

AMENDED SITE PLAN

* * *

FORK UNION FIRE TRAINING BUILDING SITE

* * *

SITE SUMMARY

CONTACT: BEN POWELL
PROJECT MANAGER
COUNTY OF FLUVANNA
132 MAIN ST.
PALMYRA, VA 22963

TELEPHONE NO: 434-960-9219
BPOWELL@FLUVANNACOUNTY.ORG

SITE ADDRESS: 5725 JAMES MADISON HIGHWAY
FLUVANNA COUNTY, VIRGINIA

ENGINEER: TRC ENGINEERS INC.
1030 WILMER AVE
RICHMOND, VA 23227

CONTACT: GREGORY A. SMITH, P.E.
TELEPHONE NO. 804-799-7711
EMAIL: GASMITH@TRCCOMPANIES.COM

PARCEL NO: TM 51-A-129

SITE COVERAGE: PROPOSED BUILDING AND ROAD 4% COVERAGE (0.39 AC./9.82 AC.)

TOTAL SITE AREA (PARCEL AREA): 9.82 AC

DISTURBED AREA: 0.98 AC

EXISTING IMPERVIOUS AREA: 5,207 SF

IMPERVIOUS AREA: 35,864 SF

PRESENT ZONING: I-1 (INDUSTRIAL, LIMITED)

PRESENT USE: COMMUNITY CENTER, PARKING, AND AMENITIES

PROPOSED USE: FIRE TRAINING BUILDING AND ACCESS ROAD

MAX. HEIGHT OF BUILDING: 60 FEET
(A PUBLIC OR SEMI-PUBLIC BUILDING MAY BE ERECTED TO A HEIGHT OF SIXTY FEET (60') FROM GRADE PROVIDED THAT REQUIRED FRONT, SIDE AND REAR YARD EACH SHALL BE INCREASED ONE FOOT (1') FOR EACH FOOT IN HEIGHT OVER FORTY-FIVE FEET (45').)

BUILDING SETBACK: BUILDINGS AND ACCESSORY USES SHALL BE LOCATED NOT LESS THAN ONE HUNDRED FEET (100') FROM ANY STREET RIGHT-OF-WAY. ALL PARKING LOTS SHALL BE LOCATED NOT LESS THAN FIFTY FEET (50') FROM ANY STREET RIGHT OF WAY. ALL PARKING LOTS SHALL BE LOCATED NOT LESS THAN TWENTY-FIVE FEET (25') FROM ANY STREET RIGHT OF WAY.

YARD SETBACK: WHEN PERMITTED USES ADJOIN AGRICULTURAL, RESIDENTIAL, OR BUSINESS DISTRICTS THE MINIMUM YARD REQUIREMENTS SHALL BE FIFTY FEET (50'). ALL PARKING LOTS SHALL BE LOCATED NOT LESS THAN TWENTY-FIVE FEET (25') FROM ANY RESIDENTIAL OR AGRICULTURAL DISTRICT.

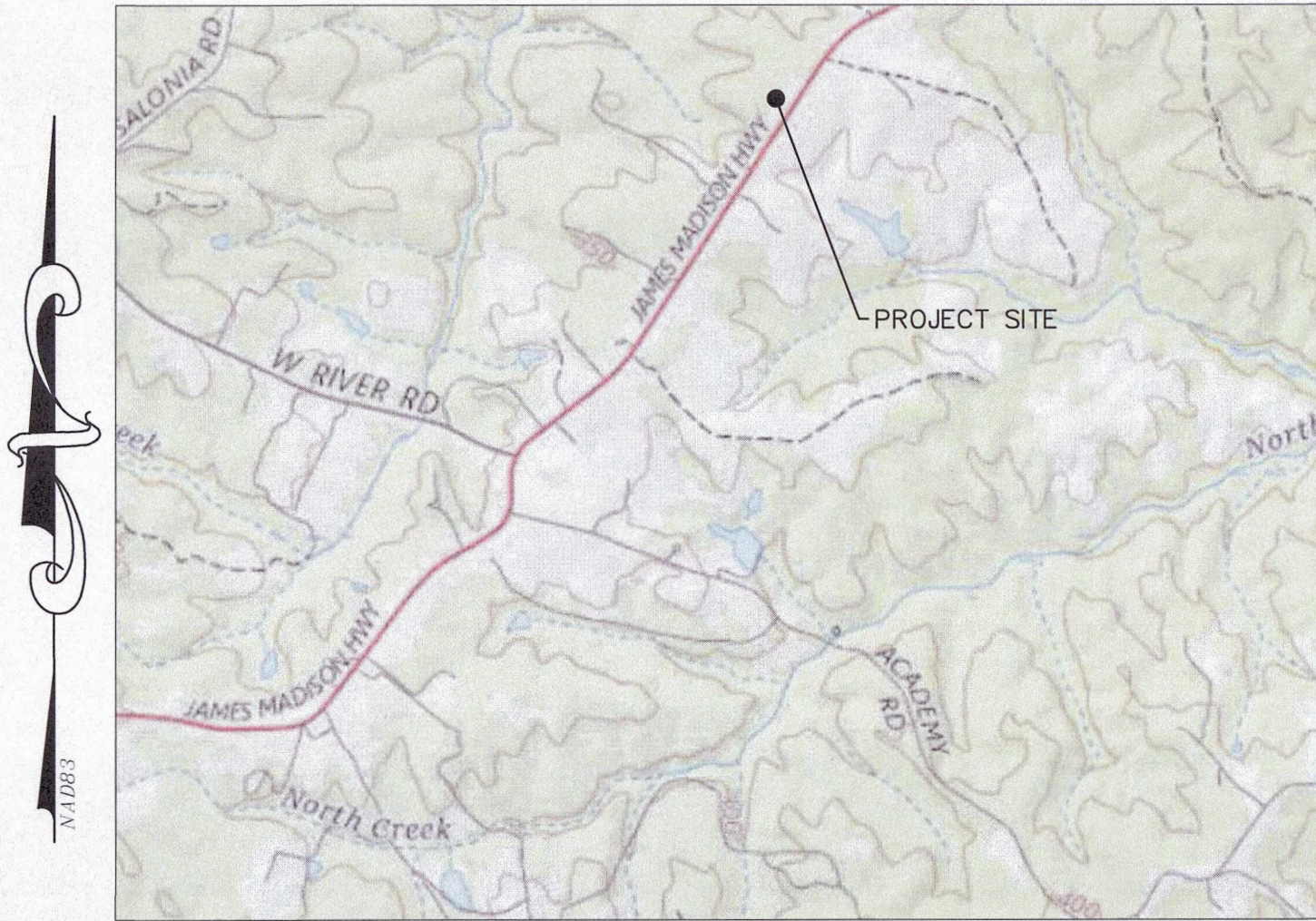
NOTES:

1. THE SITE PLAN FOR THIS PROJECT WAS PREVIOUSLY APPROVED. THIS SUBMISSION IS INTENDED TO UPDATE/AMEND THAT PLAN. THE ONLY CHANGES COMPARING THE EARLIER PLAN TO THIS SUBMISSION INCLUDE: REMOVAL OF WATER LINE & FIRE HYDRANT, ADJUSTING THE WIDTH OF THE GRAVEL LANE AROUND THE BUILDING, AND CHANGING THE BUILDING FROM STICK BUILT TO PRE-MANUFACTURED. THE IMPERVIOUS AREA DOES NOT CHANGE. THE LIMITS OF DISTURBANCE ARE REDUCED DUE THE ELIMINATION OF THE WATER LINE.

2. THE COUNTY INTENDS TO AWARD THE SITE WORK CONTRACT SEPARATELY FROM THE BUILDING CONTRACT. REFER TO THE COORDINATION NOTES ON SITE PLAN.

3. THE BASIS OF DESIGN FOR THE CONTAINERIZED FIRE TRAINING FACILITY IS BASED ON DRAGER SWEDE SURVIVAL. UPON SELECTION AND AWARD OF THE FIRE TRAINING FACILITY BY THE COUNTY, COORDINATE THE BUILDING SHAPE, LOCATION, ACCESS, FOUNDATIONS, CONCRETE APRON, AND ELECTRICAL CONNECTION WITH THE ENGINEER.

FLUVANNA COUNTY, VIRGINIA



VICINITY MAP

1"=2000'

PROJECT DESCRIPTION
THIS PROJECT CONSISTS OF A FIRE TRAINING BUILDING AND SITE IMPROVEMENTS, INCLUDING A BUILDING PAD AND A PAVED DRIVE TO THE SITE.

SHEET LIST	
NUMBER	TITLE
C1.0	COVER SHEET
C1.1	GENERAL NOTES AND ABBREVIATIONS
C1.2	EROSION & SEDIMENT CONTROL NOTES
C1.3	EROSION & SEDIMENT CONTROL NARRATIVE
C2.0	TOPOGRAPHIC SURVEY AND EXISTING CONDTONS
C3.0	DEMOLITION AND PHASE 1 E&SC PLAN
C4.0	SITE LAYOUT AND UTILITY PLAN
C4.1	FIRE TRUCK TURNING MOVEMENT EXHIBIT
C5.0	GRADING AND PHASE 2 E&SC PLAN
C5.1	PRE- & POST-DEVELOPMENT HYDROLOGY PLAN
C5.2	SWM CALCULATIONS AND DETAILS
C6.0	EROSION & SEDIMENT CONTROL DETAILS
C6.1	DETAILS
S0.1	GENERAL NOTES
S2.0	FOUNDATION PLAN & TYPICAL DETAILS
E1.0	ELECTRICAL LEGEND AND NOTES
E1.1	ELECTRICAL SCHEDULES
E2.1	ELECTRICAL PLAN
E2.2	ELECTRICAL PHOTOMETRICS PLAN
E6.1	ELECTRICAL ONE-LINE DIAGRAM AND PANEL SCHEDULES

Todd Fortune
DIRECTOR OF PLANNING

Todd Fortune
SIGNATURE

7/2/25
DATE

RESPONSIBLE LAND DISTURBER DESIGNATION	
THE PERSON IDENTIFIED BELOW IS DESIGNATED AS THE RESPONSIBLE LAND DISTURBER WHO WILL BE IN CHARGE OF AND RESPONSIBLE FOR CARRYING OUT THE LAND-DISTURBING ACTIVITY ASSOCIATED WITH THIS PROJECT. THIS PERSON MEETS THE APPLICABLE REQUIREMENTS OF SECTION 62.1-44.15:52 AND 62.1-44.15:55 OF THE CODE OF VIRGINIA BY VIRTUE OF THE FOLLOWING:	
<input checked="" type="checkbox"/> RESPONSIBLE LAND DISTURBER CERTIFICATE	
<input type="checkbox"/> DCR/DEQ CERTIFICATION FOR COMBINED ADMINISTRATOR, PROGRAM ADMINISTRATOR, PLAN REVIEWER, OR INSPECTOR	
<input type="checkbox"/> VIRGINIA PROFESSIONAL ENGINEER, LAND SURVEYOR, LANDSCAPE ARCHITECT, OR ARCHITECT	
RESPONSIBLE LAND DISTURBER CONTACT INFORMATION:	
NAME (SIGNATURE) <i>Gregory A. Smith</i>	DATE: 04/17/2025
NAME (PRINT) GREGORY A. SMITH	
CERTIFICATION/REGISTRATION NUMBER VA P.E LIC. #0402042512	
COMPANY TRC ENGINEERS, INC.	
MAILING ADDRESS 1030 WILMER AVE, RICHMOND, VA 23227	
TELEPHONE 804-241-4315	FAX
EMAIL GASMITH@TRCCOMPANIES.COM	

RESPONSIBLE LAND DISTURBER (RLD) FOR THE PURPOSES OF PLAN REVIEW IS GREGORY A. SMITH, P.E. OF TRC ENGINEERS, INC., PE#0402042512. CONTRACTOR TO PROVIDE THE RLD NAME AND CERTIFICATION NUMBER OF THE INDIVIDUAL OF RESPONSIBLE CHARGE PRIOR TO CONSTRUCTION.

TRC ENGINEERS INC. REVIEW

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

JOANNE LIN, EIT
NAME: PRINTED
PROJECT DESIGNER

Joanne Lin
SIGNATURE

04/17/2025
DATE

GREGORY A. SMITH, P.E.
NAME: PRINTED
PROJECT MANAGER / QAQC REVIEWER

Gregory A. Smith
SIGNATURE

04/17/2025
DATE



NOTE: CONTRACTOR TO CONTACT MISS UTILITY (811) IN ADVANCE OF PLANNED WORK. ADVANCE TIME PERIOD SHALL BE IN ACCORDANCE WITH CURRENT MISS UTILITY GUIDELINES (www.missutilityofvirginia.com).

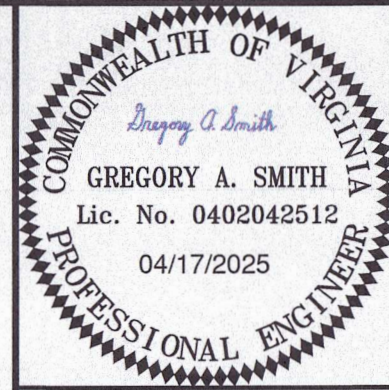
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APRIL 17, 2025

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TRC PROJECT #626503

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1030 Wilmer Avenue, Suite 100
Richmond, VA 23227
804-264-2228 Fax: 804-264-8773
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• Newport News, VA • Virginia Beach, VA



COVER SHEET
FORK UNION FIRE TRAINING
BUILDING SITE
FLUVANNA COUNTY, VIRGINIA

REVISIONS

DESIGNED BY: JL

DRAWN BY: JL

CHECKED BY: GAS

SCALE: NONE

DATE: APRIL 17, 2025

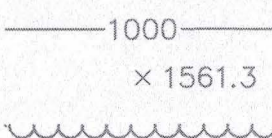
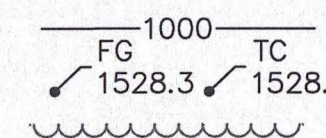

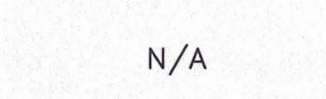

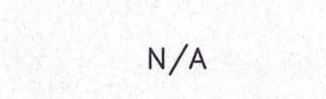



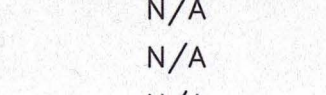









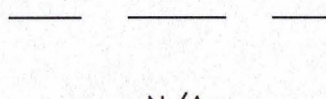
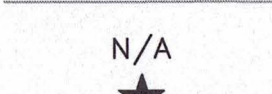
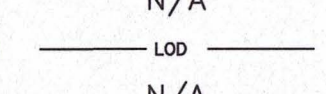
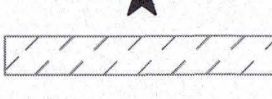
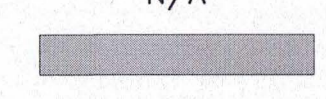


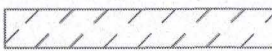

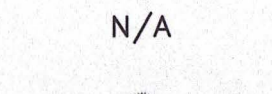
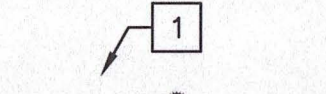














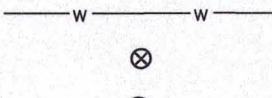
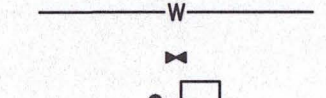




PROJECT NUMBER: 626503

C1.0

GENERAL NOTES

1. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM FLUVANNA COUNTY.
2. AS DISTURBANCE IS LESS THAN 1.0 AC, A VSMP PERMIT IS NOT REQUIRED.
3. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND AT HIS EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
4. ALL GRADING, PAVING MATERIALS, AND DRAINAGE STRUCTURES SHALL CONSTRUCTED IN ACCORDANCE WITH VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS, EXCEPT WHERE NEEDED OTHERWISE.
5. THE LOCATION OF EXISTING SEWER, WATER OR GAS LINES, CONDUITS OR OTHER STRUCTURES ACROSS, UNDERNEATH, OR OTHERWISE ALONG THE LINE OF PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS, AND IF SHOWN ARE ONLY APPROXIMATE. CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS, IF THERE APPEARS TO BE A CONFLICT, OR UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLANS. FOR ASSISTANCE IN LOCATING EXISTING UTILITIES CALL "MISS UTILITY", 1-800-552-7001.
6. ALL WATER CONSTRUCTION AND MATERIALS SHALL CONFORM WITH THE LATEST STANDARDS AND SPECIFICATIONS OF FORK UNION SANITATION DISTRICT.
7. DAMAGE TO UTILITIES (INCLUDING UNDERGROUND) OR PROPERTY OF OTHERS BY CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE-CONSTRUCTION CONDITIONS BY CONTRACTOR AT NO COST TO OWNER.
8. EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY CONTRACTOR (WHICH ARE NOT TO BE REMOVED) SHALL BE REPAIRED TO LIKE-NEW CONDITION.
9. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL DITCHES, PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURE IN OPERABLE CONDITION.
10. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED.
11. ALL PROPOSED UTILITIES ARE TO BE INSTALLED UNDERGROUND INCLUDING ELECTRIC, TELEPHONE AND CATV.
12. ALL UNDERGROUND UTILITIES (WATER, SANITARY SEWER, ELECTRICITY, TELEPHONE, ETC.) SHALL BE INSTALLED AND TESTED SATISFACTORILY PRIOR TO COMMENCING ANY PAVING OPERATIONS WHERE SUCH UTILITIES ARE WITHIN THE LIMITS OF PAVEMENT.
13. THE CONTRACTOR SHALL NOTIFY FLUVANNA COUNTY AT LEAST 24 HOURS PRIOR TO STARTING WORK ON THIS PROJECT.
14. ALL GROUND COVER AND LANDSCAPING SHALL BE PROPERLY MAINTAINED IN A HEALTHY CONDITION AT ALL TIMES. DEAD PLANT MATERIALS SHALL BE REMOVED IN A REASONABLE TIME AND REPLACED DURING THE NORMAL PLANTING SEASON.
15. UNLESS OTHERWISE NOTED, ALL CONCRETE PIPE SHALL BE REINFORCED CONCRETE PIPE, CLASS III.
16. ALL EXCAVATION FOR UNDERGROUND PIPE INSTALLATION MUST COMPLY WITH OSHA STANDARDS FOR THE CONSTRUCTION INDUSTRY (29 CFR PART 1926).
17. VERIFY THE PROPOSED LAYOUT WITH ITS RELATIONSHIP TO THE EXISTING SITE SURVEY. ALSO VERIFY ALL DIMENSIONS, SITE CONDITIONS, AND MATERIAL SPECIFICATIONS AND NOTIFY THE OWNER AND ENGINEER OF ANY ERRORS, OMISSIONS, OR DISCREPANCIES BEFORE COMMENCING OR PROCEEDING WITH WORK.
18. DEVIATIONS FROM, OR CHANGES TO THESE PLANS WILL NOT BE ALLOWED, UNLESS OTHERWISE APPROVED BY THE OWNER & ENGINEER.
19. MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UTILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO THE PLANS IF NECESSARY. THE EXISTENCE AND/OR LOCATION OF UTILITIES SHOWN ON THESE PLANS MAY BE ONLY APPROXIMATELY CORRECT. TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN HEREON AND ANY OTHER EXISTING UTILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. REPAIR AT YOUR OWN EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION. IF A UTILITY IS DAMAGED DURING CONSTRUCTION, STOP WORK IMMEDIATELY AND NOTIFY THE ENGINEER.
20. PROPERLY SECURE THE CONSTRUCTION AREA AT ALL TIMES AGAINST UNAUTHORIZED ENTRY AND ADEQUATELY PROTECT EQUIPMENT, MATERIALS, AND COMPLETED WORK FROM THEFT AND VANDALISM. THE OWNER IS NOT RESPONSIBLE FOR THE LOSS OF ANY MATERIAL STORED AT THE SITE.
21. ALL TURF AREAS THAT ARE IMPACTED OR DISTURBED BY VEHICLES, EQUIPMENT, OR ACTIVITY SHALL BE REPAIRED, REGRADED, AND RESEED TO THE SATISFACTION OF THE OWNER. ANY AREAS COMPACTED BY CONSTRUCTION TRAFFIC SHALL BE TILLED PRIOR TO SEEDING.
22. PERFORM ALL WORK USING DIMENSIONS SHOWN ON THESE PLANS. DO NOT USE SCALES, RULERS, DIVIDERS, MAP WHEELS OR OTHER MEASURING DEVICES TO DETERMINE SPATIAL RELATIONSHIPS ON THESE DRAWINGS.
23. ALL UNSUITABLE MATERIAL AS DETERMINED BY OWNER'S INSPECTOR SHALL BE REMOVED FROM THE CONSTRUCTION LIMITS OF PAVED AREAS.
24. CONCRETE DRAINAGE STRUCTURES MAY BE EITHER PRECAST OR CAST-IN-PLACE. ALL SHALL BE VDOT STANDARD (PER SECTION 100 OF THE ROAD AND BRIDGE STANDARDS.) ALL CONCRETE STRUCTURES SHALL HAVE IS-1 SHAPING IN ACCORDANCE TO VDOT STANDARDS.
25. ALL STORM SEWER SHALL BE DUAL WALL HDPE PIPE WITH SMOOTH INTERIOR AND CORRUGATED EXTERIOR WALLS MEETING AASHTO M252, TYPE S FOR 4" THROUGH 10" AND AASHTO M284, TYPE S FOR 12" THROUGH 60" OR PVC CORRUGATED SEWER PIPE WITH SMOOTH INTERIOR MEETING ASTM F949 OR REINFORCED CONCRETE PIPE, EXCEPT AS NOTED. MINIMUM COVER IN PAVED AREAS SHALL BE 2.0'.
26. ALL STORM SEWER SHALL HAVE A MINIMUM OF 6" AGGREGATE BEDDING MATERIAL.
27. THE PIPING SHOULD BE AWWA C900 WITH BELL AND SPIGOT ENDS, BEING THAT THIS IS A TRAINING FACILITY, MEGALUG MECHANICAL RESTRAINTS AT EACH PIPE JOINT TO PROTECT AGAINST WATER HAMMER. ALL FITTINGS (TEES, ELBOWS, END CAPS, HYDRANTS, VALVES, ETC.) SHOULD BE DUCTILE IRON WITH MEGALUG MECHANICAL RESTRAINTS. THRUST BLOCKS SHOULD BE PLACED (NOT POURED) BEHIND ALL TEES, ELBOWS, LINE ENDINGS, AND HYDRANT CONNECTIONS.
28. BURIED GATE VALVES SHOULD BE NON-RISING-STEM TO PROTECT AGAINST DEBRIS

GENERAL LEGEND

EXISTING		PROPOSED	
	1000 × 1561.3		1000 FG 1528.3 TC 1528.3
	CONTOURS GROUND ELEVATION TREE LINE		N/A
	DECIDUOUS TREE		N/A
	FENCE		N/A
	PROPERTY LINE/ROW		N/A
	IRON ROD FOUND		N/A
	IRON ROD SET		N/A
	MONUMENT FOUND		N/A
	MONUMENT SET		N/A
	BUILDING SETBACK		N/A
	100 YEAR FLOOD ZONE		N/A
	LIMITS OF CONSTRUCTION		N/A
	BENCHMARK		N/A
	BUILDING		N/A
	DEMOLITION KEY		N/A
	BOLLARD		N/A
	BOREHOLE		N/A
	STORM SEWER		N/A
	STORM CLEANOUT		N/A
	STORM MANHOLE		N/A
	STORM DRAINAGE INLET		N/A
	STORM STRUCTURE KEY		N/A
	WATER		N/A
	GATE VALVE		N/A
	LIGHT POLE		N/A

ABBREVIATIONS AND SYMBOLS

SYMBOLS

- ⊙ AT
- ⊕ CENTERLINE
- ⊖ PROPERTY LINE
- ⊗ DIAMETER
- ° DEGREE

ABBREVIATIONS

- A AREA
- AC ACRE(S)
- AWWA AMERICAN WATER WORKS ASSOCIATION
- BC BOTTOM OF CURB
- BLDG. BUILDING
- BOTT. BOTTOM
- CF CUBIC FEET
- CG CURB AND GUTTER
- C.I. CAST IRON
- CI CURB INLET
- CIP CAST IN PLACE
- CJ CONSTRUCTION JOINT
- CLR. CLEAR
- C.O. CLEANOUT
- CONC. CONCRETE
- CONT. CONTINUOUS
- CY CUBIC YARD(S)
- D.B. DEED BOOK
- D.I. DUCTILE IRON
- DI DROP INLET
- DIA. DIAMETER
- DS DOWNSPOUT
- EA. EACH
- E.F. EACH FACE
- ELEV. ELEVATION
- EOP EDGE OF PAVEMENT
- EX. EXISTING
- EXP. EXPANSION
- E.W. EACH WAY
- FC FACE OF CURB
- FF FINISHED FLOOR
- FL FLOW LINE
- FT FOOT (FEET)
- GA GAUGE

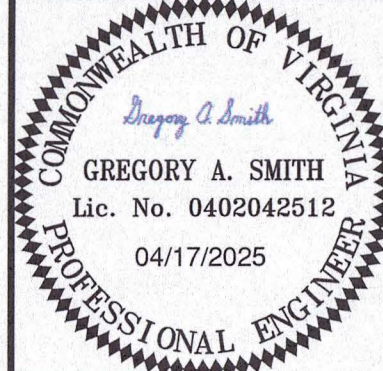
- GALV. GALVANIZED
- GS GROUND SHOT
- ID INSIDE DIAMETER
- INV. INVERT
- JT. JOINT
- LAT. LATERAL
- LB POUND
- LBS POUNDS
- LF LINEAR FOOT (FEET)
- MAT'L. MATERIAL
- MAX. MAXIMUM
- MFR. MANUFACTURER
- MH. MANHOLE
- MIN. MINIMUM
- M.J. MECHANICALLY JOINED
- O.C. ON CENTER
- OD OUTSIDE DIAMETER
- PB PARCEL BOOK
- PL PROPERTY LINE
- PSI POUNDS PER SQUARE INCH
- PT POINT OF TANGENCY
- PVC POLYVINYL CHLORIDE
- R RADIUS
- RCP REINFORCED CONCRETE PIPE
- RD ROOF DRAIN
- REQ'D. REQUIRED
- R/W RIGHT-OF-WAY
- S SLOPE
- SAN. SANITARY
- SF SQUARE FOOT (FEET)
- SPEC SPECIFICATION
- SPECS SPECIFICATIONS
- SQ. SQUARE
- STM STORM
- STD. STANDARD
- SW SIDEWALK
- SWM STORM WATER MANAGEMENT
- SY SQUARE YARD(S)
- TC TOP OF CURB
- TDC TURNED DOWN CURB
- TEMP. TEMPORARY
- TYP. TYPICAL
- UNO UNLESS NOTED OTHERWISE
- VAR. VARIABLE
- VDOT VIRGINIA DEPARTMENT OF TRANSPORTATION
- VESCH VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK
- WV WATER VALVE
- WWF WELDED WIRE FABRIC

GENERAL NOTES AND ABBREVIATIONS
FORK UNION FIRE TRAINING
BUILDING SITE
FLUVANNA COUNTY, VIRGINIA

REVISIONS

DESIGNED BY:	JL
DRAWN BY:	JL
CHECKED BY:	GAS
SCALE:	NONE
DATE:	APRIL 17, 2025
PROJECT NUMBER:	626503

C1.1



1030 Wilmer Avenue, Suite 100
Richmond, VA 23227
804-264-2228 Fax: 804-264-8773
www.daa.com

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• Charlottesville, VA • Northern Virginia
• Newport News, VA • Virginia Beach, VA



AN EROSION AND SEDIMENT CONTROL PLAN CONSISTENT WITH THE FOLLOWING CRITERIA, TECHNIQUES, AND METHODS SHALL BE SUBMITTED TO THE VESMP AUTHORITY OR VESCP AUTHORITY FOR REVIEW AND APPROVAL:

1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
2. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, IS MATURE ENOUGH TO SURVIVE, AND WILL INHIBIT EROSION.
4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS, AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
 - a. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.
 - b. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25-YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.
 - c. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
 - d. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME, OR SLOPE DRAIN STRUCTURE.
7. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
8. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
9. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
10. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT, AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
11. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
12. ALL APPLICABLE FEDERAL, STATE, AND LOCAL REQUIREMENTS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
13. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
14. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
 - a. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
 - b. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
 - c. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
 - d. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
 - e. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THIS CHAPTER.
 - f. APPLICABLE SAFETY REQUIREMENTS SHALL BE COMPLIED WITH.
15. WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRAFFIC ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
16. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE VESCP OR VESMP AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
17. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION, AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY, OR FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA: STREAM RESTORATION AND RELOCATION PROJECTS THAT INCORPORATE NATURAL CHANNEL DESIGN CONCEPTS ARE NOT MANMADE CHANNELS AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MANMADE CHANNELS:
 - a. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MANMADE RECEIVING CHANNEL, PIPE, OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
 - b. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
 - (1) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS 100 TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR
 - (2) (A) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS.
 - (b) ALL PREVIOUSLY CONSTRUCTED MANMADE CHANNELS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP THE STORMWATER'S BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND

1. THE CONTRACTOR SHALL COMPLY WITH THE CURRENT LAWS AND REGULATIONS FOR FLUVUANNA COUNTY AND THE COMMONWEALTH OF VIRGINIA BEFORE, DURING, AND AFTER CONSTRUCTION ON THE SITE. ALL MINIMUM STANDARDS AND SPECIFICATIONS REGARDING THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FOLLOWED BY THE CONTRACTOR.
2. A LAND DISTURBANCE PERMIT IS REQUIRED FOR THE PROJECT AND SHALL BE OBTAINED. A RESPONSIBLE LAND DISTURBER SHALL BE IDENTIFIED ON ALL LAND DISTURBANCE PERMITS. FAILURE TO COMPLY WITH ANY OF THESE REQUIREMENTS IDENTIFIED HERE WILL INITIATE A NOTICE TO COMPLY (NTC), NOTICE OF VIOLATION (NOV), STOP WORK ORDERS (SWO), CIVIL PENALTIES, OR NULLIFY THE PERMIT.
3. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND LAND DISTURBANCE PERMIT MUST BE MAINTAINED AT THE SITE FOR THE DURATION OF ALL CONSTRUCTION AND LAND-DISTURBING ACTIVITIES.
4. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL APPROVED MEASURES AS SHOWN ON THE APPROVED PLANS. ANY ADDITIONAL MEASURES DEEMED REQUIRED BY THE COUNTY OR DEP, DUE TO FIELD CONDITIONS, SHALL BECOME PART OF THE EROSION AND SEDIMENT CONTROL PLAN FOR THE PROPERTY. ALL FIELD CHANGES MUST BE APPROVED BY EITHER THE COUNTY, DEP OR ENGINEER PRIOR TO INSTALLATION. ALL APPROVED FIELD CHANGES SHALL BE SENT TO THE ENGINEERING DEPT. TO BE ATTACHED TO THE APPROVED PLAN.
5. DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
6. THE CONTRACTOR MAY NOT CHANGE OR ALTER ANY OF THE APPROVED MEASURES WITHOUT FIRST NOTIFYING THE COUNTY, DEP OR ENGINEER. FAILURE TO DO SO MAY RESULT IN A NOV, SWO, CIVIL PENALTIES, OR/OR REVOCATION OF THE LAND DISTURBANCE PERMIT.
7. THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL MEASURES TO PREVENT SOIL FROM ERODING ONTO ADJACENT PROPERTY, STREETS, DRAINAGE SYSTEMS, AND WATERWAYS. ALL DEVICES SHALL BE CLEANED OF SEDIMENT, MUD, DEBRIS, AND OTHER ERODED MATERIAL DURING THE SITE CLEARING AND DEVELOPMENT. INSPECTION OF ALL DEVICES SHALL BE AT A MINIMUM EVERY TWO (2) WEEKS AND REQUIRED AFTER EVERY RUNOFF PRODUCING EVENT. ALL INSPECTION AND MAINTENANCE ACTIVITIES SHALL BE DOCUMENTED AND AVAILABLE FOR REVIEW.
8. TEMPORARY AND PERMANENT SEEDING OPERATIONS SHALL BE INITIATED WITHIN SEVEN (7) DAYS AFTER REACHING FINAL GRADE OR UPON SUSPENSION OF GRADING OPERATIONS FOR AN ANTICIPATED DURATION OF GREATER THAN FOURTEEN (14) DAYS OR UPON COMPLETION OF GRADING OPERATIONS FOR A SPECIFIC AREA.
9. EROSION AND CONTROL MEASURES SHALL BE KEPT IN PLACE FOR THE DURATION OF THE SITE CLEARING AND CONSTRUCTION OPERATIONS AND AT A MAXIMUM FOR THE SPECIFIED TIME FOR EACH MEASURE AS IDENTIFIED IN THE VESC HANDBOOK, OR WHEN FULL STABILIZATION HAS OCCURRED FOR THE ENTIRE SITE. A FINAL INSPECTION BY THE COUNTY INSPECTOR SHALL DETERMINE WHEN THIS FACT IS ACCOMPLISHED AND ALL TEMPORARY MEASURES AND DEVICES CAN BE REMOVED.
10. THE CONTRACTOR SHALL MONITOR AND TAKE PRECAUTIONS TO CONTROL DUST AND OTHER AIR POLLUTANTS, INCLUDING BY NOT LIMITED TO USING WATER OR CHEMICALS, LIMITING THE NUMBER OF VEHICLES ALLOWED ON SITE, MINIMIZING THE OPERATING SPEED OF ALL VEHICLES, ETC. ALSO, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE DAILY SWEEPING OF PUBLIC RIGHT-OF-WAY SHOULD SEDIMENT ACCUMULATE ON PAVED SURFACES.
11. CONTRACTOR SHALL SUBMIT A SEPARATE EROSION AND SEDIMENT CONTROL PLAN FOR ANY OFF-SITE AREAS ASSOCIATED WITH THE LAND DISTURBANCE AND SOIL REMOVAL IDENTIFIED HEREIN. A SEPARATE SUBMITTAL IS NOT NECESSARY FOR THE FOLLOWING SITUATIONS:
 12. NO MATERIAL WILL BE HAULED OR TRANSPORTED OFF- SITE AND APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED AROUND ALL STOCKPILES AND STORAGE AREAS. OR
 13. ALL MATERIAL TO BE HAULED OR TRANSPORTED OFF- SITE WILL BE DEPOSITED AT A FEDERAL, STATE, AND LOCALLY APPROVED SITE. THE CONTRACTOR SHALL IDENTIFY ON THE PLANS WHAT DISPOSAL SITE WILL BE USED.
14. FOR ALL PROPOSED LAND DISTURBANCE ACTIVITIES THAT ARE ONE ACRE OR GREATER IN TOTAL AREA, A VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) PERMIT MUST FIRST BE OBTAINED FROM THE FLUVUANNA COUNTY DEPARTMENT OF ENGINEERING; THE "VSMP AUTHORITY", PRIOR TO ANY ACTUAL SOIL DISTURBANCE TAKING PLACE. FAILURE TO DO SO WILL RESULT IN THE ISSUANCE OF A NOTICE- OF-VIOLATION. IT IS THE OWNER'S AND/OR CONTRACTOR'S RESPONSIBILITY TO CONTACT THE FLUVUANNA COUNTY, DEPARTMENT OF ENGINEERING, FOR PERMIT DETAILS, APPLICATION, AND APPROVALS.
15. APPROVAL OF AN EROSION AND SEDIMENT CONTROL PLAN AND ACQUISITION OF A LAND DISTURBING PERMIT DOES NOT RELIEVE THE OWNER/DEVELOPER FROM OBTAINING APPLICABLE FEDERAL, STATE, AND OTHER LOCAL PERMITS, OR FROM COMPLYING WITH PERTINENT FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.

(A) PURSUANT TO SECTION 62.1-44.15:54 OF THE CODE OF VIRGINIA, LUVANNA COUNTY HEREBY ADOPTS THE REFERENCES, GUIDELINES, STANDARDS AND SPECIFICATIONS PROMULGATED BY THE VIRGINIA SOIL AND WATER CONSERVATION BOARD FOR THE EFFECTIVE CONTROL OF SOIL EROSION AND SEDIMENT DEPOSITION TO PREVENT THE UNREASONABLE DEGRADATION OF PROPERTIES, STREAM CHANNELS, WATERS AND OTHER NATURAL RESOURCES. SAID REGULATIONS, REFERENCES, GUIDELINES, STANDARDS AND SPECIFICATIONS ARE INCLUDED IN BUT NOT LIMITED TO THE "VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS," THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK" AND "VIRGINIA STORMWATER MANAGEMENT HANDBOOK" AS AMENDED.

(B) EXCEPT AS OTHERWISE PROVIDED IN THIS CHAPTER, NO PERSON MAY ENGAGE IN ANY LAND DISTURBING ACTIVITY UNTIL SUCH PERSON HAS SUBMITTED TO THE ADMINISTRATOR AN EROSION AND SEDIMENT CONTROL PLAN FOR SUCH LAND-DISTURBING ACTIVITY AND UNTIL THAT PLAN FOR SUCH LAND-DISTURBING ACTIVITY HAS BEEN REVIEWED AND APPROVED BY THE ADMINISTRATOR. UPON THE DEVELOPMENT OF AN ONLINE REPORTING SYSTEM BY THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY, THE ADMINISTRATOR SHALL OBTAIN EVIDENCE OF VIRGINIA STORMWATER MANAGEMENT PROGRAM PERMIT COVERAGE WHERE IT IS REQUIRED PRIOR TO PROVIDING APPROVAL TO BEING LAND DISTURBANCE.

(C) THE PROVISIONS OF THIS CHAPTER SHALL APPLY TO ALL INCORPORATED TOWNS WITHIN THE BOUNDARIES OF THE COUNTY, UNLESS THE GOVERNING BODY OF ANY SUCH TOWN HAS, BY APPROPRIATE ACTION, ADOPTED AN EROSION AND SEDIMENTATION CONTROL PROGRAM SPECIFIC TO ITS JURISDICTION.

(D) ELECTRIC, NATURAL GAS, AND TELEPHONE UTILITY COMPANIES, INTERSTATE AND INTRASTATE NATURAL GAS PIPELINE COMPANIES AND RAILROAD COMPANIES SHALL FILE GENERAL EROSION AND SEDIMENTATION CONTROL SPECIFICATIONS ANNUALLY WITH THE VIRGINIA SOIL AND WATER CONSERVATION BOARD FOR REVIEW AND WRITTEN COMMENTS.

(E) THE PROVISIONS OF THIS CHAPTER SHALL NOT APPLY TO STATE AGENCY PROJECTS, EXCEPT AS PROVIDED FOR IN SECTION 62.1-44.15:56 OF THE CODE OF VIRGINIA.

(F) A PLAN FOR WHICH LAND-DISTURBING ACTIVITIES INVOLVING LANDS UNDER THE JURISDICTION OF THE COUNTY AND ONE OR MORE OTHER LOCALITIES MAY, AT THE OPTION OF THE APPLICANT, BE SUBMITTED TO THE STATE DIVISION OF SOIL AND WATER CONSERVATION FOR THE REVIEW AND APPROVAL, RATHER THAN SUBMISSION TO EACH JURISDICTION CONCERNED. HOWEVER, IF THE APPLICANT CHOOSES TO SUBMIT HIS PLANS TO THE STATE DIVISION OF SOIL AND WATER CONSERVATION RATHER THAN THE LOCAL JURISDICTION HE SHALL NOTIFY, BY CERTIFIED MAIL, THE ADMINISTRATOR OF HIS INTENTION AT THE SAME TIME OF SUBMITTAL.

(G) THE REQUIREMENTS OF THIS CHAPTER SHALL BE INTEGRATED AND IMPLEMENTED IN CONJUNCTION WITH ANY PROJECT REQUIRING COMPLIANCE PRIOR TO ANY LAND DISTURBING ACTIVITY, INCLUDING SUBDIVISIONS, SITE PLANS, AND ANY OTHER PLANS OF DEVELOPMENT; THOSE PROJECTS WITHIN THE FLOOD HAZARD OVERLAY DISTRICT ESTABLISHED IN THE ZONING ORDINANCE, CHAPTER 2 OF THIS CODE; AND ANY DAM BREAK INUNDATION ZONE THAT HAS BEEN MAPPED AS PROVIDED IN SECTION 10.1-606.3 OF THE CODE OF VIRGINIA.

AS STATED UNDER MS-19 SECTION N), "COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-875-860 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSPM) PERMIT REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF MINIMUM STANDARD 19. THE CHANNEL PROTECTION CRITERIA 9VAC25-875-600(B)(3) WAS MET AS THE ENERGY BALANCE CALCULATION SET OUT ON SHEET C5.2 FOR THE CHANNEL PROTECTION CRITERIA 9VAC25-875-600(C)(2)(B) WAS MET AS THE 10-YR POST-DEVELOPMENT PEAK FLOW WAS REDUCED FROM THE PRE-DEVELOPMENT PEAK FLOW, SEE CALCULATION ON SHEET C5.2.

SEE SHEET C5.2 FOR OUTLET PROTECTION SIZING AND ADDITIONAL CALCULATIONS AND DETAILS FOR THIS APPROACH TO COMPLIANCE FOR VIRGINIA EROSION AND SEDIMENT CONTROL MINIMUM STANDARD MS-19.

EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION

PROPOSED FIRE TRAINING BUILDING INCLUDING SITE GRADING AND INFRASTRUCTURE IMPROVEMENTS ON AN EXISTING 9.82 AC. LOT IN FLUVANNA COUNTY, VIRGINIA.

EXISTING CONDITIONS

APPROXIMATELY ONE—THIRD OF THE PARCEL CONTAINS THE FLUVANNA COUNTY PARKS AND REC DEPARTMENT/COMMUNITY CENTER. THE WESTERN TWO—THIRDS WAS PREVIOUSLY CLEARED AROUND 2019 AND IS VACANT. THE SITE SLOPES TOWARD AN EXISTING CONCRETE DITCH AND MANMADE CHANNEL AT THE NORTH WESTERN END OF THE PROPERTY AT A APPROXIMATE SLOPE OF 3%.

SOILS

THE SOILS ON THE SITE, PER USDA NRCS SOIL MAPPING, ARE CLASSIFIED AS AK—APPLYING SANDY LOAM, UNDULATING PHASED, HYDROLOGIC SOIL GROUP (HSG) "B".

ADJACENT AREAS

THE SUBJECT PROPERTY IS BORDERED BY A WOODED LOT TO THE SOUTH—WEST; FIRE STATION OWNED BY THE COUNTY TO THE NORTH—EAST; AND A CLEARED LOT TO THE NORTH—WEST.

CRITICAL EROSION AREAS

THERE ARE NO CRITICAL EROSION AREAS IDENTIFIED FOR THIS SITE.

STOCKPILING

TEMPORARY SOIL STOCKPILE AREA(S) WILL BE LOCATED ON THE SITE (SEE SHEET C3.0 FOR LOCATION). CARE SHALL BE TAKEN TO ENSURE PROPER EROSION AND SEDIMENTATION CONTROL OF THE SITE AT ALL TIMES.

STRUCTURAL PRACTICES

- TEMPORARY CONSTRUCTION ENTRANCE — C—SCM—03**
A STONE PAD, LOCATED AT THE POINT OF VEHICULAR INGRESS AND EGRESS TO THE CONSTRUCTION SITE. THE PURPOSE IS TO PREVENT OR REDUCE THE AMOUNT OF MUD TRANSPORTED TO THE PUBLIC ROAD. SEDIMENT DISLODGED OR WASHED FROM THE VEHICLE SHOULD BE CONTAINED WITHIN A PROPER SEDIMENT TRAPPING AREA. ALL VEHICLES ENTERING AND EXISTING A DISTURBED AREA SHALL USE THE ENTRANCE.
- SUPER SILT FENCING (WITH WIRE BACKING) — C—PCM—04**
TO BE INSTALLED DOWN SLOPE OF DISTURBED AREAS TO FILTER SEDIMENT LADEN RUNOFF.
- INLET PROTECTION — C—SCM—04**
TO BE INSTALLED ON EXISTING INLETS PRIOR TO CONSTRUCTION AND ALL PROPOSED INLETS AS THEY ARE INSTALLED TO FILTER SEDIMENT LADEN RUNOFF BEFORE ENTERING STORM DRAIN INLETS AND PIPING SYSTEMS.
- TEMPORARY DIVERSION DIKE — C—FCM—04**
WHEREVER STORMWATER RUNOFF MUST BE TEMPORARILY DIVERTED TO PROTECT DISTURBED AREAS AND SLOPES OR RETAIN SEDIMENT ON SITE DURING CONSTRUCTION. THESE STRUCTURES GENERALLY HAVE A LIFE EXPECTANCY OF 18 MONTHS OR LESS, WHICH CAN BE PROLONGED WITH PROPER MAINTENANCE.

OUTLET PROTECTION — C—FCM—15

OUTLET PROTECTION APPLICABLE TO THE OUTLETS OF ALL PIPES AND ENGINEERED CHANNEL SECTIONS.

- TREE PROTECTION — C—SSM—01**
TEMPORARY FENCE TO BE INSTALLED AROUND TREES OR VEGETATION TO REMAIN TO PREVENT DAMAGE DURING CONSTRUCTION. THE FENCING SHALL BE INSTALLED ALONG THE DRIP LINE OF THE TREE WHERE POSSIBLE. NO CONSTRUCTION TRAFFIC OR STORAGE OF MATERIALS IS ALLOWED WITHIN THE FENCING.

VEGETATIVE PRACTICES

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

- TOPSOILING — C—SSM—02**
A 2" TO 4" LAYER OF TOPSOIL SHALL BE APPLIED TO ALL LANDSCAPED AND GRASSED AREAS. THE TOPSOIL SHALL BE FREE OF ROCKS AND DEBRIS. TOPSOIL ALLOWS A STRONGER AND HEALTHIER STAND OF GRASS TO ESTABLISH QUICKLY TO STABILIZE UNPAVED AREAS OF THE SITE.
- TEMPORARY SEEDING — C—SSM—09**
TEMPORARY SEEDING SHALL BE APPLIED OVER ALL DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN 14 DAYS. AREAS SHALL BE RESEDED AS REQUIRED TO MAINTAIN A HEALTHY STAND OF VEGETATION WHICH IS CAPABLE OF PREVENTING EROSION. TEMPORARY SEEDING MIXES AND MAINTENANCE PROCEDURES SHALL BE AS DESCRIBED IN VESCH STD. & SPEC. 3.31.
- PERMANENT SEEDING — C—SSM—10**
PERMANENT SEEDING SHALL BE APPLIED TO ALL AREAS WITHIN SEVEN (7) DAYS OF ACHIEVING FINAL GRADE WHICH WILL NOT RECEIVE HARDSCAPE OR OTHER LANDSCAPE. PERMANENT SEEDING SHALL ALSO BE USED ON ALL AREAS NOT AT FINAL GRADE BUT WILL BE LEFT DORMANT FOR A PERIOD OF MORE THAN ONE (1) YEAR. IF CONFLICTS EXIST BETWEEN THE PROJECT SPECIFICATIONS AND THE VESCH STD. & SPEC. 3.32, THE MORE STRINGENT REQUIREMENT SHALL APPLY. PERMANENT SEEDING MIXES AND RATES, SOIL TESTING REQUIREMENTS AND MAINTENANCE PROCEDURES ARE FOUND IN VESCH STD. & SPEC. 3.32.
- MULCHING — C—SSM—11**
APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIALS TO THE SOIL SURFACE TO PREVENT EROSION BY PROTECTING THE SOIL SURFACE FROM RAINDROP IMPACT AND REDUCING THE VELOCITY OF OVERLAND FLOW. IT IS ALSO USED TO FOSTER THE GROWTH OF VEGETATION BY INCREASING AVAILABLE MOISTURE AND PROVIDING INSULATION AGAINST EXTREME HEAT AND COLD. MULCHING WILL BE APPLIED THROUGHOUT CONSTRUCTION ON DENUDED AREAS. APPLICATION RATES AND MULCHING TYPES ARE FOUND IN VESCH STD. & SPEC. 3.35.

- DUST CONTROL — C—SCM—01**
DUST CONTROL MEASURES SHALL BE USED OVER THE ENTIRE SITE TO REDUCE SURFACE AND AIR MOVEMENT OF DUST DURING LAND DISTURBANCE, DEMOLITION, AND CONSTRUCTION ACTIVITIES.

MANAGEMENT STRATEGIES

- CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
- THE CONSTRUCTION ENTRANCE, THE PROPOSED SILT FENCES, TREE PROTECTION AND INLET PROTECTION MUST BE INSTALLED FIRST WITH MINIMAL AMOUNTS OF CLEARING AND GRADING.
- STOCKPILES SHALL BE PROTECTED WITH SILT FENCING AT ALL TIMES AND SEEDDED IF LEFT TO REMAIN ON THIS SITE FOR A PERIOD OF MORE THAN 14 DAYS.

- TEMPORARY SEEDING OR OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER GRADING.
- THE CONTRACTOR (JOB SUPERINTENDENT) SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
- WITHIN 30 DAYS AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED ONLY WITH THE APPROVAL OF THE ENVIRONMENTAL INSPECTOR.

PERMANENT STABILIZATION

PERMANENT STABILIZATION SHALL BE APPLIED TO ALL DISTURBED AREAS THAT ARE TO BE LEFT DORMANT FOR A YEAR OR MORE. ALL AREAS WITHIN THE LIMITS OF DISTURBANCE SHALL BE STABILIZED WITH PERMANENT SEEDING, LANDSCAPING OR PAVEMENT FOLLOWING THE FINAL GRADING (SEE PERMANENT SEEDING TABLE SHEET C6.0).

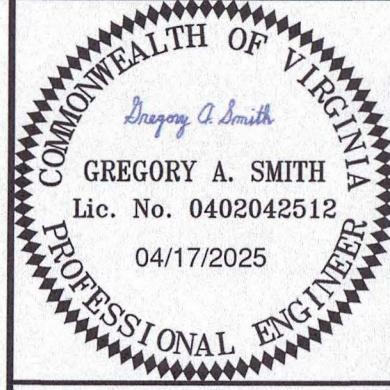
EROSION CONTROL SEQUENCE OF CONSTRUCTION

- INSTALL TEMPORARY STONE CONSTRUCTION ENTRANCE.
- INSTALL PERIMETER EROSION CONTROL DEVICES LOCATED WITHIN THE LIMITS OF LAND DISTURBANCE. CONTACT FLUVANNA COUNTY EROSION CONTROL INSPECTOR FOR INSPECTION PRIOR TO COMMENCING ANY LAND DISTURBANCE. LAND DISTURBANCE MAY NOT OCCUR UNTIL THE INSTALLATION OF THE INITIAL EROSION & SEDIMENT CONTROL MEASURES HAS BEEN APPROVED BY THE ENVIRONMENTAL INSPECTOR.
- BEGIN SITE DEMOLITION ACTIVITIES INCLUDING TREE REMOVAL AND SELECTIVE SITE DEMOLITION ACTIVITIES PER COORDINATION WITH APPROPRIATE AUTHORITIES AND UTILITY OWNER'S.
- ADJUST ALL EROSION CONTROL DEVICES AS NECESSARY IN ORDER TO MAINTAIN PROPER FUNCTION AND EACH DEVICE SHALL BE MAINTAINED AS NECESSARY TO PROMOTE CORRECT OPERATION.
- CONSTRUCT PHASE 1 INFRASTRUCTURE (INCLUDING INLET PROTECTION) & UNDERGROUND UTILITIES.
- BEGIN PHASE 2 OF THE EROSION CONTROL PLAN AND COMPLETE CONSTRUCTION OF THE PAVEMENT, BUILDING, AND SITE IMPROVEMENTS.
- STABILIZE SITE DURING AND AT THE CONCLUSION OF CONSTRUCTION PER VESCH STDs.
- AFTER ALL UPSLOPE AREAS HAVE BEEN STABILIZED, AND ONLY WITH THE APPROVAL OF THE FLUVANNA COUNTY EROSION CONTROL INSPECTOR, REMOVE ALL REMAINING EROSION CONTROL DEVICES.

MAINTENANCE

PRIOR TO ANY LAND DISTURBING ACTIVITY, A LAND DISTURBANCE/VPDES PERMIT MUST BE SECURED. IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED PER THE REQUIREMENTS OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) CONSTRUCTION GENERAL PERMIT (CGP). DURING CONSTRUCTION, THE CONTRACTOR'S DESIGNATED RLD WILL BE RESPONSIBLE FOR INSPECTIONS AND REPAIR OF DAMAGED EROSION/SEDIMENT CONTROL MEASURES. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

- THE STONE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD OFF OF THE SITE. THE STONE MAY NEED TO BE WASHED AND REWORKED OR ADDITIONAL STONE ADDED TO ENSURE THE ENTRANCE IS PROPERLY FUNCTIONING.
- THE SILT FENCE, TREE PROTECTION AND INLET PROTECTION BARRIERS SHALL BE CHECKED FOR UNDERMINING AND DETERIORATION OF OR DAMAGE TO THE FABRIC. DAMAGES SHALL BE IMMEDIATELY REPAIRED. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES ONE HALF THE HEIGHT OF THE BARRIER.
a. LOW POINTS IN THE SILT FENCE SHALL BE CHECKED FOR DAMAGE CAUSED BY PONDING WATER. IF DAMAGE IS FOUND, ADDITIONAL ROWS OF SILT FENCE SHALL BE PLACED BEHIND AND PARALLEL TO THE PRIMARY ROW AT INCREMENTS OF ONE FOOT AS REQUIRED.
b. SILT FENCE 'DAMS' INSTALLED PERPENDICULAR TO THE PRIMARY RUN TO SLOW RUNOFF ALONG THE SILT FENCE SHALL BE CHECKED FOR SCOUR AROUND THE EDGE. IF SCOURING IS OBSERVED, ADDITIONAL SECTIONS ARE TO BE PLACED UPHILL IN SMALLER INCREMENTS AS NEEDED.
- THE STORM DRAIN INLET PROTECTION SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED ONCE IT HAS REACHED ONE HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FOR THE BLOCKS, CLEANED AND/OR REPLACED.
- THE SEEDED AND MULCHED AREAS SHALL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEDED AS NEEDED. REFER TO ESC TECHNICAL BULLETIN #4. PROVIDE REMEDIAL STABILIZATION AND SEEDING FOR A PERIOD OF ONE YEAR AFTER CONSTRUCTION.



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EROSION & SEDIMENT CONTROL NARRATIVE
FORK UNION FIRE TRAINING
BUILDING SITE
FLUVANNA COUNTY, VIRGINIA

REVISIONS

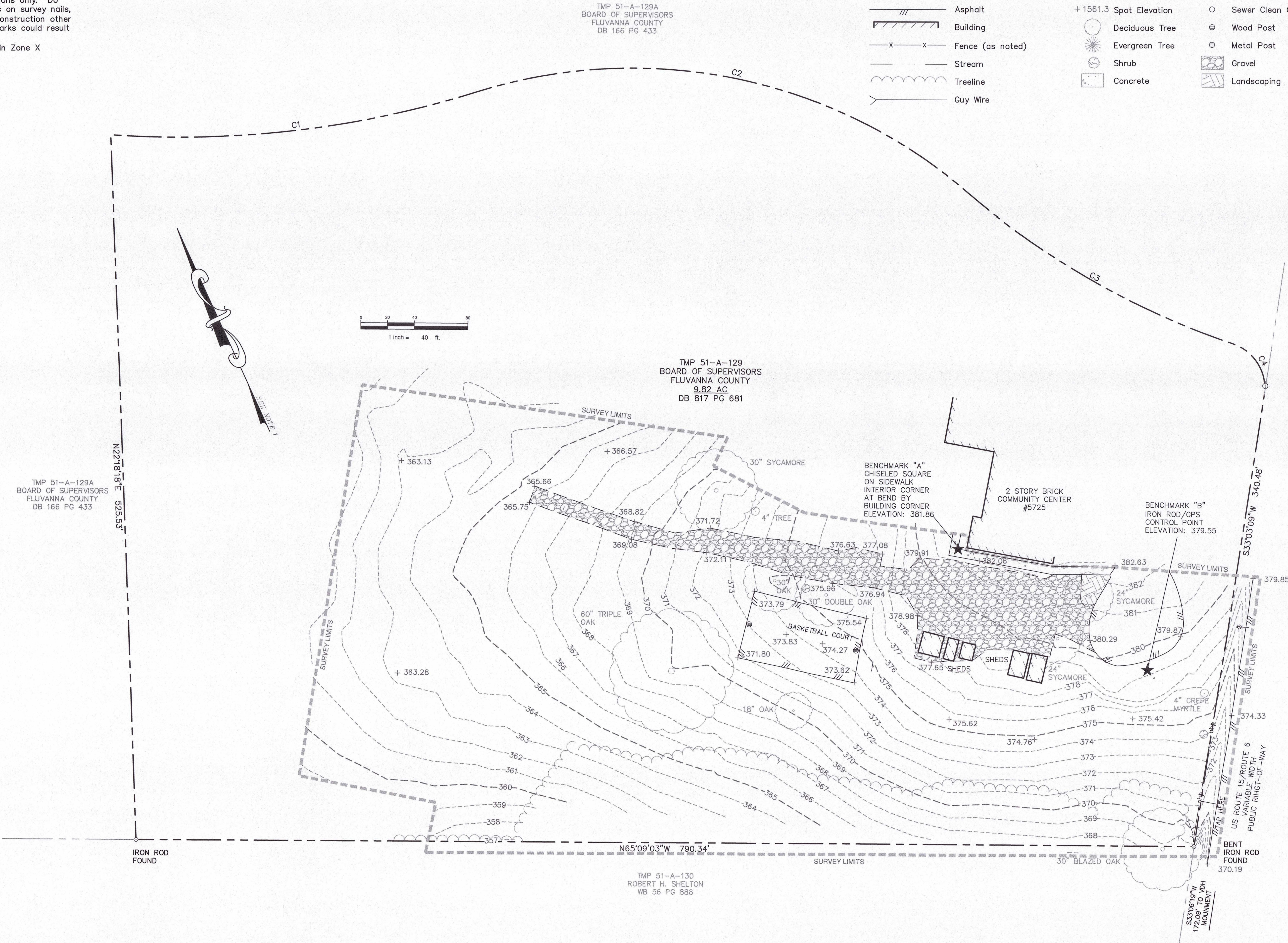
DESIGNED BY:	JL
DRAWN BY:	JL
CHECKED BY:	GAS
SCALE:	NONE
DATE:	APRIL 17, 2025
PROJECT NUMBER:	626503

C1.3

NOTES:

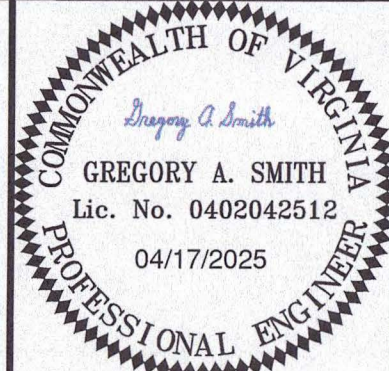
- 1.) Source of Meridian: Virginia State Plane GRID North NAD 83 South Zone based upon GPS Observation performed on February 28, 2019.
- 2.) Vertical datum: NAVD 88 based upon GPS Observation performed on February 28, 2019.
- 3.) This survey was prepared without the benefit of a title commitment or title report and all easements and encumbrances that might be disclosed in a title search may not be shown.
- 4.) Utilities shown are based upon:
SUE Quality Level D, ASCE 38-02 - compiled records only
SUE Quality Level C, ASCE 38-02 - visible evidence in conjunction with compiled records.
SUE Quality Level B, ASCE 38-02 - field designation of underground utilities performed by (DAA; Miss Utility, Ticket # _____; Other) and visible evidence in conjunction with compiled records.
- SUE Quality Level A, ASCE 38-02 - test pits at locations shown hereon performed by (DAA; Other) in conjunction with field designation of underground utilities performed by (DAA; Miss Utility, Ticket # _____; Other), visible evidence and compiled records.
- X No SUE was performed or requested for this survey. Utilities shown hereon are based on field observation only.
- 5.) This Topographic Survey of Fork Union Fire Training Building Site was completed under the direct and responsible charge of Cheryl Stockton from an actual Ground survey made under my supervision; that the imagery and/or original data was obtained on March 29, 2019; and that this plot and/or map meets minimum accuracy standards unless otherwise noted.
- 6.) Contour interval: 1'.
- 7.) This survey was prepared for the County of Fluvanna. Draper Aden Associates assumes no liability for reuse or modification of this document.
- 8.) No current field run boundary survey was performed. Property lines shown hereon are compiled from record information.
- 9.) Draper Aden Associates provides benchmarks for the construction of the improvements shown on these plans. All other existing elevations are for reference to existing conditions only. Do not use spot elevations, finish floor elevations, elevations on manholes, elevations on survey nails, survey hubs, control points (horizontal points provided) or any other points for construction other than the provided benchmarks. Failure to utilize and verify the provided benchmarks could result in damages and additional cost that are the contractor's responsibility.
- 10.) The subject property shown hereon appears to be situated in FEMA Floodplain Zone X (Unshaded) per FIRM 51065C0125C May 16, 2008.

CURVE TABLE						
CURVE	RADIUS	ARC LENGTH	DELTA ANGLE	CHORD LENGTH	CHORD BEARING	
C1	741.20'	277.58'	21°27'27"	275.96'	S72°13'07"E	
C2	384.26'	388.98'	58°00'00"	372.59'	S53°56'51"E	
C3	597.96'	229.60'	22°00'00"	228.19'	S35°56'51"E	
C4	35.00'	48.87'	80°00'00"	45.00'	S06°56'51"E	



LEGEND

- Property Line
- Contour
- Gas Line
- Overhead Power
- Sanitary Sewer and Manhole
- Storm Line and Manhole
- Storm Line and Inlet
- Underground Cable TV
- Underground Electric
- Underground Telephone
- Underground Fiber Optic
- Unknown Utility
- Waterline
- Asphalt
- Building
- Fence (as noted)
- Stream
- Treeline
- Guy Wire
- Rod Found
- Monument Found
- Telephone Pedestal
- Telephone Manhole
- Telephone Box
- Fire Hydrant
- Water Valve
- Water Meter
- Well
- Benchmark
- Bollard
- Sign (1-post)
- Sign (2-post)
- Spot Elevation
- Deciduous Tree
- Evergreen Tree
- Shrub
- Concrete
- Electric Box
- Guy Pole
- Electric Marker
- Electrical Manhole
- Utility Pole
- Electric Transformer
- Ground Light
- Light Pole
- Fiber Optic Pedestal
- Fiber Optic Handhole
- Gas Vent
- Gas Valve
- Gas Meter
- Sewer Clean Out
- Wood Post
- Metal Post
- Gravel
- Landscaping



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TOPOGRAPHIC SURVEY
FORK UNION FIRE TRAINING
BUILDING SITE
FLUVANNA COUNTY, VIRGINIA

REVISIONS

DESIGNED BY:

DRAWN BY: DSJ

CHECKED BY: CAS

SCALE: 1"=40'

DATE: APRIL 17, 2025

PROJECT NUMBER: 626503

C2.0

TMP 51-A-129A
BOARD OF SUPERVISORS
FLUVANNA COUNTY
DB 166 PG 433

DEMOLITION LEGEND

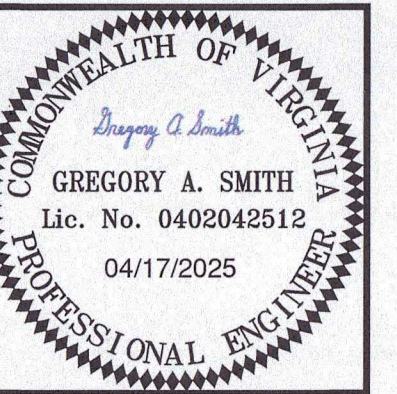
REMOVE

EROSION SEDIMENT CONTROL LEGEND

No.	TITLE	KEY	SYMBOL
3.02	TEMPORARY STONE CONSTRUCTION ENTRANCE	CE	
3.05	SUPER SILT FENCE	SSF	
3.09	DIVERSION DIKE	DD	
3.18	OUTLET PROTECTION	OP	
3.31	TEMPORARY SEEDING	TS	
3.35-A	MULCHING	MU	
3.38	TREE PROTECTION	TP	
3.39	DUST CONTROL	DC	

— L00 — LIMITS OF DISTURBANCE 0.86 AC.

- - - DRAINAGE AREA



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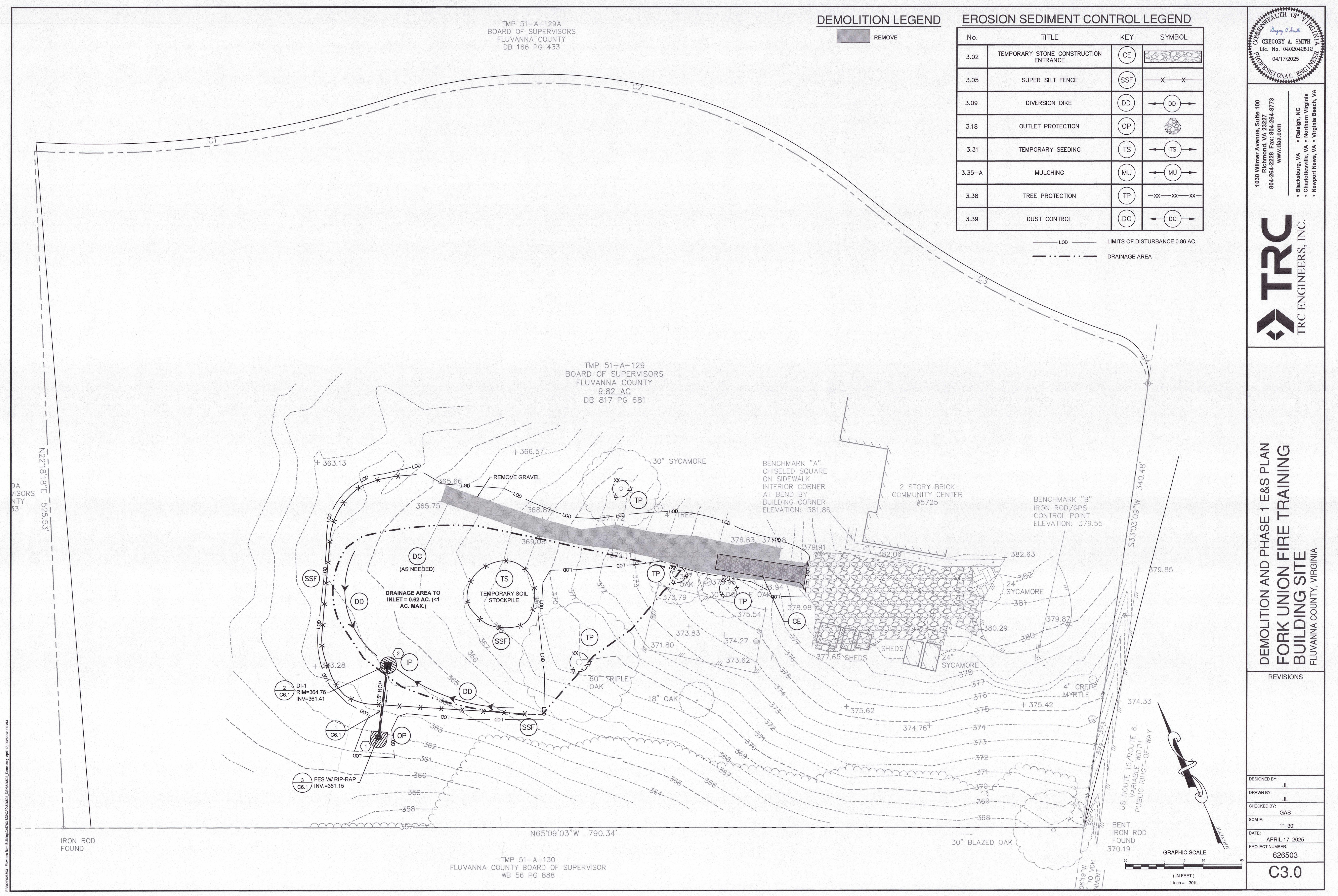


DEMOLITION AND PHASE 1 E&S PLAN
FORK UNION FIRE TRAINING
BUILDING SITE
FLUVANNA COUNTY, VIRGINIA

REVISIONS



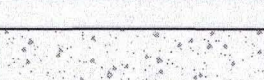
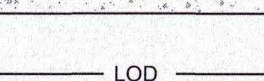

DESIGNED BY: JL
DRAWN BY: JL
CHECKED BY: GAS
SCALE: 1"=30'
DATE: APRIL 17, 2025
PROJECT NUMBER: 626503

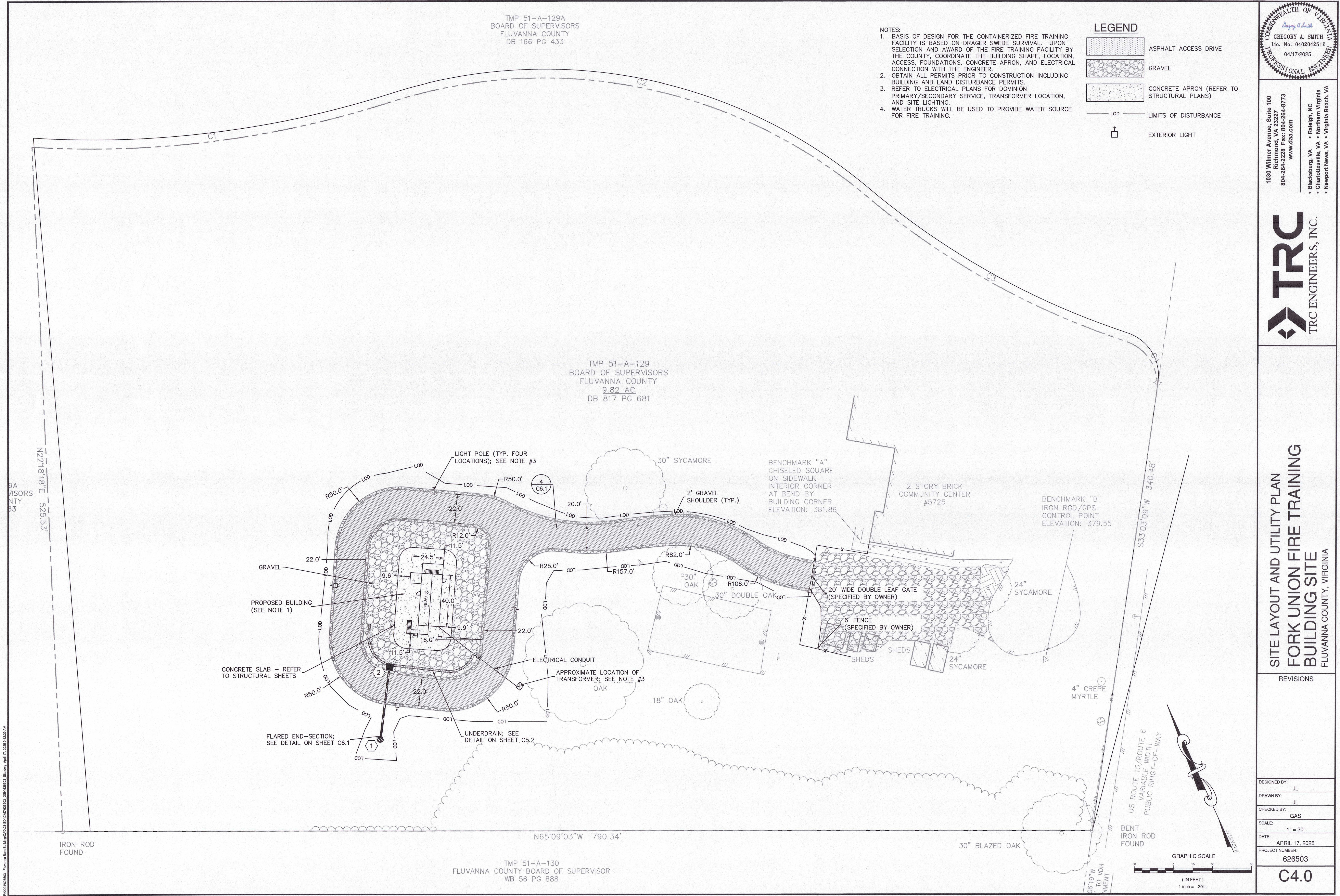
C3.0

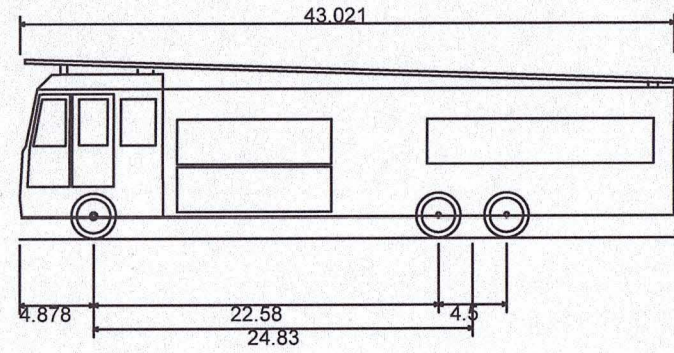


P:\2024\626503 - Fluvanna Barn Building\CA025 E&S\CA0250502_Demo.dwg April 17, 2025 9:41:30 AM

TMP 51-A-130
FLUVANNA COUNTY BOARD OF SUPERVISORS
WB 56 PG 888

- # LEGEND
- | | |
|---|--|
|  | ASPHALT ACCESS DRIVE |
|  | GRAVEL |
|  | CONCRETE APRON (REFER TO STRUCTURAL PLANS) |
|  | LIMITS OF DISTURBANCE |
|  | EXTERIOR LIGHT |



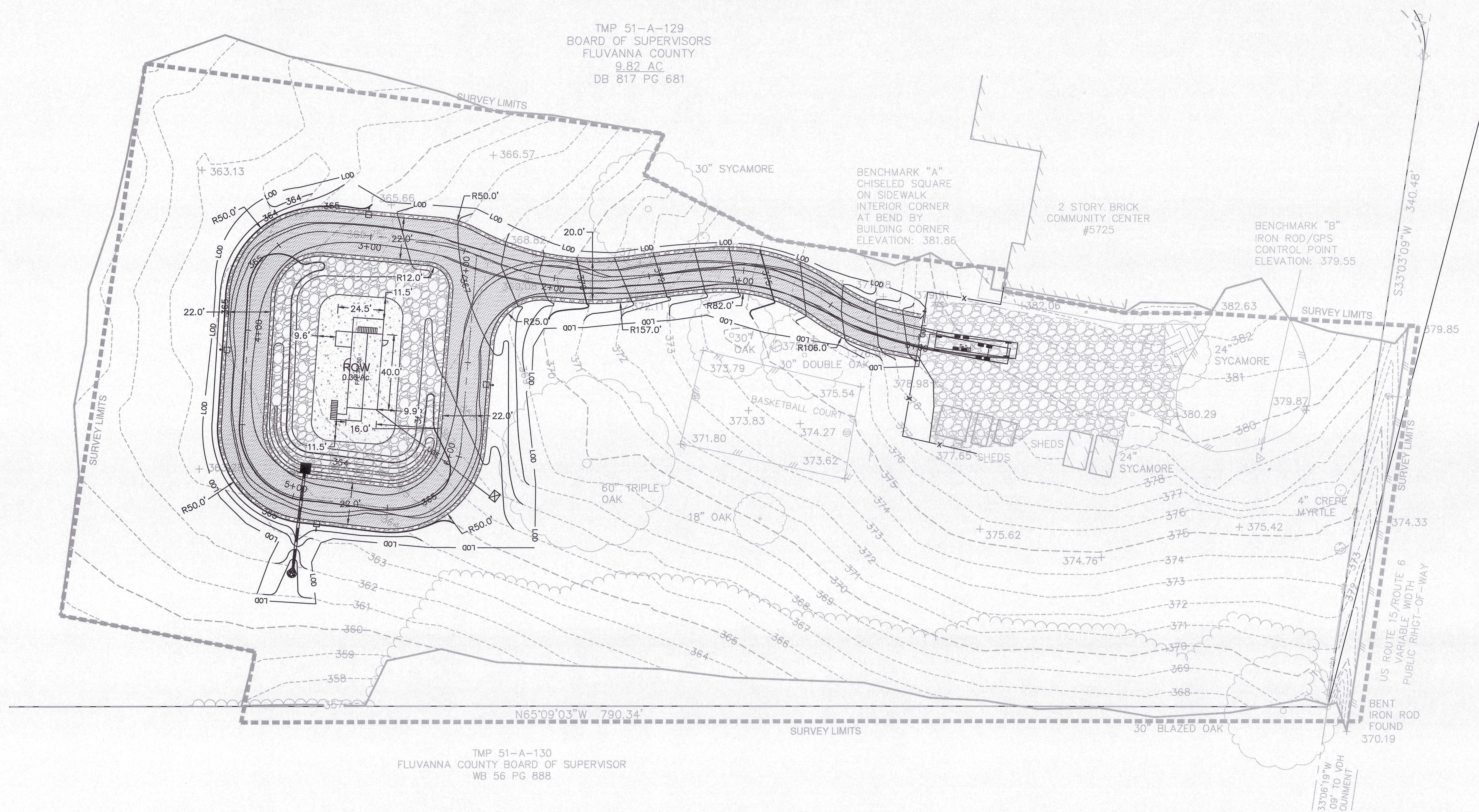


Fire Truck
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Track Width
Lock-to-lock time
Curb to Curb Turning Radius

43.021ft
8.333ft
11.833ft
1.393ft
8.333ft
6.00s
38.250ft

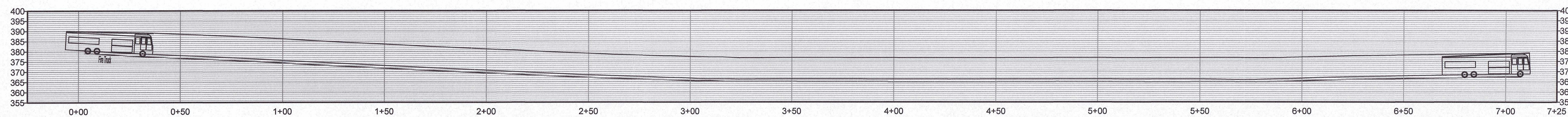
FIRE TRUCK TURNING MOVEMENT EXHIBIT

TMP 51-A-129
BOARD OF SUPERVISORS
FLUVANNA COUNTY
9.82 AC
DB 817 PG 681

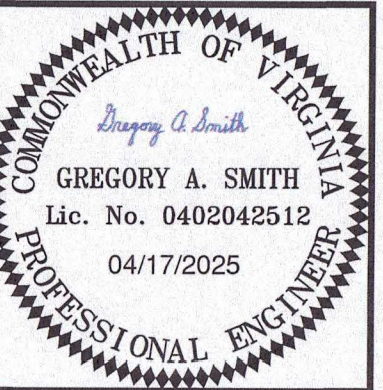
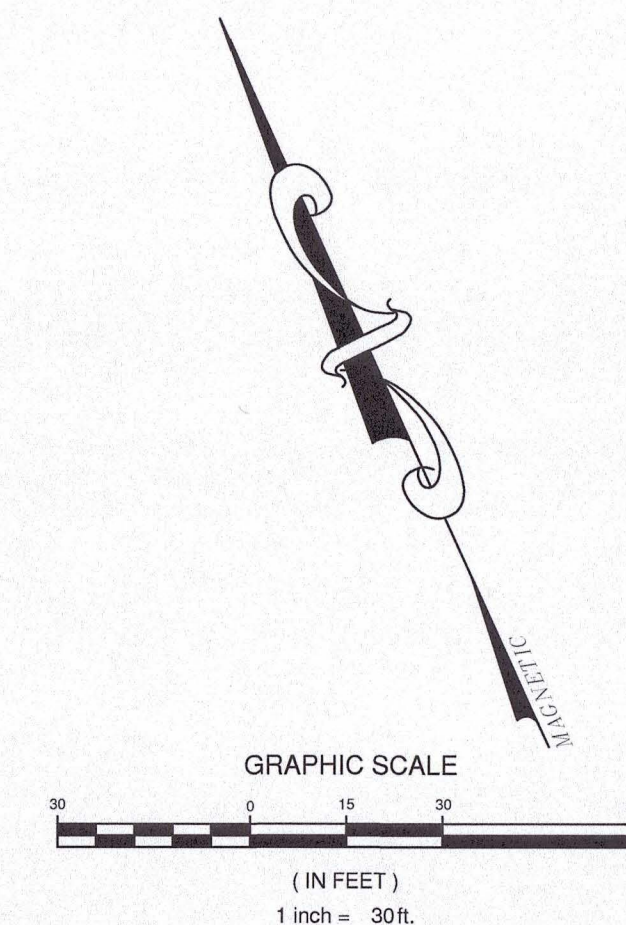


TMP 51-A-130
FLUVANNA COUNTY BOARD OF SUPERVISOR
WB 56 PG 888

FIRE TRUCK VERTICAL PROFILE

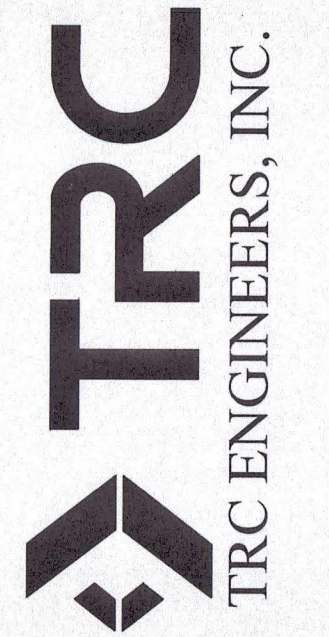


FIRE TRUCK VERTICAL CLEARANCE - Scale: H: 1"=30', V: 1.00:1



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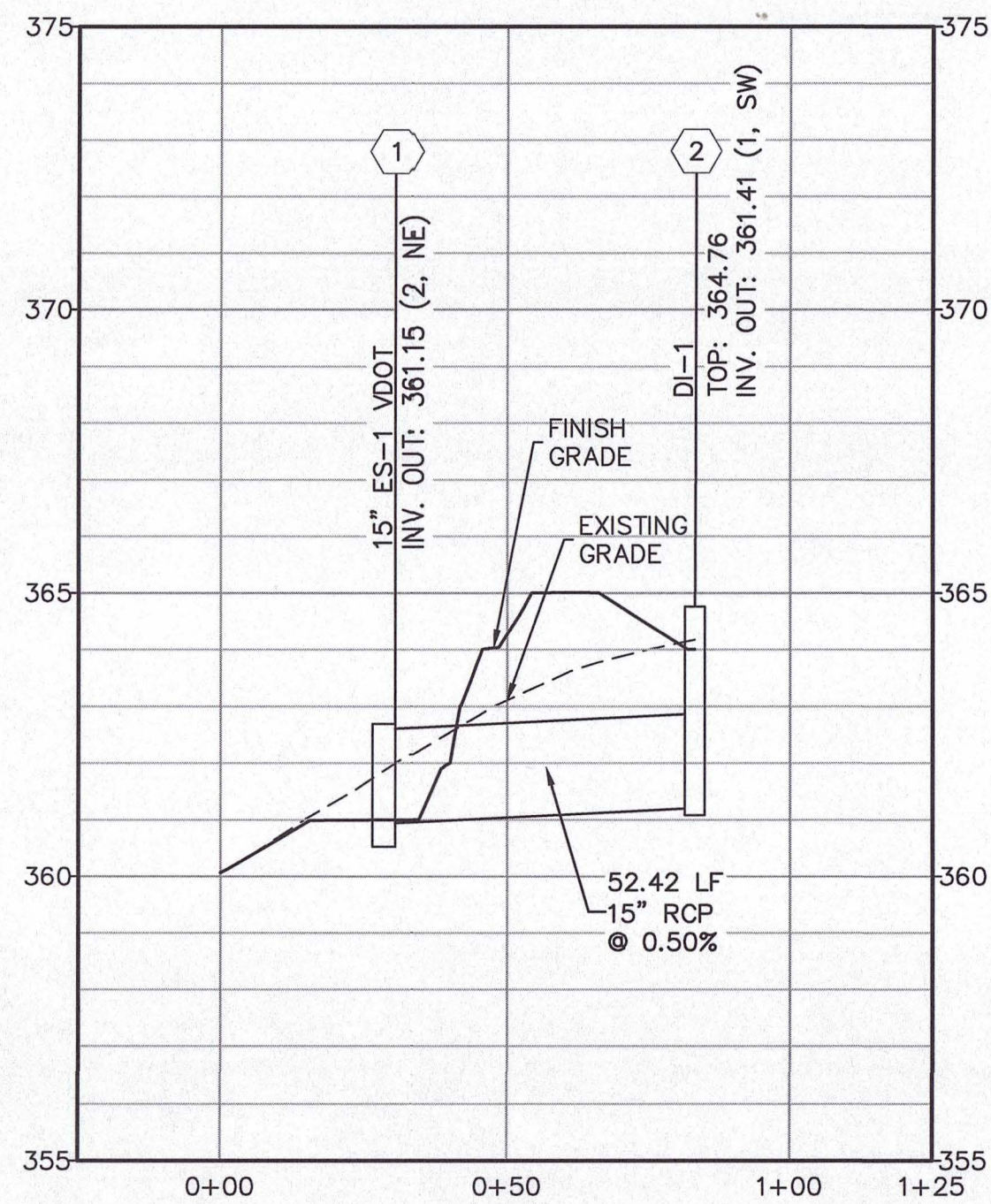


FIRE TRUCK TURNING MOVEMENT EXHIBIT
FORK UNION FIRE TRAINING
BUILDING SITE
FLUVANNA COUNTY, VIRGINIA

REVISIONS

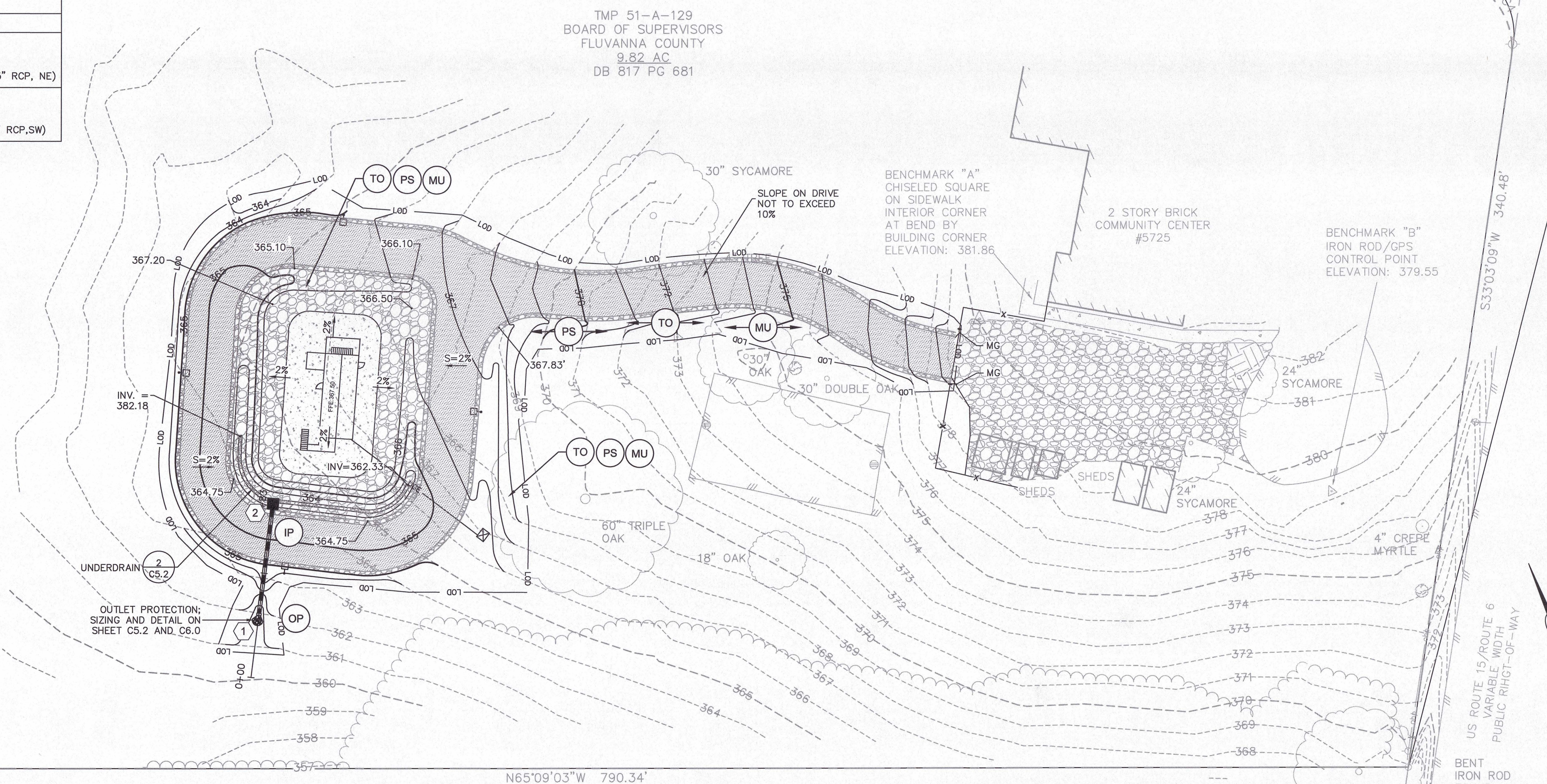
DESIGNED BY: JL
DRAWN BY: JL
CHECKED BY: GAS
SCALE: 1" = 30'
DATE: APRIL 17, 2025
PROJECT NUMBER: 626503

C4.1



STORM PROFILE – Scale: H: 1"=30', V: 3'

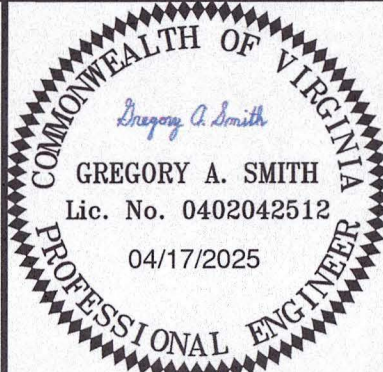
STORM STRUCTURE SCHEDULE	
STRC. NUMBER	STRC. DATA
1	15" ES-1 VDOT STA: 0+30.74 TOP: 362.69 INV. IN: 361.15 (FROM #2, 15" RCP, NE)
2	DI-1 STA: 0+83.17 TOP: 364.76 INV. OUT: 361.41 (TO #1, 15" RCP, SW)



EROSION SEDIMENT CONTROL LEGEND

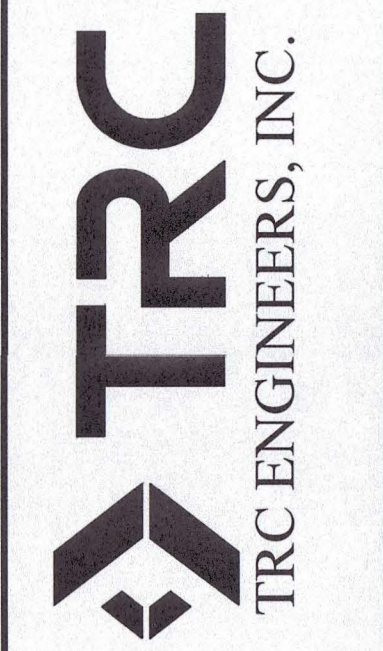
No.	TITLE	KEY	SYMBOL
3.18	OUTLET PROTECTION	OP	OP
3.30	TOPSOILING	TO	TO
3.32	PERMANENT SEEDING	PS	PS
3.35	MULCHING	MU	MU
3.39	DUST CONTROL	DC	DC

LOD LIMITS OF DISTURBANCE 0.98AC.



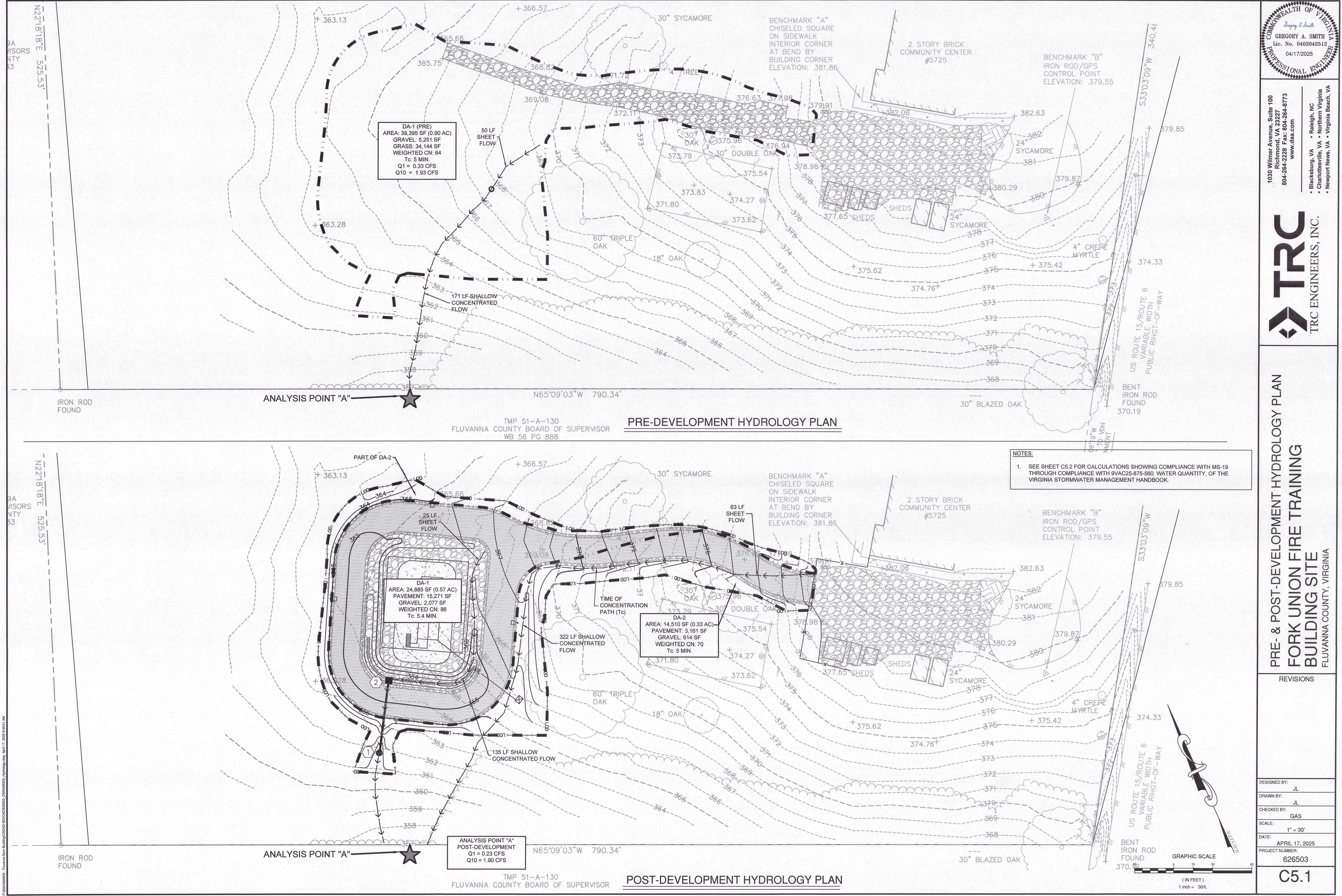
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GRADING AND PHASE 2 E&S PLAN
FORK UNION FIRE TRAINING
BUILDING SITE
FLUVANNA COUNTY, VIRGINIA

REVISIONS	
DESIGNED BY:	JL
DRAWN BY:	JL
CHECKED BY:	GAS
SCALE:	AS SHOWN
DATE:	APRIL 17, 2025
PROJECT NUMBER:	626503
C5.0	



9A VISORS NTY 63

N22°18'18"E 525.53'

9A VISORS NTY 63

N22°18'18"E 525.53'

COMMONWEALTH OF VIRGINIA

Gregory A. Smith

GREGORY A. SMITH

Lic. No. 0402042513

04/17/2025

PROFESSIONAL ENGINEER

1030 Wilmer Avenue, Suite 100

Richmond, VA 23227

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TRC

TRC ENGINEERS, INC.

PRE- & POST-DEVELOPMENT HYDROLOGY PLAN

FORK UNION FIRE TRAINING

BUILDING SITE

FLUVANNA COUNTY, VIRGINIA

REVISIONS

DESIGNED BY: JL

DRAWN BY: JL

CHECKED BY: GAS

SCALE: 1" = 30'

DATE: APRIL 17, 2025

PROJECT NUMBER: 626503

C5.1

NOTES:

1. SEE SHEET C5.2 FOR CALCULATIONS SHOWING COMPLIANCE WITH MS-19 THROUGH COMPLIANCE WITH 9VAC25-875-560. WATER QUANTITY, OF THE VIRGINIA STORMWATER MANAGEMENT HANDBOOK.

TR-55 CALCULATIONS SUMMARY FOR 1-YR & 10-YR STORM EVENTS
FLOOD PROTECTION 9VAC25-875-600(C)(2)(B))

Subsection: Master Network Summary

Catchments Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (min)	Peak Flow (ft ³ /s)
DA-PRE	1-Yr Storm	1	0.024	720.000	0.33
DA-PRE	10-Yr Storm	10	0.109	717.000	1.93
DA-1	1-Yr Storm	1	0.064	717.000	1.16
DA-1	10-Yr Storm	10	0.156	714.000	2.75
DA-2	1-Yr Storm	1	0.014	720.000	0.23
DA-2	10-Yr Storm	10	0.052	717.000	0.95

Node Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (min)	Peak Flow (ft ³ /s)
O-A (POST)	1-Yr Storm	1	0.027	720.000	0.23
O-A (POST)	10-Yr Storm	10	0.155	720.000	1.90
O-A (PRE)	1-Yr Storm	1	0.024	720.000	0.33
O-A (PRE)	10-Yr Storm	10	0.109	717.000	1.93

Pond Summary

Label	Scenario	Return Event (years)	Hydrograph Volume (ac-ft)	Time to Peak (min)	Peak Flow (ft ³ /s)	Maximum Water Surface Elevation (ft)	Maximum Pond Storage (ac-ft)
PO-1 (IN)	1-Yr Storm	1	0.064	717.000	1.16	(N/A)	(N/A)
PO-1 (OUT)	1-Yr Storm	1	0.012	858.000	0.03	364.76	0.044
PO-1 (IN)	10-Yr Storm	10	0.156	714.000	2.75	(N/A)	(N/A)
PO-1 (OUT)	10-Yr Storm	10	0.103	726.000	1.20	365.01	0.070

626503 - FC Fire Training.ppt
1/20/2025

Bentley Systems, Inc. Haestad Methods Solution Center
27 Siemon Company Drive Suite 200 W
Watertown, CT 06795 USA +1-203-755-1666

PondPack CONNECT Edition
[10.02.00.01]
Page 1 of 1

THE POST-DEVELOPMENT FLOW OF 2.90 CFS IS LESS THAN THE PRE-DEVELOPMENT FLOW OF 2.93 CFS.

ENERGY BALANCE EQUATION (CHANNEL PROTECTION 9VAC25-875-600(B)(3))

0.98	Ac.	Energy Balance Site Area
0.9	IF	Improvement Factor (0.8 for sites greater than 1 acre & 0.9 for sites less than or equal to 1 acre)

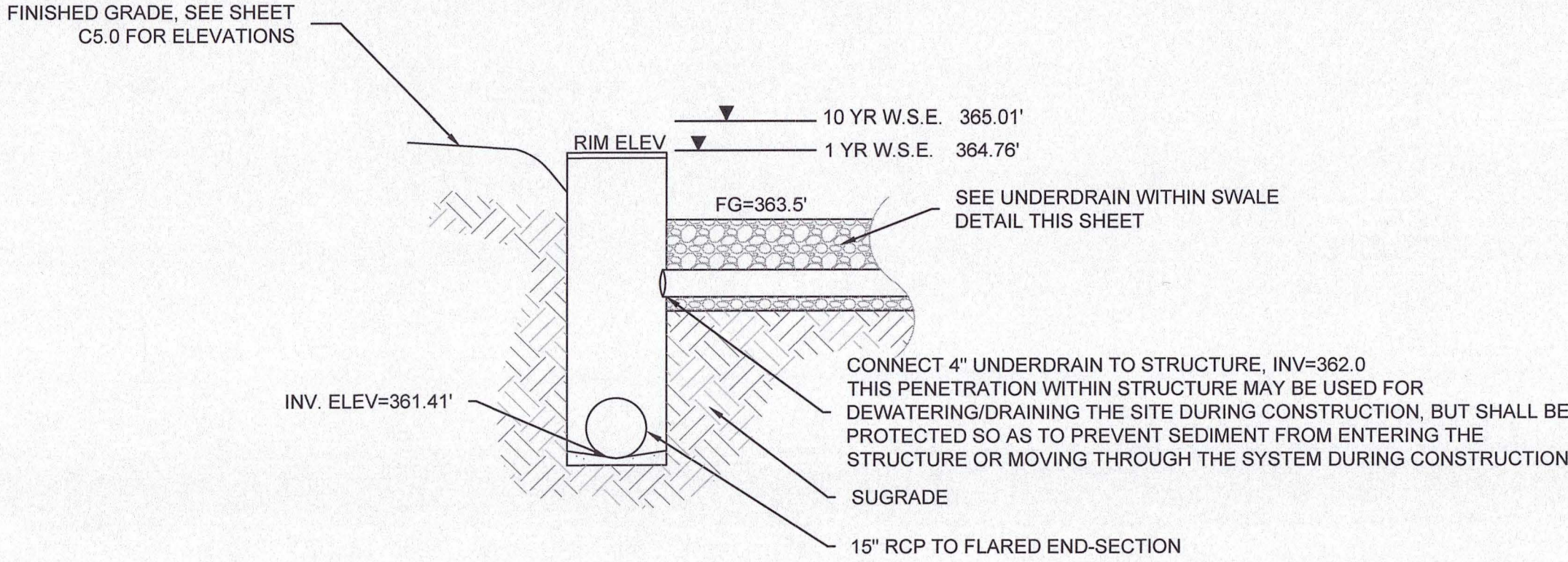
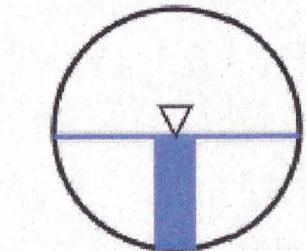
ENERGY BALANCE COMPLIANCE TABLE									
OUTFALL	1 - YEAR STORM EVENT								
	VOLUME (AC-FT)				Q ALLOW (CFS)	FORESTED CONDITION			COMPLIANCE?
	PRE	POST	PEAK (CFS)			VOL (AC-FT)	PEAK (CFS)	Q ALLOW (CFS)	
			PRE	POST					
A	0.024	0.027	0.33	0.23	0.26	0.008	0.02	0.01	YES

NOTE: UNDER NO CONDITION SHALL Q DEVELOPED BE GREATER THAN Q PRE-DEVELOPED NOR SHALL Q DEVELOPED BE REQUIRED TO BE LESS THAN THAT CALCULATED AS Q ALLOW IN THE FORESTED CONDITION SECTION ABOVE.

THE POST DEVELOPMENT FLOW OF 0.23 CFS IS LESS THAN THE ALLOWABLE FLOW OF 0.26 CFS.

10-YR HYDRAULIC PIPE CALCULATION (MANNING'S EQUATION)

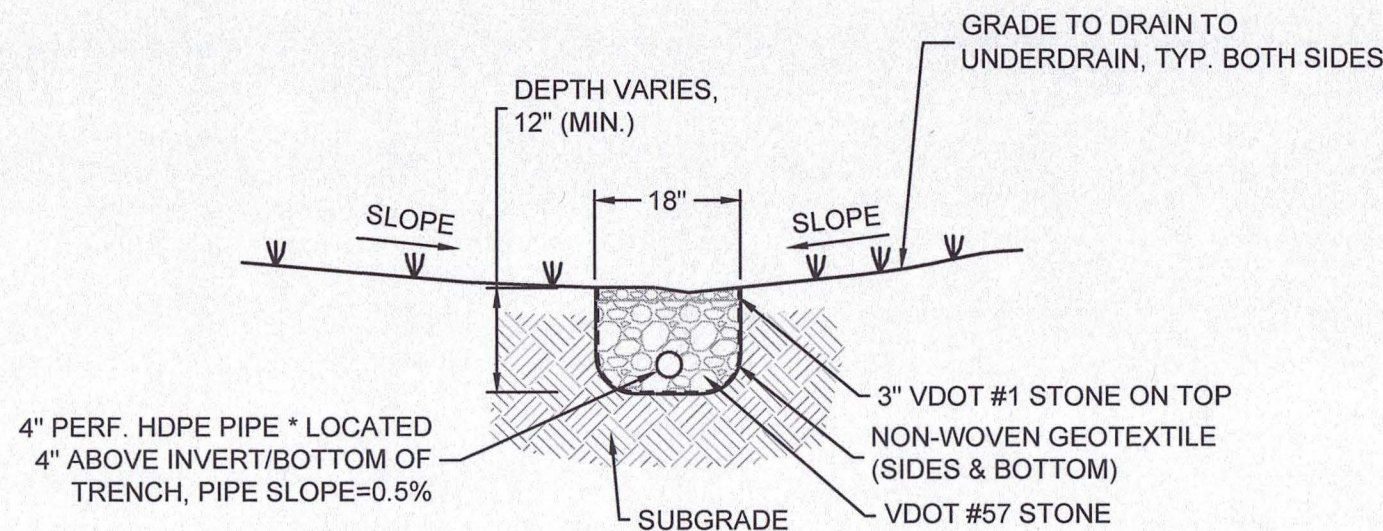
Set units: m mm ft in			Results	
Pipe diameter, d ₀	15	in	Flow, Q	2.0532 cfs
Manning roughness, n ?	.013		Velocity, v	3.6229 ft/sec
Pressure slope (possibly ? equal to pipe slope), S ₀	.5	% rise/run	Velocity head, h _v	2.4479 in
Percent of (or ratio to) full depth (100% or 1 if flowing full)	47	%	Flow area	0.5668 ft ²
			Wetted perimeter	1.8884 ft
			Hydraulic radius	0.3001 ft
			Top width, T	1.2477 ft
			Froude number, F	0.95
			Shear stress (tractive force), tau	4.4850 N/m ²



1 SECTION TAKEN AT STRUCTURE #1
C5.2 NOT TO SCALE

STABILIZATION & MAINTENANCE NOTES:

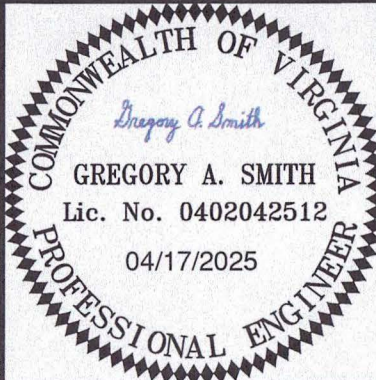
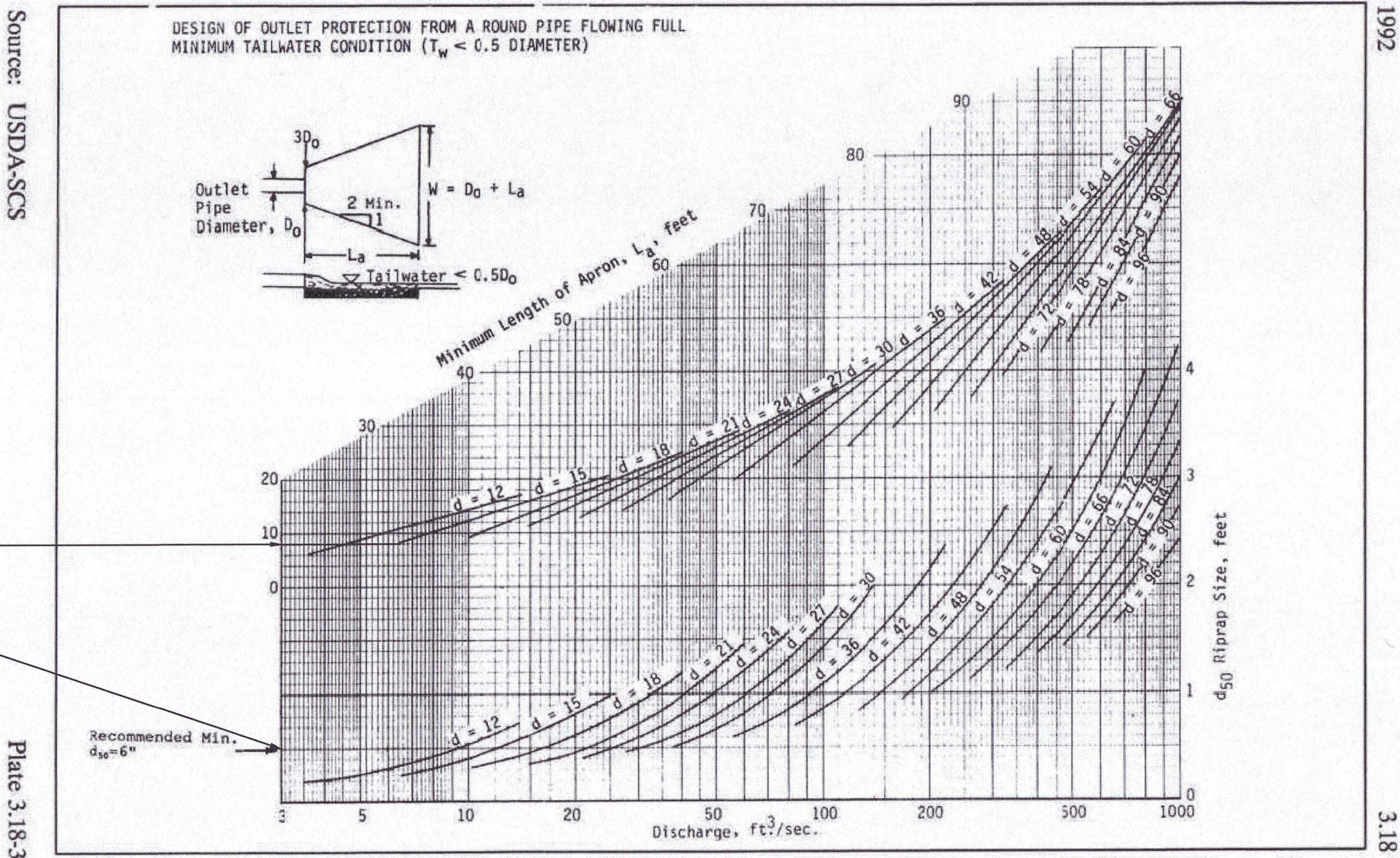
- TREAT ALL DISTURBED AREAS WITH TOPSOILING, PERMANENT SEEDING & MULCHING.
- MAINTAIN DURING CONSTRUCTION PER VESCH STD. & SPEC 3.28.



2 UNDERDRAIN WITHIN SWALE TO CONNECT TO DI-1
C5.0/C5.2 NOT TO SCALE

*THE PERFORATED PIPE SHALL BE CORRUGATED PE DRAINAGE PIPE AND FITTINGS NPS 3 TO NPS 10: AASHTO M 252M, TYPE S, WITH SMOOTH WATERWAY FOR COUPLING JOINTS.

OUTLET PROTECTION SIZING CALCULATION



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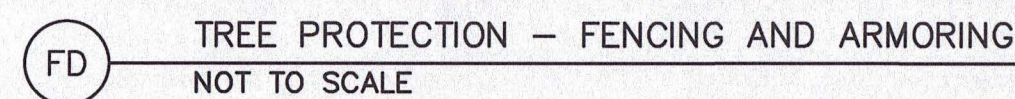
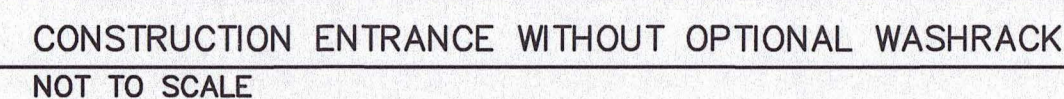
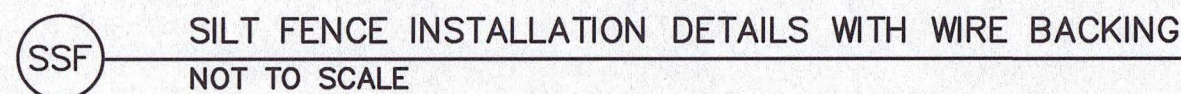


STORMWATER MANAGEMENT CALCS & DETAILS
FORK UNION FIRE TRAINING
BUILDING SITE
FLUVANNA COUNTY, VIRGINIA

REVISIONS

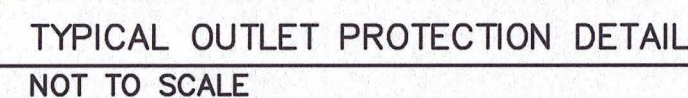
DESIGNED BY: JL
DRAWN BY: JL
CHECKED BY: GAS
SCALE: 1" = 30'
DATE: APRIL 17, 2025
PROJECT NUMBER: 626503

C5.2



TEMPORARY SEEDING
NOT TO SCALE

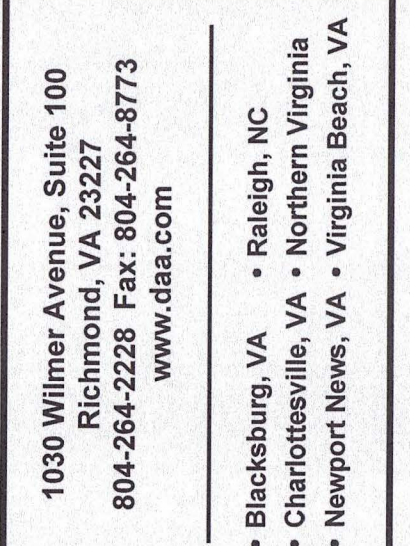
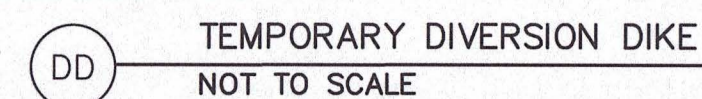
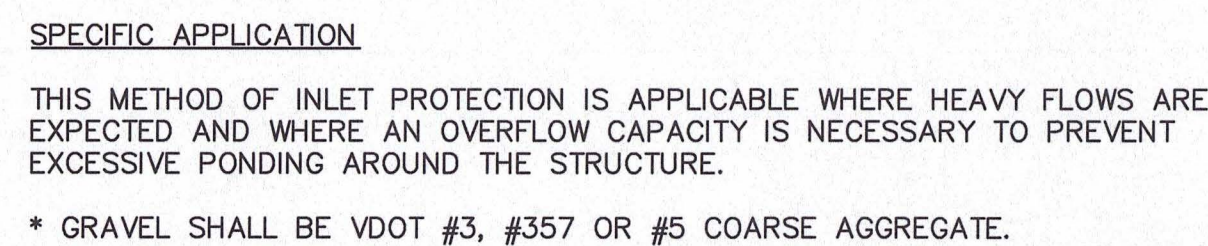
* When fiber mulch is the only available mulch during periods when straw should be used, apply at a minimum rate of 2000 lbs./ac. or 45 lbs./1000 sq. ft.



* USE SEASONAL NURSE CROP IN ACCORDANCE WITH SEEDING DATES AS STATED BELOW:

FEBRUARY 16TH THROUGH APRIL	ANNUAL RYE
MAY 1ST THROUGH AUGUST 15TH	FOXTAIL MILLET
AUGUST 16TH THROUGH OCTOBER	ANNUAL RYE
NOVEMBER THROUGH FEBRUARY 15TH	WINTER RYE

** SUBSTITUTE SERICEA LESPEDEZA FOR CROWN VETCH EAST OF FARMVILLE, VA. (MAY THROUGH SEPTEMBER USE HULLED SERICEA, ALL OTHER PERIODS USE UNHULLED SERICEA.) IF FLATPEA IS USED IN LIEU OF CROWN VETCH, INCREASE RATE TO 30 LBS./ACRE. ALL LEGUME SEED MUST BE PROPERLY INOCULATED. WEEPING LOVEGRASS MAY BE ADDED TO ANY SLOPE OR LOW-MAINTENANCE MIX DURING WARMER SEEDING PERIODS; ADD 10-20 LBS./ACRE IN MIXES.



EROSION & SEDIMENT CONTROL DETAILS
FORK UNION FIRE TRAINING
BUILDING SITE
FLUVANNA COUNTY, VIRGINIA

REVISIONS

DESIGNED BY:	JL
DRAWN BY:	JL
CHECKED BY:	GAS
SCALE:	NONE
DATE:	APRIL 17, 2025
PROJECT NUMBER:	626503

C6.0

TO

ALL TOPSOIL SHALL BE TESTED BY A RECOGNIZED LABORATORY FOR THE FOLLOWING CRITERIA:

- ORGANIC MATTER CONTENT SHALL BE NOT LESS THAN 1.5% BY WEIGHT.
 - PH RANGE SHALL BE FROM 6.0-7.5. IF PH IS LESS THAN 6.0, LIME SHALL BE ADDED IN ACCORDANCE WITH SOIL TEST RESULTS OR IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE VEGETATIVE ESTABLISHMENT PRACTICE BEING USED.
 - SOLUBLE SALTS SHALL NOT EXCEED 500 PPM.
- IF ADDITIONAL OFF-SITE TOPSOIL IS NEEDED, IT MUST MEET THE STANDARDS STATED ABOVE.

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

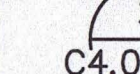
BONDING: AFTER THE AREAS TO BE TOPSOILED HAVE BEEN BROUGHT TO GRADE, AND IMMEDIATELY PRIOR TO DUMPING AND SPREADING THE TOPSOIL, THE SUBGRADE SHALL BE LOOSENEED BY DISCING OR SCARIFYING TO A DEPTH OF AT LEAST 2 INCHES TO ENSURE BONDING OF THE TOPSOIL AND SUBSOIL.

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



1. INITIAL BACKFILL SHALL BE VDOT #21A OR #21B FOR PLASTIC PIPE AND CONCRETE PIPE IN PAVEMENT AREAS. COMPACTED GENERAL FILL IS SUITABLE FOR CONCRETE PIPE IN NON-PAVEMENT AREAS.
2. ALL BACKFILL AND BEDDING MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 602 OF THE ROAD AND BRIDGE SPECIFICATIONS.
3. ALL MATERIAL SHALL BE PLACED IN 6" LOOSE LAYERS AND COMPACTED TO AT LEAST 95% STANDARD PROCTOR, UNLESS OTHERWISE NOTED. WORK IN AND TAMP THE HAUNCHING MATERIAL IN THE AREA BETWEEN THE BEDDING AND UNDERSIDE OF PIPE. DO NOT PERMIT COMPACTION EQUIPMENT TO CONTACT PIPE. REMOVE ANY DAMAGED MATERIAL.
5. INSTALL DETECTABLE WARNING TAPE 12" BELOW GRASS AND LANDSCAPE AREAS AND 6" BELOW PAVEMENTS AND HARDSCAPE AREAS.

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C4.0	C

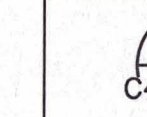


NOTES

PIPE LENGTHS SHOWN ON PLANS ARE
BASED ON END-SECTION DESIGN SHOWN
ON THE LEFT. IF THE CONTRACTOR ELECTS
TO USE THE ALTERNATE DESIGN SHOWN ON
THE RIGHT, LENGTHS WILL BE REDUCED BY
THE DIFFERENCE IN DIMENSION "D"

FLARED END-SECTION FOR 12"-60" CONCRETE PIPE CULVERTS

VIRGINIA DEPARTMENT OF TRANSPORTATION

REV. 7/01
102.01

ASPHALT PAVEMENT DETAIL
NOT TO SCALE