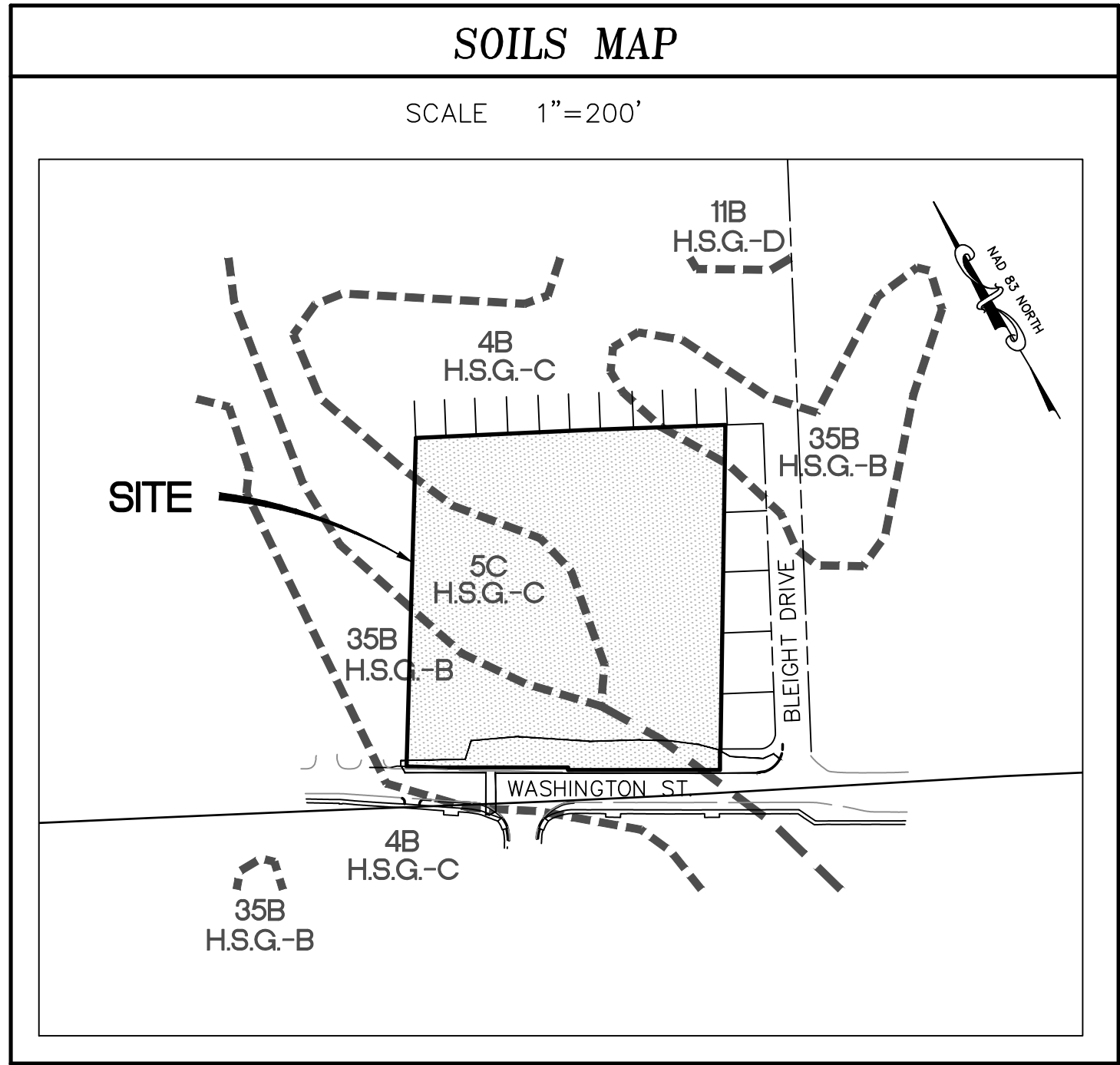


HAYMARKET TOWN PARK STREETScape

RFP: 2022-001

TOWN OF HAYMARKET, VIRGINIA

JULY 14, 2023

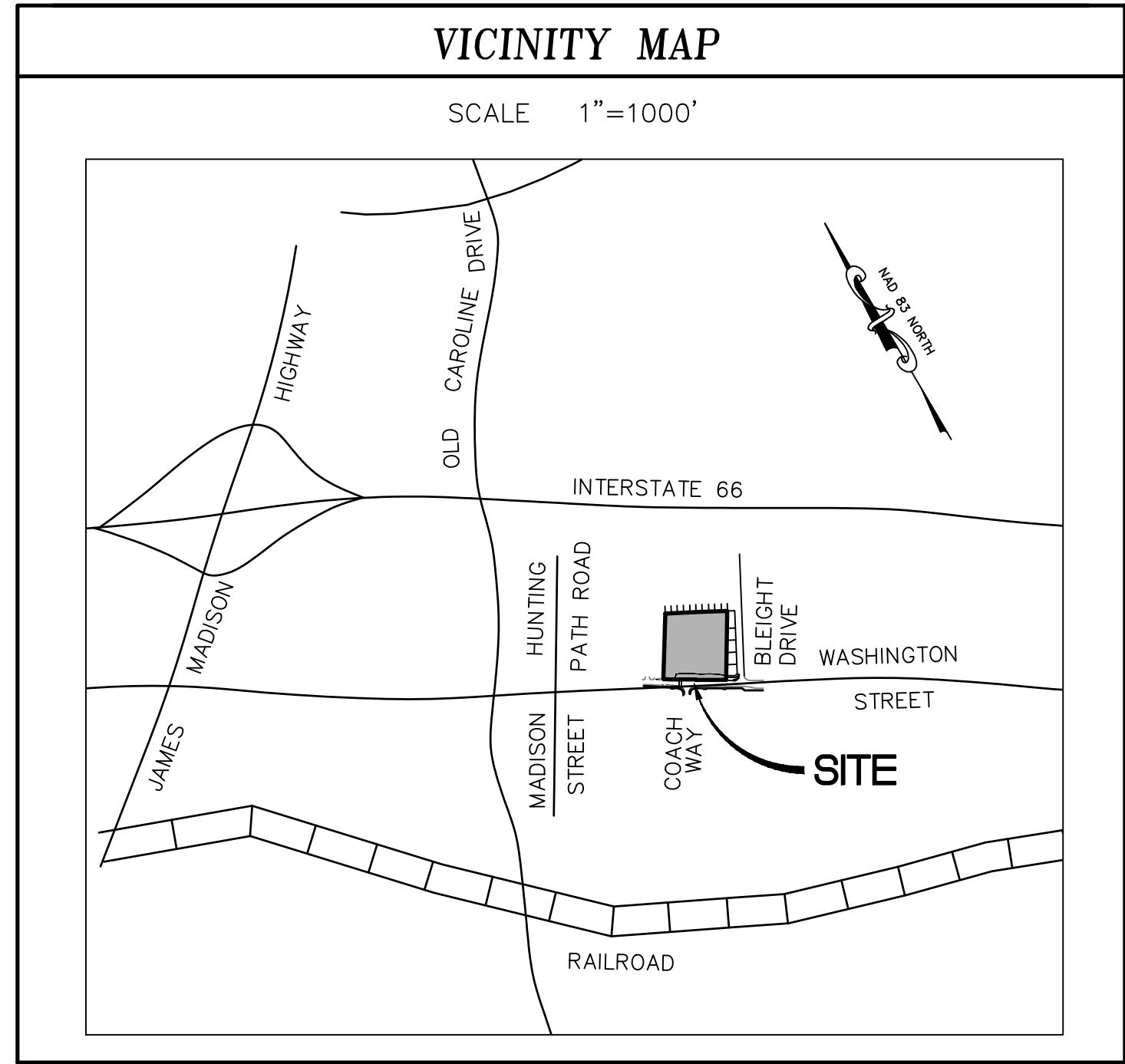


SOILS DATA

SOILS SYMBOL	SOILS NAME	ERODIBILITY	SLOPE RANGE	SOIL CATEGORY	SURFACE RUNOFF	DEPTH TO BEDROCK	SHRINK/SWELL	FLOODING	K-VALUE
□4 B	ARCOLA SILT LOAM	SEVERE	2% to 7%	C	MEDIUM	20-40"	LOW	NONE	0.37
□5 C	ARCOLA NESTORIA COMPLEX	SEVERE	7% to 15%	C	RAPID	20-40"	LOW	NONE	0.37
□43 E	NESTORIA GRAVELLY SILT LOAM	SEVERE	25% to 50%	C/D	VERY RAPID	10-20"	LOW	NONE	0.28
□53 B	SYCOLINE KELLY COMPLEX	MODERATE	2% to 7%	D	SLOW TO MEDIUM	20-40"	MODERATE	NONE	0.43

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20	SIGNAGE & STRIPING PLAN	
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22	UNIT PRICE LIST	



REV	DATE	DESCRIPTION

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FILE NO. PP-286 SHEET 1 OF 22



VDOT GENERAL NOTES (8/2017)

- VDOT APPROVED EXCEPTIONS/WAIVERS (MUST BE INCORPORATED IN THE PLAN):
 - ACCESS MANAGEMENT – DATE OF APPROVAL: N/A
 - SSAR– DATE OF APPROVAL: N/A
 - DESIGN WAIVER –DATE OF APPROVAL: N/A
 - OTHER N/A DATE OF APPROVAL: N/A
- SSAR CONNECTIVITY SUMMARY (PROVIDE A CHECK MARK X WHERE APPLICABLE OR WRITE N/A):
 - CONNECTIONS IN MULTIPLE DIRECTIONS (FIRST CONNECTION MUST BE TO A VDOT MAINTAINED ROAD, THE SECOND CONNECTION MAY EITHER BE TO A VDOT ROAD OR TO A STUB OUT) N/A
 - STUB OUT CONNECTION (THE PROP. RIGHT OF WAY TERMINATES AT PARCEL ABUTTING THE DEVELOPMENT AND CONSISTS OF A SHORT SEGMENT THAT IS INTENDED TO SERVE CURRENT AND FUTURE DEVELOPMENT; THE APPLICANT MUST VERIFY THAT CONNECTION WITH A FUTURE STREET IS FEASIBLE) N/A
- ALL WORK ON THIS PROJECT SHALL CONFORM TO THE CURRENT EDITIONS OF AND LATEST REVISIONS TO THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS AND STANDARDS, THE VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS, AND ANY OTHER APPLICABLE STATE, FEDERAL OR LOCAL REGULATIONS. IN CASE OF A DISCREPANCY OR CONFLICT BETWEEN THE STANDARDS OR SPECIFICATIONS AND REGULATIONS, THE MOST STRINGENT SHALL GOVERN.
- METHODS AND MATERIALS USED SHALL CONFORM TO CURRENT COUNTY/TOWN AND VDOT STANDARDS AND SPECIFICATIONS.
- ALL UTILITIES, INCLUDING ALL POLES, ARE TO BE RELOCATED AT THE DEVELOPER'S EXPENSE, PRIOR TO CONSTRUCTION.
- OPEN CUTTING OF PAVED OR SURFACE TREATED ROADS IS NOT PERMITTED. ALL UTILITIES WHICH WILL BE PLACED UNDER EXISTING STREETS ARE TO BE BORED OR JACKED. ANY EXCEPTIONS, DUE TO EXTENUATING CIRCUMSTANCES, ARE TO BE ADDRESSED AT THE PERMIT STAGE.
- ANY TYPE OF REVERSE CURB (SPILL CURB, CG–6R, ETC.) AND TRANSITION TO THESE CURBS SHALL NOT BE USED WITHIN THE PUBLIC RIGHT OF WAY.
- THE DEVELOPER IS RESPONSIBLE FOR ANY DAMAGE TO EXISTING ROADS AND UTILITIES WHICH OCCUR AS A RESULT OF PROJECT CONSTRUCTION WITHIN OR CONTIGUOUS TO EXISTING RIGHT OF WAY.
- 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.
- STANDARD GUARDRAILS AND/OR HANDRAILS SHALL BE INSTALLED AT HAZARDOUS LOCATIONS AS DESIGNATED DURING FIELD REVIEW BY THE COUNTY/TOWN INSPECTOR OR VDOT.
- THE DEVELOPER IS RESPONSIBLE FOR ALL TRAFFIC CONTROL. THE DEVELOPER SHALL SUBMIT A SIGNING, STRIPING AND/OR SIGNALIZATION PLAN TO THE VDOT LAND DEVELOPMENT SECTION PRIOR TO PERMIT APPLICATION. THE DEVELOPER SHALL NOT COMMENCE CONSTRUCTION OF ANY PAVEMENT COURSE WITHOUT AN APPROVED STRIPING PLAN.
- PAVEMENT DESIGN SHALL BE PROVIDED IN ACCORDANCE WITH THE PAVEMENT DESIGN GUIDE FOR SUBDIVISION AND SECONDARY ROADS IN VIRGINIA. FOR PRIMARY ROADS AND INTERSTATE HIGHWAYS WHERE TRUCK TRAFFIC EXCEEDS 5%, PAVEMENT DESIGN SHALL BE PROVIDED IN ACCORDANCE WITH AASHTO GUIDELINES. TYPICAL PAVEMENT SECTIONS SHALL DEPICT THE TOP 6" OF THE SUBGRADE IMMEDIATELY UNDER THE PAVEMENT STRUCTURE COMPACTED TO 100% OF THE THEORETICAL MAXIMUM DRY DENSITY.
- ASPHALT PAVEMENT WIDENING SHALL CONFORM TO VDOT STANDARD WP–2.
- ALL RIGHT OF WAY DEDICATED TO PUBLIC USE SHALL BE CLEAR AND UNENCUMBERED.
- FLOWERS, SHRUBS, TREES, AND IRRIGATION SHALL NOT BE PLACED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS WITHOUT AN APPROVED SET OF PLANS AND AN APPROVED PLANTING AGREEMENT. NO IRRIGATION (SPRINKLER) SYSTEMS, BRICK COLUMNS, END WALLS, AND/OR BRICK MAILBOXES WILL BE CONSTRUCTED OR INSTALLED WITHIN STATE MAINTAINED RIGHT OF WAY LIMITS WITHOUT A PERMIT. ANY OF THE ABOVE ITEMS FOUND IN THE RIGHT OF WAY WITHOUT A PERMIT WILL BE REMOVED, AND ALL COSTS OF THE REMOVAL WILL BE BORNE BY THE OWNER AND/OR DEVELOPER.
- THE COUNTY/TOWN SHALL OBTAIN A PERMIT FOR ALL SIDEWALKS/CROSSWALKS WITHIN THE RIGHT OF WAY THAT DO NOT QUALIFY FOR VDOT MAINTENANCE.
- TRAFFIC CONTROL DEVICES OR ADVISORY SIGNS, SUCH AS MULTIWAY STOPS, SPEED LIMITS, WATCH FOR CHILDREN, PEDESTRIAN TRAFFIC ETC., SHALL NOT BE INSTALLED UNLESS SPECIFICALLY SHOWN ON THESE PLANS OR A VDOT APPROVED PLAN REVISION. SPEED STUDY CERTIFIED BY PROFESSIONAL ENGINEER SHALL BE SUBMITTED FOR VDOT APPROVAL PRIOR TO THE STREET ACCEPTANCE FOR ANY ROAD TO BE POSTED OTHER THAN THE STATUTORY SPEED LIMIT. SHOULD UNAPPROVED SIGNS BE NOTED AT THE TIME OF VDOT INSPECTION, THE ROAD ACCEPTANCE PROCESS SHALL BE TERMINATED IMMEDIATELY AND NOT RECOMMENDED UNTIL A DETERMINATION IS MADE REGARDING THE APPROVAL OF ANY ADDITIONAL SIGNS. IMMEDIATE REMOVAL OF SUCH SIGNS SHALL NOT NEGATE THE NEED FOR THE SUBMISSION OF A REVISION.
- DURING CONSTRUCTION, THE MAINTENANCE OF TRAFFIC SHALL CONFORM TO THE REQUIREMENTS IN THE MOST RECENT VERSION OF THE VIRGINIA WORK AREA PROTECTION MANUAL AND THE MUTCD.

CONSTRUCTION NOTES:

- DAMAGE TO ANY EXISTING ENTRANCES, CURB AND GUTTER, SIDEWALK OR PAVEMENT WITHIN STATE RIGHT–OF–WAY NOT PROPOSED TO BE DISTURBED WITH THIS DEVELOPMENT WILL BE THE RESPONSIBILITY OF THE DEVELOPER TO REPAIR TO THE SATISFACTION OF THE AFFECTED PARTIES.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPORT ANY UNDERGROUND UTILITIES LOCATED BY MISS UTILITY, THAT ARE NOT REFLECTED ON THIS PLAN AT SUCH TIME AS THESE UTILITIES ARE MARKED IN THE FIELD.
- TEMPORARY CHEMICAL TOILETS MUST BE PROVIDED WITH A RATIO OF ONE TOILET PER THIRTY WORKERS.
- THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AND/OR DIMENSIONS ON THE SITE.
- THE ENGINEERING GROUPE DOES NOT CERTIFY AS TO THE LOCATION OR EXISTENCE OF ANY UNDERGROUND UTILITIES NOR AS TO SOIL OR GROUND CONDITIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR DEVELOPER TO HAVE ADEQUATE SOILS AND FOUNDATION TESTING PERFORMED TO DETERMINE THAT THE SUPPORT VALUES ARE ADEQUATE FOR THE STANDARDS SHOWN ON THIS PLAN.
- IF PRECAST STRUCTURES ARE TO BE USED IN LIEU OF VDOT STANDARD STRUCTURES SPECIFIED ON THESE PLANS, WRITTEN APPROVAL OF THE SHOP DRAWINGS BY THE DESIGN ENGINEER SHOULD BE OBTAINED PRIOR TO ORDERING FROM MANUFACTURER AND INSTALLATION TO INSURE THERE ARE NO DESIGN CONFLICTS.
- CONTRACTOR IS RESPONSIBLE FOR BEING AWARE OF AND CONFORMING TO OSHA RULES AND REGULATIONS AS THEY APPLY TO CONSTRUCTION PROCEDURES ON THIS SITE.
- THERE ARE NO RESOURCE PROTECTION AREA OR FLOOD HAZARD AREAS ON THIS SITE PER PRINCE WILLIAM COUNTY GIS COUNTY MAPPER.
- THE SOIL SURVEY OF PRINCE WILLIAM COUNTY WAS UTILIZED IN DETERMINING EXISTING SOILS CONDITIONS. NO SUBSURFACE INVESTIGATION HAS BEEN PERFORMED BY THE ENGINEERING GROUPE, INC. TO ATTEST TO THE SOIL CONDITIONS AND TO THE PRESENCE OF TOXIC AND CONTAMINATED WASTE.
- ALL CONSTRUCTION INVOLVING PROBLEM SOILS MUST BE PERFORMED UNDER THE FULL–TIME INSPECTION OF A PROFESSIONAL GEOTECHNICAL ENGINEER.
- ANY EXISTING CEMETERIES, GRAVESITES AND/OR HISTORIC SITES FOUND ON THIS SITE SHALL BE PRESERVED IN ACCORDANCE WITH COUNTY AND STATE REGULATIONS. THERE ARE NO KNOWN CEMETERIES ON THIS SITE.
- PRIOR TO ANY CLEARING & GRADING ON SLOPES 25% OR GREATER, ALL SURFACE DRAINAGE WILL BE ROUTED AWAY FROM THE AREA TO BE GRADED.
- ALL FILL MATERIALS AND THEIR SUBGRADE WILL BE APPROVED BY THE SOILS ENGINEER FOR THIS SITE.
- STORM WATER MANAGEMENT, AND BEST MANAGEMENT PRACTICES FACILITIES AND SYSTEMS TO WILL BE MAINTAINED BY THE TOWN. THE TOWN SHALL BE RESPONSIBLE FOR MAINTAINING LANDSCAPING WITHIN THE VDOT RIGHT OF WAY. THE TOWN SHALL BE RESPONSIBLE FOR GRASS MOWING WITH REASONABLE FREQUENCY, IF APPLICABLE, AND FOR THE REMOVAL OF DEBRIS AND OTHER MATTER THAT HAS IMPEDED OR THREATENS TO IMPEDE THE FREE FLOW OF STORM WATER.
- ALL EXISTING & PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND IN ACCORDANCE WITH APPLICABLE TOWN ORDINANCES.
- A COPY OF THE MOST CURRENT APPROVED PLANS AND PLATS MUST BE LOCATED ONSITE, DURING CONSTRUCTION.
- THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATES MAPS (MAP NUMBERS 51153C–0067D AND 51153C–0059D) SHOWS THE PROPERTIES ARE IN ZONE X, WHICH ARE OUTSIDE THE LIMITS OF THE 100–YEAR FLOODPLAIN.
- NO WETLANDS ARE PRESENT ON THE SITE.

GENERAL CHECKLIST NOTES:

- NAME AND ADDRESS OF DEVELOPMENT: HAYMARKET TOWN PARK STREETSCAPE
- ADDRESSES OF DEVELOPMENT: 14750; 14744; 14740 AND 14710 WASHINGTON STREET, HAYMARKET VA 20169
- OWNER: TOWN OF HAYMARKET VA, 15000 WASHINGTON STREET, SUITE 100, HAYMARKET, VA 20169
- APPLICANT: THE ENGINEERING GROUPE, 13580 GROUPE DRIVE, SUITE 200, WOODBRIDGE, VA 22192. (TEG)
- EXISTING TOPOGRAPHY BASED UPON A DRONE SURVEY BY TEG DATED DECEMBER 6, 2022 AND FIELD SHOT TOPO DATED DECEMBER 14, 2022 AND MARCH 28, 2023 THAT REFERENCES A VERTICAL DATUM OF NAVD88.
- BOUNDARY SHOWN HELD MONUMENT PW11; MERIDIAN NAD83 NORTH; NOT TITLE REPORT FURNISHED.
- TOTAL PROJECT ACREAGE: 4.44 ACRES.
- THERE ARE NO WETLANDS, MAPPED RPA'S OR 100–YEAR FLOOD AREAS WITHIN THE BOUNDARIES OF THESE IMPROVEMENTS.

GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO EXISTING STATE AND TOWN CODES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BE AWARE OF ALL APPLICABLE STANDARDS AND SPECIFICATIONS AS WELL AS REQUIRED METHODS OF CONSTRUCTION.
- THE CONTRACTOR OR THEIR AGENT FOR CONTRACTOR SHALL BE RESPONSIBLE DETERMINING THE EXACT LOCATION OF ANY EXISTING UNDERGROUND UTILITIES PRIOR TO THE BEGINNING OF CONSTRUCTION. UTILITIES SHOWN HEREON ARE BASED ON AVAILABLE INFORMATION. IF DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHOULD ENCOUNTER ANY UTILITIES OTHER THAN THOSE SHOWN ON THESE PLANS, HE SHALL IMMEDIATELY NOTIFY THE ENGINEER AND TAKE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE CONTINUANCE OF SERVICES. ANY DAMAGES WHICH OCCUR BY FAILURE TO LOCATE OR PRESERVE THESE UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- NO TITLE REPORT WAS FURNISHED FOR THIS PROJECT.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE 1992 VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND TOWN ORDINANCES.
- CONSTRUCTION SHOULD BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE. SEDIMENT TRAPPING MEASURES, SUCH AS SILT FENCES, SHALL BE INSTALLED AND MADE FUNCTIONAL BEFORE ANY LAND DISTURBING ACTIVITY BEGINS.
- ALL EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED IN GOOD WORKING CONDITION AT ALL TIMES DURING CONSTRUCTION. REMOVAL OF SAID CONTROLS SHALL BE AUTHORIZED BY A TOWN INSPECTOR BUT, AT THE LEAST, SHALL NOT BE REMOVED UNTIL PERMANENT VEGETATIVE COVER HAS BEEN ESTABLISHED ON ALL DENUDED AREAS.
- PERMANENT AND TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN 14 DAYS.
- PRIOR TO DEVELOPMENT, THE LIMITS OF CLEARING SHALL BE CLEARLY MARKED WITH PROTECTIVE BARRIERS. IN PARTICULAR, BARRIERS SHALL BE INSTALLED FIVE (5) FEET OUTSIDE THE DRIPLINE OF ANY TREE OR STAND OF TREES TO BE PRESERVED. THE BARRIERS SHALL REMAIN IN PLACE THROUGH ALL PHASES OF CONSTRUCTION. THE STORAGE OF EQUIPMENT, MATERIALS, DEBRIS OR FILL SHALL NOT BE ALLOWED WITHIN THE AREA PROTECTED BY THE BARRIER.
- ENGINEERED FILL AND BACKFILL SHALL BE APPROVED SELECT MATERIALS AND SHALL THROUGHOUT. EACH LAYER OF ENGINEERED FILL SHALL BE COMPACTED AT OPTIMUM MOISTURE, PLUS OR MINUS TWO PERCENT, TO A DENSITY OF NOT LESS THAN 95 PERCENT IN ACCORDANCE WITH A.S.T.M. D–698.

NOTICE TO CONTRACTORS AND OWNERS

IF THE CONTRACTOR/OWNER DETERMINES THAT AN ERROR, DISCREPANCY, OMISSION, ETC. EXISTS ON THE SITE PLAN, THE CONTRACTOR /OWNER SHALL NOTIFY THE ENGINEER PRIOR TO PRECASTING, STAKEOUT, INSTALLATION OR CONSTRUCTION OF ANY IMPROVEMENTS SHOWN ON THE SITE PLAN. THE ENGINEER WILL REVIEW THE PLANS AND PROVIDE A CLARIFICATION OR AN ADDENDUM AS PROMPTLY AS POSSIBLE.

STORMWATER CONSTRUCTION INSPECTION NOTE

INSPECTIONS ARE NEEDED DURING CONSTRUCTION TO ENSURE THAT THE FACILITIES ARE BUILT IN ACCORDANCE WITH THE APPROVED PLANS AND DESIGN SPECIFICATIONS. THE DEVELOPER/OWNER SHALL PROVIDE FOR PERIODIC INSPECTIONS OF THE FACILITY DURING CONSTRUCTION. DETAILED INSPECTION CHECKLISTS SHALL BE USED THAT INCLUDE SIGN–OFFS BY A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER REGISTERED IN VIRGINIA AT CRITICAL STAGES OF CONSTRUCTION, TO ENSURE THAT THE CONTRACTOR'S INTERPRETATION OF THE PLAN IS CONSISTENT WITH THE DESIGNER'S INTENT. THE ACTUAL INSPECTIONS MAY BE PERFORMED BY AN INDIVIDUAL UNDER THE DIRECT SUPERVISION OF THE LICENSED PROFESSIONAL.

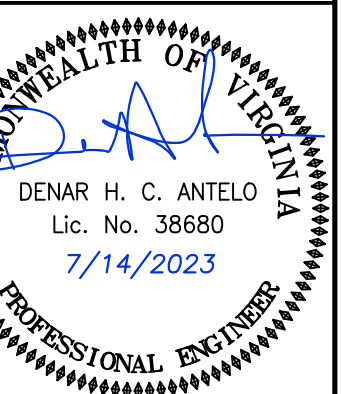
STORMWATER AS-BUILT CERTIFICATION NOTE

AFTER THE FACILITY HAS BEEN CONSTRUCTED, THE DEVELOPER SHALL HAVE AN AS–BUILT CERTIFICATION CONDUCTED BY A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER REGISTERED IN VIRGINIA AND SUBMITTED TO THE TOWN ALONG WITH THE AS–BUILT CHECKLIST AND AS–BUILT PLAN. THE AS–BUILT CERTIFICATION VERIFIES THAT THE FACILITY WAS INSTALLED AS DESIGNED AND APPROVED.

GENERAL NOTES

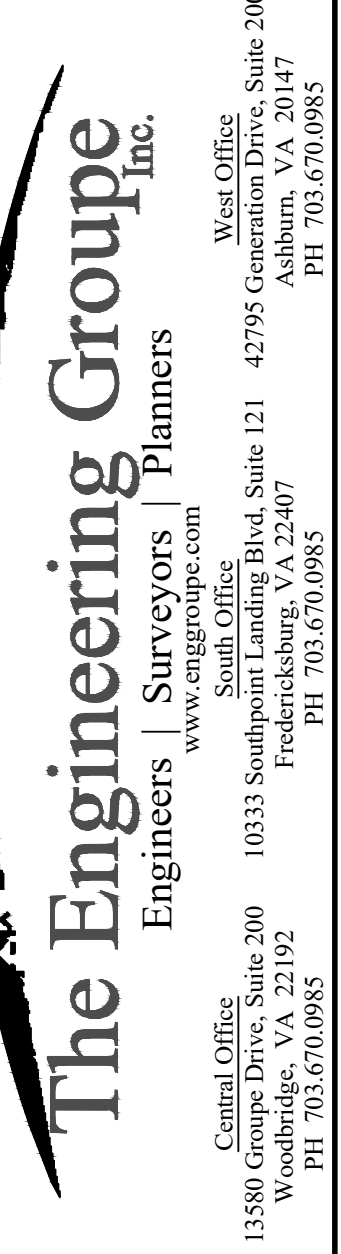
HAYMARKET TOWN PARK STREETSCAPE
RFP: 2022–001

TOWN OF HAYMARKET, VIRGINIA

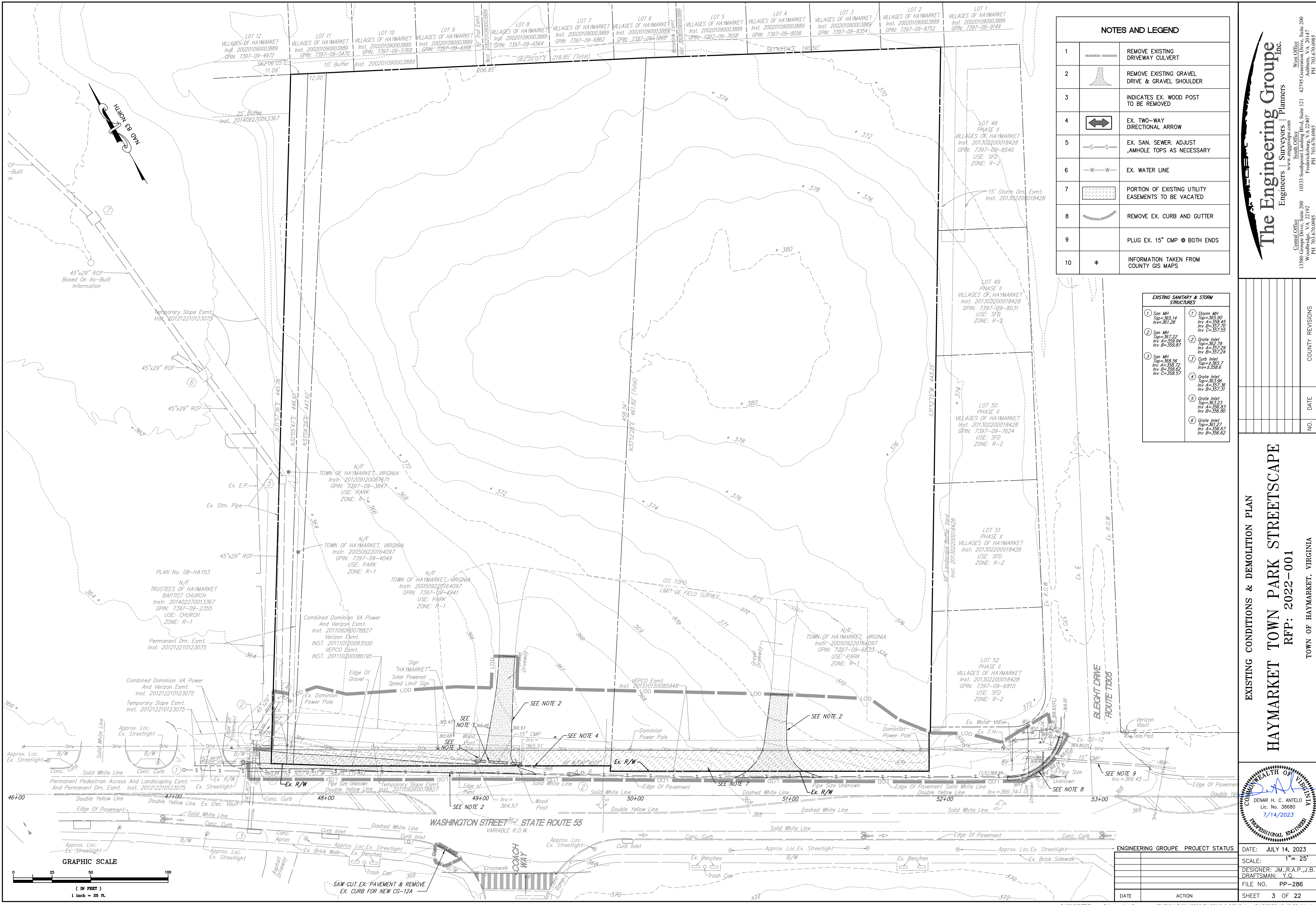


DATE:	JULY 14, 2023
SCALE:	N/A
DESIGNER:	JM., R.A.P., J.B.
DRAFTSMAN:	Y.Q.
FILE NO.	PP–286
SHEET	2 OF 22

ENGINEERING GROUPE	PROJECT STATUS
DATE	ACTION

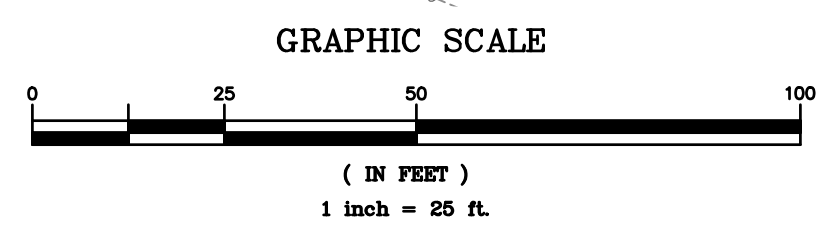


NO.	DATE	COUNTY REVISIONS



NOTES AND LEGEND		
1		REMOVE EXISTING DRIVEWAY CULVERT
2		REMOVE EXISTING GRAVEL DRIVE & GRAVEL SHOULDER
3		INDICATES EX. WOOD POST TO BE REMOVED
4		EX. TWO-WAY DIRECTIONAL ARROW
5		EX. SAN. SEWER ADJUST, AMHOLE TOPS AS NECESSARY
6		EX. WATER LINE
7		PORTION OF EXISTING UTILITY EASEMENTS TO BE VACATED
8		REMOVE EX. CURB AND GUTTER
9		PLUG EX. 15" CMP @ BOTH ENDS
10	*	INFORMATION TAKEN FROM COUNTY GIS MAPS

EXISTING SANITARY & STORM STRUCTURES					
1	San MH	Top=365.14 Inv A=367.28 Inv B=367.70 Inv C=367.65	1	Storm MH	Top=365.80 Inv A=368.45 Inv B=367.70 Inv C=367.65
2	San MH	Top=367.22 Inv A=369.94 Inv B=369.87	2	Grate Inlet	Top=367.79 Inv A=367.29 Inv B=367.24
3	San MH	Top=368.55 Inv A=368.72 Inv B=368.62 Inv C=368.57	3	Curb Inlet	Top=365.7 Inv=368.6
			4	Grate Inlet	Top=363.56 Inv A=367.36 Inv B=367.31
			5	Grate Inlet	Top=363.53 Inv A=366.83 Inv B=366.80
			6	Grate Inlet	Top=361.27 Inv A=366.67 Inv B=366.62



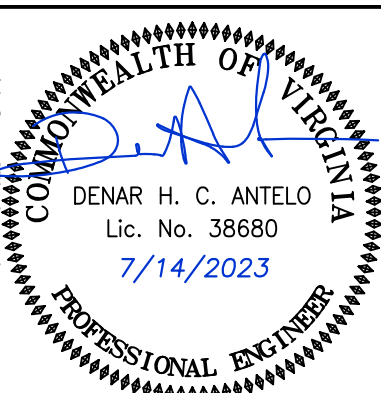
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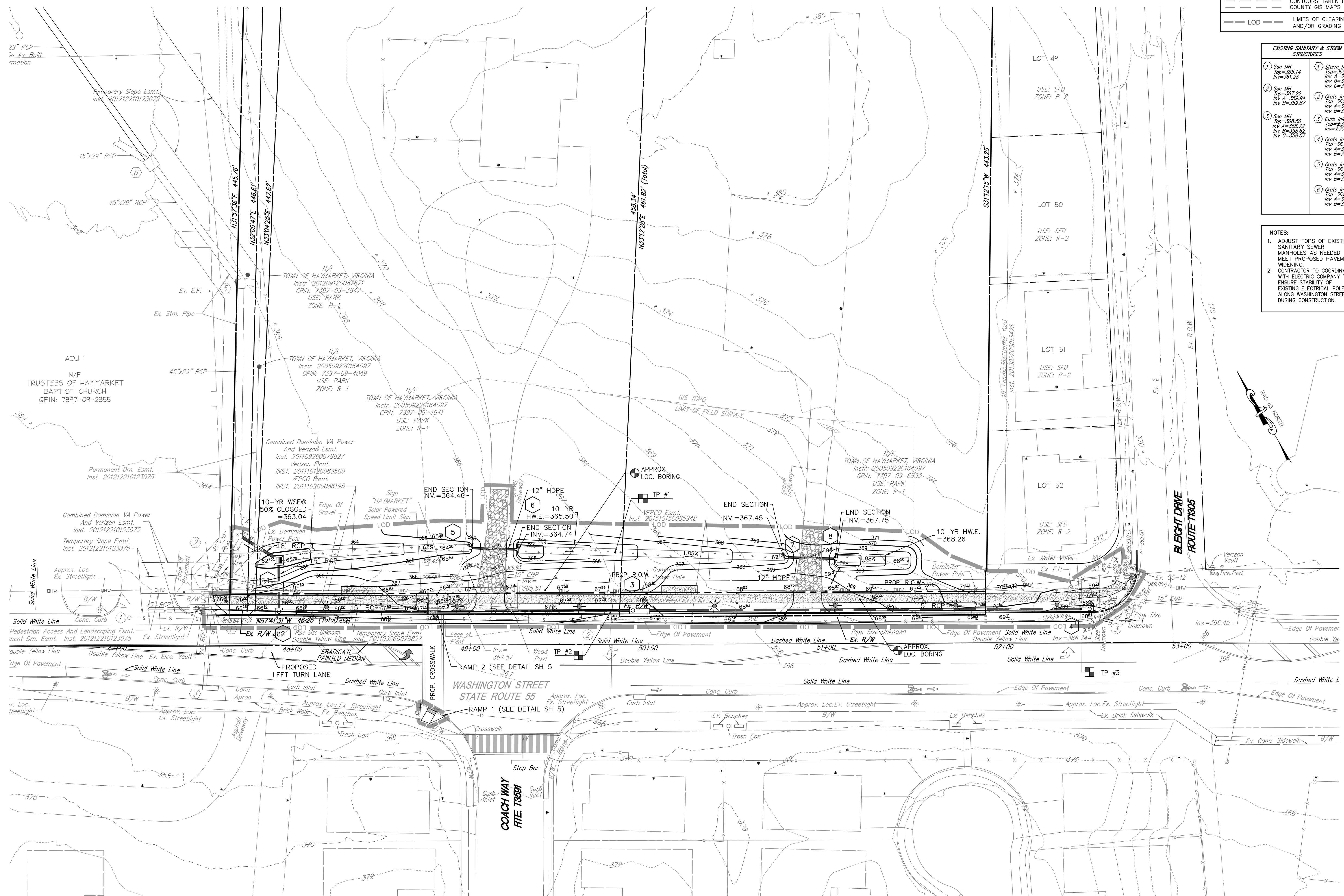
NO.	DATE	COUNTY REVISIONS

EXISTING CONDITIONS & DEMOLITION PLAN
HAYMARKET TOWN PARK STREETScape
RFP: 2022-001
 TOWN OF HAYMARKET, VIRGINIA

DATE: JULY 14, 2023
 SCALE: 1" = 25'
 DESIGNER: JM, R.A.P., J.B.
 DRAFTSMAN: Y.Q.
 FILE NO. PP-286
 SHEET 3 OF 22

ENGINEERING GROUP PROJECT STATUS





LEGEND	
*	INFORMATION TAKEN FROM COUNTY GIS MAPS
- - -	CONTOURS TAKEN FROM COUNTY GIS MAPS
- - - -	LIMITS OF CLEARING AND/OR GRADING

EXISTING SANITARY & STORM STRUCTURES	
1 San MH Top=365.14 Inv=367.28	1 Storm MH Top=365.90 Inv=368.85 Inv C=357.55
2 San MH Top=367.22 Inv=359.94 Inv B=359.87	2 Grate Inlet Top=362.79 Inv=357.59 Inv B=357.24
3 San MH Top=368.56 Inv=368.62 Inv C=368.57	3 Curb Inlet Top=362.79 Inv=358.6 Inv B=357.24
	4 Grate Inlet Top=361.96 Inv=357.36 Inv B=357.31
	5 Grate Inlet Top=361.21 Inv=356.83 Inv B=356.80
	6 Grate Inlet Top=361.27 Inv=356.67 Inv B=356.62

- NOTES:**
- ADJUST TOPS OF EXISTING SANITARY SEWER MANHOLES AS NEEDED TO MEET PROPOSED PAVEMENT WIDENING.
 - CONTRACTOR TO COORDINATE WITH ELECTRIC COMPANY TO ENSURE STABILITY OF EXISTING ELECTRICAL POLES ALONG WASHINGTON STREET DURING CONSTRUCTION.

ADJ 1
N/F
TRUSTEES OF HAYMARKET BAPTIST CHURCH
GPIN: 7397-09-2355

N/F
TOWN OF HAYMARKET, VIRGINIA
Instr: 201209120087671
GPIN: 7397-09-3847
USE: PARK
ZONE: R-1

N/F
TOWN OF HAYMARKET, VIRGINIA
Instr: 200509220164097
GPIN: 7397-09-4049
USE: PARK
ZONE: R-1

N/F
TOWN OF HAYMARKET, VIRGINIA
Instr: 200509220164097
GPIN: 7397-09-4941
USE: PARK
ZONE: R-1

N/F
TOWN OF HAYMARKET, VIRGINIA
Instr: 200509220164097
GPIN: 7397-09-6833-324
USE: PARK
ZONE: R-1

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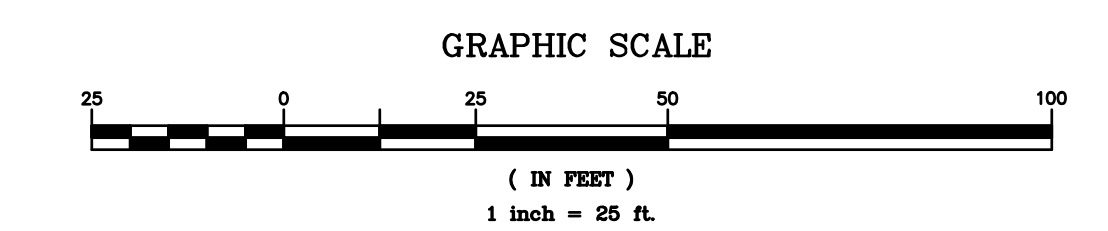
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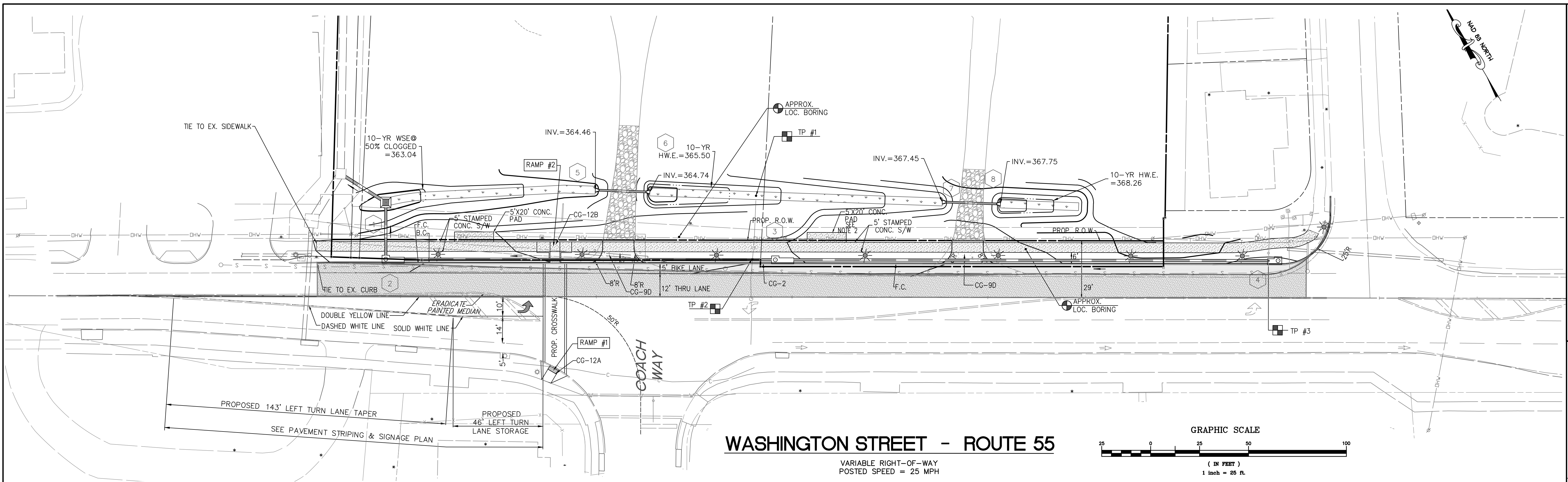
NO.	DATE	COUNTY REVISIONS

GRADING PLAN
HAYMARKET TOWN PARK STREETSCAPE
RFP: 2022-001
TOWN OF HAYMARKET, VIRGINIA

COMMONWEALTH OF VIRGINIA
DENAR H. C. ANTELO
Lic. No. 38680
7/14/2023
PROFESSIONAL ENGINEER



ENGINEERING GROUP	PROJECT STATUS	DATE
		JULY 14, 2023
		1"=25'
		DESIGNER: JM, R.A.P., J.B.
		DRAFTSMAN: Y.Q.
		FILE NO. PP-286
		SHEET 4 OF 22



NOTES TO CONTRACTOR

- SEE ADDITIONAL VDOT NOTES ON SHEET 3.
- TOWN TO PROVIDE AND INSTALL BENCHES AND TRASH CANS AT EACH CONCRETE PAD.
- CONTRACTOR TO COORDINATE WITH ELECTRIC COMPANY TO ENSURE STABILITY OF EXISTING ELECTRICAL POLES ALONG WASHINGTON STREET DURING CONSTRUCTION.

NOTES:

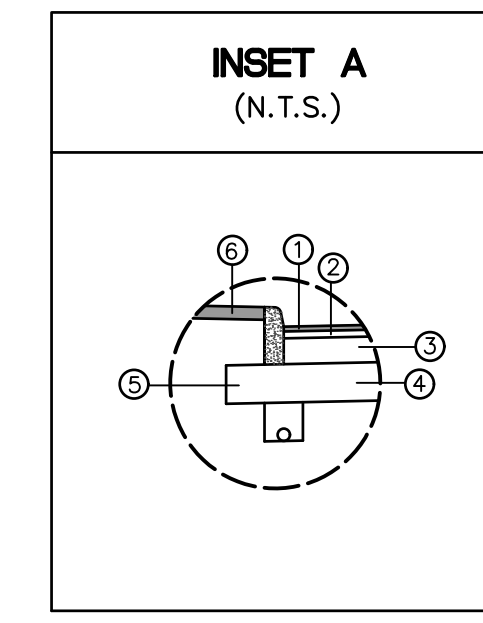
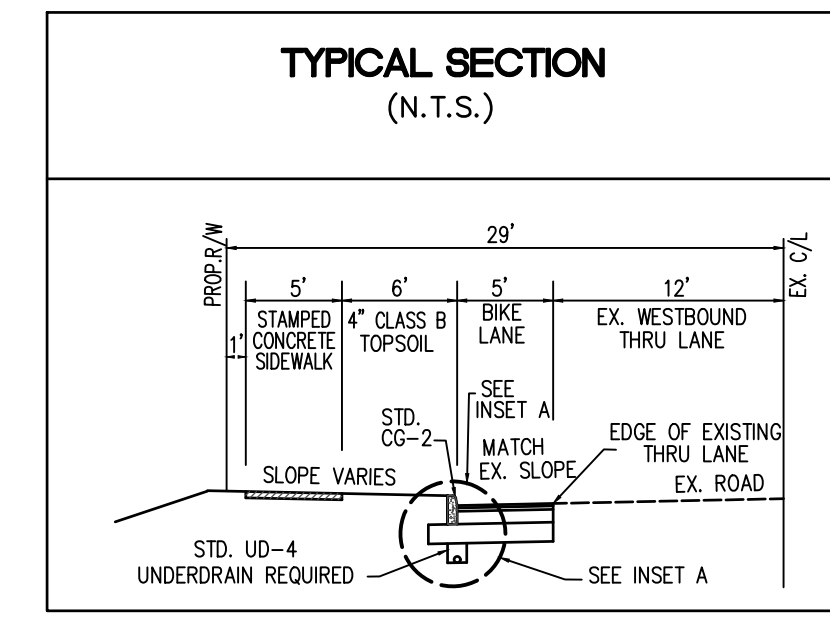
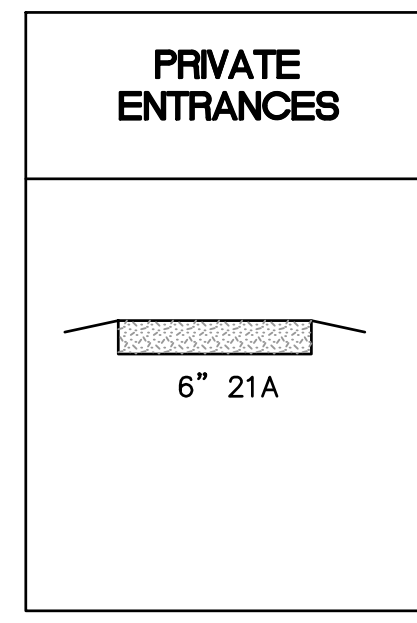
- ALL CURB RADII WERE TAKEN ALONG FACE OF CURB UNLESS OTHERWISE NOTED.
- ADJUST TOPS OF EXISTING SANITARY SEWER MANHOLES AS NEEDED TO MEET PROPOSED PAVEMENT WIDENING.

LEGEND

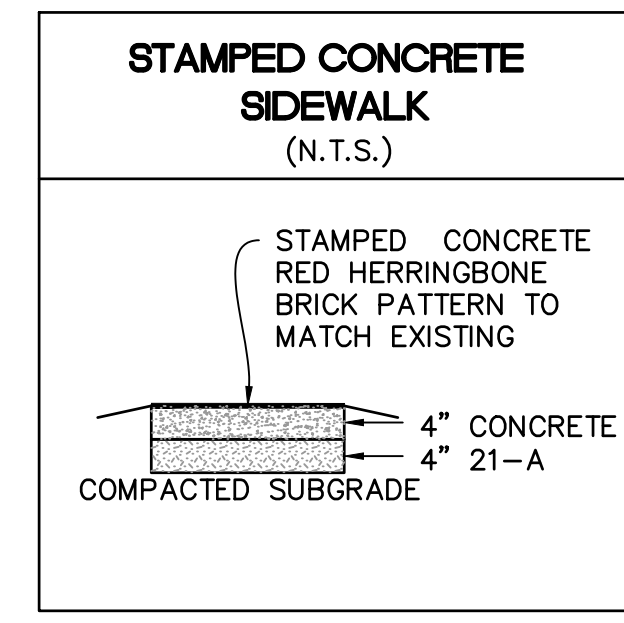
* INFORMATION TAKEN FROM COUNTY GIS MAPS
■ DENOTES LIMITS OF NEW ASPHALT
■ DENOTES LIMITS OF ASPHALT MILL AND OVERLAY PER VDOT W-2 STANDARD DETAIL

EXISTING SANITARY AND STORM STRUCTURES

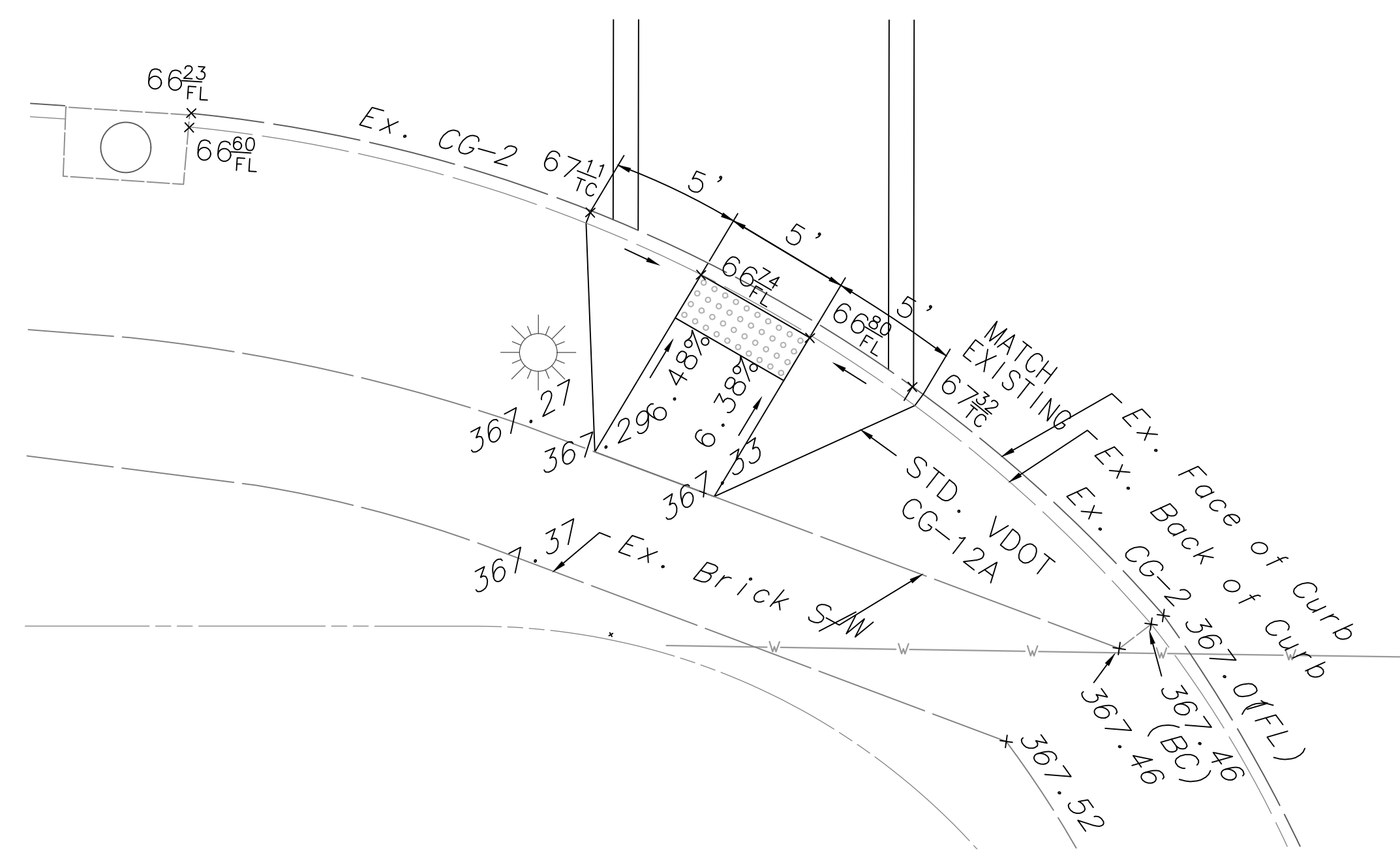
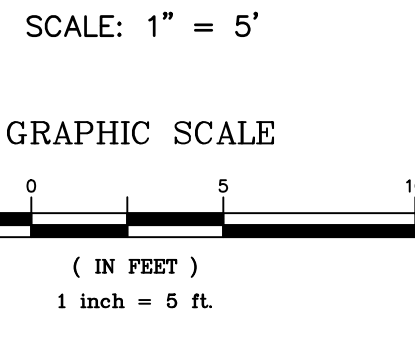
1 San MH Top=365.14 Inv=361.28	1 Storm MH Top=365.50 Inv A=364.45 Inv B=357.70 Inv C=351.55	4 Grate Inlet Top=363.96 Inv A=362.36 Inv B=357.31
2 San MH Top=367.22 Inv A=359.94 Inv B=359.87	2 Grate Inlet Top=362.79 Inv A=362.23 Inv B=357.24	5 Grate Inlet Top=363.23 Inv A=366.83 Inv B=356.80
3 San MH Top=368.96 Inv A=368.72 Inv B=368.62 Inv C=368.57	3 Curb Inlet Top=365.7 Inv=358.6	6 Grate Inlet Top=361.77 Inv A=365.87 Inv B=366.62



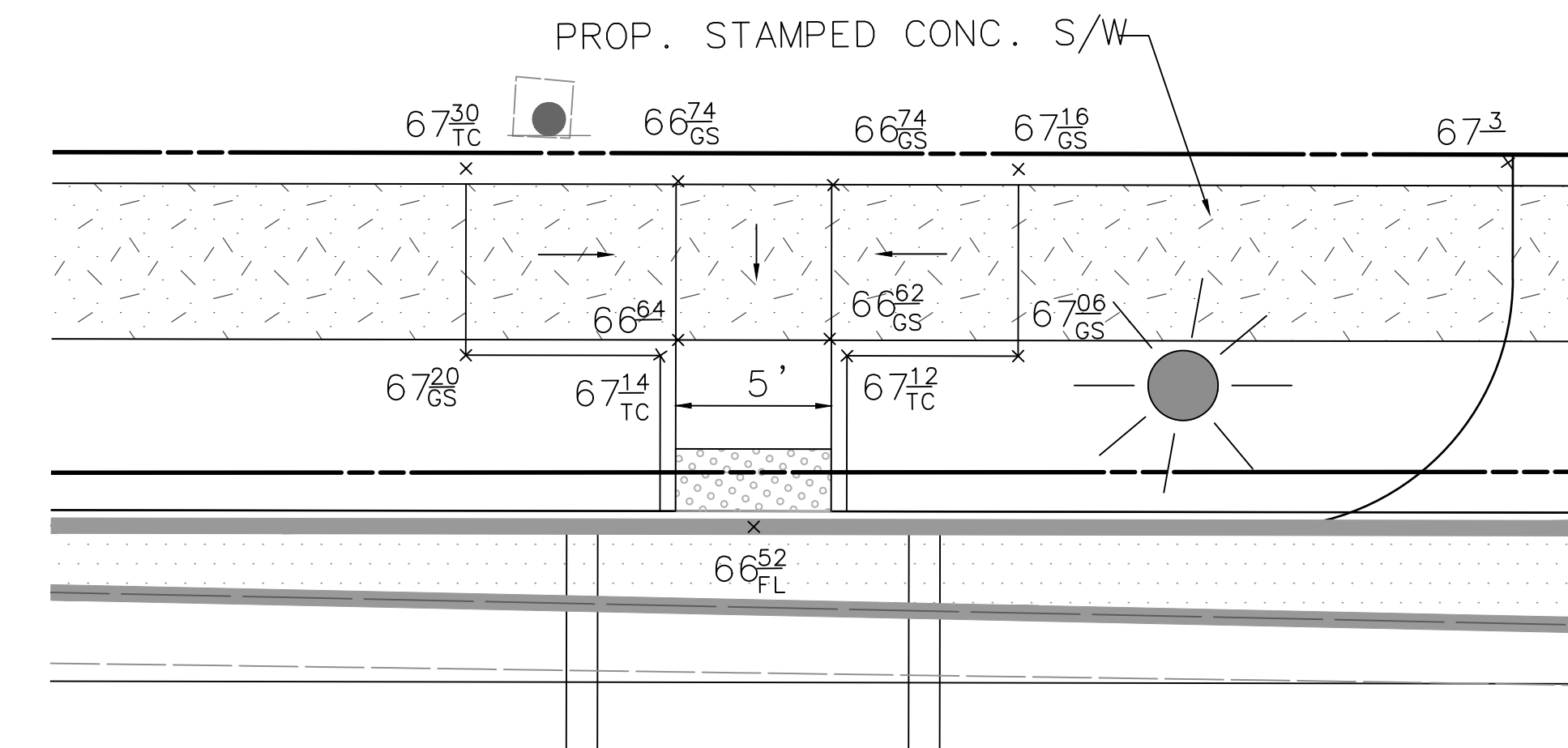
- 1.5" ASPHALT CONCRETE TYPE SM-9.50 @ 176 LB PER S.Y.
- 2" ASPHALT CONCRETE TYPE IM-19.00 @ 235 LB PER S.Y.
- 8" ASPHALT CONCRETE BASE TYPE BM-25.0 A
- 12" AGGREGATE SUBBASE MATERIAL TYPE I, SIZE No 21 B CONNECTED TO A STANDARD UD-4 EDGERAIN LOCATED BENEATH THE CURB AND GUTTER.
- AGGREGATE BASE MATERIAL TYPE I No. 21B TO EXTEND 1' BEHIND THE BACK OF CURB.
- 4" TOPSOIL CLASS B
- PAVEMENT SECTION IS PRELIMINARY. FINAL PAVEMENT DESIGN SHALL BE SUBMITTED TO VDOT FOR APPROVAL ONCE CBR VALUES ARE DETERMINED.



HANDICAP RAMP DETAILS



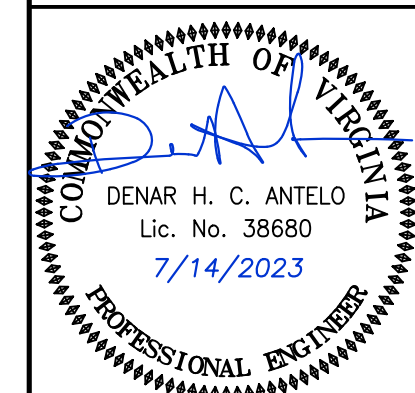
RAMP 1

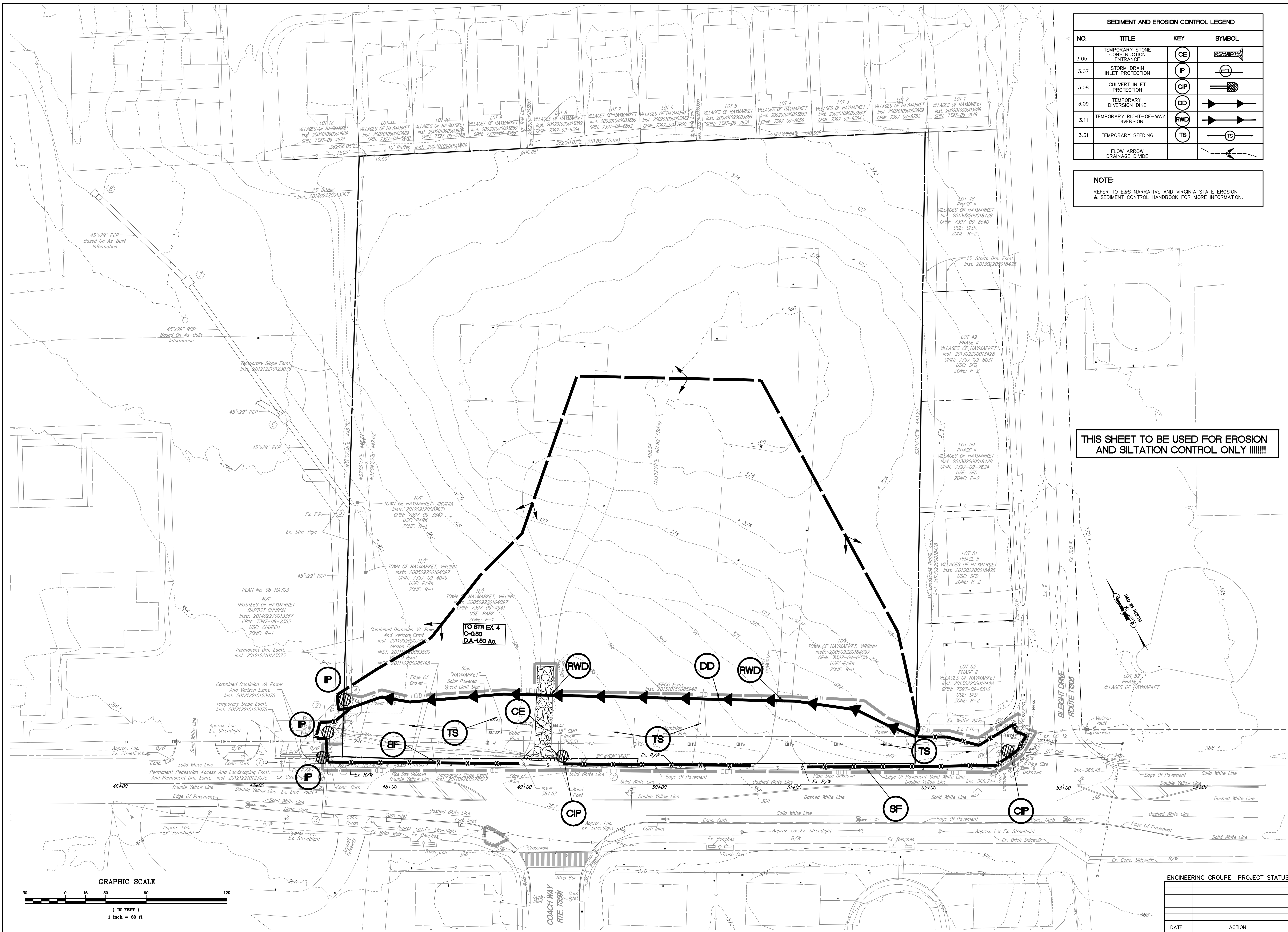


RAMP 2

ENGINEERING GROUP	PROJECT STATUS	DATE:	JULY 14, 2023
		SCALE:	AS SHOWN
		DESIGNER:	JM, R.A.P., J.B.
		DRAFTSMAN:	Y.Q.
		FILE NO.:	PP-286
DATE	ACTION	SHEET	5 OF 22

GEOMETRIC PLAN AND DETAILS - WASHINGTON STREET
HAYMARKET TOWN PARK STREETScape
 RFP: 2022-001
 TOWN OF HAYMARKET, VIRGINIA

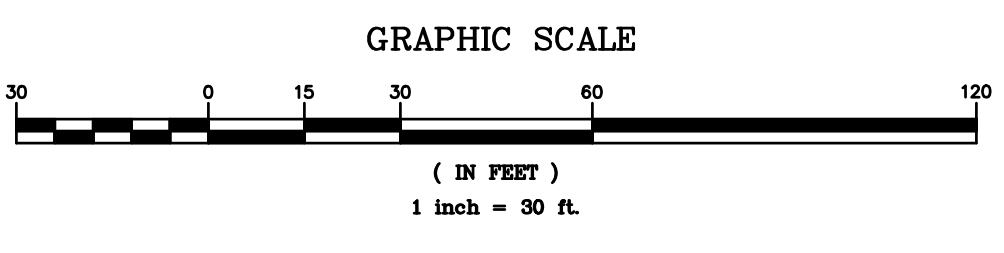




SEDIMENT AND EROSION CONTROL LEGEND			
NO.	TITLE	KEY	SYMBOL
3.05	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	
3.07	STORM DRAIN INLET PROTECTION	IP	
3.08	CULVERT INLET PROTECTION	CIP	
3.09	TEMPORARY DIVERSION DIKE	DD	
3.11	TEMPORARY RIGHT-OF-WAY DIVERSION	FWD	
3.31	TEMPORARY SEEDING	TS	
	FLOW ARROW DRAINAGE DIVE		

NOTE:
REFER TO E&S NARRATIVE AND VIRGINIA STATE EROSION & SEDIMENT CONTROL HANDBOOK FOR MORE INFORMATION.

THIS SHEET TO BE USED FOR EROSION AND SILTATION CONTROL ONLY !!!!!!!



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Central Office
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Farmingdale, NY 11737
PH: 703.670.0985

NO.	DATE	COUNTY	REVISIONS

EROSION & SEDIMENT CONTROL PLAN - PHASE 1

HAYMARKET TOWN PARK STREETScape

RFP: 2022-001

TOWN OF HAYMARKET, VIRGINIA

DATE: JULY 14, 2023

SCALE: 1" = 30'

DESIGNER: JM, R.A.P., J.B.

DRAFTSMAN: Y.Q.

FILE NO. PP-286

SHEET 8 OF 22

ENGINEERING GROUPE	PROJECT STATUS

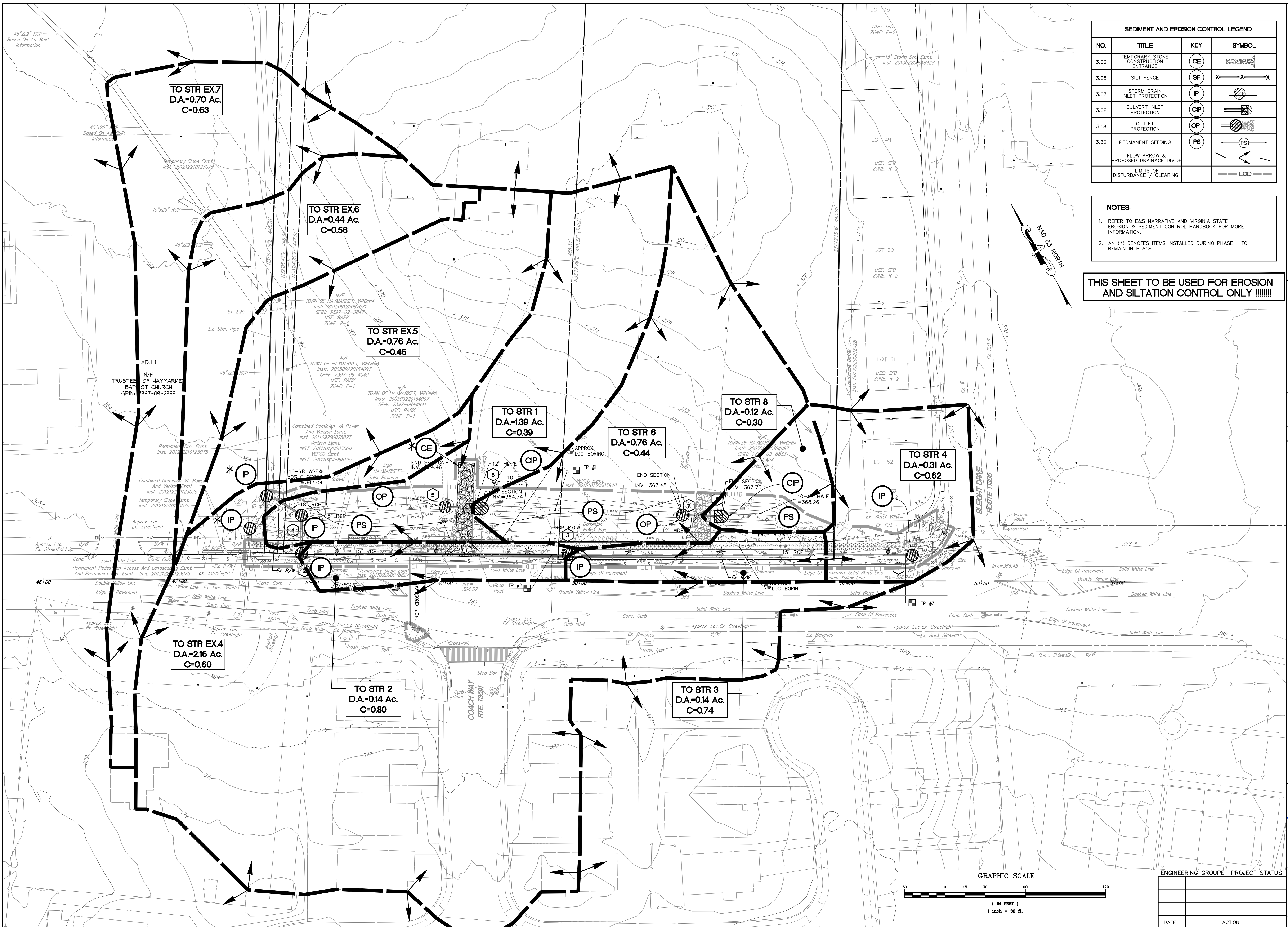
COMMONWEALTH OF VIRGINIA

DENAR H. C. ANTELO

Lic. No. 38680

7/14/2023

PROFESSIONAL ENGINEER

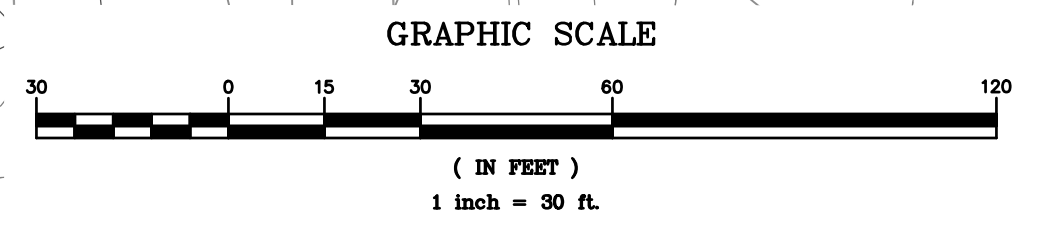
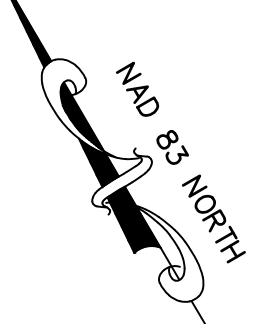


SEDIMENT AND EROSION CONTROL LEGEND			
NO.	TITLE	KEY	SYMBOL
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	
3.05	SILT FENCE	SF	
3.07	STORM DRAIN INLET PROTECTION	IP	
3.08	CULVERT INLET PROTECTION	CP	
3.18	OUTLET PROTECTION	OP	
3.32	PERMANENT SEEDING	PS	
	FLOW ARROW & PROPOSED DRAINAGE DIVIDE		
	LIMITS OF DISTURBANCE / CLEARING		

NOTES:

- REFER TO E&S NARRATIVE AND VIRGINIA STATE EROSION & SEDIMENT CONTROL HANDBOOK FOR MORE INFORMATION.
- AN (*) DENOTES ITEMS INSTALLED DURING PHASE 1 TO REMAIN IN PLACE.

THIS SHEET TO BE USED FOR EROSION AND SILTATION CONTROL ONLY !!!!!!!



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 www.theengineeringgroup.com
 South Office
 10333 Southampton Landing Blvd., Suite 207
 Fredericksburg, VA 22407
 PH: 703.670.0985

NO.	DATE	COUNTY	REVISIONS

EROSION & SEDIMENT CONTROL PLAN - PHASE 2

HAYMARKET TOWN PARK STREETScape

RFP: 2022-001

TOWN OF HAYMARKET, VIRGINIA

DATE: JULY 14, 2023

SCALE: 1"=30'

DESIGNER: JM, R.A.P., J.B.

DRAFTSMAN: Y.Q.

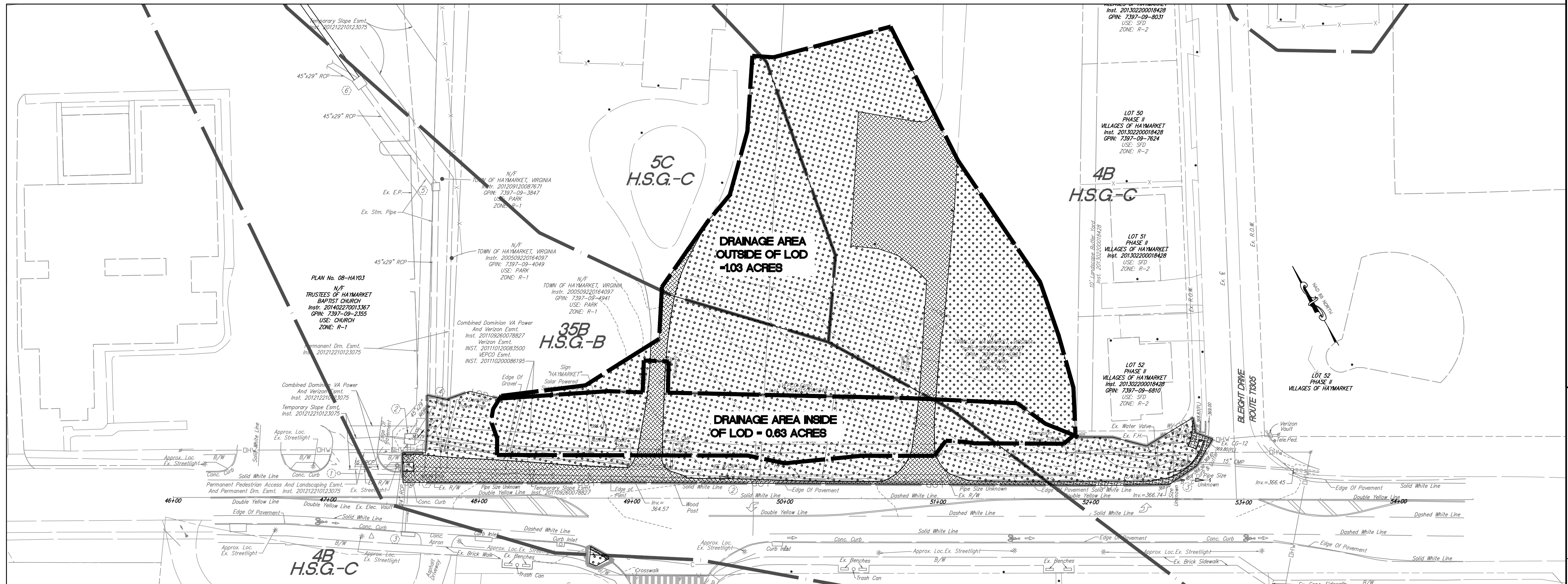
FILE NO. PP-286

SHEET 9 OF 22

PRE-DEVELOPMENT LAND COVERAGE MAP

PRE-DEVELOPMENT LEGEND

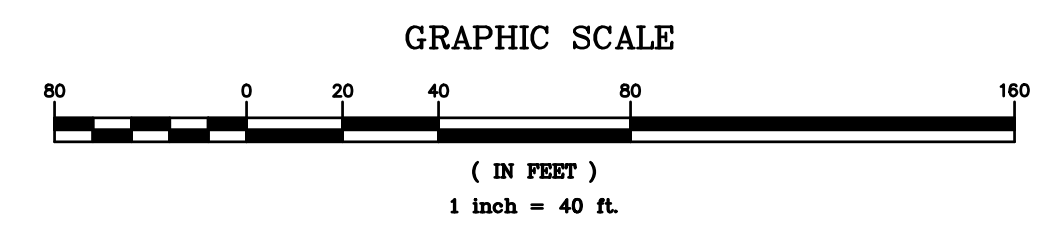
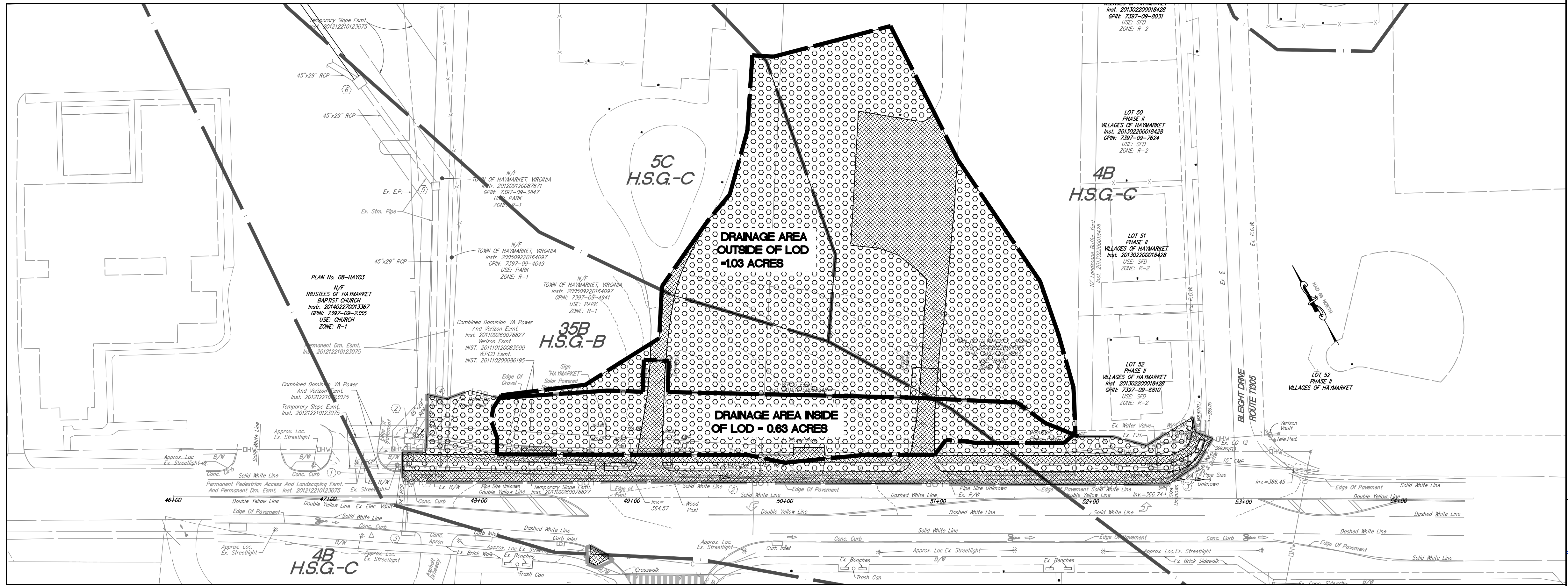
	SOIL BOUNDARIES
	LIMITS OF DISTURBANCE = 0.63 ACRES
	LIMITS OF AREA TO BE TREATED BY BMP
	IMPERVIOUS COVER = 0.29 ACRES B-SOILS = 0.12 ACRES C-SOILS = 0.17 ACRES
	MANAGED TURF = 1.37 ACRES B-SOILS = 0.57 ACRES C-SOILS = 0.80 ACRES



POST-DEVELOPMENT LAND COVERAGE MAP

POST-DEVELOPMENT LEGEND

	SOIL BOUNDARIES
	LIMITS OF DISTURBANCE = 0.63 ACRES
	LIMITS OF AREA TO BE TREATED BY BMP
	IMPERVIOUS COVER = 0.37 ACRES B-SOILS = 0.17 ACRES C-SOILS = 0.20 ACRES
	MANAGED TURF = 1.29 ACRES B-SOILS = 0.52 ACRES C-SOILS = 0.77 ACRES



ENGINEERING GROUPE PROJECT STATUS	DATE: JULY 14, 2023
	SCALE: 1"=40'
	DESIGNER: JM, R.A.P., J.B.
	DRAFTSMAN: Y.Q.
	FILE NO. PP-286
DATE ACTION	SHEET 10 OF 22

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 Central Office: 10333 Southpoint Landing Blvd., Suite 121, Haymarket, VA 23067, PH: 703.670.0985
 South Office: 15580 Grouse Drive, Suite 200, Haymarket, VA 23067, PH: 703.670.0985

NO.	DATE	COUNTY REVISIONS

BMP AREA MAP
HAYMARKET TOWN PARK STREETSCAPE
 RFP: 2022-001
 TOWN OF HAYMARKET, VIRGINIA

DENAR H. C. ANTELO
 Lic. No. 38680
 7/14/2023
 PROFESSIONAL ENGINEER

Project Name: Town of Haymarket - Streetscape
Date: 2/17/2023
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) → 0.63

Maximum reduction required: 10%
The site's net increase in impervious cover (acres) is: 0.08
Post-Development TP Load Reduction for Site (lb/yr): 0.27

Check:
BMP Design Specifications List: 2011 Stds & Specs
Linear project? No
Land cover areas entered correctly? ✓
Total disturbed area entered? ✓

Pre-ReDevelopment Land Cover (acres)

Table with 5 columns: A Soils, B Soils, C Soils, D Soils, Totals. Rows include Forest/Open Space, Managed Turf, and Impervious Cover.

Post-Development Land Cover (acres)

Table with 5 columns: A Soils, B Soils, C Soils, D Soils, Totals. Rows include Forest/Open Space, Managed Turf, and Impervious Cover. Includes Area Check OK.

NOTE: THE TOTAL LAND COVER AREA INCLUDES 0.63 AC INSIDE OF THE LIMITS OF DISTURBANCE AND 1.03 AC OUTSIDE OF THE LIMITS OF DISTURBANCE.

Constants

Table with 2 columns: Parameter, Value. Includes Annual Rainfall, Target Rainfall Event, Total Phosphorus, etc.

Runoff Coefficients (Rv)

Table with 5 columns: A Soils, B Soils, C Soils, D Soils, Values. Rows include Forest/Open Space, Managed Turf, and Impervious Cover.

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Table with 3 columns: Pre-Development, Listed, Adjusted. Rows include Forest/Open Space, Managed Turf, and Impervious Cover.

LAND COVER SUMMARY -- POST DEVELOPMENT

Table with 4 columns: Final Post-Development, Post-Development, Post-Development New Impervious, and Rv. Rows include Forest/Open Space, Managed Turf, and Impervious Cover.

Treatment Volume and Nutrient Load

Table with 3 columns: Pre-Development, Listed, Adjusted. Rows include Treatment Volume and TP Load.

Treatment Volume and Nutrient Load

Table with 4 columns: Final Post-Development, Post-Development, Post-Development New Impervious, and Rv. Rows include Treatment Volume and TP Load.

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 I shows load reduction requirement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr) 0.27

Nitrogen Loads (Informational Purposes Only)

Table with 2 columns: Parameter, Value. Rows include Pre-Development TN Load and Final Post-Development TN Load.

Drainage Area A

Drainage Area A Land Cover (acres)

Table with 7 columns: A Soils, B Soils, C Soils, D Soils, Totals, Land Cover Rv. Rows include Forest/Open Space, Managed Turf, and Impervious Cover.

Total Phosphorus Available for Removal in D.A. A (lb/yr) 1.01
Post Development Treatment Volume in D.A. A (ft³) 1,610

4. Grass Channel (RR)

Table with 12 columns: Drainage Area, A Soils, B Soils, C Soils, D Soils, Totals, Land Cover Rv, and various nutrient load values.

Site Results (Water Quality Compliance)

Area Checks table with 7 columns: D.A. A, D.A. B, D.A. C, D.A. D, D.A. E, AREA CHECK. Rows include Forest/Open Space, Impervious Cover, Managed Turf, and Area Check.

Site Treatment Volume (ft³) 2,261

Runoff Reduction Volume and TP By Drainage Area

Table with 6 columns: D.A. A, D.A. B, D.A. C, D.A. D, D.A. E, TOTAL. Rows include Runoff Reduction Volume, TP Load Available, TP Load Reduction, and Nitrogen Load Reduction.

Total Phosphorus

FINAL POST-DEVELOPMENT TP LOAD (lb/yr) 1.42
TP LOAD REDUCTION REQUIRED (lb/yr) 0.27
TP LOAD REDUCTION ACHIEVED (lb/yr) 0.26
TP LOAD REMAINING (lb/yr) 1.16
REMAINING TP LOAD REDUCTION REQUIRED (lb/yr): 0.00 **
**No further TP load reduction required (Required - Achieved < 0.005 lb/yr)

Total Nitrogen (For Informational Purposes)

POST-DEVELOPMENT LOAD (lb/yr) 10.16
NITROGEN LOAD REDUCTION ACHIEVED (lb/yr) 2.20
REMAINING POST-DEVELOPMENT NITROGEN LOAD (lb/yr) 7.97

Runoff Volume and Curve Number Calculations

Enter design storm rainfall depths (in):

Table with 3 columns: 1-year storm, 2-year storm, 10-year storm. Values: 2.51, 3.04, 4.67.

Use NOAA Atlas 14 (<http://hdsc.nws.noaa.gov/hdsc/pjfds/>)

*Notes (see below):

- [1] The curve numbers and runoff volumes computed in this spreadsheet for each drainage area are limited in their applicability for determining and demonstrating compliance with water quantity requirements.
- [2] Runoff Volume (RV) for pre- and post-development drainage areas must be in volumetric units (e.g., acre-feet or cubic feet) when using the Energy Balance Equation.
- [3] Adjusted CNs are based on runoff reduction volumes as calculated in D.A. tabs.

Drainage Area Curve Numbers and Runoff Depths*

Curve numbers (CN, CNadj) and runoff depths (RV_{Developed}) are computed with and without reduction practices.

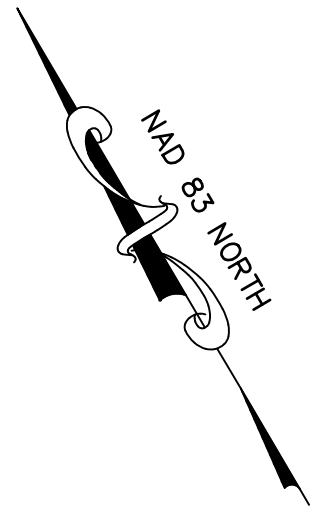
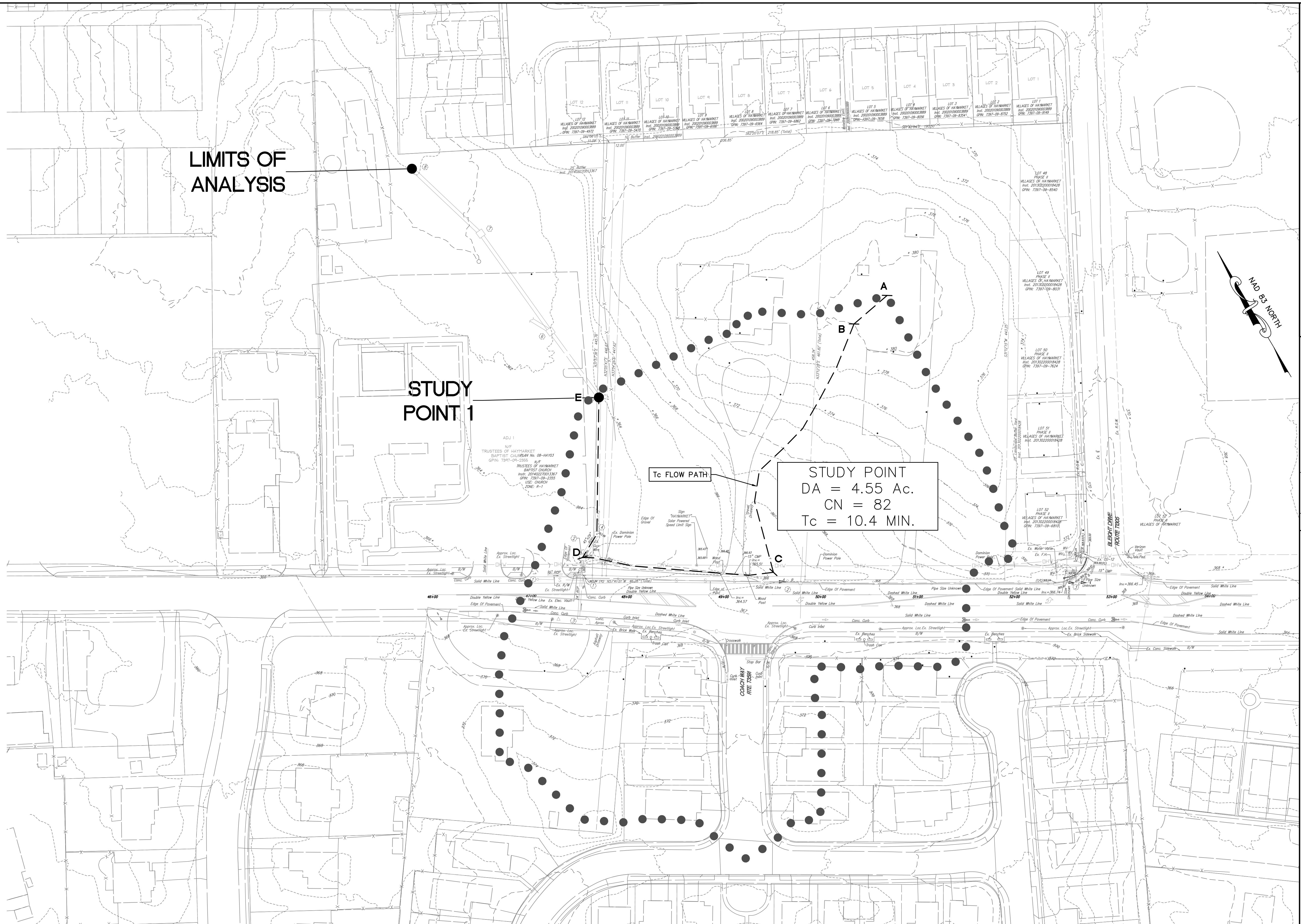
Table with 5 columns: Drainage Area A, A Soils, B Soils, C Soils, D Soils. Rows include Forest/Open Space and Impervious Cover.

Total Area (acres): 1.36
Runoff Reduction Volume (ft³): 209

CN_(D.A.) 74

Table with 4 columns: 1-year storm, 2-year storm, 10-year storm. Rows include RV_{Developed} with and without runoff reduction, and Adjusted CN.

*See Notes above

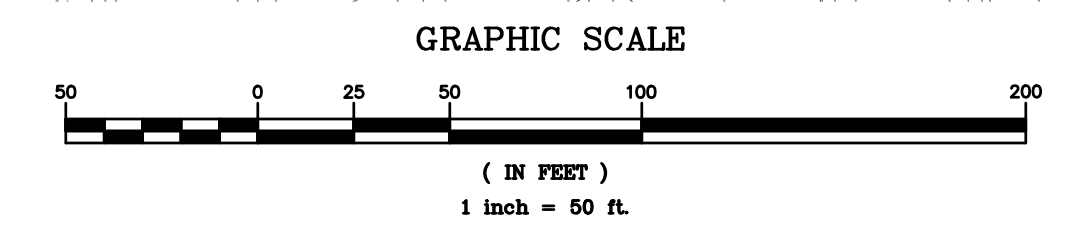


RUNOFF CURVE NUMBER (CN)

TOWN OF HAYMARKET - STREETSCAPE				
POST-Development Conditions Prince William NOAA-C County, Virginia Sub-Area Time of Concentration Details				
SUB-AREA IDENTIFIER	LAND USE	HYDROLOGIC SOIL GROUP	SUB-AREA AREA (Ac.)	CURVE NUMBER
STUDY POINT 1	Open space, grass cover > 75% (good)	B	1.108	61
	Open space, grass cover > 75% (good)	D	1.815	80
	Paved parking lots, roofs, driveways	B	0.614	98
	Paved parking lots, roofs, driveways	D	1.009	98
Total Area / Weighted Curve Number			4.55	82
			=====	=====

TIME OF CONCENTRATION (Tc)

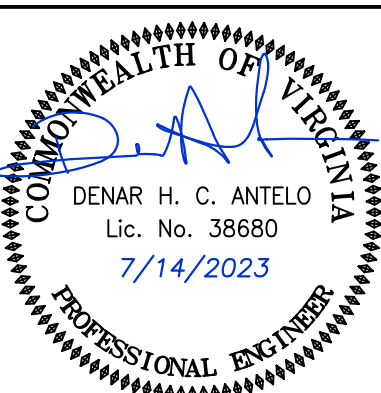
TOWN OF HAYMARKET - STREETSCAPE						
POST-Development Conditions Prince William NOAA-C County, Virginia Sub-Area Time of Concentration Details						
Sub-Area Identifier /	Flow Length (ft)	Slope (ft/ft)	Manning's n (sq ft)	End Area (ft)	Wetted Perimeter (ft/sec)	Travel Time (hr)
SP 1 Post - Controlled						
A-B SHEET	45	0.0100	0.150			0.117
B-C SHALLOW	230	0.0478	0.050			0.023
C-D CHANNEL	198				1.000	0.055
D-E CHANNEL	169				3.000	0.016
Time of Concentration						0.211
						=====



PRE DEVELOPMENT DRAINAGE MAP

HAYMARKET TOWN PARK STREETSCAPE
RFP: 2022-001

TOWN OF HAYMARKET, VIRGINIA



ENGINEERING GROUPE PROJECT STATUS		DATE:	JULY 14, 2023
		SCALE:	1" = 50'
		DESIGNER:	JM, R.A.P., J.B.
		DRAFTSMAN:	Y.Q.
		FILE NO.	PP-286
		SHEET	12 OF 22
DATE	ACTION		

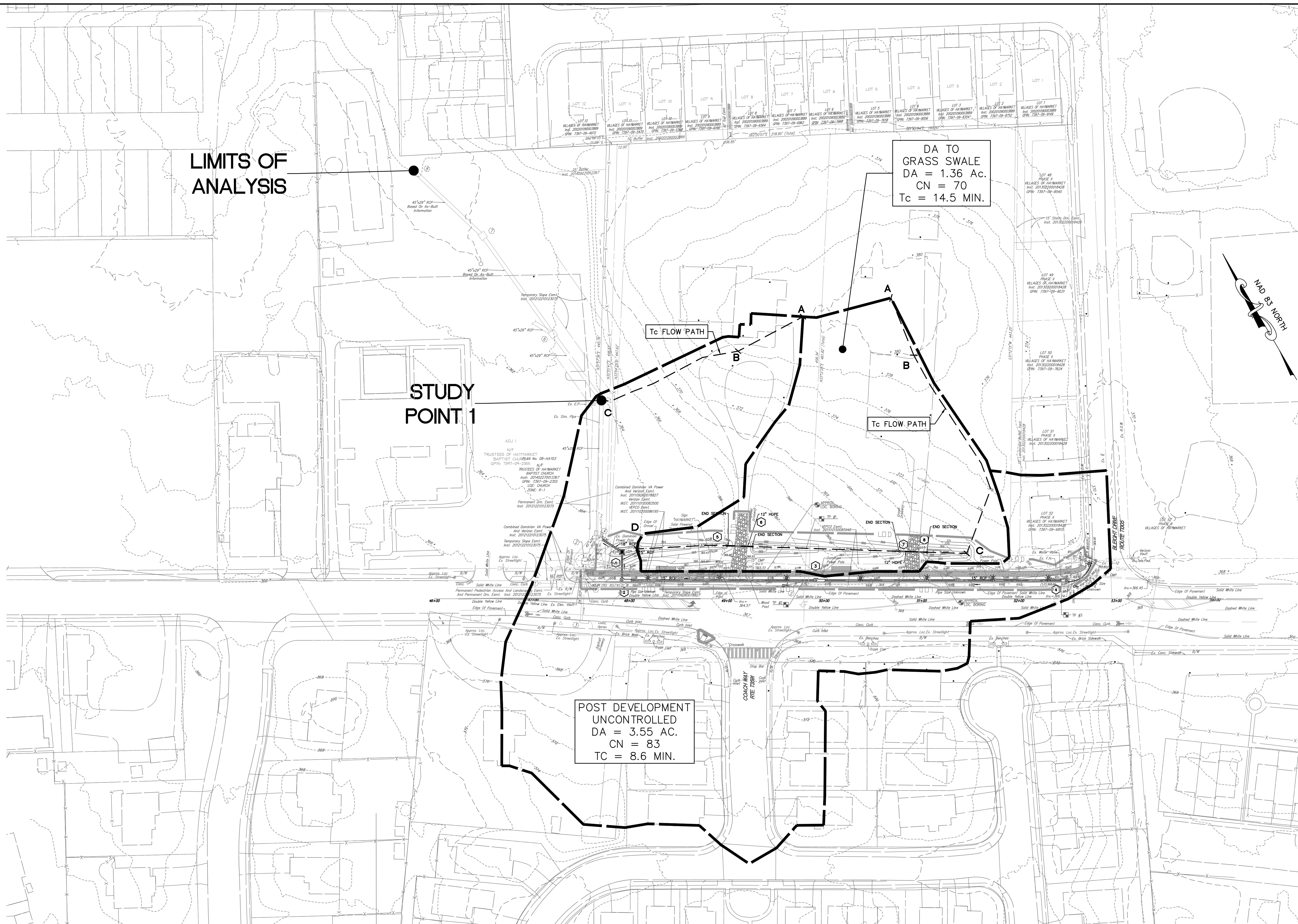
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NO.	DATE	COUNTY REVISIONS



LIMITS OF ANALYSIS

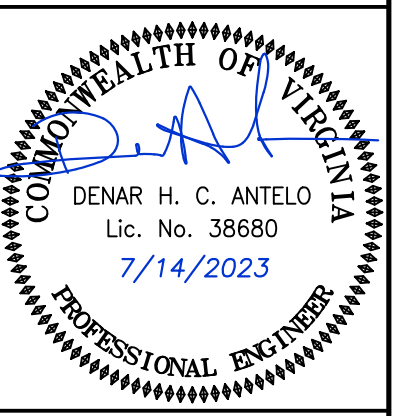
DA TO GRASS SWALE
DA = 1.36 Ac.
CN = 70
Tc = 14.5 MIN.

STUDY POINT 1

POST DEVELOPMENT UNCONTROLLED
DA = 3.55 AC.
CN = 83
TC = 8.6 MIN.

NO.	DATE	COUNTY REVISIONS

POST DEVELOPMENT DRAINAGE MAP
HAYMARKET TOWN PARK STREETScape
RFP: 2022-001
TOWN OF HAYMARKET, VIRGINIA



RUNOFF CURVE NUMBER (CN)

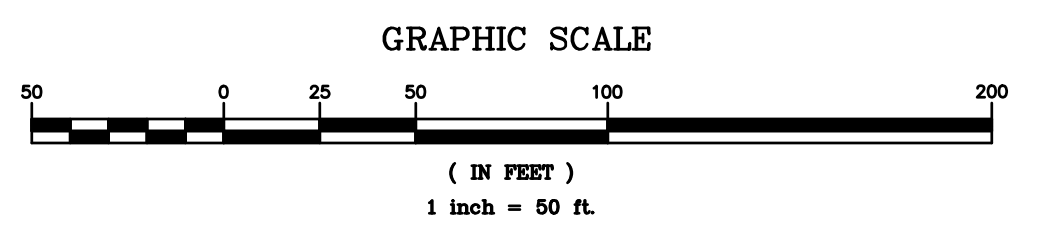
TOWN OF HAYMARKET - STREETScape
POST-Development Conditions
Prince William NOAA_C County, Virginia
Sub-Area Time of Concentration Details

SUB-AREA IDENTIFIER	LAND USE	HYDROLOGIC SOIL GROUP	SUB-AREA AREA (Ac.)	CURVE NUMBER
GRASS SWALE	Open space; grass cover > 75% (good)	B	0.863	61
	Open space; grass cover > 75% (good)	C	0.282	74
	Paved parking lots, roofs, driveways	B	0.035	98
	Paved parking lots, roofs, driveways	C	0.176	98
Total Area / Weighted Curve Number			1.36	70
STUDY POINT 1 UNCONT.	Open space; grass cover > 75% (good)	B	0.619	61
	Open space; grass cover > 75% (good)	C	1.239	74
	Paved parking lots, roofs, driveways	B	0.647	98
	Paved parking lots, roofs, driveways	C	1.045	98
Total Area / Weighted Curve Number			3.55	83

TIME OF CONCENTRATION (Tc)

TOWN OF HAYMARKET - STREETScape
POST-Development Conditions
Prince William NOAA_C County, Virginia
Sub-Area Time of Concentration Details

Sub-Area Identifier	Flow Length (ft)	Slope (ft/ft)	Manning's n (sq ft)	End Area (ft)	Wetted Perimeter (ft/sec)	Velocity (hr)	Travel Time
SP 1 Post - Controlled							
A-B SHEET	63	0.0300	0.150				0.099
B-C SHALLOW	230	0.0435	0.050			0.760	0.018
C-D CHANNEL	339						0.124
Time of Concentration							0.241
SP 2 Post - Uncontrolled							
A-B SHEET	75	0.0200	0.150				0.134
B-C SHALLOW	151	0.0927	0.050				0.009
Time of Concentration							0.143



ENGINEERING GROUPE PROJECT STATUS

DATE	ACTION

DATE: JULY 14, 2023
SCALE: 1"=50'
DESIGNER: JM, R.A.P., J.B.
DRAFTSMAN: Y.Q.
FILE NO. PP-286
SHEET 13 OF 22

Hydrograph Report Project Name: 04-13-2023

Hydrograph parameters for Pre Dev and Post Dev - C. Hyd. No. 5. Includes Peak Flow, Time to Peak, Runoff Volume, and Curve Number.

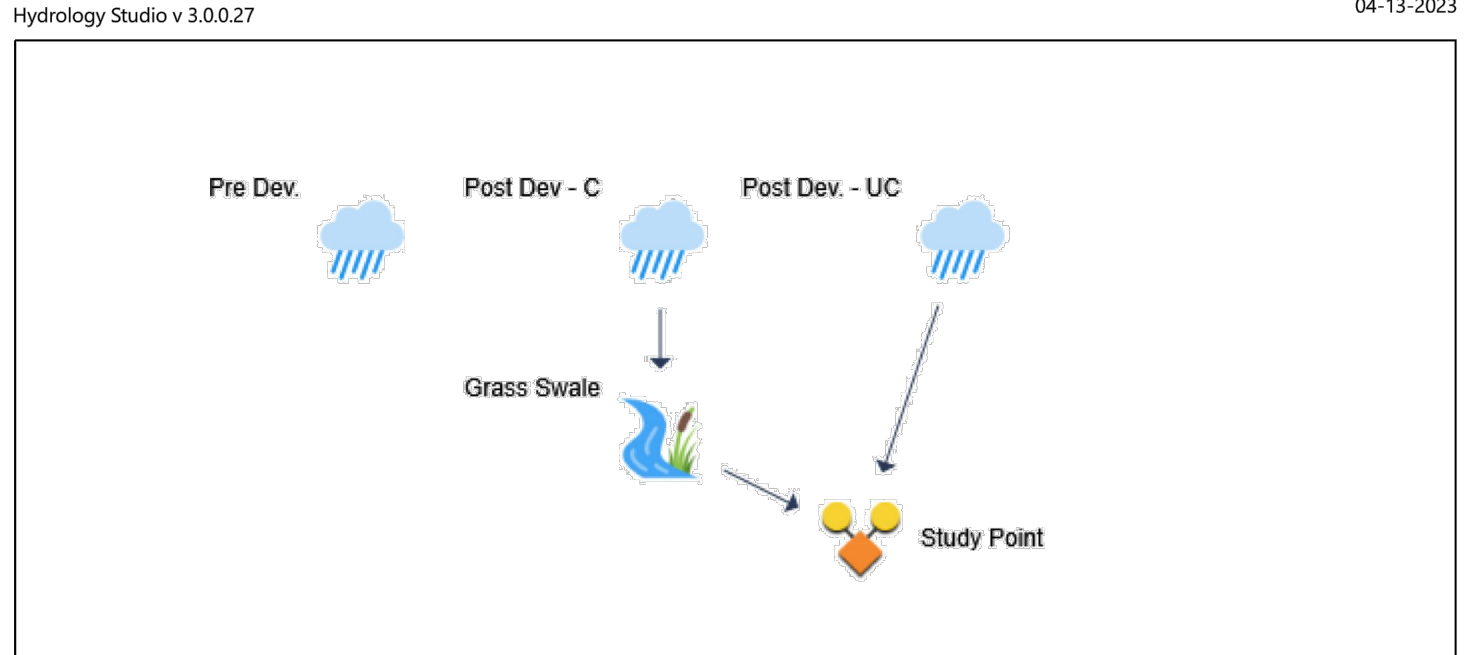
Hydrograph Report Project Name: 04-13-2023

Hydrograph parameters for Pre Dev and Post Dev - C. Hyd. No. 1. Includes Peak Flow, Time to Peak, Runoff Volume, and Curve Number.

Hydrograph Report Project Name: 04-13-2023

Hydrograph parameters for Pre Dev and Post Dev - C. Hyd. No. 5. Includes Peak Flow, Time to Peak, Runoff Volume, and Curve Number.

Basin Model Project Name: 04-13-2023



Hydrograph by Return Period Project Name: 04-13-2023

Table showing Peak Outflow (cfs) for various return periods (1-yr to 100-yr) at different hydrograph locations.

Hydrograph 1-yr Summary Project Name: 04-13-2023

Summary table for 1-year hydrograph, listing peak flow, time to peak, volume, and elevation for five hydrograph types.

Hydrograph 2-yr Summary Project Name: 04-13-2023

Summary table for 2-year hydrograph, listing peak flow, time to peak, volume, and elevation for five hydrograph types.

Hydrograph 10-yr Summary Project Name: 04-13-2023

Summary table for 10-year hydrograph, listing peak flow, time to peak, volume, and elevation for five hydrograph types.

Hydrograph parameters for Post Dev - C. Hyd. No. 1. Includes Peak Flow, Time to Peak, Runoff Volume, and Curve Number.

Hydrograph parameters for Post Dev - C. Hyd. No. 3. Includes Peak Flow, Time to Peak, Runoff Volume, and Curve Number.

Hydrograph parameters for Post Dev - C. Hyd. No. 5. Includes Peak Flow, Time to Peak, Runoff Volume, and Curve Number.

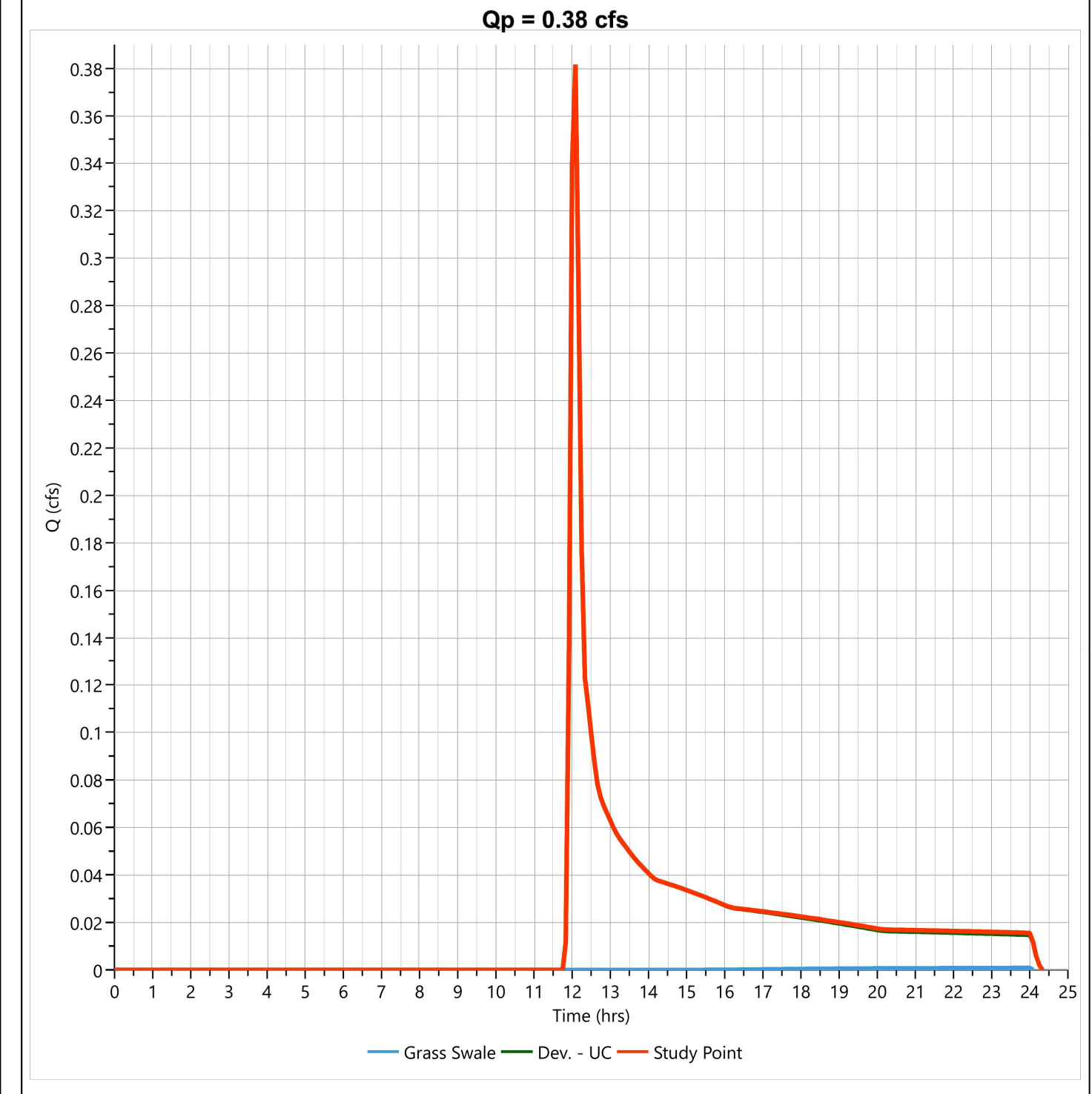
Hydrograph parameters for Post Dev - UC. Hyd. No. 3. Includes Peak Flow, Time to Peak, Runoff Volume, and Curve Number.

Hydrograph parameters for Post Dev - UC. Hyd. No. 4. Includes Peak Flow, Time to Peak, Runoff Volume, and Curve Number.

Hydrograph parameters for Post Dev - UC. Hyd. No. 4. Includes Peak Flow, Time to Peak, Runoff Volume, and Curve Number.

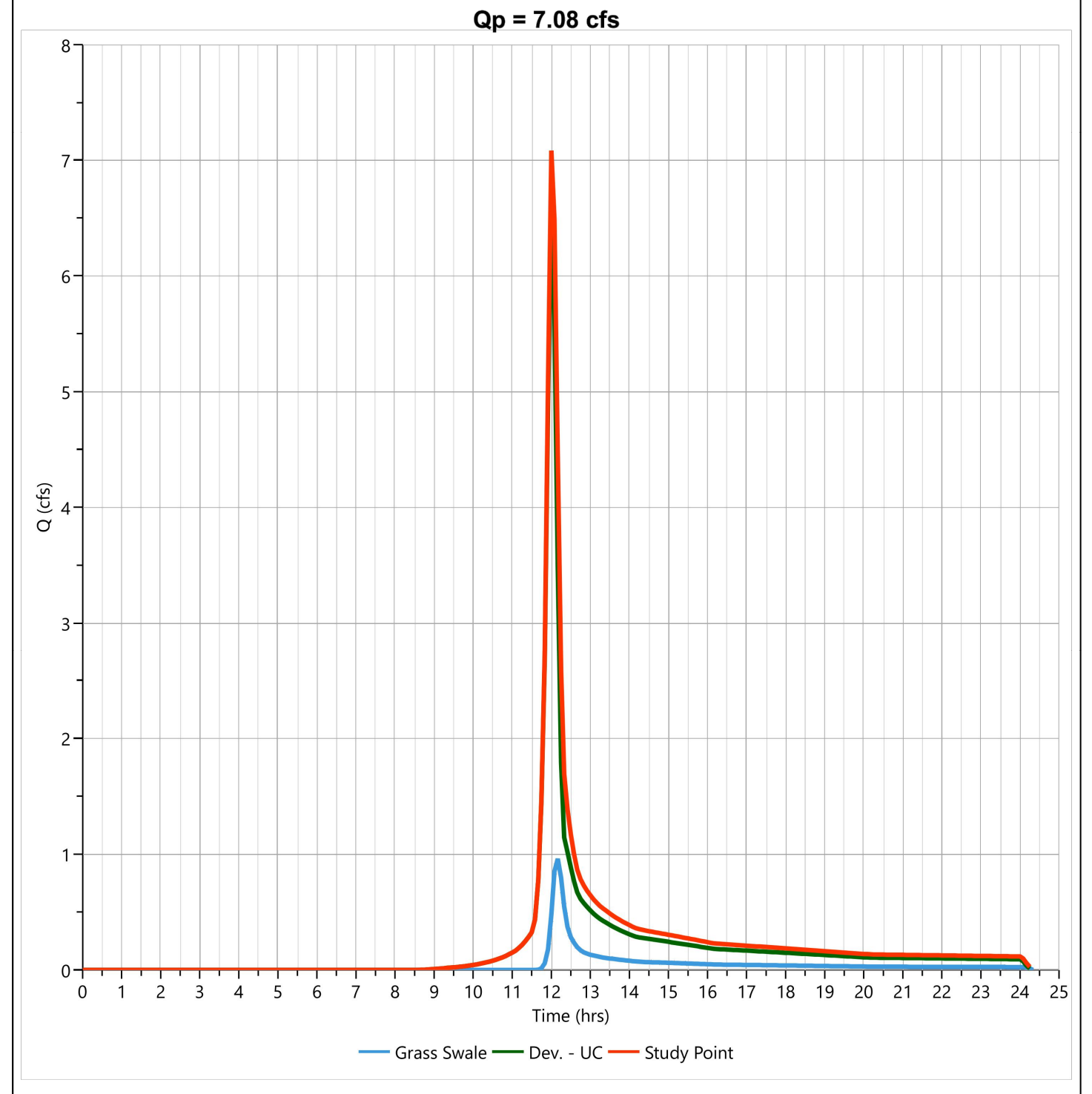
Study Point Hyd. No. 4

Study Point parameters for Hyd. No. 4, including Peak Flow, Storm Frequency, Time to Peak, and Hydrograph Volume.



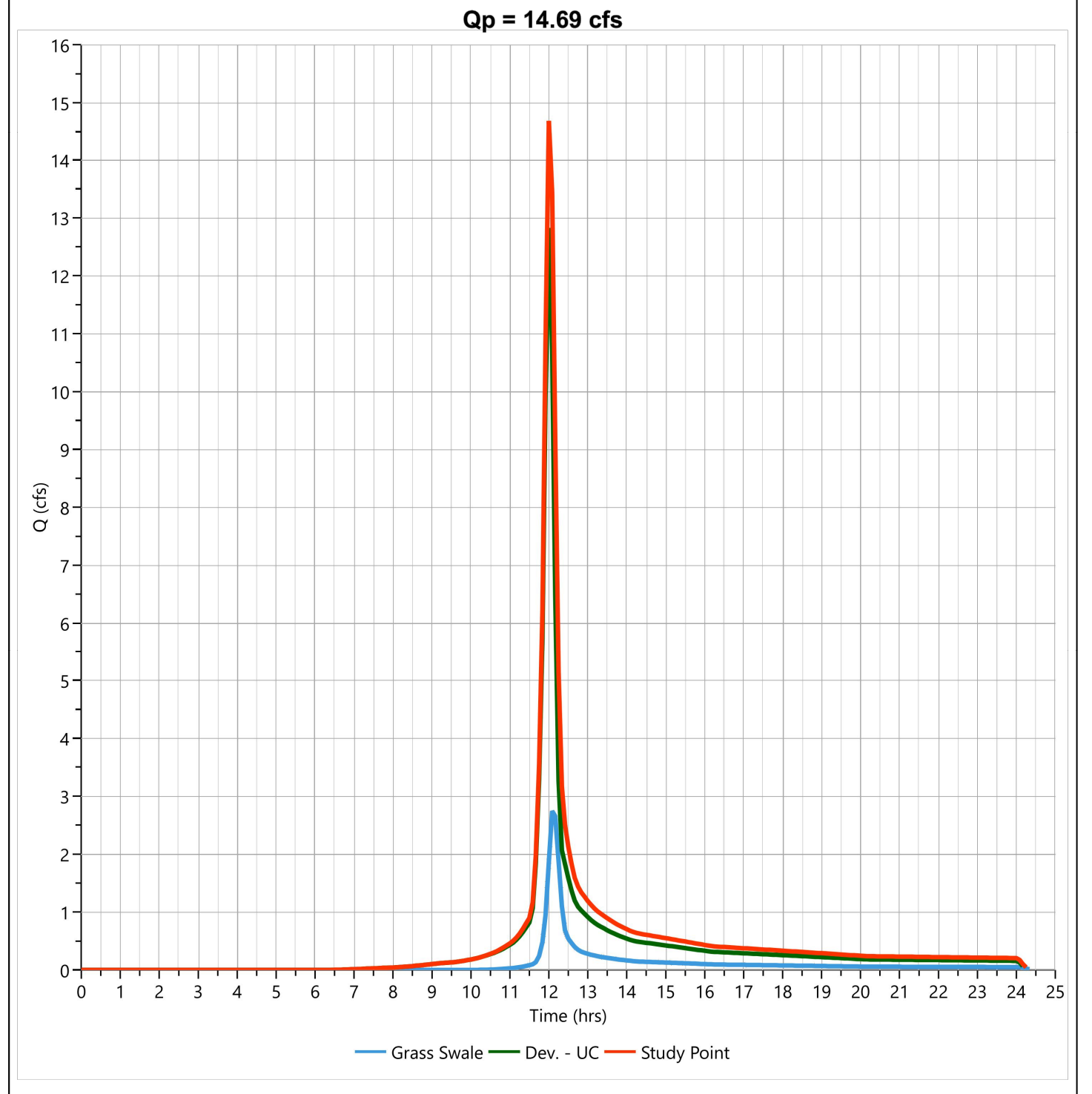
Study Point Hyd. No. 4

Study Point parameters for Hyd. No. 4, including Peak Flow, Storm Frequency, Time to Peak, and Hydrograph Volume.



Study Point Hyd. No. 4

Study Point parameters for Hyd. No. 4, including Peak Flow, Storm Frequency, Time to Peak, and Hydrograph Volume.



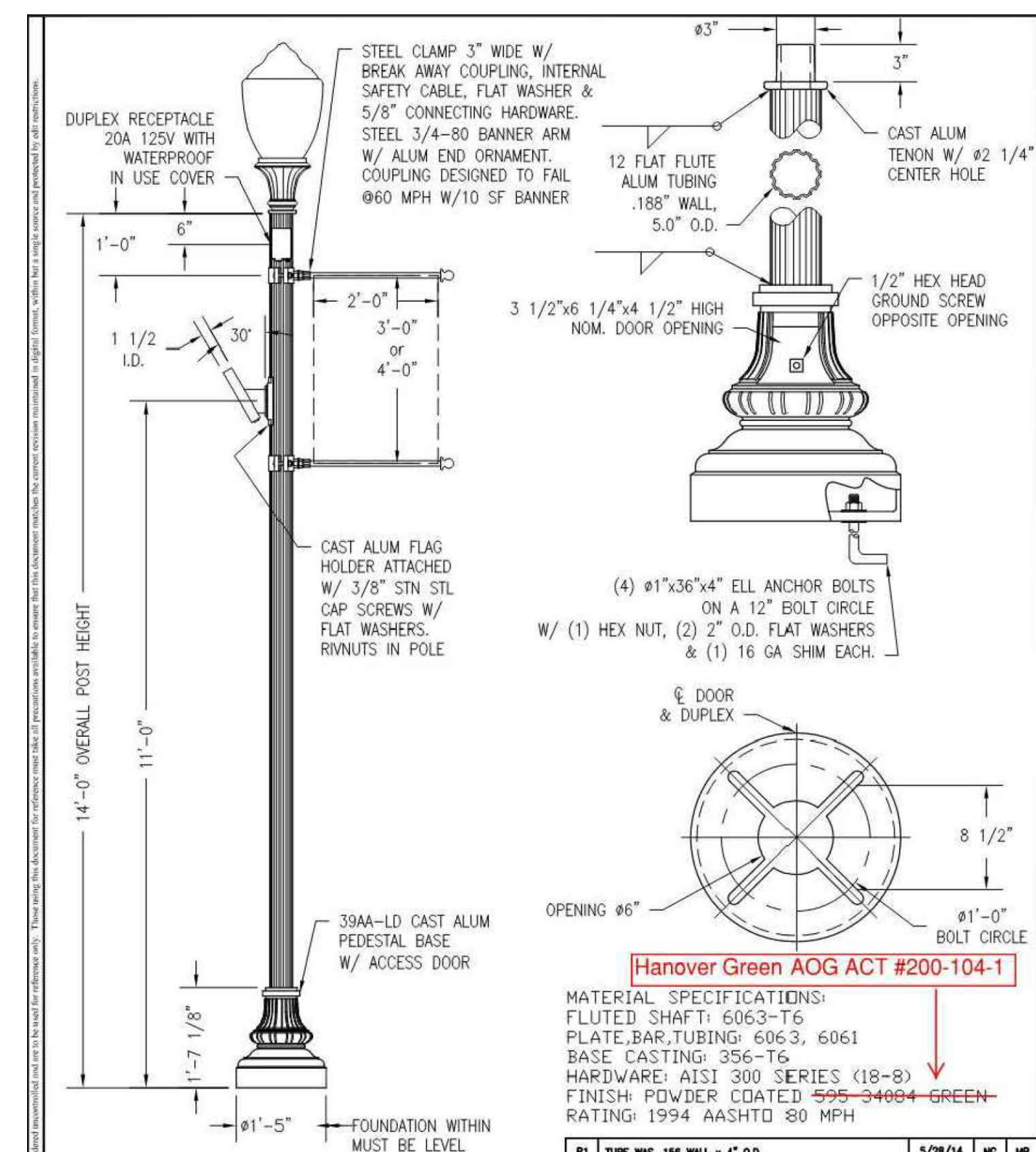
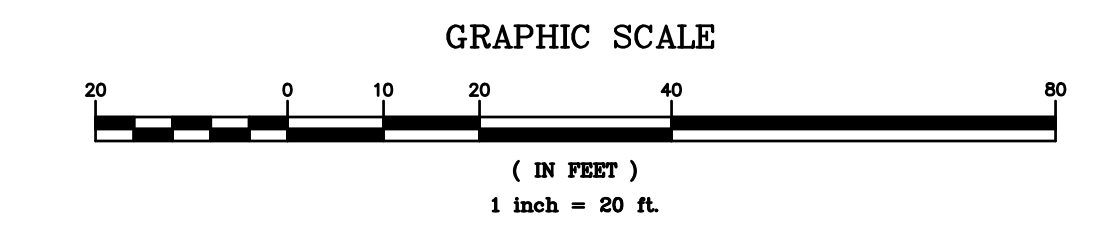
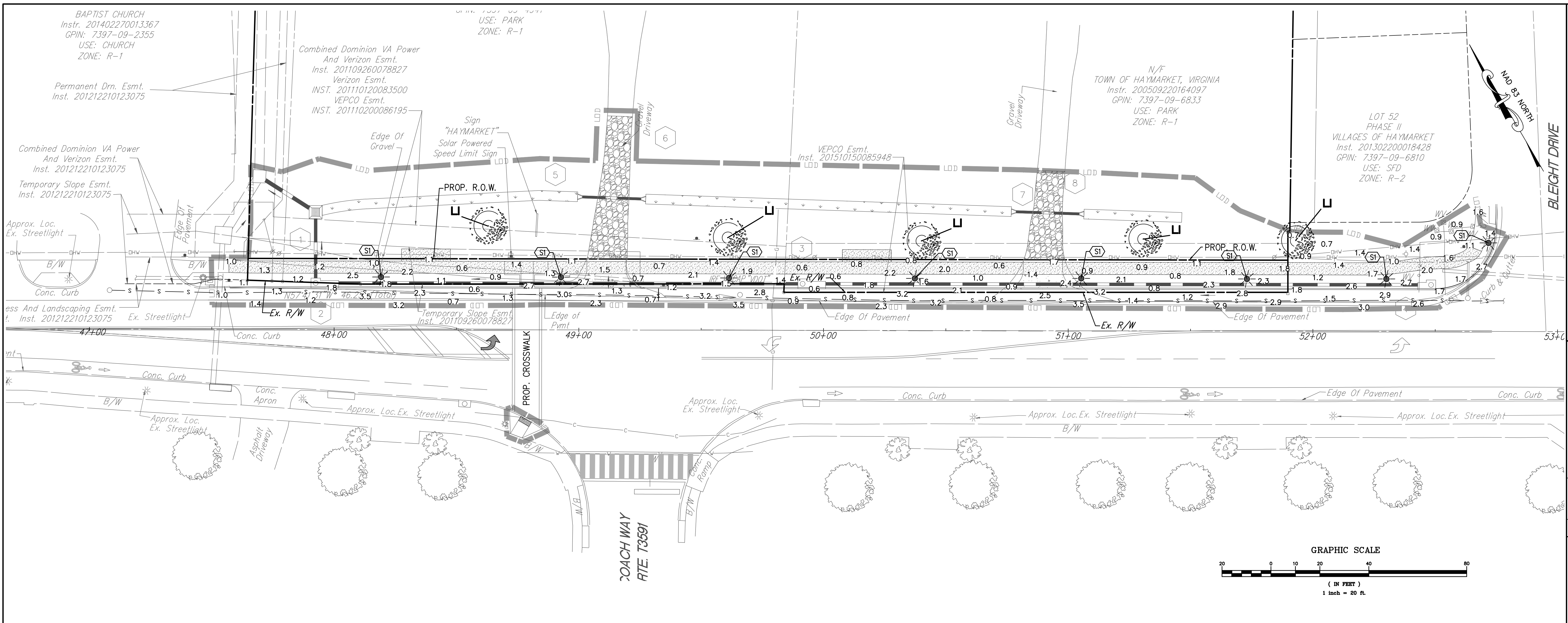
The Engineering Group Inc. logo and address: 10335 Southpoint Landing Blvd., Suite 200, West Office, 42795 Generation Drive, Suite 200, Richmond, VA 23234.

COUNTY REVISIONS table with columns for NO. and DATE.

SWM COMPUTATIONS & ROUTING HAYMARKET TOWN PARK STREETSCAPE RFP: 2022-001 TOWN OF HAYMARKET, VIRGINIA

Professional Engineer seal for DENAR H. C. ANTELO, Lic. No. 38680, dated 7/14/2023.

Table with columns for ENGINEERING GROUPE, PROJECT STATUS, DATE, SCALE, DESIGNER, DRAFTSMAN, FILE NO., SHEET, ACTION.



PHOTOMETRIC STATISTICS

AVERAGE FOOT-CANDLES	1.66
MAXIMUM FOOT-CANDLES	3.5
MINIMUM FOOT-CANDLES	0.6
MAXIMUM TO MINIMUM FC RATIO	6.18
AVERAGE TO MINIMUM FC RATIO	2.89

TYPICAL PLANT LIST

SYMBOL	BOTANICAL NAME/COMMON NAME	QUANTITY	CALIPER	CLASSIFICATION
	LAGERSTROMIA INDICA/ CRAPE MYRTLE	5	2"	ORNAMENTAL TREE BAG & BURLAP

LEGEND

	EX. STREET TREES
	EX. ORNAMENTAL STREET TREES
	PROP. STREETLIGHT

LUMINAIRE SCHEDULE

SYMBOL	CALLOUT	DESCRIPTION	LAMP	VOLTS	QUANTITY	LAMP DEPRECIATION	MOUNTING	MODEL	NOTE 1	NOTE 2
	S1	MainView LED post top	(1) 77W (3) LEDGine Vertical Light Engine DRIVEN AT 530mA	120V 1P 2W	8	0.85	POLE	Signify Canada LTD, MV-CA-G1-530-3-740	MOUNTING HEIGHT = 14'	WASHINGTON STEEL (FLUTED) POST

LIGHTING NOTES:

- LIGHTING LEVELS SHALL EXCEED A MINIMUM OF 0.6 FOOT-CANDLES ACROSS THE SITE.
- THE DEVELOPER/OWNER IS RESPONSIBLE FOR PERMITS, OPERATION, AND ASSOCIATED MAINTENANCE COSTS.
- PROPOSED STREET LIGHT FIXTURES WILL BE IN CONFORMANCE WITH TOWN STANDARDS. REFER TO DETAILS ON THIS SHEET AND SHEET 17 FOR SPECIFIC INFORMATION. CONTRACTOR TO CONFIRM CURRENT STANDARDS WITH TOWN PRIOR TO PURCHASE AND INSTALLATION.

THIS SHEET IS TO BE USED FOR LANDSCAPE AND LIGHTING PURPOSES ONLY !!!!!!!

STATE: VIRGINIA	REQ / SO: IV46797	REV	DESCRIPTION	DATE	REV BY	CHK BY
PROJECT NAME: HAYMARKET	14'-0" ALUMINUM LIGHTING STANDARD, 5.0" DIA, 12 FLAT FLUTE DESIGN NUMBER DP874-A57-Y1	REVISIONS				
DESIGNED BY: MB	CHECKED BY: JCEB	DATE: 5/22/14	SCALE: N/A	ENG REF: N/A	REVISION: R1	SHEET: 1 OF 1

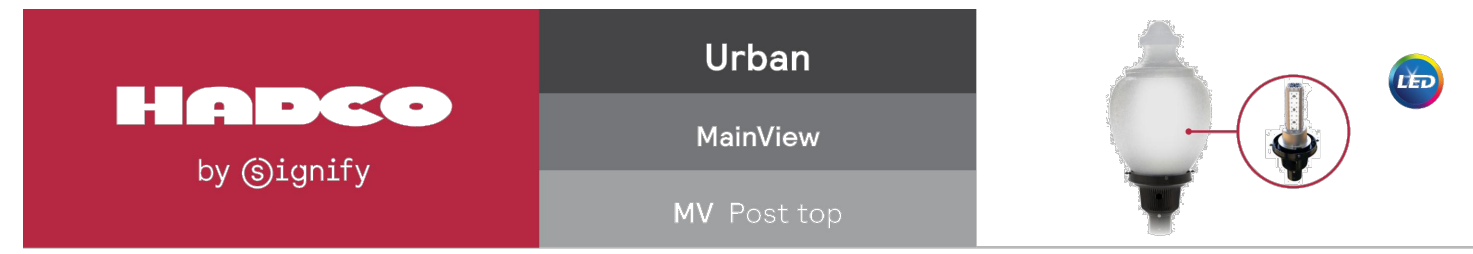
The Engineering Group Inc.
 Engineers | Surveyors | Planners
 www.theengineeringgroup.com
 South Office: 10333 Southpoint Landing Blvd., Suite 200, Woodbridge, VA 22192, PH: 703.670.0985
 West Office: 42795 Greenmont Drive, Suite 121, Woodbridge, VA 22192, PH: 703.670.0985

LANDSCAPE AND PHOTOMETRIC PLAN
HAYMARKET TOWN PARK STREETScape
 RFP: 2022-001
 TOWN OF HAYMARKET, VIRGINIA

DATE: JULY 14, 2023
 SCALE: 1"=20'
 DESIGNER: JM, R, ZP, J.B.
 DRAFTSMAN: Y.Q.ZF
 FILE NO.: PP-286
 SHEET 16 OF 22

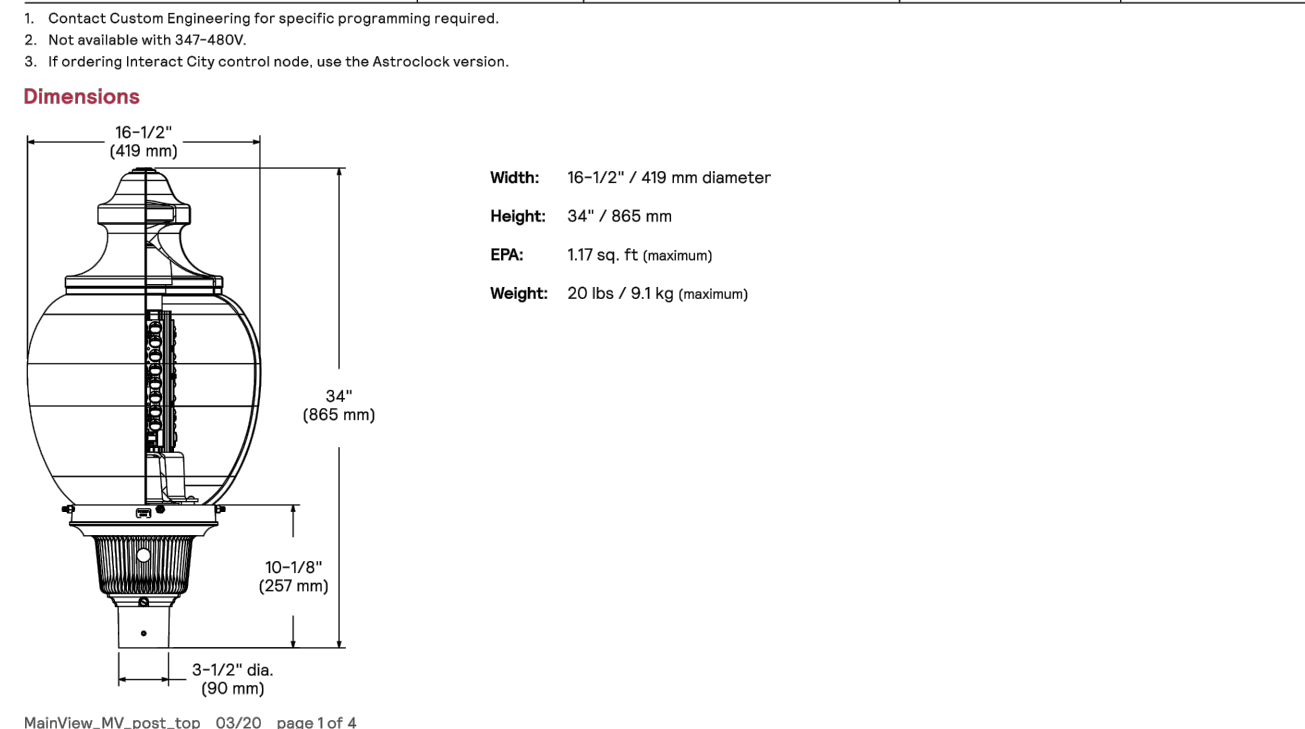
LANDSCAPING REQUIREMENTS

- 1. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PLANTS AS SHOWN ON THE PLANTING PLAN, IN ACCORDANCE WITH THE QUANTITIES, SIZES, AND SPECIFICATIONS LISTED IN THE PLANT MATERIALS SCHEDULE.
2. TOTAL NUMBER OF PLANTS SHALL BE AS DRAWN ON THE LANDSCAPE PLAN. IF THIS DIFFERS FROM THE PLANT KEY THE CONTRACTOR IS TO NOTIFY THE OWNER OR OWNERS REPRESENTATIVE.
3. ALL PLANTS SHALL BE NURSERY GROWN.
4. PLANT DIMENSIONS SHALL BE IN ACCORDANCE WITH AMERICAN STANDARDS FOR NURSERY STOCK, LATEST EDITION. BALLED AND BURLAPPED SHALL BE DUG WITH FIRM NATURAL BALLS OF EARTH AND SHALL BE PRUNED, STORED, DUG IN ACCORDANCE WITH CURRENT ASNS PLANTS SHALL BE IN PROPER NURSERY CONDITION.
5. NO B & B PLANTS SHALL BE PLANTED IF BALL IS CRACKED OR EITHER BROKEN DURING THE PROCESS OF PLANTING.
7. ALL PLANTS SHALL HAVE A NORMAL HABIT OF GROWTH AND SHALL BE SOUND, HEALTHY, VIGOROUS, FREE FROM DISEASE AND INSECT INFESTATION, ANY TREE WITH A WEAK, THIN TRUNKS NOT CAPABLE OF SUPPORTING ITSELF WHEN IN THE OPEN WILL NOT BE ACCEPTABLE. THE MINIMUM ACCEPTABLE SIZE OF ALL PLANTS MEASURED BEFORE PRUNING WITH THE BRANCHES IN NORMAL POSITION SHALL CONFORM TO DIMENSIONS AS SHOWN ON PLANTING SCHEDULE. LARGER PLANTS OF EQUAL QUALITY MAY BE ACCEPTED AT NO ADDITIONAL COST TO THE OWNER.
8. SUBSTITUTION OF PLANTS MATERIAL SHALL NOT BE PERMITTED UNLESS AUTHORIZED BY OWNER OR OWNER'S REPRESENTATIVE AND APPROVED BY COUNTY AGENT.
9. THE CONTRACTOR SHALL LAY OUT, WITH IDENTIFIABLE STAKES THE LOCATION OF ALL TREES, UNDERGROUND UTILITIES AND OUTLINE OF PLANTING BEDS AS INDICATED ON THE DRAWING. IN EVENT THAT ROCK OR UNDERGROUND CONSTRUCTION WORK, OBSTRUCTION OR UTILITY LINES ARE ENCOUNTERED DURING THESE OPERATIONS OR IN EXCAVATION OF ANY PLANT PITS UNDER THIS CONTRACT ALTERNATE LOCATIONS MAY BE SELECTED BY THE L.A. WITH NO ADDITIONAL COST TO THE OWNER.
10. PLANTING SOIL SHALL BE AN AMENDED SOIL MIX.
11. MULCH SHALL BE APPLIED IMMEDIATELY AFTER PLANTING OPERATIONS. MULCH SHALL BE FREE OF DEBRIS, WEEDS, SPORES OR OTHER FOREIGN MATERIAL, AND MUST BE WELL ROOTED AND OF SUCH CHARACTER AS NOT BE EASILY REMOVED BY WIND.
12. PRIOR TO INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE OWNER AND OR LANDSCAPES ARCHITECTS OF ALL SOIL OR DRAINAGE CONDITIONS WHICH ARE DETRIMENTAL TO THE GROWTH OF PLANTS. HE SHALL STATE THE CONDITIONS AND SUBMIT A PROPOSAL FOR CORRECTING THE CONDITIONS, INCLUDING ANY CHANGES IN THE COST, FOR REVIEW AND ACCEPTANCE BY THE OWNER.
13. CONTAINER GROWN PLANTS- ALL PLANTS DESIGNATED CONTAINER GROWN IN THE PLANT SCHEDULE SHALL BE HEALTHY VIGOROUS, WELL ROOTED, AND ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THEY SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN HEALTHY CONDITION. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE DEFINED AS A PLANT TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT CONTAINER MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. NO ROOT BOUND GROWN CONTAINER PLANTS, AS DETERMINED BY THE LANDSCAPE ARCHITECT, WILL BE PERMITTED. NO CONTAINER GROWN PLANT SHALL BE PLANTED IF THE ROOT MASS IS BROKEN EITHER BEFORE OR DURING THE PROCESS OF PLANTING.
14. PREPARATION OF PLANTS- ALL PLANT PITS SHALL BE CIRCULAR IN OUTLINE: ALL EXCAVATIONS SHALL HAVE VERTICAL SIDES. THE DEPTHS AND WIDTHS FOR EXCAVATION OF PLANTS PITS SHALL BE DEPTHS AND WIDTHS AS SPECIFIED ON PLANTING DETAILS OR AS APPROVED BY THE LANDSCAPE ARCHITECT. LOOSEN SUB GRADE 6" BELOW BOTTOM OF THE PIT. SOIL SEPARATION- SUB GRADE SOILS SHALL BE SEPARATED FROM THE UPPER "TOPSOIL" PORTIONS AND REMOVED IMMEDIATELY WHEREVER ENCOUNTERED DURING PLANTING OPERATIONS. EXCESS SOILS SHALL BE REMOVED AND LEGALLY DISPOSED.
15. SETTING PLANTS- IN GENERAL, SET PLANTS AT SAME RELATION TO FINISHED GRADE AS THE BORE TO THE GROUND FROM WHICH THEY WERE DUG. PREPARE PLANTS PITS AS SPECIFIED AND AS SHOWN ON THE DRAWINGS, PRIOR TO INSERTING PLANTS. USE TOPSOIL MIXTURE TO BACKFILL PLANT PITS. WHEN PLANTING PITS HAVE BEEN BACKFILLED APPROXIMATELY 2/3 FULL, WATER THOROUGHLY BEFORE INSTALLING REMINDER OF THE SOIL TO THE TOP OF THE PIT. SET TREES PLUMB AND BRACE RIGIDLY IN POSITION UNTIL THE PLANTING SOIL HAS BEEN TAMPED SOLIDLY AROUND THE BALL AND THE ROOTS.
16. GUYING AND STAKING- SHALL BE REQUIRED FOR ALL TREES OR TREE-LIKE SHRUBS IN ACCORDANCE WITH DETAILED DRAWINGS. GUYING AND STAKING SHALL BE DONE WITHIN 24 HOURS AFTER PLANTING.
17. MAINTENANCE OF NEW PLANTINGS SHALL CONSIST OF PRUNING, WATER, CULTIVATING, WEEDING, MULCHING, TIGHTENING, AND RESETING PLANTS TO PROPER GRADES OR UPRIGHT POSITION, RESTORATION OF THE PLANTING SAUCER, AND FURNISHING AND APPLYING SUCH SPRAYS AS ARE NECESSARY TO KEEP THE PLANTING FREE FROM INSECTS AND DISEASE. MAINTENANCE SHALL BE PROVIDED UNTIL TIME OF PROVISIONAL ACCEPTANCE.
18. PLANTING AREAS AND PLANTING SHALL BE PROTECTED AT ALL TIMES AGAINST TRESPASSING AND DAMAGE OF ANY KIND FOR DURATION OF THE MAINTENANCE PERIOD. IF ANY PLANTS BECOME DAMAGED OR INJURED, THEY SHALL BE TREATED OR REPLACED BY THE CONTRACTOR AS DIRECTED BY ARCHITECT AT NO ADDITIONAL COST TO THE OWNER. NO WORK SHALL BE DONE WITHIN, ADJACENT TO, OR OVER ANY PLANT OR PLANTING AREA WITHOUT PROPER SAFEGUARDS AND PROTECTION TO MATERIALS.
19. ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF PROVISIONAL ACCEPTANCE, TO BE IN GOOD, HEALTHY, AND FLOURISHING CONDITION.
20. THE CONTRACTOR SHALL PROVIDE THE OWNER SPECIFIC MAINTENANCE RECOMMENDATIONS IN WRITING FOR WATERING, AND FERTILIZING AND MAINTAINING THE PLANT MATERIAL.
21. NO PLANTINGS SHALL IMPEDE THE SIGHT DISTANCE FOR INGRESS & EGRESS TO THE SITE. NO SIGNAGE, TREES OR PLANT MATERIAL WITH EXPECTED MATURE GROWTH HEIGHTS OF 2.5' FEET SHALL BE PLANTED WITHIN THE BOUNDARY LINES.

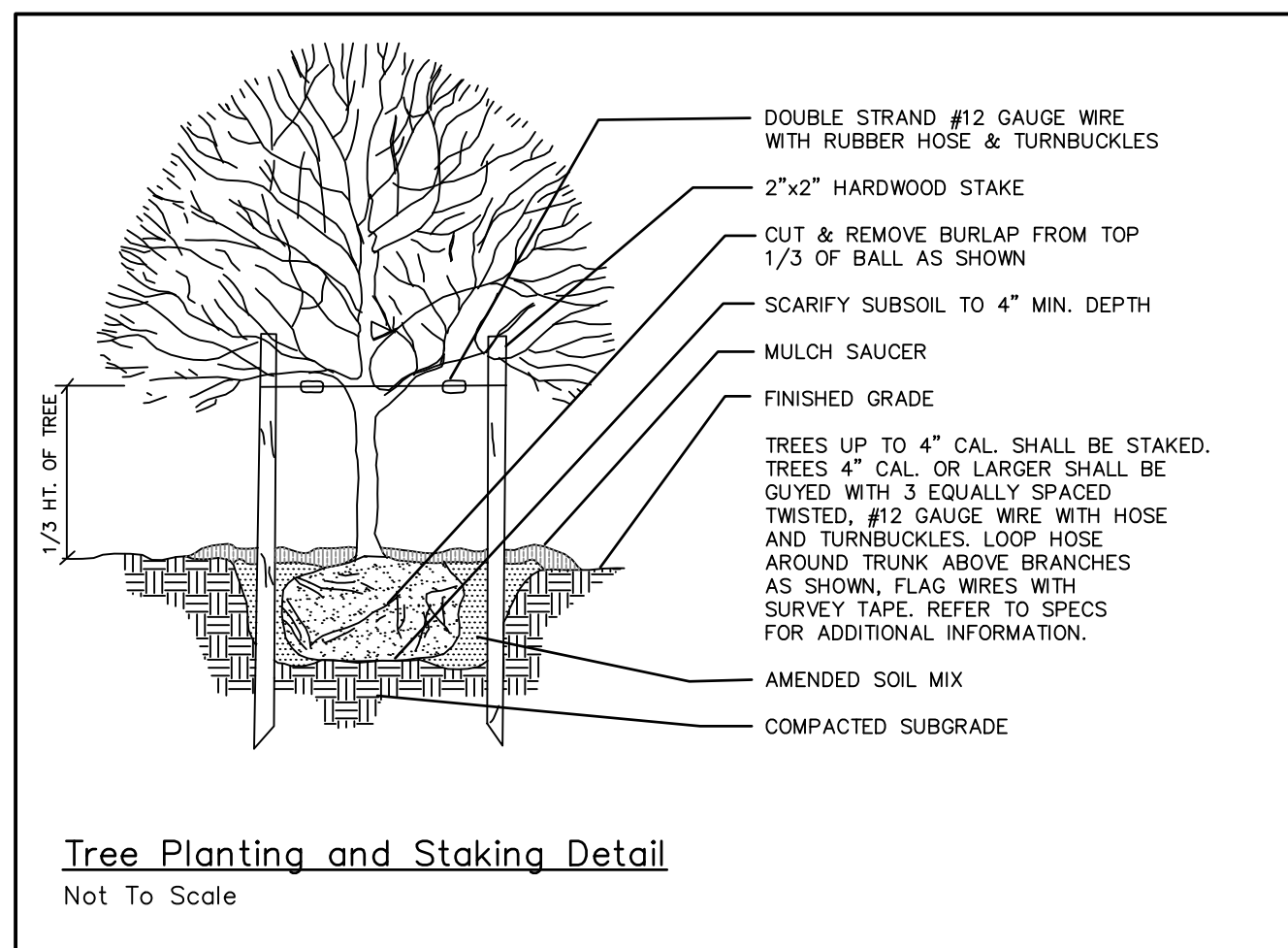


Hadco MainView LED post top is a traditionally styled luminaire created for comfort and ease of maintenance. This post top offers you multiple wattage options and is designed to be future-proof, giving you maximum flexibility at an affordable price.

Table with columns: Product, Wattage, Color, System Current, Color Temperature, Avg System Wattage, Lumens Output, Efficacy, and BUG Rating. Includes sections for Ordering guide and Dimensions.



MainView_MV_post_top 03/20 page 1 of 4



Tree Planting and Staking Detail Not To Scale

MV MainView LED post top

Field Adjustable Wattage Selector (FAWS) Multiplier Chart

Two tables showing FAWS Position, Power Ratio, and Lumens Ratio for Type 3 and Type 5 models.

Note: Typical value accuracy +/- 5%

LED Wattage and Lumens Values

Table with columns: Catalog Number, LED Qty, System Current, Color Temperature, Avg System Wattage, Lumens Output, Efficacy, and BUG Rating for Type 3.

Asymmetric with comfort globe and internal house-wide shield

Table with columns: Catalog Number, LED Qty, System Current, Color Temperature, Avg System Wattage, Lumens Output, Efficacy, and BUG Rating for Type 3H.

Symmetric with comfort globe

Table with columns: Catalog Number, LED Qty, System Current, Color Temperature, Avg System Wattage, Lumens Output, Efficacy, and BUG Rating for Type 5.

Actual performance may vary due to installation variables including optics, mounting/ceiling height, dirt/deposition, light loss factor, etc. Highly recommended to confirm performance with a layout - contact Applications at our lighting@signify.com.

MainView_MV_post_top 03/20 page 2 of 4

MV MainView LED post top

Predicted Lumen Depreciation Data

Table showing Ambient Temperature, Driver mA, Calculated Lx, Hours, Lx per TM-21, and Lumen Maintenance % at 64,000 hrs.

Specifications

Housing/Fitter: Tall Round fluted fitter is constructed of diecast 260 aluminum alloy with removable door providing entry into the fitter assembly for easy access to the electrical components. Wiring block to accept three #8 solid or stranded wires. Easy access to photo eye through the door on the post. Heavy cast aluminum post fitter, utilizes four 8/16 stainless steel set screws (Hex heads) for mounting to 3\"/>

LED and optics

Composed of 48 or 64 high power LEDs, LED board substrate is MCRBC (Water Core Printed Circuit Board), designed to minimize thermal resistance from LED junction to heat sinks. Color temperature as per ANSI/IESNA Neutral White, 4000 Kelvin nominal (3850K/270K or 3700K to 4260K) or Warm White, 3000 Kelvin nominal (2800K +/- 100K or 2870K to 3230K), CR 30 Min. 75 Typical.

Heat sinks

LED Engine construction consists of four 6063-T6 aluminum heat sinks, clear anodized to MIL-A-8625 specifications for excellent corrosion resistance and surface finish. Fin spacing has been optimized for maximum convective heat transfer under natural convection conditions, maximizing LED life and efficiency. Heat sinks provide greater than 700 sq. in. of convective surface area to ensure proper junction temperature control, lumen maintenance, and system reliability. Extruded heatinks meet or exceed tolerances as specified by AEC (Automotive Extruders Council) standards and have been designed to provide superior surface finishes, ensuring excellent contact between heatinks and LEDs.

Product does not use any cooling device with moving parts (passive cooling only). Heat sinks are secured using galvanized steel brackets and stainless steel hardware to provide additional corrosion resistance.

Surge protection: SPI: Surge protection device tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2. Surge protection for Line Ground, Line Neutral and Neutral-to-Line. In accordance with DOE MS&C Model Specification for LED Roadway Luminaires Appendix D Electrical Immunity High test level 10kV/100A. SP2: Optional 20kV/100A surge protection device that provides extra protection beyond the SPI 10kV/100A level.

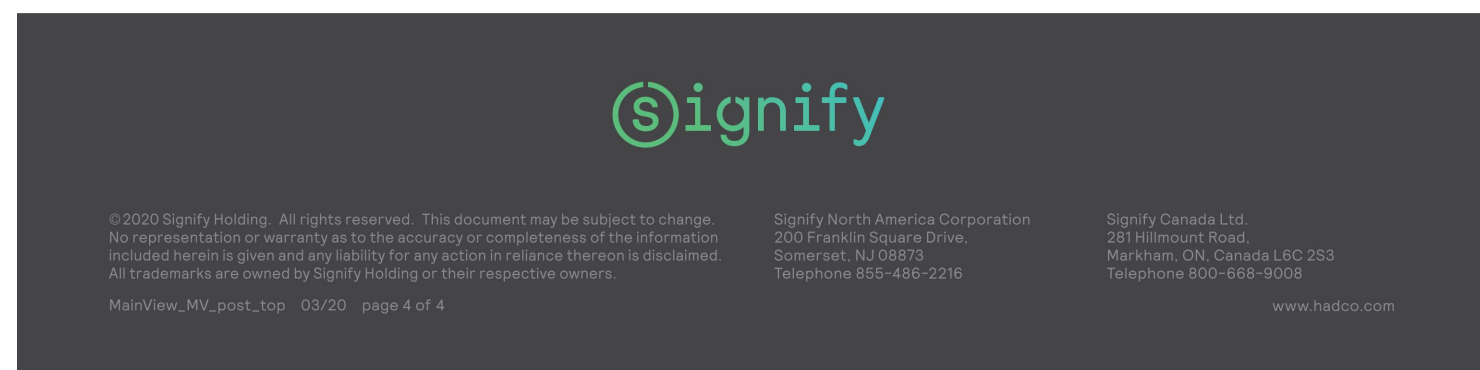
Quality Control: The manufacturer must provide a written confirmation of its ISO 9001:2008 and ISO 14001:2004 International Quality Standards Certification. Meets the ANSI C136.31:2010, American national Standard for Roadway Luminaire Vibration specifications for Normal Applications.

MainView_MV_post_top 03/20 page 3 of 4

MV MainView LED post top

Specifications

LED products manufacturing standard: Electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340 E7 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product. Quality Control: The manufacturer must provide a written confirmation of its ISO 9001:2008 and ISO 14001:2004 International Quality Standards Certification. Meets the ANSI C136.31:2010, American national Standard for Roadway Luminaire Vibration specifications for Normal Applications. Certifications and Compliance: Manufactured to ISO 9001:2008 Standards, UL8750 and UL5088 compliant, ETL listed to U.S. safety standards for wet locations, eTL listed to Canadian safety standards for wet locations, LMO & LMT9 tested. Warranty: 5 year standard warranty. Options available for extended warranties - contact factory. See signify.com/warranties for details and restrictions.



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MainView_MV_post_top 03/20 page 4 of 4

ENGINEERING GROUPE PROJECT STATUS

Table with columns: DATE, ACTION, SHEET 17 OF 22.

LANDSCAPE NOTES AND PHOTOMETRIC SPECIFICATIONS HAYMARKET TOWN PARK STREETScape RFP: 2022-001 TOWN OF HAYMARKET, VIRGINIA

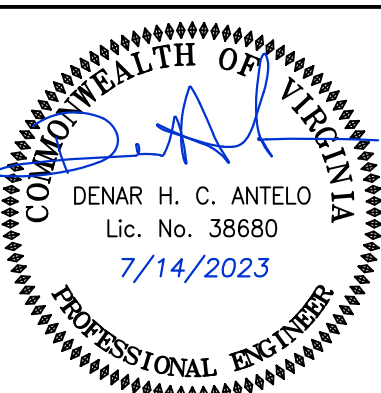


Table with columns: DATE, SCALE, DESIGNER, DRAFTSMAN, FILE NO., SHEET 17 OF 22.

The Engineering Groupe Inc. Engineers | Surveyors | Planners. West Office: 42795 Greenmont Drive, Suite 200, #147, PH 703.670.0985. South Office: 10333 Southampton Landing Blvd., Suite 121, PH 703.670.0985. Central Office: 15380 Group Drive, Suite 200, PH 703.670.0985.

Table with columns: NO., DATE, COUNTY REVISIONS.

Typical Traffic Control Lane Closure on a Two-Lane Roadway Using Flaggers (Figure TTC-23.2)

NOTES

Guidance:

- 1. Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, and 500'-800' where the posted speed limit is greater than 45 mph.
2. Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the flagger station and transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3.
3. To maintain efficient traffic flow in a flagging operation on a two-lane roadway, the maximum time motorists should be stopped at a flagger station is 8 minutes for high volume roadways (average daily traffic of 500 or more vehicles per day) to a maximum of 12 minutes for low volume roadways (less than 500 vehicles per day).

Standard:

- 4. Portable Temporary Rumble Strips (PTRS) shall be used as noted in Section 6F.99.
5. Flagging stations shall be located far enough in advance of the work space to permit approaching traffic to reduce speed and/or stop before passing the work space and allow sufficient distance for departing traffic in the left lane to return to the right lane before reaching opposing traffic.
6. All flaggers shall be state certified and have their certification card in their possession when performing flagging duties.
7. Cone spacing shall be based on the posted speed and the values in Table 6H-4 on Page 6H-6.
8. A shadow vehicle with at least one high intensity amber rotating, flashing, or oscillating light shall be parked 80'-120' in advance of the first work crew.

Option:

- 8. A SLOW (W21-V10) sign may be required in this area to give advance warning of the operation ahead by slowing approaching traffic prior to reaching the flagger station or queued traffic.

Guidance:

- 9. If the queue of traffic reaches the BE PREPARED TO STOP (W3-4) sign then the signs, and if used the PTRS should be readjusted at greater distances.
10. When a highway-rail crossing exists within or upstream of the transition area and it is anticipated that queues resulting from the lane closure might extend through the highway-rail grade crossing, the temporary traffic control zone should be extended so that the transition area precedes the highway-rail crossing (see Figure TTC-36 for additional information on highway-rail crossings).

Standard:

- 11. At night, flagger stations shall be illuminated, except in emergencies (see Section 6E.08).

Option:

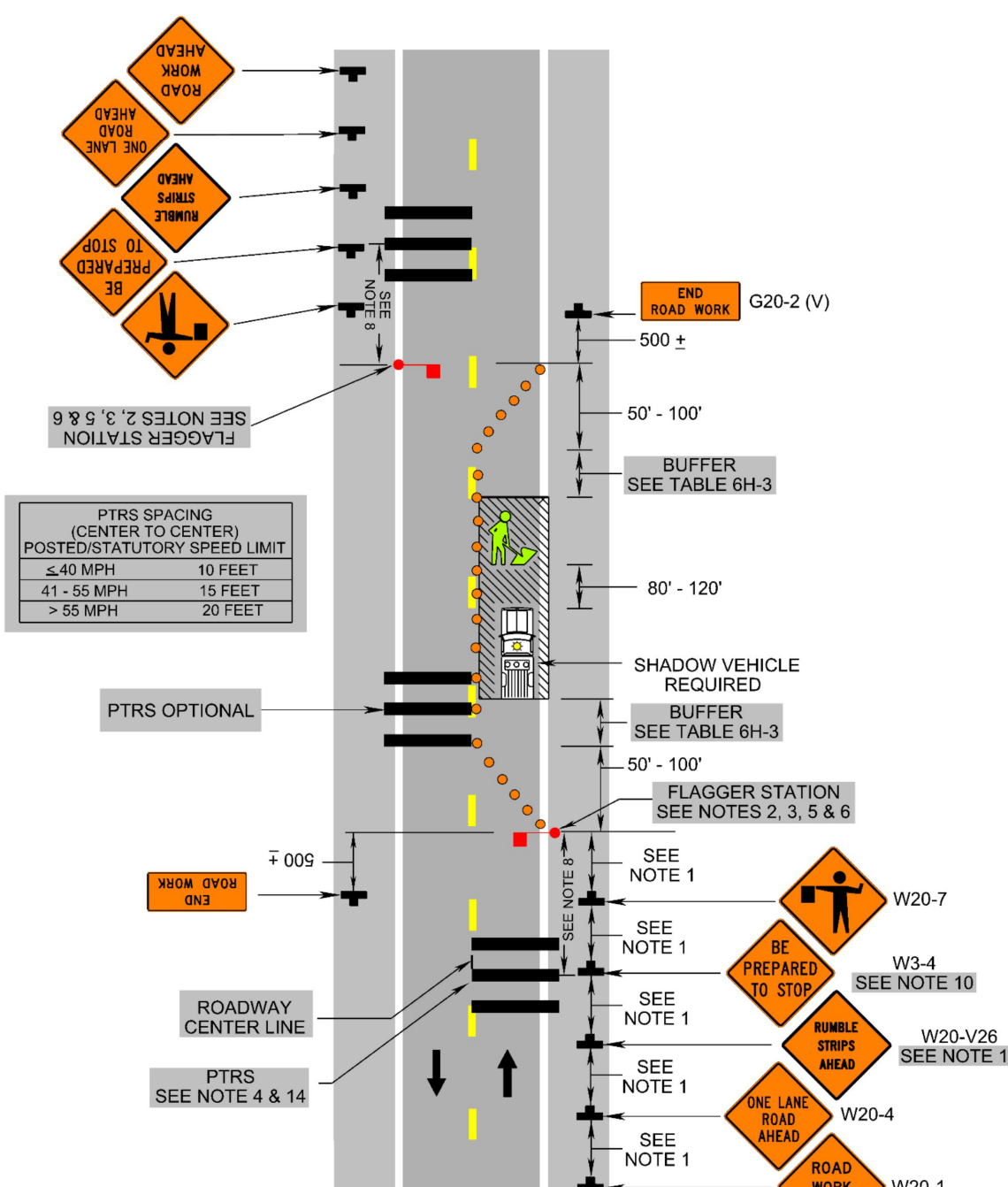
- 12. Cones may be eliminated when using a pilot vehicle operation or when the total roadway width is 20 feet or less.
13. For low-volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used (see Chapter 6E).

Standard:

- 14. When used, three portable temporary rumble (PTRS) strips shall be installed across the entire travel lane adjacent to the BE PREPARED TO STOP (W3-4) sign. The portable temporary rumble strips shall be monitored and adjusted as necessary during the work shift to ensure proper placement on the roadway. When the PTRS are installed, the RUMBLE STRIPS AHEAD (W20-V26) sign shall also be utilized.

- 1: Revision 1 - 4/1/2015
2: Revision 2 - 9/1/2019

Lane Closure on a Two-Lane Roadway Using Flaggers (Figure TTC-23.2)



- 1: Revision 1 - 4/1/2015
2: Revision 2 - 9/1/2019
3: Revision 2.1 - 11/1/2020

Typical Traffic Control Temporary Pavement Marking and Marker Guidelines (Figure TTC-60.0)

NOTES

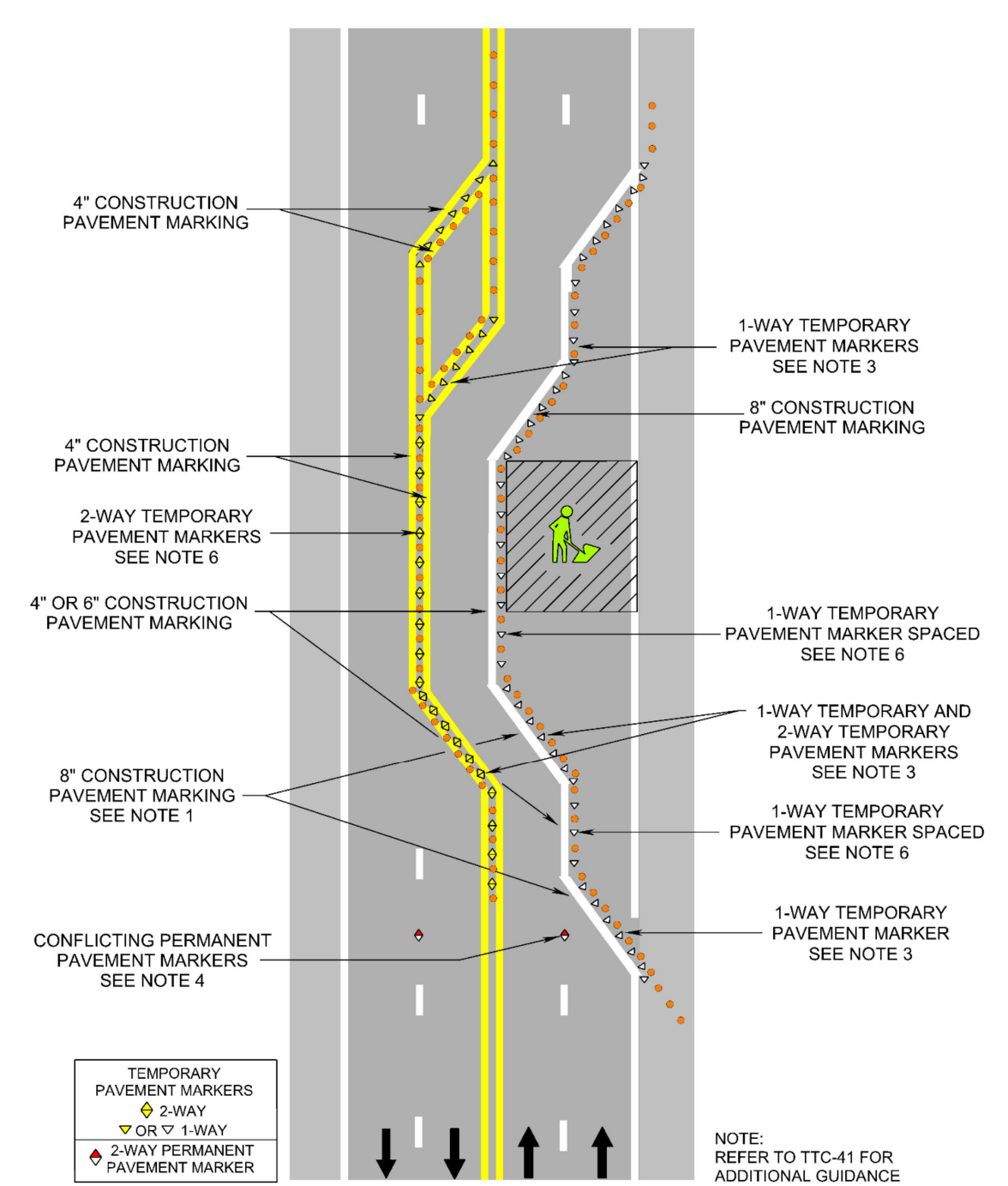
Standard:

- 1. Unless otherwise noted, construction pavement marking lane lines in transitions shall be 8 inches in width.
2. For long-term stationary work (more than 3 days duration), existing conflicting pavement markings shall be removed and temporary markings shall be installed.
3. Temporary pavement markers, on 20 foot center to center spacing, shall be installed in transitions.
4. Conflicting permanent pavement markers shall be covered or removed.
5. Eradication of existing pavement markings shall be as shown in Figure TTC-55.

Option:

- 6. Temporary pavement markers, on a 40' center to center spacing, may be added between transitions/shifting tapers as directed by the engineer.
7. For short-term stationary work (less than 3 days duration), lanes may be delineated by retroreflective channelizing devices or removable pavement marking instead of temporary pavement markings.

Temporary Pavement Marking and Marker Guidelines (Figure TTC-60.0)



- TEMPORARY PAVEMENT MARKERS
2-WAY
OR 1-WAY
2-WAY PERMANENT PAVEMENT MARKER

NOTE: REFER TO TTC-41 FOR ADDITIONAL GUIDANCE

Typical Traffic Control Shoulder Operation with Minor Encroachment (Figure TTC-5.2)

NOTES

Standard

- 1. For required sign assemblies for multi-lane roadways see Note 1, TTC-4.1

Guidance:

- 2. Sign spacing should be 1300'-1500' for Limited Access Highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.
3. When work takes up part of a lane on a high volume roadway, vehicular traffic volumes, vehicle mix, speed and capacity should be analyzed to determine whether the affected lane should be closed. Unless the lane encroachment analysis permits a remaining lane width of 10 feet, the lane should be closed. If the closure operation is on a Limited Access highway, the minimum lane width is 11 feet.

Option:

- 4. The ROAD WORK AHEAD (W20-1) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.

Standard:

- 5. A shadow vehicle with either an arrow board operating in the caution mode, or at least one high-intensity amber rotating, flashing, or oscillating light shall be parked 80' - 120' in advance of the first work crew.
6. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or oscillating lights.
7. Taper length (L) and channelizing device spacing shall be as the following:

Table with 4 columns: Speed Limit (mph), Lane Width (Feet), Remarks, and another Speed Limit (mph) column. It includes data for various speed limits and lane widths, and notes on taper length and channelizing device spacing.

Standard:

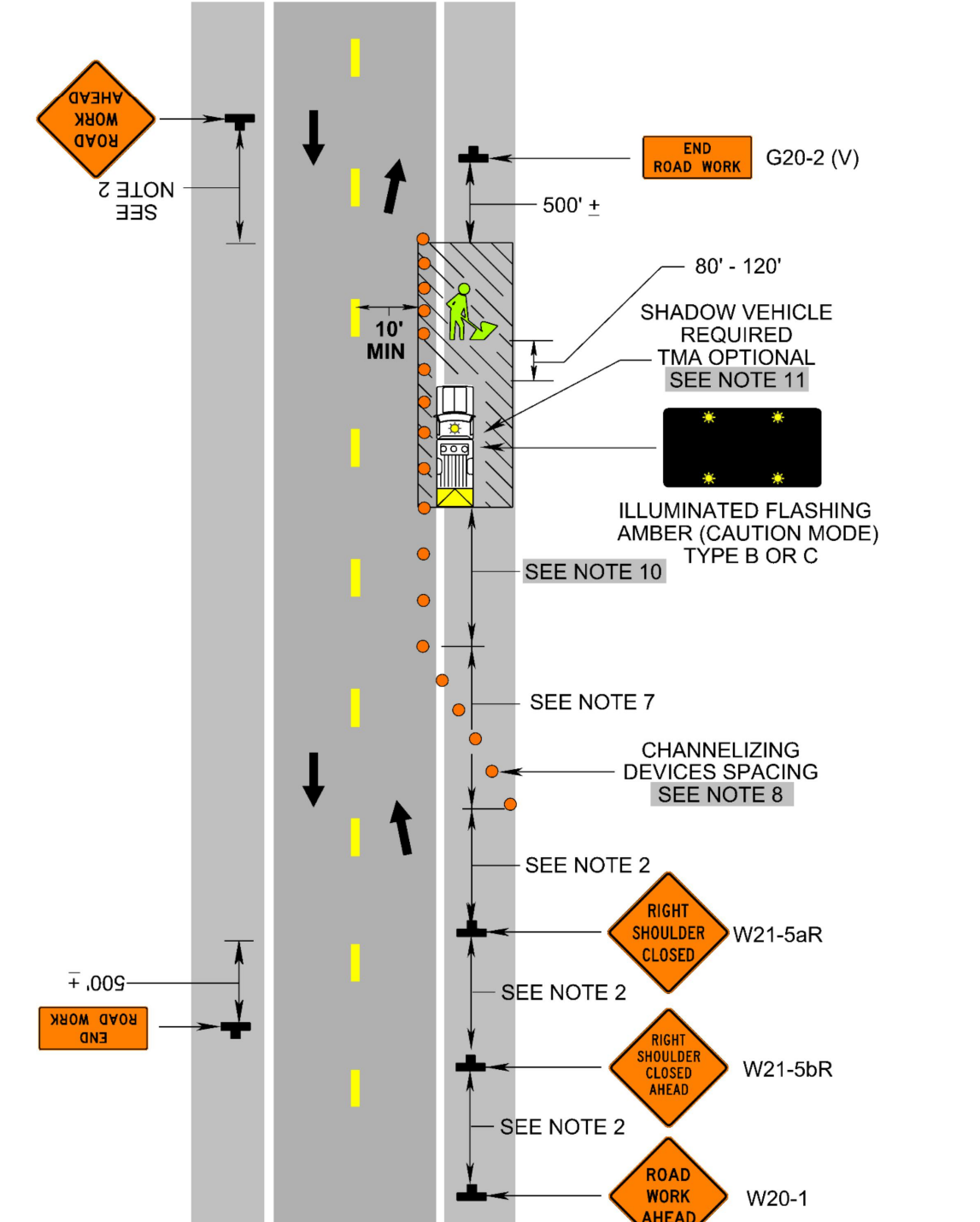
- 8. Channelizing device spacing shall be as the following:

Table with 4 columns: Location Spacing, Speed Limit (mph), Location Spacing, and Speed Limit (mph). It provides spacing requirements for transitions, travelways, and construction access.

- 9. On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.
10. The buffer space length The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.
11. A truck-mounted attenuator (TMA) shall be used on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph.
12. When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.

- 1: Revision 1 - 4/1/2015
2: Revision 2 - 9/1/2019

Shoulder Operation with Minor Encroachment (Figure TTC-5.2)



- 1: Revision 1 - 4/1/2015
2: Revision 2 - 9/1/2019

MAINTENANCE OF TRAFFIC:

- 1. THE CONTRACTOR SHALL PLAN AND EXECUTE THE WORK IN ACCORDANCE WITH THIS PLAN UNLESS A CHANGE IS APPROVED OR DIRECTED BY VDOT. IT IS NOT THE INTENT OF THIS PLAN TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH STAGE, BUT TO ONLY SHOW THE GENERAL HANDLING OF TRAFFIC.
2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2011 VIRGINIA WORK AREA PROTECTION MANUAL REVISION 2.1 - NOVEMBER 1, 2020 AND THE FEDERAL HIGHWAY ADMINISTRATION'S 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS.
3. THE VDOT INSPECTOR IS TO BE CONSULTED FOR USE AND APPLICATION OF SIGNAGE AND OTHER TRAFFIC CONTROL DEVICES.
4. VEHICULAR AND PEDESTRIAN TRAFFIC SAFETY AND ACCESS SHALL BE MAINTAINED THROUGHOUT THE LIMITS OF DISTURBANCE BY PROVIDING AND MAINTAINING ALL PRACTICABLE TRAFFIC CONTROL DEVICES CONFORMING TO THE MUTCD AND THE 2011 REVISION 2.1 - NOVEMBER 1, 2020 VIRGINIA WORK AREA PROTECTION MANUAL.
5. TEMPORARY PAVEMENT OVERLAY MAY BE REQUIRED ADJACENT TO AREAS OF NEW PAVEMENT CONSTRUCTION IN ORDER TO ALLOW TRAFFIC FLOW DURING THE SEQUENCE OF CONSTRUCTION.
6. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH AFFECTED AERIAL AND UNDERGROUND UTILITY COMPANIES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, SPECIAL PROVISIONS AND PLANS.
7. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED AS SOON AS PRACTICAL WHEN THEY ARE NO LONGER NEEDED, WHEN WORK IS SUSPENDED FOR SHORT PERIODS, ADVANCE WARNING SIGNS THAT ARE NO LONGER APPROPRIATE SHALL BE REMOVED FROM THE ROADWAY, AND OTHER INAPPROPRIATE DEVICES REMOVED FROM THE WORK AREA SO THEY ARE NOT VISIBLE TO DRIVERS.
8. THE CONTRACTOR NEEDS TO CONTACT NORTHERN VIRGINIA REGION OPERATIONS TRAFFIC SIGNALS AT (703) 363-8368 FOR A MARK OUT OF THE TRAFFIC SIGNAL EQUIPMENT A MINIMUM OF 72 HOURS PRIOR TO WORK BEGINNING WHEN WORKING WITHIN 1,000 FEET OF A TRAFFIC SIGNAL.
9. A SHADOW VEHICLE WITH EITHER AN ARROW BOARD OPERATING IN THE CAUTION MODE (TYPE B), OR AT LEAST ONE HIGH INTENSITY ROTATING, OSCILLATING, OR AMBER STROBE LIGHT SHALL BE PARKED 80'-120' IN ADVANCE OF THE FIRST WORK CREW.
10. ALL WORK WILL BE PERFORMED IN ACCORDANCE WITH THE APPROVED SITE PLAN.
11. ACCESS TO AND FROM ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.
12. SEVEN DAY ADVANCE NOTICE FOR LANE CLOSURES, PROPERTY ACCESS IMPACTS AND PARKING RESTRICTIONS SHOULD BE PROVIDED TO VDOT AND ADJACENT PROPERTY OWNERS.
13. THE CONTRACTOR IS REQUIRED TO PROVIDE AT LEAST ONE PERSON WHO, AT MINIMUM, IS VERIFIED BY VDOT IN THE LANE CLOSURE ADVISORY MANAGEMENT SYSTEM (FOR LCAMS TRAINING COURSE REGISTRATION PLEASE CONTACT CARLENE.MCWHIRT@VDOT.VIRGINIA.GOV OR CALL 571-350-2078)
14. AT THE END OF EACH DAY, THE CONTRACTOR WILL FILL THE OPEN TRENCH WITH GRAVEL AND PLACE TEMPORARY PAVEMENT ACROSS IT HOWEVER STEEL PLATES MAY BE USED WITH VDOT APPROVAL. TEMPORARY LANE MARKINGS MAY BE REQUIRED TO BE PLACED AT THE END OF EACH DAY UNTIL THE ENTIRE LENGTH OF STORM DRAIN MANHOLE IS CONSTRUCTED AND TESTED. AFTER THE STORM DRAIN MANHOLE LINES ARE TESTED, PERMANENT PAVEMENT WILL BE INSTALLED AND LANES WILL BE MARKED IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION'S 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS.
15. WORK ON THIS PLAN IS TO BE DONE UTILIZING TTC PLAQUES FROM THE VIRGINIA WORK AREA PROTECTION MANUAL (2020 REV. 2.1) IF THERE IS ANY SIGNIFICANT DEVIATION FROM THE TTC PLAQUES THEN A REVISION SHALL BE SUBMITTED FOR REVIEW. WORK WILL ONLY BE ALLOWED TO PROCEED UNDER EXISTING TTC PLAQUES UNTIL THE REVIEW IS COMPLETE.

MILLING & OVERLAY NARRATIVE

A PORTION OF THE WESTBOUND LANE ALONG WASHINGTON STREET WILL BE CLOSED. THIS PHASE WILL FOLLOW TTC 23.2. THE CONSTRUCTION DURING THIS PHASE WILL CONSIST OF MILLING & OVERLAY ALONG WASHINGTON STREET.

VDOT IIM 241.5 NOTES:

- THE TRANSPORTATION MANAGEMENT PLAN SHOWN IS CONSIDERED: TYPE "A"-SIMPLE PROJECT INCLUDING SHOULDER CLOSURE.
THE WORK ZONE IS LOCATED WITHIN THE WEST BOUND SHOULDER OF WASHINGTON STREET STATE ROUTE 55.
• THE WORK ZONE ALONG WASHINGTON STREET IS APPROXIMATELY 520' LONG.
• WORK ACTIVITY IN THE ROADWAY WILL BE ALLOWED FROM 9:30 AM TO 3:00 PM MONDAY THROUGH THURSDAY AND 9:30 AM TO 2:00 PM ON FRIDAY. FOR ALTERNATE WORK HOURS THE CONTRACTOR MUST SUBMIT IN WRITING THE PROPOSED ALTERNATE HOURS TO THE VDOT HAYMARKET RESIDENCY PERMITS OFFICE FOR REVIEW AND APPROVAL.
• CONSTRUCTION EQUIPMENT LOCATION WILL BE DETERMINED ON SITE BY THE CONTRACTOR.
• ALL TEMPORARY TRAFFIC CONTROL DEVICES HAVE BEEN OUTLINED IN THE LEGEND WITHIN THIS PLAN.
• THE MAJOR TYPE OF TRAVELERS IN THIS AREA ARE RESIDENTIAL AND COMMUTER VEHICULAR TRAFFIC.

Table 6H-3, Length of the Longitudinal Buffer Space¹

Table with 2 columns: Posted Speed Limit (mph) and Distance (Feet). It lists buffer space requirements for various speed limits.

1: Revision 1 - 4/1/2015; Revision 2 - 9/1/2019

I, DENAR H. C. ANTELO, HAVE SUCCESSFULLY COMPLETED THE VDOT ADVANCED WORK ZONE TRAFFIC CONTROL TRAINING. MY CERTIFICATE NUMBER IS 030122136 WITH AN EXPIRATION DATE OF 3/31/2026.

ENGINEERING GROUPE PROJECT STATUS

Table with 2 columns: DATE and ACTION. It contains project status information.

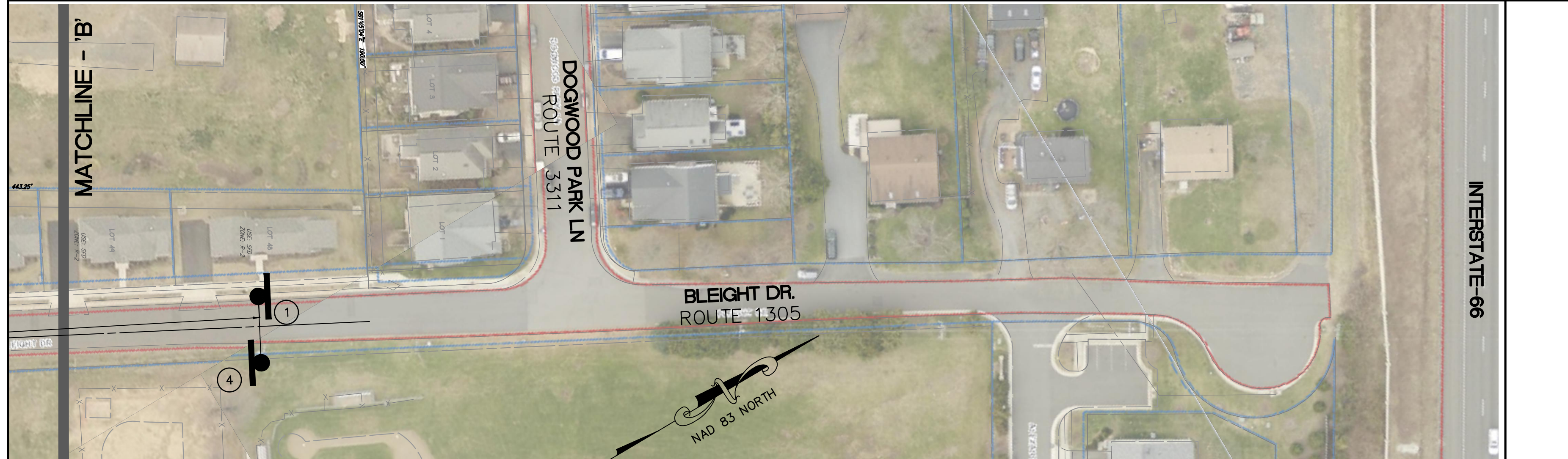
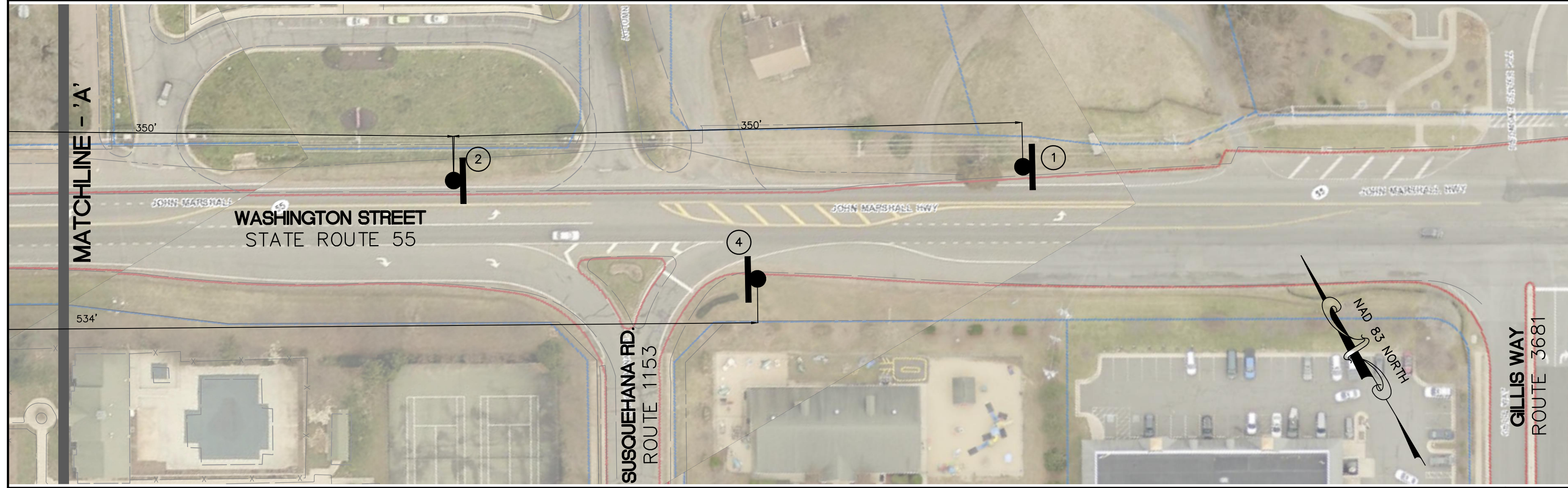
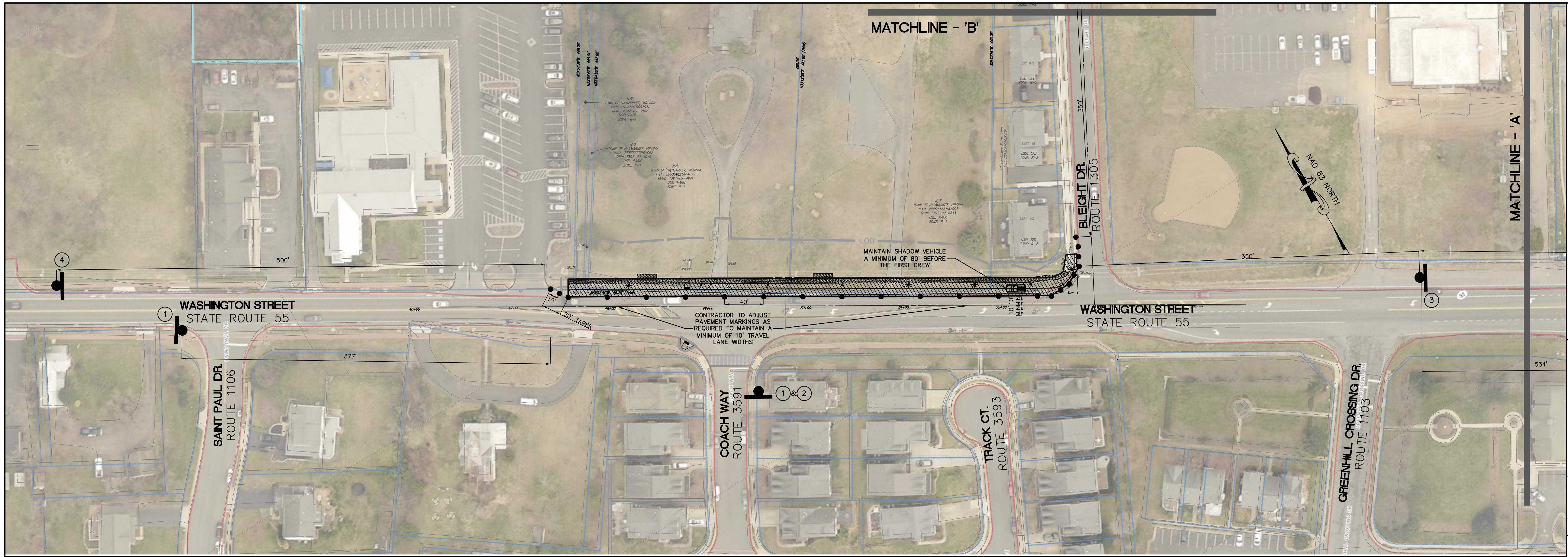
The Engineering Groupe Inc. logo and contact information including address, phone, and website.

Table with 2 columns: COUNTY REVISIONS and DATE. It contains revision tracking information.

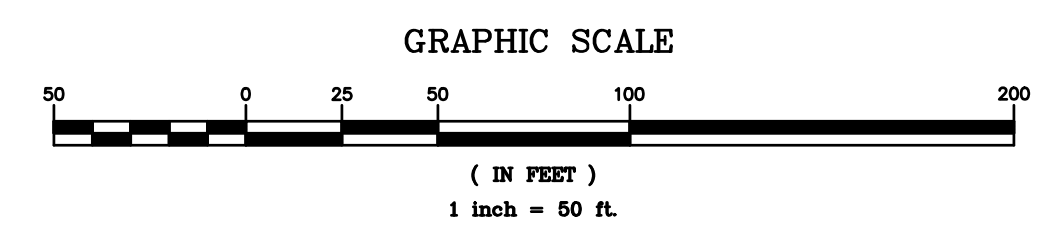
TRANSPORTATION MANAGEMENT DETAILS AND NARRATIVE HAYMARKET TOWN PARK STREETScape RFP: 2022-001 TOWN OF HAYMARKET, VIRGINIA

Professional Engineer seal for Denar H. C. Antelo, License No. 38680, dated 7/14/2023.

NOTE: THIS PLAN IS FOR TRAFFIC MANAGEMENT ONLY!



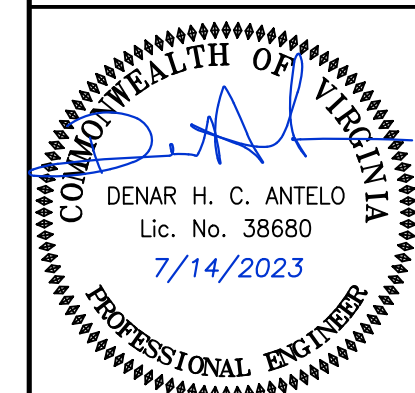
MAINTENANCE OF TRAFFIC NARRATIVE
 DURING THIS PHASE OF CONSTRUCTION A PORTION OF THE WESTBOUND SHOULDER ALONG WASHINGTON STREET WILL BE CLOSED. EXISTING PAVEMENT MARKING LINES WILL BE MODIFIED AS REQUIRED TO MAINTAIN A MINIMUM OF 10' TRAVEL LANE WIDTHS AND IS TO BE ERADICATED AND RE-STRIPE ONCE CONSTRUCTION IS COMPLETED. THIS PHASE WILL FOLLOW A COMBINATION OF TTC 5.2 AND 60.1. THE CONSTRUCTION DURING THIS PHASE WILL CONSIST OF CURB IMPROVEMENTS ALONG WASHINGTON STREET AND THE INSTALLATION OF A STORM DRAIN SYSTEM.



SIGN LEGEND			
①	②	③	④
48" X 48" W20-1	48" X 48" W21-56R	48" X 48" W21-56R	48" X 24" G20-2 (V)

KEY	
	SIGN POST (SEE SIGN LEGEND FOR TYPE OF SIGN)
	SIGN FACE
	SHADOW VEHICLE
	WORK ZONE
	GROUP 2 DEVICE

I, DENAR H. C. ANTELO, HAVE SUCCESSFULLY COMPLETED THE VDOT ADVANCED WORK ZONE TRAFFIC CONTROL TRAINING. MY CERTIFICATE NUMBER IS 030122136 WITH AN EXPIRATION DATE OF 3/31/2026.



ENGINEERING GROUPE	PROJECT STATUS	DATE:	JULY 14, 2023
		SCALE:	1"=50'
		DESIGNER:	JM, R.A.P., J.B.
		DRAFTSMAN:	Y.Q.
		FILE NO.:	PP-286
		DATE	ACTION

NOTE: THIS PLAN IS FOR TRAFFIC MANAGEMENT ONLY!

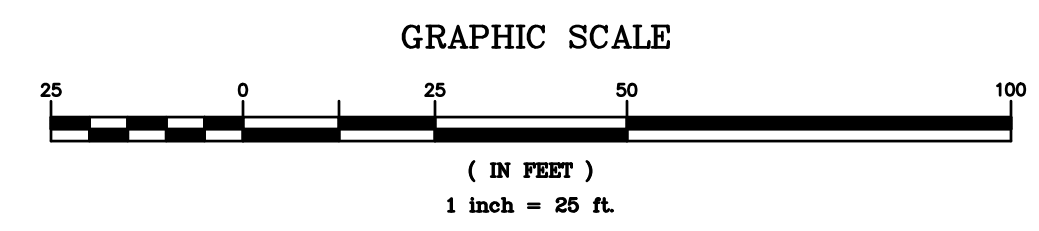
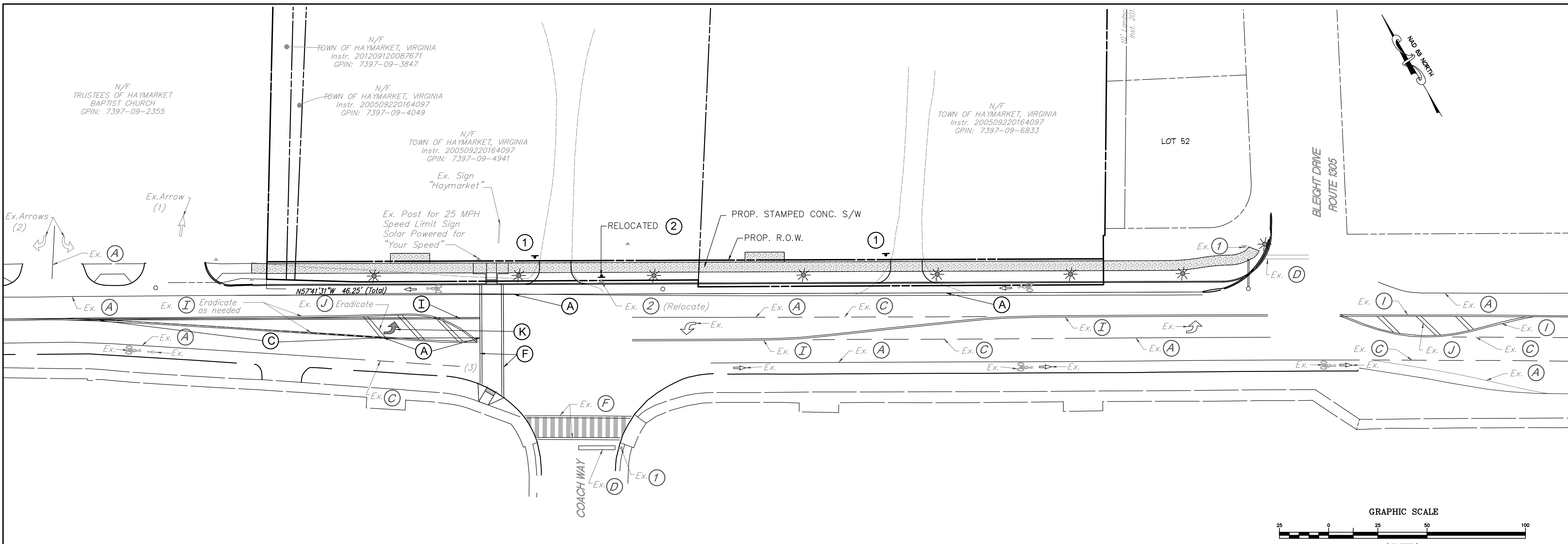
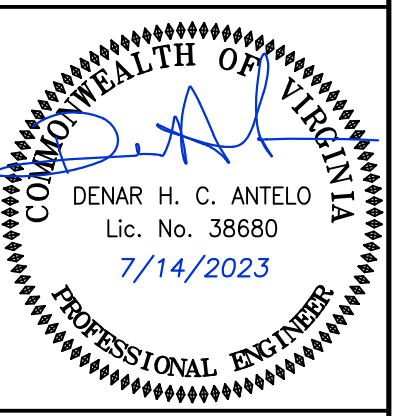
NO.	DATE	COUNTY REVISIONS

TRANSPORTATION MANAGEMENT PLAN
HAYMARKET TOWN PARK STREETSCAPE
 RFP: 2022-001
 TOWN OF HAYMARKET, VIRGINIA

THE ENGINEERING GROUPE INC.
 ENGINEERS | SURVEYORS | PLANNERS
 www.engineergroupe.com
 Central Office: 13580 Group Drive, Suite 200, Woodbridge, VA 22192, PH: 703.670.0985
 South Office: 10335 Southpoint Landing Blvd., Suite 121, 42795 Generation Drive, Suite 200, Precinct, VA 23067, PH: 703.670.0985
 West Office: 42795 Generation Drive, Suite 200, Precinct, VA 23067, PH: 703.670.0985

NO.	DATE	COUNTY REVISIONS

SIGNAGE & STRIPING PLAN
HAYMARKET TOWN PARK STREETSCAPE
RFP: 2022-001
 TOWN OF HAYMARKET, VIRGINIA

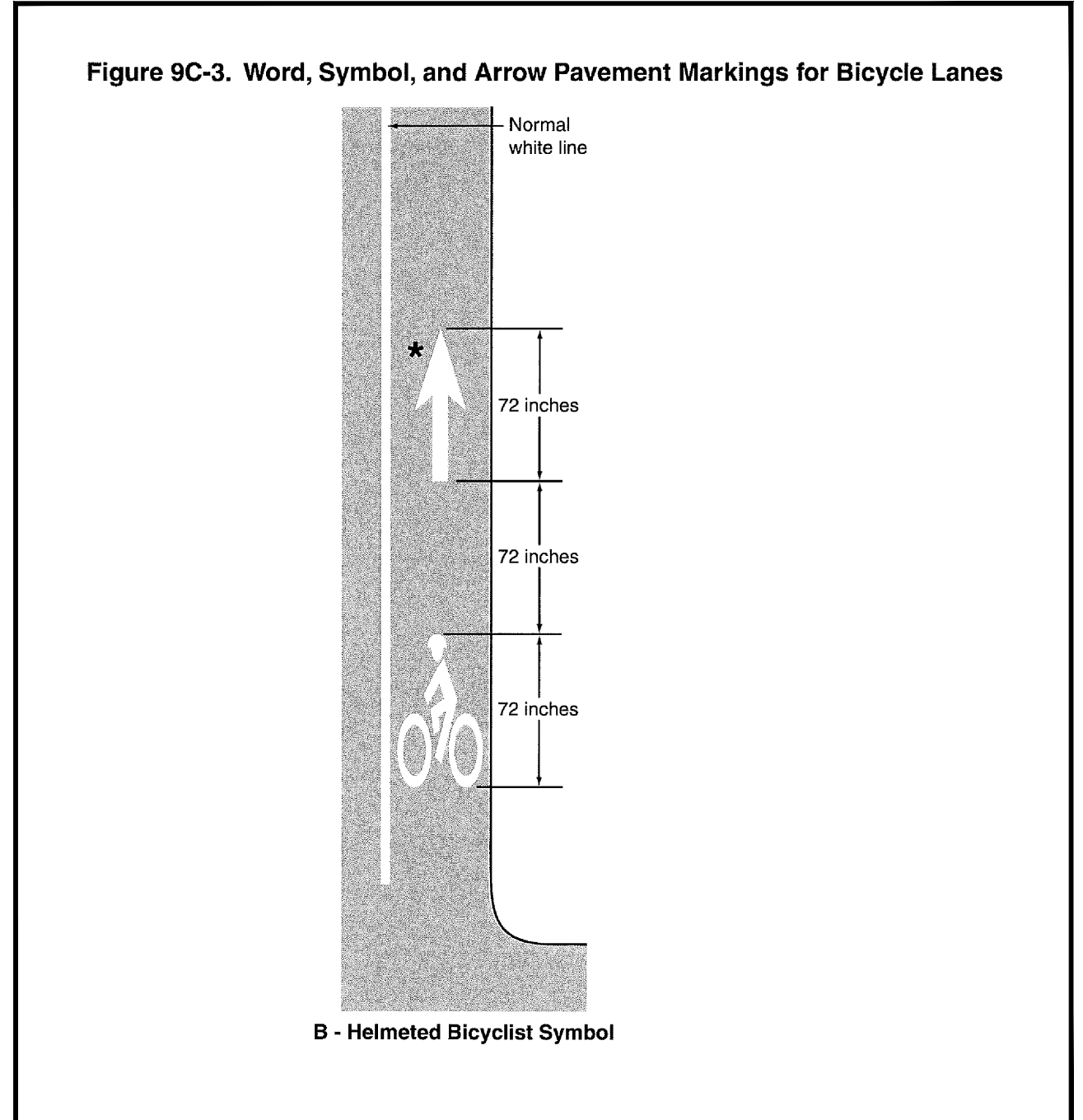
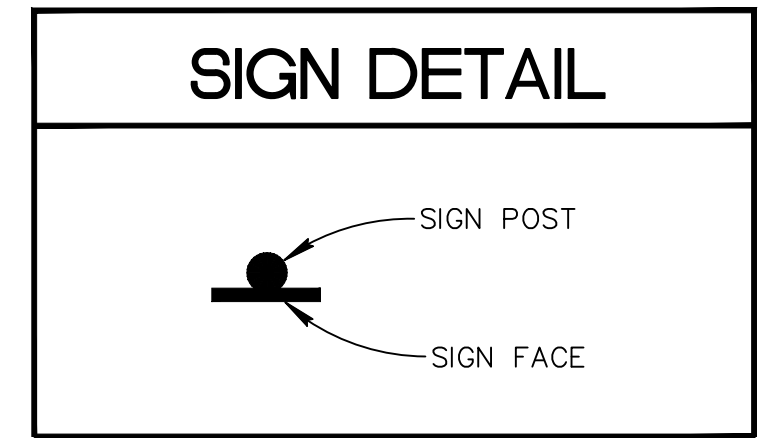


- ### NOTES
- ALL PROPOSED PAVEMENT MARKING AND SIGNING SHALL BE IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE FOLLOWING AND ANY REVISION THERETO:
 - ALL PAVEMENT MARKING SHALL BE TYPE B, UNLESS OTHERWISE NOTED.
 - PROPOSED SIGN LOCATIONS ARE APPROXIMATE AND SHALL BE MODIFIED IN THE FIELD TO AVOID CONFLICT WITH UNDERGROUND UTILITIES OR OTHER OBSTRUCTIONS AND TO COMPLY WITH STANDARDS REFERENCED IN NOTE #1.
 - ANY EXISTING PAVEMENT MARKINGS WHICH WILL CONFLICT WITH PROPOSED PAVEMENT MARKINGS SHALL BE COMPLETELY ERADICATED.
 - LIMITS SHOWN OF PROPOSED MARKINGS ARE APPROXIMATE AND SHALL BE MODIFIED IN THE FIELD TO INSURE THAT PROPOSED PAVEMENT MARKINGS CONTINUE UNTIL EXISTING PAVEMENT MARKINGS CAN BE MATCHED. REFER TO APPROVED TRAFFIC SIGNAL PLAN FOR PROPER LOCATIONS OF STOP LINES AND CROSSWALKS WHEN APPLICABLE.
 - CROSSWALKS SHALL BE STRIPED WITH HIGH VISIBILITY PAVEMENT MARKINGS IN ACCORDANCE WITH IM-TE-384.1.
 - PALL PAVEMENT MARKING AND SIGNS TO CONFORM TO WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC DEVICES (MUTCD).
 - THE DEVELOPER ACKNOWLEDGES THAT VDOT WILL NOT MAINTAIN ANY SIGNAGE OUTSIDE OF THEIR RIGHT OF WAY. DURING THE ACCEPTANCE PROCESS OF THE ROADWAY THE DEVELOPER WILL WORK WITH THE OWNERS OF PIEDMONT CENTER PLAZA TO SECURE AN AGREEMENT TO ALLOW FOR MAINTENANCE AND OPERATION OF THEIR LEG OF THE ROUNDABOUT.

- ### PAVEMENT MARKING LEGEND
- (A) TYPE B, CLASS 1, WHITE, 4" WIDTH.
 - (B) TYPE B, CLASS 1, WHITE, 4" WIDTH, 10' LONG, 30' GAP.
 - (C) TYPE B, CLASS 1, WHITE, 4" WIDTH 2' LONG, 10' GAP.
 - (D) TYPE B, CLASS 1, WHITE, 24" WIDTH.
 - (E) TYPE B, CLASS 1, WHITE, 24" WIDTH, 20' SPACING, 45 DEGREE ANGLE.
 - (F) TYPE B, CLASS 1, WHITE, 6" WIDTH.
 - (G) TYPE B, CLASS 1, WHITE, 8" WIDTH.
 - (H) TYPE B, CLASS 1, YELLOW, 4" WIDTH.
 - (I) TYPE B, CLASS 1, YELLOW, 4" WIDTH, DOUBLE LINE, SEPARATED BY A 4" SPACE.
 - (J) TYPE B, CLASS 1, YELLOW, 24" WIDTH, 20' SPACING, 45 DEGREE ANGLE.
 - (K) TYPE B, CLASS 1, WHITE, ELONGATED ARROW.
 - (L) TYPE B, CLASS 1, WHITE, WORD MESSAGE "ONLY"
 - (T) TYPE B, CLASS 1, WHITE, 24" WIDTH, 20' SPACING, 45 DEGREE ANGLE CHEVRON.

SIGN LEGEND

SIGN #	1	2	3
SIGN			
STD. #	R1-1	W1-7	R2-1
SIZE	30" X 30"	48" X 24"	24" X 30"



ENGINEERING GROUPE	PROJECT STATUS	DATE:	JULY 14, 2023
		SCALE:	1"=25'
		DESIGNER:	JM, R.A.P., J.B.
		DRAFTSMAN:	Y.Q.
		FILE NO.	PP-286
DATE	ACTION	SHEET	20 OF 22

EFFECTIVE DATE: March 1, 2022

PRINCE WILLIAM COUNTY DEPARTMENT OF DEVELOPMENT SERVICES - LAND DEVELOPMENT DIVISION UNIT PRICE LIST FOR PERFORMANCE BONDS, LANDSCAPE ESCROW S, SILTATION & EROSION CONTROL, ESCROW S, AND FLOODPLAIN ITEM ESCROW S

PROJECT NAME: Haymarket Town Park Streetscape P.W.C. FILE #: DATE PREPARED: July 12, 2023

NOTE: This form is to be used to estimate Performance Bond, Landscape Escrow, Siltation Erosion Escrow and Floodplain Item prices posted with Prince William County. These prices do not include items that are to be bonded separately with the Virginia Department of Transportation.

1. MOBILIZATION/DENOBILIZATION OF CONSTRUCTION EQUIPMENT

Table with columns: Mobilization/Demobilization, Lump Sum, \$15,000.00 (min.)

2. STORM DRAINAGE

A. STRUCTURES

Table with columns: QUANTITY, COST. Items include DE-1 through DI-2 with prices ranging from \$6,800.00 EA to \$68,000.00 EA.

B. CONCRETE PIPE

Table with columns: QUANTITY, COST. Items include 12" DIA. through 72" DIA. with prices ranging from \$82.00 LF to \$453.00 LF.

C. END WALLS

Table with columns: QUANTITY, COST. Items include 12" DIA. through 72" DIA. with prices ranging from \$1,950.00 EA to \$9,850.00 EA.

D. END SECTIONS (ES-1)

Table with columns: QUANTITY, COST. Items include 2 12" DIA. through 42-40" DIA. with prices ranging from \$1,048.00 EA to \$2,050.00 EA.

E. CORRUGATED METAL PIPES

Table with columns: QUANTITY, COST. Items include 60 12" DIA. through 60" DIA. with prices ranging from \$40.00 LF to \$250.00 LF.

F. END SECTION (ES-2)

Table with columns: QUANTITY, COST. Items include 2 15" DIA. through 48" DIA. with prices ranging from \$870.00 EA to \$1,800.00 EA.

G. AD-N-12 (HDPE)

Table with columns: QUANTITY, COST. Items include 12" DIA. through 60" DIA. with prices ranging from \$45.00 LF to \$250.00 LF.

H. STORMWATER MANAGEMENT/BMP FACILITIES COST ESTIMATES PER IMPERVIOUS ACRE TREATED (See note #3)

Table with columns: QUANTITY, ITEM, PRICE, COST. Lists various BMP facilities like Dry Retention Pond, Infiltration Practices, etc.

L. MISCELLANEOUS STORMWATER MANAGEMENT

Table with columns: QUANTITY, ITEM, PRICE, COST. Lists items like Seed, Fertilizer & Mulch, Sod, etc.

J. MISCELLANEOUS DRAINAGE ITEMS

Table with columns: QUANTITY, ITEM, PRICE, COST. Lists items like Box Culvert, Energy Dissipator, Wing Walls, etc.

3. CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY AND/OR PRIVATE INGRESS/EGRESS EASEMENTS

A. SITEWORK

Table with columns: QUANTITY, ITEM, PRICE, COST. Lists site work items like Clear & Grub, Excavation, etc.

B. SUBGRADE, SUBBASE AND BASE COURSE ITEMS

Table with columns: QUANTITY, ITEM, PRICE, COST. Lists subgrade and base course items like Subgrade preparation, Aggregate, etc.

VDOT BOND

Table with columns: QUANTITY, ITEM, PRICE, COST. Lists VDOT bond items like 355 12" Aggregate, 273 11.5" Bituminous Concrete, etc.

C. ENTRANCES AND PIPE ITEMS

Table with columns: QUANTITY, ITEM, COST. Lists entrance and pipe items like DE-1, DE-2, etc.

D. MISCELLANEOUS CONSTRUCTION ITEMS

Table with columns: QUANTITY, ITEM, COST. Lists miscellaneous construction items like Sidewalk, Curb & Gutter, Retaining Walls, etc.

4. SANITARY SEWER & WATER LINE CONSTRUCTION

Table with columns: QUANTITY, ITEM, COST. Lists sanitary sewer and water line construction items like Fire Hydrant Assembly, Central Sewer Lift/Pump Station, etc.

SANITARY SEWER PIPELINE (Exclusive of Manhole Structures)

Table with columns: QUANTITY, ITEM, COST. Lists sanitary sewer pipeline items like 1.5" DIA. thru 4" DIA. LPPM, 8" DIA. PVC, etc.

For sizes larger than 15" Dia., add \$4.60 per inch increase in diameter.

Summary table for Sanitary Sewer Pipe: Subtotal for Sanitary Sewer Pipe: \$0.00

TOTAL CONSTRUCTION COST = \$40,236.00

5. MISCELLANEOUS COSTS

Table with columns: A. Administrative Cost, B. Inflation Cost, TOTAL PERFORMANCE BOND AMOUNT: \$46,070.22

6. FLOODPLAIN ITEMS ESCROW

Table with columns: QUANTITY, ITEM, PRICE, COST. Lists floodplain items like LOMR, Elevation Certificate, LOMC, etc.

7. LANDSCAPING ESCROWS

Table with columns: QUANTITY, ITEM, COST. Lists landscaping items like Deciduous Trees, Evergreen Trees, Shrubs, etc.

8. SILTATION AND EROSION CONTROL ESCROWS

Table with columns: QUANTITY, ITEM, COST. Lists siltation and erosion control items like Diversion Dike, Silt Fence, etc.

TOTAL SILTATION & EROSION CONTROL ESCROW AMOUNT: \$26,403.30

Minimum acceptable amount for Siltation and Erosion Control Escrow is \$2,600.00

I hereby certify that the above is my best estimate of the quantities and current costs of bondable improvements, landscaping items, Siltation & Erosion Control Escrow and Floodplain items in this subdivision or site plan.

NOTES: 1. For items identified with "" the quantity for the embankment material is the net difference of total fill material needed and cut material available at the project site.

- 2. The excavation and embankment costs include the necessary grading, spreading, and/or compaction of soil in accordance with County and State Standards and Specifications.
3. The unit cost for each of the items in this Unit Price List is the installation cost which includes factors such as materials, excavation, bedding, backfilling, compaction, form work, etc.
4. Inflation has been calculated based on the Northern Virginia Consumer Price Index of the Washington D.C. area provided by the Bureau of Labor and Statistics.
5. Whoever certifies the site development plans must also certify the total cost of the bonded items, landscaping escrow and siltation and erosion control escrow and must sign of "Preparer's Signature" of this form.
6. Floodplain Items Escrow not to be part of Bond/Escrow reduction.

ENGINEERING GROUPE PROJECT STATUS

Table with columns: DATE, ACTION. Includes dates like JULY 14, 2023 and actions like SCALE, DESIGNER, etc.

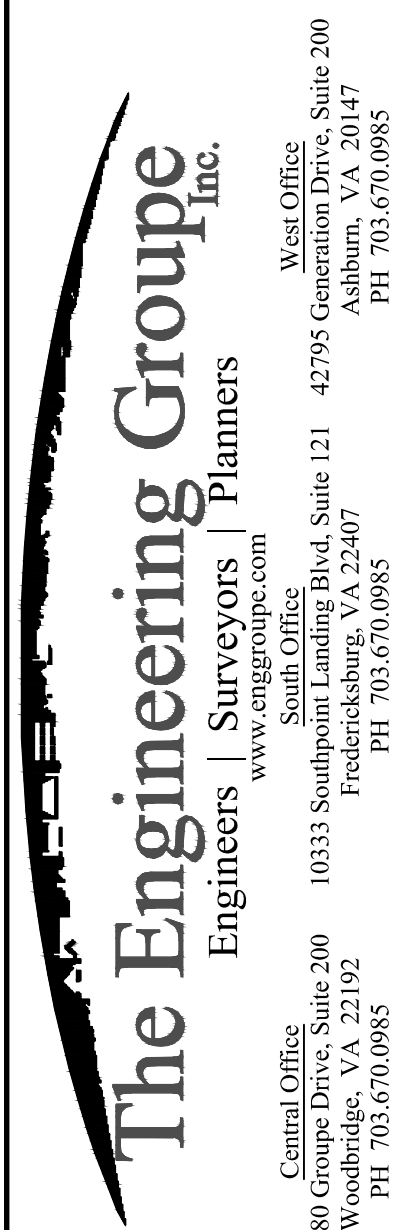


Table with columns: NO., DATE, COUNTY, REVISIONS. A grid for tracking revisions.

UNIT PRICE LIST HAYMARKET TOWN PARK STREETScape RFP: 2022-001 TOWN OF HAYMARKET, VIRGINIA

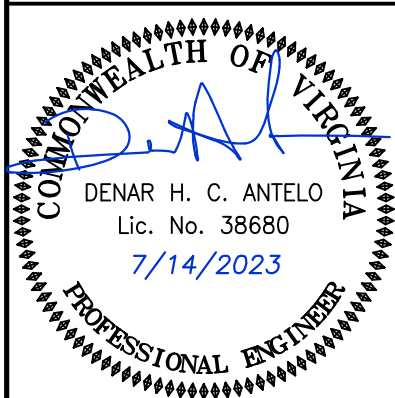


Table with columns: DATE, ACTION. Includes dates like JULY 14, 2023 and actions like SCALE, DESIGNER, etc.