FOR INDEX OF SHEETS SEE SHEET 1A

THIS PROJECT WAS DEVELOPED UTILIZING THE DEPARTMENT'S ENGINEERING DESIGN PACKAGE (OPEN ROADS DESIGNER).
OPEN ROADS DESIGNER COMPUTER IDENTIFICATION NO. 111713

RW PLANS

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

FEMA FLOOD MAP REFERENCE

THIS PROJECT FALLS WITHIN A FEMA ZONE AE
SEE FEMA FIRM PANEL 51041C0117D,
EFFECTIVE DATE DECEMBER 18. 2012.

STORMWATER COMPLIANCE NOTE

WATER QUALITY REMOVAL REQUIREMENTS HAVE BEEN MET BY ONSITE BMP'S AND THE PURCHASE OF OFFSITE NUTRIENT CREDITS FROM THE APPROVED CREDIT BANK LISTED BELOW. PER PART II B OF THE VA STORMWATER MANAGEMENT HANDBOOK AND PERFORMANCE BASED CALCULATIONS, THE TOTAL PHOSPHOROUS LOAD REDUCTION REQUIREMENT IS 12.97 LB/YR.
BANK: __[TBD]_____
HUC CODE: TBD
BMP TYPE: BIORETENTION L2, MOD. DRY DETENTION
LOCATION: 104+00 RT, 113+00 RT, 127+25 LT, 149+00 RT
WATER QUALTITY COMPLIANCE IS MET THROUGH THE USE OF ONSITE BMP FACILITIES:
TYPE: BIORETENTION L2, MANUFACTURED TREATMENT DEVICES
LOCATION: 17+25 RT, 17+25 LT, 21+15 RT, 21+15 LT, 23+85 RT, 24+00 LT, 24+15 LT, 104+00 RT, 111+50 LT, 112+50 RT, 113+00 RT, 127+25 LT, 149+00 RT

CHESTERFIELD COUNTY PROJECT INFORMATION

PROJECT MANAGER: BILL AREL (CDOT - 804.748.1037)
DISTURBED AREA: 24.65 AC.
PROJECT HUC CODE: JA42
RECEIVING WATER BODY: SWIFT CREEK
LATITUDE: 37.3996 LONGITUDE: -77.6344

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 2020 ROAD AND BRIDGE SPECIFICATIONS, 2016 ROAD AND BRIDGE STANDARDS, 2009 MUTCD, 2011 VIRGINIA SUPPLEMENT TO THE MUTCD, 2011 VIRGINIA WORK AREA PROTECTION MANUAL - REVISION 2 AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC PDF VERSION OF THE PLAN ASSEMBLY.

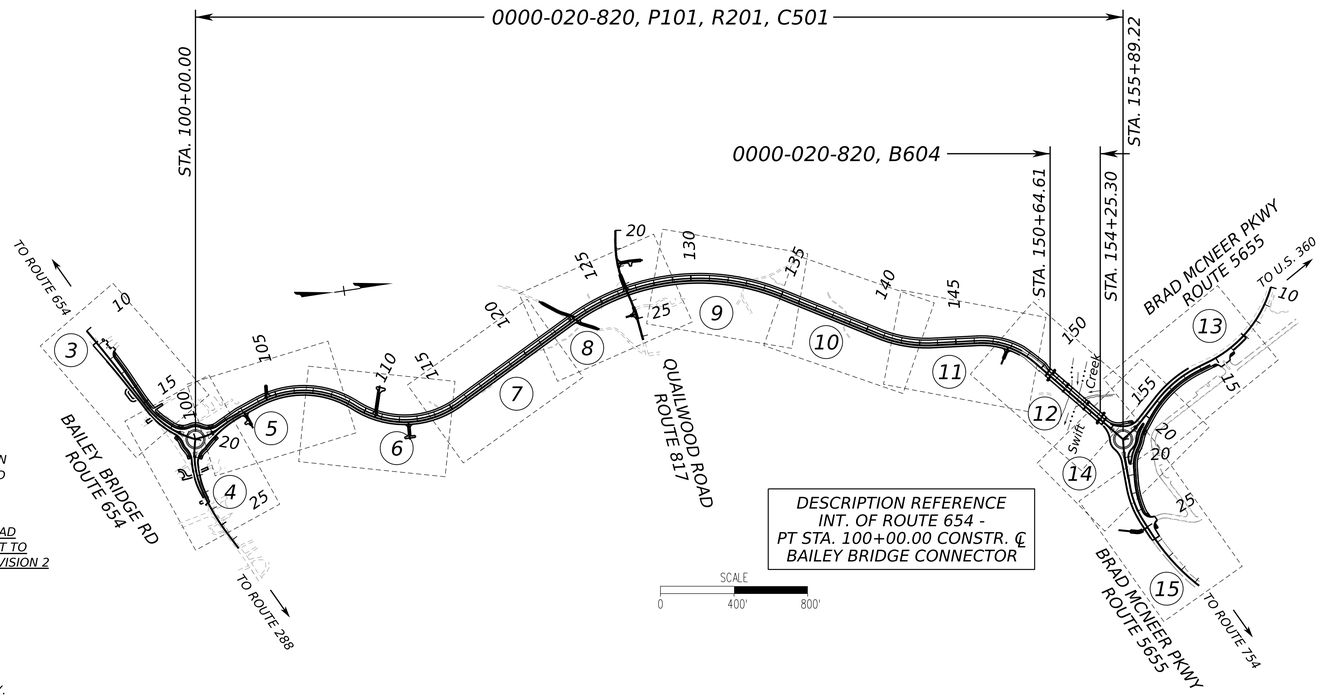
ALL CURVES ARE TO BE SUPERELEVATED, TRANSITIONED AND WIDENED IN ACCORDANCE WITH STANDARD TC-5.11ULS, EXCEPT WHERE OTHERWISE NOTED.

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

COMMONWEALTH OF VIRGINIA

PLAN AND PROFILE OF PROPOSED STATE HIGHWAY

CHESTERFIELD COUNTY
BAILEY BRIDGE CONNECTOR IMPROVEMENTS
FROM: 0.00 MILES SOUTH OF ROUTE 654
TO: 1.06 MILES NORTH OF ROUTE 654



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
WETLAND DELINEATION

CHESTERFIELD COUNTY- POPULATION 352,802 (2019 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 PROJECT NO.	TYPE PROJECT	DESCRIPTION
0000-020-820	P101	STP-5A27(616)	PENG	111713	5,589.22	1.06	5,228.53	0.99		Prelim. Engr.	FROM: 0.00 MILES SOUTH OF ROUTE 654 TO: 1.06 MILES NORTH OF ROUTE 654
	R201	STP-5A27(616)	ROWA	111713	5,589.22	1.06	5,228.53	0.99		ROW	FROM: 0.00 MILES SOUTH OF ROUTE 654 TO: 1.06 MILES NORTH OF ROUTE 654
	C501	STP-5A27(616)	1000	111713	5,589.22	1.06	5,228.53	0.99		Constr.	FROM: 0.00 MILES SOUTH OF ROUTE 654 TO: 1.06 MILES NORTH OF ROUTE 654
	B604	-	8028	111713	360.69	0.07	-	-	307-63	Constr.	Bridge Over Swift Creek

NOTE: PROJECT LENGTH BASED ON BAILEY BRIDGE CONNECTOR CONSTRUCTION BASELINE

COUNTY UTILITY PROJECT #18-0227

FHWA-534-46001

STATE	FEDERAL AID PROJECT	STATE ROUTE	STATE PROJECT	SHEET NO.
VA.	STP-5A27( ) (See Tabulation Below For Section Numbers)	000	(NFO) 0000-020-820 (See Tabulation Below For Section Numbers)	1

FUNCTIONAL CLASSIFICATION AND TRAFFIC DATA		
URBAN COLLECTOR (GS-7) - 35 MPH DESIGN SPEED		
	BAILEY BRIDGE RD	BRAD MCNEER PKWY
	FROM: 0.00 MILES SOUTH OF RTE 654 TO: 1.06 MILES NORTH OF RTE 654	FROM: 0.00 MILES SOUTH OF RTE 654 TO: 1.06 MILES NORTH OF RTE 654
ADT (2019)	5,900	4,500
ADT (2047)	12,550	17,600
DHV	1,395	1,760
D (%) (design hour)	54.5%	50%
T (%) (design hour)	2%	1%
V (MPH)	⊛	⊛

⊛ *See Plan and Profile Sheets for horizontal and vertical curve design speed data*

TIER 2 PROJECT

LOCALLY ADMINISTERED PROJECTS

CHESTERFIELD COUNTY
NAME OF LOCALITY

(SIGNED) /s/ BRENT EPPS
BRENT EPPS, PE
RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION

7/20/22 DIRECTOR OF TRANSPORTATION - CDOT
DATE TITLE OF POSITION

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

DATE DIRECTOR OF TRANSPORTATION - CDOT
TITLE OF POSITION

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION

TOTAL TAKE FOR PARCELS: 007

3/22/22 KIM PRYOR, INFRASTRUCTURE INVESTMENT DIRECTOR
4/6/22 EMMETT HELTZEL, STATE LOCATION AND DESIGN ENGINEER
4/6/22 LAURA FARMER, CHIEF FINANCIAL OFFICER
4/10/22 BART THRASHER, CHIEF ENGINEER

APPROVED FOR RIGHT OF WAY ACQUISITION

4/11/22 ANGEL DEEM, CHIEF OF POLICY

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION

INFRASTRUCTURE INVESTMENT DIRECTOR
STATE LOCATION AND DESIGN ENGINEER
CHIEF FINANCIAL OFFICER
CHIEF ENGINEER

APPROVED FOR RIGHT OF WAY ACQUISITION

CHIEF OF POLICY

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

DATE INFRASTRUCTURE INVESTMENT DIRECTOR
DATE STATE LOCATION AND DESIGN ENGINEER
DATE STATE STRUCTURE AND BRIDGE ENGINEER
DATE CHIEF FINANCIAL OFFICER

APPROVED FOR CONSTRUCTION

DATE CHIEF ENGINEER

APPROVED

DATE DIVISION ADMINISTRATOR, FEDERAL HIGHWAY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

PROJECT MANAGER --- BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE --- TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500 --- TIMMONS GROUP (804) 200-6500 4/2020
SUBSURFACE UTILITY BY, DATE --- TIMMONS GROUP (804) 200-6500 4/2020

PROJECT	SHEET NO.
0000-020-820	1

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

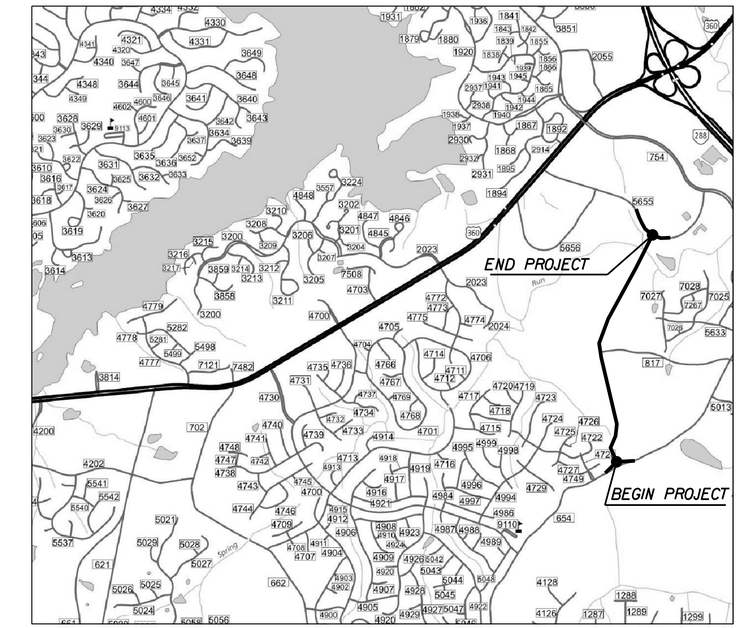
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1A

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

LOCATION MAP
CHESTERFIELD COUNTY
BAILEY BRIDGE CONNECTOR
(ROUTE 654 & ROUTE 5655)



NOT TO SCALE

TOTAL CROSS SECTION SHEETS 138 (SEE CROSS SECTION SHEET NUMBER XS-1 FOR INDEX OF CROSS SECTIONS)

SPECIAL DESIGN BRIDGE PLAN SHEETS, B601, BRIDGE PLAN NO. 1 - 4, BAILEY BRIDGE CONNECTOR OVER SWIFT CREEK

** PLAN SHEETS TO BE PROVIDED IN NEXT SUBMISSION

	PROJECT	SHEET NO.
	0000-020-820	1A

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1B

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

RIGHT OF WAY DATA SHEET

PARCEL NO.	LANDOWNER	TAX PARCEL ID	SHEET NO.	TOTAL	FEE TAKING	PRESCRIPTIVE EASEMENTS	FEE REMAINDER	RESIDUE (Parcel Acquisition)	EASEMENTS					PROFFERS
									PERMANENT				TEMPORARY	
									SLOPE & DRAINAGE	DRAINAGE	VDOT JOINT-USE UTILITY	PUBLIC UTILITY WATER / SEWER	CONSTR.	
				ACRES	ACRES	ACRES	ACRES	ACRES	ACRES	ACRES	ACRES	ACRES	ACRES	YES/NO
001	MARY S. ROUSE	733-669-8093	03	0.436	0.017	-	0.419	-	-	-	-	-	0.016	NO
002	DAVID L. MCBRIDE & SUSAN L. KARCH-MCBRIDE	733-669-9196	03	0.434	0.005	-	0.429	-	-	-	0.010	-	0.019	NO
003	OMITTED	-	-	-	-	-	-	-	-	-	-	-	-	NO
004	LEROY CURTIS & BERTHA T. MCLAUGHLIN	734-668-4980	03	9.120	0.058	0.103	8.959	-	-	-	0.015	-	0.118	NO
005	RICHARD A. & JENNIFER A. MOYER	734-670-1522	03, 04	2.000	0.338	0.073	1.589	-	0.026	-	-	-	0.042	NO
011	RICHARD A. & JENNIFER A. MOYER	734-670-0061	04	1.780	-	-	1.780	-	0.027	-	-	-	0.009	NO
006	LEROY CURTIS & BERTHA T. MCLAUGHLIN	734-669-4898	04	1.130	-	-	1.130	-	-	-	-	-	0.066	NO
007	JARRAD TYLER ELLIS	734-670-2835	04, 05	2.020	1.968	0.052	0.000	-	-	-	-	-	-	NO
008	BRUCE E. & SHARON B. BERKHEIMER	734-670-4735	04	2.000	0.149	0.083	1.768	-	-	-	-	-	0.074	NO
009	ERNEST L. & FRANCES TURNER	734-671-7809	05, 06	16.420	0.939	-	15.481	0.486	0.407	-	-	-	-	NO
010	SWIFT CREEK HOLDINGS, LLC	732-672-9726	05,06, 07, 08	109.400	5.378	-	104.022	0.414	0.560	-	-	-	0.198	YES
012	SWIFT CREEK HOLDINGS, LLC	734-672-7346	07, 08	12.400	0.055	-	12.345	-	0.083	-	-	-	0.096	YES
013	SWIFT CREEK HOLDINGS, LLC	733-672-8988	08, 09	2.140	0.752	-	1.388	-	0.226	-	-	-	-	YES
014	SWIFT CREEK HOLDINGS, LLC	734-673-1082	08, 09, 10, 11, 12	101.800	4.845	-	96.955	-	2.388	-	-	0.077	0.178	YES
015	SWIFT CREEK COMMONS LLC	734-675-0754	12, 13, 14	29.630	0.479	-	29.151	-	0.158	-	-	0.114	0.185	NO
016	SWIFT CREEK ASSOCIATES, L.P.	735-674-4089	14, 15	9.200	0.249	-	8.951	-	0.183	-	-	0.056	0.074	NO
017	THE TERRACES AT SWIFT CREEK CONDOMINIUMS	735-675-1490	13, 14, 15	24.610	-	-	24.610	-	-	0.003	-	-	0.234	NO
018	JOSEPH A. & SHIRLEY T. FREEMAN	733-669-9244	03	4.500	-	0.115	4.385	-	-	-	0.045	-	0.020	NO
019	AZIZ MIKHAEL & EREN IKLADIOUS	734-670-0003	03	0.456	-	-	0.456	-	-	-	-	-	0.008	NO
020	PHILLIP S. & JEAN H. COOPER	734-669-2988	03, 04	1.020	-	-	1.020	-	-	-	-	-	0.010	NO
021	PAUL M. & JANET M. BRANCH	734-670-6606	04	1.020	-	-	1.020	-	-	-	-	-	0.009	NO
022	LEROY CURTIS & BERTHA T. MCLAUGHLIN		04	0.246	0.102	0.144	0.000	-	-	-	-	-	-	NO
023	CHESTERFIELD COUNTY		04	0.203	0.203	-	0.000	-	-	-	-	-	-	NO
024	HEIRS AT LAW OF BEULAH TURNER MASON, A/K/A BEULAH TURNER		04	0.124	0.073	0.051	0.000	-	-	-	-	-	-	NO

DEMOLITION SUMMARY - BAILEY BRIDGE CONNECTOR

SHEET NUMBER	PARCEL NUMBER	DEMOLITION NUMBER	LANDOWNER	ALIGNMENT & STATION	DESCRIPTION
4	7	D-1	JARRAD T. ELLIS	BAILEY BRIDGE CONNECTOR: 100+65.50, 0.00	1 STY. BRICK RESIDENCE
4	7	D-2	JARRAD T. ELLIS	BAILEY BRIDGE CONNECTOR: 100+11.30, -19.80	FLAG POLE
4	7	D-3	JARRAD T. ELLIS	BAILEY BRIDGE CONNECTOR: 100+13.16, -24.93	WELL
4	7	D-4	JARRAD T. ELLIS	BAILEY BRIDGE CONNECTOR: 101+11.88, 48.50	SWINGSET
4	7	D-5	JARRAD T. ELLIS	BAILEY BRIDGE CONNECTOR: 101+03.29, 61.31	MONKEY BARS
5	7	D-6	JARRAD T. ELLIS	BAILEY BRIDGE CONNECTOR: 102+07.93, -41.62	SHED W/ RAMP
5	7	D-7	JARRAD T. ELLIS	BAILEY BRIDGE CONNECTOR: 102+60.38, 50.44	VINYL SHED
4	8	D-8	BRUCE E. & SHARON B. BERKHEIMER	BAILEY BRIDGE ROAD EAST: 21+59.41, -9.18	WELL
4	5	D-9	RICHARD A. MOYER	BAILEY BRIDGE ROAD EAST: 17+31.75, 17.94	BRICK WALL
5	5	D-10	RICHARD A. MOYER	BAILEY BRIDGE CONNECTOR: 103+69.77, -74.08	BARN
4	7	D-500	JARRAD T. ELLIS	BAILEY BRIDGE CONNECTOR: 100+98.64, -16.80	SEPTIC DRAIN FIELD/TANK
9	14	D-11	SWIFT CREEK HOLDINGS, LLC	BAILEY BRIDGE CONNECTOR: 134+84.14, -51.46	ALUMIINUM SHED
13	17	D-12	THE TERRACES AT SWIFT CREEK	BRAD MCNEER PARKWAY: 14+26.01, -58.25	MONUMENT SIGN
13	17	D-13	THE TERRACES AT SWIFT CREEK	BRAD MCNEER PARKWAY: 15+10.75, -64.43	MONUMENT SIGN

COMMONWEALTH OF VIRGINIA
William R. Herx
Lic. No. 2947
LAND SURVEYOR

Timmons Group
Richmond, Virginia
LAND SURVEYOR

PROJECT	SHEET NO.
0000-020-820	1B

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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REVISION DATA SHEET

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1C

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: 0000-020-0820, P101, R201, C501
Federal Project: STP-5A27(616)
From: 0.000 MILES SOUTH OF ROUTE 654
To: 1.07 MILES NORTH OF ROUTE 654
UPC Number: 111713

PROJECT	SHEET NO.
0000-020-820	1C

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1E(1)

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

RW PLANS

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LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control
Control Station I.D. : 1 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : _____ ft.
North (Y) : _____ ft.
Elevation : ____ ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,735,179.3780 ft.
North (Y) : 3,670,472.9440 ft.
Ortho. Elevation (H) : 277.51 ft.
Zone : North _ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1.____ (9 Decimal Places)

Latitude : 37° 24' 01.5162" N (5 Decimal Places)
Longitude : 77° 37' 53.5777" W (5 Decimal Places)
Geoid Separation (N) : -32.830 m
Ellipsoid Height (h) : 51.756 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 2 Is 238° 13' 20"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) : _____

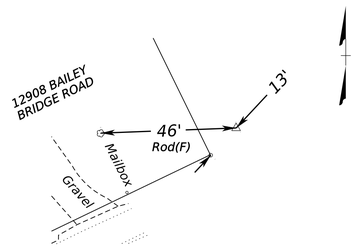
Project Information
Project Number : _____
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

* Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

* Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control
Control Station I.D. : 2 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : _____ ft.
North (Y) : _____ ft.
Elevation : ____ ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,819.9770 ft.
North (Y) : 3,670,250.2980 ft.
Ortho. Elevation (H) : 277.22 ft.
Zone : North _ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1.____ (9 Decimal Places)

Latitude : 37° 23' 58.98302" N (5 Decimal Places)
Longitude : 77° 37' 58.05706" W (5 Decimal Places)
Geoid Separation (N) : -32.827 m
Ellipsoid Height (h) : 51.670 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 3 Is 253° 53' 35"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) : _____

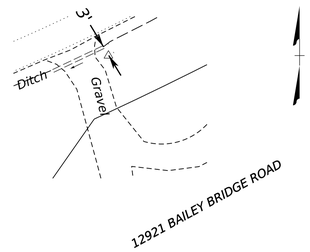
Project Information
Project Number : _____
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

* Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

* Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control
Control Station I.D. : 3 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : _____ ft.
North (Y) : _____ ft.
Elevation : ____ ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,351.3630 ft.
North (Y) : 3,670,114.9770 ft.
Ortho. Elevation (H) : 276.43 ft.
Zone : North _ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1.____ (9 Decimal Places)

Latitude : 37° 23' 57.68764" N (5 Decimal Places)
Longitude : 77° 38' 03.87984" W (5 Decimal Places)
Geoid Separation (N) : -32.823 m
Ellipsoid Height (h) : 51.433 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 4 Is 338° 34' 32"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) : _____

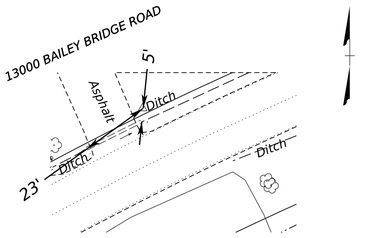
Project Information
Project Number : _____
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

* Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

* Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control
Control Station I.D. : 4 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : _____ ft.
North (Y) : _____ ft.
Elevation : ____ ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,926.6272 ft.
North (Y) : 3,670,519.5120 ft.
Ortho. Elevation (H) : 267.78 ft.
Zone : North _ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1.____ (9 Decimal Places)

Latitude : 37° 24' 01.7016" N (5 Decimal Places)
Longitude : 77° 38' 05.80106" W (5 Decimal Places)
Geoid Separation (N) : -32.820 m
Ellipsoid Height (h) : 48.800 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 5 Is 1° 18' 12"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) : _____

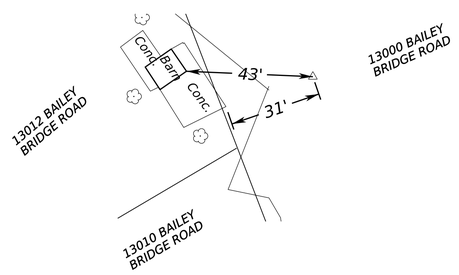
Project Information
Project Number : _____
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

* Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

* Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

Beginning chain BAILEY_BL description
Feature: DEFAULT_POINT

Point 1 N 3,670,472.94 E 11,735,179.38 Sta 10+00.00
Course from 1 to 2 S 58° 13' 20" W Dist 422.78
Point 2 N 3,670,250.30 E 11,734,819.98 Sta 14+22.78
Course from 2 to 3 S 73° 53' 35" W Dist 487.76
Point 3 N 3,670,114.98 E 11,734,351.36 Sta 19+10.54
Course from 3 to 4 N 21° 25' 28" W Dist 434.56
Point 4 N 3,670,519.51 E 11,734,192.63 Sta 23+45.10
Course from 4 to 5 N 1° 18' 12" E Dist 305.66
Point 5 N 3,670,825.09 E 11,734,199.58 Sta 26+50.76
Course from 5 to 6 N 21° 48' 12" E Dist 196.59
Point 6 N 3,671,007.62 E 11,734,272.60 Sta 28+47.35
Course from 6 to 7 N 35° 28' 12" E Dist 252.82
Point 7 N 3,671,213.52 E 11,734,419.30 Sta 31+00.17
Course from 7 to 8 N 1° 47' 16" W Dist 404.71
Point 8 N 3,671,618.04 E 11,734,406.68 Sta 35+04.88
Course from 8 to 9 N 27° 50' 49" W Dist 402.49
Point 9 N 3,671,973.91 E 11,734,218.67 Sta 39+07.37
Course from 9 to 10 N 29° 48' 52" W Dist 314.58
Point 10 N 3,672,246.85 E 11,734,062.27 Sta 42+21.95
Course from 10 to 11 N 21° 16' 27" W Dist 240.73
Point 11 N 3,672,471.18 E 11,733,974.92 Sta 44+62.67
Course from 11 to 12 N 45° 07' 44" E Dist 336.77
Point 12 N 3,672,708.77 E 11,734,213.59 Sta 47+99.44
Course from 12 to 13 N 66° 17' 02" W Dist 352.53
Point 13 N 3,672,850.56 E 11,733,890.83 Sta 51+51.97
Course from 13 to 14 N 10° 38' 04" E Dist 146.65
Point 14 N 3,672,994.69 E 11,733,917.89 Sta 52+98.62
Course from 14 to 15 N 17° 43' 33" E Dist 277.79
Point 15 N 3,673,259.29 E 11,734,002.47 Sta 55+76.41
Course from 15 to 16 N 21° 09' 47" E Dist 441.16
Point 16 N 3,673,670.71 E 11,734,161.74 Sta 60+17.57
Course from 16 to 17 N 46° 52' 46" E Dist 318.96
Point 17 N 3,673,888.72 E 11,734,394.55 Sta 63+36.53
Course from 17 to 18 N 20° 47' 20" E Dist 359.21
Point 18 N 3,674,224.55 E 11,734,522.05 Sta 66+95.74
Course from 18 to 19 N 0° 25' 42" E Dist 305.79
Point 19 N 3,674,530.33 E 11,734,524.33 Sta 70+01.54
Course from 19 to 20 N 26° 31' 19" E Dist 313.07
Point 20 N 3,674,810.45 E 11,734,664.13 Sta 73+14.60
Course from 20 to 21 N 68° 33' 53" E Dist 215.31
Point 21 N 3,674,889.14 E 11,734,864.54 Sta 75+29.91
Course from 21 to 22 N 32° 06' 07" E Dist 386.10
Point 22 N 3,675,216.20 E 11,735,069.72 Sta 79+16.01
Course from 22 to 23 N 24° 03' 36" W Dist 273.80
Point 23 N 3,675,466.22 E 11,734,958.10 Sta 81+89.81
Course from 23 to 24 N 35° 26' 21" W Dist 729.02
Point 24 N 3,676,060.17 E 11,734,535.39 Sta 89+18.83

Ending chain BAILEY_BL description

	PROJECT	SHEET NO.
	0000-020-820	1E(1)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1E(2)

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

RW PLANS

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

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 5 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,199.5791 ft.
North (Y) : 3,670,825.0927 ft.
Ortho. Elevation (H) : 253.96 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

Latitude : 37° 24' 04.7222" N (5 Decimal Places)
Longitude : 77° 38' 05.6802" W (5 Decimal Places)
Geoid Separation (N) : -32.819 m
Ellipsoid Height (h) : 44.589 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 6 Is 21° 48' 12"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

• Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

• Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LOCATED IN WOODS, NOTHING TO SKETCH.

LD-200 (REV. 10/2014)

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 6 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,272.5962 ft.
North (Y) : 3,671,007.6186 ft.
Ortho. Elevation (H) : 264.59 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

Latitude : 37° 24' 06.5202" N (5 Decimal Places)
Longitude : 77° 38' 04.7547" W (5 Decimal Places)
Geoid Separation (N) : -32.819 m
Ellipsoid Height (h) : 47.828 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 7 Is 35° 28' 12"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

• Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

• Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LOCATED IN WOODS, NOTHING TO SKETCH.

LD-200 (REV. 10/2014)

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 7 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,419.3027 ft.
North (Y) : 3,671,213.5220 ft.
Ortho. Elevation (H) : 255.97 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

Latitude : 37° 24' 08.54265" N (5 Decimal Places)
Longitude : 77° 38' 02.91302" W (5 Decimal Places)
Geoid Separation (N) : -32.820 m
Ellipsoid Height (h) : 45.198 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 8 Is 358° 12' 44"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

• Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

• Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LOCATED IN WOODS, NOTHING TO SKETCH.

LD-200 (REV. 10/2014)

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 8 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,406.6767 ft.
North (Y) : 3,671,618.0353 ft.
Ortho. Elevation (H) : 261.95 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

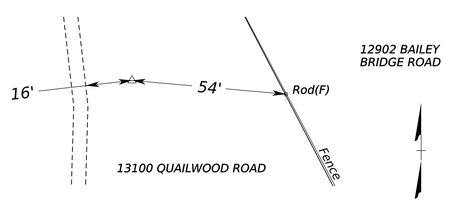
Latitude : 37° 24' 12.5431" N (5 Decimal Places)
Longitude : 77° 38' 03.0235" W (5 Decimal Places)
Geoid Separation (N) : -32.819 m
Ellipsoid Height (h) : 47.023 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 9 Is 332° 09' 11"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

• Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

• Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 9 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,218,671.11 ft.
North (Y) : 3,671,973,912.4 ft.
Ortho. Elevation (H) : 268.21 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

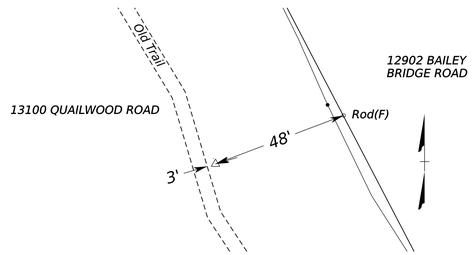
Latitude : 37° 24' 16.0787" N (5 Decimal Places)
Longitude : 77° 38' 05.3131" W (5 Decimal Places)
Geoid Separation (N) : -32.816 m
Ellipsoid Height (h) : 48.935 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 10 Is 330° 11' 08"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

• Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

• Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 10 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,062.2661 ft.
North (Y) : 3,672,246.8525 ft.
Ortho. Elevation (H) : 251.68 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

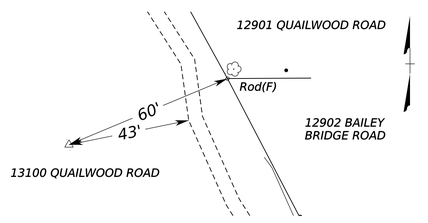
Latitude : 37° 24' 18.7914O" N (5 Decimal Places)
Longitude : 77° 38' 07.2205 4" W (5 Decimal Places)
Geoid Separation (N) : -32.814 m
Ellipsoid Height (h) : 43.899 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 11 Is 338° 43' 33"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

• Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

• Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

PROJECT	SHEET NO.
0000-020-820	1E(2)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

6/29/2022
2:42:54 PM

dlll7130lE(x).dgn
Plotted By: ParrishBailey

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1E(3)

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

RW PLANS

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

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 11 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,733,974.9221 ft.
North (Y) : 3,672,471.1775 ft.
Ortho. Elevation (H) : 253.93 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

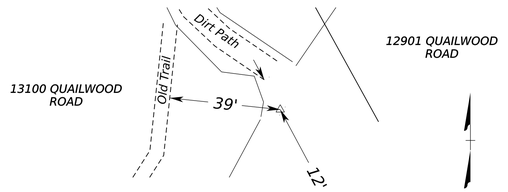
Latitude : 37° 24' 21.0178" N (5 Decimal Places)
Longitude : 77° 38' 08.27759" W (5 Decimal Places)
Geoid Separation (N) : -32.812 m
Ellipsoid Height (h) : 44.585 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 12 Is 45° 07' 44"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

- Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)
- Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 12 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,213.5860 ft.
North (Y) : 3,672,708,771.0 ft.
Ortho. Elevation (H) : 261.38 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

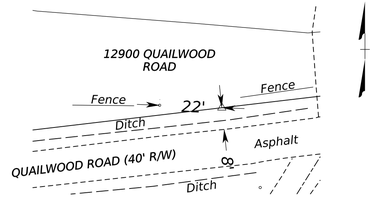
Latitude : 37° 24' 23.34462" N (5 Decimal Places)
Longitude : 77° 38' 05.29266" W (5 Decimal Places)
Geoid Separation (N) : -32.814 m
Ellipsoid Height (h) : 46.854 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 13 Is 293° 42' 58"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

- Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)
- Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 13 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,733,890,830.4 ft.
North (Y) : 3,672,850,559.3 ft.
Ortho. Elevation (H) : 243.66 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

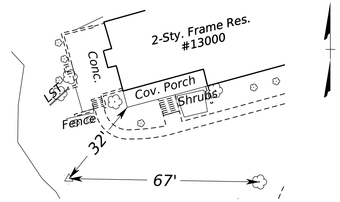
Latitude : 37° 24' 24.77568" N (5 Decimal Places)
Longitude : 77° 38' 09.27676" W (5 Decimal Places)
Geoid Separation (N) : -32.810 m
Ellipsoid Height (h) : 41.456 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 14 Is 107° 38' 04"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

- Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)
- Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 14 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,733,917.8940 ft.
North (Y) : 3,672,994.6939 ft.
Ortho. Elevation (H) : 246.74 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

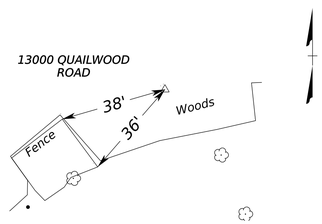
Latitude : 37° 24' 26.9827" N (5 Decimal Places)
Longitude : 77° 38' 08.92498" W (5 Decimal Places)
Geoid Separation (N) : -32.810 m
Ellipsoid Height (h) : 42.398 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 15 Is 17° 43' 33"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

- Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)
- Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 15 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,002,470.5 ft.
North (Y) : 3,673,259,294.8 ft.
Ortho. Elevation (H) : 253.23 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

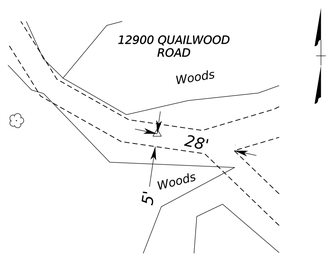
Latitude : 37° 24' 28.80669" N (5 Decimal Places)
Longitude : 77° 38' 07.84671" W (5 Decimal Places)
Geoid Separation (N) : -32.810 m
Ellipsoid Height (h) : 44.376 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 16 Is 21° 09' 47"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

- Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)
- Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 16 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,161,740.8 ft.
North (Y) : 3,673,670,705.4 ft.
Ortho. Elevation (H) : 241.83 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

Latitude : 37° 24' 32.85982" N (5 Decimal Places)
Longitude : 77° 38' 05.82598" W (5 Decimal Places)
Geoid Separation (N) : -32.810 m
Ellipsoid Height (h) : 40.899 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 17 Is 46° 52' 46"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

- Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)
- Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LOCATED IN WOODS, NOTHING TO SKETCH.

	PROJECT	SHEET NO.
	0000-020-820	1E(3)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

Cell Revised 12/11/12

6/29/2022
2:42:54 PM

dlll7130lE(x).dgn
Plotted By: ParrishBailey

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1E(4)

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

RW PLANS

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

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 17 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,394.5530 ft.
North (Y) : 3,673,888.7241 ft.
Ortho. Elevation (H) : 230.73 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

Latitude : 37° 24' 34.99424" N (5 Decimal Places)
Longitude : 77° 38' 02.91565" W (5 Decimal Places)
Geoid Separation (N) : -32.812 m
Ellipsoid Height (h) : 37.514 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 18 Is 20° 47' 20"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

• Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

• Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LOCATED IN WOODS, NOTHING TO SKETCH.

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 18 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,522.0461 ft.
North (Y) : 3,674,224.5499 ft.
Ortho. Elevation (H) : 210.62 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

Latitude : 37° 24' 38.30293" N (5 Decimal Places)
Longitude : 77° 38' 01.29726" W (5 Decimal Places)
Geoid Separation (N) : -32.812 m
Ellipsoid Height (h) : 31.385 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 19 Is 0° 25' 42"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

• Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

• Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LOCATED IN WOODS, NOTHING TO SKETCH.

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 19 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,524,331.5 ft.
North (Y) : 3,674,530.3348 ft.
Ortho. Elevation (H) : 183.60 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

Latitude : 37° 24' 41.32597" N (5 Decimal Places)
Longitude : 77° 38' 01.23415" W (5 Decimal Places)
Geoid Separation (N) : -32.811 m
Ellipsoid Height (h) : 23.151 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 20 Is 26° 31' 19"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

• Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

• Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LOCATED IN WOODS, NOTHING TO SKETCH.

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 20 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,664,1278 ft.
North (Y) : 3,674,810.4542 ft.
Ortho. Elevation (H) : 182.40 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

Latitude : 37° 24' 44.08278" N (5 Decimal Places)
Longitude : 77° 37' 59.46954" W (5 Decimal Places)
Geoid Separation (N) : -32.812 m
Ellipsoid Height (h) : 22.785 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 21 Is 68° 33' 53"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

• Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

• Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)

LOCATED IN WOODS, NOTHING TO SKETCH.

LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 21 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,734,864,5416 ft.
North (Y) : 3,674,889.1382 ft.
Ortho. Elevation (H) : 149.66 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

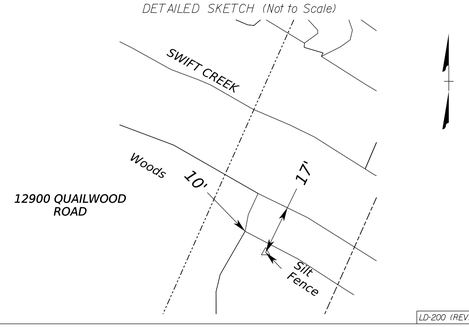
Latitude : 37° 24' 44.84252" N (5 Decimal Places)
Longitude : 77° 37' 56.97650" W (5 Decimal Places)
Geoid Separation (N) : -32.813 m
Ellipsoid Height (h) : 12.803 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 22 Is 32° 06' 07"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

• Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

• Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 22 Date : 03-18-2020

VDOT Project Coordinates (2014)
East (X) : ft.
North (Y) : ft.
Elevation : ft.

VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : 11,735,069,7247 ft.
North (Y) : 3,675,216.2039 ft.
Ortho. Elevation (H) : 173.88 ft.
Zone : North__ South X (place an 'X' beside one)

Project Specific Combined Scale Factor: 1. (9 Decimal Places)

Project Information
Project Number :
Route : 654 City/County : Chesterfield Co.
Established By : Timmons Group

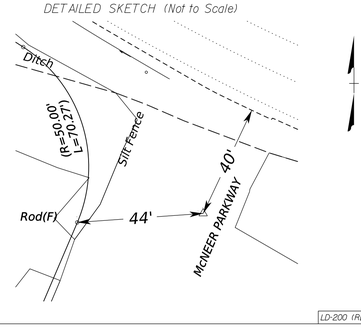
Latitude : 37° 24' 48.05752" N (5 Decimal Places)
Longitude : 77° 37' 54.39600" W (5 Decimal Places)
Geoid Separation (N) : -32.814 m
Ellipsoid Height (h) : 20.186 m
Horizontal Datum : NAD83 Year : 2011
Vertical Datum : NAVD88 Geoid : 18
Azimuth to Station : 23 Is 335° 56' 24"
Control Based On: Station (Name/PID) DL2314
or Project (Monument No.) :

To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula :

• Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left)

• Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



	PROJECT	SHEET NO.
	0000-020-820	1E(4)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

Cell Revised 12/11/12

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037 _____
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020 ____
DESIGN BY _____ TIMMONS GROUP (804) 200-6500 _____
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1E(5)

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

RW PLANS

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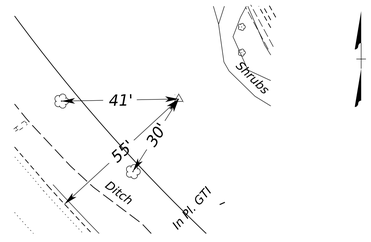
LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 23 Date : 03-18-2020

VDOT Project Coordinates (2014)	VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : ft. North (Y) : ft. Elevation : ft.	East (X) : 11,734,958.0980 ft. North (Y) : 3,675,466.2180 ft. Ortho. Elevation (H) : 175.61 ft. Zone : North__ South X (place an 'X' beside one)
Project Specific Combined Scale Factor: 1. (9 Decimal Places)	Project Information Project Number : Route : 654 City/County : Chesterfield Co. Established By : Timmons Group
Latitude : 37° 24' 50.53952" N (5 Decimal Places) Longitude : 77° 37' 55.7512" W (5 Decimal Places) Geoid Separation (N) : -32.813 m Ellipsoid Height (h) : 207.14 m Horizontal Datum : NAD83 Year : 2011 Vertical Datum : NAVD88 Geoid : 18 Azimuth to Station : 24 Is 324° 33' 35" Control Based On: Station (Name/PID) DL2314 or Project (Monument No.) :	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : • Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) • Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

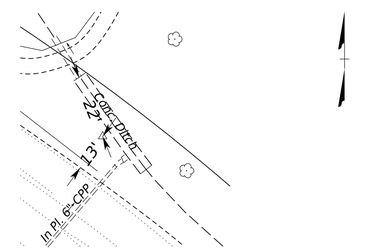
LD-200 (REV. 10/2014)

Virginia Department of Transportation Horizontal Control

Control Station I.D. : 24 Date : 03-18-2020

VDOT Project Coordinates (2014)	VA State Plane Coordinates : NAD 83- U.S. Survey Feet
East (X) : ft. North (Y) : ft. Elevation : ft.	East (X) : 11,734,535.3850 ft. North (Y) : 3,676,282.2669 ft. Ortho. Elevation (H) : 176.92 ft. Zone : North__ South X (place an 'X' beside one)
Project Specific Combined Scale Factor: 1. (9 Decimal Places)	Project Information Project Number : Route : 654 City/County : Chesterfield Co. Established By : Timmons Group
Latitude : 37° 24' 56.45025" N (5 Decimal Places) Longitude : 77° 38' 00.92312" W (5 Decimal Places) Geoid Separation (N) : -32.807 m Ellipsoid Height (h) : 211.19 m Horizontal Datum : NAD83 Year : 2011 Vertical Datum : NAVD88 Geoid : 18 Azimuth to Station : 23 Is 144° 33' 39" Control Based On: Station (Name/PID) DL2314 or Project (Monument No.) :	To convert Virginia State Plane Coordinates to VDOT Project Coordinates, use the following formula : • Multiply the Easting And Northing Values (For Both Zones) by the Project Specific Combined Scale Factor. (Located above left) • Reverse this Procedure to convert VDOT Project Coordinates (2014) to NAD 83 - U.S. Survey Feet

DETAILED SKETCH (Not to Scale)



LD-200 (REV. 10/2014)

	PROJECT	SHEET NO.
	0000-020-820	1E(5)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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HORIZONTAL ALIGNMENT DATA

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1F(1)

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

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

LINE	BEARING	LENGTH
L1	N58°47'39"E	60.71'
L2	N61°03'32"E	227.79'
L3	N71°42'56"E	39.14'
L4	N61°36'45"E	108.56'
L5	N08°45'08"W	53.61'
L6	N27°29'22"W	78.28'
L7	N20°26'18"W	131.97'
L8	N27°32'15"W	753.64'
L21	S81°23'30"E	64.08'
L22	N74°51'47"E	74.53'
L23	N83°07'30"E	117.62'
L40	S63°23'50"W	11.26'
L41	S26°16'26"W	45.09'
L42	S37°07'00"W	103.90'
L43	N63°51'32"E	12.06'
L44	N25°06'16"E	102.93'
L45	S86°43'22"E	95.56'
L46	N02°33'46"W	51.47'
L47	N03°16'17"E	61.67'
L48	S08°55'47"E	57.54'

(1) BAILEY BRIDGE ROAD WEST ℄
PI = 11+76.46
DELTA = 02°15'52.67" (RT)
D = 00°58'42"
T = 115.75'
L = 231.46'
R = 5,856.00'
PC = 10+60.71
PT = 12+92.17
e = MATCH EXISTING
V = 35 MPH

(2) BAILEY BRIDGE ROAD WEST ℄
PI = 16+90.71
DELTA = 37°01'17.99" (LT)
D = 11°14'04"
T = 170.75'
L = 329.54'
R = 510.01'
PC = 15+19.96
PT = 18+49.50
e = 2.0% NC (ULS)
V = 25 MPH

(3) BAILEY BRIDGE ROAD EAST ℄
PI = 21+63.46
DELTA = 35°32'32.46" (LT)
D = 11°14'04"
T = 163.46'
L = 316.37'
R = 510.00'
PC = 20+00.00
PT = 23+16.37
e = 2.0% NC (ULS)
V = 25 MPH

(4) BAILEY BRIDGE ROAD EAST ℄
PI = 24+52.74
DELTA = 10°06'10.78" (LT)
D = 05°12'31"
T = 97.23'
L = 193.96'
R = 1,100.00'
PC = 23+55.51
PT = 25+49.47
e = MATCH EXISTING
V = 35 MPH

(5) BAILEY BRIDGE CONNECTOR ℄
PI = 100+86.28
DELTA = 18°44'13.50" (LT)
D = 28°56'14"
T = 32.67'
L = 64.75'
R = 198.00'
PC = 100+53.61
PT = 101+18.36
e = 2.0% NC (ULS)
V = 35 MPH

(6) BAILEY BRIDGE CONNECTOR ℄
PI = 102+28.06
DELTA = 07°03'03.07" (RT)
D = 11°14'04"
T = 31.42'
L = 62.76'
R = 510.00'
PC = 101+96.64
PT = 102+59.40
e = 2.0% NC (ULS)
V = 35 MPH

(7) BAILEY BRIDGE CONNECTOR ℄
PI = 106+95.39
DELTA = 61°36'02.98" (RT)
D = 11°14'04"
T = 304.03'
L = 548.32'
R = 510.00'
PC = 103+91.36
PT = 109+39.68
e = 2.0% NC (ULS)
V = 35 MPH

(8) BAILEY BRIDGE CONNECTOR ℄
PI = 112+88.23
DELTA = 68°41'59.59" (LT)
D = 11°14'04"
T = 348.55'
L = 611.51'
R = 510.00'
PC = 109+39.68
PT = 115+51.19
e = 2.0% NC (ULS)
V = 35 MPH

(9) BAILEY BRIDGE CONNECTOR ℄
PI = 129+59.00
DELTA = 58°12'45.04" (RT)
D = 04°52'34"
T = 654.16'
L = 1,193.80'
R = 1,175.00'
PC = 123+04.83
PT = 134+98.63
e = 2.0% NC (ULS)
V = 35 MPH

(23) QUAILWOOD ROAD ℄
PI = 21+90.22
DELTA = 23°44'43.47" (LT)
D = 09°32'57"
T = 126.14'
L = 248.66'
R = 600.00'
PC = 20+64.08
PT = 23+12.74

(24) QUAILWOOD ROAD ℄
PI = 24+45.06
DELTA = 08°15'42.66" (RT)
D = 07°09'43"
T = 57.78'
L = 115.36'
R = 800.00'
PC = 23+87.28
PT = 25+02.63

(33) ENTRANCE #8 ℄
PI = 10+24.69
DELTA = 37°07'23.73" (LT)
D = 143°14'22"
T = 13.43'
L = 25.92'
R = 40.00'
PC = 10+11.26
PT = 10+37.18

(36) ENTRANCE #8 ℄
PI = 10+64.21
DELTA = 05°50'02.91" (RT)
D = 22°55'06"
T = 12.74'
L = 25.46'
R = 250.00'
PC = 10+51.47
PT = 10+76.93

(34) ENTRANCE #8 ℄
PI = 11+01.25
DELTA = 10°50'34.34" (RT)
D = 28°38'52"
T = 18.98'
L = 37.85'
R = 200.00'
PC = 10+82.27
PT = 11+20.11

(35) ENTRANCE #9 ℄
PI = 10+26.13
DELTA = 38°45'15.38" (LT)
D = 143°14'22"
T = 14.07'
L = 27.06'
R = 40.00'
PC = 10+12.06
PT = 10+39.12

(A) POC 18+49.50 BAILEY BRIDGE ROAD WEST ℄
PI 100+00.00 BAILEY BRIDGE CONNECTOR ℄
Δ 32° 47' 21.73" LT.
POC 20+00.00 BAILEY BRIDGE ROAD EAST ℄
Δ 83° 13' 14.48" RT.

(B) POT 126+47.66 BAILEY BRIDGE CONNECTOR ℄
POT 23+49.63 QUAILWOOD ROAD ℄
Δ 85° 43' 9.37" LT.

(Q) POT 123+24.00 BAILEY BRIDGE CONNECTOR ℄
POT 10+00.00 ENTRANCE #8 ℄
Δ 90° 00' 00.00" LT.

(R) POT 123+33.47 BAILEY BRIDGE CONNECTOR ℄
POT 23+49.63 ENTRANCE #9 ℄
Δ 90° 00' 00.00" LT.

(S) POC 110+66.16 BAILEY BRIDGE CONNECTOR ℄
POT 10+00.00 ENTRANCE #13 ℄
Δ 80°01'05.31" LT.

(T) POT 112+50.39 BAILEY BRIDGE CONNECTOR ℄
POT 10+00.00 ENTRANCE #14 ℄
Δ 90°00'00.00" RT.

(U) POT 24+73.95 BAILEY BRIDGE CONNECTOR ℄
POT 10+00.00 ENTRANCE #11 ℄
Δ 90°00'00.00" RT.

INSET A
SEE SHEET 1F(3)

MATCHLINE SHEET 1F(2)
STA. 131+00.00

SCALE	PROJECT	SHEET NO.
0 100' 200'	0000-020-820	1F(1)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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

HORIZONTAL ALIGNMENT DATA

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1F(2)

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

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

(9) BAILEY BRIDGE CONNECTOR ℄
PI = 129+59.00
DELTA = 58°12'45.04" (RT)
D = 04°52'34"
T = 654.16'
L = 1,193.80'
R = 1,175.00'
PC = 123+04.83
PT = 134+98.63
e = 2.0% NC (ULS)
V = 35 MPH

(10) BAILEY BRIDGE CONNECTOR ℄
PI = 142+25.74
DELTA = 24°53'29.96" (LT)
D = 08°11'06"
T = 154.49'
L = 304.11'
R = 700.00'
PC = 140+71.24
PT = 143+75.35
e = 2.0% NC (ULS)
V = 35 MPH

(11) BAILEY BRIDGE CONNECTOR ℄
PI = 147+95.76
DELTA = 43°45'53.65" (RT)
D = 13°01'18"
T = 176.72'
L = 336.09'
R = 440.00'
PC = 146+19.04
PT = 149+55.13
e = 2.0% NC (ULS)
V = 35 MPH

(12) BRAD MCNEER PARKWAY WEST ℄
PI = 12+88.03
DELTA = 47°34'13.59" (RT)
D = 08°46'03"
T = 288.03'
L = 542.59'
R = 653.51'
PC = 10+00.00
PT = 15+42.59
e = MATCH EXISTING
V = 35 MPH

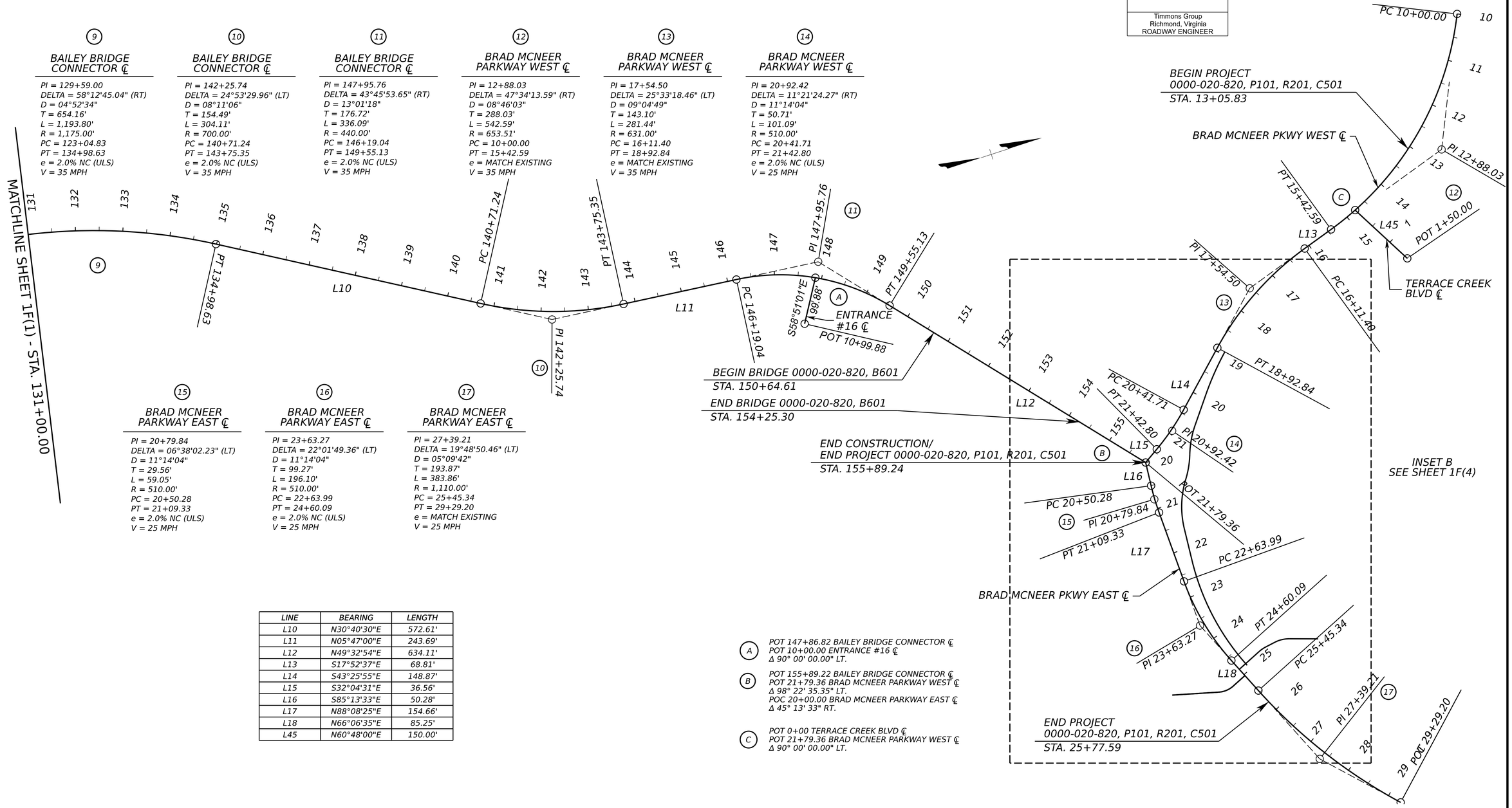
(13) BRAD MCNEER PARKWAY WEST ℄
PI = 17+54.50
DELTA = 25°33'18.46" (LT)
D = 09°04'49"
T = 143.10'
L = 281.44'
R = 631.00'
PC = 16+11.40
PT = 18+92.84
e = MATCH EXISTING
V = 35 MPH

(14) BRAD MCNEER PARKWAY WEST ℄
PI = 20+92.42
DELTA = 11°21'24.27" (RT)
D = 11°14'04"
T = 50.71'
L = 101.09'
R = 510.00'
PC = 20+41.71
PT = 21+42.80
e = 2.0% NC (ULS)
V = 25 MPH

(15) BRAD MCNEER PARKWAY EAST ℄
PI = 20+79.84
DELTA = 06°38'02.23" (LT)
D = 11°14'04"
T = 29.56'
L = 59.05'
R = 510.00'
PC = 20+50.28
PT = 21+09.33
e = 2.0% NC (ULS)
V = 25 MPH

(16) BRAD MCNEER PARKWAY EAST ℄
PI = 23+63.27
DELTA = 22°01'49.36" (LT)
D = 11°14'04"
T = 99.27'
L = 196.10'
R = 510.00'
PC = 22+63.99
PT = 24+60.09
e = 2.0% NC (ULS)
V = 25 MPH

(17) BRAD MCNEER PARKWAY EAST ℄
PI = 27+39.21
DELTA = 19°48'50.46" (LT)
D = 05°09'42"
T = 193.87'
L = 383.86'
R = 1,110.00'
PC = 25+45.34
PT = 29+29.20
e = MATCH EXISTING
V = 25 MPH



LINE	BEARING	LENGTH
L10	N30°40'30"E	572.61'
L11	N05°47'00"E	243.69'
L12	N49°32'54"E	634.11'
L13	S17°52'37"E	68.81'
L14	S43°25'55"E	148.87'
L15	S32°04'31"E	36.56'
L16	S85°13'33"E	50.28'
L17	N88°08'25"E	154.66'
L18	N66°06'35"E	85.25'
L45	N60°48'00"E	150.00'

(A) POT 147+86.82 BAILEY BRIDGE CONNECTOR ℄
POT 10+00.00 ENTRANCE #16 ℄
Δ 90° 00' 00.00" LT.

(B) POT 155+89.22 BAILEY BRIDGE CONNECTOR ℄
POT 21+79.36 BRAD MCNEER PARKWAY WEST ℄
Δ 98° 22' 35.35" LT.
POC 20+00.00 BRAD MCNEER PARKWAY EAST ℄
Δ 45° 13' 33" RT.

(C) POT 0+00 TERRACE CREEK BLVD ℄
POT 21+79.36 BRAD MCNEER PARKWAY WEST ℄
Δ 90° 00' 00.00" LT.

SCALE	PROJECT	SHEET NO.
0 100' 200'	0000-020-820	1F(2)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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HORIZONTAL ALIGNMENT DATA

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1F(3)

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

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

LINE	BEARING	LENGTH
L24	N23°41'44"W	100.00'
L25	S28°29'39"E	100.00'
L26	N16°03'36"W	100.00'
L27	S08°48'35"E	48.43'
L28	S05°07'23"E	38.28'
L29	S70°53'00"W	30.10'
L30	S13°06'04"E	29.39'
L17	N88°08'25"E	154.66'
L18	N66°06'35"E	85.25'
L34	S28°56'28"E	25.69'
L35	N61°58'28"E	33.36'
L36	N28°56'28"W	26.23'
L37	N85°19'46"W	84.28'
L38	S13°55'49"E	48.61'

(D) POC 15+59.56 BAILEY BRIDGE ROAD WEST ℄
POT 10+00.00 ENTRANCE #2 ℄
Δ 99° 46' 0.37" LT.

(E) POC 15+94.98 BAILEY BRIDGE ROAD WEST ℄
POT 10+00.00 ENTRANCE #3 ℄
Δ 98° 51' 25.67" RT.

(G) POC 21+94.18 BAILEY BRIDGE ROAD EAST ℄
POT 10+00.00 ENTRANCE #5A ℄
Δ 94° 11' 48.30" RT.

(H) POC 10+57.23 ENTRANCE #5A ℄
POT 20+00.00 ENTRANCE #5B ℄
Δ 100° 18' 25.62" RT.

(L) POT 13+91.70 BAILEY BRIDGE RD WEST ℄
POT 20+00.00 ENTRANCE #5B ℄
Δ 90° 00' 00.00" RT.

(M) POT 14+55.06 BAILEY BRIDGE RD WEST ℄
POT 11+32.41 ENTRANCE 1 ℄
Δ 90° 00' 00.00" RT.

(N) POC 104+44.61 BAILEY BRIDGE CONNECTOR ℄
POT 10+00.00 ENTRANCE #5 ℄
Δ 70° 50' 41.67" RT.

(O) POT 23+43.47 BAILEY BRIDGE ROAD EAST ℄
POT 10+00.00 ENTRANCE #10 ℄
Δ 85°38'45.02" RT.

(A) POT 100+00.00 BAILEY BRIDGE CONNECTOR ℄
POC 18+49.50 BAILEY BRIDGE ROAD WEST ℄
Δ 147° 12' 38.27" LT.
POC 20+00.00 BAILEY BRIDGE ROAD EAST ℄
Δ 116° 0' 36.21" RT.

(F) POC 21+86.15 BAILEY BRIDGE ROAD EAST ℄
POT 10+00.00 ENTRANCE #3 ℄
Δ 77° 39' 9.35" RT.

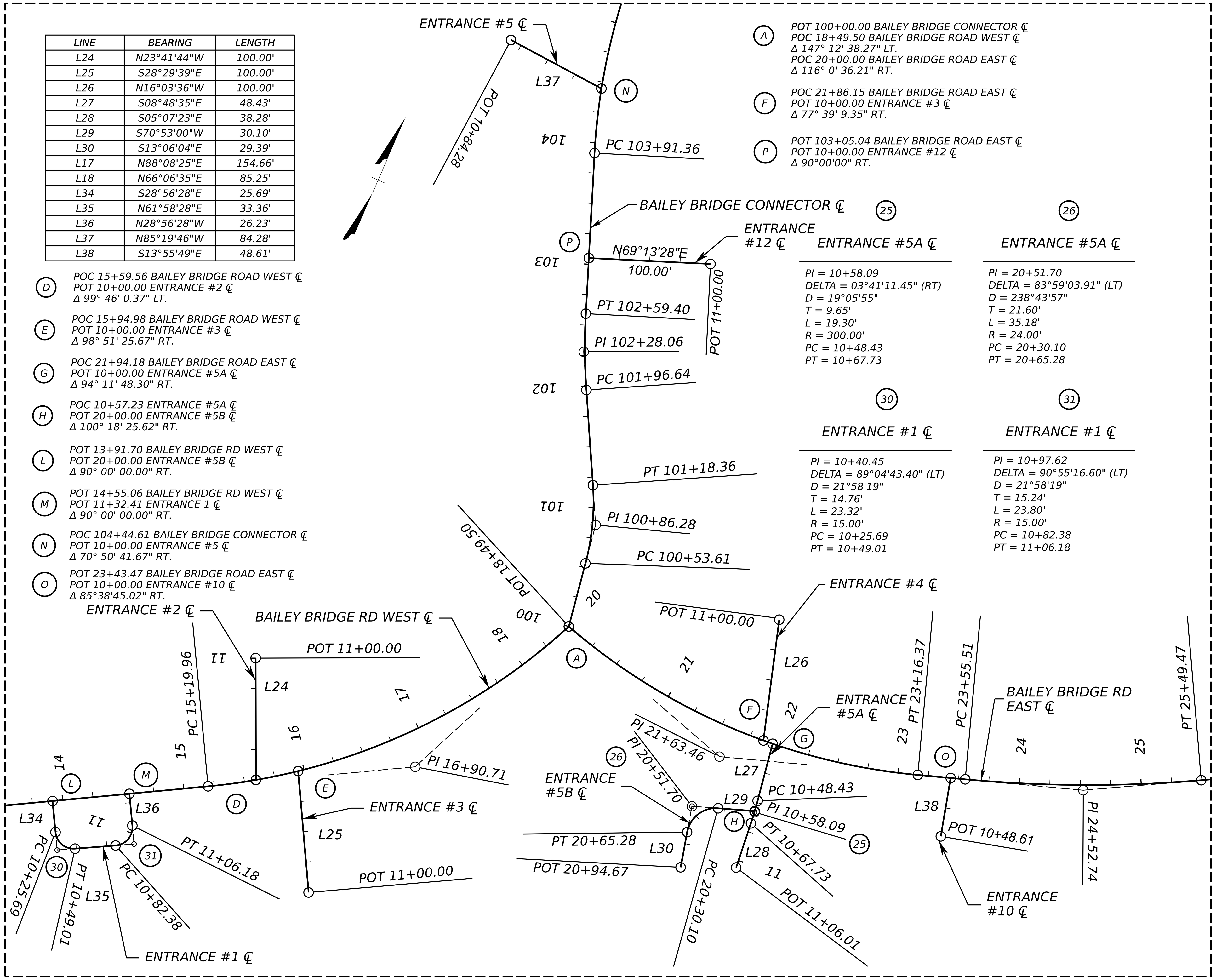
(P) POT 103+05.04 BAILEY BRIDGE ROAD EAST ℄
POT 10+00.00 ENTRANCE #12 ℄
Δ 90°00'00" RT.

(25) ENTRANCE #5A ℄
PI = 10+58.09
DELTA = 03°41'11.45" (RT)
D = 19°05'55"
T = 9.65'
L = 19.30'
R = 300.00'
PC = 10+48.43
PT = 10+67.73

(26) ENTRANCE #5A ℄
PI = 20+51.70
DELTA = 83°59'03.91" (LT)
D = 238°43'57"
T = 21.60'
L = 35.18'
R = 24.00'
PC = 20+30.10
PT = 20+65.28

(30) ENTRANCE #1 ℄
PI = 10+40.45
DELTA = 89°04'43.40" (LT)
D = 21°58'19"
T = 14.76'
L = 23.32'
R = 15.00'
PC = 10+25.69
PT = 10+49.01

(31) ENTRANCE #1 ℄
PI = 10+97.62
DELTA = 90°55'16.60" (LT)
D = 21°58'19"
T = 15.24'
L = 23.80'
R = 15.00'
PC = 10+82.38
PT = 11+06.18



INSET A

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* Alignment name: Entrance #2
* Alignment description:
                                       STATION          NORTHING      EASTING
Element: Linear
      START(            )        1000.000 R1       3669984.834 11734155.176
        END(            )        1100.004 R1       3670076.407 11734114.986
      Tangential Direction: N23°41'44.257"W
         Tangential Length:          100.004

* Alignment name: Entrance #3
* Alignment description:
                                       STATION          NORTHING      EASTING
Element: Linear
      START(            )        1000.000 R1       3670005.338 11734184.049
        END(            )        1099.997 R1       3669917.453 11734231.755
      Tangential Direction: S28°29'39.368"E
         Tangential Length:           99.997

* Alignment name: Entrance #4
* Alignment description:
                                       STATION          NORTHING      EASTING
Element: Linear
      START(            )        1000.000 R1       3670180.998 11734524.101
        END(            )        1099.999 R1       3670277.094 11734496.437
      Tangential Direction: N16°03'35.695"W
         Tangential Length:           99.999

* Alignment name: Entrance #5A
* Alignment description:
                                       STATION          NORTHING      EASTING
Element: Linear
      START(            )        1000.000 R1       3670181.573 11734532.110
         PC(            )        1048.431 R1       3670133.713 11734539.527
      Tangential Direction: S08°48'34.672"E
         Tangential Length:           48.431
Element: Circular
         PC(            )        1048.431 R1       3670133.713 11734539.527
        HPI(            )        1058.086 R1       3670124.172 11734541.006
         CC(            )                          3670087.767 11734243.066
         PT(            )        1067.734 R1       3670114.556 11734541.868
                    Radius:          300.000
                     Delta:            3.687° Right
  Degree of Curvature(Arc):           19.099°
                    Length:           19.303
                   Tangent:            9.655
                     Chord:           19.299
           Middle Ordinate:            0.155
                  External:            0.155
      Tangent Direction: S08°48'34.672"E
       Radial Direction: S81°11'25.328"W
        Chord Direction: S06°57'58.945"E
       Radial Direction: S84°52'36.781"W
      Tangent Direction: S05°07'23.219"E
Element: Linear
         PT(            )        1067.734 R1       3670114.556 11734541.868
        END(            )        1106.013 R1       3670076.430 11734545.286
      Tangential Direction: S05°07'23.219"E
         Tangential Length:           38.279

* Alignment name: Entrance #5B
* Alignment description:
                                       STATION          NORTHING      EASTING
Element: Linear
      START(            )        2000.000 R1       3670124.996 11734540.747
         PC(            )        2030.099 R1       3670115.139 11734512.308
      Tangential Direction: S70°52'59.708"W
         Tangential Length:           30.099
Element: Circular
         PC(            )        2030.099 R1       3670115.139 11734512.308
        HPI(            )        2051.703 R1       3670108.063 11734491.896
         CC(            )                          3670092.462 11734520.168
         PT(            )        2065.278 R1       3670087.022 11734496.793
                    Radius:           24.000
                     Delta:           83.984° Left
  Degree of Curvature(Arc):          238.732°
                    Length:           35.179
                   Tangent:           21.604
                     Chord:           32.113
           Middle Ordinate:            6.162
                  External:            8.291
      Tangent Direction: S70°52'59.708"W
       Radial Direction: N19°07'00.292"W
        Chord Direction: S28°53'27.755"W
       Radial Direction: S76°53'55.801"W
      Tangent Direction: S13°06'04.199"E
Element: Linear
         PT(            )        2065.278 R1       3670087.022 11734496.793
        END(            )        2094.672 R1       3670058.394 11734503.456
      Tangential Direction: S13°06'04.199"E
         Tangential Length:           29.394
```

SCALE 0 50' 100'

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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HORIZONTAL ALIGNMENT DATA

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1F(4)

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

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

(18) BRAD MCNEER BYPASS ℄
PI = 30+49.27
DELTA = 09°11'28.57" (LT)
D = 09°20'48"
T = 49.27'
L = 98.34'
R = 613.00'
PC = 30+00.00
PT = 30+98.34
e = 2.0% NC (ULS)
V = 35 MPH

(19) BRAD MCNEER BYPASS ℄
PI = 31+99.02
DELTA = 18°00'54.48" (LT)
D = 28°56'14"
T = 31.39'
L = 62.26'
R = 198.00'
PC = 31+67.63
PT = 32+29.89
e = 2.0% NC (ULS)
V = 25 MPH

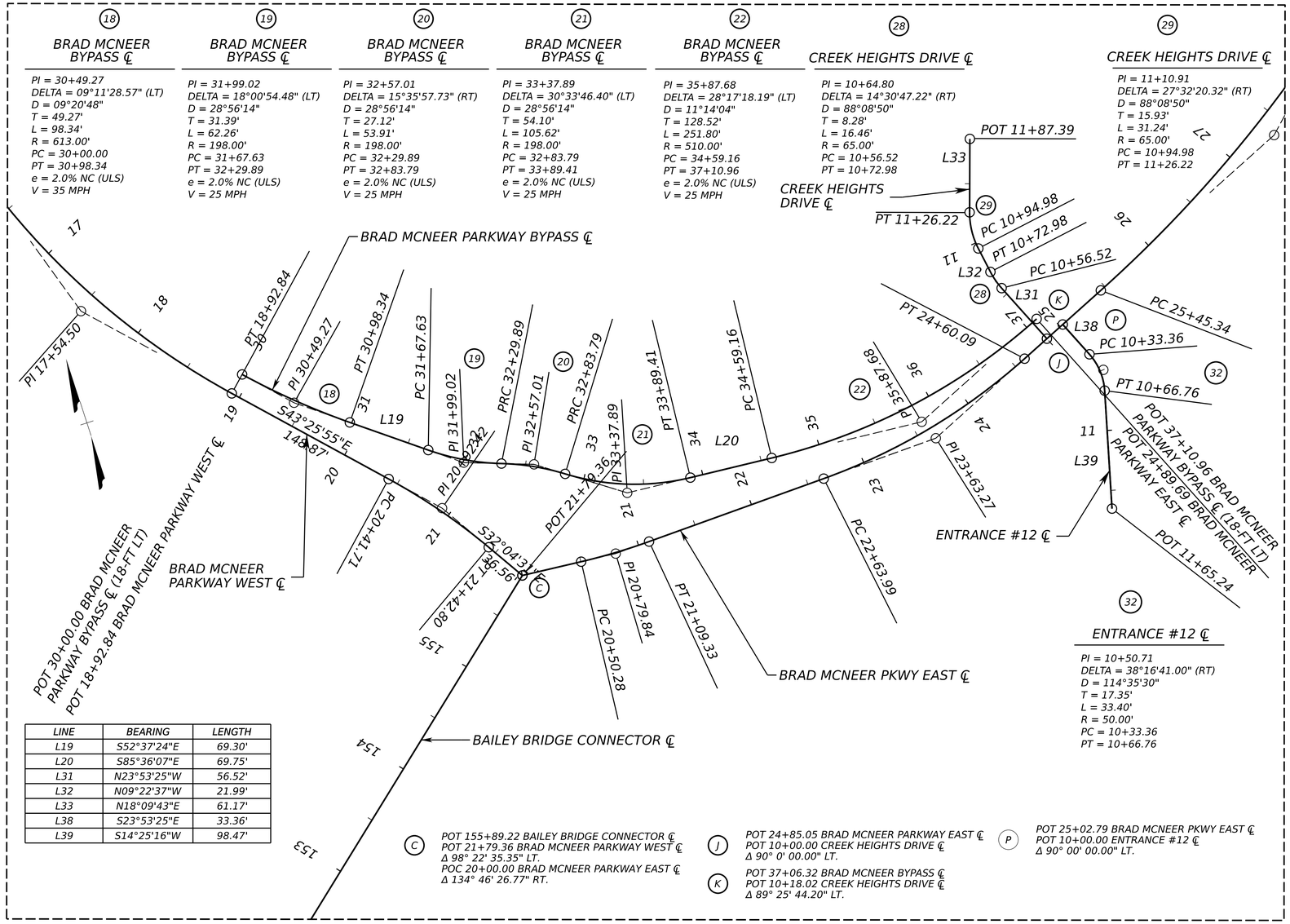
(20) BRAD MCNEER BYPASS ℄
PI = 32+57.01
DELTA = 15°35'57.73" (RT)
D = 28°56'14"
T = 27.12'
L = 53.91'
R = 198.00'
PC = 32+29.89
PT = 32+83.79
e = 2.0% NC (ULS)
V = 25 MPH

(21) BRAD MCNEER BYPASS ℄
PI = 33+37.89
DELTA = 30°33'46.40" (LT)
D = 28°56'14"
T = 54.10'
L = 105.62'
R = 198.00'
PC = 32+83.79
PT = 33+89.41
e = 2.0% NC (ULS)
V = 25 MPH

(22) BRAD MCNEER BYPASS ℄
PI = 35+87.68
DELTA = 28°17'18.19" (LT)
D = 11°14'04"
T = 128.52'
L = 251.80'
R = 510.00'
PC = 34+59.16
PT = 37+10.96
e = 2.0% NC (ULS)
V = 25 MPH

(28) CREEK HEIGHTS DRIVE ℄
PI = 10+64.80
DELTA = 14°30'47.22" (RT)
D = 88°08'50"
T = 8.28'
L = 16.46'
R = 65.00'
PC = 10+56.52
PT = 10+72.98

(29) CREEK HEIGHTS DRIVE ℄
PI = 11+10.91
DELTA = 27°32'20.32" (RT)
D = 88°08'50"
T = 15.93'
L = 31.24'
R = 65.00'
PC = 10+94.98
PT = 11+26.22



LINE	BEARING	LENGTH
L19	S52°37'24"E	69.30'
L20	S85°36'07"E	69.75'
L31	N23°53'25"W	56.52'
L32	N09°22'37"W	21.99'
L33	N18°09'43"E	61.17'
L38	S23°53'25"E	33.36'
L39	S14°25'16"W	98.47'

ENTRANCE #12 ℄
PI = 10+50.71
DELTA = 38°16'41.00" (RT)
D = 114°35'30"
T = 17.35'
L = 33.40'
R = 50.00'
PC = 10+33.36
PT = 10+66.76

(C) POT 155+89.22 BAILEY BRIDGE CONNECTOR ℄
POT 21+79.36 BRAD MCNEER PARKWAY WEST ℄
Δ 98° 22' 35.35" LT.
POC 20+00.00 BRAD MCNEER PARKWAY EAST ℄
Δ 134° 46' 26.77" RT.

(J) POT 24+85.05 BRAD MCNEER PARKWAY EAST ℄
POT 10+00.00 CREEK HEIGHTS DRIVE ℄
Δ 90° 0' 00.00" LT.

(K) POT 37+06.32 BRAD MCNEER BYPASS ℄
POT 10+18.02 CREEK HEIGHTS DRIVE ℄
Δ 89° 25' 44.20" LT.

(P) POT 25+02.79 BRAD MCNEER PKWY EAST ℄
POT 10+00.00 ENTRANCE #12 ℄
Δ 90° 00' 00.00" LT.

INSET B

* Alignment name: CREEK HEIGHTS DRIVE
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3675240.039	11735571.818
PC( )	1056.520 R1	3675291.717	11735548.928
Tangential Direction:	N23°53'24.718"W		
Tangential Length:	56.520		
Element: Circular			
PC( )	1056.520 R1	3675291.717	11735548.928
HPI( )	1064.797 R1	3675299.284	11735545.576
CC( )		3675318.041	11735608.359
PT( )	1072.985 R1	3675307.450	11735544.228
Radius:	65.000		
Delta:	14.513° Right		
Degree of Curvature(Arc):	88.147°		
Length:	16.465		
Tangent:	8.277		
Chord:	16.421		
Middle Ordinate:	0.521		
External:	0.525		
Tangent Direction:	N23°53'24.718"W		
Radial Direction:	N66°06'35.282"E		
Chord Direction:	N16°38'01.105"W		
Radial Direction:	N80°37'22.507"E		
Tangent Direction:	N09°22'37.493"W		
Element: Linear			
PT( )	1072.985 R1	3675307.450	11735544.228
PC( )	1094.978 R1	3675329.149	11735540.644
Tangential Direction:	N09°22'37.493"W		
Tangential Length:	21.993		
Element: Circular			
PC( )	1094.978 R1	3675329.149	11735540.644
HPI( )	1110.906 R1	3675344.865	11735538.049
CC( )		3675339.740	11735604.776
PT( )	1126.220 R1	3675360.001	11735543.014
Radius:	65.000		
Delta:	27.539° Right		
Degree of Curvature(Arc):	88.147°		
Length:	31.242		
Tangent:	15.929		
Chord:	30.942		
Middle Ordinate:	1.868		
External:	1.923		
Tangent Direction:	N09°22'37.493"W		
Radial Direction:	N80°37'22.507"E		
Chord Direction:	N04°23'32.669"E		
Radial Direction:	S71°50'17.169"E		
Tangent Direction:	N18°09'42.831"E		
Element: Linear			
PT( )	1126.220 R1	3675360.001	11735543.014
END( )	1187.394 R1	3675418.127	11735562.082
Tangential Direction:	N18°09'42.831"E		
Tangential Length:	61.174		

* Alignment name: Entrance #12
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3675247.223	11735588.036
PC( )	1033.360 R1	3675216.722	11735601.546
Tangential Direction:	S23.890°E		
Tangential Length:	33.360		
Element: Circular			
PC( )	1033.360 R1	3675216.722	11735601.546
HPI( )	1050.712 R1	3675200.856	11735608.574
CC( )		3675196.472	11735555.830
PT( )	1066.763 R1	3675184.048	11735604.262
Radius:	50.000		
Delta:	38.278°Right		
Degree of Curvature(Arc):	114.592°		
Length:	33.404		
Tangent:	17.352		
Chord:	32.786		
Middle Ordinate:	2.764		
External:	2.925		
Tangent Direction:	S23.890°E		
Radial Direction:	S66.110°W		
Chord Direction:	S4.751°E		
Radial Direction:	N75.612°W		
Tangent Direction:	S14.388°W		
Element: Linear			
PT( )	1066.763 R1	3675184.048	11735604.262
END( )	1165.237 R1	3675088.663	11735579.793
Tangential Direction:	S14.388°W		
Tangential Length:	98.473		

SCALE 0 50' 100'	PROJECT	SHEET NO.
	0000-020-820	1F(4)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER: BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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HORIZONTAL ALIGNMENT DATA

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1F(5)

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

* Alignment name: Bailey Bridge Connector
* Alignment description: 35 MPH Design Speed

	STATION	NORTHING	EASTING
Element: Linear			
START( )	10000.000	3670202.921	11734340.281
PC( )	10053.609	3670255.905	11734332.124
Tangential Direction:	N08°45'08.049"W		
Tangential Length:	53.609		
Element: Circular			
PC( )	10053.609	3670255.905	11734332.124
HPI( )	10086.276	3670288.192	11734327.153
CC( )		3670225.777	11734136.430
PT( )	10118.359	3670317.170	11734312.075
Radius:	198.000		
Delta:	18.737° Left		
Degree of Curvature(Arc):	28.937°		
Length:	64.751		
Tangent:	32.667		
Chord:	64.463		
Middle Ordinate:	2.641		
External:	2.677		
Tangent Direction:	N08°45'08.049"W		
Radial Direction:	N81°14'51.951"E		
Chord Direction:	N18°07'14.798"W		
Radial Direction:	N62°30'38.453"E		
Tangent Direction:	N27°29'21.547"W		
Element: Linear			
PT( )	10118.359	3670317.170	11734312.075
PC( )	10196.637	3670386.610	11734275.943
Tangential Direction:	N27°29'21.547"W		
Tangential Length:	78.277		
Element: Circular			
PC( )	10196.637	3670386.610	11734275.943
HPI( )	10228.057	3670414.483	11734261.440
CC( )		3670622.017	11734728.363
PT( )	10259.398	3670443.925	11734250.468
Radius:	510.000		
Delta:	7.051° Right		
Degree of Curvature(Arc):	11.234°		
Length:	62.761		
Tangent:	31.420		
Chord:	62.721		
Middle Ordinate:	0.965		
External:	0.967		
Tangent Direction:	N27°29'21.547"W		
Radial Direction:	N62°30'38.453"E		
Chord Direction:	N23°57'50.010"W		
Radial Direction:	N69°33'41.527"E		
Tangent Direction:	N20°26'18.473"W		
Element: Linear			
PT( )	10259.398	3670443.925	11734250.468
PC( )	10391.364	3670567.584	11734204.386
Tangential Direction:	N20°26'18.473"W		
Tangential Length:	131.966		
Element: Circular			
PC( )	10391.364	3670567.584	11734204.386
HPI( )	10695.390	3670852.470	11734098.219
CC( )		3670745.676	11734682.280
PRC( )	10939.684	3671081.356	11734298.328
Radius:	510.000		
Delta:	61.601° Right		
Degree of Curvature(Arc):	11.234°		
Length:	548.320		
Tangent:	304.026		
Chord:	522.290		
Middle Ordinate:	71.932		
External:	83.744		
Tangent Direction:	N20°26'18.473"W		
Radial Direction:	N69°33'41.527"E		
Chord Direction:	N10°21'43.015"E		
Radial Direction:	S48°50'15.496"E		
Tangent Direction:	N41°09'44.504"E		
Element: Circular			
PRC( )	10939.684	3671081.356	11734298.328
HPI( )	11288.234	3671343.761	11734527.742
CC( )		3671417.035	11733914.376
PT( )	11551.194	3671652.823	11734366.597
Radius:	510.000		
Delta:	68.700° Left		
Degree of Curvature(Arc):	11.234°		
Length:	611.510		
Tangent:	348.550		
Chord:	575.531		
Middle Ordinate:	88.941		
External:	107.727		
Tangent Direction:	N41°09'44.504"E		
Radial Direction:	S48°50'15.496"E		
Chord Direction:	N06°48'44.708"E		
Radial Direction:	N62°27'44.913"E		
Tangent Direction:	N27°32'15.087"W		
Element: Linear			
PT( )	11551.194	3671652.823	11734366.597
PC( )	12304.834	3672321.082	11734018.167
Tangential Direction:	N27°32'15.087"W		
Tangential Length:	753.640		

* Alignment name: Bailey Bridge Connector
* Alignment description: 35 MPH Design Speed

	STATION	NORTHING	EASTING
Element: Circular			
PC( )	12304.834	3672321.082	11734018.167
HPI( )	12958.999	3672901.135	11733715.727
CC( )		3672864.319	11735060.049
PT( )	13498.634	3673463.766	11734049.461
Radius:	1175.000		
Delta:	58.213° Right		
Degree of Curvature(Arc):	4.876°		
Length:	1193.800		
Tangent:	654.165		
Chord:	1143.112		
Middle Ordinate:	148.380		
External:	169.826		
Tangent Direction:	N27°32'15.087"W		
Radial Direction:	N62°27'44.913"E		
Chord Direction:	N01°34'07.434"E		
Radial Direction:	S59°19'30.044"E		
Tangent Direction:	N30°40'29.956"E		
Element: Linear			
PT( )	13498.634	3673463.766	11734049.461
PC( )	14071.244	3673956.253	11734341.588
Tangential Direction:	N30°40'29.956"E		
Tangential Length:	572.610		
Element: Circular			
PC( )	14071.244	3673956.253	11734341.588
HPI( )	14225.736	3674089.128	11734420.405
CC( )		3674313.371	11733739.535
PT( )	14375.353	3674242.834	11734435.972
Radius:	700.000		
Delta:	24.892° Left		
Degree of Curvature(Arc):	8.185°		
Length:	304.109		
Tangent:	154.492		
Chord:	301.723		
Middle Ordinate:	16.450		
External:	16.846		
Tangent Direction:	N30°40'29.956"E		
Radial Direction:	S59°19'30.044"E		
Chord Direction:	N18°13'44.976"E		
Radial Direction:	S84°13'00.003"E		
Tangent Direction:	N05°46'59.997"E		
Element: Linear			
PT( )	14375.353	3674242.834	11734435.972
PC( )	14619.039	3674485.280	11734460.528
Tangential Direction:	N05°46'59.997"E		
Tangential Length:	243.686		
Element: Circular			
PC( )	14619.039	3674485.280	11734460.528
HPI( )	14795.761	3674661.102	11734478.336
CC( )		3674440.942	11734898.288
PT( )	14955.129	3674775.761	11734612.813
Radius:	440.000		
Delta:	43.765° Right		
Degree of Curvature(Arc):	13.022°		
Length:	336.090		
Tangent:	176.722		
Chord:	327.979		
Middle Ordinate:	31.702		
External:	34.163		
Tangent Direction:	N05°46'59.997"E		
Radial Direction:	S84°13'00.003"E		
Chord Direction:	N27°39'56.822"E		
Radial Direction:	S40°27'06.353"E		
Tangent Direction:	N49°32'53.647"E		
Element: Linear			
PT( )	14955.129	3674775.761	11734612.813
HPI( )	15589.239	3675187.177	11735095.341
Tangential Direction:	N49°32'53.647"E		
Tangential Length:	634.110		
Element: Linear			
HPI( )	15589.239	3675187.177	11735095.341
END( )	15738.941	3675284.305	11735209.256
Tangential Direction:	N49°32'52.601"E		
Tangential Length:	149.702		

* Alignment name: Entrance #5
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3670618.366	11734188.444
END( )	1084.281 R1	3670625.229	11734104.443
Tangential Direction:	N85.329°W		
Tangential Length:	84.281		

* Alignment name: Entrance #6
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3670618.366	11734188.444
END( )	1084.281 R1	3670625.229	11734104.443
Tangential Direction:	N85.329°W		
Tangential Length:	84.281		

* Alignment name: Quailwood Road
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	2000.000 R1	3672629.437	11733559.773
PC( )	2064.082 R1	3672619.845	11733623.133
Tangential Direction:	S81°23'29.636"E		
Tangential Length:	64.082		
Element: Circular			
PC( )	2064.082 R1	3672619.845	11733623.133
HPI( )	2190.223 R1	3672600.964	11733747.853
CC( )		3673213.086	11733712.941
PT( )	2312.743 R1	3672633.903	11733869.618
Radius:	600.000		
Delta:	23.745° Left		
Degree of Curvature(Arc):	9.549°		
Length:	248.661		
Tangent:	126.141		
Chord:	246.886		
Middle Ordinate:	12.836		
External:	13.116		
Tangent Direction:	S81°23'29.636"E		
Radial Direction:	S08°36'30.364"W		
Chord Direction:	N86°44'08.628"E		
Radial Direction:	S15°08'13.108"E		
Tangent Direction:	N74°51'46.892"E		
Element: Linear			
PT( )	2312.743 R1	3672633.903	11733869.618
PC( )	2387.278 R1	3672653.366	11733941.566
Tangential Direction:	N74°51'46.892"E		
Tangential Length:	74.535		
Element: Circular			
PC( )	2387.278 R1	3672653.366	11733941.566
HPI( )	2445.056 R1	3672668.454	11733997.341
CC( )		3671881.123	11734150.468
PT( )	2502.635 R1	3672675.370	11734054.704
Radius:	800.000		
Delta:	8.262° Right		
Degree of Curvature(Arc):	7.162°		
Length:	115.357		
Tangent:	57.779		
Chord:	115.257		
Middle Ordinate:	2.078		
External:	2.084		
Tangent Direction:	N74°51'46.892"E		
Radial Direction:	S15°08'13.108"E		
Chord Direction:	N78°59'38.225"E		
Radial Direction:	S06°52'30.443"E		
Tangent Direction:	N83°07'29.557"E		
Element: Linear			
PT( )	2502.635 R1	3672675.370	11734054.704
END( )	2620.252 R1	3672689.450	11734171.475
Tangential Direction:	N83°07'29.557"E		
Tangential Length:	117.617		

* Alignment name: Entrance #8
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3672346.632	11734005.239
PC( )	1012.061 R1	3672351.946	11734016.066
Tangential Direction:	N63.859°E		
Tangential Length:	12.061		
Element: Circular			
PC( )	1012.061 R1	3672351.946	11734016.066
HPI( )	1026.129 R1	3672358.144	11734028.695
CC( )		3672387.854	11733998.442
PT( )	1039.116 R1	3672370.883	11734034.664
Radius:	40.000		
Delta:	38.754° Left		
Degree of Curvature(Arc):	143.239°		
Length:	27.056		
Tangent:	14.068		
Chord:	26.543		
Middle Ordinate:	2.266		
External:	2.402		
Tangent Direction:	N63.859°E		
Radial Direction:	S26.141°E		
Chord Direction:	N44.482°E		
Radial Direction:	S64.895°E		
Tangent Direction:	N25.105°E		
Element: Linear			
PT( )	1039.116 R1	3672370.883	11734034.664
END( )	1142.046 R1	3672464.090	11734078.334
Tangential Direction:	N25.105°E		
Tangential Length:	102.930		

* Alignment name: Entrance #11
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3672671.426	11734026.289
END( )	1057.542 R1	3672614.582	11734035.221
Tangential Direction:	S8.930°E		
Tangential Length:	57.542		

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

PROJECT	SHEET NO.
0000-020-820	1F(5)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER: BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020

HORIZONTAL ALIGNMENT DATA

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1F(6)

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

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

* Alignment name: Bailey Bridge Rd East
* Alignment description: 35 MPH Design Speed

	STATION	NORTHING	EASTING
Element: Circular			
PC( )	2000.000 R1	3670202.921	11734340.281
HPI( )	2163.460 R1	3670154.427	11734496.382
CC( )		3670689.960	11734491.584
PT( )	2316.369 R1	3670205.710	11734651.589
Radius:	510.000		
Delta:	35.542° Left		
Degree of Curvature(Arc):	11.234°		
Length:	316.369		
Tangent:	163.460		
Chord:	311.321		
Middle Ordinate:	24.336		
External:	25.555		
Tangent Direction:	S72°44'31.836"E		
Radial Direction:	S17°15'28.164"W		
Chord Direction:	N89°29'11.936"E		
Radial Direction:	S18°17'04.292"E		
Tangent Direction:	N71°42'55.708"E		
Element: Linear			
PT( )	2316.369 R1	3670205.710	11734651.589
PC( )	2355.507 R1	3670217.989	11734688.751
Tangential Direction:	N71°42'55.708"E		
Tangential Length:	39.138		
Element: Circular			
PC( )	2355.507 R1	3670217.989	11734688.751
HPI( )	2452.740 R1	3670248.495	11734781.076
CC( )		3671262.450	11734343.641
PT( )	2549.470 R1	3670294.723	11734866.617
Radius:	1100.000		
Delta:	10.103° Left		
Degree of Curvature(Arc):	5.209°		
Length:	193.964		
Tangent:	97.234		
Chord:	193.712		
Middle Ordinate:	4.272		
External:	4.289		
Tangent Direction:	N71°42'55.708"E		
Radial Direction:	S18°17'04.292"E		
Chord Direction:	N66°39'50.318"E		
Radial Direction:	S28°23'15.072"E		
Tangent Direction:	N61°36'44.928"E		
Element: Linear			
PT( )	2549.470 R1	3670294.723	11734866.617
END( )	2658.033 R1	3670346.337	11734962.126
Tangential Direction:	N61°36'44.928"E		
Tangential Length:	108.563		

* Alignment name: Entrance #10
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3670214.212	11734677.321
END( )	1048.606 R1	3670167.035	11734689.023
Tangential Direction:	S13.930°E		
Tangential Length:	48.606		

* Alignment name: Entrance #12
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3670486.696	11734234.529
END( )	1100.000 R1	3670522.167	11734328.027
Tangential Direction:	N69.224°E		
Tangential Length:	100.000		

* Alignment name: Entrance #13
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3671185.872	11734368.978
END( )	1175.000 R1	3671236.953	11734201.599
Tangential Direction:	N73.029°W		
Tangential Length:	175.000		

* Alignment name: Entrance #14
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3671361.460	11734421.339
END( )	1095.560 R1	3671355.997	11734516.742
Tangential Direction:	S86.723°E		
Tangential Length:	95.560		

RW PLANS

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

* Alignment name: Bailey Bridge Rd West
* Alignment description: 35 MPH Design Speed

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3669706.681	11733669.742
PC( )	1060.710 R1	3669738.136	11733721.668
Tangential Direction:	N58°47'39.000"E		
Tangential Length:	60.710		
Element: Circular			
PC( )	1060.710 R1	3669738.136	11733721.668
HPI( )	1176.455 R1	3669798.105	11733820.666
CC( )		3664729.431	11736755.744
PT( )	1292.170 R1	3669854.115	11733921.957
Radius:	5856.000		
Delta:	2.265° Right		
Degree of Curvature(Arc):	0.978°		
Length:	231.460		
Tangent:	115.745		
Chord:	231.445		
Middle Ordinate:	1.144		
External:	1.144		
Tangent Direction:	N58°47'39.000"E		
Radial Direction:	S31°12'21.000"E		
Chord Direction:	N59°55'35.336"E		
Radial Direction:	S28°56'28.327"E		
Tangent Direction:	N61°03'31.673"E		
Element: Linear			
PT( )	1292.170 R1	3669854.115	11733921.957
PC( )	1519.960 R1	3669964.345	11734121.300
Tangential Direction:	N61°03'31.673"E		
Tangential Length:	227.790		
Element: Circular			
PC( )	1519.960 R1	3669964.345	11734121.300
HPI( )	1690.713 R1	3670046.975	11734270.729
CC( )		3670410.661	11733874.501
PT( )	1849.501 R1	3670202.921	11734340.281
Radius:	510.007		
Delta:	37.022° Left		
Degree of Curvature(Arc):	11.234°		
Length:	329.541		
Tangent:	170.753		
Chord:	323.838		
Middle Ordinate:	26.386		
External:	27.825		
Tangent Direction:	N61°03'31.673"E		
Radial Direction:	S28°56'28.327"E		
Chord Direction:	N42°32'52.676"E		
Radial Direction:	S65°57'46.320"E		
Tangent Direction:	N24°02'13.680"E		

* Alignment name: Entrance #7
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3672338.150	11734009.444
PC( )	1011.258 R1	3672333.109	11733999.377
Tangential Direction:	S63.397°W		
Tangential Length:	11.258		
Element: Circular			
PC( )	1011.258 R1	3672333.109	11733999.377
HPI( )	1024.690 R1	3672327.094	11733987.368
CC( )		3672297.344	11734017.290
PT( )	1037.175 R1	3672315.050	11733981.422
Radius:	40.000		
Delta:	37.123° Left		
Degree of Curvature(Arc):	143.239°		
Length:	25.917		
Tangent:	13.432		
Chord:	25.466		
Middle Ordinate:	2.081		
External:	2.195		
Tangent Direction:	S63.397°W		
Radial Direction:	N26.603°W		
Chord Direction:	S44.836°W		
Radial Direction:	N63.726°W		
Tangent Direction:	S26.274°W		
Element: Linear			
PT( )	1037.175 R1	3672315.050	11733981.422
PC( )	1082.265 R1	3672274.618	11733961.462
Tangential Direction:	S26.274°W		
Tangential Length:	45.090		
Element: Circular			
PC( )	1082.265 R1	3672274.618	11733961.462
HPI( )	1101.247 R1	3672257.598	11733953.060
CC( )		3672363.151	11733782.125
PT( )	1120.114 R1	3672242.462	11733941.606
Radius:	200.000		
Delta:	10.843° Right		
Degree of Curvature(Arc):	28.648°		
Length:	37.849		
Tangent:	18.981		
Chord:	37.792		
Middle Ordinate:	0.895		
External:	0.899		
Tangent Direction:	S26.274°W		
Radial Direction:	N63.726°W		
Chord Direction:	S31.695°W		
Radial Direction:	N52.883°W		
Tangent Direction:	S37.117°W		
Element: Linear			
PT( )	1120.114 R1	3672242.462	11733941.606
END( )	1224.016 R1	3672159.610	11733878.907
Tangential Direction:	S37.117°W		
Tangential Length:	103.902		

* Alignment name: Entrance #1
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3669902.279	11734009.058
PC( )	1025.692 R1	3669879.796	11734021.490
Tangential Direction:	S28.941°E		
Tangential Length:	25.692		
Element: Circular			
PC( )	1025.692 R1	3669879.796	11734021.490
HPI( )	1040.452 R1	3669866.879	11734028.633
CC( )		3669887.055	11734034.617
PT( )	1049.012 R1	3669873.813	11734041.664
Radius:	15.000		
Delta:	89.079° Left		
Degree of Curvature(Arc):	21.972°		
Length:	23.321		
Tangent:	14.761		
Chord:	21.042		
Middle Ordinate:	4.308		
External:	6.045		
Tangent Direction:	S28.941°E		
Radial Direction:	S61.059°W		
Chord Direction:	S73.481°E		
Radial Direction:	S28.020°E		
Tangent Direction:	N61.980°E		
Element: Linear			
PT( )	1049.012 R1	3669873.813	11734041.664
PC( )	1082.376 R1	3669889.486	11734071.117
Tangential Direction:	N61.980°E		
Tangential Length:	33.364		
Element: Circular			
PC( )	1082.376 R1	3669889.486	11734071.117
HPI( )	1097.619 R1	3669896.647	11734084.573
CC( )		3669902.728	11734064.070
PT( )	1106.179 R1	3669909.987	11734077.197
Radius:	15.000		
Delta:	90.921° Left		
Degree of Curvature(Arc):	21.972°		
Length:	23.803		
Tangent:	15.243		
Chord:	21.383		
Middle Ordinate:	4.479		
External:	6.386		
Tangent Direction:	N61.980°E		
Radial Direction:	S28.020°E		
Chord Direction:	N16.519°E		
Radial Direction:	N61.059°E		
Tangent Direction:	N28.941°W		
Element: Linear			
PT( )	1106.179 R1	3669909.987	11734077.197
END( )	1132.407 R1	3669932.940	11734064.505
Tangential Direction:	N28.941°W		
Tangential Length:	26.228		

* Alignment name: Entrance #15
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3672613.716	11733740.437
PC( )	1051.473 R1	3672665.138	11733738.135
Tangential Direction:	N2.563°W		
Tangential Length:	51.473		
Element: Circular			
PC( )	1051.473 R1	3672665.138	11733738.135
HPI( )	1064.212 R1	3672677.864	11733737.565
CC( )		3672676.316	11733987.885
PT( )	1076.929 R1	3672690.582	11733738.292
Radius:	250.000		
Delta:	5.834° Right		
Degree of Curvature(Arc):	22.918°		
Length:	25.456		
Tangent:	12.739		
Chord:	25.445		
Middle Ordinate:	0.324		
External:	0.324		
Tangent Direction:	N2.563°W		
Radial Direction:	N87.437°E		
Chord Direction:	N0.354°E		
Radial Direction:	S86.729°E		
Tangent Direction:	N3.271°E		
Element: Linear			
PT( )	1076.929 R1	3672690.582	11733738.292
END( )	1138.598 R1	3672752.151	11733741.811
Tangential Direction:	N3.271°E		
Tangential Length:	61.669		

* Alignment name: Entrance #16
* Alignment description:

	STATION	NORTHING	EASTING
Element: Linear			
START( )	1000.000 R1	3674645.009	11734508.472
END( )	1099.882 R1	3674593.342	11734593.952
Tangential Direction:	S58.850°E		
Tangential Length:	99.882		

	PROJECT	SHEET NO.
	0000-020-820	1F(6)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER: BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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

HORIZONTAL ALIGNMENT DATA

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1F(7)

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

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

* Alignment name: Brad McNeer Parkway Bypass
* Alignment description: 35 MPH Design Speed

	STATION	NORTHING	EASTING
Element: Circular			
PC( )	3000.000 R1	3675418.431	11734924.838
HPI( )	3049.274 R1	3675382.649	11734958.713
CC( )		3675839.865	11735369.993
PT( )	3098.336 R1	3675352.737	11734997.869
Radius:	613.000		
Delta:	9.191° Left		
Degree of Curvature(Arc):	9.347°		
Length:	98.336		
Tangent:	49.274		
Chord:	98.231		
Middle Ordinate:	1.971		
External:	1.977		
Tangent Direction:	S43°25'55.276"E		
Radial Direction:	S46°34'04.724"W		
Chord Direction:	S48°01'39.560"E		
Radial Direction:	S37°22'36.156"W		
Tangent Direction:	S52°37'23.844"E		
Element: Linear			
PT( )	3098.336 R1	3675352.737	11734997.869
PC( )	3167.631 R1	3675310.671	11735052.935
Tangential Direction:	S52°37'23.844"E		
Tangential Length:	69.295		
Element: Circular			
PC( )	3167.631 R1	3675310.671	11735052.935
HPI( )	3199.018 R1	3675291.618	11735077.877
CC( )		3675468.014	11735173.132
PRC( )	3229.887 R1	3675281.212	11735107.489
Radius:	198.000		
Delta:	18.015° Left		
Degree of Curvature(Arc):	28.937°		
Length:	62.256		
Tangent:	31.387		
Chord:	62.000		
Middle Ordinate:	2.442		
External:	2.472		
Tangent Direction:	S52°37'23.844"E		
Radial Direction:	S37°22'36.156"W		
Chord Direction:	S61°37'51.085"E		
Radial Direction:	S19°21'41.674"W		
Tangent Direction:	S70°38'18.326"E		
Element: Circular			
PRC( )	3229.887 R1	3675281.212	11735107.489
HPI( )	3257.009 R1	3675272.221	11735133.077
CC( )		3675094.410	11735041.847
PRC( )	3283.795 R1	3675256.679	11735155.304
Radius:	198.000		
Delta:	15.599° Right		
Degree of Curvature(Arc):	28.937°		
Length:	53.908		
Tangent:	27.122		
Chord:	53.741		
Middle Ordinate:	1.832		
External:	1.849		
Tangent Direction:	S70°38'18.326"E		
Radial Direction:	S19°21'41.674"W		
Chord Direction:	S62°50'19.462"E		
Radial Direction:	S34°57'39.403"W		
Tangent Direction:	S55°02'20.597"E		
Element: Circular			
PRC( )	3283.795 R1	3675256.679	11735155.304
HPI( )	3337.893 R1	3675225.680	11735199.640
CC( )		3675418.949	11735268.762
PT( )	3389.413 R1	3675221.532	11735253.578
Radius:	198.000		
Delta:	30.563° Left		
Degree of Curvature(Arc):	28.937°		
Length:	105.618		
Tangent:	54.098		
Chord:	104.370		
Middle Ordinate:	7.001		
External:	7.257		
Tangent Direction:	S55°02'20.597"E		
Radial Direction:	S34°57'39.403"W		
Chord Direction:	S70°19'13.800"E		
Radial Direction:	S04°23'52.998"W		
Tangent Direction:	S85°36'07.002"E		
Element: Linear			
PT( )	3389.413 R1	3675221.532	11735253.578
PC( )	3459.160 R1	3675216.183	11735323.120
Tangential Direction:	S85°36'07.002"E		
Tangential Length:	69.747		

* Alignment name: Brad McNeer Parkway Bypass
* Alignment description: 35 MPH Design Speed

	STATION	NORTHING	EASTING
Element: Circular			
PC( )	3459.160 R1	3675216.183	11735323.120
HPI( )	3587.681 R1	3675206.328	11735451.263
CC( )		3675724.682	11735362.229
PT( )	3710.960 R1	3675258.377	11735568.773
Radius:	510.000		
Delta:	28.288° Left		
Degree of Curvature(Arc):	11.234°		
Length:	251.800		
Tangent:	128.521		
Chord:	249.250		
Middle Ordinate:	15.461		
External:	15.945		
Tangent Direction:	S85°36'07.002"E		
Radial Direction:	S04°23'52.998"W		
Chord Direction:	N80°15'13.902"E		
Radial Direction:	S23°53'25.195"E		
Tangent Direction:	N66°06'34.805"E		

* Alignment name: Brad McNeer Pkwy East
* Alignment description: 35 MPH Design Speed

	STATION	NORTHING	EASTING
Element: Linear			
START( )	2000.000 R1	3675187.171	11735095.322
PC( )	2050.280 R1	3675182.986	11735145.428
Tangential Direction:	S85°13'33.125"E		
Tangential Length:	50.280		
Element: Circular			
PC( )	2050.280 R1	3675182.986	11735145.428
HPI( )	2079.838 R1	3675180.526	11735174.884
CC( )		3675691.217	11735187.875
PT( )	2109.330 R1	3675181.485	11735204.426
Radius:	510.000		
Delta:	6.634° Left		
Degree of Curvature(Arc):	11.234°		
Length:	59.050		
Tangent:	29.558		
Chord:	59.017		
Middle Ordinate:	0.854		
External:	0.856		
Tangent Direction:	S85°13'33.125"E		
Radial Direction:	S04°46'26.875"W		
Chord Direction:	S88°32'34.239"E		
Radial Direction:	S01°51'35.354"E		
Tangent Direction:	N88°08'24.646"E		
Element: Linear			
PT( )	2109.330 R1	3675181.485	11735204.426
PC( )	2263.992 R1	3675186.505	11735359.007
Tangential Direction:	N88°08'24.646"E		
Tangential Length:	154.662		
Element: Circular			
PC( )	2263.992 R1	3675186.505	11735359.007
HPI( )	2363.266 R1	3675189.727	11735458.229
CC( )		3675696.236	11735342.455
PT( )	2460.088 R1	3675229.931	11735548.997
Radius:	510.000		
Delta:	22.030° Left		
Degree of Curvature(Arc):	11.234°		
Length:	196.096		
Tangent:	99.274		
Chord:	194.891		
Middle Ordinate:	9.396		
External:	9.572		
Tangent Direction:	N88°08'24.646"E		
Radial Direction:	S01°51'35.354"E		
Chord Direction:	N77°07'29.964"E		
Radial Direction:	S23°53'24.718"E		
Tangent Direction:	N66°06'35.282"E		
Element: Linear			
PT( )	2460.088 R1	3675229.931	11735548.997
PC( )	2545.342 R1	3675264.458	11735626.947
Tangential Direction:	N66°06'35.282"E		
Tangential Length:	85.254		
Element: Circular			
PC( )	2545.342 R1	3675264.458	11735626.947
HPI( )	2739.208 R1	3675342.971	11735804.203
CC( )		3676279.357	11735177.413
PT( )	2929.202 R1	3675476.919	11735944.352
Radius:	1110.000		
Delta:	19.814° Left		
Degree of Curvature(Arc):	5.162°		
Length:	383.860		
Tangent:	193.866		
Chord:	381.950		
Middle Ordinate:	16.552		
External:	16.803		
Tangent Direction:	N66°06'35.282"E		
Radial Direction:	S23°53'24.718"E		
Chord Direction:	N56°12'10.053"E		
Radial Direction:	S43°42'15.176"E		
Tangent Direction:	N46°17'44.824"E		

* Alignment name: Brad McNeer Pkwy West
* Alignment description: 35 MPH Design Speed

	STATION	NORTHING	EASTING
Element: Circular			
PC( )	1000.000 R1	3676105.468	11734397.928
HPI( )	1288.032 R1	3675985.782	11734659.916
CC( )		3675511.047	11734126.375
PT( )	1542.586 R1	3675711.657	11734748.334
Radius:	653.512		
Delta:	47.570° Right		
Degree of Curvature(Arc):	8.767°		
Length:	542.586		
Tangent:	288.032		
Chord:	527.135		
Middle Ordinate:	55.507		
External:	60.659		
Tangent Direction:	S65°26'50.409"E		
Radial Direction:	S24°33'09.591"W		
Chord Direction:	S41°39'43.614"E		
Radial Direction:	S72°07'23.181"W		
Tangent Direction:	S17°52'36.819"E		
Element: Linear			
PT( )	1542.586 R1	3675711.657	11734748.334
PC( )	1611.400 R1	3675646.165	11734769.458
Tangential Direction:	S17°52'36.819"E		
Tangential Length:	68.815		
Element: Circular			
PC( )	1611.400 R1	3675646.165	11734769.458
HPI( )	1754.500 R1	3675509.974	11734813.386
CC( )		3675839.865	11735369.993
PT( )	1892.840 R1	3675406.056	11734911.766
Radius:	631.000		
Delta:	25.555° Left		
Degree of Curvature(Arc):	9.080°		
Length:	281.439		
Tangent:	143.100		
Chord:	279.112		
Middle Ordinate:	15.626		
External:	16.023		
Tangent Direction:	S17°52'36.819"E		
Radial Direction:	S72°07'23.181"W		
Chord Direction:	S30°39'16.047"E		
Radial Direction:	S46°34'04.724"W		
Tangent Direction:	S43°25'55.276"E		
Element: Linear			
PT( )	1892.840 R1	3675406.056	11734911.766
PC( )	2041.712 R1	3675297.947	11735014.115
Tangential Direction:	S43°25'55.276"E		
Tangential Length:	148.872		
Element: Circular			
PC( )	2041.712 R1	3675297.947	11735014.115
HPI( )	2092.422 R1	3675261.122	11735048.978
CC( )		3674947.325	11734643.758
PT( )	2142.800 R1	3675218.152	11735075.907
Radius:	510.000		
Delta:	11.357° Right		
Degree of Curvature(Arc):	11.234°		
Length:	101.088		
Tangent:	50.710		
Chord:	100.923		
Middle Ordinate:	2.503		
External:	2.515		
Tangent Direction:	S43°25'55.276"E		
Radial Direction:	S46°34'04.724"W		
Chord Direction:	S37°45'13.140"E		
Radial Direction:	S57°55'28.996"W		
Tangent Direction:	S32°04'31.004"E		
Element: Linear			
PT( )	2142.800 R1	3675218.152	11735075.907
END( )	2179.362 R1	3675187.171	11735095.322
Tangential Direction:	S32°04'31.004"E		
Tangential Length:	36.562		

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1G

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

UNDERGROUND TEST HOLE INFORMATION

UNDERGROUND UTILITY TEST HOLE INFORMATION SHEET

Plan Sheet	Test Hole No.	Alignment	Station	Offset	Side	Owner	Type of Facility	Elevation (ft)	Depth (ft)	Vertical Conflict	Remarks	Resolution
3	**1**	BAILEY BRIDGE ROAD WEST	10+87.43	-29.59	LT	Chesterfield County Water	16" Ductile Iron WL	269.70	2.59	No	Proposed storm sewer pipe 2.59' above existing waterline	No Adjustment Needed
3	**2**	BAILEY BRIDGE ROAD WEST	15+73.40	-9.18	LT	Columbia Gas	4" Plastic GL	273.46	2.57	No	Proposed curb/underdrain 1.5' above existing gas line	No Adjustment Needed
4	**3**	BAILEY BRIDGE ROAD WEST	17+00.43	18.03	RT	Columbia Gas	4" Plastic GL	274.24	3.20	No	Proposed curb/underdrain 2.0' above existing gas line	No Adjustment Needed
4	**4**	BAILEY BRIDGE ROAD EAST	21+43.48	16.30	RT	Columbia Gas	4" Plastic GL	271.33	2.97	Yes	Proposed curb/underdrain in conflict with existing gas line	No Adjustment Needed
4	**5**	BAILEY BRIDGE ROAD EAST	22+81.59	-11.29	LT	Columbia Gas	4" Plastic GL	274.18	3.25	No	Proposed curb/underdrain 1.7' above existing gas line	No Adjustment Needed
4	**6**	ENTRANCE #5A	10+71.94	6.92	RT	Columbia Gas	8" Steel GL	273.82	4.32	No	Proposed entrance reconstruction 3+' above existing gas line	No Adjustment Needed
8	**7**	QUAILWOOD ROAD	23+76.15	-1.51	LT	Comcast	0.25" CATV	241.60	2.13	Yes	Found with 0.5" Verizon Telephone. Proposed ditch in conflict.	Adjustment Needed
8	**7**	QUAILWOOD ROAD	23+76.15	-1.51	LT	Verizon	0.5" Telephone	241.35	2.38	Yes	Found with 0.25" Comcast CATV. Proposed ditch in conflict.	Adjustment Needed
8	**8**	BAILEY BRIDGE CONNECTOR	126+65.45	13.69	RT	Verizon	0.75" Telephone	239.89	2.53	Yes	Proposed ditch in conflict with existing telephone line.	Adjustment Needed
8	**9**	BAILEY BRIDGE CONNECTOR	126+69.87	13.29	RT	Verizon	2" Plastic Fiber Optic	239.82	1.99	Yes	Proposed ditch in conflict with existing fiber optic line.	Adjustment Needed
-	**10**	-	-	-	-	-	N/A	-	-	-	Requested facility found at TH#11	-
13	**11**	BRAD MCNEER PWKY WEST	14+13.90	-41.14	LT	Dominion / Comcast	1.5"-2" Electric and Cable Television (4)	173.66	3.00	No	Proposed sidewalk 2.0' above existing utility lines.	No Adjustment Needed
13	**12**	BRAD MCNEER PWKY WEST	18+49.79	-27.130	LT	Chesterfield County Water	16" Ductile Iron WL	165.50	2.69	No	Proposed storm sewer pipe 1.3' below existing waterline	No Adjustment Needed

	PROJECT	SHEET NO.
	0000-020-820	1G

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
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SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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TRANSPORTATION MANAGEMENT PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1H(1)

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

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

GENERAL

1. This project is classified as Type B, under the the VDOT classification system.
2. The project length is approximately 1.05 miles between Route 654 (Bailey Bridge Road) and Route 5655 (Brad McNeer Parkway). The width of the work zone is less than 200'.
3. The purpose of this project is to construct a new roadway with shared-use path from Route 654 (Bailey Bridge Road) to Route 5655 (Brad McNeer Parkway), with a bridge crossing Swift Creek. Drainage improvements including curb and gutter and stormwater management basins are also included.
4. Traffic along these roads consists primarily of thru traffic and access for local residents.
5. The existing speed limit for Route 654 (Bailey Bridge Road) and Route 5655 (Brad McNeer Parkway) is 35 mph. All existing speed limits will be maintained during all phases of construction.

TEMPORARY TRAFFIC CONTROL (TTC) / MAINTENANCE OF TRAFFIC (MOT)

6. The major construction stage will take place adjacent to Route 654 (Bailey Bridge Road) and Route 5655 (Brad McNeer Parkway). Existing traffic patterns will be maintained while a significant portion of work is completed.
7. Lane closures and shoulder closures are anticipated for this project and will be in accordance with the Virginia Work Area Protection Manual, 2011 Edition - Revision 2.1. The following temporary traffic measures shall be used.
   - 7.1. Stationary Operation on a Shoulder (Figure TTC-4.2)
   - 7.2. Right Lane Closure Operation on a Three-Lane Roadway (Figure TTC-22.2)
   - 7.3. Lane Closure on a Two-Lane Roadway Using Flaggers (Figure TTC-23.2)
   - 7.4. Flagging Operations in a Roundabout (Figure TTC-31.2)
8. Negative impacts to the traveling public shall be minimized in every way possible. As such, during peak times and holidays, all lanes of traffic shall be maintained in both directions.
9. Access to all adjacent properties shall be maintained at all times.

PUBLIC COMMUNICATION PLAN

10. If any major traffic changes are to take place (shoulder closures, lane closures, etc.), the contractor shall ensure that the VDOT Traffic Operations Center is informed 72 hours in advance of the change.
11. Portable changeable message signs (PCMS) shall be used to notify the traveling public of any such major traffic changes 72 hours in advance of the change. This requirement shall apply to any changes in traffic pattern such as road closure and reopening, introduction of the circulatory traffic pattern, or as otherwise directed by the inspector.

TRANSPORTATION OPERATION PLAN

12. The contractor shall inform the "Regional Transportation Operations Center" (RTOC) when an impact to the existing traffic pattern is implemented, (such as a lane closure, road closure/detour, and the introduction of circulatory traffic patterns), and again when it is removed. The RTOC will in turn place the information into the "511 VIRGINIA" traffic alert system (a service of the Virginia Department of Transportation Traffic System). The contractor shall be responsible for updating the Lane Closure Advisory Management System (LCAMS) for all lane closures.
13. In case of emergency, call 911.

    The following is a list of local non-emergency numbers:

    Fire: 804-748-1431
    County Police: 804-748-1251
    State Police: 804-379-8645
    Engineer Contact: Craig Krupp, Timmons Group: 804-200-6378
    VDOT District Work Zone Safety Coordinator: Donnie Smith, 804-720-6804
    VDOT District Public Affairs Manager: Bethanie Glover, 804-835-3857
    VDOT Regional Transportation Operations Center: Shift Advisor, 804-796-4520
    VDOT Chesterfield Residency Office: 804-674-2800
    Chesterfield Department of Transportation: 804-748-1037

14. Any traffic incident that occurs during the life of this project will be discussed by the contractor, VDOT personnel, and the county project personnel to determine whether any changes need to be made to the traffic control on the project.

GENERAL NOTES

1. Any required lane and/or road closures must be approved in advance by the VDOT Chesterfield Residency Office (674-2800). A minimum of three days advance notice is required.
2. Lane closures (flagging) and stopping of traffic shall not be allowed on Bailey Bridge Road between the hours of 9:00 am to 1:30 pm and on Brad McNeer Parkway 9:00 am to 3:30 pm, unless otherwise directed by VDOT and Chesterfield Department of Transportation. See Note 14 below for general work hour restrictions.
3. All areas excavated deeper than two inches (2") below existing pavement surface and within the clear zone, at the conclusion of each workday, shall be backfilled to form an approximate 6:1 wedge against the pavement surface for the safety and protection of vehicular traffic. All cost for placing, maintaining, and removing the 6:1 wedge shall be included in the price bid for other items in the contract and no additional compensation will be allowed.
4. Lane closures will not be permitted on holidays, weekends, or on Friday-Saturday-Sunday-Monday surrounding holiday weekends unless otherwise approved in advance by the Chesterfield Department of Transportation and VDOT Chesterfield Residency Office.
5. Any contract item(s) not specifically noted in the Maintenance of Traffic may be scheduled for construction at the contractor's option, as approved by the Engineer, the County and VDOT.
6. Access to all adjacent properties and connecting streets shall be maintained at all times during construction. During road closure operations, a safe and well-defined access route shall be provided to ensure properties are accessible. Temporary pavement, stone, and other materials required to provide access shall be the responsibility of the Contractor.
7. The final surface course is not to be placed until such time that continuous operations are possible from begin to end of the project and permanent pavement markings can be placed to provide a continuous final course.
8. All traffic control shall be set up and spaced according to the Virginia Work Area Protection Manual, 2011 Edition - Revision 2.1.
9. The Contractor shall provide additional traffic control as directed by CDOT and/or VDOT, should field conditions warrant.
10. The Contractor shall maintain minimum lane widths of 10' during construction. Any temporary pavement markings that are required are the responsibility of the Contractor.
11. The Contractor is responsible for placement and maintenance of all temporary pavement markings that are required or implied in the construction sequencing. The Contractor is responsible for providing all traffic control devices, signage, equipment, personnel, including certified traffic-control personnel, etc. to control traffic during construction within VDOT maintained Right-of-Way. All traffic control shall be in strict accordance with the standards, guidelines, policies, and objectives of the latest edition of the Virginia Work Area Protection Manual, Manual for Uniform Traffic Control Devices (MUTCD), and all VDOT permits.
12. At no time shall construction take place on both the right and left sides of vehicles unless specified by CDOT, VDOT or the Engineer.
13. The Contractor shall not remove existing pavement markings or reduce lane widths until the pavement resurfacing/widening and permanent pavement markings can be accomplished within 24 hours. If pavement markings will not be replaced within 24 hours, the Contractor shall place temporary construction pavement marking, Type D Class II, until permanent markings are in place.
14. Due to the surrounding residential properties, work hours will be limited to 6:00 am to 9:00 pm Monday through Saturday. Night work will only be permitted for special situations. VDOT & CDOT approval is required prior to night time operations. See note 2 for lane closure restrictions.
15. Emergency vehicle, bus, and mail routes shall be maintained at all times.
16. The Contractor shall use Portable Temporary Rumble Strips (PTRS) during the implementation of any flagging operations, TTC-23.2 and/or TTC-31.2, as outlined in the latest revision of the VA WAPM.

SEQUENCE OF CONSTRUCTION

Phase 1 Off-Site Construction and Building Demolition

Construction consists of the installation of temporary construction entrances along Bailey Bridge Road, Brad McNeer Parkway, and Quailwood Road, the demolition of the existing house along Bailey Bridge Road, and begin clearing and grubbing operations along the project corridor. Additionally, erosion and sediment control measures shall be installed during this phase.

During this phase, traffic shall be maintained according to TTC-4.2 with minimal impacts to the existing traffic pattern along Bailey Bridge Road. Additionally, W11-V2 ('Construction Entrance Ahead') signs shall be installed in advance of the proposed construction access points and maintained through the duration of the project.

Traffic along Brad McNeer Parkway shall be maintained through the use of temporary pavement markings, temporary concrete service barrier, impact attenuator, Group 2 channelizing devices, and proper signage, in accordance to Sheet 1H(2). This traffic pattern will remain for the majority of construction, constructing to extents practical.

Phase 2 Water and Sewer Relocation

Construction consists of the relocation of existing water and sewer public utilities that are in conflict with the proposed project corridor.

During this phase, traffic shall be maintained according to TTC-4.2 with minimal impacts to the existing traffic pattern along Bailey Bridge Road and Brad McNeer Parkway.

Phase 3 Bridge Construction

Construction consists of the construction of the proposed bridge crossing Swift Creek and the continued grading operations along the project corridor.

During this phase, traffic shall be maintained according to TTC-4.2 with minimal impacts to the existing traffic pattern along Bailey Bridge Road and Brad McNeer Parkway.

SEQUENCE OF CONSTRUCTION (Cont'd)

Phase 4 Storm Sewer and Roadway Construction

Construction consists of the installation of storm sewer infrastructure including the proposed storm water basins, construction of the proposed roadway up to the intermediate course of pavement, and grading operations for permanent drainage features along Bailey Bridge Connector.

During this phase, traffic shall be maintained according to TTC-4.2 with minimal impacts to the existing traffic pattern along Bailey Bridge Road and Brad McNeer Parkway.

Phase 5A Bailey Bridge Road and Roundabout

Construction consists of the installation of storm sewer infrastructure, construction of curb and gutter, shared use path, and associated grading operations, and placement of pavement up to the intermediate course, including tie-ins to Bailey Bridge Road and splitter islands to the extents possible while maintaining existing traffic patterns. Final signage and temporary pavement markings shall be installed prior to the completion of this phase.

Additional construction activities consist of the installation of storm sewer infrastructure, construction of curb and gutter, shared use path, entrances, and associated grading operations along Bailey Bridge Road between the Holly View Parkway and Turnerville Road intersections.

During this phase, traffic shall be maintained according to TTC-4.2 and/or TTC-23.2 with minimal impacts to the existing traffic pattern along Bailey Bridge Road.

Phase 5B Bailey Bridge Road Roundabout (cont'd.)

Traffic shall be shifted onto the newly constructed roundabout, with Type III barricades and R11-4 (Road Closed) signage closing Bailey Bridge Connector to traffic.

Construction consists of the demolition of the existing roadway along Bailey Bridge Road, the construction of curb and gutter, shared use path, entrances, associated grading operations, and construction of remaining splitter islands not completed in Phase 5A.

During this phase, traffic shall be maintained according to TTC-4.2 and/or TTC-31.2.

Phase 5C Bailey Bridge Road Roundabout (cont'd.)

Construction consists of the placement of the final surface course and final pavement markings for Bailey Bridge Road.

During this phase, traffic shall be maintained according to TTC-31.2.

Phase 6A Brad McNeer Parkway Roundabout

Construction consists of the installation of storm sewer infrastructure, construction of curb and gutter, and associated grading operations, and placement of pavement up to the intermediate course, including tie-ins to Brad McNeer Parkway, to the extents possible while maintaining traffic in accordance to Sheet 1H(2).

Phase 6B Brad McNeer Parkway Roundabout (cont'd.)

Eastbound Brad McNeer Parkway traffic shall be shifted onto the newly constructed roundabout, with Type III barricades and R11-4 (Road Closed) signage closing Bailey Bridge Connector to traffic. Westbound Brad McNeer Parkway is to be detoured during this phase.

Construction consists of the construction of the slip lane, curb and gutters, shared use path, entrances, associated grading operations, and construction of the splitter islands.

During this phase, traffic shall be maintained in accordnace to Sheet 1H(3). The Contractor will be allowed to implement the detour for a maximum of 30 calendar days. Following the 30 calendar days, the detour shall be lifted. If the Contractor has not completed the work, they shall implement single lane closure in accordance to TTC-31.2 until work is complete.

Phase 6C Brad McNeer Parkway Roundabout (cont'd.)

Construction consists of the placement of the final surface course and final pavement markings for Brad McNeer Parkway Roundabout and Bailey Bridge Connector.

During this phase, traffic shall be maintained according to TTC-31.2.

Phase 7 Completion of Construction

Construction consists of the installation of street lighting, final landscaping, the re-construction of any portion of Quailwood Road, including proposed turn around, and the completion of any remaining items.

During this phase, traffic shall be maintained according to TTC-4.2.

At the conclusion of this phase, all Type 3 barricades with R11-4 (Road Closed) signage is to be removed. Traffic shall shifted to the final conditions and all work zone signage and objects are to be removed.

GREGORY T. STECHER
ADVANCED WORK ZONE TRAFFIC
CONTROL VERIFICATION #040221112

PROJECT	SHEET NO.
0000-020-820	1H(1)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

DGN $REF001 $REF002 $REF003 $REF004 $REF005 $REF006
$DGNLEV $LEV001 $LEV002 $LEV003 $LEV004 $LEV005 $LEV006

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

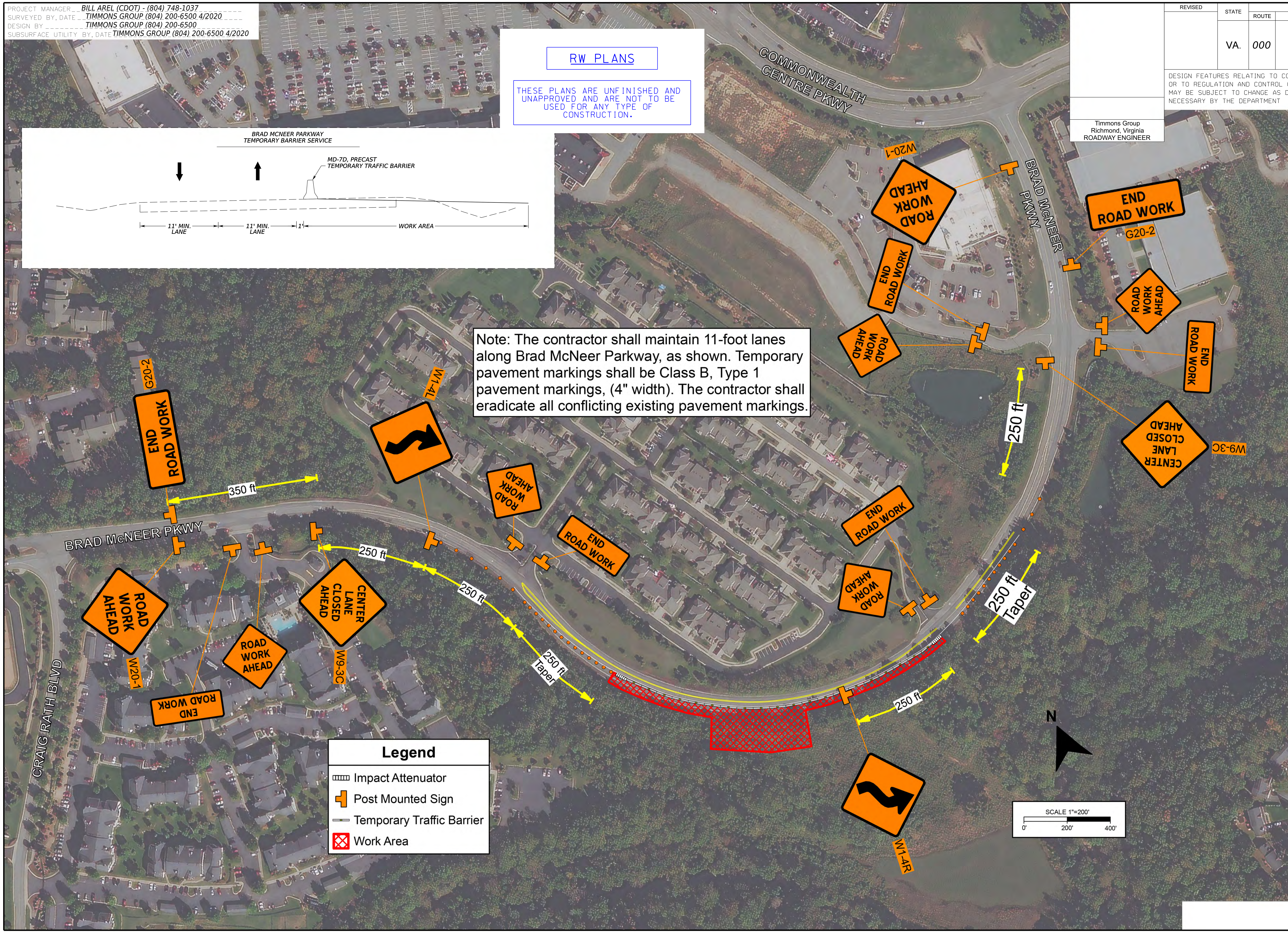
REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1H(2)

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

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

RW PLANS

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



Note: The contractor shall maintain 11-foot lanes along Brad McNeer Parkway, as shown. Temporary pavement markings shall be Class B, Type 1 pavement markings, (4" width). The contractor shall eradicate all conflicting existing pavement markings.

Legend

- Impact Attenuator
- Post Mounted Sign
- Temporary Traffic Barrier
- Work Area

PROJECT	SHEET NO.
0000-020-820	1H(2)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

$TIME$STAMP$

DGN $REF001 $REF002 $REF003 $REF004 $REF005 $REF006
$DGNLEV $LEV001 $LEV002 $LEV003 $LEV004 $LEV005 $LEV006

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	1H(6)

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

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

360
OLD HUNDRED RD
M4-9L
M4-V3L
DETOUR
575 ft
350 ft
M4-V3L
DETOUR
350 ft
M4-9L
DETOUR
HULL STREET RD
BRAD McNEER PKWY
END DETOUR
M4-8a
360
ROAD WORK AHEAD
W20-1
COMMONWEALTH CENTRE PKWY
M4-VP1a
BRAD MCNEER PKWY
ROAD CLOSED 0.3 MILES AHEAD LOCAL TRAFFIC ONLY
R11-3a
350 ft
500 ft
ROAD CLOSED AHEAD
288
BRAD McNEER PKWY
M4-10R
DETOUR
R11-4
ROAD CLOSED TO THRU TRAFFIC
ROAD CLOSED
R11-2
END ROAD WORK
G20-2
R11-2
ROAD CLOSED

PCMS MESSAGE

1 WEEK ADVANCE MESSAGE

PCMS	ROAD CLOSED __/__/__	BRAD MCNEER PKWY	FOLLOW DETOUR

DAY OF MESSAGE

PCMS	ROAD CLOSED	BRAD MCNEER PKWY	FOLLOW DETOUR

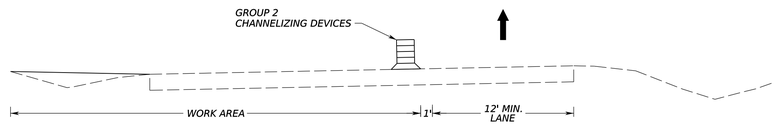
Legend

- Group 2 Channelizing Device
- Portable Changeable Message Sign
- Post Mounted Sign
- Type III Barricade
- Work Area

N

SCALE 1"=200'
0' 200' 400'

BRAD MCNEER PARKWAY
TEMPORARY DETOUR



	PROJECT	SHEET NO.
	0000-020-820	1H(6)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

$TIME$STAMP$

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

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GENERAL NOTES

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	2

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GRADING

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

G-4 The cost of removal of all existing concrete items located in the area to be graded, including, but not limited to the following, shall be included in the price bid for regular excavation: Conc. Pipes, Curb, End Sections, End Walls, Conc. Apron, Traffic Junction Boxes, Conduits, Etc.

G-5 The excavation of unsuitable material as specified on these plans is based on previously conducted subsurface soil investigation. If, during construction, it is deemed necessary to change the depth more than one foot, or the limits of such excavation, such change is to be made at the direction of the Engineer and measurement and payment shall be made in accordance with Section 303 of the applicable VDOT Road and Bridge Specifications.

G-6 The borrow material 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 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-6 Pipes shall conform to any of the allowable types shown on sheet number 16(1), within the applicable height of cover limitations.
For strength, sheet thickness, or class designation; available sizes; height of cover limitations;and other restrictions for a particular pipe type or height of cover, see the VDOT Road and Bridge Standard PC-1. Structural plate pipe may be substituted for corrugated pipe of the same size, provided the substitution complies with the applicable sections of the VDOT Road and Bridge Standards PC-1.

D-8 Where open joint pipe is to be used, no joint shall be opened a distance exceeding 25% of the spigot length. Sealing of the pipe joint shall be in accordance with Section 302 of the applicable VDOT Road and Bridge Specifications

D-9 A pipe joint length different from that stated on the plans may be used. An adjustment in the percentage of open joint (not to exceed 25% of the spigot length) or amount of bevel shall be made that will obtain the radius stated on the plans. Extra payment for this adjustment will not be allowed. The proposed adjustment shall be approved by the Engineer prior to installation of the pipe line.

D-10 The proposed riprap may be omitted by the Engineer if the slope designated for placement of riprap is found to be comprised of solid rock or closely consolidated boulders with soundness, size and weight equal to, or exceeding, the specifications for the proposed riprap.

D-12 All existing drainage facilities labeled "To Be Abandoned" shall be left in place, backfilled and plugged in accordance with the VDOT 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 requirements are provided in the applicable PB-1 and PC-1 standard drawings of the VDOT Road and Bridge Standards.

D-16 When CG-6 or CG-7 is specified on a radius (such as at a street intersection), the Engineer may approve a decrease in the cross slope of the gutter to facilitate proper drainage.

PAVEMENT

P-1 If any settlement occurs in concrete pavement adjacent to bridges prior to acceptance of the project by the Department, the contractor shall restore the pavement to the original grade either by the mud jack method or by replacing the pavement. In the event the pavement cracks or becomes damaged, it shall be replaced, if directed by the Engineer.

P-2 The pavement materials on this project will be paid for on a lump sum 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-5 That portion of the right of way lying within the Clear Zone or within a minimum of 10 feet from the edge of pavement or surfacing or within the limits of the construction slopes beyond 10 feet, shall be cleared and grubbed in accordance with the applicable VDOT Road and Bridge Specifications, Section 301, where sufficient right of way or construction easement is provided.

I-6 Certain trees shall be preserved as noted on plans or directed by the Engineer.

I-7 Where standard slope runoffs would damage trees, bushes or other desirable vegetation, they shall be omitted when so ordered by the Engineer.

I-8A Clearing and grubbing shall be confined to those areas needed for construction

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-12 St'd. RM-2 right of way monuments shall be set by the Contractor.

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

I-17 For method of constructing Straight-Line Taper Lanes in curb and/or curb and gutter sections, see typical details on Sheet 2.

I-18 All pavement markings and traffic flow arrows shown on the roadway construction plans are schematic only. The actual location and application of pavement markings shall be in accordance with Section 704 of the applicable VDOT Road and Bridge Specifications, MUTCD, sequence of construction/traffic control plans, pavement marking plan sheets 19(1) thru 19(15) and as directed by the Engineer.

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

Hydraulic Design	-	TIMMONS GROUP
Roadway Design	-	TIMMONS GROUP
Utility Design	-	TIMMONS GROUP
Utility Designation	-	TIMMONS GROUP
Utility Location	-	TIMMONS GROUP
Survey	-	TIMMONS GROUP
Bridge Design	-	TIMMONS GROUP
Traffic Design	-	TIMMONS GROUP
Landscape Design	-	TIMMONS GROUP

If questions or problems arise during construction, please contact The Engineer of Record. 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.

Note: Provide safe passage for pedestrian access where access has been obstructed.

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:

See E&SC Phase 1 and Phase 2 Sheets for Erosion & Sediment Control Legend

STORMWATER MANAGEMENT

S-1 CLEARING AND GRUBBING OF SWM BASIN SITE - The area where the dam is to be constructed and the area upstream of the dam, to an elevation equal to the crest of the dam (maximum ponded water elevation), shall be cleared and grubbed in accordance with Section 301 of the applicable VDOT Road and Bridge Specifications.

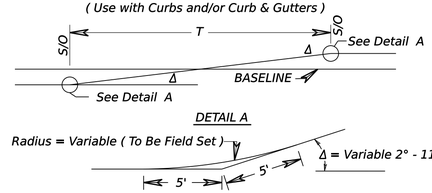
S-2 SWM BASIN DAM CONSTRUCTION - The dam for detention basins (no permanent pool) shall conform to the details contained in the plans and shall be constructed in accordance with Section 303 of the applicable VDOT Road and Bridge Specifications. The native material on which the dam will set shall meet the specifications for AASHTO Type A-4 or finer material. Where the native material does not meet this requirement, the area beneath the dam is to be excavated a minimum of 4' and backfilled with a material meeting the AASHTO Type A-4 or finer classification unless otherwise specified in the plans. The material used for the embankment of the dam shall be AASHTO Type A-4 or finer or otherwise specified in the plans. Dams with foundation and embankment material not meeting the above requirements or dams greater than 15' in height, or dams for retention basins (permanent pool) shall incorporate a membrane-lined trench, a homogenous embankment with seepage controls, a zoned embankment or other such approved designs as specified in the plans.

S-3 SWM BASIN OUTLET PIPE - The pipe culvert under or through the dam for detention basins (no permanent pool) shall be reinforced concrete pipe with rubber gaskets in accordance with Section 232 and 212 of the applicable VDOT Road and Bridge Specifications. A concrete cradle shall extend the full length of the pipe culvert in accordance with the Standard Drawings. The connection between the pipe culvert and the SWM-1 Drainage Structure (or other control structure) shall be made watertight as approved by the Engineer and the cost shall be included in the price bid for pipe.

S-4 The SWM-1 Drainage Structure (or other control structure) shall have 4" high numbers and 1" wide stripes painted at 1' intervals as shown on the Standard Drawings or detail sheets. The numbers and stripes are to be installed at the time of the initial installation of the SWM-1 Drainage Structure (or other control structure). Paint and application shall be in accordance with Section 231 and 411 of the applicable VDOT Road and Bridge Specifications and the cost is to be included in the price bid for the applicable structure.

S-5 All SWM Basins designated for use as temporary sediment basins shall be constructed during the initial phase of earth moving activities or as specified by the plans or directed by the Engineer. During project construction, the SWM-1 Drainage Structure (or other control structure) shall be modified in accordance with the Standard Drawings or plan details in order to provide a temporary sediment basin with both a "wet" storage volume (permanent pool) and a "dry" storage volume. Sediment accumulated in the basin shall be removed when the volume of the "wet" storage (permanent pool) has been reduced by 50%. Sediment shall be disposed of in accordance with Section 106.04 of the applicable VDOT Road and Bridge Specifications. When project construction is complete to a stage where no additional sediment from the project is expected to enter the basin, as determined by the Engineer, the basin shall be cleaned out and restored to the original design elevations, the area stabilized and all temporary modifications to the SWM-1 Drainage Structure (or other control structure) removed.

TYPICAL
STRAIGHT - LINE TAPER LANE
(Use with Curbs and/or Curb & Gutters)



T - See plans for Length of T.

S/O - See plans for Stations and Offsets.

	PROJECT	SHEET NO.
	0000-020-820	2

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

Timmons Group Richmond, Virginia MATERIALS ENGINEER	Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	2A(1)

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RW PLANS

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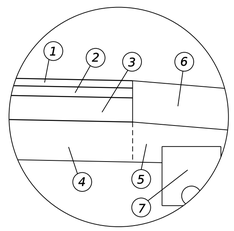
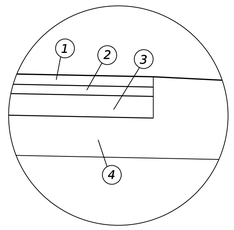
INSET A

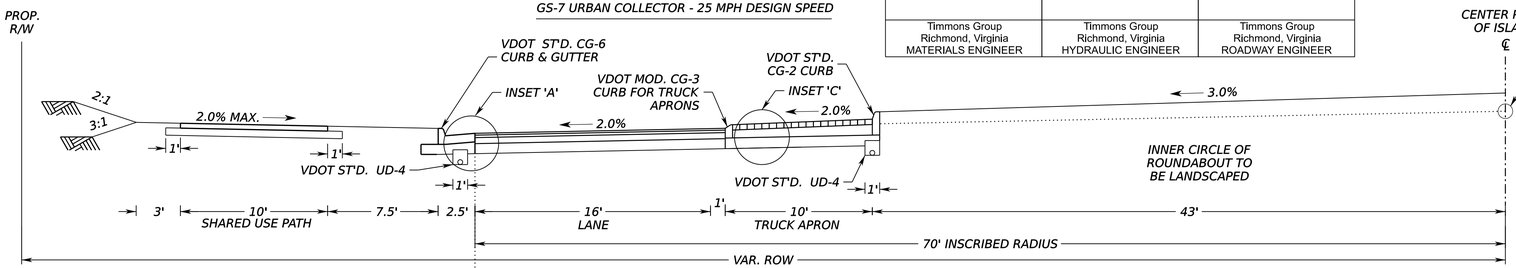


INSET B

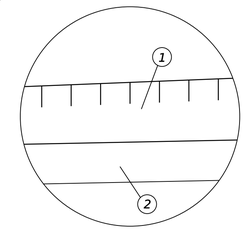


1. 2" ASPHALT CONCRETE SURFACE COURSE (VDOT SM-12.5 A) at 220 Lbs/S.Y.
2. 2" ASPHALT CONCRETE INTERMEDIATE COURSE (VDOT IM-19.0 A) at 220 Lbs/S.Y.
3. 2.5" ASPHALT CONCRETE BASE COURSE (VDOT BM-25.0 A)
4. 8" AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B)
5. VAR. DEPTH AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B) UNDER CURB
6. STD. CG-6 CURB & GUTTER
7. STD. UD-4 UNDERDRAIN

BAILEY BRIDGE ROAD ROUNDABOUT
BRAD MCNEER PARKWAY ROUNDABOUT
GS-7 URBAN COLLECTOR - 25 MPH DESIGN SPEED

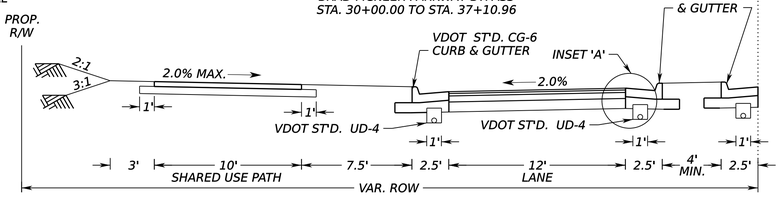


INSET C



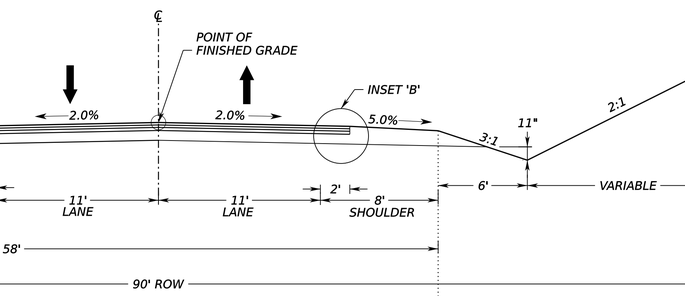
1. 9" PLAIN HYDR. CEM. CONC. PAVEMENT - RED HERRINGBONE PATTERN REQ'D. ##SEE NOTE AT LEFT
2. 8" AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B)

BRAD MCNEER PARKWAY ROUNDABOUT ONLY
BRAD MCNEER PARKWAY BYPASS
STA. 30+00.00 TO STA. 37+10.96

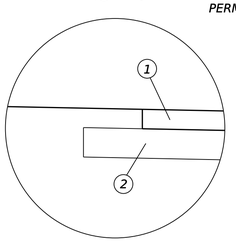


BAILEY BRIDGE CONNECTOR
GS-7 URBAN COLLECTOR - 35 MPH DESIGN SPEED

STA. 102+77.12 TO STA. 148+62.17



INSET D



1. 2" ASPHALT CONCRETE SURFACE COURSE (VDOT SM-9.5 A) at 220 Lbs/S.Y.
2. 6" AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B)

NOTE: BOTTOM OF AGGREGATE BASE LAYER SHOULD BE OF SUFFICIENT THICKNESS AND PLACED ENSURE POSITIVE LATERAL SUBGRADE DRAINAGE IS MAINTAINED.

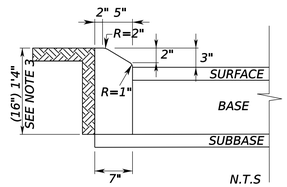
NOTE: PAVEMENT RESURFACING MAY REQUIRE MILLING AND/OR BUILD-UP TO ACHIEVE 2" MIN. OVERYLAY WITH VDOT SM-12.5 A, PER THE PROFILE AND CROSS SECTIONS. SEE SHEET 2 FOR TIE-IN DETAILS.

NOTE: IN AREAS OF WHERE NEW PAVEMENT ABUT OR ARE WIDENED BEYOND EXISTING PAVEMENT SECTIONS THAT ARE GREATER THAN THE PROVIDED MINIMUMS, THE NEW PAVEMENT SECTIONS SHALL MATCH THE IN-PLACE SECTION THICKNESS, AS DETERMINED FROM THE PAVEMENT CORES.

COLORED AND STAMPED CONCRETE SHALL BE RED HERRINGBONE PATTERN - CONTRACTOR SHALL SUBMIT PROPOSED PATTERN AND COLOR FOR APPROVAL BY THE ENGINEER PRIOR TO ORDERING MATERIALS. CONCRETE JOINT SPACING PLAN FOR APRON SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER.

CG-3 MODIFIED

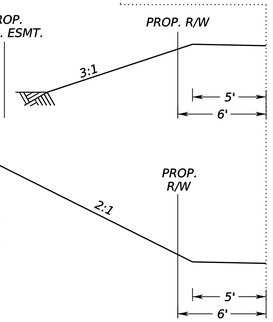
FOR USE ON ROUNDABOUT TRUCK APRONS ONLY



NOTES:

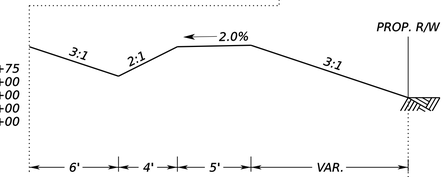
1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. THE DEPTH OF CURB MAY BE REDUCED AS MUCH AS 3" (13" DEPTH) OR INCREASED AS MUCH AS 3" (19" DEPTH) IN ORDER THAT THE BOTTOM OF THE CURB WILL COINCIDE WITH THE TOP OF A COURSE OF THE PAVEMENTS SUBSTRUCTURE. OTHERWISE, THE DEPTH IS TO BE 16" AS SHOWN. NO ADJUSTMENT IN THE PRICE BID IS TO BE MADE FOR A DECREASE OR AN INCREASE IN DEPTH.
4. THE MODIFICATION TO THE STANDARD CG-3 IS TO REDUCE THE EXPOSED HEIGHT OF THE CURB AS SHOWN. MODIFIED CURB SHALL BE PAID FOR AS STANDARD CG-3.

END CONDITION FOR TALL EMBANKMENTS
STA. 105+25 TO STA. 107+25
STA. 111+75 TO STA. 115+25
STA. 126+75 TO STA. 132+00
STA. 139+50 TO ST.A 146+50

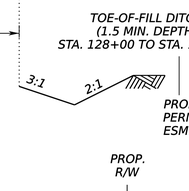


BERM DITCH END CONDITION IN CUT
STA. 101+25 TO STA. 105+00
STA. 134+25 TO STA. 139+50
STA. 146+50 TO STA. 149+50

BERM DITCH END CONDITION IN FILL
STA. 105+50 TO STA. 106+75
STA. 111+50 TO STA. 114+00
STA. 119+75 TO STA. 123+00
STA. 126+50 TO STA. 128+00
STA. 146+00 TO STA. 148+00

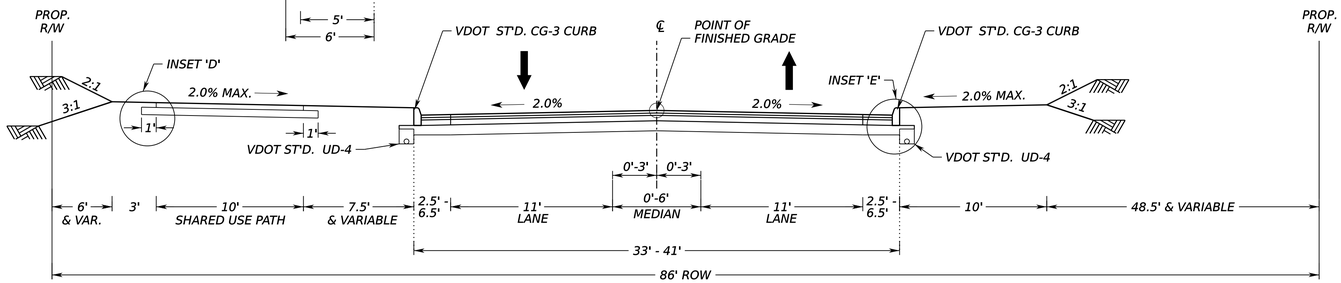


TOE-OF-FILL DITCH (1.5 MIN. DEPTH)
STA. 128+00 TO STA. 146+00

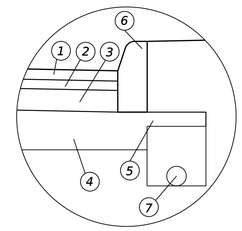


BAILEY BRIDGE CONNECTOR (BRIDGE APPROACH - SOUTH SIDE)
GS-7 URBAN COLLECTOR - 35 MPH DESIGN SPEED

STA. 148+62.17 TO STA. 150+64.61



INSET E



1. 2" ASPHALT CONCRETE SURFACE COURSE (VDOT SM-12.5 A) at 220 Lbs/S.Y.
2. 2" ASPHALT CONCRETE INTERMEDIATE COURSE (VDOT IM-19.0 A) at 220 Lbs/S.Y.
3. 2.5" ASPHALT CONCRETE BASE COURSE (VDOT BM-25.0 A)
4. 8" AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B)
5. VAR. DEPTH AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B) UNDER CURB
6. STD. CG-3 CURB
7. STD. UD-4 UNDERDRAIN

PROJECT	SHEET NO.
0000-020-820	2A(1)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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

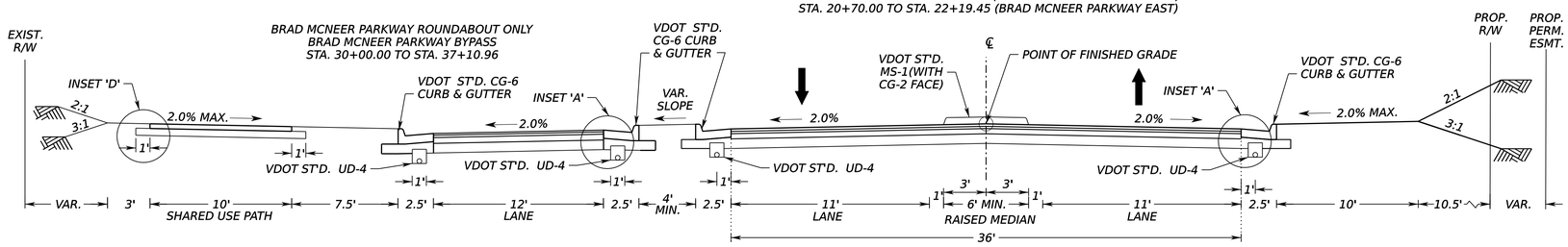
Timmons Group Richmond, Virginia MATERIALS ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 P101,R201,C501	2A(2)

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

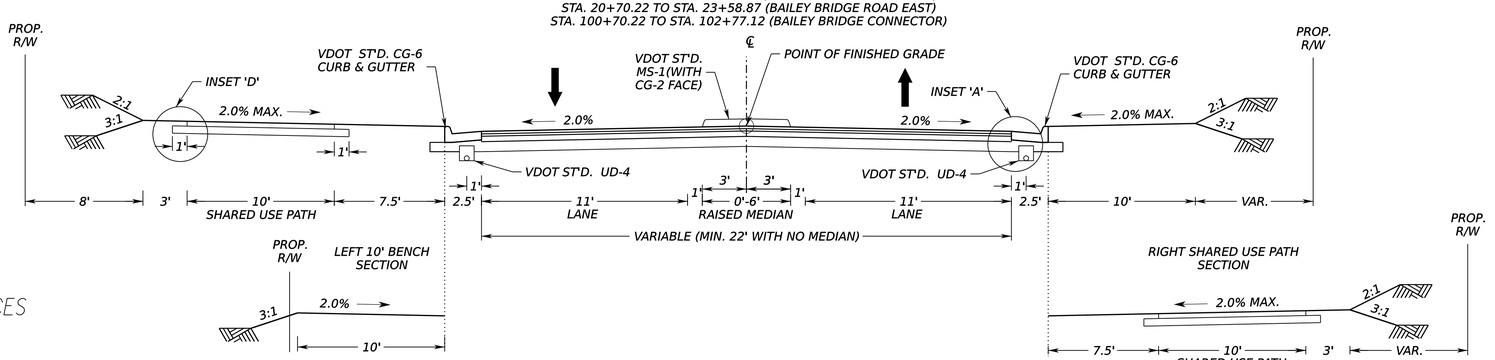
BRAD MCNEER PARKWAY
(ROUNDABOUT WEST & EAST APPROACH)
GS-7 URBAN COLLECTOR - 25 MPH DESIGN SPEED

STA. 20+41.71 TO STA. 21+09.35 (BRAD MCNEER PARKWAY WEST)
STA. 20+70.00 TO STA. 22+19.45 (BRAD MCNEER PARKWAY EAST)



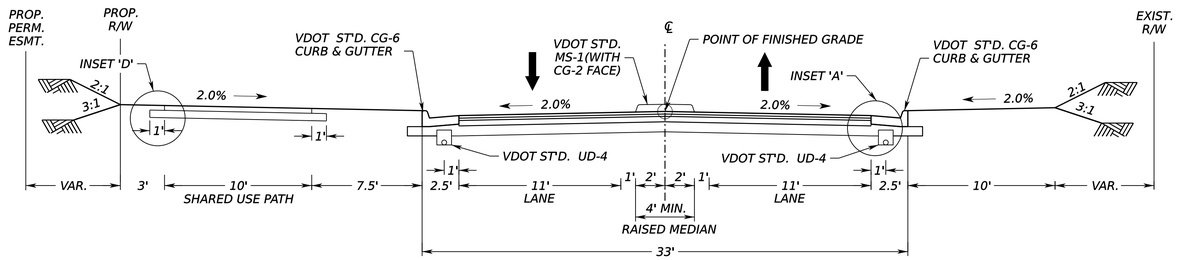
BAILEY BRIDGE ROAD (ROUNDABOUT WEST & EAST APPROACH)
BAILEY BRIDGE CONNECTOR (ROUNDABOUT SOUTH APPROACH)
GS-7 URBAN COLLECTOR - 25 MPH DESIGN SPEED

STA. 15+25.00 TO STA. 17+79.61 (BAILEY BRIDGE ROAD WEST)
STA. 20+70.22 TO STA. 23+58.87 (BAILEY BRIDGE ROAD EAST)
STA. 100+70.22 TO STA. 102+77.12 (BAILEY BRIDGE CONNECTOR)



BAILEY BRIDGE CONNECTOR (ROUNDABOUT NORTH APPROACH)
GS-7 URBAN COLLECTOR - 25 MPH DESIGN SPEED

STA. 154+26.90 TO STA. 155+19.12



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

NOT TO SCALE

TYPE III
Asphalt

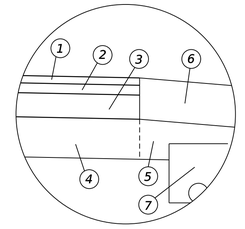
Asphalt Conc. Type SM-9.5A or SM-9.5D @ 220 Lbs. per S.Y.
4" Aggr. Base Mat'l. Ty. I
No. 21B

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

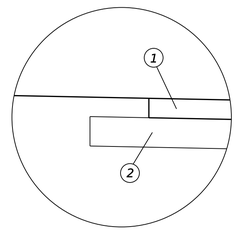
The type of entrance (I, II, III, IV) to be constructed will be determined by the existing condition at the time of construction.

INSET A



1. 2" ASPHALT CONCRETE SURFACE COURSE (VDOT SM-12.5 A) at 220 Lbs/S.Y.
2. 2" ASPHALT CONCRETE INTERMEDIATE COURSE (VDOT IM-19.0 A) at 220 Lbs/S.Y.
3. 2.5" ASPHALT CONCRETE BASE COURSE (VDOT BM-25.0 A)
4. 8" AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B)
5. VAR. DEPTH AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B) UNDER CURB
6. STD. CG-6 CURB & GUTTER
7. STD. UD-4 UNDERDRAIN

INSET D



1. 2" ASPHALT CONCRETE SURFACE COURSE (VDOT SM-9.5 A) at 220 Lbs/S.Y.
2. 6" AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B)

	PROJECT	SHEET NO.
	0000-020-820	2A(2)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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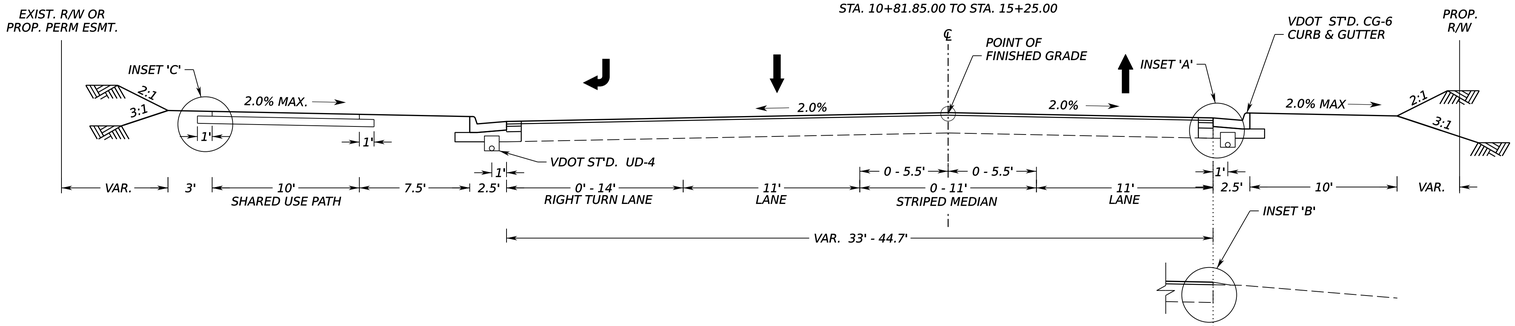
Timmons Group Richmond, Virginia MATERIALS ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	2A(3)

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

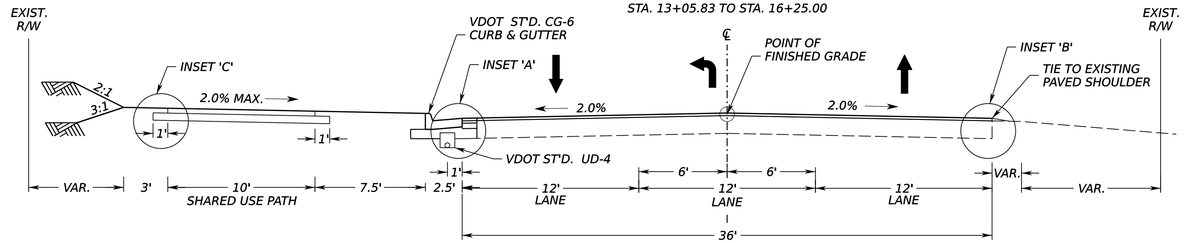
BAILEY BRIDGE ROAD (WESTERN END)
GS-7 URBAN COLLECTOR - 35 MPH DESIGN SPEED

STA. 10+81.85.00 TO STA. 15+25.00



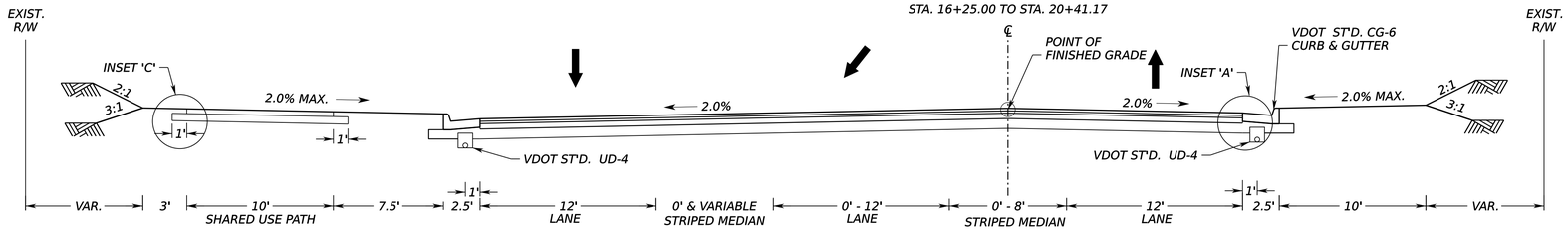
BRAD MCNEER PARKWAY (WESTERN END)
GS-7 URBAN COLLECTOR - 35 MPH DESIGN SPEED

STA. 13+05.83 TO STA. 16+25.00



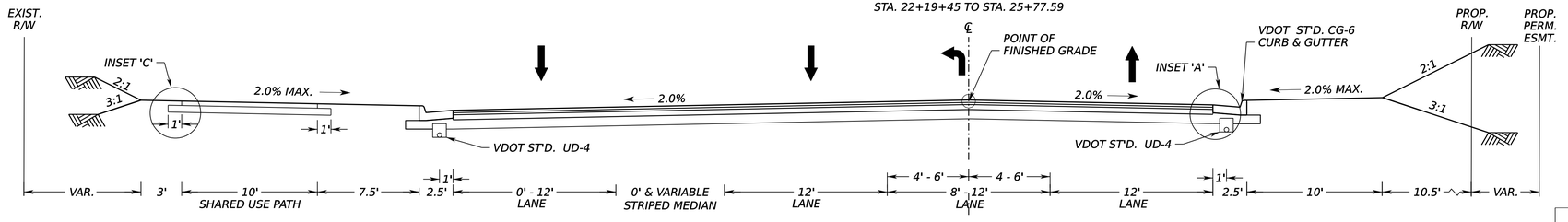
BRAD MCNEER PARKWAY (WESTERN END)
GS-7 URBAN COLLECTOR - 35 MPH DESIGN SPEED

STA. 16+25.00 TO STA. 20+41.17

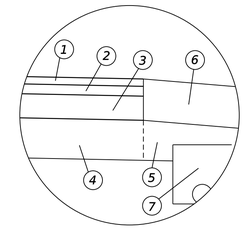


BRAD MCNEER PARKWAY (EASTERN END LEFT TURN LANE)
GS-7 URBAN COLLECTOR - 35 MPH DESIGN SPEED

STA. 22+19+45 TO STA. 25+77.59



INSET A



1. 2" ASPHALT CONCRETE SURFACE COURSE (VDOT SM-12.5 A) at 220 Lbs/S.Y.
2. 2" ASPHALT CONCRETE INTERMEDIATE COURSE (VDOT IM-19.0 A) at 220 Lbs/S.Y.
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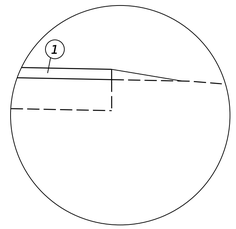
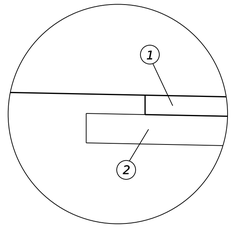
5. VAR. DEPTH AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B) UNDER CURB
6. STD. CG-6 CURB & GUTTER
7. STD. UD-4 UNDERDRAIN

INSET B



1. 2" ASPHALT CONCRETE SURFACE COURSE (VDOT SM-12.5 A) at 220 Lbs/S.Y.

INSET C



1. 2" ASPHALT CONCRETE SURFACE COURSE (VDOT SM-9.5 A) at 220 Lbs/S.Y.
2. 6" AGGREGATE BASE MATERIAL (VDOT TYPE 1 NO. 21 B)

	PROJECT	SHEET NO.
	0000-020-820	2A(3)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

ROADSIDE DEVELOPMENT

CORE MIX

MIX	LBS./ ACRES	DESCRIPTION
1	▲	⚹ 100% CERTIFIED FINE FESCUE
2	▲	100% CERTIFIED TALL FESCUE
3	▲ 75 75	50% CERTIFIED TALL FESCUE ⚹ 50% CERTIFIED FINE FESCUE
4	▲	50% ORCHARDGRASS 50% CERTIFIED KENTUCKY BLUEGRASS
5	▲	100% BERMUDAGRASS
C 1, 2 & 3	▲	CUSTOM MIX
T1	▲ 50 50	50% CERTIFIED TALL FESCUE 50% BARLEY, WINTER RYE OR WINTER WHEAT
T2	▲ 50 50	50% FOXTAIL MILLET 50% CERTIFIED TALL FESCUE

ADDITIVES

TYPE	LBS./ ACRES	DESCRIPTION
A	▲	100% LOVEGRASS
B	▲ 15	100% BARLEY, WINTER RYE OR WINTER WHEAT
C	▲ 10	100% FOXTAIL MILLET
D	▲ 15	100% ANNUAL RYEGRASS
E	▲	100% BLUE GRAMA
F	▲	100% ALFALFA
G	▲ 10	100% WHITE CLOVER
H	▲ 10	** 100% CROWN VETCH (LEGUME)
I	▲	** 100% SEPICEA 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 & 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.	C.Y./ACRES	TONS	LBS.	LBS.	LBS.	S. Y.	S. Y.	S. Y.	S. Y.

⊗ 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.

ROADSIDE DEVELOPMENT SUMMARY TO BE PROVIDED WITH FUTURE SUBMISSION

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	2B

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

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 - 5/15		5/16 - 9/15		9/16 - 11/15		11/16 - 2/29	
PROJECT NUMBERS AND/OR LOCATION 0000-020-820	3,D,G	3,D	3,C,G	3,C	3,B,H	3,B	3,B,H	3,B
⚹ SPECIFIED TYPE(S) OF FINE FESCUE	HARD	HARD	HARD	HARD	HARD	HARD	HARD	HARD

NOTES: (PROVIDED BY DISTRICT ROADSIDE MANAGER)

RW PLANS

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	PROJECT	SHEET NO.
	0000-020-820	2B

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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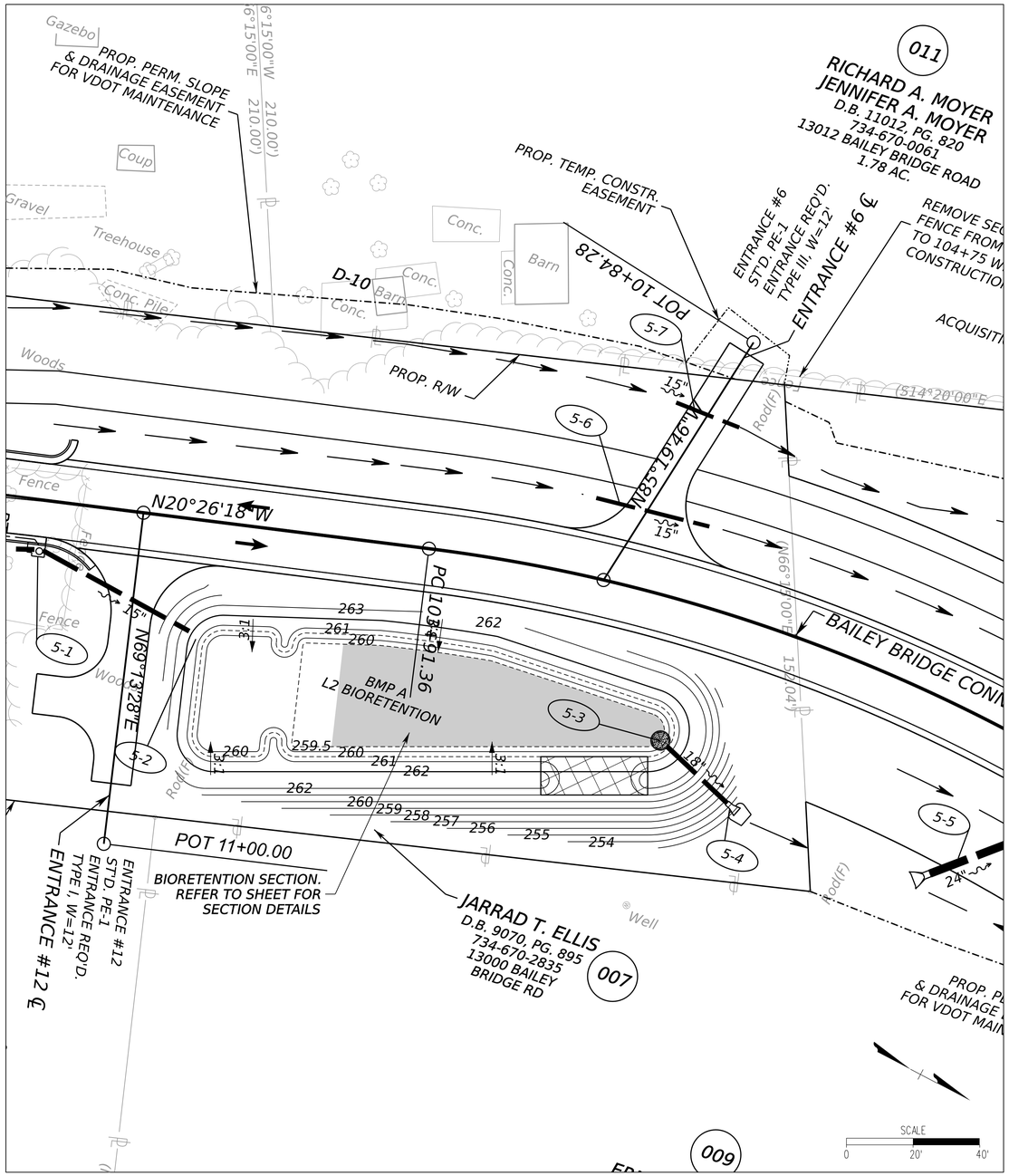
BMP DETAILS

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 P101,R201,C501	2C(1)

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



PROPOSED BASIN SIZE AND ROUTING SUMMARY
BMP 'A' - L2 BIORETENTION

APPROX. FOOTPRINT = 10500 SF
TOP OF BASIN ELEV. = 262'
BOTTOM OF BASIN ELEV. = 259.5'
EMERGENCY SPILLWAY ELEV. = 260.75'
EMERGENCY SPILLWAY LENGTH = 20'
AREA OF BIORETENTION MEDIA = 2220 SF

1 - YEAR STORM
W.S.E. = 259.12'
PEAK FLOW IN = 1.05 CFS
PEAK FLOW OUT = 0.00 CFS

2 - YEAR STORM
W.S.E. = 260.04'
PEAK FLOW IN = 1.91 CFS
PEAK FLOW OUT = 0.00 CFS

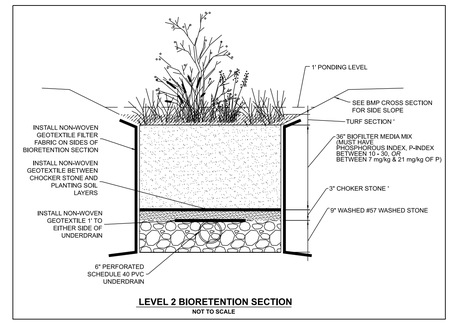
10 - YEAR STORM
W.S.E. = 260.59'
PEAK FLOW IN = 5.12 CFS
PEAK FLOW OUT = 0.87 CFS

100 - YEAR STORM
W.S.E. = 260.93'
PEAK FLOW IN = 12.15 CFS
PEAK FLOW OUT = 11.91 CFS

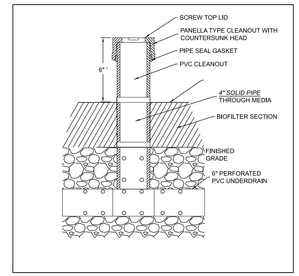
RISER AND OUTLET PIPE CHARACTERISTICS

RISER STR. TYPE = VDOT ST'D. DI-1
RISER STR. TOP ELEV. = 260.5'

OUTLET PIPE DIAMETER = 18 IN.
UPSTREAM INV. = 255.9'
DOWNSTREAM INV. = 255.0'
LENGTH = 24.9'



LEVEL 2 BIORETENTION SECTION
NOT TO SCALE



TYPICAL PROFILE VIEW OF UNDERDRAIN IN LEVEL 2 BIORETENTION FILTER STONE SECTION
NOT TO SCALE

NOTE: BMP SHALL BE CERTIFIED AS PRESCRIBED BY DEQ AND VDOT PRIOR TO THE NOTICE OF TERMINATION OF THE VSMP CONSTRUCTION GENERAL PERMIT

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

Plan Sheet	*5*
Cross Section & Profile	*2C(2)*
Quantity Compliance Calcs	*XXX*

PROJECT	SHEET NO.
0000-020-820	2C(1)

COUNTY LIN NO.: 21-0015
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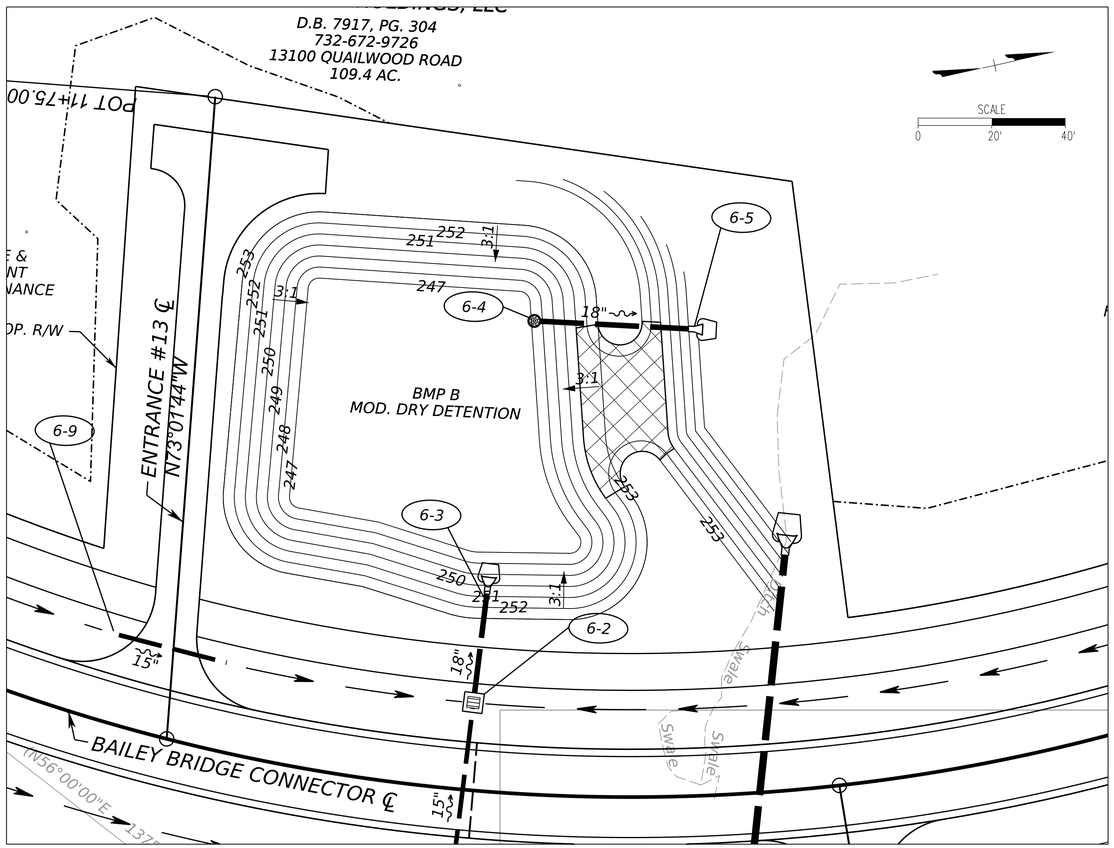
BMP DETAILS

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	2C(3)

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



PROPOSED BASIN SIZE AND ROUTING SUMMARY
BMP 'B' - MOD. DRY DETENTION

APPROX. FOOTPRINT = 14400 SF
TOP OF BASIN ELEV. = 253'
EMERGENCY SPILLWAY ELEV. = 251.75'
EMERGENCY SPILLWAY LENGTH = 20'

1 - YEAR STORM
W.S.E. = 247.62'
PEAK FLOW IN = 2.91 CFS
PEAK FLOW OUT = 0.41 CFS

2 - YEAR STORM
W.S.E. = 248.08'
PEAK FLOW IN = 4.39 CFS
PEAK FLOW OUT = 0.50 CFS

10 - YEAR STORM
W.S.E. = 249.56'
PEAK FLOW IN = 9.41 CFS
PEAK FLOW OUT = 0.71 CFS

100 - YEAR STORM
W.S.E. = 251.33'
PEAK FLOW IN = 11.92 CFS
PEAK FLOW OUT = 11.85 CFS

RISER AND OUTLET PIPE CHARACTERISTICS

RISER STR. TYPE = VDOT ST'D. SWM-1
RISER STR. TOP ELEV. = 251'
RISER STR. DIAMETER = 36"
ORIFICE DIAMETER = 4"
ORIFICE INVERT ELEV. = 246.5'

OUTLET PIPE DIAMETER = 18 IN.
UPSTREAM INV. = 246.45'
DOWNSTREAM INV. = 246.0'
LENGTH = 40.3'

NOTE: BMP SHALL BE CERTIFIED AS PRESCRIBED BY DEQ AND VDOT PRIOR TO THE NOTICE OF TERMINATION OF THE VSMP CONSTRUCTION GENERAL PERMIT

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

Plan Sheet	*6*
Cross Section & Profile	*2C(4)*
Quantity Compliance Calcs	*XXX*

PROJECT	SHEET NO.
0000-020-820	2C(3)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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BMP DETAILS

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	2C(5)

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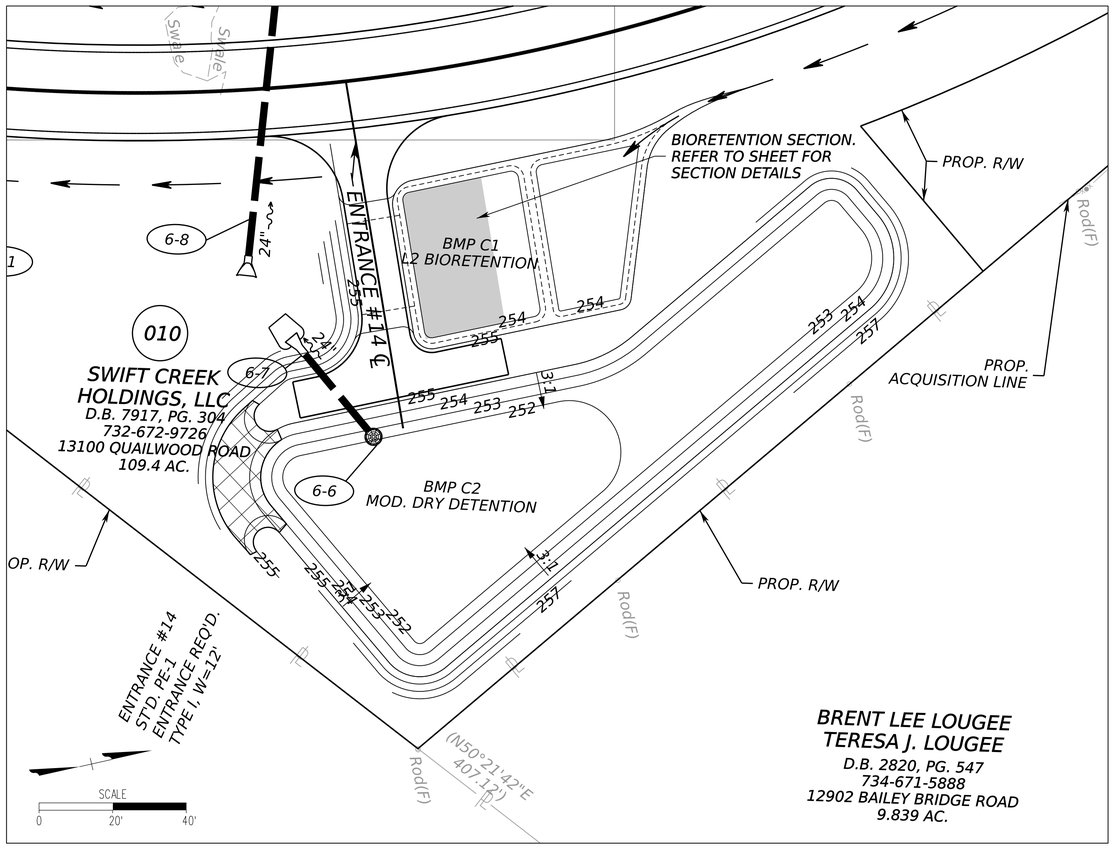


PROPOSED BASIN SIZE AND ROUTING SUMMARY
BMP 'C1' - L2 BIORETENTION

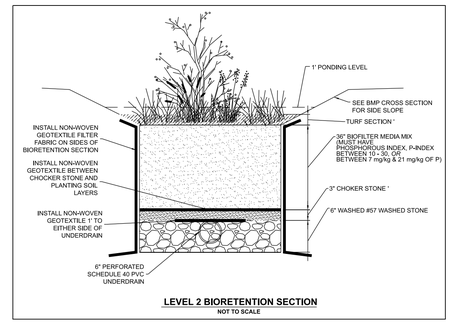
APPROX. FOOTPRINT = 3500 SF
TOP OF BASIN ELEV. = 255'
BOTTOM OF BASIN ELEV. = 254'
PRIMARY SPILLWAY ELEV. = 254.5'
PRIMARY SPILLWAY LENGTH = 25'
AREA OF BIORETENTION MEDIA = 880 SF

1 - YEAR STORM
W.S.E. = 254.49'
PEAK FLOW IN = 0.32 CFS
PEAK FLOW OUT = 0.00 CFS

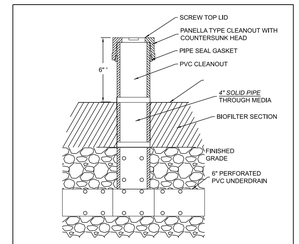
2 - YEAR STORM
W.S.E. = 254.51'
PEAK FLOW IN = 1.04 CFS
PEAK FLOW OUT = 0.11 CFS

10 - YEAR STORM
W.S.E. = 254.64'
PEAK FLOW IN = 4.11 CFS
PEAK FLOW OUT = 3.87 CFS

100 - YEAR STORM
W.S.E. = 254.79'
PEAK FLOW IN = 11.92 CFS
PEAk FLOW OUT = 11.85 CFS



LEVEL 2 BIORETENTION SECTION
NOT TO SCALE



TYPICAL PROFILE VIEW OF UNDERDRAIN IN LEVEL 2 BIORETENTION FILTER STONE SECTION
NOT TO SCALE

PROPOSED BASIN SIZE AND ROUTING SUMMARY
BMP 'C2' - MOD. DRY DETENTION

APPROX. FOOTPRINT = 12100 SF
TOP OF BASIN ELEV. = 255'
EMERGENCY SPILLWAY ELEV. = 254'
EMERGENCY SPILLWAY LENGTH = 20'

1 - YEAR STORM
W.S.E. = 252.56'
PEAK FLOW IN = 2.13 CFS
PEAK FLOW OUT = 0.51 CFS

2 - YEAR STORM
W.S.E. = 253.07'
PEAK FLOW IN = 4.01 CFS
PEAK FLOW OUT = 0.69 CFS

10 - YEAR STORM
W.S.E. = 254.04'
PEAK FLOW IN = 11.17 CFS
PEAK FLOW OUT = 6.68 CFS

100 - YEAR STORM
W.S.E. = 254.32'
PEAK FLOW IN = 27.93 CFS
PEAk FLOW OUT = 27.56 CFS

RISER AND OUTLET PIPE CHARACTERISTICS

RISER STR. TYPE = VDOT ST'D. SWM-1
RISER STR. TOP ELEV. = 253.75'
RISER STR. DIAMETER = 48"
ORIFICE DIAMETER = 5"
ORIFICE INVERT = 251.75'

OUTLET PIPE DIAMETER = 24 IN.
UPSTREAM INV. = 251.75'
DOWNSTREAM INV. = 251.55'
LENGTH = 27'

NOTE: BMP SHALL BE CERTIFIED AS PRESCRIBED BY DEQ AND VDOT PRIOR TO THE NOTICE OF TERMINATION OF THE VSMP CONSTRUCTION GENERAL PERMIT

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

Plan Sheet	*6*
Cross Section & Profile	*2C(6)*
Quantity Compliance Calcs	*XXX*

PROJECT	SHEET NO.
0000-020-820	2C(5)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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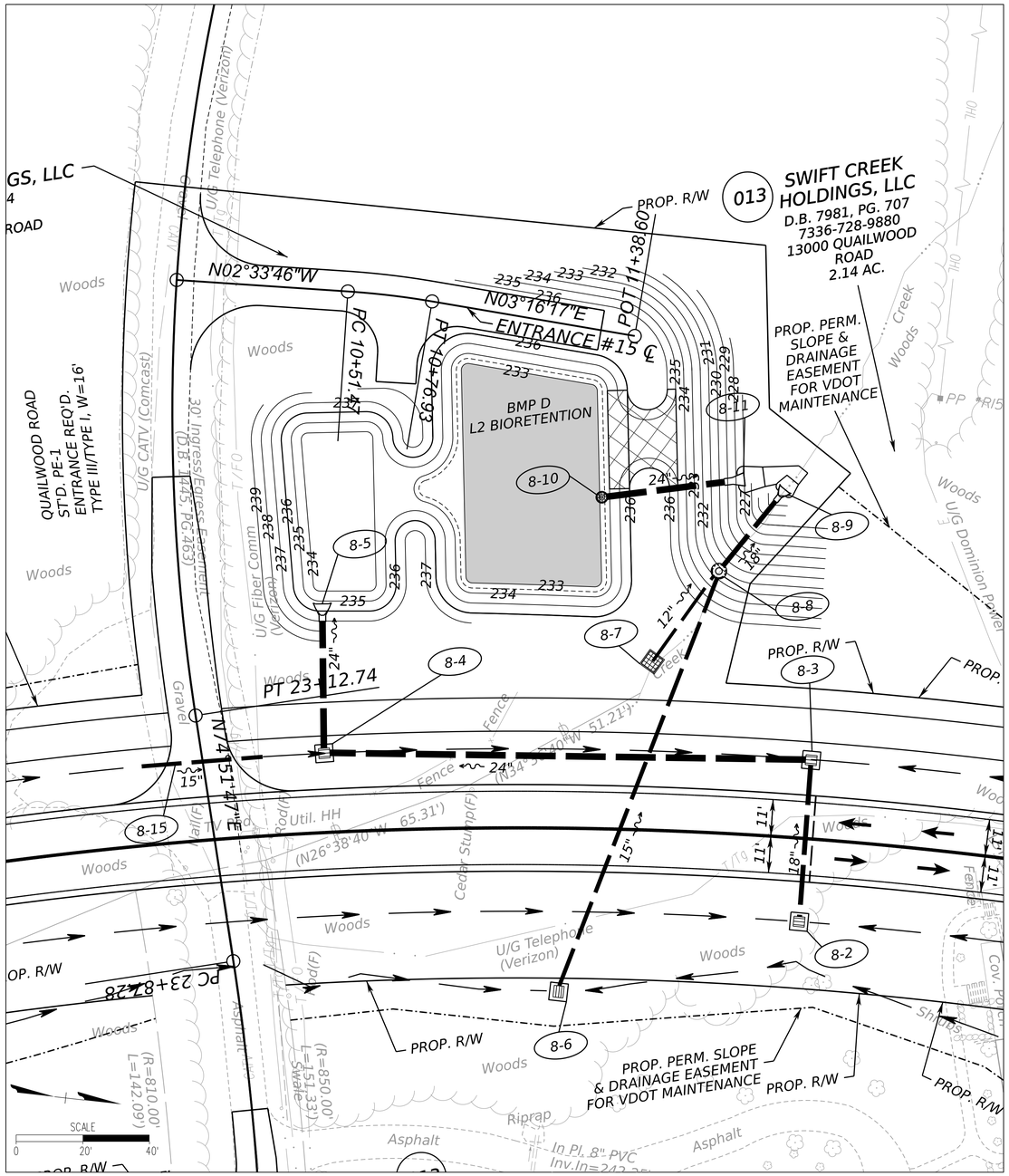
BMP DETAILS

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 P101,R201,C501	2C(7)

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

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER



PROPOSED BASIN SIZE AND ROUTING SUMMARY
BMP 'D2' - L2 BIORETENTION

APPROX. FOOTPRINT = 14000 SF
TOP OF BASIN ELEV. = 236'
BOTTOM OF BASIN ELEV. = 233'
EMERGENCY SPILLWAY ELEV. = 234.75'
EMERGENCY SPILLWAY LENGTH = 15'
AREA OF BIORETENTION MEDIA = 2570 SF

1 - YEAR STORM
W.S.E. = 233.38'
PEAK FLOW IN = 1.44 CFS
PEAK FLOW OUT = 0.00 CFS

2 - YEAR STORM
W.S.E. = 234.02'
PEAK FLOW IN = 2.93 CFS
PEAK FLOW OUT = 0.00 CFS

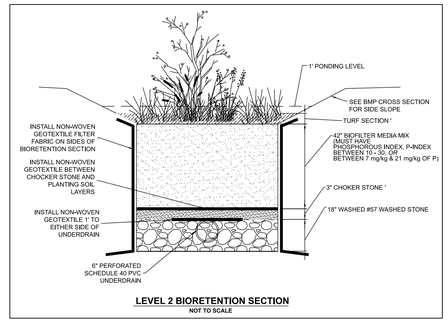
10 - YEAR STORM
W.S.E. = 234.28'
PEAK FLOW IN = 7.67 CFS
PEAK FLOW OUT = 4.33 CFS

100 - YEAR STORM
W.S.E. = 234.75'
PEAK FLOW IN = 18.82 CFS
PEAK FLOW OUT = 18.21 CFS

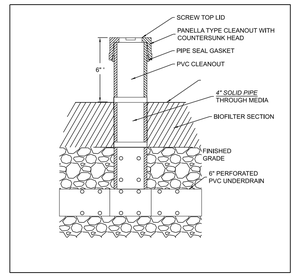
RISER AND OUTLET PIPE CHARACTERISTICS

RISER STR. TYPE = VDOT ST'D. SWM-1
RISER STR. TOP ELEV. = 234'
RISER STR. DIAMETER = 36"

OUTLET PIPE DIAMETER = 24 IN.
UPSTREAM INV. = 227.4'
DOWNSTREAM INV. = 227.0'
LENGTH = 35.5'



LEVEL 2 BIORETENTION SECTION
NOT TO SCALE



TYPICAL PROFILE VIEW OF UNDERDRAIN IN LEVEL 2 BIORETENTION FILTER STONE SECTION
NOT TO SCALE

NOTE: BMP SHALL BE CERTIFIED AS PRESCRIBED BY DEQ AND VDOT PRIOR TO THE NOTICE OF TERMINATION OF THE VSMP CONSTRUCTION GENERAL PERMIT

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

Plan Sheet	*6*
Cross Section & Profile	*2C(8)*
Quantity Compliance Calcs	*XXX*

PROJECT	SHEET NO.
0000-020-820	2C(7)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

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BMP DETAILS

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 P101,R201,C501	2C(9)

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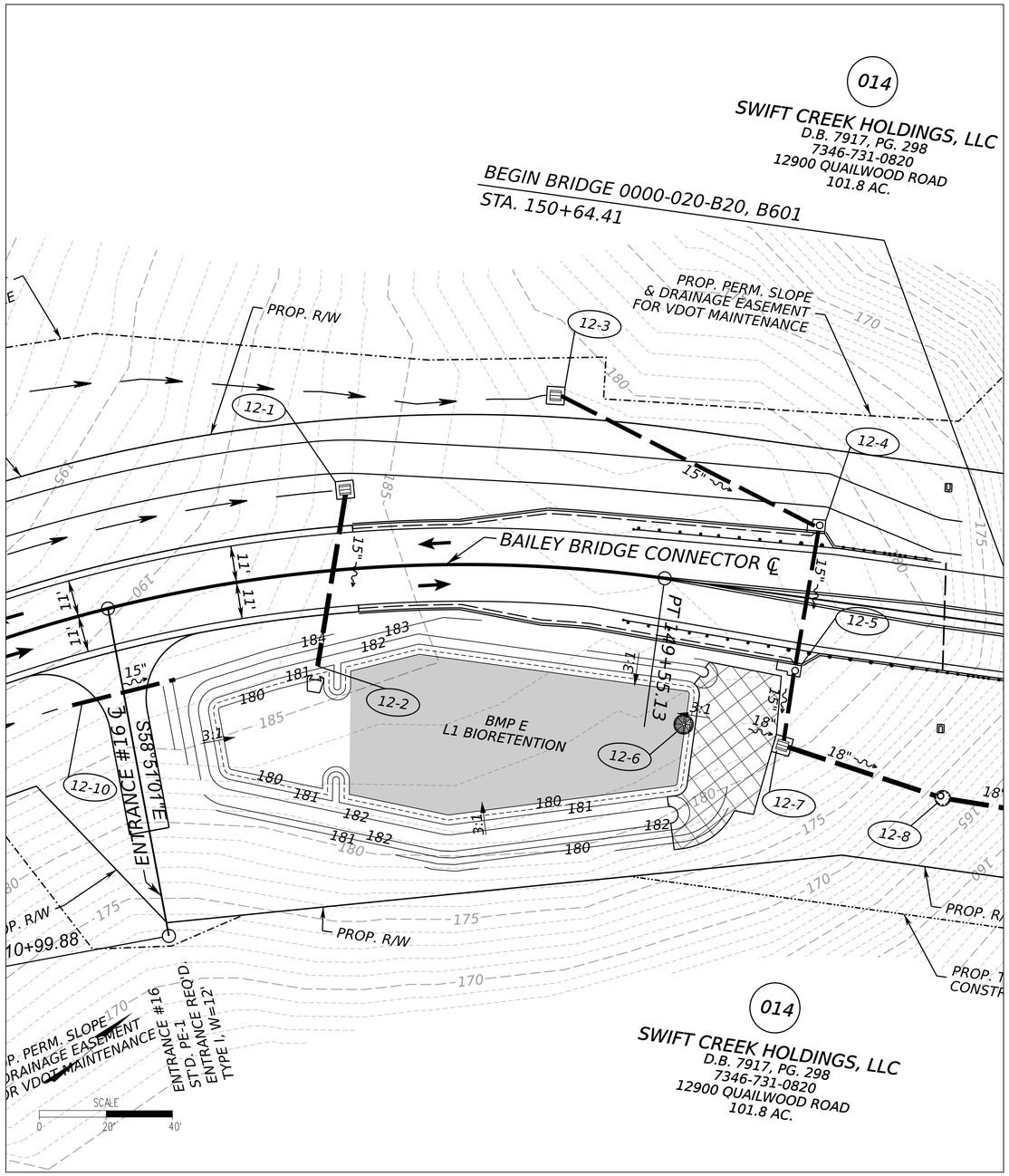


PROPOSED BASIN SIZE AND ROUTING SUMMARY BMP 'E' - L1 BIORETENTION

APPROX. FOOTPRINT = 10100 SF
TOP OF BASIN ELEV. = 182'
BOTTOM OF BASIN ELEV. = 180'
EMERGENCY SPILLWAY ELEV. = 181'
EMERGENCY SPILLWAY LENGTH = 40'
AREA OF BIORETENTION MEDIA = 3920 SF

1 - YEAR STORM
W.S.E. = 180.51'
PEAK FLOW IN = 2.20 CFS
PEAK FLOW OUT = 0.11 CFS

2 - YEAR STORM
W.S.E. = 180.54'
PEAK FLOW IN = 3.86 CFS
PEAK FLOW OUT = 0.65 CFS

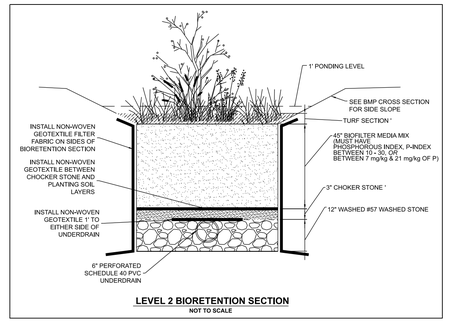
10 - YEAR STORM
W.S.E. = 180.81'
PEAK FLOW IN = 9.30 CFS
PEAK FLOW OUT = 8.42 CFS

100 - YEAR STORM
W.S.E. = 181.13'
PEAK FLOW IN = 21.10 CFS
PEAK FLOW OUT = 20.79 CFS

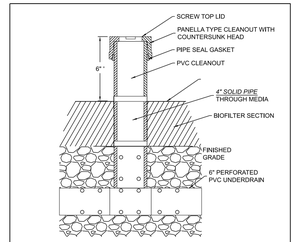
RISER AND OUTLET PIPE CHARACTERISTICS

RISER STR. TYPE = VDOT ST'D. SWM-1
RISER STR. TOP ELEV. = 180.5'
RISER STR. DIAMETER = 60"

OUTLET PIPE DIAMETER = 18 IN.
UPSTREAM INV. = 175.4'
DOWNSTREAM INV. = 174.9'
LENGTH = 26'



LEVEL 2 BIORETENTION SECTION
NOT TO SCALE



TYPICAL PROFILE VIEW OF UNDERDRAIN IN LEVEL 2 BIORETENTION FILTER STONE SECTION
NOT TO SCALE

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REFERENCES
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Plan Sheet	*6*
Cross Section & Profile	*2C(10)*
Quantity Compliance Calcs	*XXX*

PROJECT	SHEET NO.
0000-020-820	2C(9)

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
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SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	2D

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

HYDROLOGIC DATA SHEET

HYDROLOGIC DATA

The data presented herein was statistically derived by empirical methods and from field observations. It is presented as an estimate of the hydraulic performance of these facilities during the passage of actual flood events.

1. Estimated 100 year frequency flood data (unless otherwise noted.) This magnitude of flooding may pass through the proposed facility or it may obtain the necessary hydraulic conveyance by partial inundation of roadways and/or partial by pass of the facility.

2. Specified frequency flood data. It is anticipated that this magnitude of flooding will be conveyed through the proposed hydraulic facility under estimated conditions which satisfy the design criteria applicable to the site.

3. This data was obtained from observations by persons familiar with the area and/or official records combined with an evaluation by empirical methods. The reliability of this data is relative to the accuracy of the source. A future flood of the same magnitude may achieve a significantly different stage elevation from that shown due to changes in the physical characteristics of the watershed.

FIELD INSPECTION STAGE ☐ FINAL DESIGN STAGE ☐

					BASE FLOOD 1.		DESIGN FLOOD 2.			OVERTOPPING FLOOD		HISTORICAL DATA 3.		
Sheet No.	Station	Stream Name	Drainage Area	Structure Size	Discharge (C.F.S.)	Stage Elevation (Ft.)	Discharge (C.F.S.)	Estimated Exceedance Probability %	Stage Elevation (Ft.)	Stage Elevation (Ft.)	Estimated Exceedance Probability %	Date	Stage Elevation (Ft.)	Estimated Exceedance Probability %
12	152+25	SWIFT CREEK	69.8 MI.²	360.89 FT			14,800	10	158.52					
							20,100	2	161.25					
							21,900	1	162.03					
							29,000	0.2	164.90					

REMARKS — Source of information and Other Related Data

FLOODPLAIN IMPACT ANALYSIS PERFORMED BY TIMMONS GROUP, DATED 2/26/2021

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

EROSION & SEDIMENT CONTROL NOTES

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	2E

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RW PLANS

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PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO CONSTRUCT A NEW ROADWAY WHICH CONNECTS BRAD MCNEER PARKWAY AND BAILEY BRIDGE ROAD.

THE PROPOSED IMPROVEMENTS CONSIST OF APPROXIMATELY 1 MILE OF NEW ROADWAY, ALONG WITH TWO NEW ROUNDABOUTS AND IMPROVEMENTS TO BRAD MCNEER PARKWAY AND BAILEY BRIDGE ROAD. A SHARED USE PATH WILL BE INSTALLED ALONG THE ENTIRE PROJECT. A TOTAL OF 0.25 ACRES WILL BE DISTURBED DURING CONSTRUCTION.

EXISTING SITE CONDITIONS

THE SURROUNDING TOPOGRAPHY CONSISTS OF SLIGHTLY SLOPING, MOSTLY FORESTED TERRAIN. THE ENTIRETY OF THE PROJECT LIMITS DRAIN TO SWIFT CREEK. AT THE CONNECTION TO BAILEY BRIDGE ROAD, THE SURROUNDING PROPERTIES ARE ENTIRELY RESIDENTIAL. AT THE CONNECTION TO BRAD MCNEER PARKWAY, THERE ARE NO IMMEDIATELY SURROUNDING PROPERTIES, BUT THE MOST NEARBY PROPERTIES ARE RESIDENTIAL TOWNHOMES AND APARTMENTS.

ADJACENT PROPERTY

THIS PROJECT LIES ADJACENT TO EXISTING COMMERCIAL AND RESIDENTIAL PROPERTY.

SOILS

SEE APPENDIX I OF DRAINAGE REPORT

OFF SITE AREAS

NO OFF-SITE STOCKPILE AREAS ARE NEEDED FOR THIS PROJECT. STOCKPILES WILL BE DETERMINED AND LOCATED BY THE CONTRACTOR AS REQUIRED.

CRITICAL EROSION AREAS

CRITICAL EROSION AREAS INCLUDE EXISTING ROADWAYS AND WORK AREAS IN AND AROUND EXISTING WETLANDS AND WATERS OF THE U.S.. ALL APPROPRIATE MEASURES HAVE BEEN ACCOUNTED FOR IN THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS.

EROSION & SEDIMENT CONTROL MEASURES

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

THE TEMPORARY EROSION AND SILTATION CONTROL ITEMS SHOWN ON THE PLANS ARE INTENDED TO PROVIDE A GENERAL PLAN FOR CONTROLLING EROSION AND SILTATION WITHIN THE PROJECT LIMITS. THE EROSION & SEDIMENT CONTROL PLAN (ESC) IS BASED ON FIELD CONDITIONS AT THE TIME OF PLAN DEVELOPMENT AND AN ASSUMED SEQUENCE OF CONSTRUCTION FOR THE PROJECT. THE CONTRACTOR, IN CONJUNCTION WITH THE ENGINEER AND/OR ENVIRONMENTAL MONITOR, SHALL ADJUST THE LOCATION, QUANTITY, AND TYPE OF EROSION AND SEDIMENT CONTROL ITEMS REQUIRED BASED ON ACTUAL FIELD CONDITIONS ENCOUNTERED AT THE TIME OF CONSTRUCTION AND THE ACTUAL SCHEDULING AND SEQUENCING OF THE CONSTRUCTION ACTIVITIES. SIGNIFICANT CHANGES TO THE PROPOSED ESC PLAN (E.G. THOSE THAT REQUIRE EMERGENCY ANALYSIS) SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. ANY CHANGES TO THE ESC PLAN MUST BE NOTED ON A DESIGNATED PLAN SET (RECORD SET) WHICH SHALL BE RETAINED ON THE PROJECT SITE AND MADE AVAILABLE UPON REQUEST.

SEQUENCE OF CONSTRUCTION

1. SCHEDULE A PRECONSTRUCTION MEETING. GIVE 48 HOUR NOTIFICATION OF THE PRECONSTRUCTION MEETING TO THE CHESTERFIELD COUNTY ENVIRONMENTAL ENGINEERING DEPARTMENT (EE). A CERTIFIED RESPONSIBLE LAND DISTURBER (CRLD) MUST BE PRESENT AT THE ON-SITE MEETING WITH THE EE INSPECTOR.
2. PERFORM CLEARING & GRUBBING ONLY AS NECESSARY TO INSTALL PERIMETER CONTROLS AS SHOWN IN THE PHASE 1 EROSION CONTROL PLANS. ONCE PERIMETER CONTROL ARE INSTALLED, CLEARING AND GRUBBING MAY CONTINUE AND THE REMAINDER OF THE PHASE 1 EROSION CONTROL PLAN MAY BE INSTALLED.
3. IF NECESSARY, THE CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY AGREEMENTS WITH PROPERTY OWNERS TO UTILIZE A STOCKPILE/STAGING AREA FOR THE STAGING AND STORAGE OF ALL MATERIALS.
4. TEMPORARY SEEDING IS REQUIRED WITHIN 7 DAYS OF DISTURBANCE FOR ALL AREAS WHICH ARE NOT TO BE ACTIVELY CONSTRUCTED UPON WITHIN 14 DAYS OF INITIAL DISTURBANCE.
5. INSPECTIONS AND APPROVALS FOR COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL ACTIVITIES MUST BE RECEIVED BEFORE FURTHER CONSTRUCTION ACTIVITIES CAN BEGIN. ALL APPROVALS SHALL BE FROM THE EE INSPECTOR.
6. COMMENCE ROUGH GRADING. MAINTAIN PHASE 1 CONTROLS AT ALL TIMES AS DENOTED ON THE PLANS.
7. INSTALL THE PHASE II EROSION CONTROL MEASURES TO ENSURE APPROPRIATE SEDIMENT CONTROL AS ROUGH GRADING NEARS COMPLETION.
8. THE SITE SHALL BE PERMANENTLY STABILIZED AFTER ALL GRADING HAS BEEN COMPLETED BY SEEDING ALL DENUDED AREAS.
9. UPON CONSTRUCTION COMPLETION, THE CONTRACTOR MUST CONTACT THE CHESTERFIELD COUNTY ENVIRONMENTAL ENGINEERING DEPARTMENT FOR EROSION CONTROL INSPECTION OF SLOPE STABILITY. EROSION CONTROL MEASURES MAY NOT BE REMOVED WITHOUT AUTHORIZATION BY THE COUNTY INSPECTOR.
10. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUESTED BY THE CHESTERFIELD COUNTY ENVIRONMENTAL ENGINEERING DEPARTMENT AND/OR THE INSPECTOR AT ANY TIME DURING LAND DISTURBANCE.

MINIMUM STANDARDS

MS-1: PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 14 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

MS-2: TEMPORARY SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. PROVIDE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS SOIL TRANSPORTED FROM THE PROJECT SITE.

MS-3: A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IN THE OPINION OF THE ARCHITECT/ENGINEER, IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.

MS-4: SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTRIBUTING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE OR TIMBERING TAKES PLACE.

MS-5: STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

MS-6: SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE ACRES SHALL BE CONTROLLED TO ACCOMMODATE THE ANTICIPATED SEDIMENT LOADING FROM THE LAND-DISTURBING ACTIVITY. THE OUTFALL DEVICE OR SYSTEM DESIGN SHALL TAKE INTO ACCOUNT THE TOTAL DRAINAGE AREAS FLOWING THROUGH THE DISTURBED AREA TO BE SERVED BY THE BASIN.

MS-7: CUT AND FILL SLOPES SHALL BE CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.

MS-8: CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL OR SLOPE DRAIN STRUCTURE.

MS-9: WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.

MS-10: ALL STORM SEWER INLETS THAT ARE MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

MS-11: BEFORE STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.

MS-12: WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NON-ERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS, EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NON-ERODIBLE COVER MATERIALS.

MS-13: WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD,A TEMPORARY STREAM CROSSING CONSTRUCTED OF NON-ERODIBLE MATERIAL SHALL BE PROVIDED.

MS-14: ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.

MS-15: THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY FOLLOWING AFTER WORK IN THE WATERCOURSE IS COMPLETED.

MS-16: UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
A. NO MORE THAN 500' OF TRENCH SHALL BE OPENED AT ONE TIME.
B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFFSITE PROPERTY.
D. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
E. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

MS-17: WHERE CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.

MS-18: ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL AUTHOIRTY HAVING JURISDICTION. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABLIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

MS-19: PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR DURATION IN ACCORDANCE WITH THE MINIMUM STANDARDS SET FORTH BY VIRGINIA REGULATIONS. SEE PROVIDED DRAINAGE AND STORMWATER MANAGEMENT BOOKLET FOR REVIEW OF COMPLIANCE AND MITIGATION.

CHESTERFIELD COUNTY EROSION CONTROL NOTES

1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS.

2. THE CHESTERFIELD COUNTY ENVIRONMENTAL OFFICE SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF ANY PLANS TO BEGIN CLEARING AND GRADING OPERATIONS.

3. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING.

4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

5. PRIOR TO COMMENCING LAND DISTRIBUTING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN TO THE OWNER FOR REVIEW AND APPROVAL BY THE ENVIRONMENTAL ENGINEERING DEPARTMENT.

6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE ENVIRONMENTAL ENGINEERING DEPARTMENT.

7. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

8. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

9. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

10. THE ENVIRONMENTAL DEPARTMENT OF CHESTERFIELD COUNTY AND OTHER INTERESTED COUNTY AGENCIES SHALL MAKE A CONTINUING REVIEW AND EVALUATION OF THE METHOD USED AND THE OVERALL EFFECTIVENESS OF EROSION AND SEDIMENT CONTROL PROGRAM. AN APPROVED EROSION AND SEDIMENT CONTROL PLAN MAY BE AMENDED BY THE PLAN APPROVING AUTHORITY IF ON-SITE INSPECTIONS INDICATE THAT CONTROLLING EROSION AND SEDIMENTATION OR, IF BECAUSE OF CHANGED CIRCUMSTANCE, THE APPROVED PLAN CANNOT BE CARRIED OUT.

11. EROSION CONTROL STRUCTURES SHALL REMAIN IN PLACE UNTIL GRASS HAS BEEN ESTABLISHED ON THE EXPOSED SOIL SURFACES.

12. CONTRACTOR SHALL INSTALL, MAINTAIN AND REMOVE ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE CRITERIA AND SPECIFICATIONS CONTAINED IN THE CURRENT EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

13. SOILS IMPORTED TO OR EXPORTED FROM THE SITE MUST BE FROM/TO A PERMITTED SITE. PROVIDE THE LOCATION TO THE ENVIRONMENTAL ENGINEERING INSPECTOR AT THE PRE-CONSTRUCTION MEETING.

14. SEEDING SHALL BE PER THE ROADSIDE DEVELOPMENT SHEET 2B.

ADDITIONAL NOTES

1. CONTRACTOR MUST KEEP THE EXISTING ROAD FREE FROM BUILD-UP OF SOIL.

2. THE CONTRACTOR MUST DETERMINE A STOCKPILE AREA (IF NEEDED). IF AREA IS OUTSIDE THE LIMITS OF DISTURBANCE AS SHOWN IN THESE PLANS, THE LOCATION MUST BE SUBMITTED TO AND APPROVED BY CHESTERFIELD COUNTY ENVIRONMENTAL ENGINEERING PRIOR TO CONSTRUCTION.

3. THE CONTRACTOR WILL PROVIDE THE LOCATION THE EXCESS SOIL IS HAULED TO OR BORROW MATERIAL IS BROUGHT IN FROM TO THE ENVIRONMENTAL ENGINEERING INSPECTOR AT THE PRE-CONSTRUCTION MEETING.

4. ANY ADDITIONAL PERMITTING FOR OFFSITE STOCKPILES, BORROW SOURCES, OR STAGING OF MEN/EQUIPMENT (IF REQUIRED) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	3

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

Timmons Group, Richmond, Virginia, HYDRAULIC ENGINEER
Timmons Group, Richmond, Virginia, ROADWAY ENGINEER


PI = 16+90.71
DELTA = 37°01'17.99" (LT)
D = 11°14'04"
T = 170.75'
L = 329.54'
R = 510.01'
PC = 15+19.96
PT = 18+49.50
e = 2.0% NC (ULS)
V = 25 MPH
PI = 11+76.46
DELTA = 02°15'52.67" (RT)
D = 00°58'42"
T = 115.75'
L = 231.46'
R = 5,856.00'
PC = 10+60.71
PT = 12+92.17
e = MATCH EXISTING
V = 35 MPH
HOLLY VIEW COURT (40' R/W) (P.B. 78, PG. 88)
HOLLY VIEW PLACE (40' R/W) (P.B. 78, PG. 88)
ROUTE 4728 HOLLY VIEW PARKWAY (VAR. WIDTH R/W) (P.B. 65, PG. 52)
001 MARY S. ROUSE D.B. 7088, PG. 353 733-669-8093 13019 HOLLY VIEW PLACE 0.436 AC.
002 DAVID L. MCBRIDE & SUSAN L. KARCH-MCBRIDE D.B. 13368, PG. 410 733-669-9196 13013 HOLLY VIEW PLACE 0.434 AC.
019 AZIZ MIKHAEL & EREN IKLADIOUS D.B. 13940, PG. 572 734-670-0003 13007 HOLLY VIEW PLACE 0.456 AC.
DONNA RAE SPICER D.B. 3066, PG. 33 734-670-0212 13001 HOLLY VIEW PLACE 0.351 AC.
022 LEROY CURTIS & BERTHA T. MCLAUGHLIN D.B. 2650, PG. 949 P.B. 283, PG. 282
023 CHESTERFIELD COUNTY D.B. 3111, PG. 302
005 RICHARD A. MOYER JENNIFER A. MOYER D.B. 11012, PG. 818 734-670-1522 13010 BAILEY BRIDGE ROAD 2 AC.
SHANNON L. JEFFRIES D.B. 11711, PG. 411 733-669-6483 13101 HOLLY VIEW COURT
018 JOSEPH A. FREEMAN SHIRLEY T. FREEMAN D.B. 1164, PG. 285 733-669-9244 13027 BAILEY BRIDGE ROAD 4.5 AC.
004 LEROY CURTIS MCLAUGHLIN BERTHA T. MCLAUGHLIN D.B. 2650, PG. 949 734-668-4980 13017 BAILEY BRIDGE ROAD 9.12 AC.
020 PHILLIP S. COOPER, JR. JEAN H. COOPER D.B. 3111, PG. 302 734-669-2988 13011 BAILEY BRIDGE ROAD 1.02 AC.
BAILEY BRIDGE ROAD (STATE ROUTE 654)
BAILEY BRIDGE RD WEST ℄
N58°47'39"E 60.71'
N61°03'32"E 227.79'
POT 10+00.00
PC 10+60.71
PI 11+76.46
PT 12+92.17
PC 15+19.96
100' TURN LANE STORAGE
150' TURN LANE TAPER
BEGIN CONSTRUCTION/CONNECTION STA. 10+81.85
MATCHLINE SHEET 4 - STA. 16+50.00
PROP. R/W
PROP. TEMP. CONSTR. EASEMENT
PROP. PERM. UTILITY EASEMENT FOR VERIZON
PROP. TEMP. CONSTRUCTION EASEMENT
ENTRANCE #1 STD. CG-9D ENTRANCE REQ'D. TYPE III, W=16'
ENTRANCE #2 STD. CG-9D ENTRANCE REQ'D. TYPE III, W=12'
ENTRANCE #3 STD. CG-9D ENTRANCE REQ'D. TYPE III, W=16'
15' VEPCO Easement (D.B. 2254, PG. 1701)
5' C & P Easement (D.B. 2256, PG. 130)
10' Easement (P.B. 78, PG. 88)
20' Columbia Gas Esmt. (D.B. 3289, PG. 228)
20' Columbia Gas Esmt. (D.B. 3289, PG. 237)
U/G Natural Gas Transmission (Columbia Gas)
VDOT Sight Dist. Esmt. (D.B.2006, PG. 1115)
15' Prescriptive Easement
30' Prescriptive Easement
30' Ingress/Egress Esmt. (D.B. 1429, PG. 705)

UTILITY OWNERS:
- DOMINION POWER
- COLUMBIA GAS OF VIRGINIA
- VERIZON
- COMCAST COMMUNICATIONS

VERIZON
CONTACT:
JONATHAN HANSEN
2600 BRITTON HILL RD.
RICHMOND, VA. 23230
(804) 772-4207
JONATHAN.R.HANSEN@VERIZON.COM

CATV
COMCAST:
5401 STAPLES MILL ROAD
RICHMOND, VA. 23228
BRAD ALLEN
PHONE: (804) 915-5363
BRAD_ALLEN@CABLE.COMCAST.COM

POWER
DOMINION POWER
FACILITY.LOCATE.REQUEST@DOM.COM

GAS
COLUMBIA GAS OF VIRGINIA
CALL CENTER: 1-800-543-8911

LEGEND

1. Prop. St'd. CG-2 Req'd.
2. Prop. St'd. CG-3 Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Mod. CG-3 Req'd. (For Inside Truck Apron)
5. Prop. St'd. CG-12 Ty. B Req'd.
6. Prop. St'd. CG-12 Ty. M2 Req'd.
7. Prop. St'd. MS-1A (CG-2 Face) Req'd.
8. Prop. Stamped Conc. Truck Apron
9. Prop. St'd. UD-4 Req'd.
10. Prop. 10' Shared Use Path
11. Prop. St'd. CG-12 Ty. M1 Req'd.
12. Prop. St'd. EW-12, 2:1 (6")
13. Prop. St'd. GR-MGS1 Guardrail
14. Prop. St'd. GR-MGS2 End Terminal
15. Prop. St'd. GR-MGS3 Trailing-End Terminal
16. Prop. St'd. GR-MGS4 Height Transition
17. Prop. St'd. GR-FOA-5 Fixed Object Attachment
18. Prop. Detectable Warning Surface
19. Prop. St'd. CD-1 Req'd.
20. Prop. St'd. CD-2 Req'd.

DND = Do Not Disturb
TBR = To Be Removed
TBA = To Be Abandoned
TBC = To Be Cleaned Out

Denotes Shared Use Path
Denotes Concrete
Denotes Constr. Limits in Cuts
Denotes Constr. Limits in Fills
Denotes V-Ditch
Denotes New Pavement
Denotes Pavement Resurfacing
Denotes Demolition of Pavement
Denotes Concrete Truck Apron

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

Typical Section	2A(1)-2A(2)
Bailey Bridge Rd. W Profile	3A
Drainage Descr.	16(1)-16(2)
E & SC Phase I	3B
E & SC Phase II	3C
Entrance Profiles	18(1)-18(2)
PM & Signing Plans	19(3)
Lighting Plans	20(3)
Utility Plans	21(3)
Landscape Plans	22(2)

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	3

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITIES BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

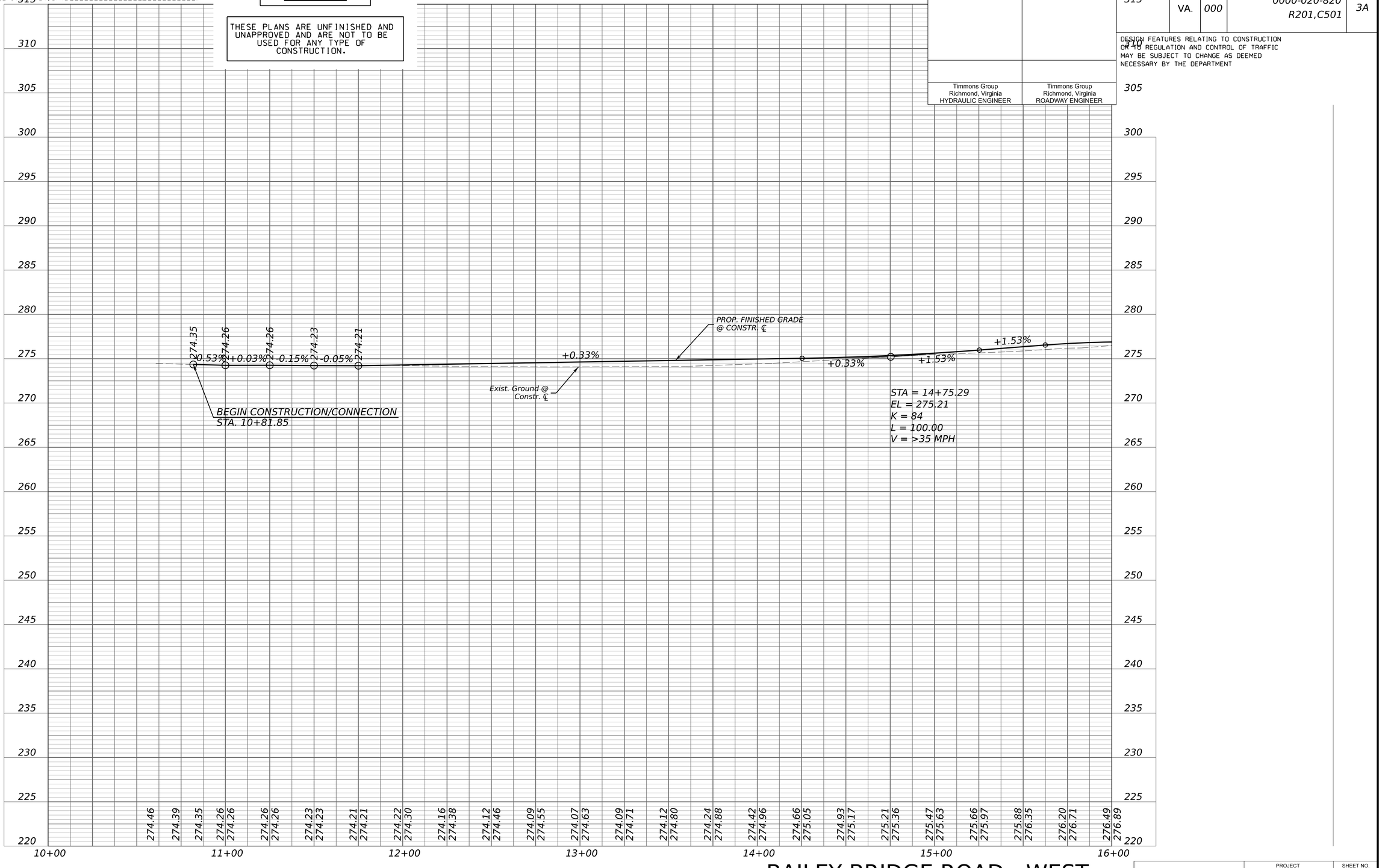
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
315	VA.	000	0000-020-820 R201,C501	3A

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER



BAILEY BRIDGE ROAD - WEST

PROJECT	SHEET NO.
0000-020-820	3A

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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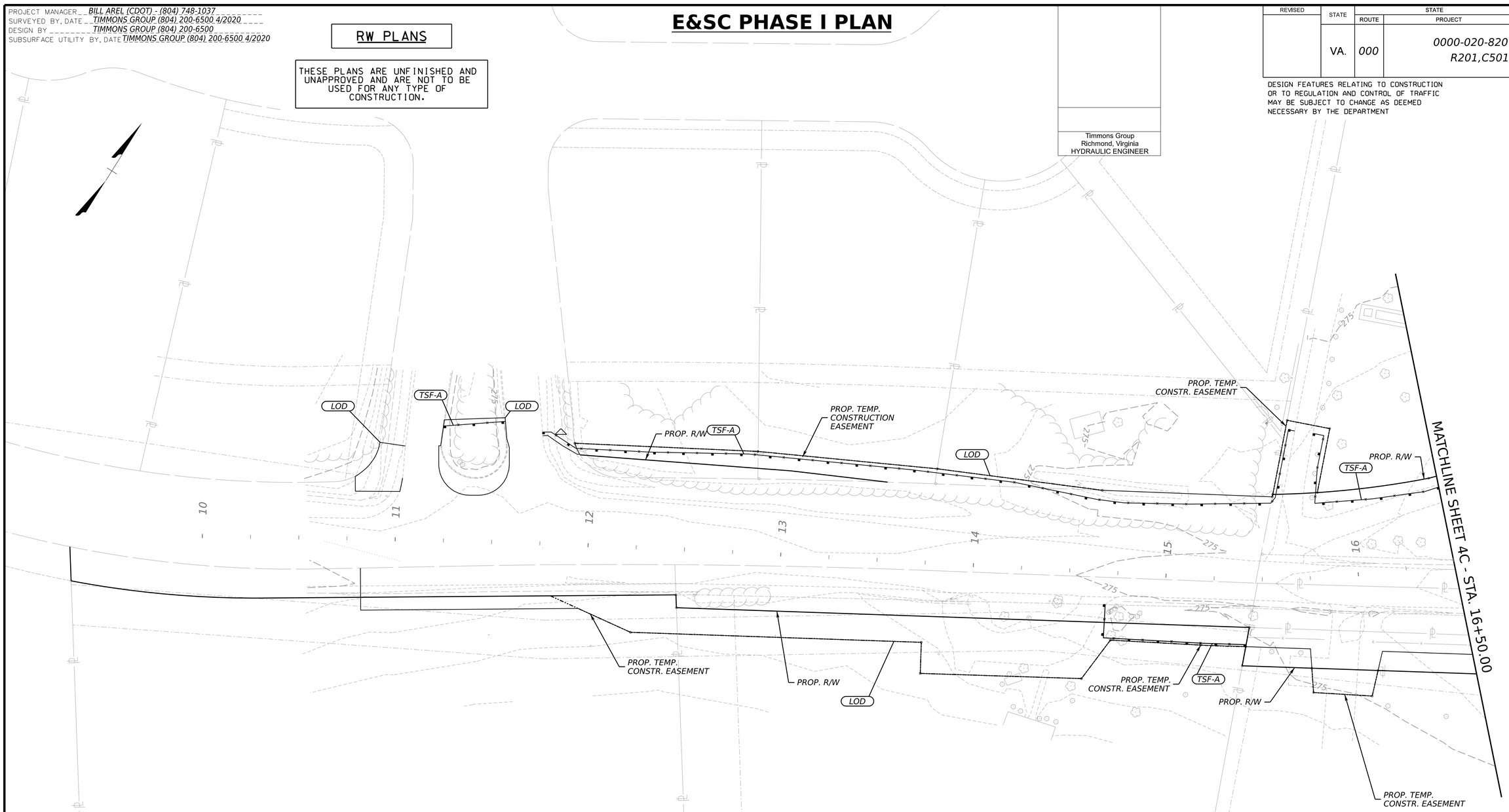
E&SC PHASE I PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	3B

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER



LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
SAF	Safety Fence VAESCH St'd. 3.01
TSF-A TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B
RCD-1	Rock Check Dam, Type I; St'd EC-4
RCD-2	Rock Check Dam, Type II; St'd EC-4
DD	Temporary Diversion Dike, St'd EC-9
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6
TCD	Temporary Check Dam, St'd EC-16
TSI	Slope Interrupter; St'd EC-15
OP	Outlet Protection, St'd EC-1
CE	Construction Entrance; St'd EC-11
SC	Temp. Stream Crossing; St'd EC-14
LOD	Limits of Disturbance
ST	Temp. Sediment Trap; St'd EC-7

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

Bailey Bridge Rd. Plan	3
Bailey Bridge Rd. W Profile	3A
E & SC Phase II	3C
Drainage Descr.	16(1)

SCALE	PROJECT	SHEET NO.
0 25' 50'	0000-020-820	3B

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER: BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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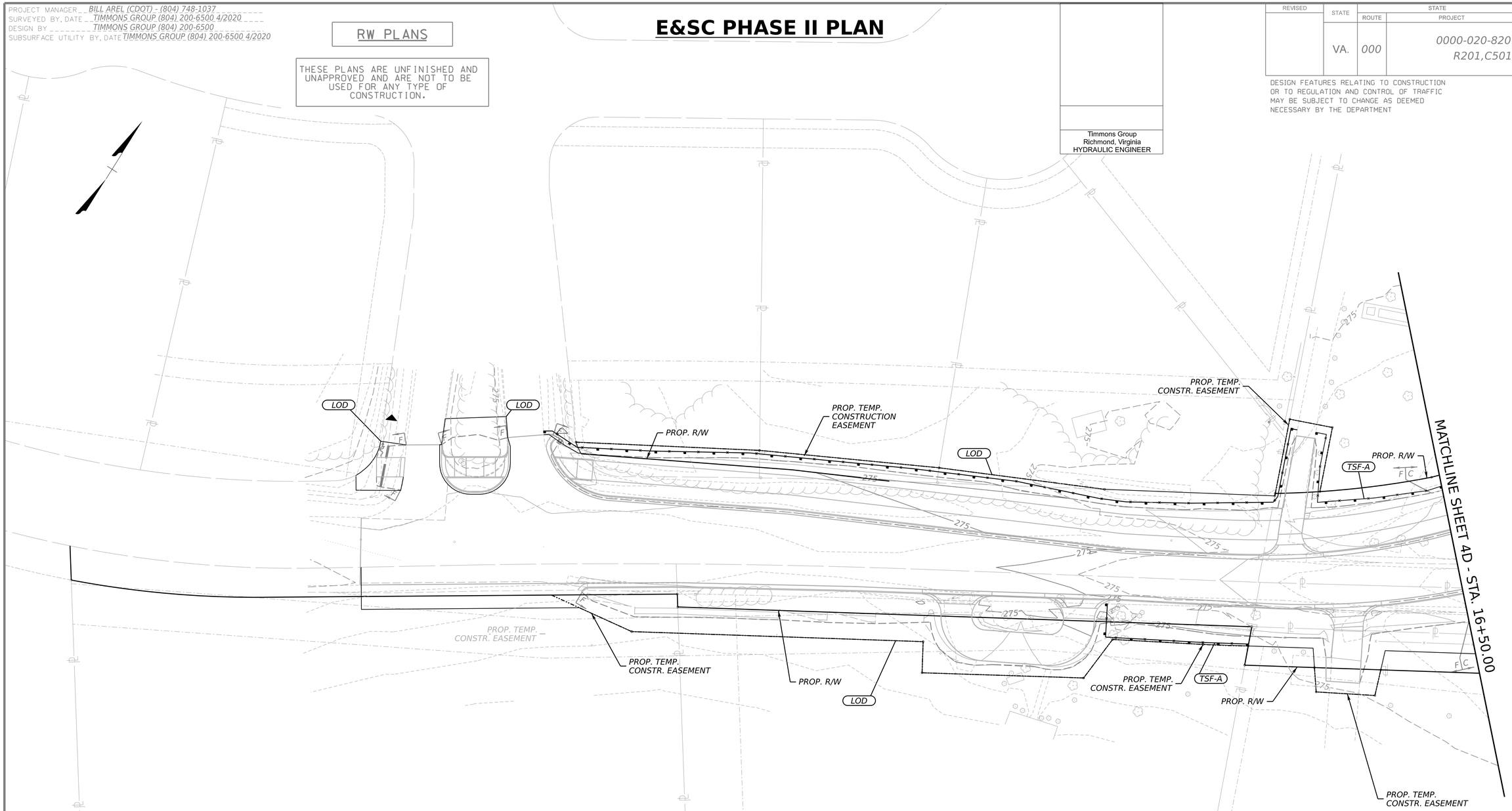
E&SC PHASE II PLAN

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	3C

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



LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4	
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3	
SAF	Safety Fence VAESCH St'd. 3.01	
TSF-A / TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B	
RCD-1	Rock Check Dam, Type I; St'd EC-4	
RCD-2	Rock Check Dam, Type II; St'd EC-4	
DD	Temporary Diversion Dike, St'd EC-9	
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6	
TCD	Temporary Check Dam, St'd EC-16	
TSI	Slope Interrupter; St'd EC-15	
OP	Outlet Protection, St'd EC-1	
CE	Construction Entrance; St'd EC-11	
SC	Temp. Stream Crossing; St'd EC-14	
LOD	Limits of Disturbance	
ST	Temp. Sediment Trap; St'd EC-7	

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

Bailey Bridge Rd. Plan	3
Bailey Bridge Rd. W Profile	3A
E & SC Phase I	3B
Drainage Descr.	16(1)

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	3C

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
VDOT UPC NO. 111713

RW PLANS

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

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	3RW

COMMONWEALTH OF VIRGINIA
William R. Herx
Lic. No. 2947
LAND SURVEYOR

Timmons Group
Richmond, Virginia
LAND SURVEYOR

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

HOLLY VIEW COURT (40' R/W) (P.B. 78, PG. 88)
HOLLY VIEW PLACE (40' R/W) (P.B. 78, PG. 88)
ROUTE 4728 HOLLY VIEW PARKWAY (VAR. WIDTH R/W) (P.B. 65, PG. 52)
BAILEY BRIDGE ROAD (STATE ROUTE 654) Exist. R/W
BAILEY BRIDGE RD WEST ℄
P.B. 65, PG. 52 BAILEY BRIDGE ROAD (STATE ROUTE 654)
Based on VDOT Proj. 000-020-820, R201, C501
PC 10+60.71
PT 12+92.17
PC 15+19.96
MATCHLINE SHEET 4RW - STA. 16+50.00

PI = 16+90.71
DELTA = 37°01'17.99" (LT)
D = 11°14'04"
T = 170.75'
L = 329.54'
R = 510.01'
PC = 15+19.96
PT = 18+49.50
e = 2.0% NC (ULS)
V = 25 MPH

PI = 11+76.46
DELTA = 02°15'52.67" (RT)
D = 00°58'42"
T = 115.75'
L = 231.46'
R = 5,856.00'
PC = 10+60.71
PT = 12+92.17
e = MATCH EXISTING
V = 35 MPH

001 — MARY S. ROUSE
D.B. 7088, PG. 353
733-669-8093
13019 HOLLY VIEW PLACE
0.436 AC.
Lot 27

002 — DAVID L. MCBRIDE & SUSAN L. KARCH-MCBRIDE
D.B. 13368, PG. 410
733-669-9196
13013 HOLLY VIEW PLACE
0.434 AC.
Lot 26

SPRING TRACE SECTION ONE P.B. 78 PG. 88

019 — AZIZ MIKHAEL & EREN IKLADIOUS
D.B. 13940, PG. 572
734-670-0003
13007 HOLLY VIEW PLACE
0.456 AC.
Lot 25

DONNA RAE SPICER
D.B. 3066, PG. 33
734-670-0212
13001 HOLLY VIEW PLACE
0.351 AC.
Lot 24

022 — LEROY CURTIS & BERTHA T. MCLAUGHLIN
D.B. 2650, PG. 949
P.B. 283, PG. 282
0.25 AC.

023 — CHESTERFIELD COUNTY
P.B. 89, PG. 68
0.20 AC.

005 — RICHARD A. MOYER JENNIFER A. MOYER
D.B. 11012, PG. 818
734-670-1522
13010 BAILEY BRIDGE ROAD
2 AC.

SHANNON L. JEFFRIES
D.B. 11711, PG. 411
733-669-6483
13101 HOLLY VIEW COURT
Lot 1

018 — JOSEPH A. FREEMAN SHIRLEY T. FREEMAN
D.B. 1164, PG. 285
733-669-9244
13027 BAILEY BRIDGE ROAD
4.5 AC.

004 — LEROY CURTIS MCLAUGHLIN BERTHA T. MCLAUGHLIN
D.B. 2650, PG. 949
734-668-4980
13017 BAILEY BRIDGE ROAD
9.12 AC.

McLAUGHLIN SECTION ONE P.B. 89, PG. 68

020 — PHILLIP S. COOPER, JR. JEAN H. COOPER
D.B. 3111, PG. 302
734-669-2988
13011 BAILEY BRIDGE ROAD
1.02 AC.
Lot 2

LINE TABLE		
LINE	LENGTH	BEARING
L1	30.46	S43°12'20"W
L42	6.66	N34°09'28"W
L43	297.18	S59°52'31"W
L44	20.22	N21°36'28"W
L45	170.86	N59°52'31"E
LA1	109.47'	N62°14'05"E
LA2	50.53'	N64°33'37"E
LA3	1.31'	N21°06'20"W
LA5	17.73	N34°09'28"E
LA6	214.60	N57°27'32"E

CURVE TABLE						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD BEARING	CHORD
C1	10°01'46"	465.01	81.40	40.80	N51°58'35"E	81.29
CA1	11°10'41"	510.00	99.50	49.91	N63°02'53"E	99.34

SYMBOL LEGEND

- ■ Prop. R/W Monument (St'd. RM-2)
- 00.00' +00.00 — Prop. Right of Way
- (00.00' +00.00) — Prop. Temp. (Constr., Entr. Reconstr.) Ease.
- [00.00' +00.00] — Prop. Perm. (Slope, Drainage) Ease.
- [[00.00' +00.00]] — Prop. Perm. (San. Sewer, Water) Ease.

Note: Figures in brackets and dot-dashed lines denote Permanent Easements.

Note: Figures in parenthesis dot-dot-dashed lines denote Temporary Easements.

NOTES:

1. THIS RIGHT OF WAY SHEET REPRESENTS A FIELD RUN PERIMETER SURVEY OF THE PROPOSED R/W LIMITS. ALL ADJOINING/DEPARTING BOUNDARY LINES SHOWN FROM EXISTING R/W ARE COMPILED FROM VARIOUS SOURCES: FOUND FIELD DOCUMENTATION, METES AND BOUNDS DESCRIPTIONS, AND RECORDED PLATS. THE ADJOINING LINES DO NOT REPRESENT A FIELD RUN SURVEY OF THE ADJOINING PROPERTIES AND ARE BEST FIT BASED ON COMPILED DATA. ALL AREAS SHOWN FOR EASEMENT TAKES ARE APPROXIMATE ONLY.
2. THIS PLAN SHEET WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL EASEMENTS WHICH MAY EFFECT THE PROPERTY SHOWN HEREON.
3. NO DESIGNATION OR LOCATION OF SUBSURFACE UTILITIES WAS PERFORMED DURING PREPARATION OF THIS PLAT.
4. ALL OF THE PROPERTIES PHYSICAL IMPROVEMENTS ARE NOT SHOWN HEREON.
5. BEARING AND DISTANCES IN PARENTHESIS ARE RECORD PLAT DATA.
6. THE INFORMATION SHOWN ON THIS PLAN SHEET WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A BOUNDARY SURVEY.
7. PROPERTY INFORMATION IS BASED ON DEEDS AND PLATS OF RECORD AND PHYSICAL EVIDENCE FOUND. ALL MONUMENTATION TO BE SET UPON COMPLETION OF CONSTRUCTION.

APPROXIMATE AREAS

PARCEL NO.	TAX PARCEL ID	R/W Take	PRESCRIPTIVE EASEMENTS	EASEMENTS		
				PERMANENT		TEMPORARY
				SLOPE & DRAINAGE	VDOT JOINT-USE	CONSTR
		ACRES	ACRES	ACRES	ACRES	ACRES
001	733-669-8093	0.017	-	-	-	0.016
002	733-669-8093	0.005	-	-	0.010	0.019
004	734-668-4980	0.058	0.103	-	0.015	0.118
005	734-670-1522	0.338	0.073	0.026	-	0.042
018	733-669-9244	-	0.115	-	0.045	0.020
019	734-670-0003	-	-	-	-	0.008
020	734-669-2988	-	-	-	-	0.010
022	-	0.102	0.144	-	-	-
023	-	0.203	-	-	-	-

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	3RW

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

6/30/2022
4:6:40 PM

d11171303x.dgn
Plotted By: Parrish.Bailey

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	000	0000-020-820 P101,R201,C501	4

Timmons Group, Richmond, Virginia — HYDRAULIC ENGINEER
Timmons Group, Richmond, Virginia — ROADWAY ENGINEER

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

RW PLANS

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

MATCHLINE SHEET 5 - STA. 101+75.00
MATCHLINE SHEET 3 - STA. 16+50.00
BEGIN CONSTRUCTION/
BEGIN PROJECT 0000-020-820, P101, R201, C501
STA. 100+00.00
END CONSTRUCTION/CONNECTION
STA. 23+66.46
POT STA. 100+00.00 BAILEY BRIDGE CONNECTOR ℄
POC STA. 18+49.50 BAILEY BRIDGE RD WEST ℄
POC STA. 20+00.00 BAILEY BRIDGE RD EAST ℄
PI = 16+90.71
DELTA = 37°01'17.99" (LT)
D = 11°14'04"
T = 170.75'
L = 329.54'
R = 510.01'
PC = 15+19.96
PT = 18+49.50
e = 2.0% NC (ULS)
V = 25 MPH
PI = 21+63.46
DELTA = 35°32'32.46" (LT)
D = 11°14'04"
T = 163.46'
L = 316.37'
R = 510.00'
PC = 20+00.00
PT = 23+16.37
e = 2.0% NC (ULS)
V = 25 MPH
PI = 24+52.74
DELTA = 10°06'10.78" (LT)
D = 05°12'31"
T = 97.23'
L = 193.96'
R = 1,100.00'
PC = 23+55.51
PT = 25+49.47
e = MATCH EXISTING
V = 35 MPH
005
RICHARD A. MOYER
JENNIFER A. MOYER
D.B. 11012, PG. 818
7346-701-5220
13010 BAILEY BRIDGE ROAD
2 AC.
008
BRUCE E. BERKHEIMER
SHARON B. BERKHEIMER
D.B. 2871, PG. 791
734-670-4735
12926 BAILEY BRIDGE ROAD
2 AC.
CHARLES A. ST JOHN
DIANE P. ST JOHN
D.B. 2593, PG. 459
734-670-6347
12924 BAILEY BRIDGE ROAD
2 AC.
KATREENA M. LEWIS
D.B. 3191, PG. 677
W.B. 368, PG. 193
P.B. 214, PG. 49
734-670-7952
12916 BAILEY BRIDGE ROAD
2.49 AC.
007
JARRAD T. ELLIS
D.B. 9070, PG. 895
7346-702-8350
13000 BAILEY BRIDGE RD
022
LEROY CURTIS &
BERTHA T.
MCLAUGHLIN
D.B. 2650, PG. 949
P.B. 283, PG. 282
020
PHILLIP S. COOPER, JR.
JEAN H. COOPER
D.B. 3111, PG. 302
734-669-2988
13011 BAILEY BRIDGE ROAD
1.02 AC.
023
CHESTERFIELD
COUNTY
D.B. 3111, PG. 302
006
LEROY CURTIS MCLAUGHLIN
BERTHA T. MCLAUGHLIN
D.B. 2650, PG. 949
734-669-4898
13001 BAILEY BRIDGE ROAD
1.13 AC.
021
PAUL M. BRANCH, JR.
JANET M. BRANCH
D.B. 2322, PG. 338
734-670-6606
12925 BAILEY BRIDGE ROAD
1 AC.
024
BEULAH TURNER
MASON
D.B. 283, PG. 280
0.12 AC.
MAJORIE TURNER O'NEILL
D.B. 3529, PG. 945
734-660-9111
12921 BAILEY BRIDGE ROAD
1.268 AC.
BAILEY BRIDGE RD WEST ℄
BAILEY BRIDGE RD EAST ℄
BAILEY BRIDGE CONN. ℄
N71°42'56"E
PROP. R/W
PROP. TEMP. CONSTR. EASEMENT
PROP. CURB TURN DOWN
ENTRANCE #4 ST'D. CG-9D ENTRANCE REQ'D. TYPE III, W=12'
ENTRANCE #10 ST'D. CG-9D ENTRANCE REQ'D. TYPE II, W=14'
ENTRANCE #5A ST'D. CG-9D ENTRANCE REQ'D. TYPE I, W=14'
ENTRANCE #5B ST'D. PE-1 ENTRANCE REQ'D. TYPE I, W=14'
30' Prescriptive Easement
20' Columbia Gas Esmt. (D.B. 3289, PG. 237)
20' Columbia Gas Esmt. (D.B. 3289, PG. 225)
U/G Natural Gas Transmission (Columbia Gas)
R=70'

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
Typical Section	2A(1)-2A(2)
Bailey Bridge Rd. E Profile	4A
Bailey Bridge Rd. W Profile	4B
Bailey Bridge Conn. Profile	4B
Drainage Descr.	16(1)-16(2)
E & SC Phase I	4C
E & SC Phase II	4D
Entrance Profiles	18(1)-18(2)
PM & Signing Plans	19(4)
Lighting Plans	20(4)
Utility Plans	21(4)
Landscape Plans	22(2)

LEGEND

1. Prop. St'd. CG-2 Req'd.
2. Prop. St'd. CG-3 Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Mod. CG-3 Req'd. (For Inside Truck Apron)
5. Prop. St'd. CG-12 Ty. B Req'd.
6. Prop. St'd. CG-12 Ty. M2 Req'd.
7. Prop. St'd. MS-1 (CG-2 Face) Req'd.
8. Prop. Stamped Conc. Truck Apron
9. Prop. St'd. UD-4 Req'd.
10. Prop. 10' Shared Use Path
11. Prop. St'd. CG-12 Ty. M1 Req'd.
12. Prop. St'd. EW-12, 2:1 (6")
13. Prop. St'd. GR-MGS1 Guardrail
14. Prop. St'd. GR-MGS2 End Terminal
15. Prop. St'd. GR-MGS3 Trailing-End Terminal
16. Prop. St'd. GR-MGS4 Height Transition
17. Prop. St'd. GR-FOA-5 Fixed Object Attachment
18. Prop. Detectable Warning Surface
19. Prop. St'd. CD-1 Req'd.
20. Prop. St'd. CD-2 Req'd.

DND = Do Not Disturb
TBR = To Be Removed
TBA = To Be Abandoned
TBC = To Be Cleaned Out

Denotes Shared Use Path
Denotes Concrete
Denotes Constr. Limits in Cuts
Denotes Constr. Limits in Fills
Denotes V-Ditch
Denotes New Pavement
Denotes Pavement Resurfacing
Denotes Demolition of Pavement
Denotes Concrete Truck Apron

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	4

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

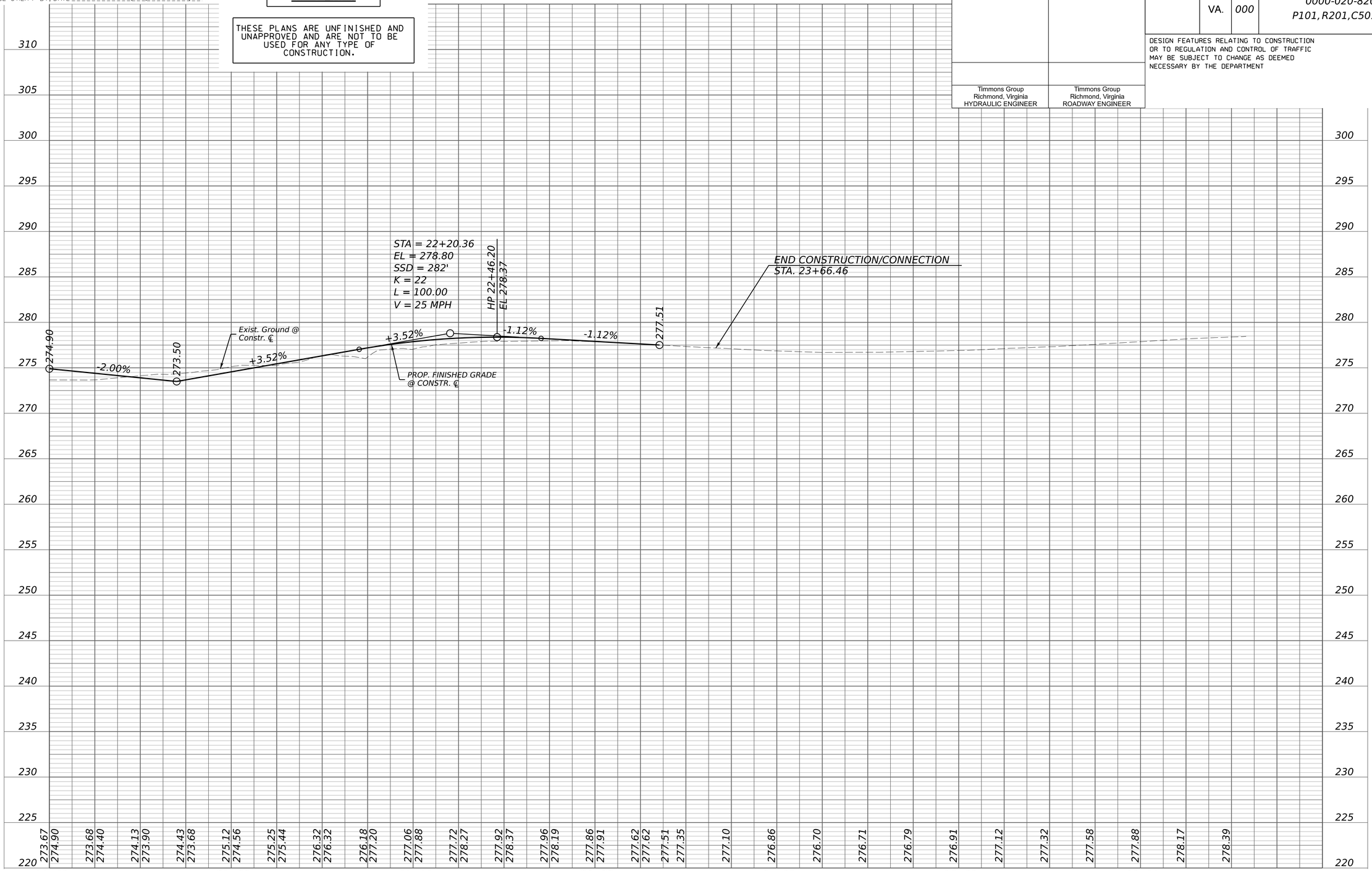
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 P101,R201,C501	4A

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER



BAILEY BRIDGE ROAD - EAST

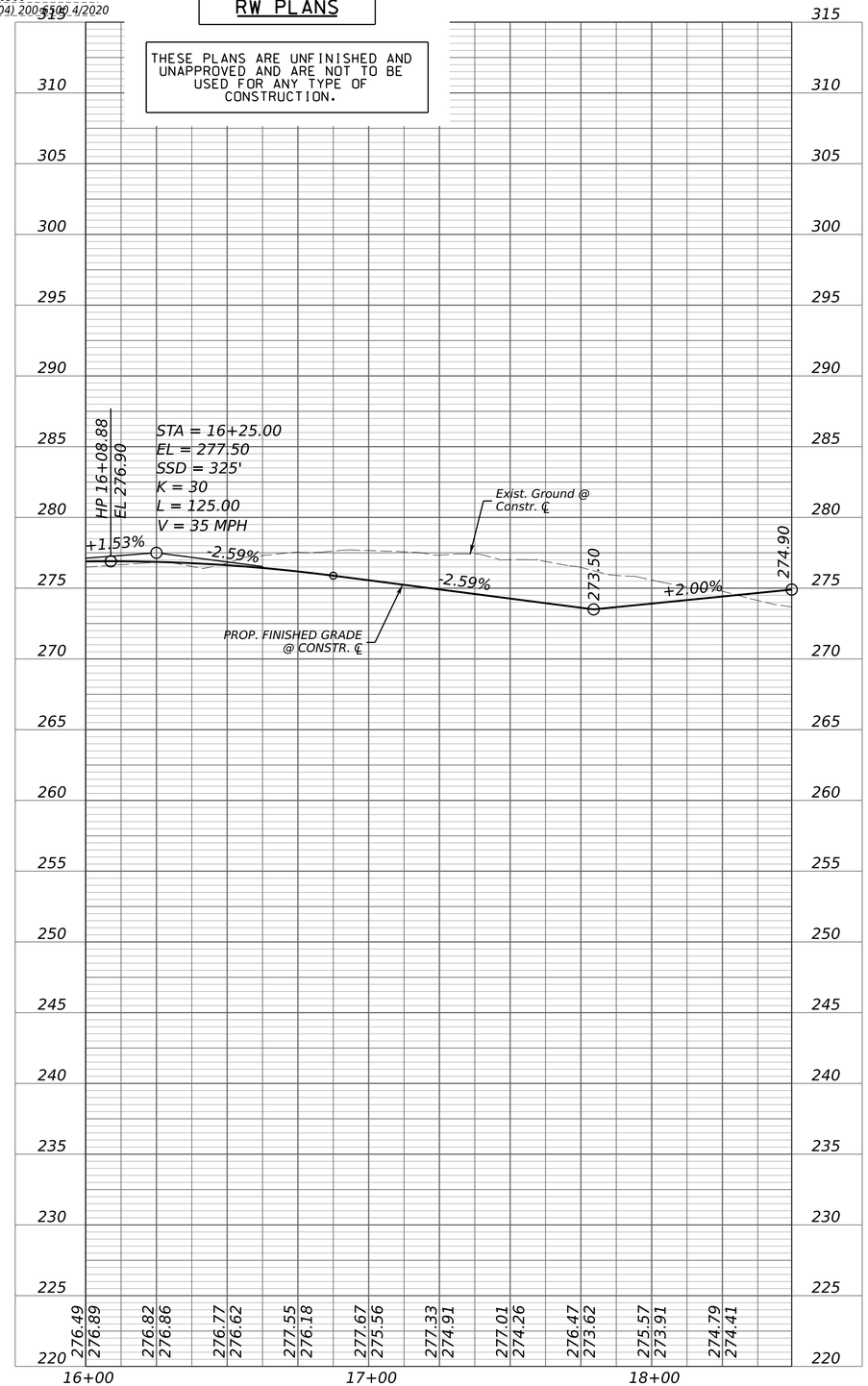
PROJECT	SHEET NO.
0000-020-820	4A

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

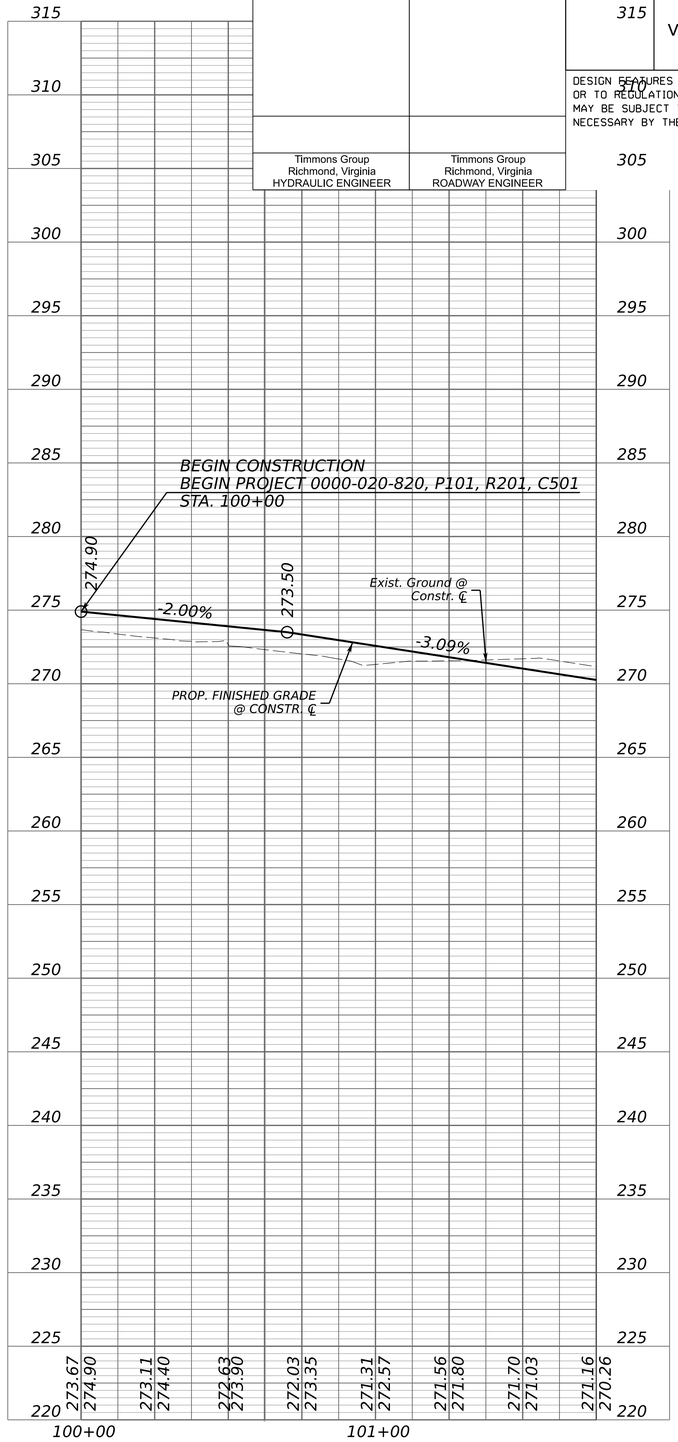
PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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



BAILEY BRIDGE ROAD - WEST



BAILEY BRIDGE CONNECTOR

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
315	VA.	000	0000-020-820 R201,C501	4B

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

PROJECT	SHEET NO.
0000-020-820	4B

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _____ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

E&SC PHASE I PLAN

RW PLANS

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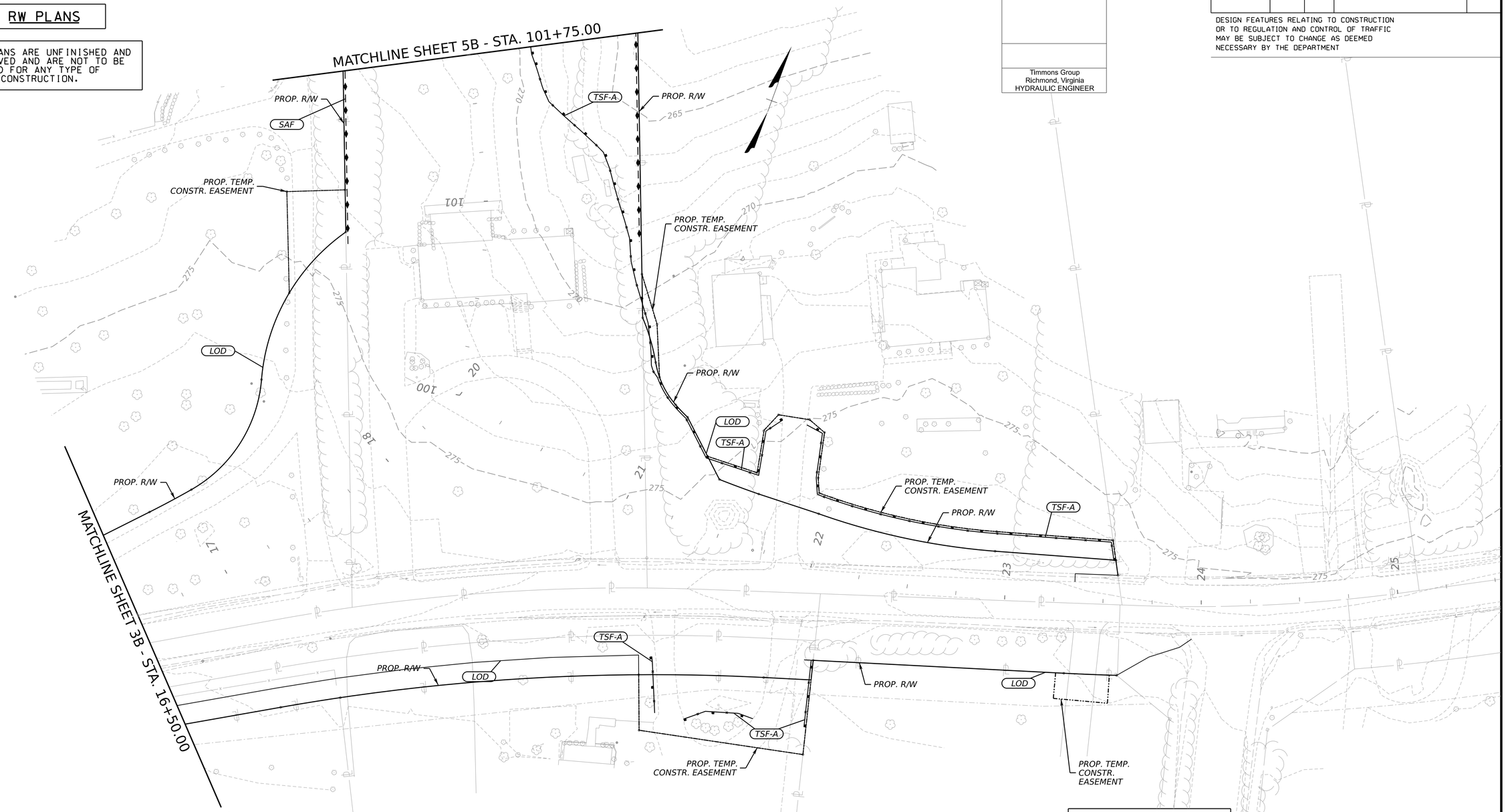
Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	4C

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



LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4	
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3	
SAF	Safety Fence VAESCH St'd. 3.01	
TSF-A TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B	
RCD-1	Rock Check Dam, Type I; St'd EC-4	
RCD-2	Rock Check Dam, Type II; St'd EC-4	
DD	Temporary Diversion Dike, St'd EC-9	
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6	
TCD	Temporary Check Dam, St'd EC-16	
TSI	Slope Interrupter; St'd EC-15	
OP	Outlet Protection, St'd EC-1	
CE	Construction Entrance; St'd EC-11	
SC	Temp. Stream Crossing; St'd EC-14	
LOD	Limits of Disturbance	
ST	Temp. Sediment Trap; St'd EC-7	

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

Bailey Bridge Conn. Plan	4
Bailey Bridge Rd. W Profile	3A
Bailey Bridge Rd. E Profile	4A
Bailey Bridge Conn. Profile	4B
E & SC Phase II	4D
Drainage Descr.	16(1)

SCALE	PROJECT	SHEET NO.
0 25' 50'	0000-020-820	4C

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER: BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020

E&SC PHASE II PLAN

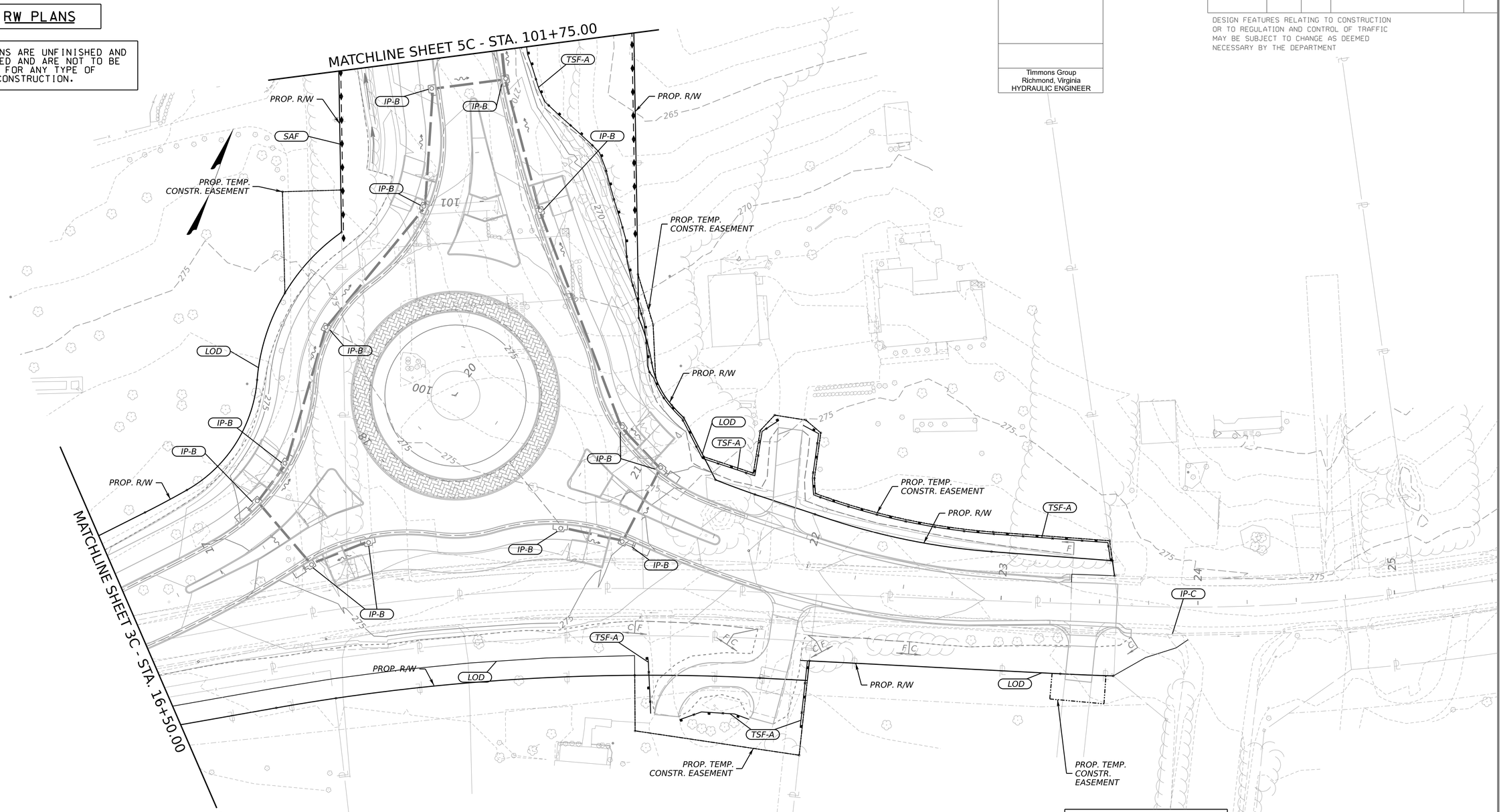
RW PLANS

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	4D

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



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

Bailey Bridge Rd. Plan	4
Bailey Bridge Rd. W Profile	3A
Bailey Bridge Rd. E Profile	4A
Bailey Bridge Conn. Profile	4B
E & SC Phase I	4C
Drainage Descr.	16(1)

LEGEND

- EC-2,T1 / EC-2,T2 / EC-2,T3 / EC-2,T4 — Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
- EC-3,T1 / EC-3,T2 / EC-3,T3 — Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
- SAF — Safety Fence VAESCH St'd. 3.01
- TSF-A / TSF-B — Temporary Silt Fence, St'd EC-5 Type A or B
- RCD-1 — Rock Check Dam, Type I; St'd EC-4
- RCD-2 — Rock Check Dam, Type II; St'd EC-4
- DD — Temporary Diversion Dike, St'd EC-9
- IP-A / IP-B / IP-C — Inlet Protection, Type A, B, or C; St'd EC-6
- TCD — Temporary Check Dam, St'd EC-16
- TSI — Slope Interrupter; St'd EC-15
- OP — Outlet Protection, St'd EC-1
- CE — Construction Entrance; St'd EC-11
- SC — Temp. Stream Crossing; St'd EC-14
- LOD — Limits of Disturbance
- ST — Temp. Sediement Trap; St'd EC-7

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	4D

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
VDOT UPC NO. 111713

COMMONWEALTH OF VIRGINIA
William R. Herx
Lic. No. 2947
LAND SURVEYOR

Timmons Group
Richmond, Virginia
LAND SURVEYOR

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	4RW

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

RW PLANS

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

CURVE TABLE						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD BEARING	CHORD
C2	2°58'48"	464.00	24.13	12.07	N41°42'56"E	24.13
C3	55°41'38"	71.00	69.01	37.51	N12°22'43"E	66.33
C4	50°14'19"	101.75	89.22	47.71	S9°36'57"W	86.39
C5	15°05'09"	348.95	91.88	46.21	N81°51'39"E	91.61
C6	2°32'11"	481.95	21.34	10.67	S89°45'47"E	21.33
C7	5°34'26"	90.00	8.76	4.38	S63°56'15"E	8.75
C8	31°29'13"	44.00	24.18	12.40	S45°24'25"E	23.88
C9	13°24'26"	101.00	23.63	11.87	S36°22'02"W	23.58
C30	1°36'46"	1091.28	30.72	15.36	N60°40'54"E	30.71
C31	11°19'35"	1091.28	215.73	108.22	N67°09'04"E	215.38
C32	1°18'18"	1181.28	26.91	13.45	N72°10'20"W	26.91

LINE TABLE		
LINE	LENGTH	BEARING
L1	30.46	S43°12'20"W
L2	405.57	S21°05'57"E
L3	7.73	S28°00'20"E
L4	61.58	N74°08'41"E
L5	32.08	S88°06'07"W
L6	35.48	N47°09'44"W
L7	476.67	N21°05'57"W
L45	170.86	N59°52'31"E
L46	24.11	N72°49'31"E
L47	127.50	N72°49'29"E
LA4	10.02	N13°54'31"W

SYMBOL LEGEND

- ■ Prop. R/W Monument (St'd. RM-2)
- 00.00' / +00.00 Prop. Right of Way
- (00.00' / +00.00) Prop. Temp. (Constr., Entr. Reconstr.) Ease.
- [00.00' / +00.00] Prop. Perm. (Slope, Drainage) Ease.
- [[00.00' / +00.00]] Prop. Perm. (San. Sewer, Water) Ease.

Note: Figures in brackets and dot-dashed lines denote Permanent Easements.

Note: Figures in parenthesis dot-dot-dashed lines denote Temporary Easements.

NOTES:

1. THIS RIGHT OF WAY SHEET REPRESENTS A FIELD RUN PERIMETER SURVEY OF THE PROPOSED R/W LIMITS. ALL ADJOINING/DEPARTING BOUNDARY LINES SHOWN FROM EXISTING R/W ARE COMPILED FROM VARIOUS SOURCES: FOUND FIELD DOCUMENTATION, METES AND BOUNDS DESCRIPTIONS, AND RECORDED PLATS. THE ADJOINING LINES DO NOT REPRESENT A FIELD RUN SURVEY OF THE ADJOINING PROPERTIES AND ARE BEST FIT BASED ON COMPILED DATA. ALL AREAS SHOWN FOR EASEMENT TAKES ARE APPROXIMATE ONLY.
2. THIS PLAN SHEET WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL EASEMENTS WHICH MAY EFFECT THE PROPERTY SHOWN HEREON.
3. NO DESIGNATION OR LOCATION OF SUBSURFACE UTILITIES WAS PERFORMED DURING PREPARATION OF THIS PLAT.
4. ALL OF THE PROPERTIES PHYSICAL IMPROVEMENTS ARE NOT SHOWN HEREON.
5. BEARING AND DISTANCES IN PARENTHESIS ARE RECORD PLAT DATA.
6. THE INFORMATION SHOWN ON THIS PLAN SHEET WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A BOUNDARY SURVEY.
7. PROPERTY INFORMATION IS BASED ON DEEDS AND PLATS OF RECORD AND PHYSICAL EVIDENCE FOUND. ALL MONUMENTATION TO BE SET UPON COMPLETION OF CONSTRUCTION.

APPROXIMATE AREAS					
PARCEL NO.	TAX PARCEL ID	R/W Take	PRESCRIPTIVE EASEMENTS	EASEMENTS PERMANENT SLOPE & DRAINAGE	EASEMENTS TEMPORARY CONSTR
		ACRES	ACRES	ACRES	ACRES
005	734-670-1522	0.338	0.073	0.026	0.042
006	734-669-4898	-	-	-	0.066
007	734-670-2835	1.968	0.052	-	-
008	734-670-4735	0.149	0.083	-	0.074
020	734-669-2988	-	-	-	0.010
021	734-670-6606	-	-	-	0.009
022	-	0.102	0.144	-	-
023	-	0.203	-	-	-
024	-	0.073	0.051	-	

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	4RW

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

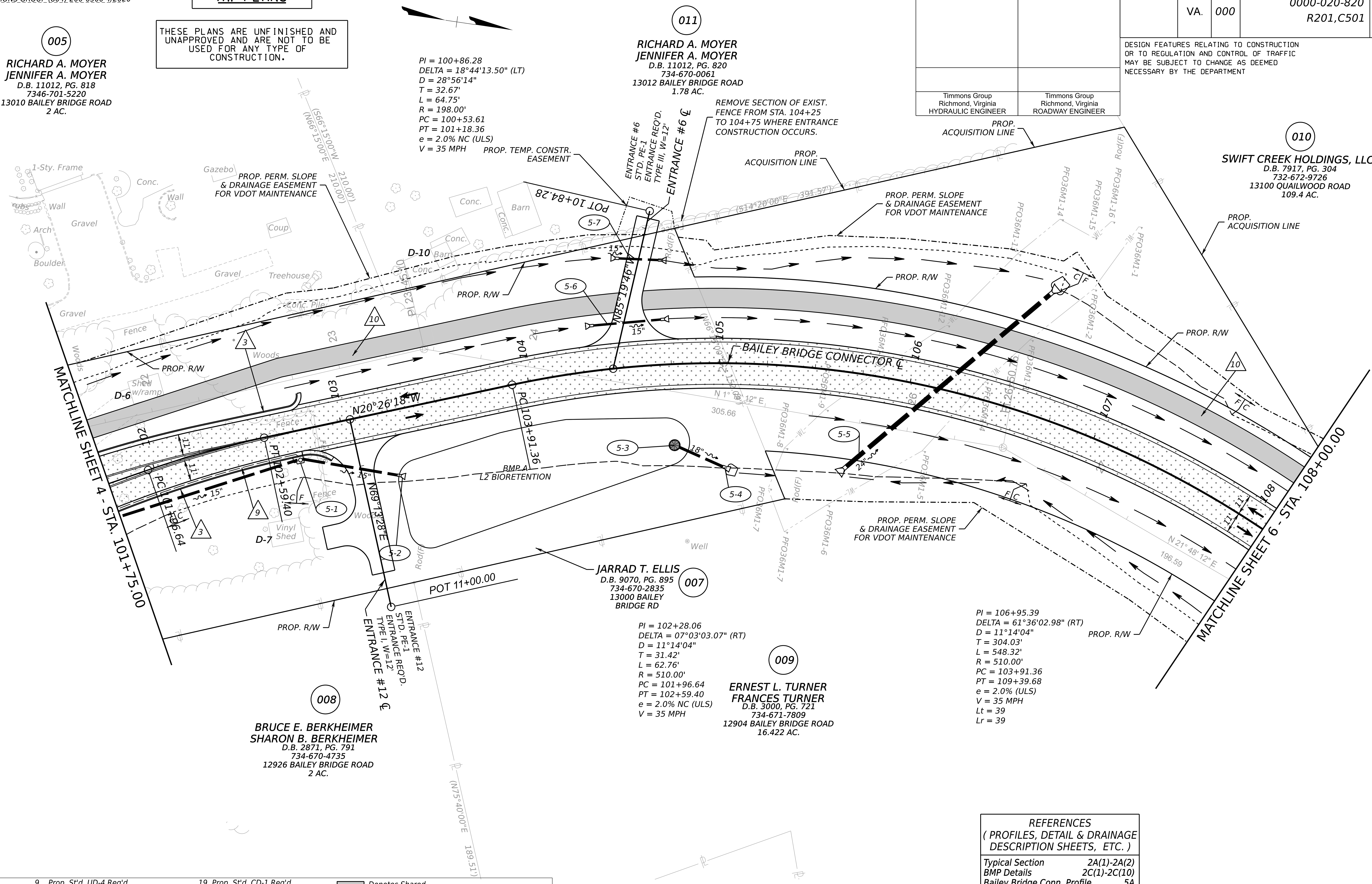
RW PLANS

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

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	5

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

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER



LEGEND

1. Prop. St'd. CG-2 Req'd.
2. Prop. St'd. CG-3 Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Mod. CG-3 Req'd. (For Inside Truck Apron)
5. Prop. St'd. CG-12 Ty. B Req'd.
6. Prop. St'd. CG-12 Ty. M2 Req'd.
7. Prop. St'd. MS-1 (CG-2 Face) Req'd.
8. Prop. Stamped Conc. Truck Apron
9. Prop. St'd. UD-4 Req'd.
10. Prop. 10' Shared Use Path
11. Prop. St'd. CG-12 Ty. M1 Req'd.
12. Prop. St'd. EW-12, 2:1 (6")
13. Prop. St'd. GR-MGS1 Guardrail
14. Prop. St'd. GR-MGS2 End Terminal
15. Prop. St'd. GR-MGS3 Trailing-End Terminal
16. Prop. St'd. GR-MGS4 Height Transition
17. Prop. St'd. GR-FOA-5 Fixed Object Attachment
18. Prop. Detectable Warning Surface
19. Prop. St'd. CD-1 Req'd.
20. Prop. St'd. CD-2 Req'd.

DND = Do Not Disturb
TBR = To Be Removed
TBA = To Be Abandoned
TBC = To Be Cleaned Out

Denotes Shared Use Path
Denotes Concrete
Denotes Constr. Limits in Cuts
Denotes Constr. Limits in Fills
Denotes V-Ditch
Denotes New Pavement
Denotes Pavement Resurfacing
Denotes Demolition of Pavement
Denotes Concrete Truck Apron

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

Typical Section	2A(1)-2A(2)
BMP Details	2C(1)-2C(10)
Bailey Bridge Conn. Profile	5A
Drainage Descr.	16(1)-16(2)
E & SC Phase I	5B
E & SC Phase II	5C
Entrance Profiles	18(1)-18(2)
PM & Signing Plans	19(5)
Lighting Plans	20(5)
Utility Plans	21(5)

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	5

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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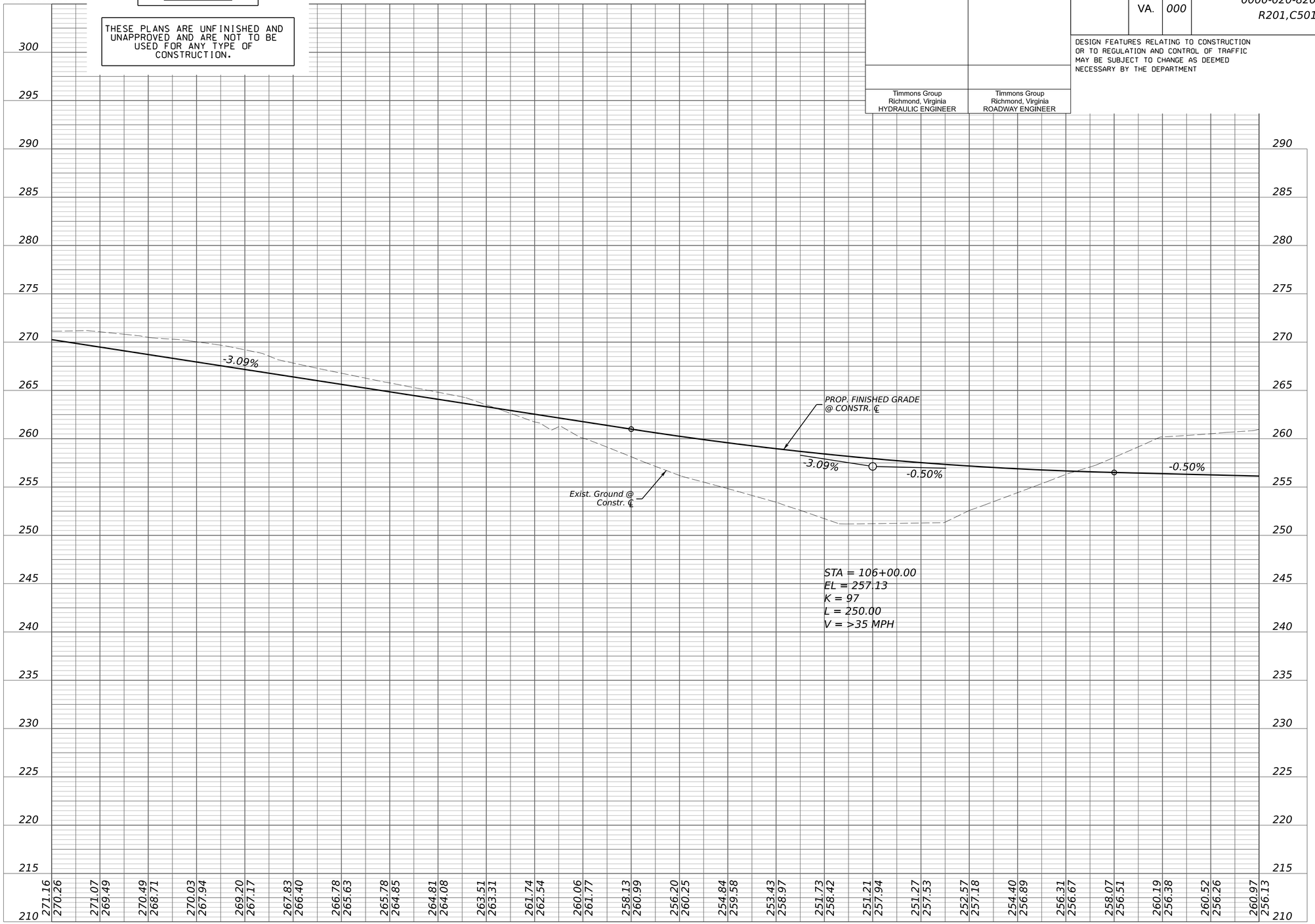
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	5A

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER



BAILEY BRIDGE CONNECTOR

PROJECT	SHEET NO.
0000-020-820	5A

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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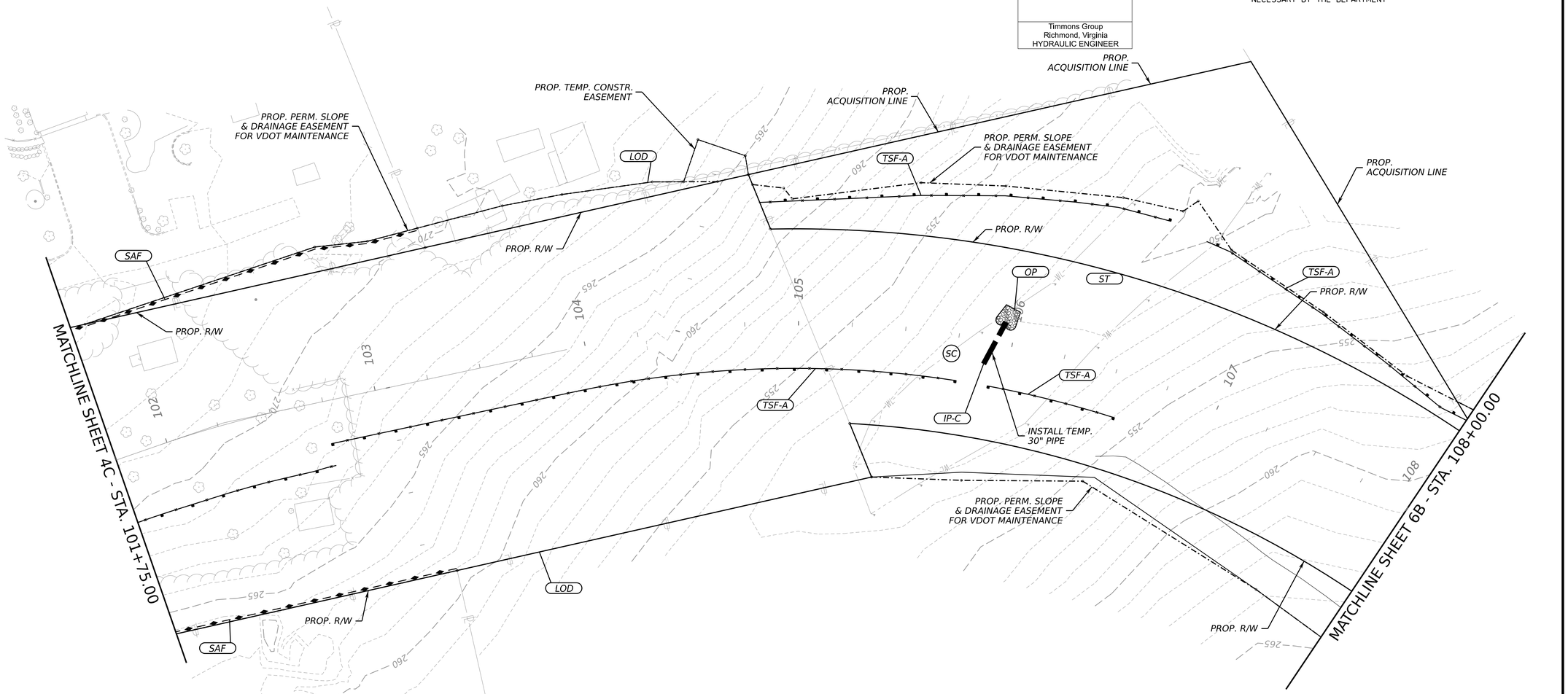
E&SC PHASE I PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	5B

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER



LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
SAF	Safety Fence VAESCH St'd. 3.01
TSF-A TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B
RCD-1	Rock Check Dam, Type I; St'd EC-4
RCD-2	Rock Check Dam, Type II; St'd EC-4
DD	Temporary Diversion Dike, St'd EC-9
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6
TCD	Temporary Check Dam, St'd EC-16
TSI	Slope Interrupter; St'd EC-15
OP	Outlet Protection, St'd EC-1
CE	Construction Entrance; St'd EC-11
SC	Temp. Stream Crossing; St'd EC-14
LOD	Limits of Disturbance
ST	Temp. Sediment Trap; St'd EC-7

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

Bailey Bridge Conn. Plan	5
Bailey Bridge Conn. Profile	5A
E & SC Phase II	5C
Drainage Descr.	16(1)

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	5B

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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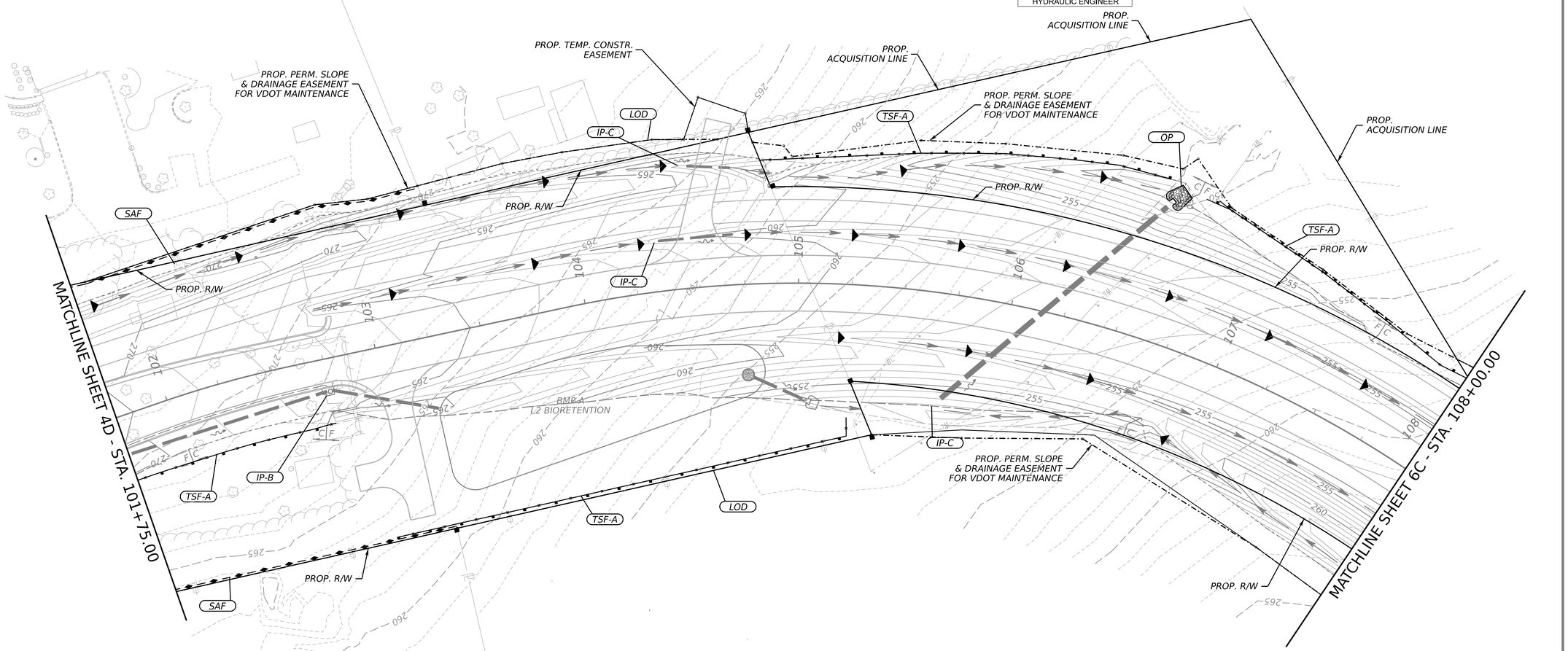
E&SC PHASE II PLAN

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	5C

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



LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
SAF	Safety Fence VAESCH St'd. 3.01
TSF-A TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B
RCD-1	Rock Check Dam, Type I; St'd EC-4
RCD-2	Rock Check Dam, Type II; St'd EC-4
DD	Temporary Diversion Dike, St'd EC-9
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6
TCD	Temporary Check Dam, St'd EC-16
TSI	Slope Interrupter; St'd EC-15
OP	Outlet Protection, St'd EC-1
CE	Construction Entrance; St'd EC-11
SC	Temp. Stream Crossing; St'd EC-14
LOD	Limits of Disturbance
ST	Temp. Sediment Trap; St'd EC-7

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

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	5C

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
VDOT UPC NO. 111713

RW PLANS

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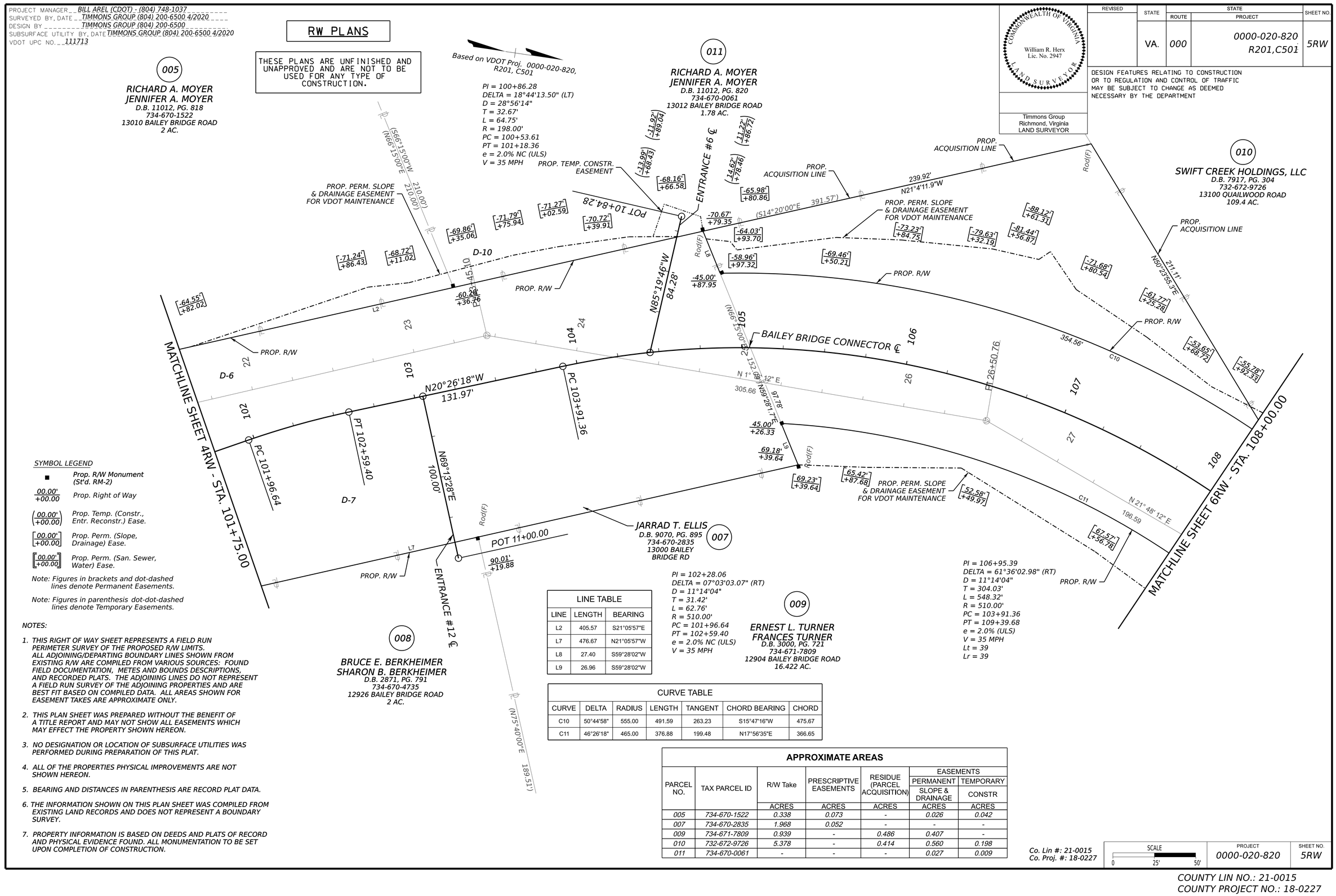
COMMONWEALTH OF VIRGINIA
William R. Herx
Lic. No. 2947
LAND SURVEYOR

Timmons Group
Richmond, Virginia
LAND SURVEYOR

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	5RW

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



SYMBOL LEGEND

- ■ — *Prop. R/W Monument (St'd. RM-2)*
- 00.00' / +00.00 — *Prop. Right of Way*
- (00.00' / +00.00) — *Prop. Temp. (Constr., Entr. Reconstr.) Ease.*
- [00.00' / +00.00] — *Prop. Perm. (Slope, Drainage) Ease.*
- [[00.00' / +00.00]] — *Prop. Perm. (San. Sewer, Water) Ease.*

Note: Figures in brackets and dot-dashed lines denote Permanent Easements.

Note: Figures in parenthesis dot-dot-dashed lines denote Temporary Easements.

NOTES:

1. *THIS RIGHT OF WAY SHEET REPRESENTS A FIELD RUN PERIMETER SURVEY OF THE PROPOSED R/W LIMITS. ALL ADJOINING/DEPARTING BOUNDARY LINES SHOWN FROM EXISTING R/W ARE COMPILED FROM VARIOUS SOURCES: FOUND FIELD DOCUMENTATION, METES AND BOUNDS DESCRIPTIONS, AND RECORDED PLATS. THE ADJOINING LINES DO NOT REPRESENT A FIELD RUN SURVEY OF THE ADJOINING PROPERTIES AND ARE BEST FIT BASED ON COMPILED DATA. ALL AREAS SHOWN FOR EASEMENT TAKES ARE APPROXIMATE ONLY.*
2. *THIS PLAN SHEET WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL EASEMENTS WHICH MAY EFFECT THE PROPERTY SHOWN HEREON.*
3. *NO DESIGNATION OR LOCATION OF SUBSURFACE UTILITIES WAS PERFORMED DURING PREPARATION OF THIS PLAT.*
4. *ALL OF THE PROPERTIES PHYSICAL IMPROVEMENTS ARE NOT SHOWN HEREON.*
5. *BEARING AND DISTANCES IN PARENTHESIS ARE RECORD PLAT DATA.*
6. *THE INFORMATION SHOWN ON THIS PLAN SHEET WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A BOUNDARY SURVEY.*
7. *PROPERTY INFORMATION IS BASED ON DEEDS AND PLATS OF RECORD AND PHYSICAL EVIDENCE FOUND. ALL MONUMENTATION TO BE SET UPON COMPLETION OF CONSTRUCTION.*

LINE TABLE		
LINE	LENGTH	BEARING
L2	405.57	S21°05'57"E
L7	476.67	N21°05'57"W
L8	27.40	S59°28'02"W
L9	26.96	S59°28'02"W

CURVE TABLE						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD BEARING	CHORD
C10	50°44'58"	555.00	491.59	263.23	S15°47'16"W	475.67
C11	46°26'18"	465.00	376.88	199.48	N17°56'35"E	366.65

APPROXIMATE AREAS

PARCEL NO.	TAX PARCEL ID	R/W Take	PRESCRIPTIVE EASEMENTS	RESIDUE (PARCEL ACQUISITION)	EASEMENTS PERMANENT SLOPE & DRAINAGE	EASEMENTS TEMPORARY CONSTR
		ACRES	ACRES	ACRES	ACRES	ACRES
005	734-670-1522	0.338	0.073	-	0.026	0.042
007	734-670-2835	1.968	0.052	-	-	-
009	734-671-7809	0.939	-	0.486	0.407	-
010	732-672-9726	5.378	-	0.414	0.560	0.198
011	734-670-0061	-	-	-	0.027	0.009

Co. Lin #: 21-0015
Co. Proj. #: 18-0227

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	5RW

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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		REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER		VA.	000	0000-020-820 R201,C501	6

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

Var. Width Easement (D.B. 2172, PG. 9)

LEGEND

1. Prop. St'd. CG-2 Req'd.
2. Prop. St'd. CG-3 Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Mod. CG-3 Req'd. (For Inside Truck Apron)
5. Prop. St'd. CG-12 Ty. B Req'd.
6. Prop. St'd. CG-12 Ty. M2 Req'd.
7. Prop. St'd. MS-1 (CG-2 Face) Req'd.
8. Prop. Stamped Conc. Truck Apron
9. Prop. St'd. UD-4 Req'd.
10. Prop, 10' Shared Use Path
11. Prop. St'd. CG-12 Ty. M1 Req'd.
12. Prop. St'd. EW-12, 2:1 (6")
13. Prop. St'd. GR-MGS1 Guardrail
14. Prop. St'd. GR-MGS2 End Terminal
15. Prop. St'd. GR-MGS3 Trailing-End Terminal
16. Prop. St'd. GR-MGS4 Height Transition
17. Prop. St'd. GR-FOA-5 Fixed Object Attachment
18. Prop. Detectable Warning Surface
19. Prop. St'd. CD-1 Req'd.
20. Prop. St'd. CD-2 Req'd.

DND = Do Not Disturb
TBR = To Be Removed
TBA = To Be Abandoned
TBC = To Be Cleaned Out

- ▩ Denotes Shared Use Path
- ▨ Denotes Concrete
- C Denotes Constr. Limits in Cuts
- F Denotes Constr. Limits in Fills
- → Denotes V-Ditch
- ▨ Denotes New Pavement
- ▨ Denotes Pavement Resurfacing
- ▨ Denotes Demolition of Pavement
- ▦ Denotes Concrete Truck Apron

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

Typical Section	2A(1)-2A(2)
BMP Details	2C(1)-2C(10)
Bailey Bridge Conn. Profile	6A
Drainage Descr.	16(1)-16(2)
E & SC Phase I	6B
E & SC Phase II	6C
Entrance Profiles	18(1)-18(2)
PM & Signing Plans	19(6)
Lighting Plans	20(6)
Utility Plans	21(6)

SCALE
0 25' 50'

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

6/29/2022
3:00:38 PM

dill71303x.dgn
Plotted By: ParrishBailey

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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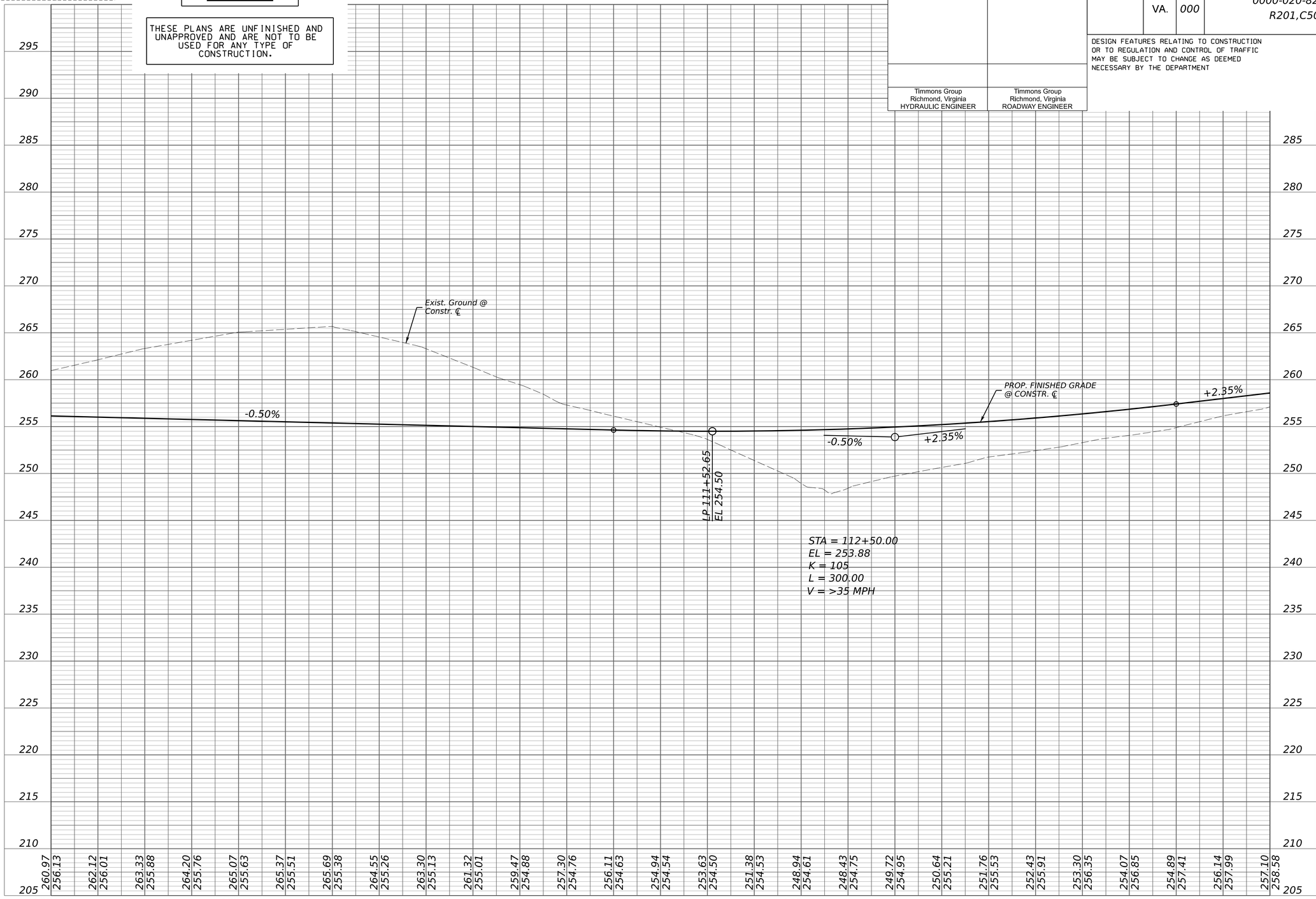
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	6A

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER



BAILEY BRIDGE CONNECTOR

PROJECT	SHEET NO.
0000-020-820	6A

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

E&SC PHASE I PLAN

RW PLANS

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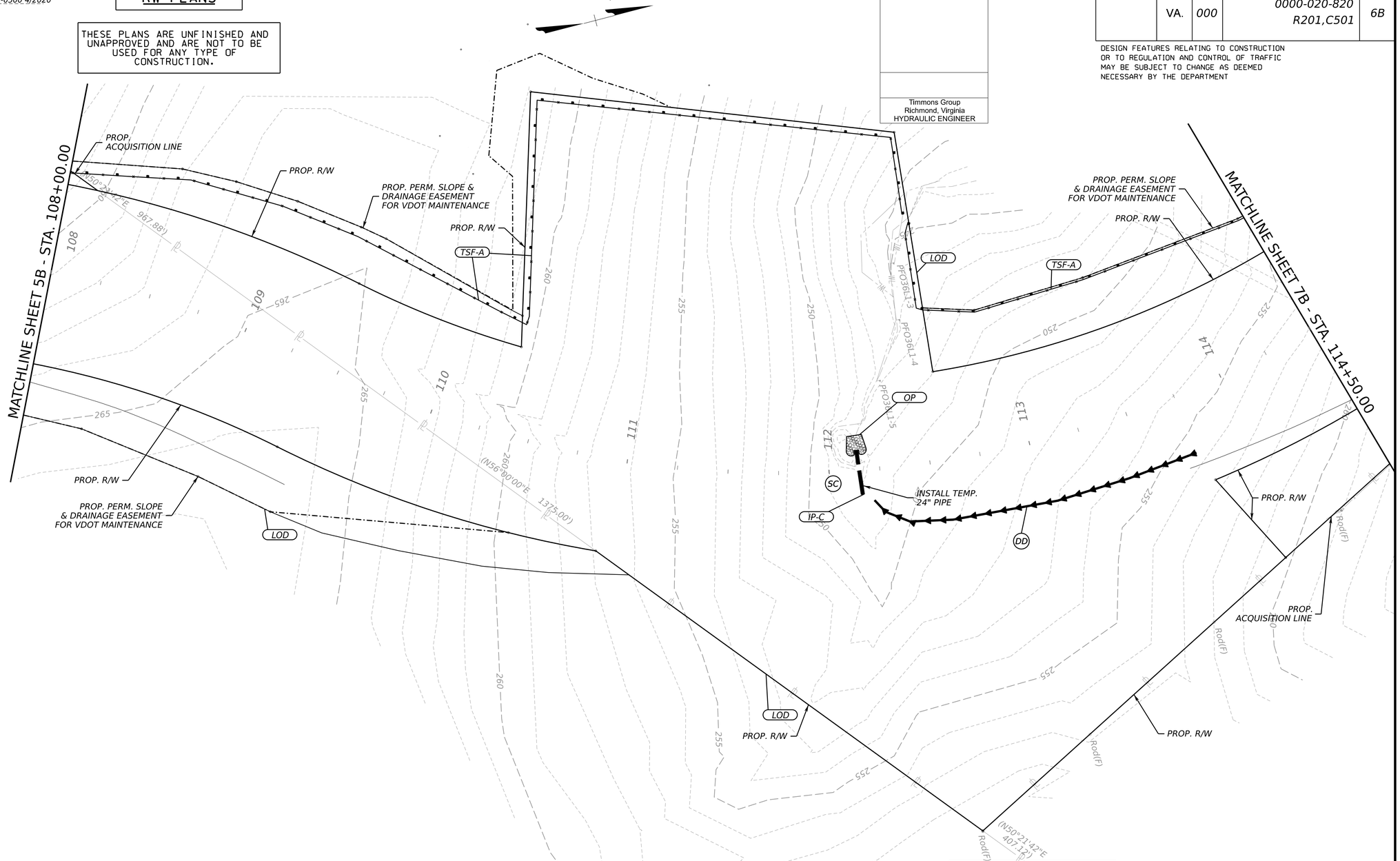
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	6B

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER



LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4	TSF-A TSF-B — Temporary Silt Fence, St'd EC-5 Type A or B
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3	RCD-1 — Rock Check Dam, Type I; St'd EC-4
SAF	Safety Fence VAESCH St'd. 3.01	RCD-2 — Rock Check Dam, Type II; St'd EC-4
		DD — Temporary Diversion Dike, St'd EC-9
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6	OP — Outlet Protection, St'd EC-1
TCD	Temporary Check Dam, St'd EC-16	CE — Construction Entrance; St'd EC-11
TSI	Slope Interrupter; St'd EC-15	SC — Temp. Stream Crossing; St'd EC-14
		LOD — Limits of Disturbance
		ST — Temp. Sediment Trap; St'd EC-7

Var. Width Easement (D.B. 2172, PG. 9)

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

Bailey Bridge Conn. Plan	6
Bailey Bridge Conn. Profile	6A
E & SC Phase II	6C
Drainage Descr.	16(1)

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	6B

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
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SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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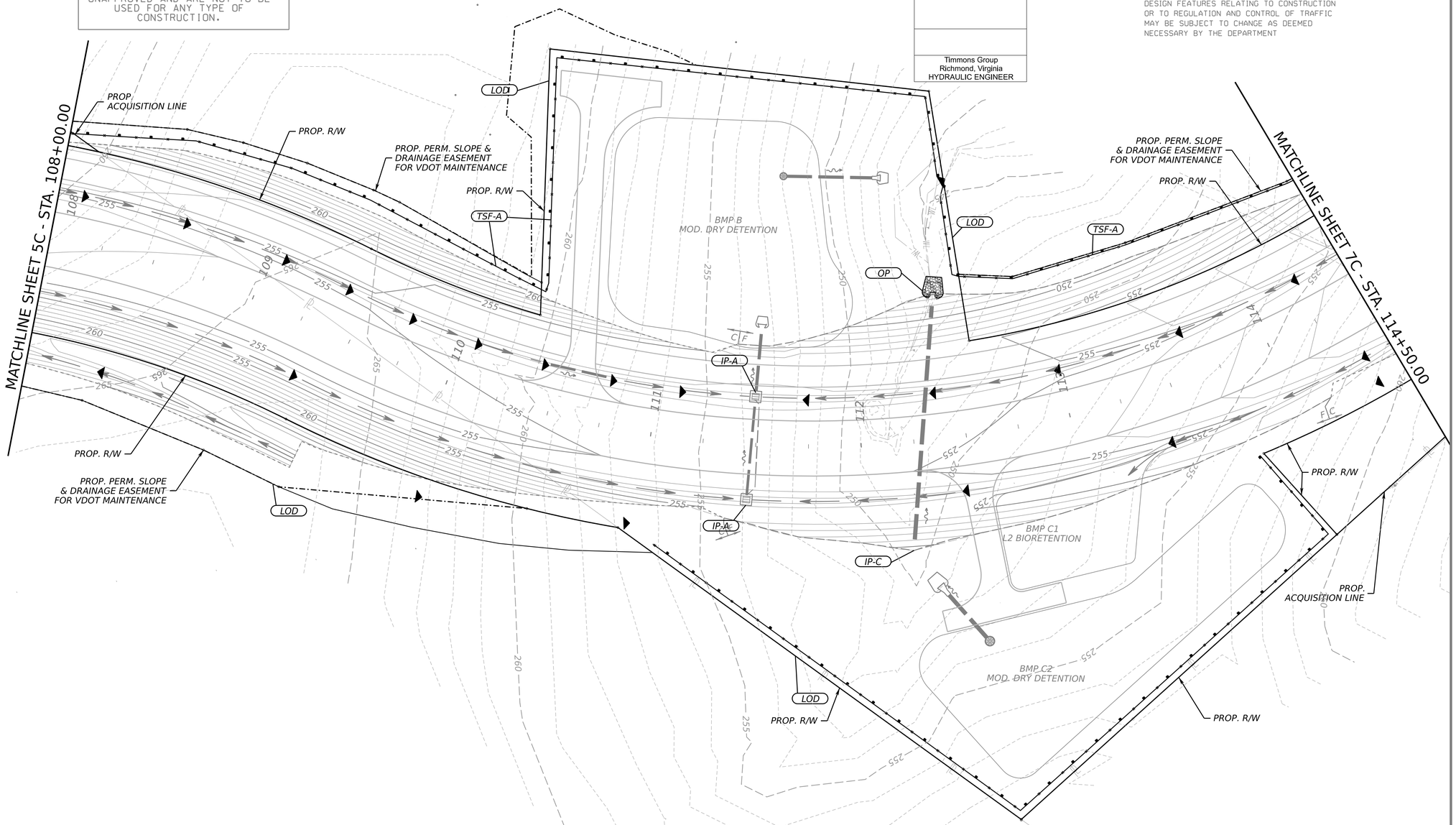
E&SC PHASE II PLAN

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	6C

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



LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4	
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3	
SAF	Safety Fence VAESCH St'd. 3.01	
TSF-A TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B	
RCD-1	Rock Check Dam, Type I; St'd EC-4	
RCD-2	Rock Check Dam, Type II; St'd EC-4	
DD	Temporary Diversion Dike, St'd EC-9	
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6	
TCD	Temporary Check Dam, St'd EC-16	
TSI	Slope Interrupter; St'd EC-15	
OP	Outlet Protection, St'd EC-1	
CE	Construction Entrance; St'd EC-11	
SC	Temp. Stream Crossing; St'd EC-14	
LOD	Limits of Disturbance	
ST	Temp. Sediment Trap; St'd EC-7	

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

Bailey Bridge Conn. Plan	6
Bailey Bridge Conn. Profile	6A
E & SC Phase I	6B
Drainage Descr.	16(1)

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	6C

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
VDOT UPC NO. 111713

RW PLANS

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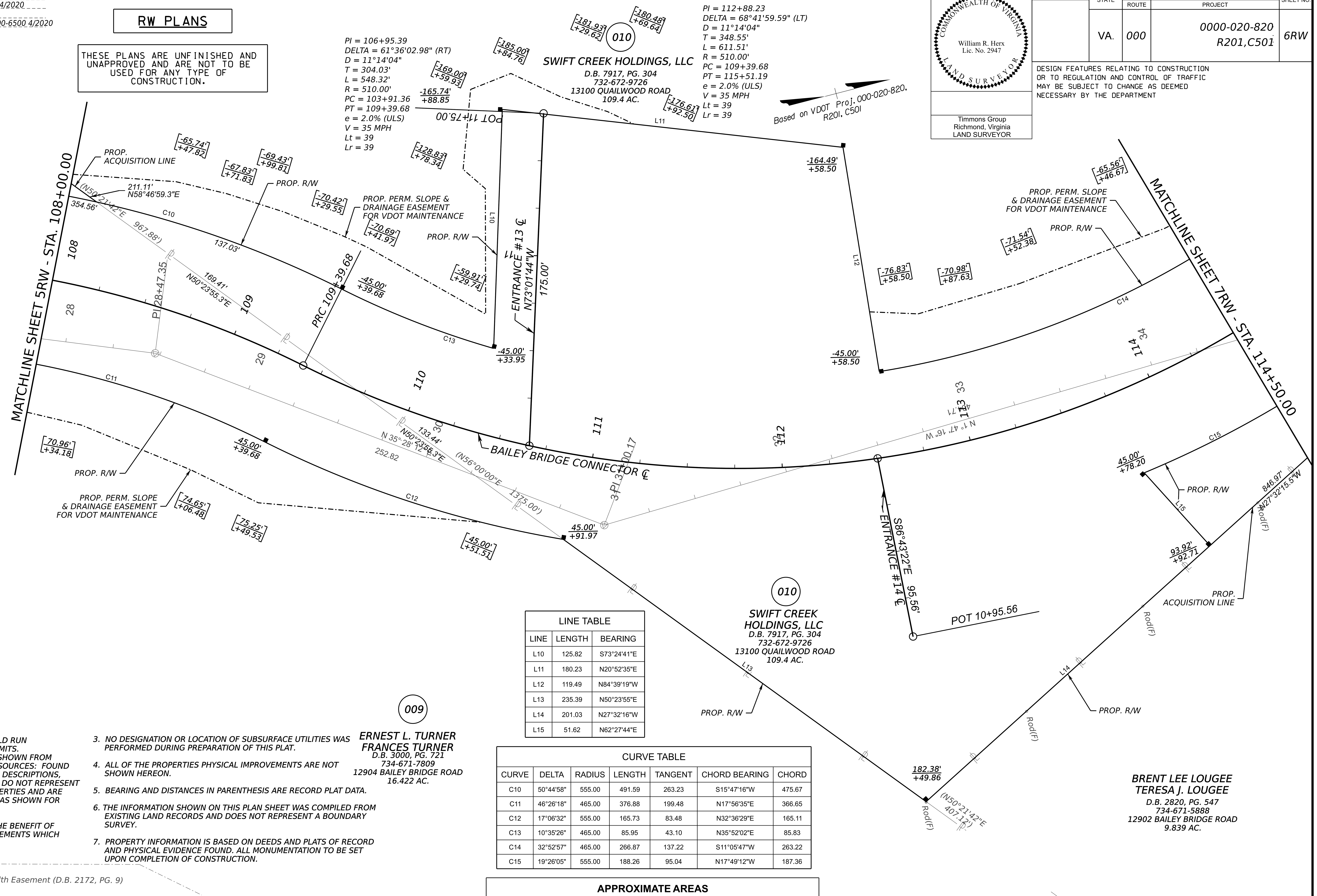
COMMONWEALTH OF VIRGINIA
William R. Herx
Lic. No. 2947
LAND SURVEYOR

Timmons Group
Richmond, Virginia
LAND SURVEYOR

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	6RW

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



SYMBOL LEGEND

- ■ Prop. R/W Monument (St'd. RM-2)
- 00.00' / +00.00 Prop. Right of Way
- (00.00' / +00.00) Prop. Temp. (Constr., Entr. Reconstr.) Ease.
- [00.00' / +00.00] Prop. Perm. (Slope, Drainage) Ease.
- [[00.00' / +00.00]] Prop. Perm. (San. Sewer, Water) Ease.

Note: Figures in brackets and dot-dashed lines denote Permanent Easements.

Note: Figures in parenthesis dot-dot-dashed lines denote Temporary Easements.

NOTES:

1. THIS RIGHT OF WAY SHEET REPRESENTS A FIELD RUN PERIMETER SURVEY OF THE PROPOSED R/W LIMITS. ALL ADJOINING/DEPARTING BOUNDARY LINES SHOWN FROM EXISTING R/W ARE COMPILED FROM VARIOUS SOURCES: FOUND FIELD DOCUMENTATION, METES AND BOUNDS DESCRIPTIONS, AND RECORDED PLATS. THE ADJOINING LINES DO NOT REPRESENT A FIELD RUN SURVEY OF THE ADJOINING PROPERTIES AND ARE BEST FIT BASED ON COMPILED DATA. ALL AREAS SHOWN FOR EASEMENT TAKES ARE APPROXIMATE ONLY.
2. THIS PLAN SHEET WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL EASEMENTS WHICH MAY EFFECT THE PROPERTY SHOWN HEREON.
3. NO DESIGNATION OR LOCATION OF SUBSURFACE UTILITIES WAS PERFORMED DURING PREPARATION OF THIS PLAT.
4. ALL OF THE PROPERTIES PHYSICAL IMPROVEMENTS ARE NOT SHOWN HEREON.
5. BEARING AND DISTANCES IN PARENTHESIS ARE RECORD PLAT DATA.
6. THE INFORMATION SHOWN ON THIS PLAN SHEET WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A BOUNDARY SURVEY.
7. PROPERTY INFORMATION IS BASED ON DEEDS AND PLATS OF RECORD AND PHYSICAL EVIDENCE FOUND. ALL MONUMENTATION TO BE SET UPON COMPLETION OF CONSTRUCTION.

LINE TABLE

LINE	LENGTH	BEARING
L10	125.82	S73°24'41"E
L11	180.23	N20°52'35"E
L12	119.49	N84°39'19"W
L13	235.39	N50°23'55"E
L14	201.03	N27°32'16"W
L15	51.62	N62°27'44"E

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD BEARING	CHORD
C10	50°44'58"	555.00	491.59	263.23	S15°47'16"W	475.67
C11	46°26'18"	465.00	376.88	199.48	N17°56'35"E	366.65
C12	17°06'32"	555.00	165.73	83.48	N32°36'29"E	165.11
C13	10°35'26"	465.00	85.95	43.10	N35°52'02"E	85.83
C14	32°52'57"	465.00	266.87	137.22	S11°05'47"W	263.22
C15	19°26'05"	555.00	188.26	95.04	N17°49'12"W	187.36

APPROXIMATE AREAS

PARCEL NO.	TAX PARCEL ID	R/W Take	RESIDUE (PARCEL ACQUISITION)	EASEMENTS PERMANENT SLOPE & DRAINAGE	EASEMENTS TEMPORARY CONSTR
		ACRES	ACRES	ACRES	ACRES
009	734-671-7809	0.939	0.486	0.407	-
010	732-672-9726	5.378	0.414	0.56	0.198

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	6RW

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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

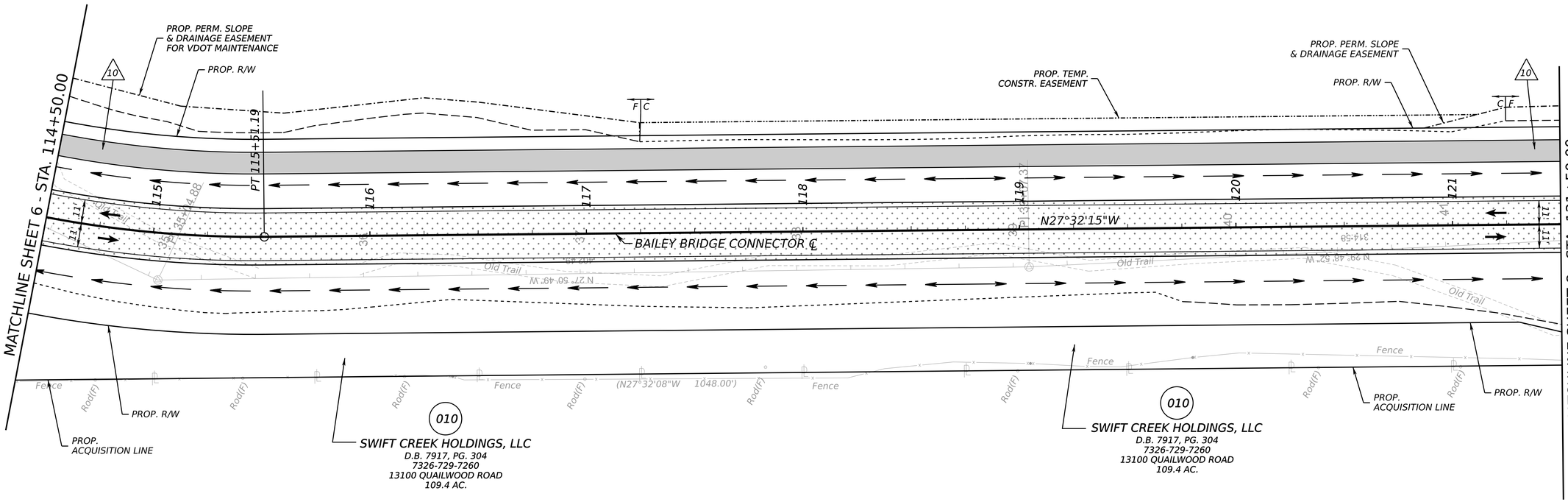
Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	7

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

PI = 112+88.23
DELTA = 68°41'59.59" (LT)
D = 11°14'04"
T = 348.55'
L = 611.51'
R = 510.00'
PC = 109+39.68
PT = 115+51.19
e = 2.0% (ULS)
V = 35 MPH
Lt = 39
Lr = 39

010
SWIFT CREEK HOLDINGS, LLC
D.B. 7917, PG. 304
7326-729-7260
13100 QUAILWOOD ROAD
109.4 AC.



BRENT LEE LOUGEE
TERESA J. LOUGEE
D.B. 2820, PG. 547
7346-715-8880
12902 BAILEY BRIDGE ROAD
9.839 AC.

012
SWIFT CREEK HOLDINGS, LLC
D.B. 7917, PG. 298
7346-727-3460
12901 QUAILWOOD ROAD
12.4 AC.

LEGEND

1. Prop. St'd. CG-2 Req'd.
2. Prop. St'd. CG-3 Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Mod. CG-3 Req'd. (For Inside Truck Apron)
5. Prop. St'd. CG-12 Ty. B Req'd.
6. Prop. St'd. CG-12 Ty. M2 Req'd.
7. Prop. St'd. MS-1 (CG-2 Face) Req'd.
8. Prop. Stamped Conc. Truck Apron
9. Prop. St'd. UD-4 Req'd.
10. Prop, 10' Shared Use Path
11. Prop. St'd. CG-12 Ty. M1 Req'd.
12. Prop. St'd. EW-12, 2:1 (6")
13. Prop. St'd. GR-MGS1 Guardrail
14. Prop. St'd. GR-MGS2 End Terminal
15. Prop. St'd. GR-MGS3 Trailing-End Terminal
16. Prop. St'd. GR-MGS4 Height Transition
17. Prop. St'd. GR-FOA-5 Fixed Object Attachment
18. Prop. Detectable Warning Surface
19. Prop. St'd. CD-1 Req'd.
20. Prop. St'd. CD-2 Req'd.

DND = Do Not Disturb
TBR = To Be Removed
TBA = To Be Abandoned
TBC = To Be Cleaned Out

Denotes Shared Use Path
Denotes Concrete
Denotes Constr. Limits in Cuts
Denotes Constr. Limits in Fills
Denotes V-Ditch
Denotes New Pavement
Denotes Pavement Resurfacing
Denotes Demolition of Pavement
Denotes Concrete Truck Apron

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

Typical Section	2A(1)-2A(2)
Bailey Bridge Conn. Profile	7A
Drainage Descr.	16(1)-16(2)
E & SC Phase I	7B
E & SC Phase II	7C
Entrance Profiles	18(1)-18(2)
PM & Signing Plans	19(7)
Utility Plans	21(7)

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	7

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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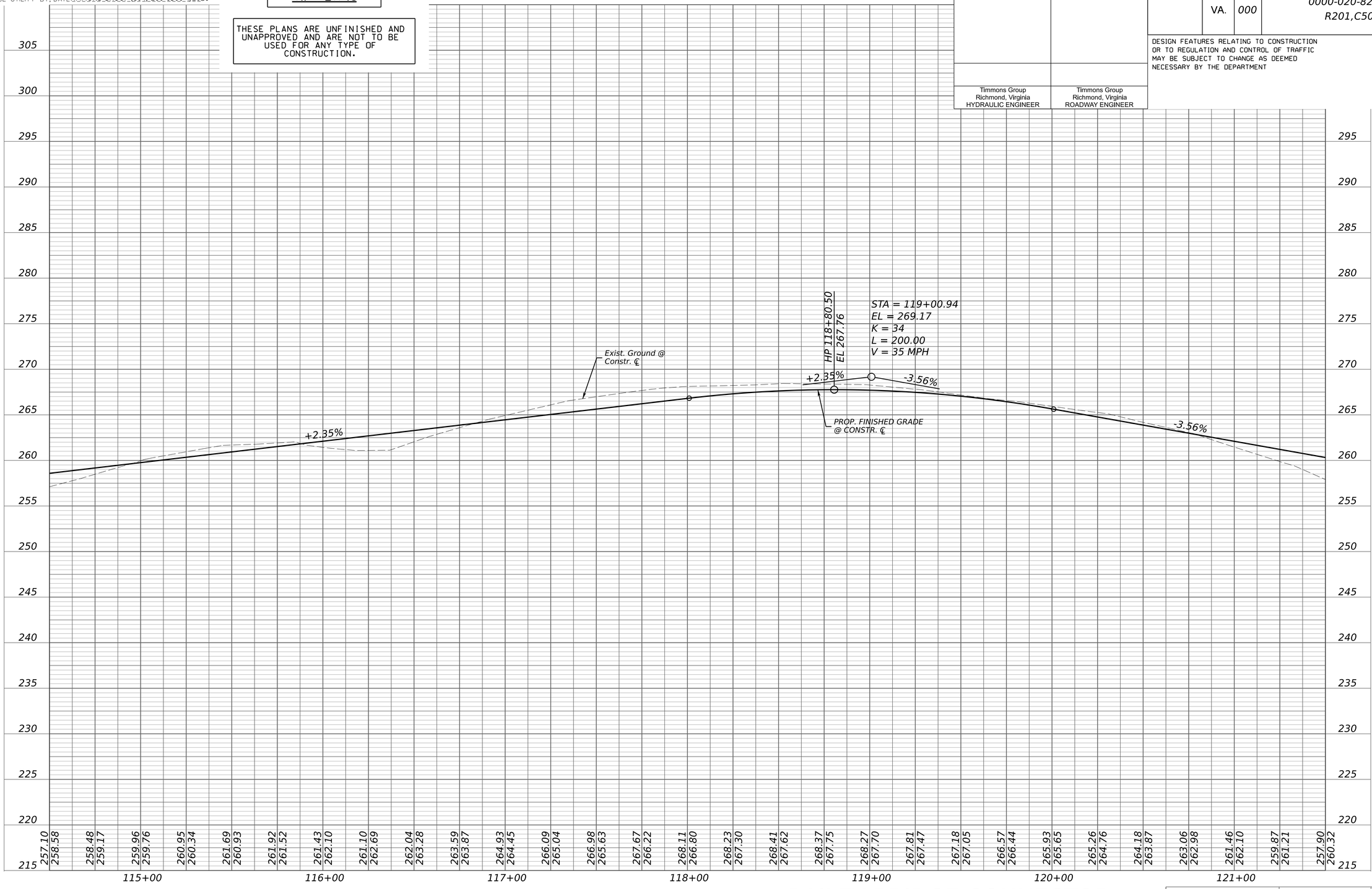
Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	7A

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



BAILEY BRIDGE CONNECTOR

PROJECT	SHEET NO.
0000-020-820	7A

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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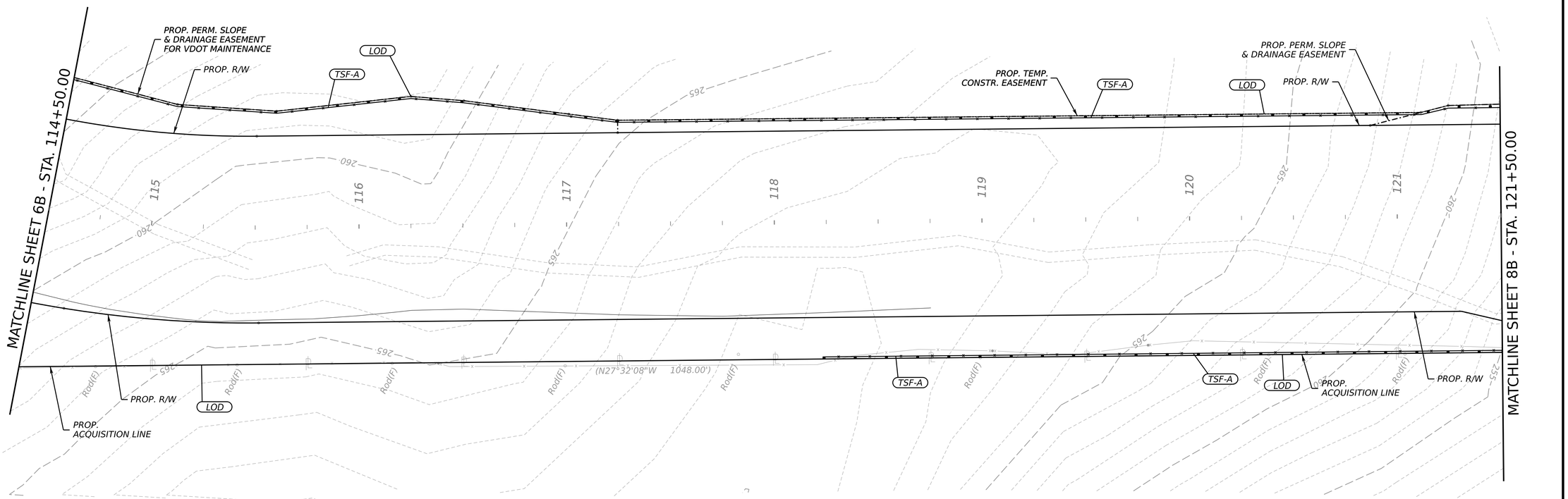
E&SC PHASE I PLAN

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	7B

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



LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
SAF	Safety Fence VAESCH St'd. 3.01
TSF-A TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B
RCD-1	Rock Check Dam, Type I; St'd EC-4
RCD-2	Rock Check Dam, Type II; St'd EC-4
DD	Temporary Diversion Dike, St'd EC-9
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6
TCD	Temporary Check Dam, St'd EC-16
TSI	Slope Interrupter; St'd EC-15
OP	Outlet Protection, St'd EC-1
CE	Construction Entrance; St'd EC-11
SC	Temp. Stream Crossing; St'd EC-14
LOD	Limits of Disturbance
ST	Temp. Sediement Trap; St'd EC-7

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

Bailey Bridge Conn. Plan	7
Bailey Bridge Conn. Profile	7A
E & SC Phase II	7C
Drainage Descr.	16(1)

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	7B

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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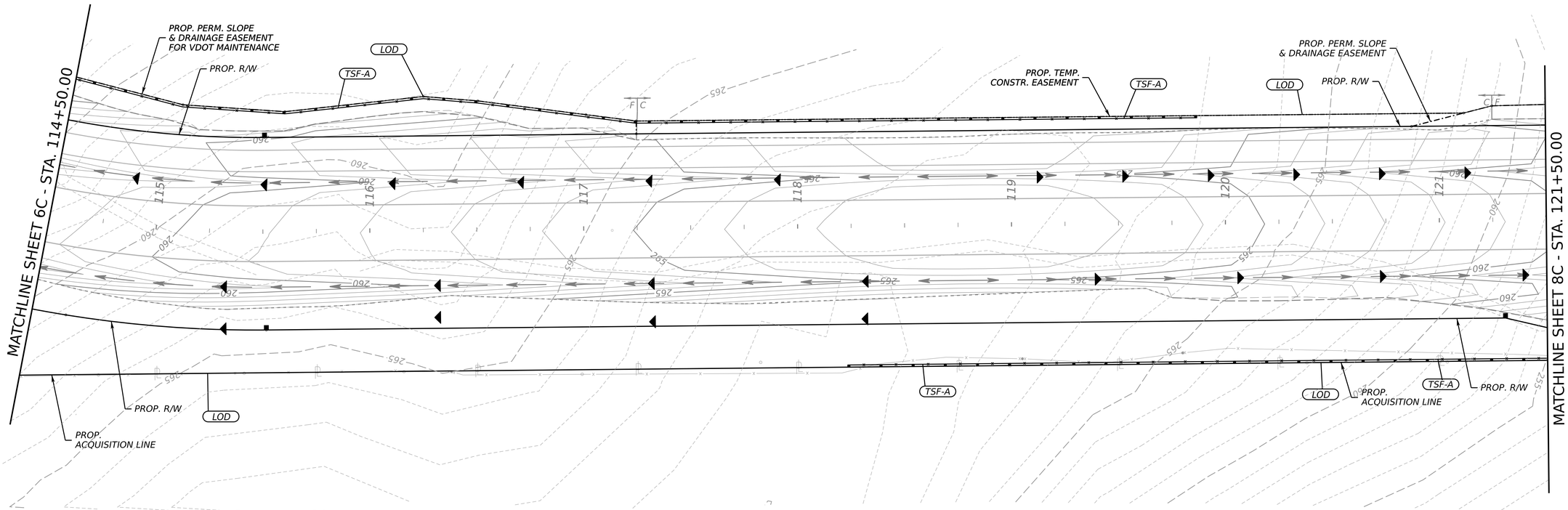
E&SC PHASE II PLAN

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	7C

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



LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4	
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3	
SAF	Safety Fence VAESCH St'd. 3.01	
TSF-A TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B	
RCD-1	Rock Check Dam, Type I; St'd EC-4	
RCD-2	Rock Check Dam, Type II; St'd EC-4	
DD	Temporary Diversion Dike, St'd EC-9	
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6	
TCD	Temporary Check Dam, St'd EC-16	
TSI	Slope Interrupter; St'd EC-15	
OP	Outlet Protection, St'd EC-1	
CE	Construction Entrance; St'd EC-11	
SC	Temp. Stream Crossing; St'd EC-14	
LOD	Limits of Disturbance	
ST	Temp. Sediment Trap; St'd EC-7	

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

Bailey Bridge Conn. Plan	7
Bailey Bridge Conn. Profile	7A
E & SC Phase I	7B
Drainage Descr.	16(1)

SCALE 0 25' 50'

PROJECT 0000-020-820

SHEET NO. 7C

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
VDOT UPC NO. _ 111713

RW PLANS

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Based on VDOT Proj: 000-020-820, R201, C501

COMMONWEALTH OF VIRGINIA
William R. Herx
Lic. No. 2947
LAND SURVEYOR

Timmons Group
Richmond, Virginia
LAND SURVEYOR

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	7RW

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PI = 112+88.23
DELTA = 68°41'59.59" (LT)
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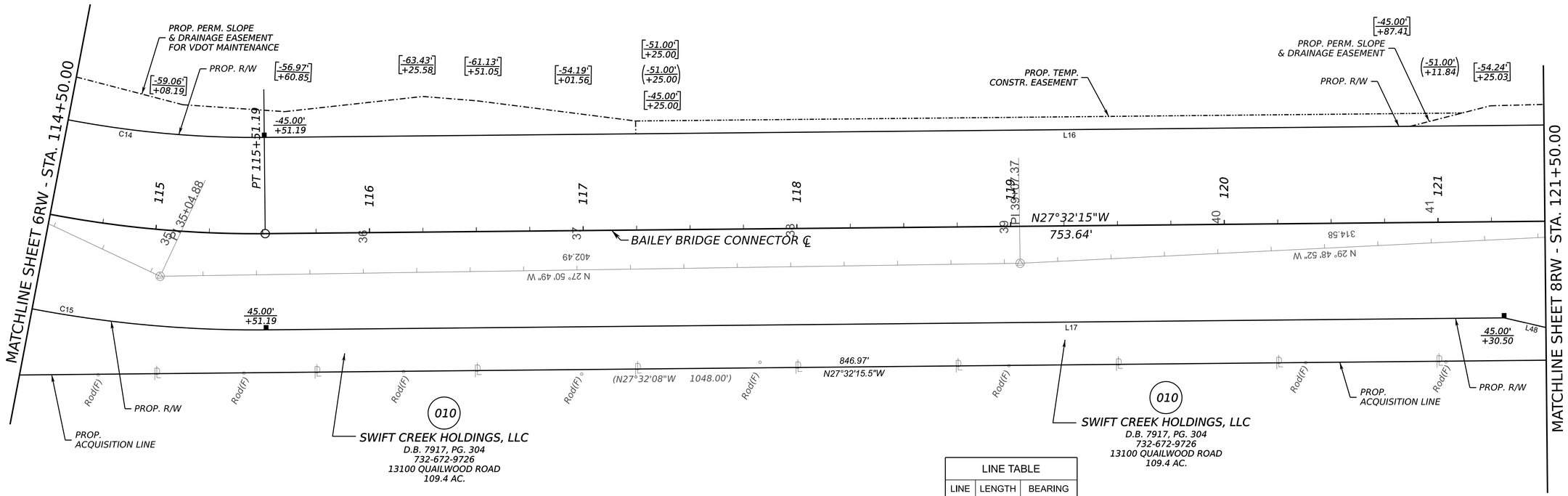
R = 510.00'
PC = 109+39.68
PT = 115+51.19
e = 2.0% (ULS)
V = 35 MPH
Lt = 39
Lr = 39

(010)
SWIFT CREEK HOLDINGS, LLC
D.B. 7917, PG. 304
732-672-9726
13100 QUAILWOOD ROAD
109.4 AC.



LINE TABLE		
LINE	LENGTH	BEARING
L16	753.64	S27°32'15"E
L17	579.30	S27°32'15"E
L48	85.37	S13°59'30"E

BRENT LEE LOUGEE
TERESA J. LOUGEE
D.B. 2820, PG. 547
7346-715-8880
12902 BAILEY BRIDGE ROAD
9.839 AC.

CURVE TABLE						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD BEARING	CHORD
C14	32°52'57"	465.00	266.87	137.22	S11°05'47"W	263.22
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(012)
SWIFT CREEK HOLDINGS, LLC
D.B. 7917, PG. 298
7346-727-3460
12901 QUAILWOOD ROAD
12.4 AC.

SYMBOL LEGEND

- ■ Prop. R/W Monument (St'd. RM-2)
- 00.00' / +00.00 — Prop. Right of Way
- (00.00' / +00.00) — Prop. Temp. (Constr., Entr. Reconstr.) Ease.
- [00.00' / +00.00] — Prop. Perm. (Slope, Drainage) Ease.
- [[00.00' / +00.00]] — Prop. Perm. (San. Sewer, Water) Ease.

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NOTES:

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APPROXIMATE AREAS

PARCEL NO.	TAX PARCEL ID	R/W Take	RESIDUE (PARCEL ACQUISITION)	EASEMENTS	
				PERMANENT	TEMPORARY
				SLOPE & DRAINAGE	CONSTR
		ACRES	ACRES	ACRES	ACRES
010	732-672-9726	5.378	0.414	0.560	0.198
012	734-672-7346	0.055	-	0.083	0.096

SCALE	PROJECT	SHEET NO.
0 25' 50'	0000-020-820	7RW

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	8

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

LEGEND ⚠

1. Prop. St'd. CG-2 Req'd.
2. Prop. St'd. CG-3 Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Mod. CG-3 Req'd. (For Inside Truck Apron)
5. Prop. St'd. CG-12 Ty. B Req'd.
6. Prop. St'd. CG-12 Ty. M2 Req'd.
7. Prop. St'd. MS-1 (CG-2 Face) Req'd.
8. Prop. Stamped Conc. Truck Apron
9. Prop. St'd. UD-4 Req'd.
10. Prop, 10' Shared Use Path
11. Prop. St'd. CG-12 Ty. M1 Req'd.
12. Prop. St'd. EW-12, 2:1 (6")
13. Prop. St'd. GR-MGS1 Guardrail
14. Prop. St'd. GR-MGS2 End Terminal
15. Prop. St'd. GR-MGS3 Trailing-End Terminal
16. Prop. St'd. GR-MGS4 Height Transition
17. Prop. St'd. GR-FOA-5 Fixed Object Attachment
18. Prop. Detectable Warning Surface
19. Prop. St'd. CD-1 Req'd.
20. Prop. St'd. CD-2 Req'd.

DND = Do Not Disturb
TBR = To Be Removed
TBA = To Be Abandoned
TBC = To Be Cleaned Out

▩	Denotes Shared Use Path
▒	Denotes Concrete
C	Denotes Constr. Limits in Cuts
F	Denotes Constr. Limits in Fills
→	Denotes V-Ditch
⁘	Denotes New Pavement
▨	Denotes Pavement Resurfacing
▧	Denotes Demolition of Pavement
▦	Denotes Concrete Truck Apron

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

Typical Section	2A(1)-2A(2)
BMP Details	2C(1)-2C(10)
Bailey Bridge Conn. Profile	8A
Drainage Descr.	16(1)-16(2)
E & SC Phase I	8B
E & SC Phase II	8C
Entrance Profiles	18(1)-18(2)
PM & Signing Plans	19(8)
Utility Plans	21(8)

SCALE
0 25' 50'

PROJECT	SHEET NO.
0000-020-820	8

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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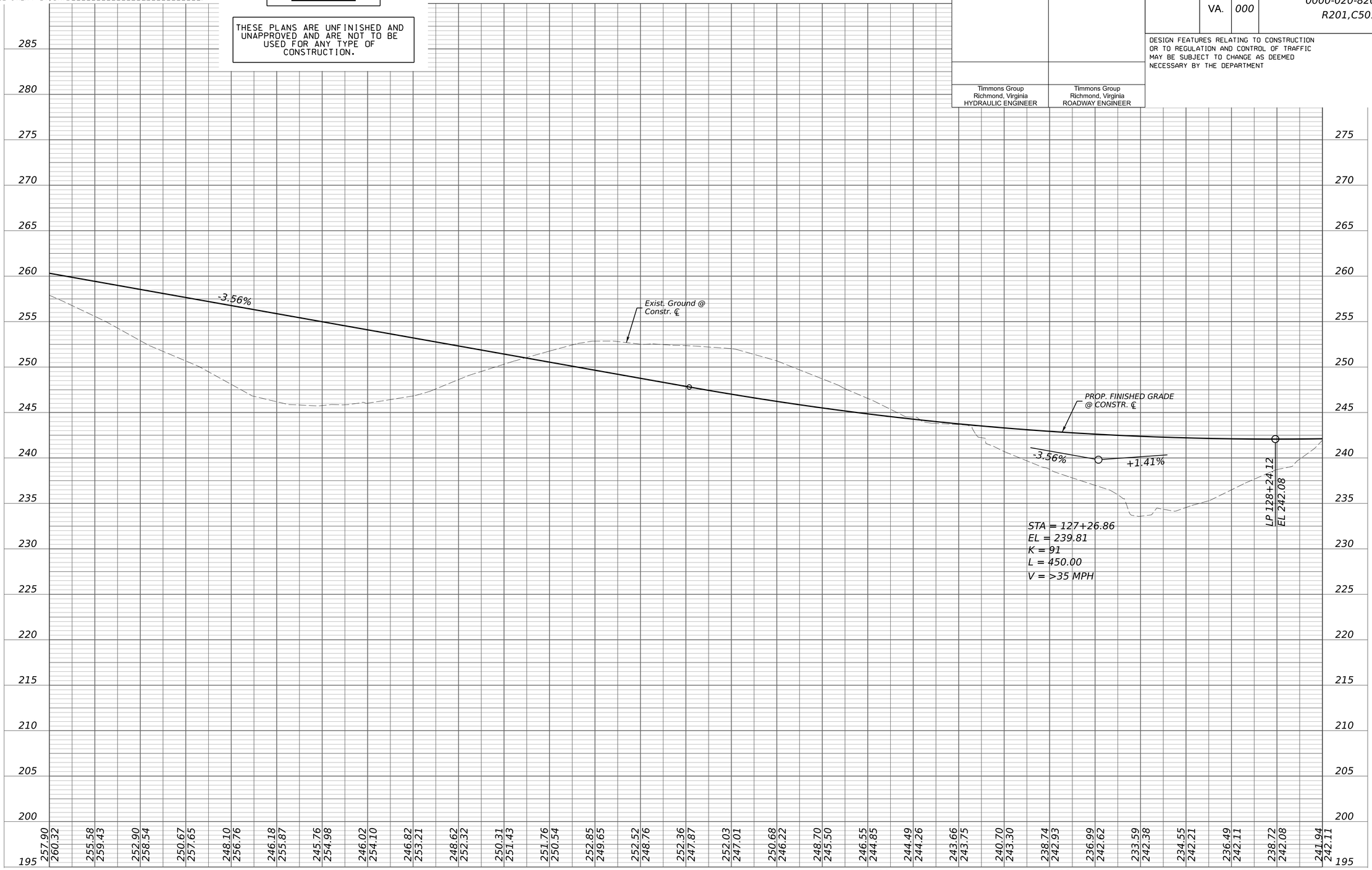
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	8A

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER



BAILEY BRIDGE CONNECTOR

PROJECT	SHEET NO.
0000-020-820	8A

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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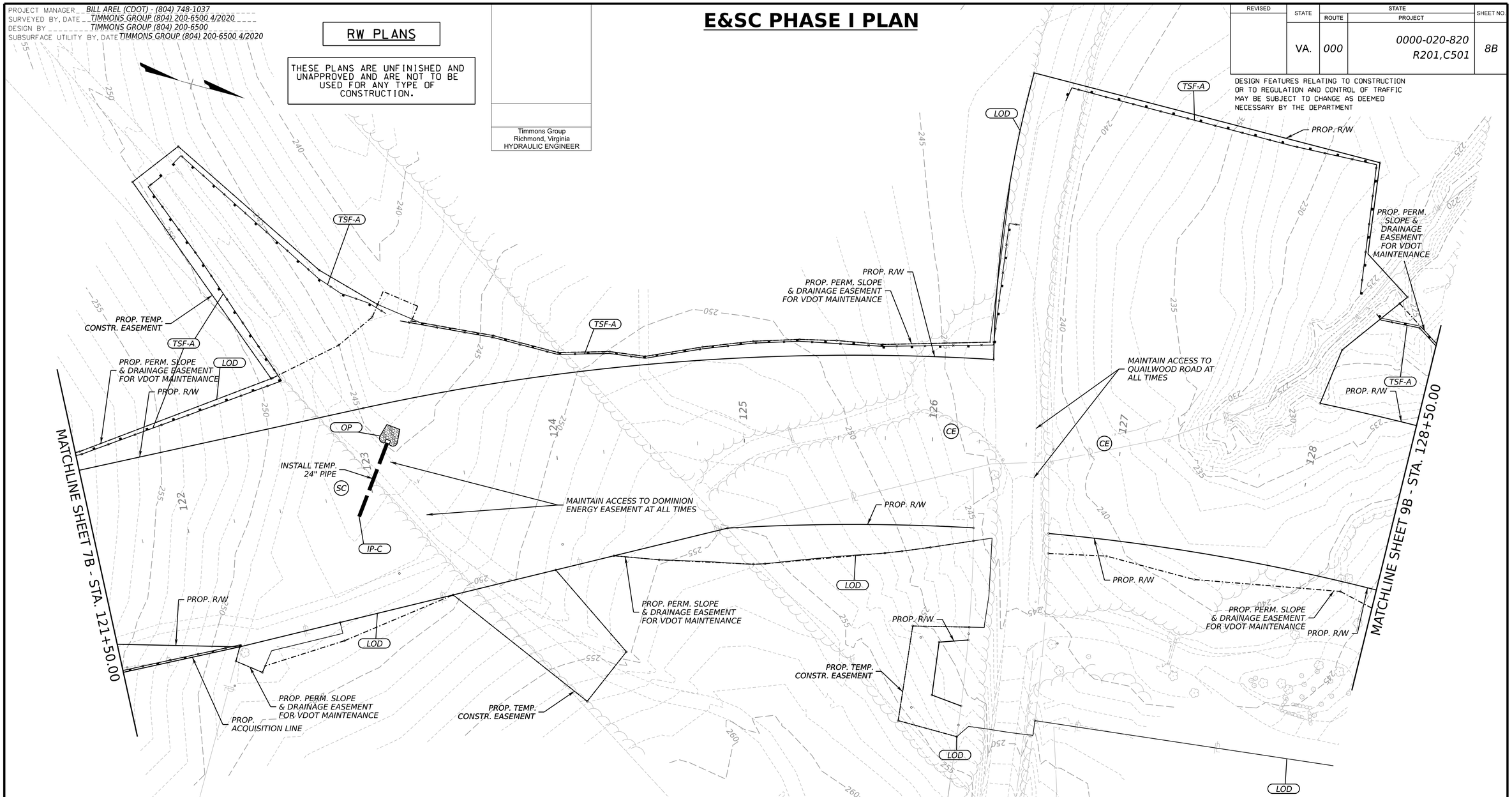
Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

E&SC PHASE I PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	8B

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



LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
SAF	Safety Fence VAESCH St'd. 3.01
TSF-A TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B
RCD-1	Rock Check Dam, Type I; St'd EC-4
RCD-2	Rock Check Dam, Type II; St'd EC-4
DD	Temporary Diversion Dike, St'd EC-9
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6
TCD	Temporary Check Dam, St'd EC-16
TSI	Slope Interrupter; St'd EC-15
OP	Outlet Protection, St'd EC-1
CE	Construction Entrance; St'd EC-11
SC	Temp. Stream Crossing; St'd EC-14
LOD	Limits of Disturbance
ST	Temp. Sediment Trap; St'd EC-7

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

Bailey Bridge Conn. Plan	8
Bailey Bridge Conn. Profile	8A
E & SC Phase II	8C
Drainage Descr.	16(1)-16(2)

SCALE	PROJECT	SHEET NO.
0 25' 50'	0000-020-820	8B

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

E&SC PHASE II PLAN

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	8C

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

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
Bailey Bridge Conn. Plan	8
Bailey Bridge Conn. Profile	8A
E & SC Phase I	8B
Drainage Descr.	16(1)-16(2)

LEGEND

Symbol	Description
EC-2,T1 / EC-2,T2 / EC-2,T3 / EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
EC-3,T1 / EC-3,T2 / EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
SAF	Safety Fence VAESCH St'd. 3.01
TSF-A / TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B
RCD-1	Rock Check Dam, Type I; St'd EC-4
RCD-2	Rock Check Dam, Type II; St'd EC-4
DD	Temporary Diversion Dike, St'd EC-9
IP-A / IP-B / IP-C	Inlet Protection, Type A, B, or C; St'd EC-6
TCD	Temporary Check Dam, St'd EC-16
TSI	Slope Interrupter; St'd EC-15
OP	Outlet Protection, St'd EC-1
CE	Construction Entrance; St'd EC-11
SC	Temp. Stream Crossing; St'd EC-14
LOD	Limits of Disturbance
ST	Temp. Sediment Trap; St'd EC-7

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	8C

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
VDOT UPC NO. 111713

RW PLANS

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REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	8RW

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

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD BEARING	CHORD
C16	16°33'34"	1220.00	352.60	177.54	S19°15'28"E	351.38
C17	14°22'51"	615	154.36	77.59'	S82°50'40"W	153.96'
C18	34°07'17"	1220.00	726.55	374.41	S13°36'51"W	715.86
C20	6°38'37"	1130.00	131.03	65.59	S15°16'02"E	130.95
C21	40°35'18"	1130.00	800.49	417.87	S10°22'51"W	783.86

LINE TABLE

LINE	LENGTH	BEARING
L16	753.64	S27°32'15"E
L17	753.64	S27°32'15"E
L18	190.11	S00°39'01"E
L19	31.19'	N32°17'05"E
L20	26.86	N54°02'49"W

LINE TABLE

LINE	LENGTH	BEARING
L21	30.75	N82°46'03"W
L22	16.52	N5°18'10"E
L23	28.40	N82°26'58"E
L24	15.52	S19°26'39"E
L49	267.18	N28°52'35"W
L50	48.93	N82°19'07"E

SYMBOL LEGEND

■	Prop. R/W Monument (St'd. RM-2)
00.00' / +00.00	Prop. Right of Way
(00.00' / +00.00)	Prop. Temp. (Constr., Entr. Reconstr.) Ease.
[00.00' / +00.00]	Prop. Perm. (Slope, Drainage) Ease.
[[00.00' / +00.00]]	Prop. Perm. (San. Sewer, Water) Ease.

Note: Figures in brackets and dot-dashed lines denote Permanent Easements.

Note: Figures in parenthesis dot-dot-dashed lines denote Temporary Easements.

NOTES:

1. THIS RIGHT OF WAY SHEET REPRESENTS A FIELD RUN PERIMETER SURVEY OF THE PROPOSED R/W LIMITS. ALL ADJOINING/DEPARTING BOUNDARY LINES SHOWN FROM EXISTING R/W ARE COMPILED FROM VARIOUS SOURCES: FOUND FIELD DOCUMENTATION, METES AND BOUNDS DESCRIPTIONS, AND RECORDED PLATS. THE ADJOINING LINES DO NOT REPRESENT A FIELD RUN SURVEY OF THE ADJOINING PROPERTIES AND ARE BEST FIT BASED ON COMPILED DATA. ALL AREAS SHOWN FOR EASEMENT TAKES ARE APPROXIMATE ONLY.
2. THIS PLAN SHEET WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL EASEMENTS WHICH MAY EFFECT THE PROPERTY SHOWN HEREON.
3. NO DESIGNATION OR LOCATION OF SUBSURFACE UTILITIES WAS PERFORMED DURING PREPARATION OF THIS PLAT.
4. ALL OF THE PROPERTIES PHYSICAL IMPROVEMENTS ARE NOT SHOWN HEREON.
5. BEARING AND DISTANCES IN PARENTHESIS ARE RECORD PLAT DATA.
6. THE INFORMATION SHOWN ON THIS PLAN SHEET WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A BOUNDARY SURVEY.
7. PROPERTY INFORMATION IS BASED ON DEEDS AND PLATS OF RECORD AND PHYSICAL EVIDENCE FOUND. ALL MONUMENTATION TO BE SET UPON COMPLETION OF CONSTRUCTION.

COMMONWEALTH OF VIRGINIA
William R. Herx
Lic. No. 2947
LAND SURVEYOR

Timmons Group
Richmond, Virginia
LAND SURVEYOR

APPROXIMATE AREAS

PARCEL NO.	TAX PARCEL ID	R/W Take	RESIDUE (PARCEL ACQUISITION)	EASEMENTS PERMANENT SLOPE & DRAINAGE	EASEMENTS PERMANENT PUBLIC UTILITY SEWER	EASEMENTS TEMPORARY CONSTR
		ACRES	ACRES	ACRES	ACRES	ACRES
010	732-672-9726	5.378	0.414	0.56	-	0.198
012	734-672-7346	0.055	-	0.083	-	0.096
013	733-672-8988	0.752	-	0.226	-	-
014	734-673-1082	4.845	-	2.388	0.077	0.178

SCALE	PROJECT	SHEET NO.
0 25' 50'	0000-020-820	8RW

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	9

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

Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

LEGEND

1. Prop. St'd. CG-2 Req'd.
2. Prop. St'd. CG-3 Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Mod. CG-3 Req'd. (For Inside Truck Apron)
5. Prop. St'd. CG-12 Ty. B Req'd.
6. Prop. St'd. CG-12 Ty. M2 Req'd.
7. Prop. St'd. MS-1 (CG-2 Face) Req'd.
8. Prop. Stamped Conc. Truck Apron
9. Prop. St'd. UD-4 Req'd.
10. Prop. 10' Shared Use Path
11. Prop. St'd. CG-12 Ty. M1 Req'd.
12. Prop. St'd. EW-12, 2:1 (6")
13. Prop. St'd. GR-MGS1 Guardrail
14. Prop. St'd. GR-MGS2 End Terminal
15. Prop. St'd. GR-MGS3 Trailing-End Terminal
16. Prop. St'd. GR-MGS4 Height Transition
17. Prop. St'd. GR-FOA-5 Fixed Object Attachment
18. Prop. Detectable Warning Surface
19. Prop. St'd. CD-1 Req'd.
20. Prop. St'd. CD-2 Req'd.

DND = Do Not Disturb
TBR = To Be Removed
TBA = To Be Abandoned
TBC = To Be Cleaned Out

Denotes Shared Use Path
Denotes Concrete
Denotes Constr. Limits in Cuts
Denotes Constr. Limits in Fills
Denotes V-Ditch
Denotes New Pavement
Denotes Pavement Resurfacing
Denotes Demolition of Pavement
Denotes Concrete Truck Apron

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

Typical Section	2A(1)-2A(2)
Bailey Bridge Conn. Profile	9A
Drainage Descr.	16(1)-16(2)
E & SC Phase I	9B
E & SC Phase II	9C
Entrance Profiles	18(1)-18(2)
PM & Signing Plans	19(9)
Utility Plans	21(9)

SCALE 0 25' 50'

PROJECT 0000-020-820 SHEET NO. 9

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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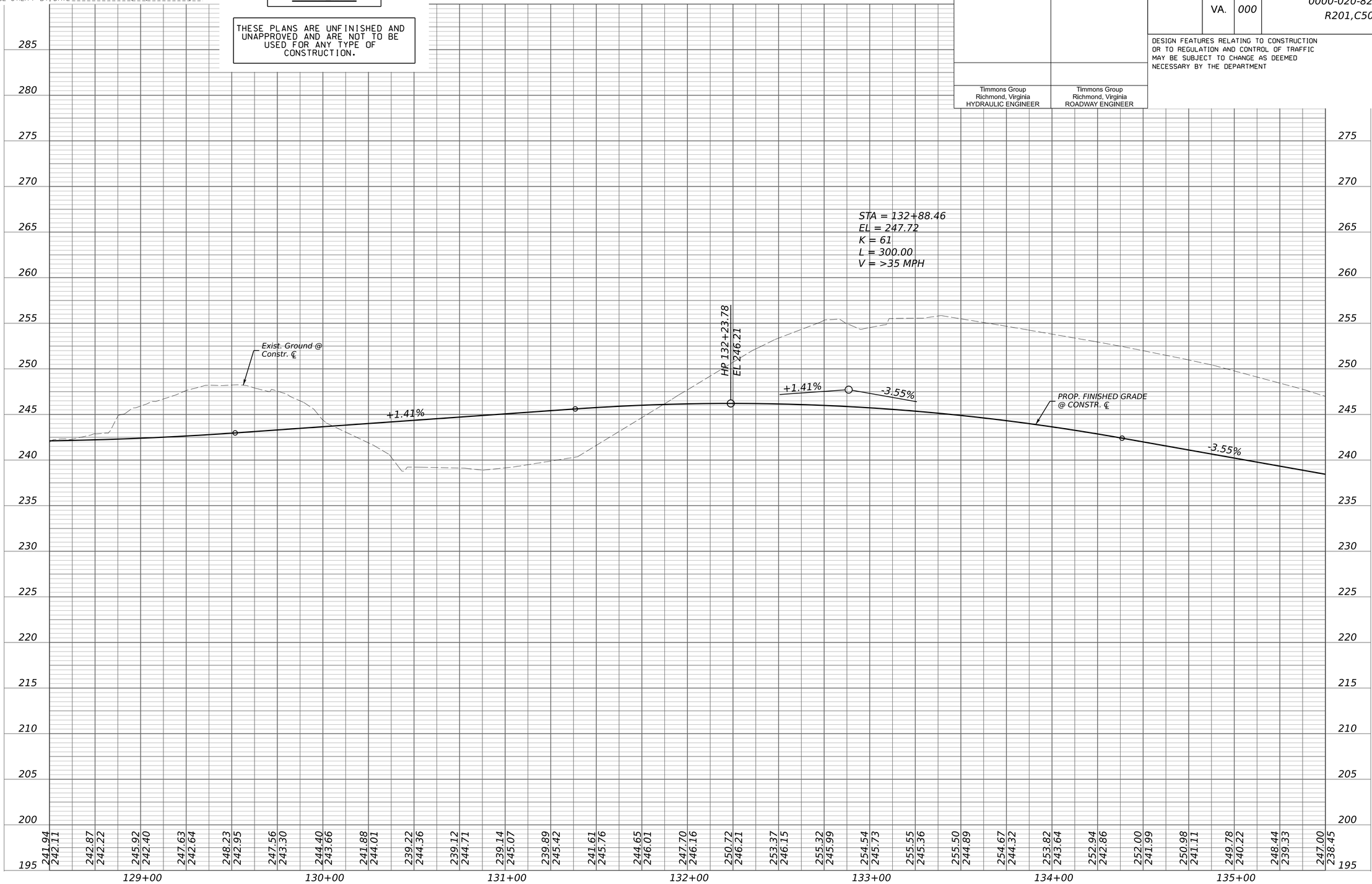
Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	9A

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



BAILEY BRIDGE CONNECTOR

PROJECT	SHEET NO.
0000-020-820	9A

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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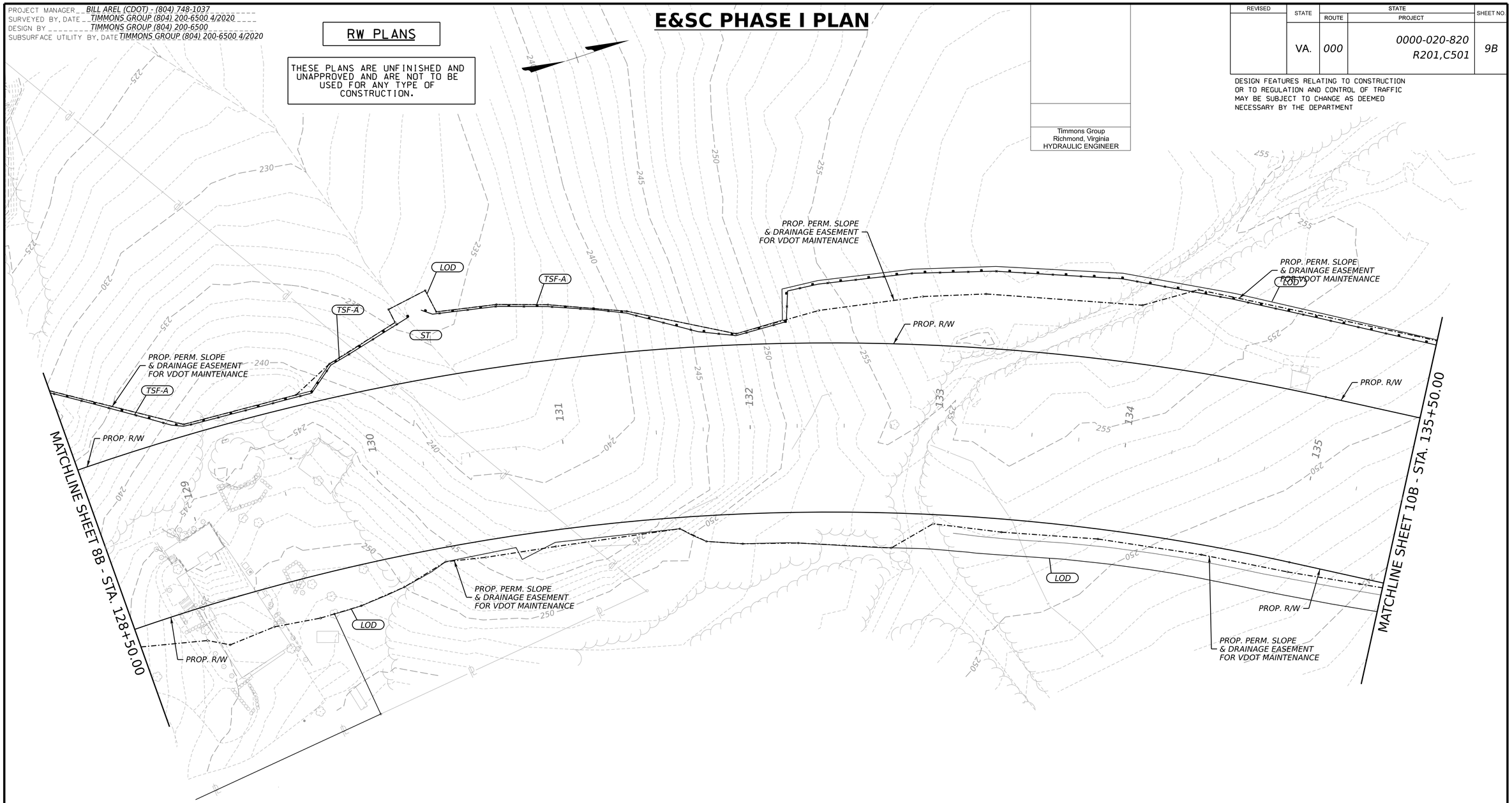
E&SC PHASE I PLAN

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	9B

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER



LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
SAF	Safety Fence VAESCH St'd. 3.01
TSF-A TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B
RCD-1	Rock Check Dam, Type I; St'd EC-4
RCD-2	Rock Check Dam, Type II; St'd EC-4
DD	Temporary Diversion Dike, St'd EC-9
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6
TCD	Temporary Check Dam, St'd EC-16
TSI	Slope Interrupter; St'd EC-15
OP	Outlet Protection, St'd EC-1
CE	Construction Entrance; St'd EC-11
SC	Temp. Stream Crossing; St'd EC-14
LOD	Limits of Disturbance
ST	Temp. Sediement Trap; St'd EC-7

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

Bailey Bridge Conn. Plan	9
Bailey Bridge Conn. Profile	9A
E & SC Phase II	9C
Drainage Descr.	16(2)

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	9B

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER: BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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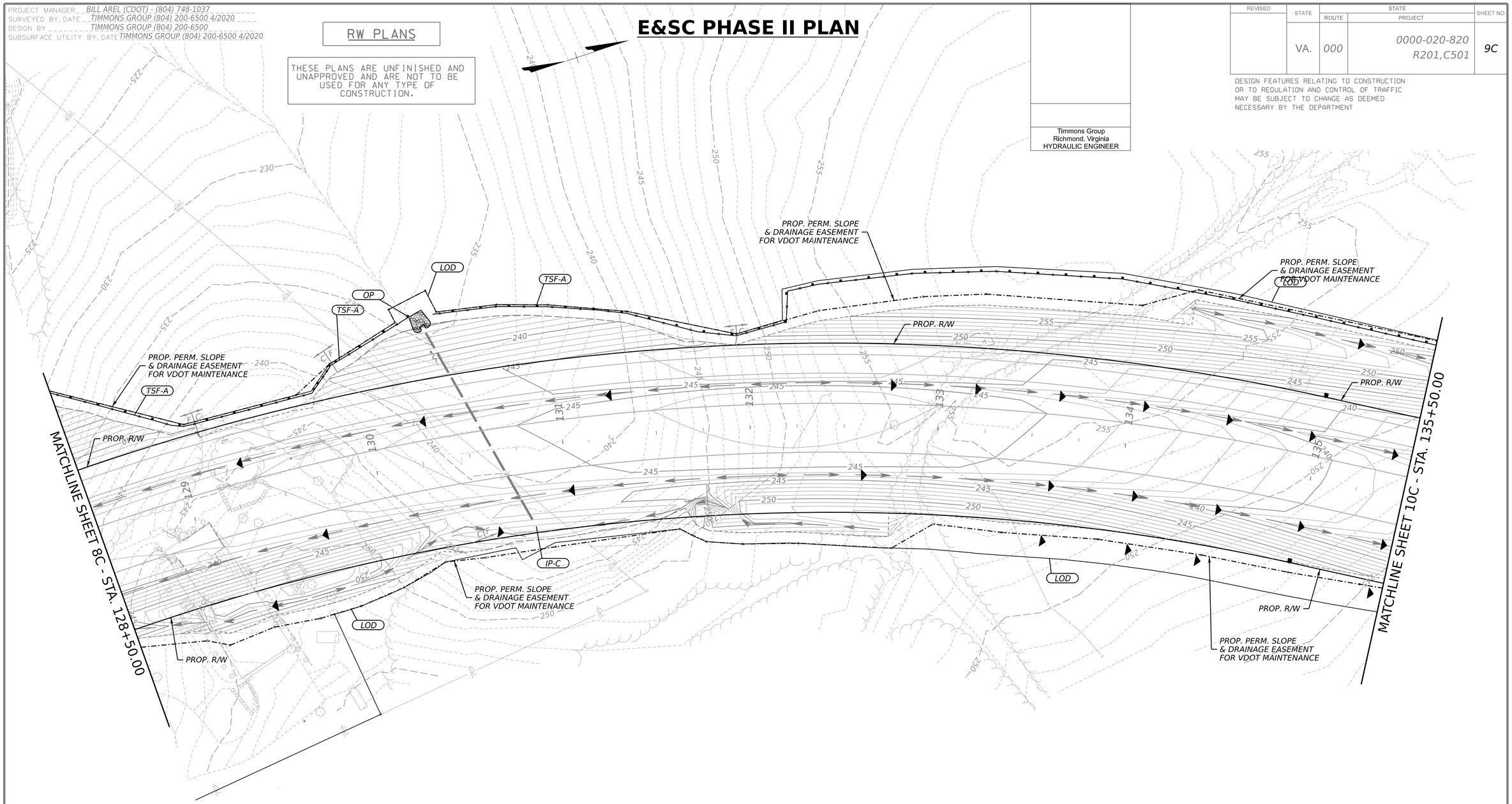
E&SC PHASE II PLAN

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	9C

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



LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
SAF	Safety Fence VAESCH St'd. 3.01
TSF-A TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B
RCD-1	Rock Check Dam, Type I; St'd EC-4
RCD-2	Rock Check Dam, Type II; St'd EC-4
DD	Temporary Diversion Dike, St'd EC-9
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6
TCD	Temporary Check Dam, St'd EC-16
TSI	Slope Interrupter; St'd EC-15
OP	Outlet Protection, St'd EC-1
CE	Construction Entrance; St'd EC-11
SC	Temp. Stream Crossing; St'd EC-14
LOD	Limits of Disturbance
ST	Temp. Sediement Trap; St'd EC-7

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
Bailey Bridge Conn. Plan	9
Bailey Bridge Conn. Profile	9A
E & SC Phase I	9B
Drainage Descr.	16(2)

SCALE 0 25' 50'

PROJECT 0000-020-820

SHEET NO. 9C

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
VDOT UPC NO. 111713

RW PLANS

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COMMONWEALTH OF VIRGINIA
William R. Herx
Lic. No. 2947
LAND SURVEYOR

Timmons Group
Richmond, Virginia
LAND SURVEYOR

REVISED	STATE	ROUTE	PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	9RW

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

LINE TABLE		
LINE	LENGTH	BEARING
L25	572.61	S30°40'30"W
L26	572.61	S30°40'30"W

CURVE TABLE						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD BEARING	CHORD
C18	34°07'17"	1220.00	726.55	374.41	S13°36'51"W	715.86
C21	40°35'18"	1130.00	800.49	417.87	S10°22'51"W	783.86

014
SWIFT CREEK HOLDINGS, LLC
D.B. 7917, PG. 298
734-673-1082
12900 QUAILWOOD ROAD
101.8 AC.

APPROXIMATE AREAS

PARCEL NO.	TAX PARCEL ID	R/W Take	EASEMENTS PERMANENT SLOPE & DRAINAGE	EASEMENTS PERMANENT PUBLIC UTILITY SEWER	EASEMENTS TEMPORARY CONSTR
		ACRES	ACRES	ACRES	ACRES
013	733-672-8988	0.752	0.226	-	0.528
014	734-673-1082	4.845	2.388	0.077	0.178

SYMBOL LEGEND

- ■ Prop. R/W Monument (St'd. RM-2)
- 00.00' / +00.00 Prop. Right of Way
- (00.00' / +00.00) Prop. Temp. (Constr., Entr. Reconstr.) Ease.
- [00.00' / +00.00] Prop. Perm. (Slope, Drainage) Ease.
- [[00.00' / +00.00]] Prop. Perm. (San. Sewer, Water) Ease.

Note: Figures in brackets and dot-dashed lines denote Permanent Easements.

Note: Figures in parenthesis dot-dot-dashed lines denote Temporary Easements.

NOTES:

1. THIS RIGHT OF WAY SHEET REPRESENTS A FIELD RUN PERIMETER SURVEY OF THE PROPOSED R/W LIMITS. ALL ADJOINING/DEPARTING BOUNDARY LINES SHOWN FROM EXISTING R/W ARE COMPILED FROM VARIOUS SOURCES: FOUND FIELD DOCUMENTATION, METES AND BOUNDS DESCRIPTIONS, AND RECORDED PLATS. THE ADJOINING LINES DO NOT REPRESENT A FIELD RUN SURVEY OF THE ADJOINING PROPERTIES AND ARE BEST FIT BASED ON COMPILED DATA. ALL AREAS SHOWN FOR EASEMENT TAKES ARE APPROXIMATE ONLY.
2. THIS PLAN SHEET WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL EASEMENTS WHICH MAY EFFECT THE PROPERTY SHOWN HEREON.
3. NO DESIGNATION OR LOCATION OF SUBSURFACE UTILITIES WAS PERFORMED DURING PREPARATION OF THIS PLAT.
4. ALL OF THE PROPERTIES PHYSICAL IMPROVEMENTS ARE NOT SHOWN HEREON.
5. BEARING AND DISTANCES IN PARENTHESIS ARE RECORD PLAT DATA.
6. THE INFORMATION SHOWN ON THIS PLAN SHEET WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A BOUNDARY SURVEY.
7. PROPERTY INFORMATION IS BASED ON DEEDS AND PLATS OF RECORD AND PHYSICAL EVIDENCE FOUND. ALL MONUMENTATION TO BE SET UPON COMPLETION OF CONSTRUCTION.

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

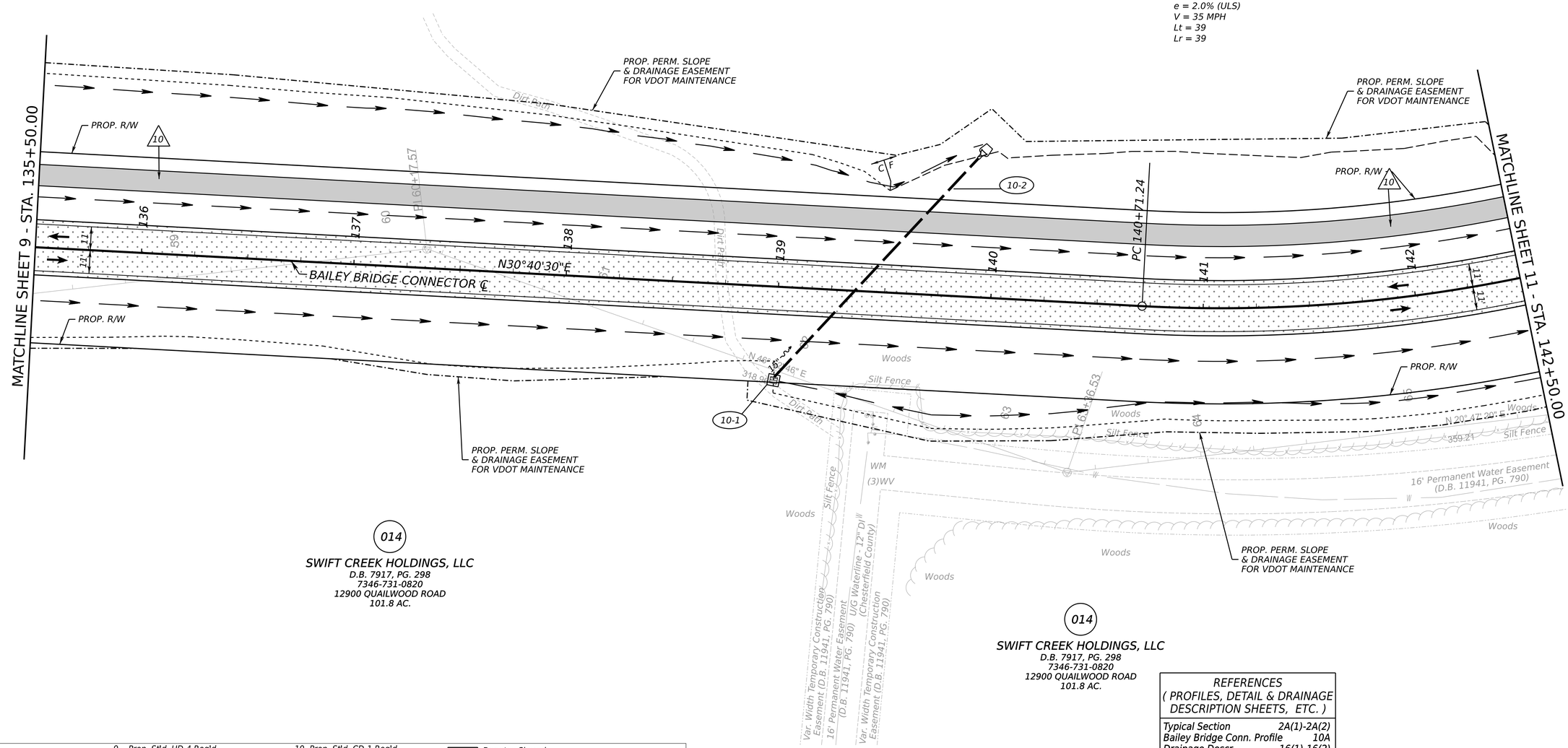
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	10

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

014

SWIFT CREEK HOLDINGS, LLC
D.B. 7917, PG. 298
7346-731-0820
12900 QUAILWOOD ROAD
101.8 AC.

PI = 142+25.74
DELTA = 24°53'29.96" (LT)
D = 08°11'06"
T = 154.49'
L = 304.11'
R = 700.00'
PC = 140+71.24
PT = 143+75.35
e = 2.0% (ULS)
V = 35 MPH
Lt = 39
Lr = 39



014

SWIFT CREEK HOLDINGS, LLC
D.B. 7917, PG. 298
7346-731-0820
12900 QUAILWOOD ROAD
101.8 AC.

014

SWIFT CREEK HOLDINGS, LLC
D.B. 7917, PG. 298
7346-731-0820
12900 QUAILWOOD ROAD
101.8 AC.

LEGEND

1. Prop. St'd. CG-2 Req'd.
2. Prop. St'd. CG-3 Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Mod. CG-3 Req'd. (For Inside Truck Apron)
5. Prop. St'd. CG-12 Ty. B Req'd.
6. Prop. St'd. CG-12 Ty. M2 Req'd.
7. Prop. St'd. MS-1 (CG-2 Face) Req'd.
8. Prop. Stamped Conc. Truck Apron
9. Prop. St'd. UD-4 Req'd.
10. Prop, 10' Shared Use Path
11. Prop. St'd. CG-12 Ty. M1 Req'd.
12. Prop. St'd. EW-12, 2:1 (6")
13. Prop. St'd. GR-MGS1 Guardrail
14. Prop. St'd. GR-MGS2 End Terminal
15. Prop. St'd. GR-MGS3 Trailing-End Terminal
16. Prop. St'd. GR-MGS4 Height Transition
17. Prop. St'd. GR-FOA-5 Fixed Object Attachment
18. Prop. Detectable Warning Surface
19. Prop. St'd. CD-1 Req'd.
20. Prop. St'd. CD-2 Req'd.

DND = Do Not Disturb
TBR = To Be Removed
TBA = To Be Abandoned
TBC = To Be Cleaned Out

Denotes Shared Use Path
Denotes Concrete
Denotes Constr. Limits in Cuts
Denotes Constr. Limits in Fills
Denotes V-Ditch
Denotes New Pavement
Denotes Pavement Resurfacing
Denotes Demolition of Pavement
Denotes Concrete Truck Apron

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

Typical Section	2A(1)-2A(2)
Bailey Bridge Conn. Profile	10A
Drainage Descr.	16(1)-16(2)
E & SC Phase I	10B
E & SC Phase II	10C
Entrance Profiles	18(1)-18(2)
PM & Signing Plans	19(10)
Utility Plans	21(10)

SCALE	PROJECT	SHEET NO.
0 25' 50'	0000-020-820	10

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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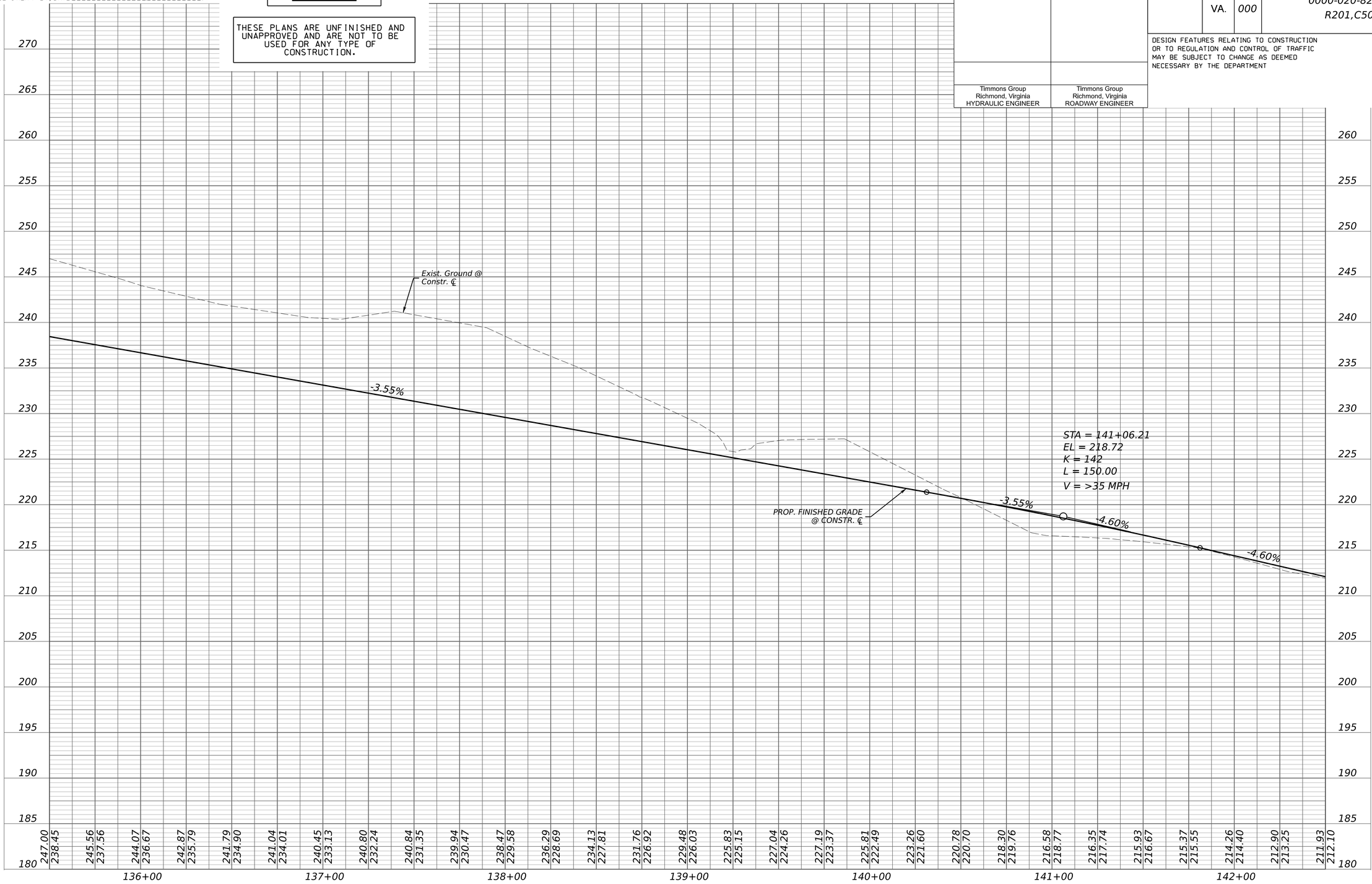
REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	10A

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

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

Timmons Group
Richmond, Virginia
ROADWAY ENGINEER



BAILEY BRIDGE CONNECTOR

PROJECT	SHEET NO.
0000-020-820	10A

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

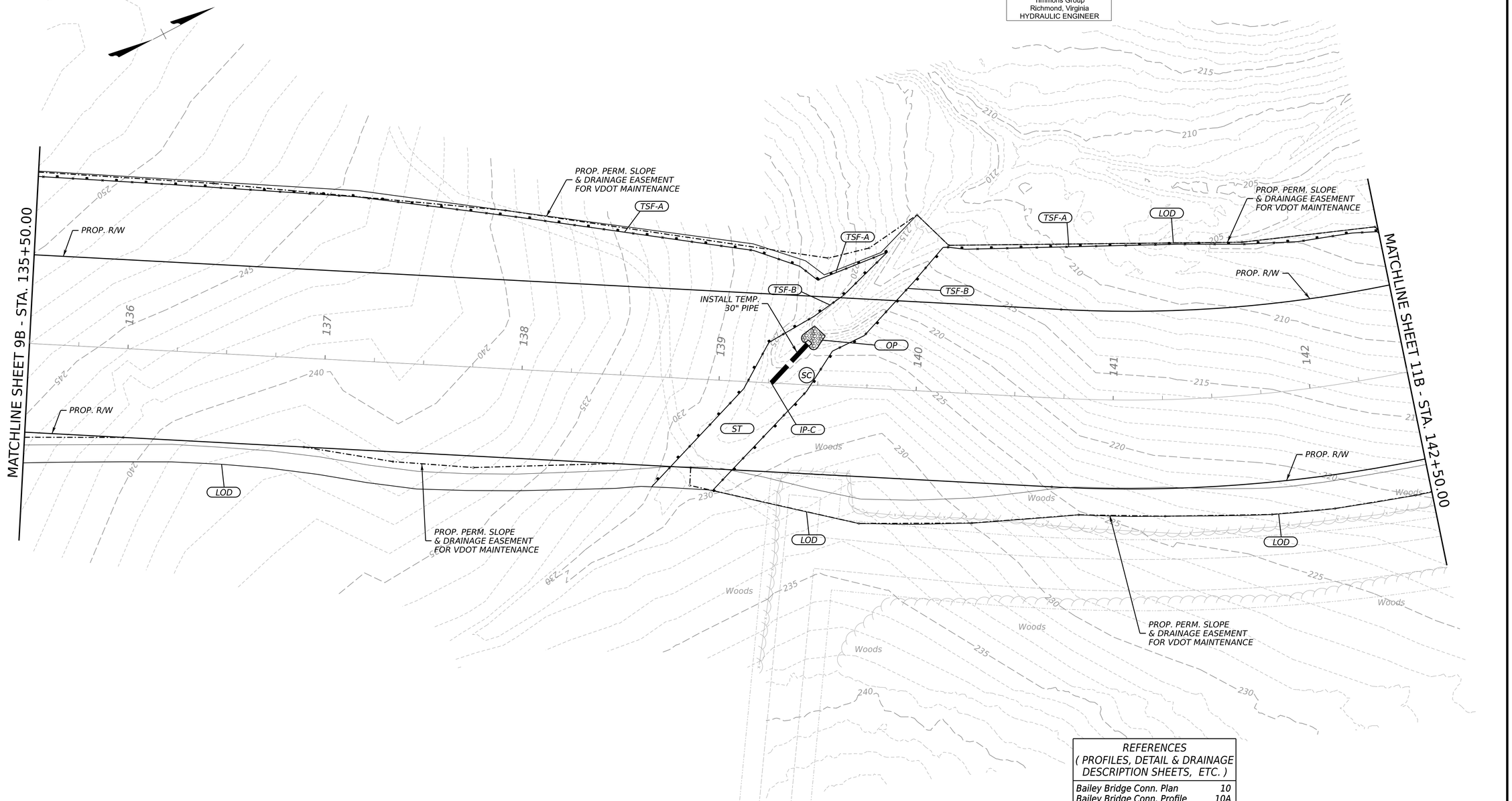
THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

E&SC PHASE I PLAN

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	10B

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



LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
SAF	Safety Fence VAESCH St'd. 3.01
TSF-A TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B
RCD-1	Rock Check Dam, Type I; St'd EC-4
RCD-2	Rock Check Dam, Type II; St'd EC-4
DD	Temporary Diversion Dike, St'd EC-9
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6
TCD	Temporary Check Dam, St'd EC-16
TSI	Slope Interrupter; St'd EC-15
OP	Outlet Protection, St'd EC-1
CE	Construction Entrance; St'd EC-11
SC	Temp. Stream Crossing; St'd EC-14
LOD	Limits of Disturbance
ST	Temp. Sediment Trap; St'd EC-7

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

Bailey Bridge Conn. Plan	10
Bailey Bridge Conn. Profile	10A
E & SC Phase II	10C
Drainage Descr.	16(2)

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	10B

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER: BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY: TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE: TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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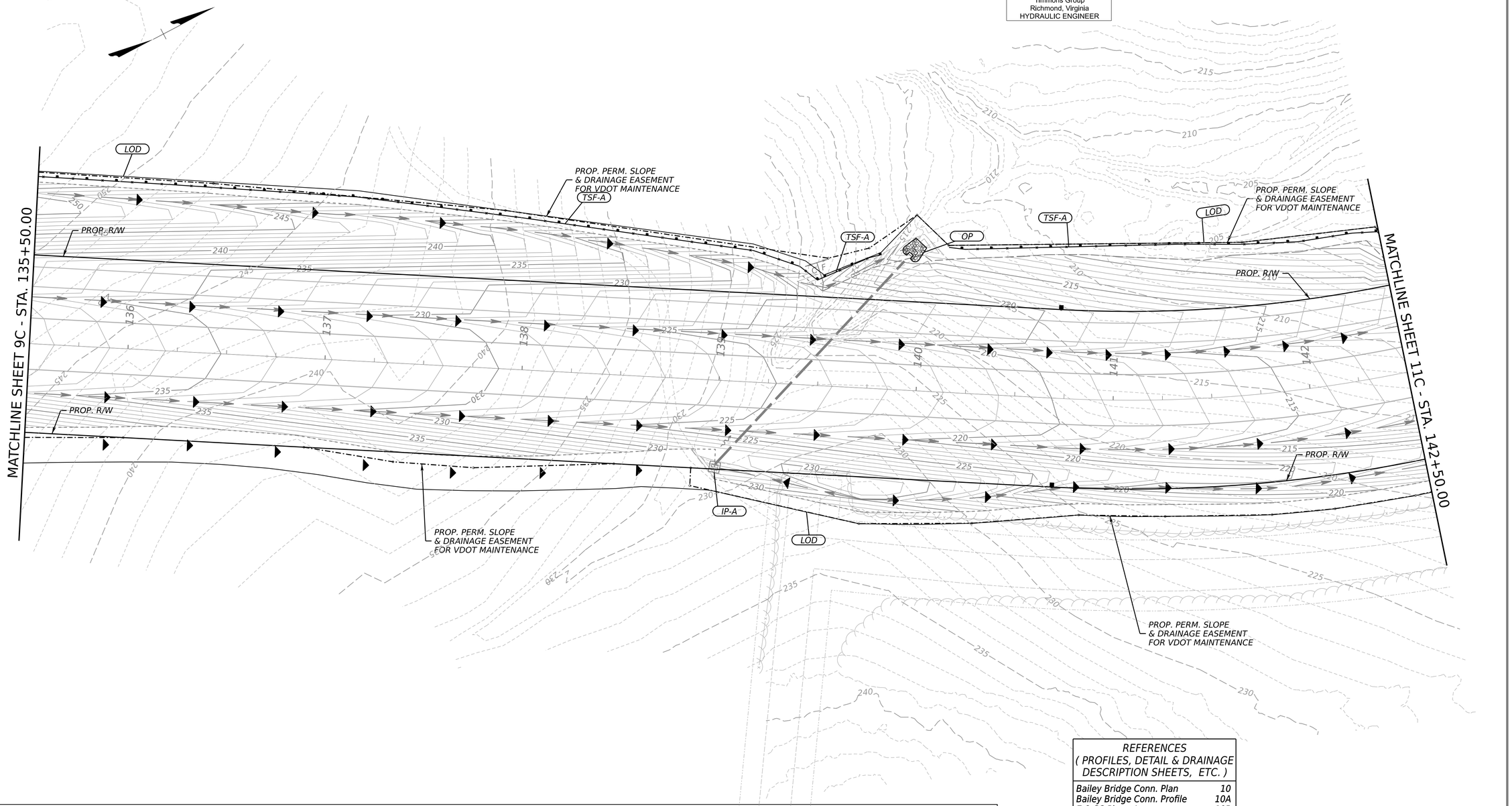
E&SC PHASE II PLAN

Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	10C

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



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

Bailey Bridge Conn. Plan	10
Bailey Bridge Conn. Profile	10A
E & SC Phase I	10B
Drainage Descr.	16(2)

LEGEND

EC-2,T1 EC-2,T2 EC-2,T3 EC-2,T4	Rolled Erosion Control Product, Temporary, St'd. EC-2 Type 1, 2, 3 or 4
EC-3,T1 EC-3,T2 EC-3,T3	Rolled Erosion Control Product, Permanent, St'd. EC-3 Type 1, 2 or 3
SAF	Safety Fence VAESCH St'd. 3.01
TSF-A TSF-B	Temporary Silt Fence, St'd EC-5 Type A or B
RCD-1	Rock Check Dam, Type I; St'd EC-4
RCD-2	Rock Check Dam, Type II; St'd EC-4
DD	Temporary Diversion Dike, St'd EC-9
IP-A IP-B IP-C	Inlet Protection, Type A, B, or C; St'd EC-6
TCD	Temporary Check Dam, St'd EC-16
TSI	Slope Interrupter; St'd EC-15
OP	Outlet Protection, St'd EC-1
CE	Construction Entrance; St'd EC-11
SC	Temp. Stream Crossing; St'd EC-14
LOD	Limits of Disturbance
ST	Temp. Sediement Trap; St'd EC-7

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	10C

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER _ BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE _ TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY _ TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
VDOT UPC NO. _ 111713

RW PLANS

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Based on VDOT Proj. 000-020-820, R201, C501

LINE TABLE		
LINE	LENGTH	BEARING
L25	572.61	S30°40'30"W
L26	572.61	S30°40'30"W

CURVE TABLE						
CURVE	DELTA	RADIUS	LENGTH	TANGENT	CHORD BEARING	CHORD
C22	24°53'30"	655.00	284.56	144.56	S18°13'45"E	282.33
C23	24°53'30"	745.00	323.66	164.42	S18°13'45"E	321.12

COMMONWEALTH OF VIRGINIA
William R. Herx
Lic. No. 2947
LAND SURVEYOR

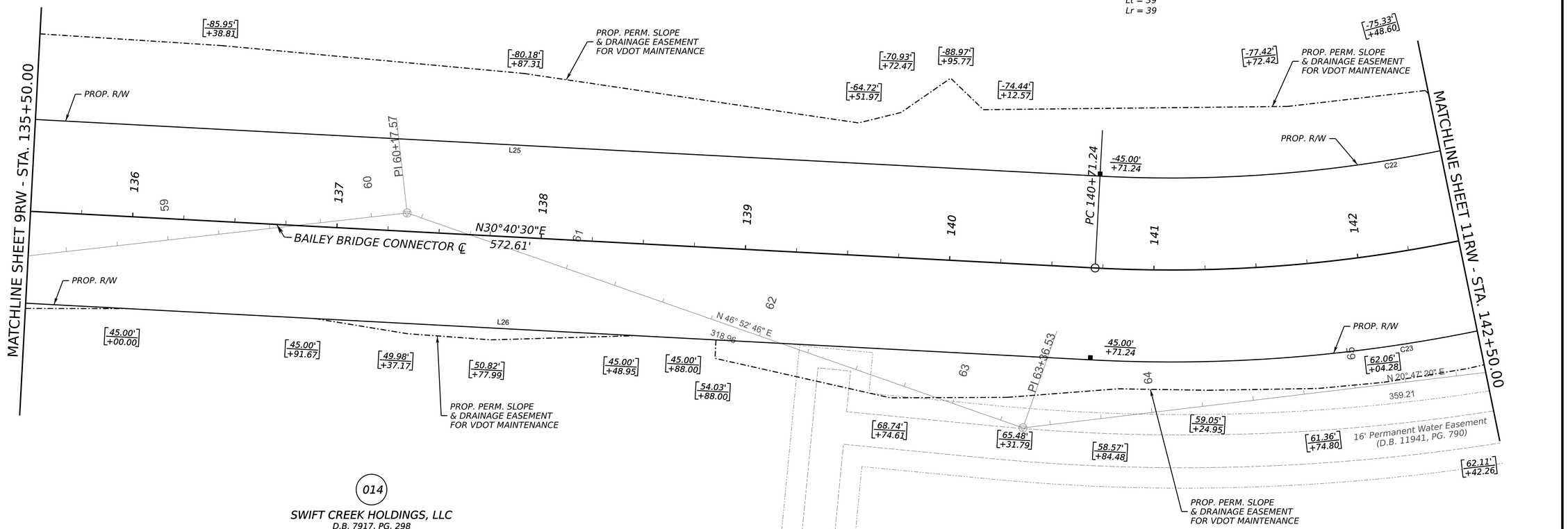
Timmons Group
Richmond, Virginia
LAND SURVEYOR

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	10RW

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

014
SWIFT CREEK HOLDINGS, LLC
D.B. 7917, PG. 298
734-673-1082
12900 QUAILWOOD ROAD
101.8 AC.

PI = 142+25.74
DELTA = 24°53'29.96" (LT)
D = 08°11'06"
T = 154.49'
L = 304.11'
R = 700.00'
PC = 140+71.24
PT = 143+75.35
e = 2.0% (ULS)
V = 35 MPH
Lt = 39
Lr = 39



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SYMBOL LEGEND

- ■ Prop. R/W Monument (St'd. RM-2)
- 00.00' / +00.00 — Prop. Right of Way
- (00.00' / +00.00) — Prop. Temp. (Constr., Entr. Reconstr.) Ease.
- [00.00' / +00.00] — Prop. Perm. (Slope, Drainage) Ease.
- [[00.00' / +00.00]] — Prop. Perm. (San. Sewer, Water) Ease.

Note: Figures in brackets and dot-dashed lines denote Permanent Easements.

Note: Figures in parenthesis dot-dot-dashed lines denote Temporary Easements.

NOTES:

1. THIS RIGHT OF WAY SHEET REPRESENTS A FIELD RUN PERIMETER SURVEY OF THE PROPOSED R/W LIMITS. ALL ADJOINING/DEPARTING BOUNDARY LINES SHOWN FROM EXISTING R/W ARE COMPILED FROM VARIOUS SOURCES: FOUND FIELD DOCUMENTATION, METES AND BOUNDS DESCRIPTIONS, AND RECORDED PLATS. THE ADJOINING LINES DO NOT REPRESENT A FIELD RUN SURVEY OF THE ADJOINING PROPERTIES AND ARE BEST FIT BASED ON COMPILED DATA. ALL AREAS SHOWN FOR EASEMENT TAKES ARE APPROXIMATE ONLY.
2. THIS PLAN SHEET WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND MAY NOT SHOW ALL EASEMENTS WHICH MAY EFFECT THE PROPERTY SHOWN HEREON.
3. NO DESIGNATION OR LOCATION OF SUBSURFACE UTILITIES WAS PERFORMED DURING PREPARATION OF THIS PLAT.
4. ALL OF THE PROPERTIES PHYSICAL IMPROVEMENTS ARE NOT SHOWN HEREON.
5. BEARING AND DISTANCES IN PARENTHESIS ARE RECORD PLAT DATA.
6. THE INFORMATION SHOWN ON THIS PLAN SHEET WAS COMPILED FROM EXISTING LAND RECORDS AND DOES NOT REPRESENT A BOUNDARY SURVEY.
7. PROPERTY INFORMATION IS BASED ON DEEDS AND PLATS OF RECORD AND PHYSICAL EVIDENCE FOUND. ALL MONUMENTATION TO BE SET UPON COMPLETION OF CONSTRUCTION.

APPROXIMATE AREAS

PARCEL NO.	TAX PARCEL ID	R/W Take	EASEMENTS		
			PERMANENT		TEMPORARY
			SLOPE & DRAINAGE	PUBLIC UTILITY SEWER	CONSTR
		ACRES	ACRES	ACRES	ACRES
014	734-673-1082	4.845	2.388	0.077	0.178

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	10RW

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
SUBSURFACE UTILITY BY, DATE TIMMONS GROUP (804) 200-6500 4/2020

RW PLANS

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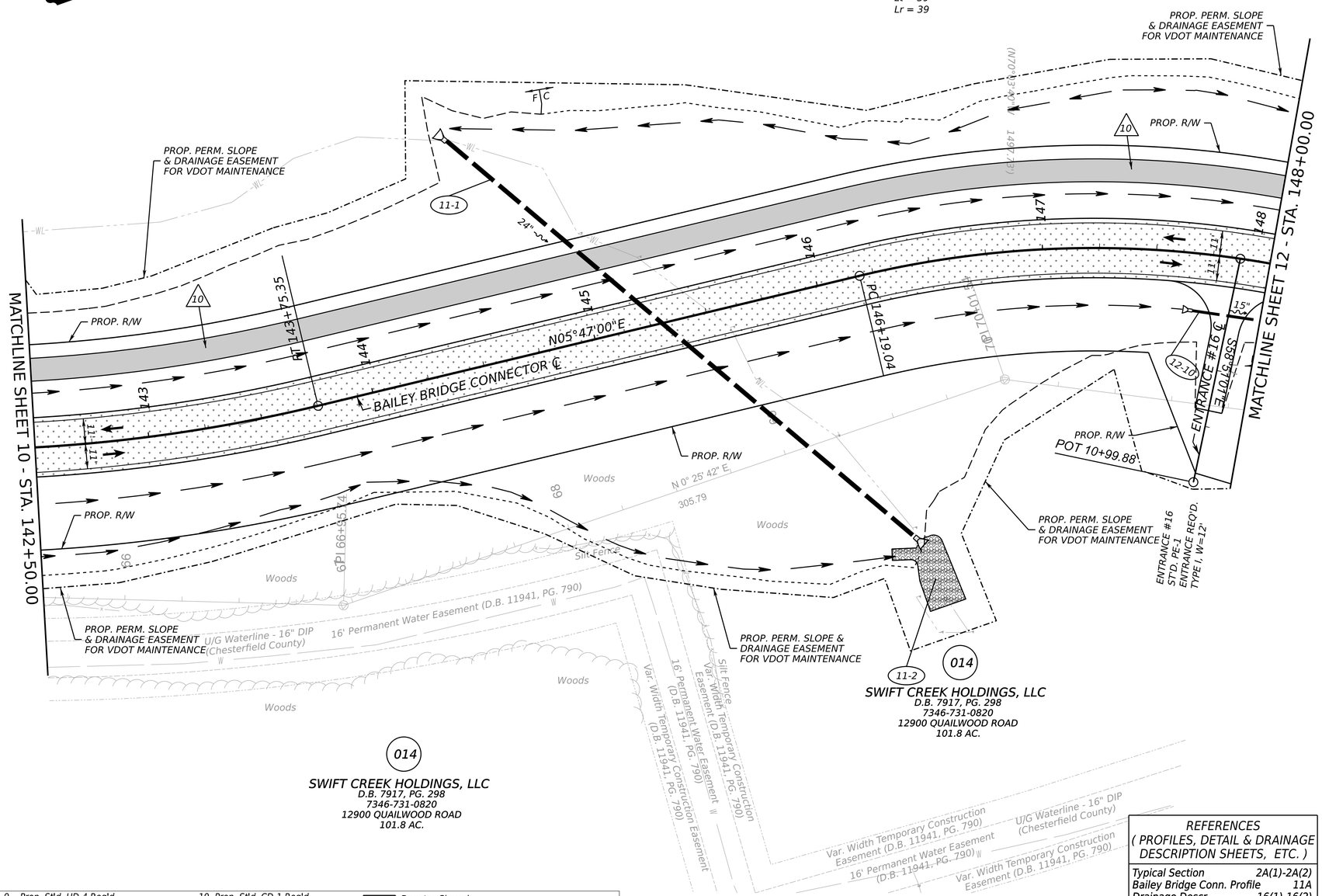
Timmons Group Richmond, Virginia HYDRAULIC ENGINEER	Timmons Group Richmond, Virginia ROADWAY ENGINEER

REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	11

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

014
SWIFT CREEK HOLDINGS, LLC
D.B. 7917, PG. 298
7346-731-0820
12900 QUAILWOOD ROAD
101.8 AC.

PI = 147+95.76
DELTA = 43°45'53.65" (RT)
D = 13°01'18"
T = 176.72'
L = 336.09'
R = 440.00'
PC = 146+19.04
PT = 149+55.13
e = 2.0% (ULS)
V = 35 MPH
Lt = 39
Lr = 39



LEGEND

1. Prop. St'd. CG-2 Req'd.
2. Prop. St'd. CG-3 Req'd.
3. Prop. St'd. CG-6 Req'd.
4. Mod. CG-3 Req'd. (For Inside Truck Apron)
5. Prop. St'd. CG-12 Ty. B Req'd.
6. Prop. St'd. CG-12 Ty. M2 Req'd.
7. Prop. St'd. MS-1A (CG-2 Face) Req'd.
8. Prop. Stamped Conc. Truck Apron
9. Prop. St'd. UD-4 Req'd.
10. Prop, 10' Shared Use Path
11. Prop. St'd. CG-12 Ty. M1 Req'd.
12. Prop. St'd. EW-12, 2:1 (6")
13. Prop. St'd. GR-MGS1 Guardrail
14. Prop. St'd. GR-MGS2 End Terminal
15. Prop. St'd. GR-MGS3 Trailing-End Terminal
16. Prop. St'd. GR-MGS4 Height Transition
17. Prop. St'd. GR-FOA-5 Fixed Object Attachment
18. Prop. Detectable Warning Surface
19. Prop. St'd. CD-1 Req'd.
20. Prop. St'd. CD-2 Req'd.

DND = Do Not Disturb
TBR = To Be Removed
TBA = To Be Abandoned
TBC = To Be Cleaned Out

Denotes Shared Use Path
Denotes Concrete
Denotes Constr. Limits in Cuts
Denotes Constr. Limits in Fills
Denotes V-Ditch
Denotes New Pavement
Denotes Pavement Resurfacing
Denotes Demolition of Pavement
Denotes Concrete Truck Apron

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

Typical Section	2A(1)-2A(2)
Bailey Bridge Conn. Profile	11A
Drainage Descr.	16(1)-16(2)
E & SC Phase I	11B
E & SC Phase II	11C
Entrance Profiles	18(1)-18(2)
PM & Signing Plans	19(11)
Utility Plans	21(11)

SCALE 0 25' 50'

PROJECT	SHEET NO.
0000-020-820	11

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227

PROJECT MANAGER BILL AREL (CDOT) - (804) 748-1037
SURVEYED BY, DATE TIMMONS GROUP (804) 200-6500 4/2020
DESIGN BY TIMMONS GROUP (804) 200-6500
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REVISED	STATE	STATE ROUTE	STATE PROJECT	SHEET NO.
	VA.	000	0000-020-820 R201,C501	11A

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Timmons Group
Richmond, Virginia
HYDRAULIC ENGINEER

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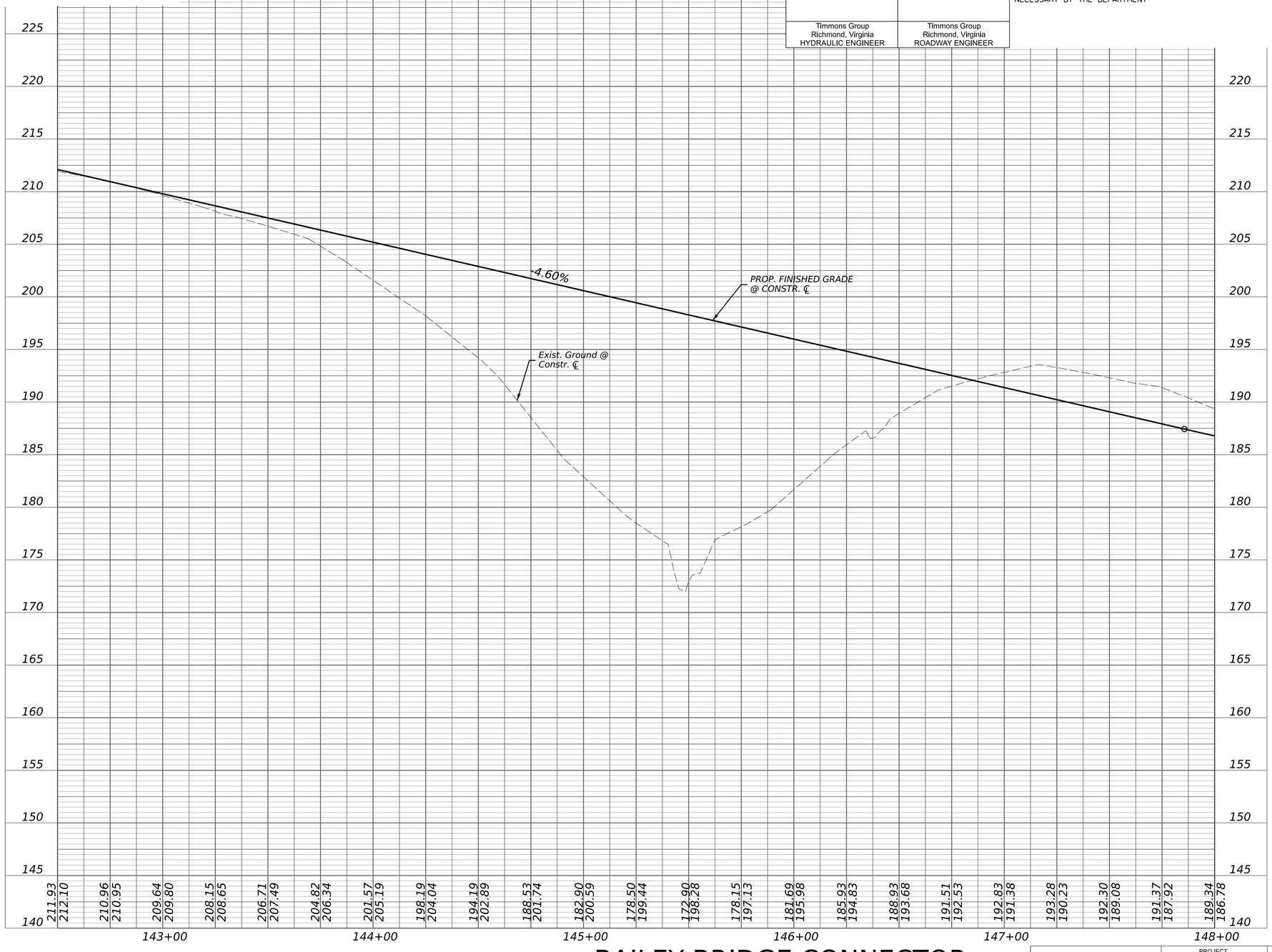
Richmond, Virginia
ROADWAY ENGINEER



BAILEY BRIDGE CONNECTOR

PROJECT	SHEET NO.
0000-020-820	11A

COUNTY LIN NO.: 21-0015
COUNTY PROJECT NO.: 18-0227