ARLINGTON
VIRGINIA

ENGINEER
DEPARTMENT OF
ENVIRONMENTAL SERVICES

DIVISION OF TRANSPORTATION & DEVELOPMENT
TRANSPORTATION ENGINEERING & OPERATION BUREAU
2100 CLARENDON BOULEVARD, SUITE 900,
ARLINGTON, VA 22201
PHONE: 703.228.3344 FAX: 703.228.3719
WWW.ARLINGTONVA.US

OWNER
DEPARTMENT OF
ENVIRONMENTAL SERVICES

DIVISION OF TRANSPORTATION & DEVELOPMENT
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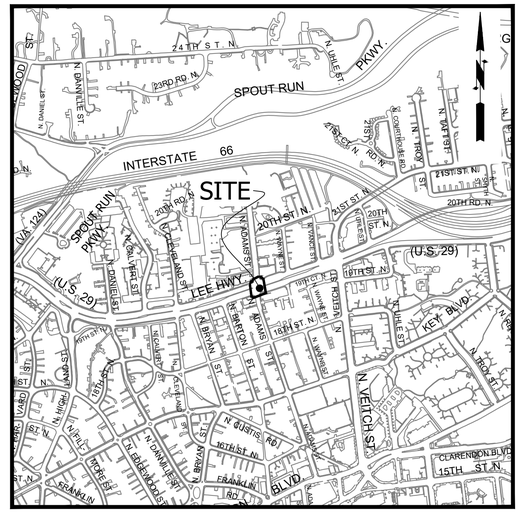
2100 CLARENDON BOULEVARD, SUITE 900,
ARLINGTON, VA 22201
PHONE: 703.228.3344 FAX: 703.228.3719
WWW.ARLINGTONVA.US

CONTRACTOR
TO BE DETERMINED

LOCATION MAP



0 600' 1200'
GRAPHIC SCALE

CONSTRUCTION DRAWINGS FOR:

LEE HIGHWAY & NORTH ADAMS STREET INTERSECTION

PROJECT CODE: TR07

FINAL PLANS

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.

STORMWATER AND ENVIRONMENTAL PROTECTION

9. 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

10. TREES SHALL BE PROTECTED PER THE REQUIREMENTS OF ARLINGTON PARK & RECREATIONS STANDARD.

TRAFFIC CONTROL

11. 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.
12. 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.
13. 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.
14. 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. TYPICALLY ANY RELOCATION OR CLOSURE OF A BUS STOP WILL REQUIRE AT LEAST FOUR WEEKS ADVANCE NOTICE FOR COORDINATION WITH THE COUNTY'S BUS STOP COORDINATOR. ALL TEMPORARY AND FINAL BUS TRAVEL LANES MUST BE MINIMUM 11' WIDE.
15. 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

16. 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 3 WORKING DAYS IN ADVANCE OF THE REQUIRED OPERATION.
17. IN THE EVENT OF A WATER OR SEWER EMERGENCY, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE COUNTY'S WATER CONTROL CENTER AT 703-228-5555 AND THE PROJECT OFFICER.

TABLE OF CONTENTS

UTILITY INFORMATION

UTILITY OWNERS:

CATV / INTERNET:

COMCAST
AMY GOAD
5304 KINGS CT
FREDERICK, MD 217034
(301)625-3407
EMAIL:
Amy_Goad@cable.comcast.com

ELECTRIC:

DOMINION ENERGY
MICHAEL JEWTH
906 W GLEBE ROAD
ALEXANDRIA, VA 22304
(703) 408-0037
michael.jewth@dominionenergy.com

NATURAL GAS:
WASHINGTON GAS
ROGER GOULT
6801 INDUSTRIAL ROAD
SPRINGFIELD, VA 22151
(703) 750-4285
rgault@washgas.com

TELECOM:

VERIZON VIRGINIA LLC
GARY KING
(703) 396-9586
gary.m.king@verizon.com

AT&T CORP. (ATT)
GARY WIGFIELD
4800 WINCHESTER BLVD
FREDERICK, MD
(301) 874-1180

WATER & SEWER:

ARLINGTON COUNTY
DEPARTMENT OF ENVIRONMENTAL SERVICES
ALLISON C. SMITH
2100 CLARENDON BLVD, SUITE 800
(703) 228-0648

LDA NO.: LDA #22-00073
STORMWATER MANAGEMENT TRACKING NO.: SWM 22-0233

ADT

19,000-VPD LEE HWY - 2016 - VDOT
NA - VPD N. ADAMS ST

STREET CLASSIFICATION

TYPE D ARTERIAL - LEE HWY
NEIGHBORHOOD STREET - N. ADAMS ST

POSTED/ DESIGN SPEED

35 MPH / 40 MPH - LEE HWY
25 MPH / 30 MPH - N. ADAMS ST

DESIGN VEHICLE

2011 AASHTO COMMERCIAL TRUCK - SU30

ARLINGTON
VIRGINIA

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ARLINGTON, VA 22201
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SEAL
COMMONWEALTH OF VIRGINIA
ANUP KAFLE
Lic.No. 0402056432
7/ 5/ 2023
PROFESSIONAL ENGINEER

APPROVALS	DATE
DESIGN TEAM SUPERVISOR	
PROJECT MANAGER	
WATER, SEWER, STREETS BUREAU CHIEF	
TE&O BUREAU CHIEF	
TRANSPORTATION DIRECTOR	

REVISIONS	DATE
1 Update for LDA Requirements	8/11/2023

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

COVER SHEET
INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW B WU
DRAWN: BW B WU
CHECKED: JM D NABORS
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS COVERSHEET.DWG
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS\FINAL\ED SHEETS
PLOTTED: JULY 5 2023
PLOTTED BY: JMCCARTHY

SCALE
AS NOTED

SHEET
C1 OF C23

Revised: 01/21/2016

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	
OVERHEAD WIRES		
PAVEMENT MINI SKIP LINE		
PAVEMENT SKIP LINE		
PROPERTY LINE		
RIGHT-OF-WAY LINE		
SANITARY SEWER	SAN SAN	SAN SAN
X" SANITARY SEWER (SIZE INCLUDED IF AVAILABLE)	X" S X" S	X" S X" S
STORM (SIZE NOTED)	STM STM	
STREAM		
STREET LIGHT CONDUIT	SL SL	SL SL
TELEPHONE (UNDERGROUND)	UGT UGT	UGT UGT
TREE LINE		
WALL		
WATER	W W	W W
X" WATER (SIZE INCLUDED IF AVAILABLE)	X" W X" W	X" W X" W
X" WATER TO BE ABANDONED	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 ARLINGTON COUNTY STANDARD (R-1.1) SEE TYPICAL SECTION FOR DETAILS
- PROP CONCRETE
- PROP BRICK PAVER
- REPLACE & MATCH EXISTING DRIVEWAY OR LEADWALK. SEE CONSTRUCTION NOTES
- DEMOLITION AREA
- TEMPORARY CONSTRUCTION EASEMENT

ARLINGTON VIRGINIA

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ARLINGTON, VA 22201
PHONE: 703.228.3344
FAX: 703.228.3719

SEAL

COMMONWEALTH OF VIRGINIA
BI FENG WU
Lic. No. 047585
10/07/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

LEGEND

INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS LEGEND & DETAILS.DWG
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: OCTOBER 7 2021
PLOTTED BY: BWU

SCALE

NOT APPLICABLE

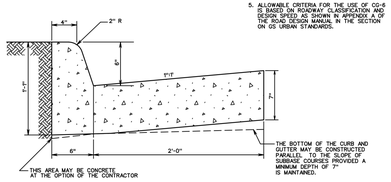
SHEET C2 OF C23

Revised: 01/21/2016

CG-6

NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) SHALL BE PAID FOR AS RADIAL COMBINATION CURB & GUTTER.
4. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER, THE BOTTOM OF THE CURB & GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBBASE COURSES AND TO THE DEPTH OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-6 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED AS SHOWN IN APPENDIX A OF THE ROAD DESIGN MANUAL IN THE SECTION ON GS URBAN STANDARDS.

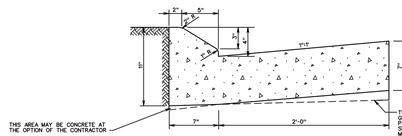


SPECIFICATION REFERENCE	COMBINATION 6" CURB AND GUTTER	VDOT ROAD AND BRIDGE STANDARDS	
105 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE	SHEET 1 OF 1 201.03

CG-7

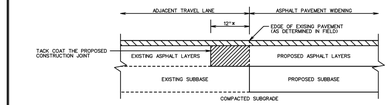
NOTES:

1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) SHALL BE PAID FOR AS RADIAL COMBINATION CURB & GUTTER.
4. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER, THE BOTTOM OF THE CURB & GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF SUBBASE COURSES AND TO THE DEPTH OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-7 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED AS SHOWN IN APPENDIX A OF THE VDOT ROAD DESIGN MANUAL IN THE SECTION ON URBAN CS STANDARDS.
6. WHEN THIS STANDARD IS TO BE TIED INTO EXISTING BARRIER CURB, THE TRANSITION IS TO BE MADE WITHIN 10' OF THE CHANGE IN STANDARDS CAN BE MADE AT REGULAR OFFENSES.
7. WHEN COMBINATION MOUNTABLE CURB AND GUTTER IS USED, THE STANDARD ENTRANCE GUTTERS OR STANDARD CONNECTION FOR STREET INTERSECTIONS ARE TO HAVE THE MOUNTABLE CURB CONFIGURATION INCORPORATED.



SPECIFICATION REFERENCE	COMBINATION 4" CURB AND GUTTER	VDOT ROAD AND BRIDGE STANDARDS	
105 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	SHEET 1 OF 1 201.04	REVISION DATE

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)

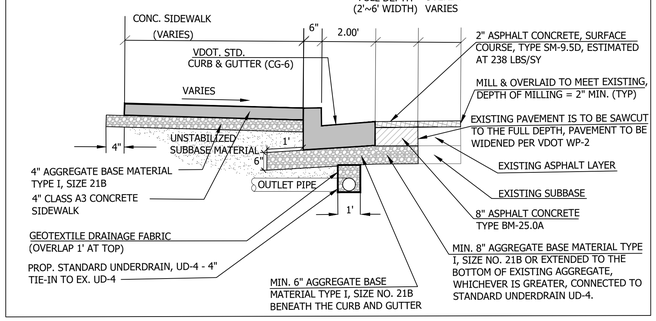
* MINIMUM 12 INCHES, OR GREATER AS NECESSARY TO ABUT THE FULL THICKNESS OF EXISTING ASPHALT LAYERS AS DETERMINED BY CORES (SEE NOTE 3)

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 315.05(c) 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 315.07(a) OF THE SPECIFICATIONS.

VDOT ROAD AND BRIDGE STANDARDS		ASPHALT PAVEMENT WIDENING FOR WIDENING SUBJECT TO TRAFFIC VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 1	REVISION DATE		315
303.02			

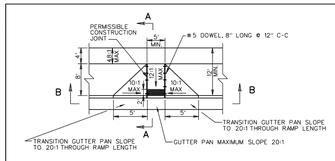
TYPICAL SECTION
LEE HIGHWAY
(N.T.S.)



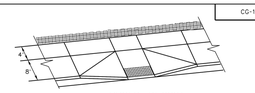
NOTES:

1. ALL PAVEMENTS SHALL BE WIDENED IN ACCORDANCE WITH VDOT STANDARD WP-2. PROPOSED FULL DEPTH PAVEMENT REPLACEMENT SHALL MATCH EXISTING PAVEMENT IN ACCORDANCE WITH VDOT STANDARD WP-2.
2. AGGREGATE SUBBASE THICKNESS BENEATH THE WIDENED PAVEMENT SHALL BE AS INDICATED (8 INCHES) ON THIS SHEET OR MATCH THE EXISTING AGGREGATE BASE MATERIAL, WHICHEVER IS GREATER.
3. PROVIDE 1' WIDE GRADING BENCH BEHIND PROPOSED SIDEWALKS WHEN SPACE ALLOWS.
4. AS INDICATED IN TYPICAL SECTIONS, THE SUBBASE 21-B SHALL BE CONNECTED TO A VDOT STANDARDS UD-4 EDGE DRAIN LOCATED BENEATH THE PROPOSED CURB AND GUTTER, TO BE SECURELY CONNECTED TO OUTFALL AT AN ADJACENT DRAINAGE STRUCTURE.
5. THE ADJACENT TRAVEL LANE SHALL BE MILLED TO A DEPTH OF 2" AND REPLACED WITH 2" ASPHALT CONCRETE TYPE SM-9.5D, ESTIMATED AT 238 LBS/SY.
6. PROVIDED ATTAINING MINIMUM 4" OF AGGREGATE ON TOP OF THE EDGEDRAIN.

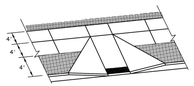
CG-12

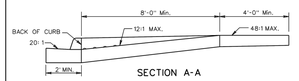


TYPICAL DESIGN

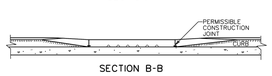


TYPE A WITH BUFFER STRIP





SECTION A-A

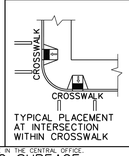


SECTION B-B

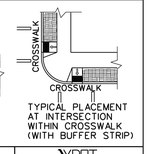
NOTES:

1. FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.
2. THIS DESIGN TO BE USED FOR CONSTRUCTION THAT INCORPORATES WIDER SIDEWALK, LANDING (4' WIDE) REQUIRED AT TOP OF CURB RAMP. MINIMUM CURB RAMP LENGTH 8 FEET FOR NEW CONSTRUCTION.
3. GUTTER PAN SHALL BE A MAXIMUM SLOPE OF 20:1 AT THE RAMP OPENING.
4. DIAGONAL PLACEMENT IS NOT PERMITTED.

EXAMPLE INSTALLATION METHODS - SEE PLANS FOR LAYOUT



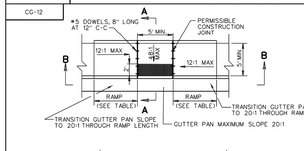
TYPICAL PLACEMENT AT INTERSECTION WITHOUT CROSSWALK

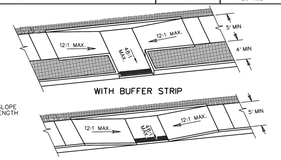


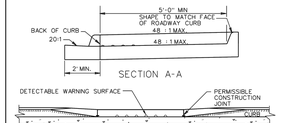
TYPICAL PLACEMENT AT INTERSECTION WITHIN CROSSWALK (WITH BUFFER STRIP)

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. CG-12 DETECTABLE WARNING SURFACE TYPE A (PERPENDICULAR) APPLICATION VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
105 502 504		REVISION DATE 04/19	SHEET 2 OF 5 204.02

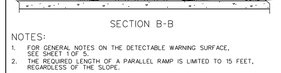
CG-12







SECTION A-A

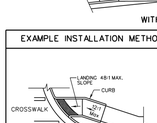


SECTION B-B

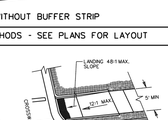
NOTES:

1. FOR GENERAL NOTES ON THE DETECTABLE WARNING SURFACE, SEE SHEET 1 OF 5.
2. THE REQUIRED LENGTH OF A PARALLEL RAMP IS LIMITED TO 15 FEET, REGARDLESS OF THE SLOPE.
3. GUTTER PAN SHALL BE A MAXIMUM SLOPE OF 20:1 AT THE RAMP OPENING.
4. DIAGONAL PLACEMENT IS NOT PERMITTED.

EXAMPLE INSTALLATION METHODS - SEE PLANS FOR LAYOUT



ONE DIRECTION WITHOUT BUFFER STRIP



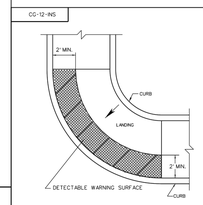
ONE DIRECTION WITH BUFFER STRIP

TWO DIRECTIONS SMALLER RADII WITHOUT BUFFER STRIP

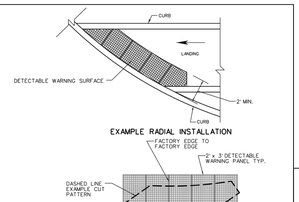
TWO DIRECTIONS LARGER RADII WITH BUFFER STRIP

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. CG-12 DETECTABLE WARNING SURFACE TYPE B (PARALLEL) APPLICATION VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
105 502 504		REVISION DATE 04/19	SHEET 3 OF 5 204.03

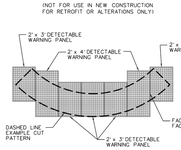
CG-12-INS

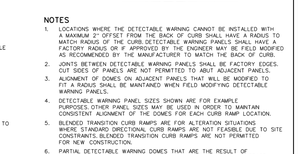


EXAMPLE BLENDED TRANSITION
(NOT FOR USE IN NEW CONSTRUCTION FOR RETROFIT OR ALTERATIONS ONLY)



EXAMPLE RADIAL INSTALLATION

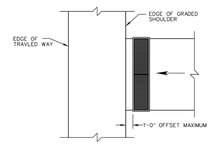


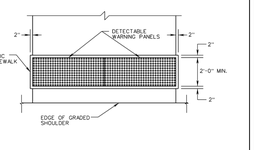


NOTES

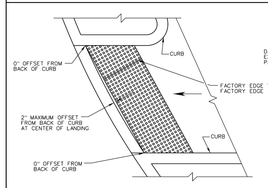
1. LOCATIONS WHERE THE DETECTABLE WARNING CANNOT BE INSTALLED WITH A MAXIMUM 2" OFFSET FROM THE BACK OF CURB SHALL HAVE A RADIUS TO MATCH RADIUS OF THE CURB. DETECTABLE WARNING PANELS SHALL HAVE A FACTORY RADIUS OR IF APPROVED BY THE ENGINEER MAY BE FIELD MODIFIED AS RECOMMENDED BY THE MANUFACTURER TO MATCH THE BACK OF CURB.
2. JOINTS BETWEEN DETECTABLE WARNING PANELS SHALL BE FACTORY EDGES. CUT SIDES OF PANELS ARE NOT PERMITTED TO ABUT ADJACENT PANELS.
3. ALIGNMENT OF DOMES ON ADJACENT PANELS THAT WILL BE MODIFIED TO FIT A RADIUS SHALL BE MAINTAINED WHEN FIELD MODIFYING DETECTABLE WARNING PANELS.
4. DETECTABLE WARNING PANEL SIZES SHOWN ARE FOR EXAMPLE PURPOSES. OTHER PANEL SIZES MAY BE USED IN ORDER TO MAINTAIN CONSISTENT ALIGNMENT OF THE DOMES FOR EACH CURB RAMP LOCATION.
5. BLENDED TRANSITION CURB RAMPS ARE FOR ALTERATION SITUATIONS WHERE STANDARD DIRECTIONAL CURB RAMPS ARE NOT FEASIBLE DUE TO SITE CONSTRAINTS. BLENDED TRANSITION CURB RAMPS ARE NOT PERMITTED FOR NEW CONSTRUCTION.
6. PARTIAL DETECTABLE WARNING DOMES THAT ARE THE RESULT OF CUTTING PANELS SHOULD BE GROUND FLUSH WITH THE PANEL SURFACE.
7. GAPS BETWEEN ADJACENT DETECTABLE WARNING PANELS ARE NOT PERMITTED.
8. SEE PLANS FOR CROSSWALK MARKINGS, TURNING AREAS, ROUTE WIDTHS, GRADE CHANGES, AND RAMP CONFIGURATIONS.

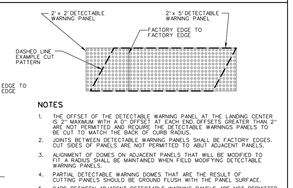
SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. CG-12 DETECTABLE WARNING SURFACE METHOD OF INSTALLING DETECTABLE WARNINGS ON A RADIUS VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
105 502 504 CG-12-INS		REVISION DATE NEW 04/19	SHEET 2 OF 2 204.07





TYPICAL INSTALLATION FOR SHARED-USE PATH WITH SHOULDER



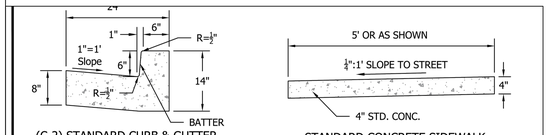


NOTES

1. THE OFFSET OF THE DETECTABLE WARNING PANEL AT THE LANDING CENTER IS 2" MAXIMUM WITH A 0" OFFSET AT EACH END. OFFSETS GREATER THAN 2" ARE NOT PERMITTED AND REQUIRE THE DETECTABLE WARNINGS PANELS TO BE CUT TO MATCH THE BACK OF CURB RADIUS.
2. JOINTS BETWEEN DETECTABLE WARNING PANELS SHALL BE FACTORY EDGES. CUT SIDES OF PANELS ARE NOT PERMITTED TO ABUT ADJACENT PANELS.
3. ALIGNMENT OF DOMES ON ADJACENT PANELS THAT WILL BE MODIFIED TO FIT A RADIUS SHALL BE MAINTAINED WHEN FIELD MODIFYING DETECTABLE WARNING PANELS.
4. PARTIAL DETECTABLE WARNING DOMES THAT ARE THE RESULT OF CUTTING PANELS SHOULD BE GROUND FLUSH WITH THE PANEL SURFACE.
5. GAPS BETWEEN ADJACENT DETECTABLE WARNING PANELS ARE NOT PERMITTED.
6. SEE PLANS FOR CROSSWALK MARKINGS, TURNING AREAS, ROUTE WIDTHS, GRADE CHANGES AND RAMP CONFIGURATIONS.

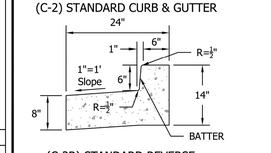
TYPICAL INSTALLATION ON RADIUS (SIDEWALKS OR SHARED USE PATHS)

SPECIFICATION REFERENCE	A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. CG-12 DETECTABLE WARNING SURFACE DETECTABLE WARNING INSTALLATION VIRGINIA DEPARTMENT OF TRANSPORTATION	VDOT ROAD AND BRIDGE STANDARDS	
105 502 504		REVISION DATE NEW 04/19	SHEET 1 OF 2 204.06

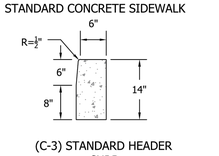


(C-2) STANDARD CURB & GUTTER

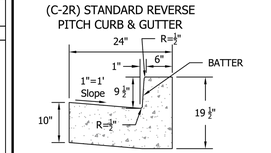
STANDARD CONCRETE SIDEWALK



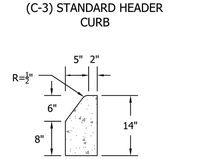
(C-2R) STANDARD REVERSE PITCH CURB & GUTTER



(C-3) STANDARD HEADER CURB



(C-4) STANDARD CURB & GUTTER FOR TRANSIT STATION



(C-5) ALTERNATE CURB FOR MEDIANS

NOTES:

1. SECTION C-3 IS TO BE USED ONLY WITH RIGID TYPE PAVEMENT UNLESS OTHERWISE DIRECTED IN WRITING OR WHEN SHOWN ON APPROVED PLANS.
2. EXPANSION JOINTS IN HEADER CURB AND STANDARD CURB AND GUTTER SHALL BE 40' APART OR AT EXPANSION JOINTS IN CONCRETE PAVEMENT.
3. EXPANSION JOINTS MAY BE OMITTED IF 1/8" JOINTS ARE PLACED EVERY 10' OF LESS
4. EXPANSION JOINTS IN THE SIDEWALK SHALL BE 40' APART. IF ADJACENT TO CONCRETE CURB, EXPANSION JOINTS SHALL MATCH JOINT OF CURB. AN EXPANSION JOINT SHALL BE PLACED BETWEEN CURB AND SIDEWALK.
5. SEE DRAWING R-2.2 FOR DETAIL OF SIDEWALK STRESS COLUMN TO BE PLACED UNDER SIDEWALK WHEN PLACED ADJACENT TO BACK OF CURB.
6. SEE ARLINGTON COUNTY SPECIFICATION SECTIONS 02611 AND 03100 FOR MATERIAL SPECS.
7. PROVIDE 6" MINIMUM AGGREGATE BASE HAVING CBR-30 UNDER CURB AND GUTTER.
8. PROVIDE 3" MINIMUM AGGREGATE BASE HAVING CBR-30 UNDER SIDEWALK
9. WHENEVER CURB ABUTTS RIGID PAVEMENT, PROVIDE LONGITUDINAL JOINT PER VDOT PR-2.
10. SECTION C-5 TO BE USED WHEN BICYCLE LANE RUNS ALONG A MEDIAN.

CONCRETE CURB & GUTTER AND SIDEWALK

ARLINGTON VIRGINIA

ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

ISSUED 9/14/2020

DRAWING NO.
R-2.0

UTILITIES

1. THE UTILITY INFORMATION SHOWN ON THESE PLANS IS TAKEN FROM INFORMATION RECEIVED FROM DEPARTMENT OF ENVIRONMENTAL SERVICES DOES NOT GUARANTEE THAT THE UTILITY INFORMATION SHOWN ON THE PLANS IS COMPLETE OR ACCURATE. THE CONTRACTOR MUST VERIFY THE UTILITY LOCATIONS PRIOR TO CONSTRUCTION.
2. ALL EXISTING UNDERGROUND UTILITIES SHALL BE MARKED IN THE FIELD BY MISS UTILITY PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING THE FIELD MARKING OF UTILITIES WITH MISS UTILITY.
3. ALL EXISTING UNDERGROUND UTILITIES SHALL BE PHYSICALLY LOCATED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF ANY CONSTRUCTION IN THE VICINITY OF THESE UTILITIES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT EXISTING UTILITIES ARE DISCONNECTED, PRIOR TO CLEARING THE SITE OF TREES, BUILDINGS, FOUNDATIONS, ETC. WITHIN THE LIMITS OF CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS INDICATED ON THE CONSTRUCTION PLANS.
5. FOR MARKING LOCATIONS OF EXISTING UNDERGROUND UTILITY FACILITIES (GAS, TELEPHONE, ELECTRIC AND CABLE TV), CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 811 OR 1-800-257-7777 48 HOURS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.

UTILITY COMPANIES	OFFICE NUMBER	EMERGENCY NUMBER
COMCAST CABLE COMMUNICATIONS	(703) 567-4191	(703) 567-4600
DOMINION VIRGINIA POWER	(703) 838-2210	(703) 934-9660
PEPCO	(202) 872-2845	(202) 833-7500

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
TRANSPORTATION ENGINEERING & OPERATION BUREAU
2100 CLARENDON BOULEVARD, SUITE 900
ARLINGTON, VA 22201
PHONE: 703.228.3344
FAX: 703.228.3719

SEAL

COMMONWEALTH OF VIRGINIA
BI FENG WU
Lic. No. 047585
10/07/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY &
NORTH ADAMS STREET

DETAILS
INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

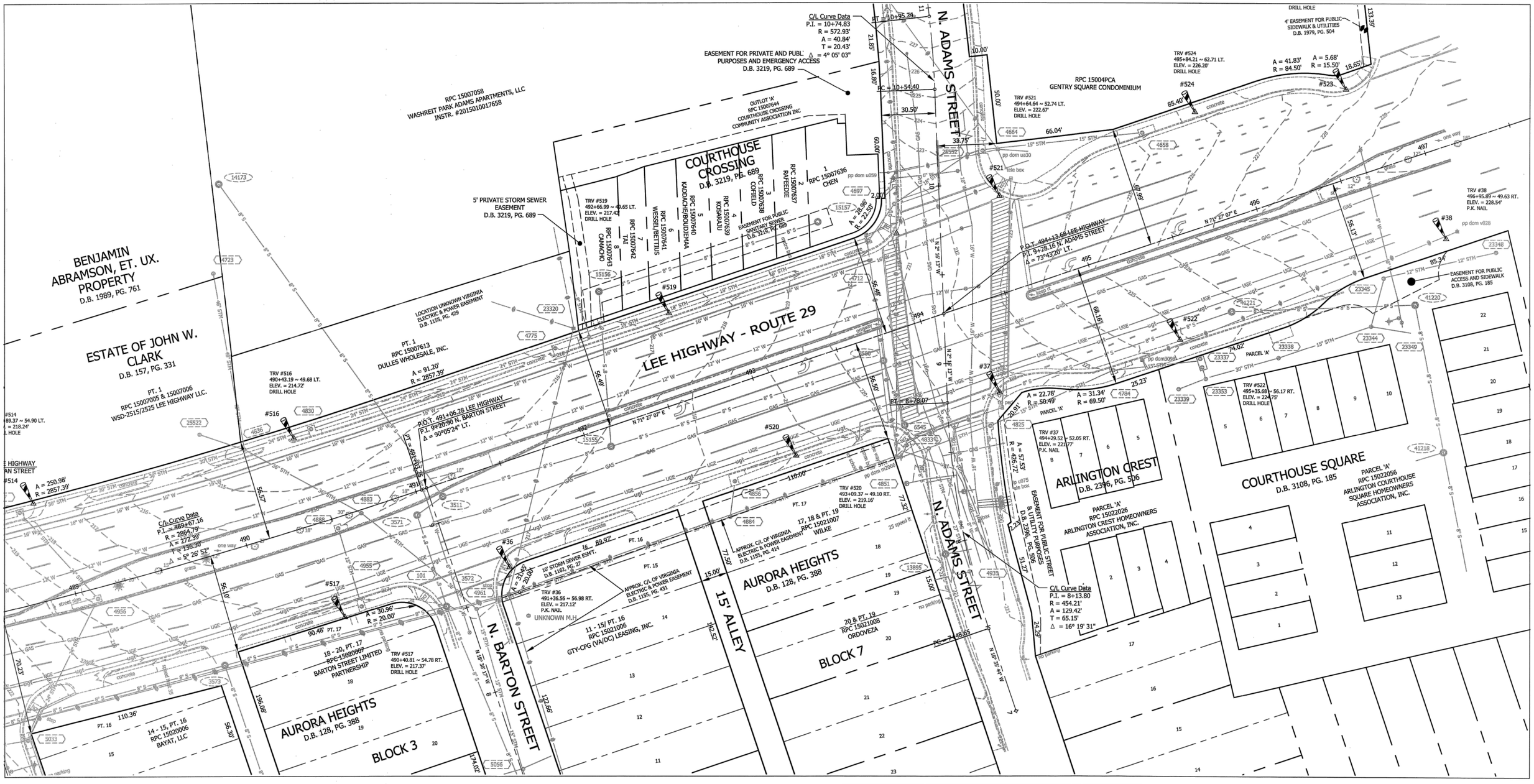
FILENAME: TR07 - N ADAMS LEGEND & DETAILS.DWG
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: DECEMBER 13 2021
PLOTTED BY: BWU

SCALE

NOT APPLICABLE

SHEET
C3 OF C23

Revised: 01/21/2016



PROJECT NAME AND LOCATION

LEE HIGHWAY &
NORTH ADAMS STREET

EXISTING CONDITIONS
LEE HIGHWAY & N ADAMS STREET
INTERSECTION SIGNAL IMPROVEMENT
TR07

SHEET C4 OF C23

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES
Engineering Bureau - Survey Section
2100 Clarendon Boulevard, Suite 813
Arlington, VA 22201

I HEREBY CERTIFY THAT:
THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF ROBERT L. FRANCA, L.S. FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2017 TO 10/2017; AND THAT THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

COMMONWEALTH OF VIRGINIA
ROBERT L. FRANCA
Lic. No. 1726
11-6-17
LAND SURVEYOR

HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983 - NORTH ZONE.

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988.

BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

PARTY CHIEF: PATEL/OWENS
SURVEY PM: GOTTSELIG

PROJECT:
6697/TR07

TOPOGRAPHIC SURVEY

LEE HIGHWAY
FROM N. DANIEL STREET TO N. WAYNE STREET

ARLINGTON COUNTY, VIRGINIA

~~SHEET 2 OF 3~~

Q:\Data\TR07\6697 - Lee Highway-N Danville Street\Survey\Drawings\6697 Base.dwg, 11/06/2017 3:45:10 PM, rfranca

#EX.101
TOP = 216.83
36" RCP INV. IN = 203.75 (4961)
36" RCP INV. OUT = 203.33 (4883)

#4658
TOP = 225.15
15" RCP INV. OUT = 220.65 (4664)

#4664
TOP = 222.61
15" RCP INV. IN = 217.51 (4658)
15" RCP INV. OUT = 217.45 (25552)

#4697
TOP = 221.64
18" RCP INV. IN = 216.83 (4664) #25552
18" RCP INV. OUT = 216.67 (4712)

#4697 #25552
TOP = 222.51
15" RCP INV. IN = 217.78 (25553)
15" RCP INV. IN = 217.32 (4664)
18" RCP INV. OUT = 217.12 (4697)

#4712
TOP = 220.60
18" RCP INV. IN = 216.56 (4697)
18" RCP INV. OUT = 216.41 (23320)

#4723
TOP = 215.36
15" RCP INV. IN = 205.86 (4656)
48" RCP INV. IN = 190.86 (4836)
48" RCP INV. OUT = 190.56 (4685)

#4775
TOP = 216.50
18" RCP INV. IN = 213.68 (23320)
24" RCP INV. OUT = 213.60 (4830)

#4784
TOP = 223.64
15" RCP INV. IN = 219.24 (23337)
15" RCP INV. OUT = 219.24 (4825)

#4830
TOP = 214.83
24" RCP INV. IN = 210.13 (4775)
24" RCP INV. OUT = 210.03 (4836)

#4856
TOP = 218.47
15" RCP INV. OUT = 212.97 (4884)

#4825
TOP = 221.12
15" RCP INV. IN = 216.02 (4784)
24" RCP INV. OUT = 216.02 (4833)

#4833
TOP = 220.67
18" RCP INV. IN = 216.67 (4851)
24" RCP INV. IN = 214.67 (4825)
27" RCP INV. IN = 211.65 (4935)
36" RCP INV. OUT = 211.32 (4884)

#4836
TOP = 215.06
15" RCP INV. IN = 211.16 (25522)
36" RCP INV. IN = 202.56 (4883)
24" RCP INV. IN = 209.16 (4830)
30" RCP INV. IN = 209.46 (4877)
48" RCP INV. OUT = 195.76 (4723)

#4851
TOP = 221.04
18" RCP INV. OUT = 217.19 (4833)

#4865
TOP = 225.73
15" RCP INV. OUT = 221.89 (4945)

#4877
TOP = 218.61
24" RCP INV. IN = 212.11 (4956)
24" RCP INV. IN = 212.11 (4945)
30" RCP INV. OUT = 211.81 (25522)

#4883
TOP = 216.10
15" RCP INV. IN = 211.60 (4888)
36" RCP INV. IN = 202.40 (101)
36" RCP INV. OUT = 202.40 (4836)

#4884
TOP = 218.23
15" RCP INV. IN = 211.13 (4856)
36" RCP INV. IN = 207.73 (4841)
36" RCP INV. OUT = 207.63 (4961)

#4888
TOP = 216.12
15" RCP INV. IN = 212.02 (4955)
15" RCP INV. OUT = 211.83 (4883)

#4935
TOP = 221.43
27" RCP INV. IN = 213.27 (5307)
15" RCP INV. IN = 216.38 (4938)
27" RCP INV. OUT = 213.21 (4833)

#4945
TOP = 228.33
24" RCP INV. IN = 221.03 (25452
18" RCP INV. IN = 221.13 (4865)
24" RCP INV. OUT = 221.03 (4877)

#4948
TOP = 203.12
18" RCP INV. IN = 198.62 (23307)
15" RCP INV. IN = 198.62 (23309)
15" RCP INV. OUT = 198.52 (5003)

#4955
TOP = 217.06
15" RCP INV. OUT = 212.36 (4888)

#4956
TOP = 218.88
18" RCP INV. IN = 212.78 (5033)
24" RCP INV. OUT = 212.68 (4877)

#4960
TOP = 222.09
15" RCP INV. IN = 216.98 (4976)
15" RCP INV. IN = 217.36 (23318)
15" RCP INV. OUT = 216.37 (5008)

#4961
TOP = 216.22
15" RCP INV. IN = 203.92 (5056)
36" RCP INV. IN = 203.92 (4884)
36" RCP INV. OUT = 203.92 (101)

#5003
TOP = 204.52
18" RCP INV. IN = 196.12 (5068)
24" RCP INV. IN = 196.72 (23311)
15" RCP INV. IN = 197.02 (4948)
30" RCP INV. OUT = 195.92 (4838)

#5008
TOP = 219.56
15" RCP INV. IN = 214.59 (4960)
15" RCP INV. IN = 214.69 (5016)
18" RCP INV. OUT = 214.29 (5075)

STORM DRAIN INVERTS

#5016
TOP = 223.52
15" RCP INV. IN = 219.92 (5076)
15" RCP INV. OUT = 219.92 (5008)

#5033
TOP = 223.17
18" RCP INV. IN = 213.67 (5036)
18" RCP INV. OUT = 213.67 (4956)

#5036
TOP = 223.44
18" RCP INV. OUT = 216.44 (5033)

#5043
TOP = 230.17
24" RCP INV. IN = 223.77 (5074)
24" RCP INV. OUT =223.77 (25452)

#5056
TOP = 212.39
15" RCP INV. IN = 208.24 (5066)
15" RCP INV. IN = 206.51 (5040)
15" RCP INV. IN = 206.57 (5164)
15" RCP INV. OUT = 206.19 (4961)

#5068
TOP = 205.70
15" RCP INV. IN = 199.90 (23371)
18" RCP INV. IN = 200.10 (23372)
18" RCP INV. OUT = 199.80 (5003)

#5072
TOP = 229.06
15" RCP INV. OUT = 224.51 (5074)

#5074
TOP = 230.29
15" RCP INV. IN = 225.29 (5097)
15" RCP INV. IN = 223.89 (5072)
24" RCP INV. OUT = 223.89 (5043)

#5075
TOP = 216.58
15" RCP INV. IN = NO ACCESS (5008)
24" RCP INV. IN = 211.33 (5110)
24" RCP INV. OUT = 211.28 (23311)

#5076
TOP = 226.03
15" RCP INV. OUT = 221.83 (5016)

#5097
TOP = 230.21
15" RCP INV. OUT = 226.01 (5074)

#5110
TOP = 220.12
18" RCP INV. IN = UNKNOWN (SD-788)
24" RCP INV. IN = 214.68 (23376)
24" RCP INV. OUT = 214.68 (5075)

#5127
TOP = 207.69
24" RCP INV. IN = 199.99 (5075)
24" RCP INV. = 199.89 (5003)

#5136
TOP = 228.77
15" RCP INV. OUT = 223.67 (5184)

#5184
TOP = 225.75
15" RCP INV. IN = 221.55 (5136)
15" RCP INV. OUT = 221.45 (25518)

#5191
TOP = 225.28
15" RCP INV. IN = 219.48 (25518)
24" RCP INV. IN = 218.38 (5242)
24" RCP INV. OUT = 218.28 (23376)

#23307
TOP = 205.52
18" RCP INV. OUT = 199.62 (4948)

#23309
TOP = 205.34
C/L INV. = 197.79 (4948)
*FULL OF WATER

#23318
TOP = 228.27
15" RCP INV. IN = 219.42
(UNKNOWN)
15" RCP INV. OUT = 219.24 (4960)

#23320
TOP = 216.79
18" RCP INV. IN = 213.96 (4712)
8" PVC INV. IN = 214.12 (23321)
18" RCP INV. OUT = 213.89 (4775)

#23337
TOP = 225.37
C/L INV. = 219.77

#23338
TOP = 227.51
C/L INV. = 220.44
PIPE SIZES PER GIS

#23339
TOP = 226.39
C/L INV. = 220.35
PIPE SIZE PER GIS

#23344
COULD NOT FIND
APPROX. LOCATION
PIPE SIZES PER GIS

#23345
TOP = 227.82
12" CMP INV. IN = 223.72 (23348)
12" CMP INV. OUT = 223.72 (23344)

#23348
TOP = 228.67
12" CMP INV. OUT = 226.10 (23345)

#23349
TOP = 228.37
12" CMP INV. OUT = 224.38 (23344)

#23353
COULD NOT FIND
APPROX. LOCATION
PIPE SIZES PER GIS

#23371
TOP = 206.60
15" RCP INV. OUT = 200.50 (5068)

#23372
TOP = 206.68
18" RCP INV. IN = 201.18 (5122)
18" RCP INV. OUT = 201.08 (5068)

#23376
TOP = 222.17
12" RCP INV. IN = 218.00 (23377)
24" RCP INV. IN = 216.02 (5191)
24" RCP INV. OUT = 215.88 (5110)

#23377
TOP = 224.08
12" RCP INV. OUT = 219.06 (23376)

#25452
TOP = 229.30
24" RCP INV. IN = 223.10 (5043)
24" RCP INV. OUT = 223.10 (4945)

#25518
TOP = 225.51
15" RCP INV. IN = 221.21 (5184)
15" RCP INV. = 221.21 (5191)

#25522
TOP = 214.95
15" RCP INV. = 212.10 (4836)

#SD-788
TOP = 220.66
18" RCP INV. OUT = 218.56 (5110)

#49676
TOP = 222.91
15" RCP INV. OUT = 218.06 (4960)

SANITARY SEWER INVERTS

#3501
TOP = 230.65
C/L INV. = 221.13

#3502
TOP = 234.39
C/L INV. = 227.16

#3504
TOP = 220.39
C/L INV. = 213.86

#3505
TOP = 225.47
C/L INV. = 218.12

#3511
TOP = 216.07
C/L INV. = 202.02

#3571
TOP = 216.14
C/L INV. = 205.22

#3572
TOP = 216.18
C/L INV. = 205.88
DROP PIPE INV. =
206.48 (8477)

#3573
TOP = 217.83
C/L INV. = 208.23
DROP PIPE INV. =
210.03 (3574)

#3574
TOP = 234.36
C/L INV. = 224.51

#3576
TOP = 223.09
C/L INV. = 213.09

#3577
TOP = 230.18
C/L INV. = 224.59

#3580
TOP = 220.58
C/L INV. =
INACCESSIBLE

#3660
TOP = 228.90
C/L INV. = 221.60

#6545
TOP=220.32
C/L INV. = 214.62

#8477
TOP = 213.25
C/L INV. = 208.33

#11502
TOP = 223.36
C/L INV. = 213.46

#11503
TOP = 228.60
C/L INV. = 218.30

#12829
TOP = 206.29
C/L INV. = 196.74

#13895
TOP = 220.94
C/L INV. = 215.41

#14173
TOP = 212.01
C/L INV. = 187.97

#14311
TOP = 224.45
C/L INV. = 210.96

#14312
TOP = 229.35
C/L INV. = 216.97

#14667
TOP = 218.74
C/L INV. = 206.50

#14668
TOP = 216.99
C/L INV. = 209.80

#14669
TOP = 220.37
C/L INV. = 207.57
DROP PIPE INV. =
215.37 (3660)

#15155
TOP = 217.16
C/L INV. =
INACCESSIBLE

#15156
TOP = 218.56
C/L INV. = 209.27

#15157
TOP = 221.65
C/L INV. = 216.37

#41218
TOP = 231.30
C/L INV. = 221.50

#41220
TOP = 228.85
C/L INV. = 220.90

#41221
TOP=225.73
C/L INV. =
INACCESSIBLE

#41333
TOP = 210.84
C/L INV. = 204.98

#41334
TOP = 203.95
C/L INV. = 197.14

CONTROL DATA:

TRAVERSE 30, 32, 34 - 38 WERE TAKEN FROM DEWBERRY CONTROL FILE:
Q:\Data\Contractor Files\Dewberry-Kirkwood&LeeHwy Dominion Undergrounding\overall-topo.dwg
ALL COORDINATES ARE ON DEWBERRY PROJECT COORDINATES.

Project Coordinates				
POINT #	NORTHING	EASTING	ELEVATION	DESC.
30	7012453.7365	11882459.6539	178.67	P.K. NAIL
32	7011925.5091	11882995.6622	207.06	P.K. NAIL
34	7011916.5203	11883604.1854	235.27	P.K. NAIL
35	7011951.2877	11883828.2334	230.33	P.K. NAIL
36	7012065.6995	11884278.1177	217.12	P.K. NAIL
37	7012163.5602	11884554.2939	221.77	P.K. NAIL
38	7012250.5913	11884806.0507	228.54	P.K. NAIL
333	7012007.9935	11883267.7043	221.52	P.K. NAIL
501	7011664.6035	11882955.9583	214.17	DRILL HOLE
502	7011784.5501	11883358.3698	227.13	DRILL HOLE
503	7011940.7582	11884006.2837	223.57	DRILL HOLE
504	7011671.5889	11883897.5558	240.45	DRILL HOLE
505	7011839.7381	11884315.1901	217.75	DRILL HOLE
506	7012548.7578	11884756.5870	239.63	DRILL HOLE
507	7011927.8584	11883077.5947	211.90	DRILL HOLE
508	7011997.5565	11883211.0004	215.74	DRILL HOLE
509	7011992.9169	11883412.1465	227.55	DRILL HOLE
510	7011902.5066	11883505.0538	233.61	DRILL HOLE
511	7011962.5329	11883559.7970	233.52	DRILL HOLE
512	7011979.1806	11883965.5939	223.45	DRILL HOLE
513	7012040.7270	11884012.1776	220.22	DRILL HOLE
514	7012101.9193	11884009.7604	218.24	DRILL HOLE
515	7012054.4501	11883793.9626	228.72	DRILL HOLE
516	7012138.0318	11884156.4637	214.72	DRILL HOLE
517	7012037.6038	11884185.2914	217.37	DRILL HOLE
518	7012129.2600	11884273.5300	216.67	DRILL HOLE
519	7012208.2825	11884367.8519	217.42	DRILL HOLE
520	7012128.1398	11884439.4415	219.16	DRILL HOLE
521	7012274.0786	11884554.2501	222.67	DRILL HOLE
522	7012193.4271	11884656.2479	224.75	DRILL HOLE
523	7012334.3271	11884749.5630	228.10	DRILL HOLE
524	7012321.5681	11884664.4383	226.20	DRILL HOLE
525	7012367.1591	11884841.3821	229.12	DRILL HOLE
551	7011881.3833	11883611.4071	240.05	DRILL HOLE
610	7012038.8791	11883568.5374	232.88	DRILL HOLE

NOTE:

1. UNDERGROUND UTILITIES WERE DESIGNATED BY MID-ATLANTIC UTILITY LOCATING, L.L.C. ON JUNE 6, 2017 AND LOCATED BY ARLINGTON COUNTY SURVEYORS BETWEEN JUNE 12, 2017 & JUNE 14, 2017.
2. DIAMETER OF WATER LINES & SANITARY SEWER PIPES ARE SHOWN FROM ARLINGTON COUNTY RECORDS.

PROJECT NAME AND LOCATION

LEE HIGHWAY &
NORTH ADAMS STREET

EXISTING CONDITIONS
LEE HIGHWAY & N ADAMS STREET
INTERSECTION SIGNAL IMPROVEMENT
TR07

SHEET C5 OF C23

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES
Engineering Bureau - Survey Section
2100 Clarendon Boulevard, Suite 813
Arlington, VA 22201

I HEREBY CERTIFY THAT:
THIS TOPOGRAPHIC SURVEY WAS COMPLETED UNDER THE DIRECT AND RESPONSIBLE CHARGE OF ROBERT L. FRANCA, L.S. FROM A COMBINATION OF ARLINGTON COUNTY G.I.S. INFORMATION AND AN ACTUAL GROUND SURVEY MADE UNDER MY SUPERVISION; THAT THE IMAGERY AND/OR ORIGINAL DATA WAS OBTAINED FROM 06/2017 TO 10/2017; AND THAT THIS PLAT, MAP OR DIGITAL GEOSPATIAL DATA INCLUDING METADATA MEETS MINIMUM ACCURACY STANDARDS UNLESS OTHERWISE NOTED.

COMMONWEALTH OF VIRGINIA
ROBERT L. FRANCA
Lic. No. 1726
11-6-17
LAND SURVEYOR

HORIZONTAL DATUM: VIRGINIA COORDINATE SYSTEM 1983 - NORTH ZONE.

VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM 1988.

BOUNDARY INFORMATION SHOWN HEREON WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A FIELD RUN BOUNDARY SURVEY.

PARTY CHIEF: PATEL/OWENS
SURVEY PM: GOTTSELIG

PROJECT:
6697/TR07

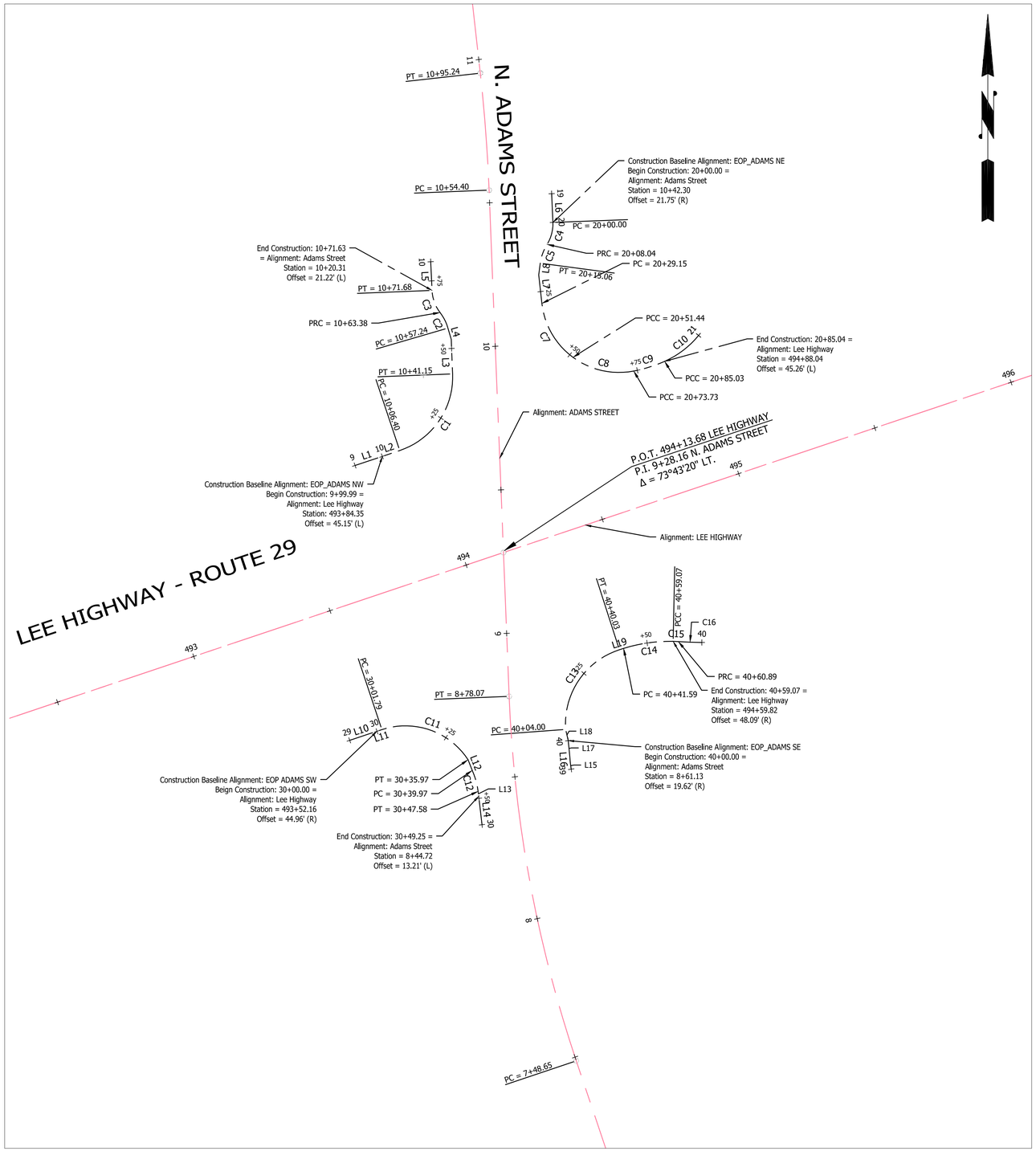
TOPOGRAPHIC SURVEY

LEE HIGHWAY
FROM N. DANIEL STREET TO N. WAYNE STREET

ARLINGTON COUNTY, VIRGINIA

SHEET 3 OF 3

Q:\Data\TR07\6697 - Lee Highway-N Danville Street\Survey\Drawings\6697 Base.dwg, 11/06/2017 3:45:27 PM, rfranca



Alignment Name: EOP_ADAMS NW										
Number	Length	Radius	Line/Chord Direction	Chord Length	Delta (Δ)	Tangent	STA (Star)	STA (End)	Nothing, Easting (Start)	Northing, Easting (End)
C1	34.743	27.000	N34° 35' 36.84"E	32.40'	73° 43' 39"	20.25	10+06.40	10+41.15	7012243.3950, 11884486.6017	7012270.0629, 11884504.9942
C2	6.139	16.500	N26° 51' 35.36"W	6.10'	21° 19' 00"	3.11	10+57.24	10+63.38	7012285.9836, 11884503.3770	7012291.4285, 11884500.6194
C3	8.305	13.500	N19° 53' 38.05"W	8.17'	35° 14' 49"	4.29	10+63.38	10+71.68	7012291.4285, 11884500.6194	7012299.1152, 11884497.8378
L1	10.000		N71° 33' 10.53"E				9+90.00	10+00.00	7012238.1819, 11884471.0478	7012241.3462, 11884480.5340
L2	6.404		N71° 20' 32.88"E				10+00.00	10+06.40	7012241.3462, 11884480.5340	7012243.3950, 11884486.6017
L3	12.000		N2° 16' 12.66"W				10+41.15	10+53.15	7012270.0629, 11884504.9942	7012282.0535, 11884504.5189
L4	4.093		N16° 12' 05.58"W				10+53.15	10+57.24	7012282.0535, 11884504.5189	7012285.9836, 11884503.3770
L5	10.000		N2° 42' 31.13"W				10+71.68	10+81.68	7012299.1152, 11884497.8378	7012309.1040, 11884497.3652

Alignment Name: EOP_ADAMS NE										
Number	Length	Radius	Line/Chord Direction	Chord Length	Delta (Δ)	Tangent	STA (Star)	STA (End)	Nothing, Easting (Start)	Northing, Easting (End)
C4	8.035	13.500	S14° 55' 52.78"W	7.92'	34° 06' 13"	4.14	20+00.00	20+08.04	7012322.7875, 11884539.9042	7012315.1375, 11884537.8642
C5	7.021	16.500	S19° 47' 37.53"W	6.97'	24° 22' 42"	3.56	20+08.04	20+15.06	7012315.1375, 11884537.8642	7012308.5814, 11884535.5047
C7	22.292	27.000	S29° 58' 41.96"E	21.66'	47° 18' 16"	11.83	20+29.15	20+51.44	7012294.5857, 11884536.0650	7012275.8201, 11884546.8898
C8	22.292	27.000	S77° 16' 57.78"E	21.66'	47° 18' 16"	11.83	20+51.44	20+73.73	7012275.8201, 11884546.8898	7012271.0510, 11884568.0223
C9	11.301	50.000	N72° 35' 24.88"E	11.28'	12° 56' 58"	5.67	20+73.73	20+85.03	7012271.0510, 11884568.0223	7012274.4249, 11884578.7822
C10	15.000	32.260	N52° 38' 48.87"E	14.87'	26° 38' 28"	7.64	20+85.03	21+00.03	7012274.4249, 11884578.7822	7012283.4441, 11884590.5987
L6	10.000		S2° 30' 11.56"E				19+90.00	20+00.00	7012332.7779, 11884539.4674	7012322.7875, 11884539.9042
L7	10.000		S6° 19' 33.99"E				20+19.15	20+29.15	7012304.5247, 11884534.9631	7012294.5857, 11884536.0650
L8	4.093		S7° 36' 16.00"W				20+15.06	20+19.15	7012308.5814, 11884535.5047	7012304.5247, 11884534.9631

Alignment Name: EOP ADAMS SW										
Number	Length	Radius	Line/Chord Direction	Chord Length	Delta (Δ)	Tangent	STA (Star)	STA (End)	Nothing, Easting (Start)	Northing, Easting (End)
C11	34.175	26.011	S70° 45' 04.82"E	31.77'	75° 16' 42"	20.06	30+01.79	30+35.97	7012146.2447, 11884480.3737	7012135.7712, 11884510.3673
C12	7.617	25.500	S15° 41' 43.67"E	7.59'	17° 06' 50"	3.84	30+39.97	30+47.58	7012132.0481, 11884511.8296	7012124.7426, 11884513.8825
L10	10.000		N71° 36' 03.68"E				29+90.00	30+00.00	7012142.5230, 11884469.1851	7012145.6793, 11884478.6739
L11	1.791		N71° 36' 03.68"E				30+00.00	30+01.79	7012145.6793, 11884478.6739	7012146.2447, 11884480.3737
L12	4.000		S21° 26' 33.78"E				30+35.97	30+39.97	7012135.7712, 11884510.3673	7012132.0481, 11884511.8296
L13	1.669		S7° 08' 18.49"E				30+47.58	30+49.25	7012124.7426, 11884513.8825	7012123.0861, 11884514.0899
L14	10.000		S6° 29' 57.27"E				30+49.25	30+59.25	7012123.0861, 11884514.0899	7012113.1504, 11884515.2218

Alignment Name: EOP_ADAMS SE										
Number	Length	Radius	Line/Chord Direction	Chord Length	Delta (Δ)	Tangent	STA (Star)	STA (End)	Nothing, Easting (Start)	Northing, Easting (End)
C13	36.026	27.000	N33° 58' 19.80"E	33.41'	76° 27' 01"	21.27	40+04.00	40+40.03	7012146.3288, 11884544.3463	7012174.0383, 11884563.0170
C14	17.477	53.822	N81° 54' 31.11"E	17.40'	18° 36' 17"	8.82	40+41.59	40+59.07	7012174.5172, 11884564.5083	7012176.9662, 11884581.7349
C15	1.822	53.465	S87° 43' 03.43"E	1.82'	1° 57' 08"	0.91	40+59.07	40+60.89	7012176.9662, 11884581.7349	7012176.8937, 11884583.5551
C16	8.178	181.741	S87° 54' 29.49"E	8.18'	2° 34' 42"	4.09	40+60.89	40+69.07	7012176.8937, 11884583.5551	7012176.5952, 11884591.7273
L15	2.487		N7° 31' 05.08"W				39+90.00	39+92.49	7012132.4830, 11884546.2693	7012134.9483, 11884545.9439
L16	2.096		N4° 34' 55.31"W				39+92.49	39+94.58	7012134.9483, 11884545.9439	7012137.0372, 11884545.7765
L17	5.418		N5° 49' 21.11"W				39+94.58	40+00.00	7012137.0372, 11884545.7765	7012142.4270, 11884545.2269
L18	4.000		N12° 43' 02.69"W				40+00.00	40+04.00	7012142.4270, 11884545.2269	7012146.3288, 11884544.3463
L19	1.566		N72° 11' 50.39"E				40+40.03	40+41.59	7012174.0383, 11884563.0170	7012174.5172, 11884564.5083

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
TRANSPORTATION ENGINEERING &
OPERATION BUREAU
2100 CLARENDON BOULEVARD, SUITE 900
ARLINGTON, VA 22201
PHONE: 703.228.3344
FAX: 703.228.3719

SEAL

COMMONWEALTH OF VIRGINIA
BI FENG WU
Lic. No. 047585
10/07/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY &
NORTH ADAMS STREET

GEOMETRIC CONTROL PLAN
INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS GEOMETRIC AND CURB E
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: OCTOBER 7 2021
PLOTTED BY:BWU

SCALE 1" = 20'

20 0 20
1" = 20'

SHEET
C6 OF C23

Revised: 01/21/2016

PROJECT DESCRIPTION:

LEE HIGHWAY AND N ADAMS STREET INTERSECTION IMPROVEMENT PROJECT CONSISTS OF UPGRADING EXISTING SIGNAL SYSTEM, INSTALLING CURB RAMPS & SIDEWALK TO COMPLY WITH CURRENT ADA STANDARDS' REQUIREMENTS, RELOCATING OR CONVERTING STORM STRUCTURES AND RELATED PAVEMENT MARKING WORK. THE TOTAL DISTURBED AREA IS 3,284.49 SF (0.07 acre).

EXISTING SITE CONDITIONS:

THE TOPOGRAPHY OF THE PROJECT IS SOMEWHAT MODERATE SLOPES AND DRAINS TOWARDS THE SOUTH FROM N ADAMS STREET AND THEN WESTWARDS ALONG LEE HIGHWAY.

ADJACENT PROPERTIES:

RESIDENTIAL SINGLE-FAMILY ATTACHED UNITS ARE AT THE NORTHWEST AND SOUTHEAST CORNERS OF THE INTERSECTION. CONDOMINIUM IS AT THE SOUTHWEST CORNER OF THE INTERSECTION.

OFF-SITE AREAS:

ALL WORK IS DONE WITHIN THE COUNTY'S RIGHT-OF-WAY AND EASEMENT FOR PUBLIC STREET AND UTILITIES PURPOSES.

CRITICAL AREAS:

THERE ARE NO STEEP SLOPES OR CRITICAL AREAS LOCATED IN THE AREAS TO BE DISTURBED.

EROSION AND SEDIMENT CONTROL MEASURES:

THE EROSION AND SEDIMENT CONTROL MEASURES FOR THIS PROJECT AREA INCLUDES INLET PROTECTION AND SILT FENCE. INLET PROTECTION MAY BE REQUIRED OUTSIDE THE PROJECT LIMITS WHEN RUNOFF FROM ANY DISTURBED AREA FLOWS OFFSITE.

PERMENANT STABILIZATION:

ALL OF THE AREA DISTURBED WITH THIS PLAN WILL BE RETURNED TO A SIMILAR CONDITION TO EXISTING. ALL AREA NOT STABILIZED WITH PAVEMENT WILL BE STABILIZED WITH GRASS OR MULCH.

STORMWATER RUNOFF CONSIDERATIONS:

RUNOFF SHALL BE TREATED WITH SILT FENCE ND INLET PROTECTIONS PRIOR TO ENTERING EXISTING STORM SEWER SYSTEMS ALONG THE STREETS. THE PROPOSED IMPROVEMENT WILL NOT CHANGE EXISTING DRAINAGE PATTERN. AND THE IMPERVIOUS AREA WILL BE REDUCED AFTER THE DEVELOPMENT. THEREFORE THERE WILL BE NO ADVERSE IMPACT TO EXISTING STORM DRAIN SYSTEM NOR DOWNSTREAM PROPERTIES.

EROSION & SEDIMENT CONTROL PROGRAM:

1. EROSION CONTROL PLAN IS INTENDED TO PERIMETER CONTROL MEASURES WHICH INCLUDES INLET PROTECTION (IP), AND OTHER CONTROLS SPECIFIED ON THE PLANS.

2. NO DISTURBED AREA WILL REMAIN DENUDED FOR MORE THAN 7 CALENDAR DAYS UNLESS OTHERWISE AUTHORIZED BY ARLINGTON COUNTY.

3. 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 14 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.

4. 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.

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. ALL PRACTICES AND CONTROL DEVICES DESCRIBED HEREON, 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 EXTENT OF HEAVY EQUIPMENT WORK. CONTRACTOR SHALL STRIVE TO BRING AREAS TO GRADE (ROUGH OR FINISH) AND TO STABILIZE, BY TEMPORARY OR PERMANENT VEGETATION, THESE DISTURBED AREAS 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 LEFT ROUGHENED 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 SLOPE, AS NECESSARY, SHALL BE PROTECTED FROM CONCENTRATED FLOW BY BERMS ABOVE THE SLOPE AND DIRECTED AROUND THE DISTURBED AREA TO STABILIZED OUTLETS.

D. IN NEW PAVEMENT AREAS, PLACE THE AGGREGATE BASE STONE ON THE FINISH SUBGRADE AT THE EARLIEST POSSIBLE TIME.

POLLUTION PREVENTION PLAN (P2 PLAN) NOTES

ONLY THE FOLLOWING NON-STORMWATER DISCHARGES ARE AUTHORIZED BY ARLINGTON COUNTY'S MS4 PERMIT, UNLESS THE STATE WATER CONTROL BOARD, THE VIRGINIA SOIL AND WATER CONSERVATION BOARD (BOARD), OR ARLINGTON COUNTY DETERMINES THE DISCHARGE TO BE A SIGNIFICANT SOURCE OF POLLUTANTS TO SURFAC WATERS:

WATER LINE FLUSHING; LANDSCAPE IRRIGATION; DIVERTED STREAM FLOWS; RISING GROUND WATERS; UNCONTAMINATED GROUND WATER INFILTRATION (AS DEFINED AT 40 CFR 35.2005(20)); UNCONTAMINATED PUMPED GROUND WATER; DISCHARGES FROM POTABLE WATER SOURCES; FOUNDATION DRAINS; AIR CONDITIONING CONDENSATION; IRRIGATION WATER; SPRINGS; WATER FROM CRAWL SPACE PUMPS; FOOTING DRAINS; LAWN WATERING; INDIVIDUAL RESIDENTIAL CAR WASHING; FLOWS FROM RIPARIAN HABITATS AND WETLANDS; DECHLORINATED SWIMMING POOL DISCHARGES; DISCHARGES OR FLOWS FROM FIRE FIGHTING; AND, OTHER ACTIVITIES GENERATING DISCHARGES IDENTIFIED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AS NOT REQUIRING VPDES AUTHORIZATION.

APPROPRIATE CONTROLS MUST BE IMPLEMENTED TO PREVENT ANY NON-STORMWATER DISCHARGES NOT INCLUDED ON THE ABOVE LIST (E.G., CONCRETE WASH WATER, PAINT WASH WATER, VEHICLE WASH WATER, DETERGENT WASH WATER, ETC.) FROM BEING DISCHARGED INTO ARLINGTON COUNTY'S MS4 SYSTEM, WHICH INCLUDES THE CURB AND GUTTER SYSTEM, AS WELL AS CATCH BASINS AND OTHER STORM DRAIN INLETS, OR STREAM NETWORK.

PER CHAPTER 26 OF THE ARLINGTON COUNTY CODE, IT SHALL BE UNLAWFUL FOR ANY PERSON TO DISCHARGE DIRECTLY OR INDIRECTLY INTO THE STORM SEWER SYSTEM OR STATE WATERS, ANY SUBSTANCE LIKELY, IN THE OPINION OF THE COUNTY MANAGER, TO HAVE AN ADVERSE EFFECT ON THE STORM SEWER SYSTEM OR STATE WATERS.

MAINTENANCE PROGRAM:

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

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

GENERAL 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 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 STREET ARE TO BE MULCHED AND SEEDED WITHIN 5 DAYS AFTER BACKFILL. NO MORE THAN 500 FEET ARE TO BE OPEN AT ANY ONE TIME
4. ELECTRIC POWER, TELEPHONE AND GAS SUPPLY TRENCHED ARE TO BE COMPACTED, SEEDED AND MULCH WITHIN 5 DAYS OF BACKFILL.
5. ALL TEMPORARY BERMS, DIVERSION 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 STOCKPILE
6. DURING CONSTRUCTION, ALL STORM INLETS WILL BE PROTECTED BY INLET PROTECTION DEVICES, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.
7. ANT DISTURBED AREA NOT COVERED NY NOTE # 1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON BY NOVEMBER 1ST, OR DISTURBED AFTER THAT DATE, SHALL BE MULCHED WITH HAY OR STRAW AT THE RATE OF 2 TONS PER ACRE AND OVER-SEEDED NO LATER THAN MAY 15TH.
8. AT THE COMPLETION OF THE CONSTRUCTION PROJECT AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROLS SHALL BE REMOVED AND ALL DENUDED AREAS SHALL BE STABILIZED. ARLINGTON COUNTY INSPECTOR TO APPROVE REMOVAL OF ALL TEMPORARY SILTATION MEASURES.

TABLE 6 - 1
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 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 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.

TEMPORARY SEEDING:

SEE SHEET III-288 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) FOR ALLOWABLE PLANTING MATERIAL, SEEDING RATES, AND DATES. THE REQUIREMENTS OF THE "SOUTH" PLANTING REQUIREMENTS 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.

PERMANENT SEEDING:

THE SUBJECT SITE IS LOCATED IN THE COASTAL PLAIN AREA OF VIRGINIA, THEREFORE, SHEET III-304 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK SHALL BE FOLLOWED FOR FINAL SEEDING MATERIAL, SEEDING RATES, AND DATES OF APPLICATION.

SODDING:

SODDED AREAS SHALL BE BROUGHT TO FINAL GRADE IN ACCORDANCE WITH THE APPROVED PLANS. SOIL TEST SHOULD 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 AND ENSURE GENETIC PURITY AND HIGH QUALITY. SOD SHALL NOT BE LAID IN EXCESSIVELY WET OR DRY WEATHER AND BE DELIVERED AND INSTALLED WITHIN 36 HOURS. SOD SHOULD NOT BE LAID ON FROZEN SOIL SURFACE AND SHALL BE INSTALLED PER PAGE III-339 OF VESCH.

DUST CONTROL:

DUST SHALL BE CONTROLLED USING A VARIETY OF METHODS TO INCLUDE VEGETATIVE COVER, MULCH, TILLAGE, IRRIGATION, SPRAY-ON ADHESIVES, STONE, BARRIERS, AND CALCIUM CHLORIDE. THE IMPLEMENTATION OF THE DUST CONTROL METHODS SHALL BE INSTALLED PER SECTION 3.39 OF VESCH.

UTILITY INSTALLATION:

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

1. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
2. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
3. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
4. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
5. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
6. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

EROSION & SEDIMENT CONTROL:

STEP 1:

1. INSTALL INLET PROTECTION AT ALL EXISTING STORM DRAIN INLETS THAT MAY BE IMPACTED BY RUNOFF FROM THE SITE. INSTALL SILT FENCE OUTSIDE OF THE EXISTING SIDEWALK IN THE GRASS AREA AS SHOWN ON THE EROSION AND SEDIMENT CONTROL DRAWING.

2. PROVIDE A FILTER BOX FOR ALL LOCATIONS WHERE EXCAVATION TRENCHES WILL REQUIRE EJECTION PUMPING FOR RUN OFF ACCUMULATION.

STEP 2:

1. FOLLOWING COMPLETION OF EROSION CONTROL INSTALLATION AS DESCRIBED IN STEP 1 OF THE SEDIMENT CONTROL PROGRAM, AND AFTER APPROVAL BY THE COUNTY INSPECTOR, CLEAR AND GRUB THE REMAINDER OF THE SITE.

2. IMMEDIATELY FOLLOWING CLEARING OF THE SITE SUPPORTING STRUCTURES SHALL BE INSTALLED. CAUTION CARE MUST BE TAKEN .

3. BEGIN GRADING SITE AS REQUIRED AND IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL PROGRAM.

4. DEMOLITION OF EXISTING PAVEMENT, NOT TO REMAIN, AND ANY EXCESS SOIL MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH VDOT REGULATIONS.

5. INSTALL CURB AND GUTTER, AND APPLY THE BASE STONE FOR THE STREETS WITHIN 5 DAYS AFTER REACHING FINAL SUBGRADE.

6. AFTER CONSTRUCTION OPERATIONS HAVE ENDED AND ALL DISTURBED AREAS HAVE BEEN STABILIZED, THE MECHANICAL SEDIMENT CONTROLS SHALL BE REMOVED AND THE GROUND SHALL BE PERMANENTLY STABILIZED WITH VEGETATION UPON THE APPROVAL OF THE COUNTY INSPECTOR.

PROJECT WATERSHED:

THE PROJECT IS LOCATED WITHIN THE SPOUT RUN (PL24).

Pre-Storm Erosion and Sediment Control Checklist

Per Erosion and Sediment Control General Note 6, the Contractor is responsible for the installation and maintenance of any additional erosion and sediment control (ESC) measures necessary to prevent erosion and sedimentation as determined by the County. These supplementary practices are in addition to those shown in an ESC plan. ESC practices shall be modified as needed to ensure only clear water is discharged from the site.

The following actions shall be taken prior to storm events with predicted heavy and/or large volume rainfall to prevent sediment discharges from a construction site. A typical summer thunderstorm is an example of a storm event with predicted heavy and/or large volume rainfall.

Perimeter controls

- ☐ Silt fence shall be checked for undermining, holes, or deterioration of the fabric. Fencing shall be replaced immediately if the fabric is damaged or worn. Silt fence must be trenched into the ground per state specifications (Std & Spec 3.09).
- ☐ Wooden stakes or steel posts shall be properly secured upright into the ground. Damaged posts or stakes must be replaced.
- ☐ Sediment that has accumulated against the silt fence should be removed. Accumulated sediment must be removed when the level reaches one-half the height of the fencing.
- ☐ Hay bales or a stone berm should be placed across the construction entrance to prevent sediment from leaving the construction site.

Exposed slopes and soil

- ☐ Exposed slopes not at the final stabilization phase shall be covered with tarps, plastic sheeting, or erosion control matting. Covering material shall be properly secured/anchored.
- ☐ 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.
- ☐ Exposed slopes at the final stabilization phase shall be stabilized using slope stabilization practices such as soil stabilization blankets or matting as specified in the Virginia Erosion and Sediment Control Handbook (VESCH) Std & Spec 3.36. Blankets or mats must be properly secured and anchored to the slope using staples, pins, or stakes.
- ☐ Seeded areas shall be checked and 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.

Stockpiles

- ☐ Stockpiled soil and other loose materials that can be washed away shall be covered with a tarp, plastic sheeting, or other stabilization matting. The cover must be properly secured / anchored down to prevent it from being blown off and exposing materials to rain. Controls such as hay bales or booms should be placed along the perimeter of the stock pile (downhill side).

Inlet protection

- ☐ Inlet protection controls shall be inspected to ensure they are functioning properly and flooding will not occur. Clogged or damaged controls must be replaced immediately. Ensure controls allow for overflow / bypass of stormwater runoff during significant storm events.

In addition to these pre-storm actions, all erosion and sediment control (ESC) measures must be checked daily and after each significant rainfall.

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

SEED

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

FERTILIZER & LIME

Apply 10-10-10 fertilizer at a rate of 450 lbs. / acre (or 10 lbs. / 1,000 sq. ft.)
Apply Pulverized Agricultural Limestone at a rate of 2 tons/acre (or 90 lbs. / 1,000 sq. ft.)

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

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

SEED1

LAND USE	SPECIES	APPLICATION PER ACRE
Minimum Care Lawn (Commercial or Residential)	Tall Fescue1 Perennial Ryegrass Kentucky Bluegrass1	95-100% 0-5% 0-5% TOTAL: 175-200 lbs.
High-Maintenance Lawn	Tall Fescue1	TOTAL: 200-250 lbs.
General Slope (3:1 or less)	Tall Fescue1 Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop2	128 lbs. 2 lbs. 20 lbs. TOTAL: 150 lbs.
Low-Maintenance Slope (Steeper than 3:1)	Tall Fescue1 Red Top Grass or Creeping Red Fescue Seasonal Nurse Crop2 Crownvetch3	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

NET CHANGE IN IMPERVIOUS:

	IMPERVIOUS	PERVIOUS
EXISTING	3,050.45 SF	234.04 SF
PROPOSED	2,950.87 SF	333.62 SF
NET	(-) 99.58 SF	(+) 99.58 SF

(+) INDICATES INCREASE IN AREA

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
TRANSPORTATION ENGINEERING & OPERATION BUREAU
2100 CLARENDON BOULEVARD, SUITE 900
ARLINGTON, VA 22201
PHONE: 703.228.3344
FAX: 703.228.3719

SEAL

COMMONWEALTH OF VIRGINIA
BI FENG WU
Lic. No. 047585
10/07/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

EROSION AND SEDIMENT CONTROL NOTES

INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS E&S PLANS.DWG
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: OCTOBER 7 2021
PLOTTED BY:BWU

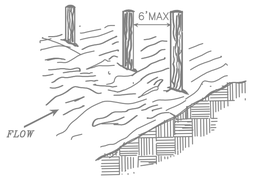
SCALE
NOT TO SCALE

SHEET
C7 OF C23

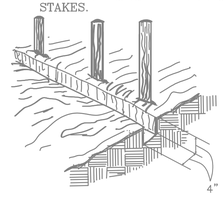
Revised: 01/21/2016

CONSTRUCTION OF A SILT FENCE (WITHOUT WIRE SUPPORT)

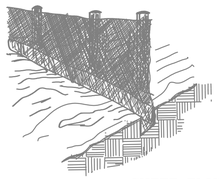
1. SET THE STAKES.



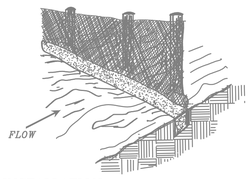
2. EXCAVATE A 4"X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.



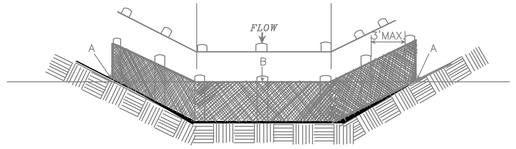
3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.



4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



SHEET FLOW INSTALLATION
(PERSPECTIVE VIEW)

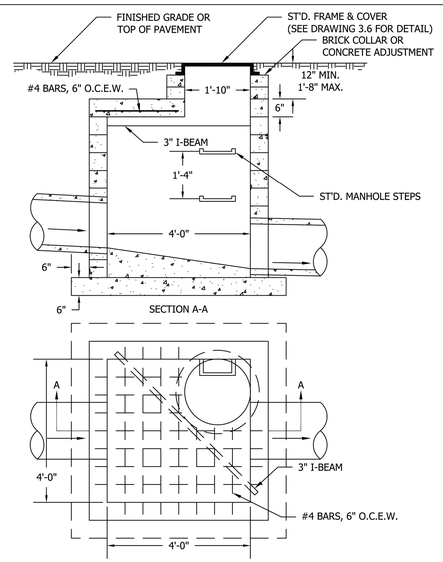


POINTS A SHOULD BE HIGHER THAN POINT B.

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



NOTES:

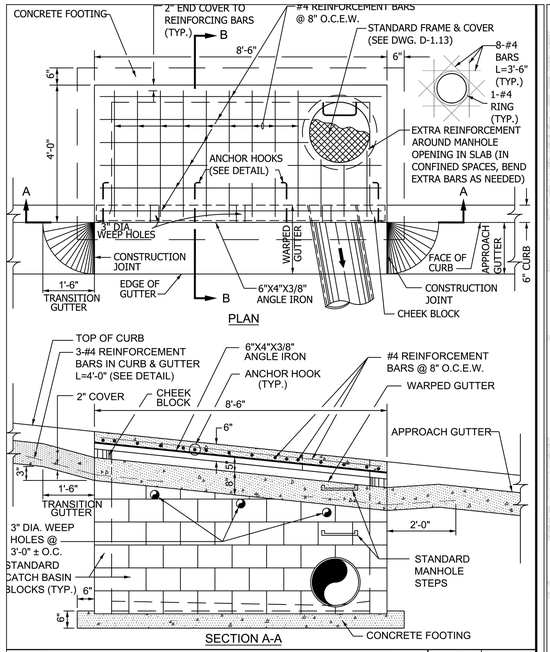
1. EXPOSED MANHOLE FRAME, LID, GRATES AND BEAMS TO BE FIELD PAINTED WITH BLACK ASPHALTIC PAINT.
2. PROVIDE 1 1/2" OF COVER FOR ALL REINFORCING STEEL.
3. EACH MANHOLE INVERT SHALL BE INDIVIDUALLY SHAPED TO PROVIDE A SMOOTH FLOW LINE THROUGH MANHOLE. (SEE DRAWING D-2.1 AND NOTE 5 ON DRAWING D-1.1).
4. MANHOLES DEEPER THAN 4'-0" SHALL HAVE STEPS 1'-4" O.C. (SEE DRAWING M-2.0).
5. FOR DETAILS OF MANHOLE BLOCK, SEE DRAWING D-2.0.

STORM SEWER MANHOLE, MH-1
FOR PIPE SIZES 15" THROUGH 36"

ISSUED 9/14/2020

ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **D-3.0**

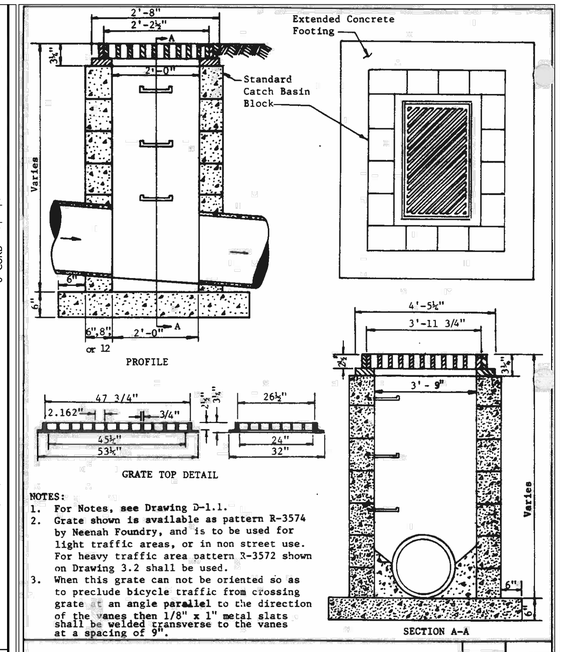


STANDARD CATCH BASIN, CB-2

ISSUED 9/14/2020

ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **D-1.2 (1 of 2)**



NOTES:

1. For Notes, see Drawing D-1.1.
2. Grate shown is available as pattern R-3574 by Neenah Foundry, and is to be used for light traffic areas, or in non street use. For heavy traffic area pattern R-3572 shown on Drawing 3.2 shall be used.
3. When this grate can not be oriented so as to preclude bicycle traffic from crossing grate at an angle parallel to the direction of the vanes then 1/8" x 1" metal slats shall be welded transverse to the vanes at a spacing of 9".

CATCH BASIN WITH GRATE TOP, CB-3

REVISION & DATE

DIRECTOR — DATE 11/9/04

ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF PUBLIC WORKS

DRAWING NO. **D-1.7**

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
TRANSPORTATION ENGINEERING & OPERATION BUREAU
2100 CLARENDON BOULEVARD, SUITE 900
ARLINGTON, VA 22201
PHONE: 703.228.3344
FAX: 703.228.3719

SEAL

COMMONWEALTH OF VIRGINIA
BI FENG WU
Lic. No. 047585
10/07/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

EROSION AND SEDIMENT CONTROL DETAILS

INTERSECTION SIGNAL IMPROVEMENT
TR07

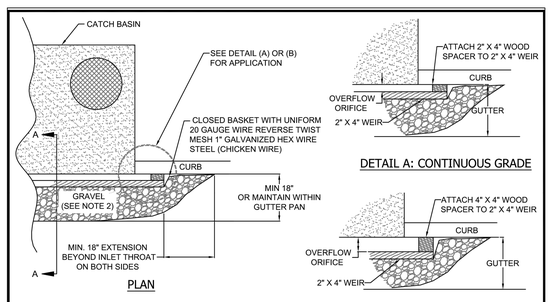
DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS E&S PLANS.DWG
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: OCTOBER 7 2021
PLOTTED BY:BWU

SCALE

NOT TO SCALE

SHEET C8 OF C23



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.

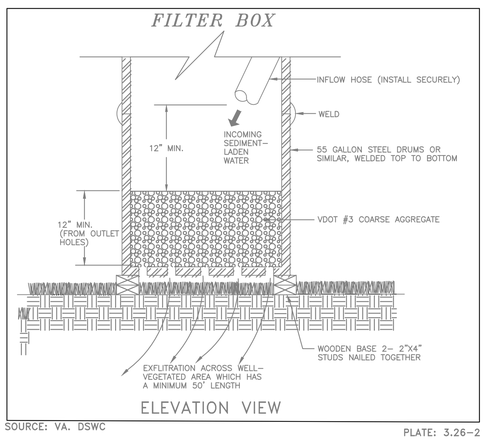
CURB INLET PROTECTION

REVISION & DATE

ARLINGTON
VIRGINIA

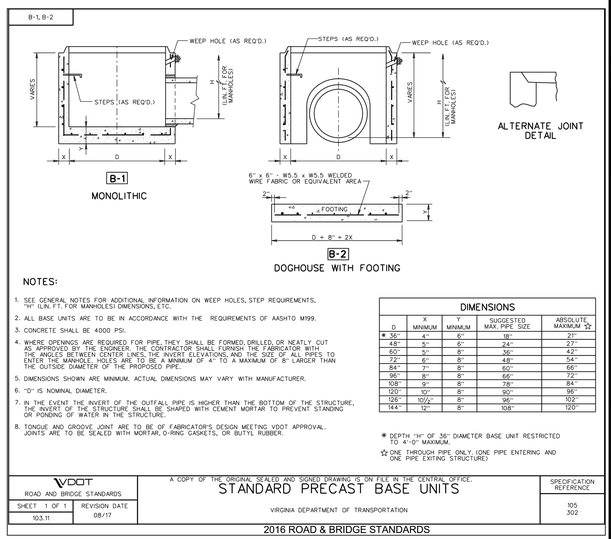
ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **3.07-7 (ACG)**



SOURCE: VA. DSWC

PLATE: 3.26-2



NOTES:

1. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION ON WEEP HOLES, STEP REQUIREMENTS, "H" (LIN. FT.) FOR MANHOLES) DIMENSIONS, ETC.
2. ALL BASE UNITS ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M199.
3. CONCRETE SHALL BE 4000 PSI.
4. WHERE OPENINGS ARE REQUIRED FOR PIPE, THEY SHALL BE FORMED, DRILLED, OR NEATLY CUT AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH THE FABRICATOR WITH THE ANGLES BETWEEN CENTER LINES, THE INVERT ELEVATIONS, AND THE SIZE OF ALL PIPES TO ENTER THE MANHOLE. HOLES ARE TO BE A MINIMUM OF 4" TO A MAXIMUM OF 8" LARGER THAN THE OUTSIDE DIAMETER OF THE PROPOSED PIPE.
5. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
6. "D" IS NOMINAL DIAMETER.
7. IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE.
8. TONGUE AND GROOVE JOINT ARE TO BE OF FABRICATOR'S DESIGN MEETING VDOT APPROVAL. JOINTS ARE TO BE SEALED WITH MORTAR, O-RING GASKETS, OR BUTYL RUBBER.

DIMENSIONS				
D	X MINIMUM	Y MINIMUM	SUGGESTED MAX. PIPE SIZE	ABSOLUTE MAXIMUM ☆
* 36"	4"	6"	18"	21"
48"	5"	6"	24"	27"
60"	5"	8"	36"	42"
72"	6"	8"	48"	54"
84"	7"	8"	60"	66"
96"	8"	8"	66"	72"
108"	9"	8"	78"	84"
120"	10"	8"	90"	96"
126"	10½"	8"	96"	102"
144"	12"	8"	108"	120"

* DEPTH "H" OF 36" DIAMETER BASE UNIT RESTRICTED TO 4'-0" MAXIMUM.
☆ ONE THROUGH PIPE ONLY, (ONE PIPE ENTERING AND ONE PIPE EXITING STRUCTURE)

VDOT
ROAD AND BRIDGE STANDARDS

SHEET 1 OF 1 | 103.11

REVISION DATE 08/17

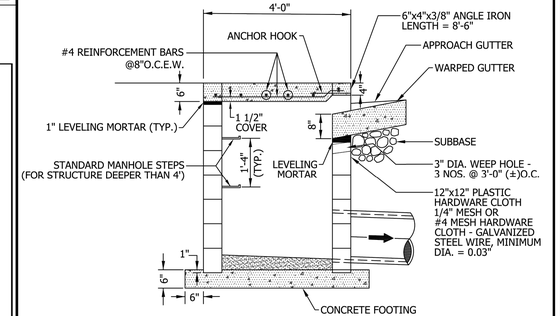
A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE.

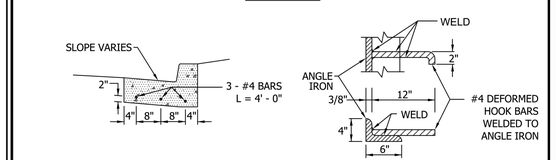
STANDARD PRECAST BASE UNITS

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE 105 302

2016 ROAD & BRIDGE STANDARDS





NOTES:

1. THE CROSS SLOPE ON THE TOP SLAB SHALL MATCH SLOPE ON THE ADJOINING EXISTING OR PROPOSED SIDEWALK.
2. ENSURE THE PROVISION OF AN EXPANSION JOINT THROUGH THE CURB & GUTTER AND SIDEWALK WITHIN 5'-0" MINIMUM TO 10'-0" MAXIMUM FROM THE OUTER FACE OF THE CATCH BASIN, ONE ON EACH SIDE (TOTAL 2 JOINTS).

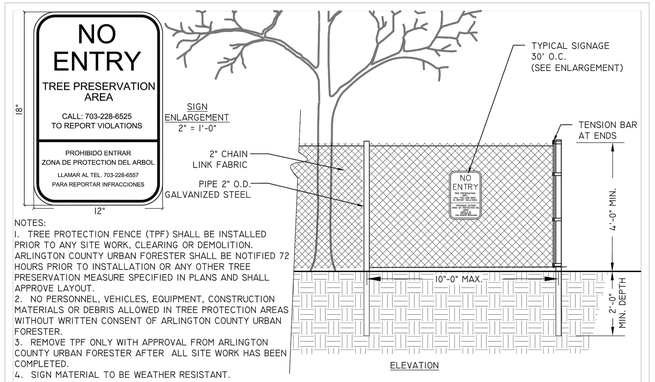
STANDARD CATCH BASIN, CB-2

ISSUED 9/14/2020

ARLINGTON COUNTY, VIRGINIA
DEPARTMENT OF ENVIRONMENTAL SERVICES

DRAWING NO. **D-1.2 (2 of 2)**

Revised: 01/21/2016



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.

4' CHAIN LINK TREE PROTECTION FENCE (RESIDENTIAL)

311300.2 (2016) (02231.2)

1/2" = 1'-0"

ARLINGTON VIRGINIA DPR

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.

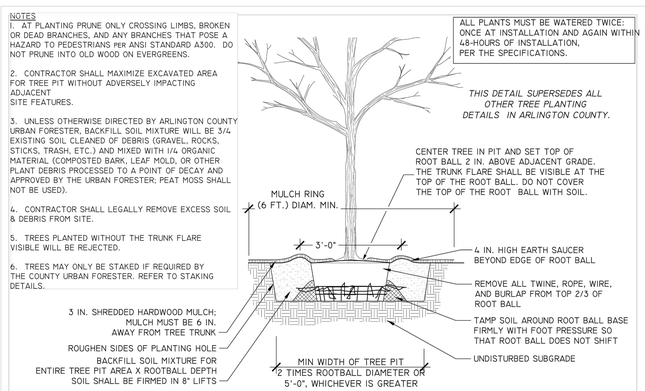
3. UNLESS OTHERWISE DIRECTED BY ARLINGTON COUNTY URBAN FORESTER, BACKFILL SOIL MIXTURE WILL BE 3/4 EXISTING SOIL CLEANED OF DEBRIS (GRAVEL, ROCKS, STICKS, TRASH, ETC.) AND MIXED WITH 1/4 ORGANIC MATERIAL (COMPOSTED BARK, LEAF MOLD, OR OTHER PLANT DEBRIS PROCESSED TO A POINT OF DECAY AND APPROVED BY THE 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.



TREE PLANTING DETAIL

FOR OPEN PLANTING AREAS FREE OF PAVING OR GRATES

329300.1 (2019)

NOT TO SCALE

ARLINGTON VIRGINIA DPR

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.

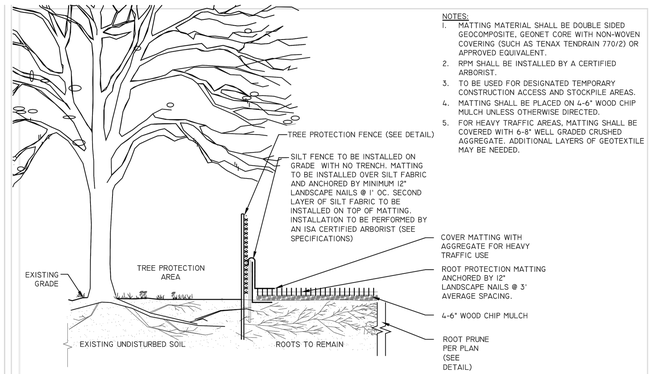
4. PLOT ACCURATE TRUNK LOCATIONS OF OFFSITE TREES WHICH WILL HAVE THEIR CRZ AFFECTED BY DEVELOPMENT AND DELINEATE THEIR ESTIMATED CRITICAL ROOT ZONE.

TREE PROTECTION DETAIL FOR DETERMINING CRITICAL ROOT ZONE

311300.3 (2019)

N.T.S.

ARLINGTON VIRGINIA DPR



NOTES:
1. MATTING MATERIAL SHALL BE DOUBLE SIDED GEOCOMPOSITE, GEONET CORE WITH NON-WOVEN COVERING (SUCH AS TENAX TENDRAIN 770/2) OR APPROVED EQUIVALENT.
2. RPM SHALL BE INSTALLED BY A CERTIFIED ARBORIST.
3. TO BE USED FOR DESIGNATED TEMPORARY CONSTRUCTION ACCESS AND STOCKPILE AREAS.
4. MATTING SHALL BE PLACED ON 4-6" WOOD CHIP MULCH UNLESS OTHERWISE DIRECTED.
5. FOR HEAVY TRAFFIC AREAS, MATTING SHALL BE COVERED WITH 6-8" WELL GRADED CRUSHED AGGREGATE. ADDITIONAL LAYERS OF GEOTEXTILE MAY BE NEEDED.

TEMPORARY ROOT PROTECTION MATTING WITHIN CRZ

311300.7NS

NOT TO SCALE

ARLINGTON VIRGINIA

DETAIL CAN BE MODIFIED WITH PERMISSION OF THE COUNTY URBAN FORESTOR

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
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SEAL

COMMONWEALTH OF VIRGINIA
ANUP KAFLE
Lic.No. 0402056432
7/9/2025
PROFESSIONAL ENGINEER

APPROVALS	DATE
DESIGN TEAM SUPERVISOR	
PROJECT MANAGER	
WATER, SEWER, STREETS BUREAU CHIEF	
TE&O BUREAU CHIEF	
TRANSPORTATION DIRECTOR	

REVISIONS		DATE
1	Update for LDA Requirements	8/11/2023

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

EROSION AND SEDIMENT CONTROL DETAILS

INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS E&S PLANS.DWG
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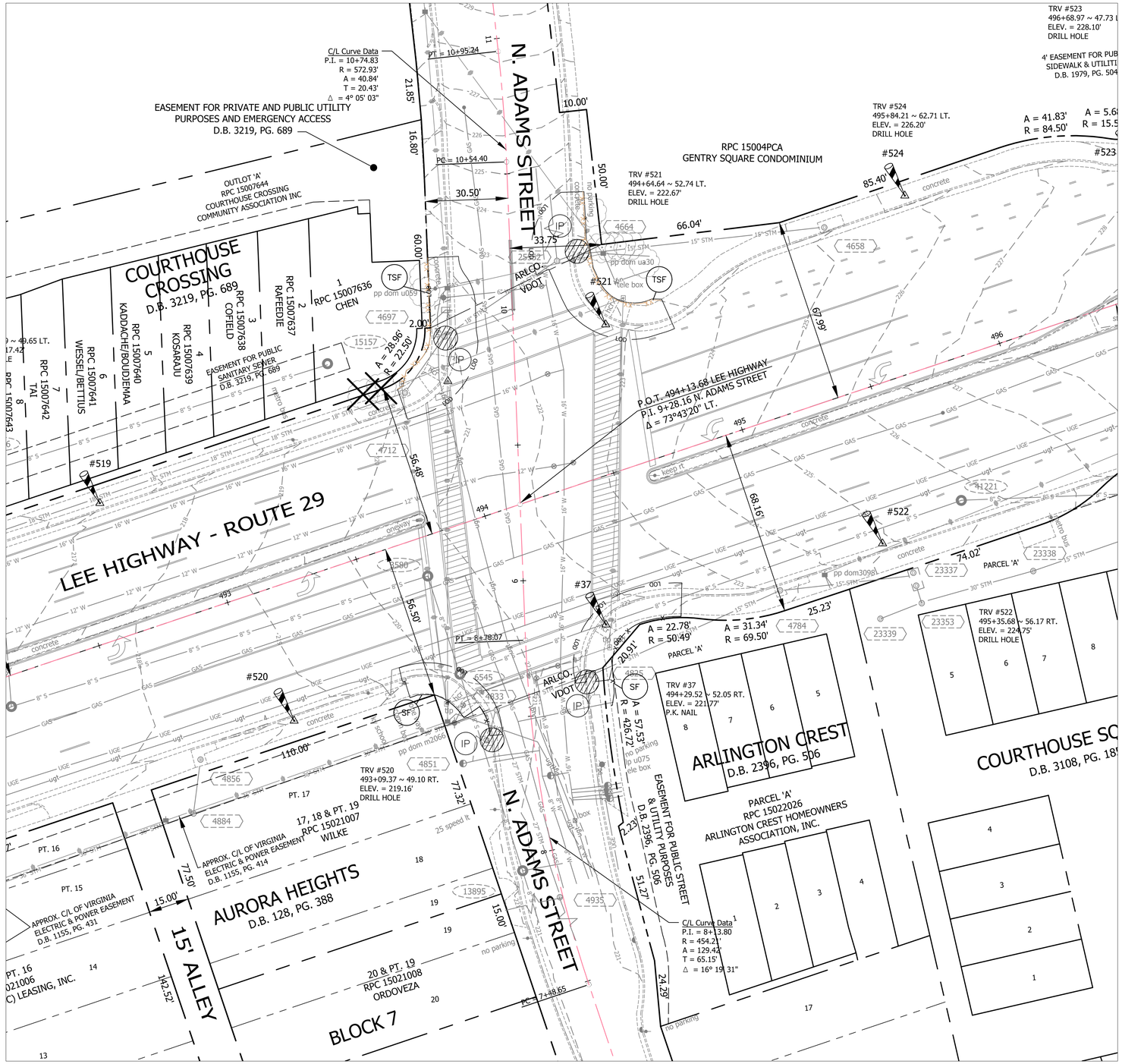
PLOTTED: JULY 5 2023
PLOTTED BY: JMCCARTHY

SCALE

NOT TO SCALE

SHEET C8A OF C23

Revised: 01/21/2016



EROSION & SEDIMENT CONTROL LEGEND
SEE SHEET C8 AND C8A FOR DETAILS

3.07	IP		INLET PROTECTION
3.05–1	SF	——x——x——	SILT FENCE
311300.7NS	TSF	——xx——xx——	TRENCHLESS SILT FENCE

THIS SHEET IS FOR EROSION AND SEDIMENT CONTROL PURPOSES ONLY!

Revised: 01/21/2016

LEE HIGHWAY & NORTH ADAMS STREET

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
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PROFESSIONAL ENGINEER

APPROVALS	DATE
DESIGN TEAM SUPERVISOR	
PROJECT MANAGER	
WATER, SEWER, STREETS BUREAU CHIEF	
TE&O BUREAU CHIEF	
TRANSPORTATION DIRECTOR	

REVISIONS	DATE
1 Update for LDA Requirements	8/11/2023

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

EROSION AND SEDIMENT CONTROL PLAN - PHASE I
INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

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PLOTTED: JULY 5 2023
PLOTTED BY: JMCCARTHY

SCALE 1" = 20'

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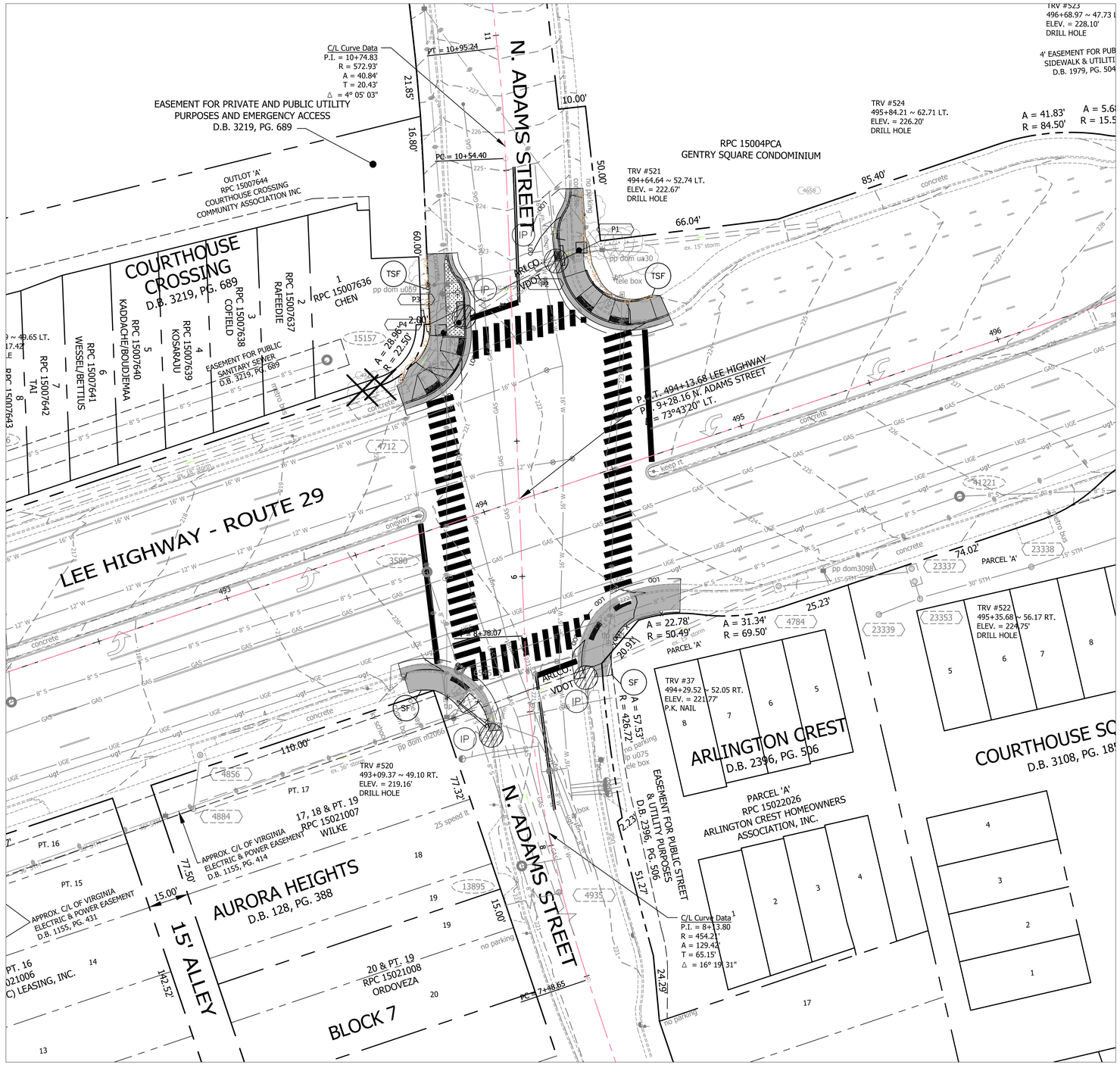
1" = 20'

SHEET
C9 OF C23



EROSION & SEDIMENT CONTROL LEGEND
SEE SHEET C8 AND C8A FOR DETAILS

3.07	IP		INLET PROTECTION
3.05	SF	—x—x—	SILT FENCE
311300.7NS	TSF	—XX—XX—	TRENCHLESS SILT FENCE 1

THIS SHEET IS FOR EROSION AND SEDIMENT CONTROL PURPOSES ONLY!

Revised: 01/21/2016

LEE HIGHWAY & NORTH ADAMS STREET

ARLINGTON
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APPROVALS	DATE
DESIGN TEAM SUPERVISOR	
PROJECT MANAGER	
WATER, SEWER, STREETS BUREAU CHIEF	
TE&O BUREAU CHIEF	
TRANSPORTATION DIRECTOR	

REVISIONS	DATE
1 Update for LDA Requirements	8/11/2023

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

EROSION AND SEDIMENT CONTROL PLAN - PHASE II
INTERSECTION SIGNAL IMPROVEMENT
TR07

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DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

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PLOTTED BY: JMCCARTHY

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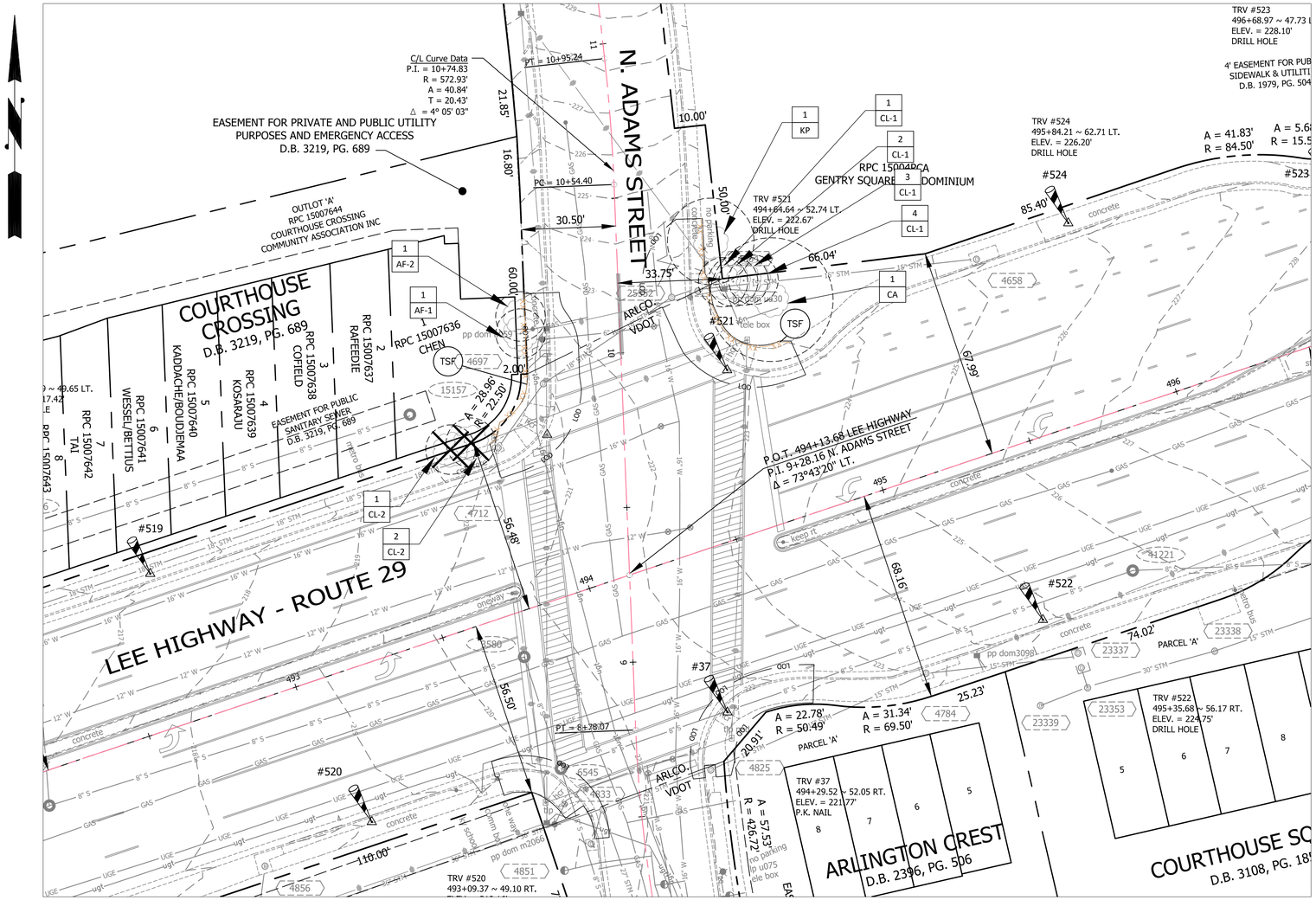
1" = 20'

SHEET
C10 OF C23



THIS SHEET IS FOR LANDSCAPING PURPOSES ONLY!

LEGEND

- EXISTING TREE. SEE PLANT TABLE
- EXISTING TREE TO BE REMOVED. SEE PLANT TABLE
- CRITICAL ROOT ZONE (CRZ)

LANDSCAPE NARRATIVE:

WHERE EXISTING PAVEMENT IS TO BE REMOVED WITHIN THE CRITICAL ROOT ZONE OF A TREE, LEAVE PAVEMENT IN PLACE AS LONG AS POSSIBLE DURING CONSTRUCTION. REMOVE PAVEMENT WITH THE ROLLBACK TECHNIQUE, KEEP EQUIPMENT ON PAVING, AND LIMIT OVERDIG. ONCE PAVEMENT HAS BEEN REMOVED, VEHICULAR TRAFFIC IS STRICTLY PROHIBITED UNTIL PAVING IS REPLACED. REPLACED PAVING SHOULD BE BRIDGED, TREE-FRIENDLY DETAIL WITH NO COMPACTION BEYOND 85%. COORDINATE WITH THE URBAN FORESTER WHEN PROCESS OR CONSTRUCTION DETAILS CAN'T FOLLOW THIS SPECIFICATION. THIS NOTE DOES NOT APPLY TO ROADWAYS UNLESS SPECIFICALLY CALLED OUT ON THE PLAN.

THE PROPOSED WORK IS EXPECTED TO REMOVE TWO (2) EXISTING TREES AND TWO (2) NEW THUJA PLICATA 'GREEN GIANT' TREES WILL BE PLANTED PER COUNTY TREE REPLACEMENT CALCULATION. THE PLANTING LOCATIONS FOR THE NEW TREES WILL BE PROPOSED IN THE SAME LOCATION OF THE EXISTING TREES TO BE REMOVED.

EXISTING TREE TABLE

ID	KEY	BOTANICAL NAME	COMMON NAME	DBH	CONDITION RATING	SPECIES RATING	REPLACEMENT VALUE	REPLACEMENT TREES	CRZ IMPACT	REMOVE	NOTES
1	KP	*Koelreuteria paniculata*	goldenraintree	14"	60	60	5.04		26		
1	CA	*Cedrus atlantica 'glauca'*	blue atlas cedar	20"	70	60	8.84		11		
1	AF-1	*Acer x freemanii*	freeman maple	6.5"	80	60	3.12		37		
1	AF-2	*Acer x freemanii*	freeman maple	7"	80	60	3.36		38		
1	CL-1	*Cuprocyparis leylandii*	leyland cypress	5"	70	55	1.93		15		
2	CL-1	*Cuprocyparis leylandii*	leyland cypress	5"	70	55	1.93		1		
3	CL-1	*Cuprocyparis leylandii*	leyland cypress	5"	70	55	1.93		0		
4	CL-1	*Cuprocyparis leylandii*	leyland cypress	5"	70	55	1.93		0		
1	CL-2	*Cuprocyparis leylandii*	leyland cypress	7"	70	55	2.70	1		X	IN AT LEAST A 4-FOOT BED ALONG SIDEWALK
2	CL-2	*Cuprocyparis leylandii*	leyland cypress	7"	70	55	2.70	1		X	IN AT LEAST A 4-FOOT BED ALONG SIDEWALK
							TOTAL REPLACEMENT TREES	**2**			

PROPOSED TREE TABLE

QUANT	BOTANICAL NAME	COMMON NAME	SIZE AT PLANTING	ROOT TYPE (CONTAINER)	NOTES
2	*Thuja plicata* 'Green Giant'	Green Giant arborvitae	8 FEET	B & B	SINGLE STEM, SINGLE LEADER, FULL TO GROUND, NO ENCIRCLING ROOTS

NOTES:
1. CONTRACTOR SHALL CONTACT ARLINGTON COUNTY'S ARBORIST BEFORE PROCEEDING WITH PROPOSED LANDSCAPING WORK.
2. CONTRACTOR SHALL REMOVE EXISTING STUMPS OF EXISTING TREES AND PLANT PROPOSED TREES IN THE SAME LOCATION

CALLOUT LEGEND

SEE SHEET C8 AND C8A FOR DETAILS

311300.7NS	TSF	——XX——XX——	TRENCHLESS SILT FENCE

Revised: 01/21/2016

ARLINGTON
VIRGINIA

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APPROVALS	DATE
DESIGN TEAM SUPERVISOR	
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TRANSPORTATION DIRECTOR	

REVISIONS	DATE
1 Update for LDA Requirements	8/11/2023

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

LANDSCAPE PLAN

INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS LANDSCAPE PLAN.DWG
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PLOTTED: JULY 5 2023
PLOTTED BY: JMCCARTHY

SCALE 1" = 20'

20 0 20
1" = 20'

SHEET C10A OF C23

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

○ 2011 BMP Standards and Specifications ◉ 2013 Draft BMP Standards and Specifications

Project Name: LEE HIGHWAY & N ADAMS STREET (VDOT ROW)
Date: 10/15/2020
Linear Development Project? Yes

CLEAR ALL (Ctrl+Shift+R)

data input cells
constant values
calculation cells
final results

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 0.0551

Maximum reduction required:	*20%*
The site's net increase in impervious cover (acres) is:	*0.0000*
Post-Development TP Load Reduction for Site (lb/yr):	*0.0218*

Check:
BMP Design Specifications List: 2013 Draft Stds & Specs
Linear project? Yes
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 forest/open space					0.0000
Managed Turf (acres) -- disturbed, graded for yards or other turf to be				0.0044	0.0044
Impervious Cover (acres)				0.0507	0.0507
					0.0551

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					0.0000
Managed Turf (acres) -- disturbed, graded for yards or other turf to be				0.0048	0.0048
Impervious Cover (acres)				0.0503	0.0503
Area Check	OK.	OK.	OK.	OK.	0.0551

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)	0.0044	0.0044
Weighted Rv(turf)	0.2500	0.2500
% Managed Turf	8%	8%
Impervious Cover (acres)	0.0507	0.0507
Rv(impervious)	0.9500	0.9500
% Impervious	92%	92%
Total Site Area (acres)	**0.0551**	**0.0551**
Site Rv	**0.8941**	**0.8941**

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)	0.0048
Weighted Rv (turf)	0.2500
% Managed Turf	9%
Impervious Cover (acres)	0.0503
Rv(impervious)	0.9500
% Impervious	91%
Final Site Area (acres)	**0.0551**
Final Post Dev Site Rv	**0.8890**

Land Cover Summary-Post	
Post-ReDevelopment	
Forest/Open Space Cover (acres)	0.0000
Weighted Rv(forest)	0.0000
% Forest	0%
Managed Turf Cover (acres)	0.0048
Weighted Rv (turf)	0.2500
% Managed Turf	9%
ReDev. Impervious Cover (acres)	0.0503
Rv(impervious)	0.9500
% Impervious	91%
Total ReDev. Site Area (acres)	**0.0551**
ReDev Site Rv	**0.8890**

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)	0.0041	0.0041
Pre-ReDevelopment Treatment Volume (cubic feet)	178.8320	178.8320
Pre-ReDevelopment TP Load (lb/yr)	**0.1124**	**0.1124**
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	2.0400	2.0400
Baseline TP Load (lb/yr) (0.41 lbs/acre/yr applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		*0.0226*

Treatment Volume and Nutrient Load

Final Post-Development Treatment Volume (acre-ft)	0.0041	
Final Post-Development Treatment Volume (cubic feet)	177.8156	
Final Post-Development TP Load (lb/yr)	**0.1117**	
Final Post-Development TP Load per acre (lb/acre/yr)	2.0300	

Post-ReDevelopment Treatment Volume (acre-ft)	0.0041	**Post-Development Treatment Volume (acre-ft)**	--
Post-ReDevelopment Treatment Volume (cubic feet)	177.8156	**Post-Development Treatment Volume (cubic feet)**	--
Post-ReDevelopment Load (TP) (lb/yr)*	**0.1117**	**Post-Development TP Load (lb/yr)**	**--**
Post-ReDevelopment TP Load per acre (lb/acre/yr)	2.0300		
Max. Reduction Required (Below Pre-ReDevelopment Load)	**20%**		
TP Load Reduction Required for Redeveloped Area (lb/yr)	**0.0218**	**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 requirement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	**0.0218**
Linear Project TP Load Reduction Required (lb/yr):	**0.0218**

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	0.8038	Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	0.7992

Revised: 01/21/2016

Site Information - Revised 9/19/2017

Project SWM #	LDA Permit #	Disturbed Area (acres)	% Pre-Impervious	% Post-Impervious	Pre-Development TP load (lb/yr)	Post-Development TP load (lb/yr)	TP load reduction achieved (lb/yr)	Pre-Development TN load (lb/yr)	Post-Development TN load (lb/yr)	TN load reduction achieved (lb/yr)	Total Site Area (acres)	Pre-Forest Area (acres)	Pre-Turf Area (acres)	Pre-Impervious Area (acres)	Post-Forest Area (acres)	Post-Turf Area (acres)	Post-Impervious Area (acres)	Pre-Runoff Volume	Post-Runoff Volume	Runoff Volume Reduction Achieved	Site Latitude (Decimal Degrees)	Site Longitude (Decimal Degrees)	Anticipated Start Date
		0.0551	92.0	91.3	0.11	0.11	--	0.80	0.80	0.00	0.0551	0.0000	0.0044	0.0507	0.0000	0.0048	0.0503	178.8320	177.8156	0.0000	38.895379	77.088865	10/15/2020

ARLINGTON VIRGINIA

Department of Environmental Services
CBPA Permit SWPPP Minimum Acceptance Criteria (MAC) Checklist

February 2018

Instructions: Complete this required Front Counter Minimum Acceptance Criteria (MAC) Checklist to ensure the intake of your plan upon submission at 1st submission. If applicable, also complete all attached MAC Checklists for requirements pertaining to the individual review of plan elements.

Project Name: LEE HIGHWAY & N ADAMS STREET

Address: INTERSECTION **Date: 10/15/2020**

General Items		yes	n/a	no	sheet
1	Completion of this Front Counter MAC Checklist and all applicable Plan Review MAC Checklists.	X			
2	Submit and sign the MAC Checklist with the civil engineering plan for first submittal only.	X			
3	Include a Cover Sheet with the following information	X			
a	Name of project	X			C1
b	Include the address, if known at the time of submission.	X			C1
c	Vicinity Map indicating the North arrow; label all streets	X			C1
d	Name, address, phone number and email of Contractor	X			C1
e	Name, address, phone number and email of Owner	X			C1
f	Name, address, phone number and email of Engineer	X			C1
g	Table of Contents/ Sheet Index	X			C1
h	Horizontal Datum: All plans shall be referenced to the Virginia Coordinate System of 1983 (VCS 83). The following note should be present on the cover sheet: "The site shown hereon is referenced to the Virginia Coordinate System of 1983 as computed from a field run boundary and horizontal control survey."	X			C4
i	Vertical Datum: All plans shall be referenced to the North American Vertical Datum of 1988 (NAVD 88). The following note should be present on the cover sheet: "The site shown hereon is referenced to the North American Vertical Datum of 1988 as computed from a field run vertical control survey."	X			C4
j	Site plan/use permit number and/or which FBC if the project is pursuant to a 4.1 site plan, or a use permit, or a Form Based Code project.		X		
4	Include an Existing Conditions Plan Sheet, Demolition Plan Sheet and Site Plan Sheet	X			
5	Include the following within the Plan, on applicable Plan Sheets				
a	Graphic Scale on ALL plan sheets	X			
b	North Arrow on ALL plan sheets	X			
c	Current Field Survey Topography (certified)	X			C4
d	Site Areas (Post Dedication and Post Vacation)		X		
e	Total site area of property in sq ft and acres	X			C7
f	Existing and Proposed Easements on an exhibit	X			C4
g	Real Property Identification Map Number, RPC Numbers	X			C4
h	Legends	X			C2
6	Engineer's Seal/ Signature - Signed and dated on all sheets	X			

Erosion and Sediment Control Plan		yes	n/a	no	sheet
1	Include the Following on Erosion and Sediment Control Plan Sheets				
a	E&S Control Plan and Site Plans	X			11&12
b	E&S Control Narrative	X			C7
c	E&S Control practices detail drawing (dewatering device, etc..)	X			C8
d	E&S Control Plan Legend	X			11&12
e	Virginia Erosion and Sediment Control Handbook (VESCH) specification numbers	X			C7
f	Blank Responsible Land Disturber Letter	X			C11
2	General E&S Control Notes, General Land Conservation Notes, and Pre-Storm Erosion and Sediment Control Checklist.	X			C7
3	Landscape Conservation Plan with the following clearly indicated		X		
a	Determination of the critical root zone				
b	Tree protection fencing				
c	Signage				
d	Critical Root zone mitigation, such as root pruning, padding, or other root protection methods				
e	Note requiring county arborist inspection before any land disturbance activity				
f	Tree inventory of all trees larger than 3 inches DBH, either on site or with a critical root zone encroaching the limit of disturbance. This list will contain information on species, size, health, whether the tree is to be protected or not, and other issues, such as location in the RPA, disease concerns, or invasive species presence				
g	Tree canopy coverage calculation				
h	RPA delineation, if applicable				
i	For 4.1 site plans and use permits, a copy of all relevant approved conditions, including, but not limited to, the landscape plan and tree preservation plan				
j	For 4.1 site plans and use permits, a copy of the tree preservation plan and the calculation of the tree replacement value of removed trees approved by the County Board, if these were part of the approval				
k	For public projects which do not have a tree preservation condition approved by the County Board, a calculation of the tree replacement value of removed trees				

Stormwater Management Plan		YES	NO	N/A	sheet
1	Include the following on Stormwater Management Plan Sheets				
a	Runoff Reduction Spreadsheet	X			C11
b	Design details and reference of stormwater facilities listed in the Runoff Reduction			X	
c	Facility detail, maintenance schedule, material specifications and construction inspection checklist for each stormwater facility proposed			X	
d	Drainage area boundary and runoff flow arrows	X			C18
e	Water Quantity Energy Balance Worksheet			X	
f	Waterproofing Note, if applicable			X	
g	Meet requirement for sheetflow and statement of no adverse impact to adjacent properties	X			C19
h	Indicate sump pump discharge location, tie into the public storm sewer system when			X	
i	Indicate Floodplain boundary and floodplain study OR certification on plan that no floodplain is present			X	
j	Indicate Resource Protection Area (RPA) boundary on plan OR include certified note on plan that no RPA is present. If RPA is present, include Completed Water Quality Impact Assessment (WQIA) form with required elements. Include Completed Exception Request Form on plan (if required), and proposed RPA mitigation			X	
k	Blank Stormwater Facility Maintenance and Monitoring Agreement			X	
l	SWM# on the coversheet, once assigned after 1st review			X	
m	For 4.1 site plans and use permits, a copy of the conceptual SWM plan and calculations from the County Board-approved 4.1 or use permit plans for information only			X	

Pollution Prevention Plan					
1	Include the following on the Pollution Prevention Plan	X			
a	Standard notes from Stormwater Manual Section 2.4	X			C7
b	Authorized Non-Stormwater Discharge (Section 2.0), Potential Sources of Pollution & Pollution Prevention Practices (Section 5.0), and Spill Prevention & Response (Section 7.0) from SWPPP Template (Appendix B) of the Stormwater Manual	X			C12

Wet Utility Requirements					
a	for a new development with a new building or for additions that will upgrade to more than 3 toilets (WCs), the water meter and service line shall have as existing, or be upgraded to a minimum ¾" and 1", respectively.			X	
b	the location of the existing and proposed meter/service shall clearly be shown on the plan to be within the utility strip (where applicable) or sidewalk but not on private property without the provision of an easement ,nor in driveway/apron, nor within five (5) tormwater Management Facility and Site Data Spreadsheet			X	
c	if the water service and meter are relocated from the existing meter location and the service line crosses other utilities (water, sewer, gas, underground dry utility) between the water main and meter , a depth profile shall be provided to clearly show the separation from these utilities with a minimum vertical separation of twelve (12) inches. The plan must be certified by a licensed professional			X	
d	the location of the new meter shall be staked out by the developer/owner with information to be provided to the County meter installers.from these utilities with a minimum vertical separation of twelve (12) inches. The plan must be certified by a licensed professional			X	

Attachments (one 8.5"x 11" hard copy stapled to the SWPPP plan)					
a	Registration Statement for project with land disturbance equal to or greater than 1 acre			X	
b	Stormwater Management Facility and Site Data Spreadsheet	X			C11
c	Stormwater Prevention Plan (P2) Template of the Stormwater Manual	X			C12
d	Planning & Field Guide for Pollution Prevention (P2)	X			

I certify that the above is true and accurate to the best of my knowledge.

Signature

Date: 10/15/2020

Exhibit A

CBAY-VA LLC – COLES POINT

AFFIDAVIT OF PHOSPHORUS CREDIT SALE

CBAY-VA LLC, a Virginia limited liability company (the "Company"), hereby certifies the following:

1. Pursuant to that certain Purchase Order dated **August 5, 2021** (the "Agreement"), between the Company (as Seller) and **ARLINGTON COUNTY VIRGINIA** ("Purchaser"), the Company, for the benefit of the Purchaser, agreed to sell **0.03** pounds of nonpoint source phosphorus Credits to Purchaser and retire the associated ratio of nonpoint source nitrogen Credits at the credit generating facility in the amount of **0.47** pounds of nitrogen Credits;

2. The Company and the Purchaser, as of the date hereof, have closed the transaction contemplated by the Agreement and the Company has sold to Purchaser the phosphorus Credits.

WITNESS the following signature:

CBAY-VA LLC,
a Virginia limited liability company

By: _____
Authorized Signatory

Date: August 10, 2021

Sworn to and subscribed before me this 10th day of August, 2021, by Caitlan B. Parker, Authorized Signatory, on behalf of CBAY-VA LLC, a Virginia limited liability company.

State of: South Carolina
City / County of: Charleston

Notary registration number:
My commission expires: 07/02/2030

Notary Public

Permit #: Pending
Project Description: Lee Highway & North Adams Street Intersection, Arlington County, VA
Permittee: ARLINGTON COUNTY VIRGINIA
Phosphorus Credits: 0.03 pounds
Associated Nitrogen Credits: 0.47 pounds

CAROLINE IRVIN NOTARY PUBLIC STATE OF SOUTH CAROLINA My Commission Expires July 2, 2030

CBAY-VA LLC
Coles Point Purchase and Sale Agreement 1

ARLINGTON VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
TRANSPORTATION ENGINEERING & OPERATION BUREAU
2100 CLARENDON BOULEVARD, SUITE 900
ARLINGTON, VA 22201
PHONE: 703.228.3344
FAX: 703.228.3719

SEAL

COMMONWEALTH OF VIRGINIA
BI FENG WU
Lic. No. 047585
10/01/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAEEIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
Dennis W. Leach TRANSPORTATION DIRECTOR	03/21/22

REVISIONS DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET
POLLUTION PREVENTION PLAN I
INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW BW
DRAWN: BW BW
CHECKED: JM DN
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS P2 & SWPPP.DWG
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: OCTOBER 7 2021
PLOTTED BY: BWU

SCALE NOT TO SCALE

SHEET C11 OF C23

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

○ 2011 BMP Standards and Specifications ◉ 2013 Draft BMP Standards and Specifications

Project Name: LEE HIGHWAY & N ADAMS STREET (Arlington County ROW)
Date: 10/15/2020
Linear Development Project? Yes

CLEAR ALL (Ctrl+Shift+R)

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

Site Information

Post-Development Project (Treatment Volume and Loads)

Enter Total Disturbed Area *(acres)* → 0.0203

Maximum reduction required:	20%
The site's net increase in impervious cover (acres) is:	0.0000
Post-Development TP Load Reduction for Site (lb/yr):	0.0054

Check:
BMP Design Specifications List: 2013 Draft Stds & Specs
Linear project? Yes
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 forest/open space					0.0000
Managed Turf (acres) -- disturbed, graded for yards or other turf to be				0.0010	0.0010
Impervious Cover (acres)				0.0193	0.0193
					0.0203

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					0.0000
Managed Turf (acres) -- disturbed, graded for yards or other turf to be				0.0029	0.0029
Impervious Cover (acres)				0.0174	0.0174
Area Check	OK.	OK.	OK.	OK.	0.0203

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)	0.0010	0.0010
Weighted Rv(turf)	0.2500	0.2500
% Managed Turf	5%	5%
Impervious Cover (acres)	0.0193	0.0193
Rv(impervious)	0.9500	0.9500
% Impervious	95%	95%
Total Site Area (acres)	**0.0203**	**0.0203**
Site Rv	**0.9155**	**0.9155**

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)	0.0029
Weighted Rv (turf)	0.2500
% Managed Turf	14%
Impervious Cover (acres)	0.0174
Rv(impervious)	0.9500
% Impervious	86%
Final Site Area (acres)	**0.0203**
Final Post Dev Site Rv	**0.8500**

Land Cover Summary-Post	
Post-ReDevelopment	
Forest/Open Space Cover (acres)	0.0000
Weighted Rv(forest)	0.0000
% Forest	0%
Managed Turf Cover (acres)	0.0029
Weighted Rv (turf)	0.2500
% Managed Turf	14%
ReDev. Impervious Cover (acres)	0.0174
Rv(impervious)	0.9500
% Impervious	86%
Total ReDev. Site Area (acres)	**0.0203**
ReDev Site Rv	**0.8500**

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)	0.0015	0.0015
Pre-ReDevelopment Treatment Volume (cubic feet)	67.4636	67.4636
Pre-ReDevelopment TP Load (lb/yr)	**0.0424**	**0.0424**
Pre-ReDevelopment TP Load per acre (lb/acre/yr)	2.0900	2.0900
Baseline TP Load (lb/yr) (**0.41 lbs/acre/yr** applied to pre-redevelopment area excluding pervious land proposed for new impervious cover)		*0.0083*

Treatment Volume and Nutrient Load

Final Post-Development Treatment Volume (acre-ft)	0.0014	
Final Post-Development Treatment Volume (cubic feet)	62.6357	
Final Post-Development TP Load (lb/yr)	**0.0394**	
Final Post-Development TP Load per acre (lb/acre/yr)	1.9400	

Treatment Volume and Nutrient Load

Post-ReDevelopment Treatment Volume (acre-ft)	0.0014	**Post-Development Treatment Volume (acre-ft)** --
Post-ReDevelopment Treatment Volume (cubic feet)	62.6357	**Post-Development Treatment Volume (cubic feet)** --
Post-ReDevelopment Load (TP) (lb/yr)*	**0.0394**	**Post-Development TP Load (lb/yr)** --
Post-ReDevelopment TP Load per acre (lb/acre/yr)	1.9400	
Max. Reduction Required (Below Pre-ReDevelopment Load)	**20%**	
TP Load Reduction Required for Redeveloped Area (lb/yr)	**0.0054**	**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 requirement for new impervious cover (based on new development load limit, 0.41 lbs/acre/year).

Post-Development Requirement for Site Area

TP Load Reduction Required (lb/yr)	**0.0054**
Linear Project TP Load Reduction Required (lb/yr):	**0.0054**

Nitrogen Loads (Informational Purposes Only)

Pre-ReDevelopment TN Load (lb/yr)	0.3032
Final Post-Development TN Load (Post-ReDevelopment & New Impervious) (lb/yr)	0.2815

Revised: 01/21/2016

Site Information - Revised 9/19/2017

Project SWM #	LDA Permit #	Disturbed Area (acres)	% Pre-Impervious	% Post-Impervious	Pre-Development TP load (lb/yr)	Post-Development TP load (lb/yr)	TP load reduction achieved (lb/yr)	Pre-Development TN load (lb/yr)	Post-Development TN load (lb/yr)	TN load reduction achieved (lb/yr)	Total Site Area (acres)	Pre-Forest Area (acres)	Pre-Turf Area (acres)	Pre-Impervious Area (acres)	Post-Forest Area (acres)	Post-Turf Area (acres)	Post-Impervious Area (acres)	Pre-Runoff Volume	Post-Runoff Volume	Runoff Volume Reducation Achieved	Site Latitude (Decimal Degrees)	Site Longitude (Decimal Degrees)	Anticipated Start Date
22-0233	22-00073	0.0203	95.1	85.7	0.04	0.04	--	0.30	0.28	0.00	0.0203	0.0000	0.0010	0.0193	0.0000	0.0029	0.0174	67.4636	62.6357	0.0000	38.895379	77.088865	10/15/2020

9/1/2022
date

1 Qianqian 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:

LEE HIGHWAY & N ADAMS ST INTERSECTION
street address

lot, block, section subdivision

LDA22-00073
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 703-228-7050 with questions about this plan or my execution of the duties of
telephone number
Responsible Land Disturber.

Sincerely,

signed

Anup Kafle
name printed

PE and 0402056432
professional registration (type and number)

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 POLLUTANT OF CONCERN (POC) LOAD INCREASES THAT MIGHT OCCUR FOR THAT PROJECT WILL BE ADDRESSED BY LARGER OVERALL POC LOAD REDUCTIONS IN PLACE OR ADDED THROUGH TMDL ACTION PLAN IMPLEMENTATION.

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

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
TRANSPORTATION ENGINEERING & OPERATION BUREAU
2100 CLARENDON BOULEVARD, SUITE 900
ARLINGTON, VA 22201
PHONE: 703.228.3344
FAX: 703.228.3719

SEAL
COMMONWEALTH OF VIRGINIA
ANUP KAFLE
Lic.No. 0402056432
7/31/2025
PROFESSIONAL ENGINEER

APPROVALS	DATE
DESIGN TEAM SUPERVISOR	
PROJECT MANAGER	
WATER, SEWER, STREETS BUREAU CHIEF	
TE&O BUREAU CHIEF	
TRANSPORTATION DIRECTOR	

REVISIONS	DATE
1 Update for LDA Requirements	8/11/2023

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET
POLLUTION PREVENTION PLAN IA
INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW BW
DRAWN: BW BW
CHECKED: JM DN
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS P2 & SWPPP.DWG
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS\RUNOFF
PLOTTED: JULY 5 2023
PLOTTED BY: JMCCARTHY

SCALE NOT TO SCALE

SHEET C11AOF C23

STORMWATER POLLUTION PREVENTION PLAN

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
Arlington County Projects
(Linear Development / Stormwater Retrofit)

For Construction Activities At:

Lee Highway & N Adams St
Intersection
Arlington, VA, 22201

Latitude: 38.895379 N (decimal degrees)

Longitude: -77.088865 W (decimal degrees)

Construction Activity Operator:

Company/Organization Name: TBD

24-hour Emergency Contact: Sarosh Saleem
Telephone Number: 703-228-3402

SWPPP Preparation Date:

October 2, 2020

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: Bi Wu for Arlington County Government

Title: Design Engineer, Department of Environmental Service

Signature: _____

Date: 10/02/2020

STORMWATER POLLUTION PREVENTION PLAN

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	☒ Yes	☐ NA
Stormwater Management Plan	☐ Yes	☒ NA
LDA Permit	☒ Yes	☐ NA

Required documents must be kept at a centralized location on the project site (i.e. in a mail box or other container)

2.0 Authorized Non-Stormwater Discharges

Type of Authorized Non-Stormwater Discharges	Likely Present at Your Project Site?	
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)
☒	Silt Fence (Std. & Spec. 3.05)	01/01/2021	03/01/2021	
☐	Culvert Inlet Protection (Std. & Spec. 3.08)			
☐	Outlet Protection (Std. & Spec. 3.18)		NA	
☒	Temporary Seeding (Std. & Spec. 3.31)	As required	NA	
☐	Permanent Seeding (Std. & Spec. 3.32)		NA	
☒	Sodding (Std. & Spec. 3.33)	02/01/2021	NA	
☒	Mulching (Std. & Spec. 3.35)	02/01/2021	NA	
☐	Safety Fence (Std. & Spec 3.01)			
☒	Storm Drain Inlet Protection	01/01/2021	03/01/2021	
	(Std. & Spec 3.08 and/or Arlington County Std. & Spec from approved ESC plan)			
☒	Dewatering (Std. & Spec 3.26 and/or Arlington County Std. & Spec from approved ESC plan)	01/01/2021	02/01/2021	
☐	Turbidity Curtain (Std. & Spec 3.27 and/or Arlington County Std. & Spec from approved ESC plan)			
☐	Tree Protection (Arlington County Std. & Spec from approved ESC plan)			
☐	Stream Crossing / Cofferdams (Std. & Spec 3.25 or on plan)			
☐	Pump Around System (detail on approved plan)			
☐	Rip Rap (Std. & Spec. 3-19)			
☐	Other(s) [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, tarps, 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						X		(1)	Construction Activity Operator (See Cover Page of this SWPPP)
Paving and saw cutting operations	☒ Yes ☐ No	X					X		X		(2)	
Concrete operations, washout, and cement waste	☒ Yes ☐ No			X	X				X		(3)	
Washing / cleaning	☒ Yes ☐ No	X	X	X	X		X		X	X	(4)	
Dewatering operations	☒ Yes ☐ No	X	X						X		(5)	
Material / chemical use and storage	☒ Yes ☐ No	X	X	X	X	X	X		X	X	(6)	
Equipment and vehicle maintenance	☒ Yes ☐ No				X		X		X	X	(7)	
Waste management / disposal	☒ Yes ☐ No								X	X	(8)	
Sanitary waste	☐ Yes ☒ No		X		X			X			(9)	
Nutrient management	☒ Yes ☐ No	X	X						X	X	(10)	

Pollution Prevention Practices:

(1) **Clearing, grading, excavating, and un-stabilized areas** – Maintain as much existing vegetation as practicable. Utilize erosion and sediment controls to prevent sediment 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. Plastic sheeting, tarps, 2" deep straw cover, and/or erosion matting can be used for temporary slope stabilization.

(2) **Paving and saw cutting operations** – Cover storm drain inlets during paving and saw cutting operations. Use 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. Slurry from saw cutting operations may not enter a storm drain; it must be captured and disposed of properly.

Temporary controls (i.e. tarp and block, sand berms, booms, and/or filter fabric) shall be used to cover storm drains during paving and saw cutting operations to prevent any discharges from entering the storm drain. These temporary controls SHALL BE REMOVED AT THE END OF EACH DAY. Inlet protection specified in the approved ESC plan shall be installed or reinstalled following the completion of paving or saw cutting work.

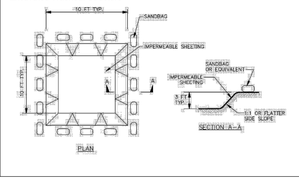
☐	Method of covering / protecting storm drains:
☐	Method for containment, collection, disposal of saw cut slurry:

(3) **Concrete operations, 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.

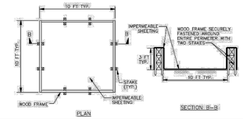
☐ Washouts must be sized appropriately for the needs of the project.
☐ Do not locate washouts near storm drains. Concrete wash water is not allowed to enter a storm drain.
☐ Concrete washout areas cannot be used for the purpose of dewatering.
☐ Set up and operate small mixers on top of plywood that is covered by tarps or heavy plastic drop cloths.
☐ Wash out mixers and truck chutes in designated contained washout areas
☐ No tracking from washout areas may occur.
☐ Place plastic sheeting, boards, or tarps under concrete truck chutes during pouring

The selected concrete wash out facility will be used:

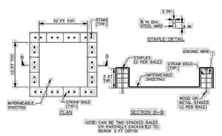
☐ Excavated Washout Structure



☐ Washout Structure with Wood Planks



☐ Washout Structure with Straw Bales



☐ Prefabricated Containment System
Type: _____

☐ Other:

(4) **Washing / cleaning** – Prevent the discharge of wash water to the storm drain system or surface waters.

☐ Wash water or liquid wastes may not enter a storm drain or surface waters.

☐ Provide a suitable containment system for cleaning equipment such as a drum, prefabricated system, lined container, or portable wash pad.

☐ The wash / containment area must be sized appropriately for the needs of the project.

☐ Locate wash / containment areas away from storm drains.

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

☐ Dewatering detail on approved ESC plan will be used.

☐ Dewatering option from Planning & Field Guide for Pollution Prevention (P2):
☐ Filter Box
☐ Straw Bale/Silt Fence Pit
☐ Portable Sediment Tank
☐ Filter Bag
☐ Pump from Settling Pit
☐ Manufactured System: _____

☐ Other: _____

(6) **Material / chemical use and storage** –Designate areas of the construction site for material delivery and storage. Locate these areas near construction entrances and away from waterways and storm drains. Enclose, cover or berm construction material storage areas if susceptible to stormwater.

☐ 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 located on the edge of roadways should not obstruct flow along the curb line (gutter). Leave at least a one (1) foot space away from the curb to allow stormwater to flow along the curb line. Boards with cinder blocks and/or bricks may be used to create the flow through space.

☐	Method used to ensure flow through:

☐ Provide secondary containment for paint, pesticides, cleaners, solvents, and/or other chemicals and keep these items secured and covered when not in use

☐ Regularly inspect containers.

(7) **Equipment and vehicle maintenance –** Use a designated area, away from storm drains and surface waters, to refuel vehicle or equipment or perform maintenance.

☐ Regularly inspect vehicles and equipment for leaks. Clean up all spills and leaks upon discovery.

☐ Use containment measures when conducting fueling (e.g. place spill pad, board, plastic sheeting on ground)

☐ Regularly inspect fuel containers.

☐ Provide secondary containment and secure storage for fuel, oil, and/or lubricants

☐ Keep drip pans, sheeting, and/or absorbent pads under heavy equipment when not in use (i.e. overnight) to capture leaks.

(8) **Waste management / 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 waste containers have lids so they can be covered before periods of rain. Schedule waste collection to prevent the containers from overfilling.

☐ A sufficient number of waste containers must be kept on a site to handle the quantity of waste produced.

☐ Keep roll off containers covered and/or dumpster / trash lids closed.

☐ Check waste containers frequently for damage / leaks and clean using DRY methods when necessary. Never clean out a dumpster by power washing or hosing it out.

☐ Replace containers that are leaking, cracked, corroded, or otherwise deteriorating.

☐ Do not bury waste material. Dispose of excess dry concrete, grout and mortar in the trash.

(9) **Sanitary waste** – Prevent the discharge of sanitary waste by providing convenient and well-maintained portable sanitary facilities.

☐ Locate portable lavatories away from storm drains and surface waters.

☐ Keep portable lavatories level and provide secondary containment (i.e. trays)

☐ Regularly inspect facilities for leaks

☐ Schedule routine maintenance

(10) **Nutrient management** – Apply nutrients in accordance with manufacturer's recommendations. Do not apply during rainfall events or windy conditions. Provide secondary containment and keep fertilizer properly secured when not being used.

Additional information and details can be found in the Arlington County Planning & Field Guide for Pollution Prevention (P2).

6.0 Stormwater Management Controls

Select all that apply	Stormwater Management Control	Estimated Installation Date	Responsible Party
☐	Exempted – stormwater management retrofit facility or stream restoration project	NA	NA
☐	Linear development project per Arlington County Chesapeake Bay Total Maximum Daily Load (TMDL) Action Plan[1]	NA	NA
☐	Post-development Stormwater Management Controls provided by a Larger Common Plan of Development or Sale	NA	Common Plan Construction Activity Operator

[1] *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.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

☐	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)		
☐	Infiltration (1 or 2)		
☐	Bio-retention (1 or 2)		
☐	Others [describe]		

7.0 Spill Prevention & Response

Most spills can be cleaned up using a spill kit. Absorbent/oil dry, sealable containers, plastic bags, and shovels/brooms are suggested minimum spill response items that should be available at the project site.

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. Ensure 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 spreading and/or entering storm drains (use absorbent or other materials as necessary).
6. If spilled material has entered a storm drain; contact Arlington County Fire Department and project manager.
7. Clean up spilled material according to manufacturer specifications, for liquid spills use absorbent materials and do not flush area with water.
8. Properly dispose of cleanup materials and used absorbent material according to manufacturer specifications.

Emergency Contacts:

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

Nights, Holidays & Weekends

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

Spill kit on site: ☐ Yes ☐ No

Location(s) of spill kit: _____

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COMMONWEALTH OF VIRGINIA
BI FENG WU
Lic. No. 047585
10/01/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET
POLLUTION PREVENTION PLAN II
INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW BW
DRAWN: BW BW
CHECKED: JM DN
MISS UTILITY TRANSMITTAL #: N/A

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PLOTTED: OCTOBER 7 2021
PLOTTED BY: BWU

SCALE NOT TO SCALE

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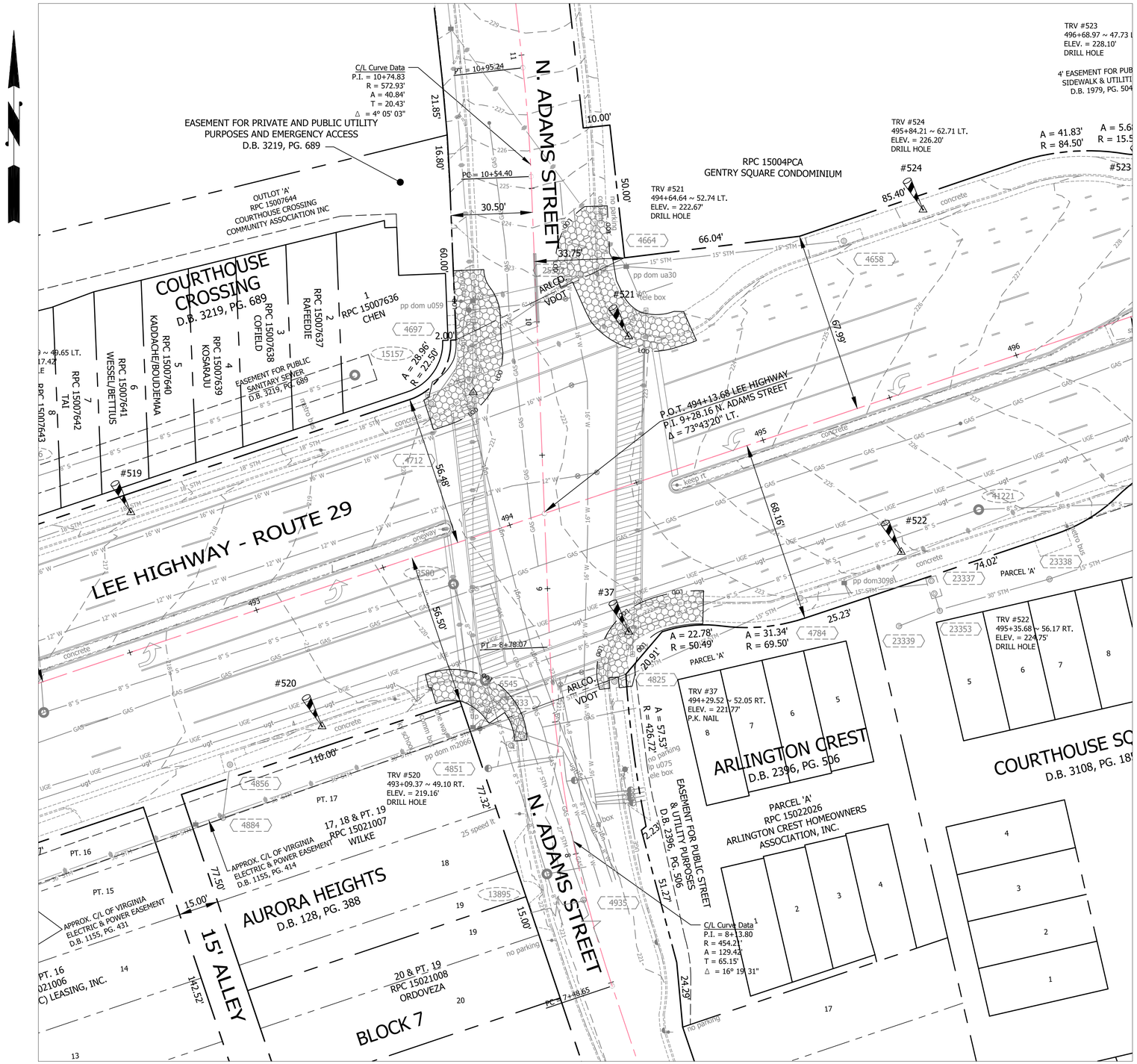
Revised: 01/21/2016



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Lic. No. 047585
10/07/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

DEMOLITION PLAN
INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

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PLOTTED: OCTOBER 7 2021
PLOTTED BY:BWU

SCALE 1" = 20'

20 0 20
1" = 20'

SHEET
C13 OF C23

Revised: 01/21/2016

CONSTRUCTION NOTES

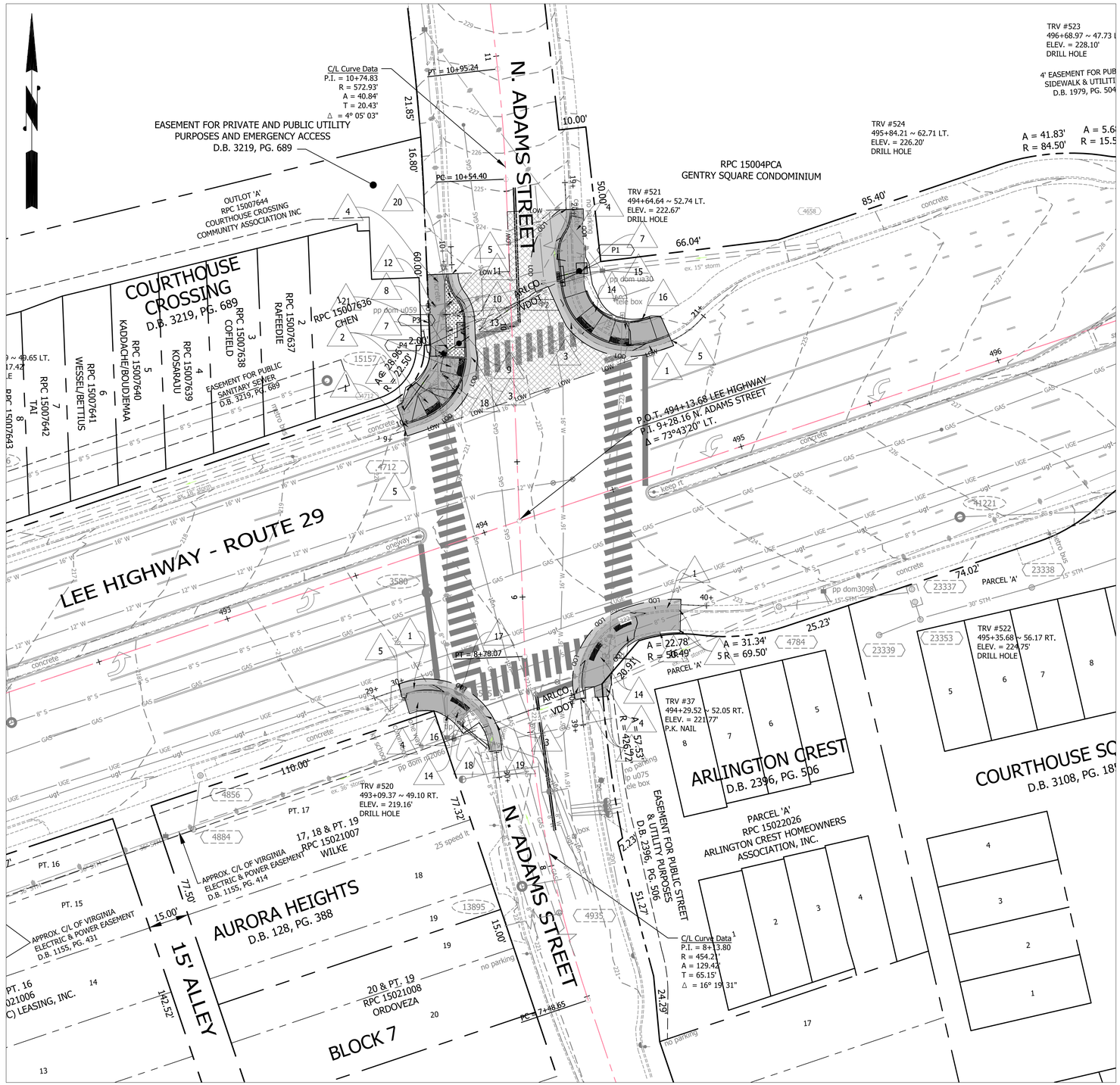
1. PROP. CURB AND GUTTER (CG-6), VDOT 2016 ROAD & BRIDGE STD. 201.03
2. PROP. CURB RAMP (CG-12A), VDOT 2016ROAD & BRIDGE STD. 203.06
3. PROP. TRANSITION TO ARLINGTON CURB AND GUTTER (C-2), ARLINGTON COUNTY STD. R-2.0
4. PROP. CONCRETE SIDEWALK (S-5.0) WIDTH VARIES, ARLINGTON COUNTY STD. R-2.0
5. MATCH EXISTING GRADE
6. ADJUST EXISTING STORM MANHOLE TOP TO NEW GRADE
7. CONVERT EXISTING CATCH BASIN TO MANHOLE (MH-1), VDOT 2016 ROAD & BRIDGE STD. 106.01
8. EXISTING 18" CONCRETE PIPE TO REMAIN
9. INSTALL CURB INLET (DI-3B), VDOT 2016 ROAD & BRIDGE STD. 104.09
10. RELOCATE EXISTING FIRE HYDRANT TO NEW CURB LOCATION
11. EXISTING UTILITY POLE TO REMAIN (ADJUST PROP CONCRETE SIDEWALK AROUND THE POLE AS NECESSARY)
12. ADJUST EXISTING GAS VALVE TO NEW GRADE
13. EXISTING WIRE GUYS TO REMAIN
14. PROP. CURB RAMP (CG-12B), VDOT 2016 ROAD & BRIDGE STD. 203.07
15. CONVERT EXISTING MANHOLE TOP TO CURB DROP INLET (DI-2C), VDOT 2016 ROAD & BRIDGE STD. 104.03
16. PROP. HEADER CURB (C-3), ARLINGTON COUNTY STD. R-2.0)
17. ADJUST EXISTING SANITARY MANHOLE TOP TO NEW GRADE
18. ADJUST EXISTING WATER VALVE TO NEW GRADE
19. ADJUST EXISTING STORM MANHOLE TOP TO NEW GRADE
20. PROP GRASS AREA
21. COORDINATE WITH PROPERTY OWNER FOR LEAD WALK ADJUSTMENT FOR NEW GRADE TIE-IN AS NECESSARY

Proposed Storm Tabulation	
Structure #	Data
P1	CONVERT EX. CURB INLET STRUCTURE 4664 TO MANHOLE STRUCTURE Std. MH-1 (CAST IN PLACE Req.), H = 5.4' TOP = 222.85 INV. IN = 217.51 (15") FROM EX 4658 INV. OUT= 217.45 (18") TO P2 Std. IS-1 Req.
P2	CONVERT EX MANHOLE STRUCUTRE 25552 TO COMBINATION INLET STRUCTURE Std. DI-2C (CAST IN PLACE Req.), L=6', H=5.15' TOP = 222.27 INV. IN = 217.32 (18") FROM P1 INV. IN = 217.78 (15") FROM EX 25553 INV. OUT= 217.12 (18") TO P3 Std. IS-1 Req.
P3	PROP. CURB INLET STRUCTURE Std. DI-3B (CAST IN PLACE, DOGHOUSE BASE OVER EX. PIPE Req.) L=8', H=5.05' TOP = 221.92 INV. IN = 216.87 (18") FROM P2 INV. OUT= 216.87 (18") TO P4 Std. IS-1 Req.
P4	CONVERT EX CURB INLET STRUCTURE 4697 TO MANHOLE STRUCTURE Std. MH-1 (CAST IN PLACE Req.), H=5.22' TOP = 221.89 INV. IN = 216.83 (18") FROM P3 INV. OUT= 216.67 (18") TO EX 4712 Std. IS-1 Req.

STORM NOTES:

1. ALL STRUCTURES BEING MODIFIED TO MANHOLE TOPS SHALL HAVE VDOT MANHOLE FRAME AND COVER PER 2016 ROAD AND BRIDGE STANDARDS, DETAIL 106.06.
2. ALL PROPOSED STRUCTURES SHALL HAVE INLET SHAPING PER VDOT 2016 ROAD AND BRIDGE STANDARDS, DETAIL 106.08.
3. THE CONTRACTOR SHALL PERFORM POST INSTALLATION VISUAL VIDEO CAMERA INSPECTION PER ARLINGTON COUNTY SPECIFICATIONS AND VDOT 2016 ROAD AND BRIDGE SPECIFICATIONS.

Revised: 01/21/2016



ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES
TRANSPORTATION DIVISION
TRANSPORTATION ENGINEERING & OPERATION BUREAU
2100 CLARENDON BOULEVARD, SUITE 900
ARLINGTON, VA 22201
PHONE: 703.228.3344
FAX: 703.228.3719

SEAL

COMMONWEALTH OF VIRGINIA
BI FENG WU
Lic. No. 047585
10/07/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

PROPOSED CONDITIONS
INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS DEMOLITION & PROP PL.
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: OCTOBER 7 2021
PLOTTED BY:BWU

SCALE 1" = 20'

20 0 20
1" = 20'

SHEET
C14 OF C23

LEGEND:

XXX.XX : INDICATES EXISTING ELEVATION

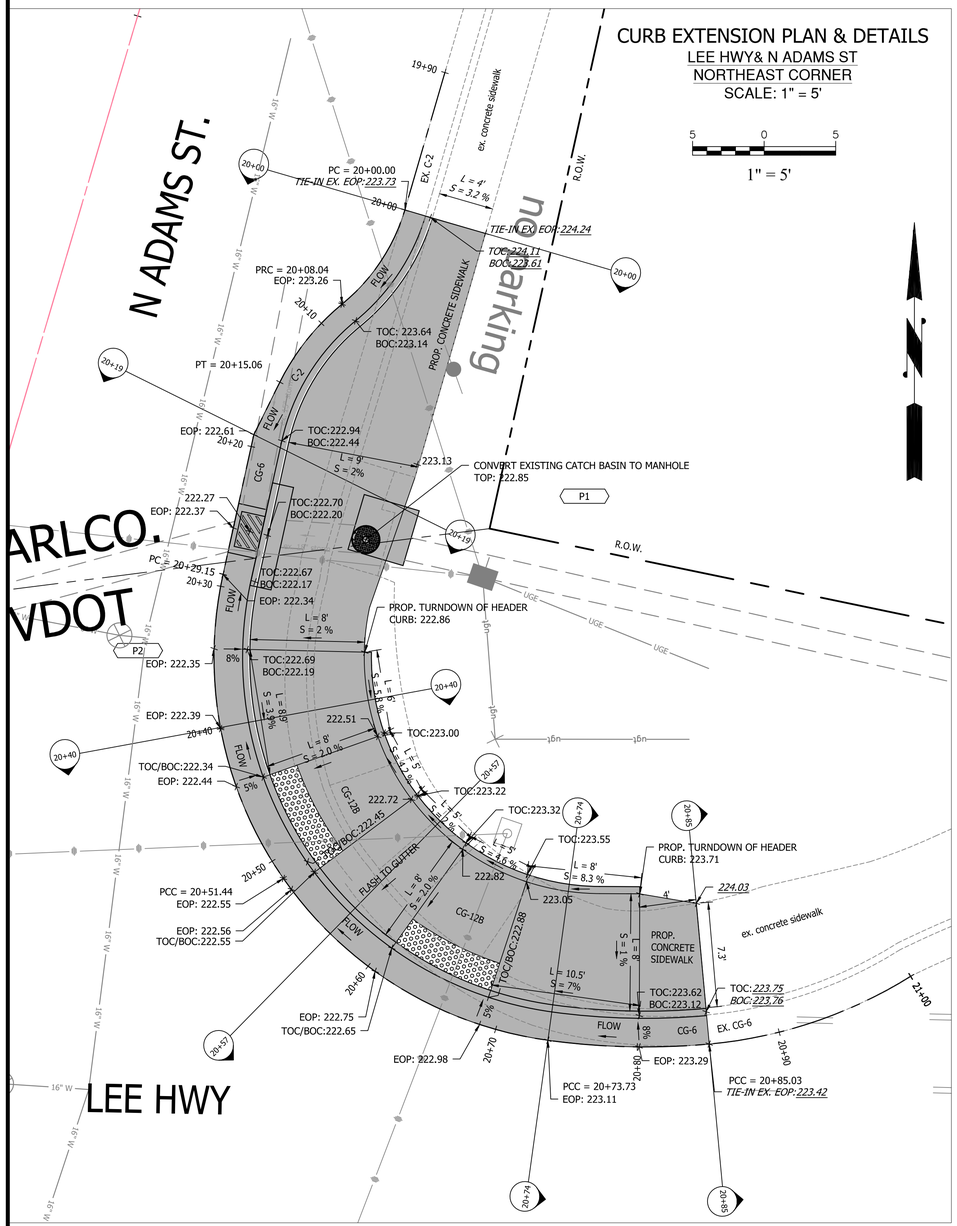
XXX.XX: INDICATES PROPOSED ELEVATION

CURB EXTENSION PLAN & DETAILS

LEE HWY& N ADAMS ST

NORTHEAST CORNER

SCALE: 1" = 5'



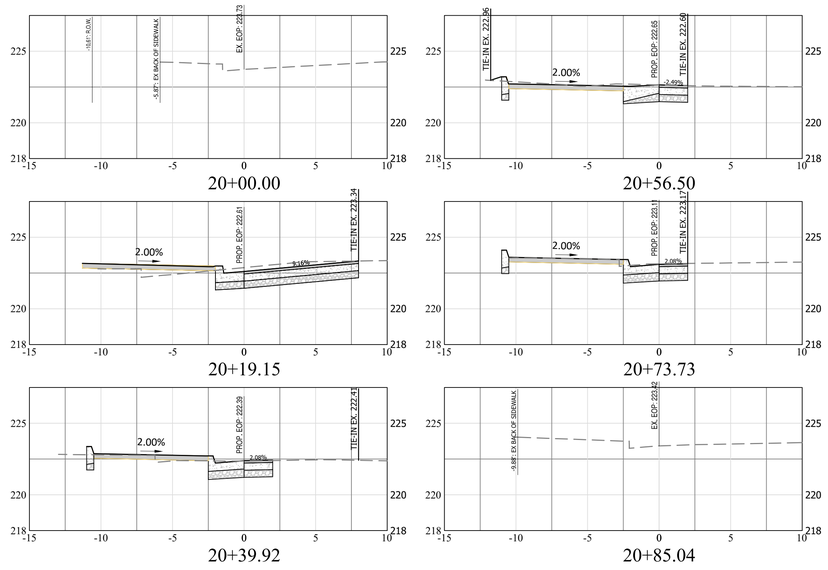
CURB EXTENSION CROSS SECTIONS

LEE HWY & N ADAMS ST

NORTHEAST CORNER

SCALE: 1" = 5' (H)

1" = 1' (V)



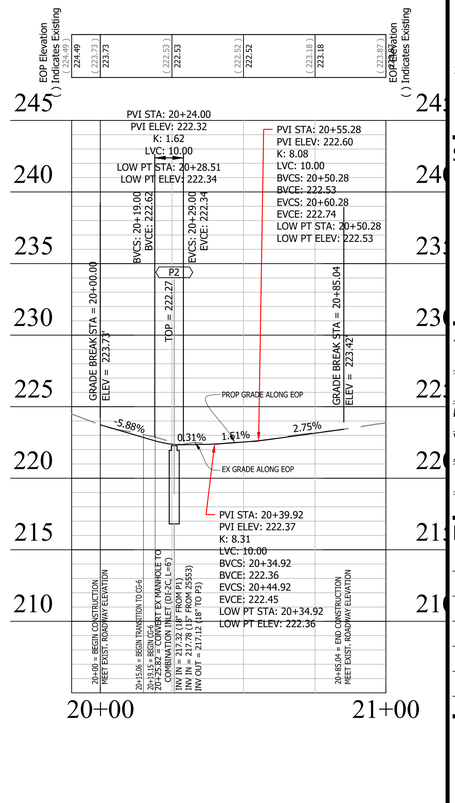
CURB EXTENSION PROFILE

LEE HWY & N ADAMS ST

NORTHEAST CORNER

SCALE: 1" = 25' (H)

1" = 5' (V)



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10/07/2021
PROFESSIONAL ENGINEER

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WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION

LEE HIGHWAY & NORTH ADAMS STREET

CURB EXTENSION DETAILS - NORTHEAST QUADRANT

INTERSECTION SIGNAL IMPROVEMENT

TR07

DESIGNED: BW

DRAWN: BW

CHECKED: JM

MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS GEOMETRIC AND CURB E

PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS

PLOTTED: OCTOBER 7 2021

PLOTTED BY:BWU

SCALE AS NOTED

SHEET C15 OF C23

Revised: 01/21/2016

LEGEND:

XXX.XX : INDICATES EXISTING ELEVATION

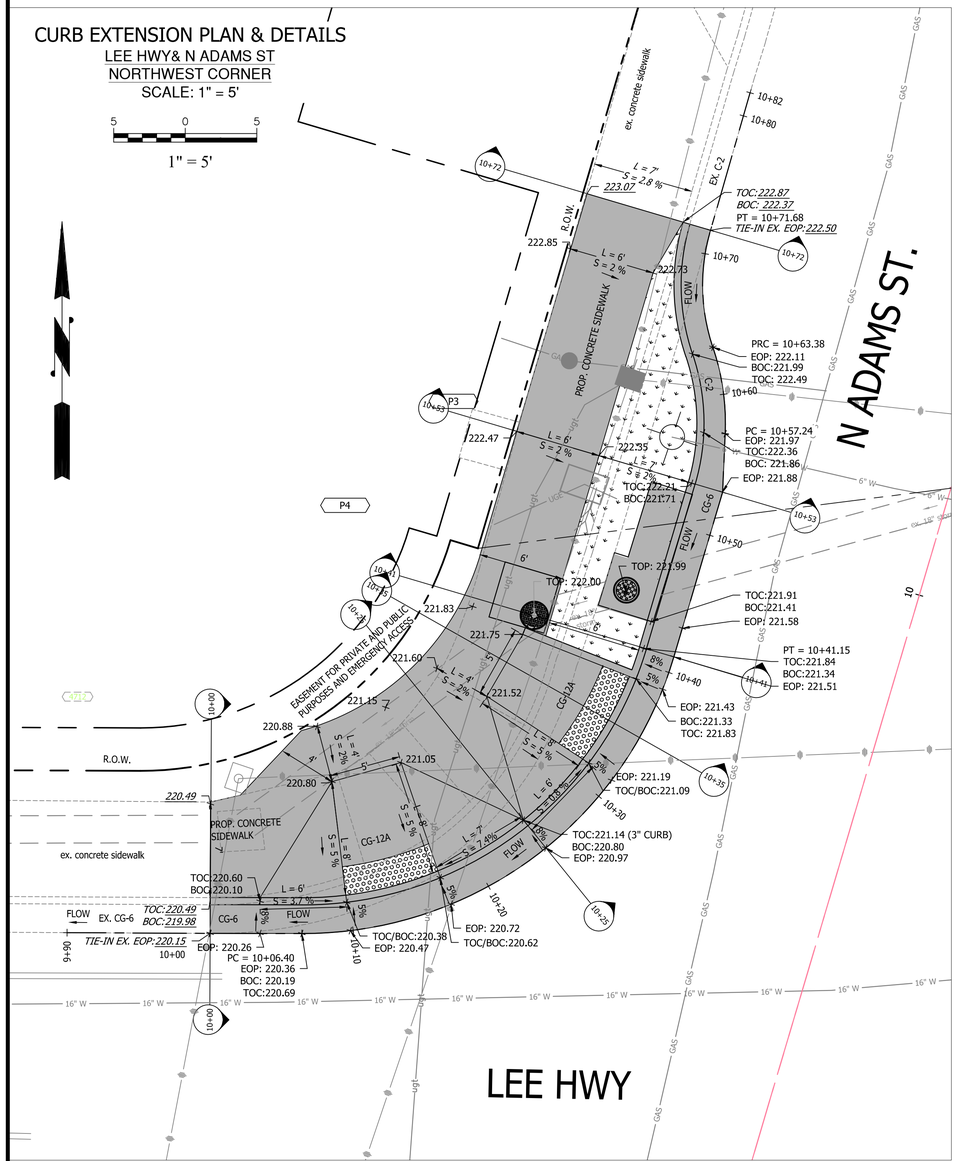
XXX.XX: INDICATES PROPOSED ELEVATION

CURB EXTENSION PLAN & DETAILS

LEE HWY& N ADAMS ST

NORTHWEST CORNER

SCALE: 1" = 5'



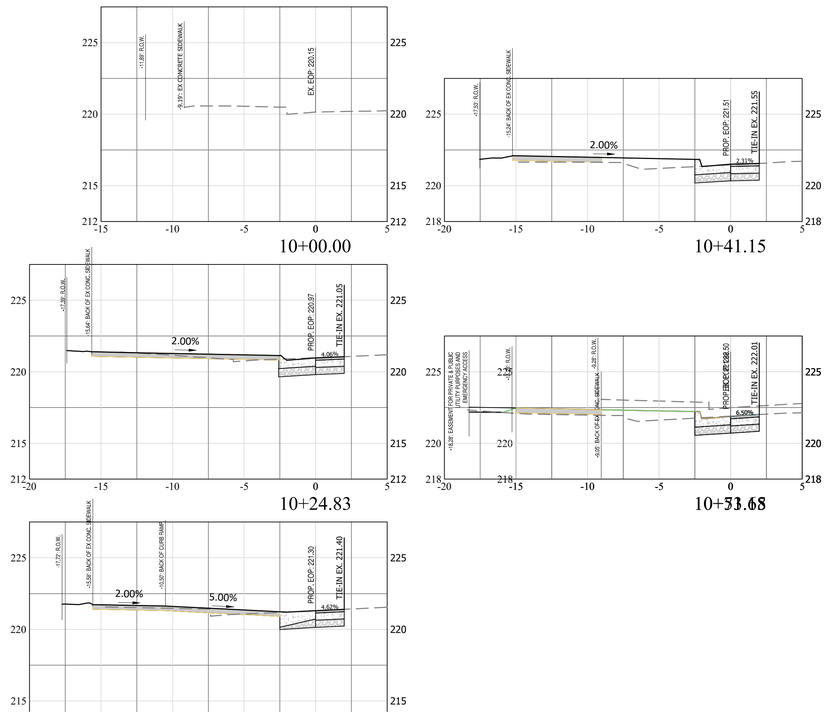
CURB EXTENSION CROSS SECTIONS

LEE HWY & N ADAMS ST

NORTHWEST CORNER

SCALE: 1" = 5' (H)

1" = 1' (V)



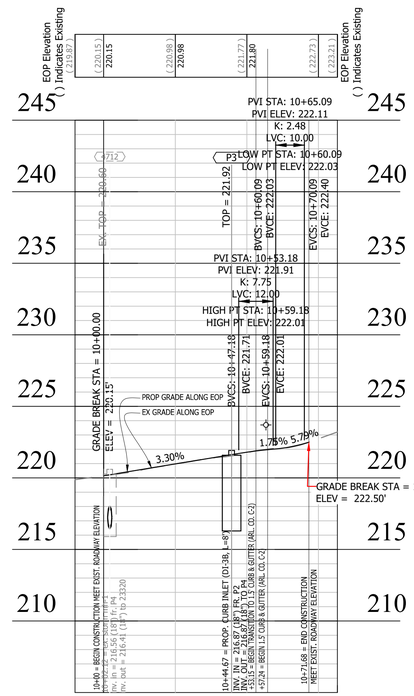
CURB EXTENSION PROFILE

LEE HWY & N ADAMS ST

NORTHWEST CORNER

SCALE: 1" = 25' (H)

1" = 5' (V)



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BI FENG WU
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10/07/2021
PROFESSIONAL ENGINEER

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TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION

LEE HIGHWAY & NORTH ADAMS STREET

CURB EXTENSION DETAILS - NORTHWEST QUADRANT

INTERSECTION SIGNAL IMPROVEMENT

TR07

DESIGNED: BW

DRAWN: BW

CHECKED: JM

MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS GEOMETRIC AND CURB E

PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS

PLOTTED: OCTOBER 7 2021

PLOTTED BY:BWU

SCALE AS NOTED

SHEET

C16 OF C23

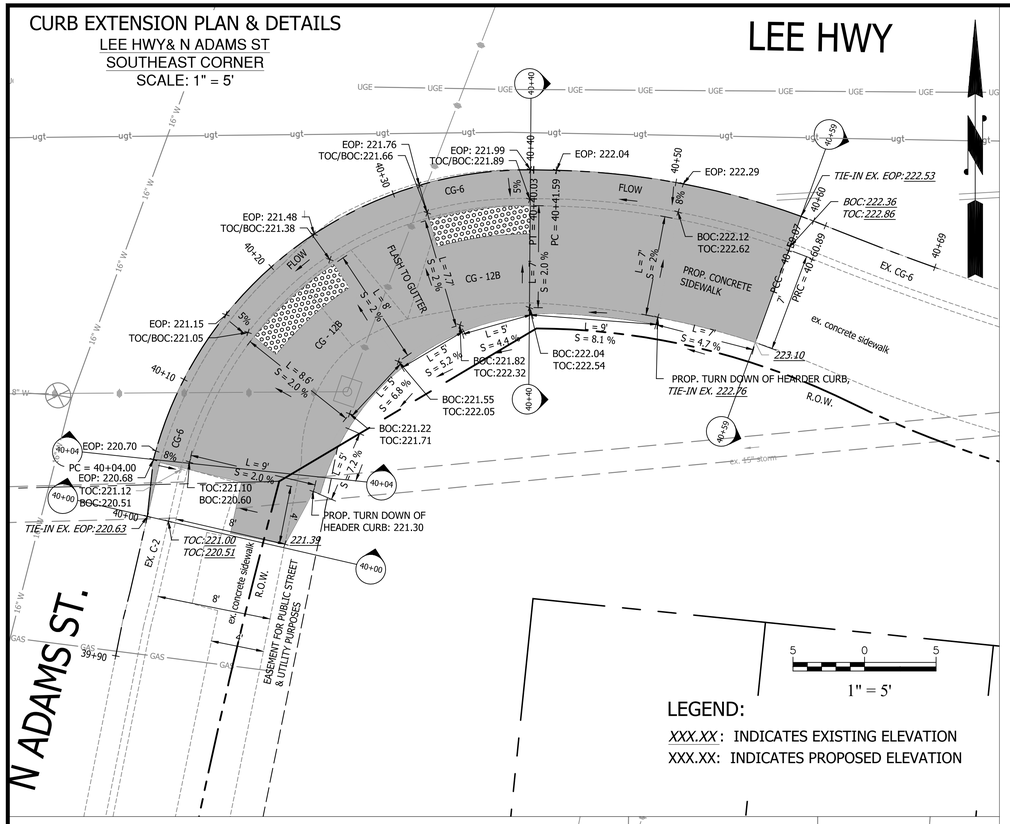
Revised: 01/21/2016

CURB EXTENSION PLAN & DETAILS

LEE HWY& N ADAMS ST

SOUTHEAST CORNER

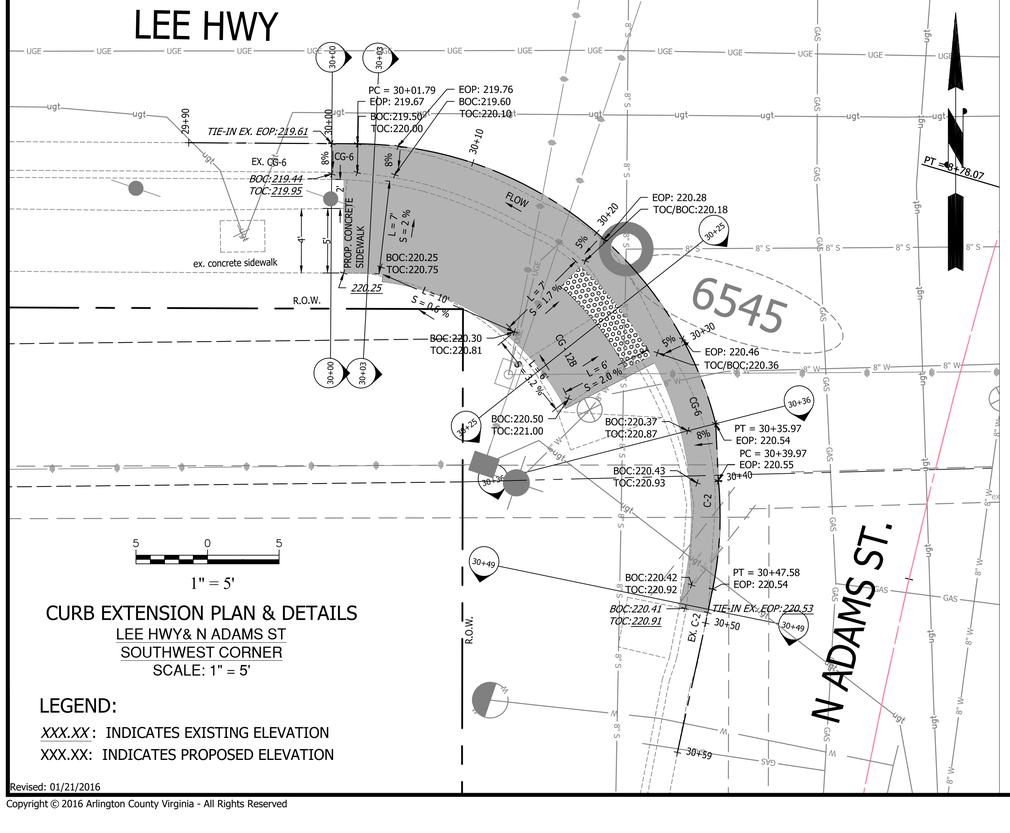
SCALE: 1" = 5'



LEGEND:

XXX.XX : INDICATES EXISTING ELEVATION

XXX.XX: INDICATES PROPOSED ELEVATION



CURB EXTENSION PLAN & DETAILS

LEE HWY& N ADAMS ST

SOUTHWEST CORNER

SCALE: 1" = 5'

LEGEND:

XXX.XX : INDICATES EXISTING ELEVATION

XXX.XX: INDICATES PROPOSED ELEVATION

Revised: 01/21/2016

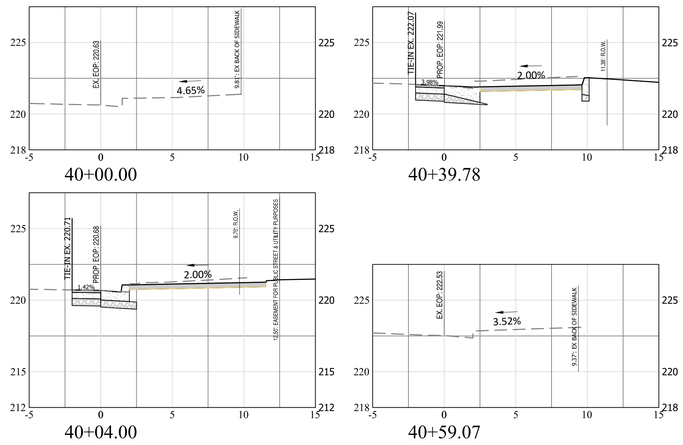
CURB EXTENSION CROSS SECTIONS

LEE HWY & N ADAMS ST

SOUTHEAST CORNER

SCALE: 1" = 5' (H)

1" = 1' (V)



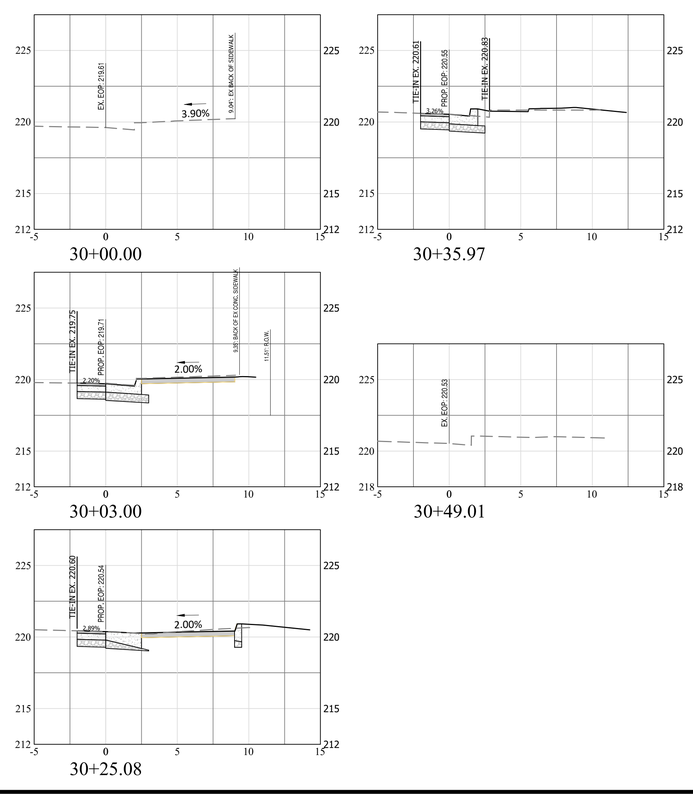
CURB EXTENSION CROSS SECTIONS

LEE HWY & N ADAMS ST

SOUTHWEST CORNER

SCALE: 1" = 5' (H)

1" = 1' (V)



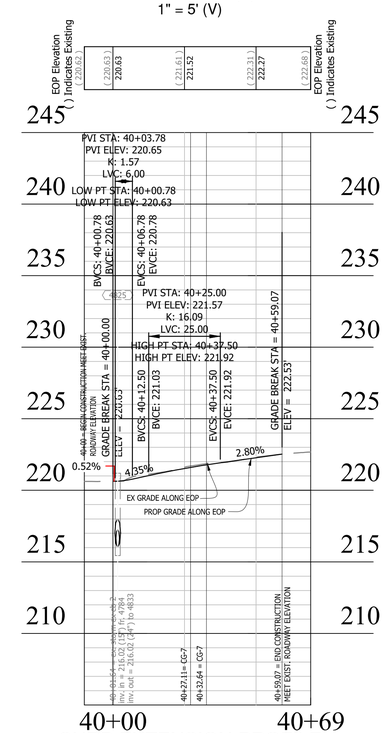
CURB EXTENSION PROFILE

LEE HWY & N ADAMS ST

SOUTHEAST CORNER

SCALE: 1" = 25' (H)

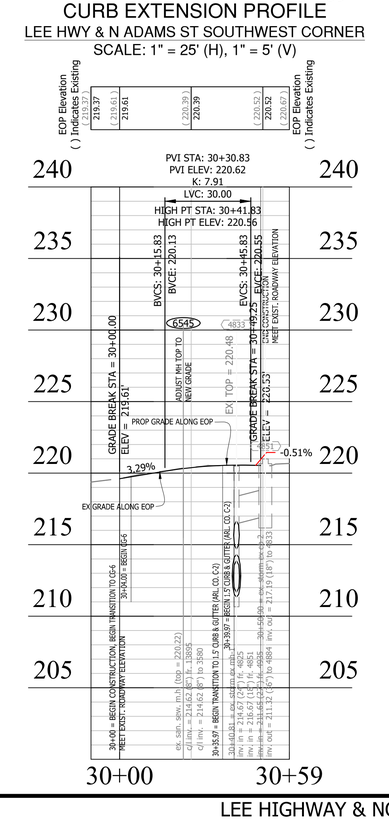
1" = 5' (V)



CURB EXTENSION PROFILE

LEE HWY & N ADAMS ST SOUTHWEST CORNER

SCALE: 1" = 25' (H), 1" = 5' (V)



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10/07/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
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TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION

LEE HIGHWAY & NORTH ADAMS STREET

CURB EXTENSIONS DETAILS - SOUTHWEST AND SOUTHEAST QUADRANTS

INTERSECTION SIGNAL IMPROVEMENT

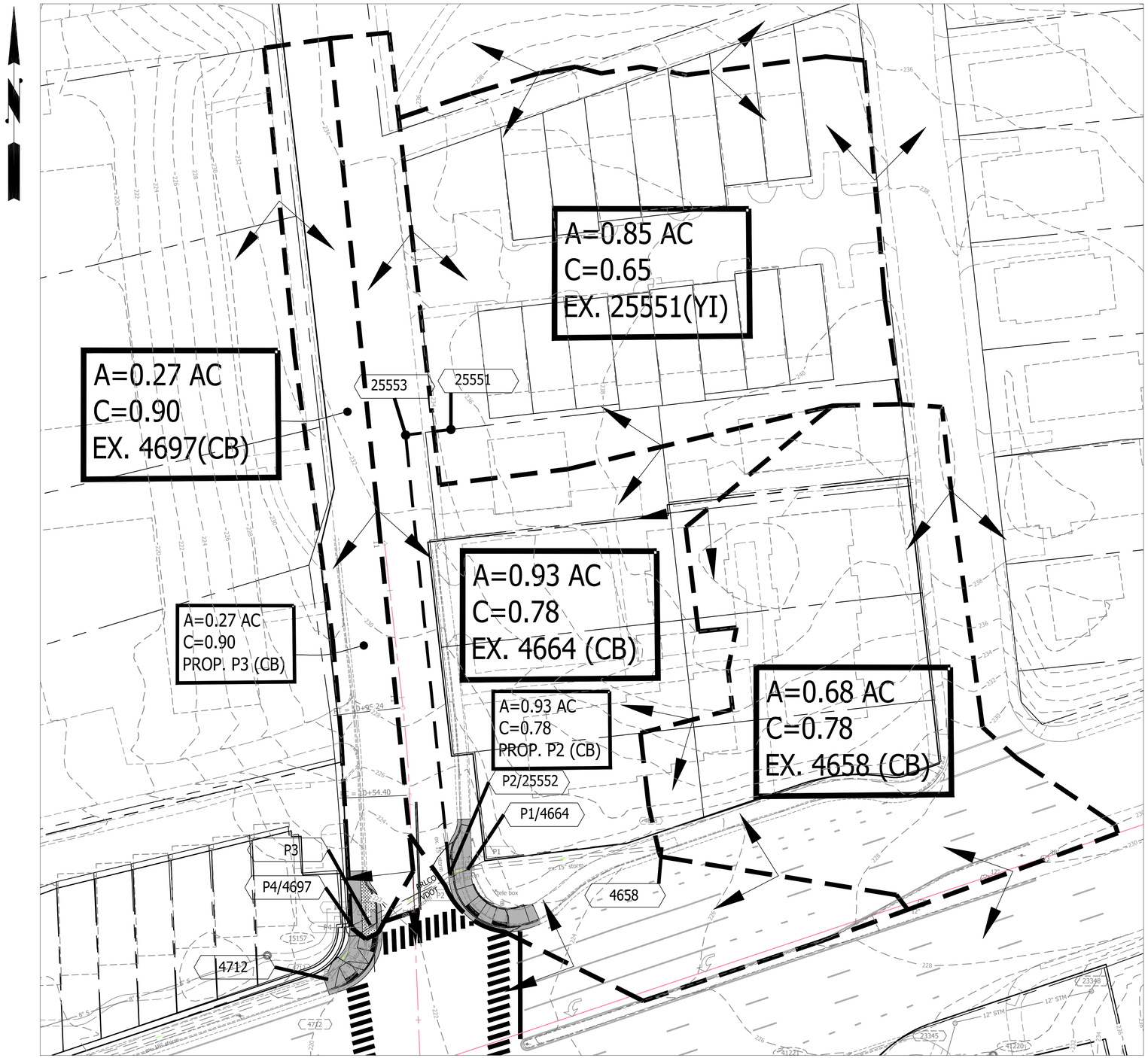
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS GEOMETRIC AND CURB E
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: OCTOBER 7 2021
PLOTTED BY:BWU

SCALE AS NOTED

SHEET
C17 OF C23



Revised: 01/21/2016

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WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY &
NORTH ADAMS STREET

DRAINAGE DIVIDES PLAN

INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS DRAINAGE PLANS.DWG
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: OCTOBER 7 2021
PLOTTED BY: BWU

SCALE 1" = 25'

25 0 25
1" = 25'

SHEET
C18 OF C23

EXISTING STORM SEWER DESIGN COMPUTATIONS

Project: TR07 Lee Hwy & N Adams St

From Point	To Point	Drainage Area	C Factor	C x A Increment	C x A Cumm.	Inlet Time Min.	Rain Fall In/Hr	Runoff Q C.F.S.	Invert Elev. Upper End	Invert Elev. Lower End	Length FT.	Slope %	Dia. IN.	Capacity Q C.F.S.	VEL. F.P.S.	Flow Time MIN.	Remarks	Structure Top Elevation	Pipe Coefficient	US Structure 1	US Structure 2	US Structure 3
*	EXISTING STORM SYSTEM DRAINING TOWARDS LEE HWY																					
4658	4664	0.68	0.78	0.53	0.53	5	6.79	3.60	220.65	217.51	90.56	3.47%	15	12.06	8.58	0.18		225.15	0.013			
4664	25552	0.93	0.78	0.73	1.26	5	6.79	8.53	217.45	217.32	8.14	1.60%	18	13.31	7.99	0.02		222.61	0.013	4658		
25552	4697	0.85	0.75	0.64	1.89	5	6.79	12.86	217.12	216.83	50.71	0.57%	18	7.97	4.51	0.19	Capacity Exceeded	222.51	0.013	4664	25551	
4697	4712	0.27	0.90	0.24	2.14	5	6.79	14.51	216.67	216.56	25.35	0.43%	18	6.94	3.93	0.11	Capacity Exceeded	221.64	0.013	25552		
4712	23320	0.00	0.00	0.00	2.14	5	6.79	14.51	216.41	213.96	166.42	1.47%	18	12.78	7.23	0.38	Capacity Exceeded	220.60	0.013	4697		
*	GENERAL ASSUMPTIONS																					
*	Existing pipe diameters, lengths, inverts, & tops from survey (unless otherwise noted). Lag time not considered in this analysis. C-Factors based on existing conditions GIS data and standard C-Factor tables.																					

EXISTING STORM SEWER INLET COMPUTATIONS

Project: TR07 Lee Hwy & N Adams St

INLET NUMBER	TYPE	L, LENGTH (ft)	STATION	DRAINAGE AREA (acres)	C	C x A	sum	INTENSITY (in/hr)	Q INCR (ft³/s)	Q CARRY OVER (ft³/s)	Q TOTAL (ft³/s)	S LONGITUDINAL GUTTER SLOPE, (ft/ft)	Sx CROSS SLOPE (OF THE ROAD), (ft/ft)	T SPREAD (ft)	W WIDTH OF GUTTER PAN (ft)	W/T WIDTH/SPREAD	Sw CROSS SLOPE (OF THE GUTTER) (ft/ft)	Sw/Sx GUTTER FLOW RATIO	Eo Total Depression (in)	a	S'w	Se Equivalent cross slope (ft/ft)	Lt Computed Length (ft)	P PERIMETER OF GRATE (ft)	L/Lt	d Depth of flow @ inlet (ft)	E Inlet Effeciency (%)	h Actual height of curb opening (ft)	Q	d/H	Qb CARRY OVER (ft³/s)	T SPREAD AT SAG (ft)	REMARKS
4664	DI-3C	6		0.45	0.75	0.34	0.34	4.00	1.35		1.35	0.0592	0.0841	2.31	1.5		0.083	0.99						9.60		0.27		0.42		0.65		3.26	
				0.48	0.81	0.39	0.39	4.00	1.56	0.00	1.56			2.43																			
4697	DI-3B	6		0.27	0.90	0.24	0.24	4.00	0.97		0.97	0.0306	0.0822	2.32	1.50	0.65	0.0833	1.01	0.94	1.52	0.08	0.16	7.73		0.78	0.12	0.93		0.91		0.07		

EXISTING STORM SYSTEM HYDRAULIC GRADE LINE COMPUTATIONS

Project: TR07 Lee Hwy & N Adams St

INLET STATION (1)	UP STREAM INLET	Outlet Water Surface Elev. (2)	FRICTION LOSSES Do (3)	Qo (4)	Lo (5)	Sfo (6)	Hf (7)	JUNCTION LOSSES Exit Loss Vo (8)	Ho (9)	Entrance Loss Qi (10)	Vi (11)	QiVi (12)	2 Vi /2g (13)	Hi (13)	Bend Loss Angle (14)	Hd (15)	Junction Loss Adjustments Ht (16)	1.3 Ht (17)	0.5 Ht (18)	FINAL H (Junction + Friction Losses) (19)	Inlet Water Surface Elev. (20)	RIM ELEV. (21)	max @ inlet	pre-hgl 10yr-wse	inv1val	inv2val	inv3val	Structure has no plunging losses.	Structure has inlet shaping.
*	80% full flow WSEL entering structure #23320 from structure #4712 = 213.96' + (1.5' x 0.8) = 215.16'.																												
23320																			Starting Elevation	215.16	216.79	215.16	215.160				TRUE	TRUE
4712		215.16	18.00	14.51	166.42	1.90	3.16	7.23	0.20					0.08		0.08	0.37	0.00	0.00	3.52	218.68	220.60	218.685	218.68	218.06	0	0	TRUE	FALSE
	4697		18.00							14.51	3.93	56.95	0.24		36.00														
4697		218.68	18.00	14.51	25.35	1.90	0.48	3.93	0.06					0.11		0.05	0.22	0.00	0.11	0.59	219.28	221.64	219.278	219.28	218.33	0	0	TRUE	TRUE
	25552		18.00							12.86	4.51	57.94	0.32		21.00														
25552		219.28	18.00	12.86	50.71	1.49	0.76	4.51	0.08					0.35		0.10	0.53	0.00	0.00	1.28	220.56	222.51	220.558	220.56	218.82	0	0	TRUE	FALSE
	4664		18.00							8.53	7.99	68.15	0.99		15.00														
4664		220.56	18.00	8.53	8.14	0.66	0.05	7.99	0.25					0.40		0.10	0.75	0.00	0.37	0.43	220.99	222.61	220.985	220.99	218.76	0	0	TRUE	TRUE
	4658		15.00							3.60	8.58	30.90	1.14		13.00														
4658		220.99	15.00	3.60	90.56	0.31	0.28	8.58	0.29					0.00		0.00	0.29	0.00	0.14	0.42	221.41	225.15	221.408	221.41	0	0	0	TRUE	TRUE
										3.60	0.00	0.00	0.00		0.00														

PROPOSED STORM SEWER DESIGN COMPUTATIONS

Project: TR07 Lee Hwy & N Adams St

From Point	To Point	Drainage Area	C Factor	C x A Increment	C x A Cumm.	Inlet Time Min.	Rain Fall In/Hr	Runoff Q C.F.S.	Invert Elev. Upper End	Invert Elev. Lower End	Length FT.	Slope %	Dia. IN.	Capacity Q C.F.S.	VEL. F.P.S.	Flow Time MIN.	Remarks	Structure Top Elevation	Pipe Coefficient	US Structure 1	US Structure 2	US Structure 3
*	EXISTING STORM SYSTEM DRAINING TOWARDS LEE HWY																					
4658	P1	0.68	0.78	0.53	0.53	5	6.79	3.60	220.65	217.51	90.56	3.47%	15	12.06	8.58	0.18		225.15	0.013			
P1	P2	0.00	0.00	0.00	0.53	5	6.79	3.60	217.45	217.32	8.14	1.60%	18	13.31	6.40	0.02		222.72	0.013	4658		
P2	P3	1.78	0.72	1.28	1.81	5	6.79	12.30	217.12	216.87	44.03	0.57%	18	7.94	4.49	0.16	Capacity Exceeded	222.35	0.013	P1	25551	
P3	P4	0.27	0.90	0.24	2.06	5	6.79	13.95	216.87	216.83	6.68	0.57%	18	7.94	4.50	0.02	Capacity Exceeded	221.92	0.013	P2		
P4	4712	0.00	0.00	0.00	2.06	5	6.79	13.95	216.67	216.56	25.35	0.43%	18	6.94	3.93	0.11	Capacity Exceeded	221.89	0.013	P3		
4712	23320	0.00	0.00	0.00	2.06	5	6.79	13.95	216.41	213.96	166.42	1.47%	18	12.78	7.23	0.38	Capacity Exceeded	220.60	0.013	P4		
*	GENERAL ASSUMPTIONS																					
*	Existing pipe diameters, lengths, inverts, & tops from survey (unless otherwise noted). Lag time not considered in this analysis. C-Factors based on existing conditions GIS data and standard C-Factor tables.																					

PROPOSED STORM SEWER INLET COMPUTATIONS

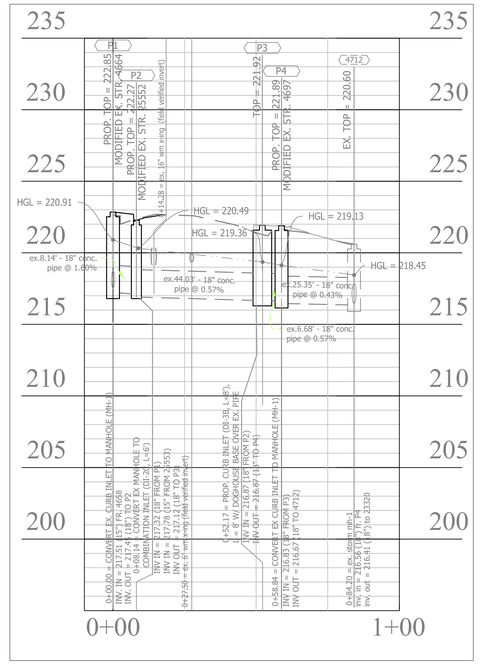
Project: TR07 Lee Hwy & N Adams St

INLET NUMBER	TYPE	L, LENGTH (ft)	STATION	DRAINAGE AREA (acres)	C	C x A	sum	INTENSITY (in/hr)	Q INCR (ft³/s)	Q CARRY OVER (ft³/s)	Q TOTAL (ft³/s)	S LONGITUDINAL GUTTER SLOPE, (ft/ft)	Sx CROSS SLOPE (OF THE ROAD), (ft/ft)	T SPREAD (ft)	W WIDTH OF GUTTER PAN (ft)	W/T WIDTH/SPREAD	Sw CROSS SLOPE (OF THE GUTTER) (ft/ft)	SwSx GUTTER FLOW RATIO	Eo Total Depression (in)	a	S'w	Se Equivalent cross slope (ft/ft)	Lt Computed Length (ft)	P PERIMETER OF GRATE (ft)	L/Lt	d Depth of flow @ inlet (ft)	E Inlet Effeciency (%)	h Actual height of curb opening (ft)	Q	d/H	Qb CARRY OVER (ft³/s)	T SPREAD AT SAG (ft)	REMARKS
P2	DI-2C	6		0.45	0.75	0.34	0.34	4.00	1.35		1.35	0.0592	0.0841	2.31	1.5		0.083	0.99						9.60		0.27		0.42		0.65		3.26	
				0.48	0.81	0.39	0.39	4.00	1.56	0.00	1.56			2.43																			
P3	DI-3B	8		0.27	0.90	0.24	0.24	4.00	0.97		0.97	0.0306	0.0822	2.32	1.50	0.65	0.0833	1.01	0.94	1.52	0.08	0.16	7.73		1.03	0.11	1.00		0.97		0.00		

PROPOSED STORM SYSTEM HYDRAULIC GRADE LINE COMPUTATIONS

Project: TR07 Lee Hwy & N Adams St

INLET STATION (1)	UP STREAM INLET	Outlet Water Surface Elev. (2)	FRICTION LOSSES Do (3)	Qo (4)	Lo (5)	Sfo (6)	Hf (7)	JUNCTION LOSSES Exit Loss Vo (8)	Ho (9)	Entrance Loss Qi (10)	Vi (11)	QiVi (12)	2 Vi /2g (13)	Hi (13)	Bend Loss Angle (14)	Hd (15)	Junction Loss Adjustments Ht (16)	1.3 Ht (17)	0.5 Ht (18)	FINAL H (Junction + Friction Losses) (19)	Inlet Water Surface Elev. (20)	RIM ELEV. (21)	max @ inlet	pre-hgl 10yr-wse	inv1val	inv2val	inv3val	Structure has no plunging losses.	Structure has inlet shaping.
*	80% full flow WSEL entering structure #23320 from structure #4712 = 213.96' + (1.5' x 0.8) = 215.16'.																												
23320																			Starting Elevation	215.16	216.79	215.16	215.160				TRUE	TRUE
4712		215.16	18.00	13.95	166.42	1.76	2.92	7.23	0.20					0.08		0.08	0.37	0.00	0.00	3.29	218.45	220.60	218.449	218.45	218.06	0	0	TRUE	FALSE
	P4		18.00							13.95	3.93	54.78	0.24		36.00														
P4		218.45	18.00	13.95	25.35	1.76	0.44	3.93	0.06					0.11		0.05	0.22	0.00	0.00	0.67	219.12	221.89	219.117	219.12	218.33	0	0	TRUE	FALSE
	P3		18.00							13.95	4.50	62.73	0.31		21.00														
P3		219.12	18.00	13.95	6.68	1.76	0.12	4.50	0.08					0.11		0.03	0.22	0.00	0.11	0.23	219.34	221.92	219.344	219.34	218.37	0	0	TRUE	TRUE
	P2		18.00							12.30	4.49	55.26	0.31		15.00														
P2		219.34	18.00	12.30	44.03	1.36	0.60	4.49	0.08					0.22		0.06	0.36	0.00	0.00	0.96	220.30	222.35	220.301	220.30	218.82	0	0	TRUE	FALSE
	P1		18.00							3.60	6.40	23.05	0.64		13.00														
P1		220.30	18.00	3.60	8.14	0.12	0.01	6.40	0.16					0.00		0.00	0.16	0.00	0.00	0.17	220.47	222.72	220.47	220.47	0	0	0	TRUE	FALSE
	4658									3.60	0.00	0.00	0.00		0.00														
4658		220.47	15.00	3.60	90.56	0.31	0.28	8.58	0.29					0.00		0.00	0.29	0.00	0.14	0.42	220.89	225.15	220.893	220.89	0	0	0	TRUE	TRUE
										3.60	0.00	0.00	0.00		0.00														



NOTE:

EXISTING PIPES FROM PROPOSED STRUCTURE # P1 TO EXISTING STRUCTURE #4712 WILL BE RE-LINED BASED ON THE TV PIPE INSPECTION RESULT PERFORMED BY ARLINGTON COUNTY CONTRACTOR, MPS-UTILITIES. IN ADDITION TO THE VISUAL INSPECTION DURING THE INITIAL INSTALLATION OF STORM SEWER PIPES AND PIPE CULVERTS, A POST INSTALLATION VISUAL/VIDEO CAMERA INSPECTION SHALL BE CONDUCTED BY THE CONTRACTOR ON ALL STORM SEWER PIPES WITHIN THE PROJECT LIMITS AND/OR A SELECTED NUMBER OF PIPE CULVERTS IN ACCORDANCE WITH VDOT 2016 ROAD AND BRIDGE SPECIFICATION SECTION 302.03 (d) AND VIRGINIA TEST METHODS 123.

STORMWATER & ADEQUATE OUTFALL NARRATIVE

OUTFALL NARRATIVE:

THE SUBJECT PROJECT SITE IS LOCATED AT THE INTERSECTION OF LEE HWY & N ADAMS ST WHICH CONSISTS NEW SIGNAL SYSTEM WITH CURB EXTENSIONS AT ALL CORNERS. THE WATERSHED OF THIS PROJECT IS SPOUT RUN. THE PROPOSED PROJECT STRIVES TO HONOR THE EXISTING DRAINAGE DIVIDES. THE UPSTREAM DRAINAGE IS PRIMARILY FROM THE NORTH AND TOWARDS WEST INTO EXISTING STORM SYSTEM ALONG LEE HWY.

BOTH EXISTING AND PROPOSED STORM SEWER SYSTEMS WERE ANALYZED USING THE 10-YEAR STORM EVENT AND INCLUDE HYDROLOGIC AND HYDRAULIC COMPUTATIONS. THIS ANALYSIS IS PRESENTED ON THIS SHEET.

THE GRAVITY FLOW ANALYSIS OF THE EXISTING PIPES FROM THE STORM STRUCTURES #25552 TO #23320 SHOWED THAT THESE PIPES ARE UNDERSIZED. HOWEVER, THE HGL ANALYSIS SHOWED WATER SURFACE ELEVATIONS LOWER THAN THE STRUCTURE RIM ELEVATIONS.

A NEW CURB INLET WILL BE ADDED TO CONNET TO EXISTING PIPES ON N ADAMS ST AT THE NORTHWEST CORNER OF THE INTERSECTION OF LEE HWY. SOME OF THE EXISTING STORM STRUCTURES (#4664, 25552, & 4697) WILL BE CONVERTED TO THE PROPOSED STORM STRUCTURES (P1, P2, & P4 RESPECTIVELY) AS MANHOLE OR CURB INLET STRUCTURES BASED ON THE PROPOSED CURB EXTENSION INSTALLATION.

THIS PROJECT IS A LINEAR PROJECT WITH MINIMAL CHANGES TO THE EXISTING CONDITIONS. THE TOTAL DISTURBED AREA OF THIS PROJECT IS ABOUT 0.08AC (3,300.37 SF). THE IMPERVIOUS AREA WILL BE REDUCED WITH 80.47 SF DUE TO THE NEW SIDEWALK IMPROVEMENT, WHICH IS NEGLIGIBLE IMPROVEMENT TO THE EXISTING DRAINAGE SYSTEM. AND THERE WILL BE NO CHANGE TO EXISTING DRAINAGE PATTERN. THEREFORE, THE PROPOSED DEVELOPMENT WILL NOT CAUSE ADVERSE IMPACT TO EXISTING AND DOWNSTREAM DRAINAGE SYSTEM.

STORMWATER MANAGEMENT NARRATIVE:

THIS INTERSECTION IMPROVEMENT IS A LINEAR PROJECT. THE STORMWATER MANAGEMENT FOR THIS PROJECT IS CONSIDERED UNDER VSMP PART IIB DESIGN CRITERIA.

WATER QUALITY CONTROL REQUIREMENTS:

THE LIMITS OF DISTURBANCE FOR THIS PROJECT FALL WITHIN BOTH VDOT AND ARLINGTON COUNTY RIGHT-OF-WAY. THE REQUIRED PHOSPHORUS REMOVALS FOR VDOT AND ARLINGTON COUNTY HAVE BEEN CALCULATED USING THE VIRGINIA RUNOFF REDUCTION METHOD (VRRM) SPREADSHEET FOR THIS RE-DEVELOPEMENT LINEAR PROJECT (SEE VRRM CALCULATION ON SHEETS 11 &11A). THE TOTAL PHOSPHORUS REMOVAL REQUIREMENT IS 0.03 POUNDS PER YEAR. SINCE THE SITE'S DISTURBED AREA IS LESS THAN 5 ACRES , PER CODE OF VIRGINIA 9VAC25-870-65 & 69.B, THE COUNTY WILL MEET THE WATER QUALITY COMPLIANCE REQUIREMENT THROUGH THE PURCHASING OF OFFSITE NUTRIENT CREDITS WITHIN THE SAME WATERSHED.

WATER QUANTITY CONTROL REQUIREMENTS:

THE EXISTING STORMWATER CONVEYANCE SYSTEM RECEIVING RUNOFF FROM THE DEVELOPMENT IS ANALYZED. SEE COMPUTATIONS THIS SHEET. CURRENTLY THERE IS NO DRAINAGE OR EROSION ISSUES OCCURRED ON THE SITE. ACCORDING TO THE DRAINAGE COMPUTATIONS THE POST DEVELOPMENT DISCHARGE FROM THE PROJECT IS CONFINED WITHIN THE STORMWATER CONVEYANCE SYSTEM AND IS ADEQUATE.

RUNOFF FROM THE SITE SHALL BE TREATED WITH SILT FENCE AND INLET PROTECTIONS PRIOR TO ENTERING EXISTING STORM SEWER SYSTEMS ALONG THE STREETS DURING CONSTRUCTION. THERE WILL BE NO ADVERSE IMPACT TO EXISTING STORM DRAIN SYSTEM NOR DOWNSTREAM PROPERTIES FROM THIS PROPOSED DEVELOPMENT. AND THE SITE DOES NOT EXPERIENCE ANY LOCALIZED FLOODING COMPLAINTS NOR ISSUES FROM ARLINGTON COUNTY RECORDS. THEREFORE, WATER QUANTITY REQUIREMENT HAS BEEN SATISFIED FOR THE SUBJECT SITE.

ARLINGTON
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SEAL

COMMONWEALTH OF VIRGINIA
BI FENG WU
Lic. No. 047585
10/07/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
T&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

STORM DRAINAGE COMPUTATION AND PROFILE
INTERSECTION SIGNAL IMPROVEMENT
TR07

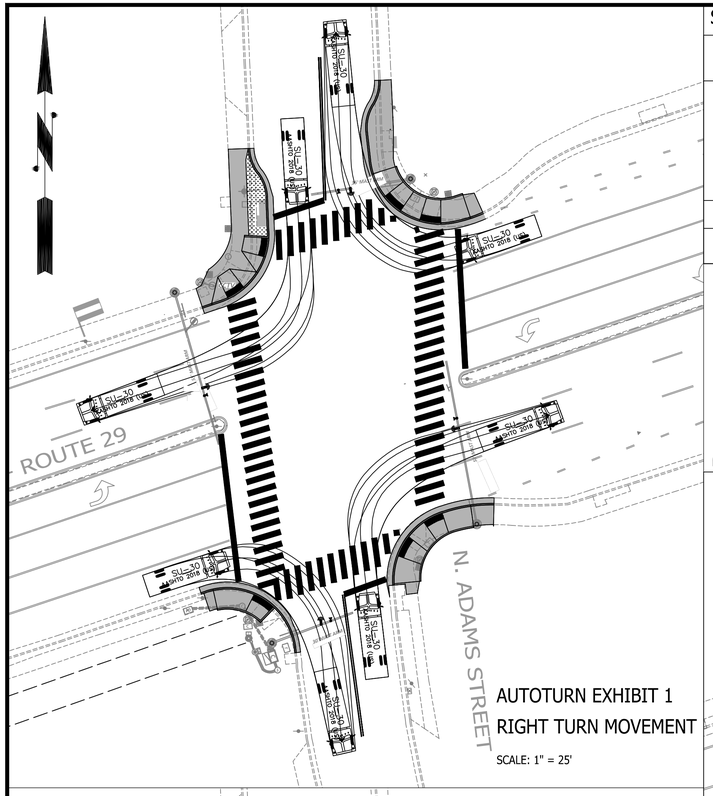
DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS DRAINAGE PLANS.DWG
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: OCTOBER 7 2021
PLOTTED BY: BWU

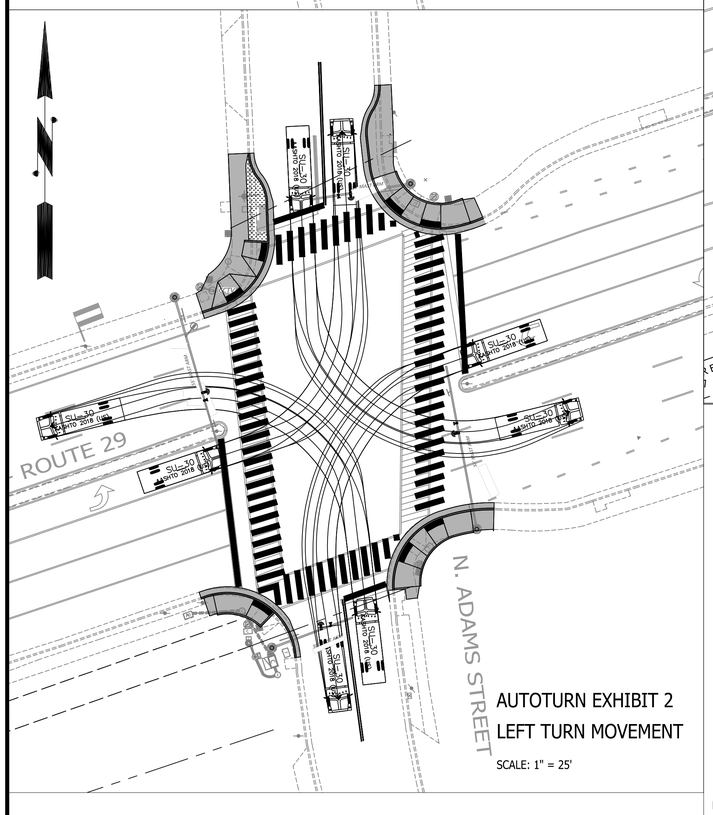
SCALE
GRAPHIC SCALE
25 0 25
Hor. Scale: 1" = 25'
5 0 5
Vert. Scale: 1" = 5'

SHEET
C19 OF C23

Revised: 01/21/2016



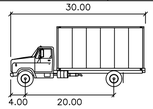
AUTOTURN EXHIBIT 1
RIGHT TURN MOVEMENT
SCALE: 1" = 25'



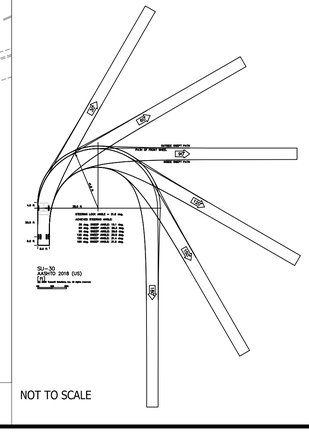
AUTOTURN EXHIBIT 2
LEFT TURN MOVEMENT
SCALE: 1" = 25'

STANDARD TYPICAL SIGN KEY

SIGN NO.	1	2	3
SIGN			
STD. NO.	R4-7	R6-1R	R6-1L
SIZE	18"X24"	36"X12"	36"X12"
	4	5	
			
	R8-3A(R)	R8-3AB	
	12"X18"	12"X18"	



NOT TO SCALE



NOT TO SCALE

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 4" WIDTH, 2' LONG, 10' SPACING	LANE TRANSITIONS, TURN LANE SKIPS
(D) TYPE B CLASS 1.....,WHITE 18" WIDTH	STOP BARS (D* FOR VDOT ROW, WHITE 24" WIDTH)
(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, 10' 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) TYPE B CLASS 1.....,WHITE 6" WIDTH, 2' LONG, 4' SPACING	LANE TRANSITIONS
(R) TYPE B CLASS 1.....,WHITE 4" WIDTH, DOUBLE LINE, 4' SPACING	CURB EXTENSIONS

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 DENNIS HOWELL OR HIS DESIGNEE AT 703-228-6598 OR (571) 437-1077 TO APPROVE MARKING LAYOUT 48 HRS. 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.

ARLINGTON
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DEPARTMENT OF
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TRANSPORTATION DIVISION
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OPERATION BUREAU
2100 CLARENDON BOULEVARD, SUITE 900
ARLINGTON, VA 22201
PHONE: 703.228.3344
FAX: 703.228.3719

SEAL

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY &
NORTH ADAMS STREET

SIGNAGE AND PAVEMENT MARKING PLAN

INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

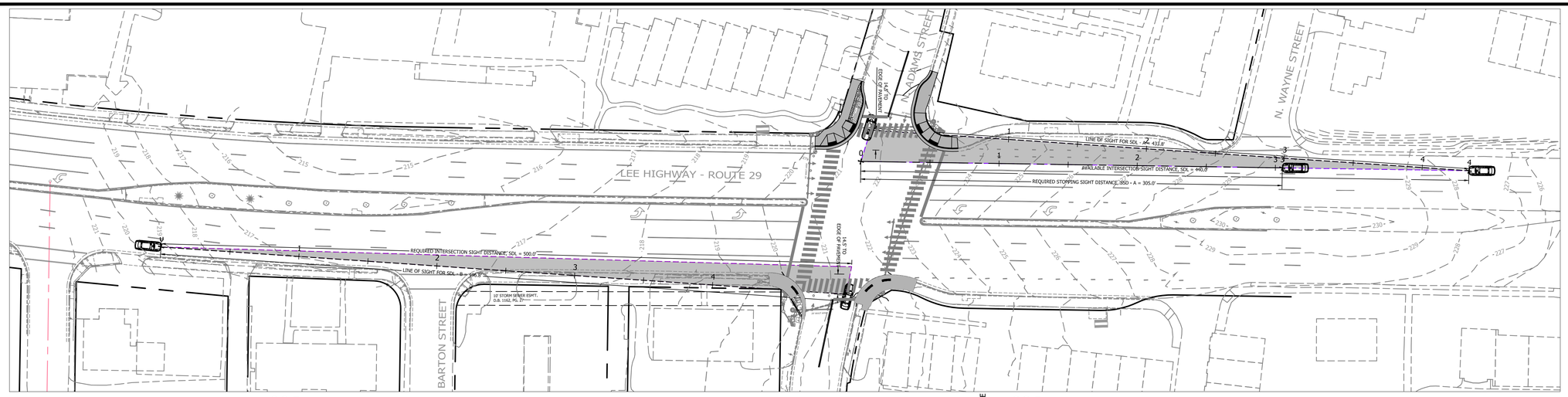
FILENAME: TR07 - N ADAMS STRIPING & MOT PLANS.
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED:DECEMBER 13 2021
PLOTTED BY:BWU

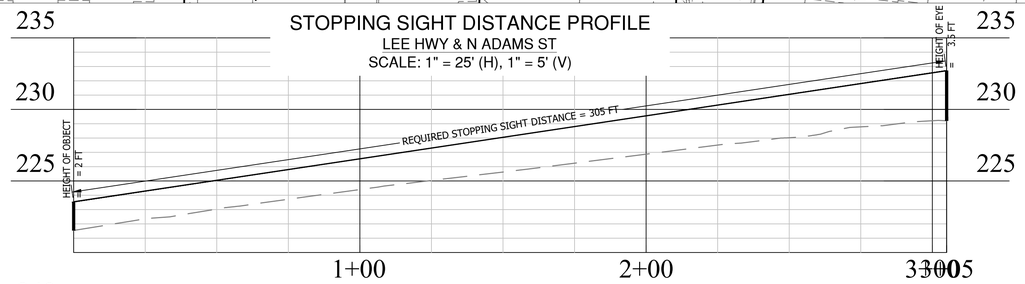
SCALE 1" = 20'

AS SHOWN

SHEET
C20 OF C23

Revised: 01/21/2016





0 40 80

GRAPHIC SCALE

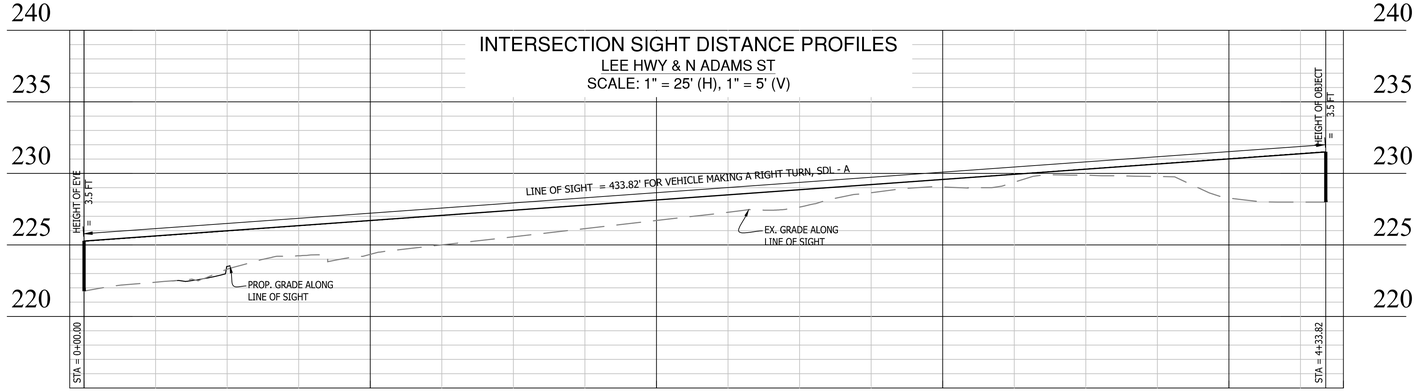
INTERSECTION CONDITION

POSTED SPEED FOR MAJOR ROAD
LEE HWY: 35 MPH

DESIGN SPEED FOR MAJOR ROAD
LEE HWY: 40 MPH

INTERSECTION SIGHT DISTANCE (RIGHT TURN FROM N ADAM ST)
SDL: REQUIRED - 500' (GRADE ADJUSTMENT FACTOR = 1.0)
STOPPING SIGHT DISTANCE REQUIRED = 305'

NOTE:
EXISTING SURFACE WAS GENERATED FROM ARLINGTON COUNTY EXISTING GIS DATA.



THIS PLAN IS FOR INTERSECTION SIGHT DISTANCE EXHIBIT PURPOSES ONLY

Revised: 01/21/2016

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SEAL

COMMONWEALTH OF VIRGINIA
BI FENG WU
Lic. No. 047585
10/07/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

INTERSECTION SIGHT DISTANCE EXHIBIT

INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS INTERSECTION SIGHT D
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: OCTOBER 7 2021
PLOTTED BY: BWU

SCALE

AS SHOWN

SHEET
C20A OF C23

LEE HWY SIGNAL UPGRADED PROJECT
LEE HWY & N. ADAMS ST INTERSECTION
TRANSPORTATION MANAGEMENT PLAN (TMP)

GENERAL TMP NOTES:

1. PROJECT IS A "TYPE A" TMP PROJECT. THIS PROJECT SUPPORTS FOR THE SIGNAL IMPROVEMENT OF LEE HWY & N. ADAMS ST INTERSECTION. THE PROJECT INCLUDES SIDEWALK & CURB RAMPS IMPROVEMENT AS WELL
2. FOR CONCRETE WORK (ONE-LANE CLOSURE), THE WORKING HOURS ALONG VDOT RIGHT-OF-WAY AREA ARE AS FOLLOWS:

MON. TO THU.	FRIDAY	SATURDAY	SUNDAY
9:30 AM TO 3:30 PM	9:30 AM TO 2:00 PM	*Not Allowed	*Not Allowed

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

MON. TO FRI.	SATURDAY	SUNDAY
9:00 AM TO 4:00 PM	*Not Allowed	*Not Allowed

4. BEFORE AND AFTER WORKING HOURS, ALL TRAVEL LANES SHALL BE OPENED TO THE MOTORISTS.
5. NO LANE CLOSURES WILL BE ALLOWED FROM NOON ON THE DAY BEFORE A HOLIDAY UNTIL NOON ON THE WORKDAY FOLLOWING THE HOLIDAY. HOLIDAYS INCLUDE ALL STATE AND FEDERAL HOLIDAYS.
6. MAINTENANCE OF TRAFFIC (MOT) PLAN WHICH INCLUDE THE SEQUENCE OF CONSTRUCTION (SOC) WAS REVIEWED AND APPROVED BY THE ARLINGTON COUNTY TRANSPORTATION ENGINEERING AND OPERATION (TE&O) BUREAU.
7. NO DRIVEWAY ENTRANCES ARE BEING AFFECTED BY THE PROPOSED WORK ALONG VDOT R-O-W.
8. THE CONTRACTOR SHALL COORDINATE WITH ARLINGTON COUNTY TRANSIT BUREAU (703-228-3049) AT LEAST 4 WEEKS PRIOR TO COMMENCEMENT OF WORK FOR APPROVAL, IF TRANSIT IS AFFECTED.
9. THE CONTRACTOR SHALL RETAIN PEDESTRIAN ACCESS TO THE BUS STOPS LOCATED WITHIN THE CONSTRUCTION ZONE FOR THE DURATION OF THE PROJECT.
10. THE CONTRACTOR SHALL :
    A. DESIGNATE A PERSON ASSIGNED TO THE PROJECT WHO WILL HAVE THE PRIMARY RESPONSIBILITY, WITH SUFFICIENT AUTHORITY, FOR IMPLEMENTING THE TMP/MOT/SOC AND OTHER SAFETY AND MOBILITY ASPECTS OF THE PERMIT WORK. THIS PERSON SHALL COORDINATE WITH THE ARLINGTON COUNTY CONSTRUCTION MANAGER FOR THE DURATION OF THE PROJECT.
    B. ENSURE THAT PERSONNEL ASSIGNED TO THE PROJECT ARE TRAINED IN TRAFFIC CONTROL TO A LEVEL COMMENSURATE WITH THEIR RESPONSIBILITIES IN ACCORDANCE WITH VDOT'S WORK ZONE TRAFFIC CONTROL TRAINING GUIDELINES.
    C. PERFORM REVIEWS OF THE CONSTRUCTION AREA TO ENSURE COMPLIANCE WITH CONTRACT DOCUMENTS AT REGULARLY SCHEDULED INTERVALS AT THE DIRECTION OF THE ENGINEER. CONTRACTORS SHALL MAINTAIN AN APPROVED COPY OF THE TEMPORARY TRAFFIC CONTROL PLAN AT THE WORK SITE AT ALL TIMES.
11. THIS TMP/MOT/SOC PLAN IS INTENDED AS A GUIDE. IT IS NOT TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH PHASE, BUT ONLY TO TO SHOW THE GENERAL HANDLING OF EXISTING TRAFFIC. IF THE CONTRACTOR IS TO DEVIATE FROM THE APPROVED TMP, A NEW OR REVISED TMP MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL.
12. ALL AREAS EXCAVATED BELOW THE EXISTING PAVEMENT SURFACE AND WITHIN THE CLEAR ZONE AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACKFILLED UP TO EXISTING PAVEMENT OR NEWLY CONSTRUCTED PAVEMENT SURFACE FOR THE SAFETY AND PROTECTION OF VEHICULAR TRAFFIC.
13. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE FOR THE DURATION OF THE PROJECT. CONTRACTOR SHALL ADD ANY ADDITIONAL TEMPORARY MEASURES NECESSARY TO FACILITATE PROPER, POSITIVE DRAINAGE FOR THE DURATION OF CONSTRUCTION.
14. EACH PHASE OF CONSTRUCTION SHALL BE COMPLETED PRIOR TO THE START OF THE NEXT PHASE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
15. PUBLIC COMMUNICATION PLAN
    THE CONTRACTOR SHALL BE RESPONSIBLE FOR:
    A. NOTIFYING THE VDOT PROJECT MANAGER/RESIDENCY ADMINISTRATOR OF SCHEDULED WORK PLANS AT LEAST 48 HOURS PRIOR TO BEGINNING EACH PHASE OF THE MAINTENANCE OF TRAFFIC OPERATIONS.
    B. NOTIFYING THE VDOT PROJECT MANAGER/RESIDENCY ADMINISTRATOR, REGIONAL OPERATION MANAGER AND THE PUBLIC AFFAIRS STAFF OF ANY UNSCHEDULED TRAFFIC DELAYS THAT THAT MAY OCCUR.
    C. INSTALLING VARIABLE MESSAGE SIGNBOARDS (VMS) WITH PROJECT START DATE INFORMATION APPROXIMATELY 500' BEFORE AND AFTER THE PROJECT SITE LIMIT THREE (3) WEEKS IN ADVANCE PRIOR TO START OF ANY ROADWORK AND LANE CLOSURE.
16. TRANSPORTATION OPERATION PLANS
    THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING AND PROVIDING THE FOLLOWING:
    A. NOTIFYING THE VDOT REGIONAL TRANSPORTATION OPERATIONS CENTER (TOC) 48 HOURS IN ADVANCE IN ORDER TO PLACE LANE CLOSURE INFORMATION ON THE 511 SYSTEM AND VA-TRAFFIC. FOR ADDITIONAL INFORMATION, PLEASE CALL CARLENE MC WHIRT AT 571-350-2078.
    B. HAVING THE LIST OF LOCAL EMERGENCY RESPONSE AGENCIES AVAILABLE AT THE WORK SITE AT ALL TIMES.
    C. IMMEDIATELY REPORTING ANY TRAFFIC INCIDENTS THAT MAY OCCUR IN THE WORK ZONE.
    D. NOTIFY THE PROJECT'S CONSTRUCTION MANAGER AND CORRESPONDING ENGINEER OF ANY INCIDENTS AND EXPECTED TRAFFIC DELAYS.
    E. WITHIN 24 HOURS OF ANY INCIDENTS WITHIN THE CONSTRUCTION WORK ZONE, A REVIEW OF THE TRAFFIC CONTROLS SHALL BE IMPLEMENTED AND NECESSARY ADJUSTMENTS MADE TO REDUCE THE FREQUENCY AND SEVERITY OF ANY FUTURE ACCIDENTS.
    F. EMERGENCY CONTACTS DURING THE DURATION OF THE PROJECTS ARE THE FOLLOWING:
    - SAROSH SALEEM - CONSTRUCTION MANAGEMENT MANAGER - 703-228-3402
    - JOSHUA NICHOLAS - PROJECT MANAGER - 703-228-3861
    - DES R-O-W PERMITTING SECTION - 703-228-4798
    - ARLINGTON COUNTY TRANSIT BUREAU - 703-228-3049
    - WATER, SEWER AND STREET OPERATION - 703-228-6555
    - ARLINGTON COUNTY POLICE - 703 -558-2222
    - EMEGENCY CALL - 911
    - VDOT PROJECT CONSTRUCTION INSPECTOR - TBD

FIRE DEPARTMENT NOTES:

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

MAINTENANCE OF TRAFFIC (MOT) GENERAL NOTES:

1. TRAFFIC CONTROL DEVICES AND SAFETY MEASURES SHALL COMPLY WITH THE LATEST EDITION OF THE VIRGINIA WORK AREA PROTECTION MANUAL, VDOT's GUIDELINES FOR TEMPORARY TRAFFIC CONTROL, FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, ARLINGTON COUNTY STANDARDS, THE TRAFFIC CONTROL PLANS INCLUDED IN THE CONSTRUCTION DRAWINGS, AND/OR AS DIRECTED BY THE PROJECT OFFICER.
2. THE CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE WHICH INDICATES START AND FINISH DATES FOR EACH SEGMENT OF THE WORK. THE SCHEDULE SHALL INDICATE THE DURATION OF ALL LANE OR SHOULDER CLOSURES. THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER A MINIMUM OF 3 BUSINESS DAYS IN ADVANCE OF PROCEEDING TO THE NEXT WORK SEGMENT.
3. THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER OF PARKING RESTRICTION NEEDS A MINIMUM OF 3 BUSINESS DAYS PRIOR TO COMMENCEMENT OF WORK FOR EACH SEGEMENT. COUNTY PROJECT OFFICER SHALL RESTRICT PARKING BY CONTACTING DES - PERMITTING SECTION, 703-228-4798.
4. PORTABLE VARIABLE MESSAGE SIGNS WITH CLOSURE INFORMATION MUST BE INSTALLED AHEAD OF WORK AREA 3 WEEKS PRIOR TO CLOSURE.
5. DURING CONSTRUCTION, THE CONTRACTOR SHALL EITHER MAINTAIN APPROPRIATE SIGHT DISTANCE TO ALL TRAFFIC SIGNS OR PROVIDE FOR TEMPORARY SIGNAGE OR FLAGGERS TO GUIDE TRAFFIC THROUGH WORK ZONES.
6. THE CONTRACTOR SHALL MINIMIZE THE DURATION OF ANY BLOCKAGE TO PRIVATE ENTRANCES AND DRIVEWAYS. THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF DRIVEWAY CLOSURE FOR APPROVAL BY THE PROJECT OFFICER. THE PROJECT OFFICER SHALL BE NOTIFIED A MINIMUM OF 3 BUSINESS DAYS IN ADVANCE OF SUCH ACTIVITIES. THE CONTRACTOR SHALL NOTIFY THE PROPERTY OWNER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE TEMPORARY CLOSURE OF ACCESS TO THE PROPERTY. THE CONTRACTOR SHALL MAKE ALL PRIVATE ENTRANCES AND DRIVEWAYS ACCESSIBLE AT THE CONCLUSION OF EACH WORKDAY.
7. WHEN DOING WORK AT THE INTERSECTION AN ARLINGTON COUNTY POLICE OFFICER(S) SHALL BE PRESENT TO DIRECT OR MONITOR ROAD USERS DURING MOT OPERATIONS AT THE CONTRACTOR'S EXPENSE. CONTACT ARLINGTON COUNTY POLICE DEPARTMENT LT. ROBERT DESO OR HIS ASSIGNEE AT 703-228-7460 FOR DETAILS AT LEAST 2 WEEKS IN ADVANCE PRIOR TO START OF WORK AT FOLLOWING INTERSECTIONS SHOWN BELOW.

   - LEE HIGHWAY / N. ADAMS STREET INTERSECTION

8. ANY EXCAVATIONS WHICH ARE SPECIFICALLY APPROVED BY THE PROJECT OFFICER TO REMAIN OPEN PAST NORMAL WORKING HOURS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PROTECTED IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL AND AS APPROVED BY THE PROJECT OFFICER.
9. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES, INCLUDING ACCESS TO BUS STOP SHELTERS, UNLESS OTHERWISE APPROVED IN THE PLANS.
10. PEDESTRIAN TRAFFIC SHALL BE SEPARATED FROM WORK ZONES WITH APPROPRIATE MEASURES IN ACCORDANCE WITH MUTCD.
11. ADEQUATE PROVISIONS FOR PERSONS WITH DISABILITIES SHALL BE PROVIDED AT ALL TIMES PER ADA REQUIREMENTS.
12. WHEN NECESSARY, PEDESTRIANS SHALL BE APPROPRIATELY DIRECTED WITH ADVANCED WARNING SIGNS PLACED AT INTERSECTIONS, TO CROSS TO THE OPPOSITE SIDE OF THE ROADWAY IN ORDER TO PREVENT CONFLICT WITH MIDBLOCK WORK SITES.
13. PEDESTRIANS SHALL NOT BE LED INTO CONFLICT WITH WORK SITE EQUIPMENT, OPERATIONS, AND/OR VEHICLES MOVING THROUGH OR AROUND THE WORK SITE.
14. THE CONTRACTOR SHALL NOTIFY ARLINGTON COUNTY TRANSIT BUREAU, 703-228-3049, A MINIMUM OF 4 WEEKS PRIOR TO COMMENCEMENT OF WORK, IF TRANSIT IS AFFECTED.
15. AT SIGNALIZED INTERSECTIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING VEHICLE DETECTION AT ALL TIMES DURING THE PROJECT. TRAFFIC SENSORS SHALL BE RESTORED TO THEIR PRE-CONSTRUCTION STATE PRIOR TO THE COMPLETION OF THIS PROJECT.
16. THE CONTRACTOR SHALL COMPLY WITH "RESTRICTED" WORKING HOURS AS DEFINED BY VDOT AND AS NOTED ON THE APPROVED VDOT PERMIT WHEN WORKING WITHIN THE VDOT RIGHT-OF-WAY. THE CONTRACTOR IS RESPONSIBLE FOR SATISFYING ALL VDOT PERMIT REQUIREMENTS.
17. MAINTENANCE OF TRAFFIC PLANS AND DETAILS SHOWN HERE SHALL BE FOLLOWED BY THE CONTRACTOR DURING CONSTRUCTION. SHOULD THE CONTRACTOR DESIRE TO FOLLOW AN ALTERNATE PLAN, HE SHALL SUBMIT THE PLAN PRIOR TO CONSTRUCTION FOR REVIEW AND APPROVAL. ALTERNATIVE PLAN PREPARATION SHALL BE NO COST TO THE COUNTY.
18. DIRECTIONAL ARROWS SHOWN ON THE MAINTENANCE OF TRAFFIC PLANS ARE FOR INFORMATION ONLY AND ARE NOT TO BE PLACED AS PAVEMENT MARKINGS.
19. THE CONTRACTOR SHALL COVER ANY EXISTING SIGNS WHICH ARE NOT APPLICABLE OR ARE IN CONFLICT WITH THIS MOT PLAN.
20. THE CONTRACTOR SHALL ERADICATE AND RE-STRIPE AS NECESSARY ANY EXISTING PAVEMENT MARKINGS THAT ARE IN CONFLICT WITH OR DO NOT ALIGN WITH THE TEMPORARY PAVEMENT MARKINGS OR NEW TRAFFIC PATTERNS.
21. THE CONTRACTOR SHALL ERADICATE ALL TEMPORARY PAVEMENT MARKINGS, INCLUDING TEMPORARY MARKED CROSSWALKS ONCE THE WORK AREA(S) ASSOCIATED WITH THE MARKINGS HAS BEEN COMPLETED.
22. CONTRACTOR SHALL NOTIFY ARLINGTON COUNTY PUBLIC SCHOOLS TWO WEEKS PRIOR TO STARTING CONSTRUCTION.

Virginia Department of Transportation
REVIEW OF WORKING DRAWINGS
Working drawings have been reviewed in accordance with Section 105.10 2016 VDOT Road & Bridge Specifications
x REVIEW COMPLETED
CORRECT & RESUBMIT
REJECTED - SEE REMARKS
Reviewed by:_____ Date:_____

REVIEWED
By Brian E. Fry at 11:30 am, Feb 02, 2021

Revised: 01/21/2016

ARLINGTON
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TRANSPORTATION DIVISION
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SEAL
COMMONWEALTH OF VIRGINIA
BI FENG WU
Lic. No. 047585
01/14/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

MAINTENANCE OF TRAFFICE PLAN

INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

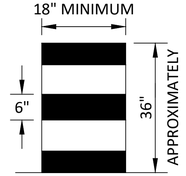
FILENAME: TR07 - N ADAMS STRIPING & MOT PLANS.
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: JANUARY 14 2021
PLOTTED BY:BWU

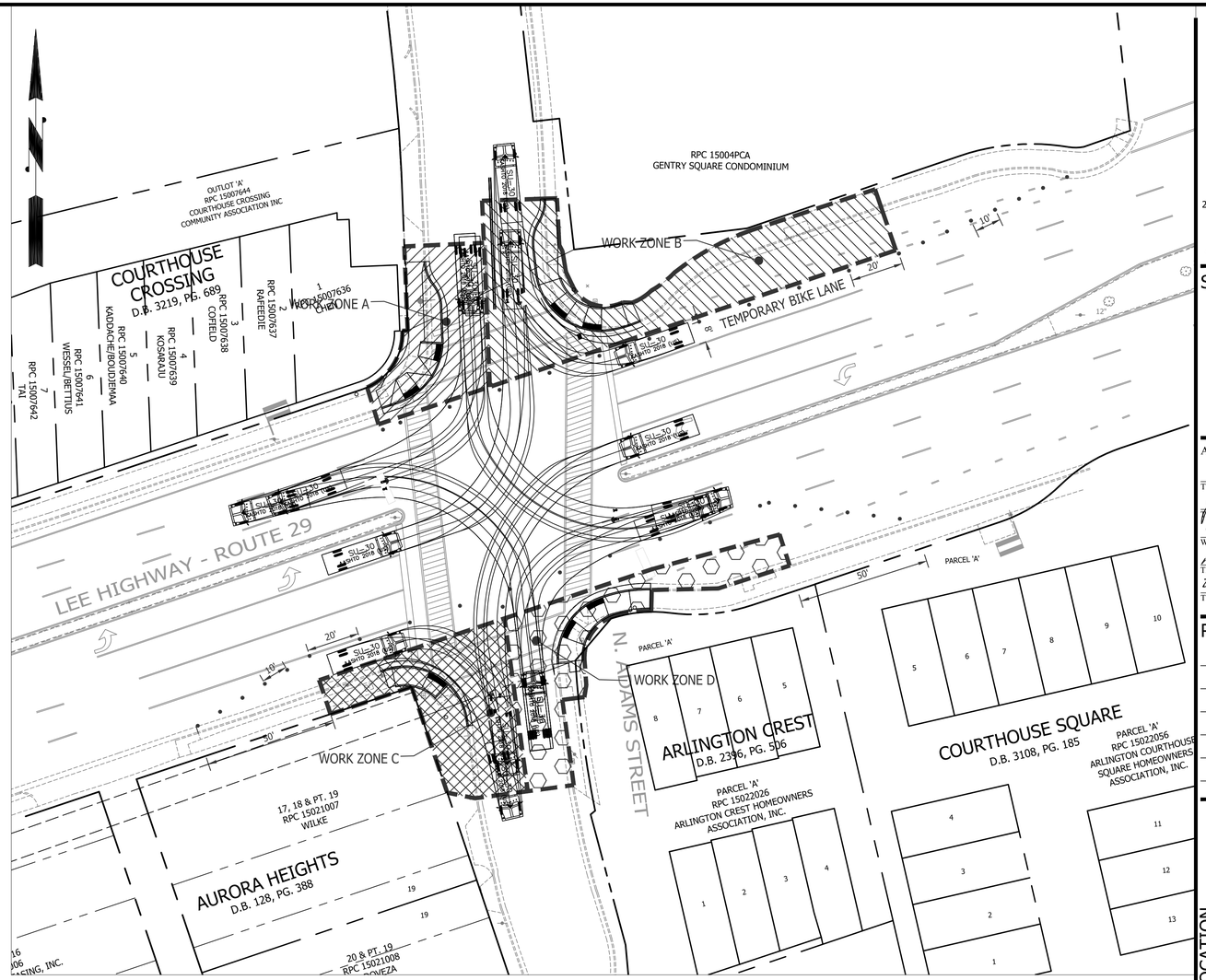
SCALE
NOT TO SCALE

SHEET C21 OF C23

LEGEND:

- ARROW PANEL
- ARROW PANEL ON TRAILER
- WORK ZONE A
- WORK ZONE B
- WORK ZONE C
- CORK ZONE D
- TRAFFIC FLOW
- TRAFFIC DRUM
- ARROW PANEL ON TRAILER
- SIGN
- TYPE III BARRICADE
- FLAGGER





WORK ZONE TABLE

ZONE	TTC #	COMMENTS	DURATION
ZONE A	TTC - 16.1 TTC - 28.1 TTC - 36.1	• BIKE LANE ON THE WEST BOUND OF LEE HWY SHALL BE CLOSED WITH DIVERSION PATH DURING THE CONSTRUCTION. • THE BUS STOP SHALL BE RELOCATED TO THE FAR SIDE OF THE INTERSECTION TEMPORARILY DURING THE CONSTRUCTION.	TWO WEEKS
ZONE B	TTC - 16.1 TTC - 28.1 TTC - 36.1	• BIKE LANE ON THE WEST BOUND OF LEE HWY SHALL BE CLOSED WITH DIVERSION PATH DURING THE CONSTRUCTION.	TWO WEEKS
ZONE C	TTC - 16.1 TTC - 28.1 TTC - 36.1		TWO WEEKS
ZONE D	TTC - 16.1 TTC - 28.1 TTC - 36.1		TWO WEEKS

NOTE: THE DURATIONS SHOWN WERE DEVELOPED FOR PLANNING AND ESTIMATION PURPOSES ONLY. THE DURATIONS IN NO WAY ALTER THE CONTRACT TIME FOR COMPLETION, OR INFRINGE ON THE CONTRACTORS MEANS AND METHODS. THE CONTRACTOR'S SUBMITTED SCHEDULE SUPERSEDES THE ESTIMATED DURATIONS SHOWN.

NOTE: THE EXISTING BUS STOPS WILL REMAIN OPEN AND ACCESSIBLE DURING CONSTRUCTION.

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REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY &
NORTH ADAMS STREET

MAINTENANCE OF TRAFFICE PLAN

INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS STRIPING & MOT PLANS.
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: OCTOBER 7 2021
PLOTTED BY: BWU

SCALE 1" = 25'

25 0 25
1" = 25'

SHEET
C22 OF C23

Revised: 01/21/2016

Typical Traffic Control
Outside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-16.2)
NOTES

Standard:

1. **On divided highways having a median wider than 8', right and left sign assemblies shall be required.**

Guidance:

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
3. *When closing a lane, a PCMS should be used in advance of the first warning sign if all of the left side signs cannot be installed.*[2]
4. *Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. For Limited Access highways a minimum of 1000' is desired.*
5. *All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement.*

Standard:

6. **Taper length (L) and channelizing device spacing shall be at the following:**

Taper Length L

Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks	Speed Limit (mph)	Lane Width (Feet) 9	10	11	12	Remarks
25	95	105	115	125	L=S²W/60	50	450	500	550	600	L=SW
30	135	150	165	180	L=S²W/60	55	495	550	605	660	L= SW
35	185	205	225	245	L=S²W/60	60	540	600	660	720	L=SW
40	240	270	295	320	L=S²W/60	65	585	650	715	780	L=SW
45	405	450	495	540	L=SW	70	630	700	770	840	L=SW
Limited Access highways shall use a 1000' merging taper regardless of the posted speed.											
Shifting Tapers see Table 6H-2.[2]						Shoulder Taper = ½ L Minimum					

7. **Channelizing device spacing shall be at the following:**

Channelizing Device Spacing

Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +	Location Spacing	Speed Limit (mph) 0 -35	36 +
Transition	20'	40'	Travelway	40'	80'	* Construction Access	80'	120'
*Construction access spacing may be increased to this distance, but shall not exceed one access per ¼ mile.								

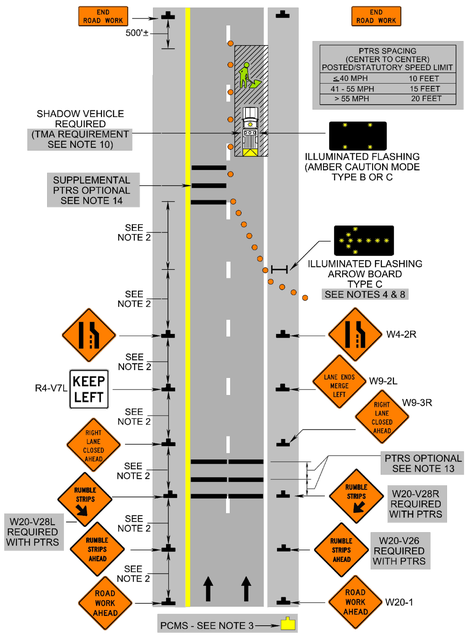
8. **An arrow board shall be used when a lane is closed. When more than one lane is closed, a separate arrow board shall be used for each closed lane (see Figure TTC-18).**
9. **The buffer space length shall be shown in Table 6H-3 on Page 6H-5 for the posted speed limit.**
10. **A shadow vehicle with either a Type B or C arrow board operating in the caution mode, or at least one high intensity amber rotating, flashing, or[1] oscillating light shall be parked 80'-120' in advance of the first work crew. When the posted speed limit is 45 mph or greater, a truck-mounted attenuator shall be used.**
11. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or[1] oscillating lights but can be used to supplement the amber rotating, flashing, or[1] oscillating lights.**
12. **When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed as needed.**

Option:[2]

13. PTRS and their supporting signs may be used, see Sections 6F.99 and 6G.25. Long-term transverse rumble strips may be used in long-term situations, see Section 6F.99 and TTC-20.[2]
14. The supplemental PTRS may be eliminated.[2]

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

Outside Lane Closure Operation on a Four-Lane Roadway
(Figure TTC-16.2)



2: Revision 2 – 9/1/2019

Typical Traffic Control
Lane Closure Operation in an Intersection
(Figure TTC-28.2)
NOTES

Guidance:

1. *The control of traffic through the intersection in order of preference should be:*
   a. Obtain the services of law enforcement personnel.
   b. Detour the effective routes to other roads and streets as approved and directed by the District[1] Traffic Engineer.
   c. Place a state certified flagger on each leg of the intersection controlling a single lane of traffic.
   Appropriate signing as shown should be used for law enforcement and flagging operations. For detour signs see Figure TTC-34.
2. *Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph.*
3. *To maintain efficient traffic flow in a flagging operation on a two-lane roadway the maximum time motorist should be stopped at a flagger station is 8 minutes for high volume roadways (average daily traffic of 500 or more vehicles per day) to a maximum of 12 minutes for low volume roadways (less than 500 vehicles per day). For additional information see Section 6E.07.*[2]

Standard:

4. **Channelizing device spacing shall be on 20' centers or less.**
5. **PTRS shall be used as noted in Section 6F.99.**

Guidance:

6. *If room permits, a shadow vehicle with at least one rotating amber light or high intensity amber flashing or oscillating[1] light should be parked 80'-120' in advance of the first work crew.*

Standard:

7. **For emergency situations (any non-planned operation) of 30 minutes or less duration, two rotating amber lights or high intensity amber flashing or oscillating[1] lights mounted on the vehicle and visible for 360° shall be required in addition to the channelizing devices shown around the vehicle. Also, vehicle hazard warning signals shall be used.**

Guidance:

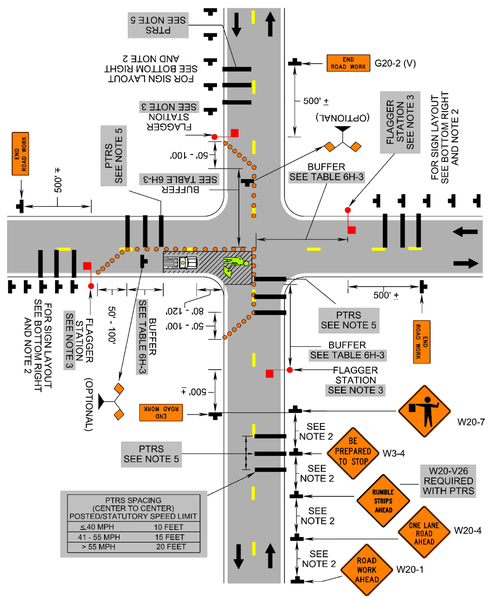
8. *If the work space extends across a crosswalk, the crosswalk should be closed using the information and devices shown in Figure TTC-36.*

Support:

9. Turns can be prohibited as required by vehicular traffic conditions. Unless the streets are wide, it might be physically impossible to make certain turns, especially for large vehicles.

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

Lane Closure Operation in an Intersection
(Figure TTC-28.2)



2: Revision 2 – 9/1/2019

Typical Traffic Control
Crosswalk Closure and Pedestrian Detour Operation
(Figure TTC-36.2)
NOTES

Standard:

1. **When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.**
2. **Curb parking shall be prohibited for at least 50 feet in advance of the midblock crosswalk.**

Guidance:

3. *Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.*
4. *Pedestrian traffic signal displays controlling closed crosswalks should be covered or deactivated.*
5. *Temporary markings should be considered for operations exceeding three days in duration.*

Option:

6. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS (W5-1) signs, may be used to control vehicular traffic.
7. For nighttime closures, Type A Flashing warning lights may be used on barricades supporting signs and closing sidewalks.

Standard:

8. **In order to maintain the systematic use of the fluorescent yellow-green background for school warning signs in a jurisdiction, the fluorescent yellow-green background for school warning signs shall be used in TTC zones.**[2]
9. **All sidewalk closures shall be closed with Type 3 Barricades. The SIDEWALK CLOSED (R9-9) sign and the SIDEWALK CROSS HERE (R9-11) sign shall be installed above the Type 3 Barricade. The KEEP RIGHT sign can cover the top rail of the Type 3 Barricade.**[2]

Support:

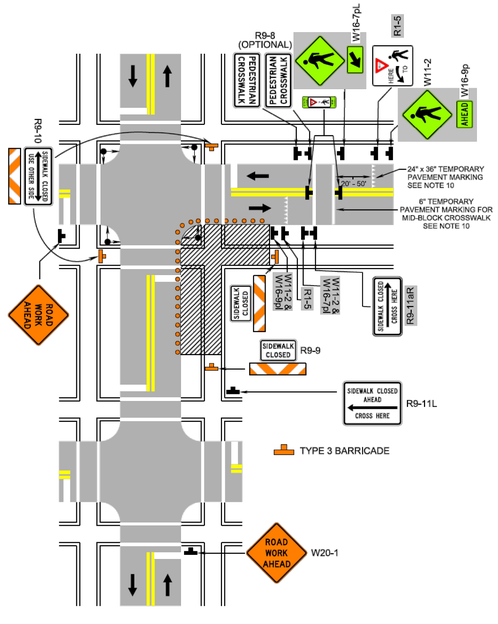
10. Refer to Sections 3B-16 through 3B-18 of the 2009 MUTCD and the Virginia Supplement to the MUTCD[1] for crosswalk[1] lines, yield lines and other related TTC devices that may be used to control vehicular traffic at midblock crosswalks.

Standard:[2]

11. **The YIELD HERE TO PEDESTRIANS (R1-5) sign shall be placed at the Yield Line.**
12. **Fluorescent yellow-green PEDESTRIAN TRAFFIC (W11-2) symbol sign, AHEAD (W16-9p) plaque and ARROW (W16-7p) plaque shall be used to identify the work zone crosswalk.**

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

Crosswalk Closure and Pedestrian Detour Operation
(Figure TTC-36.2)



1: Revision 1 – 4/1/2015
2: Revision 2 – 7/1/2018

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SEAL
COMMONWEALTH OF VIRGINIA
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Lic. No. 047585
10/07/2021
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
TE&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISIONS	DATE

PROJECT NAME AND LOCATION
LEE HIGHWAY & NORTH ADAMS STREET

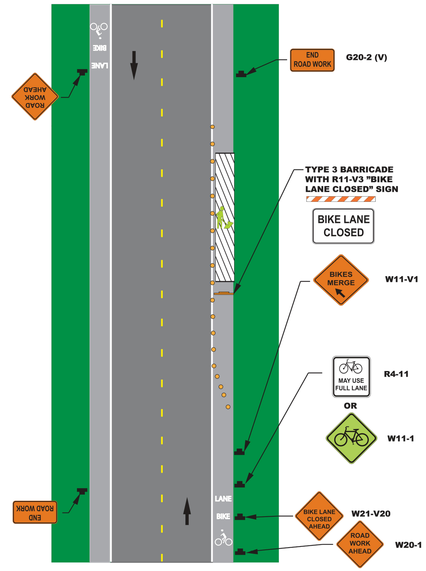
TEMPORARY TRAFFIC CONTROL APPLICATIONS
INTERSECTION SIGNAL IMPROVEMENT
TR07

DESIGNED: BW
DRAWN: BW
CHECKED: JM
MISS UTILITY TRANSMITTAL #: N/A

FILENAME: TR07 - N ADAMS STRIPING & MOT PLANS.
PATH: Q:\DATA\TRAFFIC\DATA\LEE HIGHWAY\N. ADAMS ST\DRAWINGS\SHEETS
PLOTTED: OCTOBER 7 2021
PLOTTED BY: BWU

SCALE
NOT TO SCALE

SHEET
C23 OF C23



EXAMPLE OF A BICYCLE LANE CLOSURE

REVISED: MARCH 03, 2020

ARLINGTON
VIRGINIA

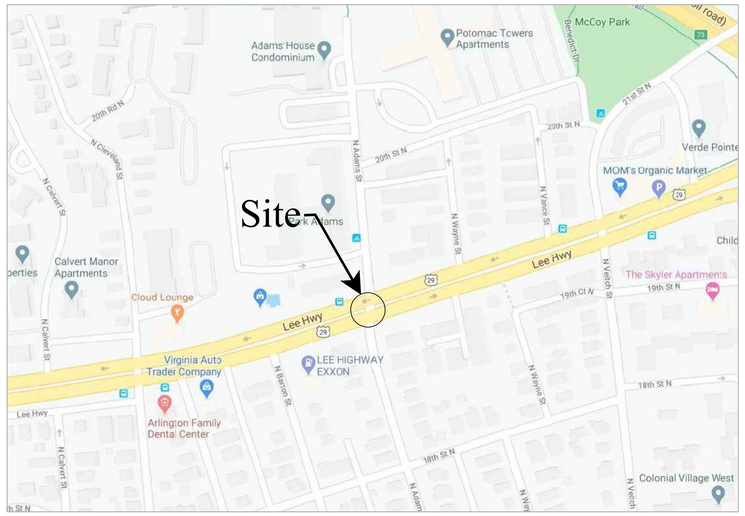
DEPARTMENT OF
ENVIRONMENTAL SERVICES

Transportation Engineering and
Operations Bureau
2100 Clarendon Boulevard, Suite 900, Arlington, VA 22201
Phone: 703.228.3344 Fax: 703.228.3719 www.arlingtonva.us

Location Map

Scale: N.T.S.

Vicinity



Construction Drawings For:

Traffic Signal Modification

Route 29 (Lee Highway) and North Adams Street (TS#144)

Project Number: TR# 07

Signal Notes

A. POLES AND FOUNDATIONS

1. MAST ARM LENGTH IS TO BE AS SHOWN ON PLAN AND ALL MAST ARMS ARE TO BE FIELD DRILLED ONLY.
2. MAST ARM POLES SHALL BE DESIGNED TO THE PROPER HEIGHT TO ACCOMMODATE A STREET LIGHT LUMINAIRE AND INSTALLED IN ACCORDANCE WITH ARLINGTON COUNTY TRAFFIC SIGNAL & STREETLIGHT SPECIFICATIONS.
3. MAST ARM POLE FOUNDATIONS SHALL BE INSTALLED IN ACCORDANCE WITH ARLINGTON COUNTY STANDARDS AND SPECIFICATIONS. ALL POLES SHALL HAVE A 6-BOLT PATTERN.
4. AT THE COUNTY'S REQUEST, THE CONTRACTOR SHALL DIG TEST PITS TO VERIFY THAT SIGNAL POLE FOUNDATIONS WILL NOT CONFLICT WITH UNDERGROUND UTILITIES AND THAT FOUNDATIONS WILL FIT WITHIN THE EXISTING RIGHT-OF-WAY.
5. SIGNAL POLES AND MAST ARMS SHALL BE NON-ORNAMENTAL. COBRA LIGHTING SHALL BE LED.
6. COBRA LIGHTING SHALL BE LED TYPE RFL-145W64LED4K-T-R2M-UNIV-DMG-PH8-RCD7-[USA-003]-BK. DECORATIVE POST-TOP LIGHTING SHALL BE HADCO DECORATIVE POST-TOP LUMINAIRE WITH RELUME LED KIT (UAZ XRE LED 57.69W).

B. CONTROLLER AND FOUNDATION

1. NEW CONTROLLER CABINETS SHALL BE TS2, P TYPE WITH BATTERY BACKUP PER ARLINGTON COUNTY REQUIREMENTS.
2. CONTROLLER SHALL BE INTELIGHT X-3 AND SHALL BE INSTALLED AND SET AS FOLLOWS:
   2.1 TO REST IN PHASE 2 & 6 GREEN INTERVAL
   2.2 TO START/RESTART IN PHASE 2 & 6 YELLOW CHANGE INTERVAL
3. THE CONTROLLER CABINET AND FOUNDATION SHALL BE INSTALLED IN ACCORDANCE WITH ARLINGTON COUNTY TRAFFIC SIGNAL & STREETLIGHT SPECIFICATIONS 66-01. 66-02, AND 70-01.
4. THE COUNTY WILL PROVIDE SIGNAL TIMINGS TO THE CONTRACTOR FOR THE CONTROLLER WHEN THE INTERSECTION IS TOTALLY PREPARED FOR OPERATION. THE CONTRACTOR SHALL NOTIFY THE COUNTY IN WRITING 10 DAYS IN ADVANCE OF REQUIRING FINAL TIMINGS.

C. TRAFFIC SIGNAL HEADS

1. ALL NEW VEHICULAR SIGNAL SECTIONS SHALL BE 12 INCHES IN DIAMETER CAST ALUMINUM WITH LED DISPLAYS.
2. PEDESTRIAN SIGNAL HEAD SECTIONS SHALL BE CAST ALUMINUM WITH LED DISPLAYS (COUNTDOWN).
3. ALL SIGNAL HEADS SHALL BE YELLOW IN COLOR.

D. MAINTENANCE

1. ARLINGTON COUNTY SHALL HAVE MAINTENANCE RESPONSIBILITY FOR ALL ROADWAY INFRASTRUCTURE (SIDEWALK, ROAD ASPHALT, DRAINAGE, CURB/CURB & GUTTER, ETC.) WITHIN COUNTY RIGHT-OF-WAY. THE COUNTY WILL ALSO MAINTAIN ALL TRAFFIC SIGNAL INFRASTRUCTURE INDEPENDENT OF VDOT AND COUNTY RIGHT-OF-WAY BOUNDARIES. VDOT SHALL HAVE MAINTENANCE RESPONSIBILITY FOR ALL ROADWAY INFRASTRUCTURE (SIDEWALK, ROAD ASPHALT, DRAINAGE, CURB/CURB & GUTTER, ETC.) OUTSIDE OF THE TRAFFIC SIGNAL, WITHIN VDOT RIGHT-OF-WAY.

E. DETECTORS

1. ALL NEW PEDESTRIAN PUSH BUTTON STATIONS SHALL CONFORM TO ARLINGTON COUNTY'S SPECIFICATIONS FOR ACCESSIBLE SIGNAL DESIGN AND SHALL USE POLARA NAVIGATOR VIBRO-TACTILE/AUDIO PUSH BUTTON ASSEMBLIES UNLESS OTHERWISE SPECIFIED.
2. NEW OVERHEAD VIDEO DETECTION SHALL BE FLIR CAMERAS AND SHALL BE INSTALLED IN ACCORDANCE WITH COUNTY REQUIREMENTS.
3. EMERGENCY VEHICLE PRE-EMPTION (EVP) EQUIPMENT (GTT MODEL M711 OR M721), OR APPROVED SUBSTITUTE, SHALL BE INSTALLED COMPLETE WITH DISCRIMINATOR CARDS, WIRING, ETC. IN ACCORDANCE WITH ARLINGTON COUNTY STANDARDS.
4. EVP TO BE MOUNTED ON VEHICLE HEAD MOUNTING BRACKET OR AS APPROVED BY THE ENGINEER IN THE FIELD.

F. CONDUIT, CONDUCTORS, AND ELECTRICAL

1. ALL JUNCTION BOXES SHALL HAVE THE WORDS "ARLINGTON COUNTY TRANSPORTATION" CAST IN THE LID. ALL JUNCTION BOXES SHALL BE INSTALLED PER STANDARDS 61-01, 61-02, 61-03, AND 61-04.
2. METER PEDESTAL SHALL BE INSTALLED PER COUNTY STANDARDS. UNDERGROUND SERVICE SHALL BE OBTAINED FROM THE NEAREST UTILITY POLE OR SERVICE POINT. CONTRACTOR IS RESPONSIBLE FOR OBTAINING APPROVAL AND COORDINATING WITH POWER SERVICE COMPANY FOR CONNECTION.
3. CONDUIT SYSTEM SHALL BE ADDED TO CONNECT EXISTING COMMUNICATION CABLE PLANT TO THE NEW CONTROLLER CABINET LOCATION AS DIRECTED BY THE COUNTY ENGINEER.
4. ALL CONDUIT ENTERING INTO JUNCTION BOXES SHALL NOT EXTEND OVER 3" MAXIMUM NOR 2" MINIMUM INSIDE THE JUNCTION BOXES, AND SHALL BE FITTED WITH BELL ENDS OR BUSHING.
5. ALL JUNCTION BOXES SHALL HAVE A GROUND ROD INSTALLED. ALL JUNCTION BOXES SHALL BE PROPERLY CONNECTED TO THE INTERSECTION GROUNDING SYSTEM. METAL LIDS SHALL BE BONDED TO THE GROUNDING SYSTEM.
6. CONTRACTOR IS TO VERIFY DEPTHS OF UTILITIES AT PROPOSED CONDUIT CROSSINGS PRIOR TO EXCAVATING CONDUIT TRENCHES OR BORING.
7. ALL CONDUITS BENEATH ROADWAYS SHALL BE DIRECTIONAL DRILLED UNLESS DIRECTED OTHERWISE BY THE COUNTY CONSTRUCTION MANAGER. WHERE DIRECTED ON THE PLANS OR BY THE CONSTRUCTION MANAGER, THE CONTRACTOR SHALL INSTALL SPARE CONDUITS WITH PULL TAPE AND TRACER WIRE FOR ROAD CROSSINGS.
8. ALL EXISTING CONDUIT AND CABLES ARE BASED ON RECORD DRAWINGS OR WERE ESTIMATED. CONTRACTOR SHALL VERIFY CONDUIT FILL CAPACITY IN EXISTING CONDUITS PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY ARLINGTON COUNTY IF CONDUIT CAPACITY IS NOT AVAILABLE IN EXISTING CONDUIT FOR NEW CABLES.
9. NEW CCTV CAMERAS SHALL BE INSTALLED IN ACCORDANCE WITH ARLINGTON COUNTY REQUIREMENTS. CONTRACTOR SHALL CONFIRM MOUNTING LOCATION OF CCTV CAMERA WITH COUNTY PRIOR TO INSTALLATION.
10. CONTRACTOR TO VERIFY THE CONDUIT AND ⅝ FILL. IF THERE IS NOT ENOUGH CAPACITY IN CONDUIT, THEN THE CONTRACTOR SHALL INSTALL NEW CONDUIT.
11. ALL PROPOSED CONDUIT SHALL HAVE #6 AWG (EGC) & TRACER WIRE FOR GROUNDING SYSTEM.
12. REMOVE ALL EXISTING UNUSED RISERS, JUNCTION BOXES, AND CABLES.

G. SIGNS

1. ALL MAST ARM SIGNS SHALL BE MOUNTED IN ACCORDANCE WITH ARLINGTON COUNTY STANDARDS. SIGNS SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS DIRECTED OTHERWISE.
2. STREET NAME SIGNS SHALL HAVE A WHITE LEGEND ON GREEN BACKGROUND. CONTRACTOR SHALL SUBMIT SIGN DETAILS TO COUNTY TO REVIEW. THE DIMENSIONS PROVIDED ON PLANS ARE ESTIMATED.

H. DEMOLITION/SALVAGE

1. ALL EXISTING SIGNAL EQUIPMENT IS TO BE REMOVED & RETURNED TO ARLINGTON COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES LOCATED AT 4300 29TH ST S., ARLINGTON, VA 22206.
2. ALL EXISTING SIGNAL POLE FOUNDATIONS SHALL BE DEMOLISHED IN ACCORDANCE WITH ARLINGTON COUNTY SPECIFICATIONS.

I. COMMUNICATIONS

1. EXISTING COUNTY FIBER JUNCTION BOXES AND CONDUITS CONTAIN LIVE FIBER OPTIC CABLES. THE CONTRACTOR SHALL NOT CUT OR DAMAGE THE COUNTY'S EXISTING FIBER CABLES.
2. ALL FIBER OPTIC CABLE INSTALLATION, REMOVAL, SPLICING, AND TESTING SHALL BE PERFORMED BY THE COUNTY AT THE CONTRACTOR'S EXPENSE. CONTRACTOR MAY CONTRACT DIRECTLY WITH THE COUNTY'S FIBER CONTRACTORS. UPON REQUEST 703-228-7726, THE COUNTY WILL PROVIDE THE CONTACT INFORMATION FOR CURRENT QUALIFIED COUNTY FIBER CONTRACTORS.
3. CONTACT ARLINGTON COUNTY DTS FOR FIBER OPTIC CABLE REMOVAL OR INSTALLATION AT LEAST 10 BUSINESS DAYS IN ADVANCE.
4. CONTRACTOR SHALL FURNISH FIBER PATCH PANEL FOR INSTALLATION BY THE COUNTY. FIBER PIGTAIL SHALL BE APPROPRIATE LENGTH TO ALLOW FOR 50 FEET OF SLACK IN EACH INTERMEDIATE JUNCTION BOX. CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE PATCH PANEL (INDICATING THE TAIL LENGTH) FOR COUNTY REVIEW PRIOR TO ORDERING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF PROPOSED JUNCTION BOXES AND CONDUITS INCLUDING ALL APPURTENANCES SUCH AS GROUND RODS, TRACER WIRE, PULL TAPE, ETC.
6. ALL NEW CONDUITS SHALL HAVE PULL TAPE INSTALLED BETWEEN JUNCTION BOXES AND TRACER WIRE INSTALLED WITHIN OR BESIDE AT LEAST ONE OF THE CONDUITS. TRACER WIRE SHALL BE CONNECTED TO THE GROUND RODS INSTALLED IN THE ADJACENT JUNCTION BOXES.
7. DO NOT SPLICE TRACER WIRE.

J. INSPECTIONS

1. THE CONTRACTOR SHALL CONTACT THE COUNTY CONSTRUCTION MANAGER FOR INSPECTIONS THROUGHOUT CONSTRUCTION AS REQUIRED BY THE CONSTRUCTION MANAGER.
2. THE COUNTY SHALL VERIFY POLE LOCATIONS PRIOR TO EXCAVATION. THE CONTRACTOR SHALL NOTIFY MR. SHAHID MOHIUDDIN, 703-228-7555 TO SCHEDULE INSPECTION PRIOR TO EXCAVATION, AND AGAIN PRIOR TO POURING CONCRETE. STAKEOUT IS THE RESPONSIBILITY OF THE CONTRACTOR UNLESS DIRECTED OTHERWISE.
3. THE CONTRACTOR SHALL CONTACT THE COUNTY CONSTRUCTION MANAGER WITHIN 7 BUSINESS DAYS OF SIGNAL ACTIVATION. ALL POWER AND COMMUNICATIONS SHALL BE IN OPERATION AT THE TIME OF ACTIVATION UNLESS APPROVED BY THE COUNTY CONSTRUCTION MANAGER.

Table of Contents:

I CERTIFY THAT THIS PROJECT WAS BUILT IN SUBSTANTIAL CONFORMANCE WITH THIS PLAN, UNLESS DULY NOTED IN THE ABOVE REVISION BLOCK.

PROJECT MANAGER _____ DATE _____

CONSTRUCTION MANAGER _____ DATE _____

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES

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

SEAL

COMMONWEALTH OF VIRGINIA
JACQUELYN E. LASSITER
Lic. No. 0402051415
PROFESSIONAL ENGINEER
Digitally signed by Jacquelyn Lassiter
Date: 2021.06.29 09:21:39 -04'00'

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
T&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISONS	DATE

Project Name and Location

Traffic Signal Design

Cover Sheet

Lee Highway and North Adams Street
ID #144
TR07

Designed: AK
Drawn: AK
Checked: JEL
Miss Utility Transmittal #:

Plotted: June 28, 2021
Plotted by: marquijt

Scale: N. T. S.

Sheet
T-1

Filename: TSD_Lee Highway and N Adams Street.dwg
Path: I:\Projects\4020\02-4020102_4001\90_CAD Models and Sheets\04_CT_Transportation\N. Adams St

Route 29 (Lee Highway) and North Adams Street (TS#144)

REVISED: MARCH 03, 2020

EXISTING SIGNALS (TO BE REMOVED)

HEADS 21,22,23, 24,25,26, 41,42, 43,44

HEADS P21,P22,P41,P42 P61,P62,P81,P82

PROPOSED SIGNALS

HEADS 21, 22,23,24,41,42, 61,62,63,64,81,82

VDOT TYPE SP-B

HEADS P21,P22,P41,P42, P61,P62,P81,P82

PROPOSED SIGNS

5" 8"C 5"

(GREEN BACKGROUND WITH WHITE LETTERS)

S-3
D3-V1C
STREET NAME SIGN
60"X18"

5" 8"C 5"

(GREEN BACKGROUND WITH WHITE LETTERS)

S-4
D3-V1C
STREET NAME SIGN
84"X18"

S-5
R3-5L
30"x36"

ACCESSIBLE PEDESTRIAN PUSHBUTTON

S-1
R10-3E(L)
9"X15"

S-2
R10-3E(R)
9"X15"

PB21, PB41, PB62,PB82

PB22, PB42 PB61 PB81

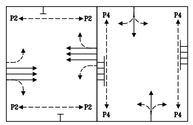
PUSHBUTTON	WALK MESSAGE
PB41, PB42	"LEE HIGHWAY, WALK SIGN IS ON TO CROSS LEE HIGHWAY."
PB21 PB61	"ADAMS STREET, WALK SIGN IS ON TO CROSS ADAMS STREET."
PB22, PB62 PB81, PB82	PERCUSSIVE TONE

• PEDESTRIAN PUSHBUTTON SIGN SHALL BE MOUNTED ABOVE PEDESTRIAN PUSHBUTTON.

NOTES :

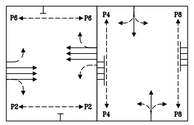
1. PER MUTCD SECTION 4E.11, WHERE TWO ACCESSIBLE PEDESTRIAN SIGNALS ARE SEPARATED BY A DISTANCE OF 10 FEET OR MORE, THE AUDIBLE WALK INDICATION SHALL BE A PERCUSSIVE TONE.

EXISTING PHASING DIAGRAM



ϕ2 ϕ4

PROPOSED PHASING DIAGRAM



ϕ2+ϕ6 ϕ4+ϕ8

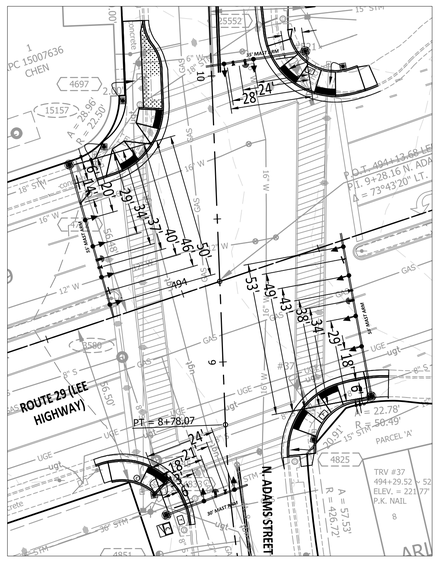
INITIAL TIMING CHART				
PHASE	2	4	6	8
MOVEMENT	EB	SB	WB	NB
PHASE ON	X	X	X	X
PHASE OFF				
PHASE TIMINGS				
MIN GR	5.0	7.0	5.0	5.0
PASSAGE	0.0	0.0	0.0	0.0
AMBER	4.3	3.6	4.3	3.6
RED	2.9	3.5	2.9	3.5
MAX 1	40.0	40.0	40.0	40.0
MAX 2	0.0	0.0	0.0	0.0
MIN GAP	0.0	0.0	0.0	0.0
TIME BEFORE REDUCTION	0.0	0.0	0.0	0.0
TIME TO REDUCE	0.0	0.0	0.0	0.0
PED WALK	7.0	7.0	7.0	7.0
PED CLEARANCE	14.0	30.0	12.0	26.0
FDW	7.2	7.1	7.2	7.1
MODE	MAX RECALL	MAX RECALL	MAX RECALL	MAX RECALL

COLOR SEQUENCE CHART								
PHASE	2	4	6	8	2+6	4+8	FLASH	
SIGNAL	R/W	R/W	R/W	R/W	R/W	R/W		
21,22,23,24	G	R	R	R	G	R	A	
41,42	R	G	R	R	R	G	R	
61,62,63,64	R	R	G	R	G	R	A	
81,82	R	R	R	G	R	G	R	
P21,P22	WALK				WALK		BLANK	
P41,P42		WALK				WALK	BLANK	
P61,P62			WALK		WALK		BLANK	
P81,P82				WALK		WALK	BLANK	

NOTE: BLANK SPACES REPRESENT A RED DISPLAY. WALK INDICATION DISPLAYED AFTER PEDESTRIAN CALL IS SERVICED; OTHERWISE "DON'T WALK" INDICATION IS DISPLAYED.

POLE EQUIPMENT DETAIL

(SCALE: 1"=25')



CONDUIT & CABLE

A
- 3-3" CONDUIT (TRENCHING)
- 4-14/7c PROP. VEHICLE SIGNAL HEADS 21,22,23,24,41,42 61,62,63,64,81,82
- 8-14/7c PROP. PEDESTRIAN SIGNALS HEADS P21,P22,P41,P42 P61,P62,P81,P82
- 1-3" CONDUIT (TRENCHING)
- 4-12/2c PROP. CABLE LUMINAIRES SL1,SL2,SL3,SL4
- 2-3" CONDUIT (TRENCHING)
- 8-14/3c PROP. PEDESTRIAN PUSH BUTTON PB21,PB22,PB41,PB42 PB61,PB62,PB81,PB82
- 4-RG-59 PROP. COAXIAL CABLE VIDEO DETECTION VD21,VD41,VD61,VD81
- 4-14/5c PROP. CABLE OPTICOM GTT EVP PE21,PE41,PE61,PE81
- 1-14/5c PROP. CABLE FOR CCTV CAMERA

B
- 2-4" CONDUIT (DIRECT BORED)
- 3-14/7c PROP. VEHICLE SIGNAL HEADS 21,22,23,24,61,62,63,64,81,82
- 6-14/7c PROP. PEDESTRIAN SIGNALS HEADS PP22,P41,P61,62,P81,P82
- 3-12/2c PROP. CABLE LUMINAIRES SL2,SL3,SL4
- 6-14/3c PROP. PEDESTRIAN PUSH BUTTON PB22,PB41,PB61,P62,PB81,PB82
- 3-RG-59 PROP. COAXIAL CABLE VIDEO DETECTION VD21,VD61,VD81
- 3-14/5c PROP. CABLE OPTICOM GTT EVP PE21,PE61,PE81
- 1-14/5c PROP. CABLE FOR CCTV CAMERA

C
- 2-3" CONDUIT (TRENCHING)
- 1-14/7c PROP. VEHICLE SIGNAL HEADS 41,42
- 1-12/2c PROP. CABLE LUMINAIRES SL1
- 1-RG-59 PROP. COAXIAL CABLE VIDEO DETECTION VD41
- 1-14/5c PROP. CABLE OPTICOM GTT EVP PE41

D
- 1-3" CONDUIT (TRENCHING)
- 2-14/7c PROP. PEDESTRIAN SIGNALS HEADS P21, P42
- 2-14/3c PROP. PEDESTRIAN PUSH BUTTON PB21, PB42

E
- 1-3" CONDUIT (TRENCHING)
- 1-14/7c PROP. PEDESTRIAN SIGNALS HEADS P22
- 1-14/3c PROP. PEDESTRIAN PUSH BUTTON PB22

F
- 2-3" CONDUIT (TRENCHING)
- 3-14/7c PROP. VEHICLE SIGNAL HEADS 21,22,23,24
- 1-14/7c PROP. PEDESTRIAN SIGNALS HEADS P82
- 1-12/2c PROP. CABLE LUMINAIRES SL4
- 1-14/3c PROP. PEDESTRIAN PUSH BUTTON P882
- 1-RG-59 PROP. COAXIAL CABLE VIDEO DETECTION VD21
- 1-14/5c PROP. CABLE OPTICOM GTT EVP PE21

G
- 2-4" CONDUIT (DIRECT BORED)
- 2-14/7c PROP. VEHICLE SIGNAL HEADS 61,62,63,64,81,82
- 4-14/7c PROP. PEDESTRIAN SIGNALS HEADS P41,P61,P62,P81
- 2-12/2c PROP. CABLE LUMINAIRES SL2,SL3
- 4-14/3c PROP. PEDESTRIAN PUSH BUTTON PB41,PB61,PB62,PB81
- 2-RG-59 PROP. COAXIAL CABLE VIDEO DETECTION VD61,VD81
- 2-14/5c PROP. CABLE OPTICOM GTT EVP PE41,PE81
- 1-14/5c PROP. CABLE FOR CCTV CAMERA

H
- 2-3" CONDUIT (TRENCHING)
- 1-14/7c PROP. VEHICLE SIGNAL HEADS 81,82
- 1-14/7c PROP. PEDESTRIAN SIGNALS HEADS P62
- 1-12/2c PROP. CABLE LUMINAIRES SL3
- 1-14/3c PROP. PEDESTRIAN PUSH BUTTON PB62
- 1-RG-59 PROP. COAXIAL CABLE VIDEO DETECTION VD81
- 1-14/5c PROP. CABLE OPTICOM GTT EVP PE81

I
- 1-3" CONDUIT (TRENCHING)
- 1-14/7c PROP. PEDESTRIAN SIGNALS HEADS P81
- 1-14/3c PROP. PEDESTRIAN PUSH BUTTON P881

J
- 2-4" CONDUIT (DIRECT BORED)
- 1-14/7c PROP. VEHICLE SIGNAL HEADS 61,62,63,64
- 2-14/7c PROP. PEDESTRIAN SIGNALS HEADS P41,P61
- 1-12/2c PROP. CABLE LUMINAIRES SL2
- 2-14/3c PROP. PEDESTRIAN PUSH BUTTON PB41,PB61
- 1-RG-59 PROP. COAXIAL CABLE VIDEO DETECTION VD61
- 1-14/5c PROP. CABLE OPTICOM GTT EVP PE61
- 1-14/5c PROP. CABLE FOR CCTV CAMERA

K
- 1-3" CONDUIT (TRENCHING)
- 1-14/7c PROP. PEDESTRIAN SIGNALS HEADS P61
- 1-14/3c PROP. PEDESTRIAN PUSH BUTTON PB61

L
- 2-3" CONDUIT (TRENCHING)
- 1-14/7c PROP. VEHICLE SIGNAL HEADS 61,62,63,64
- 1-12/2c PROP. CABLE LUMINAIRES SL2
- 1-RG-59 PROP. COAXIAL CABLE VIDEO DETECTION VD61
- 1-14/5c PROP. CABLE OPTICOM GTT EVP PE61
- 1-14/5c PROP. CABLE FOR CCTV CAMERA

M
- 1-2" CONDUIT (TRENCHING)
- 1-6/4C ELECTRICAL SERVICE CABLE
- 2-12C PROP. CABLE

N
- 1-3" CONDUIT (TRENCHING)
- 1-6/4C ELECTRICAL SERVICE CABLE

O
- 1-2" RISER AND STUB OUT (TRENCHING)
- 1-6/4C ELECTRICAL SERVICE CABLE

P
- 1-3" CONDUIT (TRENCHING)
- 1-14/7c PROP. PEDESTRIAN SIGNALS HEADS P41
- 1-14/3c PROP. PEDESTRIAN PUSH BUTTON PB41

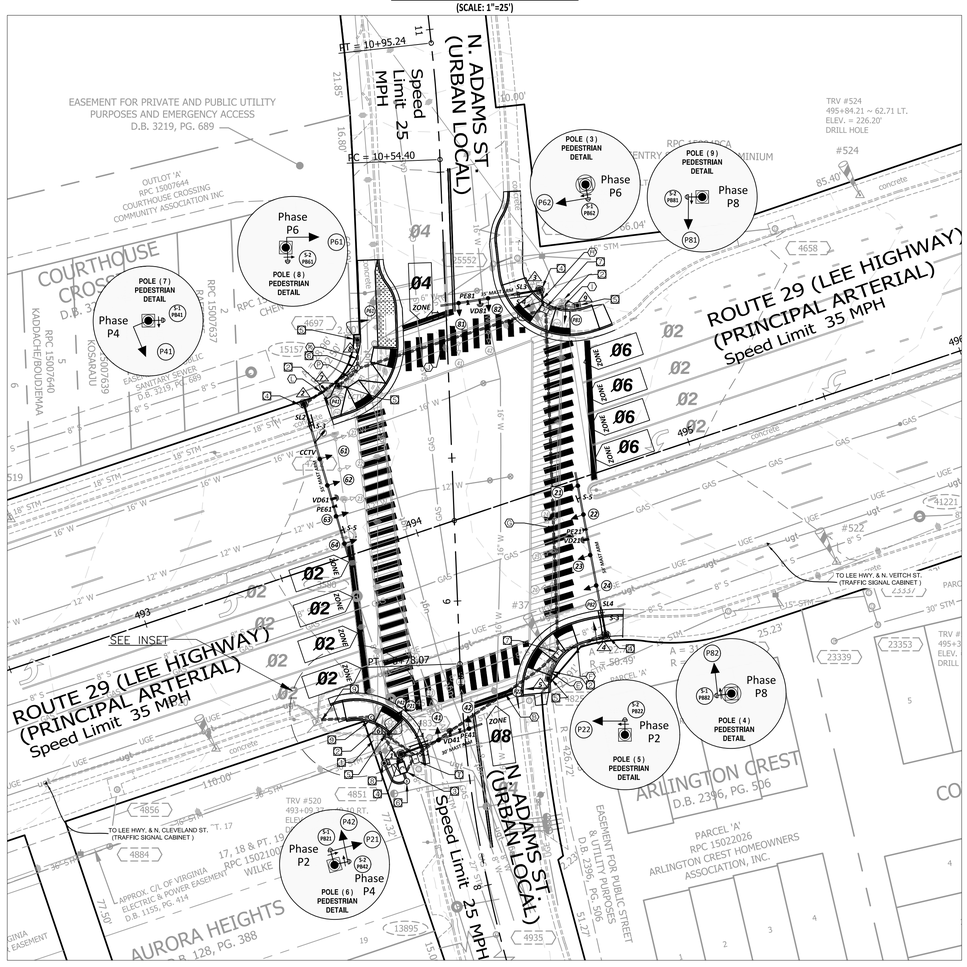
X
- EXISTING & PROPOSED FIBER OPTIC CABLE & CONDUIT (See Communication Plan)

NOTES :

1. CONTRACTOR TO VERIFY THE CONDUIT AND ¾ FILL. IF THERE IS NOT ENOUGH CAPACITY IN CONDUIT, THEN THE CONTRACTOR SHALL INSTALL NEW CONDUIT.

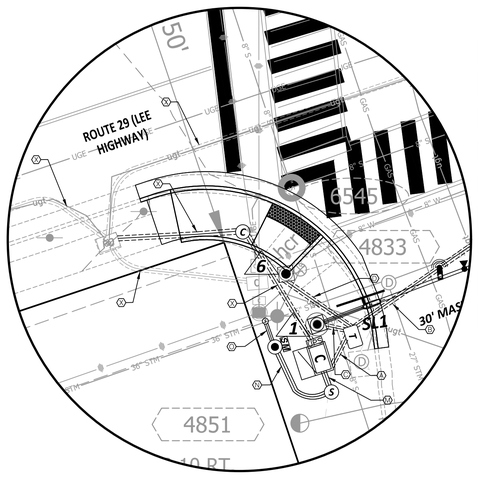
TRAFFIC SIGNAL PLAN DETAIL

(SCALE: 1"=25')



INSET

(SCALE: 1"=10')



DEMOLITION & CONSTRUCTION NOTES

1. REMOVE EXISTING COMM. SPLICE BOX , TRAFFIC CABINET & CONTROLLER. SALVAGED EXISTING EQUIPMENT TO BE RETURNED TO ARLINGTON PROPERTY YARD.
2. REMOVE EXISTING STRAIN POLES, PEDESTRIAN POLE, SIGNAL HEADS, AND ASSOCIATED WIRING. SALVAGE EXISTING EQUIPMENT AND RETURN TO ARLINGTON COUNTY PROPERTY YARD. DEMOLISH EXISTING FOUNDATION.
3. INSTALL TRAFFIC SIGNAL CABINET, FOUNDATION, 12" CABINET BASE RISER, UPS AND ASSOCIATED EQUIPMENT.
4. INSTALL TRAFFIC SIGNAL MAST ARM POLE & FOUNDATION WITH POLE IDENTIFICATION STICKER, LUMINAIRE, SIGNALS, SIGNS, AND EQUIPMENT AS SHOWN.
5. INSTALL 12' PEDESTRIAN POLE AND FOUNDATION WITH PEDESTRIAN SIGN, PUSHBUTTON, AND POLE IDENTIFICATION STICKER
6. INSTALL ARLINGTON STANDARD JUNCTION BOX PER STD 61-02
7. INSTALL ARLINGTON STANDARD JUNCTION BOX PER STD 61-04.
8. INSTALL SERVICE METER WITH DISCONNECT BOX. CONTRACTOR SHALL COORDINATE WITH DOMINION ELECTRIC TO DETERMINE SOURCE OF ELECTRICAL SERVICE.
9. REFER TO COMMUNICATIONS PLAN (SHEET T-3) FOR MORE DETAILS.

LEGEND

	EXISTING	PROPOSED
Controller Cabinet		C
Signal Junction Box (61-02)	T	T
Signal Junction Box (61-04)	T	T
Fiber Optic Junction Box (61-04)	FO	FO
Comm. Junction Box	C	C
Service Junction Box	S	S
Mast Arm Pole & Foundation		
Pedestrian Pedestal Pole & Foundation		
Carlyle Lighting Pole & Foundation		
Service Meter	SM	SM
Battery Backup (UPS)	UPS	UPS
Vehicle Signal Head (LED)		
Pedestrian Push Button	PB#	PB#
FLIR Video Detection	VD#	VD#
Emergency Vehicle Preemption	PE#	PE#
CCTV Vehicle Camera	CCTV	CCTV
Overhead Light (LED)	SL#	SL#
Conduit Run		

GRAPHIC SCALE

25 0 25 50 100

(IN FEET)

1 inch = 25 feet

POLE SIGNAL MOUNTING

No.	STANDARD TYPE (HEIGHT)	STANDARD SIG. M.A.	STANDARD LUM. M.A.	SIG. M.A. ORIENTATION	LUM. ORIENTATION	LUM. LED	POLE IDENTIFICATION	POLE SIGNAL MOUNTING VEHICLE & PEDESTRIAN HEADS	POLE SIGNAL MOUNTING PED. PUSH BUTTONS	POLE SIGNAL MOUNTING SIGNS	POLE SIGNAL MOUNTING VIDEO DETECTOR PREEMPTION & CCTV	STREET NAME SIGN	STATION; OFFSET
1	MAST ARM POLE (30')	30'	6'	STD. (180°)	STD. (180°)	145W	144-MA-01-SW	41,42	-	-	VD41,PE41	S-4	8+48 ; 22.8 LT
2	MAST ARM POLE (30')	55'	6'	STD. (180°)	STD. (180°)	145W	144-MA-01-NW	61,62,63,64	-	S-5	VD61,PE61,CCTV	S-3	9+71 ; 50.9 LT
3	MAST ARM POLE (30')	35'	6'	STD. (180°)	STD. (180°)	145W	144-MA-01-NE	81,82,P62	PB62	S-1	VD81,PE81	S-4	10+07 ; 33.0 RT
4	MAST ARM POLE (30')	58'	6'	STD. (180°)	STD. (180°)	145W	144-MA-01-SE	21,22,23,24,P82	PB82	S-1,S-5	VD21,PE21	S-3	8+83 ; 51.3 RT
5	PEDESTAL POLE (12')	-	-	-	-	-	144-PP-01-SE	P22	PB22	S-2	-	-	8+72 ; 30.5 RT
6	PEDESTAL POLE (12')	-	-	-	-	-	144-PP-01-SW	P21,P42	PB21,PB42	S-1,S-2	-	-	8+62 ; 28.3 LT
7	PEDESTAL POLE (12')	-	-	-	-	-	144-PP-01-NW	P41	PB41	S-1	-	-	9+77 ; 38.5 LT
8	PEDESTAL POLE (12')	-	-	-	-	-	144-PP-02-NW	P61	PB61	S-2	-	-	9+93 ; 31.3 LT
9	PEDESTAL POLE (12')	-	-	-	-	-	144-PP-01-NE	P81	PB81	S-2	-	-	10+01 ; 46.1 RT

ARLINGTON
VIRGINIA

DEPARTMENT OF ENVIRONMENTAL SERVICES

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

SEAL

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
T&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

REVISONS	DATE

Project Name and Location

Traffic Signal Design

Traffic Signal Modification Plan

Lee Highway and North Adams Street
ID #144
TR07

Designed: AK
Drawn: AK
Checked: JEL
Miss Utility Transmittal #:

Plotted: January 18, 2022
Plotted by: marquijt

Scale: 1" = 25'

Sheet T-2

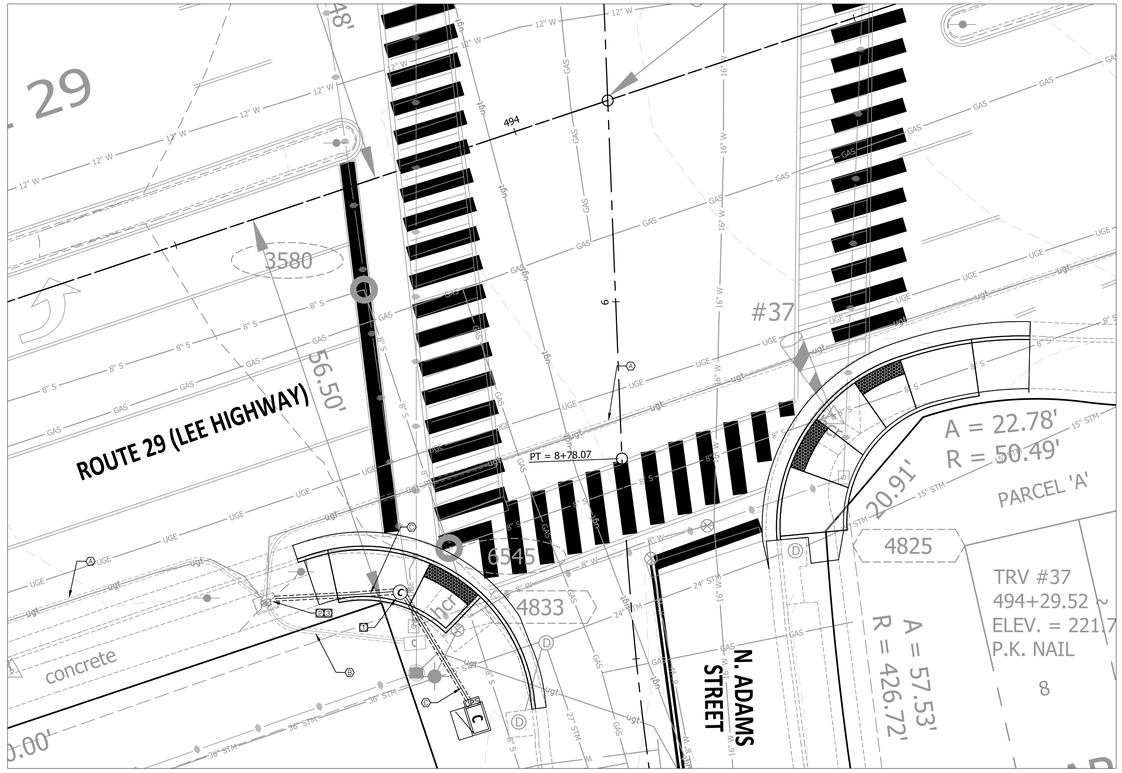
Filename: TSD_Lee Highway and N Adams Street.dwg
Path: I:\Projects\4020\02\4020102_000\100 CAD Models and Sheets\04_CT_Transportation\N. Adams St

Route 29 (Lee Highway) and North Adams Street (TS#144)

REVISED: MARCH 03, 2020

COMMUNICATION PLAN DETAIL

(SCALE: 1"=10')



CONDUIT & CABLE RUNS

- (A) 2-2" CONDUIT (EXISTING) 1- 24-STRAND FIBER OPTIC CABLE
- (B) 1-3" CONDUIT (EXISTING) 1- 12-STRAND FIBER OPTIC CABLE
- (C) 1-2" CONDUIT (TRENCHING) 1- 12-STRAND FIBER OPTIC CABLE

DEMOLITION & CONSTRUCTION NOTES

1. INSTALL COMMUNICATIONS JUNCTION BOX PER ARLINGTON COUNTY STD 61-03.
2. TIE PROPOSED CONDUIT INTO EXISTING FO JUNCTION BOX PER STD 61-04.
3. PULL BACK EXISTING FO CABLE FROM EXISTING FO JUNCTION BOX TO EXISTING CABINET & COIL IN EXISTING FO JB. ABANDON ASSOCIATED CONDUIT.

LEGEND

	EXISTING	PROPOSED
Controller Cabinet		C
Signal Junction Box (61-02)	T	T
Signal Junction Box (61-04)	T	T
Fiber Optic Junction Box (61-04)	FO	FO
Comm. Junction Box	C	C
Service Junction Box	S	S
Mast Arm Pole & Foundation		
Pedestrian Pedestal Pole & Foundation		
Carlyle Lighting Pole & Foundation		
Service Meter		
Battery Backup (UPS)	UPS	UPS
Vehicle Signal Head (LED)		
Pedestrian Push Button	PB#	PB#
FLIR Video Detection	VD#	VD#
Emergency Vehicle Preemption	PE#	PE#
CCTV Vehicle Camera	CCTV	CCTV
Overhead Light (LED)	SL#	SL#
Conduit Run		

GRAPHIC SCALE

10 0 10 20 40

(IN FEET)
1 inch = 10 feet

ARLINGTON
VIRGINIA

DEPARTMENT OF
ENVIRONMENTAL SERVICES

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

SEAL

COMMONWEALTH OF VIRGINIA
JACQUELYN E. LASSITER
Lic. No. 0402051415
Digitally signed by Jacquelyn Lassiter
Date: 2022.01.31 09:26:55
PROFESSIONAL ENGINEER

APPROVALS	DATE
TRAFFIC SIGNAL ENGINEER	1/31/2022
TRAFFIC ENGINEERING MANAGER	03/18/2022
WATER, SEWER, STREETS BUREAU CHIEF	02.18.2022
T&O BUREAU CHIEF	03/18/2022
TRANSPORTATION DIRECTOR	03/21/22

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T-3

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