619

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA

HSIP-5A0I (I76)

JOPLIN ROAD (ROUTE 619) URBAN COLLECTOR DIVIDED - LEVEL GS-7

20,000

30,900

984

53%

1%

35 MPH POSTED

VDOT 000I-076-995

FULLER HEIGHTS ROAD

14,400

520

65%

17

35 MPH POSTED

URBAN COLLECTOR UN-DIVIDED - LEVEL GS-7

(SEE TABULATION BELOW FOR SECTION NUMBERS)

FHWA-534 Data 41004

FUNCTIONAL CLASSIFICATION ADT (2018)

D (%) (design hour

T (%) (design hour)

ADT (2040)

V (MPH)

VA.

From: 0.18 Miles West of Route I & Joplin Rd Intersection To:0.23 Miles East of Route I & Fuller Rd Intersection

FOR INDEX OF SHEETS SEE SHEET 1B

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (GEOPAK). GEOPAK Computer Identification No. 92999

COMMONWEALTH OF VIRGINIA



PRINCE WILLIAM COUNTY DEPARTMENT OF TRANSPORTATION

# PLAN AND PROFILE OF PROPOSED

From: 0.18 Miles West of Route 1 & Joplin Rd Intersection To: 0.23 Miles East of Route 1 & Fuller Rd Intersection

2199

32

1028

0.416

0.006

0.195

92999

92999

92999

STATE HIGHWAY ROUTE 619 IMPROVEMENTS (FULLER ROAD)

PWC Contract No.1006-4NO-0 JOPLIN ROAD - VA ROUTE 619 FULLER ROAD - VA ROUTE 619 Fuller Road Improvements DESCRIPTION REFERENCES By Others BEGIN PROJECT EAST OF I-95 ALONG JOPLIN ROAD, THROUGH INTERSECTION WITH US ROUTE I INTO QUANTICO MARINE BASE. REVISED Population <u>463013</u> (<u>2017</u> Census) LENGTH INCLUDING BRIDGE(S) LENGTH EXCLUDING BRIDGE(S) STATE PROJECT NO. BRIDGE PLAN NO. FEDERAL AID PROJECT NO. TYPE PROJECT TYPE CODE UPC NO. SECTION DESCRIPTION FEET FEET rom: 0.18 Miles West of Route I & Joplin Rd Intersection

VDOT 0001-076-995, C501, P101, RW201

LOCALLY ADMINISTERED PROJECTS Prince William County NAME OF LOCALITY RECOMMENDED FOR APPROVAL FOR RIGHT-OF-WAY THOMAS BLASER (SIGNATURE) TOM BLASER
DIRECTOR OF TRANSPORTATION

RECOMMENDED FOR APPROVAL FOR RIGHT-OF-WAY RENEE N. HAMILTON DISTRICT PLANNING AND INVESTMENT MANAGER WILLIAM C. CUTTLER, PE 8/14/2012 DATE DISTRICT PROJECT DEVELOPMENT ENGINEER APPROVED FOR RIGHT-OF-WAY 8/14/2012 GARRETT MOORE,PE

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0001-076-995

DISTRICT ADMINISTRATOR

CONVENTIONAL SIGNS

STATE LINE COUNTY LINE .....CITY,TOWN OR VILLAGE RIGHT OF WAY LINE PRNCE LINE UNFENCED PROPERTY LINE UNFENCED PROPERTY LINE
FENCED PROPERTY LINE
WATER LINE
SANITARY SEWER LINE
GAS LINE
ELECTRIC UNDERGROUND CABLE
TRAVELED WAY GUARD RAIL
RETAINING WALL
RAILROADS +++++ BASE OR SURVEY LINE LEVEE OR EMBANEMENT

CULVERTS DROP INLET
POWER POLES
TELEPHONE OR TELEGRAPH POLES
TELEPHONE OR TELEGRAPH LINES HEDGE TREES HEAVY WOODS . . . . . GROUND ELEVATION
GRADE ELEVATION

THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY AS AWARDED, HAS BEEN <u>SEALED AND SIGNED</u> USING DIGITAL SIGNATURES AND THE OFFICIAL PLAN ASSEMBLY IN ELECTRONIC FORMAT IS STORED IN THE VDOT CENTRAL OFFICE PLAN LIBRARY, INCLUDING ALL SUBSEQUENT REVISIONS, WILL BE THE OFFICIAL CONSTRUCTION PLANS. FOR INFORMATION RELATIVE TO ELECTRONIC FILES AND LAYERED PLANS, SEE THE GENERAL NOTES.

TO 1-95

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

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE DEPARTMENT'S 2016 ROAD AND BRIDGE SPECIFICATIONS, 2008 ROAD AND BRIDGE STANDARDS, 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.

ALL CURVES ARE TO BE SUPERELEVATED, TRANSITIONED AND WIDENED IN ACCORDANCE WITH STANDARD TC 5.11U , EXCEPT WHERE OTHERWISE NOTED.

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

Project Lengths are based on

PHLD-540K99C

HSIP-5A0I (176

HSIP-5AOI (I76

P-101

B-660

R-201

P.A.C. PLANS

o :0.23 Miles East of Route I & Fuller Rd Intersection

From: 0.02 Miles East of Route I & Fuller Rd Intersection

To : 0.22 Miles East of Route I & Fuller Rd Intersection

Structure Over Little Creek

Prel.Engr.

Drainaae

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

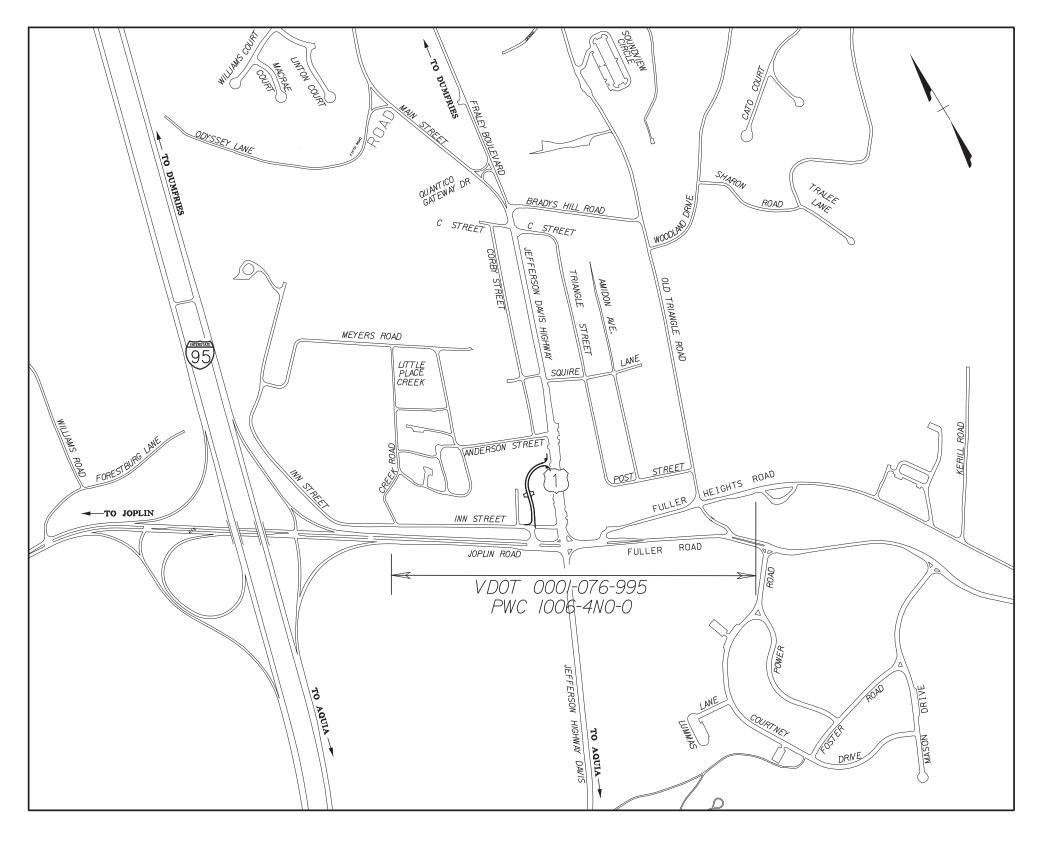
PROJECT MANAGER Gladis Arboleda, PWC (703) 792-5276
SURVEYED BY, DATE JMT Engineering (804) 323-9900
DESIGN BY Jeff Cronin, JMT Engineering (804) 323-9900
SUBSURFACE UTILITY BY, DATE JMT Engineering (804) 323-9900

# PROJECT LOCATION PRINCE WILLIAM COUNTY

D9299900IA.dgn Plotted By: CRONIN

VDOT 0001-076-995 RW-201,C-501 PWC 1006-4N0-0 VA. 619

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC
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NECESSARY BY THE DEPARTMENT



VDOT 0001-076-995 PWC 1006-4N0-0

PROJECT MANAGER Gladis Arboledg, PWC\_DOT\_(70.3),792-5276 SURVEYED BY, DATE MT. 18041, 323-990. DESIGN BY\_JMT. (8041) 323-990. SUBSURFACE UTILITY BY, DATE JMT. (8041) 323-9900.

# INDEX OF SHEETS

REVISED	STATE		STATE						
	SIAIE	ROUTE	PROJECT	SHEET NO					
	VA.	619	VDOT 0001-076-995 RW-201,C-501 PWC 1006-4N0-0	IB					

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

	PROJECT NO.0001-076-995 PRINCE WILLIAM COUNTY	
SHEET NO.	DESCRIPTION	STATION TO STATION
1	TITLE SHEET	
1A	PROJECT LOCATION SHEET	
1B	INDEX OF SHEETS	
1C	RIGHT OF WAY DATA SHEET	
1D	REVISION DATA SHEET	
1E	SURVEY ALIGNMENT DATA SHEET*	
1F(1) THRU 1F(4)	CONSTRUCTION ALIGNMENT DATA SHEET	
1G(1) THRU 1G(2)	MAINTENANCE OF TRAFFIC GENERAL NOTES & NARRATIVE	
1H(1) THRU 1H(3)	MAINTENANCE OF TRAFFIC - PHASE 1	
1J(1) THRU 1J(3)	MAINTENANCE OF TRAFFIC - PHASE 2	
1K(1) THRU 1K(3)	MAINTENANCE OF TRAFFIC - PHASE 3	
1L	NOT USED	
1M(1) THRU 1M(4)	STORMWATER POLLUTION PREVENTION PLAN	
1N(1) THRU 1N(2)	EROSION & SEDIMENT CONTROL GENERAL NOTES	
10(1) THRU 10(5)	EROSION & SEDIMENT CONTROL PHASE I	
1P(1) THRU 1P(5)	EROSION & SEDIMENT CONTROL PHASE 2	
2	GENERAL NOTES	
2A(1) THRU 2A(3)	TYPICAL SECTIONS	
2C(1) THRU 2C(2)	RADIAL OFFSET DATA & POINT BREAKS	
2D	UNDERGROUND UTILITIES TEST HOLE INFORMATION	
3 THRU 3A	JOPLIN RD_PLAN & PROFILE SHEETS	
4 THRU 4A	JOPLIN RD_PLAN & PROFILE SHEETS	
5 THRU 5A	FULLER HEIGHTS RD_PLAN & PROFILE SHEETS	
6 THRU 6A	FULLER HEIGHTS RD_PLAN & PROFILE SHEETS	
6B	FULLER HEIGHTS CONNECTION AND ROUNDABOUT PROFILE SHEETS	
6C	ENTRANCE PROFILES SHEET	

SHEET NO.	DESCRIPTION	STATION TO STATION
6D	CURB RETURN PROFILES SHEET	
7	FULLER RD (IMPROVEMENTS BY OTHERS) PLAN SHEET	
8(1)	DRAINAGE DESCRIPTIONS	
8(2)	STREAM RELOCATION PROFILE AND DETAILS	
9(1) THRU 9(4)	PRECAST CONCRETE RIGID FRAME DETAIL	
10(1) THRU 10(8)	SIGNING AND PAVEMENT MARKING PLANS	
11(1) THRU 11(4)	SIGNAL PLANS	
	CROSS SECTION INDEX	
X-1 THRU X-14	RTE 619 (JOPLIN ROAD)	
X-15 THRU X-24	FULLER HEIGHTS ROAD	
X-25 THRU X-28	FULLER HEIGHTS ROAD CONNECTION	
X-29 THRU X-35	ROUNDABOUT	
X-36 THRU X-39	STREAM RELOCATION	

VDOT 0001-076-995 PWC 1006-4N0-0 JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future
9201 Arboretum Parkway Suite 310 Richmond, Virginia 23236

PROJECT MANAGER Gladis Arboleda, PWC DOT (703) 792-5276
SURVEYED BY.DATEJMT (804)323-9900
DESIGN BY JMT (804) 323-9900
SUBSURFACE UTILITY BY DATE JMT (804) 323-9900

# PRELIMINARY RIGHT OF WAY DATA SHEET

REVISED	STATE		STATE	SHEET NO.
	SIKIL	ROUTE	PROJECT	SHEET NO.
	VA.	619	VDOT 0001-076-995 RW-201,C-501 PWC 1006-4N0-0	IC

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

City/County: Prince William County

UPC No.: 92999

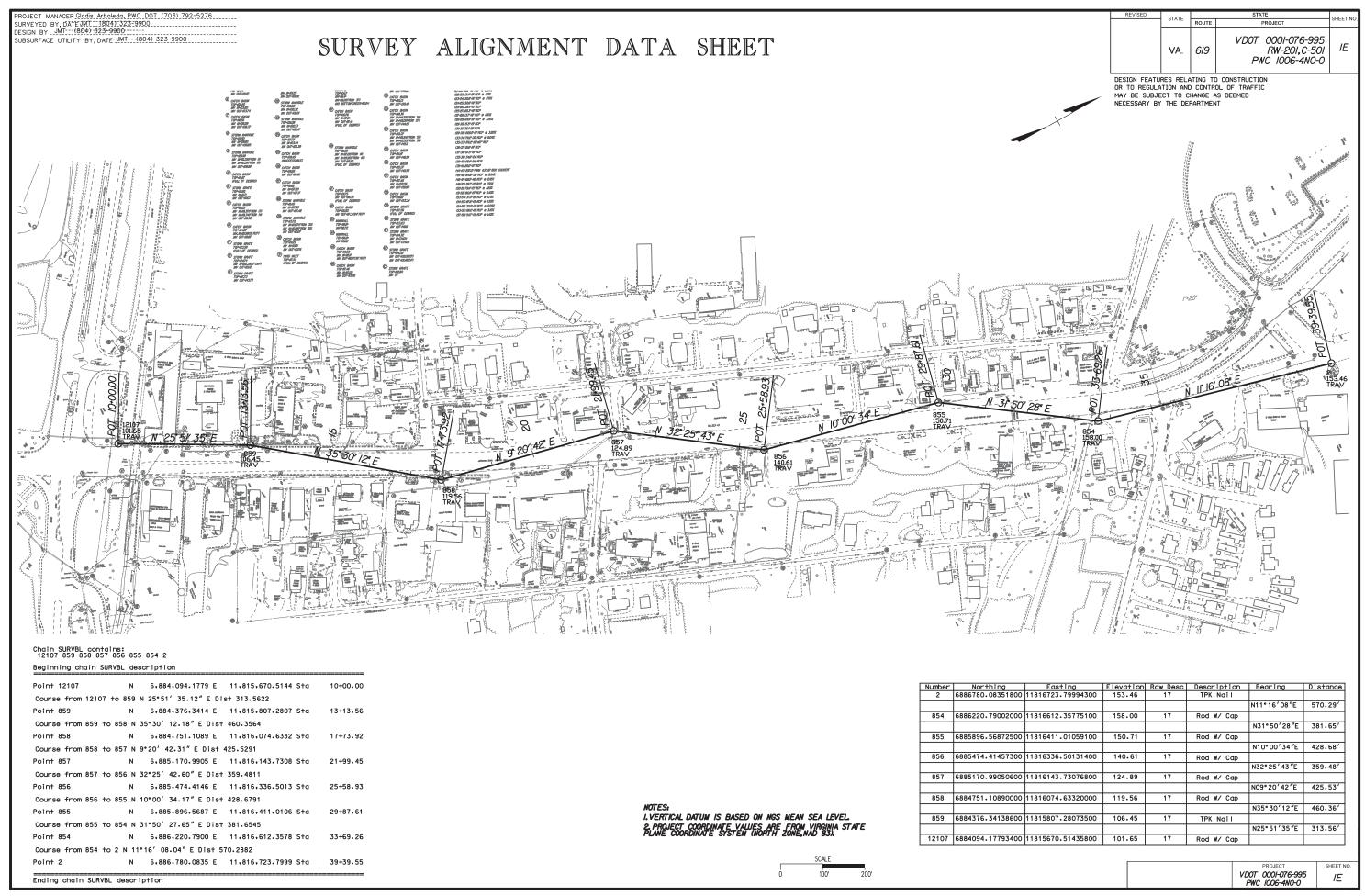
				AREA														
PARCEL NO.	LANDOWNER	SHEET NO.	TOTAL	FEE TAKING		PRESCRIPTIVE R/W		FEE REMAINDER	EASEMENTS						PROFFERS			
			TOTAL								ANENT		LITY				(ENTRANCES)	
			ACRES OR SQUARE FEET	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	YES / NO												
001	US Marine Reservation	5,6,7	22,970,24							30,803 SF				26,597 SF				No
002	PWC Board of Supervisors	5	0.3089 AC	1,523 SF				0.2739 AC						16 SF				No
003	Andrew Phillip Hepburn & Jacqueline M Surv	5	0.48 AC							8I SF				139 SF				No
004	Not Used																	No
005	Donald L.Hapner Tr.	6	OJ7O AC							3,443 SF								No
006	Sung-Soo Kîm	6	0.36 AC	0.36 AC				O AC										No
007	Not Used																	No
008	MCP Ltd.	6	OJ9 AC	179 SF				0,186 AC		209 SF				2,241 SF				No
009	Not Used																	No
010	Not Used																	No
OII	Not Used																	No
012	PWC Board of County Supervisors	5	2,556 AC											2,792 SF				No

PROJECT VDOT 0001-076-995 PWC 1006-4N0-0 SHEET NO.

Engineering A Brighter Future 9201 Arboretum Parkway Suite 310 Richmond, Virginia 23236	
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PROJECT MANAGER Gladis, Arboleda, P.W.C. DOT. (703), 792-5276			REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO
PROJECT MANAGER Gladis, Arboleda, PWC_DOT_(703) 792-5276 SURVEYED BY, DATE JMT_(804), 323-9900 DESIGN BY JMT_(804), 323-9900 SUBSURFACE UTILITY BY, DATE JMT_(804), 323-9900	REVISION I	DATA SHEET		VA.		VDOT 0001-076-995 RW-201,C-501 PWC 1006-4N0-0	
State Project: 000I-076-995, PE-I0I, RW-20I, C-50I Federal Project: PHLD-540(1990) From: 0J8 Miles West of Route I & Joplin Rd Intersection To: 0,23 Miles East of Route I & Fuller Rd Intersection UPC Number: 92999			DESIGN FEATU OR TO REGULA MAY BE SUBJE NECESSARY BY	RES RELA ITION AND CT TO CI			
						PROJECT	SHEET NO.
						PROJECT VDOT 000I-076-995 PWC 1006-4N0-0	ID

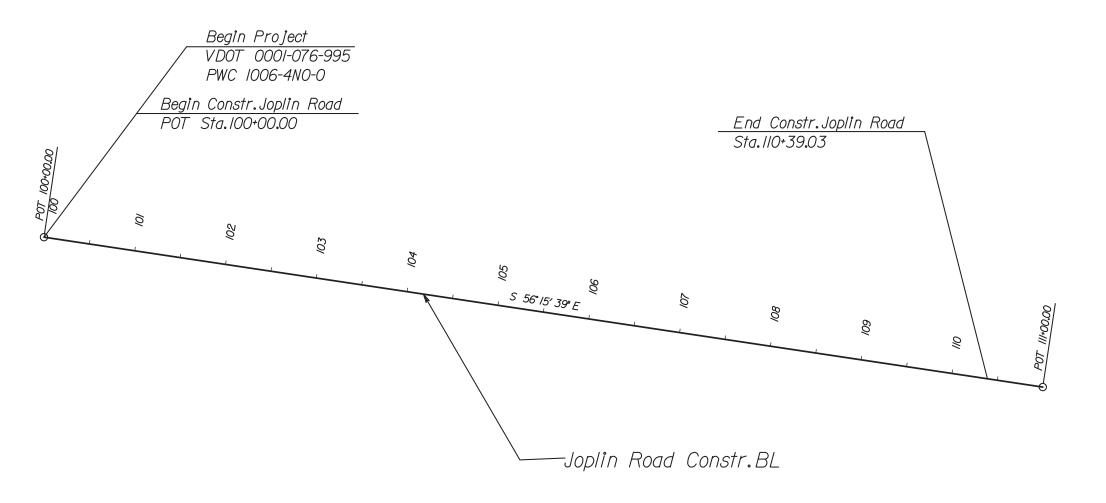
JOHNSON, WIRMIRAN & THOMPSON Engineering A Brighter Future 9201 Arboretum Parkway Suite 310 Richmond, Virginia 23236



P.A.C. PLANS

PROJECT MANAGER Gladis Arboleda, PWC\_DOT\_(703)\_792 SURVEYED BY, DATE JMT\_\_(804)\_323\_9900 DESIGN BY \_JMT\_(804)\_323\_9900 SUBSURFACE\_UTILITY\_BY, DATE\_JMT\_(804)\_323\_9900 VDOT 000I-076-995 RW-201, C-501 PWC 1006-4N0-0 VA. 619 IF(I) DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC
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NECESSARY BY THE DEPARTMENT

# CONSTRUCTION ALIGNMENT DATA SHEET



### ROUTE 619 (JOPLIN ROAD) - CONSTRUCTION BASELINE

1 DESCRIBE CHAIN 619

Chain 619 contains:

Beginning chain 619 description

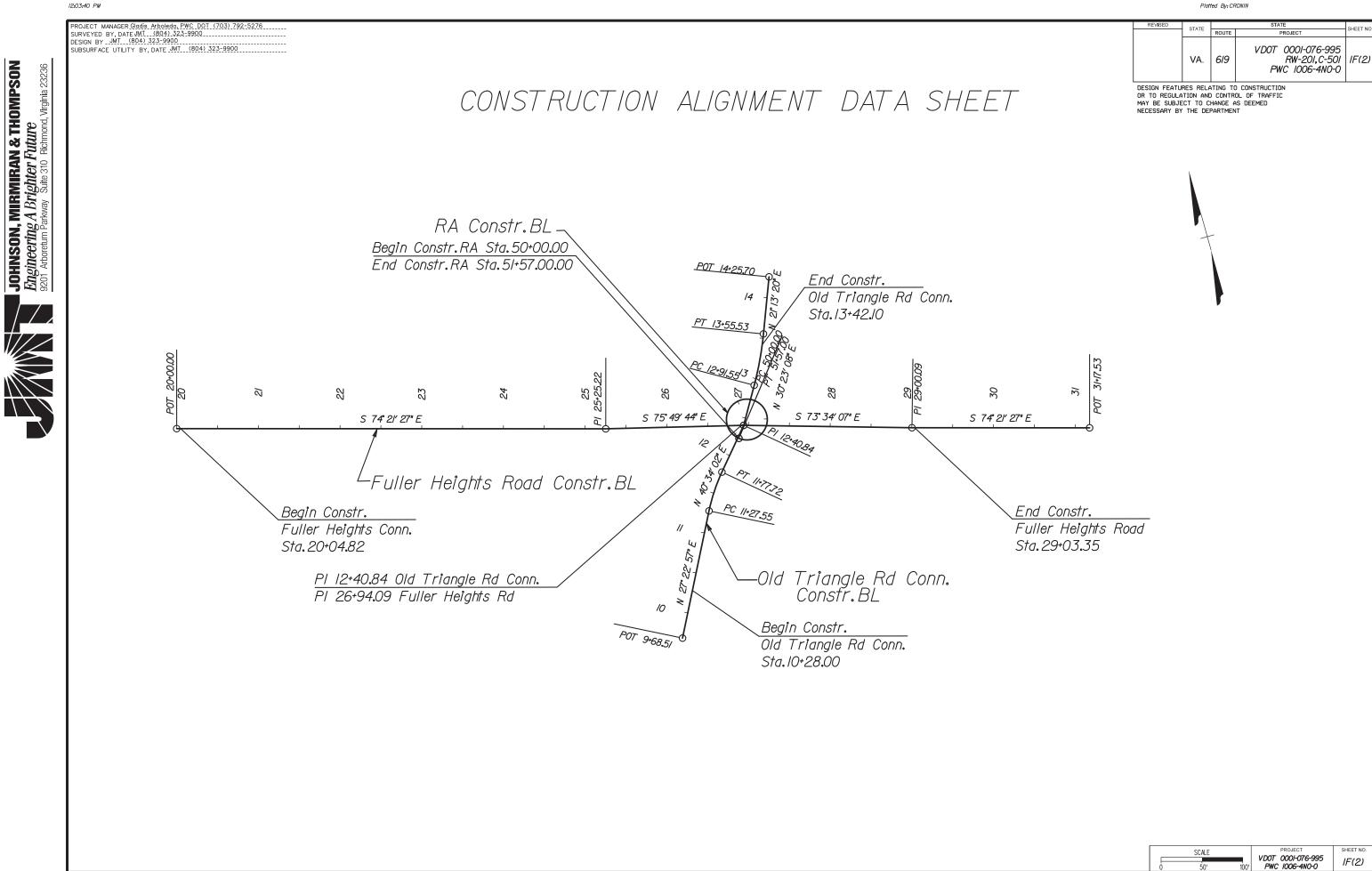
N 6,884,567.2000 E 11,814,749.8328 Sta 100+00.00

Course from J01 to J02 S 56° 15′ 38.72″ E Dist 1,100.0000

N 6,883,956.2444 E 11,815,664.5641 Sta 111+00.00

Ending chain 619 description

VDOT 000I-076-995 IF(I)



JOHNSON, WIRMIRAN & THOMPSON Engineering A Brighter Future 9201 Arboretum Parkway Suite 310 Richmond, Virginia 23236

PROJECT MANAGER Gladis, Arboleda, PWC\_DOT\_(70.3), 792-5276 SURVEYED BY, DATE\_WT. \_\_(80.4), 323-9900. DESIGN BY\_JMT\_\_(80.4), 323-9900 SUBSURFACE\_UTILITY\_BY, DATE\_JMT\_\_(80.4), 323-9900

STATE VD0T 000I-076-995 RW-201, C-501 PWC 1006-4N0-0 VA. 619 IF(3)

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

9+68.51

# CONSTRUCTION ALIGNMENT DATA SHEET

### FULLER HEIGHTS ROAD - CONSTRUCTION BASELINE

1 DESCRIBE CHAIN FHRD

Chain FHRD contains: FH1 FH2 FH3 FH4 FH5

Beginning chain FHRD description

N 6,883,882.0058 E 11,816,010.7174 Sta 20+00.00 Course from FH1 to FH2 S 74° 21′ 27.18″ E Dist 525.2192 N 6,883,740.3892 E 11,816,516.4841 Sta 25+25,22 Course from FH2 to FH3 S 75° 49′ 44.32″ E Dist 168.8676 N 6,883,699.0475 E 11,816,680.2129 Sta 26+94.09 Course from FH3 to FH4 S 73° 34′ 07.28″ E Dist 206.0070 N 6,883,640.7752 E 11,816,877.8065 Sta Point FH4 29+00.09 Course from FH4 to FH5 S 74° 21' 27.18" E Dist 217.4381 N 6,883,582,1467 E 11,817,087,1913 Sta

Ending chain FHRD description

### ROUNDABOUT - CONSTRUCTION BASELINE

3 DESCRIBE CHAIN CIRCLE

Chain CIRCLE contains:

Beginning chain CIRCLE description

		Curve *			
Curve CIRCLE1 P.I. Station Delta = Degree = Tangent = Length = Radius = External = Long Chord = Mid. Ord. =	50+00.04 359° 49' 02.89" 229° 10' 59.22" 0.0398 157.0000 25.0000 0.0796 50.0000	N (LT)	6,883,685.2756	E	11,816,670.3607
	50+00.00 51+57.00 51° 36′ 17.86″ E 51° 25′ 20.75″ E 51° 30′ 49.30″ W	N N N	6,883,685.2509 6,883,685.3005 6,883,704.8446		11,816,670.3919 11,816,670.3296 11,816,685.9189
Ending chain CIR	CLE description				

### FULLER HEIGHTS ROAD CONNECTION - CONSTRUCTION BASELINE

2 DESCRIBE CHAIN FHCONN

Chain FHCONN contains: D103 CUR FHCONN1 D104 CUR FHCONN2 D105

Beginning chain FHCONN description

Point D103 N 6,883,468.3688 E 11,816,538.0443 Sta

Course from D103 to PC FHCONN1 N 27° 22' 57.46" E Dist 159.0423

Curve Data

		*	<del>*</del>		
Curve FHCONN1				_	
P.I. Station	11+52.75	N	6,883,631,9622	E	11,816,622.7802
Delta =	13° 11′ 04.82″	(RT)			
Degree =	26° 16′ 56.88″				
Tangent =	25,1939				
	50.1653				
Length =					
Radius =	218.0000				
External =	1.4510				
Long Chord =	50,0547				
Mid. Ord. =	1.4414				
P.C. Station	11+27.55	N	6,883,609,5911	F	11,816,611.1927
P.T. Station	11+77.72	Ň	6,883,651,1005	Ē	11,816,639.1648
	11111112			F	
C.C.	074 00/ 57 40// 5	N	6,883,509.3262	Ε	11,816,804,7669
Back $= N$	27° 22′ 57•46″ E				
Ahead = N	40° 34′ 02.28″ E				
Chord Bear = N	33° 58′ 29.87″ E				

Course from PT FHCONN1 to D104 N 40° 34′ 02.28″ E Dist 63.1179

N 6,883,699.0475 E 11,816,680.2129 Sta 12+40.84

Course from D104 to PC FHCONN2 N 30° 23′ 08.43″ E Dist 50.7189

Curve Data

Curve FHCONN2	TK.	AK	
P.I. Station Delta = Degree = Tangent = Length = Radius = External = Long Chord = Mid. Ord. =	13+23.61 N 9° 09' 48.10" (LT) 14° 19' 26.20" 32.0545 63.9723 400.0000 1.2823 63.9042 1.2782	6,883,770.4512 E	11,816,722.0812
P.C. Station P.T. Station C.C. Back = N Ahead = N Chord Bear = N	12+91.55 N 13+55.53 N N 30° 23′ 08.43″ E 21° 13′ 20.33″ E 25° 48′ 14.38″ E	6,883,742.7997 E 6,883,800.3319 E 6,883,945.1269 E	11,816,705.8674 11,816,733.6845 11,816,360.8114
Course from PT F	HCONN2 to D105 N 21° 13'	20.32" E Dist 70.1772	

Point D105 N 6,883,865.7499 E 11,816,759.0878 Sta 14+25.70

Ending chain FHCONN description

NTS

IF(3)

PROJECT MANAGER Gladis Arboleda, PWC\_DOT (703) 792-5276 SURVEYED BY, DATE JMT\_ (804) 323-9900 DESIGN BY JMT (804) 323-9900 SUBSURFACE UTILITY BY, DATE JMT (804) 323-9900

TMP/SOC Temporary Traffic Control Plan General Notes STATE VDOT 0001-076-995 VA. 619 RW-201 C-501 IG(I) PWC 1006-4N0-0

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

Temporary Traffic Control Plan

General Notes:

- TMP/SOC Type B Project Information:
- a Identify the project's TMP Type:
  This project's TMP/SOC plan has been designed in conformance with a Type B TMP/SOC plan.
- Identify the work zone location, length, and widths: The project location is as shown on Sheet IA. The work zone areas have been delineated as shown on the TMP/SOC plan sheets IH series through IK series. The work zone lengths and widths vary by location as shown on the TMP/SOC plan sheets on the IH series through IK series.
- c Note the hours the Construction Area will be active: Construction Area shall be considered active when any impact to traffic occurs (First Cone in Road). Construction Area hours have the following limitations:

One-lane closures will be restricted as follows:

9:30am to 3:00pm & 10:00pm to 5:00am on Monday through Thursday 9:30am to 2:00pm on Friday

10:00 pm Friday to 9:00am Saturday,10:00pm Saturday to 8:00am Sunday,10:00pm Sunday to 5:00am Monday

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.

Designation of Night Time Hours and Peak Hour Times: Night time hours shall be designated as hours between 9:30pm through 5:00am. Peak hours are 6:00am through 9:30am & 3:00pm through 7:00pm.

Installation/removal of Concrete Traffic Barrier Service shall only occur during night time hours or non-peak hours using VWAPM TTC-24J,or as directed by the Engineer.

- d The TMP/SOC plan,during construction,shall be in accordance with Sections 512,701,703 & 704 of the Virginia Department of Transportation Road and Bridge Specifications,dated 2016, the Virginia Work Area Protection Manual,dated 2011,Revised April 2015,the Manual on Uniform Traffic Control Devices (MUTCD),2009 Edition,and the Virginia Department of Transportation Road and Bridge Standards, dated 2016.
- e Note any existing entrances, existing intersections, or existing pedestrian access points that will be affected by the Construction Area or by the traffic control devices:

All existing commercial or private entrances shall remain open for the duration of construction unless otherwise indicated on this plan.

Existing Intersections:
There are two signalized intersections within the project limits. They are the intersections of:
Jefferson Davis Highway (Roufe I) & Joplin/Fuller Road (Roufe 6!9)
Fuller Road (Roufe 6!9) & Fuller Heights Connection
The signalized Intersection at Fuller Road (Roufe 6!9) & Fuller Heights Connection will be
added as part of the proposed improvements.

There are two unsignalized Intersections within the limits of this project. They are the intersections of:
Fuller Heights Road © Fuller Road (Route 619)
Fuller Heights Road © Old Triangle Road
The Fuller Heights Road © Fuller Road (Route 619) Intersection will be closed as part of the proposed improvements.

All intersections are to remain open during construction unless otherwise indicated on this plan. Intersections may be reduced to one lane when the construction zone is active, using VWAPM TTC-28J or as approved by the Engineer. When the construction zone is not active, all intersections shall be open.

Existing Pedestrian Access Points:
Within the project limits, pedestrian access points are very limited. Most pedestrian access points occur at the intersections. Where possible, pedestrians will be directed to cross Jefferson Davis Highway and use the pedestrian facilities on the other side of the street. For all other locations, the sidewalk is to be closed at the project's limits as there are not enough pedestrian paths within the projects on maintain until the project is completed. If requested by the Engineer, the project single at 4 orange safety fence wherever directed to discourage pedestrians from walking through the project, at no additional cost to the project.

Existing Bus Stops:
There are several public bus stops within the project limits. Coordination with PWC-DOT and PRTC is required to determine if any bus stops will require relocation during construction.

- Identify the major types of travelers:
  The roadway carries large diverse types of travelers. In the peak hours however, commuters are the prevailing traveler type for this roadway.
- g The Contractor, at no additional cost to the project, which shall be considered incidental to the cost of the project, shall:

Designate a person assigned to the project who will have the primary responsibility, with sufficient authority, for implementing the TMP/SOC and other safety and mobility aspects of the permit work. This person shall be designated the "Project Safety Officer." Ensure that personnel assigned to the project are trained in traffic control to a level commensurate with their responsibilities in accordance with VDDT's work zone traffic

inform the Engineer of any work requiring lane shifts, lane closures, and/or phase changes a minimum of two working days prior to implementing this activity.

Perform reviews of the Construction Area to ensure compliance with contract documents at regularly scheduled intervals at the direction of the Engineer. Contractor shall maintain a copy of the temporary traffic control plan at the work site at all times.

Coordinate with Prince William County Police Department, Prince William County Fire/Rescue Department, and Virginia State Police for any lane closures and any detours of any nature at least seven working days prior to implementing a lane closure.

Schedule all phases of construction in such a manner that water, sanitary sewer, cable, fiber cable, optic cable, any overhanging utilities, and any underground utility services will not be

- h During working hours, all construction equipment is to stay outside of the construction area clear zone as designated in the VWAPM, Appendix A. Construction equipment is not to block or obstruct sight distance at any intersection or private entrance along the project when the construction work zone is active.
- This TMP/SOC plan is intended as a guide. It is not to enumerate every detail which must be considered in the construction of each phase, but only to show the general handling of existing traffic. It shall be the responsibility of the Contractor to present a formal TMP/SOC plan with construction signage to the Engineer for approval prior to any construction activity that may affect the existing traffic.
- Contractor is to maintain two lanes of traffic (one in each direction) on Fuller Road/Joplin Road and is to maintain a minimum of one lane of traffic on all street connections when the construction zone is active unless otherwise specified by the Engineer. When the construction zone is not active, zone is active unless otherwise specified by the Engineer. When the construction zone is not active, the Contractor shall ensure all street connections maintain a minimum of two lanes of traffic (one in each direction). During construction of this project, the translater of the project standard CS-O travelway shall have a minimum clear roadway width in accordance with VDOT standard GS-10 unless otherwise approved by the Engineer. For commercial connections, or private entrances, a minimum width no less than the existing width shall be maintained at all times, unless approved
- Concrete Traffic Barrier Service shall be installed and removed so as to not present any blunt end or hazard to the motoring public. The placement and removal of Concrete Traffic Barrier Service are to be coordinated by the Project Safety Officer. When Concrete Traffic Barrier Service is installed, impact Attenuators shall be placed at the beginning of the Concrete Traffic Barrier Service. Project Safety Officer shall ensure Concrete Traffic Barrier Service is Installed In accordance with VDOT's and manufacturer's specifications to prevent deflection. Additionally, Project Safety Officer shall ensure Concrete Traffic Barrier Service, when Installed with flares, shall be in accordance with VDOT's Virginia Work Area

Note:There are portions of the project in which the Contractor will be working within 2' behind the Concrete Traffic Barrier Service. The Concrete Traffic Barrier Service shall be pinned in these locations and the Contractor shall implement VWAPM TTC 23J and TTC 24J when working in these areas.

- Contractor stall follow the geotechnical recommendations for the project. Materials designated as unsuitable material as detailed in the geotechnical recommendations stall be disposed of offsite and are not to be used for any part of construction. Existing surface, aggregate base, and sub base material which will be demolished or obliterated during construction, and which are suitable for maintenance of traffic, should be utilized prior to the use of commercial material.
- Each phase of construction shall be completed to the installation of intermediate course asphalt prior to the start of the next phase unless otherwise directed by the Engineer.
- 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.
- The cost to remove the construction pavement markings and pre-approved black tape shall be included in the cost to install construction pavement markings and will not be paid for as a separate item.
- Where Group 2 Channelizing Devices are used to separate the Construction Area and traffic, a minimum clear zone area as defined in the VWAPM is to be maintained.
- The Contractor is to coordinate with Prince William County for location(s) of the construction The Controllor is to coordinate with Prince william County for locations of the constraint staging area(s).Confractor is responsible for obtaining easements and permits associate for these location(s).Confractor is solely responsible for the cost to acquire easement for staging area and it shall not be paid for as a separate item.Potential staging areas for construction are at stormwater management basins and storm water management
- All areas excavated below the existing payement surface and within the clear zone at the raid also sections of each workday shall be backfilled to form an approximate 6 wedge against the existing pavement or newly constructed pavement surface for the safety and protection of vehicular traffic. All costs for placing maintaining, and removing 6 wedge shall be included in the
- IMPLEMENTING THE TRANSPORTATION MANAGEMENT PLAN IMPLEMENTING THE TRANSPORTATION MANAGEMENT PLAN
  During the first day of the new work zone traffic pattern, the project's Manager and project's
  Maintenance of Traffic Coordinator shall inspect the work zone to ensure compilance with the
  TMP. On the third to fifth day of Implementation of the TMP's new work zone traffic pattern, the
  District Work Zone Safety Coordinator and the project's Maintenance of Traffic Coordinator shall
  conduct an on-site review of the work zone's performance and recommend to the Contractor any
  required changes to the TMP to enhance the work zone's safety and mobility. All such changes
  shall be documented. An on-site review of the project's work zone traffic control by the District
  Work Zone Safety Coordinator, Project's Manager/Maintenance of Traffic Coordinator, District
  Safety Engineer, and the Contractor shall be conducted within 48 hours of any fatal incident/crash
  within the work zone. within the work zone.

- EVALUATION OF THE TRANSPORTATION MANAGEMENT PLAN
  A performance assessment of the TMP Including area-wide impacts on adjacent roadways shall
  be performed by the Regional Traffic Engineering and Operations sections during construction.
  As circumstances dictate, a review of the overall effectiveness of the project's TMP shall be
  completed during the Post Construction Meeting and Included with the Post Construction Report.
  A copy of the specific information on the effectiveness of the TMP will be forwarded to the State
  Traffic Engineer for review. A copy of the TMP InterIm/Post Construction Report Form can be
  obtained from the Regional Traffic Engineer.
- PUBLIC COMMUNICATIONS PLAN
  The Contractor shall be responsible for:

  - Notifying the Project Manager/Residency Administrator two weeks in advance of any scheduled work plans and traffic delays.
  - Natifying the Project Manager/Residency Administrator, Regional Operations Manager, and the Public Affairs staff of any unscheduled traffic delays.
- TRANSPORTATION OPERATIONS
  The Contractor shall be responsible for implementing and providing the following:
- a Notifying the Northern Region Transportation Operations Center (TOC) 48 hours in advance in order to place lane closure information on the 5ll System and VA-Traffic.
- b Post a list of local emergency response agencies inside the project's construction office/trailer.
- c Immediately report any traffic incidents that may occur in the work zone
- d Notify the project's Maintenance of Traffic Coordinator, Project Manager, Resident Administrator, District Work Zone Safety Coordinator, District Traffic Engineer, The Regional Operations Manager and Public Affairs Manager of any Incidents and expected traffic delays.
- Within 24 hours of any incidents within the construction work zone, a review of the traffic controls shall be completed and necessary adjustments made to reduce the frequency and severity of any future incidents.

### CONTACT NUMBERS

(703) 792-5276 Pro lect Manager Gladis Arboleda Construction Manager Construction Safety Manager TBD TBD TBD TBD TBD TBD Public Relations VDOT Residency Administrator - Construction District Work Zone Safety Coordinator(s) Emergency Call Non-Emergency Numbers: Prince William County Police Prince William County Fire & Rescue 911

VDOT 0001-076-995

(703) 792-6500

SHEET NO

PROJECT MANAGER Gladis, Arboleda, PWC, DOT. (703), 792-5276 SURVEYED BY, DATE JMT... (804), 323-9900 DESIGN BY JMT... (804), 323-9900 SUBSURFACE UTILITY, BY, DATE JMT... (804), 323-9900

REVISED	STATE	STATE					
	SIKIL	ROUTE	PROJECT	SHEET NO			
	VA.	619	VDOT 0001-076-995 RW-201,C-501 PWC 1006-4N0-0	IG(2)			

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

# MAINTENANCE OF TRAFFIC SEQUENCE OF CONSTRUCTION

### Phase I

- Install signs and channelizing devices as shown on the plans along existing Fuller Heights Road, and Fuller Heights Conn./ Old Trianale Road.
- 2. Install erosion and sediment control measures as shown on the plans at appropriate times during this phase of construction.
- 3. Start lane closures utilizing flag men on the east and west ends of Fuller Heights Road and on Old Triangle Road. during off peak hours.
- 4. Demo existing sign island on north side of roundabout, patch underlying pavement to match existing surface if needed.
- 5. Install I5" pipe across new Fuller Heights roadway alignment from 6-4 to 6-I and plug until the next phase.Install drainage inlets, pipes,manholes and applicable under drains from 8-4 through 8-8A.
- 6 Install Precast Concrete Rigid Frame across the new Fuller Heights roadway alignment.
- 7. After Precast Concrete Rigid Frame is completed, construct realigned Fuller Heights Road from approximate Station 10+28 (tieing to Fuller Road construction by others) through partial round as shown on Fuller Heights Connection
- 8. Install proposed traffic signal and equipment at the intersection of Fuller Heights Connection/Fuller Road.
- 9. Contractor shall maintain access to all private and commercial entrances at times during construction.

### Phase 2

- I. Install signs and channelizing devices as shown on the plans along existing Fuller Heights Road, and Fuller Heights Conn./ Old Triangle Road.Install signs and traffic devices on Joplin Road and ramps.
- 2. Install erosion and sediment control measures as shown on the plans at appropriate times during this phase of construction.
- 3. Using lane closures build the new medians and left turn lane on Joplin Road to the intersection with Jeff Davis Highway. Realign signal heads at intersection as needed.
- 4. Start lane closures utilizing flag men on the east and west ends of Fuller Heights Road and on Old Triangle Road. during off peak hours.
- 5. Install drainage inlets, pipes, manholes and applicable under drains from 8-1 through 8-12A.
- 6. Build the north side of Fuller Road, Fuller Road Conn. and the remainder of the round about.
- 7. Contractor shall maintain access to all private and commercial entrances at times during construction.

### Phase 3

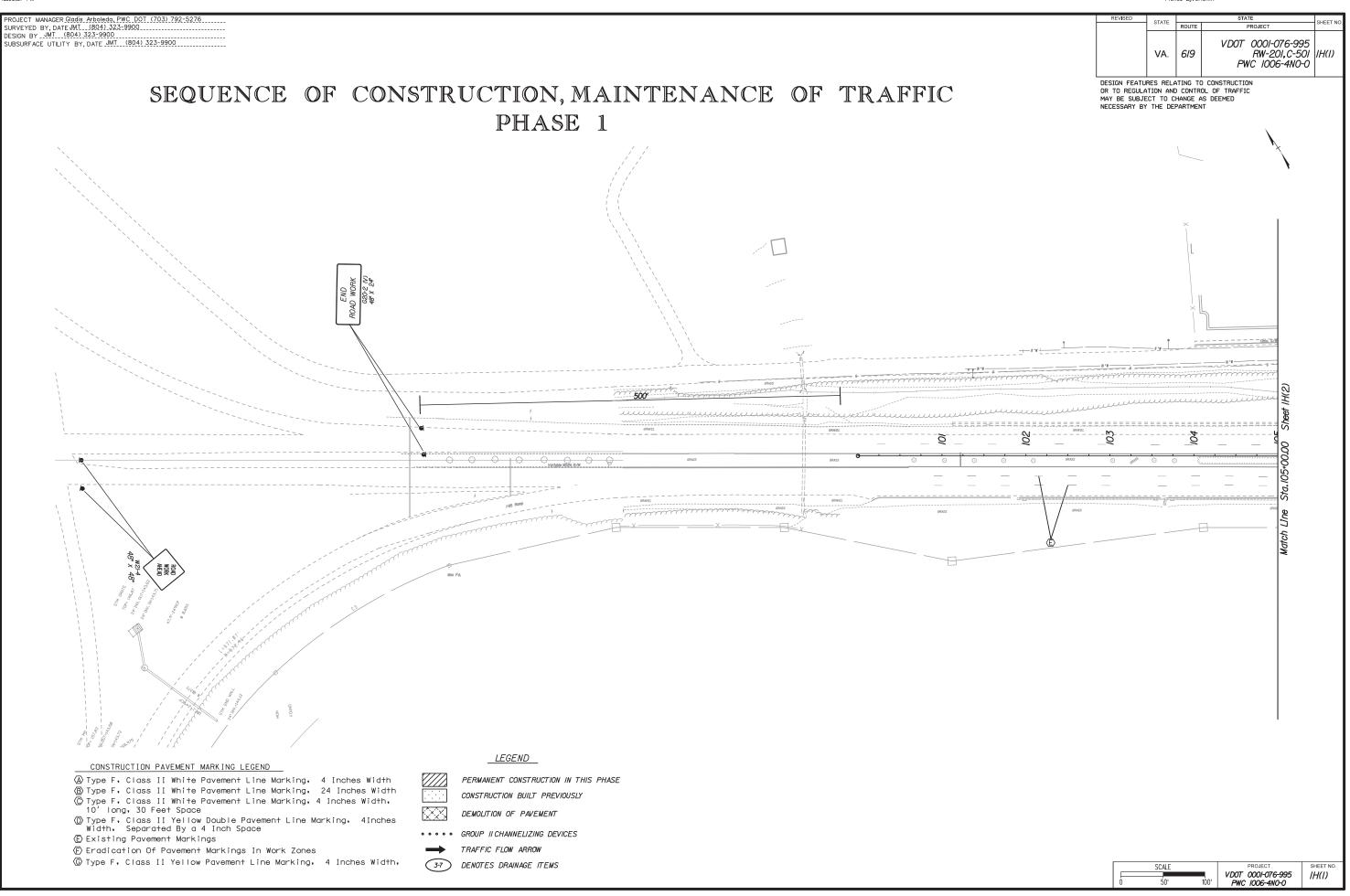
- I. Install signs and channelizing devices as shown on the plans along existing Fuller Heights Road, and Fuller Heights Conn. Install signs and channelizing devices as shown on the plans for Fuller Road (by others).
- 2. Install erosion and sediment control measures as shown on the plans at appropriate times during this phase of construction.
- 3. Open round about to traffic from Fuller Road to Fuller Heights Conn.and Fuller Heights.
- 4. Close Fuller Heights Conn.at station 20+85 and at the entrance from Fuller Road (by others).
- 5. Demo pavement on Fuller Heights Road as shown. Construct the remaining curb and gutter/sidewalk across existing Fuller Heights Road at Fuller Road from approximate. station 201-00 to 202-00. This curb and gutter/sidewalk tile to Fuller Road (by others) must match grade, slope, drainage and existing pavement by others.
- 6. Add group 2 channelizing devices as shown then construct sidewalk along old Fuller Heights Road from station 24:00 to Fuller Road (by others) sidewalk at approximate.station 201:00.

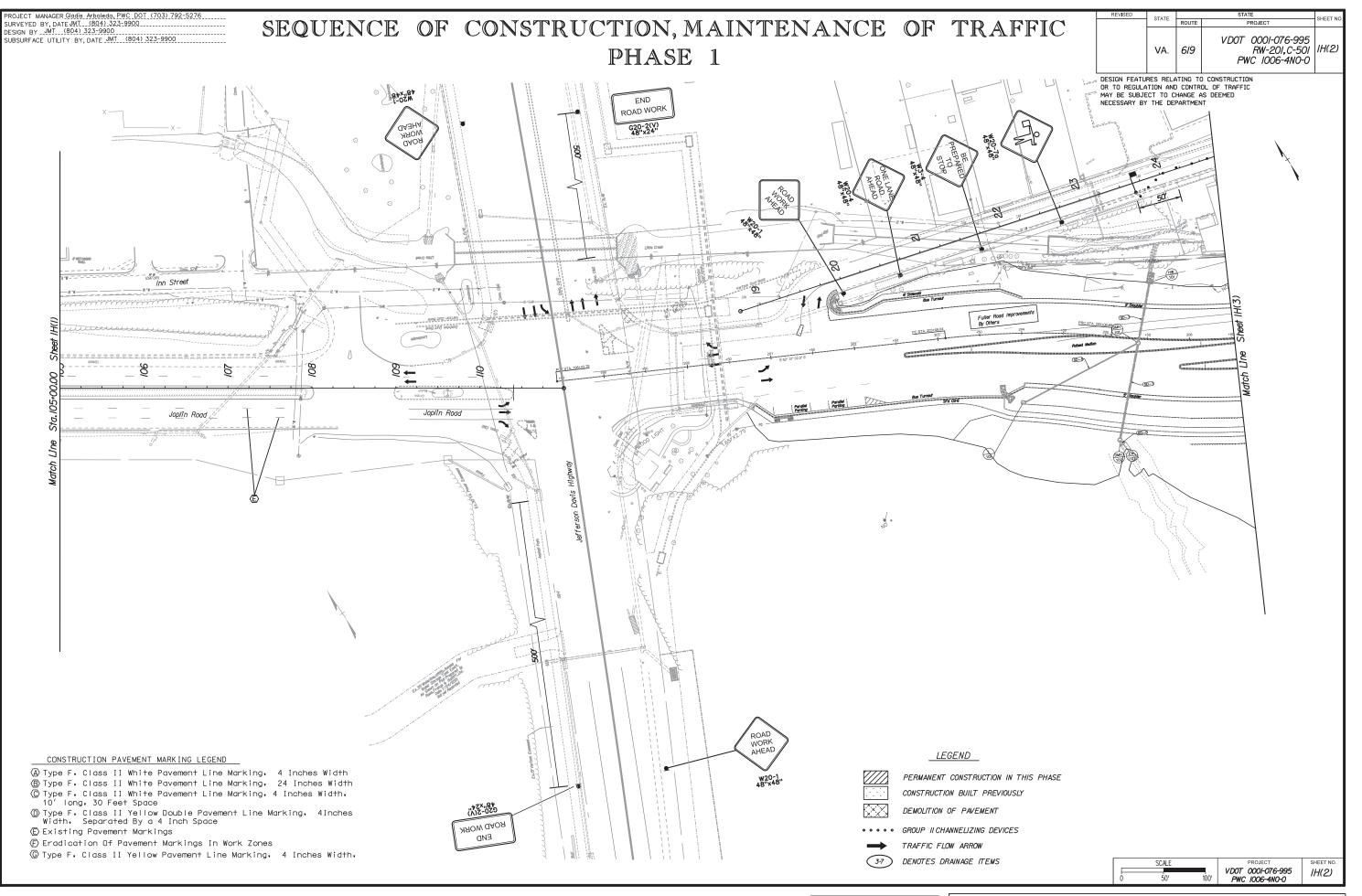
  Constuct all work along old Fuller Heights Road including "Culde-sac" turn around and any new pavement.
- 7. Realign/install signal heads at intersection of Joplin Road and Jefferson Davis Highway as needed.

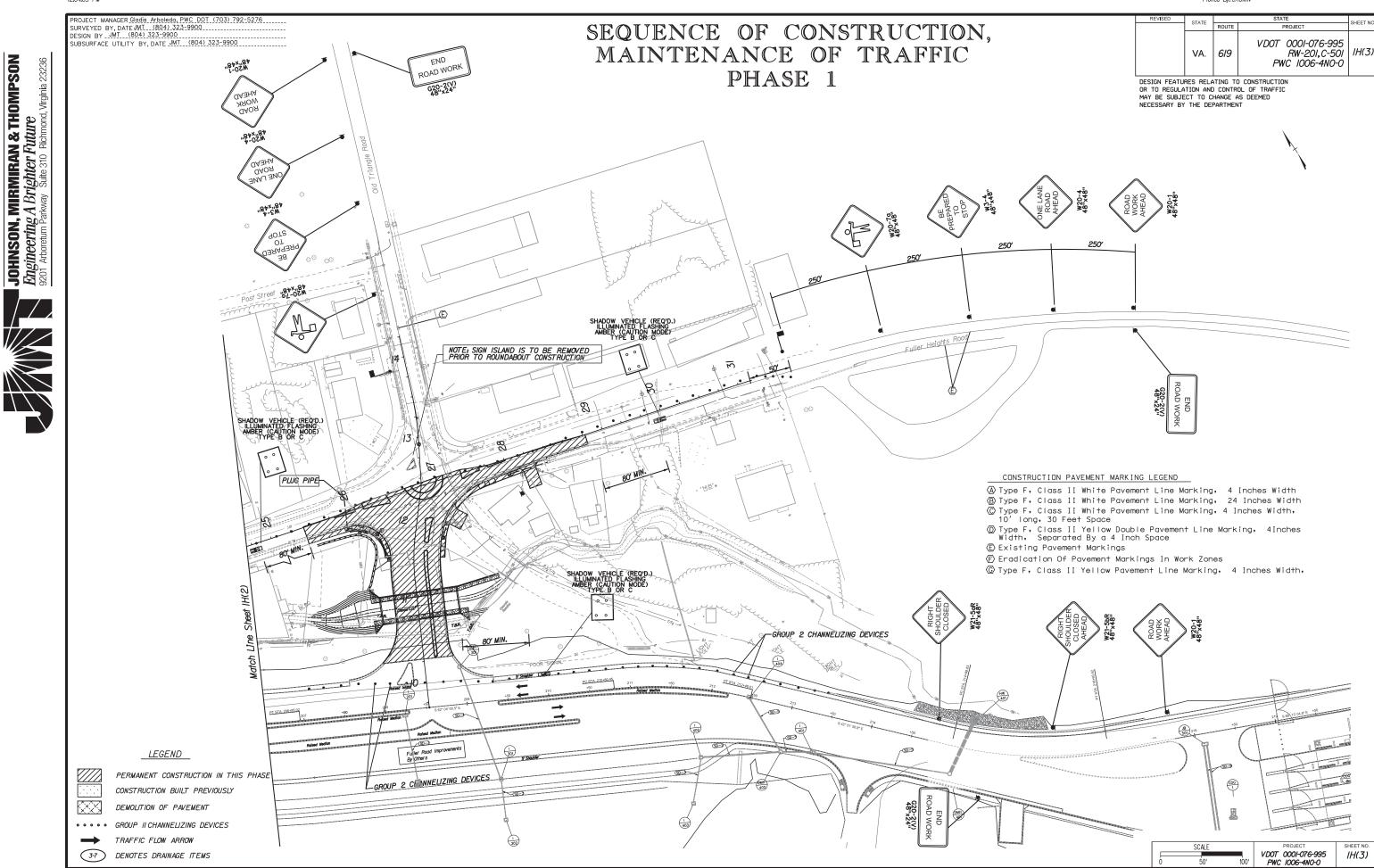
  Open Joplin Road left turn lane to traffic.
- 8. Apply all remaining final wearing surface asphalt courses, striping and incidentals on any roads that require completion of this job, this will be done during off peak hours.
- Contractor shall maintain access to all private and commercial entrances at times during construction.

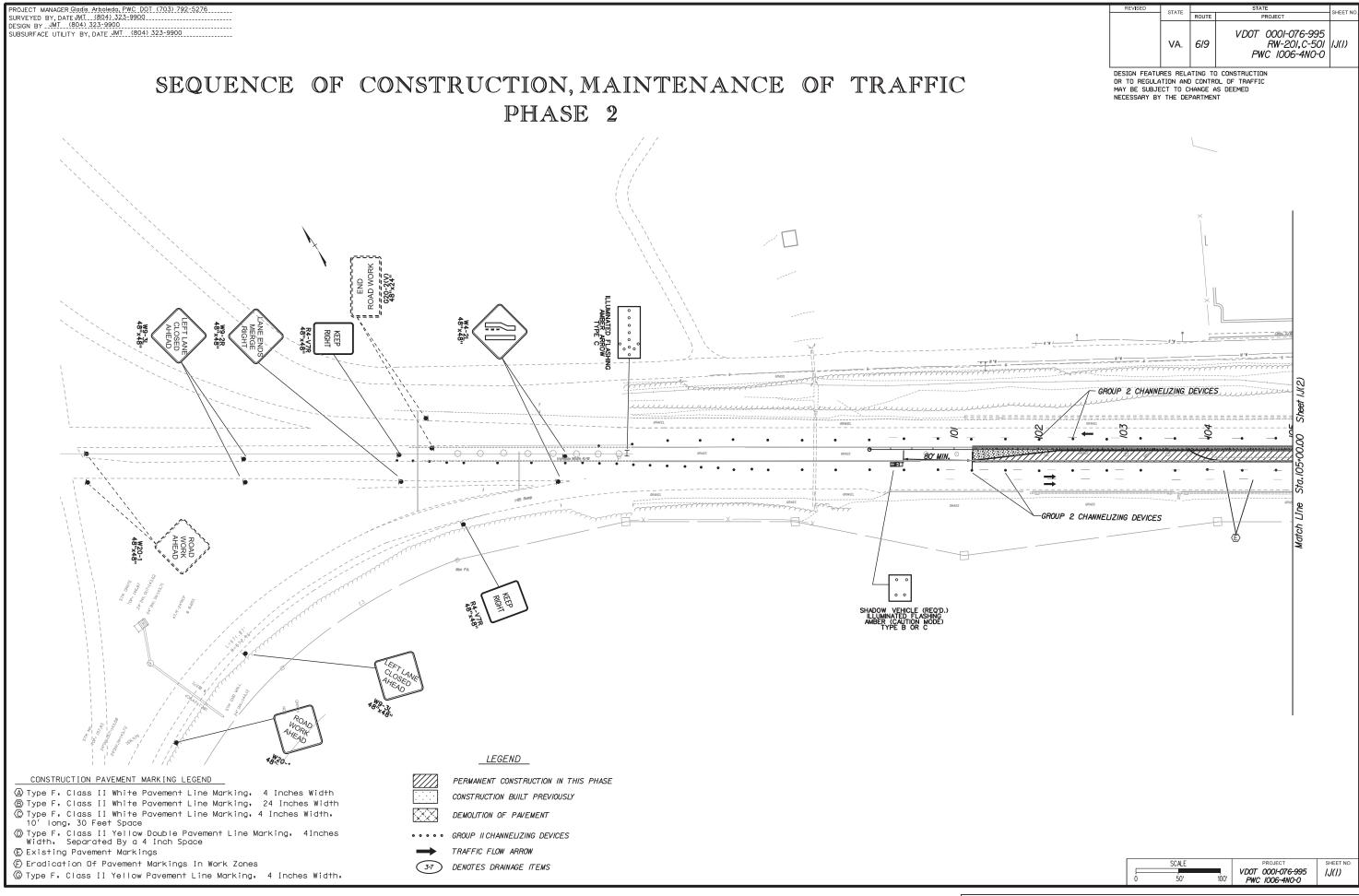
PROJECT VDOT 000I-076-995

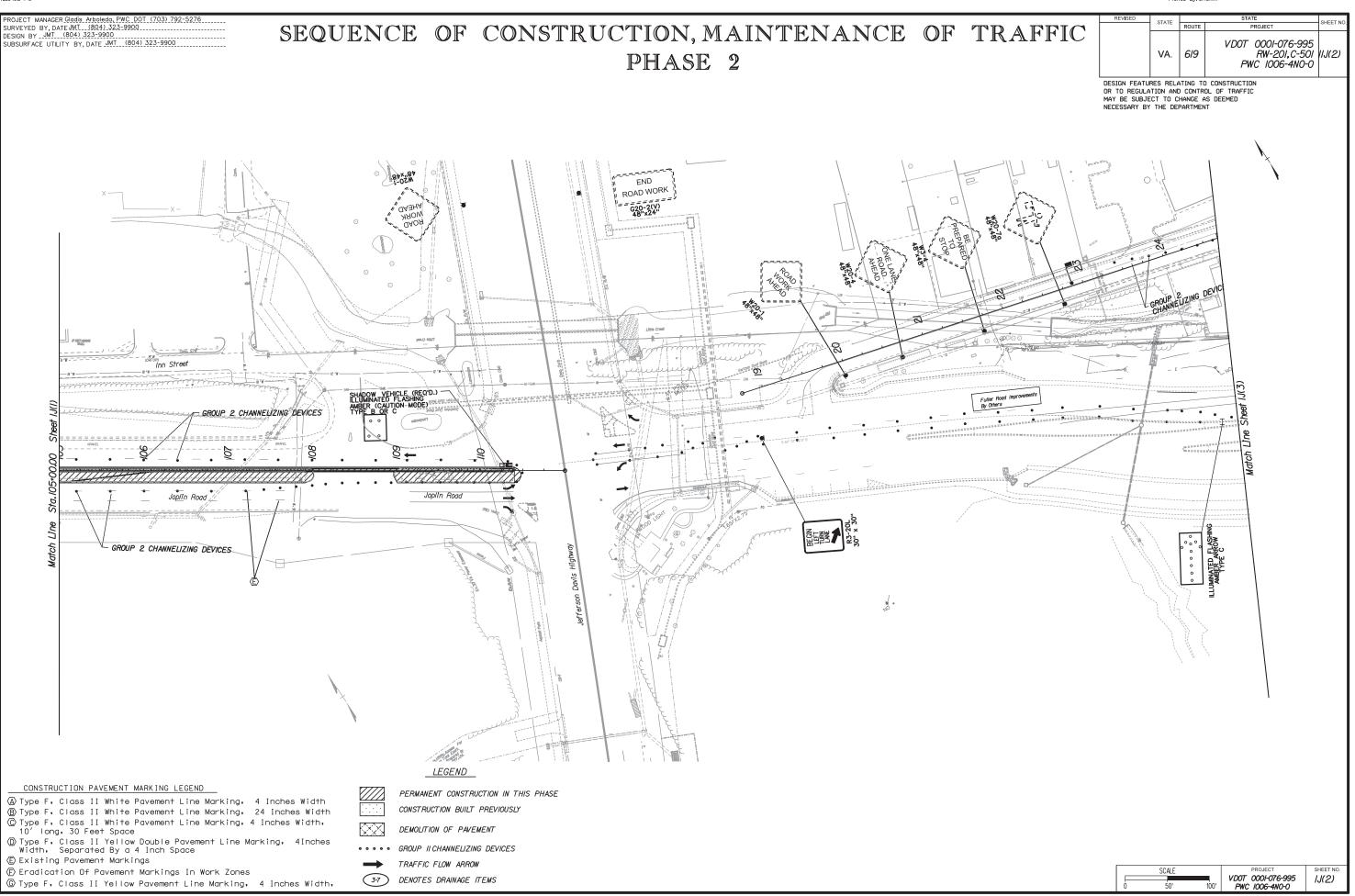


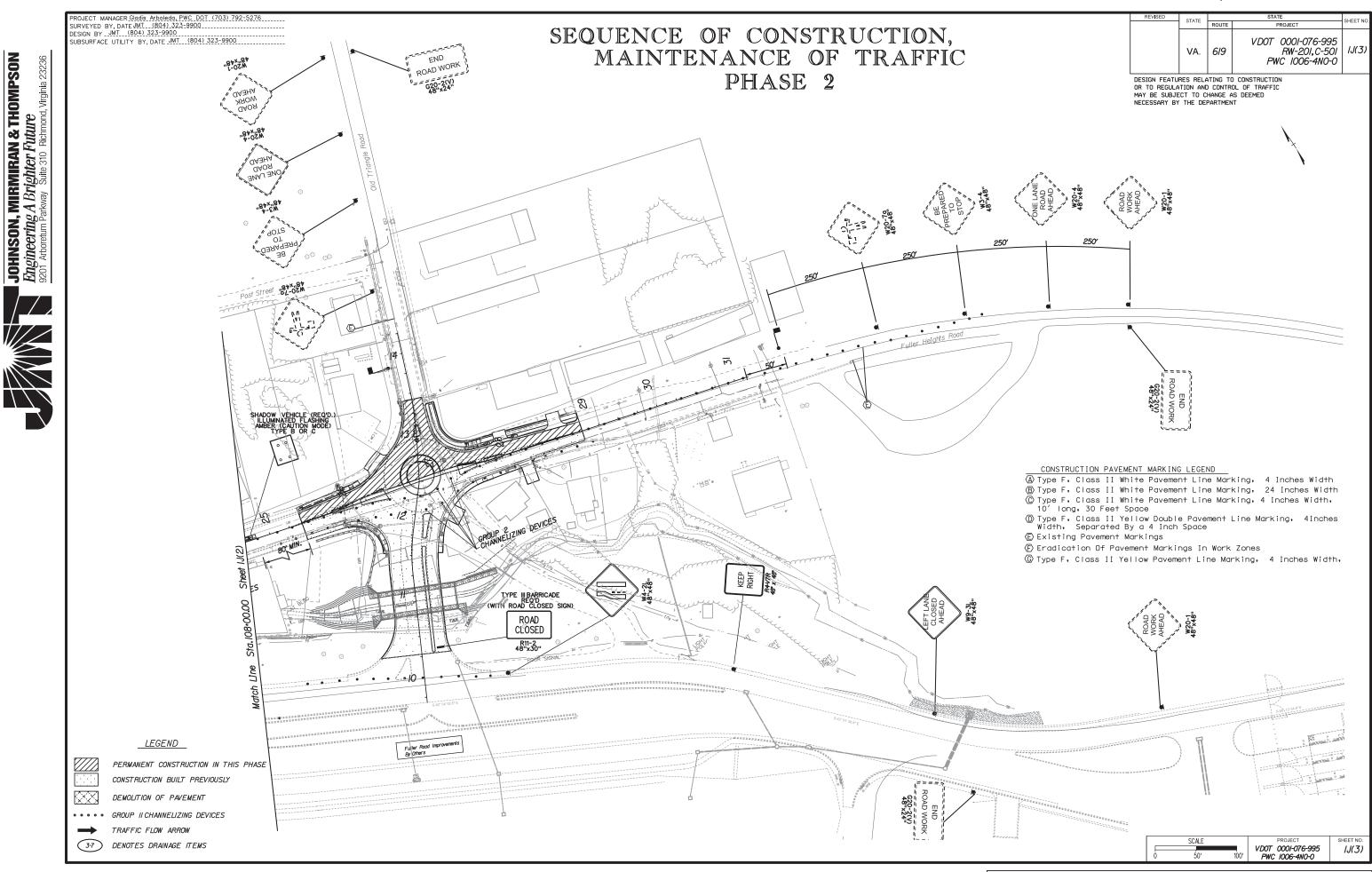


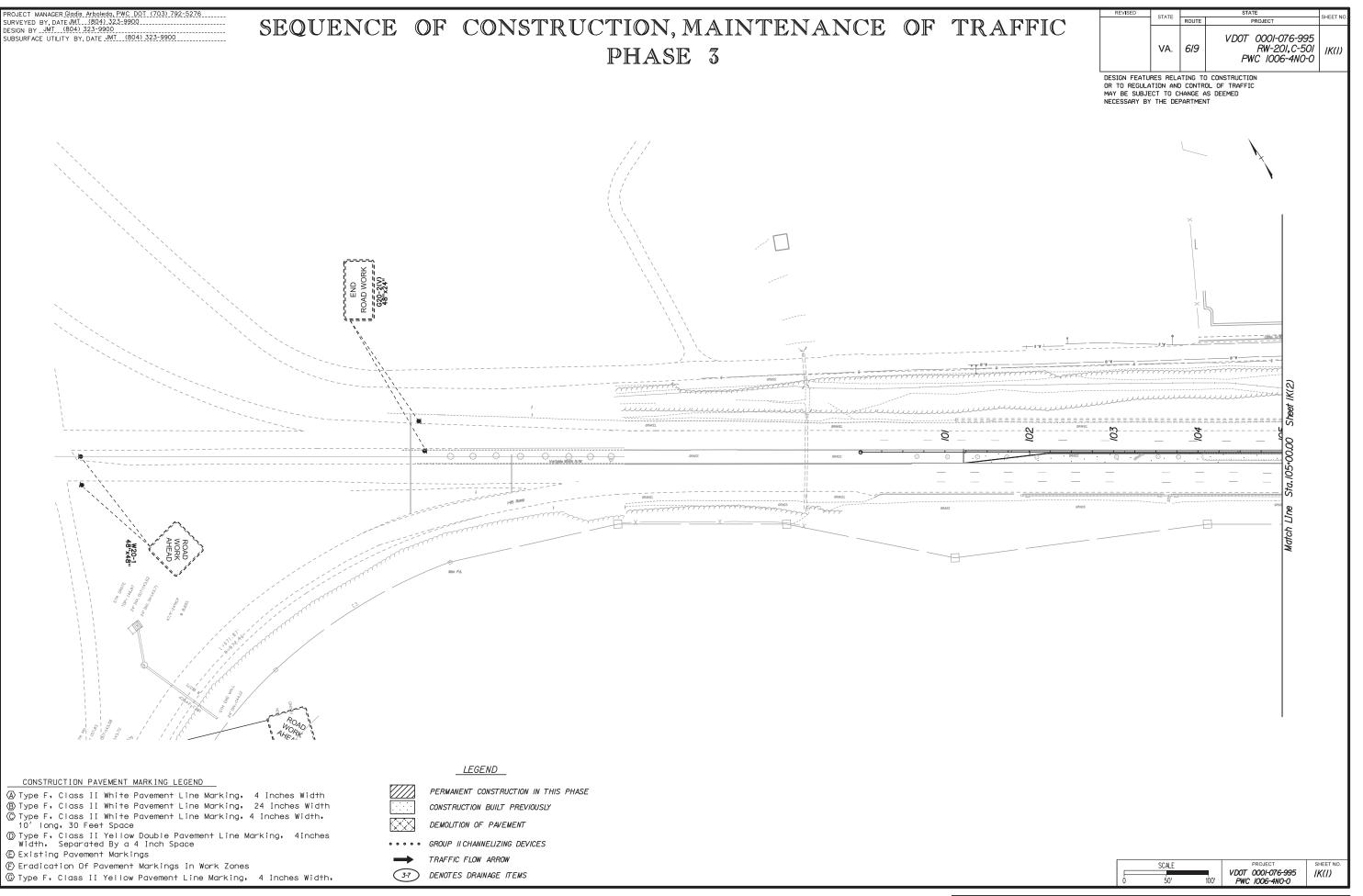


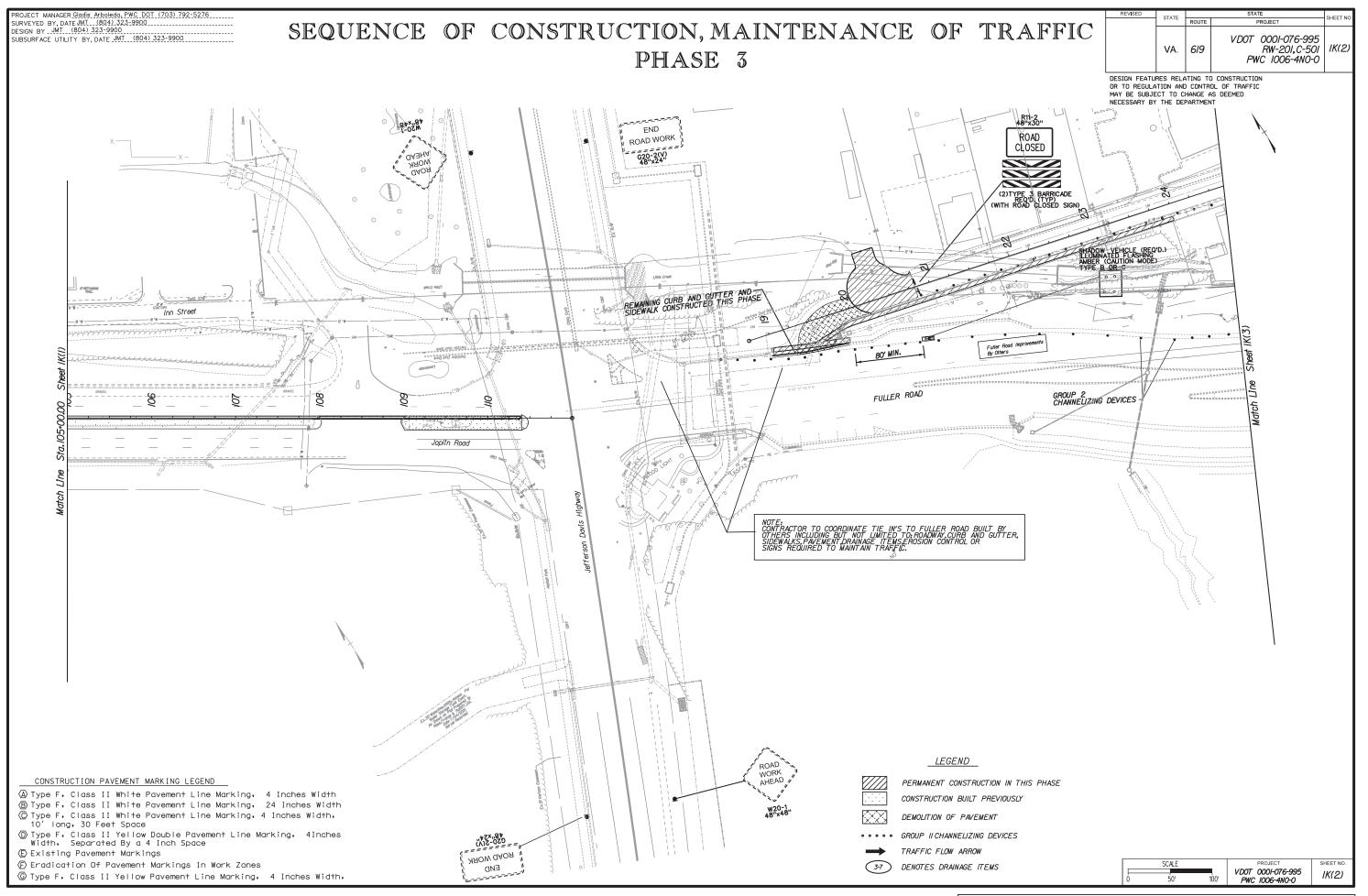


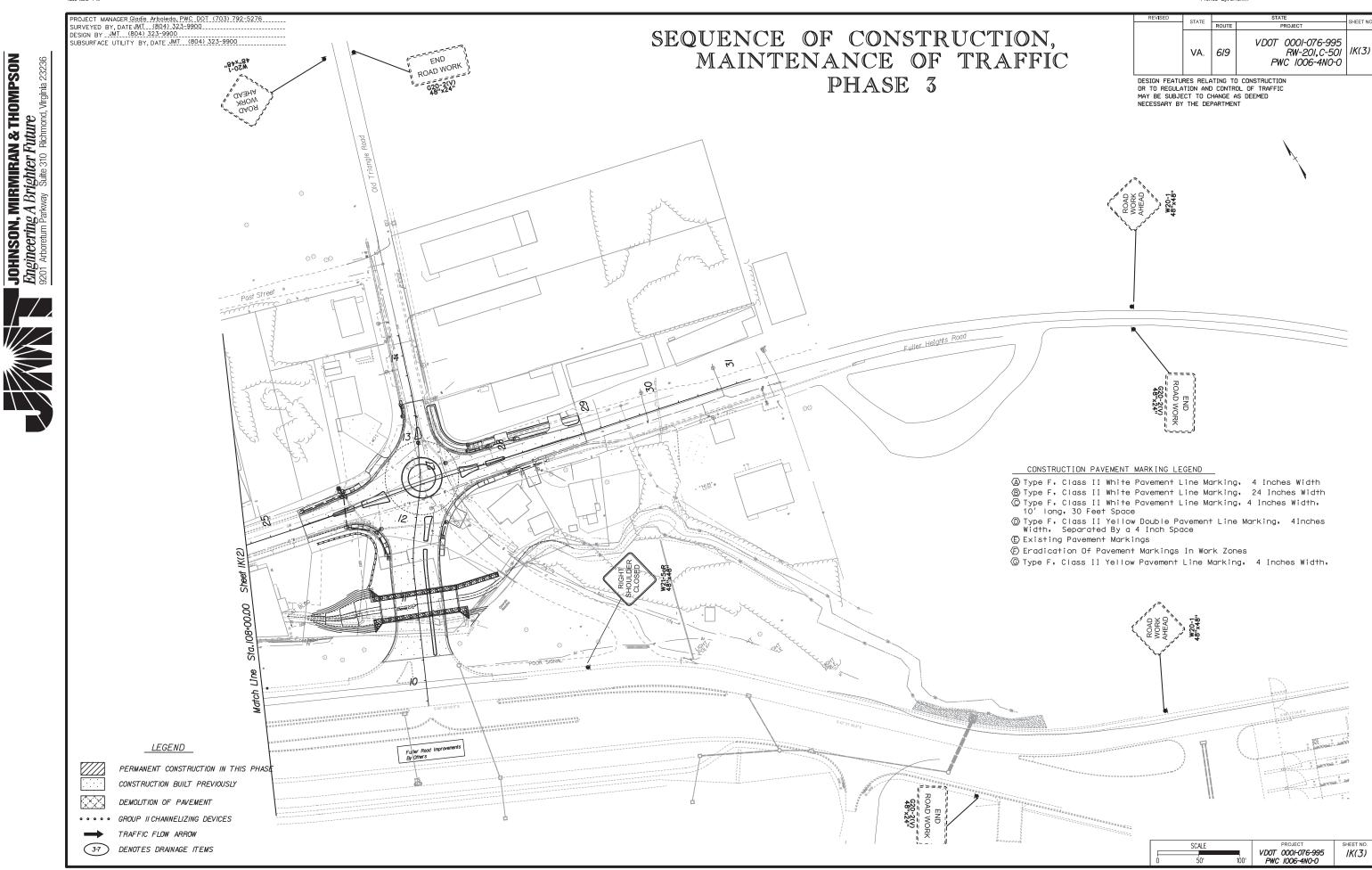












PROJECT MANAGER Gladis Arboleda, PWC DOT (703) 792-5276 SURVEYED BY, DATE JMT . (804) 323-9900 DESIGN BY JMT (804) 323-9900 SUBSURFACE UTILITY BY, DATE JMT (804) 323-9900

### STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2019 and VDOT's approved Annual ESC and SWM Standards and Specifications.

The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance activities that disturb an area equal to or greater than 10,000 square feet outside the Chesapeake Bay Preservation Area, or equal to or greater than 2,500 square feet in the area defined as Tidewater, Virginia in the Virginia Chesapeake Bay Preservation Act.

The VDOT RLD (as defined in the latest IIM 242) will ensure that the information shown on the SWPPP General Information sheets is updated/revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/revised sheets shall be maintained with the designated record set of plans (or other such documents) for the land disturbance (construction) activity.

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.

I further certify that this document and all other documents related to the SWPPP, as identified on the SWPPP General Information Sheets, are maintained at the activity site, or at a location convenient to the activity site where no on-site facilities are available, and such documents will be made available for review upon request in accordance with the provisions of the General VPDFS Permit for Discharges of Stormwater from Construction Activities (VAR10) when applicable. Where the SWPPP documents are not stored on-site, a copy of such documents shall be in the possession of those with day to day operational control over the implementation of the SWPPP whenever they are on site.

\* or \*\* Delegated Authority Signature

(1) See Section 1, Item 11 relating to delegation of authority, and form LD-445H (Delegation of Authority).

### ACRONYMS

CBPA - Chesapeake Bay Preservation Act
BMP - Best Management Practice

BMP - Best Management Practice
DEQ - Department of Environmental Quality

EPA - U.S. Environmental Protection Agency ESC - Erosion and Sediment Control

IIM - Instructional and Informational Memorandum

R&B - Road and Bridge

RLD - Responsible Land Disturber

SWPPP - Stormwater Pollution Prevention Plan

TMDL - Total Maximum Daily Load

VDOT - Virginia Department of Transportation

VPDES - Virginia Pollutant Discharge Elimination System VSMP - Virginia Stormwater Management Program

VESCP - Virginia Erosion and Sediment Control Program

WLA - Waste Load Allocation

SWM - Stormwater Management

### SECTION I GENERAL INFORMATION

- 1. Activity Description This project involves the construction of left turn in the existing raised median on Joplin Road approaching the Route 1 intersection. A mini-roundabout will be constructed at the intersection of Old Triangle Rd/Fuller Heights Rd. A connection will be constructed from the mini-roundabout to the P588 Fuller Road Improvements constructed by others for Quantico.
- 2. This land disturbance (construction) activity site is located in Prince William County and approximately 1.80 acres will be disturbed by excavation, grading or other construction activities.
- 3. (Include one of the following notes as appropriate)
- A. This proposed activity disturbs one acre or greater and requires coverage under the VPDES General Permit for Discharges Of Stormwater from Construction Activities (the VPDES Construction Permit) as issued by the DEQ. A copy of the VPDES Construction Permit (VAR10), the registration information (LD-445 & LD-445C forms) and the permit coverage letter received from DEQ shall be maintained with other SWPPP documents for this land disturbing activity.

- \*\*X 4. The location of on-site support facilities that will be covered under the VPDES Construction Permit coverage for this land disturbance (construction) activity shall be provided by the contractor and identified on the record set of plans or in other appropriate contract documents. Support facilities shall include, but not be limited to, borrow and disposal areas, construction and waste material storage areas, equipment and vehicle washing, maintenance, storage and fueling areas, storage areas for fertilizers, fuels or chemicals, concrete wash out areas, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the
- XXX 5. Written Evidence of permit coverage shall be provided by the contractor for all support activities located outside of VDOT right of way or easement in the form of the Construction General Permit coverage letter: (List VPDES Permit or Letter from VSMP Authority stating coverage not needed)
  - 6. List the surface waters that have been identified as impaired in the DEQ 2012 305(b)/303(d) Water Quality Assessment Integrated Report for sediment, total suspended solids, turbidity, Nitrogen or Phosphorus. These pollutants are considered benthic impairments: Little Creek
  - 7. Identify the TMDL's where stormwater from construction activities discharges into a watershed with a TMDL waste load allocation established and approved by the State Water Control Board prior to July 1, 2016 for sediment, total suspended solids, turbidity, nitrogen or phosphorus: (List the TMDL and pollutant(s) of concern, when applicable)
  - 8. This land disturbance activity discharges stormwater to the following surface waters that have been identified as exceptional in Section 9VAC25-260-30 A 3 c of the Virginia Administrative Code: None
  - 9. Locations of surface waters and locations where concentrated stormwater is discharged from this land disturbance (construction) activity are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity. (List name of surface waters and locations here if not shown in construction plan or other such documents).
  - 10. The ESC and SWM plans (where applicable) for this land disturbance (construction) activity have been developed in accordance with VDOT's Approved Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications as approved by the DEQ.
  - 11. List the RLD and other responsible parties for the land disturbance activity: (required for erosion and sediment control). The following individual(s) have "delegated authority" to sign all reports required by the construction permit including the SWPPP General Information Sheets and Inspection Reports (C-107). Reference form LD-445H for delegation of authority (form 445H for the project is hereby incorporated by reference into this SWPPP). These individual(s) has/have overall responsibility or the environmental matters for the project: (required only for permitted projects):

Name	Position	Responsibility
	RLD	Certify the SWPPP (with date & sig.)
	Certified Inspector	Sign (C-107) Inspection Form Part 1
	Certified Inspector	Sign (C-107) Inspection Form Part 2

X 12. The name of the VDOT individual(s) responsible for the oversight inspection in accordance with IIM-LD-256 on these land disturbance construction activities as identified on these SWPPP General Information Sheets. The names will be updated and maintained with the other SWPPP documents for this land disturbance activity

VDOT Individuals	Position	Responsibility
	NPDES	NPDES coordinator responsible for the oversight inspection in accordance with IIM-LD-256
	Dist. Hyd. Engineer	District Hydraulic Engineer or designee(s) responsible for the review & the coordination approval of ESC SWM plan modification(s).

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

- X 13. The ESC and P2 inspections for this land disturbing (construction) activity shall follow (Select Schedule 1 or 2, if schedule \*2 is used, void note \*14) as defined in 2016 R&B Specifications except for Section 107.16(e) 4.an Inspection Requirements Rain gauge notes apply only to Inspection Schedule 1.
- \*XX 14. The location of the on-site rain gage that will be used to determine the occurrence of a measurable storm event for the purposes of ESC and Pollution Prevention inspections will be provided by the contractor and identified on the record set of plans or in other appropriate SWPPP documents for this land disturbance activity: (List location of rain gage).

The rain gage shall be observed daily at "\_\_\_\_\_\_" to determine the occurrence of a measurable storm event (i.e., 0.25 inches of rainfall or greater in a 24 hour period). A log book shall be maintained to record observation information which shall include (1) the date, (2) the time, (3) whether or not rainfall is occurring at the time of the observation, (4) the amount of accumulated rainfall in the gage, if any, and (5) whether or not an inspection is required based on the amount of accumulated rainfall in the gage. If there is no rainfall occurring at the time of the observation, the observation information shall be noted in the log book and the rain gage emptied and replaced. An inspection is required if there is 0.25 inches or more accumulation noted in the rain gage. If there is rainfall occurring at the time of the observation, the observation information is to be noted in the log book. The rain gage is not to be emptied but left to accumulate additional rainfall until the conclusion of the rainfall event. At the conclusion of the rainfall event, an observation of the rain gage shall be made and the observation information shall be noted in the log book and the rain gage emptied and replaced. An inspection is required if there is 0.25 inches or more accumulation noted in the rain gage.

15. The following VDOT documents are applicable to a) permitted projects b) non-permitted projects in Chesapeake Bay Preservation Areas (CBPA) with 2,500 S.F. to 1.0 acre of land disturbance c) non-permitted projects requiring a SWPPP and d) Non-permitted, Non-CBPA with BMP projects that have a water quantity BMP:

VDOT LD-445: Permitted projects, CBPA projects and Non-permitted,
Non-CBPA with BMP projects that have a water quantity
BMP and ESC projects > 10,000 s.f. but <1 acre.

VDOT LD-445A: Permitted projects only.

VDOT LD-445C: Projects that require a permit, ESC Plan, or SWPPP.

VDOT LD-445D: Permitted projects, CBPA projects and Non-permitted,
Non-CBPA with BMP projects that have a water quantity BMP.

VDOT LD-445F: Emergency work projects (when applicable).

Water Quality Requirement (when applicable)

VDOT LD-445H: Permitted projects only.

VDOT C-107 Part I and Part II. All projects that require a permit or SWPPP. VDOT LD-445I: AS&S Approval Form (when applicable)

16. If there is an excessive loading of sediment from the project (i.e. more than to be expected from the project with an implemented ESC plan) that is discovered within a local watershed with a sediment TMDL that allocates a WLA to VDOT's MS4, (see note \*7) the contractor shall investigate the area of concern at the site within 24 hours of discovery and ensure all erosion and sediment control best management practices are being implemented in accordance with the permits approved standards and specifications required by Part I.B of the current Construction General Permit. If corrective action is necessary, the contractor shall initiate corrective actions no later than 5 business days after the initial investigation.

17. If excessive loading of sediment from a land disturbing activity that is not the responsibility of the contractor is discovered discharging into a MS-4, the contractor shall notify the municipality with jurisdiction over erosion and sediment control activities.

\* Denotes information that is to be provided/completed by the RLD.

XX Denotes information that is to be provided/completed by the contractor.

Revised 5/1/19

PROJECT **VDOT 0001-076-995** 

IM(I)

APPROVED AND A

P.A.C. PLANS

PROJECT MANAGER Gladis Arboleda, PWC\_DOT\_(703) 792-5276 SURVEYED BY, DATE JMT. (804) 323-9900 DESIGN BY JMT (804) 323-9900 SUBSURFACE UTILITY BY, DATE JMT (804) 323-9900

### SECTION II EROSION AND SEDIMENT CONTROL

- \*\*X\*\* 1. The intended sequence and timing of activities that disturb soils at the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation, etc.) shall be provided by the contractor in accordance with the current edition of Section 108.03 of the VDOT R&B Specifications and shall be included with the other SWPPP documents for this land disturbance (construction) activity
  - 2. Directions of stormwater flow and approximate slopes anticipated after major grading activities are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
  - 3. Areas of soil disturbance and areas of the site which will not be disturbed are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
  - 4. Locations of major structural and nonstructural ESC measures intended to filter, settle or similarly remove sediment are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
  - 5. Locations where stabilization practices are expected to occur are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity
  - 6. A description of interim and permanent stabilization practices for the site are identified in the applicable sections of the documents identified in the Note 1 of
- \*\* 7. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated will be provided by the contractor and maintained with the record set of plans or other SWPPP documents for this land disturbance (construction) activity: (List how this will be tracked and the location)
  - 8. A description and schedule of procedures to maintain vegetation, erosion and sediment control measures and other protective measures in good and effective operating conditions are identified in the current edition of Sections 107.16 and 303.03 of the VDOT R&B Specifications.
  - 9. Nutrients shall be applied in accordance with the current edition of Sections 603 and 604 of the VDOT Road and Bridge Specifications. Nutrients shall not be applied during rainfall events. Top soil shall be applied in accordance with the current edition of section 602 of the latest Road and Bridge Specifications.
  - 10. All engineering calculations supporting the design of erosion and sediment control measures proposed for this land disturbance (construction) activity are contained in the project drainage file located in the VDOT NOVA District Hydraulics Section and will be made available for review upon request during normal business hours.
  - 11. The temporary erosion and siltation controlitems shown on the ESC Plan for this land disturbing (construction) activity are intended to provide a general plan for controlling erosion and sediment within the project limits. The ESC Plan is based on field conditions at the time of plan development and an assumed sequence of construction for the project. The contractor, in conjunction with the VDOT Project Engineer and/or ESC Inspector, shall adjust the location, quantity and type of erosion and sediment controlitems required based on the actual field conditions encountered at the time of construction and the actual scheduling and sequencing of the construction activities. Significant changes to the proposed ESC Plan (e.g., those that require an engineering analysis, elimination of a perimeter control, change to ESC concept that would affect the quantity or direction of flow of water) shall be submitted to the applicable District Hydraulics Engineer for review and approval. Any changes to the proposed ESC Plan must be noted on the designated record set of plans which shall be retained on the project site and made available upon request during normal business hours.
  - 12. The areas beyond the project's construction limits are to be protected from siltation. Perimeter controls such as silt fence, diversion dikes, turbidity curtains, etc. shall be installed prior to any grubbing operations or other earth moving activities.
  - 13. Temporary earthen structures such as dikes and berms are to be stabilized immediately upon installation. Stabilization may include temporary or permanent seeding, riprap, aggregate, sod, mulching, and/or soil stabilization blankets and matting in conjunction with seeding
  - 14. All channel relocations are to be constructed during the earliest stage of construction and shall be constructed in accordance with all applicable permit requirements and shall be constructed in the dry wherever possible. Stabilization or vegetation shall be established before flow is redirected through the constructed area as directed by the Engineer.
  - 15. The contractor shall plan and implement his land disturbance operations in order to a. Control the volume and velocity of stormwater runoff within the site to minimize erosion.
    - b. Control the peak flow rates, volume and velocity of stormwater discharges to minimize erosion at outlets and in downstream channels.
    - c. Minimize the amount of soil exposed.
    - d. Minimize the disturbance of steep slopes.
    - e. Minimize sediment discharge from the site.
    - f. Provide and maintain natural buffers around surface waters, direct stormwater runoff to vegetated areas and maximize stormwater infiltration, unless infeasible.
    - g. Minimize soil compaction (except in those areas where compaction is required by the contract documents) and preserve topsoil where feasible.

- XX 16. The name of the individual(s) or contractor(s) responsible for the installation and maintenance of the erosion and sediment control measures shall be supplied by the contractor and maintained with the other SWPPP documents for this land disturbance (construction) activity.
  - 17. Soil stockpiles temporarily placed within the project area or on VDOT right of way or easement shall be identified, stabilized, and protected with sediment trapping measures.
  - 18. A construction entrance or other approved measure shall be installed at all locations where construction vehicular traffic access routes intersect a paved or a public road in order to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or a public road surface, the road shall be cleaned thoroughly at the end of each work day by shoveling or sweeping. Removed sediment shall be disposed of in accordance with Section 106.04 of the R&B Specifications.
  - 19. Any variance, exception or deviation approved by DEQ must be listed below and supporting documentation (exception/variance/deviation request and DEQ approval) must be maintained with the SWPPP

The following exceptions to the Water Quantity criteria of the VSMP Regulation have been approved by the DEO for this land disturbance (construction) activity: (list all approved exceptions and include a brief description of the exception, the date approved and the approving DEQ Office)

Type(1)	Regulation Modified(2)	Approval Date(3)	Description of Variance

- (1) Type of modification (Variance from ESC regulations, or Deviation from published auidance)
- (2) Section of Regulation or Guidance Document Modified (e.g. ESC Min. Std. 15)
- (3) Date that variance/exception/deviation was approved by DEQ

### SECTION III POST CONSTRUCTION STORMWATER MANAGEMENT

Choose the appropriate note 1A or 1B that is applicable to the proposed post construction SWM Plan for this land disturbance (construction) activity. (Delete, strikethrough or mark as NA those notes not applicable.)

- 1. (Include one of the following notes as appropriate)
- \*\* A. This land disturbance activity is grandfathered under Section
- 9VAC25-870-48 of the VSMP Regulations and utilizes the Part IIC technical criteria (i.e., Performance or Technology Based, MS 19, etc.) in Section
- 9VAC25-870-93 et seg. of the VSMP Regulation
- X B. This land disturbance activity utilizes the Part IIB technical criteria (i.e., Runoff Reduction Method, Energy Balance Equation, etc.) in Section 9VAC25-870-62 et seg. of the VSMP Regulations.
- 2. An exception for (number) pounds of phosphorus removal has been granted for this land disturbance activity by the DEQ in its letter dated (date).
- 3. Any variance, exception or deviation approved by DEQ must be listed below and supporting documentation (exception/variance/deviation request and DEQ approval) must be maintained with the SWPPF

The following exceptions to the Water Quantity criteria of the VSMP Regulation have been approved by the DEQ for this land disturbance activity: (list all approved exceptions and include a brief description of the exception, the date approved and the approving DEQ

Type(1)	Regulation Modified(2)	Approval Date(3)	Description of Waiver

- (1) Type of modification (Variance, or Exception from SWM Regulations or Deviation from published guidance)
- (2) Section of Regulation or Guidance Document Modified (e.g. ESC Min. Std. 15)
- (3) Date that variance/exception/deviation was approved by DEQ.
- 4. The permanent onsite SWM facilities or offsite strategies proposed to meet the water quality/quantity requirements for this land disturbance (construction) activity are listed in Section VI.

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

- 5. A description of all post-construction stormwater management measures that will be installed during the construction process to control pollutants in stormwater discharges after construction operations have been completed is included in the construction plan set (or other such documents) for this land disturbance (construction) activity.
- 6. All engineering calculations supporting the design of the post-construction stormwater management measures for this land disturbance (construction) activity, including an explanation of the technical basis used to select the practices, are contained in the project drainage file located in the VDOT NOVA District and will be made available for review upon request during normal working business hours

SWPPP - Stormwater Pollution Prevention Plan TMDL - Total Maximum Daily Load VDOT - Virginia Department of Transportation

WLA - Waste Load Allocation

SWM - Stormwater Management

VPDES - Virginia Pollutant Discharge Elimination System VSMP - Virginia Stormwater Management Program VESCP - Virginia Erosion and Sediment Control Program

### **ACRONYMS**

CBPA - Chesapeake Bay Preservation Act BMP - Best Management Practice DEQ - Department of Environmental Quality

U.S. Environmental Protection Agency Erosion and Sediment Control Instructional and Informational Memorandum

Road and Bridge
 Responsible Land Disturber

X Denotes information that is to be provided/ completed by the RLD.

**★**X Denotes information that is to be provided/completed by the contractor

Revised 5/1/19

VDOT 0001-076-995

IM(2)

P.A.C. PLANS

### STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2019 and VDOT's approved Annual ESC and SWM Standards and Specifications.

The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance (construction) activities that disturb an area equal to or greater than 10,000 square feet outside the Chesapeake Bay Preservation Area, or equal to or greater than 2,500 square feet in the area defined as Tidewater, Virginia in the Virginia Chesapeake Bay Preservation Act.

The VDOT RLD will ensure that the information shown on the SWPPP General Information sheets is updated/revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/revised sheets shall be maintained with the designated record set of plans (or other such documents) for the land disturbance (construction) activity.

### SECTION IV SWPPP

1. All documents related to the SWPPP for this land disturbance (construction) activity shall be maintained at the activity site and shall be readily available for review upon request during normal business hours. Such documents include, but are not limited to the construction plans (or other such documents), the ESC Plan. the Pollution Prevention Plan, the post construction SWM Plan (if applicable), the VDOT R&B Standards and Specifications, Supplemental Specifications, Special Provisions and Special Provision Copied Notes. Documents related to stormwater pollution prevention which are not a part of those documents referenced above, such as copies of the VPDES Construction Permit coverage letter (when applicable) and the VPDES General Permit For Discharges Of Stormwater From Construction Activities (when applicable) and those required to be developed by the contractor for pollution prevention associated with any on-site support facilities being included in the VPDES Construction Permit coverage for this land disturbance (construction) activity are to be maintained at the activity site with the other SWPPP documents for this land disturbance (construction) activity. Where no facilities are available at the activity site to maintain the SWPPP documents, they are to be kept by or with the designated RLD at a location convenient to the activity site where they would be made available for review upon request during normal business hours.

- 2. The SWPPP and any subsequent amendments, modifications and updates shall be implemented from commencement of land disturbance until termination of VPDES Construction Permit coverage or completion of land disturbance (construction) activities where no VPDES Construction Permit coverage is required.
- \*\*X 3. For all on-site support facilities that will be included in the VPDES Construction Permit coverage for this land disturbance (construction) activity, the contractor shall develop a SWPPP in accordance with, but not limited to, Section 106.08, 107.02 and 107.16 of the VDOT Road and Bridge Specifications. The SWPPP for the on-site support facilities shall be maintained with and become a component of the SWPPP for this land disturbance (construction) activity. Support facilities shall include, but not be limited to, borrow and disposal areas, construction and waste material storage areas, equipment and vehicle washing, maintenance, storage and fueling areas, storage areas for fertilizers, fuels or chemicals, concrete wash out areas, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the construction site.
  - 4. For those land disturbing (construction) activities requiring coverage under the VPDES Construction Permit, the SWPPP shall be made available for review upon the request of the DEQ, the EPA, the VSMP Authority, the VESCP Authority, local government officials or the operator of a municipal separate storm sewer system (MS4) receiving discharge from the construction site.
- X 5. For those land disturbing (construction) activities requiring coverage under the VPDES Construction Permit, the VDOT RLD shall post, or have posted, a copy of the General Permit coverage letter and a copy of a completed LD-445A form, noting the name and contact information for the VDOT person responsible for the land disturbing (construction) activity and its SWPPP, outside the project's construction office along with other Federal and State mandated information. Where there is no construction office (e.g., a maintenance activity), the permit coverage letter and the LD-445A form are to be maintained with the other SWPPP documents for the land disturbing (construction) activity.
- 6. The SWPPP shall be made available for review by the public upon request. Such reviews shall be at a time and publicly accessible location convenient to the VDOT and shall be scheduled during normal business hours and no less than once per month.

### SECTION V - POLLUTION PREVENTION PLAN

- 1. The following non-stormwater discharges from this land disturbing (construction) activity and any on-site support facilities are prohibited:
  - a. Wastewater from concrete washouts.
  - b. Wastewater from the washout and cleanout of stucco, paint, from release oils, curing compounds and other construction materials.
  - Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance.
  - d. Oils, toxic substances or hazardous substances from spills or other releases.
  - e. Soaps, solvents or detergents used in equipment and vehicle washing.
  - f. There shall be no discharge of floating solids or visible foam in other than
- 2. The following non-stormwater discharges from this land disturbing (construction) activity and any on-site support facilities are allowed when discharged in compliance with the VPDES Construction Permit:
  - a. Discharges from firefighting activities.
  - b. Fire hydrant flushings.
  - c. Water's used to wash vehicles or equipment where soaps, solvents or detergents have not been used and the wash water has been filtered, settled or similarly treated prior to discharge.
  - d. Water used to control dust that has been filtered, settled or similarly treated prior to discharge.
  - e. Potable water sources including uncontaminated waterline flushings managed in a manner to avoid stream impacts.
  - f. Routine external building wash down where soaps, solvents or detergents have not been used and the wash water has been filtered, settled or similarly treated prior to discharge.
  - g. Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (or where all spilled or leaked material has been removed prior to washing), where soaps, solvents or detergents have not been used and where the wash water has been filtered, settled or similarly treated prior to discharge.
  - h. Uncontaminated air conditioning or compressor condensate.
  - i. Uncontaminated ground water or spring water.
  - Foundation or footing drains where flows are not contaminated with process materials such as solvents.
  - Uncontaminated excavation dewatering, including dewatering trenches and excavations that have been filtered, settled or similarly treated prior to discharge.
  - I. Landscape irrigation.
- 3. The contractor shall develop a Pollution Prevention Plan to address any of his onsite operations that have a potential to generate a pollutant that may reasonably be expected to affect the quality of stormwater discharges from this land disturbance (construction) activity. The Pollution Prevention Plan shall be developed in accordance with, but not limited to, Sections 106.08, 107.02 and 107.16 of the VDOT Road and Bridge Specifications and shall include a narrative with appropriate plan detail and shall be provided on standard 8.5 x 11 inch paper or larger and shall:
  - dentify the potential pollutant-generating activities and the pollutant that is expected to be exposed to stormwater.
  - Describe the location where the potential pollutant-generating activities will occur, or if identified on the record set of plans, reference the record set of plans
  - c. Identify all non-stormwater discharges, as described in note two of this section, that are or will be commingled with stormwater discharges from the construction activity, including any on-site support activities.
  - Identify the person(s) or contractor(s) responsible for implementing and maintaining the pollution prevention practice or practices for each pollutant-generating activity.
  - e. Describe the pollution prevention practices and procedures that will be implemented to:
    - Prevent and respond to leaks, spills, and other releases, including procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases, and procedures for reporting leaks, spills, and other releases in accordance with Section 107.16 of the VDOT Road and Bridge Specifications and the requirements within the VPDES Construction Permit.

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

- Prevent the discharge of spilled and leaked fuels and chemicals from vehicle fueling and maintenance activities.
- Prevent the discharge of soaps, solvents, detergents, and wash water from construction materials, including procedures for the clean-up of stucco, paint, form release oils, and curing compounds.
- 4) Minimize the discharge of pollutants from vehicle and equipment washing, wheel wash water, and other types of washing.
- 5) Direct concrete wash water into a leak-proof container or leak-proof settling basin. The container or basin shall be 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. Liquid concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction waste waters and shall not be discharged to surface waters.
- 6) Minimize the discharge of pollutants from storage, handling, and disposal of construction products, materials, and wastes including building products (such as asphalt sealants, copper flashing, roofing materials, adhesives, and concrete admixtures), pesticides, herbicides, insecticides, fertilizers, landscape materials, construction and domestic wastes (such as packaging materials), scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, and other trash or building materials.
- 7) Prevent the discharge of fuels, oils, and other petroleum products, hazardous or toxic wastes, waste concrete and sanitary wastes.
- 8) Address any other discharge from any potential pollutant-generating activity not listed herein.
- 9) Minimize the exposure of waste materials to precipitation by closing or covering waste containers during precipitation events and at the end of the business day, or implementing other similarly effective practices. Minimization of exposure is not required in case where the exposure to precipitation will not result in a discharge of pollutants.
- 10) Describe and implement procedures for providing pollution prevention awareness (including but not limited to prevention practices, disposal practices and appropriate disposal locations) for all applicable wastes (including any wash water), to appropriate personnel.
- X Denotes information that is to be provided/completed by the RLD.
- XX Denotes information that is to be provided/completed by the contractor

Revised 5/1/19

PROJECT SHEET NO VDOT 0001-076-995 /M(3)

JOHNSON, MIRMIRAN & THOMPSON Engineering A Brighter Future 9201 Arboretum Parkway Sulte 310 Richmond, Virginia 23236

PROJECT MANAGER <u>Gladis Arboleda, PWC\_DOT\_(703)</u> 792-5276 SURVEYED BY, DATE <u>JMT\_\_(804) 323-9900</u>\_\_\_\_\_\_ DESIGN BY JMT (804) 323-9900 SUBSURFACE UTILITY BY, DATE JMT (804) 323-9900

> The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2019 and VDOT's approved Annual ESC and SWM Standards and Specifications.

The SWPPP General Information sheets are to be completed and included in the construction plan set (or other such documents) for land disturbance (construction) activities that disturb an area equal to or greater than 10,000 square feet, or equal to or greater than 2,500 square feet in the area defined as Tidewater, Virginia in the Virginia Chesapeake Bay Preservation Act.

Type of BMP Installed

(See Table B)

### STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

The VDOT RLD will ensure that the information shown on the SWPPP General Information sheets is updated/revised as necessary in order to reflect changes that may occur during the construction phase of the land disturbing (construction) activity. The updated/revised sheets shall be maintained with the designated record set of plans (or other such documents)for the land disturbance (construction) activity.

Receiving Water

### SECTION VI - PERMANENT BMP INFORMATION $\triangle$

\* Denotes information that is to be completed by the RLD. ( ) See note referenced by number in parentheses.

VA 6th

Order

HUC

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

BMP Maintenance

Manual

(11)

BMP Inspection

Manual

(11)

SECTION

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### INSTALLED RMP INFORMATION (VDOT Owned/Operated)

Type of BMP Installed Date BMP Plan Sheet(s) Made Functional (See Table A and C ) --

(7) LAT LONG --

Latitude/Longitude

(1)

1	 
7	 
1	 
1	 
1	 
1	 

				(10)	1117	
Impervious	Pervious	TOTAL			SECTION	
			1			
			]			
			-			

★ BMP Maintenance

ID Number

(10)

### YAL TERNATIVE BMP INFORMATION

Date

Plan Sheet(s)

-----

Vegetated Filter Strip

Detention Basin

Purchase of Nutrients Credits ----------------

Prince William

Geographic Location

(County or City)

(5)

Geographic Location

(County or City)

38° 32'39.54" | 77° 19'56.60"

Latitude/Longitude

(1) (5)

LONG

PL52 LITTLE CREEK

VA 6th

Order

HUC

(5) (7)

Name of **Nutrient Credits** Receiving Water Name of Impaired Nutrient Credit Water (9)

Name of Impaired

Water (9)

(lbs./TP./year) Generating Entity Acquired

Perpetual Nutrient Credits Acquired for Project

Acres Treated Per BMP (3)

TBD	1.1

or potentially affects the informationshown in the BMP Tables A and/or B shall be coordinated by the VDOT RLD with the appropriate VDOT District Hydraulics Engineer. The construction plans and the BMP Tables A and/or B are to be formally revised to reflect any authorized/ approved changes to the proposed SWM Plan and/or the proposed BMP construction details. All plan revisions shall be completed in accordance with the Road Design Manual and the Construction Division IIM-CD-2013-12.01, signed and sealed in accordance with Department's sealing and signing policy IIM-LD-243 and filed with the construction record drawings maintained in the VDOT Central Office Plan File Room (ProjectWise). Prior to submitting for termination of coverage under the VPDES General Permit For The Discharge Of Stormwater From Construction Activities, the RLD shall have the District Maintenance Division review the BMPs installed with the project (BMP Table A) for acceptance of maintenance responsibility and to obtain a Maintenance ID number for each BMP listed in BMP Table A. The RLD shall use the informationin BMP Tables A and B along with the assigned Maintenance ID number and the date that the BMP became functional as a permanent control measure (for BMPs in Table A only) to complete the LD-445D form when certifying the construction of the BMPs and submitting for termination of coverage under the VPDES General Permit For The Discharge Of Stormwater From Construction Activities.

 $\bigwedge$  Any changes to the proposed SWM Plan or BMPs necessitated during the construction phase of the project that affects the proposed construction details

### Table A: Permanent BMP Types (1999 Va. SWM Handbook)

Bio-retention Basin Bio-retention Filter Constructed Stormwater Wetlands Extended Detention Basin Extended Detention Basin Enhanced Grassed Swale Infiltration Basin Infiltration Trench Manufactured Treatment Device (MTD) (8) Retention Basin Retention Basin II Retention Basin II Sand Filter

Table B: Alternative BMP Types Comprehensive SWM Plan (Regional) Facility Pollutant Loading Pro Rata Share Program Other Approved Options (List Type) (4)

Other Approved Types (List Type)

### Table C: Permanent BMP Types (BMP Clearing House)

LAT

Sheet Flow to Vegetated Filter Strip Grass Channel Soil Compost Amendment Permeable Payement (Level 1) Permeable Pavement (Level 2) Infiltration Practice (Level 1) Infiltration Practice (Level 2) Bioretention (Level 1) Bioretention (Level 2) Dry Swale (Level 1)

Drv Swale (Level 2) Wet Swale (Level 1) Wet Swale (Level 2) Filtering Practice (Level 1) Filtering Practice (Level 2) Constructed Wetlands (Level 1) Constructed Wetlands (Level 2) Extended Detention Pond (Level 1) Extended Detention Pond (Level 2) Wet Pond (Level 1)

Wet Pond (Level 2)

Manufactured Treatment Device (MTD)(8) Other Approved Types (List Type)

(1) In decimal degrees to the nearest one ten-thousandth of a degree.

- (2) For streams with no names, list "(Unnamed Tributary to downstream name)".
- (3) Show acres treated to the nearest one hundreths acre.
- (4) Include agreements with off-site BMP owners.
- (5) Information pertains to the alternative BMP option location, where applicable Exception - Not required for nutrient credit purchase option
- (6) Applies to the purchase of nutrient credits only
- (7) Virginia 6th Order HUC (VAHU6) Example Y030.
- (8) Final approved shop drawings of Manufactured Treatment Devices (MTDs) are to be included with the BMP information submitted with the LD-445D form.
- (9) List the name of any impaired water to which the BMP discharges. The determination of impaired water shall be based on those streams listed as impaired in the DEQ 2012 305(b)/303(d) Water Quality Assessment Integrated Report and shall be the first named waterbody to which the BMP discharges. The impaired waters are those impaired by sediment, total suspended solids, turbidity, nitrogen or phosphorus.
- (10) BMP Maintenance ID Number is to be assigned by the District Maintenance Division at permit termination or project completion.

  This ID number shall be assigned prior to the permit close out process and entered by the area construction engineer under this column, per

- (11) Provide the section of each Maintenance manual that pertains to the type of BMP. Both manuals can be found at www.vdot.virginia.gov/business/manuals in the Maintenance selections. Example: Section 4 would be noted for both the maintenance and inspection manuals for a Bioretention Linfiltration BMP
- (12) Nutrient credits purchased to the nearest one hundredth pound.

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VDOT 0001-076-995 IM(4)

P.A.C. PLANS

STATE

PROJECT MANAGER Gladis Arboleda, PWC\_DOT (703) 792-5276 SURVEYED BY, DATE JMT\_ (804) 323-9900 DESIGN BY JMT (804) 323-9900

SUBSURFACE UTILITY BY, DATE JMT (804) 323-9900

# EROSION AND SEDIMENT CONTROL

### EROSION & SEDIMENT CONTROL NARRATIVE

### PROJECT DESCRIPTION

This project is located in Prince William County and approximately I.8 acres will be disturbed by the proposed construction/maintenance activity. This project involves the construction of left turn in the existing raised median on vajoin Road approaching the Route Interesection. A mini-roundabout will be constructed at the Intersection of Old Triangle Rd/Fuller Heights Rd. A connection will be constructed from the mini-roundabout to the PS88 Fuller Road Improvements constructed by others for Quantico.

### EXISTING SITE CONDITIONS

The topography is gently sloping falling from the northern portion of the site to the southern portion of the site. Runoff from the project discharges to Little Creek which is a tributary to Quantico Creek near its confluence with the Potomac River. The project involves 5 outfalls, including one primary outfall to Little Creek at the Intersection of Route I and Joplin Road/Fuller Road and 4 secondary outfalls to existing drainage systems and channels. The site is predominantly powed with small strips of grassed and wooded areas along the corridor.

ADJACENT PROPERTY

Adjacent to Route I on both sides single family homes, some town homes, and some businesses. Fuller Road confinues east and is bounded by Quantico Military Base and the United States Marine Corp Heritage Center. To the west Route I confinues coultbound and northound and is bounded by businesses on both sides. Joplin Road Starts west of Route I and confinues west.

### OFF-SITE AREAS

There are no artifolpided Off-Site borrow areas and/or surplus material disposal areas associated with this project. Therefore of fishe-borow is not overed by this Eroston and Sediment Control Plan. In the event that the above satement is not valid the contractor shall submit a supplementary E&S plan to the owner covering the off-site borrow area which would have to be approved by the authority before any off-site activity commences.

According to the Soil Survey of Prince William County, Virginia 91984), the soils in the project area are mainly consisting of Urban Land \_ Udorthents complex (548). This designation describes areas where 85 percent or more of the surface layer is covered by asphalt, concrete or other impervious surfaces and areas of variable depth and slope which are well draining to moderately well drained soils. The Udorthenties are areas where the existing soils have been aftered by excovation or covered by fill. Also included are undisturbed soils and fill area containing material, such as concrete, wood and asphalt.

### CRITICAL EROSION AREAS

No areas have been identified as critical areas for erosion.

EROSION AND SEDIMENT CONTROL MEASURES
Unless otherwise Indicated, all vegetative and structural erosion and sediment control practices shall be constructed and maintained according to minimum standards and specifications of the Virginia Erosion and Sediment control handbook (1992) and the VDOT Road and Bridge Specifications (2016).

### PERMANENT STABILIZATION

Permanent stabilization shall be done in accordance with the VESCH and VDOT Road & Bridge Specifications (2016) and Contract Special Provision SIOTF. All areas disturbed by construction shall be stabilized with permanent seeding immediately following finish grading. Seeding shall be done in accordance with these plans unless otherwise directed by the engineer.

### STORMWATER MANAGEMENT

Calculation of runoff before and after development indicates that there will be a net increase in peak runoff as a result of the project. Nutrient credits will be purchased to address Water Quality requirement for the project. For Water Quantity, the project meets the IX rule for the contribution to the overall watershed. A Stormwater Management Walver has been submitted for the

### STRUCTURAL PRACTICES

I. <u>Safety Fence-3.0!</u>
A safety fence shall be installed around all temporary sediment traps in accordance with the VESCH.

2. Temporary Construction Entrance - 3.02
Temporary construction entrances with wash racks shall be Installed ad Jacent to the construction
Ilmits, During muddy conditions, drivers of construction vehicles will be required to wash their
wheels before leaving the Ilmits of construction. Any sediment tracked Into the travel way shall be
cleaned at the end of each day, in accordance with minimum standard \*7. Mater source for wash rack
to be provided by fire hydrant if no hydrant is available, water to be provided by private water

3. <u>Construction Road Stabilization - 3.03</u> Temporary stabilization with stone of access roads, subdivision streets, parking areas and other traffic areas immediately after grading to reduce erosion caused by vehicles during wet weather, and to prevent having to regrade permanent roadbeds between Initial grading and final stabilization.

4. Silt Fence Barrier - 3.05 Super Silt Fence Barrier Silt fence sediment barriers will be Installed down slope of areas with minimal grades to filter sediment-laden runoff from the sheet flow, as indicated on the plans.

 Storm <u>Drain Inlet Protection - 3.07</u>
 All storm sewer Inlets shall be protected during construction. Sediment-laden water shall be filtered before entering the storm sewer Inlets. C<u>ulvert Inlet Protection - 3.08</u>
 All culvert Inlets shall be protected during construction. Sediment-laden water shall be filtered before entering the culvert inlets.

7. Temporary Diversion Dike - 3.09
Diversion Dikes shall be Installed below major graded areas to direct sediment-laden runoff into the sediment traps. Diversion Dikes shall be Installed above major graded areas to divert clean water around the disturbed areas.

8. <u>Temporary Diversion Channels - 3/2</u>
Temporary Diversion Channels shall be installed in the locations shown on the plan to divert the existing channels and allow for the construction of the culverts to be performed in the dry.

9. <u>Temporary Sediment Trap - 3.13</u>
A temporary ponding area will be formed by constructing an earthen embankment with a stone weir outlet. The depth and confliguration of the trap will be designed to meet minimum standards, and will be filled in Phase II when all storm sewer utilities are in place and functional. Specific details of the sediment traps are shown on the plan.

IO. Rock Check Dams - 3.20 Temporary stone dams shall be constructed across the drainage ditches to reduce the velocity of concentrated stormwater flows, thereby reducing erosion of the swale or ditch.

### **VEGETATIVE PRACTICES**

| I.Temporary Seeding - 3.3|
| Fermanent or Imporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied with in seven days to denuded areas that may not be at final grade but will remain dormant for longer than 30 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.

<u>'remment seeding 3.32</u>

Permanent or temporary soil stabilization shall be appiled on rough-graded areas that will not be brought to final grade for a year or more or where permanent, long-lived, vegetative cover, is needed on fine-graded areas. Permanent seeding shall consist of perennial vegetative cover and shall be determined by the slopes, soil types, and malintenance requirements.

### MANAGEMENT STRATEGIES

The first step in this single phase erosion and sediment control program is to install all perimeter controls. All perimeter controls will be in place prior to any excavation.

The phase one erosion control program shall:

The phase one erosion control program shall:

I. Flag limits of clearing and grading and hold pre-construction meeting.

I. Install construction entrances with wash racks in the location shown on the plans, water for trash racks to be provided by private water truck in no hydrant is available.

3. Provide minimum grading to allow phase one installation.

4. Install perimeter controls as shown to include diversion dikes and silt fence. These sediment trapping measures stall be installed as a first step in grading per the phase one erosion and sediment control plan and will be seeded and mulched immediately following installation.

5. Grading aperditions may commence once perimeter controls, diversions and trapping measures are installed to the satisfaction of the inspector.

6. Temporary seeding or other stabilization will follow immediately after grading.

7. Once all of phase an controls are in place, the Contractor is to contact the county inspector for sigharf. Once sighard is abstalned by the county, the Contractor can proceed with general clearing and earthworks activities.

9. Fine grade executed areas.

10. Lims, erritize and permanently seed and mulch all areas that will not receive impervious covers.

cover.

II. For vegetative stabilization of all denuded areas see erosion control measures and vegetative

practices.

12. Once all areas are stabilized to the satisfaction of the county inspector the control shall

### MAINTENANCE STRATEGIES - SEDIMENT & EROSION CONTROL

MAINTENANCE STRATEGIES - SEDIMENT & EROSION CONTROL

I. it will be the responsibility of the Contractor to ensure that all downstream areas are profeded against erosion and sedimentation. In doing so, He/She must coordinate with the county inspector throughout the duration of this project.

In general, all erosion and sediment control measures will be checked daily and after each significant rainfail. Refer to the attached erosion and sediment control standard notes for detailed maintenance and revegetation /stabilization requirements.

3. All new seeded mulch areas will be inspected after each rainfail event to ensure the new seed has not been washed away, if so, the areas shall be re-seeded and mulched immediately.

4. The inspector has the authority to add or delete erosion and sediment controls as needed in the field, as site conditions worrant. The Contractor does have the authority to add additional sediment and erosion control measures she He/She feel that it is necessary to prevent the sediment or erosion of off-site areas. Additional measures should be authorized my the project manager.

5. All temporary erosion and sediment control measures shall be removed within 30doys after final site stabilization, in accordance with minimum standard \*18.

TWO PHASE EROSION & SEDIMENT CONTROL PLAN Phase I controls shall be placed as Indicated on the Erosion & Sediment plans-Phase I, prior to any land disturbing activities. Mud and debris will be washed from all construction vehicles and equipment before leaving the site. See land disturbing/construction sequence, this steet.

Phase II work will not commence until Phase I work has been approved by the county inspector. Phase II includes the adjustment of slift fence perimeter controls providing the cut and fill areas are near final grade and storm sewer is functional. The utilities, curb and gutter, and roads also should be near final grade and storm sewer is functional. The utilities, curb and gutter, and roads also should be near final grade and storm sewer is functional. The utilities, curb and gutter, and roads also should be near final grade and for subgrade. Interpreted parking area should be completed within seven (7) days after reaching final grade for subgrade. Interpreted in the provided of all proposed and existing interstorm structures. Additionally, any stock piles (location of which will be coordinated in the filed with the site inspector will be provided with perimeter slif fence. Topsoil, stockples and all areas to be rough graded during initial phase of construction shall be seeded with fast germinating temporary vegetation immediately following adding, Mixture of seed will depend on the time of year, 2st slope areas not adequately stabilized by seeding are to be sodded and pegged at the direction of the inspector, After all construction operations have ended and all disturbed areas have been stabilized, mechanical sediment controls shall be removed and the ground permanently stabilized with vegetation upon the approval of the site inspector. See land disturbing/construction sequence, this sheet.

The implementation of Phase II controls cannot begin until the Phase II controls have been approved by the Prince William County inspector.

### LAND DISTURBING/CONSTRUCTION SEQUENCE PHASE I

Sheets IG(I) Suggested Sequence for E&S Controls

A preconstruction meeting will be held on site with the Prince William County Environmental Engineering Inspector, contractor and Ceritfied Responsible Land Disturber (CRLD). At least 48 hours notification to the County is required to set up this meeting, Prior to clearing and grubbing, all perimeter controls are to be installed as shown and as necessary. Construct temporary sediment trap at proposed location. The contractor shall install and maintain all necessary temporary pipes to provide adequate drainage throughout construction. Construct proposed drainage outfalls and channel relocations or improvements as shown on the plans. All ditches constructed during Phase (Check Dams shall be installed at the time ditches are constructed. Obtain County Site inspector's approval of perimeter controls.

### LAND DISTURBING/CONSTRUCTION SEQUENCE PHASE II Sheets IH(I) Suggested Sequence for E&S Controls

After the County Site Inspector's approval of Phase IE&S controls, clear and grub remainder of the site as necessary, Construct the proposed drainage system as shown and as necessary, install inlet protection as shown and as neceded. All silf fence is to be installed as shown and as necessary, drap inlet silf traps shall be installed as shown and as necessary, and the installed after the same time the ditch is constructed. All ditches shall be constructed and stabilized according to the plans, once stabilization has been completed direct flow to the ditches and remove temporary diversion dikes, install all curb & guiter and place base stone powement except where this would inherfere with the temporary sediment fraps. Fine grade site and install all landscaping, including permanent seeding and fertilizing as shown in the plan, install all landscaping, including permanent seeding and fertilizing as shown in the plan, install base course aspiratip pointing and final pointing. Clean site of all trash and debris, Have the County inspector inspect all areas to determine if they are adequately stabilized.

### CHECKLIST

### FOR EROSION AND SEDIMENT CONTROL PLANS

### X Minimum Standards - All applicable Minimum Standards must be addressed.

### Narrative

\_1N(1)

<u>IN(1)</u> <u>Project description</u> - briefly describes the nature and purpose of the land-disturbing activity, and the area (acres) to be disturbed.

1N(1) Existing site conditions - a description of the existing topography, vegetation and drainage.

<u>Ad lacent areas</u> - A description of neighboring areas such as streams, lakes, residential areas, road, etc., which might be affected by the land disturbance. \_1N(1)

Off-site areas - Describe any off-site land-disturbing activities that will occur(including borrow sites,waste or surplus areas,etc.). Will any other areas be disturbed? 1N(1)

<u>Solls</u> - a brief description to the solls on the site giving such information as soil name, mapping unit, eradibility, permeability, depth, texture and soil structure. <u>Critical areas</u> - A description of areas on the site which have potentially serious erosion problems (e.g., steep slopes, channels, wet weather/underground springs, etc.).

<u>Permanent stabilization</u> - A brief description, including specifications, of how the site will be stabilized after construction is completed.

1N(1) &
Drainage Report
Stormwater runaff considerations - Will the development site cause an increase in peak runaff rates?
Will the increase in run off cause flooding or channel degradation down stream? Describe the strategy to control stormwater runaff.

### SITE PLAN

\_\_\_\_1A <u>Vicinity map</u> - A small map locating the site in relation to the surrounding area. Include any landmarks which might assist in locating the site.

X Indicate north - The direction of north in relation to the site.

10(1)-1P(5) Limits of clearing and grading - Areas which are to be cleared and graded.

10(1)-1P(5) Existing contours - the existing contours of the site.

1P(1)-1P(5) Final contours - Changes to the existing contours, including final drainage patterns.

 $10\underline{(1)-1P(5)}$  <u>Existing vegetation</u> - The existing tree lines, grassed areas, or unique vegetation.

\_1N(1) Soils - The boundaries of different soil types.

<u>Drainage Report</u> <u>Existing drainage patterns</u> - The dividing lines and the direction of flow for the different drainage areas. Include the size (acreage) of each drainage area.

N/A <u>Critical erosion areas</u> - Areas with potentially serous erosion problems. (See Chapter 6 for

10(1)-1P(5) Site <u>Development</u> - Show all improvements such as buildings, parking lots, access roads, utility construction, etc.

<u>Location of practices</u> - The locations of erosions and sediment controls and stormwater management practices used on the site. Use the standard symbols and abbreviations in Chapter 3 of the 10(1)-1P(5) 10(<u>1)-1P(5)</u>

<u>Off-site areas</u> - Identify any off-site land-disturbing activities (e.g.,borrow sites,waste areas, etc.). Show locations of erosion controls, (is there sufficient information to assure adequate protection and stabilization?) <u>IN(2)</u> <u>Detail drawings</u> - Any structural practices used that are not referenced to the E&S hand book or local handbooks should be explained and illustrated with detail drawings.

<u>IN(1)</u> <u>Maintenance</u> - A schedule of regular inspections and repair of erosion and sediment control structures should be set forth.

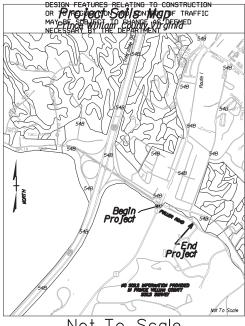
## TABLE 3.31B ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS "OUTCK REFERENCE FOR ALL REGIONS"

<u>Planting Dates</u>	Species	Rate <u>lbs./ac</u>
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass ( <u>Loium multi-florum)</u> & Cereal 9 Winter Rye ( <u>Secale cereale</u> )	50 - 10
Feb. 16 - Apr. 30	Annual Ryegrass (Lolium_multi-florum)	60 - 1
May 1 - Aug. 31	German Millet (Setaria italica)	50

P.A.C. PLANS

Source: Va. DSWC





Not To Scale

### TABLE 3.32D SITE SPECIFIC SEEDING MIXTURES FOR PIEDMONT AREA

	Total Lbs. Per Acre
finimum Care Lawn	FEI ACIE
- Commercial or Residential	175-200 lbs.
-Kentucky 31 or Turf-Type Tall Fescue	95-100%
- Improved Perennial Ryegrass	0-5%
- Kentucky Bluegrass	0-5%
figh-Maintenance Lawn	200-250 lbs.
-Kentucky 31 or Turf-Type Tall Fescue	100%
General Slope (3:1 or Less)	
-Kentucky 31 Fescue	128 lbs.
-Red Top Grass	2 lbs.
-Seasonal Nurse Crop*	20 lbs.
	150 lbs.
ow Maintenance Slope (Steeper than 3:1)	
-Kentucky 31 Fescue	108 lbs.
-Red Top Grass	2 lbs.
-Seasonal Nurse Crop *	20 lbs.
-Crownvetch **	20 lbs.
	150 lbs.

\*\* Substitute Sericea lespedeza for Crownvetch east of Farmville, Va. (May through September use hulled Sericea, all other periods, use unhulled Sericea). If Flatpea is used in lieu of Crownvetch, increase rate to 30lbs./acre. all legume seed must be properly inoculated. Weeping Lovegrass may be added to any slope or low-maintenance mix during warmer seeding periods; add 10-20 lbs./acre

Use seasonal nurse crop in accordance with seeding dates as stated below:

February 16th through April.....

May 1st through August 15th.

August 16th through October..

November through February 15th.

Source: Va. DSWC

VDOT 0001-076-995

....Annual Rve

Foxtail Millet

...Annual Rve

IN(I)

PROJECT MANAGER Gladis Arboleda, PWC\_DOT (703) 792-5276 SURVEYED BY, DATE JMT\_ (804) 323-9900 DESIGN BY JMT (804) 323-9900 SUBSURFACE UTILITY BY, DATE JMT (804) 323-9900

## EROSION AND SEDIMENT CONTROL NOTES

STATE VDOT 0001-076-995 619 VA RW-201 C-501 IN(2) PWC 1006-4N0-0

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

4VAC50-30-40 MINIMUM STANDARDS. (MS-19)

AN EROSION AND SEDIMENT CONTROL PROGRAM ADOPTED BY A DISTRICT OR LOCALITY MUST BE CONSISTENT WITH THE FOLLOWING CRITERIA,

- PERMINENT OF THE SITE. TEMPORARY SOIL STABLE BE APPLIED TO DEMODED AREAS WITHIN SEVEN DAYS AFTER THALL GRADE IS REALADD ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABLIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS, PERMANENT STABIUZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
- 2. DURING CONSTRUCTION OF THE PROJECT. SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE APPLICANT IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOILS STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.
- 3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
- 4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UP SLOPE LAND DISTURBANCE
- 5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER
- 6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON THE TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
- a. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AND THE TRAP SHALL ONLY
- A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS MEN ACKE UF DIKAINAGE AND THE TRAM SHALL UNLI CONTROL DRAINAGE AREAS LESS THAN THREE ACRES.

  b. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREATHE OUTFALL SYSTEM SHALL AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A TWENTY-FIVE YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE SECOND TO A BARE SECOND STORE OUTFAILS OF THE SECOND TO A BARE SECOND STORE OUTFAILS OF THE SECOND STORE OUTFAIL SYSTEM SHALL CORRESPOND TO A BARE SECOND STORE OUTFAIL SYSTEM SHALL CORRESPOND TO A BARE SECOND STORE OUTFAIL SYSTEM SHALL CORRESPOND TO A BARE SECOND STORE OUTFAIL SYSTEM SHALL CORRESPOND TO A BARE SECOND STORE OUTFAIL SYSTEM SHALL SOME STORE OUTFAIL SYSTEM SHALL CORRESPOND TO A BARE SECOND STORE OUTFAIL SYSTEM SHALL SOME STORE OUTFAIL SYSTEM SHALL SOME STORE ST EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.
- 7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
- 8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT
- 9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
- IO. ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
- II. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEVING CHANNEL.
- 12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NON ERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NON ERODIBLE
- 13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NON ERODIBLE MATERIAL SHALL BE PROVIDED.
- 14. ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
- 15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
- 16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE
- G. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
  D. EXCAVATED MATERIAL SHALL BE PLACED ON UPHILL SIDE OF TRENCHES.
  C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE,OR BOTH,
  AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.

  d. MATERIAL USED FOR BACK FILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
  C. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
  f. APPLICABLE SAFETY REGULATIONS SHALL BE COMPUED WITH.

- 17. WHFRF CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT WHERE CONSTRUCTION VEHICLE ARCESS ROUTES IN THE TRY OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE.WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE.THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE R SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER
- IB. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- 19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION. EROSION AND DAMAGE DUE TO INCREASE IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA:
- a. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.

  ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:

  (I) THE APPLICANT SHALL DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT IN QUESTION; OR
- (d) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A TWO-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP
- CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED AND BANKS; AND

  (b) ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A TEN-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A TWO-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND
- CONTAINED WITHIN THE PIPE OR SYSTEM.

c. IF EXISTING NATURAL RECENING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE

TECHNIQUES AND METHODS:

(I) IMPROVE THE CHANNEL TO A CONDITION WHERE A TEN-YEAR STORM WILL NOT OVERTOP THE BANKS AND A TWO-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL BED OR BANKS; OR

I. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON (2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE TEN-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES;

OR
(3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A TWOYEAR TO INCREASE
WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A
TEMPEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAM-HADE CHANNEL OR
(4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENT, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO

THE PLAN-APPROVING AUTHORITY TO PREVENT DOWNSTREAM EROSION.
d. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS. ALL HIDROLOGIC ANALYSES SHALL BE BASED ON EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT OF THE

SUBJECT PROJECT.

f. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION HE SHALL OBTAIN APPROVAL FROM THE LOCALITY

OF PLIN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLIN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.

3. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL AND ENERGY DISSIPATERS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.

RECEIVING CHANNEL.

A LL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.

I. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED.

TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.

J. IN APPLYING THESE STORMWATER RUNOFF CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL COMMERCIAL, OR INDUSTRIAL

DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECT, INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL

BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT, HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT

CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS. K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON PHYSICAL CHEMICAL AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.

PRINCE WILLIAM COUNTY EROSION & SEDIMENT CONTROL STANDARD NOTES:

I. THE OWNER/DEVELOPER MUST NOTIFY THE DEPARTMENT OF PUBLIC WORKS AT 792-7070 AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH APPLICABLE COUNTY ORDINANCES AND POLICIES.

2 THE OWNER/DEVELOPER GRANTS THE RIGHT-OF-ENTRY ON TO THIS PROPERTY TO THE DESIGNATED PRINCE 2. THE UNIDER VOICE OF STANDARDS MANUAL SECTION 750.04 (C).
WILLIAM COUNTY PERSONNEL FOR THE PURPOSE OF INSPECTING AND MONTORING FOR COMPLIANCE WITH TITLE IO.OI, CHAPTER 5, ARTICLE 4 OF THE CODE OF VIRGINIA, EROSION AND SEDIMENT CONTROL LAW AND THE DESIGN AND CONSTRUCTION STANDARDS MANUAL SECTION 750.04 (C).

- 3. ALL EROSION CONTROL MEASURES SHOWN ON THE APPROVED PLAN MUST BE IN PLACE AND INSPECTED AND APPROVED BY THE DEPARTMENT OF PUBLIC WORKS PRIOR TO CLEARING, STRIPPING OF TOPSOIL OR GRADING.
- 4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE KEPT ON THE SITE AT ALL TIMES.
- 5. THE DEVELOPER/DEVELOPER'S REPRESENTATIVE IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY
- 6. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL COMPLETE AND ADEQUATE STABILIZATION IS
- 7. WATER MUST BE PUMPED INTO AN APPROVED FILTERING DEVICE DURING DEWATERING OPERATIONS.
- 8. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS AND TO THE PRINCE WILLIAM COUNTY DESIGN AND CONSTRUCTION STANDARDS MANUAL.
- 9. THE DEVELOPER/DEVELOPER'S REPRESENTATIVE WILL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES AT ALL TIMES.

THE DEVELOPER'S REPRESENTATIVE SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES DAILY AND AFTER EACH SIGNIFICANT RAINFALL THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

A. SEDIMENT BASINS WILL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT BUILDUP REACHES THE CLEANOUT ELEVATION INDICATED ON THE RISER PIPE. SEDIMENT SHALL BE DISPOSED IN SUITABLE AREAS AND IN SUCH A MANNER THAT WILL NOT ERODE OR CAUSE SEDIMENT ATION PROBLEMS. THE BASE MEMANKENT SHOULD BE CHECKED REGULARLY TO ENSURE THAT IT STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EMERGENCY SPILLWAYS SHOULD BE CHECKED REGULARLY TO ENSURE THAT ITS LINING IS WELL

B. SEDIMENT TRAPS WILL BE CHECKED REGULARLY FOR SEDIMENT CLEANOUT. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN VOLUME OF THE WET STORAGE, SEDIMENT REMOVED FROM THE TRAP SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE AND CAUSE SEDIMENTATION PROBLEMS.

C. GRAVEL OUTLETS WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT, IT SHALL BE REMOVED AND CLEANED OR REPLACED.

D. SILT FENCE BARRIERS WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE

E. SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.

F STREAM DIVERSION AND STORM CONVEYANCE CHANNELS SHALL BE INSPECTED DAILY AND AFTER EACH RAIN TO ENSURE THEY'RE FUNCTIONING PROPERLY AND THAT THE INTEGRITY OF THE LININGS ARE NOT IMPARED, ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVISES MUST BE MADE IMMEDIATELY AFTER THE INSPECTION.

IO. SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING AND WILL BE SEEDED AND MULCHED IMMEDIATELY FOLLOWING INSTALLATION.

II. PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE, TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN FOURTEEN (14) DAYS. SEEDING AND SELECTION OF THE SEED MIXTURE SHALL BE IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK STANDARD AND SPECIFICATION 3.32. ROADS AND PARKING AREAS SHALL BE STABILIZED WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED.

12. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WILL BE REMOVED WITHIN 30 DAYS AFTER
ADEQUATE SITE STABILIZATION AND AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED,AS AUTHORIZED BY
THE PRINCE WILLIAM COUNTY INSPECTORS. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM
THE DISPOSITION OF TEMPORARY MEASURES WILL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND

13. WHEN SEDIMENT IS TRANSPORTED ONTO A PAVED ROAD SURFACE, THE ROAD WILL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT WILL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA STREET WASHING WILL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.

14. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.

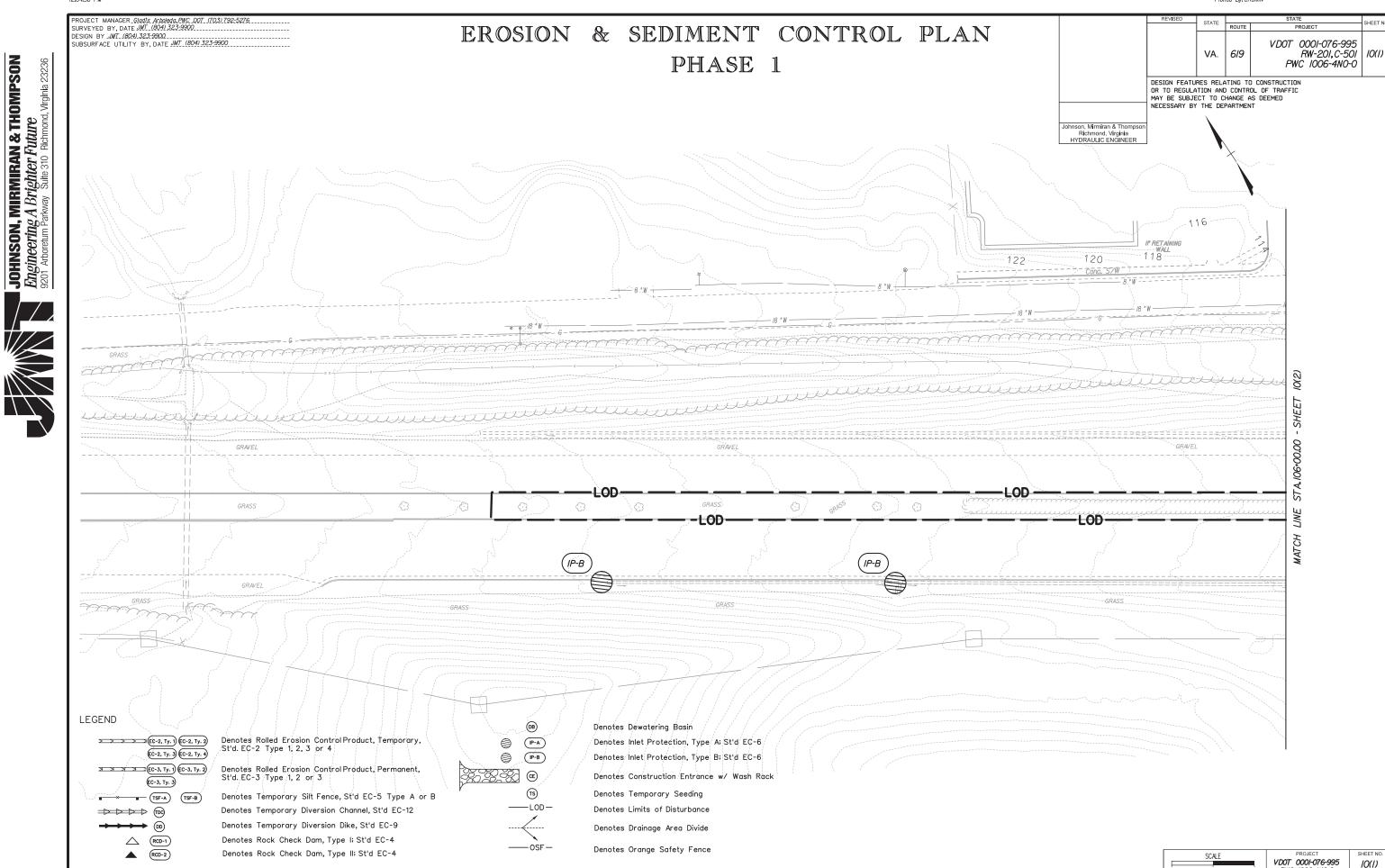
15. RPA AND FLOODPLAIN LIMITS SHALL BE CLEARLY MARKED IN THE FIELD BY FLAGS, SIGNS, ETC.

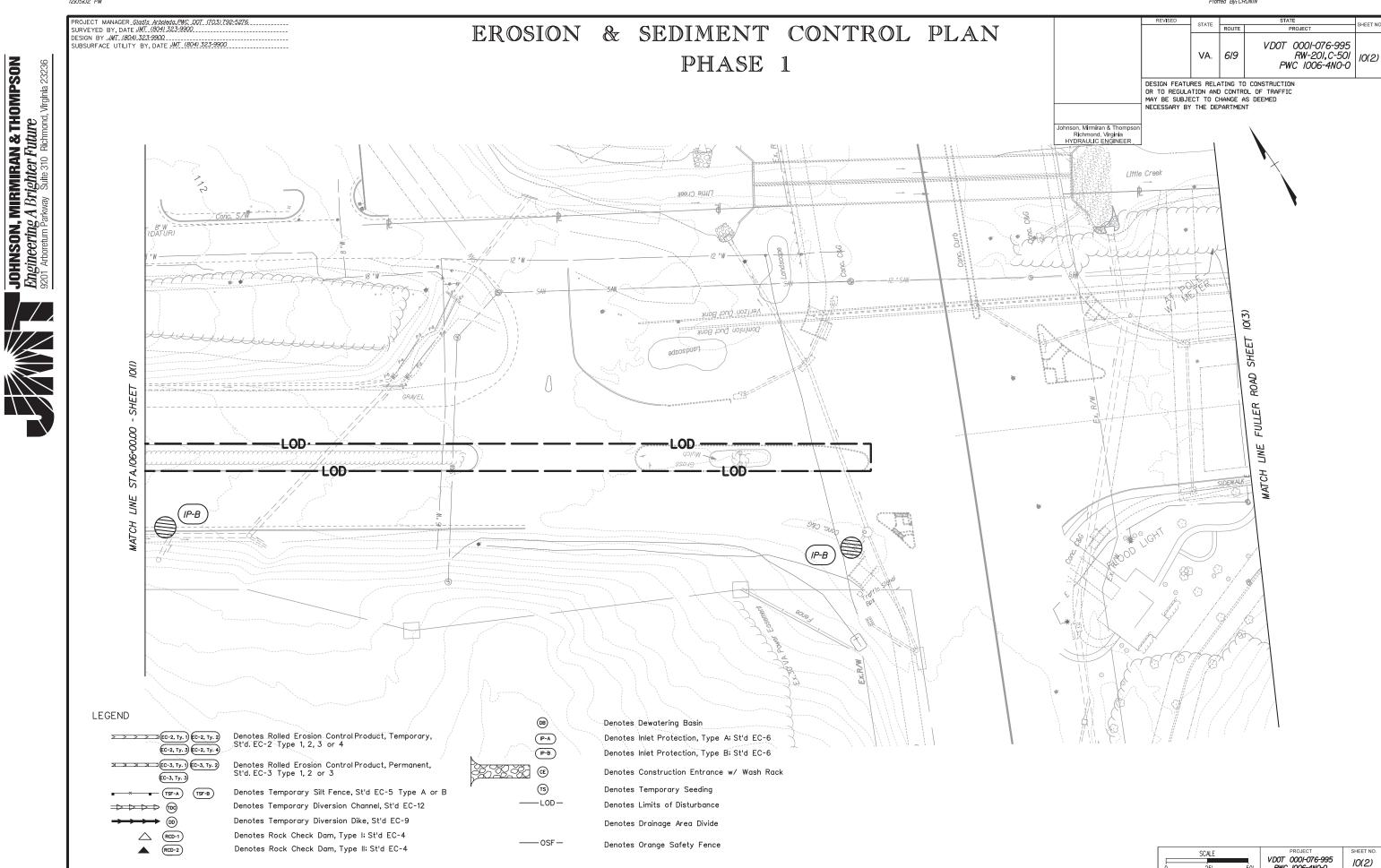
16. TREE SAVE AREAS SHALL BE CLEARLY MARKED IN THE FIELD BY ORANGE SAFETY FENCE.

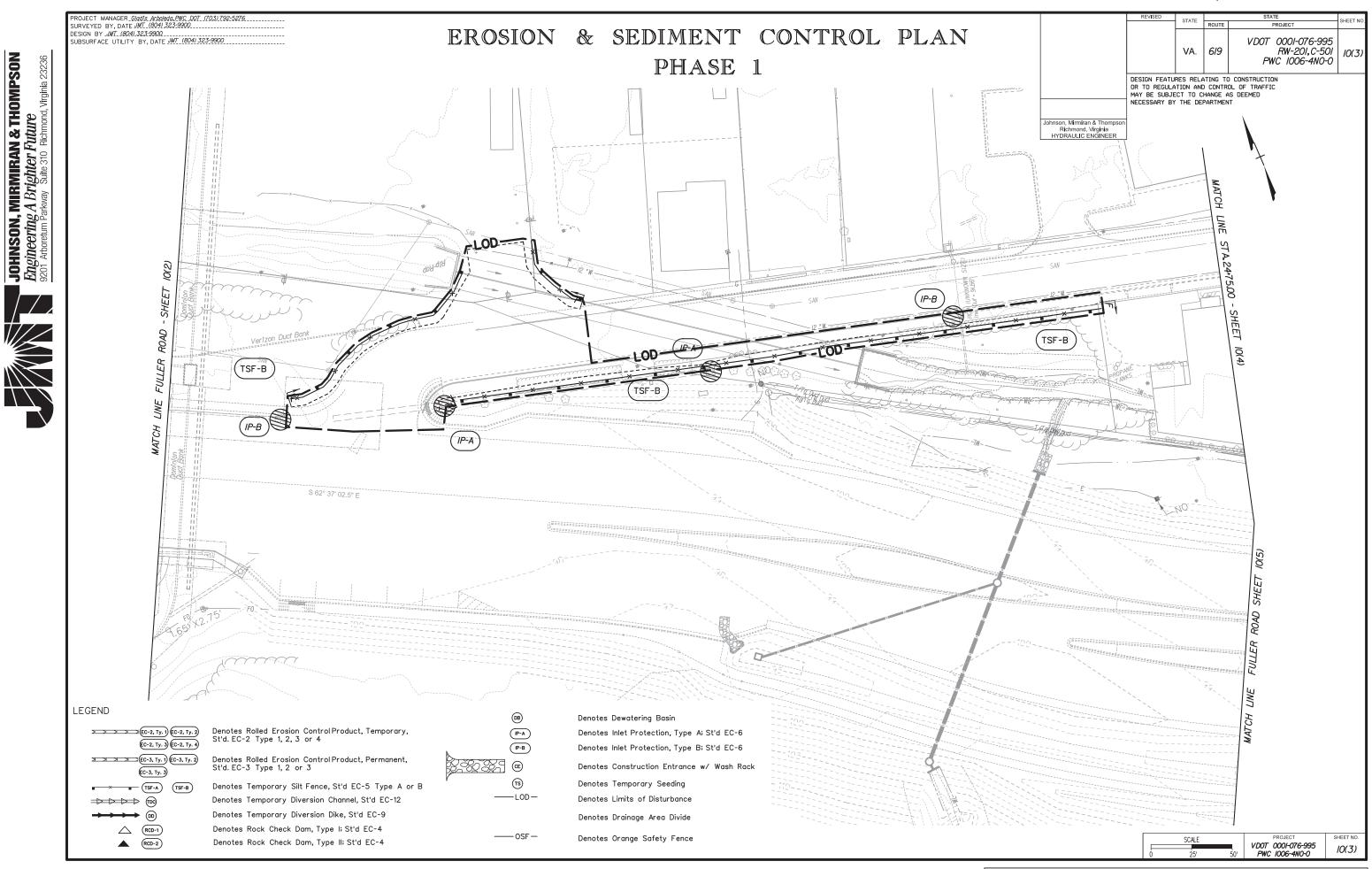
IT. ORANGE SAFETY FENCE MUST BE INSTALLED AROUND ALL SILT TRAPS AND SEDIMENT BASINS.

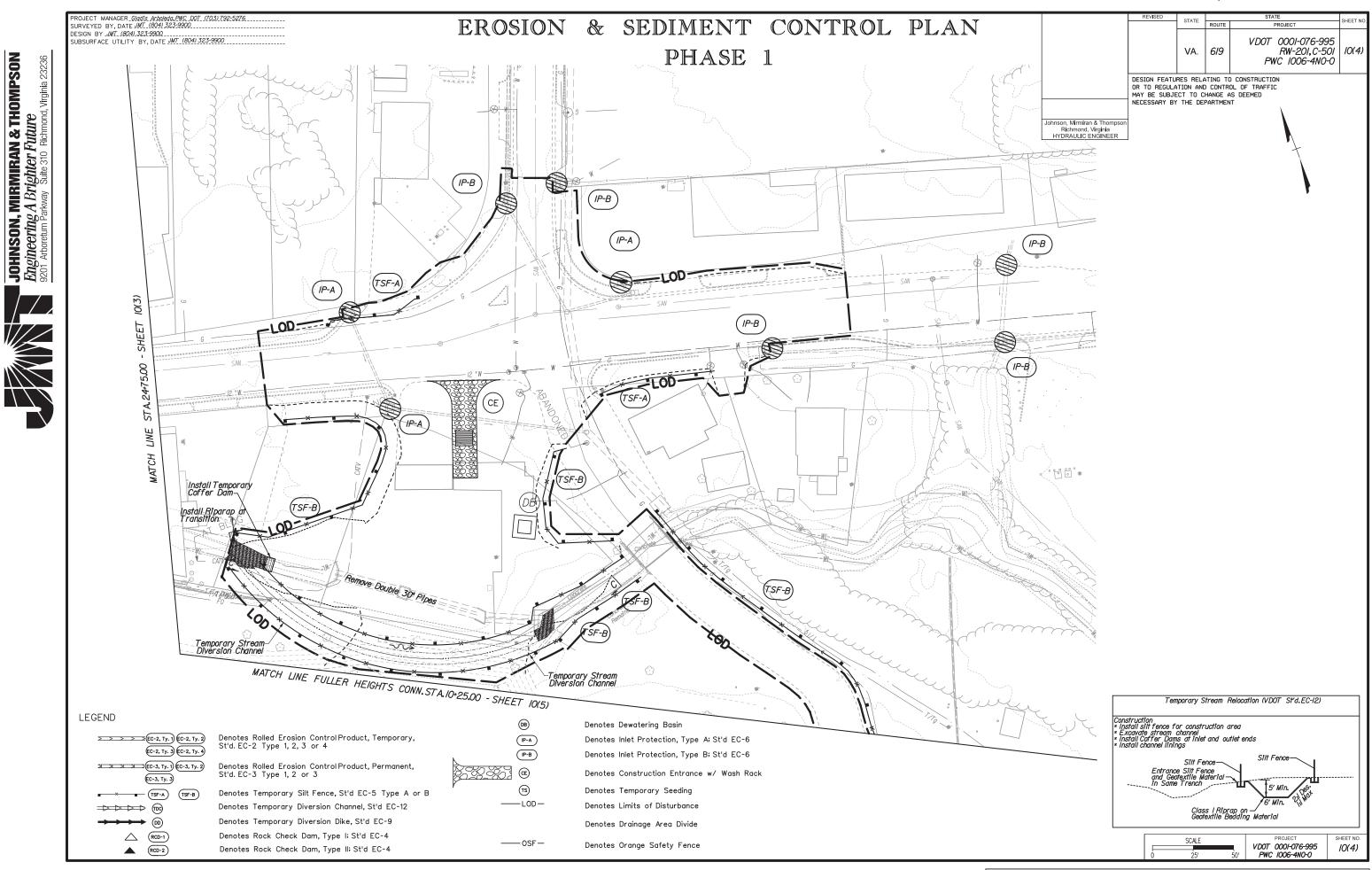
VDOT 0001-076-995

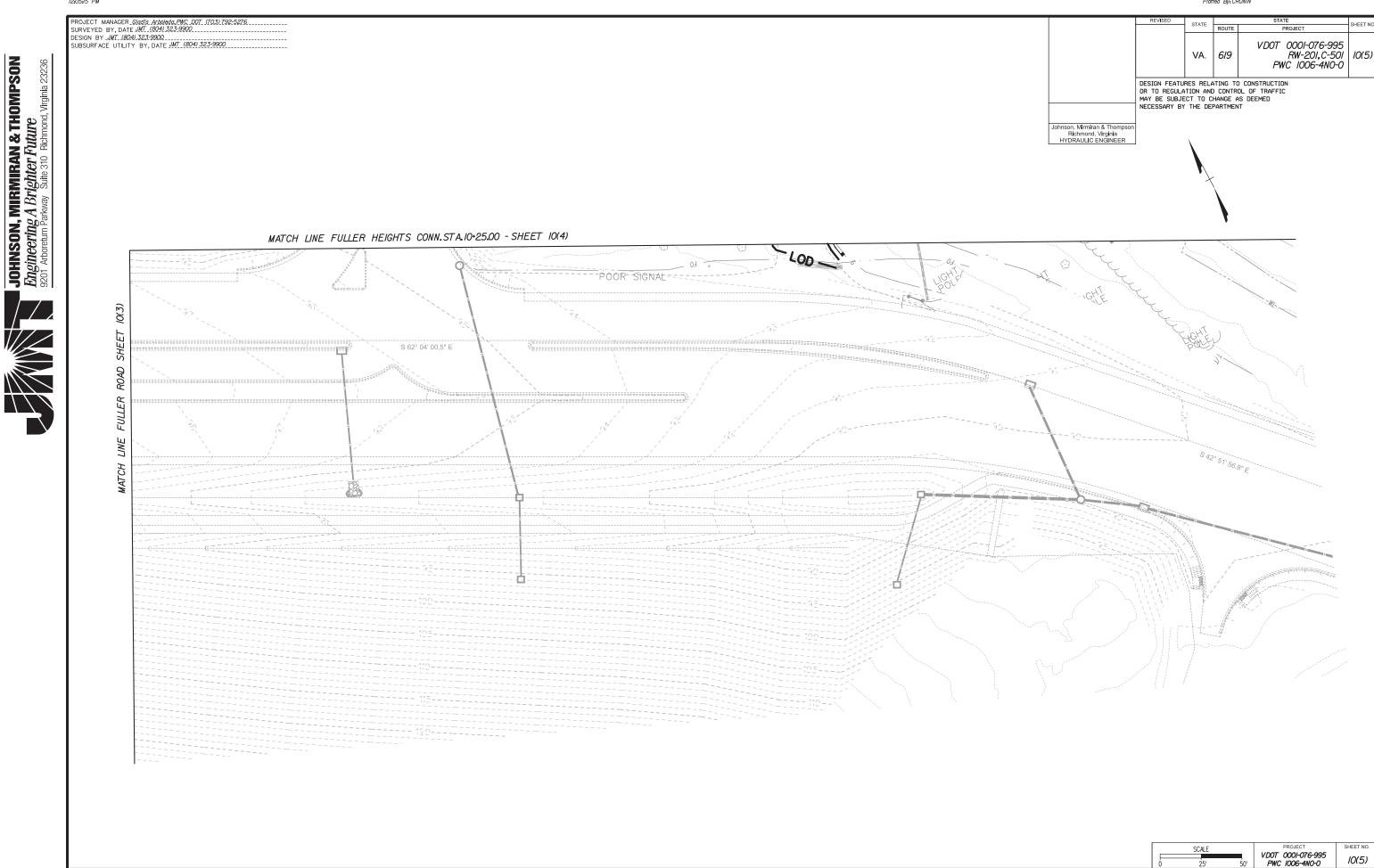
IN(2)



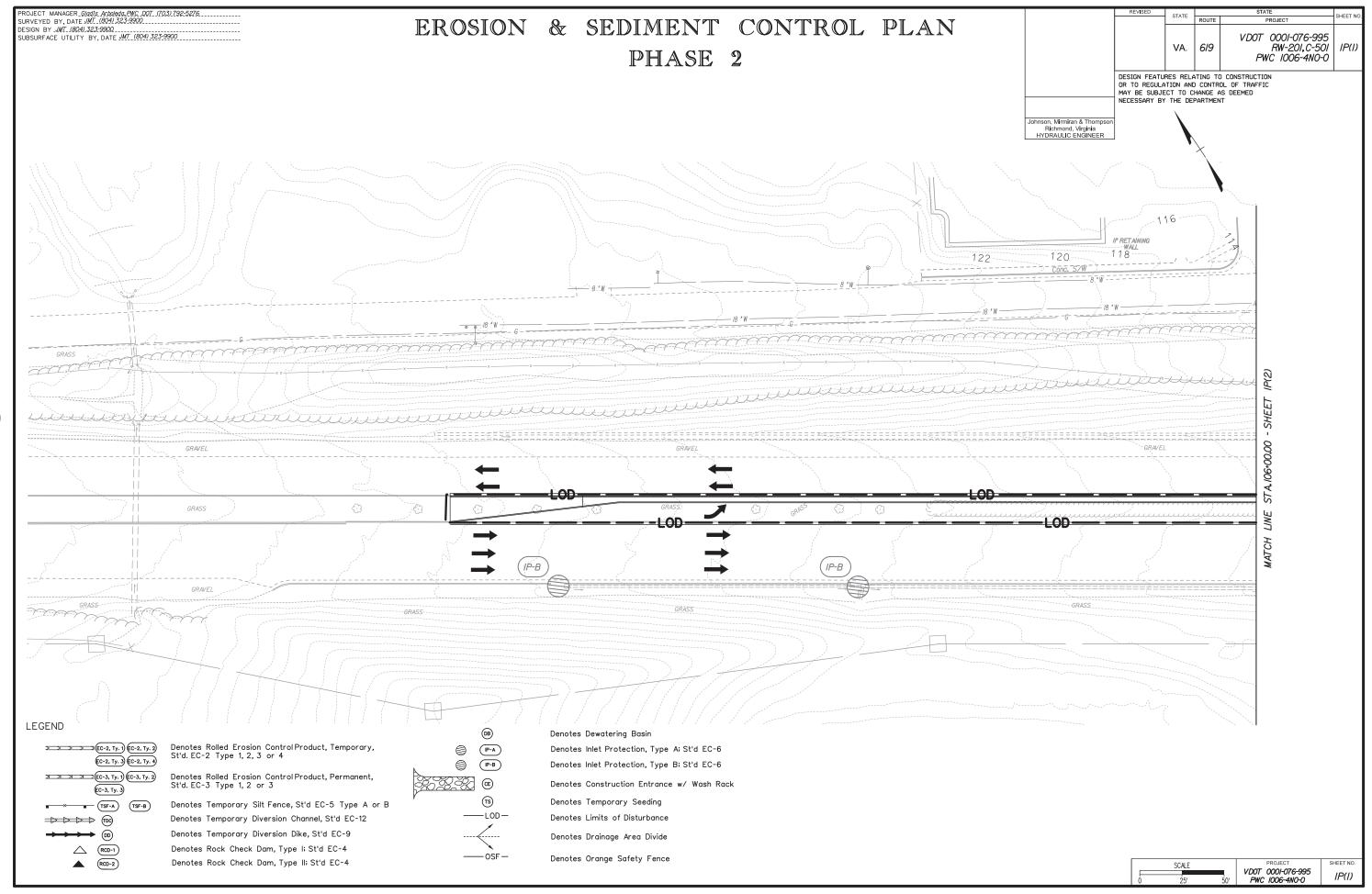






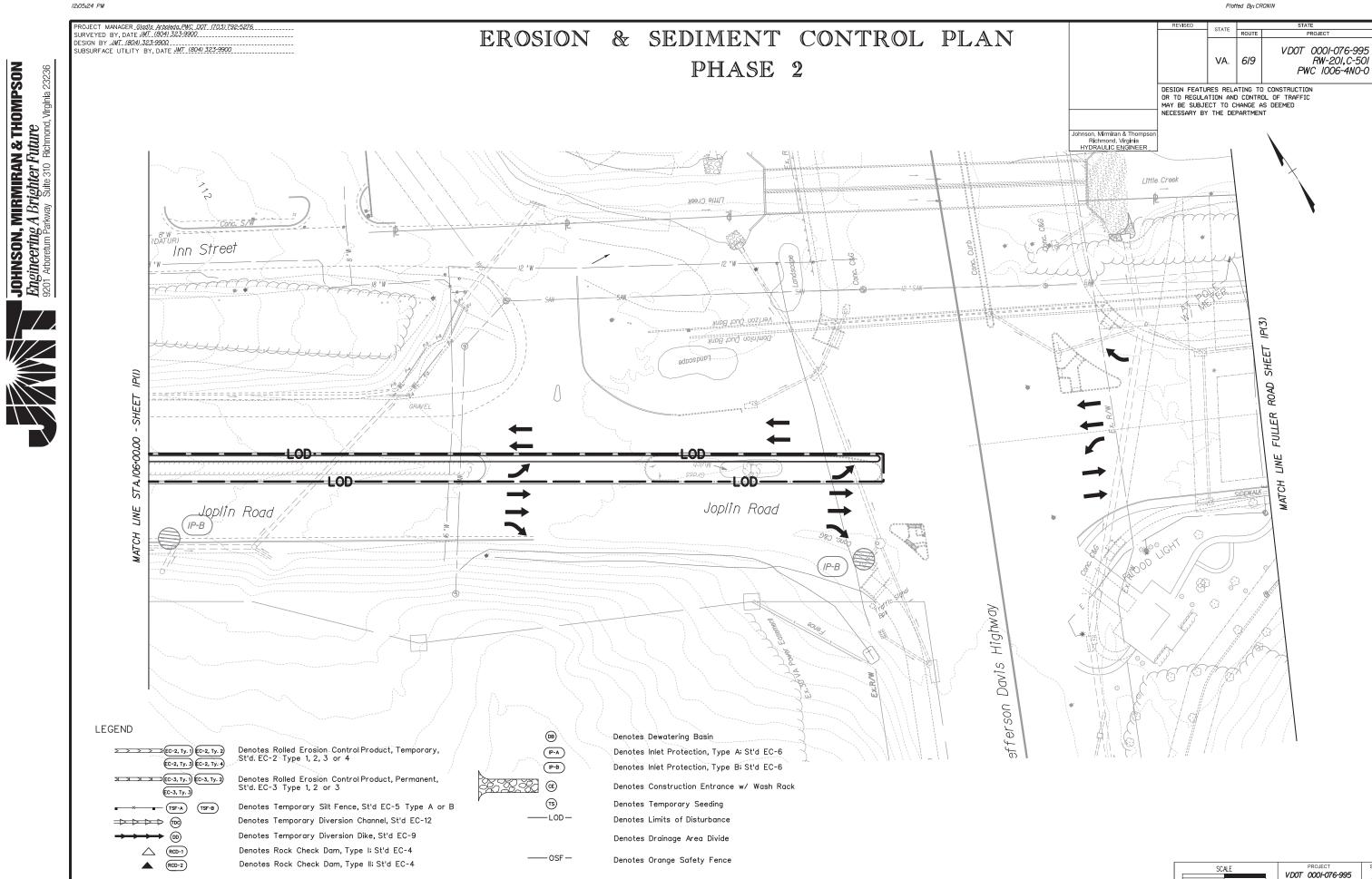


10(5)

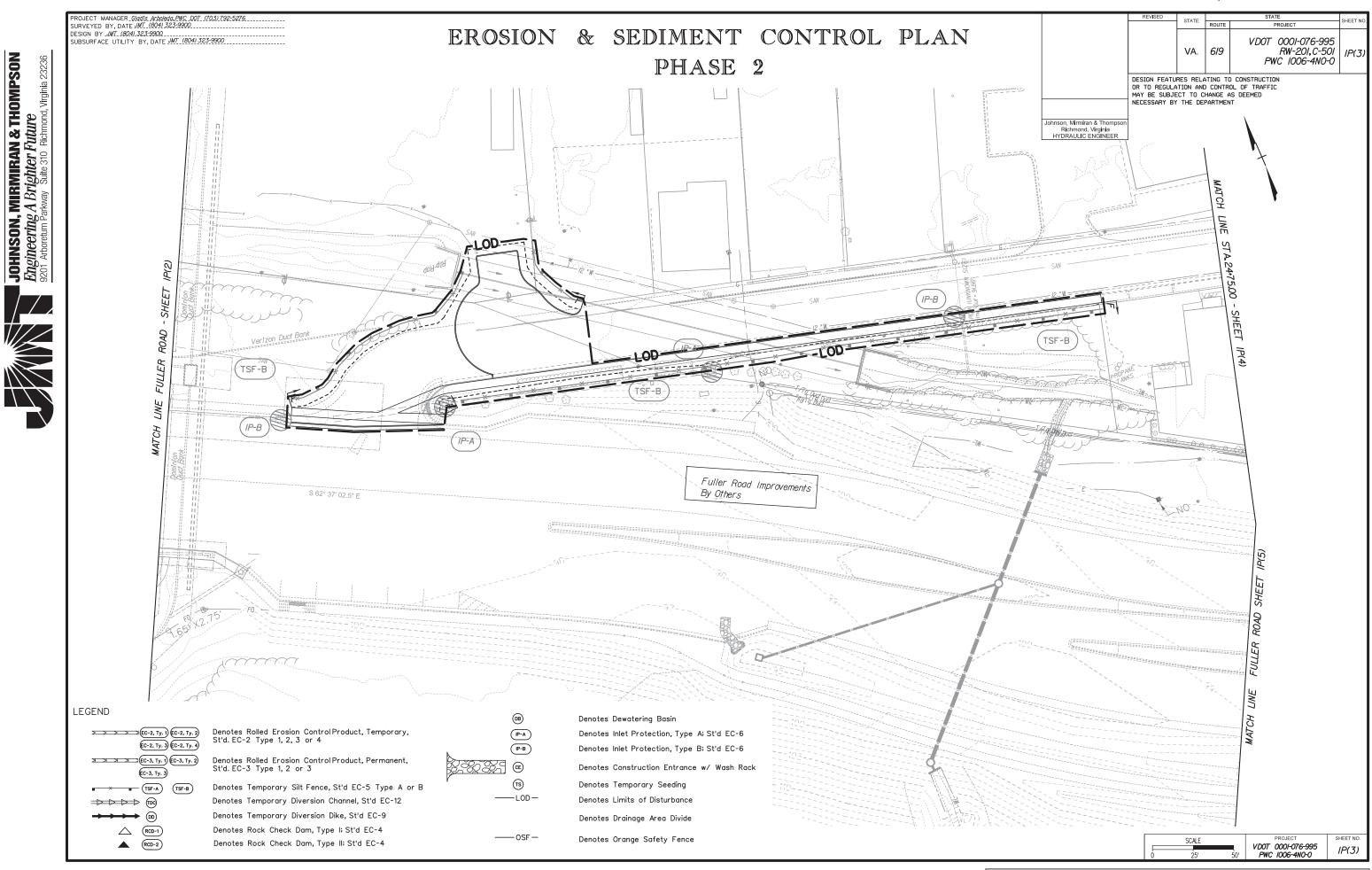


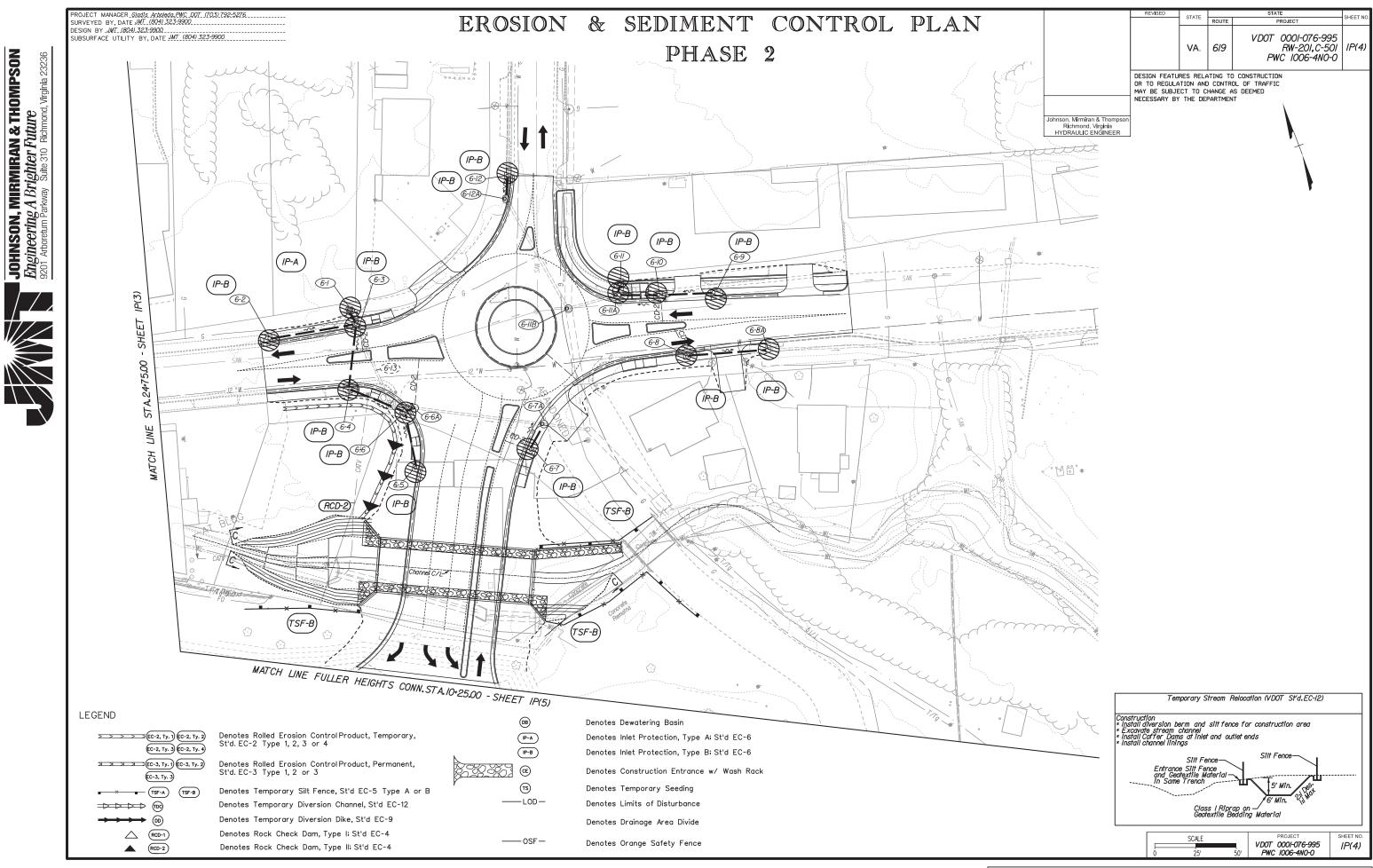
IP(2)

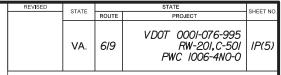
IP(2)



P.A.C. PLANS







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

Johnson, Mirmiran & Thompso Richmond, Virginia HYDRAULIC ENGINEER

MATCH LINE FULLER HEIGHTS CONN.STA.10+25.00 - SHEET IP(4) Fuller Road Improvements VDOT 0001-076-995 PWC 1006-4N0-0 IP(5)

P.A.C. PLANS

PROJECT MANAGER <u>Gladis Arboleda, PWC\_DOT (703) 792-5276</u> SURVEYED BY, DATE <u>JMT (804) 323-9900</u> DESIGN BY JMT (804) 323-9900 SUBSURFACE UTILITY BY, DATE JMT (804) 323-9900

## GRADING

- The grade line denotes top of finished pavement unless shown otherwise on typical sections or plans.
- G-2 Earthwork quantities on this project are based on anticipated settlement and may require adjusting during construction.
- G-4 The cost of removal of all existing concrete items located in the area to be graded, including, but not limited to the following, shall be included in the price bid for regular excavation: Existing concrete retaining walls, curbing, approaches to exisiting bridge on Old Triangle Rd.
- G-5 The excavation of unsuitable material as specified on these plans is based on previously conducted subsurface soil investigation. If, during construction, it is deemed necessary to change the depth more than one foot, or the limits of such excavation, such change is to be made at the direction of the Engineer and measurement and payment shall be made in accordance with Section 303 of the applicable VDOT Road and Bridge Specifications.
- G-6 The borrow material for this project shall be a minimum CBR\_\_\_5\_\_\_ or as approved by the Materials Engineer.

## DRAINAGE

- The horizontal location of all drainage structures shown on these plans is approximate only, with the exception of structures showing specific stations, special design bridges and storm sewer systems.
- D-2 The horizontal location and invert elevations shown for proposed culverts and storm sewer outfall pipes are based on existing survey data and required design criteria. If during construction, it is found that the horizontal location or invert elevations shown on the plans differ significantly from the horizontal location or elevations of the stream or swale in which the culvert or storm sewer outfall pipe is to be placed, the Engineer shall confer with, and get approval from, the applicable District Drainage Engineer before installing the culvert or storm sewer outfall pipe.
- D-3 The "H" dimensions shown on plans for drop inlets and junction boxes and the "L.F." dimensions shown for manholes are for estimating purposes and are based on the proposed invert elevations shown for the structure and the anticipated top (rim) elevation based on existing or proposed finished grade. The actual "H" or "L.F." dimensions are to be determined by the contractor from field conditions.
- Pipes shall conform to any of the allowable types shown on sheet number 8(1), within the applicable height of cover limitations. or cover limitations, sheet thickness, or class designation; available sizes; height of cover limitations; and other restrictions for a particular pipe type or height of cover, see the VDOT Road and Bridge Standard PC-1. Structural plate pipe may be substituted for corrugated pipe of the same size, provided the substitution complies with the applicable sections of the VDOT Bood and Bridge Standard PC-1. VDOT Road and Bridge Standards PC-1.
- D-8 Where open joint pipe is to be used, no joint shall be opened a distance exceeding 25% of the spigot length. Sealing of the pipe joint shall be in accordance with Section 302 of the applicable VDOT Road and Bridge
- A pipe joint length different from that stated on the plans may be used. An adjustment in the percentage of open joint (not to exceed 25% of the spigot length) or amount of bevel shall be made that will obtain the radius stated on the plans. Extra payment for this adjustment will not be allowed. The proposed adjustment shall be approved by the Engineer prior to installation of the pipe line.
- D-10 The proposed riprap may be omitted by the Engineer if the slope designated for placement of riprap is found to be comprised of solid rock or closely consolidated boulders with soundness, size and weight equal to, or exceeding, the specifications for the proposed riprap.
- D-12 All existing drainage facilities labeled "To Be Abandoned" shall be left in place, backfilled and plugged in accordance with the VDOT <u>Road and</u> Bridge Standard PP-1. Basis of Payment will be C.Y. of Flowable Backfill
- D-13 Existing drainage facilities being utilized as a part of the drainage system, and designated on the plans "To Be Cleaned Out" shall be cleaned as directed by the Engineer. The cost incidental to this shall be included in the contract price for other items.
- D-14 Proposed drop inlets with a height (H) less than the standard minimum shown in the VDOT Road and Bridge Standards shall be considered and paid for as Standard Drop Inlets for the type specified. Pipes with less than standard minimum finished height of cover shall be noted as such in the drainage description for the pipe. Specific pipe bedding and cover requirements are provided in the applicable PB-1 and PC-1 standard drawings of the VDOT Road and Bridge Standards.
- D-16 When CG-6 or CG-7 is specified on a radius (such as at a street intersection), the Engineer may approve a decrease in the cross slope of the gutter to facilitate proper drainage.

# GENERAL NOTES

# **PAVEMENT**

P-2 The pavement materials on this project will be paid for on a tonnage basis. The weight will vary in accordance with the specific gravity of the aggregates and the asphaltic content of the mix actually used to secure the design depth. The weight of the asphalt concrete is based on 95% of the theoretical maximum density.

### INCIDENTALS

- I-4 All trees located within the Clear Zone or within a minimum of 30 feet of the edge of pavement, within the limits of the right of way or construction easement, unless otherwise noted on plans or directed by the Engineer, shall be removed, as provided for a Section 301 of the applicable VDOT Road and Bridge Specifications.
- Where Standard slope roundoffs would damage trees, bushes or other desirable vegetation, they shall be omitted when so ordered by the Engineer
- 1-9 When no centerline alignment is shown for a proposed entrance, the entrance shall be constructed in the same location as the existing entrance.
- I-10 St'd. RM-1 Right of Way monuments shall be set by the Contractor.
- I-16 The "underground utilities" survey data on this project has been provided by consultant and copies are available from the Department
- I-17 For method of constructing Straight-Line Taper Lanes in curb and/or curb and gutter sections, see typical details on Sheet 2A(1).
- I-18 All pavement markings and traffic flow arrows shown on the roadway construction plans are schematic only. The actual location and application of pavement markings shall be in accordance with Section 704 of the applicable VDOT Road and Bridge Specifications, MUTCD, sequence of construction/traffic control plans, pavement marking plan sheets 10(1) thru 10(8) and as directed by the Engineer.
- 1-20 The Official Electronic PDF Version of the plans will override the paper copies or prints of specific layers.

Portions of this plan assembly have been CADD generated. To assist in the preparation of the bid and construction of the project, Microstation format (.dgn) files will be made available to the prime contractor during bids and after award of the contract.

I-19 The following outside sources, under contract with VDOT, have provided information on this project.

Roadway Design
Utility Design
Utility Designation
Utility Location JMT JMT JMT JMT JMT Survey
Bridge Design
Traffic Design
Landscape Design IJMT T3 N∕A

If questions or problems arise during construction, please contact the Area Construction Engineer.  $\underline{\sf DO}$  NOT CONTACT THE OUTSIDE SOURCES

I-21 All electronic plan assemblies will include the construction plans in two formats: PDF files and MicroStation format (.dgn) files. Only the PDF files will be considered as part of the official plan assembly.

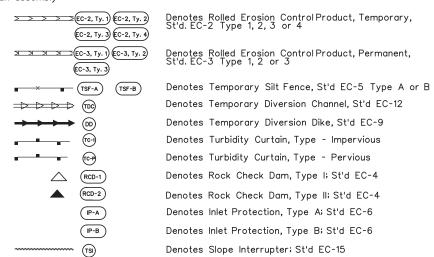
The MicroStation format (.dan) files are furnished only as information for the contractor. These plans are developed in layers (levels) to aid in readability. (See the VDOT CADD Manual for CADD Level Structure). However, the construction items may or may not be in the proper layering scheme as described in the VDOT CADD Manual. The Microstation files will only match the scanned files if all required levels are turned on. A Microstation Software license is required to be

I	REVISED	STATE		STATE	SHEET NO.
I		SIAIL	ROUTE	PROJECT	SHEET NO.
		VA.	619	VDOT 0001-076-995 RW-201,C-501 PWC 1006-4N0-0	2

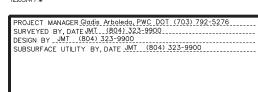
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

## EROSION AND SEDIMENT CONTROL (ESC)

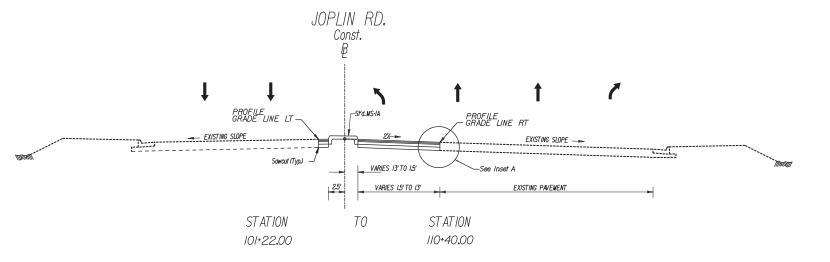
- E-1 If the removal of Brush Silt Barrier is specified by the plans or required by the Engineer, the cost of removal and disposal of brush shall be in accordance with Section 109 of the applicable VDOT Road and Bridge Specifications.
- E-2 Rock for Check Dams, Inlet Protection, Erosion Control Stone and Riprap shall be in accordance with Section 203 and Section 414 of the applicable VDOT Road and Bridge Specifications.
- E-3 The following symbols are used to depict Erosion Control items in the plan assembly:

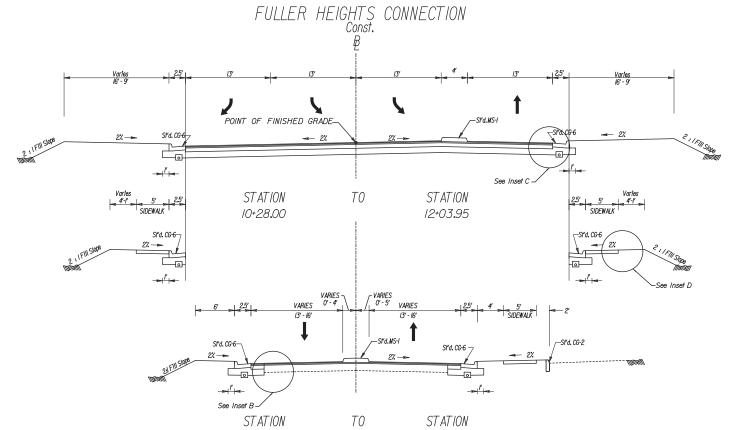


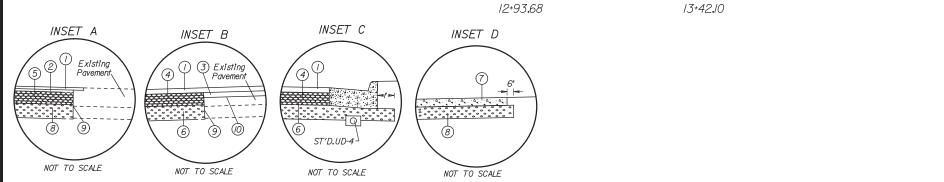
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# TYPICAL SECTIONS







STATE VDOT 000I-076-995 RW-201,C-501 PWC 1006-4N0-0 2A(I) VA. 619

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

# PAVEMENT LEGEND

- 2.0 Inch Depth Asphalt Concrete, Type-SM-9.5A (Est. Placement Density: 180 LBS./S.Y.)
- 2.0 Inch Depth Asphalt Concrete, Type- IM-19.0A (Est. Placement Density: 240 LBS./S.Y.)
- 2.5 Inch Depth Asphalt Concrete, Type- IM-19.0A (Est. Placement Density: 300 LBS./S.Y.)
- 5.5 Inch Depth Asphalt Concrete Base Course Type BM-25.0A
- 5.0 Inch Depth Asphalt Concrete Base Course Type BM-25.0A (5)
- 6) 6.0 Inch Depth Aggregate Base Material Type I,No.2IB connected to a standard UD-4 edgedrain, located beneath the curb and gutter. The aggregate material should be extended I foot behind the curb and gutter
- 7 4 Inch Depth Hydraulic Cement Concrete Sidewalk, Concrete Cl. A3
- (8) 6.0 Inch Depth Aggregate Base Material Type I, No. 2IB
- Existing pavement is to be Saw Cut to the full depth of asphalt per St'd WP-2.
- Existing pavement to be resurfaced. For Buildup see detail Sheet 2A(I)
- 12" Continuously Reinforced Concrete Pavement

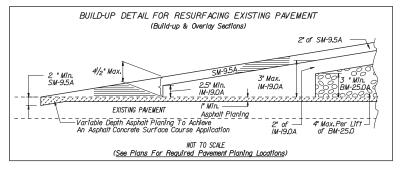


-See Detail A BASELINE -See Detail A DETAIL A

Radius = Variable (To Be Field Set Δ=Variable 2°-11° 5'->

T - See plans for Length of T.

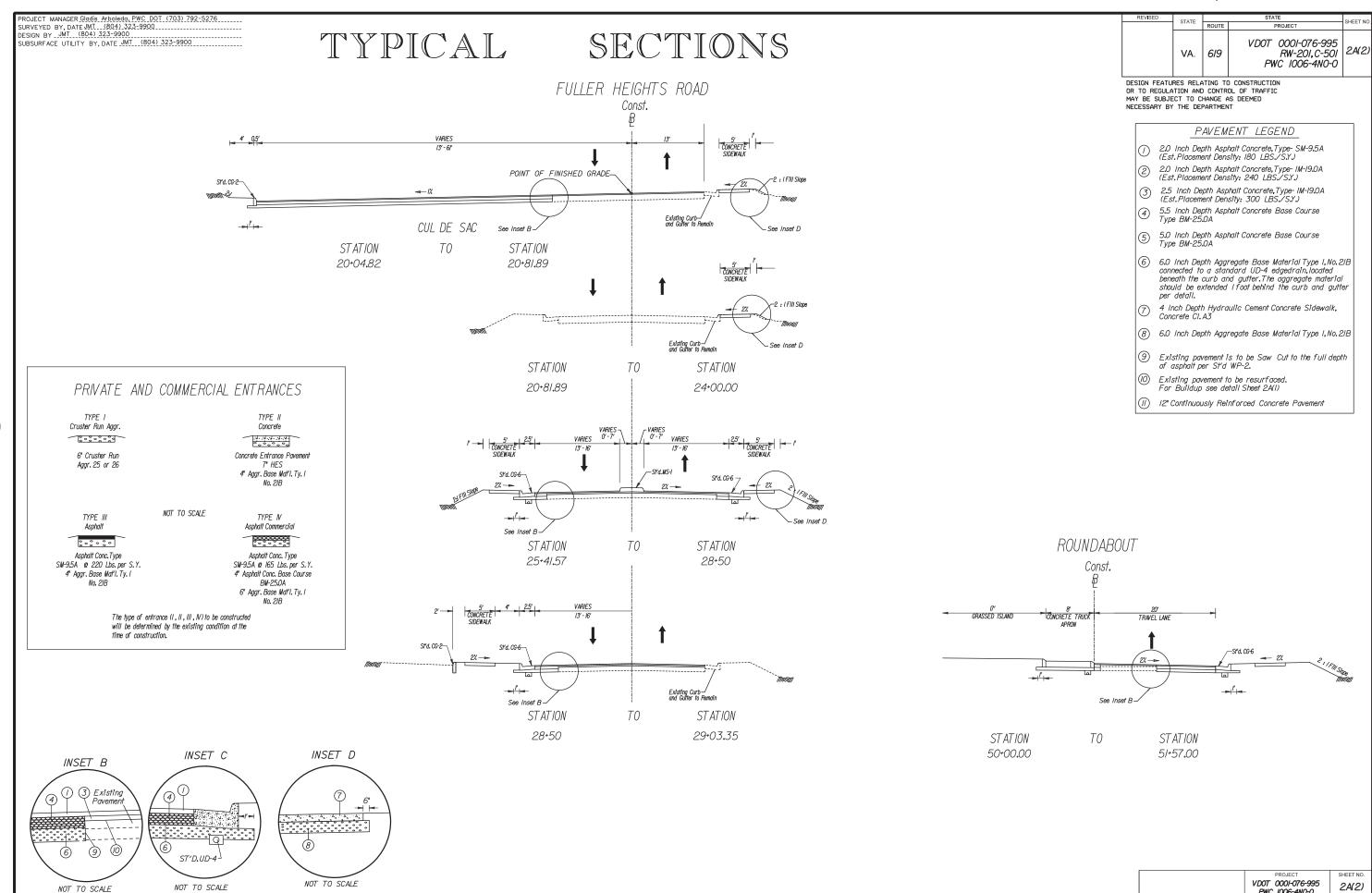
S/O - See plans for Stations and Offsets.



VDOT 0001-076-995

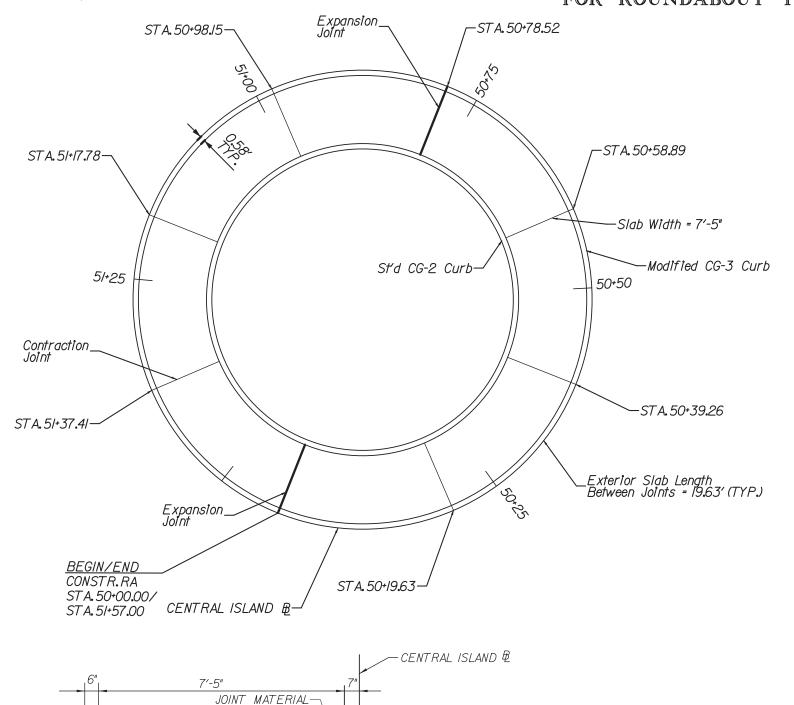
2A(I)

P.A.C. PLANS



ST'D.CG-2

# PROJECT MANAGER Glodis, Arboledo, PWC DOT. (703) 79 SURVEYED BY, DATE JMT. (804) 323-9900 DESIGN BY JMT (804) 323-9900 SUBSURFACE UTILITY BY, DATE JMT. (804) 323-9900 JOINT SPACING DETAILS FOR ROUNDABOUT TRUCK APRON



-MODIFIED CG-3

NOTES:

OF CONSTRUCTION.

I. CONSTRUCT ROUNDABOUT SHOULDER SLABS AS SHOWN ABOVE. NOTE: MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS 19.63'.

OF THE 2016 ROAD AND BRIDGE STANDARDS.

2. EXPANSION JOINTS SHALL CONFORM TO SHEETS 301.01,301.02, & 301.03

3. STATIONS AND OFFSETS REFER TO THE CENTRAL ISLAND BASELINE

4

ONGITUDINAL TIE

DEVICE - "J" BAR (see detail on this sheet)

2%—

Δ.

6X6-W4XW4 CENTERED IN SLAB

-WELDED WIRE FABRIC REINFORCED STEEL

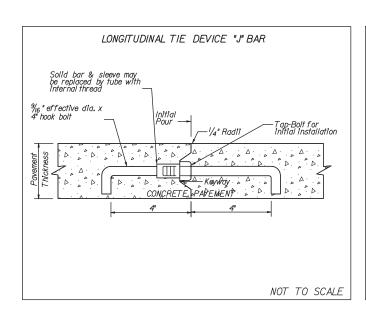
ROUNDABOUT TRUCK APRON PAVEMENT SECTION

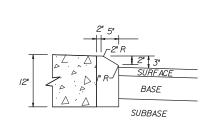
1	REVISED	STATE		STATE	SHEET NO
ı		SIAIE	ROUTE	PROJECT	SHEET NO
		VA.	619	VDOT 0001-076-995 RW-201,C-501 PWC 1006-4N0-0	2A(3)

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

#### PAVEMENT LEGEND

- 2.0 Inch Depth Asphalt Concrete, Type-SM-9.5A (Est. Placement Density: 180 LBS./S.Y.)
- 2.0 Inch Depth Asphalt Concrete, Type- IM-I9.0A (Est. Placement Density: 240 LBS./S.Y.)
- 3 2.5 Inch Depth Asphalt Concrete, Type- IM-19.0A
- (Est. Placement Density: 300 LBS./S.Y.) (4) 5.5 Inch Depth Asphalt Concrete Base Course
- 5.0 Inch Depth Asphalt Concrete Base Course
  Type BM-25.0A
- 6.0 Inch Depth Aggregate Base Material Type I,No.2IB connected to a standard UD-4 edgedrain, located beneath the curb and gutter.The aggregate material should be extended I foot behind the curb and gutter
- 4 Inch Depth Hydraulic Cement Concrete Sidewalk, Concrete Cl. A3
- (8) 6.0 Inch Depth Aggregate Base Material Type I, No. 2IB
- Existing pavement is to be Saw Cut to the full depth of asphalt per St'd WP-2.
- © Existing pavement to be resurfaced. For Buildup see detail Sheet 2A(I)
- (II) 12" Continuously Reinforced Concrete Pavement





I.THIS ITEM MAY BE PRECAST OR CAST IN PLACE.

2.CONCRETE TO BE CLASS A3 IF CAST IN PLACE,4000 PSI IF PRECAST.

MODIFIED CG-3 CURB

3.THE MODIFICATION TO THE STANDARD CG-3 IS TO REDUCE THE EXPOSED HEIGHT OF THE CURB AS SHOWN. MODIFIED CURB SHALL BE PAID FOR AS STANDARD CG-3.

NOT TO SCALE

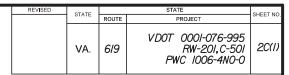
VDOT 000I-076-995

2A(3)

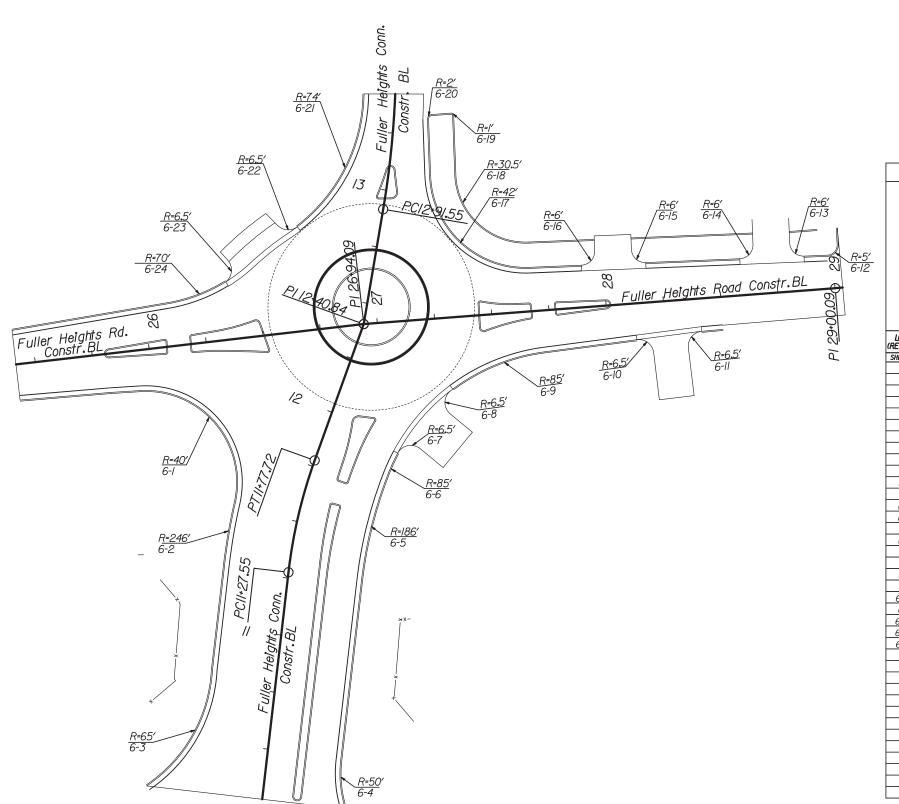
PROJECT MANAGER Glodis, Arbolada, PWC DOT. (703) 79 SURVEYED BY, DATE JMT. (804) 323-9900 DESIGN BY, JMT. (804) 323-9900 SUBSURFACE UTILITY BY, DATE JMT. (804) 323-9900

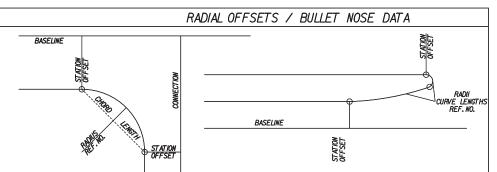






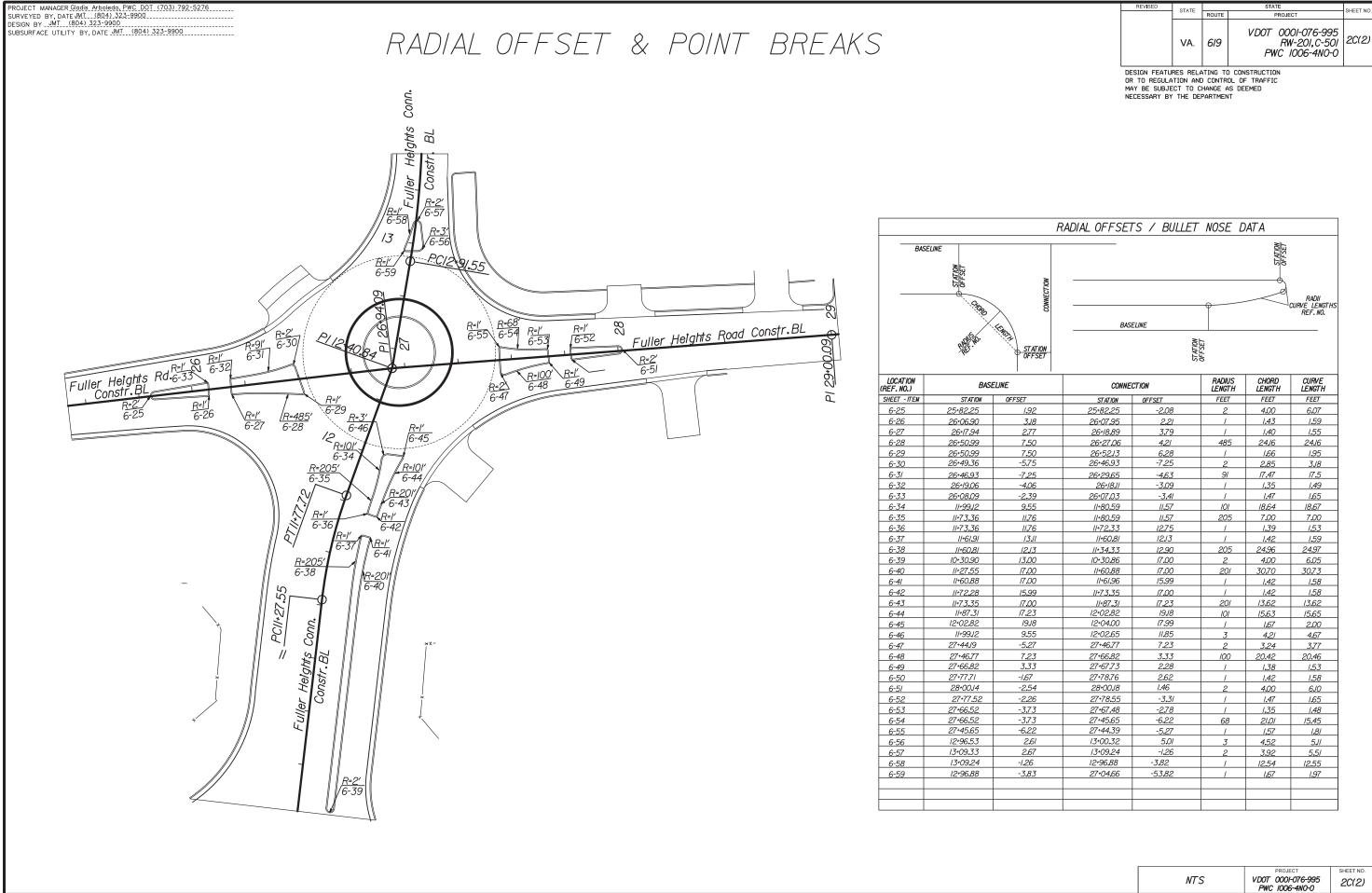
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT





LOCATION (REF. NO.)	BASI	EUNE	CONNE	ECTION	RADIUS LENGTH	CHORD LENGTH	CURVE LENGTH
SHEET - ITEM	STATION	OFFSET	STATION	OFFSET	FEET	FEET	FEET
6-1	25+93,93	17,54	//÷5/.89	-28,00	40.0	64./7	74.47
6-2	//•5/ <b>.</b> 89	-28,00	// 57.55	-28,00	246.0	27.44	27.46
6-3	10+81.58	-28,00	10+28,00	-50.63	65.0	58./5	60,30
6-4	10+28.00	36,50	10+48,73	32.00	50.0	21,20	21.37
6-5	II+27,55	32.00	11+82,88	32.07	186.0	47.83	47.96
6-6	II+82.88	32.07	11+92,91	32,95	85.0	10.07	10.07
6-7	11+92.91	32.95	11+98.08	41,58	6.5	10.06	11.50
6-8	12+16.75	48,75	27+30.62	31,18	6.5	10.90	11.67
6-9	27+30.62	31,18	27+71,62	18.03	85.0	43.06	43.54
6-10	28+12-26	15.82	28+19,10	22.03	6,5	9,24	10,28
6-11	28+34.3/	21,10	28+40,71	14.31	6.5	9,33	10.4
6-12	28+97.70	-14.09	29+03./3	-18.97	5.0	7.14	7,95
6-13	28+81.80	-21,16	28+87.59	-14.95	6.0	8.49	9.42
6-14	28+59.60	-15,94	28+65,81	-21.73	6,0	8.49	9.42
6-15	28+12-84	-23,60	28+18.62	-17.40	6.0	8.49	9.42
6-16	27+90.64	-/8,39	27+96.85	-24,17	6,0	8.49	9.42
6-17	27+68.04	-18,69	13+08.64	17.84	42,0	59.52	66,15
6-18	13+10.36	29.J9	27+68.45	-30,18	30,5	43,23	48.04
6-19	13+35,21	24.79	13+34,37	25.92	1,0	1.44	1,61
6-20	13+34,14	16.32	13+32.07	14.60	2.0	2.75	3.03
6-21	13+41,55	-/3,56	12+77,81	-35,60	74.0	64,77	67.04
6-22	12+76,96	-44,17	12+77,81	-35,60	6.5	8,60	9.4
6-23	26+38,39	-34 <b>.</b> 59	26+36,52	-25.21	6.5	9,57	10.75
6-24	26+10.43	-18.62	26+36,52	-25,21	70.0	26,91	27 J
			+				





PROJECT MANAGER Gladis, Arboleda, PWC. DOT. (703), 792-5276 SURVEYED BY, DATE JMT. (804), 323-9900 DESIGN BY, JMT. (804), 323-9900 SUBSURFACE UTILITY BY, DATE JMT. (804), 323-9900

JOHNSON, MIRMIRAN & THOMPSON Engineering A Brighter Future 9201 Arboretum Parkway Suite 310 Richmond, Virginia 23236

# UNDERGROUND UTILITIES TEST HOLE INFORMATION

REVISED	STATE		STATE	SHEET NO.
	SIKIL	ROUTE	PROJECT	SHEET NO.
	VA.	6/9	VDOT 0001-076-995 RW-201,C-501 PWC 1006-4N0-0	2D

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

TEST HOLE	NORTHING	EASTING	UTILITY	DEPTH	TOP ELEV.	DATE DUG
1	6883724,0343	11816047,5565	(3) 4" Pl.Cond.& (2) D.B.Cables - Tele.	1.85′	96,79′	12/20/2011
2	6883750,7844	11816128.7590	6" Stl.Gas	9.83′	88.69′	12/20/2011
3	6883704J208	11816095,4253	6" Stl.Gas	6.29'	92.31′	12/20/2011
4	6883664.8898	11816261.5864	0.5" D.B.Cable - Fiber Optic	2,67′	94.09′	12/20/2011
5	6883743.6868	11816590,8750	2.5" X.S.Gas	3.34′	90,40′	01/24/2012
6	6883711.3272	11816580.8574	I2" DJ.Water	3,18′	90.63′	01/24/2012
7	6883780.8408	11816716.3262	8" CJ.Water	4.64'	89.70°	01/24/2012
8	6883428.5854	11816703,6425	0.5" D.B.Cable - Fiber Optic	2.50′	92.67′	12/20/2011
9		1	Not dug - will use survey shot on pipe	Į		
10	6883499,2275	11816756.0273	4" Stl.Gas	3,19′	87.31′	01/25/2012

# UTILITY OWNERS

Dominion Virginia Power David Ojumu 3072 Centreville Road Herndon,VA 2017 (571)-203-5165 david.o.o.jumu@dominionenergy.com

Coastal Consultants, P.C.(Columbia Gas)
D.Eric Ertzner
3523 W Hundred Rd
Chester,VA 23838
(804) 751-9097
eric@coastalcpc.com

Comcast
Any Good
IIIOI University Blvd, Manassas VA 20110
(301) 625-3407
E-mall: Any\_Good@comcast.com
Additional Contacts:
Miss Utility of Virginia
Telephone I-800-552-7001
www.missutilityofVirginia.com

Prince William County Service Authority 4 County Complex Court Woodbridge, VA 22/95-226 Contact: Ed Kovalchuk (703) 335-7944

Verlzon South Inc. 9401 Peabody Street Manassas,VA 20110 Joe Zych TEC LLC (540) 903-4188 Joezych@msn.com

Quality Assessment & Evaluation (QAE)
Office Designated Government
Representative (DGR) Section
65 (Public Works Branch)
Marine Corps Base
Quantico.VA
David F. Smith
(703) 784-1151

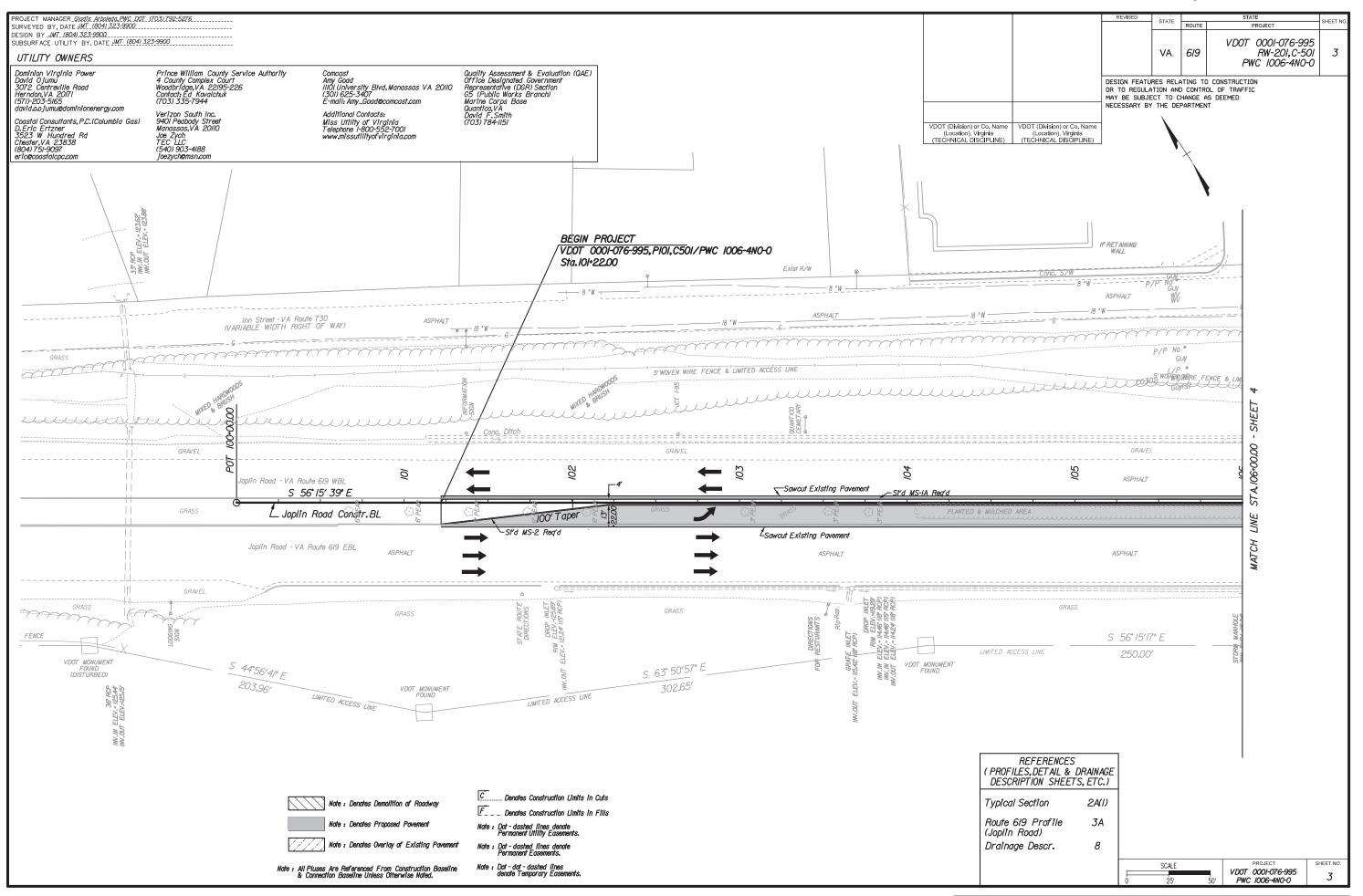
PROJECT VDOT 0001-076-995 PWC 1006-4N0-0

SHEET NO

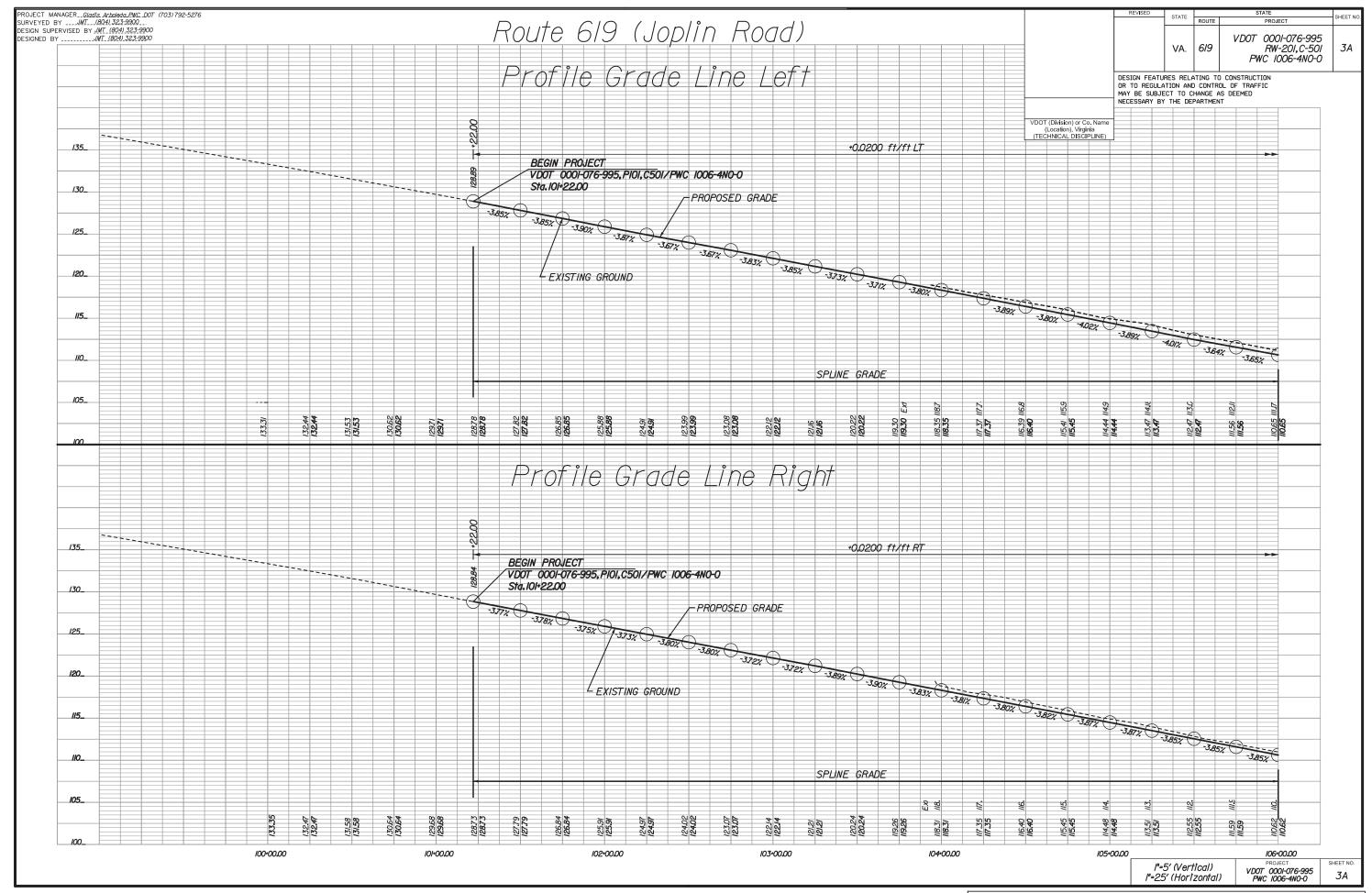
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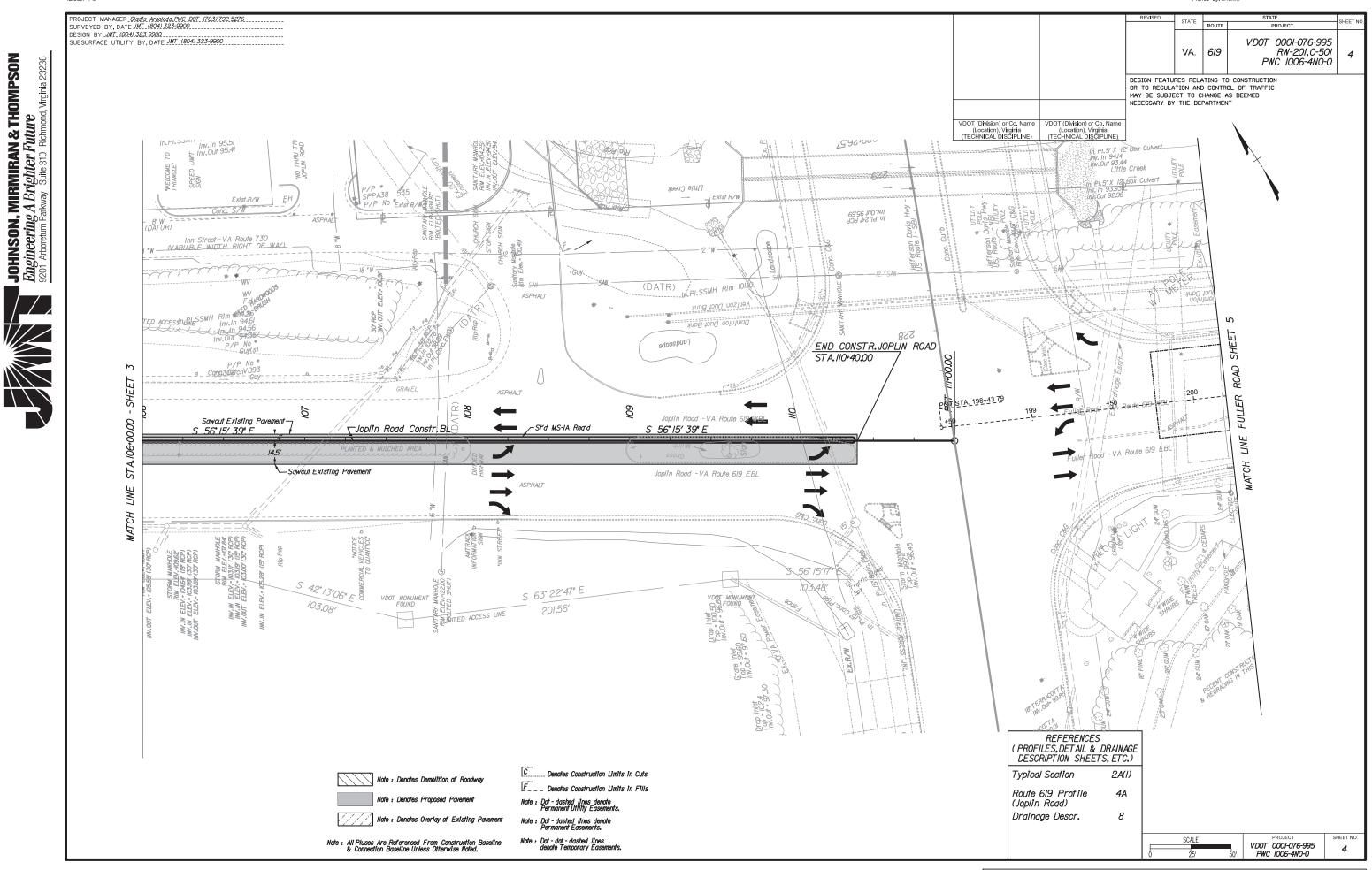
JOHNSON, MIRMIRAN & THOMPSON

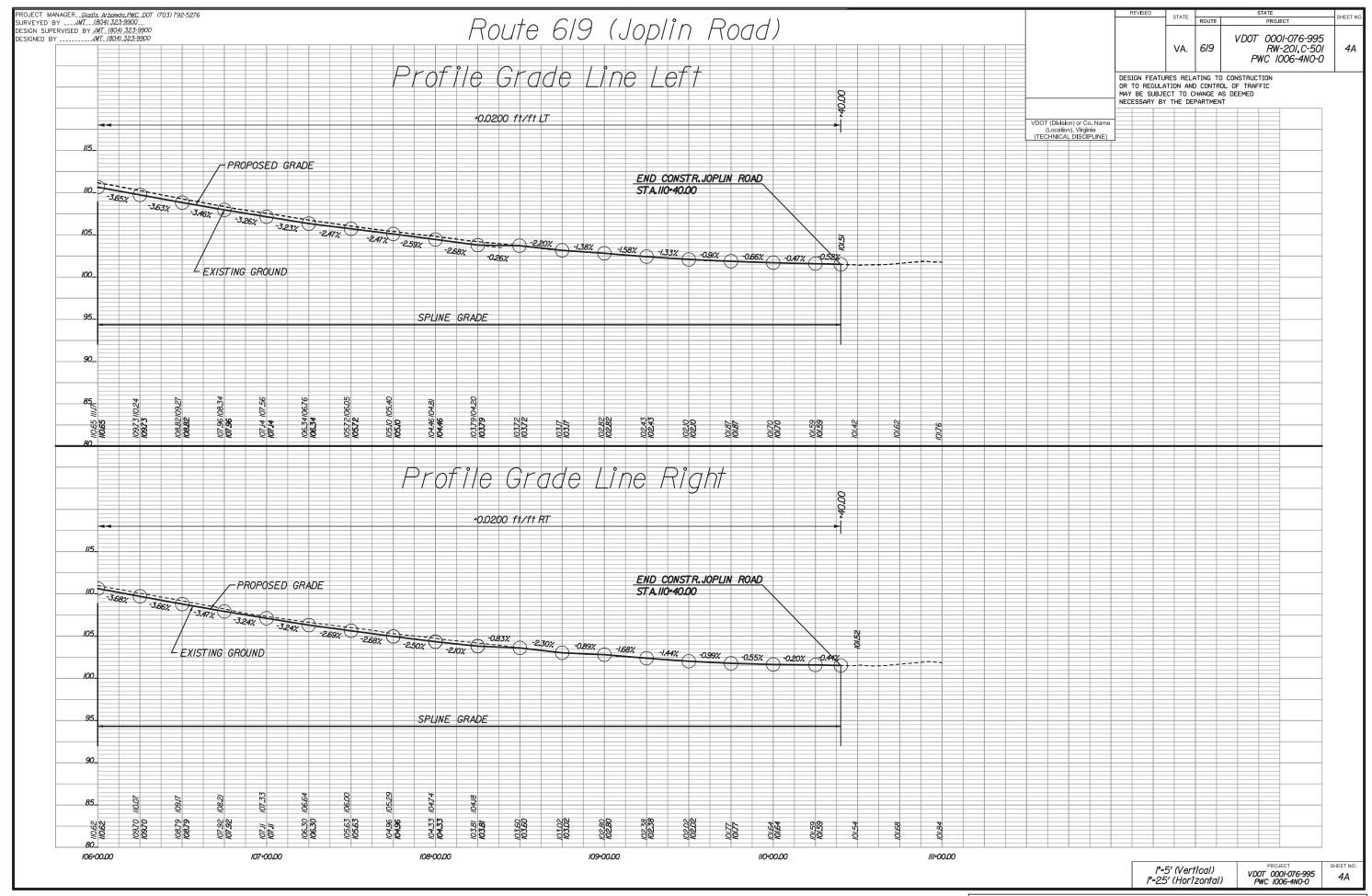
Engineering A Brighter Future
9201 Arboretum Parkway Suite 310 Richmond, Virginia 23236

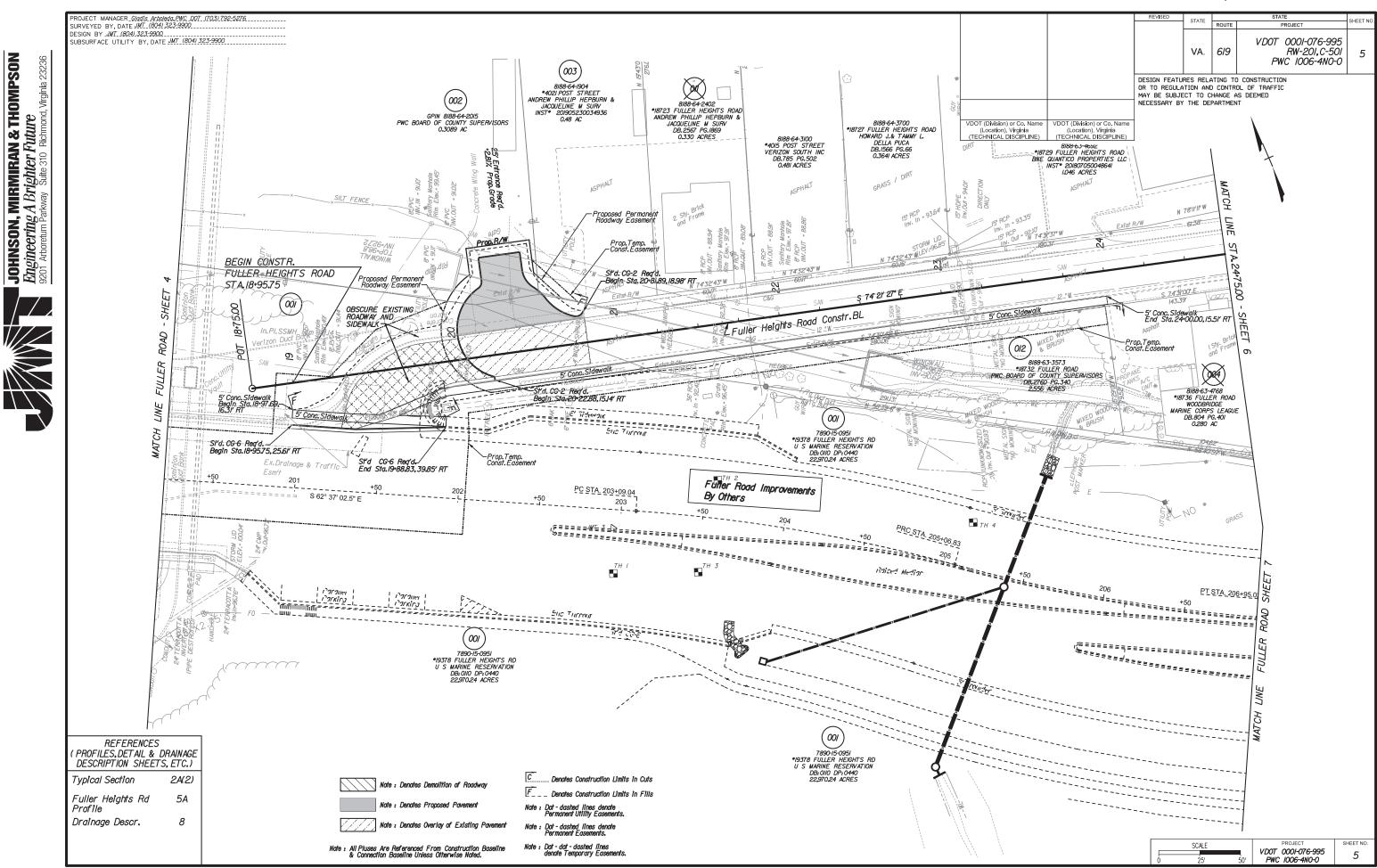


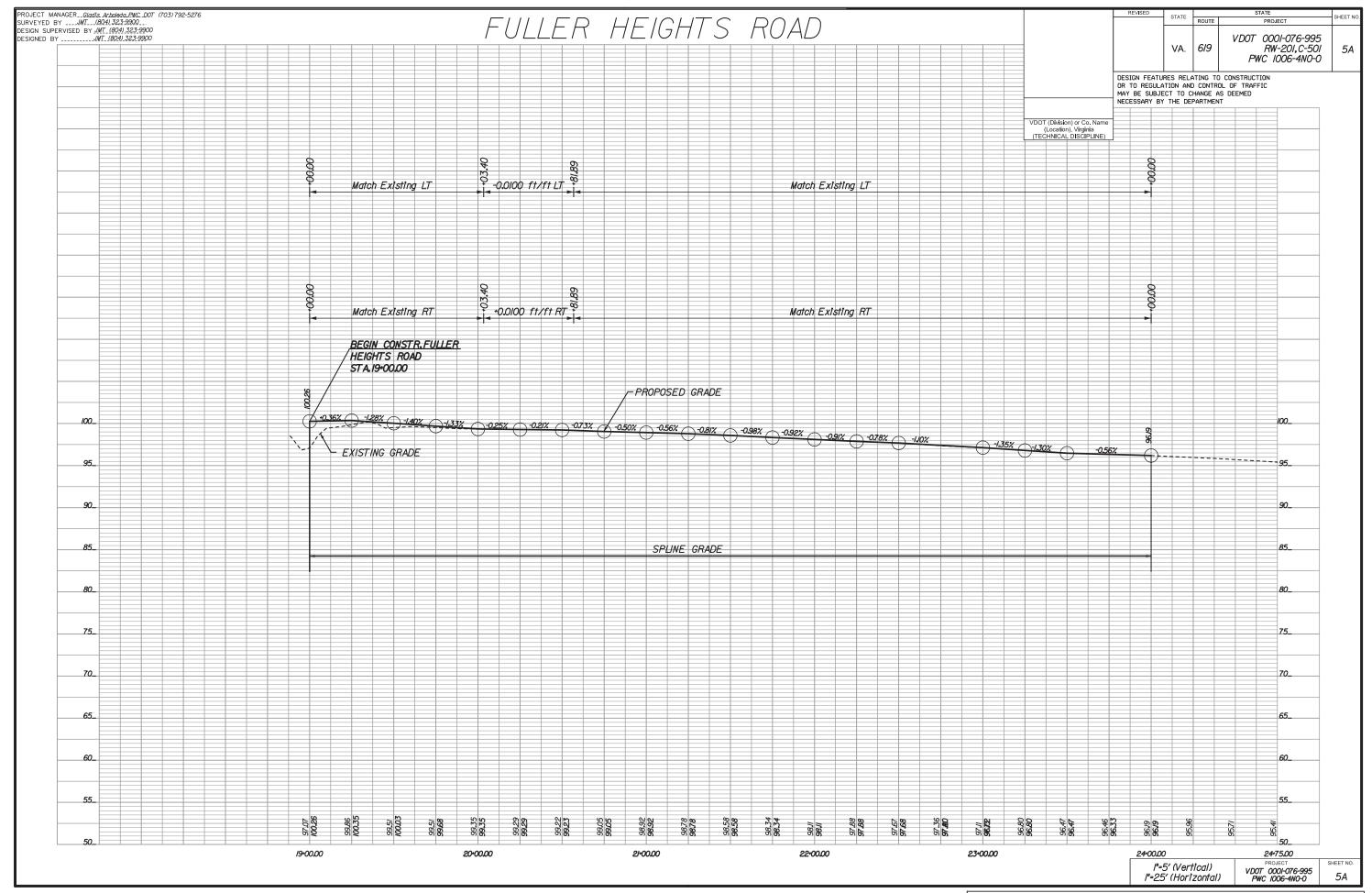
P.A.C. PLANS

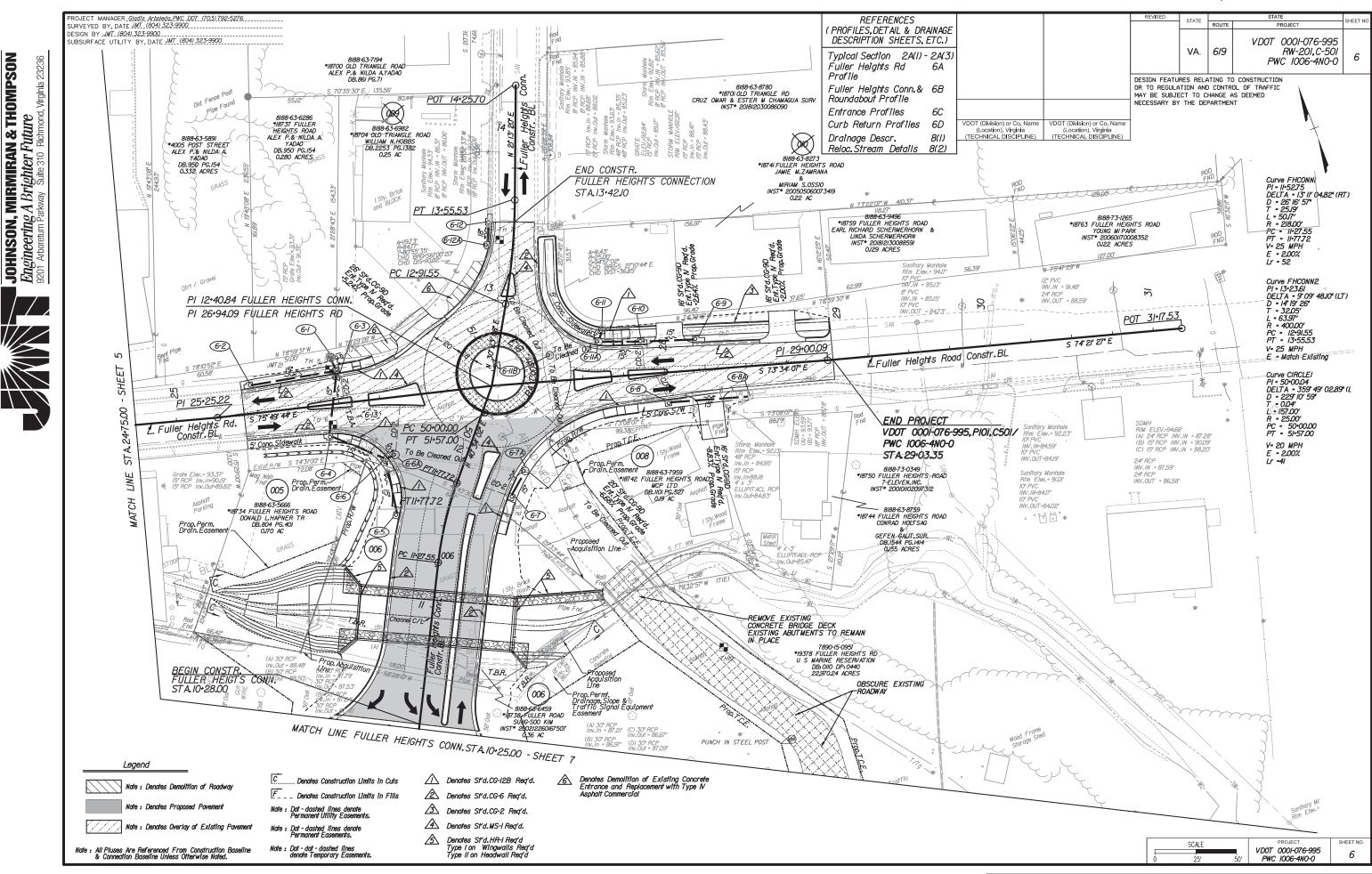


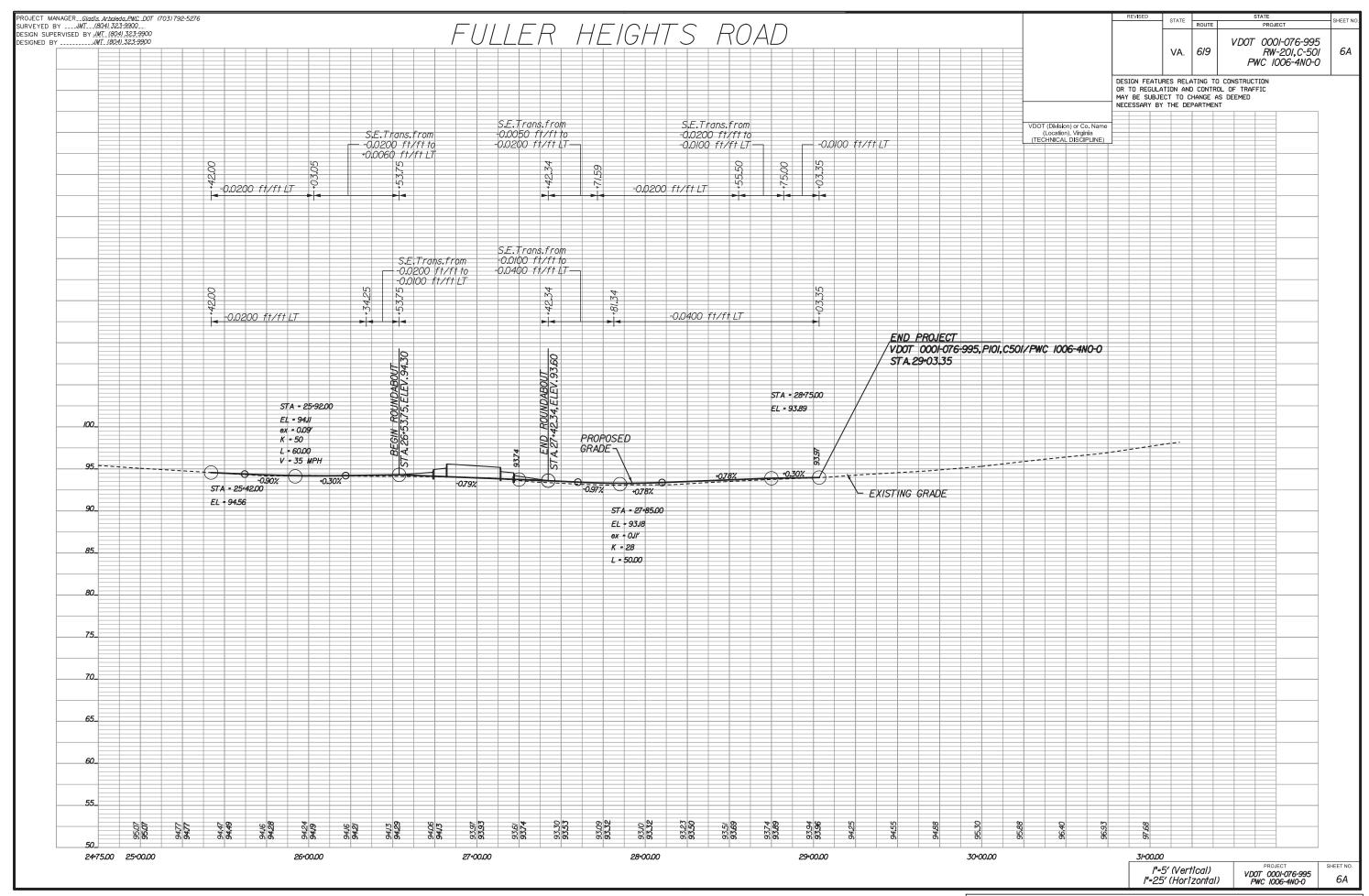


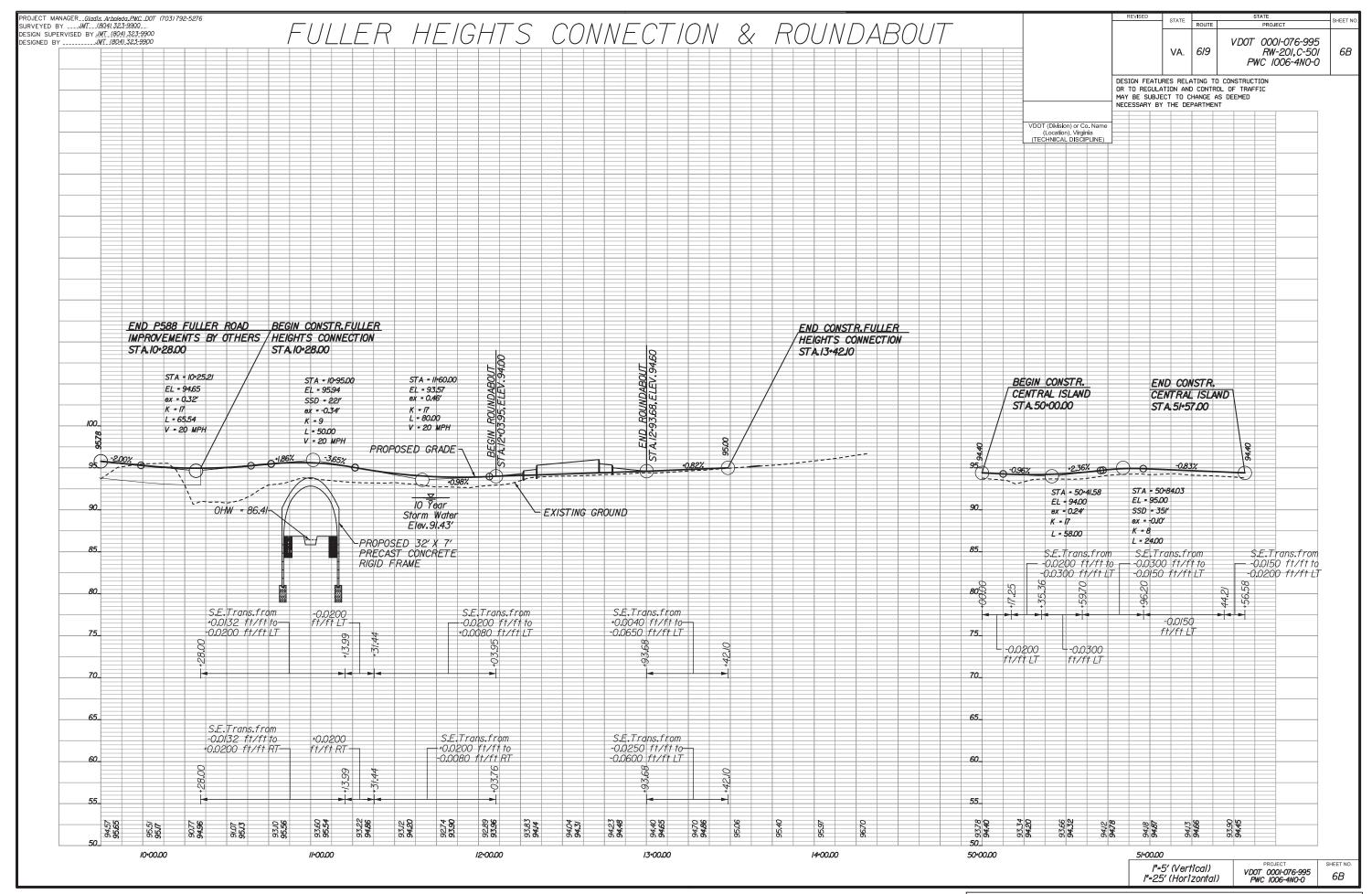


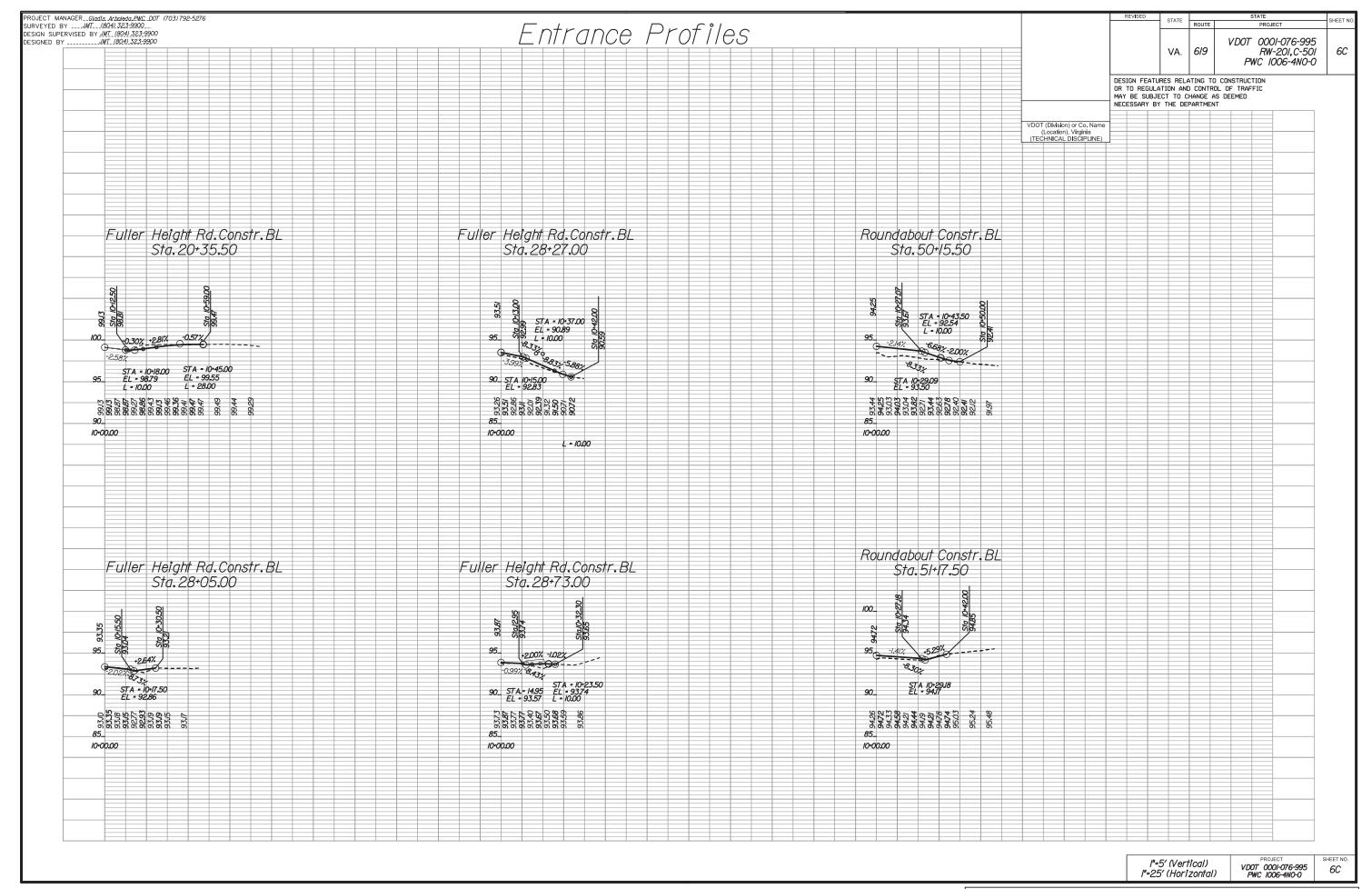


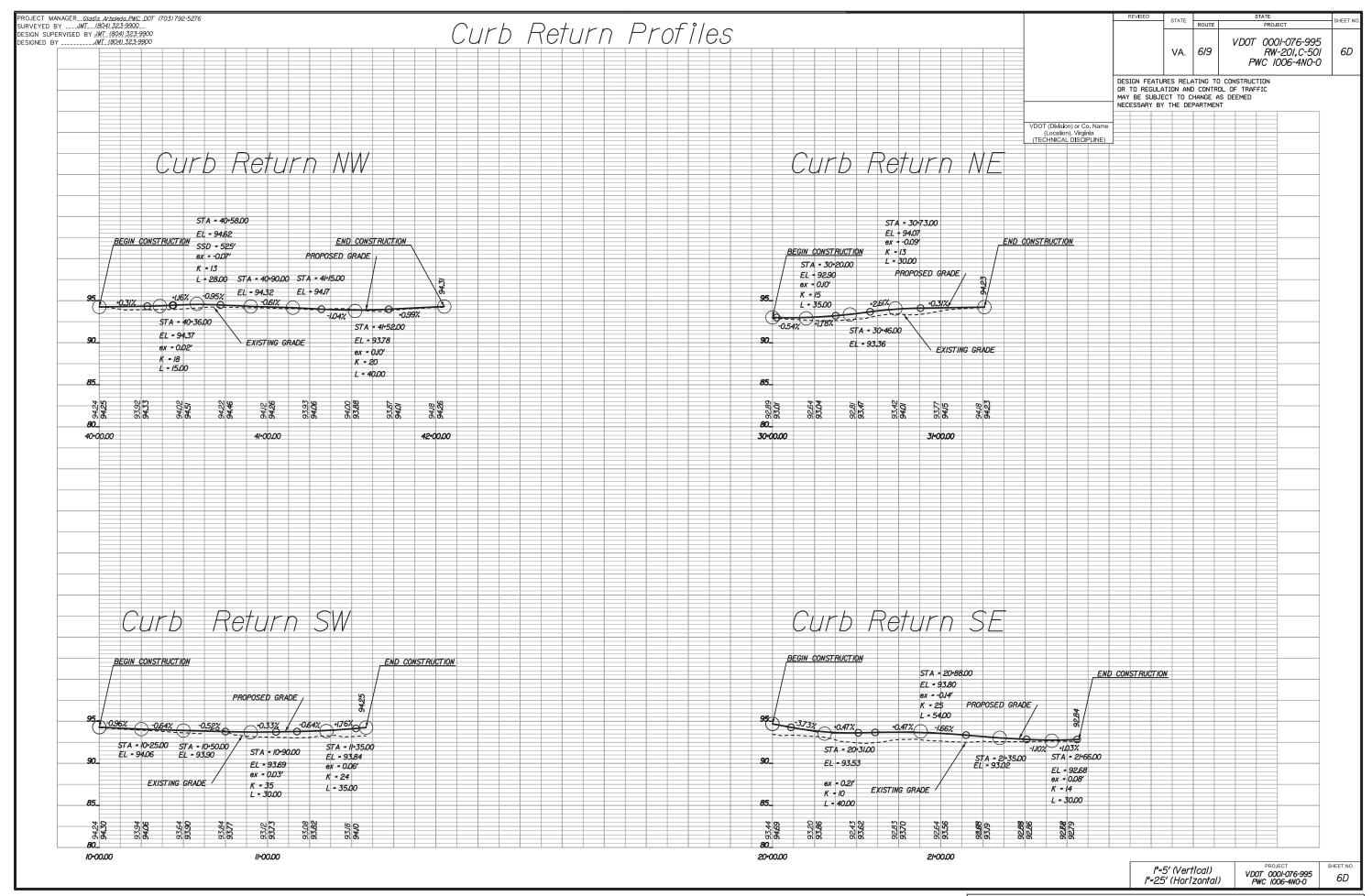


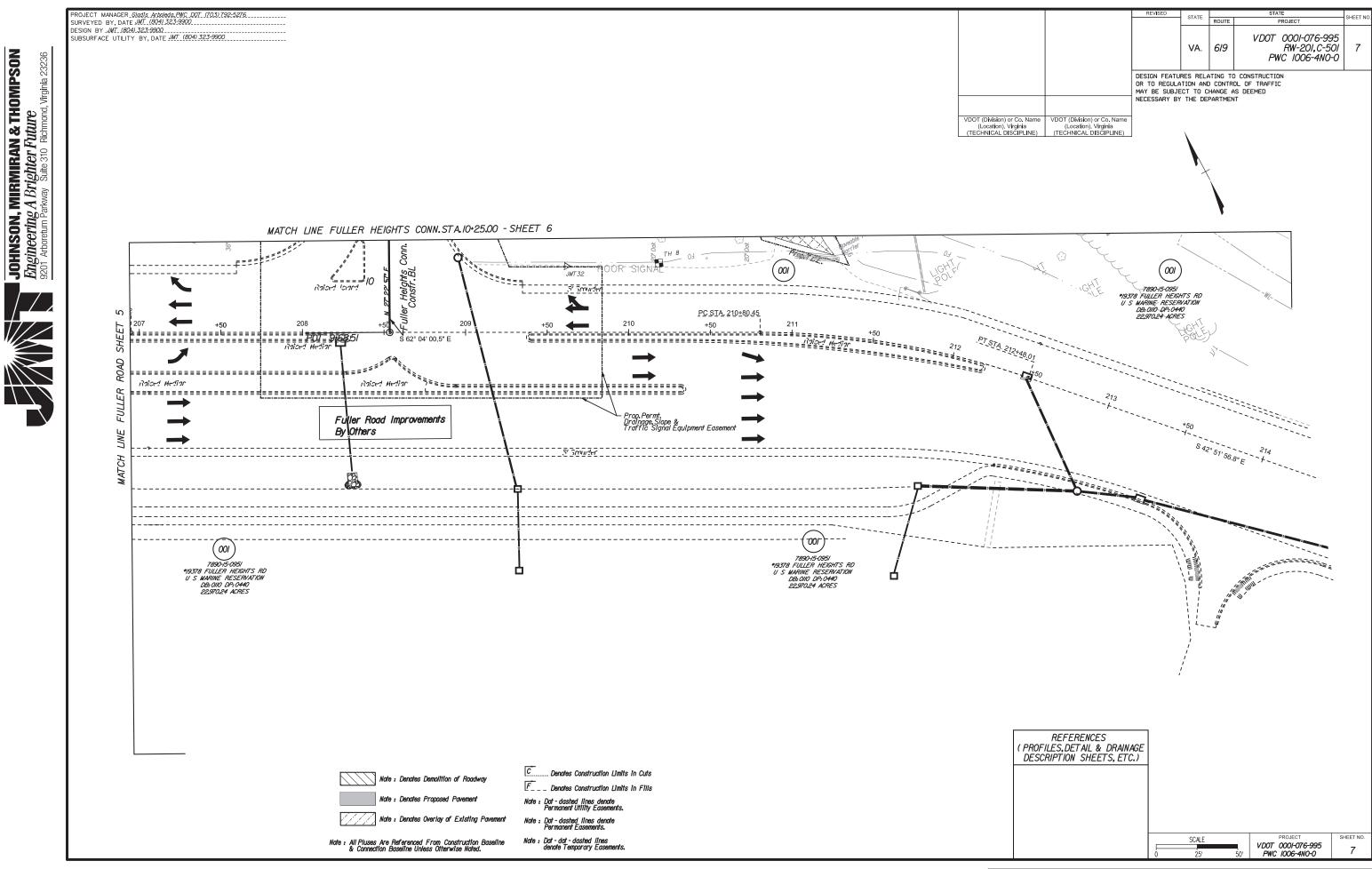












DESIGN FEATURES RELATING TO CONSTRUCTION

# DRAINAGE DESCRIPTIONS

#### STATE VDOT 000I-076-995 8(1) VA. 619 RW-201, C-501 PWC 1006-4N0-0

## SHEET - 6

(6-1) I Std. DI-I Rea'd. H=2.5', Inv. = 90.80

7' - 15" Storm Sewer Pîpe Req'd. (2' Cover) Inv. (In) 90.80 Inv. (Out) 90.75

(6-2) I Mod.DI-3B with Type B Nose Req'd. Inlet height is less than st'd.min. L= 4', H=3.6', Inv. = 91.00

5/ - 15" Storm Sewer Pipe Req'd. 6-2 6-3 (2' Cover) Inv.(In) 9I.00 Inv.(Out) 90.75

(6-3) I Mod. DI-3A with Type B Nose Req'd. Inlet height is less than st'd.min. L= 2.5', H=3.6', Inv. = 90.65 Connect CD-2 & UD-4 to DI St'd.IS-I Req'd.

6-3 6-4 38' - 15" Storm Sewer Pîpe Req'd. (2' Cover) Inv.(In) 90.65 Inv.(Out) 90.30

6-4 I St'd.DI-3B with Type B Nose Req'd. L= 4.0', H=4.0', Inv. = 90.20 Connect UD-4 to DI St'd.IS-I Req'd.

6-4 6-6 35' - 15" Storm Sewer Pîpe Req'd. (2' Cover) Inv.(In) 90.20 Inv.(Out) 89.80

(6-5) I St'd.DI-3A with Type B Nose Req'd. L= 2.5', H=3.9', Inv. = 90.30 Connect UD-4 to DI

6-5 6-6 33' - 15" Storm Sewer Pîpe Req'd. (2' Cover) Inv.(In) 90,30 Inv.(Out) 89,80

(6-6) I St'd.DI-3A with Type B Nose Req'd. L= 2.5', H=4.3', Inv. = 89.72 Connect UD-4 to DI St'd.IS-I Rea'd.

6-6) (6-6A) 4' - 15" Storm Sewer Pîpe Req'd. (3' Cover) Inv.(In) 89.72 Inv.(Out) 89.66

> 3.4 Lin.Ft. St'd.MH-I or 2 Reg'd. I St'd. MH-I Frame & Cover Red'd. Inv. = 89.61, St'd. IS-I Reg'd. Connect to Exist.15" Conc. Pipe Connect CD-2 to MH

(6-7) I St'd.DI-3A with Type B Nose Req'd. L= 2.5', H=3.9', Inv. = 90.00 Connect CD-2 & UD-4 to DI

(6-7)-(6-7A) 15' - 15" Storm Sewer Pîpe Req'd. Inv.(In) 90.00 Inv.(Out) 89.80

(6-7A) 4.8 Lin. Ft. St'd. MH-I or 2 Rea'd. I St'd. MH-I Frame & Cover Req'd. Inv. = 88,50, St'd, IS-I Rea'd. Connect to Exist. 15" Conc. Pipe

(6-8) I St'd.DI-3A with Type B Nose Req'd. L= 2.5', H=3.9', Inv. = 89.20 Connect CD-2 & UD-4 to DI

48' - 15" Storm Sewer Pipe Req'd. 6-8)-(6-8A) (3' Cover) Inv.(In) 89.20 Inv.(Out) 88.85

(6-8A) Modify Existing Drop Inlet to Accept 15" Storm Sewer Pipe

**(6-9)** I St'd.DI-3B with Type B Nose Req'd. L= 6',H=3.9',Inv.= 89.60 Connect UD-4 to DI

6-9 - 6-10 31' - 15" Storm Sewer Pipe Req'd. (3' Cover) Inv.(In) 89.60 Inv.(Out) 89.30

6-10 I St'd.DI-3C with Type B Nose Req'd. L= 6',H=4,J',Inv.= 89,20 Connect CD-2 & UD-4 to DI

(6-10)-(6-11A) 23' - 15" Storm Sewer Pipe Req'd. Inv.(In) 89.20 Inv.(Out) 88.90

<u>(6-11)</u> I St'd.DI-3A with Type B Nose Req'd. L= 2.5', H=3.9', Inv. = 89.80

(6-11)-(6-11A) 4' - 15" Storm Sewer Pîpe Req'd. (3' Cover) Inv.(In) 89.80 Inv.(Out) 89.70

6-IIA 4.5 Lin.Ft. St'd.MH-I or 2 Req'd. ISt'd. MH-I Frame & Cover Req'd. Inv. = 88.40. St'd. IS-I Rea'd. Connect to Exist.15" Conc. Pipe

(6-IIB) Modify Existing Manhole Ad lust to Grade, Raise 1.3' ISt'd.MH-I Frame & Cover Reg'd.

6-12 I Cast in place DI-3C with Type B Nose Req'd. Inlet height is less than st'd.min. L= 8', H=3.8', Inv. = 90.80 Connect UD-4 to DI Accept Exist, I8" Conc. Pipe

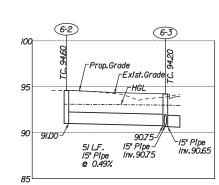
II' - 18" Storm Sewer Pîpe Req'd. (6-12)-(6-12A) (2' Cover) Inv.(In) 90.80 Inv.(Out) 90.41

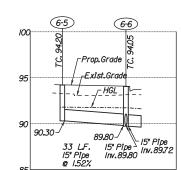
6-12A) Convert Existing DI to Manhole ISt'd.MH-IFrame & Cover Req'd. Accept 18" Storm Sewer Pipe

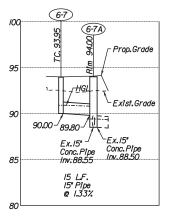
(6-13)

45' - 15" Exist.Conc.Pipe To Be Abandoned in Place In Accordance with St'd.PP-I 2.0 Cy.Yds.of Flowable Backfill Req'd. 0.06 Cy.Yds.Concrete Req'd.









(6-3)

Exist.Grade

90.80 90.65 90.30 90.75

38 L.F. 15" Pîpe @ 0.92%

(6-6A)

<sup>∠</sup>89.66 Conc. P1pe

15" Pipe @ 1.5%

┌Prop.Grade

. <u>Inv. 89.80</u>

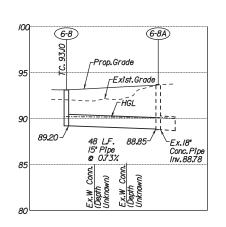
90.20 89.80-/

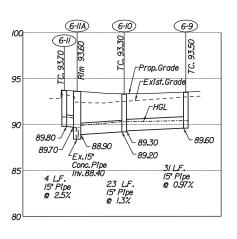
15" Pîpe @ 1,14%

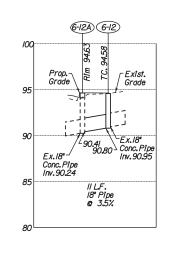
89.72-/

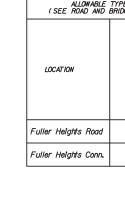
6-1 8

90.80-









ALLOWABLE (SEE ROAD AND	TYPE OF BRIDGE ST	STORM SE ANDARD P	WER PIPE C-I FOR H	(UNLESS EIGHT OF			ON PLANS FOR EACH	
LOCATION	CONCRETE	CORRUGATED STEEL ALUMINUM COATED TYPE 2 FULLY CONCRETE LINED	ALUMINUM COATED TYPE 2 STEEL SPIRAL RIB	POLYMER COATED (10/10) CORRUGATED STEEL SPIRAL RIB	POLYMER COATED (10/10) CORRUGATED STEEL DOUBLE WALL (SMOOTH INTERIOR)	ALUMINUM SPIRAL RIB	POLYVINYLCHLORIDE (PVC) RIBBED PIPE (SMOOTH INTERIOR)	POLYETHYLENE (PE) CORRUGATED TYPE S
Fuller Heights Road	х				х		х	х
Fuller Heights Conn.	х				Х		Х	Х
	•							•

(6-6A)

All pipe joints shall be Silt-Tight with the exception of those specified in drainage description to include gaskets which shall be Leak-Resistant.

P.A.C. PLANS

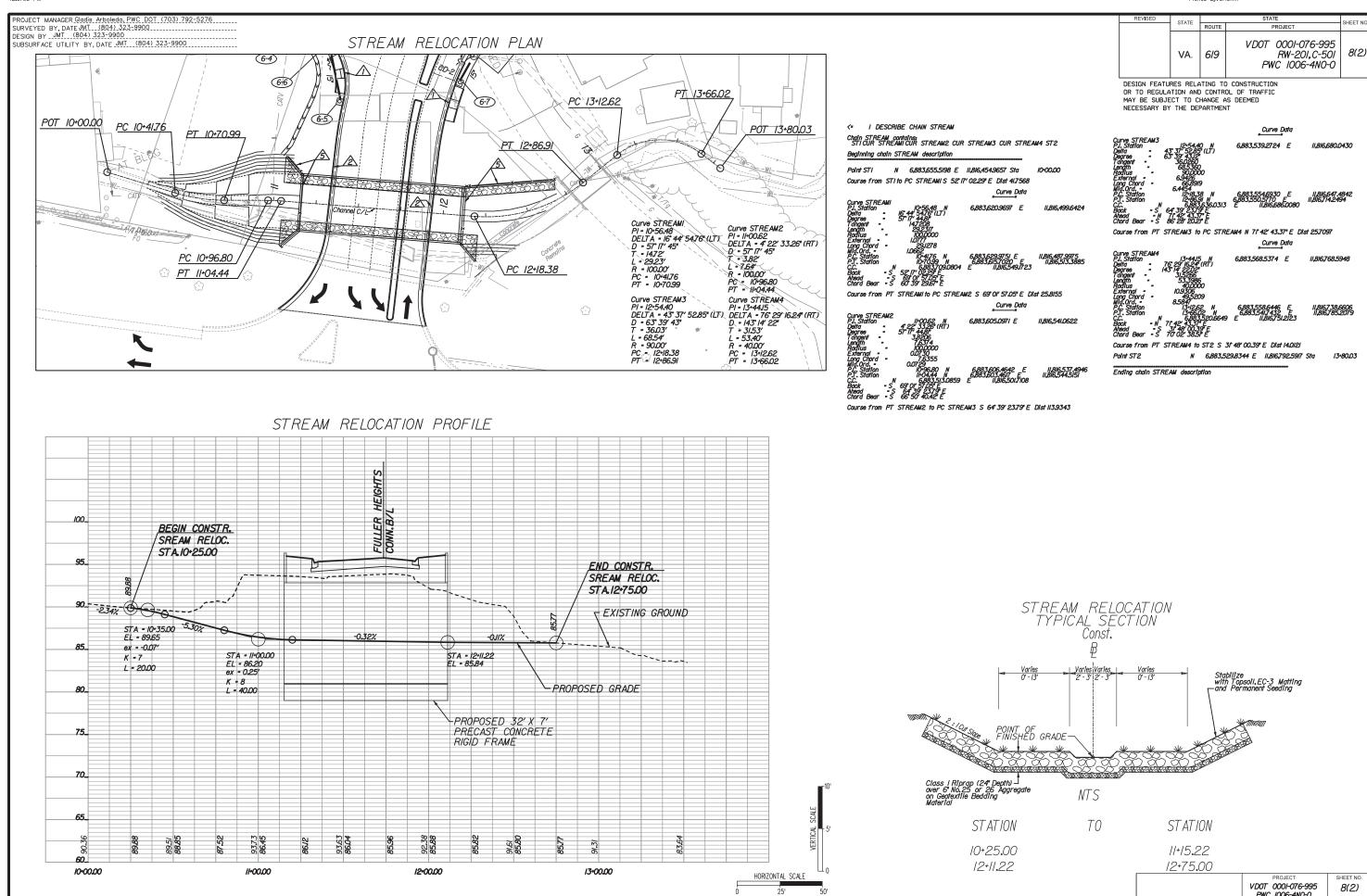
HORIZONTAL SCALE

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

VDOT 0001-076-995

8(1)

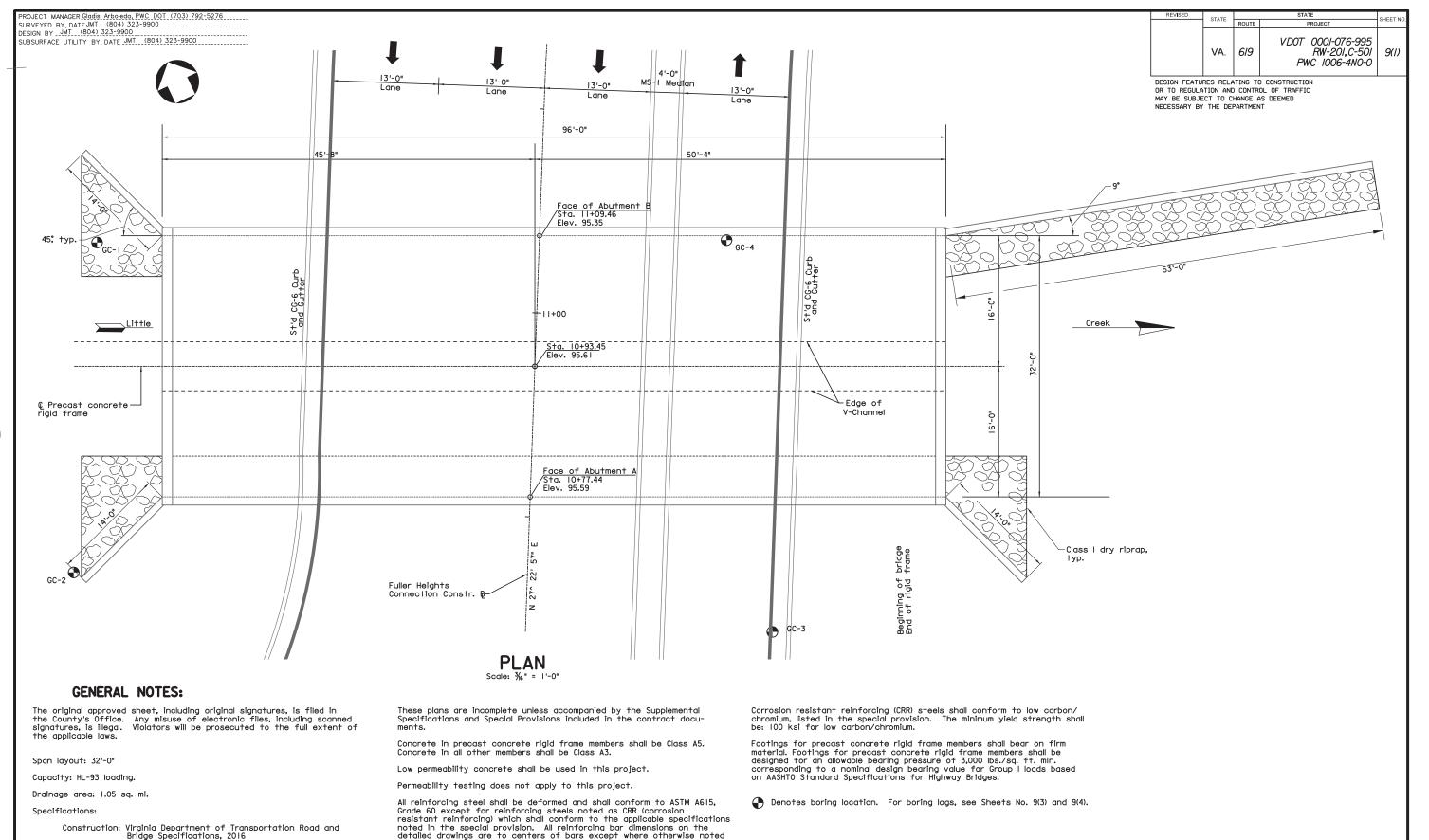
JOHNSON, MIRMIRAN & THOMPSON Engineering A Brighter Future 9201 Arboretum Parkway Suite 310 Richmond, Virginia 23236



P.A.C. PLANS

Design: AASHTO LRFD Bridge Design Specifications, 7th Edition, 2014; and VDOT Interim Specifications Modifications.

Standards: Virginia Department of Transportation Road and Bridge Standards, 2016, including all current revisions.



and are subject to fabrication and construction tolerances.

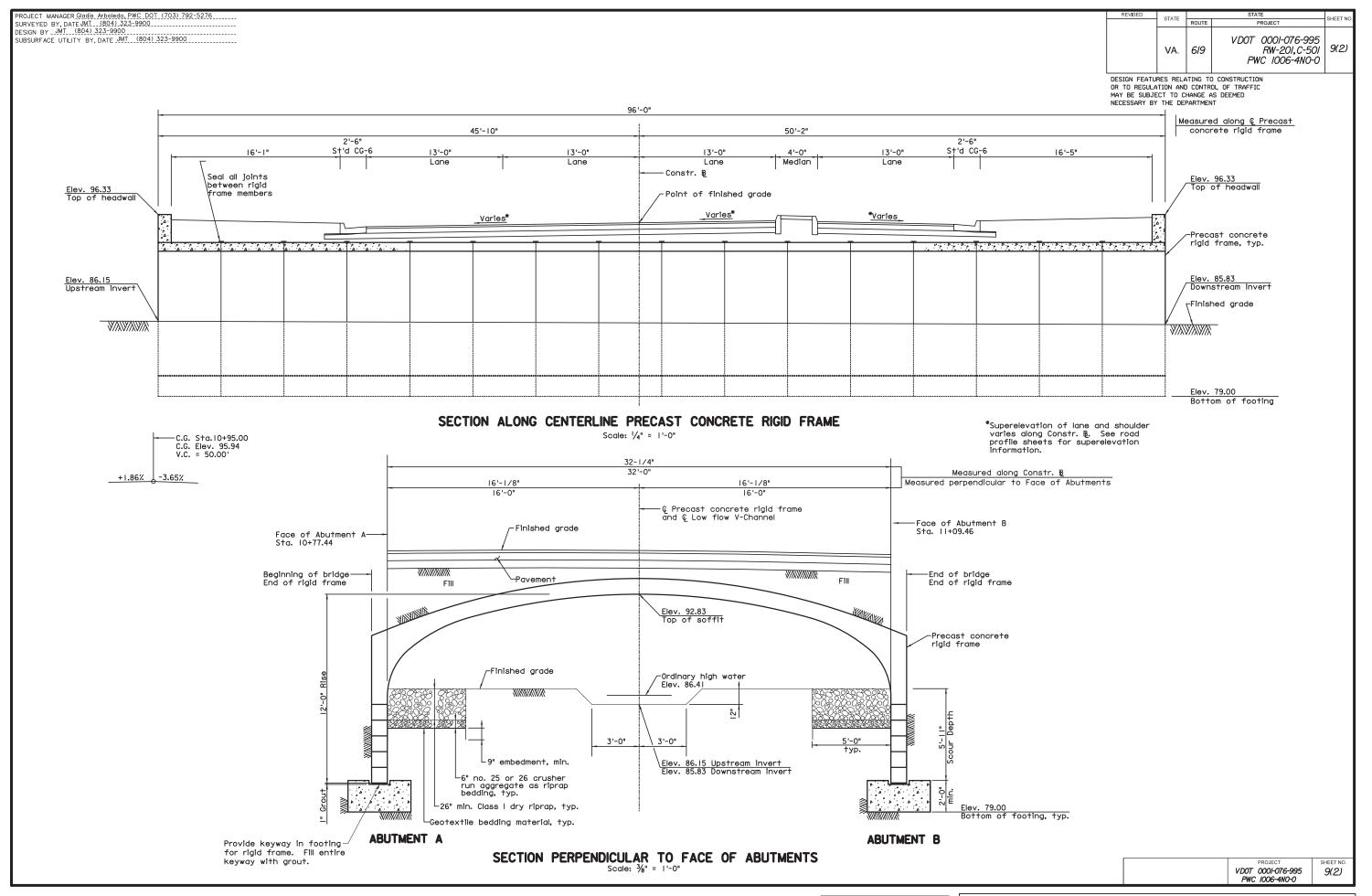
Corrosion resistant reinforcing (CRR) steel shall be used in the precast concrete rigid frame members including headwalls and wingwalls.

P.A.C. PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

VDOT 0001-076-995

9(1)



JOHNSON, MIRMIRAN & THOMPSON Engineering A Brighter Future 9201 Arboretum Parkway Suite 310 Richmond, Virginia 23236

PROJECT MANAGER Gladis, Arboleda, PWC\_DOT (703) 792-5276 SURVEYED BY, DATE JMT. (804) 323-9900 DESIGN BY \_JMT. (804) 323-9900 SUBSURFACE UTILITY BY, DATE JMT (804) 323-9900

SOIL

ROCK

PROJECT #: 001-076-995, C501, 1006-4N0-0 LOCATION: Fuller Heights Road

Driller: Connelly and Associates, Inc. (J. Nartinez) Logger: GeoConcepts Engineering (W. Richards)

GROUND WATER

FIELD DESCRIPTION OF STRATA \Topsoil = 4 inches TOPS
0.3 / 93.3

Brown, clayey sand possible FILL, with gravel, loose, moist FL

5.0 / 88.6

8.5 / 85.1

wn, clavey SAND, medium dense, wet SC

OFFSET: 60.0

COORD. DATU

LONGITUDE:

STRUCTURE: Precast Arch Bridge

SURFACE ELEVATION: 93.6 ft

Drilling Method(s): 2.25" I.D. HSA

SPT Method: Automatic Hammer

▼ FIRST ENCOUNTERED AT: 8.5 ft DEPT

Date(s) Drilled: 8/31/2011 - 8/31/2011

▼ STABILIZED AT: 3.0 ft (90.6ft ELEV.) AFTER 24 HRS

Brown, sandy lean CLAY, soft, moist CL

23.5 / 70.1 Gray, sandy fat CLAY, very stiff, moist CH

Gray, clayey SAND, medium dense, moist SC 30.0 / 63.6
BOTTOM OF BORING AT 30.0 FT.

ATITUDE: 38 544917 °N

STATION: 11+07

Other Test(s):

			2 °W 33 ATA
	LIQUID LIMIT	PLASTICITY INDEX	DISTURE CONTENT (%)
	LL	PI	MO
1			17.6
			27.2
			36.0
			23.8
			26.1
			26.8
		15	39.5
			32.6

-	1	Virgini	a Deg	partm	ent c	f Tra	nsport	tation		PROJECT #: 001-076-995, C501, 1006-4N0-0 LOCATION: Fuller Heights Road STRUCTURE: Precast Arch Bridge PA	G( GE		100
		1	,							STATION: 10+66         OFFSET: 54.0 ft           LATITUDE: 38.544821 °N         LONGITUDE: -7           SURFACE ELEVATION: 93.6 ft         COORD. DATUM	7.33	349	
		FI	IELD	D/	ATA					Date(s) Drilled: 9/1/2011 - 9/1/2011	LA	B D	ATA
		\$011	L				ROC	DIP		Drilling Method(s): 2.25" I.D. HSA SPT Method: Automatic Hammer		J	(%)
DEPTH (ft)	ELEVATION (ff)	STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	CORE RECOVERY (%)	DESIGNATION	T	STRATALEGEND	Other Test(s):  Driller: Connelly and Associates, Inc. (J. Martinez)  Logger: GeoConcepts Engineering (W. Richards)  GROUND WATER  FIRST ENCOUNTERED AT: 8.5 II DEPTH  STABILIZED AT: 5.0 II (8.6 II ELEY) AFTER 2.4 IRIS	LIQUID LIMIT	PLASTICITY INDEX	MOISTURE CONTENT (
		W.	SC			8				FIELD DESCRIPTION OF STRATA	LL	PI	M
2 -		1 3 1 3 2	16	H	2 2.5					0.0 / 93.6 / \Topsoil = 4 inches TOPS / 0.3 / 93.3  Brown, dayey sand FILL, loose, moist FL			18.2
4 -	90	0 0 2	78		5					5.0 / 88.6 Gray and orange, clayey SAND, wth gravel, very loose, wet			37.2
8 67	85	6 9 9	78	H	8.5 10					8.5 / 85.1  Brown and gray, sandy lean CLAY, very stiff, wet CL			23.0
12 -	80	689	83		13,5					13.5 / 80.1 Brown, clayey SAND, medium derse, wet SC		,	24.0
20	75	8 <sub>9</sub> 11	100		18.5					18.5 / 75.1 SAME: orange and brown below 18.5 ft.			24.8
24 -	70	5 7 11	100		23.5								26.4
28 -	65	7 9 12	100	X	28,5					28.5 / 65.1 Orange and brown, sandy fat CLAY, very stiff, moist <b>CH</b> 30.0 / 63.6 BOTTOM OF BORIING AT 30.0 FT.			18.4
REMAI	RKS:	Cave-in Offset 3	dept	th: 7	7.8 ft.					PA	GE		

1	REVISED	STATE		STATE	SHEET NO.
ı		SIKIL	ROUTE	PROJECT	SHEET NO.
		VA.	619	VDOT 0001-076-995 RW-201,C-501 PWC 1006-4N0-0	9(3)

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

#### Notes:

The subsurface information shown on the boring logs in these plans was obtained with reasonable care and recorded in good faith solely for use by the County in establishing design controls for the project. The County has no reason to suspect that such information is not reasonably accurate as an approximate indication of the subsurface conditions at the sites where the borings were taken. The County does not in any way warrant or guarantee that such data can be projected as indicative of conditions beyond the limits of the borings shown; and any such projections by bidders are purely interpretive and altogether speculative. Further, the County does not in any way guarantee, either expressly or by implication, the sufficiency of the information for bid purposes.

The boring logs are made available to bidders in order that they may have access to subsurface data identical to that which is possessed by the County, and are not intended as a substitute for personal investigation, interpretation and judgment by the bidders.

A geotechnical engineering report has been prepared for this project by GeoConcepts Engineering, Inc. This report is for informational purposes only and should not be considered part of the contract documents. The opinions expressed represent the Geotehnical Engineer's interpretation of the subsurface conditions, tests, and the results of analyses conducted. Should the data contained in this report not be adequate for the Contractor's purposes, the Contractor may make, before bidding, independent exploration, tests and analyses at no cost to the County. This report may be examined by bidders at the County's Office or copies may be obtained from the County at nominal charge.

The Standard Penetration Test samples were obtained using an automatic trip hammer (ATH) rather than the standard safety hammer. The energy applied to the split-spoon sampler using the ATH is about 30% greater than that applied using the standard safety hammer. The hammer blows shown on the boring logs are uncorrected for the higher energy.

For boring locations, see Plan on Sheet No. 9(3).

VDOT 0001-076-995 9(3) JOHNSON, MIRMIRAN & THOMPSON Engineering A Brighter Future 9201 Arboretum Parkway Sulte 310 Richmond, Virginia 23236

ROJECT MANAGER Gladis Arboleda, PWC DOT (703) 792-5276

SURVEYED BY, DATEJMT (804) 323-9900	
DESIGN BY JMT (804) 323-9900	
SUBSURFACE UTILITY BY, DATE JMT (804) 323-9900	

	4	Virgini	a Dep	ertm	nent d	of Tre	anspo	ortatic	n		LOCATION: Fuller neights Road	GC GE		
		1	,	7							STATION: 10+62         0FFSET: 42.0 ft           LATITUDE: 38.533588 °N         LONGITUDE: -7           SURFACE ELEVATION: 91.4 ft         COORD. DATUM	7.33	323	
		FI	ELC	D	ATA	1					Date(s) Drilled: 9/1/2011 - 9/1/2011	LA	B D	ATA
DEPTH (ft)	ELEVATION (ft)	STANDARD PENETRATION TEST HAMMER BLOWS	SOIL RECOVERY (%)	SAMPLE LEGEND	SAMPLE INTERVAL	(%)	ROCK QUALITY DESIGNATION O	D	JOINTS	STRATALEGEND	Drilling Method(s): 2.25" I.D. HSA SPT Method: Automatic Hammer Other Test(s): Driller: Connelly and Associates, Inc. (J. Nartinez) Logger: GeoConcepts Engineering (W. Richards)  GROUND WATER  ₹ FIRST ENCOUNTERED AT: 8.5 IN DEPTH  STABILIZED AT: 3.8 In (87.68 ELEV.) AFTER 24 HRS	TIQUID LIMIT	PLASTICITY INDEX	MOISTURE CONTENT (%)
		2		M	0						FIELD DESCRIPTION OF STRATA	LL	PI	
2 -	90	23 <sub>2</sub> 51	17	X	2 2.5 4						\Topsoil = 3 inches TOPS 0.3 / 91.1 Brown, sandy lean clay FILL, firm, moist CL 2.5 / 88.9 SAME: with rootlets, soft below 2.5 ft.			33.4
6 -	85	3 5 6	78	X	6.5				i		5.0 / 86.4 Gray and brown, clayey SAND, medium dense, moist SC			25.7
10 -	80	5 <sub>79</sub>	100	X	8.5									25.5
14 -	75	5 8 10	100	X	13.5									24.5
18 -	70	5 8 11	100	X	18.5									30.1
24 -	65	11 11 13	100		23.5									23.1
28 -		8 11 14	100		28.5						28.5 / 62.9 Gray, sandy fat CLAY, very stiff, moist <b>CH</b> 30.0 / 61.4 BOTTOM OF BORING AT 30.0 FT.			28.9
REM	ARKS	6: Cave-in Offset 8	dept	h: S	9.2 ft uth ar	nd 8.	.5 ft.	eas	t.			GE GC	_	_

	4	Virgini	a Depart	ment o	of Tran	sportet	ion		PROJECT #: 001-076-995, C501, 1006-4N0-0 LOCATION: Fuller Heights Road STRUCTURE: Precast Arch Bridge	G( PAGE	10	
		1	-						STATION: 11+10 OFFSET: 24. LATITUDE: 38.533713 °N LONGITUDE: SURFACE ELEVATION: 93.7ft COORD. DAT	-77.33	317	9 °W 83
		F	IELD [	DATA					Date(s) Drilled: 8/31/2011 - 8/31/2011	L	AB D	ATA
		8011	L		F	OCI			Drilling Method(s): 2.25" I.D. HSA SPT Method: Automatic Hammer			3
DEPTH (ft)	ELEVATION (ff)	STANDARD PENETRATION TEST HAMMER BLOWS	L RECOVERY (%)	SAMPLE INTERVAL	SOVERY (%)	NOL	DIP ST	STRATA LEGEND	Other Test(s): Driller: Connelly and Associates, Inc. (J. Martinez) Logger: GeoConcepts Engineering (W. Richards)	LIQUID LIMIT	PLASTICITY INDEX	MOISTURE CONTENT (%)
90	ELEV	STAN ENETRA HAMMEI	SOIL REC	SAMPL	CORE RECOVERY	DESIGNA	JOINTS	STRAT	GROUND WATER	3	PLAS	IOISTURE
		а.	00	/_	0				FIELD DESCRIPTION OF STRATA	LL	PI.	2
2 .	90	2 1 1 2 2 2	86	2 25					0.0 / 93.7  (Topsoil = 6 inches TOPS  0.5 / 93.2  0.5 / 93.2  1.5 / 93.2  1.5 / 92.2  (Light brown, dayey SAND, loose, moist SC  2.5 / 91.2	-/-		25.0
6 -		000	100	6.5					Brown, poorly graded SAND, with clay, loose, moist SP 5.0 / 88.7 Gray, clayey SAND, very loose, moist SC	40	21	31.4
10	85	7 15 15	33	8.5					8.5 / 85.2 Brown, poorly graded GRAVEL, wth clay and sand, dense, moist GP-GC			15.3
14 -	80	6 8 10	100	13.5				900	13.5 / 80.2 Brown, clayey SAND, medium derse, moist SC			23.0
18	75	5 7 12	100	18.5					18.5 / 75.2 SAME: gray below 18.5 ft.			27.0
24 :	70	7 12 13	100	23.5					23.5 / 70.2 Gray, sandy fat CLAY, very stiff, moist <b>CH</b>			29.9
28 -	65	7 12 13	100	28.5					30.0 / 63.7			26.0
									BOTTOM OF BORING AT 30.0 FT.			
REM	ARKS	: Cave-in	denth	30.0	ft.				l r	PAGE	10	E 4
		Offset 2 Tempor	2.0 ft we rary star	st.		illed.				-	2-4	

I	REVISED	STATE		STATE	SHEET NO.
ſ		SIKIL	ROUTE	PROJECT	SHEET NO.
		VA.	6/9	VDOT 0001-076-995 RW-201,C-501 PWC 1006-4N0-0	9(4)

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

#### Notes:

The subsurface information shown on the boring logs in these plans was obtained with reasonable care and recorded in good faith solely for use by the County in establishing design controls for the project. The County has no reason to suspect that such information is not reasonably accurate as an approximate indication of the subsurface conditions at the sites where the borings were taken. The County does not in any way warrant or guarantee that such data can be projected as indicative of conditions beyond the limits of the borlings shown; and any such projections by bidders are purely interpretive and altogether speculative. Further, the County does not in any way guarantee, either expressly or by implication, the sufficiency of the information for bid purposes.

The boring logs are made available to bidders in order that they may have access to subsurface data identical to that which is possessed by the County, and are not intended as a substitute for personal investigation, interpretation and judgment by the bidders.

A geotechnical engineering report has been prepared for this project by GeoConcepts Engineering Inc. This report is for informational purposes only and should not be considered part of the contract documents. The opinions expressed represent the Geotehnical Engineer's interpretation of the subsurface conditions, tests, and the results of analyses conducted. Should the data contained in this report not be adequate for the Contractor's purposes, the Contractor may make, before bidding, Independent exploration, tests and analyses at no cost to the County. This report may be examined by bidders at the County's fiftee or copies may be obtained from the County at nominal charge.

The Standard Penetration Test samples were obtained using an automatic trip hammer (ATH) rather than the standard safety hammer. The energy applied to the split-spoon sampler using the ATH is about 30% greater than that applied using the standard safety hammer. The hammer blows shown on the boring logs are uncorrected for the higher energy.

For boring locations, see Plan on Sheet No. 9(3).

VDOT 0001-076-995 9(4) PROJECT MANAGER PRINCE WILLIAM LOUNTY TRANSPORTATION DN. (703).792-6826 SURVEYED BY, DATE JOHNSON MIRMIRAN & THOMPSON (804) 323-9900. \_ DESIGN BY J.3\_DESIGN CORPORATION (57) 224-9454. SUBSURFACE UTILITY BY, DATE JOHNSON MIRMIRAN & THOMPSON (804) 323-9900

# SIGNING AND PAVEMENT MARKING GENERAL NOTES AND LEGEND

REVISED	STATE		STATE	SHEET NO.
	SIMIL	ROUTE	PROJECT	SHEET NO.
	VA.	619	VDOT 0001-076-995 RW-201 PWC 1006-4N0-0	10(1)

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

#### INDEX OF SHEETS

Sheet No.:

Sheet Description:

10(1)

Index of Sheets, General Notes & Legends

10(2)

Summary of Quantities
Sign Schedule

10(2A) - 10(2B) 10(2C)

Sign Details

10(3) - 10(8)

Signing and Pavement Marking Plans

# STANDARD SIGN LEGEND

PLAN S	SYMBOL
PROPOSED	EXISTING
•	0
• •	0 0
•••	000
1.1	\ \dot{\dot{\dot}}
<b>⊙</b> —	⊚—–
<b>⊙</b> ——•	⊕
	95)
	$\times$
	95
	PROPOSED

Proposed Sign Assemb	lies Relocated Sign Assemblies
denotes St	gn Assembly No.  - denotes Sign Assembly No.  (2808)  At No.  denotes Text No.
· ·	denotes Existing Sign Structure and/or Sign Panel Type STRUCTURE & SIGN PANEL SIGN PANEL STP - Square Tube Post OM - Overhead Mounted CM - Cantilever Mounted PM - Post Mounted PM - Post Mounted ST-GM - Ground Mounted ST-GM - Ground Mounted ST-GM - Ground Mounted
	denotes Action and Measurement & Payment Item A - Remove & Dispose B - Remove & Salvage C - Relocate D - Overlay Sign Panel

# GENERAL NOTES - SIGNING

- The Removal or Modification of Existing Sign Panels, Structures, or Foundations Shall Conform with the Specifications.
- New Materials and Items Required to Complete the Removal or Modification of Existing Items Shall be Submitted to the Engineer for Review and Approval in Accordance with the Specifications.
- 3. All Existing and Proposed Sign Locations are Approximate and Shall be Field Verified by the Contractor. All Proposed Sign Locations Shall be Staked by the Contractor and Approved by the Engineer.

#### GENERAL NOTES - PAVEMENT MARKING

- All Pavement Markings, Where Matching to Existing, Shall Be Done in a Manner Approved by the Engineer.
- 2. Existing Pavement Markings that Conflict with the Proposed Markings Shown Herein Shall be Eradicated.
- 3. All Travel Lanes Shall be Marked to be I2' Wide Unless Otherwise Noted or as Directed by the Engineer.
- 4. Stop Lines Shall Be 24" in Width and Shall be Located as Shown on the Plans.

#### PAVEMENT MARKING LEGEND

- A TYPE B, CLASS I, WHITE, 4" WIDTH
- B TYPE B, CLASS I, WHITE, 4" WIDTH 10' LONG, 30' SPACE
- TYPE B,CLASS I,YELLOW,4" WIDTH
- TYPE B, CLASS I, YELLOW, 4" WIDTH, DOUBLE LINE, SEPARATED BY A 6" SPACE
- (E) TYPE B, CLASS I, WHITE, 24" WIDTH
- F) TYPE B, CLASS I, WHITE, 24" WIDTH @ 45" [INSTALL PER STANDARD PM-5]
- © TYPE B CLASS I, WHITE, ELONGATED TURN ARROW
- H TYPE B, CLASS I, WHITE, 4" WIDTH, 2' LONG, 4' SPACE
- TYPE B, CLASS I, WHITE, IO" WIDTH, 3' LONG, 3' SPACE
- (K) TYPE B CLASS I, WHITE, SYMBOL (ONLY)
- REMOVAL OF EXISTING PAVEMENT MARKINGS
- M TYPE B,CLASS I,YELLOW,12" WIDTH

R/W PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.



T3 DESIGN CORPORATION 10340 DEMOCRACY LN SUITE 305 FAIRFAX, VA 22030 PHONE: 703-359-5861 www.t3desIgn.us TRAFFIC CONTROL DEVICE PLANS

SIGNING AND MARKING PLAN INDEX OF SHEETS.GENERAL NOTES,& LEGENDS

PRINCE WILLIAM COUNTY

ASSET NUMBER

VDOT 0001-076-995 PWC 1006-4N0-0

10(1)

d92999\_IO(2).dgn Plotted By:T3 Design

SIGNING AND PAVEMENT MARKING
SUMMARY OF QUANTITIES

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

T3 Design Corporation Fairfax, Virginia TRAFFIC ENGINEER

TO BE INCLUDED IN THE NEXT SUBMISSION

R/W PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.



T3 DESIGN CORPORATION 10340 DEMOCRACY LN SUITE 305 FAIRFAX, VA 22030 PHONE: 703-359-5861 www.13deslgn.us TRAFFIC CONTROL DEVICE PLANS
SIGNING AND MARKING PLAN
SUMMARY OF QUANTITIES

PRINCE WILLIAM COUNTY

ASSET NUMBER  $\chi$ 

VDOT 0001-076-995 PWC 1006-4N0-0

10(2)



JOHNSON, MIRMIRAN & THOMPSON

Engineering A Brighter Future
9201 Arboretum Parkway Suite 310 Richmond, Virginia 23236

PROJECT MANAGER\_*PRINCE\_WILLIAM\_COUNTY\_TRANSPORTATION\_DIV.(703).792-6826* SURVEYED BY, DATE\_*JOHNSON\_MIRMIRAN\_&\_THOMPSON\_(804).323-9900\_\_* DESIGN BY *T3\_DESIGN\_CORPORATION\_(571):224-9454*SUBSURFACE UTILITY BY, DATE *JOHNSON\_MIRMIRAN\_& THOMPSON\_(804)* 323-9900

NO OUTLET

**>>** 

107

108

109

7.1

7.3,7.4,7.23,7.24

7.5,7.8,7,14,7.22

# SIGNING AND PAVEMENT MARKING SIGN SCHEDULE PROPOSED SIGNS

STATE VDOT 0001-076-995 RW-201 10(2A) VA. 619 PWC 1006-4NO-0

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

T3 Design Corporation Fairfax, Virginia TRAFFIC ENGINEER

SIGN PANEL

										PROPOS
			S/	GN ASS	EMBLY ENTS		SIGN AREA	PANEL (SF)		
TEXT NO.	SIGN ASSEMBLY NO(s).	TEXT	MUTCD ST'D.	PANEL	SIZE	QTY.	per ASSEMBLY	ALL ASSEM- BLIES	PROP.SIGN STRUCTURE ST'D.	REMARKS
101	5J	SHARE THE ROAD	WII-I WI6-IP	30° 24°	30° 30°	l	22.50 SF	22.50 SF	STP-I TYPE C (I) 2 XI4 GA STEEL SQUARE TUBE POST	TYPE A FOUNDATION
102	5.2	BLOCK BLOCK DO NOT	RIO-7 R6-IR R4-7	24" 36" 24"	30" 12" 30"	I	42 SF	42 SF	STP-I TYPE E (I) 2 XI4 GA STEEL SQUARE TUBE POST	TYPE A FOUNDATION
103	5.3,7.2, 7.9,7.15, 7.16,7.21, 7.25	*	WII-2 WI6-7PL	30" 24"	30" 12"	7	15.75 SF	110.25 SF	STP-I TYPE C (I) 2 XI4 GA STEEL SQUARE TUBE POST	TYPE A FOUNDATION
104	<i>5.4</i>	**	WII-2 . WI6-7PR	30" 24"	30" 12"	ı	15.75 SF	15.75 SF	STP-I TYPE C (I) 2 XI4 GA STEEL SQUARE TUBE POST	TYPE A FOUNDATION
105	5.5	LANE ENDS	R3-16a	24*	30°	1	5 SF	5 SF	STP-I TYPE A (I) 2 XI4 GA STEEL SQUARE TUBE POST	TYPE A FOUNDATION
106	6.2,6.3.6.4		OM4-2	18"	18"	3	2,25 SF	6.75 SF	STP-I TYPE A (I) 2 XI4 GA STEEL SQUARE TUBE POST	TYPE A FOUNDATION

30"

36"

24"

24"

W14-2

WI-8(1)

RI-2

W2-6

*30*°

24"

24"

24"

4

TYPE A

TYPE A FOUNDATION

TYPE A FOUNDATION

TYPE A FOUNDATION

(I) 2 XI4 GA STEEL SQUARE TUBE POST

STP-I

TYPE A

(I) 2 XI4 GA STEEL SQUARE

TUBE POST

TYPE C

(I) 2 XI4 GA

STEEL SQUARE

TUBE POST

6**.**25 SF

24 SF

64 SF

6**.**25 SF

6 SF

16 SF

				COMPON	ENTS		AREA	(SF)		
TEXT NO.	SIGN ASSEMBLY	TEXT	MUTCD ST'D.	PANEL	L SIZE	QTY.	Per ASSEMBLY	ALL ASSEM- BLIES	PROP.SIGN STRUCTURE	REMARKS
NO.	NO(s).		31 0.	W	Н		ASS	ASS. A	ST'D.	
IIO	7.6,7.11,7.12,7.19		W2-6	24"	24"	4	4 SF	I6 SF	STP-I TYPE A (I) 2 XI4 GA STEEL SQUARE TUBE POST	TYPE A FOUNDATION
///	7.7	↑ TO Fuller Rd Fuller Heights Rd →	DI-2	96"	30"	I	20 SF	20 SF	STP-I TYPE A (2) 2.5 XI2 GA STEEL SQUARE TUBE POSTS	TYPE B FOUNDATION
112	7,10	↑ Fuller Heights Rd ← TO Fuller Rd Old Triangle Rd →	DI-I(I)	96"	42"	1	28 SF	28 SF	STP-I TYPE A (2) 2.5 XI2 GA STEEL SQUARE TUBE POSTS	TYPE B FOUNDATION
113	7,13	← Old Triangle Rd  To Fuller Rd →	DI-2	90"	30"	1	18.75 SF	18.75 SF	STP-I TYPE A (2) 2 XI4 GA STEEL SQUARE TUBE POSTS	TYPE A FOUNDATION
114	7,17	VIELD	RI-2	24"	24"	I	4 SF	4 SF	STP-I TYPE A (I) 2 XI4 GA STEEL SQUARE TUBE POST	TYPE A FOUNDATION
115	7.18	7	R4-7	24"	30"	I	5 SF	5 SF	STP-I TYPE A (I) 2 XI4 GA STEEL SQUARE TUBE POST	TYPE A FOUNDATION
116	7.20	↑ Old Triangle Rd Fuller Heights Rd →	DI-2	96"	30"	1	20 SF	20 SF	STP-I TYPE A (2) 2.5 XI2 GA STEEL SQUARE TUBE POSTS	TYPE B FOUNDATION
117	4.2	RIGHT LANE MUST TURN RIGHT	R3-7R	30"	30"	1	6.25 SF	6.25 SF	STP-I TYPE A (I) 2 XI4 GA STEEL SQUARE TUBE POST	TYPE A FOUNDATION

SIGN ASSEMBLY

# NOTES:

- I) ALL SIGNS SHALL BE ORIENTATED AS SHOWN ON THE PLANS.
- 2) SIGN COLOR COMBINATIONS SHALL BE IN ACCORDANCE WITH THE FHWA SHS BOOK AND THE 2011 VIRGINIA SHS BOOK OR AS NOTED IN THE PLANS.
- 3) ALL POSITIVE CONTRAST GUIDE AND SPECIFIC SERVICE SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-3 OR L-4 UNLESS OTHERWISE NOTED IN THE REMARKS.ALL OTHER SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-I OR L-2 UNLESS OTHERWISE NOTED IN THE REMARKS.
- 4) ALL BLACK SHEETING SHALL BE NON-REFLECTIVE.
- SIGN STRUCTURES SHALL BE INSTALLED PER THE NOTED SIGN ST'D.
- 6) ALL ST'D.STP-I STRUCTURES TO BE SINGLE POST UNLESS OTHERWISE NOTED.
- 7) IF APPLICABLE, SEE SHEET 2D FOR NON-STANDARD TYPE VA AND VIA SIGN STRUCTURE DETAILS.

# R/W PLANS

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T3 DESIGN CORPORATION 10340 DEMOCRACY LN SUITE 305 FAIRFAX, VA 22030 PHONE: 703-359-5861

# TRAFFIC CONTROL DEVICE PLANS SIGNING AND MARKING PLAN SIGN SCHEDULE

PRINCE WILLIAM COUNTY

VDOT 0001-076-995

10(2A)

PROJECT MANAGER\_PRINCE\_WILLIAM\_COUNTY\_TRANSPORTATION\_DIV.(703).792-6826 SURVEYED BY, DATE JOHNSON\_MIRMIRAN\_& THOMPSON\_(804).323-9900\_\_\_ DESIGN BY *T3\_DESIGN\_CORPORATION\_(571):224-9454*SUBSURFACE UTILITY BY, DATE *JOHNSON\_MIRMIRAN\_& THOMPSON\_(804)* 323-9900

# SIGNING AND PAVEMENT MARKING SIGN SCHEDULE EXISTING SIGNS TO BE RELOCATED

KEVISED	STATE		SIMIE	SHEET
	SIAIL	ROUTE	PROJECT	SHEET
	VA.	619	VDOT 0001-076-995 RW-201 PWC 1006-4N0-0	10(21
DESIGN FEATU	RES RELA	TING TO	CONSTRUCTION	

OR TO REGULATION AND CONTROL OF TRAFFIC
MAY BE SUBJECT TO CHANGE AS DEEMED
NECESSARY BY THE DEPARTMENT

T3 Design Corporation Fairfax, Virginia TRAFFIC ENGINEER

			SIG. CC	N ASSE	MBLY VTS		SIGN I AREA	PANEL (sf.)		
TEXT	SIGN ASSEMBLY	TEXT	MUTCD	PANEL	. SIZE	QTY.	per ASSEMBLY	ALL ASSEM- BLIES	PROP.SIGN STRUCTURE ST'D.	REMARKS
NO.	NO(s).	TEXT	ST'D.	W	Н	u,,,	ASSE	ASS BLI	ST'D.	NEWAINS
201	31	WELCOME	N/A	72"	48"	I	24 SF	24 SF	STP-I TYPE A (2) 25 XI2 GA STEEL SQUARE TUBE POSTS	TYPE B FOUNDATION
202	4J	MESSAF 91 17	MI-VIa M6-IR	24" 21"	24°	I	12.J9 SF	12.19 SF	STP-I TYPE C (I) 2 XI4 GA STEEL SOUARE TUBE POST	TYPE A FOUNDATION
203	6J	St. Francis of Assist Catholic Church and School	N/A	24"	18*	1	3 SF	3 SF	ATTACHED TO PROPOSED SIGN 7.20	N/A

# NOTES:

- I) ALL SIGNS SHALL BE ORIENTATED AS SHOWN ON THE PLANS.
- 2) SIGN COLOR COMBINATIONS SHALL BE IN ACCORDANCE WITH THE FHWA SHS BOOK AND THE 2011 VIRGINIA SHS BOOK OR AS NOTED IN THE PLANS.
- 3) ALL POSITIVE CONTRAST GUIDE AND SPECIFIC SERVICE SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-3 OR L-4 UNLESS OTHERWISE NOTED IN THE REMARKS.ALL OTHER SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-I OR L-2 UNLESS OTHERWISE NOTED IN THE REMARKS.
- 4) ALL BLACK SHEETING SHALL BE NON-REFLECTIVE.
- 5) SIGN STRUCTURES SHALL BE INSTALLED PER THE NOTED SIGN ST'D.
- 6) ALL ST'D.STP-I STRUCTURES TO BE SINGLE POST UNLESS OTHERWISE NOTED.
- 7) IF APPLICABLE, SEE SHEET 2D FOR NON-STANDARD TYPE VA AND VIA SIGN STRUCTURE DETAILS.

R/W PLANS

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10340 DEMOCRACY LN SUITE 305 FAIRFAX, VA 22030 PHONE: 703-359-5861 www.t3deslgn.us

TRAFFIC CONTROL DEVICE PLANS SIGNING AND MARKING PLAN SIGN SCHEDULE

PRINCE WILLIAM COUNTY

VDOT 0001-076-995

10(2B)

SHEET NO



STATE ROUTE

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

VA. 619

T3 Design Corporation Fairfax, Virginia TRAFFIC ENGINEER

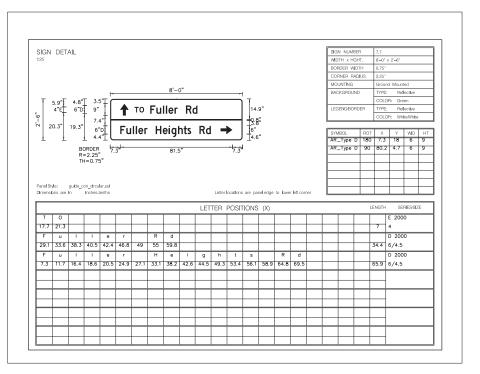
VDOT 0001-076-995

PWC 1006-4NO-0

RW-201 10(2C)

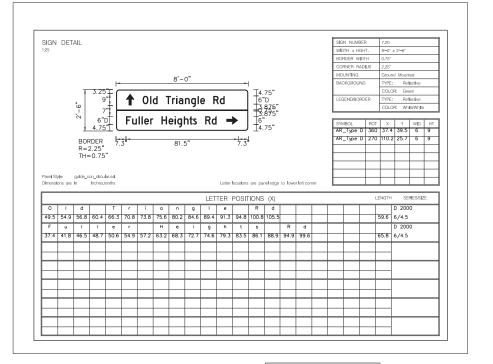
PROJECT MANAGER\_PRINCE\_WILLIAM\_COUNTY\_TRANSPORTATION\_DIV.(703).792-6826 SURVEYED BY, DATE JOHNSON\_MIRMIRAN\_& THOMPSON\_(804).323-9900\_\_\_ DESIGN BY *T3\_DESIGN\_CORPORATION\_(571):224-9454*SUBSURFACE UTILITY BY, DATE *JOHNSON\_MIRMIRAN\_& THOMPSON\_(804)* 323-9900

# SIGNING AND PAVEMENT MARKING SIGN DETAILS



SIGN	DET	AIL																SIG	N NUMBER	3	7.10			_
1:25																		WE	OTH x HGH	IT.	8'-0"	x 3'-6"		_
																		ВО	RDER WIDT	ПН	0.75"			_
									- "									CO	RNER RAD	IUS	2.25"			
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	tyle: Ions are		I inches t	enths							Letter I	ocations	are pa	neledge	to lowe	r left con	ner							
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				enths	r		Н	e	-	LE1	Letter I				to lowe	er left con	ner			LE	NGTH	SE D 200		
Dimens	lons are	In I	inches.t		r 40.2	42.4	H 48.4	e 53.5		9	TER	POSIT	rions		R	d	her						00	
Dimens	ions are	In I	inches.t	e		42.4				9	TER	POSIT	FIONS s	(X)	R	d	her					D 200	00	-
F 22.6	u 27.1	In I	inches.t	e		42.4				9	TER	POSIT	rions s	(X)	R	d	her					D 200	00	 
F 22.6	u 27.1	In I	inches.t	e		42.4				9	TER	POSIT	rions s	(X)	R	d	ner				65.9	D 200 6/4.5 E 200	10	
F 22.6 T 22.6	u 27.1 0 26.2	1 31.8	I 33.9	e 35.8	40.2	42.4	48.4	53.5		9	TER	POSIT	rions s	(X)	R	d	ner				65.9	D 200 6/4.5 E 200 4	00	 
F 22.6 T 22.6 F	u 27.1 O 26.2	1 31.8	1 33.9	e 35.8	40.2 r		48.4 R	53.5 d	57.9	9	TER	POSIT	rions s	(X)	R	d	ner				65.9	D 200 6/4.5 E 200 4	00	
F 22.6 T 22.6 F 34.1	u 27.1 O 26.2	1 31.8 1 43.2	1 33.9	e 35.8 e 47.3	r 51.7	54	48.4 R 60	53.5 d 64.7		9 59.8	TER h 64.6	POSIT t 68.7	s 71.4	(X)	R	d	ner				7 34.3	D 200 6/4.5 E 200 4 D 200 6/4.5 D 200	00	*E
F 22.6 T 22.6 F 34.1 0	u 27.1 0 26.2 u 38.5	In I 31.8	1 33.9 1 45.4	e 35.8 e 47.3	r 51.7	54 i	R 60 a	53.5 d 64.7	57.9 g	9 59.8	TER h 64.6	POSIT t 68.7	s 71.4	74.2 d	R	d	her				7 34.3	D 200 6/4.5 E 200 4 D 200 6/4.5	00	± ====================================
F 22.6 T 22.6 F 34.1 0	u 27.1 0 26.2 u 38.5	In I 31.8	1 33.9 1 45.4	e 35.8 e 47.3	r 51.7	54 i	R 60 a	53.5 d 64.7	57.9 g	9 59.8	TER h 64.6	POSIT t 68.7	s 71.4	74.2 d	R	d	ner				7 34.3	D 200 6/4.5 E 200 4 D 200 6/4.5 D 200	00	7E
F 22.6 T 22.6 F 34.1 O	u 27.1 0 26.2 u 38.5	In I 31.8	1 33.9 1 45.4	e 35.8 e 47.3	r 51.7	54 i	R 60 a	53.5 d 64.7	57.9 g	9 59.8	TER h 64.6	POSIT t 68.7	s 71.4	74.2 d	R	d	ner				7 34.3	D 200 6/4.5 E 200 4 D 200 6/4.5 D 200	00	
F 22.6 T 22.6 F 34.1 0	u 27.1 0 26.2 u 38.5	In I 31.8	1 33.9 1 45.4	e 35.8 e 47.3	r 51.7	54 i	R 60 a	53.5 d 64.7	57.9 g	9 59.8	TER h 64.6	POSIT t 68.7	s 71.4	74.2 d	R	d	her				7 34.3	D 200 6/4.5 E 200 4 D 200 6/4.5 D 200	00	

SIGN	DET	ΔII																SIC	N NUMBE	3	7.13			
1:25																		WI	DTH x HGH	IT.	7'-6"	x 2'-6"		
																		ВС	RDER WID	ПН	0.75"			
																		CC	RNER RAD	IUS	2.25"			
																		MC	DUNTING		Groun	d Moun	ted	
				4				7'-	6"			<del></del>						BA	CKGROUNE	)	TYPE:	Ref	lective	
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	26"	20.6	۱ (	1.7"			u			gle		_	4.9" 6"D 40.8" 6" 4.8"								COLC	R: Wh	Ite4Vhlte	9
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0 22.5	lons are	In d	inches.t	enths						1	TER	POSI	TIONS	(X)	to low	er left con	ner			Т	50.3	D 200 6/4.5	0	ZE
0 22.5 T 7.3	1 28 0 10.9	d 30	33.6	T 39.6	44.1		49	53.6		1	TER	POSI	TIONS	(X)	to low	er left con	ner			Т	7	D 200 6/4.5 E 200 4	0	ZE
O 22.5 T 7.3 F		d 30	33.6	T 39.6	44.1	47.1	49 R	53.6 d		1	TER	POSI	TIONS	(X)	to low	≥ jeft cor	ner			-	7	D 200 6/4.5 E 200 4 D 200	0	ZE
0 22.5 T 7.3	1 28 0 10.9	d 30	33.6	T 39.6	44.1	47.1	49	53.6		1	TER	POSI	TIONS	(X)	to lown	≥ left cor	ner			-	7	D 200 6/4.5 E 200 4	0	ZE
O 22.5 T 7.3 F		d 30	33.6	T 39.6	44.1	47.1	49 R	53.6 d		1	TER	POSI	TIONS	(X)	to low	er left con	ner			-	7	D 200 6/4.5 E 200 4 D 200	0	ZE
O 22.5 T 7.3 F		d 30	33.6	T 39.6	44.1	47.1	49 R	53.6 d		1	TER	POSI	TIONS	(X)	to low	≥ left cor	ner			-	7	D 200 6/4.5 E 200 4 D 200	0	ZE
O 22.5 T 7.3 F		d 30	33.6	T 39.6	44.1	47.1	49 R	53.6 d		1	TER e	POSI	TIONS	(X)	to low	≥ left con	ner			-	7	D 200 6/4.5 E 200 4 D 200	0	ZE
O 22.5 T 7.3 F		d 30	33.6	T 39.6	44.1	47.1	49 R	53.6 d		1	TER e	POSI	TIONS	(X)	to lown	≥ jeft cor	ner			-	7	D 200 6/4.5 E 200 4 D 200	0	ZE
O 22.5 T 7.3 F		d 30	33.6	T 39.6	44.1	47.1	49 R	53.6 d		1	TER e	POSI	TIONS	(X)	to lown	≥ left cor	ner			-	7	D 200 6/4.5 E 200 4 D 200	0	ZE
O 22.5 T 7.3 F		d 30	33.6	T 39.6	44.1	47.1	49 R	53.6 d		1	TER e	POSI	TIONS	(X)	to lown	≥ left cor	ner			-	7	D 200 6/4.5 E 200 4 D 200	0	ZE
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R/W PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.



T3 DESIGN CORPORATION 10340 DEMOCRACY LN SUITE 305 FAIRFAX, VA 22030 PHONE: 703-359-5861

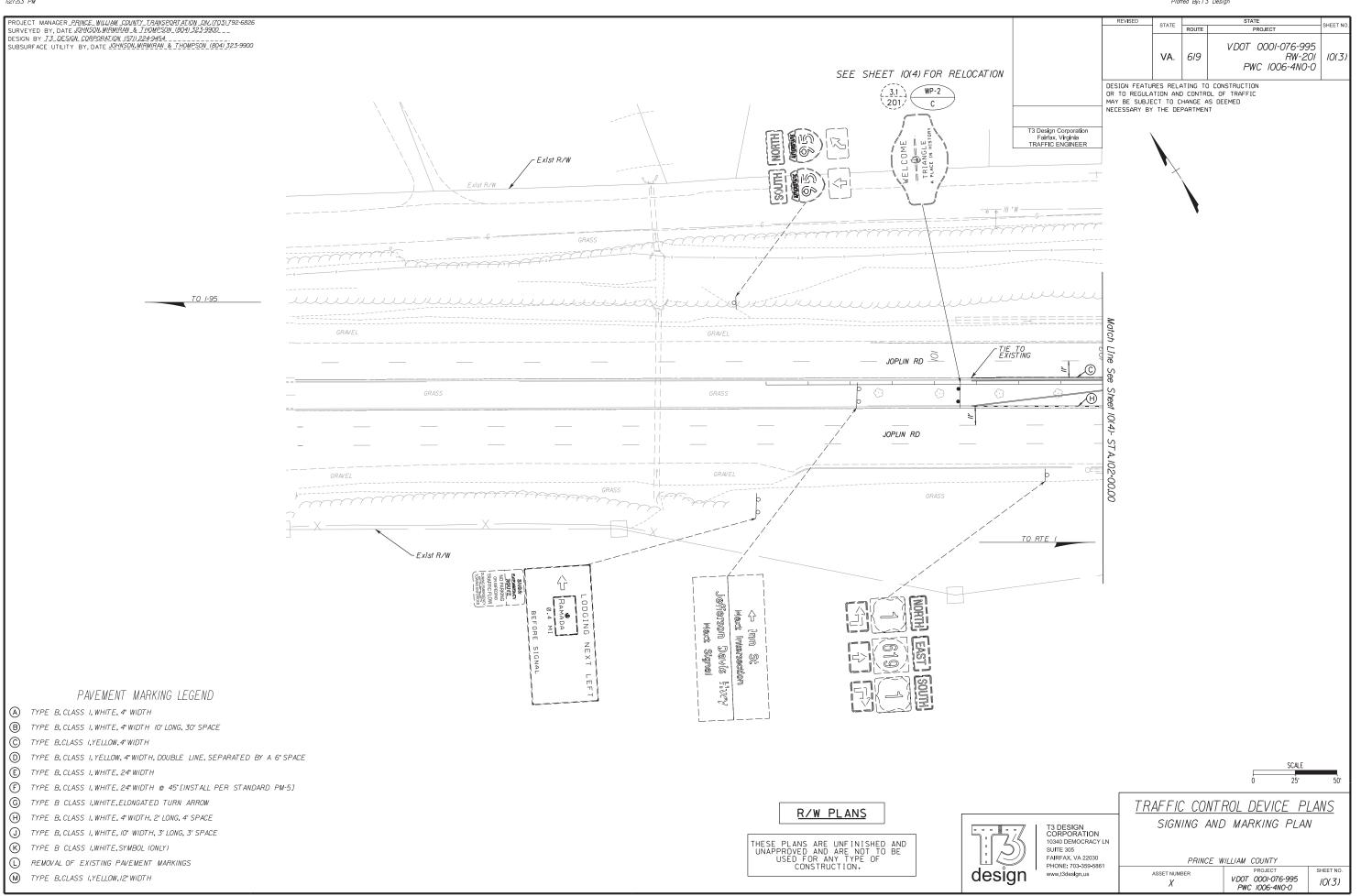
TRAFFIC CONTROL DEVICE PLANS SIGNING AND MARKING PLAN SIGN DETAILS

PRINCE WILLIAM COUNTY

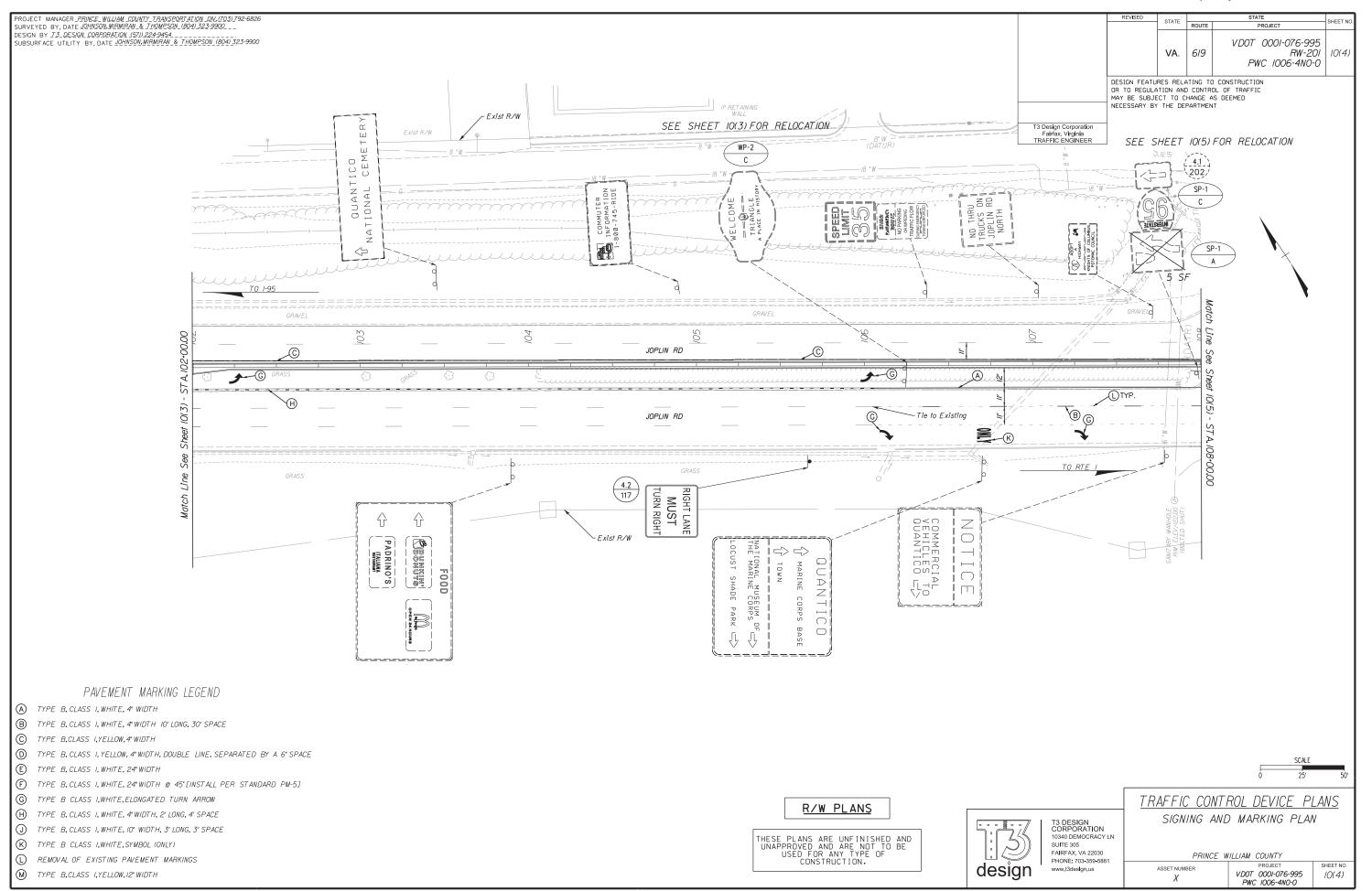
ASSET NUMBER Χ

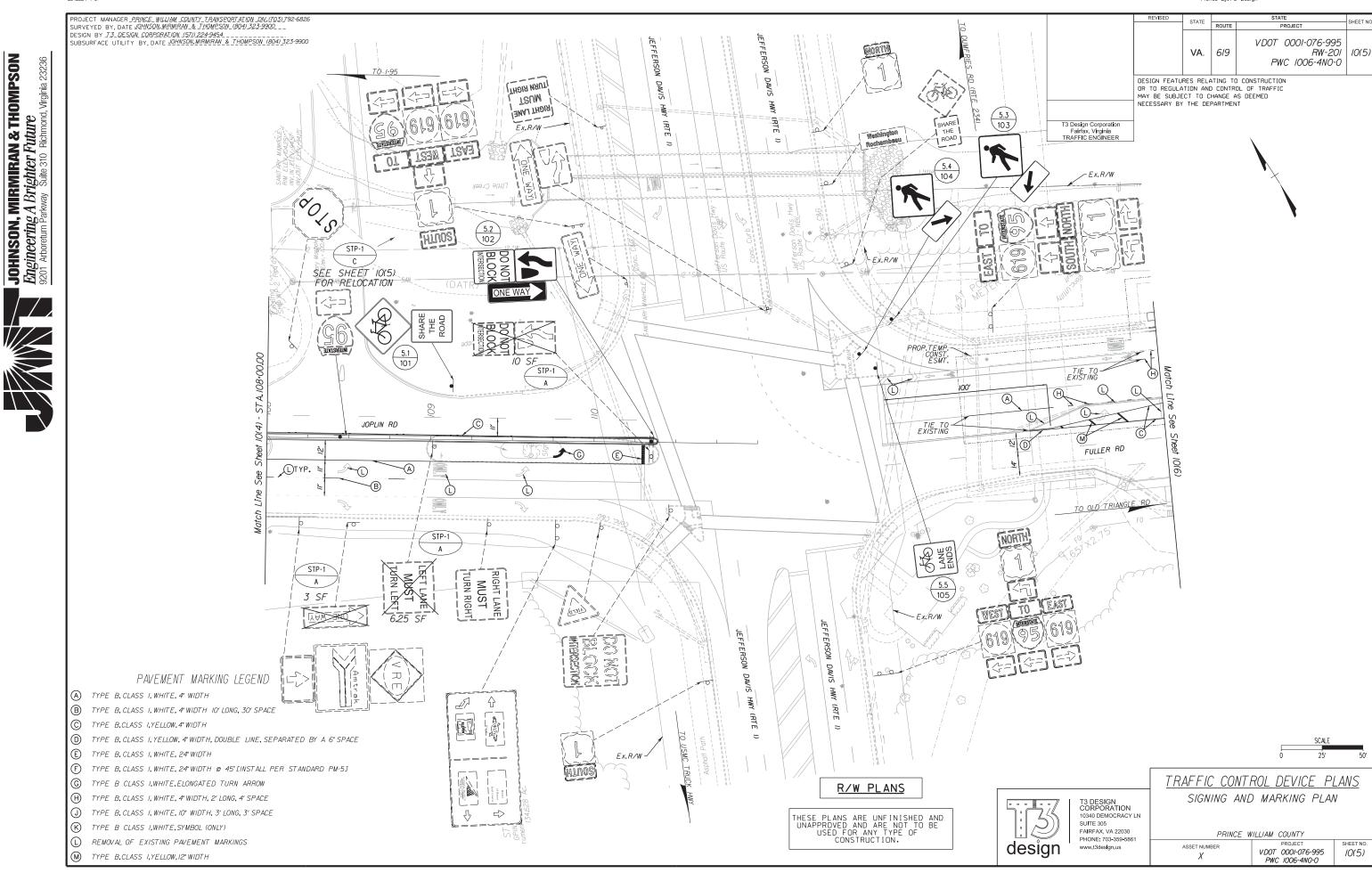
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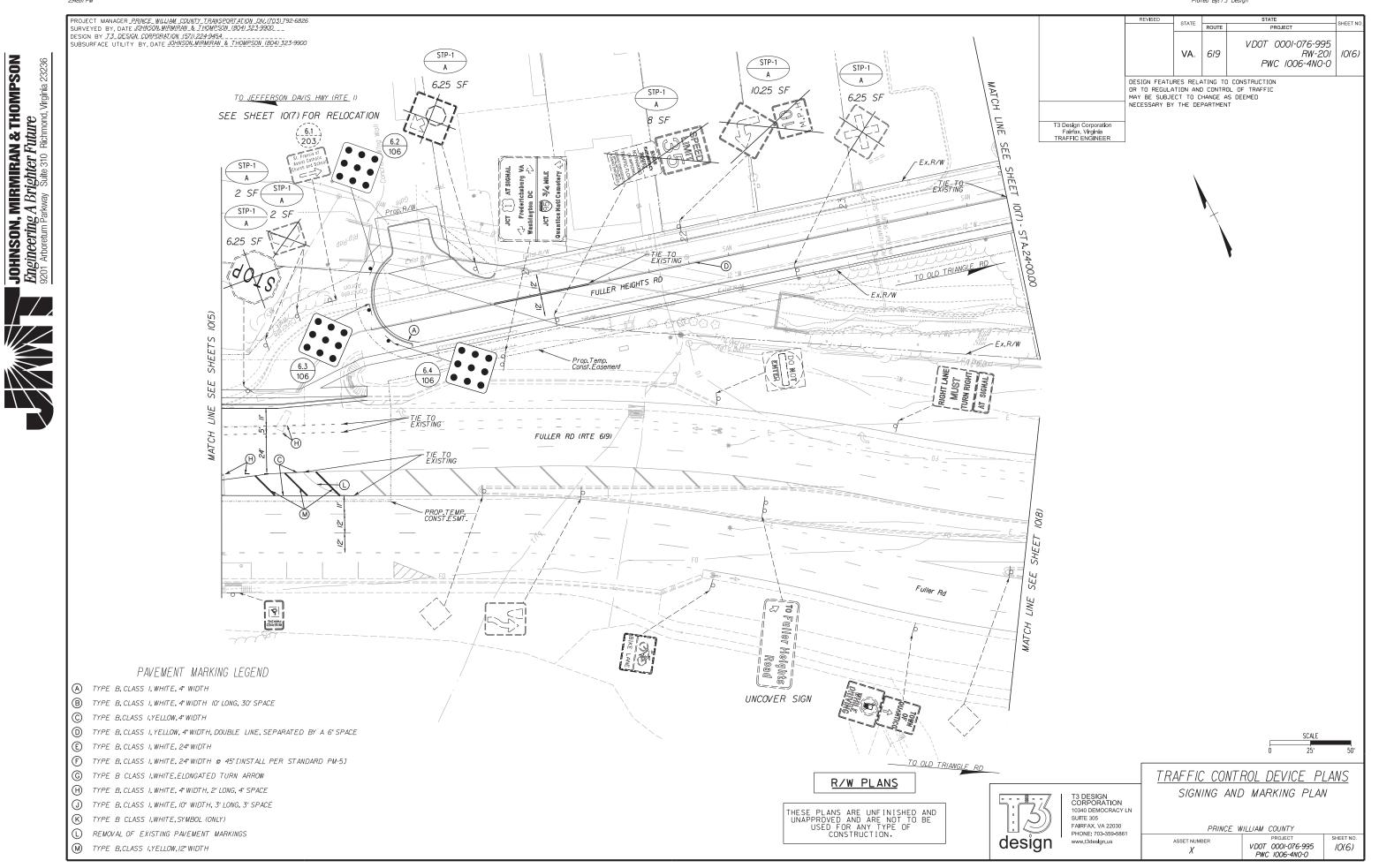


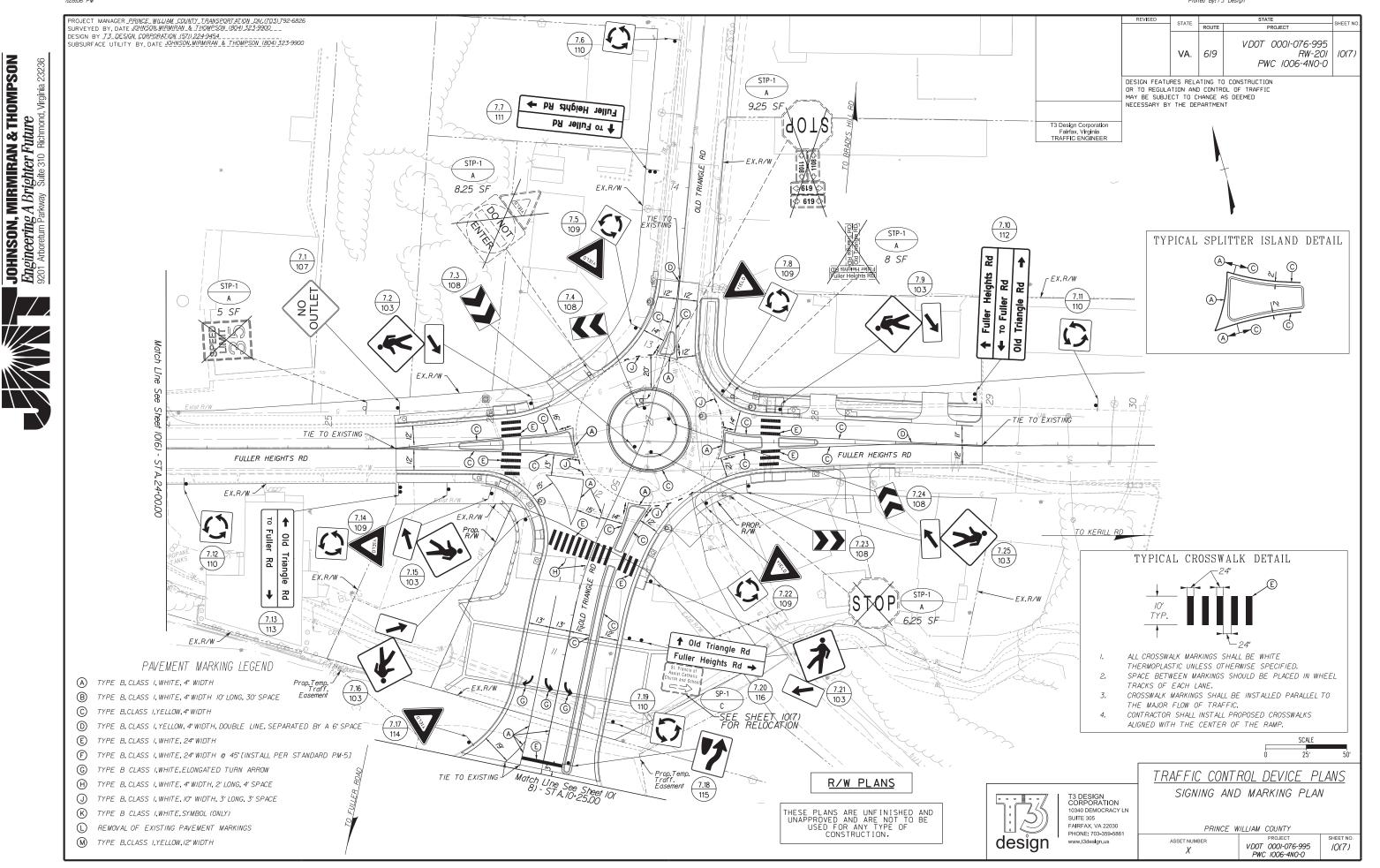












M TYPE B,CLASS I,YELLOW,12" WIDTH

STATE

ASSET NUMBER

Χ

VDOT 0001-076-995 PWC 1006-4N0-0

10(8)

design

PROJECT MANAGER <u>PRINCE WILLIAM COUNTY TRANSPORTATION DN (703)</u>792-6826 SURVEYED BY, DATE <u>JOHNSON MIRMIRAN & THOMPSON (804)323-9900</u> \_ DESIGN BY <u>I3\_QESIGN CORPORATION (57) 224-9454</u> \_ SUBSURFACE UTILITY BY, DATE <u>JOHNSON MIRMIRAN & THOMPSON (804)323</u>-9900 VDOT 0001-076-995 RW-201 10(8) VA. 619 PWC 1006-4NO-0 DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT T3 Design Corporation Fairfax, Virginia TRAFFIC ENGINEER UNCOVER SIGN TO JEFFERSON DAVIS HWY (RTE 1) MATCH LINE SEE SHEET 10(7) - STA.10+25.00 FULLER RD (RTE 619) TINE FULLER RD (RTE 619) MATCH LELL KEEb NIG TO COURTNEY DR UNCOVER SIGN PAVEMENT MARKING LEGEND A TYPE B, CLASS I, WHITE, 4" WIDTH B TYPE B, CLASS I, WHITE, 4" WIDTH 10' LONG, 30' SPACE (C) TYPE B,CLASS I,YELLOW,4" WIDTH ① TYPE B, CLASS I, YELLOW, 4" WIDTH, DOUBLE LINE, SEPARATED BY A 6" SPACE E TYPE B, CLASS I, WHITE, 24" WIDTH F TYPE B, CLASS I, WHITE, 24" WIDTH @ 45" [INSTALL PER STANDARD PM-5] TYPE B CLASS I, WHITE, ELONGATED TURN ARROW TRAFFIC CONTROL DEVICE PLANS R/W PLANS H TYPE B, CLASS I, WHITE, 4" WIDTH, 2' LONG, 4' SPACE SIGNING AND MARKING PLAN T3 DESIGN CORPORATION 10340 DEMOCRACY LN SUITE 305 TYPE B, CLASS I, WHITE, IO' WIDTH, 3' LONG, 3' SPACE THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION. K TYPE B CLASS I, WHITE, SYMBOL (ONLY) FAIRFAX, VA 22030 PHONE: 703-359-5861 PRINCE WILLIAM COUNTY (L) REMOVAL OF EXISTING PAVEMENT MARKINGS

PROJECT MANAGER\_*PRINCE\_WILLIAM\_COUNTY\_TRANSPORTATION\_DIV.(703).792-6826* SURVEYED BY, DATE\_*JOHNSON\_MIRMIRAN\_&\_THOMPSON\_(804).323-9900\_\_* DESIGN BY *STEVEN WILKENING.* T3 DESIGN CORPORATION (570 224-9454 ). SUBSURFACE UTILITY BY, DATE JOHNSON MIRMIRAN & THOMPSON (804) 323-9900

### TRAFFIC SIGNAL GENERAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE CURRENT EDITION OF THE VIRGINIA SUPPLEMENT TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE CURRENT EDITION OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS, THE CURRENT EDITION OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS, AND ALL SPECIAL PROVISIONS IN EFFECT AT THE TIME THE SIGNAL PLAN IS APPROVED.
- 2. FIVE (5) WORKING DAYS PRIOR TO COMMENCING TRAFFIC SIGNAL WORK AT ANY LOCATION IN NORTHERN VIRGINIA, THE CONTRACTOR MUST NOTIFY THE VDOT NOVA DISTRICT PERMITS SECTION IN WRITING, WITH THE NAME, DAYTIME PHONE NUMBERS AND EMERGENCY PHONE NUMBERS FOR THE CONTRACTOR GIVING THE LOCATION OF THE WORKSITE INCLUDING STREET NAMES, ROUTE NUMBERS, PERMIT NUMBER, TYPE AND DETAILS OF CONSTRUCTION AND WORK SCHEDULE.
- THE VDOT ENGINEER, PRIOR TO CONSTRUCTION, SHALL VERIFY THE LOCATIONS OF THE POLE(S) AND CONTROLLER CABINET. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THIS VERIFICATION WITH NROIC TOM FOLSE 703-383-2448.
- THE TRAFFIC SIGNALS WILL NOT BE PLACED INTO FULL COLOR OPERATION WITHOUT THE PRIOR NOTIFICATION AND APPROVAL FROM A VDOT NROIC ENGINEER.ARRANGEMENTS SHALL BE MADE BY THE PERMIT MANAGER TO SCHEDULE THE NROIC FIELD PERSONNEL PROVIDING A MINIMUM OF 48 HOURS ADVANCE NOTICE.NO TRAFFIC SIGNALS SHALL BE PLACED INTO OPERATION UNTIL THE SITE IS 100% COMPLETE. THIS INCLUDES ANY NECESSARY PAVEMENT MARKINGS AND SIGNAGE SHOWN ON THE PLANS AND THE TRAFFIC SIGNAL COMMUNICATION REQUIREMENTS COMPLETE AND OPERATIONAL. NEW TRAFFIC SIGNALS INSTALLATIONS SHALL NOT BE PLACED INTO COLOR OPERATION ON MONDAYS, FRIDAYS OR DAYS PRECEEDING OR FOLLOWING HOLIDAYS, UNLESS DIRECTED BY THE DISTRICT TRAFFIC ENGINEER.
- THE CONTRACTOR SHALL PROVIDE, INSTALL, AND ADJUST CONTROLLER TIMINGS TO PROVIDE ORDERLY FLOW OF TRAFFIC,OR AS DIRECTED BY THE VDOT NROIC ENGINEER. THE CONTRACTOR SHALL HAVE HIS QUALIFIED REPRESENTATIVE PRESENT TO MONITOR A MINIMUM OF TWO CONSECUTIVE MORNINGS AND EVENING RUSH HOUR PERIODS, OR AS DIRECTED BY THE VDOT NROIC ENGINEER.
- THE CONTRACTOR SHALL PERFORM TEST PITS AND EXERCISE CARE IN PLACEMENT IF ADJUSTMENTS IN POLE LOCATIONS ARE REQUIRED, THE CONTRACTOR SHALL NOTIFY THE VDOT ENGINEER PRIOR TO COMMENCING WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL UTILITIES WITHIN THE PROJECT LIMITS ARE IDENTIFIED AND LOCATED BEFORE BEGINNING WORK, THE CONTRACTOR SHALL CONTACT MISS UTILITY OF VIRGINIA AT 1-800-522-7001 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, SCHEDULING THE LOCATING OF UNDERGROUND UTILITIES, AS WELL AS NOTIFYING VDOT'S ENGINEER WHO WILL CONTACT DONALD BAILEY (703-334-0210) TO LOCATE AND MARK ANY SIGNAL CABLES OR TRAFFIC EQUIPMENT WITHIN 1000 FT OF THE PROJECT'S LIMITS.ALL UTILITIES AND EXISTING SIGNAL EQUIPMENT SHALL BE MARKED PRIOR TO INITIATION OF ANY CONSTRUCTION.CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES AS TO THE LOCATION OF EXISTING AND APPROVED PLANS OF FUTURE UTILITY LINES.ANY DISRUPTION OF ANY UTILITY SERVICE IS THE RESPONSIBILITY OF THE CONTRACTOR.
- DURING CONSTRUCTION AND WHEN NOT IN USE, NEW LED TRAFFIC SIGNAL HEADS AND OVERHEAD TRAFFIC SIGNAL SIGNAGE SHALL BE COVERED WITH A DURABLE NON-TRANSPARENT COVER UPON INSTALLATION. THE CONTRACTOR SHALL MAINTAIN COVERS UNTIL THE NEW TRAFFIC SIGNAL SYSTEM IS OPERATIONAL.
- MAINTENANCE AND REPAIR OF THE TRAFFIC SIGNALS AND ANY NECESSARY FUTURE MODIFICATIONS DURING CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL LABEL ALL SPARE WIRES IN THE CONTROLLER CABINET, IN ACCORDANCE WITH SECTION 700.04(G) OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS.
- WHERE APPLICABLE, ALL LOOP DETECTORS SHALL BE INSTALLED BEFORE SURFACE ASPHALT IS INSTALLED.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING FIVE WORKING DAYS PRIOR TO COMMENCING ANY WORK AT AN EXISTING SIGNAL AND PROVIDE THE FOLLOWING: a.CONTRACTOR DAYTIME AND EMERGENCY TELEPHONE NUMBERS. b.LOCATION OF INTERSECTION WHERE WORK IS TAKING PLACE.
- PRIOR TO INITIATING SIGNAL OPERATION, THE CONTRACTOR SHALL MAKE ARRANGEMENTS TO HAVE VDOT'S NRO PERSONNEL PRESENT (703-334-0882, BETWEEN 5:00 AM AND 7:00 PM, MONDAY FRIDAY). A MINIMUM OF 48 HOURS ADVANCE NOTICE IS REQUIRED. THE CONTRACTOR SHALL HAVE HIS QUALIFIED REPRESENTATIVE PRESENT TO MONITOR TRAFFIC FLOW AND ADJUST TIMINGS AS NECESSARY.OR AS DIRECTED BY THE ENGINEER.

- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING VEHICLE AND PEDESTRIAN DETECTION ON ALL APPROACHES OF THE INTERSECTION AT ALL TIMES, AND THROUGHOUT ALL PHASES OF CONSTRUCTION.
- POLES AND FOUNDATIONS:
- MAST ARM LENGTHS ARE TO BE INSTALLED AS SHOWN ON PLAN AND ALL MAST ARMS ARE TO BE FIELD DRILLED ONLY. MAST ARM LENGTHS ARE SHOWN NEXT TO EACH MAST ARM IN THE PLAN VIEW.
- MAST ARM POLES AND FOUNDATION SHALL BE DESIGNED BY THE CONTRACTOR, PER THE REQUIREMENTS IN THE 2016 VDOT ROD AND BRIDGE SPECIFICATIONS, ALL REVISIONS, AND ANY SPECIAL PROVISION IN EFFECT AT THE TIME THE SIGNAL PLAN IS APPROVED. ALL SHOP DRAWINGS SHALL BE SUBJECT TO REVIEW AND APPROVAL BY VDOT.
- CONTROLLER AND FOUNDATIONS
- THE PROJECT SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING COMMUNICATION TO THE TRAFFIC SIGNAL CONTROLLER AT ALL TIMES.THE PROJECT IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH PROVIDING COMMUNICATION TO THE TRAFFIC SIGNAL.THE PROJECT SHALL BE RESPONSIBLE FOR COORDINATING THE LOCATION AND THE INSTALLATION OF THE COMMUNICATION CIRCUIT CONDUIT(S) TO THE TRAFFIC SIGNAL CONTROLLER CABINET WITH THE DESIGNATED COMMUNICATION PROVIDER.
- THE PROJECT SHALL CONTACT VDOT'S NORTHERN REGION OPERATIONS COMMUNICATIONS GROUP AT NOVATFOCOMMOVDOTVIRGINIAGOV NINETY (90) DAYS PRIOR TO THE START OF THE TRAFFIC SIGNAL CONSTRUCTION TO IDENTIFY THE DESIGNATED COMMUNICATION PROVIDER AND TO INITIATE THE BROADBAND CIRCUIT ORDERING PROCESS.
- THE PROJECT SHALL BE RESPONSIBLE FOR MAINTAINING ELECTRICAL SERVICE TO THE CONTROLLER AT ALL TIMES.
- C. TRAFFIC SIGNAL HEADS:
- ALL VEHICULAR AND PEDESTRIAN TRAFFIC SIGNAL HEADS SHALL BE LED AND CAST
- 2. ALL SIGNAL HEADS SHALL HAVE RETROREFLECTIVE BACKPLATES.BACKPLATE HARDWARE SHALL BE STAINLESS STEEL.
- D. DETECTORS
- 6'X 40' LOOP DETECTORS SHALL BE PLACED WITH THE DOWNSTREAM EDGE FNE FEET IN FRONT OF THE STOP BAR.
- 2. I4/I ENCLOSED CONDUCTOR CABLE LEAD-IN REQUIRES 5/8" SAW CUT.
- CONDUIT, CONDUCTORS & ELECTRICAL:
- JUNCTION BOX COVERS SHALL HAVE THE LETTERS "TRAF" CAST IN THE TOP SURFACE DEPRESSION FOR ALL TRAFFIC SIGNAL RELATED JUNCTION BOXES CONTAINING CABLE WITH LESS THAN 50 VOLTS.ALL OTHER JUNCTION BOX COVERS SHALL HAVE THE LETTERS "ELEC" CAST IN THE TOP SURFACE DEPRESSION.
- ALL JUNCTION BOXES SHALL BE INSTALLED IN ACCORDANCE WITH ST'D JB-S2 UNLESS OTHERWISE SPECIFIED.
- NO JB-SI,S2,OR S3 SHALL BE INSTALLED IN PAVED SHOULDER,SIDEWALK,OR MULTI-PURPOSE
- (S) DENOTES SHIELDED CABLE.(M) DENOTES METAL CONDUIT.(EGC) DENOTES EQUIPMENT GROUNDING CONDUCTOR.(EX) DENOTES EXISTING.
- 5. ALL UNDERGROUND CONDUITS SHALL BE INSTALLED IN ACCORDANCE WITH STD.ECI-I.
- 6. FOR INSTALLATION OF CONDUIT, NO OPEN CUT WILL BE ALLOWED IN ROADWAY SURFACE.
- 7. ELECTRICAL SERVICE FOR THE TRAFFIC SIGNAL SHALL INCLUDE TWO 60 AMP BREAKERS HOUSED WITHIN A SIX POSITION 100 AMP NEMA 3R ENCLOSURE.ALL ELECTRICAL SERVICE
- CONDUIT TRENCHED UNDER THE ROAD SHALL BE INSTALLED IN ACCORDANCE WITH ST'D

R/W PLANS

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REVISED	STATE		STATE	SHEET NO.		
	SIMIL	ROUTE	PROJECT	SHEET NO.		
	VA.	619	VDOT 0001-076-995 RW-201 PWC 1006-4N0-0	11(1)		

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

#### STANDARD TRAFFIC SIGNAL LEGEND

DIAN ITEM	PLAN S	SYMBOL
PLAN ITEM	PROPOSED	EXISTING
Metal Signal Pole & Foundation and Mast Arm (As noted in Signal Pole Legend)	•	<b>©</b>
Pedestal Pole and Foundation (St'd.PF-2)	•	0
Traffic Signal Head	• <del> </del> ► •→	
Pedestrian Signal Head	->-	→
Pedestrian Pushbutton & Sign	- <b>□</b> P.B.	-@ P.B.
Traffic Signal Sign Mast Arm or Span Wire Mt'd. Emergency Vehicle Pre-emption (EVP) Sensor	•+1	어
w/o Conf.Light	••	∞
Junction Box (St'd.as noted on plans)	ū	⊠J
Signal Luminaire (LED) and Arm	*	<del>\$</del>
Loop Detector (Size as noted on plans)	6' x 20'	6' x 20'
Conduit		
Controller Cabinet Ground Mounted	<b></b>	Ś
Controller Cabinet & Foundation Std.CF-3	c=3	c 3
Uninterruptible Power Supply Cabinet	6	⊠r5
Service Pedestal	(S-4-1)	(SE-5)
CCTV		
Antenna		E+H-

	LAB	ELS	
Signal Pole or Controller	$\langle A \rangle$	Proposed Signal Head	2
Cable and Conduit	♠	Existing Signal Head	(2)
Junction Box	(3)	Proposed Pedestrian Signal Head	<b>2</b>
Signal Phasing	Ø2	Existing Pedestrian Signal Head	(PŽ)
		Sign	S-/
		Emergency Preemption Detector	EVP-2

### INDEX OF SHEETS

Sheet Description:
Index of Sheets, General Notes & Legends
Summary of Quantities
Sign Details
Traffic Signal Plan - Fuller Rd (Rte 6l9) & Fuller Heights Rd
Traffic Signal Plan - Fuller Rd (Rte 619) & Jefferson Davis Hwy (Rte I)

TRAFFIC CONTROL DEVICE PLANS TRAFFIC SIGNAL PLAN INDEX OF SHEETS, GENERAL NOTES & LEGENDS

PRINCE WILLIAM COUNTY

ASSET NUMBER

VDOT 0001-076-995

*[[(1)*]



JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future
9201 Arboretum Parkway Suite 310 Richmond, Virginia 23236

d92999\_II(2).dgn Plotted By:T3 Design

PROJECT MANAGER PRINCE WILLIAM COUNTY TRANSPORTATION DIV. (703).792-6826 SURVEYED BY, DATE JOHNSON MIRMIRAN & THOMPSON (804).323-9900. — DESIGN BY STEVEN WILKENING.13 DESIGN CORPORATION. (501). 224-9454. SUBSURFACE UTILITY BY, DATE JOHNSON MIRMIRAN & THOMPSON (804).323-9900

# SUMMARY OF QUANTITIES

REVISED	STATE		SHEET NO		
	SIAIL	ROUTE	PROJECT	J SHEET NO	
	VA.	619	VDOT 0001-076-995 RW-201 PWC 1006-4N0-0	11(2)	

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

T3 Design Corporation Fairfax, Virginia TRAFFIC ENGINEER

TO BE INCLUDED IN THE NEXT SUBMISSION



T3 DESIGN CORPORATION 10340 DEMOCRACY LN SUITE 305 FAIRFAX, VA 22030 PHONE: 703-359-5861

R/W PLANS

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TRAFFIC CONTROL DEVICE PLANS TRAFFIC SIGNAL PLAN SUMMARY OF QUANTITIES

PRINCE WILLIAM COUNTY

ASSET NUMBER

VDOT 0001-076-995

11(2)

JOHNSON, MIRMIRAN & THOMPSON
Engineering A Brighter Future
9201 Arboretum Parkway Suite 310 Richmond, Virginia 23236

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PROJECT MANAGER PRINCE WILLIAM COUNTY TRANSPORTATION DIV. (703).792-6826 SURVEYED BY, DATE JOHNSON MIRMIRAN & THOMPSON (804).323-9900. — DESIGN BY STEVEN WILKENING.13 DESIGN CORPORATION. (501). 224-9454. SUBSURFACE UTILITY BY, DATE JOHNSON MIRMIRAN & THOMPSON (804).323-9900

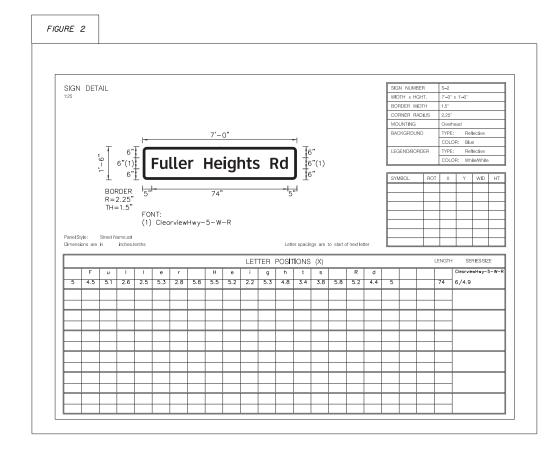
## SIGN DETAILS

STATE ROUTE VDOT 0001-076-995 RW-201 VA. 619 PWC 1006-4NO-0

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

T3 Design Corporation Fairfax, Virginia TRAFFIC ENGINEER

FIGURE I SIGN DETAIL ORNER RADIUS BORDER 5.5" R=2.25" TH=1.5" Panel Style: Dimensions are in 55 8/6.5



design

10340 DEMOCRACY LN SUITE 305 FAIRFAX, VA 22030 PHONE: 703-359-5861

R/W PLANS

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TRAFFIC CONTROL DEVICE PLANS TRAFFIC SIGNAL PLAN SIGN DETAILS

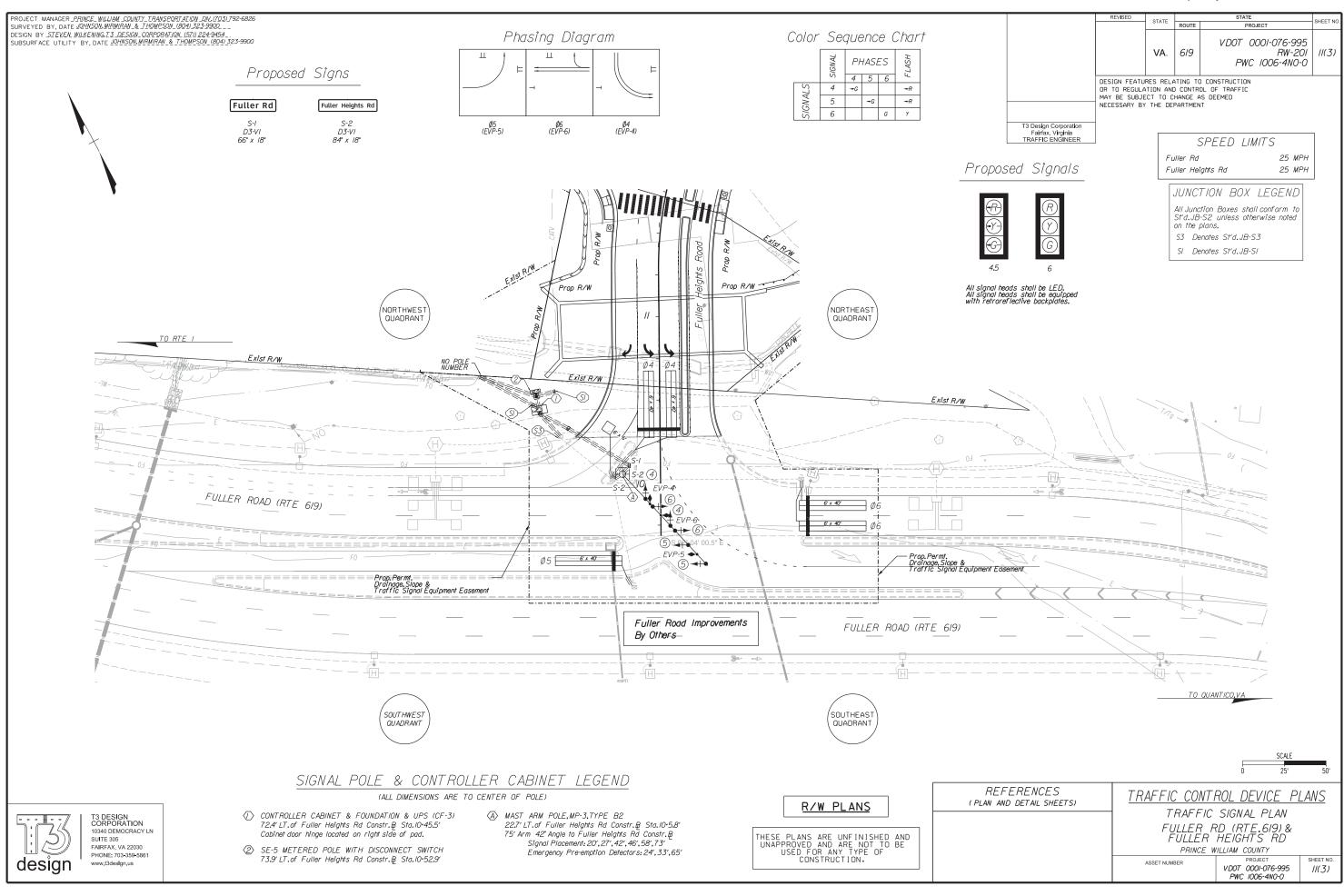
PRINCE WILLIAM COUNTY

ASSET NUMBER

VDOT 0001-076-995

11(2A)





design

Plotted By: T3 Design STATE VDOT 0001-076-995 VA. 619 RW-201 11(4) PWC 1006-4NO-0 DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT Existing Signs to Remain LEFT TURN Jeff Davis Hwy Fuller Rd ↔ ON GREEN S-2 S-3 S-I TECHNICAL TO THE CONTROL OF THE CONT ⟨⇒ Fuller Rd |
| Joplin Rd ⇒⟩ | 5-4 S-5 S-6 Existing Signals to Remain 1,5 2,4,6,8 3,7  $(\widehat{R})$ BB 6A P2,P4,P6,P8 SCALE. TRAFFIC CONTROL DEVICE PLANS TRAFFIC SIGNAL PLAN JEFFERSON DAVIS HWY (RTE.1) FULLER RD (RTE.619) & PRINCE WILLIAM COUNTY ASSET NUMBER VDOT 0001-076-995 11(4)

PROJECT MANAGER <i>Gladls_Arbaleda,PWC_DOT_170.</i> 3).792-5276 SURVEYED BY, DATE <i>JMT_180.</i> 41.323-9900 DESIGN BY <i>JMT_180.</i> 41.323-9900	CROSS SECTIONS	OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED	REVISED STATE STATE SHEET N ROUTE PROJECT SHEET N
DESIGN BY JMT(804) 323-9900	SCALE 1 IN. = 5 FT	NECESSARY BY THE DEPARTMENT	VA. 619 0001-076-995 /
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130	EX EX	EX.	130
	700+75.00		
140			140
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140			140
	PVMT.	MT.	/35
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	100+25.00		
140			140
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135 ×	EX. PV	EX. PVMT.	/35
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		S	tation 100+00.00 To Station 100+75.00
50		50	PROJECT SHEET N
			0001-076-995 I

PROJECT MANAGER <i>Gladls_Acholeda_PWC_DOT_1703).792-5276</i> SURVEYED BY, DATE <i>JuT_LB041.323-9900</i> DESIGN BY <i>JuT_LB041.323-9900</i>	CROSS SECTIONS	DESIGN FEATURES RELATING TO CONSTRUCTION REVIS OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED	STATE STATE SHEET N  ROUTE PROJECT SHEET N
SUBSURFACE UTILITY BY, DATE JMT. (804).323-9900	SCALE 1 IN. = 5 FT	MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT	VA. 6/9 000/-076-995 2
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PROJECT MANAGER Gladls. Arbaleda, FWC. DOT. 17031.792-5276 URVEYED BY, DATE JUT. 18041.323-9900		CROSS SECTIONS	OR TO REGULATION AND CONTROL OF TRAFFIC	REVISED STATE ROUTE	STATE SI-
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					0001-076-995

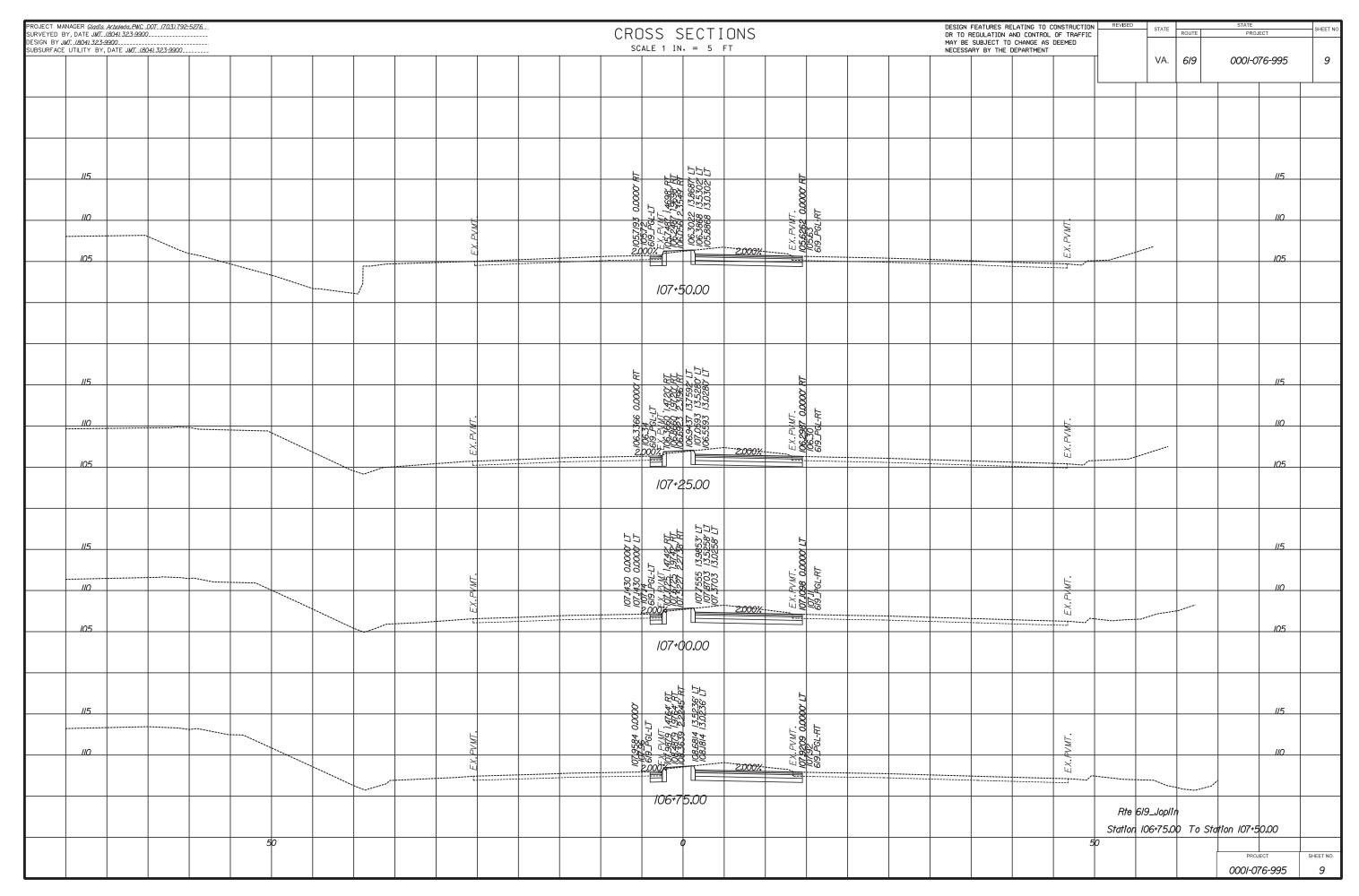
PROJECT MANAGER <i>Gladls. Arbaleda, PWC. DOT. 1703</i> ).792-5276  SURVEYED BY, DATE <i>JMT. (B041 323-9900</i> DESIGN BY <i>JMT. (B041 323-9900</i>	CROSS SECTIONS	DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC	REVISED STATE ROUTE	STATE SHEET I
DESIGN BY <i>JMT_LB041,323-9900</i> SUBSURFACE UTILITY BY, DATE <i>JMT_LB041,323-9900</i>	SCALE 1 IN. = 5 FT	MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT	VA. 6/9	0001-076-995 4
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/30	87 LT 88 LT			130
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	123.9945 0.D 123.9945 0.D 123.99 123.99 124.7247 1.5 124.0247 1.5 124.0246 0.00 124.026 0.00 124.026 0.00 124.026 0.00 124.026 0.00 124.026 0.00 124.026 0.00	PVMT.		1.30
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50	φ		Station 102+50.00 To St	
				PROJECT SHEET N 0001-076-995 4

RVEYED BY, DATE JMT(8	Arboleda,PWC_DOT_1703).792 804).323-9900 900							CRC	SS SECT	IONS				DESIGN FEATURES OR TO REGULATION	AND CONTROL	OF TRAFFIC	REVISED STAT	ROUTE	STATE PROJI	СТ	SH
BIGN BY JMT_(8041323-99 BSURFACE UTILITY BY, D	900 DATE <i>JMT_(804).323-9</i> 900_ I				1			sc	ALE 1 IN. = 5	FT	,	ı		MAY BE SUBJECT NECESSARY BY THE	E DEPARTMENT	DEEMED		60	2021.5	70.005	
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RVEYED BY, DATE JMT(&	Arboleda,PWC_DOT_(703).7 804).323-9900 900							CRC	SS SECT	IONS			OR TO REGULA	RES RELATING TO ATION AND CONTRO	L OF TRAFFIC	REVISED STATE	ROUTE	STATE PROJE	СТ	SHEE
SIGN BY JMT (804) 323-99 BSURFACE UTILITY BY, D	DATE <i>JMT_(804).323-990</i>	0						SC	ALE 1 IN. = 5	FT			NECESSARY BY	ECT TO CHANGE AS THE DEPARTMENT	S DEEMED		619	0001-07	'6-005	١,
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								1,000	1,996, PT 1,996, PT 1,596, RT 14,6359 LT 13,5039 LT 13,5039 LT		/MT. ! 0.0000' RT !L-RT									
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				<b></b>		EX		 * `	18 895-61-5004 RT 18 895-22976/RT 18 855-22976/RT 18 7530 14/248* LT 18 555-612996* LT	2.000%	(A)				EX					
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PROJECT MANAGER Gladls, Arbaleda, PWC. DOT. 1703).792-5276  SURVEYED BY, DATE JUT. 1804/1 323-9900	CROSS SECTIONS	DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC	REVISED STATE SHEE SHEE
DESIGN BY JNT(804).323-9900	SCALE 1 IN. = 5 FT	MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT	VA. 619 0001-076-995
120	00' RT		120
II5	12.4696 0.0000  12.4696 0.0000	EX.PVMT.	115
120	00° RT 395° RT 53° RT 550° LT 5105° LT 5105° LT		120
II5	13.47.31 0.00   13.47.31 0.00   13.47.31 0.00   13.50.39 1.45   13.50.33 0.00   13.51.33 0.00   13.51.33 0.00   13.51.33 0.00	EX.PVMT.	115
	105+25.00		
125			125
120	00000' RT -UT 1,4917' RT 2,4929' RT 1,47935' LT 13,0083' LT 13,0083' LT 17,		120
		EX. PVMT.	115
	105+00.00		
125			125
120			120
II5	5,4500 0,0000 R      5,4500 0,0000 R      5,4500 0,0000 R      5,4500 0,0000 R      5,582 4,9078      5,7090 1,3506      5,7090 1,3506      5,499 0,0000 R      5,499 0,0000 R      5,499 0,0000 R      5,499 0,0000 R	EX. PVMT	Pto GO Josito
50	104+75.00	50	Rte 619_Joplin Station 104+75.00 To Station 105+50.00
			PROJECT SHEET   0001-076-995 7

URVEYED BY.	DATE JMT_(80	boleda,PWC_DOT(7) 04).323-9900						CRC	SS SECT	IONS		DESIGN FEATURES OR TO REGULATIO	N AND CONTROL	OF TRAFFIC	REVISED STAT	ROUTE	STATE PROJI	ECT	SHE
ESIGN BY <i>JMT</i> UBSURFACE U	.(804).323-990 ITILITY BY, DA	00 ATE <i>JMT_(804).323</i>	-9900					sc	ALE 1 IN. = 5	FT		MAY BE SUBJECT NECESSARY BY TH	TO CHANGE AS HE DEPARTMENT	DEEMED	]				
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								RT	######################################		7								
								000	.86' RT 2415' RT 7635' L 5214' L		7,000								
	45					<del> </del>		9	7 404 550		8 -							115	
						TW/Ic		8245	619_PGL- 09:3541/1 09:2227 09:4286 09:5497 09:0497		K. PVMT. 17892 C 3.79 3.79 3.79			VMT					
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																	0001-07		



ROJECT MANAGER Gladis. Arbaleda, PWC. DOT. 1703).792-5276 URNEYED BY, DATE JWT. 1804.323-9900		CROSS SECTIONS	DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC	SED STATE ROUTE	STATE SHEE
ESIGN BY <i>JNT(804).323-9900</i> UBSURFACE UTILITY BY, DATE <i>JMT(804).323-9900</i>		SCALE 1 IN. = 5 FT	MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	0001-076-005
				VA.   6/9	0001-076-995
		200° RT 5533, RT 5554, LT 5567, LT 5567, LT			
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103	EX.	2000%	Ŭ .		105
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		0.0000 RT 1.17 1.4677, RT 1.4677, RT 1.35353' LT 1.35323' LT 1.35323' LT			
110	TW .	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			IIO
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105	<u>Ü</u>	05.1020 0.0000 RT 05.1020 0.0000 RT 05.1313 1.9677 RT 05.2169 13.5323" LT 05.2169 13.5323" LT 05.2169 13.5323" LT 05.2169 13.0323" LT 04.9562 0.0000 LT 04.9562 0.0000 LT	X X		10.5
		107+75.00			
		101 10300	RI	te 6/9_Joplin	
			Stati	ton 107+75.00 To Sta	ation 108+25.00
50		φ	50		PROJECT SHE
					0001-076-995

URVEYED B	Y. DATE JMT (	(804) 323-9900	DOT_ (70.3).792= )						CRO	SS SECT	ONS			DESIGN FEATURE OR TO REGULATI MAY BE SUBJECT	ON AND CONTROL	OF TRAFFIC	REVISED	ROUTE	STATE PRO	JECT	SHEET
UBSURFACE	UTILITY BY,	DATE JMT_(80	24) 323-9900						SC	ALE 1 IN. = 5	FT			MAY BE SUBJECT NECESSARY BY T	THE DEPARTMENT		- VA.	619	0001-0	76-995	li li
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	<i>II5</i>																			115	
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	<i>105</i>			 	>				 N/03.	000%	2,000%		8			EX. P				105	
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	105						EX. PV		10372	103.74 103.74 103.74 103.74 103.85	2,000*	103.5990 0.00 103.590	69			X, PVMT.				105	_
				 				 	 	0.03.72 0.03.72 0.03.7492   46   RT 0.04.2492   196   RT 0.03.7496   23.0389   17.03 0.03.583   47.49   17 0.03.583   43.5389   17.03 0.03.8598   13.0389   17.	Z.UUU/s			 		EX					
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																			000I-0	<sup>ЈЕСТ</sup>	SHEE*

PROJECT MANAGER <i>Gladls. Arbaleda_PWC_DOT_17031.</i> 792-5276  SURVEYED BY, DATE <i>JMT_18041.323-9900</i> SUBSURFACE UTILITY BY, DATE <i>JMT_18041.323-9900</i> SUBSURFACE UTILITY BY, DATE <i>JMT_18041.323-9900</i>	CROSS SECTIONS	DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT	REVISED STATE ROUTE	STATE SHEET PROJECT
3UBSURFACE UTILITY BY, DATE JMT(804).323-9900	SCALE 1 IN. = 5 FT	NECESSARY BY THE DEPARTMENT	VA.   6/9	0001-076-995
				//5
lio li lio	90 RT 775 LT 90 LT			110
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	2000 2000 2000 2000 2000 2000 2000 200			
	109+25.00			
120				120
115				//5
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105 X	28250 C 2822 2822 2824 2854 2854 2854 2854 2856 2856 2860 2860 2860 2860 2860 2860 2860 286	VMT.		105
		EXT		
	109+00.00		Rte 6/9_Joplin	
50		50	Station 109+00.00 To St	tation 109+50.00
				PROJECT SHEET N 0001-076-995 12

NECT MANAGER <i>Gladls. Arbaleda_PWC_DOT170.31.</i> 792-5276 VEYED BY, DATE <i>MIT(B04).323-9900.</i>	CROSS SECTIONS	DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC  MAY BE SUBJECT TO CHANGE AS DEEMED	REVISED STATE ROUTE	STATE SHEE
IGN BY JMT_(804) 323-9900	SCALE 1 IN. = 5 FT	MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT	VA. 619	0001-076-995
105				105
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			* 	
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	0.0000C RT -LT -7.14863' RT -7.14863' RT 8 13.5137' LT 13.0137' LT 13.0137' LT			IIO IIIO
105	50 000 34 '.; 34 '.; 5 000 5 000			105
	1017050 0,00000 1017050 0,00000 101705	EX. PV		10.5
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	110+00.00			
115				//5
110	7 RT			110
	00000 00000 00000 00000			
105 X	101.8697 0.00001   101.8697 0.00001   101.8697 0.00001   101.87	W.W.T.		
EX.PW	101.8697 0.0000 RT 101.8697 0.0000 RT 102.8992 1.9786 RT 102.8992 1.9786 RT 102.8942 1.3524 LT 102.845 13.524 LT 102.845 13.524 LT 102.845 13.524 LT 101.774 0.0000 LT	EX.PV		
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				PROJECT SHEE

PROJECT MA SURVEYED B DESIGN BY JU	NAGER <i>Gladis A</i> Y, DATE <i>JMT_(</i> MT_(804) 323-99	Arbaleda, P.W.CDOT(70.3). 792- 804). 323-9900 900	5276						CRO	DSS SECTI	ONS		DESIGN FE OR TO RE MAY BE S	EATURES REL GULATION AN UBJECT TO	ATING TO CO D CONTROL ( CHANGE AS D EPARTMENT	ONSTRUCTION OF TRAFFIC DEEMED	REVISED	STATE RC	DUTE	STATE PROJECT	SHEET NO
SUBSURFACE	UTILITY BY, [	900 DATE <i>JMT_(804) 323-99</i> 00							SC	ALE 1 IN. = 5	FT		NECESSAR	Y BY THE DI	EPARTMENT			VA. 6	5/9	0001-076-995	14
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				50	0					0						50		7/2.00	10 STOT	tion III+00.00	
																				PROJECT 0001-076-995	SHEET NO. 14

PROJECT MANAGER <i>Gladls. Arbaleda, PWC. DOT. 170.</i> 31.792-5276 SURVEYED BY, DATE <i>JMT. (B041</i> , 323-3990)	CRI	OSS SECT	IONS				DESIGN FEATURES RELA OR TO REGULATION AND	CONTROL OF TRAFFIC	N REVISED	TATE ROUTE	STATE PROJE	ECT SHE
DESIGN BY <i>JMT_(804).323-9900.</i> SUBSURFACE UTILITY BY, DATE <i>JMT_(804).323-9900.</i>	S	CALE 1 IN. = 5	FT	1	, , , , , , , , , , , , , , , , , , ,		MAY BE SUBJECT TO CONECESSARY BY THE DEF	PARTMENT	╣ .	(4)	0001.0	70.005
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			+									
						55′ RT	14' RT 11' RT					
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	76.99					2.00 2.00	00014 10008 99.75 3					
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105					85' R 8' RT	09' RT	3′ RT 73′ RT					105
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		75 25.00										
105												105
100						`\						- 100
95		<del>  19∙0</del> 0.00										95
100												- 100
					\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \							
95		<i>18+</i> 75 <b>.</b> 00										95
									Fuller Heig			
50						-			Station 18+i	75.00 To S	itation 19+50	0.00
									<b>7</b>		PROJE	
											0001-07	'6-995 l.

PROJECT MANAGER <i>Giadls. Arbaleda .PWC. DOT. 1703.</i> 1792-5276  SURVEYED BY, DATE <i>JMT. LBOU</i> 1, 223-9900		CROSS SECT:	[ONS ft		OR TO REGULATION	RELATING TO CONSTRUCTION I AND CONTROL OF TRAFFIC TO CHANGE AS DEEMED E DEPARTMENT		ROUTE	STATE SHEE
							VA.	619	0001-076-995
105			13' RT	S' RT					(05
100	X.PVuT.		] [2] [3]	99.42 21.73 1					
		20+75,00							
			RT	3' RT 9' RT					
105	PvuT.		SOUTH. 15 15 15 15 15 15 15 15 15 15 15 15 15	99.64 21.7 99.11 22.7					105
		20+50,00	3 20004						
105			4 15.7	23.49 RT					105
100	- EX PVIIT.	20+25,00	20007 20007 20007	98.89					100
			5' RT 35' RT	s' RT RT					
100	э. Рчит.		99.67 15.7 99.67 15.7 899.77 20	9.79 21.75 54 24.23					105
		20+00.00		6					
			#	RT	HT TT				
105	17.8 15.29 17		0.22 19.86. F	100.12 25,007 F	100.00 30.76' RT 99.88 36.59' RT 99.86 37.78' RT	53 40 <u>28</u> ° RT			105
100	8		9	1 2,000%	,	766			100
95		19+75.00					Fuller Heights I		95 ion 20+75.00
50		0				5	o		PROJECT SHEET N 0001-076-995 16

PROJECT MA SURVEYED B DESIGN BY <i>JI</i> SUBSURFACE	NAGER <i>Gladis.</i> Y, DATE <i>JMT.</i> ( <i>T. (804) 323-9</i> UTILITY BY,	Arboleda, P.W.C. DOT. 1703). 792- (804). 323-9900 1900 DATE J.M.T. (804). 323-9900	5276 				С	ROSS SECTI	ONS			OR TO F	FEATURES REL REGULATION AN SUBJECT TO C RY BY THE DE	D CONTROL OF	TRAFFIC	REVISED ST.	ROUTE	STATE PROJECT	SHEET
																V	A. 619	0001-076-995	5   17
	105									F	7. 7.							105	-
										5 15.66′ R	35 20.66 7 21.66′ R1 3 22.23′ F								
					 	 	 EX: PAIL	00.000		2.000 2.000	98.08 98.08							100	
								22+00.00											
	105									3 <u>7</u>	TAT							105	5
	100						Mr.			98.49 15.70' R1	8.59 20.70 8.61 21.70 R							100	
					 	 	 ,EK	21+75.00		A 2.000	1, 0, 9, 9,								
	10.5									5.70° RT	20.70' RT .70' RT .RT							105	ī
	100				 	 	 EX. PWIT.			EX.PMT.	98.88 21. 97.15 25.17"							100	,
								21+50.00											
	105									15.70' RT	1 99.03 20.70' RT 99.05 21.70' RT 98.23 23.33' RT							105	i
	100				 	 	 EX.PMIT.	2/+2 <b>5.</b> 00		Ex. Pour. 5000	98.23							100	,
																			+
	105									10 15.72° RT	99.20 20.12° RT 99.22 2.12° RT 98.65 22.87° RT							105	
	100				 	 	 EX.PVMT.	2/+00,00		66 2.000	766 7786 787					Fuller Heigh	s-Road	100	
				50											50	Station 21+0	0.00 To St	dtion 22+00.00	
																		PROJECT 0001-076-995	SHEET N

URVEYED	BY, DATE JMT	Arboleda,PWC_DOT_(703).792 (804).323-9900 9900 , DATE_JMT_(804).323-9900					CR	OSS SECT	I ONS				OR	GIGN FEATURES TO REGULATION Y BE SUBJECT CESSARY BY TH	N AND CONTROL	L OF TRAFFIC		STATE ROUTE	STATE PROJECT	SHE
OBSON ACI	OHEITT BI,	DATE GROUPE SELECTION											1921	DESSHIT BY TH	E DEPARTMENT			VA. 6/9	0001-076-995	5
	10.5											1 H							10.5	<u>;                                    </u>
										15.55/1	2025	22.07								
	100						 EX.PVMT.			х.гчит.	2.000%	97.97.							100	
	95																		95	
								23+00.00												
	10.5									3, RT	56' RT	22.00' RT							10.5	:
	100									15.5	52 20	97.54 20.5 97.76 22.5							100	,
			 		 	 	 EX.PVMT			EX.PVMT.	2.000%	66 								
	.95							00.75.00										,	95	
								22+75.00												
	10.5									56' RT	0.56′ RT	56′ RT							10.5	
	100						VMT.			vur. 37.79 15	2000 2000 17.89 20.56′ FT	97.91 21.							100	
	95		 		 	 	 ,			- F.	2,000%						[		95	i
								22+50.00						\						
	10.5									H.	14 1 24 1								105	<u>.                                    </u>
										2 15.57	2057	14 21.57								
	100					 	 EX.PVMT.			EX.PVMT.	2.000%								100	
			 				\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	22+25.00												
																	Fuller Hei		Station 23+00.00	
			50	)				φ								5	0		PROJECT	SHE
																			0001-076-995	

DESIGN BY JM	C (804) 323-9	Arboleda,PWC_DOT_(70.3).792: (804).323-9900 1900 DATE_JMT_(804).323-9900						CRO	DSS SECTI	ONS			OR TO REG	ULATION AN BJECT TO	ND CONTROL CHANGE AS [	ONSTRUCTION OF TRAFFIC DEEMED	REVISED	STATE ROUTE		SHEE
																		VA. 6/9	0001-076-99	95 /9
	105											RT								05
	100										5.51′ F	21.51								00
			 		 	/	 	EX.PVIIT.			5 100 20002	96.45	 							
	95								24+00.00		\(\)									5
									2 / 90.00											
	105										RT	7 7 7 N							10	25
	100										0 15.52′	96.80 20.52° 96.82 21.52°								00
	95		 		 		 	EX.PVM.			% 2.000½	8 8							9	5
									23+75.00											
	105										R	3. RT							10	05
	100							מענ.			екечиг. 3671 553	<del>96.81</del> 20.53' 1 5.83 21.53' 1							10	00
	95		 		 		 	EX.			8 <u>2.000%</u>	98	 						9	5
									23+50.00											
	105																			n=
	105										15.54′ RT	97.04 20.54 RV 97.06 21.54 RT 97.33 22.09 RT								
	100							X.PWIT.			EX.PVWT. 96.94 P.	97.04 97.06 97.33								00
	95				 														9ر	5
									23+25.00								Fuller Hei	ahts Road		
																	Station 23		Station 24+00.00	
			5	υ												5	0		PROJECT 0001-076-99	SHEET N

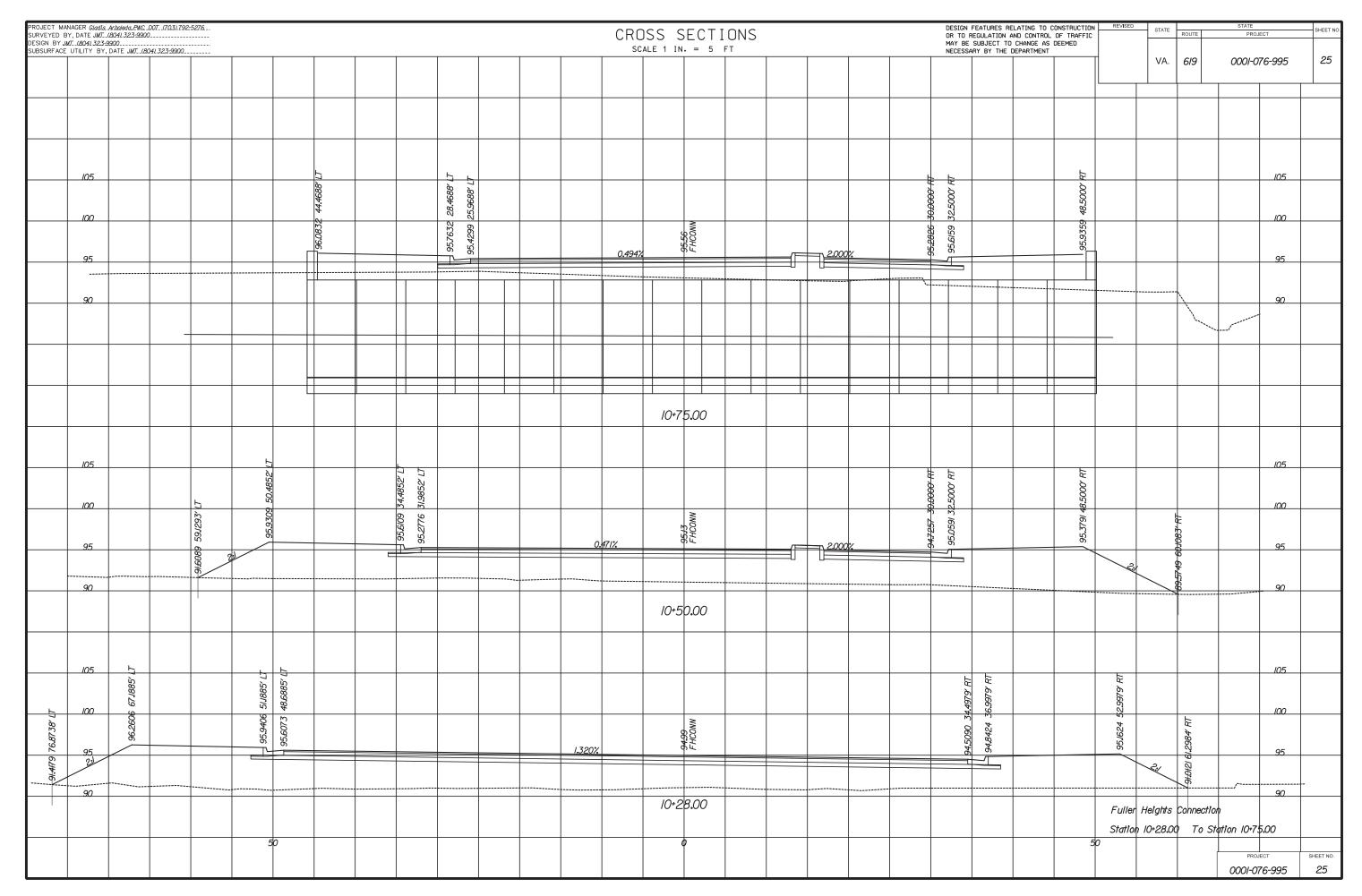
PROJECT MAN SURVEYED B' DESIGN BY JAN SUBSURFACE	AGER <i>Gladis. A</i> , DATE <i>JMT_4</i> , (804) 323-9: UTILITY BY, I	Arbaleda, P.W.C., DOT., (70.3), 792- 8041, 323-9900 900 DATE, J.M.T., (8041, 323-9900	527 <u>6</u> 					CRO	DSS SECTI	ONS			OR TO REI	ATURES RELA GULATION AND UBJECT TO C Y BY THE DE	CONTROL C	OF TRAFFIC	REVISED	ROUTE ROUTE	STATE PROJECT	SHEE
																		VA. 6/9	0001-076-9	95 2
								evur.			evur.									
	95							 <u> </u>			<u>\$</u>									95
	90								25+25.00											90
													+							
	9.5					 	 	 EX.FVIIT.			EX.PVIIT.	 								95
									25+00.00											
								יאות.			ANT.									
	95					 	 	 EX.			- EKI	 								95
									24+75.00				+							
	95					 	 	 Ех.РУИТ.			Ex.Pvur.	 								95
									24+50.00											
								WW			м.									
	95					 	 	 EXP			EX.PVIII.	 								95
									24+25.00											
																	Fuller Heig Station 24		Station 25+25.00	
				50	)				ø							50			PROJECT 0001-076-9	SHEET

JRVEYED B	. DATE JMT_	Arbaleda, PWC . DOT . (70.3). 792 (80.4). 323-9900 9900 DATE JMT . (80.4). 323-9900					CRU	DSS SECT	I ONS				OR TO R	REGULATION	ELATING TO ( AND CONTROL ) CHANGE AS DEPARTMENT	CONSTRUCTION OF TRAFFIC DEEMED	REVISED	STATE ROUTE	STATE PROJECT	SHEE
																		VA. 619	0001-076-995	2
					17. LT.	17		ET.			<u> </u>									
	100				885 28,7153° 5056 27,6811° 7.7. 3813 21,4638°	9638		575-4-323861 37 30 58(54.0839871			<u> </u>								100	
	<del>95</del> 90			 	 97.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	94.0	0.874%	\$ 000% \$ 000% \$ 000%	2,000%		ROAD MATE								95	
	,,,,							26+25.00			SIDIS									
					753′ LT 564″ LT 564″ LT	77.		676-LT SØCKFT		RT	K/ 520′ RT	W.RT								
	95				4538 26.2 13195 24 12995 23	4.1993 18.5561′		84885 43 23 62 84 85 85 85 85 85 85 85 85 85 85 85 85 85		3/5/	4.1941 18.8157 7	94.3168 - 249520 F 13.8865 - 25.81277 R							100	
			 	 		9 6	2.000%	26+00.00	2.000%	\(\frac{1}{2}\) \(\frac{1}2\) \(\frac{1}{2}\) \(\frac{1}2\) \(\frac{1}2\) \(\frac{1}2\) \(\frac{1}2\) \(\fraca		765								
					1888 EF 2149 LT	17 .690	17.6		' RT	54 RT 54 RT	80' RT \$96' RAT									
	95				94.4237 22.21	94.3236 17.206	5.9902 14.706 vur. 1.044 9.0000	94.28 FHRD	4,1044 9,0000	3.0907 14.68. 14.3240 17.118	94,4241 22.16 14,4941 23,19								100	
							5 <u>2</u> 000% 5	25+75.00	2.0	00%	1									
	10.5				17 £5.	77 72			77	074° RT 4074° RT	RT Y-PRT								105	
	100				948789 34857 LT 948789 184857 LT	4.5583 15.8577	<u>F</u>   8	94.49 FHRD	4.3121 9.0000° RT	NE140 13.9074" 4.5473 16.407	94.6474 21.4101' RT 94.6628 22.4011' RT								100	
	<u>-95</u>				1 100	) Š	2.000%	25+50.00	Žo	00%	0.00								95	
			50					φ								50			Station 26+25,00	
																			PROJECT 0001-076-995	SHE

ESIGN BY JM7	(804) 323-9	Arbaleda, P.W.CDOT (70.3). 792: 8041 323-9900 900 DATE J.MT (8041 323-9900										DSS SECT						OR TO MAY BE	FEATURES R REGULATION SUBJECT TO SARY BY THE	AND CONTROL  CHANGE AS	CONSTRUCTION OF TRAFFIC DEEMED	REVISED		ROUTE	STATE PROJECT	SHEET
																							VA.	619	0001-076-995	22
	<i>100</i>						93.63 28.56° LT 93.5224 27.0608° LT	,4223 22.0577°LT	3423 18.0549 LT			SEBBLESTEBUTT 3-2- BOBES I MESBY RT		2	77.39 16.9868' RT	1741 21.9949' RT 1941 22.9949' RT	' 25.8308' RT								100	
							9.8	0 kg	93	2.000%		80.20378	4.000%	C	93.	93	9,776									
	.90																								90	
	8.5											28+00.00													85	
	100						27.9465′ LT	22.943 <i>4′</i> LT	18.9406′ LT 16.4406′ LT		17 A00C		0000' RT		5.8434′ RT 18.3434′ RT	93 73  23.35 5' RT 93 93  24.35 5' RT	5362° RT								100	
	95						93.26 29.	33.4064	2.9930		93/418 9.	93.32 FMRD	0.6 0166.28		92.07.29 18	93/73/23	392 2005								95	
	90		 	 					0, 6,	2,000%		27+75.00	3.6	0/3/	1		2,35								90	
	100				29.8/LT		28.6456′ LT	23.9159 LT 21.4759 LT			7. V-12-1-1	170.16086	5346B'RT			9,9305′ RT 22,4305′ RT	27.8534' RT 28.8534' RT	54l' RT							100	
	95				93.56	93.881	93.7605	93,3337	0.8	93%		93.53 FHRD	3334 WBS 0 3 3 3 3 4 4 8 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6		.PvwT.	93.0486 14 93.3819 2	93.4904								95	
	90		 									27+50.00	2.030	<i>A</i>	<u> </u>			36							90	
	100			10.5651/LT+	00 E	33.9788′ LT 1788′ LT					Z\$6594.∐T		3688′ RT			541" RT									100	
	95			 94573,4	10/016	94,7504 3 98,4971 31.47		0.40	) 38%		<b>9948</b> 21784	0.7 <b>9</b> 8.4.	27.7 2 <b>30053</b> 7.7.35		C.PVMT.	94.508611253									95	
	90				Ē	- 1									×	E ROA										
												26+50.00				SID						Fuller He Station 2			tion 28+00.00	
			50									φ									5	0			PROJECT 0001-076-995	SHEET NO

PROJECT MANAGER <i>Gladis. Arholeda,PWC_DOT_17031.</i> 792-5276  SURVEYED BY, DATE <i>JMT_18041.323-9900</i> ESIGN BY <i>JMT_18041.323-9900</i> SUBSURFACE UTILITY BY, DATE <i>JMT_18041.323-9900</i>		CROSS SECTION SCALE 1 IN. = 5 F	ONS	OR TO REGULATION	ELATING TO CONSTRUCTION AND CONTROL OF TRAFFIC DEMED DEPARTMENT	REVISED STATE ROUTE	STATE SHEET N
SOUSON ACE OTHER TO BUS LIGHT SERVICE STATE OF THE				NECESSARI BY THE	J. TANDEN	VA. 6/9	0001-076-995 23
90 0 LT 4038 LT	71.82 71.87 71.87 71.87	17.000	00' RT 00' RT 00' RT 197' RT				
130 259	744 19.4 5944 15.5 610 12.88	3,8000 9,000 3,899 HRD	25.5300 9.000 E. F. Hill. 25.500 21,000 92.5500 21,000 92.5509 22,950				100
	8, 8, 5, 1,000 kg	2 8t	9000%				95
90							90
85		28+75.00					
17.568 17.	11 16 1	77.00	00' RT 38' RT 808' RT 8966'AT				
96 26.79	319 204	5/42 9,000 1829 1RD	3342 9.000 8063 12.180 5403 14.68 19692 26.98				100
	8 8 2000x		2000%				95
90							90
85		<del>28+5</del> 0.00					85
17. 12. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		77.00	9' RT ' RT 03' RT 884' RT	6			100
70 Z7.68	6183 21712 5383 7.16 5049 74.663	56 RD	\$31383 9.0000′ RT \$22973113.1303′ RT \$23,3064 15.6303′ P 93,4066 20.63384′ 93,4266 21.6384′	75,2098			
95	5 S 2,000%	2.5 18.4 18.4 18.4 18.4 18.4 18.4 18.4 18.4	\$2000% \$2000%	306916			95
85		28+25.00				Fuller Heights Road Station 28+25.00 To	85 Station 28+75.00
50		0			50		PROJECT SHEET NO 0001-076-995 23

DESIGN BY JA	(T. (804) 323-9	Arbaleda,PWC_DOT_(70.3).792 (804).323-9900 9900 DATE_JMT_(804).323-9900						CRO	DSS SECT:	ONS ft					OR TO F	REGULATION ( SUBJECT TO	ELATING TO ( AND CONTROL CHANGE AS DEPARTMENT	CONSTRUCTION OF TRAFFIC DEEMED	REVISED	STATE R	ROUTE	STATE PROJECT	SHEET N
																				VA.	619	0001-076-995	24
							W.						2										
	95		 		 	 	<u> </u>	 					EXPVII									9.5	
	90																					90	
	85								20,50,00													8.5	
									29+50.00														
																							+
	9.5		 		 	 30		 				EX.PVIIT.										95	
	90																					90	
	85																					85	
									29+25.00														
	100							33.854111.0000′LT 30.587419.0000′LT		2000′ RT	93.524/ 11.0000' RT											100	
	95		 			с, Румт.		93.8541 11	93.96 FHRD	3.60419.	3.5241 II.s												
	00				 	 		 π <u>υυν</u> ?		1 0	<u> </u>											90	
	90													``									
	<i>8</i> .5								29+00.00										Fuller H	eights Ro	pad	8.5	
			50	)					φ									5	Station 2	29+00.00	To Stat	tion 29+50.00	
																						PROJECT 0001-076-995	SHEET NO. <b>24</b>



JRVEYED BY.	DATE JMT_1	Arboleda, PWC DOT (703) 792- (804) 323-9900 9900 DATE JWT (804) 323-9900						 	 	 CRO	SS SECT	ONS FT		 	OR TO R	EGULATION 6	ELATING TO ( AND CONTROL ) CHANGE AS DEPARTMENT	OF TRAFFIC	REVISED	TATE ROUTE	STATE PROJECT	SHI
																				/A. 6/9	0001-076-99	5 4
					93.4802 49/478′ LT		94,3958 \$8,5000 LT	94,958 28,5000 LT		1.283%	94.20 FHCONN		2,000%	 94.0230 3G,0000 RT	94.3563 32.5000' RT		94.5563 42.5000' RT	92,77.29 46.0667' RT				5
	105 100 95		93,7037 58,3734 LT	91,7000 54,3661′ LT	3:1	94.3887 44.5000 LT		946687 28.5000 LT		2,0002	1/+50.00 EHCONN		2,000%	947754 30.0000' RT	95.087 32.5000° RT			95.4287 48.5000° RT	94,0386 51,2801' RT		10:	5
						95.8142 44.5000 LT		95.4942 28.5000 LT		1.460%	11+25 WWD-H-2 F-HCONN		2,000%	95.3302_30.30000' AT	= 957235 325000° RT			96.0435 48.5000' RT			10: 10: 9:	5
	90	_		5	0						//+00,00								Fuller Hei	l	on Station II+50.00	SHE

PROJECT MANAGER <i>GladL</i> SURVEYED BY, DATE <i>JMT</i> DESIGN BY <i>JMT_(804)</i> 32:3 SUBSURFACE UTILITY BY	23-9900	 							CRO	SS SECT	I ONS					DESIGN FEA OR TO REGL MAY BE SUE NECESSARY	JLATION AND BJECT TO CH	) CONTROL HANGE AS (	ONSTRUCTION . OF TRAFFIC DEEMED	REVISED ST.	ROUTE ROUTE	STATE PRO	JECT	SHEET NO
																				v	A. 619	0001-0	76-995	27
100								4839' L/				'213' RT	12/3′ RT	.9540′ RT	4.9904' RT								100	
95							94.6500 /4	94.3167 12. evur.	4.7.40	94.86 FHCONN	470	ALB198 13.4	94.553/ 15.9	94,6338 19	94,7345 <u>2</u> .								95	
									4.346%	13+25,00	1.764%	9	4		-									
100						21.9237′ LT	5							.9827' RT	25.4408′ R1	31,314' RT							100	
95		 				 94.7543		1,196.	%	9465 FHCONN	2.957 <b>%</b>		PVMT.	94,068 18.4	94.5293	94.6431							95	
						L-				13+00.00						<del></del>							-	
100								17,000 <del>0.</del> 00								32,3015′ RT 34,8015′ RT	9.9628′ RT	43.9628′ RT	.5/39′ RT				100	
95 				EX.PVIIT.				94.0279		0.547%				T	'X	93.6952	AVIIT.	94.2117 4					95	
90										12+00.00				<u>U</u>			<u> </u>						90	
		7.	17		7											RT	RT	_						
100		58.040/ LT 56.5845′ LT	4 49.8375	40.7431′ LT	38.											32,5000°	37,5000′	41.5000′ RT	14 10/18				100	
95		 92.3967	94.292	94//05	93.777.2		0.	3/8%		93.90 FHCONN				1.918%		93.9474	94.0474	94.1274	72.2800 4.		EX.PVMT.		95	
90																							90	
85																				Fuller Heigi	its Connecti	on	85	
			50							φ									50	Station II+75		itation 13+2	5.00 JECT	SHEET NO.
																							76-995	27

PROJECT MA SURVEYED E DESIGN BY J SUBSURFACE	NAGER <i>Gladis. A</i> Y, DATE <i>JMT(d</i> <i>IT_(804) 323-9</i> UTILITY BY, [	Arbaleda, PWC .DOT . (70.3).792: 8041 323-9900 900 DATE JMT . (8041 323-9900	-527 <u>6</u>					CRC	DSS SECTI	ONS			MAY BE	SUBJECT TO	ELATING TO C AND CONTROL CHANGE AS DEPARTMENT	DEEMED	REVISED	STATE	ROUTE	STATE PROJECT	SHEET N
																		VA.	619	0001-076-995	28
	95							K. PUMT.			C.PVMT.									<i>9</i> .5	
	- 43							 	13+50.00												
											O' RT										
	100								95.00 FHCONN		20000251							+		100	
	95					 		 94.2338 1 Ex. pviii.	95.0 FHC	6.000%	94,2200	 					Fuller H	leiahts C	onnection	95	
				50	)				13+42.10							5			- 1	ion 13+50.00	
				-																PROJECT 0001-076-995	SHEET NO <b>28</b>

PROJECT MA SURVEYED B DESIGN BY JU SUBSURFACE	NAGER <i>Gladis.</i> Y, DATE <i>JMT.</i> <i>MT. (804) 323-</i> UTILITY BY,	: Arbaleda,PWC(804) 323-9900 -9900, DATE_JMT_(80	DOT_ (70.3).792- 0 04).323-9900	5276 		,		, ,	CRC	SS S	ECT I	ONS				OR TO I	FEATURES RELA REGULATION AND SUBJECT TO CO ARY BY THE DER	CONTROL	OF TRAFFIC	REVISED	SIAIE	ROUTE	STATE PROJE		SHEET 29
																					VA.	619	0001-07	76-995	
										77				R1							RT				
	100								,0000	05833' 1				,0000					5′ RT		8.24" F			100	
	100								1.7050 8.0	357 04 333 04	. <del>U</del>			20 NE					54 54 54		PERM ESMT			100	
	95								94.70	94.5567 94.2233	CIRCL	2,152%		93.7930 WATCHLL										95	
								l	<u>U</u>	<u> </u>		2,132%		ROAD			ļ							-	
	90													SIDE										90	
										50+2	0.00														
									17 ,00	, LT O' LT				0000′ R'									'RT		
	100								8.0000	25833				<u> </u>									66.33′	100	
									4.7855	94.5371 0.5833' LT 94.3038 0,0000' LT	ACLE ACLE			13.9038 ATCHLINE									<i>R</i> /W		
	<u>95</u>								Ť	98.89		2,000%		93.										95	
	90													ROA										- - 90	
										50+/	0.00			Bals											
										7.7															
	100									947333 0.5833'.LT 944,900 0,0000'.LT				000' RT										100	
	100									33 05	E			94,0000 20,0000	INE									100	
	95									94.73	CIRCL	2000	THING AS	7.000C	ATCHL									95	
												2.000%			ROAD M		<del> </del>							-	
	90										0.00				SIDE RC									90	
										50+0	U <b>.</b> UU				Š					Round		) To C4-	tion 50+2	0.00	
					50						)								50		30.00.00	, 10 310			
																							PROJE 0001-07		SHEET N 29

RVEYED I	BY, DATE JMT	Arboleda, PWC DOT 1703). 792 (804). 323-9900 9900 DATE JMT (804). 323-9900					CRU	OSS SECTI	ONS			DESIGN FEATURES DR TO REGULATION MAY BE SUBJECT NECESSARY BY TH	N AND CONTROL	OF TRAFFIC	REVISED	STATE ROUTE	STATE PROJECT	SHEE
																VA. 6/9	0001-076-995	3
																		+
	100						27,0000	0,0000 LT			300' RT						100	
							47.494 80	94.6010 0.5 94.2677 0.5 94.27 CIRCLE			JCH! INF 6677 20.0							
	95						8	4842	3.000%	<u> </u>	93.6	 					95	
	.90							50+45,00			SIDFR						90	+
	100						17,000	05833, [7			2000' RT						100	
							4.7119 8.0	945636 0 942302 0 9423 CIRCLE			.6302 20.0							
	95						0	355	3.000%	<u> </u>	93.6	 					95	
	.90							50+40.00			SIDER						90	+
																		+
	100						27,0000	0000 LT			000° RT	ý.	2		2.17' RT		100	
							4.6739	94.53/5 0.5833° LT 1941982 0.0000° LT CIRCLE			93.6574 20.000° H	R/	W		TEMP ESMT			
	95						3	3300	2.704%			 					95	
	90							50+30.00			Y HOIS						90	+
															Roundabou	<del> </del>		+
			50	)				•						50	Station 50		Station 50+45.00	
																	PROJECT 0001-076-995	SHE

RVEYED BY,	DATE JMT_ (804) 323-990	C_DOT_(70.3).792-5276 00						CRO	SS SE	CTI	ONS			OR TO	N FEATURES REI REGULATION AI	ND CONTROL	OF TRAFFIC	REVISED ST	TE ROUTE	STATE PRO	JECT	SHE
BSURFACE U	_(804) 323-9900  TILITY BY, DATE JMT_(8	804) 323-9900		 				SCA	ALE 1 IN.	= 5 F	Т			NECES	E SUBJECT TO SARY BY THE D	EPARTMENT	DECITICO			222	20.005	
																		\	A. 619	0001-0	076-995	,
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								17	77,77				l ₩		E							
								.0000	0,5833′.17				0000		24.21							
$\overline{}$	100							8	90				80   	R							100	
								5,1513	95.0029 94.6696 ( 94.67	7			4J543									
	9.5							<u>_</u> 6	8 44	3	2.577%		94.1								95	
							ļ						<del> </del>									
	90																				90	
	90								50+70.	.00											.90	
				+ +											-						-	
								77	77,77				7:									
								.0000.	0.5833′				20' Ri									
	100			+ +				9	0.0				20.000 20.000								100	
								4.9476	94.7993 94.4659 94.47	á												
	95							8	8 84 9	3	0.000	I	93.8684								95	
							ļ	Ш			2,988%		66									
													B07									
+	90								F0.00	00											90	
									50+60.	.00			<u> </u>									
		1																				
$\top$								7	77.													
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$\dashv$	100	+						800	0.58 0.000 0.000				3000		1						100	
								2012	528 95 (	ا ك			22 25									
	95			<u> </u>		<u> </u>		94,8012 8,0000′ LT	94.6528 0.5833°.LT 94.3195 0.0000°.LT 94.3195 0.0000°.LT 94.32	7 2			93.7195 20.00		<u> </u>						95	
							6	Ķ 📗			3.000%		<b>3</b> 6									
													ROA									
+	90	+ + -													+ -						90	-
									<i>50+5</i> 0.	.00			S					Roundabout				
																		Station 50+5	0.0¢ T	Station 50+	70.00	
T			50						φ								50					
																				0001-0	DIECT OOF	SHEE

PROJECT MANAGER <i>Gladls. Arbaleda, PWC. DOT. 1703</i> ). 792-5276  SURVEYED BY, DATE <i>JMT. (B04)</i> 323-9900  DESIGN BY <i>JMT. (B04)</i> 323-9900  SUBSURFACE UTILITY BY, DATE <i>JMT. (B04)</i> 323-9900	CROSS SECTIONS  SCALE 1 IN. = 5 FT	DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT VA. 6/9 0001-076-995 32
		VA. 6/9 0001-076-995 32
	3'LT 3'LT 7'LT 7'LT 7'LT 7'LT 7'LT 7'LT 7'LT 7	
100	22 8.0000° 12 8.0000°	100
95	95.2599 94.5756 24	95
	HOAA	
90	50+90.00	90
	8,0000' LT 0,0000' RT	
	95.3930 8.0000′ LT 94.5193 20.0000′ RT	/00
95	9 8242 1360X 24	95
90	50+85.00	90
	30.43.00	
	9' RT	
100	#6 8.0000' LT 3 0.5833' LT 9 0.0000' LT 20.0000' RT	100
95	95.346 95.963 ( 94.8629 ( 94.4298 24	95
	Hard Hard Hard Hard Hard Hard Hard Hard	
90	50+80.00	Roundabout 90
50		Station 50+80.00 To Station 50+90.00
		PROJECT SHEET NO. 0001-076-995 32

DESIGN BY J	NT. (804) 323-9	Arboleda,PWC_DOT_(70.3).792: (804).323-9900 19900 DATE_JMT_(804).323-9900					CR	OSS SECT:	I ONS			OR TO R MAY BE	EGULATION A	IND CONTROL CHANGE AS I	ONSTRUCTION OF TRAFFIC DEEMED	REVISED	STATE ROU	JTE	STATE PROJECT	SHEET N
																	VA. 6/	9 (	0001-076-995	33
							17 ,000	0,0000, LT			0000 RT									
	100						1842 8.0	95,0359 02 94,7025 0.0 94,70 CIRCLE			44.4025 20.0								100	
	95						83	6,899	1.50	20%	040 94.4	 							95	
	90							51+20.00			SIDF R								90	
	100						27 ,0000	0000, LT			.0000' RT								100	
	100						5.2669 8	95,1186 0,5833° LT 94,7852 0,0000° LT 94,79 CIRCLE			4.4852 20								100	
	95						<u> </u>	0,000	1.50	90%	94.	 							95	
	90							5/+/0.00			SIDE								90	
								<b>F</b> .												
	100						8,0000 LT	0.5833° LT			20.0000' RT								100	
							95.3496	95.2013 94.8679 ( 94.87			WATCH! INE 94.5679 20									
	9.5								1.50	0%	ROAD	 							95	
	90							5/+00.00			SIDE					Roundabo	ut		90	
			50	)				0							50		1+00.00	To Station	n 51+20 <b>.</b> 00	
																		(	PROJECT 0001-076-995	33

DESIGN BY J	MT_(804).323-9900	da,PWC_DOT_(703).79; 323-9900		 		CRO	ISS SE	CT [ (	ONS			OR TO MAY BE	FEATURES RELA REGULATION AND SUBJECT TO C GARY BY THE DE	D CONTROL CHANGE AS I	OF TRAFFIC	REVISED		ROUTE	STATE PROJE		SHEET N
																	VA.	619	0001-07	76-995	34
						O LT	17 , TL 13, TL				' RT										
-	100					8 8.0000	5 0,5833′			Ų.	50,000									100	
	95					95.0188	94.8705 94.5371 ( 94.54		1.500%	TA S	942371									95	
						 			1.000/6	, , , , , , , , , , , , , , , , , , ,			-								
	90						51+40.	00		<u> </u>										90	
						י נד	s, LT 0, LT				O'RI										
	100					N 8.0000°	0.5833' 1				20000									100	
	95					95.060/	94.9118 0 94.5785 94.58	7200	1500%		94.2785									95	
						 			1.500%											-	
$\vdash$	90						5/+35 <b>.</b>	00		L C										.90	
						77 /	33' LT				Y RT										
	100					8,0000′ 17	94,9532 0,5833'LT 94,6198 0,000'LT 94,62 0,180'F			l l	94.3/98 20/0000									100	
	95					95,1015	94.953, 94.6198 94.62	4	,500	L L	43198									95	
						 			1.500%		* <b>o</b>									-	
-	90						5I+30 <b>.</b>	00		L C						Roundat	oourt			90	
																Station		) To Sto	ation 51+40	0.00	
			50				•								50				PROJE		SHEET NO.
																			0001-07	6-995	34

PROJECT MA SURVEYED E DESIGN BY J SUBSURFACE	NAGER <i>Gladis.</i> Y, DATE <i>JMT.</i> <i>MT. (804) 323-</i> 9 UTILITY BY,	Arbaleda, PWC. DOT. (703), 792- (804), 323-9900 1900 DATE JMT. (804), 323-9900	-5276 					CRC sc	DSS SECTI	ONS			OR TO RE	ATURES RELA GULATION AND UBJECT TO C Y BY THE DE	D CONTROL O	NSTRUCTION . DF TRAFFIC EEMED		ROUTE	STATE PROJECT	SHEET N
																	V.	A. 619	0001-076-99	5 35
									51+57.00											
									F. L.											
	100							77 ,0000.77	0,0000° L			2,0000' R1							100	
	95							94,936/84	947878 0,5833° LT 94,4544 0,0000° LT 94,45 CIRCLE			WATCHLINE 94.1068 20.0000 RT							95	i
										1.73	8%	8040A								
	90								5/+50.00			SIDE					Roundabout		90	
				50	)				φ							50		0.00 To S	tation 51+57.00	SHEET NO
																			0001-076-995	5 35

ROJECT MANAGER <i>Gladls. Arbaleda,PWC. DOT. 1703</i> J.792-5276 URVEYED BY, DATE <i>JMT. 1804</i> J.323-9900	CROSS SECTIONS	DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED	STATE STATE SHEE
SIGN BY JMT_(804).323-9900	SCALE 1 IN. = 5 FT	MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT	VA. 6/9 000/-076-995 3
			100
	7 T T T T T T T T T T T T T T T T T T T		
95	93.00 PSO PSO 93.4 93.00 PSO PSO 93.4		95
90	88.32 2 88.32 2 89.32 8		90
	10+60.00		
			100
	60 14.89 LT TT Y RT Y RT 35 14.4/F		100
95	33.40 40 12 13 140 12 13 140 12 13 140 12 13 140 12 140 12 140 140 140 140 140 140 140 140 140 140		95
90	88,85 2. 88,85 2. 89,85 2. 89,85 2.		90
	10+50.00		
100	### ### ##############################		100
95			95
90	99.36 52. 90.36 523 123 89.36 223 1 89.36 223 1 90.36 52 90.36 52		90
	10+40.00		
	13. LT 000 LT LT LT LT S3. RT		
95	92.31 6.13' LT 90.74 3.00' LT 89.74 2.60' RT 90.17 2.43' RT		95
90	668 8		90
	10+30.00		
90	10+20.00		STREAM RELOCATION
50			0+20.00 To Station 10+60.00
			PROJECT SHEET 0001-076-995 3

