ARLINGTON
VIRGINIA

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
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OWNER
DEPARTMENT OF
ENVIRONMENTAL SERVICES

DIVISION OF TRANSPORTATION & DEVELOPMENT
TRANSPORTATION PLANNING
2100 CLARENDON BOULEVARD, SUITE 900,
ARLINGTON, VA 22201
PHONE: 703.228.3344 FAX: 703.228.7974
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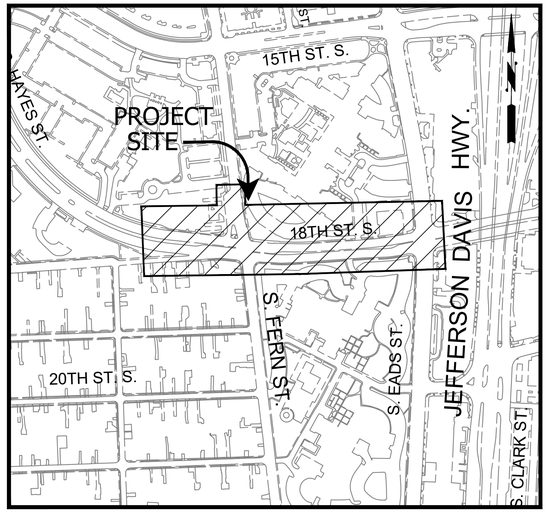
CONTRACTOR
TO BE DETERMINED

CONSTRUCTION DRAWINGS FOR:

18TH STREET SOUTH - ROADWAY IMPROVEMENTS PROJECT FROM S. FERN STREET TO S. EADS STREET

PROJECT CODE: CC20

LOCATION MAP



0 600' 1200'
GRAPHIC SCALE

GENERAL NOTES:

GENERAL CONSTRUCTION NOTES

1. 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.
2. ALL CONSTRUCTION AND WORK ACTIVITIES SHALL COMPLY WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND ALL OTHER RELEVANT WORK SAFETY REQUIREMENTS, LATEST EDITIONS.
3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT OFFICER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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

10. 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

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

TRAFFIC CONTROL

12. 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.
13. 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.
14. THE CONTRACTOR SHALL SUBMIT ANY REQUESTS FOR TEMPORARY "NO PARKING" RESTRICTIONS TO THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO THE DESIRED ONSET OF RESTRICTIONS. PRIOR TO A REQUEST FOR THE REMOVAL OF ACCESS TO ANY ADA PARKING SPACE THE CONTRACTOR MUST HAVE MADE PROVISION FOR ALTERNATIVE ADA PARKING AS INDICATED ON THE APPROVED PLAN OR AS DIRECTED BY THE PROJECT OFFICER.
15. 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.
16. 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.
17. 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

18. 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.
19. 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.
20. 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:

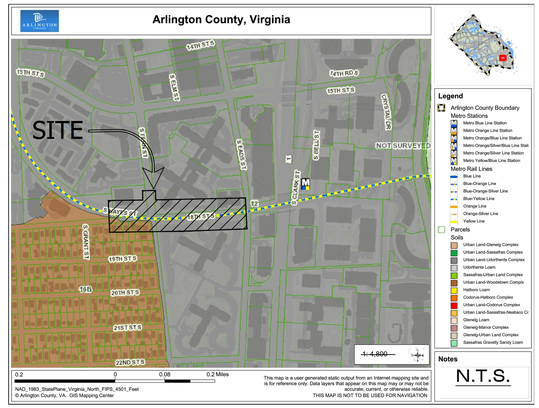
21. ALL EXISTING FIRE HYDRANTS AND FIRE DEPARTMENT CONNECTIONS SHALL BE MAINTAINED UNOBSTRUCTED AND ACCESSIBLE AT ALL TIMES IN ACCORDANCE WITH SECTIONS 508.5.4 AND 508.5.5 OF THE ARLINGTON COUNTY FIRE PREVENTION CODE.
22. ACCESS TO BUILDINGS FOR FIREFIGHTING SHALL BE MAINTAINED AT ALL TIMES. EXISTING 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.
23. 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.

WMATA NOTES:

24. CONTRACTOR TO BE AWARE OF WMATA TPSS STRUCTURE LOCATED BETWEEN STATIONS 8+65 - 9+65 OF 18TH STREET S. CONSTRUCTION BASELINE. COORDINATION WITH WMATA PRIOR TO CONSTRUCTION IN THIS AREA WILL BE REQUIRED. TPSS STRUCTURE IS LOCATED APPROXIMATELY 5-6 FEET BELOW GROUND SURFACE

Sheet List Table

Traffic Sheet List Table



SWM

STORMWATER MANAGEMENT #: SWM19-0213
LAND DISTURBANCE ACTIVITY #: LDA19235

ADT

18TH STREET SOUTH - 8,300 VPD (VDOT 2019)
SOUTH FERN STREET - 6,300 VPD (VDOT 2019)
SOUTH EADS STREET - 10,000 VPD (VDOT 2019)

STREET CLASSIFICATION

18TH STREET SOUTH - ARTERIAL TYPE B SOUTH
FERN STREET - NEIGHBORHOOD PRINCIPAL SOUTH
EADS STREET - MINOR ARTERIAL

POSTED SPEED

30 MPH @ 18th STREET SOUTH
25 MPH @ FERN STREET SOUTH

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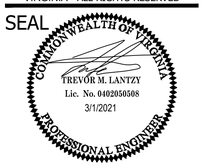
SEAL



APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

COVER SHEET
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-200-COVER.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE: AS NOTED

SHEET C000.1

REVISED ON 11/08/2016

LINETYPE LEGEND

FEATURE	EXISTING	PROPOSED
BUILDING		
CENTERLINE / BASELINE		
COMMUNICATIONS CABLE	COM COM	COM COM
CONTOURS MAJOR;MINOR?	250 250	250 250
CRITICAL ROOT ZONE	CRZ CRZ	CRZ CRZ
EASEMENT		
ELECTRIC (UNDERGROUND)	UGE UGE	UGE UGE
FENCE (MATERIAL NOTED)	X X X X X	X X X X X
FIBER OPTIC	FO FO	FO FO
GAS LINE	GAS GAS	GAS GAS
X" GAS LINE (SIZE INCLUDED IF AVAILABLE)	X" G X" G	X" G X" G
GUARDRAIL		
HARDSCAPE FEATURE (MATERIAL NOTED)		
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		
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)	STM STM	
STREAM		
STREET LIGHT CONDUIT	SL SL	SL SL
TELEPHONE (UNDERGROUND)	UGT UGT	UGT UGT
TREE LINE		
TREE PROTECTION FENCE	TP TP	TP TP
WALL		
WATER	W W	W W
X" WATER (SIZE INCLUDED IF AVAILABLE)	X" W X" W	X" W X" W

SYMBOL LEGEND

EXISTING FEATURE	PROPOSE FEATURE
EX CABLE PEDESTAL	
EX ELECTRIC BOX	
EX FIRE HYDRANT	PROP FIRE HYDRANT
EX GAS VALVE	PROP GAS VALVE
EX GROUND LIGHT	
EX GUY WIRES	
EX IRON PIPE OR PIN	
EX LIGHT POLE	PROP LIGHT POLE
EX MAILBOX	
EX MONUMENT	
EX 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	
EX TRAFFIC CONTROL BOX	
EX TRAFFIC SIGN	PROP TRAFFIC SIGN
EX TRASH CAN	PROP TRASH CAN
EX TRAVERSE	
EX TREES, WOODED AREA	PROPOSED TREE REMOVAL
EX UTILITY MANHOLE TYPE INDICATED ELECTRIC, TELE, ETC	
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	CONSTRUCTION NOTES (LEADER TO AREA AFFECTED)
	CURVE NUMBER (SEE CURVE TABLE)
	LINE NUMBER (SEE LINE TABLE)
	TEST HOLE
	NORTH ARROW

LABEL LEGEND

EXISTING		PROPOSED	
EX SAN STRUC NO. EXISTING SANITARY STRUCTURE NUMBER	XXXX	PROP SAN SEW STRUC NO. PROPOSED SANITARY SEWER STRUCTURE NUMBER	XXXX
EX STRM SEW STRUC NO. EXISTING STORM SEWER STRUCTUE NUMBER	XXXX	PROP STRM SEW STRUC NO. PROPOSED STORM SEWER STRUCTURE NUMBER	XXXX

HATCH LEGEND

PROP MILL & OVERLAY SEE TYPICAL SECTION FOR DETAILS	
PROP FULL DEPTH ASPHALT SEE TYPICAL SECTION FOR DETAILS	
PROP CONCRETE	
REPLACE & MATCH EXISTING DRIVEWAY OR LEADWALK. SEE CONSTRUCTION NOTES	
DEMOLITION AREA	

REVISED ON 11/08/2016

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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS DATE

18TH STREET SOUTH

LEGEND
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-202-LEGEND.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

SHEET C006.1

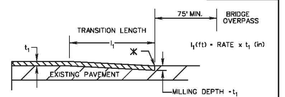
18TH STREET SOUTH

2016 ROAD & BRIDGE STANDARDS

ACOT-1

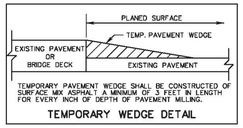
NOTES

1. TIE-IN REQUIREMENTS TO INTERSECTING ROADS OR STREETS SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR AT THE DIRECTION OF THE ENGINEER.
2. EXISTING PAVEMENT SURFACE SHALL BE PLANED TO TRANSITION THE TOP COURSE OF THE ASPHALT CONCRETE OVERLAY. ANY SUB-COURSE TERMINATION MAY BE NOTCHED INTO THE EXISTING PAVEMENT OR BLENDED WITH THE NEXT COURSE OF PAVEMENT.
3. WHEN THERE IS A SPECIAL PROVISION FOR RIDEABILITY INCLUDED IN THE CONTRACT, A DISTANCE OF 105 FEET (0.02 OF A MILE), MEASURED FROM THE LINE OF THE TIE-IN WILL BE EXEMPTED FROM PAY ADJUSTMENT.
4. TRANSITION SHALL BEGIN/END AT THE PROJECT LIMITS, AT BRIDGE APPROACH SLAB/ABUTMENT (OR AN INTERMEDIATE POINT DETERMINED BY THE ENGINEER), AND A MINIMUM OF 75 FEET FROM A VERTICAL PLANE OF THE NEAREST OUTER FACE OF THE BRIDGE OVERPASS.
5. NO OVERLAY OR MILLING SHALL BE PERMITTED ON THE BRIDGE DECK WITHOUT THE PRIOR WRITTEN APPROVAL OF THE DISTRICT BRIDGE ENGINEER.



SINGLE COURSE OVERLAY TRANSITION GEOMETRY
(NOT TO SCALE)

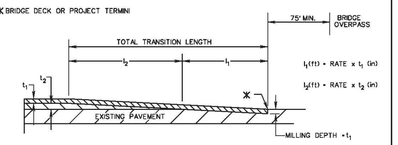
TRANSITION RATE						
	POSTED SPEED MPH					
	25	35	45	55	65	70
RATE (FT/INCH)	20	25	35	40	45	50



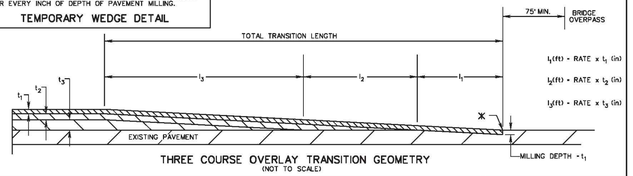
TEMPORARY PAVEMENT WEDGE SHALL BE CONSTRUCTED OF SURFACE MIX ASPHALT A MINIMUM OF 3 FEET IN LENGTH FOR EVERY INCH OF DEPTH OF PAVEMENT MILLING.

TEMPORARY WEDGE DETAIL

✕ BRIDGE DECK OR PROJECT TERMINI



TWO COURSE OVERLAY TRANSITION GEOMETRY
(NOT TO SCALE)



THREE COURSE OVERLAY TRANSITION GEOMETRY
(NOT TO SCALE)

SPECIFICATION REFERENCE
210
315
515

A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

ASPHALT CONCRETE OVERLAY TRANSITIONS

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS

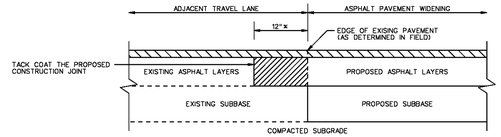
REVISION DATE	SHEET 1 OF 1
7/12	305.01

2016 ROAD & BRIDGE STANDARDS

ASPHALT CONCRETE OVERLAY TRANSITIONS
VDOT DETAIL N.T.S.

2016 ROAD & BRIDGE STANDARDS

WP-2



CONSTRUCTION JOINT DETAIL

- REMOVE EXISTING ASPHALT LAYERS TO EXISTING SUBBASE AND REPLACE WITH PROPOSED ASPHALT WIDENING LAYERS
- PROPOSED MINIMUM 1½ INCH THICK ASPHALT SURFACE COURSE (SEE NOTE 5)
- × MINIMUM 12 INCHES, OR GREATER AS NECESSARY TO ABUT THE FULL THICKNESS OF EXISTING ASPHALT LAYERS AS DETERMINED BY CORES (SEE NOTE 3)

NOTES:

1. ASPHALT PAVEMENT WIDENING SHALL HAVE A PAVEMENT DESIGN IN ACCORDANCE WITH CURRENT VDOT PROCEDURES AND BE APPROVED BY THE ENGINEER.
2. THE PAVEMENT DESIGN FOR ASPHALT PAVEMENT WIDENING SHALL MEET OR EXCEED THE DEPTHS AND TYPES OF THE LAYERS OF EXISTING PAVEMENT. SUBSURFACE DRAINAGE OF THE EXISTING AND PROPOSED PAVEMENT SHALL BE ADDRESSED IN THE PAVEMENT DESIGN.
3. A MINIMUM OF THREE CORES SHALL BE TAKEN ALONG THE CENTER OF THE ADJACENT TRAVEL LANE TO DETERMINE THE TYPE AND THICKNESS OF EXISTING PAVEMENT LAYERS. THESE CORES SHALL BE SPACED NO MORE THAN 500 FEET APART.
4. THE ADJACENT TRAVEL LANE SHALL BE MILLED A MINIMUM DEPTH OF 1½ INCHES AND REPLACED WITH AN ASPHALT SURFACE COURSE TO MATCH THE PROPOSED PAVEMENT WIDENING SURFACE COURSE, UNLESS WAIVED BY THE ENGINEER.
5. THE ENGINEER MAY REQUIRE THE MILLING DEPTH OF THE EXISTING PAVEMENT TO BE ADJUSTED TO ACHIEVE AN ACCEPTABLE PAVEMENT CROSS-SLOPE AND EFFECTIVE SURFACE DRAINAGE.
6. EXISTING PAVEMENT MARKINGS AND MARKERS WITHIN THE PROJECT LIMITS SHALL BE RESTORED SUBJECT TO THE APPROVAL OF THE ENGINEER.
7. FINAL TRANSVERSE PAVEMENT TIE-IN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 315 OF THE SPECIFICATIONS EXCEPT THAT ALL JOINTS AT TIE-IN LOCATIONS SHALL BE TESTED USING A 10 FOOT STRAIGHTEDGE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 315 OF THE SPECIFICATIONS.

VDOT ROAD AND BRIDGE STANDARDS

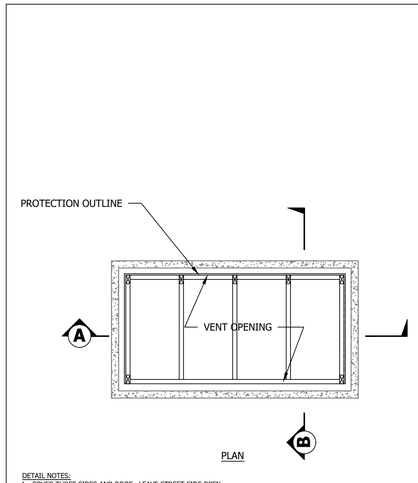
SHEET 1 OF 1	REVISION DATE
303.02	

ASPHALT PAVEMENT WIDENING
FOR WIDENING SUBJECT TO TRAFFIC
VIRGINIA DEPARTMENT OF TRANSPORTATION

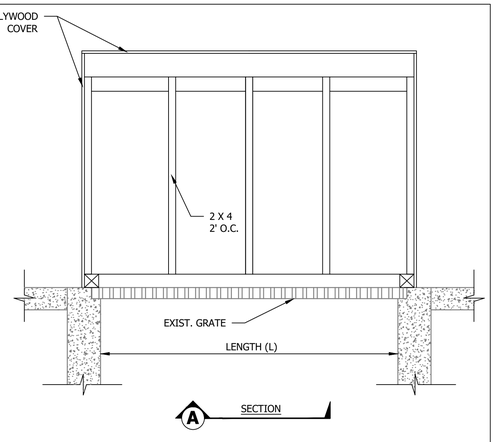
SPECIFICATION REFERENCE
315

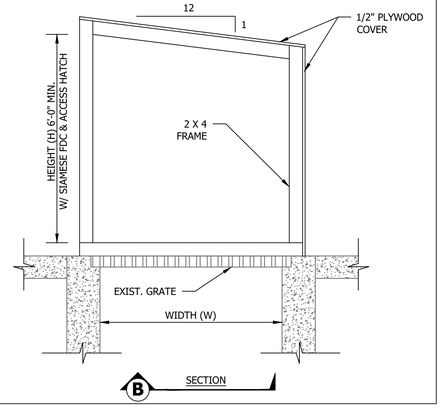
2016 ROAD & BRIDGE STANDARDS

ASPHALT PAVEMENT WIDENING
VDOT DETAIL N.T.S.



PLAN





DETAIL NOTES:
1. COVER THREE SIDES AND ROOF. LEAVE STREET SIDE OPEN.
2. WIRE BASEPLATES TO GRATE.
3. OPENING MUST EQUAL 80% OF GRATE AREA.
4. COVER SHALL NOT INTERFERE WITH FIRE DEPARTMENT ACCESS TO METRO STANDPIPE OR THE OPERATION OF AN EMERGENCY HATCH.
5. COVER AND GRATE SHALL BE KEPT FREE OF TRASH.
6. MINIMUM HEIGHT (H) = (W), BUT NOT LESS THAN 6'-0".
7. ALL PLYWOOD AND LUMBER SHALL BE PRESSURE TREATED AND FIRE RETARDANT.
8. PROVIDE LARGE SIGN FOR FDC. INCLUDE SHAFT ID FC9. SIGN SHOULD BE BOLD RED FONT LETTERS ON WHITE BACKGROUND.
9. CONTRACTOR TO REFER TO WMATA ACPM SECTION 3.32 FOR ADDITIONAL REQUIREMENTS.

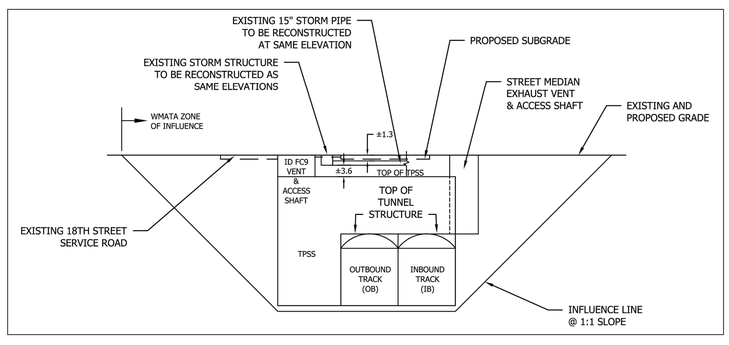
WMATA ADDITIONAL NOTES:

THE METAL GRATES IN THIS LOCATION ARE FAN FC9 WHICH PROVIDES VENTILATION TO WMATA TUNNEL IN THIS LOCATION. THIS IS A FIRE AND LIFE SAFETY SYSTEM WHICH REMOVES SMOKE OR SUPPLIES FRESH AIR RO RHE TUNNEL. THE OTHER GRATES ARE INTAKE AND EXHAUSTS FOR A TRACTION POWER SUBSTATION (TPSS) WHICH IS A HIGH VOLTAGE ROOM WHERE POWER (TRANSFORMER) IS SUPPLIED TO OPERATE THE TRAINS.

- THESE GRATES DURING CONSTRUCTION NEED TO BE PROTECTED FROM CONSTRUCTION, DEBRIS FROM ENTERING INTO THESE SHAFTS. DUST CONTROL MEASURES MUST BE PUT IN PLACE BECAUSE OF SUBSTATION EQUIPMENT BELOW. THE SHAFTS CANNOT BE COVERED BY PLYWOOD OR OTHER SOLID MATERIAL AS VENTILATION NEEDS TO BE MAINTAINED.
- THE FAN SHAFT FC9 IS AN EMERGENCY EGRESS FROM THE TUNNEL SO THIS WILL NEED TO BE MAINTAINED, CAN NOT BE BLOCKED.
- THE DRY STANDPIPE AT FC9 WILL ALSO NEED TO MAINTAIN ACCESS IN CASE OF EMERGENCY AND IF THE FIRE DEPT NEEDS TO USE.
- THE CONSTRUCTION PROJECT NEEDS TO MAINTAIN THESE SHAFTS IN THE CURB AREA AND ENSURE WATER IS NOT DIRECTED INTO THESE SHAFTS OR THAT THESE SHAFTS BECOME LOW POINTS IN THE CURB AREA AND THUS RECEIVE WATER SURFACE RUN OFF. THIS WOULD CAUSE FLOODING ISSUES IN THE TUNNEL OR IN HIGH VOLTAGE ROOM RESULTING IN STOP OF RAIL SERVICE OR DAMAGE TO EXPENSIVE/CRITICAL EQUIPMENT.

ACCESS HATCH CAN NOT BE BLOCKED AT ANYTIME DURING CONSTRUCTION.

WMATA GRATE COVER PROTECTION
WMATA DETAIL N.T.S.



WMATA TPSS ZONE OF INFLUNCE
FOR INFORMATIONAL PURPOSE ONLY N.T.S.

REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

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

SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
	6/18/2020
QUALITY CONTROL ENGINEER	6.26.20
Kamal N. Taktak	
CONSTRUCTION MANAGEMENT SUPERVISOR	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Yang	6/17/2020
PROJECT MANAGER	

REVISIONS	DATE

18TH STREET SOUTH

DETAILS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
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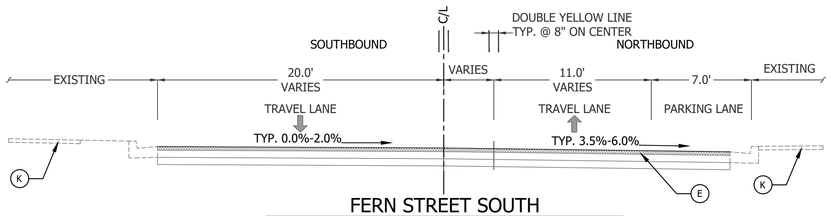
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

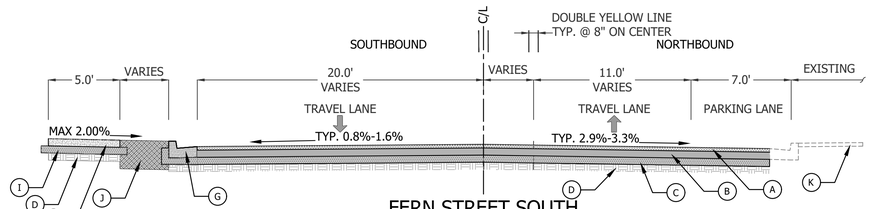
SCALE:

AS SHOWN

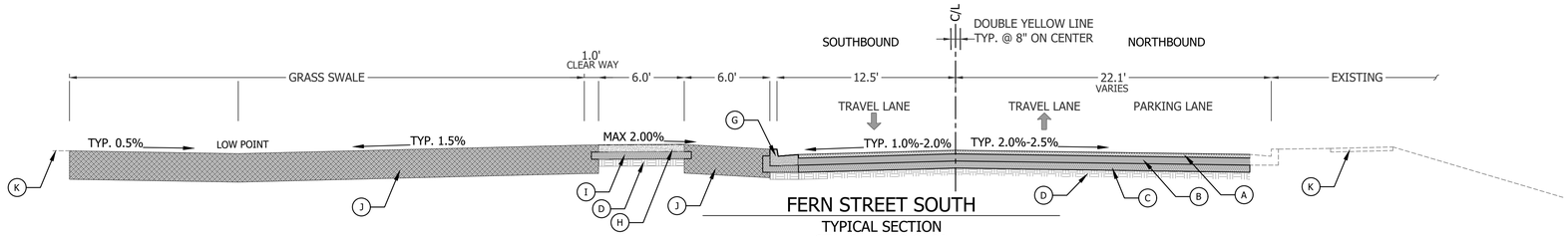
SHEET C002.1



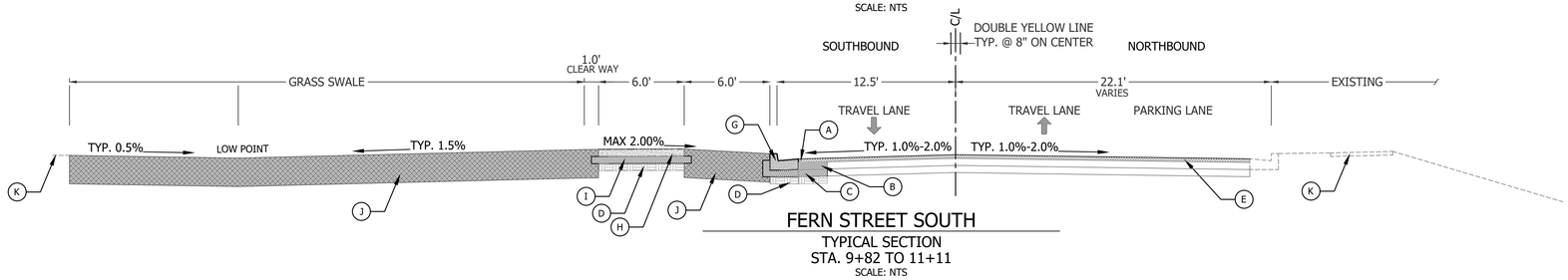
FERN STREET SOUTH
TYPICAL SECTION
STA. 6+25 TO 7+07
SCALE: NTS



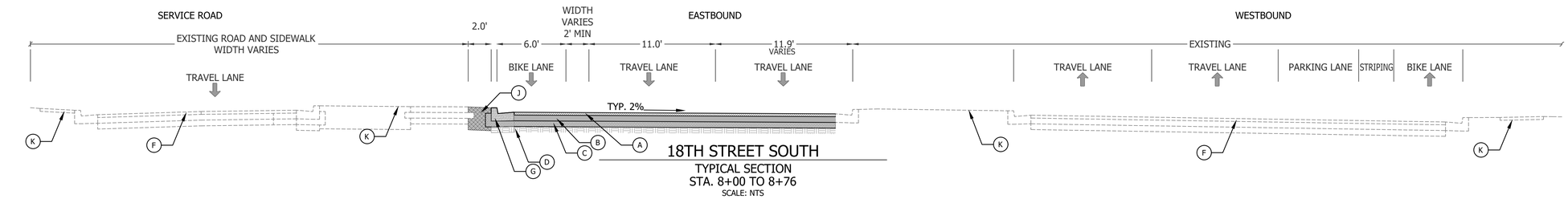
FERN STREET SOUTH
TYPICAL SECTION
STA. 7+07 TO 7+60
SCALE: NTS



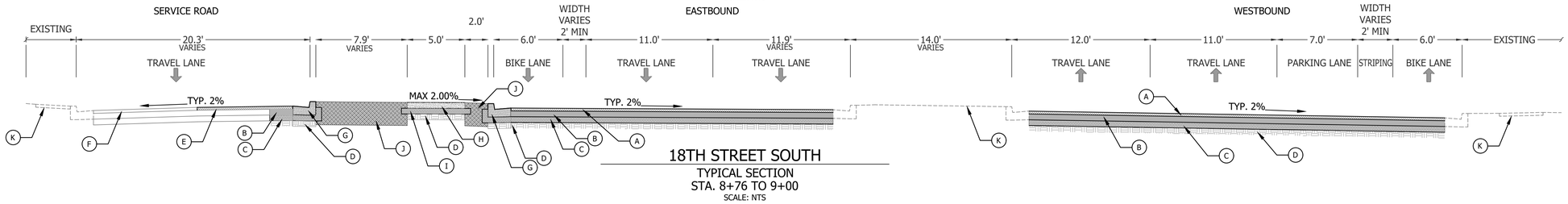
FERN STREET SOUTH
TYPICAL SECTION
STA. 9+10 TO 9+82
SCALE: NTS



FERN STREET SOUTH
TYPICAL SECTION
STA. 9+82 TO 11+11
SCALE: NTS



18TH STREET SOUTH
TYPICAL SECTION
STA. 8+00 TO 8+76
SCALE: NTS



18TH STREET SOUTH
TYPICAL SECTION
STA. 8+76 TO 9+00
SCALE: NTS

A. PROP. SURFACE - 2" ASPHALT CONCRETE (TYPE SM-9.5A) PER ARL SPECS

B. PROP. BASE - 6" ASPHALT CONCRETE (TYPE BM-25.A) PER ARL SPECS

C. PROP. COMPACTED SUBBASE - 6" AGGREGATE BASE MATERIAL (#21A) PER ARL SPECS

D. UNDISTURBED SUBGRADE OR BACKFILL & STANDARD COMPACTED REQUIRED PER ARL SPECS

E. EX. PAVEMENT MILL & OVERLAY OVER TACK COAT PER ARL SPECS (TYPE SM-9.5A)

F. EX. ASPHALT PAVEMENT (BASE/SUBBASE)

G. PROP. C-2 CURB & GUTTER & AGGREGATE BASE PER ARL STD R-2.0

H. PROP. 4" STANDARD CONCRETE SIDEWALK PER ARL STD R-2.0

I. PROP. 3" MIN. AGGREGATE BASE MATERIAL (#21A) PER ARL STD R-2.0 UNDER SIDEWALK

J. PROP. TYP. 4"-6" TOPSOIL AND SEED PER ARL SPECS

K. EXISTING TO REMAIN

L. RAISED 4" THICK CONCRETE MEDIAN WITH HEADER CURB CONSTRUCTED. PER ARL STD. R-1.4 AND SPECS

M. VDOT UD-4 UNDERDRAIN

NOTE:
SEE PLAN FOR PROPOSED ROAD/SIDEWALK AND PARKING PAVEMENT & LANDSCAPE RESTORATION LAYOUT, SEE CROSS SECTIONS SHEET FOR PROPOSED CROSS SLOPES AND ELEVATIONS

REVISED ON 11/08/2016

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TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS DATE

18TH STREET SOUTH

TYPICAL SECTIONS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST

CC20

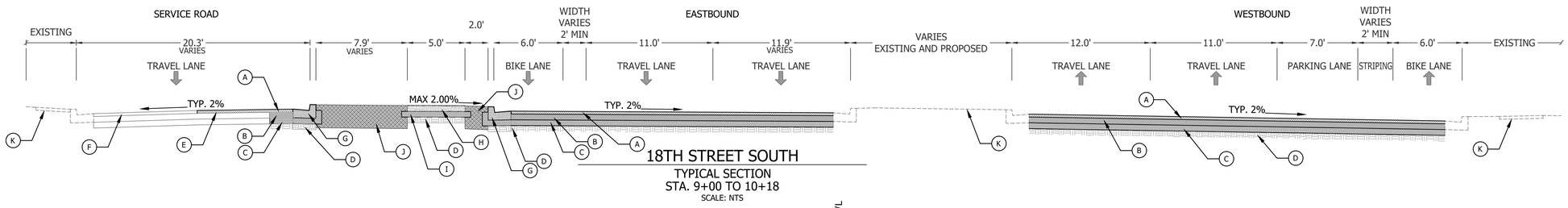
DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-210-TYP_SECTION.DWG
PATH: Q:\DATA\CC20\DESIGN\CADD_ACTIVE

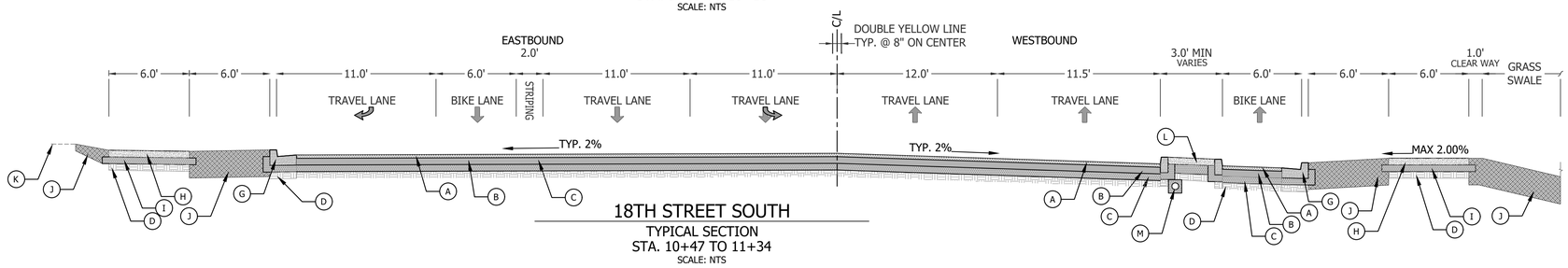
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE: AS NOTED

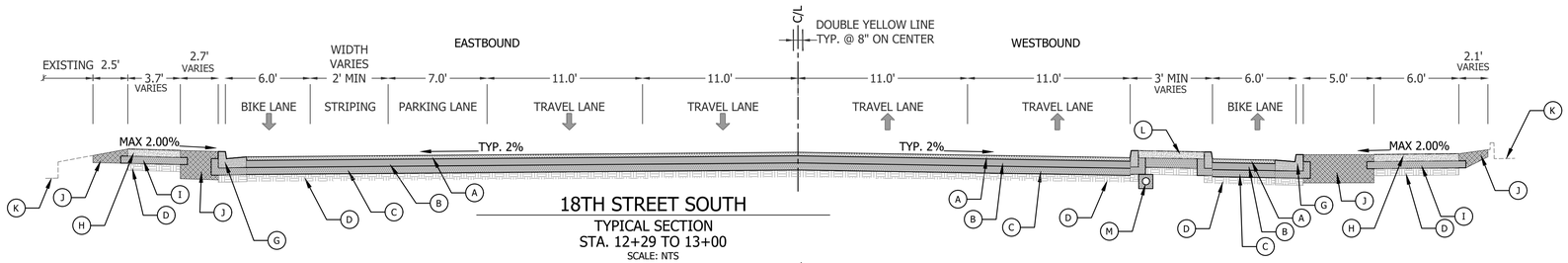
SHEET C004.1



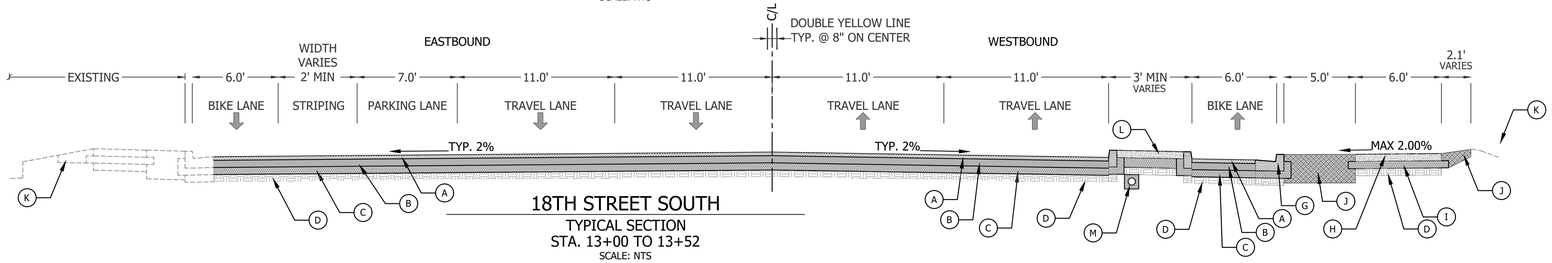
18TH STREET SOUTH
TYPICAL SECTION
STA. 9+00 TO 10+18
SCALE: NTS



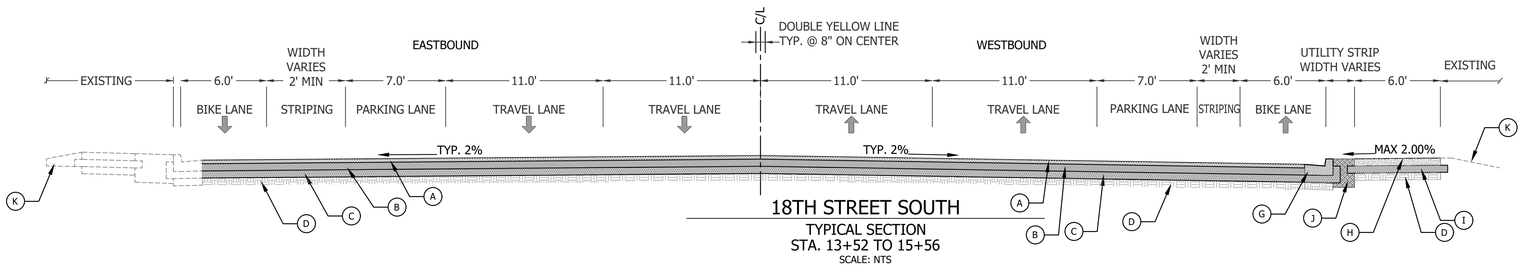
18TH STREET SOUTH
TYPICAL SECTION
STA. 10+47 TO 11+34
SCALE: NTS



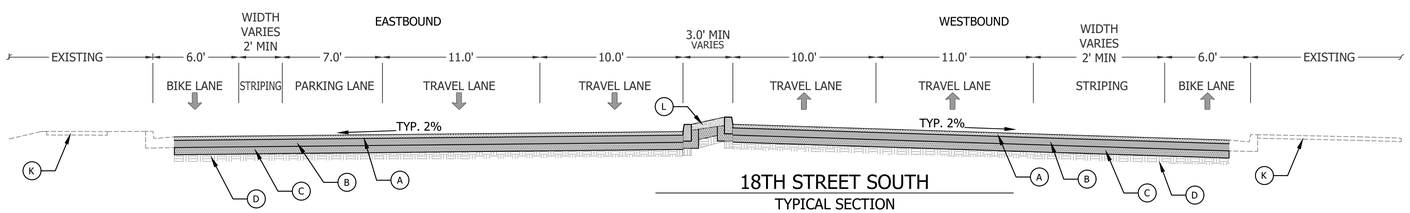
18TH STREET SOUTH
TYPICAL SECTION
STA. 12+29 TO 13+00
SCALE: NTS



18TH STREET SOUTH
TYPICAL SECTION
STA. 13+00 TO 13+52
SCALE: NTS



18TH STREET SOUTH
TYPICAL SECTION
STA. 13+52 TO 15+56
SCALE: NTS



18TH STREET SOUTH
TYPICAL SECTION
STA. 16+37 TO 17+75
SCALE: NTS

A. PROP. SURFACE - 2" ASPHALT CONCRETE (TYPE SM-9.5A) PER ARL SPECS

B. PROP. BASE - 6" ASPHALT CONCRETE (TYPE BM-25.A) PER ARL SPECS

C. PROP. COMPACTED SUBBASE - 6" AGGREGATE BASE MATERIAL (#21A) PER ARL SPECS

D. UNDISTURBED SUBGRADE OR BACKFILL & STANDARD COMPACTED REQUIRED PER ARL SPECS

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F. EX. ASPHALT PAVEMENT (BASE/SUBBASE)

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J. PROP. TYP. 4"-6" TOPSOIL AND SEED PER ARL SPECS

K. EXISTING TO REMAIN

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M. VDOT UD-4 UNDERDRAIN

NOTE:
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REVISED ON 11/08/2016

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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

TYPICAL SECTIONS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-210-TYP_SECTION.DWG
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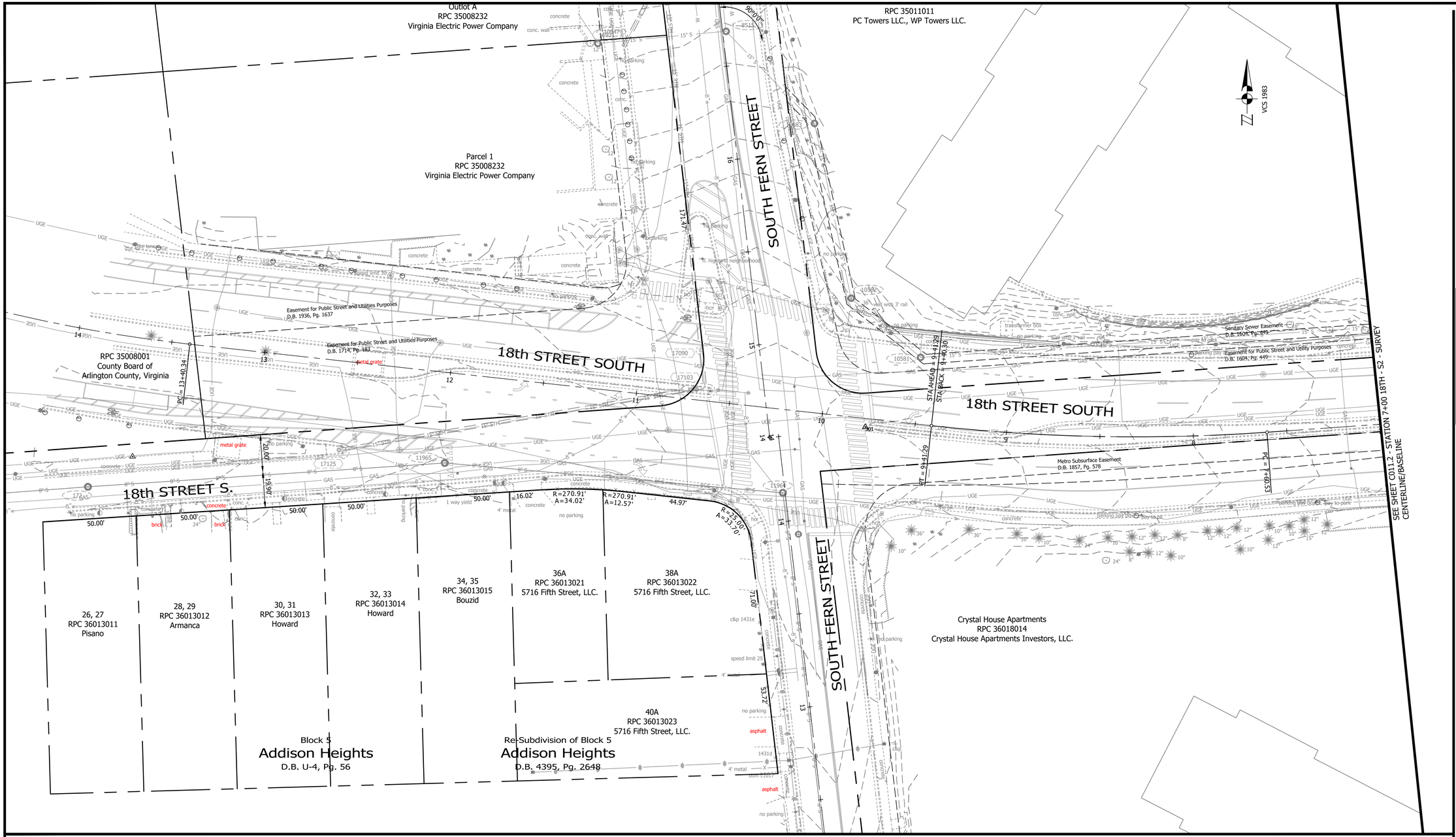
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE: AS NOTED

SHEET C004.2



GENERAL NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM AN ACTUAL GROUND SURVEY; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED FROM DECEMBER 2014 TO APRIL 2015; AND THAT THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND GIS DATA AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

NOTES:

1) TRAVERSE CONTROL SET BY ARLINGTON COUNTY. GPS COORDINATES ESTABLISHED IN NOVEMBER 2014 ON 200 AND 201. COORDINATE OF POINT 201 HELD FOR POSITION AND POINT 200 HELD FOR LINE. COORDINATES ARE NOT SCALED. ELEVATION OF POINT 200 (39.65) HELD FOR ELEVATION. OTHER CONTROL COORDINATES GENERATED BY CONVENTIONAL TRAVERSE AND DIFFERENTIAL LEVELING.
2) BUILDING LOCATIONS TAKEN FROM EXISTING GIS LOCATION, NOT FROM FIELD SURVEY LOCATIONS.
3) UTILITIES SHOWN WERE MARKED BY MID-ATLANTIC UTILITY LOCATION IN JUNE 2015 AND LOCATED BY ARLINGTON COUNTY SURVEY PERSONNEL.

SURVEY CONTROL

PT.	NORTHING	EASTING	ELEV.	DESCRIPTION
200	6999342.5062	11894165.8183	39.65	GPS
201	6999438.1307	11894730.9714	41.44	GPS
202	6999089.9634	11894882.7259	43.47	TRV 202
203	6998793.2265	11894873.5154	43.70	TRV 203
204	6998509.6607	11894977.9298	44.36	TRV 204
300	6998535.6686	11894587.5405	47.62	TRV 300
301	6998495.8100	11894213.5573	54.17	TRV 301
302	6998480.0643	11893821.7028	58.88	TRV 302
303	6998434.8404	11893470.9261	58.88	TRV 303

CENTERLINE/BASELINE NOTES:

ALL CENTERLINES/BASELINES SHOWN ON THIS EXISTING CONDITION PLANS ARE FROM THE AVAILABLE SURVEY SECTION RECORDS.

DURING DESIGN STAGE OF THE PROJECT, NEW CONSTRUCTION BASELINES WILL BE ESTABLISHED/DRAWN BY THE DESIGN ENGINEER WHICH WILL BE USED TO REFERENCE ALL DESIGN INFORMATION AND DURING STAKEOUT TO PREPARE THE CUT-SHEET.

THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF JOSHUA M. BROCK, L.S. FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED FROM DECEMBER 2014 TO APRIL 2015; AND THAT THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

COMMONWEALTH OF VIRGINIA
JOSHUA M. BROCK
Lic. No. 3122
7/29/15
LAND SURVEYOR

REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

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

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
	6/18/2020
QUALITY CONTROL ENGINEER Kamal N. Taktak	6.26.20
CONSTRUCTION MANAGEMENT SUPERVISOR	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
PROJECT MANAGER Ariel Jung	6/17/2020

REVISIONS DATE

18TH STREET SOUTH

EXISTING CONDITION
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-214-EX. CONDITION.DWG
PATH: Q:\DATA\CC20\DESIGN\CADD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

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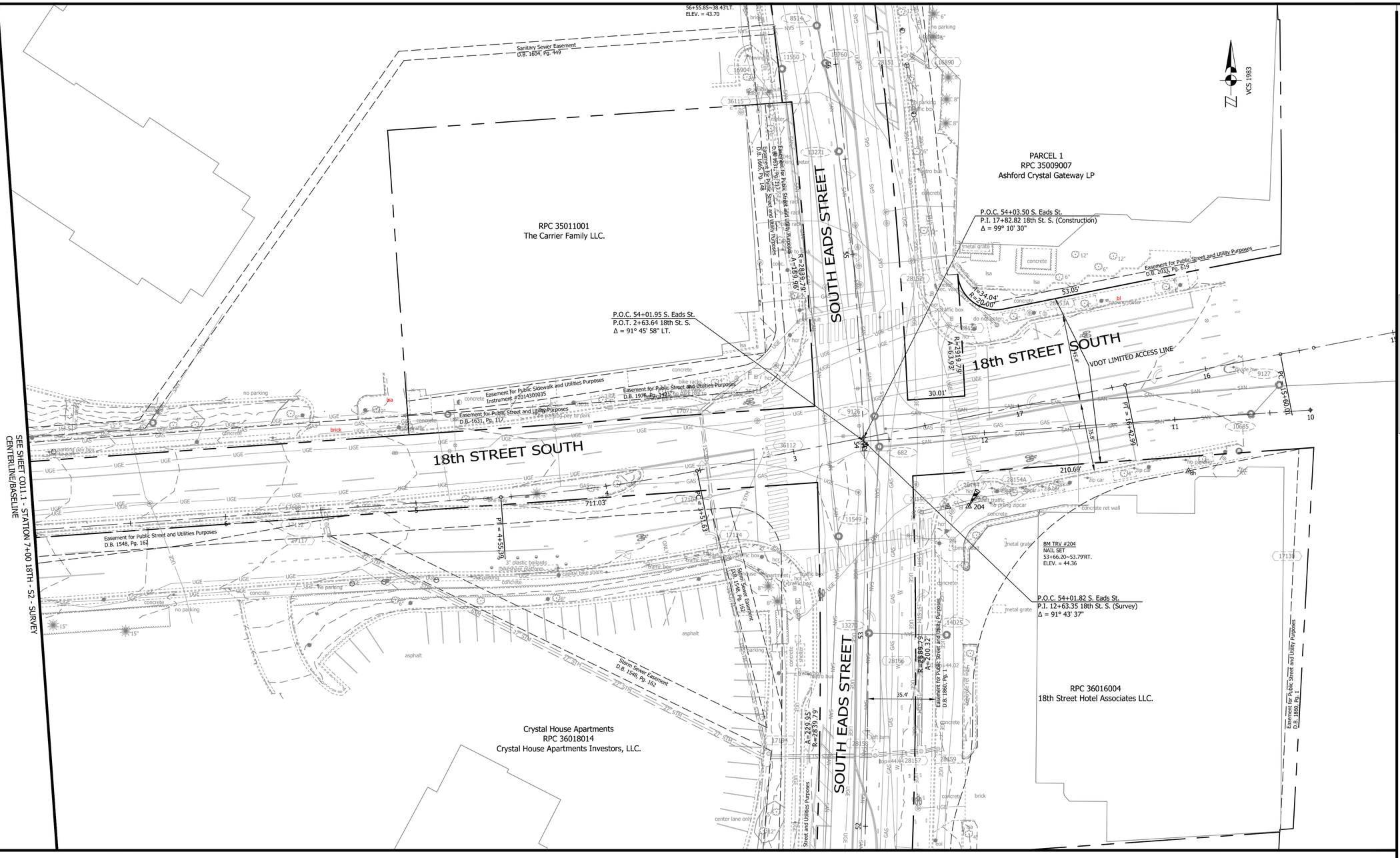
HORIZ: SCALE: 1" = 25'

SHEET C011.1

18TH STREET SOUTH



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4. CONTOUR INTERVAL: 1'
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7/29/15
LAND SURVEYOR

ARLINGTON
VIRGINIA

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3/1/2021
PROFESSIONAL ENGINEER

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WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

EXISTING CONDITION
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-214-EX. CONDITION.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

25 0 25
HORIZ: SCALE: 1" = 25'

SHEET C011.2

REVISED ON 11/08/2016

18TH STREET SOUTH

SANITARY SEWER

#169
TOP = 50.07
C/L INV. = 43.70

#172
TOP = 58.63
C/L INV. = 48.79

#682
TOP = 44.62
C/L INV. = 26.21

#683
TOP = 44.68
C/L INV. = 27.23

#8514
TOP = 44.15
C/L INV. = 26.68

#8515
TOP = 47.28
STRUCTURE CANNOT BE OPENED

#9126
TOP = 44.66
C/L INV. = 26.27

#9127
TOP = 45.33
C/L INV. = 29.77

#10580
TOP = 47.92
C/L INV. = 31.27

#10581
TOP = 54.09
C/L INV. = 32.04

#10582
TOP = 52.34
C/L INV. = 32.16

#10583
TOP = 47.63
C/L INV. = 32.44

#10685
TOP = 44.81
C/L INV. = 29.26

#10947
TOP = 47.52
C/L INV. = 32.61

#11549
TOP = 44.84
C/L INV. = 19.97

#11550
TOP = 43.28
C/L INV. = 20.38

#11964
TOP = 55.44
C/L INV. = 47.15

#11965
TOP = 56.96
C/L INV. = 48.17

#13270
TOP = 44.45
C/L INV. = 25.93

#13271
TOP = 44.43
C/L INV. = 26.45

#13272
TOP = 44.70
C/L INV. = 27.03

#13760
TOP = 44.23
C/L INV. = 26.60

#14025
TOP = 44.28
C/L INV. = 38.00

#41260
TOP = 41.47
C/L INV. = 34.13

STORM SEWER

#6064 (NEW STRUCTURE)
TOP = 44.38
18" RCP INV. IN = 35.86 (16890)
18" RCP INV. OUT = 35.78 (16759)

#16674
TOP = 42.18
18" RCP INV. IN = 35.23 (16674)
21" RCP INV. IN = 35.18 (16901)
18" RCP INV. IN = 35.51 (16680)
21" RCP INV OUT = 34.98 (16425)

#16680
TOP = 42.21
18" RCP INV. IN = 35.80 (28105)
18" RCP INV OUT = 35.61 (16674)

#16716
TOP = 42.76
18" RCP INV. OUT = 36.28 (16674)

#16736
TOP = 45.09
15" RCP INV. IN = 33.87 (16811)
18" RCP INV. IN = 31.40 (16759)
27" RCP INV. IN = 30.69 (16887)
30" RCP INV. OUT = 30.49 (16502)

#16759
TOP = 44.63
18" RCP INV. IN = 34.93 (6064)
18" RCP INV. OUT = 34.81 (16736)

#16811
TOP = 44.24
15" RCP INV. IN = 37.34 (16904)
15" RCP INV. OUT = 37.24 (16736)

#16890
TOP = 44.14
15" RCP INV. IN = 39.75 (28151)
18" RCP INV. OUT = 39.70 (6064)
Reverse flow from #28151

#16901
TOP = 45.20
15" RCP INV. IN = 42.35 (17090)
18" RCP INV. IN = 37.04 (16931)
21" RCP INV. OUT = 36.87 (16674)

#16904
TOP = 43.40
15" RCP INV. OUT = 38.18 (16811)

#16931
TOP = 47.11
18" RCP INV. OUT = 37.83 (16901)

#17057
TOP = 43.61
15" RCP INV. OUT = 40.05 (17071)

#17071
TOP = 44.02
15" RCP INV. IN = (17057)
STRUCTURE CANNOT BE OPENED

#17090
TOP = 55.16
15" RCP INV. IN = 52.46 (17103)
15" RCP INV. OUT = 51.29 (16901)

#17103
TOP = 55.95
15" RCP INV. IN = 53.00 (17125)
15" RCP INV. OUT = 52.88 (17090)

#17104
TOP = 44.96
15" RCP INV. IN = (17071)
15" RCP INV. OUT = (17124)
STRUCTURE CANNOT BE OPENED

#17108
TOP = 46.81
27" RCP INV. OUT = 37.67 (17112)

#17112
TOP = 46.67
27" RCP INV. IN = 38.13 (17108)
27" RCP INV. OUT = 37.94 (17117)

#17117
TOP = 46.67
27" RCP INV. IN = 37.89 (17112)
27" RCP INV. OUT = 37.84 (17194)

#17124
TOP = 45.11
15" RCP INV. IN = 37.29 (17104)
15" RCP INV. OUT = 37.19 (17194)

#17125
TOP = 57.72
15" RCP INV. OUT = 54.13 (17103)

#17194
TOP = 42.27
15" RCP INV. IN = 36.06 (17124)
27" RCP INV. IN = 34.89 (17117)
18" RCP INV. IN = 35.15 (28158)
33" RCP INV. OUT = 34.77 (17310)

#17310
TOP = 41.16
33" RCP INV. IN = 34.99 (17194)
21" RCP INV. IN = 35.34 (17228)
36" RCP INV. OUT = 34.86 (17360)

#28151
TOP = 43.72
15" RCP INV. IN = 39.70 (28152)
15" RPC INV. OUT = 39.69 (16890)

#28152
TOP = 44.49
15" RCP INV. IN = 40.89 (28153)
15" RCP INV. OUT = 40.55 (28151)

#28153
TOP = 44.30
15" RCP INV. OUT = 41.11 (28152)
15" RCP INV. IN = 41.21 (28153A)

28153A
TOP = 44.32
15" RCP INV. OUT = 41.48 (28153)

#28154
TOP = 44.16
15" RCP INV. OUT = 41.67 (28155)
15" RCP INV. IN = 41.77 (28154A)

#28154A
TOP = 44.09
15" RCP INV. OUT = 42.05 (28154)

#28155
TOP = 44.09
15" RCP INV. IN = 41.10 (28154)
15" RCP INV. OUT = 41.01 (28156)

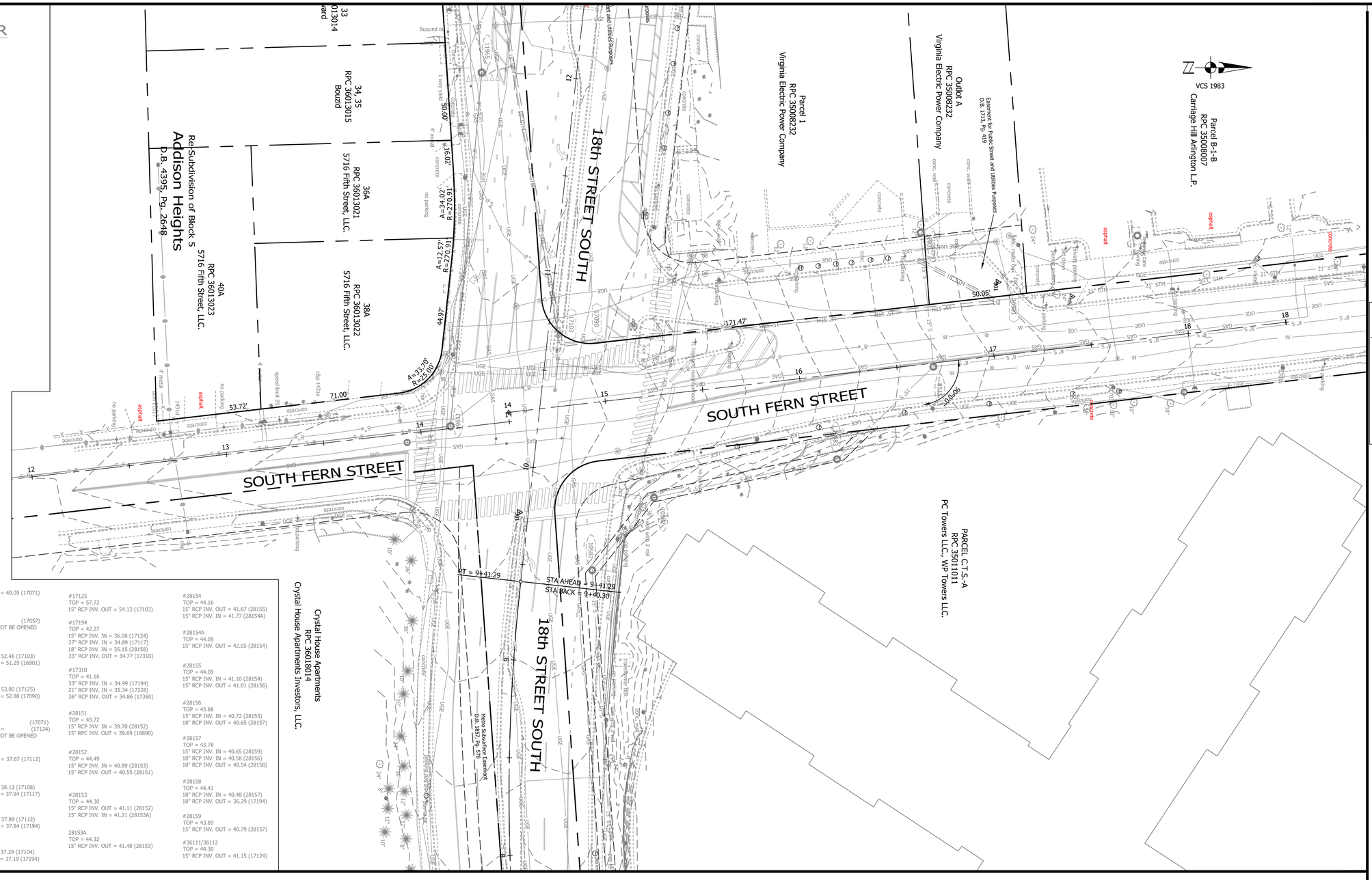
#28156
TOP = 43.88
15" RCP INV. IN = 40.72 (28155)
18" RCP INV. OUT = 40.65 (28157)

#28157
TOP = 43.78
15" RCP INV. IN = 40.65 (28159)
18" RCP INV. IN = 40.58 (28156)
18" RCP INV. OUT = 40.54 (28158)

#28158
TOP = 44.41
18" RCP INV. IN = 40.48 (28157)
18" RCP INV. OUT = 36.29 (17194)

#28159
TOP = 43.89
15" RCP INV. OUT = 40.79 (28157)

#36111/36112
TOP = 44.30
15" RCP INV. OUT = 41.15 (17124)



GENERAL NOTES:

1. THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF THE COUNTY SURVEY SECTION FROM AN ACTUAL GROUND SURVEY; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED FROM DECEMBER 2014 TO APRIL 2015; AND THAT THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.
2. HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983.
3. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988.
4. CONTOUR INTERVAL: 1'
5. BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND GIS DATA AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

NOTES:

1) TRAVERSE CONTROL SET BY ARLINGTON COUNTY. GPS COORDINATES ESTABLISHED IN NOVEMBER 2014 ON 200 AND 201. COORDINATE OF POINT 201 HELD FOR POSITION AND POINT 200 HELD FOR LINE. COORDINATES ARE NOT SCALED. ELEVATION OF POINT 200 (39.65) HELD FOR ELEVATION. OTHER CONTROL COORDINATES GENERATED BY CONVENTIONAL TRAVERSE AND DIFFERENTIAL LEVELING.
2) BUILDING LOCATIONS TAKEN FROM EXISTING GIS LOCATION, NOT FROM FIELD SURVEY LOCATIONS.
3) UTILITIES SHOWN WERE MARKED BY MID-ATLANTIC UTILITY LOCATION IN JUNE 2015 AND LOCATED BY ARLINGTON COUNTY SURVEY PERSONNEL.

SURVEY CONTROL

PT.	NORTHING	EASTING	ELEV.	DESCRIPTION
200	6999342.5062	11894165.8183	39.65	GPS
201	6999438.1307	11894730.9714	41.44	GPS
202	6999089.9634	11894882.7259	43.47	TRV 202
203	6998793.2265	11894873.5154	43.70	TRV 203
204	6998509.6607	11894977.9298	44.36	TRV 204
300	6998535.6686	11894587.5405	47.62	TRV 300
301	6998495.8100	11894213.5573	54.17	TRV 301
302	6998480.0643	11893821.7028	58.88	TRV 302
303	6998434.8404	11893470.9261	58.88	TRV 303

CENTERLINE/BASELINE NOTES:

ALL CENTERLINES/BASELINES SHOWN ON THIS EXISTING CONDITION PLANS ARE FROM THE AVAILABLE SURVEY SECTION RECORDS.

DURING DESIGN STAGE OF THE PROJECT, NEW CONSTRUCTION BASELINES WILL BE ESTABLISHED/DRAWN BY THE DESIGN ENGINEER WHICH WILL BE USED TO REFERENCE ALL DESIGN INFORMATION AND DURING STAKEOUT TO PREPARE THE CUT-SHEET.

THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF JOSHUA M. BROCK, L.S. FROM AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED FROM DECEMBER 2014 TO APRIL 2015; AND THAT THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

COMMONWEALTH OF VIRGINIA
JOSHUA M. BROCK
Lic. No. 3122
7/29/15
LAND SURVEYOR

REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

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

SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

EXISTING CONDITION
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

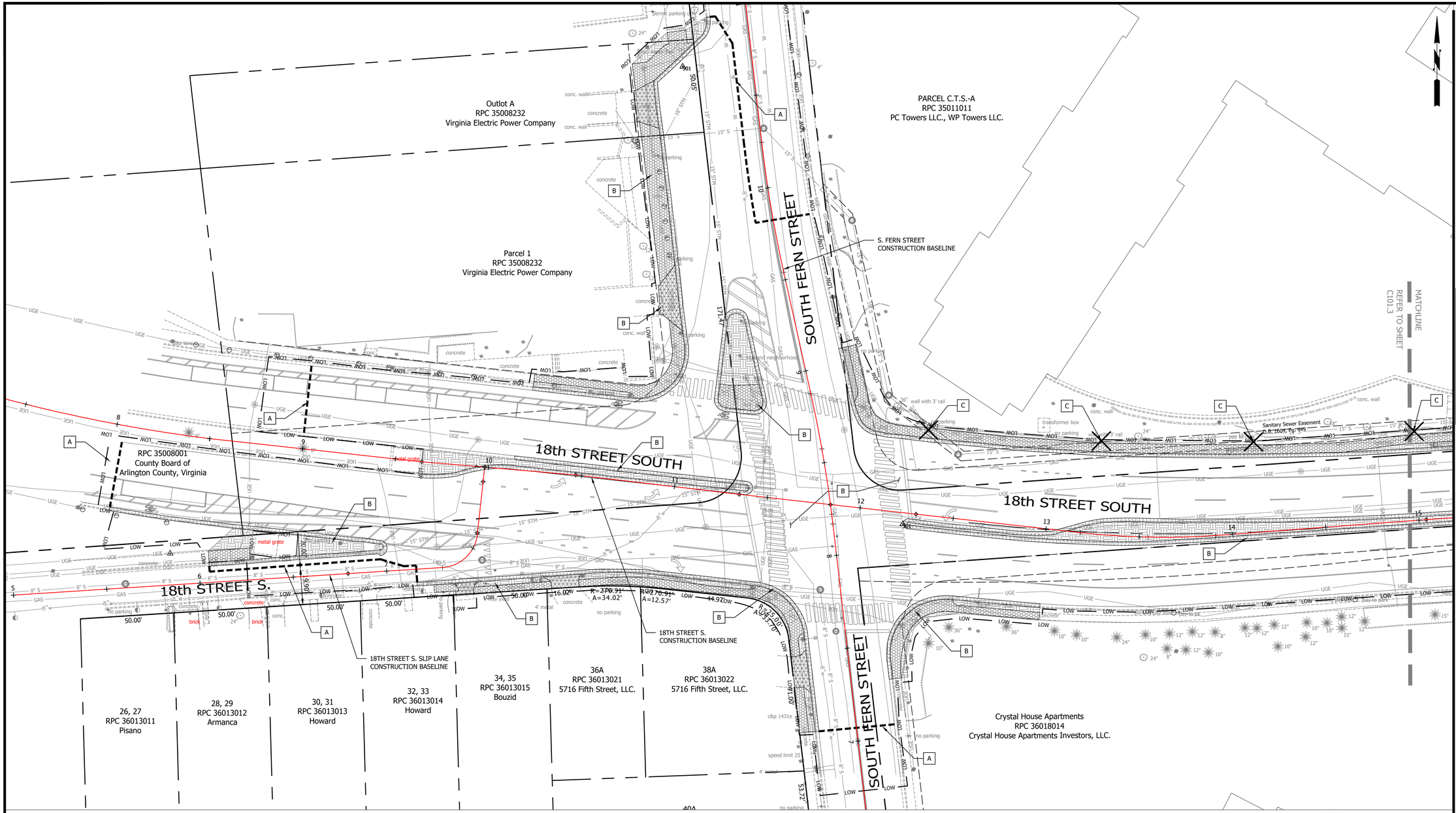
FILENAME:
CC20-214-EX. CONDITION.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:
25 0 25
HORIZ: SCALE: 1" = 25'

SHEET C011.3

18TH STREET SOUTH



DEMOLITION KEY NOTES:

CAUTION: POTENTIAL UNDERGROUND UTILITY CONFLICT. THE PROVIDED TEST HOLE DATA IS APPROXIMATE, CONTRACTOR, TO FIELD VERIFY (TEST PIT) EXACT LOCATION AND DEPTH OF EXISTING UTILITY.

USE OF LARGE EQUIPMENT (HOE RAMS, VIBRATORY ROLLERS, ETC.) SHALL NOT BE PERMITTED WITHIN 5 FEET OF WMATA UNDERGROUND STRUCTURES WITHOUT PRIOR APPROVAL.

A. CONTRACTOR SHALL MAKE A NEAT LINE SAWCUT EXISTING PAVEMENT (AT NEAREST JOINT WHERE POSSIBLE).

B. CONTRACTOR SHALL DEMOLISH/EXAVATE/REMOVE/DISPOSE EX. PAVEMENT, CURB & GUTTER, DRIVEWAY ENTRANCE AND CLEAR THE AREA.

C. CONTRACTOR TO COORDINATE WITH ARLINGTON COUNTY FOR THE REMOVAL / DISPOSAL OF EXISTING STREETLIGHT POLE. DEMOLISH / DISPOSE OF THE REMAINING FOUNDATION AND ASSOCIATED FIXTURES. REFER TO SHEET C111.1-C111.2 FOR ADDITIONAL INFORMATION.

D. CONTRACTOR SHALL REMOVE EX. TREE/TREE STUMPS & TREE EDGING. REFER TO SHEET C091.1-C091.2 FOR ADDITIONAL INFORMATION.

DEMOLITION GENERAL NOTES:

1. CONTRACTOR SHALL PROTECT EXISTING POLES, UTILITIES, STRUCTURES, FROM DAMAGE.
2. EXISTING UNDERGROUND UTILITIES ARE TO REMAIN UNLESS OTHERWISE NOTED. CONTRACTOR SHALL ADJUST ALL STRUCTURES TOP TO NEW GRADES PER ARLINGTON COUNTY DETAILS & SPECIFICATIONS AND IN COORDINATION WITH UTILITY OWNERS.
3. EXISTING STAND PIPE/FIRE HYDRANT TO REMAIN IN SERVICE. THE CONTRACTOR SHALL MAINTAIN UNIMPEDED ACCESS TO THE STAND PIPE/FIRE HYDRANT DURING CONSTRUCTION. THE CONTRACTOR SHALL ERECT SIGN(S) THAT CLEARLY IDENTIFY THE LOCATION OF THE STAND PIPE/FIRE HYDRANT.
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7. SIDEWALK PAVEMENT AND LANDSCAPING WITHIN PROPOSED AND REMOVED TRAFFIC SIGNAL STRUCTURES AND UTILITY CUTS SHALL BE RESTORED TO COMPLY WITH EXISTING CONDITIONS OR PROPOSED PAVEMENT/LANDSCAPING.
8. EXISTING STREET SIGNS REMOVAL, PAVEMENT MARKING ERADICATION AND RESTORATION SHALL BE PERFORMED PER PAVEMENT MARKING AND PERMANENT SIGNAGE PLAN, SEE SHEETS C101.1-C101.3
9. SEE TRAFFIC SIGNAL PLANS FOR ADDITIONAL ITEMS TO BE REMOVED/DEMOLISED/DISPOSED OF DURING CONSTRUCTION.
10. ALL CONSTRUCTION AND DEMOLITION DEBRIS WITHIN THE SHOWN LIMITS INCLUDING ASPHALT MILLING AND TRAFFIC SIGNAL RENOVATION SHALL BE REMOVED AND HAULED TO WASTE UNLESS OTHERWISE NOTED.

LEGEND

- PAVEMENT CONCRETE SAWCUT
- DEMOLITION OBJECT
- ASPHALT REMOVAL
- CONCRETE APRON REMOVAL
- CURB AND GUTTER REMOVAL
- SIDEWALK REMOVAL
- CLEAR AREA REMOVAL

REVISED ON 11/09/2016

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SEAL

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Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
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WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS DATE

18TH STREET SOUTH

DEMOLITION PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-228-DEMOLITION_PLAN.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

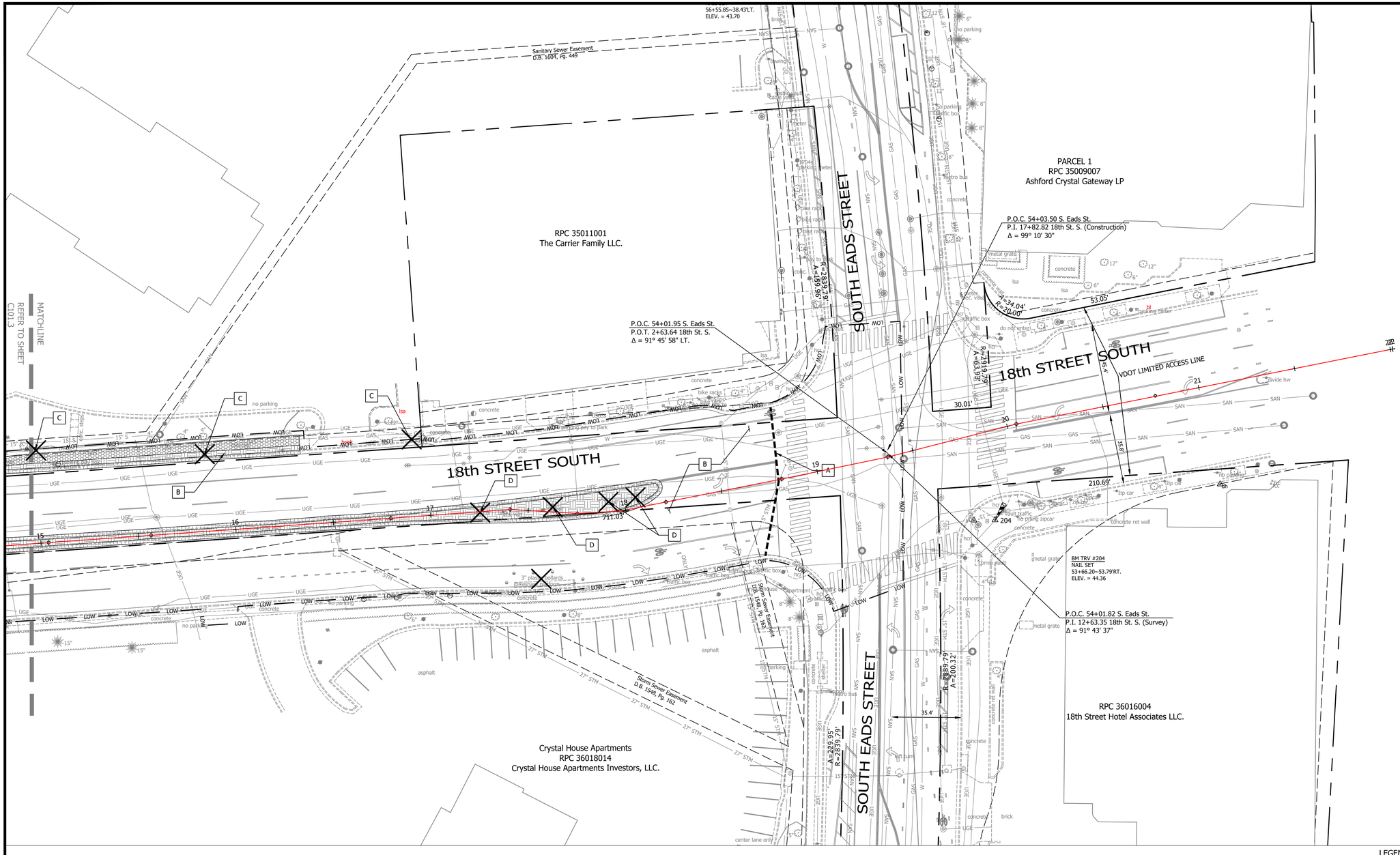
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

GRAPHIC SCALE
25 0 25
SCALE: 1" = 25'

SHEET C021.1

18TH STREET SOUTH



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- DEMOLITION OBJECT
- ASPHALT REMOVAL
- CONCRETE APRON REMOVAL
- CURB AND GUTTER REMOVAL
- SIDEWALK REMOVAL
- CLEAR AREA REMOVAL

REVISED ON 11/08/2016

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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

DEMOLITION PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-228-DEMOLITION_PLAN.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

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GRAPHIC SCALE
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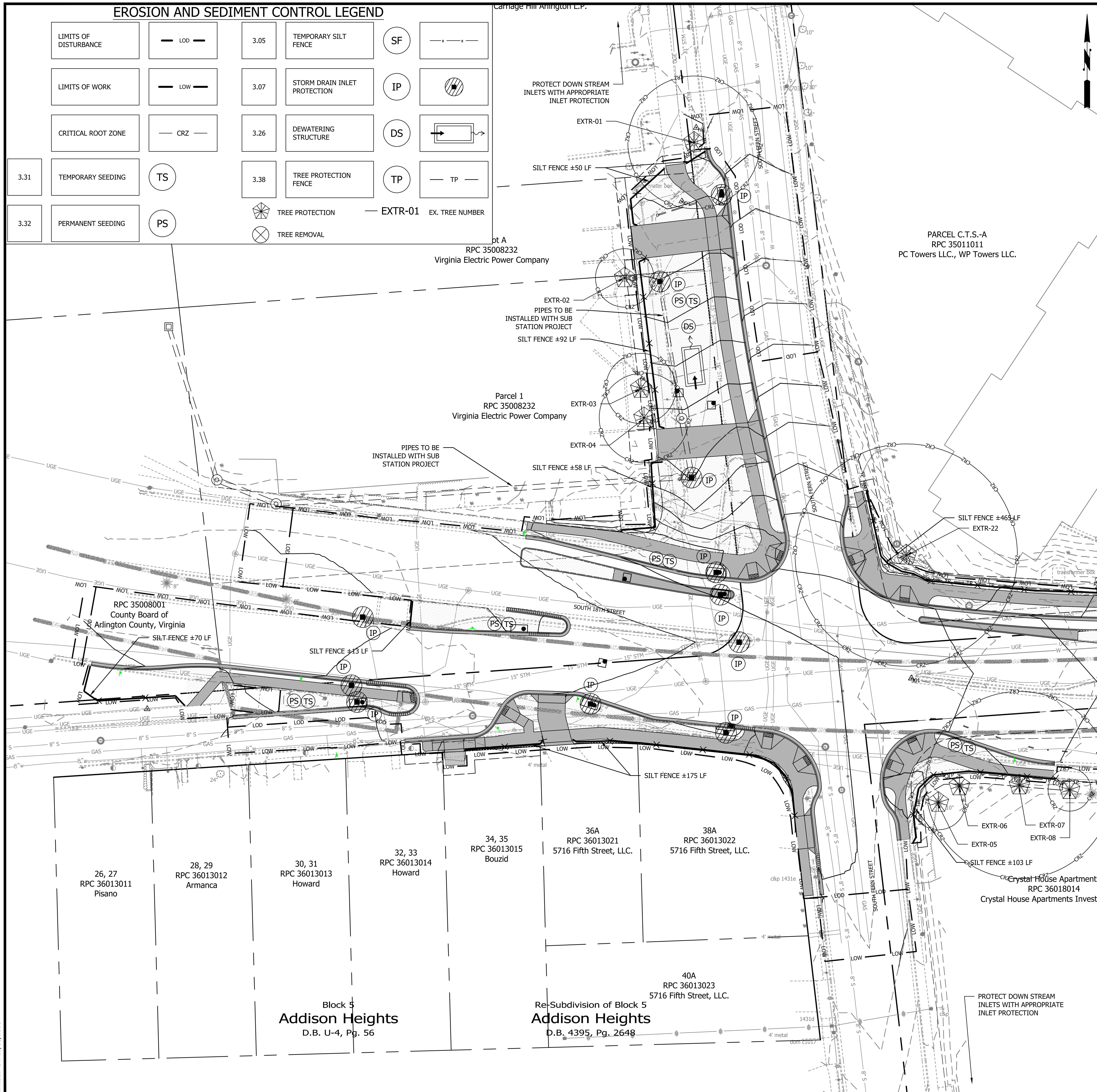
SCALE: 1" = 25'

SHEET C021.2



Tree #	DBH (Diameter at 4.5 feet above grade)	Common Name	Botanical Name	Condition Rating %	Condition Rating	Dead Tree (Y/N)	Number of Stems	SCRZ Structural Critical Root Zone (radius) in Feet	CRZ Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)	Priority (1-4)	Additional Notes	Condition Notes
1	23	oak, willow	Quercus phellos	59	Fair	NO	1	9.0	34	2	Hanger. Low vigor. 0.5" girdling root.	Large DW (3"+), Small DW (1-2"), Broken Limbs, Included Bark/Weak Union, Girdling Roots, Restricted Rooting Area
2	10	magnolia, saucer	Magnolia x soulangiana	73	Good	NO	1	6.0	15	2	DBH @ 1'. Heading cuts.	Small DW (1-2"), Included Bark/Weak Union, Co-Dominant Stems, Restricted Rooting Area
3	12	magnolia, saucer	Magnolia x soulangiana	50	Fair	NO	1	7.0	18	3	DBH @ base. Dieback. Crack. Buried roor collar. Possible girdling root.	Small DW (1-2"), Trunk Decay, Basal Decay, Branch Decay, Included Bark/Weak Union, Co-Dominant Stems, Stressed, Restricted Rooting Area
4	15	magnolia, saucer	Magnolia x soulangiana	54	Fair	NO	1	8.0	23	3	DBH @ base. Dieback. Buried roor collar.	Small DW (1-2"), Trunk Decay, Basal Decay, Branch Decay, Included Bark/Weak Union, Co-Dominant Stems, Stressed, Restricted Rooting Area
5	9	pine, eastern white	Pinus strobus	64	Fair	NO	1	5.0	14	3	Buried root collar. 15 deg lean. Phototropism from former neighbor #6. May correct somewhat.	One Sided, Small DW (1-2"), Broken Limbs
6	0	ZZ Unknown tree	ZZ Unknown tree	0	Dead	YES	0	0.0	0	0	Missing.	
7	32	cedar, deodar	Cedrus deodara	64	Fair	NO	1	10.0	48	2	Excessive mulch. Sapsucker damage. Thinning at top. Light dieback.	Full Crown, Large DW (3"+), Small DW (1-2"), Included Bark/Weak Union, Co-Dominant Stems, Stressed, Restricted Rooting Area
8	7	pine, eastern white	Pinus strobus	58	Fair	NO	1	4.0	11	3		One Sided, Small DW (1-2"), Broken Limbs, Suppressed, Restricted Rooting Area
9	7	planetree, London	Platanus hybrida	70	Good	NO	1	4.0	11	3		Broken Limbs, Restricted Rooting Area
10	9	holly, American	Ilex opaca	67	Fair	NO	1	5.0	14	2	Lots of sucker growth.	Trunk Decay, Branch Decay, Broken Limbs, Restricted Rooting Area
11	3	planetree, London	Platanus hybrida	75	Good	NO	1	2.0	5	2	Minor trimmer damage.	Restricted Rooting Area
12	3	zelkova, Japanese	Zelkova serrata	70	Good	NO	1	2.0	5	2		Restricted Rooting Area

Tree #	DBH (Diameter at 4.5 feet above grade)	Common Name	Botanical Name	Condition Rating %	Condition Rating	Dead Tree (Y/N)	Number of Stems	SCRZ Structural Critical Root Zone (radius) in Feet	CRZ Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)	Priority (1-4)	Additional Notes	Condition Notes
13	10	magnolia, saucer	Magnolia x soulangiana	66	Fair	NO	1	6.0	15	2	Poor pruning cuts.	Branch Decay, Included Bark/Weak Union, Co-Dominant Stems, Stressed, Restricted Rooting Area
14	4,3,3	crapemyrtle, common	Lagerstroemia indica	39	Poor	NO	3	4.0	9	4	DBH @ 1'. Topped. Low vigor.	Small DW (1-2"), Branch Decay, Stressed, Serious Decline, Restricted Rooting Area
15	4,3	crapemyrtle, common	Lagerstroemia indica	41	Poor	NO	2	3.0	8	4	DBH @ 1'. Topped. Low vigor. One stem dead.	Small DW (1-2"), Branch Decay, Stressed, Serious Decline, Restricted Rooting Area
16	4,3,3,3	crapemyrtle, common	Lagerstroemia indica	45	Poor	NO	4	4.0	10	4	DBH @ 1'. Topped. Low vigor. Additional tree not on plan.	Small DW (1-2"), Branch Decay, Stressed, Restricted Rooting Area
17	4,3	crapemyrtle, common	Lagerstroemia indica	50	Fair	NO	2	3.0	8	4	DBH @ 1'. Topped. Low vigor.	Small DW (1-2"), Branch Decay, Stressed, Restricted Rooting Area
18	3,3,3	crapemyrtle, common	Lagerstroemia indica	55	Fair	NO	3	3.0	8	4	DBH @ 1'. Topped.	Small DW (1-2"), Trunk Decay, Branch Decay, Stressed, Restricted Rooting Area
19	3,3,2,2	crapemyrtle, common	Lagerstroemia indica	61	Fair	NO	4	3.0	8	4	DBH @ 1'. Topped.	Small DW (1-2"), Branch Decay, Restricted Rooting Area
20	21	planetree, London	Platanus hybrida	55	Fair	NO	1	9.0	31	3	Poor pruning cuts.	Small DW (1-2"), Branch Decay, Broken Limbs, Stressed, Restricted Rooting Area
21	21	planetree, London	Platanus hybrida	43	Poor	NO	1	9.0	31	3	Poor pruning cuts.	Large DW (3"+), Small DW (1-2"), Trunk Decay, Branch Decay, Broken Limbs, Stressed, Restricted Rooting Area
22	38	oak, willow	Quercus phellos	71	Good	NO	1	11.0	57	1	0.5" girdling root. Heading cuts.	Small DW (1-2"), Girdling Roots

ARLINGTON
VIRGINIA

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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020 6.26.20
Kamal N. Taktak — CONSTRUCTION MANAGEMENT SUPERVISOR	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	6/24/20
Dennis M. Leach — TRANSPORTATION DIRECTOR	6/17/2020
Ariel Yang — PROJECT MANAGER	

REVISIONS DATE

18TH STREET SOUTH
E&S CONTROL PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST

CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-224-E_AND_S_PLAN.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

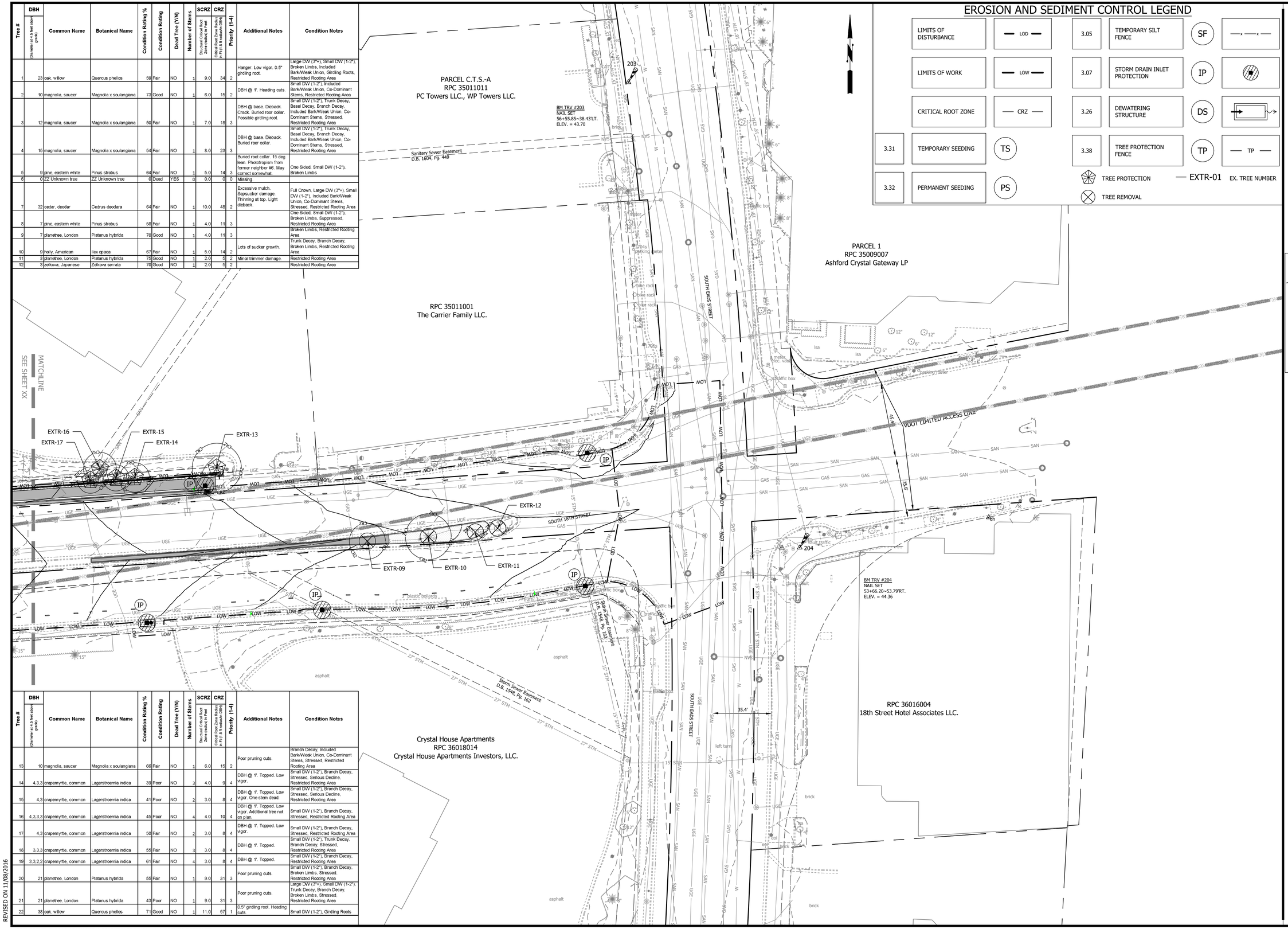
SCALE:
GRAPHIC SCALE
25 0 25
SCALE: 1" = 25'

SHEET C031.1

REVISED ON 11/08/2016

Tree #	DBH (Diameter at 4.5 feet above grade)	Common Name	Botanical Name	Condition Rating %	Condition Rating	Dead Tree (Y/N)	Number of Stems	SCRZ: Structural Critical Root Zone (Critical Root Radius in Feet)	CRZ: Critical Root Zone (Tree Protection Radius in Feet)	Priority (1-4)	Additional Notes	Condition Notes
1	23	oak, willow	Quercus phellos	58	Fair	NO	1	9.0	34	2	Hanger. Low vigor. 0.5" girdling root.	Large DW (3"+). Small DW (1-2"). Broken Limbs. Included Bark/Weak Union. Girdling Roots. Restricted Rooting Area
2	10	magnolia, saucer	Magnolia x soulangiana	73	Good	NO	1	6.0	15	2	DBH @ 1'. Heading cuts.	Small DW (1-2"). Included Bark/Weak Union. Co-Dominant Stems. Restricted Rooting Area
3	12	magnolia, saucer	Magnolia x soulangiana	50	Fair	NO	1	7.0	18	3	DBH @ base. Dieback. Crack. Buried roor collar. Possible girdling root.	Small DW (1-2"). Trunk Decay, Basal Decay, Branch Decay. Included Bark/Weak Union. Co-Dominant Stems. Stressed. Restricted Rooting Area
4	15	magnolia, saucer	Magnolia x soulangiana	54	Fair	NO	1	8.0	23	3	DBH @ base. Dieback. Buried roor collar.	Small DW (1-2"). Trunk Decay, Basal Decay, Branch Decay. Included Bark/Weak Union. Co-Dominant Stems. Stressed. Restricted Rooting Area
5	9	pine, eastern white	Pinus strobus	84	Fair	NO	1	5.0	14	3	Buried root collar. 15 deg lean. Phototropism from former neighbor #6. May correct somewhat.	One Sided, Small DW (1-2"). Broken Limbs
6	0	ZZ Unknown tree	ZZ Unknown tree	0	Dead	YES	0	0.0	0	0	Missing.	
7	32	cedar, deodar	Cedrus deodara	64	Fair	NO	1	10.0	48	2	Excessive mulch. Sapsucker damage. Thinning at top. Light dieback.	Full Crown. Large DW (3"+). Small DW (1-2"). Included Bark/Weak Union, Co-Dominant Stems. Stressed. Restricted Rooting Area
8	7	pine, eastern white	Pinus strobus	58	Fair	NO	1	4.0	11	3		One Sided, Small DW (1-2"). Broken Limbs. Suppressed. Restricted Rooting Area
9	7	planetree, London	Platanus hybrida	70	Good	NO	1	4.0	11	3		Broken Limbs. Restricted Rooting Area
10	9	holly, American	Ilex opaca	67	Fair	NO	1	5.0	14	2	Lots of sucker growth.	Trunk Decay, Branch Decay, Broken Limbs. Restricted Rooting Area
11	3	planetree, London	Platanus hybrida	75	Good	NO	1	2.0	5	2	Minor trimmer damage.	Restricted Rooting Area
12	3	zelkova, Japanese	Zelkova serrata	70	Good	NO	1	2.0	5	2		Restricted Rooting Area

Tree #	DBH (Diameter at 4.5 feet above grade)	Common Name	Botanical Name	Condition Rating %	Condition Rating	Dead Tree (Y/N)	Number of Stems	SCRZ: Structural Critical Root Zone (Critical Root Radius in Feet)	CRZ: Critical Root Zone (Tree Protection Radius in Feet)	Priority (1-4)	Additional Notes	Condition Notes
13	10	magnolia, saucer	Magnolia x soulangiana	66	Fair	NO	1	6.0	15	2	Poor pruning cuts.	Branch Decay. Included Bark/Weak Union. Co-Dominant Stems. Stressed. Restricted Rooting Area
14	4,3,3	crapemyrtle, common	Lagerstroemia indica	39	Poor	NO	3	4.0	9	4	DBH @ 1'. Topped. Low vigor.	Small DW (1-2"). Branch Decay. Stressed. Serious Decline. Restricted Rooting Area
15	4,3	crapemyrtle, common	Lagerstroemia indica	41	Poor	NO	2	3.0	8	4	DBH @ 1'. Topped. Low vigor. One stem dead.	Small DW (1-2"). Branch Decay. Stressed. Serious Decline. Restricted Rooting Area
16	4,3,3,3	crapemyrtle, common	Lagerstroemia indica	45	Poor	NO	4	4.0	10	4	DBH @ 1'. Topped. Low vigor. Additional tree not on plan.	Small DW (1-2"). Branch Decay. Stressed. Restricted Rooting Area
17	4,3	crapemyrtle, common	Lagerstroemia indica	50	Fair	NO	2	3.0	8	4	DBH @ 1'. Topped. Low vigor.	Small DW (1-2"). Branch Decay. Stressed. Restricted Rooting Area
18	3,3,3	crapemyrtle, common	Lagerstroemia indica	55	Fair	NO	3	3.0	8	4	DBH @ 1'. Topped.	Small DW (1-2"). Trunk Decay. Branch Decay. Stressed. Restricted Rooting Area
19	3,3,2,2	crapemyrtle, common	Lagerstroemia indica	61	Fair	NO	4	3.0	8	4	DBH @ 1'. Topped.	Small DW (1-2"). Branch Decay. Restricted Rooting Area
20	21	planetree, London	Platanus hybrida	55	Fair	NO	1	9.0	31	3	Poor pruning cuts.	Small DW (1-2"). Branch Decay. Broken Limbs. Stressed. Restricted Rooting Area
21	21	planetree, London	Platanus hybrida	43	Poor	NO	1	9.0	31	3	Poor pruning cuts.	Large DW (3"+). Small DW (1-2"). Trunk Decay. Branch Decay. Broken Limbs. Stressed. Restricted Rooting Area
22	38	oak, willow	Quercus phellos	71	Good	NO	1	11.0	57	1	0.5" girdling root. Heading cuts.	Small DW (1-2"). Girdling Roots



EROSION AND SEDIMENT CONTROL LEGEND

LIMITS OF DISTURBANCE	LOD	3.05	TEMPORARY SILT FENCE	SF	
LIMITS OF WORK	LOW	3.07	STORM DRAIN INLET PROTECTION	IP	
CRITICAL ROOT ZONE	CRZ	3.26	DEWATERING STRUCTURE	DS	
3.31 TEMPORARY SEEDING	TS	3.38	TREE PROTECTION FENCE	TP	TP
3.32 PERMANENT SEEDING	PS	TREE PROTECTION		EXTR-01	EX. TREE NUMBER
		TREE REMOVAL			

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18TH STREET SOUTH

E&S CONTROL PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
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SHEET C031.2

REVISED ON 11/08/2016

18TH STREET SOUTH

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION:

18TH STREET SOUTH IMPROVEMENTS PROPOSED BETWEEN SOUTH EADS STREET AND SOUTH FERN STREET, ARLINGTON COUNTY, VA. THE PROJECT INCLUDES THE STREET REALIGNMENT OF CURBS, BIKE LANE, PARKING, MEDIANS, AND TRAVEL LANES.

EXISTING SITE CONDITIONS:

THE PROJECT SITE IS A BUSINESS AREA AND CONSISTS MOSTLY OF IMPERVIOUS AREA (ASPHALT ROADWAY AND CONCRETE SIDEWALK). SUFFICIENT STORM DRAINAGE SYSTEM IS IN PLACE AND THERE IS NO KNOWN RECORD OF FLOODING IN THE AREA.

ADJACENT PROPERTIES:

EAST - THE AREA TO THE EAST OF THE PROJECT CONSISTS OF SOUTH EADS STREET.
WEST - THE AREA TO THE WEST OF THE PROJECT CONSISTS OF THE CONTINUATION OF 18TH STREET SOUTH BEYOND FERN STREET.
NORTH - MULTI-STORY RESIDENTIAL HOUSING AND AN ELECTRICAL SUB STATION.
SOUTH - MULTI-STORY RESIDENTIAL HOUSING AND SINGLE FAMILY HOUSING.

OFF-SITE AREAS:

THE EXTENT OF OFFSITE CONSTRUCTION IS LIMITED TO CONNECTING TO PROPOSED IMPROVEMENTS TO THE EXISTING STREETS, AND CONNECTING PROPOSED UTILITIES TO EXISTING UTILITIES.

CRITICAL AREAS:

AS THE PROJECT AREA IS WITHIN THE EXISTING ROADWAY, THERE ARE NO EXISTING EROSION PROBLEMS IDENTIFIED.

EROSION AND SEDIMENT CONTROL MEASURES:

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

PERMANENT STABILIZATION:

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

STORMWATER RUNOFF CONSIDERATIONS:

NO ADDITIONAL IMPERVIOUS AREA WILL BE ADDED TO THIS PROJECT.

TOTAL LIMITS OF WORK.....= 3.1003 ACRES (135,050 SF)
TOTAL LAND DISTURBANCE.....= 2.7221 ACRES (118,576 SF)
PRE-IMPROVEMENT IMPERVIOUS AREA.....= 2.5251 ACRES (109,993 SF)
POST-IMPROVEMENT IMPERVIOUS AREA....= 2.3741 ACRES (103,415 SF)
INCREASED IMPERVIOUS AREA.....= -0.1510 ACRES (-6,578 SF)

SOILS INFORMATION:

THE FOLLOWING SOILS ARE FOUND ON SITE

SOIL#:	SOIL NAME:	HYDROLOGIC GROUP:	ERODABILITY:
12	URBAN LAND-UDORTHENTS	VARIES (ASSUMED AS GROUP D)	N/A

URBAN LAND-UDORTHENTS COMPLEX, 2% TO 15% SLOPES. THIS MAPPING UNIT CONSISTS OF AREAS WHERE MORE THAN 85% OF THE SURFACE IS URBAN LAND, COVERED BY BUILDINGS, ASPHALT, CONCRETE, OR OTHER IMPERVIOUS MATERIALS. THE OTHER 15% CONSISTS OF AREAS OF DEEP TO VERY DEEP, NEARLY LEVEL TO MODERATELY SLOPING, WELL AND MODERATELY WELL DRAINED SOILS. THE URBAN LAND AND UDORTHENTS ARE SO INTERMINGLED IT WAS NOT PRACTICAL TO MAP THEM SEPARATELY. THIS UNIT IS ABOUT 85% URBAN LAND, 10% UDORTHENTS, AND 5% OTHER SOILS.
THE UDORTHENTS CONSIST OF MATERIAL THAT HAS BEEN GRADED, CUT, FILLED, OR OTHERWISE DISTURBED DURING URBANIZATION. THE DISTURBED MATERIAL IS LOAMY AND GENERALLY REFLECTS THE SOILS IN THE ADJACENT AREA.

WATERSHED INFORMATION:

ROACHES RUN WATERSHED - 461.00 AC
VIRGINIA HIGHLAND WATERSHED - 309.00 AC
REFER TO SHEET C081.1 FOR OUTFALL INFORMATION

FLOODPLAIN AND RESOURCE PROTECTION AREA (RPA):

THERE ARE NO FLOODPLAIN OR RESOURCE PROTECTION AREAS LOCATED WITHIN THIS PROJECT SITE. FLOOD ZONE X PER FIRM MAP 51013C0081C EFF. DATE 8/19/2013.

EROSION & SEDIMENT CONTROL PROJECT PHASING

1. **PHASE I:**
   a. PRE-CONSTRUCTION MEETING WITH THE PROJECT OFFICER, CONTRACTOR, AND COUNTY INSPECTOR.
   b. INSTALL THE TEMPORARY CONSTRUCTION ENTRANCE (IF NEEDED). MUD AND DEBRIS SHALL BE WASHED FROM ALL TRUCKS EXISTING THE SITE.
   c. INSTALL PERIMETER TREE DEMARCATION FENCING IN THE FORM OF TREE PROTECTION FENCE (TP) AS SHOWN ON E&S PLAN.
   d. PERFORM INITIAL PERIMETER CLEARING TO INSTALL REMAINDER OF PERIMETER CONTROLS SUCH AS SILT FENCE (SF) AND INLET PROTECTION (IP) FOR EXISTING STRUCTURES AS PER THE PLAN.
   e. SEED AND MULCH ALL EARTHEN CONTROLS.
   f. CONTACT ARLINGTON COUNTY PROJECT OFFICER FOR A PERIMETER INSPECTION PRIOR TO CLEARING THE REMAINDER OF THE SITE IN ORDER TO OBTAIN PHASE II GRADING PERMIT.
   g. CLEAR THE SITE TO THE LIMITS AS SHOWN ON THE CONSTRUCTION PLANS.
2. **PHASE II:**
   a. BEGIN UTILITY CONSTRUCTION, INSTALL ALL UTILITIES UNDERGROUND UTILITIES AND BEGIN SITE GRADING.
   b. INLET PROTECTION (IP) SHALL BE PROVIDED AT STORM DRAIN INLETS AS THEY ARE CONSTRUCTED.
   c. ONCE THE SITE IS BOUGHT TO NEAR FINAL GRADE, AND THE UTILITY CONSTRUCTION IS COMPLETE, COMMENCE CONSTRUCTION OF CURB & GUTTER, STREET, SIDEWALKS, AND OTHER IMPROVEMENTS
   d. THE CONTROL MEASURES MAY NOT BE REMOVED UNTIL ALL OF THE DISTURBED AREAS HAVE BEEN STABILIZED AND ONLY AS APPROVED AND DIRECTED BY THE INSPECTOR.

RUNOFF SHALL BE TREATED WITH SILT FENCE AND INLET PROTECTION PRIOR TO ENTERING MAJOR STORM SEWER SYSTEMS.

EROSION AND SEDIMENT CONTROL MEASURES

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

1. STRUCTURAL PRACTICES

a. TEMPORARY CONSTRUCTION ENTRANCE - VESCH 3.02
   a.a. A TEMPORARY CONSTRUCTION ENTRANCE WITH A WASH RACK SHALL BE INSTALLED AT THE EXISTING ACCESS POINT TO THE SITE. DURING MUDDY CONDITIONS, DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE RE-ENTERING THE LOCAL ROADWAYS.
   a.b. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC WASHING OF THE MATS AND/OR REPLACEMENT OF WOOD CHIPS AS NECESSARY.
   a.c. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
   a.d. THE USE OF WATER TRUCKS TO REMOVE MATERIALS DROPPED, WASHED, OR TRACKED INTO ROADWAYS WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.
b. SILT FENCE - VESCH 3.05
   b.a. SILT FENCE WILL BE INSTALLED WITH THE E&S PLAN TO FILTER RUNOFF FROM DISTURBED AREAS. RUNOFF SHALL NOT BE DIRECTED PARALLEL TO THE INSTALLATION OF SILT FENCE.
   b.b. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
   b.c. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE RESULTING FROM UNDERCUTTING.
   b.d. SHOULD THE FABRIC ON A SILT FENCE DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE, THE FABRIC SHALL BE REPLACED IMMEDIATELY.
   b.e. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
   b.f. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, THEN PREPARED AND SEEDED.
c. STORM DRAIN INLET PROTECTION - VESCH 3.07
   c.a. ALL EXISTING & PROPOSED STORM SEWER INLETS IN AND AROUND THE PROJECT LIMITS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS.
   c.b. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN EVENT AND REPAIRS SHALL BE MADE AS NECESSARY.
   c.c. STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
d. DEWATERING STRUCTURE - VESCH 3.26
   d.a. SEDIMENT LADEN OR TURBID WATER SHALL BE FILTERED, SETTLED OR SIMILARLY TREATED PRIOR TO DISCHARGE.
   d.b. THE FILTERING DEVICES MUST BE INSPECTED FREQUENTLY AND REPAIRED OR REPLACED ONCE THE SEDIMENT BUILD-UP PREVENTS THE STRUCTURE FROM FUNCTIONING AS DESIGNED.
   d.c. THE ACCUMULATED SEDIMENT WHICH IS REMOVED FROM A DEWATERING DEVICE MUST BE SPREAD ON-SITE AND STABILIZED OR DISPOSED OF AT AN APPROVED DISPOSAL SITE AS PER THE APPROVED PLAN.
e. TREE PROTECTION - VESCH 3.38
   e.a. ALL TREES ARE TO BE PROTECTED UNLESS OTHERWISE DIRECTED BY THE COUNTY INSPECTOR AND URBAN FORESTER. THE COUNTY'S URBAN FORESTER (703-228-1863) SHALL INSPECT ALL TREE PROTECTION 72 HOURS PRIOR TO THE START OF CONSTRUCTION. IN SPITE OF PRECAUTIONS, SOME DAMAGE TO PROTECTED TREES MAY OCCUR. IN SUCH CASES, THE FOLLOWING MAINTENANCE GUIDELINES SHALL BE FOLLOWED:
      e.a.a. SOIL AERATION: IF THE SOIL HAS BECOME COMPACTED OVER THE ROOT ZONE OF ANY TREE, THE GROUND SHALL BE AERATED BY PUNCHING HOLES WITH AN IRON BAR. THE BAR SHALL BE DRIVEN 1-FOOT DEEP AND THEN MOVED BACK AND FORTH UNTIL THE SOIL IS LOOSENED. THIS PROCEDURE SHALL BE REPEATED EVERY 18 INCHES UNTIL ALL OF THE COMPACTED SOIL BENEATH THE CROWN OF THE TREE HAS BEEN LOOSENED.
      e.a.b. REPAIR OF DAMAGE:
         e.a.A.a. ANY DAMAGE TO THE CROWN, TRUNK, OR ROOT SYSTEM OF ANY TREE RETAINED ON THE SITE SHALL BE REPAIRED IMMEDIATELY.
         e.a.A.b. WHENEVER MAJOR ROOT OR BARK DAMAGE OCCURS, REMOVE SOME FOLIAGE TO REDUCE THE DEMAND FOR WATER AND NUTRIENTS.
         e.a.A.c. DAMAGED ROOTS SHALL IMMEDIATELY BE CUT OFF CLEANLY INSIDE THE EXPOSED OR DAMAGED AREA. CUT SURFACES SHALL BE PAINTED WITH APPROVED TREE PAINT, AND MOIST PEAT MOSS, BURLAP, OR TOPSOIL SHALL BE SPREAD OVER THE EXPOSED AREA.
         e.a.A.d. TO TREAT BARK DAMAGE, CAREFULLY CUT AWAY ALL LOOSENED BARK BACK INTO THE UNDAMAGED AREA, TAPER THE CUT AT THE TOP AND BOTTOM, AND PROVIDE DRAINAGE AT THE BASE OF THE WOUND.
         e.a.A.e. ALL TREE LIMBS DAMAGED DURING CONSTRUCTION OR REMOVED FOR ANY OTHER REASON SHALL BE CUT OFF ABOVE THE COLLAR AT THE PRECEDING BRANCH JUNCTION.
         e.a.A.f. CARE FOR SERIOUS INJURIES SHALL BE PRESCRIBED BY A FORESTER OR A TREE SPECIALIST.
   e.b. FERTILIZATION: BROADLEAF TREES THAT HAVE BEEN STRESSED OR DAMAGED SHALL RECEIVE A HEAVY APPLICATION OF FERTILIZER TO AID THEIR RECOVERY.
      e.b.a. TREES SHALL BE FERTILIZED IN THE LATE FALL (AFTER OCTOBER 1) OR THE EARLY SPRING (FROM THE TIME FROST IS OUT OF THE GROUND UNTIL MAY 1). FALL APPLICATIONS ARE PREFERRED, AS THE NUTRIENTS WILL BE MADE AVAILABLE OVER A LONGER PERIOD OF TIME.
      e.b.b. FERTILIZER SHALL BE APPLIED TO THE SOIL OVER THE FEEDER ROOTS. IN NO CASE SHALL IT BE APPLIED CLOSER THAN 3 FEET TO THE TRUNK. THE ROOT SYSTEM OF CONIFERS EXTENDS SOME DISTANCE BEYOND THE DRIP LINE. INCREASE THE AREA TO BE FERTILIZED BY ONE FOURTH THE AREA OF THE CROWN.
      e.b.c. FERTILIZER SHALL BE APPLIED USING APPROVED FERTILIZATION METHODS AND EQUIPMENT.
      e.b.d. FORMULATIONS AND APPLICATION RATES SHALL CONFORM TO THE GUIDELINES GIVEN IN TABLE 3.38-A OF VESCH.

2. VEGETATIVE PRACTICES

a. TEMPORARY SEEDING - VESCH 3.31
   a.a. ALL DENUDED AREAS, WHICH WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED.
   a.b. SEE SHEET III-288 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) FOR ALLOWABLE PLANTING MATERIAL, SEEDING RATES, AND DATES. THE PLANTING REQUIREMENTS OF THE "SOUTH" SHALL BE FOLLOWED. LIMING SHALL BE BASED ON TABLE 3.31-A OF VESCH. FERTILIZERS SHALL BE APPLIED AS 600 LB/ACRE. THE FERTILIZER SHALL BE INCORPORATED INTO THE TOP 2-4" OF SOIL. SEED SHALL BE EVENLY APPLIED AND SMALL GRAINS SHALL BE PLANTED NO MORE THAN 1.5" DEEP. SEEDING MADE IN FALL FOR WINTER COVER AND DURING HOT SUMMER MONTHS SHALL BE MULCHED.
b. PERMANENT SEEDING - VESCH 3.32
   b.a. SINCE THE SUBJECT SITE IS LOCATED WITHIN THE COASTAL PLAIN AREA OF VIRGINIA, SHEET III-304 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE FOLLOWED FOR FINAL SEEDING MATERIAL, SEEDING RATES, AND DATES OF APPLICATION.
c. SODDING - VESCH 3.33
   c.a. SODDED AREAS SHALL BE BROUGHT TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLANS. SOIL TESTS SHALL BE MADE TO DETERMINE THE EXACT REQUIREMENTS FOR LIME AND FERTILIZER. PRIOR TO LAYING SOD, SOIL SURFACE SHALL BE CLEAR OF TRASH, DEBRIS AND LARGE OBJECTS. QUALITY OF SOD SHALL BE STATE CERTIFIED TO ENSURE GENETIC PURITY AND HIGH QUALITY. SOD SHALL NOT BE LAID ON FROZEN SOIL SURFACE, OR IN EXCESSIVELY WET OR DRY WEATHER. SOD SHALL BE DELIVERED AND INSTALLED WITHIN 36 HOURS, AND SHALL BE INSTALLED PER PAGE III-339 OF VESCH.

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

EROSION AND SEDIMENT CONTROL MANAGEMENT MEASURES

LANDSCAPE / TREE PRESERVATION NOTES

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

LAND CONSERVATION NOTES:

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

EROSION & SEDIMENT CONTROL PROGRAM:

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

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.
2. THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.
4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.
5. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN THE AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION AND SEDIMENT CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY.
6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.
7. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.
8. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
9. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
10. ALL BIOFILTERS SHALL BE KEPT OFF-LINE UNTIL CONSTRUCTION IS COMPLETED AND ALL AREAS HAVE BEEN PROPERLY STABILIZED. THIS SHALL BE ACHIEVED BY USING INLET PROTECTION AT THE CURB CUTS AND STORMWATER CATCH BASINS LEADING DIRECTLY INTO THE BIOFILTERS.
11. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED.

PRE-STORM EROSION & SEDIMENTATION CHECKLIST:

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

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

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

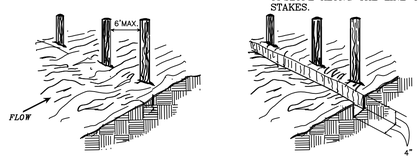
IN ADDITION TO THESE PRE-STORM ACTIONS, ALL EROSION AND SEDIMENT CONTROL (ESC) MEASURES MUST BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL.

POLLUTION PREVENTION PLAN NOTES (STORMWATER MANUAL - SECTION 2.4)

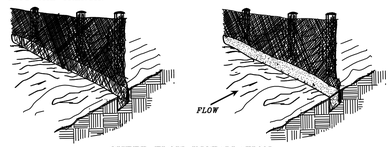
1. ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S MS4 PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFACE WATERS:
   a.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

CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)

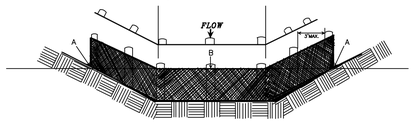
1. SET THE STAKES.
2. EXCAVATE A 4"X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.



3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.
4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



SHEET FLOW INSTALLATION
(PERSPECTIVE VIEW)



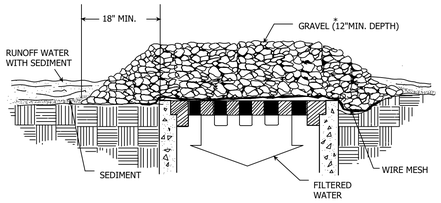
POINTS A SHOULD BE HIGHER THAN POINT B.

DRAINAGEWAY INSTALLATION
(FRONT ELEVATION)

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

PLATE. 3.05-2

GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER



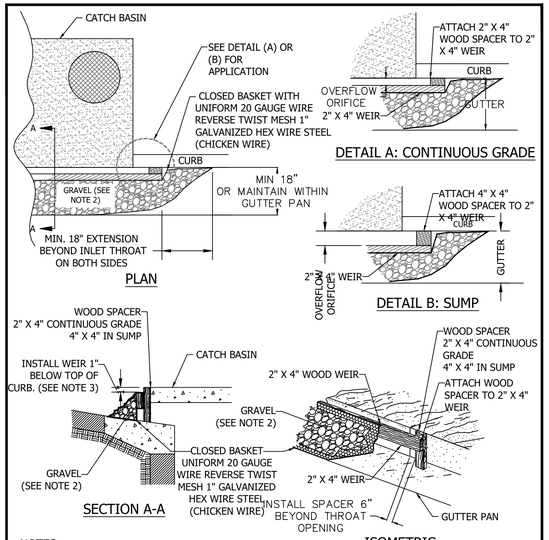
SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

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

SOURCE: VA. DSWC

PLATE. 3.07-2



NOTES

1. DIMENSIONAL LUMBER SIZES SHOW.
2. GRAVEL SHALL BE VDOT COARSE AGGREGATE #3, # 357 OR #5.
3. WEIR HEIGHT MAY BE ADJUSTED BY PROJECT OFFICER OR INSPECTOR IN FLOOD PRONE AREAS.
4. PAINT 2"X4" WEIR, CLOSED BASKET, AND GUTTER WITH HIGH VISIBILITY INCANDESCENT ORANGE PAINT.
5. REMOVE SEDIMENT AFTER EACH RAIN EVENT TO MAINTAIN FUNCTION AND AVOID PREMATURE CLOGGING. IF INLET PROTECTION DOES NOT COMPLETELY DRAIN WITHIN 24 HOURS AFTER A STORM EVENT, IT IS CLOGGED. WHEN THIS OCCURS, REMOVE ACCUMULATED SEDIMENT AND CLEAN, OR REPLACE THE PROTECTION.

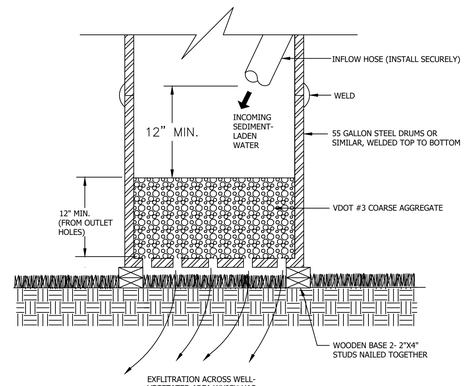
CURB INLET PROTECTION

REVISION & DATE

ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. 3.07-7 (ACG)

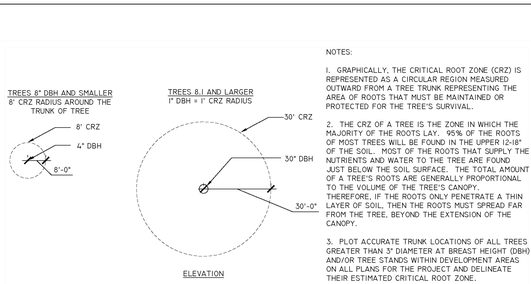
FILTER BOX



ELEVATION VIEW

SOURCE: VA. DSWC

PLATE: 3.26-2



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.

TREE PROTECTION DETAIL FOR DETERMINING CRITICAL ROOT ZONE

311300.3 (2019)

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TABLE 3.32-D
(Revised June 2003)
PERMANENT SEEDING SPECIFICATIONS FOR PIEDMONT AREA

SEED[1]		
LAND USE	**SPECIES**	**APPLICATION PER ACRE**
Minimum Care Lawn (Commercial or Residential)	Tall Fescue[1] Perennial Ryegrass Kentucky Bluegrass[1]	95-100% 0-5% 0-5% TOTAL 175-200 lbs.
High-Maintenance Lawn	Tall Fescue[1]	TOTAL 200-250 lbs.
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] Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop[2] Crownvetch[3]	108 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 16th - April	Annual Rye
May 1st - August 15th	Foxtail Millet
August 16th - October	Annual Rye
November - February 15th	Winter Rye

3 - Substitute Sericea lespedeza for Crownvetch east of Farmville, VA (May through September use hulled seed, all other periods, use unhulled Sericea). If Flatpea is used, increase rate to 30 lbs./acre. If Weeping Lovegrass is used, include in any slope or low maintenance mixture during warmer seeding periods, increase to 30 -40

FERTILIZER & LIME

- 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

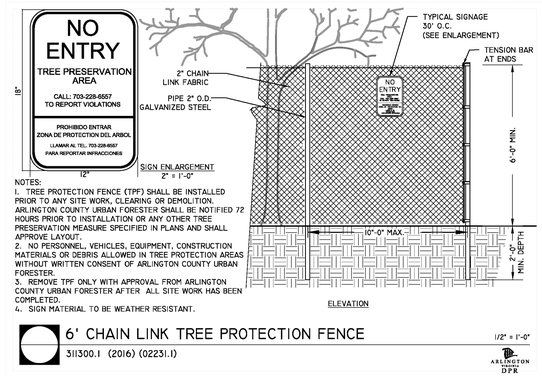
TABLE 3.31-B
(Revised June 2003)
TEMPORARY SEEDING SPECIFICATIONS
QUICK REFERENCE FOR ALL REGIONS

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

FERTILIZER & LIME

- 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



NOTES:
1. TREE PROTECTION FENCE (TPF) SHALL BE INSTALLED PRIOR TO ANY SITE WORK, CLEARING OR DEMOLITION. ARLINGTON COUNTY URBAN FORESTER SHALL BE NOTIFIED 72 HOURS PRIOR TO INSTALLATION OR ANY OTHER TREE PRESERVATION MEASURE SPECIFIED IN PLANS AND SHALL APPROVE LAYOUT.
2. NO PERSONNEL, VEHICLES, EQUIPMENT, CONSTRUCTION MATERIALS OR DEBRIS ALLOWED IN TREE PROTECTION AREAS WITHOUT WRITTEN CONSENT OF ARLINGTON COUNTY URBAN FORESTER.
3. REMOVE TPF ONLY WITH APPROVAL FROM ARLINGTON COUNTY URBAN FORESTER AFTER ALL SITE WORK HAS BEEN COMPLETED.
4. SIGN MATERIAL TO BE WEATHER RESISTANT.

6' CHAIN LINK TREE PROTECTION FENCE

311300.1 (2016) (02231.1)

1/2" = 1'-0"

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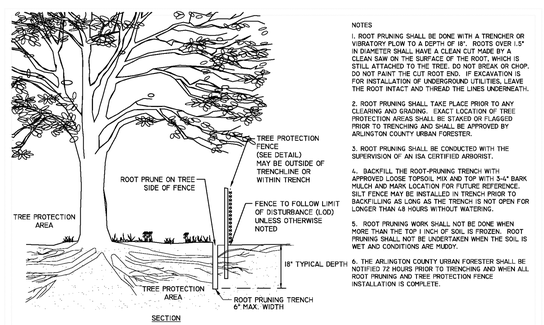

NOTES

1. ROOT PRUNING SHALL BE DONE WITH A TRENCHER OR VIBRATORY PLOW TO A DEPTH OF 18". ROOTS OVER 1.5" IN DIAMETER SHALL HAVE A CLEAN CUT MADE BY A CLEAN SAW ON THE SURFACE OF THE ROOT, WHICH IS STILL ATTACHED TO THE TREE. DO NOT BREAK OR CHOP. DO NOT PAINT THE CUT ROOT END. IF EXCAVATION IS FOR INSTALLATION OF UNDERGROUND UTILITIES, LEAVE THE ROOT INTACT AND THREAD THE LINES UNDERNEATH.

2. ROOT PRUNING SHALL TAKE PLACE PRIOR TO ANY CLEARING AND GRADING. EXACT LOCATION OF TREE PROTECTION AREAS SHALL BE STAKED OR FLAGGED PRIOR TO TRENCHING AND SHALL BE APPROVED BY ARLINGTON COUNTY URBAN FORESTER.

3. ROOT PRUNING SHALL BE CONDUCTED WITH THE SUPERVISION OF AN ISA CERTIFIED ARBORIST.

4. BACKFILL THE ROOT-PRUNING TRENCH WITH APPROVED LOOSE TOPSOIL MIX AND TOP WITH 3-4" BARK MULCH AND MARK LOCATION FOR FUTURE REFERENCE. SILT FENCE MAY BE INSTALLED IN TRENCH PRIOR TO BACKFILLING AS LONG AS THE TRENCH IS NOT OPEN FOR LONGER THAN 48 HOURS WITHOUT WATERING.

5. ROOT PRUNING WORK SHALL NOT BE DONE WHEN MORE THAN THE TOP 1 INCH OF SOIL IS FROZEN. ROOT PRUNING SHALL NOT BE UNDERTAKEN WHEN THE SOIL IS WET AND CONDITIONS ARE MUDDY.

6. THE ARLINGTON COUNTY URBAN FORESTER SHALL BE NOTIFIED 72 HOURS PRIOR TO TRENCHING AND WHEN ALL ROOT PRUNING AND TREE PROTECTION FENCE INSTALLATION IS COMPLETE.

ROOT PRUNING

311300.5 (2016) (02231.5)

N.T.S.

ARLINGTON DPR

ARLINGTON
VIRGINIA

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FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
ARLINGTON, VA 22201
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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
	6/18/2020
QUALITY CONTROL ENGINEER	6.26.20
Kamal N. Taktak	
CONSTRUCTION MANAGEMENT SUPERVISOR	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Jung	6/17/2020
PROJECT MANAGER	

REVISIONS DATE

18TH STREET SOUTH

E&S CONTROL DETAILS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME: CC20-220-E_AND_S_NOTES_SWPPP.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

N/A

SHEET C032.2

18TH STREET SOUTH

REVISED ON 11/08/2016

_____
date

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

Re: Erosion and Sediment Control Permit Application for:

CC20 - 18th Street South
street address

between S Fern St. & S Eads St.
lot, block, section subdivision

LDA19235
permit number

Dear Mrs. Li:

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

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

I may be reached at 703-228-0596 with questions about this plan or my execution of the duties of
telephone number
Responsible Land Disturber.

Sincerely,

signed

Trevor Lantzy, P.E.
name printed

P.E.# 0402050508
professional registration (type and number)

RESPONSIBLE LAND DISTURBER LETTER FOR PERMITTING PURPOSES ONLY. CONTRACTOR TO SIGN AND SUPPLY ONE PRIOR TO THE START OF CONSTRUCTION.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) COVER PAGE

For Construction Activities At:

CC20 – 18th Street South
Between S Fern St and S Eads St
Arlington, VA 22202

Latitude: 38.8572 N (decimal degrees)

Longitude: -77.0545 W (decimal degrees)

Construction Activity Operator:

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

SWPPP Preparation Date:

January 21, 2019

CERTIFICATION

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

Operator Name: _____

Title: _____

Signature: _____

Date: _____

1.0 SWPPP Documents Located Onsite & Available for Review

SWPPP Document Type	Located Onsite & Available for Review?	
Registration Statement	☐ Yes	☐ NA
Notice of Coverage Letter	☐ Yes	☐ NA
Construction General Permit	☐ Yes	☐ NA
Pollution Prevention Plan	☒ Yes	☐ NA
Erosion & Sediment Control Plan (or agreement in lieu of)	☒ Yes	☐ NA
Stormwater Management Plan	☐ Yes	☐ NA

2.0 Authorized Non-Stormwater Discharges

Type of Authorized Non-Stormwater Discharge	Likely Present at Your Project Site?	
External buildings wash down	☐ Yes	☐ No
Uncontaminated foundation or footing drains	☐ Yes	☐ No
Uncontaminated excavation dewatering	☒ Yes	☐ No
Landscape irrigation	☐ Yes	☐ No
Others [describe]	☐ Yes	☐ No

3.0 Pollution Prevention Awareness

Employees will be given a "walk through" of the site identifying areas of possible pollution and will be shown Erosion and Sediment Controls and Pollution Prevention Practices (identified in Sections 4.0 and 5.0 of this SWPPP) that are applicable to their assigned job duties. A refresher meeting and "walk through" will be conducted on an as needed basis.

4.0 Erosion & Sediment Controls

Select all that apply	Erosion & Sediment Control	Estimated Installation Date	Estimated Removal Date	Responsible Party
☐	Construction Entrance (Std. & Spec. 3.02)			Construction Activity Operator (See Cover Page of this SWPPP)
☒	Silt Fence (Std. & Spec. 3.05)			
☐	Culvert Inlet Protection (Std. & Spec. 3.08)			
☐	Outlet Pipet Protection (Std. & Spec. 3.18)		NA	
☒	Temporary Seeding (Std. & Spec. 3.31)	As required by 3.31	NA	
☒	Permanent Seeding (Std. & Spec. 3.32)		NA	
☐	Sodding (Std. & Spec. 3.33)		NA	
☐	Mulching (Std. & Spec. 3.35)		NA	
☐	Safety Fence (Std. & Spec 3.01)			
☒	Storm Drain Inlet Protection (Std. & Spec 3.08)			

☒	Dewatering (Std. & Spec 3.26)			
☐	Turbidity Curtain (Std. & Spec 3.27)			
☒	Tree Protection (Arlington County Std. & Spec.)			
☐	Others [describe]			

Pre-Storm Erosion and Sediment Control Checklist
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, hay bales, stone berms) used to prevent sediment from leaving the site shall be checked for undermining, holes, or deterioration and repaired/replaced if needed.

☒ Sediment that has accumulated against perimeter controls shall be removed if the depth exceeds more than 1/2 of the silt fence height.

☒ Exposed soil or slopes shall be covered with straw, traps, plastic sheeting, or erosion control matting. Covering material shall be properly secured/anchored.

☒ 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). Stockpiled materials should not obstruct flow along the curb line.

☒ Inlet protection controls shall be inspected to ensure they are installed per approved ESC plan, are functioning properly, and maintained as needed.

5.0 Potential Sources of Pollution & Pollution Prevention Practices

Pollutant-Generating Activity	Likely Present at your Project Site?	Sediment	Nutrients	Heavy Metals	pH (acids and bases)	Pesticides & Herbicides	Oil & Grease	Bacteria & Viruses	Trash, Debris, Solids	Other Toxic Chemicals	Pollution Prevention Practice	Responsible Party
Clearing, grading, excavating, and un-stabilized areas	☒ Yes ☐ No	X							X		(1)	Construction Activity Operator (See Cover Page of this SWPPP)
Paving operations	☒ Yes ☐ No	X					X		X		(2)	
Concrete washout and cement waste	☒ Yes ☐ No			X	X				X		(3)	
Structure construction, stucco, painting, and cleaning	☐ Yes ☒ No			X	X				X	X	(4)	
Dewatering operations	☒ Yes ☐ No	X	X						X		(5)	
Material delivery and storage	☒ Yes ☐ No	X	X	X	X		X		X	X	(6)	
Material use during building process	☐ Yes ☒ No		X	X	X		X		X	X	(7)	
Solid waste disposal	☒ Yes ☐ No								X	X	(8)	
Sanitary waste	☐ Yes ☒ No		X		X			X			(9)	
Landscaping operations	☒ Yes ☐ No	X	X			X			X	X	(10)	
Others [describe]	☐ Yes ☐ No	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	[X]	(11)	

Pollution Prevention Practices:

(1) **Clearing, grading, excavating and un-stabilized areas** – Utilize erosion and sediment controls to prevent sediment laden or turbid runoff from leaving the construction site. Dispose of clearing debris at acceptable disposal sites. Apply permanent or temporary stabilization, sodding and/or mulching to denuded areas in accordance with the erosion and sediment control specifications and the general VPDES permit for discharges of stormwater from construction activities.

(2) **Paving operations** – Cover storm drain inlets during paving operations and utilize pollution prevention materials such as drip pans and absorbent/oil dry for all paving machines to limit leaks and spills of paving materials and fluids.

(3) **Concrete washout and cement waste** – Direct concrete wash water into a leak-proof container or leak-proof settling basin that is designed so that no overflows can occur due to inadequate sizing or precipitation. Hardened concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wastes.

(4) **Structure construction, stucco, painting and cleaning** – Enclose, cover or berm building material storage areas if susceptible to contaminated stormwater runoff. Conduct painting operations consistent with local air quality and OSHA regulations. Mix paint indoors, in a containment area or in a flat unpaved area. Prevent the discharge of soaps, solvents, detergents and wash water from construction materials, including the clean-up of stucco paint, form release oils and curing compounds.

(5) **Dewatering operations** – Construction site dewatering from building footings or other sources may not be discharged without treatment. Sediment laden or turbid water shall be filtered, settled or similarly treated prior to discharge.

(6) **Material delivery and storage** – Designate areas of the construction site for material delivery and storage. Place near construction entrances, away from waterways, and avoid transport near drainage paths or waterways.

(7) **Material use during building process** – Use materials only where and when needed to complete the construction activity. Follow manufacturer's instructions regarding uses, protective equipment, ventilation, flammability and mixing of chemicals.

(8) **Solid waste disposal** – Designate a waste collection area on the construction site that does not receive a substantial amount of runoff from upland areas and does not drain directly to a waterway. Ensure that containers have lids so they can be covered before periods of rain, and keep containers in a covered area whenever possible. Schedule waste collection to prevent the containers from overfilling.

(9) **Sanitary waste** – Prevent the discharge of sanitary waste by providing convenient and well-maintained portable sanitary facilities. Locate sanitary facilities in a convenient location away from waterways.

(10) **Landscaping operations** – Maintain as much existing vegetation as practicable. Apply permanent or temporary stabilization, sodding and/or mulching to denuded areas in accordance with the erosion and sediment control specifications and the general VPDES permit for discharges of stormwater from construction activities. Apply nutrients in accordance with manufacturer's recommendations and not during rainfall events.

(11) **Others** – If applicable, describe your Pollution Prevention Practice.

6.0 Stormwater Management Controls

Select all that apply	Stormwater Management Control	Estimated Installation Date	Responsible Party
☐	Post-development Stormwater Management Controls provided by a Larger Common Plan of Development or Sale	NA	Common Plan Construction Activity Operator
☐	Rooftop Disconnection		Construction Activity Operator (See Cover Page of this SWPPP)
☐	Sheet flow to Vegetated Filter (1 or 2)		
☐	Grass Channel		
☐	Rainwater Harvesting		
☐	Permeable Pavement (1 or 2)		

Select all that apply	Stormwater Management Control	Estimated Installation Date	Responsible Party
☐	Infiltration (1 or 2)		Construction Activity Operator (See Cover Page of this SWPPP)
☐	Bioretention (1 or 2)		
☐	Others [describe]		
☐	Exempted	NA	NA

7.0 Spill Prevention & Response

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

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

1. Check for hazards (flammable material, noxious fumes, cause of spill) – if flammable liquid, turn off engines and nearby electrical equipment. If serious hazards are present leave the area and call 911. LARGE SPILLS ARE LIKELY TO PRESENT A HAZARD.
2. Make Sure the spill area is safe to enter and that it does not pose an immediate threat to health or safety of any person.
3. Stop the spill source.
4. Call co-workers and supervisor for assistance and to make them aware of the spill and potential dangers.
5. If possible, stop spill from entering drains (use absorbent or other material as necessary).
6. Stop spill from spreading (use absorbent or other material)
7. If spilled material has entered a storm sewer; contact locality's storm water department.
8. Clean up spilled material according to manufacturer specifications, for liquid spills use absorbent materials and do not flush area with water.
9. Properly dispose of cleaning materials and used absorbent material according to manufacturer specifications.

Emergency Contacts:

Normal Working Hours

DEQ Northern Regional Office 703-583-3800

Nights, Holidays & Weekends

VA Dept. of Emergency Management 804-674-2400
24 Hour Reporting Service

Local Contacts

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

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

Qualified Inspector

Company/Organization:
Name:
Telephone Number:
Qualifications:

Inspection Schedule

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

☒ Once every 4 business days.

Inspection Date:

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

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

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

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

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

Best Management Practices (BMPs)	In Compliance with SWPPP?	Corrective Action Needed; Responsible Party & Notes	Date Corrective Action Taken
Are all construction exits preventing sediment from being tracked onto the adjacent streets?	☐ Yes ☐ No ☐ NA		
Are perimeter controls and sediment barriers adequately installed and maintained?	☐ Yes ☐ No ☐ NA		
Are storm drain inlets properly protected? (on-site and adjacent)	☐ Yes ☐ No ☐ NA		
Are discharge points and receiving waters free of any sediment deposits?	☐ Yes ☐ No ☐ NA		

REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

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

SEAL
COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

STORMWATER PPP
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME: CC20-220-E_AND_S_NOTES_SWPPP.DWG
PATH: Q:\[DATA\(CC20\)DESIGN\CAD\]_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

N/A

SHEET C035.1

18TH STREET SOUTH

Best Management Practices (BMPs)	In Compliance with SWPPP?	Corrective Action Needed; Responsible Party & Notes	Date Corrective Action Taken
Are all slopes and disturbed areas not actively being worked properly stabilized?	☐ Yes ☐ No ☐ NA		
Are washout facilities (e.g., concrete, paint, stucco) available, clearly marked and maintained?	☐ Yes ☐ No ☐ NA		
Is trash/litter from work areas collected and contained in dumpsters?	☐ Yes ☐ No ☐ NA		
Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	☐ Yes ☐ No ☐ NA		
Are natural resources (e.g., streams, wetlands, mature trees) area protected with barriers or similar BMPs?	☐ Yes ☐ No ☐ NA		
Are vehicle and equipment fueling, cleaning and maintenance areas free of spills, leaks, or other deleterious material?	☐ Yes ☐ No ☐ NA		
Are materials that are potential stormwater contaminants stored inside or under cover?	☐ Yes ☐ No ☐ NA		
Are disturbed areas stabilized within 7 days, if areas denuded will remain undisturbed for 14 days?	☐ Yes ☐ No ☐ NA		

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

Certification

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

Operator or Assigned Qualified Personnel Name: _____

Signature: _____

Date: _____

9.0 Grading & Stabilization Activities Log

Date Grading Activity Initiated	Description of the Grading Activity (including location)	Date Grading Activity Ceased	Date Stabilization Measures Initiated	Description of the Stabilization Measure (including location)

10.0 SWPPP Modification & Update Log

Modification Date	Description of the Modification / Update (name & title that request the modification)	Modification Prepared By (name & title)

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

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

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

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

Enter the SWPPP preparation date.

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

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

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

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

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

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

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

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

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

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

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

ARLINGTON
VIRGINIA

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2100 CLARENDON BOULEVARD, SUITE 813
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SEAL

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TREVOR M. LANTZY
Lic. No. 0402050308
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
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WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS DATE

18TH STREET SOUTH

STORMWATER PPP
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

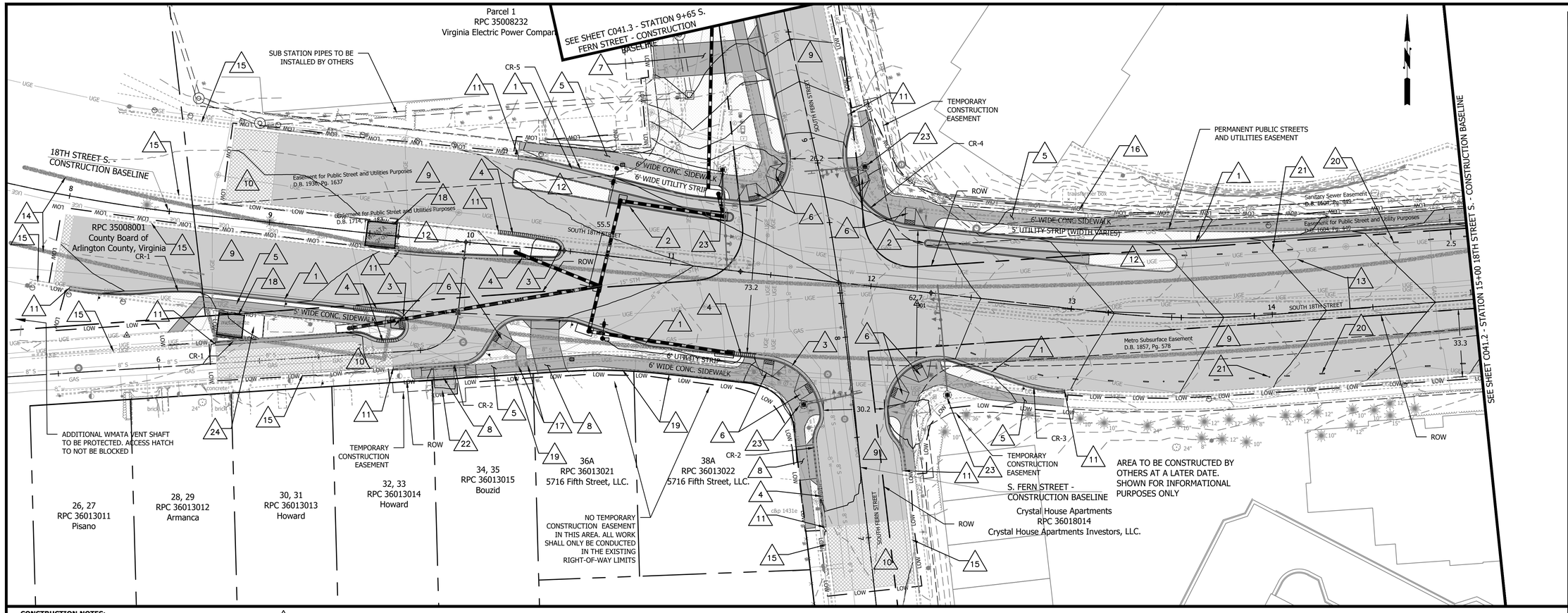
SCALE:

N/A

SHEET C035.2

REVISED ON 11/08/2016

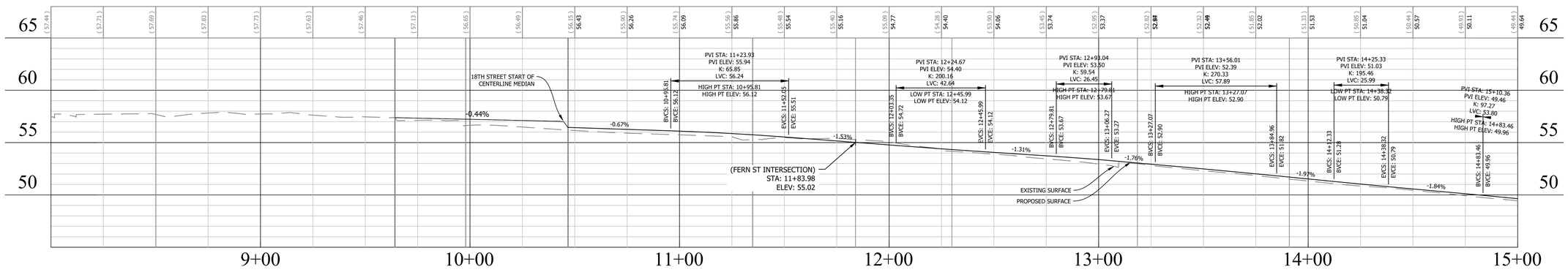
18TH STREET SOUTH



CONSTRUCTION NOTES:

1. PROP CURB AND GUTTER (C-2) ARL STD (R-2.0)
2. PROP HEADER CURB (C-3) ARL STD (R-2.0)
3. PROP REVERSE CURB & GUTTER (C2-R) ARL STD (CR-2.0)
4. CONSTRUCT NEW CURB & GUTTER TRANSITION FROM C-2 PER ARL STD R-2.0 TO C-2R PER ARL STD R-2.0.
5. PROP 4" THICK SIDEWALK ARL STD (R-2.0)
6. PROP MODIFIED RAMP (CG-12) VDOT ROAD & BRIDGE STANDARDS (204 SHEETS) SEE CURB RAMP DETAIL SHEETS
7. PROP COMMERCIAL CONCRETE DRIVEWAY ENTRANCE (STANDARD) ARL STD (R-2.4A) TO MATCH EXISTING WIDTH.
8. PROP RESIDENTIAL CONCRETE DRIVEWAY ENTRANCE 2" DEPRESSION ARL STD (R-2.4B) TO MATCH EXISTING WIDTH.
9. INSTALL FULL DEPTH ASPHALT ROAD PAVEMENT. SEE TYPICAL PAVEMENT DEPTHS AND WP-1 DETAIL ON SHEETS C004.1 - C004.2 AND SHEET C002.1
10. MILL AND OVERLAY EX. ASPHALT PAVEMENT, ASPHALT OVERLAY TRANSITIONS PER VDOT STANDARD DRAWING ACOT-1.
11. MATCH EX CURB IN LINE AND GRADE.
12. RAISED CONCRETE MEDIAN PER ARL STD. DETAIL R-1.4.
13. EXISTING 8" WATER LINE WITH FIRE HYDRANT CONSTRUCTED PRIOR TO CONSTRUCTION BY ON CALL CONTRACTOR.
14. APPROXIMATE LOCATION OF WMATA TUNNEL.
15. EXISTING CURB AND GUTTER TO REMAIN. CONTRACTOR TO REPLACE ANY DAMAGED CURB AND GUTTER IN THE PROJECT AREA DUE TO CONSTRUCTION AT NO ADDITIONAL COST TO ARLINGTON COUNTY. NOTIFY PROJECT OFFICER PRIOR TO CONSTRUCTION
16. EXISTING WALL TO REMAIN.
17. RELOCATE EXISTING WATER METER AND INSTALL FRAME AND COVER PROVIDED BY COUNTY ARL STD (W-8.0 AND W-9.0)
18. INSTALL GRATE COVER PER WMATA GRATE COVER PROTECTION DETAIL ON SHEET C002.1
19. EXISTING FENCE TO BE PROTECTED DURING CONSTRUCTION. IF DAMAGED OR REMOVED IT SHALL BE REPLACED WITH AN EQUAL OR BETTER QUALITY FENCE AT NO EXPENSE TO ARLINGTON COUNTY.
20. CYCLE LANE DELINEATOR. 15' SPACING BETWEEN DELINEATORS. TO BE INSTALLED BY OTHERS.
21. FLEXIBLE DELINEATOR. BETWEEN EVERY 3RD CYCLE LANE DELINEATOR. TO BE INSTALLED BY OTHERS.
22. CONTRACTOR TO INSTALL BRICK PAVERS THAT MATCH THE PATTERN AND SPACING OF THE EXISTING BRICK PAVERS.
23. CONTRACTOR TO INSTALL SIGNAL POLES AND FOUNDATIONS PER THE SIGNAL PLANS. SIGNAL FOUNDATIONS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF VIRGINIA AND SUBMITTED FOR REVIEW.
24. CONTRACTOR TO MAKE SURE THAT WMATA ACCESS SHAFT IS UNBLOCKED DURING CONSTRUCTION AT ALL TIMES.

PR. 18TH S CONSTRUCTION BL STATION: 8+00 - 15+00



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REVISIONS	DATE

18TH STREET SOUTH

PLAN AND PROFILE
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-230-PLAN_PROFILE.DWG
PATH: Q:\[DATA\(CC20)DESIGN\CAD_ACTIVE

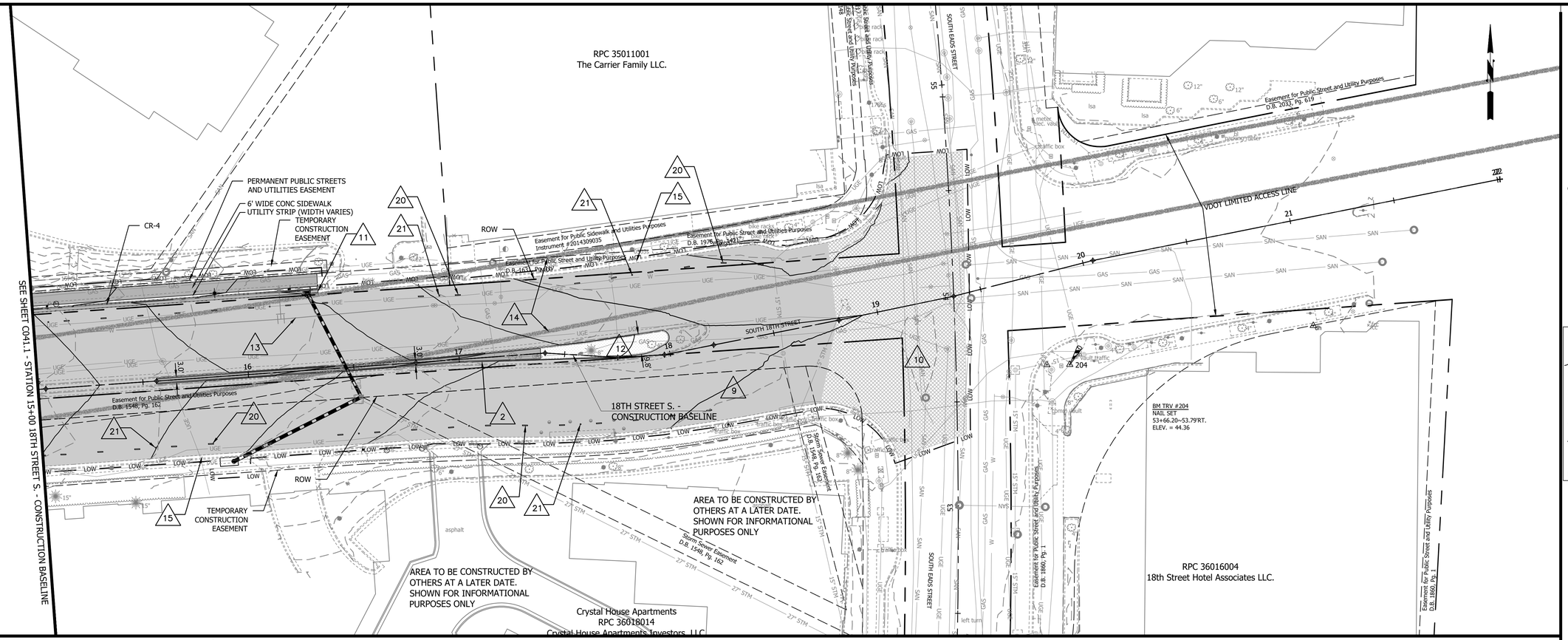
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

HORIZ: 1" = 25'

VERT: 1" = 5'

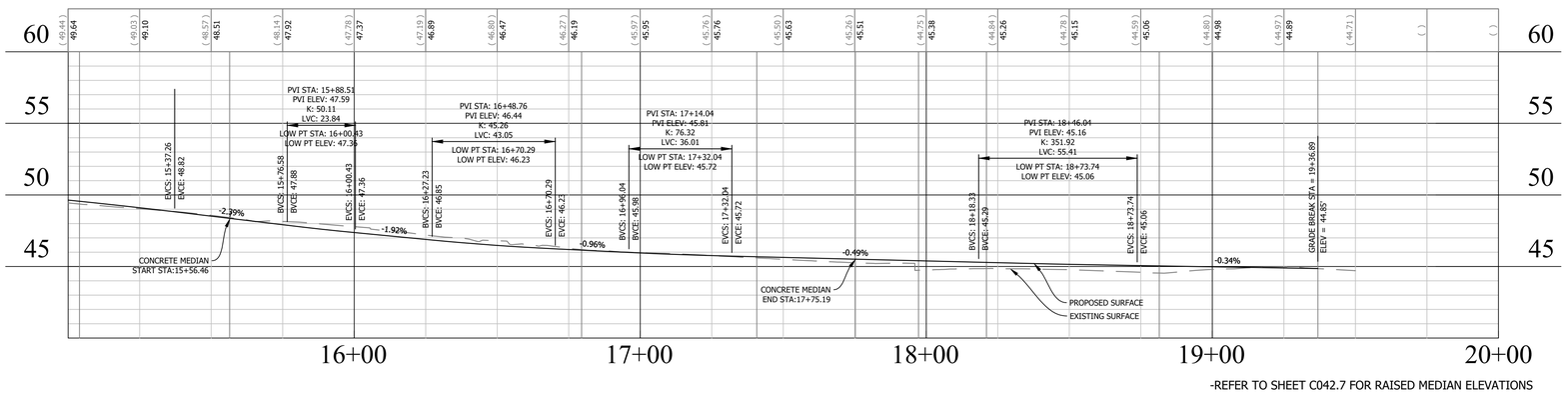
SHEET C041.1



CONSTRUCTION NOTES:

1. PROP CURB AND GUTTER (C-2) ARL STD (R-2.0)
2. PROP HEADER CURB (C-3) ARL STD (R-2.0)
3. PROP REVERSE CURB & GUTTER (C2-R) ARL STD (CR-2.0)
4. CONSTRUCT NEW CURB & GUTTER TRANSITION FROM C-2 PER ARL STD R-2.0 TO C-2R PER ARL STD R-2.0.
5. PROP 4" THICK SIDEWALK ARL STD (R-2.0)
6. PROP MODIFIED RAMP (CG-12) VDOT ROAD & BRIDGE STANDARDS (204 SHEETS) SEE CURB RAMP DETAIL SHEETS
7. PROP COMMERCIAL CONCRETE DRIVEWAY ENTRANCE (STANDARD) ARL STD (R-2.4A) TO MATCH EXISTING WIDTH.
8. PROP RESIDENTIAL CONCRETE DRIVEWAY ENTRANCE 2" DEPRESSION ARL STD (R-2.4B) TO MATCH EXISTING WIDTH.
9. INSTALL FULL DEPTH ASPHALT ROAD PAVEMENT. SEE TYPICAL PAVEMENT DEPTHS AND WP-1 DETAIL ON SHEETS C004.1 - C004.2 AND SHEET C002.1
10. MILL AND OVERLAY EX. ASPHALT PAVEMENT, ASPHALT OVERLAY TRANSITIONS PER VDOT STANDARD DRAWING ACOT-1.
11. MATCH EX CURB IN LINE AND GRADE.
12. RAISED CONCRETE MEDIAN PER ARL STD. DETAIL R-1.4.
13. EXISTING 8" WATER LINE WITH FIRE HYDRANT CONSTRUCTED PRIOR TO CONSTRUCTION BY ON CALL CONTRACTOR.
14. APPROXIMATE LOCATION OF WMATA TUNNEL.
15. EXISTING CURB AND GUTTER TO REMAIN. CONTRACTOR TO REPLACE ANY DAMAGED CURB AND GUTTER IN THE PROJECT AREA DUE TO CONSTRUCTION AT NO ADDITIONAL COST TO ARLINGTON COUNTY. NOTIFY PROJECT OFFICER PRIOR TO CONSTRUCTION
16. EXISTING WALL TO REMAIN.
17. RELOCATE EXISTING WATER METER AND INSTALL FRAME AND COVER PROVIDED BY COUNTY ARL STD (W-8.0 AND W-9.0)
18. INSTALL GRATE COVER PER WMATA GRATE COVER PROTECTION DETAIL ON SHEET C002.1
19. EXISTING FENCE TO BE PROTECTED DURING CONSTRUCTION. IF DAMAGED OR REMOVED IT SHALL BE REPLACED WITH AN EQUAL OR BETTER QUALITY FENCE AT NO EXPENSE TO ARLINGTON COUNTY.
20. CYCLE LANE DELINEATOR. 15' SPACING BETWEEN DELINEATORS. TO BE INSTALLED BY OTHERS.
21. FLEXIBLE DELINEATOR. BETWEEN EVERY 3RD CYCLE LANE DELINEATOR. TO BE INSTALLED BY OTHERS.
22. CONTRACTOR TO INSTALL BRICK PAVERS THAT MATCH THE PATTERN AND SPACING OF THE EXISTING BRICK PAVERS.
23. CONTRACTOR TO INSTALL SIGNAL POLES AND FOUNDATIONS PER THE SIGNAL PLANS. SIGNAL FOUNDATIONS SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF VIRGINIA AND SUBMITTED FOR REVIEW.
24. CONTRACTOR TO MAKE SURE THAT WMATA ACCESS SHAFT IS UNBLOCKED DURING CONSTRUCTION AT ALL TIMES.

PR. 18TH S CONSTRUCTION BL STATION: 15+00 - 20+00



-REFER TO SHEET C042.7 FOR RAISED MEDIAN ELEVATIONS

ARLINGTON
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DEPARTMENT OF ENVIRONMENTAL SERVICES
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ENGINEERING BUREAU
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FAX: 703.228.3606

SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
Kamal N. Tabtabi	6.26.20
CONSTRUCTION MANAGEMENT SUPERVISOR	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Yang	6/17/2020
PROJECT MANAGER	

REVISIONS	DATE

18TH STREET SOUTH

PLAN AND PROFILE
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-230-PLAN_PROFILE.DWG
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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

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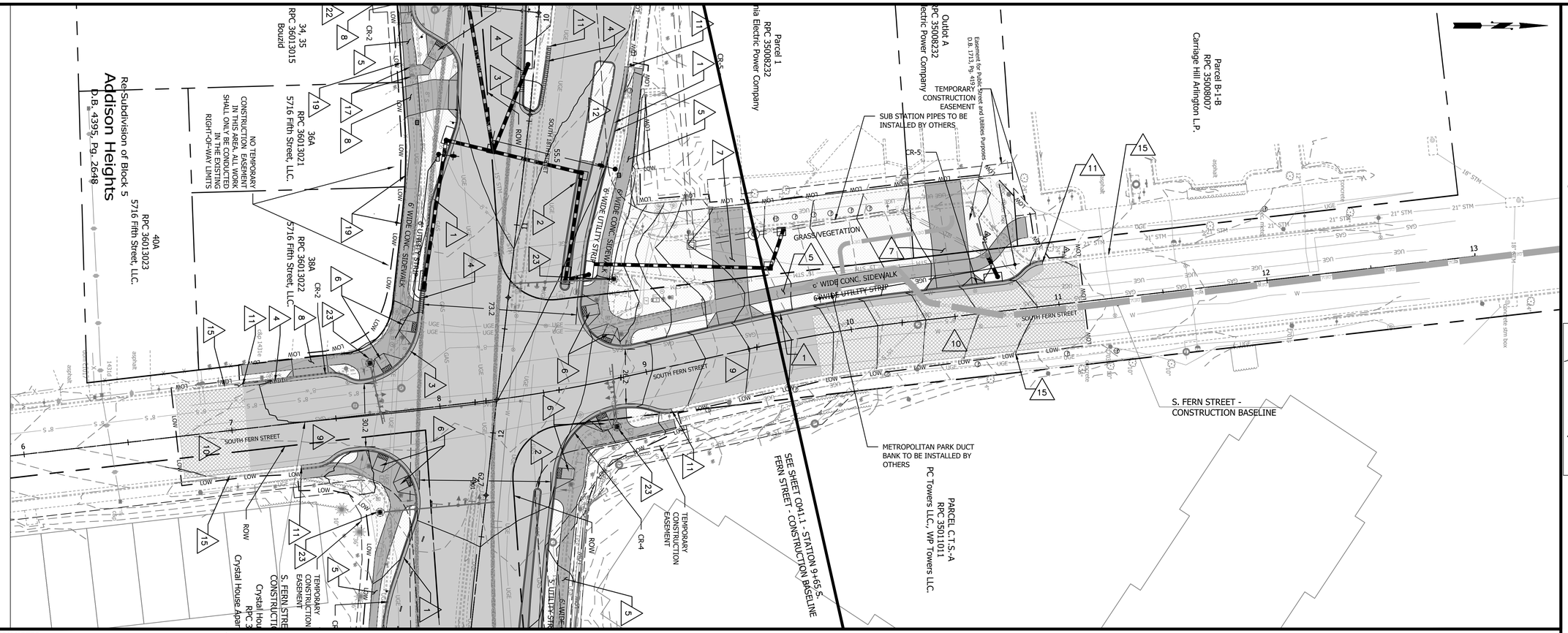
HORIZ: 1" = 25'

5 0 5
VERT: 1" = 5'

SHEET C041.2

18TH STREET SOUTH



CONSTRUCTION NOTES:

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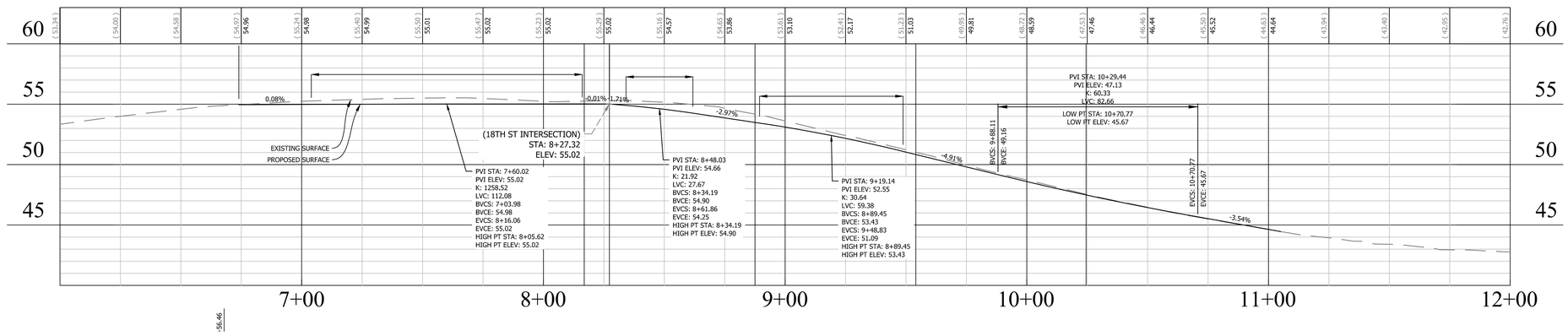
PR. FERN S CONSTRUCTION BL STATION 6+00 - 12+00



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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

PLAN AND PROFILE
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

HORIZ: 1" = 25'

VERT: 1" = 5'

SHEET C041.3

REVISED ON 11/08/2016

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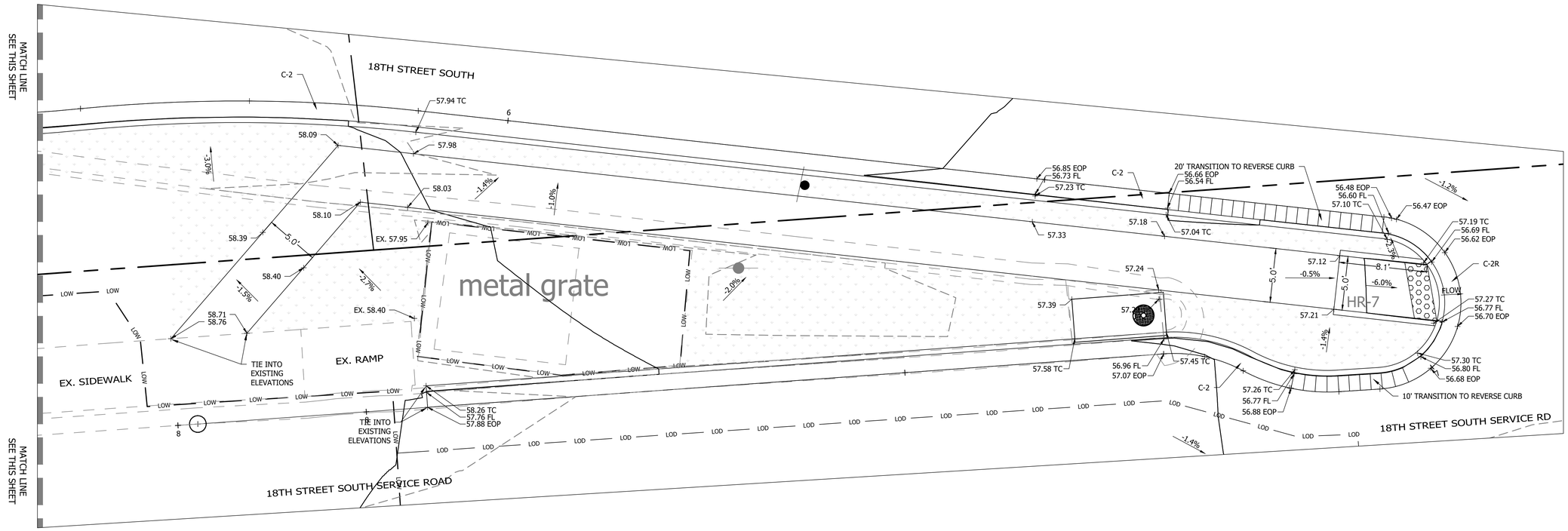
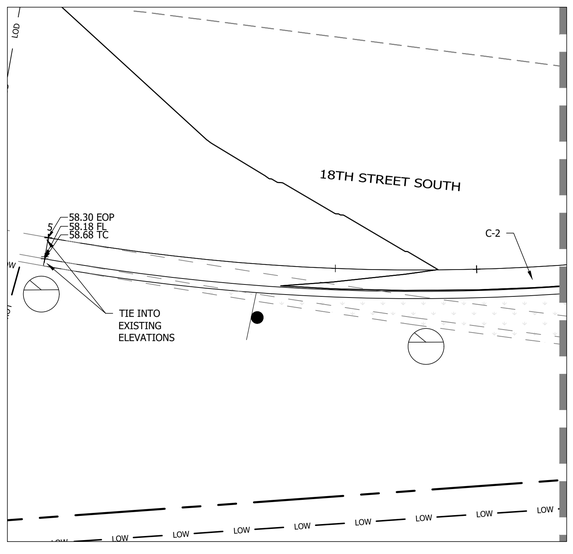


S 18TH ST LEFT OF SERVICE (EOP EASTBOUND) [CR-1]

CG-12 TYPE B

SERVICE ROAD ENTRANCE TO 18TH ST

SCALE: 1" = 5'

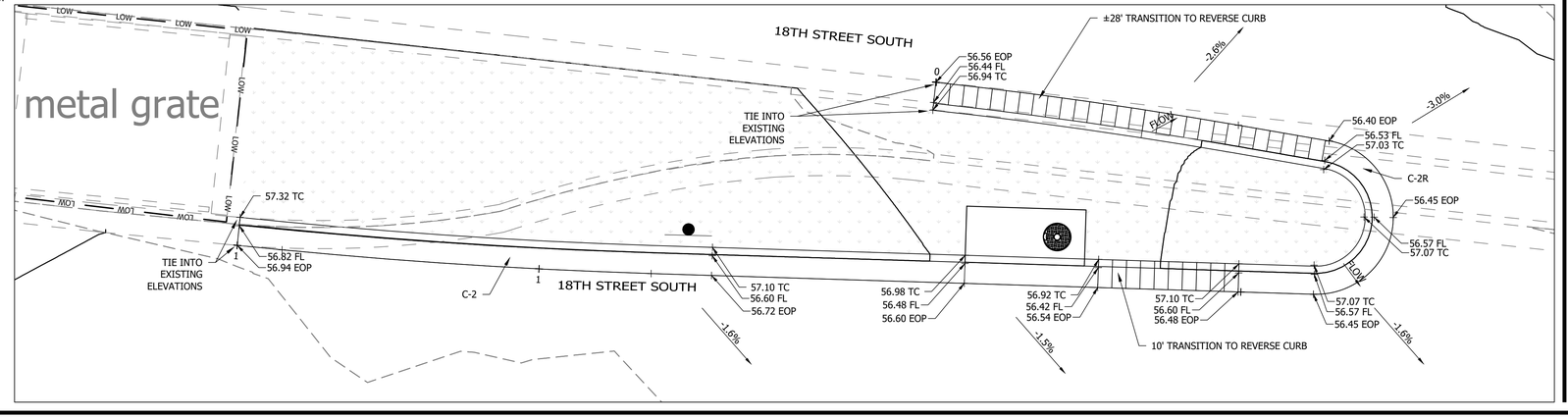


EXISTING MEDIAN EXTENTION PLAN

MS-1A

18TH ST CENTERLINE - WEST OF S FERN ST

SCALE: 1" = 5'



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3/1/2021
PROFESSIONAL ENGINEER

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WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
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PROJECT MANAGER	6/17/2020

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18TH STREET SOUTH

RAMP DETAIL
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

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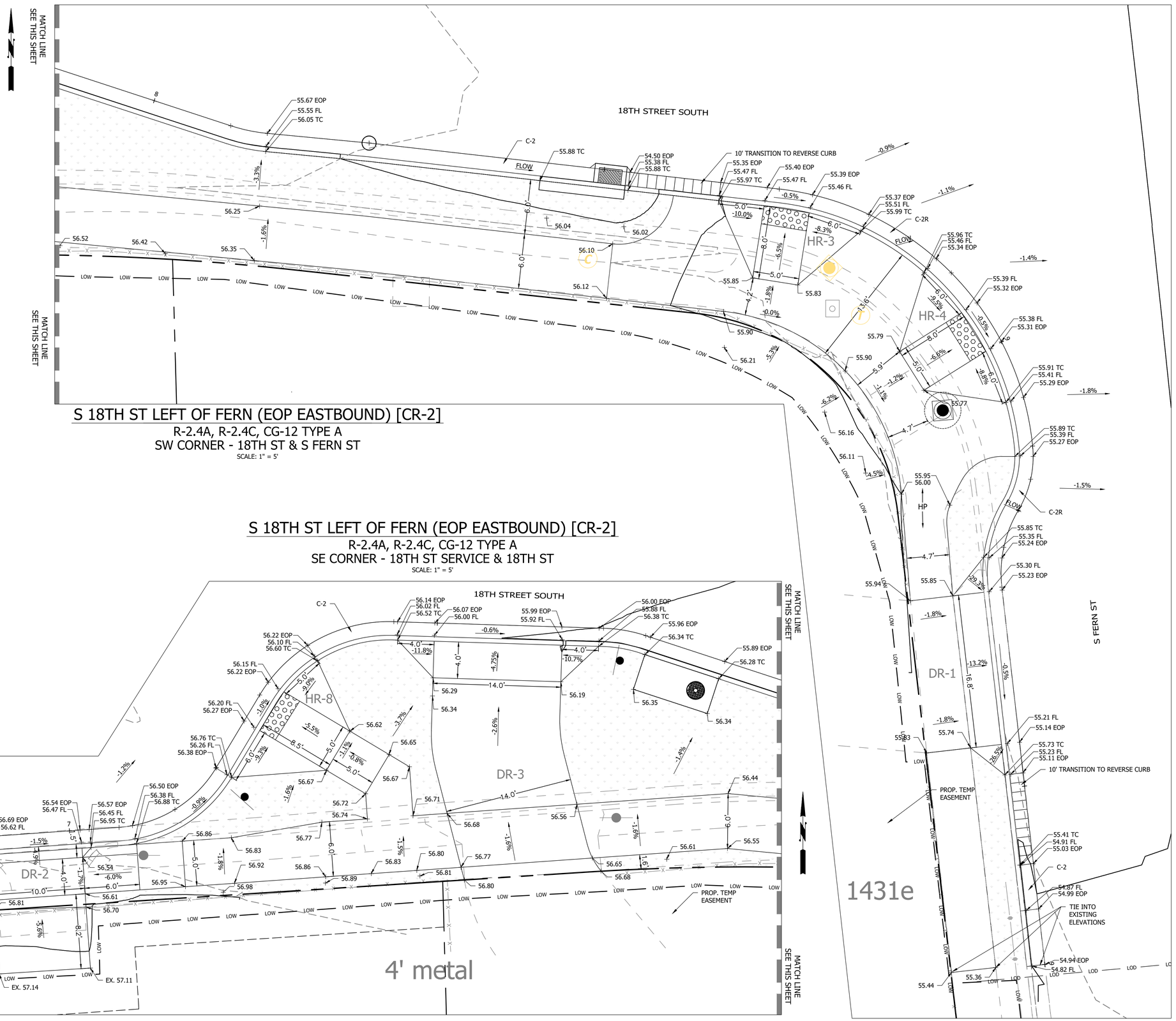
GRAPHIC SCALE

SHEET C042.1



S 18TH ST LEFT OF FERN (EOP EASTBOUND) [CR-2]

R-2.4A, R-2.4C, CG-12 TYPE A
SW CORNER - 18TH ST & S FERN ST
SCALE: 1" = 5'

S 18TH ST LEFT OF FERN (EOP EASTBOUND) [CR-2]

R-2.4A, R-2.4C, CG-12 TYPE A
SE CORNER - 18TH ST SERVICE & 18TH ST
SCALE: 1" = 5'

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3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
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Kamal N. Taktak	6.26.20
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WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
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Ariel Jung	6/17/2020
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REVISIONS	DATE

18TH STREET SOUTH

RAMP DETAIL
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
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MISS UTILITY TRANSMITTAL #: XXXX

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PLOTTED BY: NSHARP

SCALE:
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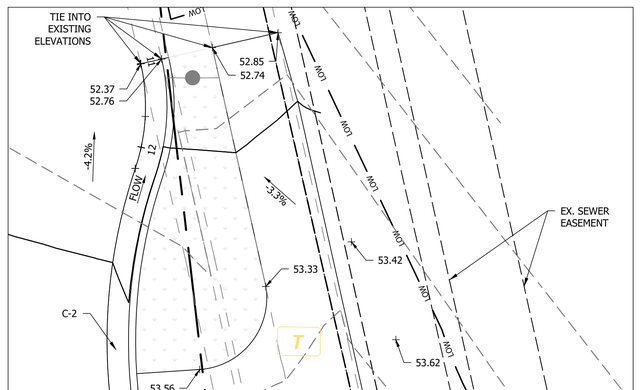
GRAPHIC SCALE

SHEET C042.2

18TH STREET SOUTH

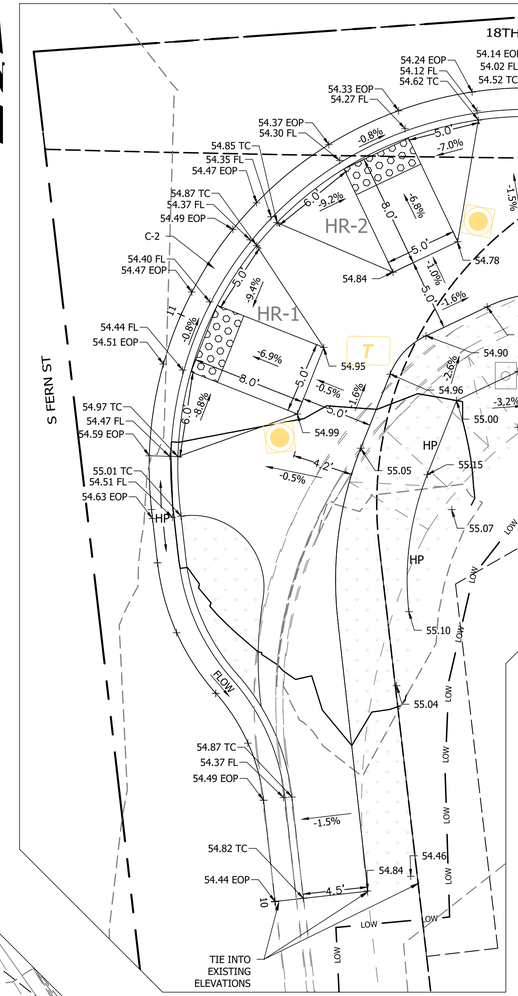


S 18TH ST RIGHT OF FERN (EOP WESTBOUND) [CR-4]

CG-12 TYPE A

SE CORNER - 18TH ST & S FERN ST

SCALE: 1" = 5'



S 18TH ST RIGHT OF FERN (EOP EASTBOUND) [CR-3]

CG-12 TYPE A

SE CORNER - 18TH ST & S FERN ST

SCALE: 1" = 5'

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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
	6/18/2020
QUALITY CONTROL ENGINEER	6.26.20
Kamal N. Taktak	
CONSTRUCTION MANAGEMENT SUPERVISOR	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Jung	6/17/2020
PROJECT MANAGER	

REVISIONS	DATE

18TH STREET SOUTH

RAMP DETAIL
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
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MISS UTILITY TRANSMITTAL #: XXXX

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PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

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SCALE:
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GRAPHIC SCALE

SHEET C042.3

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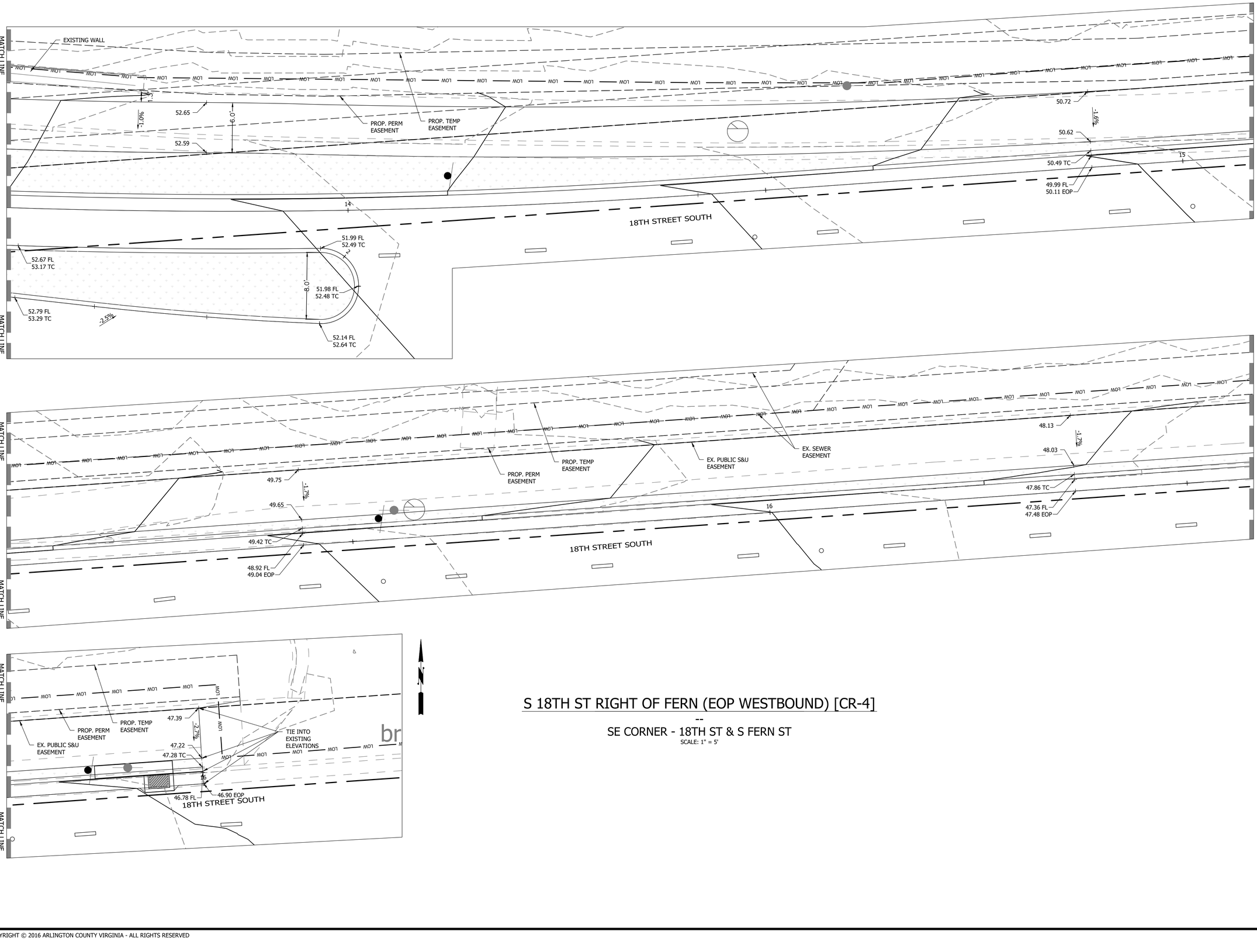
18TH STREET SOUTH



S 18TH ST RIGHT OF FERN (EOP WESTBOUND) [CR-4]

--

SE CORNER - 18TH ST & S FERN ST

SCALE: 1" = 5'

REVISED ON 11/08/2016

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COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS DATE

18TH STREET SOUTH

RAMP DETAIL
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:
0 5 10
GRAPHIC SCALE

SHEET C042.4

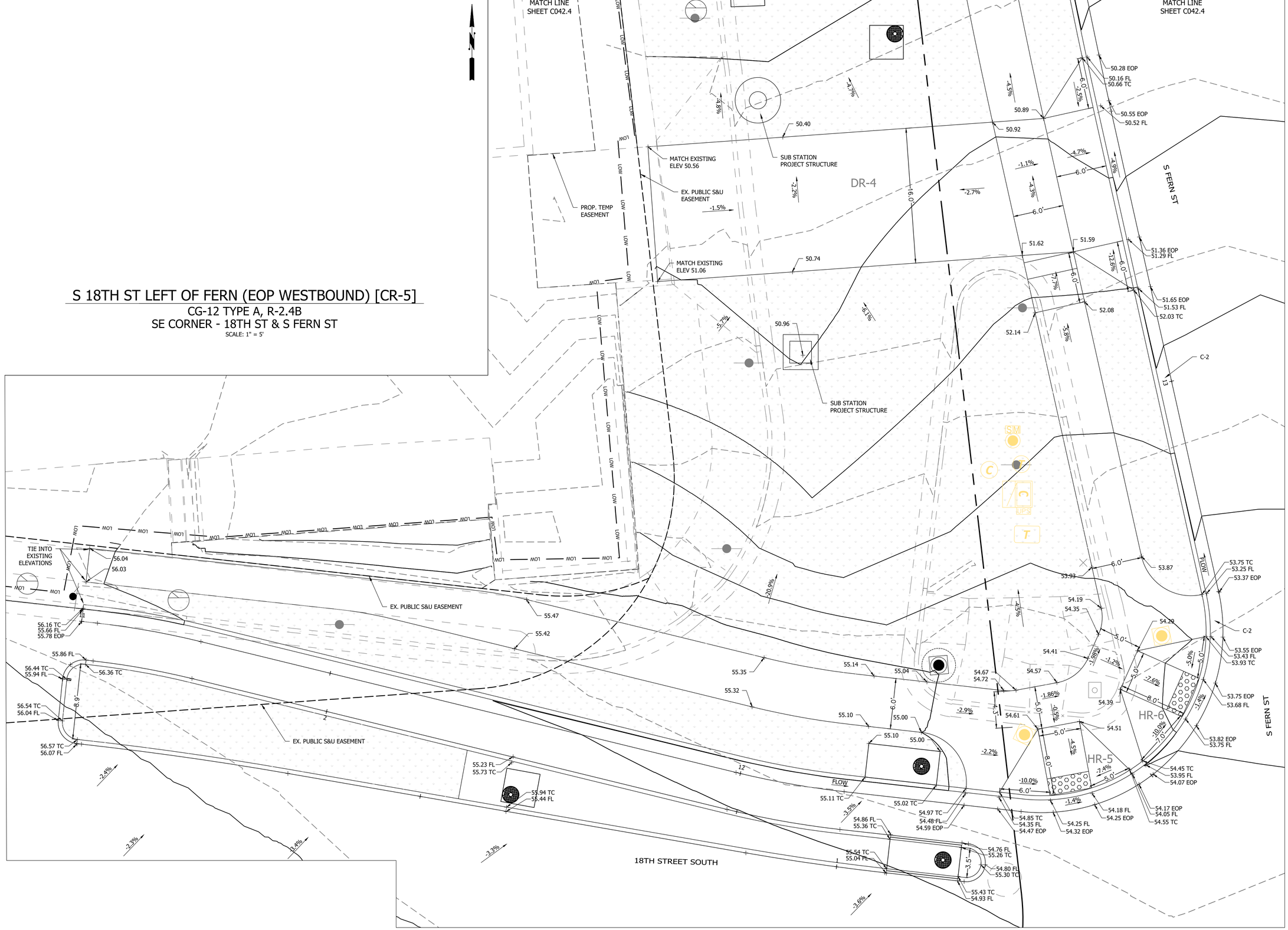
18TH STREET SOUTH

S 18TH ST LEFT OF FERN (EOP WESTBOUND) [CR-5]

CG-12 TYPE A, R-2.4B

SE CORNER - 18TH ST & S FERN ST

SCALE: 1" = 5'



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SHEET C042.5

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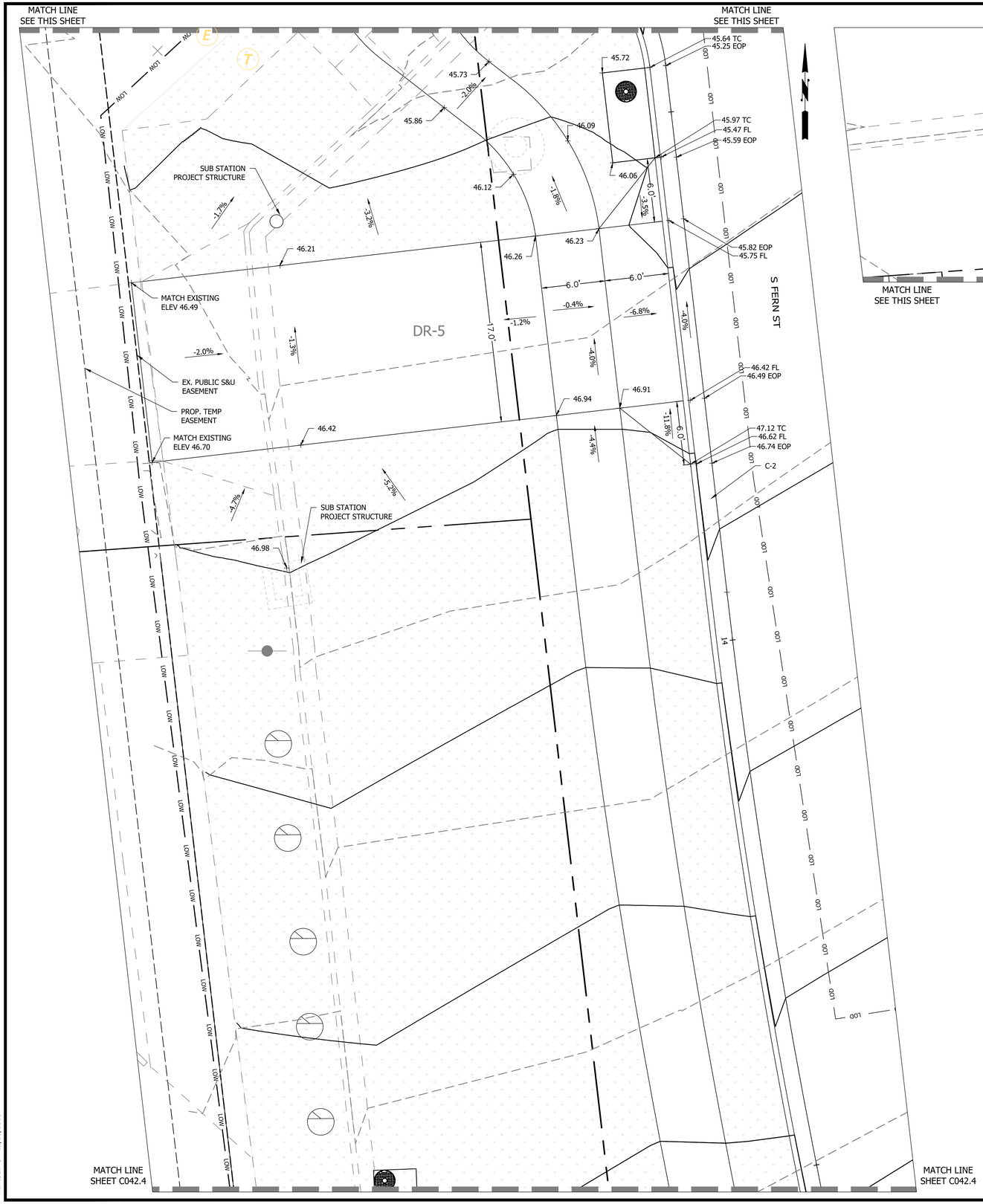
18TH STREET SOUTH



S 18TH ST LEFT OF FERN (EOP WESTBOUND) [CR-5]

R-2.4B

SE CORNER - 18TH ST & S FERN ST

SCALE: 1" = 5'

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18TH STREET SOUTH

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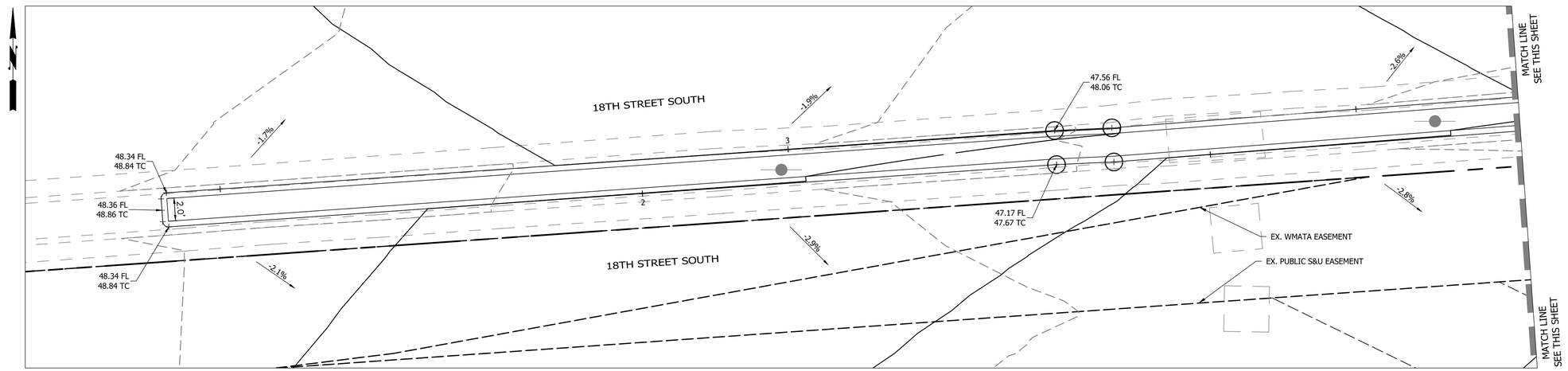
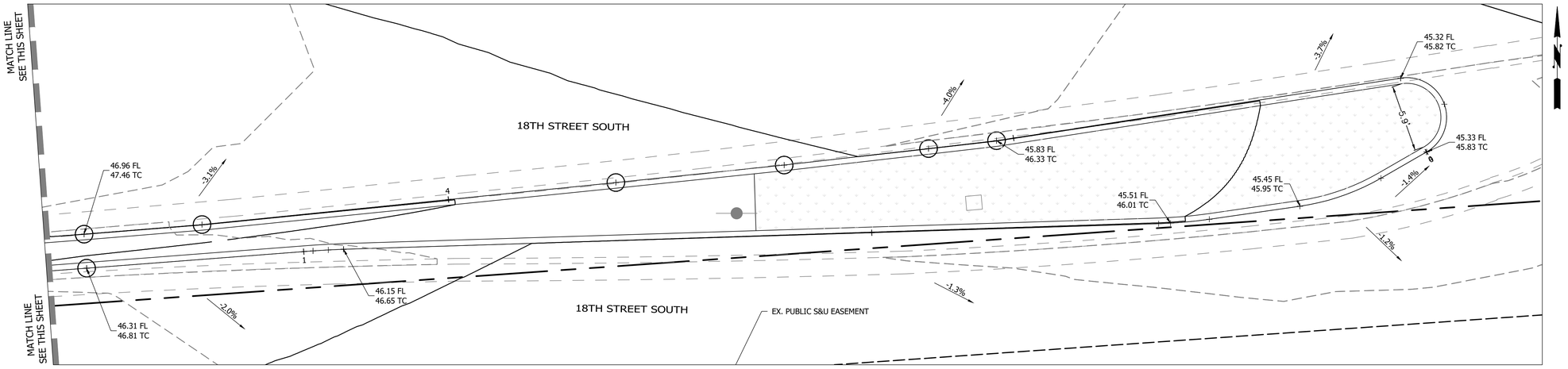
REVISED ON 11/08/2016





18TH STREET CENTER MEDIAN

MS-1A

18TH ST CENTERLINE - EAST OF S FERN ST

SCALE: 1" = 5'

REVISED ON 11/08/2016

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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
	6/18/2020
QUALITY CONTROL ENGINEER	6.26.20
Kamal N. Taktak	
CONSTRUCTION MANAGEMENT SUPERVISOR	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Jung	6/17/2020
PROJECT MANAGER	

REVISIONS DATE

18TH STREET SOUTH

RAMP DETAIL
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-208-RAMP_DETAILS.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

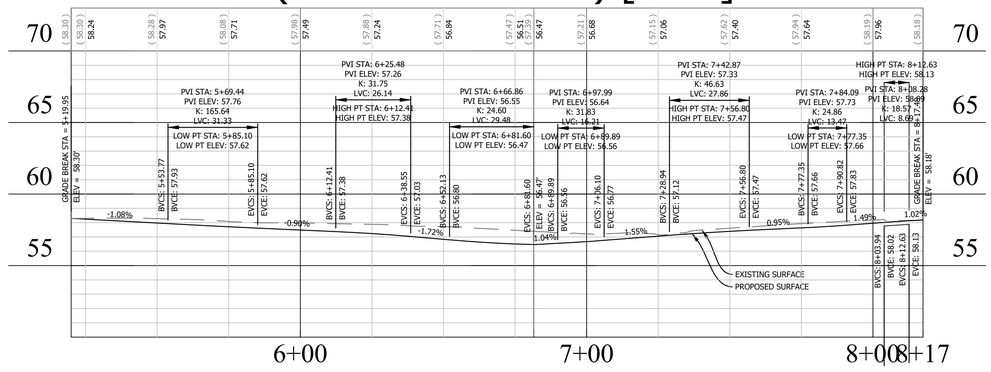
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:
0 5 10
GRAPHIC SCALE

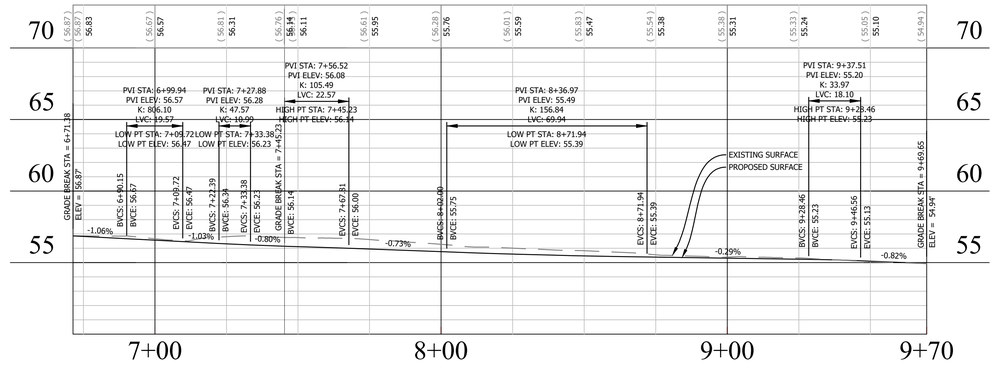
SHEET C042.7

18TH STREET SOUTH

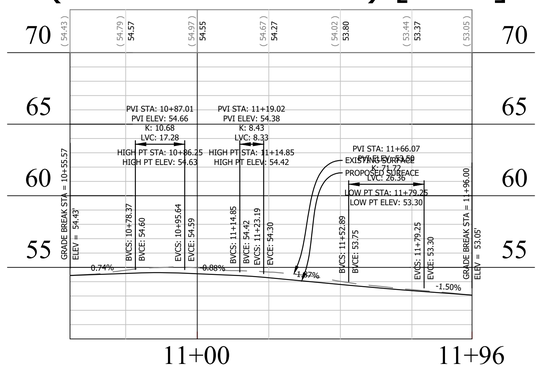
S 18TH ST LEFT OF SERVICE (EOP EASTBOUND) [CR-1]



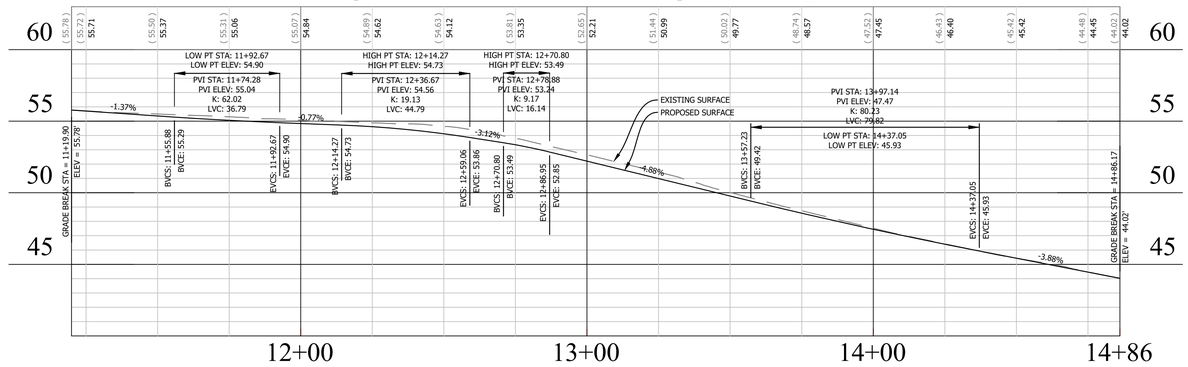
S 18TH ST LEFT OF FERN (EOP EASTBOUND) [CR-2]



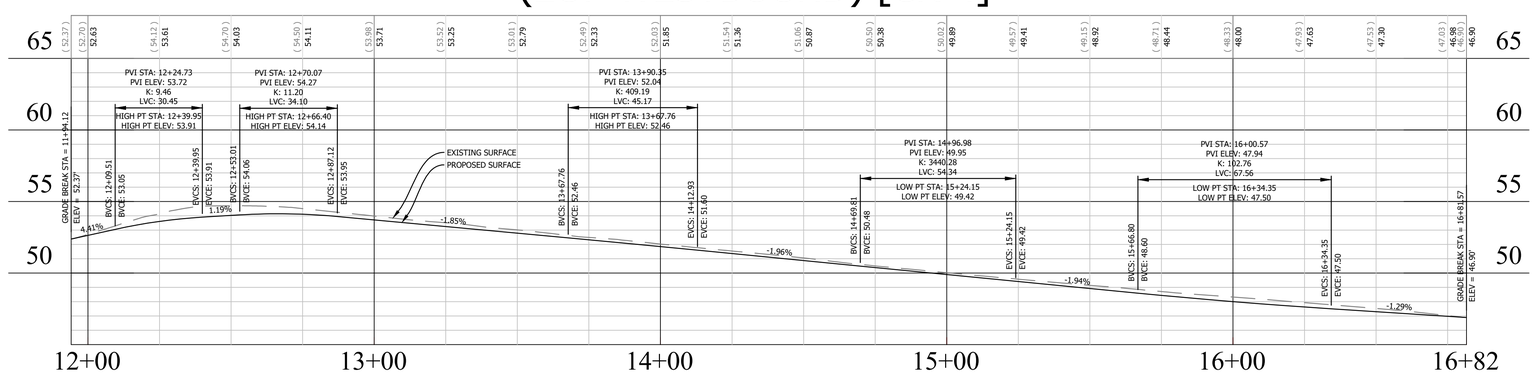
S 18TH ST RIGHT OF FERN (EOP EASTBOUND) [CR-3]



S 18TH ST LEFT OF FERN (EOP WESTBOUND) [CR-5]



S 18TH ST RIGHT OF FERN (EOP WESTBOUND) [CR-4]



ARLINGTON
VIRGINIA

DEPARTMENT OF
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ENGINEERING BUREAU
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PROFESSIONAL ENGINEER

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Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Jung	6/17/2020
PROJECT MANAGER	

REVISIONS	DATE

18TH STREET SOUTH

CURB RETURN PROFILE
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-232-CURB_RETURN_PROFILES.DWG
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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:
0 25 50
HORIZ. SCALE
0 5 10
VERT. SCALE

SHEET C043.1

REVISED ON 11/09/2016

Parcel B-1-B
RPC 35008007
Carriage Hill Arlington L.P.

Outlot A
RPC 35008232
Virginia Electric Power Company

Parcel 1
RPC 35008232
Virginia Electric Power Company

START OF CONSTRUCTION

START OF CONSTRUCTION STATION 8+00

SOUTH FERN STREET

SOUTH 18TH STREET

SOUTH 18TH STREET CONSTRUCTION BASELINE

SOUTH FERN STREET CONSTRUCTION BASELINE

END OF CONSTRUCTION

SOUTH 18TH STREET CONSTRUCTION BASELINE

SOUTH 18TH STREET

SOUTH FERN STREET

SOUTH EADS

PA
R
PC Towers

SEE THIS SHEET MATCH LINE

SEE THIS SHEET MATCH LINE

Storm Sewer Easement D.B. 1548, Pg. 162

Storm Sewer Easement D.B. 1548, Pg. 162

Crystal House Apartments
RPC 36018014
Crystal House Apartments Investors, LLC.

28, 29
RPC 36013012
Armanca

30, 31
RPC 36013013
Howard

32, 33
RPC 36013014
Howard

34, 35
RPC 36013015
Bouzid

36A
RPC 36013021
5716 Fifth Street, LLC.

38A
RPC 36013022
5716 Fifth Street, LLC.

40A
RPC 36013023
5716 Fifth Street, LLC.

Block 5
Addison Heights
D.B. U-4, Pg. 56

Re-Subdivision of Block 5
Addison Heights
D.B. 4395, Pg. 2648

REFER TO SHEET ###### - ####### FOR CROSS SECTIONS

REVISED ON 11/08/2016

ARLINGTON
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ENGINEERING BUREAU
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18TH STREET SOUTH

CROSS SECTION EXHIBIT
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME: CC20-233-CROSS_SECTIONS_EXHIBIT.DWG
PATH: Q:\DATA\CC20\DESIGN\CADD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

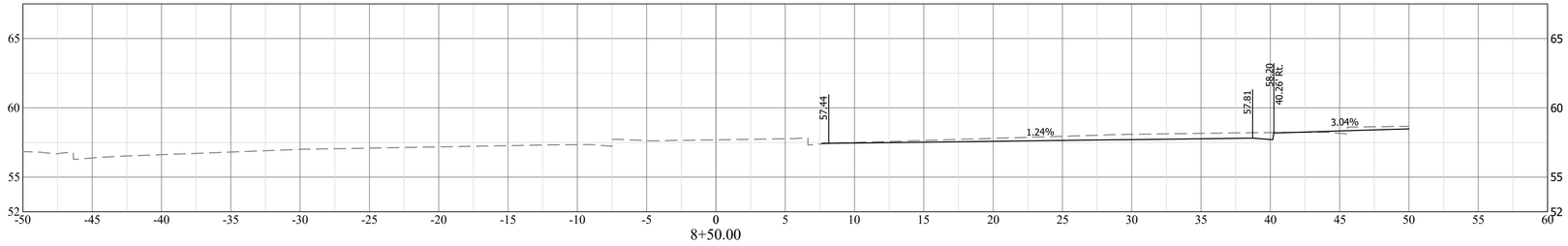
SCALE:

0 25 50
GRAPHIC SCALE

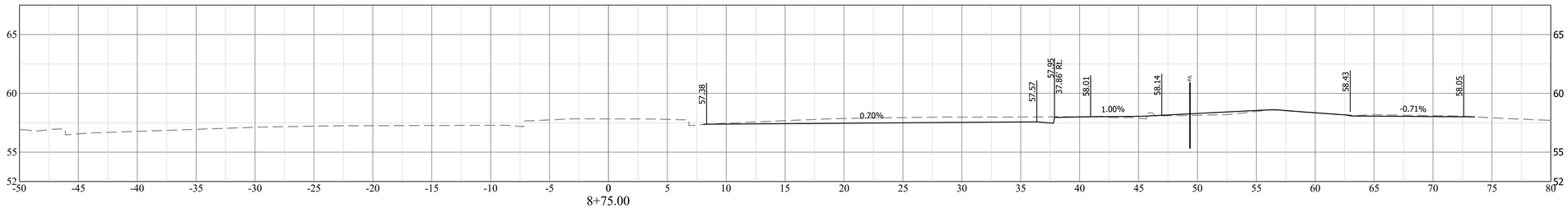
SHEET C044.1

18TH STREET SOUTH

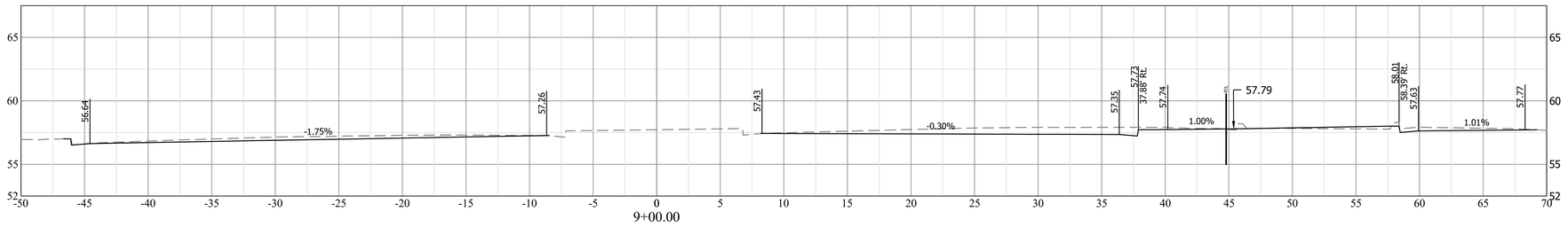
SOUTH 18TH STREET BASELINE



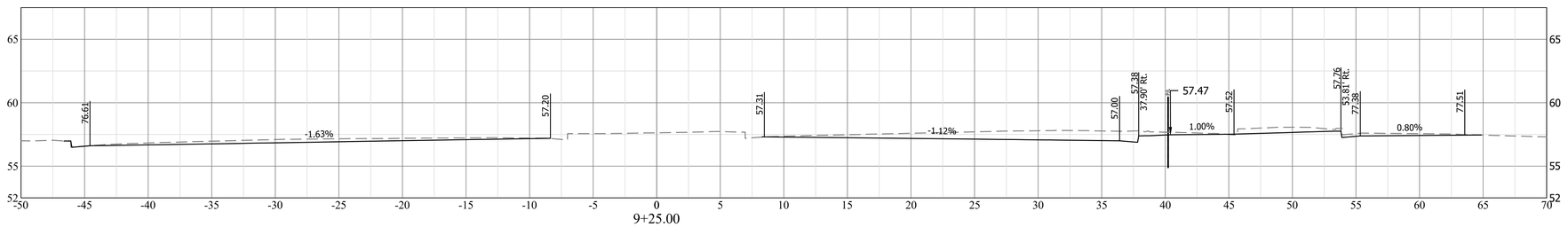
8+50.00



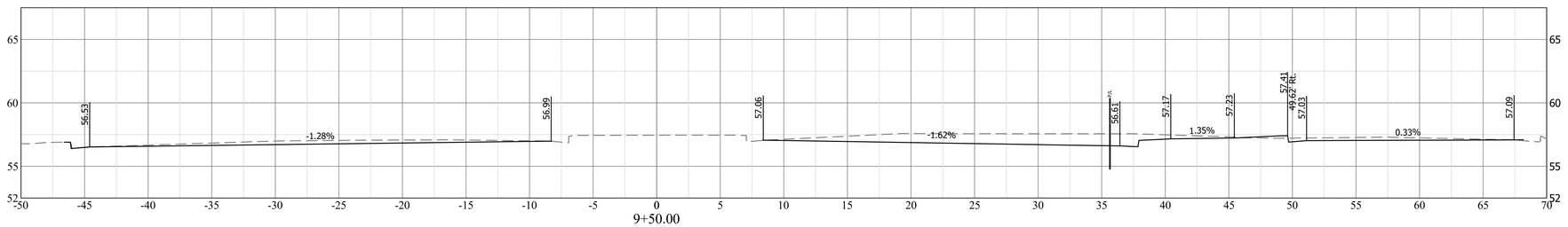
8+75.00



9+00.00



9+25.00



9+50.00

1. REFER TO PLAN AND PROFILE SHEET FOR SECTIONS THAT ARE TO BE MILL AND OVERLAY INSTEAD OF FULL DEPTH PAVEMENT
2. SEE TYPICAL SECTION ON SHEET C004.1 FOR PAVEMENT AND SIDEWALK INFORMATION

REVISED ON 11/08/2016

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18TH STREET SOUTH

CROSS-SECTIONS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-122-CORRIDOR-VIEWPORTS.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

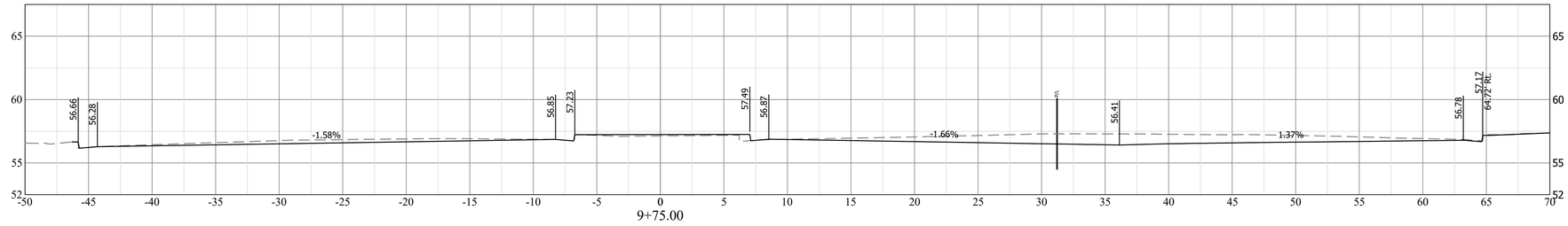
VERT. SCALE

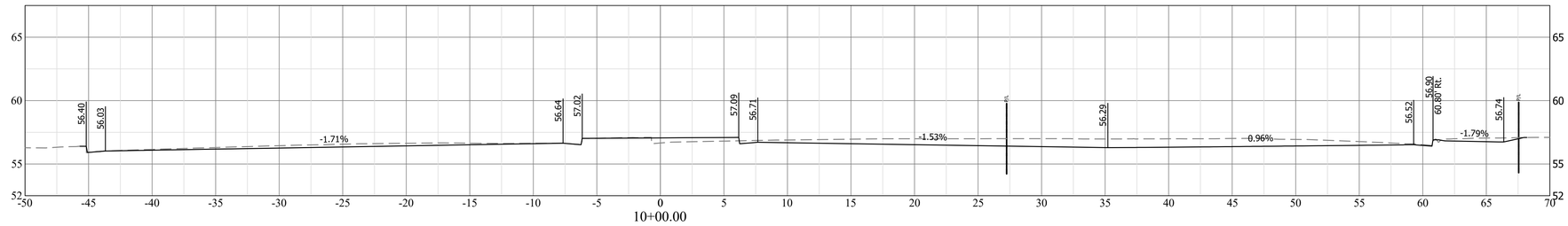
HORIZ. SCALE

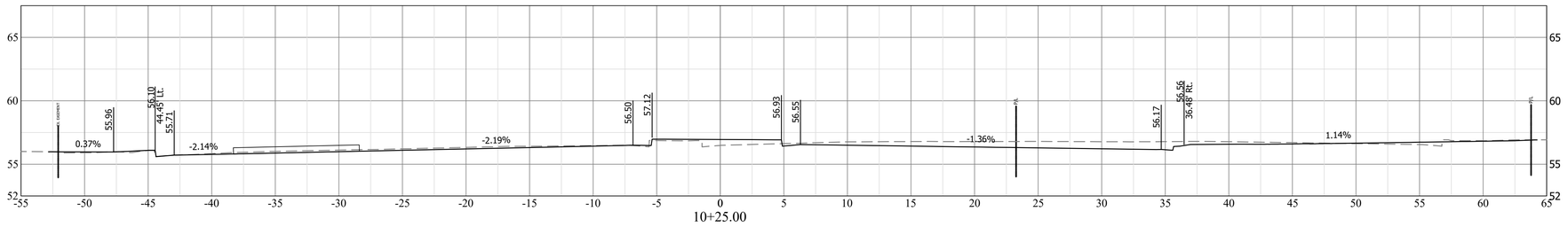
SHEET C044.2

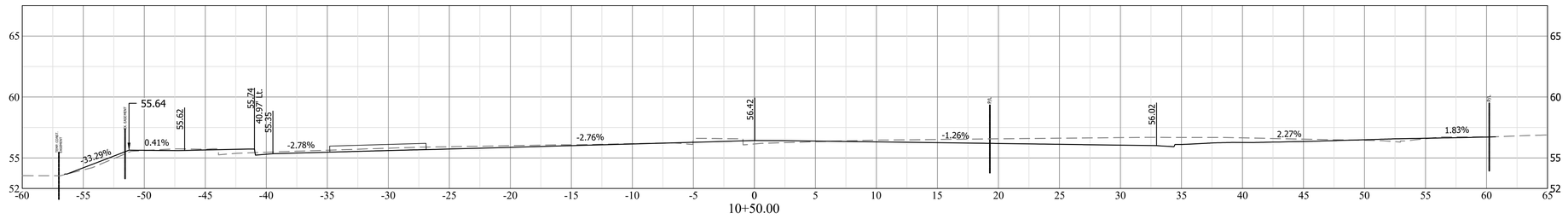
18TH STREET SOUTH

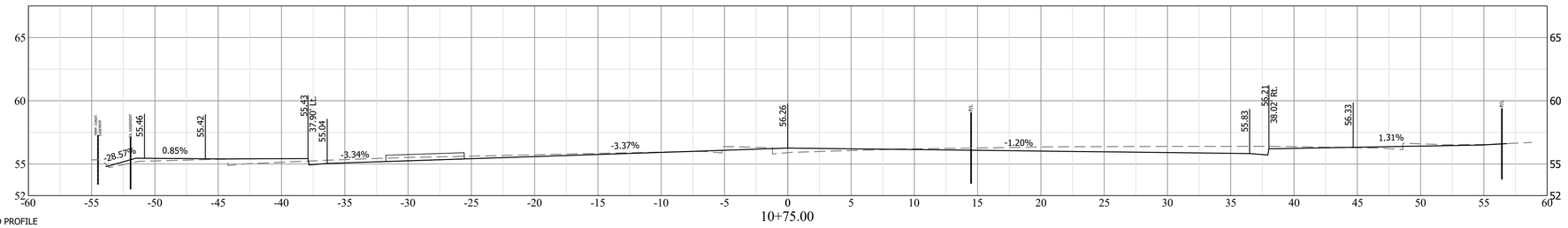
SOUTH 18TH STREET BASELINE











1. REFER TO PLAN AND PROFILE SHEET FOR SECTIONS THAT ARE TO BE MILL AND OVERLAY INSTEAD OF FULL DEPTH PAVEMENT
2. SEE TYPICAL SECTION ON SHEET C004.1 FOR PAVEMENT AND SIDEWALK INFORMATION

REVISED ON 11/08/2016

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18TH STREET SOUTH

CROSS-SECTIONS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

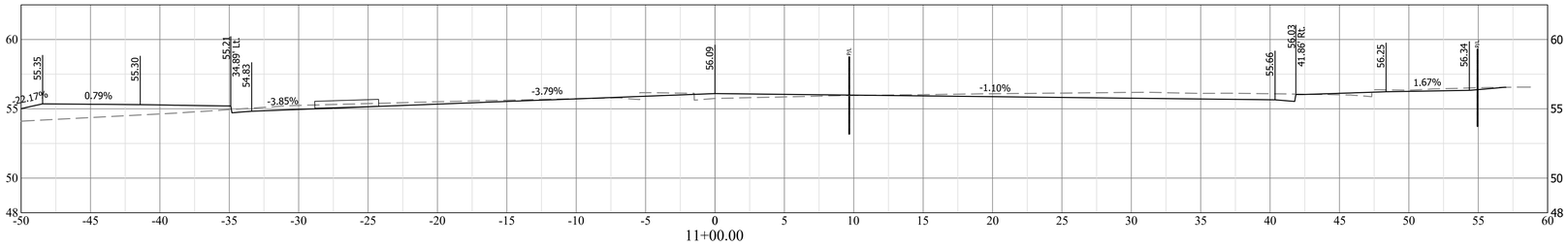
FILENAME:
CC20-122-CORRIDOR-VIEWPORTS.DWG
PATH: Q:\DATA\CC20\DESIGN\CADD_ACTIVE

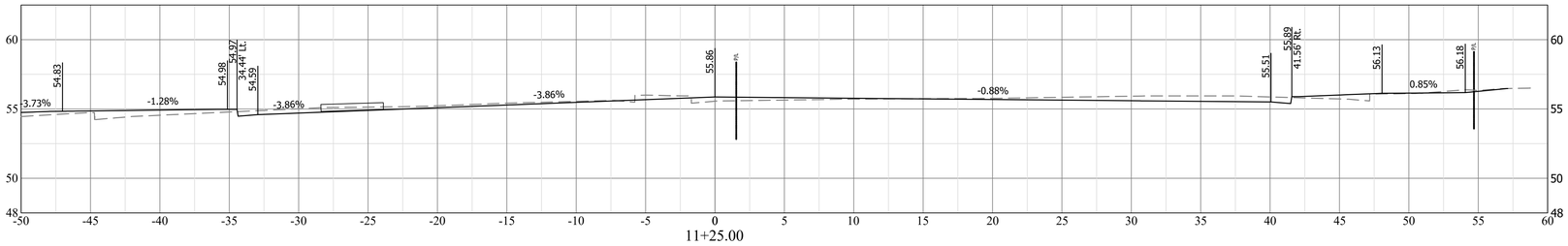
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:
0 5 10
VERT. SCALE
0 10 20
HORIZ. SCALE

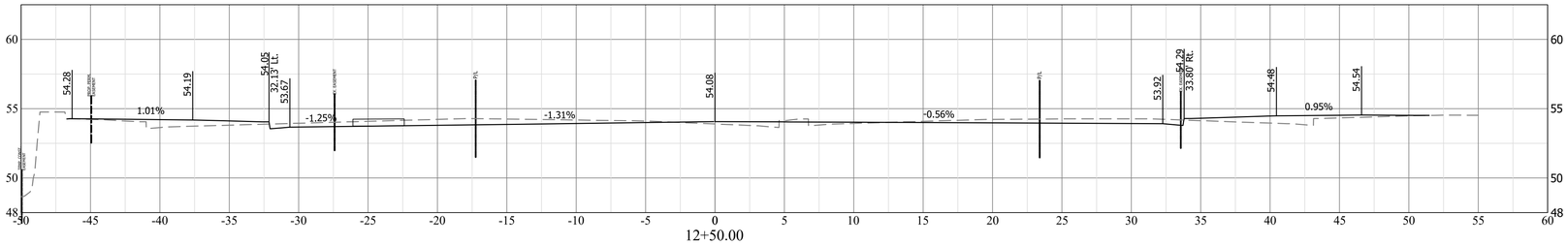
SHEET C044.3

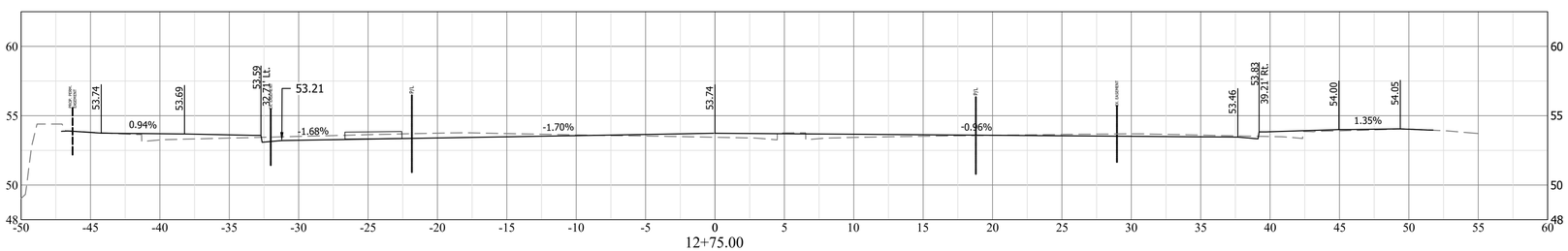
SOUTH 18TH STREET BASELINE

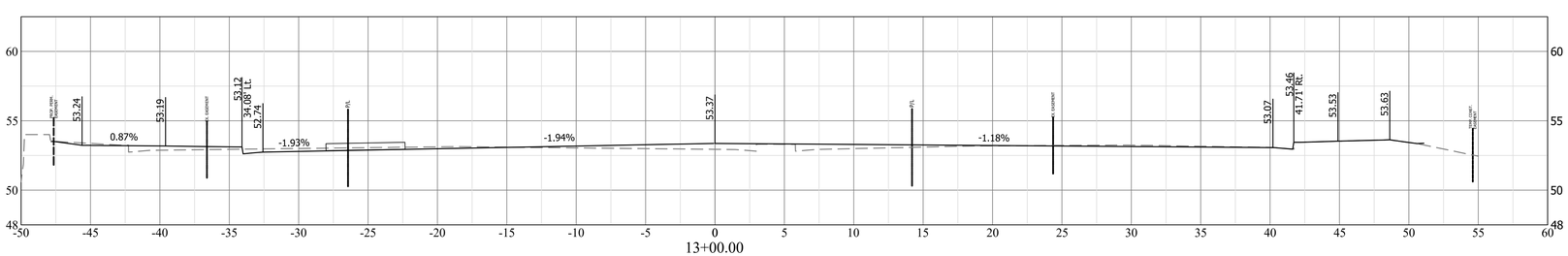




SOUTH 18TH STREET BASELINE







1. REFER TO PLAN AND PROFILE SHEET FOR SECTIONS THAT ARE TO BE MILL AND OVERLAY INSTEAD OF FULL DEPTH PAVEMENT
2. SEE TYPICAL SECTION ON SHEET C004.1 FOR PAVEMENT AND SIDEWALK INFORMATION

REVISED ON 11/08/2016

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APPROVALS	DATE
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PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

CROSS-SECTIONS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-122-CORRIDOR-VIEWPORTS.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

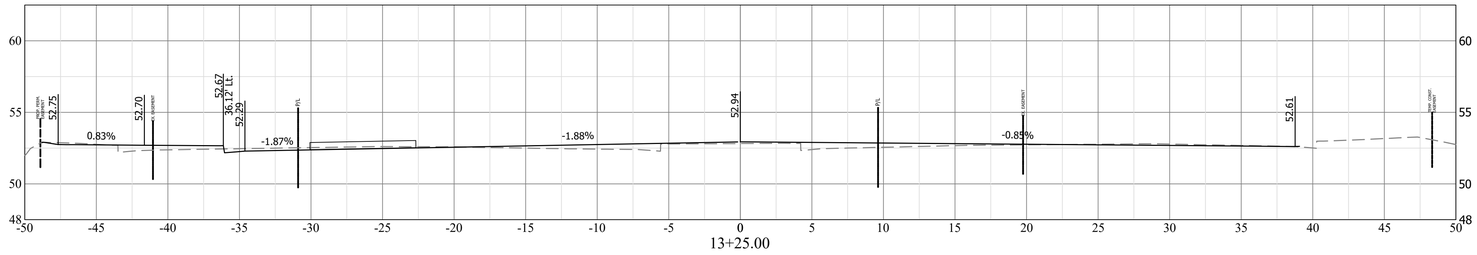
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:
0 5 10
VERT. SCALE
0 10 20
HORIZ. SCALE

SHEET C044.4

18TH STREET SOUTH

SOUTH 18TH STREET BASELINE



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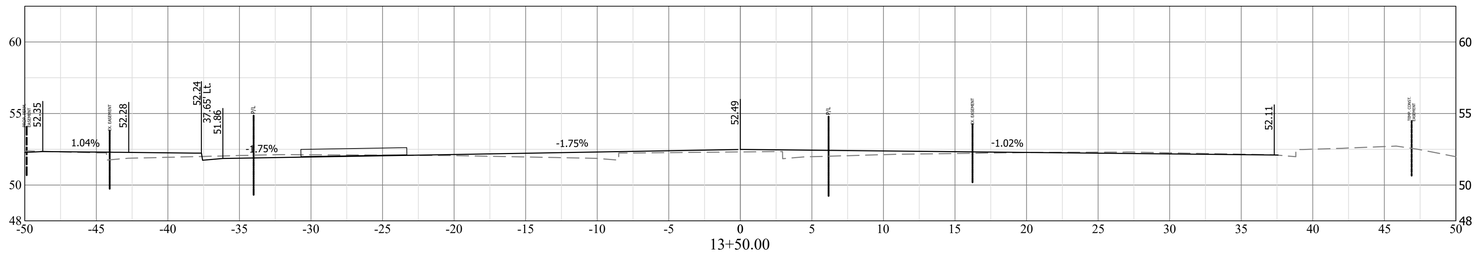

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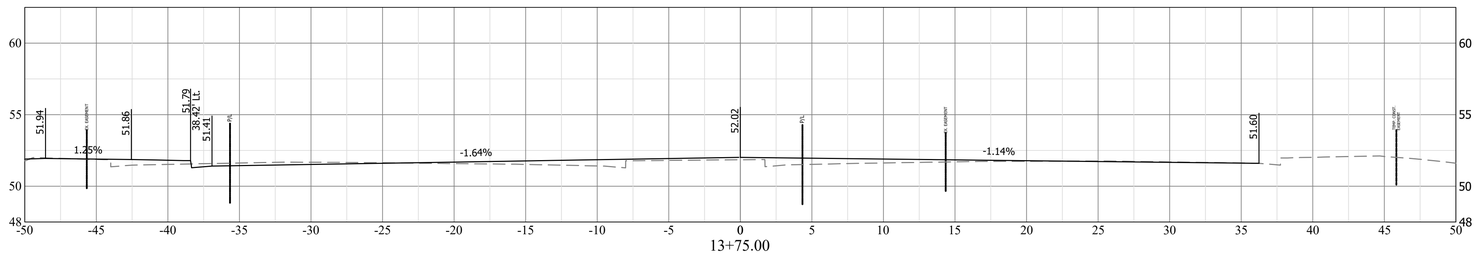

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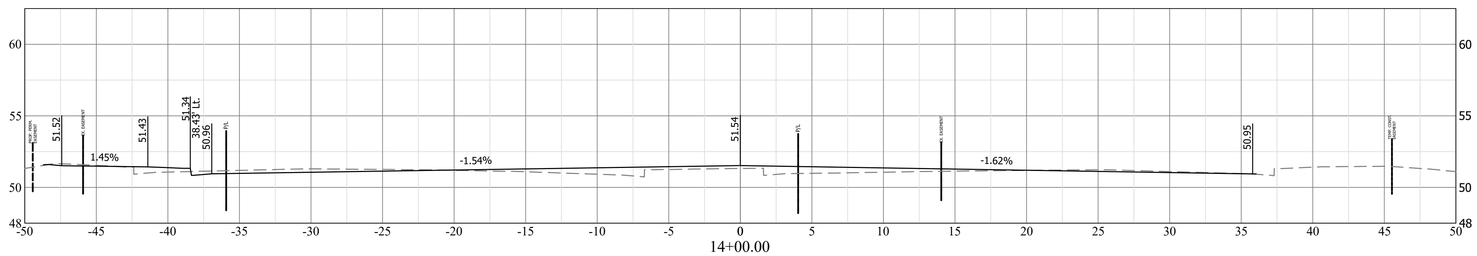

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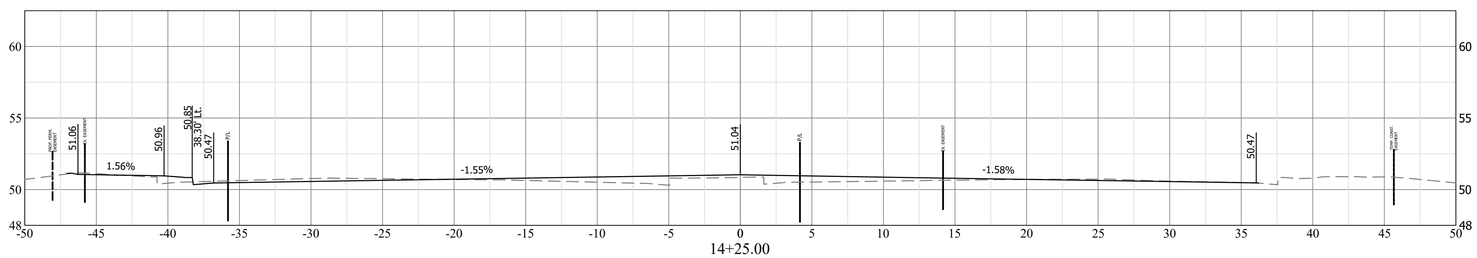

14+25.00

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18TH STREET SOUTH

CROSS-SECTIONS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-122-CORRIDOR-VIEWPORTS.DWG
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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

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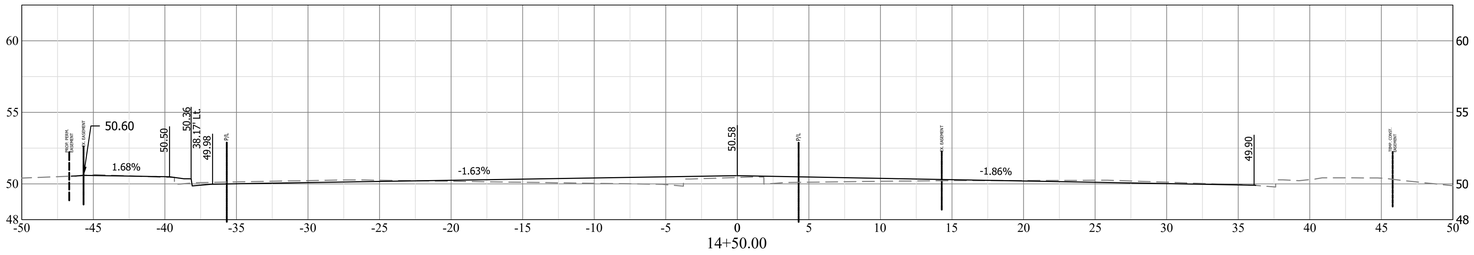
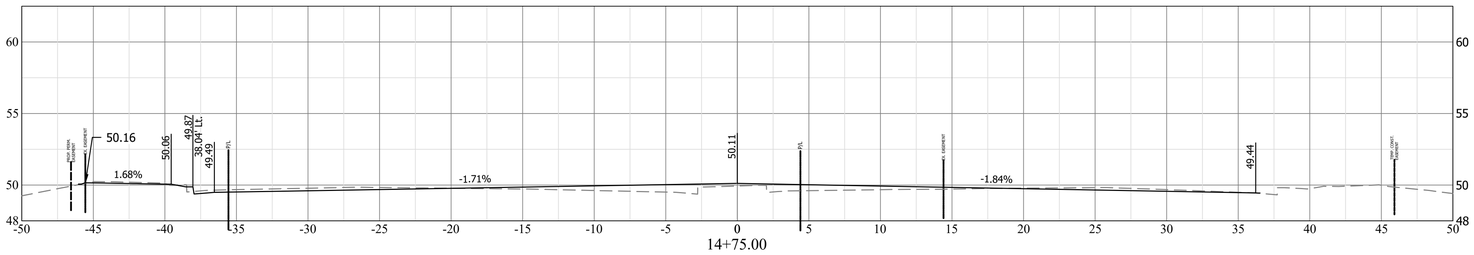
HORIZ. SCALE

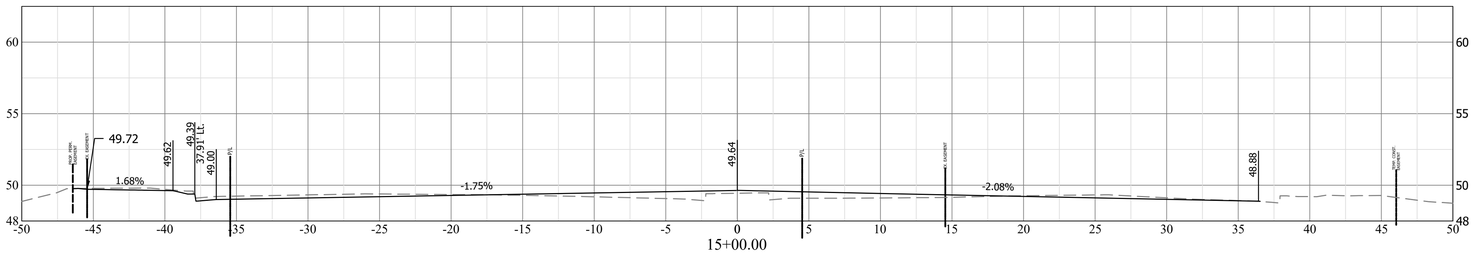
SHEET C044.5

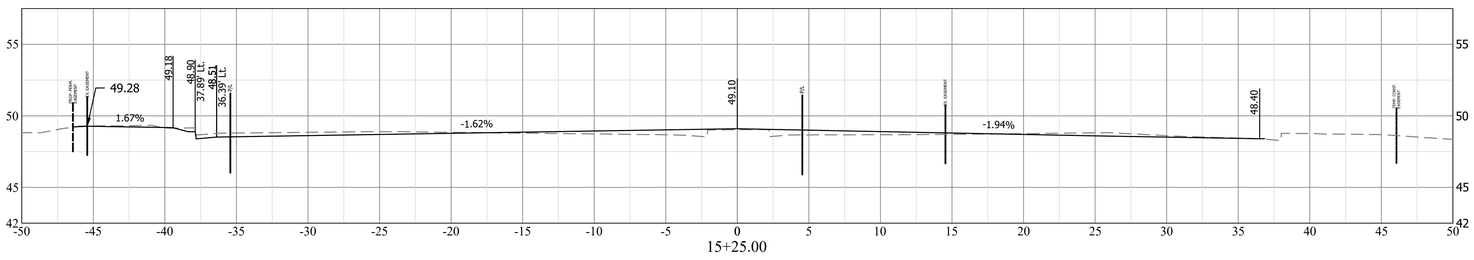
18TH STREET SOUTH

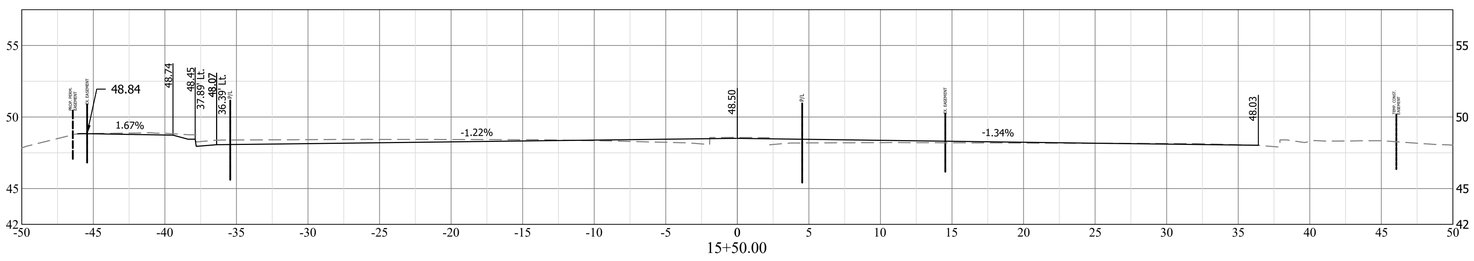
SOUTH 18TH STREET BASELINE











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18TH STREET SOUTH

CROSS-SECTIONS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
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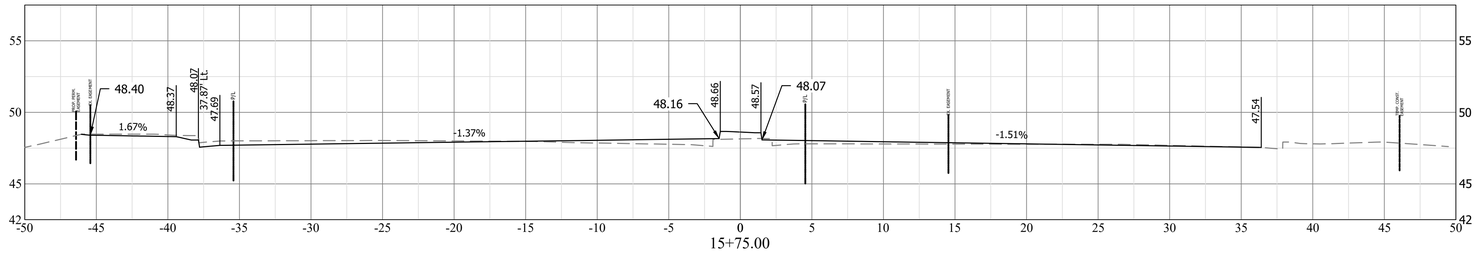
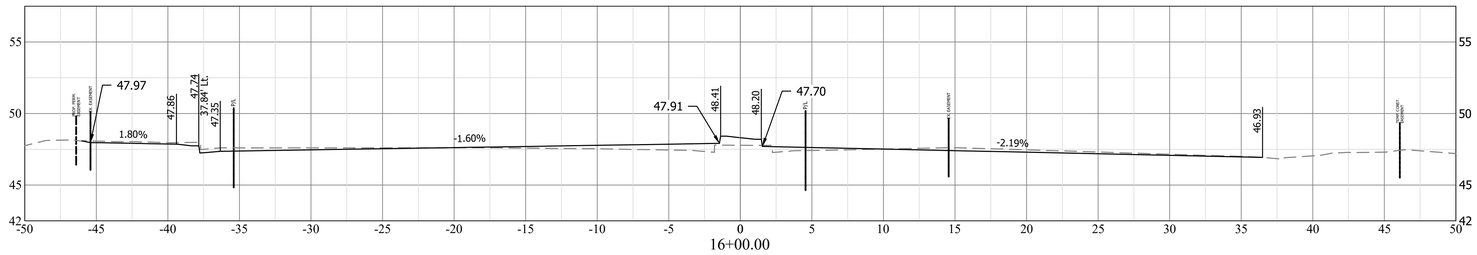
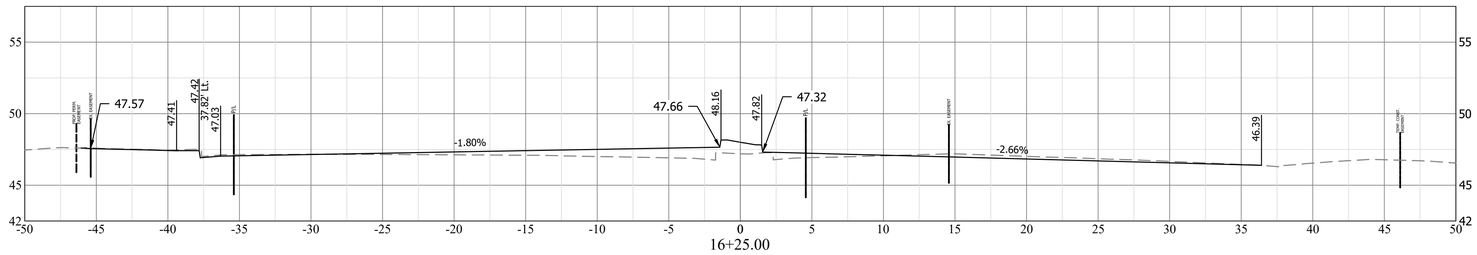
SHEET C044.6

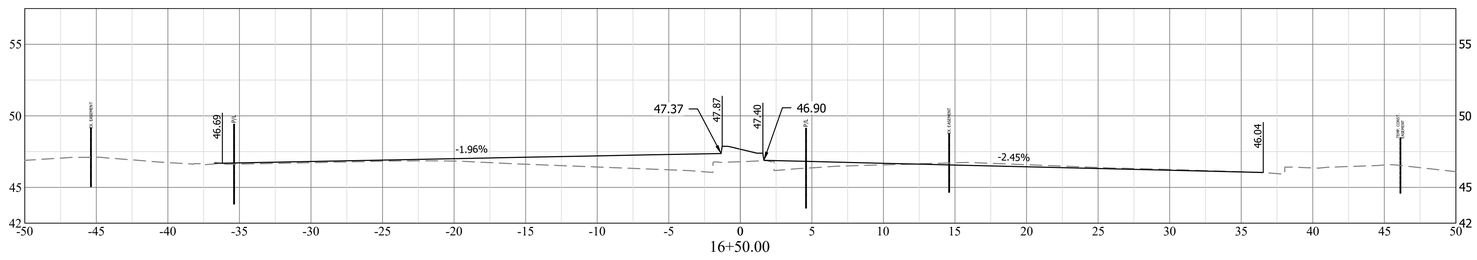
18TH STREET SOUTH

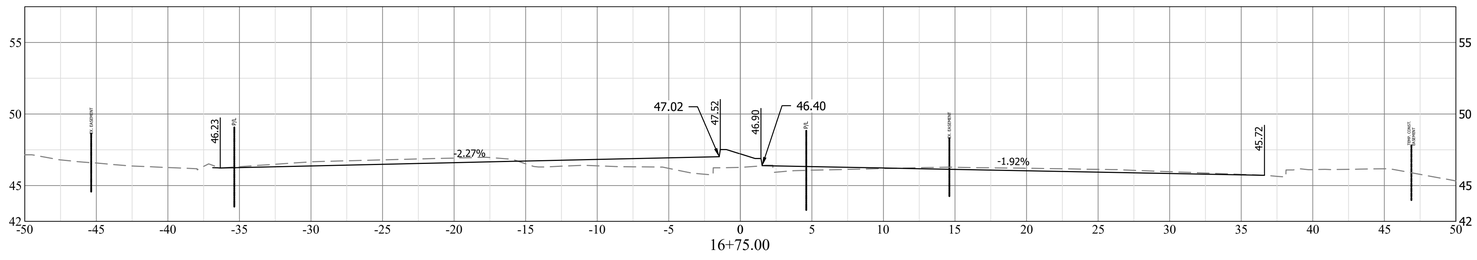
SOUTH 18TH STREET BASELINE











1. REFER TO PLAN AND PROFILE SHEET FOR SECTIONS THAT ARE TO BE MILL AND OVERLAY INSTEAD OF FULL DEPTH PAVEMENT
2. SEE TYPICAL SECTION ON SHEET C004.1 FOR PAVEMENT AND SIDEWALK INFORMATION

REVISED ON 11/08/2016

ARLINGTON
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COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

CROSS-SECTIONS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

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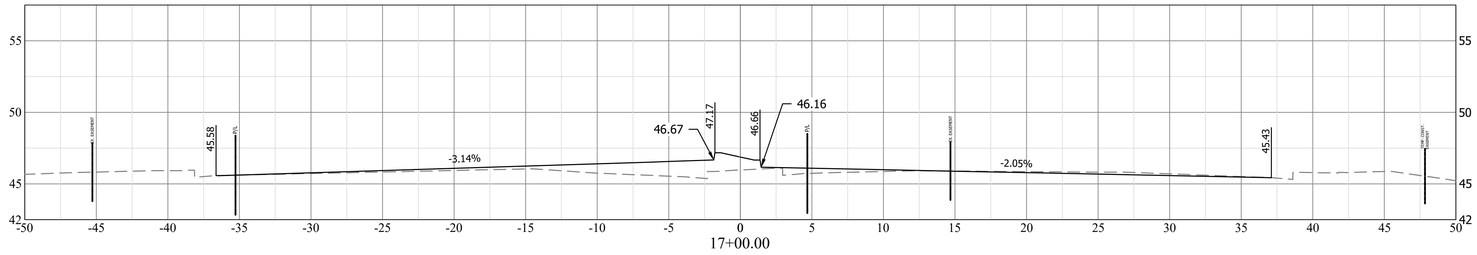
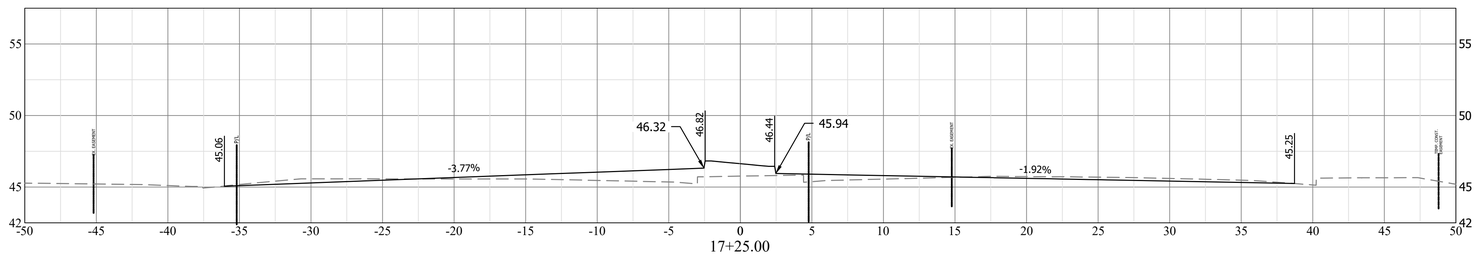
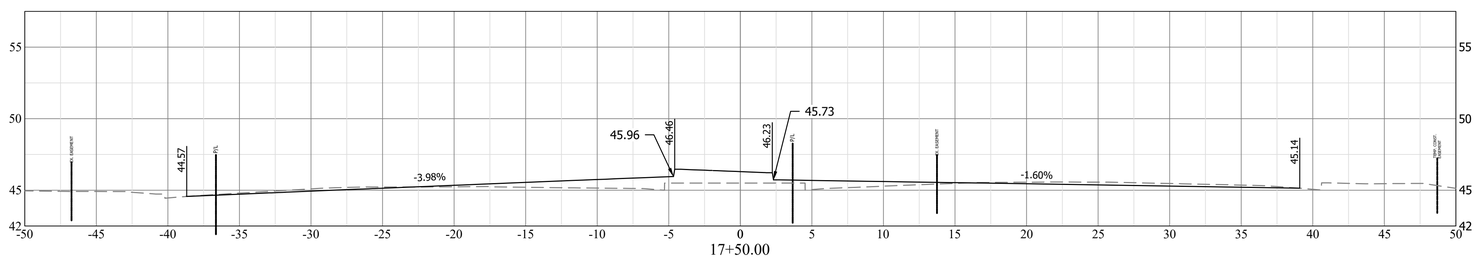
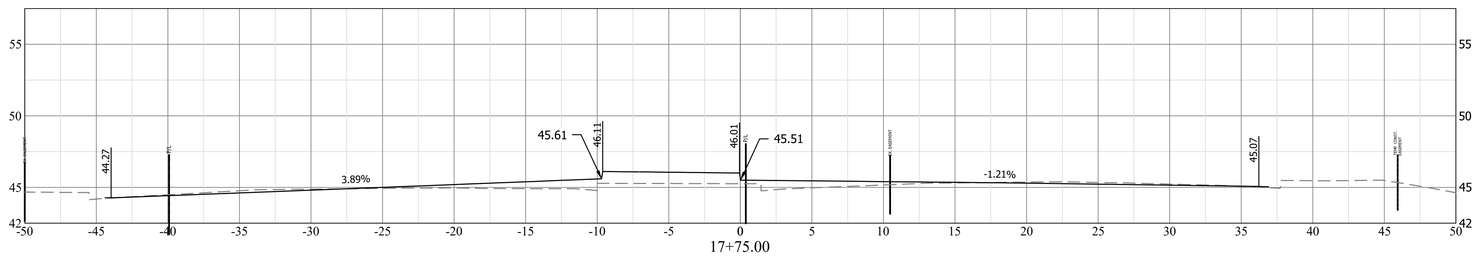
SHEET C044.7

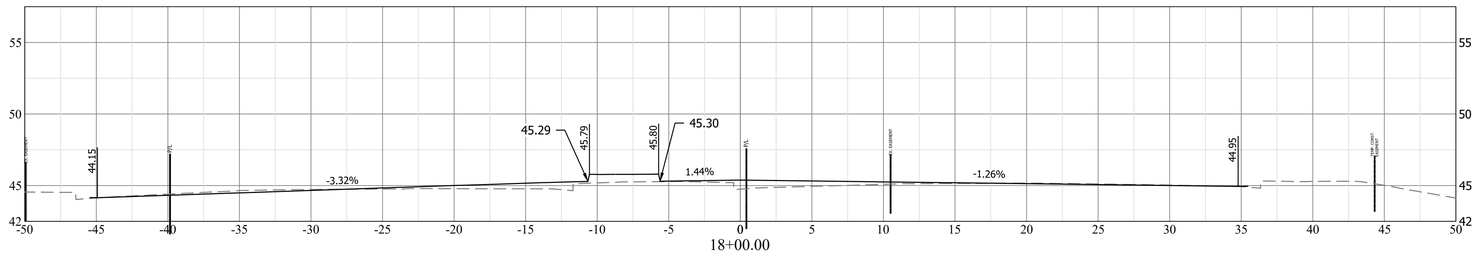
SOUTH 18TH STREET BASELINE











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18TH STREET SOUTH

CROSS-SECTIONS
ROADWAY IMPROVEMENTS
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CC20

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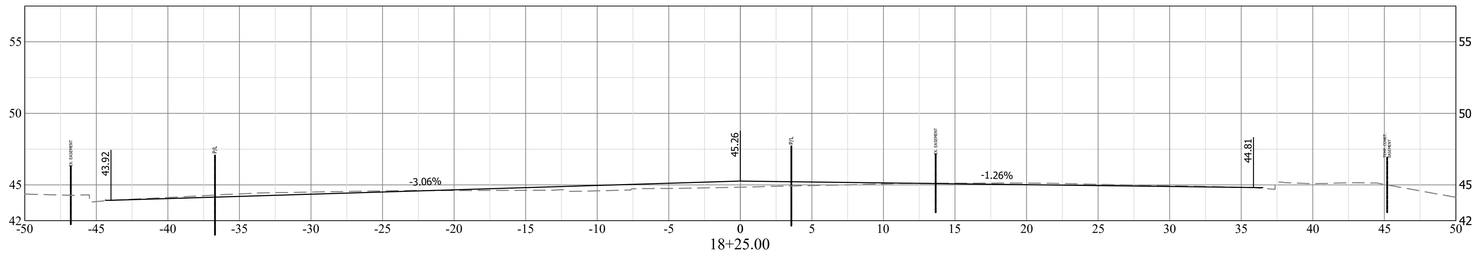
SHEET C044.8

SOUTH 18TH STREET BASELINE



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	6/18/2020
QUALITY CONTROL ENGINEER	6.26.20
Kamal N. Taktak	
CONSTRUCTION MANAGEMENT SUPERVISOR	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Jung	6/17/2020
PROJECT MANAGER	

REVISIONS	DATE

18TH STREET SOUTH

CROSS-SECTIONS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

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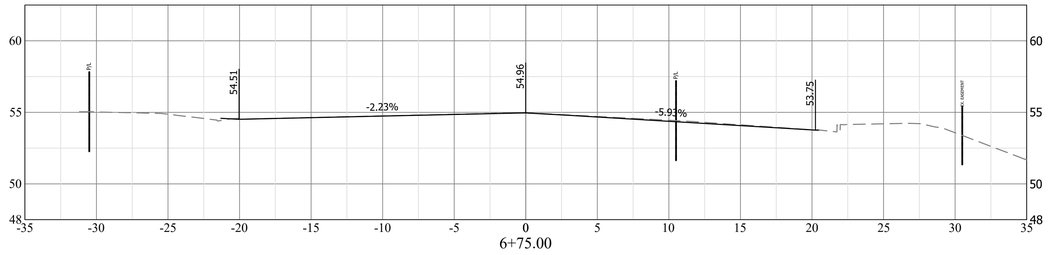
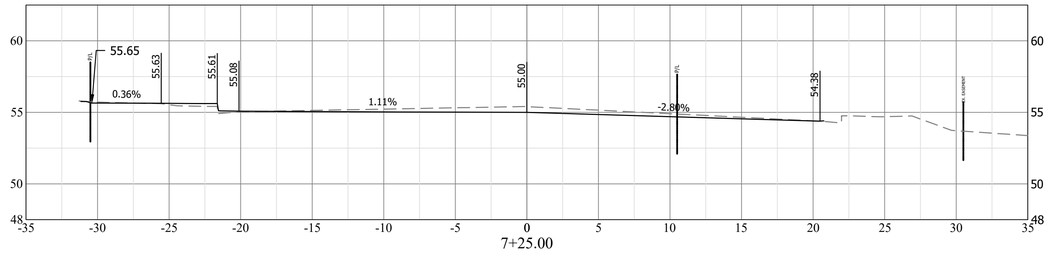
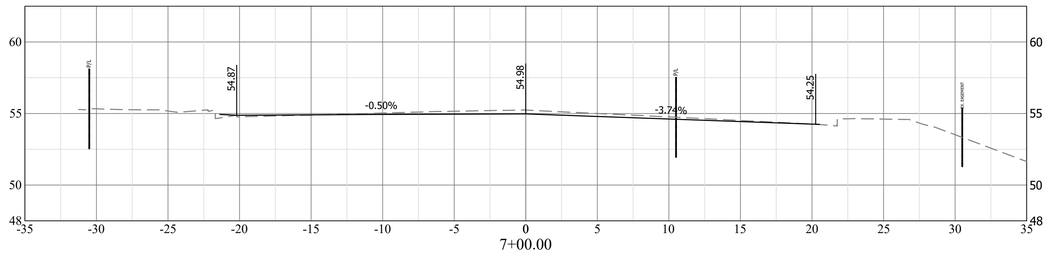
SHEET C044.9

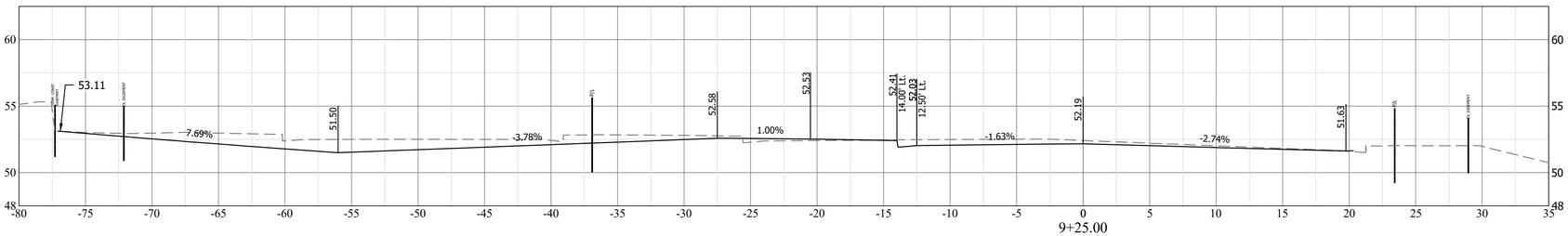
SOUTH FERN STREET BASELINE

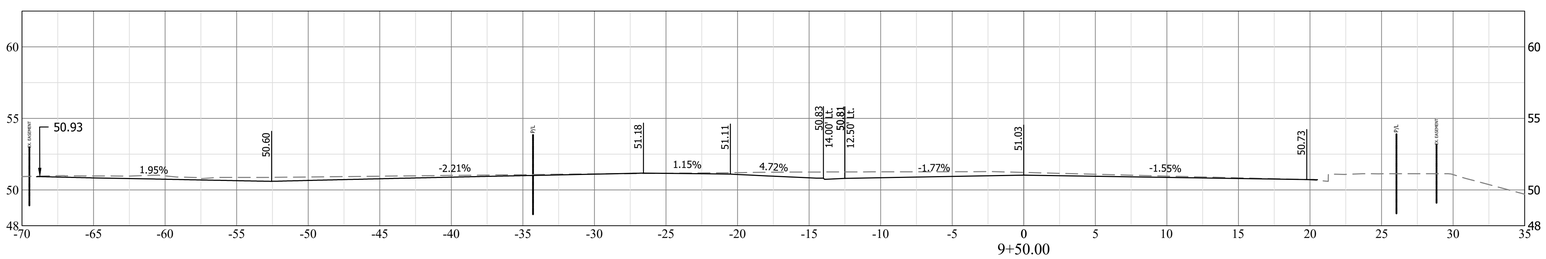


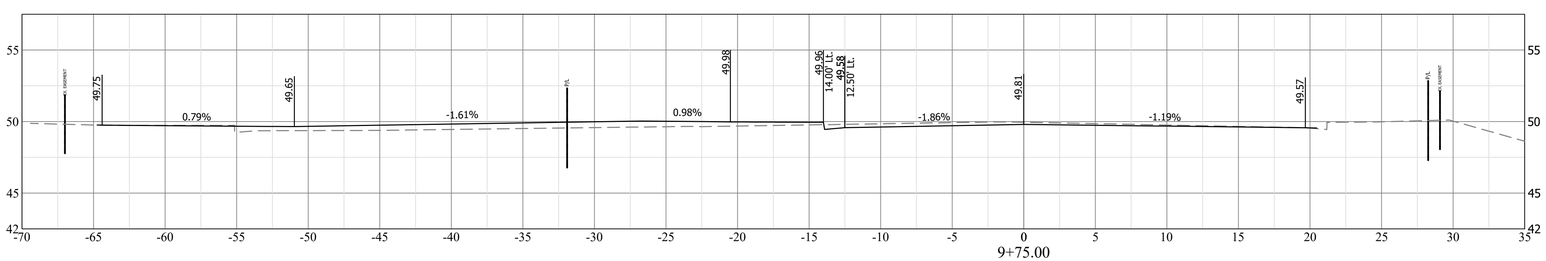




SOUTH FERN STREET BASELINE







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18TH STREET SOUTH

CROSS-SECTIONS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

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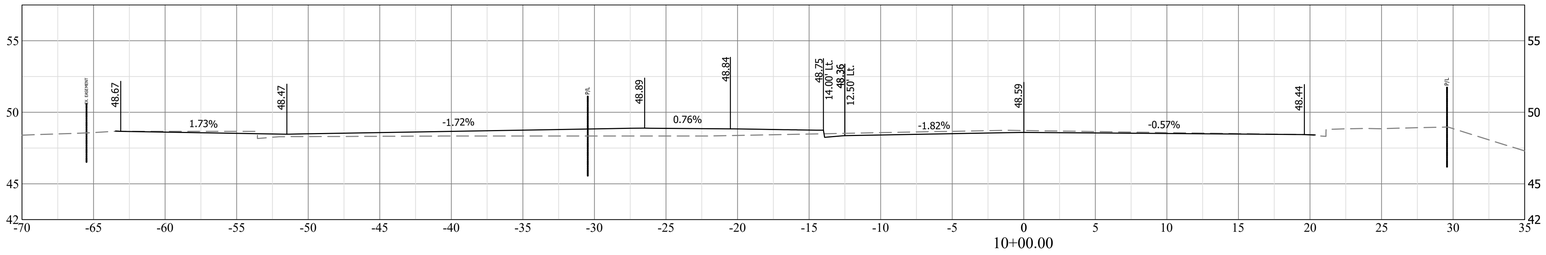
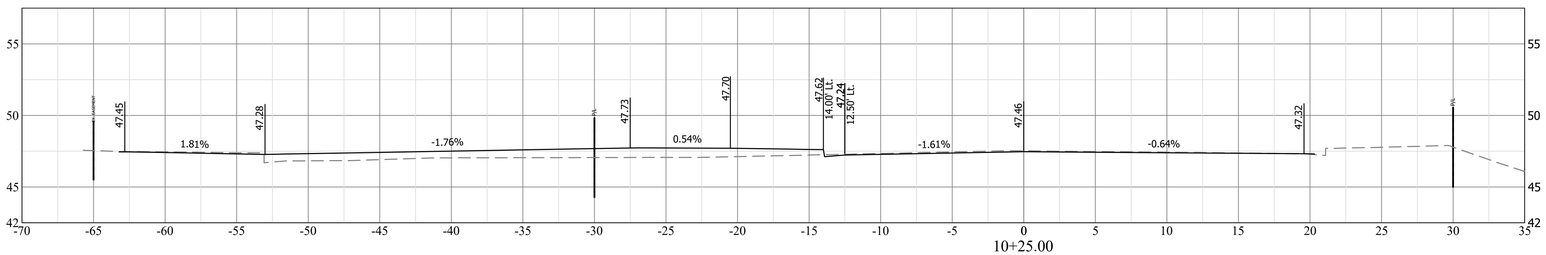
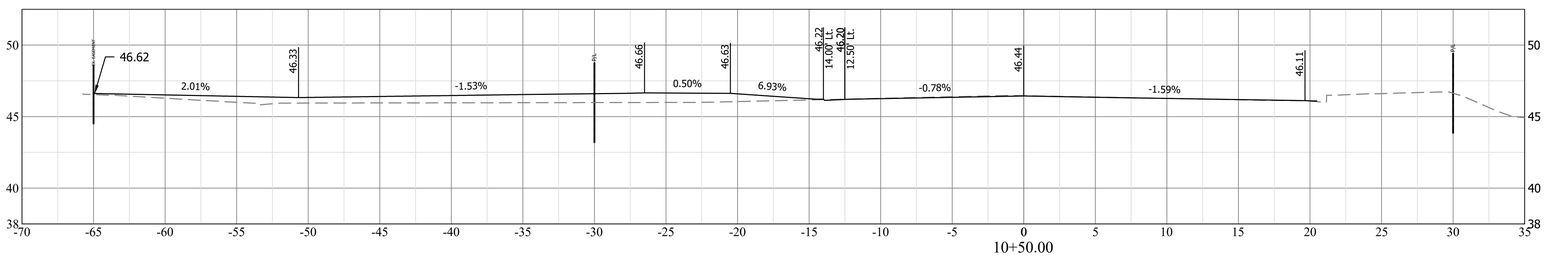
SHEET C044.10

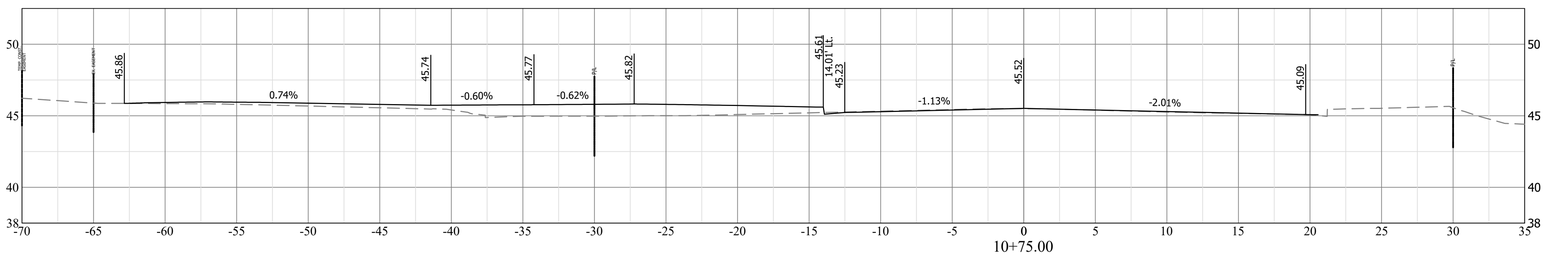
18TH STREET SOUTH

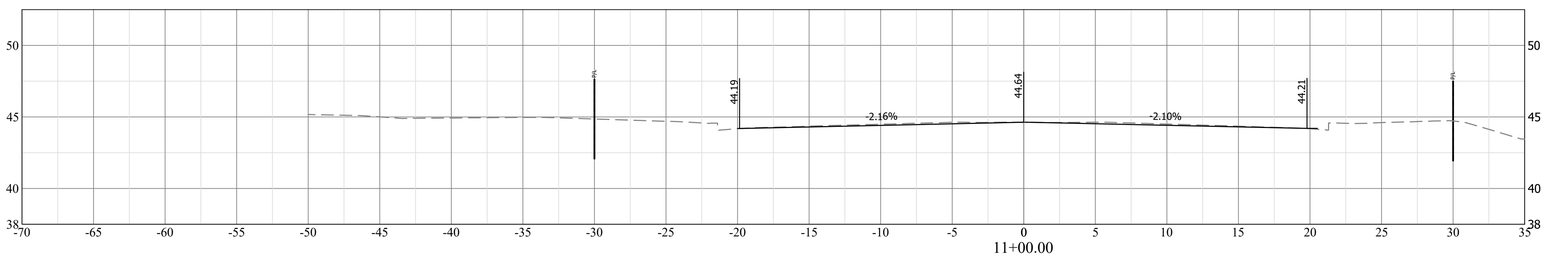
SOUTH FERN STREET BASELINE











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18TH STREET SOUTH

CROSS-SECTIONS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

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SHEET C044.11

LINE AND CURVE TABLES LOCATED ON SHEET C045.3

END OF CONSTRUCTION
11+10.50 ALIGNMENT: FERN ST S CONSTRUCTION BL
=17+46.82 ALIGNMENT: FERN ST. NORTH OF 18TH 0.00'

END 14+86.17 ALIGNMENT:
S 18TH ST LEFT OF FERN (EOP WESTBOUND)
=17+31.04 ALIGNMENT: FERN ST. NORTH OF 18TH -19.91'

FERN ST S CONSTRUCTION BL
(CENTERLINE)

FERN ST. NORTH OF 18TH
(EXISTING)

START 11+94.12 ALIGNMENT:
S 18TH ST RIGHT OF FERN (EOP WESTBOUND)
=15+46.94 ALIGNMENT: FERN ST. NORTH OF 18TH 28.19'

START 11+90.90 ALIGNMENT:
S 18TH ST LEFT OF FERN (EOP WESTBOUND)
=11+80.82 ALIGNMENT: 18TH-S2 44.87'

S 18TH ST LEFT OF FERN
(EOP WESTBOUND) [CR-5]

S 18TH ST RIGHT OF FERN
(EOP WESTBOUND) [CR-4]

START OF CONSTRUCTION
8+00.00 ALIGNMENT: 18TH ST S CONSTRUCTION BL
=13+99.93 ALIGNMENT: 18TH-S2 0.35'

START 0+00.00 END 2+33.11
ALIGNMENT: BIKE MEDIAN - LEFT
=11+82.32 ALIGNMENT: 18TH-S2 37.86'

START 0+00.00 ALIGNMENT:
18TH ST CENTER MEDIAN NOSE
=11+86.54 ALIGNMENT: 18TH-S2 8.93'

BIKE MEDIAN - LEFT

BIKE MEDIAN - RIGHT

START 5+19.95 ALIGNMENT:
S 18TH ST LEFT OF SERVICE (EOP EASTBOUND)
=13+92.13 ALIGNMENT: 18TH-S2 -43.85'

END 1+21.55 ALIGNMENT:
18TH ST CENTER MEDIAN NOSE
=12+34.76 ALIGNMENT: 18TH-S2 -8.05'

18TH ST CENTER
MEDIAN NOSE

18TH-S2
(EXISTING)

ALIGNMENT CROSSING:
18TH ST S CONSTRUCTION BL
=11+83.98

18TH ST S CONSTRUCTION BL
(CENTERLINE)

ALIGNMENT CROSSING:
FERN ST S CONSTRUCTION BL
=8+27.32

START 0+00.00 END 2+58.83
ALIGNMENT: BIKE MEDIAN - RIGHT
=9+00.02 ALIGNMENT: 18TH-S2 22.97'

END 8+17.49 ALIGNMENT:
S 18TH ST LEFT OF SERVICE (EOP EASTBOUND)
=13+42.45 ALIGNMENT: 18TH-S2 -67.43'

S 18TH ST LEFT OF SERVICE
(EOP EASTBOUND) [CR-1]

START 6+71.38 ALIGNMENT:
S 18TH ST LEFT OF FERN (EOP EASTBOUND)
=12+31.16 ALIGNMENT: 18TH-S2 -63.93'

S 18TH ST LEFT OF FERN
(EOP EASTBOUND) [CR-2]

S 18TH ST RIGHT OF FERN
(EOP EASTBOUND) [CR-3]

END 11+96.00 ALIGNMENT:
S 18TH ST RIGHT OF FERN (EOP EASTBOUND)
=8+99.37 ALIGNMENT: 18TH-S2 -39.78'

START 10+55.57 ALIGNMENT:
S 18TH ST RIGHT OF FERN (EOP EASTBOUND)
=13+63.61 ALIGNMENT: FERN ST. SOUTH OF 18TH 29.91'

END 9+69.65 ALIGNMENT:
S 18TH ST LEFT OF FERN (EOP EASTBOUND)
=13+40.32 ALIGNMENT: FERN ST. SOUTH OF 18TH -10.69'

START OF CONSTRUCTION
6+63.00 ALIGNMENT: FERN ST S CONSTRUCTION BL
=12+95.78 ALIGNMENT: FERN ST. SOUTH OF 18TH 9.50'

FERN ST. SOUTH OF 18TH
(EXISTING)

8+50.00 MATCH LINE
SEE SHEET C045.2

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18TH STREET SOUTH

GEOMETRIC PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST

CC20

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FILENAME:
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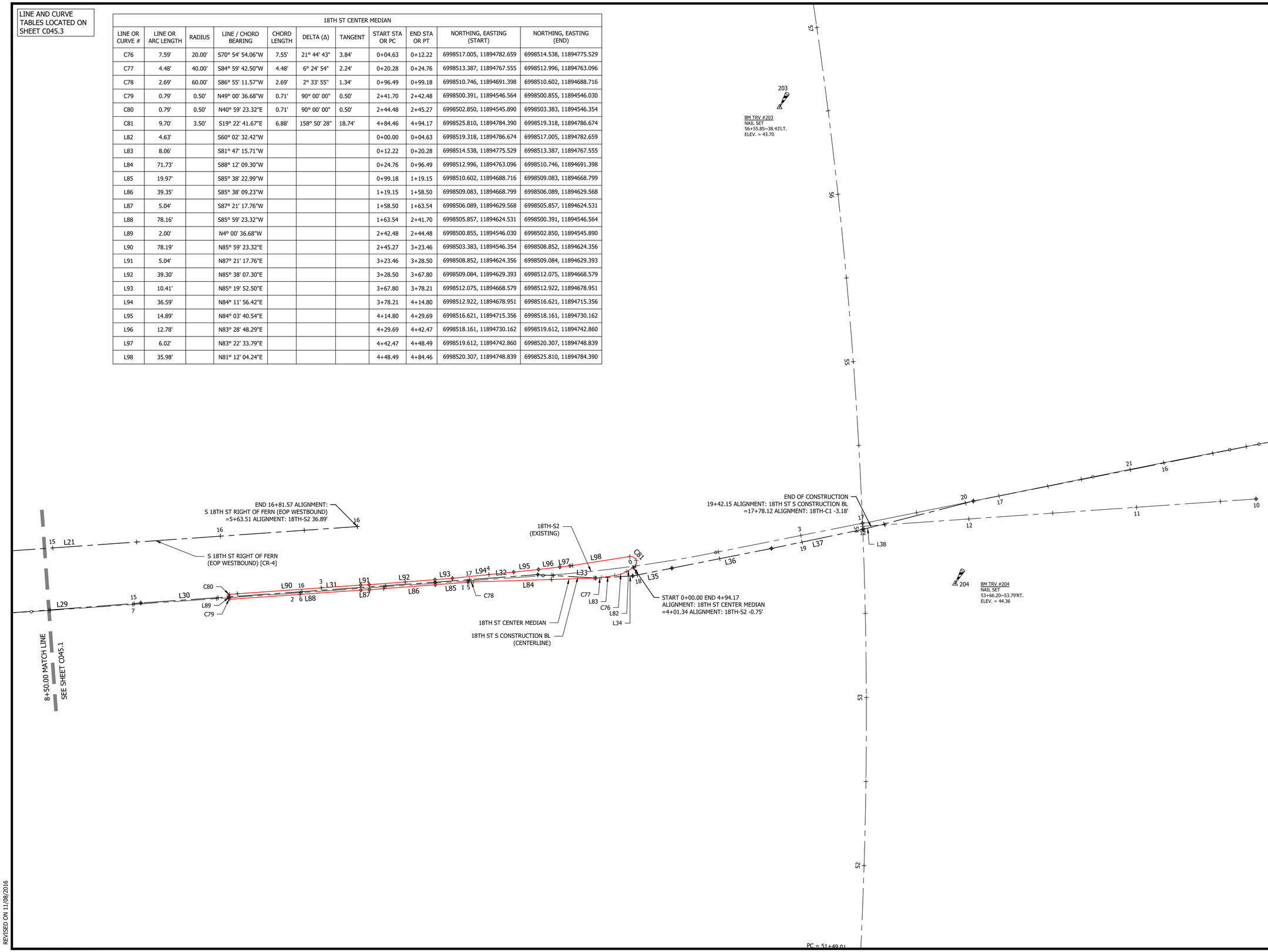
SHEET C045.1

LINE AND CURVE TABLES LOCATED ON SHEET C045.3

18TH ST CENTER MEDIAN

LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
C76	7.59'	20.00'	S70° 54' 54.06"W	7.55'	21° 44' 43"	3.84'	0+04.63	0+12.22	6998517.005, 11894782.659	6998514.538, 11894775.529
C77	4.48'	40.00'	S84° 59' 42.50"W	4.48'	6° 24' 54"	2.24'	0+20.28	0+24.76	6998513.387, 11894767.555	6998512.996, 11894763.096
C78	2.69'	60.00'	S86° 55' 11.57"W	2.69'	2° 33' 55"	1.34'	0+96.49	0+99.18	6998510.746, 11894691.398	6998510.602, 11894688.716
C79	0.79'	0.50'	N49° 00' 36.68"W	0.71'	90° 00' 00"	0.50'	2+41.70	2+42.48	6998500.391, 11894546.564	6998500.855, 11894546.030
C80	0.79'	0.50'	N40° 59' 23.32"E	0.71'	90° 00' 00"	0.50'	2+44.48	2+45.27	6998502.850, 11894545.890	6998503.383, 11894546.354
C81	9.70'	3.50'	S19° 22' 41.67"E	6.88'	158° 50' 28"	18.74'	4+84.46	4+94.17	6998525.810, 11894784.390	6998519.318, 11894786.674
L82	4.63'		S60° 02' 32.42"W				0+00.00	0+04.63	6998519.318, 11894786.674	6998517.005, 11894782.659
L83	8.06'		S81° 47' 15.71"W				0+12.22	0+20.28	6998514.538, 11894775.529	6998513.387, 11894767.555
L84	71.73'		S88° 12' 09.30"W				0+24.76	0+96.49	6998512.996, 11894763.096	6998510.746, 11894691.398
L85	19.97'		S85° 38' 22.99"W				0+99.18	1+19.15	6998510.602, 11894688.716	6998509.083, 11894668.799
L86	39.35'		S85° 38' 09.23"W				1+19.15	1+58.50	6998509.083, 11894668.799	6998506.089, 11894629.568
L87	5.04'		S87° 21' 17.76"W				1+58.50	1+63.54	6998506.089, 11894629.568	6998505.857, 11894624.531
L88	78.16'		S85° 59' 23.32"W				1+63.54	2+41.70	6998505.857, 11894624.531	6998500.391, 11894546.564
L89	2.00'		N4° 00' 36.68"W				2+42.48	2+44.48	6998500.855, 11894546.030	6998502.850, 11894545.890
L90	78.19'		N85° 59' 23.32"E				2+45.27	3+23.46	6998503.383, 11894546.354	6998508.852, 11894624.356
L91	5.04'		N87° 21' 17.76"E				3+23.46	3+28.50	6998508.852, 11894624.356	6998509.084, 11894629.393
L92	39.30'		N85° 38' 07.30"E				3+28.50	3+67.80	6998509.084, 11894629.393	6998512.075, 11894668.579
L93	10.41'		N85° 19' 52.50"E				3+67.80	3+78.21	6998512.075, 11894668.579	6998512.922, 11894678.951
L94	36.59'		N84° 11' 56.42"E				3+78.21	4+14.80	6998512.922, 11894678.951	6998516.621, 11894715.356
L95	14.89'		N84° 03' 40.54"E				4+14.80	4+29.69	6998516.621, 11894715.356	6998518.161, 11894730.162
L96	12.78'		N83° 28' 48.29"E				4+29.69	4+42.47	6998518.161, 11894730.162	6998519.612, 11894742.860
L97	6.02'		N83° 22' 33.79"E				4+42.47	4+48.49	6998519.612, 11894742.860	6998520.307, 11894748.839
L98	35.98'		N81° 12' 04.24"E				4+48.49	4+84.46	6998520.307, 11894748.839	6998525.810, 11894784.390



REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
Kamal N. Taktak	6.26.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Jung	6/17/2020
PROJECT MANAGER	

REVISIONS DATE

18TH STREET SOUTH

GEOMETRIC PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-216-GEOMETRIC_CONTROL_PLAN.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

0 25 50
GRAPHIC SCALE

SHEET C045.2

18TH STREET SOUTH

18TH ST S CONSTRUCTION BL										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
C26	250.08'	817.97'	S74° 09' 06.07"E	249.11'	17° 31' 02"	126.02'	6+00.00	8+50.08	6998609.497, 11893603.237	6998541.467, 11893842.878
C27	0.24'	10.00'	S84° 27' 03.66"E	0.24'	1° 20' 59"	0.12'	9+64.04	9+64.28	6998529.112, 11893956.165	6998529.090, 11893956.400
C31	72.49'	400.50'	S88° 47' 16.65"E	72.39'	10° 22' 16"	36.35'	13+18.50	13+90.99	6998491.222, 11894308.566	6998489.690, 11894380.944
L22	113.96'		S83° 46' 33.95"E				8+50.08	9+64.04	6998541.467, 11893842.878	6998529.112, 11893956.165
L23	33.66'		S85° 07' 33.38"E				9+64.28	9+97.94	6998529.090, 11893956.400	6998526.229, 11893989.942
L24	48.68'		S85° 05' 27.19"E				9+97.95	10+46.63	6998526.229, 11893989.948	6998522.063, 11894038.452
L25	87.92'		S83° 14' 28.24"E				10+46.95	11+34.87	6998522.030, 11894038.773	6998511.683, 11894126.083
L26	49.04'		S83° 36' 08.83"E				11+34.94	11+83.98	6998511.675, 11894126.146	6998506.211, 11894174.879
L27	46.01'		S83° 36' 08.83"E				11+83.98	12+29.99	6998506.211, 11894174.879	6998501.084, 11894220.606
L28	88.51'		S83° 36' 08.83"E				12+29.99	13+18.50	6998501.084, 11894220.606	6998491.222, 11894308.566
L29	112.96'		N85° 41' 22.64"E				13+90.99	15+03.96	6998489.690, 11894380.944	6998498.181, 11894493.589
L30	52.50'		N85° 59' 23.32"E				15+03.96	15+56.46	6998498.181, 11894493.589	6998501.852, 11894545.960
L31	123.04'		N85° 55' 57.18"E				15+56.46	16+79.50	6998501.852, 11894545.960	6998510.579, 11894668.688
L32	61.23'		N85° 45' 49.70"E				16+79.50	17+40.72	6998510.579, 11894668.688	6998515.102, 11894729.749
L33	34.47'		S86° 34' 31.96"E				17+40.72	17+75.19	6998515.102, 11894729.749	6998513.043, 11894764.152
L34	22.08'		N86° 41' 18.13"E				17+75.19	17+97.27	6998513.043, 11894764.152	6998514.319, 11894786.196
L35	23.76'		N78° 47' 46.51"E				17+97.27	18+21.03	6998514.319, 11894786.196	6998518.936, 11894809.506
L36	60.39'		N78° 47' 46.51"E				18+21.03	18+81.42	6998518.936, 11894809.506	6998530.669, 11894868.744
L37	55.47'		N78° 13' 45.15"E				18+81.42	19+36.89	6998530.669, 11894868.744	6998541.984, 11894923.043
L38	67.92'		N75° 36' 29.72"E				19+36.89	20+04.80	6998541.984, 11894923.043	6998558.865, 11894988.828

FERN ST S CONSTRUCTION BL										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
C32	10.44'	675.00'	N7° 02' 29.55"W	10.44'	0° 53' 10"	5.22'	8+16.88	8+27.32	6998495.852, 11894176.158	6998506.211, 11894174.879
C33	60.25'	675.00'	N10° 02' 30.04"W	60.23'	5° 06' 51"	30.15'	8+27.32	8+87.57	6998506.211, 11894174.879	6998565.519, 11894164.377
C34	70.45'	675.00'	N9° 36' 32.22"W	70.41'	5° 58' 47"	35.26'	9+54.11	10+24.56	6998630.457, 11894149.863	6998699.884, 11894138.109
L39	316.88'		N6° 35' 54.70"W				5+00.00	8+16.88	6998181.071, 11894212.572	6998495.852, 11894176.158
L40	66.54'		N12° 35' 55.69"W				8+87.57	9+54.11	6998565.519, 11894164.377	6998630.457, 11894149.863
L41	275.44'		N6° 37' 08.75"W				10+24.56	13+00.00	6998699.884, 11894138.109	6998973.488, 11894106.359

18TH ST CENTER MEDIAN NOSE										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
C60	21.71'	351.50'	S81° 55' 30.94"E	21.70'	3° 32' 17"	10.86'	0+00.05	0+21.76	6998532.196, 11894006.130	6998529.147, 11894027.618
C61	16.51'	5.50'	S5° 49' 09.93"W	10.97'	171° 57' 04"	78.18'	0+28.32	0+44.82	6998528.026, 11894034.082	6998517.109, 11894032.969
C62	26.34'	400.00'	N86° 19' 06.83"W	26.33'	3° 46' 22"	13.17'	0+92.01	1+18.35	6998518.587, 11893985.807	6998520.278, 11893959.527
L65	0.05'		S83° 41' 39.68"E				0+00.00	0+00.05	6998532.201, 11894006.081	6998532.196, 11894006.130
L66	6.56'		S80° 09' 22.21"E				0+21.76	0+28.32	6998529.147, 11894027.618	6998528.026, 11894034.082
L67	47.19'		N88° 12' 17.93"W				0+44.82	0+92.01	6998517.109, 11894032.969	6998518.587, 11893985.807
L68	47.19'		N88° 12' 17.93"W				0+44.82	0+92.01	6998517.109, 11894032.969	6998518.587, 11893985.807
L69	3.20'		N84° 25' 55.73"W				1+18.35	1+21.55	6998520.278, 11893959.527	6998520.589, 11893956.339

BIKE MEDIAN - LEFT										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
C63	3.91'	2.50'	S38° 51' 48.64"E	3.53'	89° 39' 42"	2.49'	0+04.95	0+08.86	6998555.571, 11894012.970	6998552.826, 11894015.182
C64	24.70'	400.00'	S81° 55' 30.94"E	24.70'	3° 32' 17"	12.35'	0+09.40	0+34.10	6998552.767, 11894015.716	6998549.298, 11894040.168
C65	16.63'	276.50'	S81° 52' 45.52"E	16.63'	3° 26' 47"	8.32'	0+89.14	1+05.77	6998539.889, 11894094.396	6998537.540, 11894110.858
C66	7.07'	2.25'	N6° 23' 51.17"E	4.50'	180° 00' 00"	INFINITY'	1+15.22	1+22.29	6998536.487, 11894120.248	6998540.959, 11894120.749
C68	13.59'	106.00'	N79° 55' 51.25"W	13.58'	7° 20' 35"	6.80'	1+37.60	1+51.18	6998542.665, 11894105.532	6998545.039, 11894092.166
C69	11.89'	94.00'	N79° 53' 03.15"W	11.89'	7° 14' 59"	5.95'	2+16.42	2+28.31	6998560.534, 11894028.798	6998562.621, 11894017.097
C70	3.95'	2.50'	S51° 13' 44.88"W	3.55'	90° 31' 25"	2.52'	2+29.16	2+33.11	6998562.717, 11894016.254	6998560.493, 11894013.484
L70	4.95'		S5° 58' 02.41"W				0+00.00	0+04.95	6998560.493, 11894013.484	6998555.571, 11894012.970
L71	0.54'		S83° 41' 39.68"E				0+08.86	0+09.40	6998552.826, 11894015.182	6998552.767, 11894015.716
L72	55.04'		S80° 09' 22.21"E				0+34.10	0+89.14	6998549.298, 11894040.168	6998539.889, 11894094.396
L73	9.45'		S83° 36' 08.83"E				1+05.77	1+15.22	6998537.540, 11894110.858	6998536.487, 11894120.248
L74	15.31'		N83° 36' 08.83"W				1+22.29	1+37.60	6998540.959, 11894120.749	6998542.665, 11894105.532
L76	65.23'		N76° 15' 33.66"W				1+51.18	2+16.42	6998545.039, 11894092.166	6998560.534, 11894028.798
L77	0.85'		N83° 30' 32.65"W				2+28.31	2+29.16	6998562.621, 11894017.097	6998562.717, 11894016.254

BIKE MEDIAN - RIGHT										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
C71	5.67'	1.80'	N6° 23' 49.92"E	3.61'	180° 00' 00"	INFINITY'	0+72.17	0+77.84	6998523.914, 11894218.921	6998527.499, 11894219.323
C72	100.91'	806.00'	S87° 11' 20.63"E	100.84'	7° 10' 24"	50.52'	0+96.00	1+96.91	6998525.475, 11894237.373	6998520.530, 11894338.094
C73	14.38'	4.50'	S0° 45' 56.87"W	9.00'	183° 04' 59"	167.22'	1+96.91	2+11.29	6998520.530, 11894338.094	6998511.534, 11894337.974
C74	26.98'	378.00'	N85° 38' 51.33"W	26.98'	4° 05' 25"	13.50'	2+11.29	2+38.28	6998511.534, 11894337.974	6998513.582, 11894311.073
L78	72.17'		N83° 36' 08.83"W				0+00.00	0+72.17	6998515.872, 11894290.644	6998523.914, 11894218.921
L80	18.16'		S83° 36' 08.83"E				0+77.84	0+96.00	6998527.499, 11894219.323	6998525.475, 11894237.373
L81	20.56'		N83° 36' 08.83"W				2+38.28	2+58.83	6998513.582, 11894311.073	6998515.872, 11894290.644

S 18TH ST LEFT OF SERVICE (EOP EASTBOUND)										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
C1	40.36'	148.50'	S87° 46' 50.45"E	40.24'	15° 34' 22"	20.31'	5+19.95	5+60.31	6998504.248, 11893793.410	6998502.690, 11893833.617
C2	31.33'	151.50'	S89° 38' 35.71"E	31.27'	11° 50' 52"	15.72'	5+60.31	5+91.64	6998502.690, 11893833.617	6998502.495, 11893864.888
C3	23.74'	8.00'	S1° 18' 01.09"W	15.94'	170° 02' 22"	91.80'	6+81.60	7+05.34	6998492.654, 11893954.309	6998476.718, 11893953.947
C4	9.19'	16.50'	N77° 43' 20.26"W	9.07'	31° 54' 57"	4.72'	7+09.15	7+18.35	6998476.473, 11893950.142	6998478.403, 11893941.277
C5	7.63'	13.50'	N77° 57' 34.99"W	7.53'	32° 23' 27"	3.92'	7+18.35	7+25.98	6998478.403, 11893941.277	6998479.973, 11893933.912
L1	89.96'		S83° 43' 09.81"E				5+91.64	6+81.60	6998502.495, 11893864.888	6998492.654, 11893954.309
L2	3.81'		S86° 19' 12.00"W				7+05.34	7+09.15	6998476.718, 11893953.947	6998476.473, 11893950.142
L3	89.67'		S85° 50' 41.45"W				7+25.98	8+15.64	6998479.973, 11893933.912	6998473.476, 11893844.481
L4	1.84'		S85° 58' 03.23"W				8+15.64	8+17.49	6998473.476, 11893844.481	6998473.347, 11893842.641

S 18TH ST LEFT OF FERN (EOP EASTBOUND)										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
C6	12.98'	13.50'	N58° 25' 34.07"E	12.48'	55° 04' 57"	7.04'	7+05.44	7+18.41	6998467.049, 11893987.790	6998473.585, 11893998.426
C7	17.54'	16.50'	N61° 20' 24.22"E	16.73'	60° 54' 36"	9.70'	7+27.69	7+45.23	6998481.547, 11894003.188	6998489.569, 11894017.865
C8	4.71'	16.50'	S80° 01' 29.62"E	4.70'	16° 21' 37"	2.37'	7+68.19	7+72.90	6998488.850, 11894040.813	6998488.036, 11894045.437
C9	4.11'	18.50'	S78° 12' 11.84"E	4.10'	12° 43' 01"	2.06'	8+08.81	8+12.92	6998476.848, 11894079.556	6998476.010, 11894083.568
C10	42.69'	31.50'	S44° 33' 35.84"E	39.50'	77° 39' 27"	25.35'	8+69.28	9+11.97	6998469.916, 11894139.597	6998441.771, 11894167.313
C11	7.32'	11.50'	S12° 30' 15.37"W	7.20'	36° 28' 16"	3.79'	9+11.97	9+19.29	6998441.771, 11894167.313	6998434.745, 11894165.755
C12	8.77'	13.53'	S12° 07' 06.31"W	8.62'	37° 08' 56"	4.55'	9+19.29	9+28.07	6998434.745, 11894165.755	6998426.316, 11894163.945
L5	34.06'		N85° 58' 01.09"E				6+71.38	7+05.44	6998464.653, 11893953.818	6998467.049, 11893987.790
L6	9.28'		N30° 53' 06.36"E				7+18.41	7+27.69	6998473.585, 11893998.426	6998481.547, 11894003.188
L7	22.96'		S88° 12' 17.93"E				7+45.23	7+68.19	6998489.569, 11894017.865	6998488.850, 11894040.813
L8	35.91'		S71° 50' 41.32"E				7+72.90	8+08.81	6998488.036, 11894045.437	6998476.848, 11894079.556
L9	11.18'		S84° 33' 42.36"E				8+12.92	8+24.10	6998476.010, 11894083.568	6998474.951, 11894094.698
L10	45.18'		S83° 36' 07.83"E				8+24.10	8+69.28	6998474.951, 11894094.698	6998469.916, 11894139.597
L11	41.58'		S6° 30' 10.59"E				9+28.07	9+69.65	6998426.316, 11894163.945	6998385.000, 11894168.654

S 18TH ST RIGHT OF FERN (EOP EASTBOUND)										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
C13	8.30'	13.50'	N24° 03' 37.37"W	8.17'	35° 14' 54"	4.29'	10+63.87	10+72.17	6998419.874, 11894205.517	6998427.338, 11894202.184
C14	10.15'	16.50'	N24° 03' 35.46"W	9.99'	35° 14' 51"	5.24'	10+72.17	10+82.33	6998427.338, 11894202.184	6998436.461, 11894198.111
C15	53.21'	26.50'	N51° 04' 53.12"E	44.71'	115° 02' 06"	41.62'	10+86.07	11+39.28	6998440.187, 11894197.691	6998468.274, 11894232.476
C16	24.83'	98.50'	S78° 37' 19.78"E	24.76'	14° 26' 32"	12.48'	11+71.17	11+96.00	6998458.102, 11894262.702	6998453.217, 11894286.978
L12	7.12'		N6° 26' 09.94"W				10+56.75	10+63.87	6998412.799, 11894206.315	6998419.874, 11894205.517
L13	3.75'		N6° 26' 09.94"W				10+82.33	10+86.07	6998436.461, 11894198.111	6998440.187, 11894197.691
L14	31.89'		S71° 24' 03.81"E				11+39.28	11+71.17	6998468.274, 11894232.476	6998458.102, 11894262.702

S 18TH ST LEFT OF FERN (EOP WESTBOUND)										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
C17	12.46'	98.50'	S79° 53' 03.15"E	12.46'	7° 14' 59"	6.24'	11+21.78	11+34.24	6998567.093, 11894017.606	6998564.905, 11894029.867
C18	13.01'	101.50'	S79° 55' 51.25"E	13.00'	7° 20' 35"	6.51'	11+99.48	12+12.49	6998549.410, 11894093.235	6998547.137, 11894106.034
C19	40.90'	21.50'	N41° 53' 57.74"E	35.01'	108° 59' 47"	30.14'	12+33.58	12+74.48	6998544.786, 11894127.001	6998570.842, 11894150.379
C20	71.75'	687.50'	N9° 36' 32.22"W	71.72'	5° 58' 47"	35.91'	13+32.78	14+04.53	6998627.731, 11894137.664	6998698.443, 11894125.692
C21	11.85'	16.50'	N27° 12' 01.21"W	11.60'	41° 09' 45"	6.20'	14+54.38	14+66.23	6998747.961, 11894119.946	6998758.279, 11894114.643
C22	9.96'	13.50'	N26° 38' 16.88"W	9.74'	42° 17' 14"	5.22'	14+66.23	14+76.20	6998758.279, 11894114.643	6998766.985, 11894110.277
L15	1.88'		S83° 30' 32.65"E				11+19.90	11+21.78	6998567.305, 11894015.738	6998567.093, 11894017.606
L16	65.23'		S76° 15' 33.66"E				11+34.24	11+99.48	6998564.905, 11894029.867	6998549.410, 11894093.235
L17	21.10'		S83° 36' 08.83"E				12+12.49	12+33.58	6998547.137, 11894106.034	6998544.786, 11894127.001
L18	58.29'		N12° 35' 55.69"W				12+74.48	13+32.78	6998570.842, 11894150.379	6998627.731, 11894137.664
L19	49.85'		N6° 37' 08.75"W				14+04.53	14+54.38	6998698.443, 11894125.692	6998747.961, 11894119.946

S 18TH ST RIGHT OF FERN (EOP WESTBOUND)										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
C23	7.41'	13.50'	S2° 58' 08.39"W	7.32'	31° 28' 05"	3.80'	11+94.12	12+01.53	6998589.649, 11894179.278	6998582.337, 11894178.899
C24	66.96'	37.50'	S32° 26' 58.87"E	58.41'	102° 18' 20"	46.56'	12+01.53	12+68.49	6998582.337, 11894178.899	6998533.046, 11894210.240
C25	145.59'	801.50'	S88° 48' 22.76"E	145.39'	10° 24' 28"	73.00'	12+96.30	14+41.89	6998529.947, 11894237.875	6998526.918, 11894383.235
L20	27.81'		S83° 36' 08.83"E				12+68.49	12+96.30	6998533.046, 11894210.240	6998529.947, 11894237.875
L21	239.72'		N85° 59' 23.32"E				14+41.89	16+81.61	6998526.918, 11894383.235	6998543.683, 11894622.369

BENCHMARK TABLE		
BM#	NORTHING	EASTING
200	6999342.5062	11894165.8183
201	6999438.1307	11894730.9714
202	6999089.9634	11894882.7259
203	6998793.2265	11894873.5154
204	6998509.6607	11894977.9298
300	6998535.6686	11894587.5405
301	6998495.8100	11894213.5573
302	6998480.0643	11893821.7028
303	6998434.8404	11893470.9261

REFER TO SHEET C011.1-C011.3 SURVEY CONTROL TABLE

REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
Kamal N. Taktak	6.26.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Yang	6/17/2020
PROJECT MANAGER	

REVISIONS	DATE

18TH STREET SOUTH

GEOMETRIC PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME: CC20-216-GEOMETRIC_CONTROL_PLAN.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

N/A

SHEET C045.3

LINE AND CURVE TABLES LOCATED ON SHEET C045.6

END OF CONSTRUCTION
11+10.50 ALIGNMENT: FERN ST S CONSTRUCTION BL
=17+46.82 ALIGNMENT: FERN ST. NORTH OF 18TH 0.00'

ALIGNMENT:
P Strm 10.0-16901

L260

N:6998747.7269
E:11894117.9644

EXISTING STRUCTURE

START ALIGNMENT:
P Strm 10.0-16901 STA.=0+00.00 FROM
FERN ST. NORTH OF 18TH STA.=17+09.03, -16.50'

N:6998738.8294
E:11894114.9505

END ALIGNMENT:
P Strm 10.0-16901 STA.=0+11.54 FROM
FERN ST. NORTH OF 18TH STA.=17+05.12, -27.35'

SUB STATION
PROJECT STRUCTURE

FERN ST S CONSTRUCTION BL
(CENTERLINE)

FERN ST. NORTH OF 18TH
(EXISTING)

N:6998637.8960
E:11894113.0461

END ALIGNMENT:
P Strm 1.0-16901 STA.=3+10.19 FROM
FERN ST. NORTH OF 18TH STA.=16+09.93, -50.83'

SUB STATION
PROJECT STRUCTURE

N:6998633.8820
E:11894109.0602

18TH ST S CONSTRUCTION BL
(CENTERLINE)

ALIGNMENT:
P Strm 1.0-16901

START OF CONSTRUCTION
8+00.00 ALIGNMENT: 18TH ST S CONSTRUCTION BL
=13+99.93 ALIGNMENT: 18TH-S2 0.35'

START ALIGNMENT:
P Strm 3.1-3.0 STA.=0+00.00 FROM
18TH-S2 STA.=11+76.80, -1.08'

18TH-S2
(EXISTING)

N:6998546.7846
E:11894066.5451

N:6998548.8678
E:11894108.5154

N:6998551.9008
E:11894117.4065

L205

L204

N:6998523.1171
E:11894016.7803

N:6998537.7711
E:11894111.0565

N:6998540.8097
E:11894119.9457

ALIGNMENT CROSSING:
18TH ST S CONSTRUCTION BL
=11+83.98

START ALIGNMENT:
Ex Strm 17125-3.0 STA.=0+00.00 FROM
18TH-S2 STA.=12+54.87, -47.54'

N:6998519.3954
E:11894008.1548

ALIGNMENT:
P Strm 3.1-3.0

N:6998485.6746
E:11893933.8870

END ALIGNMENT:
P Strm 3.1-3.0 STA.=0+44.83 FROM
18TH-S2 STA.=11+33.63, -13.15'

END ALIGNMENT:
Ex Strm 17125-3.0 STA.=1+26.02 FROM
18TH-S2 STA.=11+33.63, -13.15'

N:6998481.0532
E:11893925.7083

N:6998485.9664
E:11894045.3377

N:6998472.3507
E:11894122.9569

ALIGNMENT:
Ex Strm 17125-3.0

N:6998479.5149
E:11894052.1661

ALIGNMENT:
P Strm 1.0-16901

N:6998469.8273
E:11894113.2830

START ALIGNMENT:
P Strm 1.0-16901 STA.=0+00.00 FROM
18TH-S2 STA.=10+65.63, -39.05'

ALIGNMENT CROSSING:
FERN ST S CONSTRUCTION BL
=8+27.32

8+50.00 MATCH LINE
SEE SHEET C045.5

START OF CONSTRUCTION
6+63.00 ALIGNMENT: FERN ST S CONSTRUCTION BL
=12+95.78 ALIGNMENT: FERN ST. SOUTH OF 18TH 9.50'

FERN ST. SOUTH OF 18TH
(EXISTING)

REVISED ON 11/08/2016

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TREVOR M. LANTZY
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3/1/2021
PROFESSIONAL ENGINEER

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CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

UTILITY GEOMETRIC PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST

CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-216-UTILITY_GEOMETRIC_CONTROL_PLAN.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

0 25 50
GRAPHIC SCALE

SHEET C045.4

LINE AND CURVE TABLES LOCATED ON SHEET C045.6

N:6998545.7979
E:11894609.2682

START ALIGNMENT:
P Strm 8.0-17117 STA.=0+00.00 FROM
18TH-S2 STA.=5+68.84, 37.59'

N:6998542.8647
E:11894618.8259

ALIGNMENT:
P Strm 8.0-17117

EXISTING STRUCTURE

END ALIGNMENT:
P Strm 8.0-17117 STA.=0+55.97 FROM
18TH-S2 STA.=5+46.57, -13.77'

END ALIGNMENT:
P Strm 9.0-17117 STA.=0+67.50 FROM
18TH-S2 STA.=5+46.57, -13.77'

N:6998465.4632
E:11894575.9536

ALIGNMENT:
P Strm 9.0-17117

N:6998462.0666
E:11894584.7122

START ALIGNMENT:
P Strm 9.0-17117 STA.=0+00.00 FROM
18TH-S2 STA.=6+08.81, -39.88'

8+50.00 MATCH LINE
SEE SHEET C045.4

203
BM TRV #203
NAIL SET
56+55.85~38.43'LT.
ELEV. = 43.70

END OF CONSTRUCTION
19+42.15 ALIGNMENT: 18TH ST S CONSTRUCTION BL
=17+78.12 ALIGNMENT: 18TH-C1 -3.18'

EXISTING STRUCTURE

18TH-S2
(EXISTING)

18TH ST S CONSTRUCTION BL
(CENTERLINE)

204
BM TRV #204
NAIL SET
53+66.20~53.79'RT.
ELEV. = 44.36

PC = 51+49.01

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TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

UTILITY GEOMETRIC PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-216-UTILITY_GEOMETRIC_CONTROL_PLAN.DWG
PATH: Q:\DATA\CC20\DESIGN\CADD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

0 25 50
GRAPHIC SCALE

SHEET C045.5

18TH ST S CONSTRUCTION BL										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
C26	250.08'	817.97'	S74° 09' 06.07"E	249.11'	17° 31' 02"	126.02'	6+00.00	8+50.08	6998609.497, 11893603.237	6998541.467, 11893842.878
C27	0.24'	10.00'	S84° 27' 03.66"E	0.24'	1° 20' 59"	0.12'	9+64.04	9+64.28	6998529.112, 11893956.165	6998529.090, 11893956.400
C31	72.49'	400.50'	S88° 47' 16.65"E	72.39'	10° 22' 16"	36.35'	13+18.50	13+90.99	6998491.222, 11894308.566	6998489.690, 11894380.944
L22	113.96'		S83° 46' 33.95"E				8+50.08	9+64.04	6998541.467, 11893842.878	6998529.112, 11893956.165
L23	33.66'		S85° 07' 33.38"E				9+64.28	9+97.94	6998529.090, 11893956.400	6998526.229, 11893989.942
L24	48.68'		S85° 05' 27.19"E				9+97.95	10+46.63	6998526.229, 11893989.948	6998522.063, 11894038.452
L25	87.92'		S83° 14' 28.24"E				10+46.95	11+34.87	6998522.030, 11894038.773	6998511.683, 11894126.083
L26	49.04'		S83° 36' 08.83"E				11+34.94	11+83.98	6998511.675, 11894126.146	6998506.211, 11894174.879
L27	46.01'		S83° 36' 08.83"E				11+83.98	12+29.99	6998506.211, 11894174.879	6998501.084, 11894220.606
L28	88.51'		S83° 36' 08.83"E				12+29.99	13+18.50	6998501.084, 11894220.606	6998491.222, 11894308.566
L29	112.96'		N85° 41' 22.64"E				13+90.99	15+03.96	6998489.690, 11894380.944	6998498.181, 11894493.589
L30	52.50'		N85° 59' 23.32"E				15+03.96	15+56.46	6998498.181, 11894493.589	6998501.852, 11894545.960
L31	123.04'		N85° 55' 57.18"E				15+56.46	16+79.50	6998501.852, 11894545.960	6998510.579, 11894668.688
L32	61.23'		N85° 45' 49.70"E				16+79.50	17+40.72	6998510.579, 11894668.688	6998515.102, 11894729.749
L33	34.47'		S86° 34' 31.96"E				17+40.72	17+75.19	6998515.102, 11894729.749	6998513.043, 11894764.152
L34	22.08'		N86° 41' 18.13"E				17+75.19	17+97.27	6998513.043, 11894764.152	6998514.319, 11894786.196
L35	23.76'		N78° 47' 46.51"E				17+97.27	18+21.03	6998514.319, 11894786.196	6998518.936, 11894809.506
L36	60.39'		N78° 47' 46.51"E				18+21.03	18+81.42	6998518.936, 11894809.506	6998530.669, 11894868.744
L37	55.47'		N78° 13' 45.15"E				18+81.42	19+36.89	6998530.669, 11894868.744	6998541.984, 11894923.043
L38	67.92'		N75° 36' 29.72"E				19+36.89	20+04.80	6998541.984, 11894923.043	6998558.865, 11894988.828

FERN ST S CONSTRUCTION BL										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
C32	10.44'	675.00'	N7° 02' 29.55"W	10.44'	0° 53' 10"	5.22'	8+16.88	8+27.32	6998495.852, 11894176.158	6998506.211, 11894174.879
C33	60.25'	675.00'	N10° 02' 30.04"W	60.23'	5° 06' 51"	30.15'	8+27.32	8+87.57	6998506.211, 11894174.879	6998565.519, 11894164.377
C34	70.45'	675.00'	N9° 36' 32.22"W	70.41'	5° 58' 47"	35.26'	9+54.11	10+24.56	6998630.457, 11894149.863	6998699.884, 11894138.109
L39	316.88'		N6° 35' 54.70"W				5+00.00	8+16.88	6998181.071, 11894212.572	6998495.852, 11894176.158
L40	66.54'		N12° 35' 55.69"W				8+87.57	9+54.11	6998565.519, 11894164.377	6998630.457, 11894149.863
L41	275.44'		N6° 37' 08.75"W				10+24.56	13+00.00	6998699.884, 11894138.109	6998973.488, 11894106.359

P STRM 1.0-16901										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
L200	71.01'		N81° 18' 03.50"W				0+00.00	0+71.01	6998471.300, 11894121.078	6998482.039, 11894050.890
L201	23.08'		N13° 35' 24.48"E				0+71.01	0+94.09	6998482.039, 11894050.890	6998504.475, 11894056.313
L202	43.53'		N13° 35' 35.15"E				0+94.09	1+37.62	6998504.475, 11894056.313	6998546.784, 11894066.544
L203	51.78'		S81° 24' 02.01"E				1+37.62	1+89.39	6998546.784, 11894066.544	6998539.042, 11894117.737
L204	11.38'		N12° 53' 56.71"W				1+89.39	2+00.77	6998539.042, 11894117.737	6998550.135, 11894115.197
L205	5.68'		N62° 58' 06.13"W				2+00.77	2+06.45	6998550.135, 11894115.197	6998552.714, 11894110.142
L206	84.20'		N1° 17' 54.54"E				2+06.45	2+90.65	6998552.714, 11894110.142	6998636.893, 11894112.050
L207	19.54'		N71° 25' 35.77"W				2+90.65	3+10.19	6998636.893, 11894112.050	6998643.116, 11894093.529

EX STRM 17125-3.0										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
L220	126.02'		N80° 26' 02.38"E				0+00.00	1+26.02	6998483.531, 11893932.041	6998504.475, 11894056.313

P STRM 3.1-3.0										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
L240	44.83'		S68° 06' 56.69"E				0+00.00	0+44.83	6998521.183, 11894014.716	6998504.475, 11894056.313

P STRM 10.0-16901										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
L260	11.54'		S63° 32' 50.89"W				0+00.00	0+11.54	6998745.514, 11894116.203	6998740.374, 11894105.873

P STRM 9.0-17117										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
L280	67.50'		N63° 12' 34.07"E				0+00.00	0+67.50	6998463.922, 11894582.577	6998494.346, 11894642.831

P STRM 8.0-17117										
LINE OR CURVE #	LINE OR ARC LENGTH	RADIUS	LINE / CHORD BEARING	CHORD LENGTH	DELTA (Δ)	TANGENT	START STA OR PC	END STA OR PT	NORTHING, EASTING (START)	NORTHING, EASTING (END)
L300	55.97'		S27° 29' 34.02"E				0+00.00	0+55.97	6998543.995, 11894616.994	6998494.346, 11894642.831

BENCHMARK TABLE		
BM#	NORTHING	EASTING
200	6999342.5062	11894165.8183
201	6999438.1307	11894730.9714
202	6999089.9634	11894882.7259
203	6998793.2265	11894873.5154
204	6998509.6607	11894977.9298
300	6998535.6686	11894587.5405
301	6998495.8100	11894213.5573
302	6998480.0643	11893821.7028
303	6998434.8404	11893470.9261
REFER TO SHEET C011.1-C011.3 SURVEY CONTROL TABLE		

REVISED ON 11/08/2016

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COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
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QUALITY CONTROL ENGINEER	6.26.20
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CONSTRUCTION MANAGEMENT SUPERVISOR	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Jang	6/17/2020
PROJECT MANAGER	

REVISIONS	DATE

18TH STREET SOUTH

UTILITY GEOMETRIC PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME: CC20-216-UTILITY_GEOMETRIC_CONTROL_PLAN.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

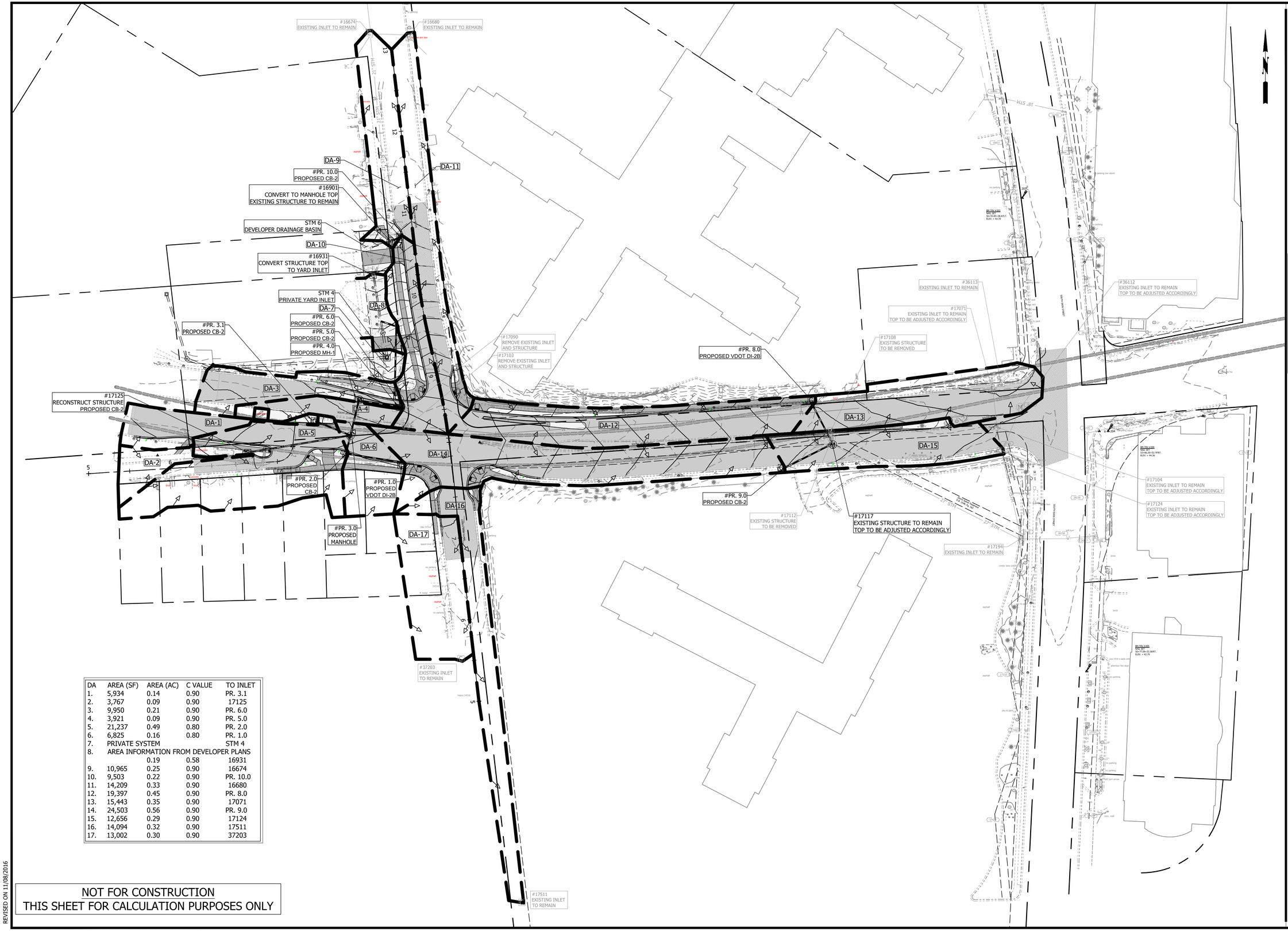
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

N/A

SHEET C045.6

18TH STREET SOUTH



DA	AREA (SF)	AREA (AC)	C VALUE	TO INLET
1.	5,934	0.14	0.90	PR. 3.1
2.	3,767	0.09	0.90	17125
3.	9,950	0.21	0.90	PR. 6.0
4.	3,921	0.09	0.90	PR. 5.0
5.	21,237	0.49	0.80	PR. 2.0
6.	6,825	0.16	0.80	PR. 1.0
7.	PRIVATE SYSTEM			STM 4
8.	AREA INFORMATION FROM DEVELOPER PLANS			
		0.19	0.58	16931
9.	10,965	0.25	0.90	16674
10.	9,503	0.22	0.90	PR. 10.0
11.	14,209	0.33	0.90	16680
12.	19,397	0.45	0.90	PR. 8.0
13.	15,443	0.35	0.90	17071
14.	24,503	0.56	0.90	PR. 9.0
15.	12,656	0.29	0.90	17124
16.	14,094	0.32	0.90	17511
17.	13,002	0.30	0.90	37203

NOT FOR CONSTRUCTION
THIS SHEET FOR CALCULATION PURPOSES ONLY

REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

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

SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

STORM SEWER DRAINAGE DIVIDES
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-250-DRAINAGE DIVIDES.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

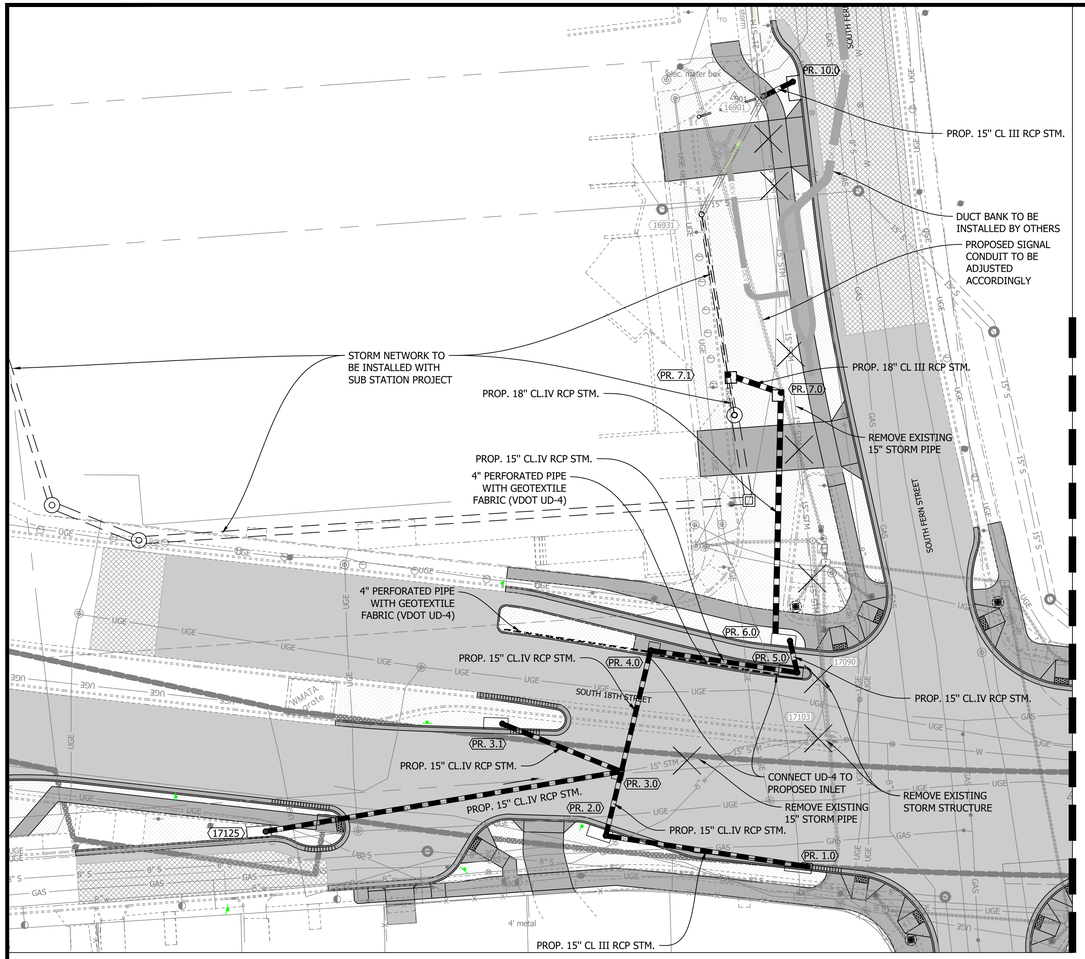
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

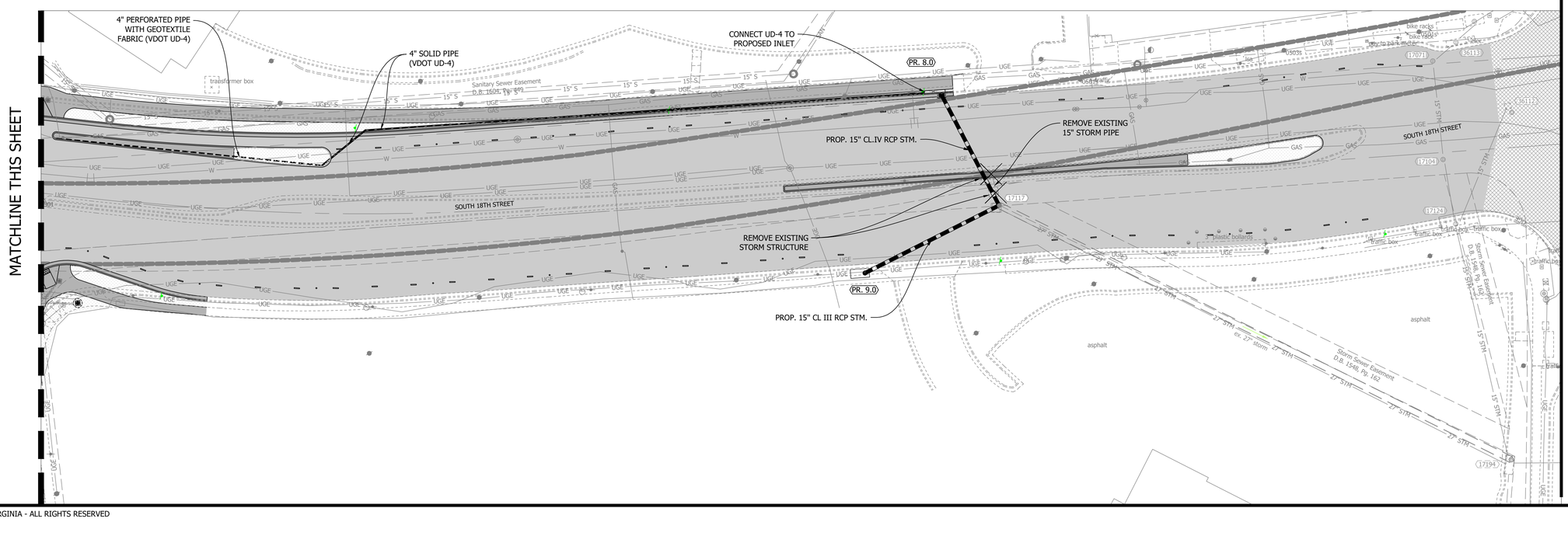
SCALE:

0 25 50
GRAPHIC SCALE

SHEET C071.1

18TH STREET SOUTH





Structure #	Data
16901	TOP = 46.05 INV. IN = 37.04 (18" RCP) FROM 16931 INV. IN = 41.33 (15" RCP) FROM PR. 10.0 INV. OUT= 36.87 (21" RCP) TO 16674
17117	TOP = 46.55 INV. IN = 38.00 (15" RCP) FROM PR. 8.0 INV. IN = 40.98 (15" RCP) FROM PR. 9.0 INV. OUT= 37.84 (27" RCP) TO 17194
17125	TOP = 57.39 INV. OUT= 54.13 (15" RCP) TO PR. 3.0
PR. 1.0	TOP = 55.41 INV. OUT= 49.17 (15" RCP) TO PR. 2.0
PR. 2.0	TOP = 56.32 INV. IN = 48.10 (15" RCP) FROM PR. 1.0 INV. OUT= 45.15 (15" RCP) TO PR. 3.0
PR. 3.0	TOP = 56.13 INV. IN = 52.87 (15" RCP) FROM 17125 INV. IN = 46.00 (15" RCP) FROM PR. 3.1 INV. IN = 44.92 (15" RCP) FROM PR. 2.0 INV. OUT= 44.92 (15" RCP) TO PR. 4.0
PR. 3.1	TOP = 56.95 INV. OUT= 46.67 (15" RCP) TO PR. 3.0
PR. 4.0	TOP = 55.87 INV. IN = 44.48 (15" RCP) FROM PR. 3.0 INV. OUT= 43.75 (15" RCP) TO PR. 5.0
PR. 5.0	TOP = 55.37 INV. IN = 43.23 (15" RCP) FROM PR. 4.0 INV. OUT= 43.23 (15" RCP) TO PR. 6.0
PR. 6.0	TOP = 55.03 INV. IN = 43.12 (15" RCP) FROM PR. 5.0 INV. OUT= 42.87 (18" RCP) TO PR. 7.0
PR. 7.0	TOP = 50.23 INV. IN = 42.03 (18" RCP) FROM PR. 6.0 INV. OUT= 42.03 (18" RCP) TO PR. 7.1
PR. 7.1 *	TOP = 49.57 INV. IN = 42.53 (18" RCP) FROM STM 5 INV. IN = 41.83 (18" RCP) FROM PR. 7.0 INV. OUT= 41.73 (18" RCP) TO 16931
PR. 8.0	TOP = 46.91 INV. OUT= 38.57 (15" RCP) TO 17117
PR. 9.0	TOP = 47.45 INV. OUT= 42.33 (15" RCP) TO 17117
PR. 10.0	TOP = 45.76 INV. OUT= 41.50 (15" RCP) TO 16901

*STRUCTURE TO BE INSTALLED PART OF SUB STATION PROJECT. INVERTS FOR INFORMATIONAL PURPOSES ONLY

ARLINGTON
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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

STORM SEWER PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-251-DRAINAGE_PLAN.DWG
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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

0 25 50
GRAPHIC SCALE

SHEET C073.1

REVISED ON 11/08/2016

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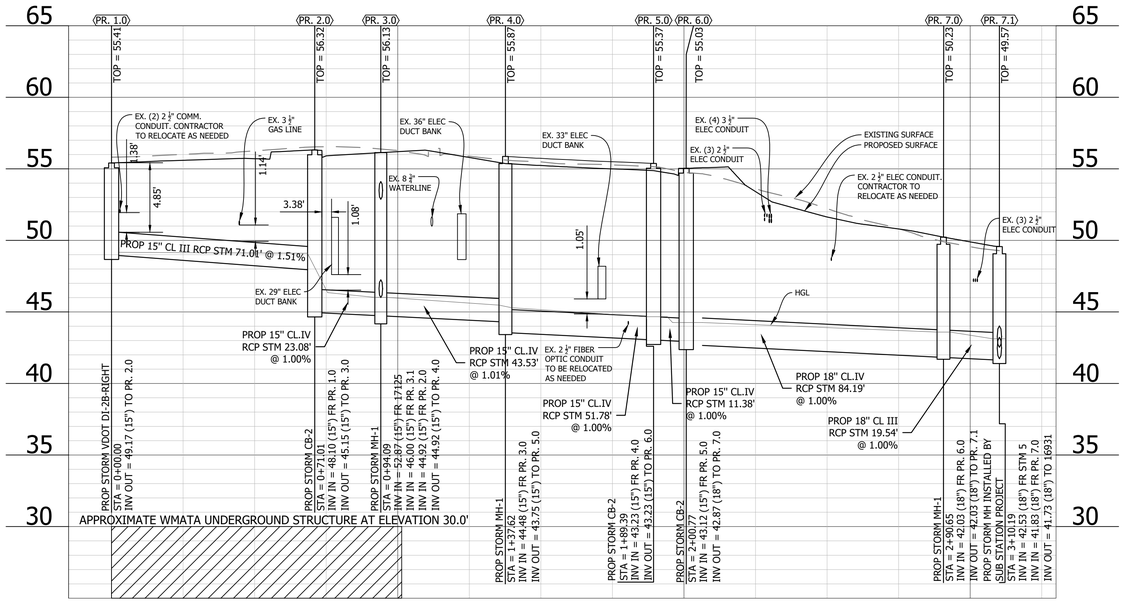
NOTES:

1. CONTRACTOR TO FIELD VERIFY ALL EXISTING PIPE DEPTHS PRIOR TO CONSTRUCTION.
2. MAINTAIN A MINIMUM OF 6" VERTICAL SEPARATION BETWEEN THE STORM PIPE AND OTHER UTILITIES.

P STRM 1.0-16901



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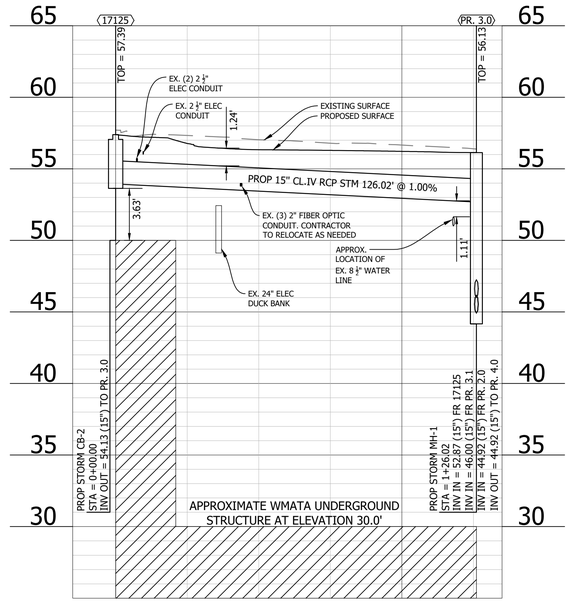
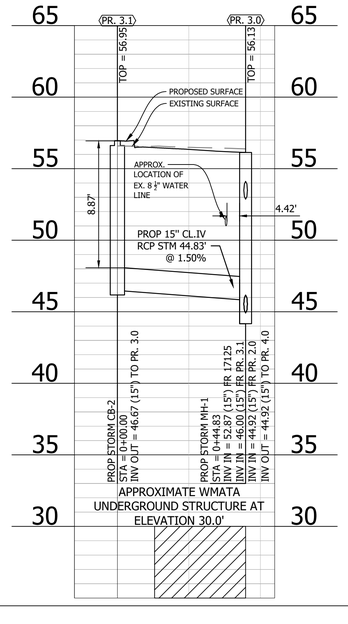


P STRM 3.1-3.0



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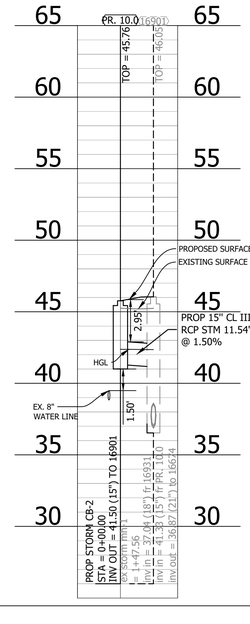

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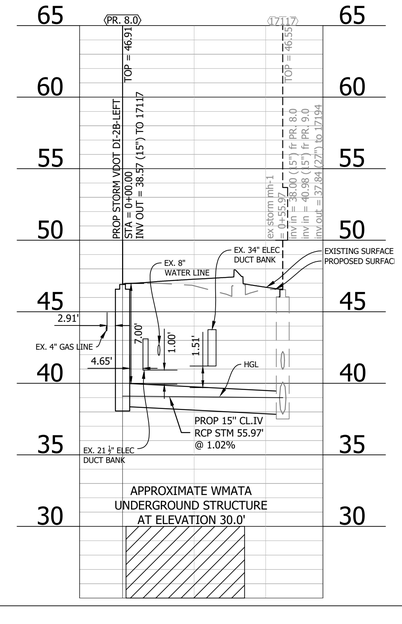
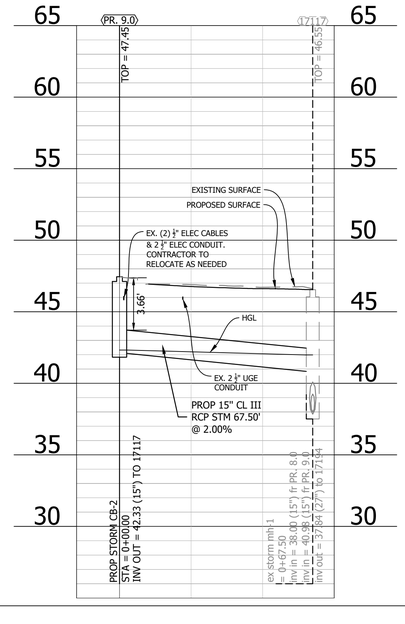


P STRM 9.0-17117



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3/1/2021
PROFESSIONAL ENGINEER

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Kamal N. Taktak	6.26.20
CONSTRUCTION MANAGEMENT SUPERVISOR	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	6/24/20
TRANSPORTATION DIRECTOR	6/17/2020
PROJECT MANAGER	

REVISIONS DATE

18TH STREET SOUTH

STORM SEWER PROFILES
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME: CC20-252-STORM_SEWER_PROFILES.DWG
PATH: Q:\DATA\CC20\DESIGN\CADD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:
0 25 50
HORIZ. SCALE
0 5 10
VERT. SCALE

SHEET C073.2

REVISED ON 11/08/2016

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ARLINGTON
VIRGINIA

Storm Drain Design Computations

From Point	To Point	Drainage Area	Runoff Coefficient	CA			Inlet Time	Time of Conc.	Rainfall	Runoff Q	Invert Elevations		Length	Slope	Diameter	Capacity	Velocity	Flow Time	Remarks
		Acres	C	Incr.	Piped In	Accum.	min	min	in/hr	cfs	Upper End	Lower End	ft	%	in	cfs	fps	min	
PR. 1.0	PR. 2.0	0.16	0.80	0.13	0.00	0.13	5.00	5.00	6.79	0.87	49.17	48.10	71.01	1.51%	15	7.93	4.24	0.28	
PR. 2.0	PR. 3.0	0.49	0.80	0.39	0.00	0.52	5.00	5.28	6.70	3.48	45.15	44.92	23.08	1.00%	15	6.45	5.36	0.07	
17125	PR. 3.0	0.09	0.90	0.08	0.00	0.08	5.00	5.00	6.79	0.55	54.13	52.87	126.02	1.00%	15	6.46	3.21	0.65	Class V Pipe
PR. 3.1	PR. 3.0	0.14	0.90	0.13	0.00	0.13	5.00	5.00	6.79	0.86	46.67	46.00	44.83	1.49%	15	7.90	4.21	0.18	
PR. 3.0	PR. 4.0	0.00	0.00	0.00	0.00	0.73	5.00	5.65	6.57	4.78	44.92	44.48	43.53	1.01%	15	6.49	5.79	0.13	
PR. 4.0	PR. 5.0	0.00	0.00	0.00	0.00	0.73	5.00	5.78	6.53	4.75	43.75	43.23	51.78	1.00%	15	6.47	5.76	0.15	
PR. 5.0	PR. 6.0	0.09	0.90	0.08	0.00	0.81	5.00	5.93	6.49	5.24	43.23	43.12	11.38	0.97%	15	6.35	5.78	0.03	
PR. 6.0	PR. 7.0	0.21	0.90	0.19	0.00	1.00	5.00	5.96	6.48	6.46	42.87	42.03	84.19	1.00%	18	10.49	6.24	0.22	
PR. 7.0	PR. 7.1	0.00	0.00	0.00	0.00	1.00	5.00	6.19	6.41	6.39	42.03	41.83	19.54	1.02%	18	10.63	6.29	0.05	
16931	16901	0.19	0.58	0.11	0.00	1.42	5.00	6.38	6.35	9.00	39.89	37.04	46.47	6.13%	18	26.01	13.37	0.06	Ex. Pipe to Remain
PR. 10.0	16901	0.15	0.90	0.14	0.00	0.14	5.00	5.00	6.79	0.92	41.50	41.33	11.54	1.47%	15	7.84	4.27	0.04	
16901	16674	0.00	0.90	0.00	0.00	1.55	5.00	6.44	6.33	9.83	36.87	35.18	255.32	0.66%	21	12.89	5.90	0.72	
PR. 8.0	17117	0.45	0.90	0.41	0.00	0.41	5.00	5.00	6.79	2.75	38.57	38.00	55.97	1.02%	15	6.52	5.09	0.18	
PR. 9.0	17117	0.56	0.90	0.50	0.00	0.50	5.00	5.00	6.79	3.42	42.33	40.98	67.50	2.00%	15	9.14	6.91	0.16	
17117	17194	0.00	0.00	0.00	0.00	0.91	5.00	5.18	6.73	6.11	37.84	34.89	254.00	1.16%	27	33.38	6.39	0.66	Ex. Pipe to Remain
17124	17194	0.29	0.90	0.26	0.00	0.26	5.00	5.00	6.79	1.77	37.19	36.06	107.00	1.06%	15	6.64	4.58	0.39	Ex. Pipe to Remain
PR. 7.1	16931	0.00	0.00	0.00	0.31	1.31	5.00	6.24	6.39	8.36	41.73	41.16	56.82	1.00%	18	10.52	6.61	0.14	Sub Station Pipe (piped in flow of +/- 1.94cfs)

ARLINGTON
VIRGINIA

Storm Inlet Computations

Inlet				Flow						Curb Inlet														Operation			Sag Inlets Only			
Number	Type	Length (ft)	Station	Drainage Area (acres)	C	CA	i (in/hr)	Q Incr (ft^3/s)	Q Carryover (ft^3/s)	Q_T (ft^3/s)	S Gutter Slope (ft/ft)	Sx Crossslope (ft/ft)	T Spread (ft)	W (ft)	W/T	Sw (ft/ft)	Sw/Sx	E_0	a (in)	S'w	Se (ft/ft)	L_T Computed Length (ft)	L/L_T	E (%)	Q_i Intercepted (ft^3/s)	Q_b Carryover (ft^3/s)	d (ft)	h (ft)	d/h	T Spread @ Sag (ft)
PR. 1.0	DI-2B	8		0.16	0.80	0.128	4.00	0.51	0.00	0.512	0.0050	0.01000	7.83	1.50	0.19	0.0833	8.33	0.676	4.32	0.24	0.17	3.30	2.42	100%	0.51	0.000				
PR. 2.0	CB-2B	8		0.49	0.80	0.392	4.00	1.57	0.00	1.568	0.0080	0.01450	9.70	1.50	0.15	0.0833	5.75	0.503	4.24	0.24	0.13	7.10	1.13	100%	1.57	0.000				
PR. 3.0	Manhole																													
17125	CB-2	8		0.09	0.90	0.081	4.00	0.32	0.00	0.324	0.0136	0.01250	3.29	1.50	0.46	0.0833	6.67	0.958	4.28	0.24	0.24	3.01	2.66	100%	0.32	0.000				
PR. 3.1	CB-2	8		0.14	0.90	0.126	4.00	0.50	0.00	0.504	0.0064	0.01540	5.55	1.50	0.27	0.0833	5.41	0.768	4.22	0.23	0.20	3.27	2.45	100%	0.50	0.000				
PR. 4.0	Manhole																													
PR. 5.0	CB-2	8		0.09	0.90	0.081	4.00	0.32	0.00	0.324	0.0094	0.03500	2.46	1.50	0.61	0.0833	2.38	0.963	3.87	0.22	0.24	2.68	2.98	100%	0.32	0.000				
PR. 6.0	CB-2	8		0.21	0.90	0.189	4.00	0.76	0.00	0.756	0.0103	0.03500	3.85	1.50	0.39	0.0833	2.38	0.820	3.87	0.22	0.21	4.27	1.87	100%	0.76	0.000				
16931	DI-1			0.19	0.58	0.110	4.00	0.44	0.00	0.441	**No Clogging**		Perimeter =	9.00	Area =	2.33	Ponding Depth (d) =		0.06	Overland Relief Elev. =		47.15	Inlet Top Elevation =		46.05		Ponding Elev. =	46.11		
											50% Clogging		Perimeter =	4.50	Area =	1.17	Ponding Depth (d) =		0.10								Ponding Elev. =	46.15		
16901	Manhole																													
PR. 10.0	CB-2	8		0.15	0.90	0.135	4.00	0.54	0.00	0.540	0.0384	0.04060	2.08	1.50	0.72	0.0833	2.05	0.985	3.77	0.21	0.25	5.01	1.60	100%	0.54	0.000				
PR. 8.0	DI-2B	8		0.45	0.90	0.405	4.00	1.62	0.00	1.620	0.0126	0.02100	7.07	1.50	0.21	0.0833	3.97	0.600	4.12	0.23	0.16	7.42	1.08	100%	1.62	0.000				
PR. 9.0	CB-2	8		0.56	0.90	0.504	4.00	2.02	0.00	2.016	0.0278	0.02250	6.25	1.50	0.24	0.0833	3.70	0.651	4.10	0.23	0.17	9.87	0.81	95%	1.92	0.101				
17117	MH-1																													
17124	CB-2	8		0.29	0.90	0.261	4.00	1.04	0.00	1.044	0.0148	0.01670	6.28	1.50	0.24	0.0833	4.99	0.695	4.20	0.23	0.18	6.03	1.33	100%	1.04	0.000				
PR. 7.0	Manhole																													
PR. 7.1	Manhole																													

ARLINGTON
VIRGINIA

Hydraulic Grade Line Computations

Inlet Structure	Upstream Structure	Outlet Water Surface Elev. (ft)	D_o (in)	Q_o (cfs)	L_o (ft)	Sf_o (%)	H_f (Ft)	Junction Loss													Final H (ft)	Inlet Water Surface Elev. (ft)	Rim Elev. (ft)
								V_o (ft/s)	H_o (ft)	Q_i	V_i (ft/s)	Q_iV_i	$V_i^2/2g$ (ft)	H_j (ft)	Angle (°)	H_R (ft)	H_t (ft)	1.3 H_t (ft)	0.5 H_t (ft)			
17194					Outlet Pipe Dia. =	27.00		Outlet Pipe Inv. =	34.89		0.8xDia + Pipe Inv. =	36.69		Outlet WSEL =						Starting WSEL =		36.69	
17117		36.69	27	6.11	254.00	0.0390%	0.10	6.39	0.16					0.26		0.52	0.94	1.22		1.32	38.01	46.55
	PR. 8.0									2.75	5.09	13.99	0.40	0.14	90	0.28						
	PR. 9.0									3.42	6.91	23.64	0.74	0.26	90	0.52						
PR. 8.0		39.00	15	2.75	55.97	0.1812%	0.10	5.09	0.12								0.12	0.16	0.08	0.18	39.18	46.91
PR. 9.0		41.98	15	3.42	67.50	0.2806%	0.19	6.91	0.22								0.22	0.29		0.48	42.46	47.45
17124		37.06	15	1.77	107.00	0.0752%	0.08	4.58	0.10								0.10	0.13		0.21	37.27	45.11
16674					Outlet Pipe Dia. =	21.00		Outlet Pipe Inv. =	35.18		0.8xDia + Pipe Inv. =	36.58		Outlet WSEL =						Starting WSEL =		36.58	
16901		36.58	21	9.83	255.32	0.3851%	0.98	5.90	0.14					0.97		1.94	3.05	0.00		4.04	40.62	46.05
	16931									9.00	13.37	120.39	2.78	0.97	90	1.94						
	PR. 10.0									0.92	4.27	3.92	0.28	0.10	90	0.20						
16931		40.62	18	9.00	46.47	0.7343%	0.34	13.37	0.69					0.24		0.47	1.41	0.00	0.70	1.04	41.66	47.05
	PR. 7.1									8.36	6.61	55.20	0.68	0.24	90	0.47						
PR. 7.1		42.36	18	8.36	56.82	0.6329%	0.36	6.61	0.17					0.21		0.43	0.81	0.00	0.41	0.77	43.13	49.69
	PR. 7.0									6.39	6.29	40.19	0.61	0.21	90	0.43						
PR. 7.0		43.13	18	6.39	19.54	0.3701%	0.07	6.29	0.15					0.21		0.42	0.79	0.00	0.39	0.47	43.59	50.94
	PR. 6.0									6.46	6.24	40.32	0.61	0.21	90	0.42						
PR. 6.0		43.59	18	6.46	84.19	0.3780%	0.32	6.24	0.15					0.18		0.36	0.70	0.00	0.35	0.67	44.26	55.03
	PR. 5.0									5.24	5.78	30.30	0.52	0.18	90	0.36						
PR. 5.0		44.26	15	5.24	11.38	0.6584%	0.07	5.78	0.13					0.18		0.36	0.67	0.00	0.34	0.41	44.67	55.37
	PR. 4.0									4.75	5.76	27.38	0.52	0.18	90	0.36						
PR. 4.0		44.67	15	4.75	51.78	0.5407%	0.28	5.76	0.13					0.18		0.36	0.67	0.00	0.34	0.62	45.29	55.87
	PR. 3.0									4.78	5.79	27.65	0.52	0.18	90	0.36						
PR. 3.0		45.48	15	4.78	43.53	0.5473%	0.24	5.79	0.13					0.16		0.31	0.60	0.00	0.30	0.54	46.02	56.13
	PR. 2.0									3.48	5.36	18.64	0.45	0.16	90	0.31						
	17125									0.55	3.21	1.77	0.16	0.06	90	0.11						
	PR. 3.1									0.86	4.21	3.60	0.28	0.10	90	0.19						
PR. 2.0		46.02	15	3.48	23.08	0.2905%	0.07	5.36	0.11					0.10		0.20	0.40	0.53	0.26	0.33	46.35	56.32
	PR. 1.0									0.87	4.24	3.69	0.28	0.10	90	0.20						
PR. 1.0		49.10	15	0.87	71.01	0.0181%	0.01	4.24	0.08								0.08	0.11	0.05	0.07	49.17	55.41
PR. 10.0		42.33	15	0.92	11.54	0.0201%	0.00	4.27	0.09								0.09	0.11	0.06	0.06	42.39	45.76
17125		53.87	15	0.55	126.02	0.0072%	0.01	3.21	0.05								0.05	0.06	0.03	0.04	54.13	57.39
PR. 3.1		47.00	15	0.86	44.83	0.0175%	0.01	4.21	0.08								0.08	0.11	0.05	0.06	47.06	56.97

REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

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COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
	6/18/2020
QUALITY CONTROL ENGINEER	6.26.20
Kamal N. Taktak	
CONSTRUCTION MANAGEMENT SUPERVISOR	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Yang	6/17/2020
PROJECT MANAGER	

REVISIONS	DATE

18TH STREET SOUTH

STORM SEWER COMPUTATIONS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-250-DRAINAGE DIVIDES.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

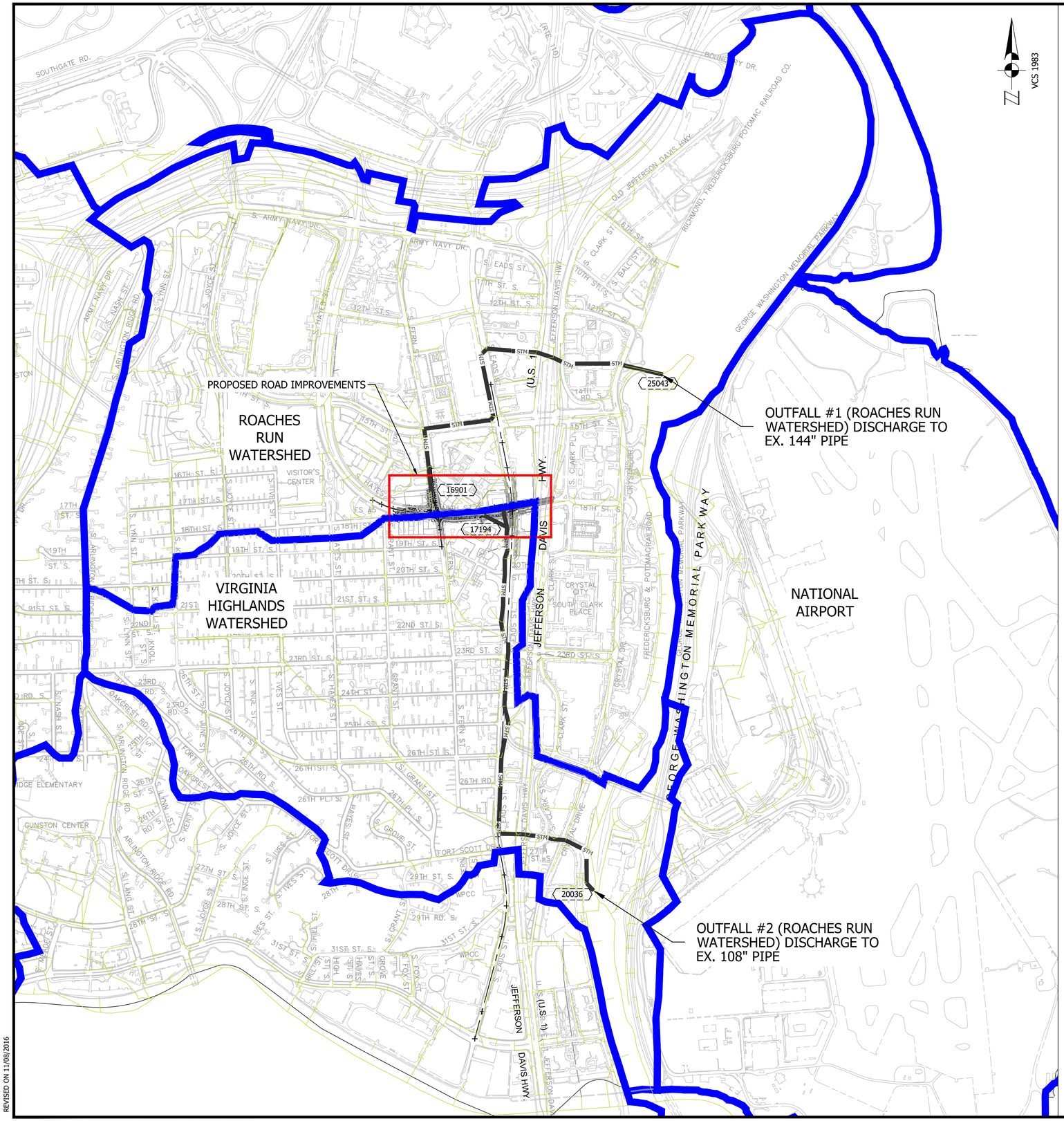
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

N/A

SHEET C075.1

18TH STREET SOUTH



STORMWATER MANAGEMENT PLAN (CHANNEL AND FLOOD PROTECTION)

OUTFALL #1 (ROACHES RUN WATERSHED)

CHANNEL PROTECTION
THE CHANNEL PROTECTION ANALYSIS FOR THE OUTFALL WAS PERFORMED TO THE 1% BASED ON THE PROPOSED LIMITS OF DISTURBANCE (LOD).

PROPOSED PROJECT LOD (OUTFALL #1) = 1.21 ACRES
TOTAL DRAINAGE AREA TO STR 25043 = 461.00 ACRES

SINCE 1.21 AC / 461.00 AC < 1%, THE ANALYSIS COMPLIES WITH THE 1% RULE.

GIVEN THAT THE 1% POINT IS LOCATED WITHIN A PIPE SYSTEM, NO EROSION WILL OCCUR AT THIS POINT. THEREFORE, THE CHANNEL PROTECTION REQUIREMENT HAS BEEN SATISFIED.

FLOOD PROTECTION
THERE IS CURRENTLY NO DATA TO DETERMINE IF THIS AREA CONTAINS LOCALIZED FLOODING. THEREFORE, LOCALIZED FLOODING IN THIS AREA IS UNKNOWN. BASED ON THIS INFORMATION, THE FLOOD PROTECTION CRITERIA HAS BEEN SATISFIED.

OUTFALL #2 (VIRGINIA HIGHLAND WATERSHED)

CHANNEL PROTECTION
THE CHANNEL PROTECTION ANALYSIS FOR THE OUTFALL WAS PERFORMED TO THE 1% BASED ON THE PROPOSED LIMITS OF DISTURBANCE (LOD).

PROPOSED PROJECT LOD (OUTFALL #2) = 1.51 ACRES
TOTAL DRAINAGE AREA TO STR 20036 = 309.00 ACRES

SINCE 1.51 AC / 309.00 AC < 1%, THE ANALYSIS COMPLIES WITH THE 1% RULE.

GIVEN THAT THE 1% POINT IS LOCATED WITHIN A PIPE SYSTEM, NO EROSION WILL OCCUR AT THIS POINT. THEREFORE, THE CHANNEL PROTECTION REQUIREMENT HAS BEEN SATISFIED.

FLOOD PROTECTION
THERE IS CURRENTLY NO DATA TO DETERMINE IF THIS AREA CONTAINS LOCALIZED FLOODING. THEREFORE, LOCALIZED FLOODING IN THIS AREA IS UNKNOWN. BASED ON THIS INFORMATION, THE FLOOD PROTECTION CRITERIA HAS BEEN SATISFIED.

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18TH STREET SOUTH

SWM DRAINAGE AREA MAP
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-256-SWM_PLAN.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

0 500 1000
GRAPHIC SCALE

SHEET C081.1

REVISED ON 11/08/2016

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SWM NOTES

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 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.

PRE DEVELOPMENT CONDITIONS

THE PROJECT SITE CONSIST PRIMARILY OF IMPERVIOUS AREA (ASPHALT ROADWAY AND CONCRETE SIDEWALK) AND A SMALL AMOUNT OF PERVIOUS GRASS AREA.

POST DEVELOPMENT CONDITIONS

THE PROJECT CONSISTS OF REMOVING AND REPLACING EXISTING CURB, GUTTER AND SIDEWALK; INSTALLING ADA COMPLIANT RAMPS; REMOVING AND REPLACING EXISTING STREETLIGHTS; TRAFFIC SIGNAL WORK AT THE INTERSECTION OF 18TH STREET SOUTH AND SOUTH FERN STREET; AND MILLING AND PAVING THE ASPHALT ROADWAY.

VRRM CALCULATIONS

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

☐ 2011 BMP Standards and Specifications ☒ 2013 Draft BMP Standards and Specifications

CLEAR ALL

data input cells | constant values | calculation cells | final results

Project Name:	18TH STREET SOUTH -
Date:	5-Dec-18
Linear Development Project?	Yes

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 2.7221

Check:

Maximum reduction required:	20%	BMP Design Specifications List:	2013 Draft Stds & Specs
The site's net increase in impervious cover (acres) is:	0.0000	Linear project?	No
Post-Development TP Load Reduction for Site (lb/yr):	0.8756	Land cover areas entered correctly?	✔
		Total disturbed area entered?	✔

Pre-ReDevelopment Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested land					0.0000
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed				0.1970	0.1970
Impervious Cover (acres)				2.5251	2.5251
					2.7221

Post-Development Land Cover (acres)

	A Soils	B Soils	C Soils	D Soils	Totals
Forest/Open Space (acres) -- undisturbed, protected forest/open space or reforested land					0.0000
Managed Turf (acres) -- disturbed, graded for yards or other turf to be mowed/managed				0.3480	0.3480
Impervious Cover (acres)				2.3741	2.3741
Area Check	OK.	OK.	OK.	OK.	2.7221

Constants

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

Runoff Coefficients (Rv)

	A Soils	B Soils	C Soils	D Soils
Forest/Open Space	0.02	0.03	0.04	0.05
Managed Turf	0.15	0.20	0.22	0.25
Impervious Cover	0.95	0.95	0.95	0.95

LAND COVER SUMMARY -- PRE-REDEVELOPMENT

Land Cover Summary-Pre Pre-ReDevelopment	Listed	Adjusted[1]
Forest/Open Space Cover (acres)	0.0000	0.0000
Weighted Rv(forest)	0.0000	0.0000
% Forest	0%	0%
Managed Turf Cover (acres)	0.1970	0.1970
Weighted Rv(turf)	0.2500	0.2500
% Managed Turf	7%	7%
Impervious Cover (acres)	2.5251	2.5251
Rv(impervious)	0.9500	0.9500
% Impervious	93%	93%
Total Site Area (acres)	**2.7221**	**2.7221**
Site Rv	**0.8993**	**0.8993**

LAND COVER SUMMARY -- POST DEVELOPMENT

Land Cover Summary-Post (Final) Post ReDev. & New Impervious	
Forest/Open Space Cover (acres)	0.0000
Weighted Rv(forest)	0.0000
% Forest	0%
Managed Turf Cover (acres)	0.3480
Weighted Rv (turf)	0.2500
% Managed Turf	13%
Impervious Cover (acres)	2.3741
Rv(impervious)	0.9500
% Impervious	87%
Final Site Area (acres)	**2.7221**
Final Post Dev Site Rv	**0.8605**

Land Cover Summary-Post Post-ReDevelopment	
Forest/Open Space Cover (acres)	0.0000
Weighted Rv(forest)	0.0000
% Forest	0%
Managed Turf Cover (acres)	0.3480
Weighted Rv (turf)	0.2500
% Managed Turf	13%
ReDev. Impervious Cover (acres)	2.3741
Rv(impervious)	0.9500
% Impervious	87%
Total ReDev. Site Area (acres)	**2.7221**
ReDev Site Rv	**0.8605**

Land Cover Summary-Post Post-Development New Impervious	
New Impervious Cover (acres)	0.0000
Rv(impervious)	--

Treatment Volume and Nutrient Load

Pre-ReDevelopment Treatment Volume (acre-ft)	0.2040
Pre-ReDevelopment Treatment Volume (cubic feet)	8,886.5917
Pre-ReDevelopment TP Load (lb/yr)	**5.5834**
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	2.0500
Baseline TP Load (lb/yr) (**0.41 lbs/acre/yr** applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)	*1.1161*

Final Post-Development Treatment Volume (acre-ft)	0.1952
Final Post-Development Treatment Volume (cubic feet)	8,502.8750
Final Post-Development TP Load (lb/yr)	**5.3423**
Final Post-Development TP Load per acre (lb/acre/yr)	1.9600

Treatment Volume and Nutrient Load

Post-ReDevelopment Treatment Volume (acre-ft)	0.1952
Post-ReDevelopment Treatment Volume (cubic feet)	8,502.8750
Post-ReDevelopment Load (TP) (lb/yr)*	**5.3423**
Post-ReDevelopment TP Load per acre (lb/acre/yr)	1.9600
Max. Reduction Required (Below Pre-ReDevelopment Load)	**0.2000**
TP Load Reduction Required for Redeveloped Area (lb/yr)	**0.8756**

Post-Development Treatment Volume (acre-ft)	--
Post-Development Treatment Volume (cubic feet)	--
Post-Development TP Load (lb/yr)	--
TP Load Reduction Required for New Impervious Area (lb/yr)	**0**

[1] *Adjusted Land Cover Summary:*
Pre ReDevelopment land cover minus pervious land cover (forest/open space or managed turf) acreage proposed for new impervious cover.

Adjusted total acreage is consistent with Post-ReDevelopment acreage (minus acreage of new impervious cover).

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

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	**0.8756**
Linear Project TP Load Reduction Required (lb/yr):	0.8756

REVISED ON 11/08/2016

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TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

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WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

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18TH STREET SOUTH

SWM COMPUTATIONS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME: CC20-254-SWM_DIVIDES_AND_COMPS.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

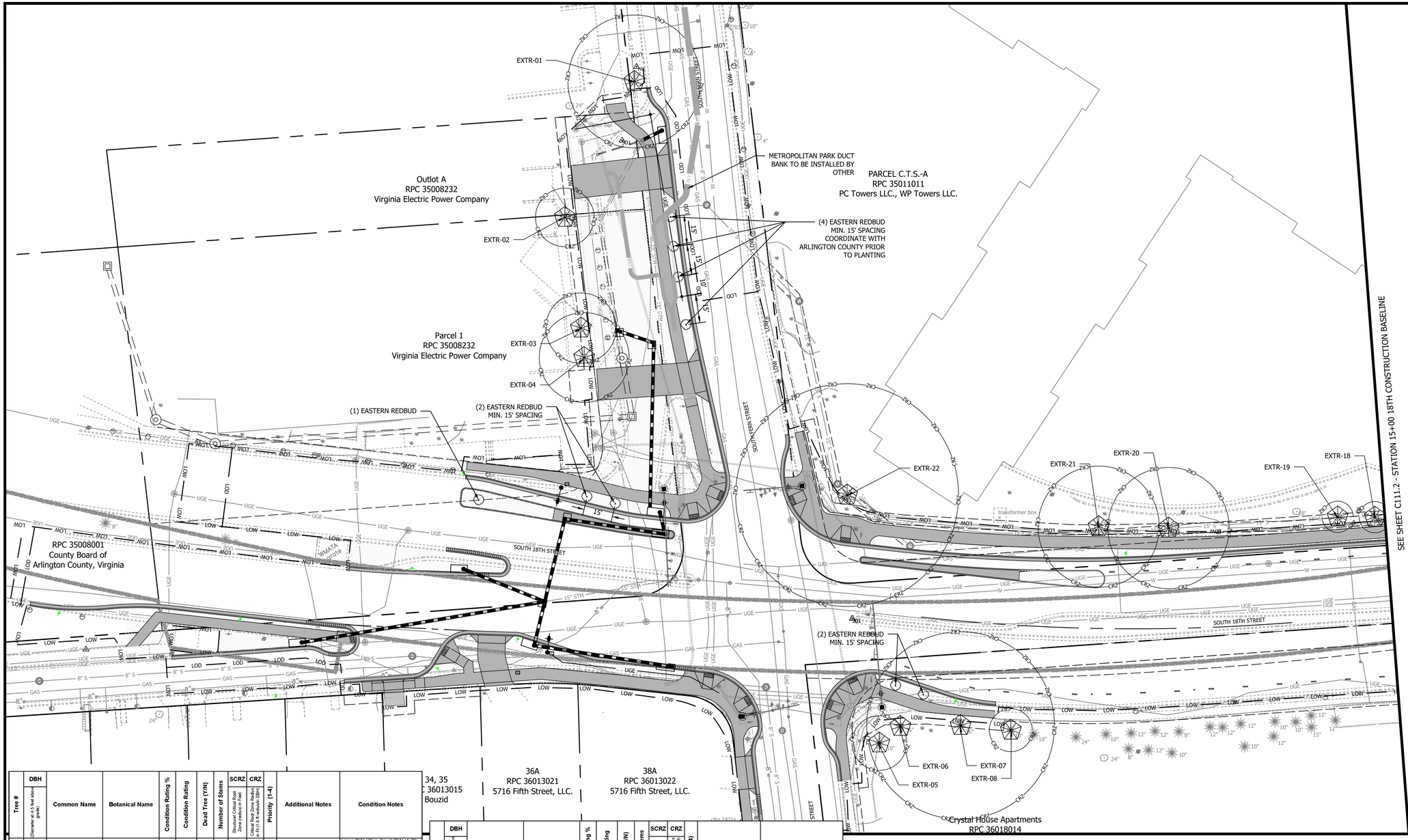
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

N/A

SHEET C085.1

18TH STREET SOUTH



Tree #	DBH (Diameter at 4.5 feet above grade)	Common Name	Botanical Name	Condition Rating %	Condition Rating	Dead Tree (Y/N)	Number of Stems	SCRZ (Structural Critical Root Zone (radius) in Feet)	CRZ (Critical Root Zone Radius at Ft (1.5 ft radius/in DBH))	Priority (1-4)	Additional Notes	Condition Notes
1	23	oak, willow	Quercus phellos	59	Fair	NO	1	9.0	34	2	Hanger. Low vigor. 0.5" girdling root.	Large DW (3"+), Small DW (1-2"), Broken Limbs, Included Bark/Weak Union, Girdling Roots, Restricted Rooting Area
2	10	magnolia, saucer	Magnolia x soulangiana	73	Good	NO	1	6.0	15	2	DBH @ 1'. Heading cuts.	Small DW (1-2"), Included Bark/Weak Union, Co-Dominant Stems, Restricted Rooting Area
3	12	magnolia, saucer	Magnolia x soulangiana	50	Fair	NO	1	7.0	18	3	DBH @ base. Dieback. Crack. Buried roor collar. Possible girdling root.	Small DW (1-2"), Trunk Decay, Basal Decay, Branch Decay, Included Bark/Weak Union, Co-Dominant Stems, Stressed, Restricted Rooting Area
4	15	magnolia, saucer	Magnolia x soulangiana	54	Fair	NO	1	8.0	23	3	DBH @ base. Dieback. Buried roor collar.	Small DW (1-2"), Trunk Decay, Basal Decay, Branch Decay, included Bark/Weak Union, Co-Dominant Stems, Stressed, Restricted Rooting Area
5	9	pine, eastern white	Pinus strobus	64	Fair	NO	1	5.0	14	3	Buried root collar. 15 deg lean. Phototropism from former neighbor #6. May correct somewhat.	One Sided, Small DW (1-2"), Broken Limbs
6	0	ZZ Unknown tree	ZZ Unknown tree	0	Dead	YES	0	0.0	0	0	Missing.	
7	32	cedar, deodar	Cedrus deodara	64	Fair	NO	1	10.0	48	2	Excessive mulch. Sapsucker damage. Thinning alt top. Light dieback.	Full Crown, Large DW (3"+), Small DW (1-2"), Included Bark/Weak Union, Co-Dominant Stems, Stressed, Restricted Rooting Area
8	7	pine, eastern white	Pinus strobus	58	Fair	NO	1	4.0	11	3		One Sided, Small DW (1-2"), Broken Limbs, Suppressed, Restricted Rooting Area
9	7	planetree, London	Platanus hybrida	70	Good	NO	1	4.0	11	3		Broken Limbs, Restricted Rooting Area
10	9	holly, American	Ilex opaca	67	Fair	NO	1	5.0	14	2	Lots of sucker growth.	Trunk Decay, Branch Decay, Broken Limbs, Restricted Rooting Area
11	3	planetree, London	Platanus hybrida	75	Good	NO	1	2.0	5	2	Minor trimmer damage.	Restricted Rooting Area
12	3	zelkova, Japanese	Zelkova serrata	70	Good	NO	1	2.0	5	2		Restricted Rooting Area
13	10	magnolia, saucer	Magnolia x soulangiana	66	Fair	NO	1	6.0	15	2	Poor pruning cuts.	Branch Decay, Included Bark/Weak Union, Co-Dominant Stems, Stressed, Restricted Rooting Area
14	4,3,3	crapemyrtle, common	Lagerstroemia indica	39	Poor	NO	3	4.0	9	4	DBH @ 1'. Topped. Low vigor.	Small DW (1-2"), Branch Decay, Stressed, Serious Decline, Restricted Rooting Area
15	4,3	crapemyrtle, common	Lagerstroemia indica	41	Poor	NO	2	3.0	8	4	DBH @ 1'. Topped. Low vigor. One stem dead.	Small DW (1-2"), Branch Decay, Stressed, Serious Decline, Restricted Rooting Area
16	4,3,3,3	crapemyrtle, common	Lagerstroemia indica	45	Poor	NO	4	4.0	10	4	DBH @ 1'. Topped. Low vigor. Additional tree not on plan.	Small DW (1-2"), Branch Decay, Stressed, Restricted Rooting Area
17	4,3	crapemyrtle, common	Lagerstroemia indica	50	Fair	NO	2	3.0	8	4	DBH @ 1'. Topped. Low vigor.	Small DW (1-2"), Branch Decay, Stressed, Restricted Rooting Area
18	3,3,3	crapemyrtle, common	Lagerstroemia indica	55	Fair	NO	3	3.0	8	4	DBH @ 1'. Topped.	Small DW (1-2"), Trunk Decay, Branch Decay, Stressed, Restricted Rooting Area
19	3,3,2,2	crapemyrtle, common	Lagerstroemia indica	61	Fair	NO	4	3.0	8	4	DBH @ 1'. Topped.	Small DW (1-2"), Branch Decay, Restricted Rooting Area
20	21	planetree, London	Platanus hybrida	55	Fair	NO	1	9.0	31	3	Poor pruning cuts.	Small DW (1-2"), Branch Decay, Broken Limbs, Stressed, Restricted Rooting Area
21	21	planetree, London	Platanus hybrida	43	Poor	NO	1	9.0	31	3	Poor pruning cuts.	Large DW (3"+), Small DW (1-2"), Trunk Decay, Branch Decay, Broken Limbs, Stressed, Restricted Rooting Area
22	38	oak, willow	Quercus phellos	71	Good	NO	1	11.0	57	1	0.5" girdling root. Heading cuts.	Small DW (1-2"), Girdling Roots

PROPOSED TREE INVENTORY

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	REMARKS
	9	CERCIS CANADENSIS	EASTERN REDBUD	2" CALIPER	AS INDICATED	SINGLE STEM 7' CLEAR TRUNK

- CONTRACTOR SHALL PLANT TREE, SEE DETAILS L1, L2 & L3 (SHEET C092.1)

CONTRACTOR SHALL INSTALL GROUND COVER WITH TOPSOIL AND SOD TO THE PROPOSED ELEVATIONS PER ARLINGTON COUNTY DPR DESIGN STANDARDS

TREE PLANTING NOTES

1. CONTRACTOR TO CALL THE URBAN FORESTER AT 703-228-1863, 72 HOURS BEFORE PLANTING, TO SCHEDULE INSPECTION OF THE TREES TO BE PLANTED. WARRANTY FOR 1 YEAR AFTER PLANTING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE URBAN FORESTER AND DPR IS RESPONSIBLE FOR INSPECTION.
2. CONTRACTOR TO PREPARE TREE PLANTING STRIPS FOR THE REPLACEMENT TREES ACCORDING TO ARLINGTON COUNTY DPR DESIGN STANDARD DETAIL 02930.4A AND 02930.4B.
3. CONTRACTOR TO PREPARE STREET TREE PLANTING PITS ACCORDING TO THE ARLINGTON COUNTY DPR DESIGN STANDARD DETAIL 02930.3A, 02930.3B, AND 02930.11C
4. CONTRACTOR TO PLANT THE TREES ACCORDING TO ARLINGTON COUNTY DPR DESIGN STANDARD DETAIL 02930.1 (ON FLAT LAND) OR 02930.2 (ON SLOPES)

REVISED ON 11/08/2016

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18TH STREET SOUTH

LANDSCAPE PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

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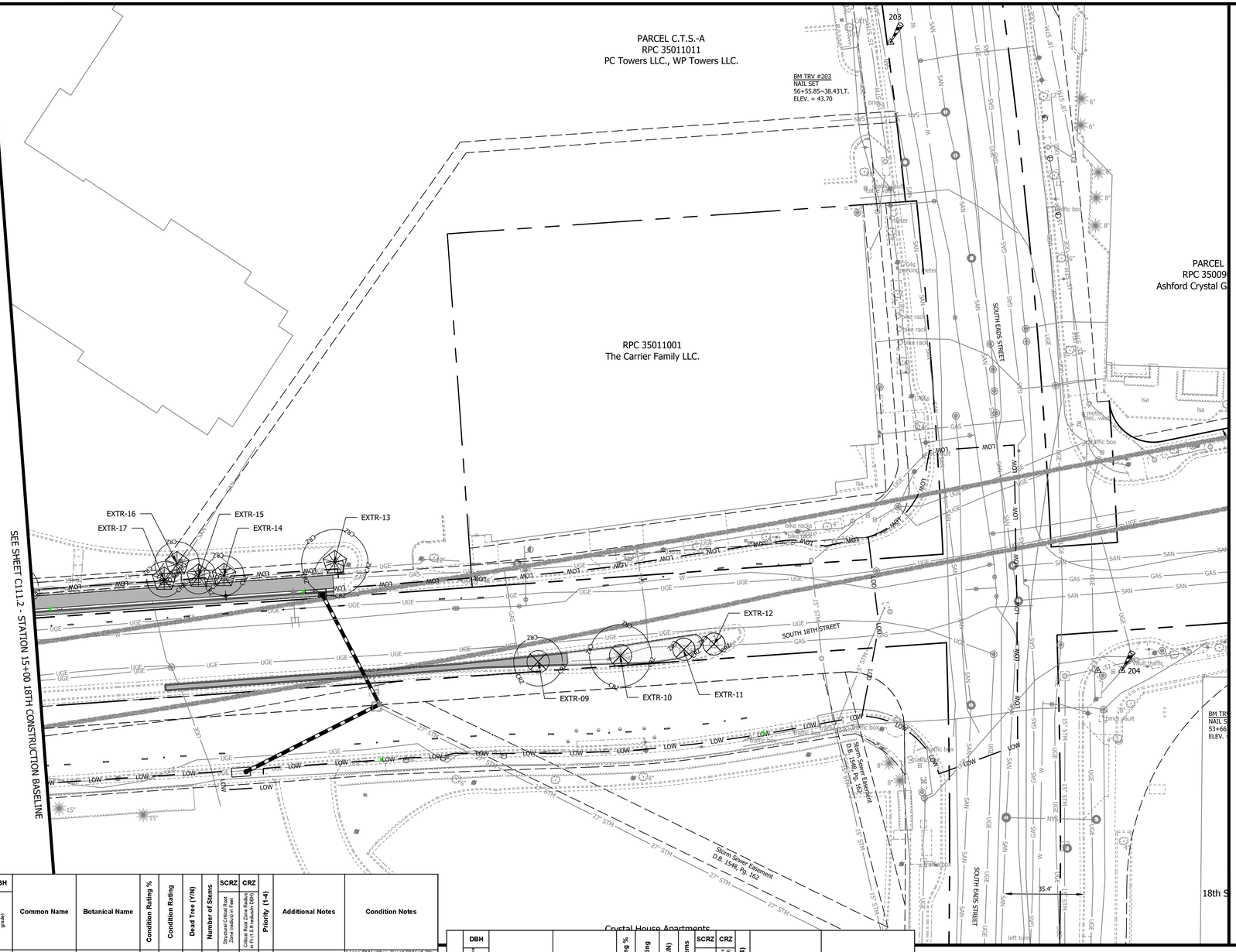
SHEET C091.1

18TH STREET SOUTH



Tree #	DBH (Diameter at 4.5 feet above grade)	Common Name	Botanical Name	Condition Rating %	Condition Rating	Dead Tree (Y/N)	Number of Stems	SCRZ: Structural Critical Root Zone (radius) in Feet	CRZ: Critical Root Zone Radius in Ft (1.5 ft radius/in DBH)	Priority (1-4)	Additional Notes	Condition Notes
1	23	oak, willow	Quercus phellos	59	Fair	NO	1	9.0	34	2	Hanger. Low vigor. 0.5" girdling root.	Large DW (3"+), Small DW (1-2"), Broken Limbs, Included Bark/Weak Union, Girdling Roots, Restricted Rooting Area
2	10	magnolia, saucer	Magnolia x soulangiana	73	Good	NO	1	6.0	15	2	DBH @ 1'. Heading cuts.	Small DW (1-2"), Included Bark/Weak Union, Co-Dominant Stems, Restricted Rooting Area
3	12	magnolia, saucer	Magnolia x soulangiana	50	Fair	NO	1	7.0	18	3	DBH @ base. Dieback. Crack. Buried root collar. Possible girdling root.	Small DW (1-2"), Trunk Decay, Basal Decay, Branch Decay, Included Bark/Weak Union, Co-Dominant Stems, Stressed, Restricted Rooting Area
4	15	magnolia, saucer	Magnolia x soulangiana	54	Fair	NO	1	8.0	23	3	DBH @ base. Dieback. Buried root collar.	Small DW (1-2"), Trunk Decay, Basal Decay, Branch Decay, Included Bark/Weak Union, Co-Dominant Stems, Stressed, Restricted Rooting Area
5	9	pine, eastern white	Pinus strobus	64	Fair	NO	1	5.0	14	3	Buried root collar. 15 deg lean. Phototropism from former neighbor #6. May correct somewhat.	One Sided, Small DW (1-2"), Broken Limbs
6	0	ZZ Unknown tree	ZZ Unknown tree	0	Dead	YES	0	0.0	0	0	Missing.	
7	32	cedar, deodar	Cedrus deodara	64	Fair	NO	1	10.0	48	2	Excessive mulch. Sapsucker damage. Thinning at top. Light dieback.	Full Crown, Large DW (3"+), Small DW (1-2"), Included Bark/Weak Union, Co-Dominant Stems, Stressed, Restricted Rooting Area
8	7	pine, eastern white	Pinus strobus	58	Fair	NO	1	4.0	11	3		One Sided, Small DW (1-2"), Broken Limbs, Suppressed, Restricted Rooting Area
9	7	planetree, London	Platanus hybrida	70	Good	NO	1	4.0	11	3		Broken Limbs, Restricted Rooting Area
10	9	holly, American	Ilex opaca	67	Fair	NO	1	5.0	14	2	Lots of sucker growth.	Trunk Decay, Branch Decay, Broken Limbs, Restricted Rooting Area
11	3	planetree, London	Platanus hybrida	75	Good	NO	1	2.0	5	2	Minor trimmer damage.	Restricted Rooting Area
12	3	zelkova, Japanese	Zelkova serrata	70	Good	NO	1	2.0	5	2		Restricted Rooting Area
13	10	magnolia, saucer	Magnolia x soulangiana	66	Fair	NO	1	6.0	15	2	Poor pruning cuts.	Branch Decay, Included Bark/Weak Union, Co-Dominant Stems, Stressed, Restricted Rooting Area
14	4,3,3	crapemyrtle, common	Lagerstroemia indica	39	Poor	NO	3	4.0	9	4	DBH @ 1'. Topped. Low vigor.	Small DW (1-2"), Branch Decay, Stressed, Serious Decline, Restricted Rooting Area
15	4,3	crapemyrtle, common	Lagerstroemia indica	41	Poor	NO	2	3.0	8	4	DBH @ 1'. Topped. Low vigor. One stem dead.	Small DW (1-2"), Branch Decay, Stressed, Serious Decline, Restricted Rooting Area
16	4,3,3,3	crapemyrtle, common	Lagerstroemia indica	45	Poor	NO	4	4.0	10	4	DBH @ 1'. Topped. Low vigor. Additional tree not on plan.	Small DW (1-2"), Branch Decay, Stressed, Restricted Rooting Area
17	4,3	crapemyrtle, common	Lagerstroemia indica	50	Fair	NO	2	3.0	8	4	DBH @ 1'. Topped. Low vigor.	Small DW (1-2"), Branch Decay, Stressed, Restricted Rooting Area
18	3,3,3	crapemyrtle, common	Lagerstroemia indica	55	Fair	NO	3	3.0	8	4	DBH @ 1'. Topped.	Small DW (1-2"), Trunk Decay, Branch Decay, Stressed, Restricted Rooting Area
19	3,3,2,2	crapemyrtle, common	Lagerstroemia indica	61	Fair	NO	4	3.0	8	4	DBH @ 1'. Topped.	Small DW (1-2"), Branch Decay, Restricted Rooting Area
20	21	planetree, London	Platanus hybrida	55	Fair	NO	1	9.0	31	3	Poor pruning cuts.	Small DW (1-2"), Branch Decay, Broken Limbs, Stressed, Restricted Rooting Area
21	21	planetree, London	Platanus hybrida	43	Poor	NO	1	9.0	31	3	Poor pruning cuts.	Large DW (3"+), Small DW (1-2"), Trunk Decay, Branch Decay, Broken Limbs, Stressed, Restricted Rooting Area
22	38	oak, willow	Quercus phellos	71	Good	NO	1	11.0	57	1	0.5" girdling root. Heading cuts.	Small DW (1-2"), Girdling Roots

PROPOSED TREE INVENTORY

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	REMARKS
	9	CERCIS CANADENSIS	EASTERN REDBUD	2" CALIPER	AS INDICATED	SINGLE STEM 7' CLEAR TRUNK

- CONTRACTOR SHALL PLANT TREE, SEE DETAILS L1, L2 & L3 (SHEET C092.1)

CONTRACTOR SHALL INSTALL GROUND COVER WITH TOPSOIL AND SOD TO THE PROPOSED ELEVATIONS PER ARLINGTON COUNTY DPR DESIGN STANDARDS

TREE PLANTING NOTES

1. CONTRACTOR TO CALL THE URBAN FORESTER AT 703-228-1863, 72 HOURS BEFORE PLANTING, TO SCHEDULE INSPECTION OF THE TREES TO BE PLANTED. WARRANTY FOR 1 YEAR AFTER PLANTING SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE URBAN FORESTER AND DPR IS RESPONSIBLE FOR INSPECTION.
2. CONTRACTOR TO PREPARE TREE PLANTING STRIPS FOR THE REPLACEMENT TREES ACCORDING TO ARLINGTON COUNTY DPR DESIGN STANDARD DETAIL 02930.4A AND 02930.4B.
3. CONTRACTOR TO PREPARE STREET TREE PLANTING PITS ACCORDING TO THE ARLINGTON COUNTY DPR DESIGN STANDARD DETAIL 02930.3A, 02930.3B, AND 02930.11C
4. CONTRACTOR TO PLANT THE TREES ACCORDING TO ARLINGTON COUNTY DPR DESIGN STANDARD DETAIL 02930.1 (ON FLAT LAND) OR 02930.2 (ON SLOPES)

ARLINGTON
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FACILITIES & ENGINEERING DIVISION
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ARLINGTON, VA 22201
PHONE: 703.228.3629
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COMMONWEALTH OF VIRGINIA
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Lic. No. 0402050508
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PROFESSIONAL ENGINEER

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Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Yang	6/17/2020
PROJECT MANAGER	

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18TH STREET SOUTH

LANDSCAPE PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

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GRAPHIC SCALE

SHEET C091.2

REVISED ON 11/08/2016

18TH STREET SOUTH

NOTES

1. AT PLANTING PRUNE ONLY CROSSING LIMBS, BROKEN OR DEAD BRANCHES, AND ANY BRANCHES THAT POSE A HAZARD TO PEDESTRIANS PER ANSI STANDARD A300. DO NOT PRUNE INTO OLD WOOD ON EVERGREENS.

2. CONTRACTOR SHALL MAXIMIZE EXCAVATED AREA FOR TREE PIT WITHOUT ADVERSELY IMPACTING ADJACENT SITE FEATURES.

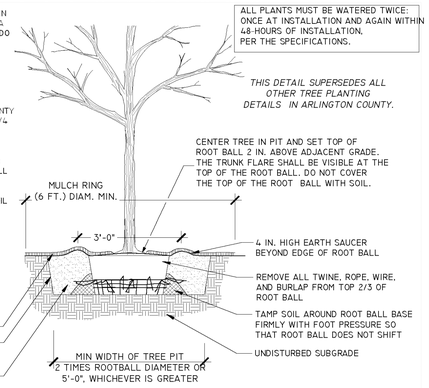
3. UNLESS OTHERWISE DIRECTED BY ARLINGTON COUNTY URBAN FORESTER, BACKFILL SOIL MIXTURE WILL BE 3/4 EXISTING SOIL CLEANED OF DEBRIS (GRAVEL, ROCKS, STICKS, TRASH, ETC.) AND MIXED WITH 1/4 ORGANIC MATERIAL (COMPOSTED BARK, LEAF MOLD, OR OTHER PLANT DEBRIS PROCESSED TO A POINT OF DECAY AND APPROVED BY THE URBAN FORESTER; PEAT MOSS SHALL NOT BE USED).

4. CONTRACTOR SHALL LEGALLY REMOVE EXCESS SOIL & DEBRIS FROM SITE.

5. TREES PLANTED WITHOUT THE TRUNK FLARE VISIBLE WILL BE REJECTED.

6. TREES MAY ONLY BE STAKED IF REQUIRED BY THE COUNTY URBAN FORESTER. REFER TO STAKING DETAILS.

ALL PLANTS MUST BE WATERED TWICE: ONCE AT INSTALLATION AND AGAIN WITHIN 48-HOURS OF INSTALLATION, PER THE SPECIFICATIONS.



L1 C091 **TREE PLANTING DETAIL** NOT TO SCALE

FOR OPEN PLANTING AREAS FREE OF PAVING OR GRATES
329300.1 (2019)

NOTES

1. AT PLANTING PRUNE ONLY CROSSING LIMBS, BROKEN OR DEAD BRANCHES, AND ANY BRANCHES THAT POSE A HAZARD TO PEDESTRIANS PER ANSI STANDARD A300. DO NOT PRUNE INTO OLD WOOD ON EVERGREENS.

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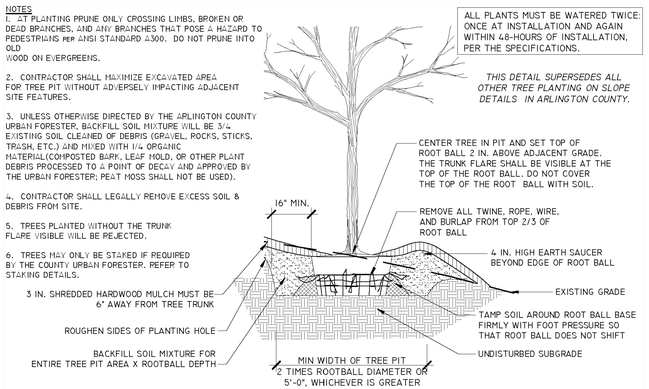

L2 C091 **TREE PLANTING ON SLOPE** 1/2" = 1'-0"

FOR OPEN PLANTING AREAS FREE OF PAVING OR GRATES
329300.2 (2019)

NOTES

1. A PERMIT IS REQUIRED WHEN TREES ARE PLANTED IN PUBLIC RIGHT-OF-WAY OR IN A PUBLIC EASEMENT. THE DEPARTMENT OF ENVIRONMENTAL SERVICES SHALL ISSUE THE PERMIT ACCORDING TO THE PROVISIONS OF THE CURRENT ARLINGTON COUNTY ADMINISTRATIVE REGULATION 4.3.

2. TREE SPECIES SHALL BE SELECTED FROM THE "ARLINGTON COUNTY STREET TREE LIST" OR PER SECTOR PLAN REQUIREMENTS.

3. TREES SHALL BE NURSERY GROWN SPECIMENS THAT MEET THE LATEST EDITION OF THE AMERICAN STANDARDS FOR NURSERY STOCK (ANSI Z60). BALLED AND BURLAPPED TREES SHALL BE SECURELY HELD IN PLACE BY UNTREATED BURLAP AND STOUT ROPE (NYLON ROPE IS NOT ACCEPTABLE). LOOSE, BROKEN OR MANUFACTURED BALLS ARE UNACCEPTABLE.

4. CALL MISS UTILITY AT (800) 552-7001 FOR UTILITY LOCATIONS PRIOR TO EXCAVATION.

5. AT TIME OF PLANTING PRUNE ONLY CROSSING LIMBS, BROKEN OR DEAD BRANCHES, AND ANY BRANCHES THAT POSE A HAZARD TO PEDESTRIANS. DO NOT PRUNE INTO OLD WOOD ON EVERGREENS.

6. TREE PIT AND TREE STRIP PLANTING AREA DIMENSIONS:
   (A) 5' X 12' OR LARGER IS STANDARD
   (B) 4' X 15' MINIMUM IS ALLOWED PER SITE CONDITIONS AND COUNTY URBAN FORESTER'S APPROVAL.

7. SPACE TREES 25'-30' APART OR PER SECTOR PLAN REQUIREMENTS OR SITE CONDITIONS.

8. SITE CHARACTERISTICS, SUCH AS OVERHEAD POWER LINES, EXISTING VEGETATION, AND INFRASTRUCTURE ITEMS SUCH AS CURBS, SIDEWALKS AND UTILITIES SHALL BE CONSIDERED. TREES THAT GROW TALLER THAN 25 FEET SHOULD NOT BE PLANTED DIRECTLY UNDER POWER LINES. WHEN POSSIBLE THE TREE LEADER SHALL BE OFFSET FROM POWER LINES.

9. BACKFILL SOIL MIXTURE SHALL BE 3/4 EXISTING SOIL CLEANED OF DEBRIS (GRAVEL, ROCKS, STICKS, TRASH, ETC.) AND MIXED WITH 1/4 ORGANIC MATERIAL (COMPOSTED BARK, LEAF MOLD, OR OTHER PLANT DEBRIS PROCESSED TO A POINT OF DECAY AND APPROVED BY THE COUNTY URBAN FORESTER. PEAT MOSS MAY NOT BE USED.

10. IF THE QUANTITY OF ACCEPTABLE EXISTING SOIL IS INSUFFICIENT FOR THE PLANTING REQUIREMENTS, THE CONTRACTOR MAY USE TOPSOIL. SOIL TEST REPORT RESULTS FOR THE TOPSOIL WILL BE MADE AVAILABLE TO THE COUNTY URBAN FORESTER UPON REQUEST. CONTRACTOR SHALL SUBMIT TOPSOIL FOR APPROVAL TO COUNTY URBAN FORESTER THAT MEETS THE FOLLOWING SPECIFICATIONS:
   (A.) TOPSOIL CONSISTS OF A SANDY LOAM WITH UNIFORM COMPOSITION AND IS FREE OF STONES, LUMPS, PLANTS, ROOTS, AND OTHER DEBRIS OVER 1/2" IN LENGTH.
   (B.) TOPSOIL HAS A PH RANGE OF 5.5 TO 6.5 AND A MINIMUM CONTENT OF 1.0% ORGANIC MATTER
   (C.) TOPSOIL DOES NOT CONTAIN TOXIC SUBSTANCES HARMFUL TO PLANT GROWTH. SOLUBLE SALT LEVEL SHALL NOT EXCEED 3 MILLIOHMS PER CENTIMETER.

11. TREES PLANTED WITHOUT THE TRUNK FLARE VISIBLE WILL BE REJECTED.

12. TREES MAY ONLY BE STAKED IF REQUIRED BY THE COUNTY URBAN FORESTER. REFER TO ARLINGTON COUNTY STANDARD STAKING DETAILS.

13. MULCH SHALL BE CLEAN, SCREENED, DOUBLE-HAMMERED HARDWOOD BARK MULCH, UNIFORM IN SIZE AND FREE OF STONES, CLODS, NON-ORGANIC DEBRIS AND OTHER FOREIGN MATERIAL.

14. ALL PLANTS SHALL BE WATERED TWICE: ONCE AT INSTALLATION AND AGAIN WITHIN 48-HOURS OF INSTALLATION. EACH WATERING WILL CONSIST OF 20 GALLONS PER TREE.

15. CONTRACTOR SHALL LEGALLY REMOVE EXCESS SOIL & DEBRIS FROM SITE.

L3 C091 **GENERAL NOTES FOR STREET TREE PLANTINGS**

FOR TREES PLANTED IN RIGHT-OF-WAY
329300.5 (2016) (02930.5)

ARLINGTON VIRGINIA

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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

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QUALITY CONTROL ENGINEER	6/18/2020
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18TH STREET SOUTH

LANDSCAPE NOTES AND DETAILS
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

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PLOTTED BY: NSHARP

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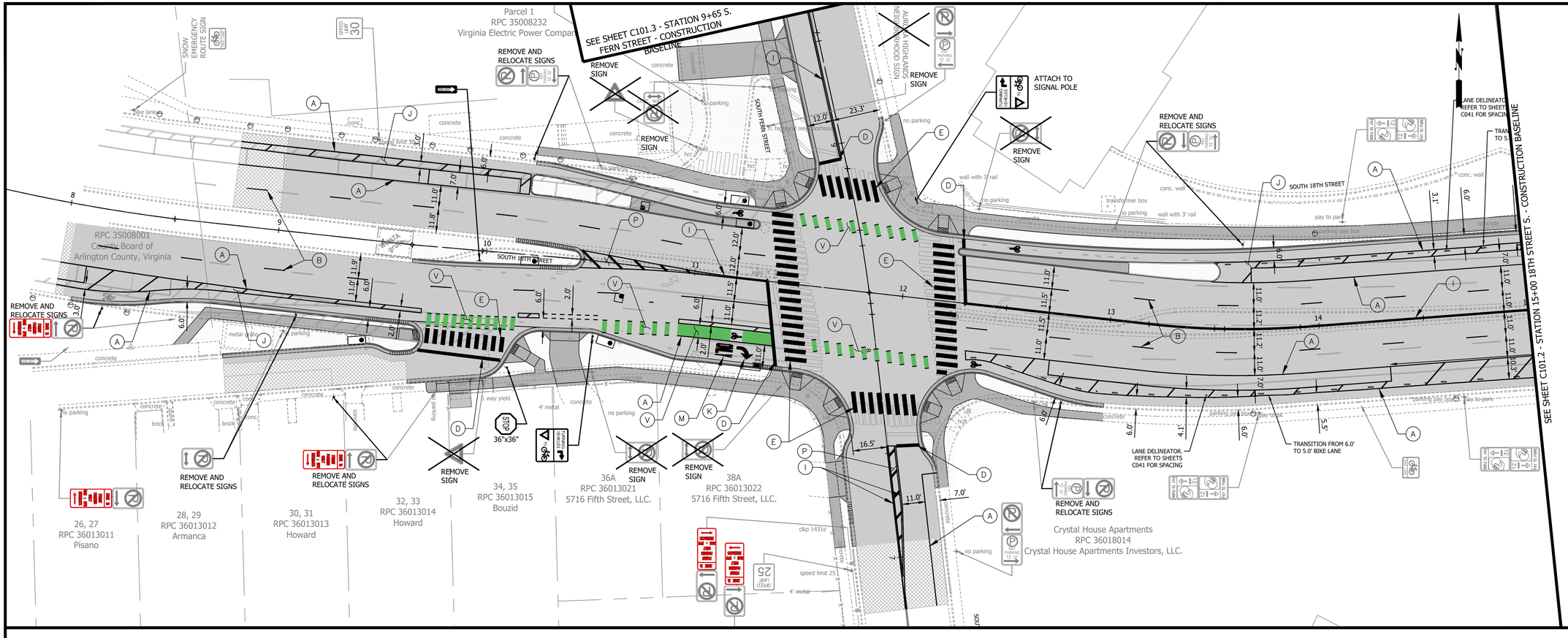
SHEET C092.1

REVISED ON 11/08/2016



STANDARD PAVEMENT MARKING LEGEND:

(A) TYPE B CLASS 1.....,WHITE 4" WIDTH	PARKING LANES, EDGE LINES, LANE LINES
(B) TYPE B CLASS 1.....,WHITE 4" WIDTH, 10' LONG, 30' SPACING	DASHED LANE LINES
(C) TYPE B CLASS 1.....,WHITE 6" WIDTH, 2' LONG, 4' SPACING	LANE TRANSITION SKIPS
(D) TYPE B CLASS 1.....,WHITE 18" WIDTH	STOP BARS
(E) TYPE B CLASS 1.....,WHITE 24" WIDTH	CONTINENTAL CROSS WALKS
(F) TYPE B CLASS 1.....,WHITE 6" WIDTH	TURN LANES,TRANSVERSE CROSSWALKS, BIKE LANES
~~(G) TYPE B CLASS 1.....,YELLOW 4" WIDTH, 10' LONG, 30' SPACING~~	DIVIDED TRAFFIC, TWO WAY TURN LANES
(H) TYPE B CLASS 1.....,YELLOW 4" WIDTH	EDGE LINES
(I) TYPE B CLASS 1.....,YELLOW 4" WIDTH, DOUBLE LINE, 4" SPACING	CENTERLINES
(J) TYPE B CLASS 1.....,WHITE 6" WIDTH, 15' SPACING @45 DEGREE	HATCH LINES, SAFETY ZONES
(K) TYPE B CLASS 1.....,WHITE SINGLE ARROW	TURN LANES
(L) TYPE B CLASS 1.....,WHITE COMBINATION ARROW	TURN LANES
(M) TYPE B CLASS 1.....,WHITE 8' LETTERS	PAVEMENT LETTERS (STOP, YIELD, BUS, ONLY etc.)
~~(N) TYPE B CLASS 1.....,WHITE 6" WIDTH, 2' LONG, 10' SPACING~~	LANE TRANSITIONS, TURN LANE SKIPS
~~(O) TYPE B CLASS 1.....,WHITE 12" WIDTH, 20' SPACING @45 DEGREE~~	GORE MARKINGS
(P) TYPE B CLASS 1.....,YELLOW 12" WIDTH, 20' SPACING @45 DEGREE	GORE MARKINGS
~~(Q) ERADICATE EXISTING PAVEMENT MARKING~~	ERADICATION
~~(R) TYPE B CLASS 1.....,WHITE 8" WIDTH~~	TRANSIT LANE LINES
~~(S) TYPE B CLASS 1.....,WHITE 8" WIDTH, 2' LONG, 10' SPACING~~	TRANSIT LANE SKIPS
~~(T) TYPE B CLASS 1.....,WHITE PREFERENTIAL LANE SYMBOL~~	TRANSIT LANES
~~(U) YIELD TRIANGLES~~	.
(V) GREEN PAVEMENT MARKINGS	BIKE MARKINGS

STRIPING LEGEND

(A) EXISTING STRIPING

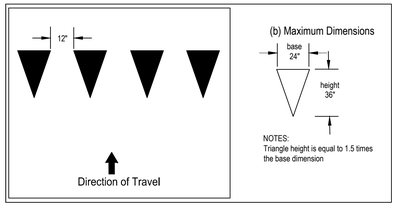
(A) PROPOSED STRIPING

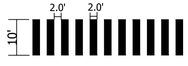
LEGEND

EXISTING		PROPOSED
	BUS STOP	
	FIRE HYDRANT	
	PARKING METER	
	SIGN	

SIGN AND PAVEMENT MARKING NOTES:

1. STREET WIDTH MEASUREMENTS ARE FROM FACE OF CURB TO FACE OF CURB. LANES ARE MEASURED FROM CENTER OF MARKING TO CENTER OF MARKING .
2. CONTACT DES-TRANSPORTATION ENGINEERING & OPERATIONS CONSTRUCTION MANAGEMENT SPECIALIST OR HIS DESIGNEE AT 703-228-6598 OR 571-437-1077 TO APPROVE MARKING LAYOUT 48 HOURS PRIOR TO INSTALLATION OF MARKINGS.
3. PAVEMENT MARKINGS TO BE IN ACCORDANCE WITH THE FOLLOWING AND ANY REVISIONS HERE TO:
   A. THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
   B. ARLINGTON COUNTY MARKING STANDARDS.
4. ALL MARKINGS SHALL BE THERMOPLASTIC PER ARLINGTON COUNTY MARKING STANDARDS.
5. STOP BARS SHALL BE A MINIMUM OF 4' IN ADVANCE OF A MARKED CROSSWALK. IF THERE IS NO MARKED CROSSWALK, STOP BAR SHALL BE NO MORE THAN 30' FROM THE NEAREST EDGE OF THE INTERSECTED TRAVELED WAY.
6. CROSSWALKS SHALL BE 10' WIDE UNLESS OTHERWISE NOTED.
7. LEFT TURN ARROWS SHALL BE LOCATED 25' BACK FROM STOP BAR. FOR ADDITIONAL ARROWS FOLLOW COUNTY MARKING STANDARDS.
8. ON-STREET PARKING LANE IS 7' WIDE (UNLESS OTHERWISE NOTED) AND MARKED WITH 4" WIDE WHITE LINES. BEGINNING AND END OF PARKING SHALL BE MARKED WITH AN END LINE PERPENDICULAR TO CURB EXCEPT AT NUBS OR WHERE OTHERWISE INDICATED.
9. SHARED LANE MARKINGS SHALL BE PLACED IN CENTER OF LANE, 250' APART UNLESS OTHERWISE SPECIFIED.
10. BIKE LANE SYMBOLS TO BE PLACED 330' APART UNLESS OTHERWISE SPECIFIED.
11. EDGE LINES ARE ONLY REQUIRED WHERE SHOWN ON THE PLANS.
12. FOR DETAILS SEE ARLINGTON COUNTY PAVEMENT MARKING SPECIFICATION, DETAILS MK-1 TO MK-12





HIGH VISIBILITY CROSSWALK
NOT TO SCALE

NOTES:
1. STRIPING FOR ON-STREET PARKING (ADJACENT TO MID-BLOCK ENTRANCES) IS SHOWN BASED ON GUIDANCE FROM ARLINGTON COUNTY TE&O. PER THE GUIDANCE, STRIPING IS SHOWN IN ORDER TO PROVIDE ADEQUATE STOPPING SIGHT DISTANCE PER THE AASHTO STANDARDS.

REVISED ON 11/08/2016

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Ariel Jung	6/17/2020
PROJECT MANAGER	

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18TH STREET SOUTH

STRIPING AND SIGNAGE PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

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PLOTTED: MARCH 1 2021
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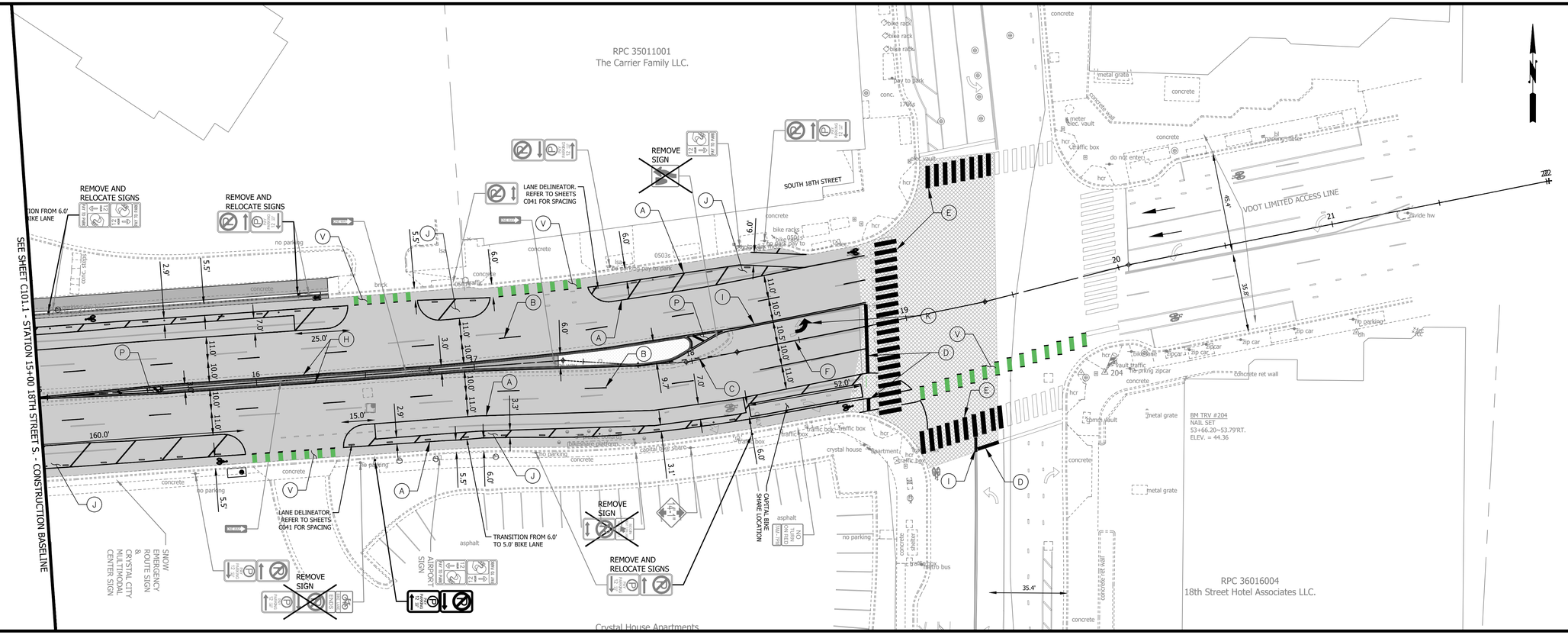

STANDARD PAVEMENT MARKING LEGEND:

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Ⓚ TYPE B CLASS 1.....,WHITE SINGLE ARROW	TURN LANES
Ⓛ TYPE B CLASS 1.....,WHITE COMBINATION ARROW	TURN LANES
Ⓜ TYPE B CLASS 1.....,WHITE 8' LETTERS	PAVEMENT LETTERS (STOP, YIELD, BUS, ONLY etc.)
~~Ⓝ TYPE B CLASS 1.....,WHITE 6" WIDTH, 2' LONG, 10' SPACING~~	LANE TRANSITIONS, TURN LANE SKIPS
~~Ⓞ TYPE B CLASS 1.....,WHITE 12" WIDTH, 20' SPACING @45 DEGREE~~	GORE MARKINGS
Ⓟ TYPE B CLASS 1.....,YELLOW 12" WIDTH, 20' SPACING @45 DEGREE	GORE MARKINGS
~~Ⓠ ERADICATE EXISTING PAVEMENT MARKING~~	ERADICATION
~~Ⓡ TYPE B CLASS 1.....,WHITE 8" WIDTH~~	TRANSIT LANE LINES
~~Ⓢ TYPE B CLASS 1.....,WHITE 8" WIDTH, 2' LONG, 10' SPACING~~	TRANSIT LANE SKIPS
~~Ⓣ TYPE B CLASS 1.....,WHITE PREFERENTIAL LANE SYMBOL~~	TRANSIT LANES
~~Ⓤ YIELD TRIANGLES~~	-
Ⓥ GREEN PAVEMENT MARKINGS	BIKE MARKINGS

BIKE SYMBOL DETAIL

STRIPING LEGEND

Ⓐ EXISTING STRIPING

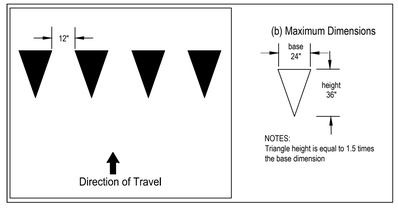
Ⓐ PROPOSED STRIPING

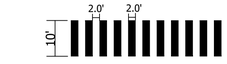
LEGEND

EXISTING		PROPOSED
	BUS STOP	
	FIRE HYDRANT	
	PARKING METER	
	SIGN	

SIGN AND PAVEMENT MARKING NOTES:

1. STREET WIDTH MEASUREMENTS ARE FROM FACE OF CURB TO FACE OF CURB. LANES ARE MEASURED FROM CENTER OF MARKING TO CENTER OF MARKING .
2. CONTACT DES-TRANSPORTATION ENGINEERING & OPERATIONS CONSTRUCTION MANAGEMENT SPECIALIST OR HIS DESIGNEE AT 703-228-6598 OR 571-437-1077 TO APPROVE MARKING LAYOUT 48 HOURS PRIOR TO INSTALLATION OF MARKINGS.
3. PAVEMENT MARKINGS TO BE IN ACCORDANCE WITH THE FOLLOWING AND ANY REVISIONS HERE TO:
   A. THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
   B. ARLINGTON COUNTY MARKING STANDARDS.
4. ALL MARKINGS SHALL BE THERMOPLASTIC PER ARLINGTON COUNTY MARKING STANDARDS.
5. STOP BARS SHALL BE A MINIMUM OF 4' IN ADVANCE OF A MARKED CROSSWALK. IF THERE IS NO MARKED CROSSWALK, STOP BAR SHALL BE NO MORE THAN 30' FROM THE NEAREST EDGE OF THE INTERSECTED TRAVELED WAY.
6. CROSSWALKS SHALL BE 10' WIDE UNLESS OTHERWISE NOTED.
7. LEFT TURN ARROWS SHALL BE LOCATED 25' BACK FROM STOP BAR. FOR ADDITIONAL ARROWS FOLLOW COUNTY MARKING STANDARDS.
8. ON-STREET PARKING LANE IS 7' WIDE (UNLESS OTHERWISE NOTED) AND MARKED WITH 4" WIDE WHITE LINES. BEGINNING AND END OF PARKING SHALL BE MARKED WITH AN END LINE PERPENDICULAR TO CURB EXCEPT AT NUBS OR WHERE OTHERWISE INDICATED.
9. SHARED LANE MARKINGS SHALL BE PLACED IN CENTER OF LANE, 250' APART UNLESS OTHERWISE SPECIFIED.
10. BIKE LANE SYMBOLS TO BE PLACED 330' APART UNLESS OTHERWISE SPECIFIED.
11. EDGE LINES ARE ONLY REQUIRED WHERE SHOWN ON THE PLANS.
12. FOR DETAILS SEE ARLINGTON COUNTY PAVEMENT MARKING SPECIFICATION, DETAILS MK-1 TO MK-12





HIGH VISIBILITY CROSSWALK
NOT TO SCALE

NOTES:
1. STRIPING FOR ON-STREET PARKING (ADJACENT TO MID-BLOCK ENTRANCES) IS SHOWN BASED ON GUIDANCE FROM ARLINGTON COUNTY TE&O. PER THE GUIDANCE, STRIPING IS SHOWN IN ORDER TO PROVIDE ADEQUATE STOPPING SIGHT DISTANCE PER THE AASHTO STANDARDS.

ARLINGTON
VIRGINIA

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

SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
Kamal N. Taktak	6.26.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Jung	6/17/2020
PROJECT MANAGER	

REVISIONS DATE

18TH STREET SOUTH

STRIPING AND SIGNAGE PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME: CC20-280-SIGNAGE_AND_STRIPING.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

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GRAPHIC SCALE

SHEET C101.2

REVISED ON 11/09/2016

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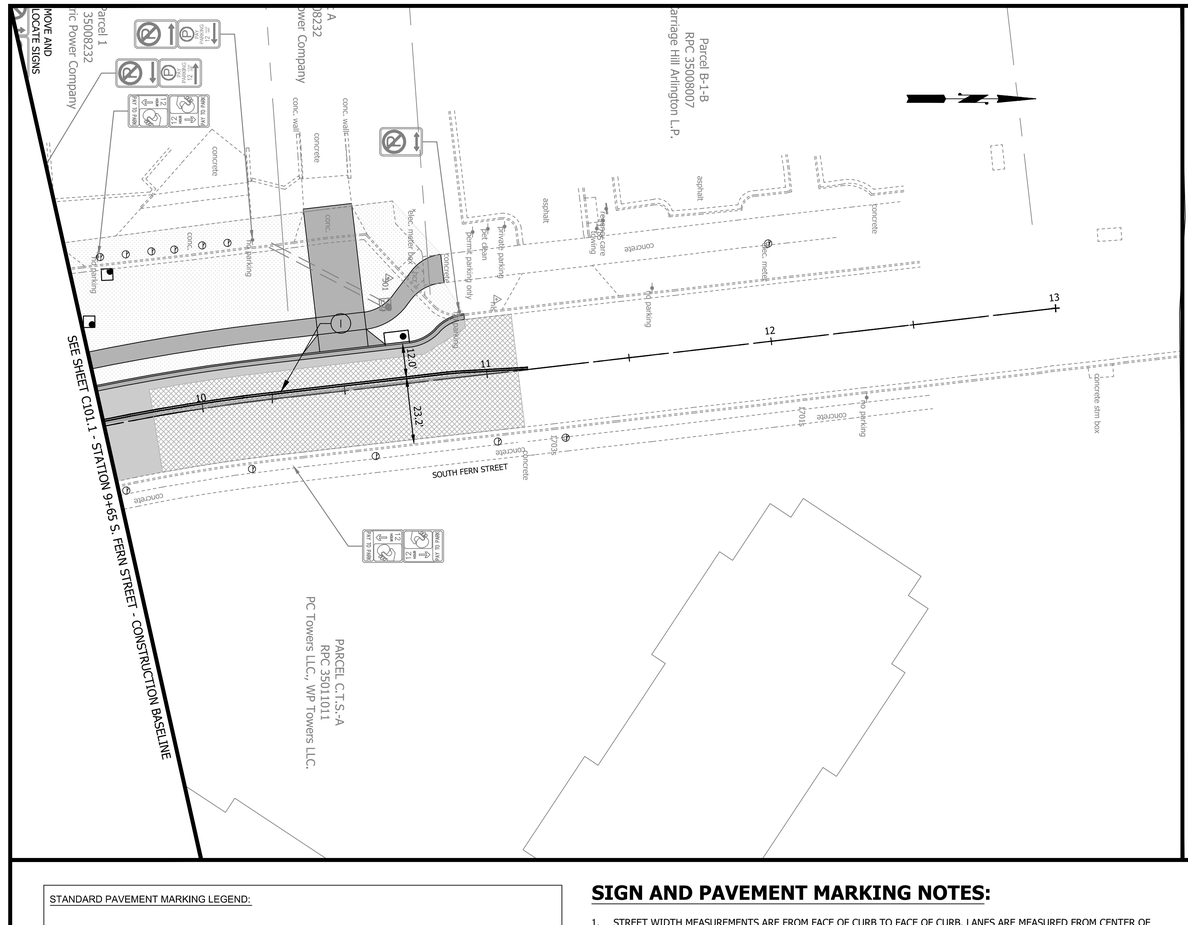

STANDARD PAVEMENT MARKING LEGEND:

Ⓐ TYPE B CLASS 1.....,WHITE 4" WIDTH	PARKING LANES, EDGE LINES, LANE LINES
Ⓑ TYPE B CLASS 1.....,WHITE 4" WIDTH, 10' LONG, 30' SPACING	DASHED LANE LINES
Ⓒ TYPE B CLASS 1.....,WHITE 6" WIDTH, 2' LONG, 4' SPACING	LANE TRANSITION SKIPS
Ⓓ TYPE B CLASS 1.....,WHITE 18" WIDTH	STOP BARS
Ⓔ TYPE B CLASS 1.....,WHITE 24" WIDTH	CONTINENTAL CROSS WALKS
Ⓕ TYPE B CLASS 1.....,WHITE 6" WIDTH	TURN LANES,TRANSVERSE CROSSWALKS, BIKE LANES
~~Ⓖ TYPE B CLASS 1.....,YELLOW 4" WIDTH, 10' LONG, 30' SPACING~~	DIVIDED TRAFFIC, TWO WAY TURN LANES
Ⓗ TYPE B CLASS 1.....,YELLOW 4" WIDTH	EDGE LINES
Ⓘ TYPE B CLASS 1.....,YELLOW 4" WIDTH, DOUBLE LINE, 4" SPACING	CENTERLINES
Ⓙ TYPE B CLASS 1.....,WHITE 6" WIDTH, 15' SPACING @45 DEGREE	HATCH LINES, SAFETY ZONES
Ⓚ TYPE B CLASS 1.....,WHITE SINGLE ARROW	TURN LANES
Ⓛ TYPE B CLASS 1.....,WHITE COMBINATION ARROW	TURN LANES
Ⓜ TYPE B CLASS 1.....,WHITE 8' LETTERS	PAVEMENT LETTERS (STOP, YIELD, BUS, ONLY etc.)
~~Ⓝ TYPE B CLASS 1.....,WHITE 6" WIDTH, 2' LONG, 10' SPACING~~	LANE TRANSITIONS, TURN LANE SKIPS
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~~Ⓤ YIELD TRIANGLES~~	.
Ⓥ GREEN PAVEMENT MARKINGS	BIKE MARKINGS

BIKE SYMBOL DETAIL

STRIPING LEGEND

Ⓐ EXISTING STRIPING

Ⓐ PROPOSED STRIPING

LEGEND

EXISTING		PROPOSED
	BUS STOP	
	FIRE HYDRANT	
	PARKING METER	
	SIGN	

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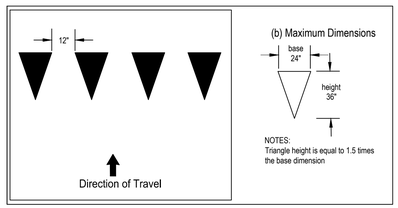

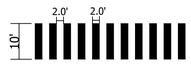

HIGH VISIBILITY CROSSWALK

NOT TO SCALE

NOTES:
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COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

STRIPING AND SIGNAGE PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME: CC20-280-SIGNAGE_AND_STRIPING.DWG
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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

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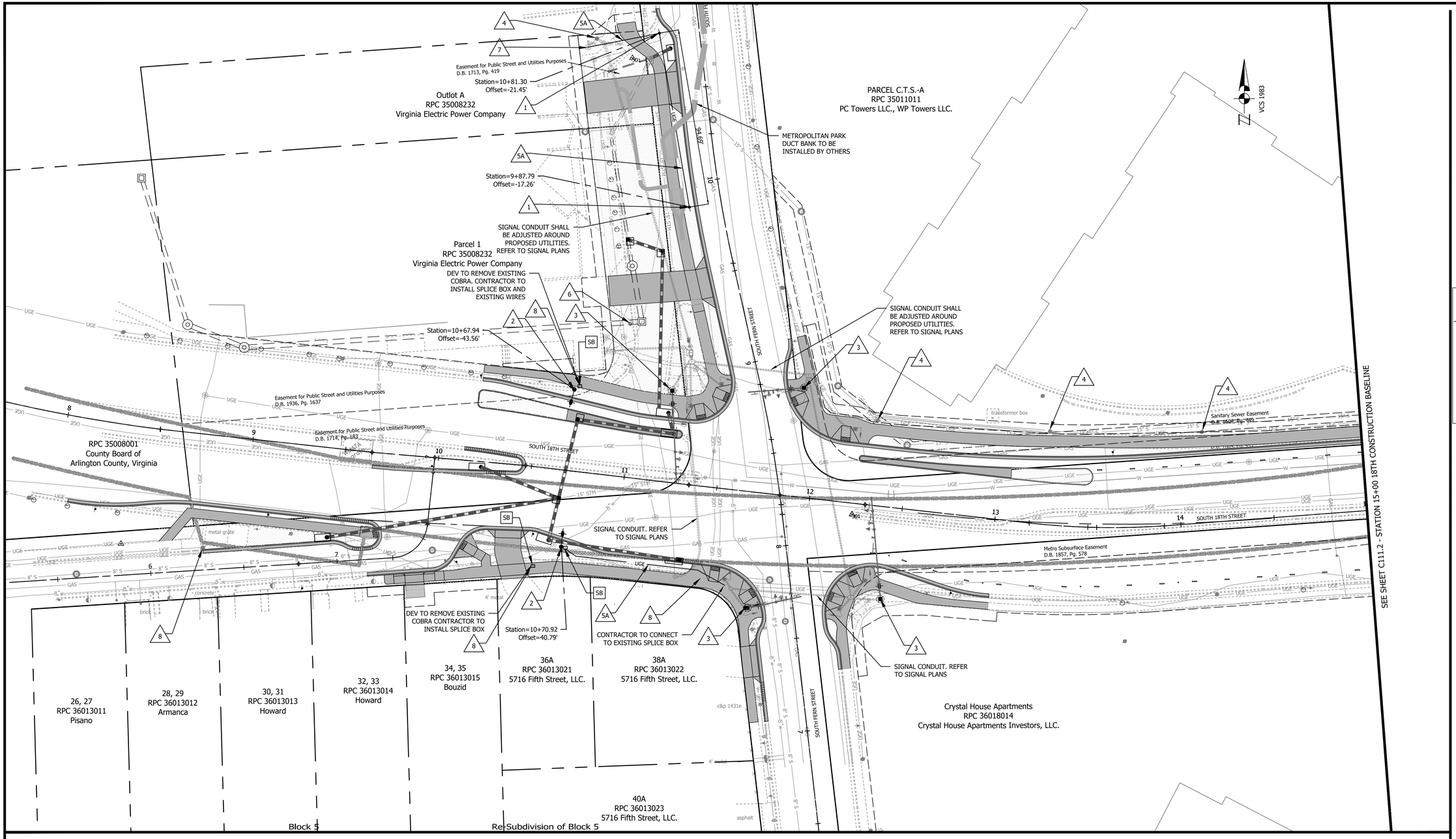
GRAPHIC SCALE

SHEET C101.3

REVISED ON 11/08/2016

18TH STREET SOUTH



CONSTRUCTION NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL LED CARLYLE FIXTURE ON 16' POLE WITH TYPE F-1 FOUNDATION (ARL STD. DWG #14060-1), SEE ARLINGTON COUNTY LIGHTING SPECIFICATIONS & STANDARDS.
2. PROPOSED DOMINION ENERGY COBRA (250 COMPARABLE WATTAGE), CONDUIT AND POLES TO BE DESIGNED AND INSTALLED BY DOMINION ENERGY. CONTRACTOR TO COORDINATE WITH DOMINION ENERGY ON TIMING FOR INSTALLATION. REFER TO TABLE ON THIS SHEET.
3. PROPOSED TRAFFIC SIGNAL AND LIGHT RELOCATION. REFER TO SIGNAL PLANS FOR POWER SOURCE AND CONDUIT LAYOUT.
4. CONTRACTOR SHALL PROTECT EXISTING LIGHT POLES DURING CONSTRUCTION.
5A. CONTRACTOR SHALL FURNISH AND INSTALL 1-2" DIA, ELECTRICAL CONDUIT PER ARL STD. DWG #14030-01.
5B. CONTRACTOR SHALL FURNISH AND INSTALL 1-2" DIA, ELECTRICAL CONDUIT PER DOMINION ENERGY STANDARD SPECIFICATIONS.
6. CONTRACTOR SHALL UNINSTALL ARLINGTON COUNTY LIGHT POLE PER NOTES ON THIS SHEET.
7. CONTRACTOR SHALL CONNECT TO EXISTING METER, THE METER CONNECTION WORK SHALL INCLUDE ALL COMPONENTS NEEDED TO COMPLETE THE WORK AND SHALL FOLLOW THE ARLINGTON COUNTY LIGHTING SPECIFICATIONS & STANDARDS.
8. EXISTING DOMINION ENERGY LIGHT POLES TO BE REMOVED BY DOMINION ENERGY.
9. EXISTING LIGHT POLE SHALL BE CAREFULLY REMOVED DURING CONSTRUCTION AND THEN REPLACED IN THE SAME LOCATION.
SB. CONTRACTOR TO COORDINATE WITH DOMINION ENERGY TO OBTAIN SPLICE BOXES (SB). ALL SPLICE BOXES INSTALLED SHALL BE PER DOMINION ENERGY SPECIFICATIONS.

GENERAL NOTES:

1. THE PROPOSED PROJECT IS ON TOP OF UNDERGROUND WMATA TUNNEL. BASED ON WMATA AS-BUILT INFORMATION (HUNTINGTON ROUTE, PLAN AND PROFILE, STA. 316+17.80 TO STA. 326-00.00), THE DEPTH OF THE SURFACE TOP IS APPROXIMATELY AT ELEVATION 30.00'.
2. CONTRACTOR IS RESPONSIBLE FOR USING THE PROPER MEANS AND METHODS OF CONSTRUCTION TO INSTALL THE APPROPRIATE TYPE OF FOUNDATIONS, POLES, LUMINARIES, CONDUITS, WIRING, GROUNDING AND ALL OTHER INCIDENTALS NECESSARY FOR A COMPLETE INSTALLATION OF THE PROPOSED STREETLIGHTS. IT IS RECOMMENDED FOR CONTRACTOR TO PROBE OR EXPLORE THE AVAILABLE DEPTH IN ADVANCE TO DETERMINE THE APPROXIMATE TYPE OF STREETLIGHT FOUNDATION, PROBING AND EXPLORING ARE CONSIDERED INCIDENTAL FOR INSTALLING THE STREETLIGHT FOUNDATION AND NO SEPARATE MEASUREMENT AND PAYMENT WILL BE MADE.
3. CONDUITS ALIGNMENT RUNS, STREETLIGHT FOUNDATIONS AND JUNCTION BOX LOCATIONS WERE DRAWN BASED ON AVAILABLE INFORMATION, FIELD LOCATE AND/OR ADJUST ALIGNMENTS AND PLACEMENTS IF NECESSARY DUE TO SITE CONDITION, FOLLOW THE ARLINGTON COUNTY LIGHTING SPECIFICATIONS & STANDARDS.
4. CONTRACTOR SHALL COORDINATE SERVICE DISCONNECTS AND CONNECTIONS WITH ARLINGTON COUNTY AND DOMINION VIRGINIA POWER.

LIGHTING REMOVAL NOTES:

1. EXISTING LIGHTING SHALL NOT BE REMOVED WITHOUT TEMPORARY LIGHTING OR PROPOSED LIGHTING BEING IN PLACE.
2. CONTRACTOR TO COORDINATE WITH DOMINION ENERGY FOR THE REMOVAL OF DOMINION ENERGY OWNED LIGHTS. CONTRACTOR SHALL NOT REMOVE DOMINION ENERGY LIGHTS WITHOUT THEIR APPROVAL. ANY DAMAGE TO THE DOMINION ENERGY LIGHTS DUE TO CONSTRUCTION SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
3. CONTRACTOR SHALL CAREFULLY REMOVE ARLINGTON COUNTY LIGHT POLES AND COORDINATE WITH THE ARL. CONSTRUCTION MANAGER FOR DELIVERY TO THE COUNTY FOR STORAGE. THE LAMPS (LUMINARIES) SHALL BE LABELED WITH THE POLE NUMBER PRIOR TO DELIVERY. ALL EXISTING ELECTRICAL FIXTURE AND FOUNDATIONS SHALL BE REMOVED A MINIMUM OF 12" BELOW GRADE.
4. ABANDON EXISTING CONDUIT IN PLACE.

CIRCUIT RUN #1 - VOLTAGE DROP TO METER AND TWO POLES

CKT#	FROM	TO	CKT LENGTH	WIRE SIZE	QTY. OF LIGHTS ON POLE	TOTAL QTY. LIGHTS ON CKT	AMPERES THRU CABLE	VOLTAGE DROP IN THIS SECTION
PANEL FEED	EX. METER 020008997		0	#6 AWG	N/A	2	0.97	0.00
CKT1-1	METER	1C-1	40	#6 AWG	1	1	0.48	0.01
CKT1-1	1C-1	1C-2	95	#6 AWG	1	2	0.97	0.05

TOTAL VOLTAGE DROP OF CIRCUIT RUN #1 AT LAST POLE (V): 0.06

PERCENT VOLTAGE DROP FOR CIRCUIT RUN #1 AT LAST POLE: 0.05

DOMINION ENERGY LIGHTS

QUANTITY	COMPARABLE HID WATTAGE	FINISH COLOR	INITIAL LAMP LUMENS	LIGHTING PATTERN	CORRELATED COLOR TEMPERATURE (CCT)	INPUT WATTAGE	BILLING TIER	BASIC / PREMIUM	RECOMMENDED MOUNTING HEIGHT (FT.)	BUG RATING	LUMINAIRE STOCK #	WMIS CU CODE
2	250 (480 V)	GRAY	14575	TYPE III	4000 K	136	5	BASIC	30-35	3-0-3	42330028	LEDCOXX1534G4XX

REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

DEPARTMENT OF
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ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
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PHONE: 703.228.3629
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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS DATE

18TH STREET SOUTH

STREETLIGHT PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

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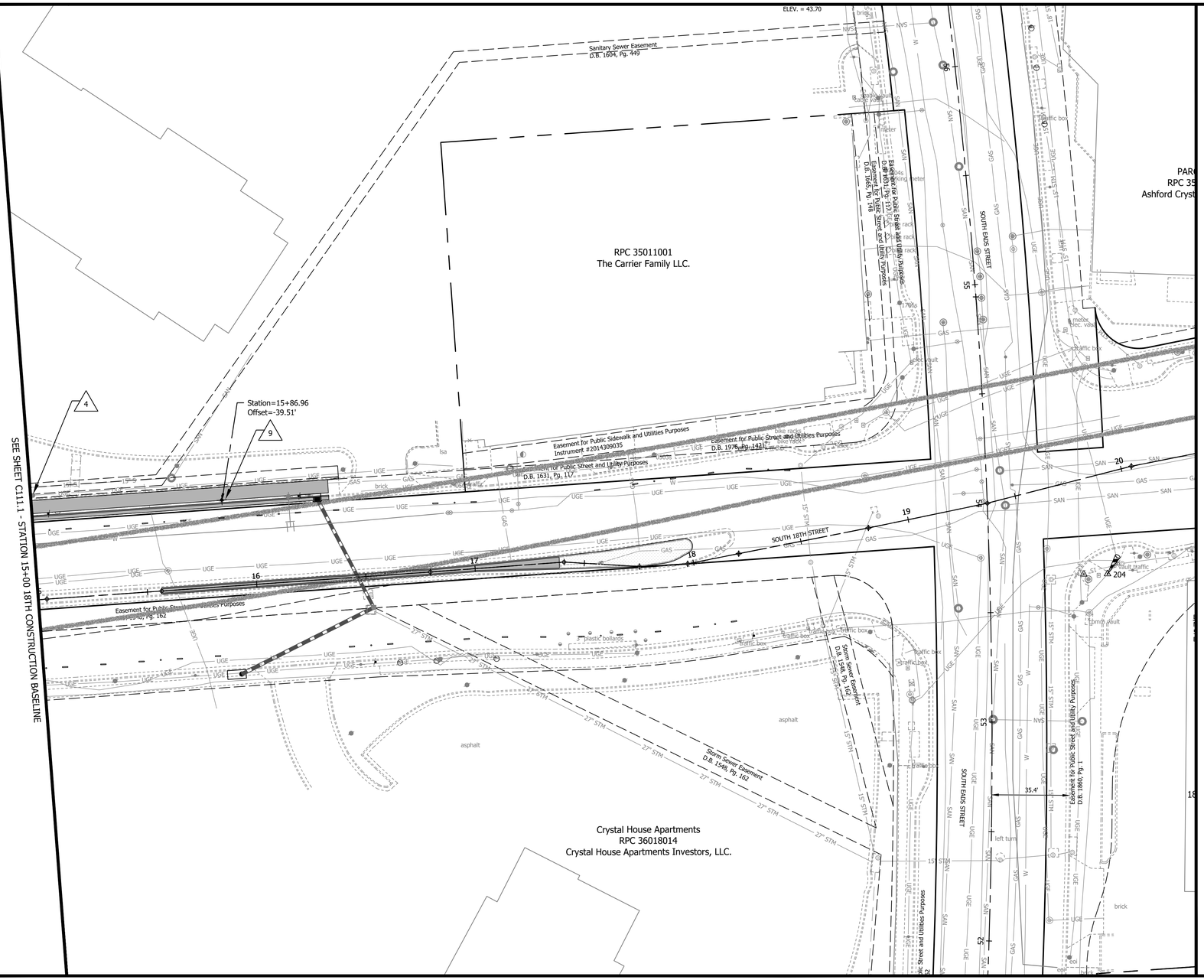
HORIZ: SCALE: 1" = 25'

SHEET C111.1

18TH STREET SOUTH



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CKT#	FROM	TO	CKT LENGTH	WIRE SIZE	QTY. OF LIGHTS ON POLE	TOTAL QTY. LIGHTS ON CKT	AMPERES THRU CABLE	VOLTAGE DROP IN THIS SECTION
PANEL FEED	EX. METER 020008997		0	#6 AWG	N/A	2	0.97	0.00
CKT1-1	METER	1C-1	40	#6 AWG	1	1	0.48	0.01
CKT1-1	1C-1	1C-2	95	#6 AWG	1	2	0.97	0.05
					TOTAL VOLTAGE DROP OF CIRCUIT RUN #1 AT LAST POLE (V):			0.06
					PERCENT VOLTAGE DROP FOR CIRCUIT RUN #1 AT LAST POLE:			0.05

DOMINION ENERGY LIGHTS

QUANTITY	COMPARABLE HID WATTAGE	FINISH COLOR	INITIAL LAMP LUMENS	LIGHTING PATTERN	CORRELATED COLOR TEMPERATURE (CCT)	INPUT WATTAGE	BILLING TIER	BASIC / PREMIUM	RECOMMENDED MOUNTING HEIGHT (FT.)	BUG RATING	LUMINAIRE STOCK #	WMIS CU CODE
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TREVOR M. LANTZY
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3/1/2021
PROFESSIONAL ENGINEER

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TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS DATE

18TH STREET SOUTH

STREETLIGHT PLAN
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-270-STREETLIGHT PLAN.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

25 0 25
HORIZ: SCALE: 1" = 25'

SHEET C111.2

18TH STREET SOUTH

CONSTRUCTION NOTES

1. FOR ALL ARTERIAL STREETS, PORTABLE VARIABLE MESSAGE SIGNS WITH CLOSURE INFORMATION MUST BE INSTALLED AHEAD OF THE PROJECT SITE AT EACH VEHICULAR APPROACH 3 WEEKS PRIOR TO STREET CLOSURE IN LOCATIONS DIRECTED BY THE PROJECT OFFICER.
2. CONTRACTOR SHALL REMOVE EXISTING PAVEMENT MARKINGS IN CONFLICT WITH TEMPORARY PAVEMENT MARKINGS.
3. CONTACT TRANSPORTATION ENGINEERING OPERATIONS AT 703-228-6598 OR 571-437-1077 AND THE PROJECT OFFICER TO APPROVE MARKING LAYOUT 48 HOURS PRIOR TO INSTALLATION OF MARKINGS.
4. ONE LANE CLOSURE IN EACH DIRECTION OF TRAFFIC WILL BE PERMITTED FOR FINAL PAVEMENT OVERLAY.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN THE FLOW OF TRAFFIC ON ANY INTERSECTION WITHIN THE WORK AREA.
6. THE CONTRACTOR SHALL NOTIFY ARLINGTON COUNTY PUBLIC SCHOOLS TWO WEEKS PRIOR TO STARTING CONSTRUCTION.
7. THE CONTRACTOR SHALL SUBMIT ANY REQUESTS FOR TEMPORARY "NO PARKING" RESTRICTIONS TO THE PROJECT OFFICER AT LEAST 3 WORKING DAYS PRIOR TO THE DESIRED ONSET OF RESTRICTIONS. PRIOR TO A REQUEST FOR THE REMOVAL OF ACCESS TO ANY ADA PARKING SPACE THE CONTRACTOR MUST HAVE MADE PROVISION FOR ALTERNATIVE ADA PARKING AS INDICATED ON THE APPROVED PLAN OR AS DIRECTED BY THE PROJECT OFFICER
8. 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.
9. ALL TEMPORARY BUS TRAVEL LANES TO BE A MINIMUM OF 11 FEET WIDE.

MOT NOTES:

1. PARKING SHALL BE RESTRICTED BY THE COUNTY AS PART OF THE RIGHT OF WAY PERMIT. CONTACT DES-PERMITTING SECTION, 703-228-4798, AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF WORK.
2. COORDINATE WITH DES-TRANSIT BUREAU AT 703-228-3049, AT LEAST 4 WEEKS PRIOR TO COMMENCEMENT OF WORK, IF TRANSIT IS AFFECTED OR IF THERE ARE ANY IMPACTS TO TRANSIT STOPS OR ROUTES. NOTE: ALL TEMPORARY AND FINAL BUS TRAVEL LANES MUST BE MINIMUM 11' WIDE.
3. THE CONTRACTOR SHALL MAINTAIN ADA ACCESSIBLE PARKING SPACES AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL CONTACT DES - PERMITING, 703-228-4798, TO COORDINATE RELOCATION OF EXISTING ADA ACCESSIBLE PARKING SPACES OR TO INSTALL TEMPORARY SIGNAGE OUT OF AND ADJACENT TO THE WORK ZONE AS CONSTRUCTION PROGRESSES. MULTIPLE RELOCATIONS MAY BE NECESSARY DURING EACH PHASE.
4. NO WORK OR STORAGE SHALL BE CONDUCTED IN THE BUFFER AND TAPER AREAS.
5. ALL PROJECT SIGNAGE AND TEMPORARY STRIPING SHALL FOLLOW TTC-53.0 AND TTC-60.0 OF THE VIRGINIA WORK AREA PROTECTION MANUAL (LATEST EDITION).

PEDESTRIAN NOTE:

1. PEDESTRIANS SHALL BE APPROPRIATELY DIRECTED WITH ADVANCED WARNING SIGNS PLACED AT INTERSECTIONS, TO CROSS TO THE OPPOSITE SIDE OF THE ROADWAY IN ORDER TO PREVENT CONFLICT WITH MIDBLOCK WORK SITES.
2. A SAFE PEDESTRIAN PATH MUST BE MAINTAINED AROUND THE EXISTING AND PROPOSED TRAFFIC SIGNALS DURING CONSTRUCTION. IF A PEDESTRIAN PATH CAN NOT BE MAINTAINED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE PROJECT OFFICER FOR APPROVAL ON AN ALTERATIVE PATH. ADDITIONAL MOT MIGHT BE REQUIRED.

MOT WARNING SIGNAGE:

1. ROAD WORK AHEAD (W20-1) AND END ROAD WORK (G20-2) SIGNAGE SHALL BE PLACED AT THE AT THE BEGINNING AND END OF THE TOTAL PROJECT AREA. THESE SIGNS SHALL NOT BE REMOVED UNTIL THE CONSTRUCTION IS FINALIZED AND ALL MOT SIGNAGE MAY BE TAKEN DOWN.

W20-1

G20-2

2. IF W20-1 AND G20-2 SIGNS NEED TO BE RELOCATED FOR ANY REASON, APPROVAL BY THE PROJECT OFFICER IS REQUIRED.
3. REFER TO SHEET C121.2 FOR W20-1 AND G20-2 SIGN PLACEMENT. PLACEMENTS OF SIGNS SHALL BE AT THE EXTENTS OF THE PROJECT AREA

ALL TEMPORARY PAVEMENT MARKINGS SHALL BE INCIDENTAL TO ALL MAINTENANCE OF TRAFFIC WORK.

LEGEND

- WORK ZONE AREAS
- BUFFER AND TAPER AREAS
- PEDESTRIAN PATH
- CHANNELIZING DEVICES (BARRELS/DRUMS)
- LONGITUDINAL CHANNELIZING DEVICES (JERSEY BARRIER)
- TEMPORARY PAVEMENT
- FLAGGER
- M.O.T. SIGNAGE
- DIRECTION OF TRAFFIC
- ILLUMINATED FLASHING ARROW BOARD

REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

DEPARTMENT OF
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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
Kamal N. Taktak	6.26.20
CONSTRUCTION MANAGEMENT SUPERVISOR	
	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Yang	6/17/2020
PROJECT MANAGER	

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC PLAN NOTES
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-286-MOT-LEGEND_NOTES.DWG
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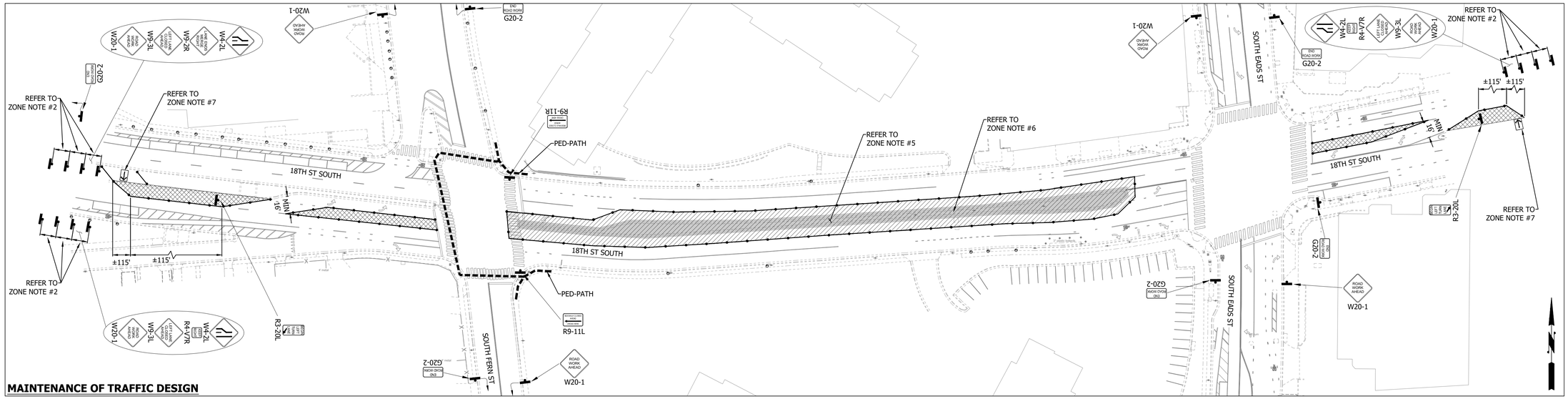
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

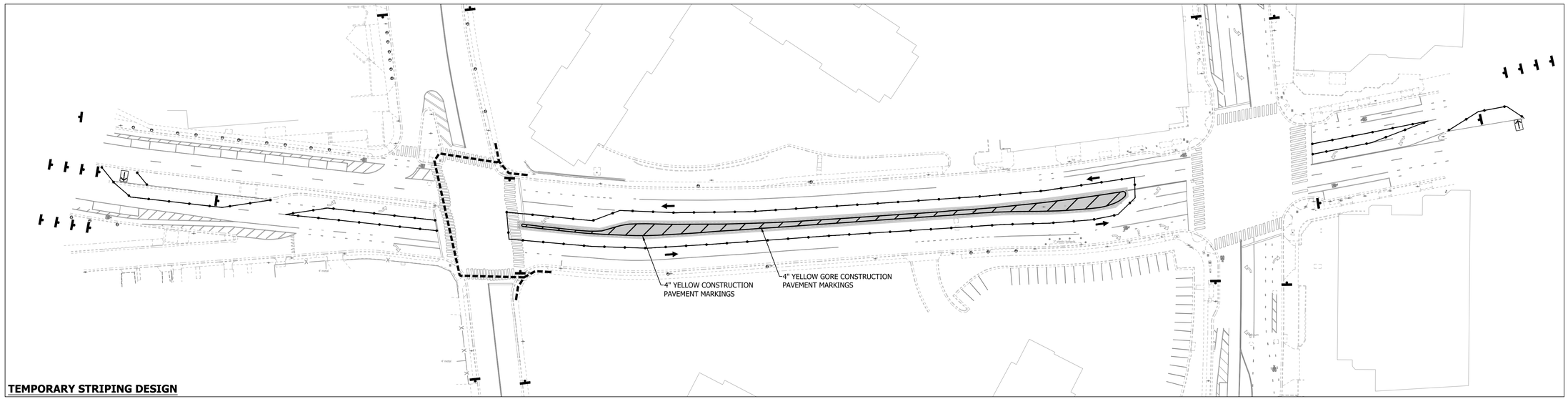
SCALE:

0 50 100
GRAPHIC SCALE

SHEET C121.1



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 01	TTC-27.2	TTC-36.2 *	REMOVE EXISTING MEDIAN AND REPAVE WITH TEMP. ASPHALT. RAISING EXISTING STORM SEWER INFRASTRUCTURE. CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND REOPEN CLOSED LANES. SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	2 WEEKS - 1 MONTH	MON.-FRI. 9:00AM-4:00PM

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

REFER TO SHEET C121.1 FOR ADDITIONAL NOTES FOR THE PLACEMENT OF W20-1 AND G20-2 SIGNAGE

W20-1

G20-2

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: MAINTAIN ALL EXISTING DIRECTIONAL ARROWS. IF DIRECTIONAL ARROW GETS COVERED OR DAMAGED DURING CONSTRUCTION, REPLACE WITH TEMPORARY DIRECTIONAL ARROW. REFER TO PLAN FOR STRIPING
4. OPTIONAL TTC'S: REQUIRES APPROVAL BY THE PROJECT OFFICER PRIOR TO IMPLEMENTATION
   42.2 INTERIOR LANE CLOSURE OPERATIONS ON A MULTI-LANE ROADWAY
   -FIRST CHANNELING DEVICE SHALL BE PLACED GREATER THAN 50' FROM AN INTERSECTION
5. INSTALL A DRIVABLE TEMPORARY PAVEMENT SURFACE THAT SHALL BE PLACED WHERE THE EXISTING MEDIAN WAS REMOVED.
6. ADJUST STORM STRUCTURE TOP TO BE LEVEL WITH THE TEMPORARY PAVEMENT.
7. ILLUMINATED FLASHING ARROW BOARDS SHALL BE PLACED IN THE EXISTING MEDIANS.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE ABOVE TABLE

REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 1
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
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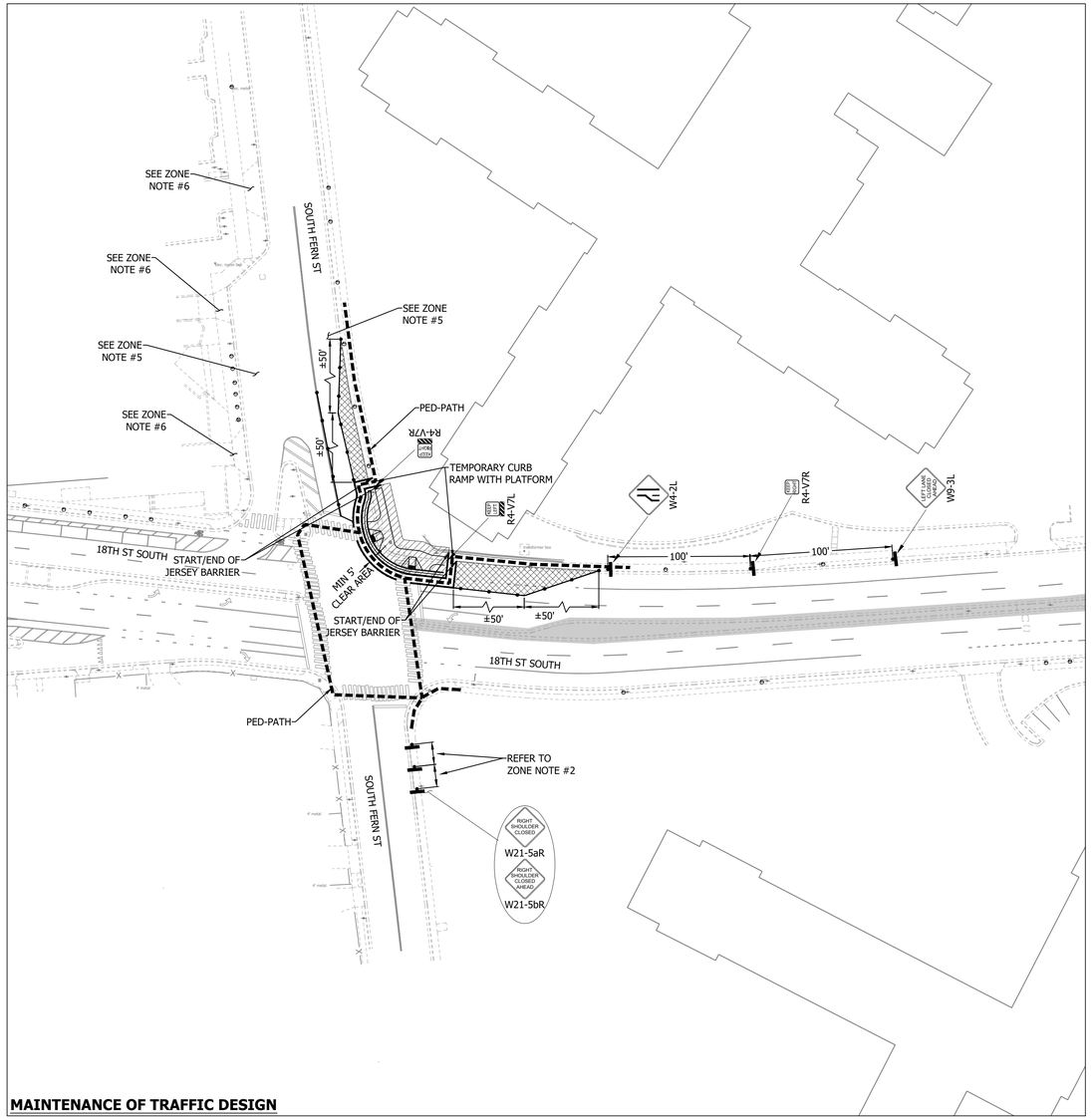
FILENAME:
CC20-286-MOT - ZONE 01.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

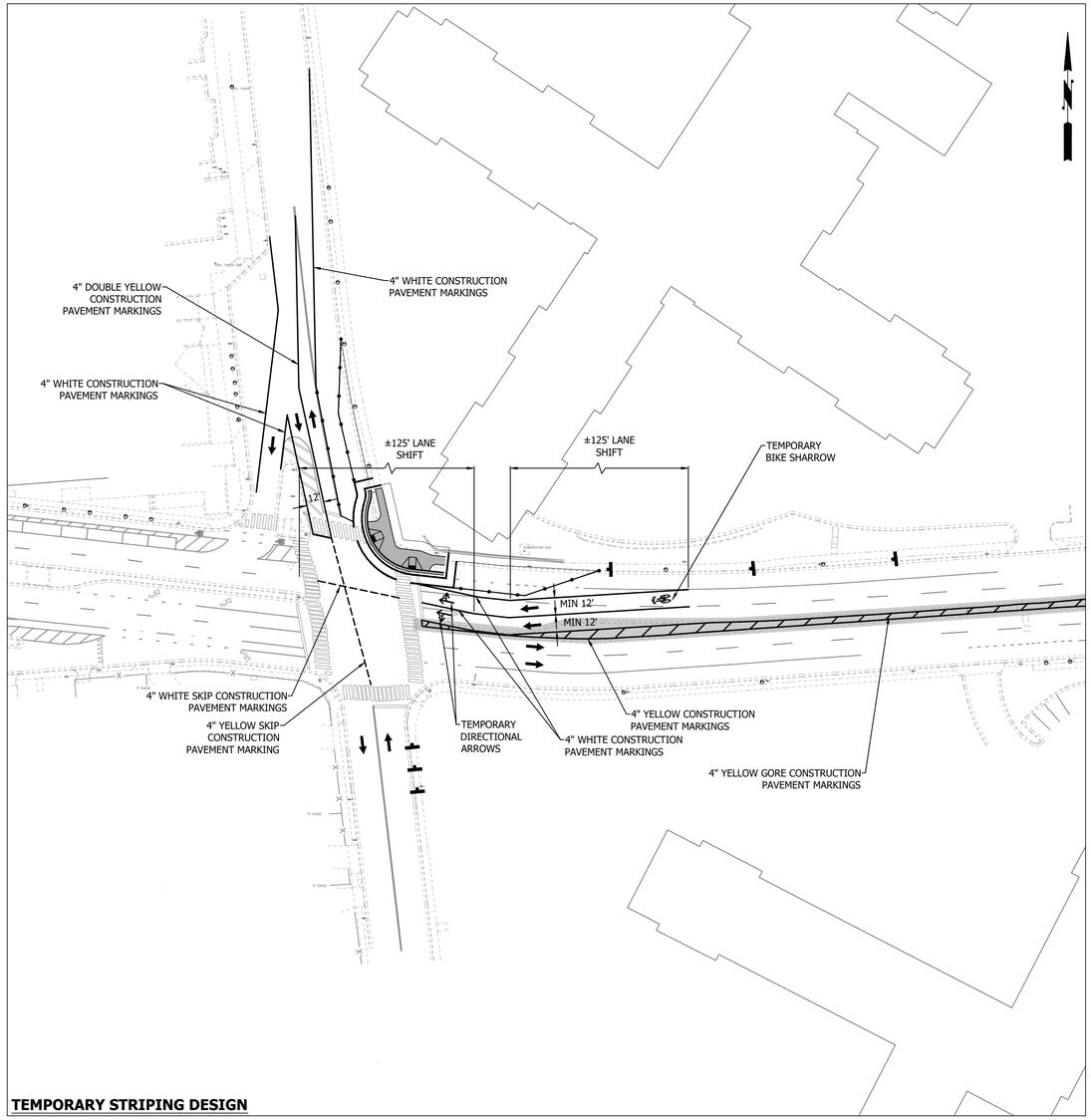
SCALE:

0 50 100
GRAPHIC SCALE

SHEET C121.2



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 02	TTC-28.2	TTC-35.1 TTC-36.2 *	LONGITUDINAL CHANNELIZING DEVICES SHOULD BE IN PLACE TO PROTECT PEDESTRIANS AROUND THE WORK ZONE SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	2 WEEKS - 1 MONTH	MON.-FRI. 9:00AM-4:00PM

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION -
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. CONTRACTOR TO MAINTAIN DRIVEWAY ACCESS AT ALL TIME.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE ABOVE TABLE AND THE SIDEWALK BYPASS AT AN INTERSECTION, FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION WORK ZONE PEDESTRIAN AND BICYCLE GUIDANCE (LATEST EDITION)

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

REVISED ON 11/09/2016

ARLINGTON
VIRGINIA

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COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 2
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
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MISS UTILITY TRANSMITTAL #: XXXX

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PLOTTED: MARCH 1 2021
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SCALE:

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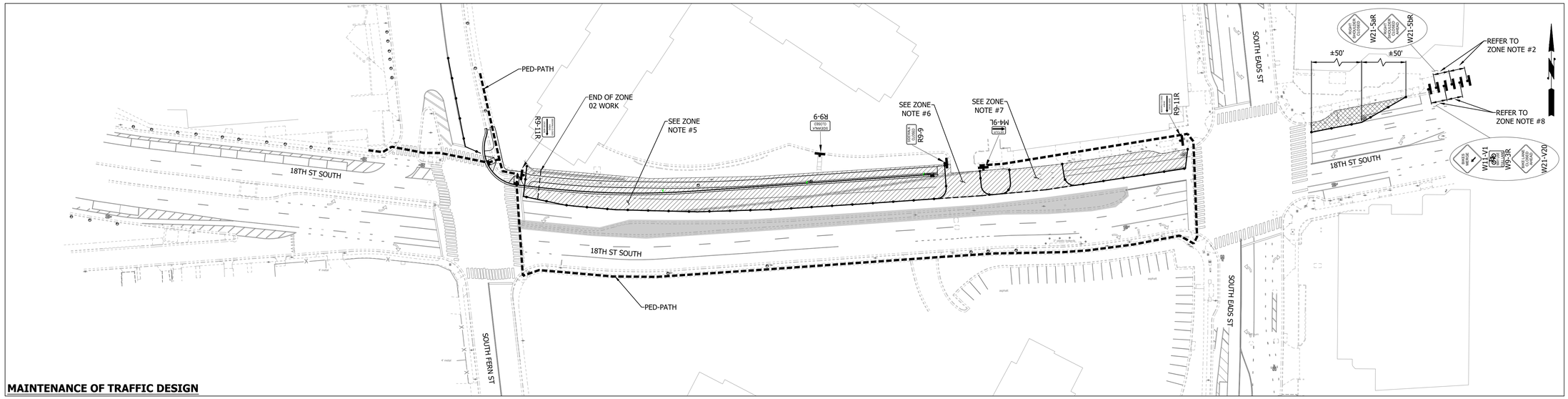
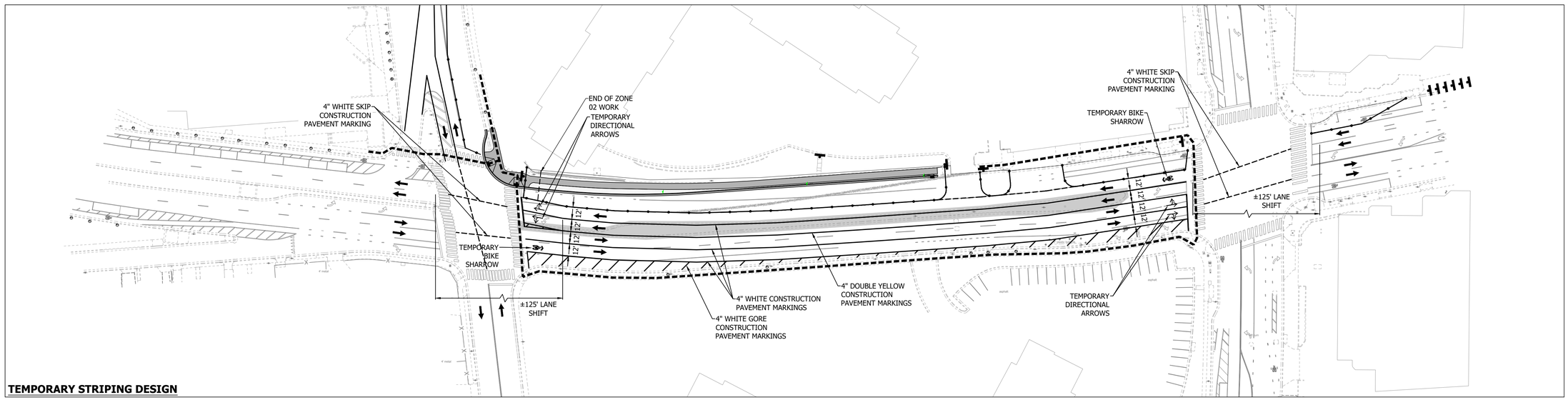
GRAPHIC SCALE

SHEET C121.3

18TH STREET SOUTH



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 03	TTC-4.2	TTC-35.1 *	M.O.T. DEVICES MAY REMAIN IN PLACE AS LONG AS TWO LANES IN EACH DIRECTION ARE MAINTAINED. SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	1 MONTH - 3 MONTHS	MON.-FRI. 9:00AM-4:00PM

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION -
5. CONSTRUCTION OF THE BIKE MEDIAN SHALL NOT BE DONE IN THIS ZONE. PAVE THE AREA SO THAT IT HAS A DRIVABLE SURFACE. MEDIAN SHALL BE CONSTRUCTED IN A LATER ZONE.
6. COORDINATE WITH THE PROJECT OFFICER PRIOR TO WORK AND CLOSURE OF DRIVEWAY. PROPERTY OWNER SHALL BE NOTIFIED THREE WEEKS BEFORE DRIVEWAY CLOSURE. ADDITIONAL SIGNAGE AND CHANNELIZATION DEVICES MAY BE REQUIRED FOR THE CLOSURE. WORK IN THE DRIVEWAY AREA SHOULD TAKE NO MORE THEN 3-5 DAYS.
7. COORDINATE WITH THE PROJECT OFFICER PRIOR TO WORK AND CLOSURE OF DRIVEWAY. PROPERTY OWNER SHALL BE NOTIFIED THREE WEEKS BEFORE DRIVEWAY CLOSURE. ONLY HALF OF THE DRIVEWAY SHALL BE CLOSED AT A TIME TO ALLOW FOR VEHICLES TO ENTER AND EXIT. ADDITIONAL SIGNAGE AND CHANNELIZATION DEVICES MAY BE REQUIRED FOR THE CLOSURE. WORK ON EACH HALF OF THE DRIVEWAY SHOULD TAKE NO MORE THEN 2-3 DAYS.
8. BIKE LANE CLOSURE SIGNAGE TO BE PLACED IN BETWEEN ROAD WARNING SIGNS AND BE VISIBLE FOR BOTH VEHICLES AND BIKES.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE ABOVE TABLE AND THE BICYCLE LANE CLOSURE, FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION WORK ZONE PEDESTRIAN AND BICYCLE GUIDANCE (LATEST EDITION)

REVISED ON 11/08/2016

ARLINGTON
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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR (Kamal N. Taktak)	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR (Dennis M. Leach)	6/24/20
PROJECT MANAGER (Ariel Yang)	6/17/2020

REVISIONS DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 3
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
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FILENAME:
CC20-286-MOT - ZONE 03.DWG
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SCALE:

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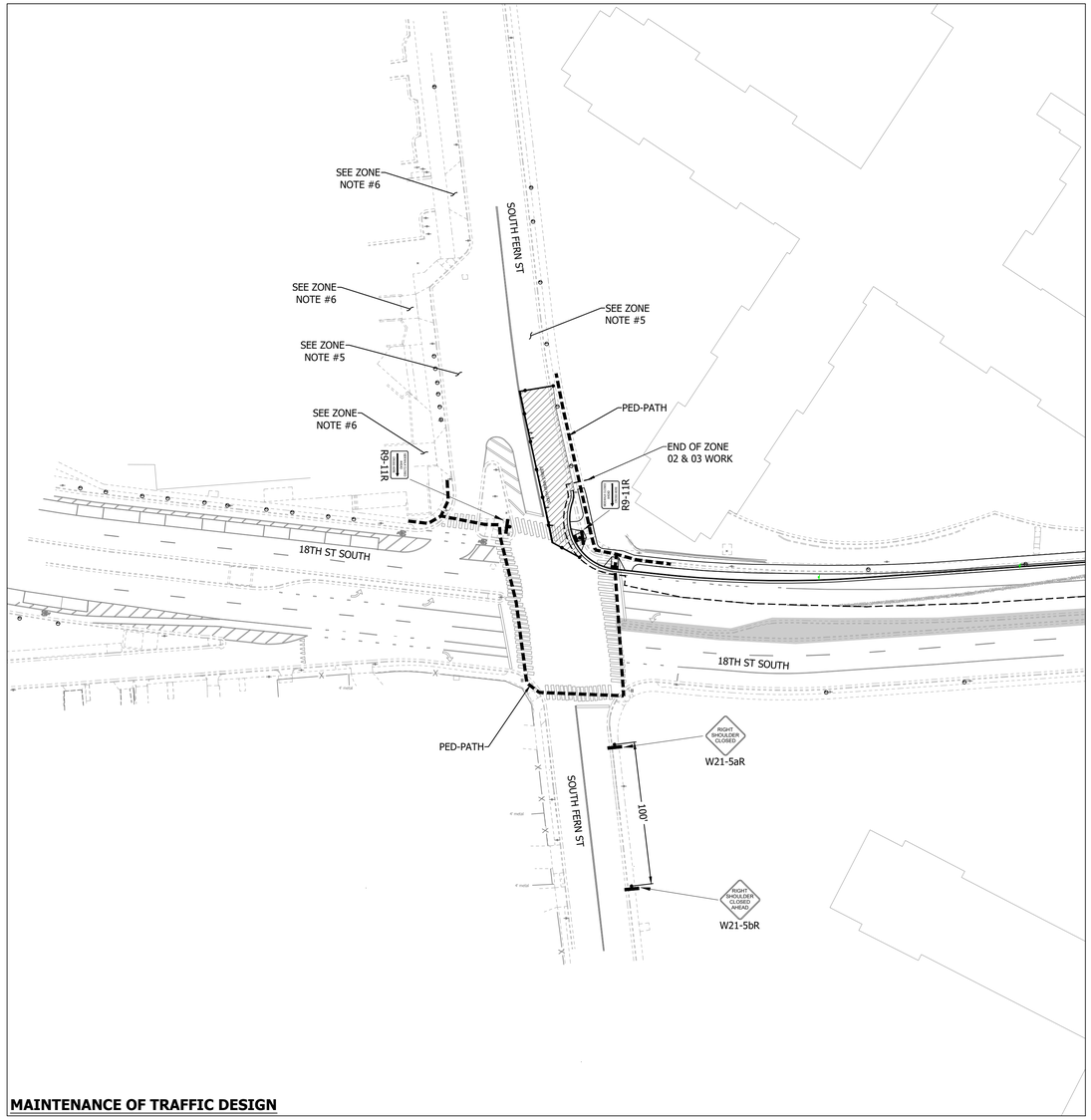
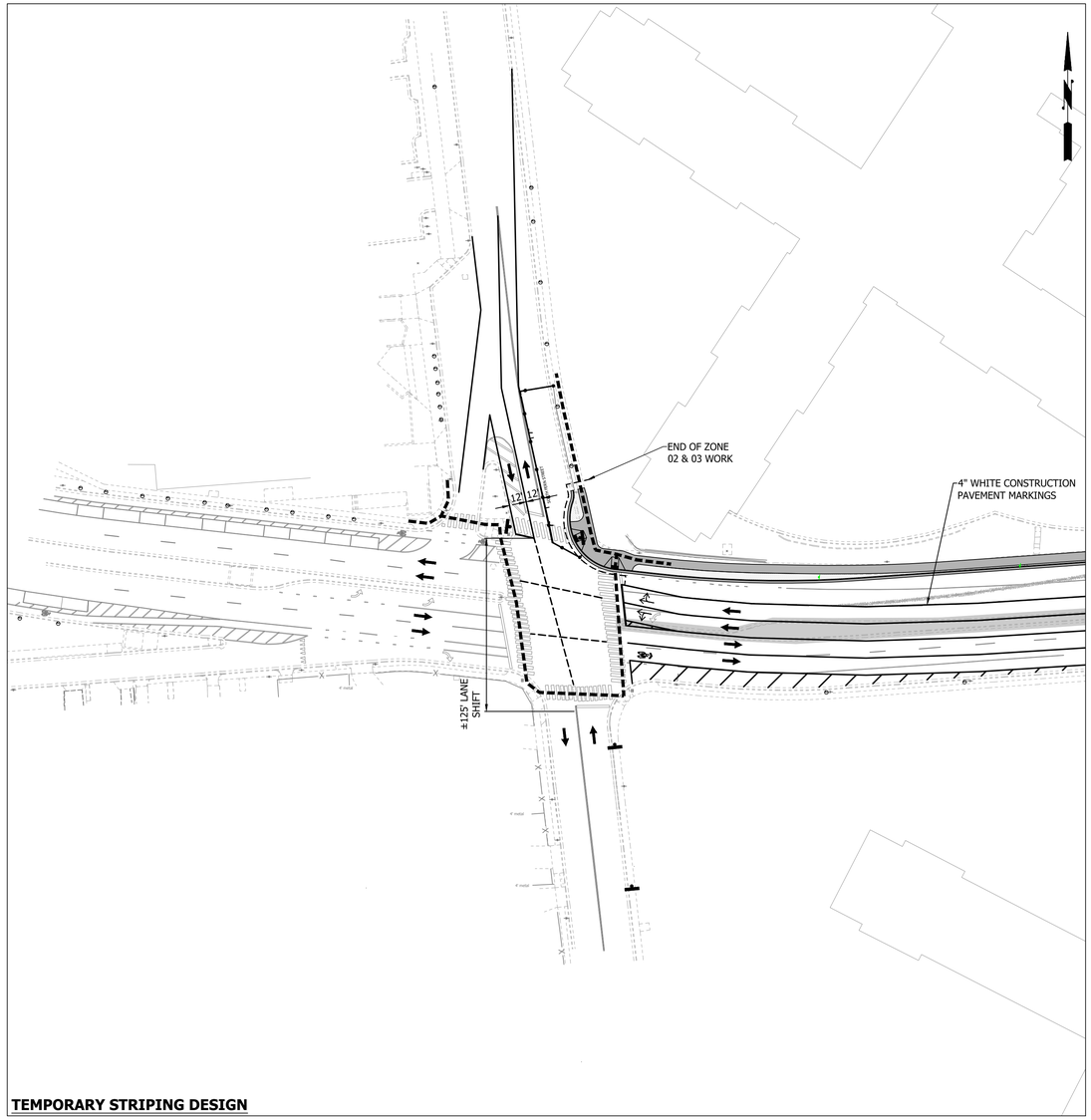
GRAPHIC SCALE

SHEET C121.4



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 04	TTC-4.2	TTC-35.1 TTC-36.2 *	M.O.T. DEVICES MAY REMAIN IN PLACE AS LONG AS A LANE IN EACH DIRECTION ARE MAINTAINED ON FERN. SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	1 WEEK - 2 WEEKS	MON.-FRI. 9:00AM-4:00PM

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. CONTRACTOR TO MAINTAIN DRIVEWAY ACCESS AT ALL TIME.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE ABOVE TABLE.

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

REVISED ON 11/08/2016

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WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 4
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
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MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-286-MOT - ZONE 04.DWG
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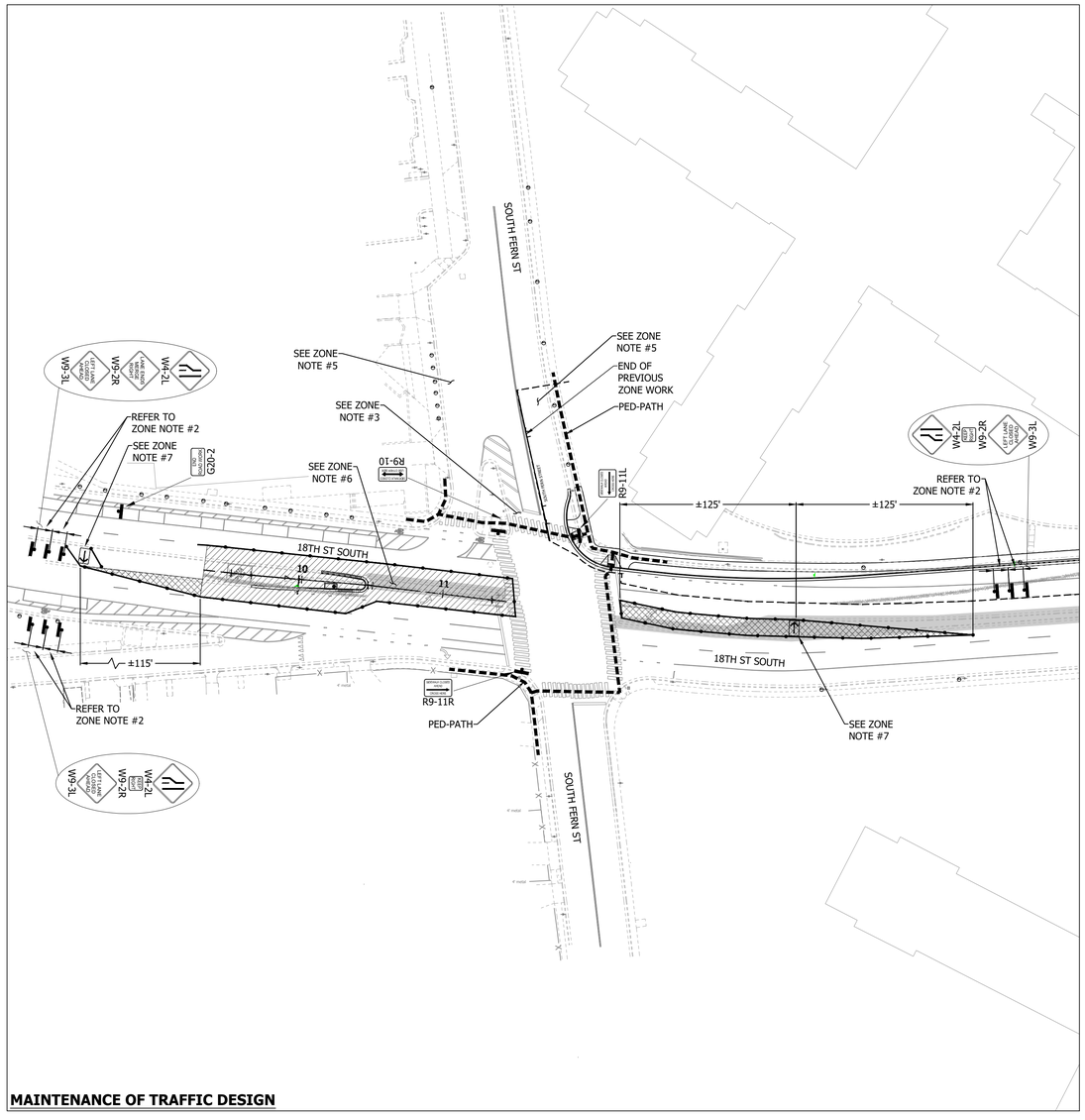
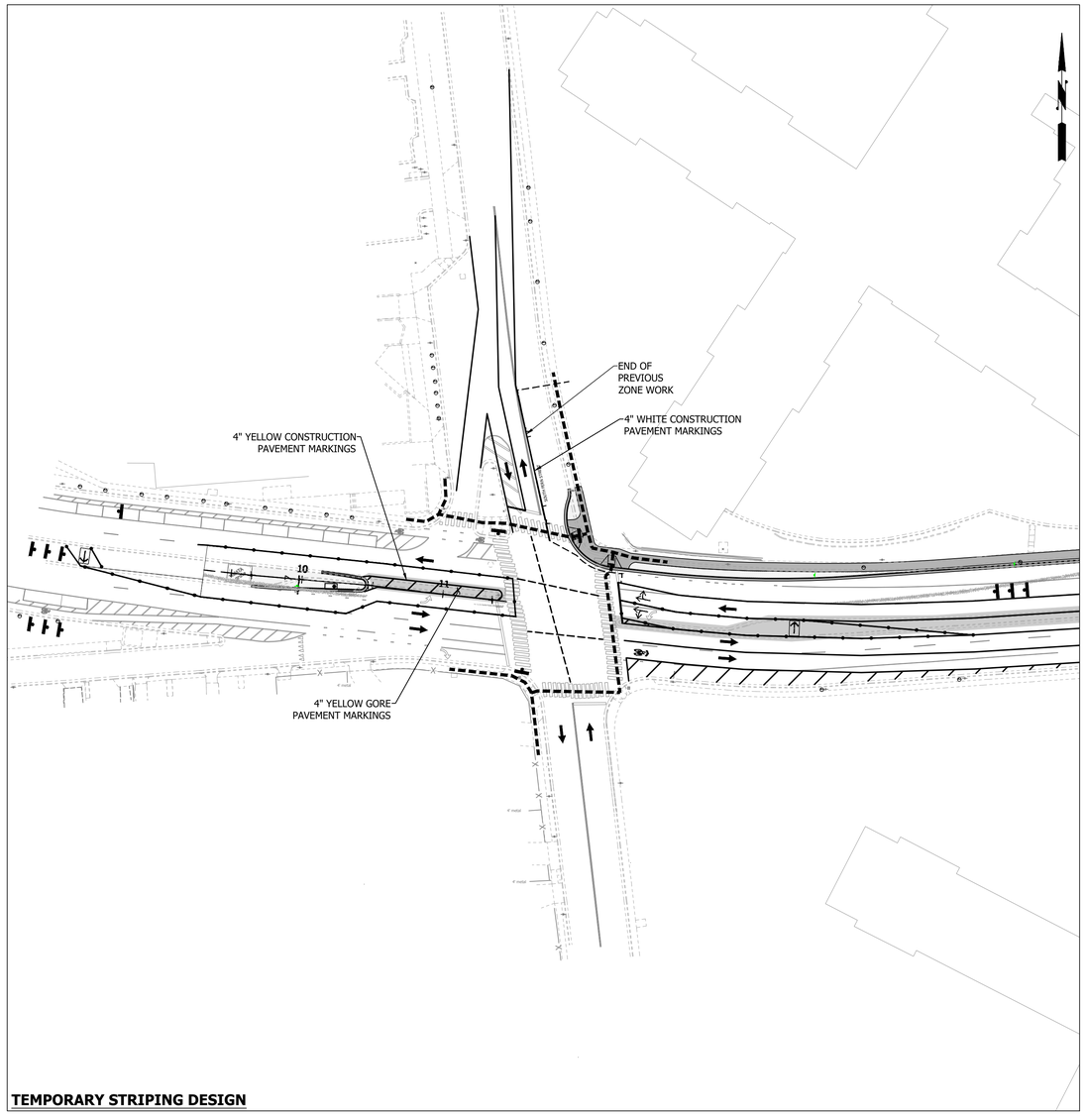
GRAPHIC SCALE

SHEET C121.5



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 04	TTC-17.2 TTC-27.2	TTC-35.1 TTC-36.2 *	REMOVE EXISTING MEDIAN AND REPAVE WITH TEMP. ASPHALT AS SHOWN ABOVE. ADJUST THE EXISTING STORM STRUCTURE AS NECESSARY. PROPOSED MEDIAN DESIGN SHALL BE CONSTRUCTED IN THIS ZONE AS WELL AS THE TEMP ASPHALT PAVING. THE ELEVATION DIFFERENCE BETWEEN THE PROPOSED CURB AND PAVEMENT SHALL BE TAPERED AT A 1:3 RATIO TO THE TEMP. AND EXISTING PAVEMENT. CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND RE OPEN CLOSED LANES. SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	1 WEEK - 3 WEEKS	MON.-FRI. 9:00AM-4:00PM

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
   -ADJUST SOUTHBOUND FERN LANE STOP BAR AND ADD TEMP CROSS WALK
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION
   -
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. INSTALL A DRIVABLE TEMPORARY PAVEMENT SURFACE.
7. ILLUMINATED FLASHING ARROW BOARDS SHALL BE PLACED IN THE BUFFER AREAS.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE.

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

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

SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 5
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-286-MOT - ZONE 05.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

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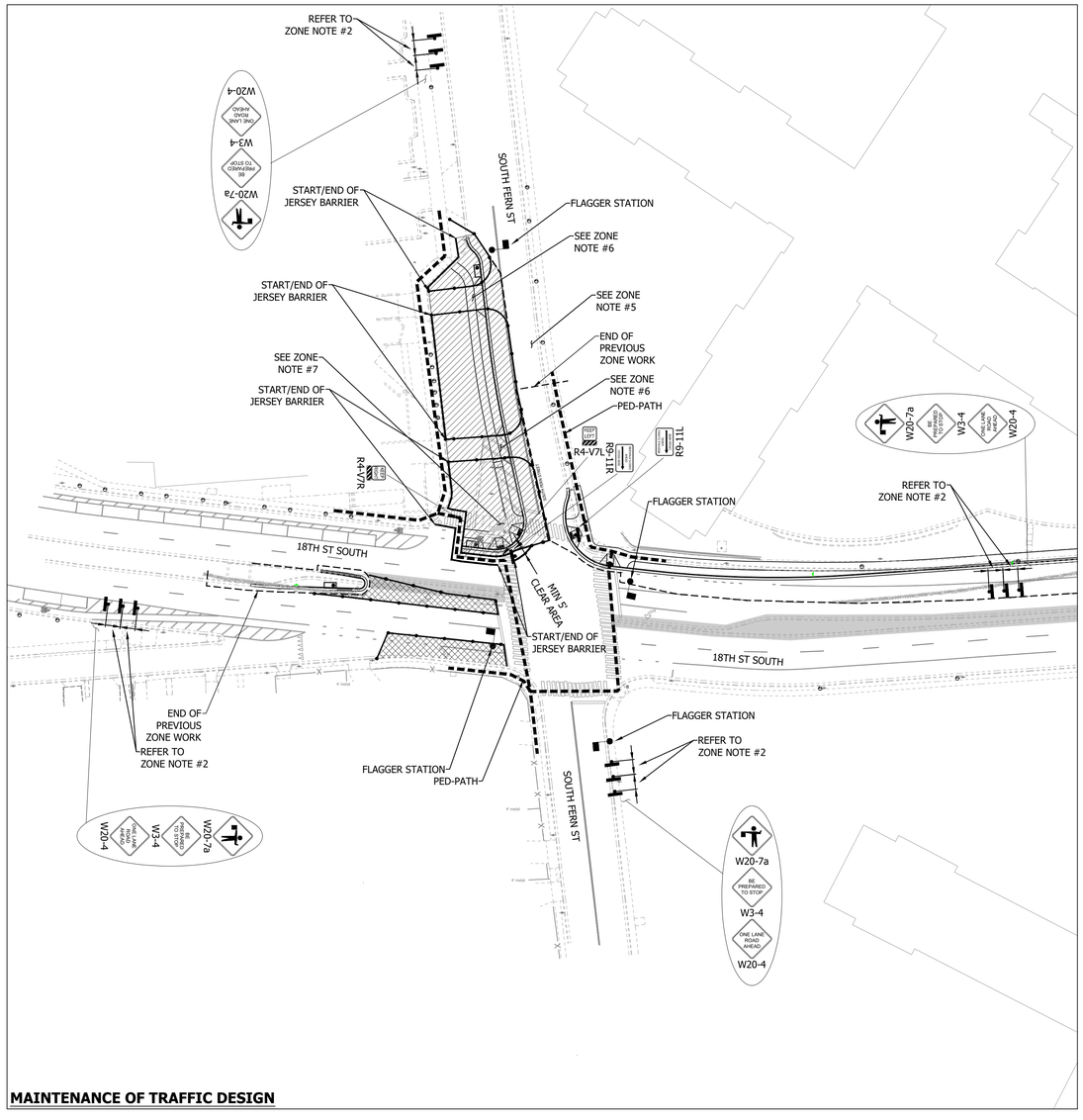
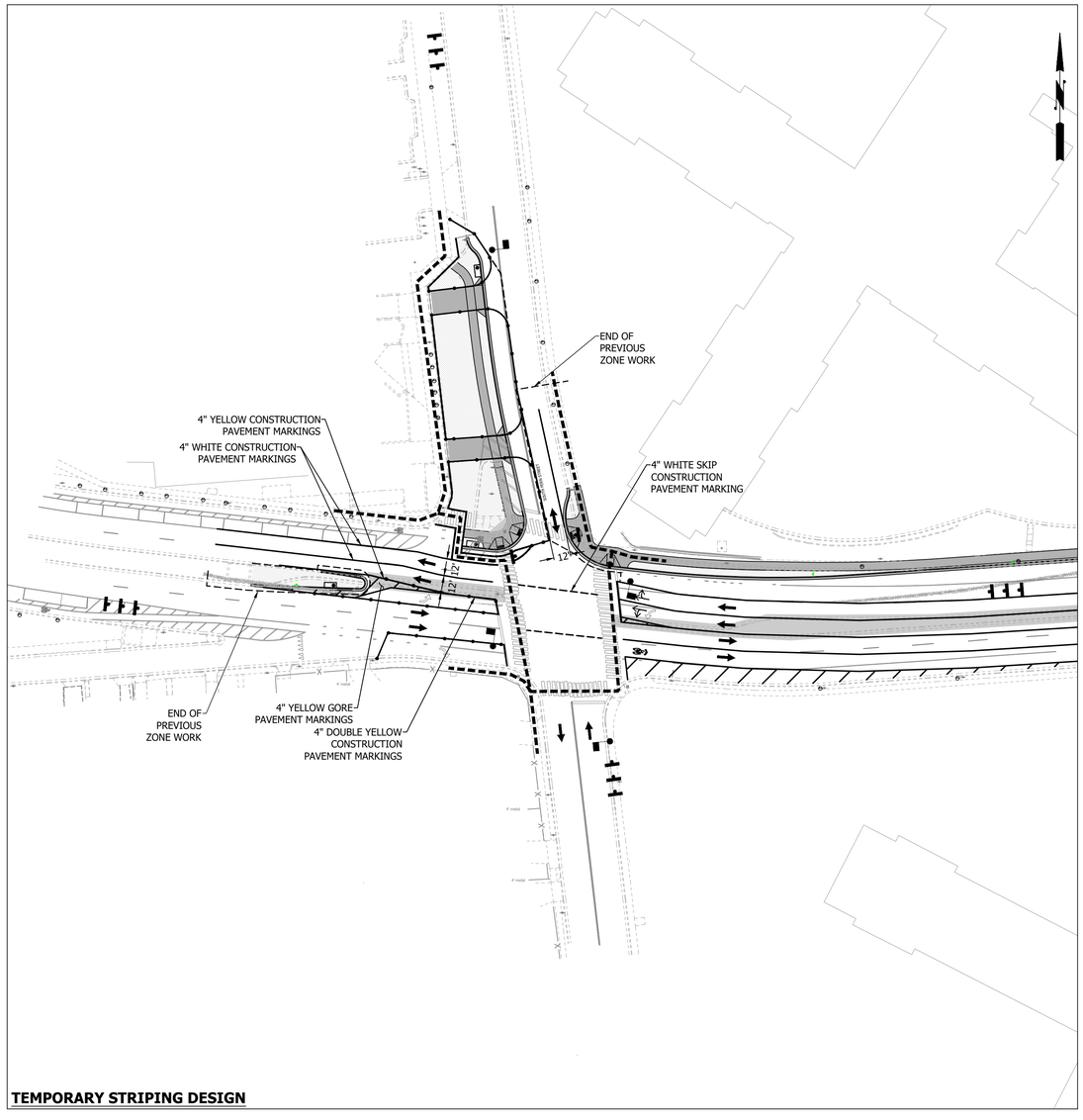
GRAPHIC SCALE

SHEET C121.6



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 06	TTC-30.2	TTC-35.1 TTC-36.2 *	CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND RE OPEN CLOSED LANES. SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	1 MONTH - 3 MONTHS	MON.-FRI. 9:00AM-4:00PM

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   - -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
   - -REMOVE AND RESTRIPE THE WESTBOUND SKIP LANE ON 18TH STREET.
   - -REMOVE THE FERN STREET SKIP LANE. AT THE END OF EACH DAY, THE CONTRACTOR SHALL MAKE SURE THAT IT IS CLEAR FOR DRIVES ON THE LANE CONFIGURATION.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION -
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. COORDINATE WITH THE PROJECT OFFICER PRIOR TO WORK AND CLOSURE OF DRIVEWAY. PROPERTY OWNER SHALL BE NOTIFIED THREE WEEKS BEFORE DRIVEWAY CLOSURE. ADDITIONAL SIGNAGE AND CHANNELIZATION DEVICES MAY BE REQUIRED FOR THE CLOSURE. WORK IN THE DRIVEWAY AREA SHOULD TAKE NO MORE THEN 7-14 DAYS. MAINTAIN AT LEAST ONE DRIVEWAY ENTRANCE OPEN AT ALL TIMES.
7. CONTRACTOR TO ADD AN ASPHALT PATCH TO PROVIDE A SAFE ADA PEDESTRIAN PATH AROUND THE EXISTING POLE UNTIL POLE REMOVAL.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE.

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

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TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 6
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-286-MOT - ZONE 06.DWG
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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

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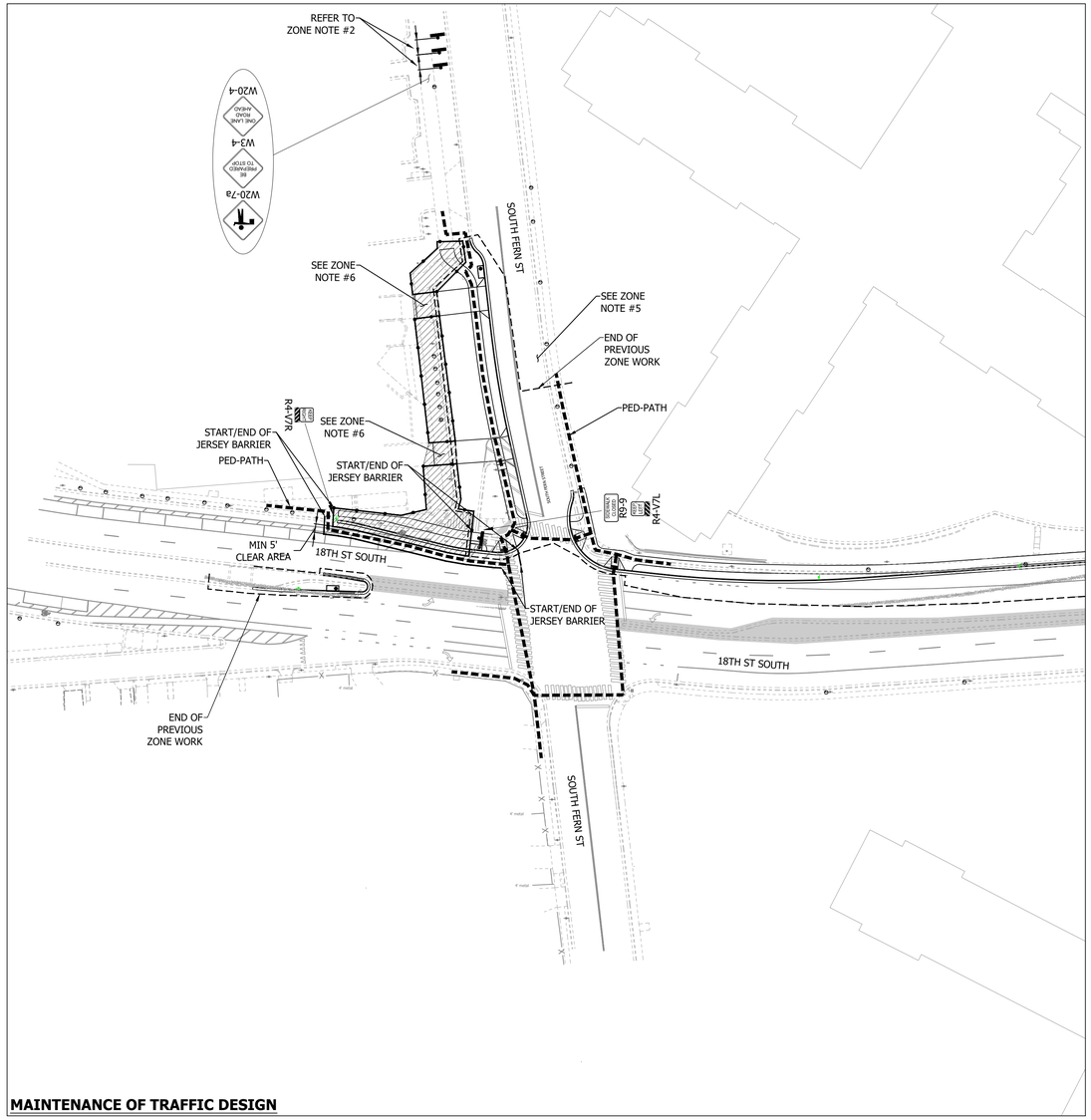
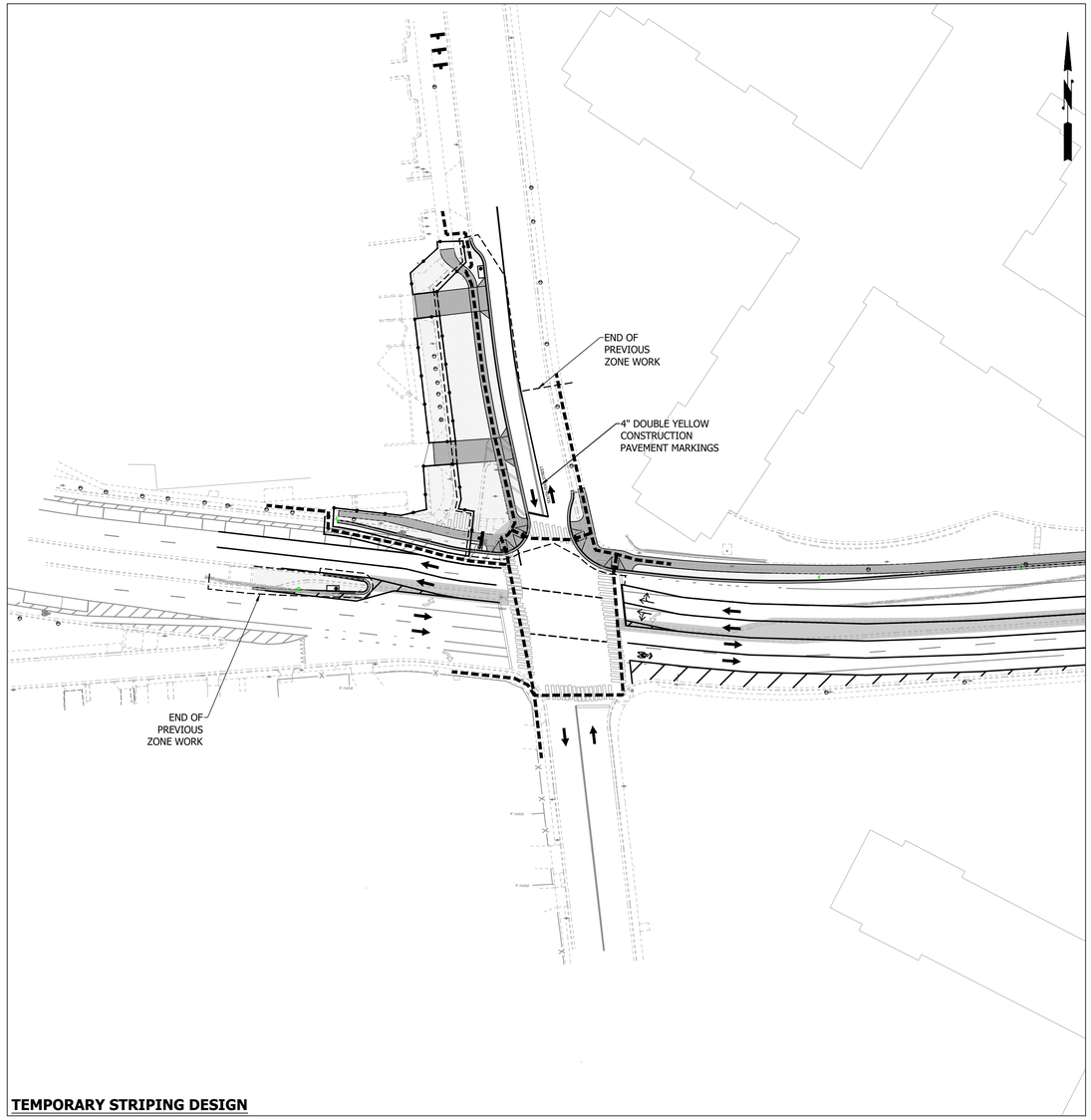
GRAPHIC SCALE

SHEET C121.7



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 07	TTC-23.2	TTC-35.1 TTC-36.2 *	CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND RE OPEN CLOSED LANES. SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	1 MONTH - 3 MONTHS	MON.-FRI. 9:00AM-4:00PM

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   - -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
   - -REMOVE AND RESTRIPE THE WESTBOUND SKIP LANE ON 18TH STREET.
   - -REMOVE THE FERN STREET SKIP LANE. AT THE END OF EACH DAY, THE CONTRACTOR SHALL MAKE SURE THAT IT IS CLEAR FOR DRIVES ON THE LANE CONFIGURATION.
4. OPTIONAL TTCS: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION -
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. COORDINATE WITH THE PROJECT OFFICER PRIOR TO WORK AND CLOSURE OF DRIVEWAY. PROPERTY OWNER SHALL BE NOTIFIED THREE WEEKS BEFORE DRIVEWAY CLOSURE. ADDITIONAL SIGNAGE AND CHANNELIZATION DEVICES MAY BE REQUIRED FOR THE CLOSURE. WORK IN THE DRIVEWAY AREA SHOULD TAKE NO MORE THEN 7-14 DAYS. MAINTAIN AT LEAST ONE DRIVEWAY ENTRANCE OPEN AT ALL TIMES.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE.

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

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3/1/2021
PROFESSIONAL ENGINEER

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WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 7
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

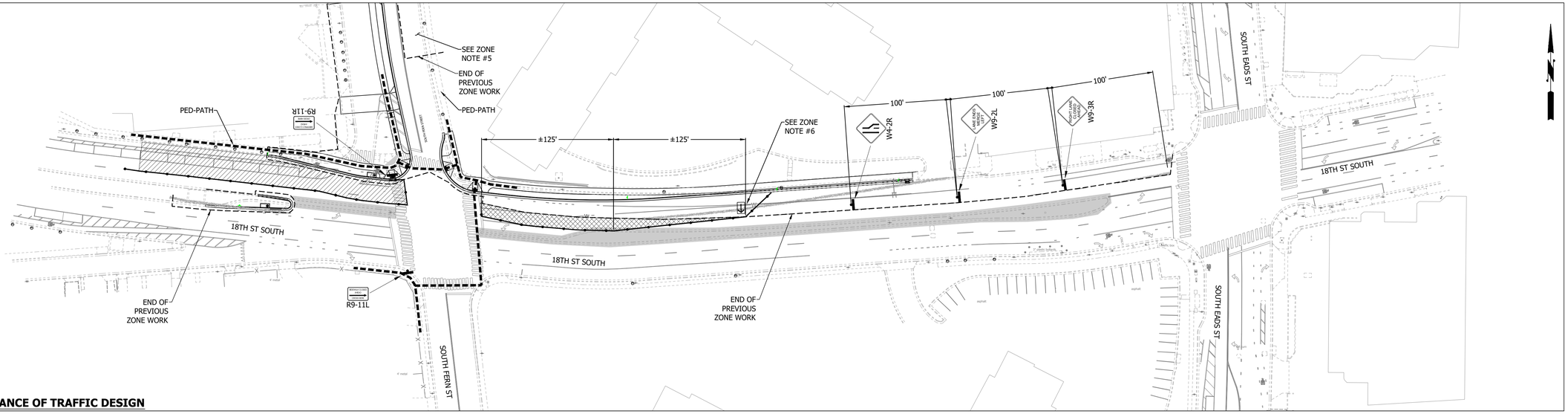
FILENAME:
CC20-286-MOT - ZONE 07.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

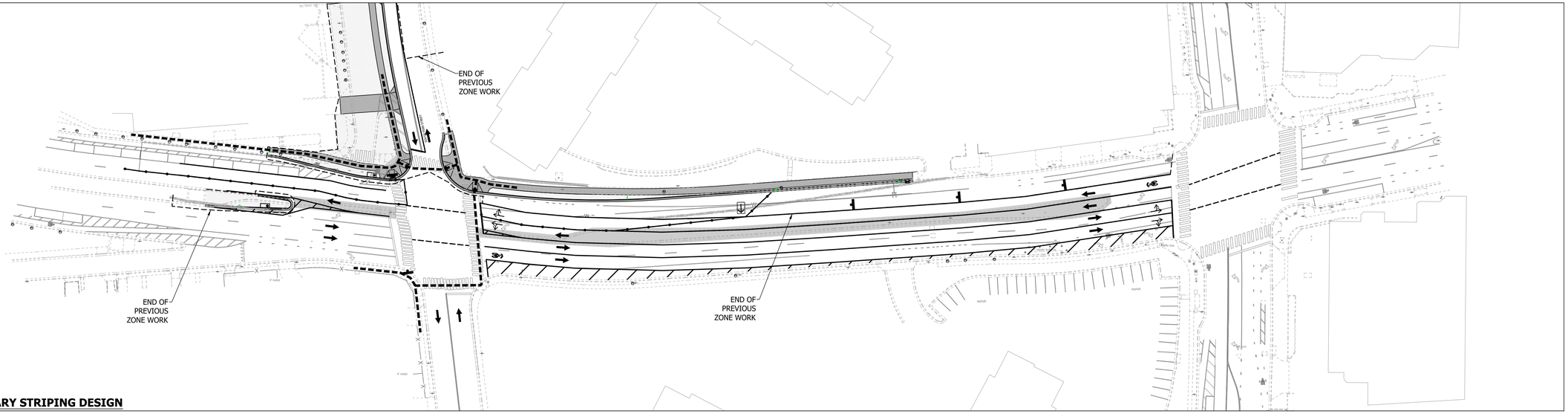
SCALE:

0 50 100
GRAPHIC SCALE

SHEET C121.8



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT TABLE:					
MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 08	TTC-27.2	TTC-35.1 TTC-36.2 *	CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND REOPEN CLOSED LANES SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	2 WEEKS - 1 MONTH	MON.-FRI. 9:00AM-4:00PM

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION
   -
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. ILLUMINATED FLASHING ARROW BOARDS SHALL BE PLACED OUTSIDE TRAVEL LANE

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE.

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PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
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WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 8
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-286-MOT - ZONE 08.DWG
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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

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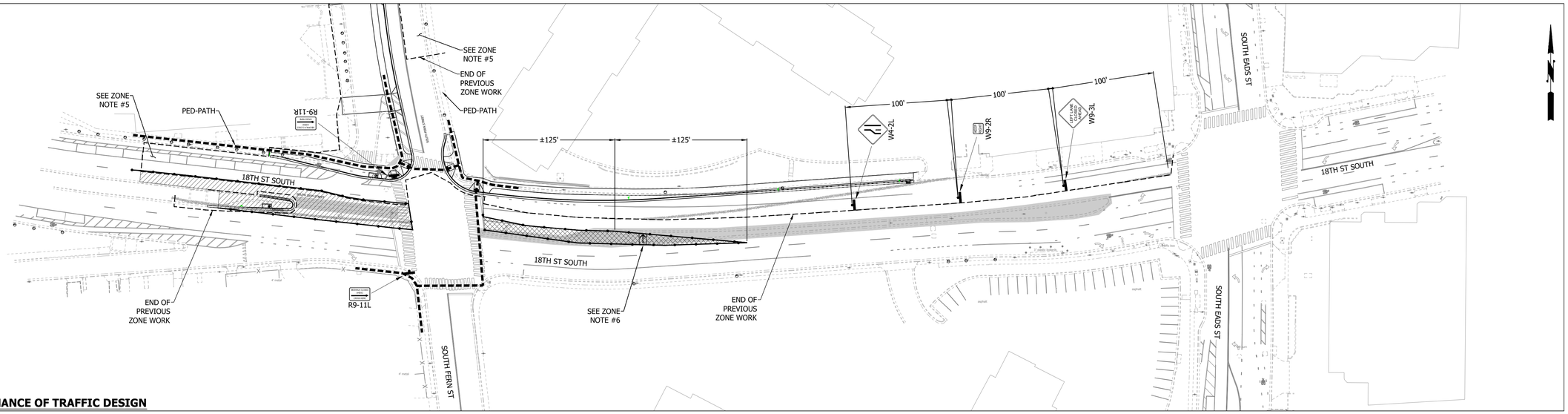
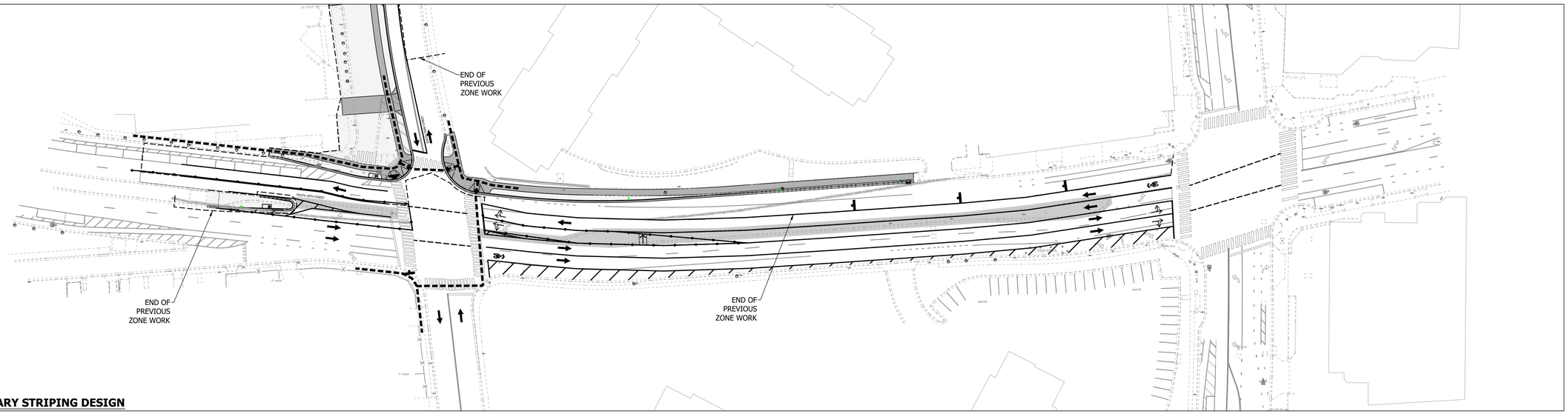
GRAPHIC SCALE

SHEET C121.9



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 09	TTC-27.2	TTC-35.1 TTC-36.2 *	CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND REOPEN CLOSED LANES SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	2 WEEKS - 1 MONTH	MON.-FRI. 9:00AM-4:00PM

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION
   -
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. ILLUMINATED FLASHING ARROW BOARDS SHALL BE PLACED OUTSIDE TRAVEL LANE

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE.

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TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 9
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-286-MOT - ZONE 09.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

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GRAPHIC SCALE

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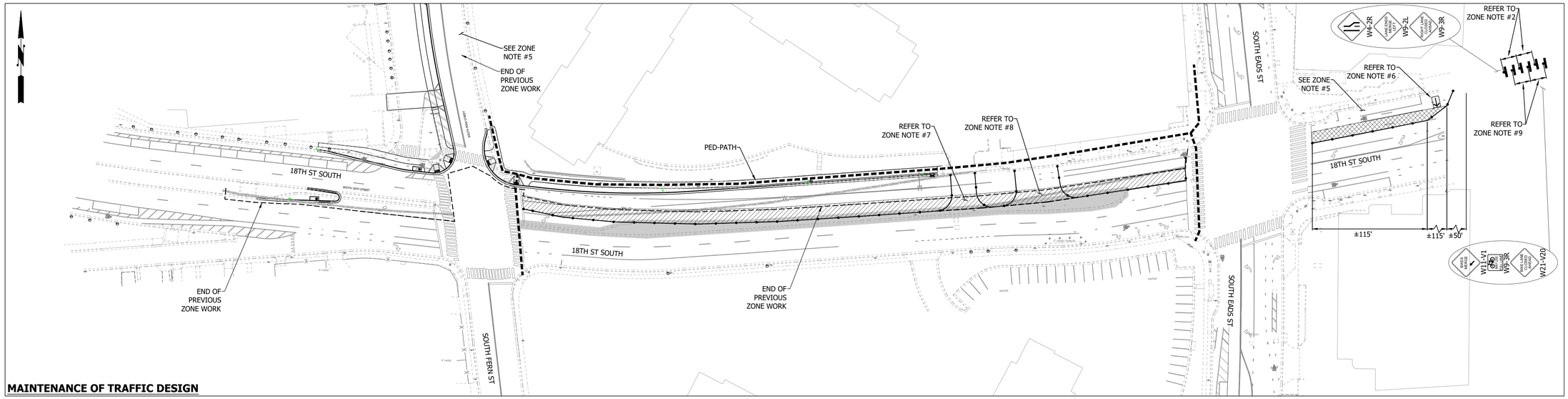
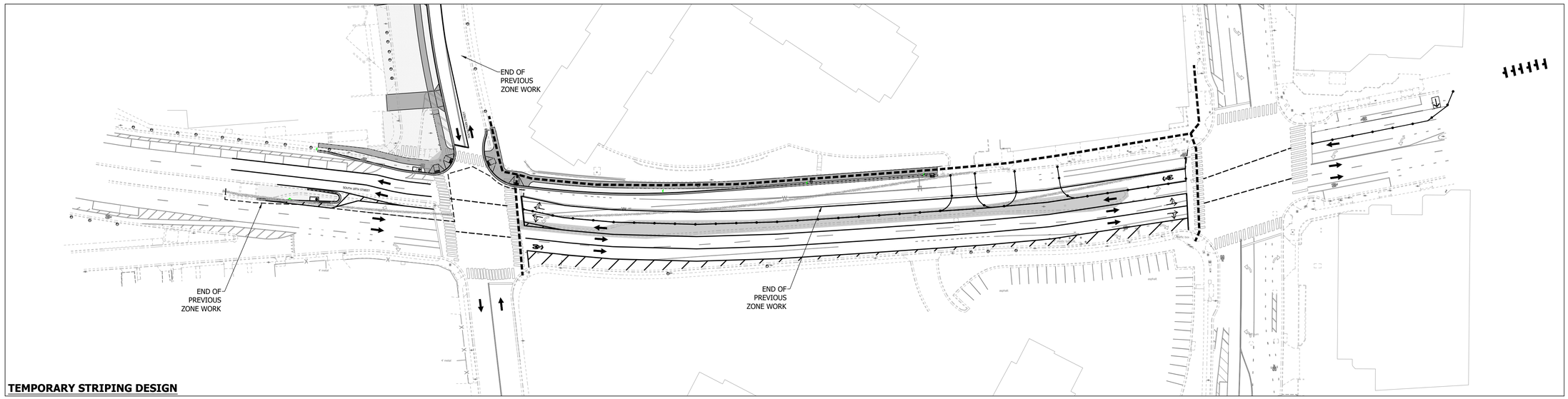


MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 10	TTC-27.2	*	CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND REOPEN CLOSED LANES SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	1 MONTH - 3 MONTHS	MON.-FRI. 9:00AM-4:00PM

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION
   16.2 OUTSIDE LANE CLOSURE OPERATIONS ON A FOUR-LANE ROADWAY
   -FIRST CHANNELING DEVICE DEVICE SHALL BE PLACED GREATER THAN 50' FROM AN INTERSECTION
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. ILLUMINATED FLASHING ARROW BOARDS SHALL BE PLACED OUTSIDE TRAVEL LANE
7. COORDINATE WITH THE PROJECT OFFICER PRIOR TO WORK AND CLOSURE OF THE DRIVEWAY. PROPERTY OWNER SHALL BE NOTIFIED THREE WEEKS BEFORE DRIVEWAY CLOSURE. ADDITIONAL SIGNAGE AND CHANNELIZATION DEVICES MAY BE REQUIRED FOR THE CLOSURE. WORK IN THE DRIVEWAY AREA SHOULD TAKE NOT MORE THE 3-5 DAYS.
8. COORDINATE WITH THE PROJECT OFFICER PRIOR TO WORK AND CLOSURE OF THE DRIVEWAY. ONLY HALF OF THE DRIVEWAY SHALL BE CLOSED AT A TIME TO ALLOW FOR VEHICLES TO ENTER AND EXIT. PROPERTY OWNER SHALL BE NOTIFIED THREE WEEKS BEFORE DRIVEWAY CLOSURE. ADDITIONAL SIGNAGE AND CHANNELIZATION DEVICES MAY BE REQUIRED FOR THE CLOSURE. WORK ON EACH HALF OF THE DRIVEWAY SHOULD TAKE NO MORE THEN 2-3 DAYS.
9. BIKE LANE CLOSURE SIGNAGE TO BE PLACED IN BETWEEN ROAD WARNING SIGNS AND BE VISIBLE FOR BOTH VEHICLES AND BIKES.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE AND THE BICYCLE LANE CLOSURE, FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION WORK ZONE PEDESTRIAN AND BICYCLE GUIDANCE (LATEST EDITION)

REVISED ON 11/08/2016

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TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 10
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-286-MOT - ZONE 10.DWG
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PLOTTED BY: NSHARP

SCALE:

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GRAPHIC SCALE

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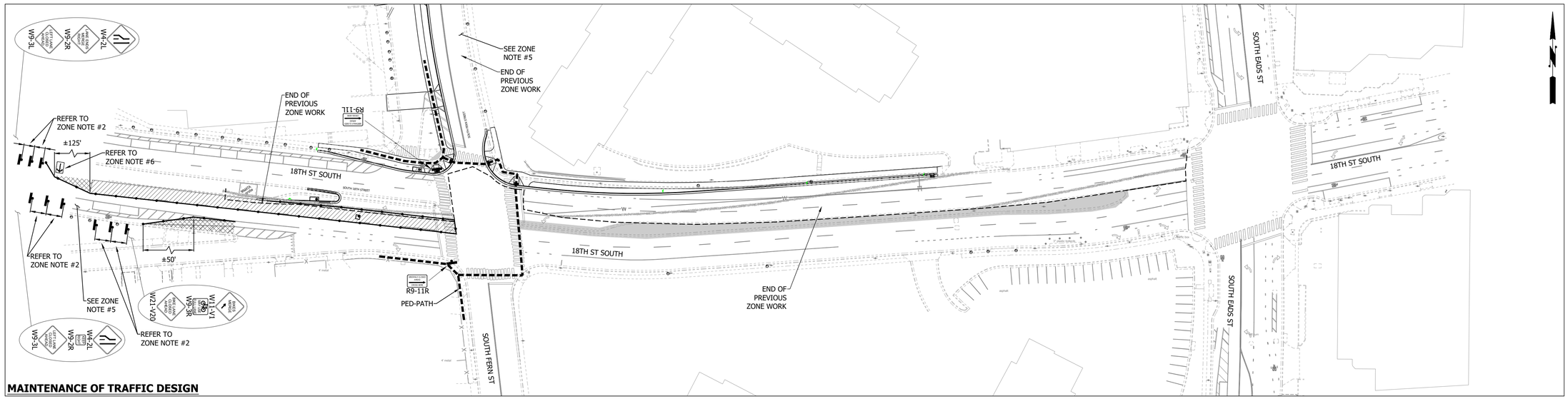
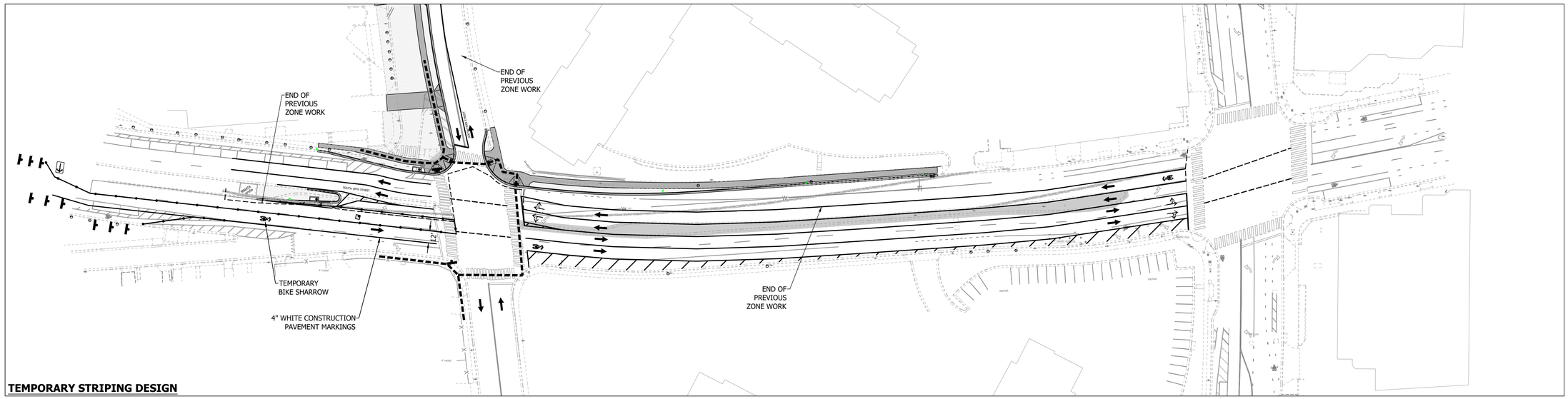


MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 11	TTC-26.2	TTC-35.1 TTC-36.2 *	CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND REOPEN CLOSED LANES SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	1 MONTH - 2 MONTHS	MON.-FRI. 9:00AM-4:00PM

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   - -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
   - -MINIMUM 50' TAPER FROM EXISTING STRIPING TO PROPOSED TEMP. STRIPING ON EASTBOUND 18TH STREET
   - -MAKE SURE THAT TEMP. CROSSWALK STRIPING IS IN PLACE AS NEEDED.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. ILLUMINATED FLASHING ARROW BOARDS SHALL BE PLACED OUTSIDE TRAVEL LANE

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE AND THE BICYCLE LANE CLOSURE, FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION WORK ZONE PEDESTRIAN AND BICYCLE GUIDANCE (LATEST EDITION)

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REVISIONS DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 11
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

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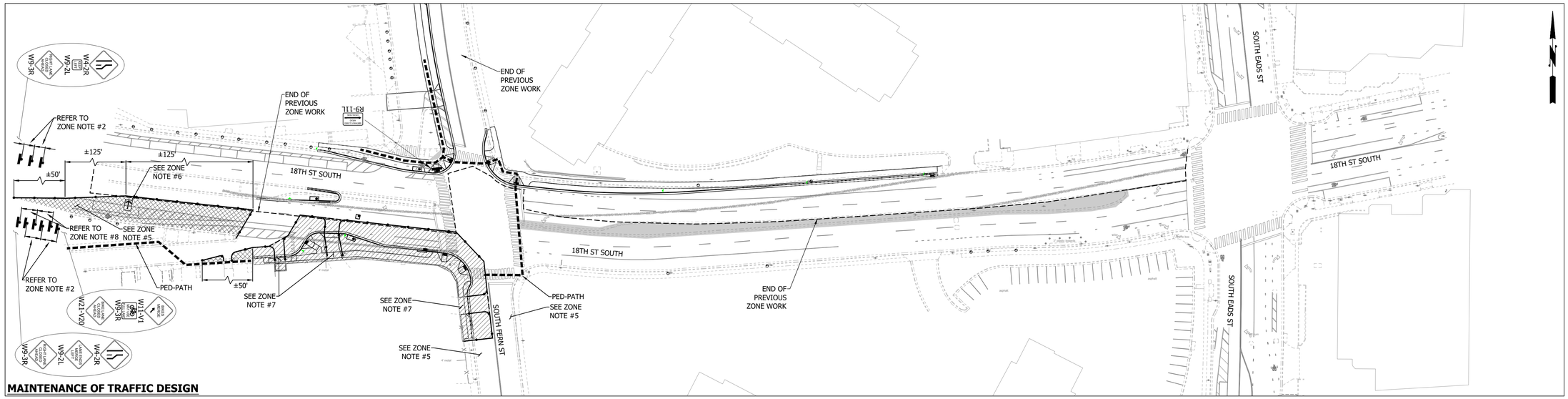
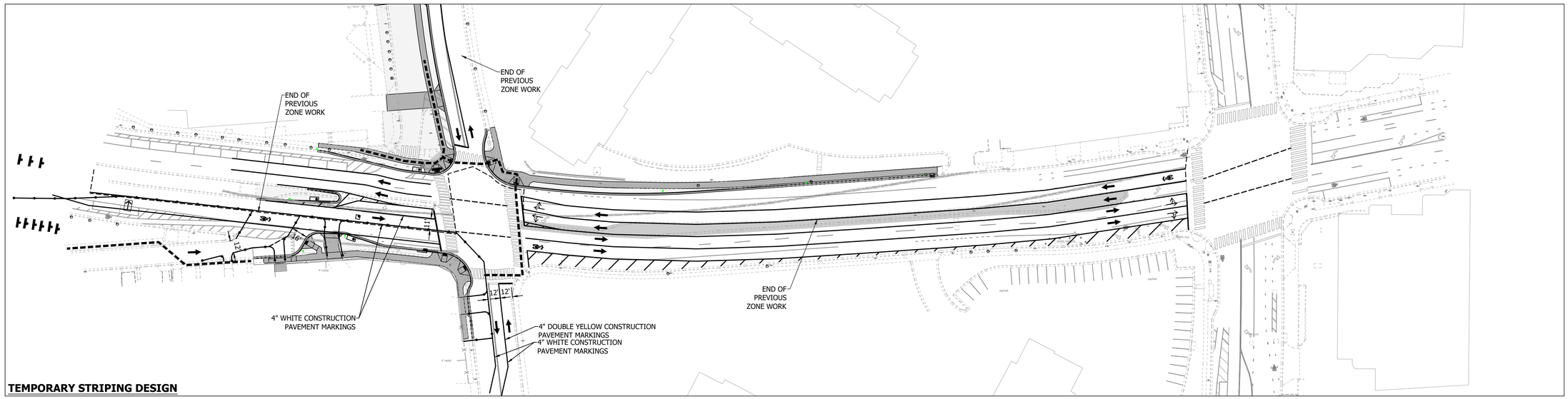
GRAPHIC SCALE

SHEET C121.12



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 12	TTC-16.2	TTC-35.1 TTC-36.2 *	CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND REOPEN CLOSED LANES A PEDESTRIAN PATH MUST BE MAINTAINED AT ALL TIMES DURING THIS ZONE. ONE SUGGESTION IS TO CONSTRUCT THE PROPOSED SIDEWALK FIRST AND ROUTE PEDESTRIANS THROUGH A 5' MIN CLEAR PROTECTED PATH IN THE STREET. AFTER, CONSTRUCT THE REST OF THE ZONE AND HAVE PEDESTRIANS UTILIZING THE NEWLY CONSTRUCTED SIDEWALK. OTHER OPTIONS ARE AVAILABLE WITH THE APPROVAL OF THE PROJECT OFFICER. SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	2 MONTHS - 3 MONTHS	MON.-FRI. 9:00AM-4:00PM

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
   -MINIMUM 50' TAPER FROM EXISTING STRIPING TO PROPOSED TEMP. STRIPING ON SOUTH FERN STREET.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION -
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. ILLUMINATED FLASHING ARROW BOARDS SHALL BE PLACED OUTSIDE TRAVEL LANE
7. COORDINATE WITH THE PROJECT OFFICER PRIOR TO WORK AND CLOSURE OF THE DRIVEWAY. PROPERTY OWNER SHALL BE NOTIFIED THREE WEEKS BEFORE DRIVEWAY CLOSURE. ADDITIONAL SIGNAGE AND CHANNELIZATION DEVICES MAY BE REQUIRED FOR THE CLOSURE. WORK IN THE DRIVEWAY AREA SHOULD TAKE NO MORE THEN 2-3 DAYS. AT THE END OF EACH WORKING DAY THE PROPERTY OWNER SHALL BE ABLE TO UTILIZE THEIR DRIVEWAY.
8. BIKE LANE CLOSURE SIGNAGE TO BE PLACED IN BETWEEN ROAD WARNING SIGNS AND BE VISIBLE FOR BOTH VEHICLES AND BIKES.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE AND THE BICYCLE LANE CLOSURE, FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION WORK ZONE PEDESTRIAN AND BICYCLE GUIDANCE (LATEST EDITION)

REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
Kamal N. Taktak	6.26.20
CONSTRUCTION MANAGEMENT SUPERVISOR	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Yang	6/17/2020
PROJECT MANAGER	

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 12
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-286-MOT - ZONE 12.DWG
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PLOTTED BY: NSHARP

SCALE:

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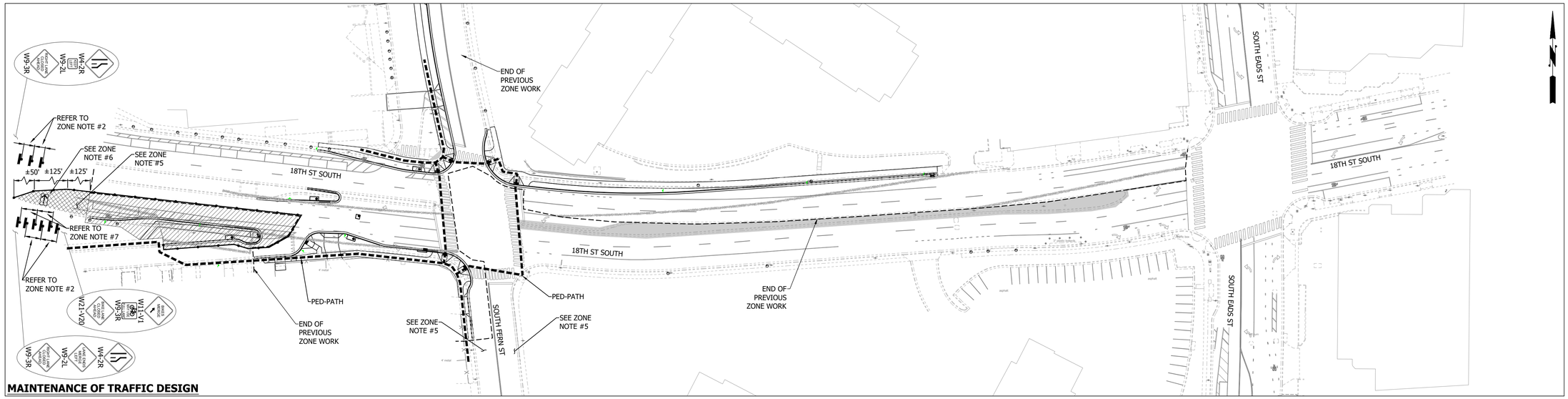
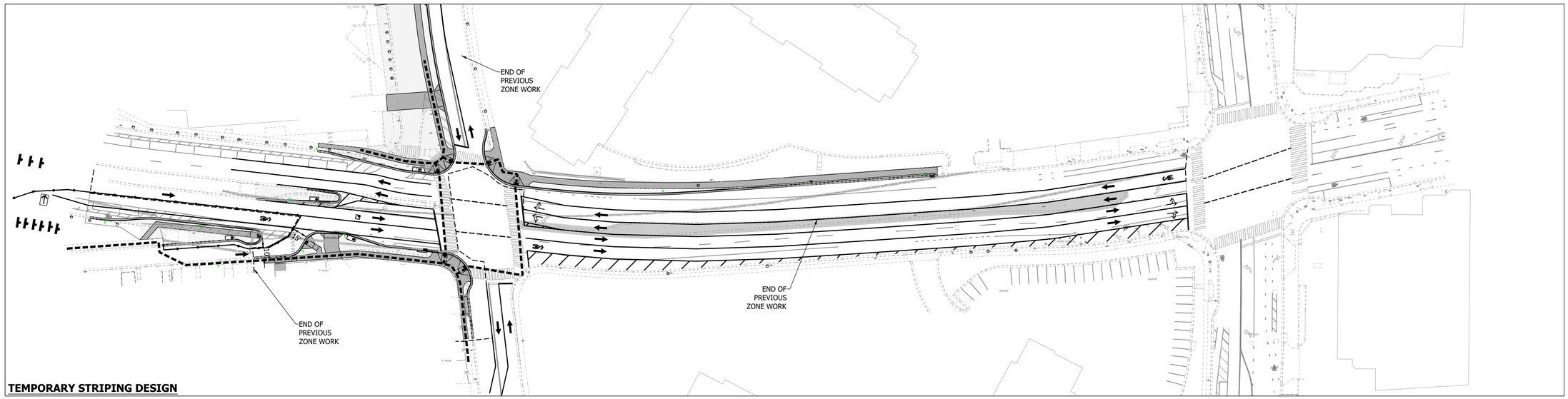
GRAPHIC SCALE

SHEET C121.13



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 13	TTC-16.2	TTC-35.1 TTC-36.2 *	CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND REOPEN CLOSED LANES A PEDESTRIAN PATH MUST BE MAINTAINED AT ALL TIMES DURING THIS ZONE. WHEN CONNECTING THE EXISTING SIDEWALK MAKE SURE TO MAINTAIN A SAFE PEDESTRIAN PATH SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	1 MONTH - 2 MONTHS	MON.-FRI. 9:00AM-4:00PM

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
   -ADD/ADJUST CROSSWALK STRIPING AS NEEDED.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION
   -
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. ILLUMINATED FLASHING ARROW BOARDS SHALL BE PLACED OUTSIDE TRAVEL LANE
7. BIKE LANE CLOSURE SIGNAGE TO BE PLACED IN BETWEEN ROAD WARNING SIGNS AND BE VISIBLE FOR BOTH VEHICLES AND BIKES.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE AND THE BICYCLE LANE CLOSURE, FROM THE VIRGINIA DEPARTMENT OF TRANSPORTATION WORK ZONE PEDESTRIAN AND BICYCLE GUIDANCE (LATEST EDITION)

REVISED ON 11/08/2016

ARLINGTON
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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 13
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-286-MOT - ZONE 13.DWG
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PLOTTED BY: NSHARP

SCALE:

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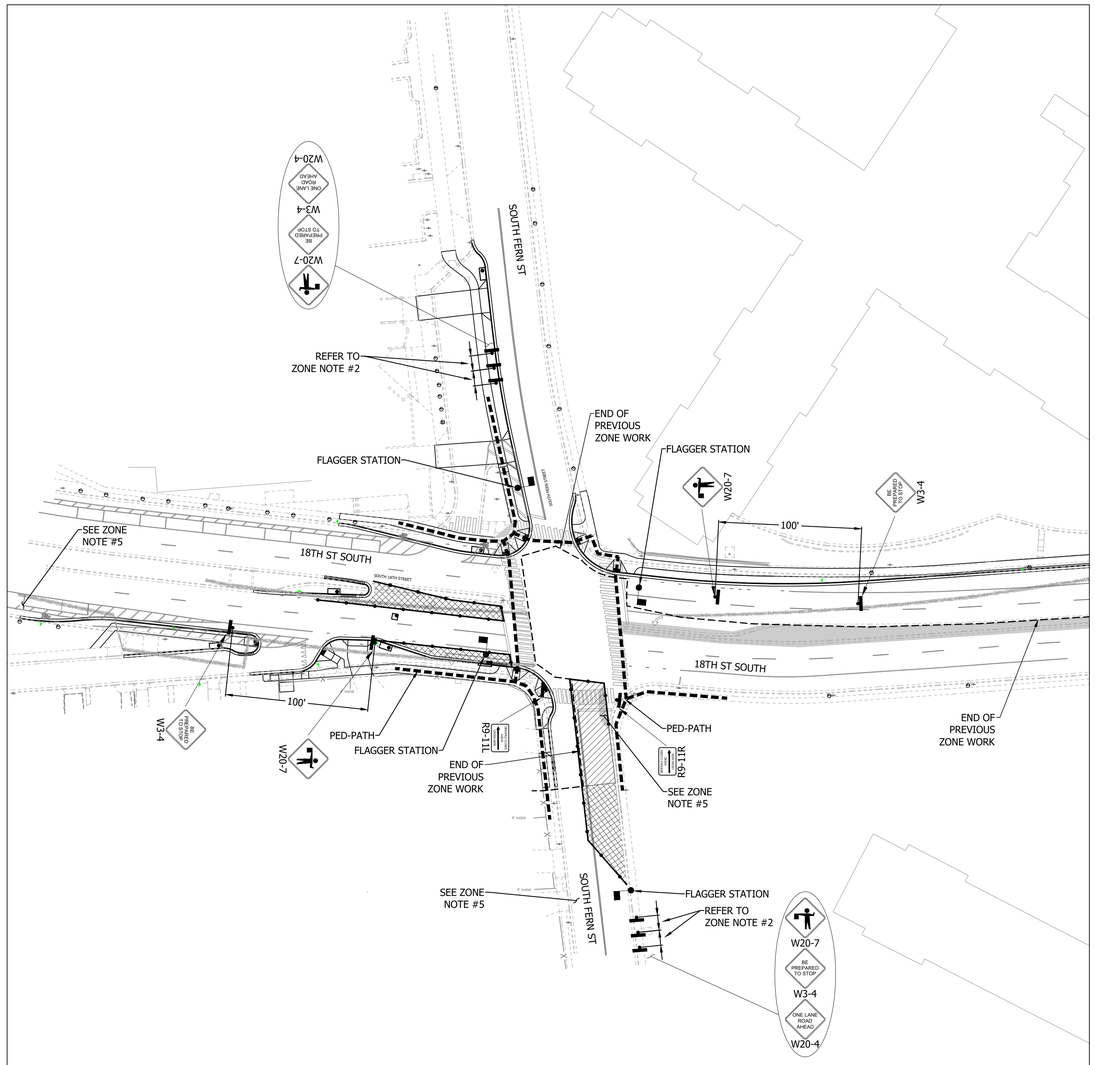
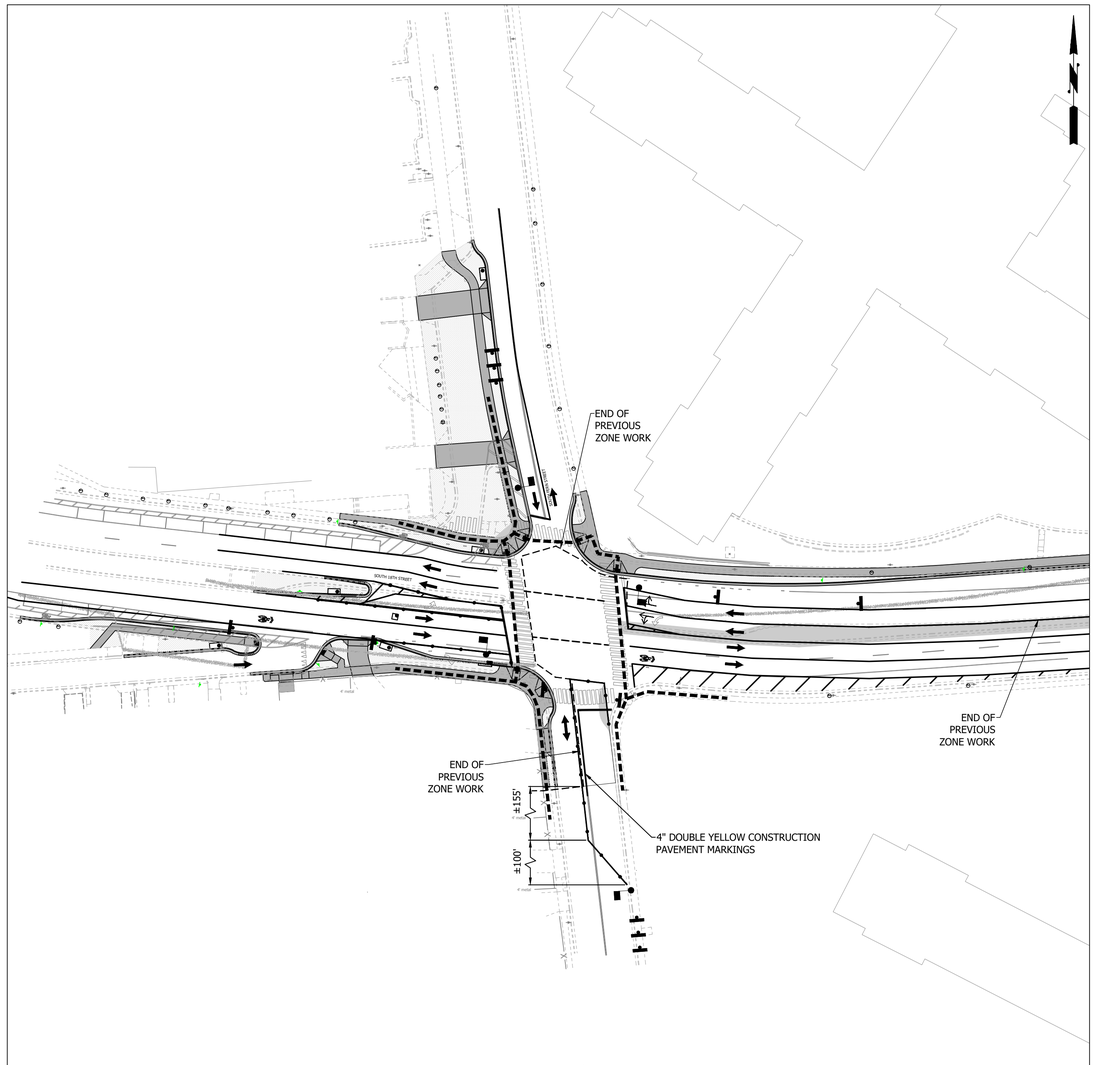
GRAPHIC SCALE

SHEET C121.14



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 14	TTC-30.2	TTC-35.1 TTC-36.2 *	CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND REOPEN CLOSED LANES SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	2 WEEKS - 1 MONTH	MON.-FRI. 9:00AM-4:00PM

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   - -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
   - -REMOVE FERN STREET TEMP STRIPING AROUND WORK ZONE AND REPLACE WITH 4" DOUBLE YELLOW CONSTRUCTION MARKING.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION
   -
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. INSTALL A DRIVABLE TEMPORARY PAVEMENT SURFACE

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE

REVISED ON 11/08/2016

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TREVOR M. LANTZY
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3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 14
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-286-MOT - ZONE 14.DWG
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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

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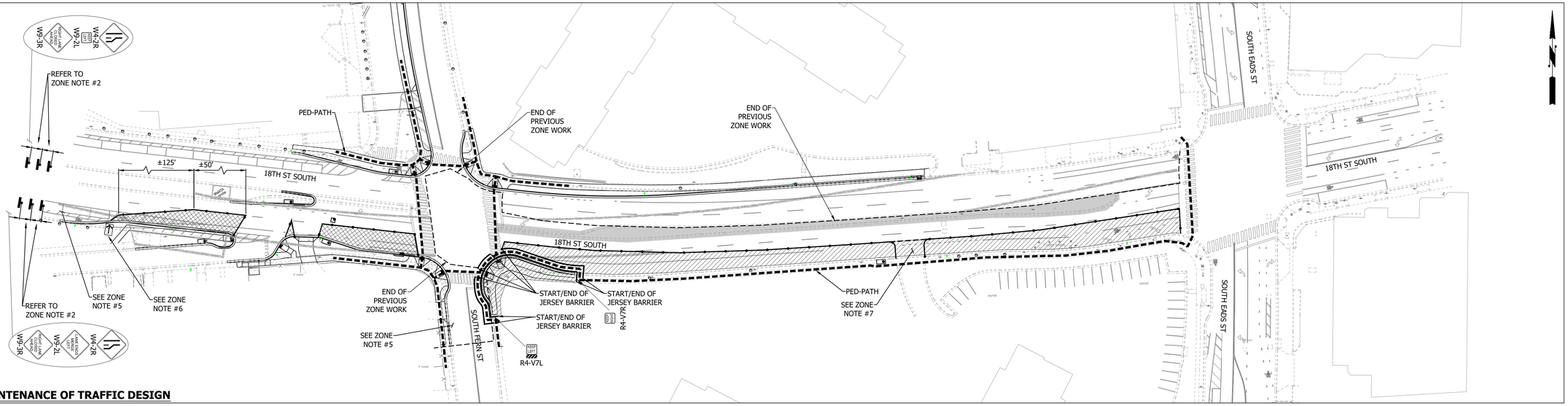
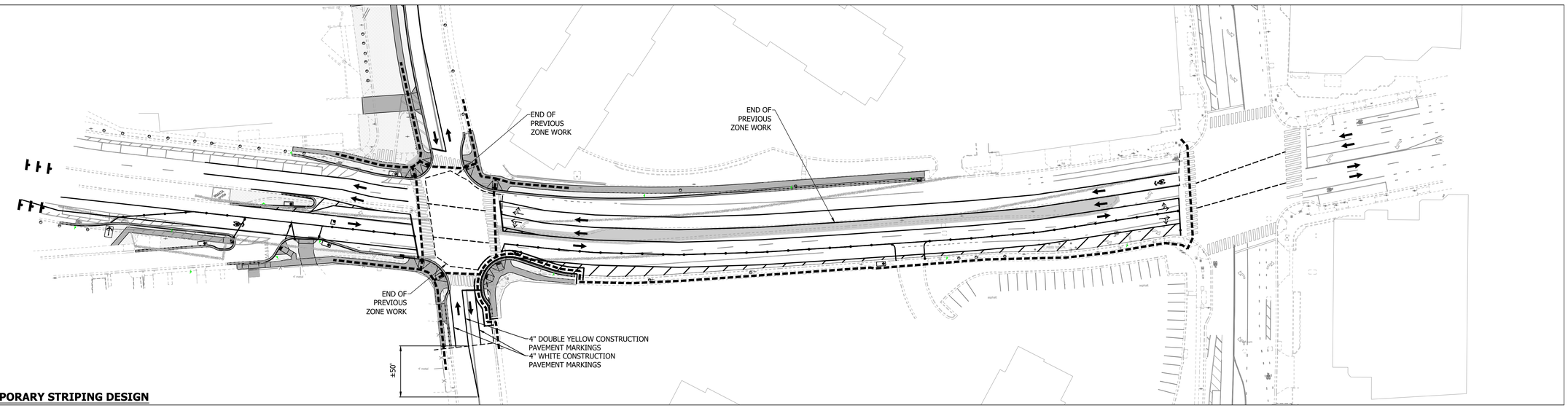
GRAPHIC SCALE

SHEET C121.15



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 15	TTC-16.2	TTC-35.1 *	CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND REOPEN CLOSED LANES SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	2 MONTHS - 3 MONTHS	MON.-FRI. 9:00AM-4:00PM

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION
   -
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. ILLUMINATED FLASHING ARROW BOARDS SHALL BE PLACED OUTSIDE TRAVEL LANE.
7. COORDINATE WITH THE PROJECT OFFICER PRIOR TO WORK AND CLOSURE OF THE DRIVEWAY. PROPERTY OWNER SHALL BE NOTIFIED THREE WEEKS BEFORE DRIVEWAY CLOSURE. ADDITIONAL SIGNAGE AND CHANNELIZATION DEVICES MAY BE REQUIRED FOR FOR THE CLOSURE. WORK IN THE DRIVEWAY AREA SHOULD TAKE NO MORE THE 3-5 DAYS.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE

REVISED ON 11/08/2016

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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 15
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

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GRAPHIC SCALE

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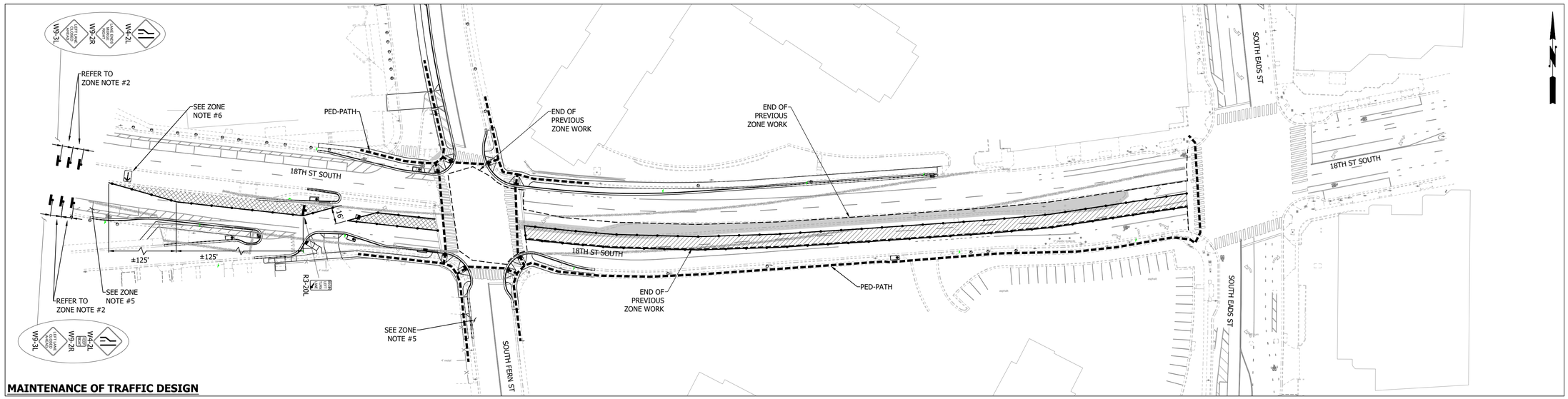
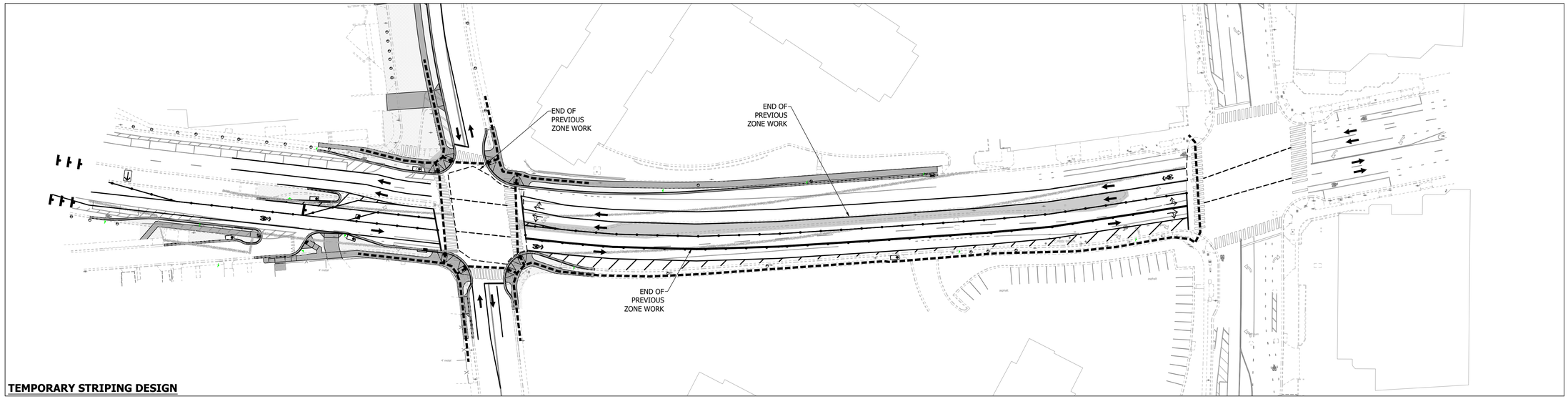


MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 16	TTC-27.2	*	CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND REOPEN CLOSED LANES SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	2 MONTHS - 3 MONTHS	MON.-FRI. 9:00AM-4:00PM

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION
   17.2 INSIDE LANE CLOSURE OPERATIONS ON A FOUR-LANE ROADWAY
   -FIRST CHANNELING DEVICE SHALL BE PLACED GREATER THAN 50' FROM AN INTERSECTION
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. ILLUMINATED FLASHING ARROW BOARDS SHALL BE PLACED OUTSIDE TRAVEL LANE.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE

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TREVOR M. LANTZY
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3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 16
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
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PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

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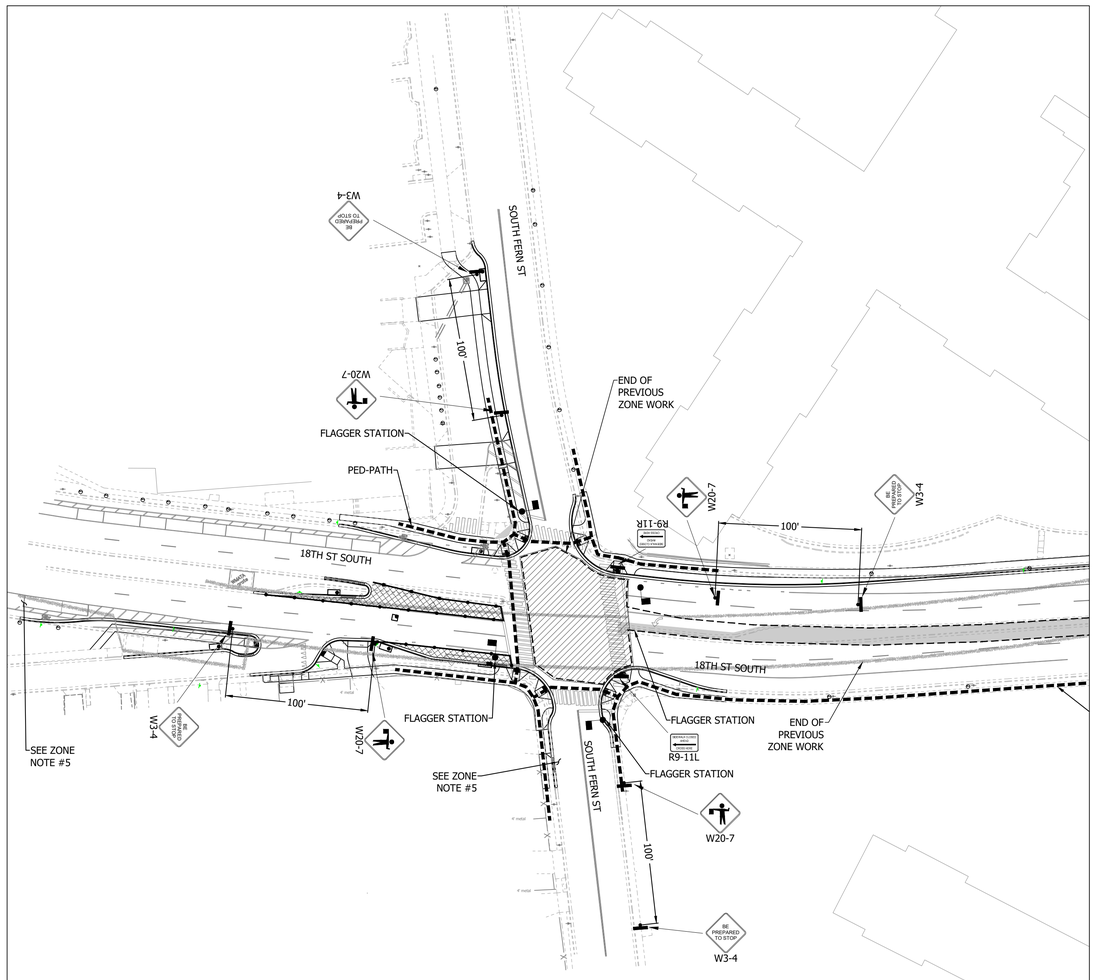
GRAPHIC SCALE

SHEET C121.17



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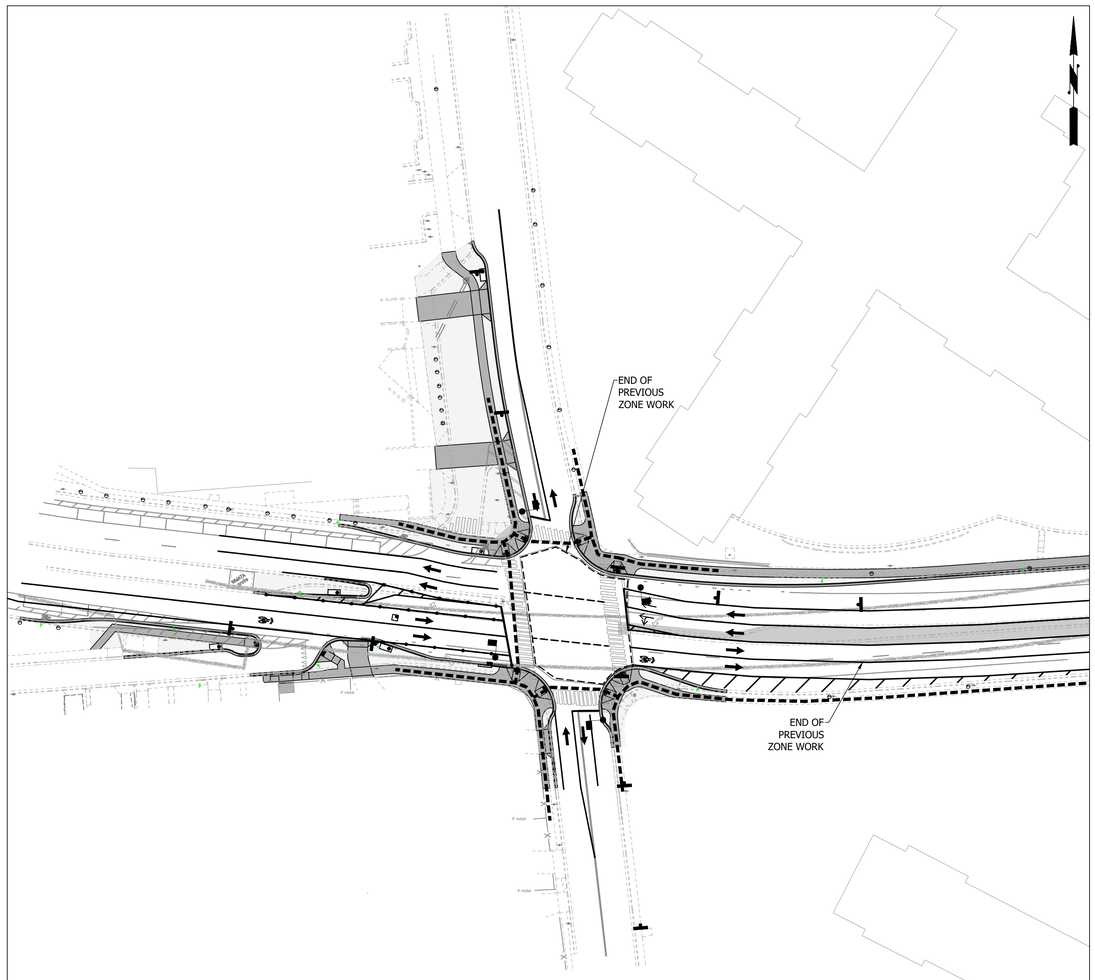

TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 17	TTC-30.2	TTC-35.1 TTC-36.2 *	CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND REOPEN CLOSED LANES SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	1 MONTH - 2 MONTHS	MON.-FRI. 9:00AM-4:00PM

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION
   -
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

REVISED ON 11/08/2016

ARLINGTON
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SEAL

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TREVOR M. LANTZY
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3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
CONSTRUCTION MANAGEMENT SUPERVISOR	6.26.20
WATER, SEWER, STREETS BUREAU CHIEF	06.29.20
TRANSPORTATION DIRECTOR	6/24/20
PROJECT MANAGER	6/17/2020

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 17
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-286-MOT - ZONE 17.DWG
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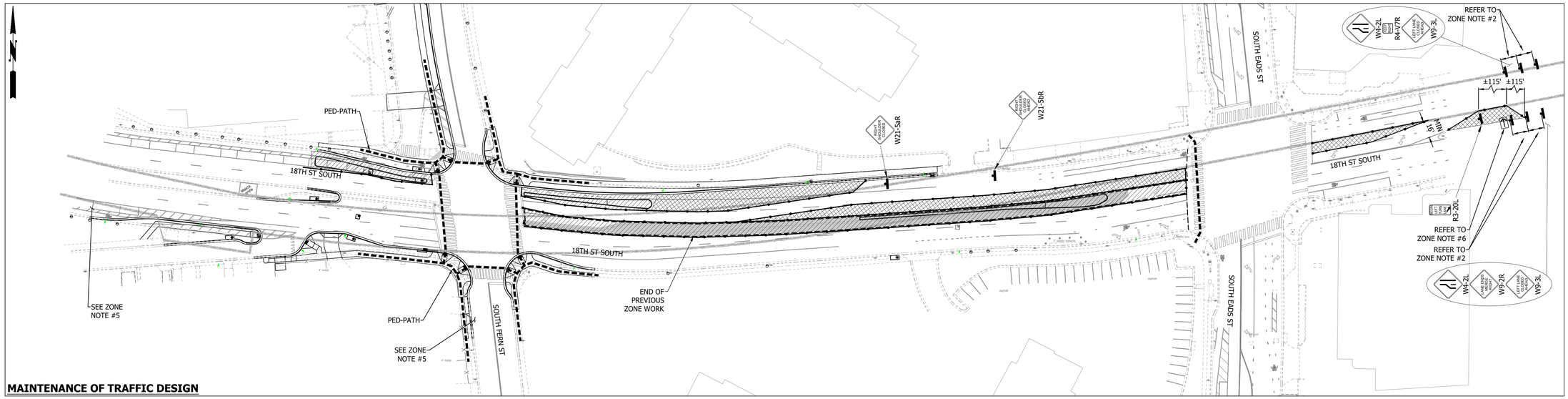
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

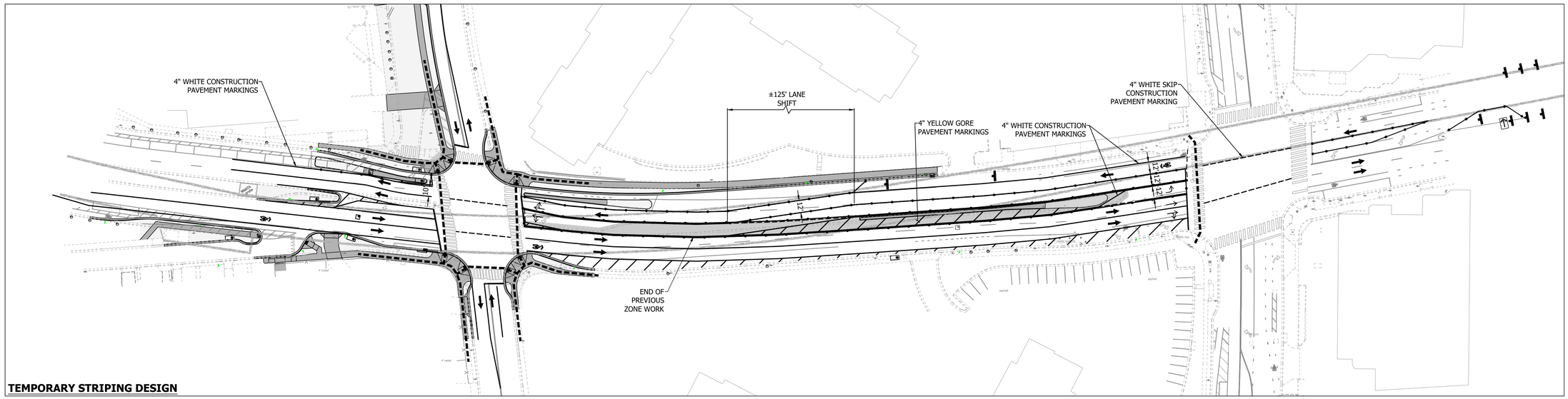
SCALE:

0 50 100
GRAPHIC SCALE

SHEET C121.18



MAINTENANCE OF TRAFFIC DESIGN



TEMPORARY STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 18	TTC-4.2 TTC-27.2	TTC-35.1 TTC-36.2 *	CONTRACTOR TO PULL BACK CHANNELING DEVICES AT THE END OF THE WORK DAY AND REOPEN CLOSED LANES SHADOW VEHICLES SHALL BE UTILIZED AS SHOWN IN THE TTC	2 MONTHS - 3 MONTHS	MON.-FRI. 9:00AM-4:00PM

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. TEMPORARY STRIPING: REFER TO PLAN FOR STRIPING.
   -STRIPING FROM PREVIOUS ZONE TO REMAIN UNLESS NOTED FOR REMOVAL.
   -ADJUST THE DIRECTIONAL ARROWS AS SHOWN ABOVE.
4. OPTIONAL TTCS: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION
   17.2 INSIDE LANE CLOSURE OPERATIONS ON A FOUR-LANE ROADWAY
   -FIRST CHANNELING DEVICE SHALL BE PLACED GREATER THAN 50' FROM AN IMPLEMENTATION
5. PARKING IN THIS AREA SHOULD BE BLOCKED OFF.
6. ILLUMINATED FLASHING ARROW BOARDS SHALL BE PLACED OUTSIDE TRAVEL LANE.

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE

REVISED ON 11/08/2016

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
FACILITIES & ENGINEERING DIVISION
ENGINEERING BUREAU
2100 CLARENDON BOULEVARD, SUITE 813
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SEAL

COMMONWEALTH OF VIRGINIA
TREVOR M. LANTZY
Lic. No. 0402050508
3/1/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
QUALITY CONTROL ENGINEER	6/18/2020
Kamal N. Taktak	6.26.20
CONSTRUCTION MANAGEMENT SUPERVISOR	06.29.20
WATER, SEWER, STREETS BUREAU CHIEF	
Dennis M. Leach	6/24/20
TRANSPORTATION DIRECTOR	
Ariel Jung	6/17/2020
PROJECT MANAGER	

REVISIONS	DATE

18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 18
ROADWAY IMPROVEMENTS
S FERN ST TO S EADS ST
CC20

DESIGNED: NS
DRAWN: NS
CHECKED: TL
MISS UTILITY TRANSMITTAL #: XXXX

FILENAME:
CC20-286-MOT - ZONE 18.DWG
PATH: Q:\DATA\CC20\DESIGN\CAD_ACTIVE

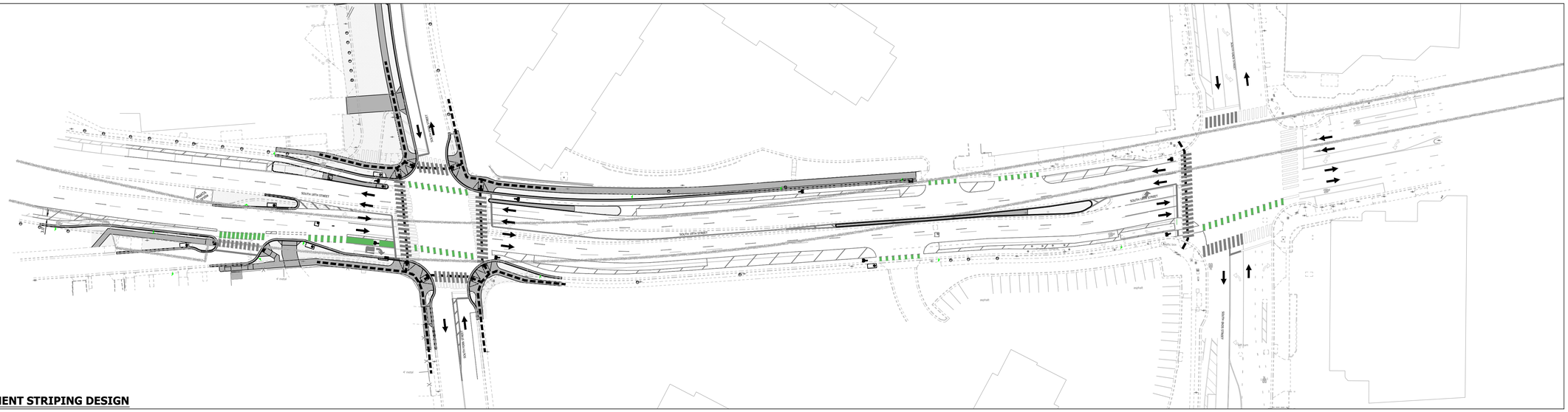
PLOTTED: MARCH 1 2021
PLOTTED BY: NSHARP

SCALE:

0 50 100
GRAPHIC SCALE

SHEET C121.19

MAINTENANCE OF TRAFFIC DESIGN



PERMANENT STRIPING DESIGN

MOT ZONE TABLE:

MOT ZONE#	TTC#		COMMENTS	DURATION	WORK HOURS
	VEHICULAR	PEDESTRIAN			
ZONE# 19	TTC-13.2 TTC-14.2	TTC-35.1 TTC-36.2 *	MILL AND OVERLAY ALL ASPHALT PAVEMENT IN THE PROJECT AREA FOR A FINISHED SURFACE COURSE. APPLY PERMANENT STRIPING.	1 WEEK - 2 WEEKS	MON.-FRI. 9:00AM-4:00PM

ZONE NOTES:

1. SPEED REDUCTION: CONTRACTOR SHALL PLACE W3-5A SIGN, WITH SPEED LIMIT OF 25 MPH, ON ALL APPROACHES FOR 18TH STREET.
2. WARNING SIGN SPACING: MINIMUM 100' SPACING BETWEEN WARNING SIGNS UNLESS OTHERWISE DIRECTED BY THE CONSTRUCTION MANAGER AND TE&O.
3. PERMANENT STRIPING: REFER TO STRIPING PLAN.
4. OPTIONAL TTC'S: REQUIRES APPROVE BY THE CONSTRUCTION MANAGER PRIOR TO IMPLEMENTATION

* PEDESTRIAN ACCESS SHALL BE MAINTAINED AS SHOWN ON THIS SHEET, UTILIZING THE REFERENCED TTC IN THE MOT ZONE TABLE.

AT THE END OF EACH WORKING DAY, THE CONTRACTOR SHALL PULL BACK MOT CHANNELIZING DEVICES TO MAINTAIN TWO TRAVEL LANES IN EACH DIRECTION ON 18TH STREET.

REVISED ON 11/08/2016

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18TH STREET SOUTH

MAINT. OF TRAFFIC - ZONE 19
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0 50 100
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