

- On June 7, 2018, FHWA approved the Environmental Assessment (EA) re-evaluation.
  - Designation of High Occupancy Toll (HOT) lanes.
  - Limit of Disturbance (LOD) was widened.
  
- On October 28, 2018, FHWA issued a Finding of No Significant Impact (FONSI) for the Hampton Roads Crossing Study EA re-evaluation.
  - Increase in floodplain acreage associated with the Refined Selected Action is not considered significant.
  - Increase in wetland impacts have been considered in light of Executive Order 11990. No practicable alternative.

■ The HRBT Expansion project includes the following elements:

- Roadway Elements
  - Roadway signing, both ground-mounted and overhead.
  - Pavement marking, pavement markers, and delineators.
  - Roadway lighting.
  - Relocation of existing and installation of new intelligent transportation system (ITS) infrastructure and equipment.
  - Traffic signals.
  - Pavement widening to accommodate new lane configurations.
  - Drivable shoulders (inside) for part-time use.
  - Outside shoulders.
  - Retaining walls.
  - Sound barrier walls.
  - Full-depth construction on mainline roadway pavement.
  - Milling and asphalt overlay.
  - Removal and replacement of the overpass bridge at South Mallory Street, including any necessary improvements or realignment of Mallory Street.
  - Bridge widening, repair, and replacement.
  - Entrance/exit ramp modifications.

## ■ The HRBT Expansion project includes the following elements:

### ■ Marine Elements

- Two new two-lane HRBT tunnels, including new tunnel systems and associated facilities.
- New four-lane trestle-bridges(s).
- Removal and replacement of all existing tunnel approach trestle-bridges.
- Expansion of the existing North and South Islands of the HRBT.
- Installation of storm drain outfall pipes and stormwater management facilities.
- Temporary features including VPDES outfall pipes, temporary trestles, dock, small vessel access at Willoughby Spit
- Artificial reef.

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## ■ The HRBT Expansion project includes the following elements:

- Nine Design Sub-segments. Five are predominantly in the marine environment.
  - Segment 1b North Trestle-bridge
  - Segment 2a – tunnel
  - Segment 3a – South Trestle-bridge
  - Segment 3b – Willoughby Spit
  - Segment 3c – Willoughby Bay Trestle-bridge



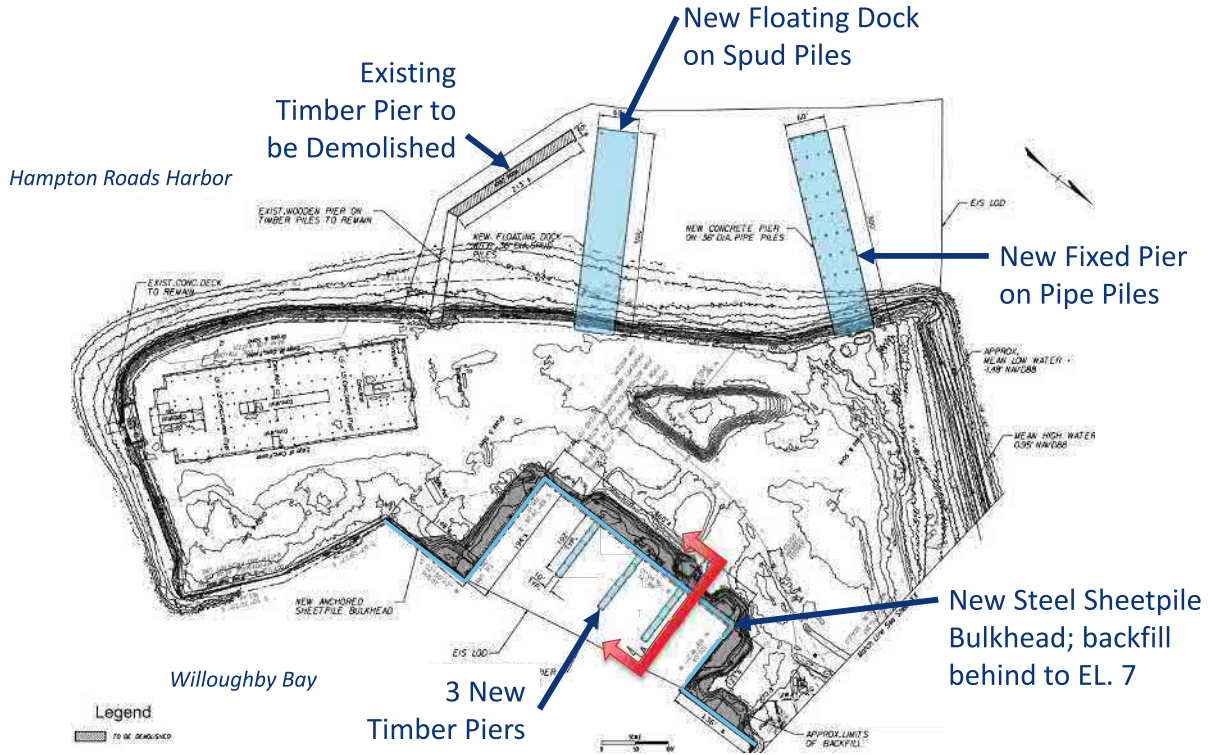
11

JPA Section 3 Segment 3b

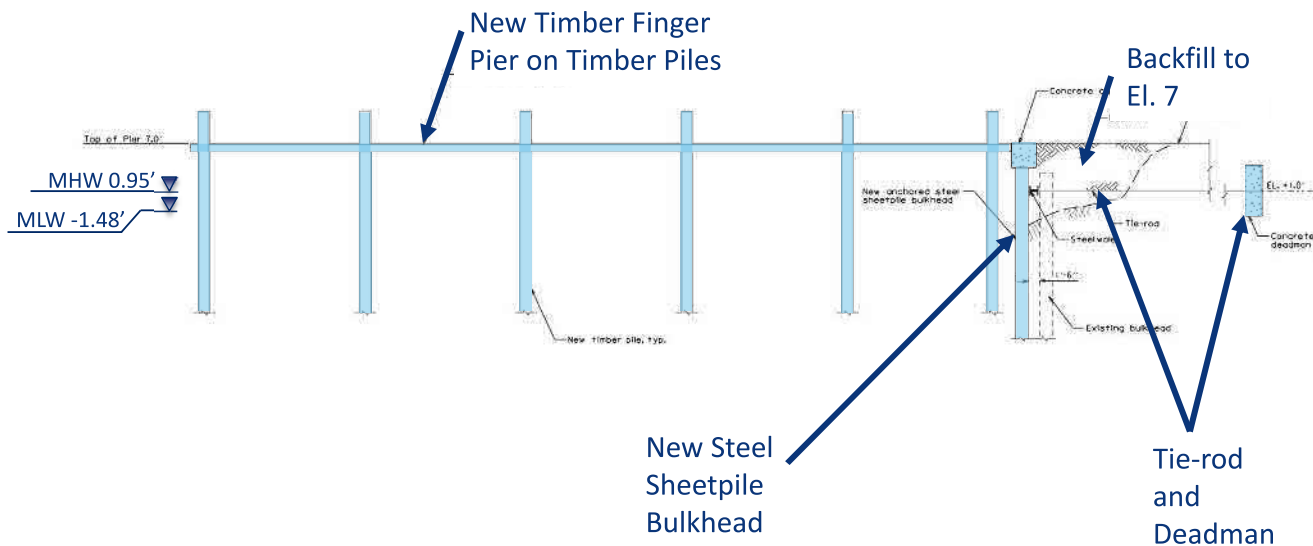


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Willoughby Spit marine structures



Willoughby Spit marine structures –Typical Section through new Bulkhead





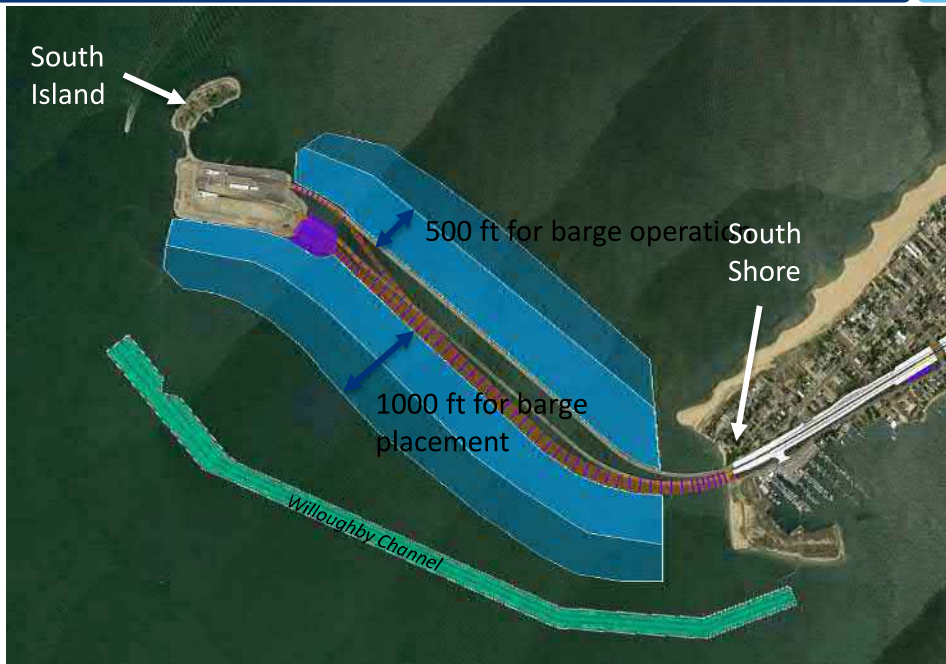
■ North Trestle

- Spud barges used in areas with more than 4.5 ft of water (at MLW)
- 15 +/- working barges
- First activity after receipt of the JPA
- Last activity in September 2024 + 6 months to remove structures

JPA Section 3

■ North & South Islands

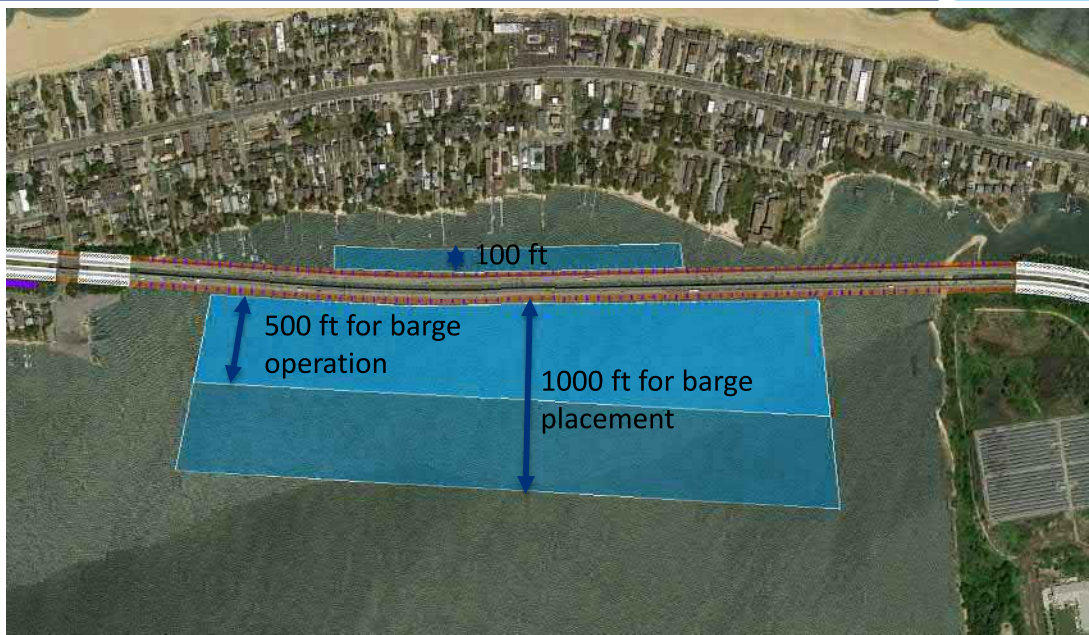
- Mooring area to be created near North and South Island Expansions
- 1 mooring pile (42" pipe pile) every 40FT around the footprint of the islands
- Spud barges used in areas with more than 4.5 ft of water (at MLW)
- 1000 ft from expansion boundary for barge anchoring
- 500 ft from expansion boundary for barge operation
- At peak, ~15 working barges
- First activity after receipt of the JPA
- Last activity in September 2024 + 6 months to remove structures



■ South Trestle

- Spud barges used in areas with more than 4.5 ft of water (at MLW)
- At peak, ~25 working barges
- First activity after receipt of the JPA
- Last activity in September 2024 + 6 months to remove structures

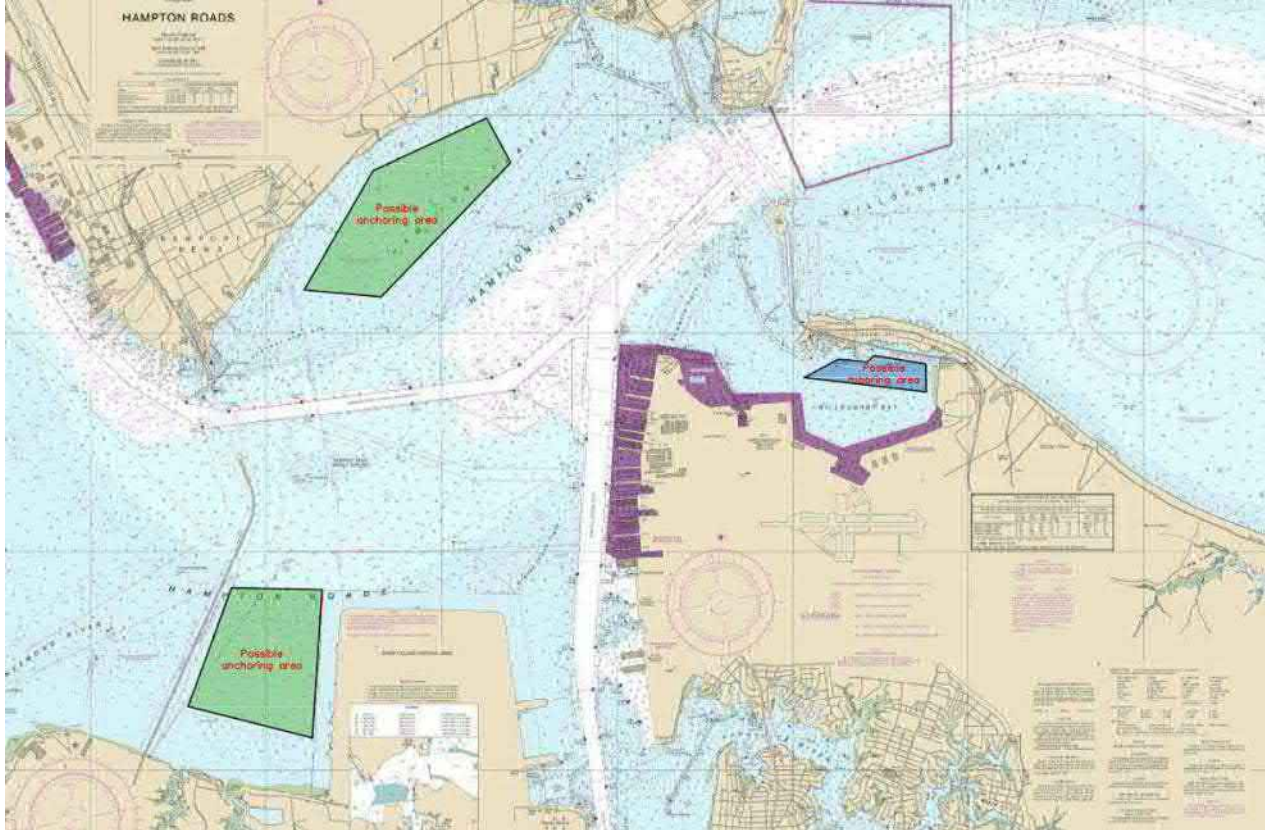
JPA Section 3 - Segment 2-c



■ Willoughby Bay

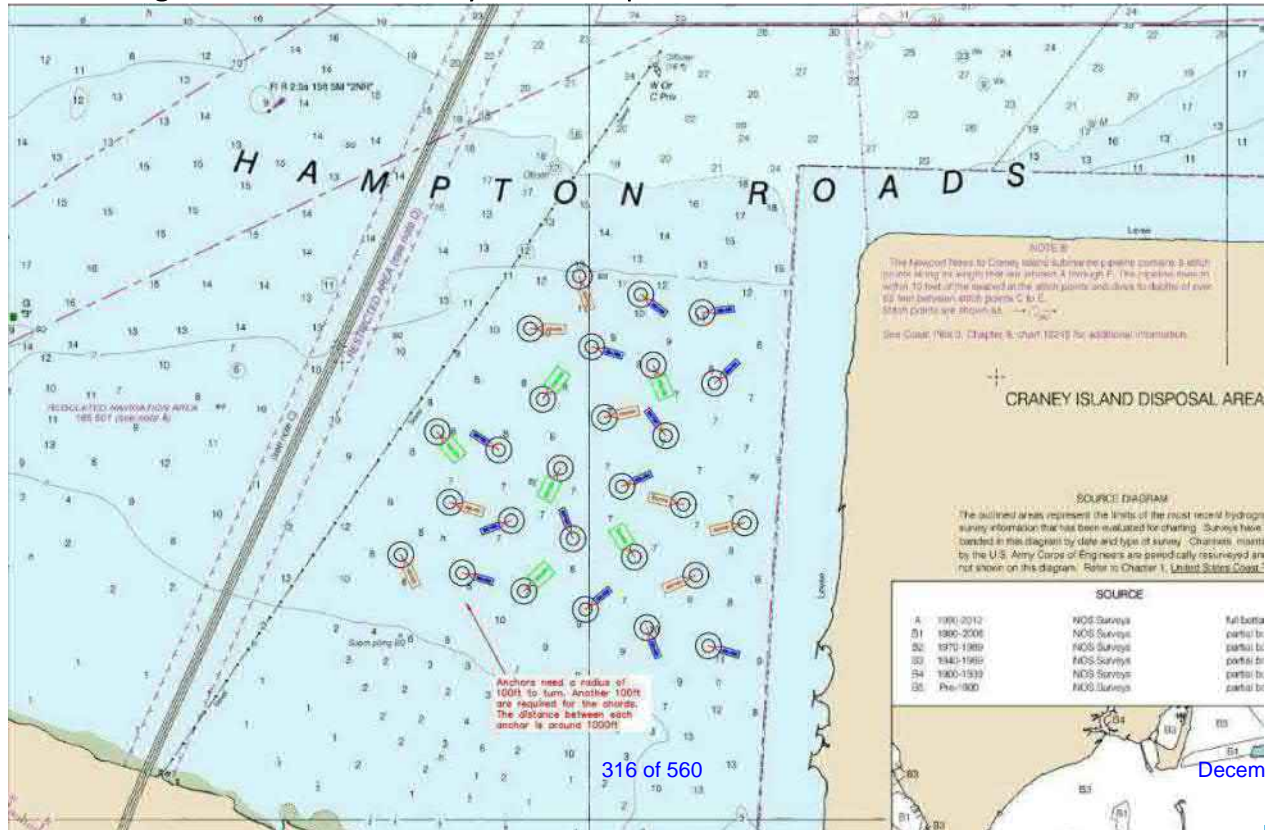
- Mooring area to be created in Willoughby Bay with mooring piles (42" pipe piles)
- Spud barges used in areas with more than 4.5 ft of water (at MLW)
- At peak, ~15 working barges
- First activity after receipt of the JPA
- Last activity in December 2024 + 3 months to remove structures

Mooring and anchorage areas



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Anchorage area west of Craney Island Disposal Area

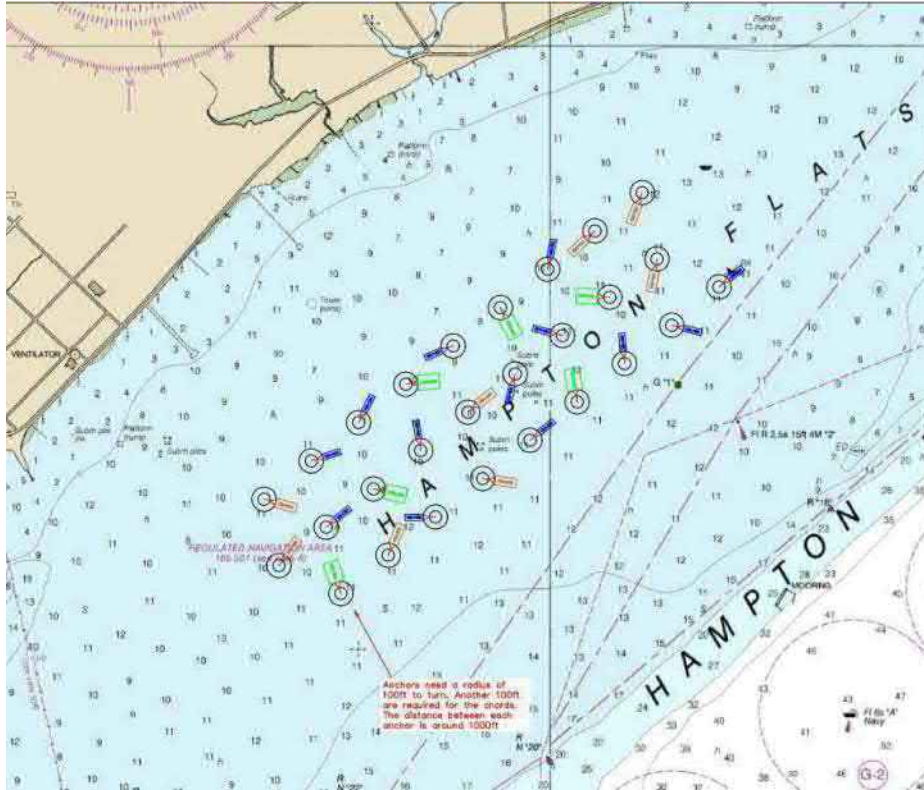


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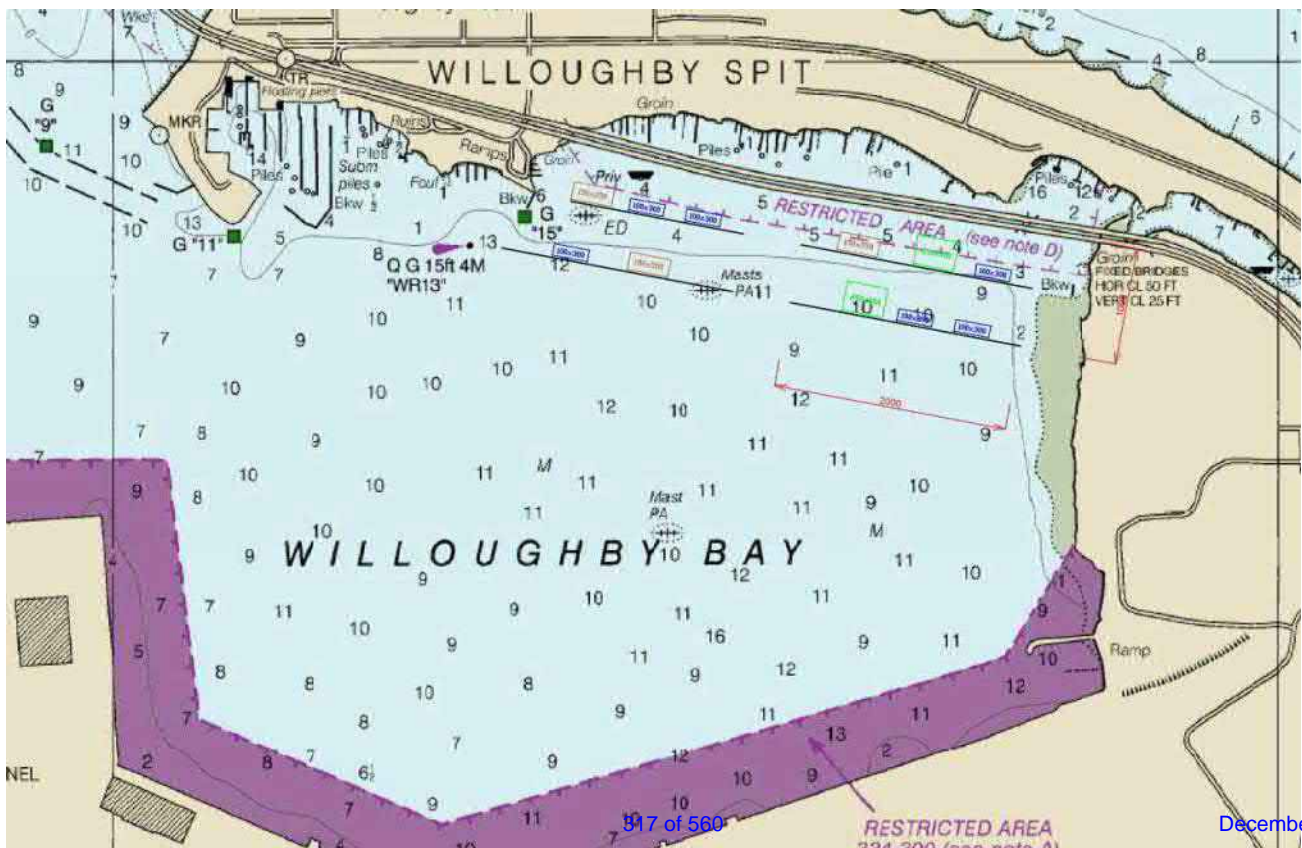
December 19, 2019

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Anchorage area - Hampton Flats



JPA Section 3 - Willoughby Bay Anchorage Area





- Public Notification – HRCP will provide addressed labels
  - USACE: Adjacent to the project site
  - VADEQ: ¼ mile up/down Stream

	A	B	C	D	E	F	G	H	I	J
	OWNER NAME	OWNER ADDRESS	OWNER CITY	OWNER STATE	OWNER ZIP	PARCEL ADDRESS	PARCEL CITY	PARCEL STATE	PARCEL ZIP	PARCEL ID
1	ADAMS OUTDOOR ADVERTISING	5547 E VIRGINIA BEACH BLVD	NORFOLK	VA	23502	EATON ST	HAMPTON	VA	23066	P650
2	ADAMS OUTDOOR ADVERTISING	5547 E VIRGINIA BEACH BLVD	NORFOLK	VA	23502	752 N KING ST	HAMPTON	VA	23066	P662
3	ADAMS OUTDOOR LTD PARTNERSHIP	5547 E VIRGINIA BEACH BLVD	NORFOLK	VA	23502	1018 THOMAS ST	HAMPTON	VA	23066	P598
4	Alan Dale Phillips, Et Al	9311 Phillip Ave	Norfolk	VA	23503-3327	9318 Atwood Av	Norfolk	VA	23503	P663
5	Alan Dale Phillips, Et Al	9311 Phillip Ave	Norfolk	VA	23503-3327	9311 Phillip Av	Norfolk	VA	23503-3327	P667
6	Alan Gregory & Brandy Lynn Gennetta	8581 Granby St	Norfolk	VA	23503-4815	8581 Granby St	Norfolk	VA	23503-4815	P850
7	Albert N & Mary E Williams	1209 Little Bay Ave	Norfolk	VA	23503-1206	5 S Willoughby Bay Av	Norfolk	VA	23503-0000	P743
8	Albert N Williams, Et Als	1201 Little Bay Ave	Norfolk	VA	23503-1206	1201 Little Bay Av	Norfolk	VA	23503-1208	P967
9	Alexaco, Llc	255 W Ocean View Ave Apt 12	Norfolk	VA	23503-1549	1411 W Ocean View Av	Norfolk	VA	23503-1045	P1011
10	Alexander W Renard	148 Swanson Rd	Norfolk	VA	23503-4730	148 Swanson Rd	Norfolk	VA	23503-4730	P619
11	ALFREDO C FINCH ET LIX	118 SEGAR ST	HAMPTON	VA	23063	118 SEGAR ST	HAMPTON	VA	23063	P233
12	ALPHONSO SPRUELL ET LIX ET AL	913 QUASH ST	HAMPTON	VA	23066	913 QUASH ST	HAMPTON	VA	23066	P464
13	Andrea L Hussien	9250 Hickory St	Norfolk	VA	23503-3354	9250 Hickory St	Norfolk	VA	23503-3354	P670
14	Andy L Cabanes	9290 Phillip Ave	Norfolk	VA	23503-3226	9290 Phillip Av	Norfolk	VA	23503-3326	P727
15	Anna M Brown	7141 Hunters Chase	Norfolk	VA	23518	211 Ridgewell Cir	Norfolk	VA	23503-4220	P687
16	Annamarie Fitzgibbons	9223 Mason Creek Rd	Norfolk	VA	23503-2706	9223 Mason Creek Rd	Norfolk	VA	23503-2706	F706
17	ANNETTE M SEARS	801 LANGLEY AVE	HAMPTON	VA	23069	801 LANGLEY AVE	HAMPTON	VA	23069	P467
18	Anqiyang Et Ala	9455 Garnett Ave	Norfolk	VA	23503-3312	9455 Garnett Av	Norfolk	VA	23503-3312	P671
19	ANTHONY D GRUBER	325 BASSETTE ST	HAMPTON	VA	23069	325 BASSETTE ST	HAMPTON	VA	23069	P447
20	Anthony H & Sandra G English	1217 Little Bay Ave	Norfolk	VA	23503-1206	5 S Willoughby Bay Av	Norfolk	VA	23503-0000	P822
21	ANTHONY J & GRETTA D MOISER	421 COLBERT AVE	HAMPTON	VA	23069	421 COLBERT AVE	HAMPTON	VA	23069	P446
22	April L & Michael L Davis	925 Pollin Ln Se	Vienna	VA	22182-4907	9256 Peachtree St	Norfolk	VA	23503-3336	P725
23	Arthur A & Jean F Martin	1227 Little Bay Ave	Norfolk	VA	23503-1206	5 S Willoughby Bay Av	Norfolk	VA	23503-0000	P759
24	Arthur A & Jean F Martin	1227 Little Bay Ave	Norfolk	VA	23503-1206	5 S Willoughby Bay Av	Norfolk	VA	23503-0000	P851
25	Ashley Wheeler	246 Ridgewell Ave	Norfolk	VA	23503-2748	246 Ridgewell Av	Norfolk	VA	23503-2748	P714
26	Audrey G & Barbara E Heflin	1416 W Ocean View Ave	Norfolk	VA	23503-1015	9413 Atwood Av	Norfolk	VA	23503-3306	P603
27	AUDREY C CHARITY	1008 CARVER ST	HAMPTON	VA	23069	1008 CARVER ST	HAMPTON	VA	23069	P461
28	BARBARA A BROWN	6 CIRCLE RD	HAMPTON	VA	23069	314 COOPER ST	HAMPTON	VA	23069	P606
29	BARBARA A MARTIN	321 BASSETT ST	HAMPTON	VA	23069	BASSETTE ST	HAMPTON	VA	23069	P307
30	BARBARA A MARTIN	321 BASSETT ST	HAMPTON	VA	23069	BASSETTE ST	HAMPTON	VA	23069	P309
31	BARBARA A MARTIN	321 BASSETT ST	HAMPTON	VA	23069	321 BASSETTE ST	HAMPTON	VA	23069	P402
32	BARBARA A MARTIN	321 BASSETT ST	HAMPTON	VA	23069	BASSETTE ST	HAMPTON	VA	23069	P469
33	Barbara P Cobb	141 W Evans St	Norfolk	VA	23503-4731	141 W Evans St	Norfolk	VA	23503-4731	P883
34	Barry T & Kathy H Watts	182 Rodman Rd	Norfolk	VA	23503-3004	182 Rodman Rd	Norfolk	VA	23503-4725	P802
35	Bayville Llc	1455 Bayville St	Norfolk	VA	23503-1004	1455 Bayville St	Norfolk	VA	23503-1004	P710
36	Bayville Llc	1455 Bayville St	Norfolk	VA	23503-1004	1455 Bayville St	Norfolk	VA	23503-1004	P715

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- Threatened and Endangered Species Information
- Appendix I: Federal Species
- NMFS Jurisdictional Species Determination
- Species with “No Effect” Determination
  - Hawksbill Sea Turtle
  - Shortnose Sturgeon
  - North Atlantic Right Whale
- Species with “May Affect, but Not Likely to Adversely Affect” Determination
  - Sea Turtles (Loggerhead, Kemp’s Ridley, Green, and Leatherback)
  - Atlantic Sturgeon
  - Fin Whale
- USFWS Jurisdictional Species
  - Piping Plover
  - Bald Eagle
  - Golden Eagle
- No TOYR

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## JPA Section 6



- Appendix J: State Species
- No Adverse Effects
- VAFWIS Search Report and VDCR Natural Heritage Report
  - Northern long-eared bat (*Myotis septentrionalis*) (State Threatened)
  - Tricolored bat (*Perimyotis subflavus*) (State Endangered)
  - Northeastern beach tiger beetle (*Cicindela dorsalis*) (State threatened)
  - Gull billed tern (*Sterna nilotica*) (State Threatened)
  - Piping plover (*Charadrius melodus*) (no critical habitat at HRBT, State threatened)
  - Red knot (*Calidris canutus rufa*) (State threatened)
  - Peregrine Falcon (*Falco peregrinus*) (state threatened)
  - Atlantic sturgeon (*Acipenser oxyrinchus oxyrinchus*) (endangered)
  - Shortnose sturgeon (*Acipenser brevirostrum*) (endangered)
  - Green sea turtle (*Chelonia mydas*) (State threatened)
  - Loggerhead sea turtle (*Caretta caretta*) (State threatened)
  - Kemp’s ridley sea turtle (*Lepidochelys kempii*) (State endangered)
  - Hawksbill sea turtle (*Eretmochelys imbricata*) (State endangered)
  - Leatherback sea turtle (*Dermochelys coriacea*) (State endangered)
  - Canebrake rattlesnake (*Crotalus horridus*) (State Endangered)
  - Mabee’s salamander (*Ambystoma mabeei*) (State Threatened)

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- Appendix M: Essential Fish Habitat (EFH) Assessment
  - Atlantic Herring
  - Atlantic Butterfish
  - Black Sea Bass
  - Bluefish
  - Cobia
  - Summer Flounder and Windowpane Flounder
  - King Mackerel and Spanish Mackerel
  - Red Drum
  - Red Hake
  - Scup
  - Atlantic Sharpnose, Sandbar, Dusky, and Sand Tiger Shark
  - Winter, Little, and Clearnose Skate
- Anadromous Fish
  - River Herring (Alewife, blueback)
  - Shad (American shad, hickory)
  - Striped Bass
  - White Perch
- No TOYR
- Habitat Condition Assessment and Mitigation

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- Appendix R: Marine Mammals
  - Fin Whale (rare)
  - Common Minke Whale (rare)
  - Humpback Whale (regular)
  - North Atlantic Right Whale (rare)
  - Common Bottlenose Dolphin (regular)
  - Harbor Porpoise (regular)
  - Harbor Seal (regular)
  - Grey Seal (regular)
- Potential Effects on Marine Mammals
  - Noise (In-Air and Underwater)
  - Habitat Loss and Alteration
  - Prey Availability and Habitat
  - Sedimentation
- Incidental Harassment Authorization (IHA)
  - Level B
  - Level A
- Letters of Authorization (LOA)

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## JPA Section 7



### ■ Appendix K: Cultural and Historic Resources Information

- FHWA and VDOT have complied with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations at 36 CFR Part 800
- Programmatic Agreement (PA) requires VDOT to meet specific design commitments for avoidance of adverse effects within the Area of Potential Effect (APE)

### ■ Commitments in the Programmatic Agreement

- No permanent acquisition of property from Hampton University
- Memorandum of agreement outlining terms for temporary Hampton University property
- Emancipation Oak: No encroachment into the Tree Limit of Disturbance
  - Baseline Assessment & Monitoring Plan
- Noise Barriers
  - Hampton Institute Historic District & Hampton Institute National Historic Landmark
  - Pasture Point Historic District
  - Hampton National Cemetery
  - Phoebus–Mill Creek Terrace Neighborhood Historic District
  - Norfolk Naval Base Historic District

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## JPA Section 8



- Appendix G: Impacts
  - WOUS Impact Tables
    - Summary of Impacts by Segment and Type
    - Fill Impacts
    - Shading Impacts
    - Pile Impacts
    - Dredging Impacts
    - Extended Temporary (>6 mo) Trestles
    - Temporary (< 6mo) Impacts
  - Impact Drawings
    - Location and footprint of each numbered site
  - Design Plans

- Appendix P: Avoidance Minimization and Mitigation Plan
  - Immersed Tube Tunnel vs. Bored Tunnel
    - Avoid substantial in-water impacts, and avoid direct navigation impacts to the federal channel.
  - Temporary Construction Trestles
  - Minimization by Impact Area
  - Supporting Documents
    - HCA
    - 2018 Benthic Survey
    - Mitigation Plan

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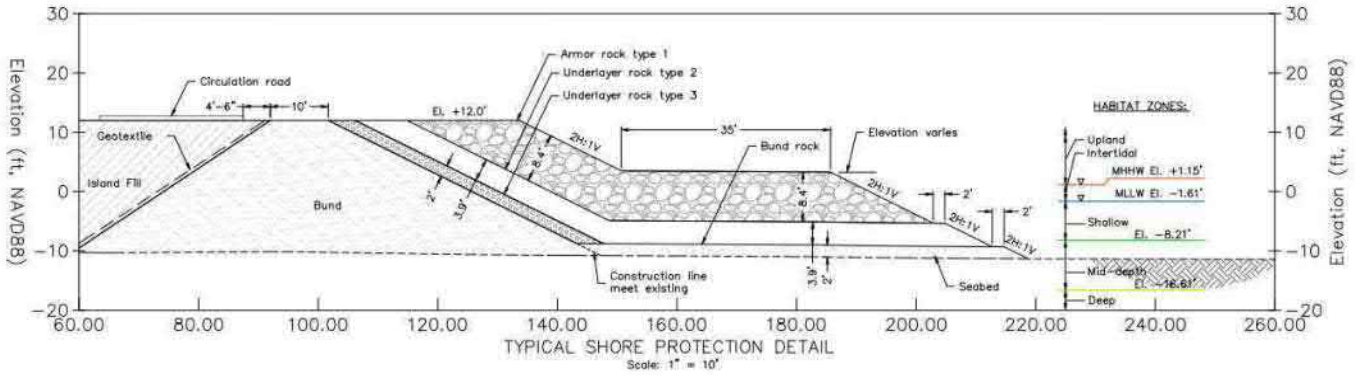
- Section 13: Free Standing Mooring Piles, Osprey Nesting Poles, Mooring Buoys, and Dolphins main points
- Appendix E: Project Description, Section 2 Marine Operations
  - 42" Mooring Piles
  - Mooring Dolphins – Three 24" Piles
  - Vessels:
    - Tug Boats
    - Barge/Transport Vessels
    - Workboats

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- Shoreline stabilization structures
- Replacement bulkheads at the Willoughby Spit Property
- Rock perimeter protection around the North and South Islands



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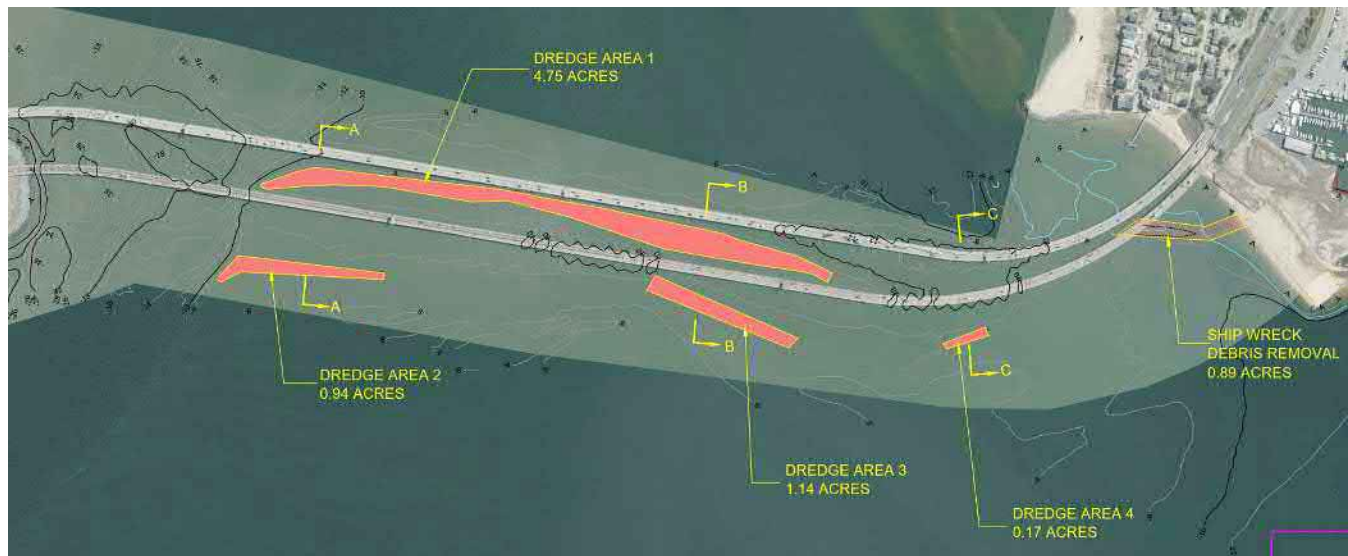
■ Beach nourishment

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Location	Cubic Yards	Square Feet	Acres
North Island	152,000	715,000	16.41
South Island	200,000	115,000	2.64
Dredge Area #1	40,000	204,290	4.75
Dredge Area #2		41,062	0.94
Dredge Area #3		49,643	1.14
Dredge Area #4		7,434	0.17
Shipwreck Debris removal	13,000	38,768	0.89
Total	405,000	1,171,197	26.89



**Table 1**  
Source and Volume of Material to be Removed and Managed

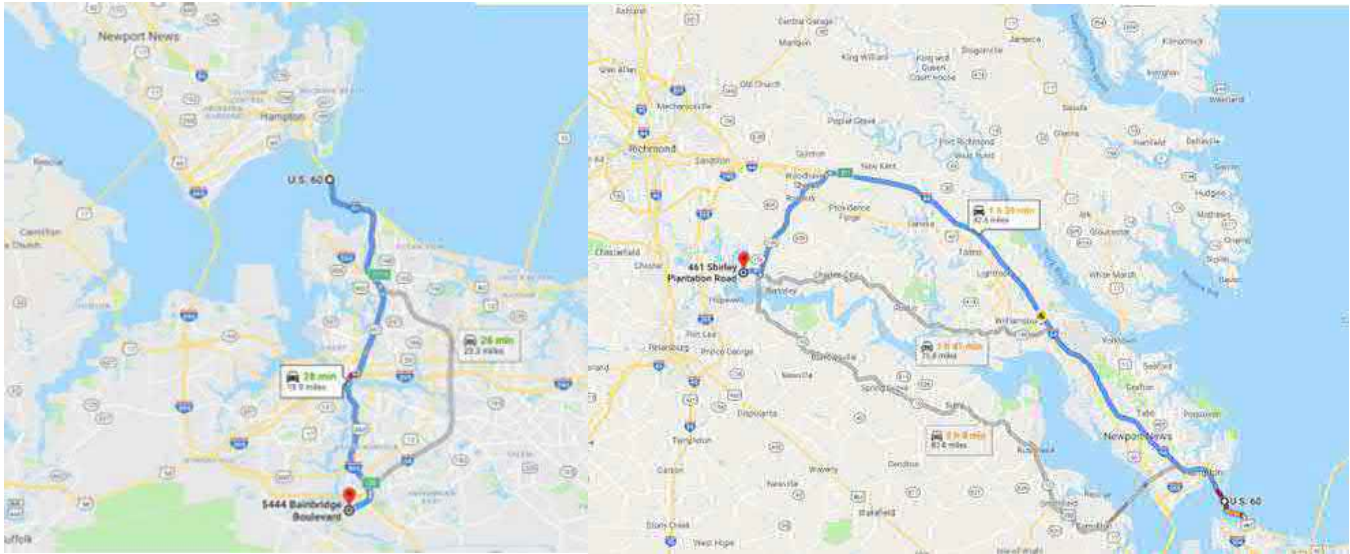
Source Material	Construction Activity	Category of Material						Total Volume cy (Bulked)	Reusable Volume by Source Material cy (Bulked)	Disposal Volume by Source Material cy (Bulked)	
		Excavated Material cy (Bulked) <sup>a</sup>	Bored Material cy (Bulked) <sup>a</sup>	Dredged Material cy (Bulked) <sup>b</sup>	Armor and Quarry Stone cy <sup>c</sup>	Set Grouted Residual Material cy (Bulked) <sup>a</sup>	Debris <sup>a</sup>				
On Island	Slurry Walls	84,000	--	--	--	--	--	--	--	84,000	
	North Island Tunnel Approach and Entry Portal	176,760	--	--	--	111,600	--	--	--	288,360	
	South Island Slurry Walls	132,000	--	--	--	--	--	--	--	132,000	
In Water	South Island Tunnel Approach and Entry Portal	206,760	--	--	--	145,800	--	--	206,000	146,560	
	Tunnel Alignment Tunnel Boring	Coarse Sand	--	316,800	--	--	--	--	--	316,800	--
		Fines	--	739,200	--	--	--	--	--	--	739,200
		Fiber Cake	--	360,000	--	--	--	--	--	--	360,000
	North Island Dredged Material Island Expansion	--	--	152,000	40,000	--	--	--	--	192,000	
	South Island Dredged Material Island Expansion	--	--	32000 to 200000	30,000	--	--	--	--	62,000 to 230,000	
	South Trestle Dredged Material Dredging	--	--	40,000	--	--	--	--	--	40,000	
	Bridge Construction Pile Installation	Extraction from casing	--	--	32,000	--	--	--	--	32,000	
	Trestle Concrete Bridge Demolition	--	--	--	--	--	80,500	--	--	80,500	
	Willoughby Spit Offshore Debris Removal	--	--	--	--	--	13,000	--	--	13,000	
Upland Various Roadway Improvements	--	27,500	--	--	--	--	--	--	27,500		
<b>Totals by Category</b>		<b>627,020</b>	<b>1,416,000</b>	<b>480,000 to 648,000</b>	<b>70,000</b>	<b>257,400</b>	<b>93,500</b>	<b>2,463,920</b>	<b>630,800</b>	<b>2,089,120 to 2,257,120</b>	

Notes:  
a) Bulking Factor = 1.2  
b) Bulking Factor = 1.6  
c) No Bulking Factor

JPA Section 17 – Barge Routes



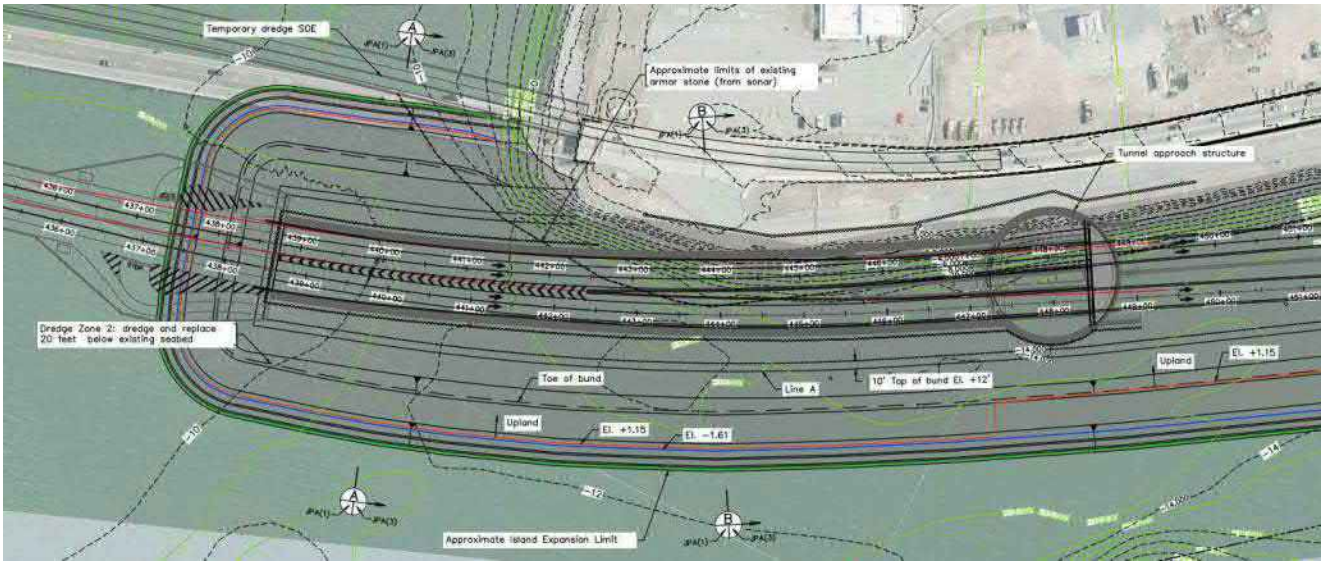
■ Truck Routes



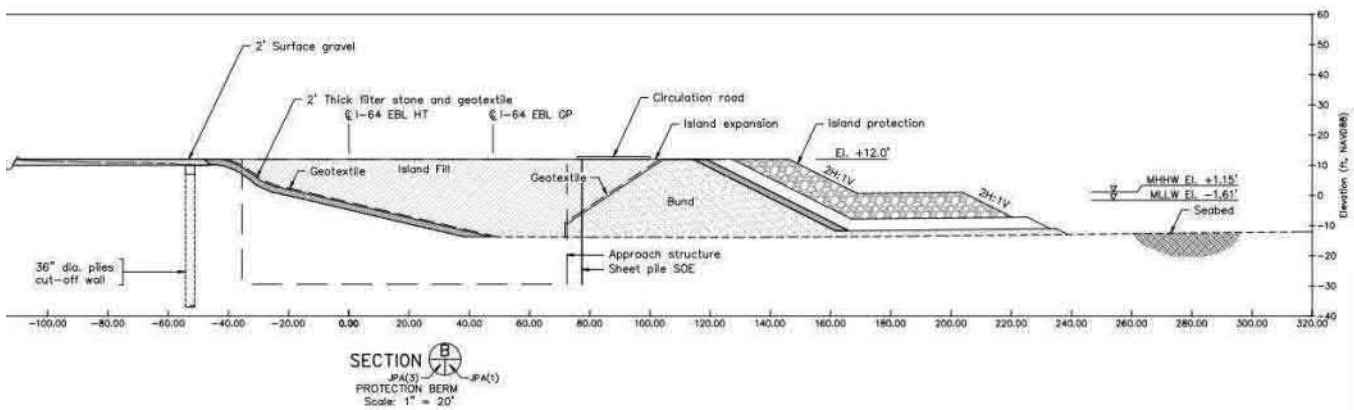
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1. Introduction
2. Joint Permit Application
  1. Section 3 – Description of Project, Purposes, Need, Use(s), and Alternatives
    1. Appendix E: Project Description
    2. Appendix F: Alternatives Analysis
  2. Section 5 – Public Notification
  3. Section 6 – Threatened and Endangered Species Information
    1. Appendix I: Federal Species
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    3. Appendix M: EFH
    4. Appendix R: Marine Mammals
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    1. Appendix K: Cultural and Historic Resources
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  1. Appendix N: Project Schedule

■ Fill – North Island Example – Cross Section B-B



■ Fill – North Island Example – Cross Section B-B



**Table 1**  
Source and Volume of Material to be Removed and Managed

Table 1. Source and Volume of Material to be Removed and Managed			Category of Material					Total Volume cy (Bulked)	Reusable Volume by Source Material cy (Bulked)	Disposal Volume by Source Material cy (Bulked)	
Source Material	Construction Activity	Excavated Material cy (Bulked) <sup>a</sup>	Bored Material cy (Bulked) <sup>a</sup>	Dredged Material cy (Bulked) <sup>b</sup>	Armor and Quarry Stone cy <sup>c</sup>	Set Grouted Residual Material cy (Bulked) <sup>a</sup>	Debris <sup>a</sup>				
On Island	North Island	Slurry Walls	84,000	--	--	--	--	--	84,000	--	
		Tunnel Approach and Entry Portal	178,760	--	--	--	111,600	--	288,360	--	
	South Island	Slurry Walls	132,000	--	--	--	--	--	132,000	--	
		Tunnel Approach and Entry Portal	206,760	--	--	--	145,800	--	352,560	206,000	
In Water	Tunnel Alignment	Tunnel Boring	Coarse Sand	--	316,800	--	--	--	316,800	--	
			Fines	--	739,200	--	--	--	739,200	--	
		Island Expansion	Coarse Sand	--	360,000	--	--	--	--	360,000	--
			Fines	--	--	152,000	40,000	--	--	192,000	--
	North Island	Dredged Material	Island Expansion	--	--	32000 to 200000	30,000	--	62,000 to 230,000	--	
			Dredging	--	--	40,000	--	--	40,000	--	
	South Trestle	Dredged Material	Island Expansion	--	--	32,000	--	--	32,000	--	
			Dredging	--	--	--	--	--	--	--	
	Bridge Construction	Pile Installation	Extraction from Trestle	--	--	--	--	--	--	--	
			Bridge Demolition	--	--	--	--	80,500	--	80,500	--
Wilmington Salt Offshore	Debris Removal	Extraction from Trestle	--	--	--	--	13,000	--	13,000	--	
		Bridge Demolition	--	--	--	--	--	--	--		
Upland	Various	Roadway Improvements	27,500	--	--	--	--	27,500	--		
Totals by Category			627,020	1,416,000	480,000 to 648,000	70,000	257,400	93,500	2,463,920	630,800	

Notes:  
a) Bulking Factor = 1.2  
b) Bulking Factor = 1.6  
c) No Bulking Factor

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■ Road Crossings

- Culvert Extension at Bay Ave

- Appendix G, JPA Plan Set

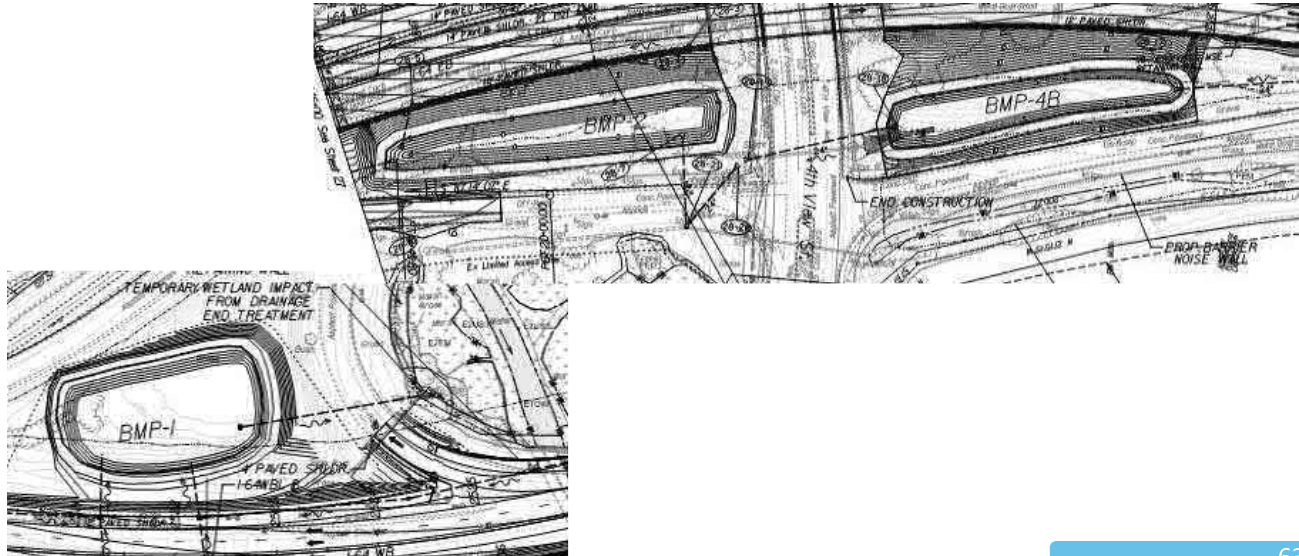
- Includes elevations showing the project bridges and clearances
  - North Trestle
  - South Trestle
  - Willoughby Bay
  - Bay Ave
  - Oastes Creek

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- Upland Stormwater Management (SWM)
- For quantity control, three SWM Best Management Practices (BMPs) will be constructed throughout the project corridor.
  - BMP-1 is located at the Mallory Street Interchange in Hampton
  - BMP-2 and BMP-4B are located at the 4th View Interchange in Norfolk
- All SWM facilities for this project will discharge to existing outfall locations throughout the corridor and no new outfalls are proposed for upland SWM.



- Island SWM
  - Stormwater runoff from North Island, South Island and the connecting tunnels, are captured and discharged at five (5) outfalls

Island Outfall	Approximate Location
North Island (south side) existing outfall	36°59'56.00"N, 76°19'1.00"W
South Island (north side) existing outfall	36°59'8.00"N, 76°18'16.00"W
North Island (north side) new outfall	37° 0'11.30"N, 76°19'10.45"W
North Island TAS outfall	37° 0'5.11"N, 76°19'11.37"W
South Island TAS outfall	36°58'59.02"N, 76°18'16.47"W

Island Outfall	Required Design Discharge Rates
North Island (south side) existing outfall	25 CFS
South Island (north side) existing outfall	60 CFS
North Island (north side) new outfall	35 CFS
North Island TAS outfall*	7.9 MGD
South Island TAS outfall*	7.9 MGD

\*This discharge rate for South Island outfall considers 1 pump running at full capacity for the design storm (100-yr) and assuming fire suppression is in operation concurrently.



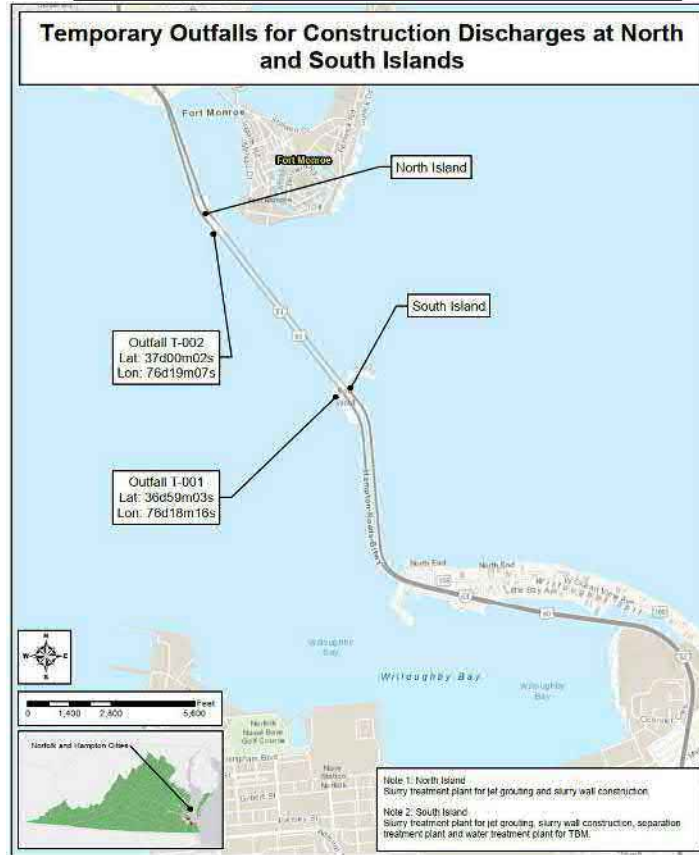
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## JPA Section 23



- Point source discharge of construction process water
- Characterized as Industrial Minor
- Flow rate <0.5 MDG
- Two planned outfalls 001 and 002
  - 001 South Island
    - Water treatment from
      - Jet Grouting – construction
      - Slurry Wall - construction
      - Excavation water of tri-cell (Pit for TBM entry) north bore
      - TBM boring of tunnels
  - 002 North Island
    - Water treatment from
      - Jet Grouting – construction
      - Slurry Wall - construction
      - Excavation of water tri-cell for south bore of TBM

Planned Outfall Locations



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- JPA
  - JPA submission – August 30, 2019
  - Anticipated public notice date September 15, 2019
  - JPA Post-Submission Follow-up – September 26, 2019
  - Anticipated permit issuance – April 2020
- Section 408 Concurrence
  - Public Notice
  - Package Submittal November 2019
  - Approval before April 2020
- USCG Bridge Permit
  - Approval after Section 408
- VPDES
- Construction
  - Commence field construction activities – scheduled for April 2020
  - Project Substantial Completion – July 2025

## Comments/Questions?





Document: Meeting Minutes

Project	Hampton Roads Bridge-Tunnel Expansion
Meeting Title	Joint Permit Application Pre-Submittal Meeting
Date   Time	August 28, 2019; 10:00 AM
Location	HRCP Offices, Norfolk VA

Meeting Attendees

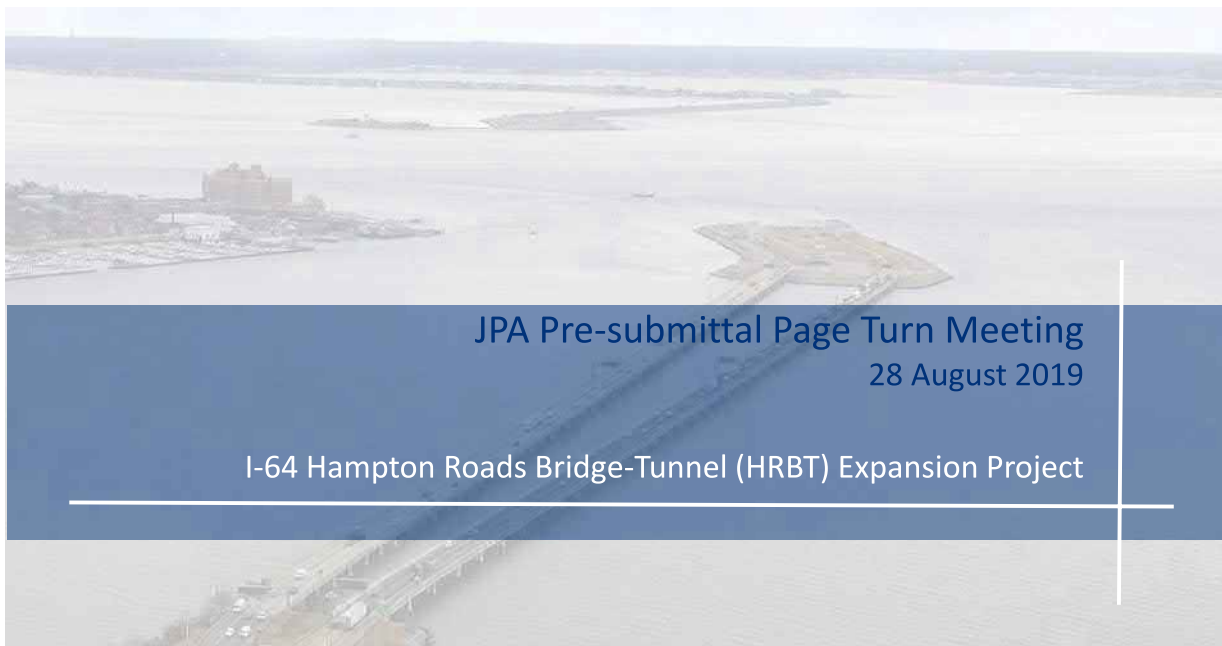
Name	Company	Email	Phone	Present (Y/N)
Pete Reilly	VDOT	<a href="mailto:Peter.Reilly@vdot.virginia.gov">Peter.Reilly@vdot.virginia.gov</a>		Y
David Field	I64-DJV	<a href="mailto:David.field@mottmac.com">David.field@mottmac.com</a>		Y
Doug Gaffney	I64-DJV	<a href="mailto:Douglas.gaffney@mottmac.com">Douglas.gaffney@mottmac.com</a>	(856) 924-3363	Y
Tina Pico	I64-DJV	<a href="mailto:Tina.pico@mottmac.com">Tina.pico@mottmac.com</a>		Call-in
Carolyn Keeler	Stantec	<a href="mailto:Carolyn.keeler@stantec.com">Carolyn.keeler@stantec.com</a>		Call-in
Scott Smizik	VDOT	<a href="mailto:Scott.smizik@vdot.virginia.gov">Scott.smizik@vdot.virginia.gov</a>	(804) 371-4082	Y
Chris Frye	VDOT	<a href="mailto:cfrye@uhb.com">cfrye@uhb.com</a>	(757) 503-3796	Y
Larissa Ambrose	VDOT	<a href="mailto:Larissa.ambrose@vdot.virginia.gov">Larissa.ambrose@vdot.virginia.gov</a>	(757) 956-3187	Y
Brian Hawley	Stantec	<a href="mailto:Brian.hawley@stantec.com">Brian.hawley@stantec.com</a>	(540) 908-5528	Call-in
George Janek	USACE	<a href="mailto:George.a.janek@usace.army.mil">George.a.janek@usace.army.mil</a>	(757) 201-7135	Y
David Barrier	HRCP	<a href="mailto:dbarrier@hrcpjm.com">dbarrier@hrcpjm.com</a>	(514) 663-9198	Y
John Duschang	I64DJV	<a href="mailto:John.duschang@hdrinc.com">John.duschang@hdrinc.com</a>	(845) 596-7953	Y
Josh Mace	I64DJV	<a href="mailto:Joshua.mace@hdrinc.com">Joshua.mace@hdrinc.com</a>	(804) 248-7050	Y
Rebecca Wilk	I64DJV	<a href="mailto:Rebecca.wilk@hdrinc.com">Rebecca.wilk@hdrinc.com</a>	(804) 799-6873	Y
Jeffrey Han	I64DJV	<a href="mailto:jeffrey.han@hdrinc.com">jeffrey.han@hdrinc.com</a>	(646) 235-4288	Y
Taylor Sword	I64DJV	<a href="mailto:Taylor.sword@mottmac.com">Taylor.sword@mottmac.com</a>	(757) 377-9321	Y
Angela Stowe	I64DJV	<a href="mailto:Angela.stowe@hdrinc.com">Angela.stowe@hdrinc.com</a>	(845) 216-3052	Y
Craig Benson	I64DJV	<a href="mailto:Craig.benson@mottmac.com">Craig.benson@mottmac.com</a>	(571) 451-0953	Call In
Solene Vazelle	HRCP	<a href="mailto:svazelle@hrcpjm.com">svazelle@hrcpjm.com</a>	(757) 933-0878	Y
Joe Felton	HRCP	<a href="mailto:jfelton@wrallp.com">jfelton@wrallp.com</a>		
Lisa Papandrea	I64DJV	<a href="mailto:Lisa.papandrea@mottmac.com">Lisa.papandrea@mottmac.com</a>	(212) 202-5716	Y

Discussion Items

Discussion Item Description	Discussion/Decisions	Action
Introduction and Update	DG presented the agenda and made introductory remarks. Items being discussed at this pre-submittal meeting will focus on environmental impact maps, compensatory mitigation,	

	files needed for the Public Notice (PN), process for response to PN comments, and future schedule.	
Alternatives Analysis	GJ: The Alternatives section of the PN should just briefly describe the 4 alternatives in the EIS and the preferred LEDPA, and the final plan.	
Public Access to files	GJ: There should be an FTP site for transmitting files, and a site for public access of the maps. Files should be approximately 10 MB each. PR: VDOT will host a website for this purpose. GJ: A Public Hearing won't be triggered by Right of Way (ROW) type comments.	
Willoughby Spit	GJ: distinguish between temporary and permanent structures and impacts. If a structure is to be left in place, it needs a valid reason. A permit modification will re-open 408.	
Dredge Plans	GJ: Dredge plans need footprint, material type, volume, depth and disposal locations. Chemistry results (PCBs) will need to be included in the description. Make sure FHWA gets a full set of JPA documents.	
Potential Beachfill Material	GJ: VMRC encourages beneficial re-use, but since this is undefined as yet, it will be left off the PN. If the ~40,000 cy is acceptable for re-use, then it would be permitted separately. Leave JPA application blank.	
Baylor Grounds	DG: Proposed in-water staging areas within Baylor Grounds have been removed.	
NMFS and USFWS	GJ: list genus of all species in the species list. Note life-cycle stage where appropriate.	
	GJ: USFWS needs concurrence coordinated by FWHA. For the ESA Section, Dave O'Brien will be providing his perspective on the language "Not likely to significantly adversely affect"	
	PN needs to list temporary and permanent impacts by habitat type.	
Marine Mammals	GJ: the IHA and LOA will be a condition on the USACE Permit.	
Mitigation	GJ: Compensatory Mitigation needs to be "in-kind" as much as possible. TSp: Applicant proposing mitigation through in-leui fee fund. GJ: Have to follow the mitigation rule for flow down. TSp: recommending Oyster reefs for SAV beds in the same HUC from LRT at 1:1 ratio. Lyle Varnell (VIMS) did not support the \$2/S.F. mitigation proposed at earlier meetings. GJ: asked for rationale, and to include shading impacts. TSp: Clams (maybe writing a check for chowder clams) will be negotiated with VMRC. GJ: just keep USACE in the loop. There will be negotiation meetings after the JPA is submitted, so no voucher requests needed at this time.	
VPDES Chemistry	GJ: wants a paragraph on VPDES water discharge and monitoring. We should be prepared to respond to public comment pertaining to the chemistry of discharge water.	

Impact Plates and Tunnel Construction	GJ: suggested an OCR file of the impact plates to assist in bookmarking and cross referencing elements of the JPA appendices. Add tunnel cross sections, typical lane width section of trestles, in Appendix G. GJ stated that USACE will not run VMRC's Public Notice. Future changes to the drawings need to be clearly tracked.	
Adjacent Property Owners (APO) List	APO list, labels and maps will be provided to GJ 8/29/19.	
JPA Submittal	Include Section 408 submittal separately. Provide an FTP site for the files and provide 2 CD's to USACE. 1 Paper copy would be appreciated. GJ will provide an e-mail confirmation that starts the review clock.	



JPA Pre-submittal Page Turn Meeting  
28 August 2019

I-64 Hampton Roads Bridge-Tunnel (HRBT) Expansion Project

1

## Agenda



### Introduction

- HRBT Expansion – Proposed Work and Purpose
  - Project Purpose and Need
  - Alternatives
  - Authority
- Federal Evaluation of Application
  - CZM
  - OEIR
  - EFH
  - Section 106 (NHPA)
  - Review NEPA
- Dredging (Section 404)
- Navigation (Section 10)
- VPDES Application (Section 401)
- JPA drawing set Construction Methodology
- Compensatory Mitigation



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9. Section 9 – Applicant, Agent, Property Owner and Contractor Certifications
10. Sections 10, 11, 12 and 14 – N/A
11. Section 13 – Free Standing Mooring Piles, Osprey Nesting Poles, Mooring Buoys, and Dolphins
12. Section 15 – Tidal/Nontidal Shoreline Stabilization Structures
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16. Sections 19 and 20 – N/A
17. Section 21 – Road Crossings
18. Section 22 – Impoundments, Dams, and Stormwater Management Facilities
  1. Appendix T: Stormwater Facilities
19. Section 23 – Outfalls Not Associated with Proposed Water Withdrawal Activities
20. Sections 24, 25 and 26 – N/A

3

## JPA Section 3



- On June 12, 2017 the FHWA issued a ROD for the HRCS Final SEIS identifying refined Alternative A as the Selected Action, replacing the previous ROD, issued in 2001, for a different alternative. FHWA identified the following reasons for identifying Alternative A (with refinements) as the Selected Action
  - Acceptably addressed the purpose and need to be considered a reasonable alternative under NEPA;
  - Had the **least environmental impacts**;
  - Had the **lowest estimated cost** and would allow other regionally funded transportation priorities to advance;
  - Was **unanimously endorsed by all the localities** comprising the Hampton Roads Transportation Planning Organization (HRTPO) and the HRTAC, which includes the Cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg, and the Counties of Isle of Wight, James City, Southampton, and York;
  - Was concurred with by the **federal cooperating agencies as the recommended Preferred Alternative**;
  - Had the least aquatic resource impacts, which allowed the US Army Corps of Engineers to state it appears to be the **Least Environmentally Damaging Preferred Alternative (LEDPA)**; and
  - Had the second highest number of Public Hearing comments submitted in support of it (Alternative D received the highest number of comments in support, but it could not be the LEDPA per input from the US Army Corps of Engineers).



JPA Section 3

- On June 7, 2018, FHWA approved the Environmental Assessment (EA) re-evaluation.
  - Designation of High Occupancy Toll (HOT) lanes.
  - Limit of Disturbance (LOD) was widened.
  
- On October 28, 2018, FHWA issued a Finding of No Significant Impact (FONSI) for the Hampton Roads Crossing Study EA re-evaluation.
  - Increase in floodplain acreage associated with the Refined Selected Action is not considered significant.
  - Increase in wetland impacts have been considered in light of Executive Order 11990. No practicable alternative.

## ■ The HRBT Expansion project includes the following elements:

### ■ Roadway Elements

- Roadway signing, both ground-mounted and overhead.
- Pavement marking, pavement markers, and delineators.
- Roadway lighting.
- Relocation of existing and installation of new intelligent transportation system (ITS) infrastructure and equipment.
- Traffic signals.
- Pavement widening to accommodate new lane configurations.
- Drivable shoulders (inside) for part-time use.
- Outside shoulders.
- Retaining walls.
- Sound barrier walls.
- Full-depth construction on mainline roadway pavement.
- Milling and asphalt overlay.
- Removal and replacement of the overpass bridge at South Mallory Street, including any necessary improvements or realignment of Mallory Street.
- Bridge widening, repair, and replacement.
- Entrance/exit ramp modifications.

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## ■ The HRBT Expansion project includes the following elements:

### ■ Marine Elements

- Two new two-lane HRBT tunnels, including new tunnel systems and associated facilities.
- New four-lane trestle-bridges(s).
- Removal and replacement of all existing tunnel approach trestle-bridges.
- Expansion of the existing North and South Islands of the HRBT.
- Installation of storm drain outfall pipes and stormwater management facilities.
- Temporary features including VPDES outfall pipes, temporary trestles, dock, small vessel access at Willoughby Spit
- Artificial reef.

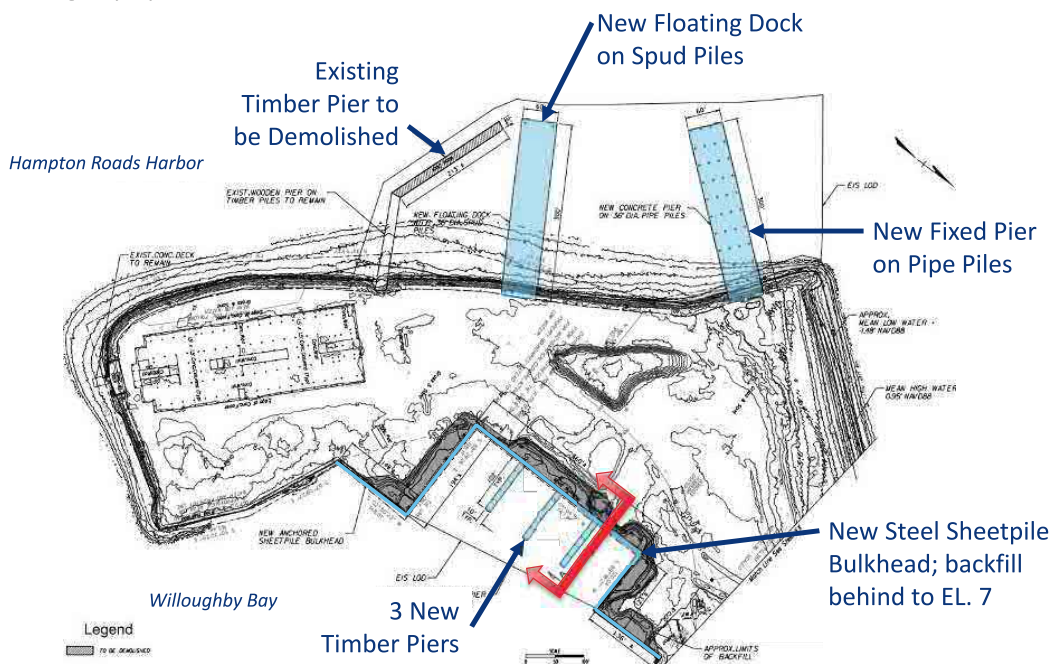
- The HRBT Expansion project includes the following elements:
  - Nine Design Sub-segments. Five are predominantly in the marine environment.
    - Segment 1b North Trestle-bridge
    - Segment 2a – tunnel
    - Segment 3a – South Trestle-bridge
    - Segment 3b – Willoughby Spit
    - Segment 3c – Willoughby Bay Trestle-bridge



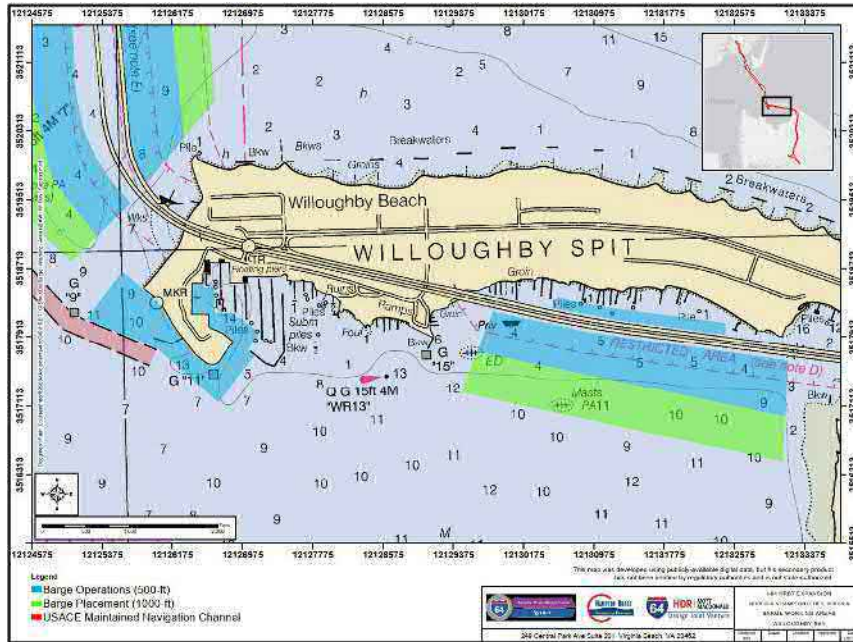


JPA Section 3

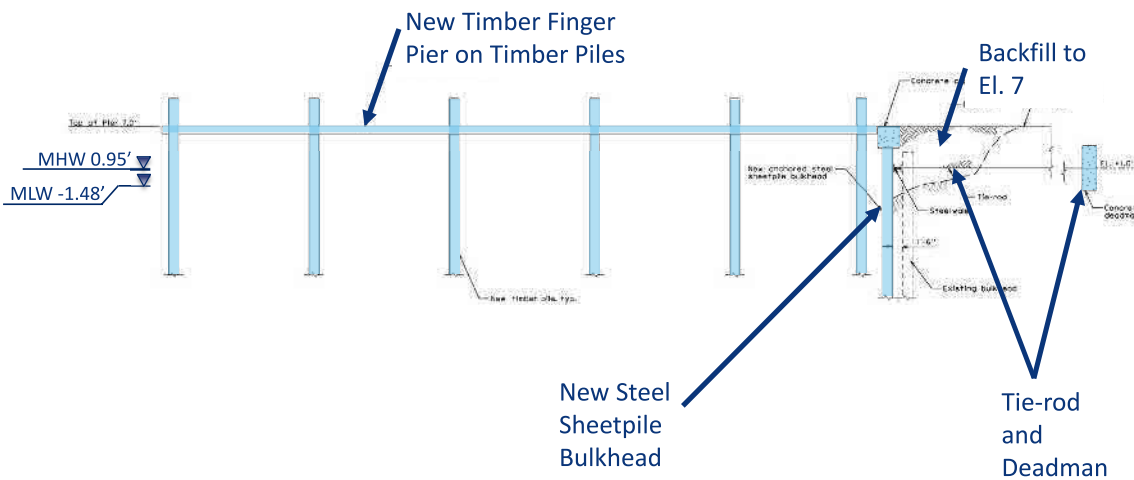
■ Willoughby Spit marine structures



■ Willoughby Spit marine construction areas



■ Willoughby Spit marine structures –Typical Section through new Bulkhead





■ North Trestle

- Spud barges used in areas with more than 4.5 ft of water (at MLW)
- 15 +/- working barges
- First activity after receipt of the JPA
- Last activity in September 2024 + 6 months to remove structures

JPA Section 3

■ North & South Islands

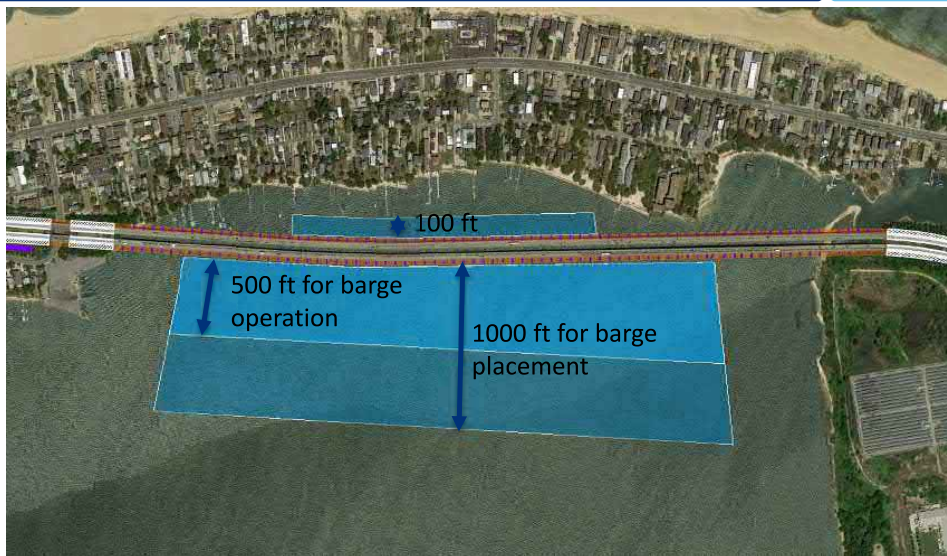
- Mooring area to be created near North and South Island Expansions
- 1 mooring pile (42" pipe pile) every 40FT around the footprint of the islands
- Spud barges used in areas with more than 4.5 ft of water (at MLW)
- 1000 ft from expansion boundary for barge anchoring
- 500 ft from expansion boundary for barge operation
- At peak, ~15 working barges
- First activity after receipt of the JPA
- Last activity in September 2024 + 6 months to remove structures



■ South Trestle

- Spud barges used in areas with more than 4.5 ft of water (at MLW)
- At peak, ~25 working barges
- First activity after receipt of the JPA
- Last activity in September 2024 + 6 months to remove structures

JPA Section 3 - Segment 2-c



■ Willoughby Bay

- Mooring area to be created in Willoughby Bay with mooring piles (42" pipe piles)
- Spud barges used in areas with more than 4.5 ft of water (at MLW)
- At peak, ~15 working barges
- First activity after receipt of the JPA
- Last activity in December 2024 + 3 months to remove structures