FOR INDEX OF SHEETS SEE SHEET
1B for Proj.: 0612-047-631, P101, R201, C501
1B for Proj.: 0658-047-R97, P101, R201, M501

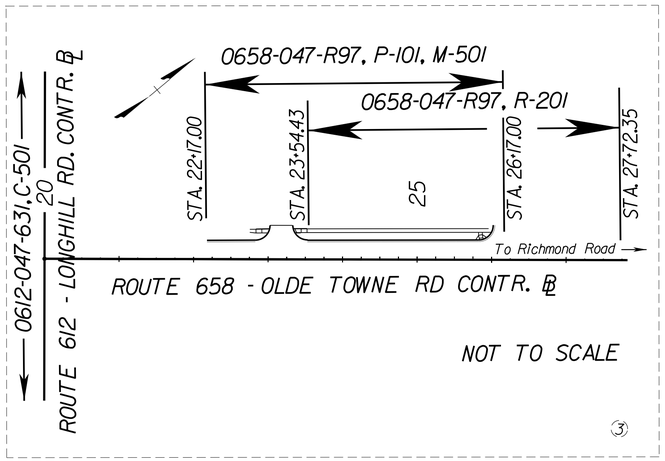
NOTE:
UPC 100921 AND UPC 108805 PROJECTS ARE SUMMARIZED INDIVIDUALLY IN THEIR RESPECTIVE PLAN SETS

STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.		612 658	(NFO) 0612-047-631 0658-047-R97 (SEE TABULATION BELOW FOR SECTION NUMBERS)	1

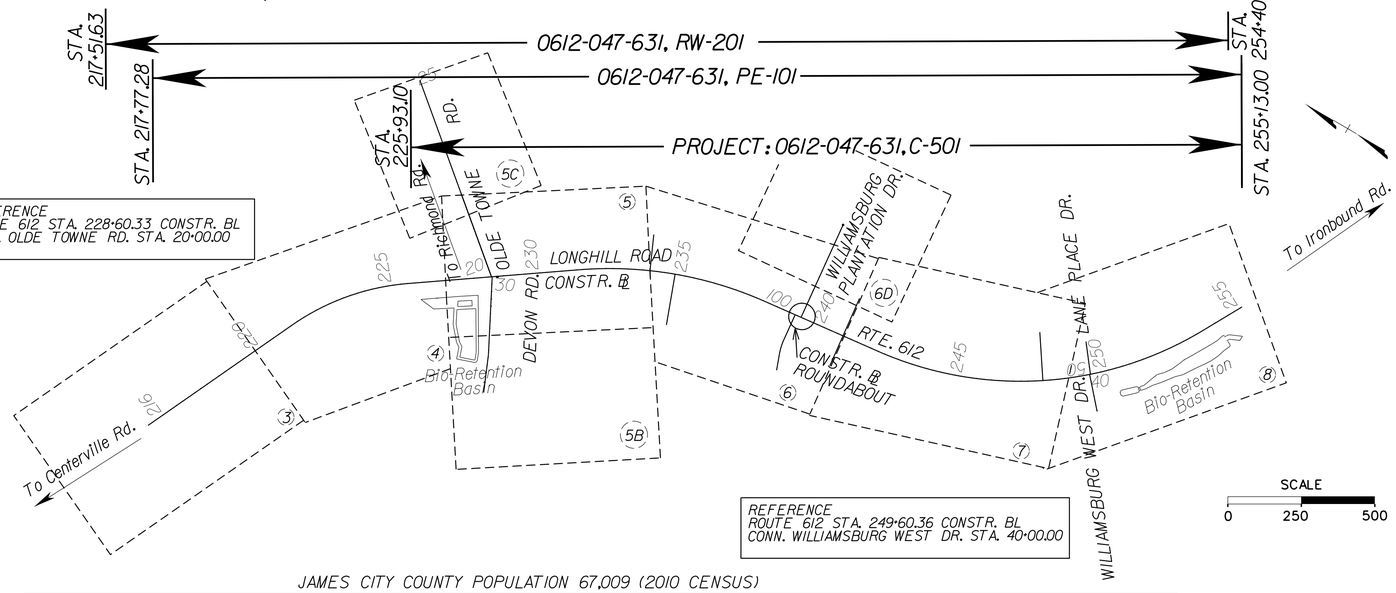
COMMONWEALTH OF VIRGINIA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

BUNDLE ADVERTISEMENT
UPC 100921, ROUTE 612
UPC 108805, ROUTE 658



REFERENCE
ROUTE 612 STA. 228+60.33 CONSTR. ℄
CONN. OLDE TOWNE RD. STA. 20+00.00



JAMES CITY COUNTY POPULATION 67,009 (2010 CENSUS)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	LENGTH INCLUDING BRIDGE(S) FEET	LENGTH INCLUDING BRIDGE(S) MILES	LENGTH EXCLUDING BRIDGE(S) FEET	LENGTH EXCLUDING BRIDGE(S) MILES	BRIDGE PLAN NO.	TYPE PROJECT	DESCRIPTION
0612-047-631	PE-101	STP-5A03(682)		100921	3,735.72	0.708	3,735.72	0.708		PRELIM. ENGR.	FROM: 0.205 MI. N. INT. RTE. 658 OLDE TOWNE ROAD
											TO: 0.105 MI. S. OF WILLIAMSBURG WEST DRIVE
	RW-201	STP-5A03(683)		100921	3688.50	0.6986	3688.50	0.6986		RIGHT OF WAY	FROM: 0.210 MI. N. INT. RTE. 658 OLDE TOWNE ROAD
											TO: 0.091 MI. S. OF WILLIAMSBURG WEST DRIVE
	C-501	STP-5A03(684)	1000	100921	2,919.90	0.553	2,919.90	0.553		CONSTR.	FROM: 0.051 MI. N. INT. RTE. 658 OLDE TOWNE ROAD
											TO: 0.105 MI. S. OF WILLIAMSBURG WEST DRIVE
0658-047-R97	PE-101			108805	400	0.0758	400	0.0758		PRELIM. ENGR.	FR: 217 FT NE OF RTE 612
											TO: 617 FT NE OF RTE 612
	RW-201			108805	417.92	0.0792	418.77	0.0793		RIGHT OF WAY	FR: 354.58 FT NE OF RTE 612
											TO: 773.35 FT NE OF RTE 612
	M-501		1000	108805	400	0.0758	400	0.0758		CONSTR.	FR: 217 FT NE OF RTE 612
											TO: 617 FT NE OF RTE 612

Project Lengths are based on Construction Baseline.

PROJECT MANAGER KENNETH D. MCKINNA, P.E. (757) 925-2406 (Hampton Roads)
SURVEYED BY, DATE DANNY WILLIAMS, LS (757) 925-2657 (Hampton Roads)
DESIGN BY N. DIANE GEOUGE (757) 925-3624 (Hampton Roads)
SUBSURFACE UTILITY BY, DATE ACCUMARK (804) 767-3147

FOR INDEX OF SHEETS SEE SHEET 1B

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (GEOPAK).
GEOPAK Computer Identification No. 108805

COMMONWEALTH OF VIRGINIA

DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

JAMES CITY COUNTY
OLDE TOWNE ROAD
FROM: 217 FT NE OF RTE 612
TO: 617 FT NE OF RTE 612

STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.		658	0658 - 047 - R97 (SEE TABULATION BELOW FOR SECTION NUMBERS)	1

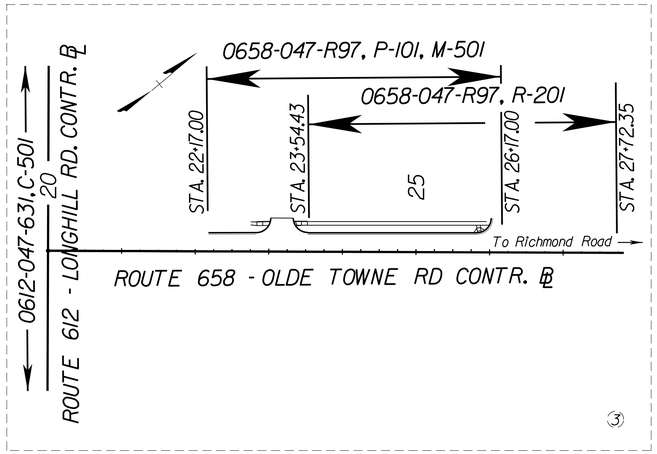
FHWA-534 DATA 35003

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA	
MAJOR - COLLECTOR - LEVEL - 35 MPH MIN. DES. SPEED	
	Fr: 217 FT NE OF RTE 612 To: 617 FT NE OF RTE 612
ADT (2017)	8743
ADT (2040)	11,000
DHV	1100
D (%) (design hour)	50/50
T (%) (design hour)	3.25 %
V (MPH)	*

CONVENTIONAL SIGNS

STATE LINE
COUNTY LINE
CITY,TOWN OR VILLAGE
RIGHT OF WAY LINE
FENCE 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 EMBANKMENT
BRIDGES
CULVERTS
DROP INLET
POWER POLES
TELEPHONE OR TELEGRAPH POLES
TELEPHONE OR TELEGRAPH LINES
HEDGE
TREES
HEAVY WOODS
GROUND ELEVATION
GRADE ELEVATION



REFERENCE
ROUTE 612 STA. 228+60.33 CONSTR. BL
CONN. OLDE TOWNE RD. STA. 20+00.00

THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY AS AWARDED, HAS BEEN SEALED AND SIGNED 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.

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, 2016 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 ORIGINAL 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.

Population James City County 67,009 (2010 Census)

STATE PROJECT NO.	SECTION	FEDERAL AID PROJECT NO.	TYPE CODE	UPC NO.	EQUALITIES	LENGTH INCLUDING BRIDGE(S)		LENGTH EXCLUDING BRIDGE(S)		BRIDGE PROJECT NO.	TYPE PROJECT	DESCRIPTION
					FEET	FEET	MILES	FEET	MILES			
0658-047-R97	PE-101			108805		400	0.0758	400	0.0758		PRELIM. ENGR.	FR: 217 FT NE OF RTE 612
												TO: 617 FT NE OF RTE 612
	RW-201			108805		417.92	0.0792	418.77	0.0793		RIGHT OF WAY	FR: 354.58 FT NE OF RTE 612
												TO: 773.35 FT NE OF RTE 612
	M-501		1000	108805		400	0.0758	400	0.0758		CONSTR.	FR: 217 FT NE OF RTE 612
												TO: 617 FT NE OF RTE 612

Project Lengths are based on Olde Towne Road construction baseline.

REVISED

TIER 1 PROJECT

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION	
11/7/18 DATE	Dawn V. Odom DISTRICT PLANNING AND INVESTMENT MANAGER
11/7/18 DATE	Christopher E. Eggleston, P.E. DISTRICT PROJECT DEVELOPMENT ENGINEER
APPROVED FOR RIGHT OF WAY ACQUISITION	
11/7/18 DATE	Peter G. Reilly, P.E. (for) DISTRICT ENGINEER/ADMINISTRATOR

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION	
12/14/18 DATE	Dawn V. Odom DISTRICT PLANNING AND INVESTMENT MANAGER
12/17/18 DATE	Christopher E. Eggleston, P.E. DISTRICT PROJECT DEVELOPMENT ENGINEER
APPROVED FOR CONSTRUCTION	
12/17/18 DATE	Peter G. Reilly, P.E. (for) DISTRICT ENGINEER/ADMINISTRATOR

PROJECT MANAGER Kenneth McKinna P.E. (757) 956-3271 (Hampton Roads District)
SURVEYED BY, DATE Danny Williams L.S. (757) 925-2657 (Hampton Roads District)
DESIGN BY Mary Pawlowski (757) 956-3265 (Hampton Roads District)
SUBSURFACE UTILITY BY, DATE Accumark

PROJECT	SHEET NO.
0658-047-R97	1

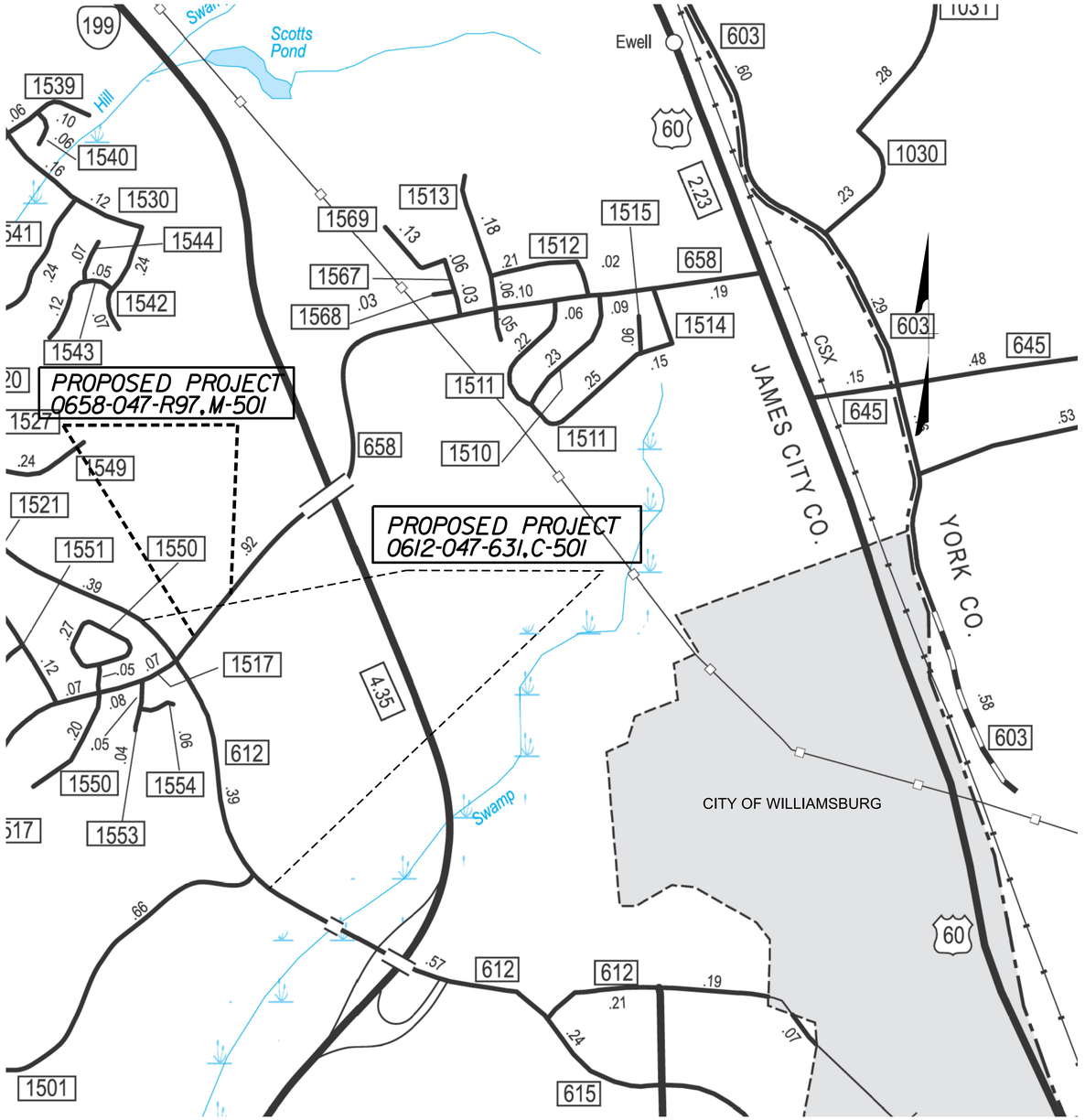
PROJECT MANAGER _ Kennneth McKinna (757) 956-3271 _
SURVEYED BY, DATE _Donny Williams (757) 956-3271_
DESIGN BY _____ Mary L. Pawlowski (757) 956-3265 _
SUBSURFACE UTILITY BY, DATE _____
HAMPTON ROADS DISTRICT DESIGN UNIT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	612	0658-047-R97, M-501	IA

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

LOCATION MAP

JAMES CITY COUNTY



NOT TO SCALE

	PROJECT	SHEET NO.
	0658-047-R97	IA

PROJECT MANAGER _ Kenneth McKinna, P.E. (757) 956-3271 (Hampton Roads District)
SURVEYED BY Danny Williams, L.S. (757) 925-2657 (Hampton Roads District)
DESIGN SUPERVISED BY Kenneth McKinna, P.E. (757) 956-3271 (Hampton Roads District)
DESIGNED BY Mary L. Pawlowski (757) 956-3265 (Hampton Roads District)

INDEX OF SHEETS

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
1/24/2019	VA.	658	0658-047-R97, RW-201 M-501	1B

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

SHEET NO.	DESCRIPTION	STATIONS
1	TITLE SHEET	
1A	LOCATION MAP	
1B	INDEX OF SHEETS	
1C	RIGHT OF WAY DATA SHEET	
1D	REVISION DATA SHEET	
1E	NOT USED	
1F - 1F(1)	SURVEY ALIGNMENT DATA SHEETS	
1G	CONSTRUCTION ALIGNMENT DATA SHEET	
1H	UNDERGROUND UTILITY TEST HOLE INFORMATION	
1I	NOT USED	
1J	TRANSPORTATION OPERATIONS PLAN	
2	GENERAL NOTES	
2A	TYPICAL SECTIONS	
2B	SUMMARY OF ESTIMATED QUANTITIES	
2C	ROADSIDE DEVELOPMENT SHEET	
3	PLAN SHEET	22+17.00 to 26+17.00
3A	PROFILE SHEET	22+17.00 to 26+17.00
3B	DRAINAGE AND E&S SHEET	
3C	CONCRETE STAKING SHEET	
3RW	RIGHT OF WAY SHEET	23+54.43 to 27+72.35
4	TRAFFIC CONTROL DEVICE PLAN	
5(1) - 5(4)	UTILITY PLANS	

TOTAL CROSS SECTION SHEETS 8 (SEE CROSS SECTION SHEET NUMBER 1 FOR INDEX OF SHEETS)

	PROJECT	SHEET NO.
	0658-047-R97	1B

PROJECT MANAGER Kenneth McKinna, PE (757)956-3271
SURVEYED BY, DATE Danny Williams, L.S. (757) 925-2657
DESIGN BY Mary L. Pawlowski (757)956-3265
SUBSURFACE UTILITY BY, DATE ACCUMARK, INC. (757) 767-3147
HAMPTON ROADS DISTRICT DESIGN UNIT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-R97, M-501	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: JAMES CITY COUNTY

UPC No.: 108805

PRELIMINARY
RIGHT OF WAY DATA SHEET

PARCEL NO.	LANDOWNER	SHEET NO.	AREA (Areas greater than or equal to 1 acre will be shown in acres to 3 decimal places (x.xxx). Areas less than 1 acre will be shown to square feet (x,xxx).)																PROFFERS
			TOTAL	FEE TAKING		PRESCRIPTIVE R/W		FEE REMAINDER		EASEMENTS									
										PERMANENT		UTILITY		TEMPORARY		TEMPORARY(ENTRANCES)			
			ACRES ~~OR SQUARE FEET~~	~~ACRES OR~~ SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	ACRES ~~OR SQ. FEET~~	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	~~ACRES OR~~ SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	ACRES OR SQ. FEET	HECTARES/ OR SQ. METERS	YES / NO
001	COUNTY OF JAMES CITY VIRGINIA	3	0.879	3,834				0.791				4,179							
002	COUNTY OF JAMES CITY VIRGINIA	3	5.548	1,767				5.507				5,293							

PROJECT MANAGER _ Ken McKinna, P.E. (757) 956-3271 _ _ _ _
SURVEYED BY, DATE Danny Williams, L.S. (757) 925-2657 _ _
DESIGN BY Mary Pawlowski (757) 956-3265 _ _ _ _ _ _ _ _ _ _
SUBSURFACE UTILITY BY, DATE Accumack (804) 787-3147
HAMPTON ROADS DISTRICT DESIGN UNIT

REVISION DATA SHEET

REVISED	STATE	STATE		SHEET NO.
		ROUTE	PROJECT	
1/24/2019 6/25/2019	VA.	658	0658-047-R97, RW-201 M-501	ID

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

State Project: 0658-047-R97, M-501
Federal Project:
From: 217 FT NE of Rte. 612
To: 617 FT NE of Rte. 612
UPC Number: 108805

R1 January 24, 2019 — 0658-047-R97, RW-201

Sheet 1B: Revised Index of Sheets to show Revision Data Sheet as been added to the plan set.

Sheet 3: Corrected the numbering for sidewalk and sawcut in the call-out legend.

This revision was made at the direction of the project manager.

R2 June 25, 2019 — 0658-047-R97, RW-201

Sheet 2B: Removed the pay item for Lump Sum Grading and replaced with pay items for Clearing and Grubbing and Regular Excavation.

This revision was done at the direction of the Construction Division (Gil Falasco).

PROJECT	SHEET NO.
0658-047-R97	ID

PROJECT MANAGER_ Kenneth McKinna, P.E._(757) 956-3271 (Hampton Roads District)
SURVEYED BY Danny_Williams, L.S._(757) 925-2657 (Hampton Roads District)
DESIGN SUPERVISED BY Kenneth McKinna, P.E. (757) 956-3271 (Hampton Roads District)
DESIGNED BY Mary_L._Pawlowski_(757) 956-3265 (Hampton Roads District)

Note: To Convert Va. State Plane Coordinates NAD 83 Metric Values to Va. D. O. T. Project Coordinates.
1. Reduce the Eastings 2.5 Million Meters and the South and North Zone Northings by 1 and 2 Million Respectively.
2. Multiply by the U. S. Survey Foot (3.280833333333).
3. Multiply These Values by the Combined Scale and Elevation Factor (1.___) for this County.
A Reverse of this Procedure will Transform VDOT Project Coordinates to NAD 83 Values.

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	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-R97, RW-201 M-501	IF

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

SURVEY ALIGNMENT DATA

SURVEY ALIGNMENTS

POINT ID.	STATION	BEARING	PROJECT COORDINATES NORTH (Y)	EAST (X)
	Survey Traverse Rte 612			
SS	10+00.000	Disk 47-0377	362,443.148	3,778,166.607
		N 89° 35' 12" E		
PI	18+42.270	Disk 47-0376	362,449.224	3,779,008.855
		N 72° 12' 29" E		
PI	24+42.470	"T-Bar" #13	362,632.622	3,779,580.349
		S 89° 35' 20" E		
PI	29+60.830	"T-Bar" #12	362,628.902	3,780,098.696
		S 63° 29' 40" E		
PI	37+38.700	"PK Nail" #11	362,281.751	3,780,794.805
		S 72° 55' 50" E		
PI	48+35.870	"T-Bar" #10	361,959.698	3,781,843.644
		S 45° 36' 55" E		
PI	55+42.190	"PK Nail" #9	361,465.647	3,782,348.422
		S 64° 38' 39" E		
PI	60+66.250	"T-Bar" #8	361,241.224	3,782,821.997
		N 83° 13' 26" E		
PI	68+81.260	"T-Bar" #7	361,337.387	3,783,631.314
		N 70° 51' 33" E		
PI	73+90.710	Disk 47-0375	361,504.431	3,784,112.599
		N 80° 14' 52" E		
PI	88+24.890	Disk 47-0374	361,747.363	3,785,526.055
		N 73° 18' 55" E		
PI	94+22.150	JCC AZMK #310	361,918.840	3,786,098.169
		S 74° 05' 21" E		
PI	99+61.840	"PK Nail" #6	361,770.889	3,786,617.184
		S 46° 05' 08" E		
PI	104+46.140	"PK Nail" #5	361,434.986	3,786,966.062
		S 30° 44' 57" E		
PI	118+26.310	"PK Nail" #4	360,248.849	3,787,671.716
		S 60° 02' 28" E		
PI	122+81.400	Disk 47-0373	360,021.587	3,788,065.999
		S 62° 41' 26" E		
PI	127+41.020	"PK Nail" #3	359,810.715	3,788,474.390
		S 59° 57' 02" E		
PI	136+24.990	Disk 47-0372	359,368.070	3,789,239.549
		S 28° 14' 44" E		
PI	145+90.790	"PK Nail" #2	358,517.270	3,789,696.615
		S 2° 40' 25" E		
PI	154+02.550	"T-Bar" #1	357,706.393	3,789,734.481
		S 27° 36' 58" E		
PI	160+38.590	Disk 47-0371	357,142.815	3,790,029.314
		S 60° 09' 27" E		
PI	173+32.840	Disk 47-0370	356,498.774	3,791,151.942
		S 63° 17' 27" E		
PI	182+13.520	Disk 47-0348	356,102.942	3,791,938.653

Project Benchmark Origin "A262 1942"
Elevation = 95.33' NAVD88
Description:
13 MILES NORTHEAST ALONG CSX RAILROAR FROM THE STATION IN WILLIAMSBURG AT THE OVERPASS ROUTE 60. DISK IS SET VERTICALLY IN THE EAST FACE CONCRETE FOUNDATION SUPPORTING 3 CONCRETE PILLARS FOR THE ROUTE 60 OVERPASS BRIDGE. DISK IS 26.3' WEST OF THE WEST RAIL OF CSX RAILROAD.

BENCH MARKS

BM - VDOT DISK 47-0377
0 RT STA 10+00 TRAV RTE 612
BENCH MARK ELEV. = 99.03

BM - JCC DISK #309
72.2' RT STA 12+08.2 TRAV RTE 612
BENCH MARK ELEV. = 100.98

BM - VDOT DISK 47-0376
0 RT STA 18+42.27 TRAV RTE 612
BENCH MARK ELEV. = 98.08

BM - "T-BAR" #13
0 RT STA 24+42.47 TRAV RTE 612
BENCH MARK ELEV. = 95.46

BM - "T-BAR" #12
0 RT STA 29+60.83 TRAV RTE 612
BENCH MARK ELEV. = 100.09

BM - "PK NAIL" #11
0 RT STA 37+38.70 TRAV RTE 612
BENCH MARK ELEV. = 101.08

BM - "T-BAR" #10
0 RT STA 48+35.87 TRAV RTE 612
BENCH MARK ELEV. = 84.02

BM - "PK NAIL" #9
0 RT STA 55+42.19 TRAV RTE 612
BENCH MARK ELEV. = 83.39

BM - "T-BAR" #8
0 RT STA 60+66.25 TRAV RTE 612
BENCH MARK ELEV. = 79.37

BM - "T-BAR" #7
0 RT STA 68+81.26 TRAV RTE 612
BENCH MARK ELEV. = 71.53

BM - VDOT DISK 47-0375
0 RT STA 73+90.71 TRAV RTE 612
BENCH MARK ELEV. = 66.74

BM - VDOT DISK 47-0374
0 RT STA 88+24.89 TRAV RTE 612
BENCH MARK ELEV. = 48.97

BM - JCC DISK AZMK #310
0 RT STA 94+22.15 TRAV RTE 612
BENCH MARK ELEV. = 45.33

BM - "PK NAIL" # 6
0 RT STA 99+61.84 TRAV RTE 612
BENCH MARK ELEV. = 42.99

BENCH MARKS

BM - "PK NAIL" #5
0 RT STA 104+46.14 TRAV RTE 612
BENCH MARK ELEV. = 53.15

BM - " PK NAIL" #4
0 RT STA 118+26.31 TRAV RTE 612
BENCH MARK ELEV. = 112.03

BM - VDOT DISK 47-0373
0 RT STA 122+81.40 TRAV RTE 612
BENCH MARK ELEV. = 111.84

BM - "PK NAIL" #3
0 RT STA 127+41.02 TRAV RTE 612
BENCH MARK ELEV. = 105.05

BM - VDOT DISK 47-0372
0 RT STA 136+24.99 TRAV RTE 612
BENCH MARK ELEV. = 93.42

BM - "PK NAIL" #2
0 RT STA 145+90.79 TRAV RTE 612
BENCH MARK ELEV. = 102.26

BM - "T-BAR" #1
0 RT STA 154+02.55 TRAV RTE 612
BENCH MARK ELEV. = 90.83

BM - VDOT DISK 47-0371
0 RT STA 160+38.59 TRAV RTE 612
BENCH MARK ELEV. = 77.01

BM - VDOT DISK 47-0370
0 RT STA 173+32.84 TRAV RTE 612
BENCH MARK ELEV. = 85.76

BM - VDOT DISK 47-0348
0 RT STA 182+13.52 TRAV RTE 612
BENCH MARK ELEV. = 81.03

	PROJECT	SHEET NO.
	0658-047-R97	IF

Note: To Convert Va. State Plane Coordinates NAD 83 Metric Values to Va. D. O. T. Project Coordinates.
1. Reduce the Eastings 2.5 Million Meters and the South and North Zone Northings by 1 and 2 Million Respectively.
2. Multiply by the U. S. Survey Foot (3.28083333333).
3. Multiply These Values by the Combined Scale and Elevation Factor (1.00005) for this County.
A Reverse of this Procedure will Transform VDOT Project Coordinates to NAD 83 Values.

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

REVISED	FHWA REGION	STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
	3	VA.		658	0658-047-R97, RW-201 M-501	1F(1)

LD-200 (REV. 8/2000)

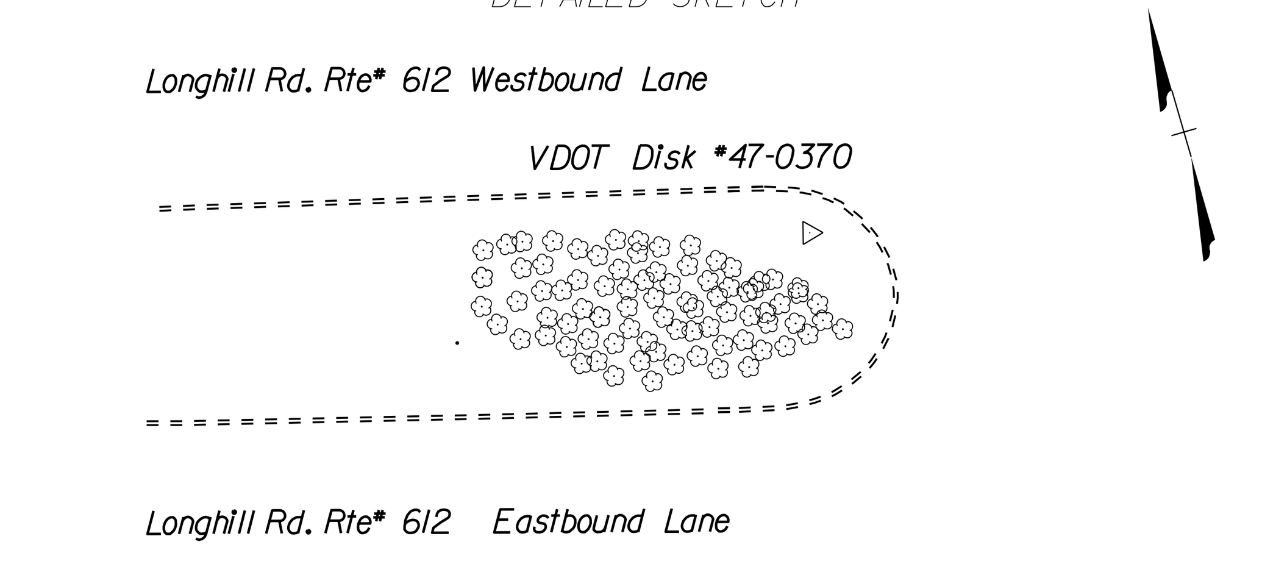
Virginia Department of Transportation Horizontal Control

Control Station I.D. 047 - 0370 Project 0612-047-157,C501
Route 612 City/County JAMES CITY CO. Date 06-30-06
Established By R.O.Harmon
Vertical Datum Based On NAVD88 Geoid 99 or 03 (circle one)
Horizontal Datum Based On NAD83 (93HARN)
Azimuth to Station 299°50' 33" to 47-0371
Latitude: 37° 017' 57.91622" N (5decimal places)
Longitude: 76° 44' 45.89131" W (5decimal places)
Geoid Separation (N): -35.1397
Ellipsoid Height (h): -9.0009 (WGS 84)
Control Based on: Station (name or PID) HARN 015 or
Project (monument no.) ____________ Order: ___
Virginia State Plane Coordinates – NAD 83 Metric Values
East (X) 3,655,487.6430 m
North (Y) 1,108,655.6068 m
Ortho. Elevation 26.139 m

V. D. O. T. Project Coordinates
East (X) 3,791,151.9235 ft.
North (Y) 356,498.7607 ft.
Elevation 85.76 ft.
Zone North South (circle one)
Horizontal Closure __________

To convert state plane metric units to VDOT project values, use the following formula.
1. Reduce the Easting Metric Values By 2.5 Million Meters. The South and North Zone Northing Metric Values By 1 and 2 Million Respectively.
2. Multiply These Values by the U.S. Survey Foot (3.280833333)
3. Multiply These Values by Combined Scale and Elevation Factor (1.00005) for the County.
Reverse This Proceedure to Transform VDOT Project Coordinates to NAD 83Metric Plane Coordinates
* Sketch and Detailed Description on Other Side *

DETAILED SKETCH



Detailed Description:
STANDARD METAL DISK STAMPED "047-0370" SET IN CONC. APPROX. 3" BELOW GROUND LEVEL. DISK IS LOCATED IN THE MEDIAN OF LONGHILL ROAD NEAR THE INTERSECTION OF RTE 612 & 199, IN THE WEST SIDE OF INTERSECTION.

LD-200 (REV. 8/2000)

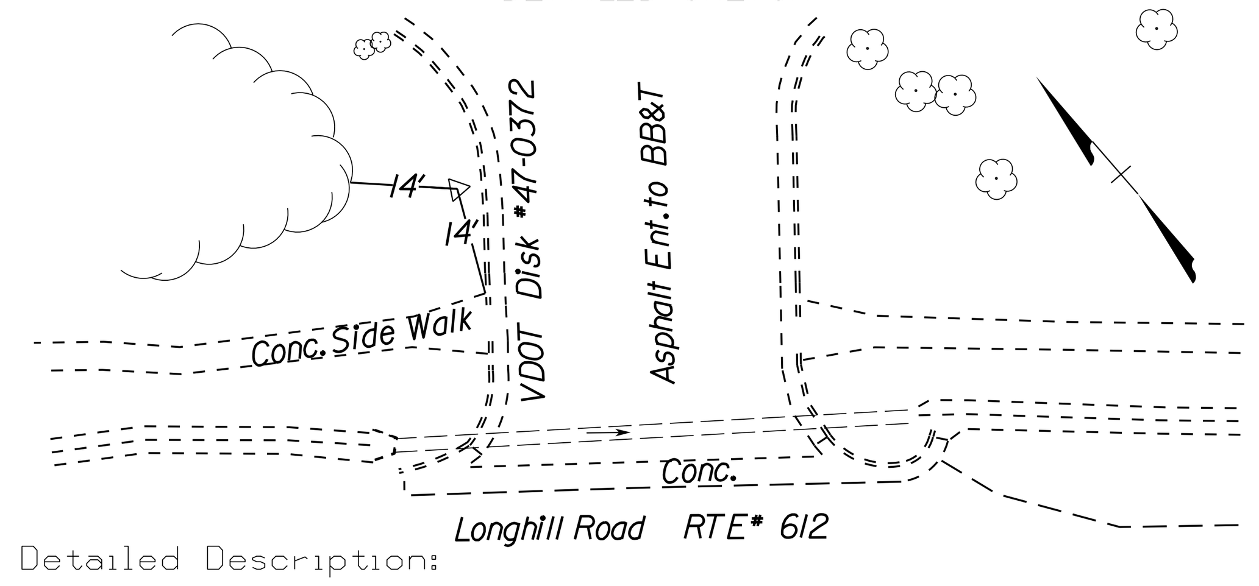
Virginia Department of Transportation Horizontal Control

Control Station I.D. 047 - 0372 Project 0612-047-157,C501
Route 612 City/County JAMES CITY CO. Date 06-30-06
Established By R.O.Harmon
Vertical Datum Based On NAVD88 Geoid 99 or 03 (circle one)
Horizontal Datum Based On NAD83 (93HARN)
Azimuth to Station 299° 06' 44" to 47-0373
Latitude: 37° 18' 26.63056" N (5decimal places)
Longitude: 76° 45' 08.89796" W (5decimal places)
Geoid Separation (N): -35.113
Ellipsoid Height (h): -6.6402 (WGS 84)
Control Based on: Station (name or PID) HARN 015 or
Project (monument no.) ____________ Order: ___
Virginia State Plane Coordinates – NAD 83 Metric Values
East (X) 3,654,904.7742 m
North (Y) 1,109,530.1264 m
Ortho. Elevation 28.474 m

V. D. O. T. Project Coordinates
East (X) 3,789,239.5325 ft.
North (Y) 359,368.0572 ft.
Elevation 93.42 ft.
Zone North South (circle one)
Horizontal Closure __________

To convert state plane metric units to VDOT project values, use the following formula.
1. Reduce the Easting Metric Values By 2.5 Million Meters. The South and North Zone Northing Metric Values By 1 and 2 Million Respectively.
2. Multiply These Values by the U.S. Survey Foot (3.280833333)
3. Multiply These Values by Combined Scale and Elevation Factor (1.00005) for the County.
Reverse This Proceedure to Transform VDOT Project Coordinates to NAD 83Metric Plane Coordinates
* Sketch and Detailed Description on Other Side *

DETAILED SKETCH



Detailed Description:
STANDARD METAL DISK STAMPED "047-0372" SET IN CONC. APPROX. 3" BELOW GROUND LEVEL. DISK IS LOCATED NORTHEAST OF RTE 612 IN ENT TO BB&T BANK 14' NORTH FROM SIDEWALK AND CURB AND GUTTER, 14' SOUTHEAST OF WOOD LINE.

LD-200 (REV. 8/2000)

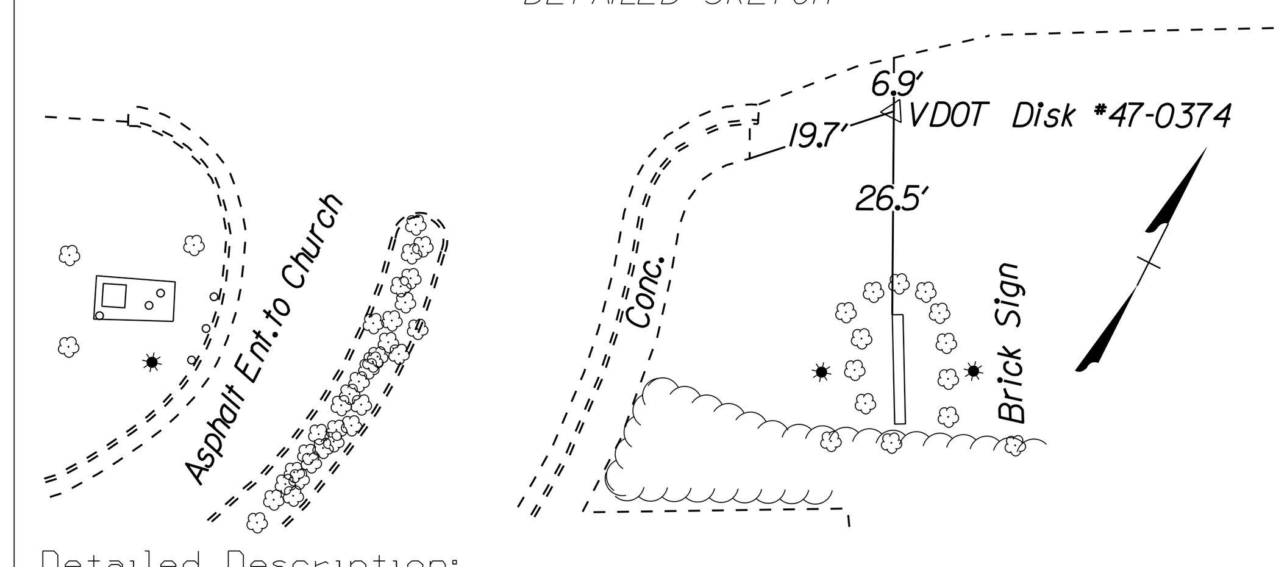
Virginia Department of Transportation Horizontal Control

Control Station I.D. 47-0374 Project 0612-047-157,C501
Route 612 City/County JAMES CITY CO. Date 06-30-06
Established By R.O.Harmon
Vertical Datum Based On NAVD88 Geoid 99 or 03 (circle one)
Horizontal Datum Based On NAD83 (93HARN)
Azimuth to Station 260° 14' 52" to 47-0375
Latitude: 37° 18' 50.82766" N (5decimal places)
Longitude: 76° 45' 54.31254" W (5decimal places)
Geoid Separation (N): -35.0775
Ellipsoid Height (h): -20.1505 (WGS 84)
Control Based on: Station (name or PID) HARN 015 or
Project (monument no.) ____________ Order: ___
Virginia State Plane Coordinates – NAD 83 Metric Values
East (X) 3,653,772.9573 m
North (Y) 1,110,255.3011 m
Ortho. Elevation 14.927 m

V. D. O. T. Project Coordinates
East (X) 3,785,526.0442 ft.
North (Y) 361,747.3535 ft.
Elevation 48.97 ft.
Zone North South (circle one)
Horizontal Closure __________

To convert state plane metric units to VDOT project values, use the following formula.
1. Reduce the Easting Metric Values By 2.5 Million Meters. The South and North Zone Northing Metric Values By 1 and 2 Million Respectively.
2. Multiply These Values by the U.S. Survey Foot (3.280833333)
3. Multiply These Values by Combined Scale and Elevation Factor (1.00005) for the County.
Reverse This Proceedure to Transform VDOT Project Coordinates to NAD 83Metric Plane Coordinates
* Sketch and Detailed Description on Other Side *

DETAILED SKETCH



Detailed Description:
STANDARD METAL DISK STAMPED 47-0374 SET IN CONC 1' BELOW GROUND LEVEL. DISK LOCATED SOUTHEAST OF RTE 612, 6.9' SOUTHEAST OF EDGE OF PAVEMENT, 19.7' NORTHEAST OF BACK OF CONC SIDEWALK, 26.5' NORTHWEST OF BRICK SIGN OF CHURCH

LD-200 (REV. 8/2000)

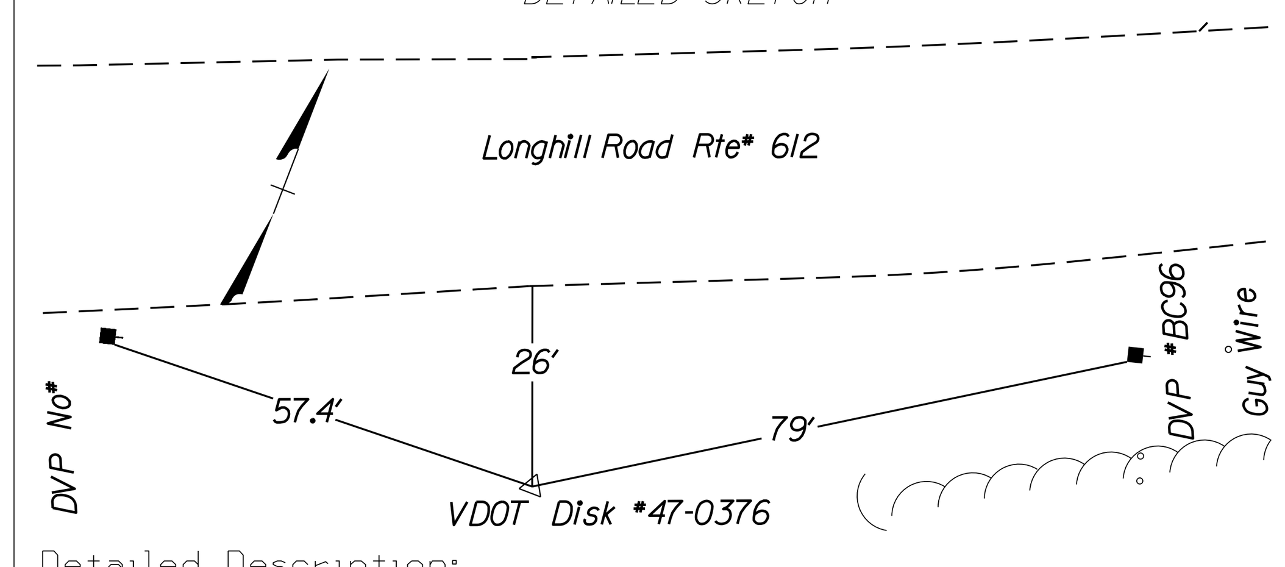
Virginia Department of Transportation Horizontal Control

Control Station I.D. 47-0376 Project 0612-047-157,C501
Route 612 City/County JAMES CITY CO. Date 06-30-06
Established By R.O.Harmon
Vertical Datum Based On NAVD88 Geoid 99 or 03 (circle one)
Horizontal Datum Based On NAD83 (93HARN)
Azimuth to Station 269° 35' 12" to 47-0377
Latitude: 37° 18' 58.94231" N (5decimal places)
Longitude: 76° 47' 14.81505" W (5decimal places)
Geoid Separation (N): -35.0281
Ellipsoid Height (h): -5.1323 (WGS 84)
Control Based on: Station (name or PID) HARN 015 or
Project (monument no.) ____________ Order: ___
Virginia State Plane Coordinates – NAD 83 Metric Values
East (X) 3,651,786.6134 m
North (Y) 1,110,469.2207 m
Ortho. Elevation 29.896 m

V. D. O. T. Project Coordinates
East (X) 3,779,008.8551 ft.
North (Y) 362,449.2231 ft.
Elevation 98.08 ft.
Zone North South (circle one)
Horizontal Closure __________

To convert state plane metric units to VDOT project values, use the following formula.
1. Reduce the Easting Metric Values By 2.5 Million Meters. The South and North Zone Northing Metric Values By 1 and 2 Million Respectively.
2. Multiply These Values by the U.S. Survey Foot (3.280833333)
3. Multiply These Values by Combined Scale and Elevation Factor (1.00005) for the County.
Reverse This Proceedure to Transform VDOT Project Coordinates to NAD 83Metric Plane Coordinates
* Sketch and Detailed Description on Other Side *

DETAILED SKETCH



Detailed Description:
STANDARD METAL DISK STAMPED 47-0376 SET IN CONC 1' BELOW GROUND LEVEL. DISK LOCATED 600' EAST OF THE INTERSECTION OF RTE 612 & RTE 614 26' SOUTH OF THE SOUTH EP OF RTE.612

LD-200 (REV. 8/2000)

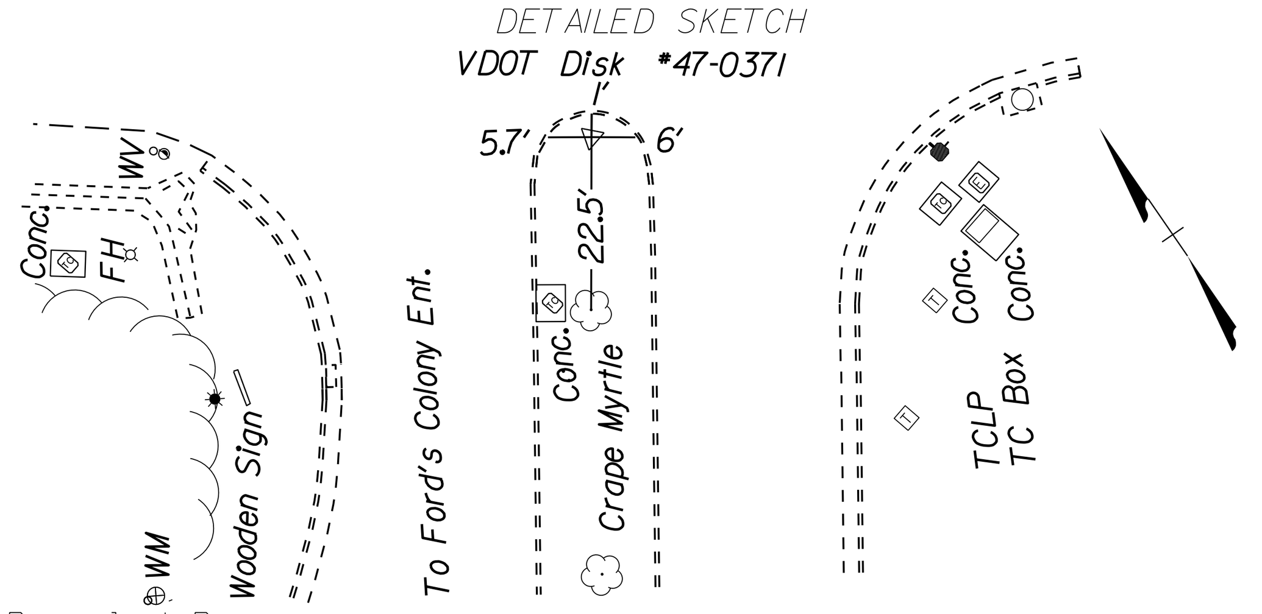
Virginia Department of Transportation Horizontal Control

Control Station I.D. 047 - 0371 Project 0612-047-157,C501
Route 612 City/County JAMES CITY CO. Date 06-30-06
Established By R.O.Harmon
Vertical Datum Based On NAVD88 Geoid 99 or 03 (circle one)
Horizontal Datum Based On NAD83 (93HARN)
Azimuth to Station 119° 50' 33" to 47-0370
Latitude: 37° 18' 04.48873" N (5decimal places)
Longitude: 76° 44' 59.63499" W (5decimal places)
Geoid Separation (N): -35.129
Ellipsoid Height (h): -11.6571 (WGS 84)
Control Based on: Station (name or PID) HARN 015 or
Project (monument no.) ____________ Order: ___
Virginia State Plane Coordinates – NAD 83 Metric Values
East (X) 3,655,145.4819 m
North (Y) 1,108,851.9018 m
Ortho. Elevation 23.472 m

V. D. O. T. Project Coordinates
East (X) 3,790,029.2939 ft.
North (Y) 357,142.8041 ft.
Elevation 77.01 ft.
Zone North South (circle one)
Horizontal Closure __________

To convert state plane metric units to VDOT project values, use the following formula.
1. Reduce the Easting Metric Values By 2.5 Million Meters. The South and North Zone Northing Metric Values By 1 and 2 Million Respectively.
2. Multiply These Values by the U.S. Survey Foot (3.280833333)
3. Multiply These Values by Combined Scale and Elevation Factor (1.00005) for the County.
Reverse This Proceedure to Transform VDOT Project Coordinates to NAD 83Metric Plane Coordinates
* Sketch and Detailed Description on Other Side *

DETAILED SKETCH



Detailed Description:
STANDARD METAL DISK STAMPED "047-0371" SET IN CONC. APPROX. 3" BELOW GROUND LEVEL. DISK IS LOCATED IN THE MEDIAN OF THE ENT. TO FORD'S COLONY JUST SOUTHWEST OF RTE 612. 1' BACK OF CURB AND GUTTER

LD-200 (REV. 8/2000)

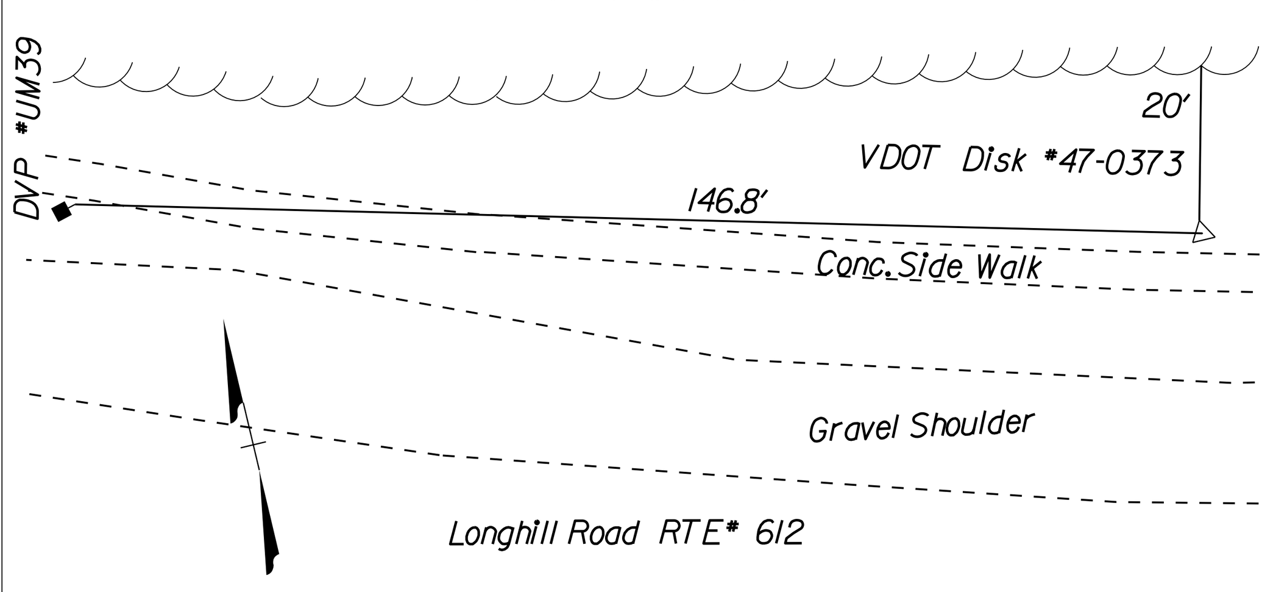
Virginia Department of Transportation Horizontal Control

Control Station I.D. 047 - 0373 Project 0612-047-157,C501
Route 612 City/County JAMES CITY CO. Date 06-30-06
Established By R.O.Harmon
Vertical Datum Based On NAVD88 Geoid 99 or 03 (circle one)
Horizontal Datum Based On NAD83 (93HARN)
Azimuth to Station 119° 06' 44" to 47-0372
Latitude: 37° 18' 33.30529" N (5decimal places)
Longitude: 76° 45' 23.27166" W (5decimal places)
Geoid Separation (N): -35.102
Ellipsoid Height (h): -1.0123 (WGS 84)
Control Based on: Station (name or PID) HARN 015 or
Project (monument no.) ____________ Order: ___
Virginia State Plane Coordinates – NAD 83 Metric Values
East (X) 3,654,547.0933 m
North (Y) 1,109,729.3096 m
Ortho. Elevation 34.090 m

V. D. O. T. Project Coordinates
East (X) 3,788,065.9824 ft.
North (Y) 360,021.5768 ft.
Elevation 91.266 ft.
Zone North South (circle one)
Horizontal Closure __________

To convert state plane metric units to VDOT project values, use the following formula.
1. Reduce the Easting Metric Values By 2.5 Million Meters. The South and North Zone Northing Metric Values By 1 and 2 Million Respectively.
2. Multiply These Values by the U.S. Survey Foot (3.280833333)
3. Multiply These Values by Combined Scale and Elevation Factor (1.00005) for the County.
Reverse This Proceedure to Transform VDOT Project Coordinates to NAD 83Metric Plane Coordinates
* Sketch and Detailed Description on Other Side *

DETAILED SKETCH



Detailed Description:
STANDARD METAL DISK STAMPED "047-0373" SET IN CONC. APPROX. 3" BELOW GROUND LEVEL. DISK IS LOCATED NORTHEAST OF RTE 612 BACK OF CONC. SIDEWALK, 146.8' SOUTHEAST OF DVP #UM39

LD-200 (REV. 8/2000)

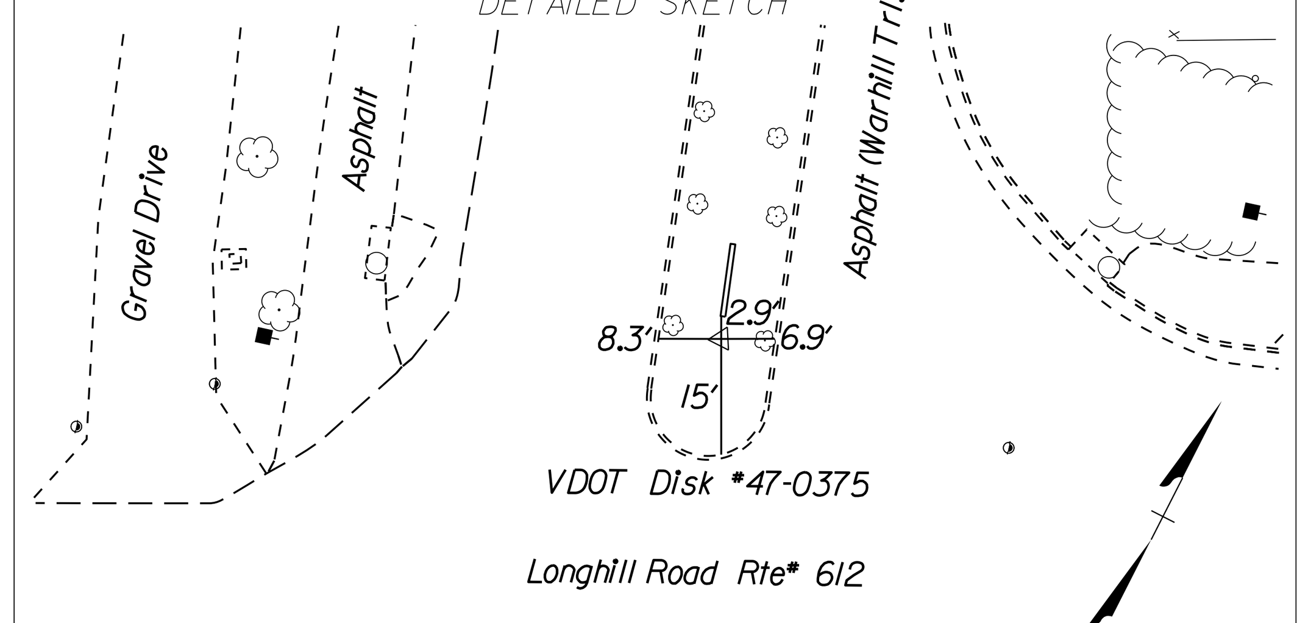
Virginia Department of Transportation Horizontal Control

Control Station I.D. 047 - 0375 Project 0612-047-157,C501
Route 612 City/County JAMES CITY CO. Date 06-30-06
Established By R.O.Harmon
Vertical Datum Based On NAVD88 Geoid 99 or 03 (circle one)
Horizontal Datum Based On NAD83 (93HARN)
Azimuth to Station 80° 14' 52" to 47-0374
Latitude: 37° 18' 48.68267" N (5decimal places)
Longitude: 76° 46' 11.86125" W (5decimal places)
Geoid Separation (N): -35.0688
Ellipsoid Height (h): -14.7270 (WGS 84)
Control Based on: Station (name or PID) HARN 015 or
Project (monument no.) ____________ Order: ___
Virginia State Plane Coordinates – NAD 83 Metric Values
East (X) 3,653,342.1567 m
North (Y) 1,110,181.2594 m
Ortho. Elevation 20.342 m

V. D. O. T. Project Coordinates
East (X) 3,784,112.5886 ft.
North (Y) 361,504.4229 ft.
Elevation 66.74 ft.
Zone North South (circle one)
Horizontal Closure __________

To convert state plane metric units to VDOT project values, use the following formula.
1. Reduce the Easting Metric Values By 2.5 Million Meters. The South and North Zone Northing Metric Values By 1 and 2 Million Respectively.
2. Multiply These Values by the U.S. Survey Foot (3.280833333)
3. Multiply These Values by Combined Scale and Elevation Factor (1.00005) for the County.
Reverse This Proceedure to Transform VDOT Project Coordinates to NAD 83Metric Plane Coordinates
* Sketch and Detailed Description on Other Side *

DETAILED SKETCH



Detailed Description:
STANDARD METAL DISK STAMPED "047-0375" SET IN CONC. APPROX. 3" BELOW GROUND LEVEL. DISK IS LOCATED AT THE INTERSECTION OF RTE 612 & WARHILL TRL. IN THE MEDIAN OF ENT. 2.9' SOUTHEAST OF SIGN, 15' NORTHWEST BACK OF CURB.

LD-200 (REV. 8/2000)

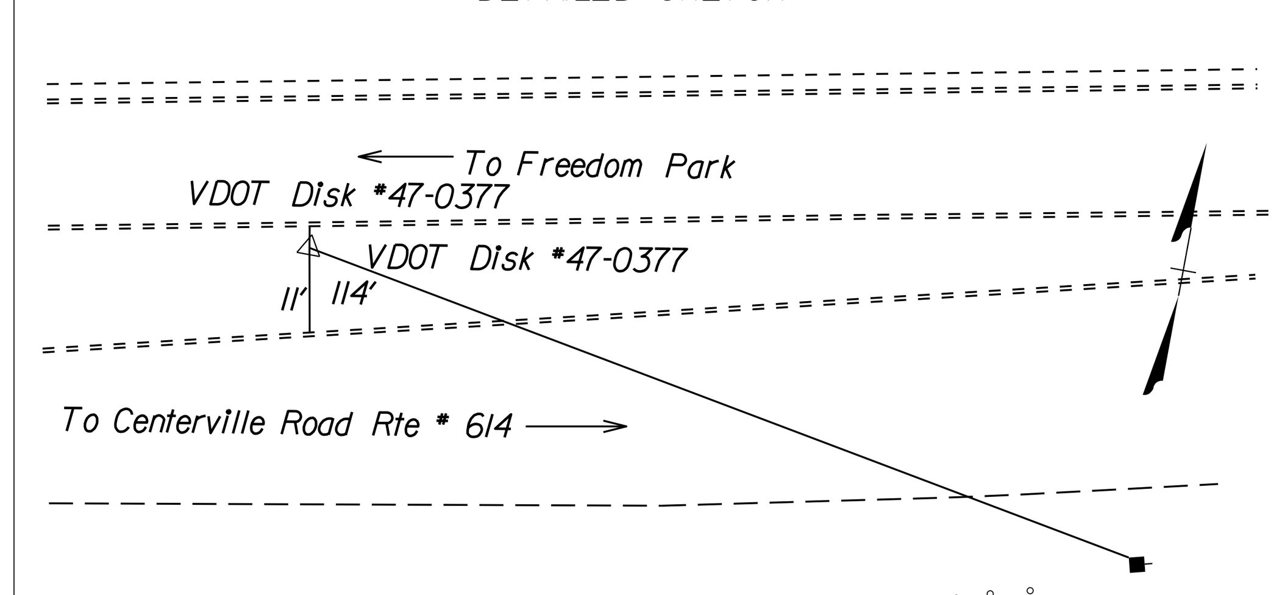
Virginia Department of Transportation Horizontal Control

Control Station I.D. 047 - 0377 Project 0612-047-157,C501
Route 612 City/County JAMES CITY CO. Date 06-30-06
Established By R.O.Harmon
Vertical Datum Based On NAVD88 Geoid 99 or 03 (circle one)
Horizontal Datum Based On NAD83 (93HARN)
Azimuth to Station 89° 35' 12" to 47-0376
Latitude: 37° 18' 59.03318" N (5decimal places)
Longitude: 76° 47' 25.24083" W (5decimal places)
Geoid Separation (N): -35.022
Ellipsoid Height (h): -4.8391 (WGS 84)
Control Based on: Station (name or PID) HARN 015 or
Project (monument no.) ____________ Order: ___
Virginia State Plane Coordinates – NAD 83 Metric Values
East (X) 3,651,529.9085 m
North (Y) 1,110,467.3690 m
Ortho. Elevation 30.183 m

V. D. O. T. Project Coordinates
East (X) 3,778,166.6070 ft.
North (Y) 362,443.1477 ft.
Elevation 99.03 ft.
Zone North South (circle one)
Horizontal Closure __________

To convert state plane metric units to VDOT project values, use the following formula.
1. Reduce the Easting Metric Values By 2.5 Million Meters. The South and North Zone Northing Metric Values By 1 and 2 Million Respectively.
2. Multiply These Values by the U.S. Survey Foot (3.280833333)
3. Multiply These Values by Combined Scale and Elevation Factor (1.00005) for the County.
Reverse This Proceedure to Transform VDOT Project Coordinates to NAD 83Metric Plane Coordinates
* Sketch and Detailed Description on Other Side *

DETAILED SKETCH



Detailed Description:
STANDARD METAL DISK STAMPED "047-0377" SET IN CONC. APPROX. 3" BELOW GROUND LEVEL. DISK IS LOCATED 215' WEST INTERSECTION RTE 612 AND RTE 614 IN THE GRASS MEDIAN TO THE ENTRANCE OF FREEDOM PARK

SUPERVISED BY KEN MCKINNA 757-956-3271
DESIGNED BY DANNY WILLIAMS, L.S. 757-925-2657
CADD OPERATOR $$DESIGNSFILE$$SPECIFICATIONS$$
REVISED BY

PLAN		BY	DATE
NOTE BOOK	SURVEYED		
	PLOTTED		
NO.	ALIGNMENT CHECKED		
	RIGHT OF WAY CHECKED		

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
A	0658-047-R97		1F(1)

PROJECT MANAGER _ Kenneth McKinna, P.E. _ (757) 956-3271 (Hampton Roads District)
SURVEYED BY Danny Williams, L.S. _ (757) 925-2657 (Hampton Roads District)
DESIGN SUPERVISED BY Kenneth McKinna, P.E. (757) 956-3271 (Hampton Roads District)
DESIGNED BY Mary L. Pawlowski _ (757) 956-3265 (Hampton Roads District)

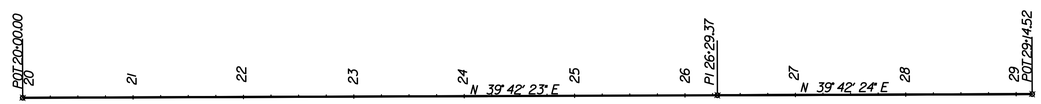
CONSTRUCTION ALIGNMENT

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-R97, RW-201 M-501	IG

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

MAINLINE BASELINE RTE. 658

```
<•    4    Describe Chain RTE658

Chain RTE658 contains:
 RTE6581 RTE6582 RTE6583

Beginning chain RTE658 description
**********************************************************************

Point RTE6581      N        359,095.89 E       3,789,325.66 Sta      20+00.00

Course from RTE6581 to RTE6582 N 39° 42' 23.36" E  Dist 629.37

Point RTE6582      N        359,580.08 E       3,789,727.73 Sta      26+29.37

Course from RTE6582 to RTE6583 N 39° 42' 24.10" E  Dist 285.16

Point RTE6583      N        359,799.46 E       3,789,909.90 Sta      29+14.52

**********************************************************************
Ending chain RTE658 description
```



	PROJECT	SHEET NO.
	0658-047-R97	IG

PROJECT MANAGER Kenneth McKinna, P.E. (757) 956-3271 (Hampton Roads District)
SURVEYED BY, DATE DANNY WILLIAMS, L.S. (757) 925-2657 (Hampton Roads District)
DESIGN BY Michael N. Pablete (757) 956-3268 (Hampton Roads District) _ _ _ _
SUBSURFACE UTILITY BY, DATE ACCUMARK (757) 767-3147 _ _ _ _ _ _ _ _ _ _

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-R97, RW-201 : M-501	IH

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

PLAN SHEET	TEST HOLE	DISTANCE (FEET)	(1) STATION & ROADWAY SURVEY BASELINE (RTE 612)	OWNER	TYPE OF FACILITY	(2) ELEV. (FEET)	(3) CONFLICT YES/NO	(4) REMARKS	UTILITY (5) ADJUSTMENT REQUIRED
N/A	1	144.5±LT	137 + 96.53	2	0.75" Gas	90.14	NO	3.26' + – CLEARANCE	NO
N/A	2	304.4±LT	137 + 42.44	1	2" Telephone Cable	95.99	NO	2.61' +– CLEARANCE	NO
N/A	3	317.0±LT	137 + 42.30	2	4" Gas	97.63	NO	1.17 +– CLEARANCE	NO
N/A	4	456.8±LT	136 + 79.66	1	2" Telephone Cable	102.55	NO	1.45 +– CLEARANCE	NO
N/A	5	475.5±LT	136 + 76.58	2	4"x2" Gas Tee	103.05	NO	1.25 +– CLEARANCE	NO

PLAN SHEETS	TEST HOLES	DISTANCE (FEET)	(1) STATION & ROADWAY SURVEY CENTERLINE	OWNER	TYPE OF FACILITY	(2) ELEV. (FEET)	(3) CONFLICT YES/NO	(4) REMARKS	UTILITY (5) ADJUSTMENT REQUIRED

UTILITY OWNERS

1 – Verizon (VZN)
William C. Swann, Jr.
(804) 772-4409

2 – Virginia Natural Gas (VNG)
Kevin D. Starke
(757) 455-2000

ACCUMARK
9500 KING AIR COURT
ASHLAND, VA. 23005
(800) 542-2990 www.accumark.us

ACCUMARK #17-218
James City County
ROUTE 612, 108805
TEST HOLE SUMMARY SHEET
DATE: 04/03/17

NOTES:

(1) ALL TEST HOLES ARE REFERENCED FROM THE SURVEY BASELINE UNLESS OTHERWISE NOTED.

(2) ELEVATIONS SHOWN HEREON ARE TO THE TOP OF THE FACILITY UNLESS OTHERWISE NOTED.

(3) YES OR NO; NO INDICATES NO DIRECT CONFLICT, HOWEVER, CLEARANCE MAY BE LESS THAN ACCEPTABLE TO UTILITY OWNER.

(4) REMARKS TO INCLUDE CLEARANCE DIMENSION (REGARDLESS OF DISTANCE).

(5) YES OR NO; INFORMATION TO BE PROVIDED BY THE VDOT DISTRICT UTILITY ENGINEER.

– SEE TEST HOLE CERTIFICATION FORM FOR ADDITIONAL INFORMATION.

Revised 1-95
SPECIAL DESIGN SECTION
DRAWING NO. A-41

	PROJECT	SHEET NO.
	0658-047-R97	IH

PROJECT MANAGER KEN MCKINNA, PE (757) 956-3271
SURVEYED BY, DATE DANNY B WILLIAMS (757) 925-2657
DESIGN BY MARTY P SULLA JR P.E. (757) 956-3159
SUBSURFACE UTILITY BY, DATE ACCUMARK INC (757) 767-3147
HAMPTON ROADS DISTRICT DESIGN UNIT

TRANSPORTATION OPERATIONS PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-R97, P-101, R-201, M501	IJ

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

TRANSPORTATION OPERATIONS PLAN

1. The process for lane closure coordination and implementation shall be handled as specified in the Special Provisions.

2. The following is a list of local emergency contact agencies:
a) James City County Police Department 757-253-1800
b) Haz-Mat Center (if spill involved) -911

3. Procedures to respond to traffic incidents that may occur in the work zone:
a) Contractor to notify James City County Police Department and VDOT Inspector in Charge and Smart Traffic Center.
b) Depending upon severity of incident, contractor may have to shut down work.
c) Upon arrival on scene, James City County Police Department to determine response necessary to allow traveling public around incident.
d) Inspector to notify Construction Manager/Resident Administrator of incident and take pictures as necessary, especially pictures of contractors work zone to verify the proper setup.

4. Process of notification of incident to be followed is:
Contractor to call: Construction Manager: TBD
Construction Manager shall notify the following:
a) Regional Traffic Operation Center, Shift Supervisor: TBD
b) Project Maintenance of Traffic Coordinators: TBD
c) Residency Administrator: TBD
d) Area Construction Engineer: Joe Ludwig 757-648-0894
e) Construction Manager: P.K. Das 757-897-8952
f) District Work Zone Safety Coordinator: John Sabato 757-925-2576
g) District Traffic Engineer: Mike Corwin 757-925-6020
h) District Public Affairs Manager: TBD

5. The James City County Police Department will take control of the incident and direct its clearing and restoration to normal traffic conditions.

6. The James City County Police Department report of the incident will be reviewed by the Residency Administrator to determine if any modification of the Temporary Traffic Control Plan is necessary. If it is determined that it is necessary to alter the plan, a meeting will be called with the contractor, VDOT project personnel, VDOT traffic safety representatives and the James City County Police Department (if necessary) to discuss modification and implementation of an improved traffic control plan.

PUBLIC COMMUNICATIONS PLAN

VDOT Construction staff to coordinate with District Public Affairs to publish announcements regarding construction activities and effect on traffic flow. Contractor to submit a TWLA schedule. Contractor to submit planned lane closure and any shift in traffic or flagging operations for the following week by 3 P.M. on Tuesday. Contractor to confirm their intent for approved lane closure and any shift in traffic or flagging operations a minimum of 24 hours in advance.

TEMPORARY TRAFFIC CONTROL PLAN

General Notes:

1. This project is a Type B project for purposes of developing a Traffic Management Plan.

2. The project location is from approximately 217 LF northeast of Route 612 (Longhill Road) to approximately 617 LF northeast of of Route 612 (Longhill Road) intersection. The length of the project is 0.0758 miles.

3. The following typical traffic control specifications from the 2011 Virginia Work Area Protection Manual, Revision 1 will be used: TTC-1J, TTC-3J, TTC-4J, TTC-5J, TTC-23J, TTC-24J, and TTC-67.0 as required. Other TTCs may be used with approval from the Engineer.

4. Route 658 is a Minor Urban Collector road with 35 MPH speed limit. The volume of traffic eastbound and westbound was approximately 7,700 vehicles per day in 2016. Types of traffic include trucks, commuters, travelers and residents.

5. There are no identified areas within the right of way for the contractor to store equipment and materials. The contractor must make arrangements for these areas according to VDOT policies.

6. Trench excavation for widening shall be adequately maintained and protected with cones or drums at all times. Placement of proposed material shall follow as closely as possible behind excavation operations. The length of widening trench which is open at any one time shall be held to a minimum and shall at all times be subject to approval of the Engineer.

7. At the conclusion of each workday, all pavement edge drop-offs shall meet the requirements of Figure 2 in Appendix A of the 2011 WAPM Revision 1 for the safety and protection of vehicular traffic. All cost for meeting these requirements shall be included in the price bid for other items in the contract and no additional compensation will be allowed.

8. Flagging operations will be allowed between the hours of 9:00 p.m. to 6:00 a.m., unless otherwise directed by the Engineer. Traffic shall not be stopped on any public road for more than five minutes at any time during flagging operations. Access to adjacent properties and connecting streets shall be maintained at all times during construction.

PROJECT MANAGER_ Kenneth McKinna, P.E._(757) 956-3271 (Hampton Roads District)
SURVEYED BY Danny Williams, L.S._(757) 925-2657 (Hampton Roads District)
DESIGN SUPERVISED BY Kenneth McKinna, P.E. (757) 956-3271 (Hampton Roads District)
DESIGNED BY Mary L. Pawlowski _(757) 956-3265 (Hampton Roads District)

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-R97, RW-201 M-501	2

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

GENERAL NOTES

GRADING

G-1 The grade line denotes top of finished pavement unless shown otherwise on typical sections or plans.

G-3 Earthwork quantities on this project are based on anticipated settlement and may require adjusting during construction. Payment will be made only for quantities actually moved.

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 grading: sidewalks, pedestrian ramps, curbs and curb & gutter.

G-6 The borrow material for this project shall be a minimum CBR - 10 or as approved by the Materials Engineer.

DRAINAGE

D-1 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.

D-7 All pipe on this project shall be concrete. For strength, sheet thickness, or class designation; available sizes; height of cover limitations; and other restrictions for a particular pipe type or height cover, see the applicable sections of the VDOT Road and Bridge Standards PC-1.

D-12 All existing drainage facilities labeled "To Be Abandoned" shall be left in place, backfilled and plugged in accordance with the VDOT Road and 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.

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-8A Clearing and grubbing shall be confined to those areas needed for construction. No trees or shrubs in ungraded areas shall be cut without the permission of the Engineer.

I-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-16 The "underground utilities" survey data on this project has been provided by consultant and copies are available from the Department.

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 sheet 4 and as directed by the Engineer.

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

Hydraulic Design	-	N/A - VDOT
Roadway Design	-	N/A - VDOT
Utility Design	-	Whitman, Requardt & Associates
Utility Designation	-	Accumark
Utility Location	-	Accumark
Survey	-	N/A - VDOT
Bridge Design	-	N/A
Traffic Design	-	N/A - VDOT
Landscape Design	-	N/A

If questions or problems arise during construction, please contact the Area Construction Engineer. DO NOT CONTACT THE OUTSIDE SOURCES.

I-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-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 (.dgn) 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 able to read these files.

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.

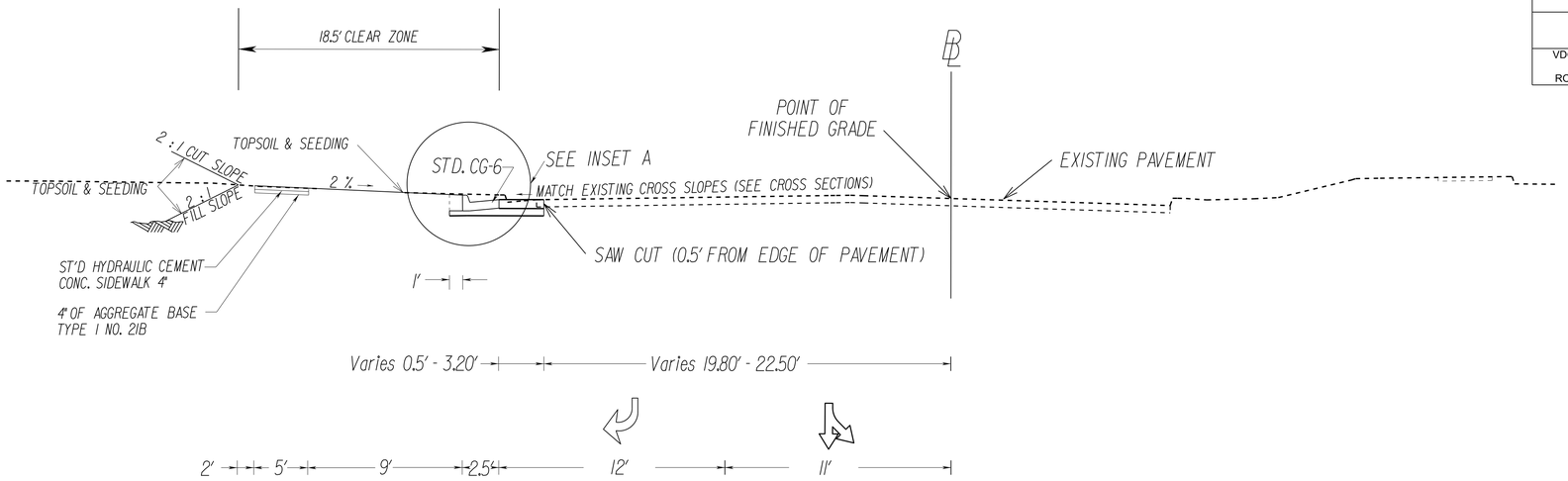
E-2 Rock for Check Dams, Inlet Protection, Erosion Control Stone and Riprap shall be in accordance with Section 203 and Section 414 of the applicable VDOT Road and Bridge Specifications.

E-3 The following symbols are used to depict Erosion Control items in the plan assembly:

EC-2, Ty. 1 / EC-2, Ty. 2 / EC-2, Ty. 3 / EC-2, Ty. 4	Denotes Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
EC-3, Ty. 1 / EC-3, Ty. 2 / EC-3, Ty. 3	Denotes Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
TSF-A / TSF-B	Denotes Temporary Silt Fence, St'd EC-5 Type A or B
TDC	Denotes Temporary Diversion Channel, St'd EC-12
DD	Denotes Temporary Diversion Dike, St'd EC-9
TC-I	Denotes Turbidity Curtain, Type - Impervious
TC-P	Denotes Turbidity Curtain, Type - Pervious
RCD-1	Denotes Rock Check Dam, Type I; St'd EC-4
RCD-2	Denotes Rock Check Dam, Type II; St'd EC-4
IP-A	Denotes Inlet Protection, Type A; St'd EC-6
IP-B	Denotes Inlet Protection, Type B; St'd EC-6
TSI	Denotes Slope Interrupter; St'd EC-15

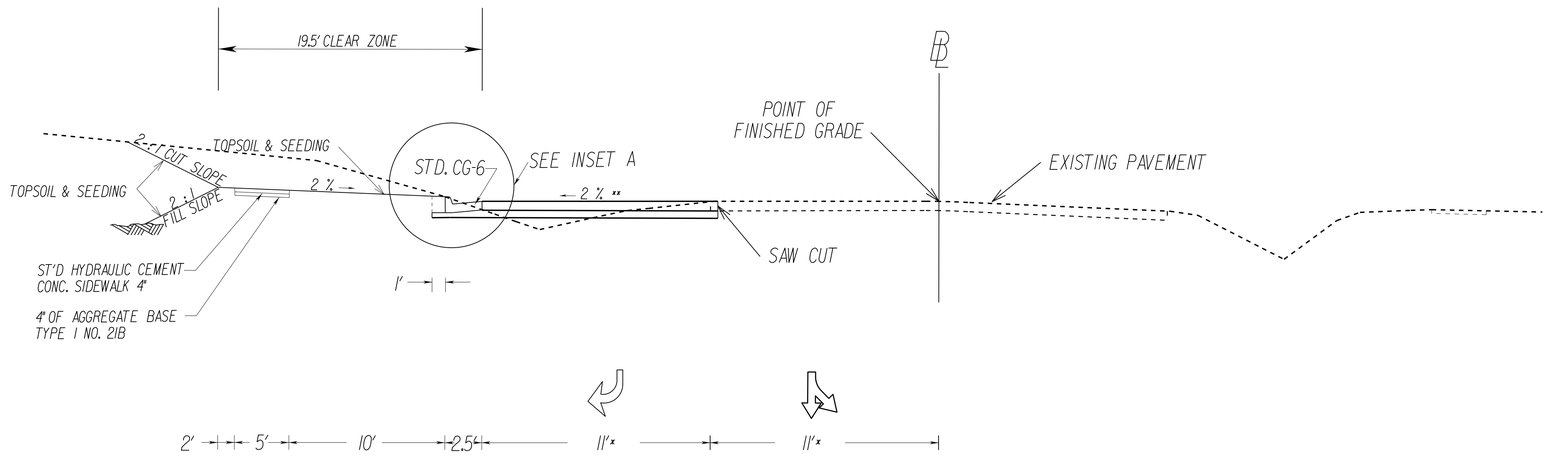
PROJECT MANAGER Kenneth McKinna, P.E. (757) 956-3271 (Hampton Roads District)
SURVEYED BY Danny Williams, L.S. (757) 925-2657 (Hampton Roads District)
DESIGN SUPERVISED BY Kenneth McKinna, P.E. (757) 956-3271 (Hampton Roads District)
DESIGNED BY Mary L. Pawlowski (757) 956-3265 (Hampton Roads District)

TYPICAL SECTIONS



FROM Station 22+17.00 TO Station 23+20.00
N.T.S.

NOTE: Begin full width sidewalk at Sta. 22+90.24
Begin transition from existing sidewalk at Sta. 22+64.53



FROM Station 23+20.00 TO Station 26+05.00
N.T.S.

NOTE: x From Station 23+20 to Station 23+84 and from Station 25+70 to Station 26+05 location of sawcut line varies (follows 0.5' from edge of pavement)
xx At Stations 23+25, 23+50, 23+75 & 26+00 see cross sections for cross slopes

COMMONWEALTH OF VIRGINIA
KENNETH DAVID McKINNA
Lic. No. 042625
PROFESSIONAL ENGINEER

VDOT Location & Design
Suffolk, Virginia
ROADWAY ENGINEER

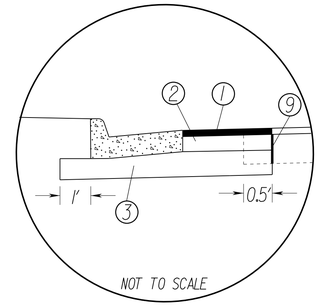
COMMONWEALTH OF VIRGINIA
THOMAS RICHARD TATE
Lic. No. 026620
PROFESSIONAL ENGINEER

VDOT Materials
Suffolk, Virginia
MATERIALS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-P97,RW-201 M-501	2A

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

INSET A



NOTES:

1. Remove a minimum of 0.50' (6") of topsoil and rootmat.
2. Hydro.Cement Concrete Sidewalk 4" req'd for sidewalk.

PRELIMINARY

(1) 1.5" of Asphalt Concrete Type SM-9.5D @ 165 lbs/yd²
(2) 4" of Asphalt Concrete Type BM-25.0A
(3) 8" of Aggregate Base Material Type I No. 21B
(9) Sawcut

PRIVATE AND COMMERCIAL ENTRANCES

TYPE I
Crusher Run Aggr.

6" Crusher Run
Aggr. 25 or 26

TYPE II
Concrete

Concrete Entrance Pavement
7" HES
4" Aggr. Base Mat'l. Ty. I
No. 21A or 21B

TYPE III
Asphalt

Asphalt Conc. Type
SM-9.5A or SM-9.5D @ 220 Lbs. per S.Y.
4" Aggr. Base Mat'l. Ty. I
No. 21A or 21B

NOT TO SCALE

TYPE IV
Asphalt Commercial

Asphalt Conc. Type
SM-9.5A or SM-9.5D @ 165 Lbs. per S.Y.
4" Asphalt Conc. Base Course
BM-25.0
6" Aggr. Base Mat'l. Ty. I
No. 21A or 21B

The type of entrance (I, II, III, IV) to be constructed will be determined by the existing condition at the time of construction.

	PROJECT	SHEET NO.
	0658-047-P97	2A

PROJECT MANAGER Kenneth McKinna, P.E. (757) 956-3271 (Hampton Roads District)
SURVEYED BY, DATE Danny Williams, L.S. (757) 925-2657 (Hampton Roads District)
DESIGN BY Mary L. Pawlowski (757) 956-3265 (Hampton Roads District)
SUBSURFACE UTILITY BY, DATE

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
1/29/2019 6/25/2019	VA.	658	0658-047-R97, M-501	2B

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

SUMMARY OF ESTIMATED QUANTITIES

0658-0047-R97, M-501

ESTIMATED QUANTITIES

ITEMS OF WORK	UNIT	QUANTITY	REMARKS
MOBILIZATION	LS	1	
CONSTRUCTION SURVEYING	LS	1	
CLEARING AND GRUBBING	ACRE	0.09	
REGULAR EXCAVATION	CY	382	
SELECT MATERIAL TY II MIN CBR-10*	CY	82	SEE * BELOW FOR REMARKS
AGGR. BASE MAT'L. TY. I. NO. 21B	TON	319	
FLEXIBLE PAVEMENT PLANING 0"-2"	SY	200	
ASPHALT CONCRETE TY. SM-9.5D	TON	45	
ASPHALT CONCRETE TY BM-25.0A	TON	74	
SAW-CUT ASPH CONC FULL DEPTH	LF	424	
RADIAL CURB CG-2	LF	87	
ST'D COMB. CURB & GUTTER CG-6	LF	292	
RADIAL COMB. CURB & GUTTER CG-6	LF	39	
DETECTABLE WARNING SURFACE CG-12	SY	3	
HYDRAULIC CEMENT CONC SIDEWALK 4"	SY	164	
TEMPORARY (CONSTRUCTION) SIGN	SF	240	
GROUP 2 CHANNELIZING DEVICES	DAY	600	
FLAGGER SERVICE	HR	320	
TYPE A PAVEMENT LINE MARKINGS	LF	358	FOR MAINTENANCE OF TRAFFIC
ERADICATE EXIST. LINEAR PAVMT MARKING	LF	358	FOR MAINTENANCE OF TRAFFIC
* FOR ESTIMATING PURPOSES ONLY, IT IS ASSUMED THE			
CUT MATERIAL IS NOT SUITABLE FOR USE AS FILL,			
HOWEVER PER SECTION 303.04(b) & (k), SUITABLE			
ON-SITE REGULAR EXCAVATION IS TO BE USED BEFORE			
USING OFF-SITE BORROW MATERIAL.			
WORK TO BE DONE BY STATE FORCES			
R/W MONUMENT RM-2	EA	6	
SEE SHEET NO. 2C, 3B, 4 & 5(2)			
FOR ADDITIONAL PAY QUANTITIES			

0658-0047-R97, M-501

ESTIMATED QUANTITIES

PROJECT	SHEET NO.
0658-047-R97	2B

PROJECT MANAGER _KENNETH MCKINNA, PE 757-956-3271
SURVEYED BY, DATE _DANNY WILLIAMS 757-925-2657
DESIGN BY MARY L. PAWLOWSKI 757-956-3256
SUBSURFACE UTILITY BY, DATE
HAMPTON ROADS DISTRICT DESIGN UNIT

ROADSIDE DEVELOPMENT

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-R97,M-501	2C

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

CORE MIX

MIX	LBS./ ACRES	DESCRIPTION
1	▲	✳ 100% CERTIFIED FINE FESCUE
2	▲ 100	100% CERTIFIED TALL FESCUE
3	▲	50% CERTIFIED TALL FESCUE ✳ 50% CERTIFIED FINE FESCUE
4	▲	50% ORCHARDGRASS 50% CERTIFIED KENTUCKY BLUEGRASS
5	▲ 100	100% BERMUDAGRASS
C 1, 2 & 3	▲	CUSTOM MIX
T1	▲	50% CERTIFIED TALL FESCUE 50% BARLEY, WINTER RYE OR WINTER WHEAT
T2	▲	50% FOXTAIL MILLET 50% CERTIFIED TALL FESCUE

ADDITIVES

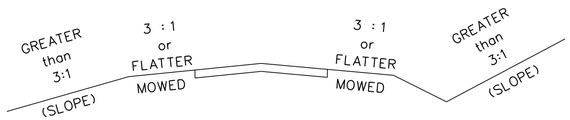
TYPE	LBS./ ACRES	DESCRIPTION
A	▲ 10	100% LOVEGRASS
B	▲	100% BARLEY, WINTER RYE OR WINTER WHEAT
C	▲ 20	100% FOXTAIL MILLET
D	▲ 20	100% ANNUAL RYEGRASS
E	▲	100% BLUE GRAMA
F	▲	100% ALFALFA
G	▲	100% WHITE CLOVER
H	▲	✳✳ 100% CROWN VETCH (LEGUME)
I	▲	✳✳ 100% SERICEA LESPEDEZA (LEGUME)
J	▲	✳✳ 100% BIRDSFOOT TREFOIL (LEGUME)
K	▲	POLLINATOR SEED MIX

✳ FINE FESCUES INCLUDE CHEWINGS, CREEPING RED, HARD, SHEEP. SEE SEEDING SCHEDULE FOR TYPE(S) SPECIFIED FOR THIS PROJECT.

▲ ALL RATES TO BE SPECIFIED BY THE DISTRICT ROADSIDE MANAGER

✳✳ THESE ADDITIVES ARE NOT TO BE USED IN AREAS THAT WILL BE MOWED. (SLOPES 3:1 OR FLATTER)

SECTION OF SEED LOCATIONS



ROADSIDE DEVELOPMENT SUMMARY

PROJECT NUMBERS AND/OR LOCATION DESC.	REGULAR SEED	OVER SEEDING	LEGUME SEED	LEGUME OVER SEEDING	TEMPORARY SEED	⊗ TOPSOIL (CLASS A 2" DEPTH)	LIME	FERTILIZER N NITROGEN	FERTILIZER P PHOSPHORUS	FERTILIZER K POTASSIUM	HECP (TYPE 1)	HECP (TYPE 2)	HECP (TYPE 3)	HECP (TYPE 4)
	LBS.	LBS.	LBS.	LBS.	LBS.	ACRES	TONS	LBS.	LBS.	LBS.	S. Y.	S. Y.	S. Y.	S. Y.
0658-047-R97,M-501	21	17				0.13 AC	0.45	10	12	6			729	
	21	17				0.13 AC	0.45	10	12	6			729	

⊗ DENOTES ITEM(S) TO BE PAID FOR ON THE BASIS OF PLAN QUANTITIES IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE CURRENT ROAD AND BRIDGE SPECIFICATIONS.

NOTES:

1 RECOMMENDATIONS FOR THE APPLICATION OF SEED MIXTURES (CORE MIX AND ADDITIVES), FERTILIZER, LIME, ETC. WERE OBTAINED FROM THE DISTRICT ROADSIDE MANAGER.

2 ALL SEED, FERTILIZER, LIME, MULCH, ETC. MUST BE IN CONFORMANCE WITH VDOT ROAD AND BRIDGE SPECIFICATIONS AND ANY APPLICABLE INFORMATIONAL & INSTRUCTIONAL MEMORANDA.

3 APPROXIMATELY 0.12 ACRES WILL BE DISTURBED ON THIS PROJECT AND WILL REQUIRE THE ESTABLISHMENT OF GRASSES AND/OR LEGUMES.

4 REGULAR SEED SHALL BE APPLIED AT THE RATES SHOWN IN THE CORE MIX, ADDITIVES, AND WHERE APPLICABLE, CUSTOM SEED MIX TABLES. SEEDING QUANTITIES SHOWN IN THE ROADSIDE DEVELOPMENT SUMMARY TABLE ARE BASED ON THE HIGHEST "NORMAL" SEEDING RATE FOR EACH CORE MIX (BY SEASON FOR BOTH MOWED AREAS AND NON- MOWED SLOPES), WITH A 25% INCREAMENTAL ADJUSTMENT TO ACCOUNT FOR SEEDING PROGRESSION, SEEDING AFTER SIGN OR GUARDRAIL INSTALLATION, AND OTHER MINOR UNPLANNED DISTURBANCES.

5 REGULAR SEED SHALL BE FERTILIZED AT THE RATES SHOWN IN THE FERTILIZER SUMMARY TABLE. THE TOTAL FERTILIZER QUANTITIES SHOWN IN THE TABLES INCLUDES THE 25% INCREMENTAL ADJUSTMENT DESCRIBED ABOVE.

6 OVER SEEDING RATES SHALL BE 100% OF THE REGULAR SEED RATE WITHOUT THE INCREMENTAL ADJUSTMENT.

7 OVER SEEDING SHALL ONLY INCLUDE FERTILIZER ONCE, AT THE RATE SHOWN IN THE FERTILIZER SUMMARY TABLE. ADDITIONAL OVER SEEDING MAY BE DONE WITH NO FERTILIZER APPLIED, OR A SOIL TEST MAY BE PERFORMED TO DETERMINE THE SPECIFIC NUTRIENTS NECESSARY TO ESTABLISH THE GRASSES AND/OR LEGUMES.

8 THE ENGINEER WILL REQUIRE THE CONTRACTOR TO PERFORM SUPPLEMENTAL SEEDING WHEN LESS THAN 75% UNIFORM STAND OF THE PERMANENT GRASS (AND LEGUMES) SPECIFIED IN THE MIXTURES IS OBTAINED. (ANNUAL SPECIES SUCH AS RYE AND MILLET ARE TEMPORARY VARIETIES AND REQUIRE SUPPLEMENTAL SEEDING.)

9 LEGUME SEED SHALL BE INOCULATED WITH THE APPROPRIATE STRAIN AND RATE OF BACTERIA. FOR ADDRESSED, USE FIVE TIMES (5X) THE AMOUNT OF INOCULATE RECOMMENDED BY THE MANUFACTURER.

10 THE DATE SEED IS APPLIED SHALL BE USED TO DETERMINE WHETHER TO USE HULLED OR UN HULLED SEED FOR BERMUDA GRASS AND SERICEA LESPEDEZA .
SPRING & SUMMER (3/1 TO 9/15): USE HULLED SEED
FALL & WINTER (9/16 TO 2/29): USE UN HULLED SEED.

11 EROSION CONTROL MULCH, AS DIRECTED BY THE ENGINEER, IS TO BE USED ON AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN 14 DAYS DURING THE DORMANT PERIOD (11/16 TO 2/29).

12 WHEN EROSION CONTROL MULCH IS USED, IT SHALL PROVIDE 100% COVERAGE OF ALL DENUDED AREAS.

13 HEP SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS (OR RECOMMENDATIONS).

SEEDING SCHEDULE

CODES LISTED IN TABLE REFER TO THE LISTS OF CORE MIXES & ADDITIVES, WHICH SHOW SEED NAMES & APPLICATION RATES FOR THIS PROJECT.	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE	SLOPES SEED MIX WITH ADDITIVE	MOWED SEED MIX WITH ADDITIVE
	SPRING MONTH & DATE		SUMMER MONTH & DATE		FALL MONTH & DATE		WINTER/DORMANT MONTH & DATE	
	3/1 to 5/15		5/16 to 9/15		9/16 to 11/15		11/16 to 2/29	
0658-047-R97	(2)AD	(2)D	(5)C	(5)C	(2)AD	(2)D	(2)AD	(2)D
✳ SPECIFIED TYPE(S) OF FINE FESCUE								

FERTILIZER AND LIME SUMMARY

	FERTILIZER GRADE	APPLICATION RATE (FERTILIZER)	NITROGEN (N)	PHOSPHORIC ACID (P)	POTASH (K)	APPLICATION RATE (LIME)
	(N-P-K)	(lbs/ac)	(lbs/ac)			(tons/ac)
REGULAR SEED	15-30-15	250	37.5	75	37.5	2.0
INCREMENTAL ADJUSTMENT (P.S. Only)	15-30-15	250	37.5	75	37.5	2.0
TEMPORARY SEED	15-30-15	125	18.75	37.5	18.75	1.0
OVERSEEDING	46-0-0	65	30	0	0	1.0

PROJECT	SHEET NO.
0658-047-R97	2C

1/29/2019
9:14:00 AM

dl0880503.dgn
Plotted By: WAP04107$

PROJECT MANAGER Kenneth McKinna P.E. (757) 956-3271 (Hampton Roads District)
SURVEYED BY, DATE Danny Williams L.S. (757) 925-2657 (Hampton Roads District)
DESIGN BY Mary Pawlowski (757) 956-3265 (Hampton Roads District)
SUBSURFACE UTILITY BY, DATE Accumark (804) 767-3147
HAMPTON ROADS DISTRICT DESIGN UNIT

COMMONWEALTH OF VIRGINIA
ANDREW BRIAN SCOTT
Lic. No. 034190
PROFESSIONAL ENGINEER

COMMONWEALTH OF VIRGINIA
KENNETH DAVID McKINNA
Lic. No. 042625
PROFESSIONAL ENGINEER

VDOT Location & Design
Suffolk, Virginia
HYDRAULIC ENGINEER

VDOT Location & Design
Suffolk, Virginia
ROADWAY ENGINEER

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
1/24/2019	VA.	658	0658-0047-R97, M-501	3

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

OLDE TOWNE ROAD

Utility Owners

Water and Sewer:
James City Service Authority
Robert Carswell 757-592-1799

Hampton Roads Sewer District
757.460.2261

Dominion Virginia Power
804-771-3655

Cox Communications
757-222-6579 /
757-369-6261

Verizon
804.772.4409

James City Information
757-876-9637

Virginia Natural Gas
757-455-2000

Engineering Services
757-616-7529 office

LEGEND
Denotes Drainage Structure Number
Denotes Construction Limits in Cuts
Denotes Construction Limits in Fills
Denotes Prop. Pavement
Denotes Mill and Overlay to prevent ponding of Water.
Denotes Limits of Disturbance

1. ST'D. CG-6 REQ'D.
2. RAD. CG-6 REQ'D.
3. ST'D. CG-2 REQ'D.
4. ST'D. CG-12 TYPE B REQ'D.
5. HYDRAULIC CEMENT CONC. SIDEWALK 4" REQ'D.
6. SAW-CUT ASPH CONC REQ'D.

(2) CLEAN PIPE OUT

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Mainline Profile	3A
Drainage Descr.	3B
Concrete Staking	3C
Utility Plan	5(3)

SCALE 0 25' 50'

PROJECT	SHEET NO.
0658-0047-R97	3

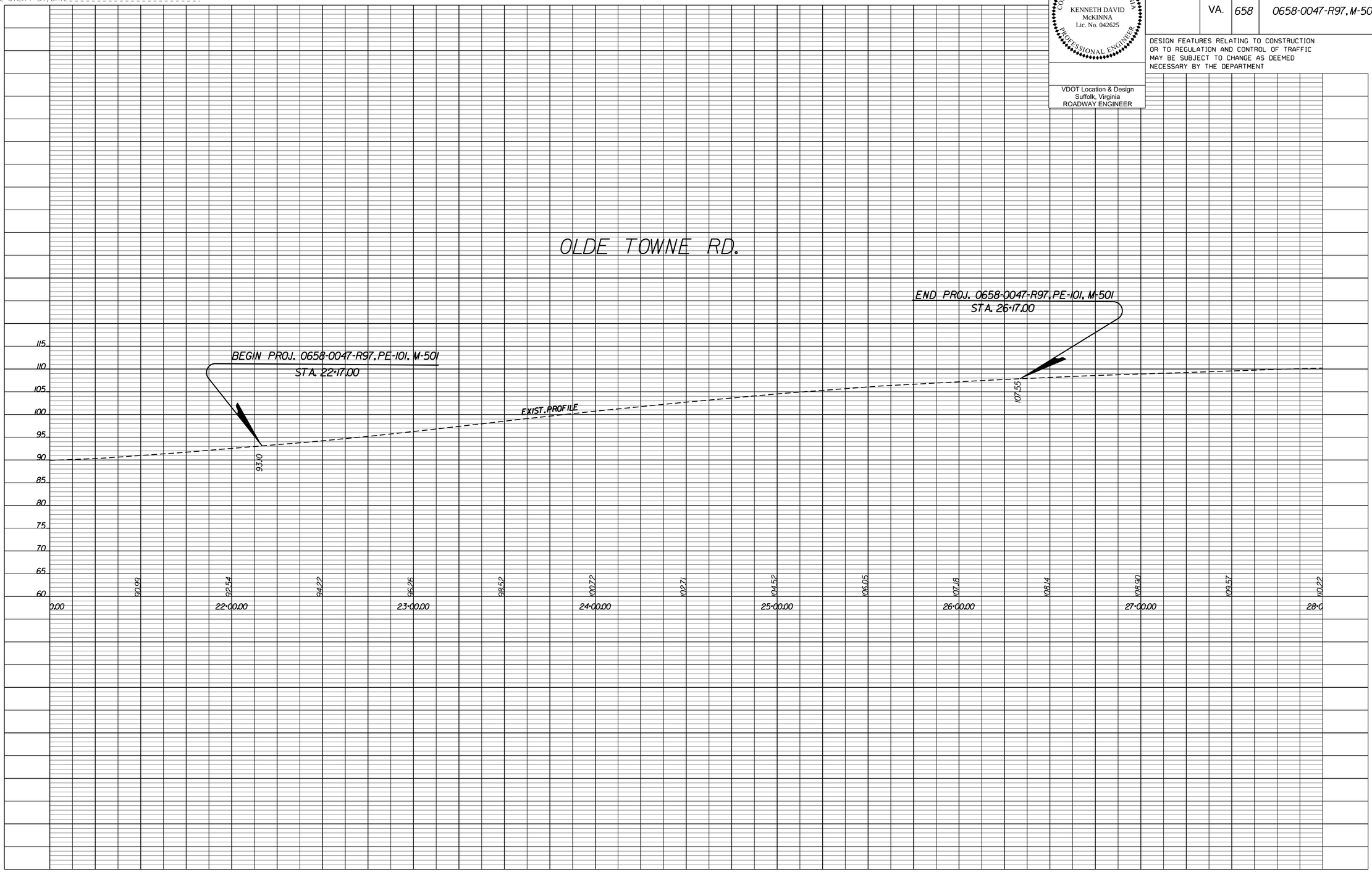
PROJECT MANAGER Kenneth_McKinna_P.E._(757)_956-3271_(Hampton_Roads_District)
SURVEYED BY, DATE Danny_Williams_L.S._(757)_925-2657_(Hampton_Roads_District)
DESIGN BY Mary_Pawlowski_(757)_956-3265_(Hampton_Roads_District)_____
SUBSURFACE UTILITY BY, DATE _____

COMMONWEALTH OF VIRGINIA
KENNETH DAVID McKINNA
Lic. No. 042625
PROFESSIONAL ENGINEER

VDOT Location & Design
Suffolk, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-0047-R97,M-501,	3A

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



	PROJECT	SHEET NO.
	0658-0047-R97	3A

PROJECT MANAGER Kenneth McKinna, PE (757) 956-3271 (Hampton Roads District)
SURVEYED BY, DATE Danny Williams LS (757) 925-2657 (Hampton Roads District)
DESIGN BY Michael N. Pablete (757) 956-3268 (Hampton Roads District)
HAMPTON ROADS DISTRICT DESIGN UNIT

DRAINAGE DESCRIPTION

3-1
1 - ST'D. DI-3B REQ'D.
L = 8', H = 3.1', INV. 95.40
(LESS THAN MINIMUM HEIGHT)
6' - 15" CONCRETE PIPE EXTENSION REQ'D.(2' COVER)
(CONNECT TO EXISTING PIPE)

3-2
57' - 15" ABANDON PIPE
2.6 CY FLOWABLE FILL
0.06 CY CONCRETE PLUGS
REGRADE AROUND INLET OF PLUGGED PIPE TO PREVENT PONDING OF WATER

DRAINAGE SUMMARY

	COVER	STORM SEWER 15"	DROP INLET DI-3B L=8'	FLOWABLE BACKFILL	* CONCRETE PLUGS	REMARKS
STRUCTURE	FT	FT	EA	CY	CY	
3-1	2	6	1	0	0	CONNECT TO EXISTING PIPE
3-2	0	0	0	2.6	0.06	
TOTAL		6	1	2.6	0.06	

* NOT A PAY ITEM

COMMONWEALTH OF VIRGINIA
ANDREW BRIAN SCOTT
Lic. No. 034190
PROFESSIONAL ENGINEER

VDOT Location & Design
Suffolk, Virginia
HYDRAULICS ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-R97, M-501	3B

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

Erosion Control Summary

Sheet Number	INLET PROTECTION Type A	INLET PROTECTION Type B	Siltation Control Excavation	* Temporary Construction Entrance ESC-INS	Rock Check Dam Type II EC-4	Temporary Silt Fence A EC-5
	Ea.	Ea.	Cu.Yd.	Ea.	Ea.	Lf.
3	0	1	19	1	1	80
Total	0	1	19	1	1	80

* NOT A PAY ITEM

POST INSTALLATION INSPECTION						
STORM SEWER PIPE		PIPE (ALL PIPE INSTALLATION ON PLANS NOT IDENTIFIED AS STORM SEWER PIPE				
SIZE	LF	SIZE	LF	10% OF TOTAL	INDIVIDUAL INSTALLATION	QUANTITY TO INSPECT (LF)
15"		15"	6	1	6	6
SUBTOTALS						6
TOTALS TO BE INSPECTED					6	

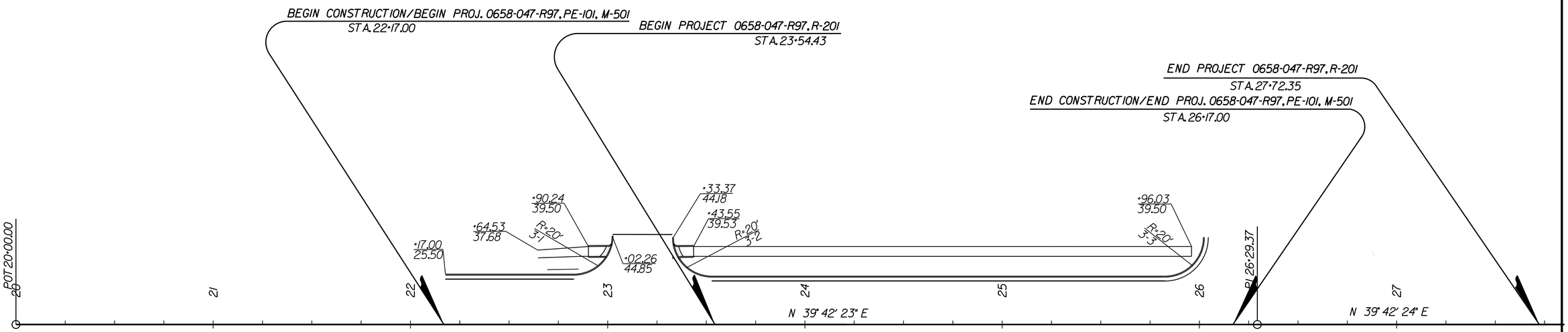
	PROJECT	SHEET NO.
	0658-047-R97	3B

PROJECT MANAGER Kenneth McKinna P.E. (757) 956-3271 (Hampton Roads District)
SURVEYED BY, DATE Dancy Williams L.S. (757) 925-2657 (Hampton Roads District)
DESIGN BY Mary Pawlowski (757) 956-3265 (Hampton Roads District)
SUBSURFACE UTILITY BY, DATE Accumark (804) 267-3167
HAMPTON ROADS DISTRICT DESIGN UNIT

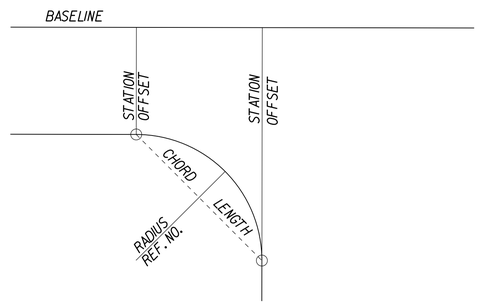
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-0047-R97, M-501	3C

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

CONCRETE STAKING SHEET



RADIAL OFFSETS



LOCATION (REF. NO.)	BASELINE		CONNECTION		RADIUS LENGTH	CHORD LENGTH	CURVE LENGTH
SHEET - ITEM	STATION	OFFSET	STATION	OFFSET	FEET	FEET	FEET
	22+17.00	25.50					
3-1	22+82.96	25.50	23+02.25	44.38	20.00	27.36	31.11
3-2	23+52.70	24.50	23+02.25	44.18	20.00	27.49	31.78
3-3	25+82.74	24.50	26+02.00	44.20	20.00	27.66	31.61

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
Mainline Profile	3A
Drainage Descr.	3B

SCALE
0 25' 50'

PROJECT	SHEET NO.
0658-0047-R97	3C

Note: To Convert VA State Plane Coordinates NAD 83 Metric Values to VDOT Project Coordinates.
1. Reduce the Easting 2.5 Million Meters and the South and North Zone Northing 1 and 2 Million Respectively.
2. Multiply by the US Survey Foot (3.28083333333).
3. Multiply These Values by the Combined Scale and Elevation Factor (1.00005) for this County.
A Reverse of This Procedure will Transform VDOT Project Coordinates to NAD 83 Values.

RIGHT OF WAY PLAN SHEET SHOWING PROPERTY FOR COMMONWEALTH OF VIRGINIA

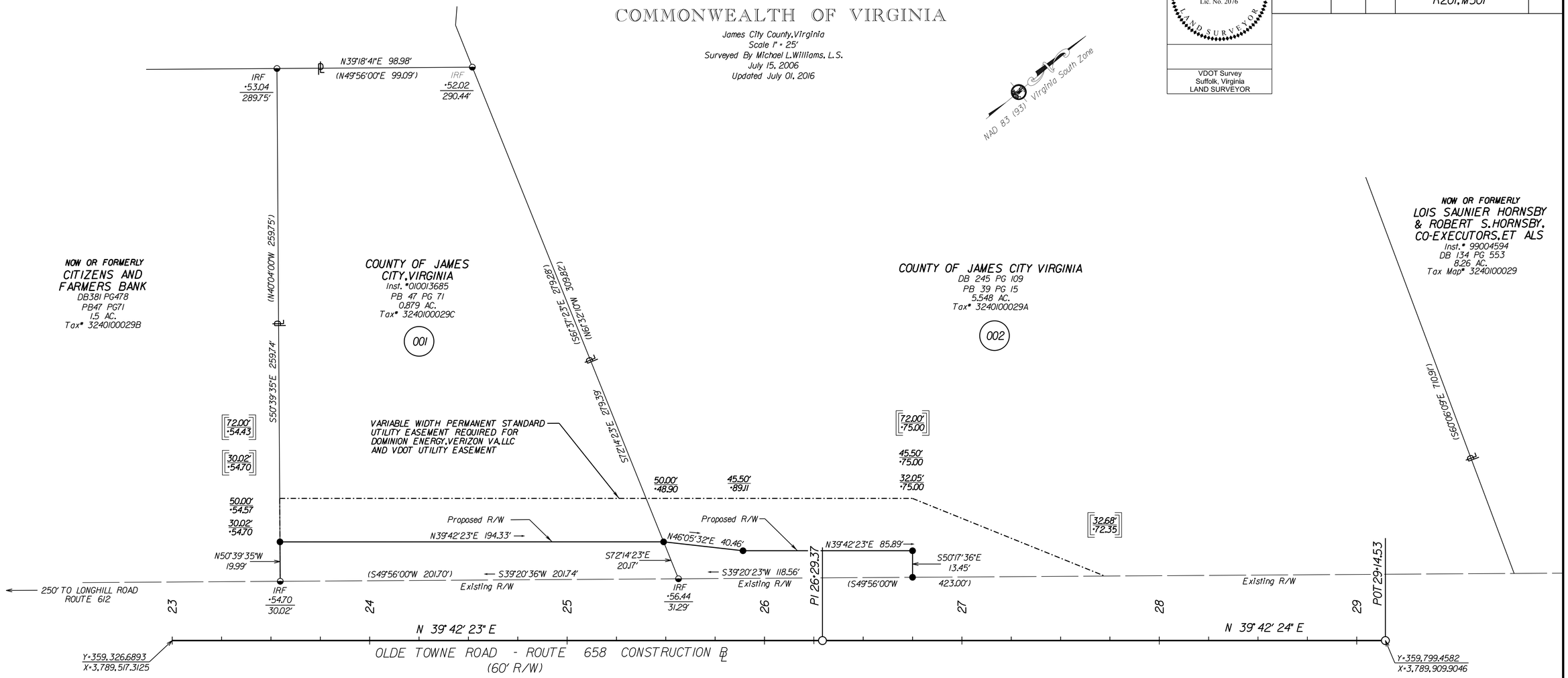
James City County, Virginia
Scale 1" = 25'
Surveyed By Michael L. Williams, L.S.
July 15, 2006
Updated July 01, 2016

COMMONWEALTH OF VIRGINIA
MICHAEL L. WILLIAMS
Lic. No. 2076
LAND SURVEYOR

VDOT Survey
Suffolk, Virginia
LAND SURVEYOR

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-R97, P101, R201, M501	3RW

NAD 83 (93) Virginia South Zone



GENERAL NOTES:

1. Plan Sheet Is Intended For Acquisition Only And Does Not Constitute A Boundary Survey.
2. Property Line Information Is Based on Highway Plans, Plats And Deeds Of Record. Field Work Was Performed For The Creation Of This Plat.
3. Plat Was Prepared Without The Benefit Of A Title Report, Consequently Not All Encumbrances May Be Depicted.
4. This Plat Was Forwarded Electronically In "Read Only" Format. Any Attempt At Alteration Invalidates The Seal And Signature. An Original Hard Copy Remains On File At The Virginia Department Of Transportation, Hampton Roads District Office.
5. This Survey Datum Based On VDOT Project #0612-0047-631, C501, UPC# 100921

NOTE: All Stations And Offsets Are From The Construction Baseline
Bearings And Distances In Parenthesis Are Record Data

LEGEND

- Computed Point
- Monumentation Found (As Noted)
- RM-2 (5/8" Rebar w/Cap)
- Indicates Permanent Easement

Parcel 001 Area Calculations

Proposed Right of Way	Sq. Ft. 3,834 / 0.09 Acre
Variable Width Permanent Standard Utility Easement Required For Dominion Energy, Verizon Virginia, LLC And VDOT	Sq. Ft. 4,179 / 0.10 Acre

Parcel 002 Area Calculations

Proposed Right of Way	Sq. Ft. 1,767 / 0.04 Acre
Variable Width Permanent Standard Utility Easement Required For Dominion Energy, Verizon Virginia, LLC And VDOT	Sq. Ft. 5,293 / 0.12 Acre

LINE LEGEND

- •00.00 / 00.00' — DENOTES EXISTING MONUMENTATION AS NOTED
- 00.00' / •00.00 — DENOTES PROPOSED R/W
- [00.00' / •00.00] — DENOTES VARIABLE WIDTH PERMANENT STANDARD UTILITY EASEMENT

SCALE	PROJECT	SHEET NO.
0 12.5' 25' 50'	0658-0047-R97	3RW

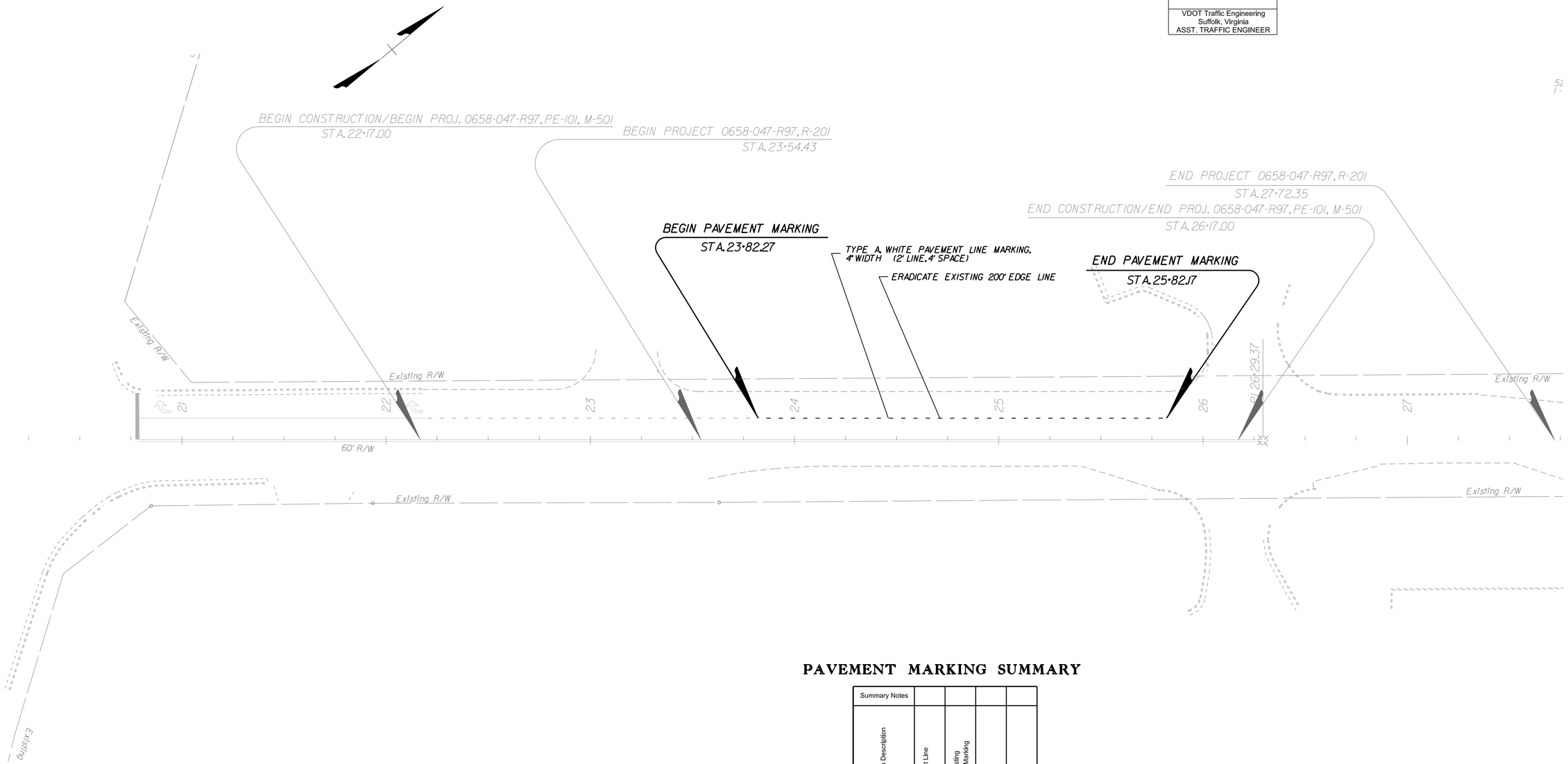
PROJECT MANAGER Kenneth McKinna P.E. (757) 956-3271 (Hampton Roads District)
SURVEYED BY, DATE Danny Williams L.S. (757) 925-2657 (Hampton Roads District)
DESIGN BY PAUL J. LEGG (757) 956-3144 (Hampton Roads District)
SUBSURFACE UTILITY BY, DATE Accumark (804) 767-3167
HAMPTON ROADS DISTRICT TRAFFIC ENGINEERING

COMMONWEALTH OF VIRGINIA
DEBORAH SCHEYE LENCESKI
Lic. No. 017637
PROFESSIONAL ENGINEER

VDOT Traffic Engineering
Suffolk, Virginia
ASST. TRAFFIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-R97, M-501	4

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



PAVEMENT MARKING SUMMARY

Summary Notes				
Item Description	Type A Pavement Line Marking 4"	Eradication of Existing Linear Pavement Marking		
ITEM NO.	54020	54105		
UNIT	L.F.	L.F.		
SHEET NO.				
4	200	200		
TOTAL	200	200		

REFERENCES
(PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

Mainline 3

TRAFFIC CONTROL DEVICE PLANS
PAVEMENT MARKINGS

JAMES CITY COUNTY

PROJECT	SHEET NO.
0658-047-R97	4

THIS SHEET FOR UTILITY ADJUSTMENT/RELOCATION ONLY

PROJECT MANAGER KEN. MCKINNA, PE. (757)925-2406.
SURVEYED BY, DATE DANNY R. WILLIAMS. (757).925-2657.
DESIGN BY WHITMAN, REQUARDT, AND ASSOCIATES, LLP (757) 599-5101
SUBSURFACE UTILITY BY, DATE ACCUMARK, INC. (757) 767-3147)

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM, WHERE APPLICABLE, TO THE CURRENT EDITION OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS, AS WELL AS PLAN NOTES AND DETAILS.

2. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE JCSA AND AT NO EXPENSE TO THE DEPARTMENT. ANY DAMAGES OR UNSCHEDULED INTERUPTION OF SERVICE SHALL BE REPORTED IMMEDIATELY TO JCSA OPERATIONS AT (757) 229-7421.

3. THE LOCATIONS, DEPTHS AND SIZES OF EXISTING UTILITIES SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM AVAILABLE UTILITY RECORDS AND FIELD UTILITY SURVEYS AND ARE NOT GUARANTEED. THE CONTRACTOR SHALL FIELD VERIFY WITH TEST HOLES THE LOCATION, ELEVATION, TYPE, ROUNDNESS AND SIZE OF ALL EXISTING UNDERGROUND UTILITIES AND POINTS OF CONNECTION PRIOR TO EXCAVATION AND ORDERING OF MATERIALS AND INSTALLATION FOR THIS PROJECT. ALL COST ASSOCIATED WITH ADDITIONAL UNDERGROUND UTILITY LOCATING SHALL BE INCLUDED IN THE APPROPRIATE UNIT PRICE BID.

4. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 811 TO REQUEST FIELD UTILITY LOCATIONS AT LEAST 72 HOURS BEFORE BEGINNING ANY EXCAVATION OR CONSTRUCTION SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF THE VIRGINIA UNDERGROUND UTILITY DAMAGE PREVENTION ACT.

5. SYSTEM SHUTDOWN OPERATION:

   A. THE CONTRACTOR SHALL SUBMIT A SEQUENCE OF UTILITY CONSTRUCTION A MINIMUM OF 30 DAYS PRIOR TO UTILITY ADJUSTMENT FIELD EFFORTS. THE SEQUENCE OF UTILITY CONSTRUCTION SHALL CONSIST OF A PRELIMINARY LIST OF DATES FOR UTILITY TIE-INS, CONNECTIONS AND SHUTDOWNS. THE CONTRACTOR SHALL ALSO PROVIDE AT THIS TIME THE ANTICIPATED SHUTDOWN TIME REQUIRED AS WELL AS ANTICIPATED TIME OF DAY SCHEDULED FOR THE TIE-INS, CONNECTIONS AND SHUTDOWNS.

   B. CONTRACTOR SHALL GIVE A TWO (2) WEEK NOTICE IN WRITING TO THE ENGINEER, JCSA OPEATIONS AND JCSA ENGINEERING FOR EACH CONNECTION AND/OR ADJUSTMENT TO THE EXISTING FACILITIES OWNED BY JCSA.

   C. THE EXISTING JCSA FACILITIES SHALL BE DEACTIVATED FOR A MAXIMUM PERIOD OF SIX (6) HOURS FOR EACH SCHEDULED SHUTDOWN. THE CONTRACTOR SHALL MAKE AS MANY CONNECTIONS AS PRACTICAL DURING EACH SHUTDOWN PERIOD.

   D. ALL SEWER SYSTEMS MUST REMAIN ACTIVE.

   E. PRIOR TO CUTTING ANY WATER OR SEWER MAIN, THE CONTRACTOR SHALL HAVE ALL FITTINGS, VALVES AND PIPE AT THE SITE AND SHALL VERIFY IN THE PRESENCE OF THE ENGINEER, JCSA OPEARTIONS AND JCSA ENGINEERING, THROUGH FIELD MEASUREMENTS, THAT ALL PIPING, FITTINGS AND VALVES WILL ALIGN AND FIT PROPERLY WITH THE EXISTING FACILITIES. FURTHER, ALL NEWLY CONSTRUCTED PIPE AND APPURTENANCES SHALL HAVE PASSED ALL NECESSARY TESTS IN THE PRESENCE OF AN INSPECTOR FROM THE JCSA OPERATIONS AND/OR JCSA ENGINEERING AND SHALL BE CAPABLE OF BEING ACTIVATED ONCE THE ADJUSTMENT WORK HAS BEEN COMPLETED. CONNECTIONS TO EXISTING LINES SHALL BE MADE ONLY AFTER THE LINE IS INSTALLED, TESTED, AND APPROVED BY THE ENGINEER.

6. ALL RELOCATED WATER MAINS AND SANITARY SEWER MAINS SHALL HAVE A MINIMUM FINAL COVER OF 36-INCHES, UNLESS NOTED OTHERWISE ON THE PLANS. ALL RELOCATIONS MUST HAVE A MINIMUM TEMPORARY COVER OF 24-INCHES AT ALL TIMES DURING CONSTRUCTION.

7. THE CONTRACTOR SHALL CUT, CAP AND REMOVE ANY ABANDONED WATER MAIN OR SANITARY SEWER MAIN HAVING LESS THAN 24-INCHES OF FINISHED COVER REMAINING OVER THE PIPE, UNLESS OTHERWISE NOTED. ALL COSTS ASSOCIATED WITH THE REMOVAL OF ABANDONED PIPE SHALL BE INCLUDED IN THE COST BID FOR THE ASSOCIATED PAY ITEMS.

8. THE CONTRACTOR SHALL NOT PERFORM ANY GRADING OPERATIONS OVER EXISTING WATER AND SEWER FACILITIES WITHIN THE PROJECT WHICH WOULD IN ANY WAY JEOPARDIZE SERVICES UNTIL THE PROPOSED WATER AND SEWER FACILITIES ARE INSTALLED AND PLACED INTO OPERATION AND EXISTING WATER AND SEWER FACILITIES ARE ABANDONED. ANY DEVIATION MUST BE APPROVED BY THE ENGINEER.

9. NOTES ON PLAN SHEETS CONTAINED WITHIN A BOX REFER TO PAY ITEMS INDICATED IN THE QUANTITY SUMMARIES. NOTES ON PLAN SHEETS NOT WITHIN A BOX ARE TO CLARIFY CONSTRUCTION REQUIRED AND SHALL BE INCLUDED IN THE UNIT PRICE FOR THE ASSOCIATED PAY ITEM.

10. ALL ITEMS OF MATERIAL, LABOR, SUPPLIES OR EQUIPMENT THAT ARE NOT SPECIFICALLY ENUMERATED FOR PAYMENT AS SEPARATE ITEMS, BUT WHICH ARE REQUIRED TO COMPLETE THE WORK AS SHOWN ON THE DRAWINGS AND AS DESCRIBED IN THE SPECIFICATIONS, ARE CONSIDERED INCIDENTAL. NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR INCIDENTAL ITEMS.

GENERAL NOTES (CONT'D)

11. CONTRACTOR SHALL FURNISH ONE ELECTRONIC COPY OF ALL SHOP DRAWINGS TO THE ENGINEER PRIOR TO CONSTRUCTION AND/OR INSTALLATION OF JCSA FACILITIES AND RELATED ITEMS. ANY ITEMS INSTALLED PRIOR TO APPROVAL OF SHOP DRAWINGS ARE DONE AT THE CONTRACTOR'S RISK AND MAY BE SUBJECT TO REMOVAL AND CORRECT INSTALLATION AT THE CONTRACTOR'S EXPENSE.

12. SUBMITTALS:

   A. SUBMIT SHOP DRAWINGS (1 COMPLETE SET) OF THE FOLLOWING. IN ADDITION TO SUBMITTALS REQUIRED BY OTHER SECTIONS OF THE CONTRACT DOCUMENTS:
   PIPE,
   SOLID SLEEVES, TAPPING SLEEVES
   VALVES, VALVE BOXES
   FITTINGS,
   DISSIMILAR MATERIAL PIPE JOINTS
   SEQUENCE OF CONSTRUCTION
   BEDDING STONE
   SELECT BACKFILL MATERIAL
   COMPACTION EQUIPMENT

13. ITEMS DESIGNATED "TBA" AND/OR ~~// // // // // // // // //~~ ARE TO BE ABANDONED IN PLACE USING FLOWABLE FILL
ITEMS DESIGNATED "TBR" AND/OR ~~X X X X X X X X X X X X X X~~ ARE TO BE REMOVED.
ABANDONMENT OR REMOVAL OF EXISTING WATER AND SANITARY SEWER FACILITIES SHALL CONFORM TO SECTION 520 OF THE CURRENT VDOT ROAD AND BRIDGE SPECIFICATIONS AND ALL COSTS FOR ABANDONMENT OR REMOVAL OF ANY EXISTING FACILITIES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE ASSOCIATED PAY ITEMS.

14. THE CONTRACTOR SHALL USE ONLY NEW MATERIALS, PARTS, AND PRODUCTS.

WATER AND SEWER CONSTRUCTION NOTES

1. NO VALVES OR OTHER CONTROL DEVICES ON THE EXISTING WATER AND SEWER SYSTEMS SHALL BE OPERATED FOR ANY PURPOSE BY THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY JCSA OPERATIONS AT (757) 757-229-7421.

2. ALL CONNECTIONS TO EXISTING WATER SYSTEMS TO INCLUDE SADDLES, SERVICE LINES, TAPPING SLEEVES, AND VALVES AND DIRECT TAPS, AND CONNECTIONS TO EXISTING SANITARY SEWER SYSTEMS TO INCLUDE SADDLES, LATERALS, MANHOLE CONNECTIONS, FORCE MAIN CONNECTIONS, ETC. SHALL BE SCHEDULED WITH JCSA. THE CONNECTION SHALL BE MADE ONLY IN THE PRESENCE OF JCSA.

3. EXISTING MAINS AND WATER SERVICES SHALL REMAIN IN SERVICE UNTIL NEW MAINS AND SERVICES ARE PLACED IN SERVICE AND APPROVED BY THE ENGINEER. PROPOSED FIRE HYDRANTS SHALL REMAIN COVERED BY MEANS OF SECURELY ATTACHED BURLAP BAGS UNTIL TESTED AND PLACED IN SERVICE.

4. THE CONTRACTOR SHALL NOT INSTALL WATER OR SANITARY SEWER JOINTS BENEATH PROPOSED OR EXISTING UTILITIES OR PROPOSED STORM DRAINAGE CROSSING UNDER THESE STRUCTURES. A MINIMUM OF 24-INCHES BEYOND THE OUTSIDE OF THE FOREIGN PIPE OR UTILITY SHALL BE REQUIRED WHEN PLACING JOINTS, UNLESS OTHERWISE SHOWN ON THE PLANS.

5. INSTALL VALVES WITH OPERATOR STEMS IN THE VERTICAL PLANE THROUGH THE PIPE AXIS AND PERPENDICULAR TO THE PIPE AXIS. LOCATE VALVES AS SHOWN ON DRAWINGS.

6. VALVE STEM EXTENSIONS SHALL BE INSTALLED WHEN THE DISTANCE FROM THE OPERATING NUT TO TOP OF VALVE BOX FRAME IS GREATER THAN 36-INCHES. THE EXTENSION SHALL REPLACE OR BE SECURELY ATTACHED TO THE NORMAL 2-INCH SQUARE OPERATING NUT. SHALL BE AT LEAST AS STRONG AS THE VALVE STEM SHALL BE COATED IN ACCORDANCE WITH AWWA C500 AND C550.

7. WATER MAIN AND SANITARY SEWER PIPE SHALL BE LAID WITH BELL ENDS FACING THE DIRECTION OF LAYING. WHERE GRADE IS 10 PERCENT OR GREATER, PIPE SHALL BE LAID UPHILL WITH BELL ENDS UPGRADE.

8. ALL EXISTING VALVE BOXES, SANITARY SEWER MANHOLES AND CLEAN OUTS SHALL BE RELOCATED AND/OR ADJUSTED TO FINISH GRADE, AS REQUIRED, REGARDLESS IF THEY ARE SHOWN ON THE PLANS.

9. THE CONTRACTOR, WITH HIS ASSOCIATED MATERIALS SUPPLIERS, SHALL PROVIDE CERTIFICATION ACCEPTABLE TO THE ENGINEER, THAT ALL PIPE MATERIALS SUPPLIED ON THE PROJECT MEET OR EXCEED THE SPECIFICATIONS.

10. ALL THRUST PROTECTION INSTALLED UNDER THIS CONTRACT SHALL BE PLACED BEFORE BACK FILLING OF THE TRENCH AND SHALL BE INSPECTED BY THE ENGINEER. TEMPORARY BUTTRESSING FOR TESTING SHALL BE PROVIDED BY THE CONTRACTOR. INSTALLATION OF APPROVED RETAINER GLANDS, TIE RODS, AND OTHER THRUST RESTRAINTS SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS' SPECIFICATIONS.

WATER AND SEWER CONSTRUCTION NOTES (CONT'D)

11. CONTRACTOR SHALL RECORD AND PROVIDE TO THE ENGINEER ACTUAL GROUND TOP OF PIPE ELEVATIONS, ACTUAL STATIONS AND OFFSETS, AT ALL FITTINGS, CONNECTION POINTS AND HORIZONTAL DEVIATIONS GREATER THAN 24-INCHES FROM THE PLANS. STATION REFERENCES SHALL BE TIED TO CONSTRUCTION CENTER LINE FOR THE ROADWAY IMPROVEMENTS. THIS INFORMATION SHALL BE PROVIDED TO THE ENGINEER WITHIN FIVE (5) DAYS OF COMPLETION OF THE UTILITY ADJUSTMENTS.

12. ALL WATER MAINS SHALL BE FULLY FLUSHED, PRESSURE TESTED, DISINFECTED, AND SATISFACTORY BACTERIOLOGICAL SAMPLES OBTAINED. FLUSHING OF WATER MAINS SHALL BE SCHEDULED WITH THE JCSA INSPECTOR A MINIMUM OF 3 BUSINESS DAYS PRIOR TO THE FLUSHING. CONTRACTOR SHALL PROVIDE THE REQUIRED DURATION AND VOLUME TO THE INSPECTOR. FLUSHING WILL BE SCHEDULED ONLY ON MONDAYS, UNLESS AUTHORIZED OTHERWISE BY JCSA.

13. NEW, RELOCATED, OR REPAIRED WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA C651-14, LATEST REVISION. THE DISINFECTION PROCEDURE SHALL BE CARRIED OUT AFTER COMPLETION OF CONSTRUCTION AND IMMEDIATELY BEFORE THE MAINS AREA PLACED INTO SERVICE. DURING CONSTRUCTION, PRECAUTIONS SHALL BE TAKEN TO PROTECT PIPE INTERIORS, FITTINGS, AND VALVES AGAINST CONTAMINATION. CLEANING AND SWABBING BY ORDINARY FLUSHING AND DISINFECTION PROCEDURES. THE CLEANING AND SWABBING SHALL BE PERFORMED WITH A 5% HYPOCHLORITE DISINFECTION SOLUTION, OR OTHER DISINFECTION AGENT AS APPROVED BY THE JCSA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY TREATING THE DISCHARGE DURING DISINFECTION, TESTING, AND FLUSHING ACTIVITIES IN ACCORDANCE WITH ALL ENVIRONMENTAL REGULATIONS REQUIRED BY JCSA.

14. WATER MAIN TESTING: WATER MAIN TESTING MUST BE WITNESSED BY AUTHORIZED PERSONNEL OF JCSA OPERATIONS AND SHALL BE IN ACCORDANCE WITH AWWA C-600, LATEST REVISION, EXCEPT AS MODIFIED HEREIN OR NOTED OTHERWISE:

   A. WATER FOR THE FIRST PRESSURE TEST WILL BE FURNISHED BY JCSA. IF SUBSEQUENT TESTS ARE REQUIRED AS DETERMINED BY THE ENGINEER, WATER WILL BE PURCHASED AT CONTRACTORS EXPENSE THROUGH A HYDRANT METER OBTAINED FROM JCSA.

   B. TEST PRESSURE SHALL BE 1.5 TIMES THE WORKING PRESSURE OR 150 PSI WHICHEVER IS GREATER MEASURED FROM THE HIGH POINT IN THE LINE.

   C. AFTER THE SPECIFIED PRESSURE IS REACHED AND HAS STABILIZED, ANY PRESSURE DROP DURING THE DURATION OF THE TEST WILL BE CONSIDERED A FAILURE. IF THE PRESSURE IS HIGHER THAN REQUIRED AT THE START OF THE TEST IT SHALL BE THE BASE PRESSURE FOR DETERMINING COMPLIANCE. ANY PRESSURE DROP SHALL BE CONSIDERED A FAILURE.

15. THE CONTRACTOR SHALL NOTE THAT ALL WATER SERVICE CONNECTIONS (FROM MAIN TO METER) WILL BE PERFORMED BY THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE AT LEAST FIVE (5) DAYS NOTICE AND COORDINATE WITH JCSA OPERATIONS FOR THE TRANSFER OF SERVICES FROM THE EXISTING MAIN TO THE PROPOSED MAIN, BEFORE ACTIVATING ANY PROPOSED WATER MAINS, AND BEFORE DEACTIVATING/ABANDONING ANY EXISTING WATER MAIN.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SEWAGE OVERFLOWS OR SPILLAGE DURING SANITARY SEWER SYSTEM CONNECTIONS, ONCE GRAVITY SANITARY SEWER FACILITIES HAVE BEEN SHUT DOWN OR PUMP STATIONS PUMPED DOWN. THE METHOD FOR MAINTAINING SEWAGE CONVEYANCE SHALL BE APPROVED BY JCSA ENGINEERING AND THE ENGINEER PRIOR TO SYSTEM SHUTDOWN.

COMMONWEALTH OF VIRGINIA
DANIEL J. SELI
Lic. No. 023410
PROFESSIONAL ENGINEER

Whitman Requardt & Associates
Newport News, Virginia
UTILITIES ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-R97, M-501	5(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

NOTE: EACH UTILITY PLAN SHEET HAS A BASE NUMBER WITH A SUFFIX NUMBER IN PARENTHESES (EXAMPLE 5(2), 5(3), ETC.). REFERENCES WITHIN UTILITY ADJUSTMENT PLANS REFER TO THE SUFFIX NUMBER ONLY.

LEGEND

	EXISTING	PROPOSED
SANITARY SEWER	— — — 12" SAN — — —	12" SAN
WATER MAIN	— — — 12" W — — —	12" W
WATER METER & BOX	⊗	⊗
WATER VALVE & BOX	◑	◑
WATER AIR RELEASE VALVE	Ⓦ	●
FIRE HYDRANT	⊹	⊹
SANITARY SEWER MANHOLE	Ⓢ	○ ADJUST ● NEW OR RECONSTRUCT
SEWER CLEANOUT	⋈ ○	● C.O.

UTILITY ADJUSTMENT PLANS

WATER AND SANITARY SEWER FACILITIES
RTE. 658 (OLDE TOWNE ROAD)
JAMES CITY COUNTY, VIRGINIA

PREPARED BY:
WHITMAN, REQUARDT AND ASSOCIATES
11870 MERCHANTS WALK, SUITE 100
NEWPORT NEWS, VIRGINIA 23606

	PROJECT	SHEET NO.
	0658-047-R97	5(1)

12/6/2018
3:38:14 PM

THIS SHEET FOR UTILITY ADJUSTMENT/RELOCATION ONLY

PROJECT MANAGER K.E.N. MCKINNA, PE (757)925-2406.
SURVEYED BY, DATE DANNY R. WILLIAMS. (757)925-2657.
DESIGN BY WHITMAN, REQUARDT, AND ASSOCIATES, LLP (757) 599-5101
SUBSURFACE UTILITY BY, DATE ACCUMARK, INC. (757) 767-3147)

COMMONWEALTH OF VIRGINIA
DANIEL J. SELI
Lic. No. 023410
PROFESSIONAL ENGINEER

Whitman Requardt & Associates
Newport News, Virginia
UTILITIES ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-R97, M-501	5(2)

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

MATERIAL NOTES

1. ALL PRODUCTS SHALL MEET "BUY AMERICA" REQUIREMENTS. EXCEPT AS OTHERWISE SPECIFIED, ALL IRON AND STEEL PRODUCTS (INCLUDING MISCELLANEOUS STEEL ITEMS SUCH AS FASTENERS, NUTS, BOLTS, AND WASHERS) TO BE PERMANMENTLY INCORPORATED INTO THE PROJECT SHALL MEET THE VDOT SPECIAL PROVISIONS FOR USE OF DOMESTIC MATERIAL, LATEST REVISION.

2. WATER SERVICE CONNECTIONS:

   A. ALL TUBING SHALL BE SEAMLESS, TYPE K SOFT COPPER SUITABLE FOR POTABLE WATER SERVICE IN ACCORDANCE WITH ASTM B-88-88A AND AWWA C-800, LATEST REVISION.

   B. CORPORATION STOPS SHALL BE FULL PORT BALL VALVES OF CAST BRASS ALLOY WITH AWWA TAPER ("CC") THREADED INLET BY COPPER FLAIR OUTLET FOR ¾-INCH THROUGH 1½-INCH SIZES. CORPORATION STOPS SHALL BE AS MANUFACTURED BY FORD METER BOX COMPANY, MUELLER COMPANY OR A. Y. MCDONALD MANUFACTURING COMPANY.

   C. ANGLE VALVES, WITH PADLOCK WINGS, SHALL BE FULL PORT BALL VALVES OF CAST BRONZE WITH COPPER FLARE INLET AND MALE PIPE (NPT) THREADED OUTLET FOR SIZES UP TO AND INCLUDING 1-INCH, AND FLARED OUTLET FOR SIZES LARGER THAN 1-INCH. ANGLE VALVES SHALL BE AS MANUFACTURED BY FORD METER BOX COMPANY, MUELLER COMPANY OR A. Y. MCDONALD MANUFACTURING COMPANY.

   D. WATER METERS AND METER BOXES SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS ON SHEET 4. WATER METERS SHALL BE NEPTUNE MODEL T-10, TRU/FLO COMPOUND, OR PROTECTUS III FIRE SERVICE METERS AS MANUFACTURED BY THE SCHLUMBERGER WATER DIVISION, OR AS APPROVED BY JCSA, AND SHALL REGISTER IN GALLONS. WATER METERS 2-INCHES AND SMALLER SHALL BE INSTALLED BY JCSA. WATER METER 2-INCH AND LARGER SHALL BE INSTALLED BY THE CONTRACTOR WITH INSTALLATION WITNESSED BY JCSA.

3. ALL CONCRETE SHALL BE CLASS A3 IF CAST-IN-PLACE AND CLASS A4 IF PRECAST.

SEQUENCE OF CONSTRUCTION

1. EXECUTE THE FOLLOWING INSTALLATIONS IN THE SEQUENCE INDICATED. PROCEDURE FOR ACCOMPLISHING EACH INSTALLATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. ALL MATERIAL, EQUIPMENT, LABOR AND APPURTENANCES (INCLUDING TEMPORARY PLUGS, COUPLINGS, ETC.) REQUIRED TO ACCOMPLISH INSTALLATIONS IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION SHALL BE INCLUDED IN THE BID COST FOR THE ASSOCIATED PAY ITEM. AN ALTERNATE SEQUENCE MAY BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL. THE ENTIRE LENGTH OF MAIN LINE UTILITY ADJUSTMENTS SHALL BE CONSTRUCTED, TESTED, AND DISINFECTED AS REQUIRED BY SPECIFICATIONS PRIOR TO CONNECTION WITHOUT INTERRUPTION TO ANY EXISTING SERVICE. CONNECTION PIPING SHALL BE TESTED AND DISINFECTED AS REQUIRED BY THE SPECIFICATIONS.

2. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE PROPOSED WATER FACILITIES SHOWN ON THESE PLANS WITH THE PHASING OF THE ROADWAY CONSTRUCTION AS SHOWN ON THE MAINTENNANCE OF TRAFFIC PLANS. AS A RESULT, THE UTILITY ADJUSTMENTS AND RELOCATIONS MAY REQUIRE MULTIPLE MOBILIZATIONS OR EQUIPMENT AND MATERIALS ASSOCIATED WITH PHASED CONSTRUCTION, IF MULTIPLE MOBILIZATIONS ARE REQUIRED TO COORDINATE THE INSTALLATION OF IN-PLAN UTILITIES WITH THE SEQUENCE OF CONSTRUCTION, THEN THE COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SUPPLYING AND INSTALLING THE WATER SERVICE LINE.

3. LANE CLOSURES AND STOPPAGES OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS.

4. RESTRAINT OF ALL EXISTING PIPE SHALL BE PERFORMED TO THE EXTENT POSSIBLE PRIOR TO ANY OUTAGE OF UTILITY SERVICE.

5. OFFSETS AND OTHER ADJUSTMENTS SHALL BE PRE-FABRICATED TO THE EXTENT POSSIBLE PRIOR TO THE OUTAGE.

   THE DEFINITION OF TERMS USED IN THE SEQUENCE OF CONSTRUCTION ARE AS FOLLOWS:

   SHUTDOWN: SHUTDOWN OF JCSA WATER AND SEWER SHALL BE IN ACCORDANCE WITH GENERAL NOTES AND LIMITED TO THE DAYS/ HOURS INDICATED BELOW, EXCLUSIVE OF HOLIDAYS.

   WATER MAIN - 7:00 A.M. TO 4:00 P.M. (MONDAY THROUGH FRIDAY).

   GRAVITY SEWER - NO SHUTDOWN ALLOWED.

   INSTALL: ALL EFFORTS REQUIRED TO EXCAVATE, ASSEMBLE AND PLACE PIPE AND BACK FILL IN ACCORDANCE WITH PLANS AND SPECIFICATIONS. ALL INSTALLATIONS SHALL BE TESTED, CHLORINATED AND/OR DISINFECTED IN ACCORDANCE WITH THE SPECIFICATIONS AND AS STATED ABOVE.
   SEWER

   CONNECTIONS: PIPE ASSEMBLIES, SLEEVES, FITTINGS, VALVES, TEMPORARY AND/OR PERMANENT PLUGS AND COUPLINGS AS INDICATED ON THE PLANS OR AS REQUIRED TO ACHIEVE SEQUENCE OF CONSTRUCTION AT LOCATIONS WHERE PROPOSED WORK MEETS EXISTING FACILITIES.

6. ACTIVATE: UPON COMPLETION OF INSTALLATION, TESTING AND THE ENGINEER'S APPROVAL IN ACCORDANCE WITH PLANS AND SPECIFICATIONS, PLACE THE FACILITY INTO OPERATION.

7. TRANSFER OF INDIVIDUAL WATER SERVICES SHALL BE CONDUCTED BY JCSA OPERATIONS. CONTRACTOR SHALL CONTACT JCSA OPERATIONS AT (757) 229-7421.

8. SEQUENCE

   TYPICAL SEQUENCE FOR RELOCATIONS.

   1. INSTALL AND TEST NEW PIPING UP TO THE PROPOSED CONNECTION POINTS. SUPPORT OR RESTAIN EXISTING UTILITIES DURING INSTALLATION, AS REQUIRED.
   2. SHUT DOWN EXISTING UTILITY SERVICE. MAINTAIN CONTINUOUS RELIABILITY OF THE SANTIARY SEWER SYSTEM.
   3. REMOVE EXISTING UTILITY AS REQUIRED TO ACCOMMODATE CONNECTIONS. MAKE CONNECTIONS TO EXISTING UTILITY.
   4. ACTIVATE EXISTING UTILITY. CONDUCT VISUAL INSPECTION OF THE CONNECTIONS PRIOR TO BACKFILLING.
   5. ABANDON OR REMOVE EXISTING UTILITY, AS REQUIRED.

OLDE TOWNE ROAD SUMMARY OF WATER MAIN PAY ITEMS

SHEET NO.	¾" WATER SERVICE LINE	⅝" WATER METER & BOX		SHEET NO.
	L.F.	EA.		
3	77	1		3
TOTAL	77	1		TOTAL

OLDE TOWNE ROAD SUMMARY OF SANITARY SEWER PAY ITEMS

SHEET NO.	ADJUST EXIST. FRAME & COVER			SHEET NO.
	EA.			
3	2			3
TOTAL	2			TOTAL

PROJECT	SHEET NO.
0658-047-R97	5(2)

12/6/2018
3:37:34 PM

THIS SHEET FOR UTILITY ADJUSTMENT/RELOCATION ONLY

PROJECT MANAGER KEN MCKINNA, PE (757)925-2406
SURVEYED BY, DATE DANNY R. WILLIAMS (757) 925-2657
DESIGN BY WHITMAN, REQUARDT, AND ASSOCIATES, LLP (757) 599-5101
SUBSURFACE UTILITY BY, DATE ACCUMARK, INC. (757) 767-3147

COMMONWEALTH OF VIRGINIA
DANIEL J. SELI
Lic. No. 023410
PROFESSIONAL ENGINEER

Whitman Requardt & Associates
Newport News, Virginia
UTILITIES ENGINEER

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	658	0658-047-R97, M-501	5(3)

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

Utility Owners

Water and Sewer:
James City Service Authority
119 Tewning Road
Williamsburg, VA 23188
Michael Youshock
757.259.5451

Hampton Roads Sewer District
1436 Air Rail Avenue
Virginia Beach, VA 23455
757.460.2261

Power:

Dominion Virginia Power
701 E. Cary St.
Andrew J. Brooks
Underground Damage
Prevention Manager
Dominion Emergency
Preparedness Center
804-771-3655
804-514-2277 cell

Telecomm:

Cox Communications
Vicki Kincaid
HFC Designer III/EAST REGION
Design Team
757-222-6579 / 757-369-6261

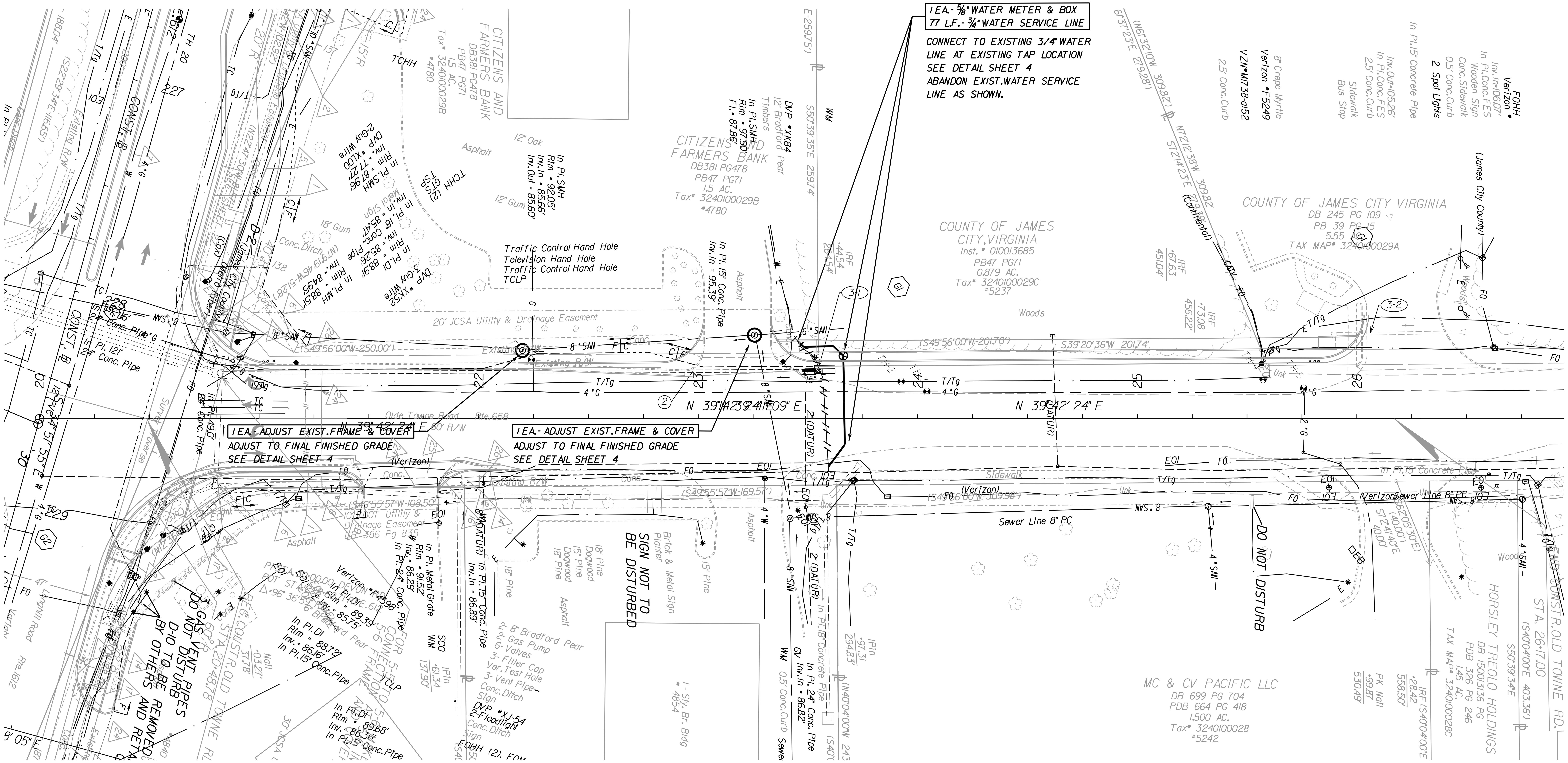
Verizon
William C. Swann Jr
Verizon Virginia Inc.
Outside Plant Engineering
Highway Department
2600 Brittons Hill Rd
2nd Floor
Richmond, VA 23230
804.772.4409
804.772.5978

James City Information
Mike Bowler
757-890-0143
Metro Fiber
Ray Dehart
757-876-9637

Gas:

Virginia Natural Gas
150 W. Main St.
Norfolk, VA 23502
757-455-2000

Kevin D. Starke
Senior Engineering Technician
Engineering Services
757-616-7529 office
757-449-0825 mobile
757-616-7517 fax



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
Mainline Profile	3A
Drainage Descr.	3B

SCALE 0 25' 50'

PROJECT	SHEET NO.
0658-047-R97	5(3)

12/6/2018
3:35:58 PM

THIS SHEET FOR UTILITY ADJUSTMENT/RELOCATION ONLY

PROJECT MANAGER KEN. MCKINNA, PE. (757)925-2406.
SURVEYED BY, DATE DANNY R. WILLIAMS. (757).925-2657.
DESIGN BY WHITMAN, REQUARDT, AND ASSOCIATES, LLP (757) 599-5101
SUBSURFACE UTILITY BY, DATE ACCUMARK, INC. (757) 767-3147)

COMMONWEALTH OF VIRGINIA
DANIEL J. SELI
Lic. No. 023410
PROFESSIONAL ENGINEER

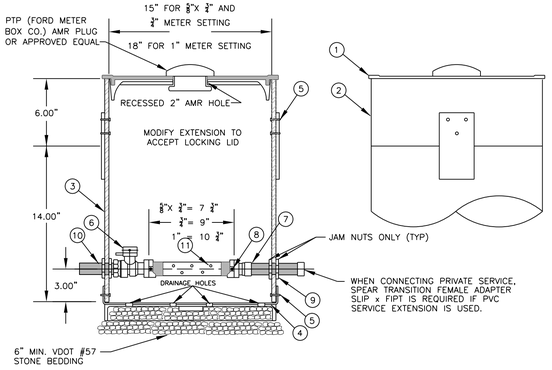
Whitman Requardt & Associates
Newport News, Virginia
UTILITIES ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	658	0658-047-R97, M-501	5(4)

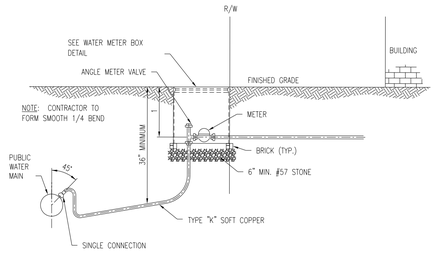
DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

ITEM	DESCRIPTION	QTY.
1	CAST IRON LID WITH RECESSED HOLE AND OPENING FOR RADIO READ ANTENNA	1
2	EXTENSION RING (6")	1
3	(SEE DWG. FOR DIA.) x 14" LG. X 0.300 WALL PVC PIPE	1
4	HDPE, STAINLESS STEEL OR ALUM. BOTTOM CAP	1
5	RIVET (STAINLESS STEEL) (TYP.)	10
6	BALL VALVE (LOCKING)	1
7	OUTLET PIECE	1
8	METER NUT	1
9	LOCK NUT (TYP.)	4
10	NIPPLE	1
11	IDLER (PVC) (PERFORATED)	1

NOTES:
1. METER BOX AND ASSESORIES SHALL BE AS MANUFACTURED BY THE FORD METER CO., INC., MUELLER CO., A.Y. McDONALD Mfg. CO., OR APPROVED EQUAL MEETING THE DIMENSIONS AND COMPONENTS AS SHOWN IN THE DETAIL.
2. THE INLET VALVE, CLAMPING DEVICE AND OUTLET FITTING SHALL BE WATERWORKS BRASS IN ACCORDANCE WITH AWWA C800.
3. METER BOX SHALL BE SIZED AS SPECIFIED ON SITE PLAN.
4. AMR HOLE SHALL BE RECESSED.
5. PIPING, FITTINGS AND VALVE FOR 5/8" OR 3/4" METERS SHALL BE 3/4". FOR 1" METERS PIPING, FITTINGS AND VALVE SHALL BE 1".

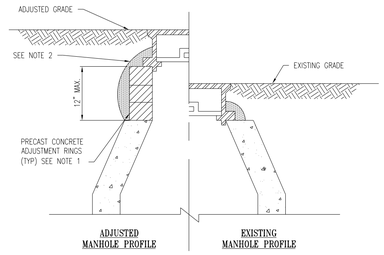


5/8 X 3/4 THRU 1" WATER METER BOX
NOT TO SCALE



NOTES:
1. ALL WATER MAINS SHALL BE TAPPED USING A TAPPING SADDLE. SADDLE SHALL BE DESIGNED AND SIZED FOR THE WATER MAIN ON WHICH THE SADDLE IS TO BE INSTALLED. SADDLE SHALL MEET THE FOLLOWING REQUIREMENTS.
   A. SADDLE BODIES SHALL BE 85-5-5-5 CAST BRONZE PER ASTM B62 OR B584. STRAPS SHALL BE STAINLESS STEEL, 18-8, TYPE 304 FULLY PASSIVATED FOR CORROSION RESISTANCE.
   B. THREADS SHALL BE AWWA C-800 CC/TAPER
   C. THE SADDLE BAND SHALL BE A MINIMUM OF 3.5-INCHES IN WIDTH
   D. THE SADDLE SHALL BE PROVIDED WITH BUNA-N RUBBER GASKET MEETING ASTM D2000 TO SEAL THE SADDLE AND THE MAIN PIPE.
   E. THE NUTS, WASHERS, BANDS, AND BOLTS SHALL BE 18-8 STAINLESS STEEL.
   F. ACCEPTABLE MANUFACTURERS ARE THE FORD METER BOX CO. INC., MODEL FS202/FS303/FRS202, JCM MODEL 406, ROMAC INDUSTRIES INC., STYLE 202N, CASCADE PRODUCTS STYLE CNS2, OR APPROVED EQUAL.
2. METER SHALL BE 5/8" MINIMUM THRU 1" MAXIMUM.
3. INSTALL METER BOX BETWEEN THE CURB AND GUTTER AND THE SIDEWALK. METER BOXES SHALL NOT BE INSTALLED IN DRIVEWAYS OR SIDEWALKS.
4. ALL BENDS IN TYPE K COPPER SHALL BE MADE USING AN APPROPRIATE PIPE BENDING TOOL. THERE SHALL BE NO CRIMPS IN THE PIPE LINE.

WATER SERVICE INSTALLATION
NOT TO SCALE



NOTES:
1. RINGS TO BE COATED AND SEALED SMOOTH ON ALL INSIDE SURFACES, 3/8" THICK (MIN.) WITH HYDRAULIC CEMENT HIGH STRENGTH GROUT.
2. MANHOLE CASTING AND ADJUSTMENT RINGS TO BE SET AND IMBEDDED IN BUTYL JOINT MATERIAL AND CAPPED WITH HYDRAULIC CEMENT GROUT OVER FRAME FLANGE, ADJUSTMENT RINGS AND SECTION.
3. FOUNDATION, FOOTING PAD, LOWEST BARREL SECTION OF MANHOLE AND PIPES SHALL REMAIN UNDISTURBED.

SANITARY SEWER MANHOLE ADJUSTMENT
NOT TO SCALE

	PROJECT	SHEET NO.
	0658-047-R97	5(4)