



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

REPLY TO
ATTENTION OF:

December 6, 2000

Executive Office

See List of Addresses

Dear Federal/State Resource Agency/Group:

The Corps of Engineers, along with the Commonwealth of Virginia through the Virginia Port Authority, is conducting a comprehensive feasibility investigation to evaluate the need for and interest in an expansion of the Craney Island Dredged Material Management Area (CIDMMA) located in Hampton Roads, Virginia. As part of the ongoing feasibility study effort, your group/agency was asked to participate on a National Environmental Policy Act (NEPA) Technical Committee. The first meeting of this committee was held on November 27, 2000. The minutes of this meeting are enclosed (encl 1).

As referenced in paragraph 7 (a) of the minutes, the following documents are provided for your information: the alternatives analysis that has taken place so far (encl 2); resources issues to be addressed by the 3-D (VIMS) modeling effort (encl 3); issues/concerns raised at previous stakeholder meetings (encl 4). Additional information on the alternatives analysis is being compiled and will be transmitted separately. Your comments are requested on expansion alternatives as presented in enclosure 5.

The CIDMMA Expansion NEPA Technical Committee will continue to meet regularly during the course of this feasibility study. Our next scheduled meeting will take place in late January/early February. One of the topics to be addressed at the next meeting will be mitigation to include avoidance, minimization, and compensation. Other topics of interest/concern will be added to the agenda at your request. Thank you for your participation in this important investigation. If you have any questions or comments, please contact Mr. Craig Seltzer, Environmental Analysis Team Leader, at (757) 441-7390.

Sincerely,

A handwritten signature in cursive script that reads "Allan B. Carroll".

Allan B. Carroll
Colonel, U.S. Army
District Engineer

Enclosures

List of Addresses

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Chesapeake Bay Field Office
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National Marine Fisheries Service, NOAA
Oxford, Maryland 21654

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NEPA Technical Committee Meeting
Craney Island Expansion Feasibility Study
27 November 2000 – 10 am
Minutes

1. **Introductions** - Attendees introduced themselves (see list of attendees - attachment 1).

2. **Background** – Mark Mansfield (Corps Project Manager) provided introduction and background information including: study area; study authority; local cost-sharing sponsor; 2-phase study process; study schedule; and public involvement.

3. **Purpose and Needs** - Mark Mansfield addressed the following as relates to the purpose and needs being considered during this feasibility investigation: extend the useful life of the USACE Craney Island Dredged Material Management Area (CIDMMA); provide additional area for potential port terminal expansion needs; serve as a logistical and tactical area supporting the deployment of National defense forces.

4. **Alternatives Being Evaluated** – Doug Stamper (Corps) discussed the alternatives that have been, and are continuing to be, investigated during this feasibility study (see attachment 2).

5. **Three-Dimensional Numerical Modeling** – John Boon (VIMS) provided an overview of the 3-D hydrodynamic modeling effort underway now. The modeling effort will look at changes in tides, currents, and salinity associated with various CIDMMA expansion alternatives. The Corps will provide four conceptual designs or footprints to VIMS for modeling. When the preliminary results of this modeling effort are made available (April 2001), the NEPA Technical Committee will be tasked to interpret these modeling results to assess ecological effects.

6. **Overview of Related Other Studies Underway** – An overview of other investigations, projects, currently in progress in the project area were discussed. These included:
 - a. Hampton Roads 3rd Crossing (P. Kube – Corps Regulatory Section) – A NEPA document has been prepared and circulated for review and comment. A Record of Decision (ROD) is scheduled to be signed by Spring 2001. The three primary alternatives being considered were discussed (attachment 3).
 - b. Norfolk Harbor 50-foot Inbound Channel (R. Pretlow - Corps) – Norfolk Harbor and Channels is authorized to 55 feet. The outbound element has been dredged to 50 feet. The

inbound element also needs to be dredged to 50 feet to provide navigation access for container vessel traffic. A Limited Reevaluation Report (LRR) will be completed this Fiscal Year. Dredged material placement sites include Craney Island DMMA, Dam Neck Ocean Site, and beneficial uses, including beach nourishment (sand).

c. Elizabeth River Environmental Restoration (C. Seltzer - Corps) – A feasibility study is currently being conducted to address two main areas of problem/need in the Elizabeth River: wetlands loss and sediment contamination. A Draft Feasibility Report will be sent out in January/February 2001 which recommends sediment clean-up at Scuffletown Creek (Southern Branch) and wetland restoration at a number of sites throughout the river basin.

7. Goals and Objectives of the NEPA Technical Committee - A group discussion took place as to how this technical committee could contribute to study progress and completion. After some discussion regarding the purpose of the NEPA process and the accompanying document, the goals and objectives of this technical committee were defined as follows:

a. Information – The Corps will provide the NEPA committee with information as regards: the alternatives analysis that has taken place so far; resources issues to be addressed by the 3-D (VIMS) modeling effort; issues/concerns raised at previous stakeholder meetings; a WEB site address where committee members can find current information on study progress. Technical committee members will provide environmental, cultural, historical resource information – and any other pertinent information as applies to various alternatives under consideration.

b. Assessment – The Technical Committee will use the information provided by VIMS (3-D model), other resource information, and engineering and economic data to assess environmental, social, cultural and historical impacts of various alternatives under consideration in the study. This assessment of impacts will be used to evaluate/prioritize/screen alternatives and will be presented in the NEPA document.

8. Follow up Meetings – The next meeting of this NEPA Technical Committee will take place in late January, early February 2001.

9. Meeting was adjourned at 12:15 pm.

CRANEY ISLAND NEPA TECHNICAL COMMITTEE MEETING

NAME	REPRESENTING	PHONE#	EMAIL
Craig Seltzer	COE	757-441-7390	craig.l.seltzer@usace.army.mil
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Evolution of Alternatives Analysis

- **Initially alternative candidates included 8 alternatives**
 - List grew to 16 alternatives
 - List decreased to 11 alternatives
 - List decreased to 9 alternatives
 - List increased to 25 alternatives
- **Current status**
 - 12 Alternative plans at Craney Island
 - Ocean Placement
 - 1 Upland Site
- **Fewer than 12 alternatives will likely move forward into the final analysis**

Schedule for Alternatives Analysis

- **Initial Screening**

- Identify Alternatives (*completed*)
- Evaluation of Existing Environmental/Economic/Engineering Data (*completed*)

- **Intermediate Screening**

- Develop Cost Estimates (*currently on-going*)
- Examination of impacts to HR 3rd Crossing & other projects (*currently on-going*)
- Coordination with Federal/State agencies & stakeholders (*currently on-going*)

Final Screening of Alternatives

Remaining alternatives will be evaluated on:

- **Engineering Considerations**
 - ship simulation
 - operations management plan
 - geotech studies
- **Environmental/Social Impacts**
 - 3-D modeling
 - archeological surveys
- **Economic Analysis**
 - least cost analysis

Results of Analysis

- **Selection of Recommended Base Plan**
- **Identification of Locally Preferred Plan**
- **Feasibility Study Completion in FY03**



US Army Corps of Engineers Norfolk District

Craney Island Expansion Alternatives Analysis



3-D HYDRODYNAMIC MODEL STUDY

**Port of Hampton Roads
Lower James River and Elizabeth River
Craney Island Dredged Material Management Area Expansion**

conducted by

Virginia Institute of Marine Science
School of Marine Science
College of William and Mary
Gloucester Point, Virginia

(Excerpt from Scope of Work:)

Questions to be addressed by model testing – Model tests will be conducted to determine if, and under what conditions, one or more of the following potential changes could occur as the result of expansion and its related activities:

Craney Island Eastward Expansion (CIEE) with Hampton Roads Third Crossing

Change in:

- Tide, current, or salinity fields, lower James River and Elizabeth River
- Residual (tidally averaged) circulation, lower James River and Elizabeth River
- Tidal intrusion front near Newport News Point, lower James River
- Tidal prism and flushing ability within Elizabeth River Basin
- Local residence time and migration of water borne contaminants in selected branches of the Elizabeth River
- Bottom shear stress (sediment erosion/deposition potential) in the lower James River and Elizabeth River

Change in all items noted above:

- With and without bridge-tunnel structure at Elizabeth River entrance

Areas of special interest:

- Newport News Channel (tidal intrusion front), lower James River
- Newport News Middle Ground (clam sanctuary), lower James River
- Craney Island Flats, Elizabeth River entrance
- Lafayette River entrance
- Western Branch entrance
- Eastern Branch entrance

Candidate Build Alternative 1



HAMPTON
ROADS
CROSSING
STUDY



Candidate Build Alternative 2



HAMPTON
ROADS
CROSSING
STUDY



Candidate Build Alternative 9



HAMPTON
ROADS
CROSSING
STUDY



Craney Island Stakeholders Meeting

April 12, 2000

Crumbley House, Norfolk

Reactions to Presentation on Hydrodynamic Modeling

- ◆ Impressed with field effort. Having this technology will help this process. Expect excellent data – ground truth
- ◆ Technical review with the Port involved. We're in the last stages of tweaking
- ◆ This needs to be an ongoing dialogue/review with the team working together
- ◆ Elizabeth River Project continue to be involved
- ◆ VIMS has an open house this Saturday, and you are always welcome to visit any time. Or come check out the website at www.vims.edu.

Concerns

- ◆ How soon will the field work start?
- ◆ Do you anticipate collecting data on all or just some of the grid points?
- ◆ Will wind be factored into the model?
- ◆ Biological organisms (e.g. fisheries, oysters) and water quality affects the decision as well...
- ◆ What about all the other projects that are on the table?
- ◆ What is the status of the contract?
- ◆ What is the total budget for this project?
- ◆ Are will going to be able to model an infinite number of alternatives or just how many?
- ◆ Do we have enough room? What's the end game? What total acreage are we talking about?
 - To do the fourth port expansion
 - To expand Craney Island
- ◆ Identify the numbers and types of folks who need to be involved
 - Navigation aspects
 - Environmental aspects
 - Etc.
- ◆ Identify the footprints and needs
 - Footprints need to be coordinated with the pilots, ship access and dredging
- ◆ Encourage participation in the technical review
- ◆ What are the other contracts that are concurrently going on?
 - Soils boring
 - Surveying
 - Modeling
 - Waterways Management Plan
- ◆ Keep in mind why we are doing this
- ◆ Develop and update a web page
 - Public information with schedule, key dates and milestones
 - Answers to stakeholder questions
 - Have a list of stakeholders and organization (privacy issues?)
 - Report information from stakeholder meetings
 - What we are looking at
 - Modeling information
 - Coordination
 - Updates
 - Executive summary with links to more detail
 - All of August 1999 meeting concerns
 - Be apolitical
 - List other items not addressed in modeling

- Make it easy to navigate
- Discuss the impact on other projects
- Have a running summary of decisions
- ◆ Have an email distribution list
- ◆ Narrow the field down to a couple of alternatives
- ◆ Explore sediment placement northward
- ◆ Think out of the box...have a creative dialogue about the possible alternatives
- ◆ Get input from the user groups/focus groups
- ◆ Create a "Technical Review Committee"
 - Chartered to keep the project on track, report to the larger stakeholder group and look at all the alternatives
 - Membership to include the modeling group who met to give input on the hydrodynamic modeling process.
 - Augment this group some e.g. Elder Lash, Dr. Don Dauer (when benthic comes in to play), and anyone else who wishes to participate
 - Think out of the box and explore the traditional as well as non-traditional alternatives.

Our next meeting:

- The technical review committee should present a few creative alternatives/concepts/footprints for the stakeholder group to react to, and see if they are willing to move forward with one, a few, or a combination of several (or even go back to the drawing board!). The presentation should include:
 - The methodology used to select the alternatives being presented
 - The alternatives/concepts/footprints
 - The relationship to prior issues/concerns/recommendations identified in the August 1999 meeting
 - Any other unresolved issues alternative does not address.

**ISSUES AND CONCERNS
CIDMMA EXPANSION MEETING - 8/12/99**

GREEN GROUP*

- 1) *Concern expressed over the potential impact of a CIEE on seafood resources in the lower James River.* (See WHITE GROUP #3)
- 2) *Recommendation made for close coordination with VMRC during the Feasibility Study.* (See WHITE GROUP #2)
- 3) Concern expressed over the potential pact of a CIEE on the entire river system.
- 4) Recommendation made for hydrodynamic modeling to be conducted on a fine enough scale to accurately model the entire river system. The modeling effort would include (1) include salinity studies, (2) sedimentation studies, and (3) flushing ability studies. (See WHITE GROUP #13 and YELLOW GROUP #9)
- 5) Recommendation made to include combinations of planned or potential projects (VDOT 3rd Crossing, 50-foot inbound channel, development across the river, etc.) in modeling efforts to accurately simulate potential impacts of the CIEE based on possible future scenarios. (See WHITE GROUP #14)
- 6) Recommendation made to include numerous configurations in the modeling efforts to identify impacts associated with each configuration.
- 7) Recommendation made to start Hydrodynamic Modeling as soon as possible in order to provide input early on as to impacts of certain expansion configurations.
- 8) Recommendation made to collect early field measurements and seasonal field measurements in order to properly calibrate the hydrodynamic model.
- 9) Recommendation made to study potential environmental enhancements to offset potential negative impacts. (See WHITE GROUP #4 and YELLOW GROUP #10)
- 10) Recommendation made to analyze/study whether a CIEE would act as an artificial barrier to the migration of benthic and pelagic species.
- 11) Recommendation made on the need to identify the “quality of life on the Craney Island shoal”.
- 12) Question asked “Whether the issue of a northward expansion could be reopened?” (See GREEN GROUP #13)

GREEN GROUP (Continued)*

- 13) Recommendation made to ensure any studies for a northward expansion be coordinated with a VDOT 3rd Crossing. (See GREEN GROUP #12)
- 14) Statement made that “there is a need for economic and environmental balance”. (See GREEN GROUP #16)
- 15) Statement made that the economy of the region is tied to a CIEE, therefore, a CIEE was an economic necessity. (See BLUE GROUP #1)
- 16) Statement made for the need to look at the big picture in an effort to find a synergistic blend of the various initiatives (e.g. CIEE, 3rd Crossing) (See GREEN GROUP #14 and WHITE GROUP #12)

WHITE GROUP*

- 1) *The Advisory Group (Paragraph 2.2 of PSP) should include other state resource agencies, including VMRC.*
- 2) *No VA Dept of Natural Resources (Paragraph 2.2) should be ".....those dept.'s under the Secretary of Natural Resources" (See YELLOW GROUP #3)*
- 3) *Watermen concerned about commercial fisheries - finfish and shellfish. They wanted to be kept informed. Impacts (i.e., loss of) resources should be mitigated. Notify clammers when (if) proposed project is constructed so they can harvest clams from area. (See GREEN GROUP #1)*
- 4) The study should also look at opportunities for habitat enhancement/creation. (See GREEN GROUP #9 and YELLOW GROUP #10)
- 5) *Non-Government Organization (NGO's) such as Ches. Bay Foundation should be asked to participate in process.*
- 6) Look at secondary issues related to Port expansion, including:
 - a) Potential increase in oil spills
 - b) Potential increase in boat collisions
 - c) Potential increase in groundings
 - d) Potential increase in exotic species (ballast water)
- 7) Look at effluent - water quality issues related to expanded CIDMMA

WHITE GROUP (Continued)*

- 8) The alternate analysis should include looking at:
 - a) Old oil refinery site (Portsmouth) as potential dredged material placement facility
 - b) Modernization of existing Port facilities to accommodate future needs
 - c) Will proposed expansion actually increase tonnage from one port to another?

- 9) A "Purpose and Needs" assessment should be done as part of NEPA process. This would include:
 - a) "Purpose and Needs" - dredged material depository only
 - b) "Purpose and Needs" - port expansion only
 - c) "Purpose and Needs" - both dredge management and port expansion
(See YELLOW GROUP #14)

- 10) Hydrodynamics - look at entire river system for effects (See WHITE GROUP #13)

- 11) Proximity of proposed expansion to existing navigation channel coordinated with Navy, Coast Guard, etc.

- 12) Hydrodynamic effects - model should look at cumulative effect of:
 - a) 3rd Crossing
 - b) CIDMMA Expansion
 - c) 50' Inbound Channel(See WHITE GROUP #14 and GREEN GROUP # 16)

- 13) Hydrodynamic Model - look at upper reaches of river system to include potential effects on:
 - a) tidal wetlands
 - b) tidal flushing
 - c) salinity
 - d) circulation(See WHITE GREEN #10 and GREEN GROUP #4)

- 14) The proposed expansion of CIDMMA should also consider, and be consistent with:
 - a) Elizabeth River restoration project
 - b) 50 ft. Inbound channel studies(See WHITE GROUP #12 and GREEN GROUP #5)

- 15) Use of sandy dredged material: Potential conflict between placing on beaches (state law) and use for construction of proposed CIDMMA expansion.
(See BLUE GROUP #5)

YELLOW GROUP*

- 1) *VA Dept. of Game & Inland Fisheries - Not in organizational breakdown structure*
- 2) *Hampton Roads Maritime Association – Not in organizational breakdown structure*
- 3) *No DNR – Should be DCR (Dept. of Conservation & Recreation) (Natural heritage)*
- 4) *Channels drive the port-(General) (Keep in mind comment)*
- 5) Will new material be placed in new eastward facility or by rehandling material from existing facility to east expansion facility.
- 6) Look at other alternatives (ocean disposal, etc.) (Disposal alternative)
- 7) *Navy supports additional depths of channels (more dredge material) (2007-2050 funding programmed) (new class of ships)*
- 8) HRPDC Transportation Proposals
- 9) Hydrodynamic Modeling
 - a) Entire Elizabeth River system?
 - b) Combine w/third crossing
 - c) Combine w/additional deepenings
(See WHITE GROUP #4)
- 10) Mitigation/Enhancement - Can it be implemented throughout the basin -- look for opportunities in the basin (See GREEN GROUP #9 and WHITE GROUP #4)
- 11) *Third Crossing - Only from Norfolk to C.I. - then up 460 instead of to N.N. (Recommended alternative transportation route to be considered)*
- 12) What other precedents are other Districts doing with dredge material handling.
(Gain information from the experiences of others)
- 13) Limited to Eastward Expansion (Why, Need to look at all alternatives for NEPA doc, Economic and to consider just what makes sense)
 - a) Northward?
 - b) East & North?
 - c) Westward?

YELLOW GROUP (continued)*

- 14) Project Purpose? Total Objective (Expand per Maritime Association, Navy & others)
 - a) Dredge material disposal
 - b) Port development
 - c) One without the other(See WHITE GROUP #8)

- 15) Look at NEPA requirements throughout process

- 16) Fish & Wildlife ask that we be sure to include
 - a) Fall/Spring Migration
 - b) Shore Fisher People
 - c) Birders

BLUE GROUP*

- 1) It should be emphasized throughout the conduct of the feasibility study that the Port of Hampton Roads is very important to the continued economic viability of the region and that port expansion in the 2010-2015 timeframe is essential to this continued viability. (See GREEN GROUP #15)

- 2) Community interest and buy-in to this project is very important and must be addressed throughout the feasibility effort.

- 3) ***During the conduct of the feasibility effort it will be very important that presentations concerning the size and shape of the potential expansion be as accurate as possible to avoid the perception by the public that the expansion will greatly constrict the channel area leading into the inner harbor. This is also true of the Third Crossing.***

- 4) Some evaluation should be given to the future need for the Rehandling Basin. For example, eliminating the Rehandling Basin would allow for the 4th cell to extend a greater distance to the south, thereby allowing for the cell to be longer and narrower.

- 5) In the interest of developing the 4th cell sooner, thereby making it available sooner for port development, it was suggested that consideration be given to using existing material within Craney Island to fill the 4th cell. (See WHITE GROUP #15)

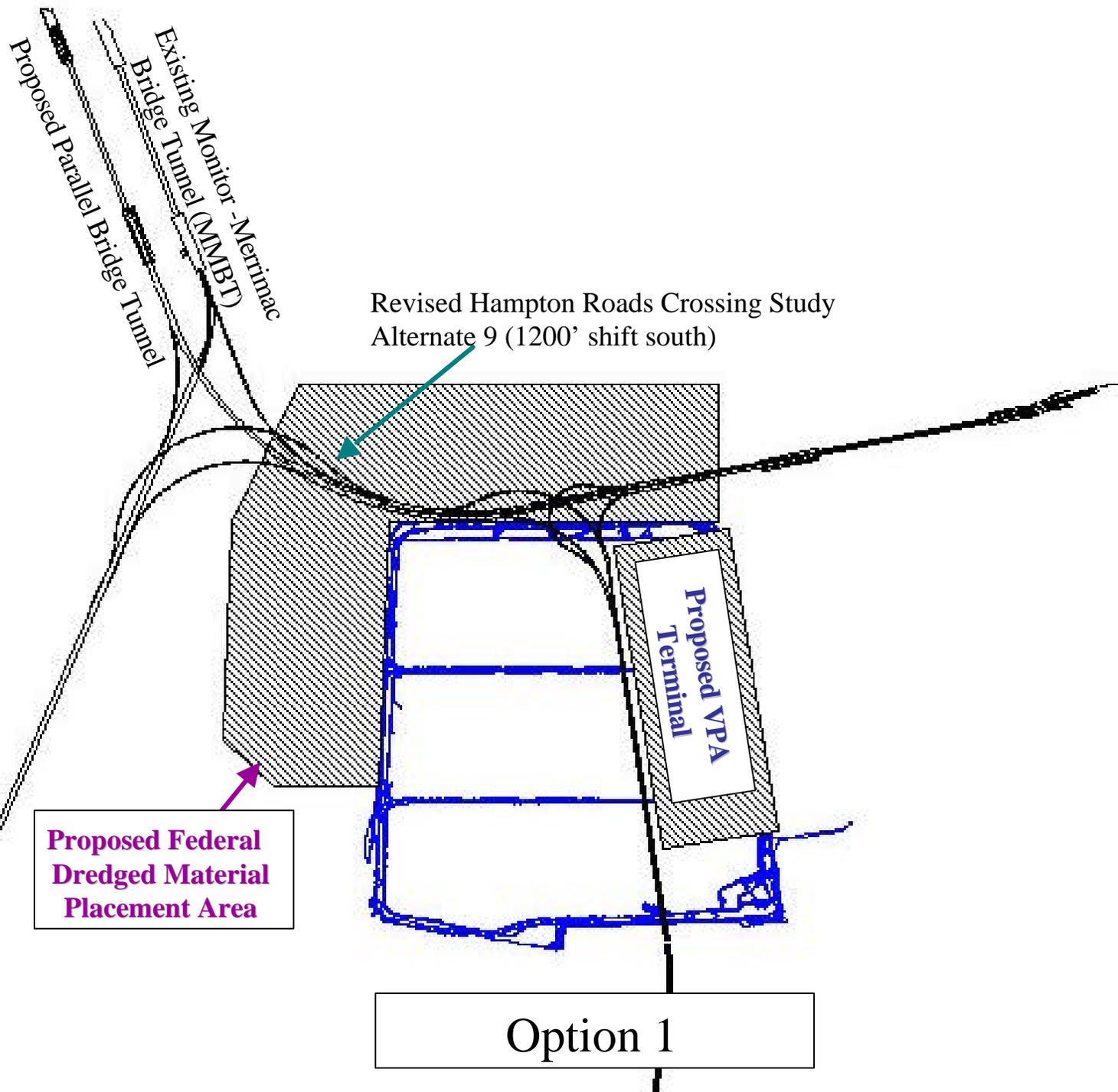
- 6) ***Paragraph 4.6.23 on page 19 of the PSP did not address the various issues regarding transportation as was indicated.***

- 7) The question was raised as to whether the existing levee system can be raised any further to provide additional storage capacity.

* These issues and concerns either serve to elaborate on issues and concerns identified in the reconnaissance phase or add additional issues and concerns (identified in bold italicized print) which will be incorporated into an updated Project Study Plan (PSP). Cross-referencing is identified in parenthesis ().

Craney Island Expansion Feasibility Study

Preliminary Footprint Options



**Proposed Federal
Dredged Material
Placement Area**

Revised Hampton Roads Crossing Study
Alternate 9 (1200' shift south)

**Proposed VPA
Terminal**

Option 1

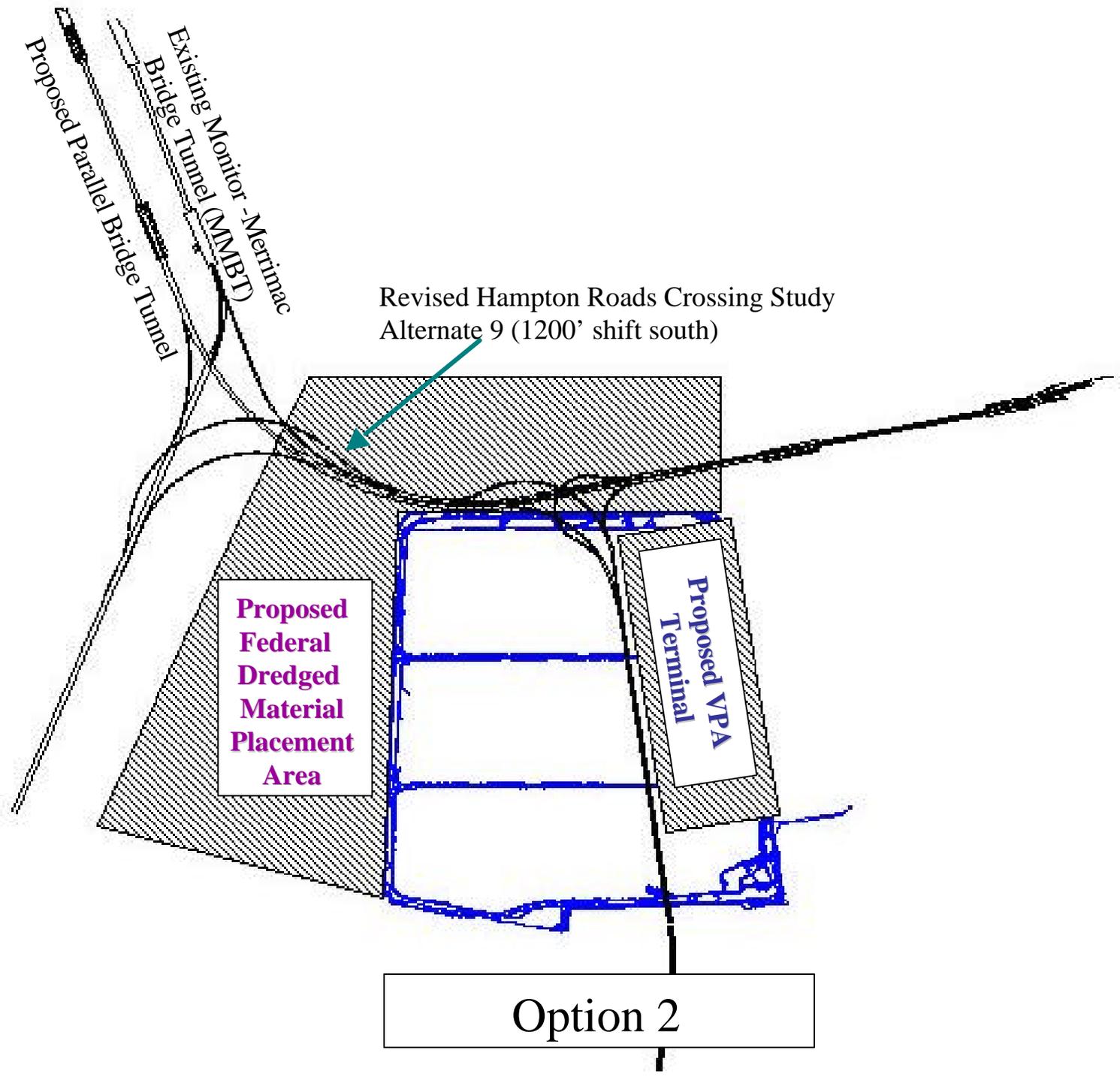
Existing Monitor - Merrimac
Bridge Tunnel (MMBT)
Proposed Parallel Bridge Tunnel

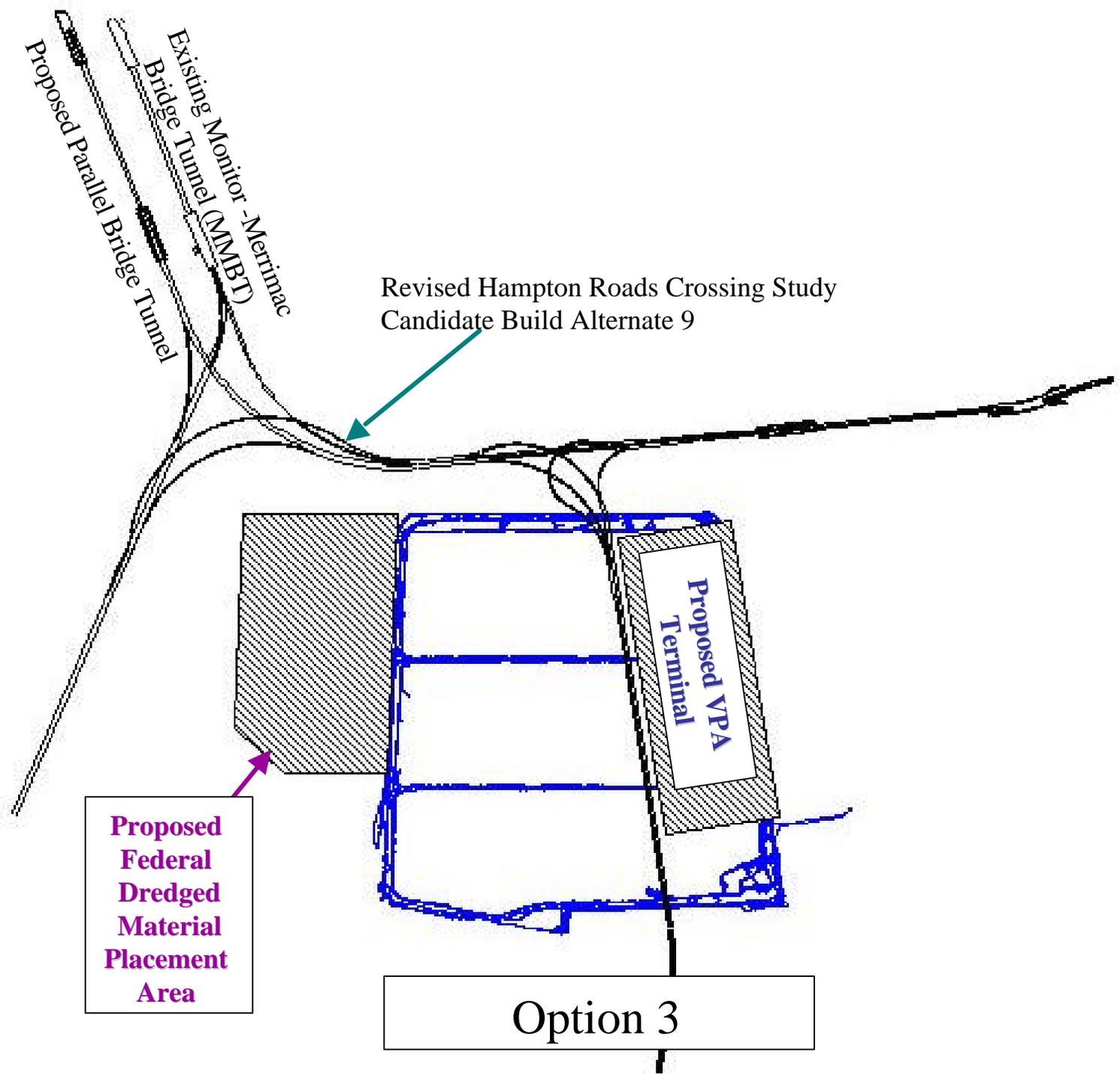
Revised Hampton Roads Crossing Study
Alternate 9 (1200' shift south)

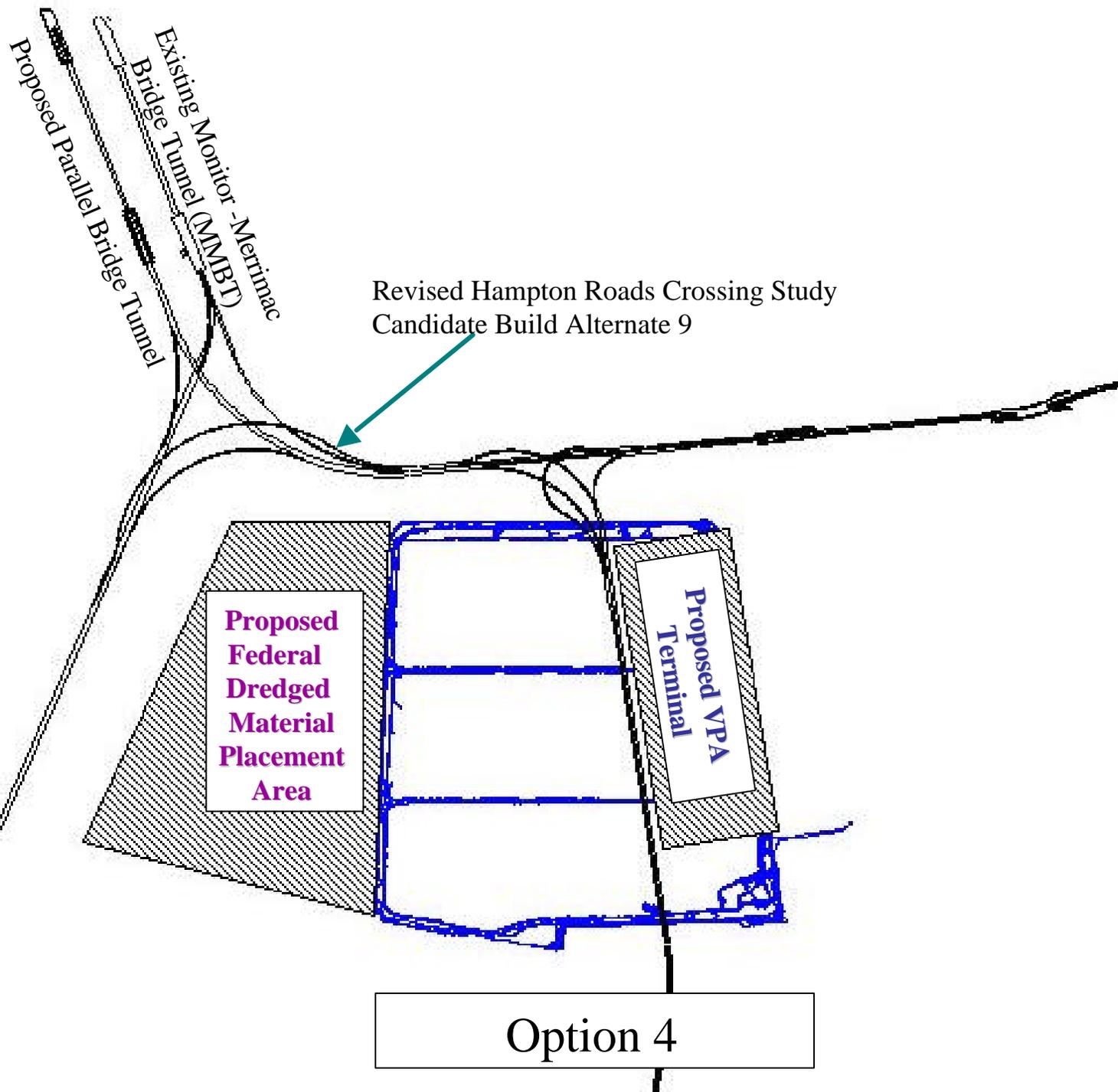
**Proposed
Federal
Dredged
Material
Placement
Area**

**Proposed VPA
Terminal**

Option 2







Existing Monitor - Merrimac
Bridge Tunnel (MMBT)

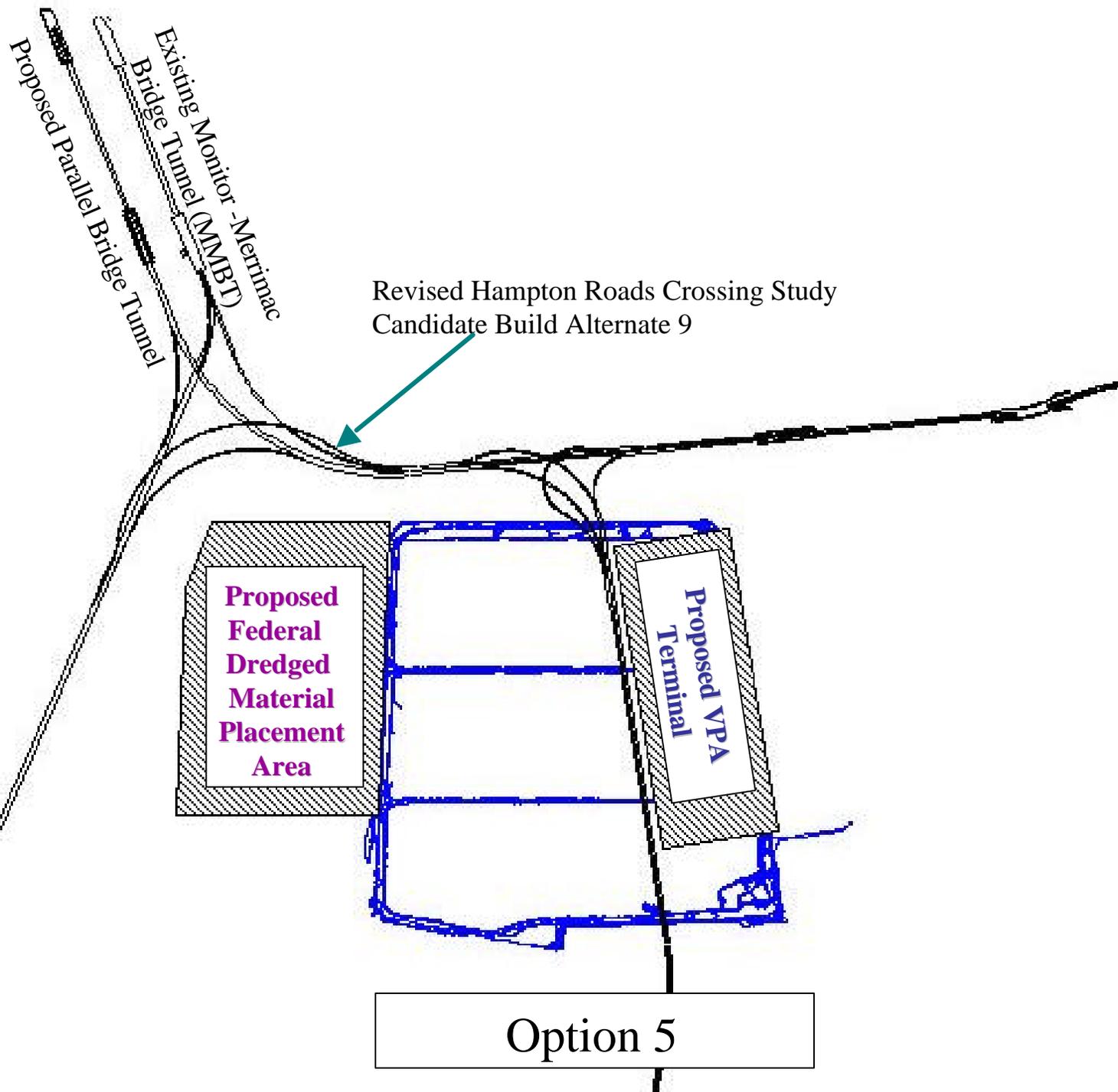
Proposed Parallel Bridge Tunnel

Revised Hampton Roads Crossing Study
Candidate Build Alternate 9

**Proposed
Federal
Dredged
Material
Placement
Area**

Proposed VPA

Option 4



Existing Monitor - Merrimac
Bridge Tunnel (MMBT)

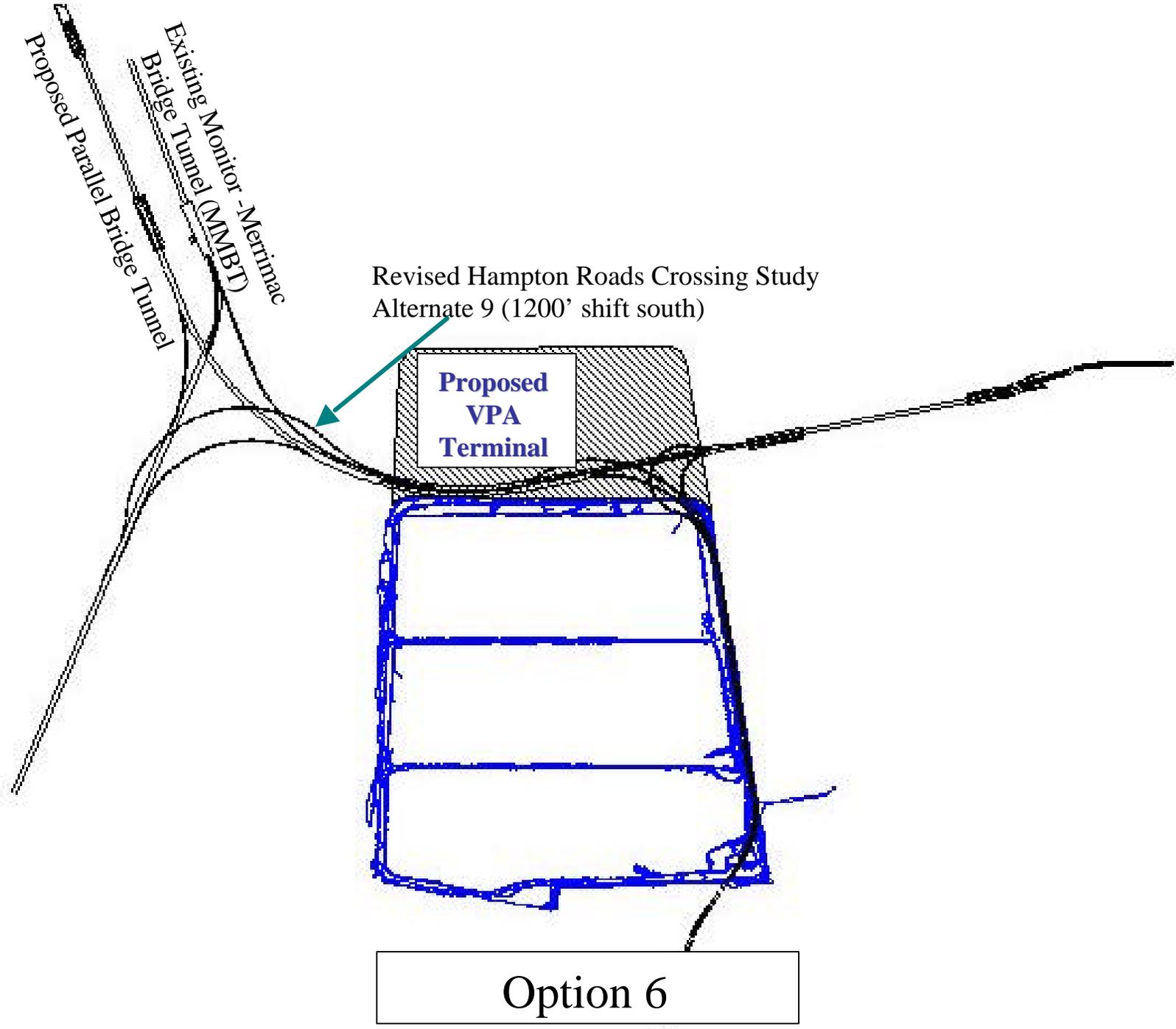
Proposed Parallel Bridge Tunnel

Revised Hampton Roads Crossing Study
Candidate Build Alternate 9

Proposed
Federal
Dredged
Material
Placement
Area

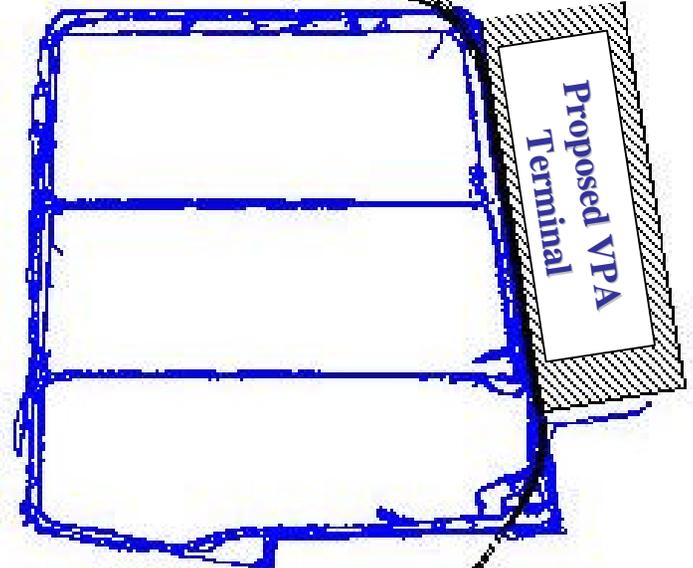
Proposed VPA

Option 5

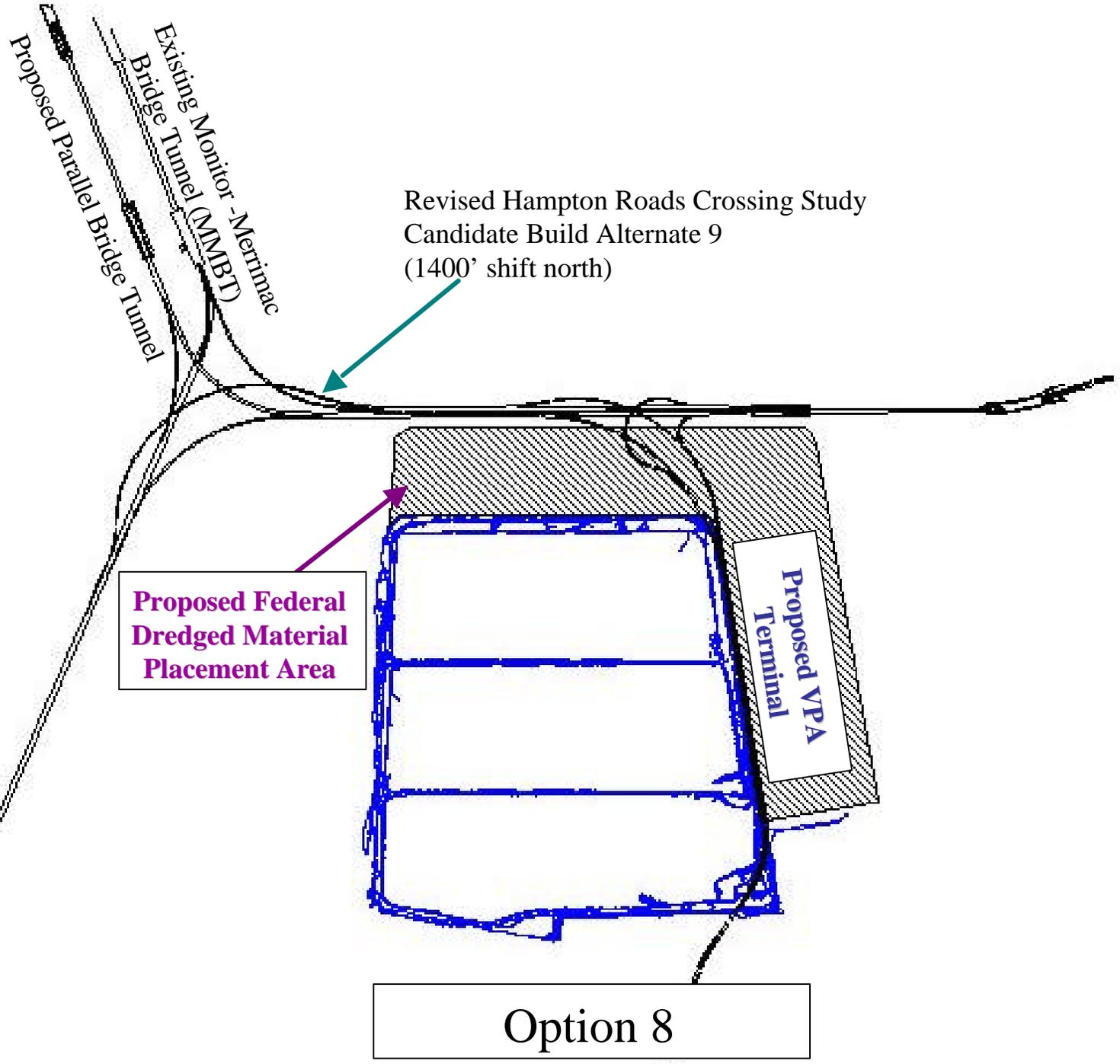


Existing Monitor - Merrimac
Bridge Tunnel (MMBT)
Proposed Parallel Bridge Tunnel

Hampton Roads Crossing Study
Candidate Build Alternate 9



Option 7



Revised Hampton Roads Crossing Study
Candidate Build Alternate 9
(1400' shift north)

**Proposed Federal
Dredged Material
Placement Area**

**Proposed VPA
Terminal**

Option 8

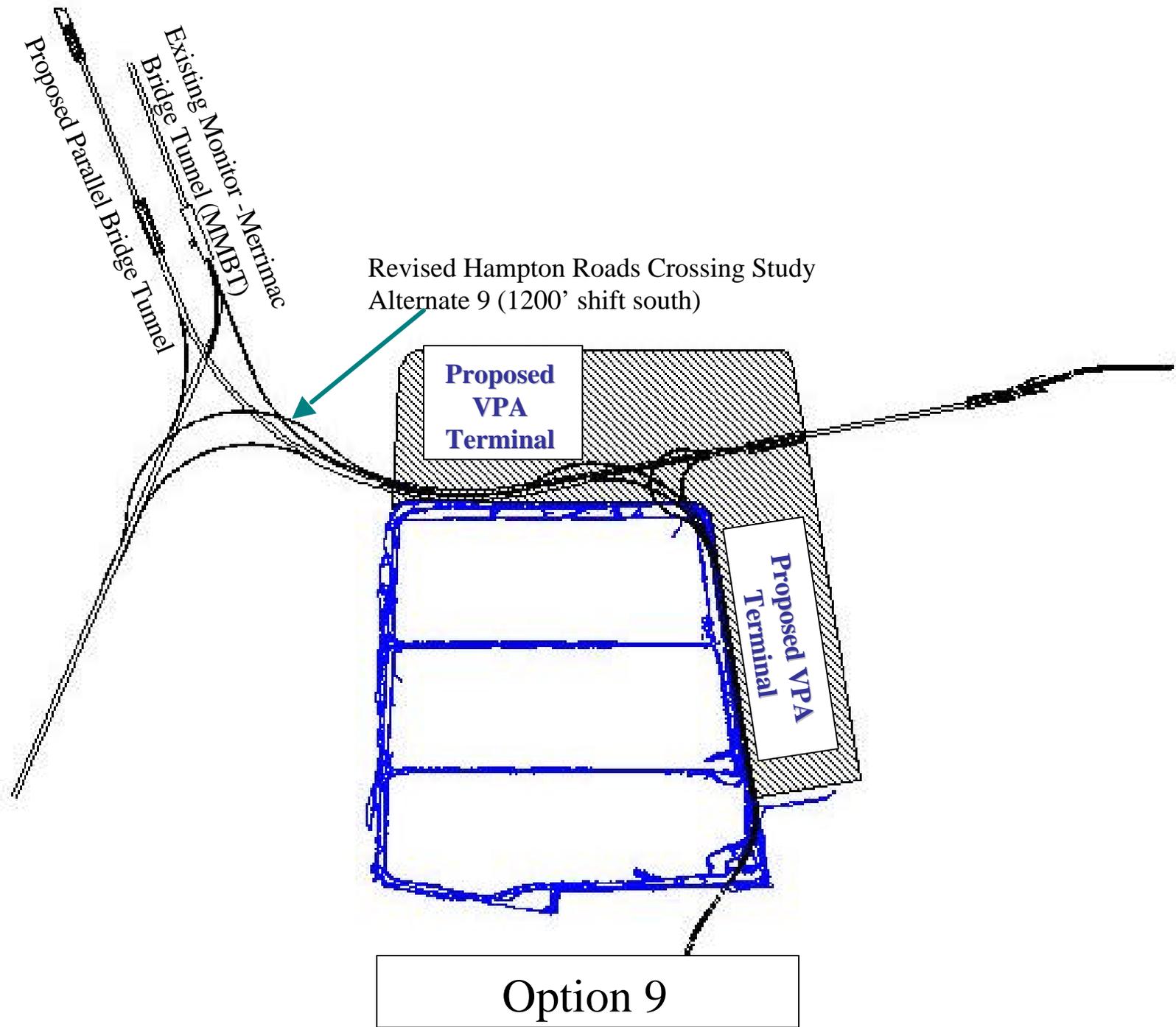
Existing Monitor - Merrimac
Bridge Tunnel (MMBT)
Proposed Parallel Bridge Tunnel

Revised Hampton Roads Crossing Study
Alternate 9 (1200' shift south)

Proposed
VPA
Terminal

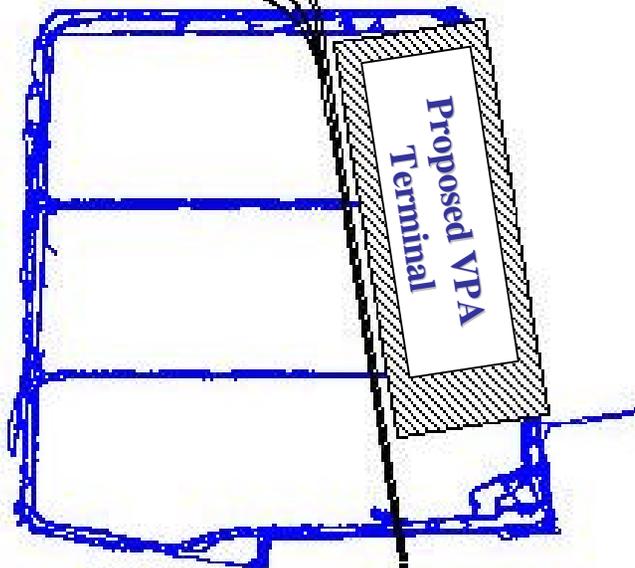
Proposed VPA
Terminal

Option 9

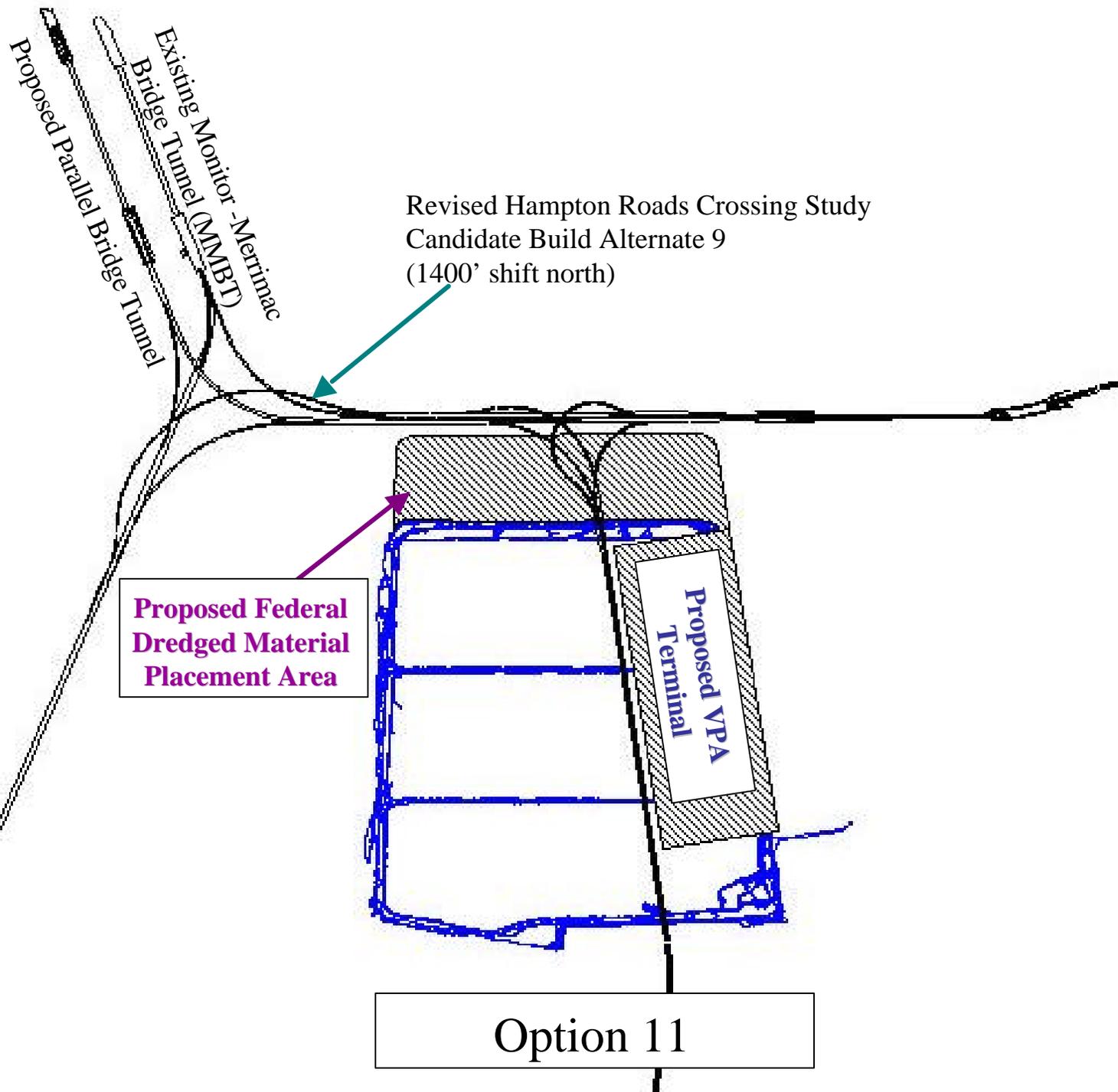


Existing Monitor - Merrimac
Bridge Tunnel (MMBT)
Proposed Parallel Bridge Tunnel

Revised Hampton Roads Crossing Study
Candidate Build Alternate 9



Option 10



Revised Hampton Roads Crossing Study
Candidate Build Alternate 9
(1400' shift north)

**Proposed Federal
Dredged Material
Placement Area**

**Proposed VPA
Terminal**

Option 11

Existing Monitor - Merrimac
Bridge Tunnel (MMBT)
Proposed Parallel Bridge Tunnel

Revised Hampton Roads Crossing Study
Alternate 9 (1200' shift south)

**Proposed Federal
Dredged Material
Placement Area**

**Proposed VPA
Terminal**

Option 12

