FHWA

VDOT

Federal Project: STP-965-5(057)
State Project: 0058-965-107, P101
Portsmouth, VA

Route 58 — Martin Luther King Freeway Extension

Environmental Assessment and Section 4(f) Evaluation

April 2008

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
and
VIRGINIA DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL ASSESSMENT

Route 58 – Martin Luther King Freeway Extension

City of Portsmouth
State Project: 0058-965-107, P101; UPC No. 76642
Federal Project: STP-965-5(057)

From: Interstate 264
To: London Boulevard

Submitted Pursuant to 42 U.S.C. 4332(2)(C)

Approved for Public Availability:

4/7/08
Date

John Dimkins
For Division Administrator

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PURPOSE AND NEED

Study Area

The Virginia Department of Transportation (VDOT), in cooperation with the Federal Highway Administration (FHWA), is studying a proposed extension of the US Route 58 / Martin Luther King (MLK) Freeway in the City of Portsmouth (See Exhibit 1). The extension would provide a new north–south transportation link from existing US Route 58 / MLK Freeway to I-264 (See Exhibit 2).

Entrance to MLK Fwy at London Blvd

History

Options to provide a connection between I-264 and US 58 and eliminate through traffic on local streets have been the subject of studies for many years. In 1989, engineering studies identified five build alternatives for the project: Alternatives A through E. In 1990, an Environmental Assessment (EA) that evaluated Alternatives A through E was approved for public availability by FHWA. A location public hearing was held and on October 24, 1990, the Commonwealth Transportation Board (CTB) approved the location of Alternative E. In 1992, a Final EA was developed, but the National Environmental Policy (NEPA) process was not completed. Since that time, the following additional studies have been performed:

- 1992 *Transportation Technical Report*
- 1995 *Major Investment Study/Congestion Management System Compliance Review*
- 1999 *Final Environmental Assessment*

In April 2005, VDOT decided to pursue the Midtown Tunnel Corridor Project (MTCP) as a project under the Public-Private Transportation Act (PPTA) of 1995, as amended. The proposed MTCP includes three separate projects as follows:

- The Route 58/Midtown Tunnel (and Pinners Point Interchange)
- The Downtown Tunnel
- The Martin Luther King (MLK) Freeway Extension

As part of the Martin Luther King Freeway Extension project, an *Interchange Justification Report* (IJR) was developed and completed in February 2007 to study potential interchange configurations for the MLK Freeway and I-264.

The project is listed in local and regional planning documents, including the City of Portsmouth comprehensive plan, *Destination 2025: Setting a Bold New Course.* The project is also listed as a regionally significant project within the approved Hampton Roads Planning District Commission (HRPDC) *2026 Regional Transportation Plan* and the *2006-2011 Virginia Transportation Six Year Improvement Program* (SYIP). The HRPDC also lists the MLK Extension project, along with the Midtown Tunnel project, as a regionally significant project in a Draft of the *2030 Regional Transportation Plan*. The project listing in the 2030 Plan was approved by the Hampton Roads Metropolitan Planning Organization (MPO) on October 18, 2006 and was modified on December 20, 2006. Work continues on the 2030 Plan, and until a final plan is approved the MPO is utilizing the 2026 plan as the basis for decision-making. Both the Virginia Chamber of Commerce and the Portsmouth Chamber of Commerce support the proposed improvements (MLK Draft EA (1999), MLK/I-264 IJR 2007).

Exhibit 2 – Study Area Map

Needs

Existing Conditions

In the Hampton Roads area, I-264 and US Route 58 / Martin Luther King Freeway link ports and other facilities to outside markets and thus are important to the regional transportation system. From the project area, I-264 extends to the Portcentre Commerce Park and Norfolk – Portsmouth Naval Shipyard and connects to the Downtown Tunnel to serve the commerce centers in the City of Norfolk.

To the north of the project area, Route 58 / MLK Freeway extends to the Western Freeway (Route 164) at the Pinners Point Interchange serving both the Portsmouth Marine Terminal (PMT) and the newly opened APM Marine Container Terminal. The roadway continues through the Midtown Tunnel serving major commercial, business and residential areas in the City of Norfolk including the Lamberts Point Terminal, Norfolk Naval Air Station, the Norfolk International Terminals, and the Sewells Point Terminals.

A direct, limited-access connection does not currently exist between I-264 and Route 58, forcing drivers to use circuitous routes via local city streets, including London Boulevard (US 58/ Route 141), Harbor Drive, Frederick Boulevard (US 17) and Turnpike Road (Route 337). For example, there is currently no direct interstate access to the PMT, which is a major generator of truck traffic. One of the heavily used local streets, US 17 (Frederick Boulevard), crosses the CSX railroad at grade, which creates traffic flow problems as well as safety issues as it handles freeway-related commuter and truck traffic. Additionally, commuter access to and from Portsmouth and Norfolk is constrained to use either the Downtown Tunnel or Midtown Tunnel.

Currently, no direct link exists between Interstate 264 which serves the Downtown Tunnel and Route 58 which serves the Midtown Tunnel. The lack of a direct, limited access link between these two facilities offers commuters with limited alternatives when either tunnel is congested or closed.

Existing Year (2006) Average Daily Traffic (ADT) volumes[1] and truck volumes for select roadways and freeways in the project study area are provided in Table 1. The primary means for through traffic to currently navigate between I-264 and the MLK Freeway continues to be Frederick Boulevard, Turnpike Road and Harbor Drive. These routes have existing volumes of 40,000, 14,800 and 5,300 ADT, respectively. Along with London Boulevard, these routes have the greatest volumes of truck traffic in the study area.

In addition to the Frederick Boulevard route, the following other local routes are used to connect MLK Freeway traffic to I-264, including:

- The Effingham Street off-ramp from I-264 to London Boulevard
- The Des Moines Avenue/ Deep Creek Boulevard off-ramp along eastbound I-264 and the South Street on-ramp to westbound I-264, with the use of local roads such as Elm Avenue, High Street, and London Boulevard.
- The Portsmouth Boulevard exit from I-264 to Turnpike Road to Harbor Drive

Each of these routes has substantial traffic volumes, including truck traffic, as detailed in Table 1.

[1] The analysis of existing and future (no build) traffic conditions for the project study area was developed using data generated for the Interchange Justification Report (IJR), prepared separately for the project. The traffic model developed and maintained by the HRPDC served as the primary source of data for the IJR.

TABLE 1
EXISTING (2006) and FUTURE (2032) DAILY AND TRUCK VOLUMES WITHOUT PROJECT

		2006 VOLUMES		2032 NO BUILD VOLUMES	
Freeway / Roadway	**Segment**	**AVERAGE DAILY VOLUME**	**TRUCK VOLUME***	**AVERAGE DAILY VOLUME**	**TRUCK VOLUME***
I-264	*Portsmouth Blvd (Route 337) to Frederick Blvd (US 17)*	63,800	3,190	79,100	3,955
	Frederick Blvd (US 17) to Des Moines Ave.	72,400	3,620	90,300	4,515
	Des Moines Ave to Effingham Street (Route 141)	67,500	3,375	85,100	4,255
	Effingham Street (Route 141) to Downtown Tunnel	93,600	4,680	120,000	6,000
Martin Luther King Freeway	*London Blvd (Route 141) to Midtown Tunnel*	31,100	933	40,300	1,209
Frederick Blvd (US 17)	*Airline Blvd (US 58) to Turnpike Road (Alt Route 337)*	29,300	0	36,700	0
	Turnpike Road (Alt Route 337) to I-264	40,000	0	47,500	0
	I-264 to Deep Creek Blvd	23,200	696	27,100	813
Harbor Dr	*Martin Luther King Fwy to Turnpike Rd*	5,300	477	6,400	576
Turnpike Road (Alt Route 337)	*Harbor Dr to Howard Street*	9,300	837	10,700	963
	Howard Street to Frederick Blvd (US 17)	14,800	1,332	16,000	1,440
	Frederick Blvd (US 17) to Portsmouth Blvd (Route 337)	9,100	819	10,400	936
Deep Creek Blvd	*Portsmouth Blvd (Route 337) to Frederick Blvd (US 17)*	9,200	n/a	9,800	n/a
	Frederick Blvd (US 17) to South Street	9,600	n/a	10,200	n/a
South Street	*Columbus Ave to I-264 Ramp*	800	8	800	8
	I-264 Ramp to Des Moines Ave	3,000	30	3,100	31
	Des Moines Ave to Effingham Street (Route 141)	2,300	23	3,700	37
Effingham Street (Route 141)	*London Blvd (Route 141) to South Street*	32,700	327	36,900	369
	South Street to I-264	33,500	335	38,500	385
	I-264 to Lincoln Street	27,100	271	33,300	333
	Lincoln Street to Portsmouth Blvd	23,300	233	29,200	292
London Blvd (Route 141)	*High Street to Broad Street*	23,000	690	27,200	816
	Broad Street to Martin Luther King Fwy	22,500	675	26,700	801
	Martin Luther King Fwy to Constitution Ave	29,200	292	33,600	336
	Constitution Ave to Elm Ave	28,400	284	32,800	328
Constitution Ave	*North of London Blvd (Route 141)*	3,700	37	4,300	43
	South of London Blvd (Route 141)	1,300	13	1,900	19
High Street	*Mt. Vernon Ave to Harbor Drive*	13,000	260	15,300	306
	Harbor Drive to Elm Ave	15,500	310	19,400	388
Airline Blvd / London Blvd (US 58 / Route 337)	*Turnpike Road (Alt Route 337) to High Street*	4,600	138	5,300	159
	High Street to London Blvd (Route 141)	11,600	348	16,600	498

** Truck volumes for 2032 are projected using the percentage of truck traffic measured for 2006 on each road segment.*

Levels of Service (LOS) for turning movements at major intersections in the project study area are shown in Table 2. This data shows peak morning and evening LOS designations for existing conditions. As shown in Table 2, all intersections currently operate at an acceptable level of service, except the Effingham Street/Bart Street (westbound I-264 off-ramp) intersection, which operates at LOS F during the AM peak.

TABLE 2
EXISTING (2006) and FUTURE (2032) LEVEL OF SERVICE (LOS)
INTERSECTION ANALYSIS WITHOUT PROJECT

Turn Movements at Intersection	2006 LOS		2032 No Build LOS	
	AM	PM	AM	PM
Frederick Blvd and Turnpike Road	C	D	C	E
Frederick Blvd and Deep Creek Blvd	D	D	C	D
I-264 and South Street	A	A	A	A
Des Moines Ave and South Street	A	B	A	B
I-264 and Des Moines Ave	B	B	B	C
South Street and Effingham Street	B	A	C	B
Effingham Street and Bart Street	F	C	E	C
Broad Street and US 58 (London Blvd)	A	B	B	B
Turnpike Blvd and Harbor Drive	B	B	C	B
US 58 (London Blvd) and High Street	C	B	C	C
Constitution Ave and London Blvd	B	C	B	C

TABLE 3
EXISTING (2006) and FUTURE (2032) LEVEL OF SERVICE (LOS)
FREEWAY ANALYSIS WITHOUT PROJECT

	2006 EXISTING		2032 NO BUILD	
	AM	PM	AM	PM
Eastbound I-264				
Mainline, between Portsmouth Boulevard and US 17	B	A	C	B
Diverge to US 17	B	B	C	B
Merge from US 17	C	C	C	C
Mainline, between US 17 and Des Moines Avenue	C	B	C	C
Diverge to Des Moines Avenue	C	B	C	C
Westbound I-264				
Merge from South Street (Des Moines Avenue)	B	C	B	C
Mainline, between Des Moines Avenue and US 17	A	C	B	C
Diverge to US 17	B	C	B	D
Merge from northbound US 17	A	B	A	B
Merge from southbound US 17	B	C	B	C
Mainline, between US 17 and Portsmouth Boulevard	A	C	A	C
MLK Freeway/London Boulevard Interchange				
EB London Blvd Weave, MLK Freeway Ramps	B	A	C	A
SB MLK Freeway diverge to WB London Blvd	B	B	C	B
NB MLK Freeway merge from WB London Blvd	B	B	B	B

The existing AM and PM peak hour traffic volumes on I-264 and the MLK Freeway were analyzed using Highway Capacity Manual (HCM) techniques to model traffic conditions. Year 2006 Levels of Service (LOS) for I-264 and MLK Freeway in the project study area for peak morning and evening hours are provided in Table 3. The analyses shown in Table 3 indicate generally acceptable current operating conditions on the MLK Freeway.

Future Conditions

Under the No Build scenario, direct, limited-access connections will continue to be absent between I-264 and Route 58, forcing drivers to use the same circuitous local streets that are being used currently, including London Boulevard (US 58/ Route 141), Harbor Drive, Frederick Boulevard (US 17) and Turnpike Road (Route 337). PMT's large volumes of truck traffic will continue to have no direct interstate access. Congestion and safety issues will worsen as

freeway-related commuter and truck traffic volumes increase where US 17 (Frederick Boulevard) crosses the CSX railroad at grade. And finally, commuters between Norfolk and Portsmouth will continue to face long delays if either the Downtown or Midtown Tunnel is congested or closed, due to a lack of a direct, limited-access link between I-264 and Route 58.

No Build future year ADT volumes and truck volumes for select roadways and freeways in the project study area are provided in Table 1. The Future Year is defined as the design year for the project, which is 2032.

Under the No Build scenario, through traffic will continue to utilize Frederick Boulevard, Turnpike Road and Harbor Drive to travel between I-264 and the MLK Freeway. Projections under the No Build Alternative show these volumes increasing to 47,500, 16,000 and 6,400, respectively, by the year 2032, as shown on Table 1.

These alternative routes show traffic volume changes from 2006 (existing) to 2032 (future) under the No Build Alternative as follows:

- 29,200 to 33,600 ADT for the segment of London Boulevard between the MLK Freeway and Constitution Avenue;
- 32,700 to 36,900 ADT for the segment of Effingham Street from South Street to I-264;
- 9,600 to 10,200 ADT for Deep Creek Boulevard;
- 3,000 to 3,100 ADT for the segment of South Street from I-264 to Des Moines Avenue;
- 15,500 to 19,400 ADT for the segment of High Street from Harbor Drive to Elm Avenue; and
- 9,100 to 10,400 ADT for the segment of Turnpike Road from Frederick Blvd to Portsmouth Blvd.

In addition to the increased traffic volumes on surrounding local streets, under the No Build scenario, the ADT on the existing Route 58 is forecasted to increase by 30 percent (from 31,100 to 40,300 vehicles) and the ADT on I-264 is projected to increase by 25 percent (from 72,400 to 90,300 vehicles) by the year 2032.

The future AM and PM peak hour traffic volumes on I-264 and the MLK Freeway were analyzed using Highway Capacity Manual (HCM) techniques to model traffic conditions. Levels of Service (LOS) for I-264 and MLK Freeway in the project study area for peak morning and evening hours are provided in Table 3 for Year 2032 (No Build). Future conditions of I-264 are projected to worsen, especially at the ramp from westbound I-264 to Crawford Connector (LOS F), as well as the Downtown Tunnel in both the eastbound and westbound directions (LOS E).

Harbor Drive looking south to Turnpike Road

Summary

The project area lacks adequate north-south controlled access connections between route 58 and I-264, which forces traffic, including large trucks, onto local streets that do not have the capacity to carry current and projected traffic volumes. The purpose of

the project is to provide improved highway system linkage and continuity and reduce through traffic and related congestion on local streets.

ALTERNATIVES

Introduction

This chapter briefly discusses the outcome of previous studies that aided in the development and screening of the Preferred Alternative. Each of the previous studies mentioned below looked at eight alternatives: No Build Alternative; Transportation Systems Management (TSM) Alternative; Mass Transit Alternative; and five Build Alternatives (A through E). As a result of these studies, public agency comments, citizens and local official input and CTB action, Alternative E continues to be identified as the Preferred Alternative. For these reasons, this document only presents detailed information on the No Build Alternative and Preferred Alternative (see Exhibit 3).

Alternatives Development

In 1989, engineering studies identified five build alternatives for the project: Alternatives A-E. In 1990, an Environmental Assessment (EA) that evaluated Alternatives A through E was approved for public availability by FHWA. In May 1990, a location public hearing was held which presented the alternatives and on October 24, 1990, the Commonwealth Transportation Board (CTB) approved the location of Preferred Alternative E. In 1992, a Final EA was developed, but the National Environmental Policy Act (NEPA) process was not completed. In 1999, another Final EA was developed but again the NEPA process was not completed. In February 2007, an interchange justification report (IJR) was prepared to explore design options for Preferred Alternative E and the interchange with I-264. The results of the IJR have been incorporated into the Preferred Alternative for this study.

Alternatives Carried Forward

No Build Alternative

The No Build Alternative includes projects contained in the *Hampton Roads 2026 Regional Transportation Plan*, without the proposed MLK Freeway Extension. The No Build Alternative does not meet the purpose of or need for this project. It is reasonable to assume that minor effects to environmental resources could occur during implementation of the programmed improvements associated with the No-Build Alternative. Any potential effect would be assessed individually for those projects associated with the No-Build and independent of this project. In accordance with NEPA and FHWA procedures, and in order to compare the build alternative to a baseline condition, the No Build Alternative has been retained and is under consideration.

Preferred Alternative E, Option 4

Several factors limit practical options for locating the proposed facility: 1) the project involves an extension on an existing highway, therefore it has a fixed northern terminus; 2) close proximity to existing I-264 interchanges severely limits the practicable locations for the southern terminus (the proposed interchange with I-264); and, 3) the relatively short project length limits the practical alternatives.

The Preferred Alternative E, Option 4 is proposed as a four-lane limited access freeway connecting I-264 with existing MLK Freeway at London Boulevard, as shown in Exhibit 3. It would be elevated over top of, and replace, Harbor Drive, and include a new full interchange at I-264 and a

Exhibit 3 – Preferred Alternative E, Option 4 Map

new directional interchange at High Street. It will also include closing both the Des Moines Avenue exist and South Street entrance to I-264. As part of the Midtown Tunnel Corridor Project (MTCP), the MLK Freeway Extension could be a tolled facility.

The extension of the MLK Freeway would consist of four elevated travel lanes, with the proposed structure standing 18-30 feet above existing grade. With the Preferred Alternative E, Option 4, Harbor Drive would be closed and the following streets would dead end adjacent to the proposed facility: MacArthur Ave, both sides of King Street, both sides of County Street and Meander Road. Even though these roads would be closed to vehicular traffic, pedestrian and non-motorized vehicle access would be allowed under the facility at select locations. Queen Street and High Street would remain open to vehicular and pedestrian traffic under the proposed facility.

The existing MLK/London Boulevard interchange would be retained with minor improvements to existing ramps. A proposed interchange with High Street would provide access to and from the south only. Travel to or from the north would be provided via the London Boulevard interchange.

The Preferred Alternative E, Option 4 interchange with I-264, in the eastbound direction, provides a collector/distributor (CD) weaving section between US 17 and MLK Freeway, and a mainline weaving section between MLK Freeway and Des Moines Avenue. In the westbound direction, Preferred Alternative E, Option 4 provides an off-ramp to northbound Martin Luther King Freeway, and a mainline weaving section between Martin Luther King Freeway and US 17. The ramp from South Street to westbound I-264 is relocated to the west, and merges with the ramp from southbound Martin Luther King Freeway to westbound I-264 just prior to the mainline weave between Martin Luther King Freeway and US 17.

The typical sections for the Preferred Alternative E, Option 4 are shown in Exhibit 4. The typical sections for the MLK Freeway, I-264 mainline, collector / distributor roads, ramps and other small roads would vary depending on location. The precise width of required right of way would be determined during design.

Cost

The current cost estimate of approximately $195 million is based on information known at this time and is subject to change as additional information becomes available. The estimate will be refined prior to the completion of the NEPA process.

Turnpike Road looking north along Harbor Drive

Ability to Meet Needs

The Preferred Alternative E, Option 4 would provide a direct freeway-to-freeway connection from I-264 to Route 58 and the Midtown Tunnel between Portsmouth and Norfolk. This new connection would improve system linkage with the recently completed Pinners Point Interchange and improve access to regional port facilities.

The Preferred Alternative E, Option 4 would reduce average daily volumes on local

streets adjacent to the project (see Table 4). For example, Frederick Blvd (US 17) would be reduced from 47,500 ADT under 2032 No Build conditions to 38,900 ADT under 2032 Build conditions, Turnpike Road would be reduced from 16,000 to 6,800 ADT, High Street would be reduced from 19,400 to 10,600 ADT, and Effingham Street would be reduced from 36,900 to 20,900 ADT.

Turning movement LOS at major intersections in the project study area was analyzed under the No-Build and Build Scenarios. As shown in Table 5, most intersections would improve or stay at the same LOS under the Build Scenario. These studies and data show that Preferred Alternative E, Option 4 would provide improved highway system linkage and continuity, reduce through traffic, improve levels of service, and reduce related congestion on local streets, therefore meeting the purpose and need of the project.

TABLE 4
FUTURE (2032) DAILY VOLUMES
WITH AND WITHOUT PROJECT

Freeway / Roadway	Segment	2032 NO BUILD AVERAGE DAILY VOLUMES	2032 BUILD AVERAGE DAILY VOLUMES
I-264	Portsmouth Blvd (Route 337) to Frederick Blvd (US 17)	79,100	81,900
	Frederick Blvd (US 17) to Des Moines Ave.	90,300	90,300
	Des Moines Ave to Effingham Street (Route 141)	85,100	103,100
	Effingham Street (Route 141) to Downtown Tunnel	120,000	119,200
Martin Luther King Freeway	London Blvd (Route 141) to Midtown Tunnel	40,300	45,700
	High Street to London Blvd	n/a	19,600
	I-264 to High Street	n/a	27,300
Frederick Blvd (US 17)	Airline Blvd (US 58) to Turnpike Road (Alt Route 337)	36,700	34,800
	Turnpike Road (Alt Route 337) to I-264	47,500	38,900
	I-264 to Deep Creek Blvd	27,100	30,700
Turnpike Road (Alt Route 337)	Howard Street to Frederick Blvd (US 17)	16,000	6,800
	Frederick Blvd (US 17) to Portsmouth Blvd (Route 337)	10,400	7,300
Deep Creek Blvd	Portsmouth Blvd (Route 337) to Frederick Blvd (US 17)	9,800	14,500
	Frederick Blvd (US 17) to South Street	10,200	11,400
South Street	West of Effingham Street (Route 141)	3,700	3,700
	East of Effingham Street (Route 141)	2,300	2,400
Effingham Street (Route 141)	London Blvd (Route 141) to South Street	36,900	20,900
	South Street to I-264	38,500	24,600
	I-264 to Lincoln Street	33,300	34,700
	Lincoln Street to Portsmouth Blvd	29,200	30,400
Portcentre Parkway	South of Crawford Street	11,500	11,700
	Over I-264	14,500	14,800
London Blvd (Route 141)	High Street to Broad Street	27,200	36,400
	Broad Street to Martin Luther King Fwy	26,700	35,900
	Martin Luther King Fwy to Constitution Ave	33,600	32,800
	Constitution Ave to Elm Ave	32,800	32,000
Constitution Ave	North of London Blvd (Route 141)	4,300	4,300
	South of London Blvd (Route 141)	1,900	1,900
High Street	East of Harbor Drive / MLK Extension	19,400	10,600
	West of Harbor Drive / MLK Extension	15,300	14,800

TABLE 5
FUTURE (2032) BUILD AND NO-BUILD LEVEL OF SERVICE (LOS) INTERSECTION ANALYSIS

	2032 No Build LOS		2032 Build LOS	
Turn Movements at Intersection	**AM**	**PM**	**AM**	**PM**
Frederick Blvd and Turnpike Road	C	E	C	C
Frederick Blvd and Deep Creek Blvd	C	D	D	D
London Blvd and Broad Street	B	B	A	B
South Street and Effingham Street	C	B	B	B
Effingham Street and Bart Street	E	C	D	D
Portcentre Parkway and Crawford Connector South	B	B	B	B
Court Street and Crawford Connector North	B	B	B	B
Broad Street and US 58 (London Blvd)	B	B	A	B
Constitution Ave and London Blvd	B	C	B	C

ENVIRONMENTAL CONSEQUENCES

The social, economic, and environmental impacts of the Preferred Alternative are discussed below.

Land Use

The project area consists of varied land uses as seen in an urban community (See Exhibit 5). There are no agricultural activities or prime farmland within the study area. The northern portion of the project area is largely urban low and medium density residential with some neighborhood business and commercial sites. Industrial land uses characterize much of the southern portion of the project area, north of I-264, with residential development south of I-264. Based on Portsmouth's comprehensive plan, land uses in the project study area will generally remain consistent with the existing land use pattern, with or without the project (see Exhibit 5). The comprehensive plan designates future redevelopment at I-264 and Frederick Boulevard as a mixed employment business park.

Social

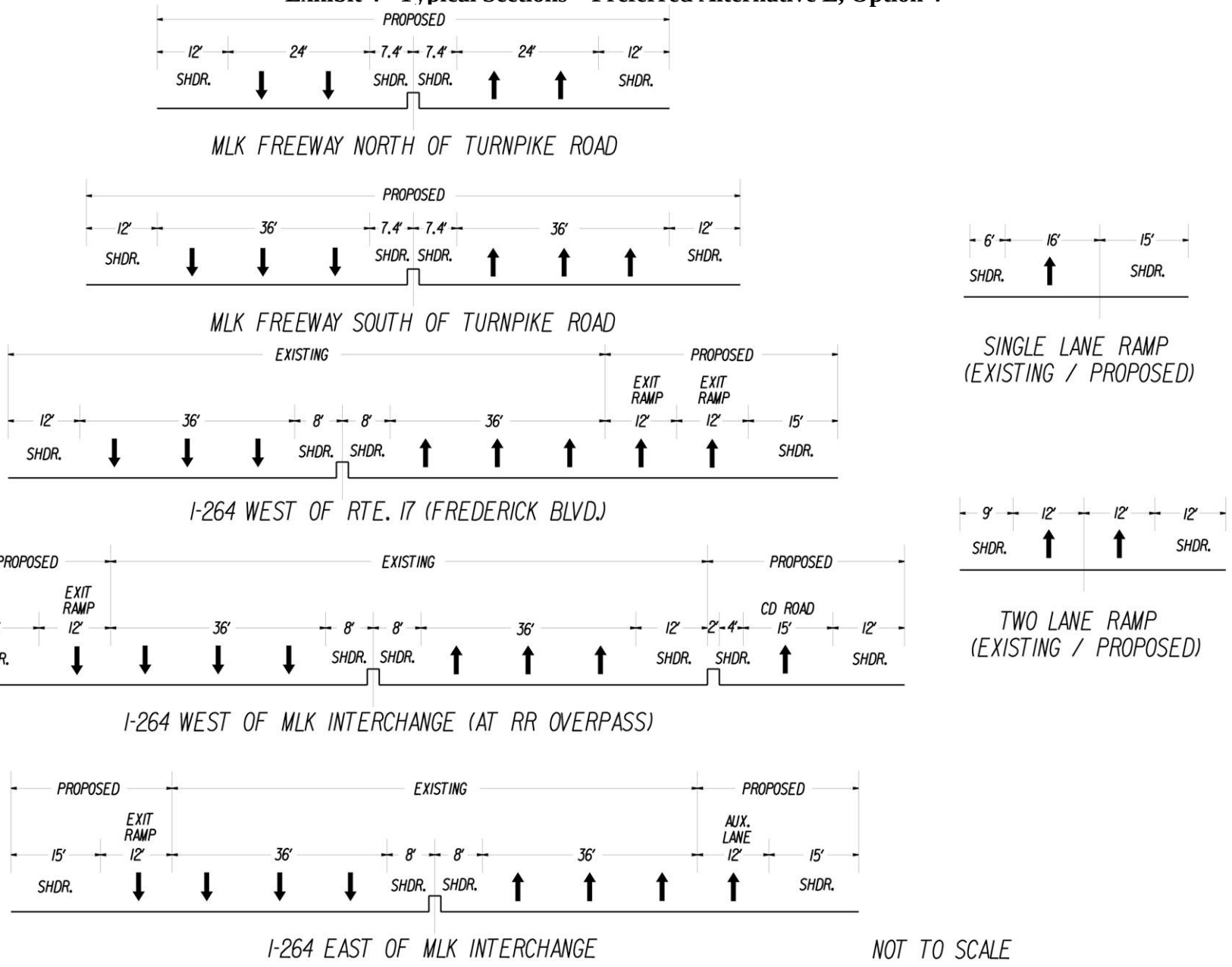
Community Facilities/Services

The project area contains several public and private community facilities (see Exhibit 6). The Preferred Alternative would not directly impact the facilities themselves. Additional right of way would be required from the Bethel Temple Church; however, none of the structures on the property would be displaced.

Neighborhood and Community Cohesion

The US Department of Transportation (USDOT) defines community cohesion as the connections between and within communities that are essential for serving the needs of the residents.
The study area consists of isolated residential homes with interspersed commercial and industrial uses. There are no cohesive neighborhoods or communities in the study area. The Preferred Alternative would replace Harbor Drive with an elevated controlled access facility with interchanges at London Blvd, High Street and I-264.

Exhibit 4 –Typical Sections – Preferred Alternative E, Option 4



Existing east-west vehicular access would be closed at MacArthur Ave, King Street, County Street and Meander Road. Even though these roads would be closed to vehicular traffic, east-west pedestrian and non-motorized vehicle access would be allowed under the facility at select locations, to be determined during final design. Several arterial and secondary roads in the project vicinity would remain open to both vehicular and pedestrian traffic under the Preferred Alternative – Turnpike Road, Cassell Ave, High Street, Queen Street, and London Boulevard. Although patterns of vehicular and pedestrian access would change with the project, the closing of these streets would not split defined neighborhoods or reduce community cohesion. In addition, the inclusion of pedestrian paths under the facility and the continued operation of some existing roads under the facility would help retain existing community connections.

The proposed improvements also would not impact bus routes or bus stops. There are several Hampton Roads Transit (HRT) routes which access the study area including a bus stop located on High Street, west of MLK Freeway, at Florida Ave. Access to High Street, via MLK Freeway and London Boulevard, would not change due to the proposed MLK Extension and therefore transit operations would not be impacted.

Pedestrian Overpass over I-264 – Manteo Ct at Rand St

There is an existing raised, covered pedestrian overpass that extends over I-264, from Manteo Street to Choate Street. Pedestrian access between these neighborhoods is planned to be maintained.

Environmental Justice

This project has been developed in accordance with Title VI of the Civil Rights Act of 1964 as amended in 1968, and Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, February 11, 1994. Executive Order 12898 requires that Federal agencies identify and address disproportionately high and adverse effects from its activities on minority and/or low income populations.

Social Profile of Study Area

For the purposes of this analysis, minority is defined as an individual or racial/ethnic group that is categorized as not White or as Hispanic/Latino and follows the racial classification used by the Census Bureau. The most recent data available (for the years 1999 for income and 2000 for population) was used in this analysis. The US Department of Transportation (USDOT) defines low income groups as people "whose household income is below the Department of Health and Human Services (DHHS) poverty guidelines." The DHHS average poverty threshold for a family of four in 1999 for the Portsmouth area was $16,700.

The Census Bureau block groups that comprise the study area reveal that 15,253 people lived in the area in 2000 (see Table 6). Of that total, 88.1 percent were classified as of a minority group based on race and 11.9 percent of Hispanic origin. Per capita incomes range between $4,440 and $14,700 across the block groups, with 34% of the study area population being below the poverty level. For those block groups directly affected by the Preferred Alternative

Exhibit 5 – Future Land Use Map

Exhibit 6 – Community Facilities Map

TABLE 6
2000 CENSUS DATA BY BLOCK GROUP

Block Group	Total Population	Percent Minority by Race	Percent Minority by Ethnicity	Percent over 65 years old	Percent Below Poverty Level Per Capita Income	Percent 150% & Below of Per Capita Income Poverty Threshold
2103-2	542	54.6%	45.4%	8.9%	21.8%	35.7%
2105-1	1,740	89.9%	10.1%	12.1%	36.1%	57.2%
2107-1	1,247	81.5%	18.5%	5.5%	15.6%	44.9%
2107-2	822	79.7%	20.3%	27.7%	26.0%	37.6%
2111-2	546	73.3%	26.7%	13.7%	29.1%	43.2%
2114-1	1,006	97.2%	2.8%	32.9%	16.9%	40.6%
2114-2	1,353	96.7%	3.3%	6.0%	68.7%	82.8%
2115-2	1,169	44.7%	55.3%	19.1%	25.5%	41.0%
2117-1	1,088	99.4%	0.6%	28.1%	18.4%	33.0%
2117-3	879	100.0%	0.0%	22.0%	25.6%	36.4%
2118-1	602	100.0%	0.0%	9.0%	70.8%	83.6%
2118-2	655	85.2%	14.8%	14.2%	9.3%	14.4%
2118-3	983	99.4%	0.6%	23.8%	27.8%	37.3%
2118-4	456	98.9%	1.1%	16.0%	8.2%	19.1%
2118-5	748	97.5%	2.5%	14.6%	63.2%	85.2%
2119-5	1,417	100.0%	0.0%	10.7%	52.3%	62.2%
Study Area Totals	**15,253**	**88.1%**	**11.9%**	**25.8%**	**34.0%**	**49.8%**

Source: US Census Bureau, 2000 Census data
Shaded block groups are those directly affected by the Preferred Alternative.

(see shaded rows in Table 6), the percent minority by race was 93.4%, the percent with Hispanic origin was 6.5%, and the percentage of the population below the poverty level was 32.1%

Impact Analysis

Table 6 shows that the block groups directly affected by the Preferred Alternative contain similar percentages of minority and income populations as the remainder of the Study Area. In other words, the project impact area's social and demographic characteristics are representative of the surrounding study area, which is predominately low-income mostly comprised of minority residents. Therefore, the Preferred Alternative would not have disproportionately high and adverse effects on minority and low income populations.

Public Participation

Federal environmental justice requirements call for establishment or expansion of "meaningful opportunities for public involvement by members of minority populations and low income populations during the planning and development" of projects. A comprehensive and ongoing public participation program has been established for this project to allow affected parties to review the proposed project concepts and provide comments. As part of this program, VDOT will conduct a public hearing to obtain citizen input and comment. In an effort to understand tolling effects on the local minority and low income communities within the project study area, VDOT identified 12 churches that were located within the immediate project vicinity as part of the public outreach for the project. VDOT contacted the 12 churches and offered to meet with church representatives. The purpose of the meetings was to gain an understanding of

how tolling would effect the church and the congregations they serve. Of the 12 churches contacted, Calvary Baptist, Cottage Place Methodist, and Bethel Temple indicated that they would like to meet with the VDOT. Representatives of the VDOT met with members of these churches and discussed the possibility of tolling on the project. The primary concerns conveyed by the leaders and members of the churches include: the belief that tolls would be a deterrent for those coming from Norfolk to Sunday services; economic impact to the low income senior citizens who frequently travel to and from Sentara Hospital in Norfolk via the Midtown Tunnel; and the impact on low income students that go to Norfolk for school but live in apartments on the Portsmouth side. Overall, the comments and concerns focused on the ramifications of potentially tolling the Midtown and Downtown tunnels which provide direct access to and from Norfolk and not the proposed Martin Luther King Freeway Extension.

Environmental Justice Impacts of Tolling

In light of Executive Order 12898, a review of the potential disproportionate effects of tolling the MLK Expressway was conducted. As discussed in the above sections, environmental justice populations exist throughout the entire project study area. Some of the affected public expressed more concern with the potential tolling of the Midtown Tunnel rather than the MLK Extension. These concerns are supported by the traffic studies that show major traffic movement between Portsmouth central to Norfolk central via the Midtown Tunnel.

The MLK Extension project would, when completed, provide an alternative access route to I-264 and Route 58. If the extension is tolled, local traffic could continue to utilize the existing local road network to connect I-264 to Route 58 without being subject to tolls. Therefore, a non-tolled route would still be available. Disproportionately high and adverse effects to minority and low income populations are not anticipated.

Parks, Recreation, and Open Space

There are four parks and recreation centers within the overall study area (See Exhibit 6). The only one near the Preferred Alternative is the J.F. Kennedy Recreation Center / Douglas Park on Grand St., which is city-owned and operated. This facility would not be impacted by the project.

Historic Properties

Efforts to identify affected historic properties were completed for this project in accordance with Section 106 of the National Historic Preservation Act and 36 CFR 800. Detailed information about these efforts and the findings is available in the cultural resource technical reports.

Calvary Baptist Church

A total of three properties were identified that are considered eligible for listing in the National Register of Historic Places (NRHP) as follows:

The Calvary Baptist Church is recommended eligible for inclusion in the National Register of Historic Places under Criterion C, for its Architectural and Engineering features.

Mount Calvary Cemetery

The Mt. Calvary Cemetery complex, which is both an architectural and archaeological resource, is recommended eligible for the National Register. The Mt. Calvary Cemetery complex includes four components: Mt. Olive Cemetery, Mt. Calvary Cemetery, Fisher's Hill, and the Potter's Field. The property represents the Antebellum Period (1778-1830) through Reconstruction and Growth Period (1865-1917). The property is recommended eligible under Criterion A in the area of social history for the African-American community and funerary practices for the African-American community, and Criterion B for its association with numerous individuals significant in the social history of Portsmouth's African-American community. Also, based on the number of human graves (minimum 99) present and the association of the site with the Mt. Olive, Mt. Calvary and Fisher's Hill cemeteries, the Potters Field is potentially eligible for listing in the National Register of Historic Places under Criterion D for the information it can provide.

The High Street / Harbor Drive District, located just south of the existing terminus of the MLK Freeway (US 58) at London Boulevard, is considered eligible for listing in the NRHP. The District is also subject to Section 4(f) of the U.S. Department of Transportation Act of 1966, as amended (Section 4(f)). The provisions of Section 4(f) are addressed in the attached Section 4(f) Evaluation.

The Virginia SHPO has concurred with VDOT on the eligibility status of these properties.

Residences on Queen Street

Impact Evaluation

Final design for the Preferred Alternative will not adversely affect the Calvary Baptist Church or the Mt. Calvary Cemetery Complex. The Preferred Alternative will adversely affect the NRHP-eligible High Street / Harbor Drive District.

In accordance with 36 CFR Part 800, VDOT will develop a Memorandum of Agreement (MOA) to establish measures to mitigate the effects of the Preferred Alternative on historic properties. Once the MOA has been executed, the mitigation measures it contains will be carried out.

Right of Way / Relocation

This project would displace 18 owner families, two tenant families and seven businesses, as shown in Table 7.

A study of the area's residential and commercial properties indicates no relocation problems due to lack of availability. Contacts with local realty offices to obtain information regarding residential houses for sale in the area revealed there should be no major problems in relocating displacees in either owner-occupied or tenant-occupied dwellings.

TABLE 7

POTENTIAL BUSINESS RELOCATIONS

Business	Estimated Employees	Ownership
H.E.R.C.	15	Non-minority owned
Little Tiny Pallet Co.	3	Minority owned
Unnamed	3	Minority owned
A & A Sheet Metal	10	Non-minority owned
Rogers Electric	15	Non-minority owned
Stick It	2	Non-minority owned
The Young Peoples Guild	2	Minority owned

A search of the housing market revealed that there is an abundance of residential properties that meet the type of construction, size and bedroom requirements in all price ranges for those displaced. Since the project only displaces two tenant families, there should be no foreseeable problems in relocating these families within close proximity. Housing of last resort may be required, and VDOT will not hesitate to use this method to provide satisfactory replacement housing for those displaced. A survey of Portsmouth's commercial real estate market revealed that suitable properties exist to allow displaced businesses to relocate. Business relocations should not affect the local economy nor deny the community of essential or irreplaceable services. An orderly and satisfactory relocation process will require sufficient time to locate suitable housing or leased commercial space.

The acquisition and relocation program will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. Relocation resources are available to all residential and business relocatees without discrimination.

Air Quality

This project has been assessed for potential air quality impacts and conformity with applicable air quality regulations and requirements. The project has been found to meet these requirements and as such, it would not cause or contribute to a violation of national ambient air quality standards (NAAQS). In regards to Mobile Source Air Toxics (MSAT), best available information indicates that nationwide regional levels of air toxics are expected to decrease in the future due to fleet turnover and the continued implementation of more stringent emission and fuel quality regulations. Nevertheless, it is possible that some localized areas may show an increase in emissions and ambient levels of these pollutants due to locally increased traffic levels associated with the project.

This project is located in an eight-hour Ozone maintenance area. It is also located within designated emissions control areas for volatile organic compounds (VOC) and nitrogen oxides (NOx). All reasonable precautions should be taken to limit the emissions of VOC, NOx and particulate matter. In addition, the following Virginia Department of Environmental Quality (VDEQ) air pollution regulations must be

adhered to during the construction of this project: 9 VAC 5-40-5600 et seq., Open Burning Restrictions; 9 VAC 5-405490 et seq., Cutback Asphalt Restrictions; and 9 VAC 5-50-60 et seq., Fugitive Dust Precautions.

Emissions may be produced in the construction of this project from heavy equipment and vehicle travel to and from the site, as well as fugitive sources. Construction emissions are short term or temporary in nature. In order to mitigate these emissions, all construction activities are to be performed in accordance with Virginia Department of Transportation (VDOT) Road and Bridge Specifications. Additional details, including MSAT analysis, are contained in the *Air Quality Analysis: Technical Report, Route 58 Martin Luther King Freeway Extension*.

Noise

The potential traffic noise impacts related to the proposed extension of the Martin Luther King Freeway were assessed in the *Noise Analysis Technical Report* prepared for the project in November 2007. This report was prepared in accordance with FHWA and VDOT noise assessment guidelines, including FHWA guidelines as set forth in 23 CFR Part 772, and VDOT's regulations, as contained within the State Noise Abatement Policy. Noise levels in the project study area were determined for the 2007 Existing conditions, the design-year 2032 No-Build Alternative, and the design-year 2032 Build (Preferred) Alternative.

Impact Analysis

The project corridor includes a number of areas containing noise-sensitive properties. These areas include along both sides of Martin Luther King Freeway from south of London Boulevard to south of High Street, along both sides of Interstate 264 east of the proposed new interchange with Route 58, along the eastbound side of Interstate 264 southwest of the Route 58 interchange, at the Interstate 264 interchange with Route 17, and along both sides of Interstate 264 from the interchange with Route 17 to the interchange with Route 337. Noise-sensitive land uses potentially affected by this project consist of exterior areas of residential properties, five churches, two day care centers, a playground, a basketball court, a cemetery, and interior areas of the churches and day care centers. The project corridor also contains industrial properties; however, these facilities do not include exterior noise sensitive activities.

Noise impact occurs when the predicted noise levels in the project area "approach or exceed" the Noise Abatement Criteria (NAC) established by FHWA regulation during the loudest hour of the day. Table 8 provides a summary of the noise impacts within the study area under existing and future Build and No Build conditions. The assessment has determined that for the Build Alternative, noise impacts will occur at 125 residential properties, a recreational center, and one section of a cemetery under the design year 2032. However, it is predicted that the No Build Alternative would demonstrate higher noise levels (resulting in more noise impact), as compared to the Build Alternative, due to the extension of Route 58. This is because, under the Build Alternative, the proposed new elevated interchange ramps at Route 58 and I-264 will shield many of the noise sensitive properties from ramp and mainline traffic noise.

TABLE 8			
NOISE IMPACT SUMMARY			
Study Segments	**2007 Existing Impact**	**2032 No-Build Impact**	**2032 Build (Preferred) Alternative**
EB I-264 – Rt. 337 to Rt. 17	2 Res	16 Res	12 Res 1 Rec. Center
WB I-264 – Rt. 17 to Rt. 337	42 Res	42 Res	38 Res
I-264 E of Rt. 58 Intersection - South	34 Res 1 Cemetery	40 Res 1 Ch 2 Cemetery	22 Res 1 Cemetery
I-264 E of Rt. 58 Intersection - North	48 Res	57 Res	53 Res
Rt. 58 Ext. S of High St - West	0	0	0
Rt. 58 Ext. S of High St - East	0	0	0
Rt. 58 N of High St-East	0	0	0
Rt. 58 N of High St-West	0	0	0
Totals	**126 Res 1 Cemetery**	**155 Res 1 Church 2 Cemetery**	**125 Res 1 Cemetery 1 Rec. Center**

Noise Abatement

Consideration of traffic-noise abatement measures is necessary wherever the predicted design-year Build Alternative noise levels during the loudest hour of the day either (1) approach or exceed the NAC, or (2) exceed existing noise levels by 10 decibels or more. The FHWA has identified certain noise abatement measures that may be incorporated in projects to reduce or eliminate traffic noise impact. Noise abatement that will be effective in reducing noise impact will be considered reasonable and feasible unless it is found that such mitigation measures will cause adverse social, economic and environmental effects that outweigh the benefits received. Mitigation measures that have been considered for this project include alternative measures (traffic management and the alteration of horizontal and vertical alignment), plus the construction of noise barriers.

Alternative Noise Abatement Measures

Traffic management measures normally considered for noise abatement include reduced speeds and truck restrictions. Reduced speeds will not be an effective noise mitigation measure since a substantial decrease in speed is necessary to provide a significant noise reduction. In addition, the reduction would need to be applied to I-264, and part of the purpose and need for this project is to increase roadway capacity and traffic flow in the area. A speed reduction on I-264 would not accomplish that. Restricting truck usage on I-264 would not be practical as it is a major truck route in the area, and part of the purpose and need for the project is to remove truck traffic from local roads. The alteration of the horizontal or vertical alignment beyond what is already planned as part of the project would not be effective or practical. Elevating the extended portion of Route 58 as it crosses I-264 is predicted to reduce Build case noise

levels at a number of sites studied as part of this assessment.

Noise Barriers

The construction of noise barriers has been considered for each of the 125 residential properties for which impact has been predicted under the 2032 Build Alternative. At one location, a barrier has been determined not to be feasible. At two other locations, constructing barriers has been determined to be feasible in protecting some of the impacted properties, while other sites require property access and cannot be protected.

amount above $30,000 per residential property.

The three barriers or barrier systems are discussed below and are summarized in Table 9. A two barrier system (Barriers 1 and 2) would be constructed to protect impacted properties south of Eastbound Interstate 264 east of the proposed interchange with Route 58. Due to property access requirements, the barrier system could protect only 12 of the 22 impacted residences and the cemetery and would benefit 17 residential properties by providing 5 to 7 decibels of noise reduction

TABLE 9

NOISE BARRIER SUMMARY

Barrier Number	Barrier Location	Height (Feet)	Length (Feet)	Surface Area (sq ft)	Protected (Benefited) Properties	Barrier Cost	Cost Per Property
1-2	I-264 EB Ramp I-264 EB	9-10 12	1,724 1,501	16,549 18,001	30	$595,706 $648,088	$41,460
3	I-264 WB Rt. 58 Ramp	10-11	2,685	27,479	104	$989,133	$9,511
4	I-264 WB	10-15	2,090	23,411	35	$842,761	$24,079
Totals		**9-12**	**5,910**	**62,029**	**134**	**$2,232,927**	**$16,664**

To be feasible, a barrier must be effective, that is it must reduce noise levels by at least 5 decibels. To be reasonable, a barrier cannot cost more than $30,000 per protected or benefited residential property. A residential property is "protected" if it will be exposed to future noise impact and will receive at least 5 decibels of noise reduction from a barrier. By comparison, a residential property is "benefited" if it is not exposed to future noise impact, but will still receive at least 5 decibels of noise reduction from a barrier designed to protect other properties. A barrier not found to be reasonable due to cost can still be constructed if a third party (other than FHWA or VDOT) funds the

at a cost of $41,460 per property. This cost exceeds the $30,000 per property maximum. This preliminary evaluation indicates that constructing the barrier system would be feasible but not reasonable.

Constructing Barrier 3 has also been determined to be feasible. The barrier would be built to protect residential properties located north of westbound I-264 east of the proposed interchange with Route 58. Barrier 3 would protect 52 of 53 impacted residential properties and would benefit 52 properties by providing 5 to 7 decibels of noise reduction at a cost of $9,511 per property, well within the $30,000

per property maximum. This barrier appears to be reasonable.

Barrier 4 has been determined to be feasible and would protect 35 residential properties at a cost of $24,079 per protected property. It would be located just off the shoulder of westbound I-264.

The barrier findings discussed in this section of the report have been based on a very preliminary feasibility and reasonableness evaluation. Final barrier decisions will not be made until a detailed evaluation based on final project design has been completed.

Water Quality & Aquatic Resources

Surface Waters

The project site lies within the James River Basin (Hydrologic Unit 02080208). The project area generally drains northeast into Scott's Creek, a tributary to the Elizabeth River. Indirect impacts to Scott's Creek would be minimized by compliance with the Virginia Erosion and Sedimentation Control Regulations, the VDOT Design Manual, and the Virginia Stormwater Management Regulations during project construction. No direct impacts to surface waters are expected to result from project construction and operation.

Chesapeake Bay Preservation Act

VDOT is conditionally exempt from Chesapeake Bay Preservation Act (CBPA) regulations, provided avoidance and minimization procedures to reduce encroachments into Resource Protection Areas are implemented to the greatest extent practicable. VDOT's *Road and Bridge Specification Manual* provisions will be implemented in all contractor bid packages and construction documents including special provisions in order to fully adhere to CBPA conditional exemption requirements.

Wild and Scenic Rivers

There is no National Wild and Scenic River or Virginia Scenic River designated in the project vicinity. Therefore, no impacts to Wild and Scenic Rivers are expected to result from project construction and operation.

Coastal Zone Management

Under the Virginia Coastal Zone Program, the construction of the project would be deemed consistent with Virginia's Coastal Zone Resources Management Plan (CZRMP) by securing all appropriate environmental permits and ensuring compliance with the enforceable programs that comprise Virginia's program.

Floodplains

The Preferred Alternative does not contain 100-year floodplain or floodway areas, according to Federal Insurance Rate Maps for the City of Portsmouth (Community-Panel Number 515529 0040B, November 2, 1983). Therefore, no impacts to floodplains are expected to result from project construction and operation.

Water Quality

In the project area, the Elizabeth River is identified as a Category 5 impaired water by DEQ in their year 2004 305(b) List, for Tributyltin, Benthics, fecals and PCBs. No adverse hydrologic impacts are anticipated either on-site or off-site as a result of the proposed project.

Wetlands and Waters of the U.S.

Waters of the U.S. are legally defined by US Army Corps of Engineers (COE) and EPA regulations, and are described generically in EPA's 404 (b) (1) Guidelines as rivers,

streams, ponds, and special aquatic sites, (*e.g.*, sanctuaries and refuges, wetlands, mud flats, vegetated shallows, coral reefs, and riffle and pool complexes). Three small waters of the U.S. channels are located within the project area. These channels were likely created to drain the surrounding lands for development, and are now low quality straight channels that receive stormwater runoff from surrounding facilities and roadways and probably have standing water during the wet season. Two of the channels are located to the north of Columbus Avenue and I-264 in an undeveloped wooded area. One additional jurisdictional channel is located south of I-264 within a small wooded area west of Columbus Avenue. In total, approximately 1,415 linear feet of these channels would be impacted by project construction and operation.

Jurisdictional wetland determinations were made for the project area using the COE Wetlands Delineation Manual, 1987. Classifications follow the US Fish and Wildlife Service's classification system "Classification of Wetlands and Deepwater Habitats of the United States" (Cowardin, wet al, 1979). Field reconnaissance identified a small Palustrine Scrub/Shrub and Forested (PEM/PFO) system located north of Columbus Avenue. The wetland potentially impacted by the proposed project is approximately 2,064 square feet in size.

Groundwater

A groundwater aquifer is located in the project area approximately three to seven feet below the surface grade. Based on topographic features, regional groundwater flow direction and discharge are most likely northeast toward Scott's Creek. The aquifer is not used for drinking water, and the project area is served by municipal water and sewer. Therefore, the project should result in no direct or indirect effects to groundwater resources used for drinking water.

Wildlife

The lack of aquatic habitat and terrestrial habitat (*e.g.*, bottomland forests, special aquatic sites, pools, and streambanks) in the project area renders it a poor environment for supporting wildlife. According to the Virginia Department of Conservation and Recreation (DCR), no natural heritage resources or state natural area preserves are located in the project vicinity.

Threatened and Endangered Species

According to the Virginia Department of Game and Inland Fisheries (DGIF), there are no documented recent occurrences of threatened or endangered species located within the study area. DGIF has documented three colonial waterbird nesting colonies, known to support yellow-crowned night herons, north of the project area and adjacent to the Elizabeth River. Therefore, DGIF recommends further coordination with their agency and the U.S. Fish and Wildlife Service as project details become available.

The Department of Conservation and Recreation does not anticipate that the proposed project would adversely impact any natural heritage resources. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

Permits

Given the minimal anticipated stream and wetland impacts, the project should qualify for a Virginia Water Protection General

Permit 3 for Linear Transportation Activities, as stated in 9 VAC 25-680.

Hazardous Materials

A hazardous materials assessment was conducted for the Preferred Alternative which involved field reviews, research of historical aerial photographs, and research of databases from EnviroData Information Search (EDIS) and Virginia Department of Environmental Quality (DEQ) records.

Field reviews show that many sites within the Preferred Alternative alignment contain structures that were likely constructed with asbestos containing materials (ACM) based on the general age of the structures. Other sites appear to have potential for storage of petroleum and other chemical products.

This project would not impact any sites listed on the Environmental Protection Agency's (EPA) National Priorities List. Underground storage tanks (UST) sites identified in the database indicate that there is a potential to encounter petroleum contaminated soil and/or groundwater within this general area and that this is usually typical of urban industrial areas such as within the project area. Only one Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) site was identified and it is located outside of the project corridor.

Additional evaluation of identified hazardous materials sites may be required as construction plans are developed. These additional evaluations would be utilized to develop mitigation measures that could be incorporated into design plans and during the construction phase to minimize or eliminate hazardous materials concerns.

Construction

During construction, temporary environmental impacts can usually be controlled, minimized or mitigated through careful attention to prudent construction practices and methods. Potential temporary construction impacts and preventive practices are summarized below.

Land Use

Local street configurations and property access may be modified in the short term during construction. The final design process will include consultation with all affected property owners to ensure that access to schools, churches, residences and businesses is not disrupted during construction.

Water Quality

During construction, non-point source pollutants could possibly enter groundwater or surface water from storm water runoff. To minimize these impacts, appropriate stormwater management and erosion and sediment control practices, as outlined in the Virginia Stormwater Management Regulations and the 1992 Virginia Erosion and Sediment Control Handbook, will be used, including the prompt vegetation of disturbed areas. In accordance with the VDOT 2002 Road and Bridge Specifications § 107.14(a), land-disturbing activities that occur in the VDOT right of way must be supervised by a certified Erosion and Sediment Control Contractor. In the event the contractor dumps, discharges, or spills any contaminant that may effect water quality, they will immediately notify all appropriate local, state, and federal agencies and will take immediate action to contain and remove the contaminant.

Air

Emissions may be produced in the construction of this project from heavy equipment and vehicle travel to and from the site, as well as fugitive sources. Construction emissions are short term or temporary in nature and are not expected to be significant. In order to mitigate these emissions, all construction activities are to be performed in accordance with Virginia Department of Transportation (VDOT) Road and Bridge Specifications. In addition, the following Virginia Department of Environmental Quality (VDEQ) air pollution regulations must be adhered to during the construction of this project: 9 VAC 5-40-5600 et seq., Open Burning Restrictions; 9 VAC 5-40- 5490 et seq., Cutback Asphalt Restrictions; and 9 VAC 5-50-60 et seq., Fugitive Dust Precautions.

Noise

Construction activity may cause intermittent fluctuations in noise levels. During the construction phase of the project, all reasonable measures will be taken to minimize noise impacts from these activities. VDOT's January 2002 *Road and Bridge Specifications,* Section 107.14(b.3), establishes construction noise limits. The contractor will be required to conform to this specification to reduce the impact of construction noise on the surrounding community.

Solid Waste Disposal

Any solid waste impacts created during construction would be temporary. All solid waste material resulting from clearing and grubbing, demolition, or other construction operations will be removed from the project and disposed of in an appropriate manner.

Hazardous Materials

Additional evaluation of identified hazardous materials sites may be required as construction plans are developed. These additional evaluations would be utilized to develop mitigation measures that could be incorporated into design plans and during the construction phase to minimize or eliminate hazardous materials concerns.

If contaminated materials are encountered during construction, VDOT will develop and implement appropriate procedures for their proper management and coordinate the removal, disposal, and/or treatment of the materials, as necessary. If contaminated groundwater is encountered during construction, VDOT will implement appropriate specifications for proper management and treatment of the water, as necessary.

Visual Impacts

The scale and height of the elevated roadway (on average 18-30 feet tall) would generally fit within the existing urban and industrial setting of the study area. No substantial visual impacts are anticipated as a result of the project.

Industrial Uses along Turnpike Road

Indirect & Cumulative Impacts

The Council on Environmental Quality (CEQ) regulations (40 CFR §§ 1500 -1508) define the impacts and effects that must be addressed and considered by Federal agencies, including direct, indirect (secondary) and cumulative impacts. This document has already addressed anticipated direct impacts. The following discussion qualitatively addresses potential indirect and

cumulative impacts that may occur as a result of the project.

Indirect Impacts

Indirect impacts are those impacts that are caused by the project but occur later in time or are removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate.

As discussed previously, the Preferred Alternative is proposed in a heavily urbanized area with a mixture of older residences and retail businesses on the northern and southern ends, with light and heavy industrial uses located in the central portion of the study area. Only a few vacant parcels exist in the area, and these are located on sites that, at one point in the past, had urban uses.

As shown on the City of Portsmouth's Future Land Use and Community Conditions Maps (*Portsmouth Destination 2025 Comprehensive Plan*), the City anticipates redevelopment of the majority of the project study area. The major local corridors planned for redevelopment activities include London Blvd., High Street, Airline Blvd., Portsmouth Blvd., Effingham Street and Frederick Blvd. The area south of London Blvd., north of I-264, covering the east half of the project study area, is also identified for redevelopment.

While the redevelopment and revitalization of this portion of the City of Portsmouth is planned and expected, and could occur with or without the proposed transportation improvement (given existing developmental pressures and city policies), it would likely be accelerated with the completion of this project. This would be accomplished

Westbury Redevelopment – Elm Avenue, North of I-264

through the various and immediate benefits anticipated from the Preferred Alternative:

- Linkage of ports and other industrial and commercial uses to outside markets;
- Linkage of the community to the region;
- Improved freight movement within and outside of the region;
- Decreased truck traffic and increased capacity on local roadways;
- Improved traffic movement at existing interchanges (decreased volumes on Frederick Blvd. and Effingham Street interchanges); and,
- Removal of a geometrically deficient interchange (i.e. Des Moines Ave./South Street Interchange) that would reduce overall traffic volumes, especially truck traffic, through established residential areas.

However, it cannot be said that the project by itself would be the direct cause of such development because other factors, such as economic conditions, play a larger role in development decisions. The entire area is currently developed and planned for future development. The project would be consistent with local comprehensive planning regarding land use goals in the surrounding area and would be expected to improve overall mobility and connectivity among surrounding land uses and transportation facilities.

Cumulative Impacts

Cumulative impacts are the impact on the environment resulting from the incremental impact of the project when added to other past, present, and reasonably foreseeable future actions. Other past, present, and reasonably foreseeable future actions in the study area underway by the City, State and Federal Governments that could cumulatively impact the environment include:

Past Actions –

- Extend Route 164 (Western Freeway) from the West Norfolk portion of Portsmouth to the Pinner's Point Interchange
- Construct Pinner's Point Interchange, connecting Route 58 (MLK Freeway) to Route 164 (Western Freeway) and to Alternative Route 337 and the Midtown Tunnel to Norfolk

Present Actions –

- Construct MLK Freeway Extension between Route 58 and I-264
- Construct second Midtown Tunnel
- Improve the Downtown Tunnel

Future Actions –

- Improve Turnpike Road from County Road to Alexander's Corner (Harbor Drive)
- Construct Third Crossing of the James River north from the Western Freeway and across Craney Island
- Extend freight rail lines within the median of the Western Freeway to serve the Craney Island Terminal
- Construct the Craney Island Terminal as a major port for freight

All of these actions have or will have an impact on the environment. For purposes of cumulative impact analysis for this EA, the primary issue is whether or not the proposed project would significantly impact the same resources as the actions listed above, resulting in an accumulation of impacts to the resource in question. Given that the overall impacts from the project are relatively minor, the effects of the Preferred Alternative should not significantly contribute to adverse cumulative impacts.

COORDINATION AND COMMENTS

Agency/Organization Coordination

In the process of preparing this document, the agencies and organizations listed below were consulted to obtain information and identify key issues regarding potential social and environmental impacts. Pertinent information received from these agencies was incorporated into this Environmental Assessment (EA).

- Advisory Council on Historic Preservation
- Bethel Temple Church
- Calvary Baptist Church
- City of Norfolk —Planning & Community Development
- City of Portsmouth—City Manager
- City of Portsmouth —Mayor
- City of Portsmouth —Public Works
- City of Portsmouth —Planning Department
- City of Portsmouth —Public Schools
- Cottage Place Methodist Church
- CSX Transportation
- Federal Highway Administration (FHWA)
- Federal Railroad Administration
- First Baptist Church Taylorsville
- First Church of Deliverance
- First Corinthian Church
- Hampton Roads Economic Development Alliance
- Hampton Roads Planning District Commission

- Hampton Roads Sanitation District
- Hampton Roads Transit
- Holy Light Church of Deliverance
- Holy Trinity Church No. 2
- Macedonia Church of God in Christ
- Morning Star Baptist Church
- National Marine Fisheries Service—Habitat Conservation Branch
- Portsmouth Redevelopment and Housing Authority
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)
- U.S. Army Corps of Engineers (USACE) —Norfolk District
- U.S. Department of Housing and Urban Development
- U.S. Department of the Interior, Environmental Policy and Compliance
- U.S. Environmental Protection Agency (USEPA) —Environmental Programs Division—Region III
- U.S. Fish and Wildlife Service (USFWS)
- Virginia Department of Agriculture and Consumer Services
- Virginia Department of Conservation and Recreation
- Virginia Department of Environmental Quality—Director
- Virginia Department of Game and Inland Fisheries
- Virginia Department of Health—Water Programs
- Virginia Department of Historic Resources
- Virginia Department of Housing and Community Development
- Virginia Department of Mines, Minerals and Energy
- Virginia Department of Rail and Public Transportation
- Virginia Economic Development Partnership
- Virginia Institute of Marine Science
- Virginia Marine Resources Commission
- Virginia Outdoors Foundation
- Zion Bethel United Church of Christ

Public Involvement

VDOT will be conducting a Public Hearing for this project in Portsmouth. The purpose of this hearing will be to present the preliminary project design and findings of this EA, provide a discussion forum between the public and project team, and obtain input and comments from the community. In addition, there will be a 30-day public comment period following notice of availability of the EA. Any comments received during the public hearing and public comment period will become part of the public hearing record, and substantive comments will be addressed in the Final NEPA documentation.

Trexler Ave at Arcadia Ave; I-264 is to the left