POTENTIAL CONFLICTS PRIOR TO COMMENCING CONSTRUCTION.
- THE CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE AND MAKE ALL INSPECTIONS NECESSARY IN ORDER TO DETERMINE THE FULL EXTENT OF WORK REQUIRED TO MAKE THE COMPLETED WORK CONFORM TO THE DRAWINGS AND SPECIFICATIONS.
- WHERE CONFLICTS REQUIRE RELOCATION OF EXISTING UTILITIES (E.G. AT&T, MCI, C&P, VEPCO, MEDIA GENERAL) UTILITY COMPANIES SHALL BE NOTIFIED.
- ALL EXISTING SIGNS, FENCES, ETC. DISTURBED BY THIS CONSTRUCTION SHALL BE RELOCATED BY THE CONTRACTOR AS NECESSARY PER TOWN OF VIENNA REQUIREMENTS.
- ALL EXISTING TOWN OF VIENNA TRAFFIC CONTROL EQUIPMENT WILL BE RELOCATED BY THE CONTRACTOR AS NECESSARY PER VDOT REQUIREMENTS.
- 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.
- 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.
- THE CONTRACTOR SHALL CONTACT MISS UTILITY COMPANY REPRESENTATIVE, REVIEW TEST PIT DATA AND ANY OTHER OPERATIONS AVAILABLE TO ENSURE ALL EXISTING UTILITIES IN THE AREA OF CONSTRUCTION ARE SHOWN ON THE PLANS PRIOR TO CONSTRUCTION.
- WHERE MANHOLES ARE TO BE PLACED IN THE ROAD R/W, THE TOPS SHALL BE OFFSET TO ASSURE THAT THEY AREA POSITIONED TO MINIMIZE IMPACT TO VEHICULAR WHEEL PATHS.
- THE APPROVAL OF THESE PLANS SHALL IN NO WAY RELIEVE THE OWNER OF COMPLYING WITH OTHER APPLICABLE LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- ALL FILL MATERIAL REQUIRED TO RAISE GRADES AND UNDER SLABS, WHICH MAY CONSIST OF APPROVED ONSITE SOILS AND/OR OFFSITE BORROW MATERIAL, SHALL BE FREE OF ALL DEBRIS, ORGANIC MATERIAL, AND CLUMPS AND SHALL BE ADJUSTED TO THE PROPER MOISTURE CONTENT BEFORE BEING COMPACTED IN 8" MAXIMUM LAYERS. EACH LAYER TO BE COMPACTED TO 95% DENSITY MODIFIED PROCTOR PER ASTM D1557. BASE AND SUBBASE MATERIAL SHALL BE COMPACTED TO THE REQUIREMENTS OF SECTIONS 308.03, 309.04, AND 309.05 OF VDOT SPECIFICATIONS. SUBGRADE COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 305.03.
- 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.
- STANDARD GUARDRAILS AND/OR HANDRAILS SHALL BE INSTALLED AT HAZARDOUS LOCATIONS AS DESIGNATED DURING FIELD REVIEW BY THE TOWN OF VIENNA INSPECTOR.
- 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.
- A 4" (MIN.) LAYER OF STONE IS REQUIRED BENEATH CURB AND GUTTER.
- 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.
- 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

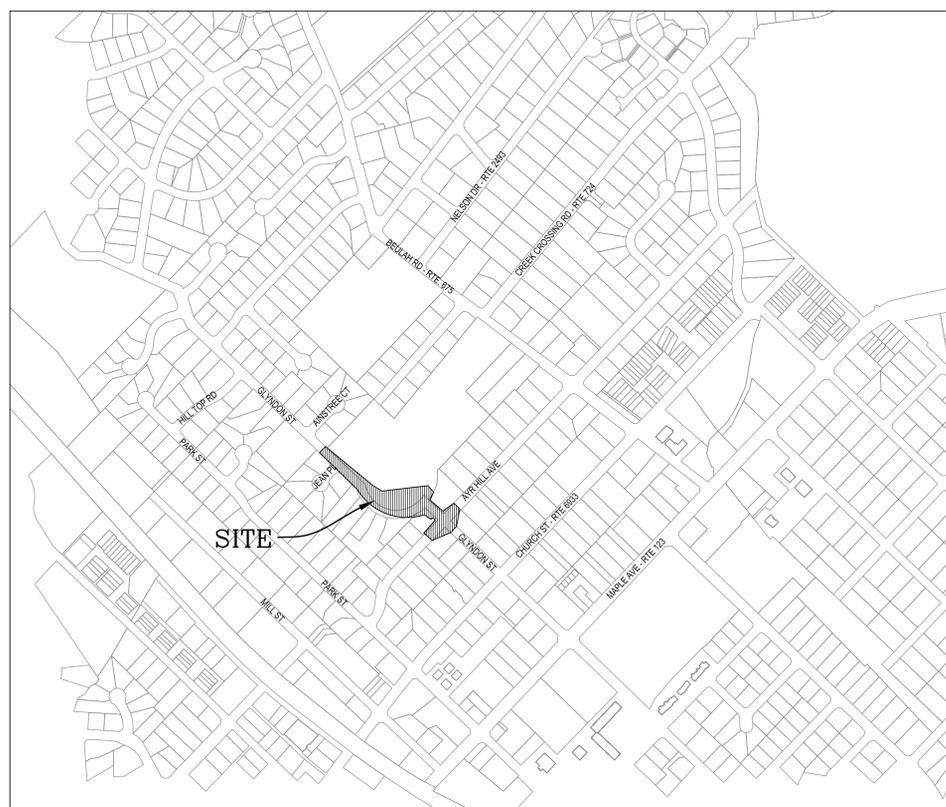
### FAIRFAX COUNTY, VIRGINIA

# GLYNDON STREET, N.E.

# ROADWAY AND DRAINAGE

# IMPROVEMENT PLAN

## 95% DESIGN CONSTRUCTION DRAWINGS



**VICINITY MAP**  
SCALE : 1" = 50'

**OWNER/DEVELOPER:**



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



**SURVEY NOTES**

TOPOGRAPHICAL SURVEY PERFORMED BY FIELD RUN BY URBAN, LTD.

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 WERE PAINTED BY UTILITIES SEARCH, INC. AND MAPPED INTO THE BASE BY URBAN, LTD.

**SHEET INDEX**

- COVER SHEET
- NOTES AND DETAILS
- NOTES AND DETAILS
- EXISTING CONDITIONS & DEMOLITION PLAN
- ROADWAY AND DRAINAGE IMPROVEMENTS PLAN
- DRAINAGE DIVIDES
- STORM SEWER PROFILES
- STORM SEWER PROFILES
- STORM SEWER PROFILES & COMPUTATIONS
- PAVEMENT PLAN & ROADWAY COMPUTATIONS
- EROSION & SEDIMENT CONTROL PH I & PH II
- EROSION & SEDIMENT CONTROL NARRATIVE & DETAILS
- BMP COMPUTATIONS AND DETAILS
- BMP PLAN AND DETAILS
- BMP NOTES & DETAILS AND LANDSCAPE PLAN

**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. PRINCING WILLIAM ELEC. CO-OP. PLANTATION PIPELINE CO. C & P TELEPHONE CO.
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**CONTACT THESE UTILITIES**

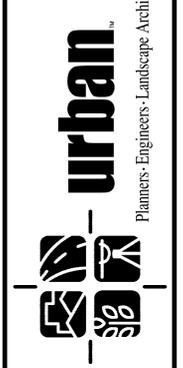
TRI-COUNTY ELEC. CO-OP 1-777-2151	LOUDOUN WATER 571-291-7880
FALLS CHURCH WATER SER. 1-241-5078	FAIRFAX CITY WATER SER. 365-7916

**EMERGENCY DIAL 911  
POLICE - FIRE - RESCUE**  
777-1021 777-2222

No.	DATE	DESCRIPTION	REVISIONS
1	10/09/18	REVISION PER TOWN OF VIENNA COMMENTS	
2	06/25/24	95% DRAFT	
2	08/02/24	95% PLAN	
	08-15-2018		
	04-16-2018		
	02-21-2018		

Urban, Ltd.  
7712 Little River Turnpike  
Annandale, Virginia 22003  
Tel. 703.642.8080  
Fax. 703.642.8251  
www.urban-ltd.com

Planners-Engineers-Landscape Architects-Land Surveyors



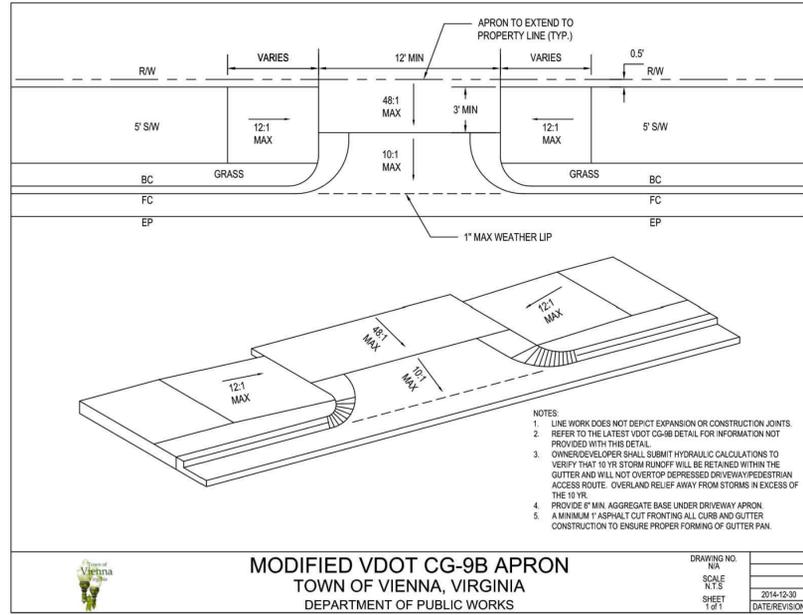
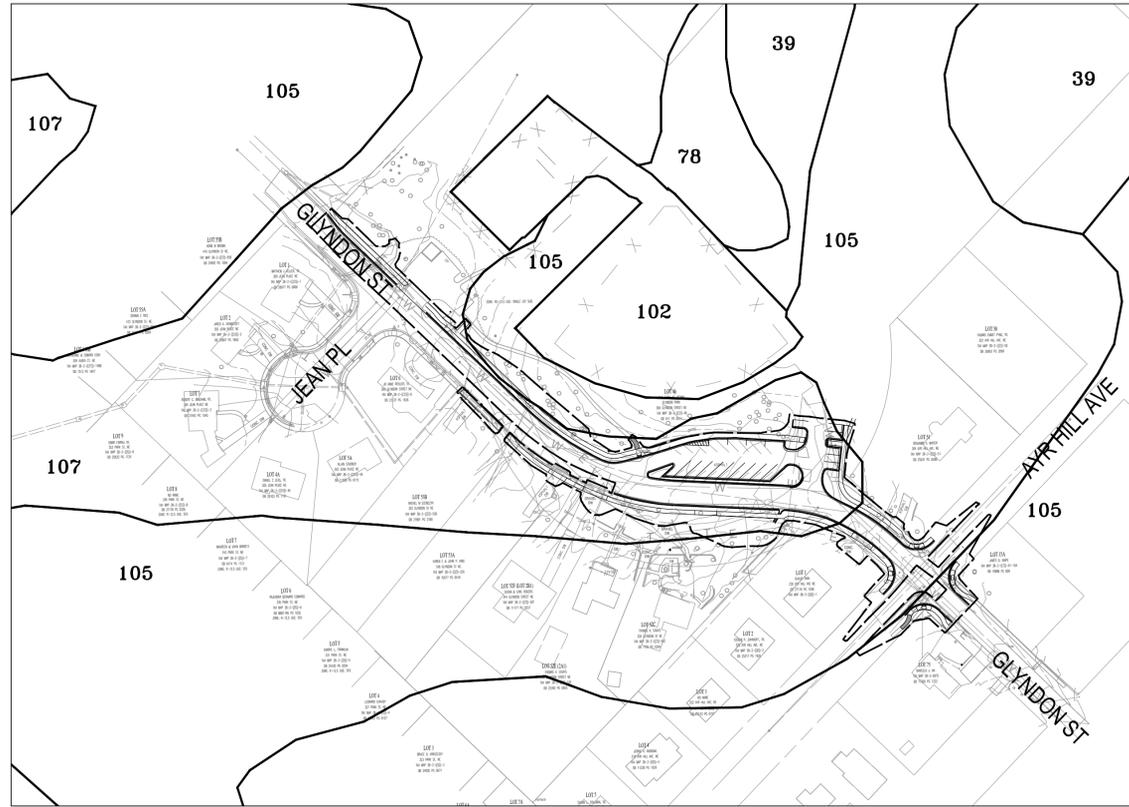
COVER SHEET  
ROADWAY AND DRAINAGE IMPROVEMENT PLAN  
GLYNDON STREET, N.E.  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA

SCALE: AS NOTED  
DATE: AUG. 2018  
C.I. N/A

SHEET  
1  
OF  
15

FILE No.  
PP-2156

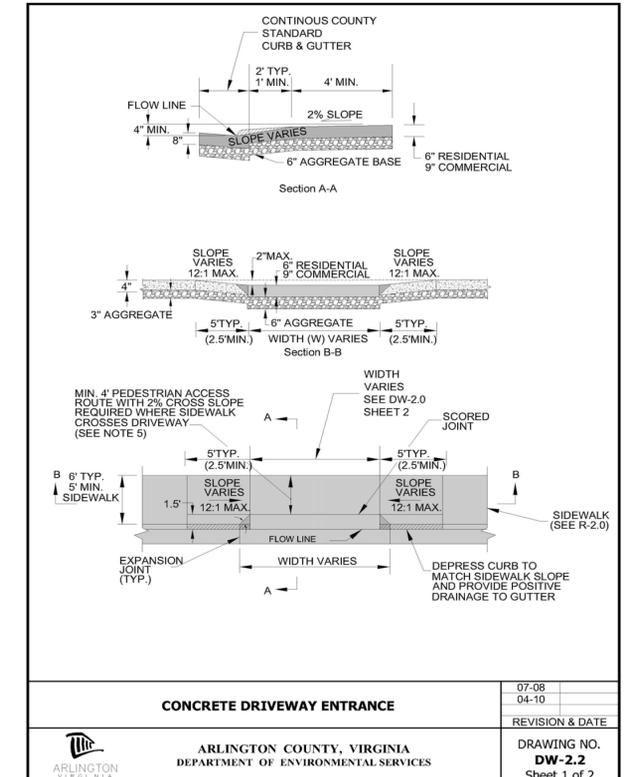
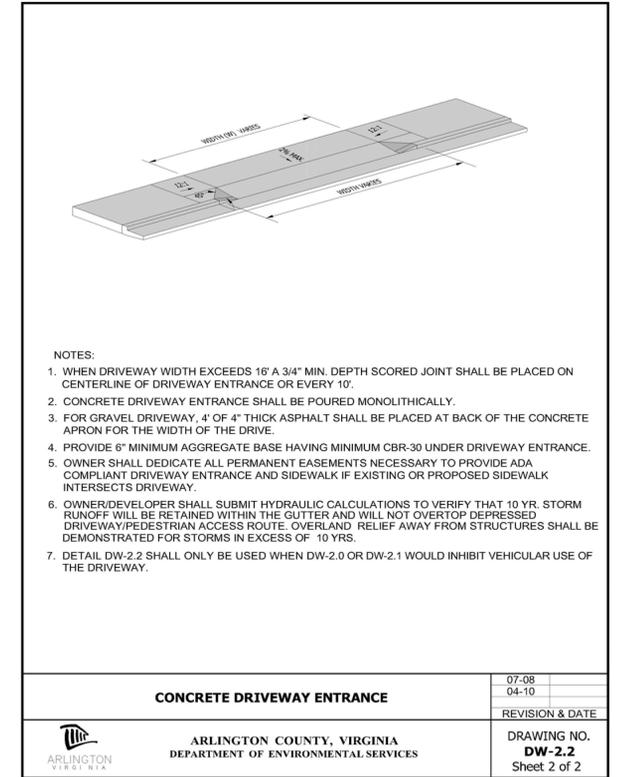
SOIL MAP  
SCALE 1" = 100'



**LEGEND** Pg 2

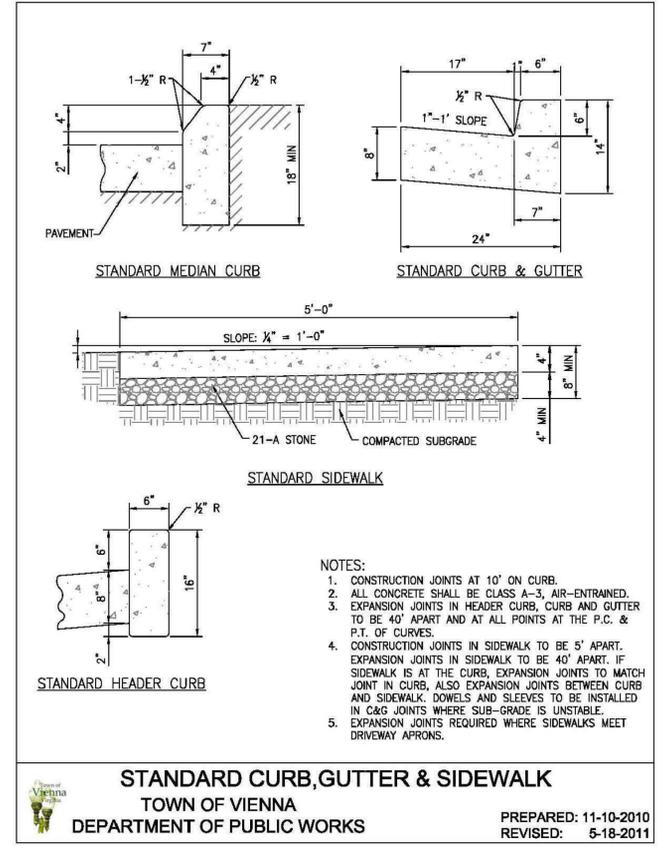
EXISTING	DESCRIPTION	PROPOSED
---	INDEX CONTOUR	---
---	INTERMEDIATE CONTOUR	---
---	EDGE OF PAVEMENT	---
---	CURB AND GUTTER	---
---	TRANSITION FROM SPILL TO CATCH CURB	---
---	HEADER CURB	---
---	PROPERTY LINE	---
---	DEPARTING PROPERTY LINE	---
---	LOT LINE	---
---	RIGHT-OF-WAY	---
---	CENTERLINE	---
---	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
MB	GUY WIRE	MB
MB	MAILBOX	MB
MB	SIGN	MB
AS	SANITARY SEWER IDENTIFIER	AS
SD	STORM DRAIN IDENTIFIER	SD
E	EASEMENT IDENTIFIER	E
W	WATER METER	W
+	WATER VALVE	+
+	FIRE HYDRANT	+
CV	COMMUNICATION VAULT (MANHOLE)	CV
CP	COMMUNICATION PEDESTAL	CP
SH	SPRINKLER HEAD	SH
ICV	IRRIGATION CONTROL VALVE	ICV
EOP	END OF PAVING	EOP
25	PARKING INDICATOR	25
25	INDICATES THE NUMBER OF TYPICAL PARKING SPACES	25
25	STREET LIGHT	25
25	VEHICLES PER DAY (TRAFFIC COUNT)	25
25	TEST PIT REQUIRED	25
25	CRITICAL SLOPE	25
25	SLOPES TO BE STABILIZED PURSUANT TO VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK	25
25	HANDICAP RAMP	25
25	DENOTES LOCATION OF STANDARD RAMP CONSTRUCTION	25
25	DENOTES CLEAR SIGHT TRIANGLE	25
15' DT	DECIDUOUS TREE	15' DT
BM #1 TRV #1	BENCHMARK	BM #1 TRV #1
---	ASPHALT	---
---	ASPHALT TRAIL	---
---	CONCRETE SIDEWALK	---
---	END WALLS	---
---	END SECTIONS	---
---	STOP SIGN	---
---	STREET SIGN	---
---	GEOHERMAL LINE	---
---	WETLANDS	---

H-3.1 DRIVEWAY ENTRANCES



SOIL TYPES

SOIL ID NUMBERS	SOIL SERIES NAME	FOUNDATION SUPPORT	SOIL DRAINAGE	EROSION POTENTIAL	PROBLEM CLASS	HYDROLOGIC SOIL GROUP
105B	WHEATON-GLENELG COMPLEX	GOOD	GOOD	HIGH	IVB	D
107B	WHATON-MEADOWVILLE COMPLEX	FAIR	MARGINAL	MEDIUM	IVB	D



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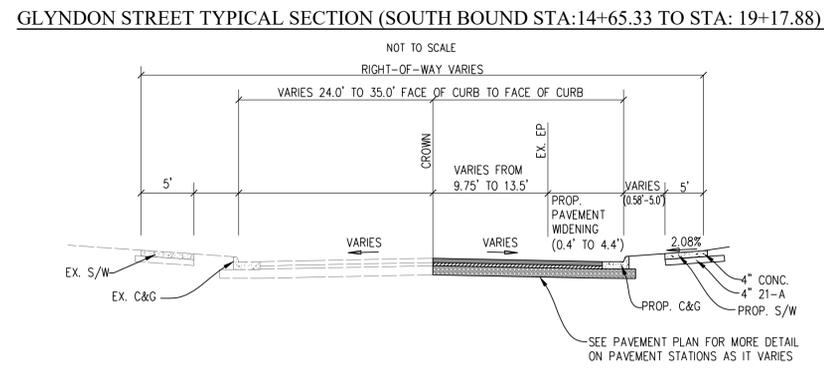
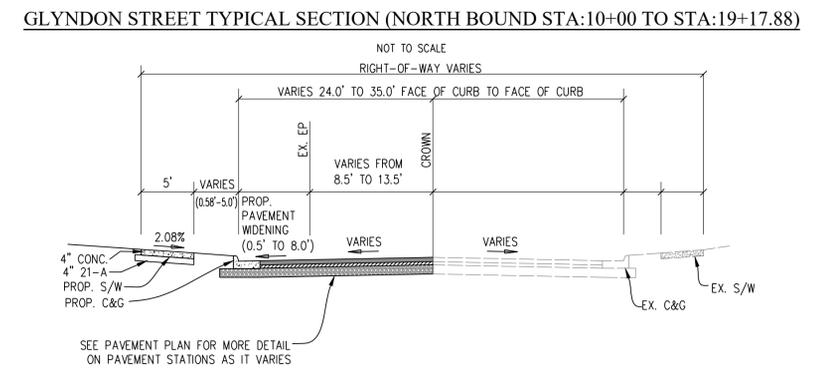
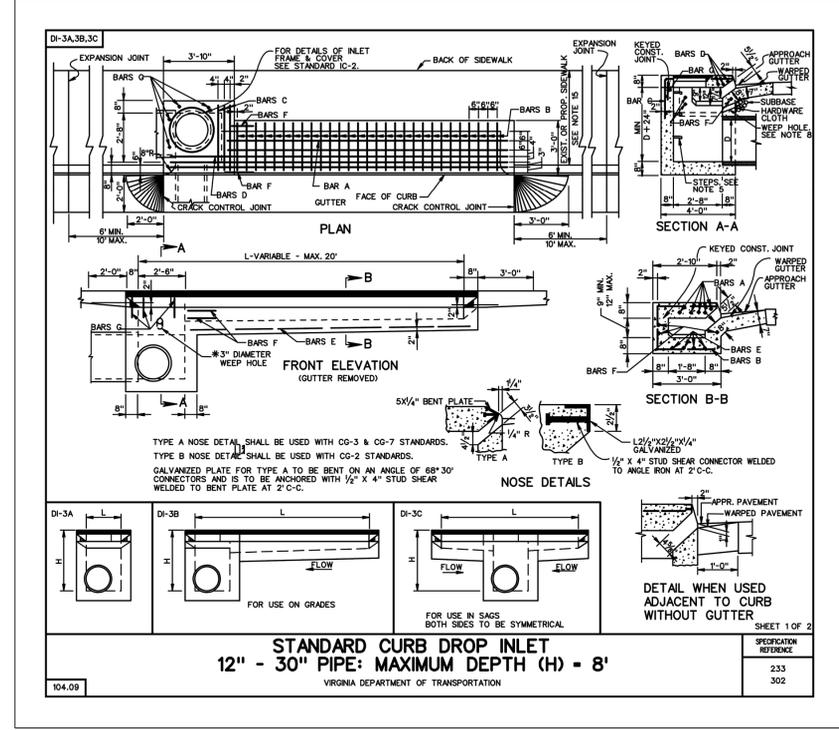
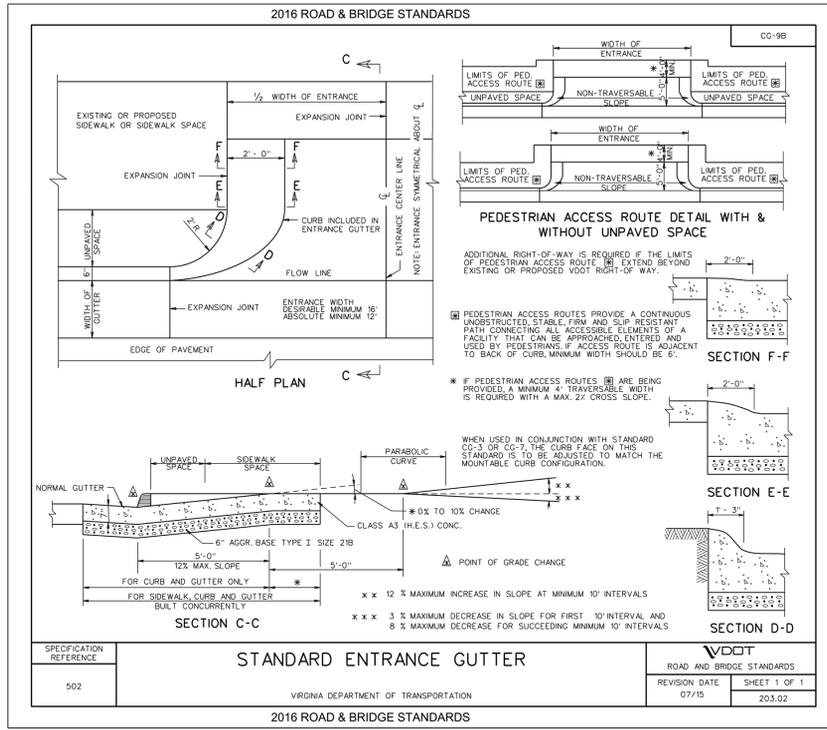
Planners - Engineers - Landscape Architects - Land Surveyors

COMMONWEALTH OF VIRGINIA  
C. RYAN CONNOR  
Lic. No. 039531  
08/02/2024  
PROFESSIONAL ENGINEER

NOTES AND DETAILS  
ROADWAY AND DRAINAGE IMPROVEMENT PLAN  
GLYNDON STREET, N.E.  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA

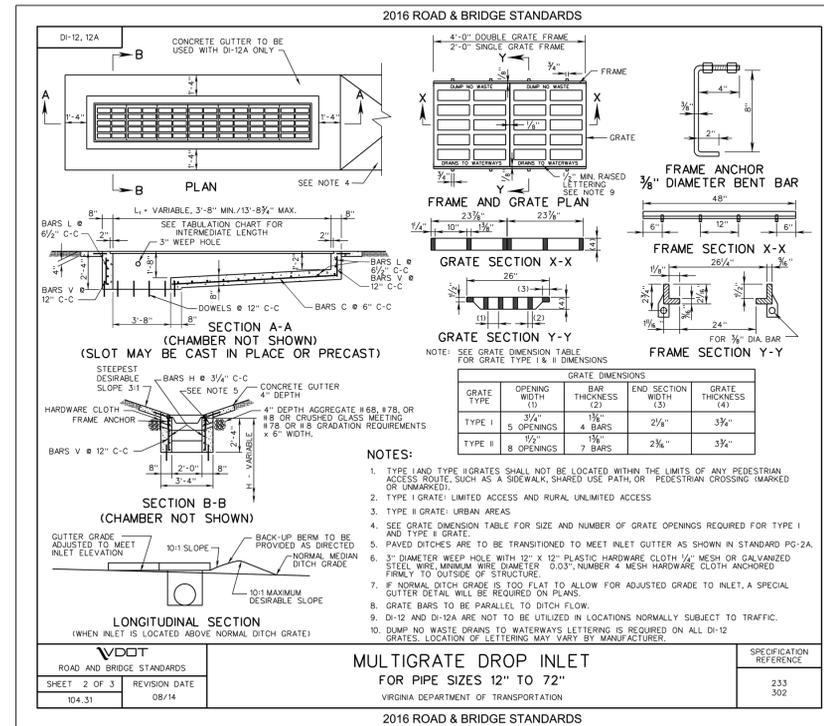
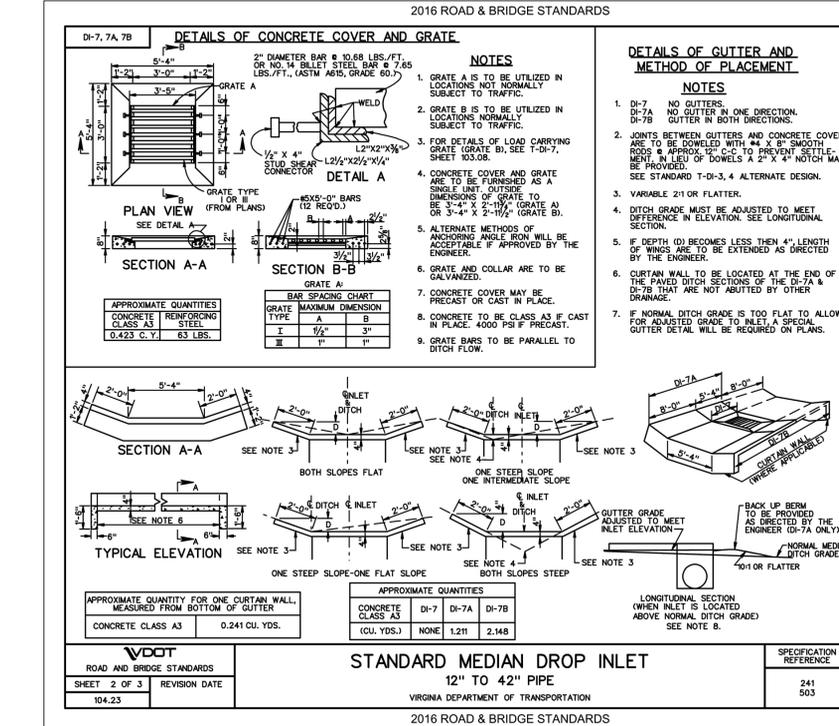
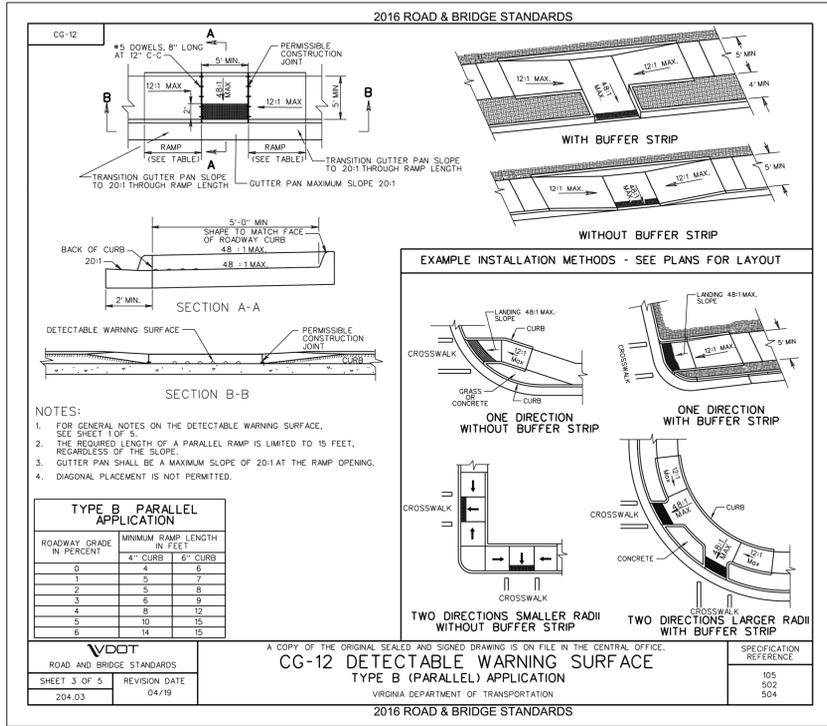
DATE: AUG. 2018  
SCALE: N/A

SHEET 2 OF 15  
FILE No. PP-2156



**PAVEMENT NOTES**

- METHODS AND MATERIALS USED SHALL CONFORM TO CURRENT TOWN AND VDOT STANDARDS AND SPECIFICATIONS.
- A SMOOTH GRADE SHALL BE MAINTAINED FROM THE CENTERLINE OF THE EXISTING ROAD TO THE PROPOSED EDGE OF PAVEMENT TO PRECLUDE THE FORMING OF FALSE GUTTERS AND/OR THE PONDING OF ANY WATER IN THE ROADWAY.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL.
- SUBBASE DEPTHS ARE BASED ON AN ASSUMED CBR VALUE OF 10. SOIL TEST OF SUBGRADE MUST BE SUBMITTED FOR ACTUAL DETERMINATION OF REQUIRED SUBBASE THICKNESS PRIOR TO SUBBASE PLACEMENT.
- PROPOSED ROAD IMPROVEMENTS ASPHALT TO MATCH EXISTING (CORES REQUIRED) AND TO BE VALIDATED WITH CBR RESULTS AT TIME OF CONSTRUCTION.
- A 4" (MIN.) LAYER OF STONE IS REQUIRED BENEATH CURB AND GUTTER.
- THE TOP 12" OF SUBGRADE TO BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY PER STANDARD PROCTOR TEST WITHIN ±2% OPTIMUM MOISTURE.



PLAN DATE: 03-21-2018  
04-18-2018  
10-08-2018  
06-25-2024  
10/09/18  
08-02-2024

Urban Ltd  
7712 Little River Turnpike  
Amanada, Virginia 23003  
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**urban**

COMMONWEALTH OF VIRGINIA  
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Lic. No. 0399531  
08/02/2024  
PROFESSIONAL ENGINEER

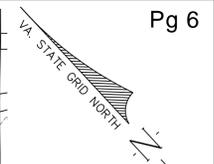
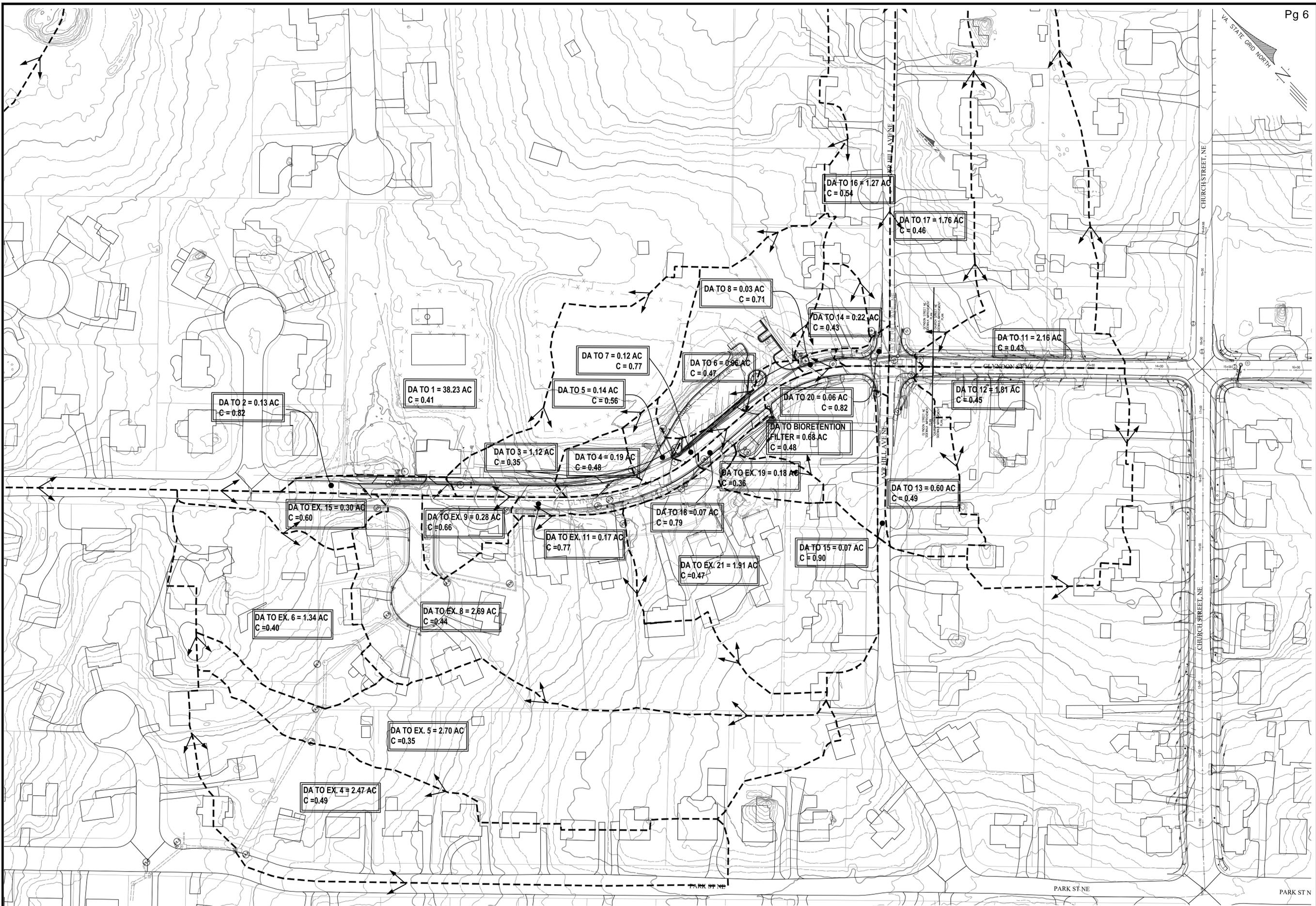
NOTES AND DETAILS  
ROADWAY AND DRAINAGE IMPROVEMENT PLAN  
GLYNDON STREET, N.E.  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA

DATE: AUG. 2018  
SCALE: N/A  
C.I. N/A

SHEET 3 OF 15  
FILE No. PP-2156







PLAN DATE	DESCRIPTION
02-21-2018	
04-18-2018	
09-08-2018	95% PLAN
06-25-2024	REVISION PER TOWN OF VIENNA COMMENTS
08-02-2024	

Urban, Ltd.  
 7112 Little River Turnpike  
 Annandale, Virginia 22003  
 Tel. 703.642.8080  
 Fax. 703.642.8251  
 www.urban-ltd.com

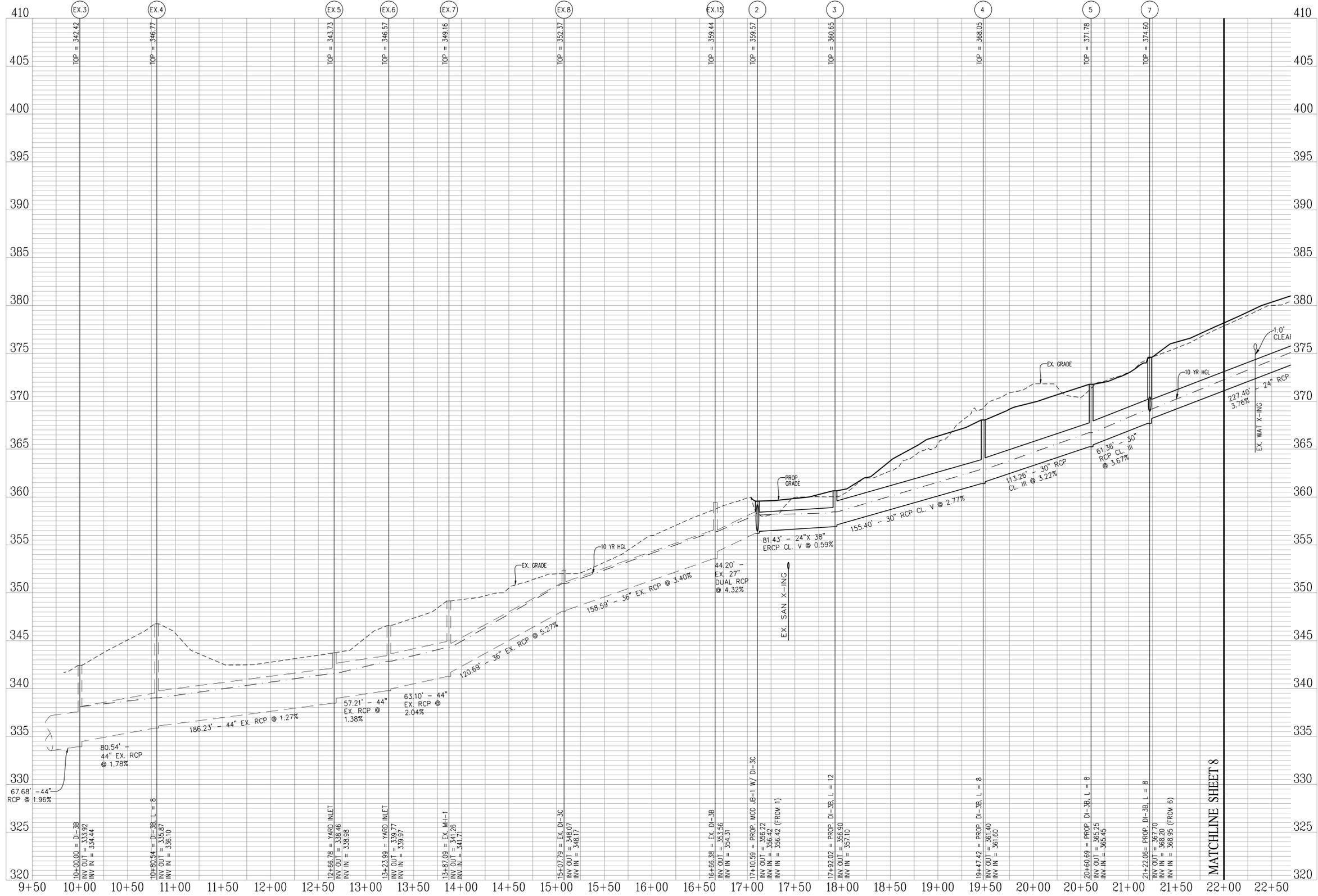


**DRAINAGE DIVIDES**  
**ROADWAY AND DRAINAGE IMPROVEMENT PLAN**  
**GLYNDON STREET, N.E.**  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA

SCALE: 1"=60'  
 C.I. 1'  
 DATE: AUG. 2018

SHEET	6
OF	15
FILE No.	PP-2156

NOTE: DRAINAGE DIVIDES DETERMINED FROM FAIRFAX COUNTY CONTOUR MAP AND SURVEY DATA OF EXISTING CONDITIONS.



No.	DATE	DESCRIPTION	REVISIONS
1	10/09/18	REVISION PER TOWN OF VIENNA COMMENTS	
2	06/25/24	95% DRAFT	
2	08/02/24	95% PLAN	

PLAN DATE
02-21-2018
04-18-2018
06-15-2018
06-25-2024
08-02-2024

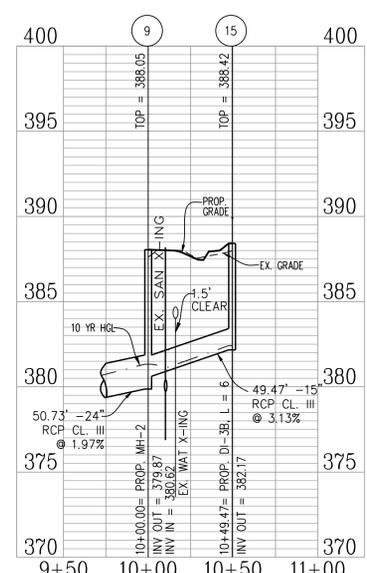
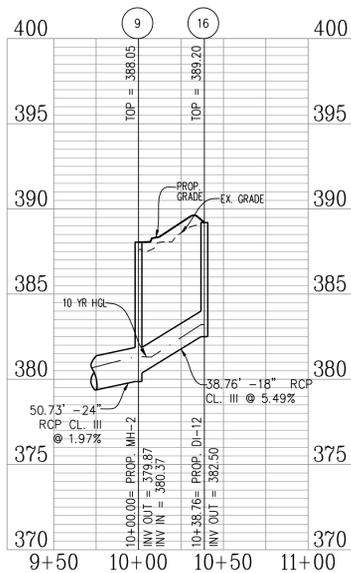
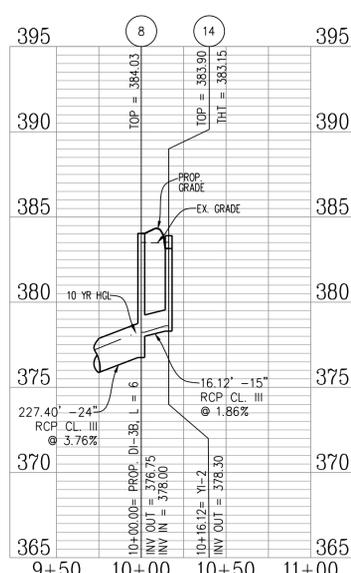
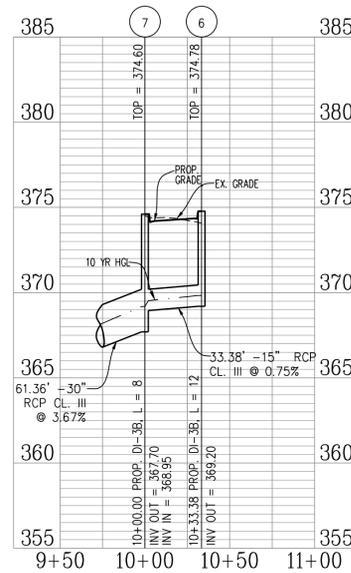
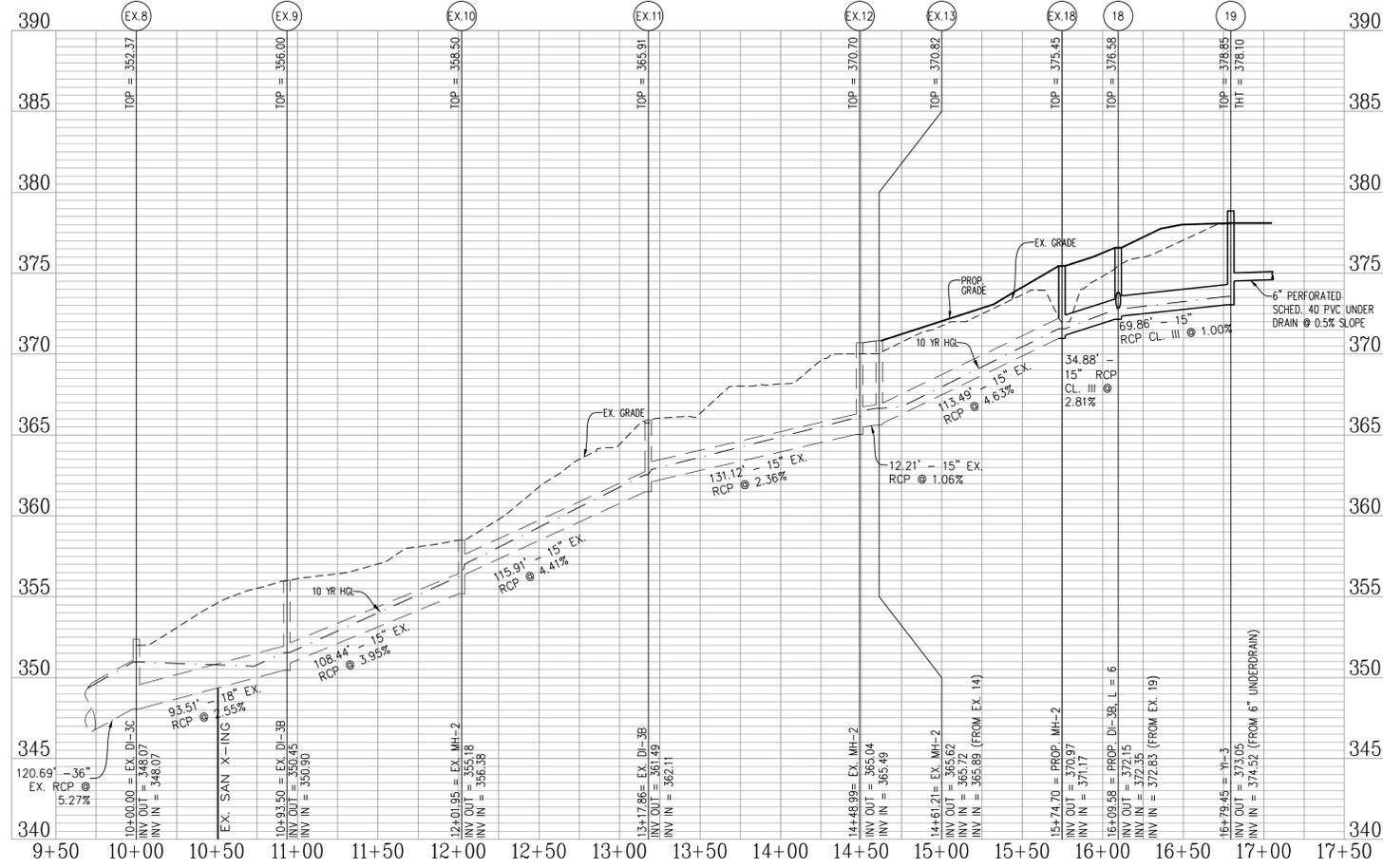
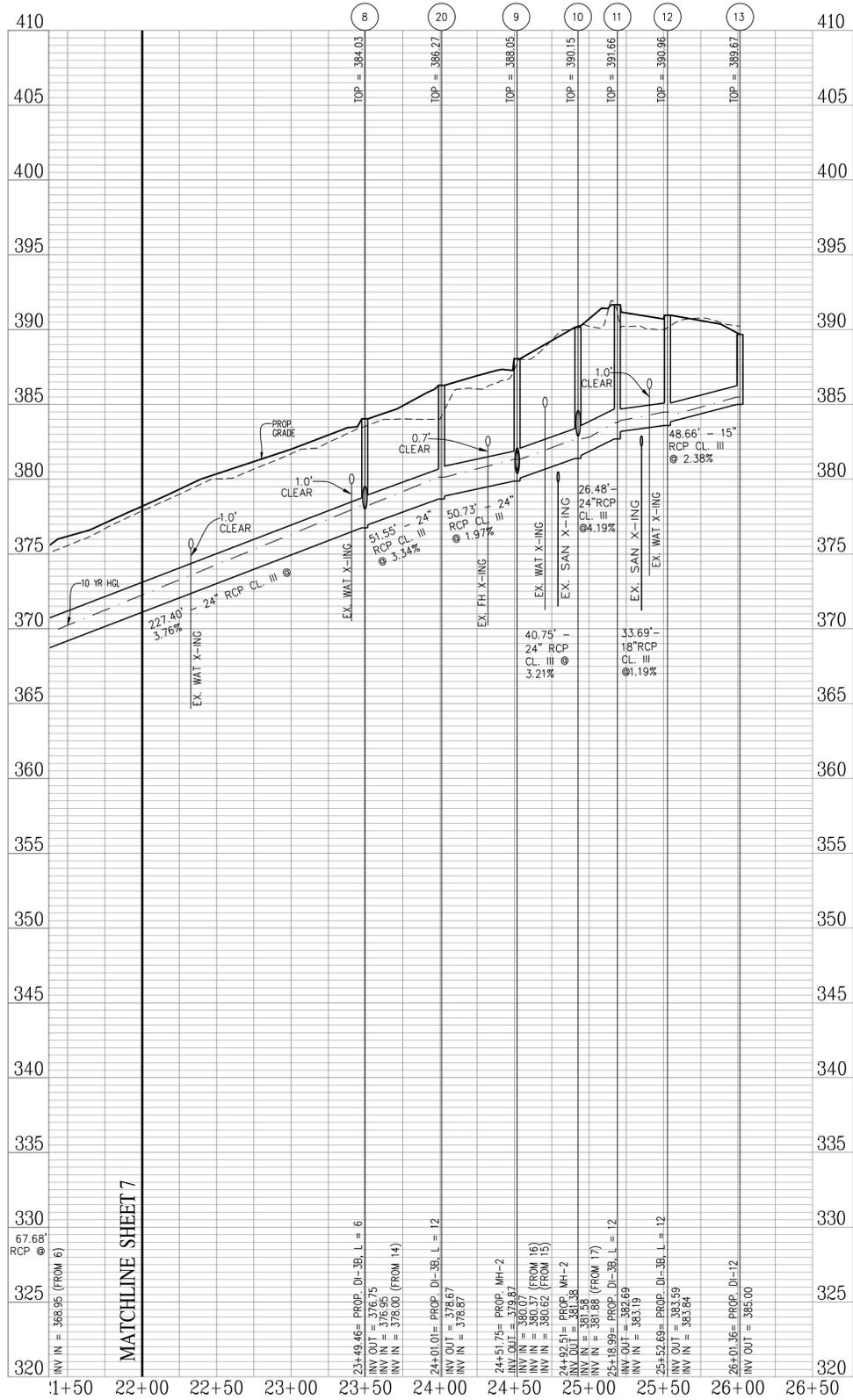
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 www.urban-ld.com

**urban**  
 Planners - Engineers - Landscape Architects - Land Surveyors

COMMONWEALTH OF VIRGINIA  
 C. RYAN CONNOR  
 Lic. No. 039531  
 08/02/2024  
 PROFESSIONAL ENGINEER

STORM SEWER PROFILES  
 ROADWAY AND DRAINAGE IMPROVEMENT PLAN  
 GLYNDON STREET, N.E.  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA

SCALE: H:1"=50', V:1"=5'  
 DATE: AUG. 2018  
 C.I. 1'



**STORM SEWER PROFILES**  
**ROADWAY AND DRAINAGE IMPROVEMENT PLAN**  
**GLYNDON STREET, N.E.**  
**TOWN OF VIENNA**  
**FAIRFAX COUNTY, VIRGINIA**

SCALE: H<sub>1</sub>"=50', V<sub>1</sub>"=5'

DATE: AUG. 2018

C.I. 1'

FILE No. PP-2156

SHEET 8 OF 15

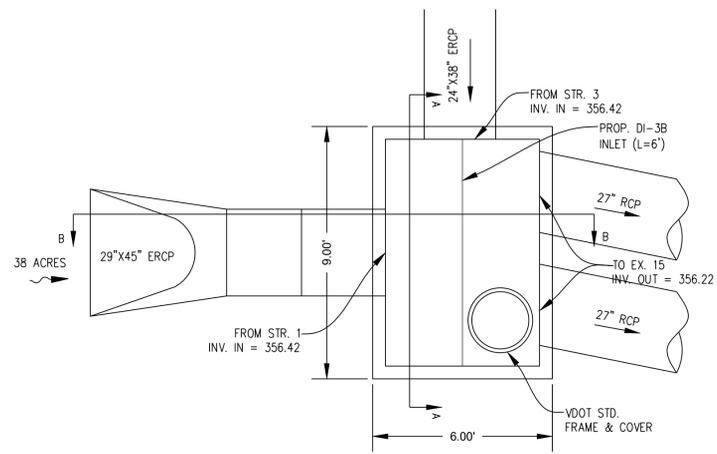
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Plumbers - Engineers - Landscape Architects - Land Surveyors

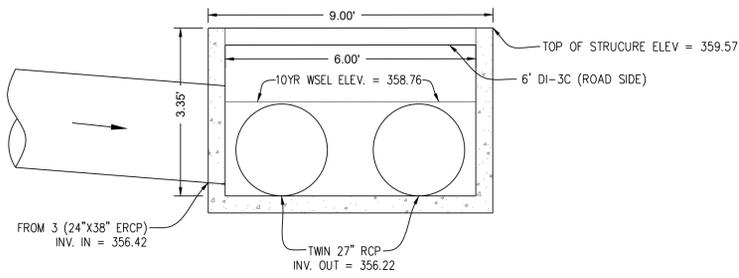
PLAN DATE	DESCRIPTION
02-21-2018	
04-18-2018	
08-15-2018	95% PLAN
10-25-2018	95% DRAFT
08-02-2024	REVISION PER TOWN OF VIENNA COMMENTS

No.	DATE	REVISIONS
1	10/09/18	
2	08/02/24	

2 MODIFIED JB-1 STRUCTURE PLAN VIEW  
N.T.S.



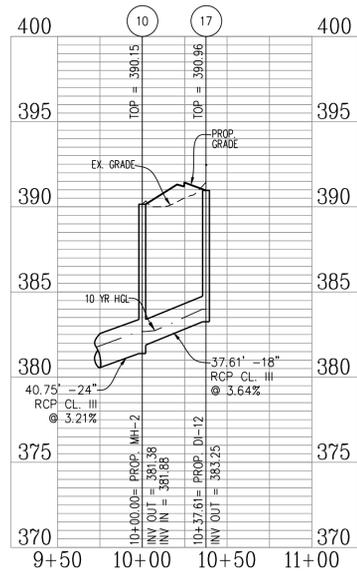
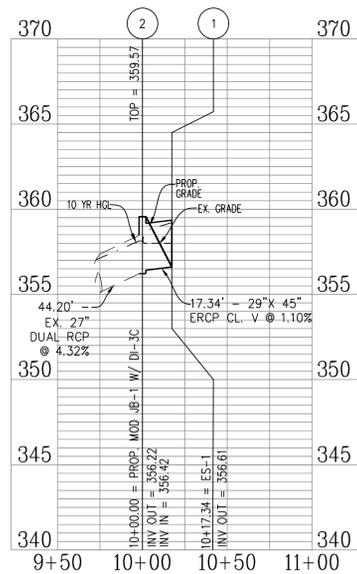
SECTION A-A  
N.T.S.



STORM STRUCTURE #2 (MODIFIED JB-1) NOTE:

CONTRACTOR SHALL FURNISH DETAILED SHOP DRAWINGS FOR THE FINAL STRUCTURAL DESIGN OF THE STRUCTURE IN ITS ENTIRETY. SHOP DRAWINGS SHALL INCLUDE ALL STRUCTURAL INFORMATION, CONCRETE DESIGN, AND ADHERE TO THE CRITICAL DESIGN DIMENSIONS. DRAWINGS SHALL BE CERTIFIED BY A STRUCTURAL ENGINEER. SHOP DRAWINGS SHALL BE REVIEWED AND APPROVED PRIOR TO FABRICATION AND INSTALLATION.

SECTION B-B  
SCALE: H: 1"=50' V: 1"=5'

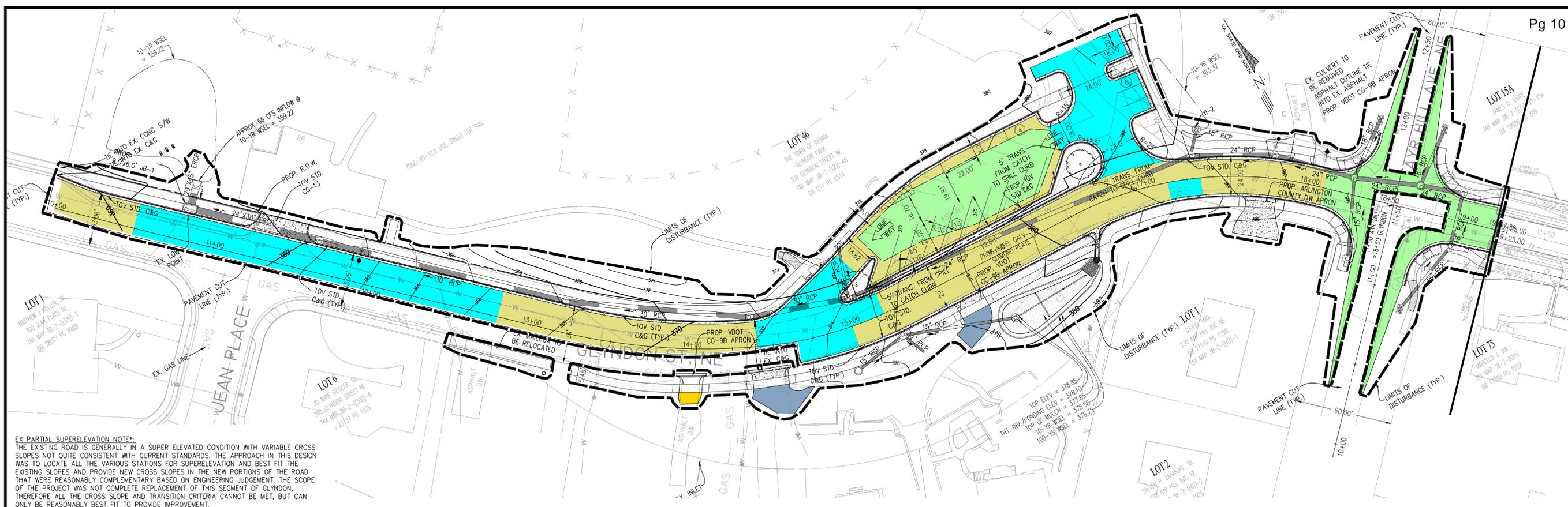


PIPE COMPUTATIONS

LineID	DrainageArea (ac)	RunoffCoeff (C)	IncrCxA	TotalCxA	Inlet Time (min)	Tc (min)	Rainfall Intensity (in/hr)	KnownQ (cfs)	Runoff Q (cfs)	InvertUp (ft)	InvertDn (ft)	Length (ft)	Slope (%)	Diameter (in)	Capacity (cfs)	Actual Flow Velocity (ft/s)	Full Flow Vel (ft/s)
Ex.4-Ex.3	2.47	0.49	1.21	26.36	10	19.3	4.11	0	108.26	335.87	334.44	80.549	1.78	44	151.76	10.71	14.37
Ex.5-Ex.4	2.7	0.35	0.95	25.15	14	18.9	4.14	0	104.19	338.46	336.1	186.231	1.27	44	128.22	11.18	12.14
Ex.6-Ex.5	1.34	0.4	0.54	24.21	11	18.8	4.15	0	100.55	339.77	338.98	57.213	1.38	44	133.84	11.6	12.68
Ex.7-Ex.6	0	0	0	23.67	0	18.7	4.17	0	98.63	341.26	339.97	63.105	2.04	44	162.85	10.81	15.42
Ex.8-Ex.7	2.89	0.44	1.18	23.67	13	18.6	4.18	0	99.02	348.07	341.71	120.692	5.27	36	153.1	14.7	21.66
Ex.15-Ex.8	0.3	0.6	0.18	20.83	6	18.3	4.21	0	87.63	353.56	348.17	158.596	3.4	36	122.95	12.73	17.39
2-Ex.15	0.13	0.82	0.11	20.65	6	18.3	4.22	0	87.03	356.22	354.31	44.205	4.32	27(dual)	128.73	11.7	16.19
3-2	1.12	0.35	0.39	4.67	15	17.9	4.25	0	20.69	356.9	356.42	81.434	0.59	24 x 38	31.49	6.13	6.33
4-3	0.19	0.48	0.09	4.47	6	17.3	4.33	0	19.37	361.4	357.1	155.402	2.77	30	68.22	6.77	13.90
6-4	0.14	0.56	0.08	4.38	6	16.8	4.39	0	19.24	365.25	361.6	113.264	3.22	30	73.62	6.92	15.00
7-5	0.12	0.77	0.09	4.3	6	16.5	4.42	0	19.03	367.7	365.45	61.369	3.67	30	78.63	6.89	16.00
8-7	0.03	0.71	0.02	3.76	6	15.8	4.51	0	16.97	376.75	368.2	227.403	3.76	24	43.86	8.95	13.96
20-8	0.06	0.82	0.05	3.64	6	15.6	4.53	0	16.52	378.67	376.95	51.554	3.34	24	41.31	7.23	13.15
9-20	0	0	0	3.6	0	15.5	4.55	0	16.38	379.87	378.87	50.737	1.97	24	31.75	7.25	10.11
10-9	0	0	0	2.85	0	15.3	4.58	0	13.03	381.38	380.07	40.759	3.21	24	40.55	6.15	12.91
11-10	2.16	0.43	0.93	2.04	15	15	4.62	0	9.41	382.69	381.58	26.486	4.19	24	46.3	5.33	14.74
12-11	1.81	0.45	0.81	1.11	13	13	4.91	0	5.45	383.59	383.19	33.698	1.19	18	11.44	5.66	6.47
13-12	0.6	0.49	0.29	0.29	11	11	5.26	0	1.55	385	383.84	48.665	2.38	15	9.97	2.92	8.12
1-2	38.23	0.41	15.67	15.67	18	18	4.24	0	66.52	366.61	356.42	17.342	1.1	29 x 45	69.8	10.72	9.81
6-7	0.96	0.47	0.45	0.45	10	10	5.45	0	2.46	369.2	368.95	33.388	0.75	15	5.59	4.2	4.56
14-8	0.22	0.43	0.09	0.09	6	6	6.44	0	0.61	378.3	378	16.123	1.86	15	8.81	3.24	7.18
15-9	0.07	0.9	0.06	0.06	6	6	6.44	0	0.41	382.17	380.62	49.478	3.13	15	11.43	1.46	9.31
16-9	1.27	0.54	0.69	0.69	12	12	5.08	0	3.48	382.5	380.37	38.769	5.49	18	24.61	3.57	13.93
17-10	1.76	0.46	0.81	0.81	15	15	4.62	0	3.74	383.25	381.88	37.612	3.64	18	20.04	4.12	11.34
Ex.9-Ex.8	0.28	0.66	0.18	1.66	9	14.2	4.73	0	7.85	350.45	348.07	93.512	2.55	18	16.75	5.09	9.48
Ex.10-Ex.9	0	0	0	1.48	0	13.9	4.77	0	7.04	355.18	350.9	108.446	3.95	15	12.83	8.52	10.45
Ex.11-Ex.10	0.17	0.77	0.13	1.48	6	13.6	4.82	0	7.11	361.49	365.38	115.911	4.41	15	13.56	8.78	11.05
Ex.12-Ex.11	0	0	0	1.34	0	13.2	4.88	0	6.56	365.04	362.11	131.126	2.23	15	9.65	7.26	7.86
Ex.13-Ex.12	0	0	0	1.34	0	13.2	4.89	0	6.57	365.62	365.49	121.218	1.06	15	6.66	6.13	5.43
Ex.18-Ex.13	0	0	0	0.45	0	12.1	5.05	0	2.26	370.97	365.72	113.499	4.63	15	13.89	3.09	11.32
18-Ex.18	0.07	0.79	0.06	0.45	6	11.8	5.11	0	2.28	372.15	371.17	34.883	2.81	15	10.82	5.32	8.82
19-18	0.68	0.48	0.33	0.33	11	11	5.26	0	1.72	373.05	372.35	69.869	1	15	6.46	4	5.26
Ex.19-18	0.18	0.36	0.06	0.06	6	6	6.44	0	0.42	376.3	372.83	35.938	9.66	12	11.07	4.61	14.09

INLET COMPUTATIONS

Inlet ID	Inlet Type	Length (ft)	DrainageArea (ac)	C	CA	I (in/hr)	Q incr. (cfs)	QCarryover (cfs)	QCaptured (cfs)	QBypass (cfs)	GutterSlope (ft/ft)	CrossSlope, Sx (ft/ft)	T (Grade) Spread (ft)	T (Sump) Spread (ft)	W (ft)	Sw (ft/ft)	d (ft)	E (%)	h (in)	Grate Area (sqft)	10yr WSEL
Ex.4	DI-3B	8.00	2.47	0.49	1.21	5.45	6.60	0.00	2.7	3.90	0.05	0.02	9.44	....	1.42	0.083	0.4	41	5.50	....	....
Ex.5	Yard Inlet	5.00	2.70	0.35	0.95	4.76	4.50	0.00	4.5	0.00	Sag	0.03	....	14.93	....	0.03	0.45	100	6.00	....	....
Ex.6	Yard Inlet	5.00	1.34	0.40	0.54	5.26	2.82	0.00	2.82	0.00	Sag	0.03	....	10.93	....	0.03	0.33	100	6.00	....	....
Ex.7	MH	....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	....	....	....	....	....	....	....	....	....	....	....
Ex.8	DI-3C	8.00	2.69	0.44	1.18	4.91	5.81	0.24	6.05	0.00	Sag	0.02	....	19.80	1.42	0.083	0.61	100	5.50	....	....
Ex.15	DI-3B	8.00	0.30	0.60	0.18	6.44	1.16	0.00	1.04	0.12	0.05	0.02	4.01	....	1.42	0.083	0.29	90	5.50	....	....
2	MOD. JB-1 W/DI-3C	6.00	0.13	0.82	0.11	6.44	0.69	0.04	0.73	0.00	Sag	0.02	....	5.54	1.42	0.083	0.33	100	5.50	....	....
3	DI-3B	12.00	1.12	0.35	0.39	4.62	1.81	0.00	1.77	0.04	0.04	0.02	5.33	....	1.42	0.083	0.33	98	5.50	....	....
4	DI-3B	8.00	0.19	0.48	0.09	6.44	0.59	0.00	0.59	0.00	0.03	0.03	2.39	....	1.42	0.083	0.27	100	5.50	....	....
5	DI-3B	8.00	0.14	0.56	0.08	6.44	0.51	0.24	0.74	0.00	0.04	0.04	2.43	....	1.42	0.083	0.28	100	5.50	....	....
7	DI-3B	8.00	0.12	0.77	0.09	6.44	0.60	0.00	0.6	0.00	0.06	0.04	1.82	....	1.42	0.083	0.26	100	5.50	....	....
8	DI-3B	6.00	0.03	0.71	0.02	6.44	0.14	0.07	0.21	0.00	0.05	0.04	1.14	....	1.42	0.083	0.22	100	5.50	....	....
20	DI-3B	12.00	0.06	0.82	0.05	6.44	0.32	1.69	1.94	0.07	0.04	0.03	4.47	....	1.42	0.083	0.33	97	5.50	....	....
9	MH	....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	....	....	....	....	....	....	....	....	....	....	....
10	MH	....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	....	....	....	....	....	....	....	....	....	....	....
11	DI-3B	12.00	2.16	0.43	0.93	4.62	4.29	0.00	3.07	1.21	0.05	0.02	7.39	....	1.42	0.083	0.37	72	5.50	....	....
12	DI-3B	12.00	1.81	0.45	0.81	4.91	4.00	0.00	2.96	1.05	0.05	0.02	7.17	....	1.42	0.083	0.37	74	5.50	....	....
13	DI-12	....	0.60	0.49	0.29	5.26	1.55	0.00	1.55	0.00	Sag	0.05	....	8.16	3.34	0.05	0.12	100	....	1.67	....
1	ES-1	....	38.23	0.41	15.67	4.24	66.52	0.00	66.52	0.00	....	....	....	....	....	....	....	....	....	....	....
6	DI-3B	12.00	0.96	0.47	0.45	5.45	2.46	0.00	2.22	0.24	0.04	0.02	6.39	....	1.42	0.083	0.34	90	5.50	....	....
14	YI-2	2.00	0.22	0.43	0.09	6.44	0.61	0.00	0.61	0.00	Sag	0.05	....	4.35	....	0.05	0.22	100	6.00	....	383.37
15	DI-3B	6.00	0.07	0.90	0.06	6.44	0.41	0.00	0.41	0.00	0.03	0.02	2.11	....	1.42	0.083	0.26	100	5.50	....	....
16	DI-12	....	1.27	0.54	0.69	5.08	3.48	0.00	1.79	1.69	0.03	0.05	8.98	....	3.34	0.05	0.18	51	....	....	....
17	DI-12	....	1.76	0.46	0.81	4.62	3.74	0.00	3.74	0.00	Sag	0.05	....	10.54	3.34	0.05	0.18	100	....	2.51	....
Ex.9	DI-3B	8.00	0.28	0.66	0.18	6.44	1.05	0.13	1.05	0.12	0.05	0.02	4.05	....	1.42	0.083	0.3	90	5.50	....	....
Ex.10	MH	....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	....	....	....	....	....	....	....	....	....	....	....
Ex.11	DI-3B	6.00	0.17	0.77	0.13	6.44	0.84	0.00	0.71	0.13	0.05	0.02	3.23	....	1.42	0.083	0.28	85	5.50	....	....
Ex.12	MH	....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	....	....	....	....	....	....	....	....	....	....	....
Ex.13	MH	....	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	....	....	....	....	....	....	....	....	....	....	....
Ex.18	MH	....	0.00	0.00	0.00																



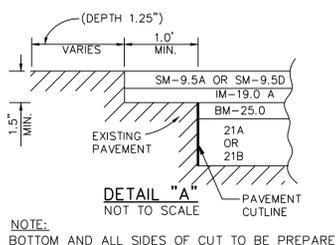
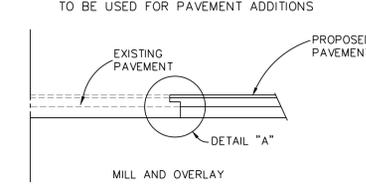
**EX PARTIAL SUPERELEVATION NOTE:**  
 THE EXISTING ROAD IS GENERALLY IN A SUPER ELEVATED CONDITION WITH VARIABLE CROSS SLOPES NOT QUITE CONSISTENT WITH CURRENT STANDARDS. THE APPROACH IN THIS DESIGN WAS TO LOCATE ALL THE VARIOUS STATIONS FOR SUPERELEVATION AND BEST FIT THE EXISTING SLOPES AND PROVIDE NEW CROSS SLOPES IN THE NEW PORTIONS OF THE ROAD THAT WERE REASONABLY COMPLEMENTARY BASED ON ENGINEERING JUDGEMENT. THE SCOPE OF THE PROJECT WAS NOT COMPLETE REPLACEMENT OF THIS SEGMENT OF GLYNDON. THEREFORE ALL THE CROSS SLOPE AND TRANSITION CRITERIA CANNOT BE MET, BUT CAN ONLY BE REASONABLY BEST FIT TO PROVIDE IMPROVEMENT.

**GLYNDON ST, NE ROAD DESIGN TABLE (NORTH BOUND)**

Description*	ROADWAY CL Station	Ex Crown Elev	Ex. EP Width from Ex. Crown	Ex. EP Elevation	Prop. EP Width from Ex. EP	Ex. X-Slope from Ex. Crown	Ex. Crown Longitude Slope	Prop. EP Width from Ex. Crown	New Slope Ex. Crown to EP	Prop. X-Slope	Prop. EP Elevation	Prop. EP Longitude Slope	Prop. TC Elevation (Ex. TC if curb exists)	Dist from TC to Front of S/W	Prop. Front of S/W Elevation	Prop. Back of S/W Elevation
Normal Crown	1000.00	361.26	18.37	360.83	0.96	-2.34%	-5.65%	19.33	-2.08%	-2.08%	360.86	-5.54%	361.24	3.12	361.30	361.39
Normal Crown	1000.00	361.26	18.37	360.83	0.96	-2.34%	-5.65%	19.33	-2.08%	-2.08%	360.86	-5.54%	361.24	3.12	361.30	361.39
Normal Crown	1025.00	360.41	11.67	360.15	6.39	-2.23%	-3.40%	18.06	-2.08%	-2.08%	360.03	-3.23%	360.42	5.00	360.62	360.61
Normal Crown	1050.00	359.85	12.84	359.62	6.37	-1.79%	-2.24%	19.21	-2.08%	-2.08%	359.45	-2.34%	359.83	5.00	359.94	360.02
Normal Crown	1075.00	359.57	12.53	359.40	6.59	-1.36%	-1.12%	19.12	-2.08%	-2.08%	359.17	-1.11%	359.55	5.00	359.66	359.75
Normal Crown	1100.00	359.60	12.46	359.54	6.61	-0.48%	0.12%	19.07	-1.75%	-1.75%	359.27	0.38%	359.65	5.00	359.75	359.86
Normal Crown	1125.00	359.87	12.18	359.93	6.79	0.49%	1.08%	18.97	-2.08%	-2.08%	359.48	0.84%	N/A	N/A	N/A	N/A
Normal Crown	1150.00	360.30	12.00	360.43	6.92	1.08%	1.72%	18.92	-2.08%	-2.08%	359.91	1.72%	N/A	N/A	N/A	N/A
Normal Crown	1175.00	361.05	11.68	361.15	7.09	0.86%	3.00%	18.77	-2.08%	-2.08%	360.66	3.01%	361.04	4.05	361.13	361.23
Normal Crown	1200.00	362.33	11.43	362.35	7.56	0.17%	5.12%	18.99	-2.08%	-2.08%	361.94	5.10%	362.32	5.00	362.42	362.52
Normal Crown	1225.00	364.07	11.39	363.98	7.78	-0.79%	6.96%	19.17	-2.08%	-2.08%	363.67	6.95%	364.05	5.00	364.16	364.26
Level Crown	1250.00	365.67	11.47	365.50	7.87	-1.48%	6.40%	19.34	-2.08%	-2.08%	365.27	6.39%	365.65	5.00	365.75	365.86
Reverse Crown	1275.00	366.56	11.58	366.34	7.90	-1.90%	3.56%	19.48	-2.08%	-2.08%	366.15	3.55%	366.54	5.00	366.64	366.74
Transition to Full Super Elevation	1300.00	367.52	11.47	367.17	8.12	-3.05%	3.84%	19.59	-2.08%	-2.08%	367.11	3.83%	367.49	5.00	367.60	367.70
Begin Full Super Elevation	1325.00	368.48	11.03	368.04	8.23	-3.99%	3.84%	19.26	-3.00%	-3.00%	367.90	3.16%	368.28	5.00	368.39	368.49
Full Super Elevation	1350.00	369.37	11.20	368.89	7.90	-4.29%	3.56%	19.10	-3.70%	-3.70%	368.66	3.04%	369.04	5.00	369.15	369.25
Full Super Elevation	1366.06	369.85	11.05	369.26	7.65	-5.34%	2.99%	18.70	-4.00%	-4.00%	369.10	2.73%	369.48	5.00	369.59	369.69
Full Super Elevation	1375.00	370.12	11.30	369.48	7.51	-5.66%	3.02%	18.81	-4.00%	-4.00%	369.37	2.97%	369.75	5.00	369.85	369.96
Full Super Elevation	1400.00	370.78	11.40	370.16	6.50	-5.44%	2.64%	17.90	-4.00%	-4.00%	370.06	2.79%	370.45	5.00	370.55	370.65
Full Super Elevation	1425.00	371.62	12.42	371.01	4.40	-4.91%	3.36%	16.82	-4.00%	-4.00%	370.95	3.53%	371.33	5.00	371.43	371.54
Full Super Elevation	1450.00	372.56	12.78	372.12	4.64	-3.44%	3.76%	17.42	-4.00%	-4.00%	371.86	3.66%	372.24	5.00	372.35	372.45
Full Super Elevation	1465.33	373.39	13.27	372.89	N/A	-3.77%	5.41%	N/A	-4.00%	-4.00%	N/A	N/A	N/A	N/A	N/A	N/A
End Full Super Elevation	1475.00	373.59	13.17	373.12	N/A	-3.57%	2.07%	N/A	-4.00%	-4.00%	N/A	N/A	N/A	N/A	N/A	N/A
Transition to Reverse Crown	1500.00	374.64	13.76	374.15	-0.48	-3.56%	4.20%	13.28	-4.00%	-4.00%	374.11	4.49%	374.49	N/A	N/A	N/A
Reverse Crown	1510.27	374.98	13.72	374.61	-1.02	-2.70%	3.31%	12.70	-4.00%	-4.00%	374.47	3.54%	374.85	N/A	N/A	N/A
Transition to Level Crown on Right	1525.00	375.80	13.95	375.18	-0.94	-4.44%	5.57%	13.01	-3.00%	-3.00%	375.41	6.37%	375.79	N/A	N/A	N/A
Transition to Level Crown on Left	1550.00	376.88	13.42	376.28	0.00	-4.47%	4.32%	13.42	-2.08%	-2.08%	376.60	4.76%	376.98	N/A	N/A	N/A
Reverse Crown on Left	1575.00	377.92	12.97	377.43	0.11	-3.78%	4.16%	13.08	-1.00%	-1.00%	377.79	4.75%	378.17	N/A	N/A	N/A
Reverse Crown on Left	1600.00	378.90	12.51	378.53	-0.17	-2.96%	3.92%	12.34	0.00%	0.00%	378.90	4.44%	379.28	N/A	N/A	N/A
Transition to Full Super Elevation	1625.00	379.92	12.54	379.60	-0.57	-2.55%	4.08%	11.97	2.08%	2.08%	380.17	5.08%	380.55	N/A	N/A	N/A
Begin Full Super Elevation	1650.00	380.82	13.15	380.58	-0.81	-1.83%	3.60%	12.34	3.00%	3.00%	381.19	4.08%	381.57	N/A	N/A	N/A
Full Super Elevation	1675.00	381.60	13.35	381.53	1.29	-0.52%	3.12%	14.64	3.70%	3.70%	382.14	3.81%	382.52	N/A	N/A	N/A
Full Super Elevation	1686.57	381.90	13.20	381.93	0.00	0.23%	2.99%	13.20	4.00%	4.00%	382.43	2.47%	382.81	N/A	N/A	N/A
Full Super Elevation	1700.00	382.25	12.76	382.42	0.00	1.33%	2.61%	12.76	4.00%	4.00%	382.76	2.48%	N/A	N/A	N/A	N/A
End Full Super Elevation	1725.00	383.03	12.05	383.35	-1.40	2.66%	3.12%	10.65	4.00%	4.00%	383.46	2.78%	383.84	10.12	384.05	384.15
Transition to Reverse Crown	1750.00	384.13	10.85	384.39	0.48	2.40%	4.10%	11.33	4.00%	4.00%	384.58	4.51%	384.96	5.00	385.07	385.17
Reverse Crown	1769.51	385.12	11.10	385.12	0.85	0.00%	5.07%	11.95	4.00%	4.00%	385.60	5.20%	385.98	5.00	386.08	386.19
Transition to Level Crown on Left	1775.00	385.41	11.09	385.60	0.91	1.71%	5.28%	12.00	3.00%	3.00%	385.77	3.13%	386.15	5.00	386.26	386.36
Level Crown on Left	1800.00	386.63	10.76	386.57	0.71	-0.56%	4.88%	11.47	2.08%	2.08%	386.87	4.39%	387.25	5.00	387.35	387.46
Transition to Normal Crown	1825.00	388.07	10.71	387.74	N/A	-3.08%	5.76%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Normal Crown	1853.60	389.79	11.00	389.85	N/A	0.55%	6.01%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Normal Crown	1875.00	390.30	12.76	390.14	N/A	-1.25%	2.38%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Normal Crown	1900.00	391.40	10.90	391.19	0.98	-1.93%	4.40%	11.88	-1.93%	-1.93%	391.17	4.30%	391.55	0.62	391.57	391.67
Normal Crown	1917.88	392.10	12.24	391.88	0.00	-1.80%	3.91%	12.24	-1.80%	-1.80%	391.88	3.97%	392.26	5.00	392.37	392.47

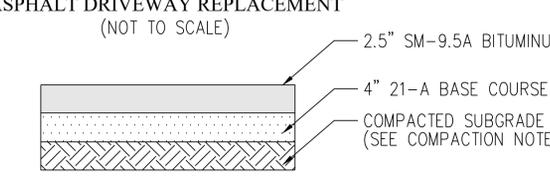
Notes:  
 Note: (-) sign indicate downward slope

**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.

**TYPICAL SECTION ASPHALT DRIVEWAY REPLACEMENT (NOT TO SCALE)**



Notes:  
 Note: (-) sign indicate downward slope

**LEGEND**

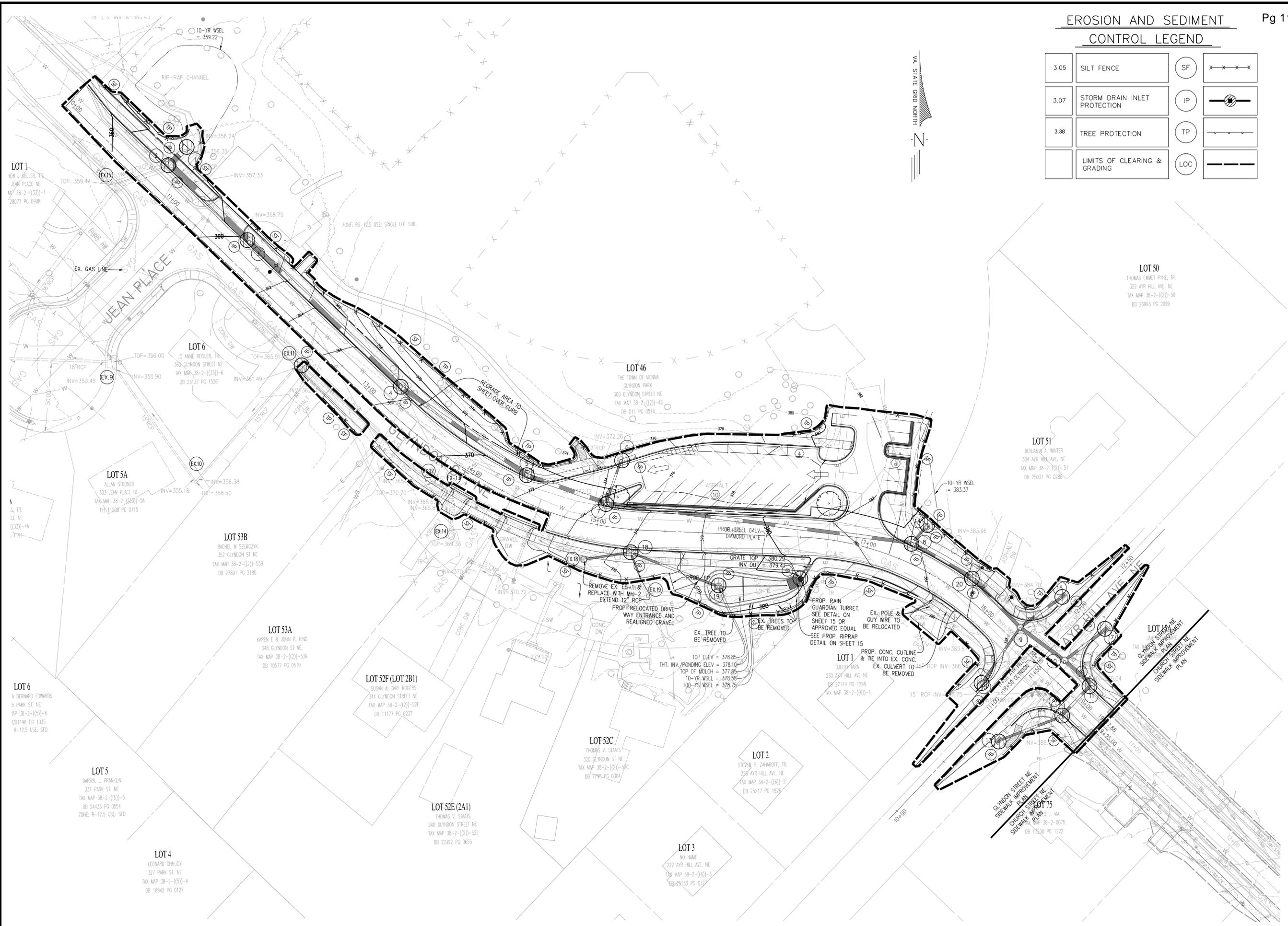
- MILL & OVERLAY WITH BUILD UP ON THE EXISTING PAVEMENT (Yellow box)
- MILL & OVERLAY WITH NO CHANGE IN GRADE (Light Green box)
- CUT WITH FULL NEW SECTION REPLACEMENT (1.5', 3.0', 12.0") (Cyan box)
- PROPOSED CONCRETE (CURB & GUTTER, CG-12, SIDEWALK ETC) (Grey stippled box)
- PROPOSED GRAVEL DRIVEWAY (Light Blue box)
- PROPOSED ASPHALT DRIVEWAY (Dark Blue box)

**GLYNDON ST, NE ROAD DESIGN TABLE (SOUTH BOUND)**

Description*	ROADWAY CL Station	Ex Crown Elev	Ex. EP Width from Ex. Crown	Ex. EP Elevation	Prop. EP Width from Ex. EP	Ex. X-Slope from Ex. Crown	Ex. Crown Longitude Slope	Prop. EP Width from Ex. Crown	New Slope Ex. Crown to EP	Prop. X-Slope	Prop. EP Elevation	Prop. EP Longitude Slope	Prop. TC Elevation (Ex. TC if curb exists)	Dist from TC to Front of S/W	Prop. Front of S/W Elevation	Prop. Back of S/W Elevation
Normal Crown	1000.00	361.26	14.00	360.54	N/A	-5.14%	-5.65%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Normal Crown	1025.00	360.41	12.39	359.62	N/A	-6.38%	-3.40%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Normal Crown	1050.00	359.85	11.24	359.06	N/A	-7.03%	-2.24%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Normal Crown	1075.00	359.57	12.10	358.94	N/A	-5.21%	-1.12%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Normal Crown	1100.00	359.60	11.67	359.30	N/A	-2.57%	0.12%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Normal Crown	1125.00	359.87	11.78	359.66	N/A	-1.78%	1.08%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Normal Crown	1150.00	360.30	12.33	360.01	N/A	-2.35%	1.72%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Normal Crown	1175.00	361.05	12.24	360.61	N/A	-3.59%	3.00%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Normal Crown	1200.00	362.33	12.17	362.02	N/A	-2.55%	5.12%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Normal Crown	1225.00	364.07	12.01	363.63	N/A	-3.66%	6.96%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Level Crown	1250.00	365.67	12.03	365.24	N/A	-3.57%	6.40%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reverse Crown	1275.00	366.56	12.17	366.46	N/A	-0.82%	3.56%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Transition to Full Super Elevation	1300.00	367.52	12.32	367.53	N/A	0.08%	3.84%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Begin Full Super Elevation	1325.00	368.48	12.82	368.53	N/A	0.38%	3.84%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Full Super Elevation	1350.00	369.37	12.65	369.41	N/A	0.32%	3.56%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Full Super Elevation	1366.06	369.85	12.60	369.85	N/A	0.00%	2.99%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Full Super Elevation	1375.00	370.12	12.20	370.08	N/A	-0.33%	3.02%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Full Super Elevation	1400.00	370.78	12.40	370.81	N/A	0.24%	2.64%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Full Super Elevation	1425.00	371.62	12.77	371.63	N/A	0.08%	3.36%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Full Super Elevation	1450.00	372.56	13.37	372.62	N/A	0.45%	3.76%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Full Super Elevation	1465.33	373.39	13.32	373.34	0.00	-0.38%	5.41%	13.32	-0.38%	-0.38%	373.34	4.40%	373.72	5.00	373.90	373.00
End Full Super Elevation	1475.00	373.59	12.83	373.82	0.76	1.79%	2.07%	13.59	1.50%	1.50%	373.79	4.70%	374.18	5.00	374.28	374.38
Transition to Reverse Crown	1500.00	374.64	12.42	374.98	1.16	2.74%	4.20%	13.58	3.00%	3.00%	375.05	5.01%	375.43	5.00	375.53	375.64
Reverse Crown	1510.27	374.98	12.71	375.35												

EROSION AND SEDIMENT CONTROL LEGEND

3.05	SILT FENCE	SF	X X X X
3.07	STORM DRAIN INLET PROTECTION	IP	⊗
3.38	TREE PROTECTION	TP	⊗
	LIMITS OF CLEARING & GRADING	LOC	---



**LOT 1**  
HEW J. KELLER, TR.  
JEAN PLACE NE  
MAP 38-2-(133)-1  
DB 28077 PG 0908

**LOT 6**  
JO ANNE REISLER, TR.  
360 GYNDON STREET NE  
TAX MAP 38-2-(133)-6  
DB 23137 PG 1526

**LOT 46**  
THE TOWN OF VIENNA  
GYNDON PARK  
300 GYNDON STREET NE  
TAX MAP 38-2-(121)-46  
DB 011 PG 0214

**LOT 51**  
BENJAMIN A. WINTER  
304 AYR HILL AVE. NE  
TAX MAP 38-2-(121)-51  
DB 25031 PG 0288

**LOT 50**  
THOMAS EMMET PINE, TR.  
322 AYR HILL AVE. NE  
TAX MAP 38-2-(121)-50  
DB 26993 PG 2099

**LOT 5A**  
ALLAN STODNER  
303 JEAN PLACE NE  
TAX MAP 38-2-(133)-5A  
DB 11208 PG 0115

**LOT 53B**  
RACHEL M. SZCZEWYK  
352 GYNDON ST NE  
TAX MAP 38-2-(121)-53B  
DB 27891 PG 2180

**LOT 53A**  
KAREN E. & JOHN P. KING  
348 GYNDON ST NE  
TAX MAP 38-2-(121)-53A  
DB 10577 PG 0519

**LOT 52F (LOT 2B1)**  
SUSAN & CARL ROGERS  
344 GYNDON STREET NE  
TAX MAP 38-2-(121)-52F  
DB 11177 PG 0237

**LOT 52C**  
THOMAS V. STAITS  
320 GYNDON ST NE  
TAX MAP 38-2-(121)-52C  
DB 7795 PG 0304

**LOT 2**  
STEVEN P. ZAHAROFF, TR.  
296 AYR HILL AVE. NE  
TAX MAP 38-2-(161)-2  
DB 25217 PG 1926

**LOT 3**  
NO NAME  
222 AYR HILL AVE. NE  
TAX MAP 38-2-(161)-3  
DB 25133 PG 0727

**LOT 6**  
A. BERNARD EDWARDS  
5 PARK ST. NE  
MAP 38-2-(151)-6  
DB 801196 PG 1035  
R-12.5 USE: SFD

**LOT 5**  
DARRYL L. FRANKLIN  
331 PARK ST. NE  
TAX MAP 38-2-(151)-5  
DB 24435 PG 0554  
ZONE: R-12.5 USE: SFD

**LOT 4**  
LEONARD CHUOY  
327 PARK ST. NE  
TAX MAP 38-2-(151)-4  
DB 18942 PG 0127

**LOT 52E (2A1)**  
THOMAS V. STAITS  
340 GYNDON STREET NE  
TAX MAP 38-2-(121)-52E  
DB 22392 PG 0655

PLAN DATE	DESCRIPTION
03/31/2018	
04/18/2018	
08/13/2018	95% PLAN
10/09/2018	95% DRAFT
06/25/2024	REVISION PER TOWN OF VIENNA COMMENTS
10/09/18	
08/02/2024	

Urban, Ltd.  
7712 Little River Turnpike  
Annandale, Virginia 22003  
Tel: 703.643.8250  
www.urban-hill.com



EROSION & SEDIMENT CONTROL PHI & PHII  
ROADWAY AND DRAINAGE IMPROVEMENT PLAN  
GYNDON STREET, N.E.  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA  
SCALE: 1"=30'  
DATE: AUG. 2018  
C.I. 1'

SHEET  
11  
OF  
15  
FILE No.  
PP-2156

**EROSION AND SEDIMENT CONTROL NARRATIVE**

**PROJECT DESCRIPTION**

THIS PROJECT CONSISTS OF A SIDEWALK IMPROVEMENT PLAN FOR THE EXISTING GLYNDON STREET, NE. IMPROVEMENTS INCLUDE CURB AND GUTTER, SIDEWALK, STORM, AND DRIVEWAY ENTRANCES. THE TOTAL DISTURBED ACREAGE FOR THE PROJECT IS 1.62 ACRES.

**EXISTING SITE CONDITIONS**

THE SITE IS AN EXISTING ROAD, GLYNDON STREET, NE. WITH A GRAVEL SHOULDER, DRIVEWAY ENTRANCES, AND FRONT YARDS CONTAINING FENCING, MAILBOXES, WATER METERS, FIRE HYDRANTS, ETC.

**ADJACENT PROPERTIES**

THE SITE IS SURROUNDED BY SINGLE-FAMILY LOTS AND PUBLIC PARK.

**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**

SEE SHEET 2.

**CRITICAL EROSION AREAS**

CRITICAL AREAS ASSOCIATED WITH THIS PROJECT INCLUDE STEEP SLOPES, SLOPES GREATER THAN 20% ARE PRESENT. 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, INLET PROTECTION, AND TO PROVIDE DRAINAGE RELIEF AT LOW POINTS WITH CHECK DAMS.

**EROSION CONTROL PROGRAM (GENERAL GUIDELINES)**

NOT MORE THAN 75% OF THE SITE IS TO BE DENUDE 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 SEEDING AND MULCHED AS SOON AS PRACTICAL.
- PERMANENT OR SOIL STABILIZATION SHALL BE APPLIED TO DENUDE 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 DENUDE 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, INLET PROTECTION, 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 SEED OR SOD (PER SEC. 3.32 AND 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., SEEDING 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 RESETING, 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 SEEDING AND MULCHED IN ACCORDANCE WITH SEC. 3.32 AND 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, EXCEPT IN THOSE UNPAVED AREAS WHERE THE TOWN DETERMINES SOD SHALL BE PLACED.

**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.
- CONTRACTOR SHALL CONTACT TOWN ARBORIST PRIOR TO BEGINNING EXCAVATION TO CLOSELY COORDINATE ROOT PRUNING WITHIN CRITICAL ROOT ZONES. CONTRACTOR SHALL EMPLOY APPROPRIATE ROOT PROTECTION METHODS PER TOWN ARBORIST RECOMMENDATION IN ORDER TO MAXIMIZE THE POTENTIAL FOR TREE PRESERVATION.

**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 DENUDE 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 SEEDING 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, SEEDING AND MULCHED WITHIN 5 DAYS AFTER BACKFILL.
- ALL TEMPORARY EARTH BERMS, AND DIVERSIONS ARE TO BE MULCHED AND SEEDING 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.

**EROSION AND SEDIMENT CONTROL LEGEND**

3.05	SILT FENCE	SF	X-X-X-X
3.07	STORM DRAIN INLET PROTECTION	IP	[Symbol]
3.20	CHECK DAM	CD	[Symbol]
3.38	TREE PROTECTION*	TP	[Symbol]
	LIMITS OF CLEARING & GRADING	LOC	[Symbol]

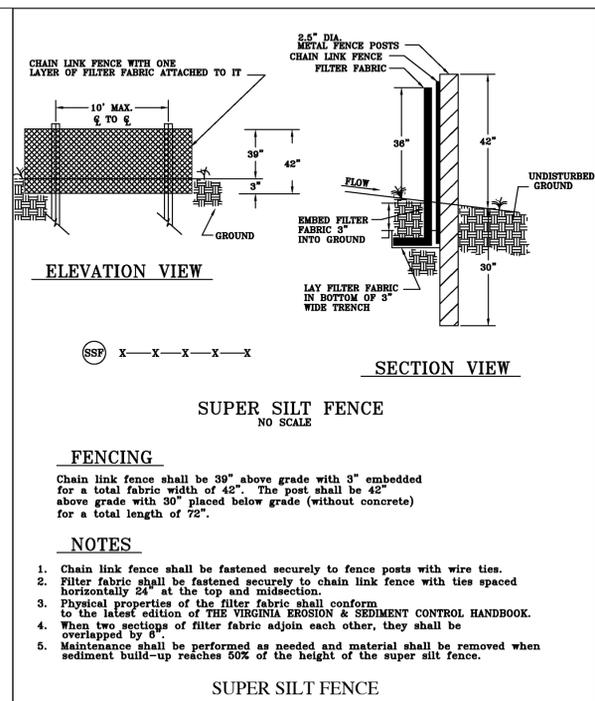
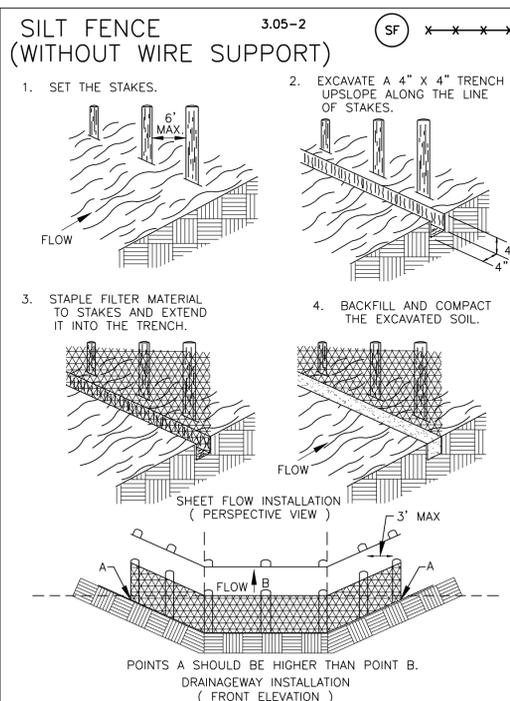
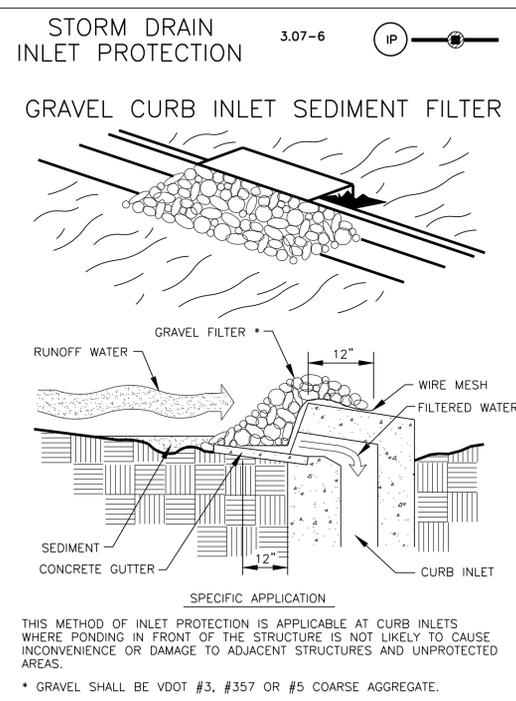
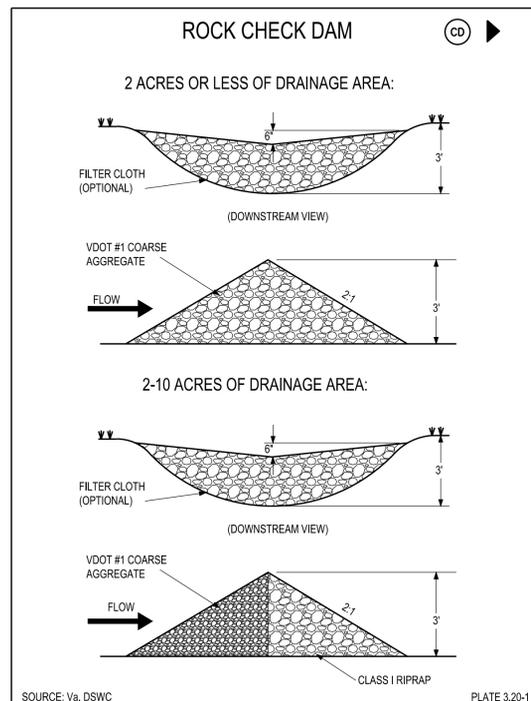
\*CONTRACTOR TO INSTALL SUPER SILT FENCE TO ACT AS TREE PROTECTION

**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.
- CHECK DAM - 3.20**  
SEVERAL ROCK CHECK DAMS WILL BE INSTALLED UPSLOPE OF THE CULVERT CROSSINGS TO REDUCE THE VELOCITY OF CONCENTRATED FLOWS AND REDUCE SEDIMENT.



NOTE: TO BE USED IN TREE PROTECTION

NO.	DATE	DESCRIPTION	REVISIONS
1	10/09/18	REVISION PER TOWN OF VIENNA COMMENTS	
2	06/25/24	95% DRAFT	
2	09/02/24	95% PLAN	
	08-15-2018	10-04-2018	
	04-18-2018	08-15-2018	
	02-12-2018		

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COMMONWEALTH OF VIRGINIA  
C. RYAN CONNOR  
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08/12/2024  
PROFESSIONAL ENGINEER

EROSION & SEDIMENT CONTROL NARRATIVE & DETAILS  
ROADWAY AND DRAINAGE IMPROVEMENT PLAN  
GLYNDON STREET, N.E.  
TOWN OF VIENNA  
FAIRFAX COUNTY, VIRGINIA

DATE: AUG. 2018  
SCALE: N/A

SHEET 12 OF 15  
FILE No. PP-2156

### BMP SITE REQUIREMENT COMPUTATIONS

Project Name: **Town of Vienna Glyndon Street NE**  
 Date: **7/31/2024**  
 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) → **1.62**

Check: **BMP Design Specifications List: 2013 Draft Stds & Specs**

Linear project? **No**  
 Land cover areas entered correctly? **✓**  
 Total disturbed area entered? **✓**

Maximum reduction required: **20%**  
 The site's net increase in impervious cover (acres) is: **0.34**  
 Post-Development TP Load Reduction for Site (lb/yr): **1.01**

**Pre-ReDevelopment 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	0.80	0.80
Impervious Cover (acres)	0.00	0.00	0.00	0.82	0.82
<b>Totals</b>					<b>1.62</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	0.46	0.46
Impervious Cover (acres)	0.00	0.00	0.00	1.16	1.16
<b>Totals</b>					<b>1.62</b>

Area Check: **OK**    **OK**    **OK**    **OK**

**Constants**

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

**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**

Pre-ReDevelopment	Listed	Adjusted <sup>1</sup>
Forest/Open Space (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
% Forest	0%	0%
Managed Turf (acres)	0.80	0.46
Weighted Rv(turf)	0.25	0.25
% Managed Turf	49%	36%
Impervious Cover (acres)	0.82	0.82
Rv(Impervious)	0.95	0.95
% Impervious	51%	64%
<b>Total Site Area (acres)</b>	<b>1.62</b>	<b>1.28</b>
<b>Site Rv</b>	<b>0.60</b>	<b>0.70</b>

**LAND COVER SUMMARY -- POST DEVELOPMENT**

Post-Development	Final	Adjusted <sup>1</sup>
Forest/Open Space (acres)	0.00	0.00
Weighted Rv(forest)	0.00	0.00
% Forest	0%	0%
Managed Turf (acres)	0.46	0.46
Weighted Rv(turf)	0.25	0.25
% Managed Turf	28%	36%
Impervious Cover (acres)	1.16	1.16
Rv(Impervious)	0.95	0.95
% Impervious	72%	91%
<b>Final Site Area (acres)</b>	<b>1.62</b>	<b>1.28</b>
<b>Final Post-Dev Site Rv</b>	<b>0.75</b>	<b>0.70</b>

**Treatment Volume and Nutrient Load**

Pre-ReDevelopment	Final Post-Development	Adjusted <sup>1</sup>
Pre-ReDevelopment Treatment Volume (acre-ft)	0.0816	0.0745
Pre-ReDevelopment Treatment Volume (cubic feet)	3,554	3,245
Pre-ReDevelopment TP Load (lb/yr)	2.23	2.04
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	1.38	1.59
<b>Baseline TP Load (lb/yr)</b> (0.41 lb/acre/yr applied to pre-redevelopment area excluding previous land proposed for new impervious cover)		<b>0.52</b>

**Treatment Volume and Nutrient Load**

Post-Development	Final	Adjusted <sup>1</sup>
Post-Development Treatment Volume (acre-ft)	0.0745	0.0269
Post-Development Treatment Volume (cubic feet)	3,245	1,172
Post-Development TP Load (lb/yr)	2.04	0.74
Post-Development TP Load per acre (lb/acre/yr)	1.59	0.58
<b>TP Load Reduction Required for Redeveloped Area (lb/yr)</b>	<b>0.41</b>	<b>0.60</b>

<sup>1</sup> Adjusted Land Cover Summary: the ReDevelopment 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-ReDevelopment acreage (minus acreage of new impervious cover).

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

**Post-Development Requirement for Site Area**

TP Load Reduction Required (lb/yr)	<b>1.01</b>
------------------------------------	-------------

**Nitrogen Loads (Informational Purposes Only)**

Pre-ReDevelopment TN Load (lb/yr)	15.97	Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	19.86
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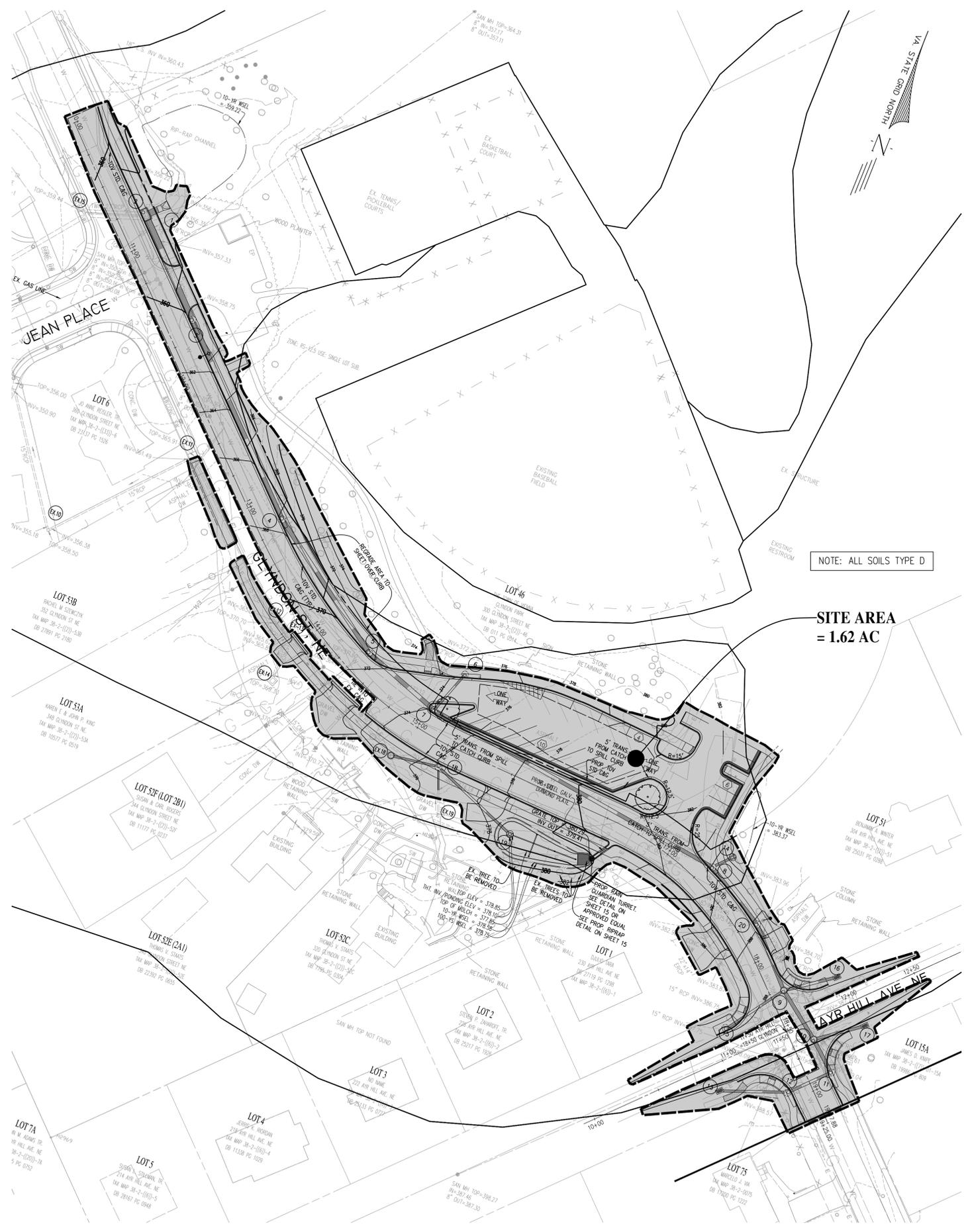
**BMP NARRATIVE**

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.

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

PER THE BMP CALCULATIONS ON THIS SHEET AND IN COMPLIANCE WITH VSMP (VRRM) WATER QUALITY CONTROL REQUIREMENTS, THE PHOSPHORUS REMOVAL REQUIREMENT OF 1.01 POUNDS/YEAR IS TO BE OFFSET BY THE PHOSPHORUS REMOVAL OF 0.39 POUNDS/YEAR ACHIEVED BY THE INSTALLATION OF ONE MICRO-BIORETENTION, AND BY THE PURCHASE OF NUTRIENT CREDITS OR THE USE OF EXCESS IN OTHER TOWN PROJECTS, AT THE DISCRETION OF THE TOWN ENGINEER.

THE TP LOAD REDUCTION ACHIEVED IS COMPUTED UTILIZING THE ONSITE AND OFFSITE DRAINAGE AREA TO BMP DEVICE (MICRO-BIORETENTION) AS SHOWN ON SHEET 13.



NOTE: ALL SOILS TYPE D

**SITE AREA = 1.62 AC**

PLAN DATE	02-21-2018	04-18-2018	08-13-2018	04-09-2018	06-25-2024	08-02-2024
REVISION No.	1	2	2	1	1	1
DATE	02-21-2018	04-18-2018	08-13-2018	04-09-2018	06-25-2024	08-02-2024
DESCRIPTION				95% PLAN	95% DRAFT	REVISION PER TOWN OF VIENNA COMMENTS
REVISIONS						

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COMMONWEALTH OF VIRGINIA  
 C. RYAN CONNOR  
 Lic. No. 039531  
 08/02/2024  
 PROFESSIONAL ENGINEER

BMP COMPUTATION & DETAILS  
 ROADWAY AND DRAINAGE IMPROVEMENT PLAN  
 GLENDON STREET, N.E.  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA

DATE: AUG. 2018  
 C.I. N/A

SHEET  
 13  
 OF  
 15  
 FILE No.  
 PP-2156

SCALE: 1"=40'

MICRO-BIORETENTION CALCULATIONS  
 VA DEQ Design Spec #9, Version 2.0  
 Spec Date March 1, 2013

MICRO-BIORETENTION "A" PLAN  
 (SCALE 1"=10')

Facility Name: **A**  
 Type of Facility: **Level 1**

A. SIZING CALCULATIONS

Variable	Value	Units	Description/Notes
Rd =	1.0	in	Per VA DEQ Specs, use 1.0 for water quality storm as a standard
Rv <sub>MT</sub> =	0.25	n/a	Managed Turf Land Cover Coefficient from VRRM Spreadsheet (typically 0.25)
Rv <sub>IC</sub> =	0.95	n/a	Impervious Surface Land Cover Coefficient from VRRM Spreadsheet (typically 0.95)
CA <sub>MT</sub> =	0.48	ac	Managed Turf Drainage Area to facility from VRRM Spreadsheet*
CA <sub>IC</sub> =	0.20	ac	Impervious Surface Drainage Area to facility from VRRM Spreadsheet*
CA =	0.68	ac	Total Drainage Area to facility
Rv <sub>CA</sub> =	0.46	n/a	Composite Land Cover Coefficient to facility
TV <sub>CA</sub> =	1125	cf	Treatment Volume from drainage area to facility
V <sub>US</sub> =	0	cf	Volume of runoff from upstream facility, if any, (see VRRM Spreadsheet Column E)
TV <sub>BMP</sub> =	1125	cf	Total Treatment Volume to facility (TV to be used in sizing calcs)

\*If DA's to multiple facilities are combined on VRRM Spreadsheet, only include the area draining to this specific facility.

Porosity (per VA DEQ Design Spec #9 6.1.1):

Soil Media η =	0.25
Gravel η =	0.40
Surface Storage η =	1.00
Mulch η =	0.25

Bioretention Facility Layer Depths:

Soil Media =	25	inches
Gravel =	12	inches
Surface Storage =	3	inches
Mulch Storage =	3	inches

Design Storage Depth = **1.23** ft

Surface Area (SA) Required:

Type of Facility:	Level 1
V <sub>US</sub> =	0 cf
Level 1: SA = (TV <sub>BMP</sub> - volume reduced by upstream BMP) / Design Storage Depth	
Level 2: SA = ((1.25 x TV <sub>BMP</sub> ) - volume reduced by upstream BMP) / Design Storage Depth	
SA = ( 1 x 1125 - 0 ) / 1.23	
<b>SA = 912 sf</b>	

Area Provided (SA) = **916 SF**  
 % of Area treated = **100.39%**

B. DESIGN DATA

Variable	Value	Units	Notes
Facility Name:	A		
Type of Facility:	Level 1		
Surface Area =	916	sf	
Mulch Bed Elev =	377.85	ft	
Ponding Depth =	0.25	ft	6" max preferred
Max. Ponding Elev =	378.10	ft	
Top of Berm Elev =	378.80	ft	
Berm Width =	2.00	ft	
Inlet Elev =	378.10	ft	
Q10 =	1.72	cfs	
10-year Depth =	0.48	ft	from inlet comps
10-year WSEL =	378.58	ft	
10-year Freeboard =	0.22	ft	
Q100 =	2.29	cfs	
100-year Depth =	0.65	ft	from inlet / weir comps
100-year WSEL =	378.75	ft	

Drainage Area A

Drainage Area A Land Cover (acres)

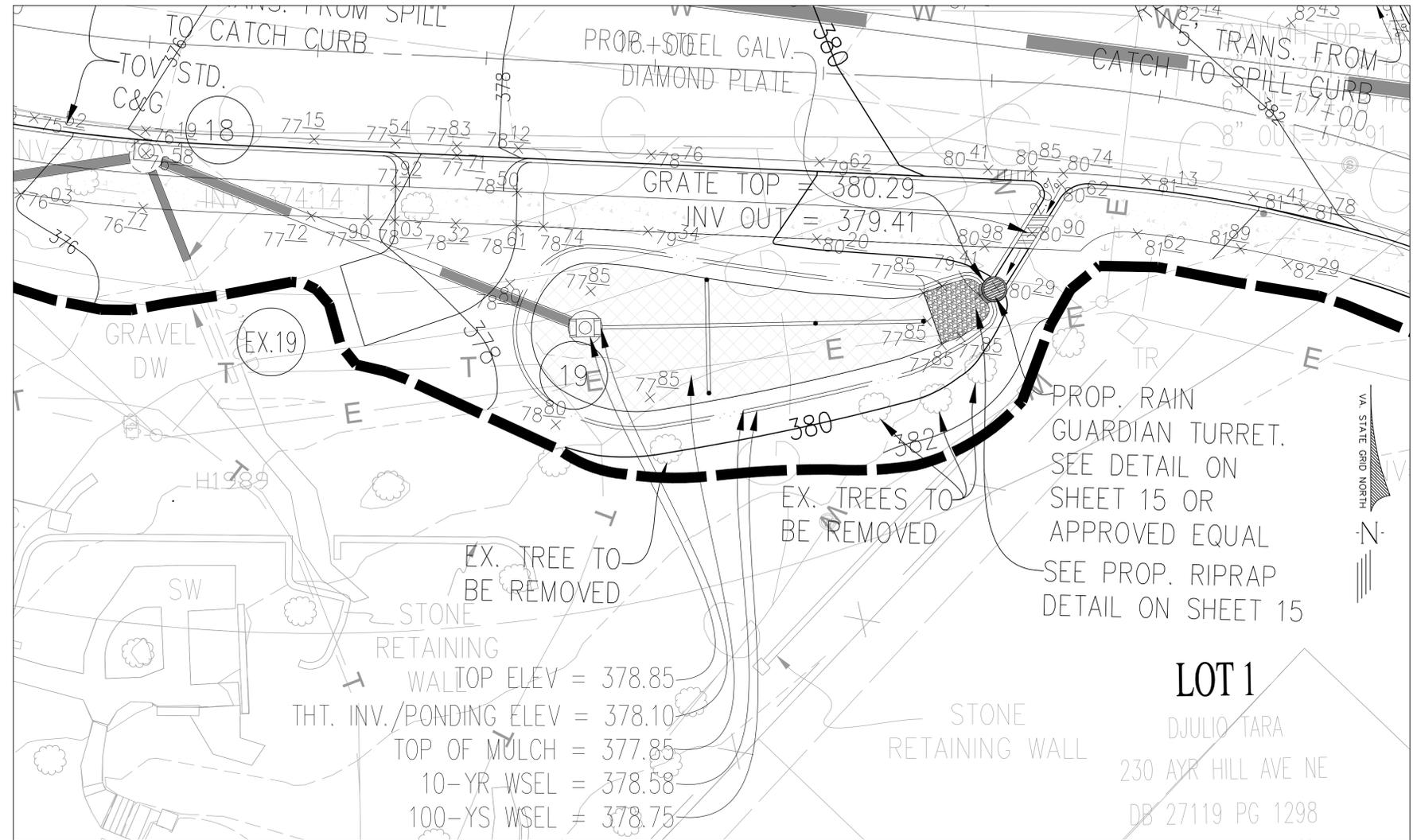
	A Soils	B Soils	C Soils	D Soils	Totals	Land Cover Rv
Forest/Open Space (acres)					0.00	0.00
Managed Turf (acres)				0.48	0.48	0.25
Impervious Cover (acres)				0.20	0.20	0.95
<b>Total</b>					<b>0.68</b>	

Stormwater Best Management Practices (RR = Runoff Reduction)

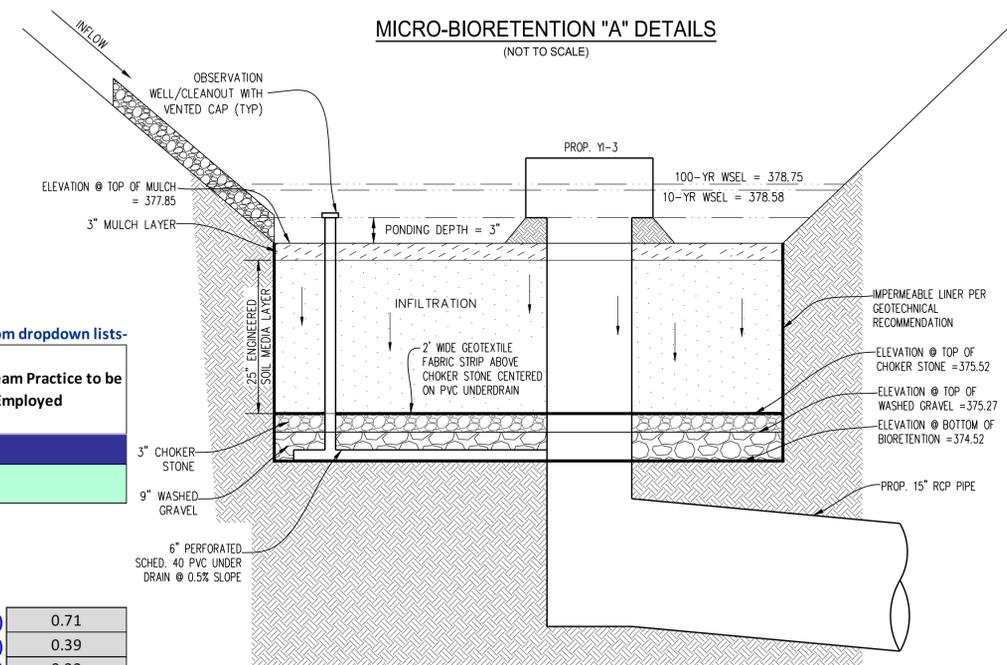
Practice	Runoff Reduction Credit (%)	Managed Turf Credit Area (acres)	Impervious Cover Credit Area (acres)	Volume from Upstream Practice (ft <sup>3</sup> )	Runoff Reduction (ft <sup>3</sup> )	Remaining Runoff Volume (ft <sup>3</sup> )	Total BMP Treatment Volume (ft <sup>3</sup> )	Phosphorus Removal Efficiency (%)	Phosphorus Load from Upstream Practices (lb)	Untreated Phosphorus Load to Practice (lb)	Phosphorus Removed By Practice (lb)	Remaining Phosphorus Load (lb)	Downstream Practice to be Employed
<b>6. Bioretention (RR)</b>													
6.a. Bioretention #1 or Micro-Bioretention #1 or Urban Bioretention (Spec #9)	40	0.48	0.20	0	450	675	1,125	25	0.00	0.71	0.39	0.32	

TOTAL IMPERVIOUS COVER TREATED (ac) = 0.20 AREA CHECK: OK.  
 TOTAL MANAGED TURF AREA TREATED (ac) = 0.48 AREA CHECK: OK.  
 TOTAL RUNOFF REDUCTION IN D.A. A (ft<sup>3</sup>) = 450

TOTAL PHOSPHORUS AVAILABLE FOR REMOVAL IN D.A. A (lb/yr) = 0.71  
 TOTAL PHOSPHORUS REMOVED WITH RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr) = 0.39  
 TOTAL PHOSPHORUS REMAINING AFTER APPLYING RUNOFF REDUCTION PRACTICES IN D.A. A (lb/yr) = 0.32



MICRO-BIORETENTION "A" DETAILS  
 (NOT TO SCALE)



PLAN DATE: 02/25/2018, 08/15/2018, 10/09/2018, 06/25/2024, 08/02/2024  
 2 08/02/24 95% PLAN  
 2 08/15/24 95% DRAFT  
 1 10/09/18 REVISION PER TOWN OF VIENNA COMMENTS  
 No. DATE DESCRIPTION REVISIONS

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**urban**  
 COMMONWEALTH OF VIRGINIA  
 C. RYAN CONNOR  
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 08/02/2024  
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BMP PLAN & DETAILS  
 ROADWAY AND DRAINAGE IMPROVEMENT PLAN  
 GLYNDON STREET, N.E.  
 TOWN OF VIENNA  
 FAIRFAX COUNTY, VIRGINIA  
 SCALE: AS SHOWN C.I. = 2  
 DATE: AUG. 2018

SHEET 14 OF 15  
 FILE No. PP-2156

