

1.0 Purpose and Need

The Maryland Transportation Authority (MDTA) and the Baltimore City Department of Transportation (BCDOT), in coordination with the Federal Highway Administration (FHWA), are studying a suite of improvements to Interstate 95 (I-95) ramps and other nearby transportation facilities to support ongoing and planned redevelopment of the Port Covington peninsula in south Baltimore. These improvements are collectively known as the I-95 Access Improvements from Caton Avenue to the Fort McHenry Tunnel (I-95 Access Improvements).

The Port Covington peninsula is surrounded on three sides by the Middle Branch of the Patapsco River, with I-95 running on structure along the northern boundary. Transportation access to the peninsula is currently provided by north-south connections via Hanover Street and east-west connections via local arterials, including Key Highway and McComas Street.

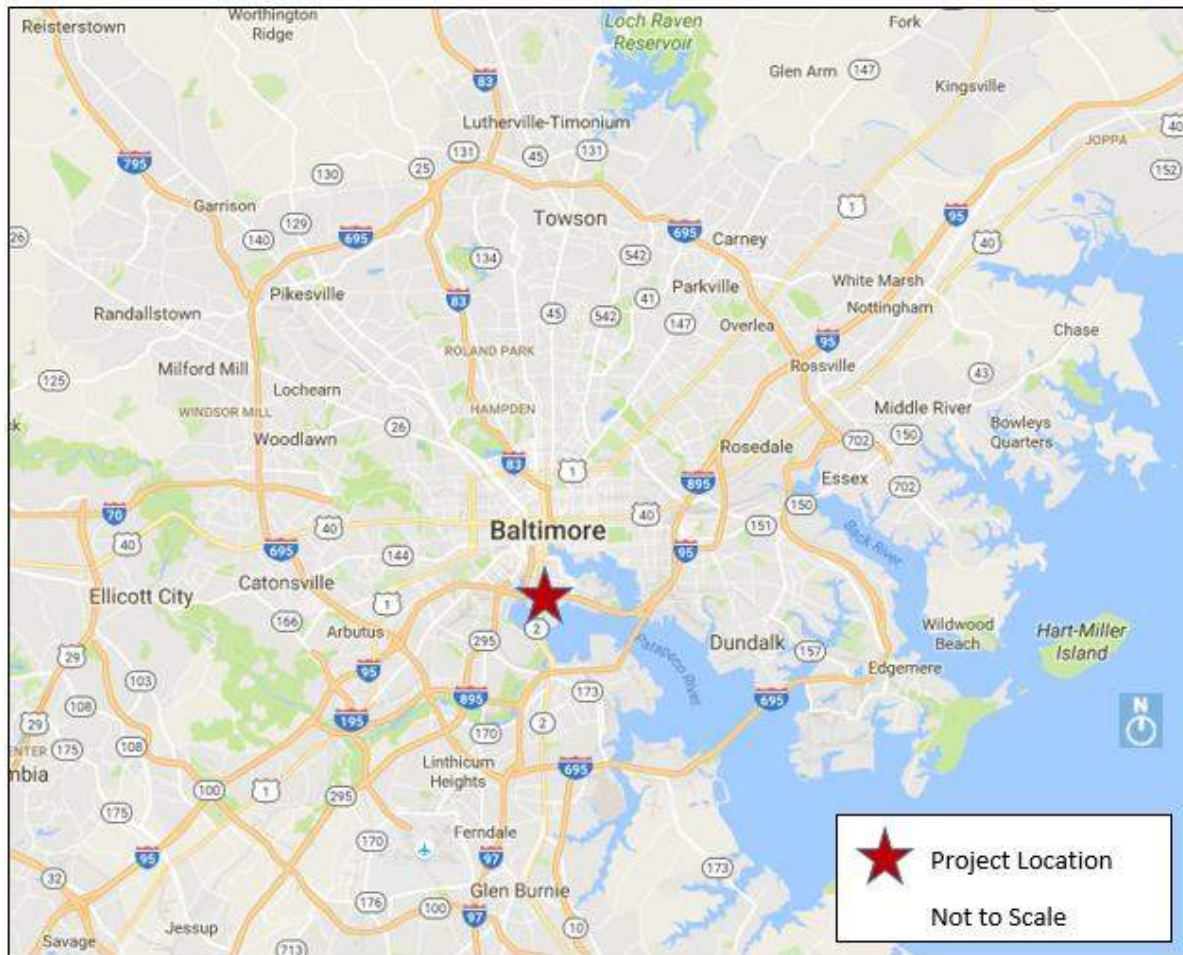
Interstate 95 is part of the Interstate Highway System in Baltimore City, and is owned, operated and maintained by MDTA. The BCDOT is responsible for other arterial and collector roadways in the project area. FHWA has approval authority over any changes to access points on the Interstate Highway System. Approval of any proposed modification to interstate access constitutes a federal action subject to review under the National Environmental Policy Act (NEPA).

This Environmental Assessment (EA) has been prepared to evaluate the potential impacts of the I-95 Access Improvements on the human, natural, and built environment in compliance with NEPA, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1508), FHWA's Environmental Impact and Related Procedures (23 CFR 771), and other federal, state and local requirements. MDTA and BCDOT are committed to achieving the transportation, economic, and social goals outlined below in an environmentally sensitive manner.

1.1 THE STUDY CORRIDOR

The project is located in south-central Baltimore City. It is shown Figure 1-1. Figure 1-2 depicts the study limits which extend from Caton Avenue to the west to Keith Avenue to the east. The study corridor includes approximately seven miles of I-95 and includes sections of Hanover Street, McComas Street and Key Highway. Within the corridor I-95 is generally eight lanes wide – four each in the northbound and southbound directions. Exit 54 (Hanover Street) and Exit 55 (Key Highway) currently provide access between I-95 and the Port Covington peninsula. A half-mile buffer was drawn around the study corridor to define the project study area for analysis purposes and is shown on Figure 1-3.

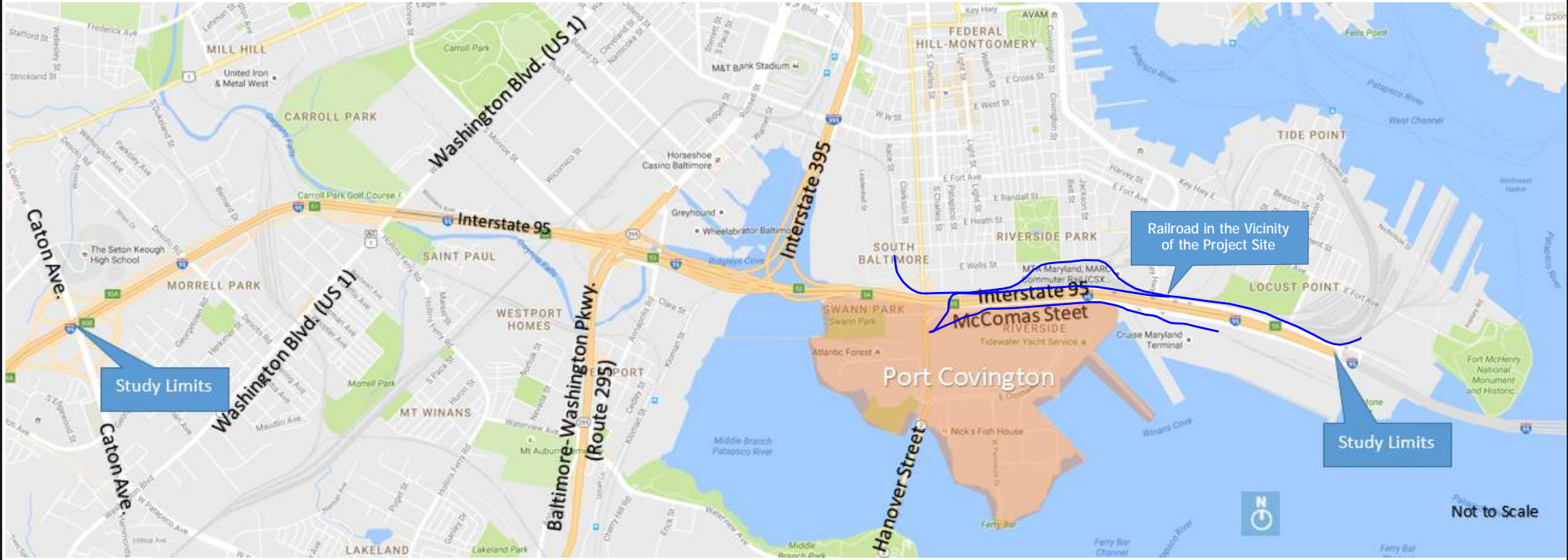
Figure 1-1: Project Location



Exit 54 (Hanover Street) is not a full interchange, so there are currently two I-95 northbound exits and two I-95 southbound entrances, but only a single I-95 northbound entrance and a single I-95 southbound exit. Specifically, this interchange does not have an I-95 southbound exit to Hanover Street, or an I-95 northbound entrance from Hanover Street. The lack of ramps at this interchange limits the amount of traffic that is able to access the Port Covington area to/from north of the Fort McHenry Tunnel.

It is important to note that the I-395 to I-95 to Exit 54 (Hanover Street) link is an important existing connection for traffic traveling to and from Baltimore City and points south. Hanover Street in the study is five lanes (two each northbound and southbound, with a reversible lane in the center). North of the I-95 interchange, Hanover Street transitions to two lanes (one travel lane plus parking in each direction) with landscaped center medians.

I-95 northbound, Exit 55 (Key Highway) is a one-lane exit from I-95 northbound to eastbound McComas Street, which runs at grade adjacent to and below I-95 along the northern border of the Port Covington peninsula. As eastbound McComas Street is a one-way street, the exit touches down and becomes the third, left-most lane on McComas Street. The Key Highway exit from I-95 southbound is a one lane exit to westbound McComas Street that intersects Key Highway underneath the I-95 viaduct.



**I-95 ACCESS IMPROVEMENTS
FIGURE 1-2**

STUDY LIMITS

**MARYLAND TRANSPORTATION
AUTHORITY**

BALTIMORE CITY DOT

Under existing conditions both Hanover Street and westbound McComas Street have entrances to I-95 southbound, located approximately 3,000 feet apart. As with the northbound weaving section from I-395 to Hanover Street, the southbound direction includes a substandard merge between I-95 and I-395. The distance between the merge from the Hanover Street entrance and the northbound I-395 exit is approximately 600 feet.

McComas Street is actually two parallel streets that carry opposite directions of traffic flow, which join together just east of Hanover Street. Both directions contain two to three lanes within the study area. Eastbound McComas is located just south of the I-95 viaduct, while westbound McComas runs underneath it.

There are currently no continuous pedestrian or bicycle facilities that connect the Port Covington peninsula to the surrounding neighborhoods because of the barriers created by the elevated I-95 roadway and existing CSX rail facilities located just north of the I-95 viaduct.

1.2 PURPOSE OF THE PROPOSED ACTION

The purpose of the I-95 Access Improvements project is to accommodate forecasted increased transportation demand on I-95 and the surrounding transportation network by minimizing effects on mobility and safety, as well as enhancing multi-modal connections to the Port Covington peninsula.

The purpose of the proposed action is to address the following needs, which are described in the following section:

1. Ongoing and planned development in the Port Covington peninsula will result in **increased transportation demand** to Port Covington resulting in vehicular trips that are projected to be more than double today's volumes to and from the site on I-95, I-395, and Hanover Street by 2040.
2. **Existing capacity and roadway geometry** are **not adequate** to meet projected traffic demands, with operations on most ramp segments and links within the study corridor projected to reach unacceptable Levels of Service (LOS) by 2040.
3. Existing public infrastructure in and around the peninsula cannot efficiently support the City's approved **economic development and land use changes** at Port Covington.
4. The **limited multi-modal connections** around and across I-95 between the surrounding neighborhoods and the Port Covington peninsula are insufficient to support future planned growth on the peninsula.

1.3 PROJECT NEED

Increased Transportation Demand

Perhaps the most important problem the I-95 Access Improvements project seeks to address is increasing transportation demand to and from the peninsula. Existing background growth plus new trips generated by the development on the Port Covington peninsula will result in vehicular trips that are more than double today's volumes to and from the site on I-95, I-395 and Hanover Street by 2040. The traffic forecasts also indicate similar findings for the I-395/Hanover Street weave, an important movement for travelers between Downtown and south Baltimore. Volumes on McComas Street, within the Port Covington peninsula, are forecast to triple during both the AM and PM peaks by 2040.

I-95 Access Improvements from Caton Avenue to the Fort McHenry Tunnel Environmental Assessment

The above development is projected to generate more than 5,600 vehicular trips during the AM peak hour and more than 8,100 vehicular trips during the PM peak hour to and from the site. Specifically, the increase in vehicular trips anticipated by 2040 is concentrated on I-95 and routes to and from downtown Baltimore, such as I-395 and Hanover Street. Along Hanover Street south of McComas Street, vehicular traffic is projected to more than double, from approximately 3,000 vehicles to approximately 6,600 vehicles in the north- and southbound directions during the AM peak hour. The projected increase in traffic along Hanover Street is even greater during the PM peak hour, with an estimated 8,000 vehicles (increased from 3,300 vehicles) on north- and southbound Hanover Street in 2040. McComas Street is expected to see an even greater increase in traffic, from 430 vehicles to 1,400 vehicles in the AM and from 500 vehicles to over 2,000 during the PM peak hour.

In addition to large increases in traffic along the arterials, traffic on the I-95 mainline and the ramps to and from Port Covington are also anticipated to increase substantially. Traffic on the I-95 northbound off ramp to Hanover Street, which experiences congestion during the PM peak hour under existing conditions, is projected to more than double from approximately 700 vehicles to approximately 1,700 vehicles in 2040.

The private development proposed for Port Covington is already under way. The Baltimore City Planning Commission approved the *Port Covington Master Plan* in June 2016. The Port Covington Master Plan is included in Appendix H, Section 4(f). Land use approvals were granted by the Baltimore City Council on December 5, 2016. The entire Master Plan can now be built out.

Port Covington is one neighborhood included in the 2015 *South Baltimore Gateway Master Plan*¹ which looks at improving quality of life in over a dozen neighborhoods through strategies such as taking advantage of the Middle Branch waterfront, developing more recreational and entertainment opportunities, and improving pedestrian, bicycle and transit access.

The Port Covington redevelopment project will transform 266 acres on the peninsula from under-utilized industrial brownfields into a mixed use urban development. As proposed, this mixed-use development is one of the largest urban redevelopment projects currently underway in the United States.² The developer has committed to using technology and other incentives to reduce reliance on automobile trips as a means of accessing the site. As currently planned, the Port Covington redevelopment will increase population density and employment on the peninsula, which will generate a demand for infrastructure improvements. The program is as follows:

- Relocation of the Under Armour world headquarters (roughly 3 million square feet and 11,000 employees) anticipated by 2040;
- 1.5 million square feet of destination, attraction, entertainment, and specialty retail establishments;
- Over 7,500 residential units, including rental and for-sale properties at various price-points;
- 500,000 square feet of industrial/light manufacturing space;
- 200+ hotel rooms;
- 1.5 million square feet of office space (in addition to the Under Armour world headquarters); and
- Civic and cultural uses including 40+ acres of public parks.

¹ <http://www.southbaltimorgatewaymasterplan.com/>

² <https://www.curbed.com/2017/4/11/15258408/baltimore-under-armour-port-covington-innovation-village>

Existing Capacity and Roadway Geometry Inadequate

Existing roadway capacity along I-95 in the vicinity of Port Covington is not adequate to accommodate the 2040 forecasted traffic volumes during the busy morning and evening rush hours. The term roadway geometry defines how fast and how safely all motor vehicles (cars, 18 wheelers, emergency providers, and buses) and even bicyclists and pedestrians can use or cross the roadways. Capacity and roadway geometry must work together in order to provide an effective transportation network for all users.

The existing length of the merge area on northbound I-95 between southbound I-395 and the Hanover Street ramp is considered substandard by AASHTO standards and also currently operates at or near capacity. In both the AM and PM peak hours more than 50 percent of traffic to the Hanover Street ramp originates from the I-395 ramp, making this an important connection for traffic from Baltimore City to points south. Similarly, the distance between the merge from the Hanover Street entrance and the northbound I-395 exit (approximately 600 feet) does not meet current AASHTO guidance.

Existing connections between the I-95 mainline and the local roadway network on the Port Covington peninsula, including Hanover Street, McComas Street, and Key Highway will be strained by new development at Port Covington, as shown in Table 1-1 and Table 1-2. Under 2040 No Build conditions, queuing from within the study corridor is projected to impact the upstream portions of the I-95 mainline in both the north- and southbound direction. In the northbound direction, the weave segment from I-395 to Hanover Street is projected to degrade to LOS F, causing queues to spillback to all freeway segments south of the weave. In the southbound direction, the Key Highway off ramp degrades to LOS F during both peak hours, causing queuing on the I-95 mainline to back up through the Fort McHenry Tunnel. The Key Highway and McComas Street ramps also experience a similar decline in operations.

In addition to providing access to Port Covington and the surrounding neighborhoods, this section of I-95 provides an important connection for local and regional traffic. If traffic operations degrade to the level projected under 2040 No Build Conditions, the nearly 200,000 vehicles per day that utilize this section of I-95 would be severely impacted by recurring daily congestion. In addition, local traffic seeking to access Port Covington and surrounding neighborhoods would be unable to effectively do so, potentially causing traffic to divert to local roads and impacting nearby areas of Baltimore City.

Table 1-1: Freeway Segments within the Study Corridor

Freeway Segment	Existing AM		2040 No Build* AM		Existing PM		2040 No Build* PM	
	LOS	Speed (mph)	LOS	Speed (mph)	LOS	Speed (mph)	LOS	Speed (mph)
Interstate 95 Northbound								
Caton Ave Off Ramp to Washington Blvd Off Ramp	D	53	F	12	D	53	F	6
Washington Blvd Off Ramp to Caton Ave On Ramp	E	44	F	9	F	34	F	4
MD 295 Off Ramp to I-395 Off Ramp	F	28	F	9	F	21	F	3
I-395 Off Ramp to MD 295 On Ramp	B	58	F	4	D	52	F	2
MD 295 On Ramp to I-395 On Ramp	B	61	F	4	D	49	F	2
Hanover Street to McComas Street	B	56	A	50	F	23	F	2
McComas Street to Key Highway	A	62	A	62	F	30	A	59
Key Highway to Tunnel	A	59	A	59	F	23	A	57
Interstate 95 Southbound								
Tunnel to Key Highway	D	51	F	32	B	61	F	29
Key Highway to McComas Street	D	57	C	56	B	61	B	58
McComas Street to Hanover Street	E	37	C	56	B	59	B	60
I-395 Off Ramp to MD 295 Off Ramp	D	44	C	53	B	59	B	60
MD 295 Off Ramp to I-395 On Ramp	E	44	C	55	B	60	B	59
I-395 On Ramp to MD 295 On Ramp	D	46	C	55	D	48	B	59
MD 295 On Ramp to Washington Boulevard	D	53	C	59	D	49	B	59
Caton Ave Off Ramp to Caton Ave On Ramp	E	49	C	59	F	37	C	59

*2040 No Build assumes the full build out of the Port Covington Master Plan

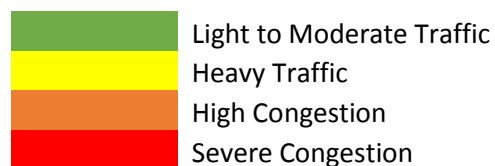
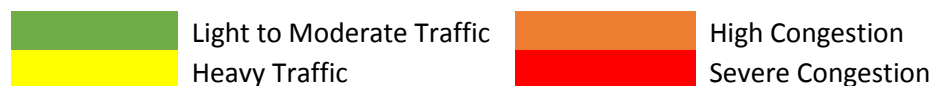


Table 1-2: Ramp Segments within the Study Corridor

Ramp	Ramp Analysis	Existing AM		2040 No Build AM		Existing PM		2040 No Build PM	
		LOS	Speed (mph)	LOS	Speed (mph)	LOS	Speed (mph)	LOS	Speed (mph)
Interstate 95 Northbound									
From I-695 to Caton Avenue/C-D Roadway	Weave	C	57	F	12	C	57	F	7
Washington Boulevard Off Ramp	Diverge	A	49	F	15	A	43	A	43
From Caton Avenue/C-D Roadway to MD 295	Weave	E	33	E	9	F	18	F	4
I-395 Off Ramp	Major Diverge	F	19	C	43	C	49	A	50
I-295 On Ramp	Merge	A	53	F	2	C	52	F	1
From I-395 to Hanover Street	Weave	B	56	F	5	F	30	F	2
McComas Street Off Ramp	Diverge	C	35	B	33	D	33	F	1
Key Highway On Ramp	Merge	A	41	B	40	C	29	A	38
Interstate 95 Southbound									
Key Highway Off Ramp	Diverge	D	33	F	5	A	60	F	2
McComas Street On Ramp	Merge	C	43	B	47	B	39	A	47
From Hanover Street to I-395	Weave	F	29	D	42	B	55	B	57
I-295 Off Ramp	Diverge	D	47	C	51	A	59	A	56
I-395 On Ramp	Major Merge	C	54	B	53	F	22	A	53
I-295 On Ramp	Merge	A	54	A	53	C	49	C	48
From Washington Boulevard to Caton Avenue	Weave	E	41	C	53	E	39	B	56
From Caton Avenue to I-695	Weave	E	39	C	56	F	21	C	53

*2040 No Build assumes the full build out of the Port Covington Master Plan



Support Economic Development and Land Use Changes

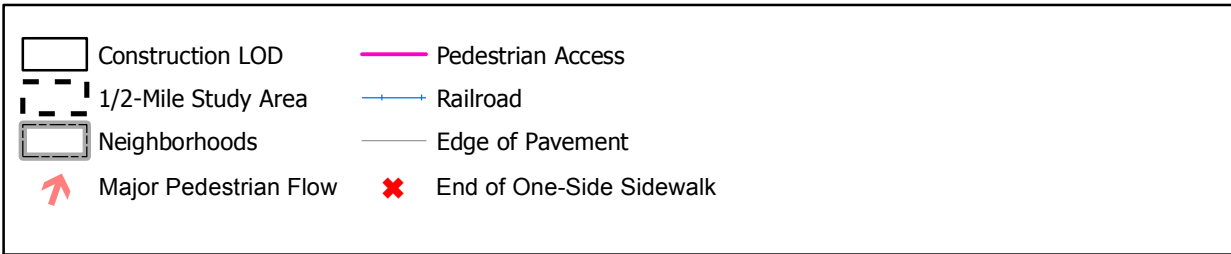
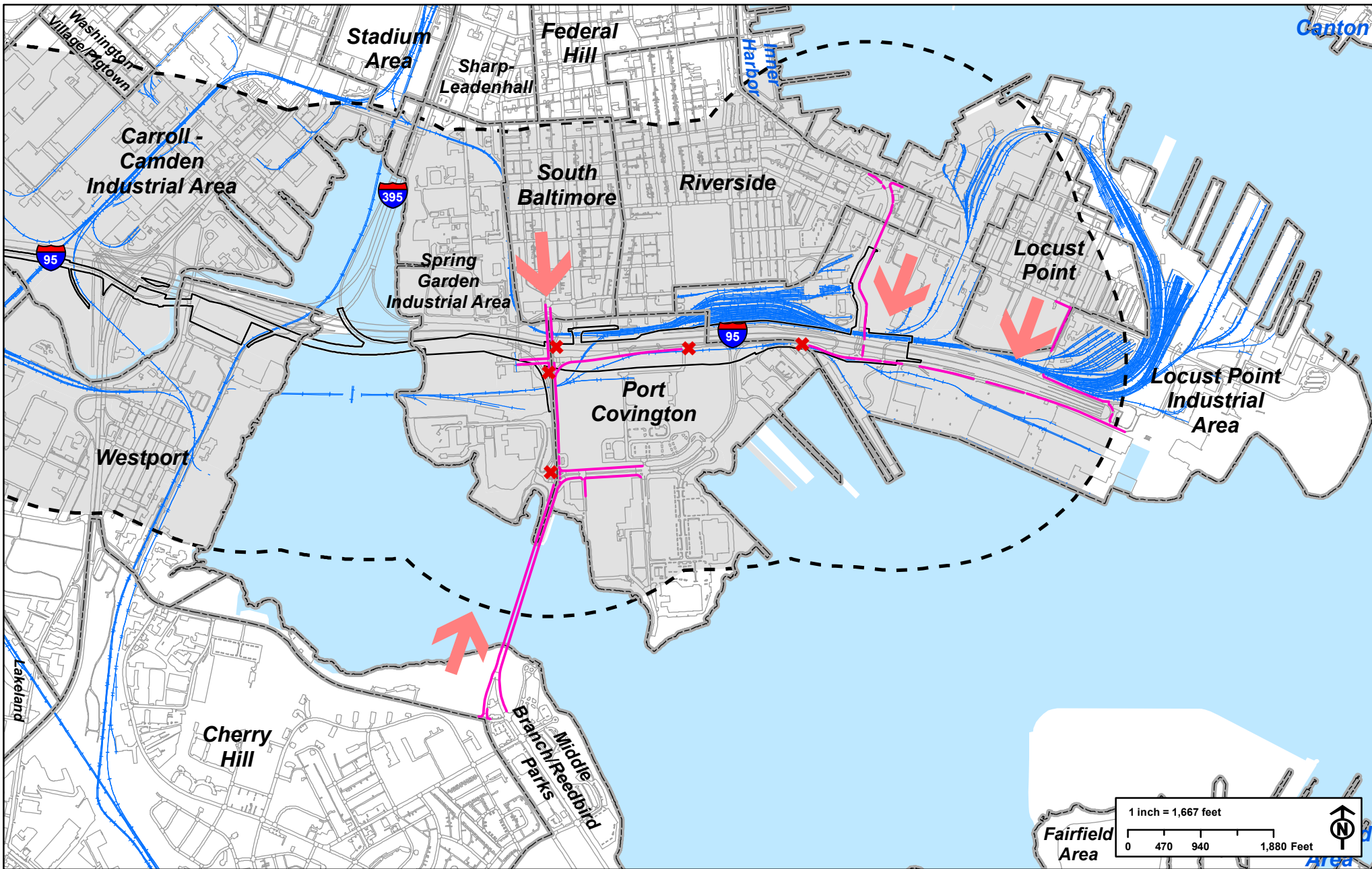
The private development proposed for Port Covington is already under way. The entire Master Plan can be built out, subject to land use approvals by the Baltimore City Planning Commission and the Baltimore City Council.

One of the goals of the City's adopted *South Baltimore Gateway Master Plan (2015)* is to foster economic growth in more than a dozen neighborhoods in South Baltimore, including Port Covington. Providing the local and regional community access to the new job opportunities and amenities that will be part of the Port Covington redevelopment is a key step in achieving that goal. Connections between Port Covington and other parts of Baltimore, particularly the surrounding neighborhoods of South Baltimore and Riverside, are constrained by the elevated portion of I-95, as shown on Figure 1-3. Addressing the constrained connections to these communities, mitigating the forecasted congestion issues, and accommodating the projected increased traffic volumes are consistent with the goals of the *South Baltimore Gateway Master Plan*. The public infrastructure currently in and around the peninsula cannot efficiently support the significant economic growth expected from the new development.

Limited Multimodal Connections

Currently, there is a lack of pedestrian and bicycle facilities across the study area, with no connection across the Hanover Street ramp to I-95 Southbound and a constrained facility at the McComas/Key Highway off-ramp from I-95 Southbound where a bridge pier for the CSX overpass blocks the center of the sidewalk (see Figure 1-3). These constraints lead to pedestrians and bicyclists taking unsafe routes, a situation likely to be exacerbated by the forecasted increases in vehicular traffic.

The developer for the Port Covington peninsula has created a comprehensive site plan to promote multimodal accessibility, with access to pedestrian, bicycle, and transit facilities. They are working with State and City agencies to extend existing transportation programs to the Port Covington peninsula including the BaltimoreLink bus system, Bike Share stations, shuttle routes to strategic hubs within the City, and new Water Taxi stops. Employees and visitors will be encouraged to access the site using these other modes. However, the existing inadequate connections between the peninsula and the surrounding neighborhoods will make it difficult for residents to access the multimodal network. Filling in that missing link between the surrounding communities and the Port Covington peninsula would help to connect residents to ladders of opportunity.



I-95 ACCESS IMPROVEMENTS
FIGURE 1-3
 NEIGHBORHOODS AND
 PEDESTRIAN CONNECTIONS
 MARYLAND TRANSPORTATION
 AUTHORITY
 BALTIMORE CITY DOT