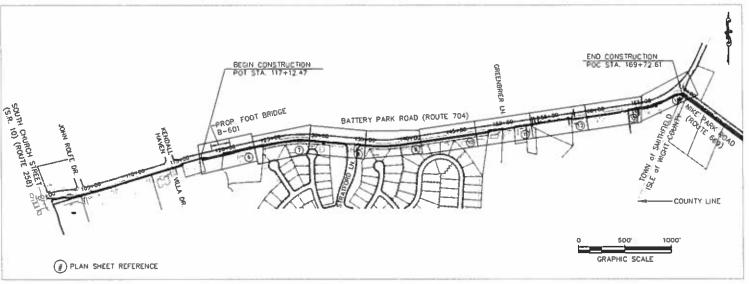


TOWN OF SMITHFIELD, VIRGINIA

SMITHFIELD TO NIKE PARK PEDESTRIAN/BICYCLE TRAIL

SEGMENT 1-BATTERY PARK ROAD UPC #101793



SHEET INDEX

RIGHT-OF-WAY DATA SHEET 1A SURVEY CONTROL 1B GRADING DIAGRAM STORMWATER POLLUTION PREVENTION PLAN 1D-1D(2)TRANSPORTATION MANAGEMENT PLAN 1E-1E(2)GENERAL NOTES TYPICAL SECTIONS AND DETAILS 3 - 5NOT USED 6-14 PLAN SHEETS 15 NOT USED 15(1) - 15(5) PROFILE SHEETS 16(1) PEDESTRIAN BRIDGE B-601 PLAN & DEVELOPED SECTION PEDESTRIAN BRIDGE B-601 GENERAL NOTES 16(2) 16(3) PEDESTRIAN BRIDGE B-601 DETAILS

LOCALLY ADMINISTERED PROJECTS
TRANSPORTATION ENHANCEMENT PROGRAM

RECOMMENDED FOR APPROVAL FOR RIGHT OF WAY ACQUISITION

RECOMMENDED FOR APPROVAL FOR CONSTRUCTION

VER, TRANSPORTATION COORDINATOR

OLIVER, TRANSPORTATION COORDINATOR

Isle of Wight County, Virginia

	PLAN REVIEW H	ISTORY
DATE	INITIAL	DESCRIPTION
7/13/2011	RRJ	30% INITIAL DESIGN SUBMITTAL
12/5/2011	RRJ	60% PROG. SUBMITTAL TO COUNTY
6/21/2012	RRJ	60%/RW PLANS SUBMITTAL
1/15/2013	RRJ	RW PLANS SUBWITTAL
6/13/2013	RRJ	RW PLANS SUBMITTAL (REVISED)
11/10/2016	RRJ	ADV. AUTH. SUBMITTAL
12/12/2016	RAJ	PS&E

THIS PROJECT IS GRANDFATHERED UNDER THE PROVISIONS OF SECTION 4VAC50-60-48 OF THE VSMP REGULATIONS ADOPTED SEPTEMBER 13, 2011 AND UTILIZES THE TECHNICAL CRITERIA OF PART IIC (4VAC50-60-93.1 ET. SEQ.) FOR DETERMINING ITS POST DEVELOPMENT STORMWATER MANAGEMENT DESIGN.

THIS PROJECT HAS BEEN DESIGNED ACCORDING TO THE AASHTO 2012 GUIDE FOR THE DEVELOPMENT OF BICYCLE FACILITIES.

THIS PROJECT IS TO BE CONSTRUCTED IN ACCORDANCE WITH VDOT'S 2007 ROAD AND BRIDGE SPECIFICATIONS, 2008 ROAD AND BRIDGE STANDARDS, 2011 WORK AREA PROTECTION MANUAL AND AS AMENDED BY CONTRACT PROVISIONS AND THE COMPLETE ELECTRONIC .TIF VERSION OF THE PLAN ASSEMBLY.

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

PROJECT RIGHT OF WAY AND/OR OTHER EASEMENTS WILL BE CONVEYED BY PLAT(S) PREPARED BY OTHERS.

FHWA 534 DATA 21028

F	UNCTIONAL CLASSIFIC	ATION AND TRAFFIC I	DATA FOR ADJACENT R	DADWAYS
		Fr: BATTERY PARK RD. To: TITUS CREEK DR.		Fr: SOUTH CHURCH ST. To: NIKE PARK RD.
Name and Functional Classification	BATTERY PARK RD. URBAN COLLECTOR	NIKE PARK RD. (NORTH) URBAN COLLECTOR	NIKE PARK RD. (SOUTH) LOCAL	SHARED USE PATH
ADT (2012)	10,159 VPD	9,115 VPD	3,039 VPD	N/A
ADT (2034)	_	-	_	N/A
DHV	-	-	_	N/A
D (%)(design hour)	-%	-%	-%	-%
T (%)(design hour)	-%	-%	-%	-%
V (MPH)	35 MPH (POSTED)	45 MPH (POSTED)	45 MPH (POSTED)	18 MPH (DESIGNED)

POPULATION 36,462 (2013 CENSUS)

STATE PROJECT	SECTION	FEDERAL AID	TYPE	PPMS	LEN	STH	TYPE PROJECT	DESCRIPTION
NO.		PROJECT NO.	CODE	NO.	FEET	MILES	PROJECT]
	P-101	TEA 5A03(188)	N/A	91219	20782.08	3.936	PREL. ENGR.	Fr: CYPRESS CREEK BRIDGE To: NIKE PARK ROAD
046-115	R-201	TEA 5A03(678)	N/A	101793	6925.20	1.312	RIGHT OF WAY	Fr: SOUTH CHURCH ST. To: NIKE PARK ROAD
EN08-046	M-501	824	1000	101793	5260 14	0.996	CONSTRUCTION	Fr: SOUTH CHURCH ST. To: NIKE PARK ROAD
	8-601	18	X901	101793	201.25	0.038	BRIDGE	PROP TRAIL OVER WETLANDS

NOTE: PROJECT LENGTH BASED ON CONSTRUCTION BASELINE INCLUDING EQUALITIES



PROJECT OWNER & CONSULTANT

NOT USED

CROSS SECTIONS

CLIENT / OWNER

X1-X3 X4-X15

ISLE OF WIGHT COUNTY
CONTACT: JAMIE OLIVER
GENERAL SERVICES DEPARTMENT
ADDRESS: 13048 POOR HOUSE ROAD
ISLE OF WIGHT. VA 23397
PHONE: (757) 365-1658

TOWN OF SMITHFIELD CONTACT: WILLIAM SAUNDERS PLANNING PICHOINEERING DEPARTMENT ADDRESS: 310 INSTITUTE STREET SMITHFIELD, VA 23431 PHONE: (757) 365-4200

V.D.O.T.

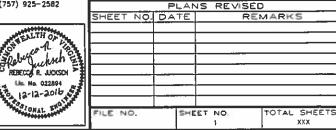
CONTACT DERRICK WILLIAMS
ADDRESS: 1700 N. MAIN STREET
SUFFOLK, VIRGINIA 23434
PHONE: (757) 925-2582

NXL
CONTACT: TODD FRENCH
ADDRESS: 716 J CLYDE MORRIS BLVD.
NEWPORT NEWS, WRGINIA 23601
PHONE: (757) 596-4005

CIVIL ENGINEER

Kimley >> Horn

4500 MAIN STREET SUITE 500 VIRGINIA BEACH, VIRGINIA 23462 PHONE: 757–213–8600 FAX: 757–213–8601



RIGHT-OF-WAY DATA SHEET

						ARE					
PARCEL	LANDOWNER	SHEET	TOTAL	FEE TAKING	PERMITTED R/W	FEE REMAINDER		EASEM	ENTS		COMMENTS
NO.	LANDOWNER	NO.	IOIAL	TELIANINO	TEMVIII TEMV		PERMANENT	UTILITY	TEMPORARY	PROFFERS	COMMENTS
			ACRES	ACRES (SF)	A CRES (SF)	ACRES	ACRES (SF)	ACRES (SF)	A CRES (SF)	Y ES/NO	
001	Southern Bank and Trust Company	3,4	26.180	0.057 (2,464)		26.123			0.067 (2,909)		
-002	Smithfield Villas LLC	5,6	18.000							_	Dropped Parcel
003	Virginia Department of Transportation	5			0.084 (3,658)						
004	TR Smithfield Church of Christ	6,7	2.870	0.254 (11,045)		2.616			0.047 (2,041)		
005	Wellington Park Homeowners Assn. Inc.	7,8	2.590	0.011 (457)		2.579	0.009 (399)		0.088 (3,816)		
006	Wellington Park Homeowners Assn. Inc.	8,9	1.980						0.034 (1,463)		
007	Wellington Park Homeowners Assn. Inc.	9,10,11	8.580						0.137 (5,988)		
008	TR Rising Star Baptist Church	11	1.980	0.059 (2,561)		1.921	0.002 (104)		0.014 (618)		
-009	Battery Park Storage LLC	11	8.580								Dropped Parcel
010	Clem I. Batten	11	0.220	0.048 (2,074)		0.172			0.012 (519)		
011	Carlene M. Kelly	11,12	0.690	0.025 (1,090)		0.665			0.006 (273)		
012	Daniel L. & Carrie G. Bristow	12	1.650	0.157 (6,834)		1.493			0.040 (1,732)		
013	TR Harvest Fellowship Baptist Mission	12,13	22.640								Dropped Parcel
014	Ryland B. Jr. & Mary Ann D. Edwards &	13	29.170	0.019 (809)		29.151			0.005 (206)		
017	Ryland B. Edwards III & Et Als	15	23.170	0.013 (009)		23.131			` ,		
015	CNG Transmission	13	2.000	0.013 (543)		1.987			0.005 (209)		
016	Joseph W. Moore	13,14	4.890	0.172 (7,498)		4.718	0.007 (310)		0.051 (2,230)		

PROPOSED RIGHT-OF-WAY AND/OR OTHER EASEMENTS WILL BE CONVEYED BY PLATS PREPARED BY OTHERS,



Kimley >> Horn

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DO MAIN STREET, SUITE 500, VIRGINIA BEACH, VA 2340
PHONE, 757-213-8601

WANKWILLY-HORN COM.

REBECCA R. JUCKSCH
Lie. No. 022894
Ja-12-2015
STONAL ENGLISCH

DEC. 12, 2016
SCALE AS SHOWN
DESIGNED BY CPA

RIGHT-OF-WAY DATA SHEET

SMITHFIELD TO NIKE PARK PEDESTRIAN/BICYCLE TRAIL SEGMENT 1

SHEET NUMBER 1B

SMITHFIELD TO NIKE PARK PEDESTRIAN/BICYCLE TRAIL

CONTROL DATA

SURVEY

Lic. No. 022894

REBECCO R. JUCKSCH

6, 12-12-2016

Kimley » Horn

ND ASSOCIATES, INC.
VIRGINIA BEACH, VA 2.
FAX: 757-213-8601
HORN.COM

DETAILED DESCRIPTION:

STATION IS A ROD & CAP SET 7.9' BEHIND THE EDGE OF PAVEMENT OF THE NORTH SIDE OF BATTERY PARK ROAD. APPROXIMATELY 785' WEST OF THE INTERSECTION WITH NIKE PARK ROAD

NXL 613 NIKE PARK ROAD

NXL 613 NIKE PARK ROAD

TO BATTERY PARK ROAD

STATION IS A ROD & CAP SET 16.6' BEHIND THE EDGE OF PAVEMENT OF THE NORTH SIDE OF BATTERY PARK ROAD. APPROXIMATELY O' WEST OF THE INTERSECTION WITH NIKE PARK ROAD

STATION IS A ROD & CAP SET 21.9' BEHIND THE EDGE OF PAVEMENT OF THE NORTH SIDE OF NIKE PARK ROAD. APPROXIMATELY 750' SOUTH OF THE INTERSECTION WITH BATTERY PARK ROAD

STATION IS A ROD & CAP SET 18.7' BEHIND THE EDGE OF PAVEMENT OF THE NORTH SIDE OF NIKE PARK ROAD. APPOXIMATELY 1625' SOUTH OF THE INTERSECTION WITH BATTERY PARK ROAD

DIAGRAM NOT TO SCALE

DETAILED DESCRIPTION:

DETAILED DESCRIPTION:

DETAILED DESCRIPTION:

STATION IS A ROD & CAP SET 17.1' BEHIND THE EDGE OF PAVEMENT OF THE NORTH SIDE OF BATTERY PARK ROAD. APPROXIMATELY 320' EAST OF THE RISING STAR BAPTIST CHURCH

CONTROL STATION ID. 615
ROUTE: BATTERY PARK ROAD
ROUTE: BATTERY PARK ROAD
STATUS BATTERY PARK ROAD
STATUS BATTERY PARK ROAD
VERTICAL DATUM: NAVIO 88
ELIVATION: 222.64
HORIZONTAL DATUM BASED ON VA. STATE PLANE
COORDINATE SYSTEM SOUTH ZONE (NAD 83) US SURVEY FOOT

CONTROL STATION ID. 613
ROUTE: BATTERY PARK ROAD
ROUTE: BATTERY PARK ROAD
STANDLISHED BY: NAL CONSTRUCTION SERVICES, INC.
VERTICAL DATUM: NAVO 88
ELEVATION: 23.10
HORIZONTAL DATUM BASED ON VA. STATE PLANE
COORDINATE SYSTEM SOUTH ZONE (NAD 83) US SURVEY FOOT

CONTROL STATION ID. 5300
ROUTE: BATTERY PARK ROAD
COUNTY/CIT: ISE: OF MICH TOUNTY
ESTABLISHED BY: NXI. CONSTRUCTION SERVICES, INC.
VERTICAL DATUM: NAVD 88
ELEVATION: 23.53
HORIZONTAL DATUM BASED ON VA. STATE PLANE
COORDINATE SYSTEM SOUTH ZONE (NAD 83) US SURVEY FOOT

METRIC VALUES Y (NORTH):1072926.909 X (EAST): 3669829.175

US SURVEY FEET VALUES Y (NORTH): 3,520,094.37 X (EAST):12,040,097.88

US SURVEY FEET VALUES Y (NORTH): 3,520,222.95 X (EAST):12,041,030.09

US SURVEY FEET VALUES Y (NORTH): 3,520,416.91 X (EAST):12,041,688.28

US SURVEY FEET VALUES Y (NORTH): 3,520,003.50 X (EAST):12,042,422.94

CONTROL, STATION ID. 607
ROUTE: NIKE PARK ROAD
COUNTY/CITS; ISE OF MICHT COUNTY
ESTABLISHED BY: NXI, CONSTRUCTION SERVICES, INC.
VERTICAL DATUM: NAVD 88
ELEVAITON: 23.09
HORIZONITAL DATUM PASED ON VA. STATE PLANE
COORDINATE SYSTEM SOUTH ZONE (NAD 83) US SURVEY FOOT

METRIC VALUES Y (NORTH): 1072738.492 X (EAST): 3670749.468 US SURVEY FEET VALUES Y (NORTH): 3,519,476.20 X (EAST):12,043,117.21

525' TO STRATFORD LANE BATTERY PARK ROAD 44.2 NXL 617 CRAM NOT TO SCALE (B)

CONTROL STATION ID. B10
ROUTE: BATTERY PARK ROAD
COUNTY/CITY: ISLE OF WIGHT COUNTY
ESTABLISHED BY: NXI. CONSTRUCTION SERVICES, INC.
VERTICAL DATUM: NAVD 88
ELEVATION: 24.53
HORIZONTAL DATUM BASED ON VA. STATE PLANE
COORDINATE SYSTEM SOUTH ZONE (NAD 83) US SURVEY FOOT STATION IS A ROD & CAP SET 18.0' BEHIND THE EDGE OF PAYEMENT OF THE NORTH SIDE OF BATTERY PARK ROAD. APPROXIMATELY 1025' EAST FROM THE INTERSECTION WITH VILLA DRIVE US SURVEY FEET VALUES Y (NORTH): 3,519,895.60 X (EAST):12,037,317.48

CONTROL STATION ID. 612

ROULTE BATTERY PARK ROAD

COUNTY/CITY. ISEE OF WIGHT COUNTY

ESTABLISHED BY: NAL CONSTRUCTION SERVICES, INC.

VERTICAL DATUM: NAVD 88

ELVATION: 4120M

BASED ON VA. STATE PLANE

COORDINATE SYSTEM SOUTH ZONE (NAO 83) US SURVEY FOOT

CONTROL STATION ID 523
ROUTE: BATTERY PARK ROAD
ROUTE: BATTERY PARK ROAD
STANDLISHED BY: NAX. CONSTRUCTION SERVICES, INC.
VERTICAL DATUM: NAVD 88
ELEVATION: 25.90
HORIZONTAL DATUM BASED ON VA. STATE PLANE
COORDINATE STSTEM SOUTH ZONE (NAD 83) US SURVEY FOOT

CONTROL STATION ID. 822
ROUTE: BATTERY PARK ROAD
COUNTY/CIT: ISE OF WIGHT COUNTY
ESTABLISHED BY: NXL CONSTRUCTION SERVICES, INC.
VERTICAL DATUM: NAVD 88
ELEVATION: 24.52
HORIZONTAL DATUM BASED ON VA. STATE PLANE
COORDINATE SYSTEM SOUTH ZONE (NAD 83) US SURVEY FOOT

METRIC VALUES Y (NORTH):1072671.114 X (EAST): 3668295.335

US SURVEY FEET VALUES Y (NORTH): 3,519,255.15 X (EAST):12,035,065.61

METRIC VALUES Y (NORTH):1072769.893 X (EAST): 3668605.599

US SURVEY FEET VALUES Y (NORTH): 3,519,579.22 X (EAST):12,036,083.54

DETAILED DESCRIPTION:

DETAILED DESCRIPTION:

DETAILED DESCRIPTION:

330' TO DRIVE

STATION IS A ROD & CAP SET 5.0' BEHIND THE BACK OF CURB OF THE SOUTH SIDE OF BATTERY PARK ROAD, APPROXIMATELY 25' EAST FROM THE INTERSECTION WITH SOUTH CHURCH STREET

OBD

STATION IS A ROD & CAP SET 11.4' BEHIND THE BACK OF CURB OF THE NORTH SIDE OF BATTERY PARK ROAD. APPROXIMATELY 250' WEST FROM THE INTERSECTION WITH VILLA DRIVE

STATION IS A ROD & CAP SET 6.2' BEHIND THE EDGE OF PAVEMENT OF THE NORTH SIDE OF BATTERY PARK ROAD. APPROXIMATELY 330' EAST FROM THE INTERSECTION WITH VILLA DRIVE

VILLA DRIVE

DETAILED DESCRIPTION: STATION IS A ROD & CAP SET 19.2' BEHIND THE EDGE OF PAVEMENT OF THE SOUTH SIDE OF BATTERY PARK ROAD. APPROXIMATELY 525' EAST FROM THE INTERSECTION WITH STRATFORD LANE

METRIC VALUES Y (NORTH): 1072850.586 X (EAST): 3669433.433 US SURVEY FEET VALUES Y (NORTH): 3,519,843.96 X (EAST): 12,038,799.52

CONTROL STATION ID. 617
ROUTE: BATTERY PARK ROAD
ROUTE: BATTERY PARK ROAD
COUNTY
ESTABLISHED BY: NAL CONSTRUCTION SERVICES, INC.
VERTICAL DATUM: NAVD 88
ELVATION: 22.96
HORIZONTAL DATUM BASED ON VA. STATE PLANE
COORDINATE STSTEM SOUTH ZONE (NAD 80) US SURVEY FOOT

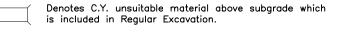
GRADING DIAGRAM AND SUMMARY

Denotes fill quantity from computer listings and/or manual ⊢130⊣ Fill

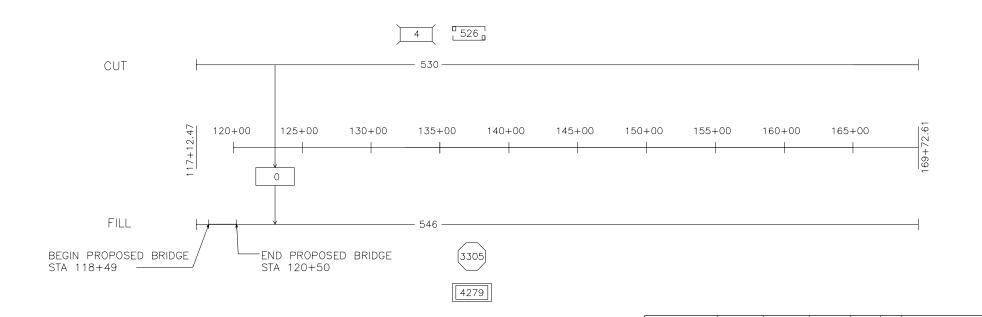
Denotes cut quantity from computer listings and/or manual cross-sections. Quantity adjusted for demolition of -130- Cut

> Denotes C.Y. root mat material in cut areas which is included in Regular Excavation quantities.

Denotes C.Y. root mat material removed from fill sections and backfilled with Borrow Excavation



Denotes Borrow Material (Min. CBR 15)



- Denotes item(s) to be paid for on the basis of plan quantities in accordance with the applicable provisions of the current VDOT Road and Bridge Specifications.
- () Cut quantity shown does not include the material removed as Demolition of Pavement.
- Quantity shown for use in Grading Diagram only. See other Summaries for pay item(s).
- (3) Included in Total Regular Excavation.
- (4) Included in Roadway Cut quantity.
- Quantities for Temporary Sediment Basins and Temporary Sediment Traps are included with the Stormwater Management Basin quantities.
- Denotes pay item.
- (7) Included in total fill quantity.
- This quantity comes from the computer listings and/or manual cross—sections and may be adjusted for other quantities.
- Volumes obtained for Cut Ditches and Fill Ditches not included in computer listings.
- Includes settlement of in-place soil.

Kimley » Horn VIRGINIA BEACH, V FAX: 757-213-86 HORN.COM

Robert Lichards
REBECCA R. JUCKSCH Lic. No. 022894 12-12-2016

RADING PLAN G

Borrow

SMITHFIELD TO NIKE PARK PEDESTRIAN/BICYCLE TRAIL SEGMENT

Minor Structure
Excavation Stormwater (Management Basins (6 8 ij Cut Fill Cut Fill C.Y. 546 3834 3851 4279

Entr

Total

Regular

Excavation

FORMULAS С G K L М 0 P Q R 4 4 37 3 7 3 7 7 $|\mathfrak{I}|\mathfrak{I}$ 7 TOTALS 526 546 3851 530 3834

Roadway

Unsuitable Material

Subgrade Subgrade

Above

Below

 $\otimes 9 | 9$

Ditch

 \otimes

Roadway

Cut

(I) (B)

C.Y.

530

Location

Seament 1

Root Mat

in Cut

Sections

C.Y.

526

t Root Mat in Fill

C.Y.

3305

NOTES

1) The borrow quantity shown was computed on the basis of the average shrinkage or swell factor of 10% for the general vicinity of the project. The contractor will be responsible for determining the actual factor for the site(s) from which he proposes to secure borrow material needed to complete this project.

FORMULAS

Roadway Cut (C) = Unadjusted Cut from Computer Listings or Manual Cross-Sections minus (-) Demolition of Pavement.

Roadway Fill (J) = Fill Required plus (+) Material for Backfill of Demolition of Pavement Areas in Fill (for heights of fill < 3 feet below subgrade)

Total Reg. Excav. (M) = C + E + F + H + K

Total Fill (N) = J + E + G + H + L + R

Borrow (S) = $[N - ([C + F + K + P + Q - D - I] \times Compaction Factor)] \stackrel{\circ}{\circ} Compaction Factor for Borrow Site$

The Geotechnical Report prepared by GET Solutions in July 2014 states that clay, silty and clayey sand were encountered at depths of 2 to 4 feet. The unsuitable material above subgrade computed accounts for poor soils found at this depth.

1C

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2014 and VDOT's approved Annual ESC and SWM Standards and Specifications

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

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

SECTION I GENERAL INFORMATION

- 1. Activity Description The Smithfield to Nike Park Pedestrian/Bicycle Trail, Segment 1 is located along the southern side of Battery Park Drive (State Route 704). Improvements extend fromt he intersection of Battery Park Drive and South Church Street (State Route 10) to the intersection of Battery Park Drive and Nike Park Road (State Route 669). The improvements include proposed ditches and drainage structures that will tie into the existing
- 2. This land disturbance (construction) activity site is located in Isle of Wight County and approximately 8.33 acres will be disturbed by excavation, grading or other construction
- 3. This proposed activity disturbs one acre or greater and requires coverage under the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) as issued by the DEQ. A copy of the VPDES Construction Permit (VAR10), the registration information (LD-445 form) and the permit coverage letter received from DEQ shall be maintained with other SWPPP documents for this land disturbing (construction) activity.
- **X 4. The location of on-site support facilities that will be covered under the VPDES Construction Permit coverage for this land disturbance (construction) activity shall be provided by the contractor and identified on the record set of plans or in other appropriate contract documents. Support facilities shall include, but not be limited to, borrow and disposal areas, construction and waste material storage areas, equipment and vehicle washing, maintenance, storage and fueling areas, storage areas for fertilizers, fuels or chemicals, concrete wash out areas, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the construction site
- ** 5. Evidence of permit coverage shall be provided by the contractor for all support activities located outside of VDOT right of way or easement in the form of the Construction General Permit coverage letter.
 - 6. List the surface waters that have been identified as impaired in the DEQ 2012 305(b)/303(d) Water Quality Assessment Integrated Report for sediment, total suspended solids, turbidity, nitrogen or phosphorus. These pollutants are considered benthic impairments: (List the impaired surface waters, when applicable)

Jones Creek (H36R-14-BEN) Aquatic Life

7. Identify the TMDLs where stormwater from construction activities discharges into a watershed with a TMDL waste load allocation established and approved by the State Water Control Board prior to July 1, 2014 for sediment, total suspended solids, turbidity, nitrogen or phosphorus:

Pagan River and Jones Creek Fecal Coliform Enterococci

8. This land disturbance (construction) activity discharges stormwater to the following surface waters that have been identified as exceptional in Section 9VAC25-260-30 A 3 c of the Virginia Administrative Code:

9.Locations of surface waters and locations where concentrated stormwater is discharged from this land disturbance (construction) activity are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.

- 10. The ESC and SWM plans (where applicable) for this land disturbance (construction) activity have been developed in accordance with VDOT's Annual Erosion and Sediment Control and Stormwater Management Standards and Specifications as approved by the DEO.
- 11. (a) List the RLD for the land disturbance activity: (required for erosion and sediment control) (b) The following individual(s) has delegated authority to sign all reports required by the construction permit including the SWPPP (LD445E) and inspection reports. The individual(s) has overall responsibility for environmental matters for the project: (required only for permitted projects)

Hame		Positi	on				
Jamie	Oliver	Transportation	Project	Manager,	Isle o	of Wight	County

- X 12. The name of the individual(s) responsible for the inspection of the erosion and sediment control and pollution prevention measures on this land disturbance (construction) activity is identified on the LD-445E form which will be maintained with the other SWPPP documents for this land disturbance (construction) activity (Note: Individual(s) shall be certified through the DEQ ESC Inspector Certification Program and shall be knowledgeable in the area of pollution prevention at construction sites and shall be a VDOT employee or an agent working for VDOT.)
- X 13. The ESC and P2 inspections for this land disturbing (construction) activity shall follow either Schedule 1 or 2 as defined in Section 107.16(e) of the VDOT Road & Bridge Specifications Special Provision S107J31. Rain gage notes apply only to Inspection Schedule 1.
- **XX 14. The location of the on-site rain gage that will be used to determine the occurrence of a measurable storm event for the purposes of ESC and Pollution Prevention inspections will be provided by the contractor and identified on the record set of plans or in other appropriate SWPPP documents for this land disturbance (construction) activity: Location of rain gauge to be determined upon commencement of construction activities

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

If there is rainfall occurring at the time of the observation, the observation information is to be noted in the log book. The rain gage is not to be emptied but left to accumulate additional rainfall until the conclusion of the rainfall event. At the conclusion of the rainfall event, an observation of the rain gage shall be made and the observation information shall be noted in the log book and the rain gage emptied and replaced. An inspection is required if there is 0.25 inches or more accumulation noted in the rain gage.

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

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

VDOT LD-445B: Permitted projects only.

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

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

VDOT LD-445E: Permitted projects only.

VDOT LD-445F: Emergency work projects (when applicable).
VDOT LD-445G: Permitted and CBPA projects requesting a Water Quality.

Requirement Exception (when applicable).

VDOT LD-445H: Permitted projects only.

VDOT C-107 Part I and Part II: All projects that require a permit or SWPPP.

SECTION II EROSION AND SEDIMENT CONTROL

- 1. The following variances to the Virginia ESC Regulations have been approved by the DEQ for this land disturbance (construction) activity: N/A
- XX 2. The intended sequence and timing of activities that disturb soils at the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation, etc.) shall be provided by the contractor in accordance with Section 108.03 of the VDOT R&B Specifications and shall be included with the other SWPPP documents for this land disturbance (construction) activity.
 - 3. Directions of stormwater flow and approximate slopes anticipated after major grading activities are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
 - 4. Areas of soil disturbance and areas of the site which will not be disturbed are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
 - 5. Locations of major structural and nonstructural ESC measures intended to filter, settle or similarly remove sediment are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity.
 - 6. Locations where stabilization practices are expected to occur are identified in the construction plan set (or other such documents) for this land disturbance (construction) activity

See Sheet 2 of 3 for Acronyms

- 🗶 Denotes information that is to be provided/completed by the VDOT RLD. **XX** Denotes information that is to be provided/completed by the contractor.
- 7. A description of interim and permanent stabilization practices for the site are identified in the applicable sections of the documents identified in the Note 1 of Section III.
- XX 8. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated will be provided by the contractor and maintained with the record set of plans or other SWPPP documents for this land disturbance (construction) activity.
- 9.A description and schedule of procedures to maintain vegetation, erosion and sediment control measures and other protective measures in good and effective operating conditions are identified in Sections 107.16 and 303.03 of the VDOT
- 10. Nutrients shall be applied in accordance with Sections 603 and 604 of the VDOT Road and Bridge Specifications. Nutrients shall not be applied during rainfall events.
- 11. All engineering calculations supporting the design of erosion and sediment control measures proposed for this land disturbance (construction) activity are contained in the project drainage file located in the VDOT Hampton Roads District Hydraulics Section or the Isle of Wight County Office and will be made available for review upon request during
- 12. The temporary erosion and siltation control items shown on the ESC Plan for this land disturbing (construction) activity are intended to provide a general plan for controlling erosion and sediment within the project limits. The ESC Plan is based on field conditions at the time of plan development and an assumed sequence of construction for the project. The contractor, in conjunction with the VDOT Project Engineer and/or ESC Inspector, shall adjust the location, quantity and type of erosion and sediment control items required based on the actual field conditions encountered at the time of construction and the actual scheduling and sequencing of the construction activities. Significant changes to the proposed ESC Plan (e.g., those that require an engineering analysis) shall be submitted to the applicable District Hydraulics Engineer for review and approval. Any changes to the proposed ESC Plan must be noted on the designated record set of plans which shall be retained on the project site and made available upon request during normal business hours.
- 13. The areas beyond the project's construction area are to be protected from siltation. Perimeter controls such as silt fence, diversion dikes, turbidity curtains, etc. shall be installed prior to any grubbing operations or other earth moving activities.
- 14. Temporary earthen structures such as dikes and berms are to be stabilized immediately upon installation. Stabilization may include temporary or permanent seeding, riprap, aggregate, sod, mulching, and/or soil stabilization blankets and matting in conjunction with seeding.
- 15. All channel relocations are to be constructed during the earliest stage of construction and shall be constructed in accordance with all applicable permit requirements and shall be constructed in the dry wherever possible. Stabilization or vegetation shall be established before flow is redirected through the constructed area as directed by the Engineer.
- 16. The contractor shall plan and implement his land disturbance operations in order to: a. Control the volume and velocity of stormwater runoff within the site to minimize erosion.
- b. Control the peak flow rates, volume and velocity of stormwater discharges to minimize erosion at outlets and in downstream channels.
- c. Minimize the amount of soil exposed.
- Minimize the disturbance of steep slopes
- Minimize sediment discharge from the site.
- Provide and maintain natural buffers around surface waters, direct stormwater runoff to vegetated areas and maximize stormwater infiltration, unless infeasible.
- g. Minimize soil compaction (except in those areas where compaction is required by the contract documents) and preserve topsoil where feasible.
- ** 17. The name of the individual(s) or contractor(s) responsible for the installation and maintenance of the erosion and sediment control measures shall be supplied by the contractor and maintained with the other SWPPP documents for this land disturbance
 - 18. Soil stockpiles temporarily placed within the project area or on VDOT right of way or easement shall be stabilized or protected with sediment trapping measures.
 - 19. A construction entrance or other approved measure shall be installed at all locations where construction vehicular traffic access routes intersect a paved or a public road in order to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or a public road surface, the road shall be cleaned thoroughly at the end of each work day by shoveling or sweeping. Removed sediment shall be disposed of in accordance with Section 106.04 of the R&B Specifications.

Revised 09/29/16 Sheet 1 of 3

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The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2014 and VDOT's approved Annual ESC and SWM Standards and Specifications

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

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

f X Denotes information that is to be provided/completed by the VDOT RLD. ** Denotes information that is to be provided/completed by the contractor.

SECTION III SWPPP

- 1. All documents related to the SWPPP for this land disturbance (construction) activity shall be maintained at the activity site and shall be readily available for review upon request during normal business hours. Such documents include, but are not limited to, the construction plans (or other such documents), the ESC Plan, the Pollution Prevention Plan, the post construction SWM Plan (if applicable), the VDOT R&B Standards and Specifications, Supplemental Specifications, Special Provisions and Special Provision Copied Notes. Documents related to stormwater pollution prevention which are not a part of those documents referenced above, such as a copies of the VPDES Construction Permit coverage letter (when applicable) and the VPDES General Permit For Discharges Of Stormwater From Construction Activities (when applicable) and those required to be developed by the contractor for pollution prevention associated with any on-site support facilities being included in the VPDES Construction Permit coverage for this land disturbance (construction) activity are to be maintained at the activity site with the other SWPPP documents for this land disturbance (construction) activity. Where no facilities are available at the activity site to maintain the SWPPP documents. they are to be kept by or with the designated RLD at a location convenient to the activity site where they would be made available for review upon request during normal business hours.
- 2. The SWPPP and any subsequent amendments, modifications and updates shall be implemented from commencement of land disturbance until termination of VPDES Construction Permit coverage or completion of land disturbance (construction) activities where no VPDES Construction Permit coverage is required.
- ** 3. For all on-site support facilities that will be included in the VPDES Construction Permit coverage for this land disturbance (construction) activity, the contractor shall develop a SWPPP in accordance with, but not limited to, Section 106.08, 107.02 and 107.16 of the VDOT Road and Bridge Specifications. The SWPPP for the on-site support facilities shall be maintained with and become a component of the SWPPP for this land disturbance (construction) activity. Support facilities shall include, but not be limited to, borrow and disposal areas, construction and waste material storage areas, equipment and vehicle washing, maintenance, storage and fueling areas, storageareas for fertilizers, fuels or chemicals, concrete wash out areas, sanitary waste facilities and any other areas that may generate a stormwater or non-stormwater discharge directly related to the construction site.
- 🗶 4. By completing and submitting the SWPPP Certification form LD-445E, the RLD. or his authorized representative, certifies that all documents identified herein to be supplied by the contractor will be reviewed, approved (as applicable) and included with the other SWPPP documents for this land disturbance (construction) activity prior to start of work in those areas identified by such information.
 - 5. For those land disturbing (construction) activities requiring coverage under the VPDES Construction Permit, the SWPPP shall be made available for review upon the request of the DEQ, the EPA, the VSMP Authority, the VESCP Authority, local government officials or the operator of a municipal separate storm sewer system (MS4) receiving discharge from the construction site.
 - **★** 6. For those land disturbing (construction) activities requiring coverage under the VPDES Construction Permit, the VDOT RLD shall post, or have posted, a copy of the General Permit coverage letter and a copy of a completed LD-445A form, noting the name and contact information for the VDOT person responsible for the land disturbing (construction) activity and its SWPPP, outside the project's construction office along with other Federal and State mandated information. Where there is no construction office (e.g., a maintenance activity), the permit coverage letter and the LD-445A form are to be maintained with the other SWPPP documents for the land disturbing (construction) activity.
 - 7. The SWPPP shall be made available for review by the public upon request. Such reviews shall be at a time and publicly accessible location convenient to the VDOT and shall be scheduled during normal business hours and no less than once per month.

ACRONYMS

TMDL - Total Maximum Daily Load

VDOT - Virginia Department of Transportation

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

BMP - Best Management Practice

DEQ - Department of Environmental Quality

EPA - U.S. Environmental Protection Agency

ESC - Erosion and Sediment Control

IIM - Instructional and Informational Memorandum

R&B - Road and Bridge

RLD - Responsible Land Disturber

SECTION IV POST CONSTRUCTION STORMWATER MANAGEMENT

- 1. This land disturbance (construction) activity is grandfathered under Section 9VAC25-870-48 of the VSMP Regulations and utilizes the Part IIC technical criteria (i.e., Performance or Technology Based, MS 19, etc.) in Section 9VAC25-870-93 et.seq. of the VSMP Regulations.
- 2. This land disturbance (construction) activity utilizes the Part IIB technical criteria (i.e., Runoff Reduction Method, Energy Balance Equation, etc.) in Section 9VAC25-870-62 et seq. of the VSMP Regulations.
- 3. An exception for (number) pounds of phosphorus removal has been granted for this land disturbance (construction) activity by the DEQ in its letter dated (date).
- -4. The following exceptions to the Water Quantity criteria of the VSMP Regulation have been approved by the DEQ for this land disturbance (construction) activity: (list all approved exceptions and include a brief description of the exception, the date approved and the approving DEQ Office)
- 5. The permanent onsite SWM facilities or offsite strategies proposed to meet the water quality/quantity requirements for this land disturbance (construction) activity
- 6. A description of all post-construction stormwater management measures that will be installed during the construction process to control pollutants in stormwater discharges after construction operations have been completed is included in the construction plan set (or other such documents) for this land disturbance (construction) activity.
- 7. All engineering calculations supporting the design of the post-construction stormwater management measures for this land disturbance (construction) activity, including an explanation of the technical basis used to select the practices, are contained in the project drainage file located in the VDOT Hampton Roads District Hydraulics Section or the Isle of Wight County Office and will be made available for review upon request during normal working business hours.

SECTION V - POLLUTION PREVENTION PLAN

- The following non-stormwater discharges from this land disturbing (construction) activity and any on-site support facilities are prohibited:
 - Wastewater from concrete washouts.
 - Wastewater from the washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials.
 - Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance.
 - Oils, toxic substances or hazardous substances from spills or other releases. Soaps, solvents or detergents used in equipment and vehicle washing.
 - There shall be no discharge of floating solids or visible foam in other than trace amounts
- 2. The following non-stormwater discharges from this land disturbing (construction) activity and any on-site support facilities are allowed when discharged in compliance with the VPDES Construction Permit:
 - Discharges from fire fighting activities.
 - Fire hydrant flushings.
 - Waters used to wash vehicles or equipment where soaps, solvents or detergents have not been used and the wash water has been filtered, settled or similarly treated prior to discharge.
 - Water used to control dust that has been filtered, settled or similarly treated prior to discharge.
 - Potable water sources including uncontaminated waterline flushings
 - Routine external building wash down where soaps, solvents or detergents have not been used and the wash water has been filtered, settled or similarly treated prior to discharge.

- g. Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (or where all spilled or leaked material has been removed prior to washing), where soaps, solvents or detergents have not been used and where the wash water has been filtered, settled or similarly treated prior to discharge.
- Uncontaminated air conditioning or compressor condensate.
- Uncontaminated ground water or spring water.
- Foundation or footing drains where flows are not contaminated with process materials such as solvents.
- Uncontaminated excavation dewatering, including dewatering trenches and excavations that have been filtered, settled or similarly treated prior to
- Landscape irrigation.
- ** 3. The contractor shall develop a Pollution Prevention Plan to address any of his onsite operations that have a potential to generate a pollutant that may reasonably be expected to affect the quality of stormwater discharges from this land disturbance (construction) activity. The Pollution Prevention Plan shall be developed in accordance with, but not limited to, Sections 106.08, 107.02 and 107.16 of the VDOT Road and Bridge Specifications and shall include a narrative with appropriate plan detail and shall be provided on standard 8.5 x 11 inch paper or larger and shall:
 - a. Identify the potential pollutant-generating activities and the pollutant that is expected to be exposed to stormwater.
 - b. Describe the location where the potential pollutant-generating activities will occur, or if identified on the record set of plans, reference the record
 - Identify all non-stormwater discharges, as described in note two of this section, that are or will be commingled with stormwater discharges from the construction activity, including any on-site support activities.
 - Identify the person(s) or contractor(s) responsible for implementing and maintaining the pollution prevention practice or practices for each pollutant-generating activity.
 - Describe the pollution prevention practices and procedures that will be implemented to:
 - Prevent and respond to leaks, spills, and other releases, including procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases, and procedures for reporting leaks, spills, and other releases in accordance with Section 107.16 of the VDOT Road and Bridge Specifications and the requirements within the VPDES Construction Permit.
 - 2) Prevent the discharge of spilled and leaked fuels and chemicals from vehicle fueling and maintenance activities.
 - Prevent the discharge of soaps, solvents, detergents, and wash water from construction materials, including procedures for the clean-up of stucco, paint, form release oils, and curing compounds.
 - Minimize the discharge of pollutants from vehicle and equipment washing, wheel wash water, and other types of washing.
 - 5) Direct concrete wash water into a leak-proof container or leak-proof settling basin. The container or basin shall be designed so that no overflows can occur due to inadequate sizing or precipitation. Hardened concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wastes. Liquid concrete wastes shall be removed and disposed of in a manner consistent with the handling of other construction wash waters and shall not be discharged to surface waters.
 - 6) Minimize the discharge of pollutants from storage, handling, and disposal of construction products, materials, and wastes including building products (such as asphalt sealants, copper flashing, roofing materials, adhesives, and concrete admixtures), pesticides, herbicides, insecticides, fertilizers, landscape materials, construction and domestic wastes (such as packaging materials), scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, and other trash or building materials.
 - Prevent the discharge of fuels, oils, and other petroleum products, hazardous or toxic wastes, and sanitary wastes.
 - Address any other discharge from any potential pollutant-generating activity not listed herein.
 - Describe and implement procedures for providing pollution prevention awareness (including but not limited to prevention practices, disposal practices and appropriate disposal locations) for all applicable wastes (including any wash water), to appropriate personnel.

Revised 09/29/16 Sheet 2 of 3

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AN TORMWATER 直 OLLUTION EVENTION Ĭ Ś PR

SMITHFIELD TO NIKE PARK PEDESTRIAN/BICYCLE TRAIL SEGMENT

SHEET NUMBER 1D(1)

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) GENERAL INFORMATION SHEET

The information contained in the SWPPP General Information sheets is intended to comply with the requirements of the VPDES General Permit For Discharges Of Stormwater From Construction Activities (the VPDES Construction Permit) issued July 1, 2014 and VDOT's approved Annual ESC and SWM Standards and Specifications.

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

BMP Type

(See Table 1 and 3)

RETENTION BASIN (UNKNOWN TYPE)

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

SECTION VI - PERMANENT BMP INFORMATION $^{\triangle}$

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

State

Hydrologic

Unit Code

(7)

JL41

INSTALLED BMP INFORMATION Table A

(VDO1 Owned/Oper	ated)						
Receiving Stream Name (2)	Name of Impaired Water (9)		ted Per BMP 3)		★ BMP Maintenance ID Number (10)	BMP Maintenance Manual (11)	BMP Inspection Manual (11)
PAGAN RIVER-JONES CREEK	JONES CREEK (AQUATIC LIFE) H39R-14-BEN	Impervious 0.7 (PATH ONLY	Pervious OUNKNOWN	TOTAL UNKNOWN	N/A	SECTION N/A	SECTION N/A
		-				-	

ALTERNATIVE BMP INFORMATION Table B

Latitude/Longitude

(1)

-76.5943

36.9743

County

City

ISLE OF WIGHT

BMP Type (See Table 2)	Name of Nutrient Credit Generating Entity	County or City (5)		de/Longitude (1) (5)	State Hydrologic Unit Code (5) (7)	Project Acr Per Bl	res Treated MP (3)		Nutrient Credits (lbs./acre/year) Acquired (6) (12)
	(6)		LAT	LONG		Impervious	Pervious	TOTAL	

Table 1: Permanent BMP Types

ACRONYMS

BMP - Best Management Practice DEQ - Department of Environmental Quality

RLD - Responsible Land Disturber

TMDL - Total Maximum Daily Load

R&B - Road and Bridge

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

IIM - Instructional and Informational Memorandum

SWM - Stormwater Management SWPPP - Stormwater Pollution Prevention Plan

VDOT - Virginia Department of Transportation

VPDES - Virginia Pollutant Discharge Elimination System

VSMP - Virginia Stormwater Management Program
VESCP - Virginia Erosion and Sediment Control Program

(1999 Va. SWM Handbook) Bio-Retention Basin Bio-Retention Filter Constructed Stormwater Wetlands Extended Detention Basin Extended Detention Basin Enhanced Grassed Swale Infiltration Basin Infiltration Trench Manufactured Treatment Device (MTD) (8) Retention Basin Retention Basin II Retention Basin III Sand Filter Vegetated Filter Strip Other Approved Types (List Type)

Table 2: Alternative BMP Types

Comprehensive SWM Plan (Regional) Facility Pollutant Loading Pro Rata Share Program Purchase of Nutrients Credits Other Approved Options (List Type) (4)

Table 3: Permanent BMP Types

(BMP Clearing House) Sheet Flow to Vegetated Filter Strip Grass Channel Soil Compost Amendment Permeable Payement Infiltration Practice Bioretention Dry Swale Wet Swale Filtering Practice Constructed Wetlands Biorention Conservation Extended Detention Pond Wet Pond Manufactured Treatment Device (MTD)(8)

Other Approved Types (List Type) (4)

Plan Sheet(s)

- (1) In decimal degrees to the gegrest one ten-thousandth of a degree
- (2) For streams with no names, list "(Unnamed Tributary to closest stream name)".
- (3) Show acres treated to the nearest one tenth acre.
- (4) Include agreements with off-site BMP owners.
- (5) Information pertains to the alternative BMP option location, where applicable. Exception - Not required for nutrient credit purchase option.
- (6) Applies to the purchase of nutrient credits only.
- (7) Virginia 6th Order HUC (VAHU6) Example YO30.
- (8) Final approved shop drawings of Manufactured Treatment Devices (MTDs) are to be included with the BMP information submitted with the LD-445D form.
- (9) List the name of any impaired water to which the BMP discharges. The determination of impaired water shall be based on those streams listed as impaired in the DEQ 2012 305(b)/303(d) Water Quality Assessment integrated Report and shall be the first named waterbody to which the BMP discharges. The impaired waters are those impaired by sediment, total suspended solids, turbidity, nitrogen or phosphorus. These pollutants are considered benthic impairments
- (10) BMP Maintenance ID Number is to be assigned by the District Infrastructure Manager at permit termination or project completion.
- (11) Provide the section of each Maintenance manual that pertains to the type of BMP. Both manuals can be found at www.vdot.virginia.gov/ business/manuals in the Maintenance selections. Example: Section 4 would be noted for both the maintenance and inspection manuals for a Bioretention I infiltration BMP
- (12) Nutrient credits purchased to the nearest one hundredth pound.

 Δ Any changes to the proposed SWM Plan or BMPs necessitated during the construction phase of the project that affects the proposed construction details or potentially affects the information shown in the BMP Tables A and/or B shall be coordinated by the VDOT RLD with the appropriate VDOT District Hydraulics Engineer. The construction plans and the BMP Tables A and/or B are to be formally revised to reflect any authorized/approved changes to the proposed SWM Plan and/or the proposed BMP construction details. All plan revisions shall be completed in accordance with the Road Design Manual and the Construction Division IIM-CD-2013-12.01, signed and sealed in accordance with Department's sealing and signing policy IIM-LD-243 and filed with the record set of construction plans maintained in the VDOT Central Office Plan File Room (Falcon Web Suite). Prior to submitting for termination of coverage under the VPDES General Permit For The Discharge Of Stormwater From Construction Activities, the RLD shall have the District Maintenance Infrastructure Manager review the BMPs installed with the project (BMP Table A) for acceptance of maintenance responsibility and to obtain a Maintenance ID number for each BMP listed in BMP Table A. The RLD shall use the information in BMP Tables A and B along with the assigned Maintenance ID number and the date that the BMP became functional as a permanent control measure (for BMPs in Table A only) to complete the LD-445D form when certifying the construction of the BMPs and submitting for termination of coverage under the VPDES General Permit For The Discharge Revised 09/29/16 Of Stormwater From Construction Activities.

Sheet 3 of 3

Kimley»Horn VIRGIT PAX: ORN.

Rebecca R. JUCKSCH Lic. No. 022894 12-12-2016

PLAN

TORMWATER **POLLUTION PREVENTION** Ċ)

SMITHFIELD TO NIKE PARK PEDESTRIAN/BICYCLE TRAIL SEGMENT

1D(2)

MOT GENERAL NOTES

UNLESS OTHERWISE APPROVED OR DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL PLAN AND PROSECUTE WORK IN ACCORDANCE WITH THE FOLLOWING SEQUENCE OF CONSTRUCTION AND MAINTENANCE OF TRAFFIC PLAN. IT IS NOT THE INTENT OF THE SEQUENCE OF CONSTRUCTION PLANS TO ENUMERATE EVERY DETAIL WHICH MUST BE CONSIDERED IN THE CONSTRUCTION OF EACH PHASE. BUT ONLY THE GENERAL HANDLING OF TRAFFIC.

ALL WORK AREAS (AND THE LIMITS THEREOF) AND LANE CLOSURES SHALL BE IN ACCORDANCE WITH THE 2011 VIRGINIA WORK AREA PROTECTION MANUAL (INCLUDING ALL REVISIONS) AND SHALL BE DIRECTED OR APPROVED BY THE ENGINEER. THE OWNER RESERVES THE RIGHT TO CHANGE ANY OR ALL OF THE WORK HOURS STATED BELOW IF SUCH CHANGES ARE IN THE BEST INTEREST OF THE TRAVELING PUBLIC.

THE CONTRACTOR SHALL PROVIDE TEMPORARY DRAINAGE, AS REQUIRED, TO PREVENT PONDING OF WATER ON THE EXISTING ROADWAY AND ADJACENT PROPERTIES. ANY TEMPORARY DRAINAGE STRUCTURES INSTALLED ON THE PROJECT ARE THE CONTRACTOR'S RESPONSIBILITY. THE COST OF THE STRUCTURES IS TO BE INCLUDED IN THE PRICE BID FOR OTHER DRAINAGE ITEMS.

THE CONTRACTOR SHALL NOT CONDUCT REPAIR OPERATIONS WHEN THE WEATHER CAUSES UNSAFE CONDITIONS FOR THE TRAVELING PUBLIC AS DETERMINED BY THE ENGINEER.

WHEN PROCEEDING FROM ONE STAGE OF CONSTRUCTION TO ANOTHER STAGE OF CONSTRUCTION ANY EXISTING OR CONSTRUCTION PAVEMENT MARKINGS THAT DO NOT ALIGN WITH THE NEW TRAFFIC PATTERS AND/OR NECESSARY MARKINGS SHALL BE ERADICATED AND RESTRIPED.

THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ACCESS TO ALL EXISTING ENTRANCES DURING CONSTRUCTION.

HOLIDAY CLOSURES WILL BE IN ACCORDANCE WITH THE ROAD AND BRIDGE SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

THERE SHALL BE NO LANE CLOSURES REQUIRING THE USE OF A FLAGGER WITHOUT PRIOR APPROVAL.

EXISTING TRAFFIC PATTERNS ARE TO BE MAINTAINED DURING CONSTRUCTION EXCEPT WHEN THIS SEQUENCE OF CONSTRUCTION/MAINTENANCE OF TRAFFIC PLAN INDICATES THERE IS TO BE A REDUCTION IN THE NUMBER OF LANES OR ONE WAY FLAGGER—CONTROLLED TRAFFIC OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES SHALL BE KEPT CLEAN, LEGIBLE, AND IN PROPER WORKING ORDER AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE A PERSON WHOSE RESPONSIBILITY SHALL BE TO INSPECT AND MAINTAIN SIGNS, BARRICADES, OTHER CHANNELIZING DEVICES AND LIGHTS DURING THE TIME THAT TRAFFIC IS RESTRICTED DUE TO CONSTRUCTION OPERATIONS.

IF THE CONTRACTOR ELECTS TO WORK AT NIGHT, SUFFICIENT LIGHTING OF THE WORK SITE(S) TO ENABLE THE SATISFACTORY COMPLETION OF THE WORK SHALL BE PROVIDED IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL. LIGHTING SHALL BE ARRANGED SO AS NOT TO INTERFERE WITH OR IMPEDE TRAFFIC APPROACHING THE WORK SITE(S) FROM EITHER DIRECTION.

ANY CONTRACT ITEMS NOT SPECIFICALLY NOTED IN THE SEQUENCE OF CONSTRUCTION MAY BE CONSTRUCTED AT THE CONTRACTOR'S OPTION, AS DIRECTED BY THE ENGINEER. HOWEVER, UNDER NO CIRCUMSTANCES WILL CONCURRENT CONSTRUCTION LEFT AND RIGHT OF ANY ROADWAY BE ALLOWED.

AT THE CONCLUSION OF EACH WORK DAY, ALL PAVEMENT EDGE DROP—OFFS SHALL MEET THE REQUIREMENTS OF FIGURE 2 IN APPENDIX A OF THE 2011 WORK AREA PROTECTION MANUAL FOR THE SAFETY AND PROTECTION OF VEHICULAR TRAFFIC. ALL COSTS FOR MEETING THESE REQUIREMENTS SHALL BE INCLUDED IN THE PRICE OF OTHER BID ITEMS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK.

SEQUENCE OF CONSTRUCTION NOTES

- 1. INSTALL EROSION AND SEDIMENT CONTROL MEASURES
- 2. INSTALL IMPROVEMENTS, INCLUDING TRAIL, HANDICAP RAMPS, BRIDGE, AND DRAINAGE IMPROVEMENTS.
- 3. FINE GRADE SLOPES AND SEED.
- 4. PLACE FINAL PAVEMENT MARKINGS AND SIGNS.
- 5. COMPLETE REMAINING BID ITEMS.

TRANSPORTATION MANAGEMENT PLAN (TMP)

Smithfield to Nike Park Pedestrian/Bicycle Trail Segment 1 – Battery Park Road UPC #101793

NTRODUCTION

The proposed multi-use trail is located along the southern side of Battery Park Road (State Route 704). Improvements extend from the intersection of Battery Park Road and South Church Street (State Route 10) to the intersection of Battery Park Road and Nike Park Road (State Route 669). The improvements include proposed ditches and drainage structures that will tie into the existing storm drainage system.

TEMPORARY TRAFFIC CONTROL PLAN

General Notes

- The proposed improvements follow the TMP Type A project description.
- The project location is along the south side of Battery Park Road (Route 704). The length of the
 project is 1.31 miles.
- There are no identified locations within the right of way for the contractor to store equipment and materials. The contractor must make arrangements for these areas according to VDOT policies.
- The work zone shall be maintained according to the Temporary Traffic Control Plans as shown on the plans. The following traffic control specifications from the Virginia Work Area Protection Manual shall be used: TTC 1.0, TTC 4.0, TTC 5.0, TTC 29.0 and TTC 53.0. Information about Clear Zone and Drop-Off Requirements from the Work Area Protection Manual are also provided.
- Entrances will be affected by each work zone and shall be maintained at all times. Types of traffic consist of commuters, residents, and trucks.

Typical Sections

Work to be performed between existing roadway and existing right-of-way.

Special Detail

There are no special details for this project that are not addressed in the plans or the Virginia Work Area Protection Manual. Safe access into/out of the work space by work vehicles is best at each end of the work zone.

PUBLIC COMMUNICATIONS PLAN

Project staff is to coordinate with the Hampton Roads District Public Affairs office to publish announcements regarding work activities for the project. Each activity will be governed by the times established by the Regional Traffic Engineer and the Smart Traffic Center. Please provide Public Relations lane closure information two weeks in advance of work so it can be published.

TRANSPORTATION OPERATIONS PLAN

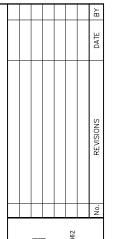
- The process to notify the Regional Smart Traffic Center to place lane closure Information on the 511 system and VA-Traffic will be:
 - a) Contractor to advise VDOT project inspector and/or Construction Manager of planned lane closures a minimum of 24 hours in advance of proposed lane closure.
 - b) Construction Manager to advise Residency Maintenance Manager of proposed lane closure. Maintenance Manager to have VA-Traffic operator enter data and advise Smart Traffic Center.
- 2) The following is a list of local emergency contact agencies:

Virginia State Police: 757-253-4923 or 1-800-582-8350

- 3) Procedures to respond to traffic incidents that may occur in the work Zone:
 - a. Contractor to notify Virginia State Police and VDOT Inspector in Charge and Smart Traffic Center.
 - b. Depending upon severity of incident, contractor may have to shut down work.
 - Upon arrival on scene, Virginia State Police to determine response necessary to allow traveling public around incident.
 - d. Inspector to notify Construction Manager/Resident Administrator of incident and take pictures as necessary, especially pictures of contractor's Work Zone to verify compliance with standards.
- 4) Process of notification of incident to be followed is:

Contractor to call:

- a) Smart Traffic Center, Shift Supervisor: (757) 424-9920
- b) Project Maintenance of Traffic Coordinator (Inspector): To Be Determined
- c) Project Manager (Construction Engineer): To Be Determined
- d) Residency Administrator, Joe Lomax: (757) 346-3065
- e) Area Construction Engineer, Paul Moose, PE: (757) 925-1663
- f) District Work Zone Safety Coordinator, Tim Rawls: (757) 925-2571
- g) Regional Traffic Engineer, Mike Corwin, PE: (757) 925-6020
- h) District Public Affairs Manager, Harry Kenyon: (757) 925-1660
- 5) The Virginia State Police will take control of the incident and direct its clearing and restoration to normal traffic conditions.
- 6) The Virginia State Police report of the incident will be reviewed by the Residency Administrator to determine if any modification of the Temporary Traffic Control Plan is necessary. If it is determined that it is necessary to alter the plan, then a meeting will be called with the contractor, VDOT project personnel, VDOT traffic safety representatives and the Virginia State Police (if necessary) to discuss modification and implementation of an improved traffic control plan.



Kimley» Horn

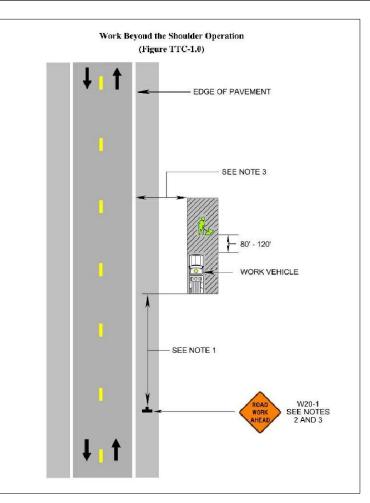
MAIN STRET, SUITE 500, URGINIA BEACH, VA 234
PHONE: 757–213–8001
WMXKMLEY-HORN, COM.



SCALE AS SHOWN DESIGNED BY DRAWN BY

TRANSPORTATION MANAGEMENT

SMITHFIELD TO NIKE PARK PEDESTRIAN/BICYCLE TRAIL SEGMENT 1



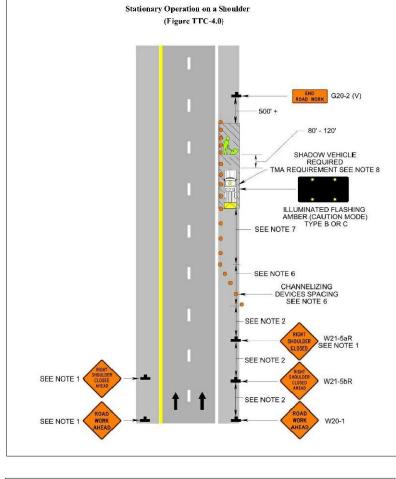
Typical Traffic Control Work Beyond the Shoulder Operation (Figure TTC-1.0) NOTES

The minimum distance between the sign and work vehicle should be 1300-1500' on Limited Access highways, and on all other roadways 500-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limited is 45 mph or less.

Option:

- The ROAD WORK AHEAD (W20-1) sign may be replaced with other appropriate signs such as the SHOULDER WORK (W21-5) sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.
- 3. The ROAD WORK AHEAD sign may be omitted where the work space is behind a barrier, more than 4 feet behind vertical curb (Standard CG-2 and CG-6) on urban readways, or outside of the clear zone for all other roadways. For clear zone values see Page A-4 of Appendix A.
- For short-term, short duration or mobile operation, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity amber rotating. flashing, oscillating, or strobe lights is used.

- Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, oscillating, or strobe lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, oscillating, or strobe lights.
- If the work space is in the median of a divided highway, an advance warning sign shall also be placed on the left side of the directional roadway.



Typical Traffic Control Stationary Operation on a Shoulder (Figure TTC-4.0) NOTES

1. For long-term stationary work (more than 3 days) on divided highways having a median wider than 8', sign assemblies on both sides of the roadway shall be required as shown (ROAD WORK AHEAD (W20-1), RIGHT SHOULDER CLOSED AHEAD (W21-SbR)), even though only one shoulder is being closed. For operations less than 3 days in duration, sign assemblies will only be required on the side where the shoulder is being closed and a RIGHT SHOULDER CLOSED AHEAD (W21-5hR) sign shall be added to that side.

2. Sign spacing should be 1300-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.

- 3. The SHOULDER WORK (W21-5) sign on an intersecting roadway may be omitted where drivers
- emerging from that roadway will encounter another advance warning sign prior to this activity area.

 4. For short duration operations of 1 hour or less, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity amber rotating, flashing, oscillating, or strobe lights is used.
- 5. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, oscillating, or strobe lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, oscillating, or strobe lights.

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

	Γaper L	ength (l	_}	
Speed Limit	L	ane Wid	ith (Fee	t)
(mph)	9	10	11	12
25	95	105	115	125
30	135	150	165	180
35	185	205	225	245
40	240	270	295	320
45	405	450	495	540
50	450	500	550	600
55	495	550	605	660
60	540	600	660	720
65	585	650	715	780
70	630	700	770	840
Minimum tap		ths for Li		ccess
Shoulde	er Tape	r = 1/4 L N	Vinimum	

Location	Speed Lii	nit (mph)
Lucation	0 - 35	36 +
Transition Spacing	20'	40'
Travelway Spacing	40'	80'
Construction Access*	80'	120"

Louis real rout exceled one scosess per ½ mile.

On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled

- 7. The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.
- 8. A shadow vehicle shall be used whenever a person is required to operate equipment mounted on or in the work vehicle such as buckets, augers, post drivers, etc. For work operations on the shoulder with a duration greater than 1 hour where workers are present, a shadow vehicle shall be used. A truck-mounted attenuator (TMA) shall be used on the shadow vehicle on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45
- mph.
 9. When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.

Shoulder Operation with Minor Encroachment (Figure TTC-5.0) CAD WORK G20-2 (V) 500' + 80' - 120' REQUIRED TMA OPTIONAL ILLUMINATED FLASHING AMBER (CAUTION MODE) TYPE B OR C SEE NOTE 8 SEE NOTE 7 CHANNELIZING DEVICES SPACING SEE NOTE 7 SEE NOTE 2 W21-5bR -200.+ SEE NOTE 2 W20-1

Typical Traffic Control

Shoulder Operation with Minor Encroachment

(Figure TTC-5.0) NOTES

- 1. On divided highways having a median wider than 8', right and left sign assemblies shall be required.
- Sign spacing should be 1300-1500' for Limited Access highways. For all other roadways, the sign spacing should he 500-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.
- 3. When work takes up part of a lane on a high volume roadway; vehicular traffic volumes, vehicle mix, speed and capacity should be analyzed to determine whether the affected lane should be closed. Unless the lane convaoalment analysis permits a remaining lane width of 1) feet, the lane should be closed. If the closure operation is on a Limited Access highway, the minimum lane width is 11 feet.

4. The ROAD WORK AHEAD (W20-1) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.

- 5. A shadow vehicle with either an arrow board operating in the caution mode, or at least one high-intensity amber rotating, flashing, oscillating, or strobe light shall be parked 80° 120° in advance of the first work crew.
- Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity umber rotating, flashing, oscillating, or strobe lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, oscillating, or strobe lights.
- 7. Taper length (L) and channelizing device spacing shall be at the following:

Т	aper Le	ngth (L	.)	
Speed Limit	L	ane Wie	dth (Fee	et)
(mph)	9	10	11	12
25	95	105	115	125
30	135	150	165	180
35	185	205	225	245
40	240	270	295	320
45	405	450	495	540
50	450	500	550	600
55	495	550	605	660
60	540	600	660	720
65	585	650	715	780
70	630	700	770	840
Minimum tape highwa		ns for Li be 100		ccess
Shoulde	r Taper	= 1/3 L N	linimum	

Location	Speed Li	mit (mph)
Location	0 - 35	36 +
Transition Spacing	20'	40'
Travelway Spacing	40'	80'
Construction Access*	80'	120'

Dut shall not exceed one access per ½ mile.

On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled

- 8. The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit. A truck-mounted attenuator (TMA) shall be used on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph.
- When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.

No.

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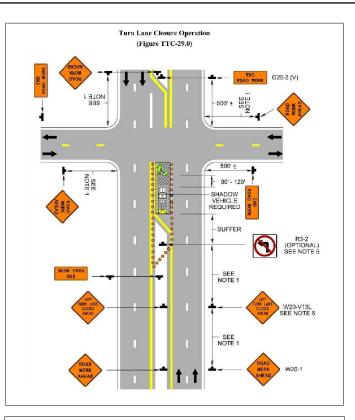
DATE

RANSPORTATION MANAGEMENT PLAN

SMITHFIELD TO NIKE PARK PEDESTRIAN/BICYCLE TRAIL SEGMENT

SHEET NUMBER

1E(1)



Typical Traffic Control Turn Lane Closure Operation (Figure TTC-29.0) NOTES

 Sign spacing distance should be 350'-500' where the posted speed limit is 45 mph or less, 500'-800' where the posted speed limit is greater than 45 mph. Standard:

- 2. On divided highways having a median wider than 8', right and left sign assemblies shall be
- 3. To prevent accidental intrusion into the work area, channelizing device spacing shall not exceed 20° on centers.

- 4. This layout may be used for either right or left turn lane closures.
- For a high volume of turning movements, additional traffic control devices, such as signs (graphic NO LEFT TURN (R3-2) or LEFT LANE MUST TURN LEFT (R3-7L)), channelizing devices and vehicles may be used

Standard:

6. Taper Length (L) shall be:

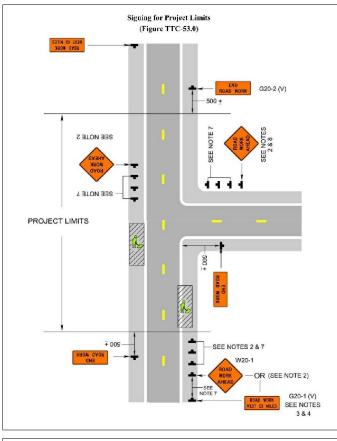
Lane Width (Feet)						
9	10	11	12			
95	105	115	125			
135	150	165	180			
185	205	225	245			
240	270	295	320			
405	450	495	540			
450	500	550	600			
495	550	605	660			
540	600	660	720			
	9 95 135 185 240 405 450 495	9 10 95 105 135 150 185 205 240 270 405 450 450 500 495 550	9 10 11 95 105 115 135 150 165 185 205 225 240 270 295 405 450 495 450 500 550 495 550 605			

7. Buffer Space Length shall be:

Posted Speed Limit (mph)	Distance (Feet		
≤20	120±		
25	160±		
30	200±		
35	250±		
40	310±		
45	360±		
50	425±		
55	500±		
60	570±		
65	650±		
70	740±		

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

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



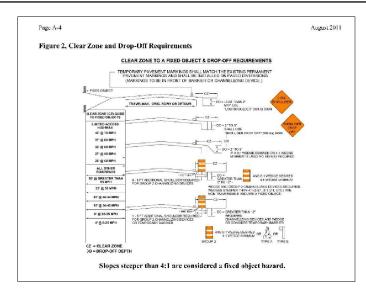
Typical Traffic Control Signing for Project Limits (Figure TTC-53.0) NOTES

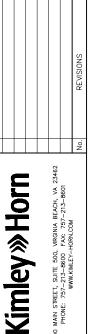
This layout depicts signing requirements for notifying motorist when they are entering and exiting a
potential construction/maintenance area with a duration equal to or greater than 60 days.

- The ROAD WORK AHEAD (W20-1) sign or the ROAD WORK NEXT XX MILES (G20-1 (V)) sign shall be placed far enough in advance of the project limits so that other warning signs in a series may be adequately placed prior to the condition they are warning about.
- The ROAD WORK NEXT XX MILES sign shall be used for projects with activity areas greater than 2 miles in length, or when multiple work activities (such as pavement patching, guardrail installations, shoulder restoration, etc.) occur along a highway.
- The distance displayed on the ROAD WORK NEXT XX MILES sign shall be stated to the nearest whole mile from the point of installation to the END ROAD WORK (G20-2 (V)) sign.
 On divided highways having a median wider than 8', right and left sign assemblies shall be

- 6. For projects with activity areas 2 miles or less in length, the ROAD WORK AHEAD sign should be the
- justs sign motors to commer.

 Sign specing should be 1300°1500° for Limited Access highways. For all other roadways, the sign specing should be 500°460° where the posted speed limit is greater than 45 mph, and 330°-500° where the posted speed limit is 45 mph or less.
- All connections within the project limits should be identified with signs indicating to motorist they are outering or exiting a potential construction/maintenance area.







TRANSPORTATION MANAGEMENT PLAN

> SMITHFIELD TO NIKE PARK PEDESTRIAN/BICYCLE TRAIL SEGMENT

SHEET NUMBER 1E(2)

VDOT GENERAL NOTES

GRADING

- G-3 Earthwork quantities on this project are based on anticipated settlement and may require adjusting during construction. Payment will be made only for quantities actually moved.
- G-4 The cost of removal of all existing concrete items located in the area to be graded, including, but not limited to the following, shall be included in the price bid for regular excavation: sidewalk, curb and gutter, and drainage structures
- G-6 The borrow material for this project shall be a minimum CBR 15 or as approved by the Materials Engineer.

PAVEMENT

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

EROSION AND SEDIMENT CONTROL (ESC)

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 <u>VDOT Road and Bridge Specifications</u>.

INCIDENTALS

- I-8A Clearing and grubbing shall be confined to those areas needed for construction. No trees or shrubs in ungraded areas shall be cut without the permission of the Engineer.
- I-12 St'd. RM-2 Right of Way monuments shall be set by the Contractor.
- I-6 Certain trees shall be preserved as noted on plans or as directed by the Engineer.
- See County/Project Specific Note #3.
- I-7 Where Standard slope roundoffs would damage trees, bushes or other desirable vegetation, they shall be omitted when so ordered by the Engineer.
- 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 <u>VDOT Road and Bridge Specifications</u>, MUTCD, and as directed by the Engineer.
- 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, AutoCADD format (.dwg) 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 AutoCADD format (.dwg) files. Only the PDF files will be considered as part of the official plan assembly. The AutoCADD format (.dwg) files are furnished only as information for the contractor. These plans are developed in layers to aid in readability. However, the construction items may or may not be in the proper layering scheme as described in the VDOT CADD Manual. The AutoCADD files will only match the scanned files if all required levels are turned on. A AutoCADD Software license is required to be able to read these files.

DRAINAGE

- D-1 The horizontal location of all drainage structures shown on these plans is approximate only, with the exception of structures showing specific stations, special design bridges and storm sewer systems.
- D-2 The horizontal location and invert elevations shown for proposed culverts and storm sewer outfall pipes are based on existing survey data and required design criteria. If during construction, it is found that the horizontal location or invert elevations shown on the plans differ significantly from the horizontal location or elevations of the stream or swale in which the culvert or storm sewer outfall pipe is to be placed, the Engineer shall confer with, and get approval from, the applicable District Drainage Engineer before installing the culvert or storm sewer outfall pipe.
- D-3 The "H" dimensions shown on plans for drop inlets and junction boxes and the "L.F." dimensions shown for manholes are for estimating purposes and are based on the proposed invert elevations shown for the structure and the anticipated top (rim) elevation based on existing or proposed finished grade. The actual "H" or "L.F." dimensions are to be determined by the contractor from field conditions
- D-6 Pipes shall conform to any of the allowable types shown on sheet 2A, 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 <u>VDOT Road and Bridge Standard</u> 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 <u>VDOT Road and Bridge Standards</u> PC-1.
- 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 <u>VDOT Road and Bridge Standards</u> shall be considered and paid for as Standard Drop Inlets for the type specified. Pipes with less than standard minimum finished height of cover shall be noted as such in the drainage description for the pipe. Specific pipe bedding and cover requirements are provided in the applicable PPI and PC-1 standard drawings of the <u>VDOT Road and Bridge Standards</u>.
- D-17 St'd. SL-1 Safety Slab locations are based on the assumed use of precast structures. If cast-in-place structures are utilized, and the interior chamber dimensions (length and width, or diameter) are less than 4 feet, the safety slabs shall not be installed.

ENVIRONMENTAL

- 1. The below listed wetland permits and environmental documents are associated with the project:
- Virginia Marine Resources Commission (VMRC) Permit Number 14-1236 (expires January 27, 2018)
- U.S. Army Corps of Engineers' (COE) Nationwide Permit 23 Permit Number NAO-2011-1435/ 14-V1236 (expires March 18, 2017)
- Department of Environmental Quality (DEQ) No Permit Required letter
- U.S. Coast Guard Advance Approval determination (expires 5 years from March 6, 2015)
- A Programmatic Categorical Exclusion (PCE) prepared for compliance with NEPA
- National Oceanic and Atmospheric Administration (NOAA) concurrence regarding Atlantic Sturgeon
- Chesapeake Bay Preservation Area (CBPA) Ordinance Exception
- 2. The County has purchased the required 0.14 ac of wetland mitigation credit and provided proof of the purchase of compensation to the COE and VDOT. The Contractor shall be responsible for compliance with all other conditions imposed on the above listed permits and environmental documents for the project.
- 3. The Contractor will assume all obligations and costs incurred by complying with the terms and conditions of the permits and environmental documentation with the exception of providing the 0.14 ac of compensatory mitigation. Any fines associated with any environmental permit or regulatory violations will be the responsibility of the Contractor.
- 4. Jurisdictional wetlands and waters and Resource Protection Area (RPA) buffers occur within the project corridor. There shall be no encroachment, fill, discharge of material, soil stockpiles or material storage within wetlands, waters or RPA buffers except as specified and permitted in the above listed wetland permits and RPA Exception.
- 5. See project specific specification for tree removal and mitigation required in Resource Protection Area (RPA).

- 6. Yellow placard associated with the VMRC permit must be conspicuously displayed at the work site (Jones Creek Crossing).
- 7. An As-Built survey which certifies the location and clearance of the bridge that was constructed shall be prepared and submitted to Mr. Chris Libeau, National Ocean Service, N/CS26, Room 7317, 1315 East-West Highway, Silver Spring, MD 20910-3282. This survey will be performed and provided by the Owner/Engineer upon completion.
- 8. The Compliance Certification Form associated with the COE permit must be completed and submitted to the COE within 30 days of completion of the project. This activity will be performed and submitted by the Owner/Engineer.
- 9. The Department of Game and Inland Fisheries (DGIF) standard Canebrake Rattlesnake awareness form must be provided to all contractors prior to starting work. If Canebrake Rattlesnakes are encountered, JD Kleopfer with DGIF must be contacted at 804-829-6703.
- 10. If any previously unknown historic, cultural or archaeological remains or artifacts are discovered during construction, the contractor shall immediately notify the COE District Engineer of the finding, and, to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed.

SPECIAL CONDITIONS

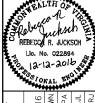
1. There shall be no construction staging or laydown areas located within the limits of Carrollton Nike District Park.

COUNTY/PROJECT SPECIFIC NOTES

- 1. In areas of trees/vegetative masses, Contractor shall not clear trees beyond designated clearing limits, unless prior approval is granted by the County. Contractor may choose to work around and salvage trees/vegetation as long as the health of the trees/vegetation is not compromised, and with prior approval from the County. The County desires for as many trees/vegetation as possible to remain.
- 2. No trees/vegetation may remain within a 3' clearance zone from the edge of the path. Limbs of trees and overhang must be trimmed up to a vertical clearance height of 10' within the 3' clearance zone. This work shall be performed and paid for in accordance with the lump sum pay item description in the VDOT Road and Bridge Specifications, Section 301.
- Amended for Pedestrian Bicycle Trail: within a minimum of 3' of the edge of path
- 3. Contractor shall replace in kind any trees noted as "Do Not Disturb" at the Contractor's expense with supervision from the County.
- 4. The Town/County will obtain right of entry privileges from property owners to perform minor grading and construction activities
- 5. All proposed traffic signs shall comply with <u>2008 Road and Bridge Standards</u> and MUTCD (2009 Edition).
- 6. Construction entrances shall be provided by Contractor to comply with Virginia Standards. Construction entrances shall be paid as an incidental item to the work

2 No. REVISIONS DATE B

Kimley WHOPTON 0. 2016 KMLEY-HORN AND ASSOCIATES, INC. 00 MAIN STRET, SUITE 500, URGINA BEACH, VA 234 PHONE, 757-213-8601 MWKMLEY-HORN, COM.



DEC. 12, 2016
SCALE AS SHOWN
DESIGNED BY CPA
DRAWN BY LJL

GENERAL NOTE

SMITHFIELD TO NIKE PARK PEDESTRIAN/BICYCLE TRAIL SEGMENT 1

TYPICAL SECTIONS

Asphalt Conc. Type

6" Aggr. Base Mat'l. Ty. I No. 21A or 21B

NOT TO SCALE

DETAIL FOR COMMERCIAL PAVEMENT

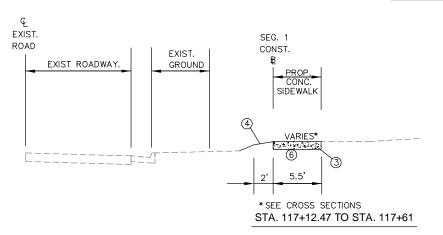
SECTION AT ENTRANCE FOR PARCEL

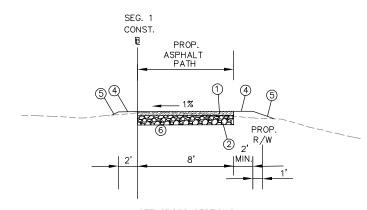
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SM-12.5A

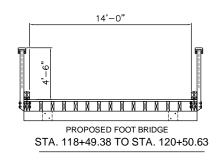
© 165 Lbs. per S.Y.

4" Asphalt Conc. Base Course
BM-25.0

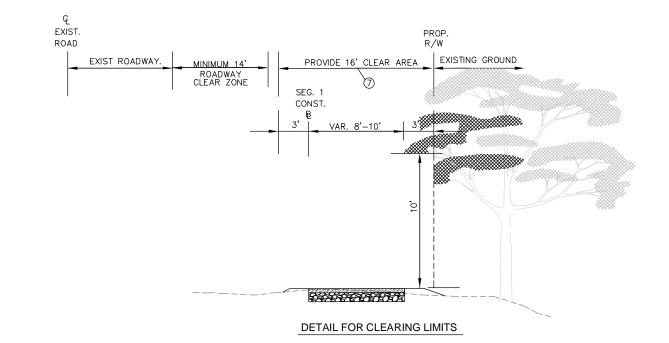




SEE CROSS SECTIONS STA. 117+61 TO STA. 118+49.38 STA. 120+50.63 TO STA. 169+72.61



ALLOWABLE TYPE OF PIPE CULVERT (UNLESS OTHERWISE SHOWN ON PLANS) (SEE ROAD AND BRIDGE STANDARD PC-I FOR HEIGHT OF COVER LIMITATIONS FOR EACH TYPE)											
LOCAT/ON	CONCRETE	ALUMINUM COATED TYPE 2 CORRUGATED STEEL	POLYMER COATED (10/10) CORRUGATED STEEL	UNCOATED GALVAWIZED CORRUGATED STEEL	GALVANIZED STEEL STRUCTURAL PLATE	GALVANIZED STEEL STRUCTURAL PLATE WITH CONCRETE INVERT	СОРРИGATED ALUMINUM ALOY	CORRUGATED ALUMINUM ALOY STRUCTURAL PLATE	POLYVINYLCHLORIDE (PVC) RIBBED PIPE (SMOOTH INTERIOR)	POLYETHYLENE (PE) CORRUGATED TYPE C	POLYETHYLENE (PE) CORRUGATED TYPE S
BATTERY PARK ROAD	YES	NO	YES	NO	NO	NO	YES	YES	YES	YES	YES



SEG. 1
CONST.
R/W

3'
VARIES 8-10'
3'

OFFICIAL FLATTER
FLATTER
FLATTER
FLATTER
FLATTER
DRIVE

SEE CROSS SECTIONS

DETAIL FOR ADDITIONAL PAVEMENT AT GRAVEL ENTRANCES

LEGEND

- (1) 2" SURFACE COURSE, SM-12.5A
- 2 6" AGGREGATE BASE COURSE NO. 21A OR 21B
- 3 4" HYDRAULIC CEMENT CONCRETE PLACED ON TOP OF COMPACTED SOIL
- ④ GRADED SHOULDER WITH TOP SOIL AND SEED (SAME SLOPE AS PATH)
- (5) SIDE SLOPES WITH TOP SOIL AND SEED
- (6) STABLE SUBGRADE, COMPACTED TO AT LEAST 100% OF THE THEORETICAL MAXIMUM DRY DENSITY AS DETERMINED BY VTM-1 AND APPROVED BY OWNER. (SEE GEOTECH REPORT)
- (7) VEGETATIVE TRIMMING AND CLEARING AS NECESSARY
 TO PROVIDE 16' CLEAR AREA FROM LATERAL
 OBSTRUCTIONS SUCH AS TREES, ROOTS, BUSHES
 POLES, ETC. (UP TO A HEIGHT OF 10' ABOVE
 GRADE).

NOTE:
GEOTEXTILE FABRIC TO BE USED FOR
SUBGRADE STABILIZATION AS REQUIRED.

S2 No. REVISIONS DATE

Kimley >> Horn

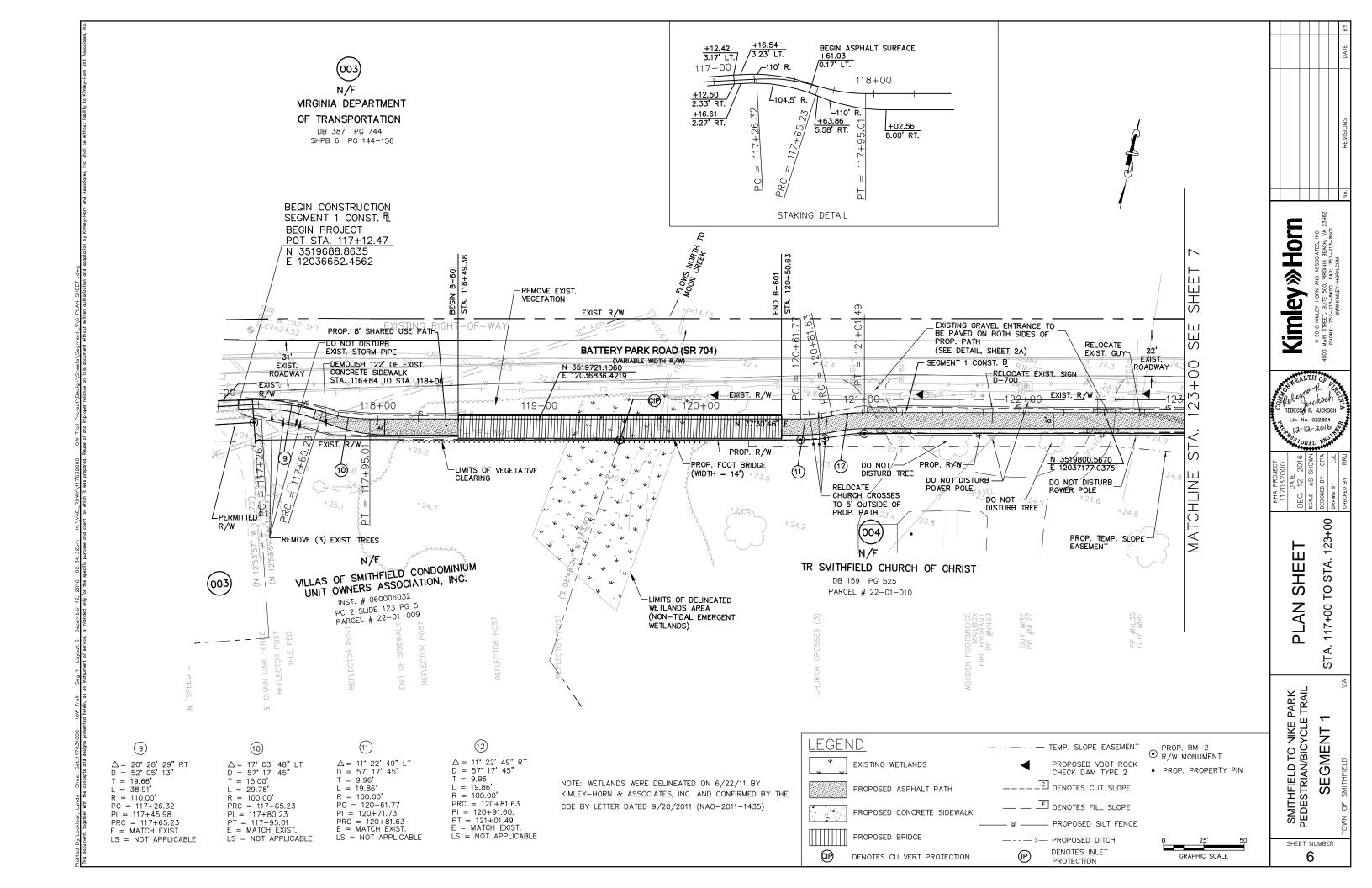
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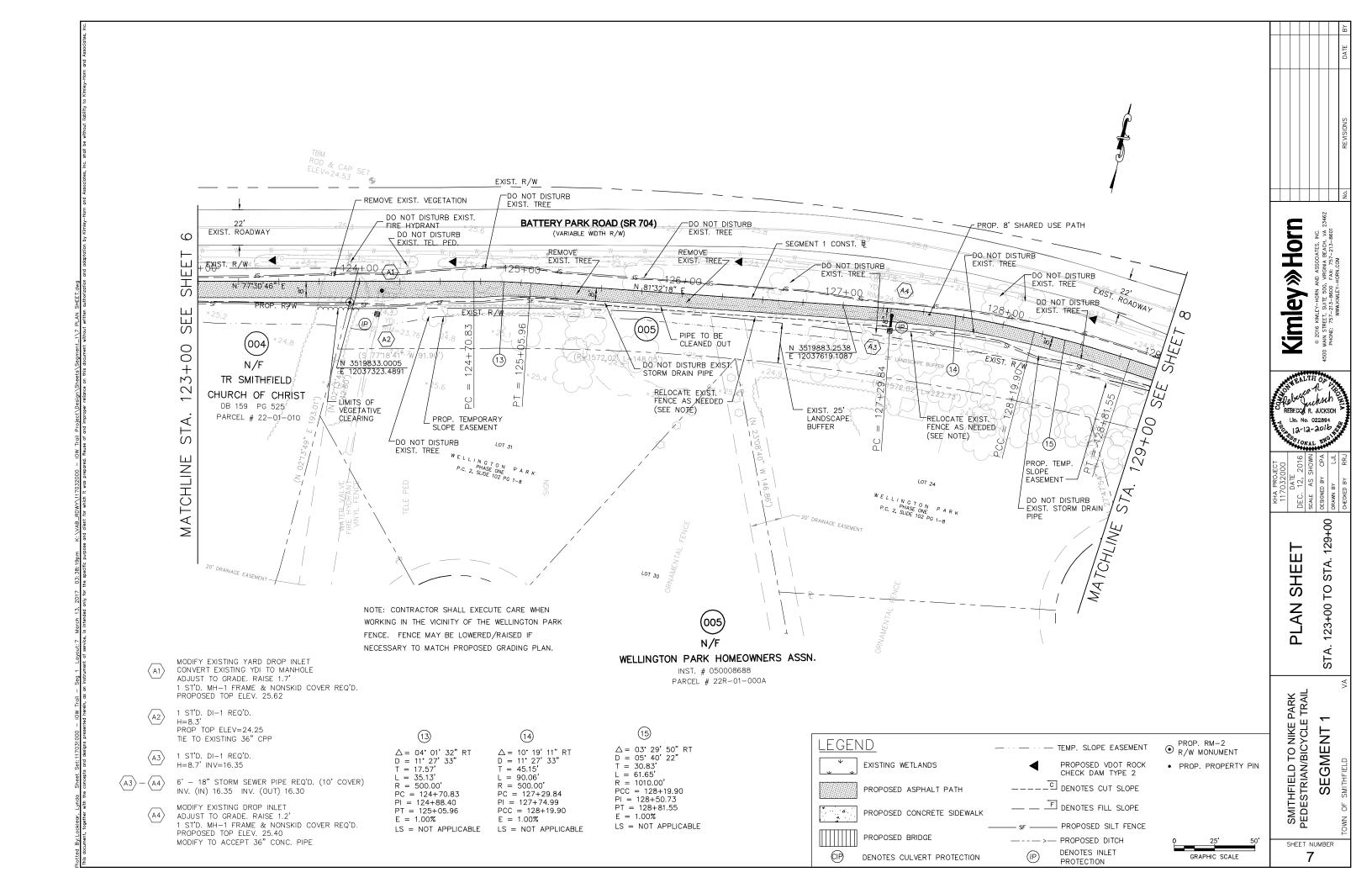
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PHONE: 757-213-8601
WWKKHIRFY-HORN COM.

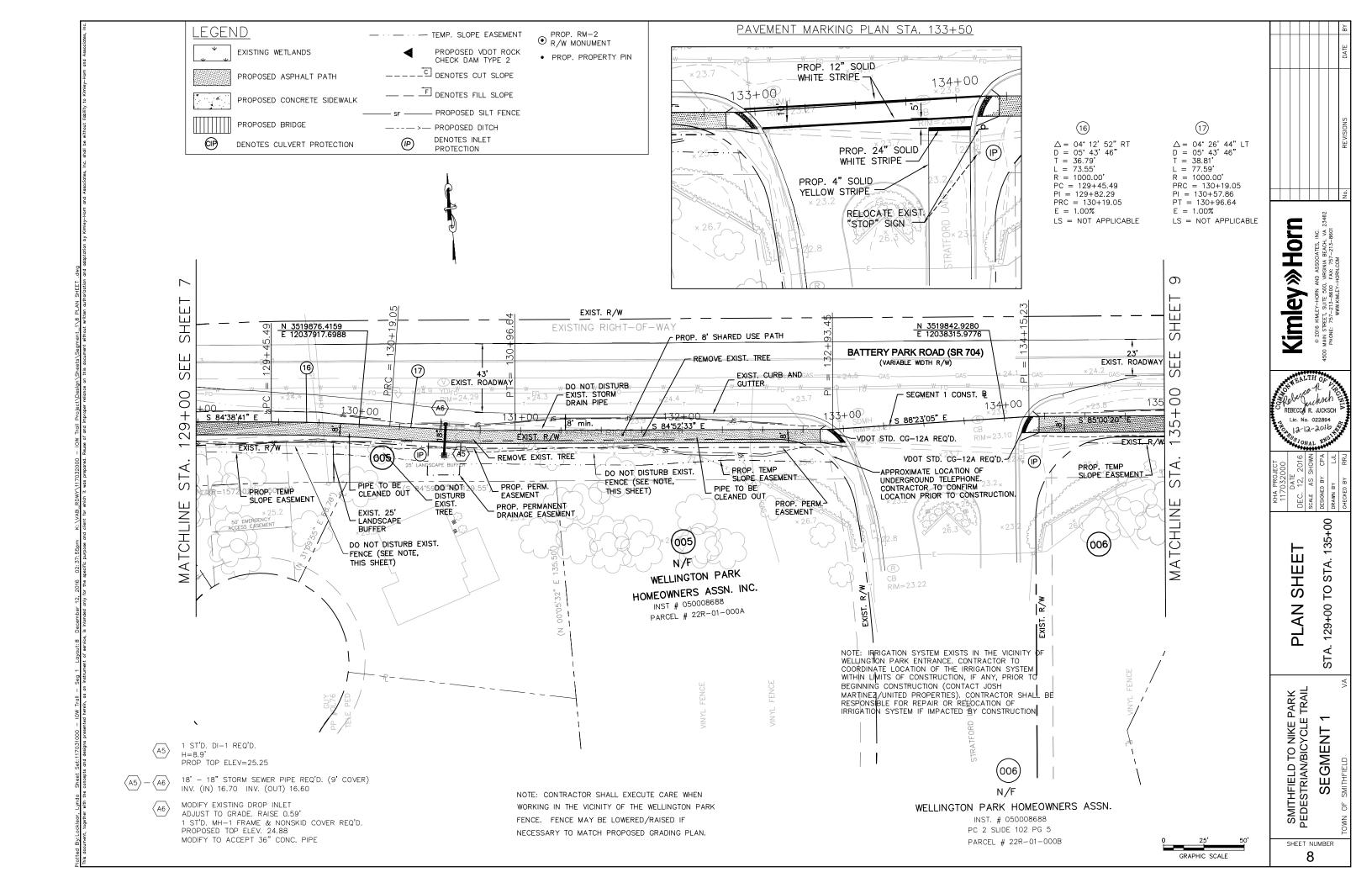
DEC. 12, 2016 SCALE AS SHOWN DESIGNED BY CPA DRAWN BY LJL

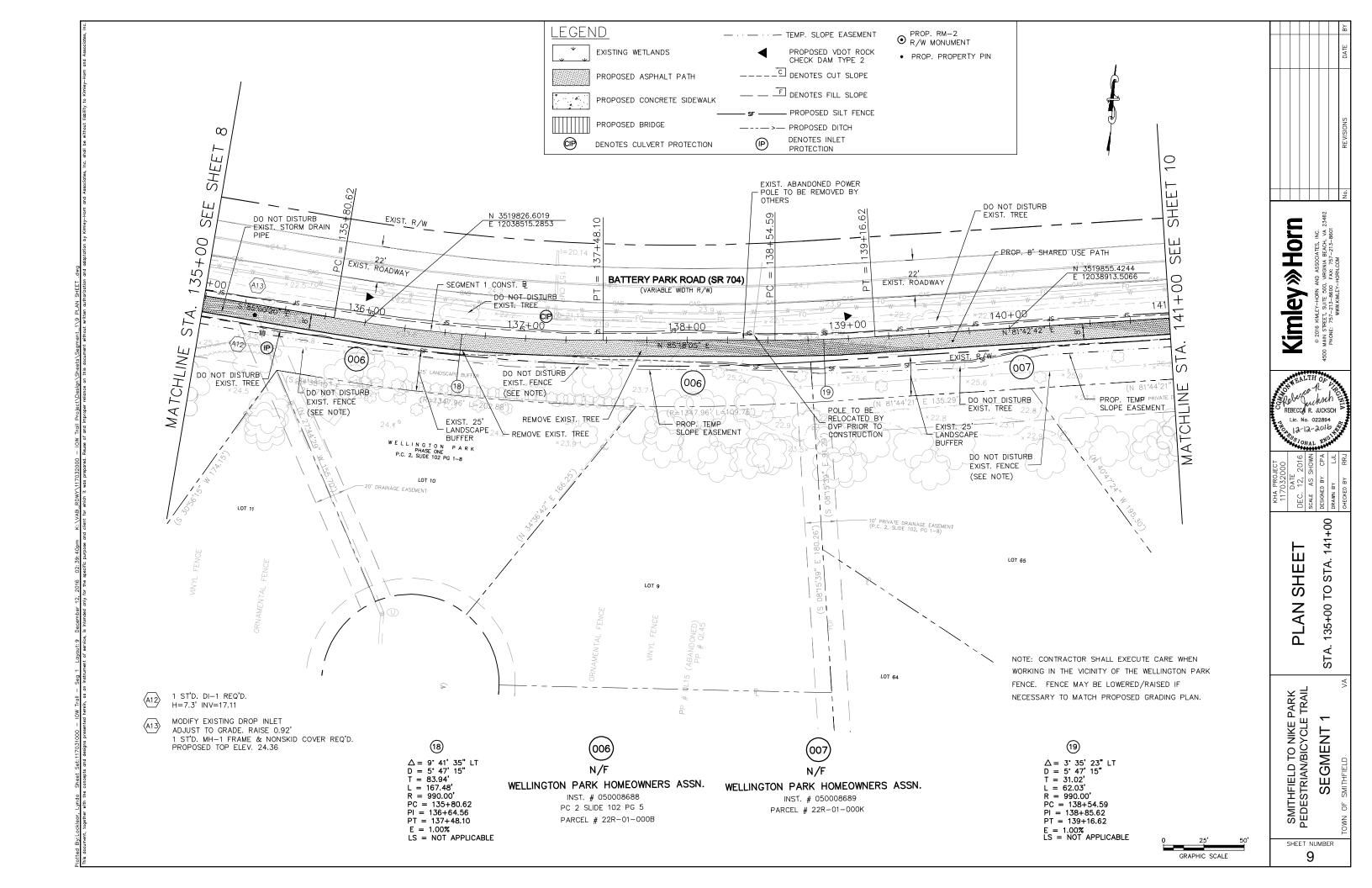
TYPICAL SECTIONS

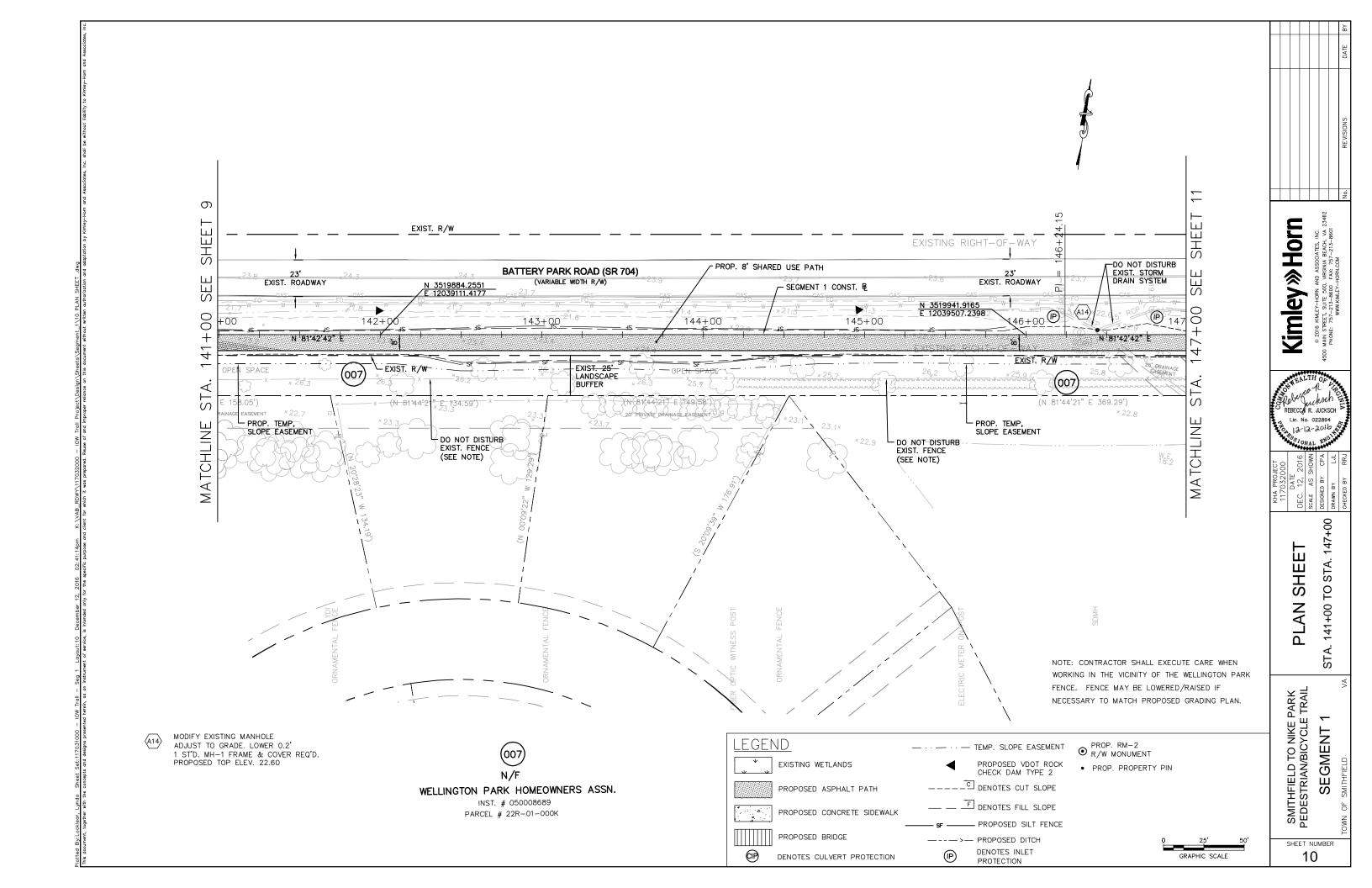
SMITHFIELD TO NIKE PARK PEDESTRIAN/BICYCLE TRAIL SEGMENT 1

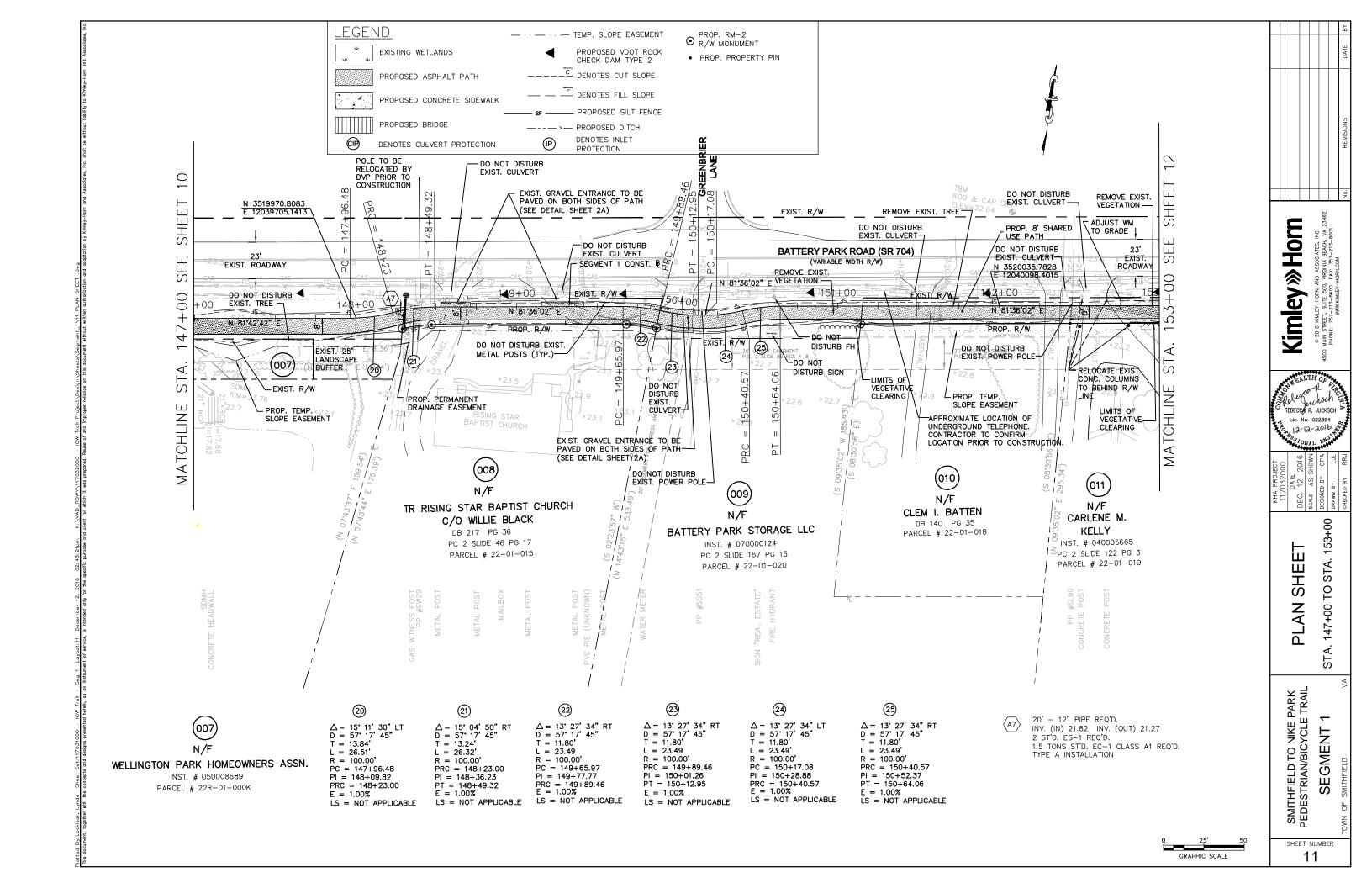


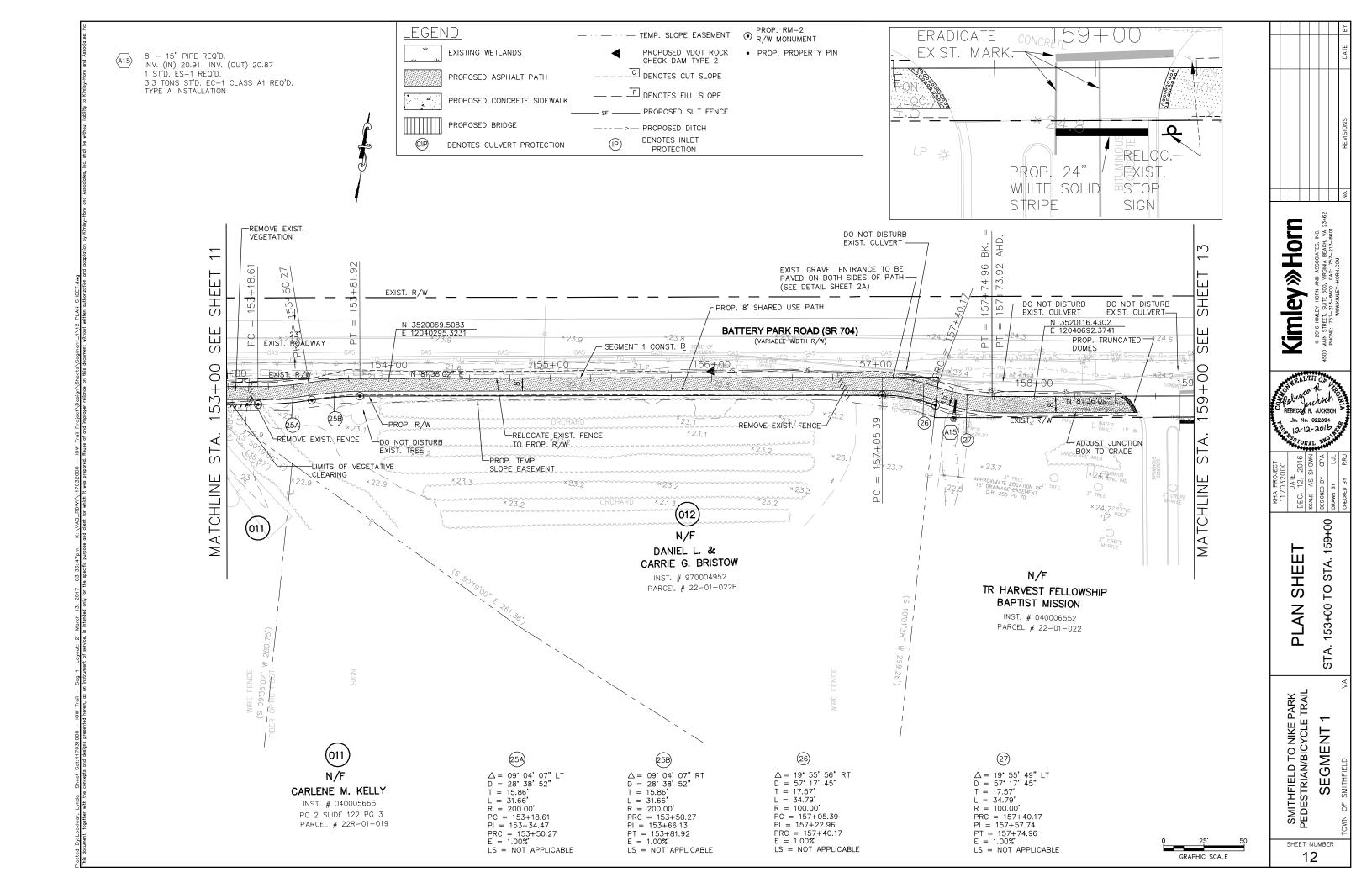


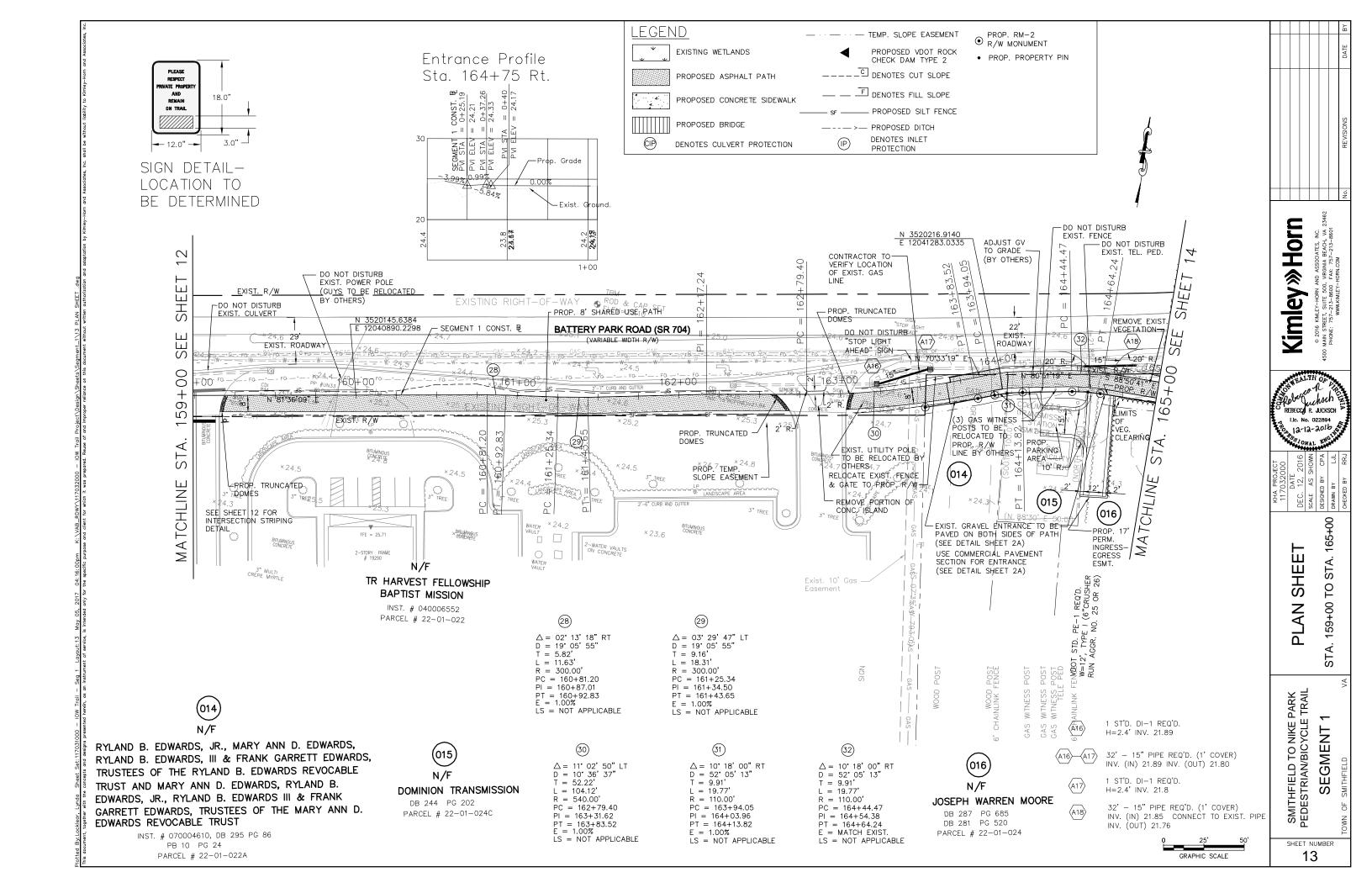


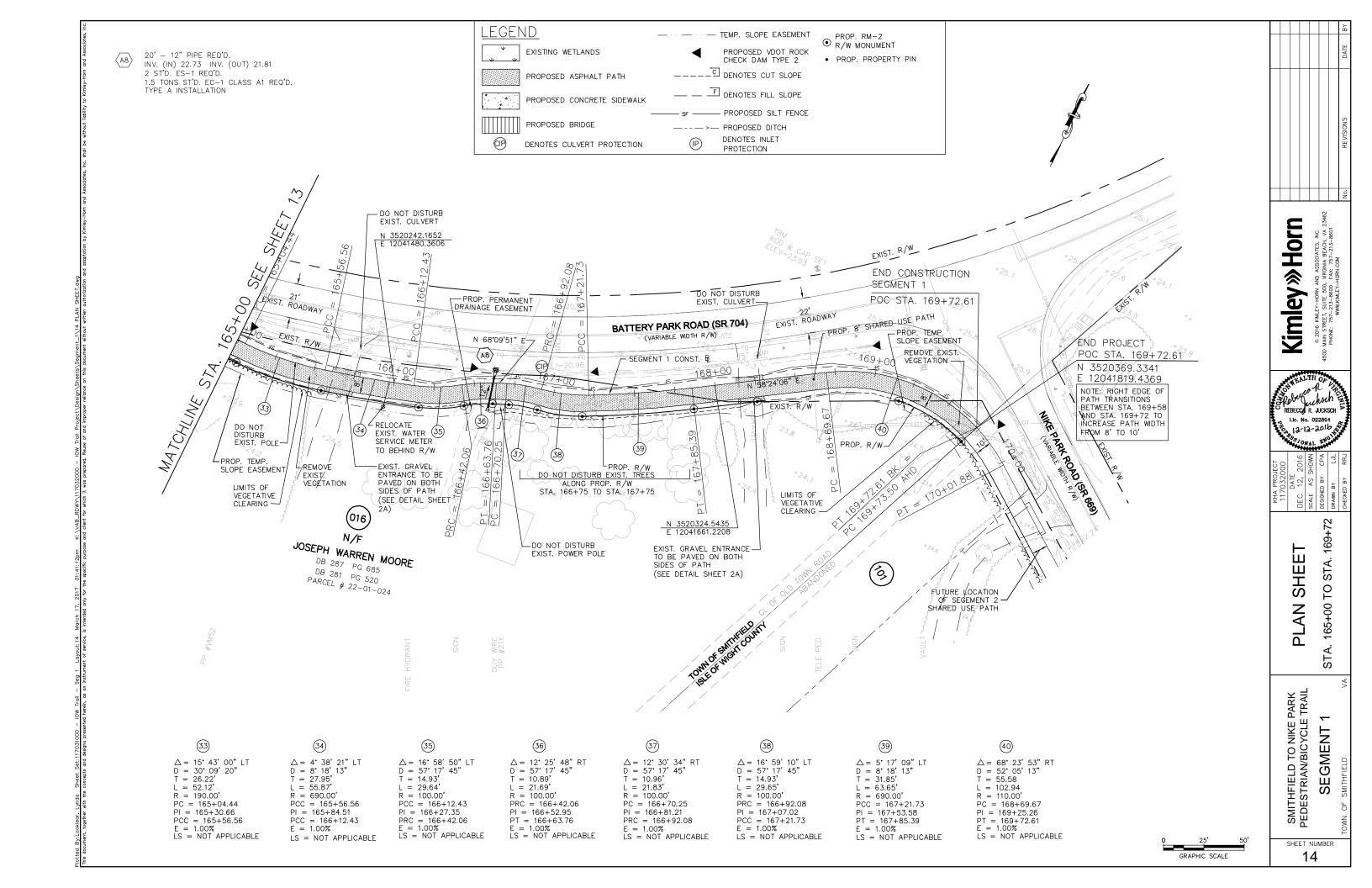


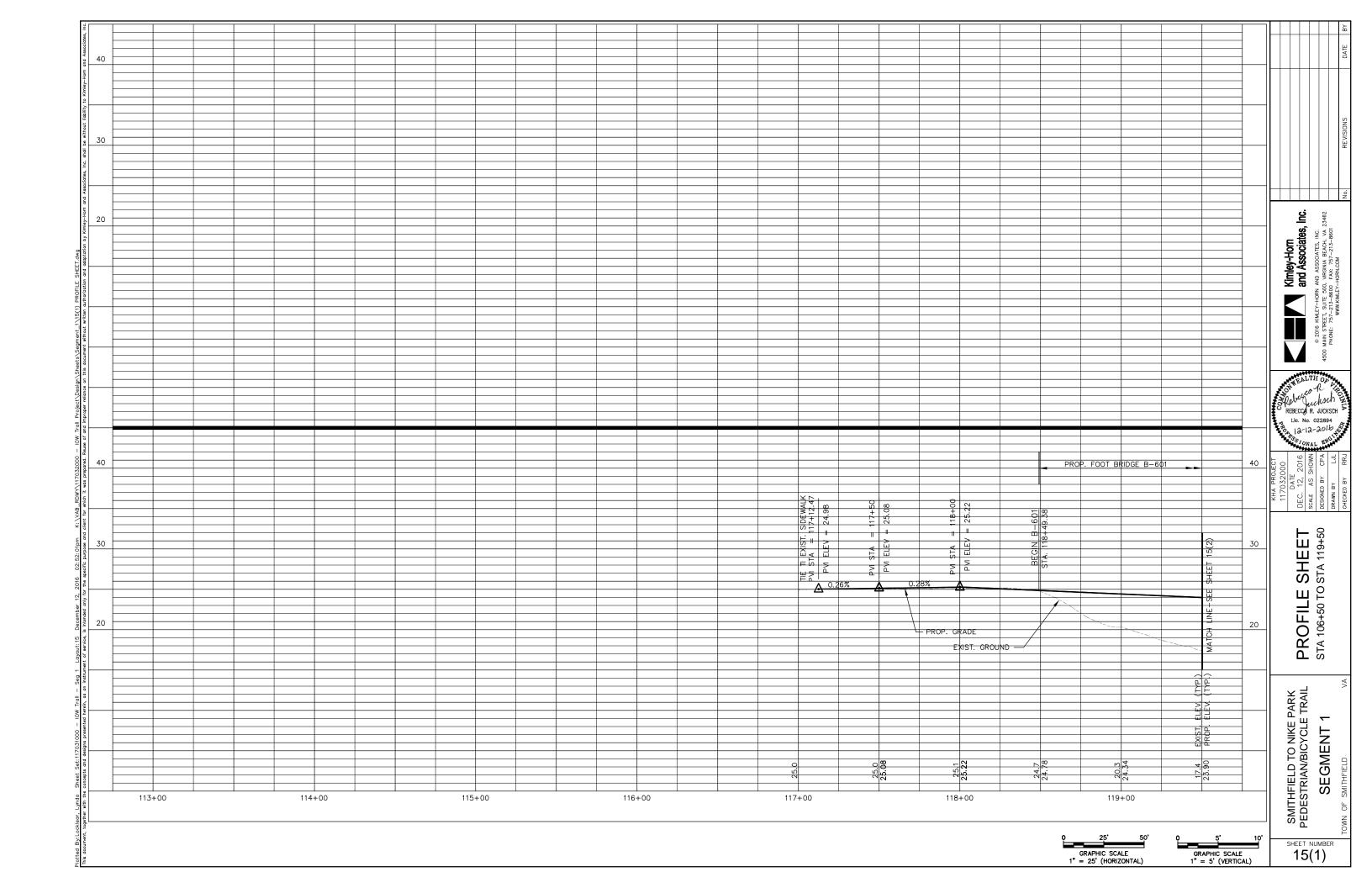


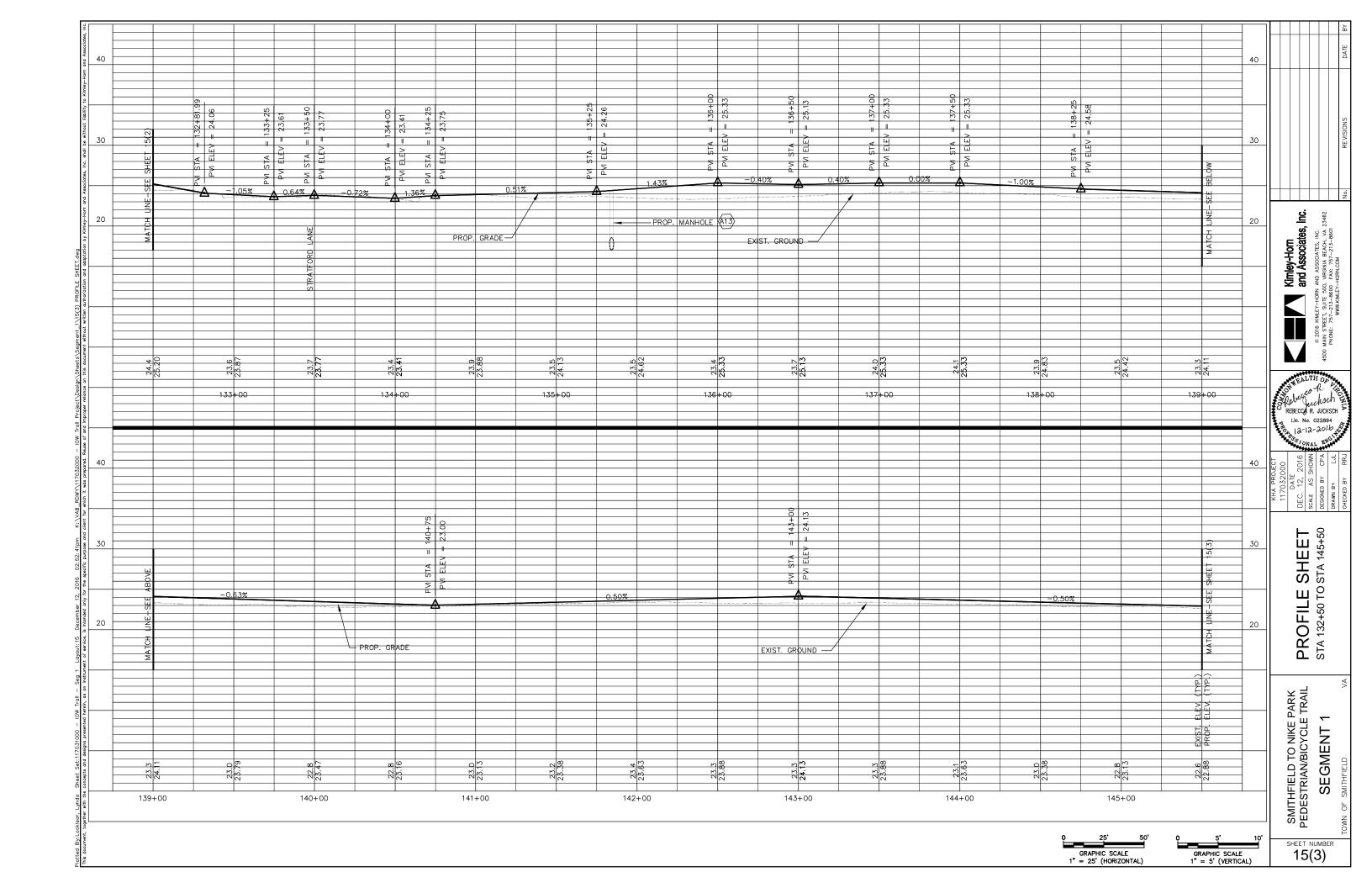


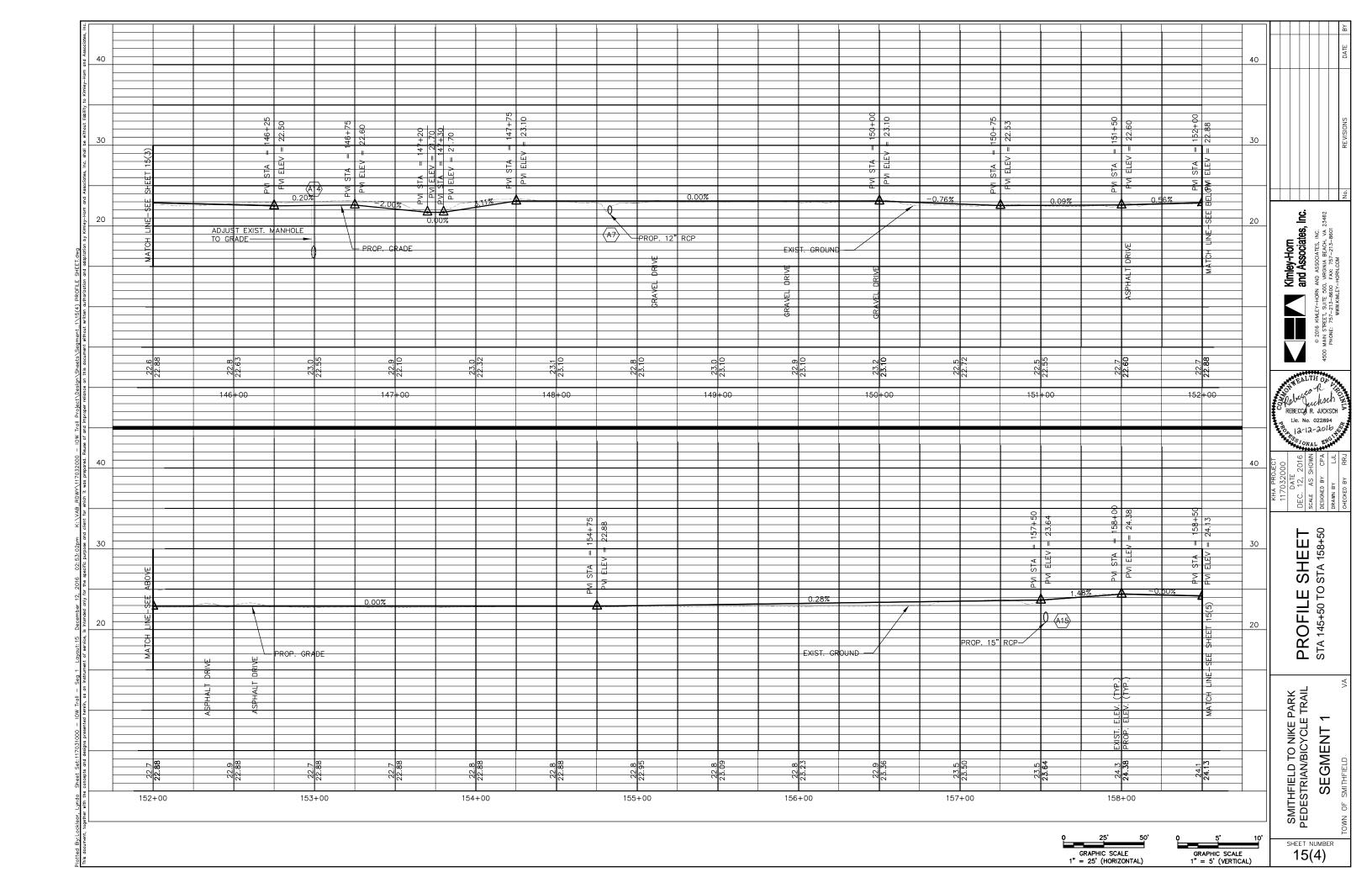


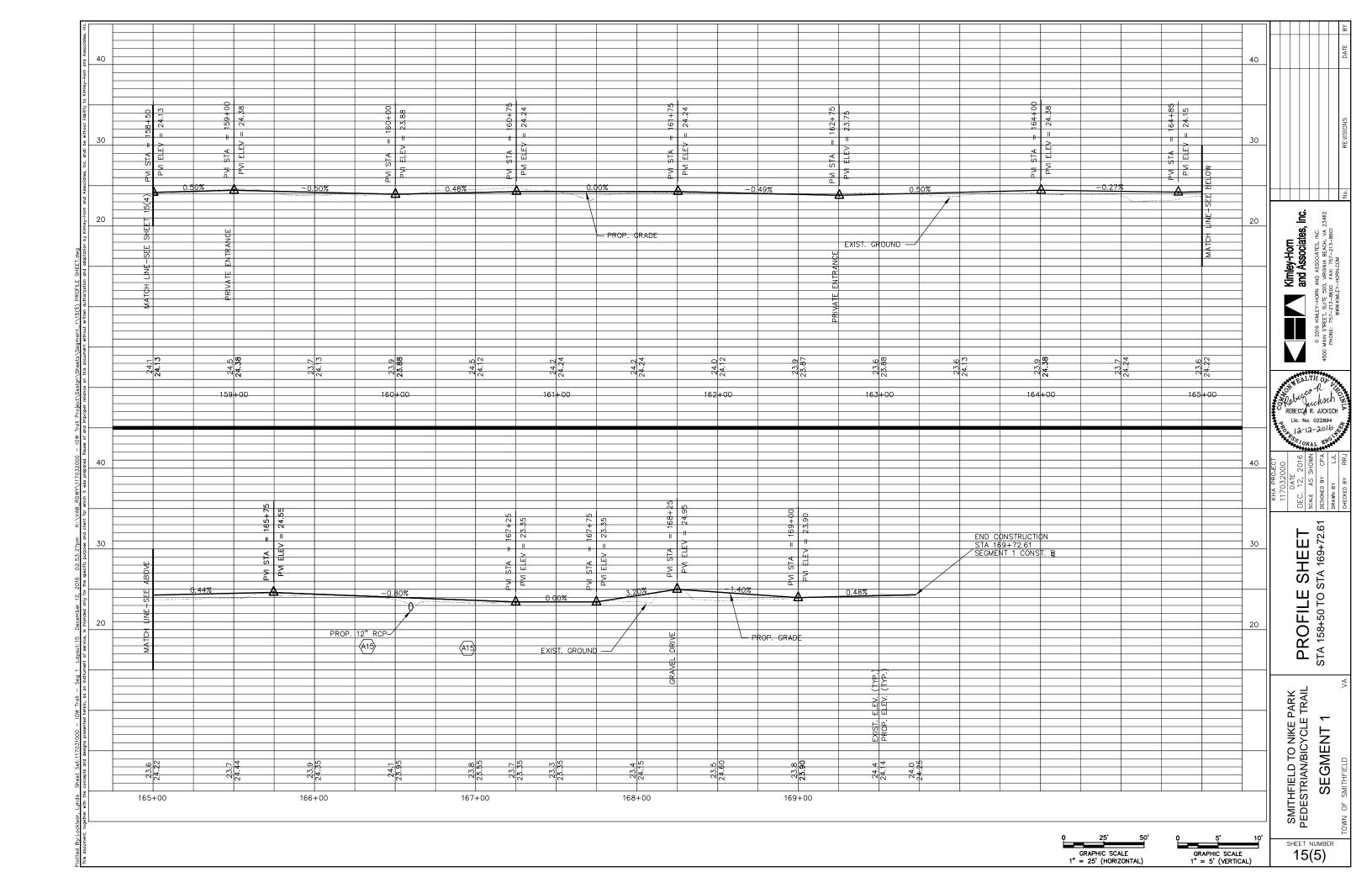


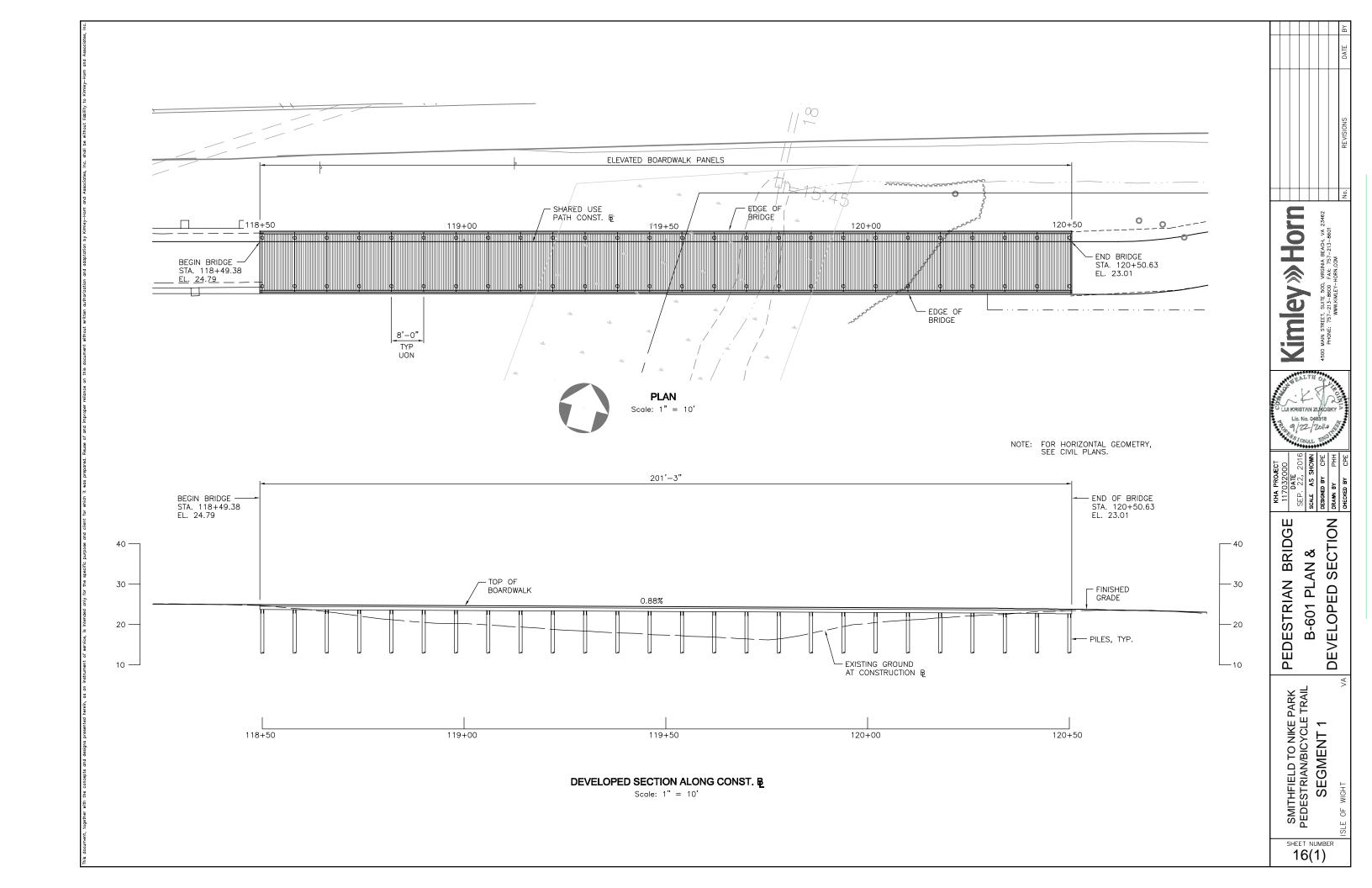












GENERAL NOTES:

DESIGN CRITERIA:

AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION, 2012 AND VDOT MODIFICATIONS.

AASHTO GUIDE SPECIFICATIONS FOR DESIGN OF PEDESTRIAN BRIDGES, 2009 EDITION, AND VDOT MODIFICATIONS

NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, 2005 EDITION.

VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT), ROAD AND BRIDGE SPECIFICATIONS, 2007

DESIGN LOADS:

PEDESTRIAN LIVE LOAD: 90 PSF

WIND PRESSURE:

50 PSF — SUPERSTRUCTURE

40 PSF — SUBSTRUCTURE

VEHICLE DESIGN LOAD

6500 LBS. MAX. AXLE LOADING

MATERIALS:

LUMBER

ALL LUMBER SHALL BE SOUTHERN PINE AND GRADED UNDER THE SOUTHERN PINE INSPECTION BUREAU (SPIB) RULES. ALL GIRDERS, JOISTS AND RAILING ELEMENTS SHALL BE S4S (SURFACED FOUR SIDES). ALL LUMBER SHALL BE PRESSURE TREATED IN ACCORDANCE WITH THE VIRGINIA DEPARTMENT OF TRANSPORTATION, ROAD AND BRIDGE SPECIFICATIONS, SECTION 236.

ALL LUMBER SHALL BE ${\it Fb}=1,550$ PSI MIN AND SHALL BE GRADED AND STAMPED AS FOLLOWS:

2"x8" RAIL CAP NO. 1 DENSE 3"x8" CROSS BRACING NO. 1 DENSE 3"x10" JOIST NON-DENSE SELECT STRUCTURAL 3"x14" GIRDER NON-DENSE SELECT STRUCTURAL NO. 1 DENSE 4"x6" DECKING 2"X2" PICKET NO. 2 DENSE 4"x6" POST NON-DENSE SELECT STRUCTURAL NO. 1 DENSE

6"x6" BUMPER 2"x6" RAIL SUPPORT

MISC. METALS

ALL STRUCTURAL BOLTS AND ALL ASSOCIATED WASHERS AND NUTS SHALL BE ASTM A325 HEX BOLTS, HOT DIP GALVANIZED AND SHALL INCLUDE LOCK WASHERS OR OTHER APPROVED HARDWARE TO PREVENT LOOSENING. SIMPSON OR APPROVED EQUIVALENT SHALL BE USED FOR JOIST-GIRDER CONNECTIONS AND GIRDER-ABUTMENT CONNECTIONS. ALL SIMPSON CONNECTORS USED SHALL HAVE SIMPSON ZMAX GALVANIZED COATING OR APPROVED EQUIVALENT. ALL SCREWS SHALL BE STAINLESS STEEL. ALL OTHER FASTENERS SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL. FASTENERS USED WITH CONNECTORS SHALL HAVE AN ANTI-CORROSION COATING OF THE SAME CAPACITY WHICH DOES NOT REACT WITH THE COATING ON THE CONNECTOR. ALL STRUCTURAL STEEL PLATES SHALL BE GRADE ASTM A36, AND SHALL BE HOT DIP GALVANIZED.

NO. 1 DENSE

ALL BOLTS SHALL BE RETIGHTEND PRIOR TO FINAL ACCEPTANCE

TIMBER PILES

FURNISH AND INSTALL TWO (2) TREATED SOUTHERN PINE TIMBER PILES AT EACH GIRDER LINE. TIMBER PILES SHALL BE DRIVEN TO A TIP ELEVATION OF -20. CONTRACTOR TO PROVIDE PILES WITH A MINIMUM 10" TOP DIAMETER. TIMBER PILES SHALL BE CONFORM TO VIRGINIA DEPARTMENT OF TRANSPORTATION, ROAD AND BRIDGE SPECIFICATIONS, SECTION 236.

STRUCTURAL BACKFILL

BACKFILL SHALL BE COMPACTED TO 95% PROCTOR MAXIMUM DRY DENSITY.

TERMINATION POINTS SHALL BE BACKFILLED WITH SATISFACTORY SOIL MATERIAL FREE OF CLAY, ROCK OR GRAVEL LARGER THAN ½—INCH, DEBRIS, WASTE, FROZEN MATERIALS, VEGETATION AND OTHER DELETERIOUS MATERIAL. THE SATISFACTORY SOIL MATERIAL SHALL EXTEND BACK A MINIMUM LENGTH EQUAL TO THE SUM OF THE HEIGHT OF THE PILE CAP AND TOTAL OVEREXCAVATION DEPTH.

CONTRACTOR SHALL HIRE AN OWNER APPROVED GEOTECHNICAL ENGINEER TO VERIFY PROPER SURFACE PREPARATION PRIOR TO PLACEMENT OF THE ASPHALT PATH AND SHALL VERIFY PROPER SOIL PROPERTIES OF BACKFILL.

SHOP DRAWINGS:

REVIEW OF SHOP DRAWINGS BY THE OWNER IS LIMITED TO COMPLIANCE OF THE COMPLETED STRUCTURE WITH THE DESIGN CONCEPT AND INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DIMENSIONS, QUANTITIES, PERFORMANCE, SAFETY, COORDINATION WITH OTHER WORKS, AND ALL OTHER REQUIREMENTS OF THE CONTRACT DOCUMENTS. REVIEW DOES NOT AUTHORIZE CHANGES TO THE CONTRACT

SHOP DRAWING SUBMITTALS SHALL INCLUDE, BUT NOT BE LIMITED TO, CONNECTION HARDWARE AND RAILING LAYOUT.

THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE OWNER FOR REVIEW IN ACCORDANCE WITH A SCHEDULE OF SUBMITTALS ACCEPTABLE TO THE OWNER. THESE SHOP DRAWINGS SHALL HAVE BEEN CHECKED BY, AND STAMPED WITH THE APPROVAL OF THE CONTRACTOR. THE DATA SHOWN ON THE SHOP DRAWINGS SHALL BE COMPLETE WITH RESPECT TO DIMENSIONS AND DESIGN CRITERIA.

MISCELLANEOUS:

CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES/SEWER AT THE SITE. CONTRACTOR SHALL VISUALLY LOCATE ADJACENT UTILITIES/SEWER PRIOR TO INSTALLATION OF THE FOUNDATION SYSTEM TO ENSURE NO CONFLICTS ARE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES. IF ANY CONFLICTS ARE FOUND, THE OWNER SHALL BE NOTIFIED IMMEDIATELY.

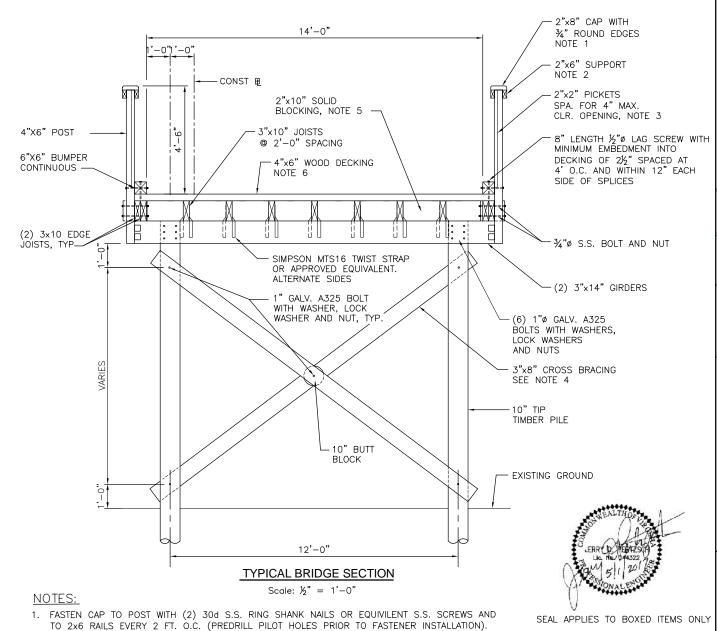
CONTRACTOR SHALL STAKE OUT THE LIMITS OF THE ABUTMENT AND THE OWNER SHALL APPROVE LOCATIONS PRIOR TO INSTALLATION OF ABUTMENT.

CONTRACTOR SHALL FIELD VERIFY AVAILABLE HEADROOM FOR CONSTRUCTION AROUND EXISTING OVERHEAD POWER LINES. THE HIGH VOLTAGE SAFETY ACT REQUIRES A MINIMUM OF 10'-0" CLEAR DISTANCE FROM THE CLOSEST CONDUCTOR

CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN WORKING AROUND AND ADJACENT TO EXISTING UTILITIES AND STRUCTURES.

MEASUREMENT AND PAYMENT

EXCEPT FOR PILES, BRIDGE 601 SHALL BE PAID FOR AS A LUMP SUM AND INCLUDE ALL MATERIALS AND LABOR TO INSTALL THE STRUCTURE WITHIN THE STATED LIMITS. ALL PILING WILL BE MEASURED AND PAID FOR ON PER FOOT BASIS. COST FOR PILING SHALL INCLUDE ALL LABOR AND MATERIAL TO INSTALL PILING IN ACCORDANCE WITH THE VDOT ROAD AND BRIDGE SPECIFICATIONS AND THE GEOTECHNICAL REPORT BY GET SOLUTIONS.



2. BOLT HORIZONTAL 2x6 SUPPORT RAILS TO POST WITH (2) $\frac{1}{2}$ % S.S. CARRIAGE BOLTS, WASHER (AT NUT AND BOLT HEAD END) AND NUT.

3. FASTEN PICKET TO EACH HORIZONTAL MEMBER WITH S.S. SCREWS. (PREDRILL PILOT HOLES PRIOR TO FASTENER INSTALLATION).

- 4. DISCONTINUE 3"X8" CROSS BRACING ONCE EXPOSED PILE HEIGHT IS LESS THAN 5'-0".
- ALTERNATE 2x10 BLOCKING OVER GIRDERS EACH JOIST SPACE. TOENAIL (2) 16d NAILS EACH END (TYPICAL).
- 6. FASTEN ALL 4x6 DECKING BOARDS TO EACH 3x10 JOIST WITH (2) #10x6" MIN WOOD SCREWS.

SEP. 22, 2016
SCALE AS SHOWN
PERIONE BY BJH
DRAWN BY PHH

PEDESTRIAN BRIDGE B601 GENERAL NOTES

HFIELD TO NIKE PARK STRIAN/BICYCLE TRAIL SEGMENT 1

SHEET NUMBER

16(2)

