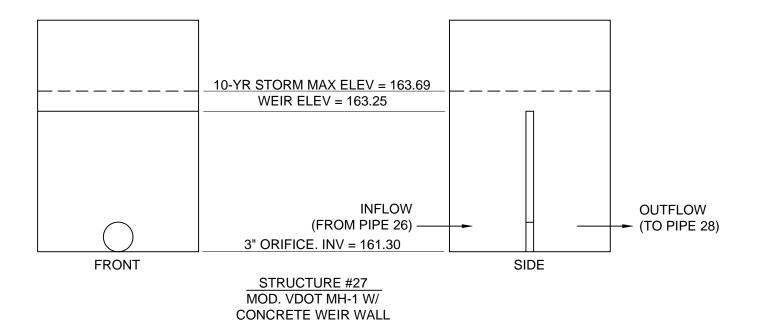


# **UNDERGROUND DETENTION**

(3) 110 LF 60" DUROMAXX PIPES INVERT = 161.30' OUTLET CONTROL ORIFICE: 3" @ 161.30' WEIR: 163.25'





### **DuroMaxx® Specification Sheet**

This specification describes DuroMaxx® pipe for use such as storm sewers, sanitary sewers, industrial waste applications, drainage pipes, underground detention, infiltration, cistern or rainwater harvesting systems in 30" (750 mm) through 120" (3000 mm) nominal diameters.

DuroMaxx is a reinforced polyethylene pipe with a smooth waterway wall and exterior profile that is reinforced with high strength galvanized steel ribs. The continuous reinforcing ribs are completely encased within the polyethylene profile. DuroMaxx is manufactured using a helical winding process that results in a continuously fusion welded lap seam. The pipe profile is manufactured using a high quality stress-rated thermoplastic meeting the requirements of ASTM F2562 "Standard Specification for Steel Reinforced Thermoplastic Ribbed Pipe and Fittings for Non-Pressure Drainage and Sewerage" or AASHTO Designation MP-20. For the purpose of hydraulic design, the recommended Manning's "n" value shall be 0.012 for pipe diameters included within this specification.

Virgin high density polyethylene stress-rated resins are used to manufacture DuroMaxx pipe and complimentary fabricated fittings. Resins shall conform to the minimum requirements of cell classification 345464C as defined and described in the latest version of ASTM D3350 "Standard Specification for Polyethylene Plastics Pipe and Fittings Materials".

### **Joint Performance**

**Material Properties** 

Pipe lengths shall be joined on site using coupling bands, bell & spigots or ElectroFusion couplers especially designed for DuroMaxx pipe. Joints shall meet one of the performance levels as required and specified:

- Soil Tight Joints (30" 120"") shall be plain ended DuroMaxx pipe with Aluminized Type 2 (or optional Polymeric coated) CMP coupling bands and elastomeric gaskets (see Standard Drawings 1012802).
- Low Head (LH) Joints (30" 84") shall be gasketed, stress-rated high density polyethylene bell and spigot joints (meeting the requirements set forth in the above Material Properties paragraph) that have been laboratory tested to 3 psi when tested in accordance with ASTM D3212 "Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals" (see Standard Drawing
- **High Performance (HP) Joints** (30" 84") shall be gasketed, bell and spigot joints where both the bell and spigot are reinforced with steel that is fully encased in stress-rated high density polyethylene (meeting the requirements set forth in the above Material Properties paragraph) and that have been laboratory tested to 15 psi when tested in accordance with ASTM D3212 "Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals" (see Standard Drawing
- Welded Joints (36" 120") shall utilize plain ended DuroMaxx pipe welded together utilizing exclusive pressure testable ElectroFusion (EF) couplers or extrusion welded (WC) couplers. The welded connections provide a true in-field watertight system assured by the pressure testable welded sleeves at each welded connection. The field installed welded joints shall remain watertight up to a test pressure of 30 psi (see Standard Drawing 1012805).

All fabricated fittings and couplings supplied by the manufacturer shall be constructed to ensure no loss of structural integrity or joint tightness at welded seams and joints. Only those fittings supplied by or recommended by the manufacturer shall be used.

Installation shall be in accordance with ASTM D2321 "Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications" along with product-specific recommendations contained in Contech Installation Guidelines for DuroMaxx pipe, available from local Contech representatives or from www.conteches.com.

## Pipe Dimensions and Cover Limits

Nominal Pipe Size	Outside Diameter	Unit Weight*	Water	imum way Wall ness (t₁)	Minimum Cover***		Maximum Cover	
inch	in. [mm]	lbs./ft	in.	[mm]	ft.	[m]	ft.	[m]
30	30.9 [785]	15.5	.082	[2.08]	1	[.305]	50	[15.2]
36	37.1 [942]	20.8	.082	[2.08]	1	[.305]	50	[15.2]
42	43.2 [1097]	26.5	.082	[2.08]	1	[.305]	50	[15.2]
48	49.5 [1257]	29.1	.130	[3.30]	1	[.305]	30	[9.1]
54	55.5 [1410]	34.7	.130	[3.30]	1	[.305]	30	[9.1]
60	61.4 [1560]	41.6	.130	[3.30]	1	[.305]	30	[9.1]
66	67.8 [1722]	56.9	.220	[5.58]	1.5	{.457]	30	[9.1}
72	74.1[1882]	65.6	.220	[5.58]	1.5	[.457]	30	[9.1]
84	85.9 [2182]	76.3	.220	[5.58]	2	[.610]	30	[9.1]
96	98.3 [2497]	87.0	.220	[5.58]	2	[.610]	30	[9.1]
108	111.3 [2827]	99.7	.220	[5.58]	2.5	[.762]	25	[7.6]
120	121.9 [3097]	109.0	.220	[5.58]	3	[.914]	25	[7.6]

\* Approximate weights. Actual weight will vary with length and joint type. \*\* Minimum and maximum cover limits are for H20/H25 loading.

## The Contech Environmental Commitment

Contech is an environmentally conscious company committed to shaping the future of green building and design. DuroMaxx is Contech's newest contribution to our ecofriendly portfolio of civil engineering solutions. Starting with the manufacturing process, DuroMaxx consumes less than 35% of natural resources to produce AASHTO M294 HDPE pipe. The green design continues with DuroMaxx's steel reinforced ribs which are made of recycled steel in content levels ranging from 55-80%. Plus, when utilized appropriately, it can contribute to a variety of the U.S. Green Building Council's LEED credits in the categories for sustainable sites, water efficiency and landscaping, and materials and resources.



Contech® Engineered Solutions LLC • 9025 Centre Pointe Drive, Suite 400 West Chester, OH 45069 • 1-800-338-1122



4/26/16 DRAWN BY C. MORGAN DESIGNED BY

C. MORGAN CHECKED BY M. BOWSER

SCALE 1'' = 60'

36789 SHEET NO.

*C7.2* 

# TRANSPORTATION MANAGEMENT PLAN

### **GENERAL:**

- 1. THIS PROJECT IS CLASSIFIED AS TYPE A, UNDER THE VDOT CLASSIFICATION SYSTEM.
- 2. THE PROJECT LENGTH IS APPROXIMATELY 500 FEET. THE WIDTH OF THE WORK ZONE IS LESS THAN 80'.
- 3. THE PURPOSE OF THIS PROJECT IS TO PROVIDE SITE ACCESS TO THE ALLURE AT JEFFERSON PROPERTY BY CONSTRUCTING A NEW RIGHT-IN, RIGHT-OUT ENTRANCE AND TURN LANE ALONG US ROUTE 1 (JEFFERSON DAVIS HIGHWAY). WORK WILL BE DONE ALONG US ROUTE 1 (JEFFERSON DAVIS HIGHWAY) FROM NORTH OF THE COMMONWEALTH DRIVE INTERSECTION AND SOUTH OF THE INTERSECTION OF ROUTE 628 (SPOTSYLVANIA COUNTY PARKWAY) WITH MINOR ENCROACHMENT INTO THE TRAFFIC PATTERN.
- 4. TRAFFIC ALONG US ROUTE 1 (JEFFERSON DAVIS HIGHWAY) CONSISTS OF THRU (COMMUTER) TRAFFIC AND LOCAL RESIDENTS.
- 5. THE EXISTING SPEED LIMIT FOR US ROUTE 1 (JEFFERSON DAVIS HIGHWAY) IS 45 MPH. ALL EXISTING SPEED LIMITS ARE EXPECTED TO BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION.

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

- 1. LANE CLOSURES, SHOULDER CLOSURES, AND FLAGGING OPERATIONS ARE ANTICIPATED FOR THIS PROJECT AND WILL BE IN ACCORDANCE WITH THE VIRGINIA WORK AREA PROTECTION MANUAL, 2011 EDITION, (APRIL 1, 2015 REVISION). THE FOLLOWING TEMPORARY TRAFFIC MEASURES SHALL BE USED:
- 1.1. TYPICAL TRAFFIC CONTROL STATIONARY OPERATION ON A SHOULDER (FIGURE TTC-4.1 - STATIONARY OPERATION ON A SHOULDER).
- 1.2. TYPICAL TRAFFIC CONTROL SHOULDER OPERATION WITH MINOR ENCROACHMENT (FIGURE TTC-5.1 - SHOULDER OPERATION WITH MINOR ENCROACHMENT).
- 1.3. TYPICAL TRAFFIC CONTROL OUTSIDE LANE CLOSURE OPERATION ON A FOUR-LANE ROADWAY (FIGURE TTC-16.1 - OUTSIDE LANE CLOSURE OPERATION ON A FOUR-LANE ROADWAY).
- 2. ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED AT ALL TIMES.

## PUBLIC COMMUNICATION PLAN:

- 1. IF ANY MAJOR TRAFFIC CHANGES ARE TO TAKE PLACE (LANE CLOSURES, DETOURS, ETC.), THE CONTRACTOR SHALL ENSURE THAT THE LOCAL NEWSPAPERS AND RADIO STATIONS ARE INFORMED A MINIMUM OF 72 HOURS IN ADVANCE OF THE CHANGE.
- 2. PORTABLE CHANGEABLE MESSAGE BOARDS (PCMBS) SHALL BE USED TO NOTIFY THE TRAVELING PUBLIC OF ANY SUCH MAJOR TRAFFIC CHANGES 72 HOURS IN ADVANCE OF THE CHANGE.

## TRANSPORTATION OPERATION PLAN:

- 1. THE PROJECT PERSONNEL SHALL NOTIFY THE "REGIONAL TRAFFIC OPERATIONS CENTER" (RTOC) AND VDOT FREDERICKSBURG DISTRICT WORK ZONE SAFETY COORDINATOR, JEFF STONE, WHEN A LANE CLOSURE IS IMPLEMENTED, AND AGAIN WHEN IT IS REMOVED. THE RTOC WILL IN TURN PLACE THE INFORMATION INTO THE "511 VIRGINIA" TRAFFIC ALERT SYSTEM (A SERVICE OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION TRAFFIC SYSTEM).
- 2. THE FOLLOWING IS A LIST OF LOCAL EMERGENCY NUMBERS: FIRE: 540-507-7900 COUNTY SHERIFF: 540-582-7115 STATE POLICE: 540-891-4288 PROJECT PERSONNEL: ENGINEER CONTACT: MITCH BOWSER. TIMMONS GROUP: 804-200-6500 **INSPECTOR: TBD** REGIONAL TRAFFIC OPERATIONS CENTER: 804-524-6000 VDOT FREDERICKSBURG DISTRICT WORK ZONE SAFETY COORDINATOR: JEFF STONE, 540-899-4547 VDOT DISTRICT PUBLIC AFFAIRS MANAGER: KELLY HANNON, 540-374-3344

VDOT FREDERICKSBURG RESIDENCY OFFICE: 540-899-4300

3. ANY TRAFFIC INCIDENT THAT OCCURS DURING THE LIFE OF THIS PROJECT WILL BE DISCUSSED BY THE CONTRACTOR, VDOT, AND THE ENGINEER OF RECORD TO DETERMINE WHETHER ANY CHANGES NEED TO BE MADE TO THE TRAFFIC CONTROL ON THE PROJECT.

### TMP GENERAL NOTES:

- 1. ANY REQUIRED LANE CLOSURES MUST BE APPROVED IN ADVANCE BY THE VDOT ENGINEER.
- 2. LANE CLOSURES AND STOPPING OF TRAFFIC SHALL ONLY BE ALLOWED ON US ROUTE 1 (JEFFERSON DAVIS HIGHWAY) OR ANY OTHER CONNECTING ROAD BETWEEN THE HOURS OF 9:00 AM TO 4:00 PM AND 9:00 PM TO 5:00 AM, MONDAY THROUGH THURSDAY AND 9:00 AM TO 12:00 PM, FRIDAY, UNLESS OTHERWISE DIRECTED BY VDOT & THE ENGINEER. FOR MORE INFORMATION, SEE SEQUENCE OF CONSTRUCTION ON THIS SHEET.
- 3. ALL AREAS EXCAVATED DEEPER THAN 2" (TWO INCHES) BELOW EXISTING PAVEMENT SURFACE AND WITHIN THE CLEAR ZONE, AT THE CONCLUSION OF EACH WORKDAY, SHALL BE BACK FILLED TO FORM AN APPROXIMATE 4:1 TO 6:1 (6:1 DESIRABLE) WEDGE AGAINST THE PAVEMENT SURFACE FOR THE SAFETY AND PROTECTION OF VEHICULAR TRAFFIC. ALL COST PLACING, MAINTAINING, AND REMOVING THE 6:1 WEDGE SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS IN THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 4. TRAFFIC SHALL NOT BE STOPPED ON US ROUTE 1 (JEFFERSON DAVIS HIGHWAY) OR ANY CONNECTOR ROAD FOR LONGER THAN FIVE MINUTES AT ANY TIME UNLESS OTHERWISE DIRECTED BY VDOT AND THE ENGINEER.
- 5. LANE CLOSURES WILL NOT BE PERMITTED ON HOLIDAYS, WEEKENDS, OR ON FRIDAY-SATURDAY-SUNDAY-MONDAY SURROUNDING HOLIDAY WEEKENDS UNLESS OTHERWISE APPROVED IN ADVANCE BY THE ENGINEER AND VDOT.
- 6. ANY CONTRACT ITEM(S) NOT SPECIFICALLY NOTED IN THE MAINTENANCE OF TRAFFIC MAY BE SCHEDULED FOR CONSTRUCTION AT THE CONTRACTOR'S OPTION, AS APPROVED BY THE ENGINEER AND VDOT.
- 7. VEHICULAR AND PEDESTRIAN ACCESS TO ADJACENT PROPERTIES AND CONNECTING STREETS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION. PROPERTY OWNERS SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO ANY ACTIVITIES WHICH WOULD IMPEDE ACCESS TO THEIR PROPERTY. IN ALL CASES IN WHICH EXISTING OR ESTABLISHED TRAFFIC PATTERNS WILL BE DISRUPTED, THE CONTRACTOR WILL NOTIFY ALL AFFECTED RESIDENTS AND/OR BUSINESSES A MINIMUM OF 48 HOURS IN ADVANCE OF THE ANTICIPATED DISRUPTION BY DISTRIBUTING DOOR-TO-DOOR NOTICES. A COPY OF THE NOTICE SHALL BE FORWARDED TO THE PROJECT ENGINEER AND VDOT FOR REVIEW AND APPROVAL PRIOR TO THE BEGINNING OF WORK.
- 8. THE FINAL SURFACE COURSE IS NOT TO BE PLACED UNTIL SUCH TIME THAT PERMANENT PAVEMENT MARKINGS CAN BE PLACED.
- 9. ALL TRAFFIC CONTROL SHALL BE SET UP AND SPACED ACCORDING TO THE VIRGINIA WORK AREA PROTECTION MANUAL, 2011 EDITION, (APRIL 1, 2015 REVISION).
- 10. CONTRACTOR SHALL PROVIDE ADDITIONAL TRAFFIC CONTROL AS DIRECTED BY VDOT SHOULD FIELD CONDITIONS WARRANT.
- 11. CONTRACTOR MAY REDUCE LANE WIDTHS TO 11' MINIMUM DURING CONSTRUCTION. ANY TEMPORARY PAVEMENT MARKINGS THAT ARE REQUIRED ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- 12. CONTRACTOR IS RESPONSIBLE FOR PLACEMENT AND MAINTENANCE OF ALL TEMPORARY PAVEMENT MARKINGS THAT ARE REQUIRED OR IMPLIED IN THE CONSTRUCTION PHASING SHEETS THAT FOLLOW. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TRAFFIC CONTROL DEVICES, SIGNAGE, EQUIPMENT, PERSONNEL, INCLUDING CERTIFIED TRAFFIC CONTROL PERSONNEL. ETC. TO CONTROL TRAFFIC DURING CONSTRUCTION WITHIN VDOT & CITY OF NORFOLK MAINTAINED RIGHT-OF-WAY. ALL TRAFFIC CONTROL SHALL BE IN STRICT ACCORDANCE WITH THE STANDARDS, GUIDELINES, POLICIES, AND OBJECTIVES OF THE LATEST EDITION OF THE VIRGINIA WORK AREA PROTECTION MANUAL, MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND ALL VDOT PERMITS.
- 13. AT NO TIME SHALL CONSTRUCTION TAKE PLACE ON BOTH THE RIGHT AND LEFT SIDES OF VEHICLES UNLESS SPECIFIED BY VDOT AND THE ENGINEER.
- 14. ALL CONSTRUCTION MATERIALS AND EQUIPMENT SHALL BE STORED ONLY WITHIN THE WORKZONE OR STORED OFF-SITE AND OUTSIDE CLEARZONES/SIGHT DISTANCE RESTRICTIVE AREAS. ALL CONTRACTOR AND SUBCONTRACTOR EMPLOYEES SHALL PARK OFF-SITE.
- 15. EMERGENCY VEHICLE, BUS, AND MAIL ROUTES SHALL BE MAINTAINED AT ALL TIMES.

### SEQUENCE OF CONSTRUCTION: - REFER TO SHEET C8.2 FOR PLAN VIEW

PHASE I CONSTRUCTION CONSISTS OF THE DEMOLITION OF THE NORTHERN SECTION OF EXISTING GUARDRAIL IN CONJUNCTION WITH PLACING A TEMPORARY ATTENUATOR AND CONSTRUCTING A CONSTRUCTION ENTRANCE TO ACHIEVE SITE ACCESS. DURING THIS PHASE, CONSTRUCTION SHALL TAKE PLACE ALONG US ROUTE 1 (JEFFERSON DAVIS HIGHWAY) NORTHBOUND FROM THE INTERSECTION OF COMMONWEALTH DRIVE TO THE INTERSECTION OF ROUTE 628 (SPOTSYLVANIA COUNTY PARKWAY) BEHIND EXISTING GUARDRAIL. VEHICLES AND STORAGE OF MATERIALS SHALL BE STAGED NO CLOSER TO EXISTING GUARDRAIL THAN THE MAXIMUM DEFLECTION DISTANCE FOR THE EXISTING GUARDRAIL.

> TRAFFIC SHALL BE MAINTAINED IN GENERAL ACCORDANCE TO TTC-16.1 DURING THE WORKING HOURS, AS PERSCRIBED IN THE GENERAL NOTES, TTC/MOT NOTES, AND THROUGH THE USE OF GROUP II CHANNELIZING DEVICES AND PROPER SIGNAGE DURING NON-WORKING HOURS, TRAFFIC SHALL BE MAINTAINED ACCORDING TTC-5.1, AS PERSCRIBED IN THE GENERAL NOTES, TTC/MOT NOTES, AND THROUGH THE USE OF GROUP II CHANNELIZING DEVICES AND PROPER SIGNAGE.

PHASE II CONSTRUCTION CONSISTS OF THE INSTALLATION OF CULVERT PIPE EXTENSIONS. RETAINING WALLS, STORM SEWER, ETC AS WELL AS THE PLACEMENT OF FILL MATERIAL. DURING THIS PHASE, CONSTRUCTION SHALL TAKE PLACE ALONG US ROUTE 1 (JEFFERSON DAVIS HIGHWAY) NORTHBOUND FROM THE INTERSECTION OF COMMONWEALTH DRIVE TO THE INTERSECTION OF ROUTE 628 (SPOTSYLVANIA COUNTY PARKWAY) BEHIND EXISTING GUARDRAIL. VEHICLES AND STORAGE OF MATERIALS SHALL BE STAGED NO CLOSER TO EXISTING GUARDRAIL THAN THE MAXIMUM DEFLECTION DISTANCE FOR THE EXISTING GUARDRAIL

TRAFFIC SHALL BE MAINTAINED IN GENERAL ACCORDANCE TO TTC-16.1 DURING THE WORKING HOURS, AS PERSCRIBED IN THE GENERAL NOTES, TTC/MOT NOTES, AND THROUGH THE USE OF GROUP II CHANNELIZING DEVICES AND PROPER SIGNAGE. DURING NON-WORKING HOURS, TRAFFIC SHALL BE MAINTAINED ACCORDING TTC-5.1, AS PERSCRIBED IN THE GENERAL NOTES, TTC/MOT NOTES, AND THROUGH THE USE OF GROUP II CHANNELIZING DEVICES AND PROPER SIGNAGE.

PHASE III CONSTRUCTION CONSISTS OF THE PLACEMENT OF FILL MATERIAL, THE INSTALLATION OF NEW CURB AND GUTTER, THE DEMOLITION OF THE EXISTING CURB AND GUTTER AND GUARDRAIL IN CONJUNCTION WITH THE INSTALLATION OF GUARDRAIL AS WELL AS THE PLACEMENT OF PAVEMENT. DURING THIS PHASE, CONSTRUCTION SHALL TAKE PLACE ALONG US ROUTE 1 (JEFFERSON DAVIS HIGHWAY) NORTHBOUND FROM THE INTERSECTION OF COMMONWEALTH DRIVE TO THE INTERSECTION OF ROUTE 628 (SPOTSYLVANIA COUNTY PARKWAY) BEHIND EXISTING GUARDRAIL. VEHICLES AND STORAGE OF MATERIALS SHALL BE STAGED NO CLOSER TO EXISTING GUARDRAIL THAN THE MAXIMUM DEFLECTION DISTANCE FOR THE EXISTING GUARDRAIL.

TRAFFIC SHALL BE MAINTAINED IN GENERAL ACCORDANCE TO TTC-16.1 DURING THE WORKING HOURS, AS PERSCRIBED IN THE GENERAL NOTES, TTC/MOT NOTES, AND THROUGH THE USE OF GROUP II CHANNELIZING DEVICES AND PROPER SIGNAGE DURING NON-WORKING HOURS, TRAFFIC SHALL BE MAINTAINED ACCORDING TTC-4.1, AS PERSCRIBED IN THE GENERAL NOTES, TTC/MOT NOTES, AND THROUGH THE USE OF GROUP II CHANNELIZING DEVICES AND PROPER SIGNAGE.

PHASE IV CONSTRUCTION CONSISTS OF THE CONSTRUCTION OF ROADWAY TIE-INS. MILL/OVERLAY, PAVEMENT STRIPING, ETC. DURING THIS PHASE, CONSTRUCTION SHALL TAKE PLACE ALONG US ROUTE 1 (JEFFERSON DAVIS HIGHWAY) NORTHBOUND FROM THE INTERSECTION OF COMMONWEALTH DRIVE TO THE INTERSECTION OF ROUTE 628 (SPOTSYLVANIA COUNTY PARKWAY).

> TRAFFIC SHALL BE MAINTAINED ACCORDING TO TTC-4.1, AS PERSCRIBED IN THE GENERAL NOTES, TTC/MOT NOTES, AND THROUGH THE USE OF GROUP II CHANNELIZING DEVICES AND PROPER SIGNAGE.

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CHRISTOPHER M. KIEFER ADVANCED WORK ZONE TRAFFIC CONTROL VERIFICATION #032715026

### **Typical Traffic Control** Stationary Operation on a Shoulder (Figure TTC-4.1) **NOTES**

### Standard

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 (W21-5bR), RIGHT SHOULDER CLOSED (W21-5aR)<sup>1</sup>), 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 (W21-5aR)<sup>1</sup> sign shall be added to that side.

### Guidance

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

### Option:

- 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 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with activated high-intensity amber rotating, flashing, or oscillating lights is

### used. Standard:

- 5. Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or oscillating, lights.
- 6. Taper length (L) and channelizing device spacing shall be at the following:

9	Lane Wid	th (Feet	<u> </u>
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
585	650	715	780
630	700	770	840
			ess
	/s sha	185 205 240 270 405 450 450 500 495 550 540 600 585 650 630 700 r lengths for Lings shall be 1000	185         205         225           240         270         295           405         450         495           450         500         550           495         550         605           540         600         660           585         650         715

operations with a duration greater than 60 minutes.

Channelizing Device Spacing							
Speed Lir	Speed Limit (mph)						
0 - 35	36 +						
20'	40'						
40'	80'						
80'	120'						
	<b>0 - 35</b> 20' 40'						

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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

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- 7. The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit. 8. 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 for
- 9. When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed. 1: Revision 1 – 4/1/2015

## Page 6H-16

## **Typical Traffic Control** Shoulder Operation with Minor Encroachment

### (Figure TTC-5.1) **NOTES**

## 1. For required sign assemblies for multi-lane roadways see Note 1, TTC-4.

- 2. Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where
- the posted speed limit is 45 mph or less. 3. When 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 encroachment analysis permits a remaining lane width of 10 feet, the lane should be closed. If the closure operation is on a Limited Access highway, the minimum lane width is 11 feet.

Standard

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.

## Standard:

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

Т	aper Le	ngth (L	.)	
Speed Limit	L	ane Wid	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	er length ays shall			ccess
Shoulde	r Taper	= 1/3 L N	1inimum	1

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

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but shall not exceed one access per 1/4 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

Page 6H-17

- 8. The buffer space length shall be as shown in Table 6H-3 on Page 6H-5 for the posted speed limit.
- 9. 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.
- 10. When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.

### 1: Revision 1 - 4/1/2015

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#### Page 6H-38 April 2015

## Outside Lane Closure Operation on a Four-Lane Roadway (Figure TTC-16.1)

**Typical Traffic Control** 

### **NOTES**

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

- 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. Care should be exercised when establishing the limits of the work zone to insure maximum possible sight distance in advance of the transition, based on the posted speed limit and at least equal to or greater than the values in Table 6H-3. For Limited Access highways a minimum of 1000' is desired.
- 4. All vehicles, equipment, workers, and their activities should be restricted to one side of the pavement.

## Standard:

### 5. Taper Length (L) and Channelizing Device Spacing shall be:

Speed Limit	Lane Width (Feet)							
(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		ccess				
Shoulde	r Taper	= 1/3 L N	/linimum					

Channelizing D	evice Spac	ing		
1 4 !	Speed Limit (mph			
Location	0 - 35	36 +		
Transition Spacing	20'	40'		
Travelway Spacing	40'	80'		
Construction Access*	80'	120'		
* Spacing may be incre but shall not exceed or				

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

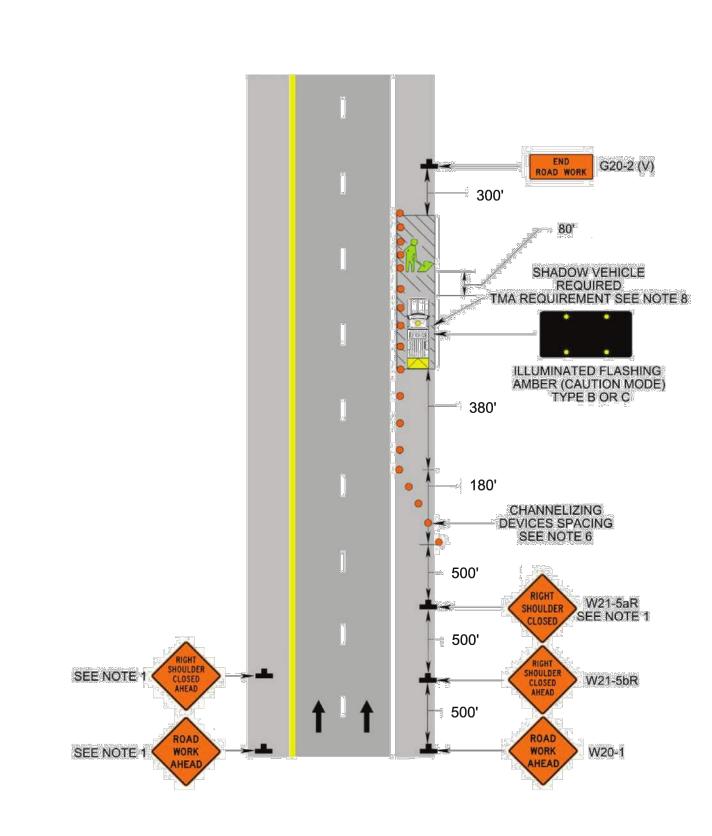
Page 6H-39

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

1: Revision 1 – 4/1/2015

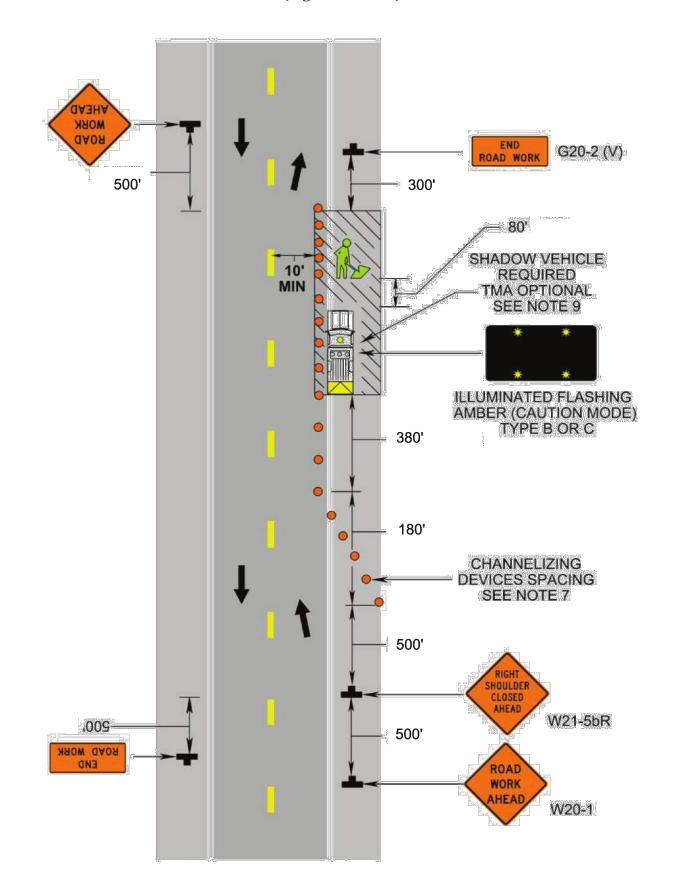
April 2015

**Stationary Operation on a Shoulder** (Figure TTC-4.1)



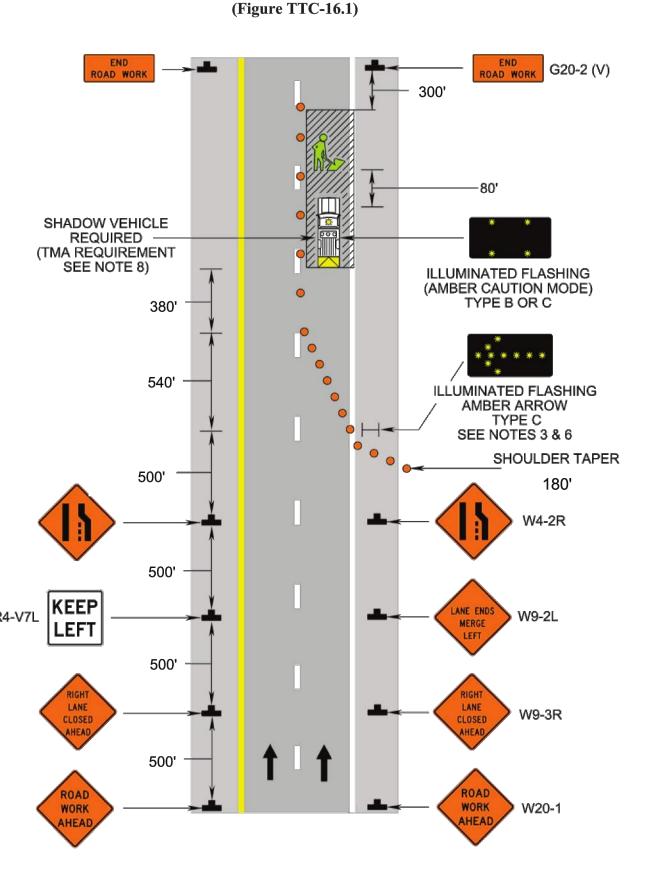
**Shoulder Operation with Minor Encroachment** 

(Figure TTC-5.1)

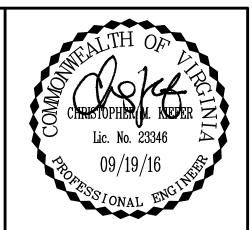


April 2015

**Outside Lane Closure Operation on a Four-Lane Roadway** 



THIS SHEET IS TO BE USED AS A TYPICAL SECTION PLAN FOR VARIOUS SETUPS. REFER TO SHEET C8.2 FOR ACTUAL SETUP



EPARED AT
OFFICE

300 | Richm

09/19/16 DRAWN BY

GTSDESIGNED BY GTSCHECKED BY

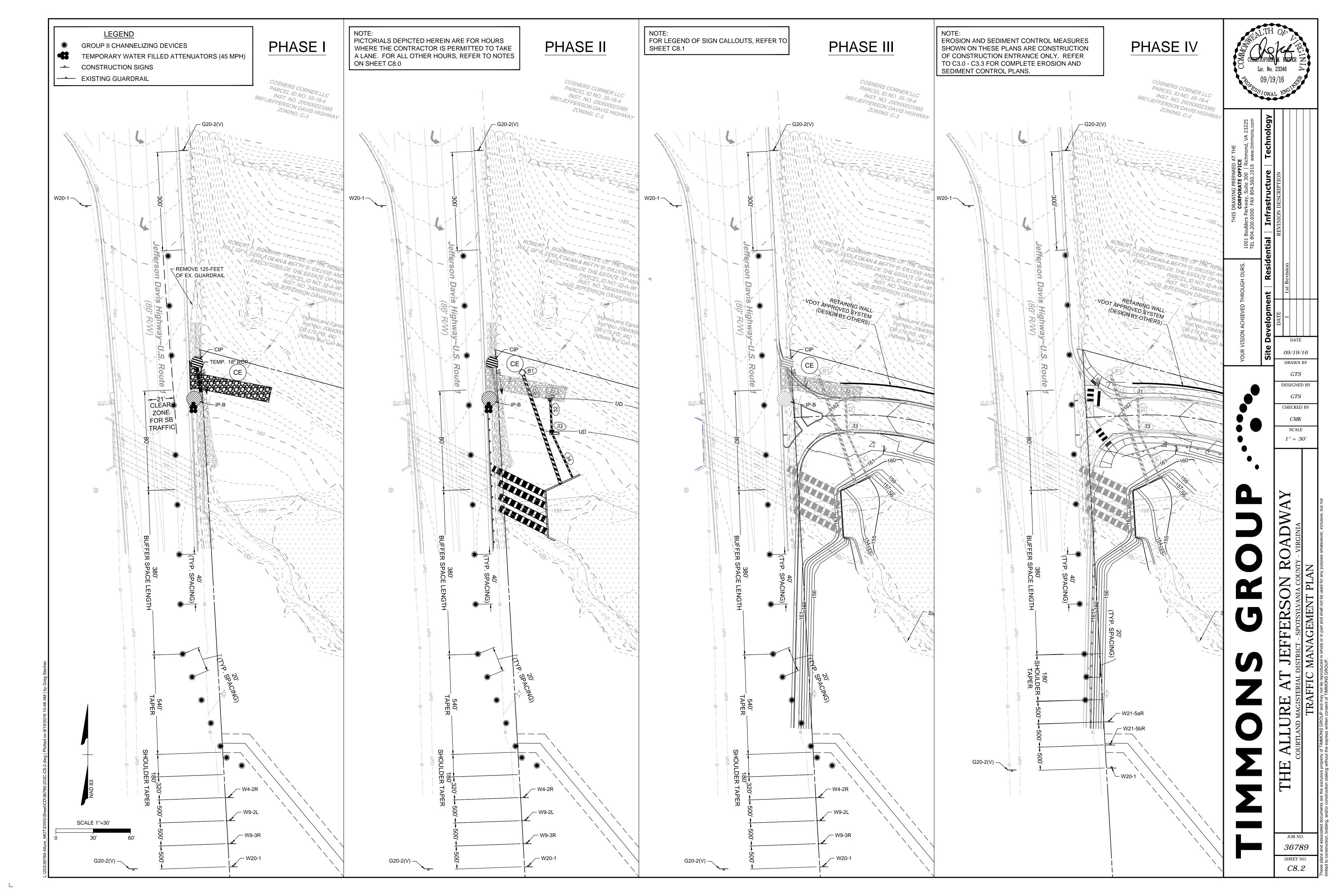
CMKSCALE N/A

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RE

36789 SHEET NO.

*C8.1* 





# STANDARD SPOTSYLVANIA COUNTY LANDSCAPE NOTE

• PRIOR TO DEVELOPMENT, THE BOUNDARIES OF THE CONSTRUCTION FOOTPRINT SHALL BE CLEARLY MARKED ON THE PROPERTY AND SUITABLE PROTECTIVE BARRIERS SHALL BE ERECTED FIVE (5) FEET OUTSIDE OF THE DRIP LINE OF ANY TREE OR STAND OF TREES TO BE PRESERVED WITHIN 100 FEET OF THE CONSTRUCTION FOOTPRINT. THE BARRIERS SHALL REMAIN ERECTED THROUGHOUT ALL PHASES OF CONSTRUCTION. THE STORAGE OF MATERIALS, DEBRIS, OR FILL SHALL NOT BE ALLOWED WITHIN THE AREA PROTECTED BY THE BARRIER. REQUIRED LANDSCAPE MATERIAL, PLANTING, AND MAINTENANCE OF BEST MANAGEMENT PRACTICES SHALL CONFORM TO CHAPTER 6A OF THE SPOTSYLVANIA COUNTY CODE.

# **GENERAL NOTES**

### PRE-CONSTRUCTION

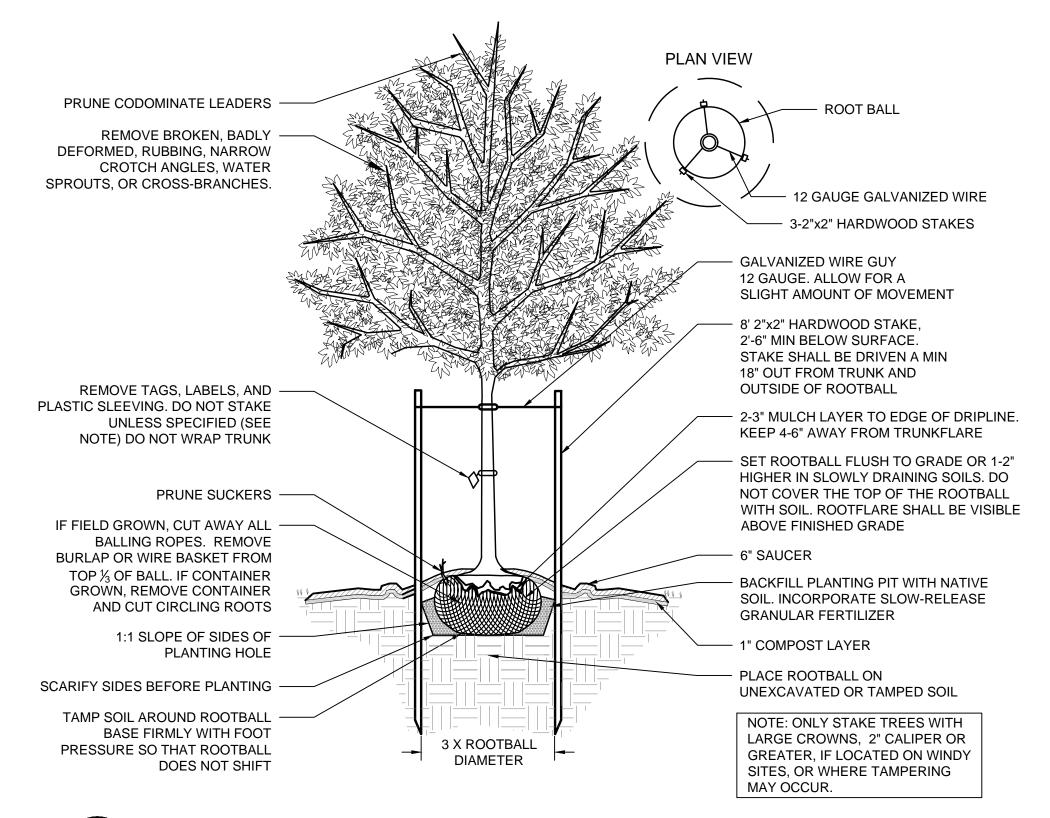
- CONTRACTOR IS RESPONSIBLE FOR CONTACTING "MISS UTILITY" AT 1.800.552.7001 FOR LOCATION OF ALL UTILITY LINES.TREES SHALL BE LOCATED A MINIMUM OF 5 FEET FROM SEWER/WATER CONNECTIONS. NOTIFY LANDSCAPE ARCHITECT OF CONFLICTS.
- VERIFY ALL PLANT MATERIAL QUANTITIES ON THE PLAN PRIOR TO BIDDING, PLANT LIST TOTALS ARE FOR CONVENIENCE ONLY AND SHALL BE VERIFIED PRIOR TO BIDDING.
- PROVIDE PLANT MATERIALS OF QUANTITY, SIZE, GENUS, SPECIES, AND VARIETY INDICATED ON PLANS. ALL PLANT MATERIALS AND INSTALLATION SHALL COMPLY WITH RECOMMENDATIONS AND REQUIREMENTS OF ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK". IF SPECIFIED PLANT MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON AVAILABILITY TO THE ARCHITECTS, TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL.
- PROVIDE AND INSTALL ALL PLANTS AS IN ACCORDANCE WITH DETAILS AND CONTRACT SPECIFICATIONS

### CONSTRUCTION/INSTALLATION

- LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANTS AND MATERIALS THAT ARE IN AN UNHEALTHY OR UNSIGHTLY CONDITION, AS WELL AS PLANTS AND MATERIALS THAT DO NOT CONFORM TO ANSI Z60.1 "AMERICAN STANDARD FOR NURSERY STOCK"
- LABEL AT LEAST ONE TREE AND ONE SHRUB OF EACH VARIETY AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING THE DESIGNATION OF BOTANICAL AND COMMON NAME.
- INSTALL LANDSCAPE PLANTINGS AT ENTRANCES/EXITS AND PARKING AREAS ACCORDING TO PLANS SO THAT MATERIALS WILL NOT INTERFERE WITH SIGHT DISTANCES.
- CONTRACTOR IS RESPONSIBLE FOR WATERING ALL PLANT MATERIAL DURING INSTALLATION AND UNTIL FINAL INSPECTION AND ACCEPTANCE BY OWNER. CONTRACTOR SHALL NOTIFY OWNER OF CONDITIONS WHICH AFFECTS THE GUARANTEE.

### INSPECTIONS/GUARANTEE

- UPON COMPLETION OF LANDSCAPE INSTALLATION, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR WHO WILL VERIFY COMPLETENESS, INCLUDING THE REPLACEMENT OF ALL DEAD PLANT MATERIAL. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A FINAL INSPECTION BY THE LANDSCAPE ARCHITECT.
- ALL EXTERIOR PLANT MATERIALS SHALL BE GUARANTEED FOR ONE FULL YEAR AFTER DATE OF FINAL INSPECTION AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH. DEFECTS RESULTING FROM NEGLECT BY THE OWNER, ABUSE OR DAMAGE BY OTHERS, OR UNUSUAL PHENOMENA OR INCIDENTS WHICH ARE BEYOND THE CONTRACTORS CONTROL ARE NOT THE RESPONSIBILITY OF THE
- PLANT MATERIAL QUANTITIES AND SIZES WILL BE INSPECTED FOR COMPLIANCE WITH APPROVED PLANS BY A SITE PLAN REVIEW AGENT OF THE PLANNING DEPARTMENT PRIOR TO THE RELEASE OF THE CERTIFICATE OF OCCUPANCY.
- REMOVE ALL GUY WIRES AND STAKES 12 MONTHS AFTER INSTALLATION.





**DECIDUOUS TREE - STAKING SPECIFIED** 

ELIZA GRACE MACHEK

DATE 4/26/16 DRAWN BY

B. DAVIS DESIGNED BY B. DAVIS CHECKED BY

E. MACHEK SCALE

7.5

2

36789 SHEET NO.



# Stream Assessment Summary Form (Form 2)

# Unified Stream Methodology for use in Virginia

Project #	Applicant		Date
36789	Allure at Jefferson, LLC	2	10/6/2016
Evalua	ators	HUC	Locality
D. C	ox	02080104	Spotsylvania

Stream Name	Reach ID	Length of Impact (L <sub>I</sub> ) (feet)	Reach Condition Index (RCI)	Impact Factor (IF)	$\begin{aligned} & Compensation \\ & Requirement (CR) \\ & (L_I \times RCI \times IF) \end{aligned}$
Unnamed	Impact 3	23	1.05	1.00	24
Unnamed	Impact 6	77	1.26	1.00	97
					0
					0
					0
					0
					0
					0
					0
					0
					0
					0
					0
					0
					0
					0
					0
					0
					0
					0
	Total L <sub>I</sub>	100		Total CR	121

Note: Round all feet & CR's to the nearest whole number.

		Stre		SSESS ified Stream N			(Forr	n 1)		
				n wadeable chan	nels classified a				Immact/045	lmrt
Project #	I	Project Name	•	Locality	Cowardin Class.	HUC	Date	SAR#	Impact/SAR length	Impact Factor
36789	36789 Allure at Jefferson Spots.				R3	02080104	4/1/16	Impact 3	23	1
Nam	ne(s) of Evaluat	or(s)		e and Informa			_			
	B.Searcey			ermittent trib			form			
1. Channel C	Condition: Asses	ss the cross-secti	ion of the stream a		dition (erosion, ag Conditional Catego	• .				
	Optimal Suboptima		ptimal	Mar	ginal	Po	oor	Se	vere	
Channel	Very little incision or	westive excelor: 90	erosion or unprote	ew areas of active cted banks. Majority	Poor. Banks more	less than Severe or e stable than Severe ower bank slopes.	Vertically/laterally widen further. Ma	ned/incised. r unstable. Likely to ljority of both banks	vertical/lateral incision, flow co	d (or excavated), nstability. Severe ontained within the
Condition	100% stable banks. protection or nature (80-100%). AND/ bars/bankfull benc Access to their orig fully developed wide Mid-channel bars, a few. Transient sed covers less than	Vegetative surface al rock, prominent /OR Stable point ches are present. ginal floodplain or be bankfull benches. Ind transverse bars diment deposition	Vegetative protect prominent (60 Depositional feat stability. The ban channels are well d has access to banewly developed portions of the sediment covers 10	prominent (6U-8U%) AND/OW Depositional features contribute to stability. The bankfull and low flow channels are well defined. Stream likely has access to bankfull benches, or newly developed floodplains along portions of the reach. Transient		Erosion may be present on 40-60% of both banks. Vegetative protection on 40-60% of banks. Streambanks may bevertical or undercut. AND/OR 40-60% of stream is covered by sediment. Sediment may be temporary/transient, contribute instability. Deposition that contribute to stability, may be forming/present. AND/OR V-shaped channels have vegetative protection on		rosion present on 60 getative protection % of banks, and is ent erosion. AND/OR eam is covered by Sediment is ent in nature, and izability. AND/OR V-s have vegetative ent on > 40% of the adiment deposition is sent.	60 banks. Streambed below average rooting depth, majority of banks vertical/undercut. Vegetative protect DR present on less than 20% of banks, if not preventing erosion. Obvious bar on 80-100%. AND/OR Aggrading vhannel. Greater than 80% of stream bed is covered by deposition, e	
Score	3	1	2	4		2	1	.6		1
2. RIPARIAN	N BUFFERS: As		Cor	nditional Cate	gory	n measurements o	f length & width m	ay be acceptable)	NOTES>> T	his area has
	Opti	mal	Subo	ntimal						ino aroa nao
			Cubo	рина	Mar	ginal	Po	oor		ed within the
Riparian Buffers	Tree stratum (dbh > with > 60% tree ca non-maintained und located within the	nopy cover and a lerstory. Wetlands	High Suboptimal: Riparian areas with	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.	Low Marginal: Non-maintained, dense herbaceous vegetation, ripariar areas lacking shrut and tree stratum, hay production,	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.		ed within the resulting in a
Buffers	with > 60% tree ca non-maintained und	nopy cover and a lerstory. Wetlands	High Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30%	Low Marginal: Non-maintained, dense herbaceous vegetation, ripariar areas lacking shrut and tree stratum, hay production, ponds, open water If present, tree stratum (dbh >3 inches) present, with <30% tree canopy cover with maintained	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable	past 5 years High Margin	ed within the resulting in a
•	with > 60% tree ca non-maintained und	nopy cover and a lerstory. Wetlands e riparian areas.	High Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.	Low Marginal: Non-maintained, dense herbaceous vegetation, ripariar areas lacking shrut and tree stratum, hay production, ponds, open water If present, tree stratum (dbh >3 inches) present, with <30% tree canopy cover with maintained understory.	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.	past 5 years High Margin	ed within the resulting in a
Condition Scores  1. Delineate ripa 2. Determine sq	with > 60% free canon-maintained und located within the street of the st	score for each rip.	High Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.  High  1.2  into Condition Cat	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).  Low 1.1  Low the degories and Conduct the and width. Calculate the conduct th	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.  High  0.85	Low Marginal: Non-maintained, dense herbaceous vegetation, ripariar areas lacking shrut and tree stratum, hay production, ponds, open water If present, tree stratum (dbh >3 inches) present, with <30% tree canopy cover with maintained understory.  Low  0.75	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.  High  0.6  Ensure  of % I	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.  Low 0.5	past 5 years High Margin	ed within the resulting in a
Condition Scores  1. Delineate ripa 2. Determine sq	with > 60% tree canon-maintained und located within the	inopy cover and a lerstory. Wetlands e riparian areas.	High Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.  High  1.2  into Condition Cat	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).  Low 1.1  Low the degories and Conduct the and width. Calculate the conduct th	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.  High  0.85	Low Marginal: Non-maintained, dense herbaceous vegetation, ripariar areas lacking shrut and tree stratum, hay production, ponds, open water If present, tree stratum (dbh >3 inches) present, with <30% tree canopy cover with maintained understory.  Low  0.75	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.  High  0.6  Ensure  of % I	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.  Low 0.5	past 5 years High Margin	ed within the resulting in a
Condition Scores  1. Delineate rips 2. Determine sq 3. Enter the % F	with > 60% free ca non-maintained und located within the	score for each rip.  100% 0.85	High Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.  High  1.2  into Condition Cat	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).  Low 1.1  Low the degories and Conduct the and width. Calculate the conduct th	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.  High  0.85	Low Marginal: Non-maintained, dense herbaceous vegetation, ripariar areas lacking shrut and tree stratum, hay production, ponds, open water If present, tree stratum (dbh >3 inches) present, with <30% tree canopy cover with maintained understory.  Low  0.75	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.  High  0.6  Ensure  of % I	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.  Low  0.5  the sums Riparian equal 100	past 5 years High Margin Buffer.	ed within the resulting in a al Riparian
Condition Scores  1. Delineate rips 2. Determine sq 3. Enter the % F	with > 60% free canon-maintained und located within the located within	score for each rip. 100%	High Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.  High  1.2  into Condition Cat	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).  Low 1.1  Low the degories and Conduct the and width. Calculate the conduct th	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.  High  0.85	Low Marginal: Non-maintained, dense herbaceous vegetation, ripariar areas lacking shrut and tree stratum, hay production, ponds, open water If present, tree stratum (dbh >3 inches) present, with <30% tree canopy cover with maintained understory.  Low  0.75	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.  High  0.6  Ensure  of % I	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.  Low 0.5	past 5 years High Margin Buffer. CI= (Sum % RA * S Rt Bank CI >	ed within the resulting in a al Riparian  Scores'0.01)/2  0.85
Condition Scores  1. Delineate rips 2. Determine sq 3. Enter the % F Right Bank  Left Bank	with > 60% free canon-maintained und located within the located with located within the l	sch stream bank ch by measuring 100% 0.85	High Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.  High  1.2  into Condition Cat or estimating leng arian category in ti	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).  Low  1.1  Legories and Conduth and width. Calcuth and	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.  High 0.85	Low Marginal: Non-maintained, dense herbaceous vegetation, ripariar areas lacking shrut and tree stratum, hay production, ponds, open water If present, tree stratum (dbh >3 inches) present, with <30% tree canopy cover with maintained understory.  Low  0.75  I the descriptors.  ded for you below.	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till to ropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.  High  0.6  Ensure  of % F  Blocks 6	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.  Low  0.5  the sums Riparian equal 100  100%	past 5 years High Margin Buffer. CI= (Sum % RA * S Rt Bank CI > Lt Bank CI >	ed within the resulting in a al Riparian  Scores*0.01)/2  0.85  0.85
Condition Scores  1. Delineate ripa 2. Determine sq 3. Enter the % F Right Bank  Left Bank  3. INSTREAR	with > 60% free canon-maintained und located within the located within	sch stream bank ch by measuring 100% 0.85 100% 0.85 ied substrate size	High Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.  High  1.2  into Condition Cat or estimating leng arian category in the containing length arian category in the category in the containing length arian category in the catego	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).  Low  1.1  tegories and Cond th and width. Calc the blocks below.	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.  High 0.85	Low Marginal: Non-maintained, dense herbaceous vegetation, ripariar areas lacking shrut and tree stratum, hay production, ponds, open water If present, tree stratum (dbh >3 inches) present, with <30% tree canopy cover with maintained understory.  Low  0.75  I the descriptors.  ded for you below.	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till to ropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.  High  0.6  Ensure  of % F  Blocks 6	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.  Low  0.5  the sums Riparian equal 100  100%	past 5 years High Margin Buffer.  CI= (Sum % RA * S Rt Bank CI > Lt Bank CI > NOTES>> Ba	ed within the resulting in a al Riparian  Scores*0.01)/2  0.85  0.85
Condition Scores  1. Delineate rips 2. Determine sq 3. Enter the % F Right Bank  Left Bank  3. INSTREAR	with > 60% free canon-maintained und located within the located locat	sopy cover and a leerstory. Wetlands e riparian areas.  5 ach stream bank ch by measuring core for each rip. 100% 0.85 100% 0.85 ided substrate siz.omplexes, stable	High Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.  High  1.2  into Condition Cat or estimating lenguarian category in the category	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).  Low  1.1  Legories and Conduth and width. Calcuth and width and width. Calcuth and width. C	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.  High  0.85  tition Scores using culators are provide culators are provide / and leafy debris; al Category  Mar  Stable habitat ele present in 10-30% adequate for adequate for	Low Marginal: Non-maintained, dense herbaceous vegetation, ripariar areas lacking shrut and tree stratum, hay production, ponds, open water If present, tree stratum (dbh >3 inches) pre	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till to ropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.  High  0.6  Ensure of % I  Blocks 6	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.  Low  0.5  the sums Riparian equal 100  100%  100%  s; shade; undercut	past 5 years High Margin Buffer.  CI= (Sum % RA * S Rt Bank CI > Lt Bank CI > NOTES>> Ba	ed within the resulting in a al Riparian  Scores*0.01)/2  0.85  0.85  ased on the stream reach tent flow a is poor aintain a
Condition Scores  1. Delineate ripa 2. Determine sq 3. Enter the % F Right Bank  Left Bank  3. INSTREAF banks; root mats  Instream Habitat/ Available	with > 60% free canon-maintained und located within the located locat	sopy cover and a leerstory. Wetlands e riparian areas.  5 ach stream bank ch by measuring core for each rip. 100% 0.85 100% 0.85 ided substrate siz. complexes, stable mal	High Suboptimal: Riparian areas with tree stratum (dh> 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.  High  1.2  into Condition Cate or estimating lenguarian category in the category	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).  Low  1.1  Logories and Cond (th and width. Calc the blocks below.  and depths; woody Conditional ptimal ments are typically of the reach and are	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.  High  0.85  ition Scores using culators are provide culators are provide  and leafy debris; al Category  Mar  Stable habitat ele present in 10-30% adequate for popul	Low Marginal: Non-maintained, dense herbaceous vegetation, ripariar areas lacking shrut and tree stratum, hay production, ponds, open water If present, tree stratum (dbh >3 inches) present, with <30% tree canopy cover with maintained understory.  Low  0.75  I the descriptors.  Ided for you below.  I stable substrate;  I ginal  I ments are typically of the reach and are	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till to ropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other condition.  High  0.6  Ensure of % If Blocks of the condition of the conditio	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.  Low  0.5  the sums Riparian equal 100  100%  100%  s; shade; undercut	past 5 years High Margin Buffer.  Cl= (Sum % RA* S Rt Bank Cl > Lt Bank Cl > Lt Bank Cl > homeone before the component of the	ed within the resulting in a al Riparian  Scores*0.01)/2  0.85  0.85  ased on the stream reach tent flow a is poor aintain a

Stream Impact Assessment Form Page 2										
Project #	Applicant		Locality	Cowardin Class.	HUC	Date	Data Point	SAR length	Impact Factor	
36789	Allure at Jefferson, L	LC	Spots.	R4	02080104	4/1/2016	1	Impact 3	1	
4. CHANNEL ALTERATION: Stream crossings, riprap, concrete, gabions, or concrete blocks, straightening of channel, channelization, embankments, spoil piles, constrictions, livestock  Conditional Category  NOTES>>The channel has not been altered.										
	Negligible	Min	nor		erate	Sev	vere			
Channel Alteration	Channelization, dredging, alteration, or hardening absent. Stream has an unaltered pattern or has naturalized.	Less than 20% of the stream reach is disrupted by any of the channel alterations listed in the parameter guidelines.	the channel	40 - 60% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If stream has been channelized, normal stable stream meander pattern has not recovered.	is disrupted by any of the channel	by any of the chang in the parameter g 80% of banks sh	of reach is disrupted nel alterations listed guidelines AND/OR lored with gabion, r cement.			
SCORE	1.5	1.3	1.1	0.9	0.7	0	.5			
	REACH (	CONDITION	NDEX and S	TREAM CO	NDITION UNI	TS FOR THIS	S REACH			

NOTE: The CIs and RCI should be rounded to 2 decimal places. The CR should be rounded to a whole number.

THE REACH CONDITION INDEX (RCI) >> 1.05

RCI= (Sum of all Cl's)/5

COMPENSATION REQUIREMENT (CR) >>

CR = RCI X LF X IF

24

INSERT PHOTOS:



Upstream view of Impact 3 - R4 Stream at location of seep interception. (Photo by S. Gagnon, BCG)

#### DESCRIBE PROPOSED IMPACT:

Proposed impact involves general grading and fill placement for the purposes of archieving suitable grade for site utilizaiton. No culvert is proposed as system does not contain continuous flow or pattern to downstream waters and on-site stormwater will be captured by the proposed Stormwater Management System.

		Stre	eam A	ssess	ment	Form	(Forr	n 1)			
					lethodology f						
_					nels classified as				Impact/SAR	Impact	
Project #		Project Name		Locality	Class.	HUC	Date	SAR#	length	Factor	
36789		ure at Jeffers		Spots.	R3	02080104	10/6/16	Impact 6	77	1	
Name	e(s) of Evaluat	tor(s)		and Informa							
	D. Cox				saponax Cree						
. Channel C	Condition: Asses	ss the cross-secti	on of the stream a		dition (erosion, agg						
	Opti	mal	Subo	ptimal	· · · · · ·	ginal	Po	oor	Sev	/ere	
	"Tolke	مويد همال	Slightly incised for	ew areas of active		less than Severe or		ned/incised.			
Channel Condition	roly intio moloion or dours ord		Vegetative surface rock, prominent (60-80%) AND/OR OR Stable point bes are present. inal floodplain or bankfull benches, or dransverse bars will defined. Stream like has access to bankfull benches, or melyl developed floodplains along		Poor. Banks more stable than Severe or Poor due to lower bank slopes. Erosion may be present on 40-60% of both banks. Vegetative protection on 40 60% of banks. Streambanks may bevertical or undercut. AND/OR 40- 60% of stream is covered by sediment. Sediment may be temporary/transient, contribute instability. Deposition that contribute to stability, may be		Vertically/laterally unstable. Likely to widen further. Majority of both banks are near vertical. Erosion present on 60-80% of banks. Vegetative protection present on 20-40% of banks, and is insufficient to prevent erosion. AND/OR 60-80% of the stream is covered by sediment. Sediment is temporary/transient in nature, and contributing to instability. AND/OR V-		rooting depth, majority of banks vertical/undercut. Vegetative protection		
	covers less than	covers less than 10% of bottom.		sediment covers 10-40% of the stream bottom.		forming/present. AND/OR V-shaped channels have vegetative protection on > 40% of the banks and depositional features which contribute to stability.		shaped channels have vegetative protection is present on > 40% of the banks and stable sediment deposition is absent.		bed is covered by deposition, contributing to instability. Multiple thread channels and/or subterranean flow.	
Score	3	3	2	.4	:	2	1	.6		1	2.:
. RIPARIAN	N BUFFERS: As	ssess both bank's	s 100 foot riparian	areas along the e	ntire SAR. (rough	measurements o	f length & width ma	ay be acceptable)			
2. RIPARIAN	Opti		Con	areas along the e	gory	ginal	Po	ay be acceptable)	NOTES>>		
Riparian Buffers		imal  3 inches) present, anopy cover and a ierstory. Wetlands	Con	Low Suboptimal  Low Suboptimal:  Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and	gory		High Poor: Lawns, mowed, and maintained areas, nurseries; no-till		NOTES>>		
Riparian Buffers	Option  Tree stratum (dbh > with > 60% tree canon-maintained unc	imal  3 inches) present, anopy cover and a ierstory. Wetlands	Righ Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30%	Low Marginal: Non-maintained, dense herbaceous vegetation, riparian areas lacking shrut and tree stratum, hay production, ponds, open water. If present, tree stratum (dbh >3 inches) present, with <30% tree canopy cover with maintained	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable	NOTES>>		
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Riparian Buffers  Condition Scores	Tree stratum (dbh > with > 60% tree ca	imal  3 inches) present, anopy cover and a derstory. Wetlands e riparian areas.	Con Subo  High Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.  High 1.2	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).  Low  1.1	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.  High  0.85	Ginal  Low Marginal: Non-maintained, dense herbaceous vegetation, riparian areas lacking shrut and tree stratum, hay production, hay production, hay production, sinches) present, tree stratum (dbh >3 inches) present, with <30% tree canopy cover with maintained understory.  Low  0.75  the descriptors.	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.  High  0.6	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, tralls, or other comparable conditions.	NOTES>>		
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Condition Scores  Delineate ripa  Determine square Right Bank  Left Bank  Left Bank	Tree stratum (dbh > with > 60% tree ca non-maintained und located within the located with	imal  3 inches) present, anopy cover and a derstory. Wetlands e riparian areas.  5 ach stream bank ach by measuring 100% 1.5 100% 1.5 ried substrate size	High Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.  High 1.2  Into Condition Cate or estimating leng arian category in the containing length arian category in the containing l	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).  Low 1.1  Low the analysis and Cond the and width. Calculate the blocks below.	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.  High 0.85	ginal  Low Marginal: Non-maintained, dense herbaceous vegetation, riparian areas lacking shrut and tree stratum, hay production, ponds, open water. If present, tree stratum (dbh > 3 inches) present, with <30% tree canopy cover with maintained understory.  Low  0.75  the descriptors.	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.  High  0.6  Ensure  of % F  Blocks 6	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.  Low  0.5  the sums Riparian equal 100  100%	CI= (Sum % RA * S Rt Bank CI > Lt Bank CI >	1.50	
Condition Scores  Delineate ripa  Determine square Right Bank  Left Bank  Left Bank	Tree stratum (dbh > with > 60% tree ca non-maintained und located within the located with	imal  3 inches) present, anopy cover and a derstory. Wetlands e riparian areas.  5  ach stream bank ach by measuring score for each riparian areas.  100% 1.5  100% 1.5  ried substrate size complexes, stable	High Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.  High 1.2  Into Condition Cate or estimating leng arian category in the containing length arian category in the containing l	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).  Low 1.1  Low the analysis and Cond the and width. Calculate the blocks below.	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.  High 0.85	ginal  Low Marginal: Non-maintained, dense herbaceous vegetation, riparian areas lacking shrut and tree stratum, hay production, ponds, open water. If present, tree stratum (dbh > 3 inches) present, with <30% tree canopy cover with maintained understory.  Low  0.75  the descriptors.	High Poor: Lawns, mowed, and maintained areas, nurseries, no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.  High  0.6  Ensure  of % F  Blocks 6	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.  Low  0.5  the sums Riparian equal 100  100%	CI= (Sum % RA * S Rt Bank CI > Lt Bank CI >	1.50	
Condition Scores  Delineate ripa Condition Scores  Delineate ripa Condition Scores  Letter the % R Right Bank  Left Bank  Left Bank  Instream	Tree stratum (dbh > with > 60% tree ca non-maintained unc located within the located with	imal  3 inches) present, anopy cover and a derstory. Wetlands e riparian areas.  5  ach stream bank ach by measuring score for each riparian 100%  1.5  100%  1.5  ried substrate size complexes, stable are typically present	High Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with 30% to 60% tree canopy cover and containing both herbaceous and shrub layers or a non-maintained understory.  High  1.2  into Condition Cate or estimating leng arian category in tree can be considered as a	Low Suboptimal: Riparian areas with tree stratum (dbh > 3 inches) present, with > 30% tree canopy cover and a maintained understory. Recent cutover (dense vegetation).  Low 1.1  egories and Cond th and width. Calculate blocks below.	High Marginal: Non-maintained, dense herbaceous vegetation with either a shrub layer or a tree layer (dbh > 3 inches) present, with <30% tree canopy cover.  High 0.85  ition Scores using culators are provided and leafy debris; al Category Marginal Category Stable habitat eler present in 10-30% consistence of the con	Ginal  Low Marginal: Non-maintained, dense herbaceous vegetation, riparian areas lacking shrut and tree stratum, hay production, ponds, open water. If present, tree stratum (dbh > 3 inches) present, with <30% tree canopy cover with maintained understory.  Low  0.75  the descriptors.  ded for you below.  stable substrate; ginal  ments are typically of the reach and are maintenance of	High Poor: Lawns, mowed, and maintained areas, nurseries; no-till cropland; actively grazed pasture, sparsely vegetated non-maintained area, recently seeded and stabilized, or other comparable condition.  High  0.6  Ensure of % F Blocks 6	Low Poor: Impervious surfaces, mine spoil lands, denuded surfaces, row crops, active feed lots, trails, or other comparable conditions.  Low 0.5  the sums Riparian equal 100 100%	CI= (Sum % RA * S Rt Bank CI > Lt Bank CI >	1.50	

Stream Impact Assessment Form Page 2									
Project #	Applicant		Locality	Cowardin Class.	HUC	Date	Data Point	SAR length	Impact Factor
36789	Allure at Jefferson, L	Spots.	R4	02080104	4/1/2016	1	Impact 3	1	
4. CHANNEL spoil piles, constr	. ALTERATION: Stream crossin ictions, livestock	igs, riprap, concret		ncrete blocks, stra	ightening of chann	nel, channelization	i, embankments,	NOTES>>Th altered but r downstream	oad culvert
	Negligible	Mir	inor Moderate			Severe		[	
Channel Alteration	Channelization, dredging, alteration, or hardening absent. Stream has an unaltered pattern or has naturalized.	Less than 20% of the stream reach is disrupted by any of the channel alterations listed in the parameter guidelines.	the channel	40 - 60% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If stream has been channelized, normal stable stream meander pattern has not recovered.	60 - 80% of reach is disrupted by any of the channel alterations listed in the parameter guidelines. If stream has been channelized, normal stable stream meander pattern has not recovered.	Greater than 80% of by any of the chang in the parameter g 80% of banks sh	of reach is disrupted nel alterations listed juidelines AND/OR lored with gabion, r cement.		
SCORE	1.5	1.3	1.1	0.9	0.7	0	.5		
	REACH (	CONDITION I	NDEX and S	TREAM CO	NDITION UNI	TS FOR THIS	S REACH		
107E: The Cls and RCl should be rounded to 2 decimal places. The CR should be rounded to a whole number.									

RCI= (Sum of all Cl's)/5

COMPENSATION REQUIREMENT (CR) >> 97

CR = RCI X LF X IF

### INSERT PHOTOS:



Upstream view of Impact 6. (Photo by D. Cox)



downstream view of Impact 6. (Photo by D. Cox)

### DESCRIBE PROPOSED IMPACT:

Proposed impact involves the extension of the existing culverts under US Route 1 to allow for construction of a right hand turn lane for the purpose of saftely entering the Project Access Road.



### COMMONWEALTH of VIRGINIA

### DEPARTMENT OF ENVIRONMENTAL QUALITY NORTHERN REGIONAL OFFICE

Molly Joseph Ward
Secretary of Natural Resources

13901 Crown Court, Woodbridge, Virginia 22193
(703) 583-3800 Fax (703) 583-3821
www.deq.virginia.gov

David K. Paylor

Thomas A. Faha Regional Director

June 7, 2016

Mr. Brian Revere Allure at Jefferson, LLC 560 Lynnhaven Parkway Virginia Beach, Virginia 23452

SENT VIA E-MAIL: brianr@breedenconstruction.com RECEIPT CONFIRMATION REQUESTED

Re: Virginia Water Protection (VWP) General Permit Number WP4-16-0635

Allure at Jefferson, Spotsylvania, Virginia Final VWP General Permit Authorization

Dear Mr. Revere:

The Virginia Department of Environmental Quality (DEQ) has reviewed your application dated and received on April 20, 2016, and additional information materials received through May 2, 2016. Based on DEQ's review, the proposed "Allure at Jefferson" project qualifies for the VWP General Permit Number WP4 in accordance with 9 VAC 25-690-10 et seq. The enclosed VWP general permit contains the applicable limits, reporting requirements, and other conditions for authorization.

The work authorized by this permit also satisfies the terms and conditions contained in the Norfolk District, Corps of Engineers' State Program General Permit (12- SPGP-01) and the special conditions, if any, attached to 12-SPGP-01. No additional authorization from the Corps is required. Your 12-SPGP-01 authorization is effective as of the date on this letter and remains effective until May 31, 2017.

If you have any questions, please contact Sarah Marsala by phone at (703) 583-3898 or by email at Sarah.Marsala@deq.virginia.gov.

Respectfully,

Inisha M. Beasley
Trisha M. Beasley

Regional VWPP Program Manager

Enclosures: VWP General Permit, Attachment 1 - VWP Permit Construction Status Update Form, 12-

SPGP-01

ce: Mr. Brandon Searcey, Timmons Group - VIA EMAIL

Ms. Regena Bronson, U.S. Army Corps of Engineers, Fredericksburg Field Office - VIA EMAIL



### DEPARTMENT OF ENVIRONMENTAL QUALITY

VWP General Permit No. WP4
VWP General Permit Authorization No. WP4-16-0635
Authorization Effective date: June 7, 2016
Authorization Expiration date: July 31, 2021

# VWP GENERAL PERMIT FOR IMPACTS FROM DEVELOPMENT AND CERTAIN MINING ACTIVITIES UNDER THE VIRGINIA WATER PROTECTION PERMIT AND THE VIRGINIA STATE WATER CONTROL LAW

Based upon an examination of the information submitted by the applicant and in compliance with § 401 of the Clean Water Act as amended (33 USC 1341) and the State Water Control Law and regulations adopted pursuant thereto, the board has determined that there is a reasonable assurance that the activity authorized by this VWP general permit, if conducted in accordance with the conditions set forth herein, will protect instream beneficial uses and will not violate applicable water quality standards. The board finds that the effect of the impact, together with other existing or proposed impacts to wetlands, will not cause or contribute to a significant impairment of state waters or fish and wildlife resources.

Subject to the provisions of the Clean Water Act, as amended, and pursuant to the State Water Control Law and regulations adopted pursuant to it, the permittee is authorized to permanently or temporarily impact up to two acres of nontidal wetlands or open water and up to 1,500 linear feet of nontidal stream bed. While this general permit authorized impacts up to two acres non tidal wetlands or open water and up to 1,500 linear feet of nontidal streambed, this coverage only authorizes impacts as presented in the Activity Description below.

Permittee: Allure at Jefferson, LLC

Address: 560 Lynnhaven Parkway, Virginia Beach, Virginia 23452

Activity Location: The project site is located on the eastern side of Jefferson Davis Highway (U.S.

Route 1), approximately 0.25 miles south from its intersection with Spotsylvania

County Parkway (S.R. 628), in Spotsylvania County, Virginia.

**Activity Description:** The permittee proposes to construct a residential apartment complex with associated infrastructure on an approximately 49.2 acre parcel known as "Allure at Jefferson." Permitted activities shall be conducted as described in the Joint Permit Application dated and received on April 20, 2016, and supplemental materials, revisions and clarifications received through May 2, 2016.

#### **Authorized Surface Water Impacts:**

This permit authorizes the total permanent impact of 0.49 acre of surface waters, consisting of 0.49 acre of palustrine forested wetland and 0.001 acre (23 linear feet) of stream channel. Authorized surface water

VWP General Permit Authorization No. WP4-16-0635 Permit Cover Page June 7, 2016 Page 2 of 3

impacts shall be as depicted on the impacts map entitled "Figure 4: Preliminary Jurisdictional Waters of the U.S. Impacts Map," Sheets 1 through 6, dated April 19, 2016 and received April 20, 2016.

#### **Approved Compensation:**

The permittee shall compensate for the authorized surface water impacts through the following:

- Compensation for permanent wetland impacts shall be provided through the purchase of 0.98
  wetland credits from a DEQ approved mitigation bank, in-lieu fee fund, or a combination thereof
  that is authorized and approved by DEQ to sell credits in the area in which the impacts will occur
  and has credits available (as released by DEQ).
- Compensation for permanent stream impacts shall be provided through the purchase of 24 stream credits from a DEQ approved mitigation bank, in-lieu fee fund, or a combination thereof that is authorized and approved by DEQ to sell credits in the area in which the impacts will occur and has credits available (as released by DEQ).
- The credit sale shall be in accordance with the approved Mitigation Banking Instrument for the mitigation bank. Purchase of required mitigation credits shall occur first through the purchase of available released credits followed by the purchase of advance credits.

#### **Authorization Notes:**

- 1. The permittee shall comply with the following Construction Monitoring requirements in-lieu of those under Part II.B.1-3 and Part II.E.3.
  - a. The VWP Permit Construction Status Update Form (Attachment 1) enclosed with this permit shall be completed in June and December of every year during the term of this permit. The VWP Permit Construction Status Update Form shall include reference to the VWP general permit authorization number, authorized impacts map and one of the following statements for construction activities within each impact location: a) Construction activities not started; b) Construction activities started; c) Construction activities started but currently inactive; or d) Construction activities complete.
  - b. The VWP Permit Construction Status Update Form (Attachment 1) shall be submitted electronically to vwp.nro@deq.virginia.gov or mailed to the Northern Regional Office, and must be received by DEO no later than January 10 and July 10 of every year.
- The permittee shall notify DEQ within 24 hours of discovering impacts to surface waters (including wetlands) that are not authorized by this permit. The notification shall include photographs, estimated acreage and/or linear footage of impacts, and a description of the impacts.
- 3. This authorization expires July 31, 2021. Please note that this authorization cannot be extended beyond the expiration date. If the authorized activity has not been completed prior to the expiration date of the VWP general permit authorization, coverage will expire on the expiration date and a new VWP permit will be required for the proposed activities.

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The work authorized by this permit also satisfies the terms and conditions contained in the Norfolk District, U.S. Army Corps of Engineers' (USACE) State Program General Permit (12-SPGP-01) and no additional authorization from the USACE is required. The permittee is responsible for following all special conditions contained within the 12-SPGP-01 (attached) that are pertinent to the project.

The authorized activity shall be in accordance with this cover page, Part I - Special Conditions, Part II - Compensation, Monitoring, and Reporting, and Part III - Conditions Applicable to All VWP General Permits, as set forth herein.

Inisha M. Beasley	June 7, 2016
Regional VWPP Program Manager, Department of Environmental Quality	Date



Date (check one):

Date:

#### VWP PERMIT CONSTRUCTION STATUS UPDATE FORM

Attachment 1 to WP4-16-0635, authorized June 7, 2016

	June,				
	December,				
VWP	Permit No:	WP4-16-0635			
Projec	et Name: <u>A</u>	Ilure at Jefferson			
Jurisd	ictional Waters of the (check one of the foll	U.S. Impacts Map	," Sheets 1 throug	identified on "Figure 4: Ith 6, dated April 19, 2010 et number/location. Atta	6 and received April 20,
	Impact number	Construction activities started	Construction activities not started	Construction activities started but currently not active	Construction activities complete
	1				
	2				
	3				
	4				
super evaluathose know	vision in accordance wate the information sub- persons directly respondedge and belief, true, a	with a system design omitted. Based on a sible for gatherinaccurate, and compared to the system of t	ned to assure that my inquiry of the g the information plete. I am aware	ents were prepared unde qualified personnel prop person or persons who n , the information submit that there are significant ment for knowing violati	erly gather and nanage the system, or ed is, to the best of my penalties for submitting
Autho	orized Signature:				
Print ?	Name:				
Title:				Phone:	

Email:

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#### PART I – SPECIAL CONDITIONS

#### A. Authorized Activities

- This permit authorizes permanent or temporary impacts of up to two acres of nontidal wetlands or open water and up to 1,500 linear feet of nontidal stream bed according to the information provided in the approved and complete application.
- Any changes to the authorized permanent impacts to surface waters associated with this project shall require either a notice of planned change in accordance with 9 VAC 25-690-80, or another VWP permit application.
- 3. Any changes to the authorized temporary impacts to surface waters associated with this project shall require written notification to DEQ and restoration to preexisting conditions in accordance with the conditions of this permit authorization.
- 4. Modification to compensation requirements may be approved at the request of the permittee when a decrease in the amount of authorized surface waters impacts occurs, provided that the adjusted compensation meets the initial authorization compensation goals.
- 5. The activities authorized for coverage under this VWP general permit must commence and be completed within seven years of the date of this authorization.

#### **B.** Continuation of Coverage

Reapplication for continuation of coverage under this VWP general permit or a new VWP permit may be necessary if any portion of the authorized activities or any VWP general permit requirement (including compensation) has not been completed within seven years of the date of authorization. Notwithstanding any other provision, a request for continuation of coverage under a VWP general permit in order to complete monitoring requirements shall not be considered a new application, and no application fee will be charged. The request for continuation of coverage must be made no less than 60 days prior to the expiration date of this VWP general permit authorization, at which time the board will determine if continuation of the VWP general permit authorization is necessary.

#### C. Overall Project Conditions

- The activities authorized by this VWP general permit shall be executed in a manner so as to minimize adverse impacts on instream beneficial uses as defined in § 62.1-10 (b) of the Code of Virginia.
- 2. No activity may substantially disrupt the movement of aquatic life indigenous to the water body, including those species which normally migrate through the area, unless the primary purpose of the activity is to impound water. Culverts placed in streams must be installed to maintain low flow conditions. The requirement to countersink does no apply to extensions or maintenance of existing culverts that are not countersunk, floodplain culverts being placed above ordinary high water, culverts being placed on bedrock, or culverts required to be placed on slopes 5.0% or greater. No activity may cause more than minimal adverse effect on navigation. Furthermore the activity must

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not impede the passage of normal or expected high flows and the structure or discharge must withstand expected high flows.

- Wet or uncured concrete shall be prohibited from entry into flowing surface waters. Excess or waste concrete shall not be disposed of in flowing surface waters or washed into flowing surface waters.
- 4. All fill material shall be clean and free of contaminants in toxic concentrations or amounts in accordance with all applicable laws and regulations.
- 5. Erosion and sedimentation controls shall be designed in accordance with the Virginia Erosion and Sediment Control Handbook, Third Edition, 1992, or for mining activities covered by this general permit, the standards issued by the Virginia Department of Mines, Minerals and Energy that are effective as those in the Virginia Erosion and Sediment Control Handbook, Third Edition, 1992. These controls shall be placed prior to clearing and grading and maintained in good working order to minimize impacts to state waters. These controls shall remain in place until the area is stabilized and shall then be removed.
- Exposed slopes and streambanks shall be stabilized immediately upon completion of work in each
  permitted impact area. All denuded areas shall be properly stabilized in accordance with the
  Virginia Erosion and Sediment Control Handbook, Third Edition, 1992.
- 7. All construction, construction access (e.g., cofferdams, sheetpiling, and causeways) and demolition activities associated with this project shall be accomplished in a manner that minimizes construction or waste materials from entering surface waters to the maximum extent practicable, unless authorized by this VWP general permit.
- 8. No machinery may enter flowing waters, unless authorized by this VWP general permit.
- Heavy equipment in temporarily-impacted wetland areas shall be placed on mats, geotextile fabric, or other suitable material to minimize soil disturbance to the maximum extent practicable.
   Equipment and materials shall be removed immediately upon completion of work.
- 10. All nonimpacted surface waters and compensatory mitigation areas within 50 feet of permitted activities and within the project or right-of-way limits shall be clearly flagged or marked for the life of the construction activity at that location to preclude unauthorized disturbances to these surface waters and compensatory mitigation areas during construction. The permittee shall notify contractors that no activities are to occur in these marked surface waters.
- 11. Temporary disturbances to surface waters during construction shall be avoided and minimized to the maximum extent practicable. All temporarily disturbed wetland areas shall be restored to preexisting conditions within 30 days of completing work at each respective temporary impact area, which shall include reestablishing preconstruction contours, and planting or seeding with appropriate wetland vegetation according to cover type (emergent, scrub/shrub, or forested). The permittee shall take all appropriate measures to promote and maintain revegetation of temporarily disturbed wetland areas with wetland vegetation through the second year post-disturbance. All temporarily impacted streams and streambanks shall be restored to their original contours within

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30 days following the construction at that stream segment, and the banks seeded or planted with the same vegetation cover type originally present along the streamsbanks, including supplemental erosion control grasses if necessary, except for invasive species identified on DCR's Invasive Alien Plant Species of Virginia list.

- 12. Materials (including fill, construction debris, and excavated and woody materials) temporarily stockpiled in wetlands shall be placed on mats or geotextile fabric, immediately stabilized to prevent entry into state waters, managed such that leachate does not enter state waters, and completely removed within 30 days following completion of that construction activity. Disturbed areas shall be returned to original contours, restored within 30 days following removal of the stockpile, and restored with the same vegetation cover type originally present, including supplemental erosion control grasses if necessary, except for invasive species identified on DCR's Invasive Alien Plant Species of Virginia list.
- 13. Continuous flow of perennial springs shall be maintained by the installation of spring boxes, french drains, or other similar structures.
- 14. The permittee shall employ measures to prevent spills of fuels or lubricants into state waters.
- 15. The permittee shall conduct activities in accordance with the time-of-year restrictions recommended by the Virginia Department of Game and Inland Fisheries, the Virginia Marine Resources Commission, or other interested and affected agencies and shall ensure that all contractors are aware of the time-of-year restrictions imposed.
- 16. Water quality standards shall not be violated as a result of the construction activities, unless allowed by this permit authorization.
- 17. If stream channelization or relocation is required, all work in surface waters shall be done in the dry, unless authorized by this VWP general permit, and all flows shall be diverted around the channelization or relocation area until the new channel is stabilized. This work shall be accomplished by leaving a plug at the inlet and outlet ends of the new channel during excavation. Once the new channel has been stabilized, flow shall be routed into the new channel by first removing the downstream plug and then the upstream plug. The rerouted stream flow must be fully established before construction activities in the old stream channel can begin.

#### D. Road Crossings

- Access roads and associated bridges or culverts shall be constructed to minimize the adverse
  effects on surface waters to the maximum extent practicable. Access roads constructed above
  preconstruction contours and elevations in surface waters must be bridged or culverted to maintain
  surface flows.
- Installation of road crossings shall occur in the dry via the implementation of cofferdams, sheetpiling, stream diversions, or similar structures.

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### E. Utility Lines

- 1. All utility line work in surface waters shall be performed in a manner that minimizes disturbance, and the area must be returned to its original contours and restored within 30 days of completing work in the area, unless otherwise authorized by this VWP general permit. Restoration shall be the seeding of planting of the same vegetation cover type originally present, including supplemental erosion control grasses if necessary, except for invasive specifies identified on DCR's Invasive Alien Plant Species of Virginia list.
- Material resulting from trench excavation may be temporarily sidecast into wetlands not to exceed a total of 90 days, provided the material is not placed in a manner such that it is dispersed by currents or other forces.
- 3. The trench for a utility line cannot be constructed in a manner that drains wetlands (e.g., backfilling with extensive gravel layers creating a french drain effect.). For example, utility lines may be backfilled with clay blocks to ensure that the trench does not drain surface waters through which the utility line is installed.

#### F. Stream Modification and Stream Bank Protection

- Riprap bank stabilization shall be of an appropriate size and design in accordance with the Virginia Erosion and Sediment Control Handbook, Third Edition, 1992.
- Riprap apron for all outfalls shall be designed in accordance with the Virginia Erosion and Sediment Control Handbook, Third Edition, 1992.
- For stream bank protection activities, the structure and backfill shall be placed as close to the stream bank as practicable. No material shall be placed in excess of the minimum necessary for erosion protection.
- 4. All stream bank protection structures shall be located to eliminate or minimize impacts to vegetated wetlands to the maximum extent practicable.
- Asphalt and materials containing asphalt or other toxic substances shall not be used in the construction of submerged sills or breakwaters.
- 6. Redistribution of existing stream substrate for the purpose of erosion control is prohibited.
- No material removed from the stream bottom shall be disposed of in surface waters, unless authorized by this permit.

### G. <u>Dredging</u>

 Dredging depths shall be determined and authorized according to the proposed use and controlling depths outside the area to be dredged. VWP General Permit WP4
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- Dredging shall be accomplished in a manner that minimizes disturbance of the bottom and minimizes turbidity levels in the water column.
- 3. If evidence of impaired water quality, such as a fish kill, is observed during the dredging, dredging operations shall cease and the DEQ shall be notified immediately.
- 4. Barges used for the transportation of dredge material shall be filled in such a manner to prevent the overflow of dredged materials.
- 5. Double handling of dredged material in state waters shall not be permitted.
- 6. For navigation channels the following shall apply:
  - a. A buffer of four times the depth of the dredge cut shall be maintained between the bottom edge
    of the design channel and the channelward limit of wetlands, or a buffer of 15 feet shall be
    maintained from the dredged cut and the channelward edge of wetlands, whichever is greater.
    This landward limit of buffer shall be flagged and inspected prior to construction.
  - Side slope cuts of the dredging area shall not exceed a two-horizontal-to-one-vertical slope to prevent slumping of material into the dredged area.
- A dredged material management plan for the designated upland disposal site shall be submitted and approved 30 days prior to initial dredging activity.
- 8. Pipeline outfalls and spillways shall be located at opposite ends of the dewatering area to allow for maximum retention and settling time. Filter fabric shall be used to line the dewatering area and to cover the outfall pipe to further reduce sedimentation to state waters.
- The dredge material dewatering area shall be of adequate size to contain the dredge material and to allow for adequate dewatering and settling out of sediment prior to discharge back into state waters.
- 10. The dredge material dewatering area shall utilize an earthen berm or straw bales covered with filter fabric along the edge of the area to contain the dredged material, and shall be properly stabilized prior to placing the dredged material within the containment area.
- 11. Overtopping of the dredge material containment berms with dredge materials shall be strictly prohibited.

#### H. Stormwater Management Facilities

Stormwater management facilities shall be installed in accordance with best management practices
and watershed protection techniques (e.g., vegetated buffers, siting considerations to minimize
adverse effects to aquatic resources, bioengineering methods incorporated into the facility design
to benefit water quality and minimize adverse effects to aquatic resources) that provide for longterm aquatic resources protection and enhancement, to the maximum extent practicable.

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- Compensation for unavoidable impacts shall not be allowed within maintenance areas of stormwater management facilities.
- 3. Maintenance activities within stormwater management facilities shall not require additional permit authorization or compensation, provided that the maintenance activities do not exceed the original contours of the facility, as approved and constructed, and is accomplished in designated maintenance areas as indicated in the facility maintenance or design plan.

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### PART II – CONSTRUCTION AND COMPENSATION REQUIREMENTS, MONITORING, AND REPORTING

#### A. Minimum Compensation Requirements

- The permittee shall provide appropriate and practicable compensation for all impacts meeting the conditions outlined in this VWP general permit.
- Compensation options that may be considered under this VWP general permit shall meet the criteria in 9 VAC 25-690-70.
- The site or sites depicted in the conceptual compensation plan submitted with the application shall constitute the compensation site for the approved project. A site change will require a modification to the authorization.
- 4. For compensation involving the purchase or use of mitigation bank credits or a contribution to an in-lieu fee fund, the permittee shall not initiate work in permitted impact areas until documentation of the mitigation bank credit purchase or usage or of the fund contribution has been submitted to and received by DEQ.
- 5. All aspects of the compensation plan shall be finalized, submitted, and approved by the board prior to a construction activity in permitted impact areas. The board shall review and provide written comments on the plan within 30 days of receipt or it shall be deemed approved. The final compensation plan as approved by the board shall be an enforceable requirement of this VWP general permit authorization. Deviations from the approved plan must be submitted and approved in advance by the board.
- 6. The final wetlands compensation plan shall include:
  - The goals and objectives of the plan in terms of replacement of wetland acreage and functions, by wetland type;
  - b. Location map, including latitude and longitude (to the nearest second) at the center of the site;
  - c. Summary of the type and acreage of existing wetland impacts anticipated during the construction of the compensation site and proposed compensation for these impacts;
  - d. Grading plan with existing and proposed elevations at one-foot or less contours;
  - Schedule for compensation site construction, including sequence of events with estimated dates;
  - f. Hydrologic analysis, including a water budget based on expected monthly inputs and outputs that will project water level elevations for a typical year, a wet year, and a dry year;

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- g. Groundwater elevation data for the site, or the location of groundwater monitoring wells to collect these data, and groundwater data for reference wetlands, if applicable;
- h. Design of water control structures;
- Planting scheme and schedule, indicating plant species, zonation, and acreage of each vegetation type proposed;
- j. An abatement and control plan covering all undesirable plant species, as listed on DCR's Invasive Alien Plant Species of Virginia list, that includes the proposed procedures for notifying DEQ of their presence, methods of removal, and the control of such species;
- k. Erosion and sedimentation control plan;
- 1. A soil preparation and amendments plan addressing both topsoil and subsoil conditions;
- m. A discussion of structures and features considered necessary for the success of the site;
- n. A monitoring plan, including success criteria, monitoring goals and methodologies, monitoring and reporting schedule, and the locations of photographic stations and monitoring wells, sampling points, and, if applicable, reference wetlands;
- o. Site access plan;
- p. The location and composition of any buffers; and
- q. The mechanism for protection of the compensation area(s).
- 7. The final stream compensation plan shall include:
  - a. The goals and objectives of the compensation plan in terms of replacement of stream functions and water quality benefits:
  - A location map, including latitude and longitude (to the nearest second) at the center of the site.
  - c. An evaluation, discussion, and plan sketches of existing conditions on the proposed compensation stream, including the identification of functional and physical deficiencies for which the measures are proposed, and summary of geomorphologic measurements (e.g., stream width, entrenchment ratio, width-depth ratio, sinuosity, slope, substrate, etc.);
  - d. The identification of existing geomorphological stream type being impacted and proposed geomorphological stream type for compensation purposes;
  - e. Detailed design information for the proposed restorative measures, including geomorphological measurements and reference reach information as appropriate;

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- f. Riparian buffer plantings, including planting scheme, species, buffer width;
- g. Livestock access limiting measures, to the greatest extent possible;
- h. A site access plan;
- i. An erosion and sedimentation control plan, if appropriate;
- j. An abatement and control plan covering all undesirable plant species, listed on DCR's Invasive Alien Plant Species of Virginia list, that includes the proposed procedures for notifying DEQ of their presence, methods for removal, and the control of such species;
- A schedule for compensation site construction including projected start date, sequence of events with projected dates, and projected completion date;
- A monitoring plan, including a monitoring and reporting schedule; monitoring design and
  methodologies to evaluate the success of the proposed compensation measures, allowing
  comparison from year to year; proposed success criteria for appropriate compensation
  measures; location of all monitoring stations including photo stations, vegetation sampling
  points, survey points, bank pins, scour chains, and reference streams;
- m. The mechanism for protection of the compensation area; and
- Plan view sketch depicting the pattern and all compensation measures being employed, a profile sketch, and cross-section sketches of the proposed compensation stream.
- 8. For final wetland or stream compensation plans, the vegetation used shall be native species common to the area, shall be suitable for growth in local wetland or riparian conditions, and shall be from areas within the same or adjacent USDA Plant Hardiness Zone or NRCS Land Resource Region as that of the project site.
- 9. The final wetland or stream compensation plan(s) shall include a mechanism for protection in perpetuity of the compensation sites(s) to include all state waters within the compensation site boundary or boundaries. Such protections shall be in place within 120 days of final compensation plan approval. The restrictions, protections, or preservations, or similar instrument, shall state that no activity will be performed on the property in any area designated as a compensation area with the exception of maintenance or corrective action measures authorized by the board. Unless specifically authorized by the board through the issuance of a VWP individual or general permit, or waiver thereof, this restriction applies to ditching, land clearing or the discharge of dredge or fill material. Such instrument shall contain the specific phrase "ditching, land clearing or discharge of dredge or fill material" in the limitations placed on the use of these areas. The protective instrument shall be recorded in the chain of title to the property, or an equivalent instrument for government-owned lands. Proof of recordation shall be submitted within 120 days of final compensation plan approval.
- 10. All work in impact areas shall cease if compensation site construction has not commenced within 180 days of commencement of project construction, unless otherwise authorized by the board.

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- 11. DEQ shall be notified in writing at least 10 days prior to the initiation of construction activities at the compensation site(s).
- 12. Planting of woody plants shall occur when vegetation is normally dormant unless otherwise approved in the final wetlands or stream compensation plan(s).
- 13. Point sources of stormwater runoff shall be prohibited from entering a wetland compensation site prior to treatment by appropriate best management practices. Appropriate best management practices may include sediment traps, grassed waterways, vegetated filter strips, debris screens, oil and grease separators, or forebays.
- 14. The success of the compensation shall be based on meeting the success criteria established in the approved final compensation plan.
- 15. Wetland hydrology shall be considered established if depths to the seasonal high water table are equal to or less than 12 inches below ground surface for at least 12.5% of the region's killing frost-free growing season, as defined in the soil survey for the locality of the compensation site or the NRCS WETS table, measured in consecutive days under typical precipitation conditions, and as defined in the water budget of the final compensation plan. For the purpose of this regulation, the growing season is defined as the period in which temperatures are expected to be above 28 degrees Fahrenheit in five out of 10 years, or the period during which the soil temperature in a wetland compensation site is greater than biological zero (five degrees Celsius) at a depth of 50 centimeters (19.6 inches), if such data is available.
- 16. The wetland plant community shall be considered established according to the performance criteria specified in the final compensation plan and approved by the board. The proposed vegetation success criteria in the final compensation plan shall include the following:
- a. Species composition shall reflect the desired plant community types stated in the final wetland compensation plan by the end of the first growing season and shall be maintained through the last monitoring year.
- b. Species composition shall consist of greater than 50% facultative (FAC) or wetter (FACW or OBL) vegetation, as expressed by plant stem density or areal cover, by the end of the first growing season and shall be maintained through the last monitoring year.
- 17. Undesirable plant species shall be identified and controlled as described in the undesirable plant species control plan, such that they are not dominant species or do not change the desired community structure. The control plan shall include procedures to notify DEQ when undesirable plant species comprise greater than 5.0% of the vegetation by areal coverage on wetland or stream compensation sites. The notification shall include the methods of removal and control, and whether the methods are successful.
- 18. If the wetland or stream compensation area fails to meet the specified success criteria in a particular monitoring year, other than the final monitoring year, the reasons for this failure shall be determined, and a corrective action plan shall be submitted to DEQ for approval with or before that year's monitoring report. The corrective action plan shall contain at minimum the proposed

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actions, a schedule for those actions, and a monitoring plan, and shall be implemented by the permittee in accordance with the approved schedule. Should significant changes be necessary to ensure success, the required monitoring cycle shall begin again, with monitoring year one being the year that the changes are complete, as confirmed by DEQ. If the wetland or stream compensation area fails to meet the specified success criteria by the final monitoring year, or if the wetland or stream compensation area has not met the stated restoration goals, reasons for this failure shall be determined and a corrective action plan, including proposed actions, a schedule, and a monitoring plan, shall be submitted with the final year monitoring report for DEQ approval. Corrective action shall be implemented by the permittee in accordance with the approved schedule. Annual monitoring shall be required to continue until two sequential, annual reports indicate that all criteria have been successfully satisfied and the site has met the overall restoration goals (e.g., that corrective actions were successfull).

- 19. The surveyed wetland boundary for the wetlands compensation site shall be based on the results of the hydrology, soils, and vegetation monitoring data and shall be shown on the site plan. Calculation of total wetland acreage shall be based on that boundary at the end of the monitoring cycle. Data shall be submitted by December 31 of the final monitoring year.
- 20. Herbicides or algicides shall not be used in or immediately adjacent to the wetlands or stream compensation site or sites without prior authorization by the board. All vegetation removal shall be done by manual means, unless authorized by DEO in advance.

### B. Impact Site Construction Monitoring

- Construction activities authorized by this permit that are within impact areas shall be monitored
  and documented. The monitoring shall document the preexisting conditions, activities during
  construction, and post-construction conditions. Monitoring shall consist of one of the following
  options:
  - a. Photographs shall be taken during construction at the end of the first, second, and third months after commencing construction, and then every six months thereafter for the remainder of the construction project. Photos are not required during periods of no activity within impact areas.
  - b. An ortho-rectified photograph shall be taken by a firm specializing in ortho-rectified photography prior to construction, and then annually thereafter, until all impacts are taken. Photos shall clearly show the delineated surface waters and authorized impact areas.
  - c. In lieu of photographs, and with prior approval from DEQ, the permittee may submit a written narrative that summarizes site construction activities in impact areas. The narrative shall be submitted at the end of the first, second, and third months after commencing construction, and then every six months thereafter, for the remainder of the construction activities. Narratives are not required during periods of no activity within the impact areas.
- As part of construction monitoring, photographs taken at the photo stations or the narrative shall
  document site activities and conditions, which may include installation and maintenance of
  erosion and sediment controls; surface water discharges from the site; condition of adjacent
  nonimpact surface waters; flagged nonimpact surface waters; construction access and staging

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areas; filling, excavation, and dredging activities; culvert installation; dredge disposal; and site stabilization, grading, and associated restoration activities. With the exception of the preconstruction photographs, photographs at an individual impact site shall not be required until construction activities are initiated at that site. With the exception of the post-construction photographs, photographs at an individual impact site shall not be required once the site is stabilized following completion of construction at that site.

- 3. Each photograph shall be labeled to include the following information: permit number, impact area and photo station number, date and time of the photograph, name of the person taking the photograph, photograph orientation, and photograph subject description.
- 4. Monitoring of water quality parameters shall be conducted during permanent relocation of perennial streams through new channels in the manner noted below. The permittee shall report violations of water quality standards to DEQ in accordance with the procedures in Part II E. Corrective measures and additional monitoring may be required if water quality standards are not met. Reporting shall not be required if water quality standards are not violated.
  - a. A sampling station shall be located upstream and immediately downstream of the relocated channel
  - b. Temperature, pH and dissolved oxygen (D.O.) measurements shall be taken every 30 minutes for at least two hours at each station prior to opening the new channels and immediately before opening new channels.
  - c. Temperature, pH and D.O. readings shall be taken after opening the channels and every 30 minutes for at least three hours at each station.

#### C. Wetland Compensation Site Monitoring

- 1. An as-built ground survey, or an aerial survey provided by a firm specializing in aerial surveys, shall be conducted for the entire compensation site or sites including invert elevations for all water elevation control structures and spot elevations throughout the site or sites. Aerial surveys shall include the variation from actual ground conditions, such as +/- 0.2 feet. Either type of survey shall be certified by a licensed surveyor or by a registered professional engineer to conform to the design plans. The survey shall be submitted within 60 days of completing compensation site construction. Changes or deviations in the as-built survey or aerial survey shall be shown on the survey and explained in writing.
- 2. Photographs shall be taken at the compensation site or sites from the permanent markers identified in the final compensation plan, and established to ensure that the same locations and view directions at the site or sites are monitored in each monitoring period. These photographs shall be taken after the initial planting and at a time specified in the final compensation plan during every monitoring year.
- 3. Compensation site monitoring shall begin on day one of the first complete growing season (monitoring year 1) after wetland compensation site construction activities, including planting, have been completed. Monitoring shall be required for monitoring years 1, 2, 3, and 5, unless

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otherwise approved by DEQ. In all cases if all success criteria have not been met in the final monitoring year, then monitoring shall be required for each consecutive year until two annual sequential reports indicate that all criteria have been successfully satisfied.

- 4. The establishment of wetland hydrology shall be measured during the growing season, with the location and number of monitoring wells, and frequency of monitoring for each site, set forth in the final monitoring plan. Hydrology monitoring well data shall be accompanied by precipitation data, including rainfall amounts either from on site or from the closest weather station. Once the wetland hydrology success criteria have been satisfied for a particular monitoring year, monitoring may be discontinued for the remainder of that monitoring year following DEQ approval. After a period of three monitoring years, the permittee may request that hydrology monitoring be discontinued, providing that adequate hydrology has been established and maintained. Hydrology monitoring shall not be discontinued without written approval from DEQ.
- The presence of hydric soils or soils under hydric conditions shall be evaluated in accordance with the final compensation plan.
- 6. The establishment of wetland vegetation shall be in accordance with the final compensation plan. Monitoring shall take place in August, September, or October during the growing season of each monitoring year, unless otherwise authorized in the monitoring plan.
- 7. The presence of undesirable plant species shall be documented.
- All wetland compensation monitoring reports shall be submitted in accordance with 9 VAC 25-690-100 Part II E 6.

#### D. Stream Compensation, Restoration, and Monitoring

- Riparian buffer restoration activities shall be detailed in the final compensation plan and shall
  include, as appropriate, the planting of a variety of native species currently growing in the site
  area, including appropriate seed mixtures and woody species that are bare root, balled, or
  burlapped. A minimum buffer width of 50 feet, measured from the top of the stream bank at
  bankfull elevation landward on both sides of the stream, shall be required where practical.
- The installation of root wads, vanes, and other instream structures, shaping of the stream banks, and channel relocation shall be completed in the dry whenever practicable.
- Livestock access to the stream and designated riparian buffer shall be limited to the greatest extent practicable.
- 4. Stream channel restoration activities shall be conducted in the dry or during low flow conditions. When site conditions prohibit access from the streambank, heavy equipment shall be authorized for use within the stream channel.
- 5. Photographs shall be taken at the compensation site from the vicinity of the permanent photo stations identified in the final compensation plan. The photograph orientation shall remain constant during all monitoring events. At a minimum, photographs shall be taken from the center

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of the stream, facing downstream, with a sufficient number of photographs to view the entire length of the restoration site. Photographs shall document the completed restoration conditions. Photographs shall be taken prior to site activities, during instream and riparian compensation construction activities, within one week of completion of activities, and during at least one day of each monitoring year to depict restored conditions.

- 6. An as-built ground survey, or an aerial survey provided by a firm specializing in aerial surveys, shall be conducted for the entire compensation site or sites. Aerial surveys shall include the variation from actual ground conditions, such as +/- 0.2 feet. The survey shall be certified by the licensed surveyor or by a registered, professional engineer to conform to the design plans. The survey shall be submitted within 60 days of completing compensation site construction. Changes or deviations from the final compensation plans in the as-built survey or aerial survey shall be shown on the survey and explained in writing.
- 7. Compensation site monitoring shall begin on day one of the first complete growing season (monitoring year 1) after stream compensation site construction activities, including planting, have been completed. Monitoring shall be required for monitoring years 1 and 2, unless otherwise determined by DEQ. In all cases, if all success criteria have not been met in the final monitoring year, then monitoring shall be required for each consecutive year until two annual sequential reports indicate that all criteria have been successfully satisfied.
- All stream compensation monitoring reports shall be submitted in accordance with 9 VAC 25-690-100 Part II E 6.

#### E. Reporting

- Written communications required by this VWP general permit shall be submitted to the appropriate DEQ office. The VWP general permit authorization number shall be included on all correspondence.
- 2. DEQ shall be notified in writing at least 10 days prior to the start of construction activities at the first permitted site authorized by this VWP general permit authorization so that inspections of the project can be planned, if deemed necessary by DEQ. The notification shall include a projected schedule for initiation and completion of work at each permitted impact area.
- 3. Construction monitoring reports shall be submitted to DEQ no later than the 10th day of the month following the month in which the monitoring event specified in Part II B takes place, unless otherwise specified below. The reports shall include the following, as appropriate:
  - a. For each permitted impact area, a written narrative stating whether work was performed during the monitoring period, and if work was performed, a description of the work performed, when the work was initiated, and the expected date of completion.
  - b. Photographs labeled with the permit number, the photo station number, the photo orientation, the date and time of the photo, the name of the person taking the photograph, and a brief description of the construction activities. The first construction monitoring report shall include the photographs taken at each impact site prior to initiation of construction in a permitted

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impact area. Written notification and photographs demonstrating that all temporarily disturbed wetland and stream areas have been restored in compliance with the permit conditions shall be submitted within 30 days of restoration. The post-construction photographs shall be submitted within 30 days of documenting post-construction conditions.

- c. Summary of activities conducted to comply with the permit conditions.
- d. Summary of permit noncompliance events or problems encountered, subsequent notifications, and corrective actions.
- e. Summary of anticipated work to be completed during the next monitoring period, and an estimated date of construction completion at all impact areas.
- f. Labeled site map depicting all impact areas and photo stations.
- DEQ shall be notified in writing within 30 days following the completion of all activities in all
  permitted impact areas authorized under this permit.
- DEQ shall be notified in writing at least 10 days prior to the initiation of activities at the compensation site. The notification shall include a projected schedule of activities and construction completion.
- 6. All compensation monitoring reports shall be submitted annually by December 31, with the exception of the last year of authorization, in which case the report shall be submitted at least 60 days prior to expiration of authorization under the general permit.
  - a. All wetland compensation monitoring reports shall include, as applicable, the following:
    - General description of the site including a site location map identifying photo stations, vegetative and soil monitoring stations, monitoring wells, and wetland zones.
    - (2) Summary of activities completed during the monitoring year, including alterations or maintenance conducted at the site.
    - (3) Description of monitoring methods.
    - (4) Analysis of all hydrology information, including monitoring well data, precipitation data, and gauging data from streams or other open water areas, as set forth in the final compensation plan.
    - (5) Evaluation of hydric soils or soils under hydric conditions, as appropriate.
    - (6) Analysis of all vegetative community information, including woody and herbaceous species, both planted and volunteers, as set forth in the final compensation plan.

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- (7) Photographs labeled with the permit number, the name of the compensation site, the photo station number, the photograph orientation, the date and time of the photograph, the name of the person taking the photograph, and a brief description of the photograph subject. This information shall be provided as a separate attachment to each photograph, if necessary. Photographs taken after the initial planting shall be included in the first monitoring report after planting is complete.
- (8) Discussion of wildlife or signs of wildlife observed at the compensation site.
- (9) Comparison of site conditions from the previous monitoring year and reference site.
- (10) Discussion of corrective measures or maintenance activities to control undesirable species, to repair damaged water control devices, or to replace damaged planted vegetation.
- (11) Corrective action plan, which includes proposed actions, a schedule, and monitoring plan.
- b. All stream compensation monitoring reports shall include, as applicable, the following:
  - (1) General description of the site including a site location map identifying photo stations and monitoring stations.
  - (2) Summary of activities completed during the monitoring year, including alterations or maintenance conducted at the site.
  - (3) Description of monitoring methods.
  - (4) An evaluation and discussion of the monitoring results in relation to the success criteria and overall goals of compensation.
  - (5) Photographs shall be labeled with the permit number, the name of the compensation site, the photo station number, the photograph orientation, the date and time of the photograph, the name of the person taking the photograph, and a brief description of the photograph subject. Photographs taken prior to compensation site construction activities, during instream and riparian restoration activities, and within one week of completion of activities shall be included in the first monitoring report.
  - (6) A discussion of alterations, maintenance, or major storm events resulting in significant change in stream profile or cross section, and corrective actions conducted at the stream compensation site.
  - (7) Documentation of undesirable plant species and summary of abatement and control
  - (8) A summary of wildlife or signs of wildlife observed at the compensation site.

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- (9) Comparison of site conditions from the previous monitoring year and reference site, and as-built survey, if applicable.
- (10) A corrective action plan, which includes proposed actions, a schedule and monitoring plan.
- (11) Additional submittals that were approved by DEQ in the final compensation plan.
- 7. The permittee shall notify DEQ in writing when unusual or potentially complex conditions are encountered which require debris removal or involve potentially toxic substance. Measures to remove the obstruction, material, or toxic substance or to change the location of a structure are prohibited until approved by DEQ.
- The permittee shall report fish kills or spills of oil or fuel immediately upon discovery. If spills or fish kills occur between the hours of 8:15 a.m. to 5 p.m., Monday through Friday, the appropriate DEQ regional office shall be notified; otherwise, the Department of Emergency Management shall be notified at 1-800-468-8892.
- 9. Violations of state water quality standards shall be reported within 24 hours to the appropriate DEQ office.
- 10. Submittals required by this VWP general permit shall contain the following signed certification statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violation."

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#### PART III - CONDITIONS APPLICABLE TO ALL VWP GENERAL PERMITS

#### A. Duty to Comply

The permittee shall comply with all conditions of the VWP general permit. Nothing in this VWP general permit shall be construed to relieve the permittee of the duty to comply with all applicable federal and state statutes, regulations, and toxic standards and prohibitions. VWP general permit noncompliance is a violation of the Clean Water Act and State Water Control Law, and is grounds for enforcement action, VWP general permit authorization termination for cause, VWP general permit authorization revocation, or denial of a continuation of coverage request.

#### B. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent impacts in violation of the VWP general permit which may have a reasonable likelihood of adversely affecting human health or the environment.

#### C. Reopener

This VWP general permit authorization may be reopened to modify its conditions when the circumstances on which the previous VWP general permit authorization was based have materially and substantially changed, or special studies conducted by the board or the permittee show material and substantial change since the time the VWP general permit authorization was issued and thereby constitute cause for VWP general permit authorization revocation and reissuance.

#### D. Compliance with State and Federal Law

Compliance with this VWP general permit constitutes compliance with the VWP permit requirements of the State Water Control Law. Nothing in this VWP general permit shall be construed to preclude the institution of any legal action under or relieve the permittee from any responsibilities, liabilities, or other penalties established pursuant to any other state law or regulation or under the authority preserved by § 510 of the Clean Water Act.

#### E. Property Rights

The issuance of this VWP general permit does not convey property rights in either real or personal property, or exclusive privileges, nor does it authorize injury to private property or invasion of personal property rights, nor infringement of federal, state or local laws or regulations.

#### F. Severability

The provisions of this VWP general permit authorization are severable.

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#### G. Right of Entry

The permittee shall allow the board or its agents, upon the presentation of credentials, at reasonable times and under reasonable circumstances to enter the permittee's property, public or private, and have access to, inspect and copy records that must be kept as part of the VWP general permit conditions; to inspect facilities, operations or practices (including monitoring and control equipment) regulated or required under the VWP general permit; and to sample or monitor any substance, parameter or activity for the purpose of assuring compliance with the conditions of the VWP general permit or as otherwise authorized by law. For the purpose of this section, the time for inspection shall be deemed reasonable during regular business hours. Nothing contained herein shall make an inspection time unreasonable during an emergency.

#### H. Transferability of VWP General Permit Authorization

This VWP general permit authorization may be transferred to another person by a permittee when all of the criteria listed below are met. On the date of the VWP general permit authorization transfer, the transferred VWP general permit authorization shall be as fully effective as if it had been issued directly to the new permittee.

- 1. The current permittee notifies the board of the transfer of the title to the facility or property.
- 2. The notice to the board includes a written agreement between the current and new permittees containing a specific date of transfer of VWP general permit authorization responsibility, coverage and liability to the new permittee, or that the current permittee will retain such responsibility, coverage or liability, including liability for compliance with the requirements of enforcement activities related to the permitted activity.
- 3. The board does not notify the current and new permittees of its intent to modify or revoke and reissue the VWP general permit authorization within 15 days.

#### I. Notice of Planned Change

Authorization under the VWP general permit may be modified subsequent to issuance in one or more of the cases listed below. A notice of planned change is not required if the project results in additional temporary impacts to surface waters, provided that DEQ is notified in writing, the additional temporary impacts are restored to preexisting conditions in accordance with Part I C 11 of this general permit, and the additional temporary impacts do not exceed the general permit threshold for use. The permittee shall notify the board in advance of the planned change, and the planned change request will be reviewed according to all provisions of this regulation.

1. The permittee determines that additional permanent wetland, open water, or stream impacts are necessary, provided that the additional impacts are associated with the previously authorized activities in authorized locations within the same phase of development, the cumulative increase in acreage of wetland or open water impacts is not greater than 1/4 acre, the cumulative increase in stream bed impacts is not greater than 100 linear feet, and the additional impacts are fully compensated.

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- The project results in less wetland or stream impacts, in which case, compensation requirements may be modified in relation to the adjusted impacts at the request of the permittee, provided that the adjusted compensation meets the initial authorization compensation goals.
- 3. There is a change in the project plans that does not result in a change in project impacts.
- There is a change in the mitigation bank at which credits are purchased or used, provided that the same amount of credits are purchased or used and all criteria for use are met, as detailed in 9 VAC 25-210-116 F.
- 5. Typographical errors need to be corrected.

#### J. VWP General Permit Authorization Termination for Cause

This VWP general permit authorization is subject to termination for cause by the board after public notice and opportunity for a hearing. Reasons for termination for cause are as follows:

- 1. Noncompliance by the permittee with any condition of the VWP general permit authorization;
- The permittee's failure in the application or during the VWP general permit authorization issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant facts at any time;
- 3. The permittee's violation of a special or judicial order; and
- A determination that the permitted activity endangers human health or the environment and can be regulated to acceptable levels by a VWP general permit authorization planned change or termination for cause.

#### K. VWP General Permit Authorization Termination by Consent

This VWP general permit authorization may be terminated by consent when all permitted activities requiring notification under 9 VAC 25-690-50 A and all compensatory mitigation have been completed or when the authorized impacts will not occur. The permittee shall submit a request for termination by consent within 30 days of project completion or project cancellation. When submitted for project completion, the termination by consent shall constitute a notice of completion in accordance with 9 VAC 25-210-130. The director may accept this termination of authorization on behalf of the board. The request for termination by consent shall contain the following information:

- 1. Name, mailing address and telephone number of the permittee;
- 2. Name and location of the activity;
- 3. The VWP permit authorization number; and
- 4. One of the following certifications:

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#### a. For project completion:

"I certify under penalty of law that all activities and any required compensatory mitigation authorized by a VWP general permit have been completed. I understand that by submitting this notice of termination I am no longer authorized to perform activities in surface waters in accordance with the VWP general permit, and that performing activities in surface waters is unlawful where the activity is not authorized by a VWP permit. I also understand that the submittal of this notice does not release me from liability for any violations of this VWP general permit authorization."

#### b. For project cancellation:

"I certify under penalty of law that the activities and any required compensatory mitigation authorized by this VWP general permit will not occur. I understand that by submitting this notice of termination I am no longer authorized to perform activities in surface waters in accordance with the VWP general permit, and that performing activities in surface waters is unlawful where the activity is not authorized by a VWP permit. I also understand that the submittal of this notice does not release me from liability for any violations of this VWP general permit authorization, nor does it allow me to resume the permitted activities without reapplication and reauthorization."

c. For events beyond permittee control, the permittee shall provide a detailed explanation of the events, to be approved by DEQ, and the following certification statement:

"I certify under penalty of law that the activities or the required compensatory mitigation authorized by a VWP general permit have changed as the result of events beyond my control (see attached). I understand that by submitting this notice of termination I am no longer authorized to perform activities in surface waters in accordance with the VWP general permit, and that performing activities in surface waters is unlawful where the activity is not authorized by a VWP permit. I also understand that the submittal of this notice does not release me from liability for any violations of this VWP general permit authorization, nor does it allow me to resume the permitted activities without reapplication and reauthorization."

#### L. Civil and Criminal Liability

Nothing in this VWP general permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

#### M. Oil and Hazardous Substance Liability

Nothing in this VWP general permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under § 311 of the Clean Water Act or §§ 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

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#### N. Duty to Cease or Confine Activity

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the activity for which a VWP permit has been granted in order to maintain compliance with the conditions of the VWP permit.

#### O. <u>Duty to Provide Information</u>

- The permittee shall furnish to the board any information which the board may request to determine
  whether cause exists for modifying, revoking and reissuing and terminating the VWP permit
  authorization, or to determine compliance with the VWP permit authorization. The permittee shall
  also furnish to the board, upon request, copies of records required to be kept by the permittee.
- Plans, maps, conceptual reports and other relevant information shall be submitted as required by the board prior to commencing construction.

#### P. Monitoring and Records Requirements

- Monitoring of parameters, other than pollutants, shall be conducted according to approved analytical methods as specified in the VWP permit. Analysis of pollutants will be conducted according to 40 CFR Part 136 (2000), Guidelines Establishing Test Procedures for the Analysis of Pollutants.
- Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- 3. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart or electronic recordings for continuous monitoring instrumentation, copies of all reports required by the VWP permit, and records of all data used to complete the application for the VWP permit, for a period of at least three years from the date of the expiration of a granted VWP permit. This period may be extended by request of the board at any time.
- 4. Records of monitoring information shall include, as appropriate:
  - a. The date, exact place and time of sampling or measurements;
  - b. The name of the individuals who performed the sampling or measurements;
  - c. The date and time the analyses were performed;
  - d. The name of the individuals who performed the analyses;
  - The analytical techniques or methods supporting the information such as observations, readings, calculations and bench data used;

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- f. The results of such analyses; and
- g. Chain of custody documentation.

#### Q. Unauthorized Discharge of Pollutants

Except in compliance with this VWP general permit, it shall be unlawful for the permittee to:

- Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances:
- 2. Excavate in a wetland:
- Otherwise alter the physical, chemical, or biological properties of state waters and make them detrimental to the public health, to animal or aquatic life, to the uses of such waters for domestic or industrial consumption, for recreation, or for other uses; or
- 4. On and after October 1, 2001, conduct the following activities in a wetland:
  - New activities to cause draining that significantly alters or degrades existing wetland acreage or functions:
  - b. Filling or dumping;
  - c. Permanent flooding or impounding; or
  - New activities that cause significant alteration or degradation of existing wetland acreage or functions.



#### DEPARTMENT OF THE ARMY NORFOLK DISTRICT CORPS OF ENGINEERS FORT NORFOLK 803 FRONT STREET NORFOLK, VIRGINIA 23510-1096

#### REGIONAL PROGRAMATIC GENERAL PERMIT 12-SPGP-01

Effective Date: May 31, 2012 Expiration Date: May 31, 2017

I. AUTHORITIES: 12-SPGP-01 authorizes the discharge of dredged or fill material in nontidal waters, of the United States, including wetlands, associated with certain residential, commercial, and institutional developments and linear transportation projects within the geographical limits of the Commonwealth of Virginia and under the regulatory jurisdiction of the U.S. Army Corps of Engineers, Norfolk District (Corps or Norfolk District). These projects must have no more than minimal individual and cumulative impacts and must meet all the terms and conditions outlined herein. The use of 12-SPGP-01 is restricted to those projects that have avoided and minimized impacts to waters of the U.S., including wetlands, to the maximum extent practicable.

The people of the Commonwealth of Virginia (Virginia or "the Commonwealth") are hereby authorized by the Secretary of the Army and the Chief of Engineers, pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. § 403) and Section 404 of the CWA (33 U.S.C. § 1344), to perform the aforementioned work in nontidal waters and wetlands of the Commonwealth as described herein. The Corps' authority and guidance to develop general permits is contained in 33 U.S.C. § 1344(e) and 33 C.F.R. § 325.2(e)(2), 33 C.F.R. § 325.3(b), and Corps Regulatory Guidance Letter 83-7.

#### II. PROCEDURES:

- A. Delineation Confirmations: Prior to the submission of an application for any Residential, Commercial, or Institutional Development Activity or Linear Transportation Activity covered by 12-SPGP-01, a proponent must first obtain a confirmed delineation of all waters of the U.S., including wetlands, and Virginia state surface waters on the property. The applicant will contact the Corps to obtain a delineation confirmation. A confirmed delineation is not required for Virginia Department of Transportation (VDOT) linear transportation projects (these projects must adhere to separate, but similar, procedures). When appropriate a delineation confirmation may also be required from the Environmental Protection Agency (EPA).
- **B.** Application: Applicants must use the newest version of Joint Permit Applications (JPAs) and submit these applications to the Virginia Marine Resources Commission (VMRC). The applicable Virginia Water Protection (VWP) permit regulations define the information required for a complete VWP permit application (see 9 VAC 25-210-80, 9 VAC 25-660-50, 9 VAC 25-670-50, 9 VAC 25-680-50, and 9 VAC 25-690-50). This information, plus a confirmed

delineation from the Corps with associated map(s) and data sheets, will be required to render an application complete for 12-SPGP-01 purposes. VDOT will submit the Inter-Agency Coordination Meeting JPA or the VDOT Reporting Only Spreadsheet. A joint permit application may be obtained through the following link: <a href="http://www.nao.usace.army.mil/Regulatory">http://www.nao.usace.army.mil/Regulatory</a> Branch/JPA.asp

- C. State Approvals: In order for 12-SPGP-01 to be valid, permittees must obtain the following state approvals prior to commencement of work in waters of the U.S.:
  - 1. Virginia Department of Environmental Quality (VDEO) VWP permit and
  - 2. VMRC permit, when required

For the purpose of resolving non-compliance and/or enforcement actions the 12-SPGP-01 may be issued or modified in conjunction with a VDEQ informal resolution, letter of agreement, executive compliance agreement or consent order. Authorizations under 12-SPGP-01 also require that permittees ensure that their projects are designed and constructed in a manner consistent with all state and local requirements pursuant to the Chesapeake Bay Preservation Act (Virginia Code 10.1-2100 et seq.) and the Chesapeake Bay Preservation Area Designation and Management Regulations (9 VAC 10-20-10 et seq.), the Virginia Erosion and Sediment Control Regulations (4 VAC 30-50-10 et seq.), and the Virginia Stormwater Management Program (VSMP) Permit Regulation (4 VAC 50-60-10 et seq.). Authorizations under 12-SPGP-01 do not supersede state or local government authority or responsibilities pursuant to the Act.

#### D. Definitions:

- a. For purposes of 12-SPGP-01, "loss" of waters of the U.S., including wetlands, shall be defined as filling (including placement of pipes or other water conveyances in waters) and other permanent adverse effects, including mechanized landclearing, permanent conversion, excavation (including channelization), flooding, draining, etc. The acreage/linear footage of loss of waters of the U.S. is the threshold measurement of the impact to existing waters, including wetlands, for determining whether a project may qualify for 12-SPGP-01; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and values.
- b. For purposes of 12-SPGP-01, "natural stream design" means that the channel should mimic the dimension, pattern, and profile of a representative reference stream reach.
- c. For purposes of 12-SPGP-01, VDEQ is the state agency responsible for ensuring permit applications meet the informational and technical requirements of the 12-SPGP-01 and for issuance of 12-SPGP-01 authorizations for qualifying Residential, Commercial, Institutional and Linear Transportation projects.
- d. For purposes of 12-SPGP-01, the "permittee" will be the responsible party in receipt of the 12-SPGP-01 authorization from the VDEQ. The permittee will be the responsible party for complying with all 12-SPGP-01 general conditions as well as any additional special conditions required of each project.

e. For purposes of 12-SPGP-01, "lateral encroachment" is when a road, utility or other project encroaches into waters of the U.S., including wetlands, but does not cross the resource perpendicularly or diagonally.

#### III. AUTHORIZED ACTIVITIES

### A. Residential, Commercial, and Institutional Development Activities:

#### a. Eligibility Criteria:

- i. Activities are subject to Corps jurisdiction;
- ii. Activity involves the discharge of dredged or fill material associated with residential, commercial, and institutional projects causing the permanent loss of not more than one acre of nontidal wetlands or open waters or the permanent loss of not more than 2,000 linear feet of stream channel, unless otherwise excluded by 12-SPGP-01:
- iii. Activity meets the general conditions of 12-SPGP-01 listed on pages 7-14 and any special conditions required of each project-specific authorization;
- iv. Compensatory mitigation is provided in accordance with the mitigation standards and general conditions on pages 10 -11; and
- v. Discharges associated with residential, commercial, and institutional development activities include those outlined in the VDEQ's General Permits (see 9 VAC 25-660 et seq., 9 VAC 25-670 et seq., 9 VAC 25-670 et seq., 9 VAC 25-680 et seq., and 9 VAC 25-690 et seq.) and are associated with the construction or expansion of residential, commercial, or institutional building foundations, building pads, and attendant features that are necessary for the use and maintenance of the structures. Attendant features may include, but are not limited to, roads, parking lots, garages, yards, utility lines, stormwater management facilities, and recreational facilities such as playgrounds, playing fields, and golf courses (provided the golf course is an integral part of the residential development). Residential developments include multiple and single unit developments. Commercial developments include retail stores, industrial facilities, restaurants, business parks, and shopping centers. Institutional developments include schools, fire stations, government office buildings, judicial buildings, public works buildings, libraries, hospitals, and places of worship. For residential, commercial, and institutional developments, the aggregate permanent loss of waters of the U.S. cannot exceed one acre of nontidal wetlands or open water; or 2,000 linear feet of stream.
- vi. Residential, commercial, or institutional developments are consistent with the Corps' subdivision guidance dated March 15, 1993 and June 2, 1999, the Corps' and VDEQs' joint subdivision guidance dated June, 2007 and/or any subsequent guidance that supersedes or supplements those documents.

#### b. Federal Screening Procedures:

i. All residential, commercial, and institutional development activities that will cause or result in impacts to tidal waters, including wetlands, and/or permanent impacts that exceed ½ acre of non-tidal wetlands or open waters and/or exceed 300 linear feet of stream channel will be coordinated with the Corps, the U.S. Environmental Protection Agency (EPA), and the U.S. Fish and Wildlife Service (FWS) for federal review.

- ii. If EPA or FWS determines that there are project-specific concerns regarding avoidance and/or minimization of impacts to the aquatic environment or concerns regarding the amount and/or type of compensatory mitigation being proposed, the applicant will be required to address those concerns. If the concerns are not addressed to the satisfaction of the objecting agency(ies), the Corps District Commander may exert his/her discretionary authority to require the project to be processed under the Corps' individual permit process.
- iii. Any Corps' concerns shall be relayed to the VDEQ and addressed during the VDEQ permitting process. If concerns are not satisfied through that process, the Corps District Commander may exert his/her discretionary authority to require the project to be processed under an alternate Corps permitting process, possibly as an individual permit.

#### B. Linear Transportation Activities:

#### a. Eligibility Criteria:

- Activities are subject to Corps jurisdiction;
- ii. Activities involve the discharge of dredged or fill material associated with the construction, expansion, modification, or improvement of linear transportation projects not causing the permanent loss of more than 1/3 acre of waters of the U.S., including wetlands, at any single impact site with independent utility, unless otherwise excluded by 12-SPGP-01;
- iii. Activity meets all general conditions of 12-SPGP-01 listed on pages 7-14 and any special conditions required of each project-specific authorization;
  - iv. Compensatory mitigation is provided for all unavoidable impacts to wetlands;
- v. Compensatory mitigation is provided for all unavoidable stream impacts where total permanent impacts exceed 300 linear feet of stream channel (or mitigation for any lower level of impact if it is determined that it is necessary to ensure that a project's impacts are minimal in nature) in accordance with the mitigation standards general condition on pages 10-11. Stream relocation using natural stream design may be considered self-mitigating, as determined on a case-by-case basis;
- vi. Lateral encroachments may be authorized by the 12-SPGP-01 if the project meets the following criteria:

- 1. Impacts due to all project lateral encroachments, including stream relocations, do not exceed 1/3 acre of waters of the United States or 2,000 linear feet of stream channel;
- 2. Total project lateral encroachments do not cause the permanent loss of more than 300 linear feet of stream channel due to the installation of piping, riprap, concrete, etc;
- 3. All project lateral encroachments exceeding 300 linear feet of stream channel are performed using natural stream design (unless waived in writing); and
- 4. Impacts due to lateral encroachment(s), new alignment projects and/or projects that impact the same aquatic resources multiple times will be considered cumulative for the entire project regardless of whether segments of that project may have independent utility:
- vii. Discharges associated with linear transportation projects include the construction, expansion, modification, or improvement of highways, roads, railways, trails, and airport runways and taxiways. Construction and/or relocation of utility lines within the right-of-way/easements of the project and performed in direct relation with the project are covered under this activity, with impacts counting toward permit thresholds.

#### b. Federal Screening Procedures:

- i. All linear transportation activities involving permanent impacts that exceed 300 linear feet of stream channel at any single impact area OR containing multiple single and complete impact areas on the same project that additively exceed 1/3 acre of impact to waters of the United States, including wetlands and/or exceed 300 linear feet of stream channel (lateral or crossing impact) will be reviewed by the Corps, the EPA, and the FWS.
- ii. If EPA or FWS determines that there are project specific concerns regarding avoidance and/or minimization of impacts to the aquatic environment or the amount and/or type of compensatory mitigation being proposed, the applicant will be required to address those concerns. If the concerns are not addressed to the satisfaction of the objecting agency(ies), the Corps District Commander may exert his/her discretionary authority to require the project to be processed under the Corps' individual permit process.
- iii. Any Corps' concerns shall be relayed to the VDEQ and addressed during the VDEQ permitting process. If concerns are not satisfied through that process, the Corps District Commander may exert his/her discretionary authority to require the project to be processed under an alternate Corps permitting process.
- c. <u>VDOT Reporting-Only Procedures:</u> VDOT may report by spreadsheet on a monthly basis to the VDEQ those VDOT projects meeting the following eligibility criteria:
- i. Permanent impacts do not exceed 1/10 acre of waters of the United States, including wetlands; the definition of independent utility must be applied when determining permanent impact totals;

- ii. Section 7 Endangered Species Act Review has been completed, includes FWS concurrence with findings, if needed;
- iii. Section 106 finding of "No Effect" has been reviewed and approved by the VDEQ-Cultural Resource Specialist; and
- iv. For projects with cumulative impacts exceeding 300 linear feet of stream channel, a pre-coordination email will be sent to the Corps with a project description, impacts, topographic quadrangle and photos. The VDEQ and VDOT Central Office will be copied on the email. If the Corps concurrence that project can be included on the spreadsheet, VDOT will include the Corps concurrence email with the spreadsheet submittal. No additional Norfolk District review will be required. If the Corps does not concur that project can be included on the spreadsheet, VDOT will submit a JPA through its interagency coordination meeting and will include the Corps' response email in the application.
- C. Exclusions from Coverage: The following activities and resources areas are excluded from coverage by 12-SPGP-01 and require different types of Corps permits:
- a. Conversion of waters and/or wetlands for agricultural production and agriculturerelated activities (crop fields or pasture); farm buildings; grain storage facilities; grassed waterways; low water crossings; impoundments for irrigation, livestock watering, and fire prevention purposes; animal feeding operations; waste storage facilities; and farm access roads;
- b. Wetland areas composed of 10% or more of the following species (singly or in combination) in any stratum: Atlantic white cedar (*Chamaecyparis thyoides*), bald cypress (*Taxodium distichum*), water tupelo (*Nyssa aquatica*), or overcup oak (*Quercus lyrata*) (Percentages may be based on stem counts, basal area, or percent aerial cover);
- c. Wetland areas underlain by histosols (Histosols are organic soils that are often called mucks, peats, or mucky peats. The list of histosols includes, but is not limited to, the following soil series: Back Bay, Belhaven, Dorovan, Lanexa, Mattamuskeet, Mattan, Palms, Pamlico, Pungo, Pocaty, and Rappahannock;
  - d. Placement of septic tanks (does not include alternate onsite sewer systems);
  - e. Residential gardening, lawn maintenance and landscaping;
- f. Construction of extended-detention basins and enhanced extended-detention basins designed, constructed, and maintained to function in accordance with the current Virginia Department of Conservation and Recreation (DCR) standards for such facilities or local standards that, at a minimum meet the DCR standards, unless the following requirements are met:
- i. The area within the entire basin and back-flooding limits are considered as permanent impacts. For the purposes of the 12-SPGP-01, back-flooding limits are defined as

back-flooding that will not be released within 24 hours if the activity is east of I-95, or back-flooding that will not be released within 48 hours if the activity is west of I-95.

- ii. The proposed basins are attendant features associated with a "single and complete" residential, commercial, institutional or linear transportation project;
- g. Construction or maintenance of farm or stock ponds that do not fall under the authority of the Virginia Soil and Water Conservation Board pursuant to Article 2 (§10.1-604 *et sea.*) of Chapter 6 pursuant to normal agricultural or silvicultural activities; and
- h. Discharges of dredged or fill material associated with residential, commercial, and institutional activities causing the permanent loss of more than one acre of nontidal wetlands or open waters or waters or over 2.000 linear feet of stream channel.
- **IV. GENERAL CONDITIONS:** The following conditions apply to all activities authorized under 12-SPGP-01. Work that does not meet one or more of the terms and general conditions of 12-SPGP-01, including work that has been determined to be more than minimal in nature (at any impact level), will require consideration under a different type of Corps permit.
- 1. **Other permits.** Authorization does not obviate the need to obtain other Federal, state, or local authorizations required by law or to comply with all Federal, state, or local laws.
- 2. **Minimal effects.** Projects authorized shall have no more than minimal individual or cumulative adverse environmental impacts, as determined by the Corps.
- 3. **Discretionary authority.** The Corps District Commander retains discretionary authority to require processing of an individual permit based on concerns for the aquatic environment or for any other factor of the public interest (33 C.F.R. § 320.4(a)). This authority is exercised on a case-by-case basis.
- 4. **Single and complete projects.** 12-SPGP-01 shall only be applied to single and complete projects. For purposes of 12-SPGP-01, a single and complete project means the total project proposed or accomplished by one owner/developer or partnership and which has independent utility. For linear transportation projects with multiple crossings or encroachments a determination of "single and complete" will typically apply to each crossing of waters that occurs (i.e., single waterbody and/or wetlands) at separate and distinct locations and with independent utility. However, in cases where there are many crossings in close proximity, numerous crossings of the same waterbody, multiple crossings, or multiple encroachments that otherwise may have more than minimal individual or cumulative impacts; the Corps has the discretion to consider all the crossings cumulatively as one single and complete project.
- 5. **Independent utility.** A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as a separate, single and complete project with independent utility. For a linear transportation project,

separate impact areas on a new location roadway are not considered to have independent utility thus impacts would be considered cumulatively and eligible for a single 12-SPGP-01 authorization. However, separate impact areas on a roadway that is being widened or where pipes are being replaced at multiple crossings are considered to have independent utility, and each crossing would be considered eligible for a separate 12-SPGP-01 authorization (impacts are not considered cumulatively for permitting, but are considered cumulatively when assessing the need for federal review).

- 6. Multiple general permit authorizations. The 12-SPGP-01 may be combined with other Corps general permits (including Nationwide, Regional or Letters of Permission) as long as the impacts are considered cumulatively and do not exceed the acreage limit or linear foot limits of the 12-SPGP-01. Two separate activities (e.g., Activity A and B), within 12-SPGP-01, may be combined as long as they do not exceed the acreage or linear footage threshold of the activity with the highest specified acreage or linear footage threshold.
- 7. **Permit on-site.** The permittee shall ensure that a copy of 12-SPGP-01 and the accompanying authorization letter are at the work site at all times. These copies must be made available to any regulatory representative upon request. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors shall be expected to comply with all conditions of any 12-SPGP-01 authorization.

#### General Conditions Related to other federal laws or programs:

- **8. Historic Properties.** Any activity authorized shall comply with Section 106 of the National Historic Preservation Act. If the permittee, during construction or work authorized herein, encounters a previously unidentified archaeological or other cultural resource, he/she must immediately stop work and notify the Corps and the VDEQ of what has been found. Coordination with the Virginia Department of Historic Resources will commence and the permittee will subsequently be advised when he/she may recommence work.
- **9. Tribal Rights.** No activity authorized may impair reserved tribal rights, including, but not limited to, reserved water rights, treaty fishing and hunting rights.
- 10. Federal Lands. Authorized activities shall not impinge upon the value of any National Wildlife Refuge, National Forest, National Park, or any other area administered by the FWS, U.S. Forest Service, or National Park Service unless approval from the applicable land management agency is provided with the permit application.
- 11. Endangered Species. No activity is authorized under this 12-SPGP-01which may affect a proposed/listed threatened or endangered species or proposed/listed critical habitat (as identified under the Federal Endangered Species Act (ESA)), is likely to jeopardize the continued existence of such species or which will destroy or adversely modify the critical habitat of such species unless Section 7 consultation addressing the effects of the proposed activity has been completed.

- **a.** Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the VDEQ and Corps with the appropriate documentation to demonstrate compliance with those requirements.
- b. Non-federal permittees shall notify the VDEQ and Corps if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the VDEQ or Corps that the requirements of the ESA have been satisfied and that the activity is authorized. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the USFWS at: http://www.fws.gov/northeast/virginiafield/endspecies/Project\_Reviews.html and/or NOAA Fisheries Habitat Conservation Division, P.O. Box 1346, 7580 Spencer Road, Gloucester Point,
- **c.** Section 7 coordination will be performed in accordance with the NAO ESA Review Process. The applicant may not begin work until the VDEQ or Corps has notified them that the Section 7 consultation has been completed.

VA 23062.

- **d.** As a result of formal or informal consultation with the FWS or NOAA Fisheries the Corps District Commander may add species-specific regional endangered species conditions to the 12-SPGP-01.
- e. Authorization of an activity by 12-SPGP-01 does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NOAA Fisheries, both lethal and non-lethal "takes" of protected species are in violation of the ESA.
- 12. Bald and Golden Eagle Protection Act. The bald eagle (Haliaeetus leucocephalus) is no longer a federally listed threatened or endangered species; therefore, the Endangered Species Act provisions are not applicable to this species. The Bald and Golden Eagle Protection Act (BGEPA) does not require that a federal agency involved in permitting the proposed action conduct coordination. The coordination under the BGEPA is the responsibility of the applicant. The applicant should either obtain a FWS bald eagle take permit or a letter of concurrence from FWS indicating that a permit is not necessary prior to initiating construction activities. You should contact FWS concerning this matter at U.S. Fish and Wildlife Service, Virginia Field Office, ATTN: Kim Smith, 6669 Short Lane, Gloucester, VA 23061. Information on active bald eagle nests in the project area can be obtained via The Center for Conservation Biology (CCB) Virginia Eagles Nest Locator: http://www.ccb-wm.org/virginiaeagles/index.htm.
- 13. Wild and Scenic Rivers. Currently, there are no designated Wild and Scenic Rivers in the Commonwealth of Virginia; however, the portion of the Upper New River from Glen Lyn, Virginia to the West Virginia/Virginia state line was designated a "study river" by Congress on October 26, 1992. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system, while the river is in an official study status, unless the appropriate Federal agency

with direct management responsibility for such river has determined, in writing, that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Impacts that occur in these resource areas will require coordination with the appropriate Federal agency.

- 14. Department of Defense (DOD) Siting Clearinghouse Coordination. For all commercial and institutional development projects that include the construction of wind energy generating structures, solar towers, or overhead powerlines the VDEQ must coordinate the project with the DOD Clearinghouse. The VDEQ will send a copy of the joint permit application and SPGP authorization to the following address: Department of Defense Clearinghouse, Attn: Mr. Marshal Williams and Mr. Davis Blalock, 101 Marietta St., NW, Suite 3120, Atlanta, George 30303 or via email to: Frederick.m.williams28.civ@mail.mil and David.c.blalock2.civ@mail.mil.
- **15. Federal navigation projects.** Authorized activities may not interfere with any existing or proposed Federal navigation projects.
- 16. Navigation. (a) No authorized activity may cause more than a minimal adverse effect on navigation. (b) The permittee understands and agrees that if future operations by the United States require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his/her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
- 17. Floodplains. All practicable efforts shall be made to conduct the work authorized by 12-SPGP-01 in a manner so as to avoid any adverse impact on the Federal Emergency Management Agency (FEMA) designated 100-year floodplain.
- **18. Real estate.** Activities authorized under 12-SPGP-01 do not grant any Corps or Federal real estate rights. If real estate rights are needed from the Corps, you must contact the Corps Real Estate Office at (757) 201-7735 or at the address listed on the front page of this permit.
- **19.** Environmental justice. Activities authorized under 12-SPGP-01 must comply with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations".
- **20.** Federal liability. In issuing 12-SPGP-01, the Federal government does not assume any liability for the following: (a) damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes; (b) damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest; (c) damages to persons, property, or to other permitted or

unpermitted activities or structures caused by the activity authorized by 12-SPGP-01; (d) design or construction deficiencies associated with the permitted work; (e) damage claims associated with any future modification, suspension, or revocation of this permit.

#### **General Conditions Related to Minimizing Environmental Impacts:**

21. Avoidance and minimization. Except as provided under section 404(b)(2), no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.(40 CFR 230.10(a) Section 404 (b)(1) Guidelines).

#### 22. Mitigation standards.

- a. Wetland mitigation will generally be required for all residential, commercial, and institutional development projects where the total permanent impacts exceed 1/10 acre AND for all impacts on linear transportation projects. Generally, the minimum required wetland mitigation ratios will be as follows: 2:1 for forested wetlands, 1.5:1 for scrub-shrub wetlands, 1:1 for herbaceous emergent wetlands, and 1:1 for conversion of forested wetlands to herbaceous emergent wetlands. Mitigation for open waters impacts will be determined by the project manager on a case-by-case basis. All wetland mitigation will comply with the Corps-EPA Compensatory Mitigation for Losses of Aquatic Resources dated April 10, 2008 (33 CFR 325 and 332/40 CFR 230).
- b. <u>Stream mitigation</u> will generally be required for all residential, commercial, institutional developments AND linear transportation projects where the total permanent stream channel impacts exceed 300 linear feet. Minimum stream mitigation requirements will be determined using the current Corps and the VDEQ endorsed assessment methodology. All stream mitigation will comply with Corps-EPA Compensatory Mitigation for Losses of Aquatic Resources dated April 10, 2008 (33 CFR 325 and 332; 40 CFR 230).
- c. For the purposes of the 12-SPGP-01, definitions for enhancement, establishment (creation), preservation, and re-establishment will be consistent with the definitions listed in the Corps-EPA Compensatory Mitigation for Losses of Aquatic Resources dated April 10, 2008 (33 CFR 325 and 332; 40 CFR 230).
- **d.** Where local zoning ordinances provide for riparian and floodplain protection pursuant to the Chesapeake Bay Preservation Act (Virginia Code 10.1-2100 *et seq.*) and the Chesapeake Bay Preservation Area Designation and Management Regulations(9 VAC 1-20 *et seq.*), the use of buffers as a form of compensatory mitigation shall be allowed only (a) where the extent of the buffer exceeds the lateral extent already required by local ordinances pursuant to the Act and the regulations or (b) where the quality of the existing protected buffer *area* is enhanced to provide greater water quality protection benefits.
- 23. Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.

- **24. Temporary fills.** All temporarily disturbed waters and wetlands must be restored to their pre-construction contours within 6 months of commencing the temporary impact's construction. Impacts that will not be restored within 6 months (calculated from the start of the temporary impacts construction) will be considered permanent unless otherwise approved by the 12-SPGP-01. Once restored to their natural contours, soil in these areas must be mechanically loosened to a depth of 12 inches and wetland areas must be seeded or sprigged with appropriate native vegetation.
- **25. Sedimentation and erosion control.** Appropriate erosion and sediment controls must be employed and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark, must be permanently stabilized at the earliest practicable date.
- **26.** Aquatic life movements. Following consultation with the Virginia Department of Game and Inland Fisheries (DGIF), the Norfolk District has determined that fish and other aquatic organisms are most likely present in any stream being crossed, in the absence of site-specific evidence to the contrary. Although prospective permittees have the option of providing such evidence, extensive efforts to collect such information is not encouraged, since countersinking will in most cases be required with some exceptions as outlined below:
- **a.** Pipes should be adequately sized to allow for the passage of ordinary high water with the countersinking and invert restrictions taken into account.
- **b.** All pipes and culverts placed in streams will be countersunk at both the inlet and outlet ends, unless indicated otherwise by the Norfolk District on a case-by-case basis (see below). Pipes that are 24" or less in diameter shall be countersunk 3" below the natural stream bottom. Pipes that are greater than 24" in diameter shall be countersunk 6" below the natural stream bottom. The countersinking requirement does not apply to bottomless pipes/culverts or pipe arches. All single pipes or culverts (with bottoms) shall be depressed (countersunk) below the natural streambed at both the inlet and outlet of the structure. In sets of multiple pipes or culverts (with bottoms) at least one pipe or culvert shall be depressed (countersunk) at both the inlet and outlet to convey low flows.
- c. Extensions and certain maintenance: The requirement to countersink does not apply to extensions of existing pipes or culverts that are not countersunk, or to maintenance to pipes/culverts that does not involve replacing the pipe/culvert (such as repairing cracks, adding material to prevent/correct scour, etc.).
- **d.** Floodplain pipes: The requirement to countersink does not apply to pipes or culverts that are being placed above ordinary high water, such as those placed to allow for floodplain flows. The placement of pipes above ordinary high water is not jurisdictional (provided no fill is discharged into wetlands).
- **e.** Pipes on bedrock or above existing utility lines: Different procedures will be followed for pipes or culverts to be placed on bedrock or above existing buried utility lines where it is not

practicable to relocate the lines, depending on whether the work is for replacement of an existing pipe/culvert or a new pipe/culvert:

- i. Replacement of an existing pipe/culvert: Countersinking is not required provided the elevations of the inlet and outlet ends of the replacement pipe/culvert are no higher above the stream bottom than those of the existing pipe/culvert. Documentation (photographic or other evidence) must be maintained in the permittee's records showing the bedrock condition and the existing inlet and outlet elevations. That documentation will be available to the Norfolk District upon request, but notification or coordination with the Norfolk District is not otherwise required.
- ii. Replacement in a new location: If the prospective permittee determines that bedrock or an existing buried utility line that is not practicable to relocate prevents countersinking, he/she should evaluate the use of a bottomless pipe/culvert, bottomless utility vault, span (bridge) or other bottomless structure to cross the waterway, and also evaluate alternative locations for the new pipe/culvert that will allow for countersinking. If the prospective permittee determines that neither a bottomless structure nor an alternative location is practicable, then he/she must submit a pre-construction notification (PCN) to the Norfolk District in accordance with General Condition 31 of the NWPs. In addition to the information required by General Condition 31, the prospective permittee must provide documentation of measures evaluated to minimize disruption of the movement of aquatic life as well as documentation of the cost, engineering factors, and site conditions that prohibit countersinking the pipe/culvert. Options that must be considered include partial countersinking (such as less than 3" of countersinking, or countersinking of one end of the pipe), and constructing stone step pools, low rock weirs downstream, or other measures to provide for the movement of aquatic organisms. The PCN must also include photographs documenting site conditions. The prospective permittee may find it helpful to contact his/her regional fishery biologist for the Virginia Department of Game and Inland Fisheries (VDGIF), for recommendations about the measures to be taken to allow for fish movements. When seeking advice from VDGIF, the prospective permittee should provide the VDGIF biologist with all available information such as location, flow rates, stream bottom features, description of proposed pipe(s), slopes, etc. Any recommendations from VDGIF should be included in the PCN. The Norfolk District will notify the prospective permittee whether the proposed work qualifies for the nationwide permit within 45 days of receipt of a complete PCN. NOTE: Blasting of stream bottoms through the use of explosives is not acceptable as a means of providing for countersinking of pipes on bedrock.
- **f.** Pipes on steep terrain: Pipes being placed on steep terrain (slope of 5% or greater) must be countersunk in accordance with the conditions above and will in most cases be non-reporting. It is recommended that on slopes greater than 5%, a larger pipe than required be installed to allow for the passage of ordinary high water in order to increase the likelihood that natural velocities can be maintained. There may be situations where countersinking both the inlet and outlet may result in a slope in the pipe that results in flow velocities that cause excessive scour at the outlet and/or prohibit some fish movement. This type of situation could occur on the side of a mountain where falls and drop pools occur along a stream. Should this be the case, or should the prospective permittee not want to countersink the pipe/culvert for other reasons, he/she must submit a Pre-Construction Notification to the Norfolk District in accordance with General Condition 31 of the Nationwide Permits. In addition to the information required by General

Condition 31, the prospective permittee must provide documentation of measures evaluated to minimize disruption of the movement of aquatic life as well as documentation of the cost. engineering factors, and site conditions that prohibit countersinking the pipe/culvert. The prospective permittee should design the pipe to be placed at a slope as steep as stream characteristics allow, countersink the inlet 3-6", and implement measures to minimize any disruption of fish movement. These measures can include constructing a stone step/pool structure, preferably using river rock/native stone rather than riprap, constructing low rock weirs to create a pool or pools, or other structures to allow for fish movements in both directions. Stone structures should be designed with sufficient-sized stone to prevent erosion or washout and should include keying-in as appropriate. These structures should be designed both to allow for fish passage and to minimize scour at the outlet. The quantities of fill discharged below ordinary high water necessary to comply with these requirements (i.e., the cubic yards of stone, riprap or other fill placed below the plane of ordinary high water) must be included in project totals. The prospective permittee may find it helpful to contact his/her regional fishery biologist for the Virginia Department of Game and Inland Fisheries (DGIF), for recommendations about the measures to be taken to allow for fish movements. When seeking advice from DGIF, the prospective permittee should provide the DGIF biologist with all available information such as location, flow rates, stream bottom features, description of proposed pipe(s), slopes, etc. Any recommendations from DGIF should be included in the PCN. The Norfolk District will notify the prospective permittee whether the proposed work qualifies for the nationwide permit within 45 days of receipt of a complete PCN.

- g. Problems encountered during construction: When a pipe/culvert is being replaced, and the design calls for countersinking at both ends of the pipe/culvert, and during construction it is found that the streambed/banks are on bedrock, then the permittee must stop work and contact the Norfolk District (contact by telephone and/or email is acceptable). The permittee must provide the Norfolk District with specific information concerning site conditions and limitations on countersinking. The Norfolk District will work with the permittee to determine an acceptable plan, taking into consideration the information provided by the permittee, but the permittee should recognize that the Norfolk District could determine that the work will not qualify for a nationwide permit.
- h. Emergency pipe replacements: In the case of an emergency situation, such as when a pipe/culvert washes out during a flood, a permittee is encouraged to countersink the replacement pipe at the time of replacement, in accordance with the conditions above. However, if conditions or timeframes do not allow for countersinking, then the pipe can be replaced as it was before the washout, but the permittee will have to come back and replace the pipe/culvert and countersink it in accordance with the guidance above. In other words, the replacement of the washed out pipe is viewed as a temporary repair, and a countersunk replacement should be made at the earliest possible date. The Norfolk District must be notified of all pipes/culverts that are replaced without countersinking at the time that it occurs, even if it is an otherwise non-reporting activity, and must provide the permittee's planned schedule for installing a countersunk replacement (it is acceptable to submit such notification by email). The permittee should anticipate whether bedrock or steep terrain will limit countersinking, and if so, should follow the procedures outlined in (f) and/or (g) above.

- 27. Discharge of pollutants. All authorized activities involving any discharge of pollutants into waters of the United States shall be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the CWA (33 U.S.C. § 1251 et seq.) and applicable state and local laws. No discharge of dredged or fill material in association with this authorization may consist of unsuitable material such as trash, debris, car bodies, asphalt, etc.
- **28. Obstruction of high flows.** Discharges of dredged or fill material must not permanently restrict or impede the passage of normal or expected high flows.
- **29. Waterbird breeding areas.** Discharges of dredged or fill material into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.
- **30.** Native trout and anadromous fishes. Authorizations for discharges of dredged or fill material into native trout waters or anadromous fish spawning areas are conditioned to limit instream work within the timeframes recommended by the DGIF.
- 31. Water supply intakes. No discharge of dredged or fill material may occur in proximity of a public water supply intake.
- **32. Invasive Species.** Plant species on the most current *Virginia Department of Conservation and Recreation's Invasive Alien Plant List* shall not be used for replanting activities authorized by the SPGP. The list of invasive plants in Virginia may be found at: <a href="http://www.dcr.virginia.gov/natural">http://www.dcr.virginia.gov/natural</a> heritage/documents/invlist.pdf.

#### **General Procedural Conditions:**

- 33. Inspections. The permittee understands and agrees that the Corps and/or the VDEQ are permitted and allowed to make periodic inspections at any time the Corps or VDEQ deems necessary in order to assure that the activities being performed under authority of this permit are in accordance with the terms and conditions prescribed herein. The Corps reserves the right to require post-construction engineering drawings and/or surveys of any work authorized under12-SPGP-01, as deemed necessary on a case-by-case basis.
- **34. Maintenance.** The permittee shall maintain the work authorized herein in good condition and in conformance with all terms and conditions of this permit. All fills shall be properly maintained to ensure public safety.
- **35. Property rights.**12-SPGP-01 does not convey any property rights, either in real estate or material, or convey any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of Federal, state, or local laws or regulations.
- **36.** Modification, suspension, and revocation.12-SPGP-01 and individual verificationsunder12-SPGP-01 maybe either modified, suspended, or revoked in whole or in part pursuant to the policies and procedures of 33 C.F.R. § 325.7. Any such action shall notbe the basis for any claim for damages against the United States.

- **37. Restoration directive.** The permittee, upon receipt of a restoration directive, shall restore the waters of the United States to their former conditions without expense to the United States and as directed by the Secretary of the Army or his/her authorized representative. If the permittee fails to comply with such a directive, the Secretary or his/her designee, may restore the waters of the United States to their former conditions, by contract or otherwise, and recover the cost from the permittee.
- **38. Special conditions.** The Corps may impose other special conditions on a project authorized pursuant to 12-SPGP-01 that are determined necessary to minimize adverse navigational and/or environmental effects or based on any other factor of the public interest. Failure to comply with all conditions of the authorization, including special conditions, constitutes a permit violation and may subject the permittee, or his/her contractor, to criminal, civil, or administrative penalties and/or restoration.
- **39.** False or incomplete information. In granting authorization pursuant to this permit, the Corps has relied upon information and data provided by the permittee. If, subsequent to notification by the Corps or the VDEQ that a project qualifies for this permit, such information and data prove to be materially false or materially incomplete, the Corps may suspend or revoke authorization, in whole or in part, and/or the United States or Corps may institute appropriate legal proceedings.
- **40. Abandonment.** If the permittee decides to abandon the activity authorized under12-SPGP-01, unless such abandonment is merely the transfer of property to a third party, he/she may be required to restore the area to the satisfaction of the Corps.
- **41. Transfer of authorization.** In order to transfer authorization under12-SPGP-01, the transferee and permittee must supply the Corps and the VDEQ with a written and signed, by all appropriate parties, request to make such a transfer. Such transfer is not effective until written approval has been granted by the Corps or the VDEQ.
- **42. Binding effect.** The provisions of the permit authorization shall be binding on any assignee or successor in interest of the original permittee.

#### **General Conditions Regarding Duration of Authorizations:**

- **43. Duration of authorization.** Activities authorized under12-SPGP-01 must be completed by May 31, 2017.
- **44. Time extensions.** If a permittee is unable to complete the work authorized under12-SPGP-01 in the time limit provided in the initial authorization, he/she must submit a request for a time extension to the Corps and the VDEQ for consideration at least one month prior to the expiration of the permit authorization.

**45.** Expiration of12-SPGP-01. Unless further modified, suspended, or revoked, 12-SPGP-01 will be in effect until May 31, 2017. Upon expiration, it may be considered for revalidation. Activities which have commenced (i.e., are under construction) or are under construct to commence construction in reliance upon 12-SPGP-01 will remain authorized provided the activity is completed within twelve months of the date of this12-SPGP-01's expiration of May 31, 2017, unless discretionary authority has been exercised on a case-by-case basis to modify, suspend, or revoke the authorization in accordance with 33 CFR 325.7(a-e).

Date

PAUL B. OLSEN, P.E. Colonel, Corps of Engineers Commanding





# COMMONWEALTH of VIRGINIA

### Marine Resources Commission

Molly Joseph Ward Secretary of Natural Resources 2600 Washington Avenue Third Floor Newport News, Virginia 23607

John M.R. Bull Commissioner

May 16, 2016

Allure at Jefferson, LLC Attn: Brian Revere c/o Timmons Group 1001 Boulders Parkway, Suite 300 Richmond, VA 23225

Re:

VMRC #16-0635

Dear Mr. Revere:

We have received your application requesting authorization to impact 0.49 acres of non-tidal wetlands and 23 linear feet of intermittent stream channel to facilitate construction of the Allure at Jefferson multi-family apartment complex in Spotsylvania County.

Based upon a review of your application, your proposal does not fall within the jurisdiction of the Marine Resources Commission, therefore, no authorization will be required from this agency. For your information, you may need authorization from the U. S. Army Corps of Engineers and/or the Department of Environmental Quality (DEQ) prior to commencing your project. Your application has been forwarded to them.

If I may be of further assistance, please contact me at (757) 247-2251.

Sincerely,

Randal D. Owen

**Environmental Engineer** 

RDO/lra HM

cc:

Department of Environmental Quality #4

U. S. Army Corps of Engineers #5

Applicant





November 18, 2016

Virginia Department of Environmental Quality Office of Environmental Impact Review 629 East Main Street, Room 631 Richmond, VA 23219

Subject: Coastal Management Zone Consultation/Determination

Proposed Allure at Jefferson

Spotsylvania Parkway

Fredericksburg, Spotsylvania County, Virginia

### To Whom it May Concern:

This document provides the Commonwealth of Virginia with the U.S. Department of Housing and Urban Development's (HUD's) Consistency Determination under the Coastal Zone Management Act \$307(c) and 15 CFR 930, Subpart C, for the Proposed Allure at Jefferson, a HUD Section 221(d)(4) New This HUD program provides mortgage insurance for the development of Construction project. multifamily rental housing for moderate-income families. The information in this Consistency Determination is provided pursuant to 15 CFR \$930.39. HUD is currently processing an application for mortgage insurance, under its 221(d)(4) program, from Berkadia Commercial Mortgage, LLC, which will finance construction of Proposed Allure at Jefferson and The Breeden Company will be the owner and developer of the subject property. Proposed Allure at Jefferson is intended to provide for the establishment of a multi-family aspect in a larger mixed-use community sustaining residential and commercial structures as well as resource protection to be developed in several phases across multiple Landbays (as defined in the Generalized Development Plan). A Phase I ESA was conducted on the Proposed Allure at Jefferson multi-family residential portion (Landbay B) of the proposed development and immediate surrounding areas including Landbay A and a portion of Landbay C only. Berkadia Commercial Mortgage, LLC has engaged our environmental consulting firm to complete HUD's Form HUD-4128, Environmental Assessment and Compliance Findings for the Related Laws, which is a required component of the mortgage insurance application package. As part of this assignment, our firm has consulted with HUD's Richmond Field Office, which has authorized us to submit this Federal Consistency Determination letter to your office on their behalf. The development project that is the subject of this letter is described in the following paragraph.

The subject property consists of approximately 49.2 acres of undeveloped and wooded land identified as Parcel ID #36-A-22 and a portion of Parcel ID #36-2-1 according to Spotsylvania County tax records. In addition, a tributary of Massaponax Creek transects the southern portion of the subject property. The subject property is bounded by commercial structures, cleared undeveloped land, and a stormwater retention pond to the north; Interstate 95 to the east; undeveloped wooded land to the south; and Jefferson Davis Highway and undeveloped wooded land to the west. The development of the subject property will occur in two (2) Phases. Phase I will consist of an eleven (11) building, 338-unit complex with

an associated clubhouse and Phase II will consist of a three (3) building, 112-unit complex. The three (3) buildings associated with Phase II are not included within the scope of this ESA. Utilities were observed in the vicinity of the subject property.

Based on the proposed development plan, HUD has determined that the construction and operation of the Proposed Allure at Jefferson will have no adverse effect on the coastal uses and/or natural resources of Virginia that are addressed by the nine (9) enforceable policies of the Virginia Coastal Zone Management Program (VCP), as discussed below:

Enforceable Policy	Consistency Determination	Analysis
Fisheries Management	Consistent	Proposed project development will adhere to strict erosion and sediment control measures to prevent potential negative impacts to fish and other wildlife resources in Massaponnax Creek, the Rappahannock River, and the Chesapeake Bay. There are no surface features on or adjacent to the project site that support a commercial or recreational fishery; therefore, the project will be consistent with the fisheries management enforceable policy.
Subaqueous Lands Management	Consistent	There are no state-owned subaqueous bottom lands located on-site or adjacent to the subject property. The proposed undertaking will not impact subaqueous lands. However, the subject property is subject to permitting from the Virginia Water Protection General Permit (Permit #WP4-16-0635) produced by the Virginia Department of Environmental Quality (VA DEQ) dated June 7, 2016 and the U.S. Army Corps of Engineers (USACE) Regional Programatic General Permit (12-SPGP-01) dated May 31, 2012; therefore, the project will be consistent with the subaqueous lands management enforceable policy.
Wetlands Management	Consistent	According to the National Wetlands Inventory map accessed at <a href="http://www.fws.gov/wetlands/data/mapper.html">http://www.fws.gov/wetlands/data/mapper.html</a> there is a wetland area on the southern portion of the subject property associated with the on-site tributary of Massaponax Creek. In addition, during the site inspection areas of standing water and wetland vegetation were observed on the southern portion of the subject property. According to the NRCS Soil Survey, the southern portion of the subject property consists of soils that meet hydric criteria.  D3G was provided with the Virginia Water Protection General Permit (Permit #WP4-16-0635) produced by the

Virginia Department of Environmental Quality (VA DEQ) dated June 7, 2016 and the U.S. Army Corps of Engineers (USACE) Regional Programatic General Permit (12-SPGP-01) dated May 31, 2012 for review. The permits authorize the permanent or temporary impacts of up to two (2) acres of non-tidal wetlands or open water and up to 1,500 linear feet of non-tidal stream as defined by the DEQ. In addition, the permit authorizes the permanent impact of 0.49 acres of surface waters, consisting of 0.49 acres of Palustrine Forested Wetlands (PFO) and 0.001 acres (23 linear feet) of stream channel. Approved compensation shall be provided through the purchase of 0.98 wetland credits and 24 stream credits in accordance with the approved Mitigation Banking Instrument.

D3G was also provided with a Notice of Planned Change (NOPC) for a minor modification of the existing WP4-16-0635 and SPGP permits for produced by Timmons Group dated November 7, 2016. The NOPC indicates that the Virginia Department of Transportation (VDOT) is requiring the access road and entrance to the facility to include a turn lane off of Route 1 in order to facilitate future traffic volume to the entire General Development Plan. The addition of the turn lane will require the extension of culverts underneath Route 1 by approximately 45 feet east along the unnamed tributary to Massaponax Creek. As a result, the Notice of Planned Change (NOPC) for a minor modification of the existing WP4-16-0635 and SPGP permits requests authorization for an additional 0.04 acres of impacts to Palustrine Forested Wetlands (PFO) as well as 77 feet of R3 stream channel, bringing the total projected impacts to 0.51 acres of PFO and 100 linear feet of stream channel. Approved compensation would need to be modified to 1.03 total wetland credits and 121 stream credits. The NOPC includes the most up to date Impacts Maps that detail the delineated on-site wetlands and streams, and detail the areas of permanent and temporary wetlands and stream impacts resulting from the proposed development.

Compliance with Executive Order 11990, "Protection of Wetlands" will be demonstrated, and procedures contained in 24 CFR Part 55 will be implemented by the completion of the 8-Step Process which is intended to address the requirements of Executive Order (EO) 11990, Protection of Wetlands. Therefore the project will be consistent with the wetland management enforceable policy.

Dunes Management	Consistent	There are no dunes of any kind located on or near the project site. The proposed undertaking will not result in the destruction or alteration of any primary dunes. Therefore, the proposed project will be consistent with the dunes management enforceable policy.
Non-point Source Pollution Control	Consistent	Approval of the project is contingent on the project's compliance with all applicable Federal, State, and local erosion and sediment control requirements. Based on the development activities that will occur, an erosion and sediment control plan for Phase I and Phase II of the development produced by Timmons Group dated November 6, 2015 has been developed in order to comply with the Virginia Erosion and Sediment Control Law and Regulations and the Virginia Stormwater Management Law and Regulations, both of which are administered by the Virginia Department of Environmental Quality (DEQ) Office of Stormwater Management. Therefore, the proposed project will be consistent with the Non-Point Pollution Control enforceable policy.
Point Source Pollution Control	Consistent	Due to the fact that the project area limit of disturbance exceeds one (1) acre appropriate stormwater permits will be obtained through the Virginia Pollutant Discharge Elimination System (VPDES) permit program and if required a Water Quality Certification. According to a General VPDES Permit for Discharges of Stormwater from Construction Activities (VAR10) Application dated June 21, 2016, upon approval general permit coverage will be issued to the operator. Therefore, the proposed project will be consistent with the Point Source Pollution Control enforceable policy.
Shoreline Sanitation	Consistent	The proposed undertaking does not include installation of septic tanks. Therefore, the proposed project will be consistent with the Shoreline Sanitation enforceable policy.
Air Pollution Control	Consistent	HUD approval of the subject property is contingent on the project's compliance with all applicable Federal, State, and local air quality control requirements. Specifically, HUD requires that the project must comply with the federal Clean Air Act, Executive Order 11738 and its implementing regulations, and Virginia's State Implementation Plan (SIP) requirements. Appropriate

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		provisions will be made to minimize impacts due to asphalt paving activities and implementing appropriate dust suppression measures during grading activities. There will be no open burning of construction materials or the use of special incineration devises used during rehabilitation activities. Use of equipment for construction would result in minor emissions; however none would violate Federal or Virginia air quality standards. General (air) permits are required for facilities that will emit regulated air pollutants above the exemption thresholds listed in 9VAC5-80-1105 of state regulations but less than one-hundred (100) tons per year (9VAC5, Chapter 80, Article 6). Based on the fact that the development of the subject property will result in emissions of regulated air pollutants below the exemption thresholds listed in 9VAC5-80-1105 and less than 100 tons per year, a general permit will not be required to be obtained. Therefore, the proposed project will be consistent with the Air Pollution Control enforceable policy.
Coastal Lands Management	Consistent	HUD approval of the subject property is contingent on the project's compliance with all applicable Federal, State, and local coastal lands management requirements. Specifically, HUD requires that the project must comply with the state Chesapeake Bay Preservation Act; the Chesapeake Bay Preservation Area Designation and Management Regulations; and the codes administered by the DEQ's Office of Stormwater Management. According to the Spotsylvania County GIS Viewer accessed at <a href="http://gis.spotsylvania.va.us/Spotsylvania/">http://gis.spotsylvania.va.us/Spotsylvania/</a> , the subject property is located within a Chesapeake Bay Preservation Area (RMA, RPA) therefore, the project will have comply with the requirements of Spotsylvania County Planning Department regarding the development within the RPA/RMA. Therefore, the proposed project will be consistent with the Coastal Lands Management enforceable policy.

**FEDERAL CONSISTENCY DETERMINATION:** Based upon the information, data, and analysis presented above, HUD has determined that development of the Proposed Allure at Jefferson is consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Zone Management Program.

Although not required for the purposes of consistency, in accordance with 15 CFR §930.39(c), HUD has considered all of the advisory policies (recommendations) of the VCP and determined that



development of the Proposed Allure at Jefferson is consistent to the maximum extent practicable with these policies.

Please see the attached Draft Form HUD-4128, Environmental Assessment and Compliance Findings for the Related Laws, which supports HUD's Consistency Determination. The final version of this document, which includes all supporting documentation, constitutes HUD's Environmental Assessment of the project, which is required by the National Environmental Policy Act (NEPA).

Pursuant to 15 CFR §930.41, the Virginia Coastal Zone Management Program has 60 days from the receipt of this letter in which to concur with or object to this Consistency Determination, or to request an extension under 15 CFR §930.41(b). Virginia's concurrence will be presumed if its response is not received by HUD on the 60th day from receipt of this determination. The State's response should be sent to Dominion Due Diligence Group and HUD, at the following addresses.

Dominion Due Diligence Group Attn: Akisha Bolton 4121 Cox Road, Suite 200 Glen Allen, VA 23060

U.S. Department of Housing and Urban Development Richmond Field Office Attn: Kerry Johnson 600 East Broad Street, 3<sup>rd</sup> Floor Richmond, VA 23219

Any steps that your office can take to expedite your response to this Federal Consistency Determination will be appreciated by this firm and our client and by HUD. Please contact me if you have any questions or need additional documentation.

Sincerely;

**DOMINION DUE DILIGENCE GROUP** 

Akisha Bolton a.bolton@d3g.com

