



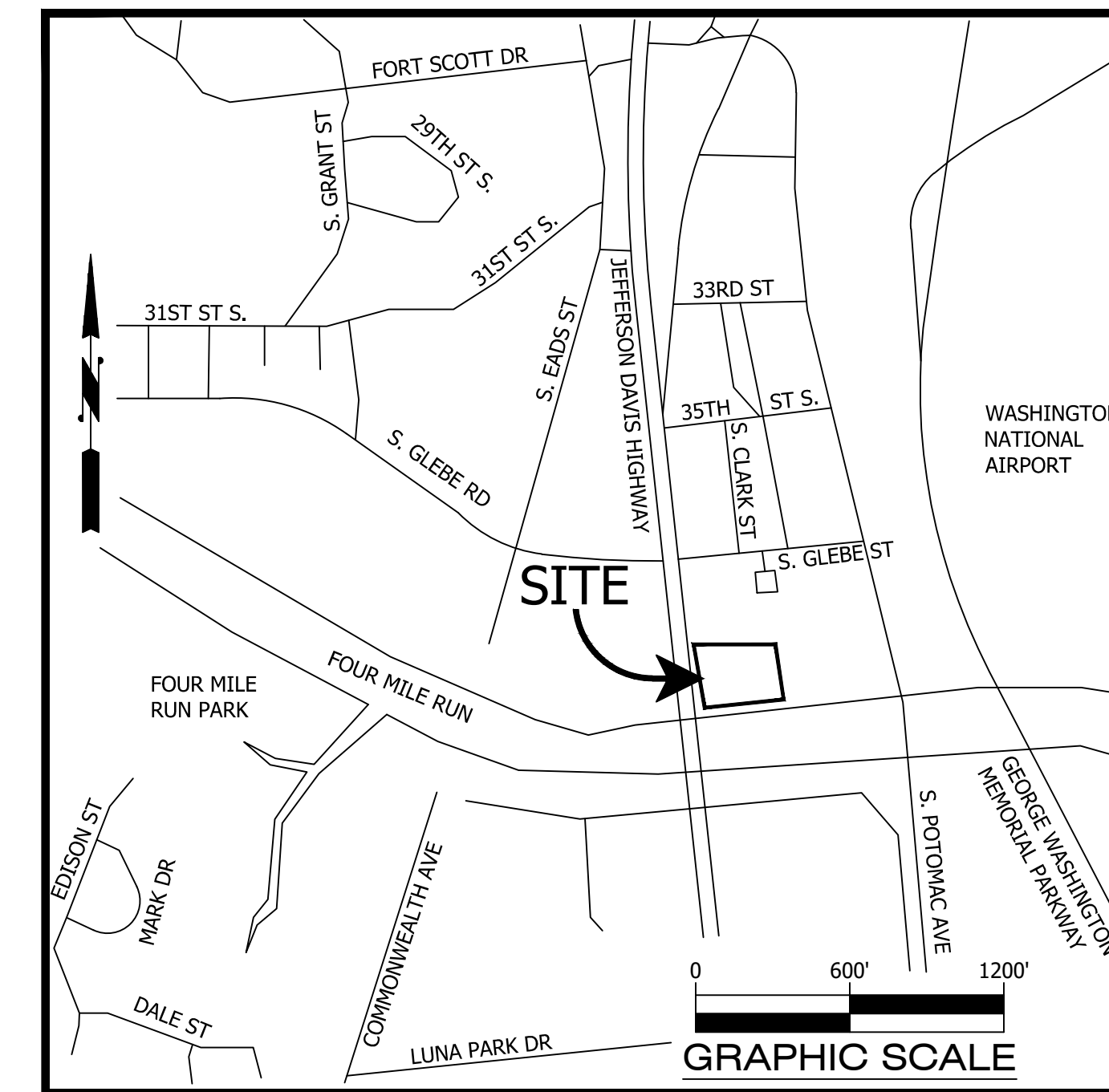
ENGINEER
 DEPARTMENT OF ENVIRONMENTAL SERVICES
 FACILITIES & ENGINEERING DIVISION
 ENGINEERING BUREAU
 2100 CLARENDON BOULEVARD, SUITE 813
 ARLINGTON, VA 22201
 PHONE: 703.228.3629 FAX: 703.228.3606
 WWW.ARLINGTONVA.US

OWNER
 DES/OD/WSS

CONTRACTOR
 TO BE DETERMINED

100% SUBMISSION

LOCATION MAP



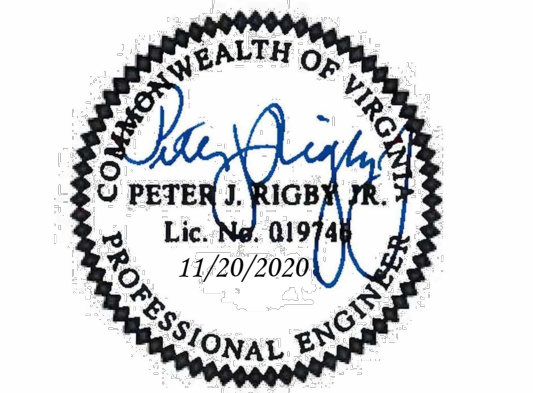
**CONSTRUCTION DRAWINGS FOR:
 POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
 PARCEL 17A, POTOMAC YARD - ARLINGTON, VA 22202**

PROJECT CODE: BK10



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects 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 |
|------------------------------------|------------|
| <i>[Signature]</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Taktak</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>[Signature]</i> | 4/30/20 |
| PROJECT MANAGER | |

Revisions _____ Date _____

SWM 19-0163

THIS PROJECT WAS DEVELOPED UTILIZING THE ARLINGTON COUNTY DES DESIGN PACKAGE (AUTOCAD CIVIL3D)
 VDOT PROJECT CODE: 103595
 ARLINGTON COUNTY STORMWATER MANAGEMENT #: TBD
 ARLINGTON COUNTY LAND DEVELOPMENT APPLICATION: TBD
 ARLINGTON COUNTY PROJECT CODE: B10K

THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY AS AWARDED, INCLUDING ALL SUBSEQUENT REVISIONS, WILL BE THE OFFICIAL CONSTRUCTION PLANS. FOR INFORMATION RELATIVE TO ELECTRONIC FILES AND LAYERED PLANS, SEE GENERAL NOTES.

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT.

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S 2020 ROAD AND BRIDGE SPECIFICATIONS, 2016 ROAD AND BRIDGE STANDARDS, 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL, ARLINGTON COUNTY STANDARDS AND SPECIFICATIONS, AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.

THE ORIGINAL APPROVED TITLE SHEET(S), INCLUDING ORIGINAL SIGNATURES, IS FILED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY. ANY MISUSE OF ELECTRONIC FILES, INCLUDING SCANNED SIGNATURES, IS ILLEGAL AND ENFORCED TO THE FULL EXTENT OF THE LAW.

*DEPARTMENT REFERS TO THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT).

SITE AND PARCEL SUMMARY

PARCEL 17A
 TOTAL AREA = 64,149 SF (1.47 AC)

PARCEL 501
 TOTAL AREA = 272,619 SF (6.26 AC)

| TOTAL LOD AREA | | PRE | | POST | |
|--------------------|------------|--------|--------|--------|--------|
| | | SF | ACRES | SF | ACRES |
| CITY OF ALEXANDRIA | IMPERVIOUS | 0 | 0.0000 | 395 | 0.0091 |
| | PERVIOUS | 10,927 | 0.2509 | 10,532 | 0.2418 |
| ARLINGTON COUNTY | IMPERVIOUS | 1,716 | 0.0394 | 4,657 | 0.1069 |
| | PERVIOUS | 34,344 | 0.7884 | 31,403 | 0.7209 |

ZONING OF THE SITE
 CDD #10

EXISTING USE ON THE SITE
 RECREATIONAL

PROPOSED USE FOR THE SITE
 RECREATIONAL

ARLINGTON COUNTY POPULATION 224,906 (2010 CENSUS)

| STATE PROJECT NO. | SECTION | FEDERAL AID PROJECT NO. | TYPE CODE | PROJECT CODE | LENGTH INCLUDING BRIDGE(S) | | LENGTH EXCLUDING BRIDGE(S) | | TYPE PROJECT | DESCRIPTION |
|-------------------|---------|-------------------------|-----------|--------------|----------------------------|-------|----------------------------|-------|--------------|----------------|
| | | | | | FEET | MILES | FEET | MILES | | |
| EN12-000-764 P101 | 1 OF 1 | NA | NA | BK10 | 501 | 0.09 | 501 | 0.09 | CONSTRUCTION | CONCRETE TRAIL |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |

NOTE: PROJECT LENGTH BASED ON CONSTRUCTION BASELINE

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FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA

| SHARED-USE PATH - 18 MPH DESIGN SPEED | |
|---|---------------------|
| Fr: RICHMOND HIGHWAY SIDE PATH To: FOUR MILE RUN TRAIL | |
| ADT | N/A |
| ADT | N/A |
| DHV | N/A |
| D (%) | N/A |
| T (%) | N/A |
| V (MPH) | 18 MPH DESIGN SPEED |

TIER 1 PROJECT

LOCALLY ADMINISTERED PROJECTS

ARLINGTON, VA

(SIGNATURE)

NAME OF RESPONSIBLE LOCAL GOVERNMENT OFFICIAL (TYPED)

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION

DATE TITLE OF POSITION

(SIGNATURE)

NAME OF RESPONSIBLE LOCAL GOVERNMENT OFFICIAL (TYPED)

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

DATE TITLE OF POSITION

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

DATE DISTRICT PLANNING AND INVESTMENT MANAGER

DATE DISTRICT PROJECT DEVELOPMENT ENGINEER

APPROVED FOR CONSTRUCTION

DATE DISTRICT ENGINEER/ADMINISTRATOR

PLAN NUMBER _____

APPROVED DATE _____

DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

Project Name and Location
 POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
 PARCEL 17A, POTOMAC YARD -
 ARLINGTON, VA 22202

COVER SHEET

Designed: CJA
 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

Filename: 2016-158_COV.dwg
 Path: Q:\dwg\B10K_CADACTIVE
 Plotted: May 20, 2021
 Plotted by: Ldelacruz
 Scale: AS SHOWN

LINETYPE LEGEND

| FEATURE | EXISTING | PROPOSED |
|---|-----------------------|-----------------------|
| BUILDING | — — — — — | — — — — — |
| CENTERLINE / BASELINE | — — — — — | — — — — — |
| COMMUNICATIONS CABLE | — COM — COM — | — COM — COM — |
| CONTOURS MAJOR / MINOR | — — — — — 10 9 | — — — — — 10 9 |
| CRITICAL ROOT ZONE | — CRZ — CRZ — | — CRZ — CRZ — |
| EASEMENT | — — — — — | — — — — — |
| EDGE OF PAVEMENT / SIDEWALK | — — — — — | — — — — — |
| EDGE OF WATER | — — — — — | — — — — — |
| ELECTRIC (UNDERGROUND) | — UGE — | — UGE — UGE — |
| FENCE (MATERIAL NOTED) | — X — X — X — X — X — | — X — X — X — X — X — |
| FIBER OPTIC | — FO — FO — | — FO — FO — |
| FLOODPLAIN ZONE BOUNDARY | — — — — — | — — — — — |
| GAS LINE | — GAS — GAS — | — GAS — GAS — |
| X" GAS LINE (SIZE INCLUDED IF AVAILABLE) | — X" G — X" G — | — X" G — X" G — |
| GUARDRAIL | — — — — — | — — — — — |
| LIMITS OF DISTURBANCE | — LOD — LOD — | — LOD — LOD — |
| LIMITS OF WORK | — LOW — LOW — | — LOW — LOW — |
| OVERHEAD WIRES | — — — — — | — — — — — |
| PAVEMENT MINI SKIP LINE | — — — — — | — — — — — |
| PAVEMENT SKIP LINE | — — — — — | — — — — — |
| PROPERTY LINE | — — — — — | — — — — — |
| RIGHT-OF-WAY LINE | — — — — — | — — — — — |
| RESOURCE PROTECTION AREA | — — — — — RPA | — — — — — |
| ROOT PRUNING | — RP — RP — | — RP — RP — |
| SANITARY SEWER | — SAN — SAN — | — SAN — SAN — |
| X" SANITARY SEWER (SIZE INCLUDED IF AVAILABLE) | — X" S — X" S — | — X" S — X" S — |
| SILT FENCE | — SF — SF — | — SF — SF — |
| STORM (SIZE NOTED) | — — — — — | — — — — — |
| STREAM | — — — — — | — — — — — |
| STREET LIGHT CONDUIT | — SL — SL — | — SL — SL — |
| TELEPHONE (UNDERGROUND) | — UGT — UGT — | — UGT — UGT — |
| TRAIL | — — — — — | — — — — — |
| TREE LINE | — — — — — | — — — — — |
| TREE PROTECTION FENCE | — TP — TP — | — TP — TP — |
| WALL | — — — — — | — — — — — |

SYMBOL LEGEND

| EXISTING FEATURE | PROPOSED FEATURE |
|--|---|
| EX CABLE PEDESTAL | PROP CABLE PEDESTAL |
| EX ELECTRIC BOX | PROP ELECTRIC BOX |
| EX FIRE HYDRANT | PROP FIRE HYDRANT |
| EX GAS VALVE | PROP GAS VALVE |
| EX GROUND LIGHT | PROP GROUND LIGHT |
| EX GUY WIRES | PROP GUY WIRES |
| EX IRON PIPE OR PIN | PROP IRON PIPE OR PIN |
| EX LIGHT POLE | PROP LIGHT POLE |
| EX MAILBOX | PROP MAILBOX |
| EX MONUMENT | PROP MONUMENT |
| EX PARKING METER | PROP PARKING METER |
| EX PAY STATION | PROP PAY STATION |
| EX SANITARY MANHOLE | PROP SANITARY MANHOLE |
| EX STORM BASIN | PROP STORM CATCH BASIN (TO SCALE) |
| EX STORM MANHOLE | PROP STORM MANHOLE |
| EX TELEPHONE PEDESTAL | PROP TELEPHONE PEDESTAL |
| EX TRAFFIC CONTROL BOX | PROP TRAFFIC CONTROL BOX |
| EX TRAFFIC SIGN | PROP TRAFFIC SIGN |
| EX TRASH CAN | PROP TRASH CAN |
| EX TRAVERSE | PROP TRAVERSE |
| EX CONIFEROUS TREE | PROPOSED TREE REMOVAL |
| EX DECIDUOUS TREE | PROPOSED TREE REMOVAL |
| EX UTILITY MANHOLE TYPE INDICATED ELECTRIC, TELE, ETC | PROPOSED UTILITY MANHOLE |
| EX UTILITY POLE | PROP UTILITY POLE |
| EX WATER MANHOLE | PROP WATER MANHOLE |
| EX WATER METER | PROP WATER METER |
| EX WATER VALVE | PROP WATER VALVE |
| EX YARD INLET | PROP YARD INLET (TO SCALE) |
| EX BENCHMARK | PROP BENCHMARK |
| | CONSTRUCTION NOTES (LEADER TO AREA AFFECTED) |
| | CURVE NUMBER (SEE CURVE TABLE) |
| | LINE NUMBER (SEE LINE TABLE) |
| | TEST HOLE |
| | NORTH ARROW |

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 5 BUSINESS 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. ALL TEMPORARY AND FINAL BUS TRAVEL LANES MUST BE MINIMUM 11 FEET WIDE.
- 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 UNOBSTRUCTED 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.

LABEL LEGEND

| EXISTING | PROPOSED |
|--|--|
| EX SAN STRUC NO. EXISTING SANITARY STRUCTURE NUMBER | PROP SAN SEW STRUC NO. PROPOSED SANITARY SEWER STRUCTURE NUMBER |
| EX STRM SEW STRUC NO. EXISTING STORM SEWER STRUCTURE NUMBER | PROP STRM SEW STRUC NO. PROPOSED STORM SEWER STRUCTURE NUMBER |

HATCH LEGEND

| | |
|--|--|
| PROP MILL & OVERLAY SEE TYPICAL SECTION FOR DETAILS | |
| PROP FULL DEPTH ASPHALT SEE TYPICAL SECTION FOR DETAILS | |
| PROP CONCRETE | |
| DEMOLITION EXISTING SIDEWALK | |
| EX VEGETATION | |
| SOD | |
| TEMPORARY DISTURBANCE SEEDED AREA | |

PLAN NUMBER _____

APPROVED DATE _____

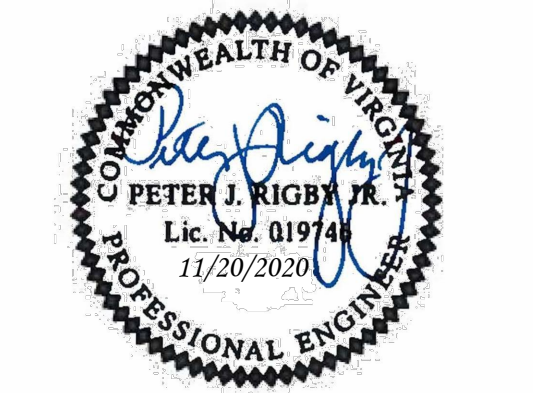
DIRECTOR OF TRANSPORTATION
AND ENVIRONMENTAL SERVICES



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects 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 |
|------------------------------------|------------|
| <i>Kamal</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Taktab</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Whitson</i> | 4/30/20 |
| PROJECT MANAGER | |

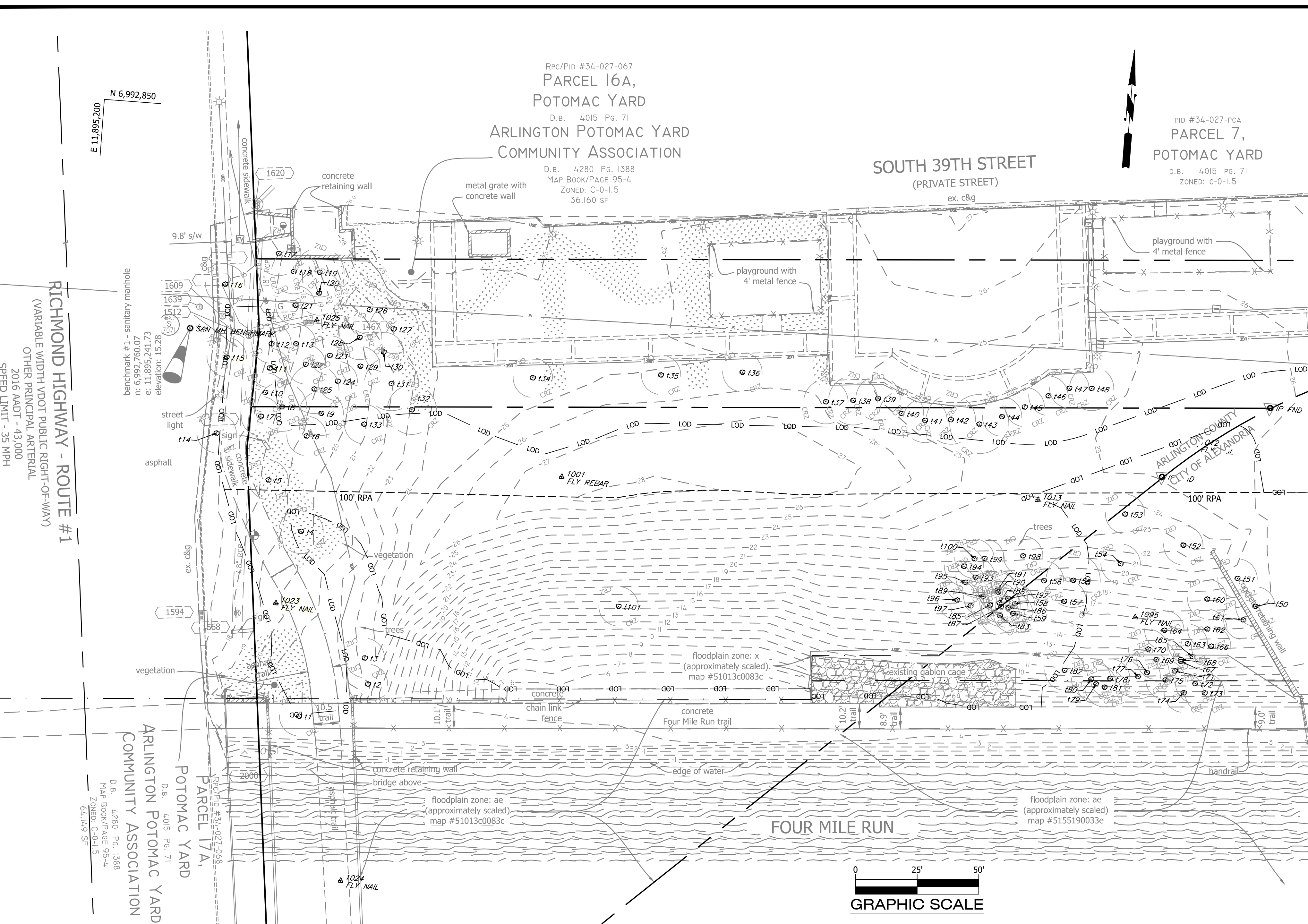
| Revisions | Date |
|-----------|------|
| | |
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Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

LEGEND AND GENERAL NOTES

Designed: CJA
Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

Filename: 2016-158_GEN-LEG.dwg
Path: Q:\04\B10\1\CAD\ACTIVE
Plotted: May 20, 2021
Plotted by: Ldelacruz



GENERAL SURVEY NOTES

- THE PROPERTIES SHOWN HEREON ARE IDENTIFIED ON THE ARLINGTON COUNTY, VIRGINIA GEOGRAPHIC INFORMATION SYSTEM AS PID #34-027-067, PID #34-027-067, CURRENTLY ZONED C-0-1.5 AND IDENTIFIED ON THE CITY OF ALEXANDRIA, VIRGINIA GEOGRAPHIC INFORMATION SYSTEM AS MAP #008.03-02-013 AND CURRENTLY ZONED CDD#10.
- THE PROPERTIES SHOWN HEREON ARE NOW IN THE NAME OF ARLINGTON POTOMAC YARD COMMUNITY ASSOCIATION, RECORDED AT DEED BOOK 4280 AT PAGE 1388 ALL AMONG THE LAND RECORDS OF ARLINGTON COUNTY, VIRGINIA AND POTOMAC YARD DEVELOPMENT, LLC, RECORDED AT INSTRUMENT #140010552 ALL AMONG THE LAND RECORDS OF THE CITY OF ALEXANDRIA, VIRGINIA.
- DURING THE PROCESS OF SURVEY NO INDICATIONS OF A CEMETERY WERE FOUND. NO FURTHER INSPECTION OF THESE PROPERTIES HAVE BEEN MADE FOR POSSIBLE CEMETERIES.
- NO TITLE REPORT FURNISHED. ALL UNDERLYING TITLE LINES, EASEMENTS, SERVITUDES AND OTHER MATTERS OF TITLE MAY NOT BE SHOWN HEREON.
- THE PHYSICAL IMPROVEMENTS SHOWN HEREON ARE BASED UPON A FIELD SURVEY DONE BY CHRISTOPHER CONSULTANTS BETWEEN THE DATES OF NOVEMBER 17th, 2016 AND NOVEMBER 23rd, 2016.
- A.) HORIZONTAL DATUM SHOWN HEREON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM (VCS) 1983 - NORTH AS ESTABLISHED FROM A CURRENT GPS SURVEY.
B.) THE VERTICAL DATUM SHOWN HEREON IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AS ESTABLISHED FROM A CURRENT GPS SURVEY.
- NO GEOTECHNICAL, SUBSURFACE, FIELD REVIEWS, RESEARCH, AGENCY OR GOVERNMENTAL RECORD REVIEWS, OR OTHER INVESTIGATIONS HAVE BEEN MADE FOR THE PURPOSE OF LOCATING, OR DETERMINING THE EXISTENCE OF WETLANDS, HAZARDOUS MATERIALS, OR OTHER ENVIRONMENTAL CONCERNS ON SITE IN THE PERFORMANCE OF CHRISTOPHER CONSULTANTS, LTD SERVICES FOR THE PROJECT AS SHOWN HEREON.

FLOOD ZONE NOTES

THE AREA SHOWN HEREON IS LOCATED ON THE FLOOD INSURANCE RATE MAPS (FIRM), COMMUNITY PANEL NO. 51013C0083 C, WITH AN EFFECTIVE DATE OF AUGUST 19, 2013 AND COMMUNITY PANEL NO. 5155190033 E, WITH AN EFFECTIVE DATE OF JUNE 16, 2011.

BY GRAPHICAL DEPICTION ONLY, THE PROPERTY SHOWN HEREON IS SHOWN IN:

- FLOOD ZONE "X" (OTHER AREAS, NOT SHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
- FLOOD ZONE "X" (OTHER FLOOD AREAS, SHADED), AREAS OF 0.2% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVES FROM 1% ANNUAL CHANCE FLOOD.
- FLOOD ZONE "AE" (SPECIAL FLOOD AREAS, SHADED), BASE FLOOD ELEVATIONS DETERMINED.

A FIELD SURVEY WAS NOT PERFORMED TO DETERMINE THE FLOOD ZONES LISTED HEREON. AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERIFY THIS DETERMINATION OR APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

TREE INVENTORY NOTES:

- TREE ASSESSMENT FIELDWORK COMPLETED ON JULY 17 AND 20, 2019 BY DAVID MEANS, ISA CERTIFIED ARBORIST #1L 0110A, OF WETLAND STUDIES AND SOLUTIONS, INC. (WSSI).
- THE INSPECTION OF THESE TREES CONSISTED SOLELY OF A VISUAL INSPECTION FROM THE GROUND. WHILE MORE THOROUGH TECHNIQUES ARE AVAILABLE FOR INSPECTION AND EVALUATION, THEY WERE NEITHER REQUESTED NOR CONSIDERED NECESSARY OR APPROPRIATE AT THIS TIME.

SURVEY CONTROL POINTS TABLE

| BENCHMARK NUMBER | #1 |
|--------------------|------------------------------------|
| OBJECT | SANITARY MANHOLE |
| NORTHING / EASTING | N: 6,992,760.07 / E: 11,895,241.73 |
| ELEVATION | 15.28 |

EXISTING STORM STRUCTURE TABLE

| EX. STRUCTURE NUMBER | RIM EL. | INV. EL. |
|----------------------|----------|---|
| 714 | 20.18 | FROM 1655 = 3.08 TO SOUTH = 3.00 |
| 1467 | 18.19 | TO 1512 = 8.59 |
| 1512 | 16.50 | FROM 1467 = 8.40 FROM 1609 = 1.27 FROM 1620 = 4.34 TO 1568 = 1.02 |
| 1568 | 17.64 | FROM 1512 = 0.14 TO SOUTH = UNKNOWN |
| 1594 | 16.26 | UNKNOWN |
| 1609 | 15.52 | TO 1512 = 15.52 |
| 1620 | 16.34 | FROM NE = 4.89 TO 1512 = 4.51 |
| 1639 | 15.22 | UNKNOWN |
| 1655 | 24.35 | FROM 597 = 12.95 FROM NE = 4.25 TO 714 = 4.15 |
| 2000 | UN-KNOWN | FROM UNKNOWN = -0.51 |
| 2073 | UN-KNOWN | FROM UNKNOWN = 0.04 |

EXISTING STORM PIPE TABLE

| EX. PIPE LETTER | FROM / TO EX. STR. | PIPE LENGTH | PIPE SIZE AND MATERIAL |
|-----------------|--------------------|-------------|------------------------|
| D | 1655 TO 714 | 146.51 LF | 42" RCP |
| E | 1620 TO 1512 | 53.55 LF | 18" RCP |
| F | 1609 TO 1512 | 13.36 LF | 48" RCP |
| G | 1467 TO 1512 | 24.72 LF | 15" RCP |
| H | 1512 TO 1568 | 112.69 | 48" RCP |

EXISTING SANITARY STRUCTURE TABLE

| EX. STRUCTURE NUMBER | RIM EL. | INV. EL. |
|----------------------|---------|----------|
| EX. S 7071 | 15.28 | UNKNOWN |

MATCHLINE SEE SHEET 3A

| Tree # | DBH (Diameter at 4.5 feet above ground) | Common Name | Botanical Name | Condition Rating % | CRZ | | Action | Condition Notes |
|--------|--|---------------------|-----------------------------|--------------------|-------------------|--|--------|---|
| | | | | | % Impacted by LOD | Critical Root Zone Radius in Ft (1 ft radius/in DBH) | | |
| 1 | 3.33 | mimosa | Albizia julibrissin | 50 | 0 | 5 | Remove | Full Crown, One Sided, Small DW (1-2"), Compacted Soils, Co-Dominant Stems, Suppressed, Vines |
| 2 | 3.3 | holly, Fosters | Ilex x attenuata 'Fosteri' | 75 | 0 | 4 | Save | Full Crown, Co-Dominant Stems, Vines |
| 3 | 3.32 | holly, Fosters | Ilex x attenuata 'Fosteri' | 75 | 0 | 5 | Save | Full Crown, Co-Dominant Stems, Vines |
| 4 | 9 | oak, scarlet | Quercus coccinea | 72 | 35 | 9 | Save | Full Crown, Small DW (1-2"), Basal Decay, Mechanical Damage |
| 5 | 8 | oak, scarlet | Quercus coccinea | 72 | 0 | 8 | Remove | Full Crown, Small DW (1-2"), Basal Decay, Broken Limbs, Mechanical Damage |
| 6 | 7 | oak, scarlet | Quercus coccinea | 64 | 0 | 7 | Remove | Full Crown, One Sided, Small DW (1-2"), Trunk Decay, Basal Decay, Branch Decay, Suppressed, Mechanical Damage |
| 7 | 8 | cypress, Leyland | X Cupressocyparis leylandii | 67 | 0 | 8 | Remove | Full Crown, Hardware, Mechanical Damage |
| 8 | 3,4,9 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 46 | 10 | Save | Full Crown, Small DW (1-2"), Co-Dominant Stems, Suppressed |
| 9 | 9 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 22 | 9 | Save | Full Crown, One Sided, Small DW (1-2"), Suppressed |
| 10 | 6 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 6 | Remove | Full Crown, One Sided, Small DW (1-2"), Suppressed |
| 11 | 6 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 6 | Remove | Narrow Crown, One Sided, Small DW (1-2"), Suppressed, Stressed, Vines, Serious Decline |
| 12 | 7,2,3,1 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 49 | 8 | Save | Narrow Crown, One Sided, Small DW (1-2"), Co-Dominant Stems, Suppressed, Hardware |
| 13 | 6 | cypress, Leyland | X Cupressocyparis leylandii | 50 | 0 | 6 | Save | Narrow Crown, One Sided, Small DW (1-2"), Suppressed, Hardware |
| 14 | 7 | maple, Freeman | Acer x freemanii | 52 | 39 | 7 | Save | Narrow Crown, Small DW (1-2"), Trunk Decay, Branch Decay, Stressed, Mechanical Damage, Insect/Disease Problem |
| 15 | 7 | maple, Freeman | Acer x freemanii | 52 | 53 | 7 | Save | Narrow Crown, Small DW (1-2"), Trunk Decay, Branch Decay, Stressed, Mechanical Damage, Insect/Disease Problem |
| 16 | 6 | maple, Freeman | Acer x freemanii | 52 | 0 | 6 | Save | Narrow Crown, Small DW (1-2"), Trunk Decay, Branch Decay, Stressed, Mechanical Damage, Insect/Disease Problem |
| 17 | 8,4 | cypress, Leyland | X Cupressocyparis leylandii | 69 | 0 | 9 | Save | Full Crown, One Sided, Small DW (1-2"), Co-Dominant Stems |
| 18 | 9 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 9 | Save | Full Crown, One Sided, Small DW (1-2") |
| 19 | 2,2,8,5 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 10 | Save | Full Crown, One Sided, Small DW (1-2"), Co-Dominant Stems, Hardware |
| 20 | 5,7 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 9 | Save | Full Crown, One Sided, Small DW (1-2"), Co-Dominant Stems, Hardware |
| 21 | 6 | cypress, Leyland | X Cupressocyparis leylandii | 50 | 0 | 6 | Save | Full Crown, One Sided, Small DW (1-2"), Root Damage/Decay, Co-Dominant Stems, Mechanical Damage |
| 22 | 2,4,7 | cypress, Leyland | X Cupressocyparis leylandii | 52 | 0 | 8 | Save | Full Crown, One Sided, Small DW (1-2"), Root Damage/Decay, Co-Dominant Stems, Hardware, Mechanical Damage |
| 23 | 7,4 | cypress, Leyland | X Cupressocyparis leylandii | 52 | 0 | 8 | Save | Full Crown, One Sided, Small DW (1-2"), Root Damage/Decay, Hardware |
| 24 | 7 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 7 | Save | Full Crown, One Sided, Small DW (1-2"), Root Damage/Decay, Broken Limbs, Hardware |
| 25 | 10,3 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 10 | Save | Full Crown, One Sided, Small DW (1-2"), Root Damage/Decay, Co-Dominant Stems, Suppressed |
| 26 | 2,3,4,4,3,4 | crapemyrtle, common | Lagerstroemia indica | 75 | 0 | 10 | Save | Full Crown, Co-Dominant Stems, Suppressed |
| 27 | 4,4,4,3,3,2,3,2,2,1,1 | crapemyrtle, common | Lagerstroemia indica | 75 | 0 | 10 | Save | Full Crown, Small DW (1-2"), Co-Dominant Stems, Suppressed |
| 28 | 2,2,3,2,3,4,2 | crapemyrtle, common | Lagerstroemia indica | 75 | 0 | 9 | Save | Full Crown, Co-Dominant Stems, Suppressed |
| 29 | 4,2,2,3,2,3,3 | crapemyrtle, common | Lagerstroemia indica | 75 | 0 | 7 | Save | Full Crown, Co-Dominant Stems, Suppressed |
| 30 | 3,4,2,2,3,3 | crapemyrtle, common | Lagerstroemia indica | 75 | 0 | 7 | Save | Full Crown, Co-Dominant Stems, Suppressed |
| 31 | 5,5,3,4,4,3,5 | crapemyrtle, common | Lagerstroemia indica | 75 | 0 | 11 | Save | Full Crown, Co-Dominant Stems, Suppressed |
| 32 | 3,3,3,3,4,3,2,3,3,3,1 | crapemyrtle, common | Lagerstroemia indica | 75 | 39 | 10 | Save | Full Crown, Co-Dominant Stems, Suppressed |

PLAN NUMBER _____

APPROVED DATE _____

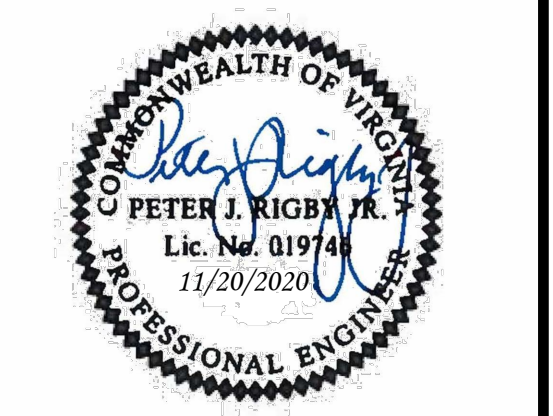
DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects Division
Engineering Bureau
2100 Clarendon Boulevard, Suite 813
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

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APPROVALS

| APPROVALS | DATE |
|--------------------|------------|
| <i>Kamell</i> | 4/22/2020 |
| Kamell N. Takak | 4.23.20 |
| David W. Hundelt | 04.23.2020 |
| Dennis M. Leach | 4/22/20 |
| <i>Jim Whitson</i> | 4/30/20 |

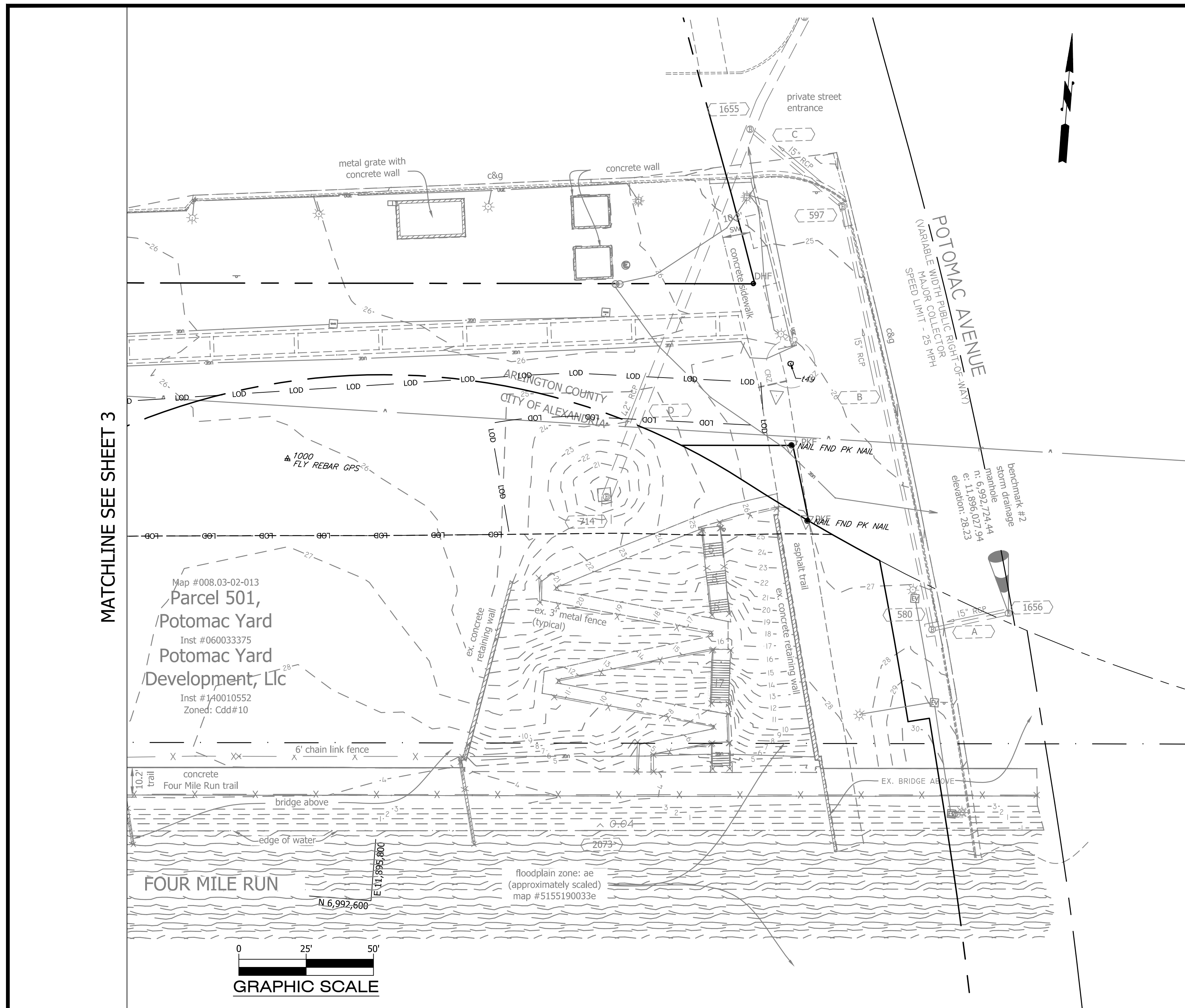
Revisions

| Revisions | Date |
|-----------|------|
| | |
| | |
| | |
| | |

Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD - ARLINGTON, VA 22202

Designed: CJA
Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

Filename: 2016-158_EXC.dwg
Path: Q:\dwg\B10K_CADACTIVE
Plotted: May 20, 2021
Plotted by: Ldelacruz



GENERAL SURVEY NOTES

- THE PROPERTIES SHOWN HEREON ARE IDENTIFIED ON THE ARLINGTON COUNTY, VIRGINIA GEOGRAPHIC INFORMATION SYSTEM AS PID #34-027-067, PID #34-027-067, CURRENTLY ZONED C-0-1.5 AND IDENTIFIED ON THE CITY OF ALEXANDRIA, VIRGINIA GEOGRAPHIC INFORMATION SYSTEM AS MAP #008.03-02-013 AND CURRENTLY ZONED CDD#10.
- THE PROPERTIES SHOWN HEREON ARE NOW IN THE NAME OF ARLINGTON POTOMAC YARD COMMUNITY ASSOCIATION, RECORDED AT DEED BOOK 4280 AT PAGE 1388 ALL AMONG THE LAND RECORDS OF ARLINGTON COUNTY, VIRGINIA AND POTOMAC YARD DEVELOPMENT, LLC, RECORDED AT INSTRUMENT #140010552 ALL AMONG THE LAND RECORDS OF THE CITY OF ALEXANDRIA, VIRGINIA.
- DURING THE PROCESS OF SURVEY NO INDICATIONS OF A CEMETERY WERE FOUND. NO FURTHER INSPECTION OF THESE PROPERTIES HAVE BEEN MADE FOR POSSIBLE CEMETERIES.
- NO TITLE REPORT FURNISHED. ALL UNDERLYING TITLE LINES, EASEMENTS, SERVITUDES AND OTHER MATTERS OF TITLE MAY NOT BE SHOWN HEREON.
- THE PHYSICAL IMPROVEMENTS SHOWN HEREON ARE BASED UPON A FIELD SURVEY DONE BY CHRISTOPHER CONSULTANTS BETWEEN THE DATES OF NOVEMBER 17th, 2016 AND NOVEMBER 23rd, 2016.
- A.) HORIZONTAL DATUM SHOWN HEREON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM (VCS) 1983 - NORTH AS ESTABLISHED FROM A CURRENT GPS SURVEY.
B.) THE VERTICAL DATUM SHOWN HEREON IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AS ESTABLISHED FROM A CURRENT GPS SURVEY.
- NO GEOTECHNICAL, SUBSURFACE, FIELD REVIEWS, RESEARCH, AGENCY OR GOVERNMENTAL RECORD REVIEWS, OR OTHER INVESTIGATIONS HAVE BEEN MADE FOR THE PURPOSE OF LOCATING, OR DETERMINING THE EXISTENCE OF WETLANDS, HAZARDOUS MATERIALS, OR OTHER ENVIRONMENTAL CONCERNS ON SITE IN THE PERFORMANCE OF CHRISTOPHER CONSULTANTS, LTD SERVICES FOR THE PROJECT AS SHOWN HEREON.

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BY GRAPHICAL DEPICTION ONLY, THE PROPERTY SHOWN HEREON IS SHOWN IN:

- FLOOD ZONE "X" (OTHER AREAS, NOT SHADED), AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
- FLOOD ZONE "X" (OTHER FLOOD AREAS, SHADED), AREAS OF 0.2% CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD.
- FLOOD ZONE "AE" (SPECIAL FLOOD AREAS, SHADED), BASE FLOOD ELEVATIONS DETERMINED.

A FIELD SURVEY WAS NOT PERFORMED TO DETERMINE THE FLOOD ZONES LISTED HEREON. AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERIFY THIS DETERMINATION OR APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

TREE INVENTORY NOTES:

- TREE ASSESSMENT FIELDWORK COMPLETED ON JULY 17 AND 20, 2019 BY DAVID MEANS, ISA CERTIFIED ARBORIST #IL 0110A, OF WETLAND STUDIES AND SOLUTIONS, INC. (WSSI).
- THE INSPECTION OF THESE TREES CONSISTED SOLELY OF A VISUAL INSPECTION FROM THE GROUND. WHILE MORE THOROUGH TECHNIQUES ARE AVAILABLE FOR INSPECTION AND EVALUATION, THEY WERE NEITHER REQUESTED NOR CONSIDERED NECESSARY OR APPROPRIATE AT THIS TIME.

SURVEY CONTROL POINTS TABLE

| BENCHMARK NUMBER | #1 | #2 |
|--------------------|------------------------------------|------------------------------------|
| OBJECT | SANITARY MANHOLE | STORM MANHOLE |
| NORTHING / EASTING | N: 6,992,760.07 / E: 11,895,241.73 | N: 6,992,724.44 / E: 11,896,027.94 |
| ELEVATION | 15.28 | 28.23 |

| EXISTING STORM STRUCTURE TABLE | | | EXISTING STORM PIPE TABLE | | | |
|--------------------------------|----------|---|---------------------------|--------------------|-------------|------------------------|
| EX. STRUCTURE NUMBER | RIM EL. | INV. EL. | EX. PIPE LETTER | FROM / TO EX. STR. | PIPE LENGTH | PIPE SIZE AND MATERIAL |
| 714 | 20.18 | FROM 1655 = 3.08 TO SOUTH = 3.00 | D | 1655 TO 714 | 146.51 LF | 42" RCP |
| 1467 | 18.19 | TO 1512 = 8.59 | E | 1620 TO 1512 | 53.55 LF | 18" RCP |
| 1512 | 16.50 | FROM 1467 = 8.40 FROM 1609 = 1.27 FROM 1620 = 4.34 TO 1568 = 1.02 | F | 1609 TO 1512 | 13.36 LF | 48" RCP |
| 1568 | 17.64 | FROM 1512 = 0.14 TO SOUTH = UNKNOWN | G | 1467 TO 1512 | 24.72 LF | 15" RCP |
| 1594 | 16.26 | UNKNOWN | H | 1512 TO 1568 | 112.69 | 48" RCP |
| 1609 | 15.52 | TO 1512 = 15.52 | | | | |
| 1620 | 16.34 | FROM NE = 4.89 TO 1512 = 4.51 | | | | |
| 1639 | 15.22 | UNKNOWN | | | | |
| 1655 | 24.35 | FROM 597 = 12.95 FROM NE = 4.25 TO 714 = 4.15 | | | | |
| 2000 | UN-KNOWN | FROM UNKNOWN = -0.51 | | | | |
| 2073 | UN-KNOWN | FROM UNKNOWN = 0.04 | | | | |

| EXISTING SANITARY STRUCTURE TABLE | | |
|-----------------------------------|---------|----------|
| EX. STRUCTURE NUMBER | RIM EL. | INV. EL. |
| EX. S 7071 | 15.28 | UNKNOWN |

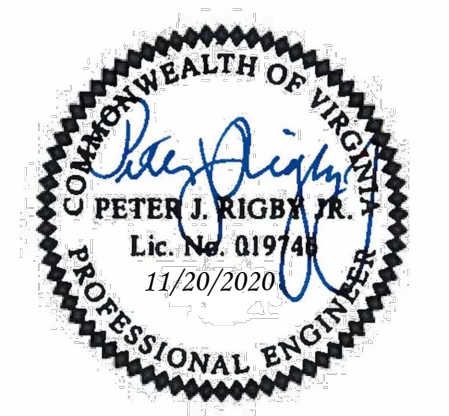
| Tree # | DBH (Diameter at 4.5 feet above grade) | Common Name | Botanical Name | Condition Rating % | CRZ | | Action | Condition Notes |
|--------|---|------------------|-----------------------------|--------------------|-------------------|--|--------|---|
| | | | | | % Impacted by LOD | Critical Root Zone Radius in Ft (1 ft radius/in DBH) | | |
| 33 | 6 | oak, scarlet | Quercus coccinea | 73 | 0 | 6 | Remove | Full Crown, Small DW (1-2'), Mechanical Damage |
| 34 | 4 | maple, sugar | Acer saccharum | 31 | 0 | 4 | Save | One Sided, Trunk Decay, Basal Decay, Branch Decay, Stressed, Mechanical Damage, Serious Decline, Insect/Disease Problem |
| 35 | 4 | maple, sugar | Acer saccharum | 31 | 0 | 4 | Save | One Sided, Trunk Decay, Basal Decay, Branch Decay, Stressed, Mechanical Damage, Serious Decline, Insect/Disease Problem |
| 36 | 5 | maple, sugar | Acer saccharum | 34 | 0 | 5 | Save | One Sided, Trunk Decay, Basal Decay, Branch Decay, Stressed, Mechanical Damage, Serious Decline, Insect/Disease Problem |
| 37 | 9 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 9 | Save | Full Crown |
| 38 | 10 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 10 | Save | Full Crown |
| 39 | 9 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 9 | Save | Full Crown, Suppressed |
| 40 | 9 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 4 | 9 | Save | Full Crown, Suppressed |
| 41 | 8.3 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 13 | 9 | Save | Full Crown, Co-Dominant Stems, Suppressed |
| 42 | 10 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 9 | 10 | Save | Full Crown, Suppressed |
| 43 | 12 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 17 | 12 | Save | Full Crown, Suppressed |
| 44 | 8 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 8 | Save | Full Crown, Suppressed |
| 45 | 7 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 7 | Save | Full Crown, Suppressed |
| 46 | 7.3 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 8 | Save | Full Crown, Co-Dominant Stems, Suppressed |
| 47 | 7 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 7 | Save | Full Crown, Suppressed |
| 48 | 8.3 | cypress, Leyland | X Cupressocyparis leylandii | 75 | 0 | 9 | Save | Full Crown, Suppressed |
| 49 | 9 | oak, scarlet | Quercus coccinea | 75 | 0 | 9 | Save | Full Crown |
| 85 | 4 | pear, Callery | Pyrus calleryana | 50 | 0 | 4 | Remove | Full Crown, One Sided, Suppressed, Vines |
| 88 | 3.4 | pear, Callery | Pyrus calleryana | 50 | 0 | 5 | Remove | Full Crown, One Sided, Small DW (1-2'), Co-Dominant Stems, Suppressed, Vines |
| 89 | 3 | pear, Callery | Pyrus calleryana | 50 | 0 | 3 | Remove | Full Crown, One Sided, Small DW (1-2'), Suppressed, Vines |
| 90 | 3 | pear, Callery | Pyrus calleryana | 50 | 0 | 3 | Remove | Full Crown, One Sided, Small DW (1-2'), Suppressed, Vines |
| 91 | 4 | pear, Callery | Pyrus calleryana | 50 | 0 | 4 | Remove | Full Crown, One Sided, Small DW (1-2'), Suppressed, Vines |
| 92 | 4.2,3 | pear, Callery | Pyrus calleryana | 50 | 0 | 5 | Remove | Full Crown, One Sided, Small DW (1-2'), Co-Dominant Stems, Suppressed, Vines |
| 93 | 3 | pear, Callery | Pyrus calleryana | 50 | 0 | 3 | Remove | Full Crown, One Sided, Small DW (1-2'), Suppressed, Vines |
| 94 | 4 | pear, Callery | Pyrus calleryana | 50 | 0 | 4 | Remove | Full Crown, One Sided, Small DW (1-2'), Suppressed, Vines |
| 95 | 5.2 | pear, Callery | Pyrus calleryana | 50 | 0 | 5 | Remove | Full Crown, One Sided, Small DW (1-2'), Co-Dominant Stems, Suppressed, Vines |
| 96 | 4 | pear, Callery | Pyrus calleryana | 50 | 0 | 4 | Remove | Full Crown, One Sided, Small DW (1-2'), Suppressed, Vines |
| 97 | 3 | pear, Callery | Pyrus calleryana | 50 | 0 | 3 | Remove | Full Crown, One Sided, Small DW (1-2'), Suppressed, Vines |
| 98 | 5 | pear, Callery | Pyrus calleryana | 50 | 0 | 5 | Remove | Full Crown, One Sided, Small DW (1-2'), Suppressed, Vines |
| 99 | 3,3,4 | pear, Callery | Pyrus calleryana | 50 | 0 | 6 | Remove | Full Crown, One Sided, Small DW (1-2'), Co-Dominant Stems, Suppressed, Vines |
| 100 | 3,3 | pear, Callery | Pyrus calleryana | 50 | 0 | 4 | Remove | Full Crown, One Sided, Small DW (1-2'), Co-Dominant Stems, Suppressed, Vines |
| 101 | 3,2,2 | locust, black | Robinia pseudoacacia | 45 | 0 | 4 | Remove | Narrow Crown, Small DW (1-2'), Co-Dominant Stems, Mechanical Damage |

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects 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 |
|------------------------------------|------------|
| <i>Kamal N. Takak</i> | 4/22/2020 |
| Kamal N. Takak | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| David W. Hundelt | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| Dennis M. Leach | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Whitson</i> | 4/30/20 |
| PROJECT MANAGER | |

| Revisions | Date |
|-----------|------|
| | |
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| | |
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| | |
| | |
| | |

Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD - ARLINGTON, VA 22202

EXISTING CONDITIONS PLAN

Designed: CJA
Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

Filename: 2016-158_EXC.dwg
Path: Q:\dwg\B10\CADACTIVE
Plotted: May 20, 2021
Plotted by: Ldelacruz

Scale: Hor: 1" = 25'

PLAN NUMBER _____

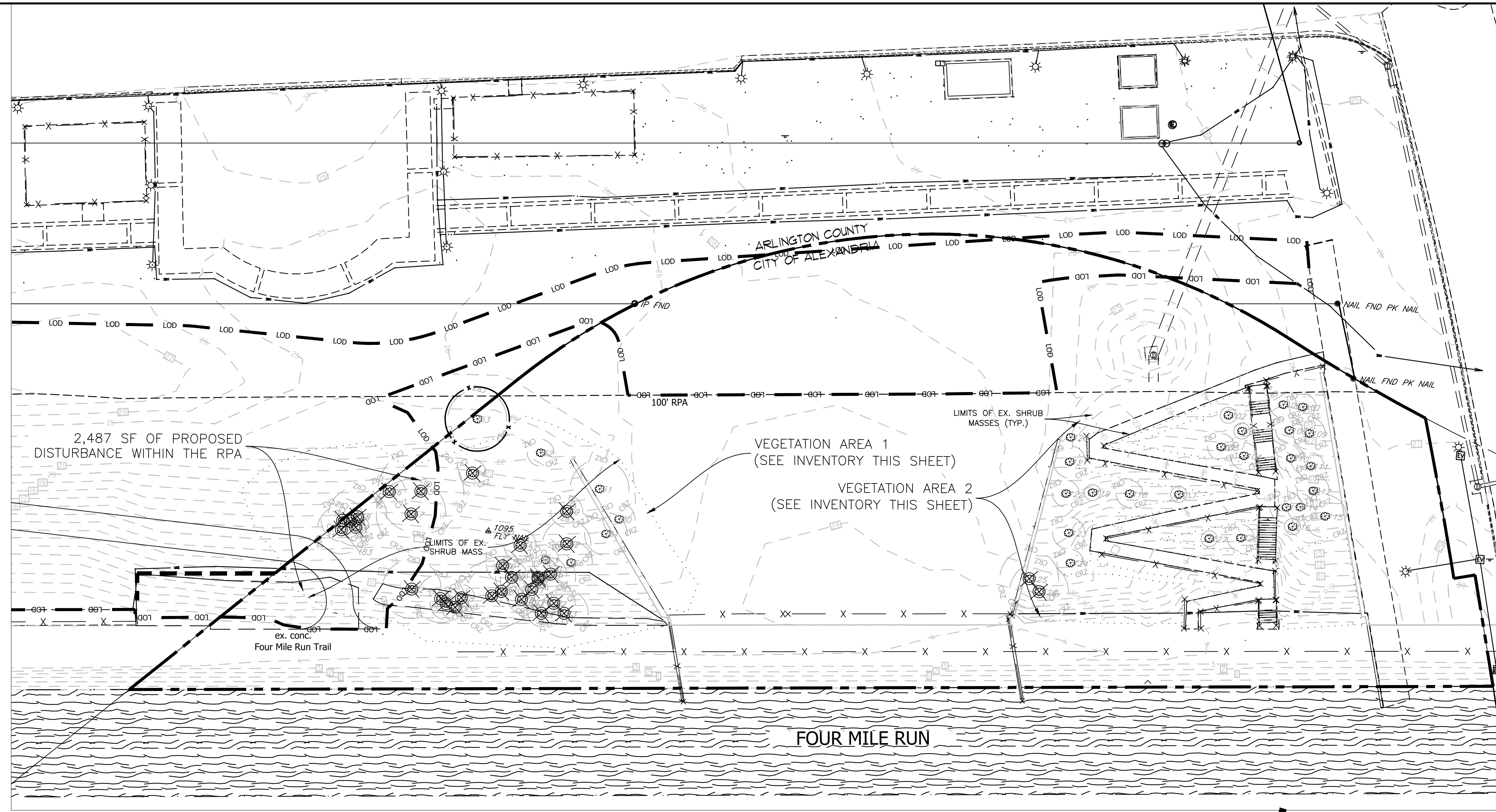
APPROVED DATE _____

DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

TREE INVENTORY (CITY OF ALEXANDRIA PROPERTY)

TREES LISTED AS "SAVE" ARE INCLUDED IN THE TREE CANOPY CALCULATIONS FOUND ON THE CITY OF ALEXANDRIA LANDSCAPE PLAN SHEET. TREES LISTED AS "REMOVE" ARE REMOVED AS PART OF THE SITE WORK OR AS PART OF THE CITY OF ALEXANDRIA INVASIVE SPECIES REMOVAL AND MANAGEMENT PLAN.

| Tree # | DBH (Diameter at 4.5 feet above ground) | Common Name | Botanical Name | Condition Rating | Approx. Canopy Radius (FT) | Approx. Tree Height (FT) | Number of Stems Calculated Using Radius FT (1.5 ft radius @ DBH) | CRZ | Action | Notes |
|---------|---|----------------------|--------------------------------|------------------|-------------------------------|-----------------------------|--|-----|--------|----------|
| 50 | 4 | cherry, black | Prunus serotina | Fair | 7 | 16 | 1 | 6 | Save | |
| 51 | 4.6 | locust, black | Robinia pseudoacacia | Fair | 15 | 20 | 2 | 11 | Save | |
| 52 | 3 | holly, Fosters | Ilex x attenuata 'Foster' | Fair | 4 | 10 | 1 | 5 | Save | |
| 53 | 7 | oak, scarlet | Quercus coccinea | Good | 12 | 20 | 1 | 11 | Save | |
| 54 | 3 | crabapple, flowering | Malus spp. | Fair | 5 | 14 | 1 | 5 | Remove | Invasive |
| 54.4.5 | 5.3 | pear, Callery | Pyrus calleryana | Good | 9 | 18 | 6 | 16 | Remove | Invasive |
| 56 | 3.3 | pear, Callery | Pyrus calleryana | Good | 9 | 16 | 2 | 6 | Remove | Invasive |
| 54.4.3 | 3.2 | pear, Callery | Pyrus calleryana | Good | 9 | 18 | 6 | 13 | Remove | Invasive |
| 57 | 5.5 | pear, Callery | Pyrus calleryana | Good | 9 | 20 | 2 | 11 | Remove | Invasive |
| 59 | 3 | pear, Callery | Pyrus calleryana | Fair | 9 | 20 | 1 | 5 | Remove | Invasive |
| 60 | 4 | pear, Callery | Pyrus calleryana | Fair | 9 | 18 | 1 | 6 | Remove | Invasive |
| 61 | 5 | locust, black | Robinia pseudoacacia | Fair | 9 | 25 | 1 | 8 | Save | |
| 62 | 6 | pear, Callery | Pyrus calleryana | Fair | 6 | 25 | 1 | 9 | Remove | Invasive |
| 63 | 3 | honeylocust | Gleditsia triacanthos | Fair | 6 | 25 | 1 | 5 | Remove | Invasive |
| 64 | 4 | pear, Callery | Pyrus calleryana | Fair | 5 | 18 | 1 | 6 | Remove | Invasive |
| 65 | 3 | pear, Callery | Pyrus calleryana | Fair | 5 | 18 | 1 | 5 | Remove | Invasive |
| 66 | 3.4 | dogwood, flowering | Cornus florida | Fair | 4 | 16 | 2 | 8 | Remove | |
| 3.4.4.5 | 5 | tree of heaven | Ailanthus altissima | Fair | 7 | 18 | 5 | 14 | Remove | Invasive |
| 67 | 5 | pear, Callery | Pyrus calleryana | Fair | 5 | 18 | 1 | 8 | Remove | Invasive |
| 69 | 4 | pear, Callery | Pyrus calleryana | Fair | 5 | 18 | 1 | 6 | Remove | Invasive |
| 70 | 4 | pear, Callery | Pyrus calleryana | Fair | 5 | 18 | 1 | 6 | Remove | Invasive |
| 71 | 3.2 | tree of heaven | Ailanthus altissima | Poor | 2 | 12 | 2 | 5 | Remove | Invasive |
| 72 | 4.3 | tree of heaven | Ailanthus altissima | Poor | 4 | 16 | 2 | 8 | Remove | Invasive |
| 73 | 6.1 | tree of heaven | Ailanthus altissima | Poor | 9 | 14 | 2 | 9 | Remove | Invasive |
| 74 | 3 | tree of heaven | Ailanthus altissima | Poor | 4 | 16 | 1 | 5 | Remove | Invasive |
| 75 | 3.2 | tree of heaven | Ailanthus altissima | Poor | 4 | 14 | 2 | 5 | Remove | Invasive |
| 5.4.4.3 | 3 | tree of heaven | Ailanthus altissima | Poor | 8 | 18 | 5 | 13 | Remove | Invasive |
| 77 | 3.2 | tree of heaven | Ailanthus altissima | Poor | 8 | 18 | 6 | 13 | Remove | Invasive |
| 78 | 3 | tree of heaven | Ailanthus altissima | Poor | 3 | 10 | 1 | 5 | Remove | Invasive |
| 79 | 4 | tree of heaven | Ailanthus altissima | Poor | 5 | 10 | 1 | 6 | Remove | Invasive |
| 80 | 6 | tree of heaven | Ailanthus altissima | Poor | 8 | 18 | 1 | 9 | Remove | Invasive |
| 81 | 3 | royal paulownia | Paulownia tomentosa | Poor | 6 | 8 | 1 | 5 | Remove | Invasive |
| 82 | 6.4 | pear, Callery | Pyrus calleryana | Fair | 1 | 20 | 2 | 11 | Remove | Invasive |
| 83 | 6 | pear, Callery | Pyrus calleryana | Fair | 7 | 25 | 1 | 9 | Remove | Invasive |
| 84 | 4.3 | pear, Callery | Pyrus calleryana | Fair | 8 | 25 | 2 | 8 | Remove | Invasive |
| 86 | 3 | pear, Callery | Pyrus calleryana | Fair | 6 | 25 | 1 | 5 | Remove | Invasive |
| 87 | 5 | pear, Callery | Pyrus calleryana | Fair | 7 | 25 | 1 | 8 | Remove | Invasive |
| 102 | 2 | Dawn redwood | Metasequoia gyptostroboides | Fair | 3 | 8 | 1 | 3 | Save | |
| 103 | 2 | Dawn redwood | Metasequoia gyptostroboides | Good | 3 | 10 | 1 | 3 | Save | |
| 104 | 3 | Dawn redwood | Metasequoia gyptostroboides | Good | 3 | 12 | 1 | 5 | Save | |
| 105 | 3 | Dawn redwood | Metasequoia gyptostroboides | Good | 3 | 12 | 1 | 5 | Save | |
| 106 | 3 | Dawn redwood | Metasequoia gyptostroboides | Fair | 3 | 14 | 1 | 5 | Save | |
| 107 | 3 | Dawn redwood | Metasequoia gyptostroboides | Fair | 4 | 14 | 1 | 5 | Save | |
| 108 | 3 | Dawn redwood | Metasequoia gyptostroboides | Fair | 4 | 14 | 1 | 5 | Save | |
| 109 | 4 | Dawn redwood | Metasequoia gyptostroboides | Fair | 4 | 14 | 1 | 6 | Save | |
| 110 | 3 | Dawn redwood | Metasequoia gyptostroboides | Fair | 3 | 12 | 1 | 5 | Save | |
| 111 | 3 | Dawn redwood | Metasequoia gyptostroboides | Good | 3 | 16 | 1 | 5 | Save | |
| 112 | 4 | Dawn redwood | Metasequoia gyptostroboides | Good | 3 | 16 | 1 | 6 | Save | |
| 113 | 4 | Dawn redwood | Metasequoia gyptostroboides | Good | 4 | 16 | 1 | 6 | Save | |
| 114 | 3 | Dawn redwood | Metasequoia gyptostroboides | Fair | 4 | 12 | 1 | 5 | Save | |
| 115 | 5 | Dawn redwood | Metasequoia gyptostroboides | Good | 5 | 18 | 1 | 8 | Save | |
| 116 | 2 | Dawn redwood | Metasequoia gyptostroboides | Fair | 3 | 10 | 1 | 3 | Save | |
| 117 | 2 | Dawn redwood | Metasequoia gyptostroboides | Fair | 3 | 10 | 1 | 3 | Save | |
| 118 | 3 | Dawn redwood | Metasequoia gyptostroboides | Good | 3 | 14 | 1 | 5 | Save | |
| 119 | 2.1 | Dawn redwood | Metasequoia gyptostroboides | Fair | 4 | 14 | 2 | 3 | Save | |
| 120 | 1 | Dawn redwood | Metasequoia gyptostroboides | Dead | 2 | 8 | 1 | 2 | Remove | Dead |
| 121 | 4 | Dawn redwood | Metasequoia gyptostroboides | Good | 7 | 16 | 1 | 6 | Save | |
| 122 | 3 | Dawn redwood | Metasequoia gyptostroboides | Fair | 6 | 16 | 1 | 5 | Save | |
| 123 | 4 | Dawn redwood | Metasequoia gyptostroboides | Good | 7 | 18 | 1 | 6 | Save | |
| 124 | 3 | Dawn redwood | Metasequoia gyptostroboides | Good | 7 | 16 | 1 | 5 | Save | |
| 125 | 7 | tree of heaven | Ailanthus altissima | Fair | 13 | 25 | 1 | 11 | Remove | Invasive |
| 126 | 7 | tree of heaven | Ailanthus altissima | Fair | 13 | 25 | 1 | 11 | Remove | Invasive |
| 127 | 2 | Dawn redwood | Metasequoia gyptostroboides | Fair | 3 | 12 | 1 | 3 | Save | |
| 128 | 3 | Dawn redwood | Metasequoia gyptostroboides | Fair | 5 | 14 | 1 | 5 | Save | |



VEGETATION INVENTORY (CITY OF ALEXANDRIA PROPERTY)

ARLINGTON COUNTY RECEIVED PERMISSION FROM THE CITY OF ALEXANDRIA ON 10/10/19 VIA EMAIL TO INVENTORY TREES AT 6" DBH WITHIN THE RPA INSTEAD OF THE REQUIRED 1/2" DIAMETER DUE TO THE HIGH DENSITY OF EXISTING VEGETATION. ADDITIONALLY, ARLINGTON COUNTY RECEIVED PERMISSION TO SURVEY SHRUBS 3' IN HEIGHT OR GREATER AND AS MASSES INSTEAD OF INDIVIDUAL PLANTS.

THE VEGETATION INVENTORY TABLES BELOW ARE INTENDED TO INFORM THE INVASIVE SPECIES REMOVAL AND MANAGEMENT PLAN. THE QUANTITIES PRESENTED ARE APPROXIMATE FIELD COUNTS OF VISIBLE TREES, SHRUBS, AND SAPLINGS. NOTE THAT SOME AREAS ARE TOO DENSE TO PROVIDE ACCURATE QUANTIFICATION.

DUE TO THE HIGH DENSITY OF INVASIVE SPECIES PRESENT IN AREA 1, THE SURVEYED SHRUB MASS CANOPY WILL NOT BE USED IN CALCULATING TREE CANOPY COVERAGE. ONLY TREES BEING PRESERVED IN AREA 1 WILL BE COUNTED TOWARDS TREE CANOPY COVERAGE CALCULATIONS.

AREA 2 HAS A HIGHER PERCENTAGE OF NATIVE SPECIES AND THEREFORE THE SURVEYED SHRUB MASSING BOUNDARY IS INCLUDED IN THE CANOPY COVERAGE CALCULATIONS.

PLEASE REFER TO THE TREE INVENTORY (THIS SHEET) FOR TREES SURVEYED ON SITE.

| TYPE | SPECIES | QUANTITY |
|----------------------------------|--|----------|
| TREE | ROBINIA PSEUDOACACIA (BLACK LOCUST) | 6 |
| | PAULOWNIA TOMENTOSA (PRINCESS TREE) | 1 |
| | AILANTHUS ALTISSIMA (TREE OF HEAVEN) | 10 |
| | PYRUS CALLERYANA (CALLERY PEAR) | 40 |
| | MALUS SPP. (CRAB APPLE) | 18 |
| | PRUNUS SEROTINA (BLACK CHERRY) | 2 |
| | MORUS ALBA (MULBERRY) | 6 |
| | CORNUS FLORIDA (DOGWOOD) | 1 |
| ILEX X ATTENUATA (FOSTERS HOLLY) | 1 | |
| SHRUB | LONICERA JAPONICA (JAPANESE HONEYSUCKLE) | 82 |
| | RHUS SPP. (SUMAC) | 5 |

| TYPE | SPECIES | QUANTITY |
|-------|--|----------|
| TREE | ROBINIA PSEUDOACACIA (BLACK LOCUST) | 12 |
| | TAXODIUM DISTICHUM (BALD CYPRESS) | 36 |
| | AILANTHUS ALTISSIMA (TREE OF HEAVEN) | 11 |
| | PYRUS CALLERYANA (CALLERY PEAR) | 2 |
| SHRUB | LONICERA JAPONICA (JAPANESE HONEYSUCKLE) | 10 |
| | VIBURNUM SPP. (VIBURNUM) | 137 |
| | RHUS SPP. (SUMAC) | 47 |

LEGEND

- EXISTING TREES
- EXISTING SHRUB MASSING BOUNDARY
- DENOTES CITY OF ALEXANDRIA PROPERTY (SEE NOTE 1)

NOTES:

1. CITY OF ALEXANDRIA LANDSCAPE GUIDELINES SHALL GOVERN ON CITY OF ALEXANDRIA PROPERTY.
2. REFER TO SHEETS 3 AND 3A FOR TREE SURVEY AND LIST FOR ARLINGTON COUNTY PROPERTY.
3. ALEXANDRIA TREE AND VEGETATION INVENTORY CONDUCTED ONLY ON PORTION OF PARCEL NORTH OF FOUR MILE RUN.



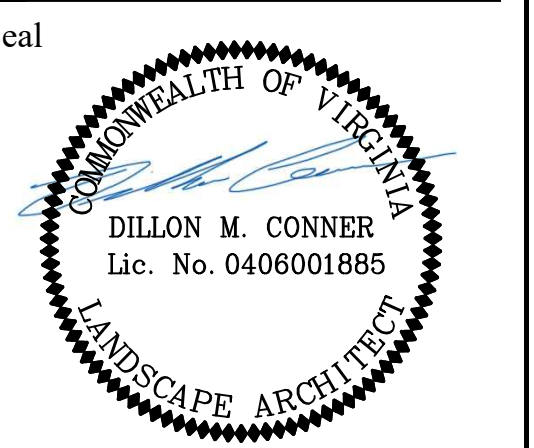
PLAN NUMBER _____
 APPROVED DATE _____
 DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES



DEPARTMENT OF ENVIRONMENTAL SERVICES

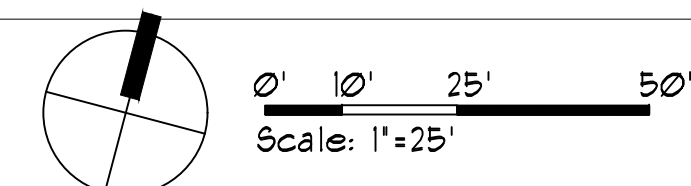
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Seal _____ Date _____
 Approvals _____
 DESIGN TEAM SUPERVISOR _____
 ENGINEERING BUREAU CHIEF _____
 WATER, SEWER STREETS BUREAU CHIEF _____
 TRANSPORTATION DIRECTOR _____

Revisions _____ Date _____

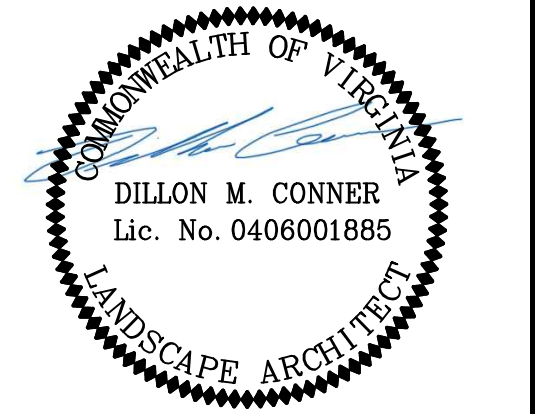


Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202
CITY OF ALEXANDRIA
TREE AND VEGETATION SURVEY
PLAN

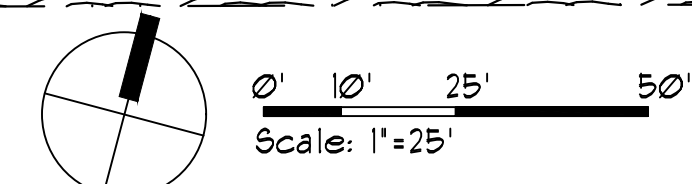
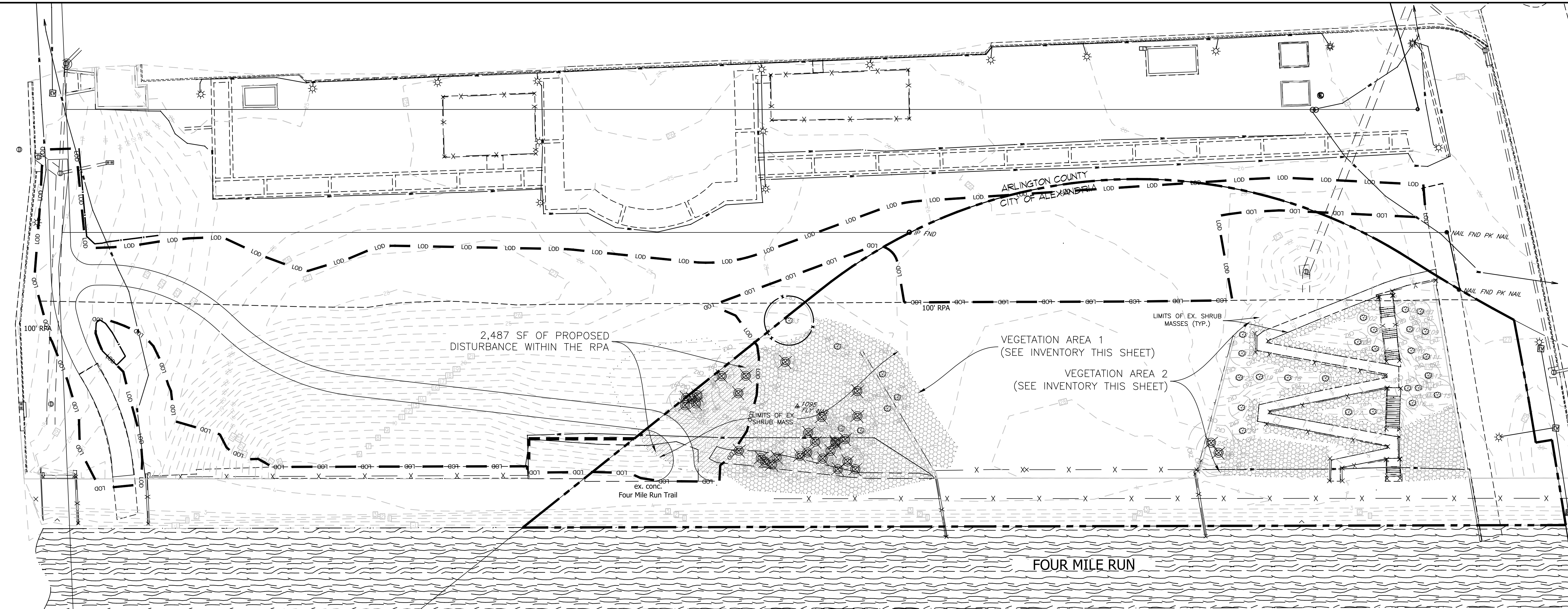
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 Plotted: May 20, 2021
 Plotted by: Ldelacruz

Scale: Hor: 1" = 25'



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| Approvals | Date |
| DESIGN TEAM SUPERVISOR | |
| ENGINEERING BUREAU CHIEF | |
| WATER, SEWER STREETS BUREAU CHIEF | |
| TRANSPORTATION DIRECTOR | |
| Revisions | Date |
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LEGEND

- EXISTING TREES TO BE REMOVED
- INVASIVE SPECIES REMOVAL METHOD 1
- INVASIVE SPECIES REMOVAL METHOD 2
- PROPOSED TREE PROTECTION FENCE
- LIMIT OF DISTURBANCE
- DENOTES CITY OF ALEXANDRIA PROPERTY (SEE NOTE 1)
- TREE PROTECTION FENCE

INVASIVE SPECIES REMOVAL AND MANAGEMENT PLAN NARRATIVE

PER SECTION 1B OF THE CITY OF ALEXANDRIA LANDSCAPE GUIDELINES, A SUBMISSION OF AN INVASIVE SPECIES REMOVAL AND MANAGEMENT PLAN IS REQUIRED.

PREPARATION

1A - LOCATION AND AREAS OF INVASIVE SPECIES:
AREAS OF VEGETATION ARE NOTED ON THE PLAN ABOVE. SPECIES COMPOSITION IS NOTED ON THE CITY OF ALEXANDRIA TREE AND VEGETATION SURVEY PLAN (VEGETATION AREA INVENTORY TABLES, TREE INVENTORY TABLES). SHRUB MASSING AREAS CONTAIN DENSE STANDS OF NATIVE SPECIES INTERSPERSED WITH INVASIVES. CARE SHALL BE TAKEN IN REMOVAL OF INVASIVES SO AS TO PROTECT NATIVE VEGETATION.

1B - BOTANICAL AND COMMON NAME OF THE INVASIVE SPECIES:
SHOWN ON CITY OF ALEXANDRIA TREE AND VEGETATION SURVEY PLAN (VEGETATION AREA INVENTORY TABLES, TREE INVENTORY TABLES).

1C - RISK POSED BY INVASIVE SPECIES FOR THE PROJECT SITE AND ADJACENT PROPERTIES:
THERE IS MINIMAL RISK FOR ADJACENT PROPERTIES AS THE INVASIVE SPECIES ARE RELATIVELY ISOLATED. REMOVAL AND MANAGEMENT PER THIS PLAN WILL REDUCE THE RISK OF SPREADING TO ADJACENT PROPERTIES.

1D - REMOVAL AND MANAGEMENT METHODS:

REMOVAL METHOD 1: REMOVAL OF THE INVASIVE SPECIES WILL BE DONE BY CONSTRUCTION EQUIPMENT UNDERCUTTING 3-7 FEET THE SPECIES ROOT SYSTEM. DISPOSAL WILL OCCUR OFFSITE AT AN APPROVED LANDFILL.

REMOVAL METHOD 2: REMOVAL METHODOLOGY OF THE INVASIVE SPECIES VARY DEPENDING ON THE INDIVIDUAL SPECIES AND PLANT FORM PRESENT (NATIVE SPECIES SHALL BE PRESERVED):

- **AILANTHUS ALTISSIMA (TREE-OF-HEAVEN) SEEDLINGS AND SAPLINGS:** THOROUGHLY WET ALL LEAVES OF WITH ONE OF THE FOLLOWING HERBICIDES IN WATER WITH A SURFACTANT (JULY TO OCTOBER): GARLON 3A OR GARLON 4 AS A 2-PERCENT SOLUTION (8 OUNCES PER 3-GALLON MIX) WHEN SAFETY TO SURROUNDING PLANTS IS DESIRED; OR ARSINAL AC* AS A 0.5-PERCENT SOLUTION (2 OUNCES PER 3-GALLON MIX), OR ARSINAL POWERLINE** AS A 1-PERCENT SOLUTION (4 OUNCES PER 3-GALLON MIX), OR METHOD 2405L (12 FLUID OUNCES PER 100-GALLON MIX).
- **AILANTHUS ALTISSIMA (TREE-OF-HEAVEN) LARGE TREES:** FOR FELLED TREES, APPLY THE HERBICIDES TO STEM AND STUMP TOPS IMMEDIATELY AFTER CUTTING. ALSO, ORTHO BRUSH-B-GON AND ENFORCER BRUSH KILLER ARE EFFECTIVE UNDILUTED FOR TREATING CUT-STUMPS AND AVAILABLE IN RETAIL GARDEN STORES (SAFE TO SURROUNDING PLANTS).
- **LONICERA JAPONICA:** CUT LARGE STEMS AND IMMEDIATELY TREAT THE STUMP TOPS WITH ONE OF THE FOLLOWING HERBICIDES IN WATER WITH A SURFACTANT: ARSINAL AC* AS A 10-PERCENT SOLUTION (1 QUART PER 3-GALLON MIX) OR WHEN SAFETY TO SURROUNDING VEGETATION IS DESIRED, A GLYPHOSATE HERBICIDE AS A 20-PERCENT SOLUTION (5 PINTS PER 3-GALLON MIX). ORTHO BRUSH-B-GON AND ENFORCER BRUSH KILLER ARE EFFECTIVE UNDILUTED FOR TREATING CUT-STUMPS AND AVAILABLE IN RETAIL GARDEN STORES (SAFE TO SURROUNDING PLANTS).
- **MALUS spp. TREES:** FOR FELLED TREES, APPLY THE HERBICIDES TO STEM AND STUMP TOPS IMMEDIATELY AFTER CUTTING. ALSO, ORTHO BRUSH-B-GON AND ENFORCER BRUSH KILLER ARE EFFECTIVE UNDILUTED FOR TREATING CUT-STUMPS AND AVAILABLE IN RETAIL GARDEN STORES (SAFE TO SURROUNDING PLANTS).
- **PAULOWNIA TOMENTOSA RESPROUTS AND SEEDLINGS:** THOROUGHLY WET ALL LEAVES WITH ONE OF THE FOLLOWING HERBICIDES IN WATER WITH A SURFACTANT (JULY TO OCTOBER): ARSINAL AC* AS A 0.75-PERCENT SOLUTION (3 OUNCES PER 3-GALLON MIX); ARSINAL POWERLINE** AS A 1.5-PERCENT SOLUTION (6 OUNCES PER 3-GALLON MIX); OR WHEN SAFETY TO SURROUNDING VEGETATION IS DESIRED, A GLYPHOSATE HERBICIDE, GARLON 3A, OR GARLON 4 AS A 2-PERCENT SOLUTION (8 OUNCES PER 3-GALLON MIX).
- **PAULOWNIA TOMENTOSA LARGE TREES:** FOR FELLED TREES, APPLY ARSINAL AC*, GARLON 3A OR A

- NOTES:**
1. CITY OF ALEXANDRIA LANDSCAPE GUIDELINES SHALL GOVERN ON CITY OF ALEXANDRIA PROPERTY.
 2. REFER TO CITY OF ALEXANDRIA TREE AND VEGETATION SURVEY PLAN FOR SPECIES COMPOSITION.
 3. ALEXANDRIA INVASIVE SPECIES REMOVAL AND MANAGEMENT CONDUCTED ONLY ON PORTION OF PARCEL NORTH OF FOUR MILE RUN.

- **GLYPHOSATE HERBICIDE IN DILUTIONS (MARCH AND APRIL) TO STUMP TOPS IMMEDIATELY AFTER CUTTING. ALSO, ORTHO BRUSH-B-GON AND ENFORCER BRUSH KILLER ARE EFFECTIVE UNDILUTED FOR TREATING CUT-STUMPS AND AVAILABLE IN RETAIL GARDEN STORES (SAFE TO SURROUNDING PLANTS).**
- **PYRUS CALLERYANA SEEDLINGS AND SAPLINGS:** THOROUGHLY WET ALL LEAVES WITH ONE OF THE FOLLOWING HERBICIDES IN WATER WITH A SURFACTANT: A GLYPHOSATE HERBICIDE OR GARLON 3A AS A 2-PERCENT SOLUTION (8 OUNCES PER 3-GALLON MIX), ARSINAL AC** AS A 0.25-PERCENT SOLUTION (1 OUNCE PER 3-GALLON MIX), OR ARSINAL POWERLINE** AS A 0.5-PERCENT SOLUTION (2 OUNCES PER 3-GALLON MIX).
- **PYRUS CALLERYANA TREES:** FOR STEMS TOO TALL FOR FOLIAR SPRAYS, CUT LARGE STEMS AND IMMEDIATELY TREAT THE STUMP TOPS WITH GARLON 3A OR A GLYPHOSATE HERBICIDE AS A 25- TO 50-PERCENT SOLUTION (2 TO 6 QUARTS PER 3-GALLON MIX). ORTHO BRUSH-B-GON AND ENFORCER BRUSH KILLER ARE EFFECTIVE UNDILUTED FOR TREATING CUT-STUMPS AND AVAILABLE IN RETAIL GARDEN STORES (SAFE TO SURROUNDING PLANTS).
- **NOTE:** ALL TREATMENT METHODS SHALL BE PERFORMED PER A MANAGEMENT GUIDE FOR INVASIVE PLANTS IN SOUTHERN FORESTS (MILLER, JAMES 2010).

- 1E - MONITORING AND MANAGEMENT AFTER CONSTRUCTION:**
THE SITE WILL BE MONITORED FOR A DURATION OF ONE GROWING SEASON DURING WHICH INVASIVE RE-ESTABLISHMENT WILL BE PREVENTED BY ADDITIONAL HERBICIDE APPLICATION IF NECESSARY.
- 2A - CONTROL AND MANAGEMENT STRATEGIES:**
CONTROL AND MANAGEMENT STRATEGIES NOTED IN 1D.
- 2B - MULTIPLE STRATEGIES AND TARGETS TOWARDS SPECIFIC INVASIVE:**
SPECIES-SPECIFIC STRATEGIES NOTED IN 1D FOR SEEDLING TO MATURE FORMS OF INVASIVE PLANTS.

- 2C - TECHNIQUES PROPOSED, SCHEDULE OF CONTROL MEASURES, REQUIRED RESOURCES, INVASIVE MONITORING AND MANAGEMENT MEASURES:**
UNDERCUTTING VIA MECHANICAL MEANS CAN BE ACCOMPLISHED YEAR ROUND. FOLIAR AND STUMP HERBICIDE APPLICATIONS SHALL TAKE PLACE DURING THE ACTIVE GROWING SEASON OR THE TIME FRAME NOTED TO ENSURE ADSORPTION OF HERBICIDE. ALL HERBICIDE APPLICATION SHALL BE DONE BY A CERTIFIED PESTICIDE APPLICATOR. INVASIVE MONITORING WILL TAKE PLACE FOR ONE GROWING SEASON.

- 3A - MONITORING AND MANAGEMENT:**
INVASIVE MONITORING WILL TAKE PLACE FOR ONE GROWING SEASON. MANAGEMENT SHALL INCLUDE ADDITIONAL HERBICIDE SPOT TREATMENTS AS NECESSARY.

TREE AND VEGETATION PROTECTION NARRATIVE

TREE PROTECTION FENCING FOR THE CREATION OF TREE/VEGETATION PROTECTION ZONES IS PROPOSED ONLY FOR TREE 53. ALL OTHER TREES IMMEDIATELY ADJACENT TO THE LIMITS OF DISTURBANCE (LOD) ARE INVASIVE SPECIES AND WILL BE REMOVED ACCORDING TO THE INVASIVE SPECIES REMOVAL AND MANAGEMENT PLAN NARRATIVE ON THIS SHEET. TREE PROTECTION IS NOT NECESSARY FOR ANY TREES AND SHRUBS LOCATED WITHIN THE LOD AS THEY WILL BE REMOVED ENTIRELY DURING CONSTRUCTION.

INVASIVE REMOVAL METHODS LISTED IN THE INVASIVE SPECIES REMOVAL AND MANAGEMENT PLAN NARRATIVE SHALL TARGET ONLY INVASIVE SPECIES PRESENT IN THE AREAS HIGHLIGHTED IN THE TREE AND VEGETATION SURVEY PLAN. ALL NATIVE VEGETATION NOT LISTED AS REMOVED FOR CONSTRUCTION SHALL BE PRESERVED TO THE GREATEST EXTENT POSSIBLE.

ALEXANDRIA MINOR WQIA NARRATIVE

THE PROPOSED POTOMAC YARD FOUR MILE RUN TRAIL CONNECTION PROJECT AIMS TO PROVIDE A NEW CONNECTION FROM THE EXISTING FOUR MILE RUN TRAIL TO U.S. ROUTE 1 IN CONJUNCTION WITH THE FOUR MILE RUN MASTER PLAN. THIS PORTION OF THE NEW TRAIL ALIGNMENT WILL DISTURB 2,479 SQUARE FEET (0.06 ACRE) OF AREA WITHIN THE RESOURCE PROTECTION AREA (RPA) IN THE CITY OF ALEXANDRIA. NOTE THAT ONLY 396 SQUARE FEET (0.01 ACRE) OF ADDITIONAL IMPERVIOUS AREA WILL BE ADDED INTO THE RPA. THUS, DUE TO THE MINOR IMPERVIOUS IMPACT WITHIN THE RPA AND THE NATURE OF THE WORK (PUBLIC TRAIL CONNECTION), THE APPLICANT IS REQUESTING A WATER QUALITY MINOR IMPACT ASSESSMENT UNDER SECTION 13-117 (C), AND A DISCUSSION OF EACH OF THE REQUIRED ELEMENTS IS PROVIDED BELOW:

- 1. LOCATION AND DESCRIPTION OF THE EXISTING CHARACTERISTICS AND CONDITIONS OF THE COMPONENTS OF THE RPA AS IDENTIFIED IN SECTION 13-105 (B) AND DELINEATED IN THE ENVIRONMENTAL SITE ASSESSMENT REQUIRED BY SECTION 13-112:**
AS SHOWN ON SHEET 3B, THE RPA IN THIS AREA IS DEFINED BY A 100-FOOT BUFFER FROM THE TOP OF THE BANK OF FOUR MILE RUN ITSELF. THERE ARE NO ADDITIONAL COMPONENTS (TIDAL WETLANDS, TIDAL SHORES, NON-TIDAL WETLANDS) THAT INFLUENCE THE RPA LINE IN THIS AREA. ADDITIONALLY, PER SECTION 13-112 (F), AN ENVIRONMENTAL SITE ASSESSMENT MAY BE WAIVED IF THE PROPOSED DEVELOPMENT WOULD RESULT IN LESS THAN 5,000 SQUARE FEET OF DISTURBED AREA. AS, THE PROPOSED DEVELOPMENT IS ONLY DISTURBING 2,479 SQUARE FEET, THE APPLICANT IS REQUESTING THIS WAIVER.
- 2. LOCATION AND NATURE OF THE PROPOSED ENCRoACHMENT INTO THE BUFFER AREA, INCLUDING: TYPE OF PAVING MATERIAL; AREAS OF CLEARING AND GRADING; LOCATION OF ANY STRUCTURES, DRIVES, OR OTHER IMPERVIOUS COVER; AND SEWAGE DISPOSAL SYSTEMS OR RESERVE DRAINFIELD SITES.**
THE LOCATION OF THE PROPOSED ENCRoACHMENT IS SHOWN ON SHEET 3B. AS DESCRIBED ABOVE, THERE IS A TOTAL OF 2,479 SQUARE FEET (0.06 ACRE) OF DISTURBANCE WITHIN THE RPA. ONLY 396 SQUARE FEET (0.01 ACRE) OF THE DISTURBANCE CONSISTS OF ADDITIONAL IMPERVIOUS SURFACES DUE TO THE CONSTRUCTION OF AN ASPHALT TRAIL CONNECTION. THE REMAINDER OF THE DISTURBED AREA IS SITE GRADING FOR THE TRAIL CONNECTION TO CONNECT TO THE EXISTING FOUR MILE RUN TRAIL.
- 3. TYPE AND LOCATION OF ENHANCED VEGETATION AND/OR PROPOSED B MPS TO MITIGATE THE PROPOSED ENCRoACHMENT.**
AS SHOWN ON SHEET 22A, NATIVE VEGETATIVE PLANTINGS ARE BEING INCORPORATED INTO THE SITE PLAN TO MITIGATE FOR THE PROPOSED ENCRoACHMENT. ADDITIONALLY, NATIVE TREES AND SHRUBS ARE BEING PRESERVED ON THE PROPERTY TO THE EXTENT POSSIBLE.
- 4. LOCATION OF EXISTING VEGETATION ON-SITE, INCLUDING THE NUMBER AND TYPES OF TREES AND OTHER VEGETATION TO BE REMOVED IN THE BUFFER TO ACCOMMODATE THE ENCRoACHMENT OR MODIFICATION.**
EXISTING VEGETATION AND TREE REMOVAL ON-SITE IS DEPICTED ON SHEET 3B. INVASIVE VEGETATION REMOVAL IS SHOWN ON THIS SHEET.
- 5. REVEGETATION PLAN THAT SUPPLEMENTS THE EXISTING BUFFER VEGETATION IN A MANNER THAT PROVIDES FOR POLLUTANT REMOVAL, EROSION, AND RUNOFF CONTROL. THE REVEGETATION PLAN WILL INCORPORATE NATIVE VEGETATION TO THE EXTENT PRACTICABLE.**
A REVEGETATION PLAN IS SHOWN ON SHEET 22A WHICH SUPPLEMENTS THE EXISTING BUFFER VEGETATION AND MITIGATES FOR THE PROPOSED ENCRoACHMENT. NOTE THAT NATIVE VEGETATION WILL BE UTILIZED.



PLAN NUMBER _____

APPROVED DATE _____

DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

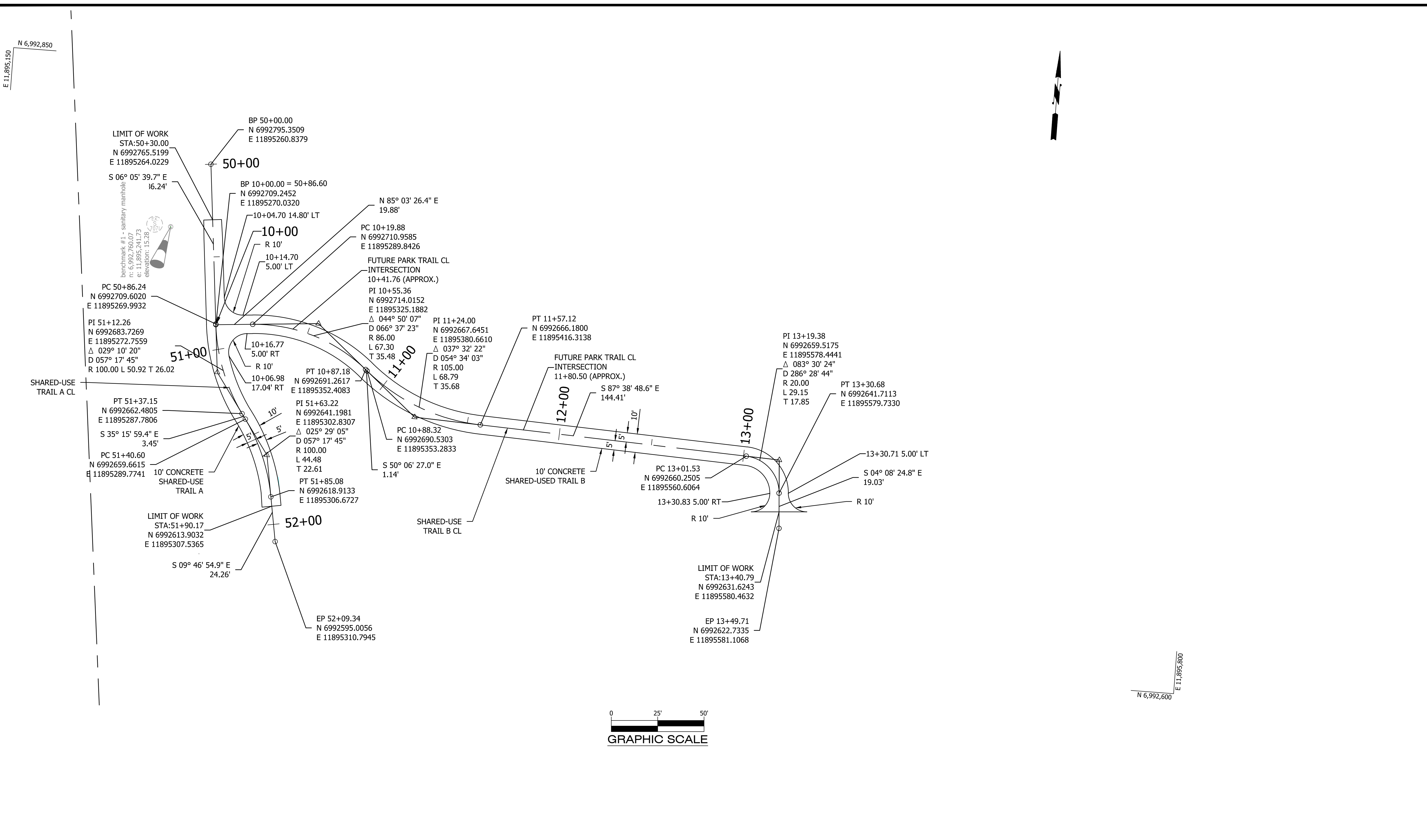
CITY OF ALEXANDRIA
INVASIVE SPECIES REMOVAL
AND MANAGEMENT PLAN

Designed: CJA
Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

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Plotted: May 20, 2021
Plotted by: Delacruz

Scale: Hor: 1" = 25'

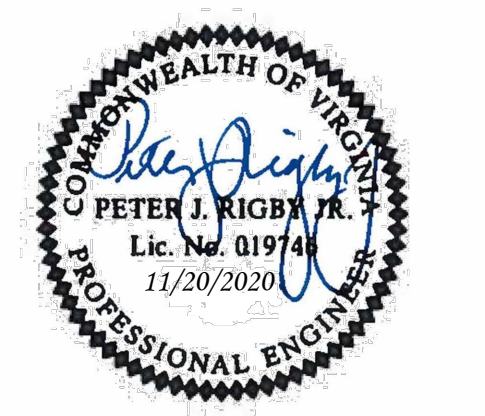
Sheet 3C OF 23



ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects Division
 Engineering Bureau
 2100 Clarendon Boulevard, Suite 813
 Arlington, VA 22201
 Phone: 703.228.3629
 Fax: 703.228.3606



| APPROVALS | DATE |
|------------------------------------|------------|
| <i>Kamal</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Takak</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Whitson</i> | 4/30/20 |
| PROJECT MANAGER | |

| Revisions | Date |
|-----------|------|
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Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

GEOMETRIC CONTROL PLAN

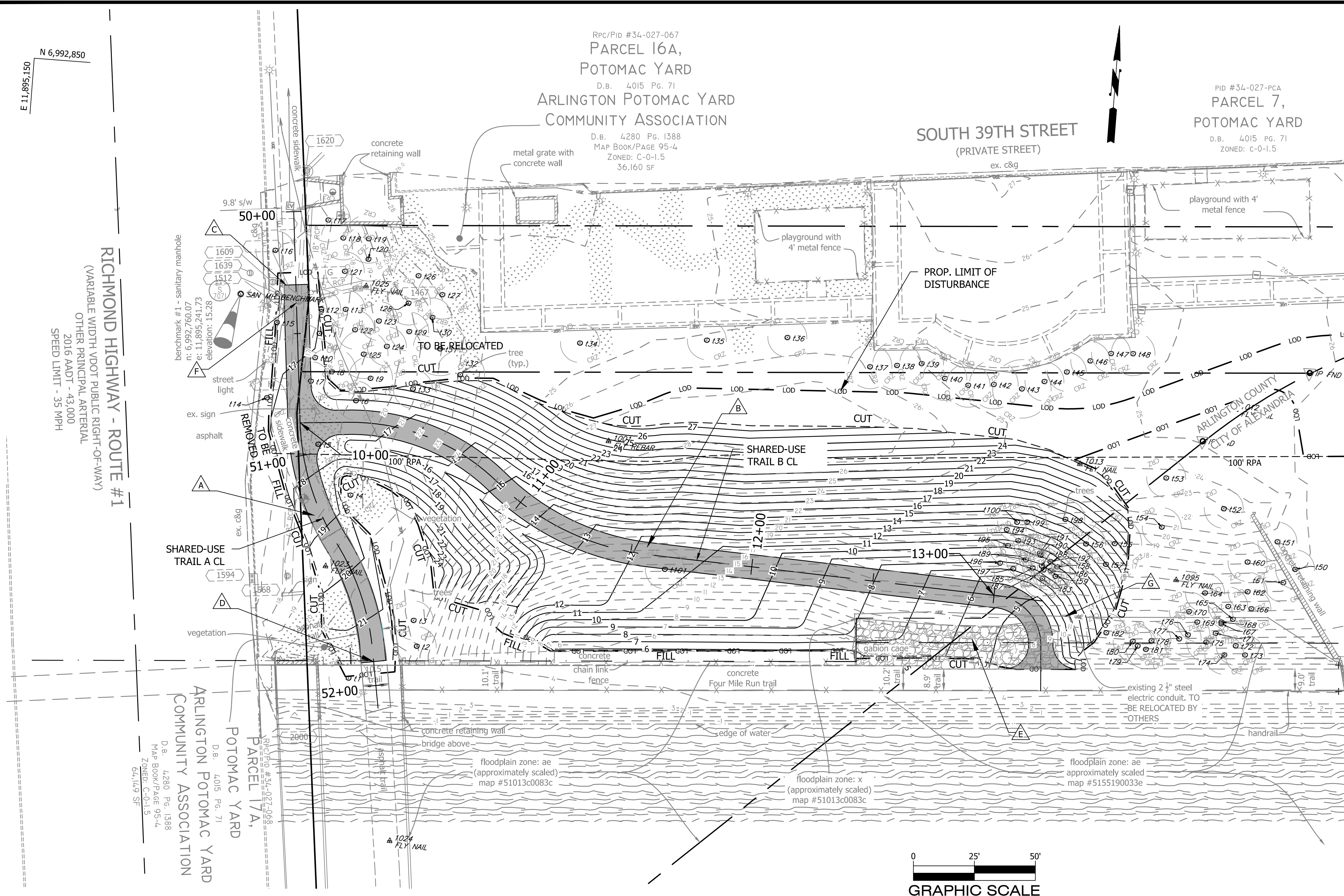
Designed: CJA
 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

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 Plotted: May 20, 2021
 Plotted by: Ldelacruz
 Scale: Hor: 1" = 25'

PLAN NUMBER _____

APPROVED DATE _____

 DIRECTOR OF TRANSPORTATION
 AND ENVIRONMENTAL SERVICES



MATCHLINE SEE SHEET 5A

CONSTRUCTION NOTES

- A** REMOVE THE CONCRETE SIDEWALK AND ASPHALT TRAIL WITHIN THE LIMIT OF WORK AND REPLACE WITH NEW 10' CONCRETE SHARED-USE TRAIL PER THE "CONCRETE SHARED-USE TRAIL A TYPICAL SECTION" DETAIL ON SHEET 7.
- B** CONSTRUCT 10' CONCRETE SHARED-USE TRAIL PER THE "CONCRETE SHARED-USE TRAIL B TYPICAL SECTION" DETAIL ON SHEET 7.
- C** SAW CUT EXISTING CONCRETE SIDEWALK AT LIMIT OF WORK AND TIE PROPOSED CONCRETE SHARED-USE TRAIL IN LINE AND AT GRADE WITH EXISTING SIDEWALK.
- D** SAW CUT EXISTING ASPHALT TRAIL AT LIMIT OF WORK AND TIE PROPOSED CONCRETE SHARED-USE TRAIL IN LINE AND AT GRADE WITH EXISTING TRAIL.
- E** EXISTING GABION CAGE SHALL BE REMOVED WITHIN THE LIMIT OF DISTURBANCE JUST BEFORE TO GRADE THIS AREA.
- F** HOLD TO EXISTING STORM DRAIN MANHOLE #1512 RIM ELEVATION 16.50.
- G** RELOCATE EXISTING STREETLIGHT CONDUIT TO PROPOSED GRADE. THE MINIMUM AMOUNT OF COVER SHALL BE 18".

* IN THE EVENT OF UNSUITABLE SOILS ARE ENCOUNTERED, CONTRACTOR SHALL APPLY THE GEOTECHNICAL RECOMMENDATIONS AS NOTE ON THE ATTACHED GEOTECHNICAL REPORT

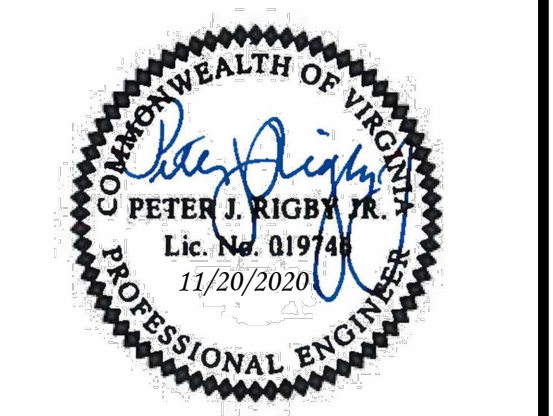
PLAN NUMBER _____
 APPROVED DATE _____

 DIRECTOR OF TRANSPORTATION
 AND ENVIRONMENTAL SERVICES



DEPARTMENT OF ENVIRONMENTAL SERVICES

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 Fax: 703.228.3606
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| APPROVALS | DATE |
|------------------------------------|------------|
| <i>Kamal N. Taklak</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Taklak</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Washington</i> | 4/30/20 |
| PROJECT MANAGER | |

| Revisions | Date |
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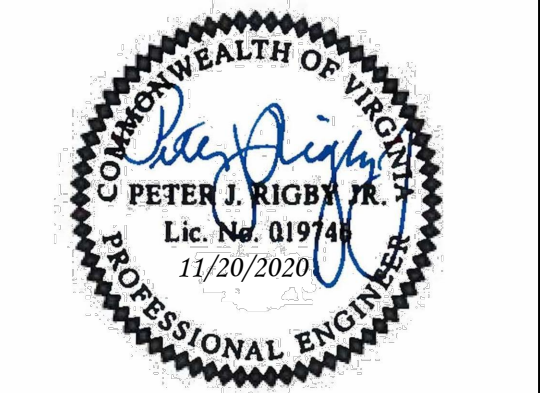
Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

PROPOSED GRADING PLAN

Designed: CJA
 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

Filename: 2016-158_GRA.dwg
 Path: Q:\DWG\B10K\CADACTIVE
 Plotted: May 20, 2021
 Plotted by: Ldelacruz

Scale: Hor: 1" = 25'



| APPROVALS | DATE |
|------------------------------------|------------|
| <i>Kamal</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Taktak</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Wadsworth</i> | 4/30/20 |
| PROJECT MANAGER | |

| Revisions | Date |
|-----------|------|
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Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

PROPOSED GRADING PLAN

Designed: CJA
 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

Filename: 2016-158_GRA.dwg
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 Plotted: May 20, 2021
 Plotted by: Ldelacruz
 Scale: Hor: 1" = 25'

PLAN NUMBER _____

APPROVED DATE _____

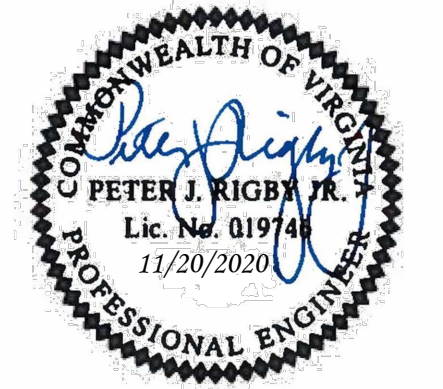
 DIRECTOR OF TRANSPORTATION
 AND ENVIRONMENTAL SERVICES



CONSTRUCTION NOTES

- A REMOVE THE CONCRETE SIDEWALK AND ASPHALT TRAIL WITHIN THE LIMIT OF WORK AND REPLACE WITH NEW CONCRETE SHARED-USE TRAIL PER THE "CONCRETE SHARED-USE TRAIL A TYPICAL SECTION" DETAIL ON SHEET 7.
- B CONSTRUCT CONCRETE SHARED-USE TRAIL PER THE "CONCRETE SHARED-USE TRAIL B TYPICAL SECTION" DETAIL ON SHEET 7.
- C SAW CUT EXISTING CONCRETE SIDEWALK AT LIMIT OF WORK AND TIE PROPOSED CONCRETE SHARED-USE TRAIL IN LINE AND AT GRADE WITH EXISTING SIDEWALK.
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- E REMOVE EXISTING GABION CAGE WITHIN THE LIMIT OF DISTURBANCE.
- F HOLD TO EXISTING STORM DRAIN MANHOLE #1512 RIM ELEVATION 16.50.

* IN THE EVENT OF UNSUITABLE SOILS ARE ENCOUNTERED, CONTRACTOR SHALL APPLY THE GEOTECHNICAL RECOMMENDATIONS AS NOTE ON THE ATTACHED GEOTECHNICAL REPORT



| APPROVALS | DATE |
|------------------------------------|------------|
| <i>[Signature]</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Takrak</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Wadsworth</i> | 4/30/20 |
| PROJECT MANAGER | |

| Revisions | Date |
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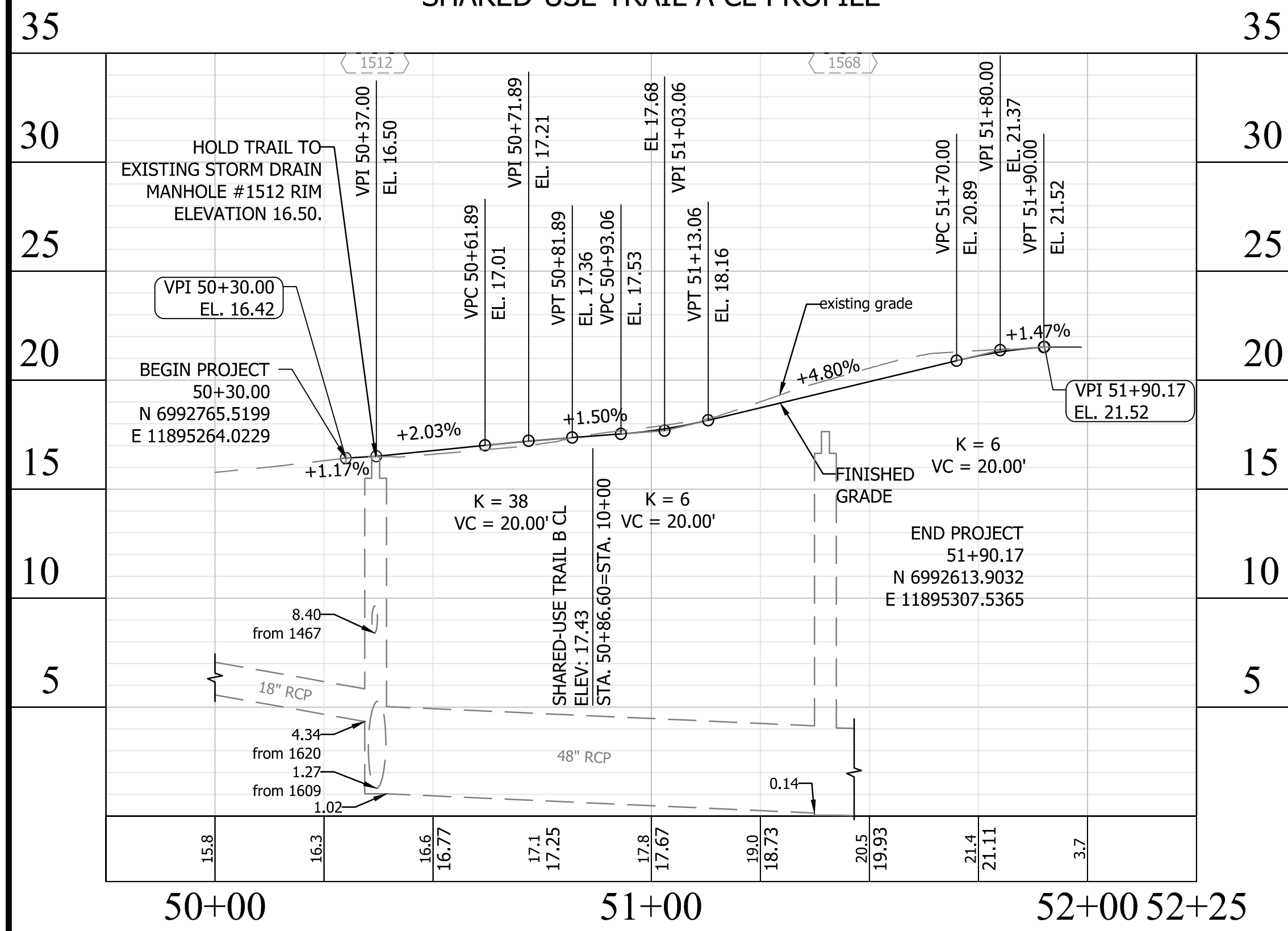
Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

Designed: CJA
 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

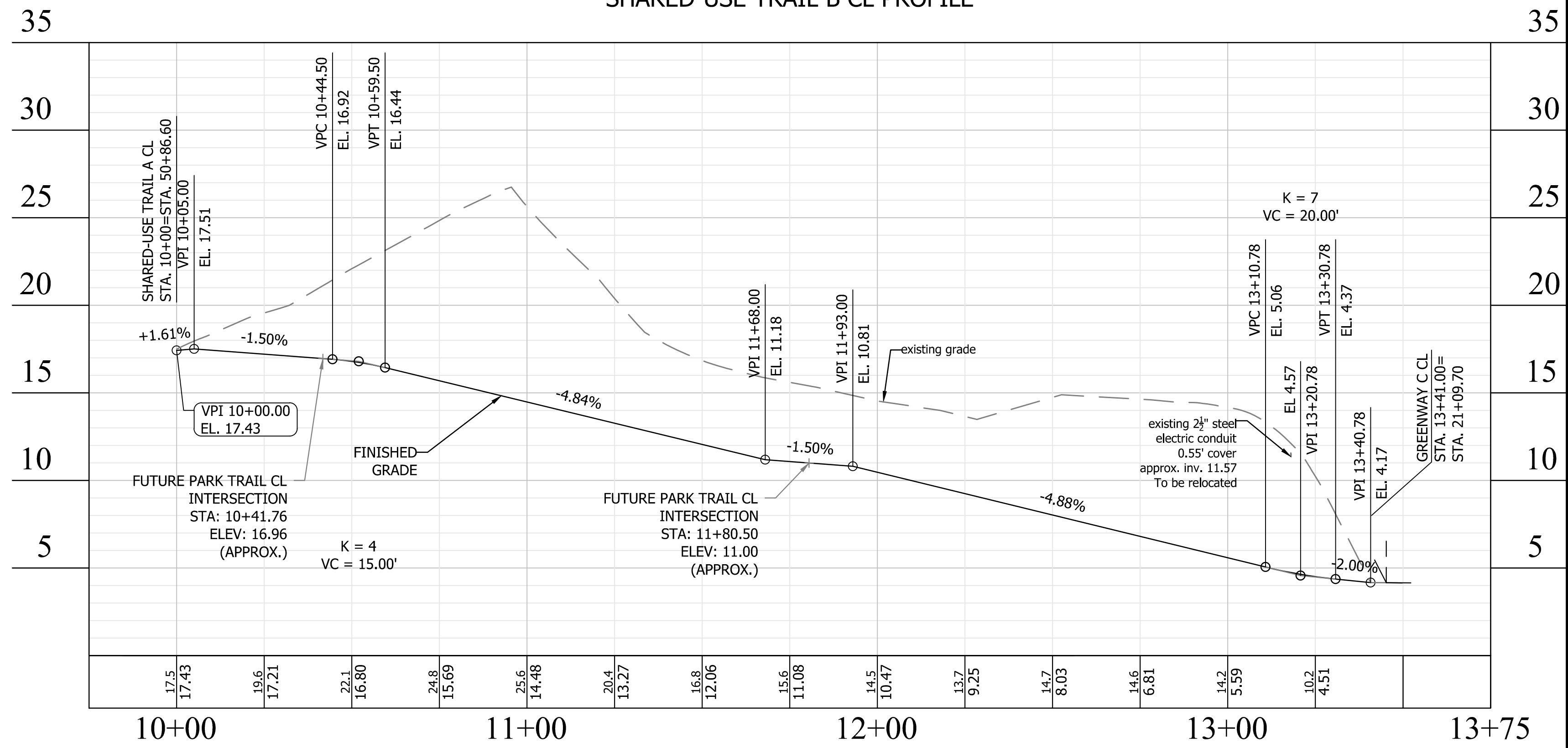
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 Plotted: May 20, 2021
 Plotted by: Ldelacruz

Scale: Hor: 1" = 25'
 Vert: 1" = 5'

SHARED-USE TRAIL A CL PROFILE



SHARED-USE TRAIL B CL PROFILE

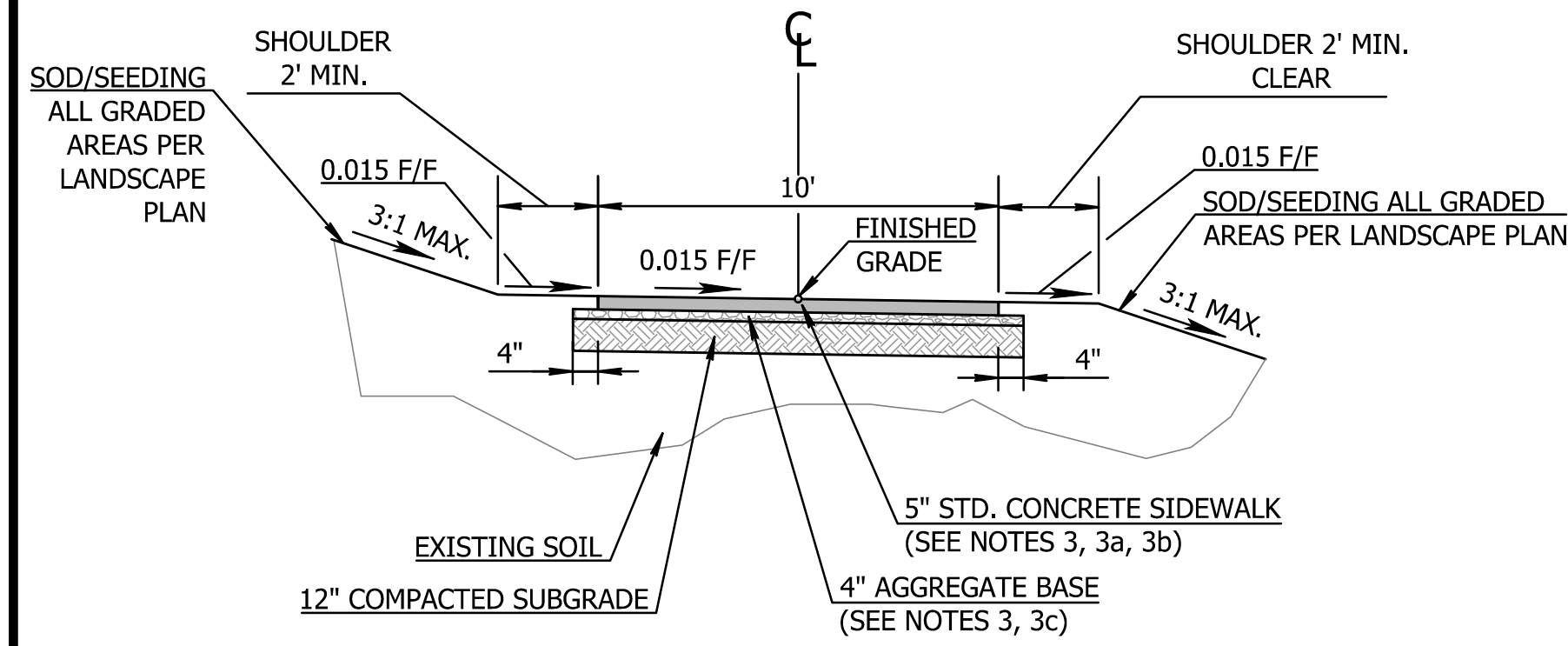


PLAN NUMBER _____

APPROVED DATE _____

DIRECTOR OF TRANSPORTATION
AND ENVIRONMENTAL SERVICES

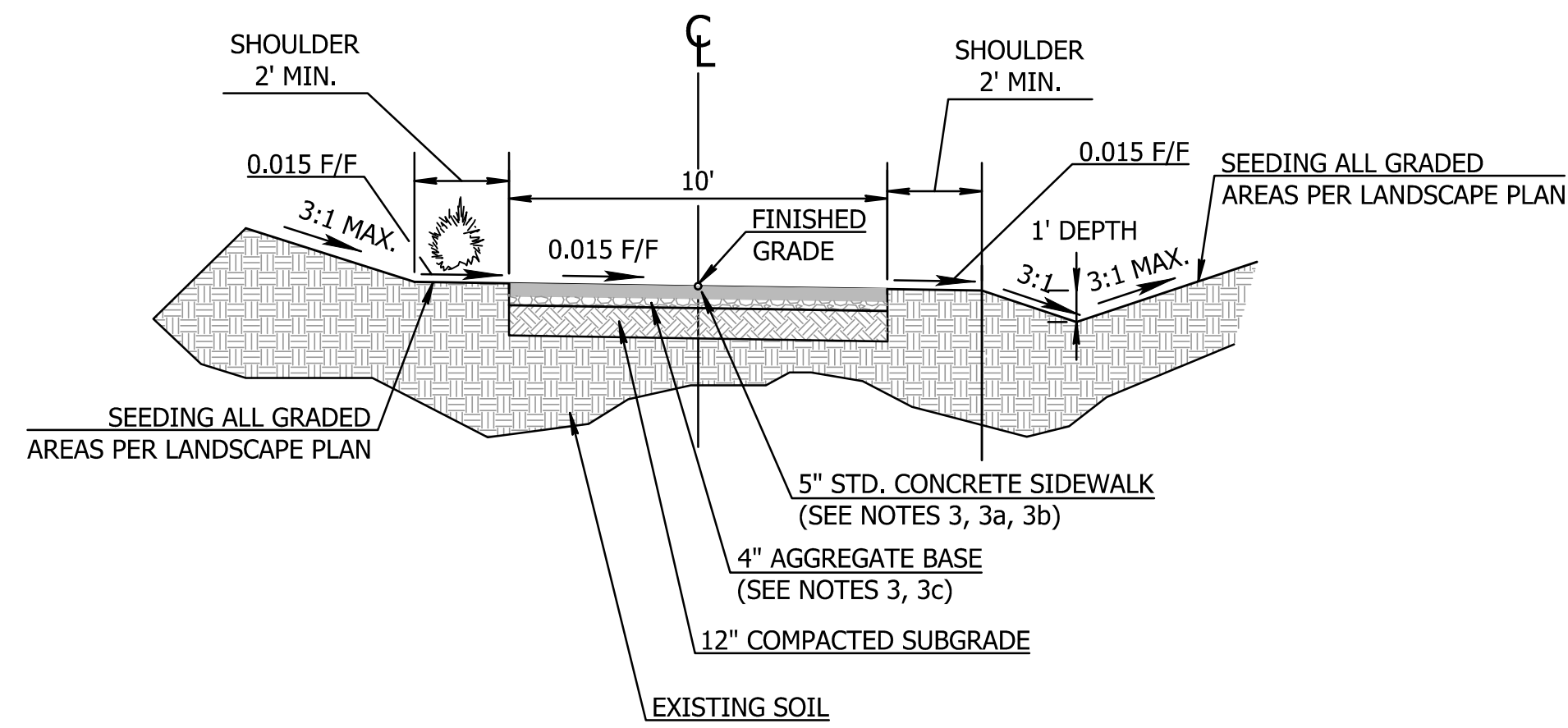
TYPICAL SECTIONS IN VDOT ROW



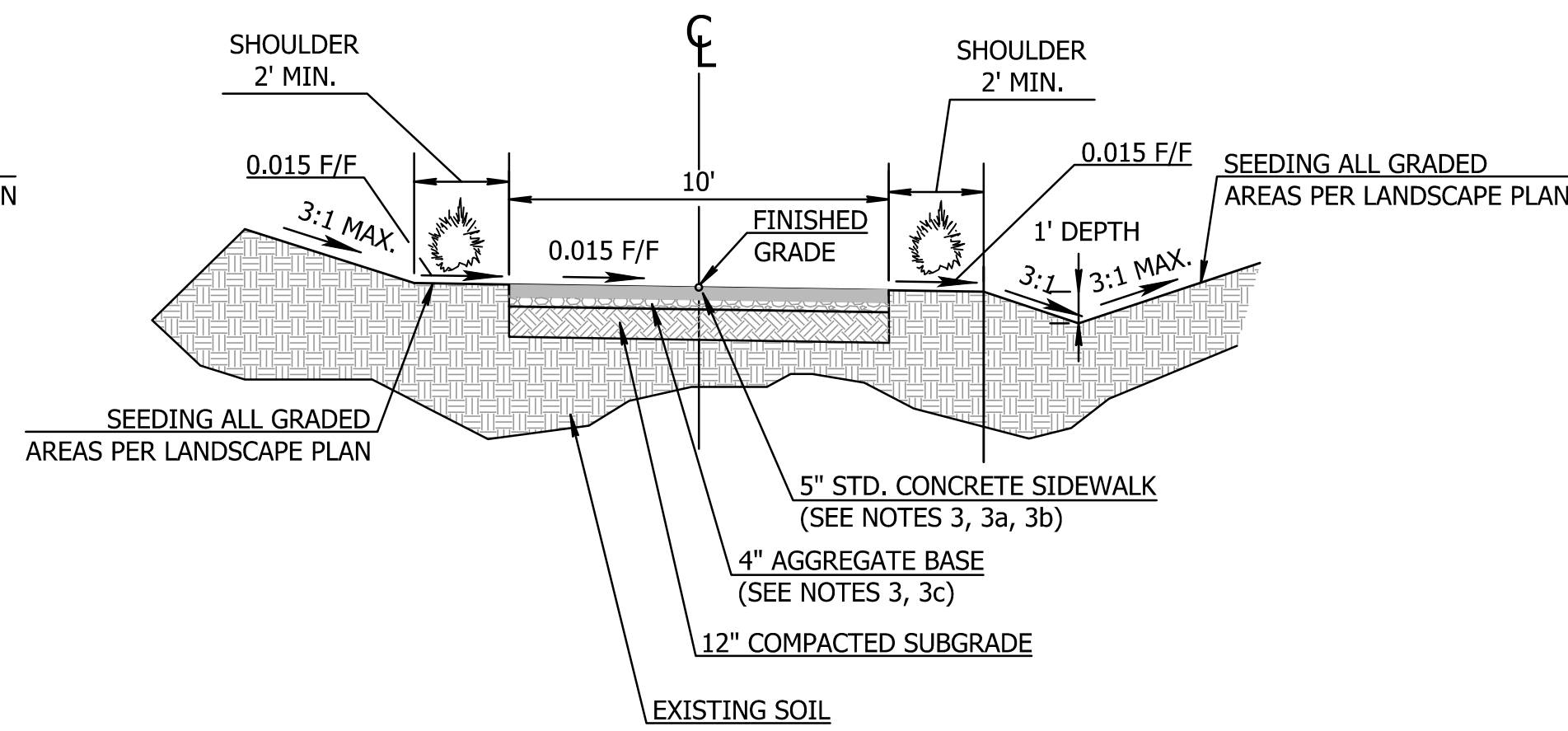
| SUPERELEVATION TABLE | | |
|-----------------------|----------------|-----------------|
| SHARED-USE TRAIL A CL | | |
| BEGINNING STATION | ENDING STATION | SUPERELEVATION |
| 50+30.00 | 51+90.17 | RIGHT 0.015 F/F |

CONCRETE SHARED-USE TRAIL A TYPICAL SECTION
STA 50+30.00 TO 51+90.17

TYPICAL SECTIONS IN COUNTY ROW

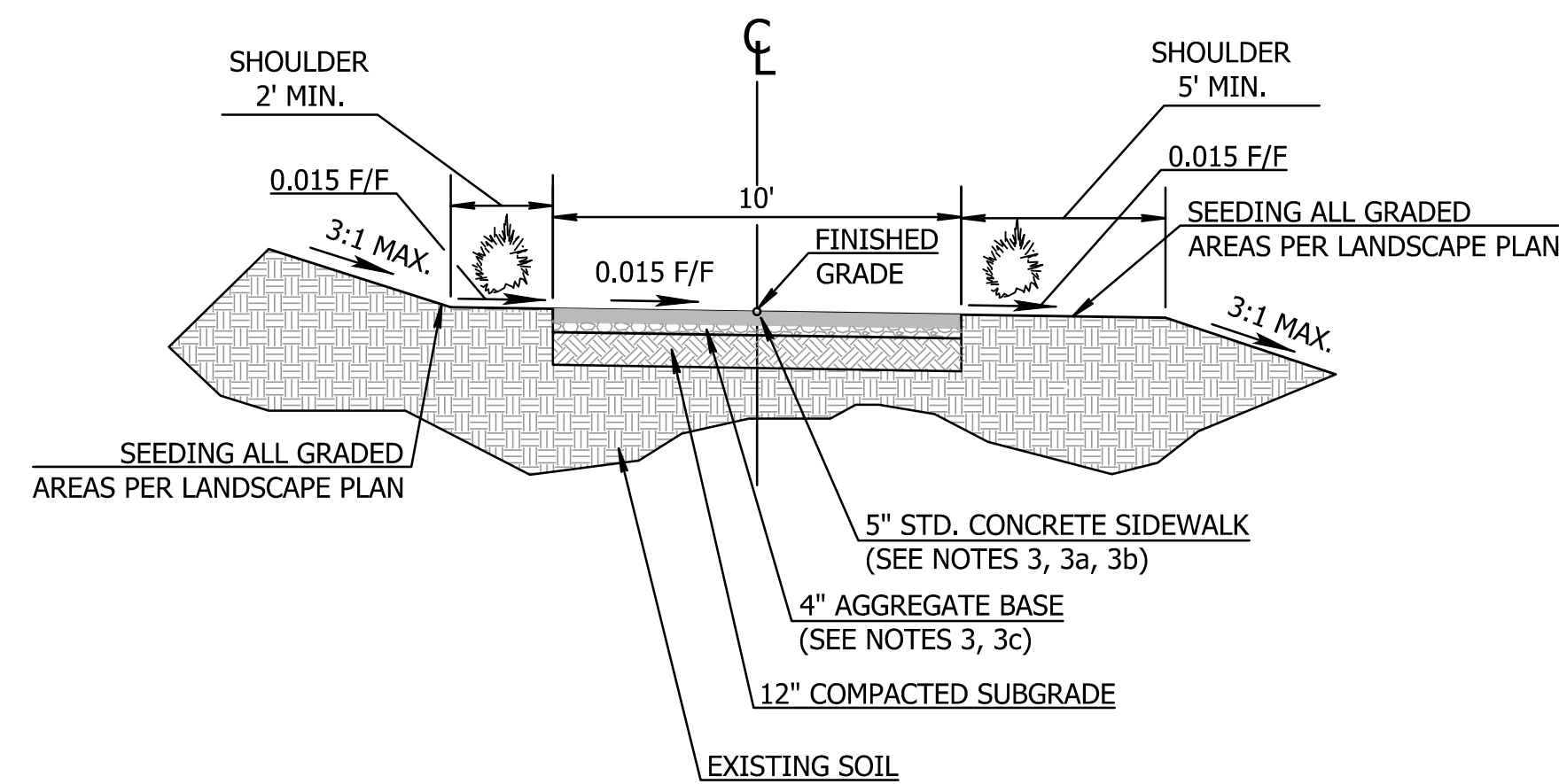


CONCRETE SHARED-USE TRAIL B TYPICAL SECTION
CUT RIGHT SLOPE
STA 10+00 TO 10+87.18

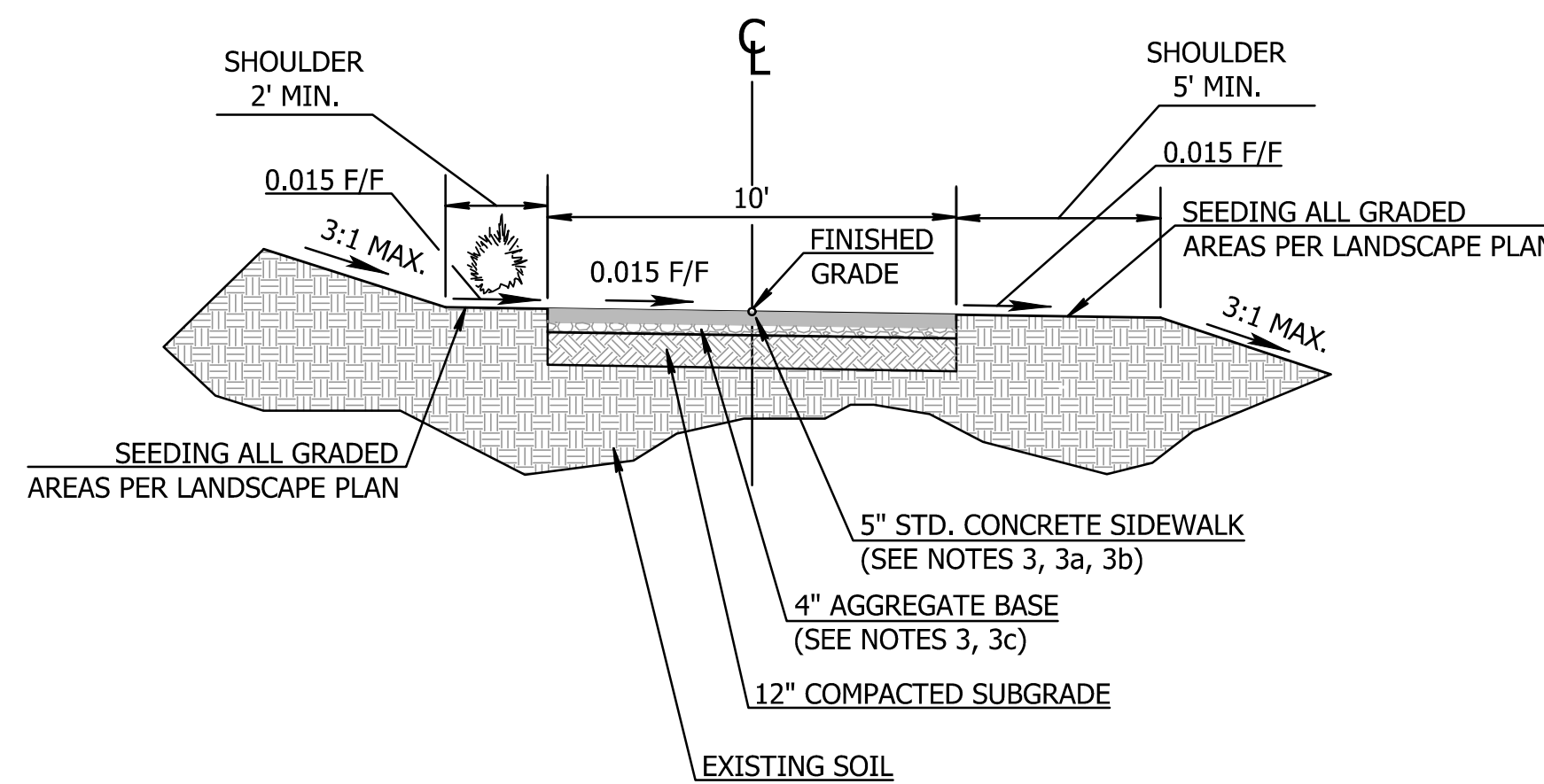


CONCRETE SHARED-USE TRAIL B TYPICAL SECTION
FILL RIGHT SLOPE
STA 10+87.18 TO 11+25.00

| SUPERELEVATION TABLE | | |
|-----------------------|----------------|-----------------|
| SHARED-USE TRAIL B CL | | |
| BEGINNING STATION | ENDING STATION | SUPERELEVATION |
| 10+05.00 | 10+10.00 | LEFT 0.015 F/F |
| 10+10.00 | 10+25.00 | TRANSITION |
| 10+25.00 | 13.32.79 | RIGHT 0.015 F/F |
| 13+32.79 | 13+40.79 | TRANSITION |
| 13+40.79 | - | LEFT 0.002 F/F |



CONCRETE SHARED-USE TRAIL B TYPICAL SECTION
FILL RIGHT SLOPE
STA 11+25.00 TO 11+57.12



CONCRETE SHARED-USE TRAIL B TYPICAL SECTION
FILL RIGHT SLOPE
STA 11+57.12 TO 13+40.79

NOTES:

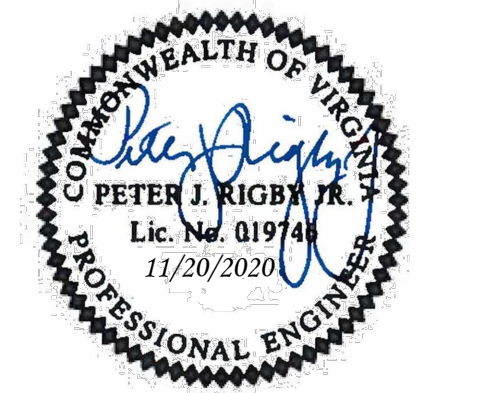
- SEE SUPERELEVATION TABLE FOR VARIATIONS BY STATION.
- SPECIFIC ADA REQUIREMENTS STATE THE CROSS SLOPE AND LONGITUDINAL SLOPES OF THE ASPHALT PAVEMENT MUST BE MEET THE FOLLOWING, AND FIELD VERIFIED WITH A SLOPE MEASURING DEVICE:
 - CROSS SLOPE: 2.0% MAX. (IN BOTH DIRECTIONS AT INTERSECTION/TURN AREAS)
 - LONGITUDINAL SLOPE: 5.0% MAX.
- PROPOSED STD CONCRETE SIDEWALK CLASS A3. PER ARLINGTON STD. DRAWING R-2.0:
 - EXPANSION JOINTS IN THE SIDEWALK SHALL BE 40' APART AND CONTROL JOINTS AT EVERY 10' BETWEEN EXPANSION JOINTS.
 - SEE ARLINGTON COUNTY CONSTRUCTION STANDARDS & SPECIFICATION SECTIONS 02611 AND 03100 FOR MATERIAL SPECS (EXCEPT AS NOTED IN NOTE 3.C BELOW)
 - PROVIDE 4" AGGREGATE BASE, TYPE 1, SIZE 21B AND EXTEND 4" BEYOND THE EDGES OF CONCRETE IN CONFORMANCE WITH SECTION 208 OF THE VDOT SPECIFICATIONS.
- SOD/SEEDING GRADED AREAS PER THE LANDSCAPE PLAN IN ACCORDANCE WITH VESCH 3.32 AND 3.33 AND ACG STANDARDS - DES (SECTION 329200 SEEDING AND SODDING).
- ANY UNSUITABLE SOIL FOUND SHALL BE REMOVED AND REPLACED WITH SUITABLE SOIL.



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects Division
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APPROVALS DATE

Kamal N. Taktak 4/22/2020
QUALITY CONTROL ENGINEER

Kamal N. Taktak 4.23.20
CONSTRUCTION MANAGEMENT SUPERVISOR

David W. Hundelt 04.23.2020
WATER, SEWER, STREETS BUREAU CHIEF

Dennis M. Leach 4/22/20

Jim Whitson 4/30/20
TRANSPORTATION DIRECTOR

PROJECT MANAGER

Revisions Date

| Revisions | Date |
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Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

TYPICAL SECTIONS AND
DETAILS

Designed: CJA
Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

Filename: 2016-158_TYP.dwg
Path: Q:\04\B10\K_CAD\ACTIVE
Plotted: May 20, 2021
Plotted by: Ldelacruz

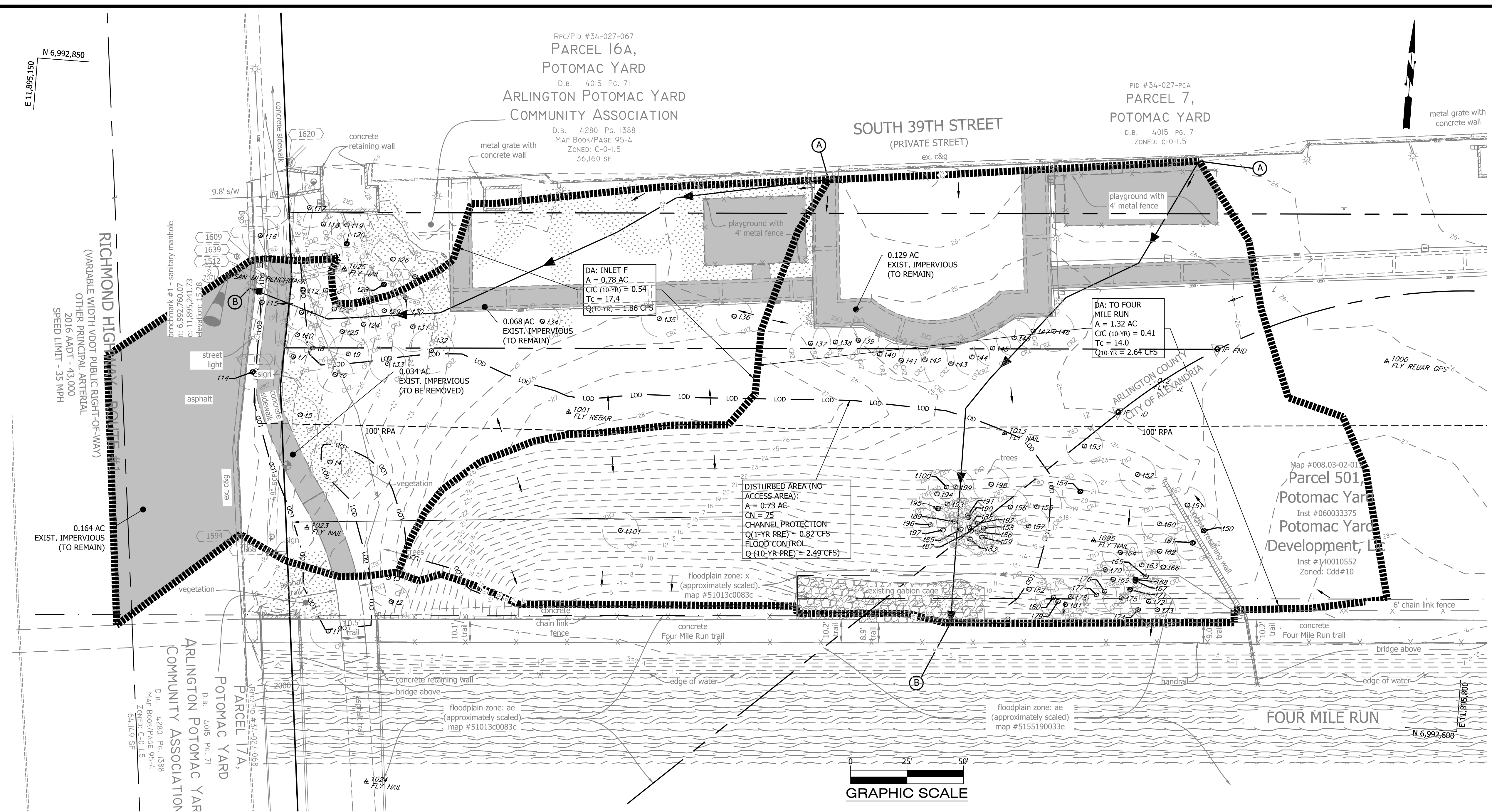
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PLAN NUMBER _____

APPROVED DATE _____

DIRECTOR OF TRANSPORTATION
AND ENVIRONMENTAL SERVICES

Sheet 7 OF 23



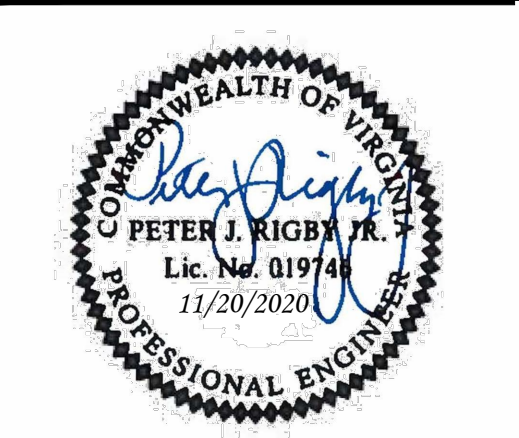
DRAINAGE AREA PLAN LEGEND

- STORM DRAINAGE AREA DIVIDE
- LIMIT OF DISTURBED AREA (PERMANENT)
- TIME OF CONCENTRATION (Tc) TRAVEL PATH
- IMPERVIOUS
- SOIL BOUNDARY



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects Division
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| APPROVALS | DATE |
|------------------------------------|------------|
| <i>Kamal N. Taktab</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Taktab</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Washington</i> | 4/30/20 |
| PROJECT MANAGER | |

| Revisions | Date |
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Project Name and Location
 POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
 PARCEL 17A, POTOMAC YARD - ARLINGTON, VA 22202

EXISTING STORM DRAINAGE AREA AND STORMWATER MANAGEMENT PLAN

Designed: CJA
 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

Filename: 2016-158_DRA01_EX.dwg
 Path: Q:\dwg\B10K\CADACTIVE
 Plotted: May 20, 2021
 Plotted by: Ldelacruz

Scale: Hor: 1" = 25'

PLAN NUMBER _____
 APPROVED DATE _____
 DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

RATIONAL METHOD FORMULA
 $Q = C \cdot C \cdot I \cdot A$ (PER VDOT DRAINAGE MANUAL EQUATION 6.4)

Q = MAXIMUM RATE OF RUNOFF, CUBIC FEET PER SECOND (CFS)
 C = SATURATION FACTOR
 C = RUNOFF COEFFICIENT REPRESENTING A RATIO OF RUNOFF TO RAINFALL (DIMENSIONLESS)
 i = AVERAGE RAINFALL INTENSITY FOR A DURATION EQUAL TO THE TIME OF CONCENTRATION FOR A SELECTED RETURN PERIOD, INCHES PER HOUR (IN/HR)
 A = DRAINAGE AREA CONTRIBUTING TO THE POINT OF STUDY, ACRES (AC)

| SATURATION FACTORS FOR RATIONAL FORMULA | |
|---|----------------|
| RECURRENCE INTERVAL (YEARS) | C _r |
| 10 | 1.0 |

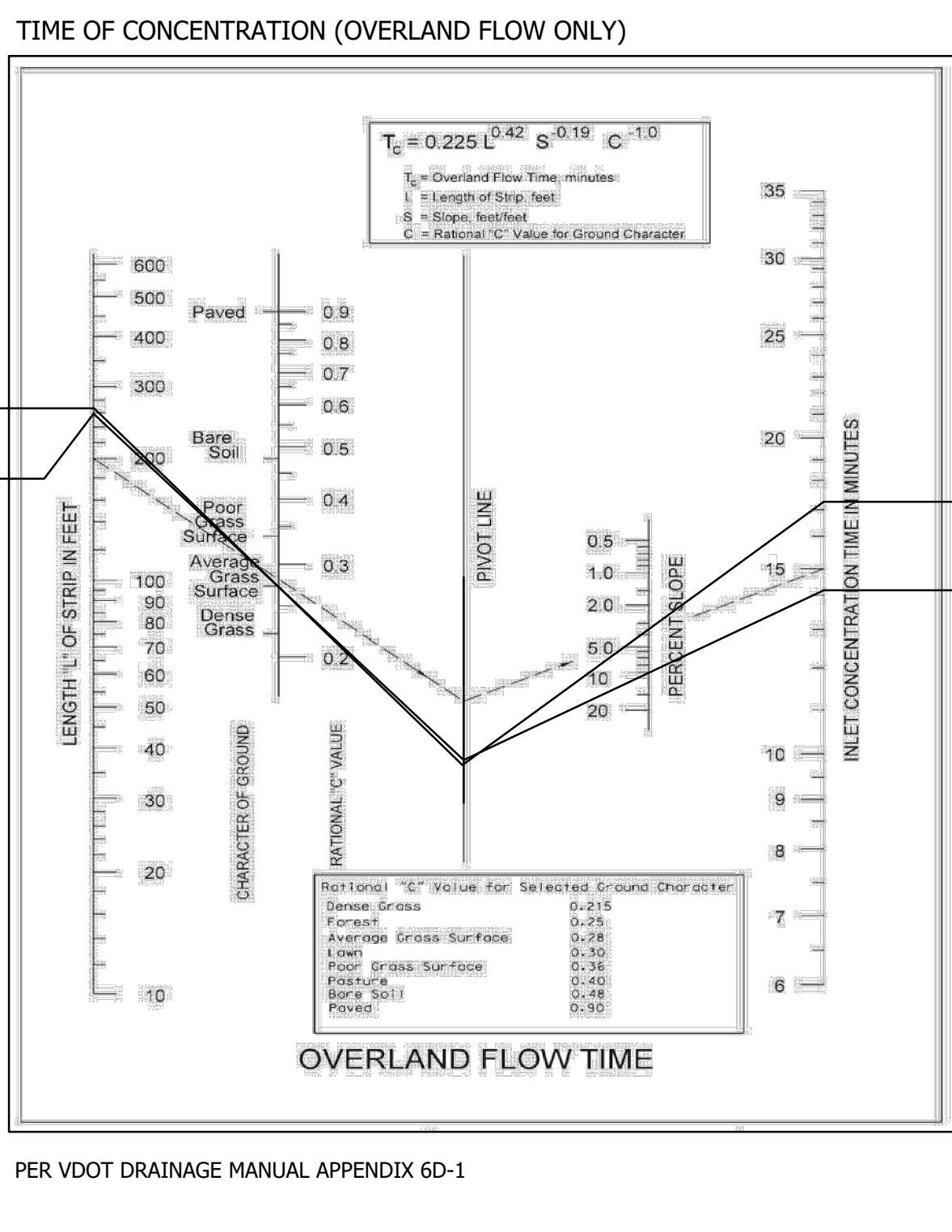
PER VDOT DRAINAGE MANUAL TABLE 6-2

| RATIONAL METHOD RUNOFF COEFFICIENTS | |
|-------------------------------------|------|
| LAND USE | C |
| PAVED AND ROOF AREAS | 0.90 |
| LAWNS (STEEP > 6%) | 0.35 |

PER VDOT DRAINAGE MANUAL APPENDIX 6E-1

RAINFALL INTENSITY EQUATION
 $i = B / (T_c + D)^E$ (PER VDOT DRAINAGE MANUAL APPENDIX 6C-1)

B, D AND E FACTORS PER VDOT DRAINAGE MANUAL APPENDIX 6C-2
 T_c = TIME OF CONCENTRATION (MIN)

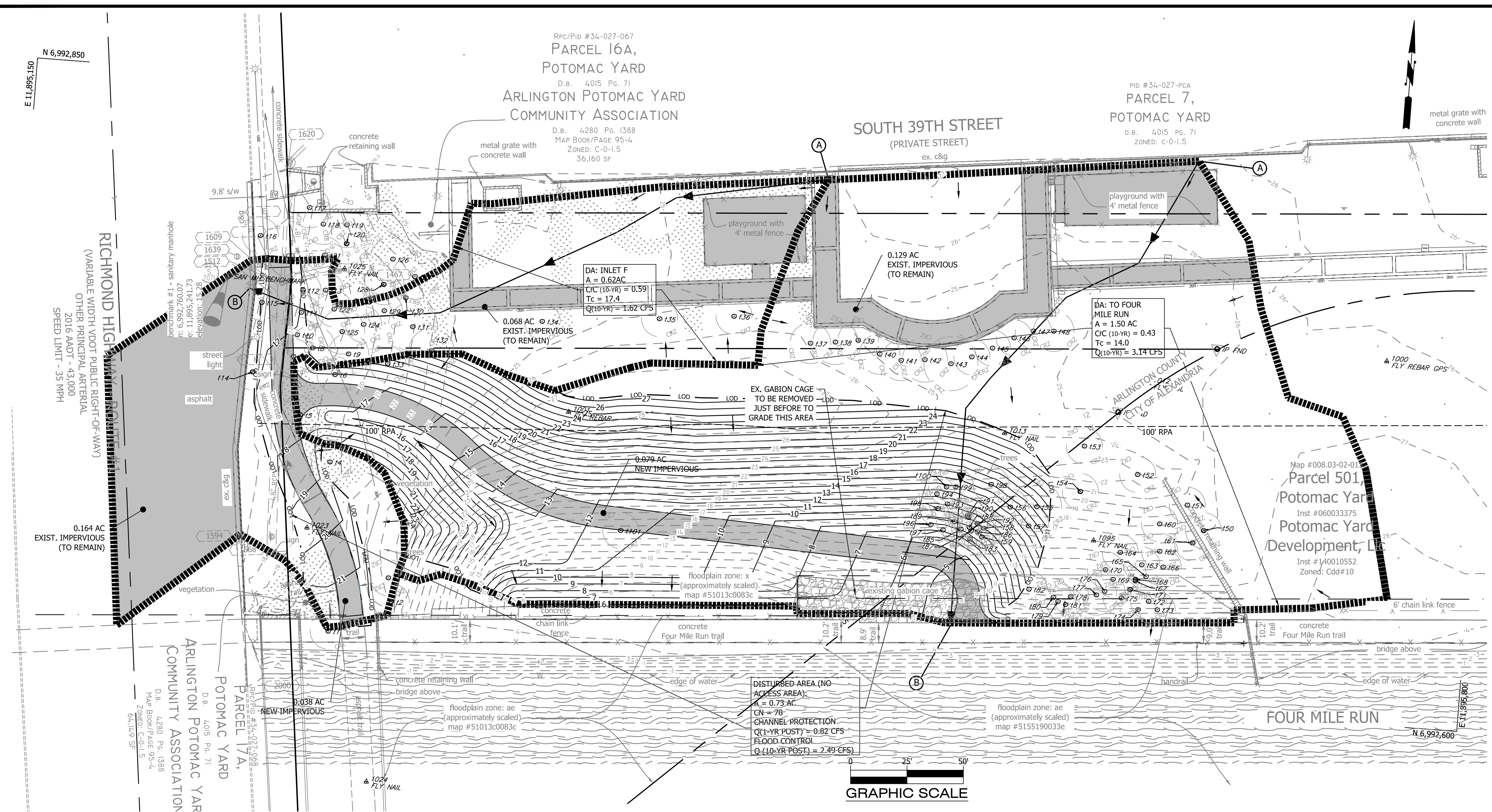


EXISTING STORM DRAINAGE AREAS

| DRAINAGE AREA | A (AC) | C _r (10-YR) | PAVED AND ROOF AREAS | | LAWNS (STEEP > 6%) | | COMPOSITE C | COMPOSITE C/C (10-YR) | T _c (MIN) | STA: WASHINGTON REAGAN AP ID: 44-8906 (10-YR) | | | I (10-YR) (IN/HR) | Q _{pre} (10-YR) (CFS) |
|------------------|--------|------------------------|----------------------|------|--------------------|------|-------------|-----------------------|----------------------|---|-----|------|-------------------|--------------------------------|
| | | | AC | CN | AC | CN | | | | B | D | E | | |
| INLET F | 0.78 | 0.27 | 0.90 | 0.51 | 0.35 | 0.54 | 0.54 | 17.4 | 65.8 | 11.88 | 0.8 | 4.42 | 1.86 | |
| TO FOUR MILE RUN | 1.32 | 1.0 | 0.13 | 0.90 | 1.20 | 0.35 | 0.41 | 14 | | | | 4.87 | 2.64 | |

EXISTING STORMWATER MANAGEMENT DATA

| DISTURBED AREA (Temporary disturbed areas not included) | IMPERVIOUS COVER | | MANAGED TURF (C SOILS) | | COMPOSITE CN | T _c HR | 1-YR 2.60 IN | 10-YR 4.8 IN |
|---|------------------|----|------------------------|----|--------------|-------------------|-------------------------------|---------------------------|
| | AC | CN | AC | CN | | | CHANNEL PROTECTION Q1-YR PRE* | FLOOD CONTROL Q10-YR PRE* |
| 0.73 | 0.03 | 98 | 0.70 | 74 | 75 | 0.10 | 0.66 | 2.25 |



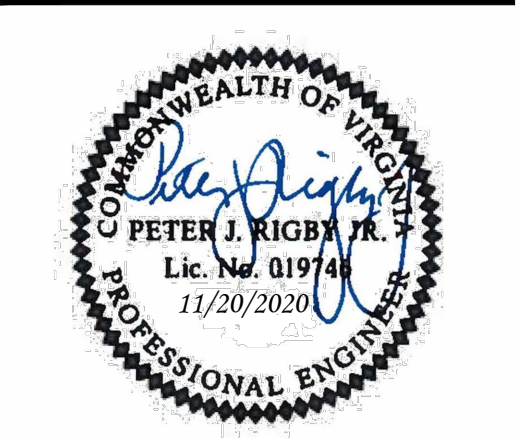
DRAINAGE AREA PLAN LEGEND

- STORM DRAINAGE AREA DIVIDE
- LIMIT OF DISTURBED AREA (PERMANENT)
- TIME OF CONCENTRATION (Tc) TRAVEL PATH
- IMPERVIOUS
- SOIL BOUNDARY



DEPARTMENT OF ENVIRONMENTAL SERVICES

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| APPROVALS | DATE |
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| <i>Kamal N. Taktak</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Taktak</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Washington</i> | 4/30/20 |
| PROJECT MANAGER | |
| Revisions | Date |

Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

PROPOSED STORM DRAINAGE PLAN AND STORMWATER MANAGEMENT PLAN

Designed: CJA
 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

Filename: 2016-158_DRA02_PROP.dwg
 Path: Q:\dwg\B10K_CADACTIVE
 Plotted: May 20, 2021
 Plotted by: Ldelacruz

Scale: Hor: 1" = 25'

PLAN NUMBER _____

APPROVED DATE _____

DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

RATIONAL METHOD FORMULA
 $Q = C C I A$ (PER VDOT DRAINAGE MANUAL EQUATION 6.4)

Q = MAXIMUM RATE OF RUNOFF, CUBIC FEET PER SECOND (CFS)
 C = SATURATION FACTOR
 C = RUNOFF COEFFICIENT REPRESENTING A RATIO OF RUNOFF TO RAINFALL (DIMENSIONLESS)
 i = AVERAGE RAINFALL INTENSITY FOR A DURATION EQUAL TO THE TIME OF CONCENTRATION FOR A SELECTED RETURN PERIOD, INCHES PER HOUR (IN/HR)
 A = DRAINAGE AREA CONTRIBUTING TO THE POINT OF STUDY, ACRES (AC)

| RECURRENCE INTERVAL (YEARS) | C _r |
|-----------------------------|----------------|
| 10 | 1.0 |

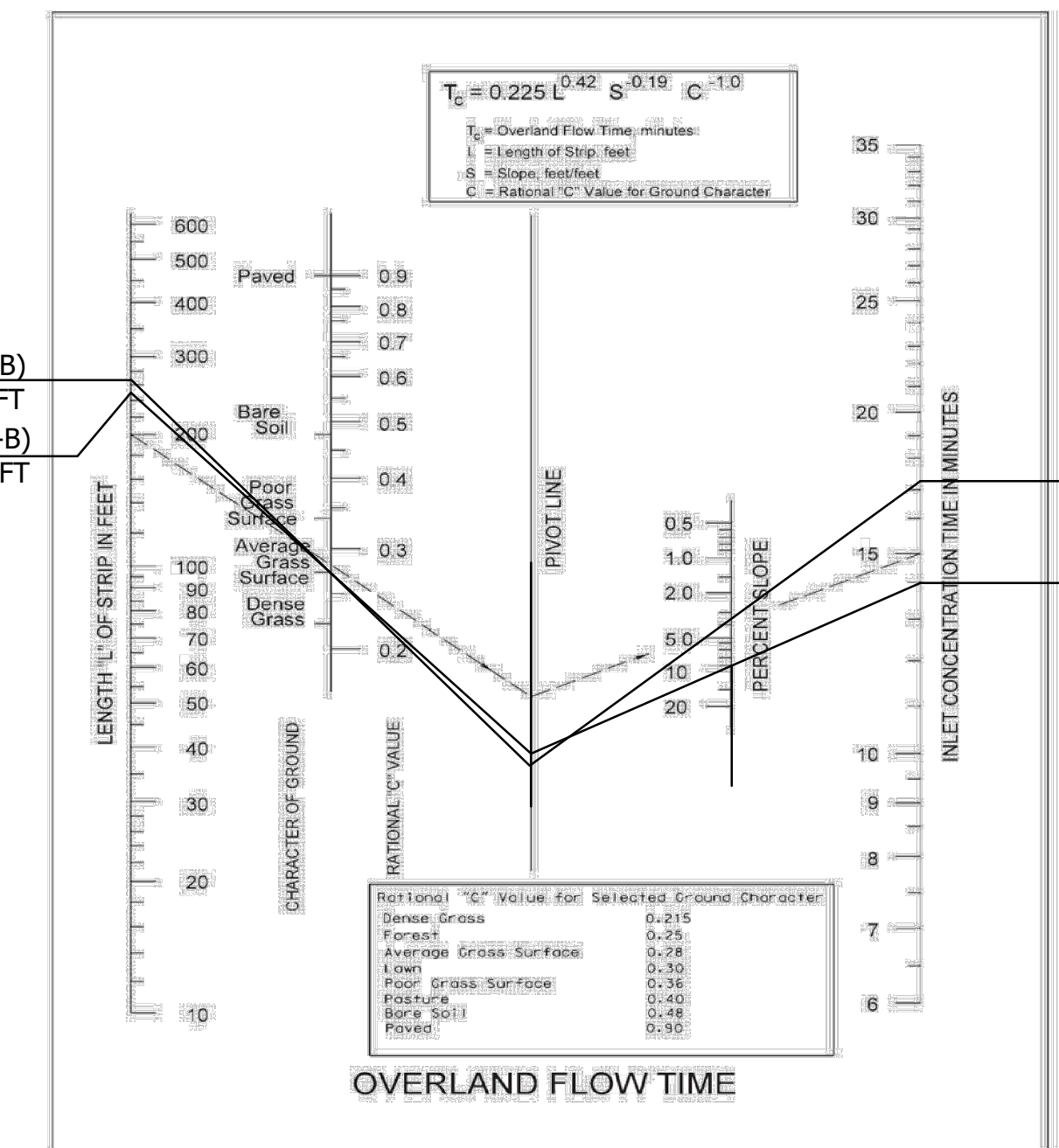
| LAND USE | C |
|----------------------|------|
| PAVED AND ROOF AREAS | 0.90 |
| LAWNS (STEEP > 6%) | 0.35 |

PER VDOT DRAINAGE MANUAL APPENDIX 6E-1

RAINFALL INTENSITY EQUATION
 $i = B / (T_c + D)^E$ (PER VDOT DRAINAGE MANUAL APPENDIX 6C-1)

B, D AND E FACTORS PER VDOT DRAINAGE MANUAL APPENDIX 6C-2
 T_c = TIME OF CONCENTRATION (MIN)

TIME OF CONCENTRATION (OVERLAND FLOW ONLY)



PER VDOT DRAINAGE MANUAL APPENDIX 6D-1

| DRAINAGE AREA | A (AC) | C _r (10-YR) | PAVED AND ROOF AREAS | | LAWNS (STEEP > 6%) | | COMPOSITE C | COMPOSITE C/C (10-YR) | T _c (MIN) | STA: WASHINGTON REAGAN AP ID: 44-8906 (10-YR) | | | I (10-YR) (IN/HR) | Q (10-YR) (CFS) |
|------------------|--------|------------------------|----------------------|------|--------------------|------|-------------|-----------------------|----------------------|---|-------|-----|-------------------|-----------------|
| | | | AC | C | AC | C | | | | B | D | E | | |
| INLET F | 0.62 | 1.0 | 0.27 | 0.90 | 0.35 | 0.35 | 0.59 | 0.59 | 17.4 | 65.8 | 11.88 | 0.8 | 4.42 | 1.62 |
| TO FOUR MILE RUN | 1.50 | 1.0 | 0.21 | 0.90 | 1.29 | 0.35 | 0.43 | 0.43 | 14.0 | | | | 4.87 | 3.14 |

| DISTURBED AREA (Temporary disturbed areas not included) | IMPERVIOUS COVER | | MANAGED TURF (C SOILS) | | COMPOSITE CN | T _c HR | 1-YR 2.60 IN CHANNEL PROTECTION Q1-YR PRE* | 10-YR 4.8 IN FLOOD CONTROL Q10-YR PRE* |
|---|------------------|----|------------------------|----|--------------|-------------------|--|--|
| | AC | CN | AC | CN | | | | |
| 0.73 | 0.12 | 98 | 0.61 | 74 | 78 | 0.10 | 0.82 | 2.49 |

STORMWATER MANAGEMENT SUMMARY:
 LOW DISCHARGES FROM THE SITE, AND LIMITED TREATMENT/STORAGE OPTIONS AVAILABLE ON THE STEEP GRADE OF THE SITE, NO STORMWATER WATER MANAGEMENT DEVICES ARE PROPOSED. NEWLY PROPOSED IMPERVIOUS AND GRADING MAINTAINS SHEET FLOW ACROSS THE SITE DRAINAGE AREAS.

ARLINGTON COUNTY

DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet - Version 3.0

Project Name: POTOMAC YARD - FMR TRAIL CONNECTION (Arlington) Date: 5/12/2020

Site Information: Enter Total Disturbed Area (acres) → 0.8278

Post-Development Project (Treatment Volume and Loads): Enter Total Disturbed Area (acres) → 0.8278

| Pre-Development Land Cover (acres) | A Soils | B Soils | C Soils | D Soils | Totals |
|--|---------|---------|---------|---------|--------|
| Forest/Open Space (acres) - undisturbed | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Managed Turf (acres) - disturbed, graded for yards or other turf to be mowed/managed | 0.7884 | 0.0000 | 0.0000 | 0.0000 | 0.7884 |
| Impervious Cover (acres) | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| Post-Development Land Cover (acres) | A Soils | B Soils | C Soils | D Soils | Totals |
|--|---------|---------|---------|---------|--------|
| Forest/Open Space (acres) - undisturbed | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Managed Turf (acres) - disturbed, graded for yards or other turf to be mowed/managed | 0.7209 | 0.0000 | 0.0000 | 0.0000 | 0.7209 |
| Impervious Cover (acres) | 0.1069 | 0.0000 | 0.0000 | 0.0000 | 0.1069 |

TP Load Reduction Required for Redeveloped Area (lb/yr): 0.0993

TP Load Reduction Required for New Impervious Area (lb/yr): 0.1186

CITY OF ALEXANDRIA

DEQ Virginia Runoff Reduction Method Re-Development Compliance Spreadsheet - Version 3.0

Project Name: POTOMAC YARD - FMR TRAIL CONNECTION (City of Alexandria) Date: 5/12/2020

Site Information: Enter Total Disturbed Area (acres) → 0.3509

Post-Development Project (Treatment Volume and Loads): Enter Total Disturbed Area (acres) → 0.3509

| Pre-Development Land Cover (acres) | A Soils | B Soils | C Soils | D Soils | Totals |
|--|---------|---------|---------|---------|--------|
| Forest/Open Space (acres) - undisturbed | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Managed Turf (acres) - disturbed, graded for yards or other turf to be mowed/managed | 0.2509 | 0.0000 | 0.0000 | 0.0000 | 0.2509 |
| Impervious Cover (acres) | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

| Post-Development Land Cover (acres) | A Soils | B Soils | C Soils | D Soils | Totals |
|--|---------|---------|---------|---------|--------|
| Forest/Open Space (acres) - undisturbed | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Managed Turf (acres) - disturbed, graded for yards or other turf to be mowed/managed | 0.2418 | 0.0000 | 0.0000 | 0.0000 | 0.2418 |
| Impervious Cover (acres) | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

TP Load Reduction Required for Redeveloped Area (lb/yr): 0.0993

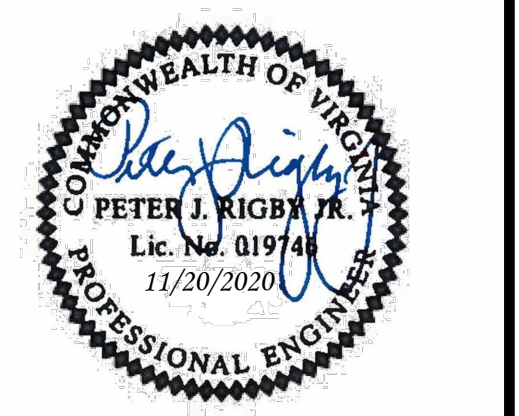
TP Load Reduction Required for New Impervious Area (lb/yr): 0.1186



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects 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

Kamal N. Taktak 4/22/2020
QUALITY CONTROL ENGINEER

David W. Hundelt 04/23/2020
WATER, SEWER, STREETS BUREAU CHIEF

Dennis M. Leach 4/22/2020
TRANSPORTATION DIRECTOR

Jim Whitson 4/30/2020
PROJECT MANAGER

Revisions Date

Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

VRRM SPREADSHEET

Designed: CJA
Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

Filename: 2016-158_DRA02_PROP.dwg
Path: Q:\dwg\B10K_CADACTIVE
Plotted: May 20, 2021
Plotted by: Ldelacruz

Scale: Hor: 1" = 25'

PLAN NUMBER _____
APPROVED DATE _____
DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

NOTE:

THE RUNOFF REDUCTION SPREADSHEET INFORMATION ON THIS PLAN IS FOR DATA TRACKING PURPOSES TO DOCUMENT THE AREA OF LAND DISTURBANCE AND TO CHARACTERIZE PRE- AND POST-DEVELOPMENT LAND USE CONDITIONS.

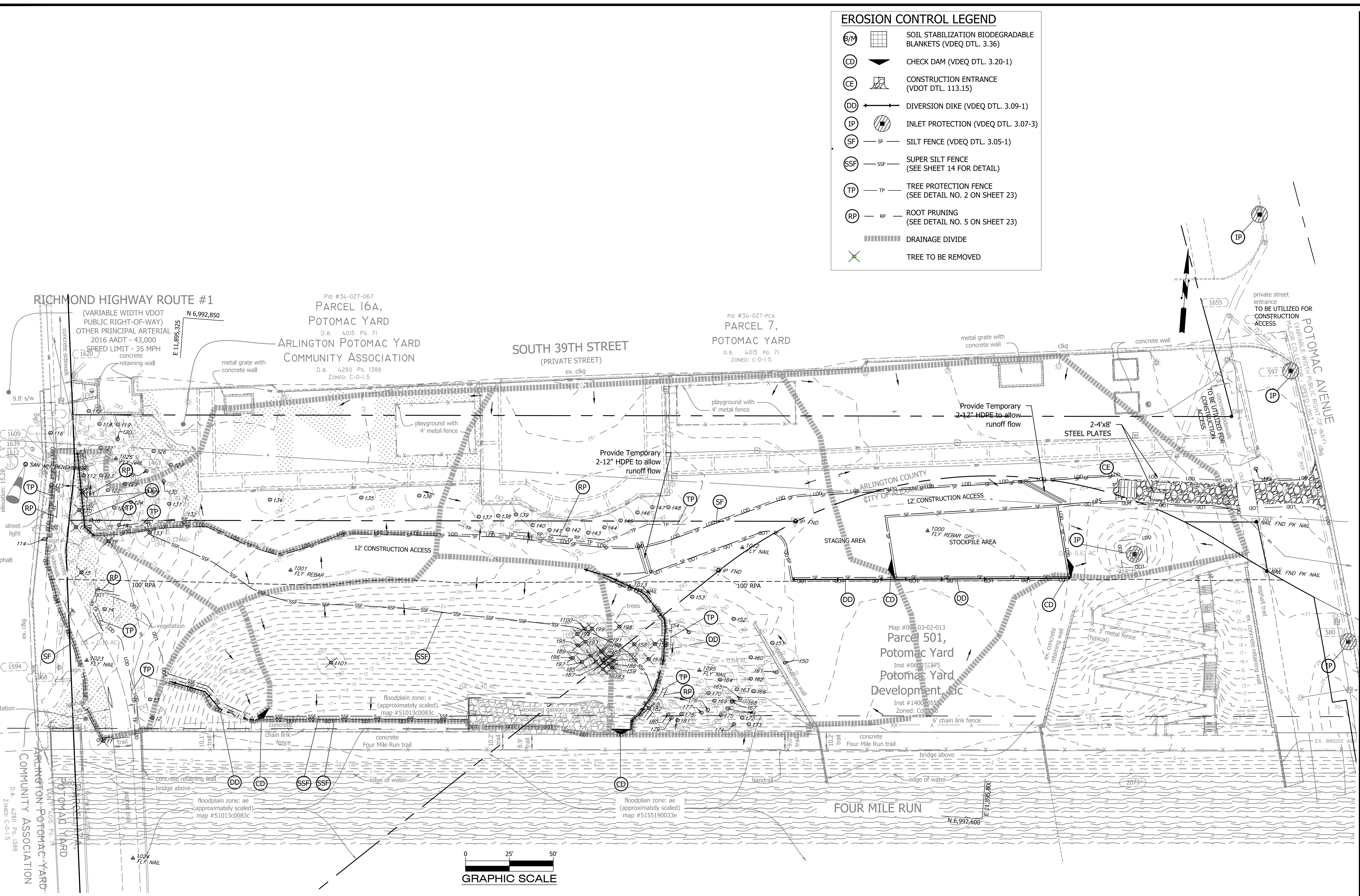
IN ACCORDANCE WITH ARLINGTON COUNTY'S CHESAPEAKE BAY TOTAL MAXIMUM DAILY LOAD (TMDL) ACTION PLAN, APPROVED BY THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) ON SEPTEMBER 1, 2015, LINEAR DEVELOPMENT PROJECTS CONDUCTED BY THE COUNTY ARE ADMINISTERED AND TRACKED AS FOLLOWS CONSISTENT WITH 9VAC25-870-69.A.4, 9VAC25-870-76, AND 9VAC25-870-92:

- POLLUTANT LOAD CHANGES WILL BE COMPUTED AS DESCRIBED IN SECTION 3.A OF THE ACTION PLAN.
- RETROFIT OPPORTUNITIES WILL BE EVALUATED FOR EACH PROJECT, USING THE SCREENING AND SELECTION CRITERIA APPLIED AND DESCRIBED IN THE ADOPTED STORMWATER MASTER PLAN.
- RETROFIT PROJECTS THAT MEET THE SCREENING CRITERIA AND ARE DETERMINED BY ARLINGTON TO BE FEASIBLE AND COST-EFFECTIVE WILL BE IMPLEMENTED WITH SPECIFIC LINEAR DEVELOPMENT PROJECTS. POLLUTANT LOAD REDUCTIONS FROM RETROFIT PROJECTS WILL BE COMPUTED AS DESCRIBED IN SECTION 5 OF THE ACTION PLAN.
- IN CASES WHERE RETROFIT PROJECTS ARE NOT FEASIBLE AND COST-EFFECTIVE FOR A PARTICULAR LINEAR PROJECT, ANY POLLUTANT OF CONCERN (POC) LOAD INCREASES THAT MIGHT OCCUR FOR THAT PROJECT WILL BE ADDRESSED BY LARGER OVERALL POC LOAD REDUCTIONS IN PLACE OR ADDED THROUGH TMDL ACTION PLAN IMPLEMENTATION.

IN THE ABOVE MANNER ARLINGTON, AS THE MS4 OPERATOR AND THE CONSTRUCTION SITE OPERATOR FOR ITS LINEAR DEVELOPMENT PROJECTS, IMPLEMENTS LINEAR PROJECTS AND RETROFIT PROJECTS IN A MANNER THAT ACHIEVES THE MOST TMDL POC REDUCTION FOR THE LEAST COST, WHILE FULLY ACCOUNTING FOR LOAD CHANGES THAT OCCUR WITH LINEAR DEVELOPMENT PROJECT ACTIVITY CONSISTENT WITH THE DEQ CHESAPEAKE BAY TMDL SPECIAL CONDITION GUIDANCE.

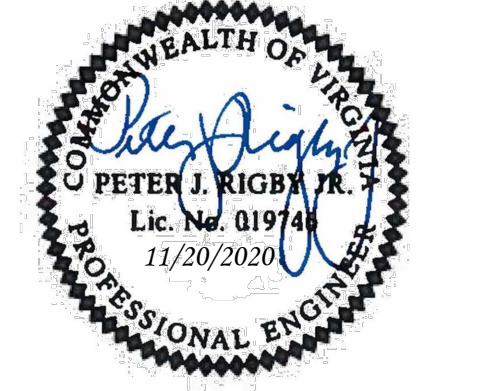
PER AGREEMENT BETWEEN ARLINGTON COUNTY AND CITY OF ALEXANDRIA, ARLINGTON COUNTY WILL PROVIDE STORMWATER TREATMENT FOR THE ENTIRE SITE.

| EROSION CONTROL LEGEND | | |
|------------------------|--|--|
| (S/M) | | SOIL STABILIZATION BIODEGRADABLE BLANKETS (VDEQ DTL. 3.36) |
| (CD) | | CHECK DAM (VDEQ DTL. 3.20-1) |
| (CE) | | CONSTRUCTION ENTRANCE (VDOT DTL. 113.15) |
| (DD) | | DIVERSION DIKE (VDEQ DTL. 3.09-1) |
| (IP) | | INLET PROTECTION (VDEQ DTL. 3.07-3) |
| (SF) | | SILT FENCE (VDEQ DTL. 3.05-1) |
| (SSF) | | SUPER SILT FENCE (SEE SHEET 14 FOR DETAIL) |
| (TP) | | TREE PROTECTION FENCE (SEE DETAIL NO. 2 ON SHEET 23) |
| (RP) | | ROOT PRUNING (SEE DETAIL NO. 5 ON SHEET 23) |
| | | DRAINAGE DIVIDE |
| | | TREE TO BE REMOVED |



DEPARTMENT OF ENVIRONMENTAL SERVICES

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 Phone: 703.228.3629
 Fax: 703.228.3606
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| APPROVALS | DATE |
|------------------------------------|------------|
| <i>Kamal N. Taktab</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Taktab</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Ken W. Whitson</i> | 4/30/20 |
| PROJECT MANAGER | |

| Revisions | Date |
|-----------|------|
| | |
| | |
| | |
| | |
| | |

Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

EROSION CONTROL
PRE-CONSTRUCTION PHASE PLAN

Designed: CJA
 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

Filename: 2016-158_ER01_PRE.dwg
 Path: C:\DWG\B10K1_CADACTIVE
 Plotted: May 20, 2021
 Plotted by: Ldelacruz
 Scale: Hor: 1" = 25'

PLAN NUMBER _____

APPROVED DATE _____

DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

RATIONAL METHOD FORMULA

Q = CQIA (PER VDOT DRAINAGE MANUAL EQUATION 6.4)

Q = MAXIMUM RATE OF RUNOFF, CUBIC FEET PER SECOND (CFS)
 C_r = SATURATION FACTOR
 C = RUNOFF COEFFICIENT REPRESENTING A RATIO OF RUNOFF TO RAINFALL (DIMENSIONLESS)
 i = AVERAGE RAINFALL INTENSITY FOR A DURATION EQUAL TO THE TIME OF CONCENTRATION FOR A SELECTED RETURN PERIOD, INCHES PER HOUR (IN/HR)
 A = DRAINAGE AREA CONTRIBUTING TO THE POINT OF STUDY, ACRES (AC)

| SATURATION FACTORS FOR RATIONAL FORMULA | |
|---|----------------|
| RECURRENCE INTERVAL (YEARS) | C _r |
| 2 | 1.0 |

PER VDOT DRAINAGE MANUAL TABLE 6-2

| RATIONAL METHOD RUNOFF COEFFICIENTS | |
|-------------------------------------|------|
| LAND USE | C |
| CULTIVATED AREAS (STEEP > 6%) | 0.70 |

PER VDOT DRAINAGE MANUAL APPENDIX 6E-1 (BARE SOILS DURING CONSTRUCTION ASSUMED TO MIMIC CULTIVATED AREAS RUNOFF CHARACTERISTICS)

RAINFALL INTENSITY EQUATION

$i = B / (T_c + D)^E$ (PER VDOT DRAINAGE MANUAL APPENDIX 6C-1)

B, D AND E FACTORS PER VDOT DRAINAGE MANUAL APPENDIX 6C-2
 T_c = TIME OF CONCENTRATION (MIN)

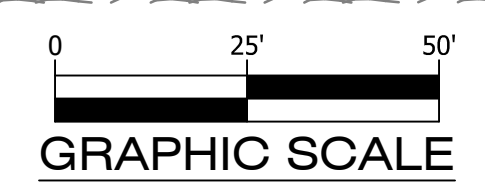
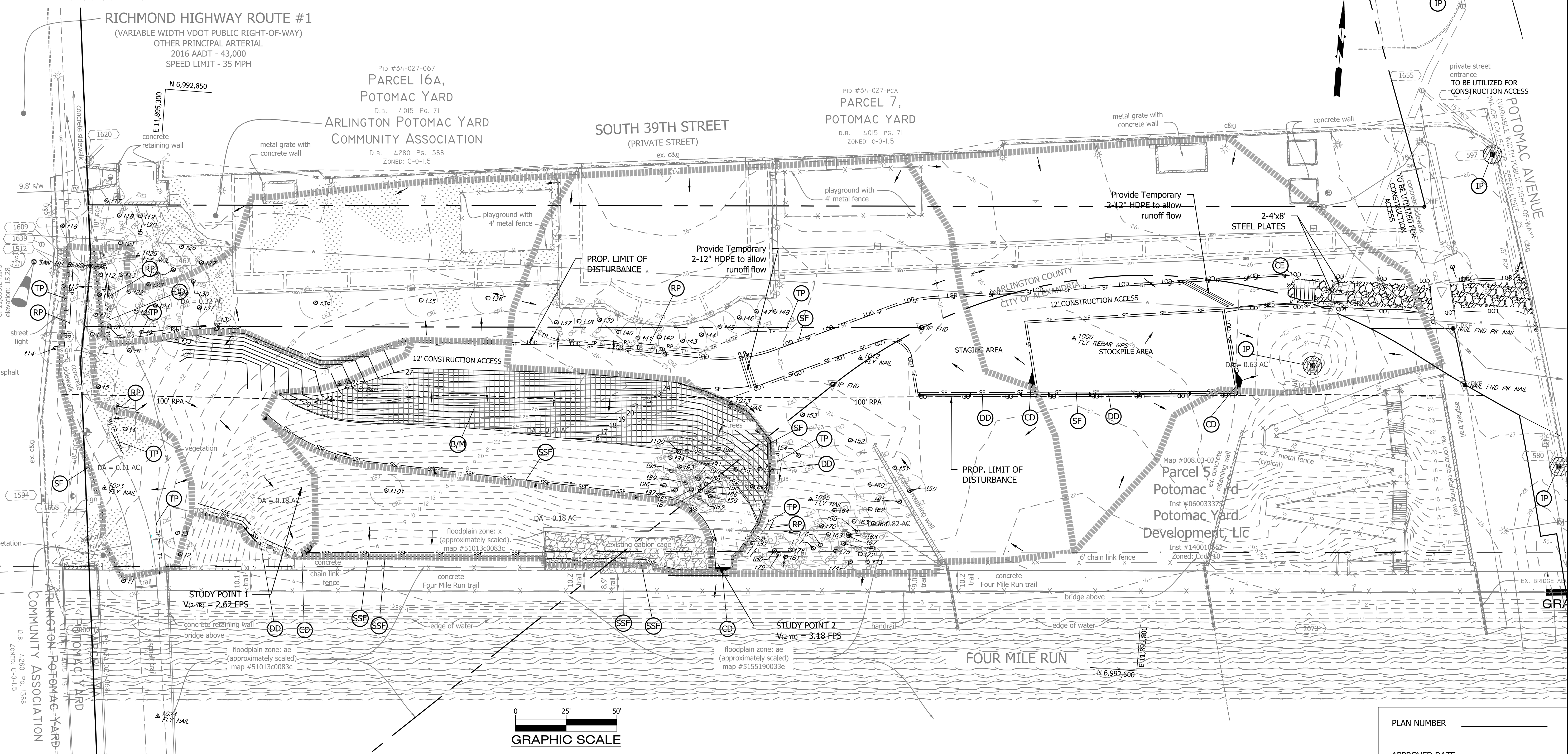
EROSION CONTROL RUNOFF AND VELOCITY CALCULATIONS

| DRAINAGE AREA | DESCRIPTION | A (AC) | C _r (2-YR) | CULTIVATED AREAS (STEEP > 6%) | | COMPOSITE C | COMPOSITE C/C (2-YR) | T _c (MIN) | CHANNEL | | | I (2-YR) (IN/HR) | Q (2-YR) (CFS) | SIDE SLOPE (FT/FT) | SIDE SLOPE (FT/FT) | BOTTOM WIDTH (FT) | SLOPE (FT/FT) | n | DEPTH (2-YR) (FT) | V (2-YR) (FPS) | V _{MAX} (2-YR) (FPS) |
|---------------|--|--------|-----------------------|-------------------------------|------|-------------|----------------------|----------------------|---------|-------|------|------------------|----------------|--------------------|--------------------|-------------------|---------------|-------|-------------------|----------------|-------------------------------|
| | | | | AC | C | | | | B | D | E | | | | | | | | | | |
| STUDY POINT 1 | CHANNEL WITH SOIL STABILIZATION BLANKET | 0.18 | 1.0 | 0.18 | 0.70 | 0.70 | 0.70 | 5 | 59.17 | 12.12 | 0.86 | 5.14 | 0.65 | 3:1 | 3:1 | 0 | 0.0484 | 0.033 | 0.29 | 2.62 | 4.00 |
| STUDY POINT 2 | DIVERSION DIKE CHANNEL WITH SOIL STABILIZATION BLANKET | 0.32 | 1.0 | 0.32 | 0.70 | 0.70 | 0.70 | 5 | | | | 5.14 | 1.15 | 3:1 | 1.5:1 | 0 | 0.0488 | 0.033 | 0.4 | 3.18 | 4.00 |

Ditch Depth and Velocity, V, calculated with Bentley FlowMaster
 n = 0.033 for "straw with net"

EROSION CONTROL LEGEND

- SOIL STABILIZATION BIODEGRADABLE BLANKETS (VDEQ DTL. 3.36)
- CHECK DAM (VDEQ DTL. 3.20-1)
- CONSTRUCTION ENTRANCE (VDOT DTL. 113.15)
- DIVERSION DIKE (VDEQ DTL. 3.09-1)
- INLET PROTECTION (VDEQ DTL. 3.07-3)
- SILT FENCE (VDEQ DTL. 3.05-1)
- SUPER SILT FENCE (SEE SHEET 14 FOR DETAIL)
- TREE PROTECTION FENCE (SEE DETAIL NO. 2 ON SHEET 23)
- ROOT PRUNING (SEE DETAIL NO. 5 ON SHEET 23)
- DRAINAGE DIVIDE



DEPARTMENT OF ENVIRONMENTAL SERVICES

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| APPROVALS | DATE |
|------------------------------------|------------|
| | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| Kamal N. Taktab | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| David W. Hundelt | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| Dennis M. Leach | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| Jan W. Whitson | 4/30/20 |
| PROJECT MANAGER | |
| Revisions | Date |
| | |
| | |
| | |
| | |

Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

EROSION CONTROL

CONSTRUCTION PHASE 1 PLAN

Designed: CJA
 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

Filename: 2016-158_ER02_POST.dwg
 Path: Q:\04\B10\1\CADACTIVE
 Plotted: May 20, 2021
 Plotted by: Ldelacruz
 Scale: Hor: 1" = 25'

PLAN NUMBER _____

APPROVED DATE _____

 DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

RATIONAL METHOD FORMULA

$Q = C \cdot C \cdot I \cdot A$ (PER VDOT DRAINAGE MANUAL EQUATION 6-4)

Q = MAXIMUM RATE OF RUNOFF, CUBIC FEET PER SECOND (CFS)
 C_r = SATURATION FACTOR
 C = RUNOFF COEFFICIENT REPRESENTING A RATIO OF RUNOFF TO RAINFALL (DIMENSIONLESS)
 i = AVERAGE RAINFALL INTENSITY FOR A DURATION EQUAL TO THE TIME OF CONCENTRATION FOR A SELECTED RETURN PERIOD, INCHES PER HOUR (IN/HR)
 A = DRAINAGE AREA CONTRIBUTING TO THE POINT OF STUDY, ACRES (AC)

| SATURATION FACTORS FOR RATIONAL FORMULA | |
|---|----------------|
| RECURRENCE INTERVAL (YEARS) | C _r |
| 2 | 1.0 |

PER VDOT DRAINAGE MANUAL TABLE 6-2

| RATIONAL METHOD RUNOFF COEFFICIENTS | |
|-------------------------------------|------|
| LAND USE | C |
| CULTIVATED AREAS (STEEP > 6%) | 0.70 |

PER VDOT DRAINAGE MANUAL APPENDIX 6E-1 (BARE SOILS DURING CONSTRUCTION ASSUMED TO MIMIC CULTIVATED AREAS RUNOFF CHARACTERISTICS)

RAINFALL INTENSITY EQUATION

$i = B / (T_c + D)^E$ (PER VDOT DRAINAGE MANUAL APPENDIX 6C-1)

B, D AND E FACTORS PER VDOT DRAINAGE MANUAL APPENDIX 6C-2
 T_c = TIME OF CONCENTRATION (MIN)

EROSION CONTROL RUNOFF AND VELOCITY CALCULATIONS

| DRAINAGE AREA | DESCRIPTION | A (AC) | C _r (2-YR) | CULTIVATED AREAS (STEEP > 6%) | | COMPOSITE C | COMPOSITE C/C (2-YR) | T _c (MIN) | STA: WASHINGTON REAGAN AP ID: 44-8906 (2-YR) | | | I (IN/HR) | Q (CFS) | SIDE SLOPE (FT/FT) | SIDE SLOPE (FT/FT) | BOTTOM WIDTH (FT) | SLOPE (FT/FT) | n | DEPTH (2-YR) (FT) | V (2-YR) (FPS) | V _{MAX} (2-YR) (FPS) |
|---------------|--|--------|-----------------------|-------------------------------|------|-------------|----------------------|----------------------|--|-------|------|-----------|---------|--------------------|--------------------|-------------------|---------------|-------|-------------------|----------------|-------------------------------|
| | | | | AC | C | | | | B | D | E | | | | | | | | | | |
| STUDY POINT 1 | CHANNEL WITH SOIL STABILIZATION BLANKET | 0.18 | 1.0 | 0.18 | 0.70 | 0.70 | 0.70 | 5 | 59.17 | 12.12 | 0.86 | 5.14 | 0.65 | 3:1 | 3:1 | 0 | 0.0484 | 0.033 | 0.29 | 2.62 | 4.00 |
| STUDY POINT 2 | DIVERSION DIKE CHANNEL WITH SOIL STABILIZATION BLANKET | 0.32 | 1.0 | 0.32 | 0.70 | 0.70 | 0.70 | 5 | | | | 5.14 | 1.15 | 3:1 | 1.5:1 | 0 | 0.0488 | 0.033 | 0.4 | 3.18 | 4.00 |

Ditch Depth and Velocity, V, calculated with Bentley FlowMaster
 n = 0.033 for "straw with net"

EROSION CONTROL LEGEND

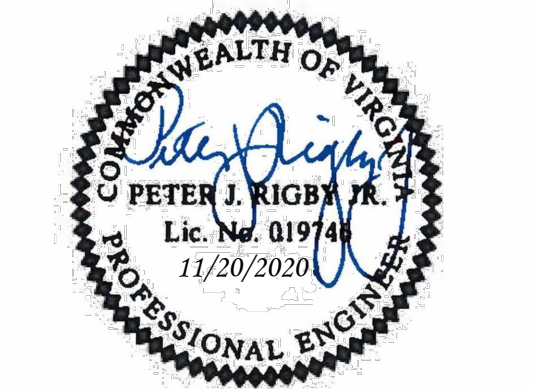
- SOIL STABILIZATION BIODEGRADABLE BLANKETS (VDEQ DTL. 3.36)
- CHECK DAM (VDEQ DTL. 3.20-1)
- CONSTRUCTION ENTRANCE (VDOT DTL. 113.15)
- DIVERSION DIKE (VDEQ DTL. 3.09-1)
- INLET PROTECTION (VDEQ DTL. 3.07-3)
- SILT FENCE (VDEQ DTL. 3.05-1)
- SUPER SILT FENCE (SEE SHEET 14 FOR DETAIL)
- TREE PROTECTION FENCE (SEE DETAIL NO. 2 ON SHEET 23)
- ROOT PRUNING (SEE DETAIL NO. 5 ON SHEET 23)
- DRAINAGE DIVIDE
- TREE TO BE REMOVED



DEPARTMENT OF ENVIRONMENTAL SERVICES

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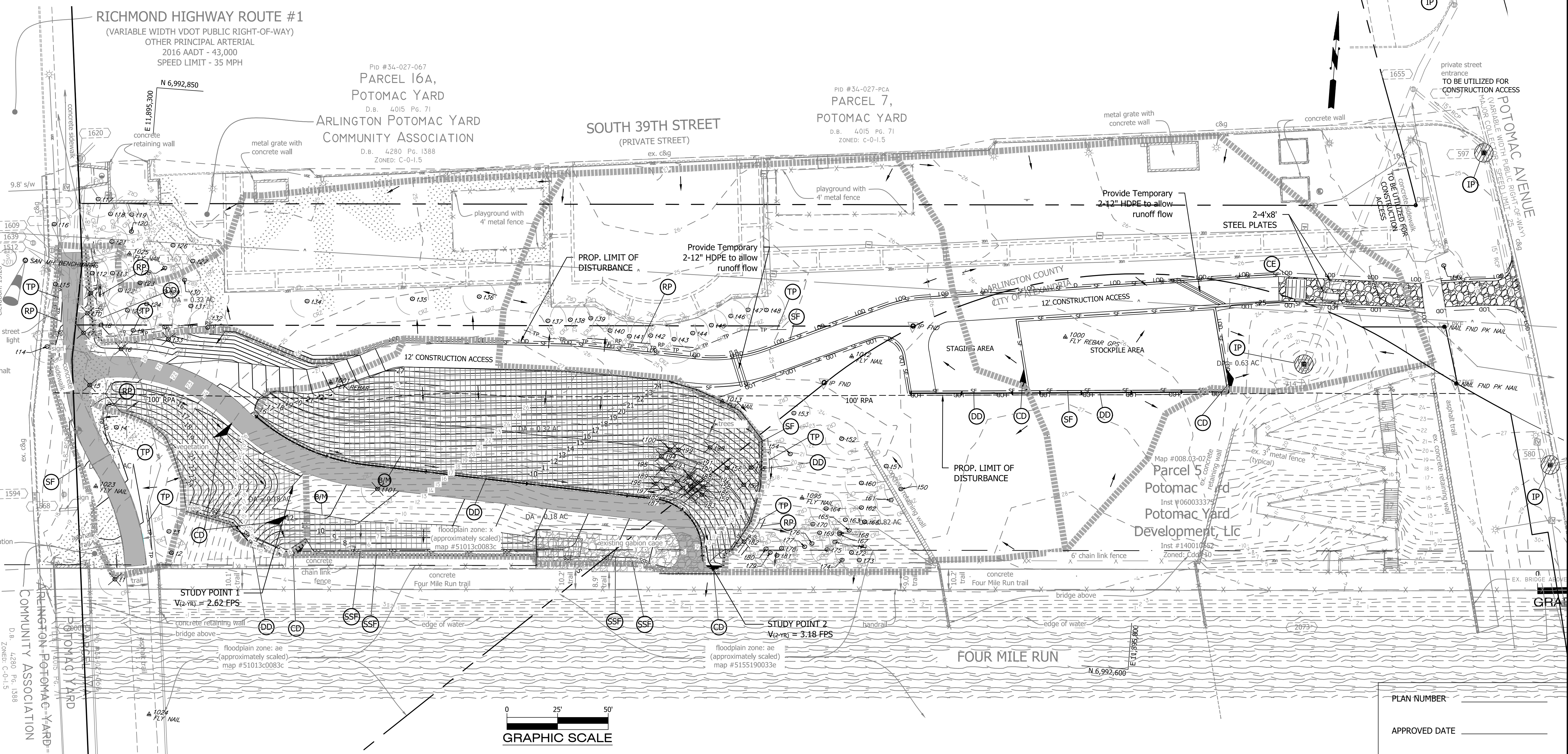
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APPROVALS DATE

Kamal N. Taktab 4/22/2020
 QUALITY CONTROL ENGINEER
Kamal N. Taktab 4.23.20
 CONSTRUCTION MANAGEMENT SUPERVISOR
David W. Hundelt 04.23.2020
 WATER, SEWER, STREETS BUREAU CHIEF
Dennis M. Leach 4/22/20
 TRANSPORTATION DIRECTOR
Jan W. Whitson 4/30/20
 PROJECT MANAGER

Revisions Date



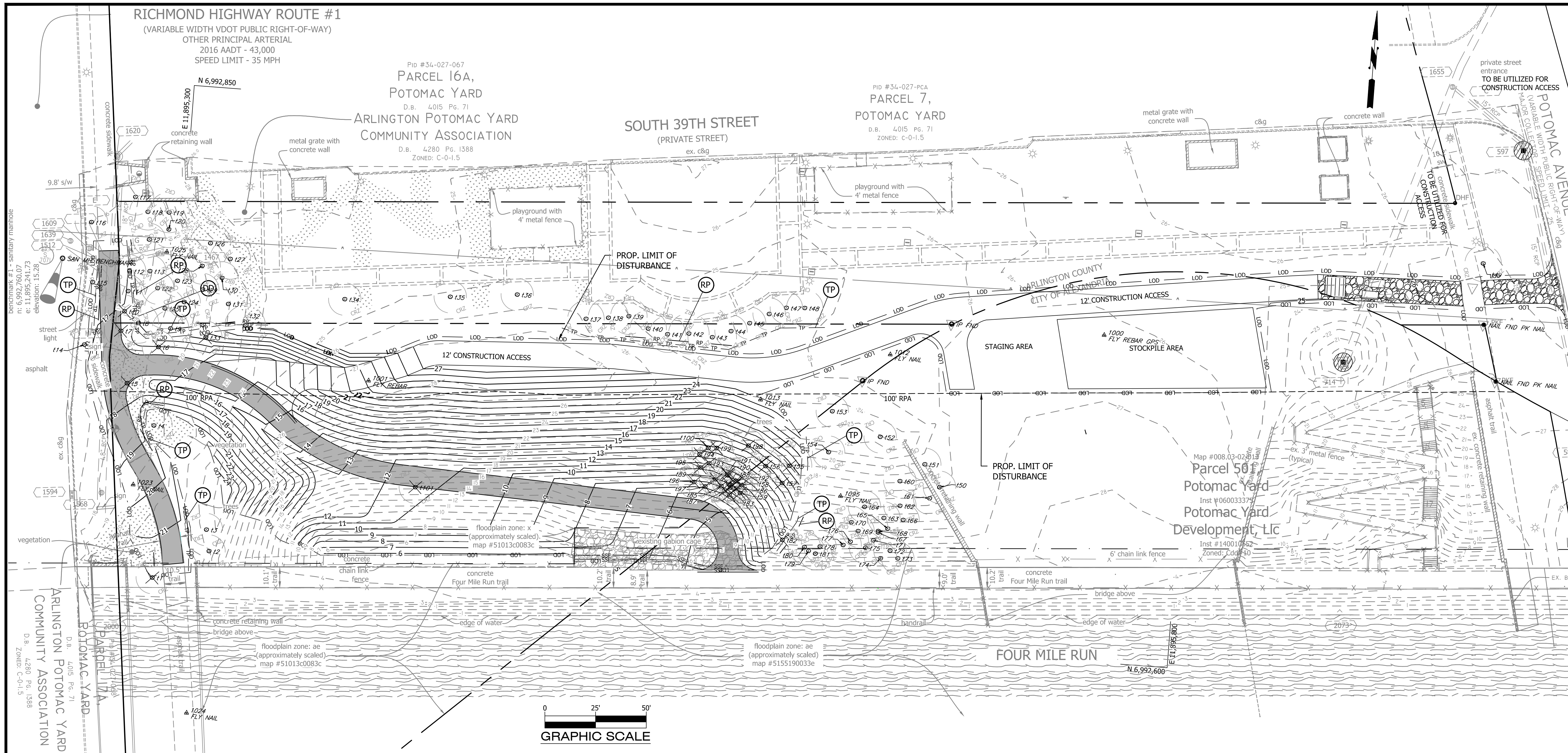
Project Name and Location
 POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
 PARCEL 17A, POTOMAC YARD -
 ARLINGTON, VA 22202

EROSION CONTROL
 CONSTRUCTION PHASE 2 PLAN

Designed: CJA
 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

Filename: 2016-158_ER02_POST.dwg
 Path: C:\Users\B10K\CADACTIVE
 Plotted: May 20, 2021
 Plotted by: Ldelacruz
 Scale: Hor: 1" = 25'

PLAN NUMBER _____
 APPROVED DATE _____
 DIRECTOR OF TRANSPORTATION
 AND ENVIRONMENTAL SERVICES



ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects Division
 Engineering Bureau
 2100 Clarendon Boulevard, Suite 813
 Arlington, VA 22201
 Phone: 703.228.3629
 Fax: 703.228.3606

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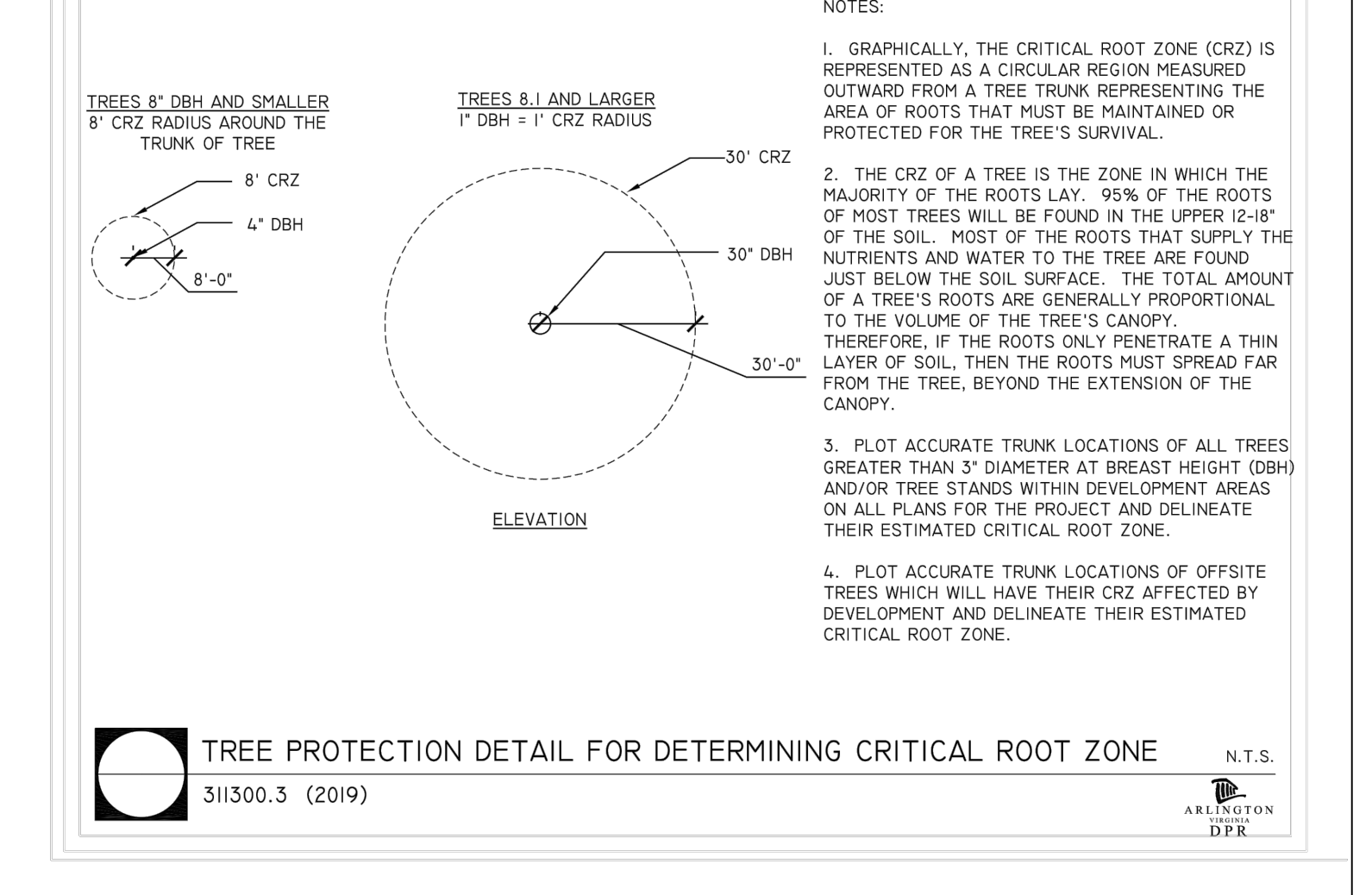
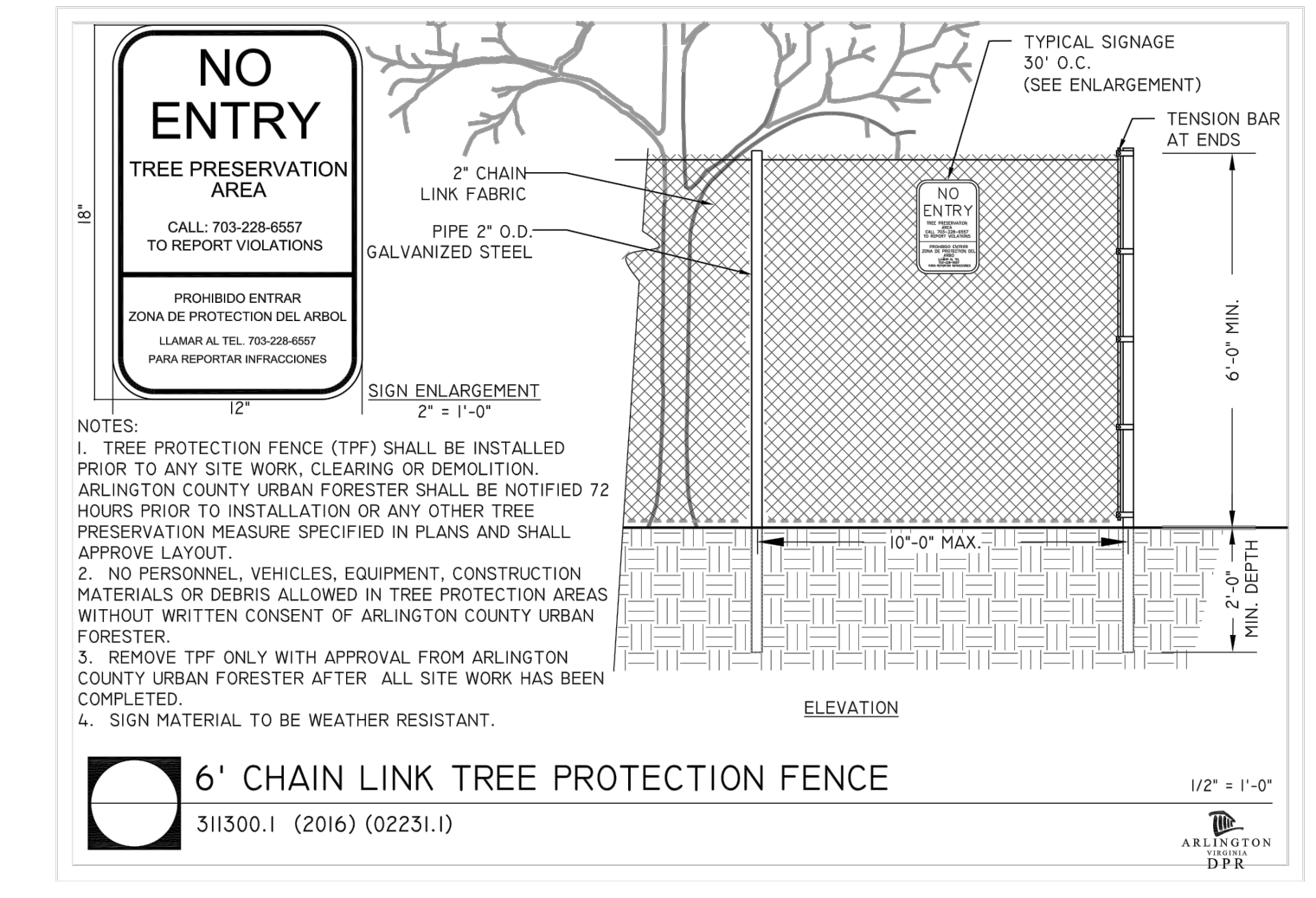
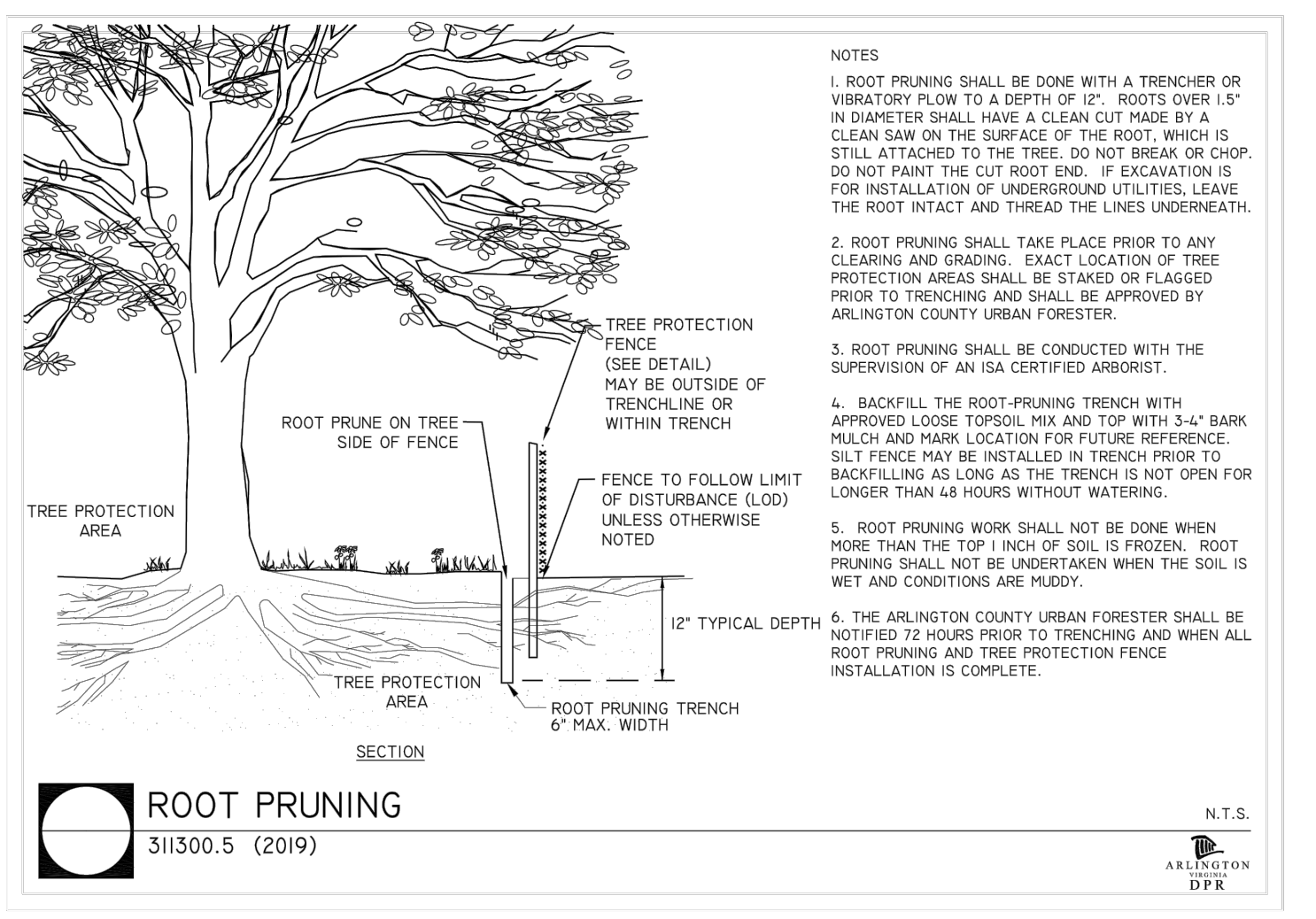
PETER J. RIGBY JR.
 Lic. No. 01974
 PROFESSIONAL ENGINEER

| APPROVALS | DATE |
|------------------------------------|------------|
| <i>Kamal N. Takab</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Takab</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Ken Wadsworth</i> | 4/30/20 |
| PROJECT MANAGER | |

| Revisions | Date |
|-----------|------|
| | |
| | |
| | |
| | |
| | |

Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

TREE PRESERVATION PLAN



- TREE PRESERVATION LEGEND**
- TP — TREE PROTECTION FENCE (SEE THIS SHEET FOR DETAIL)
 - RP — ROOT PRUNING (SEE THIS SHEET FOR DETAIL)
 - CRZ — CRITICAL ROOT ZONE (SEE THIS SHEET FOR DETAIL)
 - X — TREE TO BE REMOVED
- NOTES:
 1. GRAPHICALLY, THE CRITICAL ROOT ZONE (CRZ) IS REPRESENTED AS A CIRCULAR REGION MEASURED OUTWARD FROM A TREE TRUNK REPRESENTING THE AREA OF ROOTS THAT MUST BE MAINTAINED OR PROTECTED FOR THE TREE'S SURVIVAL.
 2. THE CRZ OF A TREE IS THE ZONE IN WHICH THE MAJORITY OF THE ROOTS LAY. 95% OF THE ROOTS OF MOST TREES WILL BE FOUND IN THE UPPER 12-18" OF THE SOIL. MOST OF THE ROOTS THAT SUPPLY THE NUTRIENTS AND WATER TO THE TREE ARE FOUND JUST BELOW THE SOIL SURFACE. THE TOTAL AMOUNT OF A TREE'S ROOTS ARE GENERALLY PROPORTIONAL TO THE VOLUME OF THE TREE'S CANOPY. THEREFORE, IF THE ROOTS ONLY PENETRATE A THIN LAYER OF SOIL, THEN THE ROOTS MUST SPREAD FAR FROM THE TREE, BEYOND THE EXTENSION OF THE CANOPY.
 3. PLOT ACCURATE TRUNK LOCATIONS OF ALL TREES GREATER THAN 3" DIAMETER AT BREAST HEIGHT (DBH) AND/OR TREE STANDS WITHIN DEVELOPMENT AREAS ON ALL PLANS FOR THE PROJECT AND DELINEATE THEIR ESTIMATED CRITICAL ROOT ZONE.
 4. PLOT ACCURATE TRUNK LOCATIONS OF OFFSITE TREES WHICH WILL HAVE THEIR CRZ AFFECTED BY DEVELOPMENT AND DELINEATE THEIR ESTIMATED CRITICAL ROOT ZONE.

PLAN NUMBER _____

APPROVED DATE _____

DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

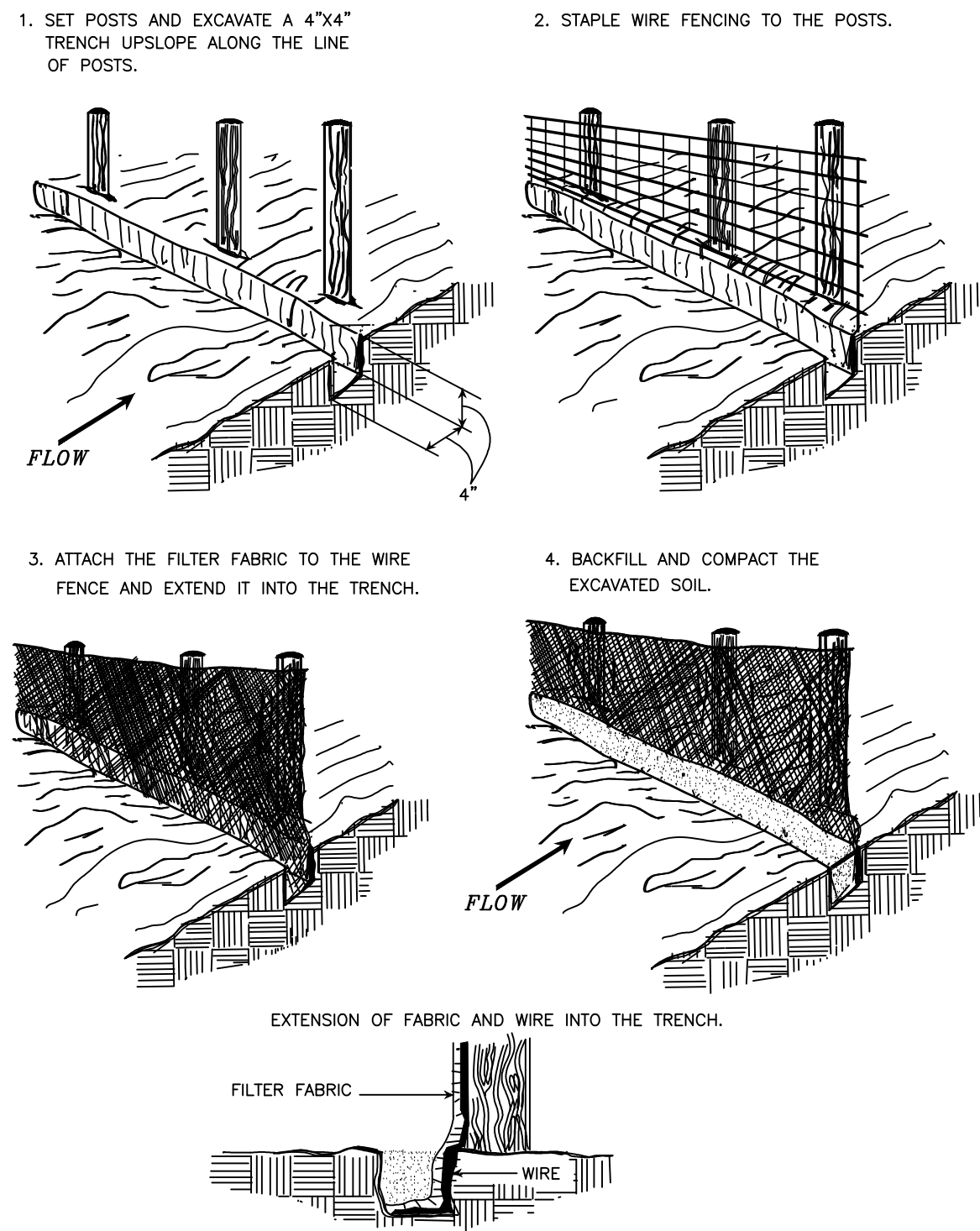
Designed: CJA
 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

Filename: 2016-158_Tree Protection Plan.dwg
 Path: Q:\04\B10\K_CADACTIVE
 Plotted: May 20, 2021
 Plotted by: Ldelacruz

Scale: Hor: 1" = 25'

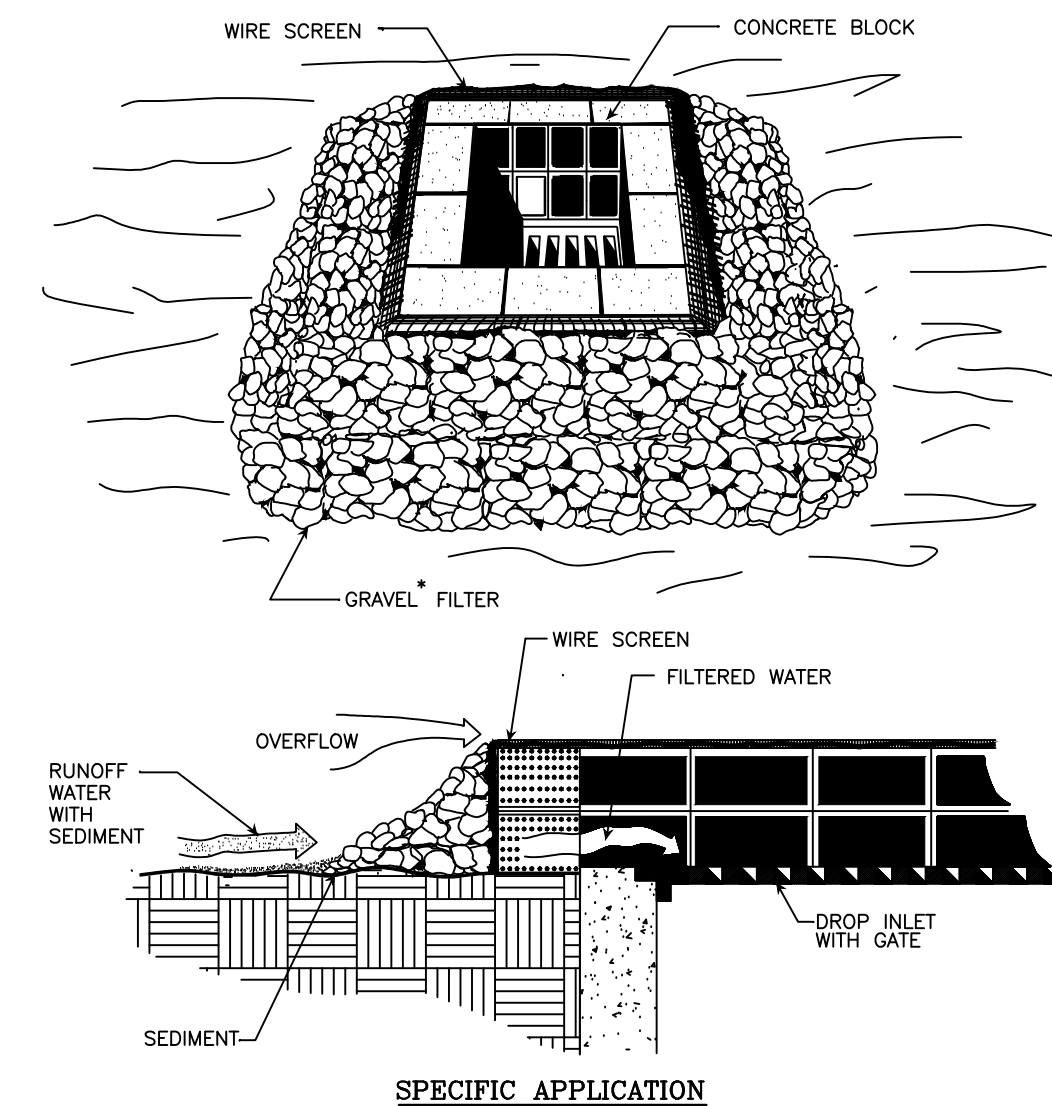
Sheet
12A OF 23

CONSTRUCTION OF A SILT FENCE (WITH WIRE SUPPORT)



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control. SOURCE: VA. DSWC

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER



SPECIFIC APPLICATION

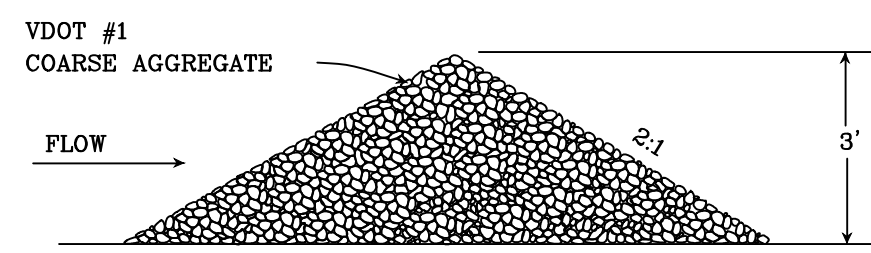
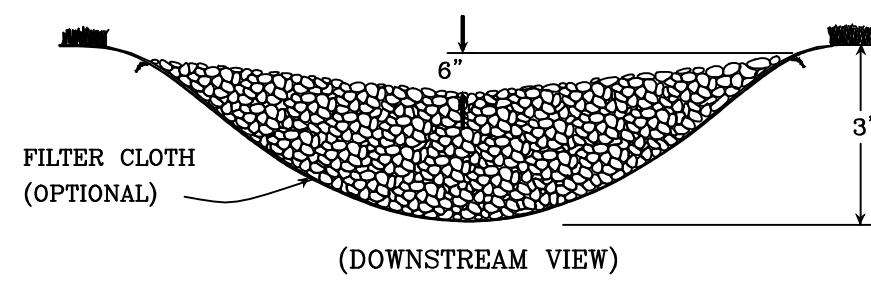
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

SOURCE: VA. DSWC

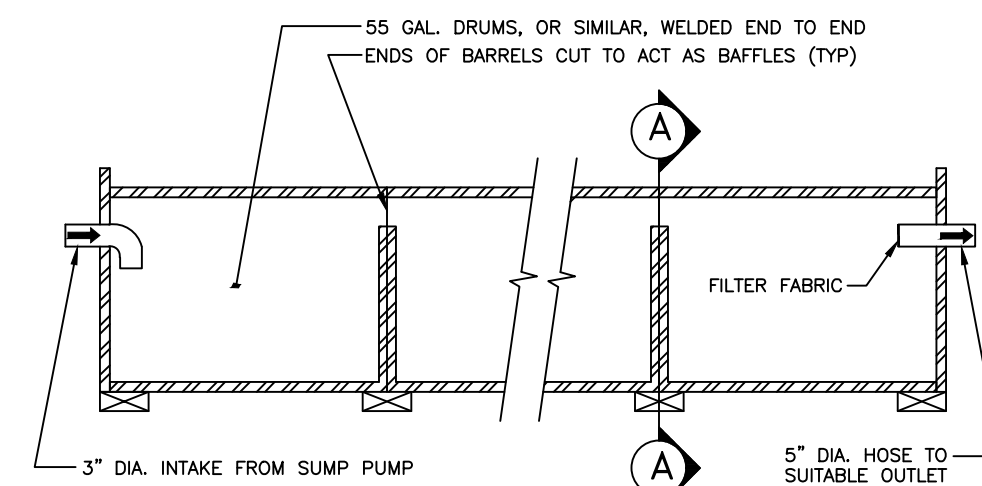
ROCK CHECK DAM

2 ACRES OR LESS OF DRAINAGE AREA:

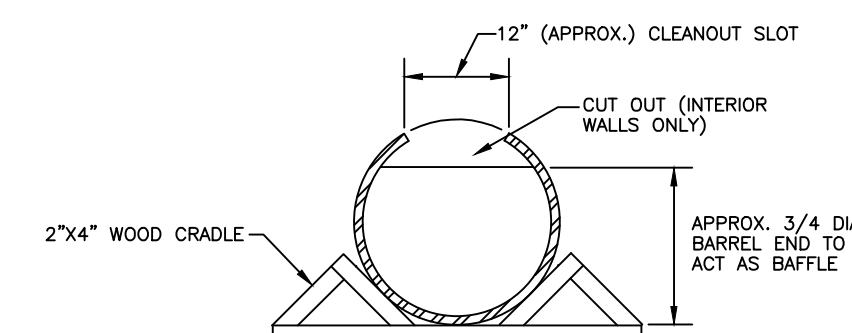


SOURCE: VA. DSWC

PORTABLE SEDIMENT TANK



ELEVATION



CROSS-SECTION A-A

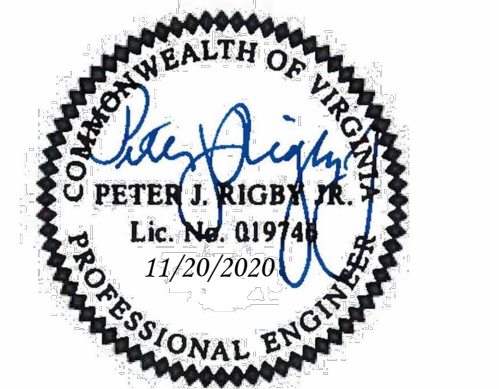
SOURCE: USDA - SCS



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects Division
Engineering Bureau
2100 Clarendon Boulevard, Suite 813
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

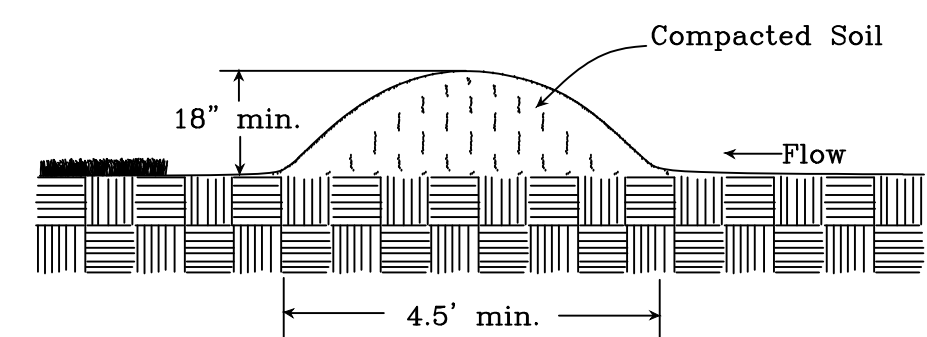
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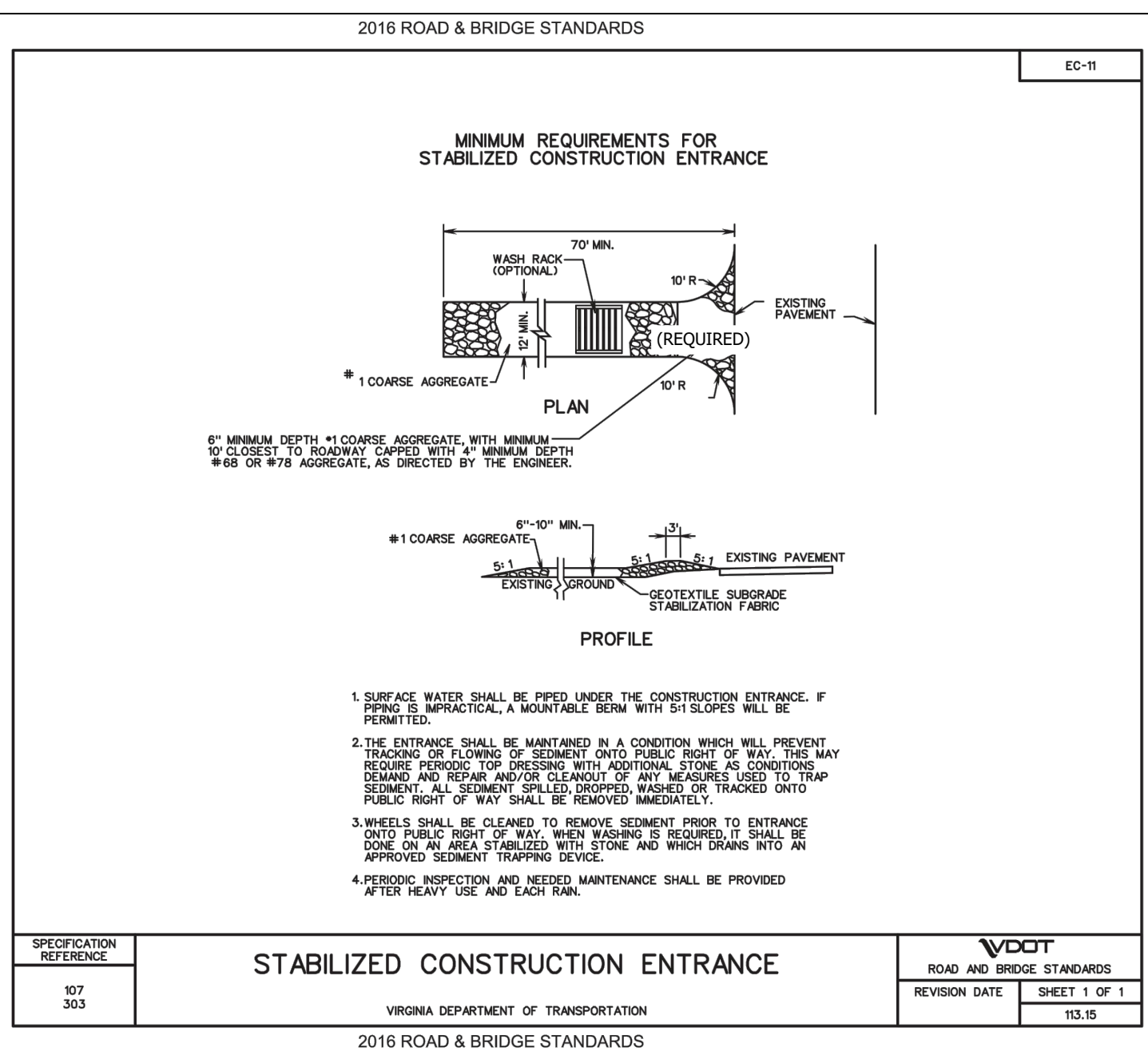
| APPROVALS | DATE |
|------------------------------------|------------|
| <i>Kamal N. Takab</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Takab</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Whitson</i> | 4/30/20 |
| PROJECT MANAGER | |

Revisions Date

TEMPORARY DIVERSION DIKE



SOURCE: VA. DSWC

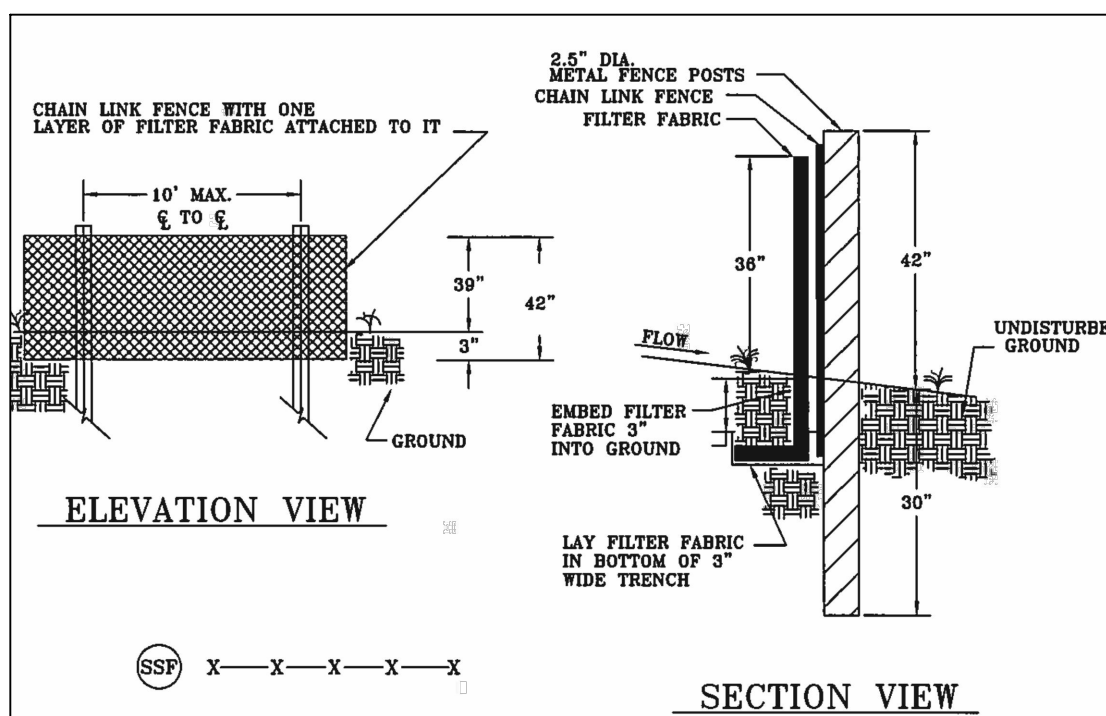


PRE-STORM EROSION AND SEDIMENT CONTROL CHECKLIST

PER EROSION AND SEDIMENT CONTROL GENERAL 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 ESC PLAN. ESC 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.

- PERIMETER CONTROLS**
 - SILT FENCE SHALL BE CHECKED FOR UNDERMINING, HOLES, OR DETERIORATION OF THE FABRIC. FENCING SHALL BE REPLACED IMMEDIATELY IF THE FABRIC IS DAMAGED OR WORN. SILT FENCE MUST BE TRENCHED INTO THE GROUND PER STATE SPECIFICATIONS (STD & SPEC 3.09).
 - WOODEN STAKES OR STEEL POSTS SHALL BE PROPERLY SECURED UPRIGHT INTO THE GROUND. DAMAGED POSTS OR STAKES MUST BE REPLACED.
 - SEDIMENT THAT HAS ACCUMULATED AGAINST THE SILT FENCE SHOULD BE REMOVED. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE LEVEL REACHES ONE-HALF THE HEIGHT OF THE FENCING.
 - HAY BALES OR A STONE BERM SHOULD BE PLACED ACROSS THE CONSTRUCTION ENTRANCE TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE.
- EXPOSED SLOPES AND SOIL**
 - 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.
 - CONTROL SLOPES 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.
 - 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.
 - SEEDED AREAS SHALL BE CHECKED AND RESEDED 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.
- STOCKPILES**
 - 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 SHOULD BE PLACED ALONG THE PERIMETER OF THE STOCK PILE (DOWNHILL SIDE).
- INLET PROTECTION**
 - 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.



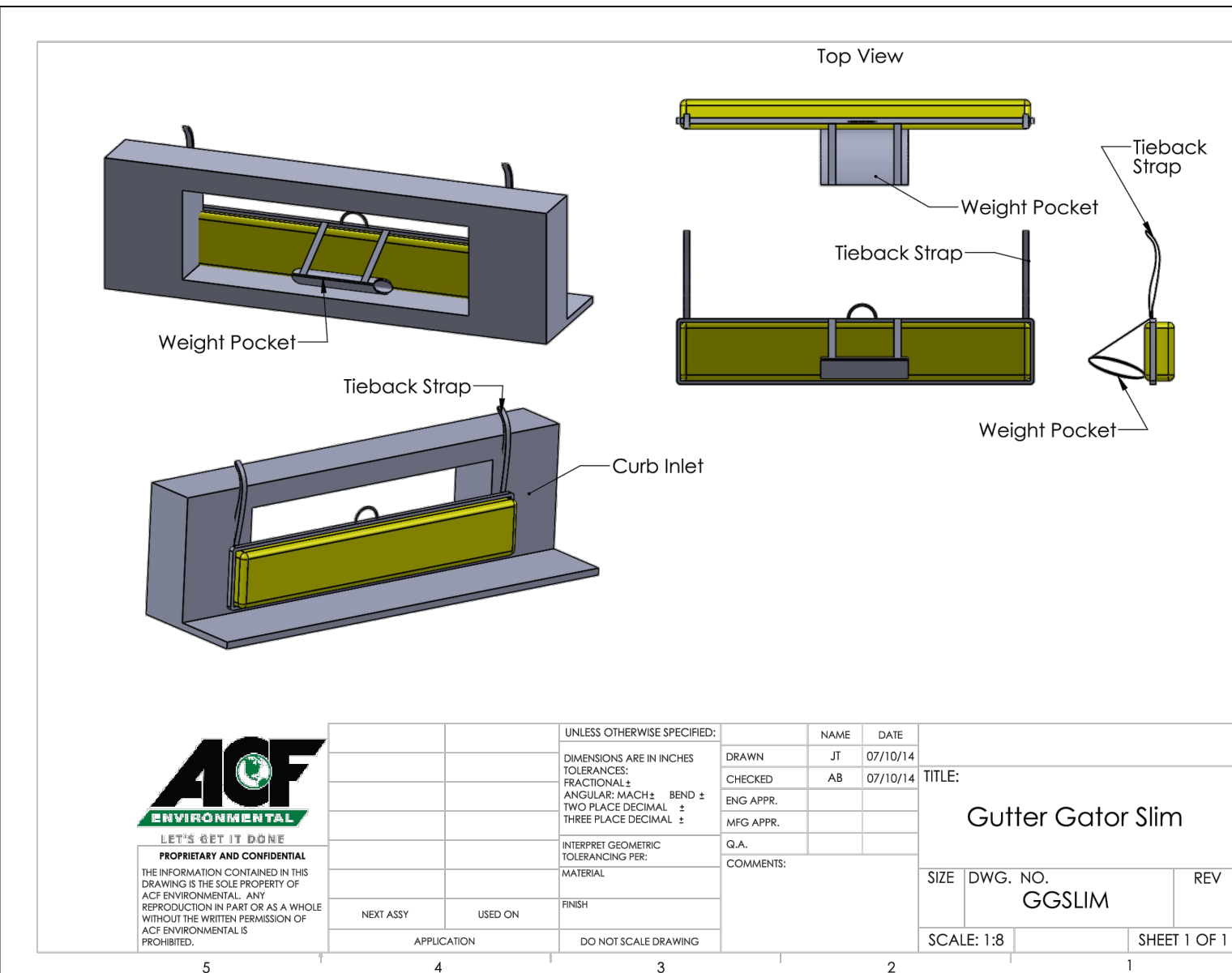
SUPER SILT FENCE
NO SCALE

FENCING

Chain link fence must be 39" above grade with 3" embedded for a total fabric width of 42". The post must be 42" above grade with 30" placed below grade (without concrete) for a total length of 72".

NOTES

- Chain link fence must be fastened securely to fence posts with wire ties.
- Filter fabric must be fastened securely to chain link fence with ties spaced horizontally 24" at the top and midsection.
- Physical properties of the filter fabric must conform to the latest edition of THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK.
- When two sections of filter fabric adjoin each other, they must be overlapped by 6".
- Maintenance must be performed as needed and material must be removed when sediment build-up reaches 50% of the height of the super silt fence.



Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

EROSION CONTROL DETAILS CITY OF ALEXANDRIA

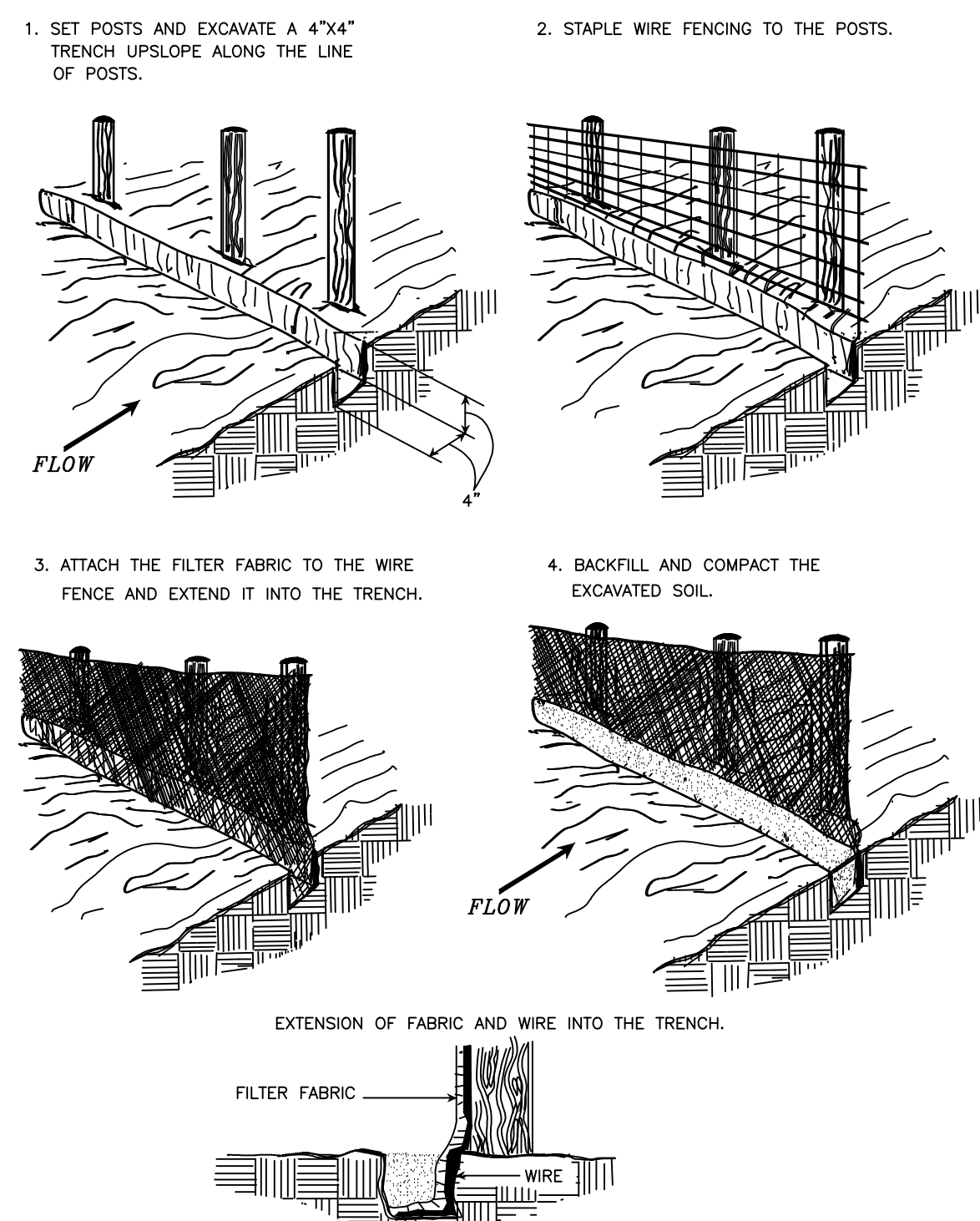
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Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

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Plotted: May 20, 2021
Plotted by: Ldelacruz

Scale: NTS

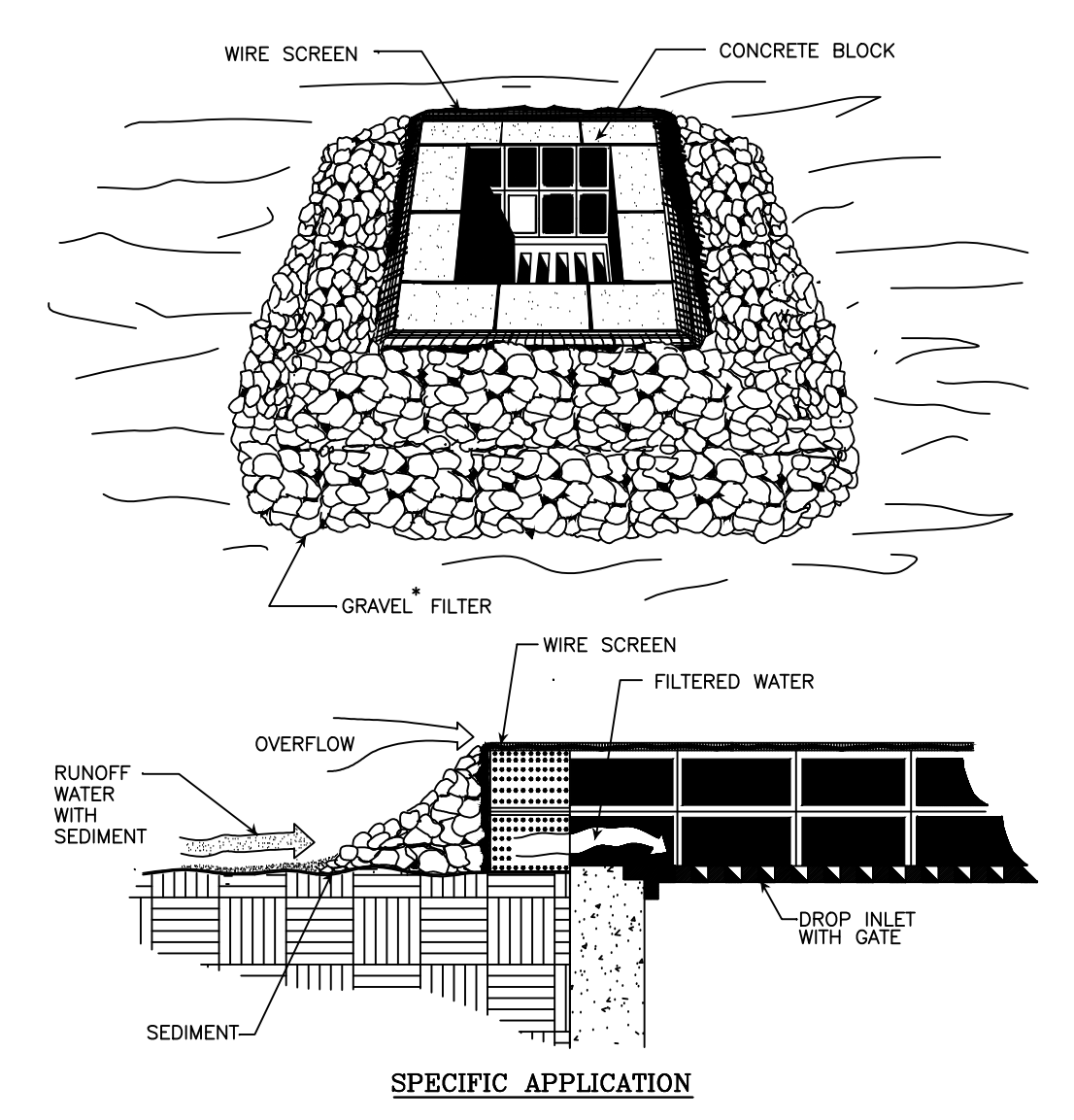
PLAN NUMBER _____
APPROVED DATE _____
(MODIFIED)
DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

CONSTRUCTION OF A SILT FENCE (WITH WIRE SUPPORT)



SOURCE: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control. PLATE 3.05-1 Sherrod & Ryan

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER



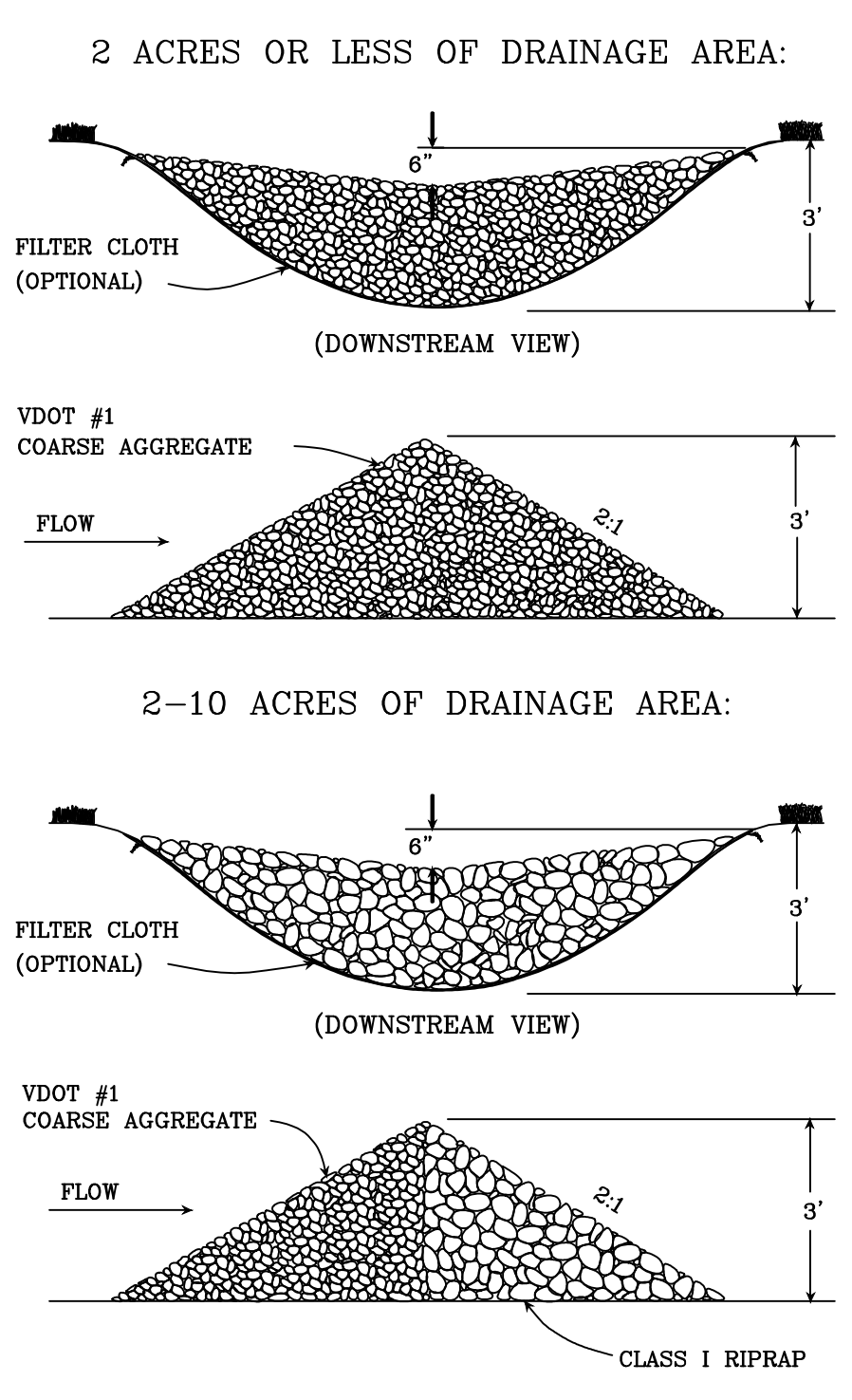
SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

• GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

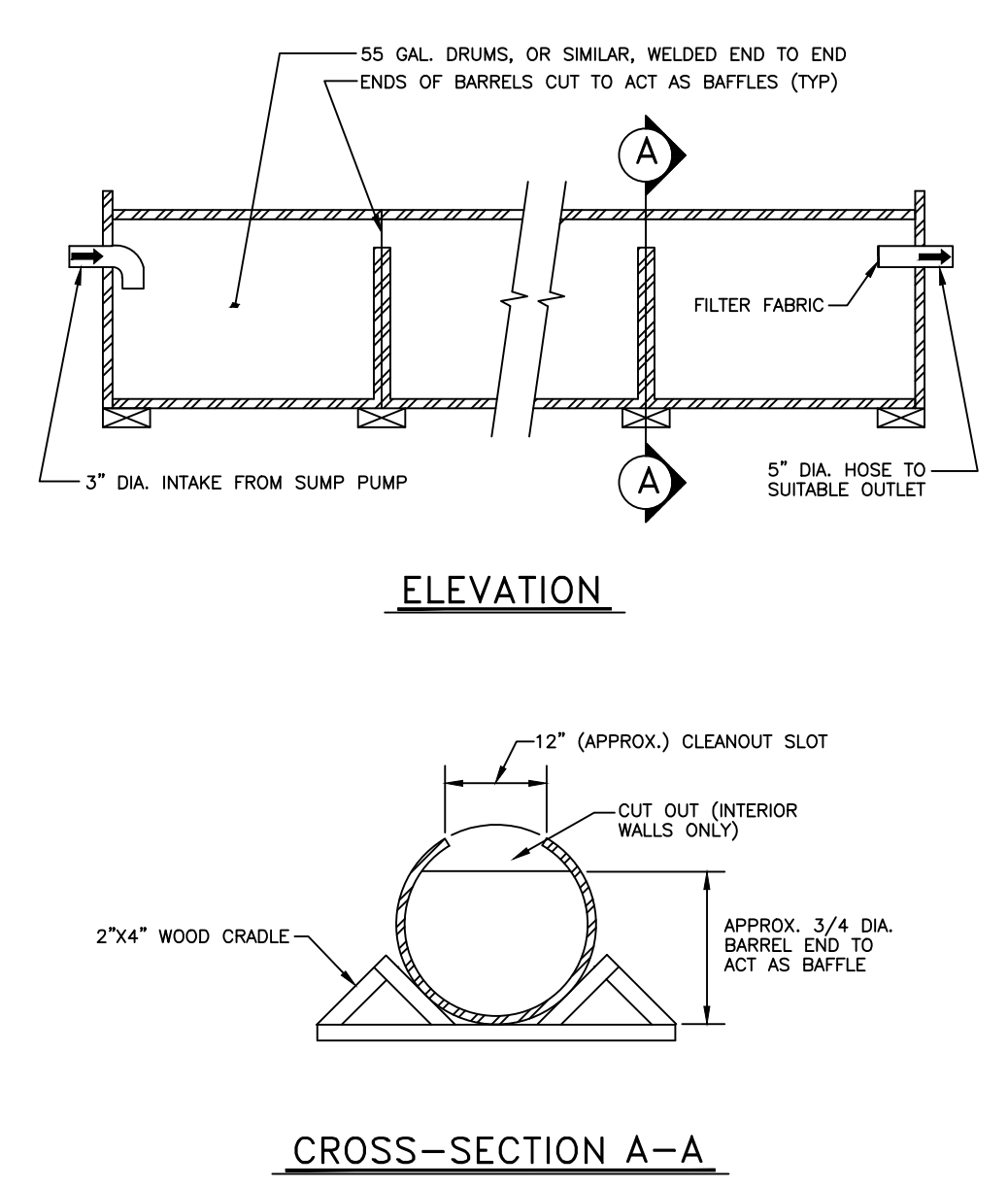
SOURCE: VA. DSWC PLATE 3.07-3

ROCK CHECK DAM

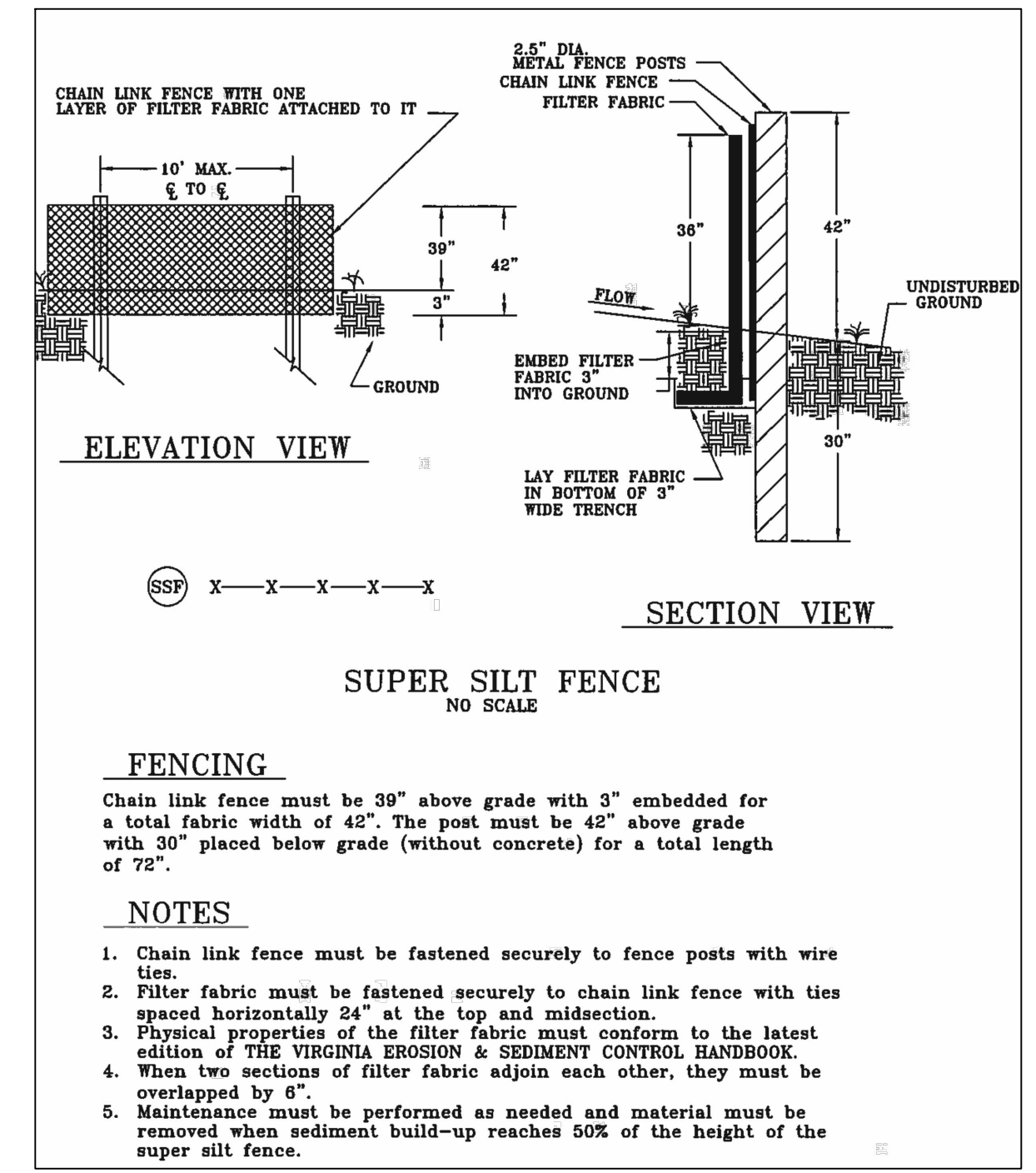


SOURCE: VA. DSWC PLATE 3.20-1

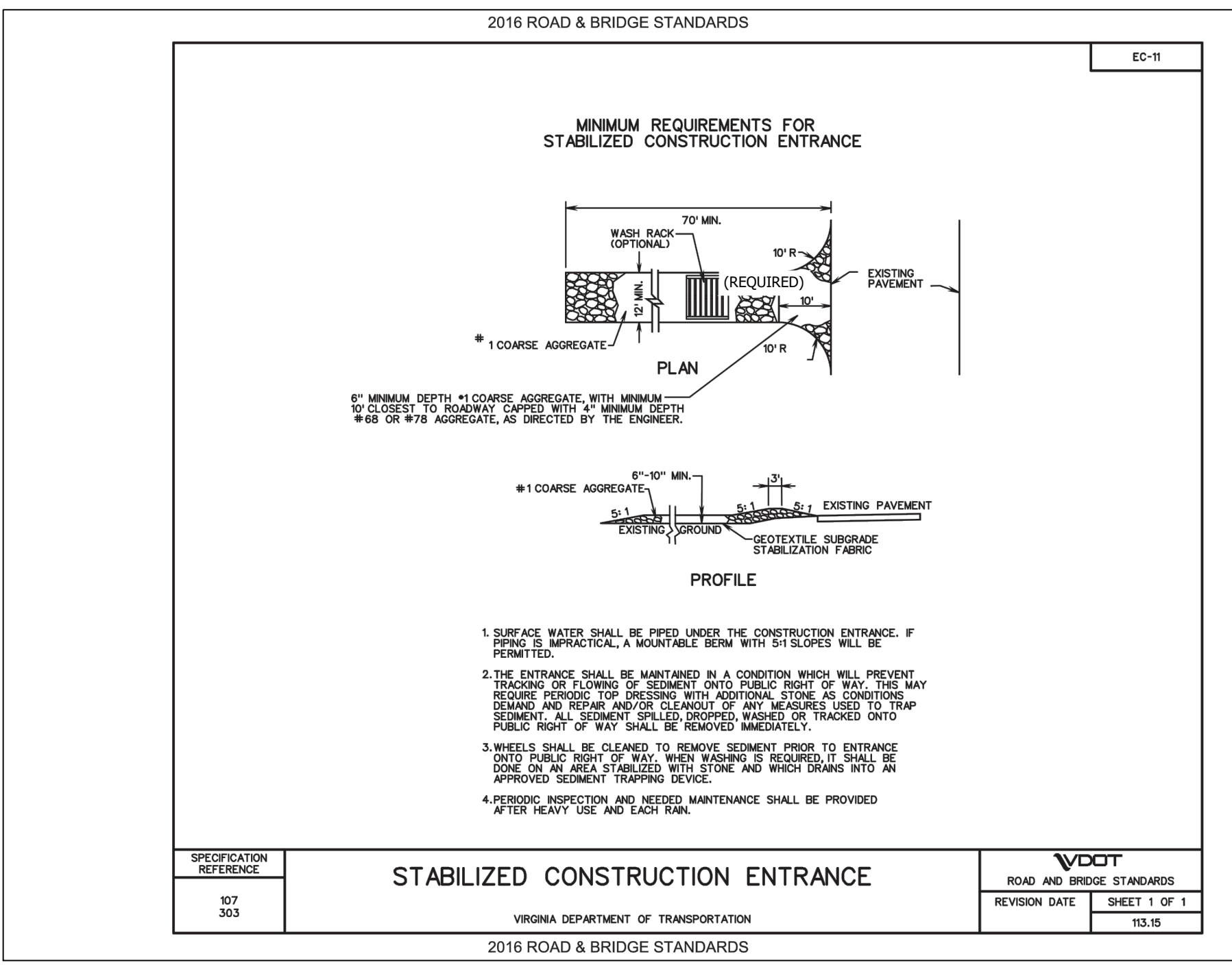
PORTABLE SEDIMENT TANK



SOURCE: USDA - SCS PLATE 3.26-1



SOURCE: VA. DSWC PLATE 3.09-1



2016 ROAD & BRIDGE STANDARDS VDOT ROAD AND BRIDGE STANDARDS SHEET 1 OF 1 113.15

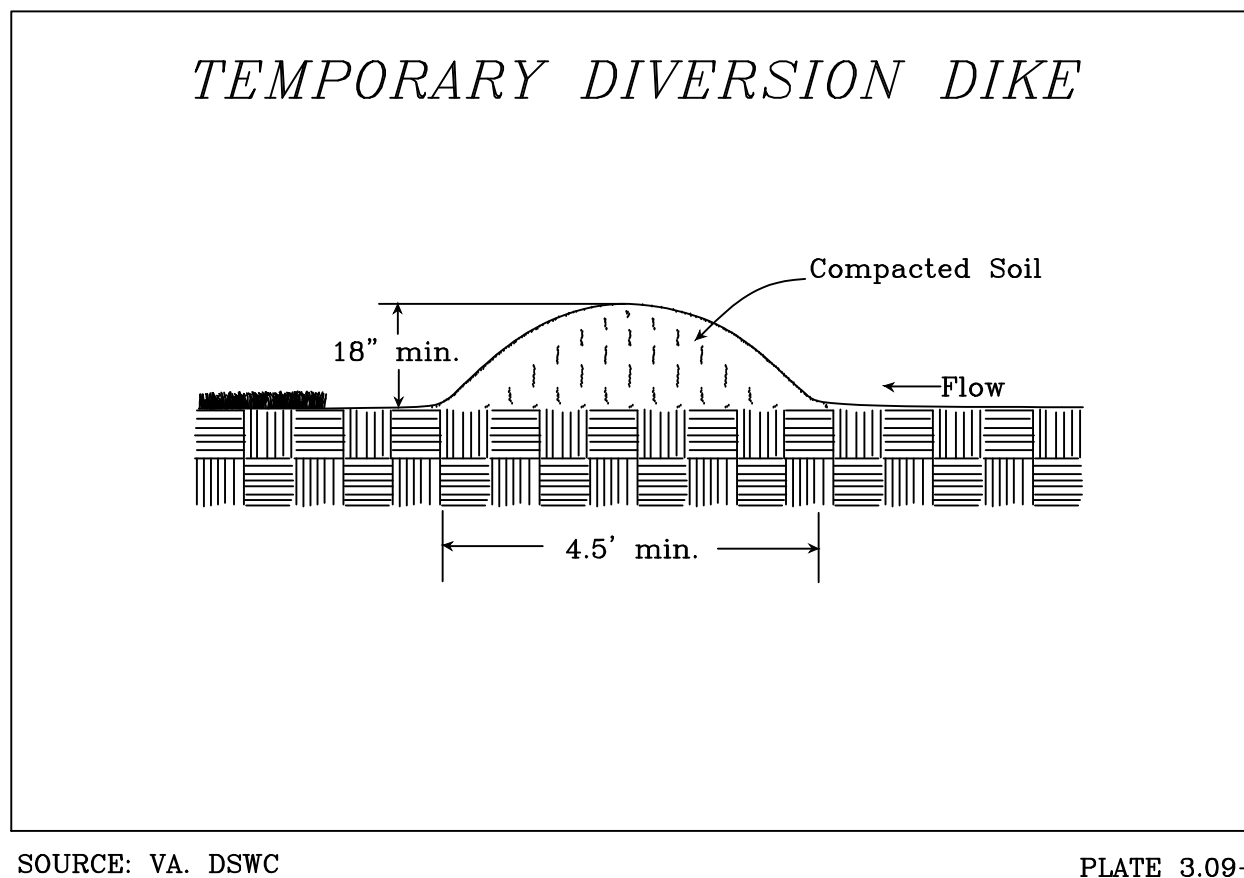
Erosion Control 900

Erosion Control 900 gram is a biodegradable erosion control fabric made up of a single layer of continuously woven coir (coconut fiber) matting. It is designed to be used on slopes, shorelines and streamlines for erosion & sediment control. It is also designed to hold seed intact during the establishment of vegetative cover. Coir geotextiles are an environmentally friendly product.

| Property | Test Method | Erosion Control 900 |
|---------------------------|-------------|------------------------------|
| Weight | ASTM D 3776 | 26.54 oz/SY (900 g/sq.m) |
| Tensile strength | ASTM D 4595 | 1648 x 670 lbs/ft |
| Elongation at failure Wet | ASTM D 4595 | 42% x 32% |
| Flexibility (Mg-Cm) | | 89270 x 9360 |
| Longevity | | 4-6 years |
| Open area | Calculated | 39% |
| "C" Factor | | 0.002 |
| Thickness | ASTM D 1777 | 0.30 in |
| Minimum Twine Count | | 27 x 18 |
| MD x CD (per foot) | | > 1:1 |
| Flow Velocity | | Observed 16 fps (4.88 m/sec) |
| Shear stress | | 5 lbs/sq.ft (215 N/sq.m) |

FibreDust, LLC - 30 New Lane, Cromwell CT 06416 - P:860-218-3411 www.FibreDust.Com

BIODEGRADABLE MATTING OR EQUIVALENT



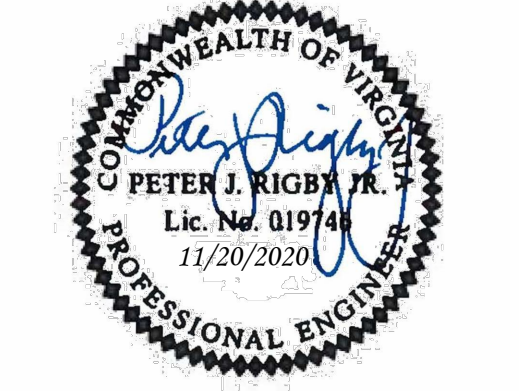
SOURCE: VA. DSWC PLATE 3.09-1



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects 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 |
|------------------------------------|------------|
| <i>Kamal N. Taktak</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Taktak</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Whitson</i> | 4/30/20 |
| PROJECT MANAGER | |

| Revisions | Date |
|-----------|------|
| | |
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| | |

Project Name and Location
 POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
 PARCEL 17A, POTOMAC YARD -
 ARLINGTON, VA 22202

EROSION CONTROL DETAILS
 ARLINGTON COUNTY

Designed: CJA
 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

Filename: 2016-158_ER03-4_NOTES-DTLs.dwg
 Path: Q:\DWG\B10K\CADACTIVE
 Plotted: May 20, 2021
 Plotted by: Ldelacruz

Scale: NTS

PLAN NUMBER _____

APPROVED DATE _____

DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

Sheet 14 OF 23

Appendix C. Water Quality Impact Assessment Data Sheet

| | |
|---|--|
| Project Address Parcel 17A, Potomac Yard Arlington, VA 22202 | Date: 01/22/2020 |
| Applicant Name/Affiliation: Peter Rigby - Arlington County | Applicant Contact Information (phone and email): 703-228-3604 / prigby@arlingtonva.us |
| Owner/Client Name: Alan McDonald, DES, Arlington County Go. | Owner/Client Contact Information (phone and email): 703-228-7525 / jwldstrom@arlingtonva.us |

Section 1: Type of activity proposed

Activity type (check all that apply):

- New construction (residential, commercial, public, etc.)
- Alteration of non-residential structure
- Residential addition
- Detached residential structure
- Deck, patio, or retaining wall
- Landscaping (includes tree removal)
- Utility work
- Fence
- Other (please describe): Concrete Trail

Section 2: Key details of the proposed activity

| Complete all that apply | Explanation |
|--|-------------|
| Total area of disturbance on parcel (sf) | 46,987 |
| Area of disturbance within RPA (sf) | 25,084 |
| Area of disturbance on slopes greater than or equal to 15 percent located adjacent to landward RPA boundary (sf) | 15,745 |

| Complete all fields | Existing condition | Proposed condition | Explanation |
|---|--------------------|--------------------|---|
| RPA encroachment (ft) | | | |
| Left third of parcel or site | 109 | 109 | 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 | 109 | 62 | |
| Right third of parcel or site | 109 | 48 | |
| Total development footprint in RPA (sf) | 986 | 3,650 | 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) | 986 | 3,650 | Total area of impervious surfaces within the RPA (rooftops, pavement, etc.) |

STAFF USE ONLY

Building/demolition/LDA/Fence permit number(s):
Major WQIA required? Yes No
Date WQIA/Exception request information complete:
Date Chesapeake Bay Preservation Ordinance and EIS 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.

This project proposes to construct 350 linear feet of 10-foot wide concrete trail. The trail will connect existing sidewalk along the east side of Jefferson Davis Hwy to the existing concrete Four Mile Run trail. The proposed trail encroaches into the RPA boundary. The total area of disturbance within the buffer is 29,003 square feet. There will be a total of 3,647 square feet of finished, permanent impervious surface (concrete trail) within the RPA boundary. No trees within the RPA buffer will be removed.

The county is proposing to mitigate possible impacts to the RPA using erosion and sediment control measures as shown on the drawings (sheets 11 to 14) to include temporary super silt fence/silt fence, sodding disturbed areas, and construction of check dam to reduce the velocity before leaving the site and diversion dike to divert clean water around the project.

Re-vegetation with native grasses will be done to mitigate the additional impervious cover and RPA buffer enhancement has been provided by adding shrubs as shown on Planting plan sheet 22. This project identified as Project 2-16 is part of the Bikeway Network improvement according to Arlington County Master Transportation Plan - Bicycle Element July 2008. Per Chesapeake Bay Preservation Ordinance (CBPO) 61-15.C an exemption is granted for passive recreation facilities and associated amenities such as boardwalks, trails, and pathways, including nature trails operated by government agencies, and trails and bikepaths that provide a link to a planned county trail system.

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.

Appendix D. Exception Request Form

| | |
|--|--|
| Applicant: Peter Rigby - Arlington County | Project address: Parcel 17A, Potomac Yard Arlington, VA 22202 |
|--|--|

Section 1: Brief description of exception request

The exception request is to allow the County to temporarily disturb approximately 29,003 square feet of land and permanently place approximately 3,647 square feet of concrete trail within the RPA boundary.

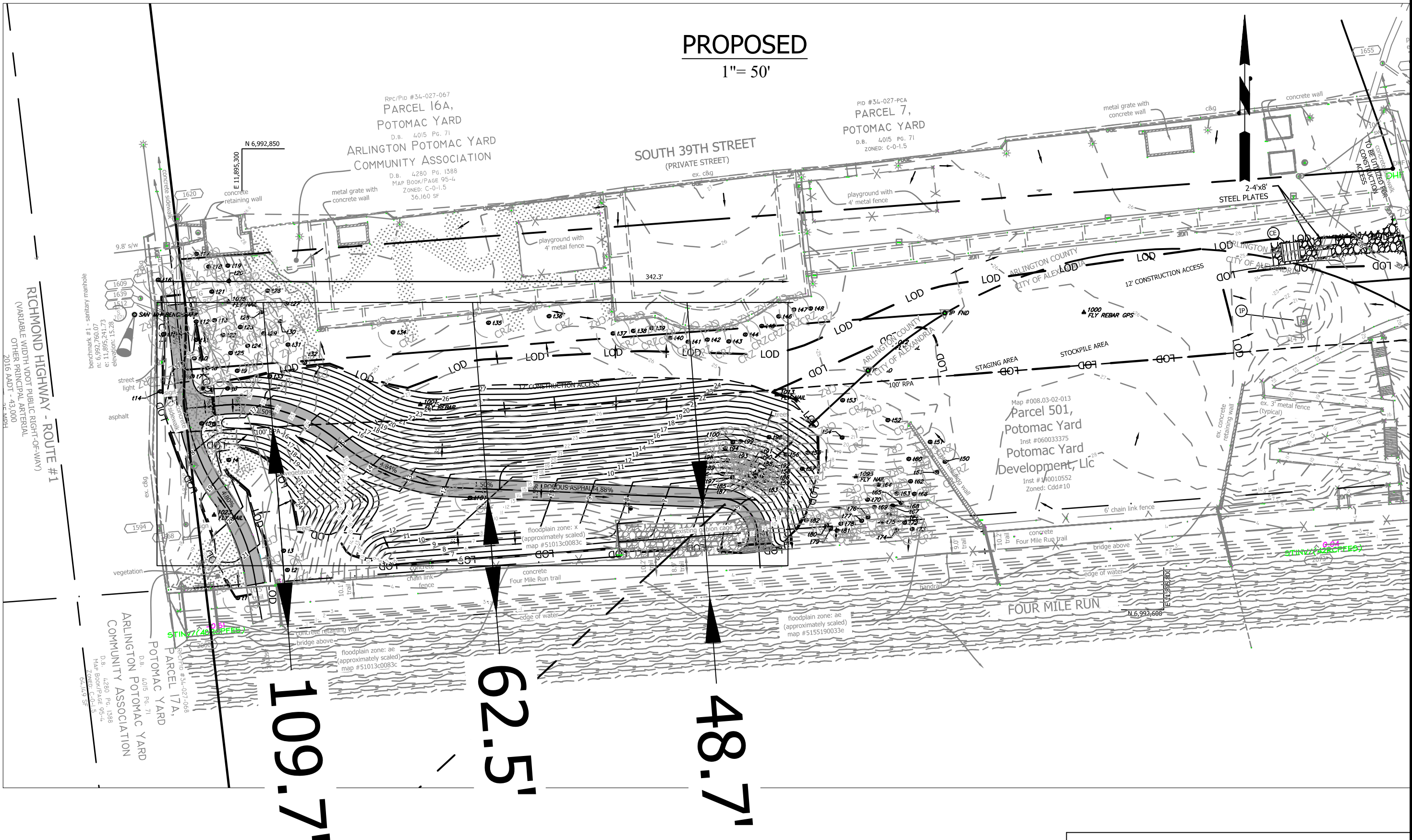
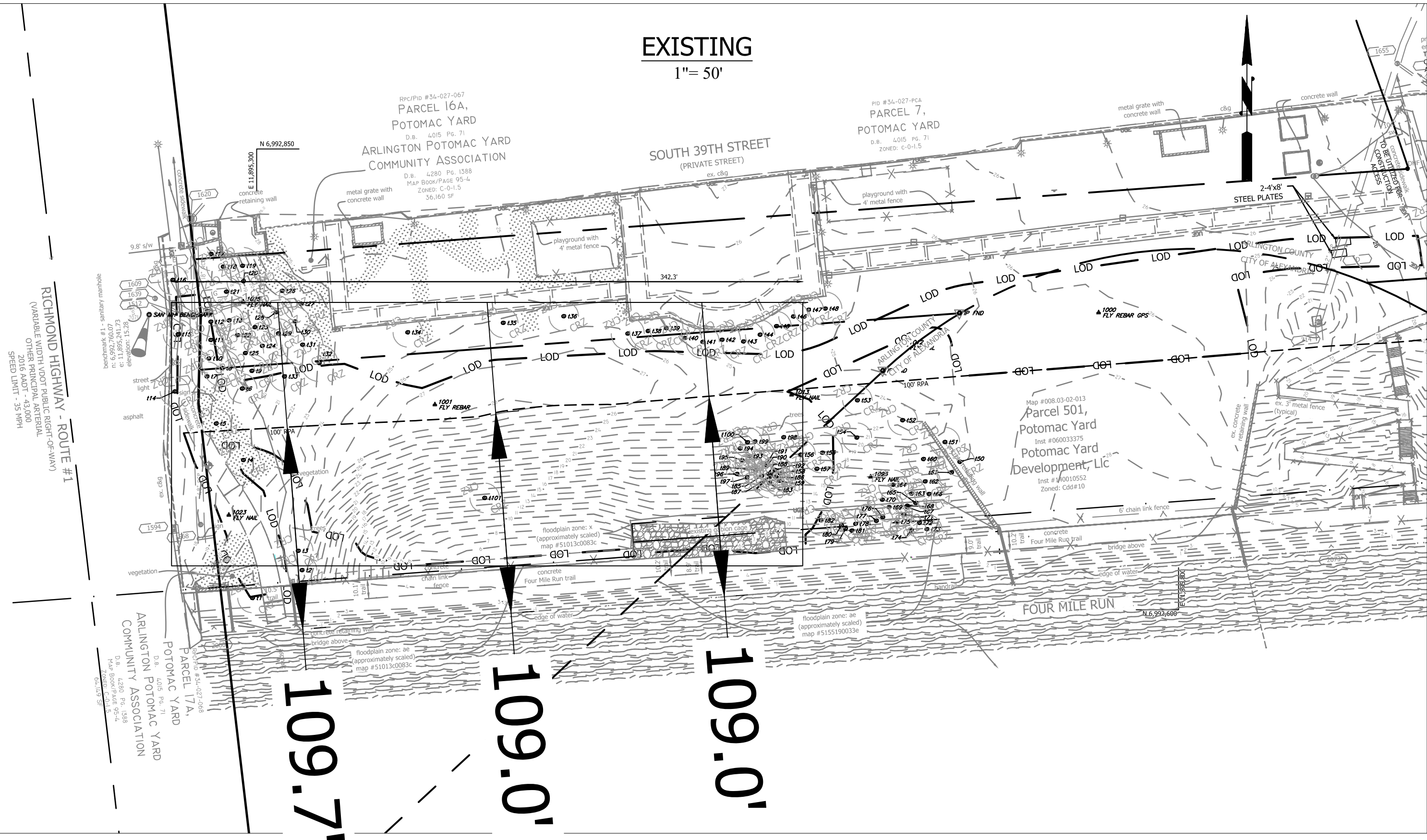
Section 2: Parcel, structure, and ownership information

| | |
|--|--|
| Date parcel ownership began: Unknown | Date(s) of construction of any prior work by current owner (alterations, additions, decks, patios, etc.)—list individually: Date Type of prior work |
| Date existing principal structure built: NA | 1. NA |
| Will existing principal structure remain intact? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No NA | 2. NA |
| | 3. NA |
| | 4. NA |

STAFF USE ONLY

- Allowable development in RPA (§ 61-7.A)
- Allowable modification in RPA (§ 61-7.B)
- Allowable encroachment in RPA (§ 61-7.C)
- Expansion of nonconforming structure or use in RPA (§ 61-14) (exception request required)
- New development in the RPA, redevelopment that increases impervious area in the RPA or encroaches further into the RPA, or any other proposed disturbance of any RPA component (exception request required)
- Exempted activity in RPA (§ 61-15)
- Proposed development in RMA on 15 percent slopes adjacent to RPA
- Other RMA activity

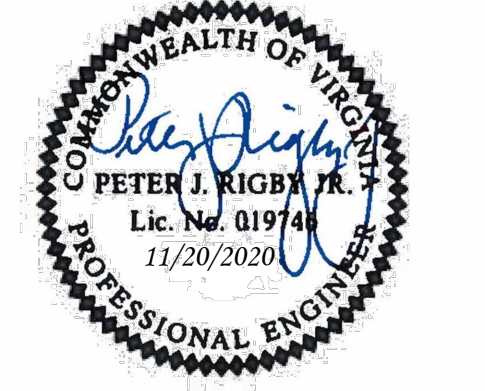
CBORC hearing required? Yes No
Date public notification sent certified mail:
Hearing date:
CBORC decision: Approved Not approved
Date of final approval letter:



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects Division
Engineering Bureau
2100 Clarendon Boulevard, Suite 813
Arlington, VA 22201
Phone: 703.228.3629
Fax: 703.228.3606

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APPROVALS

| APPROVALS | DATE |
|------------------------------------|------------|
| <i>[Signature]</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>[Signature]</i> | 4.23.20 |
| Kamal N. Taktak | |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>[Signature]</i> | 04.23.2020 |
| David W. Hundelt | |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>[Signature]</i> | 4/22/20 |
| Dennis M. Leach | |
| TRANSPORTATION DIRECTOR | |
| <i>[Signature]</i> | 4/30/20 |
| PROJECT MANAGER | |

Revisions Date

Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

WQIA & EXCEPTION REQUEST

Designed: CJA
Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

Filename: 2016-158_ER03-4_NOTES-DTL5.dwg
Path: Q:\DW\B10K_CADACTIVE
Plotted: May 20, 2021
Plotted by: Ldelacruz
Scale: AS NOTED

PLAN NUMBER _____
APPROVED DATE _____
DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

TABLE 3.31-B
(Revised June 2003)
TEMPORARY SEEDING SPECIFICATIONS
QUICK REFERENCE FOR ALL REGIONS

| SEED | | |
|-------------------|---|---------------------|
| APPLICATION DATES | SPECIES | APPLICATION RATES |
| Sept. 1 - Feb. 15 | 50/50 Mix of Annual Ryegrass (lolium multi-florum) & Cereal (Winter) Rye (Secale cereale) | 50 - 100 (lbs/acre) |
| Feb. 16 - Apr. 30 | Annual Ryegrass (lolium multi-florum) | 60 - 100 (lbs/acre) |
| May 1 - Aug. 31 | German Millet | 50 (lbs/acre) |

| FERTILIZER & LIME | |
|--|--|
| <ul style="list-style-type: none"> Apply 10-10-10 fertilizer at a rate of 450 lbs. / acre (or 10 lbs. / 1,000 sq. ft.) Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.) | |

NOTE:
1 - A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.
2 - Incorporate the lime and fertilizer into the top 4 - 6 inches of the soil by disking or by other means.
3 - When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin #4, 2003 Nutrient Management for Development Sites at <http://www.dcr.state.va.us/sw/e&s.htm#pubs>

TABLE 3.32-E
(Revised June 2003)
PERMANENT SEEDING SPECIFICATIONS FOR COASTAL PLAIN AREA

| SEED ¹ | | |
|---|---|---|
| LAND USE | SPECIES | APPLICATION RATES |
| Minimum Care Lawn (Commercial or Residential) | Tall Fescue ¹ or Bermudagrass ¹ | 175 - 200 lbs. 75 lbs. |
| High-Maintenance Lawn | Tall Fescue ¹ or Bermudagrass ¹ (seed) or Bermudagrass ¹ (by other vegetative establishment method, see Std. & Spec. 3.34) | 200-250 lbs. 40 lbs. (unhulled) 30 lbs. (hulled) |
| General Slope (3:1 or less) | Tall Fescue ¹ Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop ² | 128 lbs. 2 lbs. 20 lbs. TOTAL: 150 lbs. |
| Low-Maintenance Slope (Steeper than 3:1) | Tall Fescue ¹ Bermudagrass ¹ Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop ² Sericea Lespedeza ³ | 93-108 lbs. 0-15 lbs. 2 lbs. 20 lbs. 20 lbs. TOTAL: 150 lbs. |

1 - When selecting varieties of turfgrass, use the Virginia Crop Improvement Association (VCIA) recommended turfgrass variety list. Quality seed will bear a label indicating that they are approved by VCIA. A current turfgrass variety list is available at the local County Extension office or through VCIA at 804-746-4884 or at <http://sudan.cses.vt.edu/html/Turf/turf/publications/publications2.html>

2 - Use seasonal nurse crop in accordance with seeding dates as stated below:
February, March - April Annual Rye
May 1st - August Foxtail Millet
September, October - November 15th Annual Rye
November 16th - January Winter Rye

3 - May through October, use hulled seed. All other seeding periods, use unhulled seed. If Weeping Lovegrass is used, include in any slope or low maintenance mixture during warmer seeding periods, increase to 30 -40 lbs/acre.

| FERTILIZER & LIME | |
|--|--|
| <ul style="list-style-type: none"> Apply 10-20-10 fertilizer at a rate of 500 lbs. / acre (or 12 lbs. / 1,000 sq. ft.) Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.) | |

NOTE:
- A soil test is necessary to determine the actual amount of lime required to adjust the soil pH of site.
- Incorporate the lime and fertilizer into the top 4 - 6 inches of the soil by disking or by other means.
- When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin #4, 2003 Nutrient Management for Development Sites at <http://www.dcr.state.va.us/sw/e&s.htm#pubs>

PERMANENT SEEDING WITHIN RPA

| SEED MIX COMPOSITION | | | |
|--|-----------------------------|--------------------------|-------------------------|
| MEADOW SEED MIX | | | |
| SPECIES NAME | COMMON NAME | WETLAND INDICATOR STATUS | PLS PERCENT OF SEED MIX |
| Schizachyrium scoparium var. scoparium | Little bluestem | FACU | 15 |
| Coleoetaria anceps | Beaked panicgrass | FAC | 10 |
| Dichanthium clandestinum | Doertongue | FACW | 8 |
| Elymus virginicus | Virginia wild rye | FAC | 8 |
| Eragrostis spectabilis | Purple lovegrass | FACU | 8 |
| Tripsacum daniellii | Purple top | FACU | 8 |
| Rudbeckia fulgida | Black-eyed Susan | FACU | 7 |
| Solidago juncea | Early goldenrod | FACU | 7 |
| Pycnanthemum tenuifolium | Narrow Leaved Mountain Mint | FACW | 8 |
| Juncus tenuis | Path Rush | FAC | 7 |
| Azides sylvatica | Common milkweed | UPL | 7 |
| Solidago rugosa | Rough-leaved goldenrod | FAC | 7 |
| | | TOTAL: | 100 |

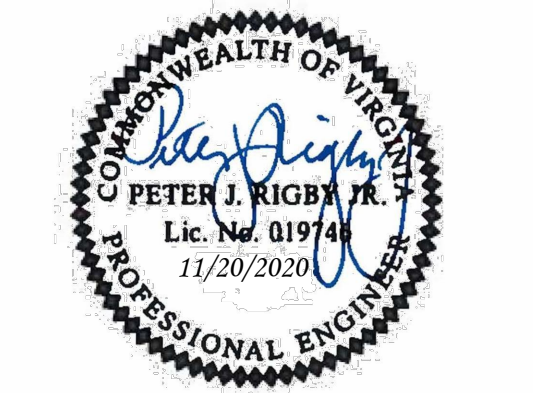
| ANNUAL RYE SEED (TEMPORARY SEEDING) | | | |
|-------------------------------------|-------------|--------------------------|-------------------------|
| SPECIES NAME | COMMON NAME | WETLAND INDICATOR STATUS | PLS PERCENT OF SEED MIX |
| Lolium multiflorum | Annual rye | FACU | 100 |
| | | TOTAL: | 100 |



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects 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 |
|------------------------------------|------------|
| <i>Kamal</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Taktak</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Whitson</i> | 4/30/20 |
| PROJECT MANAGER | |

| Revisions | Date |
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Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

ESC TECHNICAL BULLETIN # 4
(TABLE 3.31-B, TABLE 3.32-E)

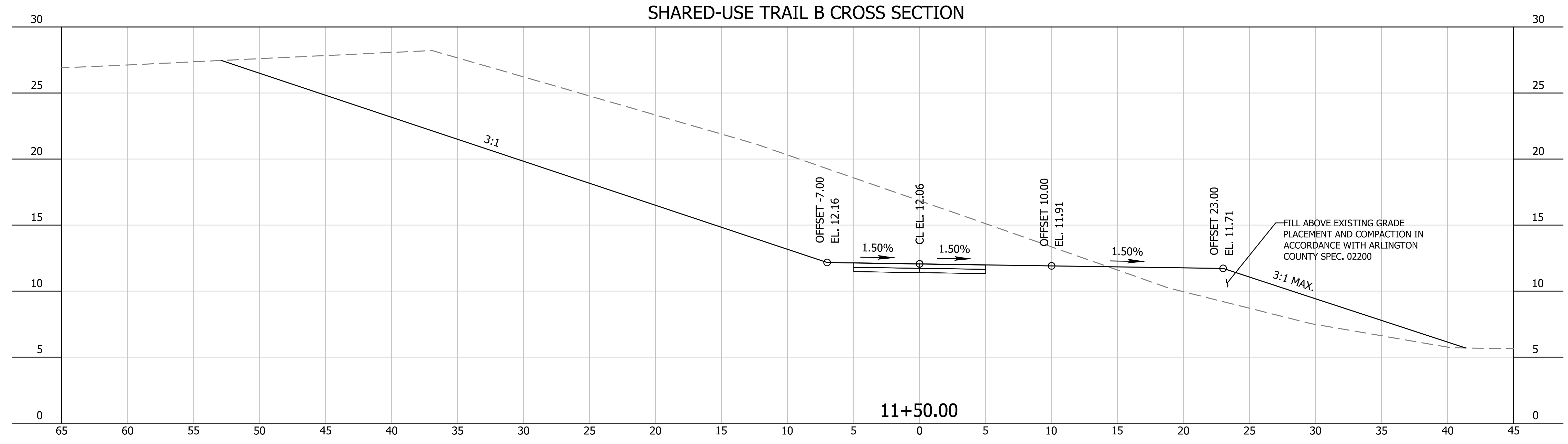
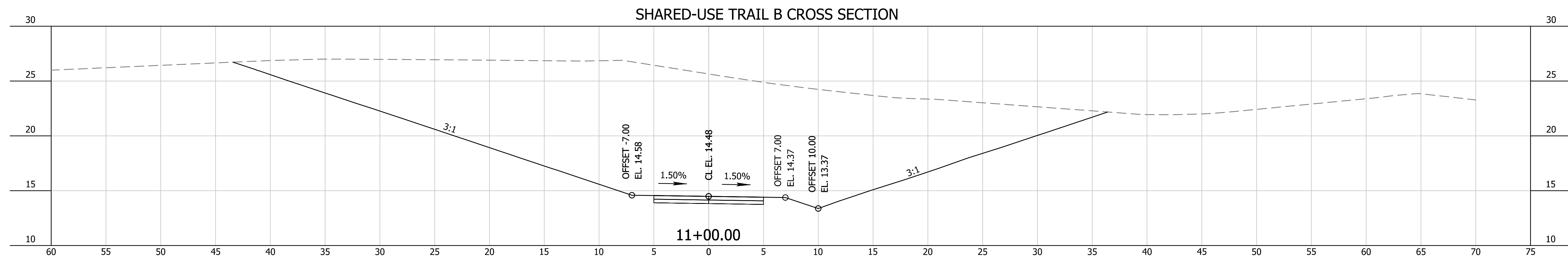
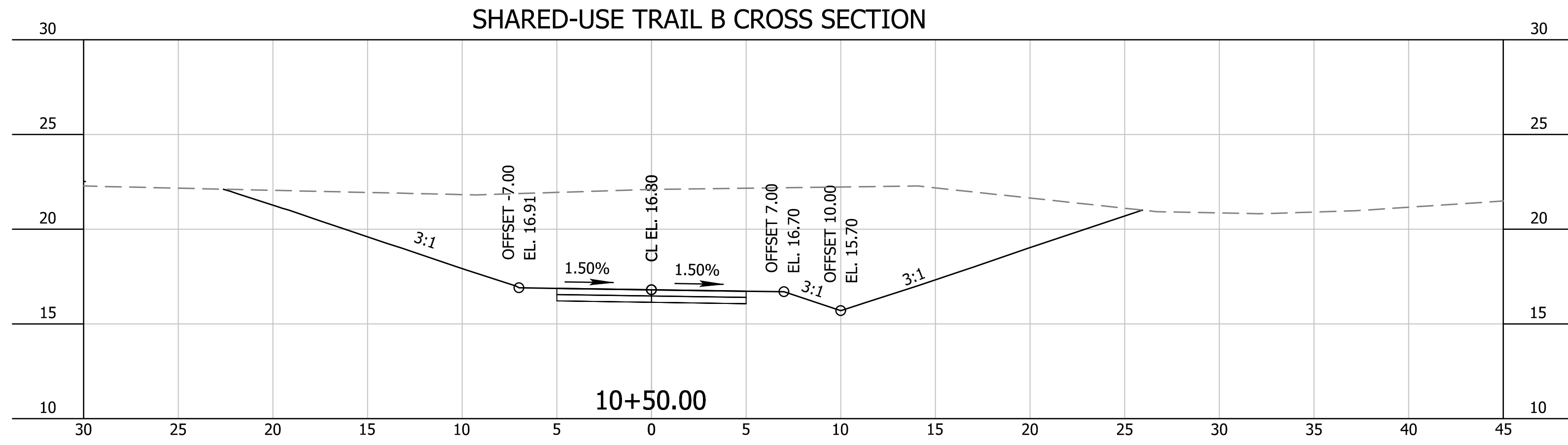
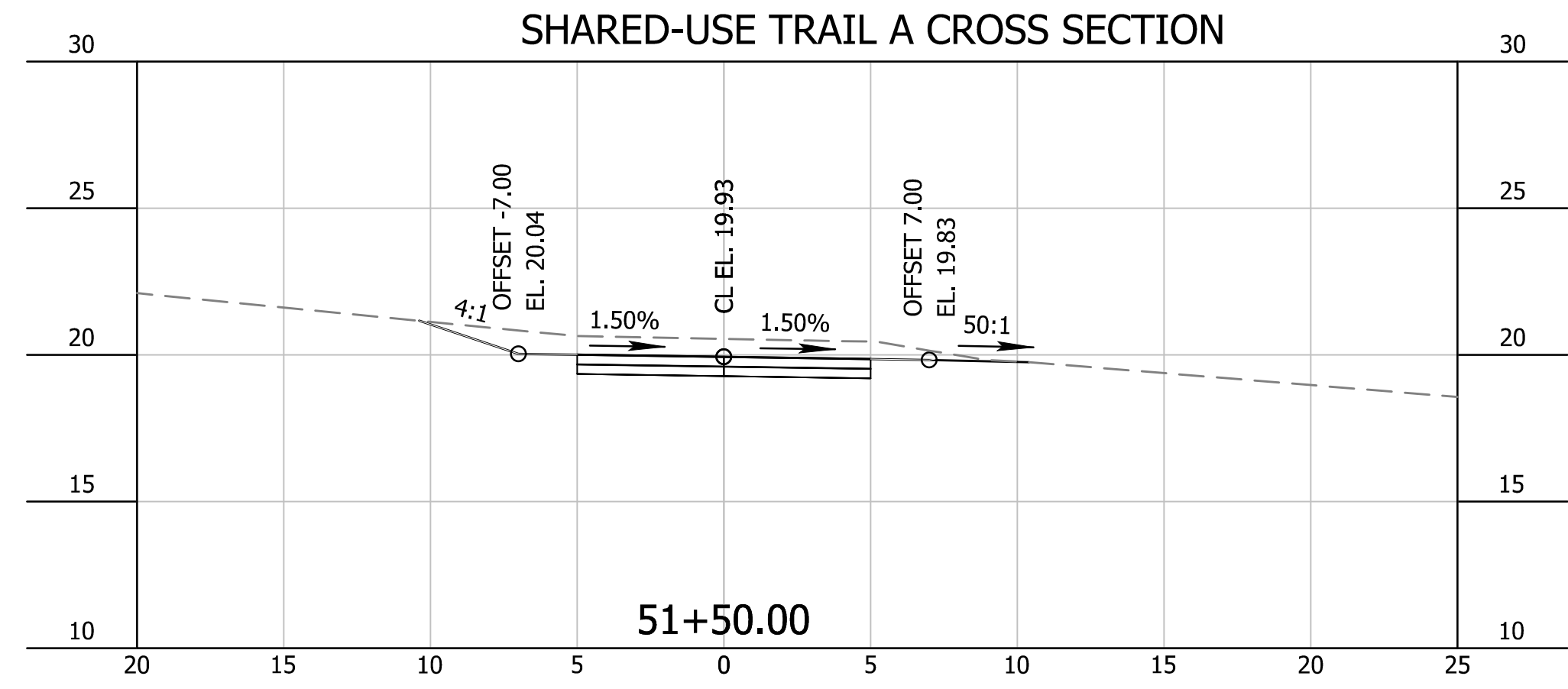
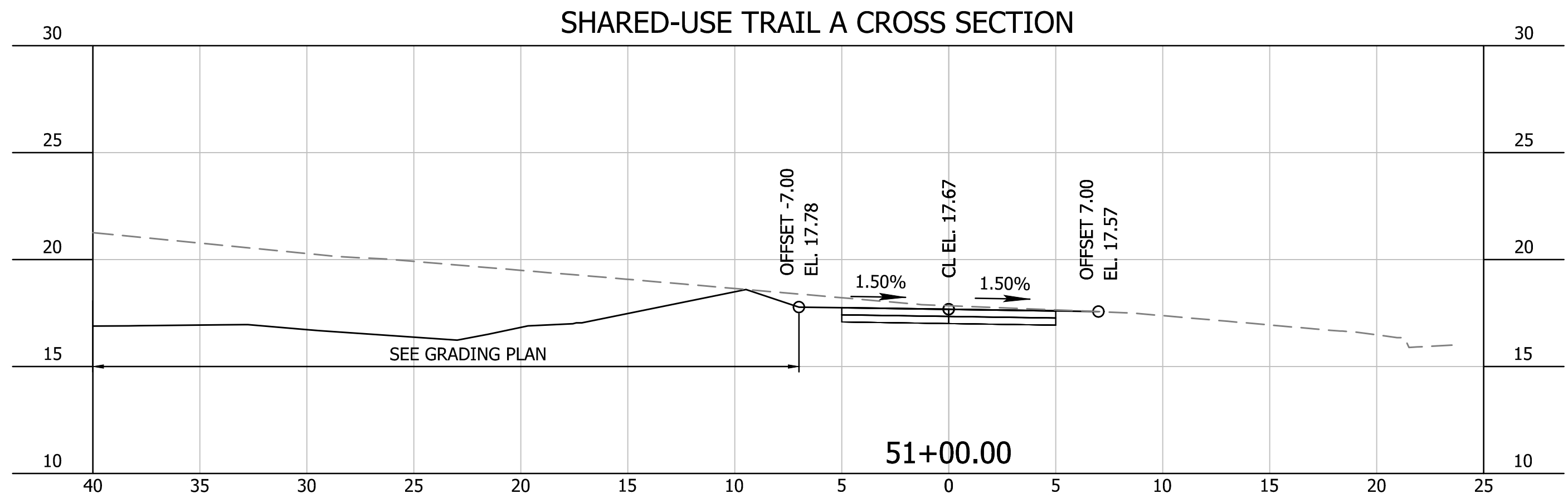
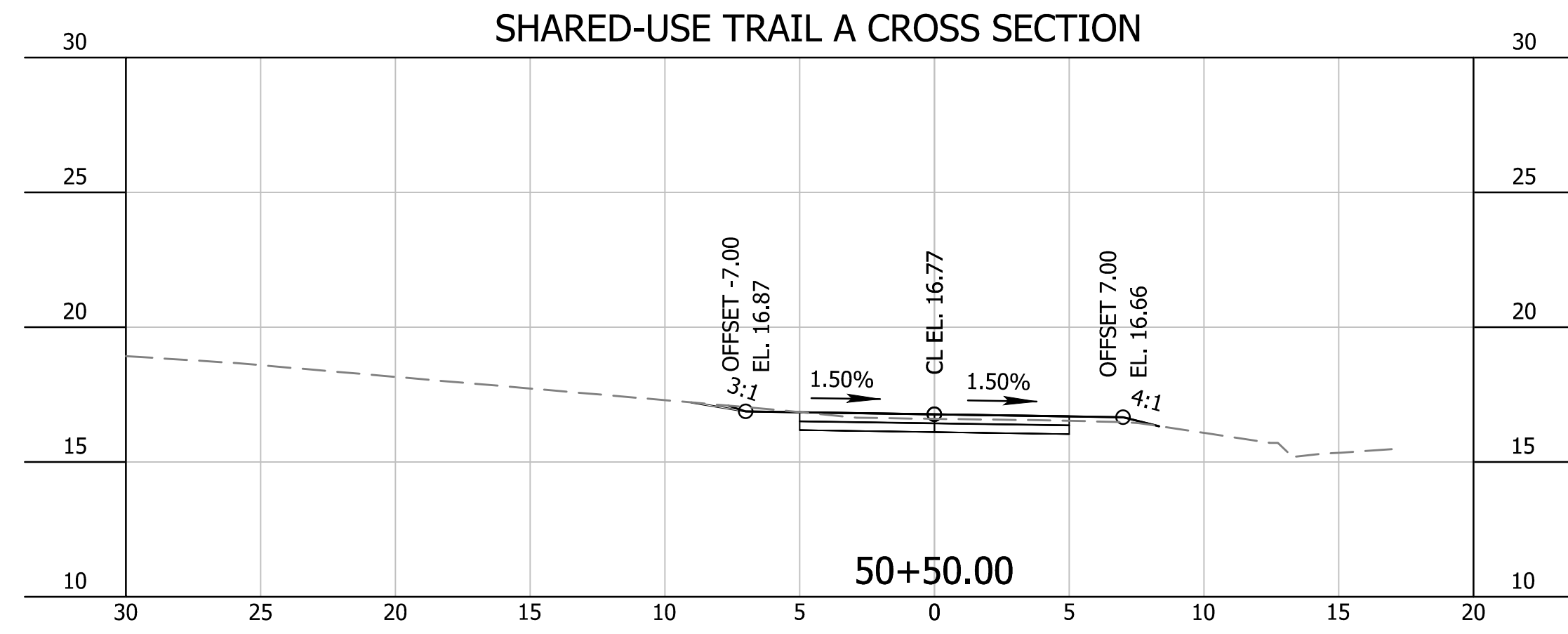
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Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

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Plotted: May 20, 2021
Plotted by: Ldelacruz
Scale: NTS

PLAN NUMBER _____

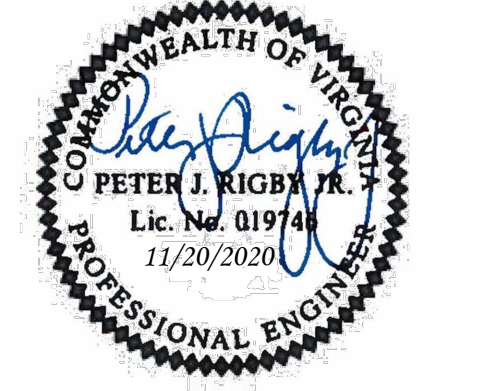
APPROVED DATE _____

DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects 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 |
|------------------------------------|------------|
| <i>Kamal</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Takak</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Whitson</i> | 4/30/20 |
| PROJECT MANAGER | |

| Revisions | Date |
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Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

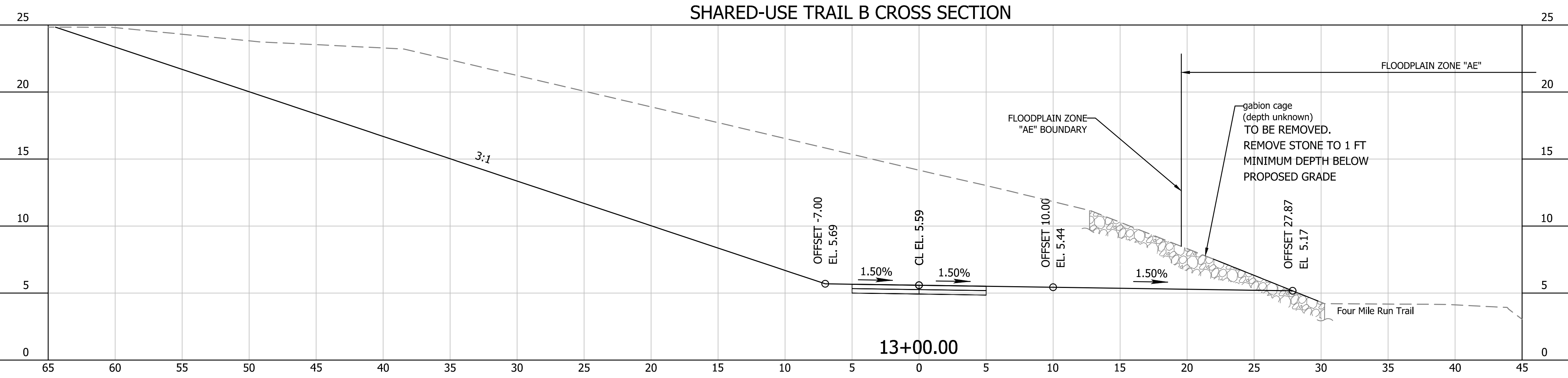
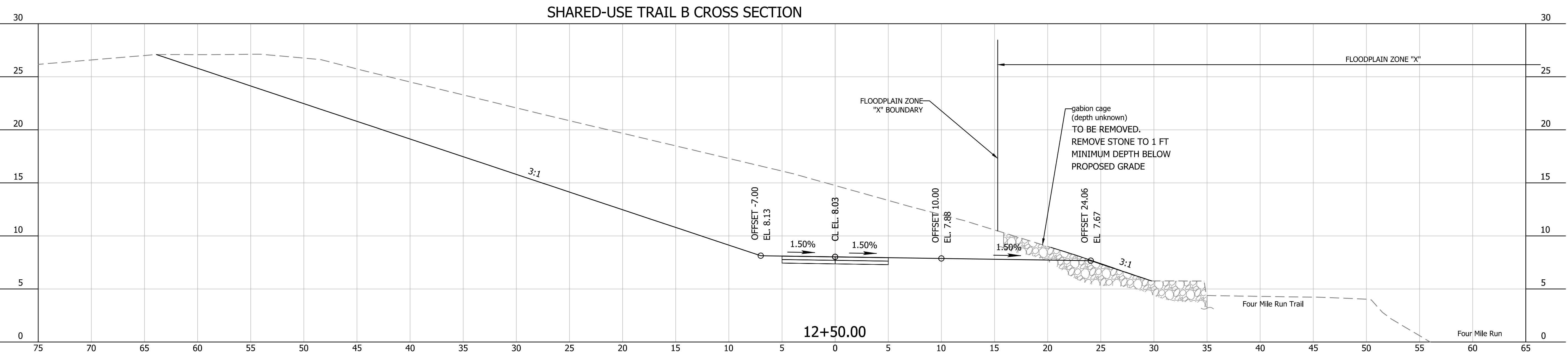
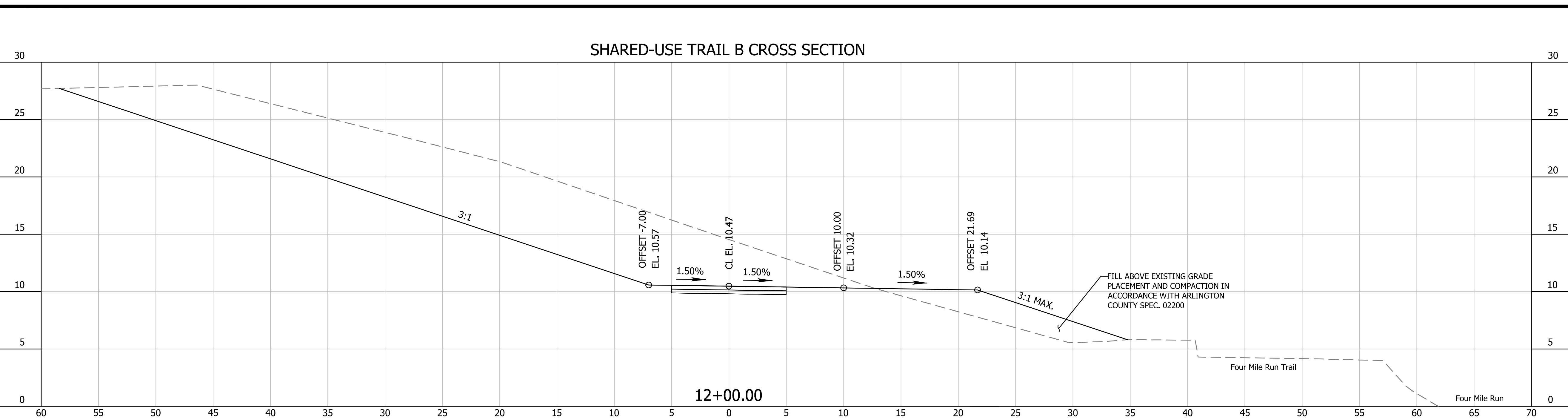
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 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

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 Plotted by: Ldelacruz

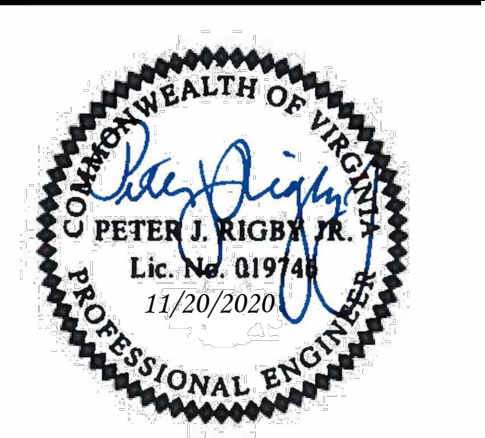
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 Ver: 1" = 5'

PLAN NUMBER _____
 APPROVED DATE _____
 DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects Division
 Engineering Bureau
 2100 Clarendon Boulevard, Suite 813
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| APPROVALS | DATE |
|------------------------------------|------------|
| <i>Kamal N. Taktak</i> | 4/22/2020 |
| Kamal N. Taktak | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| David W. Hundelt | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| Dennis M. Leach | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Whitson</i> | 4/30/20 |
| PROJECT MANAGER | |

| Revisions | Date |
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Project Name and Location
 POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
 PARCEL 17A, POTOMAC YARD -
 ARLINGTON, VA 22202

PROPOSED CROSS SECTIONS 2

Designed: CJA
 Drawn: CJA
 Checked: MSR
 Miss Utility Transmittal #: 5355-D

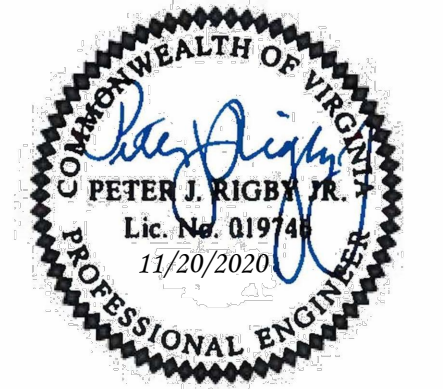
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 Plotted: May 20, 2021
 Plotted by: Ldelacruz

Scale: Hor: 1" = 5'
 Ver: 1" = 5'

PLAN NUMBER _____

APPROVED DATE _____

 DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES



APPROVALS DATE

| | |
|------------------------------------|------------|
| <i>Kamal</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Taktak</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Whitson</i> | 4/30/20 |
| PROJECT MANAGER | |

Revisions Date

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Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

**PAVEMENT MARKING AND
SIGNAGE PLAN**

Designed: CJA
Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

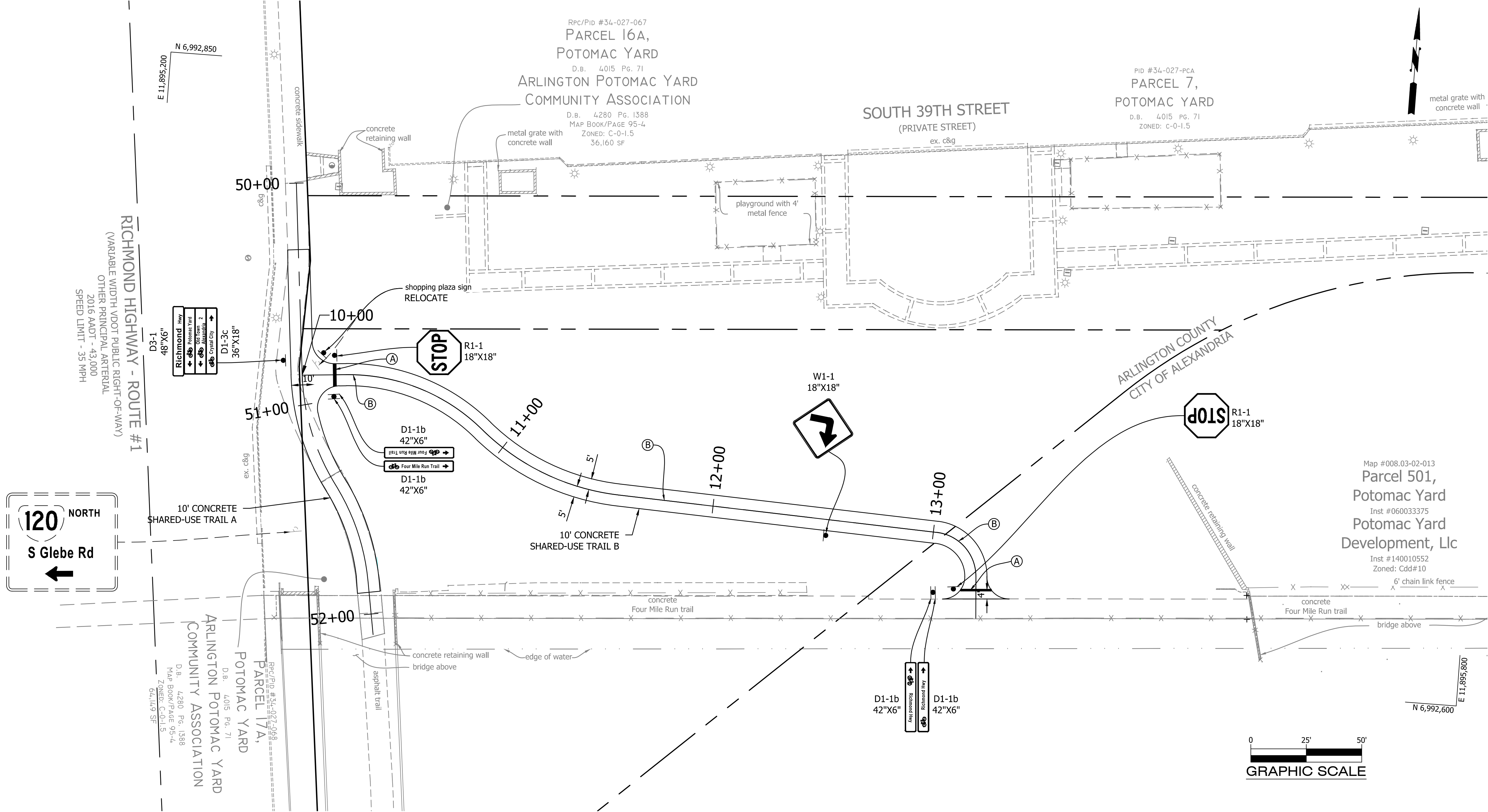
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Plotted by: Ldelacruz

Scale: Hor: 1" = 25'

PLAN NUMBER _____
APPROVED DATE _____

Sheet
19 OF 23

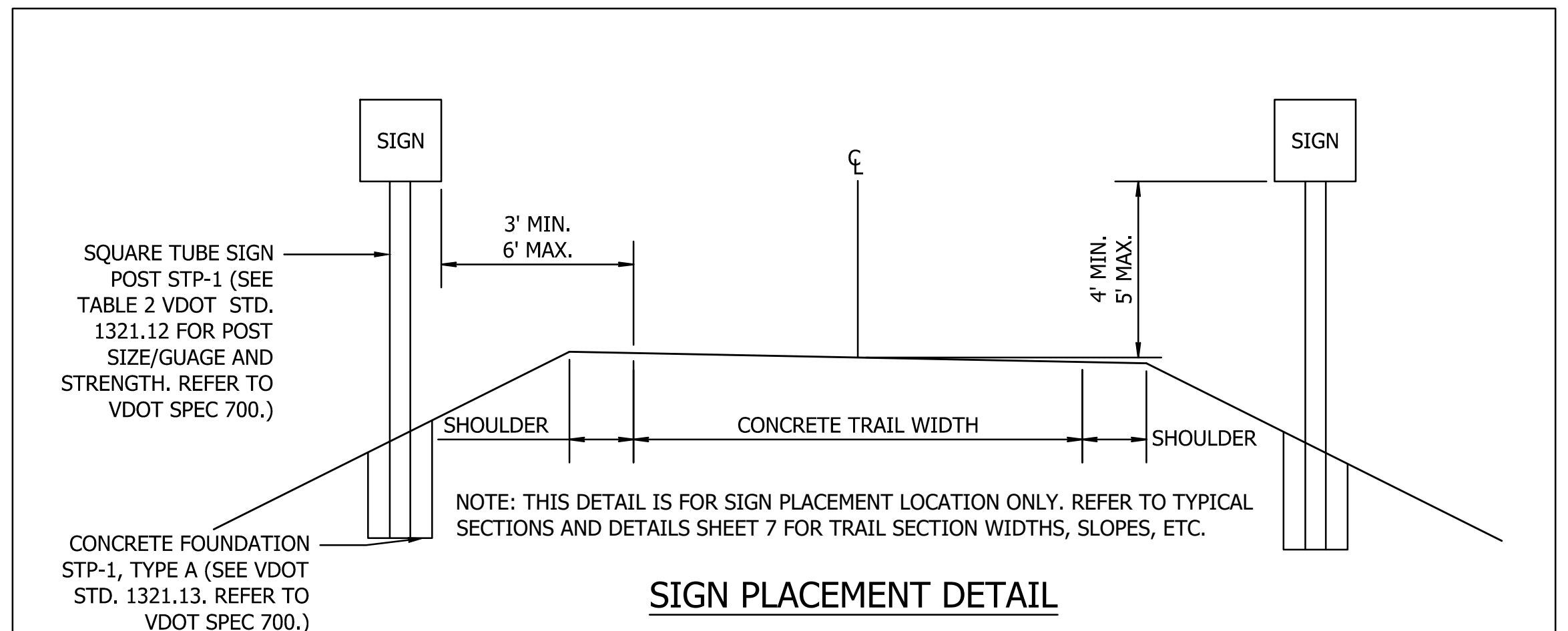
DIRECTOR OF TRANSPORTATION
AND ENVIRONMENTAL SERVICES

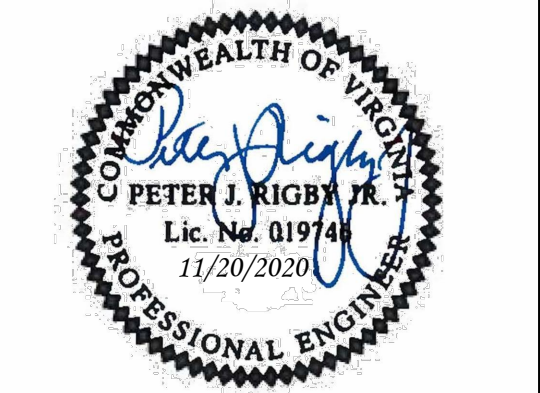


| SIGN | SIZE | SQUARE TUBE SIGN POST SIZE | FOUNDATION | QUANTITY |
|-------|-------------------|----------------------------|------------|----------|
| D1-1b | 42"x6" (1.75 SF) | 2 IN - 14 GA. | TYPE A | 4 |
| D1-3c | 36"x18" (4.5 SF) | 2 IN - 14 GA. | TYPE A | 1 |
| D3-1 | 48"x6" (2 SF) | 2 IN - 14 GA. | TYPE A | 1 |
| R1-1 | 18"x18" (2.25 SF) | 2 IN - 14 GA. | TYPE A | 2 |
| W1-1 | 18"x18" (2.25 SF) | 2 IN - 14 GA. | TYPE A | 1 |

NOTES: REFERENCE USDOT FHWA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2009) FOR SIGN SPECIFICATIONS.
REFERENCE ARLINGTON COUNTY PAVEMENT MARKING SPECIFICATIONS (2017).

| PAVEMENT MARKING LEGEND | | STRIPING LEGEND | |
|-------------------------|--|-----------------|----------|
| (A) | TYPE B CLASS 1 (THERMOPLASTIC).....WHITE 18" WIDTH | EXISTING | PROPOSED |
| (B) | TYPE B CLASS 1 (THERMOPLASTIC).....YELLOW 4" WIDTH | SIGN | STRIPING |
| | STOP BARS | (A) | (A) |
| | SHARED USE PATH SOLID CENTERLINE | | |





| APPROVALS | DATE |
|------------------------------------|------------|
| <i>Kamal N. Taktak</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Taktak</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Washington</i> | 4/30/20 |
| PROJECT MANAGER | |

| Revisions | Date |
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Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

**MAINTENANCE OF TRAFFIC PLAN
PHASE 1**

Designed: CJA
Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

Filename: 2016-158_TMP01.dwg
Path: Q:\04\B10\1_CADACTIVE
Plotted: May 20, 2021
Plotted by: Ldelacruz
Scale: Hor: 1" = 50'

PLAN NUMBER _____
APPROVED DATE _____
DIRECTOR OF TRANSPORTATION
AND ENVIRONMENTAL SERVICES

Sheet **20 OF 23**

CONSTRUCTION ACCESS:
CONSTRUCTION VEHICLES WILL ACCESS THE SITE FROM POTOMAC AVENUE. NO DISRUPTION OF VEHICULAR TRAFFIC ON POTOMAC AVENUE IS REQUIRED. THE SIDEWALK IS TO REMAIN OPEN AND CONSTRUCTION VEHICLES SHALL YIELD TO ALL PEDESTRIANS AND CYCLISTS UTILIZING THE EXISTING SIDEWALK DURING ENTRANCE AND EGRESS, AND YIELD TO OTHER CONSTRUCTION VEHICLES IN ALTERNATING ONE-WAY OPERATION.

PHASING
MAINTENANCE OF TRAFFIC CLOSURES AND ASSOCIATED SIGNAGE MAY BE BROKEN INTO THE FOLLOWING PHASES. CLOSURES AND SIGNAGE FOR EACH PHASE MAY BE REMOVED AFTER THE COMPLETION OF CONSTRUCTION ACTIVITY FOR THAT PHASE.

PHASE 1 (THIS SHEET)
DURATION: 3 WEEKS

CLOSE THE EXISTING SIDEWALK SEGMENT ALONG EAST SIDE OF RICHMOND HIGHWAY DURING SHARED-USE TRAIL A CONSTRUCTION. WORK MAY COMMENCE ON SHARED-USE TRAIL B CONCURRENTLY. FOUR MILE RUN TO REMAIN OPEN TO PEDESTRIANS AND BICYCLES.

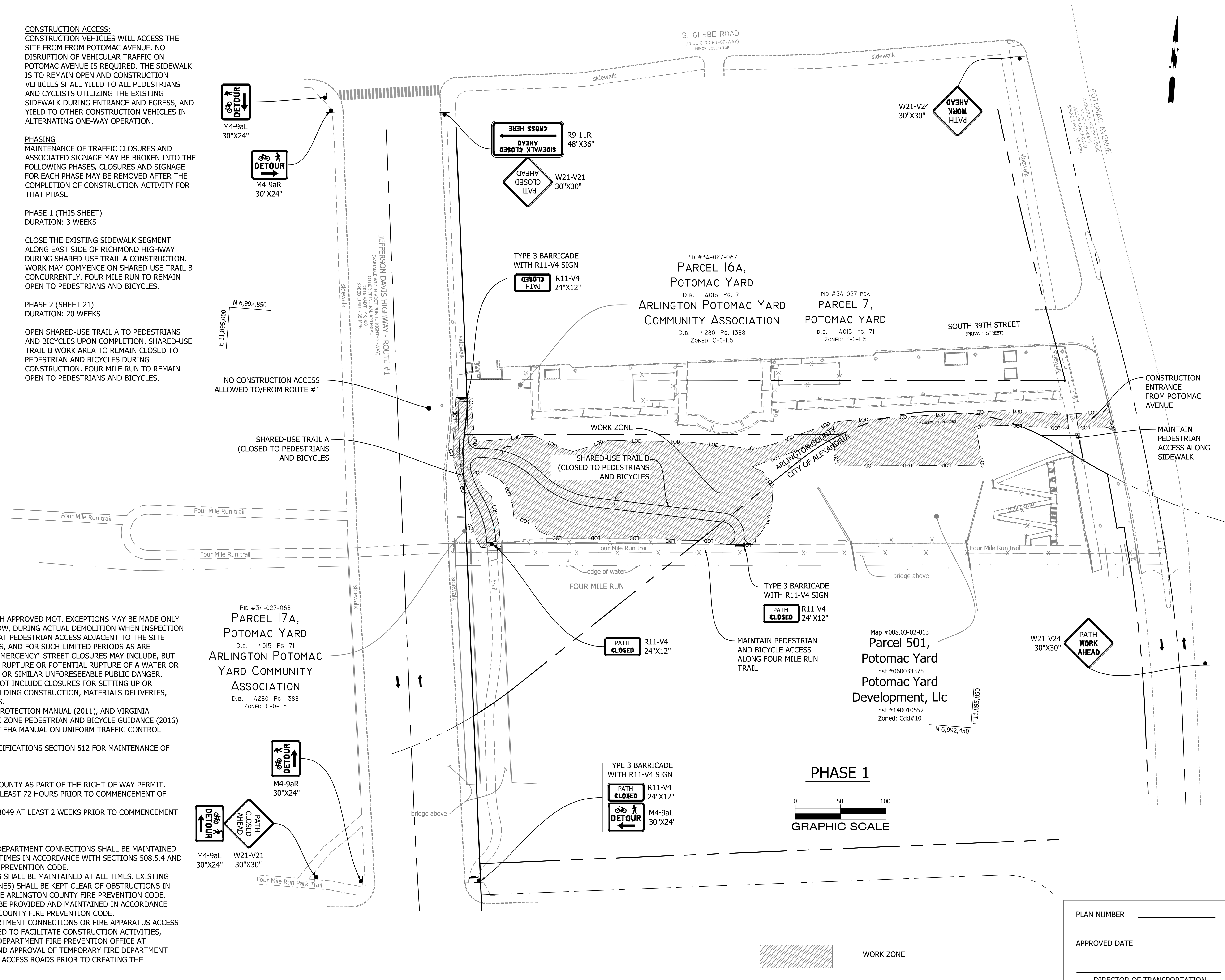
PHASE 2 (SHEET 21)
DURATION: 20 WEEKS

OPEN SHARED-USE TRAIL A TO PEDESTRIANS AND BICYCLES UPON COMPLETION. SHARED-USE TRAIL B WORK AREA TO REMAIN CLOSED TO PEDESTRIAN AND BICYCLES DURING CONSTRUCTION. FOUR MILE RUN TO REMAIN OPEN TO PEDESTRIANS AND BICYCLES.

- NOTES:**
- THE CONTRACTOR SHALL IMPLEMENT EACH APPROVED MOT. EXCEPTIONS MAY BE MADE ONLY DURING AN EMERGENCY AS DEFINED BELOW, DURING ACTUAL DEMOLITION WHEN INSPECTION SERVICES DIVISION HAS DETERMINED THAT PEDESTRIAN ACCESS ADJACENT TO THE SITE SHOULD BE LIMITED FOR SAFETY REASONS, AND FOR SUCH LIMITED PERIODS AS ARE UNAVOIDABLE FOR UTILITY UPGRADES. "EMERGENCY" STREET CLOSURES MAY INCLUDE, BUT NOT BE LIMITED TO, THOSE RELATING TO RUPTURE OR POTENTIAL RUPTURE OF A WATER OR GAS MAIN, UNSECURED BUILDING FACADE, OR SIMILAR UNFORESEEABLE PUBLIC DANGER. "EMERGENCY" STREET CLOSURES SHALL NOT INCLUDE CLOSURES FOR SETTING UP OR DISMANTLING OF A CRANE, EXTERIOR BUILDING CONSTRUCTION, MATERIALS DELIVERIES, UTILITIES WORK, OR SIMILAR SITUATIONS.
 - REFERENCE VDOT VIRGINIA WORK AREA PROTECTION MANUAL (2011), AND VIRGINIA DEPARTMENT OF TRANSPORTATION WORK ZONE PEDESTRIAN AND BICYCLE GUIDANCE (2016) FOR SIGN PLACEMENT. REFERENCE USDOT FHA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2009) FOR ALL OTHER SIGNS.
 - REFERENCE VDOT ROAD AND BRIDGE SPECIFICATIONS SECTION 512 FOR MAINTENANCE OF TRAFFIC MATERIALS.

- TE&O NOTES:**
- PARKING SHALL BE RESTRICTED BY THE COUNTY AS PART OF THE RIGHT OF WAY PERMIT. CONTACT DES - PERMITTING SECTION AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF WORK AT 703-228-3629.
 - COORDINATE WITH TRANSIT AT 703-228-3049 AT LEAST 2 WEEKS PRIOR TO COMMENCEMENT OF WORK IF TRANSIT IS AFFECTED.

- FIRE DEPARTMENT NOTES:**
- 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.
 - 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.



CONSTRUCTION ACCESS:
CONSTRUCTION VEHICLES WILL ACCESS THE SITE FROM FROM POTOMAC AVENUE. NO DISRUPTION OF VEHICULAR TRAFFIC ON POTOMAC AVENUE IS REQUIRED. THE SIDEWALK IS TO REMAIN OPEN AND CONSTRUCTION VEHICLES SHALL YIELD TO ALL PEDESTRIANS AND CYCLISTS UTILIZING THE EXISTING SIDEWALK DURING ENTRANCE AND EGRESS, AND YIELD TO OTHER CONSTRUCTION VEHICLES IN ALTERNATING ONE-WAY OPERATION.

PHASING
MAINTENANCE OF TRAFFIC CLOSURES AND ASSOCIATED SIGNAGE MAY BE BROKEN INTO THE FOLLOWING PHASES. CLOSURES AND SIGNAGE FOR EACH PHASE MAY BE REMOVED AFTER THE COMPLETION OF CONSTRUCTION ACTIVITY FOR THAT PHASE.

PHASE 1 (SHEET 20)
DURATION: 3 WEEKS

CLOSE THE EXISTING SIDEWALK SEGMENT ALONG EAST SIDE OF RICHMOND HIGHWAY DURING SHARED-USE TRAIL A CONSTRUCTION. WORK MAY COMMENCE ON SHARED-USE TRAIL B CONCURRENTLY. FOUR MILE RUN TO REMAIN OPEN TO PEDESTRIANS AND BICYCLES.

PHASE 2 (THIS SHEET)
DURATION: 20 WEEKS

OPEN SHARED-USE TRAIL A TO PEDESTRIANS AND BICYCLES UPON COMPLETION. SHARED-USE TRAIL B WORK AREA TO REMAIN CLOSED TO PEDESTRIAN AND BICYCLES DURING CONSTRUCTION. FOUR MILE RUN TO REMAIN OPEN TO PEDESTRIANS AND BICYCLES.

NOTES:

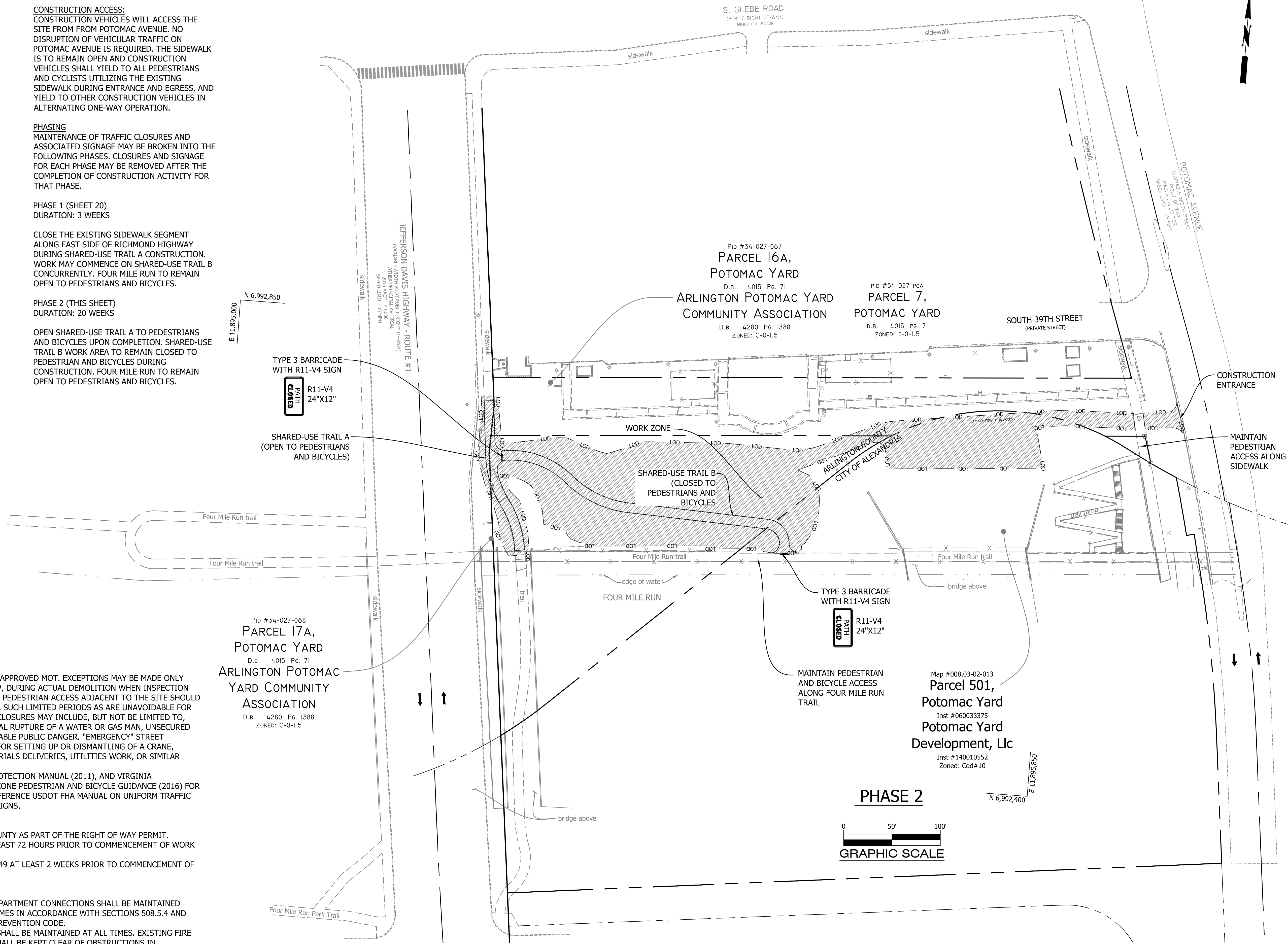
1. THE CONTRACTOR SHALL IMPLEMENT EACH APPROVED MOT. EXCEPTIONS MAY BE MADE ONLY DURING AN EMERGENCY AS DEFINED BELOW, DURING ACTUAL DEMOLITION WHEN INSPECTION SERVICES DIVISION HAS DETERMINED THAT PEDESTRIAN ACCESS ADJACENT TO THE SITE SHOULD BE LIMITED FOR SAFETY REASONS, AND FOR SUCH LIMITED PERIODS AS ARE UNAVOIDABLE FOR UTILITY UPGRADES. "EMERGENCY" STREET CLOSURES MAY INCLUDE, BUT NOT BE LIMITED TO, THOSE RELATING TO RUPTURE OR POTENTIAL RUPTURE OF A WATER OR GAS MAIN, UNSECURED BUILDING FACADE, OR SIMILAR UNFORESEEABLE PUBLIC DANGER. "EMERGENCY" STREET CLOSURES SHALL NOT INCLUDE CLOSURES FOR SETTING UP OR DISMANTLING OF A CRANE, EXTERIOR BUILDING CONSTRUCTION, MATERIALS DELIVERIES, UTILITIES WORK, OR SIMILAR SITUATIONS.
2. REFERENCE VDOT VIRGINIA WORK AREA PROTECTION MANUAL (2011), AND VIRGINIA DEPARTMENT OF TRANSPORTATION WORK ZONE PEDESTRIAN AND BICYCLE GUIDANCE (2016) FOR SIGN SPECIFICATIONS AND PLACEMENT. REFERENCE USDOT FHA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (2009) FOR ALL OTHER SIGNS.

TE&O NOTES:

1. PARKING SHALL BE RESTRICTED BY THE COUNTY AS PART OF THE RIGHT OF WAY PERMIT. CONTACT DES - PERMITTING SECTION AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF WORK AT 703-228-3629.
2. COORDINATE WITH TRANSIT AT 703-228-3049 AT LEAST 2 WEEKS PRIOR TO COMMENCEMENT OF WORK IF TRANSIT IS AFFECTED.

FIRE DEPARTMENT NOTES:

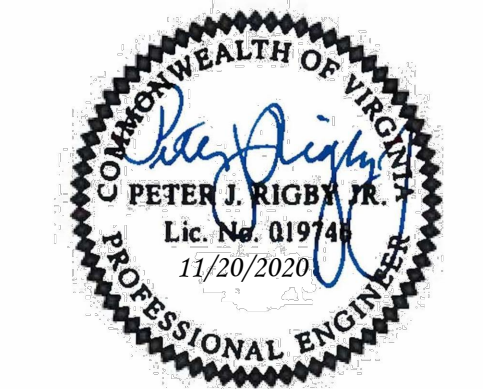
1. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
2. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING FIRE 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.
3. 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.



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects 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**

| | |
|------------------------------------|------------|
| <i>Kamal N. Takak</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Takak</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jim Washington</i> | 4/30/20 |
| PROJECT MANAGER | |

Revisions **Date**

| | |
|--|--|
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Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

**MAINTENANCE OF TRAFFIC PLAN
PHASE 2**

Designed: CJA
Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

Filename: 2016-158_TMP02.dwg
Path: Q:\04\B10\1\CADACTIVE
Plotted: May 20, 2021
Plotted by: Ldelacruz

Scale: Hor: 1" = 50'

PLAN NUMBER _____

APPROVED DATE _____

DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

TRANSPORTATION MANAGEMENT PLAN (TMP) (TYPE A - CATEGORY I & II)

GENERAL TMP NOTES:

- PROJECT IS A "TYPE A" TMP PROJECT. THIS PROJECT PROPOSES THE CONSTRUCTION OF 350 LINEAR FEET OF 10-FOOT WIDE CONCRETE TRAIL. THE TRAIL WILL CONNECT EXISTING SIDEWALK ALONG THE EAST SIDE OF RICHMOND HWY TO THE EXISTING CONCRETE FOUR MILE RUN TRAIL.
- THIS PROJECT INCLUDES A CONCRETE TRAIL REALIGNMENT PARALLEL TO RICHMOND HWY. THE PROPOSED WORK WILL REQUIRE CLOSING THE EAST PATH ON RICHMOND HWY AND DETOUR THE PEDESTRIAN AND BICYCLES TO THE WEST SIDE OF RICHMOND HWY.
- FOR CONCRETE TRAIL/SIDEWALK THE WORKING HOURS ALONG VDOT RIGHT-OF-WAY AREA ARE AS FOLLOWS:

| LANE CLOSURES (URBAN OTHER PRINCIPAL ARTERIAL) | | | |
|--|--------------------|--------------|--------------|
| MON. TO THU. | FRIDAY | SATURDAY | SUNDAY |
| 9:30 AM TO 3:30 PM | 9:30 AM TO 2:00 PM | *Not allowed | *Not allowed |
| *Not allowed | *Not allowed | *Not allowed | *Not allowed |

- THE WORKING HOURS WITHIN ARLINGTON COUNTY RIGHT-OF-WAY ARE AS FOLLOWS:

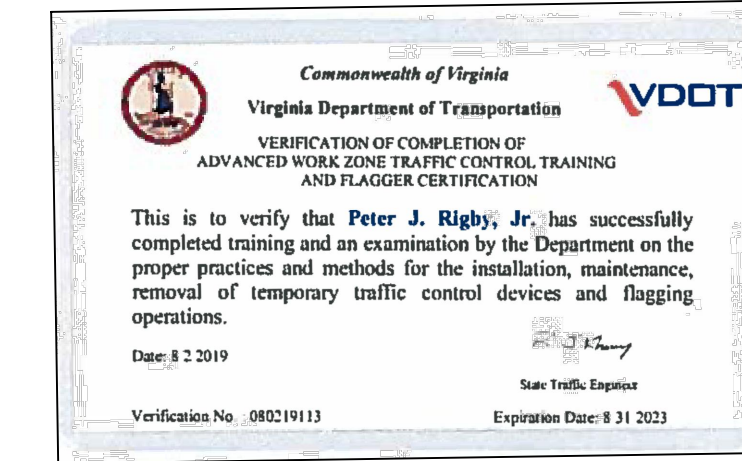
| LANE CLOSURES (MINOR ARTERIAL) | | | |
|--------------------------------|--------------|--------------|--|
| MON. TO FRI. | SATURDAY | SUNDAY | |
| 9:00 AM TO 4:00 PM | *Not allowed | *Not allowed | |
| *Not allowed | *Not allowed | *Not allowed | |

- BEFORE AND AFTER WORKING HOURS, ALL TRAVEL LANES SHALL BE OPENED TO THE MOTORISTS.
- NO LANE CLOSURES WILL BE ALLOWED FROM NOON ON THE DAY BEFORE A HOLIDAY UNTIL NOON ON THE WORKDAY FOLLOWING THE HOLIDAY. HOLIDAYS INCLUDE ALL STATE AND FEDERAL HOLIDAYS.
- MAINTENANCE OF TRAFFIC (MOT) PLAN WHICH INCLUDE THE SEQUENCE OF CONSTRUCTION (SOC) WAS REVIEWED AND APPROVED BY THE ARLINGTON COUNTY TRANSPORTATION ENGINEERING AND OPERATION (TE&O) BUREAU. THE MOT PLAN CONTAINED TYPES OF SIGNAGES AND BARRICADES USED, AND RECOMMENDED PHASES AND SEQUENCES OF CONSTRUCTION. FOR TMP, MOT & SOC, SEE PLAN SHEET 20, 21, 21-A.
- NO DRIVEWAY ENTRANCES ARE BEING AFFECTED BY THE PROPOSED WORK ALONG VDOT R-O-W.

- 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 BE COORDINATED WITH THE ARLINGTON COUNTY'S BUS STOP COORDINATOR (PHONE #703-228-3049) AT LEAST FOUR WEEKS IN ADVANCE OF CONSTRUCTION COMMENCEMENT. ALL TEMPORARY AND FINAL BUS TRAVEL LANES MUST BE MINIMUM 11' WIDE.
- THE CONTRACTOR SHALL RETAIN PEDESTRIAN ACCESS TO THE BUS STOPS LOCATED WITHIN THE CONSTRUCTION ZONE FOR THE DURATION OF THE PROJECT.
- THE CONTRACTOR SHALL:
 - DESIGNATE A PERSON ASSIGNED TO THE PROJECT WHO WILL HAVE THE PRIMARY RESPONSIBILITY, WITH SUFFICIENT AUTHORITY, FOR IMPLEMENTING THE TMP/MOT/SOC AND OTHER SAFETY AND MOBILITY ASPECTS OF THE PERMIT WORK. THIS PERSON SHALL COORDINATE WITH THE ARLINGTON COUNTY CONSTRUCTION MANAGER FOR THE DURATION OF THE PROJECT.
 - ENSURE THAT PERSONNEL ASSIGNED TO THE PROJECT ARE TRAINED IN TRAFFIC CONTROL TO A LEVEL COMMENSURATE WITH THEIR RESPONSIBILITIES IN ACCORDANCE WITH VDOT'S WORK ZONE TRAFFIC CONTROL TRAINING GUIDELINES.
 - PERFORM REVIEWS OF THE CONSTRUCTION AREA TO ENSURE COMPLIANCE WITH CONTRACT DOCUMENTS AT REGULARLY SCHEDULED INTERVALS AT THE DIRECTION OF THE ENGINEER. CONTRACTORS SHALL MAINTAIN AN APPROVED COPY OF THE TEMPORARY TRAFFIC CONTROL PLAN AT THE WORK SITE AT ALL TIMES.
- THIS TMP/MOT/SOC PLAN IS INTENDED AS A GUIDE. IT IS NOT TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH PHASE, BUT ONLY TO SHOW THE GENERAL HANDLING OF EXISTING TRAFFIC. IF THE CONTRACTOR IS TO DEVIATE FROM THE APPROVED TMP, A NEW OR REVISED TMP MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
- ALL AREAS EXCAVATED BELOW THE EXISTING PAVEMENT SURFACE AND WITHIN THE CLEAR ZONE AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACKFILLED UP TO EXISTING PAVEMENT OR NEWLY CONSTRUCTED PAVEMENT SURFACE FOR THE SAFETY AND PROTECTION OF VEHICULAR TRAFFIC.
- CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FOR THE DURATION OF THE PROJECT. CONTRACTOR SHALL ADD ANY ADDITIONAL TEMPORARY MEASURES NECESSARY TO FACILITATE PROPER, POSITIVE DRAINAGE FOR THE DURATION OF CONSTRUCTION.

- EACH PHASE OF CONSTRUCTION SHALL BE COMPLETED PRIOR TO THE START OF THE NEXT PHASE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- PUBLIC COMMUNICATION PLAN
THE CONTRACTOR SHALL BE RESPONSIBLE FOR:
 - NOTIFYING THE VDOT PROJECT MANAGER/RESIDENCY ADMINISTRATOR OF SCHEDULED WORK PLANS AT LEAST 48 HOURS PRIOR TO BEGINNING EACH PHASE OF THE MAINTENANCE OF TRAFFIC OPERATIONS.
 - NOTIFYING THE VDOT PROJECT MANAGER/RESIDENCY ADMINISTRATOR, REGIONAL OPERATION MANAGER AND THE PUBLIC AFFAIRS STAFF OF ANY UNSCHEDULED TRAFFIC DELAYS THAT MAY OCCUR.
 - INSTALLING VARIABLE MESSAGE SIGNBOARDS (VMS) WITH PROJECT START DATE INFORMATION APPROXIMATELY 500' BEFORE AND AFTER THE PROJECT SITE LIMIT THREE (3) WEEKS IN ADVANCE PRIOR TO START OF ANY ROADWORK AND LANE CLOSURE.
- TRANSPORTATION OPERATION PLANS
THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND PROVIDING THE FOLLOWING:
 - NOTIFYING THE VDOT REGIONAL TRANSPORTATION OPERATIONS CENTER (TOC) 48 HOURS IN ADVANCE IN ORDER TO PLACE LANE CLOSURE INFORMATION ON THE 511 SYSTEM AND VA-Traffic.
 - HAVING THE LIST OF LOCAL EMERGENCY RESPONSE AGENCIES AVAILABLE AT THE WORK SITE AT ALL TIMES.
 - IMMEDIATELY REPORTING ANY TRAFFIC INCIDENTS THAT MAY OCCUR IN THE WORK ZONE.
 - NOTIFY THE PROJECT'S CONSTRUCTION MANAGER AND CORRESPONDING ENGINEER OF ANY INCIDENTS AND EXPECTED TRAFFIC DELAYS.

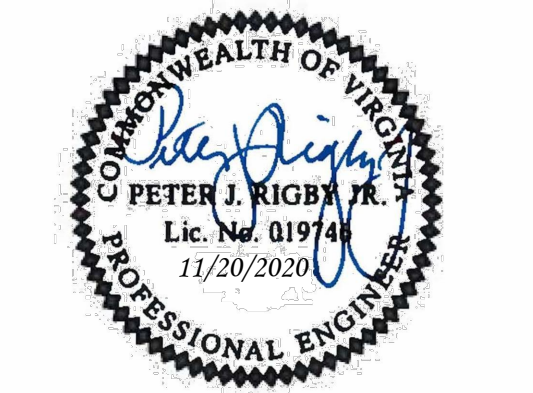
- WITHIN 24 HOURS OF ANY INCIDENTS WITHIN THE CONSTRUCTION WORK ZONE, A REVIEW OF THE TRAFFIC CONTROL SHALL BE IMPLEMENTED AND NECESSARY ADJUSTMENTS MADE TO REDUCE THE FREQUENCY AND SEVERITY OF ANY FUTURE ACCIDENTS.
- EMERGENCY CONTACTS DURING THE DURATION OF THE PROJECTS ARE THE FOLLOWING:
 - KAMAL TAKTAK - CONSTRUCTION MANAGEMENT SUPERVISOR - 703-228-7527
 - JASON WIDSTROM - PLANNING MANAGER/PROJECT MANAGER - 703-228-7525
 - PETE RIGBY - ENGINEERING DESIGN TEAM SUPERVISOR - 703-228-3604
 - DES R-O-W PERMITTING SECTION - 703-228-4798
 - ARLINGTON COUNTY TRANSIT BUREAU - 703-228-3049
 - WATER, SEWER AND STREET OPERATION - 703-228-6555
 - ARLINGTON COUNTY POLICE - 703-558-2222
 - EMERGENCY CALL - 911
 - VDOT PROJECT CONSTRUCTION INSPECTOR - TBD



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects Division
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2100 Clarendon Boulevard, Suite 813
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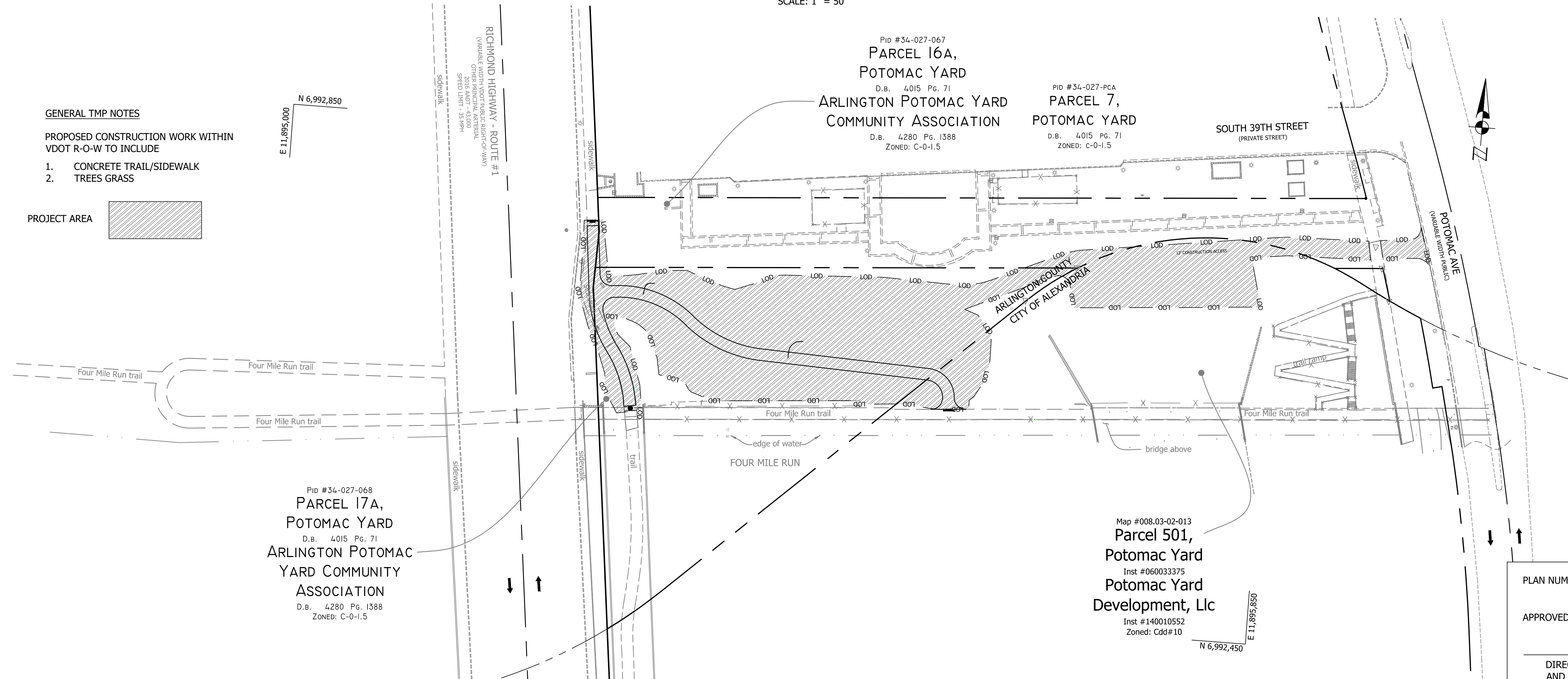


| APPROVALS | DATE |
|------------------------------------|------------|
| <i>Kamal N. Taktak</i> | 4/22/2020 |
| QUALITY CONTROL ENGINEER | |
| <i>Kamal N. Taktak</i> | 4.23.20 |
| CONSTRUCTION MANAGEMENT SUPERVISOR | |
| <i>David W. Hundelt</i> | 04.23.2020 |
| WATER, SEWER, STREETS BUREAU CHIEF | |
| <i>Dennis M. Leach</i> | 4/22/20 |
| TRANSPORTATION DIRECTOR | |
| <i>Jason Widstrom</i> | 4/30/20 |
| PROJECT MANAGER | |

Revisions Date

PROJECT SITE

SCALE: 1" = 50'

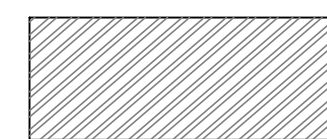


GENERAL TMP NOTES

PROPOSED CONSTRUCTION WORK WITHIN VDOT R-O-W TO INCLUDE

- CONCRETE TRAIL/SIDEWALK
- TREES GRASS

PROJECT AREA

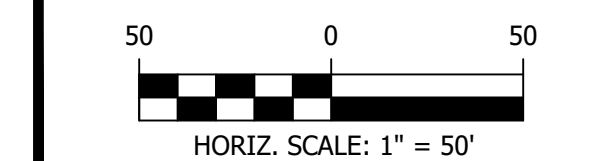


Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202
TRANSPORTATION MANAGEMENT PLAN

Designed: CJA
Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

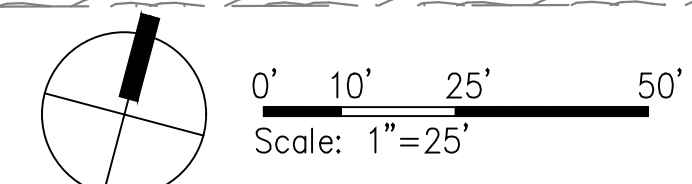
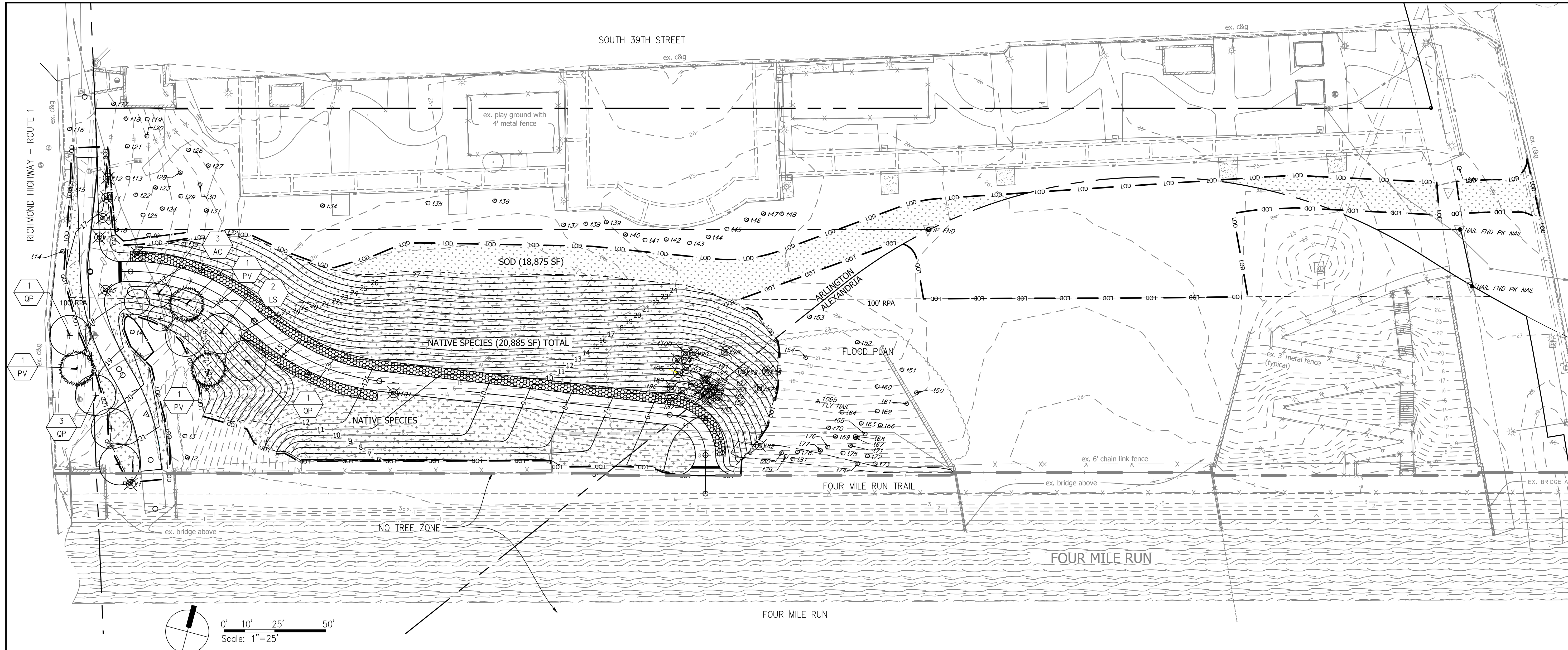
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Plotted by: Ldelacruz

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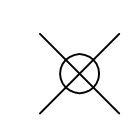
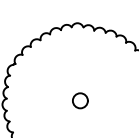
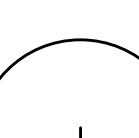
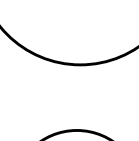
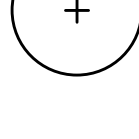
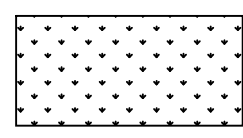
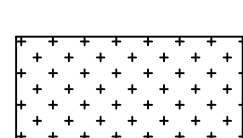
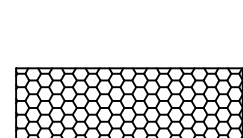

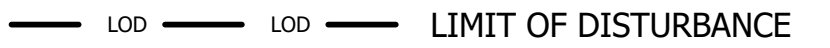


PLAN NUMBER _____
APPROVED DATE _____
DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

Sheet 21-A OF 23



LEGEND

-  EXISTING TREES TO BE REMOVED
-  EXISTING TREES
-  DECIDUOUS TREE
-  ORNAMENTAL TREE
-  EVERGREEN
-  SOD *
-  RE-VEGETATION WITH NATIVE SPECIES. SEE SHEET 15 FOR MEADOW SEED MIX COMPOSITION
-  BUFFER ENHANCEMENT. SEE THIS SHEET FOR PLANT SCHEDULE
-  NO TREE ZONE BOUNDARY
-  LIMIT OF DISTURBANCE

NOTE: * REFER TO ACG STANDARDS - DES (SECTION 329200 SEEDING AND SODDING) AND VESCH 3.32 FOR PERMANENT SEEDING AND VESCH 3.33 FOR SOD

PLANTING NOTES
 MEADOW SEED MIX SHALL BE HYDROSEEDED AND SHALL BE DONE IN SPRING OR FALL.
 ANNUAL RYE SEED SHALL BE USED TO TEMPORARILY STABILIZE THE SLOPES WHILE THE MEADOW SEED GEMINATE.
 A 6 FOOT BUFFER ENHANCEMENT SHALL BE INSTALLED BETWEEN THE MEADOW AND TRAIL EDGE.

PLANT SCHEDULE

| QTY | SYMBOL | BOTANICAL NAME | COMMON NAME | SIZE | CONDITION | SPACING | NOTES |
|--------------|--------|---|---------------|---------|-----------|----------|------------|
| Trees | | | | | | | |
| 3 | AC | <i>Amelanchier canadensis</i> | Serviceberry | 8' ht. | B&B | As Shown | Multi Stem |
| 2 | LS | <i>Liquidambar styraciflua 'Happdell'</i> | Sweet Gum | 2" cal. | B&B | As Shown | Seedless |
| 3 | PV | <i>Pinus virginiana</i> | Virginia Pine | 8' ht. | B&B | As Shown | |
| 5 | QP | <i>Quercus phellos</i> | Willow Oak | 2" cal. | B&B | As Shown | |

BUFFER ENHANCEMENT PLANT SCHEDULE

| QTY | BOTANICAL NAME | COMMON NAME | HEIGHT | SPACING |
|-----|-------------------------------|------------------|------------|------------|
| 77 | <i>Bouteloua Gracilis</i> | Blue Grama Grass | 0.75' - 2' | 18" to 20" |
| 77 | <i>Eragrostis Spectabilis</i> | Purple Lovegrass | 1' - 2' | 18" to 20" |
| 77 | <i>Juncus Tenuis</i> | Path Rush | 1' - 2' | 18" to 20" |

NOTE: PLANTING SHALL BE ALTERNATED

INVASIVE SPECIES REMOVAL AND MANAGEMENT PLAN
 PER SECTION 1B OF THE LANDSCAPE GUIDELINES, A SUBMISSION OF A PLAN IS REQUIRED.
PREPARATION
 1A - LOCATION AND AREAS OF INVASIVE SPECIES - SHOWN ON EXISTING CONDITIONS SHEET AS WELL AS THE TREE INVENTORY TABLE.
 1B - BOTANICAL AND COMMON NAME OF THE INVASIVE SPECIES - SHOWN ON THE TREE INVENTORY TABLE.
 1C - RISK POSED BY INVASIVE SPECIES FOR THE PROJECT SITE AND ADJACENT PROPERTIES: THERE IS MINIMAL RISK FOR ADJACENT PROPERTIES AS ALL THE INVASIVE SPECIES OF TREES WITHIN THE LIMITS OF DISTURBANCE WILL BE REMOVED DURING CONSTRUCTION OF THE PROJECT.
 1D - REMOVAL AND MANAGEMENT METHODS: REMOVAL OF THE INVASIVE SPECIES WILL BE DONE BY CONSTRUCTION EQUIPMENT UNDERCUTTING 3-7 FEET THE SPECIES ROOT SYSTEM. DISPOSAL WILL OCCUR OFFSITE AT AN APPROVED LANDFILL.
 1E - MONITORING AND MANAGEMENT AFTER CONSTRUCTION: PERMANENT STABILIZATION WILL BE PROVIDED OVER THE AREA WITH A SPECIAL FLOWERING SEED MIX. 2-YEAR WATERING REQUIREMENTS WILL ENSURE THE STABILITY AND MONITORING OF THE AREA.
 2A - CONTROL AND MANAGEMENT STRATEGIES: THE FIRST STRATEGY IS MECHANICAL REMOVAL OF THE ENTIRE INVASIVE PLANTS THRU SIGNIFICANT UNDERCUTTING. THE SECOND STRATEGY IS THE MECHANICAL INSTALLATION OF IMPORTED TOPSOIL ATOP THE DISTURBED AREA TO BE REPLANTED. THE THIRD STRATEGY IS THE PLANTING OF A SPECIAL FLOWERING SEED MIX. LASTLY, IS THE MONITORING OF STABILIZATION THRU THE 2 YEAR WATERING CONTRACTOR REQUIREMENT.
 2B - MULTIPLE STRATEGIES AND TARGETS TOWARDS SPECIFIC INVASIVE: AS INDICATE ABOVE SEVERAL STRATEGIES WILL BE EMPLOYED AND WE HAVE JUST HAVE ONE SPECIES, CALLERY PEAR, THAT WE NEED TO CONTROL/MANAGE.
 2C - TECHNIQUES PROPOSED, SCHEDULE OF CONTROL MEASURES, REQUIRED RESOURCES, INVASIVE MONITORING AND MANAGEMENT MEASURES: UNDERCUTTING VIA MECHANICAL MEANS WILL BE USED TO RID THE DISTURBED AREA OF THE CALLERY PEARS. EROSION CONTROL MEASURES WILL BE USED TO STABILIZE THE DISTURBED AREA WITH THE SCHEDULE PER THE NARRATIVE. RESOURCES INCLUDE CONSTRUCTION EQUIPMENT, LABOR, TOPSOIL, SEED MIX, STABILIZATION SUCH AS JUTE MESH AND TACKED COVERING AS WELL AS DAILY MONITORING AND INSPECTION DURING THE CONSTRUCTION PROCESS. INVASIVE MONITORING WILL BE OBSERVED THRU THE 2-YR WATERING CONTRACT.
 3A - MONITORING AND MANAGEMENT - NOT APPLICABLE FOR THIS PROJECT AS NO DSP OR DSUP IS REQUIRED.

PLAN NUMBER _____

APPROVED DATE _____

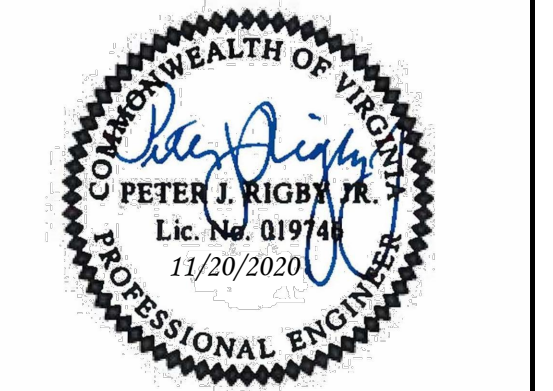
DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES





DEPARTMENT OF ENVIRONMENTAL SERVICES

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 2100 Clarendon Boulevard, Suite 813
 Arlington, VA 22201
 Phone: 703.228.3629
 Fax: 703.228.3606

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APPROVALS **DATE**

| | |
|---|------------|
|  | 4/22/2020 |
| Kamal N. Taktak | 4.23.20 |
| David W. Hundelt | 04.23.2020 |
| Dennis M. Leach | 4/22/20 |
|  | 4/30/20 |

Revisions **Date**

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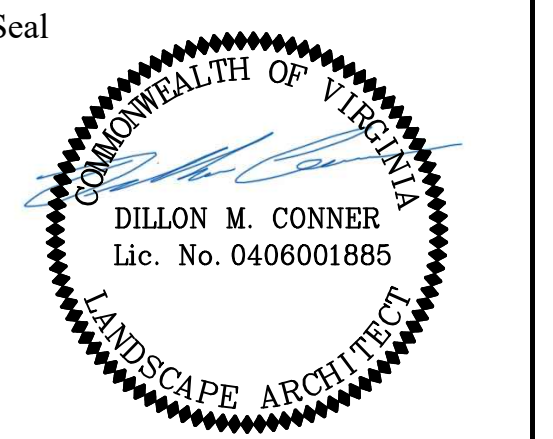
Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

PROPOSED PLANTING PLAN

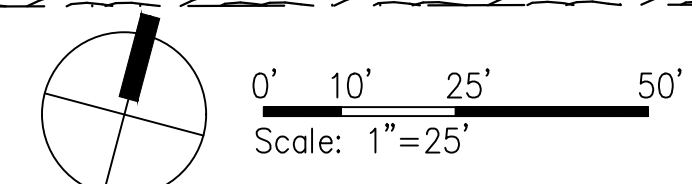
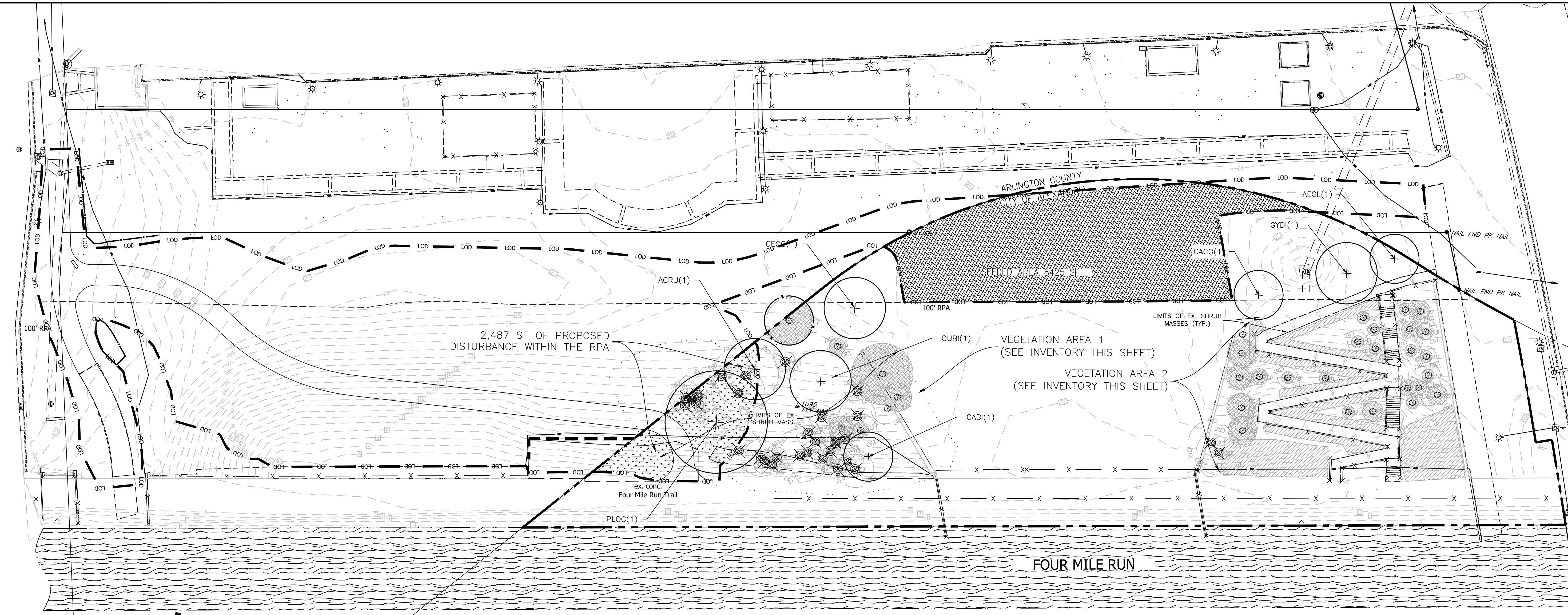
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 Drawn: CJA
 Checked: MSR
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 Plotted: May 20, 2021
 Plotted by: Ldelacruz

Scale: Hor: 1" = 25'



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|-----------------------------------|------|
| Seal | Date |
| Approvals | Date |
| DESIGN TEAM SUPERVISOR | |
| ENGINEERING BUREAU CHIEF | |
| WATER, SEWER STREETS BUREAU CHIEF | |
| TRANSPORTATION DIRECTOR | |
| Revisions | Date |



LEGEND

- EXISTING TREES TO BE REMOVED
- EXISTING TREES TO BE SAVED
- PROPOSED DECIDUOUS TREE
- PROPOSED TREE PROTECTION FENCE
- LIMIT OF DISTURBANCE
- SOD (1970 SF)
- TEMPORARY DISTURBANCE SEEDING AREA (7780 SF)
- CANOPY COVERAGE FROM EXISTING PRESERVED TREES
- CANOPY COVERAGE FROM EXISTING PRESERVED SHRUBS

- NOTES:**
- CITY OF ALEXANDRIA LANDSCAPE GUIDELINES SHALL GOVERN ON CITY OF ALEXANDRIA PROPERTY.
 - TREE CANOPY CALCULATIONS AND PLANTING CONDUCTED ONLY ON PORTION OF PARCEL NORTH OF FOUR MILE RUN.
 - REFER TO VIRGINIA COOPERATIVE EXTENSION - SOD SOURCE SELECTION, INSTALLATION, MAINTENANCE, AND PRODUCERS IN VIRGINIA, AND VESCH 3.33 FOR SOD.
 - REFER TO VESCH 3.32 FOR PERMANENT SEEDING.

PLANT SCHEDULE

| PLANT TYPE | PLAN INFORMATION | | BOTANIC/Common NAME | | | SIZE | NOTES | CROWN COVER ALLOWANCE (CCA) | | NATIVE PLANTS PROVIDED | | |
|----------------|------------------|----------|---------------------|--------------|---------------------|--------------------------|---------------------------------|-----------------------------|-------------------|------------------------|--------------------|------------------|
| | PLAN KEY | QUANTITY | GENUS | SPECIES | COMMON NAME | | | CALIPER/HEIGHT | CCA PER TREE (SF) | TOTAL CROWN COVER (SF) | LOCAL/REGIONAL (#) | EASTERN U.S. (#) |
| STANDARD TREES | AEGL | 1 | Aesculus | glabra | Ohio Buckeye | 2"-3" cal./12-14 ft. ht. | B&B; symmetrical, single leader | 1,250 | 1,250 | 1 | 0 | 1 |
| | ACRU | 1 | Acer | rubrum | Red Maple | 2"-3" cal./12-14 ft. ht. | B&B; symmetrical, single leader | 1,250 | 1,250 | 1 | 0 | 1 |
| | CACO | 1 | Carya | cordiformis | Bitternut Hickory | 2"-3" cal./12-14 ft. ht. | B&B; symmetrical, single leader | 1,250 | 1,250 | 1 | 0 | 1 |
| | CABI | 1 | Catalpa | bignonioides | Southern Catalpa | 2"-3" cal./12-14 ft. ht. | B&B; symmetrical, single leader | 1,250 | 1,250 | 1 | 0 | 1 |
| | CEOC | 1 | Celtis | occidentalis | Common hackberry | 2"-3" cal./12-14 ft. ht. | B&B; symmetrical, single leader | 1,250 | 1,250 | 1 | 0 | 1 |
| | GYDI | 1 | Gymnocladus | dioicus | Kentucky Coffeetree | 2"-3" cal./12-14 ft. ht. | B&B; symmetrical, single leader | 1,250 | 1,250 | 1 | 0 | 1 |
| | PLOC | 1 | Platanus | occidentalis | Sycamore | 2"-3" cal./12-14 ft. ht. | B&B; symmetrical, single leader | 1,250 | 1,250 | 1 | 0 | 1 |
| | QUBI | 1 | Quercus | bicolor | Swamp White Oak | 2"-3" cal./12-14 ft. ht. | B&B; symmetrical, single leader | 1,250 | 1,250 | 1 | 0 | 1 |
| TOTALS | | 8 | | | | | | STANDARD TREE CCA: | 10,000 | 8 | 0 | 8 |
| | | | | | | | | | | 100.0% | 0.0% | 100.0% |

| SEEDING SCHEDULE | | | | SEEDING QUANTITIES | |
|-----------------------|------------------------------|--------------------------------------|------------------------------------|--------------------|-----------|
| SEED PLANTING ZONE | SPECIES GROUP ^{1,2} | SPECIES ² | SEEDING RATE ² (LBS/AC) | AREA (SF): | GRASS MIX |
| GRASS SEED MIX | 1 | KENTUCKY 31 OR TURF-TYPE TALL FESCUE | 190.00 | 36.75 | 8,425 |
| | | IMPROVED PERENNIAL RYEGRASS | 5.00 | 0.97 | 0.19 |
| | | KENTUCKY BLUE GRASS | 5.00 | 0.97 | |
| SEEDING TOTALS | | | 200.00 | 38.69 | |

| SEEDING SCHEDULE | | | | SEEDING QUANTITIES | |
|-----------------------|------------------------------|----------------------|------------------------------------|--------------------|------------|
| SEED PLANTING ZONE | SPECIES GROUP ^{1,2} | SPECIES ² | SEEDING RATE ² (LBS/AC) | AREA (SF): | AREA (AC): |
| SOD | 1 | TALL FESCUE BLEND | ROLL | 1,970 | 0.05 |
| SEEDING TOTALS | | | 0.00 | 1,970.00 | |

CROWN COVER TABULATIONS

| CROWN COVER TABULATIONS | |
|--|---------------|
| TOTAL SITE AREA (SF) | 59,845 |
| 25% CROWN COVER REQUIRED (SF) | 14,961 |
| EXISTING CROWN COVER (SF) | 5826 |
| PRESERVED CROWN COVER (SF) | |
| Crown Cover from Preserved Trees | 2600 |
| Crown Cover from Preserved Shrubs | 3226 |
| PROPOSED CROWN COVER (SF) | |
| Crown Cover from Proposed Trees | 10000 |
| Crown Cover from Proposed Shrubs | 0 |
| TOTAL CROWN COVER PROVIDED (%) | 26.4% |
| TOTAL CROWN COVER PROVIDED (SF) | 15,826 |

Wetland
Studies and Solutions, Inc.
a DAVEY company

5300 Wellington Branch Drive • Suite 100
Gainesville, Virginia 20155
Phone: 703-679-5600 • Fax: 703-679-5601
www.wetlandstudies.com

PLAN NUMBER _____

APPROVED DATE _____

DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES

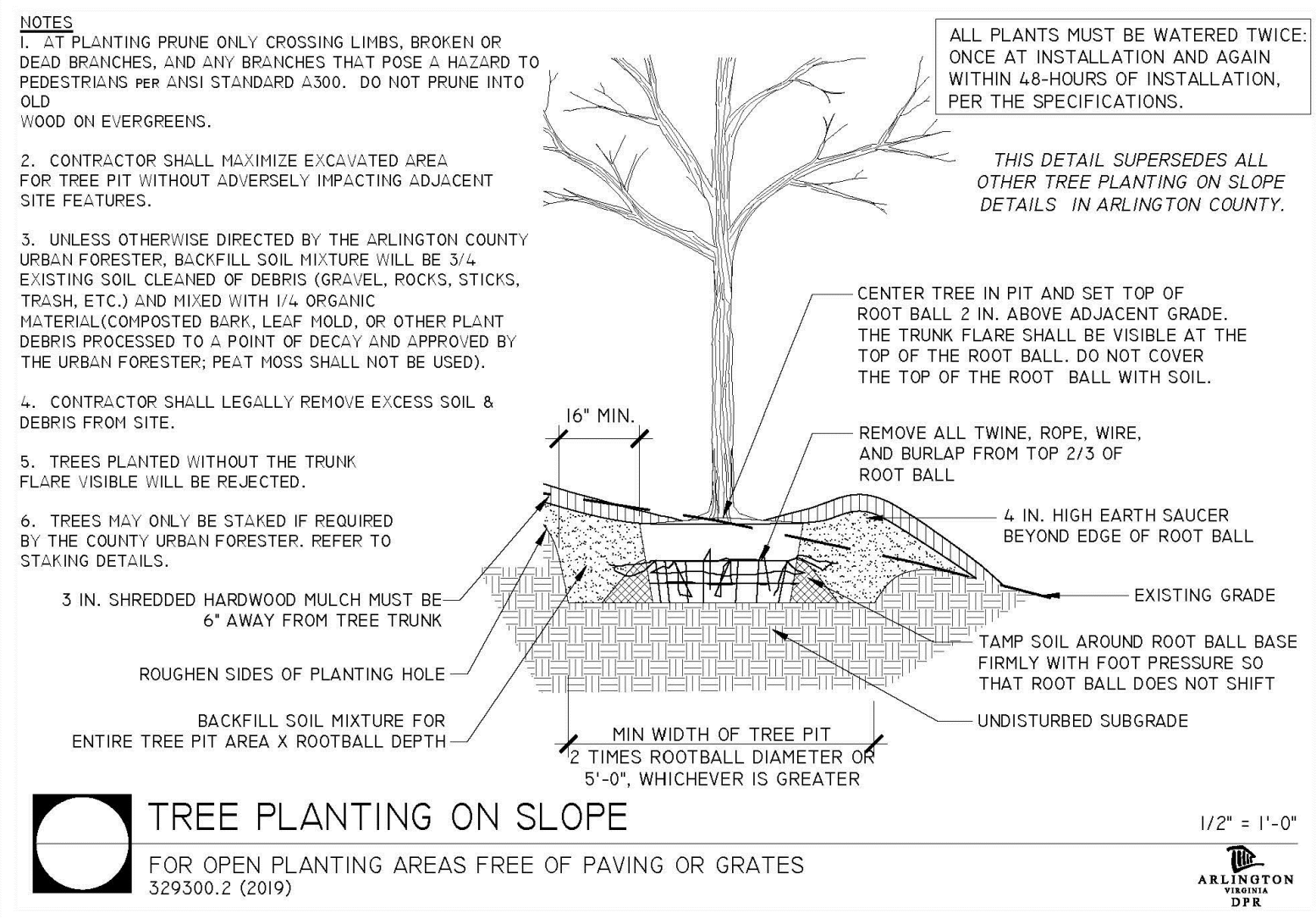
Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD -
ARLINGTON, VA 22202

CITY OF ALEXANDRIA
PLANTING PLAN AND TREE
CANOPY CALCULATIONS

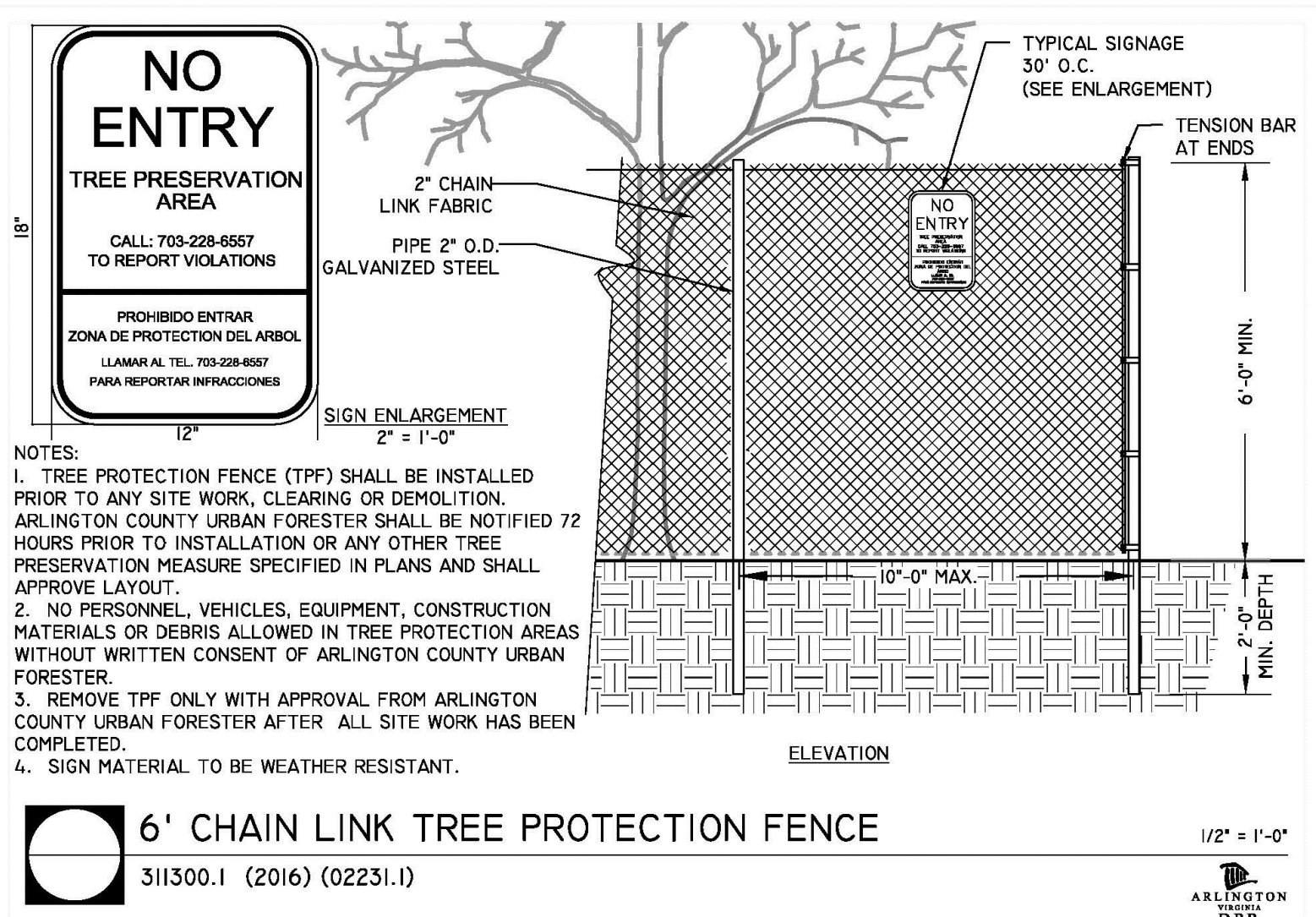
Designed: CJA
Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

Filename: WSSH-LNDSCL PLAN_ALEX_rev2020
Path: Q:\Data\B10K_CAD\ACTIVE
Plotted: May 20, 2021
Plotted by: Ldelacruz

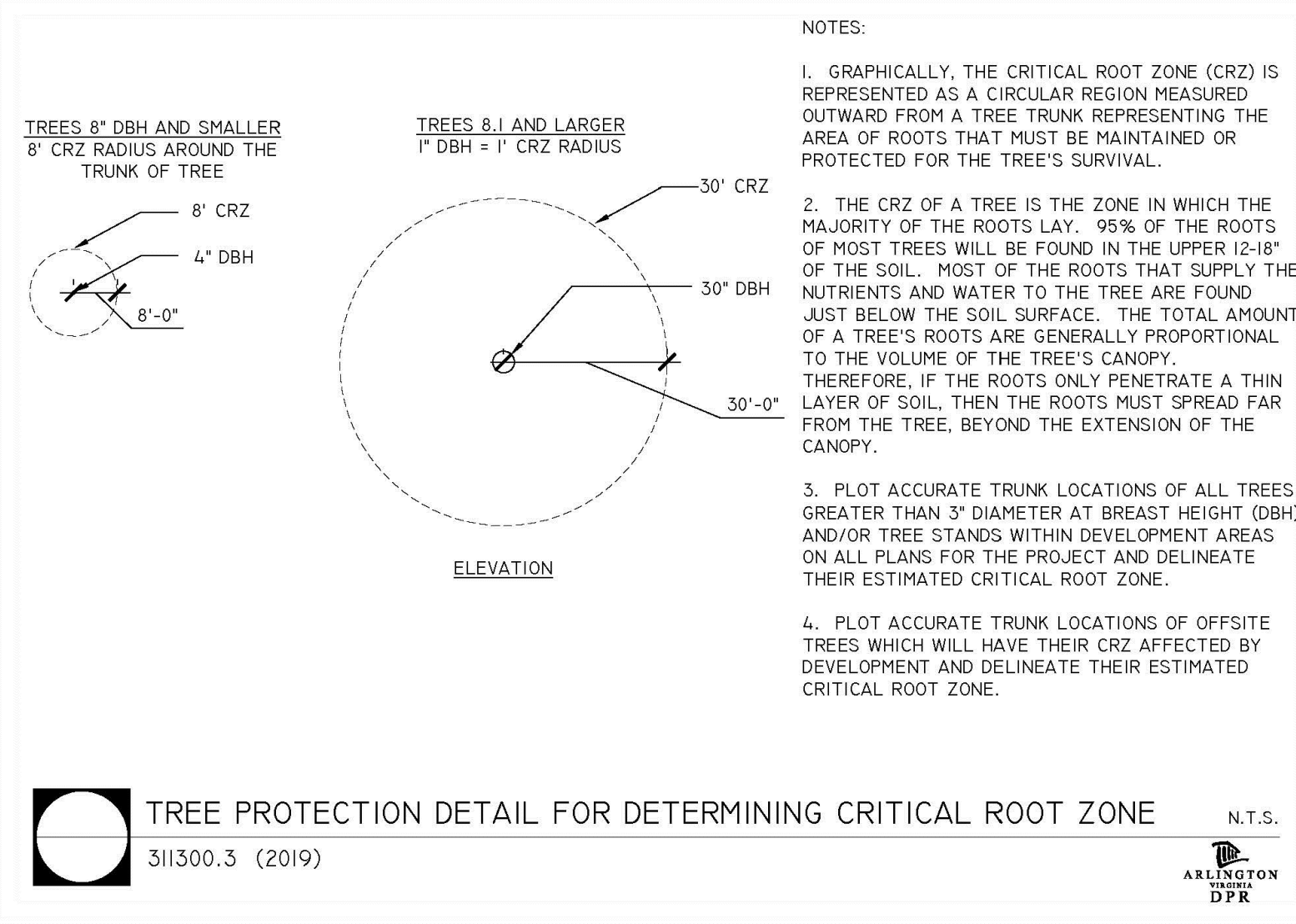
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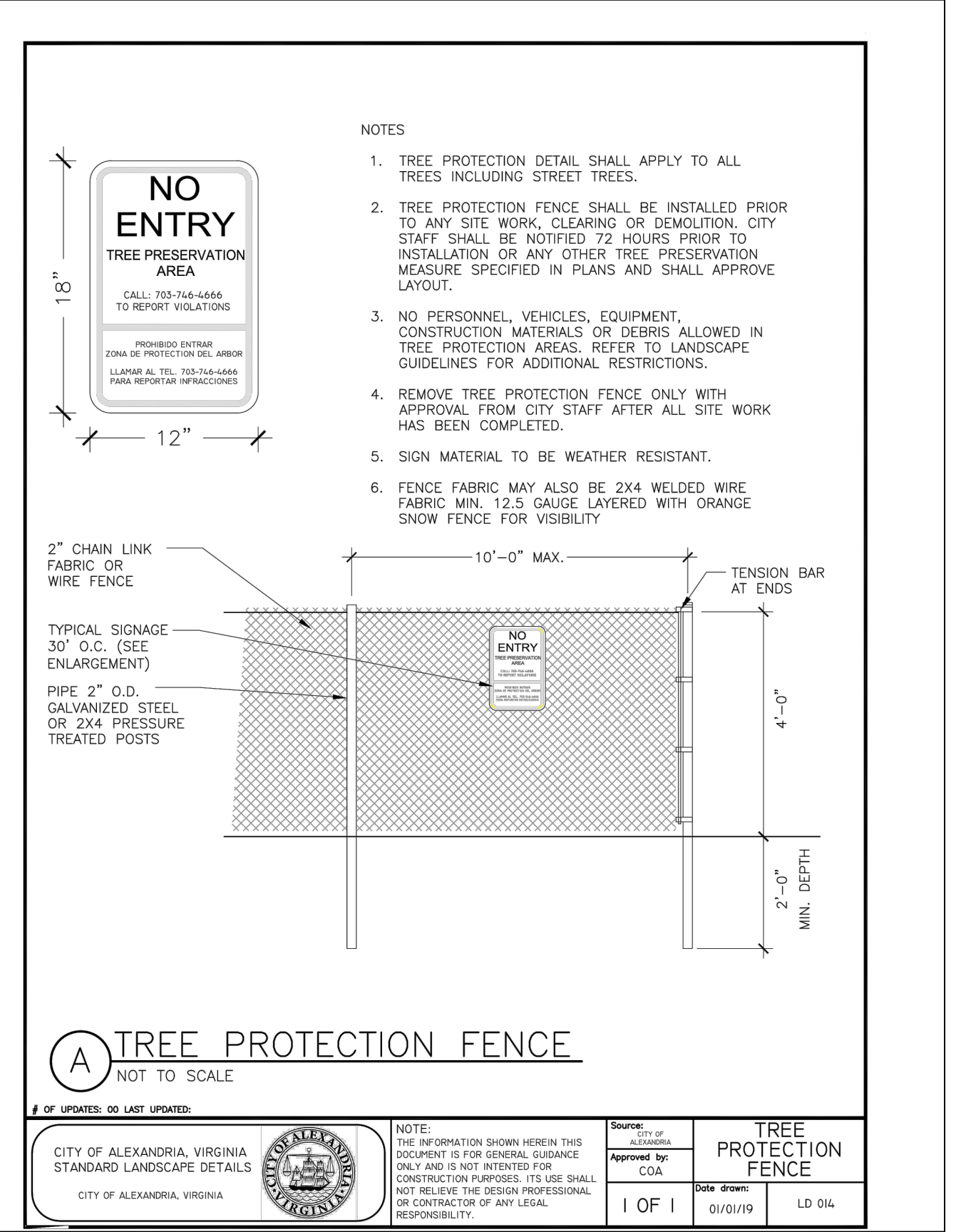
1 TREE ON SLOPES PLANTING DETAIL
NTS



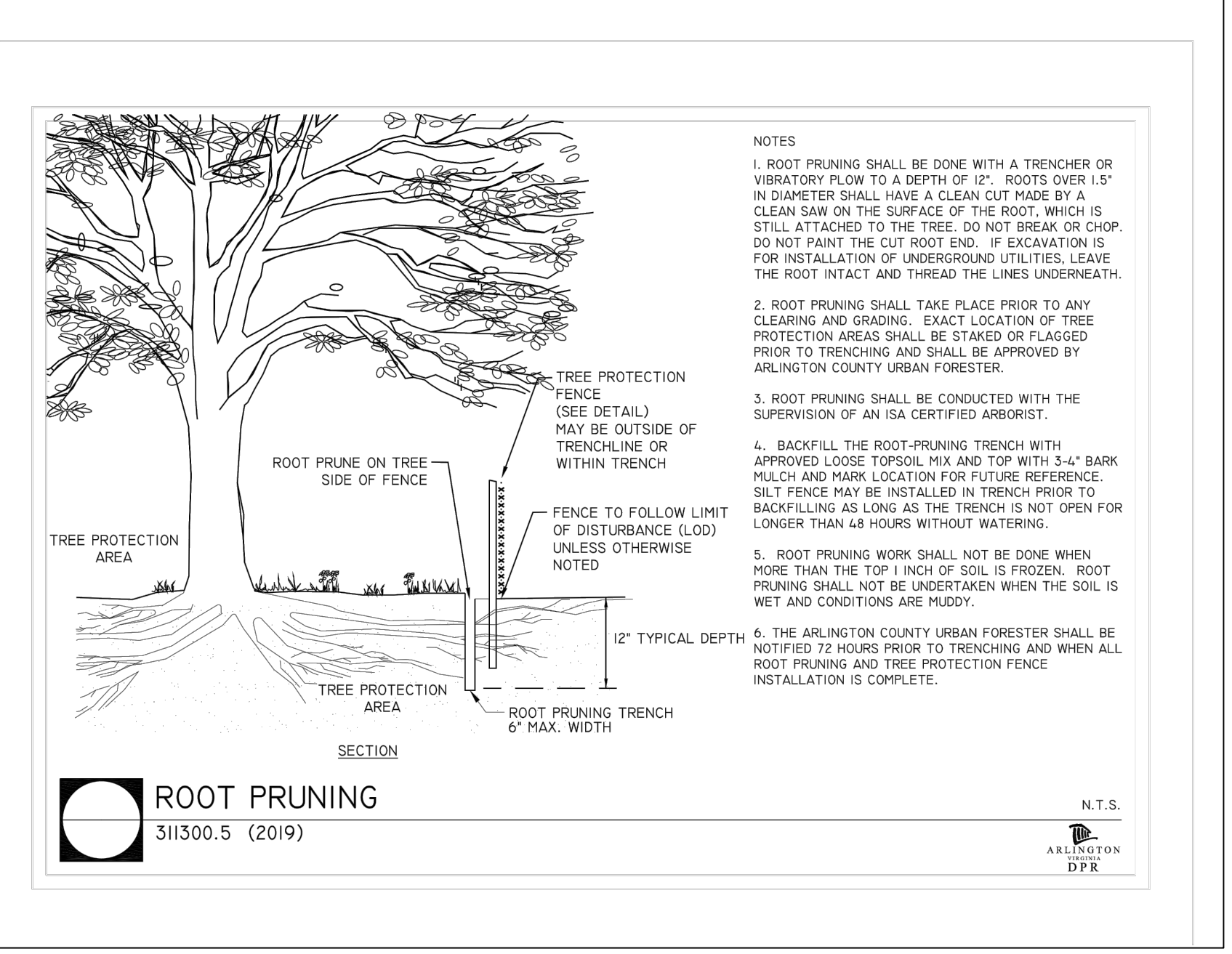
2 TREE PROTECTION DETAIL
NTS



3 DETERMINING CRITICAL ROOT ZONE
NTS



4 TREE PROTECTION DETAIL - CITY OF ALEXANDRIA
NTS



5 ROOT PRUNING DETAIL
NTS

URBAN FORESTRY NOTE
BEFORE CONSTRUCTION (AT LDA AND DEMOLITION) CONTRACTOR TO CONTACT THE ARLINGTON COUNTY FORESTER TO SCHEDULE A PRE-CONSTRUCTION INSPECTION OF TREE PROTECTION MEASURES BEFORE ANY WORK NEAR THE CRITICAL ROOT ZONES OF TREES. TO SCHEDULE THE PRE-CONSTRUCTION MEETING CALL 703-228-6557.

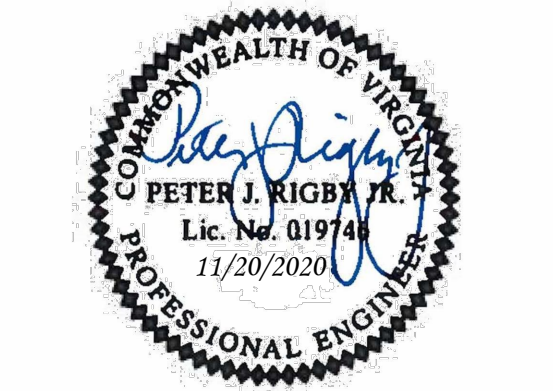
PLAN NUMBER _____
APPROVED DATE _____
DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES



DEPARTMENT OF ENVIRONMENTAL SERVICES

Engineering & Capital Projects 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 |
|---|------------|
| <i>Kamal W. Taktak</i> QUALITY CONTROL ENGINEER | 4/22/2020 |
| <i>Kamal W. Taktak</i> CONSTRUCTION MANAGEMENT SUPERVISOR | 4.23.20 |
| <i>David W. Hundelt</i> WATER, SEWER, STREETS BUREAU CHIEF | 04.23.2020 |
| <i>Dennis M. Leach</i> TRANSPORTATION DIRECTOR | 4/22/20 |
| <i>Jean W. Wilson</i> PROJECT MANAGER | 4/30/20 |

| Revisions | Date |
|-----------|------|
| | |
| | |
| | |
| | |
| | |

Project Name and Location
POTOMAC YARD - FOUR MILE RUN TRAIL CONNECTION
PARCEL 17A, POTOMAC YARD - ARLINGTON, VA 22202

PLANTING DETAILS

Designed: CJA
Drawn: CJA
Checked: MSR
Miss Utility Transmittal #: 5355-D

Filename: L101 PLANTING PLAN.dwg
Path: o:\data\BTRK\CAD\ACTIVE\Landscape Plan and Detail sheets
Plotted: May 20, 2021
Plotted by: Ldelacruz

Scale: Hor: 1" = 25'