



ENGINEER  
WETLAND STUDIES AND SOLUTIONS, INC.

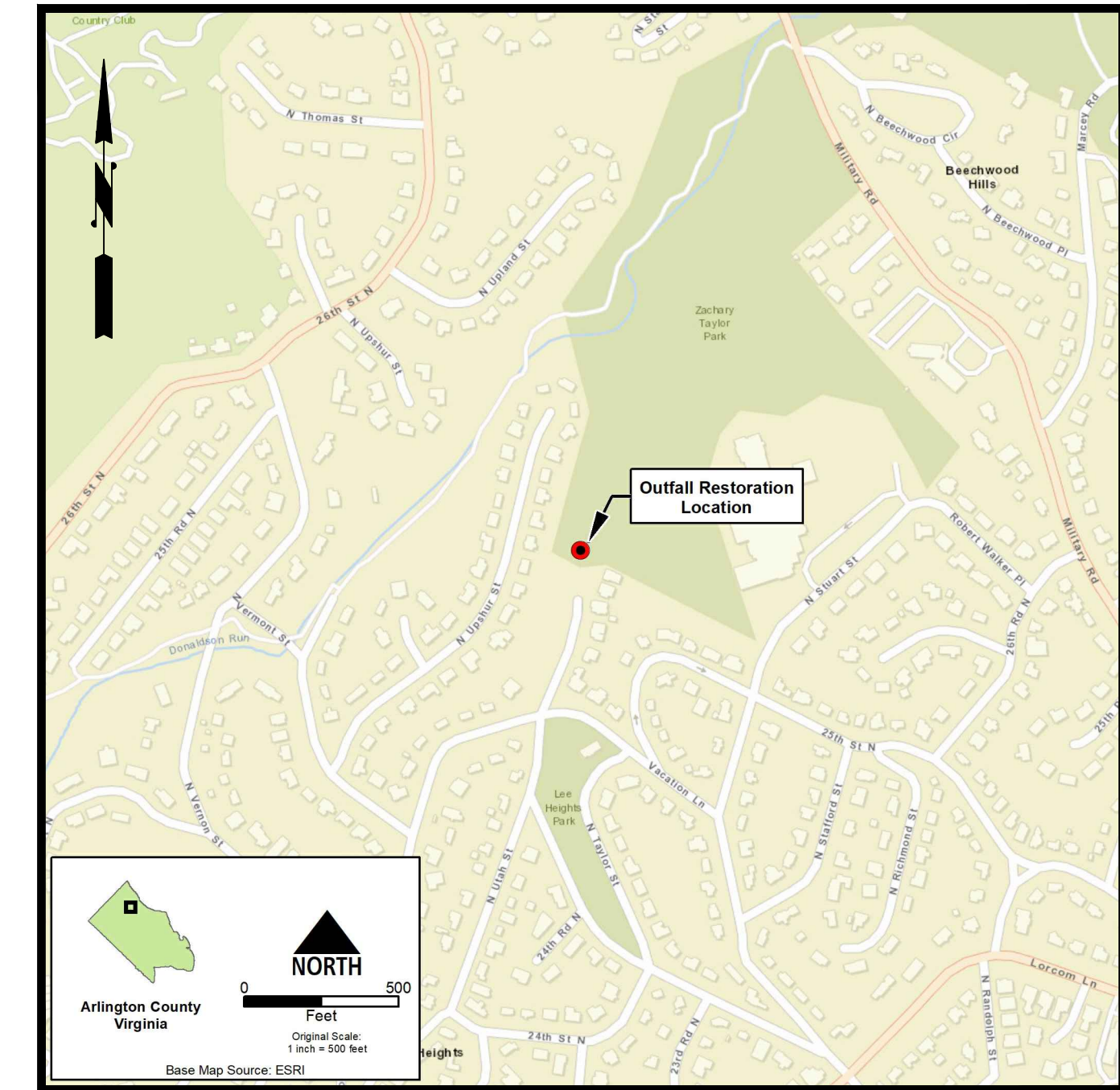
5300 WELLINGTON BRANCH DRIVE, SUITE 100  
GAINESVILLE, VA 20155  
PHONE: 703.679.5600  
WWW.WETLANDS.COM

OWNER  
DEPARTMENT OF ENVIRONMENTAL SERVICES

FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
2100 CLARENDON BOULEVARD, SUITE 813  
ARLINGTON, VA 22201  
PHONE: 703.228.3629 FAX: 703.228.3606  
WWW.ARLINGTONVA.US

CONTRACTOR  
TO BE DETERMINED

# LOCATION MAP



Source: ESRI

1" = 500'

THE SITE SHOWN HEREON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM OF 1983 AS COMPUTED FROM A FIELD RUN BOUNDARY AND HORIZONTAL CONTROL SURVEY

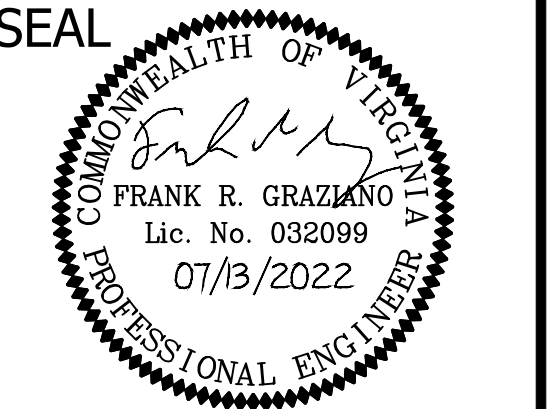
THE SITE SHOWN HEREON IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 AS COMPUTED FROM A FIELD RUN VERTICAL CONTROL SURVEY.

PROJECT ADDRESS: 23355 N. UTAH STREET, ARLINGTON, VA 22207



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APPROVALS \_\_\_\_\_ DATE \_\_\_\_\_

DESIGN TEAM ENGINEER SUPERVISOR \_\_\_\_\_

CONSTRUCTION MANAGEMENT SUPERVISOR \_\_\_\_\_

WATER, SEWER, STREETS BUREAU CHIEF \_\_\_\_\_

TRANSPORTATION DIRECTOR \_\_\_\_\_

PROJECT MANAGER \_\_\_\_\_

REVISIONS \_\_\_\_\_ DATE \_\_\_\_\_

CONSTRUCTION DRAWINGS FOR:

# TRIB A MAINTENANCE AND EMERGENCY REPAIR FINAL PLAN

# ARLINGTON COUNTY, VIRGINIA

PROJECT NUMBER: SR01

## GENERAL NOTES:

### GENERAL CONSTRUCTION NOTES

- ALL CONSTRUCTION WORK FOR THIS PROJECT SHALL CONFORM TO THE ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES, CONSTRUCTION STANDARDS AND SPECIFICATIONS, AND WHERE APPLICABLE THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS, AND ROAD AND BRIDGE STANDARDS. THE LATEST EDITIONS OF EACH RELEVANT MANUAL SHALL BE USED.
- ALL CONSTRUCTION AND WORK ACTIVITIES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND ALL OTHER RELEVANT WORK SAFETY REQUIREMENTS, LATEST EDITIONS.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT OFFICER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
- THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 FOR MARKING THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES (i.e. WATER, SEWER, GAS, TELEPHONE, ELECTRIC, AND CABLE TV) AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION. THE CONTRACTOR IS REQUIRED TO IDENTIFY AND PROTECT ALL OTHER UTILITY LINES FOUND IN THE WORK SITE AREA BELONGING TO OTHER OWNERS THAT ARE NOT MEMBERS OF "MISS UTILITY". PRIVATE WATER, SEWER AND GAS LATERALS WILL NOT BE MARKED BY MISS UTILITY OR THE COUNTY. THE CONTRACTOR SHALL LOCATE AND PROTECT THESE SERVICES DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND SHALL RETAIN A PROFESSIONAL LAND SURVEYOR LICENSED IN THE COMMONWEALTH OF VIRGINIA TO PROVIDE ALL NECESSARY CONSTRUCTION LAYOUTS AND ESTABLISH ALL CONTROL LINES, GRADES, AND ELEVATION DURING CONSTRUCTION. THE CONTRACTOR SHALL SUBMIT A COPY OF ALL CUT SHEETS FOR REVIEW, PER THE SPECIFICATIONS. THE COST OF ALL NECESSARY SURVEYING SERVICES SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND, UNLESS OTHERWISE SPECIFIED, THE COST SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
- THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE FROM BEST AVAILABLE RECORDS AND SHALL BE CONSIDERED TO BE APPROXIMATE. WHEN CONSTRUCTION ACTIVITY REACHES IN PROXIMITY TO EXISTING UTILITIES, THE TRENCH(ES) SHALL BE OPENED A SUFFICIENT DISTANCE AHEAD OF THE WORK OR TEST PITS SHALL BE MADE TO VERIFY THE EXACT LOCATION AND INVERTS OF THE UTILITY TO ALLOW FOR POSSIBLE CHANGES IN THE LINE OR GRADE AS DIRECTED BY OFFICER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING UTILITIES AND THE RELATED STRUCTURES. ALL EXISTING UTILITY SYSTEMS SHALL BE PROTECTED TO PREVENT DAMAGE DURING THE CONTRACTOR'S OPERATIONS. ANY SYSTEM DAMAGED SHALL BE PROMPTLY REPAIRED AT NO COST TO THE OWNER.
- EXISTING MANHOLE FRAMES, COVERS, VALVE BOXES, AND OTHER APPURTENANCES SHALL BE ADJUSTED TO THE FINAL GRADE OR REPLACED, AS NECESSARY. UNLESS OTHERWISE SPECIFIED, THE COST FOR THIS SHALL BE CONSIDERED INCIDENTAL TO THE WORK, AND SHALL BE INCORPORATED INTO THE COSTS FOR RELEVANT ITEMS.
- THE CONTRACTOR SHALL PROVIDE ADA COMPLIANT ACCESS THROUGH OR AROUND THE SITE AT ALL TIMES AND SHALL ENSURE THE SAFETY OF ALL THOSE PASSING THROUGH OR ADJACENT TO THE SITE.
- ALL SIDEWALK AND CURB AND GUTTER DEMOLITION SHALL BEGIN AND END AT THE CONSTRUCTION JOINT NEAREST TO THE DEPICTED DEMOLITION EXTENTS WITH A NEAT SAWCUT LINE TO FULL DEPTH OF PAVEMENT SECTION.

### STORMWATER AND ENVIRONMENTAL PROTECTION

- THE CONTRACTOR SHALL CONFINE ALL ACTIVITIES AT THE SITE ASSOCIATED WITH CONSTRUCTION ACTIVITIES, TO INCLUDE STORAGE OF EQUIPMENT AND OR MATERIALS, ACCESS TO THE WORK, FORMWORK, ETC. TO WITHIN THE DESIGNATED LIMITS OF DISTURBANCE (LOD).

### TREE PROTECTION

- TREES SHALL BE PROTECTED PER THE REQUIREMENTS OF ARLINGTON PARKS & RECREATION STANDARD.

### TRAFFIC CONTROL

- CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO DISTURBING ANY EXISTING, OR INSTALLING ANY NEW, TRAFFIC SIGNS, SIGNALS, OR OTHER TRAFFIC CONTROL DEVICES.
- THE CONTRACTOR SHALL PREMARK THE LAYOUT OF ANY PERMANENT TRAFFIC CONTROL STRIPING, INDICATING THE PROPOSED LOCATION AND TYPE OF MARKING TO BE INSTALLED. THE PREMARKING MAY CONSIST OF TYPE D TAPE, CHALK, OR LUMBER CRAYONS. THE CONTRACTOR SHALL ALLOW 3 WORKING DAYS FOR THE INSPECTION AND APPROVAL OF THE PREMARKINGS PRIOR TO PLACING THE PERMANENT MARKINGS.
- THE CONTRACTOR SHALL SUBMIT ANY REQUESTS FOR TEMPORARY "NO PARKING" RESTRICTIONS TO THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO THE DESIRED ONSET OF RESTRICTIONS. PRIOR TO A REQUEST FOR THE REMOVAL OF ACCESS TO ANY ADA PARKING SPACE THE CONTRACTOR MUST HAVE MADE PROVISION FOR ALTERNATIVE ADA PARKING AS INDICATED ON THE APPROVED PLAN OR AS DIRECTED BY THE PROJECT OFFICER.
- WHEN THE APPROVED PLAN CALLS FOR THE REMOVAL OF ANY PARKING METER THE CONTRACTOR MUST MAKE A REQUEST TO THE PROJECT OFFICER AT LEAST ONE WEEK IN ADVANCE OF THE DESIRED REMOVAL. THE PROJECT OFFICER WILL THEN COORDINATE THE PARKING METER REMOVAL WITH TRAFFIC ENGINEERING AND OPERATIONS.
- THE CONTRACTOR SHALL PRESERVE ALL BUS STOPS, INCLUDING MAINTAINING ADEQUATE ACCESSIBILITY THROUGH AND ADJACENT TO THE CONSTRUCTION FOR BUSES AND THEIR PASSENGERS. THE CONTRACTOR SHALL NOT CLOSE, RELOCATE, OR OTHERWISE MODIFY A BUS STOP WITHOUT PRIOR REQUEST OF THE PROJECT OFFICER. ANY RELOCATION OR CLOSURE OF A BUS STOP SHALL REQUIRE AT LEAST FOUR WEEKS ADVANCE NOTICE FOR COORDINATION WITH THE COUNTY'S BUS STOP COORDINATOR - 703-228-3049.
- WHEN CONDITIONS WARRANT DUE TO TRAFFIC VOLUMES, PATTERNS, OR SPECIAL EVENTS, THE COUNTY MAY SUSPEND OR OTHERWISE DIRECT THE CONTRACTOR'S ACTIVITIES TO PROTECT THE PUBLIC AND OR THE COUNTY'S TRANSPORTATION NETWORK.

### WATER DISTRIBUTION, STORM AND SANITARY SEWER SYSTEMS

- UNLESS OTHERWISE DIRECTED, CONTRACTORS ARE EXPRESSLY PROHIBITED FROM OPERATING ANY WATER VALVES OR APPURTENANCES. CONTRACTORS SHALL SUBMIT ALL REQUESTS FOR VALVE OPERATIONS TO THE PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED OPERATION.
- IN THE EVENT OF A WATER OR SEWER EMERGENCY, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY'S WATER CONTROL CENTER AT 703-228-6555 AND THE PROJECT OFFICER.
- THE CONTRACTOR SHALL COORDINATE ALL UTILITY SHUTOFFS, DISCONNECTS, AND/OR ABANDONMENT WITH UTILITY OWNER AND PROJECT OFFICER AT LEAST 1 WEEK IN ADVANCE OF THE REQUIRED INTERRUPTION.

### FIRE DEPARTMENT NOTES:

- ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSERVED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
- ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
- IN THE EVENT THAT EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE ARLINGTON COUNTY FIRE DEPARTMENT FIRE PREVENTION OFFICE AT 703-228-4644 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION.

### SHEET LIST TABLE

1	COVER SHEET
2	OVERALL SITE PLAN
3 - 8	EXISTING CONDITIONS PLAN
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23	PROFILE AND CONSTRUCTION DETAILS
24 - 29	EROSION & SEDIMENT CONTROL PLAN
30	EROSION & SEDIMENT CONTROL DETAILS
31	EROSION & SEDIMENT CONTROL NARRATIVE
32	RLD AND CONSTRUCTION SEQUENCE
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### SWM#

SWM21-0254

This Maintenance and Emergency Repair Project is exempt from stormwater quality requirements.

This Maintenance and Emergency Repair Project is for a stream channel previously restored using Natural Channel Design Techniques. Pursuant to 62.1-44.15:52 of the Virginia Legislative Code, "Stream restoration and relocation projects that incorporate Natural Channel Design concepts are not man-made channels and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels as defined in any regulations promulgated pursuant to this section or 62.1-44.15:54 or 62.1-44.15:65"

### ADT

7,600 - MILITARY RD (FROM BEECHWOOD CIRCLE TO QUINCY STREET) - 2021 - VDOT

### STREET CLASSIFICATION

MILITARY RD - MINOR ARTERIAL

### POSTED SPEED

MILITARY RD - 30MPH

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN

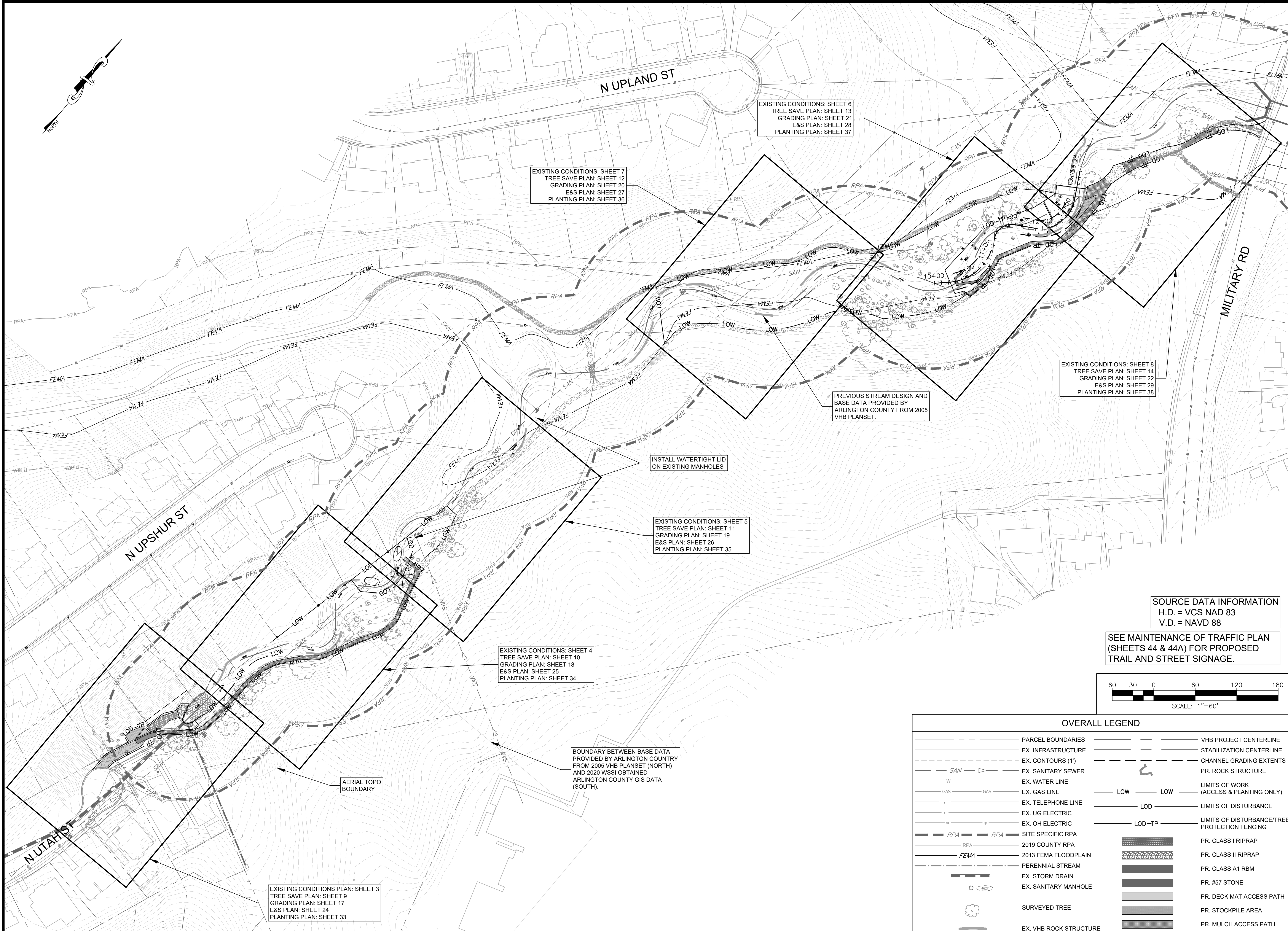
ARLINGTON COUNTY, VIRGINIA

COVER SHEET (01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: N/A



EXISTING CONDITIONS: SHEET 6  
 TREE SAVE PLAN: SHEET 13  
 GRADING PLAN: SHEET 21  
 E&S PLAN: SHEET 28  
 PLANTING PLAN: SHEET 37

EXISTING CONDITIONS: SHEET 7  
 TREE SAVE PLAN: SHEET 12  
 GRADING PLAN: SHEET 20  
 E&S PLAN: SHEET 27  
 PLANTING PLAN: SHEET 36

EXISTING CONDITIONS: SHEET 8  
 TREE SAVE PLAN: SHEET 14  
 GRADING PLAN: SHEET 22  
 E&S PLAN: SHEET 29  
 PLANTING PLAN: SHEET 38

PREVIOUS STREAM DESIGN AND  
 BASE DATA PROVIDED BY  
 ARLINGTON COUNTY FROM 2005  
 VHB PLANSET.

INSTALL WATERTIGHT LID  
 ON EXISTING MANHOLES

EXISTING CONDITIONS: SHEET 5  
 TREE SAVE PLAN: SHEET 11  
 GRADING PLAN: SHEET 19  
 E&S PLAN: SHEET 26  
 PLANTING PLAN: SHEET 35

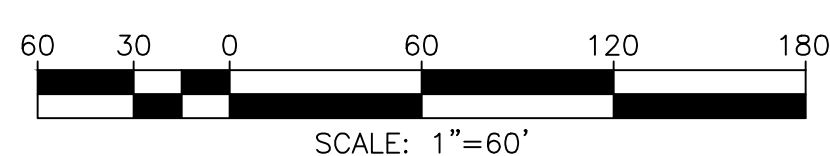
EXISTING CONDITIONS: SHEET 4  
 TREE SAVE PLAN: SHEET 10  
 GRADING PLAN: SHEET 18  
 E&S PLAN: SHEET 25  
 PLANTING PLAN: SHEET 34

BOUNDARY BETWEEN BASE DATA  
 PROVIDED BY ARLINGTON COUNTRY  
 FROM 2005 VHB PLANSET (NORTH)  
 AND 2020 WSSI OBTAINED  
 ARLINGTON COUNTY GIS DATA  
 (SOUTH).

EXISTING CONDITIONS PLAN: SHEET 3  
 TREE SAVE PLAN: SHEET 9  
 GRADING PLAN: SHEET 9  
 E&S PLAN: SHEET 24  
 PLANTING PLAN: SHEET 33

SOURCE DATA INFORMATION  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88

SEE MAINTENANCE OF TRAFFIC PLAN  
 (SHEETS 44 & 44A) FOR PROPOSED  
 TRAIL AND STREET SIGNAGE.



OVERALL LEGEND	
--- (dashed line)	PARCEL BOUNDARIES
--- (dashed line)	EX. INFRASTRUCTURE
--- (dashed line)	EX. CONTOURS (1')
--- (dashed line)	EX. SANITARY SEWER
--- (dashed line)	EX. WATER LINE
--- (dashed line)	EX. GAS LINE
--- (dashed line)	EX. TELEPHONE LINE
--- (dashed line)	EX. UG ELECTRIC
--- (dashed line)	EX. OH ELECTRIC
--- (dashed line)	SITE SPECIFIC RPA
--- (dashed line)	2019 COUNTY RPA
--- (dashed line)	2013 FEMA FLOODPLAIN
--- (dashed line)	PERENNIAL STREAM
--- (dashed line)	EX. STORM DRAIN
--- (dashed line)	EX. SANITARY MANHOLE
○ (circle)	SURVEYED TREE
--- (dashed line)	EX. VHB ROCK STRUCTURE
--- (dashed line)	VHB PROJECT CENTERLINE
--- (dashed line)	STABILIZATION CENTERLINE
--- (dashed line)	CHANNEL GRADING EXTENTS
--- (dashed line)	PR. ROCK STRUCTURE
--- (dashed line)	LIMITS OF WORK (ACCESS & PLANTING ONLY)
--- (dashed line)	LOD
--- (dashed line)	LIMITS OF DISTURBANCE
--- (dashed line)	LOD-TP
--- (dashed line)	LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
--- (dashed line)	PR. CLASS I RIPRAP
--- (dashed line)	PR. CLASS II RIPRAP
--- (dashed line)	PR. CLASS A1 RBM
--- (dashed line)	PR. #57 STONE
--- (dashed line)	PR. DECK MAT ACCESS PATH
--- (dashed line)	PR. STOCKPILE AREA
--- (dashed line)	PR. MULCH ACCESS PATH



DEPARTMENT OF ENVIRONMENTAL SERVICES  
 FACILITIES & ENGINEERING DIVISION  
 ENGINEERING BUREAU  
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 FAX: 703.228.3606

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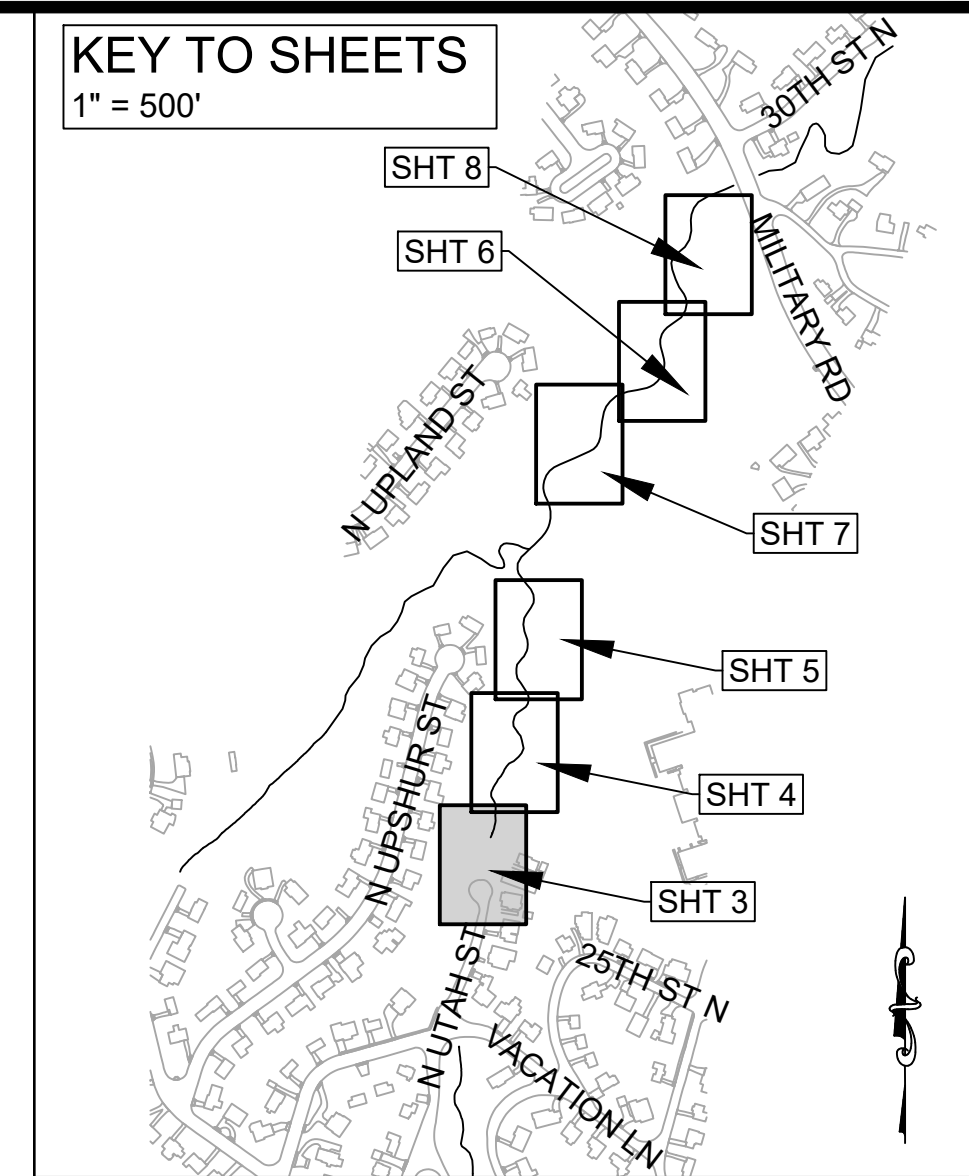
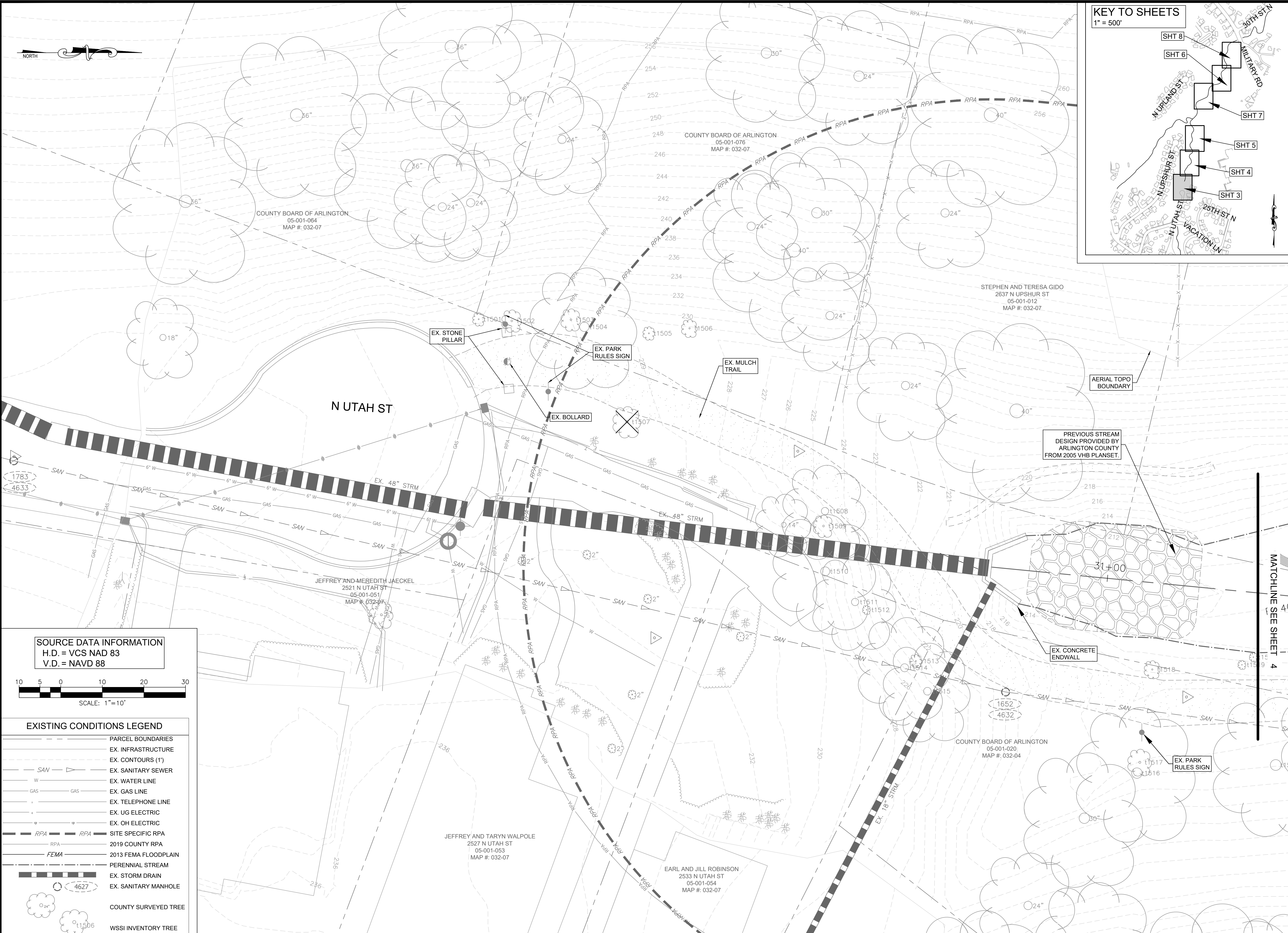
APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

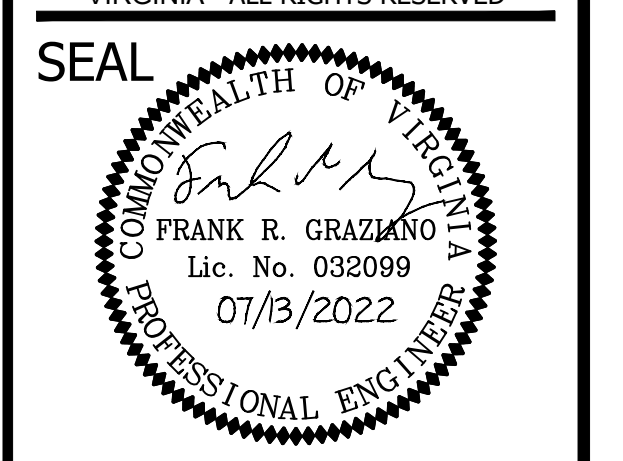
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 OVERALL SITE PLAN (01)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022  
 SCALE: 1"=60'

REVISED ON 1/24/2022



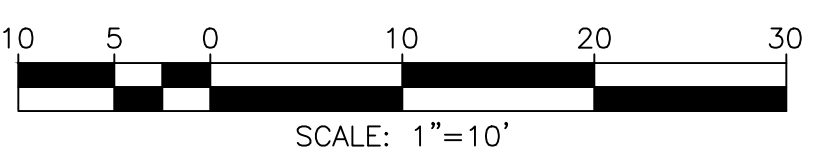
**ARLINGTON VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL SERVICES  
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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

**SOURCE DATA INFORMATION**  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



**EXISTING CONDITIONS LEGEND**

	PARCEL BOUNDARIES
	EX. INFRASTRUCTURE
	EX. CONTOURS (1')
	EX. SANITARY SEWER
	EX. WATER LINE
	EX. GAS LINE
	EX. TELEPHONE LINE
	EX. UG ELECTRIC
	EX. OH ELECTRIC
	SITE SPECIFIC RPA
	2019 COUNTY RPA
	2013 FEMA FLOODPLAIN
	PERENNIAL STREAM
	EX. STORM DRAIN
	EX. SANITARY MANHOLE
	COUNTY SURVEYED TREE
	WSSI INVENTORY TREE

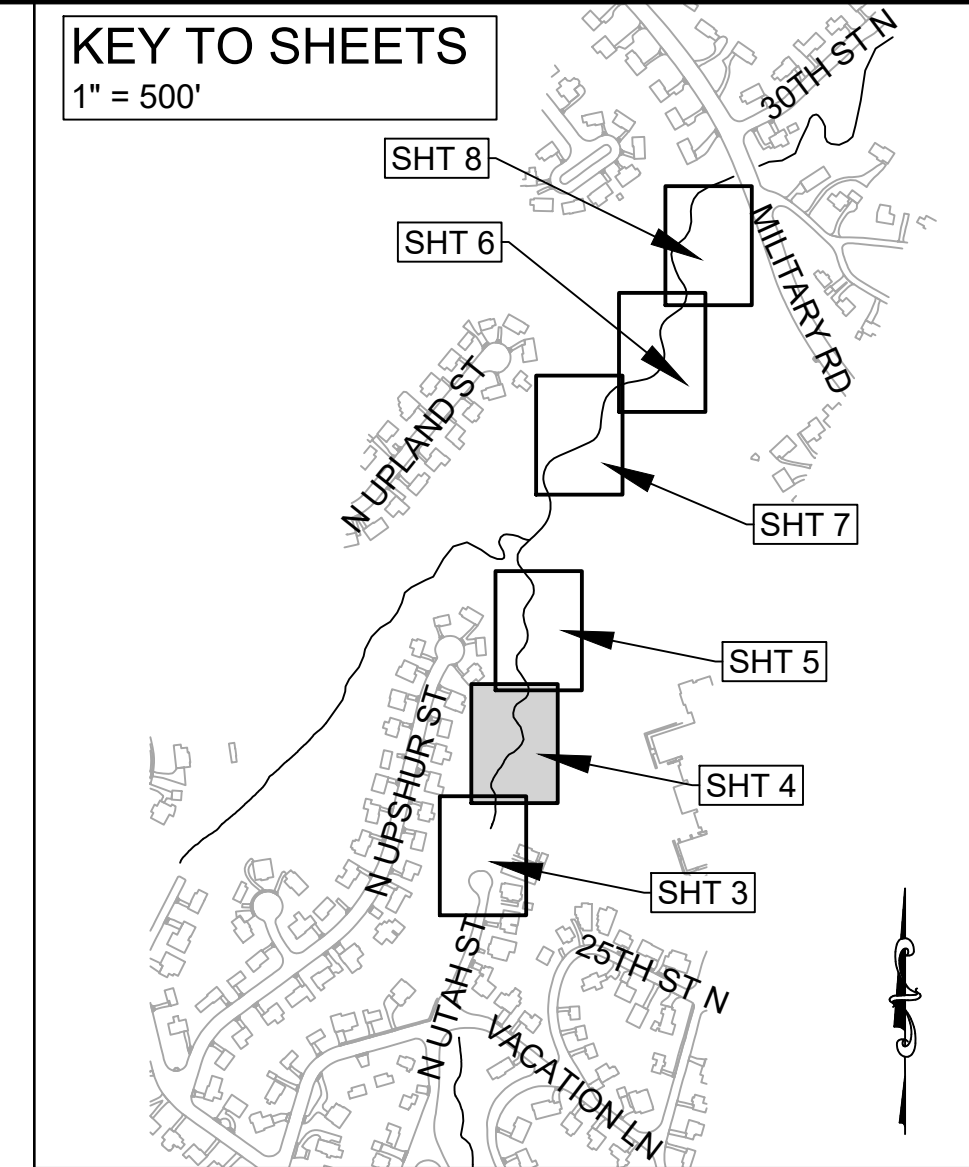
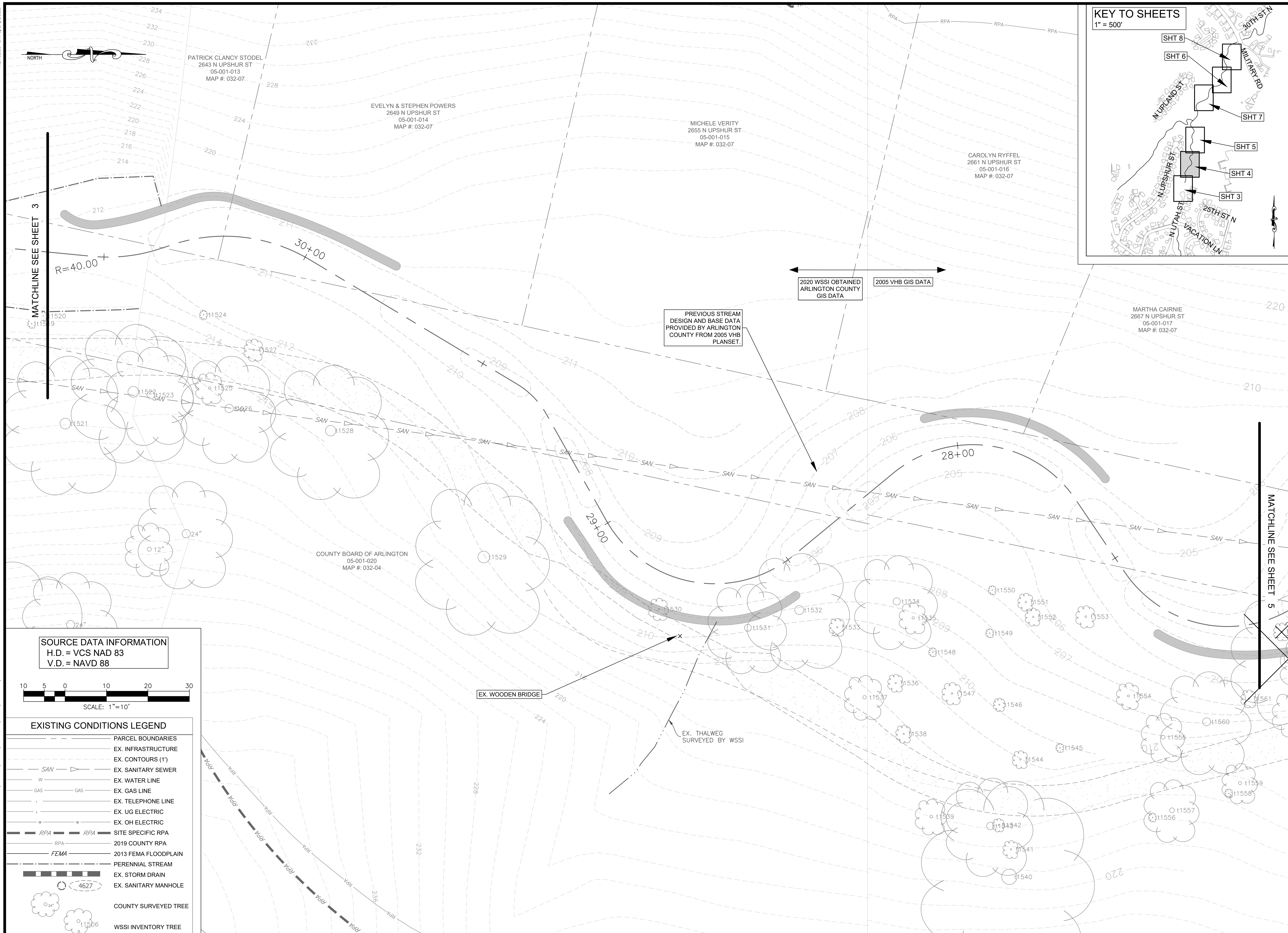
**TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN**  
 ARLINGTON COUNTY, VIRGINIA  
**EXISTING CONDITIONS PLAN (01)**

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG

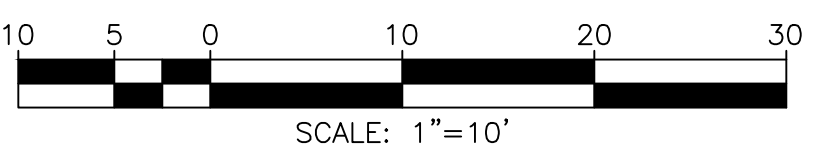
PLOTTED: JULY 13 2022

SCALE: 1"=10'

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**SOURCE DATA INFORMATION**  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



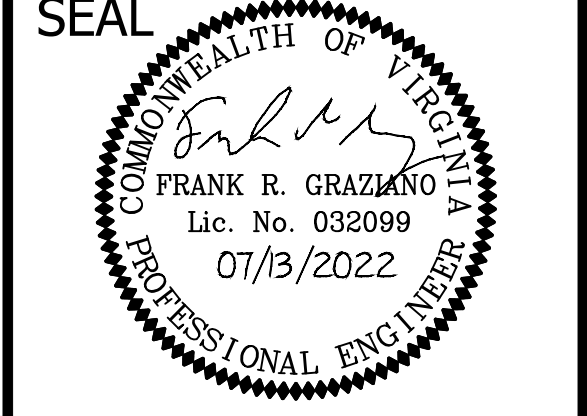
**EXISTING CONDITIONS LEGEND**

	PARCEL BOUNDARIES
	EX. INFRASTRUCTURE
	EX. CONTOURS (1')
	EX. SANITARY SEWER
	EX. WATER LINE
	EX. GAS LINE
	EX. TELEPHONE LINE
	EX. UG ELECTRIC
	EX. OH ELECTRIC
	SITE SPECIFIC RPA
	2019 COUNTY RPA
	2013 FEMA FLOODPLAIN
	PERENNIAL STREAM
	EX. STORM DRAIN
	EX. SANITARY MANHOLE
	COUNTY SURVEYED TREE
	WSSI INVENTORY TREE



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TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

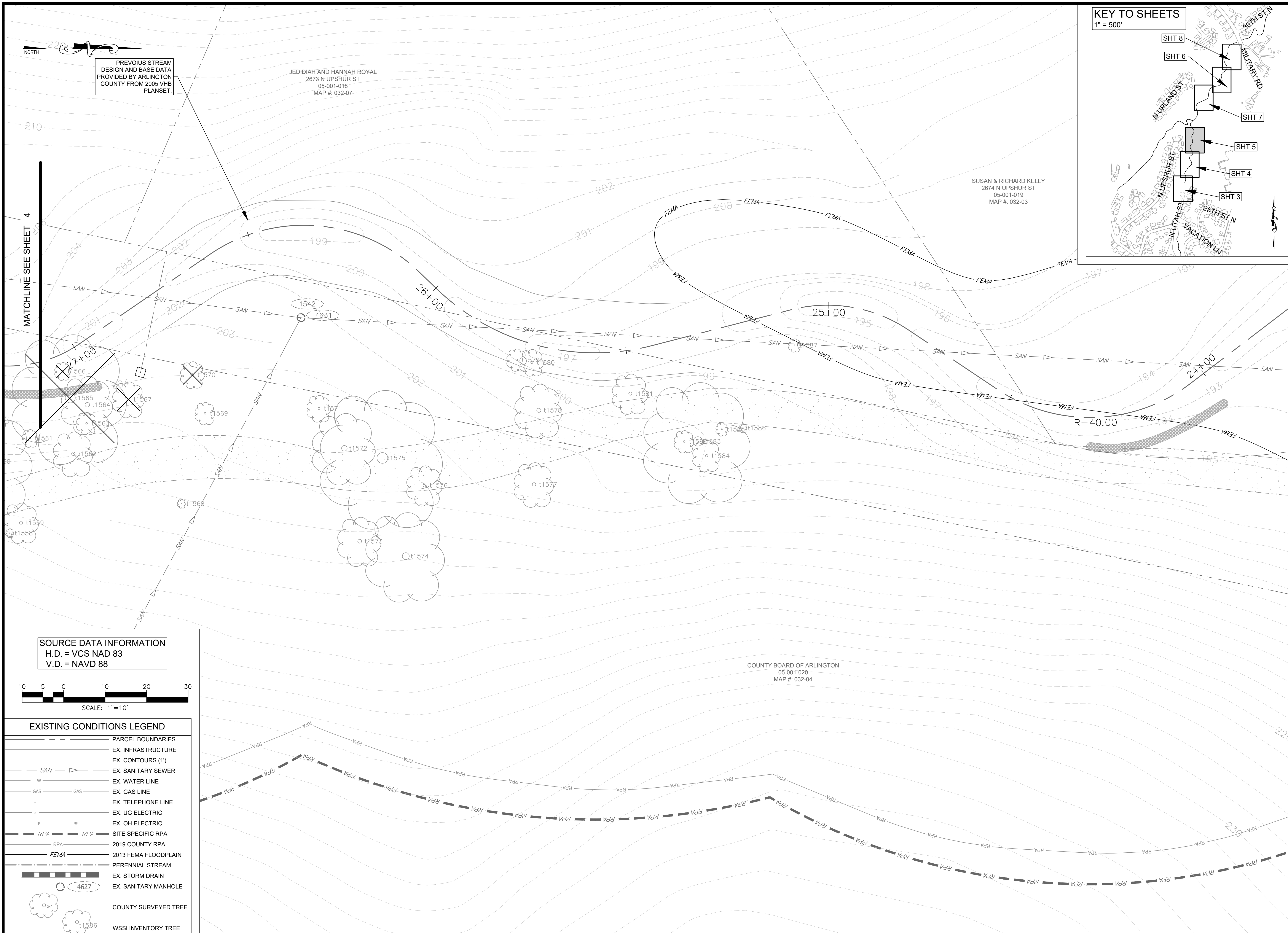
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 EXISTING CONDITIONS PLAN (02)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022  
 SCALE: 1"=10'

REVISED ON 1/24/2022

FILENAME: EXISTING CONDITIONS PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04\ENGR\07-FINAL PLOTTED BY: SH0036

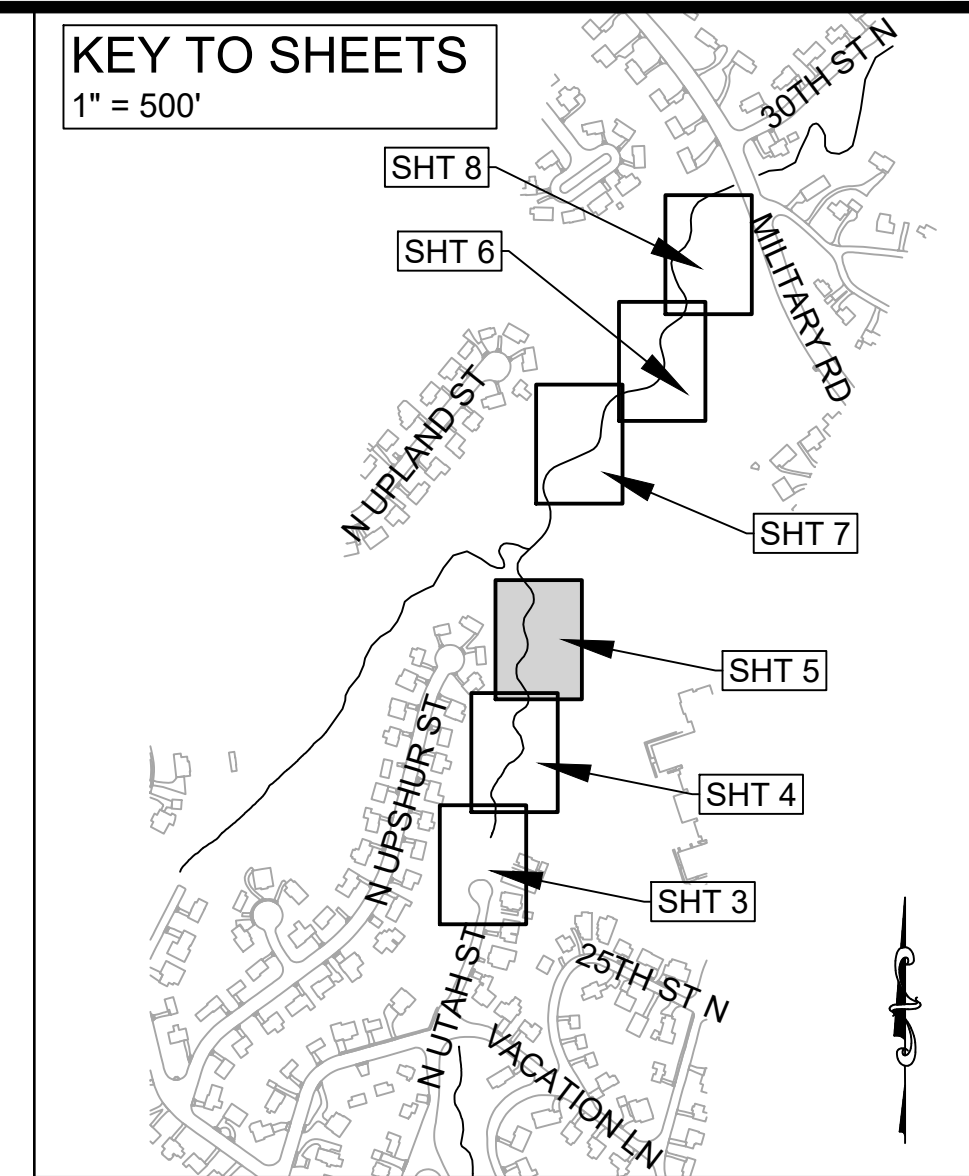


PREVIOUS STREAM  
DESIGN AND BASE DATA  
PROVIDED BY ARLINGTON  
COUNTY FROM 2005 VHB  
PLANSET.

JEDIDIAH AND HANNAH ROYAL  
2673 N UPSHUR ST  
05-001-018  
MAP #: 032-07

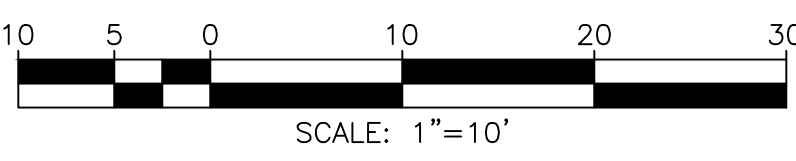
SUSAN & RICHARD KELLY  
2674 N UPSHUR ST  
05-001-019  
MAP #: 032-03

COUNTY BOARD OF ARLINGTON  
05-001-020  
MAP #: 032-04



MATCHLINE SEE SHEET 4

**SOURCE DATA INFORMATION**  
H.D. = VCS NAD 83  
V.D. = NAVD 88



**EXISTING CONDITIONS LEGEND**

	PARCEL BOUNDARIES
	EX. INFRASTRUCTURE
	EX. CONTOURS (1')
	EX. SANITARY SEWER
	EX. WATER LINE
	EX. GAS LINE
	EX. TELEPHONE LINE
	EX. UG ELECTRIC
	EX. OH ELECTRIC
	SITE SPECIFIC RPA
	2019 COUNTY RPA
	2013 FEMA FLOODPLAIN
	PERENNIAL STREAM
	EX. STORM DRAIN
	EX. SANITARY MANHOLE
	COUNTY SURVEYED TREE
	WSSI INVENTORY TREE

**ARLINGTON VIRGINIA**

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**SEAL**

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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

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REVISIONS	DATE

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**TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN**

ARLINGTON COUNTY, VIRGINIA

**EXISTING CONDITIONS PLAN (03)**

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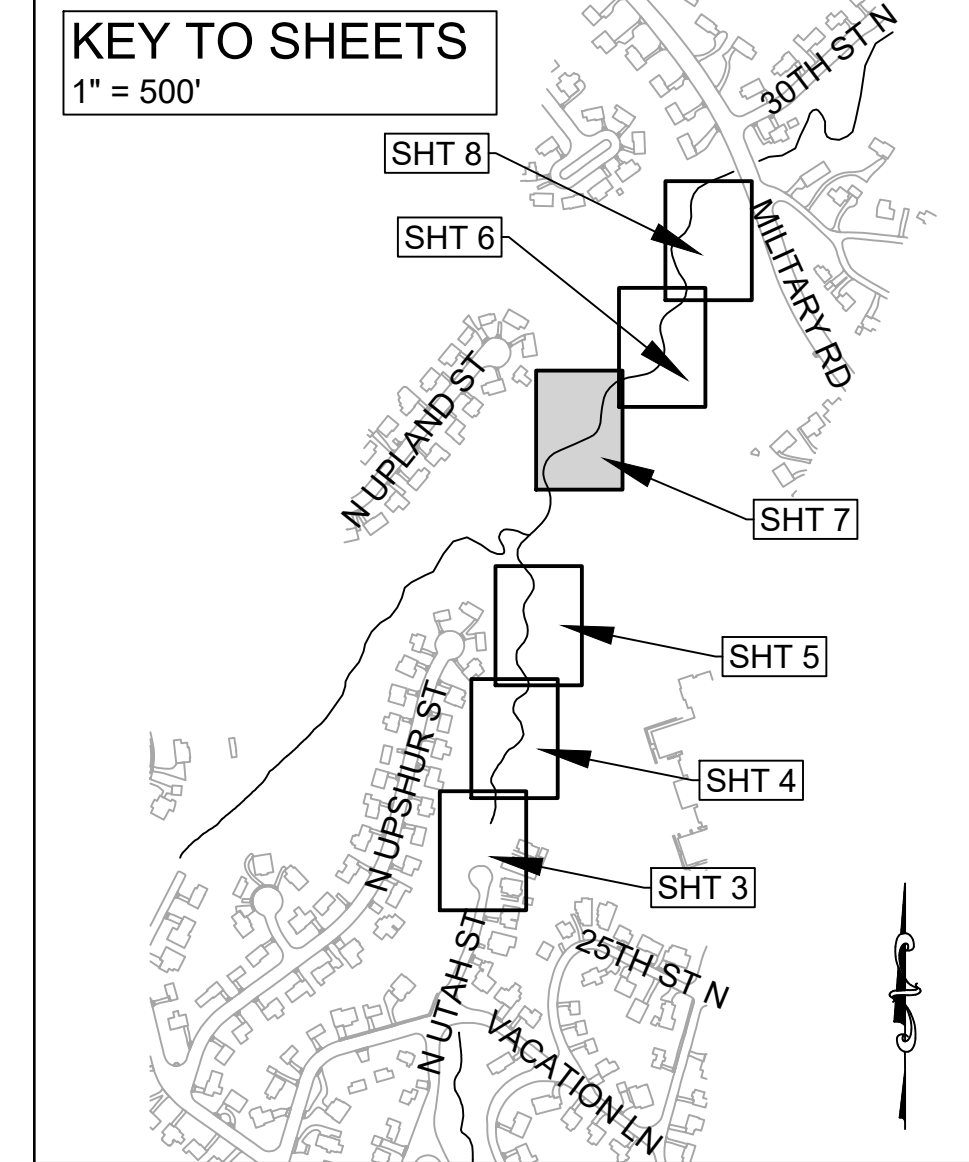
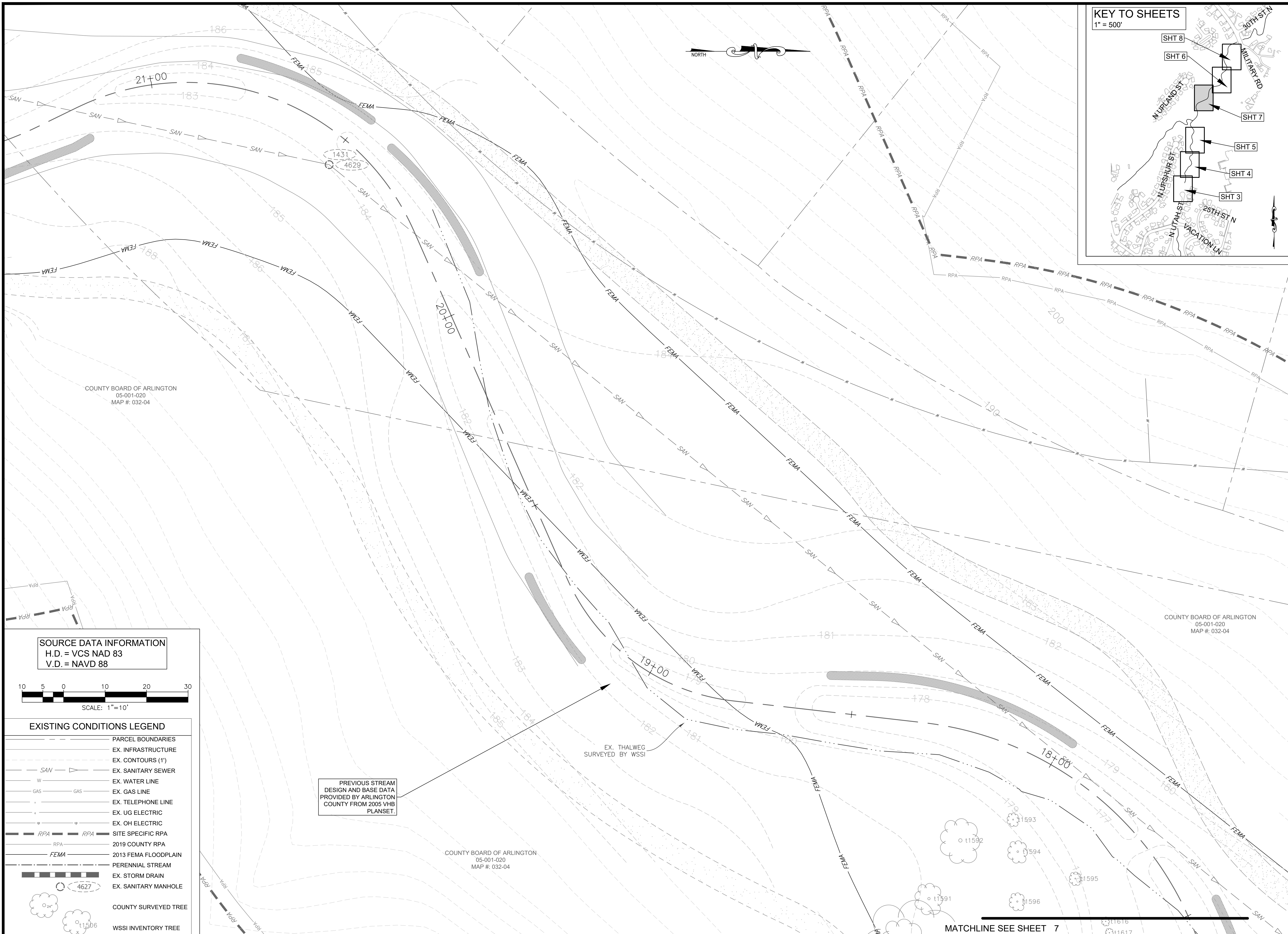
DESIGNED: AMC
DRAWN: AMC
CHECKED: FRG
PLOTTED: JULY 13 2022
<b>SCALE: 1"=10'</b>

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5 of 49

REVISED ON 1/24/2022

FILENAME: EXISTING CONDITIONS PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04\ENGR\07-FINAL PLOTTED BY: SH0036



DEPARTMENT OF ENVIRONMENTAL SERVICES  
 FACILITIES & ENGINEERING DIVISION  
 ENGINEERING BUREAU  
 2100 CLARENDON BOULEVARD, SUITE 813  
 ARLINGTON, VA 22201  
 PHONE: 703.228.3629  
 FAX: 703.228.3606

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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

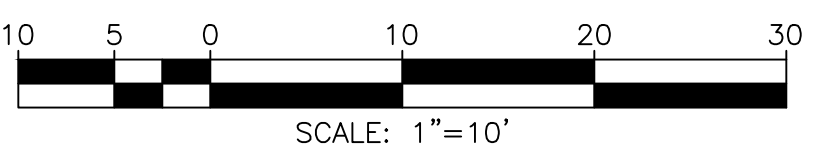
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 EXISTING CONDITIONS PLAN (04)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'

SOURCE DATA INFORMATION  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



EXISTING CONDITIONS LEGEND	
	PARCEL BOUNDARIES
	EX. INFRASTRUCTURE
	EX. CONTOURS (1')
	EX. SANITARY SEWER
	EX. WATER LINE
	EX. GAS LINE
	EX. TELEPHONE LINE
	EX. UG ELECTRIC
	EX. OH ELECTRIC
	SITE SPECIFIC RPA
	2019 COUNTY RPA
	2013 FEMA FLOODPLAIN
	PERENNIAL STREAM
	EX. STORM DRAIN
	EX. SANITARY MANHOLE
	COUNTY SURVEYED TREE
	WSSI INVENTORY TREE

PREVIOUS STREAM  
 DESIGN AND BASE DATA  
 PROVIDED BY ARLINGTON  
 COUNTY FROM 2005 VHB  
 PLANSET.

COUNTY BOARD OF ARLINGTON  
 05-001-020  
 MAP #: 032-04

COUNTY BOARD OF ARLINGTON  
 05-001-020  
 MAP #: 032-04

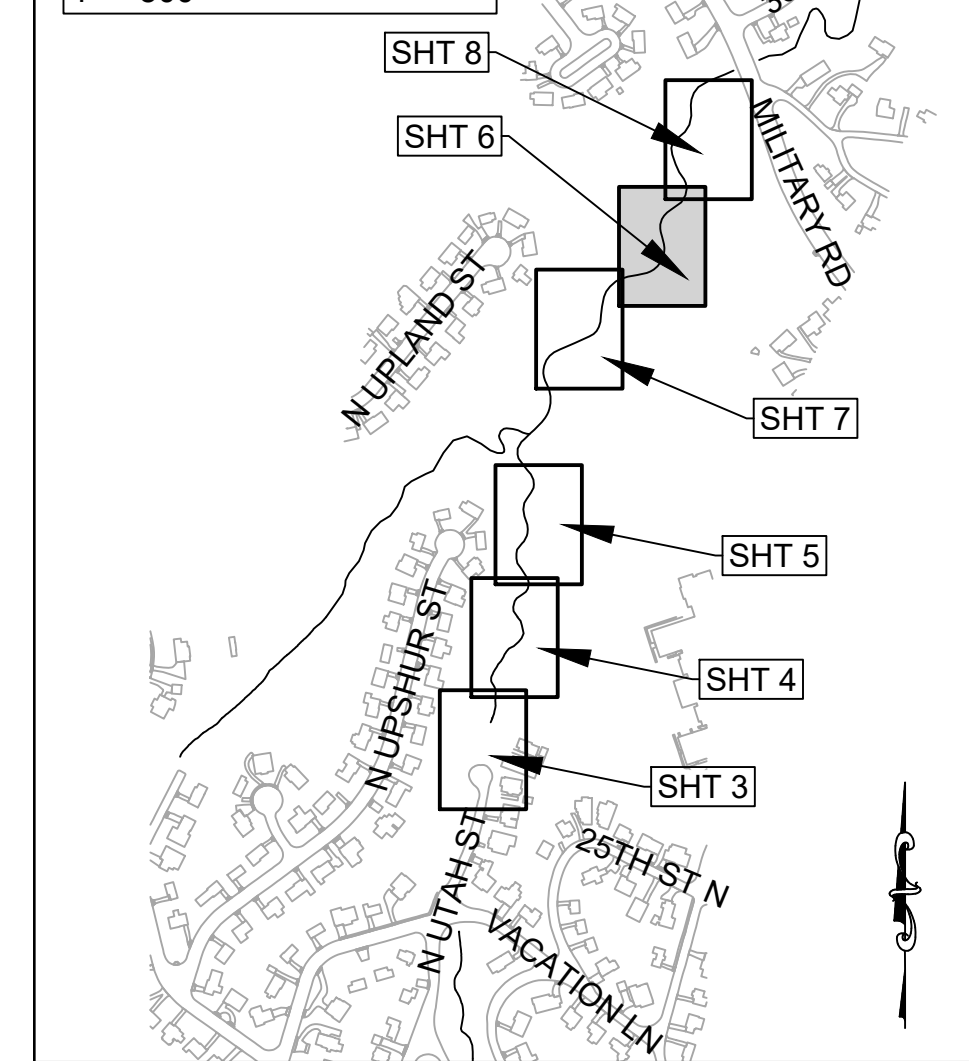
MATCHLINE SEE SHEET 7

REVISED ON 12/24/2022

FILENAME: EXISTING CONDITIONS PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04\ENGR\07-FINAL PLOTTED BY: S40036

MATCHLINE SEE SHEET 5

KEY TO SHEETS  
1" = 500'



DEPARTMENT OF ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
2100 CLARENDON BOULEVARD, SUITE 813  
ARLINGTON, VA 22201  
PHONE: 703.228.3629  
FAX: 703.228.3606

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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

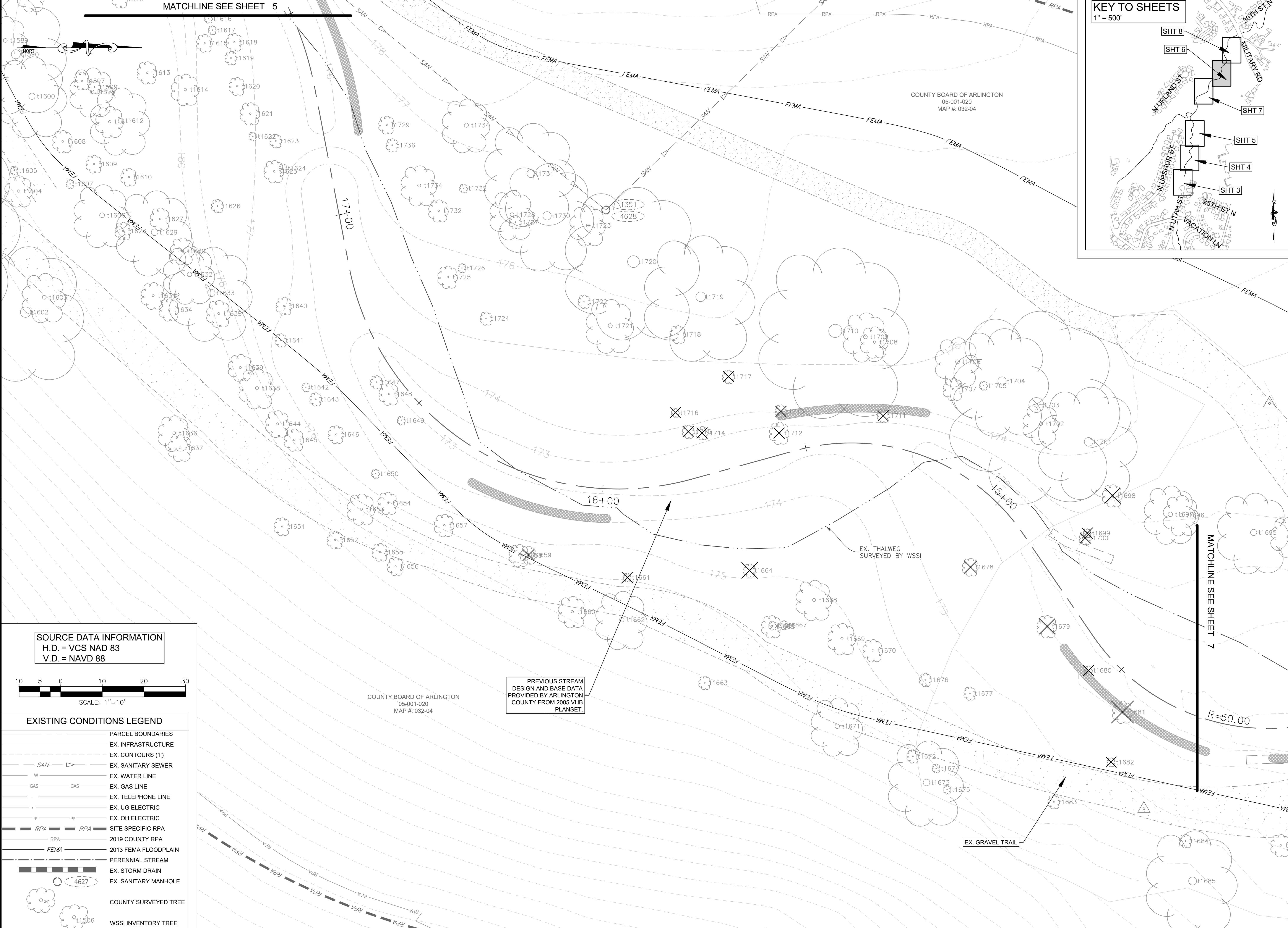
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
EXISTING CONDITIONS PLAN (04)

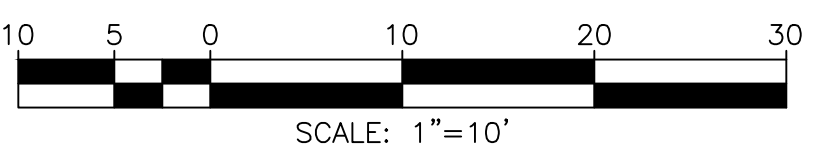
DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'



SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



EXISTING CONDITIONS LEGEND	
	PARCEL BOUNDARIES
	EX. INFRASTRUCTURE
	EX. CONTOURS (1')
	EX. SANITARY SEWER
	EX. WATER LINE
	EX. GAS LINE
	EX. TELEPHONE LINE
	EX. UG ELECTRIC
	EX. OH ELECTRIC
	SITE SPECIFIC RPA
	2019 COUNTY RPA
	2013 FEMA FLOODPLAIN
	PERENNIAL STREAM
	EX. STORM DRAIN
	EX. SANITARY MANHOLE
	COUNTY SURVEYED TREE
	WSSI INVENTORY TREE

COUNTY BOARD OF ARLINGTON  
05-001-020  
MAP #: 032-04

PREVIOUS STREAM  
DESIGN AND BASE DATA  
PROVIDED BY ARLINGTON  
COUNTY FROM 2005 VHB  
PLANSET.

EX. THALWEG  
SURVEYED BY WSSI

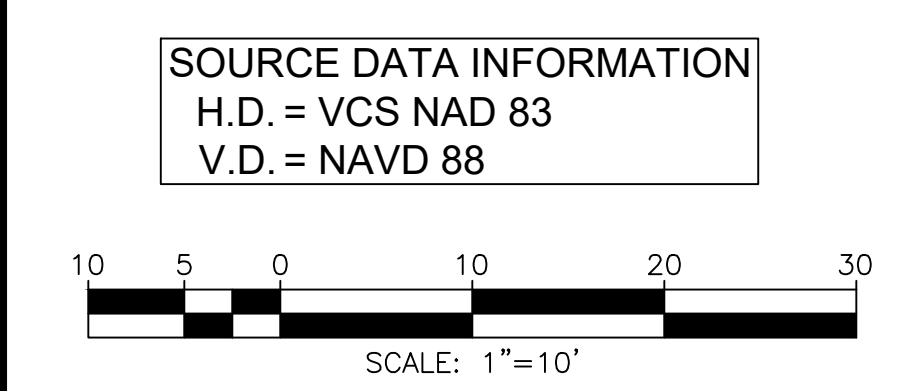
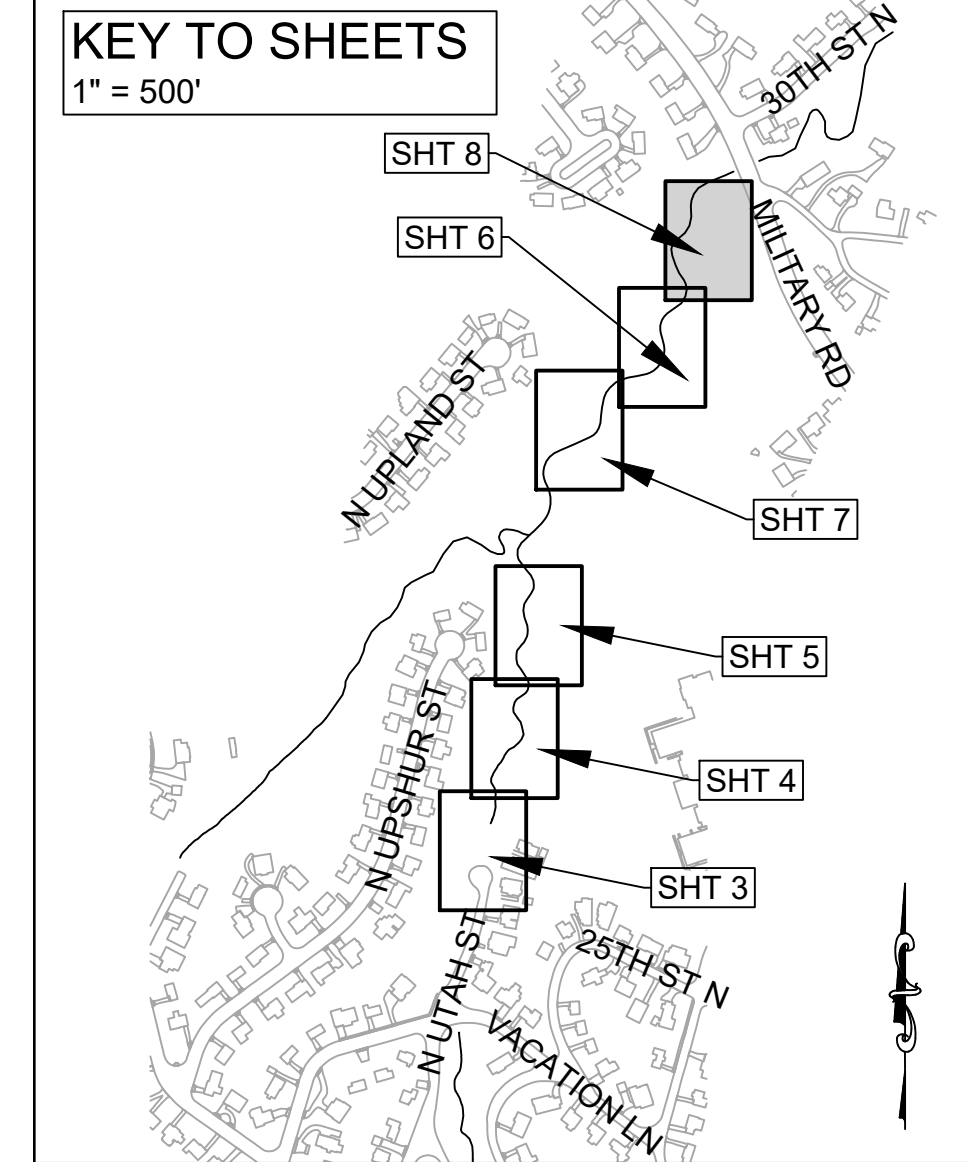
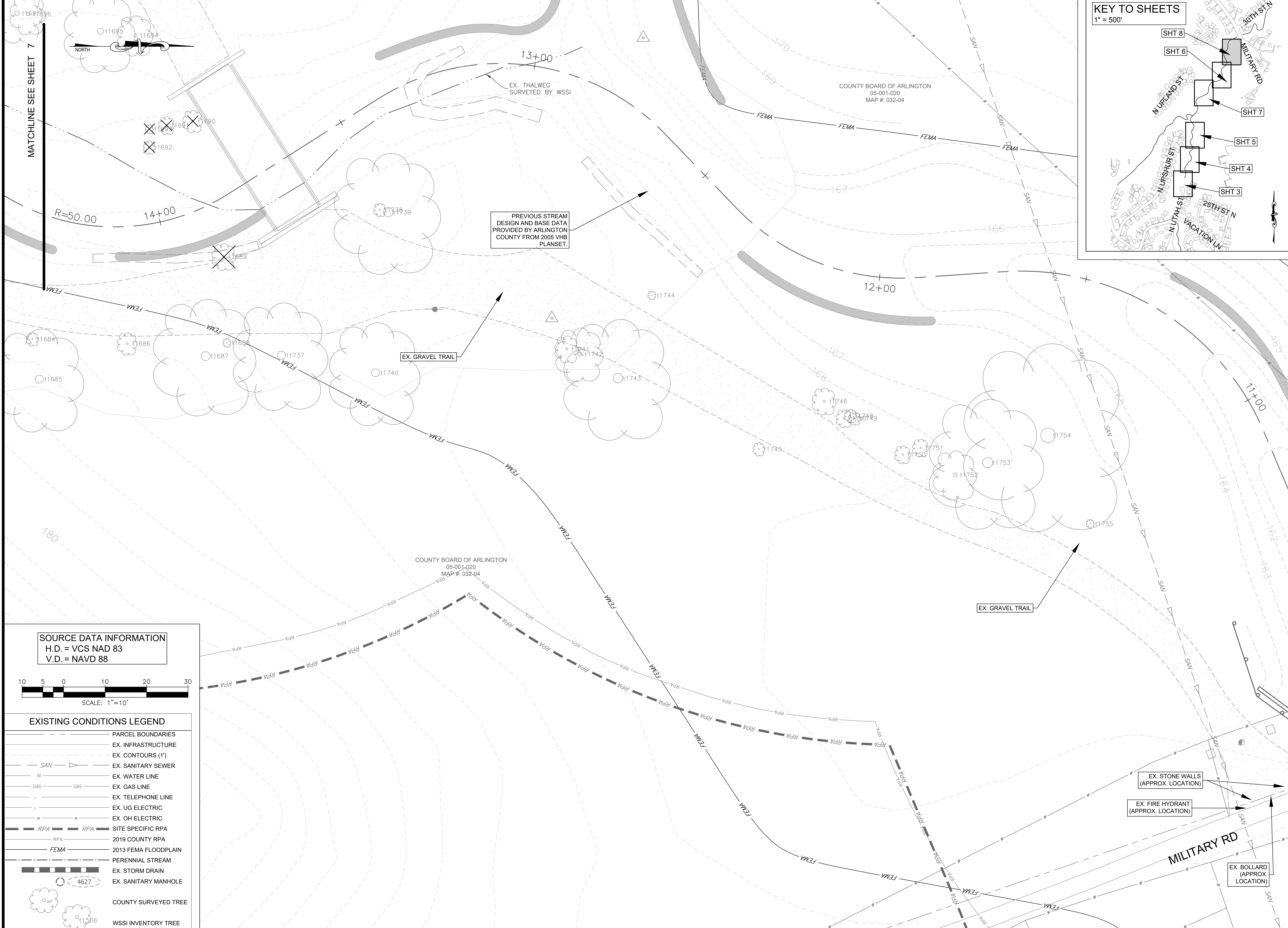
EX. GRAVEL TRAIL

MATCHLINE SEE SHEET 7

R=50.00

REVISED ON 1/24/2022

FILENAME: EXISTING CONDITIONS PLAN.DWG PATH: L:\1280005\28400\28461.01\CADD\04\ENGR\07-FINAL PLOTTED BY: S40036

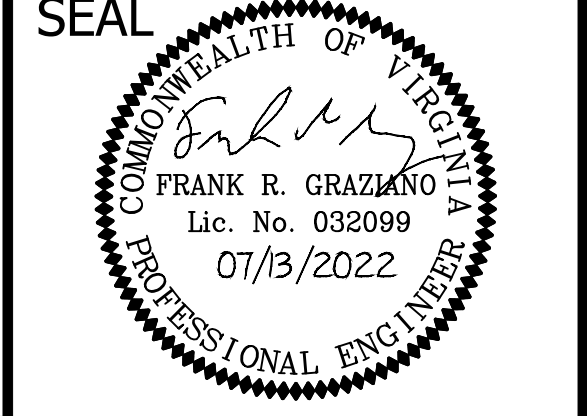


EXISTING CONDITIONS LEGEND	
	PARCEL BOUNDARIES
	EX. INFRASTRUCTURE
	EX. CONTOURS (1')
	EX. SANITARY SEWER
	EX. WATER LINE
	EX. GAS LINE
	EX. TELEPHONE LINE
	EX. UG ELECTRIC
	EX. OH ELECTRIC
	SITE SPECIFIC RPA
	2019 COUNTY RPA
	2013 FEMA FLOODPLAIN
	PERENNIAL STREAM
	EX. STORM DRAIN
	EX. SANITARY MANHOLE
	COUNTY SURVEYED TREE
	WSSI INVENTORY TREE



DEPARTMENT OF ENVIRONMENTAL SERVICES  
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 ARLINGTON, VA 22201  
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 FAX: 703.228.3606

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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

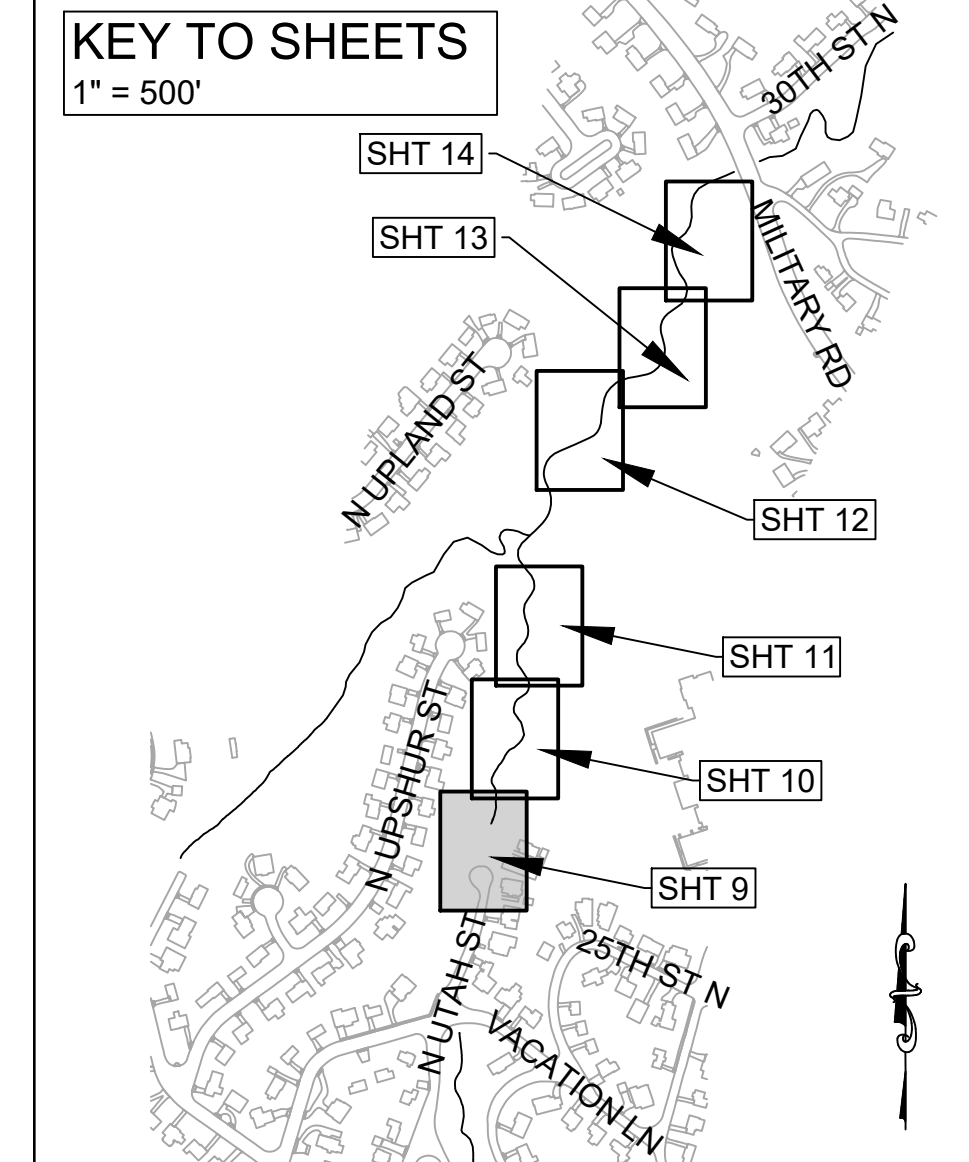
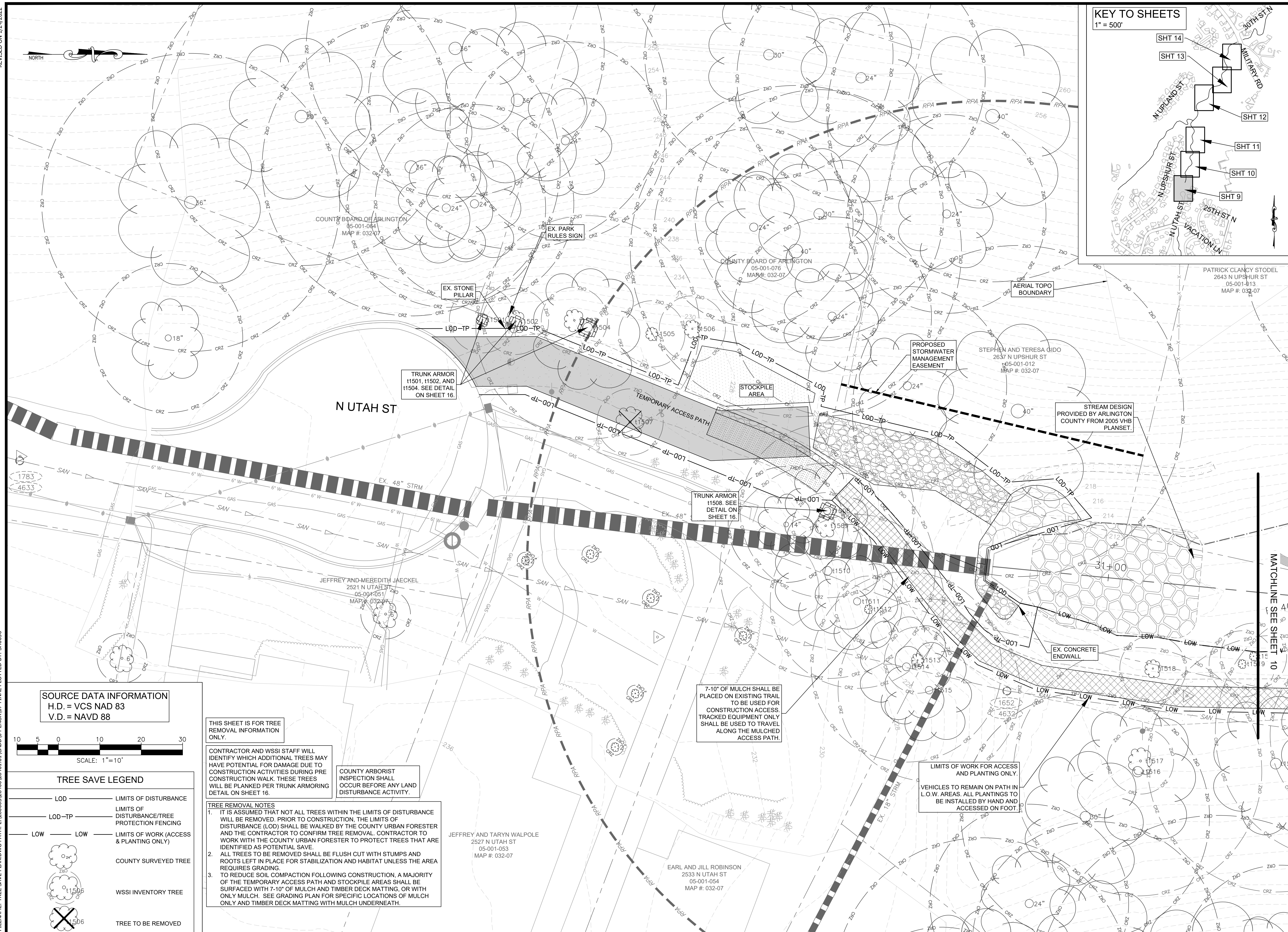
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 EXISTING CONDITIONS PLAN (06)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG

PLOTTED: JULY 13 2022

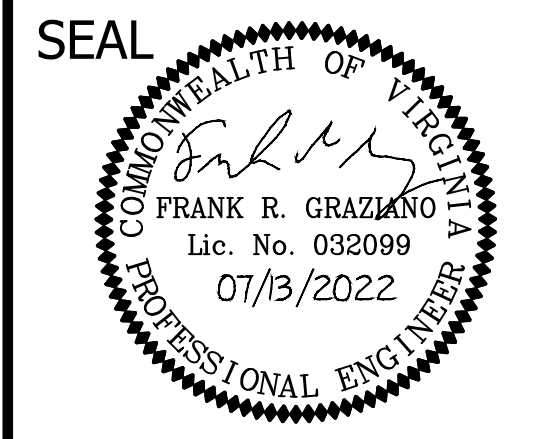
SCALE: 1" = 10'





DEPARTMENT OF ENVIRONMENTAL SERVICES  
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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR \_\_\_\_\_  
 CONSTRUCTION MANAGEMENT SUPERVISOR \_\_\_\_\_  
 WATER, SEWER, STREETS BUREAU CHIEF \_\_\_\_\_  
 TRANSPORTATION DIRECTOR \_\_\_\_\_  
 PROJECT MANAGER \_\_\_\_\_

REVISIONS DATE

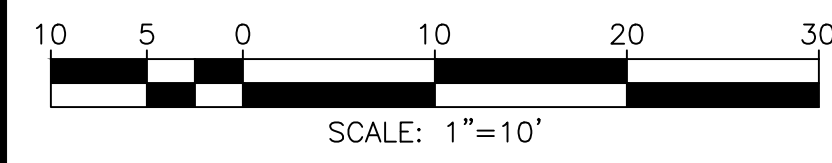
NO.	DESCRIPTION	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 TREE SAVE PLAN (01)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022

SCALE: 1"=10'

SOURCE DATA INFORMATION  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



TREE SAVE LEGEND

- LOD — LIMITS OF DISTURBANCE
- LOD-TP — LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
- LOW — LIMITS OF WORK (ACCESS & PLANTING ONLY)
- COUNTY SURVEYED TREE
- WSSI INVENTORY TREE
- TREE TO BE REMOVED

THIS SHEET IS FOR TREE REMOVAL INFORMATION ONLY.

CONTRACTOR AND WSSI STAFF WILL IDENTIFY WHICH ADDITIONAL TREES MAY HAVE POTENTIAL FOR DAMAGE DUE TO CONSTRUCTION ACTIVITIES DURING PRE CONSTRUCTION WALK. THESE TREES WILL BE PLANKED PER TRUNK ARMORING DETAIL ON SHEET 16.

COUNTY ARBORIST INSPECTION SHALL OCCUR BEFORE ANY LAND DISTURBANCE ACTIVITY.

TREE REMOVAL NOTES

- IT IS ASSUMED THAT NOT ALL TREES WITHIN THE LIMITS OF DISTURBANCE WILL BE REMOVED. PRIOR TO CONSTRUCTION, THE LIMITS OF DISTURBANCE (LOD) SHALL BE WALKED BY THE COUNTY URBAN FORESTER AND THE CONTRACTOR TO CONFIRM TREE REMOVAL. CONTRACTOR TO WORK WITH THE COUNTY URBAN FORESTER TO PROTECT TREES THAT ARE IDENTIFIED AS POTENTIAL SAVE.
- ALL TREES TO BE REMOVED SHALL BE FLUSH CUT WITH STUMPS AND ROOTS LEFT IN PLACE FOR STABILIZATION AND HABITAT UNLESS THE AREA REQUIRES GRADING.
- TO REDUCE SOIL COMPACTION FOLLOWING CONSTRUCTION, A MAJORITY OF THE TEMPORARY ACCESS PATH AND STOCKPILE AREAS SHALL BE SURFACED WITH 7-10" OF MULCH AND TIMBER DECK MATTING, OR WITH ONLY MULCH. SEE GRADING PLAN FOR SPECIFIC LOCATIONS OF MULCH ONLY AND TIMBER DECK MATTING WITH MULCH UNDERNEATH.

7-10" OF MULCH SHALL BE PLACED ON EXISTING TRAIL TO BE USED FOR CONSTRUCTION ACCESS. TRACKED EQUIPMENT ONLY SHALL BE USED TO TRAVEL ALONG THE MULCHED ACCESS PATH.

LIMITS OF WORK FOR ACCESS AND PLANTING ONLY.  
 VEHICLES TO REMAIN ON PATH IN L.O.W. AREAS. ALL PLANTINGS TO BE INSTALLED BY HAND AND ACCESSED ON FOOT.

JEFFREY AND TARYN WALPOLE  
 2527 N UTAH ST  
 05-001-053  
 MAP #: 032-07

EARL AND JILL ROBINSON  
 2533 N UTAH ST  
 05-001-054  
 MAP #: 032-07

COUNTY BOARD OF ARLINGTON  
 05-001-084  
 MAP #: 032-07

COUNTY BOARD OF ARLINGTON  
 05-001-076  
 MAP #: 032-07

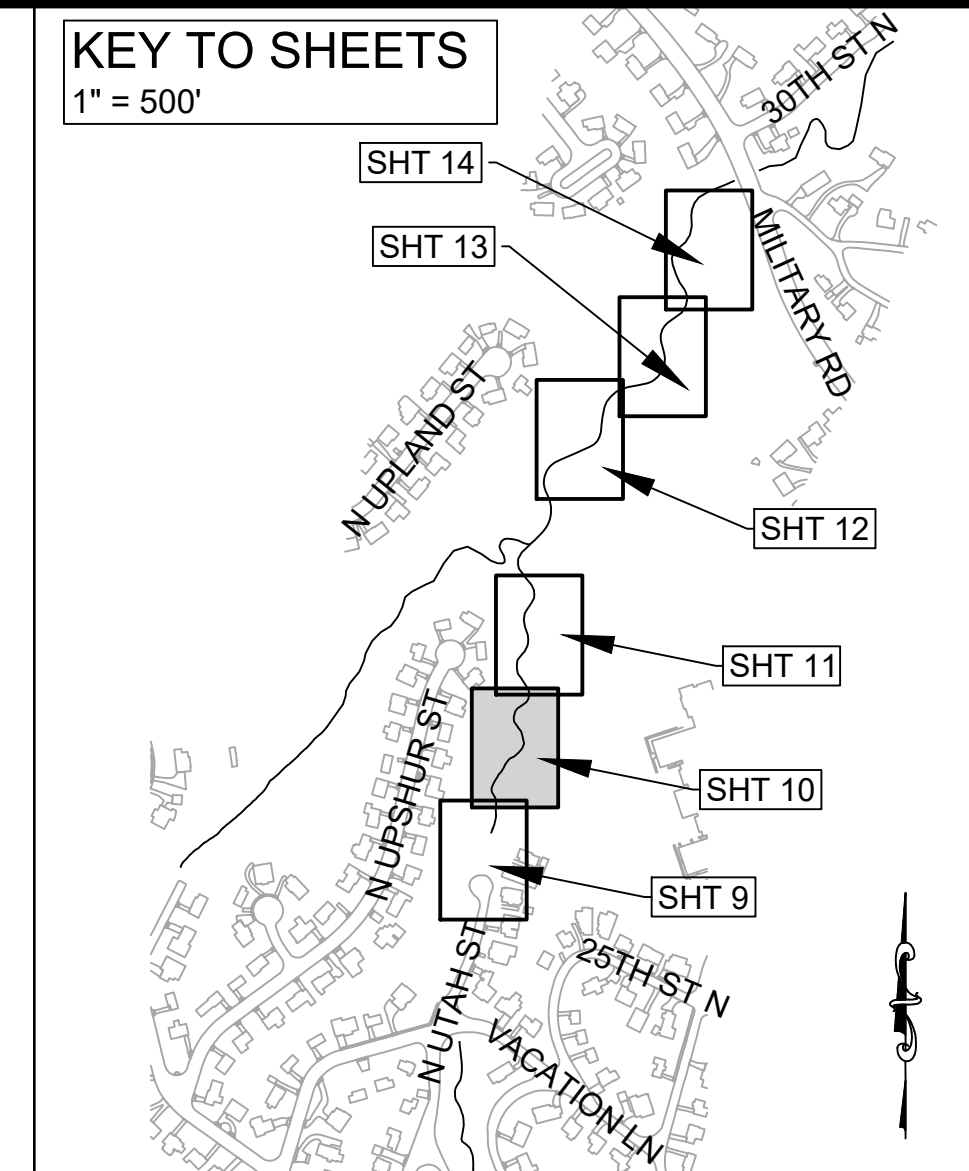
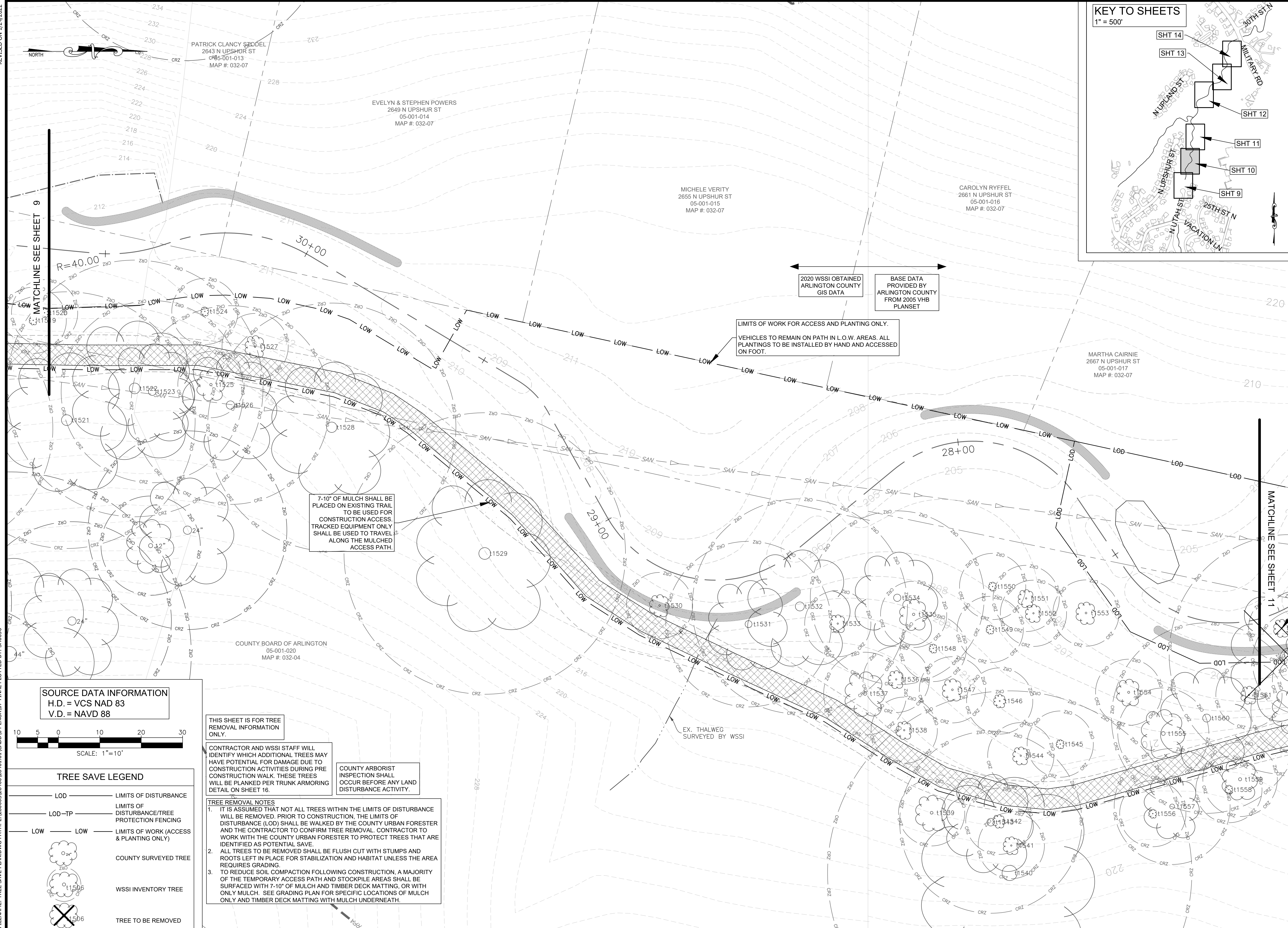
PATRICK CLANCY STODEL  
 2643 N UPSHUR ST  
 05-001-813  
 MAP #: 032-07

STEPHEN AND TERESA GIDO  
 2637 N UPSHUR ST  
 05-001-012  
 MAP #: 032-07

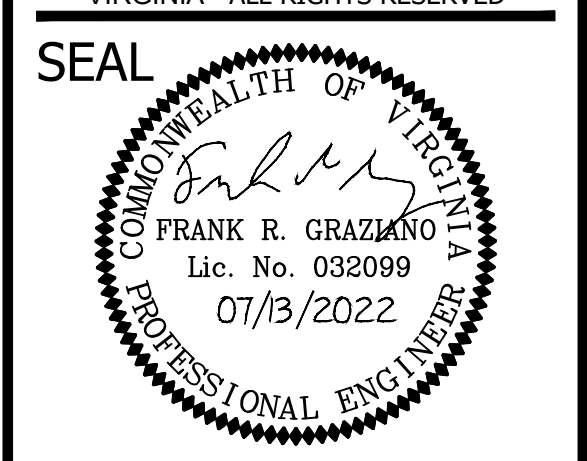
JEFFREY AND MEREDITH JAECKEL  
 2521 N UTAH ST  
 05-001-051  
 MAP #: 032-07

REVISED ON 12/24/2022

FILENAME: TREE SAVE PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



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 DEPARTMENT OF ENVIRONMENTAL SERVICES  
 FACILITIES & ENGINEERING DIVISION  
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 ARLINGTON, VA 22201  
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APPROVALS DATE  
 DESIGN TEAM ENGINEER SUPERVISOR  
 CONSTRUCTION MANAGEMENT SUPERVISOR  
 WATER, SEWER, STREETS BUREAU CHIEF  
 TRANSPORTATION DIRECTOR  
 PROJECT MANAGER

REVISIONS DATE

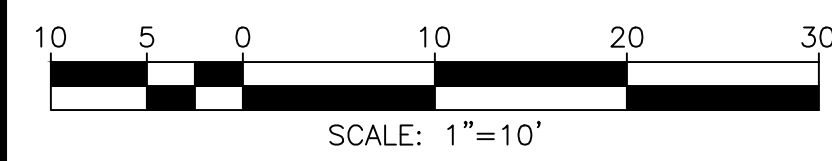
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 TREE SAVE PLAN (02)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022

SCALE: 1"=10'

10 of 49

SOURCE DATA INFORMATION  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



TREE SAVE LEGEND

- LOD LIMITS OF DISTURBANCE
- LOD-TP LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
- LOW LIMITS OF WORK (ACCESS & PLANTING ONLY)
- COUNTY SURVEYED TREE
- WSSI INVENTORY TREE
- TREE TO BE REMOVED

THIS SHEET IS FOR TREE REMOVAL INFORMATION ONLY.

CONTRACTOR AND WSSI STAFF WILL IDENTIFY WHICH ADDITIONAL TREES MAY HAVE POTENTIAL FOR DAMAGE DUE TO CONSTRUCTION ACTIVITIES DURING PRE CONSTRUCTION WALK. THESE TREES WILL BE PLANKED PER TRUNK ARMORING DETAIL ON SHEET 16.

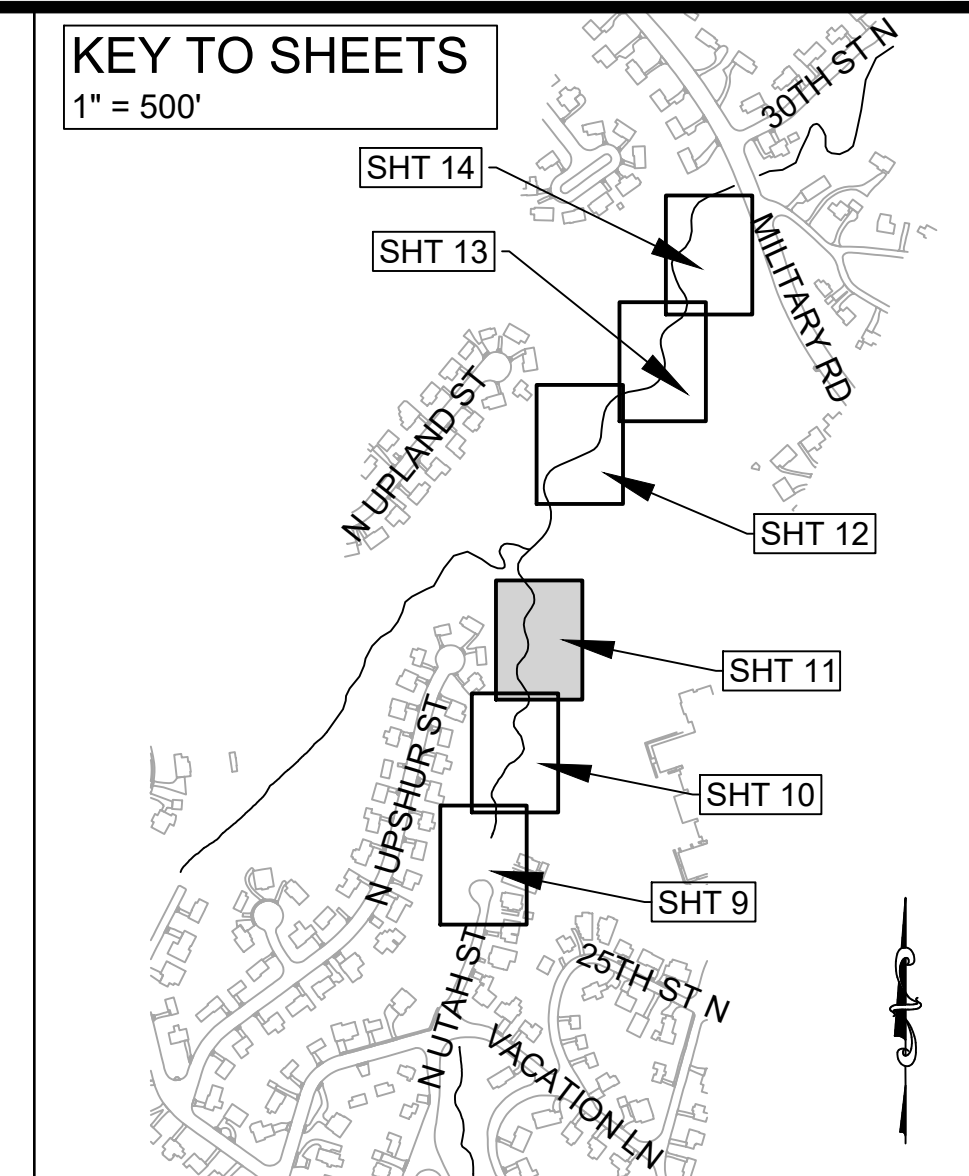
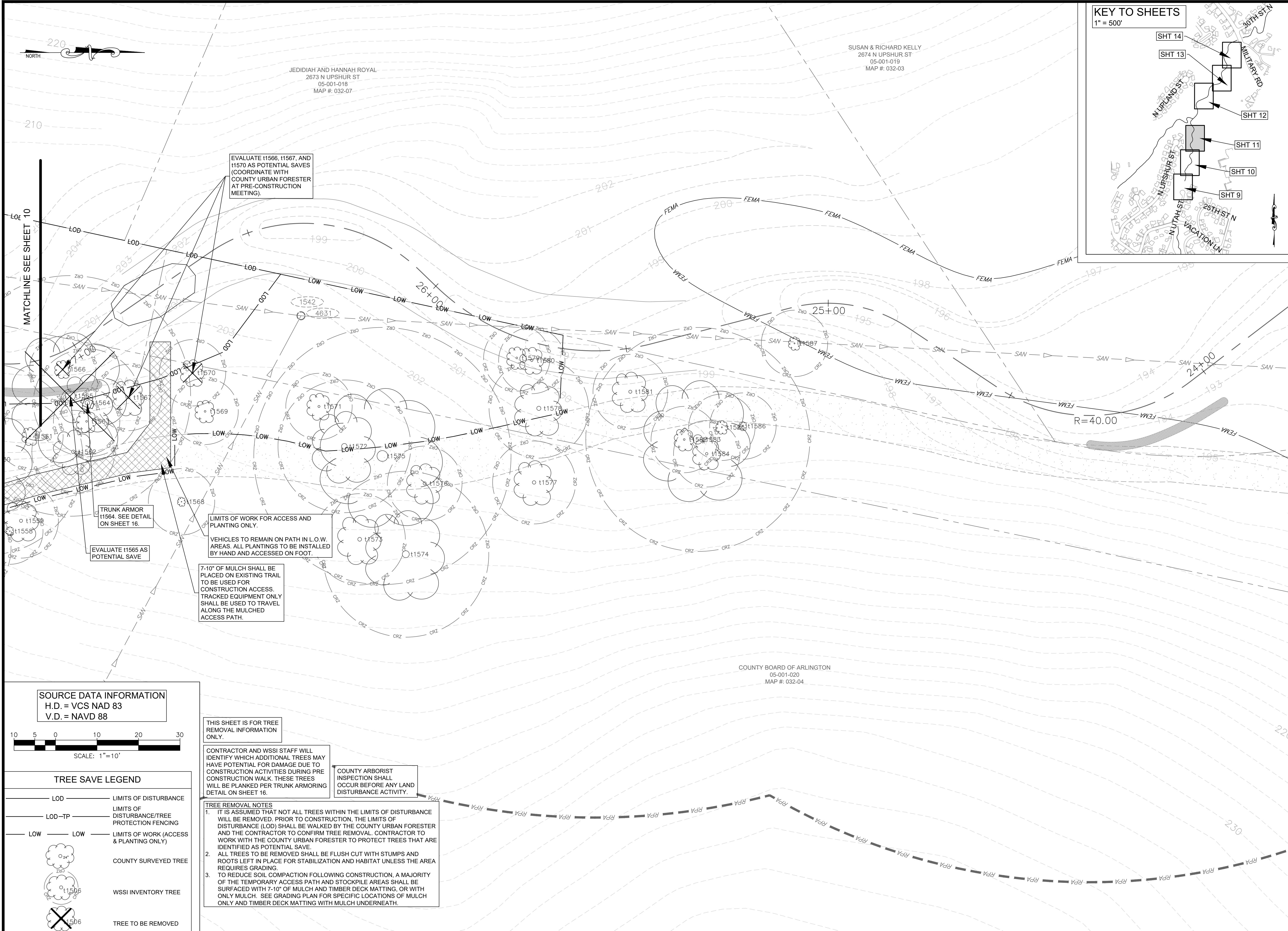
COUNTY ARBORIST INSPECTION SHALL OCCUR BEFORE ANY LAND DISTURBANCE ACTIVITY.

TREE REMOVAL NOTES

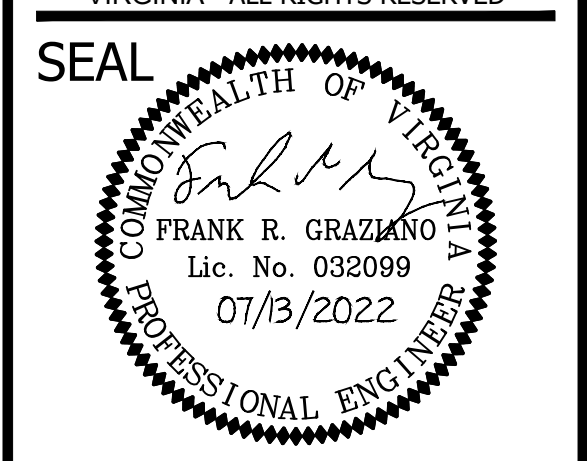
1. IT IS ASSUMED THAT NOT ALL TREES WITHIN THE LIMITS OF DISTURBANCE WILL BE REMOVED. PRIOR TO CONSTRUCTION, THE LIMITS OF DISTURBANCE (LOD) SHALL BE WALKED BY THE COUNTY URBAN FORESTER AND THE CONTRACTOR TO CONFIRM TREE REMOVAL. CONTRACTOR TO WORK WITH THE COUNTY URBAN FORESTER TO PROTECT TREES THAT ARE IDENTIFIED AS POTENTIAL SAVE.
2. ALL TREES TO BE REMOVED SHALL BE FLUSH CUT WITH STUMPS AND ROOTS LEFT IN PLACE FOR STABILIZATION AND HABITAT UNLESS THE AREA REQUIRES GRADING.
3. TO REDUCE SOIL COMPACTION FOLLOWING CONSTRUCTION, A MAJORITY OF THE TEMPORARY ACCESS PATH AND STOCKPILE AREAS SHALL BE SURFACED WITH 7" OF MULCH AND TIMBER DECK MATTING, OR WITH ONLY MULCH. SEE GRADING PLAN FOR SPECIFIC LOCATIONS OF MULCH ONLY AND TIMBER DECK MATTING WITH MULCH UNDERNEATH.

REVISED ON 1/24/2022

FILENAME: TREE SAVE PLAN.DWG PATH: L:\280005\28400\28461\_01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



**ARLINGTON VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL SERVICES  
 FACILITIES & ENGINEERING DIVISION  
 ENGINEERING BUREAU  
 2100 CLARENDON BOULEVARD, SUITE 813  
 ARLINGTON, VA 22201  
 PHONE: 703.228.3629  
 FAX: 703.228.3606  
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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

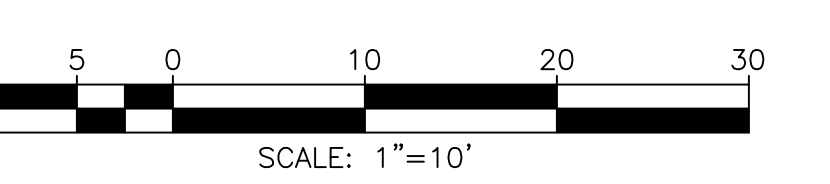
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
**TREE SAVE PLAN (03)**

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022

SCALE: 1"=10'

**SOURCE DATA INFORMATION**  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



TREE SAVE LEGEND	
LOD	LIMITS OF DISTURBANCE
LOD-TP	LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
LOW	LIMITS OF WORK (ACCESS & PLANTING ONLY)
	COUNTY SURVEYED TREE
	WSSI INVENTORY TREE
	TREE TO BE REMOVED

THIS SHEET IS FOR TREE REMOVAL INFORMATION ONLY.

CONTRACTOR AND WSSI STAFF WILL IDENTIFY WHICH ADDITIONAL TREES MAY HAVE POTENTIAL FOR DAMAGE DUE TO CONSTRUCTION ACTIVITIES DURING PRE CONSTRUCTION WALK. THESE TREES WILL BE PLANKED PER TRUNK ARMORING DETAIL ON SHEET 16.

COUNTY ARBORIST INSPECTION SHALL OCCUR BEFORE ANY LAND DISTURBANCE ACTIVITY.

**TREE REMOVAL NOTES**

- IT IS ASSUMED THAT NOT ALL TREES WITHIN THE LIMITS OF DISTURBANCE WILL BE REMOVED. PRIOR TO CONSTRUCTION, THE LIMITS OF DISTURBANCE (LOD) SHALL BE WALKED BY THE COUNTY URBAN FORESTER AND THE CONTRACTOR TO CONFIRM TREE REMOVAL. CONTRACTOR TO WORK WITH THE COUNTY URBAN FORESTER TO PROTECT TREES THAT ARE IDENTIFIED AS POTENTIAL SAVE.
- ALL TREES TO BE REMOVED SHALL BE FLUSH CUT WITH STUMPS AND ROOTS LEFT IN PLACE FOR STABILIZATION AND HABITAT UNLESS THE AREA REQUIRES GRADING.
- TO REDUCE SOIL COMPACTION FOLLOWING CONSTRUCTION, A MAJORITY OF THE TEMPORARY ACCESS PATH AND STOCKPILE AREAS SHALL BE SURFACED WITH 7-10" OF MULCH AND TIMBER DECK MATTING, OR WITH ONLY MULCH. SEE GRADING PLAN FOR SPECIFIC LOCATIONS OF MULCH ONLY AND TIMBER DECK MATTING WITH MULCH UNDERNEATH.

LIMITS OF WORK FOR ACCESS AND PLANTING ONLY.

VEHICLES TO REMAIN ON PATH IN L.O.W. AREAS. ALL PLANTINGS TO BE INSTALLED BY HAND AND ACCESSED ON FOOT.

7-10" OF MULCH SHALL BE PLACED ON EXISTING TRAIL TO BE USED FOR CONSTRUCTION ACCESS. TRACKED EQUIPMENT ONLY SHALL BE USED TO TRAVEL ALONG THE MULCHED ACCESS PATH.

EVALUATE 11566, 11567, AND 11570 AS POTENTIAL SAVES (COORDINATE WITH COUNTY URBAN FORESTER AT PRE-CONSTRUCTION MEETING).

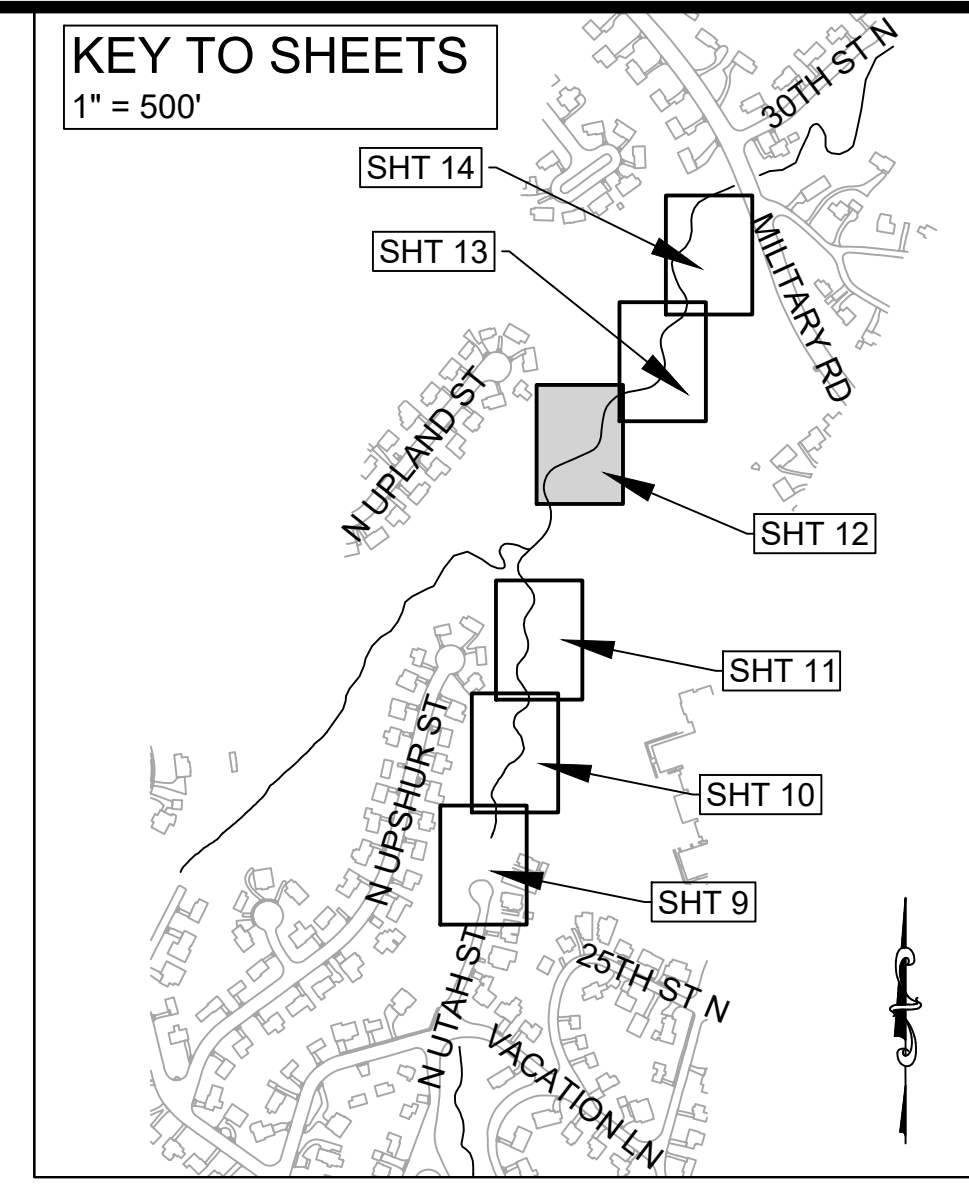
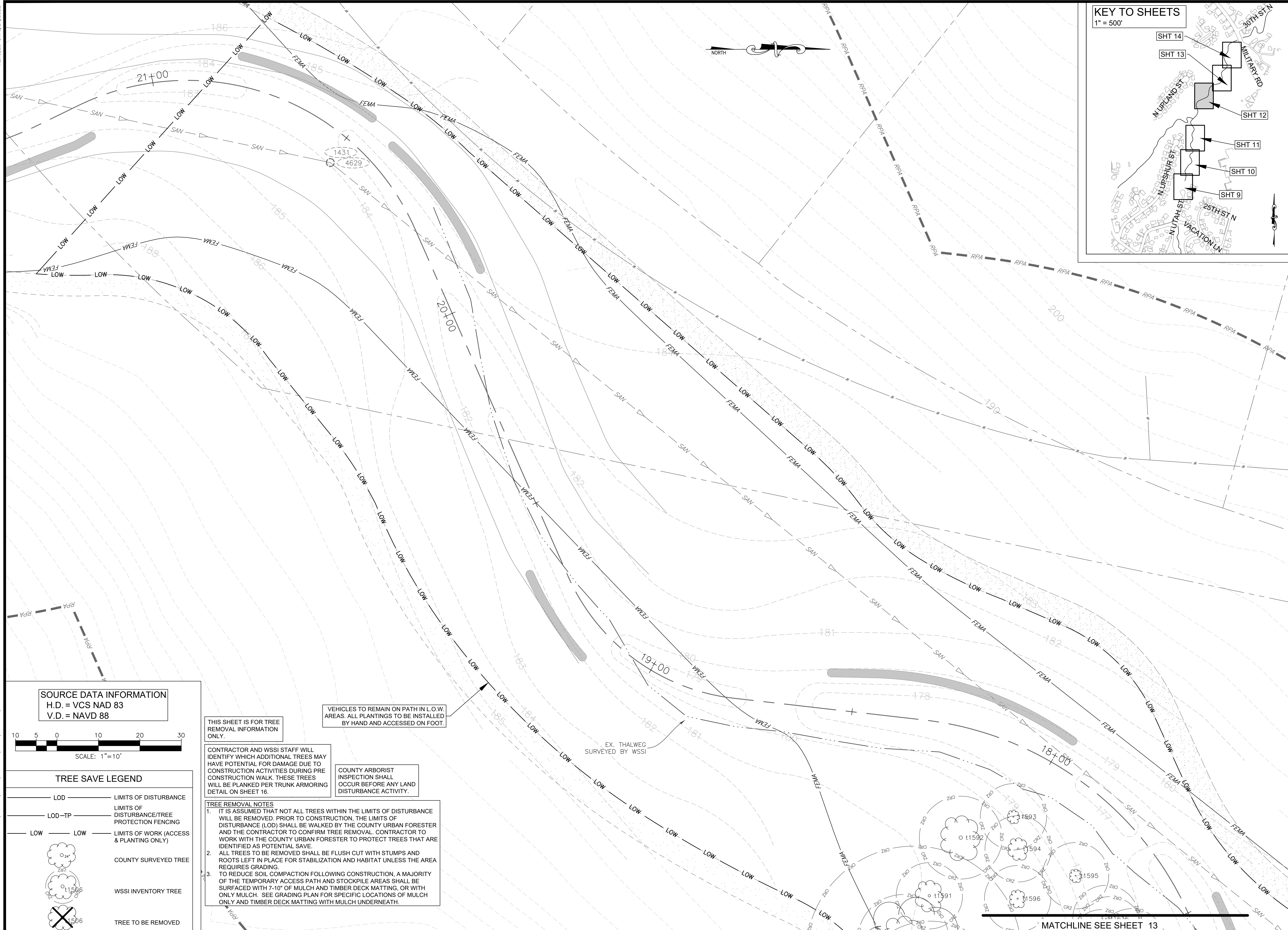
TRUNK ARMOR 11564. SEE DETAIL ON SHEET 16.

EVALUATE 11565 AS POTENTIAL SAVE

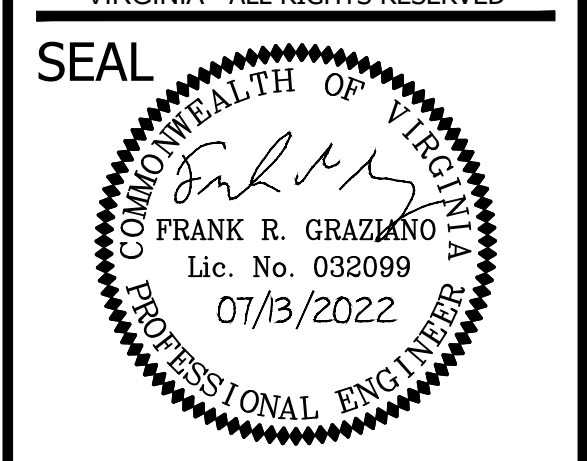
COUNTY BOARD OF ARLINGTON  
 05-001-020  
 MAP #: 032-04

SUSAN & RICHARD KELLY  
 2674 N UPISHUR ST  
 05-001-019  
 MAP #: 032-03

JEDIDIAH AND HANNAH ROYAL  
 2673 N UPISHUR ST  
 05-001-018  
 MAP #: 032-07



**ARLINGTON VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL SERVICES  
 FACILITIES & ENGINEERING DIVISION  
 ENGINEERING BUREAU  
 2100 CLARENDON BOULEVARD, SUITE 813  
 ARLINGTON, VA 22201  
 PHONE: 703.228.3629  
 FAX: 703.228.3606  
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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

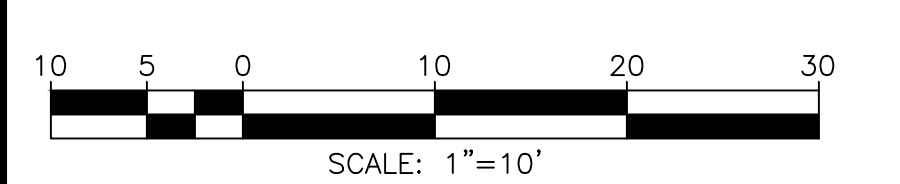
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 TREE SAVE PLAN (04)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022

SCALE: 1"=10'  
 12 of 49

**SOURCE DATA INFORMATION**  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



**TREE SAVE LEGEND**

LOD	LIMITS OF DISTURBANCE
LOD-TP	LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
LOW	LIMITS OF WORK (ACCESS & PLANTING ONLY)
	COUNTY SURVEYED TREE
	WSSI INVENTORY TREE
	TREE TO BE REMOVED

THIS SHEET IS FOR TREE REMOVAL INFORMATION ONLY.

CONTRACTOR AND WSSI STAFF WILL IDENTIFY WHICH ADDITIONAL TREES MAY HAVE POTENTIAL FOR DAMAGE DUE TO CONSTRUCTION ACTIVITIES DURING PRE CONSTRUCTION WALK. THESE TREES WILL BE PLANKED PER TRUNK ARMORING DETAIL ON SHEET 16.

VEHICLES TO REMAIN ON PATH IN LOW AREAS. ALL PLANTINGS TO BE INSTALLED BY HAND AND ACCESSED ON FOOT.

COUNTY ARBORIST INSPECTION SHALL OCCUR BEFORE ANY LAND DISTURBANCE ACTIVITY.

**TREE REMOVAL NOTES**

- IT IS ASSUMED THAT NOT ALL TREES WITHIN THE LIMITS OF DISTURBANCE WILL BE REMOVED. PRIOR TO CONSTRUCTION, THE LIMITS OF DISTURBANCE (LOD) SHALL BE WALKED BY THE COUNTY URBAN FORESTER AND THE CONTRACTOR TO CONFIRM TREE REMOVAL. CONTRACTOR TO WORK WITH THE COUNTY URBAN FORESTER TO PROTECT TREES THAT ARE IDENTIFIED AS POTENTIAL SAVE.
- ALL TREES TO BE REMOVED SHALL BE FLUSH CUT WITH STUMPS AND ROOTS LEFT IN PLACE FOR STABILIZATION AND HABITAT UNLESS THE AREA REQUIRES GRADING.
- TO REDUCE SOIL COMPACTION FOLLOWING CONSTRUCTION, A MAJORITY OF THE TEMPORARY ACCESS PATH AND STOCKPILE AREAS SHALL BE SURFACED WITH 7-10" OF MULCH AND TIMBER DECK MATTING, OR WITH ONLY MULCH. SEE GRADING PLAN FOR SPECIFIC LOCATIONS OF MULCH ONLY AND TIMBER DECK MATTING WITH MULCH UNDERNEATH.

EX. THALWEG SURVEYED BY WSSI

MATCHLINE SEE SHEET 13

REVISED ON 12/24/2022

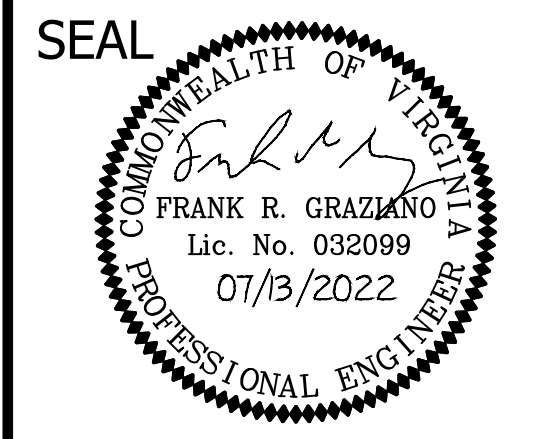
MATCHLINE SEE SHEET 12

KEY TO SHEETS  
1" = 500'



DEPARTMENT OF ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
2100 CLARENDON BOULEVARD, SUITE 813  
ARLINGTON, VA 22201  
PHONE: 703.228.3629  
FAX: 703.228.3606

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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

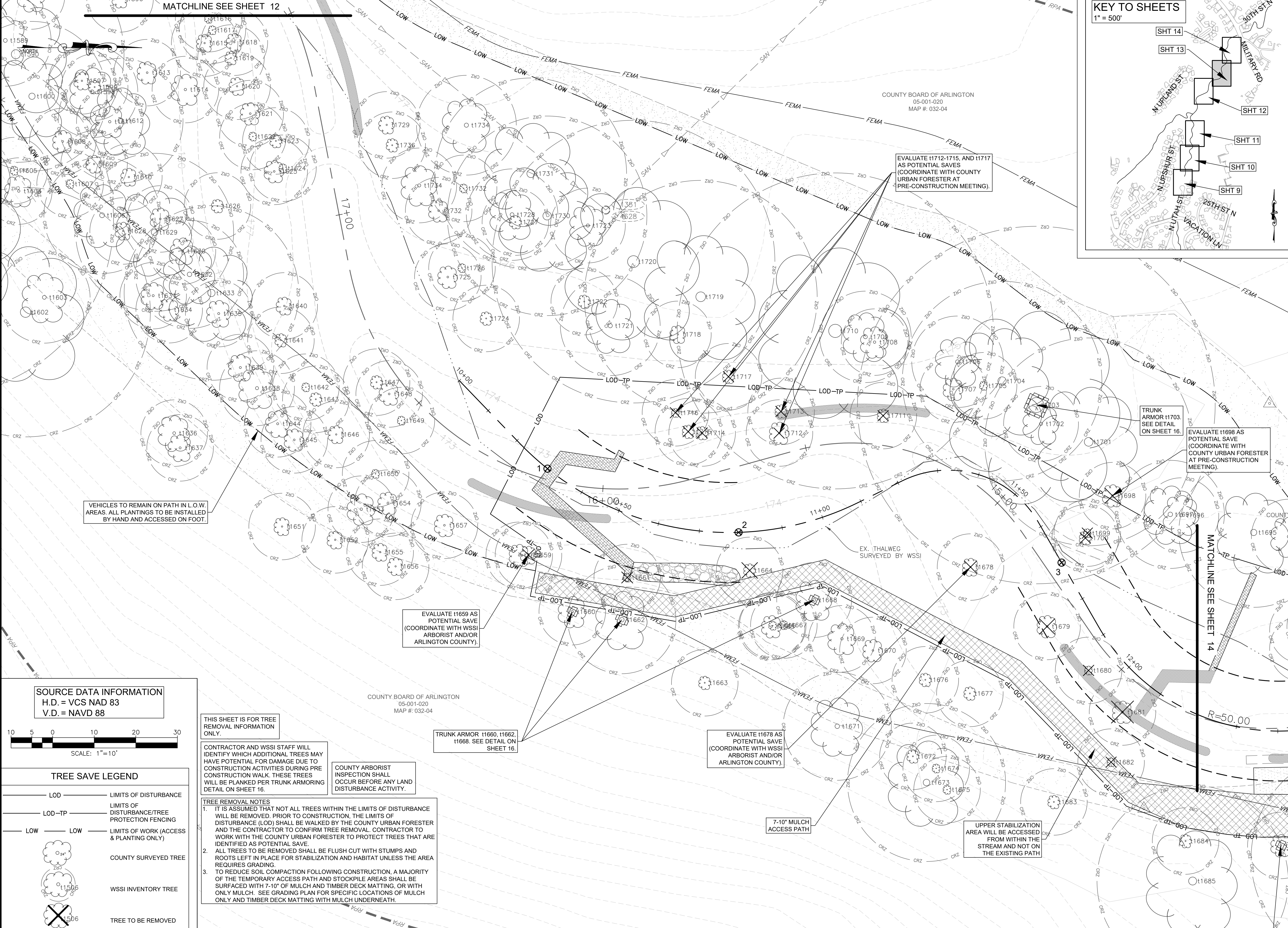
REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
TREE SAVE PLAN (05)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'



EVALUATE I1712-1715, AND I1717 AS POTENTIAL SAVES (COORDINATE WITH COUNTY URBAN FORESTER AT PRE-CONSTRUCTION MEETING).

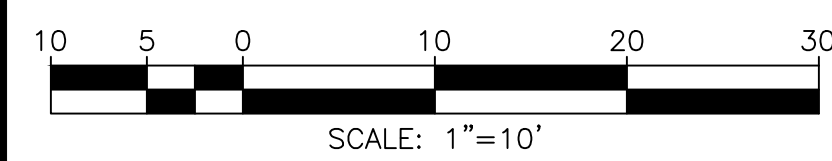
TRUNK ARMOR I1703. SEE DETAIL ON SHEET 16.  
EVALUATE I1699 AS POTENTIAL SAVE (COORDINATE WITH COUNTY URBAN FORESTER AT PRE-CONSTRUCTION MEETING).

EVALUATE I1659 AS POTENTIAL SAVE (COORDINATE WITH WSSI ARBORIST AND/OR ARLINGTON COUNTY).

TRUNK ARMOR I1660, I1662, I1668. SEE DETAIL ON SHEET 16.

EVALUATE I1678 AS POTENTIAL SAVE (COORDINATE WITH WSSI ARBORIST AND/OR ARLINGTON COUNTY).

SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



TREE SAVE LEGEND

- LOD — LIMITS OF DISTURBANCE
- LOD-TP — LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
- LOW — LIMITS OF WORK (ACCESS & PLANTING ONLY)
- COUNTY SURVEYED TREE
- WSSI INVENTORY TREE
- TREE TO BE REMOVED

THIS SHEET IS FOR TREE REMOVAL INFORMATION ONLY.

CONTRACTOR AND WSSI STAFF WILL IDENTIFY WHICH ADDITIONAL TREES MAY HAVE POTENTIAL FOR DAMAGE DUE TO CONSTRUCTION ACTIVITIES DURING PRE CONSTRUCTION WALK. THESE TREES WILL BE PLANKED PER TRUNK ARMORING DETAIL ON SHEET 16.

COUNTY ARBORIST INSPECTION SHALL OCCUR BEFORE ANY LAND DISTURBANCE ACTIVITY.

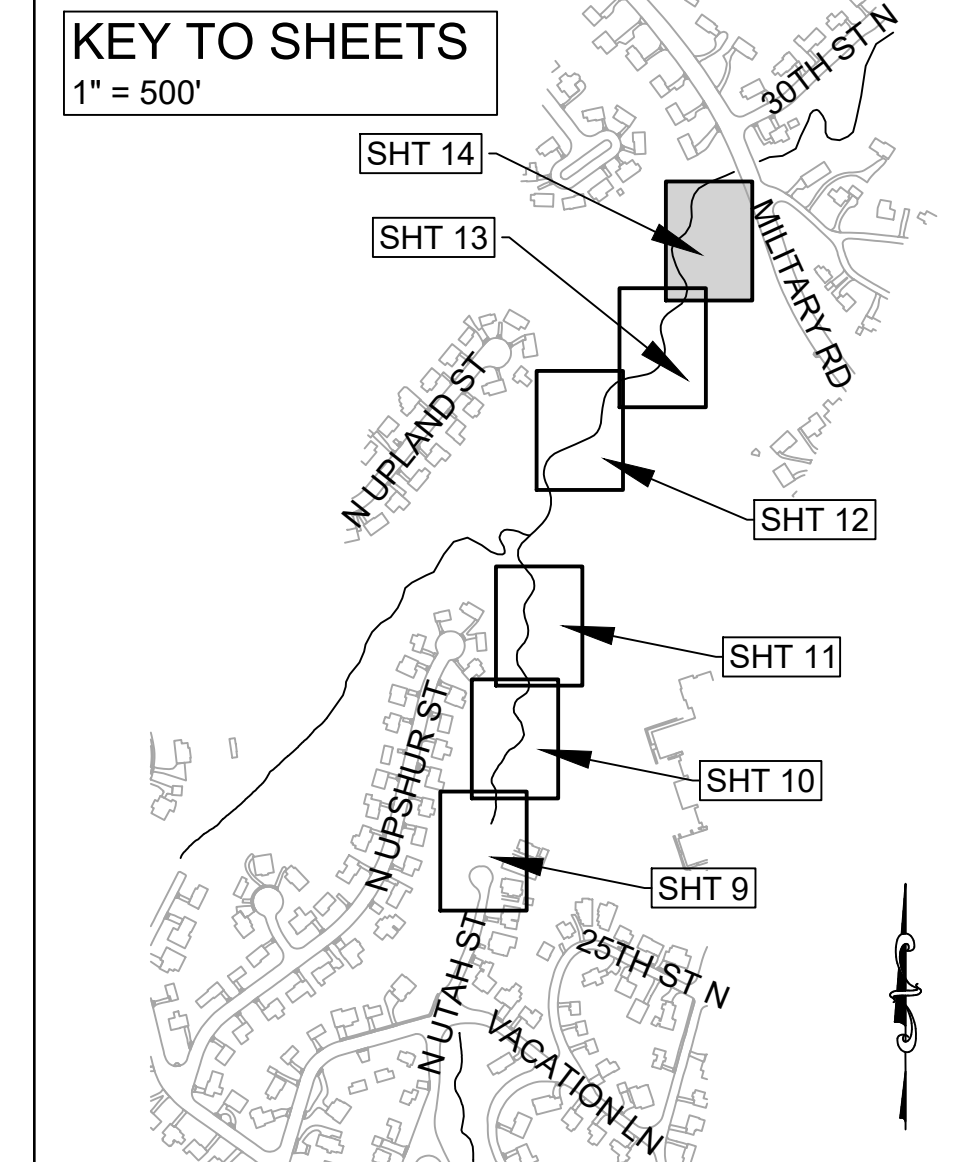
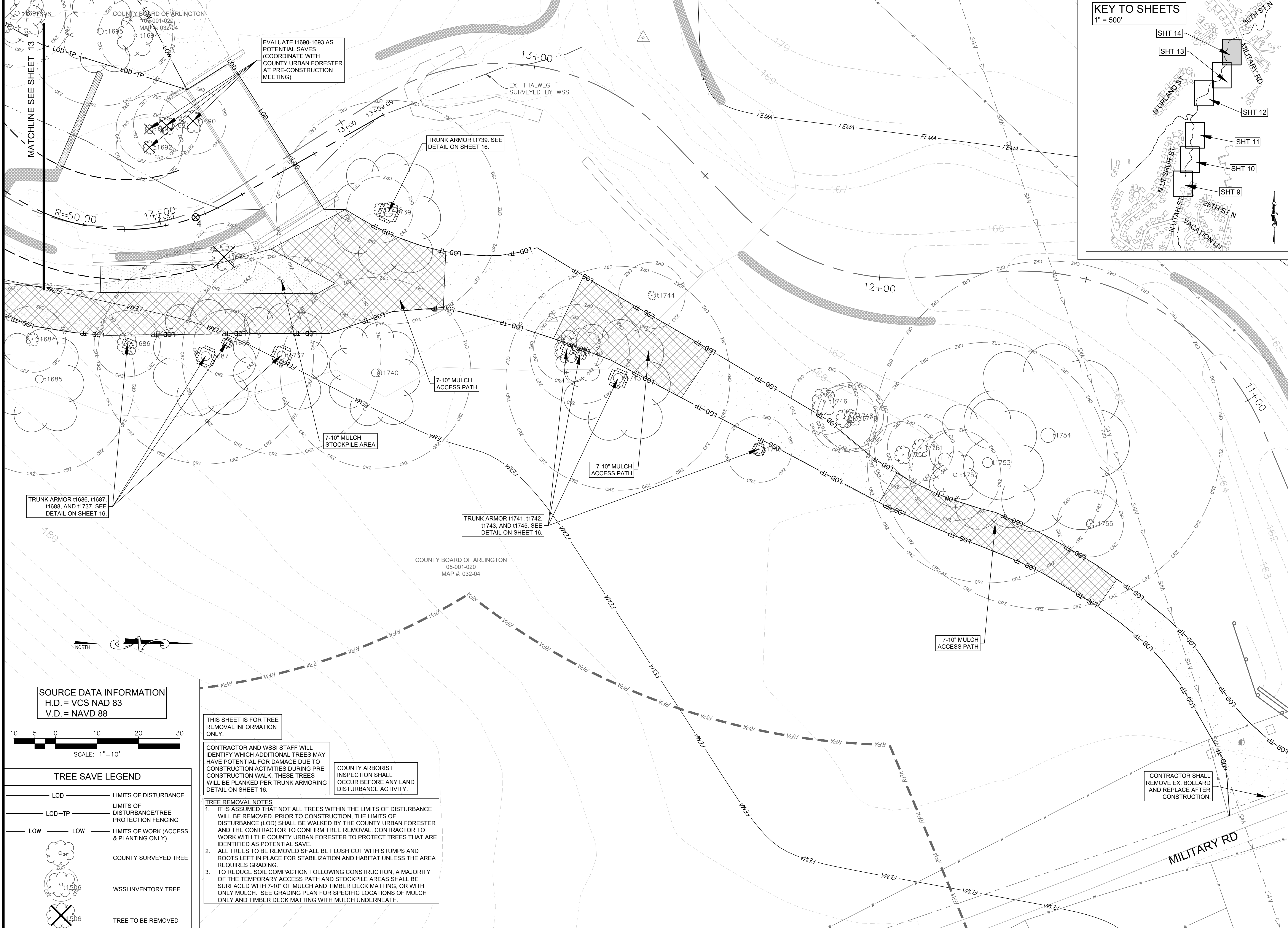
TREE REMOVAL NOTES

- IT IS ASSUMED THAT NOT ALL TREES WITHIN THE LIMITS OF DISTURBANCE WILL BE REMOVED. PRIOR TO CONSTRUCTION, THE LIMITS OF DISTURBANCE (LOD) SHALL BE WALKED BY THE COUNTY URBAN FORESTER AND THE CONTRACTOR TO CONFIRM TREE REMOVAL. CONTRACTOR TO WORK WITH THE COUNTY URBAN FORESTER TO PROTECT TREES THAT ARE IDENTIFIED AS POTENTIAL SAVE.
- ALL TREES TO BE REMOVED SHALL BE FLUSH CUT WITH STUMPS AND ROOTS LEFT IN PLACE FOR STABILIZATION AND HABITAT UNLESS THE AREA REQUIRES GRADING.
- TO REDUCE SOIL COMPACTION FOLLOWING CONSTRUCTION, A MAJORITY OF THE TEMPORARY ACCESS PATH AND STOCKPILE AREAS SHALL BE SURFACED WITH 7" OF MULCH AND TIMBER DECK MATTING, OR WITH ONLY MULCH. SEE GRADING PLAN FOR SPECIFIC LOCATIONS OF MULCH ONLY AND TIMBER DECK MATTING WITH MULCH UNDERNEATH.

FILENAME: TREE SAVE PLAN.DWG PATH: L:\280005\28400\28461\_01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036

REVISED ON 12/24/2022

FILENAME: TREE SAVE PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



DEPARTMENT OF ENVIRONMENTAL SERVICES  
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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

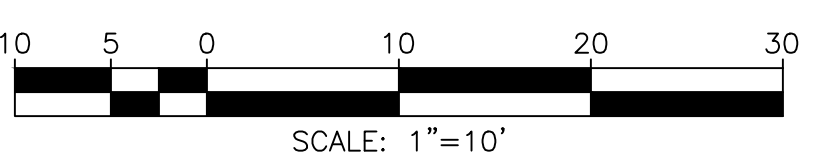
TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

REVISIONS	DATE

**SOURCE DATA INFORMATION**  
H.D. = VCS NAD 83  
V.D. = NAVD 88



**TREE SAVE LEGEND**

- LOD — LIMITS OF DISTURBANCE
- LOD-TP — LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
- LOW — LIMITS OF WORK (ACCESS & PLANTING ONLY)
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COUNTY ARBORIST INSPECTION SHALL OCCUR BEFORE ANY LAND DISTURBANCE ACTIVITY.

**TREE REMOVAL NOTES**

- IT IS ASSUMED THAT NOT ALL TREES WITHIN THE LIMITS OF DISTURBANCE WILL BE REMOVED. PRIOR TO CONSTRUCTION, THE LIMITS OF DISTURBANCE (LOD) SHALL BE WALKED BY THE COUNTY URBAN FORESTER AND THE CONTRACTOR TO CONFIRM TREE REMOVAL. CONTRACTOR TO WORK WITH THE COUNTY URBAN FORESTER TO PROTECT TREES THAT ARE IDENTIFIED AS POTENTIAL SAVE.
- ALL TREES TO BE REMOVED SHALL BE FLUSH CUT WITH STUMPS AND ROOTS LEFT IN PLACE FOR STABILIZATION AND HABITAT UNLESS THE AREA REQUIRES GRADING.
- TO REDUCE SOIL COMPACTION FOLLOWING CONSTRUCTION, A MAJORITY OF THE TEMPORARY ACCESS PATH AND STOCKPILE AREAS SHALL BE SURFACED WITH 7-10" OF MULCH AND TIMBER DECK MATTING, OR WITH ONLY MULCH. SEE GRADING PLAN FOR SPECIFIC LOCATIONS OF MULCH ONLY AND TIMBER DECK MATTING WITH MULCH UNDERNEATH.

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
TREE SAVE PLAN (06)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'

TREE TAG #	SPECIES	COMMON NAME	STEMS	DIAMETER AT BREST HEIGHT (IN)	CRITICAL ROOT ZONE (FT)	CRZ AREA (FT <sup>2</sup> )	CRZ AREA WITHIN LOD (FT <sup>2</sup> )	SUBTRACTED AREA (FT <sup>2</sup> )	% OF CRZ WITHIN LOD*	APPROXIMATE CANOPY RADIUS (FT)	PRIORITY (1-4)	TO BE REMOVED	TRUNK ARMOR
1501	<i>Ulmus americana</i>	American Elm	2	2;2	3	201	68	14	27%	6	3		X
1502	<i>Carya glabra</i>	Pignut Hickory	1	5	5	201	73	42	15%	8	3		X
1503	<i>Acer rubrum</i>	Red Maple	1	5	5	201	25	24	1%	9	3		
1504	<i>Quercus alba</i>	White Oak	1	27	27	2290	726	515	9%	22	2		X
1505	<i>Ulmus americana</i>	American Elm	1	3	3	201			0%	5	3		
1506	<i>Fagus grandifolia</i>	American Beech	1	4	4	201	33		16%	7	3		
1507	<i>Ulmus americana</i>	American Elm	2	6;4	7	201	153	61	46%	13	4	X	
1508	<i>Liriodendron tulipifera</i>	Tuliptree	1	21	21	1385	563	175	28%		3		X
1509	<i>Cercis canadensis</i>	Eastern Redbud	1	5	5	201	9	9	0%	9	3		
1510	<i>Liriodendron tulipifera</i>	Tuliptree	1	26	26	2124	252	84	8%	27	2		
1511	<i>Liriodendron tulipifera</i>	Tuliptree	1	21	21	1385	8	8	0%	27	2		
1512	<i>Ligustrum lucidum</i>	Glossy Privet	1	2	2	201			0%	6	4		
1513	<i>Cercis canadensis</i>	Eastern Redbud	1	3	3	201			0%	9	3		
1514	<i>Liriodendron tulipifera</i>	Tuliptree	1	23	23	1662	36		2%	23	3		
1515	<i>Liriodendron tulipifera</i>	Tuliptree	1	22	22	1521	22		1%	3	4		
1516	<i>Liriodendron tulipifera</i>	Tuliptree	1	30	30	2827			0%	28	3		
1517	<i>Acer palmatum</i>	Japanese Maple	1	6	6	201			0%	14	4		
1518	<i>Platanus occidentalis</i>	American Sycamore	1	4	4	201			0%	12	3		
1519	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201			0%	5	3		
1520	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201			0%	0	4		
1521	<i>Liriodendron tulipifera</i>	Tuliptree	1	31	31	3019			0%	23	3		
1522	<i>Liriodendron tulipifera</i>	Tuliptree	1	31	31	3019			0%	14	4		
1523	<i>Liriodendron tulipifera</i>	Tuliptree	1	22	22	1521			0%	18	3		
1524	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201			0%	5	3		
1525	<i>Acer rubrum</i>	Red Maple	1	7	7	201			0%	9	3		
1526	<i>Liriodendron tulipifera</i>	Tuliptree	1	24	24	1810			0%	22	3		
1527	<i>Acer rubrum</i>	Red Maple	1	5	5	201			0%	12	3		
1528	<i>Liriodendron tulipifera</i>	Tuliptree	1	30	30	2827			0%	24	3		
1529	<i>Liriodendron tulipifera</i>	Tuliptree	1	34	34	3632			0%	29	3		
1530	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201			0%	8	3		
1531	<i>Liriodendron tulipifera</i>	Tuliptree	1	20	20	1257			0%	16	3		
1532	<i>Liriodendron tulipifera</i>	Tuliptree	1	26	26	2124			0%	20	3		
1533	<i>Carya glabra</i>	Pignut Hickory	1	4	4	201			0%	8	3		
1534	<i>Acer rubrum</i>	Red Maple	2	17;12	21	1385			0%	19	4		
1535	<i>Nyssa sylvatica</i>	Blackgum	1	7	7	201			0%	11	3		
1536	<i>Carya glabra</i>	Pignut Hickory	1	4	4	201			0%	12	3		
1537	<i>Fagus grandifolia</i>	American Beech	1	10	10	314			0%	15	2		
1538	<i>Acer rubrum</i>	Red Maple	1	4	4	201			0%	8	3		
1539	<i>Carya glabra</i>	Pignut Hickory	1	8	8	201			0%		3		
1540	<i>Liriodendron tulipifera</i>	Tuliptree	1	44	44	6082			0%	31	2		
1541	<i>Fagus grandifolia</i>	American Beech	1	4	4	201			0%	7	3		
1542	<i>Fagus grandifolia</i>	American Beech	1	3	3	201			0%	8	3		
1543	<i>Quercus montana</i>	Chestnut Oak	1	22	22	1521			0%	18	3		
1544	<i>Quercus palustris</i>	Pin Oak	1	4	4	201			0%	8	3		
1545	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201			0%	6	3		
1546	<i>Quercus palustris</i>	Pin Oak	1	3	3	201			0%	7	3		
1547	<i>Liquidambar styraciflua</i>	American Sweetgum	1	5	5	201			0%	6	3		
1548	<i>Fraxinus spp.</i>	Ash Spp.	1	2	2	201			0%	4	3		
1549	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201			0%	6	3		
1550	<i>Liriodendron tulipifera</i>	Tuliptree	1	2	2	201			0%	6	3		
1551	<i>Liriodendron tulipifera</i>	Tuliptree	1	4	4	201			0%	7	3		
1552	<i>Platanus occidentalis</i>	American Sycamore	1	4	4	201			0%	6	4		
1553	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201	14		7%	7	3		
1554	<i>Platanus occidentalis</i>	American Sycamore	1	6	6	201			0%	15	3		
1555	<i>Fagus grandifolia</i>	American Beech	1	11	11	380			0%	16	3		
1556	<i>Acer rubrum</i>	Red Maple	1	2	2	201			0%	5	3		
1557	<i>Liriodendron tulipifera</i>	Tuliptree	1	14	14	616			0%	20	3		
1558	<i>Fagus grandifolia</i>	American Beech	1	2	2	201			0%	6	3		
1559	<i>Acer rubrum</i>	Red Maple	1	9	9	254			0%	13	3		
1560	<i>Quercus rubra</i>	Northern Red Oak	1	23	23	1662	207	74	8%	0	4		
1561	<i>Fagus grandifolia</i>	American Beech	1	4	4	201	0.3		0%	7	3		
1562	<i>Fagus grandifolia</i>	American Beech	1	10	10	314			0%	16	3		
1563	<i>Fagus grandifolia</i>	American Beech	1	5	5	201	22		11%	12	3		
1564	<i>Quercus rubra</i>	Northern Red Oak	1	13	13	531	230		43%	18	3		X
1565	<i>Liriodendron tulipifera</i>	Tuliptree	1	29	29	2642	1287	704	22%	0	4	X	
1566	<i>Platanus occidentalis</i>	American Sycamore	1	4	4	201	201		100%	10	3	X	
1567	<i>Acer rubrum</i>	Red Maple	1	8	8	201	64		32%	12	3	X	
1568	<i>Carya glabra</i>	Pignut Hickory	1	2	2	201			0%	5	3		
1569	<i>Liquidambar styraciflua</i>	American Sweetgum	1	5	5	201			0%	12	3		
1570	<i>Platanus occidentalis</i>	American Sycamore	1	6	6	201	73		37%	14	3	X	
1571	<i>Platanus occidentalis</i>	American Sycamore	1	6	6	201			0%	12	3		
1572	<i>Liriodendron tulipifera</i>	Tuliptree	1	16	16	804			0%	24	3		
1573	<i>Fagus grandifolia</i>	American Beech	1	11	11	380			0%	12	2		
1574	<i>Quercus alba</i>	White Oak	1	20	20	1257			0%	25	3		
1575	<i>Liriodendron tulipifera</i>	Tuliptree	1	31	31	3019			0%	28	2		
1576	<i>Fagus grandifolia</i>	American Beech	1	9	9	254			0%	16	3		
1577	<i>Fagus grandifolia</i>	American Beech	1	10	10	314			0%	16	3		
1578	<i>Liriodendron tulipifera</i>	Tuliptree	1	12	12	452			0%	18	3		
1579	<i>Ulmus americana</i>	American Elm	1	5	5	201			0%	14	3		
1580	<i>Ulmus americana</i>	American Elm	1	6	6	201			0%	13	3		
1581	<i>Platanus occidentalis</i>	American Sycamore	1	9	9	254			0%	12	3		
1582	<i>Fagus grandifolia</i>	American Beech	1	5	5	201			0%	8	3		
1583	<i>Liriodendron tulipifera</i>	Tuliptree	1	27	27	2290			0%	28	3		
1584	<i>Acer rubrum</i>	Red Maple	1	7	7	201			0%	9	3		
1585	<i>Ulmus americana</i>	American Elm	1	3	3	201			0%	6	3		

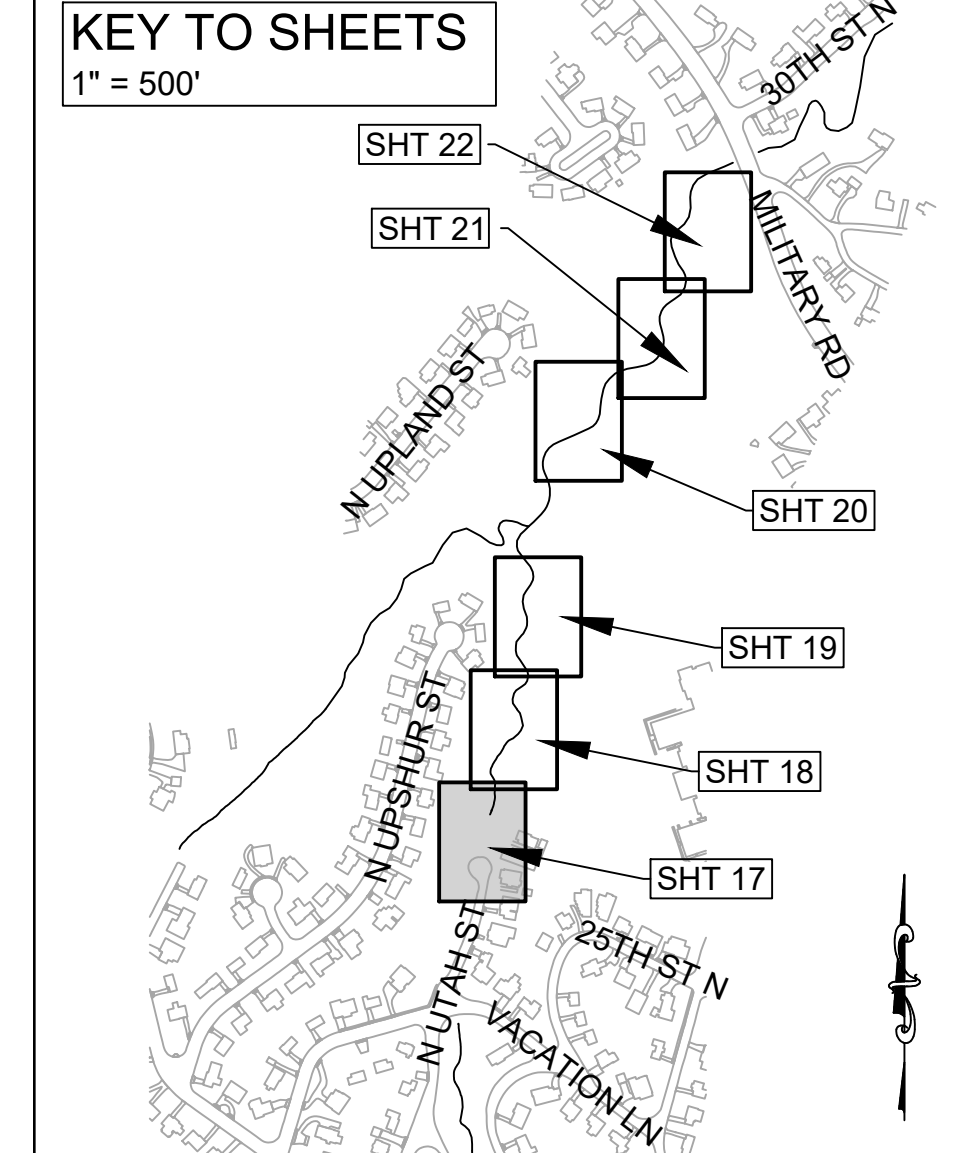
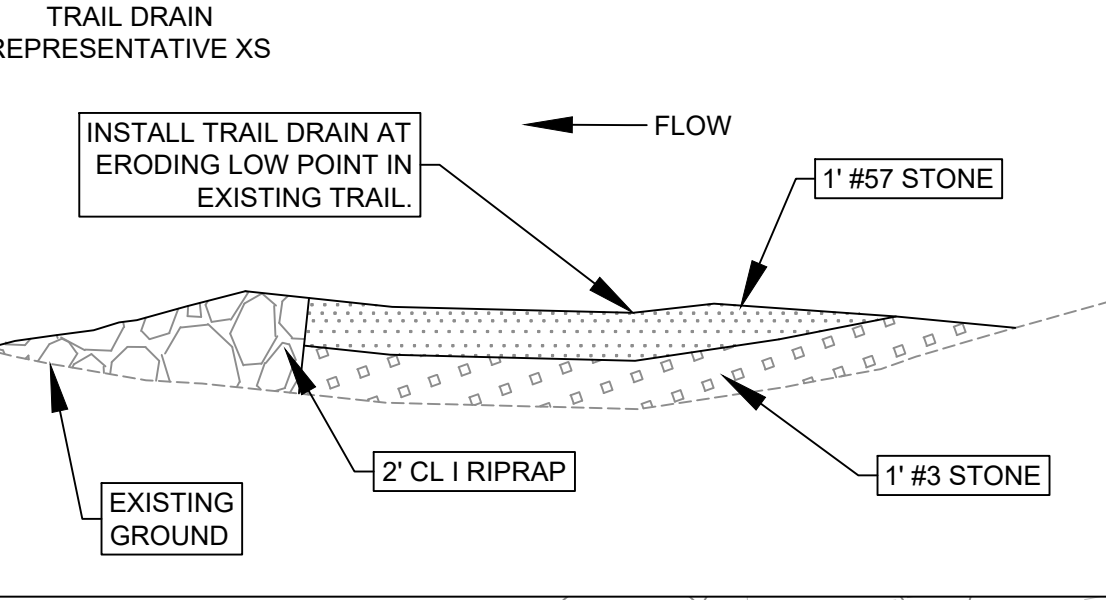
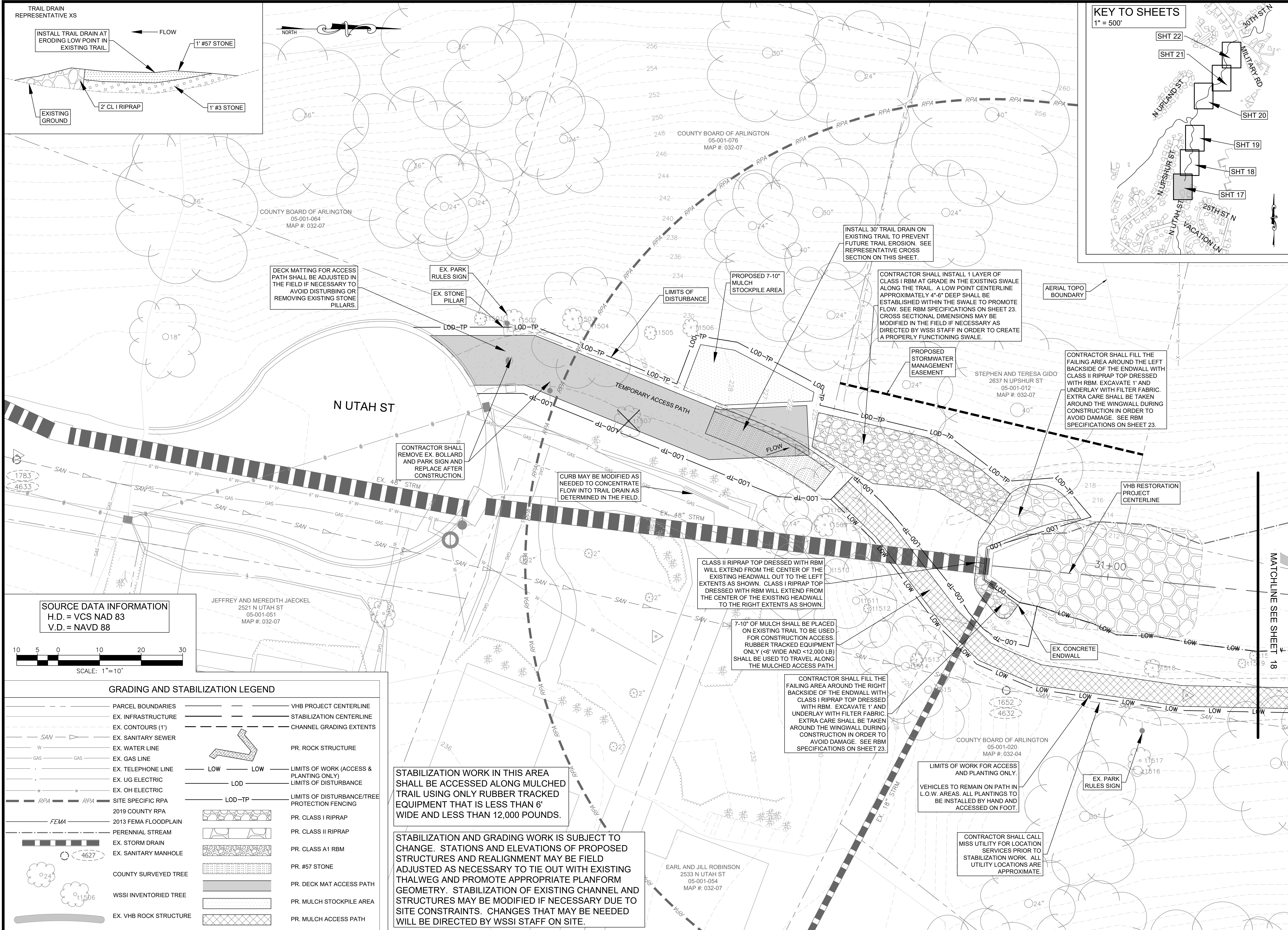
TREE TAG #	SPECIES	COMMON NAME	STEMS	DIAMETER AT BREST HEIGHT (IN)	CRITICAL ROOT ZONE (FT)	CRZ AREA (FT <sup>2</sup> )	CRZ AREA WITHIN LOD (FT <sup>2</sup> )	SUBTRACTED AREA (FT <sup>2</sup> )	% OF CRZ WITHIN LOD*	APPROXIMATE CANOPY RADIUS (FT)	PRIORITY (1-4)	TO BE REMOVED	TRUNK ARMOR
1586	<i>Ulmus americana</i>	American Elm	1	2	2	201			0%	6	3		
1587	<i>Liriodendron tulipifera</i>	Tuliptree	1	3	3	201			0%	6	3		
1588	<i>Fagus grandifolia</i>	American Beech	1	7	7	201			0%	10	3		
1589	<i>Liriodendron tulipifera</i>	Tuliptree	1	11	11	380			0%	10	3		
1590	<i>Liriodendron tulipifera</i>	Tuliptree	1	26	26	2124			0%	23	3		
1591	<i>Fagus grandifolia</i>	American Beech	1	7	7	201			0%	14	3		
1592	<i>Platanus occidentalis</i>	American Sycamore	1	10	10	314			0%	12	3		
1593	<i>Liriodendron tulipifera</i>	Tuliptree	1	3	3	201			0%	7	3		
1594	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201			0%	10	3		
1595	<i>Liriodendron tulipifera</i>	Tuliptree	1	3	3	201			0%	8	3		
1596	<i>Quercus palustris</i>	Pin Oak	1	4	4	201			0%	7	3		
1597	<i>Acer rubrum</i>	Red Maple	1	4	4	201			0%	10	3		
1598	<i>Liriodendron tulipifera</i>	Tuliptree	1	11	11	380			0%	17	3		
1599	<i>Acer rubrum</i>	Red Maple	1	3	3	201			0%	7	3		
1600	<i>Liriodendron tulipifera</i>	Tuliptree	1	18	18	1018			0%	15	3		
1601	<i>Liriodendron tulipifera</i>	Tuliptree	2	30;30	42	5542			0%	28	4		
1602	<i>Liriodendron tulipifera</i>	Tuliptree	1	30	30	2827			0%	32	3		
1603	<i>Fagus grandifolia</i>	American Beech	1	11	11	380			0%	17	3		
1604	<i>Liriodendron tulipifera</i>	Tuliptree	1	7	7	201			0%	12	3		
1605	<i>Ulmus americana</i>	American Elm	1	2	2	201			0%	6	3		
1606	<i>Liriodendron tulipifera</i>	Tuliptree	1	14	14	616			0%	18	3		
1607	<i>Ulmus americana</i>	American Elm	1	2	2	201			0%	4	3		
1608	<i>Acer rubrum</i>	Red Maple	1	5	5	201			0%	7	3		
1609	<i>Ulmus americana</i>	American Elm	1	4	4	201			0%	4	3		
1610	<i>Cornus florida</i>	Flowering Dogwood	1	4	4	201			0%	4	3		
1611	<i>Ulmus americana</i>	American Elm	1	7	7	201			0%	10	3		
1612	<i>Liriodendron tulipifera</i>	Tuliptree	1	15	15	707			0%	19	3		
1613	<i>Platanus occidentalis</i>	American Sycamore	1	5	5	201			0%	11	3		
1614	<i>Acer rubrum</i>	Red Maple	1	7	7	201			0%	13	3		
1615	<i>Platanus occidentalis</i>	American Sycamore	1	4	4	201			0%	6	3		
1616	<i>Platanus occidentalis</i>	American Sycamore	1	2	2	201			0%	4	3		
1617	<i>Platanus occidentalis</i>	American Sycamore	1	2	2	201			0%	4	3		
1618	<i>Gleditsia triacanthos</i>	Honeylocust	1	4	4	201			0%	6	4		
1619	<i>Platanus occidentalis</i>	American Sycamore	1	3	3	201			0%	4			



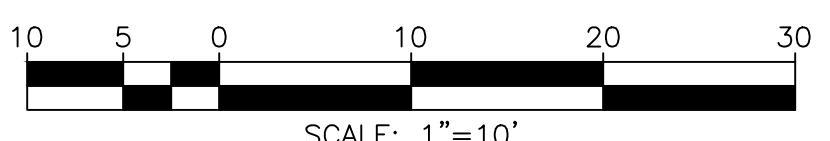


REVISED ON 1/24/2022

FILENAME: GRADING PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



**SOURCE DATA INFORMATION**  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



**GRADING AND STABILIZATION LEGEND**

---	PARCEL BOUNDARIES	---	VHB PROJECT CENTERLINE
---	EX. INFRASTRUCTURE	---	STABILIZATION CENTERLINE
---	EX. CONTOURS (1')	---	CHANNEL GRADING EXTENTS
---	EX. SANITARY SEWER	---	PR. ROCK STRUCTURE
---	EX. WATER LINE	---	LIMITS OF WORK (ACCESS & PLANTING ONLY)
---	EX. GAS LINE	---	LIMITS OF DISTURBANCE
---	EX. TELEPHONE LINE	---	LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
---	EX. UG ELECTRIC	---	PR. CLASS I RIPRAP
---	EX. OH ELECTRIC	---	PR. CLASS II RIPRAP
---	SITE SPECIFIC RPA	---	PR. CLASS A1 RBM
---	2019 COUNTY RPA	---	PR. #57 STONE
---	2013 FEMA FLOODPLAIN	---	PR. DECK MAT ACCESS PATH
---	PERENNIAL STREAM	---	PR. MULCH STOCKPILE AREA
---	EX. STORM DRAIN	---	PR. MULCH ACCESS PATH
---	EX. SANITARY MANHOLE	---	
---	COUNTY SURVEYED TREE	---	
---	WSSI INVENTORIED TREE	---	
---	EX. VHB ROCK STRUCTURE	---	

STABILIZATION WORK IN THIS AREA SHALL BE ACCESSED ALONG MULCHED TRAIL USING ONLY RUBBER TRACKED EQUIPMENT THAT IS LESS THAN 6' WIDE AND LESS THAN 12,000 POUNDS.

STABILIZATION AND GRADING WORK IS SUBJECT TO CHANGE. STATIONS AND ELEVATIONS OF PROPOSED STRUCTURES AND REALIGNMENT MAY BE FIELD ADJUSTED AS NECESSARY TO TIE OUT WITH EXISTING THALWEG AND PROMOTE APPROPRIATE PLANFORM GEOMETRY. STABILIZATION OF EXISTING CHANNEL AND STRUCTURES MAY BE MODIFIED IF NECESSARY DUE TO SITE CONSTRAINTS. CHANGES THAT MAY BE NEEDED WILL BE DIRECTED BY WSSI STAFF ON SITE.

**ARLINGTON VIRGINIA**

DEPARTMENT OF ENVIRONMENTAL SERVICES  
 FACILITIES & ENGINEERING DIVISION  
 ENGINEERING BUREAU  
 2100 CLARENDON BOULEVARD, SUITE 813  
 ARLINGTON, VA 22201  
 PHONE: 703.228.3629  
 FAX: 703.228.3606

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**SEAL**

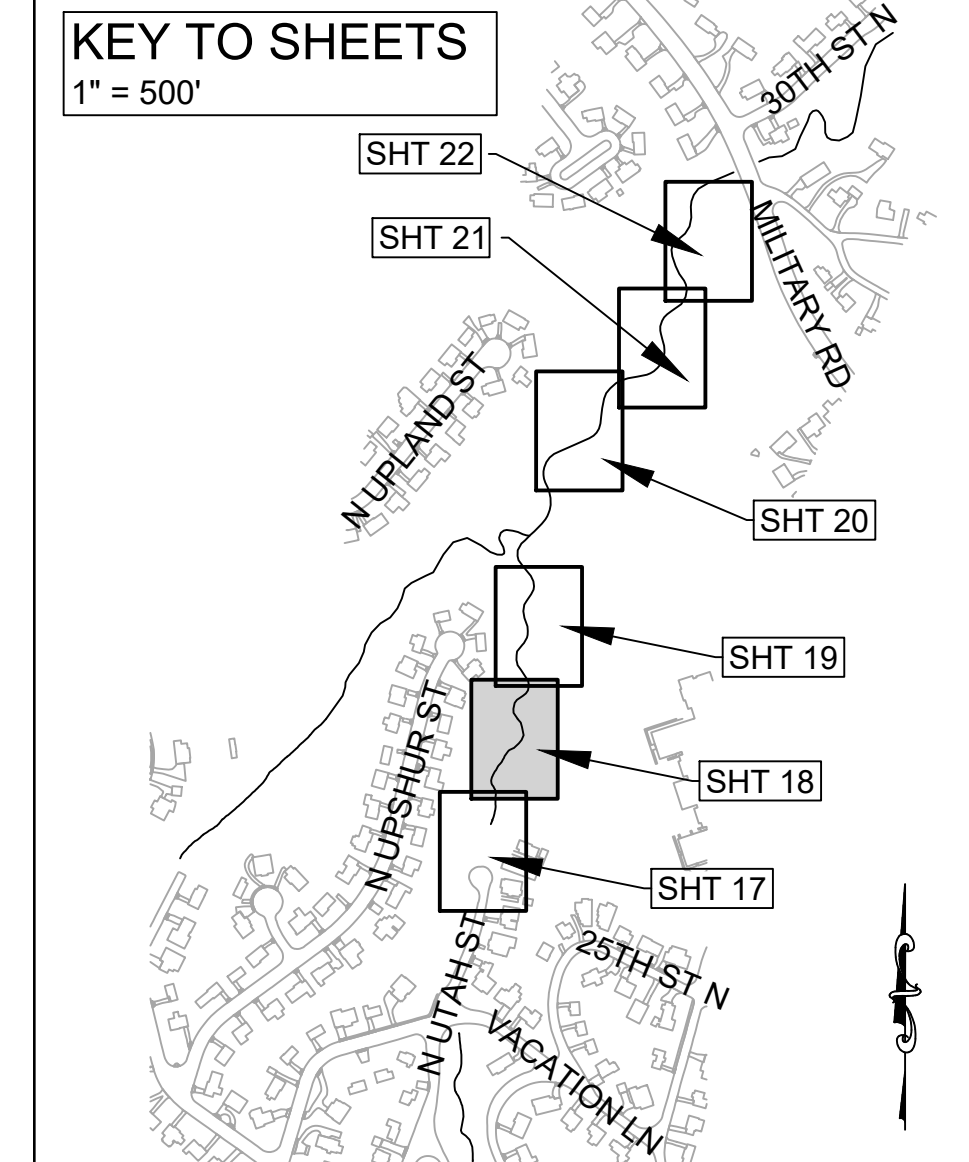
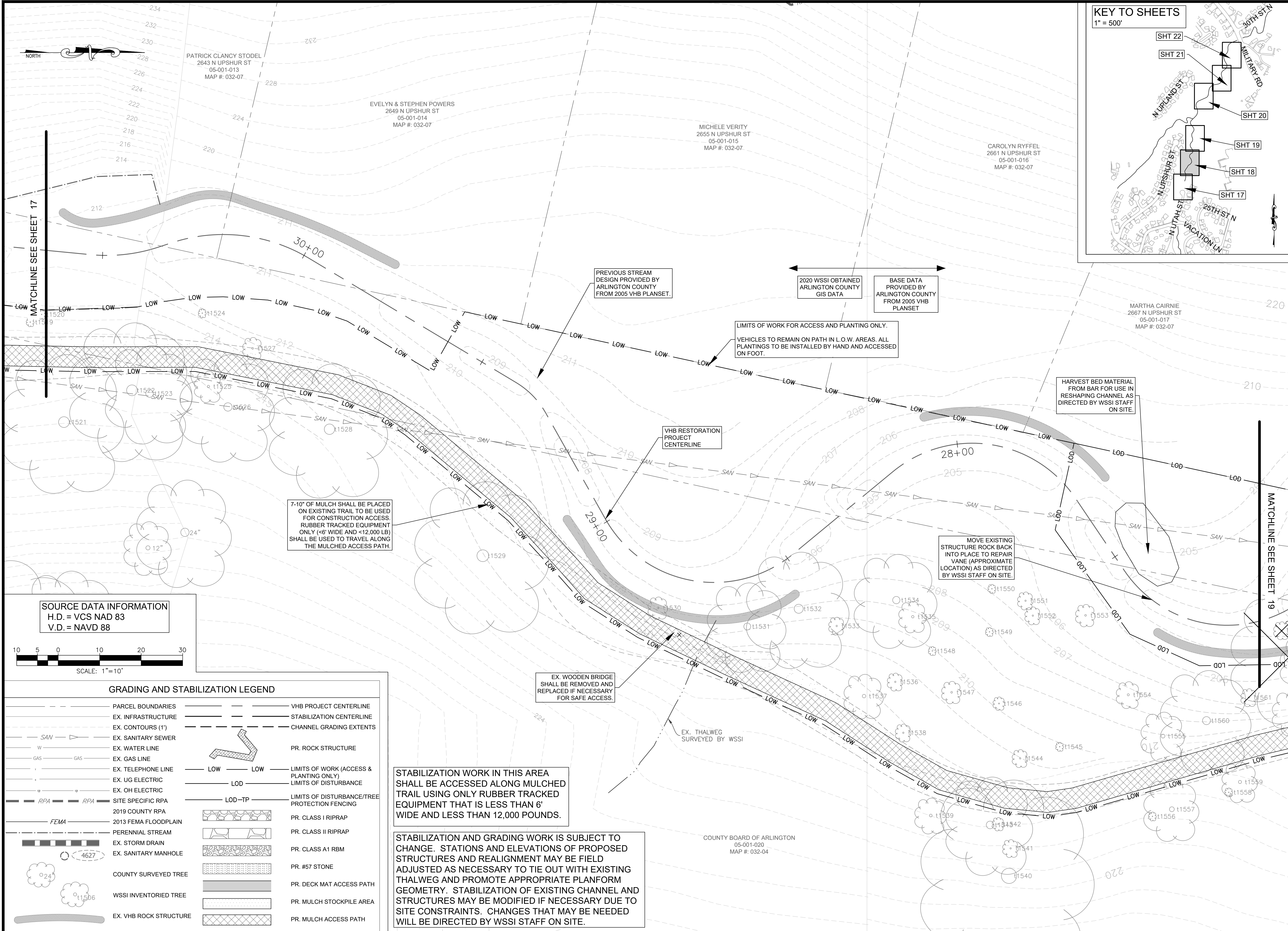
APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA

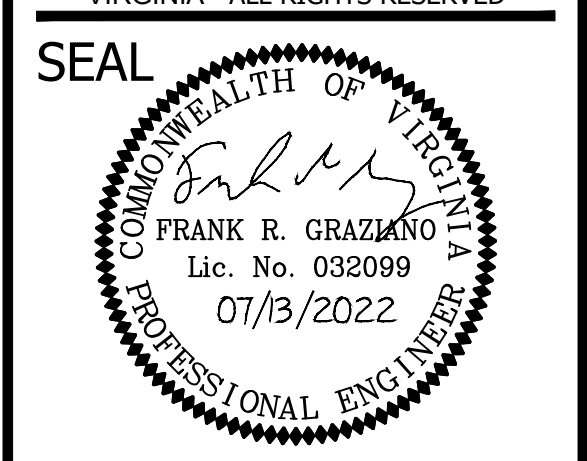
**GRADING AND STABILIZATION PLAN (01)**

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022  
 SCALE: 1"=10'

17 of 49



DEPARTMENT OF ENVIRONMENTAL SERVICES  
 FACILITIES & ENGINEERING DIVISION  
 ENGINEERING BUREAU  
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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

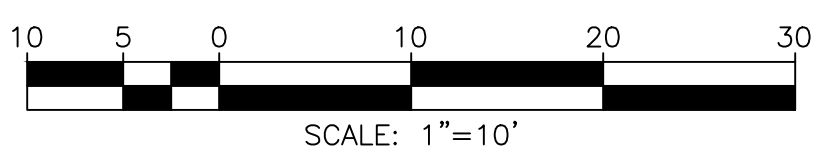
REVISIONS	DATE

**TRIB A MAINTENANCE AND EMERGENCY REPAIR**  
**FINAL PLAN**  
 ARLINGTON COUNTY, VIRGINIA  
**GRADING AND STABILIZATION PLAN (02)**

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG

PLOTTED: JULY 13 2022  
 SCALE: 1"=10'

**SOURCE DATA INFORMATION**  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



**GRADING AND STABILIZATION LEGEND**

	PARCEL BOUNDARIES		VHB PROJECT CENTERLINE
	EX. INFRASTRUCTURE		STABILIZATION CENTERLINE
	EX. CONTOURS (1')		CHANNEL GRADING EXTENTS
	EX. SANITARY SEWER		PR. ROCK STRUCTURE
	EX. WATER LINE		LIMITS OF WORK (ACCESS & PLANTING ONLY)
	EX. GAS LINE		LIMITS OF DISTURBANCE
	EX. TELEPHONE LINE		LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
	EX. UG ELECTRIC		PR. CLASS I RIPRAP
	EX. OH ELECTRIC		PR. CLASS II RIPRAP
	SITE SPECIFIC RPA		PR. CLASS A1 RBM
	2019 COUNTY RPA		PR. #57 STONE
	2013 FEMA FLOODPLAIN		PR. DECK MAT ACCESS PATH
	PERENNIAL STREAM		PR. MULCH STOCKPILE AREA
	EX. STORM DRAIN		PR. MULCH ACCESS PATH
	EX. SANITARY MANHOLE		
	COUNTY SURVEYED TREE		
	WSSI INVENTORIED TREE		
	EX. VHB ROCK STRUCTURE		

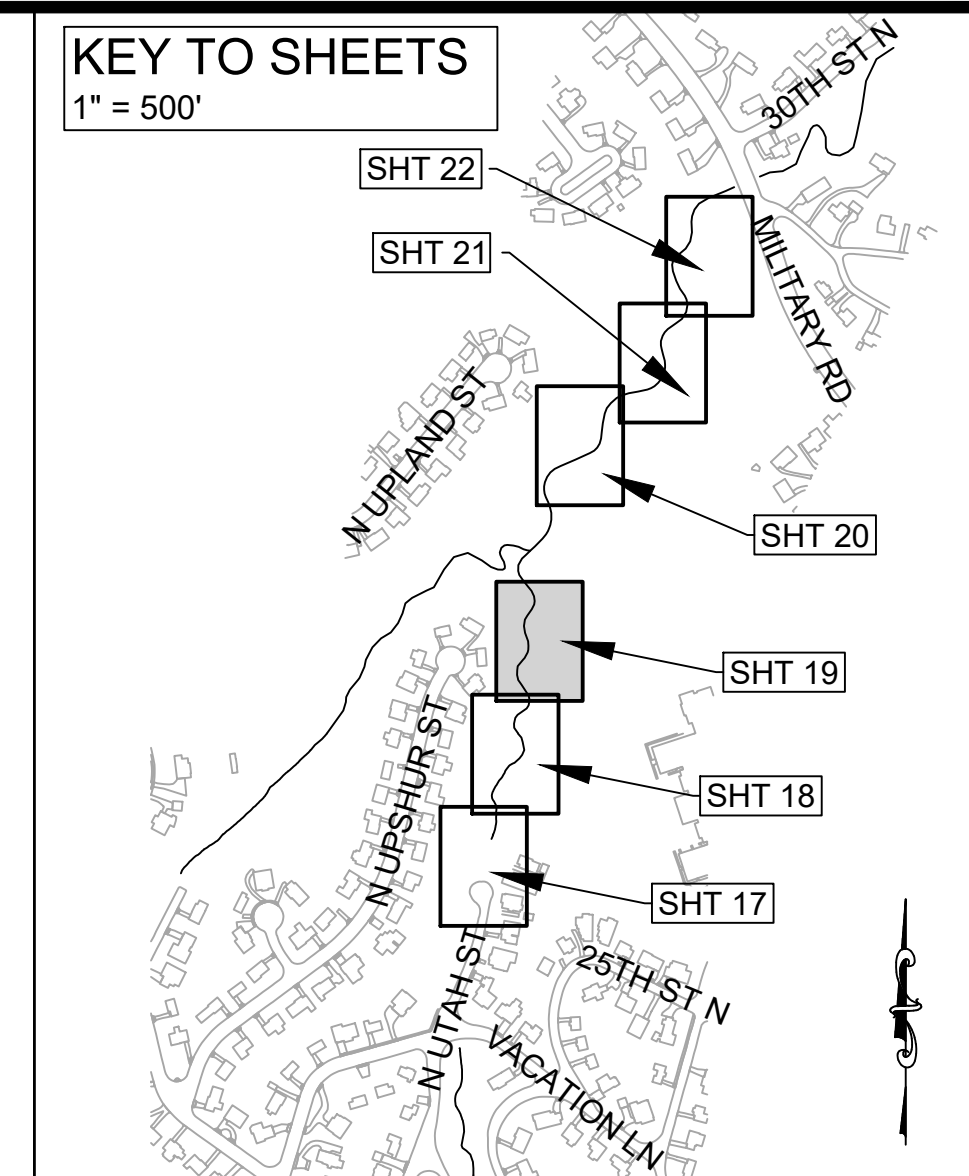
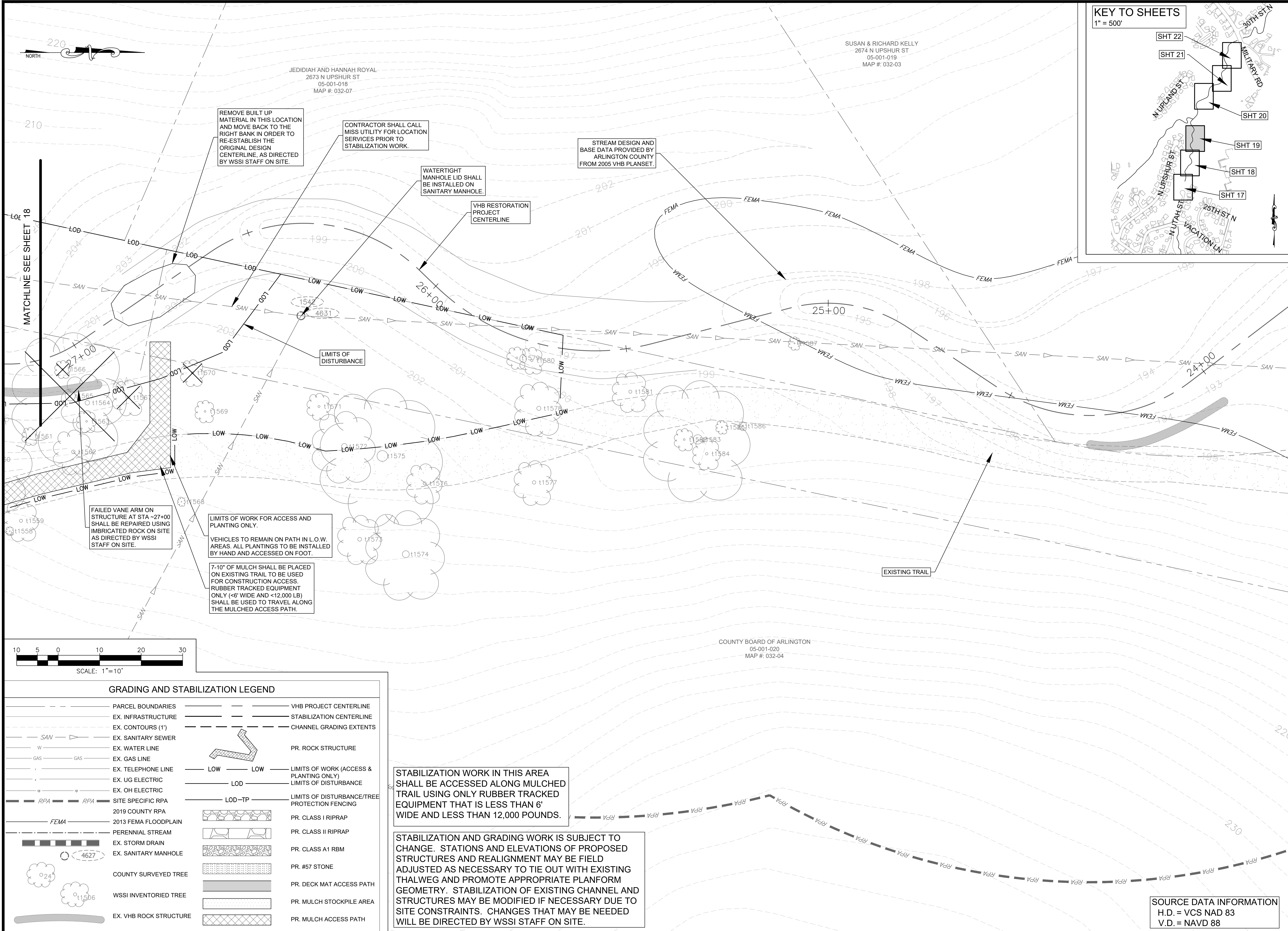
STABILIZATION WORK IN THIS AREA SHALL BE ACCESSED ALONG MULCHED TRAIL USING ONLY RUBBER TRACKED EQUIPMENT THAT IS LESS THAN 6' WIDE AND LESS THAN 12,000 POUNDS.

STABILIZATION AND GRADING WORK IS SUBJECT TO CHANGE. STATIONS AND ELEVATIONS OF PROPOSED STRUCTURES AND REALIGNMENT MAY BE FIELD ADJUSTED AS NECESSARY TO TIE OUT WITH EXISTING THALWEG AND PROMOTE APPROPRIATE PLANFORM GEOMETRY. STABILIZATION OF EXISTING CHANNEL AND STRUCTURES MAY BE MODIFIED IF NECESSARY DUE TO SITE CONSTRAINTS. CHANGES THAT MAY BE NEEDED WILL BE DIRECTED BY WSSI STAFF ON SITE.

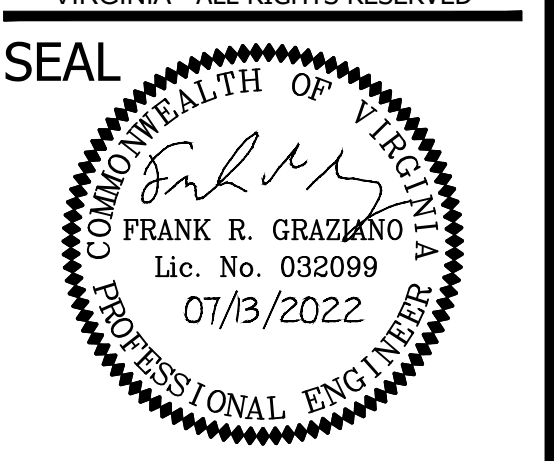
COUNTY BOARD OF ARLINGTON  
 05-001-020  
 MAP #: 032-04

REVISED ON 1/24/2022

FILENAME: GRADING PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



DEPARTMENT OF ENVIRONMENTAL SERVICES  
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 ARLINGTON, VA 22201  
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 FAX: 703.228.3606



APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 GRADING AND STABILIZATION PLAN (03)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG

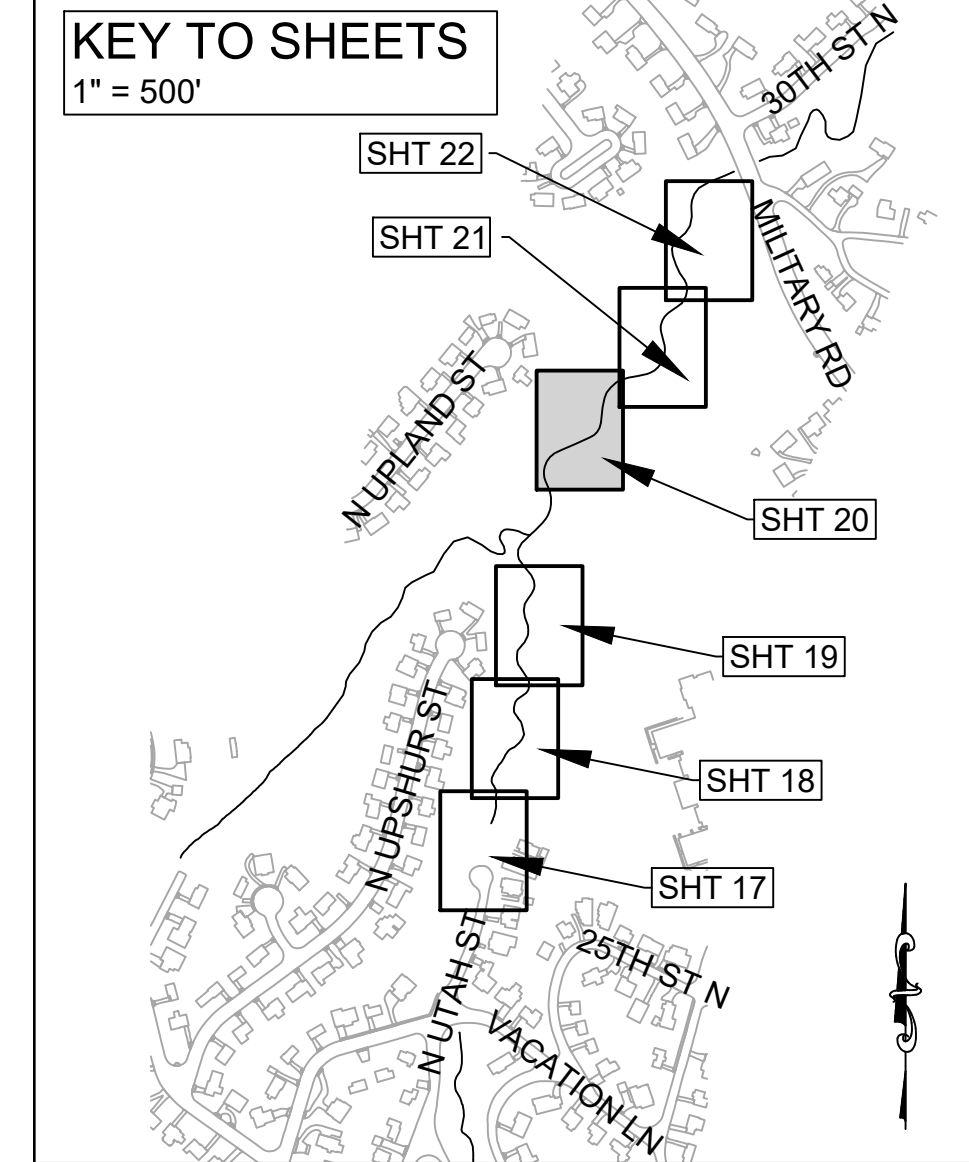
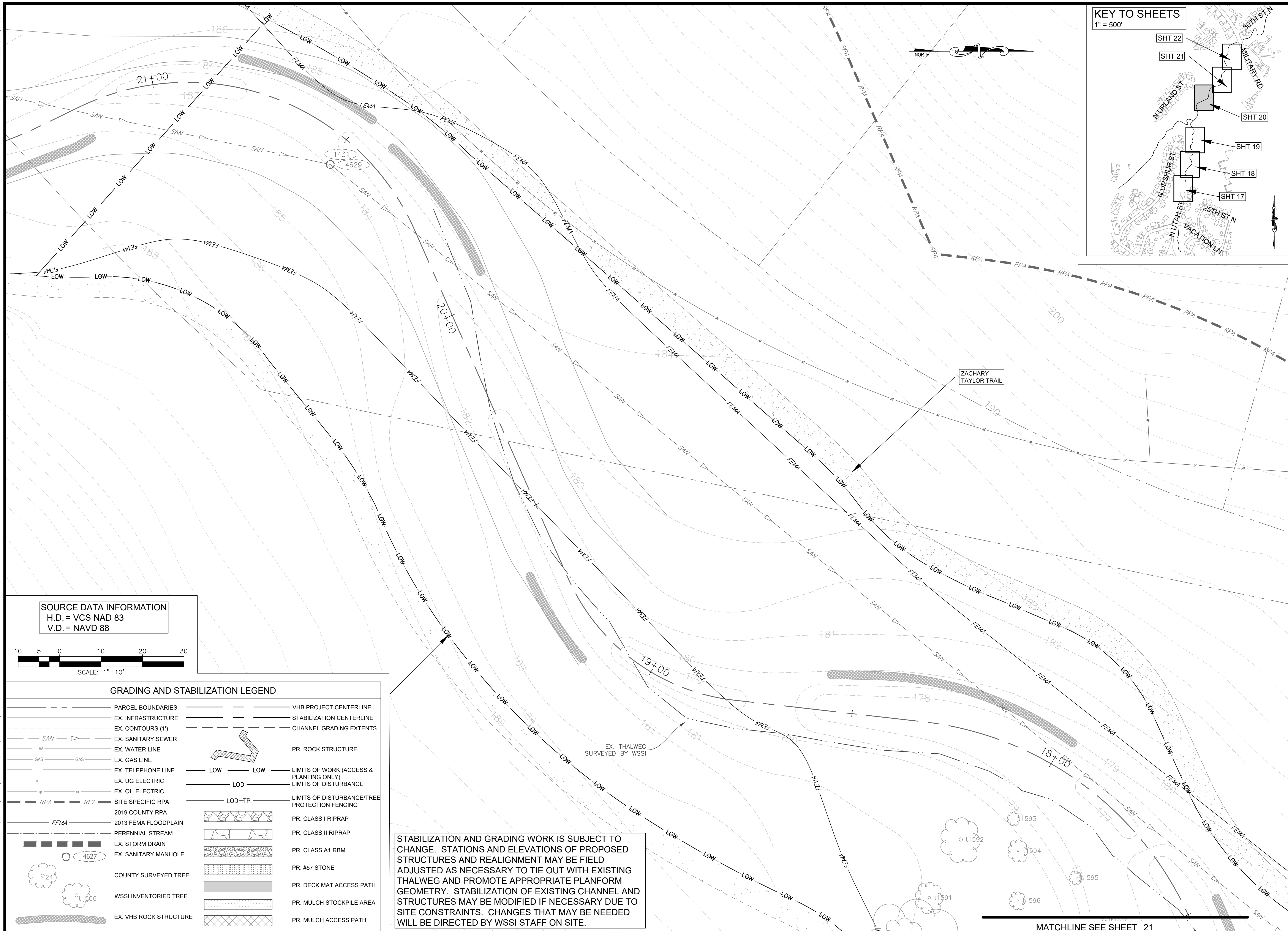
PLOTTED: JULY 13 2022

SCALE: 1"=10'

SOURCE DATA INFORMATION  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88

REVISED ON 1/24/2022

FILENAME: GRADING PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



**SOURCE DATA INFORMATION**  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88

**GRADING AND STABILIZATION LEGEND**

--- (dashed line)	PARCEL BOUNDARIES	--- (dashed line)	VHB PROJECT CENTERLINE
--- (dashed line)	EX. INFRASTRUCTURE	--- (dashed line)	STABILIZATION CENTERLINE
--- (dashed line)	EX. CONTOURS (1')	--- (dashed line)	CHANNEL GRADING EXTENTS
SAN (line with triangle)	EX. SANITARY SEWER	--- (dashed line)	PR. ROCK STRUCTURE
W (line)	EX. WATER LINE	--- (dashed line)	LIMITS OF WORK (ACCESS & PLANTING ONLY)
GAS (line)	EX. GAS LINE	--- (dashed line)	LIMITS OF DISTURBANCE
--- (dashed line)	EX. TELEPHONE LINE	--- (dashed line)	LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
--- (dashed line)	EX. UG ELECTRIC	--- (dashed line)	PR. CLASS I RIPRAP
--- (dashed line)	EX. OH ELECTRIC	--- (dashed line)	PR. CLASS II RIPRAP
RPA (line with dots)	SITE SPECIFIC RPA	--- (dashed line)	PR. CLASS A1 RBM
FEMA (line with dots)	2019 COUNTY RPA	--- (dashed line)	PR. #57 STONE
--- (dashed line)	2013 FEMA FLOODPLAIN	--- (dashed line)	PR. DECK MAT ACCESS PATH
--- (dashed line)	PERENNIAL STREAM	--- (dashed line)	PR. MULCH STOCKPILE AREA
--- (dashed line)	EX. STORM DRAIN	--- (dashed line)	PR. MULCH ACCESS PATH
--- (dashed line)	EX. SANITARY MANHOLE	--- (dashed line)	
--- (dashed line)	COUNTY SURVEYED TREE		
--- (dashed line)	WSSI INVENTORIED TREE		
--- (dashed line)	EX. VHB ROCK STRUCTURE		

STABILIZATION AND GRADING WORK IS SUBJECT TO CHANGE. STATIONS AND ELEVATIONS OF PROPOSED STRUCTURES AND REALIGNMENT MAY BE FIELD ADJUSTED AS NECESSARY TO TIE OUT WITH EXISTING THALWEG AND PROMOTE APPROPRIATE PLANFORM GEOMETRY. STABILIZATION OF EXISTING CHANNEL AND STRUCTURES MAY BE MODIFIED IF NECESSARY DUE TO SITE CONSTRAINTS. CHANGES THAT MAY BE NEEDED WILL BE DIRECTED BY WSSI STAFF ON SITE.

**ARLINGTON VIRGINIA**  
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 ARLINGTON, VA 22201  
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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

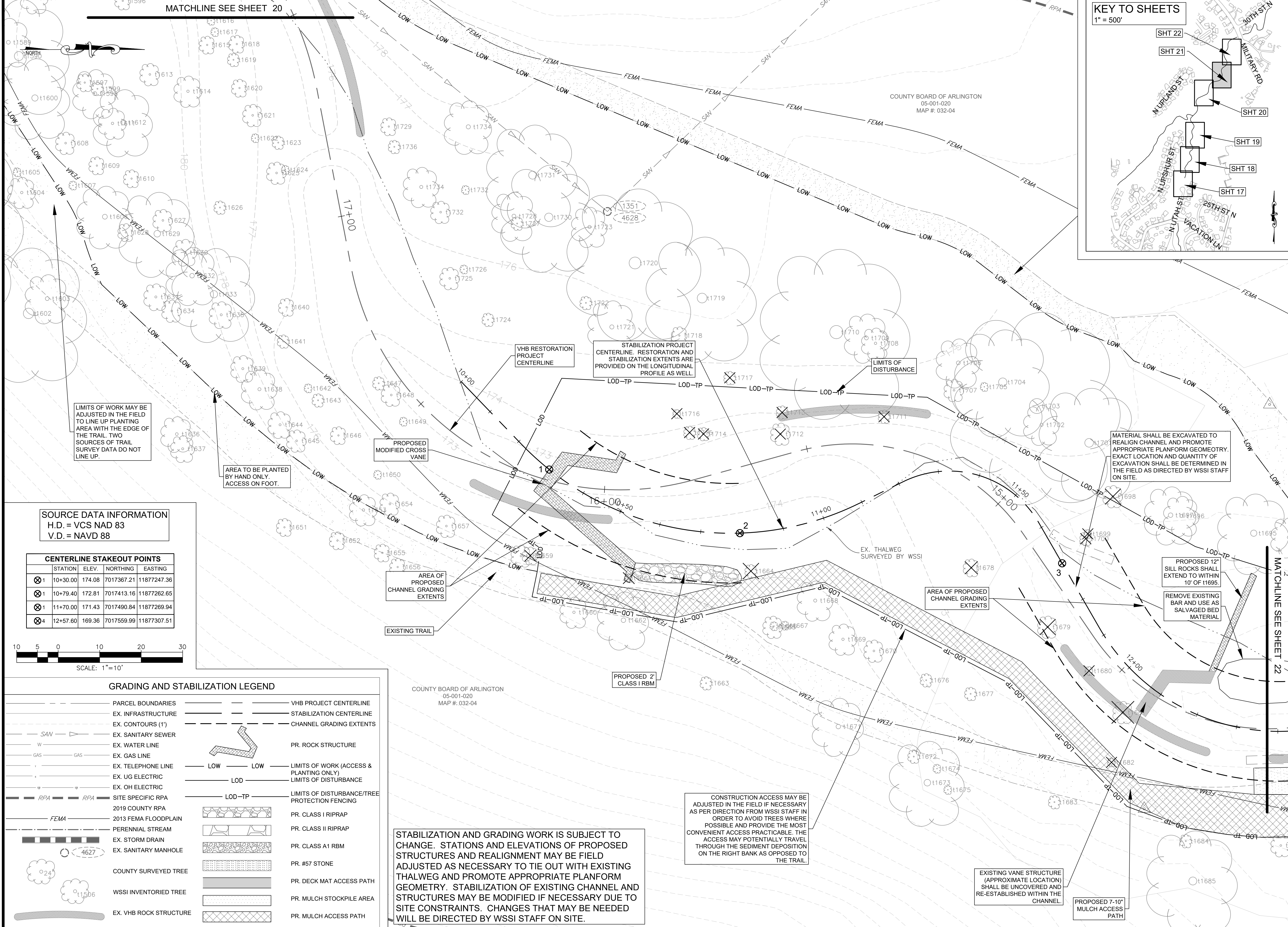
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 GRADING AND STABILIZATION PLAN (04)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022  
 SCALE: 1"=10'

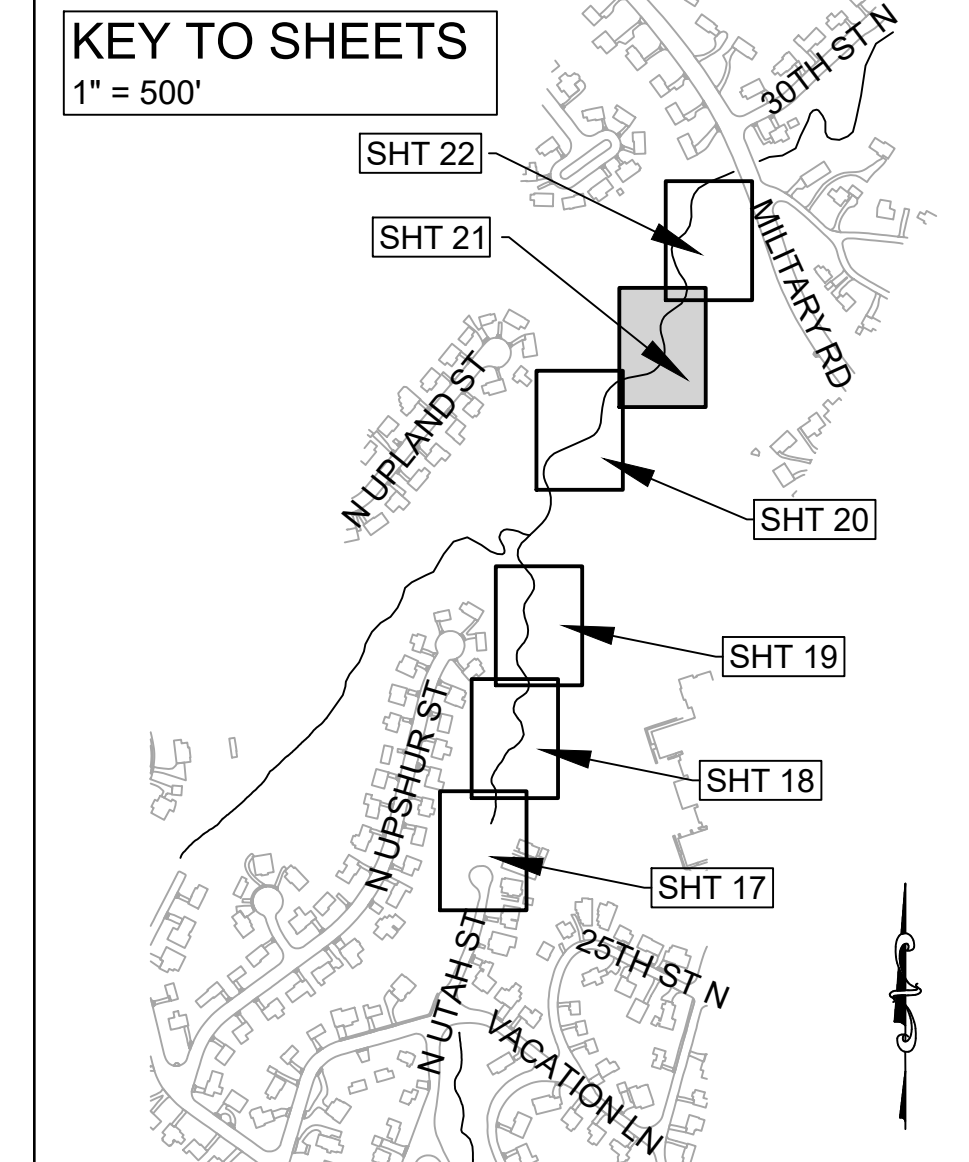
MATCHLINE SEE SHEET 21

REVISED ON 1/24/2022

FILENAME: GRADING PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



MATCHLINE SEE SHEET 20



COUNTY BOARD OF ARLINGTON  
05-001-020  
MAP #: 032-04

COUNTY BOARD OF ARLINGTON  
05-001-020  
MAP #: 032-04

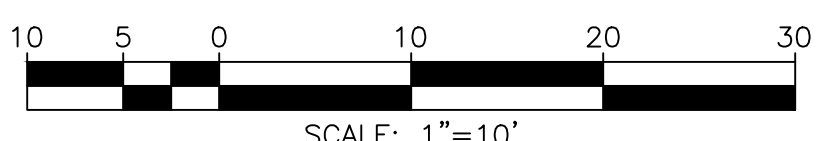
LIMITS OF WORK MAY BE ADJUSTED IN THE FIELD TO LINE UP PLANTING AREA WITH THE EDGE OF THE TRAIL. TWO SOURCES OF TRAIL SURVEY DATA DO NOT LINE UP.

AREA TO BE PLANTED BY HAND ONLY. ACCESS ON FOOT.

MATERIAL SHALL BE EXCAVATED TO REALIGN CHANNEL AND PROMOTE APPROPRIATE PLANFORM GEOMETRY. EXACT LOCATION AND QUANTITY OF EXCAVATION SHALL BE DETERMINED IN THE FIELD AS DIRECTED BY WSSI STAFF ON SITE.

SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88

CENTERLINE STAKEOUT POINTS			
STATION	ELEV.	NORTHING	EASTING
1	10+30.00	174.08	7017367.21 11877247.36
1	10+79.40	172.81	7017413.16 11877262.65
1	11+70.00	171.43	7017490.84 11877269.94
4	12+57.60	169.36	7017559.99 11877307.51



GRADING AND STABILIZATION LEGEND

- PARCEL BOUNDARIES
- EX. INFRASTRUCTURE
- EX. CONTOURS (1')
- SAN --- EX. SANITARY SEWER
- W --- EX. WATER LINE
- GAS --- EX. GAS LINE
- EX. TELEPHONE LINE
- EX. UG ELECTRIC
- EX. OH ELECTRIC
- RPA --- SITE SPECIFIC RPA
- FEMA --- 2019 COUNTY RPA
- 2013 FEMA FLOODPLAIN
- PERENNIAL STREAM
- EX. STORM DRAIN
- EX. SANITARY MANHOLE
- 24 --- COUNTY SURVEYED TREE
- 11506 --- WSSI INVENTORIED TREE
- EX. VHB ROCK STRUCTURE
- VHB PROJECT CENTERLINE
- STABILIZATION CENTERLINE
- CHANNEL GRADING EXTENTS
- PR. ROCK STRUCTURE
- LOW --- LIMITS OF WORK (ACCESS & PLANTING ONLY)
- LOD --- LIMITS OF DISTURBANCE
- LOD-TP --- LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
- PR. CLASS I RIPRAP
- PR. CLASS II RIPRAP
- PR. CLASS A1 RBM
- PR. #57 STONE
- PR. DECK MAT ACCESS PATH
- PR. MULCH STOCKPILE AREA
- PR. MULCH ACCESS PATH

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CONSTRUCTION ACCESS MAY BE ADJUSTED IN THE FIELD IF NECESSARY AS PER DIRECTION FROM WSSI STAFF IN ORDER TO AVOID TREES WHERE POSSIBLE AND PROVIDE THE MOST CONVENIENT ACCESS PRACTICABLE. THE ACCESS MAY POTENTIALLY TRAVEL THROUGH THE SEDIMENT DEPOSITION ON THE RIGHT BANK AS OPPOSED TO THE TRAIL.

EXISTING VANE STRUCTURE (APPROXIMATE LOCATION) SHALL BE UNCOVERED AND RE-ESTABLISHED WITHIN THE CHANNEL.

PROPOSED 7-10\"/>



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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

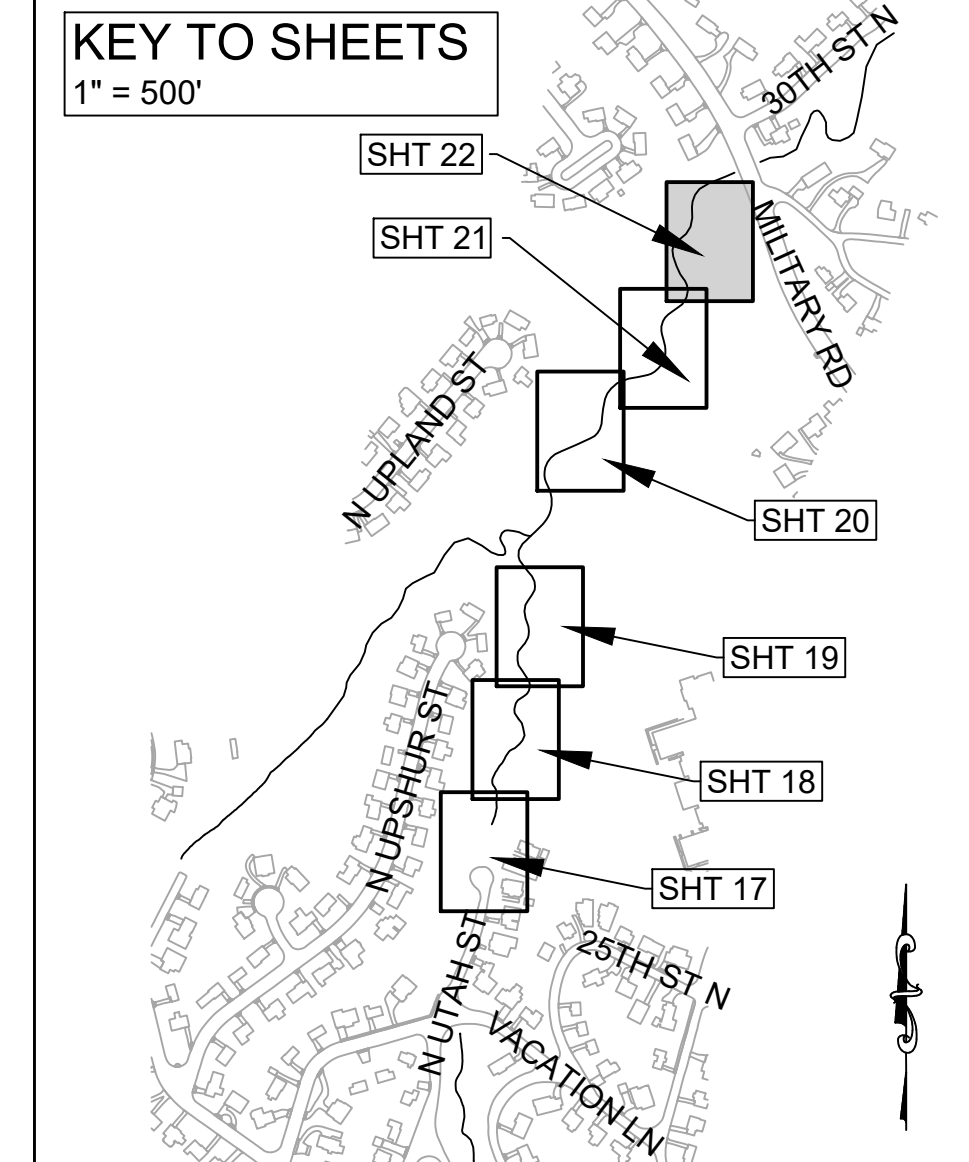
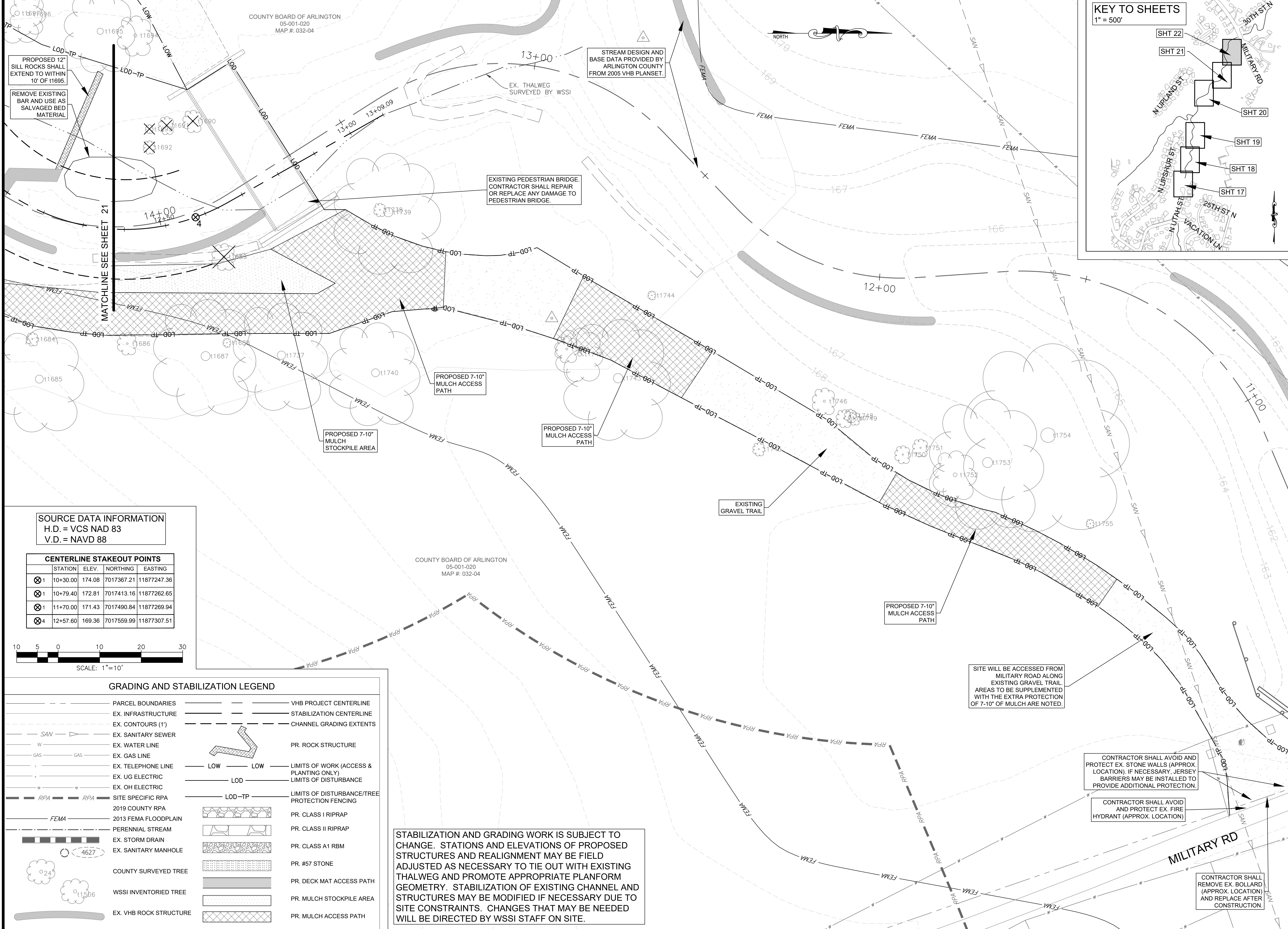
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
GRADING AND STABILIZATION PLAN (05)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

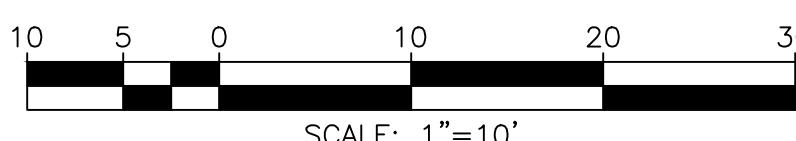
PLOTTED: JULY 13 2022  
SCALE: 1\"/>

REVISED ON 1/24/2022  
 FILENAME: GRADING PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



SOURCE DATA INFORMATION  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88

CENTERLINE STAKEOUT POINTS				
STATION	ELEV.	NORTHING	EASTING	
10+30.00	174.08	7017367.21	11877247.36	
10+79.40	172.81	7017413.16	11877262.65	
11+70.00	171.43	7017490.84	11877269.94	
12+57.60	169.36	7017559.99	11877307.51	



GRADING AND STABILIZATION LEGEND

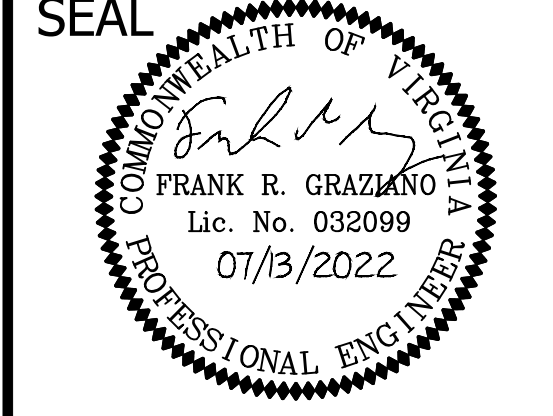
- PARCEL BOUNDARIES
- EX. INFRASTRUCTURE
- EX. CONTOURS (1')
- EX. SANITARY SEWER
- EX. WATER LINE
- EX. GAS LINE
- EX. TELEPHONE LINE
- EX. UG ELECTRIC
- EX. OH ELECTRIC
- RPA SITE SPECIFIC RPA
- FEMA 2019 COUNTY RPA
- PERENNIAL STREAM
- EX. STORM DRAIN
- EX. SANITARY MANHOLE
- COUNTY SURVEYED TREE
- WSSI INVENTORIED TREE
- EX. VHB ROCK STRUCTURE
- VHB PROJECT CENTERLINE
- STABILIZATION CENTERLINE
- CHANNEL GRADING EXTENTS
- PR. ROCK STRUCTURE
- LOW LIMITS OF WORK (ACCESS & PLANTING ONLY)
- LOD LIMITS OF DISTURBANCE
- LOD-TP LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
- PR. CLASS I RIPRAP
- PR. CLASS II RIPRAP
- PR. CLASS A1 RBM
- PR. #57 STONE
- PR. DECK MAT ACCESS PATH
- PR. MULCH STOCKPILE AREA
- PR. MULCH ACCESS PATH

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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	
REVISIONS	DATE

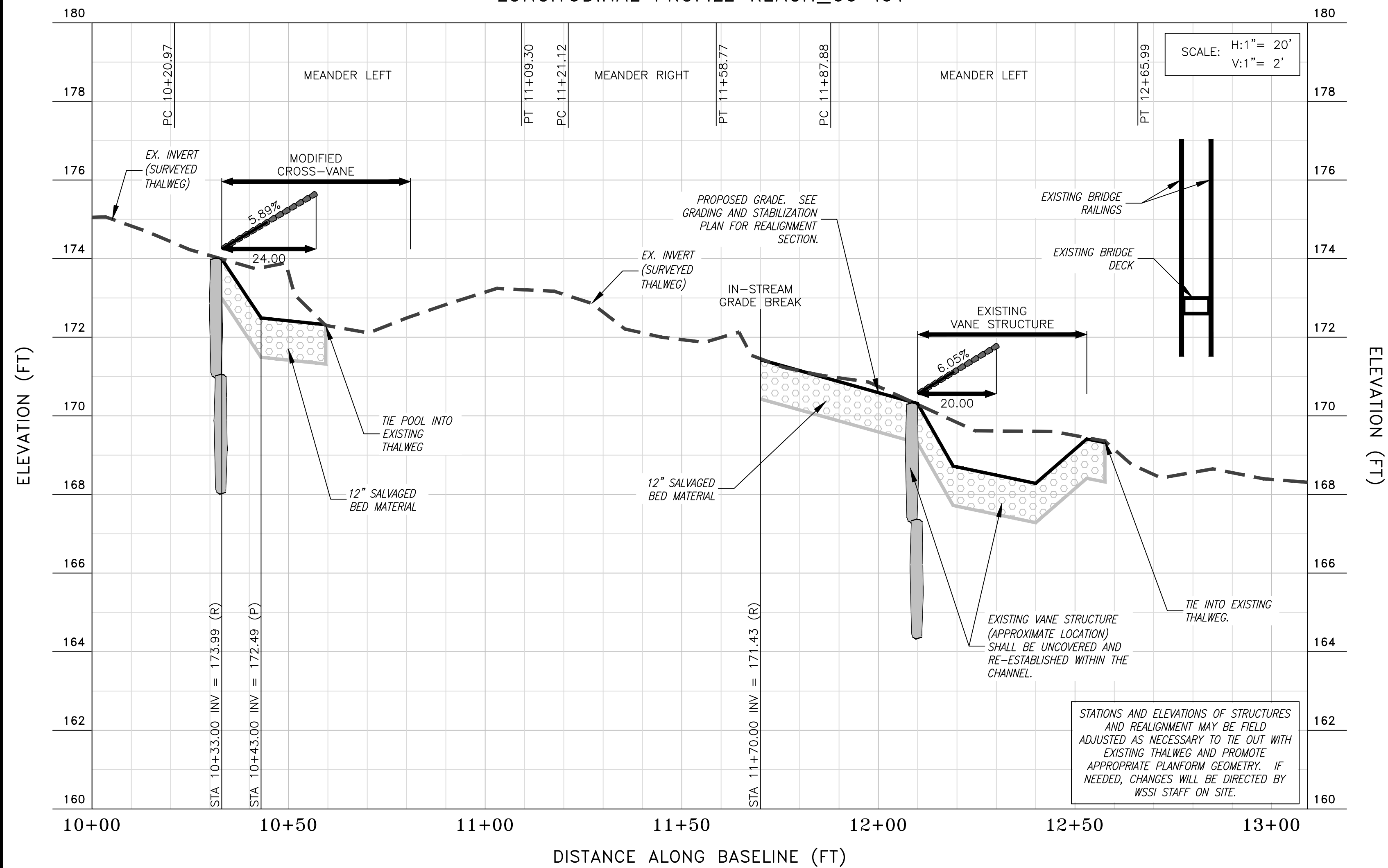
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA

GRADING AND STABILIZATION PLAN (06)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022

SCALE: 1"=10'

LONGITUDINAL PROFILE REACH\_00-i01



PROFILE LEGEND

- EXISTING STREAM THALWEG
- INVERT PROJECTED TO PROPOSED CENTERLINE
- PROPOSED STREAM INVERT ALONG PROPOSED CENTERLINE
- STRUCTURE ROCKS
- EX. BRIDGE STRUCTURE
- PC & PT LOCATIONS WITH LINE OR CURVE DESIGNATION REFERENCED FROM STAKEOUT DATA
- SALVAGED BED MATERIAL

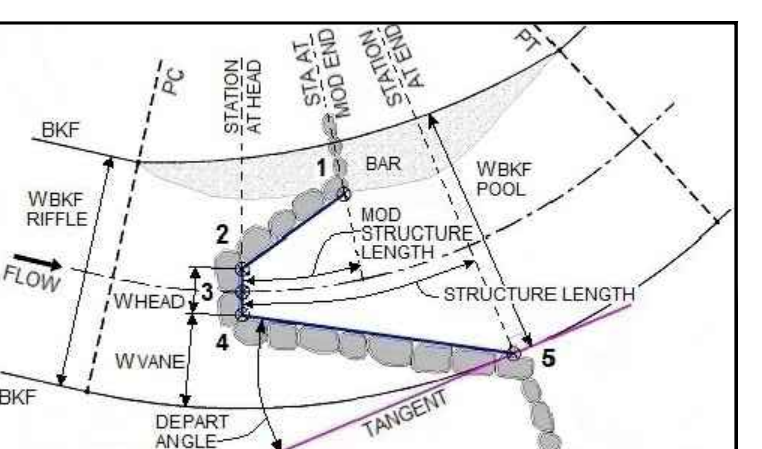
"REINFORCED BED" MIXTURE SPECIFICATIONS

THE REINFORCED BED MIXTURE SPECIFIED BELOW MUST BE APPROVED BY THE C.O.R. PRIOR TO BEING PLACED IN THE STREAM CHANNEL.

MATERIAL CATEGORY	MATERIAL SIZE RANGE	CL A1 RBM	CL I RBM	CL II RBM
ROCK <sup>2</sup>	VDOT CL A1 ROCK - D <sub>50</sub> = 6.7" - 10.8"	35 - 40%		10 - 15%
	VDOT CL I ROCK - D <sub>50</sub> = 13.2"		35 - 40%	
	VDOT CL II ROCK - D <sub>50</sub> = 19.2"			55 - 65%
BANK RUN <sup>3</sup> GRAVEL	WELL GRADED GRAVEL (0.08" - 2.5") D <sub>50</sub> = 1.3"	35 - 40%	35 - 40%	10 - 15%
COARSE SAND <sup>4</sup>	0.04" - 0.08" (1 - 2 mm)	12 - 17%	12 - 17%	5 - 10%
TOPSOIL <sup>5</sup>	LOAM OR SILT LOAM WITH 3-5% ORGANIC CONTENT	7 - 12%	7 - 12%	3 - 7%

- THE REINFORCED BED SHALL BE A MINIMUM OF 12" IN DEPTH. SEE GRADING PLAN FOR LOCATION.
- THE ROCK PORTION OF THE MIXTURE SHALL CONSIST OF RIVER WASHED COBBLE (TAN, YELLOW, OR BROWN) WITH THE SPECIFIED D<sub>50</sub>. THE VOIDS FILLED WITH A MIXTURE OF SAND, GRAVEL, AND TOPSOIL. THE COMBINATION OF PARTICLE SIZES SPECIFIED IN CONJUNCTION WITH THE FILLING OF THE VOIDS, WILL RESULT IN A VERY RESISTANT, ARMORED SUBSTRATE THAT WILL BE CAPABLE OF WITHSTANDING MUCH GREATER SHEAR STRESS THAN THE COMPUTATION OF THE REQUIRED D<sub>50</sub> WOULD SUGGEST.
- BANK RUN GRAVEL MAY INCLUDE UP TO 5% CLAY, SILT, AND/OR SAND, AND UP TO 25% COBBLE (D<sub>50</sub> = 3" TO 8"). GRAVEL MUST HAVE NATURAL COLOR (TAN, YELLOW, OR BROWN).
- THE SAND PORTION OF THE MIXTURE SHALL CONSIST OF A WELL MIXED SAND PREDOMINANTLY 1.0 MILLIMETERS TO 2.0 MILLIMETERS IN SIZE. SUBJECT TO ENGINEER APPROVAL (I.E. WASHED CONCRETE SAND IS NOT REQUIRED). SAND MUST BE WHITE, TAN, YELLOW, OR BROWN IN COLOR.
- THE TOPSOIL PORTION OF THE MIXTURE SHALL CONSIST OF 50% SIFTED, UNWASHED COARSE SAND (WITH FINES ALLOWED), 25% COMPOSTED LEAF/BARK MULCH, 25% MINERAL SILT OR FINER MATERIAL (STONE DUST FROM ROCK CRUSHING OPERATIONS OR ANY SILT/CLAY).

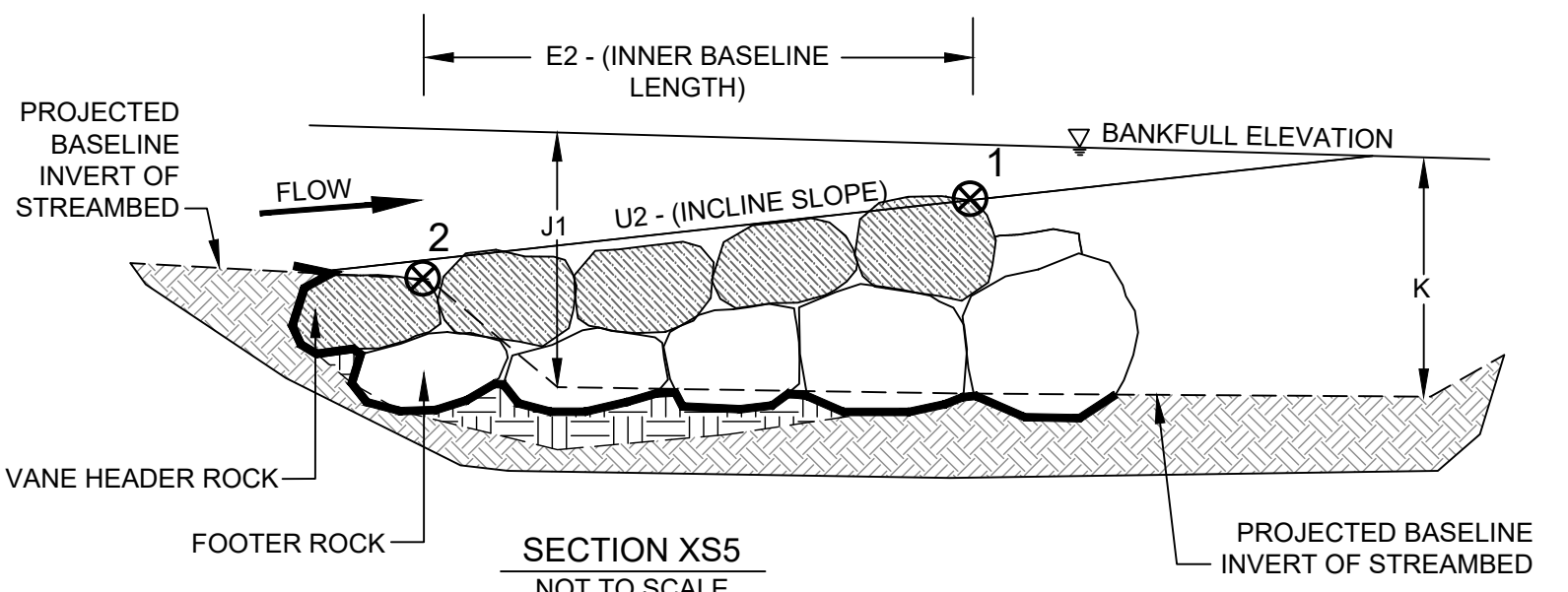
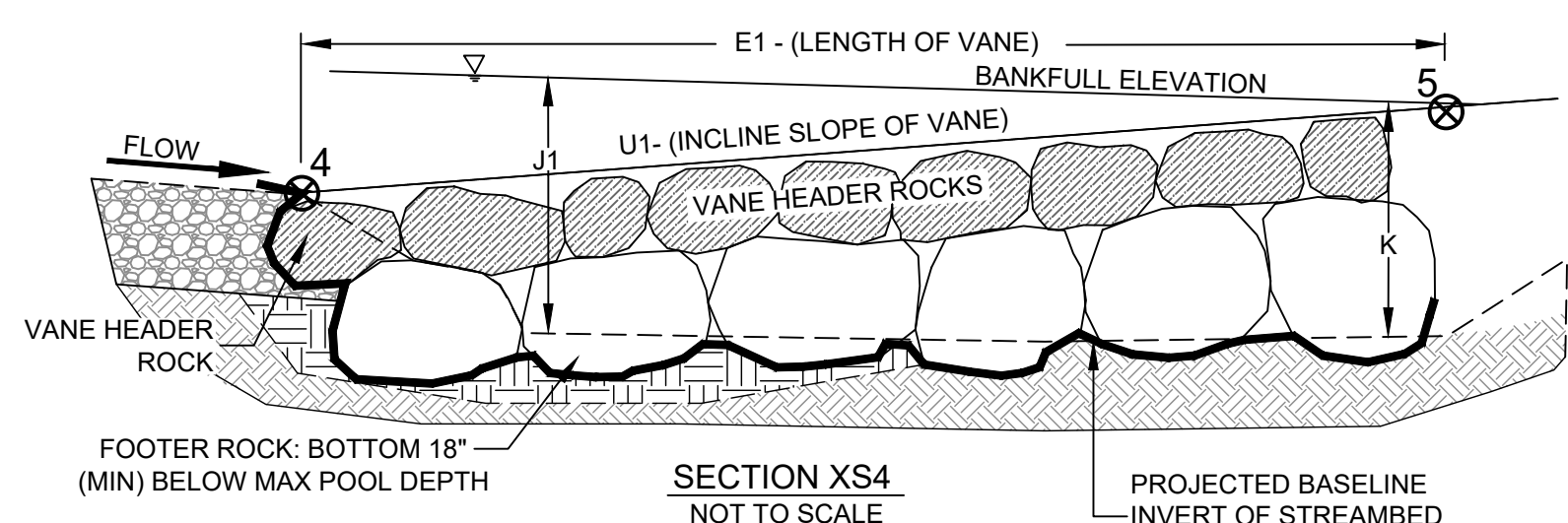
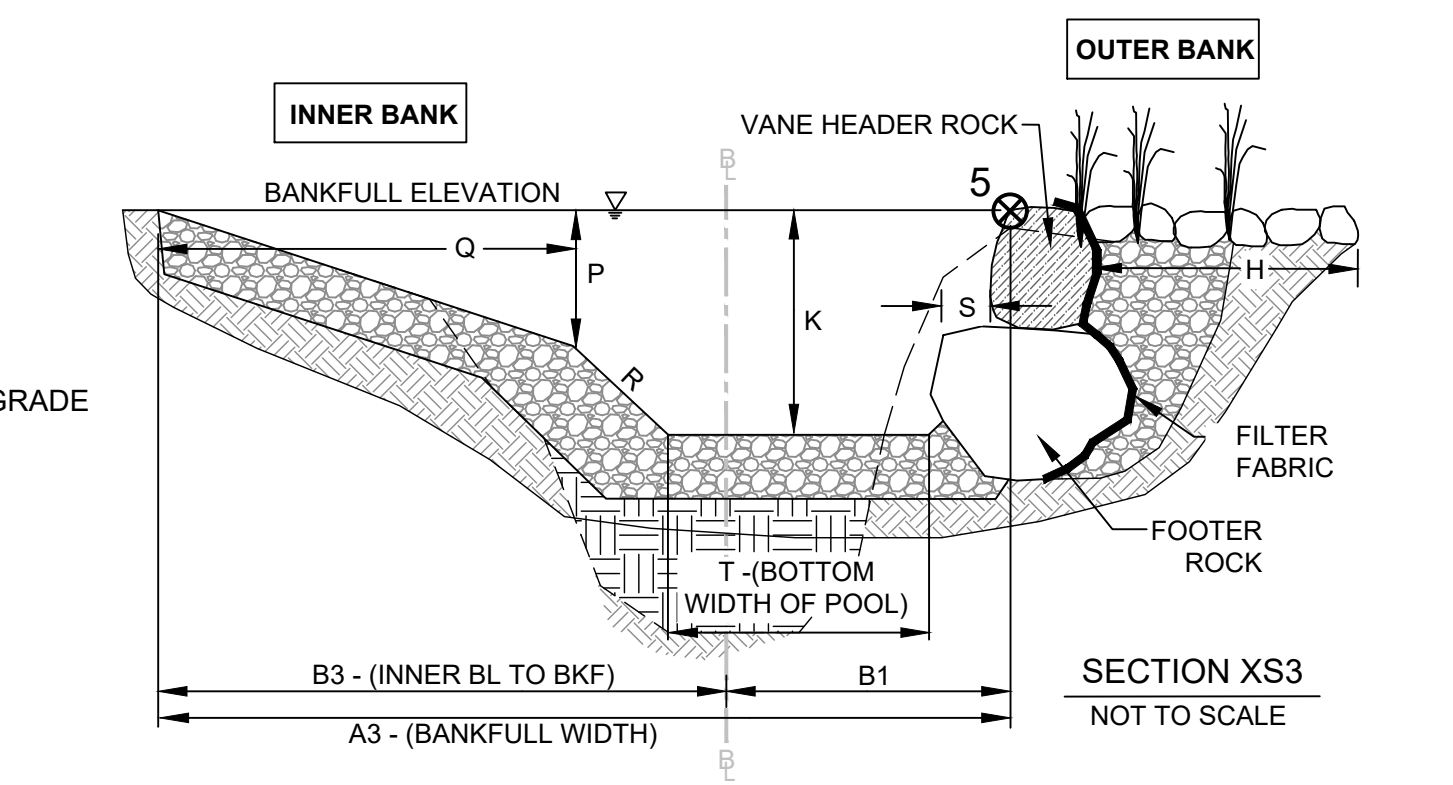
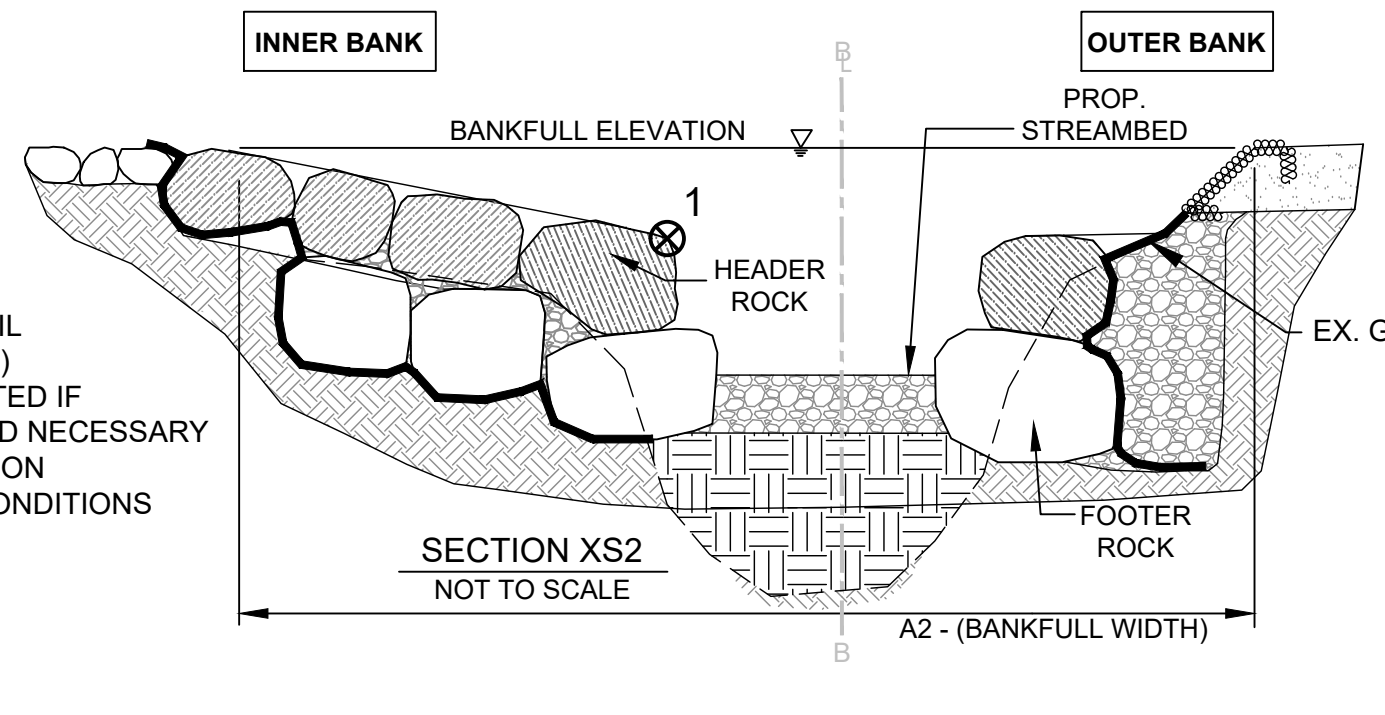
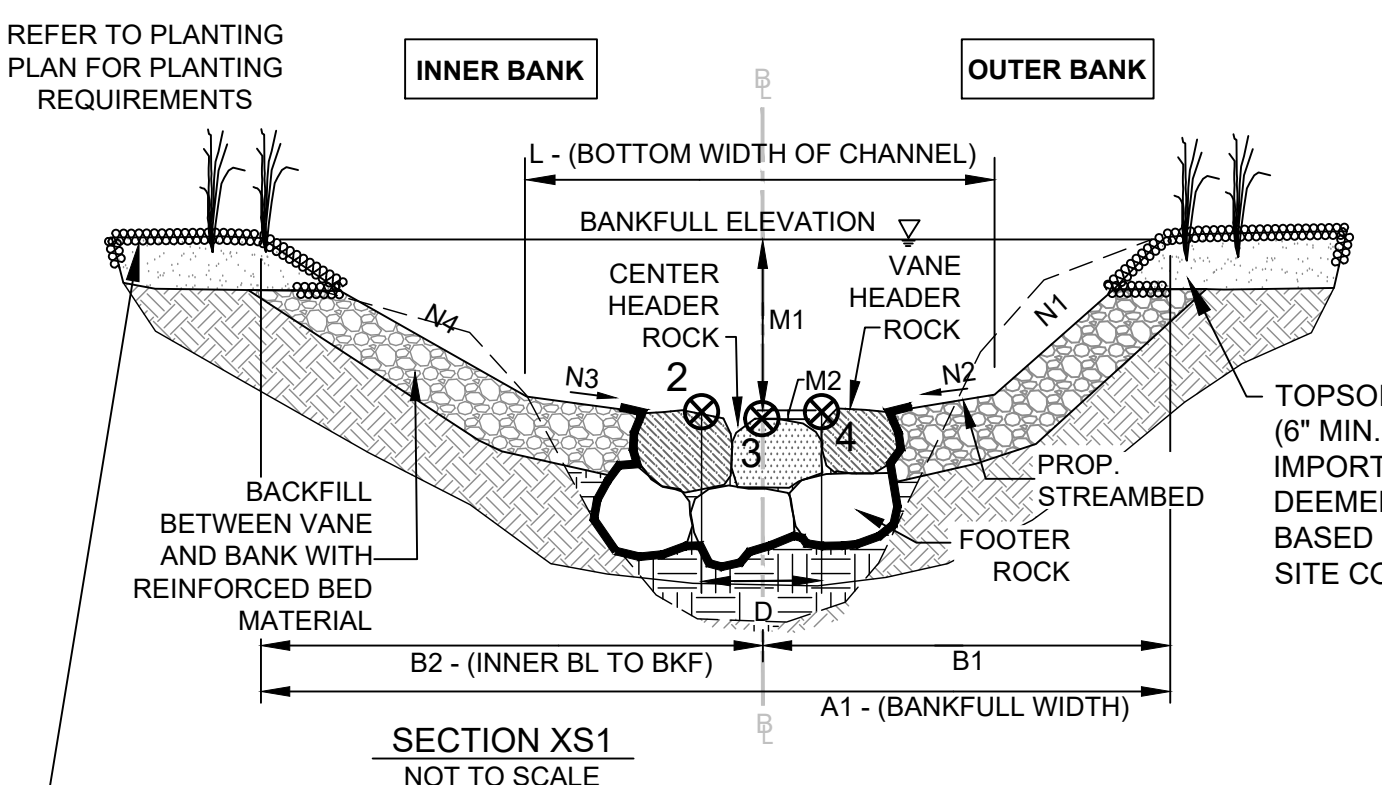
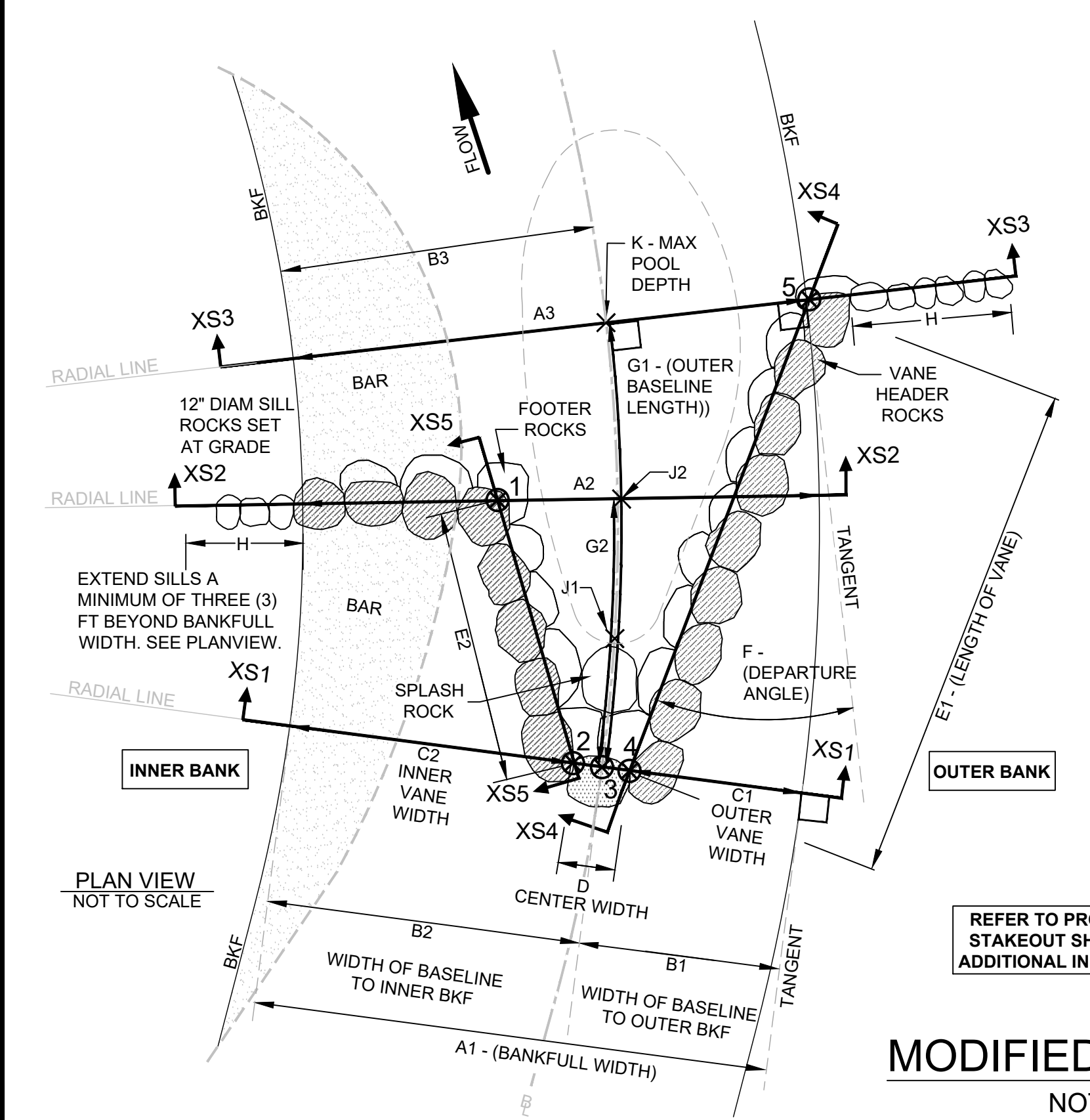
MODIFIED CROSS VANE - LEFT MEANDER		PC	PT	RC
10+33.00	WBKF-POOL 21	10+20.97	11+09.30	70
WHAD 7.0	WBANK 5.5	STRUC LENGTH 24.0	SLOPE BKF 0.010	LPOOL 48.0
Δ Y-HEAD 0.25	DEPART ANGLE 24.5	WRAMP 1.5	LVANE-OUT 27.2	LVANES-MOD 11.9
POINT #	STATION	BL DIST TO PREVIOUS POINT	OFFSET FROM BL TO POINT	ELEVATION AT POINT
1	10+45.00	0.0	8.1	175.09
2	10+33.00	12.0	3.5	174.24
3	10+33.00	0.0	---	173.99
4	10+33.00	0.0	3.5	174.24
5	10+57.00	24.0	10.5	175.84



STRUCTURE STAKEOUT POINTS AND DIMENSIONS ARE SUBJECT TO CHANGE IF NECESSARY DUE TO SITE CONSTRAINTS. FIELD CHANGES THAT MAY BE NEEDED WILL BE DIRECTED BY WSSI STAFF ON SITE.

STRUCTURE DETAIL LEGEND

- REINFORCED BED
- IN-SITU MATERIAL
- FILL MATERIAL
- TOPSOIL (3 INCH MIN.)
- FILTER FABRIC
- COIR MATTING
- STAKEOUT/WEIR POINT
- HEADER (TOP) ROCK
- WEIR ROCK
- FOOTER ROCK
- SPLASH ROCK



MODIFIED CROSS VANE NOT TO SCALE

STRUCTURE LOCATION			MODIFIED CROSS VANE DIMENSIONS PARAMETER (FT)																															
REACH ID	BASELINE STATION AT HEADER ROCK	MEANDER DIRECTION	A1 <sup>1</sup>	A2 <sup>1</sup>	A3 <sup>1</sup>	B1	B2	B3	C1	C2	D	E1	E2	F <sup>2</sup>	G1	G2	H	J1 <sup>3</sup>	J2 <sup>3</sup>	K <sup>3</sup>	L	M1 <sup>3</sup>	M2	N1	N2	N3	N4	P	Q	R	S	T	U1 <sup>2</sup>	U2 <sup>2</sup>
MAIN CHANNEL	10+33.00	LEFT	22.4	23.8	25.2	10.5	11.9	14.7	7.0	8.4	7.0	27.2	11.9	24.5	24.0	12.0	---	3.5	3.5	3.5	12.0	2.1	0.3	40.0:1	50.0:1	50.0:1	30.5:1	0.9	6.6	1.0:1	1.5	15.0	0.059	0.071

PLAN VIEW DEPICTS A STRUCTURE IN A LEFT MEANDER (WITH THE OUTER BANK SITUATED ON THE RIGHT LOOKING DOWNSTREAM). FOR A RIGHT MEANDER STRUCTURE (WITH THE OUTER BANK ON THE LEFT), THE PLAN VIEW IS A MIRROR IMAGE OF WHAT SHOULD BE CONSTRUCTED. \*\*THE LONG VANE IS ALWAYS SITUATED ON THE OUTER BANK.

**ARLINGTON VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL SERVICES  
 FACILITIES & ENGINEERING DIVISION  
 ENGINEERING BUREAU  
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 ARLINGTON, VA 22201  
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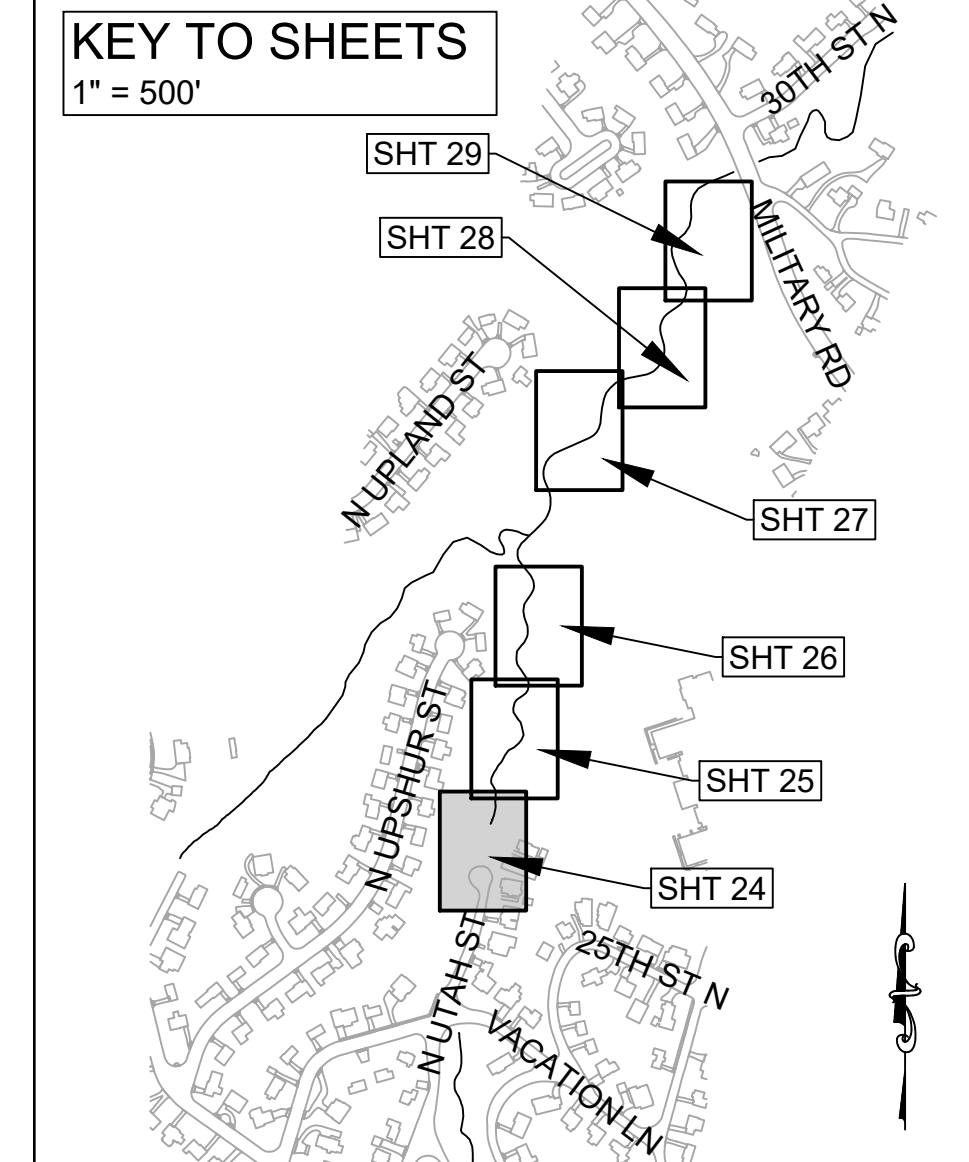
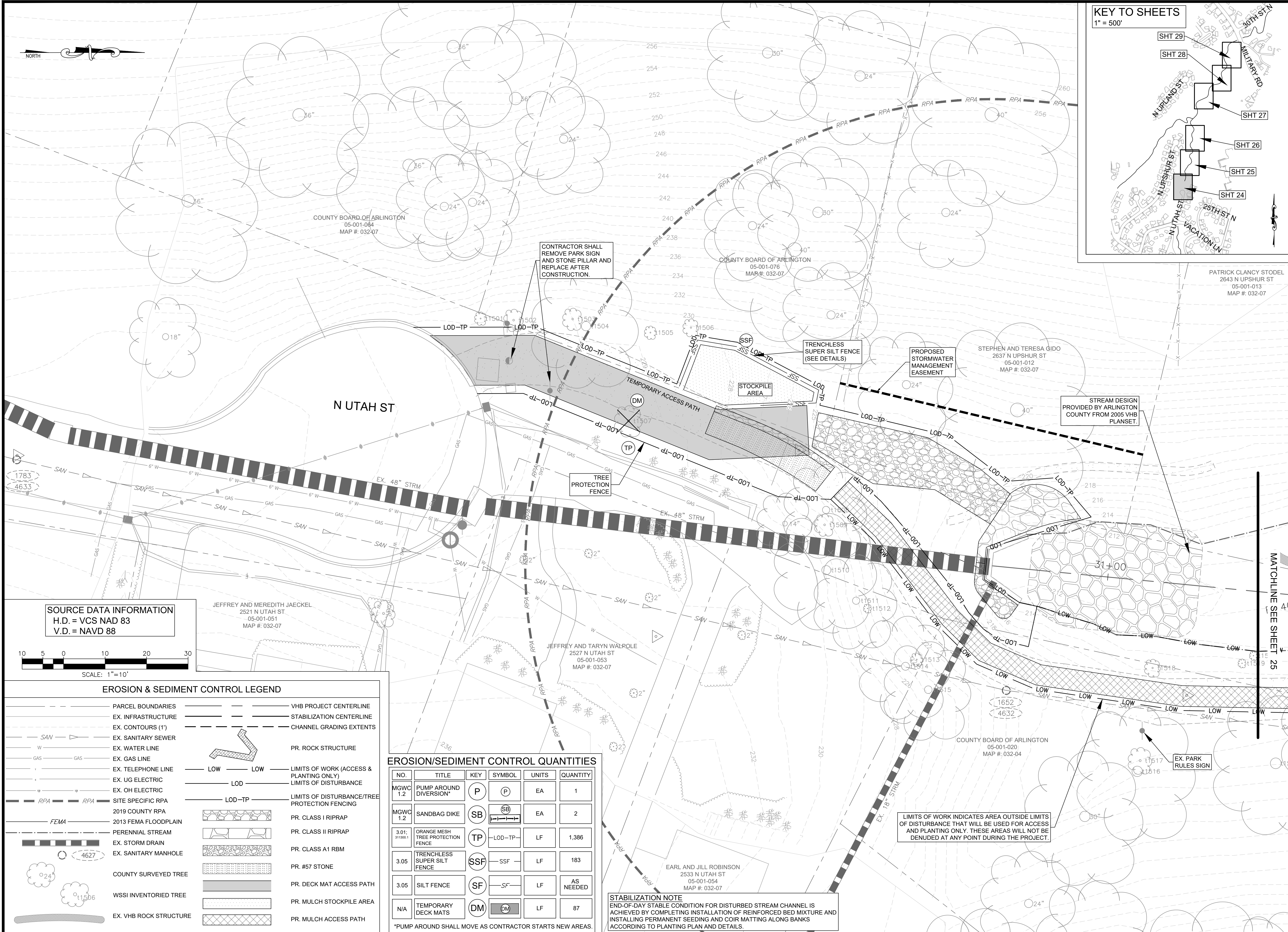
SEAL

APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

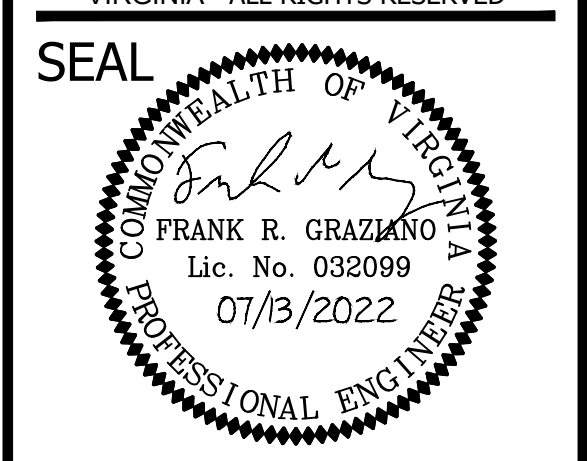
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 PROFILE AND CONSTRUCTION DETAILS  
 (01)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022  
 SCALE: AS NOTED



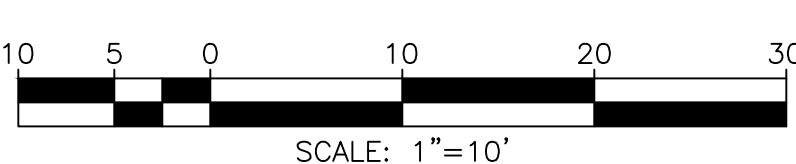
**ARLINGTON VIRGINIA**  
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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

**SOURCE DATA INFORMATION**  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



**EROSION & SEDIMENT CONTROL LEGEND**

---	PARCEL BOUNDARIES	---	VHB PROJECT CENTERLINE
---	EX. INFRASTRUCTURE	---	STABILIZATION CENTERLINE
---	EX. CONTOURS (1')	---	CHANNEL GRADING EXTENTS
SAN	EX. SANITARY SEWER	---	PR. ROCK STRUCTURE
W	EX. WATER LINE	---	LIMITS OF WORK (ACCESS & PLANTING ONLY)
GAS	EX. GAS LINE	---	LIMITS OF DISTURBANCE
---	EX. TELEPHONE LINE	---	LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
---	EX. UG ELECTRIC	---	PR. CLASS I RIPRAP
---	EX. OH ELECTRIC	---	PR. CLASS II RIPRAP
---	SITE SPECIFIC RPA	---	PR. CLASS A1 RBM
---	2019 COUNTY RPA	---	PR. #57 STONE
---	2013 FEMA FLOODPLAIN	---	PR. DECK MAT ACCESS PATH
---	PERENNIAL STREAM	---	PR. MULCH STOCKPILE AREA
---	EX. STORM DRAIN	---	PR. MULCH ACCESS PATH
---	EX. SANITARY MANHOLE	---	
---	COUNTY SURVEYED TREE	---	
---	WSSI INVENTORIED TREE	---	
---	EX. VHB ROCK STRUCTURE	---	

**EROSION/SEDIMENT CONTROL QUANTITIES**

NO.	TITLE	KEY	SYMBOL	UNITS	QUANTITY
MGWC 1.2	PUMP AROUND DIVERSION*	P	(P)	EA	1
MGWC 1.2	SANDBAG DIKE	SB	(SB)	EA	2
3.01: 311300.1	ORANGE MESH TREE PROTECTION FENCE	TP	(TP)	LF	1,386
3.05	TRENCHLESS SUPER SILT FENCE	SSF	(SSF)	LF	183
3.05	SILT FENCE	SF	(SF)	LF	AS NEEDED
N/A	TEMPORARY DECK MATS	DM	(DM)	LF	87

\*PUMP AROUND SHALL MOVE AS CONTRACTOR STARTS NEW AREAS.

**STABILIZATION NOTE**  
 END-OF-DAY STABLE CONDITION FOR DISTURBED STREAM CHANNEL IS ACHIEVED BY COMPLETING INSTALLATION OF REINFORCED BED MIXTURE AND INSTALLING PERMANENT SEEDING AND COIR MATTING ALONG BANKS ACCORDING TO PLANTING PLAN AND DETAILS.

LIMITS OF WORK INDICATES AREA OUTSIDE LIMITS OF DISTURBANCE THAT WILL BE USED FOR ACCESS AND PLANTING ONLY. THESE AREAS WILL NOT BE DENuded AT ANY POINT DURING THE PROJECT.

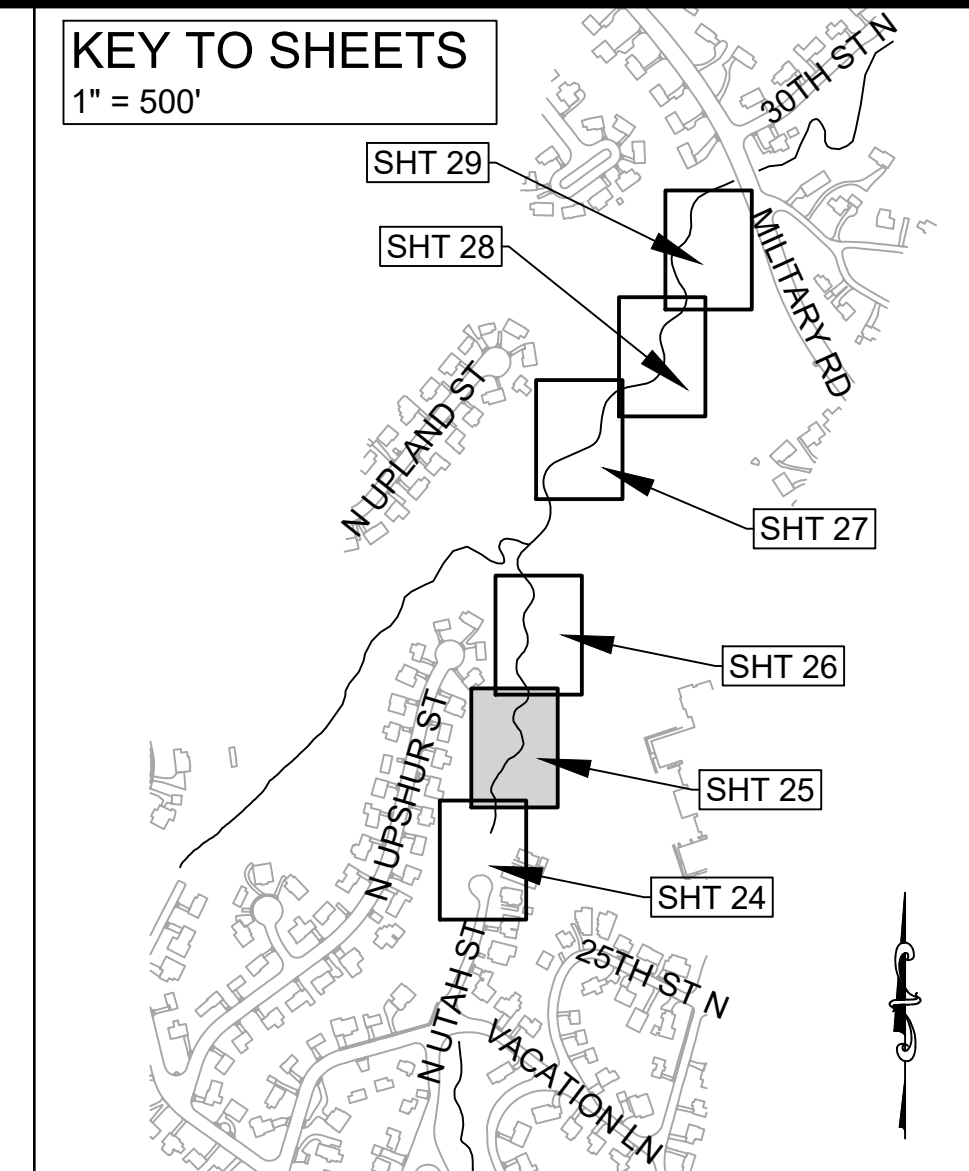
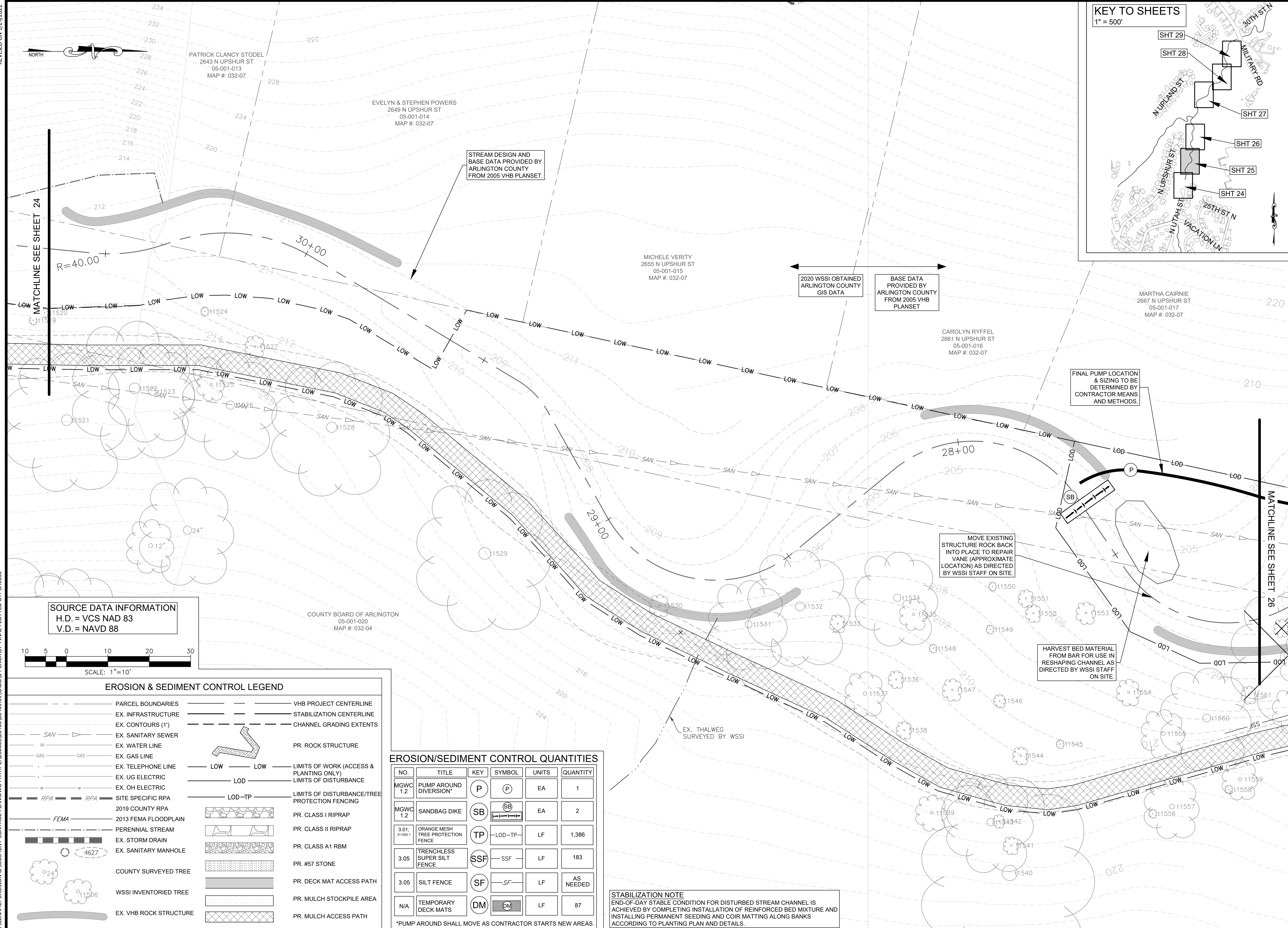
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
**EROSION & SEDIMENT CONTROL PLAN**  
 (01)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022  
 SCALE: 1"=10'



REVISED ON 12/24/2022

FILENAME: EROSION & SEDIMENT CONTROL PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



**SOURCE DATA INFORMATION**  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



**EROSION & SEDIMENT CONTROL LEGEND**

- |     |                        |     |   |
|-----|------------------------|-----|---|
| --- | PARCEL BOUNDARIES      | --- | VHB PROJECT CENTERLINE                        |
| --- | EX. INFRASTRUCTURE     | --- | STABILIZATION CENTERLINE                      |
| --- | EX. CONTOURS (1')      | --- | CHANNEL GRADING EXTENTS                       |
| SAN | EX. SANITARY SEWER     | --- | PR. ROCK STRUCTURE                            |
| W   | EX. WATER LINE         | --- | LIMITS OF WORK (ACCESS & PLANTING ONLY)       |
| GAS | EX. GAS LINE           | --- | LIMITS OF DISTURBANCE                         |
| --- | EX. TELEPHONE LINE     | --- | LIMITS OF DISTURBANCE/TREE PROTECTION FENCING |
| --- | EX. UG ELECTRIC        | --- | PR. CLASS I RIPRAP                            |
| --- | EX. OH ELECTRIC        | --- | PR. CLASS II RIPRAP                           |
| RPA | SITE SPECIFIC RPA      | --- | PR. CLASS A1 RBM                              |
| --- | 2019 COUNTY RPA        | --- | PR. #57 STONE                                 |
| --- | 2013 FEMA FLOODPLAIN   | --- | PR. DECK MAT ACCESS PATH                      |
| --- | PERENNIAL STREAM       | --- | PR. MULCH STOCKPILE AREA                      |
| --- | EX. STORM DRAIN        | --- | PR. MULCH ACCESS PATH                         |
| --- | EX. SANITARY MANHOLE   | --- |   |
| --- | COUNTY SURVEYED TREE   |     |   |
| --- | WSSI INVENTORIED TREE  |     |   |
| --- | EX. VHB ROCK STRUCTURE |     |   |

**EROSION/SEDIMENT CONTROL QUANTITIES**

NO.	TITLE	KEY	SYMBOL	UNITS	QUANTITY
MGWC 1.2	PUMP AROUND DIVERSION*	P	(P)	EA	1
MGWC 1.2	SANDBAG DIKE	SB	(SB)	EA	2
3.01: 311300.1	ORANGE MESH TREE PROTECTION FENCE	TP	(LOD-TP)	LF	1,386
3.05	TRENCHLESS SUPER SILT FENCE	SSF	(SSF)	LF	183
3.05	SILT FENCE	SF	(SF)	LF	AS NEEDED
N/A	TEMPORARY DECK MATS	DM	(DM)	LF	87

**STABILIZATION NOTE**  
 END-OF-DAY STABLE CONDITION FOR DISTURBED STREAM CHANNEL IS ACHIEVED BY COMPLETING INSTALLATION OF REINFORCED BED MIXTURE AND INSTALLING PERMANENT SEEDING AND COIR MATTING ALONG BANKS ACCORDING TO PLANTING PLAN AND DETAILS.

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**SEAL**  
 COMMONWEALTH OF VIRGINIA  
 FRANK R. GRAZIANO  
 Lic. No. 032099  
 07/13/2022  
 PROFESSIONAL ENGINEER

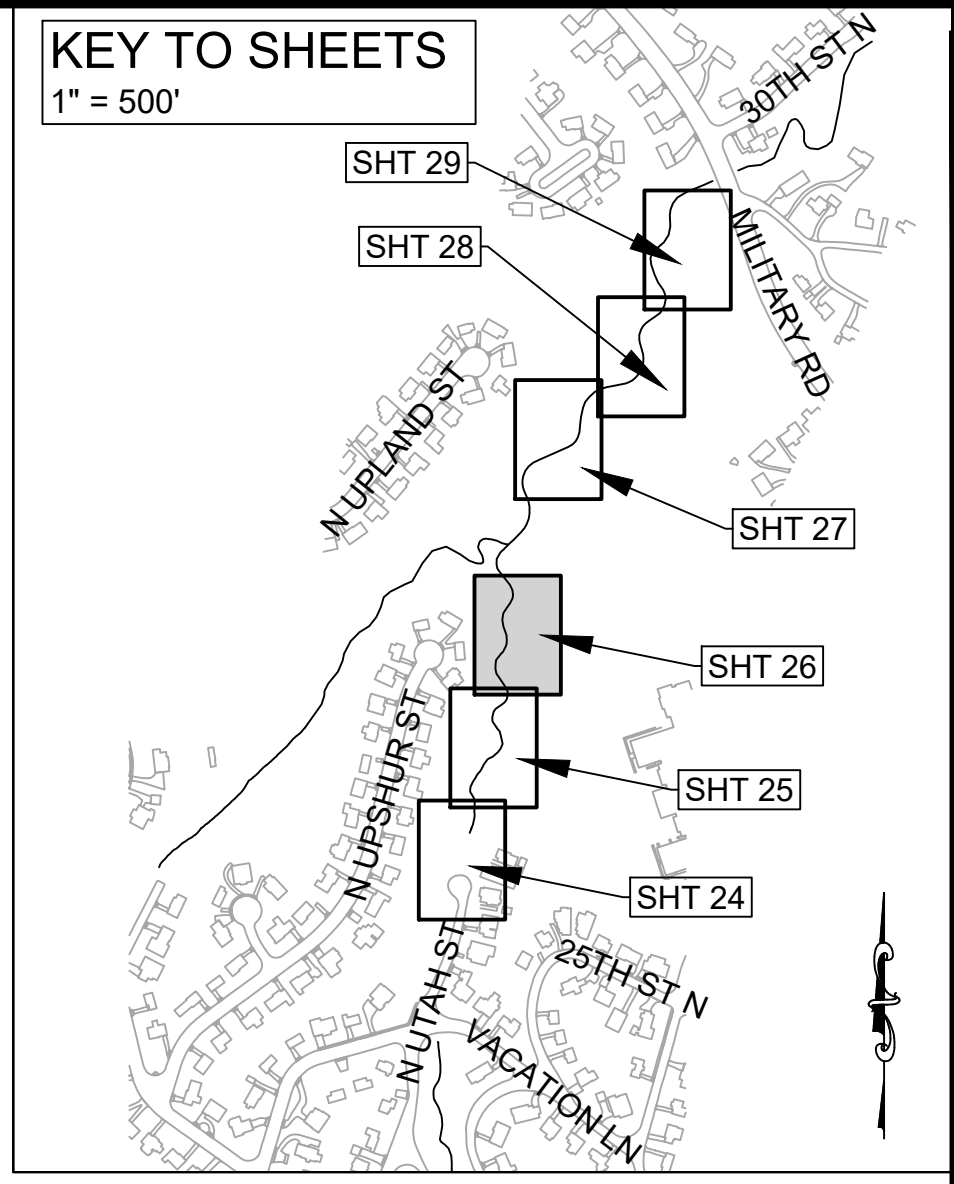
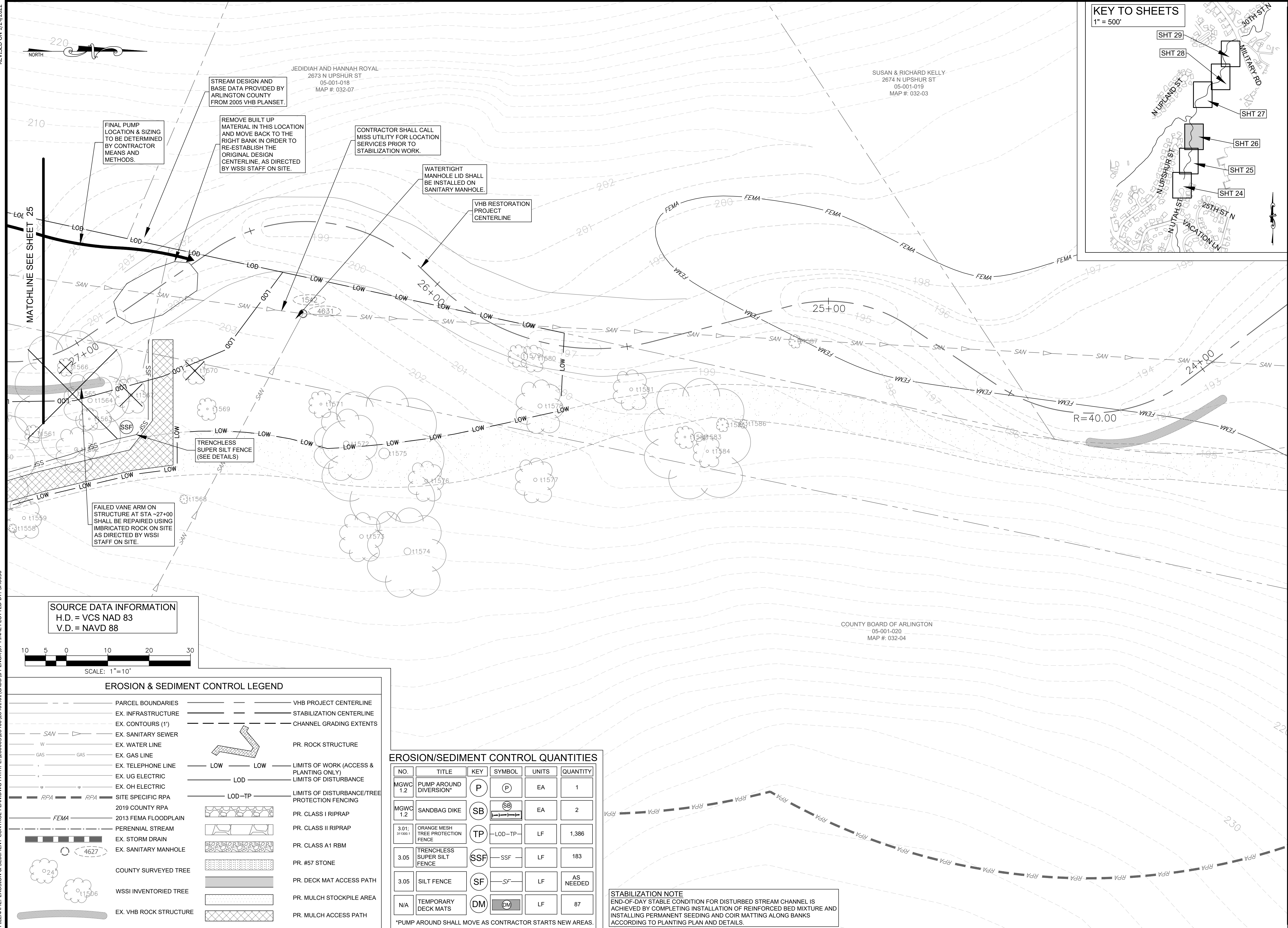
APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	
REVISIONS	DATE

**TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN**  
 ARLINGTON COUNTY, VIRGINIA  
**EROSION & SEDIMENT CONTROL PLAN**  
 (02)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022  
 SCALE: 1"=10'

REVISED ON 1/24/2022

FILENAME: EROSION & SEDIMENT CONTROL PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



DEPARTMENT OF ENVIRONMENTAL SERVICES  
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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

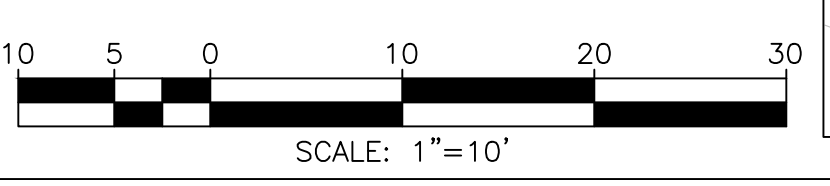
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
**EROSION & SEDIMENT CONTROL PLAN**  
 (03)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'

SOURCE DATA INFORMATION  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



EROSION & SEDIMENT CONTROL LEGEND

---	PARCEL BOUNDARIES	---	VHB PROJECT CENTERLINE
---	EX. INFRASTRUCTURE	---	STABILIZATION CENTERLINE
---	EX. CONTOURS (1')	---	CHANNEL GRADING EXTENTS
SAN	EX. SANITARY SEWER	PR. ROCK STRUCTURE	
W	EX. WATER LINE	LOW	LIMITS OF WORK (ACCESS & PLANTING ONLY)
GAS	EX. GAS LINE	LOD	LIMITS OF DISTURBANCE
---	EX. TELEPHONE LINE	LOD-TP	LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
---	EX. UG ELECTRIC		
---	EX. OH ELECTRIC		
RPA	SITE SPECIFIC RPA	PR. CLASS I RIPRAP	
FEMA	2019 COUNTY RPA	PR. CLASS II RIPRAP	
---	2013 FEMA FLOODPLAIN	PR. CLASS A1 RBM	
---	PERENNIAL STREAM	PR. #57 STONE	
---	EX. STORM DRAIN	PR. DECK MAT ACCESS PATH	
---	EX. SANITARY MANHOLE	PR. MULCH STOCKPILE AREA	
○	COUNTY SURVEYED TREE	PR. MULCH ACCESS PATH	
○	WSSI INVENTORIED TREE		
---	EX. VHB ROCK STRUCTURE		

EROSION/SEDIMENT CONTROL QUANTITIES

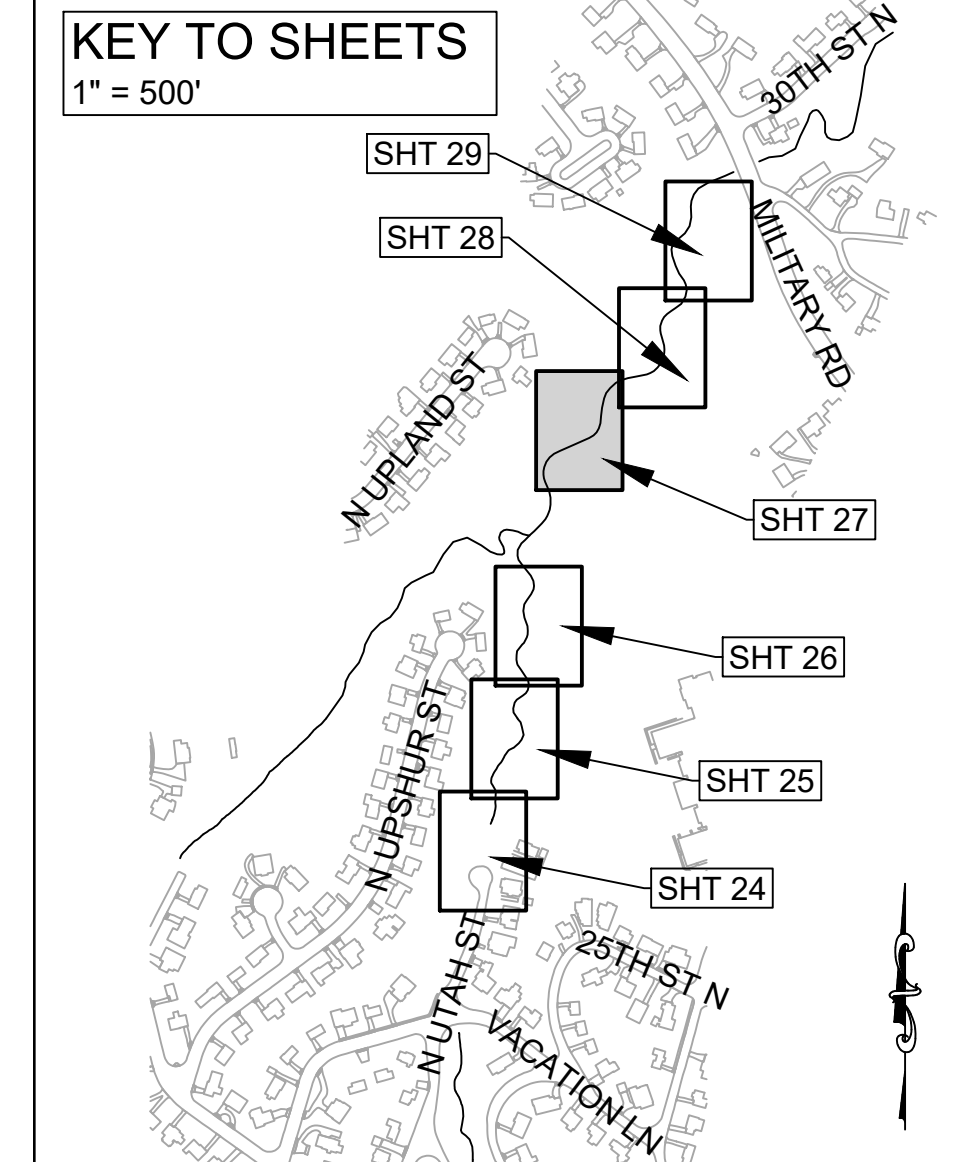
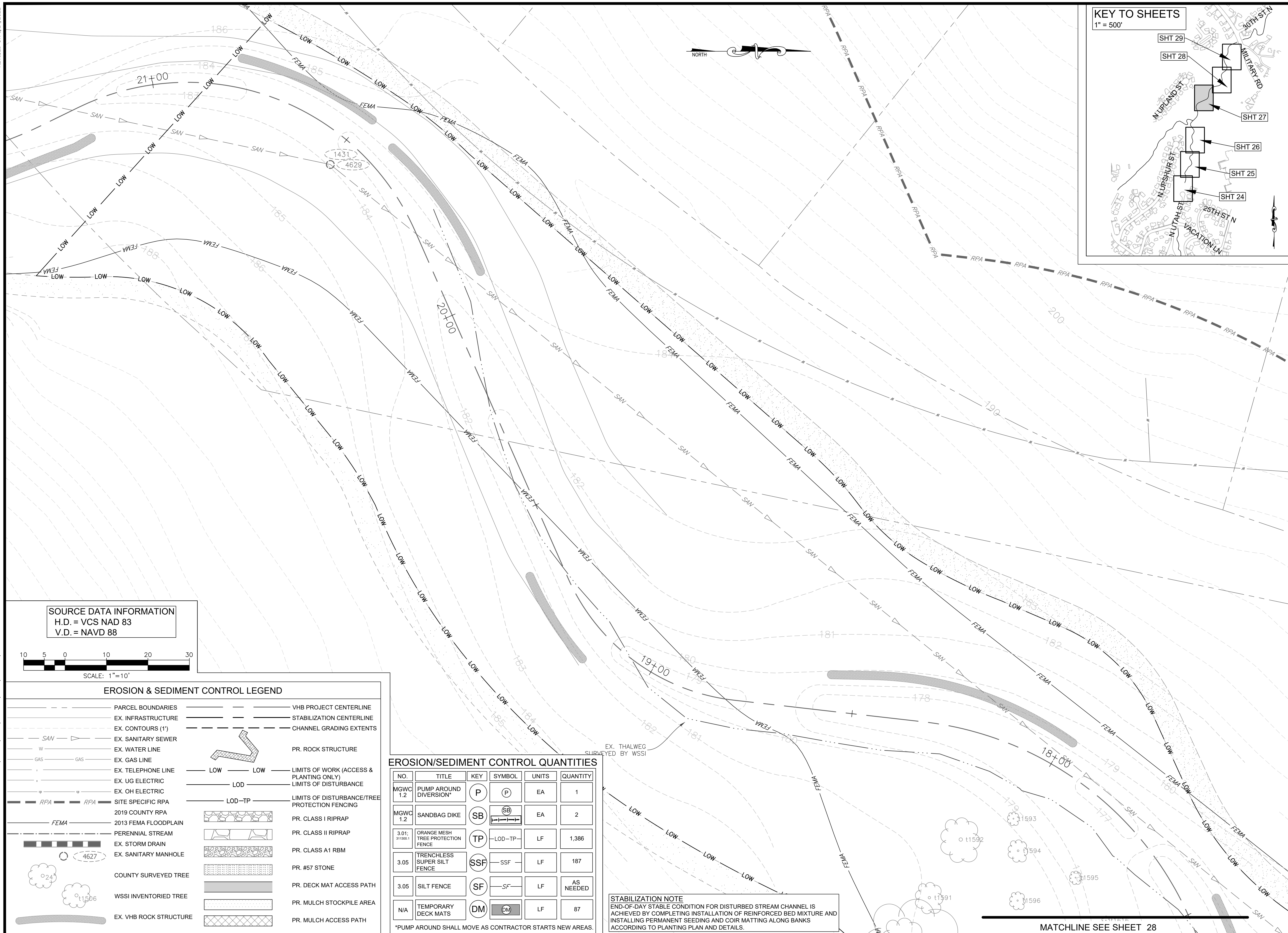
NO.	TITLE	KEY	SYMBOL	UNITS	QUANTITY
MGWC 1.2	PUMP AROUND DIVERSION*	P	(P)	EA	1
MGWC 1.2	SANDBAG DIKE	SB	(SB)	EA	2
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3.05	TRENCHLESS SUPER SILT FENCE	SSF	SSF	LF	183
3.05	SILT FENCE	SF	SF	LF	AS NEEDED
N/A	TEMPORARY DECK MATS	DM	(DM)	LF	87

\*PUMP AROUND SHALL MOVE AS CONTRACTOR STARTS NEW AREAS.

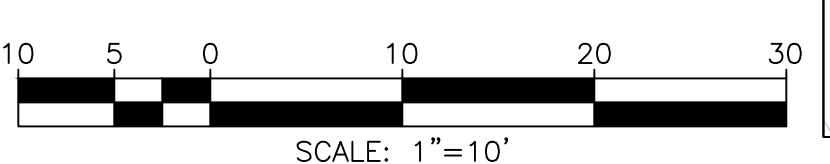
STABILIZATION NOTE  
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REVISED ON 1/24/2022

FILENAME: EROSION & SEDIMENT CONTROL PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



**SOURCE DATA INFORMATION**  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



**EROSION & SEDIMENT CONTROL LEGEND**

---	PARCEL BOUNDARIES	---	VHB PROJECT CENTERLINE
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---	SITE SPECIFIC RPA		
---	2019 COUNTY RPA		
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**EROSION/SEDIMENT CONTROL QUANTITIES**

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\*PUMP AROUND SHALL MOVE AS CONTRACTOR STARTS NEW AREAS.

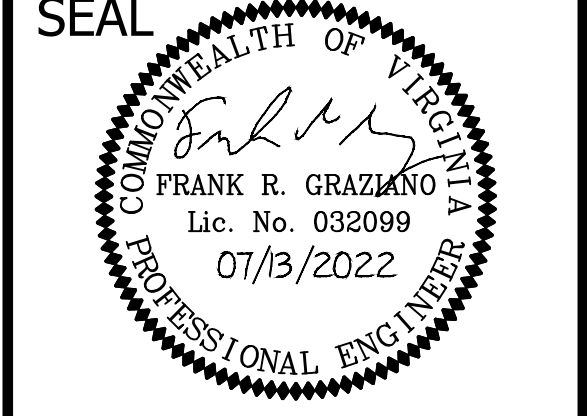
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MATCHLINE SEE SHEET 28



DEPARTMENT OF ENVIRONMENTAL SERVICES  
 FACILITIES & ENGINEERING DIVISION  
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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
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 ARLINGTON COUNTY, VIRGINIA  
**EROSION & SEDIMENT CONTROL PLAN**  
 (04)

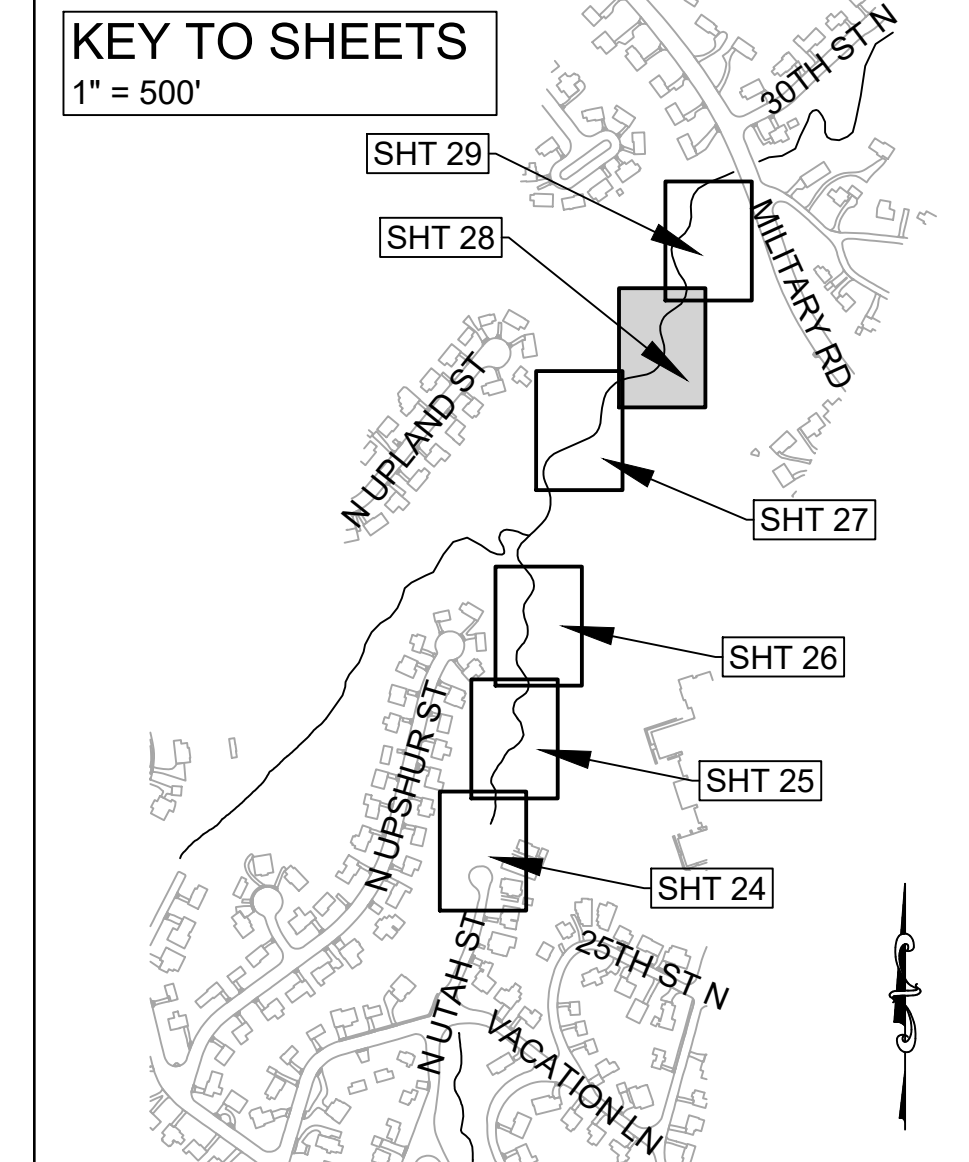
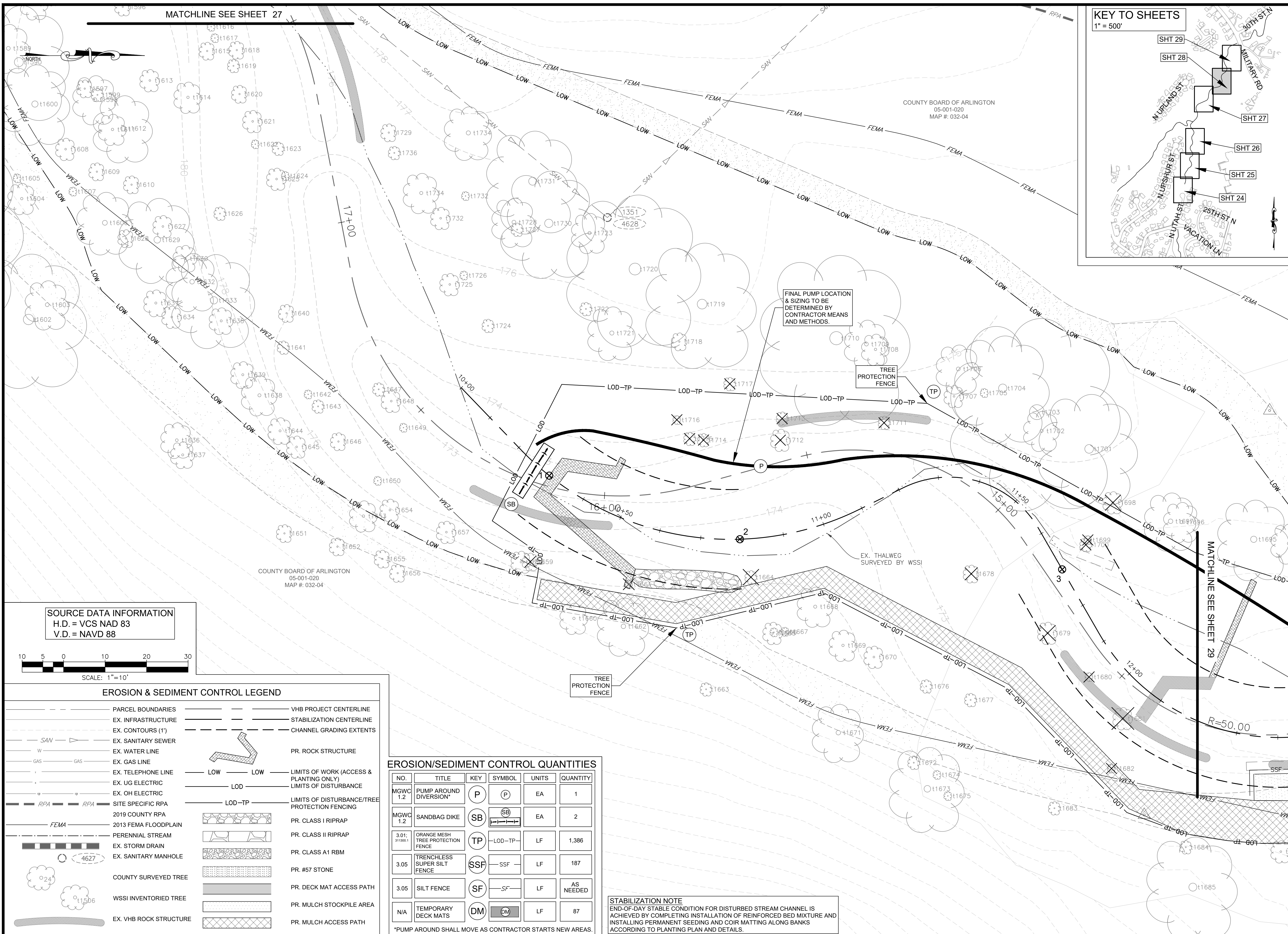
DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'

REVISED ON 12/24/2022

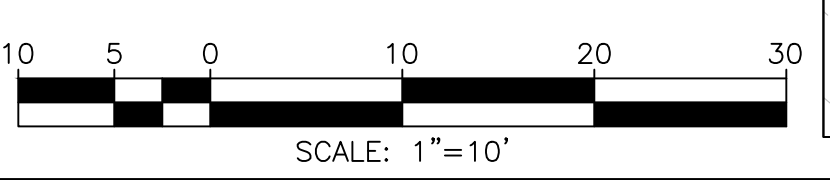
FILENAME: EROSION & SEDIMENT CONTROL PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



COUNTY BOARD OF ARLINGTON  
05-001-020  
MAP #: 032-04

COUNTY BOARD OF ARLINGTON  
05-001-020  
MAP #: 032-04

SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



**EROSION & SEDIMENT CONTROL LEGEND**

---	PARCEL BOUNDARIES	---	VHB PROJECT CENTERLINE
---	EX. INFRASTRUCTURE	---	STABILIZATION CENTERLINE
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W	EX. WATER LINE	---	LIMITS OF WORK (ACCESS & PLANTING ONLY)
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---	EX. TELEPHONE LINE	---	LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
---	EX. UG ELECTRIC	---	PR. CLASS I RIPRAP
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RPA	SITE SPECIFIC RPA	---	PR. CLASS A1 RBM
FEMA	2019 COUNTY RPA	---	PR. #57 STONE
---	2013 FEMA FLOODPLAIN	---	PR. DECK MAT ACCESS PATH
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---	EX. SANITARY MANHOLE	---	
---	COUNTY SURVEYED TREE	---	
---	WSSI INVENTORIED TREE	---	
---	EX. VHB ROCK STRUCTURE	---	

**EROSION/SEDIMENT CONTROL QUANTITIES**

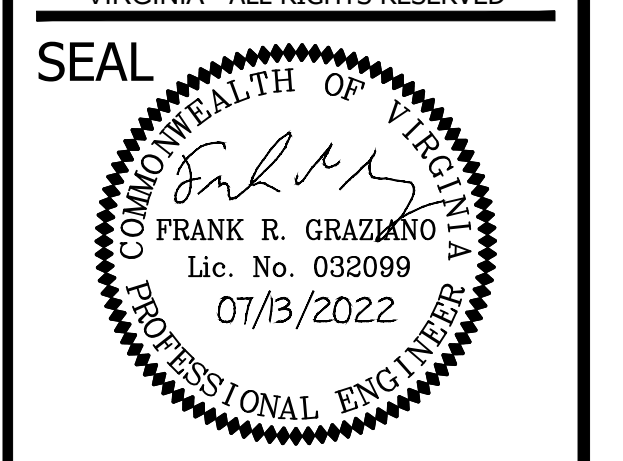
NO.	TITLE	KEY	SYMBOL	UNITS	QUANTITY
MGWC 1.2	PUMP AROUND DIVERSION*	P	(P)	EA	1
MGWC 1.2	SANDBAG DIKE	SB	(SB)	EA	2
3.01: 311300.1	ORANGE MESH TREE PROTECTION FENCE	TP	(LOD-TP)	LF	1,386
3.05	TRENCHLESS SUPER SILT FENCE	SSF	(SSF)	LF	187
3.05	SILT FENCE	SF	(SF)	LF	AS NEEDED
N/A	TEMPORARY DECK MATS	DM	(DM)	LF	87

**STABILIZATION NOTE**  
END-OF-DAY STABLE CONDITION FOR DISTURBED STREAM CHANNEL IS ACHIEVED BY COMPLETING INSTALLATION OF REINFORCED BED MIXTURE AND INSTALLING PERMANENT SEEDING AND COIR MATTING ALONG BANKS ACCORDING TO PLANTING PLAN AND DETAILS.

\*PUMP AROUND SHALL MOVE AS CONTRACTOR STARTS NEW AREAS.



DEPARTMENT OF ENVIRONMENTAL SERVICES  
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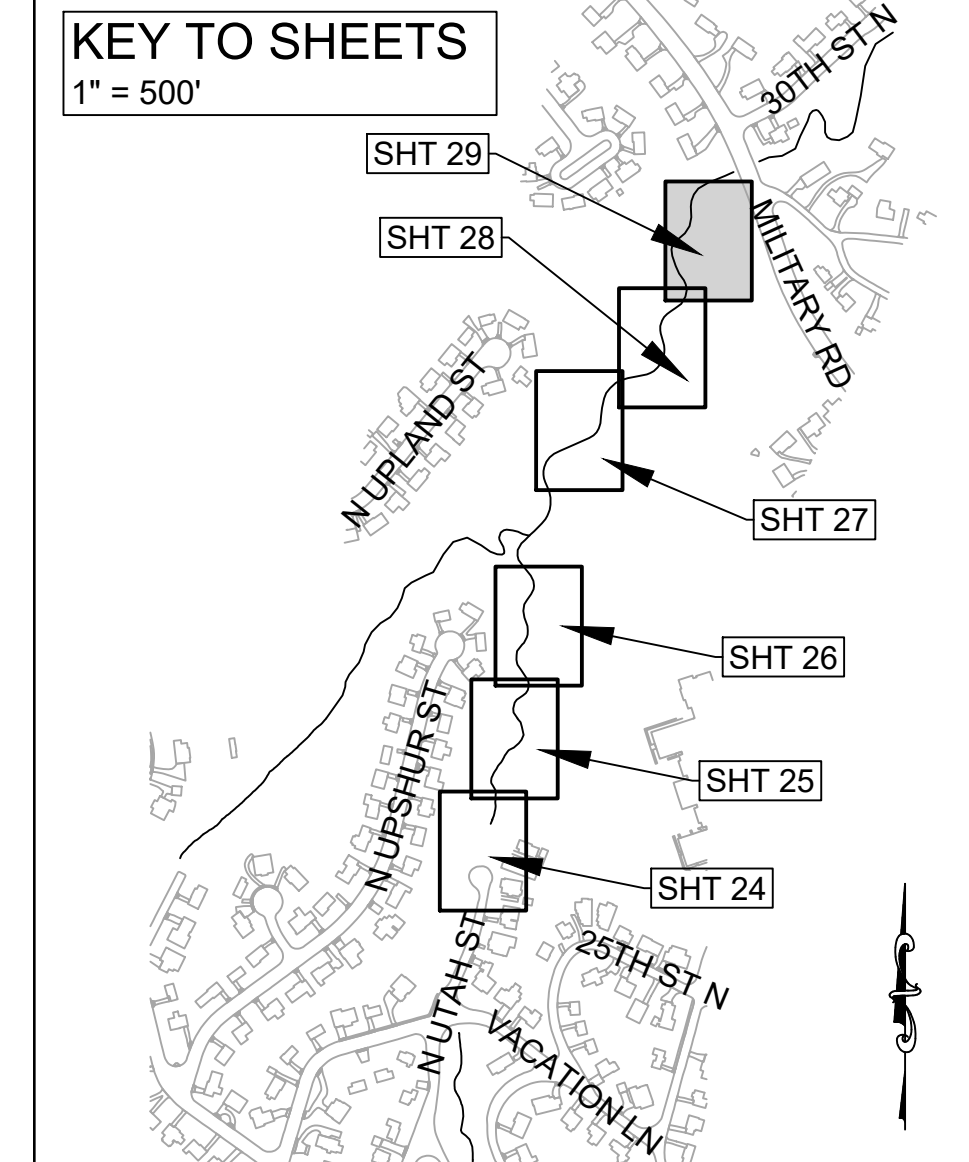
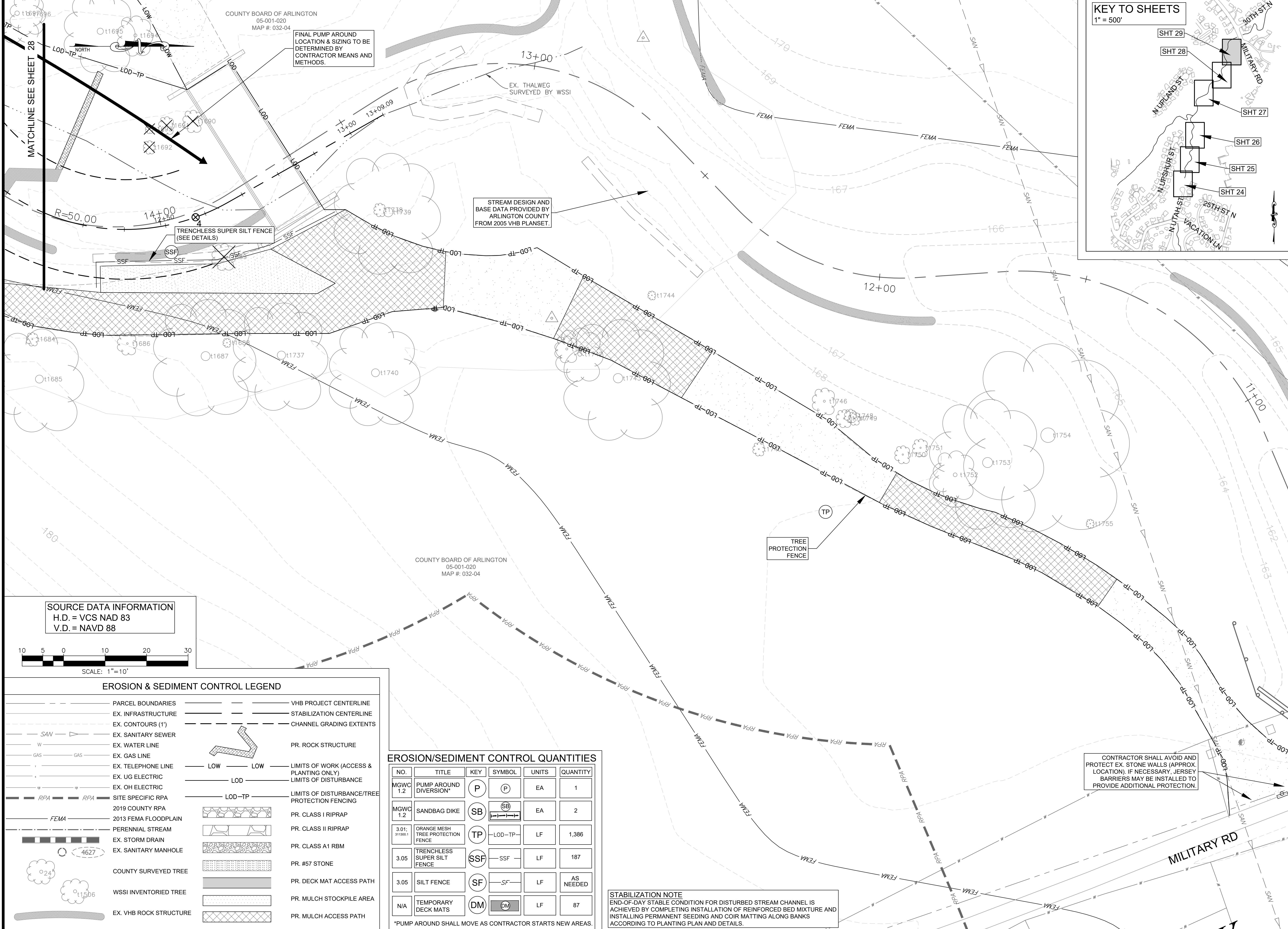
APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
**EROSION & SEDIMENT CONTROL PLAN**  
(05)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG  
PLOTTED: JULY 13 2022  
SCALE: 1"=10'

REVISED ON 1/24/2022

FILENAME: EROSION & SEDIMENT CONTROL PLAN.DWG PATH: L:\280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



COUNTY BOARD OF ARLINGTON  
05-001-020  
MAP # 032-04

FINAL PUMP AROUND  
LOCATION & SIZING TO BE  
DETERMINED BY  
CONTRACTOR MEANS AND  
METHODS.

STREAM DESIGN AND  
BASE DATA PROVIDED BY  
ARLINGTON COUNTY  
FROM 2005 VHB PLANSET.

SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



**EROSION & SEDIMENT CONTROL LEGEND**

---	PARCEL BOUNDARIES	---	VHB PROJECT CENTERLINE
---	EX. INFRASTRUCTURE	---	STABILIZATION CENTERLINE
---	EX. CONTOURS (1')	---	CHANNEL GRADING EXTENTS
---	EX. SANITARY SEWER	---	PR. ROCK STRUCTURE
---	EX. WATER LINE	---	LIMITS OF WORK (ACCESS & PLANTING ONLY)
---	EX. GAS LINE	---	LIMITS OF DISTURBANCE
---	EX. TELEPHONE LINE	---	LIMITS OF DISTURBANCE/TREE PROTECTION FENCING
---	EX. UG ELECTRIC	---	PR. CLASS I RIPRAP
---	EX. OH ELECTRIC	---	PR. CLASS II RIPRAP
---	SITE SPECIFIC RPA	---	PR. CLASS A1 RBM
---	2019 COUNTY RPA	---	PR. #57 STONE
---	2013 FEMA FLOODPLAIN	---	PR. DECK MAT ACCESS PATH
---	PERENNIAL STREAM	---	PR. MULCH STOCKPILE AREA
---	EX. STORM DRAIN	---	PR. MULCH ACCESS PATH
---	EX. SANITARY MANHOLE	---	
---	COUNTY SURVEYED TREE	---	
---	WSSI INVENTORIED TREE	---	
---	EX. VHB ROCK STRUCTURE	---	

**EROSION/SEDIMENT CONTROL QUANTITIES**

NO.	TITLE	KEY	SYMBOL	UNITS	QUANTITY
MGWC 1.2	PUMP AROUND DIVERSION*	P	(P)	EA	1
MGWC 1.2	SANDBAG DIKE	SB	(SB)	EA	2
3.01; 311300.1	ORANGE MESH TREE PROTECTION FENCE	TP	(TP)	LF	1,386
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N/A	TEMPORARY DECK MATS	DM	(DM)	LF	87

\*PUMP AROUND SHALL MOVE AS CONTRACTOR STARTS NEW AREAS.

**STABILIZATION NOTE**  
END-OF-DAY STABLE CONDITION FOR DISTURBED STREAM CHANNEL IS ACHIEVED BY COMPLETING INSTALLATION OF REINFORCED BED MIXTURE AND INSTALLING PERMANENT SEEDING AND COIR MATTING ALONG BANKS ACCORDING TO PLANTING PLAN AND DETAILS.

CONTRACTOR SHALL AVOID AND PROTECT EX. STONE WALLS (APPROX. LOCATION). IF NECESSARY, JERSEY BARRIERS MAY BE INSTALLED TO PROVIDE ADDITIONAL PROTECTION.

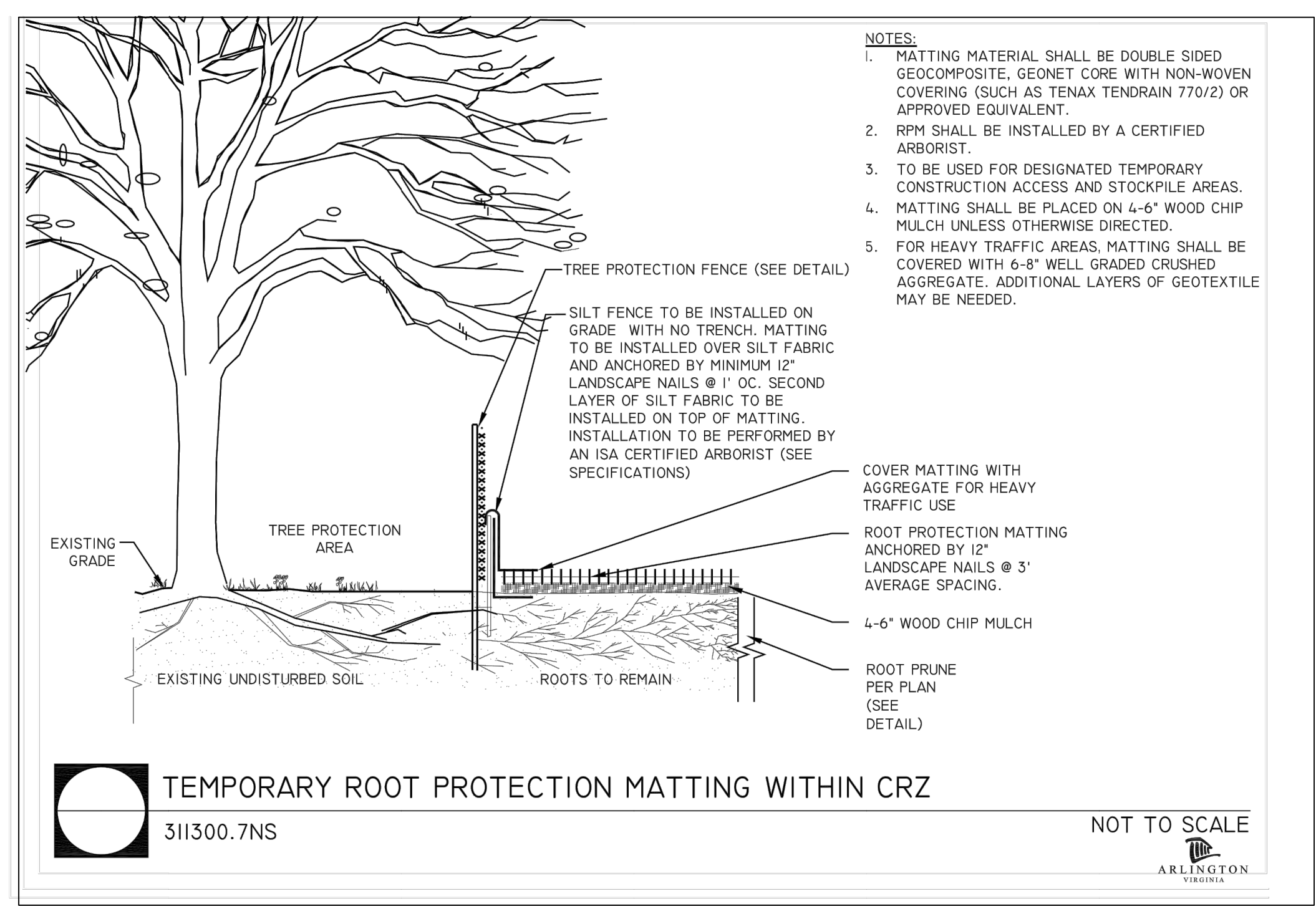
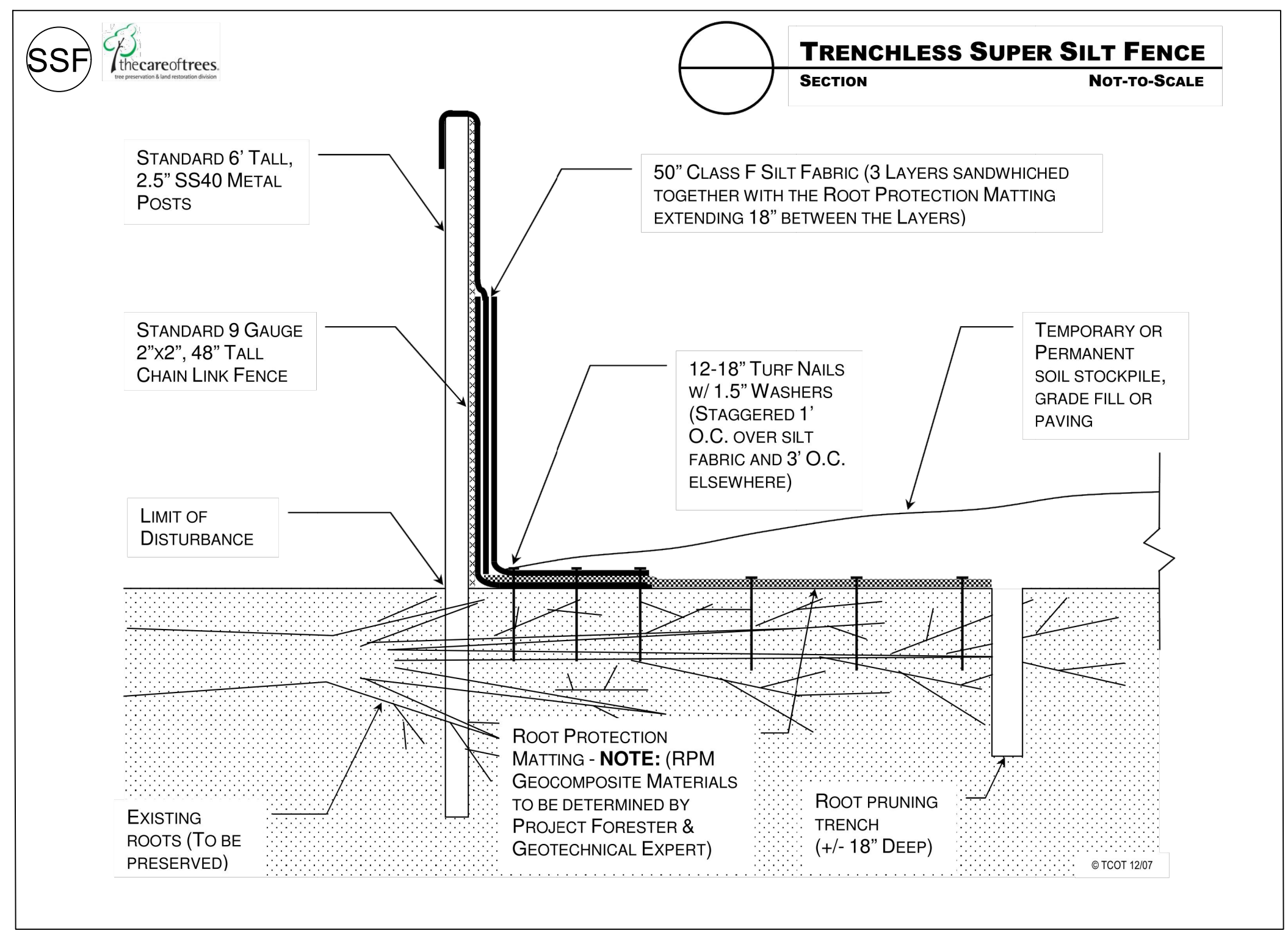
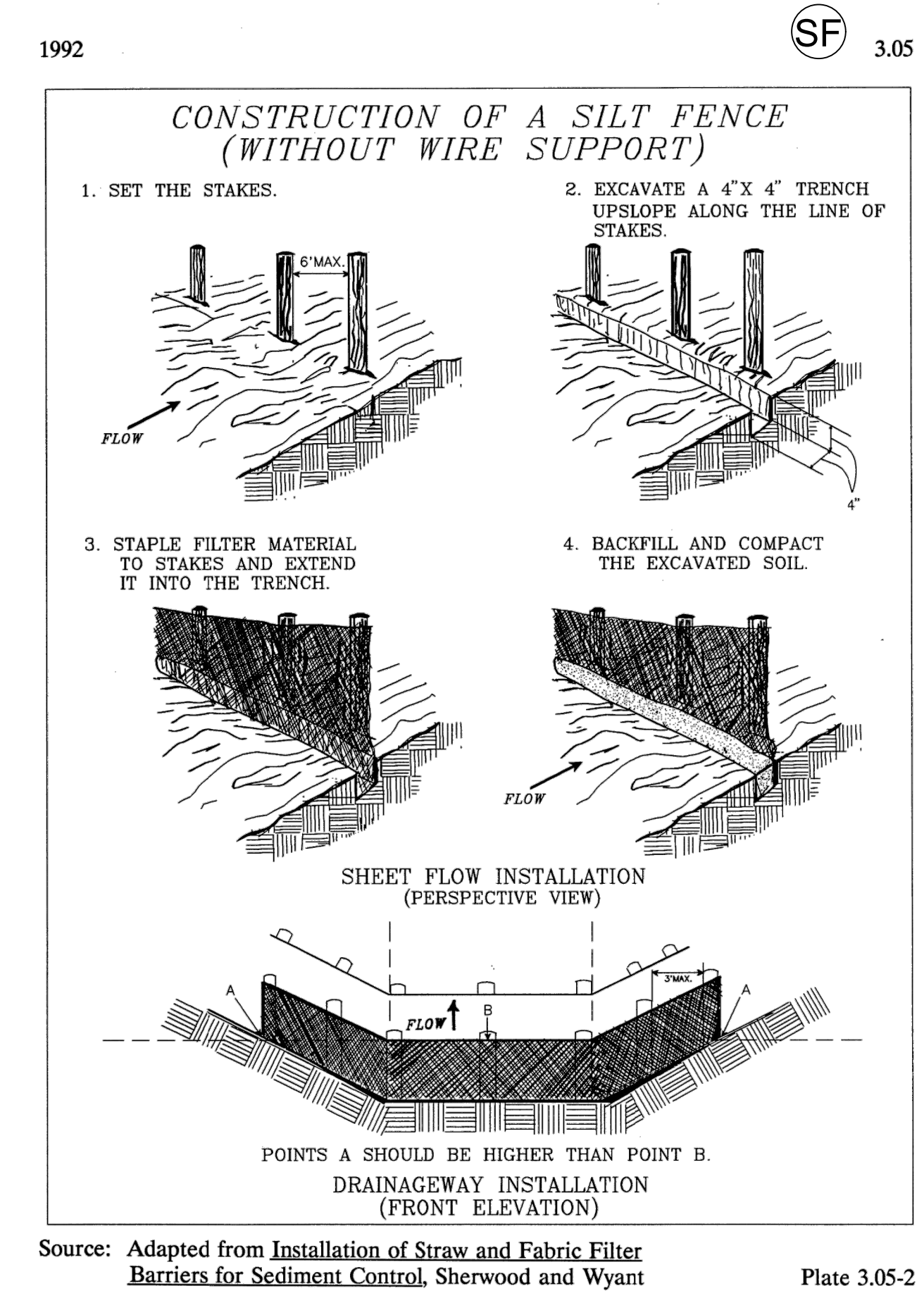
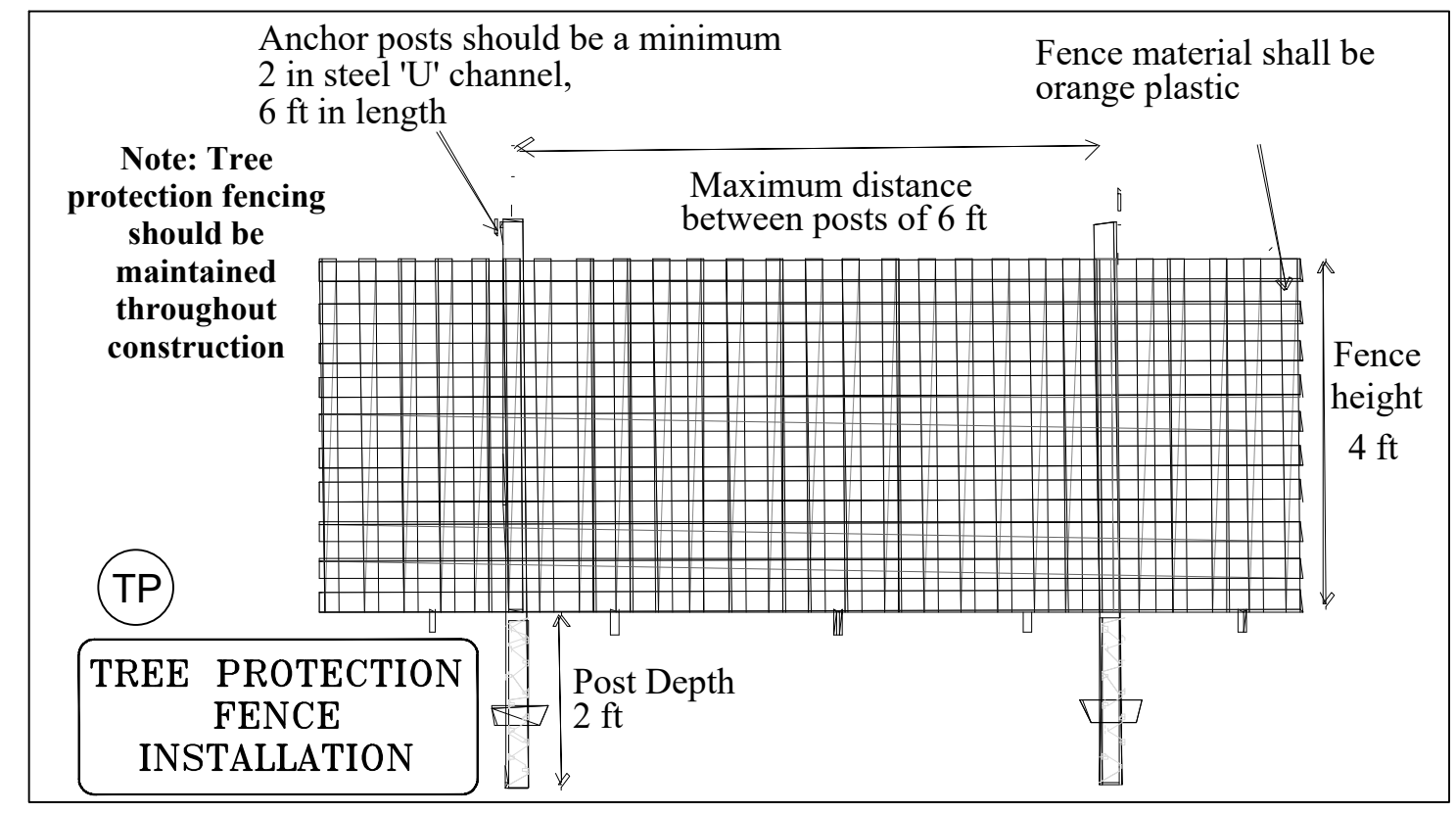
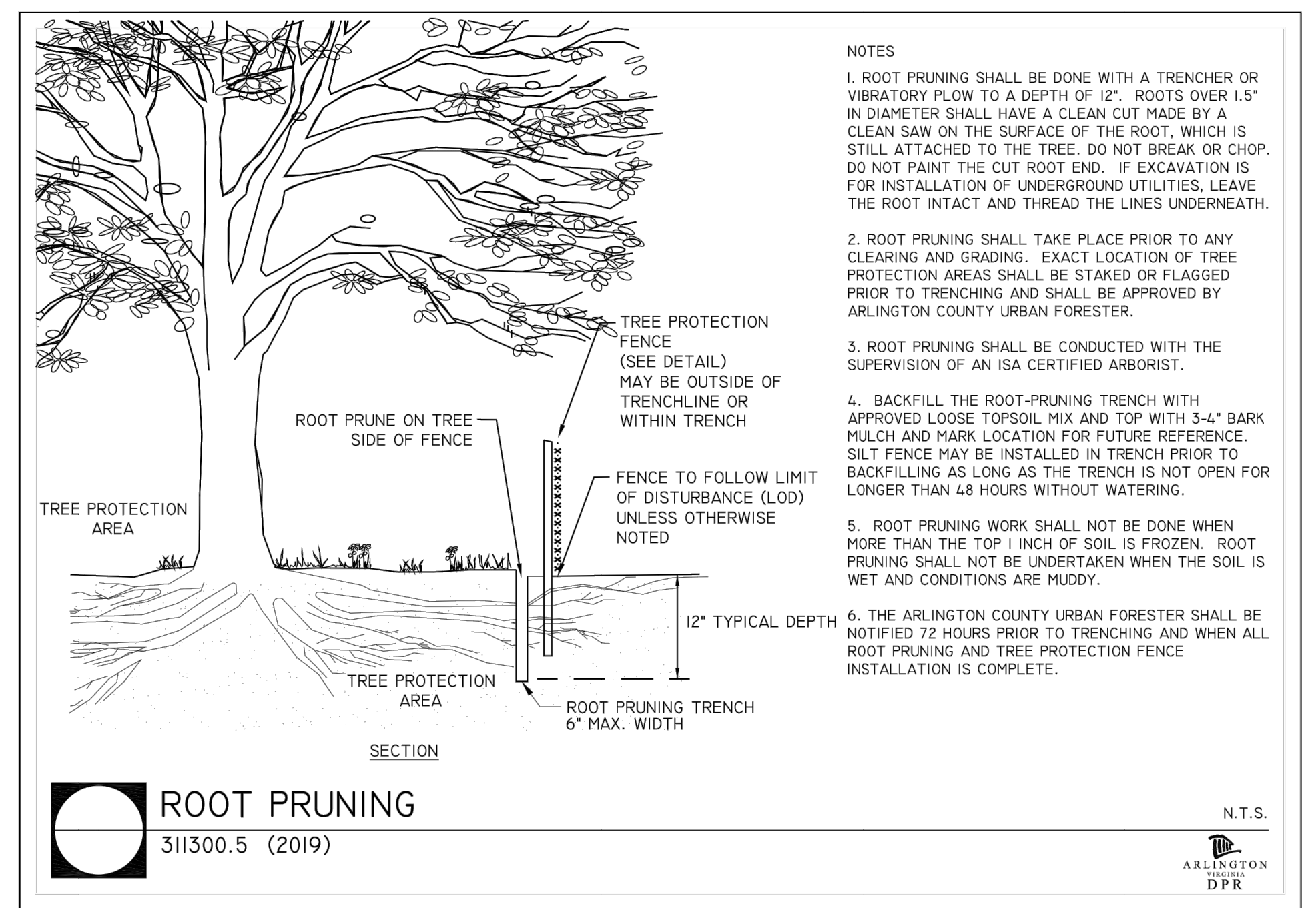
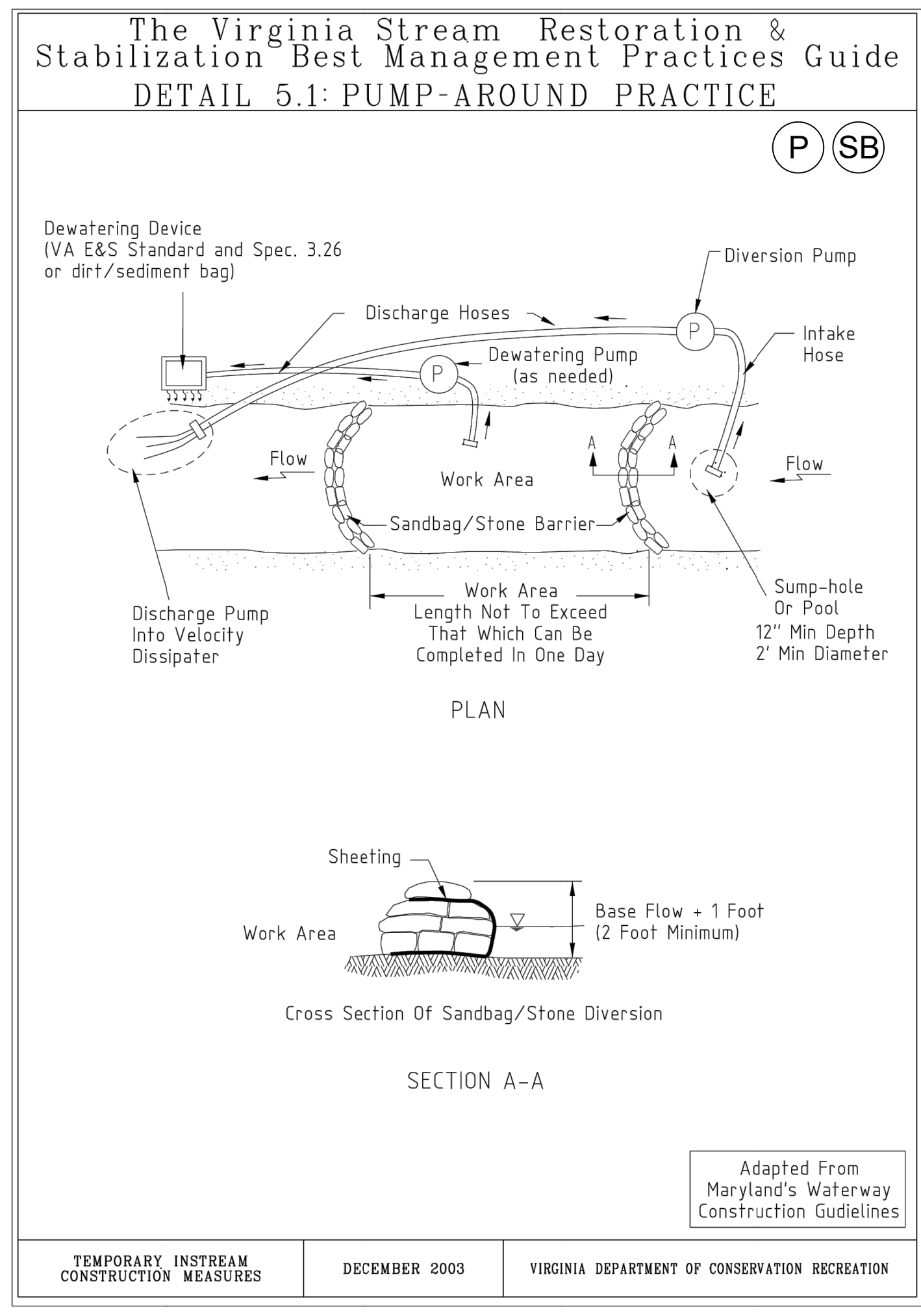
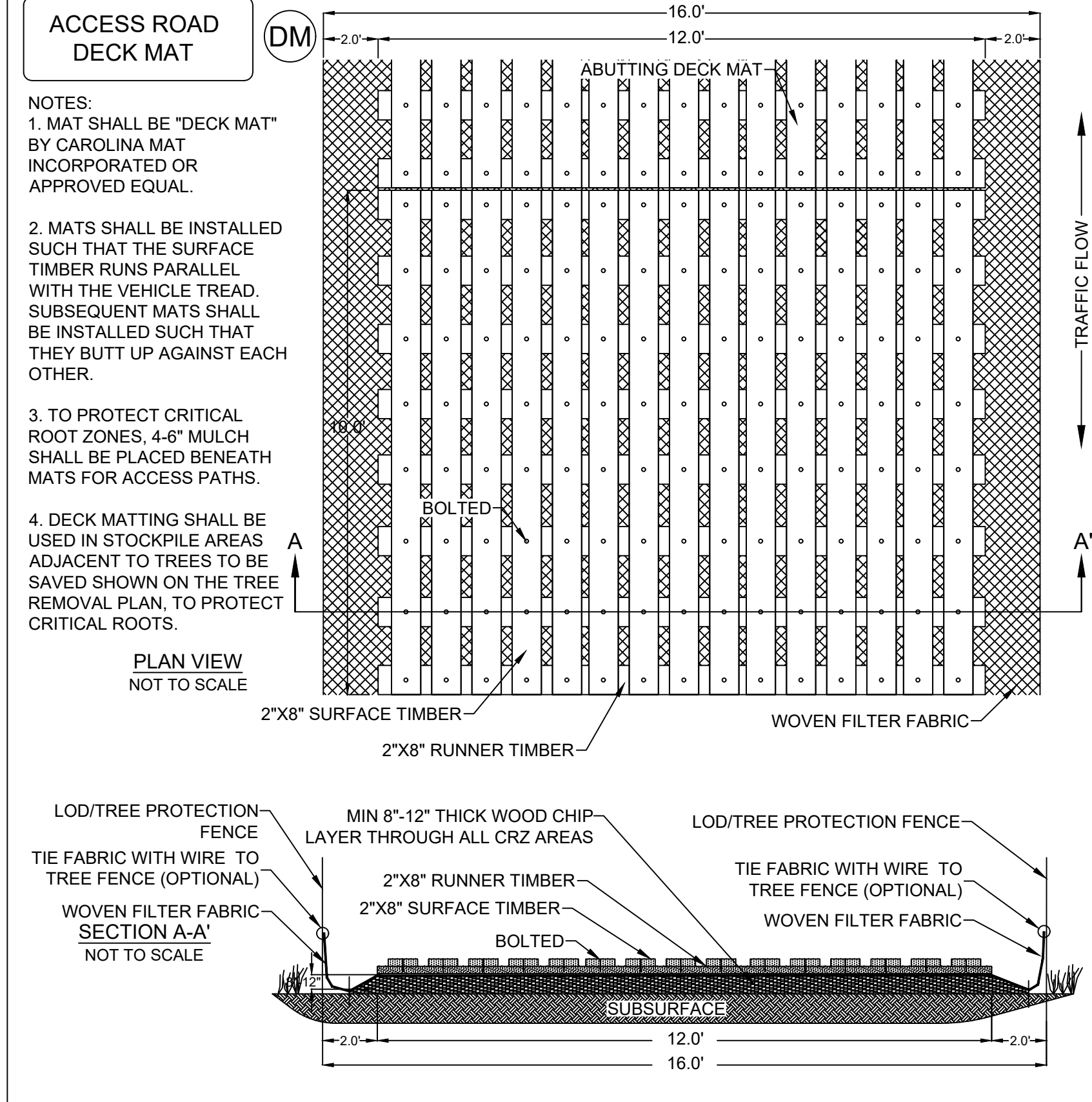
**ARLINGTON VIRGINIA**  
DEPARTMENT OF ENVIRONMENTAL SERVICES  
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SEAL  
COMMONWEALTH OF VIRGINIA  
FRANK R. GRAZIANO  
Lic. No. 032099  
07/13/2022  
PROFESSIONAL ENGINEER

APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
**EROSION & SEDIMENT CONTROL PLAN**  
(06)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG  
PLOTTED: JULY 13 2022  
SCALE: 1"=10'



**ARLINGTON VIRGINIA**

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APPROVALS DATE

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WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA

**EROSION & SEDIMENT CONTROL DETAILS (01)**

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: N/A

### EROSION AND SEDIMENT CONTROL NARRATIVE

#### PROJECT DESCRIPTION:

THIS STREAM STABILIZATION PROJECT INVOLVES THE REPAIR AND ENHANCEMENT OF SEVERAL LOCATIONS ALONG TRIBUTARY A OF DONALDSON RUN IN ARLINGTON COUNTY, VIRGINIA. THE TOTAL DISTURBED AREA WILL BE 23,766 SF (0.55 ACRES). THE STABILIZATION WILL TAKE PLACE ON COUNTY BOARD OF ARLINGTON PROPERTY, EXCEPT FOR IN ONE LOCATION WHERE A PROPOSED STORMWATER MANAGEMENT EASEMENT WILL BE OBTAINED.

THE STREAM STABILIZATION WILL TAKE PLACE IN ZACHARY TAYLOR PARK. THE REACH BEGINS AT A 48" RCP OUTFALL THAT COMES FROM UNDERNEATH N. UTAH STREET, AND ENDS AT A PEDESTRIAN BRIDGE WITHIN THE PARK APPROXIMATELY 350 FEET UPSTREAM OF WHERE THE STREAM PASSES UNDERNEATH MILITARY ROAD. THERE IS A 470 FOOT GAP IN THE MIDDLE OF THIS REACH WHERE NO STABILIZATION WORK WILL BE TAKING PLACE.

STABILIZATION COMPONENTS INVOLVE ARMORING A SECTION OF TRAIL EROSION, PLACING RIPRAP MATERIAL IN AN ERODING SWALE AND BEHIND AN ERODING HEADWALL, REPAIRING SEVERAL EXISTING IN-STREAM STRUCTURES, AND RE-ESTABLISHING A PREVIOUSLY DESIGNED BANKFULL CHANNEL TO PROMOTE IMPROVED PLANFORM GEOMETRY IN SEVERAL PLACES. ADDITIONALLY, LARGE AREAS WILL BE RECEIVE SUPPLEMENTARY PLANTING AND SEEDING IN AN EFFORT TO IMPROVE FLOODPLAIN STABILIZATION AND ENHANCE THE RIPARIAN CORRIDOR.

#### EXISTING SITE CONDITIONS:

THE STABILIZATION REACH IS BOUNDED AT THE UPSTREAM LIMITS OF BY A 48" CULVERT COMING FROM UNDERNEATH N. UTAH STREET, AND AT THE DOWNSTREAM LIMITS A PEDESTRIAN BRIDGE APPROXIMATELY 350 FEET UPSTREAM OF WHERE THE STREAM PASSES UNDERNEATH MILITARY ROAD. IN THE MIDDLE OF THE REACH THERE IS APPROXIMATELY A 470 FOOT GAP WHERE NO STABILIZATION EFFORT WILL TAKE PLACE. THE MAJORITY OF THE PROJECT IS ON PROPERTY OWNED BY THE COUNTY BOARD OF ARLINGTON, WITH THE EXCEPTION OF A SMALL SECTION OF SWALE STABILIZATION ON PRIVATE PROPERTY WHERE A PROPOSED STORMWATER MANAGEMENT EASEMENT WILL BE OBTAINED. THE DRAINAGE AREA FOR THE RESTORATION REACH IS APPROXIMATELY 4.53 ACRES WITH 27.8% IMPERVIOUSNESS. MEASURED TO THE DOWNSTREAM EXTENT OF THE PROJECT. THE STREAM REACH WAS PREVIOUSLY RESTORED, HOWEVER MULTIPLE STRUCTURES HAVE EXPERIENCED FAILURE AND WILL REQUIRE REPAIR. THESE FAILED STRUCTURES HAVE CAUSED ISSUES IN THE RIFLES ASSOCIATED WITH THEM THAT WILL REQUIRE MINOR EARTHWORK TO RETURN THE CHANNEL TO ITS INTENDED PLANFORM GEOMETRY. AT THE UPSTREAM END OF THE PROJECT, THE SLOPES BEHIND THE WINGWALLS ARE EXPERIENCING EROSION AND LEFT ALONE WILL UNDERMINE THE HEADWALL. ADDITIONALLY, DRAINAGE HAS BEEN CONCENTRATING IN A SPECIFIC LOCATION NEXT TO THE WALKING TRAIL AND IS CREATING AN UNSTABLE GULLY THAT WILL CONTINUE TO ERODE SHOULD IT NOT RECEIVE ATTENTION. FINALLY, MUCH OF THE REACH HAS VERY SPARSE VEGETATION, ESPECIALLY IN THE UNDERSTORY LAYER.

#### ADJACENT PROPERTIES:

THE PROJECT AREA IS BOUNDED BY SINGLE FAMILY HOMES. CONSTRUCTION ACTIVITIES WILL NOT AFFECT ANY OF THE ADJACENT PROPERTIES EXCEPT FOR ONE OWNED BY STEPHEN AND TERESA GIDO, ON WHICH A STORMWATER MANAGEMENT EASEMENT WILL BE OBTAINED.

#### OFF-SITE AREAS:

NO OFF-SITE LAND DISTURBING ACTIVITIES ARE PROPOSED.

#### CRITICAL AREAS:

THERE ARE NO STEEP SLOPES OR CRITICAL AREAS LOCATED WITHIN THE LIMITS OF DISTURBANCE. THIS PROJECT IS LOCATED ENTIRELY WITHIN A STREAM CHANNEL; HOWEVER, THE DESIGN PRESENTED HEREIN PROPOSES TO STABILIZE AND RESTORE THIS DEGRADED STREAM CHANNEL THUS IMPROVING THE WATER QUALITY OF THE DOWNSTREAM RECEIVING WATERS.

#### EROSION AND SEDIMENT CONTROL MEASURES:

THE EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT AREA INCLUDE SAFETY FENCE AND INLET PROTECTION. INLET PROTECTION IS REQUIRED OUTSIDE THE PROJECT LIMITS WHEN/WHERE WATER FROM DISTURBED AREA FLOWS. (REVISE AS NEEDED)

#### PERMANENT STABILIZATION:

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH GRASS, MULCH OR SOD. SEE THE PROPOSED PLANS FOR ADDITIONAL INFORMATION.

#### STORMWATER RUNOFF CONSIDERATIONS:

NO ADDITIONAL IMPERVIOUS AREA WILL BE ADDED TO THIS PROJECT.

TOTAL LAND DISTURBANCE.....= 23,766 SF (0.55 ACRES)

PRE-IMPROVEMENT IMPERVIOUS AREA.....= 0 SF (0 ACRES)

POST-IMPROVEMENT IMPERVIOUS AREA.....= 0 SF (0 ACRES)

INCREASED IMPERVIOUS AREA.....= 0 SF (0 ACRES)

#### SOILS INFORMATION:

THE FOLLOWING SOILS ARE FOUND ON SITE (SEE SOILS MAP ON SHEET 43 FOR LOCATION).

SOIL#:	SOIL NAME:	HYDROLOGIC GROUP:	ERODABILITY:
6	GLENELG-MANOR COMPLEX	D	HIGH
7	GLENELG-URBAN LAND COMPLEX	D	HIGH

#### FLOODPLAIN AND RESOURCE PROTECTION AREA (RPA):

FLOODPLAIN INFORMATION IS ADDRESSED ON SHEET 43 AND RESOURCE PROTECTION AREA INFORMATION IS ADDRESSED ON SHEETS 45 - 47.

#### EROSION & SEDIMENT CONTROL PROJECT PHASING

EROSION AND SEDIMENT CONTROL SHALL BE IMPLEMENTED IN 1 PHASE ONLY. AS THIS IS A STREAM PROJECT, THE ONLY ADDITIONAL E&S CONTROL THAT WILL NOT BE IMPLEMENTED IMMEDIATELY WILL BE THE PUMPAROUND/DEWATERING. THE SANDBAG AND PUMPING OPERATION SHALL BE MOVED THROUGHOUT THE PROJECT AS WORK IS COMPLETED.

- a. PRE-CONSTRUCTION MEETING WITH THE PROJECT OFFICER, CONTRACTOR, AND COUNTY INSPECTOR.
- b. INSTALL THE TEMPORARY CONSTRUCTION ENTRANCE (IF NEEDED) IN THE LOCATION SHOWN ON THE E&S PHASE I PLAN. MUD AND DEBRIS SHALL BE WASHED FROM ALL TRUCKS EXISTING THE SITE.
- c. INSTALL PERIMETER TREE DEMARCATION FENCING IN THE FORM OF TREE PROTECTION FENCE (TP) AS SHOWN ON E&S PHASE I PLAN.
- d. PERFORM INITIAL PERIMETER CLEARING TO INSTALL REMAINDER OF PERIMETER CONTROLS SUCH AS SUPER SILT FENCE (SSF) AS PER THE E&S PLAN.

SITE DISTURBANCE SHALL BE LIMITED TO THE SECTION OF STREAM CHANNEL THAT IS BEING RESTORED THAT DAY, AS WELL AS THE AREA IMMEDIATELY ADJACENT. TREE CLEARING IS TO OCCUR IN PHASES THAT ALLOW LOGS TO BE STOCKPILED FOR STRUCTURE USE. STUMPS WILL BE LEFT TO MINIMIZE DISTURBANCE UNTIL GRADING IN THE AREA COMMENCES. NO SECTION OF STREAM WILL BE LEFT UNSTABILIZED OVERNIGHT. THIS WORK AREA WILL BE ISOLATED FROM THE ACTIVE STREAM CHANNEL THROUGH THE USE OF A PUMP AROUND DIVERSION. OVERNIGHT STABILIZATION WILL CONSIST OF BRINGING THE CHANNEL TO FINISHED GRADE CONDITIONS WITH NON-ERODIBLE MATERIAL. ALTHOUGH ONLY MINIMAL OVERBANK WORK IS ANTICIPATED, BANKS WILL BE STABILIZED WITH CM700 COIR FABRIC FOR EROSION PREVENTION, AS WELL AS SEED AND STRAW. IN ADDITION, THIS DIVERSION WILL NOT BE REMOVED UNTIL THE STREAM CHANNEL IS STABILIZED AND THE ADJACENT AREA IS COVERED WITH STRAW.

#### EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE ARLINGTON COUNTY EROSION AND SEDIMENT CONTROL ORDINANCE. THE MINIMUM STANDARDS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE ADHERED TO UNLESS OTHERWISE WAIVED OR APPROVED BY A VARIANCE.

##### 1. STRUCTURAL PRACTICES

- a. TEMPORARY CONSTRUCTION ENTRANCE - VESCH 3.02
  - a.a. A TEMPORARY CONSTRUCTION ENTRANCE WITH A WASH RACK SHALL BE INSTALLED AT THE EXISTING ACCESS POINT TO THE SITE. DURING MUDDY CONDITIONS, DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE RE-ENTERING THE LOCAL ROADWAYS.
  - a.b. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC WASHING OF THE MATS AND/OR REPLACEMENT OF WOOD CHIPS AS NECESSARY.
  - a.c. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
  - a.d. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED INTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.
- b. SILT FENCE - VESCH 3.05
  - b.a. SILT FENCE WILL BE INSTALLED WITH THE E&S PLAN TO FILTER RUNOFF FROM DISTURBED AREAS. RUNOFF SHALL NOT BE DIRECTED PARALLEL TO THE INSTALLATION OF SILT FENCE.
  - b.b. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
  - b.c. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM UNDERCUTTING.
  - b.d. SHOULD THE FABRIC ON A SILT FENCE COMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE, THE FABRIC SHALL BE REPLACED IMMEDIATELY.
  - b.e. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
  - b.f. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH

THE EXISTING GRADE, THEN PREPARED AND SEEDED.

c. TEMPORARY DIVERSION DIKE - VESCH 3.09

c.a. A SYSTEM OF TEMPORARY DIKES, TO DIRECT FLOW INTO PROPOSED & EXISTING STORM SEWER STRUCTURES WILL BE INSTALLED AS INDICATED IN EROSION & SEDIMENT CONTROL PLAN.

c.b. THE STRUCTURES SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.

d. STORM DRAIN INLET PROTECTION - VESCH 3.07

d.a. ALL EXISTING & PROPOSED STORM SEWER INLETS IN AND AROUND THE PROJECT LIMITS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS.

d.b. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.

d.c. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

e. DEWATERING STRUCTURE - VESCH 3.26

e.a. SEDIMENT LADEN OR TURBID WATER SHALL BE FILTERED, SETTLED OR SIMILARLY TREATED PRIOR TO DISCHARGE.

e.b. THE FILTERING DEVICES MUST BE INSPECTED FREQUENTLY AND REPAIRED OR REPLACED ONCE THE SEDIMENT BUILD-UP PREVENTS THE STRUCTURE FROM FUNCTIONING AS DESIGNED.

e.c. THE ACCUMULATED SEDIMENT WHICH IS REMOVED FROM A DEWATERING DEVICE MUST BE SPREAD ON-SITE AND STABILIZED OR DISPOSED OF AT AN APPROVED DISPOSAL SITE AS PER THE APPROVED PLAN.

f. TREE PROTECTION - VESCH 3.38

f.a. ALL TREES ARE TO BE PROTECTED UNLESS OTHERWISE DIRECTED BY THE COUNTY INSPECTOR AND URBAN FORESTER. THE COUNTY'S URBAN FORESTER (703-228-1863) SHALL INSPECT ALL TREE PROTECTION 72 HOURS PRIOR TO THE START OF CONSTRUCTION. IN SPITE OF PRECAUTIONS, SOME DAMAGE TO PROTECTED TREES MAY OCCUR. IN SUCH CASES, THE FOLLOWING MAINTENANCE GUIDELINES SHALL BE FOLLOWED:

f.a.a. SOIL AERATION: IF THE SOIL HAS BECOME COMPACTED OVER THE ROOT ZONE OF ANY TREE, THE GROUND SHALL BE AERATED BY PUNCHING HOLES WITH AN IRON BAR. THE BAR SHALL BE DRIVEN 1-FOOT DEEP AND THEN MOVED BACK AND FORTH UNTIL THE SOIL IS LOOSENEED. THIS PROCEDURE SHALL BE REPEATED EVERY 18 INCHES UNTIL ALL OF THE COMPACTED SOIL BENEATH THE CROWN OF THE TREE HAS BEEN LOOSENEED.

f.a.b. REPAIR OF DAMAGE:

f.a.A.a. ANY DAMAGE TO THE CROWN, TRUNK, OR ROOT SYSTEM OF ANY TREE RETAINED ON THE SITE SHALL BE REPAIRED IMMEDIATELY.

f.a.A.b. WHENEVER MAJOR ROOT OR BARK DAMAGE OCCURS, REMOVE SOME FOLIAGE TO REDUCE THE DEMAND FOR WATER AND NUTRIENTS.

f.a.A.c. DAMAGED ROOTS SHALL IMMEDIATELY BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA. CUT SURFACES SHALL BE PAINTED WITH APPROVED TREE PAINT, AND MOIST PEAT MOSS, BURLAP, OR TOPSOIL SHALL BE SPREAD OVER THE EXPOSED AREA.

f.a.A.d. TO TREAT BARK DAMAGE, CAREFULLY CUT AWAY ALL LOOSENEED BARK BACK INTO THE UNDAIMAGED AREA, TAPER THE CUT AT THE TOP AND BOTTOM, AND PROVIDE DRAINAGE AT THE BASE OF THE WOUND.

f.a.A.e. ALL TREE LIMBS DAMAGED DURING CONSTRUCTION OR REMOVED FOR ANY OTHER REASON SHALL BE CUT OFF ABOVE THE COLLAR AT THE PRECEDING BRANCH JUNCTION.

f.a.A.f. CARE FOR SERIOUS INJURIES SHALL BE PRESCRIBED BY A FORESTER OR A TREE SPECIALIST.

f.b. FERTILIZATION: BROADLEAF TREES THAT HAVE BEEN STRESSED OR DAMAGED SHALL RECEIVE A HEAVY APPLICATION OF FERTILIZER TO AID THEIR RECOVERY.

f.b.a. TREES SHALL BE FERTILIZED IN THE LATE FALL (AFTER OCTOBER 1) OR THE EARLY SPRING (FROM THE TIME FROST IS OUT OF THE GROUND UNTIL MAY 1). FALL APPLICATIONS ARE PREFERRED, AS THE NUTRIENTS WILL BE MADE AVAILABLE OVER A LONGER PERIOD OF TIME.

f.b.b. FERTILIZER SHALL BE APPLIED TO THE SOIL OVER THE FEEDER ROOTS. IN NO CASE SHALL IT BE APPLIED CLOSER THAN 3 FEET TO THE TRUNK. THE ROOT SYSTEM OF CONIFERS EXTENDS SOME DISTANCE BEYOND THE DRIP LINE. INCREASE THE AREA TO BE FERTILIZED BY ONE FOURTH THE AREA OF THE CROWN.

f.b.c. FERTILIZER SHALL BE APPLIED USING APPROVED FERTILIZATION METHODS AND EQUIPMENT.

f.b.d. FORMULATIONS AND APPLICATION RATES SHALL CONFORM TO THE GUIDELINES GIVEN IN TABLE 3.38-A OF VESCH.

##### 2. VEGETATIVE PRACTICES

a. TOPSOILING (STOCKPILE)

a.a. TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATIONS MAY HAVE TO BE LOCATED OFF-SITE AND ARE TO BE STABILIZED WITH TEMPORARY VEGETATION. PRIOR TO LAND-DISTURBING ACTIVITIES, THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY E&S PLAN (IF THE STOCKPILE IS LOCATED OFF-SITE). THIS SUPPLEMENTAL PLAN WOULD HAVE TO BE APPROVED BY THE PLAN APPROVING AUTHORITY BEFORE ANY OFF-SITE ACTIVITY COMMENCES.

b. TEMPORARY SEEDING

b.a. ALL DENUDED AREAS, WHICH WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING.

b.b. TEMPORARY SEED SPECIES SHALL BE LOLIUM PERENNE SPP, MULTIFLORUM (ANNUAL RYEGRASS) AND SECALE CEREALE (WINTER RYEGRASS). SEE SPECIES GROUP 9 ON SHEET 39. SEEDING LOCATIONS ARE AND QUANTITIES ARE PROVIDED ON SHEETS 33 - 39, AND ADDITIONAL SEEDING SPECIFICATIONS ARE PROVIDED ON SHEET 42. SEED SHALL BE EVENLY APPLIED AND SMALL GRAINS SHALL BE PLANTED NO MORE THAN 1.5" DEEP. SEEDING MADE IN FALL FOR WINTER COVER AND DURING HOT SUMMER MONTHS SHALL BE MULCHED.

c. PERMANENT SEEDING

c.a. PERMANENT SEEDING INFORMATION IS PROVIDED ON SHEETS 33 - 42.

THE EROSION AND SEDIMENT CONTROL INSPECTOR SHALL HAVE THE AUTHORITY TO ADD OR DELETE EROSION AND SEDIMENT CONTROLS AS NEEDED IN THE FIELD. IN ADDITION, NO SEDIMENT TRAPS OR BASINS MAY BE REMOVED WITHOUT PRIOR APPROVAL OF THE INSPECTOR.

#### EROSION AND SEDIMENT CONTROL MANAGEMENT MEASURES

##### LANDSCAPE / TREE PRESERVATION NOTES

PRIOR TO ANY LAND DISTURBING ACTIVITY, THE CONTRACTOR SHALL CONTACT THE ARLINGTON COUNTY ARBORIST TO SCHEDULE AN INSPECTION.

##### LAND CONSERVATION NOTES:

- 1. NO DISTURBED AREA WILL REMAIN DENUDED FOR MORE THAN 7 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY THE DIRECTOR OR HIS AGENT.
- 2. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.
- 3. ALL STORM AND SANITARY SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL. NO MORE THAN 100 FEET ARE TO BE OPEN AT ANY ONE TIME.
- 4. ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHES ARE TO BE COMPACTED, SEEDED AND MULCHED WITHIN 5 DAYS AFTER BACKFILLING.
- 5. ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SEDIMENT CONTROL DAMS ARE TO BE MULCHED AND SEEDED FOR TEMPORARY VEGETATIVE COVER IMMEDIATELY AFTER GRADING. STRAW OR HAY MULCH IS REQUIRED. THE SAME APPLIES TO ALL SOIL STOCKPILES.
- 6. DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION.
- 7. ANY DISTURBED AREA NOT COVERED BY NOTE 1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOV. 1, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED IMMEDIATELY WITH HAY OR STRAW MULCH AT THE RATE OF 2 TONS/ACRE AND OVER-SEEDED BY APRIL 15.
- 8. AT THE COMPLETION OF ANY PROJECT CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED.

##### EROSION & SEDIMENT CONTROL PROGRAM:

- 1. THE EROSION CONTROL PLAN IS INTENDED TO ESTABLISH ENTRANCES AND PERIMETER CONTROL MEASURES WHICH INCLUDES SILT FENCE (SF), INLET PROTECTION (IP), AND OTHER CONTROLS SPECIFIED ON THE PLANS.
- 2. WHERE CONSISTENT WITH JOB SAFETY REQUIREMENTS, ALL EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. NO MATERIAL SHALL BE PLACED IN STREAMBEDS. ANY STOCKPILED MATERIAL WHICH WILL REMAIN IN PLACE LONGER THAN 7 DAYS SHALL BE SEEDED AND MULCHED. WHEN SPOIL IS PLACED ON THE DOWNHILL SIDE OF TRENCH, IT SHALL BE BACKSLOPED TO DRAIN TOWARD THE TRENCH. WHEN NECESSARY TO DEWATER THE TRENCH, THE PUMP DISCHARGE HOSE SHALL OUTLET IN A STABILIZED AREA OR A SEDIMENT TRAPPING DEVICE.
- 3. ALL PRACTICES AND CONTROL DEVICES DESCRIBED HEREIN SHALL CONFORM TO THE CURRENT VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH). IN ADDITION, THE CONTRACTOR SHALL TAKE THE FOLLOWING STEPS TO MINIMIZE THE VOLUME OF SILT:
  - a. CONTRACTOR SHALL EVALUATE THE SITE TO DETERMINE EXTENSIVE CUT AND FILL AREAS, AND SHALL WORK THOSE AREAS TO MINIMIZE THE USE OF HEAVY EQUIPMENT. CONTRACTOR SHALL BRING DISTURBED AREAS TO GRADE (ROUGH OR FINISHED) AND STABILIZE THOSE AREAS WITH TEMPORARY OR PERMANENT VEGETATION. THESE DISTURBED AREAS SHALL BE STABILIZED PRIOR TO BEGINNING WORK IN ANOTHER AREA.
  - b. FILL AREAS SHALL BE COMPACTED COMPLETELY PRIOR TO THE END OF EACH WORK DAY. FILL SLOPE SURFACES SHALL BE KEPT ROUGH TO REDUCE SHEET EROSION OF THE SLOPES. CONTRACTOR SHALL RE-DIRECT CONCENTRATED RUNOFF, BY EARTH BERMS OR OTHER DEVICES, AROUND ACTIVELY DISTURBED AREAS TO STABILIZED OUTLETS.
  - c. CUT SLOPES SHALL BE PROTECTED FROM CONCENTRATED FLOW BY BERMS (ABOVE THE SLOPE) AND DIRECTED AROUND THE DISTURBED AREA TO STABILIZED OUTLETS.
- 4. MEASURES TO CONTROL EROSION AND SILTATION SHALL BE PROVIDED PURSUANT TO AND IN COMPLIANCE WITH CURRENT STATE AND LOCAL REGULATIONS. THE INFORMATION CONTAINED IN THE CONSTRUCTION PLANS AND/OR THE APPROVAL OF THE PLANS SHALL IN NO WAY RELIEVE THE CONTRACTOR OR HIS AGENT OF ANY LEGAL RESPONSIBILITY WHICH MAY BE REQUIRED BY THE CODE OF VIRGINIA AND CHAPTER 57 OF THE ARLINGTON COUNTY CODE.
- 5. ALL AREAS, ON OR OFF-SITE, THAT ARE DISTURBED BY THIS CONSTRUCTION AND WHICH ARE NOT PAVED OR BUILT UPON SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION. ACCEPTABLE STABILIZATION SHALL CONSIST OF PERMANENT GRASS SEED MIXTURE OR SOD THAT IS INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. ALL SLOPES 3:1 AND GREATER SHALL BE RECEIVE SOIL STABILIZATION IN ACCORDANCE WITH THE SPECIFICATIONS.
- 6. WHERE STREAM CROSSINGS ARE REQUIRED FOR EQUIPMENT, TEMPORARY CULVERTS SHALL BE PROVIDED.
- 7. FOR FURTHER REQUIREMENTS AND DETAILS OF TREE PRESERVATION, PLANTING, EROSION AND SEDIMENT CONTROL, SEE COUNTY CONSTRUCTION STANDARDS AND SPECIFICATIONS AND/OR THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

#### GENERAL EROSION AND SEDIMENT CONTROL NOTES

- 1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.
- 2. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
- 3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
- 4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
- 5. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN THE AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION AND SEDIMENT CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
- 7. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
- 8. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
- 9. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
- 10. ALL BIOFILTERS SHALL BE KEPT OFF-LINE UNTIL CONSTRUCTION IS COMPLETED AND ALL AREAS HAVE BEEN PROPERLY STABILIZED. THIS SHALL BE ACHIEVED BY USING INLET PROTECTION AT THE CURB CUTS AND STORMWATER CATCH BASINS LEADING DIRECTLY INTO THE BIOFILTERS.
- 11. 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.

#### PRE-STORM EROSION & SEDIMENTATION CHECKLIST:

PER GENERAL EROSION AND SEDIMENT CONTROL NOTE 6, THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL (ESC) MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE COUNTY. THESE SUPPLEMENTARY PRACTICES ARE IN ADDITION TO THOSE SHOWN IN AN EROSION AND SEDIMENT CONTROL PLAN. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MODIFIED AS NEEDED TO ENSURE ONLY CLEAR WATER IS DISCHARGED FROM THE SITE.

THE FOLLOWING ACTIONS SHALL BE TAKEN PRIOR TO STORM EVENTS WITH PREDICTED HEAVY AND/OR LARGE VOLUME RAINFALL TO PREVENT SEDIMENT DISCHARGES FROM A CONSTRUCTION SITE. A TYPICAL SUMMER THUNDERSTORM IS AN EXAMPLE OF A STORM EVENT WITH PREDICTED HEAVY AND/OR LARGE VOLUME RAINFALL.

- 1. PERIMETER CONTROLS
  - a. SILT FENCE SHALL BE CHECKED FOR UNDERMINING, HOLES, OR DETERIORATION OF THE FABRIC. FENCING SHALL BE REPLACED IMMEDIATELY IF THE FABRIC IS DAMAGED OR WON. SILT FENCE MUST BE TRENCHED INTO THE GROUND PER STATE SPECIFICATIONS (VESCH STD & SPEC 3.09).
  - b. WOODEN STAKES OR STEEL POSTS SHALL BE PROPERLY SECURED UPRIGHT INTO THE GROUND. DAMAGED POSTS OR STAKES MUST BE REPLACED.
  - c. SEDIMENT THAT HAS ACCUMULATED AGAINST THE SILT FENCE SHALL BE REMOVED. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE LEVEL REACHES ONE-HALF THE HEIGHT OF THE FENCING.
  - d. HAY BALES OR A STONE BERM SHALL BE PLACED ACROSS THE CONSTRUCTION ENTRANCE TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE.
- 2. EXPOSED SLOPES AND SOIL
  - a. EXPOSED SLOPES NOT AT THE FINAL STABILIZATION PHASE SHALL BE COVERED WITH TARPS, PLASTIC SHEETING, OR EROSION CONTROL MATTING. COVERING MATERIAL SHALL BE PROPERLY SECURED/ANCHORED.
  - b. CONTROLS SHALL BE INSTALLED TO PREVENT CONCENTRATED FLOW DOWN AN EXPOSED SLOPE. BERMS OR DIVERSION DIKES SHALL BE INSTALLED AT THE TOP OF CUT/EXPOSED SLOPES TO DIRECT STORM FLOW AROUND THE DISTURBED AREA.
  - c. EXPOSED SLOPES AT THE FINAL STABILIZATION PHASE SHALL BE STABILIZED USING SLOPE STABILIZATION PRACTICES SUCH AS SOIL STABILIZATION BLANKETS OR MATTING AS SPECIFIED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH STD & SPEC 3.36). BLANKETS OR MATS MUST BE PROPERLY SECURED AND ANCHORED TO THE SLOPE USING STAPLES, PINS, OR STAKES.
  - d. SEEDED AREAS SHALL BE CHECKED AND RESEEDED AS NECESSARY TO COVER EXPOSED SOIL. RECENTLY SEEDED AREAS SHALL BE PROTECTED BY STRAW OR SOIL STABILIZATION BLANKETS TO PREVENT SEEDING FROM BEING WASHED AWAY.
- 3. STOCKPILES
  - a. STOCKPILED SOIL AND OTHER LOOSE MATERIALS THAT CAN BE WASHED AWAY SHALL BE COVERED WITH A TARP, PLASTIC SHEETING, OR OTHER STABILIZATION MATTING. THE COVER MUST BE PROPERLY SECURED/ANCHORED DOWN TO PREVENT IT FROM BEING BLOWN OFF AND EXPOSING MATERIALS TO RAIN. CONTROLS SUCH AS HAY BALES OR BOOMS SHALL BE PLACED ALONG THE PERIMETER OF THE STOCKPILE (DOWNHILL SIDE).
- 4. INLET PROTECTION
  - a. INLET PROTECTION CONTROLS SHALL BE INSPECTED TO ENSURE THEY ARE FUNCTIONING PROPERLY AND FLOODING WILL NOT OCCUR. CLOGGED OR DAMAGED CONTROLS MUST BE REPLACED IMMEDIATELY. ENSURE CONTROLS ALLOW FOR OVERFLOW/BYPASS OF STORMWATER RUNOFF DURING SIGNIFICANT STORM EVENTS.

IN ADDITION TO THESE PRE-STORM ACTIONS, ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES MUST BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL.

#### POLLUTION PREVENTION PLAN NOTES (STORMWATER MANUAL - SECTION 2.4)

- 1. ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S M54 PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFACE WATERS:
  - a. WATER LINE FLUSHING; LANDSCAPE IRRIGATION; DIVERTED STREAM FLOWS; RISING GROUND WATERS; UNCONTAMINATED GROUND WATER INFILTRATION (AS DEFINED AT 40 CFR 35.2005(20)); UNCONTAMINATED PUMPED GROUND WATER; DISCHARGES FROM POTABLE WATER SOURCES; FOUNDATION DRAINS; AIR CONDITIONING CONDENSATION; IRRIGATION WATER; SPRINGS; WATER FROM CRAWL SPACE PUMPS; FOOTING DRAINS; LAWN WATERING; INDIVIDUAL RESIDENTIAL CAR WASHING; FLOWS FROM RIPARIAN HABITATS AND WETLANDS; DECHLORINATED SWIMMING POOL DISCHARGES; DISCHARGES OR FLOWS FROM FIREFIGHTING; AND, OTHER ACTIVITIES GENERATING DISCHARGES IDENTIFIED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AS NOT REQUIRING VPDES AUTHORIZATION.
- 2. APPROPRIATE CONTROLS MUST BE IMPLEMENTED TO PREVENT ANY NON-STORMWATER DISCHARGES NOT INCLUDED ON THE ABOVE LIST (E.G., CONCRETE WASH WATER, PAINT WASH WATER, VEHICLE WASH WATER, DETERGENT WASH WATER, ETC.) FROM BEING DISCHARGED INTO ARLINGTON COUNTY'S M54 SYSTEM, WHICH INCLUDES THE CURB AND GUTTER SYSTEM, AS WELL AS CATCH BASINS AND OTHER STORM DRAIN INLETS, OR STREAM NETWORK.
- 3. PER CHAPTER 26 OF THE ARLINGTON COUNTY CODE, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DISCHARGE DIRECTLY OR INDIRECTLY INTO THE STORM SEWER SYSTEM OR STATE WATERS, ANY SUBSTANCE LIKELY, IN THE OPINION OF THE COUNTY MANAGER, TO HAVE AN ADVERSE EFFECT ON THE STORM SEWER SYSTEM OR STATE WATERS.

#### UTILITY INSTALLATION:

UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

- 1. NO MORE THAN 100 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
- 2. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
- 3. 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.
- 4. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
- 5. STABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
- 6. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
- 9. ANY DISTURBED AREA NOT COVERED BY NOTE #1 ABOVE AND PAVED, SODDED OR BUILT UPON BY NOVEMBER 1ST, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED WITH HAY OR STRAW AT THE RATE OF 2 TONS PER ACRE AND OVER-SEEDED NO LATER THAN MAY 15TH.
- 10. AT THE COMPLETION OF THE CONSTRUCTION PROJECT AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED. ARLINGTON COUNTY INSPECTOR TO APPROVE REMOVAL OF ALL TEMPORARY SILTATION MEASURES.

#### MAINTENANCE PROGRAM:

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

- 1. THE SITE SUPERINTENDENT OR HIS/HER REPRESENTATIVE SHALL MAKE A VISUAL INSPECTION OF ALL MECHANICAL CONTROLS AND NEWLY STABILIZED AREA (I.E. SEEDED AND MULCHED AND/OR SODDED AREAS) ON A DAILY BASIS; ESPECIALLY AFTER A HEAVY RAINFALL EVENT TO ENSURE THAT ALL CONTROLS ARE MAINTAINED AND PROPERLY FUNCTIONING. ANY DAMAGED CONTROLS SHALL BE REPAIRED PRIOR TO THE END OF THE WORK DAY INCLUDING RE-SEEDING AND MULCHING OR RE-SODDING IF NECESSARY.
- 2. ALL SEDIMENT TRAPPING DEVICES SHALL BE CLEARED OUT AT 50% TRAP CAPACITY AND THE SEDIMENT SHALL BE DISPOSED OF BY SPREADING ON THE SITE OR IF NOT SUITABLE FOR FILL, HAULING AWAY AND DEPOSITING AT AN ACCEPTABLE DUMP SITE.
- 3. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PREVENT MUD AND/OR OTHER DEBRIS FROM BEING ENTERED ONTO EXISTING SWM/BMP FACILITIES OR DOWNSTREAM WATER WAYS. SHOULD OFF-SITE AREAS BECOME POLLUTED BY CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING THE AFFECTED AREAS TO THE SATISFACTION OF THE INSPECTOR.
- 4. AT THE COMPLETION OF CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ANY REMAINING DENUDED AREAS SHALL BE STABILIZED. CERTAIN DEVICES MAY BE REMOVED PRIOR TO CONSTRUCTION COMPLETION BUT ONLY WITH THE APPROVAL OF THE COUNTY INSPECTOR.
- 5. AFTER CONSTRUCTION OPERATIONS HAVE ENDED, ALL DISTURBED AREAS SHALL BE STABILIZED. UPON APPROVAL OF THE COUNTY INSPECTOR, MECHANICAL SEDIMENT CONTROLS SHALL BE REMOVED AND THE GROUND PERMANENTLY STABILIZED WITH VEGETATION WITHIN 30 DAYS.



DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606

06/30/2022  
date

Qianqian Li, P.E.  
ESC Program Administrator  
Department of Environmental Services  
2100 Clarendon Boulevard, Suite 813  
Arlington, Virginia 22201

Re: Erosion and Sediment Control Permit Application for:  
2355 N. Utah Street, Arlington, VA 22207  
street address


lot, block, section subdivision  
LDA21246  
permit number

Dear Mrs. Li:

I hereby certify that I accept the responsibilities of Responsible Land Disturber for the above referenced project. I understand that these responsibilities include:

1. Reviewing the erosion and sedimentation (E&S) plan for the project.
2. Walking the site prior to construction to identify critical areas.
3. Conducting a pre-construction briefing with earth moving and site contractors to present the E&S plan and highlight the presence of critical areas, the limits of clearing and the required E&S controls and tree protection measures to be installed. Call 703-228-0760 to schedule pre-construction meeting.
4. Regularly inspecting the site during construction to ensure that all E&S controls are functioning and are adequate to address erosion and sedimentation. Inspect the site 48 hours after a runoff-generating storm, and provide a copy of the inspection findings to the county.
5. Reporting to the owner the presence inadequate or non functioning E&S controls when they are observed.
6. Ensuring that temporary soil stabilization is applied within 7 days to areas denuded that will remain undisturbed for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.
7. Calling (703) 228-0760 at least 80 hours before demolishing any structure.

I may be reached at 703-679-5600 with questions about this plan or my execution of the duties of  
Responsible Land Disturber.  
telephone number

Sincerely,  
  
signed

John Connelly  
name printed  
DEQ E&S Combined Administrator #6006  
professional registration (type and number)

**CONSTRUCTION SEQUENCE**

1. PRIOR TO THE START OF ANY EARTH DISTURBANCE AN ON-SITE PRE-CONSTRUCTION MEETING SHALL BE HELD TO ENSURE THAT ALL AFFECTED PARTIES (DESIGN ENGINEER, CONTRACTOR, COUNTY STAFF, OWNER, AND PROJECT MANAGER) FULLY UNDERSTAND THE CONSTRUCTION SEQUENCING.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING MISS UTILITY AT 1-800-552-7001 FOR THE LOCATION OF ALL PUBLIC AND PRIVATE UTILITY LINES, PIPES, CABLES, AND ASSOCIATED FEATURES PRIOR TO ANY CONSTRUCTION WORK; ALL UTILITIES SHALL BE CLEARLY IDENTIFIED PRIOR TO CONSTRUCTION.
3. THE PROJECT WILL BE COMPLETED IN TWO PHASES - PHASE 1 FOR THE UPSTREAM SECTION OF REPAIRS AND PHASE 2 FOR THE DOWNSTREAM SECTION, EACH WITH AN ESTIMATED DURATION OF 3 WEEKS.
4. PRIOR TO ANY EARTH DISTURBING ACTIVITIES ALL NECESSARY EROSION AND SEDIMENT CONTROL MEASURES AND DEVICES SHALL BE INSTALLED AS SPECIFIED ON THE EROSION & SEDIMENT CONTROL PLAN SHEETS, AND INSPECTED AND APPROVED BY COUNTY INSPECTOR.
5. PRIOR TO ANY EARTH DISTURBING ACTIVITIES, THE TEMPORARY CONSTRUCTION ACCESS ROAD AND PEDESTRIAN DETOUR SHALL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN SHEETS AND DETAILS SHEETS. SEE MOT PLAN SHEETS FOR PHASING OF TRAIL CLOSURES AND DETOURS.
6. FOR ANY CLEARING OR GRADING ON THE SITE, THE LIMITS OF DISTURBANCE AND GRADING (LOD) SHALL BE MARKED WITH FLAGGING.
7. THE LOD SHALL BE REVIEWED ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER, OWNER OR OWNER'S REPRESENTATIVE(S), AND A COUNTY URBAN FORESTER. A DETERMINATION SHALL BE MADE AT THAT TIME REGARDING WHICH TREES WILL BE REMOVED BASED ON THE APPROVED GRADING AND STREAM RESTORATION ACTIVITIES.
8. ADJUSTMENTS MAY BE MADE TO FLAGGING MARKING THE LOD TO ADEQUATELY PROTECT TREES. TREE PROTECTION FENCING SHALL BE ADJUSTED IN CONJUNCTION WITH ANY CHANGES TO THE LOD PRIOR TO THE COMMENCEMENT OF ANY OTHER CONSTRUCTION ACTIVITIES, AND VERIFIED AT THE PRE-CONSTRUCTION FIELD MEETING.
9. NO WORK SHALL BE STARTED THAT CANNOT BE COMPLETED AND STABILIZED IN ONE DAY (INCLUDING CLEARING). TREES CAN BE FLUSH CUT IN ONE MOBILIZATION, HOWEVER STUMPS TO BE REMOVED SHALL REMAIN UNTIL AREA IS BEING ACTIVELY WORKED. END-OF-DAY STABLE CONDITION FOR DISTURBED STREAM CHANNEL IS ACHIEVED BY COMPLETING INSTALLATION OF REINFORCED BED MIXTURE AND INSTALLING PERMANENT SEEDING AND COIR MATTING ALONG BANKS ACCORDING TO PLANTING PLAN AND DETAILS.
10. INSTALL ROCK SILLS, ROCK STEPS, AND ANY FURTHER STABILIZATION OF THE OUTLET AND WINGWALLS THAT MAY BE REQUIRED.
11. UPON COMPLETION OF WORK, ALL E&S MEASURES ARE TO REMAIN IN PLACE UNTIL FINAL SITE STABILIZATION IS ACHIEVED.
12. THE "LIMITS OF WORK" SHOWN ON PLAN INDICATES AREA OUTSIDE OF THE LIMITS OF DISTURBANCE THAT WILL BE USED ONLY FOR ACCESS PATHS AND PLANTING AND WILL NOT BE DENUDED AT ANY POINT DURING THE PROJECT.
13. E&S MEASURES SHALL REMAIN IN PLACE UNTIL SITE HAS BEEN INSPECTED AND FINAL APPROVAL HAS BEEN RECEIVED FROM ARLINGTON COUNTY.



DEPARTMENT OF ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
2100 CLARENDON BOULEVARD, SUITE 813  
ARLINGTON, VA 22201  
PHONE: 703.228.3629  
FAX: 703.228.3606

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SEAL



APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA

RLD AND CONSTRUCTION SEQUENCE (01)

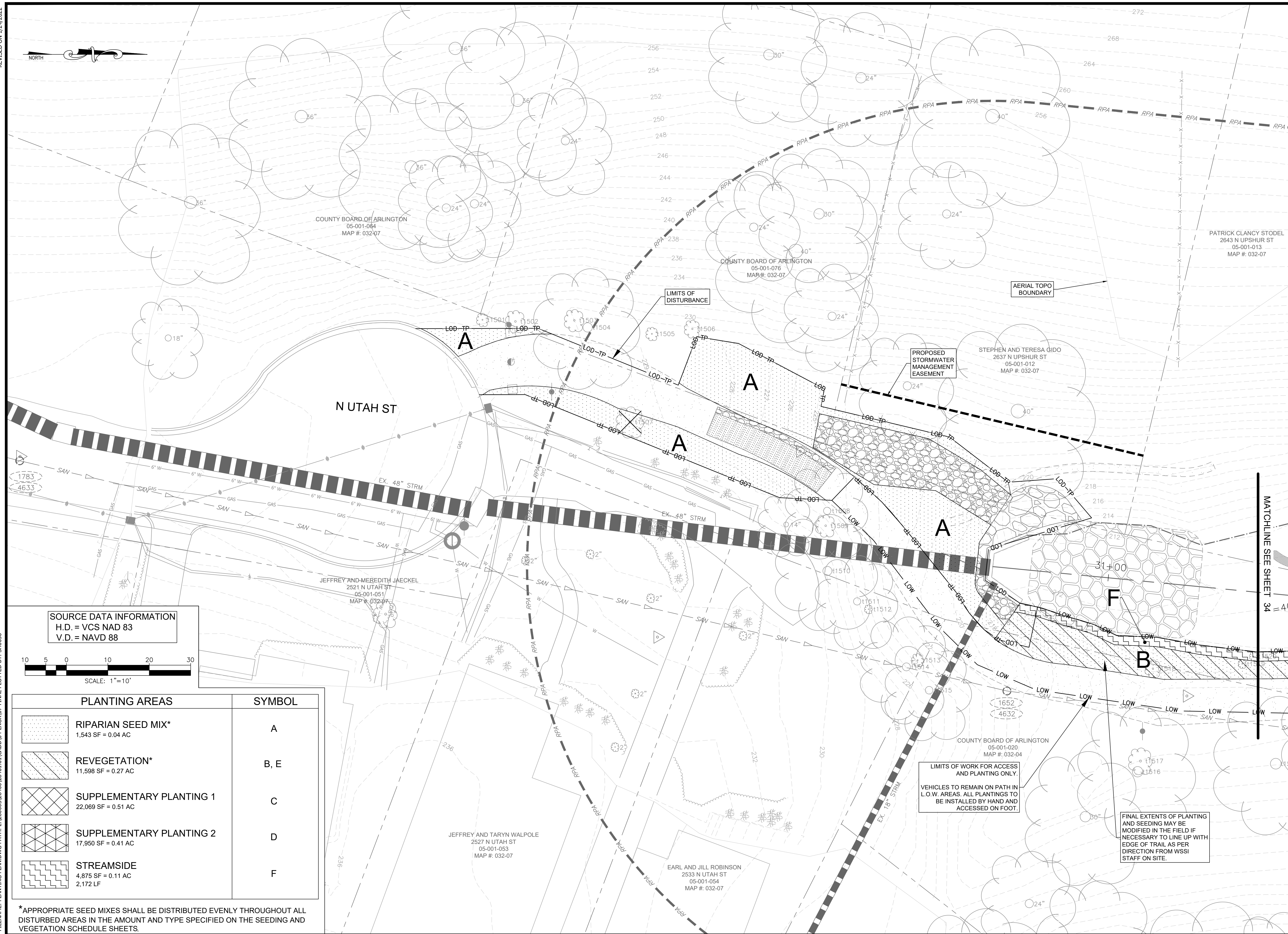
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DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

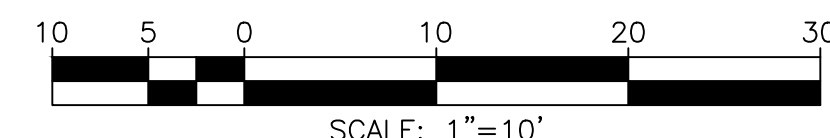
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REVISED ON 1/24/2022



SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



PLANTING AREAS	SYMBOL
RIPARIAN SEED MIX* 1,543 SF = 0.04 AC	A
REVEGETATION* 11,598 SF = 0.27 AC	B, E
SUPPLEMENTARY PLANTING 1 22,069 SF = 0.51 AC	C
SUPPLEMENTARY PLANTING 2 17,950 SF = 0.41 AC	D
STREAMSIDE 4,875 SF = 0.11 AC 2,172 LF	F

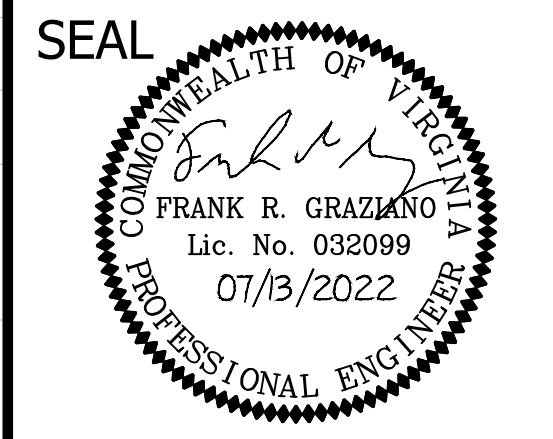
\*APPROPRIATE SEED MIXES SHALL BE DISTRIBUTED EVENLY THROUGHOUT ALL DISTURBED AREAS IN THE AMOUNT AND TYPE SPECIFIED ON THE SEEDING AND VEGETATION SCHEDULE SHEETS.

FILENAME: PLANTING PLAN.DWG PATH: L:\1280005\28400\28461\_01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



DEPARTMENT OF ENVIRONMENTAL SERVICES  
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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

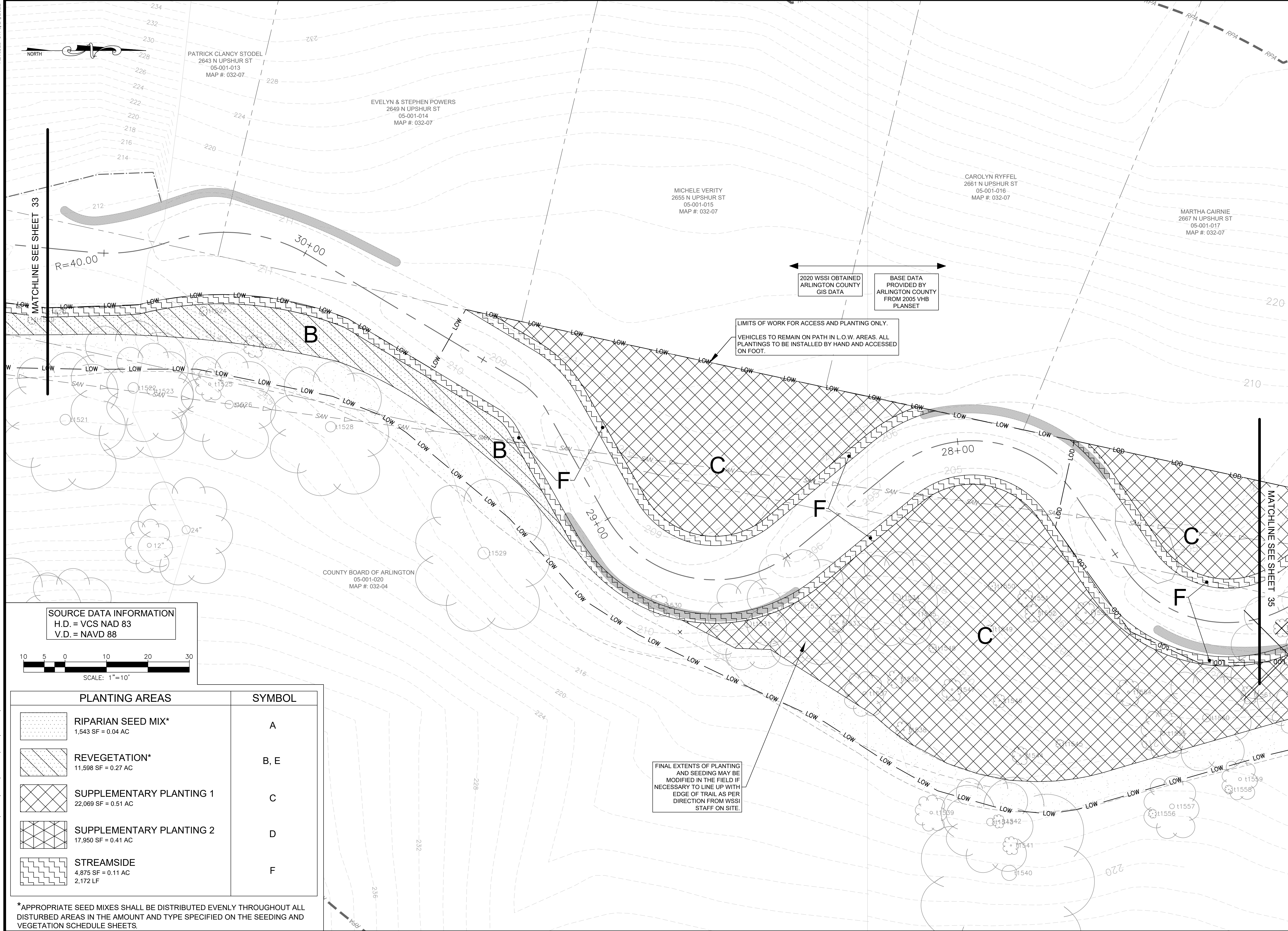
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
PLANTING PLAN (01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'

REVISED ON 1/24/2022



**SOURCE DATA INFORMATION**  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88

SCALE: 1"=10'

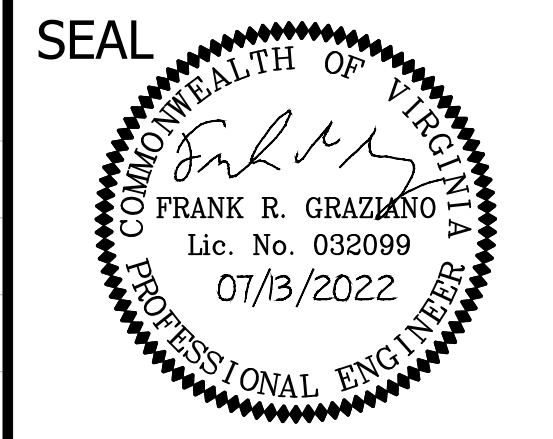
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<b>RIPARIAN SEED MIX*</b> 1,543 SF = 0.04 AC	A
<b>REVEGETATION*</b> 11,598 SF = 0.27 AC	B, E
<b>SUPPLEMENTARY PLANTING 1</b> 22,069 SF = 0.51 AC	C
<b>SUPPLEMENTARY PLANTING 2</b> 17,950 SF = 0.41 AC	D
<b>STREAMSIDE</b> 4,875 SF = 0.11 AC 2,172 LF	F

\*APPROPRIATE SEED MIXES SHALL BE DISTRIBUTED EVENLY THROUGHOUT ALL DISTURBED AREAS IN THE AMOUNT AND TYPE SPECIFIED ON THE SEEDING AND VEGETATION SCHEDULE SHEETS.



DEPARTMENT OF ENVIRONMENTAL SERVICES  
 FACILITIES & ENGINEERING DIVISION  
 ENGINEERING BUREAU  
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 ARLINGTON, VA 22201  
 PHONE: 703.228.3629  
 FAX: 703.228.3606

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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

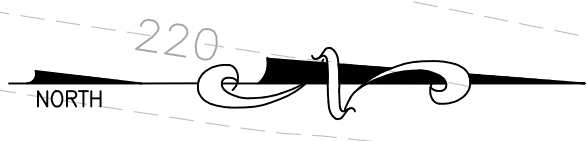
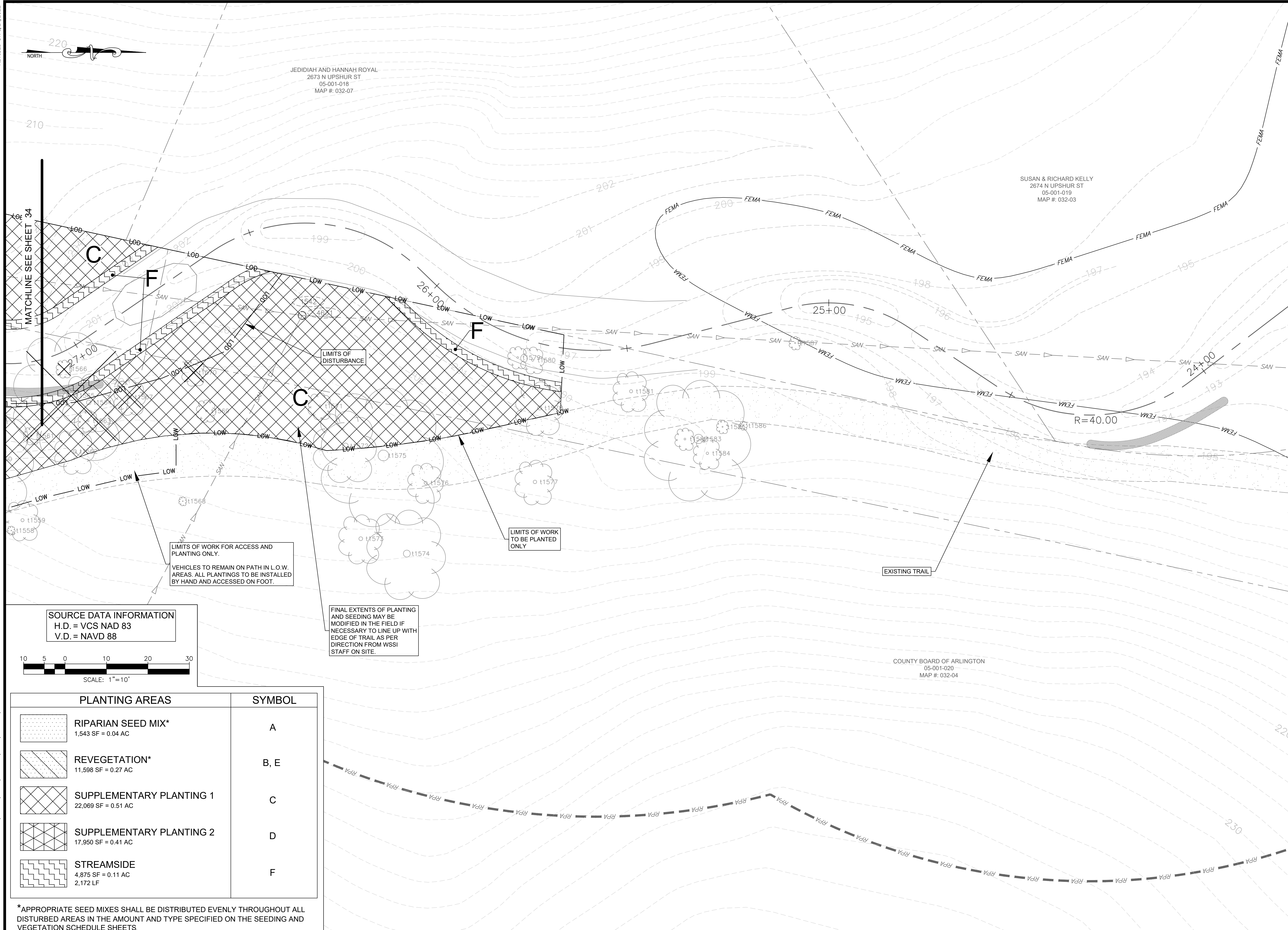
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 PLANTING PLAN (02)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=10'

REVISED ON 1/24/2022



JEDIDIAH AND HANNAH ROYAL  
2673 N UPSHUR ST  
05-001-018  
MAP #: 032-07

SUSAN & RICHARD KELLY  
2674 N UPSHUR ST  
05-001-019  
MAP #: 032-03

COUNTY BOARD OF ARLINGTON  
05-001-020  
MAP #: 032-04

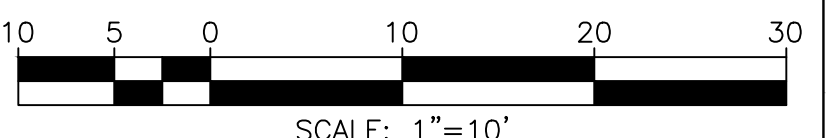
MATCHLINE SEE SHEET 34

LIMITS OF WORK FOR ACCESS AND PLANTING ONLY.  
VEHICLES TO REMAIN ON PATH IN L.O.W. AREAS. ALL PLANTINGS TO BE INSTALLED BY HAND AND ACCESSED ON FOOT.

LIMITS OF WORK TO BE PLANTED ONLY

FINAL EXTENTS OF PLANTING AND SEEDING MAY BE MODIFIED IN THE FIELD IF NECESSARY TO LINE UP WITH EDGE OF TRAIL AS PER DIRECTION FROM WSSI STAFF ON SITE.

SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



PLANTING AREAS	SYMBOL
 <b>RIPARIAN SEED MIX*</b> 1,543 SF = 0.04 AC	A
 <b>REVEGETATION*</b> 11,598 SF = 0.27 AC	B, E
 <b>SUPPLEMENTARY PLANTING 1</b> 22,069 SF = 0.51 AC	C
 <b>SUPPLEMENTARY PLANTING 2</b> 17,950 SF = 0.41 AC	D
 <b>STREAMSIDE</b> 4,875 SF = 0.11 AC 2,172 LF	F

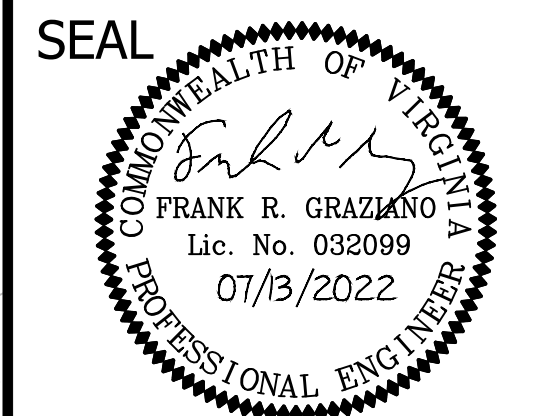
\*APPROPRIATE SEED MIXES SHALL BE DISTRIBUTED EVENLY THROUGHOUT ALL DISTURBED AREAS IN THE AMOUNT AND TYPE SPECIFIED ON THE SEEDING AND VEGETATION SCHEDULE SHEETS.

FILENAME: PLANTING PLAN.DWG PATH: L:\1280005\28400\28461.01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



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FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
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ARLINGTON, VA 22201  
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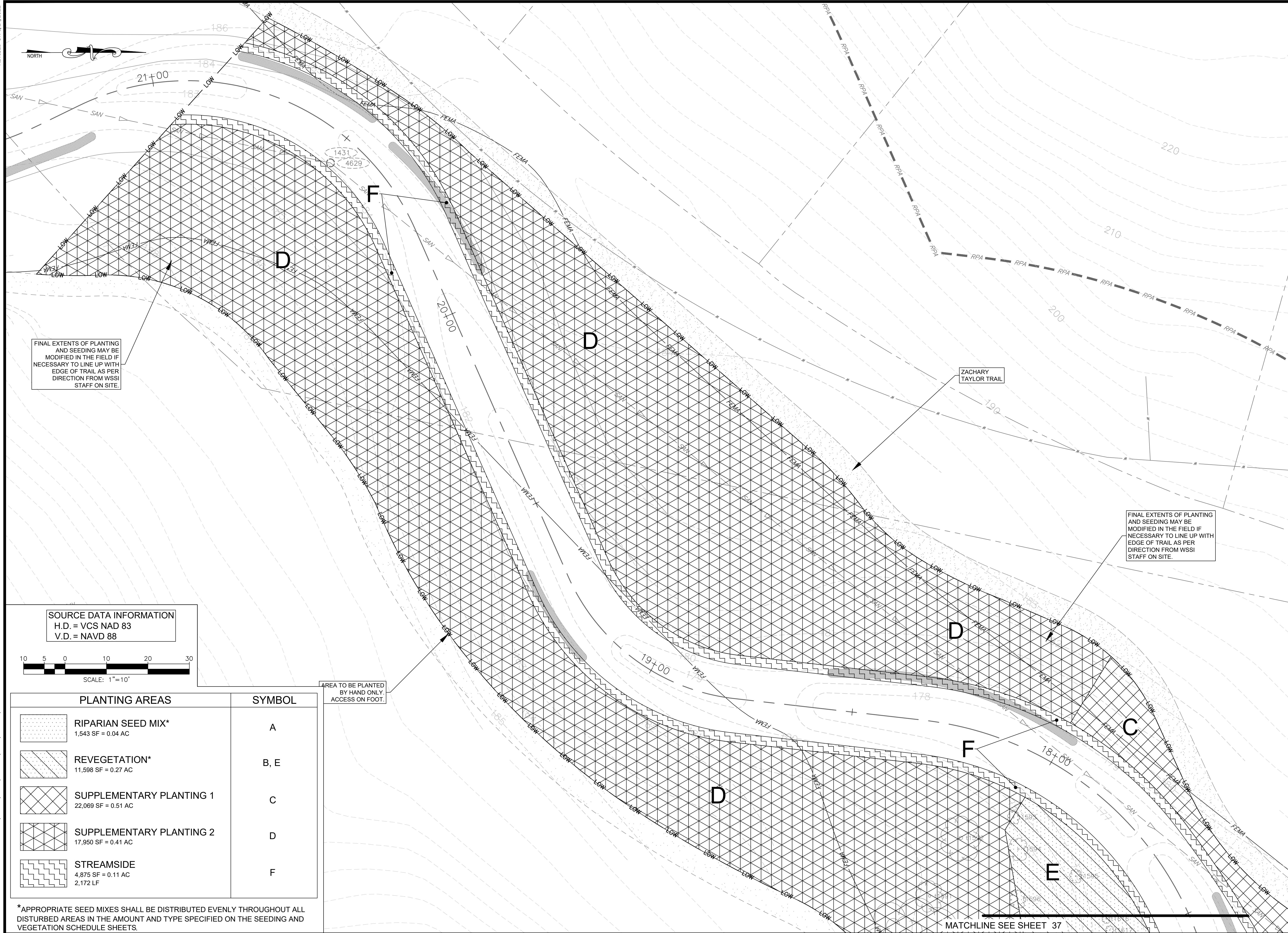
APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 PLANTING PLAN (03)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

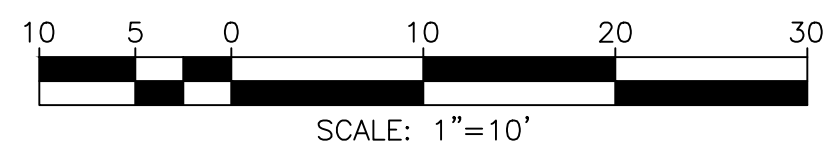
PLOTTED: JULY 13 2022  
SCALE: 1"=10'



FINAL EXTENTS OF PLANTING AND SEEDING MAY BE MODIFIED IN THE FIELD IF NECESSARY TO LINE UP WITH EDGE OF TRAIL AS PER DIRECTION FROM WSSI STAFF ON SITE.

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SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
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PLANTING AREAS	SYMBOL
RIPARIAN SEED MIX* 1,543 SF = 0.04 AC	A
REVEGETATION* 11,598 SF = 0.27 AC	B, E
SUPPLEMENTARY PLANTING 1 22,069 SF = 0.51 AC	C
SUPPLEMENTARY PLANTING 2 17,950 SF = 0.41 AC	D
STREAMSIDE 4,875 SF = 0.11 AC 2,172 LF	F

AREA TO BE PLANTED BY HAND ONLY. ACCESS ON FOOT.

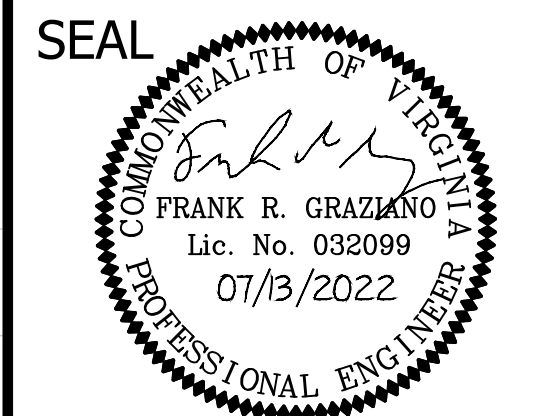
\*APPROPRIATE SEED MIXES SHALL BE DISTRIBUTED EVENLY THROUGHOUT ALL DISTURBED AREAS IN THE AMOUNT AND TYPE SPECIFIED ON THE SEEDING AND VEGETATION SCHEDULE SHEETS.

MATCHLINE SEE SHEET 37



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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

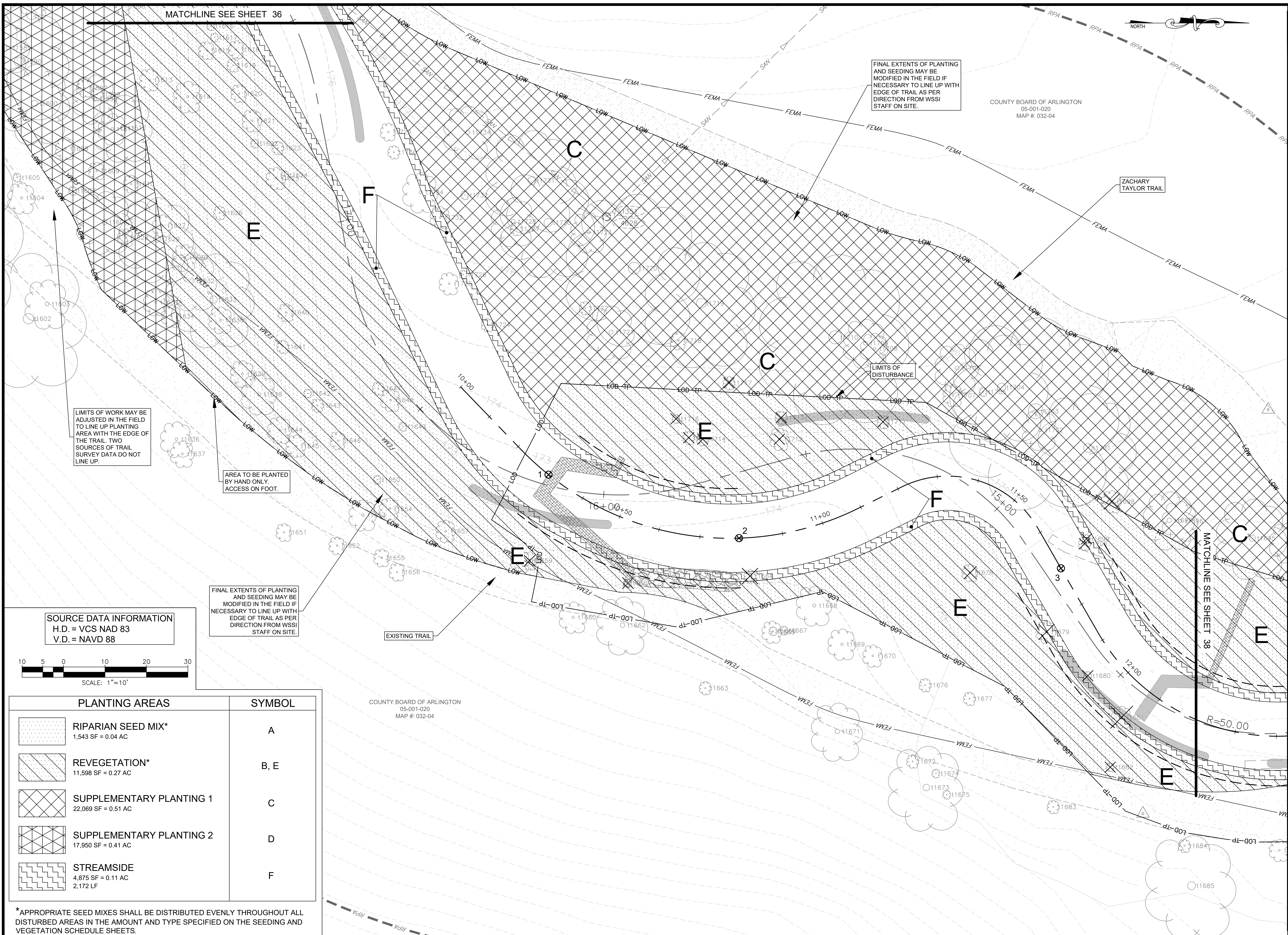
TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
PLANTING PLAN (04)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

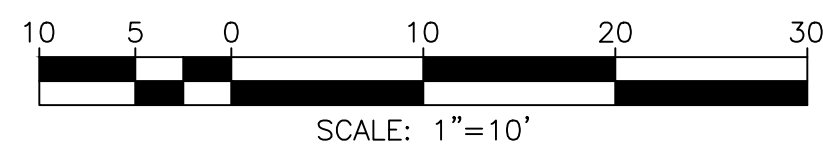
PLOTTED: JULY 13 2022  
SCALE: 1"=10'

REVISED ON 1/24/2022

MATCHLINE SEE SHEET 36



SOURCE DATA INFORMATION  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



PLANTING AREAS	SYMBOL
RIPARIAN SEED MIX* 1,543 SF = 0.04 AC	A
REVEGETATION* 11,598 SF = 0.27 AC	B, E
SUPPLEMENTARY PLANTING 1 22,069 SF = 0.51 AC	C
SUPPLEMENTARY PLANTING 2 17,950 SF = 0.41 AC	D
STREAMSIDE 4,875 SF = 0.11 AC 2,172 LF	F

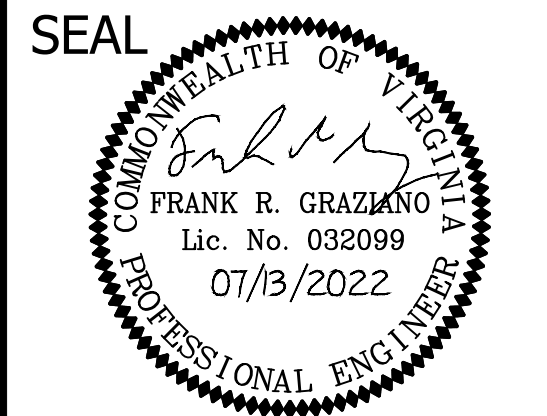
\*APPROPRIATE SEED MIXES SHALL BE DISTRIBUTED EVENLY THROUGHOUT ALL DISTURBED AREAS IN THE AMOUNT AND TYPE SPECIFIED ON THE SEEDING AND VEGETATION SCHEDULE SHEETS.

FILENAME: PLANTING PLAN.DWG PATH: L:\1280005\28400\28461\_01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



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 FACILITIES & ENGINEERING DIVISION  
 ENGINEERING BUREAU  
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WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

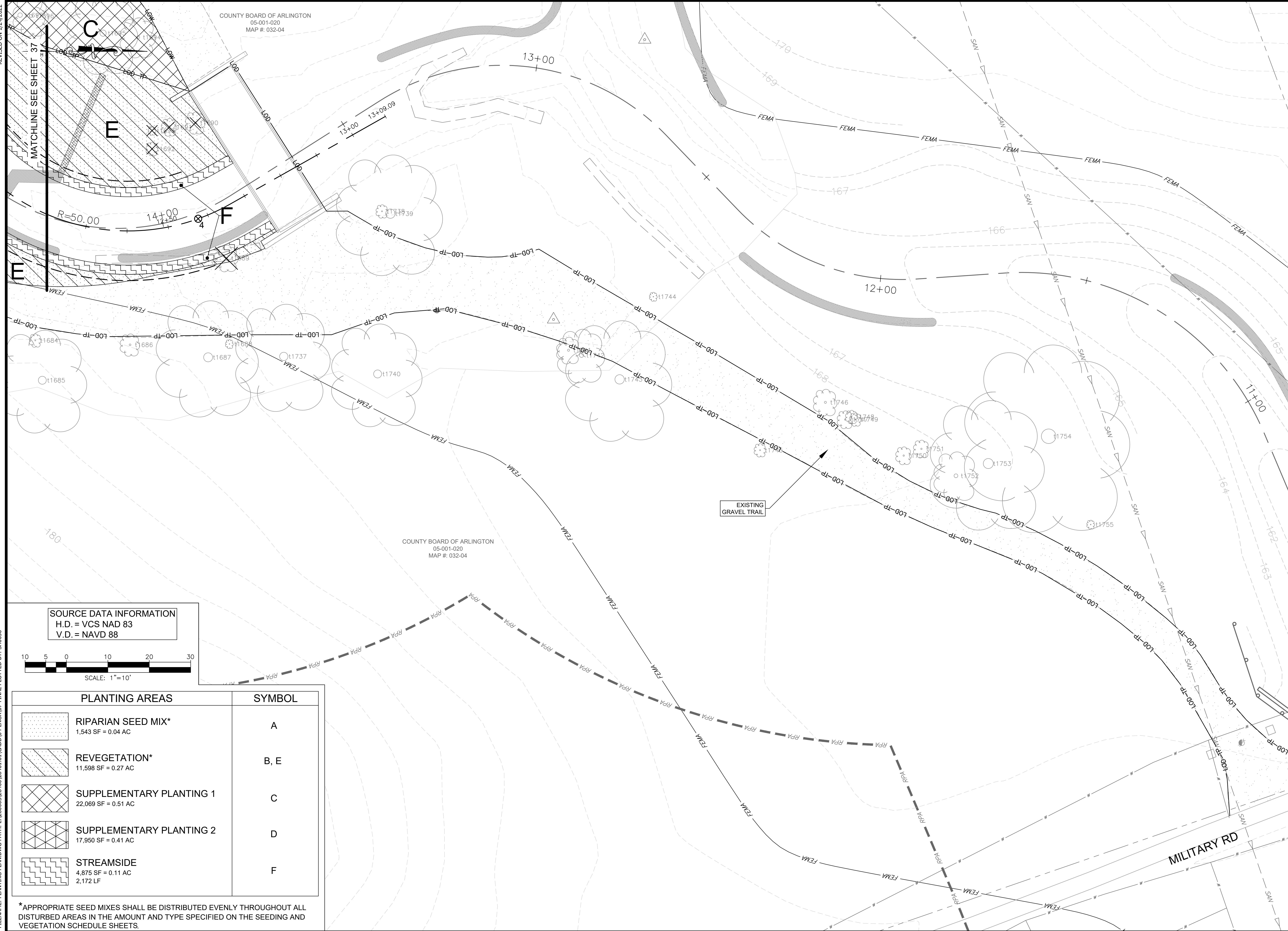
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 PLANTING PLAN (05)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG

PLOTTED: JULY 13 2022  
 SCALE: 1"=10'

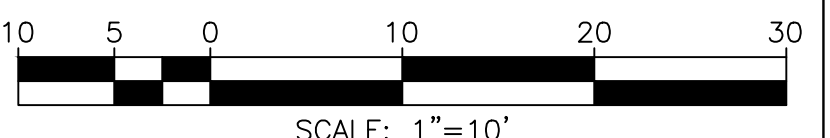
REVISED ON 1/24/2022



COUNTY BOARD OF ARLINGTON  
05-001-020  
MAP # 032-04

COUNTY BOARD OF ARLINGTON  
05-001-020  
MAP # 032-04

SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



PLANTING AREAS	SYMBOL
 <b>RIPARIAN SEED MIX*</b> 1,543 SF = 0.04 AC	A
 <b>REVEGETATION*</b> 11,598 SF = 0.27 AC	B, E
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 <b>STREAMSIDE</b> 4,875 SF = 0.11 AC 2,172 LF	F

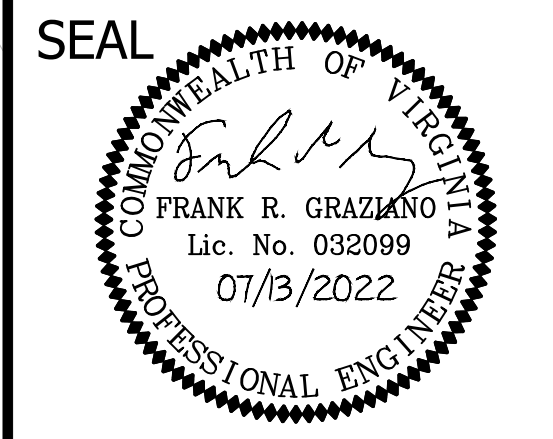
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FILENAME: PLANTING PLAN.DWG PATH: L:\280005\28400\28461\_01\CADD\04-ENGR\07-FINAL PLOTTED BY: SH0036



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CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
PLANTING PLAN (06)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022  
SCALE: 1"=10'

# FULL REVEGETATION : ZONES B AND E

## RIPARIAN FOREST VEGETATION SCHEDULE FOR SHADY & VARIABLE HYDROLOGY CONDITIONS

PLANTING SCHEDULE							PLANTING QUANTITIES (BASED ON ONE-GALLON SIZE) <sup>4</sup>															
CONTAINER PLANTING ZONE	SPECIES GROUP <sup>1,2</sup>	SPECIES <sup>2</sup>	INDICATOR STATUS (AGCP)	PLANT SPACING <sup>3</sup>	CONTAINER SIZE, RATE, AND QUANTITY <sup>4</sup>		AREA (SF): AREA (AC): LENGTH (LF):	A 1,543 0.04	B 1,410 0.03	C 22,069 0.51	D 17,950 0.41	E 10,188 0.23	F 4,875 0.11 2,172									
					PLANTS PER ACRE	# OF PLANTS																
RIPARIAN FOREST (VARIABLE, SHADY)	1	QUERCUS FALCATA (SOUTHERN RED OAK)	FACU	12' O.C. <sup>3</sup>	300 ONE-GAL --or-- 600 TUBELINGS --or-- MIX AT 1:2 RATIO <sup>4</sup>	78 (BASED ON ONE-GALLON)																
		QUERCUS ALBA (WHITE OAK)	FACU																			
		QUERCUS PALUSTRIS (PIN OAK)	FACW																			
		QUERCUS PHELLOS (WILLOW OAK)	FACW																			
		QUERCUS RUBRA (NORTHERN RED OAK)	FACU																			
	2	ACER NEGUNDO (BOX ELDER) <sup>8</sup>	FAC	21' O.C. <sup>3</sup>	100 ONE-GALLON --or-- 400 TUBELINGS --or-- MIX AT 1:2 RATIO <sup>4</sup>	26 (BASED ON ONE-GALLON)																
		CARYA CORDIFORMIS (BITTERNUT HICKORY)	FAC																			
		DIOSPYROS VIRGINIANA (COMMON PERSIMMON)	FAC																			
		LIQUIDAMBAR STYRACIFLUA (SWEET GUM)	FAC																			
		NYSSA SYLVATICA (BLACK GUM)	FAC																			
	PLATANUS OCCIDENTALIS (AMERICAN SYCAMORE)	FACW																				
	3	ACER RUBRUM (RED MAPLE) <sup>9</sup>	FAC	15' O.C. <sup>3</sup>	200 ONE-GALLON --or-- 400 TUBELINGS --or-- MIX AT 1:2 RATIO <sup>4</sup>	52 (BASED ON ONE-GALLON)																
AMELANCHIER CANADENSIS (CANADIAN SERVICEBERRY)		FAC																				
ASIMINA TRILOBA (PAWPAW)		FAC																				
CERCIS CANADENSIS (EASTERN REDBUD)		UPL																				
JUNIPERUS VIRGINIANA (EASTERN RED CEDAR)		FACU																				
MAGNOLIA VIRGINIANA (SWEETBAY MAGNOLIA)	FACW																					
4	CORYLUS AMERICANA (AMERICAN HAZELNUT)	FACU	15' O.C. <sup>3</sup>	200 ONE-GALLON --or-- 400 TUBELINGS <sup>4</sup>	52 (BASED ON ONE-GALLON)																	
	HYDRANGEA ARBORESCENS (WILD HYDRANGEA)	FACW																				
	LINDERA BENZOIN (NORTHERN SPICEBUSH)	FACW																				
	VIBURNUM DENTATUM (SOUTHERN ARROWWOOD)	FAC																				
VIBURNUM PRUNIFOLIUM (BLACK-HAW)	FACU																					
<b>RIPARIAN FOREST QUANTITY SUBTOTALS</b>					<b>800</b>									<b>208</b>								

# STREAMSIDE PLANTING : ZONE F

## RIPARIAN FOREST VEGETATION SCHEDULE FOR SHADY & VARIABLE HYDROLOGY CONDITIONS

PLANTING SCHEDULE							PLANTING QUANTITIES (BASED ON ONE-GALLON SIZE) <sup>4</sup>							
CONTAINER PLANTING ZONE	SPECIES GROUP <sup>1,2</sup>	SPECIES <sup>2</sup>	INDICATOR STATUS (AGCP)	PLANT SPACING <sup>3</sup>	CONTAINER SIZE, RATE, AND QUANTITY <sup>4</sup>		AREA (SF): AREA (AC): LENGTH (LF):	A 1,543 0.04	B 1,410 0.03	C 22,069 0.51	D 17,950 0.41	E 10,188 0.23	F 4,875 0.11 2,172	
					PLANTS PER ACRE	# OF PLANTS								
STREAM BANK	5	ALNUS SERRULATA (BROOKSIDE ALDER)	FACW	3' O.C. <sup>6</sup>	4800 ONE-GALLON --or-- 9600 TUBELINGS --or-- MIX AT 1:2 RATIO <sup>4</sup>	528 (BASED ON ONE-GALLON)								
		ARONIA ARBUTIFOLIA (RED CHOKEBERRY)	FACW											
		CEPHALANTHUS OCCIDENTALIS (BUTTONBUSH)	OBL											
		ILEX VERTICILLATA (COMMON WINTERBERRY)	FACW											
		VIBURNUM DENTATUM (SOUTHERN ARROWWOOD)	FACU											
<b>STREAM BANK QUANTITY SUBTOTALS</b>					<b>4800</b>	<b>528</b>								
STREAM EDGE	6	ALNUS SERRULATA (SMOOTH ALDER)	FACW	1 PER L.F. STAGGERED <sup>6</sup>	N/A	2,133 (TUBELINGS OR LIVESTAKES ONLY) <sup>7</sup>								
		CEPHALANTHUS OCCIDENTALIS (BUTTONBUSH)	OBL											
		CORNUS AMOMUM (SILKY DOGWOOD)	FACW											
SAMBUCUS NIGRA spp. CANADENSIS (ELDERBERRY/BLACK ELDER)	FACW													
<b>STREAM EDGE QUANTITY SUBTOTALS</b>					<b>---</b>	<b>2,133</b>								
LIVE STAKE	UPSTREAM OF STRUCTURE	7	SALIX NIGRA (BLACK WILLOW)	OBL	1 PER L.F. STAGGERED <sup>6</sup>	N/A	16 LIVE STAKES							16
LIVE STAKE	DOWNSTREAM OF STRUCTURE	8	SALIX NIGRA (BLACK WILLOW)	OBL	4 PER L.F. STAGGERED <sup>6</sup>	N/A	93 LIVE STAKES							93
<b>LIVE STAKE QUANTITY SUBTOTALS</b>					<b>---</b>	<b>109</b>								<b>109</b>

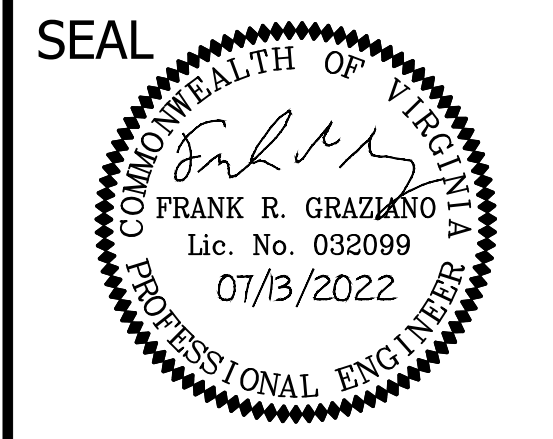
### PLANTING AND SEEDING NOTES:

- It is expected and preferred that all species in each of the Species Groups are planted. The tolerances listed in this note are intended to incorporate flexibility according to species availability. At a minimum, Contractor to provide at least:
  - a) 4 of the 5 species in Group 1,
  - b) 5 of the 6 species in Group 2,
  - c) 5 of the 6 species in Group 3,
  - d) 3 of the 4 species in Group 4,
  - e) 4 of the 5 species in Group 5,
  - f) 3 of the 4 species in Group 6,
  - g) all of the species in Group 7,
  - h) all of the species in Group 8,
  - i) all of the species in Group 9,
  - j) 3 of the 4 species in Group 10,
  - k) 3 of the 4 species in Group 11,
  - l) 5 of the 6 species in Group 12,
  - m) 5 of the 7 species in Group 13,
  - n) 4 of the 5 species in Group 14, and
  - o) 5 of the 6 species in Group 15.
- Substitutions for selected species based upon availability shall be requested in writing to engineer, documenting the lack of availability. If the flexibility inherent in the above schedule is still not sufficient, Engineer is under no obligation to approve substitutions.
- The planted trees and shrubs shall be randomly spaced and species mixed throughout the planting areas.
- Container rates and quantities shown for one gallon size. For purposes of substitution, two tubelings are the equivalent of one 1-gallon container plant in this schedule. Contractor may provide a mix of container and tubeling sizes for each species requirement, provided the ratio of tubelings to containers is not less than 2:1. Exception -- Group 6 (Stream Edge) shall be planted in accordance with Note #5.
- Group 6 (Stream Edge) zone shall be planted with tubelings, or as livestakes. No one gallons are required to be used for any of this Group's species.
- Stream Bank (Group 5) and Stream Edge (Group 6) zones shall be planted such that the combined mix of species is spaced approx. 3' O.C. and 1 plant per L.F. respectively. Live stake zones upstream of outer vane arm (Group 7) spaced at 1 plant per L.F. Live stake zones downstream of outer vane arm (Group 8) spaced at 4 plants per L.F.
- All seeding rates are expressed in pounds of pure live seed (PLS).
- If there is an abundance of existing or established maples on site, a substitution for maples may be made with an alternate species to avoid tapping into and adding to existing saturated seed bank. Final decision as to whether or not to plant maples will be made by engineer of record.
- Contractor shall not plant white oak, southern or northern red oak, persimmon, viburnum prunifolium, or any UPL or FACU species in wetland areas



DEPARTMENT OF ENVIRONMENTAL SERVICES  
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 ENGINEERING BUREAU  
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 ARLINGTON, VA 22201  
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 FAX: 703.228.3606

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APPROVALS DATE  
 DESIGN TEAM ENGINEER SUPERVISOR  
 CONSTRUCTION MANAGEMENT SUPERVISOR  
 WATER, SEWER, STREETS BUREAU CHIEF  
 TRANSPORTATION DIRECTOR  
 PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 VEGETATION SCHEDULE (01)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022

SCALE: N/A

# SUPPLEMENTARY PLANTING 1 : ZONE C (1/2 DENSITY - OVERSTORY, UNDERSTORY, AND SHRUB)

RIPARIAN FOREST VEGETATION SCHEDULE FOR SHADY & VARIABLE HYDROLOGY CONDITIONS														
PLANTING SCHEDULE						PLANTING QUANTITIES (BASED ON ONE-GALLON SIZE) <sup>4</sup>								
CONTAINER PLANTING ZONE	SPECIES GROUP <sup>1,2</sup>	SPECIES <sup>2</sup>	INDICATOR STATUS (AGCP)	PLANT SPACING <sup>3</sup>	CONTAINER SIZE, RATE, AND QUANTITY <sup>4</sup>		AREA (SF): AREA (AC): LENGTH (LF):	A 1,543 0.04	B 1,410 0.03	C 22,069 0.51	D 17,950 0.41	E 10,188 0.23	F 4,875 0.11 2,172	
					PLANTS PER ACRE	# OF PLANTS								
RIPARIAN FOREST (VARIABLE, SHADY)	OVERSTORY LAYER	QUERCUS FALCATA (SOUTHERN RED OAK)	FACU	12' O.C. <sup>3</sup>	150 ONE-GAL -or- 300 TUBELINGS -or- MIX AT 1:2 RATIO <sup>4</sup>	77 (BASED ON ONE-GALLON)								
		QUERCUS ALBA (WHITE OAK)	FACU											
		QUERCUS PALUSTRIS (PIN OAK)	FACW											
		QUERCUS PHELLOS (WILLOW OAK)	FACW											
		QUERCUS RUBRA (NORTHERN RED OAK)	FACU											
	2	ACER NEGUNDO (BOX ELDER) <sup>8</sup>	FAC	21' O.C. <sup>3</sup>	50 ONE-GALLON -or- 200 TUBELINGS -or- MIX AT 1:2 RATIO <sup>4</sup>	26 (BASED ON ONE-GALLON)								
		CARYA CORDIFORMIS (BITTERNUT HICKORY)	FAC											
		DIOSPYROS VIRGINIANA (COMMON PERSIMMON)	FAC											
		LIQUIDAMBAR STYRACIFLUA (SWEET GUM)	FAC											
		NYSSA SYLVATICA (BLACK GUM)	FAC											
	PLATANUS OCCIDENTALIS (AMERICAN SYCAMORE)	FACW												
	UNDERSTORY LAYER	3	ACER RUBRUM (RED MAPLE) <sup>9</sup>	FAC	15' O.C. <sup>3</sup>	100 ONE-GALLON -or- 200 TUBELINGS -or- MIX AT 1:2 RATIO <sup>4</sup>	51 (BASED ON ONE-GALLON)							
AMELANCHIER CANADENSIS (CANADIAN SERVICEBERRY)			FAC											
ASIMINA TRILOBA (PAWPAW)			FAC											
CERCIS CANADENSIS (EASTERN REDBUD)			UPL											
JUNIPERUS VIRGINIANA (EASTERN RED CEDAR)			FACU											
MAGNOLIA VIRGINIANA (SWEETBAY MAGNOLIA)	FACW													
SHRUB LAYER	4	CORYLUS AMERICANA (AMERICAN HAZELNUT)	FACU	15' O.C. <sup>3</sup>	100 ONE-GALLON -or- 200 TUBELINGS <sup>4</sup>	51 (BASED ON ONE-GALLON)								
		HYDRANGEA ARBORESCENS (WILD HYDRANGEA)	FACU											
		LINDERA BENZOIN (NORTHERN SPICEBUSH)	FACW											
		VIBURNUM DENTATUM (SOUTHERN ARROWWOOD)	FAC											
VIBURNUM PRUNIFOLIUM (BLACK-HAW)	FACU													
<b>RIPARIAN FOREST QUANTITY SUBTOTALS</b>					<b>400</b>	<b>205</b>				<b>205</b>				

# SUPPLEMENTARY PLANTING 2 : ZONE D (1/2 DENSITY - UNDERSTORY AND SHRUB)

RIPARIAN FOREST VEGETATION SCHEDULE FOR SHADY & VARIABLE HYDROLOGY CONDITIONS														
PLANTING SCHEDULE						PLANTING QUANTITIES (BASED ON ONE-GALLON)								
CONTAINER PLANTING ZONE	SPECIES GROUP <sup>1,2</sup>	SPECIES <sup>2</sup>	INDICATOR STATUS (AGCP)	PLANT SPACING <sup>3</sup>	CONTAINER SIZE, RATE, AND QUANTITY <sup>4</sup>		AREA (SF): AREA (AC): LENGTH (LF):	A 1,543 0.04	B 1,410 0.03	C 22,069 0.51	D 17,950 0.41	E 10,188 0.23	F 4,875 0.11 2,172	
					PLANTS PER ACRE	# OF PLANTS								
RIPARIAN FOREST (VARIABLE, SHADY)	UNDERSTORY LAYER	ACER RUBRUM (RED MAPLE) <sup>9</sup>	FAC	15' O.C. <sup>3</sup>	100 ONE-GALLON -or- 200 TUBELINGS -or- MIX AT 1:2 RATIO <sup>4</sup>	41 (BASED ON ONE-GALLON)								
		AMELANCHIER CANADENSIS (CANADIAN SERVICEBERRY)	FAC											
		ASIMINA TRILOBA (PAWPAW)	FAC											
		CERCIS CANADENSIS (EASTERN REDBUD)	UPL											
		JUNIPERUS VIRGINIANA (EASTERN RED CEDAR)	FACU											
	MAGNOLIA VIRGINIANA (SWEETBAY MAGNOLIA)	FACW												
	SHRUB LAYER	4	CORYLUS AMERICANA (AMERICAN HAZELNUT)	FACU	15' O.C. <sup>3</sup>	100 ONE-GALLON -or- 200 TUBELINGS <sup>4</sup>	41 (BASED ON ONE-GALLON)							
			LINDERA BENZOIN (NORTHERN SPICEBUSH)	FACW										
			VIBURNUM DENTATUM (SOUTHERN ARROWWOOD)	FAC										
			VIBURNUM PRUNIFOLIUM (BLACK-HAW)	FACU										
<b>RIPARIAN FOREST QUANTITY SUBTOTALS</b>					<b>600</b>	<b>82</b>					<b>82</b>			

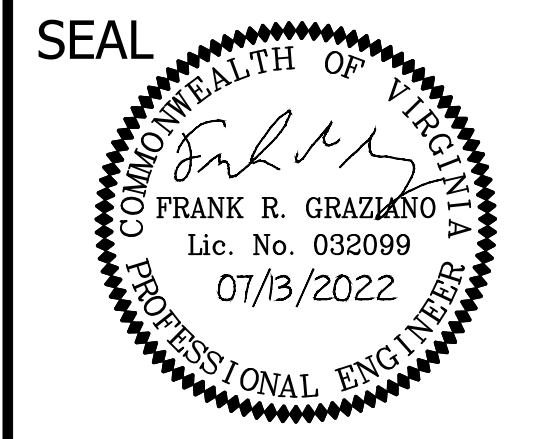
**PLANTING AND SEEDING NOTES:**

- It is expected and preferred that all species in each of the Species Groups are planted. The tolerances listed in this note are intended to incorporate flexibility according to species availability. At a minimum, Contractor to provide at least:
  - a) 4 of the 5 species in Group 1,
  - b) 5 of the 6 species in Group 2,
  - c) 5 of the 6 species in Group 3,
  - d) 3 of the 4 species in Group 4,
  - e) 4 of the 5 species in Group 5,
  - f) 3 of the 4 species in Group 6,
  - g) all of the species in Group 7,
  - h) all of the species in Group 8,
  - i) all of the species in Group 9,
  - j) 3 of the 4 species in Group 10,
  - k) 3 of the 4 species in Group 11,
  - l) 5 of the 6 species in Group 12,
  - m) 5 of the 7 species in Group 13,
  - n) 4 of the 5 species in Group 14, and
  - o) 5 of the 6 species in Group 15.
- Substitutions for selected species based upon availability shall be requested in writing to engineer, documenting the lack of availability. If the flexibility inherent in the above schedule is still not sufficient, Engineer is under no obligation to approve substitutions.
- The planted trees and shrubs shall be randomly spaced and species mixed throughout the planting areas.
- Container rates and quantities shown for one gallon size. For purposes of substitution, two tubelings are the equivalent of one 1-gallon container plant in this schedule. Contractor may provide a mix of container and tubeling sizes for each species requirement, provided the ratio of tubelings to containers is not less than 2:1. Exception - Group 6 (Stream Edge) shall be planted in accordance with Note #5.
- Group 6 (Stream Edge) zone shall be planted with tubelings, or as livestakes. No one gallons are required to be used for any of this Group's species.
- Stream Bank (Group 5) and Stream Edge (Group 6) zones shall be planted such that the combined mix of species is spaced approx. 3' O.C. and 1 plant per L.F. respectively. Live stake zones upstream of outer vane arm (Group 7) spaced at 1 plant per L.F. Live stake zones downstream of outer vane arm (Group 8) spaced at 4 plants per L.F.
- All seeding rates are expressed in pounds of pure live seed (PLS).
- If there is an abundance of existing or established maples on site, a substitution for maples may be made with an alternate species to avoid tapping into and adding to existing saturated seed bank. Final decision as to whether or not to plant maples will be made by engineer of record.
- Contractor shall not plant white oak, southern or northern red oak, persimmon, viburnum prunifolium, or any UPL or FACU species in wetland areas



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APPROVALS DATE  
 DESIGN TEAM ENGINEER SUPERVISOR  
 CONSTRUCTION MANAGEMENT SUPERVISOR  
 WATER, SEWER, STREETS BUREAU CHIEF  
 TRANSPORTATION DIRECTOR  
 PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 VEGETATION SCHEDULE (02)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022  
 SCALE: N/A



# SEEDING : ZONES A, B, C, D, AND E

SEEDING SCHEDULE						SEEDING QUANTITIES								
SEED PLANTING ZONE	SPECIES GROUP <sup>1,2</sup>	SPECIES <sup>2</sup>	SEEDING RATE <sup>7</sup> (LBS/AC)	AREA PER PLANT (AC)	QUANTITY (LBS)	AREA (SF): AREA (AC):	A 1,543 0.04	B 1,410 0.03	C 22,069 0.51	D 17,950 0.41	E 10,188 0.23	F 4,875 0.11 2,172		
RIPARIAN FOREST (VARIABLE, SHADY) SEED MIX	9	LOLIUM PERENNE spp. MULTIFLORUM (ANNUAL RYEGRASS)	45.00	1.33	13.50		1.80	1.35			10.35			
		SECALE CEREALE (WINTER RYEGRASS)	45.00	1.33	13.50		1.80	1.35			10.35			
	10	ELYMUS RIPARIUS (RIVERBANK WILD RYE)	10.00	1.33	3.00		0.40	0.30				2.30		
		ELYMUS VIRGINICUS (VIRGINIA WILD RYE)	10.00	1.33	3.00		0.40	0.30				2.30		
		DICHANTHELIUM CLANDESTINUM (DEER TONGUE GRASS)	10.00	1.33	3.00		0.40	0.30				2.30		
		SENNA HEBECARPA (WILD SENNA)	10.00	1.33	3.00		0.40	0.30				2.30		
	11	AGRIMONIA PARVIFLORA (HARVESTLICE)	0.20	1.33	0.07		0.01	0.01				0.05		
		CAREX SQUARROSA (SQUARROSE SEDGE)	0.20	1.33	0.07		0.01	0.01				0.05		
		PARTHENOISSUS QUINQUEFOLIA (VIRGINIA CREEPER)	0.20	1.33	0.07		0.01	0.01				0.05		
		JUNCUS TENUIS (PATH RUSH)	0.20	1.33	0.07		0.01	0.01				0.05		
	12	ANEMONE VIRGINIANA (THIMBLEWEED)	0.10	1.33	0.02		0.00	0.00				0.02		
		EUPATORIUM PERFOLIATUM (COMMON BONESET)	0.10	1.33	0.02		0.00	0.00				0.02		
		SYMPHYOTRICHUM PILOSUM (WHITE OLDFIELD AMERICAN-ASTER)	0.10	1.33	0.02		0.00	0.00				0.02		
		RHUS GLABRA (SMOOTH SUMAC)	0.10	1.33	0.02		0.00	0.00				0.02		
		SOLIDAGO RUGOSA (WRINKLELEAF GOLDENROD)	0.10	1.33	0.02		0.00	0.00				0.02		
		VERNONIA NOVEBORACENSIS (NEW YORK IRONWEED)	0.10	1.33	0.02		0.00	0.00				0.02		
	13	BIDENS FRONDOSA (BEGGAR TICKS)	0.20	1.33	0.07		0.01	0.01				0.05		
		GEUM CANADENSE (WHITE AVENS)	0.20	1.33	0.07		0.01	0.01				0.05		
		CHAMAECRISTA NITANS (SENSITIVE PARTRIDGE PEA)	0.20	1.33	0.07		0.01	0.01				0.05		
		DESMODIUM GLABELLUM (DILLENUS' TICK-TREFOIL)	0.20	1.33	0.07		0.01	0.01				0.05		
		PENSTEMON DIGITALIS (PENSTEMON)	0.20	1.33	0.07		0.01	0.01				0.05		
		CLEMATIS VIRGINIANA (VIRGIN'S BOWER)	0.20	1.33	0.07		0.01	0.01				0.05		
		VERBESINA ALTERNIFOLIA (WINGSTEM)	0.20	1.33	0.07		0.01	0.01				0.05		
	14	HAMAMELIS VIRGINIANA (WITCH HAZEL)	0.20	1.33	0.07		0.01	0.01				0.05		
		ILEX VERTICILLATA (WINTERBERRY)	0.20	1.33	0.07		0.01	0.01				0.05		
		LINDERA BENZOIN (NORTHERN SPICEBUSH)	0.20	1.33	0.07		0.01	0.01				0.05		
		VIBURNUM DENTATUM (SOUTHERN ARROW WOOD)	0.20	1.33	0.07		0.01	0.01				0.05		
		VIBURNUM PRUNIFOLIUM (BLACK-HAW)	0.20	1.33	0.07		0.01	0.01				0.05		
	15	ACER RUBRUM (RED MAPLE) <sup>8</sup>	0.50	1.33	0.16		0.02	0.02				0.12		
		CARPINUS CAROLINIANA (AMERICAN HORNBEAM)	0.50	1.33	0.16		0.02	0.02				0.12		
		CERCIS CANADENSIS (EASTERN REDBUD)	0.50	1.33	0.16		0.02	0.02				0.12		
		CORNUS FLORIDA (FLOWERING DOGWOOD)	0.50	1.33	0.16		0.02	0.02				0.12		
		NYSSA SYLVATICA (BLACK GUM)	0.50	1.33	0.16		0.02	0.02				0.12		
		PLATANUS OCCIDENTALIS (AMERICAN SYCAMORE)	0.50	1.33	0.16		0.02	0.02				0.12		
	<b>SEEDING TOTALS</b>			<b>136.80</b>			<b>41.20</b>		<b>5.48</b>	<b>4.18</b>	<b>0.00</b>	<b>0.00</b>	<b>31.54</b>	<b>0.00</b>

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PROJECT MANAGER	

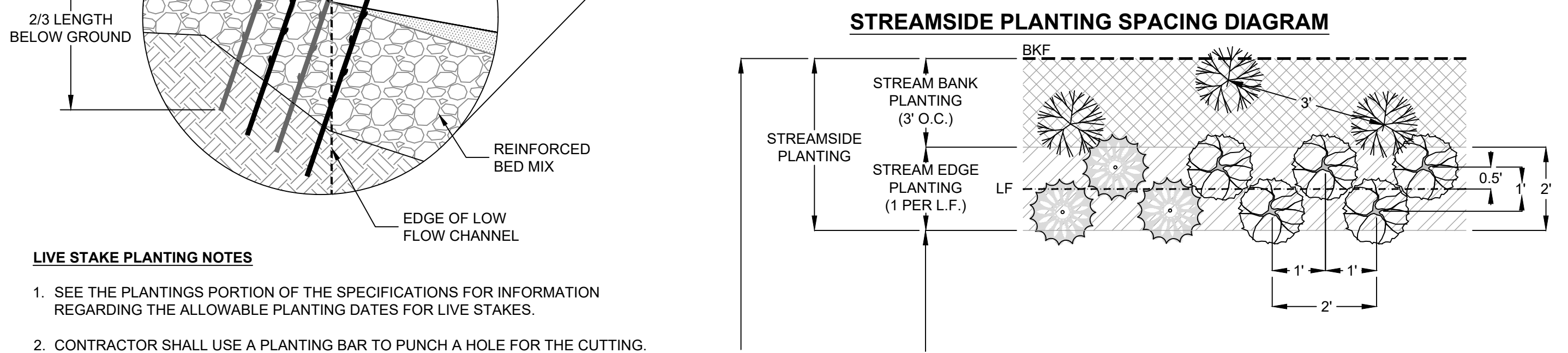
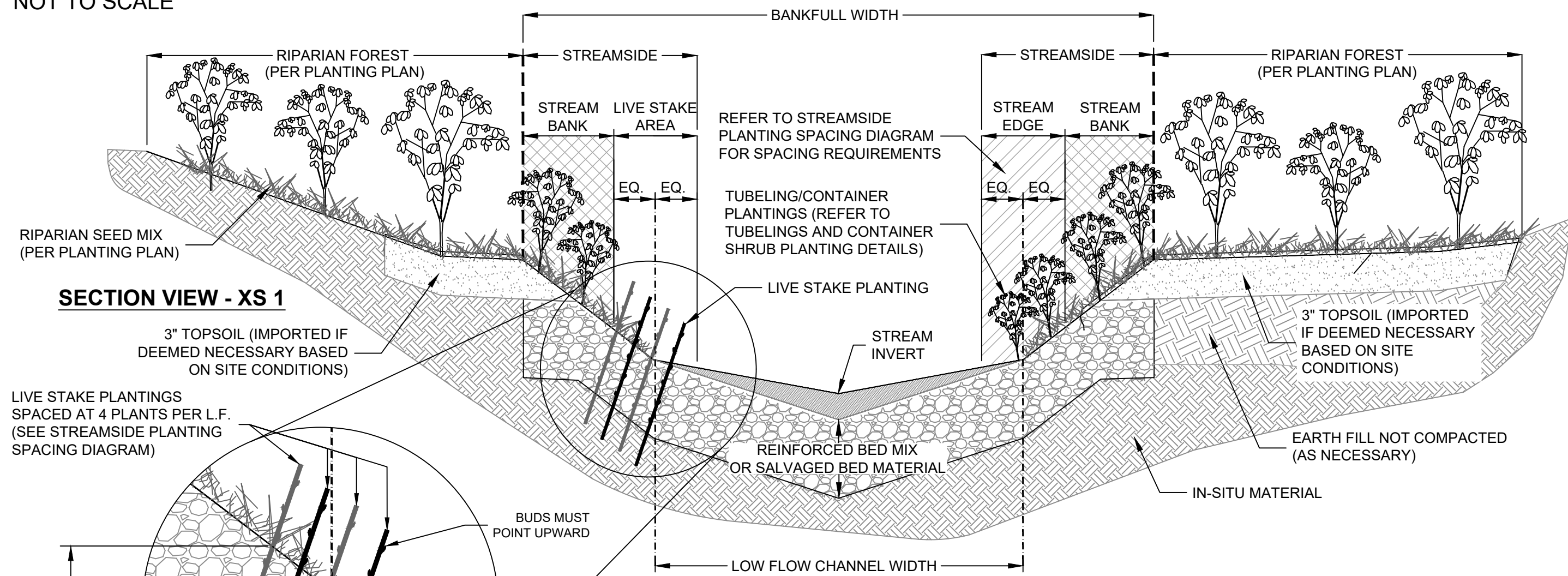
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 VEGETATION SCHEDULE (03)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022  
 SCALE: N/A

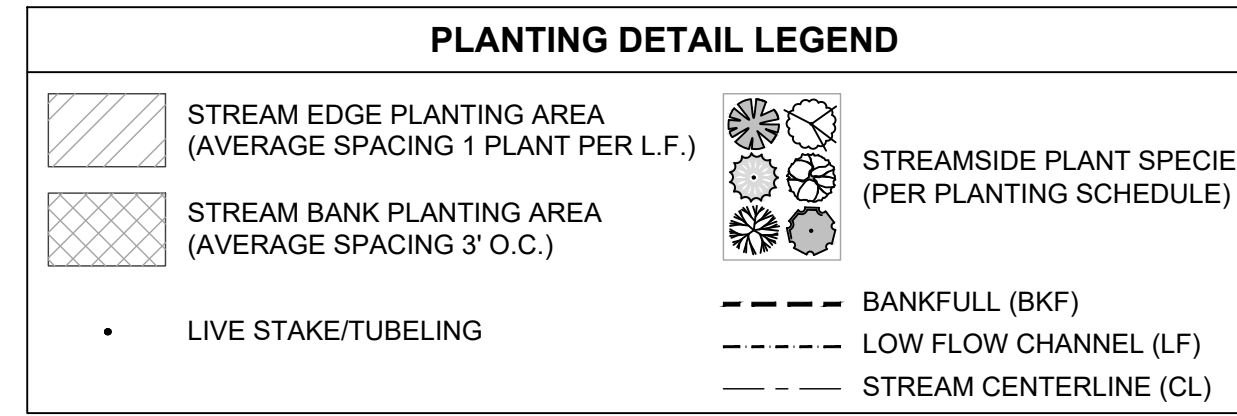
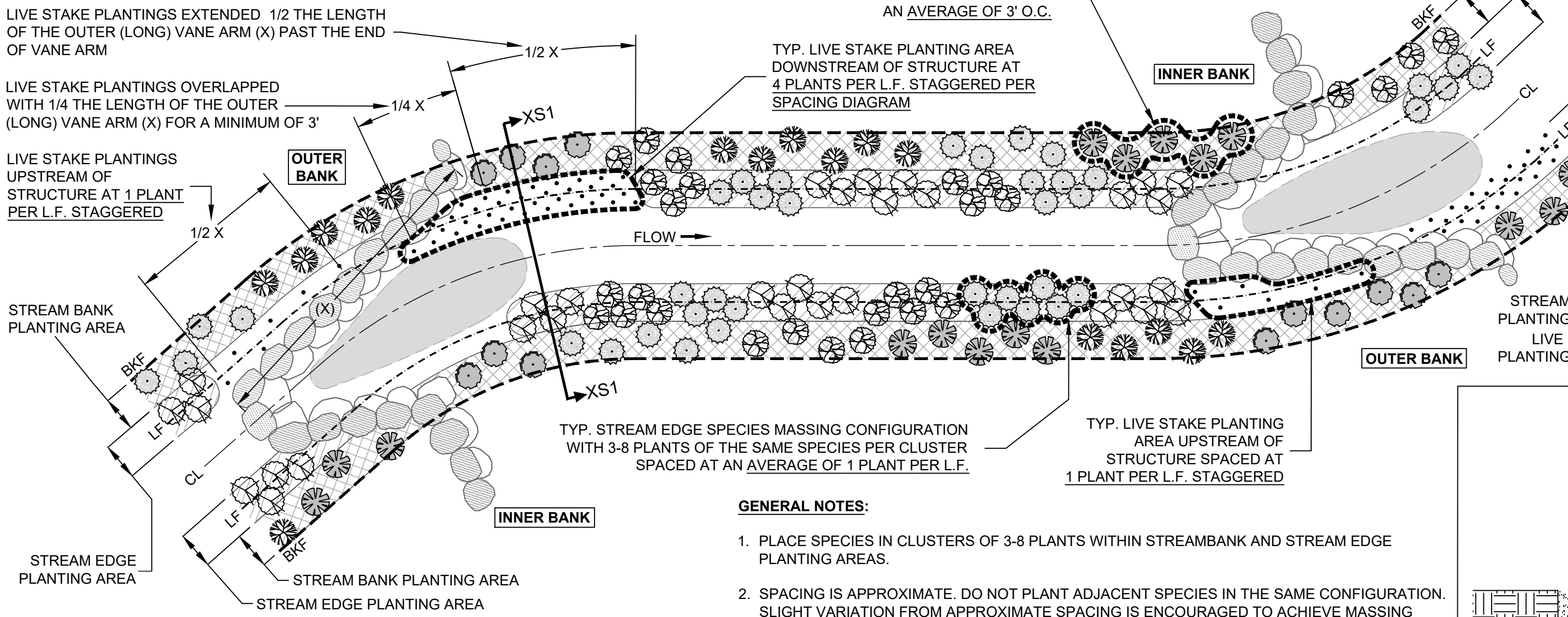
# STREAMSIDE PLANTING DETAIL

NOT TO SCALE



- LIVE STAKE PLANTING NOTES**
- SEE THE PLANTINGS PORTION OF THE SPECIFICATIONS FOR INFORMATION REGARDING THE ALLOWABLE PLANTING DATES FOR LIVE STAKES.
  - CONTRACTOR SHALL USE A PLANTING BAR TO PUNCH A HOLE FOR THE CUTTING.
  - ROOTS SHALL BE TREATED WITH ROOT GROWTH HORMONE PRIOR TO PLANTING.
  - LIVE STAKES SHOULD BE 18" TO 24" IN LENGTH AND 1/2" TO 1 1/2" IN DIAMETER.
  - INSTALL THE LIVE STAKE WITH THE CORRECT SIDE UP (SEE STREAMSIDE PLANTING SECTION VIEW). LIVE STAKES SHOULD BE CUT ON AN ANGLE ON THE BOTTOM AND FLAT ON THE TOP. WHEN HELD WITH THE CORRECT END UP, THE BUDS MUST POINT UPWARD.
  - TWO-THIRDS (2/3) OF THE LIVE STAKE LENGTH MUST BE PLANTED BELOW GRADE. AS LONG AS A FEW BUDS ARE EXPOSED AT THE TOP, MORE THAN TWO-THIRDS (2/3) OF LIVE STAKE MAY BE BELOW GRADE.
  - TAMP IN AROUND THE CUTTING TO ENSURE THAT THERE ARE NO AIR POCKETS ALONG THE STEM. THE PLANTING BAR MAY BE USED TO PUSH THE SOIL IMMEDIATELY AROUND THE STEM AND PUSH IN THE SOIL TOWARD THE PLANT.
  - REFER TO STREAMSIDE PLANTING PLACEMENT DIAGRAM FOR SPECIFIC GUIDANCE FOR PLANT PLACEMENT ALONG STREAM.

## STREAMSIDE PLANTING PLACEMENT DIAGRAM



- GENERAL NOTES:**
- PLACE SPECIES IN CLUSTERS OF 3-8 PLANTS WITHIN STREAMBANK AND STREAM EDGE PLANTING AREAS.
  - SPACING IS APPROXIMATE. DO NOT PLANT ADJACENT SPECIES IN THE SAME CONFIGURATION. SLIGHT VARIATION FROM APPROXIMATE SPACING IS ENCOURAGED TO ACHIEVE MASSING CONFIGURATION SHOWN IN THE STREAMSIDE PLANTING PLACEMENT DIAGRAM.
  - PLANT QUANTITIES WITHIN STREAM BANK PLANTING AREA BASED ON SPACING OF 3' O.C.
  - PLANT QUANTITIES WITHIN STREAM EDGE PLANTING AREA BASED ON 1 PLANT PER L.F.
  - PLANT QUANTITIES WITHIN LIVESTAKE AREAS ON DOWNSTREAM SIDE OF STRUCTURES BASED ON 4 PLANTS PER L.F.
  - PLANT QUANTITIES WITHIN LIVESTAKE AREAS ON UPSTREAM SIDE OF STRUCTURES BASED ON 1 PLANT PER L.F.
  - REFER TO PLANTING SCHEDULE FOR PLANT SPECIES AND QUANTITIES.

## PLANTING SPECIFICATIONS

- PLAN DETAILS ARE INCORPORATED INTO THIS SPECIFICATION BY REFERENCE.
- THE SUPPLIER OF ALL SEEDS AND/OR VEGETATION SHALL CERTIFY THAT THE ORIGIN OF THE SEEDS FROM WHICH THE PLANTS OR SEEDS WERE PRODUCED IS FROM HARDINESS ZONES 6 AND 7, FROM THE EASTERN OR CENTRAL PORTIONS OF THE U.S., PRIOR TO PLANTING.
- ANY NURSERY SUPPLYING THE STOCK SHALL PROVIDE A CURRENT NURSERY INSPECTION CERTIFICATE FROM THE STATE DEPARTMENT OF AGRICULTURE, OR PROVIDE AT LEAST THIRTY DAYS ADVANCE NOTICE FOR OWNER TO INSPECT THE PLANT SOURCE AREAS AT OWNER'S DISCRETION. ANY SUCH INSPECTION IS NOT DEEMED APPROVAL OF THE PLANT MATERIALS.
- ALL PLANTS SHALL BE SET STRAIGHT, OR PLUMB.
- SEE PLANTING AND SEEDING SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING ALLOWED DATES FOR PLANTING AND SEEDING ACTIVITIES.
- PLANTING HOLES FOR BARE ROOT TREES SHALL BE 1-2" DEEPER THAN THE ROOT COLLAR (I.E. 1-2" DEEPER THAN THEY WERE GROWING IN THE NURSERY). BARE ROOT SEEDLINGS SHALL BE INSTALLED WITH A NARROW SPADE SHOVEL (E.G. "SHARPSHOOTER"), AS DEPICTED WITHIN THESE PLANS. THE PLANTING HOLE SHALL BE LARGE ENOUGH TO AVOID THE NEED FOR ROOT TRIMMING WHERE EVER POSSIBLE. NO J-ROOTS (SEE PLANTING DETAILS) SHALL BE ALLOWED; IT IS EXTREMELY CRITICAL THIS BE ADHERED TO FOR EVERGREENS. BARE ROOT STOCK SHALL BE PLANTED WITH THEIR ROOT-COLLAR 1 TO 2 INCHES DEEPER THAN THE ADJACENT SOIL ELEVATION, USING ADJACENT SOIL TO CREATE A HUMMOCK OR MOUND THAT THE SEEDLING IS SET WITHIN.
- PLANTING HOLES FOR CONTAINER GROWN PLANTS SHALL BE ONE FOOT (1') DEEP PLUS THE CONTAINER DEPTH IN WHICH THE PLANT HAS BEEN GROWN AND TWO FEET (2') WIDER THAN CONTAINER.
- BACKFILL THE PLANTING HOLES WITH THE IN-SITU SOIL MATERIALS REMOVED FOR PLANTING AFTER REMOVING ALL STONES, ROOTS, AND OTHER DEBRIS GREATER THAN 1-1/2" IN DIAMETER.
- FOLLOWING THE BACKFILLING, WATER TO THE POINT OF SOIL SATURATION (IF NOT PLANTED IN THE "WET") AND TAMP TO COMPACT THE BACKFILL MIXTURE. ADD EXISTING SOIL TO BRING THE FINAL GRADE IN THE PLANTING HOLE TO THE SURROUNDING SOIL SURFACE. RAKE THE UNUSED EXISTING SOIL OUTSIDE THE PLANTING HOLES, TAKING CARE NOT TO MOUND THE SOIL OR TO SIGNIFICANTLY ALTER THE EXISTING GRADES AND THEN PLACE MULCH (MIN. 2" THICK) ATOP ENTIRE PLANTING HOLE (EXCEPT THAT NO MULCH IS REQUIRED FOR EMERGENT PLANTINGS). THE PLANTING HOLE AREAS MUST NOT BE DEPRESSED BELOW THE SURROUNDING SOIL SURFACE ELEVATIONS. SAID AREAS SHALL BE SLIGHTLY RAISED (2-3"), RELATIVE TO THE SOIL SURFACE.
- THE SHRUBS THAT ARE SPECIFIED AS CONTAINER GROWN SPECIMENS SHALL BE BETWEEN 15" AND 18" IN HEIGHT. THEY SHALL BE HEALTHY, VIGOROUS, WELL ROOTED AND ESTABLISHED IN THE PLANTING CONTAINER IN WHICH THEY ARE GROWING. A CONTAINER SHRUB SHALL BE IN THAT CONTAINER A SUFFICIENT TIME SUCH THAT FIBROUS ROOTS ARE FORMED SO THE SHAPE WILL REMAIN AND THE MEDIUM WILL HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER (REFER TO AMERICAN STANDARD FOR NURSERY STOCK).
- DO NOT REMOVE PLANTS FROM CONTAINERS UNTIL IMMEDIATELY BEFORE PLANTING. EXAMINE THE ROOTS TO SEE IF THEY ARE POT BOUND. CAREFULLY SEPARATE ANY POT BOUND OR CRAMPED ROOTS AND SPREAD THEM OUT WHEN PLACING THE PLANT SO THAT THE ROOTS CAN GROW WITHOUT FURTHER CONSTRICTION OF THE ROOT BALL.
- FERTILIZE EACH BARE ROOT, PLUG, TUBER, AND PINT CONTAINER PLANT WITH A 5 GRAM TABLET OF CONTROLLED RELEASE FERTILIZER. FERTILIZE EACH QUART CONTAINER WITH A 10 GRAM TABLET. USE A 20 GRAM TABLET OF FERTILIZER WITH EACH 1 GALLON AND 2 GALLON CONTAINER. GENERALLY, FOR EACH 1/2" OF TREE DIAMETER AT THE BASE, USE 20 GRAMS FOR SLOW GROWING PLANTS OR 40 GRAMS FOR FAST GROWING PLANTS OR POOR SOIL SITUATIONS. SAID FERTILIZER TABLETS SHALL BE AGRIFORM 20-10-5 OR APPROVED EQUIVALENT, APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- LOCAL CONDITIONS MAY NECESSITATE POST-INSTALLATION WATERING. SEE THE PROJECT SPECIFICATIONS DOCUMENT FOR ADDITIONAL INFORMATION REGARDING WATERING ACTIVITIES.
- THE CONTRACTOR IS RESPONSIBLE FOR REPLACING NON-SURVIVING TREES AND SHRUBS DURING THE CARE AND REPLACEMENT PERIOD (12 MONTHS, UNLESS OTHERWISE SPECIFIED IN CONTRACT DOCUMENTS) OR UNTIL FINAL ACCEPTANCE, WHICHEVER IS THE SHORTEST, AS REQUIRED BY THE TERMS OF THE SURVIVAL WARRANTY SPECIFIED HEREIN AND/OR IN CONTRACT DOCUMENTS. THE SPECIFICATIONS FOR THE REPLACED PLANTS SHALL BE THOSE PROVIDED IN THE PLANT LIST.
- REFER TO APPLICABLE SKETCHES WITHIN THIS PLAN SET FOR ADDITIONAL GUIDANCE ON PLANTING REQUIREMENTS.
- INVASIVE AND NOXIOUS WEEDS SHALL BE REMOVED BY HAND WITH LOCALIZED APPLICATIONS OF RODEO, BY A LICENSED PROFESSIONAL, WHERE NECESSARY.
- ALL BARE ROOT SEEDLINGS SHALL BE TREATED WITH ROOT DIP ABSORBENT POLYMERS AND MYCORRHIZAL ROOT DIP INOCULATES IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. SAID ROOT DIP SHALL BE MYCORTREE™ ROOT DIP OR APPROVED EQUAL.

## SEEDING SPECIFICATIONS

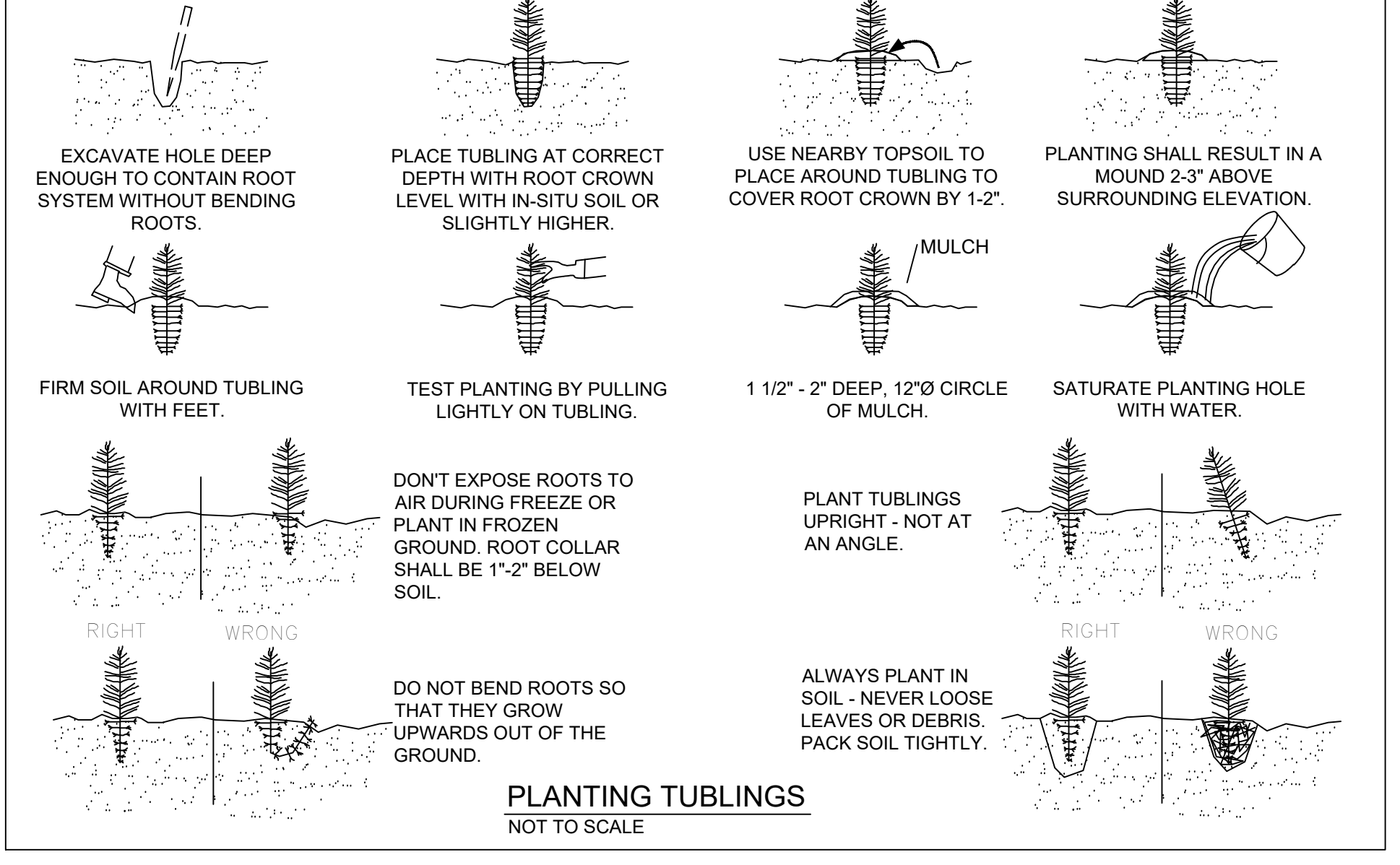
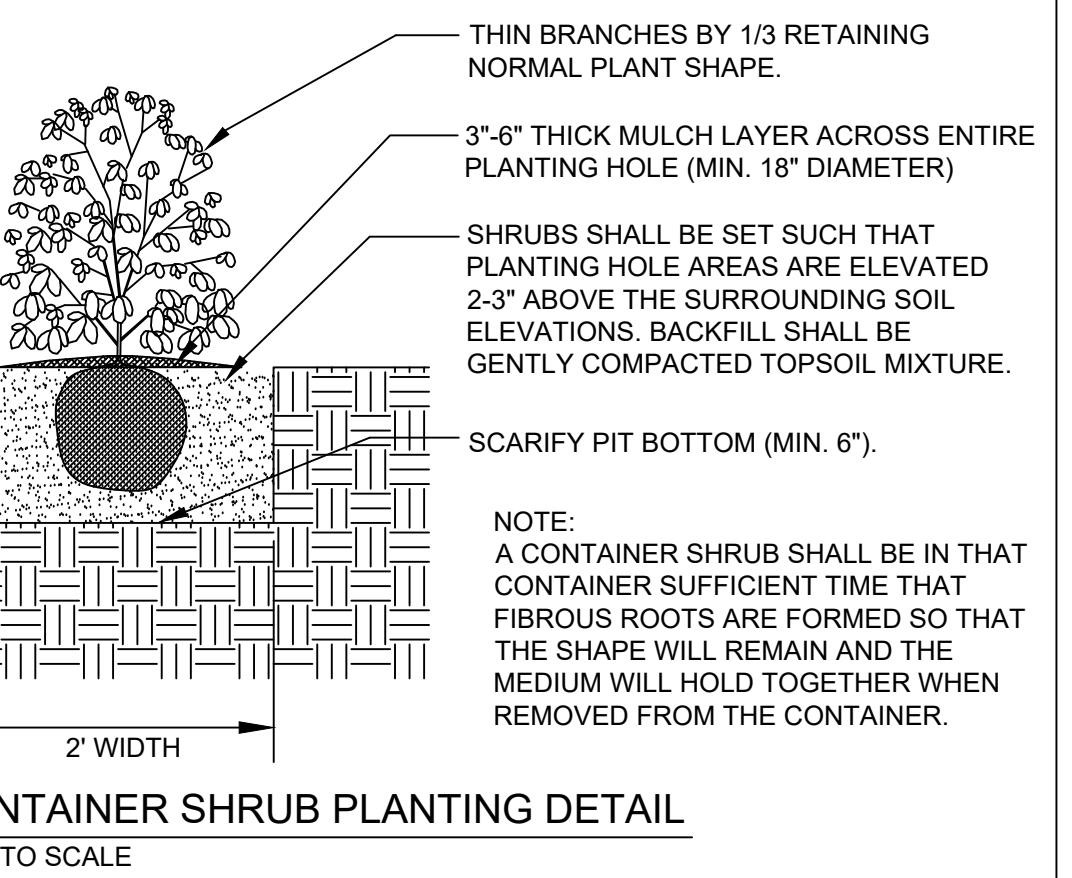
- SEED SHALL HAVE BEEN COLLECTED THE SAME YEAR OF SEEDING. A SEED GERMINATION AND PURITY RATE OF 75% IS REQUIRED. EVIDENCE OF SUCH SHALL BE PROVIDED TO OWNER PRIOR TO PLANTING.
- THE LANDSCAPE CONTRACTOR SHALL INSPECT THE AREAS AND CONDITIONS UNDER WHICH THE SEEDING WORK IS TO BE PERFORMED PRIOR TO COMMENCING WORK. IF CONDITIONS ARE DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF THE WORK, HE/SHE SHALL NOTIFY THE OWNER VERBALLY AND IN WRITING AND POSTPONE COMMENCING WORK UNTIL THE UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- PRIOR TO SEEDING, THE TOP SOIL SHALL BE RAKED SMOOTH AND CLEARED OF ALL STONES LARGER THAN 5" AND TRASH, DEBRIS, BRANCHES AND OTHER MATTER DETRIMENTAL TO THE SUCCESS OF SEEDING.
- MULCH SHALL BE STRAW IF APPLIED AT A RATE SPECIFIED BY THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, 3RD EDITION, 1992.
- CARE SHOULD BE EXERCISED TO INSURE UNIFORM SEED COVERAGE IS OBTAINED. SEED SHALL BE APPLIED AT THE RATE SPECIFIED ON THE PLANTING SCHEDULE.
- THE SPECIFIED SEED SHALL BE BROADCAST IN AREAS SPECIFIED ON THE PLANTING PLAN FOLLOWING SEEDING, MECHANICALLY SOW SEED TO A DEPTH OF 1/8 OF AN INCH BY THE USE OF A CULTIPACTOR, YORK RAKE, OR HAND RAKE.

## PLANTING AND SEEDING SURVIVAL WARRANTY

- LANDSCAPE CONTRACTOR SHALL GUARANTEE A MINIMUM SURVIVAL RATE OF EACH VEGETATION SPECIES AFTER 12 MONTHS OF 85% FOR B&B, CONTAINER GROWN, AND TUBLINGS, AND 60% FOR BARE ROOT, TUBER STOCK, AND LIVE STAKES.
- IF SURVIVAL RATES ARE LESS THAN THE ABOVE WARRANTY RATES, THEN LANDSCAPE CONTRACTOR SHALL REPLACE THE QUANTITY OF DEAD PLANTS WITHIN THE NEXT PLANTING WINDOW FOLLOWING THE END OF THE APPLICABLE WARRANTY PERIOD.

## PRODUCT HANDLING, STORAGE, AND DELIVERY

- HANDLE PLANTS AT ALL TIMES SO THAT ROOTS OR BALLS ARE ADEQUATELY PROTECTED FROM BREAKAGE OF BALLS, FROM SUN AND DRYING WINDS. PLANTS WITH DRIED OUT TOPS OR ROOTS SHALL BE REJECTED.
- ALL PLANT MATERIALS SHALL BE STORED AND DELIVERED IN SUCH A FASHION AND FOR TIME INTERVALS CONSISTENT WITH SOUND SILVICULTURAL PRACTICES.
- PLANT MATERIAL WILL BE TRANSPORTED FROM THE NURSERY TO THE PLANTING AREAS BY SUCH MEANS AS TO AVOID WIND DAMAGE, OVER-CROWDING, OR OTHER MECHANISMS BY WHICH PHYSICAL DAMAGE MAY RESULT TO THE PLANTS.
- PLANT MATERIAL MAY BE RANDOMLY INSPECTED BY THE OWNER UPON ARRIVAL AT EACH PLANTING AREA AND DURING PLANTING ACTIVITIES. MATERIAL FOUND TO BE UNACCEPTABLE WILL BE REJECTED AND THE CONTRACTOR WILL BE REQUIRED TO SUPPLY REPLACEMENT MATERIAL WITHIN A REASONABLE TIME FRAME (I.E. 1-WEEK). UNACCEPTABLE MATERIAL IS TO BE DEFINED AS THE FOLLOWING:
  - (A) PLANTS WITH BENT TRUNKS OR MULTIPLE LEADERS, UNLESS CHARACTERISTIC FOR THE SPECIES;
  - (B) PLANTS WITH DISEASED TRUNKS, STEMS, OR LEAVES;
  - (C) PLANTS WITH PEST-INFESTED TRUNKS, STEMS, OR LEAVES;
  - (D) PLANTS OF INSUFFICIENT SIZE (LESS THAN A SPECIFIED HEIGHT OR CALIPER);
  - (E) PLANTS OF THE WRONG SPECIES/SUB-SPECIES;
  - (F) PLANTS HAVING ROOT GIRDLING IN THE CONTAINER;
 UNLESS OTHERWISE APPROVED BY THE OWNER. JUSTIFICATION FOR USE OF TENTATIVELY REJECTED MATERIAL MAY BE PRESENTED TO THE OWNER.



**ARLINGTON VIRGINIA**  
 DEPARTMENT OF ENVIRONMENTAL SERVICES  
 FACILITIES & ENGINEERING DIVISION  
 ENGINEERING BUREAU  
 2100 CLARENDON BOULEVARD, SUITE 813  
 ARLINGTON, VA 22201  
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 FAX: 703.228.3606

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**SEAL**  
 COMMONWEALTH OF VIRGINIA  
 FRANK R. GRAZIANO  
 Lic. No. 032099  
 07/13/2022  
 PROFESSIONAL ENGINEER

APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 PLANTING NOTES AND DETAILS (01)

DESIGNED: AMC  
 DRAWN: AMC  
 CHECKED: FRG  
 PLOTTED: JULY 13 2022  
 SCALE: N/A

DESIGN NARRATIVE

THE TRIB A MAINTENANCE AND EMERGENCY REPAIR PROJECT INVOLVES THE INSTALLATION OF A CLASS II AND CLASS I RBM REINFORCEMENT AROUND THE BACKSIDE OF THE OUTFALL WINGWALLS. THIS REINFORCEMENT EXTENDS TO THE FAILING AREA TO THE LEFT DOWNSTREAM SIDE OF THE OUTFALL AS WELL. ADDITIONALLY, A CLASS A1 RBM SWALE WILL BE INSTALLED UP-SLOPE TO PREVENT FURTHER EROSION FROM OCCURRING. FURTHERMORE, IN-STREAM REPAIR WORK WILL BE CONDUCTED AT VARIOUS LOCATIONS IN THE CHANNEL TO RECONSTRUCT FAILING COMPONENTS OF A PREVIOUS STREAM RESTORATION PROJECT. THE ANTICIPATED TOTAL DISTURBED AREA ASSOCIATED WITH THE OUTFALL REPAIR WILL BE APPROXIMATELY 23,766 SQUARE FEET (0.55 ACRES). THE STABILIZATION WILL TAKE PLACE IN THE N UTAH ST RIGHT OF WAY AND ON THE PROPERTY OF STEPHEN AND TERESA GIDO (05-001-012). TEMPORARY ACCESS AND STOCKPILE IMPACTS WILL ALSO OCCUR ON A COUNTY BOARD OF ARLINGTON PROPERTY (05-001-076). THE OUTFALL IS LOCATED TO THE NORTH OF N UTAH STREET, TO THE WEST OF N STUART STREET AND TAYLOR ELEMENTARY SCHOOL, AND TO THE EAST OF N UPSHUR STREET IN ARLINGTON COUNTY, VIRGINIA. THE CULVERT OUTFALL IS THE START OF TRIB A OF DONALDSON RUN. CURRENTLY, WATER COMING OFF OF THE HILL TO THE WEST OF THE OUTFALL IS CONCENTRATING IN A SWALE TO THE WEST OF THE EXISTING MULCH TRAIL AND HAS CAUSED SEVERE EROSION ON THE BACKSIDE OF THE OUTFALL WINGWALL. THE AREA BEHIND THE WINGWALL WILL BE RESTORED AND REINFORCED WITH CLASS II AND CLASS I RBM TO PREVENT FUTURE FAILURE, AND THE SWALE UP HILL OF THE OUTFALL WILL BE FORTIFIED WITH CLASS A1 RBM INSTALLED AT GRADE.

THE DRAINAGE AREA FOR THE LOCATION OF THE STABILIZATION IS 4.53 ACRES. DUE TO THE SMALL WATERSHED, THE RATIONAL METHOD WAS USED TO CALCULATE THE FLOW REACHING THE STABILIZATION AREA. A 10 YEAR STORM WAS ASSUMED GIVING A C<sub>i</sub> VALUE OF 1.0. A COMPOSITE RUNOFF COEFFICIENT OF 0.45 WAS DETERMINED USING AERIAL IMAGERY. THE LAND WITHIN THE DRAINAGE AREA CONSISTED OF 1.84 ACRES OF WOODS, 1.43 ACRES OF LAWN, 0.60 ACRES OF ROOF, AND 0.66 ACRES OF PAVEMENT. THE RAINFALL INTENSITY FOR THE OUTFALL LOCATION WAS OBTAINED FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION'S PRECIPITATION FREQUENCY DATA SERVER (NOAA PFDs). A 5 MINUTE TIME OF CONCENTRATION AND 10 YEAR STORM GIVES 6.82 IN/HR.

Q = C<sub>i</sub>IA  
Q = (1.0)(0.45)(6.82)(4.53)  
Q = 13.9 CFS

THIS FLOW WOULD BE CONVEYED BY A HYPOTHETICAL CHANNEL 6 FT IN WIDTH AND 0.6 FT IN DEPTH. THEREFORE, THIS APPROXIMATE CHANNEL SIZE WITH CLASS I RBM GRADE CONTROL CAN HANDLE THE FLOW COMING TOWARDS THE STABILIZATION AREA.

PERMIT NARRATIVE

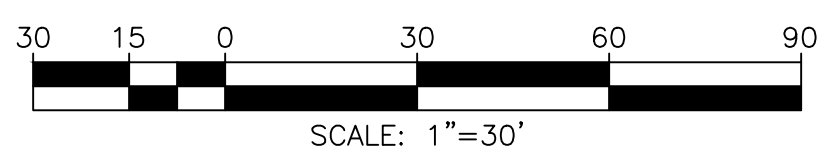
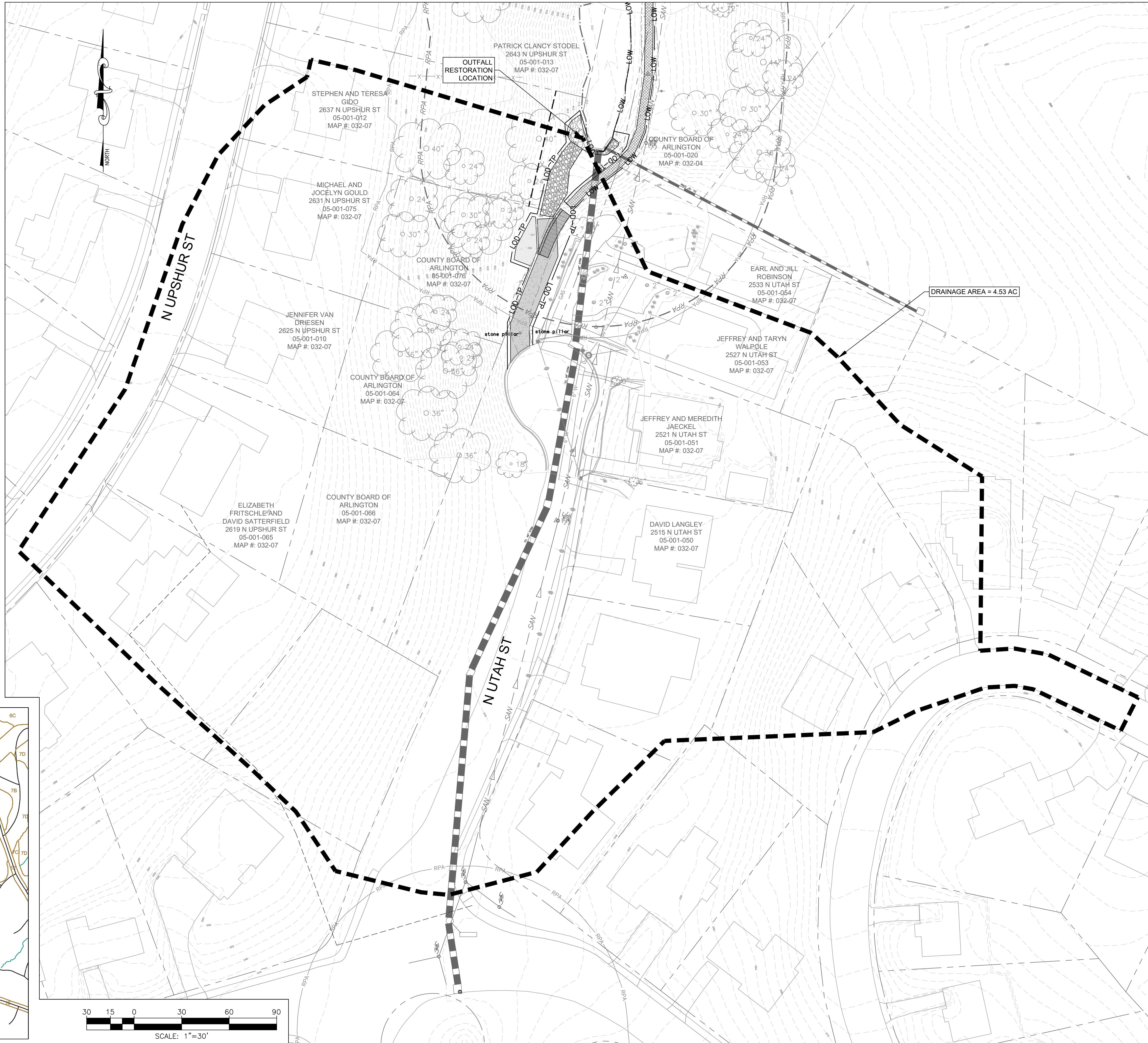
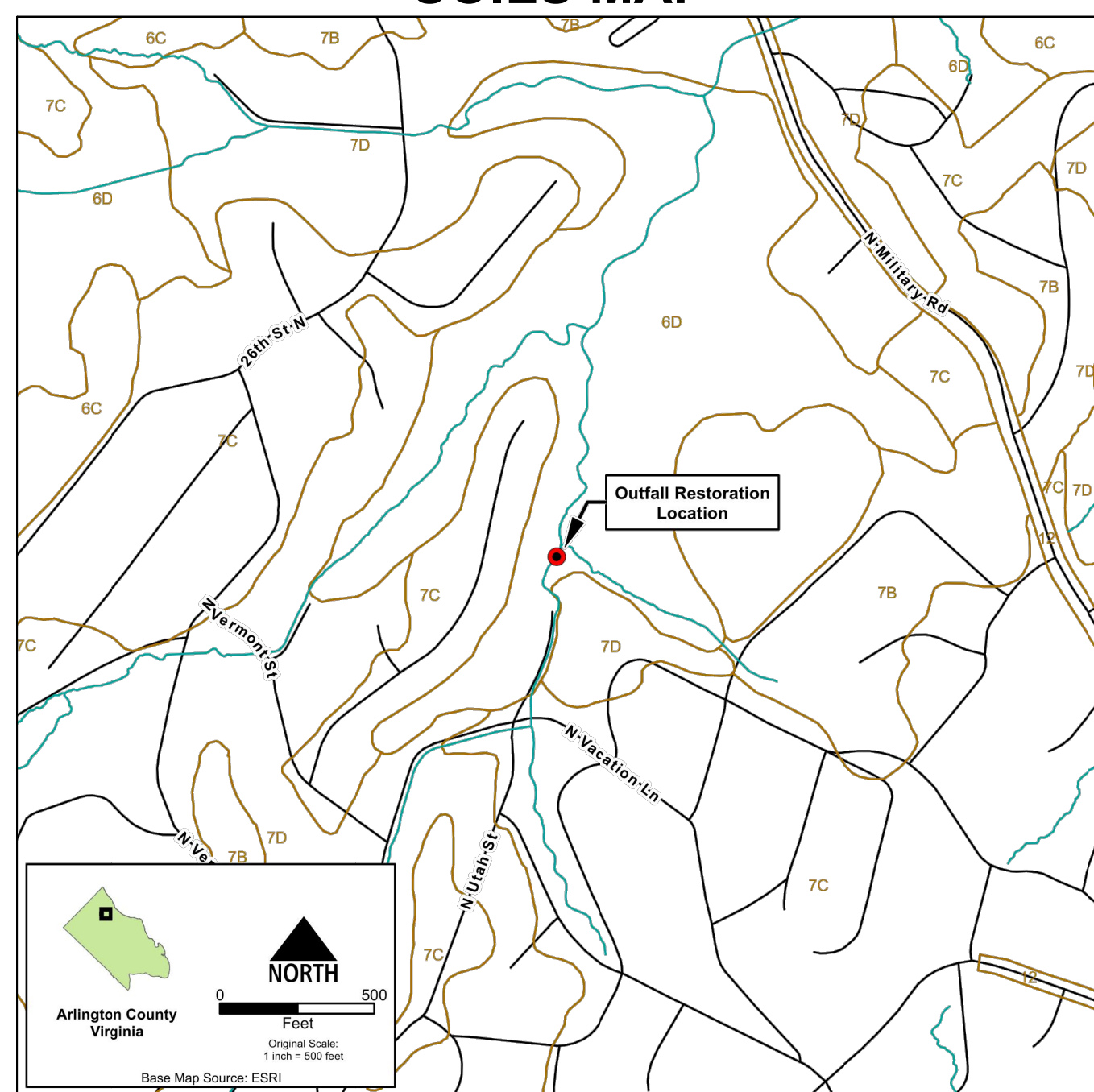
THERE WILL BE SEVERAL PERMIT ASSOCIATED WITH THE TRIB A MAINTENANCE AND EMERGENCY REPAIR PROJECT. IT IS EXPECTED THAT A NATIONWIDE PERMIT 18 (MINOR DISCHARGES) WILL BE REQUIRED IN ASSOCIATION WITH THE SWALE AND FAILING SLOPE STABILIZATION AROUND THE HEADWALL, AND A NATIONWIDE PERMIT 3 (MAINTENANCE) WILL BE REQUIRED ASSOCIATED WITH THE IN-STREAM REPAIR. ADDITIONALLY, AN ARLINGTON COUNTY LAND DISTURBING ACTIVITY AND STORMWATER PERMIT WILL BE REQUIRED AS THE DISTURBED AREA IS GREATER THAN 2500 SF.

FLOODPLAIN STATEMENT

THE STREAM STABILIZATION PERFORMED IN THIS PROJECT IS MAINTENANCE OF A PREVIOUSLY DESIGNED AND CONSTRUCTED STREAM RESTORATION PROJECT. THE SCOPE OF THE WORK WILL BE ENTIRELY MAINTENANCE IN NATURE, WITH THE GOAL OF RETURNING CURRENT CONDITIONS OF THE STREAM STRUCTURES AND PLANFORM GEOMETRY TO THEIR ORIGINALLY DESIGNED FORM. THERE IS NO EXPECTED CHANGE IN THE 100 YR FLOODPLAIN EXTENTS FROM THE PVIOUS RESTORATION PROJECT.

THE PROJECT MEETS ALL REQUIREMENTS OF THE FLOODPLAIN ORDINANCE PER THE FLOODPLAIN DETERMINATION ISSUED BY ELIZABETH L. THURBER DATED MARCH 4TH, 2022.

SOILS MAP



Source: Arlington County Data



DEPARTMENT OF ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
ENGINEERING BUREAU  
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ARLINGTON, VA 22201  
PHONE: 703.228.3629  
FAX: 703.228.3606  
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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
DESIGN NARRATIVE (01)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

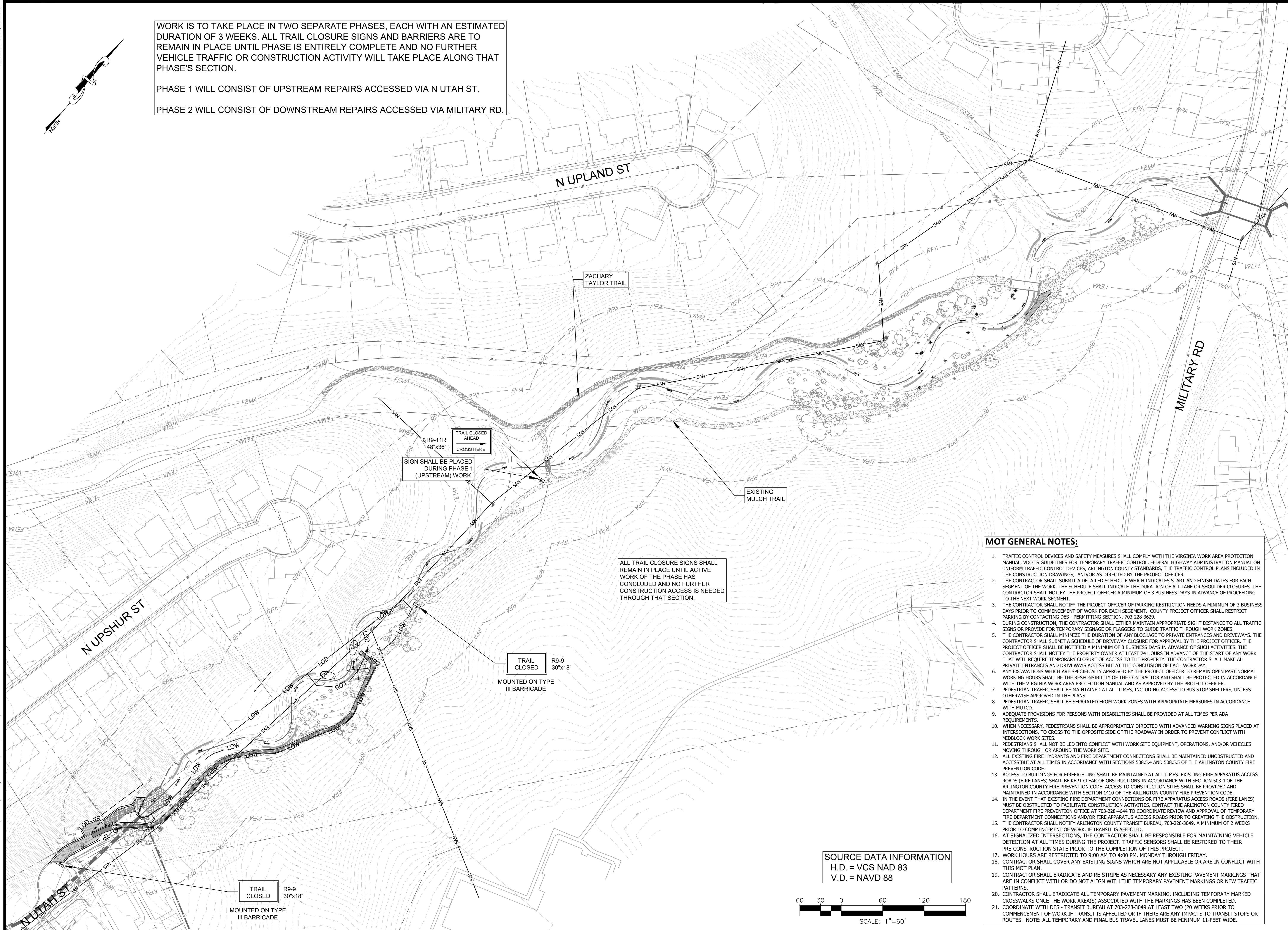
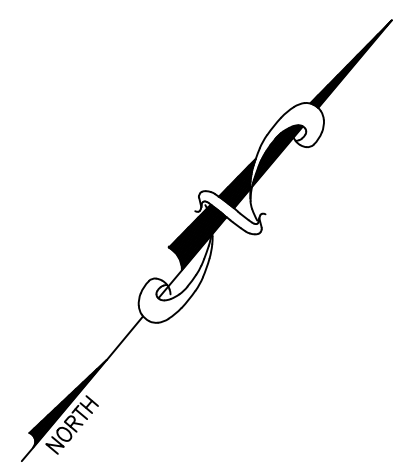
PLOTTED: JULY 13 2022

SCALE: 1"=30'

WORK IS TO TAKE PLACE IN TWO SEPARATE PHASES, EACH WITH AN ESTIMATED DURATION OF 3 WEEKS. ALL TRAIL CLOSURE SIGNS AND BARRIERS ARE TO REMAIN IN PLACE UNTIL PHASE IS ENTIRELY COMPLETE AND NO FURTHER VEHICLE TRAFFIC OR CONSTRUCTION ACTIVITY WILL TAKE PLACE ALONG THAT PHASE'S SECTION.

PHASE 1 WILL CONSIST OF UPSTREAM REPAIRS ACCESSED VIA N UTAH ST.

PHASE 2 WILL CONSIST OF DOWNSTREAM REPAIRS ACCESSED VIA MILITARY RD.



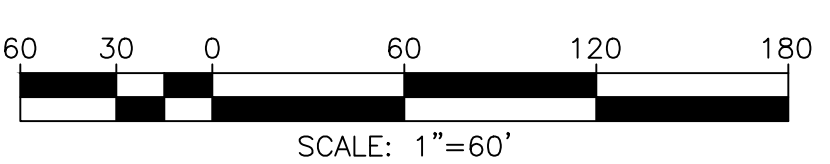
TRAIL CLOSED AHEAD 48"x36" CROSS HERE  
SIGN SHALL BE PLACED DURING PHASE 1 (UPSTREAM WORK)

ALL TRAIL CLOSURE SIGNS SHALL REMAIN IN PLACE UNTIL ACTIVE WORK OF THE PHASE HAS CONCLUDED AND NO FURTHER CONSTRUCTION ACCESS IS NEEDED THROUGH THAT SECTION.

TRAIL CLOSED R9-9 30"x18" MOUNTED ON TYPE III BARRICADE

TRAIL CLOSED R9-9 30"x18" MOUNTED ON TYPE III BARRICADE

SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



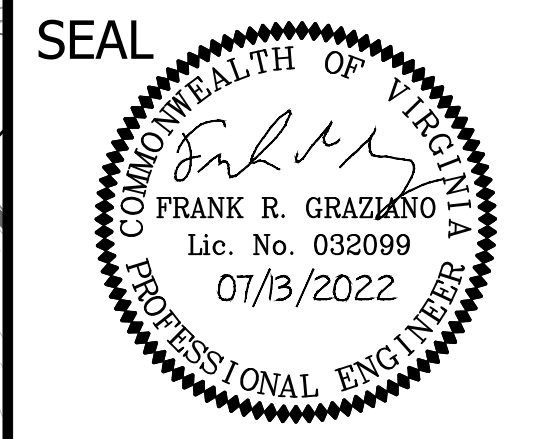
**MOT GENERAL NOTES:**

1. TRAFFIC CONTROL DEVICES AND SAFETY MEASURES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL, VDOT'S GUIDELINES FOR TEMPORARY TRAFFIC CONTROL, FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, ARLINGTON COUNTY STANDARDS, THE TRAFFIC CONTROL PLANS INCLUDED IN THE CONSTRUCTION DRAWINGS, AND/OR AS DIRECTED BY THE PROJECT OFFICER.
2. THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE WHICH INDICATES START AND FINISH DATES FOR EACH SEGMENT OF THE WORK. THE SCHEDULE SHALL INDICATE THE DURATION OF ALL LANE OR SHOULDER CLOSURES. THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER A MINIMUM OF 3 BUSINESS DAYS IN ADVANCE OF PROCEEDING TO THE NEXT WORK SEGMENT.
3. THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER OF PARKING RESTRICTION NEEDS A MINIMUM OF 3 BUSINESS DAYS PRIOR TO COMMENCEMENT OF WORK FOR EACH SEGMENT. COUNTY PROJECT OFFICER SHALL RESTRICT PARKING BY CONTACTING DES - PERMITTING SECTION, 703-228-3629.
4. DURING CONSTRUCTION, THE CONTRACTOR SHALL EITHER MAINTAIN APPROPRIATE SIGHT DISTANCE TO ALL TRAFFIC SIGNS OR PROVIDE FOR TEMPORARY SIGNAGE OR FLAGGERS TO GUIDE TRAFFIC THROUGH WORK ZONES.
5. THE CONTRACTOR SHALL MINIMIZE THE DURATION OF ANY BLOCKAGE TO PRIVATE ENTRANCES AND DRIVEWAYS. THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF DRIVEWAY CLOSURE FOR APPROVAL BY THE PROJECT OFFICER. THE PROJECT OFFICER SHALL BE NOTIFIED A MINIMUM OF 3 BUSINESS DAYS IN ADVANCE OF SUCH ACTIVITIES. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE TEMPORARY CLOSURE OF ACCESS TO THE PROPERTY. THE CONTRACTOR SHALL MAKE ALL PRIVATE ENTRANCES AND DRIVEWAYS ACCESSIBLE AT THE CONCLUSION OF EACH WORKDAY.
6. ANY EXCAVATIONS WHICH ARE SPECIFICALLY APPROVED BY THE PROJECT OFFICER TO REMAIN OPEN PAST NORMAL WORKING HOURS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PROTECTED IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND AS APPROVED BY THE PROJECT OFFICER.
7. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, INCLUDING ACCESS TO BUS STOP SHELTERS, UNLESS OTHERWISE APPROVED IN THE PLANS.
8. PEDESTRIAN TRAFFIC SHALL BE SEPARATED FROM WORK ZONES WITH APPROPRIATE MEASURES IN ACCORDANCE WITH MUTCD.
9. ADEQUATE PROVISIONS FOR PERSONS WITH DISABILITIES SHALL BE PROVIDED AT ALL TIMES PER ADA REQUIREMENTS.
10. WHEN NECESSARY, PEDESTRIANS SHALL BE APPROPRIATELY DIRECTED WITH ADVANCED WARNING SIGNS PLACED AT INTERSECTIONS, TO CROSS TO THE OPPOSITE SIDE OF THE ROADWAY IN ORDER TO PREVENT CONFLICT WITH MIDBLOCK WORK SITES.
11. PEDESTRIANS SHALL NOT BE LED INTO CONFLICT WITH WORK SITE EQUIPMENT, OPERATIONS, AND/OR VEHICLES MOVING THROUGH OR AROUND THE WORK SITE.
12. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
13. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE APPARATUS ACCESS ROADS (FIRE LANES) SHALL BE KEPT CLEAR OF OBSTRUCTIONS IN ACCORDANCE WITH SECTION 503.4 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE. ACCESS TO CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH SECTION 1410 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
14. IN THE EVENT THAT EXISTING FIRE DEPARTMENT CONNECTIONS OR FIRE APPARATUS ACCESS ROADS (FIRE LANES) MUST BE OBSTRUCTED TO FACILITATE CONSTRUCTION ACTIVITIES, CONTACT THE ARLINGTON COUNTY FIRED DEPARTMENT FIRE PREVENTION OFFICE AT 703-228-4644 TO COORDINATE REVIEW AND APPROVAL OF TEMPORARY FIRE DEPARTMENT CONNECTIONS AND/OR FIRE APPARATUS ACCESS ROADS PRIOR TO CREATING THE OBSTRUCTION. THE CONTRACTOR SHALL NOTIFY ARLINGTON COUNTY TRANSIT BUREAU, 703-228-3049, A MINIMUM OF 2 WEEKS PRIOR TO COMMENCEMENT OF WORK, IF TRANSIT IS AFFECTED.
15. AT SIGNALIZED INTERSECTIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING VEHICLE DETECTION AT ALL TIMES DURING THE PROJECT. TRAFFIC SENSORS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION STATE PRIOR TO THE COMPLETION OF THIS PROJECT.
16. WORK HOURS ARE RESTRICTED TO 9:00 AM TO 4:00 PM, MONDAY THROUGH FRIDAY.
17. CONTRACTOR SHALL COVER ANY EXISTING SIGNS WHICH ARE NOT APPLICABLE OR ARE IN CONFLICT WITH THIS MOT PLAN.
18. CONTRACTOR SHALL ERADICATE AND RE-STRIPE AS NECESSARY ANY EXISTING PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH OR DO NOT ALIGN WITH THE TEMPORARY PAVEMENT MARKINGS OR NEW TRAFFIC PATTERNS.
19. CONTRACTOR SHALL ERADICATE ALL TEMPORARY PAVEMENT MARKING, INCLUDING TEMPORARY MARKED CROSSWALKS ONCE THE WORK AREA(S) ASSOCIATED WITH THE MARKINGS HAS BEEN COMPLETED.
20. COORDINATE WITH DES - TRANSIT BUREAU AT 703-228-3049 AT LEAST TWO (2) WEEKS PRIOR TO COMMENCEMENT OF WORK IF TRANSIT IS AFFECTED OR IF THERE ARE ANY IMPACTS TO TRANSIT STOPS OR ROUTES. NOTE: ALL TEMPORARY AND FINAL BUS TRAVEL LANES MUST BE MINIMUM 11-FEET WIDE.



DEPARTMENT OF ENVIRONMENTAL SERVICES  
FACILITIES & ENGINEERING DIVISION  
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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
MAINTENANCE OF TRAFFIC PLAN PHASE 1

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

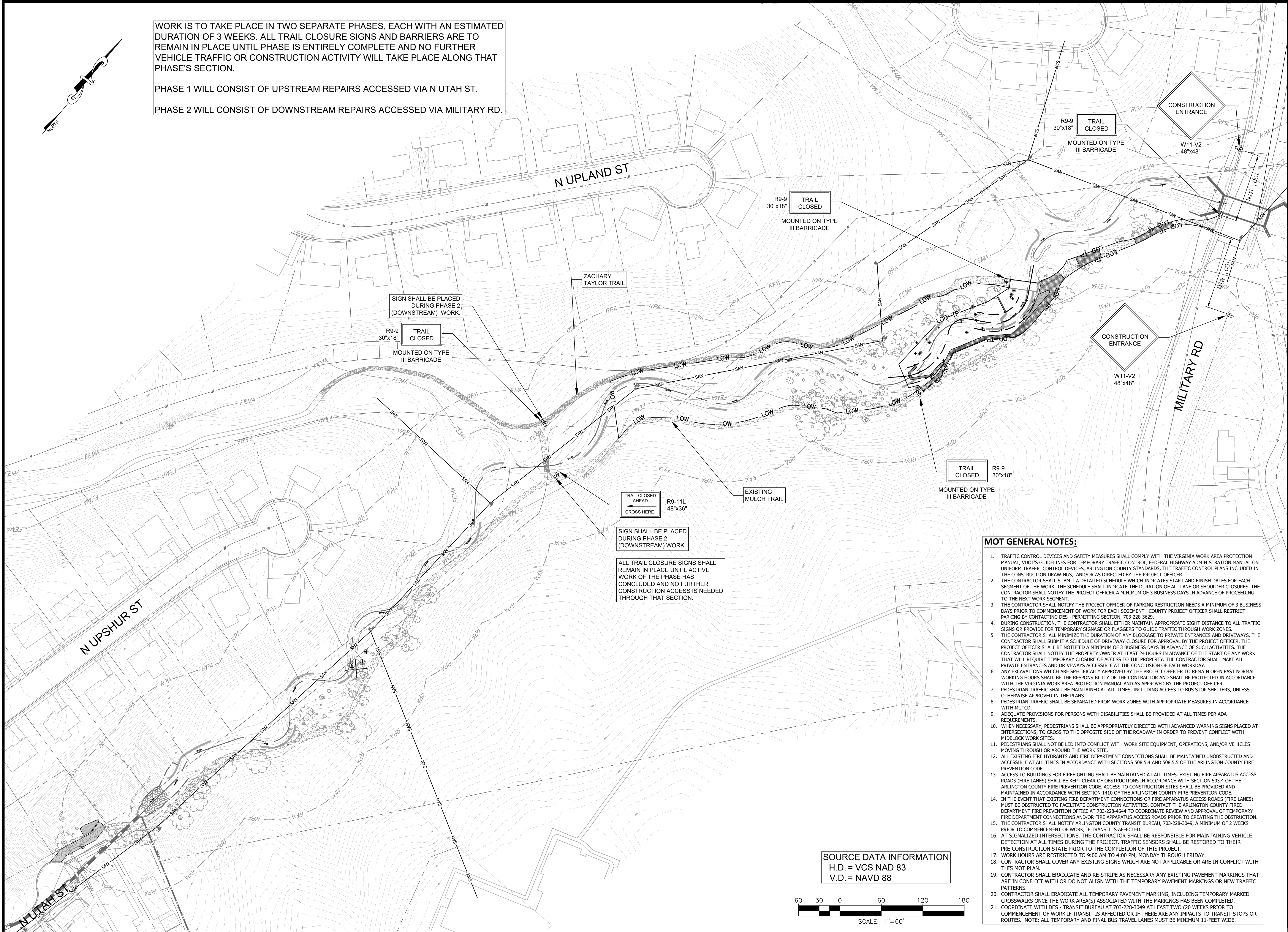
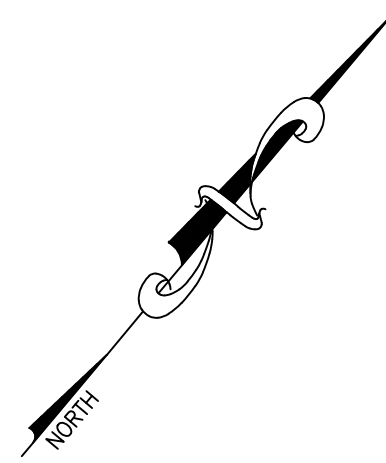
PLOTTED: JULY 13 2022

SCALE: 1"=60'

WORK IS TO TAKE PLACE IN TWO SEPARATE PHASES, EACH WITH AN ESTIMATED DURATION OF 3 WEEKS. ALL TRAIL CLOSURE SIGNS AND BARRIERS ARE TO REMAIN IN PLACE UNTIL PHASE IS ENTIRELY COMPLETE AND NO FURTHER VEHICLE TRAFFIC OR CONSTRUCTION ACTIVITY WILL TAKE PLACE ALONG THAT PHASE'S SECTION.

PHASE 1 WILL CONSIST OF UPSTREAM REPAIRS ACCESSED VIA N UTAH ST.

PHASE 2 WILL CONSIST OF DOWNSTREAM REPAIRS ACCESSED VIA MILITARY RD.



SIGN SHALL BE PLACED DURING PHASE 2 (DOWNSTREAM) WORK.

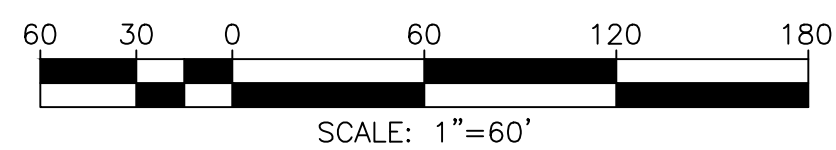
R9-9 30"x18" TRAIL CLOSED MOUNTED ON TYPE III BARRICADE

R9-11L 48"x36" TRAIL CLOSED AHEAD CROSS HERE

SIGN SHALL BE PLACED DURING PHASE 2 (DOWNSTREAM) WORK.

ALL TRAIL CLOSURE SIGNS SHALL REMAIN IN PLACE UNTIL ACTIVE WORK OF THE PHASE HAS CONCLUDED AND NO FURTHER CONSTRUCTION ACCESS IS NEEDED THROUGH THAT SECTION.

SOURCE DATA INFORMATION  
H.D. = VCS NAD 83  
V.D. = NAVD 88



**MOT GENERAL NOTES:**

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20. COORDINATE WITH DES - TRANSIT BUREAU AT 703-228-3049 AT LEAST TWO (2) WEEKS PRIOR TO COMMENCEMENT OF WORK IF TRANSIT IS AFFECTED OR IF THERE ARE ANY IMPACTS TO TRANSIT STOPS OR ROUTES. NOTE: ALL TEMPORARY AND FINAL BUS TRAVEL LANES MUST BE MINIMUM 11-FEET WIDE.



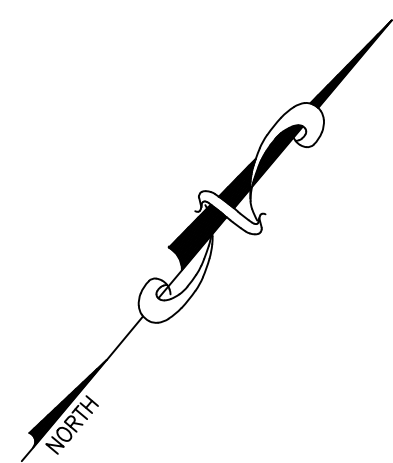
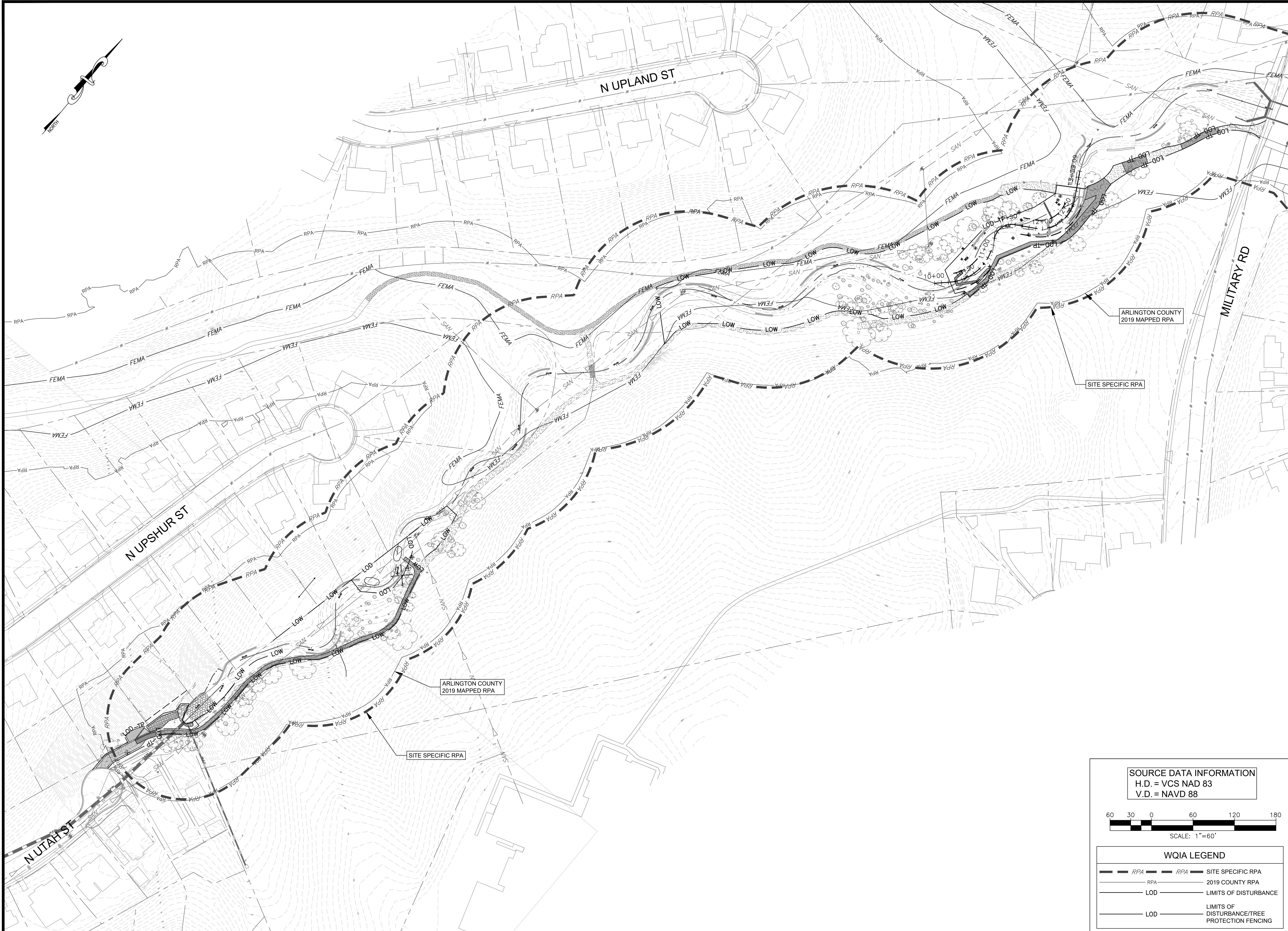
APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	
REVISIONS	DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
MAINTENANCE OF TRAFFIC PLAN PHASE 2

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

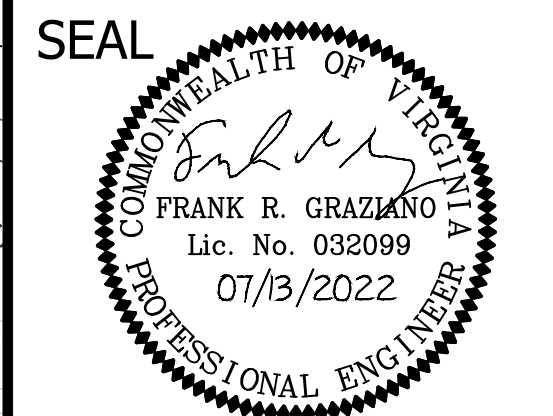
PLOTTED: JULY 13 2022

SCALE: 1"=60'



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 ENGINEERING BUREAU  
 2100 CLARENDON BOULEVARD, SUITE 813  
 ARLINGTON, VA 22201  
 PHONE: 703.228.3629  
 FAX: 703.228.3606

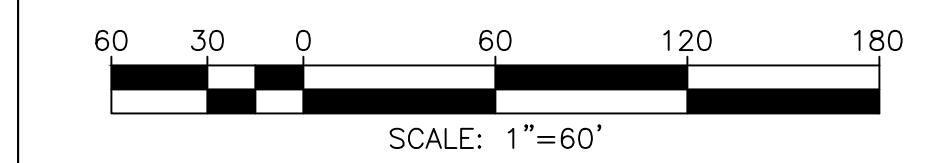
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APPROVALS	DATE
DESIGN TEAM ENGINEER SUPERVISOR	
CONSTRUCTION MANAGEMENT SUPERVISOR	
WATER, SEWER, STREETS BUREAU CHIEF	
TRANSPORTATION DIRECTOR	
PROJECT MANAGER	

REVISIONS	DATE

**SOURCE DATA INFORMATION**  
 H.D. = VCS NAD 83  
 V.D. = NAVD 88



**WQIA LEGEND**

	RPA		2019 COUNTY RPA
	SITE SPECIFIC RPA		LIMITS OF DISTURBANCE
	LIMITS OF DISTURBANCE/TREE PROTECTION FENCING		

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 WATER QUALITY IMPACT ASSESSMENT  
 (01)

DESIGNED: AMC  
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 PLOTTED: JULY 13 2022  
 SCALE: 1"=60'

**Project Clover Stream Restoration and Enhancement - Water Quality Impact Assessment**

This stream stabilization project involves the repair and enhancement of several locations along Tributary A of Donaldson Run in Arlington County, Virginia. The stream stabilization reach begins at a 48" RCP outfall from underneath N. Utah Street, and ends at a pedestrian bridge, with a large gap in the middle. Stabilization components involve armoring a section of trail erosion, placing riprap material in an eroding swale and behind an eroding headwall, repairing several existing in-stream structures, and re-establishing a previously designed bankfull channel to promote improved planform geometry in several places. Additionally, large areas will be receive supplementary planting and seeding in an effort to improve floodplain stabilization and enhance the riparian corridor.

With a total disturbed area of 23,766 sf (0.55 acres), this stabilization project requires a major Water Quality Impact Assessment (WQIA) according to Section 61-12 of the Arlington County Code. Pursuant to Section 118-1-6 (ff) of the Chesapeake Bay Preservation Ordinance (Ordinance), stream bank stabilization measures are included in the definition for "water dependent development". Section 118-2-1 (a) lists "water dependent development" as an "Allowed Use" provided the performance criteria presented in Article 3 are met. As a result, this WQIA has been developed for the stream bank stabilization measures pursuant to the requirements listed in Section 118-4-3 as well as in the Arlington County Code Section 61-12. A discussion of each of the required elements in the Arlington Code is provided below:

**1) Location of components of the RPA;**

The 2019 Arlington County Mapped RPA is depicted on this WQIA as displayed on the previous sheet. This County-Mapped RPA was obtained from Arlington County Digital Data and is not based on surveyed field conditions. Additionally, site specific RPA was created by buffering the top of bank of the previous existing stream restoration project. Rather than submit a formal RPA Delineation Study, it is conceded that the entire site is within the RPA. Compliance with the performance criteria will be demonstrated accordingly.

**2) Location and nature of the proposed encroachment into the RPA buffer, including the thype of paving material, areas of clearing or grading, location of any structures, drives or other impervious cover, and sewage disposal systems or reserve drainfield sites;**

The proposed project involves the stabilization of a reach of Tributary A of Donaldson Run, as depicted in this plan set. The stabilization armoring a section of trail erosion, placing riprap material in an eroding swale and behind an eroding headwall, repairing several existing in-stream structures, and re-establishing a previously designed bankfull channel to promote improved planform geometry in several places. Additionally, large areas will be receive supplementary planting and seeding in an effort to improve floodplain stabilization and enhance the riparian corridor. No paving, permanent clearing, impervious area, sewage systems, or drainfield sites will be involved in the project.

**3) Estimation of pre- and post-development impervious surfaces on the site and stormwater calculations required by the Director;**

No change in impervious area will occur as part of this project.

**4) Type and location of proposed Best Management Practices to mitigate the proposed encroachment and the location of existing and proposed runoff outfalls or drainage pathways from the property;**

The stream stabilization work proposed within the RPA is self-mitigating. The work re-establish a former stream restoration project, which is designed with goals of improving the stability of the bed and banks, reducing the sediment and nutrient supply to downstream receiving waters, creating riffle and pools for improved habitat, and planting native vegetation throughout the riparian corridor. Any adverse impacts will be temporary in nature and will ultimately lead to a much improved RPA condition. Best Management Practices (BMP's) are not required as the impervious area will not change. The buffer area will be re-established with a mixture of native overstory trees, understory trees, shrubs, and other plant materials.

**5) Location of existing on-site vegetation, including the number and type of trees and other vegetation to be removed in the RPA buffer area to accommodate the encroachment or modification;**

Location, description, and quantification of existing on-site vegetation is provided on the Tree Save Plan (Sheets 9 - 14) and the Tree List (Sheets 15 - 16). Impacts to existing vegetation will be minimized to the maximum extent practicable

**6) Re-vegetation or vegetation establishment plan that supplements the existing RPA buffer vegetation in a manner that provides for pollutant removal, erosion and runoff control;**

Planting information is provided on the Planting Plan (Sheets 33 - 38), Vegetation Schedule (Sheets 39 - 41), and Planting Notes and Details (Sheet 42). The planting plan will include a wide variety of native trees, shrubs, and herbaceous materials.

**7) A hydrogeological element which shall:**

**a. Describe the existing topography, soils, hydrology, and geology of the site and adjacent lands;**

The current configuration of the proposed stabilization reach varies throughout its length in terms of channel shape, riparian buffer width, floodplain accessibility, and planform geometry. However, in general, the stream represents a C type channel and is currently being stabilized with numerous in-stream rock structures, some of which are failing. The soils present within the stabilization areas are Glenelg-Manor complex and Glenelg-Urban land complex.

**b. Describe the impacts of the proposed development on topography, soils, hydrology and geology on the site and adjacent lands;**

This reach will benefit from a stream stabilization that will repair areas of the stream that are experiencing erosion due to failed in-stream structures. These properly function structures and restored stream channel will experience connected flow with the available floodplain, thereby reducing stress on the bed and banks that will in turn reduce erosion, dissipate energy, and provide water quality treatment in the expansive floodplain during storm events.

**c. Indicate the following elements, if applicable:**

**1. Disturbance or removal of wetlands and justification for such action;**

No disturbance or removal of wetlands will take place as part of this project.

**2. Changes or reductions in the supply of water to wetlands, streams, lakes, rivers, or other water bodies;**

No changes or reductions in water supply will take place as part of this project.

**3. Changes to the existing hydrology of the site or adjacent lands;**

No changes to the existing hydrology will take place as part of this project.

**4. Source, location, and description of proposed fill material;**

Several class sizes of Reinforced Bed Material (RBM) and riprap will be used in this project to provide stabilization to areas of erosion. These will be sourced from local quarries. Descriptions of RBM can be found on Sheet 23. Additionally, fill will also come from salvaged material on site.

**5. Location of dredging and location of dumping area for such dredged material;**

No dredging will take place as part of this project.

**6. Percent of the site to be cleared for the proposed project; Estimation of pre-development and post-development pollutant loads in runoff;**

No permanent clearing will take place as part of this restoration project. Any disturbed area will be temporary in nature and will be vegetated and restored as the final stage of construction.

**7. Anticipated duration and phasing schedule of the proposed construction project;**

The restoration and enhancement construction is expected to be completed within 1 month. Depending on the time of year that construction occurs, planting may be delayed such that it takes place during the correct planting window.

**8. List of all requisite permits from all applicable agencies necessary to develop the proposed project;**

Encroachment into the stream will require Individual Permits from the U.S. Army Corps of Engineers (COE), NAO-2020-01667-rdb, and the Virginia Department of Environmental Quality (DEQ), 20-0029. A pre-construction notification will be submitted to COE and DEQ following approval of this plan. Additionally, VSMP requirements will be met through procurement of a Construction General Permit and maintenance of a SWPPP on site during construction.

**d. Descriptions the proposed mitigation measures for the potential hydrogeological impacts. Potential mitigation measures may include, but are not limited to:**

**(i) Additional proposed erosion and sediment control concepts beyond those normally required under 61-10.E of this chapter; these additional concepts may include the following: minimizing the extent of the cleared area, perimeter controls, reduction of runoff velocities, measures to stabilize disturbed areas, and schedule and personnel for site inspection;**

Erosion and Sediment Control information is provided on Sheets 24 - 31. The proposed stabilization method represents a minimal impact to the RPA. There is not potential for velocity reduction as part of the stabilization project, and personnel will be present for site inspection.

**(ii) Proposed stormwater management system.**

Not applicable to this project.

**8) A landscape conservation element that:**

**a. Identifies and delineates all woody material on site;**

Location, description, and quantification of existing on-site vegetation is provided on the Tree Save Plan (Sheets 9 - 14) and the Tree List (Sheets 15 - 16).

**b. Describes the impacts the development or use will have on the existing vegetation. Information shall include:**

**1. General limits land disturbance, based on all anticipated improvements including buildings, drives, and utilities;**

Disturbance will be very limited and no permanent clearing of the site will take place as part of this restoration project. Trees and vegetation will be selectively removed as noted in the plan to allow for construction activity and these cleared areas are temporary in nature. They will be restored and re-vegetated as the last step in construction activity.

**2. Clear delineation of all trees and other woody vegetation that will be will be removed;**

Trees to be removed are described on the Tree Save Plan (Sheets 9 - 14) and the Tree List (Sheets 15 - 16).

**c. Describes the potential measures for mitigation, including a proposed design plan and planting schedule for trees and other woody vegetation removed for construction, including a list of proposed plants and trees to be used. Possible mitigation measures may include, but are not limited to:**

**1. The re-vegetation plan shall supplement the existing RPA buffer in a manner that provides for pollutant removal, erosion, and runoff control;;**

Planting information is provided on the Planting Plan (Sheets 33 - 38), Vegetation Schedule (Sheets 39 - 41), and Planting Notes and Details (Sheet 42). The planting plan will include a wide variety of native trees, shrubs, and herbaceous materials.

**2. The design of the plan shall preserve to the greatest extent possible any significant trees and vegetation on the site and will provide maximum erosion control and overland flow benefits from such vegetation;**

The nature of this stabilization is to inflict as little disturbance as possible on the site. Additionally, the construction oversight team will work with the contractor to attempt to save as many trees as possible during construction. Not all trees marked to be removed on this plan will necessarily be removed. Utilizing the existing trail, as well as protecting it with either deck matting or mulch when in close proximity to large trees, will further lower the necessity of tree removal or disturbance.

**3. Indigenous plants shall be used unless otherwise approved by the Director.**

All species listed in the vegetation schedule are native.

**9) Impact Summary**

As part of this project, 9 trees are proposed to be removed in order to complete construction activity and site access. The revegetation component will consist of upland riparian planting of 207 overstory trees, 144 understory trees, and 144 shrubs. Additionally, streamside planting will consist of 528 shrubs, 2,133 tubelings, and 109 live stakes.



DEPARTMENT OF ENVIRONMENTAL SERVICES  
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APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

Table with 2 columns: REVISIONS, DATE. Multiple empty rows for revisions.

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
FINAL PLAN  
ARLINGTON COUNTY, VIRGINIA  
WATER QUALITY IMPACT ASSESSMENT  
(02)

DESIGNED: AMC  
DRAWN: AMC  
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: 1"=60'

**Appendix C. Water Quality Impact Assessment Data Sheet**

Project Address 2355 N. Utah Street, Arlington, VA 22207		Date: August 12, 2021	
Applicant Name/Affiliation: Wetland Studies and Solutions, Inc.		Applicant Contact Information (phone and email): 703-679-5600, amchapla@ncsu.edu	
Owner/Client Name: Arlington County Department of Environmental Services, Facilities and Engineering Division		Owner/Client Contact Information (phone and email): 703-228-3629, cjoicoeur@arlingtonva.us	
<b>Section 1: Type of activity proposed</b>			
Activity type (check all that apply): <input type="checkbox"/> New construction (residential, commercial, public, etc.) <input type="checkbox"/> Alteration of non-residential structure <input type="checkbox"/> Residential addition <input type="checkbox"/> Detached residential structure		<input type="checkbox"/> Deck, patio, or retaining wall <input type="checkbox"/> Landscaping (includes tree removal) <input type="checkbox"/> Utility work <input type="checkbox"/> Fence <input checked="" type="checkbox"/> Other (please describe): Stream maintenance and emergency repair	
<b>Section 2: Key details of the proposed activity</b>			
<b>Complete all that apply</b>		<b>Explanation</b>	
Total area of disturbance on parcel (sf)	88,954 sf	Includes building footprint plus a 10 foot buffer. Also includes all soil disturbance, ingress/egress areas, stockpiling areas, etc.	
Area of disturbance within RPA (sf)	88,476 sf	Includes removal of trees ≥ 3" in diameter	
Area of disturbance on slopes greater than or equal to 15 percent located adjacent to landward RPA boundary (sf)	0 sf	Does not apply to RPA parcels along Chain Bridge Road (15 percent and greater slopes are included as part of RPA)	
<b>Complete all fields</b>	<b>Existing condition</b>	<b>Proposed condition</b>	<b>Explanation</b>
RPA encroachment (ft)	Left third of parcel or site	0 ft	The distance (in feet) from the existing or proposed structure to the designated RPA feature (edge of stream or open channel, wetland, etc.). Encroachments of zero (0) indicate the project will impact the stream or other RPA feature.
	Middle third of parcel or site	0 ft	
	Right third of parcel or site	0 ft	
Total development footprint in RPA (sf)	0 ft	0 ft	The existing footprint includes the area of any existing structures, patios, decks, walkways, etc. Proposed footprint is the anticipated post-project area of all structures, additions, decks, walkways, regraded area behind a retaining wall, etc.
Impervious footprint in RPA (sf)	0 ft	0 ft	Total area of impervious surfaces within the RPA (rooftops, pavement, etc.)
(OVER)			
<b>STAFF USE ONLY</b>			
Building/demolition/LDA/Fence permit number(s):			
Major WQIA required? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Date WQIA/Exception request information complete:			
Date Chesapeake Bay Preservation Ordinance and E/S ordinance (if applicable) approvals issued in Permits Plus:			

**Section 3: Plan and Narrative**

Provide a plan showing the location of the proposed activity, along with the RPA boundary. Briefly describe the proposed project, including any potential water quality impacts and mitigation measures proposed. The narrative must address three impact categories 1. Tree/vegetation impacts, 2. Stormwater and runoff 3. Erosion and sediment control. Please refer to the WQIA plan/narrative checklist for additional information.

A WQIA plan view of the proposed activity and RPA boundary can be found on Sheet 45. A narrative describing the proposed project, water and vegetation impacts, stormwater and runoff, erosion and sediment control, and mitigation measures can be found on Sheet 46.

**Additional Water Quality Impact Assessment Information**

The information supplied on this form satisfies the minimum requirements for a Minor Water Quality Impact Assessment. For projects that disturb over 2500 square feet, elements of a Major Water Quality Impact Assessment may also be required, depending on the nature and extent of the proposed RPA encroachment, as outlined in Section 61-12 of the ordinance.



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**APPROVALS**      **DATE**

DESIGN TEAM ENGINEER SUPERVISOR \_\_\_\_\_

CONSTRUCTION MANAGEMENT SUPERVISOR \_\_\_\_\_

WATER, SEWER, STREETS BUREAU CHIEF \_\_\_\_\_

TRANSPORTATION DIRECTOR \_\_\_\_\_

PROJECT MANAGER \_\_\_\_\_

**REVISIONS**      **DATE**

\_\_\_\_\_

\_\_\_\_\_

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\_\_\_\_\_

TRIB A MAINTENANCE AND EMERGENCY REPAIR  
 FINAL PLAN  
 ARLINGTON COUNTY, VIRGINIA  
 WATER QUALITY IMPACT ASSESSMENT  
 DATA SHEET (01)

DESIGNED: AMC  
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CHECKED: FRG  
PLOTTED: JULY 13 2022  
SCALE: 1"=60'



STORMWATER POLLUTION PREVENTION PLAN
Trib A Maintenance and Emergency Repair

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) COVER PAGE

For Construction Activities At:

Trib A Maintenance and Emergency Repair
2335 N. Utah Street
Arlington, VA 22207

Latitude: 38.906509 N (decimal degrees)
Longitude: 77.115921 W (decimal degrees)

Construction Activity Operator:

Insert Company/Organization Name
Insert Name
Insert Address
Insert City, State, Zip Code
Insert Telephone Number
Insert Email Address
Insert 24-hour Emergency Contact

SWPPP Preparation Date:

August 16, 2021

CERTIFICATION

I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted.

Operator Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Arlington County - SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN
Trib A Maintenance and Emergency Repair

1.0 SWPPP Documents Located Onsite & Available for Review

Table with 2 columns: SWPPP Document Type, Located Onsite & Available for Review? (Yes/No/NA)

2.0 Authorized Non-Stormwater Discharges

Table with 2 columns: Type of Authorized Non-Stormwater Discharge, Likely Present at Your Project Site? (Yes/No/NA)

3.0 Pollution Prevention Awareness

Employees will be given a "walk through" of the site identifying areas of possible pollution and will be shown Erosion and Sediment Controls and Pollution Prevention Practices...

4.0 Erosion & Sediment Controls

Table with 5 columns: Select all that apply, Erosion & Sediment Control, Estimated Installation Date, Estimated Removal Date, Responsible Party

Arlington County - SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN
Trib A Maintenance and Emergency Repair

Table with 4 columns: Control Type, Insert Date, Insert Date, Insert Date

Arlington County - SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN
Insert Project/Site Name

5.0 Potential Sources of Pollution & Pollution Prevention Practices

Table with 11 columns: Pollutant-Generating Activity, Likely Present at your Project Site?, Sediment, Nutrients, Heavy Metals, pH (acids and bases), Pesticides & Herbicides, Oil & Grease, Bacteria & Viruses, Trash, Debris, Solids, Other Toxic Chemicals, Pollution Prevention Practice, Responsible Party

Arlington County - SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN
Insert Project/Site Name

Pollution Prevention Practices:

- (1) Clearing, grading, excavating and un-stabilized areas - Utilize erosion and sediment controls to prevent sediment laden or turbid runoff from leaving the construction site.
(2) Paving operations - Cover storm drain inlets during paving operations and utilize pollution prevention materials and fluids.
(3) Concrete washout and cement waste - Direct concrete wash water into a leak-proof container or leak-proof settling basin that is designed so that no overflows can occur due to inadequate sizing or precipitation.
(4) Structure construction, stucco, painting and cleaning - Enclose, cover or berm building material storage areas if susceptible to contaminated stormwater runoff.
(5) Dewatering operations - Construction site dewatering from building footings or other sources may not be discharged without treatment.
(6) Material delivery and storage - Designate areas of the construction site for material delivery and storage.
(7) Material use during building process - Use materials only where and when needed to complete the construction activity.
(8) Solid waste disposal - Designate a waste collection area on the construction site that does not receive a substantial amount of runoff from upland areas and does not drain directly to a waterway.
(9) Sanitary waste - Prevent the discharge of sanitary waste by providing convenient and well-maintained portable sanitary facilities.
(10) Landscaping operations - Maintain as much existing vegetation as practicable.
(11) Others - If applicable, describe your Pollution Prevention Practice.

6.0 Stormwater Management Controls

Table with 4 columns: Select all that apply, Stormwater Management Control, Estimated Installation Date, Responsible Party

Arlington County - SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN
Insert Project/Site Name

Table with 4 columns: Select all that apply, Stormwater Management Control, Estimated Installation Date, Responsible Party

7.0 Spill Prevention & Response

Most spills can be cleaned up following manufacturer specifications. Absorbent/oil dry, sealable containers, plastic bags, and shovels/brooms are suggested minimum spill response items that should be available at this location.

- 1st Priority: Protect all people
2nd Priority: Protect equipment and property
3rd Priority: Protect the environment

- 1. Check for hazards (flammable material, noxious fumes, cause of spill) - If flammable liquid, turn off engines and nearby electrical equipment.
2. Make Sure the spill area is safe to enter and that it does not pose an immediate threat to health or safety of any person.
3. Stop the spill source.
4. Call co-workers and supervisor for assistance and to make them aware of the spill and potential dangers.
5. If possible, stop spill from entering drains (use absorbent or other material as necessary).
6. Stop spill from spreading (use absorbent or other material).
7. If spilled material has entered a storm sewer, contact locality's storm water department.
8. Clean up spilled material according to manufacturer specifications, for liquid spills use absorbent materials and do not flush area with water.
9. Properly dispose of cleaning materials and used absorbent material according to manufacturer specifications.

Emergency Contacts:

Normal Working Hours
DEQ Northern Regional Office 703-583-3800

Nights, Holidays & Weekends
VA Dept. of Emergency Management 804-674-2400
24 Hour Reporting Service

Local Contacts
Arlington County Fire & Police 703-558-2222
DES Water, Sewer, Streets 24-Hour Emergency 703-228-6555
Washington Gas Emergency 703-750-1400

Arlington County - SWPPP 9/2016



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DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

SWPPP (01)

DESIGNED: AMC
DRAWN: AMC
CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: N/A

STORMWATER POLLUTION PREVENTION PLAN  
Insert Project/Site Name

8.0 Self Inspections Report & Corrective Action Log (make additional copies as necessary)

Qualified Inspector

Company/Organization:  
Name:  
Telephone Number:  
Qualifications:

Inspection Schedule

Discharges to impaired waters, surface waters within a TMDL watershed, or exceptional waters:

Once every 4 business days.

Inspection Date:

Type of Inspection: Regular Pre-storm event During storm event Post-storm event

Phase of construction: Pre-Con DEMO Clearing Building Grading Final Stabilization

Is a copy of the SWPPP available on site? Yes No Is the SWPPP complete? Yes No

Are there any discharges at the time of this inspection? Yes No If yes, describe:

Have any discharge occurred since the last inspection? Yes No If yes, describe:

Table with 4 columns: Best Management Practices (BMPs), In Compliance with SWPPP?, Corrective Action Needed: Responsible Party & Notes, Date Corrective Action Taken. Rows include questions about construction exits, perimeter controls, storm drain inlets, and discharge points.

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN  
Insert Project/Site Name

Table with 4 columns: Best Management Practices (BMPs), In Compliance with SWPPP?, Corrective Action Needed: Responsible Party & Notes, Date Corrective Action Taken. Rows include questions about slopes, washout facilities, trash/litter, non-stormwater discharges, natural resources, vehicle maintenance, and materials storage.

Non – Compliance Describe any incidents of non-compliance not described above (use another page is necessary)

Certification

I certify under penalty of law that I have read and understand this document and that this document and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Operator or Assigned Qualified Personnel Name:

Signature:

Date:

Arlington County – SWPPP 9/2016

STORMWATER POLLUTION PREVENTION PLAN  
Insert Project/Site Name

9.0 Grading & Stabilization Activities Log

Table with 5 columns: Date Grading Activity Initiated, Description of the Grading Activity (including location), Date Grading Activity Ceased, Date Stabilization Measures Initiated, Description of the Stabilization Measure (including location).

10.0 SWPPP Modification & Update Log

Table with 3 columns: Modification Date, Description of the Modification / Update (name & title that request the modification), Modification Prepared By (name & title).

Arlington County – SWPPP 9/2016

INSTRUCTIONS for COMPLETING the SINGLE FAMILY RESIDENCE, COMMON PLAN of DEVELOPMENT or SALE STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

General A Stormwater Pollution Prevention Plan (SWPPP) must be developed prior to obtaining locality (e.g., City, County, Town) authorization to commence land disturbance.

SWPPP Cover Page For a construction activity, enter the project/site name and physical address (if available), including city (or town), state and zip code. Enter the latitude and longitude in decimal degrees of the construction activity.

Enter the Construction Activity Operator's company/organization name, the Operator's name and mailing address, including city (or town), state, and zip code, telephone number, email address (if available), and a 24-hour emergency contact.

Enter the SWPPP preparation date.

The Construction Activity Operator identified on the cover page of the SWPPP is responsible for certifying the information contained therein. Please sign the certification in INK. Please note that state statutes require the SWPPP to be signed as follows: (1) For a corporation: by a responsible corporate officer; (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; (3) For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official.

Section 1.0 SWPPP Documents Located Onsite & Available for Review Utilize the provided checklist to ensure that the required SWPPP documents are located onsite and are available for review, if applicable.

Section 2.0 Authorized Non-Stormwater Discharges Identify the authorized non-stormwater discharges likely to be present at the project site. If an unlisted authorized non-stormwater discharge is likely to be present at the project site, provide it here.

Section 3.0 Pollution Prevention Awareness Provide employees with a "walk through" of the project site and identify areas of possible pollution, erosion and sediment controls, and pollution prevention practices which are applicable to their assigned job duties. Conduct refresher meetings and perform additional "walk throughs" on an as needed basis.

Section 4.0 Erosion & Sediment Controls Identify the erosion and sediment controls to be implemented at the project site. For each erosion and sediment control, enter the estimated installation date and estimated removal date. If an unlisted erosion and sediment control will be implemented at the project site, provide the applicable information here.

Section 5.0 Potential Sources of Pollution & Pollution Prevention Practices Identify the pollutant-generating activities likely to be present at the project site; implement and maintain the corresponding pollution prevention practices. If an unlisted pollutant-generating activity is likely to be present at the project site, describe it, identify the associated pollutant(s), and provide the corresponding pollution prevention practice(s) to be implemented and maintained.

Section 6.0 Stormwater Management Controls Identify the stormwater management controls to be implemented at the project site, if applicable. For each stormwater management control, enter the estimated installation date. If an unlisted stormwater management control will be implemented at the project site, provide the applicable information here.

Section 7.0 Spill Prevention & Response Most spills can be cleaned up following manufacturer specifications. The priority should be to protect all people, equipment, property, and the environment. Enter the telephone number of your local fire and police departments.

Section 8.0 Inspections & Corrective Action Log Enter the qualified inspector's company/organization name, the inspector's name, telephone number, and qualifications. Select the applicable inspection type, enter the construction activity inspection date, and enter the date and rainfall amount of the last measurable storm event (if applicable). Identify if the implemented best management practices are in compliance with the SWPPP. Enter corrective actions needed; the party responsible for implementing the corrective actions, and the date corrective actions were taken, if applicable. Make additional copies of the inspection and corrective action log as necessary.

Section 9.0 Grading & Stabilization Activities Log Enter the date grading activities were initiated, a description of the grading activities including location, the date grading activities ceased, the date stabilization measures were initiated, and a description of the stabilization measures including location.

Section 10.0 SWPPP Modification & Update Log Enter the SWPPP modification date, description of the SWPPP modification/update, and the name and title of the SWPPP modification preparer, if applicable.

Arlington County – SWPPP 9/2016

POLLUTION PREVENTION NOTES:

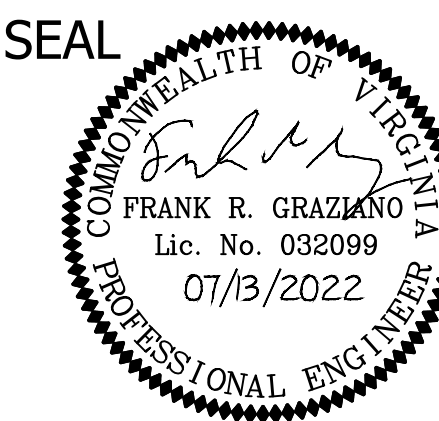
- ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S MS4 PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFACE WATERS: WATER LINE FLUSHING; LANDSCAPE IRRIGATION; DIVERTED STREAM FLOWS; RISING GROUND WATERS; UNCONTAMINATED GROUND WATER INFILTRATION (AS DEFINED AT 40 CFR 35.2005(20)); UNCONTAMINATED PUMPED GROUND WATER; DISCHARGES FROM POTABLE WATER SOURCES; FOUNDATION DRAINS; AIR CONDITIONING CONDENSATION; IRRIGATION WATER; SPRINGS; WATER FROM CRAWL SPACE PUMPS; FOOTING DRAINS; LAWN WATERING; INDIVIDUAL RESIDENTIAL CAR WASHING; FLOWS FROM RIPARIAN HABITATS AND WETLANDS; DECHLORINATED SWIMMING POOL DISCHARGES; DISCHARGES OR FLOWS FROM FIRE FIGHTING; AND, OTHER ACTIVITIES GENERATING DISCHARGES IDENTIFIED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AS NOT REQUIRING VPDES AUTHORIZATION.
- APPROPRIATE CONTROLS MUST BE IMPLEMENTED TO PREVENT ANY NON-STORMWATER DISCHARGES NOT INCLUDED ON THE ABOVE LIST (E.G., CONCRETE WASH WATER, PAINT WASH WATER, VEHICLE WASH WATER, DETERGENT WASH WATER, ETC.) FROM BEING DISCHARGED INTO ARLINGTON COUNTY'S MS4 SYSTEM, WHICH INCLUDES THE CURB AND GUTTER SYSTEM, AS WELL AS CATCH BASINS AND OTHER STORM DRAIN INLETS, OR STREAM NETWORK.
- PER CHAPTER 26 OF THE ARLINGTON COUNTY CODE, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DISCHARGE DIRECTLY OR INDIRECTLY INTO THE STORM SEWER SYSTEM OR STATE WATERS, ANY SUBSTANCE LIKELY, IN THE OPINION OF THE COUNTY MANAGER, TO HAVE AN ADVERSE EFFECT ON THE STORM SEWER SYSTEM OR STATE WATERS.



DEPARTMENT OF ENVIRONMENTAL SERVICES FACILITIES & ENGINEERING DIVISION ENGINEERING BUREAU 2100 CLARENDON BOULEVARD, SUITE 813 ARLINGTON, VA 22201 PHONE: 703.228.3629 FAX: 703.228.3606

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SEAL



APPROVALS DATE

DESIGN TEAM ENGINEER SUPERVISOR

CONSTRUCTION MANAGEMENT SUPERVISOR

WATER, SEWER, STREETS BUREAU CHIEF

TRANSPORTATION DIRECTOR

PROJECT MANAGER

REVISIONS DATE

TRIB A MAINTENANCE AND EMERGENCY REPAIR FINAL PLAN

ARLINGTON COUNTY, VIRGINIA

SWPPP (02)

DESIGNED: AMC DRAWN: AMC CHECKED: FRG

PLOTTED: JULY 13 2022

SCALE: N/A