

June 15, 2021

Memorandum #2021-97

TO: Regional Connectors Study (RCS) Joint Steering Committee & Working Group
BY: Camelia Ravanbakht, RCS Project Coordinator
RE: Regional Connectors Study

Attached is the agenda for the **Joint Regional Connectors Study (RCS) Steering Committee and Working Group** meeting scheduled for **Tuesday, June 22, 2021 at 9:30 a.m.**

Given Governor Northam's declaration of a state of emergency due to COVID-19 and the remaining serious risk, the Joint RCS Steering Committee and Working Group meeting will be held electronically.

Members of the public are invited to address the Joint RCS Steering Committee and Working Group by submitting comments in advance of the meeting by email to kmiller@hrtpo.org or phone (757) 366-4370. All comments received 48 hours before the start of the meeting, will be provided to the committee and working group members prior to the meeting and included in the official record.

Additionally, the meeting will be live-streamed and available for viewing on the [Regional Connection YouTube channel](#).

/kl

Attachments

RCS Steering Committee and Working Group Members

Voting Members:

Steering Policy Group

Rick West (CH)
Donnie Tuck (HA)
McKinley Price (NN)
Martin Thomas (NO)
Shannon Glover (PO)
Mike Duman (SU)
Robert Dyer (VB)

Working Group

Troy Eisenberger (CH)
Jason Mitchell (HA)
Bryan Stilley (NN)
Brian Fowler (NO)
James Wright (PO)
Jason Souders (SU)
Ric Lowman (VB)

Nonvoting Members:

Ivan Rucker (FHWA)
Craig Quigley (HRMFFA)
Rick Dwyer (HRMFFA)
Kevin Page (HRTAC)
Jason Flowers (USACE)
George Janek (USACE)
Col. Patrick Kinsman (USACE)
Keith Lockwood (USACE)
Robert Pruhs (USACE)
Gregory Steele (USACE)
Tim Dolan (USCG)
Gene Leonard (USCG)
Michael King (USN)
Pamela Phillips (VDOT)
Jennifer Salyers (VDOT)
Chris Hall (VDOT)
Stephen Edwards (VPA)
Kit Chope (VPA)
Barbara Nelson (VPA)

Staff:

Bob Crum (HRTPO)
Pavithra Parthasarathi (HRTPO)
Keith Cannady (HRPDC)
Rob Case (HRTPO)
Greg Grootendorst (HRPDC)
Kendall Miller (HRTPO)
Keith Nichols (HRTPO)
Dale Stith (HRTPO)

Project Coordinator:

Camelia Ravanbakht

Project Consultants:

Craig Eddy
Lorna Parkins



Agenda

Regional Connectors Study

Joint Steering (Policy) Committee and Working Group Meeting

Tuesday June 22, 2021

9:30 AM

Given Governor Northam's declaration of a state of emergency due to COVID-19 and the remaining serious risk, the Joint RCS Steering Committee and Working Group meeting will be held electronically. This electronic meeting is required to complete essential business on behalf of the region.

1. Call to Order

2. Roll Call

3. Welcome and Introductions

4. Public Comments

Members of the public are invited to address the RCS Joint Steering Committee and Working Group Meeting by submitting comments in advance of the meeting by email to kmiller@hrtpo.org or phone (757) 366-4370. All comments received 48 hours before the meeting will be provided to the Committee and Working Group members and included in the official record.

5. Minutes *[Action Requested]*

Summary Minutes from October 27, 2020, Joint Steering (Policy) Committee and Working Group Meeting

Attachment 5

RECOMMENDED ACTION:

For Approval

6. Regional Connectors Study: Phase 3: Development of Preliminary Alternatives - Craig Eddy (MBI), Project Manager *[Action Requested]*

At the last Joint Meeting of October 27, 2020, the Steering (Policy) Committee members approved the completion of Phase 2 and directed the Consultant Team to move forward to the next Phase of the study with analysis of all five Supplemental Environmental Impact Statement (SEIS) Mandated Segments (Attachment 6A):

- I-664
- I-664 Connector
- I-564 Connector
- VA 164
- VA 164 Connector

Since that Joint Meeting, the Consultant Team has been diligently working on modeling the five mandated segments and several modifications to the five which resulted in various Alternatives (Attachment 6B). The modeling results from these alternatives have been presented to the Working Group over the past several months. In addition, the Working Group members have discussed the issues and constraints raised by the Army Corps of Engineers, the Navy, and the City of Portsmouth over the Mandated Segment VA 164 Connector (Attachment 6C). The following is a summary of those constraints:

- Proposed Roadway segments must not interfere with operations, maintenance, construction, or capacity of Craney Island
- Current projected lifespan of Craney Island is for year 2050 based on current technology
- For safety and security reasons, any proposed roadway segments must be a minimum distance of 1,800 feet from the proposed Navy Fuel Depot expansion and may require walls to further safeguard from potential security threats
- City of Portsmouth Landfill Expansion

Since the October 2020 Joint Meeting, the Working Group have reviewed and discussed the modeling results from various Alternatives (Attachment 6D). Those results included estimated traffic volumes, congested speed, travel time, and average delay on selected roadways of the region. Most recently, two design options for the Monitor Merrimac Memorial Bridge Tunnel (MMMBT) were used: Option A: 6 General Purpose Lanes (6GPL) + 2 Managed Lanes (2ML) and Option B: 4 GPL + 4 ML. At its May 25th Meeting, the Working Group recommended Alternatives 2, 3, 6, and 8 with Design Options A and B to be selected as Preliminary Alternatives (Attachment 6E).

Mr. Craig Eddy, Project Manager, will provide the Joint Committee with an update of Phase 3 of the RCS.

Attachment 6A:	Map of five SEIS Mandated Segments
Attachment 6B:	Graphics of all Alternatives
Attachment 6C:	VA 164 Connector Constraints
Attachment 6D:	Preliminary results from the 2045 Baseline, Alternatives 2, 3, 6, 7, and 8 under two design options (6+2 and 4+4) for MMMBT.
Attachment 6E:	Typical Sections for Alternatives 2, 3, 6, and 8 with Design Options A and B

RECOMMENDED ACTION:

Steering (Policy) Committee Approval of Preliminary Alternatives 2, 3, 6, and 8 with Two Design Options (A and B) for the MMMBT.

7. For Your Information

A. RCS Diary of Key Decision Points: 2017 to Present

The attached diary includes a summary of key decision points from 2017 to the present time. The purpose of this document is to provide a quick reference for members and the public. This is a living document and will be updated with future key action Items.

Attachment 7A

B. Revised Schedule for Phase 3

Attachment 7B

8. RCS Next Scheduled/Planned Meetings for 2021

- July 8, 2021 – 1:30 PM: Working Group Meeting
- August 12, 2021 – 1:30 PM: Working Group Meeting
- September 9, 2021 – 1:30 PM: Working Group Meeting
- October 2021 Date TBD: Joint Steering Committee and Working Group Meeting

9. Other Items of Interest

10. Adjournment

Regional Connectors Study
Joint Steering (Policy) Committee & Working Group Meeting Minutes
October 27, 2020, 9:30 am

Pursuant to the declared state of emergency in the Commonwealth of Virginia in response to the COVID-19 pandemic and to protect the public health and safety of the members, staff, and general public, this meeting was held electronically via Webex. These electronic meetings are required to complete essential business on behalf of the region. A recording of the meeting will be available on the website.

Steering (Policy) Committee

The following voting members attended the web meeting (alphabetically by city):

Donnie Tuck (HA)
McKinley Price (NN)
Martin Thomas (NO)
John Rowe (PO)
Bob Dyer (VB)

The following voting members were absent (alphabetically by city):

Rick West (CH)
Linda Johnson (SU)

Note that these cities were represented by members of the Working Group below.

Working Group

The following voting members attended the web meeting (alphabetically by city):

Earl Sorey (CH)
Lynne Keenan (HA) (replacing Jason Mitchell (HA))
Brian Fowler (NO)
Bryan Stilley (NN)
James Wright (PO) (did not vote) and Carl Jackson (PO) (voted in place of James Wright)
Jason Souders (SU)
Ric Lowman (VB) (replacing Phil Pullen (VB))

The following voting members were absent (alphabetically by last name):

[see Jason Mitchell and Phil Pullen above]

Others

The following others attended the web meeting (alphabetically by last name):

James Nick Britton (Michael Baker Intl.)	Keith Nichols (HRTPO)
Rob Case (HRTPO)	Kevin Page (HRTAC)
Bob Crum (HRTPO/HRPDC)	Lorna Parkins (Michael Baker Intl.)
Anthony Donald (Michael Baker Intl.)	Pamela Phillips (VDOT)
Rick Dwyer (HRMFFA)	Craig Quigley (HRMFFA)
Craig Eddy (Michael Baker Intl.)	Camelia Ravanbakht (RCS Coordinator)
Troy Eisenberger (Chesapeake)	Angela Rico (NN)
Cole Fisher (Va. Beach)	Evandro Santos (Norfolk)
Jason Flowers (Army Corps)	Lisa Simpson (Newport News)
Amy Inman (Norfolk)	Naomi Stein (EDR)
George Janek (Army Corps)	Dale Stith (HRTPO)
Steve Jones (Navy)	Eric Stringfield (VDOT)
Keith Lockwood (Army Corps)	Bill Thomas (Michael Baker Intl.)
Debbie Mangiaracina (Norfolk)	Cathy Vick (POV)
Barbara Nelson (POV)	

1. Call to Order

Mayor McKinley Price (Chair, Newport News) called the meeting to order at 9:30am. Bob Crum (HRPDC/HRTPO) read a COVID-19 notice.

2. Welcome and Introductions

Bob Crum (HRPDC/HRTPO) called the roll.

3. Public Comment Period

There were no public comments.

4. Minutes

The Steering (Policy) Committee approved the minutes of the November 5, 2019 Steering (Policy) Committee meeting.

The Working Group approved the minutes of the October 8, 2020 Working Group meeting.

5. RCS: Phase 2 Status Report

Craig Eddy (MBI) used slides to provide the joint body an update of Phase 2 tasks. Lorna Parkins (MBI) showed scenario planning work using slides. Bill Thomas (MBI) used slides to provide the impact of the scenarios on travel. Naomi Stein (EDR) showed economic results of the scenarios using slides.

The joint body approved Phase 2 completion, including Greater Growth scenario planning differentiation and travel demand modeling performance measures (moved by Mayor Rowe, seconded by Mayor Dyer) by individual voice vote. Prior to the vote, at the request of Mayor Rowe, Cathy Vick and Barb Nelson verbalized the Port's perspective, including expected growth of the Port.

6. RCS: Mandated SEIS Segments and Other Potential Segments

Using slides, Craig Eddy (MBI) presented the five “Mandated Segments” (i.e. segments from Hampton Roads Crossing Study [HRCS] Supplemental Environmental Impact Statement [SEIS] required for analysis by foundational study documents), including the VA 164 Connector:

VA 164 Connector

Craig Quigley (HRMFFA) said that VA 164 Connector poses potential concerns for the Navy. Craig Eddy (MBI) indicated that the Navy has a non-public shy distance for construction in the vicinity of its proposed tank area. Camelia Ravanbakht (RCS Coordinator) reiterated some of the concerns expressed earlier by the Navy. Mayor Rowe (Portsmouth) mentioned that Portsmouth’s permitted landfill expansion lies in the path of the VA 164 Connector (as shown on the slide). Barb Nelson (VPA) believes that modified alignments of the VA 164 Connector can meet the needs of the Port, Portsmouth, and the Navy. Martin Thomas (Norfolk) expressed interest in modified alignments for the Connector. Keith Lockwood (Army Corps) said that the alignment shown on the slide needs to be modified, and that the Corps’ usage of the southern cell of Craney Island Dredged Material Management Area (CIDMMA) could be accelerated to accommodate modifying the VA 164 Connector to cut across the southeast corner of the CIDMMA.

Action

Mayor Rowe (Portsmouth) moved that the Mandated Segments be carried forward for “feasibility” (see motion re-iteration below). Camelia Ravanbakht (RCS Coordinator) said that the segments will be evaluated for permitability. Brian Fowler (Norfolk) said that the next step would be for the segments to be modified as necessary. Martin Thomas (Norfolk) asked that the motion mirror the motion of the Working Group’s at its recent meeting. Bob Crum (HRTPO/HRPDC) listed the 5 Mandated segments—I-664 Connector, VA 164 Connector, I-564 Connector, I-664, VA 164—then he reiterated the motion:

This joint committee directs the RCS to move forward with studying the feasibility of alternatives comprised of the five Mandated Segments and modifications thereof.

The motion passed unanimously by individual voice vote.

7. For Your Information

Craig Eddy (MBI) presented slides showing the status of Phase 3 deliverables, and a draft schedule for Phase 3.

8. Next Meetings

The proposed next meetings:

- Working Group: Nov 12, 1:30pm
- Working Group: Dec 10, 9:30am
- Joint Working Group and Steering Committee: (tentative) week of December 7

9. Other Items of Interest

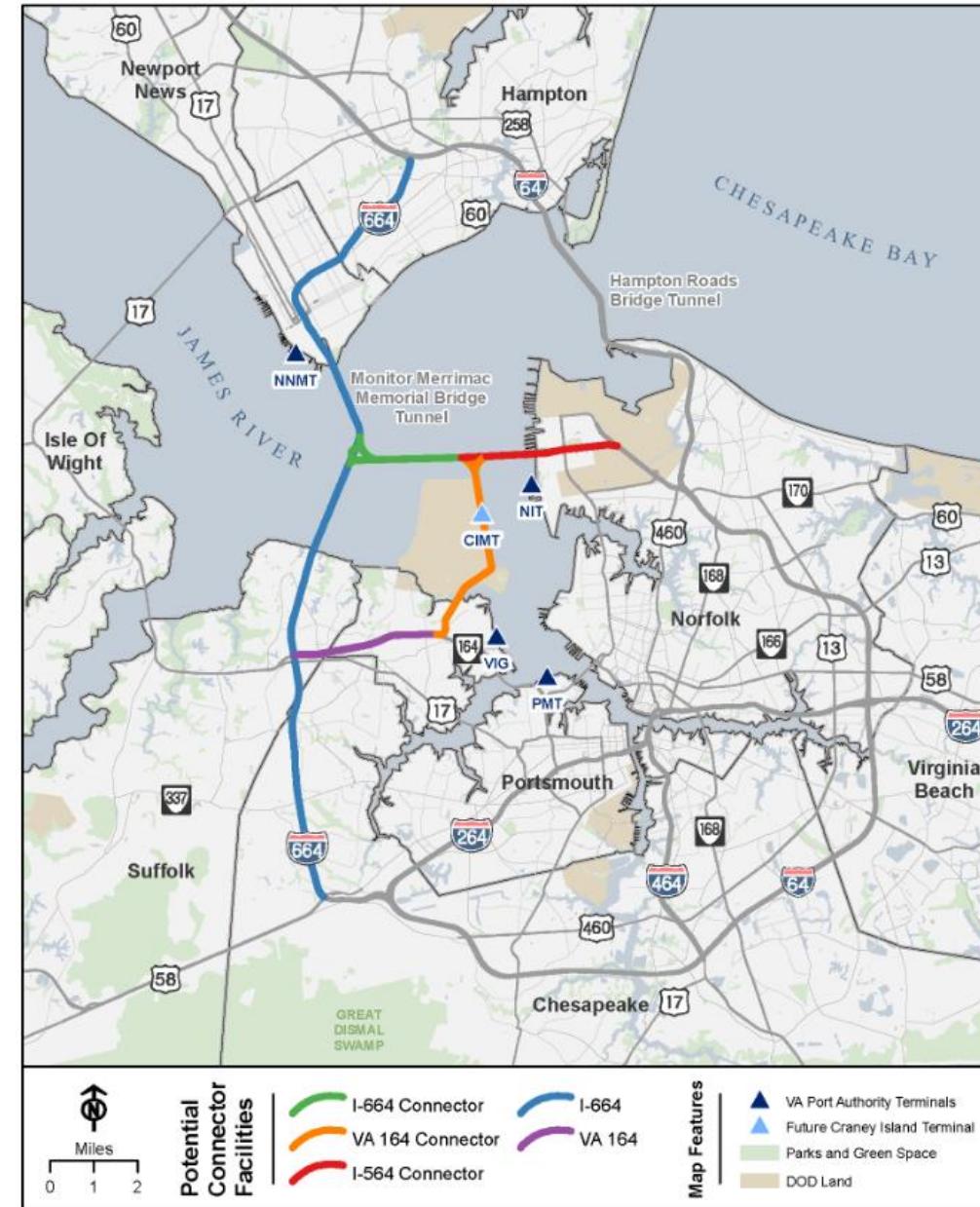
No other items were discussed.

10. Adjournment

The meeting was adjourned at 11:20am.

Attachment 6A

Mandated Segments



Attachment 6B

Alternative 1



Alternative 2

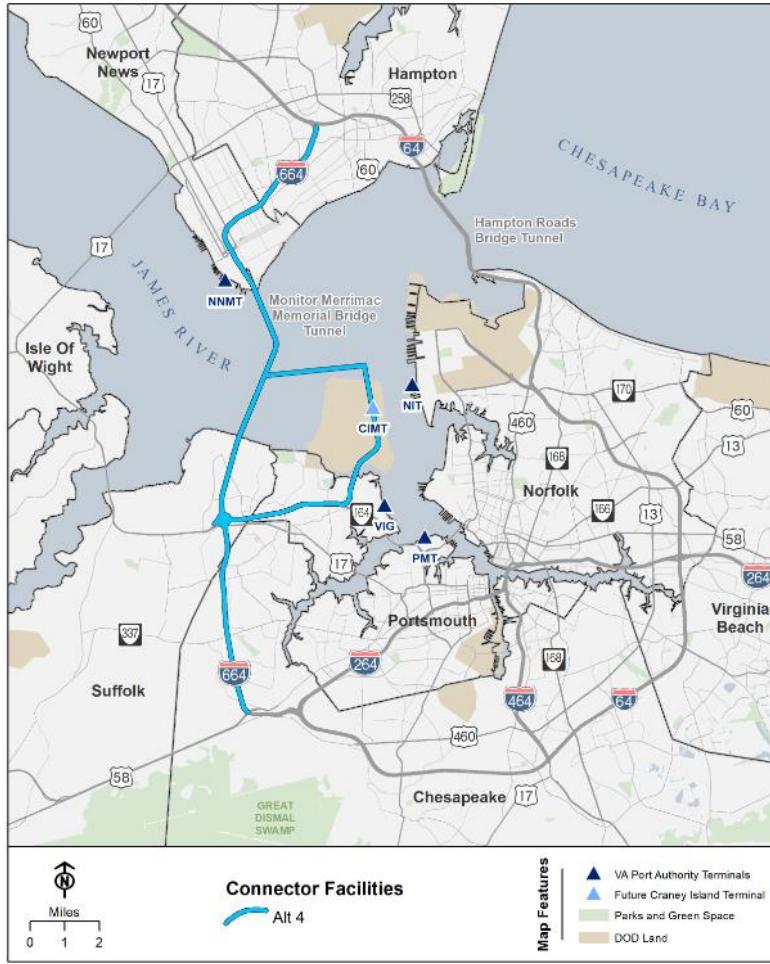


Attachment 6B – Cont.

Alternative 3



Alternative 4



Alternative 5

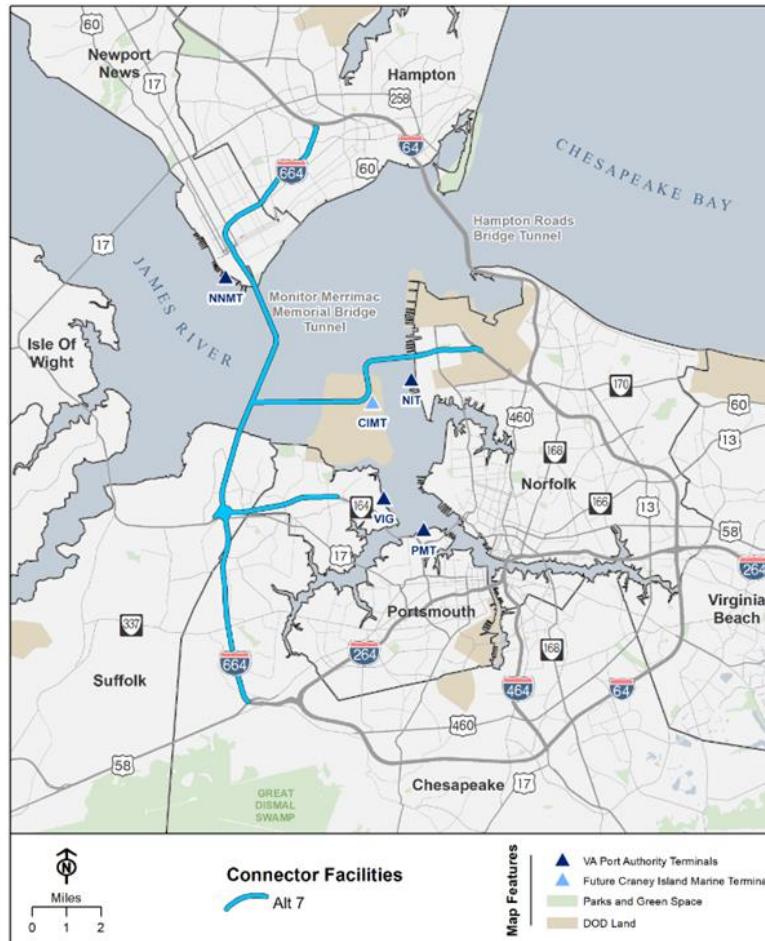


Attachment 6B – Cont.

Alternative 6



Alternative 7



Alternative 8



Attachment 6C

VA 164 Connector Constraints



Attachment 6D

Daily Traffic Volumes at Key Locations *

Location	2017 Existing	2045 Baseline ***	MMMBT 6+2 Design Option**						MMMBT 4+4 Design Option**					
			2045 Alternative 2A	2045 Alternative 3A	2045 Alternative 6A	2045 Alternative 7A	2045 Alternative 8A	2045 Alternative 2B	2045 Alternative 3B	2045 Alternative 6B	2045 Alternative 7B	2045 Alternative 8B		
James River Bridge	37,431	54,382	48,404	48,241	48,447	47,582	48,363	48,775	48,630	48,472	47,926	48,481		
Monitor Merrimac Memorial Bridge Tunnel (GP)	74,994	91,474	82,376	84,528	85,454	79,846	85,588	72,511	72,375	71,852	71,025	71,564		
Monitor Merrimac Memorial Bridge Tunnel (Managed Lanes)	-	-	28,583	33,695	34,902	28,830	34,151	38,565	48,689	47,158	39,458	46,754		
Hampton Roads Bridge Tunnel (GP)	92,195	108,450	96,892	96,032	96,300	94,643	96,157	96,947	96,324	95,946	95,229	95,833		
Hampton Roads Bridge Tunnel (Managed Lanes)	-	57,699	53,370	48,257	48,544	49,486	48,614	53,377	48,031	47,527	50,116	47,730		
Harbor Crossing Totals	204,620	312,005	309,626	310,753	313,646	300,386	312,873	310,175	314,049	310,954	303,755	310,361		
I-64 west of US 258 (Mercury Blvd) (GP)	119,617	151,888	149,478	146,626	147,734	146,827	147,466	149,101	147,449	147,284	147,184	146,693		
I-64 west of US 258 (Mercury Blvd) (Managed Lanes)	13,802	29,372	30,136	31,101	31,800	30,538	31,445	30,753	31,586	31,771	31,244	31,587		
I-564 west of I-64	96,455	78,189	77,752	81,059	81,479	79,655	81,850	78,002	81,271	81,419	79,842	81,296		
Hampton Blvd over the Lafayette River	42,949	44,255	42,700	35,630	36,038	35,384	35,740	42,650	35,469	35,680	35,888	35,776		
US 58 MidTown Tunnel	50,700	61,062	61,495	54,560	54,959	55,274	54,527	61,282	54,611	54,675	55,725	54,397		
I-264 under the Elizabeth River (Downtown Tunnel)	76,479	84,455	84,039	82,767	82,819	82,938	82,812	83,989	82,619	82,747	83,076	82,663		
I-64 High Rise Bridge (GP)	106,183	122,191	121,885	121,765	122,340	121,863	121,989	122,034	121,690	122,178	122,090	121,866		
I-64 High Rise Bridge (Managed Lanes)	-	15,960	21,060	18,381	18,386	18,320	18,620	21,289	18,566	18,858	18,696	18,855		
I-264 just east of Bowers Hill	64,611	82,428	80,139	78,261	78,272	78,596	78,662	80,313	78,106	78,301	78,473	78,995		
I-664 just north of Bowers Hill (GP)	85,186	101,329	106,420	105,497	105,756	105,537	105,547	105,660	105,450	105,154	105,396	104,954		
I-664 just north of Bowers Hill (Managed Lanes)	-	-	19,717	16,538	16,723	16,716	16,832	20,171	16,945	16,969	17,222	16,987		
I-464 just south of I-264	88,248	97,722	97,121	98,103	97,729	97,692	97,557	97,138	97,606	98,007	97,913	98,013		
VA 164 just east of I-664	50,087	49,412	58,329	52,447	52,937	52,825	47,051	58,650	53,644	52,999	53,557	47,333		
I-564 Connector	-	-	-	39,569	40,146	30,596	40,021	-	39,932	39,752	31,135	39,915		
CIMT Connector	-	-	-	-	715	776	727	-	-	723	780	734		
I-664 Connector	-	-	-	39,569	40,494	31,000	40,373	-	39,932	40,110	31,542	40,278		
US 17 east of I-664	22,206	27,176	24,802	23,714	23,688	23,867	25,696	24,968	23,823	23,826	23,922	25,738		
I-64 east of VA 168 (GP)	113,334	114,433	109,575	110,864	110,909	110,612	110,912	109,986	111,335	111,285	110,904	111,064		
I-64 east of VA 168 (Managed Lanes)	34,994	33,681	31,552	32,612	32,748	31,842	32,694	31,778	32,795	32,821	31,903	32,789		

Notes:

* I-664 and I-64: \$0.06/mile managed lanes only; I-564 and I-664 connectors: \$1.00 all lanes; No toll on CIMT connector.

** MMMBT design option recommended by Working Group and reviewed by HRTPO staff, May 13, 2021

*** Baseline network is E+C and consistent with HREL

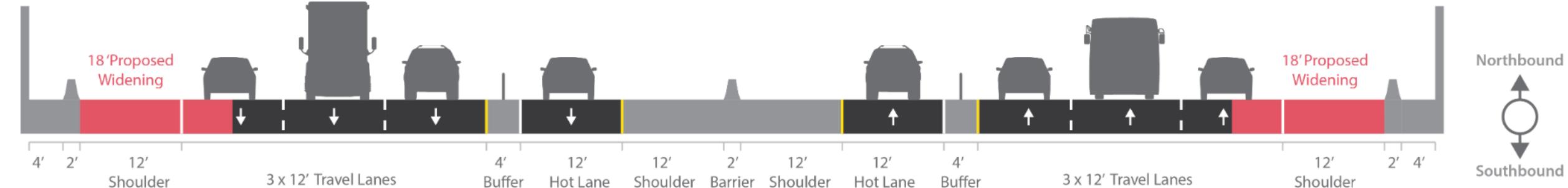
XXX - Reduction from 2045 Baseline

YYY - Increase from 2045 Baseline

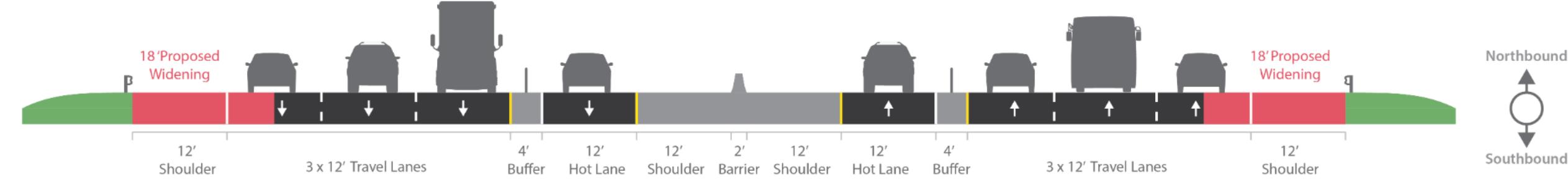
- MMMBT 6GP+4M and 4GP+4M design options only pertain to I-664 from I-664 Connector to Powhatan Parkway interchange

Attachment 6E - Typical Sections (MMMT 6GP+2M Design Option)

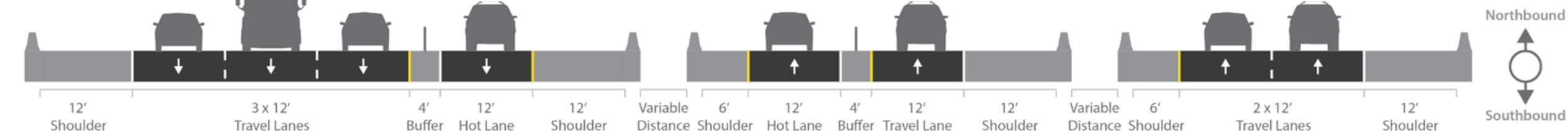
I-664 : 6GP + 2 M
Powhatan Parkway Interchange to I-64/I-664 Interchange



I-664 : 6GP + 2 M
I-664 Tunnel Split to Powhatan Parkway Interchange

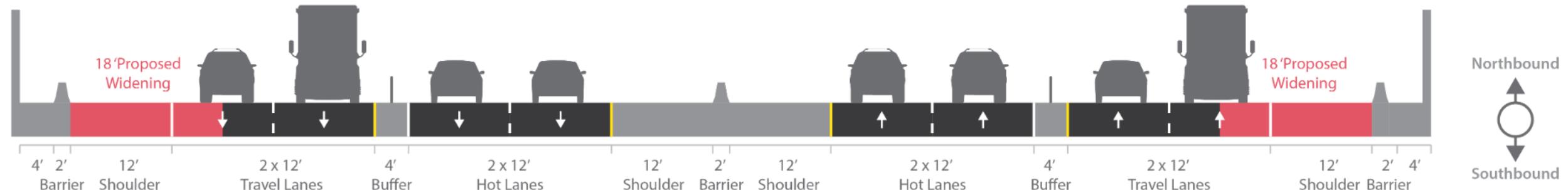


Bridge and Tunnel Across Hampton Roads
North of I-664 Connector: 6 GP + 2M

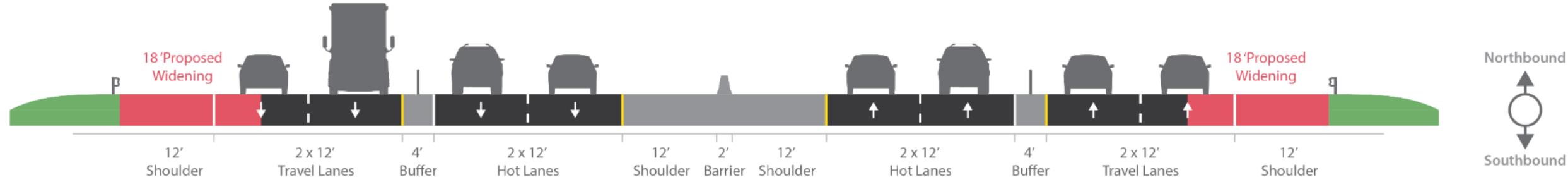


Attachment 6E (cont.) - Typical Sections (MMMBT 4GP+4M Design Option)

I-664: 4 GP + 4 M
Powhatan Parkway Interchange to I-64/I-664 Interchange

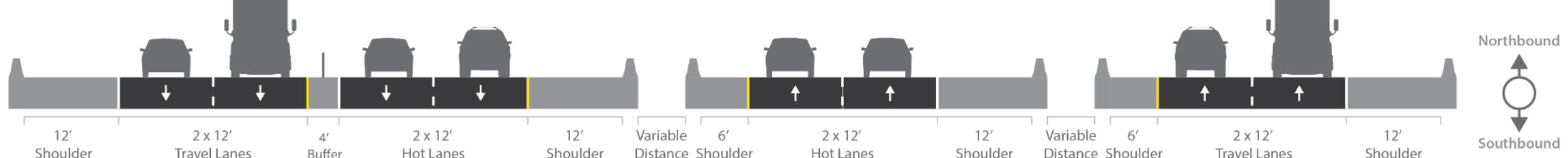


I-664: 4 GP + 4 M
I-664 Tunnel Split to Powhatan Parkway Interchange



Bridge and Tunnel Across Hampton Roads
North of I-664 Connector: 4GP + 4 M

All Shoulders = 2' for Tunnel Sections



Regional Connectors Study

Summary of Key Decision Points

Prepared By: Camelia Ravanbakht, PhD
RCS Project Coordinator
November 13, 2020

Revised: December 2020, January 2021, February 2021, April 2021, May 2021.

Abstract:

This document is a diary of key decision points approved by the RCS Steering (Policy) Committee and Working Group from 2017 to present, in chronological order.

The purpose of this document is to provide a quick reference for members of the Regional Connectors Study and the public. The information used in this document is based on excerpts from meeting minutes prepared by Dr. Rob Case of HRTPO.

This is a living document and will be updated with future key action items per approval from the Committee.

2017

Steering (Policy) Committee meeting on 10/05/2017

Item#5: Draft Guidance for Scope of Work

Mayor Sessoms (VB) moved the endorsement and recommendation of HRTPO Board approval of the Guidance for Scope of Work; Mayor Rowe (Portsmouth) seconded; Motion passed unanimously.

2018

Working Group meeting on 05/11/2018:

Item#5: Contract Negotiations with Selected Consultant:

Mr. Crum (HRPDC/HRTPO) gave an overview of the consultant selection process in which Michael Baker was chosen. Craig Eddy (Michael Baker) gave an overview, with slides, of a phased approach and a scope for Phase 1. After much discussion by Working Group members, HTRPO staff, and HRTAC staff, it was decided that the consultant would do the following:

- Monthly meetings of the Working Group, to be canceled as appropriate considering project progress
- Convene a group meeting of stakeholders (Working Group and Policy Group) for Task 1 (Initiate Engagement Program)
- Coordinate with VDOT HR District surveys to avoid duplication.
- Establish goals & objectives during Phase 1
- Prepare a scope for Phase 2 during Phase 1
- Send details of the proposed survey to Kendall Miller (HRTPO)
- Prepare a new baseline of existing conditions.

Mr. Crum asked the group if it concurred with him asking the HRTPO Board for authorization to enter contract with Michael Baker for Phase 1. A motion made by Brian Stilley (Newport News) and seconded by John Yorks (Hampton)—to move ahead with Phase 1—passed unanimously.

Working Group meeting on 06/04/18:

Item#5: Revised Phase 1 Scope:

Craig Eddy (MBI) presented the current Phase 1 scope, revised based on earlier comments of the working group. Bob Crum (HRTPO) asked that the purpose of Phase 1— “the establishment of goals and objectives [and] the development of a draft scope for Phase 2”—be included in the scope of Phase 1. Craig said that he would add those items to Task 5. Bob asked if the group was comfortable with him signing a contract for Craig to proceed. The group concurred.

2019

Joint Steering (Policy) Committee and Working Group meeting on 02/13/2019:

Item#5: RCS and Relationship with 2045 Long-Range Transportation Plan (LRTP):

Mr. Crum (HRPDC/HRTPO) stated that to-date, the timelines of the RCS and the 2045 LRTP have been synchronized; however, concerns have grown that more time is needed to conduct the RCS, and it has been suggested to pursue a second option. The options for discussion are as follows:

- Option 1: RCS Concurrent with the 2045 LRTP Schedule
- Option 2: RCS Separate Path from the 2045 LRTP Schedule

Mayor Rowe (Portsmouth) expressed support for Option 2 and stated that the RCS should be decoupled from the LRTP since the LRTP is a fiscally constrained document. He noted that in the 2030 LRTP, adopted by the HRTPO Board in March 2007, no State highway construction funds would be available by 2018; therefore, the projects in the 2030 plan were either pared down or tolled. He indicated that the LRTP was flawed in concept and should reflect the region's vision without the restrictions of fiscal constraint.

Motion:

Mayor Rowe (Portsmouth) moved to decouple the timelines of the RCS and the 2045 LRTP; seconded by Mayor Price (Newport News). The Motion Unanimously Carried.

Item# 6: RCS Draft Scope of Services for Phase 2:

Motion:

Mayor Rowe (Portsmouth) moved to refer the Phase 2 Scope of Work technical comments to the Working Group for review and to recommend HRTPO Board approval of the \$1 million Phase 2 abbreviated scope of work; seconded by Mayor West (Chesapeake). The Motion carried.

Steering (Policy) Committee Meeting on 04/30/2019:

Item#3: Committee Organizational Structure:

Mr. Crum (HRPDC/HRTPO) presented the idea of the committee nominating a voting member as chair. Mayor Price (Newport News) was chosen as Chair, and he appointed Mayor Rowe (Portsmouth) as Vice Chair.

Item#7: Phase 2 Supplemental Scope of Work, Cost and Budget:

The committee approved the Phase 2 Supplemental Scope of Work, Cost and Budget, forwarding it to the HRTPO Board for approval at its May 16, 2019.

Steering (Policy) Committee meeting on 07/09/2019:

Item#5: Phase 2 Supplement Budget Omission:

Craig Eddy (MBI) presented slides concerning this matter. The committee approved the correction.

Item#7: Scenario Planning and Greater Growth Assumptions:

The consultant will run the models with 16% employment growth, and then present the results to the Working Group for it to decide whether or not that produces sufficient variation in the congestion of the existing + committed network between the three Greater Growth scenarios. Should upward revisions be deemed necessary by the Working Group, the consultant will run the models with employment growth rates up to 21% until sufficient variation between the scenarios is determined. The Committee approved the Scenario Narratives, Goals, Objectives, and Performance Measures.

Steering (Policy) Committee on 11/05/2019:

Item#6. Draft Phase 3 Scope of Work:

Craig Eddy (MBI) presented the draft Phase 3 scope, schedule, and budget using slides. The Committee approved the scope, schedule, and budget as presented.

2020

Working Group Electronic Meeting 06/12/2020

For the Preliminary Alternatives discussion, Craig Eddy (MBI) provided a background of the project scope, vision, goals, and objectives. His presentation included maps of the segments from the HRCS SEIS that were specified to be part of the RCS effort, as well as additional candidate segments received through stakeholder interviews. The group discussed the potential segments and alternatives to review and analyze as part of the study. Jason Flowers (USACE) read a statement regarding the Corps' federally mandated position to maintain and protect navigable waterways, channels, and access. After much discussion, there was concurrence among the members of the Working Group that the following candidate segments (shown on map provided at meeting) not be forwarded for analysis:

- o Segment 1: New bridge over James River, includes improvements on Rt 10 to US 17
- o Segment 4: Ferry service, Hampton to Norfolk
- o Segment 5: New bridge tunnel from NIT to Hampton

The Working Group also discussed at length the potential future need and scope of the VA-164 Connector and whether it should remain an RCS segment for consideration. For now, VA-164 will remain a potential segment since it is one of the mandated segments to analyze. Additional discussions with all impacted stakeholders will continue at future meetings.

Working Group Electronic Meeting on 07/09/ 2020:

Motion to move the study forward and accept the Travel Demand Model adjustments and calibrations were unanimously passed.

Working Group Electronic Meeting on 08/13/2020:

Concerning Phase 2, Lorna Parkins (MBI), Vlad Gavrilovic (EPR), Bill Thomas (MBI) presented inputs and outputs of travel demand model runs for various growth scenarios. Craig Eddy (MBI) asked the working group to confirm that the Greater Growth forecasts provide adequate differentiation in results.

Working Group members concurred that the differentiation between the 3 greater growth scenarios is sufficient and directed the consultant team to move the study forward. Congestion related performance measures will be presented at the August 27th meeting.

Working Group Electronic Meeting on 08/27/2020:

Bill Thomas (MBI) used slides to provide a modeling and congestion (by scenario) update. Results showed a decrease in VMT, VHT from 2017 to 2045 Base. Members expressed concerns with a decrease. Bill Thomas indicated that he intends to perform more checking of the modeling results.

Working Group directed the consultant team to improve model findings, coordinate with staff and report back in late summer/early fall.

Working Group Electronic Meeting on 10/08/2020:

Item #5. RCS: Modeling Update on Congestion Measures

Bill Thomas (MBI) indicated that he made model fixes to correct earlier counter-intuitive results and substandard differences (in screenline volumes) between counts and model. He presented volume data showing a better relationship between counts and the model. Then he presented measures (vehicle-miles traveled, delay, speed, etc.) comparing the three 2045 Greater Growth scenarios (Water, Urban, and Suburban). Bryan Stilley (Newport News) asked whether the group was satisfied with the fixes. The group made no objections. Mr. Stilley indicated that this satisfaction recommends to the Steering Committee approval of Phase 2.

Item #6. Mandated and Other Potential Segments:

Craig Eddy (MBI) presented slides showing the five segments from the Hampton Roads Crossing Study (HRCS) Supplemental Environmental Impact Statement (SEIS).

Motion: Brian Fowler (Norfolk) made a motion that the RCS move forward studying alternatives comprised of the five SEIS segments and modifications of the five. Ric Lowman (Va. Beach) seconded the motion. The Working Group approved the motion (4 to 1 from those voting members present at the time of the motion).

Joint Steering (Policy) Committee and Working Group Meeting on 10/27/2020:

Item #5: RCS Phase 2 Status Report:

Motion: The joint body approved Phase 2 completion, including Greater Growth scenario planning differentiation and travel demand modeling performance measures. The motion was

moved by Mayor Rowe (Portsmouth) and seconded by Mayor Dyer (Virginia Beach). Prior to the vote, at the request of Mayor Rowe (Portsmouth), Cathy Vick (VPA) and Barbara Nelson (VPA) verbalized the Port's perspective, including expected growth of the Port. The motion passed unanimously by individual voice vote.

Item #6: RCS Mandated SEIS Segments and Other Potential Segments:

Motion: Mayor Rowe (Portsmouth) moved that the Mandated Segments be carried forward for "feasibility". Camelia Ravanbakht (RCS Coordinator) mentioned that the segments will be evaluated for permitability. Brian Fowler (Norfolk) indicated that the next step would be for the segments to be modified, as necessary. Martin Thomas (Norfolk) asked that the motion mirrors the motion of the Working Group at its recent meeting. Bob Crum (HRTPO/HRPDC) listed the 5 Mandated segments—I-664 Connector, VA 164 Connector, I-564 Connector, I-664, VA 164—then he reiterated the motion: This joint committee directs the RCS to move forward with studying the feasibility of alternatives comprised of the 5 Mandated Segments and modifications thereof. The motion passed unanimously by individual voice vote.

Working Group Electronic Meeting on 12/10/2020:

Item#5: Regional Connectors Study: Phase 3 - Task 2 - Development of Preliminary Alternatives
The Consultant Team provided the group with a detailed presentation of two travel demand model (TDM) runs: 1) one Unconstrained 2045 Baseline with the Existing + Committed (E+C) network and 2) one Unconstrained 2045 Baseline with all five mandated segments including: I-664, I-664 Connector, I-564 Connector, VA 164, and VA 164 Connector. Results from these two unconstrained 2045 Baseline model runs were compared with 2017 traffic volumes at key locations. Following some group discussions, Working Group members directed the Consultant Team to prepare for the January 14, 2021 meeting, five new 2045 Baseline model runs with a Constrained E+C network and the following Unconstrained segments:

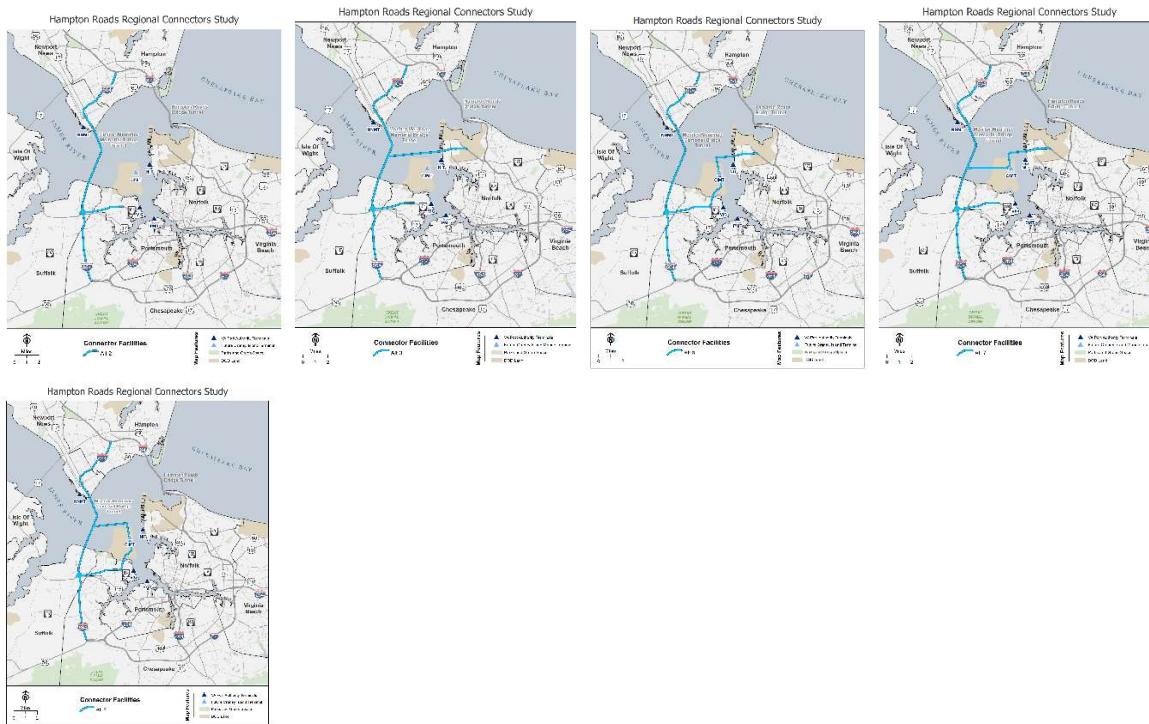
- All five Mandated Segments (I-664, I-664 Connector, I-564 Connector, VA 164, VA 164 Connector)
- I-664 and VA 164
- I-664, VA 164, I-664 Connector, I-564 Connector
- I-664, VA 164, I-664 Connector, VA 164 Connector
- I-664, VA 164, VA 164 Connector, I-564 Connector

2021

Working Group Electronic Meeting 01/14/2021

Item#5: Regional Connectors Study: Development of Preliminary Alternatives

The Consultant Team presented the results from travel demand model runs for five Alternatives (see above graphics). Traffic volumes were tabulated for 2017, 2045 Base, and each of the five 2045 alternative runs. Following extensive discussions, Working Group Chair asked the members to decide which one of these alternatives should be moved forward to the next step for further modeling runs under Constrained E+C network as well as Constrained mandated segments.



Motion: Troy Eisenberger (Chesapeake) made a motion to move forward to the next step with Alternatives 2, 3, and 5. The motion was seconded by Ric Lowman (Virginia Beach) and passed 4 to 1 by those voting members present at the time of the motion.

Working Group Electronic Meeting 02/11/2021

Item#5: Regional Connectors Study: Development of Preliminary Alternatives

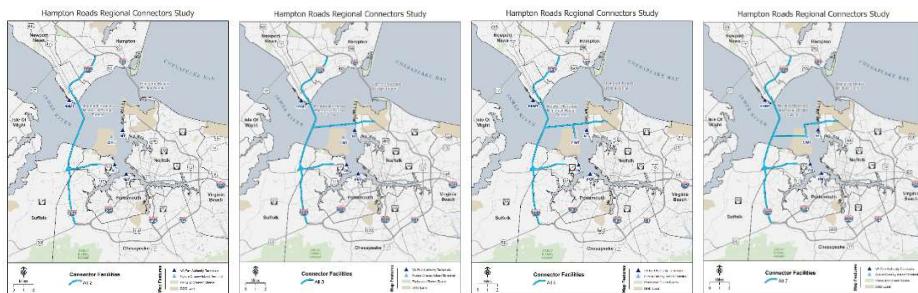
The Consultant Team presented the traffic volume results from travel demand model runs for 2045 Baseline, Alternatives 2, 3, and 5. The presentation also included summaries of two meetings separately conducted on January 29 with ACOE and the Navy and on February 5 with

the Port of Virginia staff. Discussions focused on Segment 164 Connector regarding issues and constraints (listed below) expressed by ACOE, Navy and the City of Portsmouth:

- Segments must not interfere with operations, maintenance, construction, or capacity of Craney Island
- Current projected lifespan of Craney Island is 2050 based on current technology
- Segments must be a minimum of 1800 feet from proposed Navy Fuel Depot expansion for safety and security reasons and may require walls to further safeguard from potential security threats
- City of Portsmouth Landfill expansion

Motion: Carl Jackson (Portsmouth) made a motion to delete Alternative 5 and add two new Alternatives 6 and 7. The motion was seconded by Brian Fowler (Norfolk) and passed unanimously.

The modeling results for Alternatives 2, 3, 6, and 7 will be presented at the March 11 Working Group meeting.



Working Group Electronic Meeting 03/11/2021 - Cancelled

Working Group Electronic Meeting 04/08/2021

Item#5: Regional Connectors Study: Development of Preliminary Alternatives

- The Consultant Team presented the modeling results from 2045 Baseline and Alternatives 2, 3, 6 and 7. The presentation included traffic volumes, capacity utilizations, and travel times for various runs. The Team also reviewed key model assumptions used for various model networks.
- Group discussion took place regarding the assumptions for HRELN toll rates, HRTPO Board approved 2045 list of projects, Bowers Hill Study recommended concept plans, and various design options.

- The WG members agreed to move all four alternatives (2, 3, 6, and 7) to the next step of the modeling process. In addition, they agreed to run Alternative 6 under two versions – with and without improvements to VA 164. Furthermore, they agreed to run each of the five preliminary alternatives under two design options for MMMBT: 6 GP+ 2 Managed Lanes and 4GP + 4 Managed Lanes.

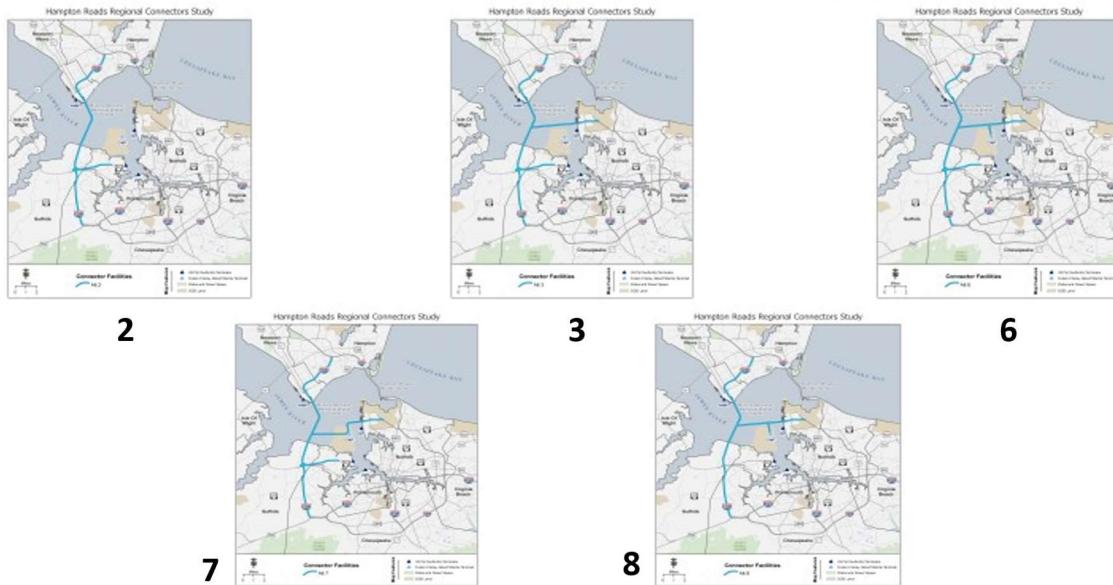
The next modeling runs will therefore include 10 Alternatives with the E+C Network (October 2020 version) while ensuring consistency with the B-H Study recommended concept plans and HRTAC approved Initial Tolling Policy for HRELN (\$0.06/mile or \$0.25 per gantry). This is consistent with the scope of work.

Working Group Electronic Meeting 05/25/2021

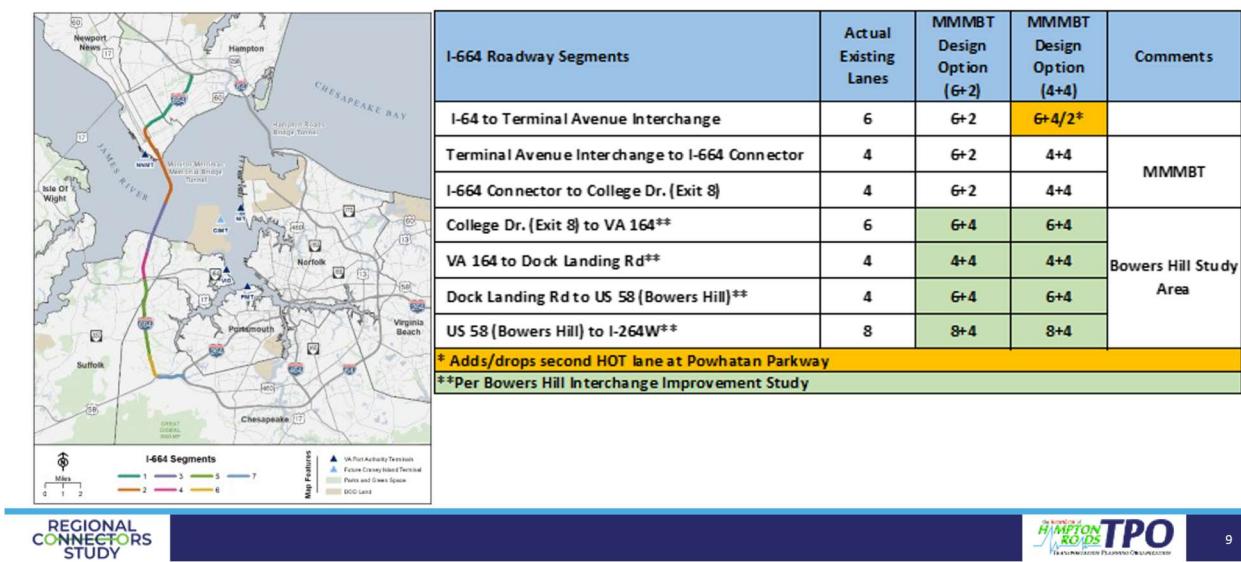
Item#5: Regional Connectors Study Phase 3: Development of Preliminary Alternatives

- The Consultant Team presented the travel demand modeling results on five Alternatives (2, 3, 6, 7, and 8) selected at the April 8 meeting (see below attachment). The results were based on two design options for MMMBT: Option A (6GP+2ML) and Option B (4GP+4ML).
- The 2045 travel demand networks used for modeling these ten alternatives were corrected since the April 8th meeting to reflect the HRTAC Initial Toll Policy on the HRELN (\$0.06/mile) and were also consistent with the recommendations from the Bowers-Hill Interchange Improvement Study (see Modeling assumptions below).
- The WG members agreed on eliminating Alternative 7 under both design options A and B.
- The WG members agreed and selected Alternatives 2, 3, 6, and 8 with Options A and B to be moved to the next step of the analysis. The motion passed unanimously to recommend these 8 Alternatives for the Steering Committee's consideration and approval at their next meeting to be scheduled in the June/July timeframe.

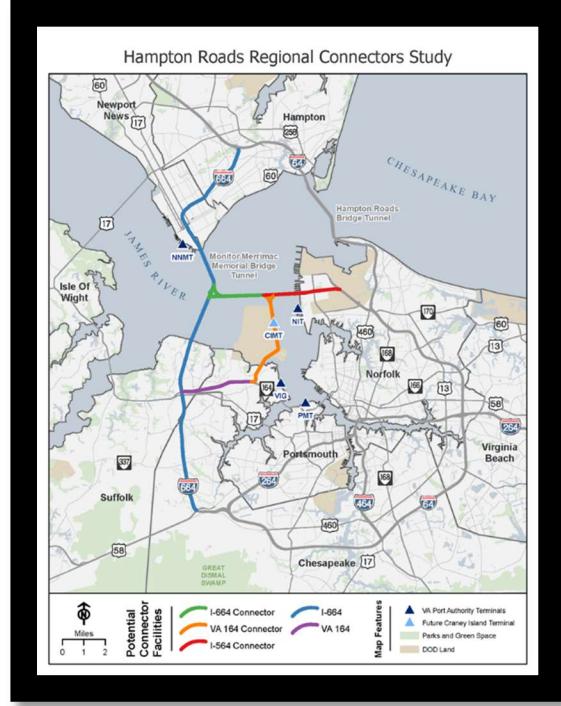
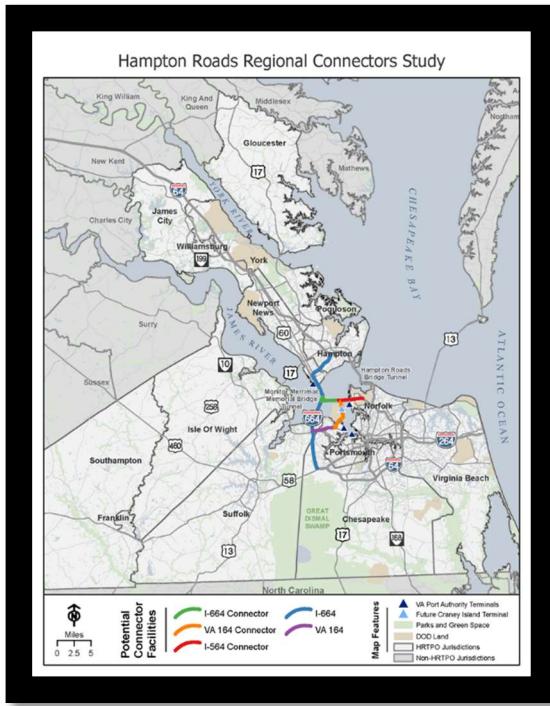
ATTACHMENT 5A- ALTERNATIVES 2,3,6,7,8



Modeling Assumptions



APPENDIX A – STUDY AREA



Appendix B: Funding

Description Budget/Cost

Phase 1	\$359,497
Phase 1 (Supplement)	\$3,784
Phase 2 (Interim)	\$779,199
Phase 2 (Supplement)	\$709,637
Phase 2 (Supplement Omission)	\$96,746
Phase 3	\$4,062,710
Subtotal amount (Consultant)	\$6,011,573
Contingency	\$80,638
Total Amount (Consultant)	\$6,092,211
RCS Project Coordination	\$322,000
HRTPO staff expenses	\$535,756
Grand Total	\$6,949,967

Funded by HRTAC, Administered by HRTPO



REVISED - Regional Connectors Study - Phase 3 Schedule (April 19, 2021)

Task No.	Task	2021												2022												2023			
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
TASK 1	EXECUTE ENGAGEMENT PLAN																												
1.1	Task Management																												
1.2	Engagement Plan Review																												
1.3a	Study Mailing List and Comment Database																												
1.3b	Scenario Planning Virtual Meeting																												
1.3c	Community Briefings and Presentations																												
1.3d	Brochures, Factsheets, and Handouts																												
1.3e	Public Meetings																												
1.3f	Regional Connectivity Symposium																												
1.3g	Community Events and Outreach																												
1.3h	Social Media Engagement																												
1.3i	Engagement Report																												
1.4	Website Upgrades and Maintenance																												
TASK 2	DEVELOPMENT OF PRELIMINARY ALTERNATIVES																												
2.1a	Summarize Background Information																												
2.1b	Conduct Unconstrained Travel Demand Model Analysis																												
2.1c	Preliminary Alternatives Identification																												
2.2	Develop/Refine Geometry of Preliminary Alternatives																												
2.3	Hydraulics and Hydrology																												
2.4	Structures																												
2.5	Utilities and Railroad Crossings																												
2.6	Planning Cost Estimates																												
TASK 3	DETERMINATION OF CANDIDATE ALTERNATIVES																												
3.1a	Conduct Congestion Relief Assessments																												
3.1b	Performance Evaluation																												
3.2	Conduct Permitability Assessments																												
3.3	Conduct Constructability Assessments																												
3.4	Identify Candidate Alternatives																												
TASK 4	CONDUCT SCENARIO PLANNING																												
4.8a	Confirmation/Network Coding of Candidate RCS projects for testing																												
4.8b	Travel Demand Modeling for Baseline and 3 Greater Growth Scenarios (each Candidate Project)																												
4.8c	Evaluate Performance of Candidate Projects under Baseline and 3 Greater Growth Scenarios																												
4.8d	Evaluate Traffic Operating Conditions																												
4.9a	Scenario Results Workshops																												
4.9b	Recommendation Documentation																												
TASK 5	PREPARE FOR AND ATTEND MEETINGS (WORKING GROUP AND STEERING COMMITTEE)																												
5.1	Working Group Meetings																												
5.2	Steering Committee Meetings																												
TASK 6	MANAGE THE PROJECT																												
6.1	Weekly Coordination with Study Leadership																												
6.2	Schedule and Budget Oversight																												
6.3	Quality Assurance of Deliverables																												
TASK 7	PREPARE DOCUMENTATION																												
7.1	Draft Study Report																												
7.2	Final Study Report																												

Continuous Task
Task Schedule
Key Decision Point

Steering Committee Meetings
Working Group Coordination Meeting
Public Meeting