



Report

Environmental Justice

December 2020

Howard Street Tunnel Project

Prepared For:



Prepared By:



Contents

1	INTRODUCTION	1
1.1	Project Background	1
1.2	Study Objectives.....	1
1.3	Executive Order 12898: Environmental Justice	1
2	STUDY AREA AND METHODOLOGY	2
3	AFFECTED ENVIRONMENT	2
3.1	Baltimore, MD Project Sites.....	13
3.1.1	Howard Street Tunnel.....	13
3.1.1.1	West Portal.....	13
3.1.1.2	Mined Tunnel Segment	13
3.1.1.3	East Portal.....	14
3.1.2	Mount Royal Avenue.....	15
3.1.3	MTA Bridge.....	15
3.1.4	North Avenue.....	16
3.1.5	Sisson Street	16
3.1.6	Huntington Avenue	17
3.1.7	Charles Street.....	17
3.1.8	St. Paul/Calvert Street	17
3.1.9	Guilford Avenue	18
3.1.10	Barclay Street	19
3.1.11	Greenmount Avenue.....	19
3.1.12	Harford Road	20
3.1.13	Bayview Rail Yard.....	20
3.2	Wilmington, DE Project Sites.....	21
3.2.1	Lancaster Avenue.....	21
3.2.2	4th Street.....	21

3.3	Greater Philadelphia, PA Project Sites	22
3.3.1	Chichester Road	22
3.3.2	Crum Lynne Road.....	22
3.3.3	Clifton Avenue	23
3.3.4	Boone Tunnel	23
3.3.5	68th Street	24
3.3.6	65th Street	24
3.3.7	Cemetery Avenue	25
3.3.8	61st Street	25
3.3.9	Woodland Avenue	25
3.3.10	58th Street	26
3.3.11	Eastwick Interlocking	26
4	IMPACT ANALYSIS	27
4.1.1	Direct Impacts.....	27
4.1.2	Indirect Impacts	27
4.1.3	Cumulative Impacts	28
4.1.4	Mitigation	28
4.2	Build Alternative.....	28
4.2.1	Direct Impacts.....	28
4.2.2	Indirect Impacts	31
4.2.3	Cumulative Impacts	31
4.2.4	Mitigation	31
	REFERENCES	32

ACRONYMS AND ABBREVIATIONS

Notation	Definition
CSX	CSX Corporation
EA	Environmental Assessment
EJ	Environmental Justice
EO	Executive Order 12898
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
HST	Howard Street Tunnel
INFRA	Infrastructure for Rebuilding America
MDOT	Maryland Department of Transportation
NEPA	National Environmental Policy Act
Project	Howard Street Tunnel Project
U.S.	United States

1 INTRODUCTION

1.1 Project Background

In 2016, Maryland Department of Transportation (MDOT) and CSX Corporation (CSX) conducted a feasibility study¹ that evaluated alternatives to achieving double-stack clearance within the existing Howard Street Tunnel (HST), rather than a wholesale replacement of the HST on a new alignment. The study concluded that: (1) the current HST has many years of useful life; (2) engineering advances now allow the tunnel to be double-stack cleared for a practicable cost with minimal impacts to the public; and (3) frequent flooding must be addressed to improve the tunnel's reliability. Additionally, CSX completed a separate investigation for the clearances north of Baltimore, Maryland up to Philadelphia, Pennsylvania, and determined those projects would be financially and technically feasible as well.

1.2 Study Objectives

The objective of this Environmental Justice (EJ) Report is to describe and evaluate the character of the HST Project (Project) Study Area, as defined in Section 2, in terms of minority and low-income populations. This study also will address the expected impact of the Project on those communities.

The study's specific objectives are:

1. To identify the United States (U.S.) Census tracts within the study area of the Project sites.
2. To develop an EJ profile of the current conditions of the Study Area, including the minority and low-income populations.
3. To describe the effects of the Project on the EJ communities in the Study Area.

1.3 Executive Order 12898: Environmental Justice

Executive Order 12898 (EO), "Federal Actions to Address Environmental Justice in Minority and Low-Income Populations," requires federal agencies to analyze the environmental effects of a proposed action on minority and low-income communities. The purpose of the EO is to direct federal agencies to identify and to the extent practicable address disproportionately high and adverse human health and environmental effects of its programs, policies, and activities on minority and low-income populations.

The term "minority population" includes persons who identify themselves as black/African-American, Asian or Pacific Islander, Native American or Alaskan Native, or Hispanic (Council on Environmental Quality, 1997). Race refers to Census respondents' self-identification of racial background (U.S. Census Bureau, 2020b). Hispanic origin refers to ethnicity and language, not race, and may include persons whose heritage is Puerto Rican, Cuban, Mexican, and Central or South American (Office of Management and Budget, 1997).

Low-income populations can be identified using the United States Census Bureau's statistical poverty threshold, which is based on income and family size. The Census Bureau defines a "poverty area" as a

¹ Clark Construction and Parsons, *Howard Street Tunnel Clearance Report*. 2016.

Census tract where 20 percent or more of the residents have incomes below the poverty threshold (Bureau of the Census, 1995). The Census Bureau's poverty level refers to income levels that are considered too low to meet essential living requirements, based on family size, age of householder², and the number of children under 18 years old. The criteria for determining poverty level vary with household composition and size and are applied nationally (except for Alaska and Hawaii), without regard to the local cost of living. In 2018, the poverty threshold for a family of four related persons with two children under age 18 was \$25,465 (Semega, Kollar, and Mohanty, 2020).

A second objective of the EO is to promote public participation and access to information during the development and design of a federal or federally permitted project within the National Environmental Policy Act (NEPA) process.

2 STUDY AREA AND METHODOLOGY

The Project includes 26 locations along the existing I-95 Rail Corridor between Baltimore, Maryland, and Philadelphia, Pennsylvania. The sites are clustered around Baltimore, Maryland; Wilmington, Delaware; and Philadelphia, Pennsylvania. The area of direct impact will extend along the existing track at distances of up to approximately 300 to 500 feet on either side of the obstruction.

CSX's existing Bayview Rail Yard in Baltimore will be used for staging of work (laydown yard) and storage of excavated materials as needed. Additionally, the existing interlocking site located just south of South 58th Street, at the northern terminus of the project in Philadelphia, Pennsylvania, will be relocated to an area between Lindbergh Boulevard and the Schuylkill River in Philadelphia, Pennsylvania. These sites are also included in the Project Study Area.

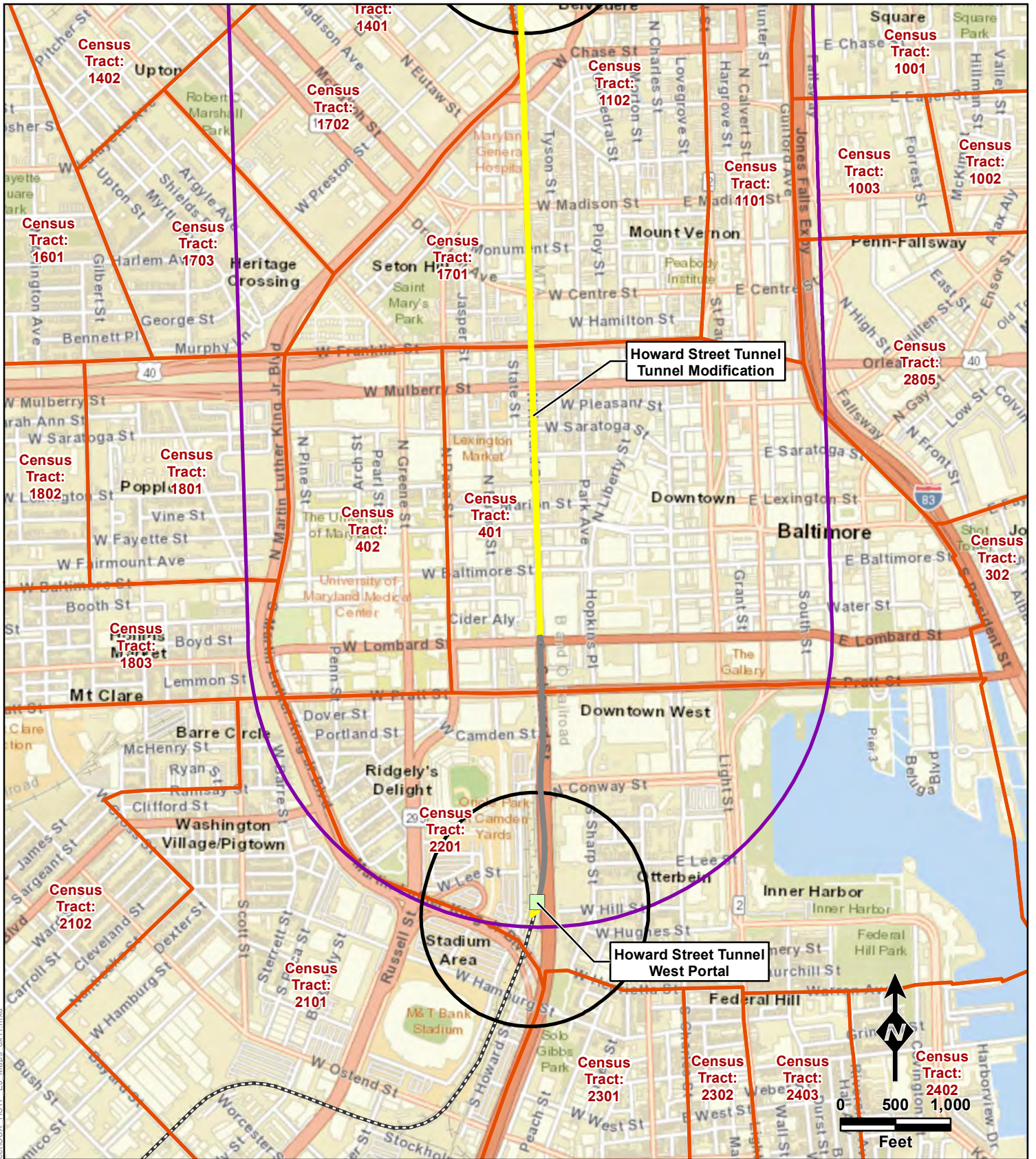
The Project Study Area for the EJ Report includes a 1,000-foot buffer around the Project sites, with construction occurring only within the CSX right-of-way (ROW) and a 0.5-mile buffer around sites that may have impacts that extend beyond the immediate CSX ROW. For each Project site, Census data will be evaluated for all tracts that overlap with the Project Study Area.

Census tracts within the Study Area are examined to determine the presence of minority and low-income populations. A potential EJ area is one that has a minority (non-white and/or Hispanic) population that exceeds 50 percent and/or a low-income (below poverty level) population that exceeds 20 percent of the tract's total population.

3 AFFECTED ENVIRONMENT

For the EJ analysis, the Census tracts in the Project Study Area were evaluated to determine the presence of EJ communities. The Project includes sites in Baltimore, Maryland; Wilmington, Delaware; and in the greater Philadelphia, Pennsylvania area. These sites, with related Census tracts, are shown in Figure 1.

² The householder refers to the person (or one of the people) in whose name the housing unit is owned or rented (maintained) or, if there is no such person, any adult member, excluding roomers, boarders, or paid employees. If the house is owned or rented jointly by a married couple, the householder may be either the husband or the wife. The person designated as the householder is the "reference person" to whom the relationship of all other household members, if any, is recorded.



Legend

- Approximate Limits of Proposed Work Area
- Work Area (Above Ground)
- Work Area (Below Ground)
- Portal
- CSX Mainline
- Census Tract
- 1000 foot Radius Around Work Area
- Half-Mile Radius Around Work Area

Note: Project Areas assume Option 2 for Howard Street Tunnel and Boone Tunnel.

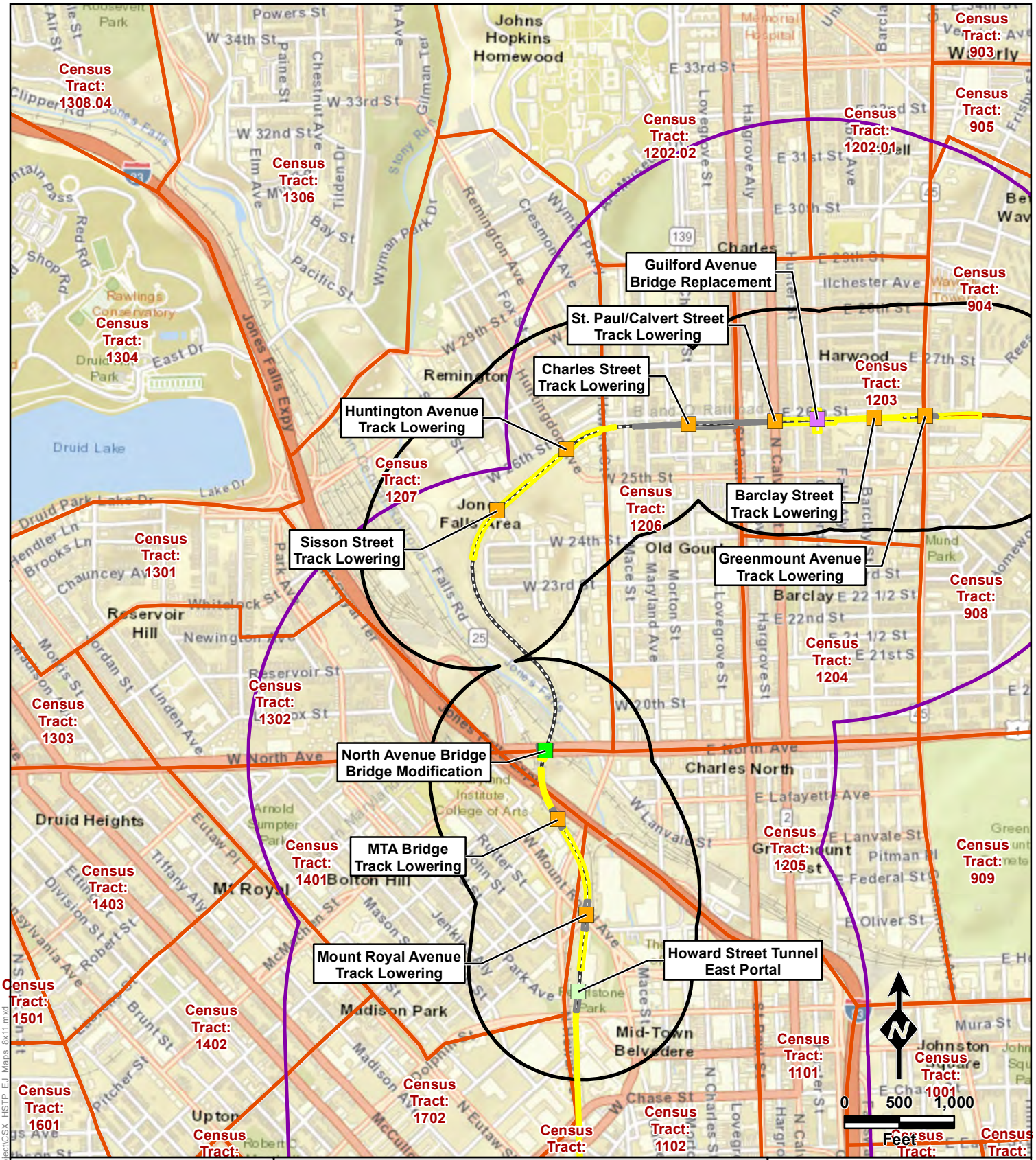
Howard Street Tunnel Project
Maryland

Figure 1
Census Tracts in the Vicinity of the Project
Baltimore, MD
Sheet 1 of 10

TRC
14 Gabriel Drive
Augusta, ME 04330

8/11/2020

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CSX

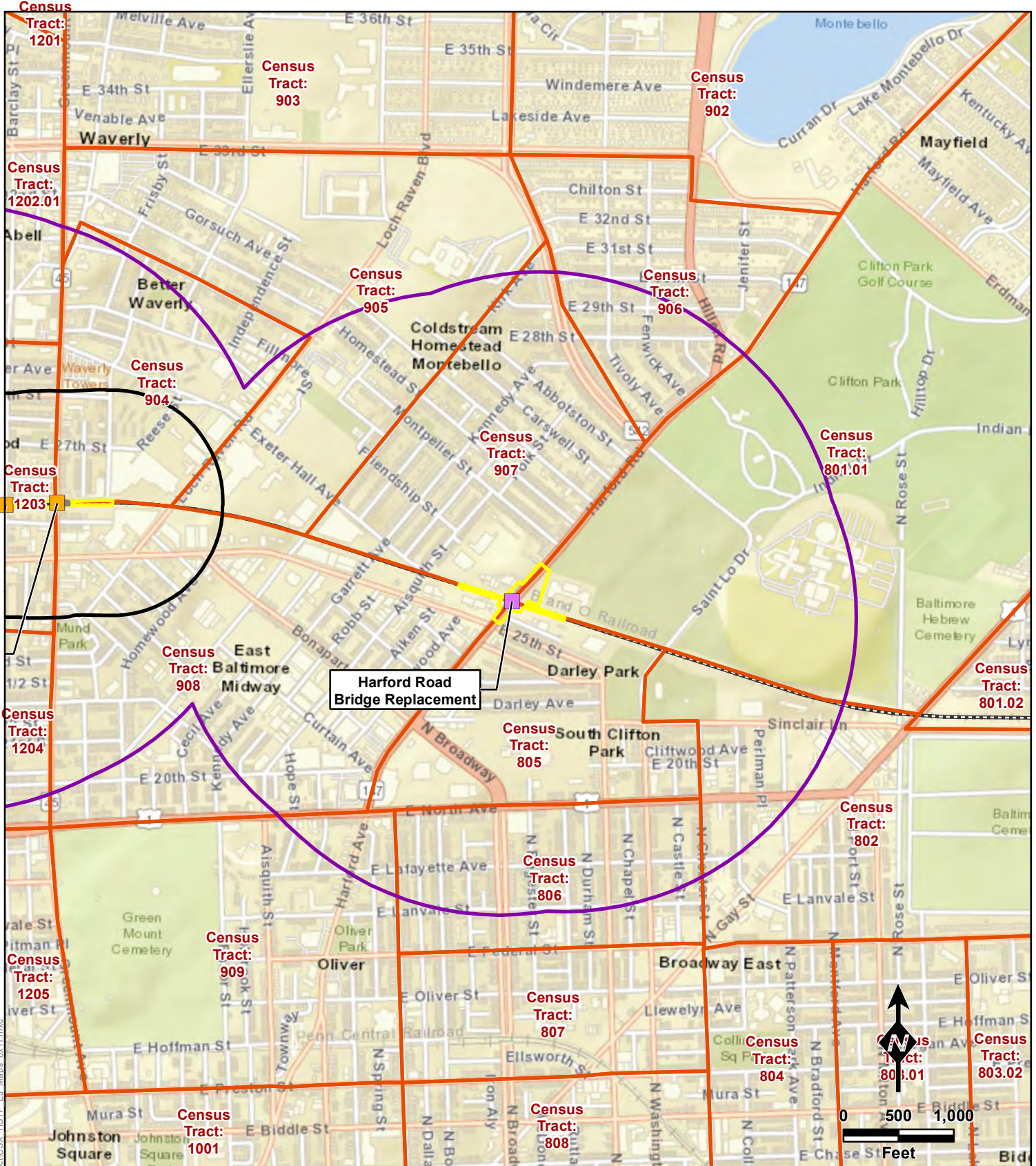
Howard Street Tunnel Project
Maryland

Figure 1
Census Tracts in the Vicinity of the Project
Baltimore, MD
Sheet 2 of 10

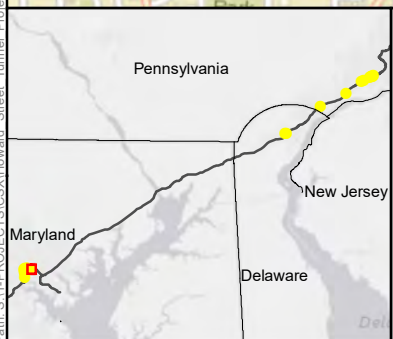
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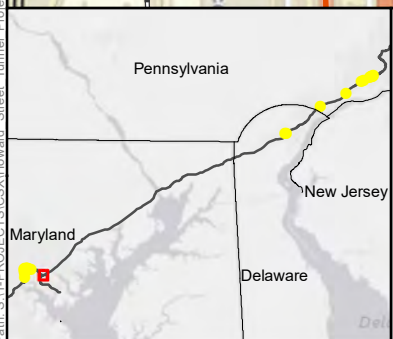
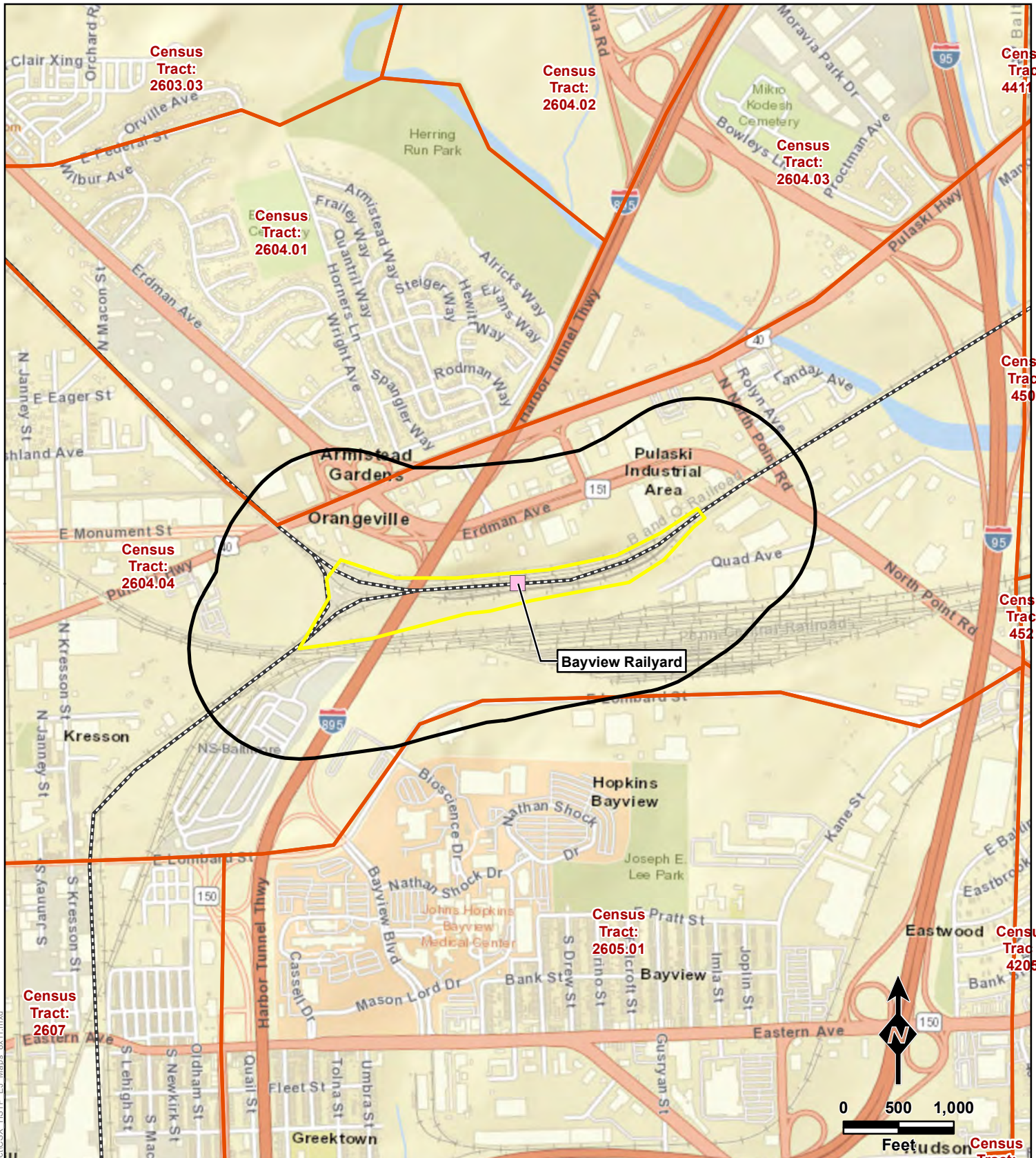
- Legend**
- Approximate Limits of Proposed Work Area
 - Work Area (Above Ground)
 - Work Area (Below Ground)
 - Bridge Replacement
 - Track Lowering
 - CSX Mainline
 - Census Tract
 - 1000 foot Radius Around Work Area
 - Half-Mile Radius Around Work Area

[CSX]

Howard Street Tunnel Project
Maryland

Figure 1
Census Tracts in the Vicinity of the Project
Baltimore, MD
Sheet 3 of 10

Note: Project Areas assume Option 2 for Howard Street Tunnel and Boone Tunnel.



Legend

Approximate Limits of Proposed Work Area	Census Tract
Work Area (Above Ground)	1000 foot Radius Around Work Area
Railyard	
CSX Mainline	

Note: Project Areas assume Option 2 for Howard Street Tunnel and Boone Tunnel.

[CSX]

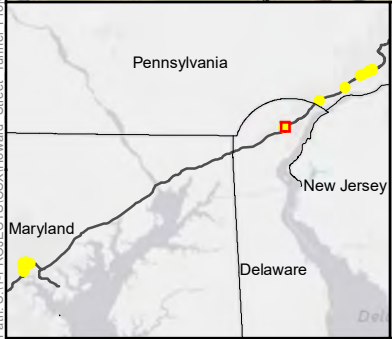
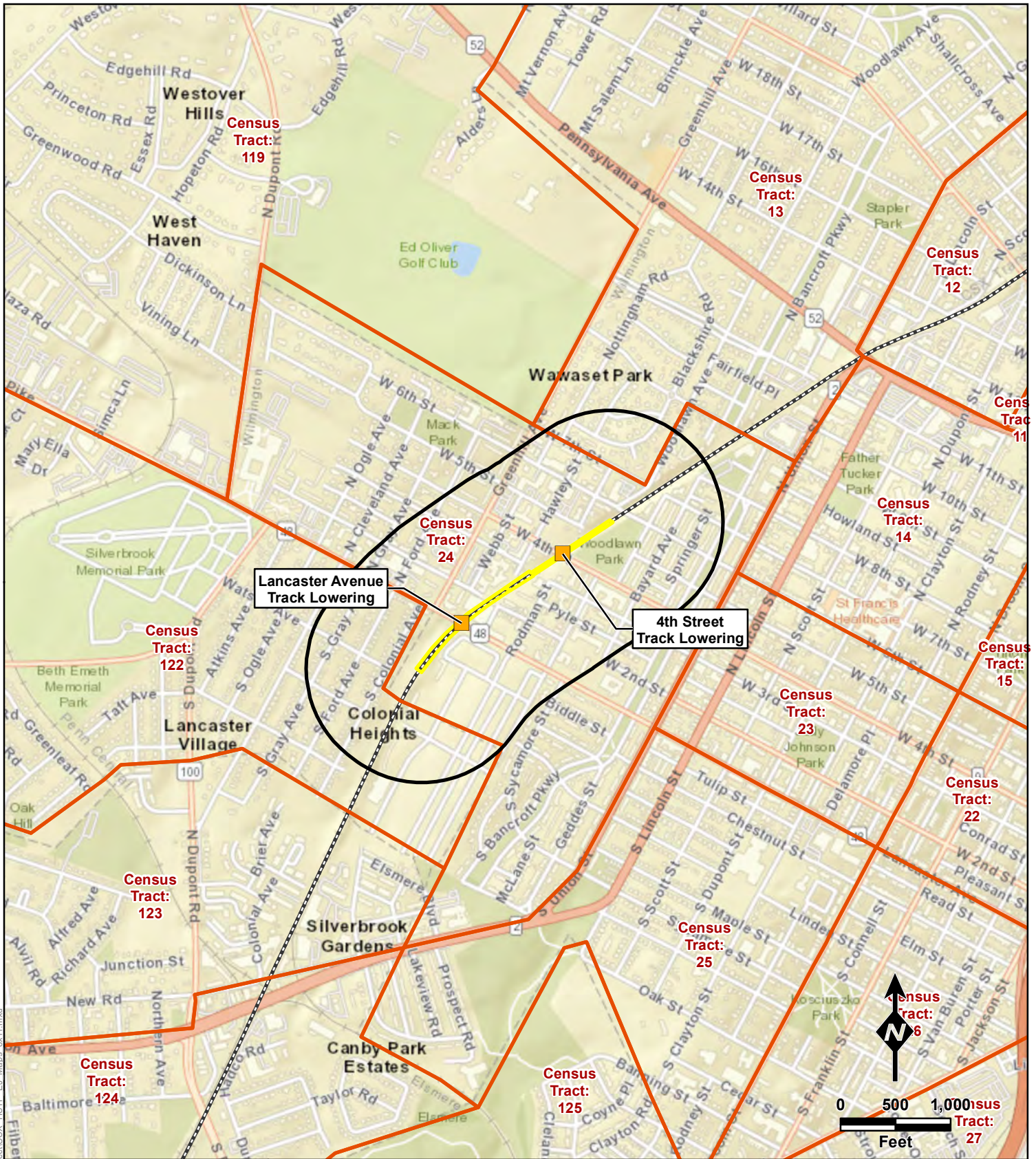
Howard Street Tunnel Project
Maryland

Figure 1
Census Tracts in the Vicinity of the Project
Baltimore, MD
Sheet 4 of 10

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Legend

- Approximate Limits of Proposed Work Area
- Work Area (Above Ground)
- Work Area (Below Ground)
- Track Lowering
- CSX Mainline
- Census Tract
- 1000 foot Radius Around Work Area

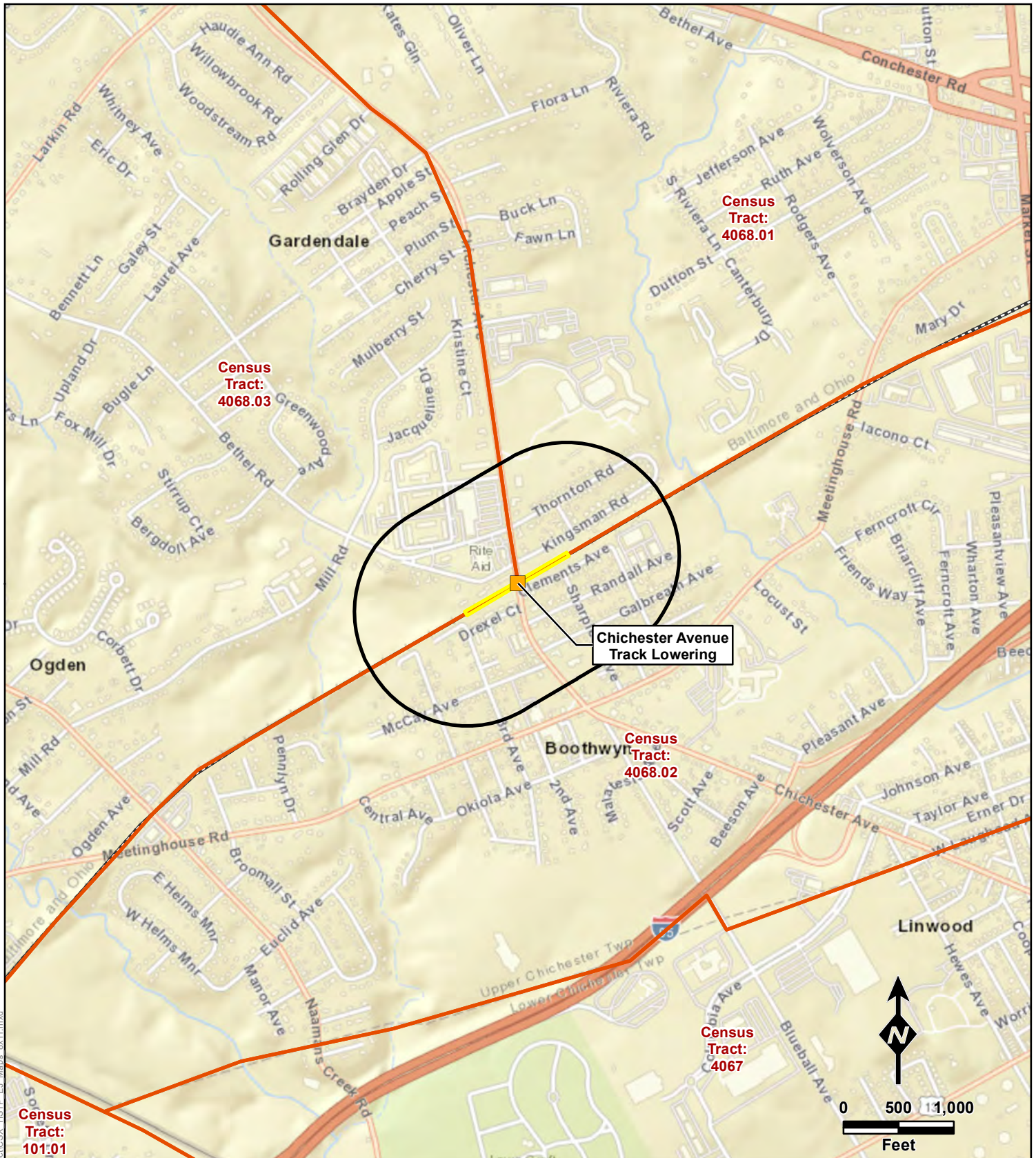
Note: Project Areas assume Option 2 for Howard Street Tunnel and Boone Tunnel.

Howard Street Tunnel Project
 Delaware
Figure 1
 Census Tracts in the Vicinity of the Project
 Wilmington, DE
 Sheet 5 of 10

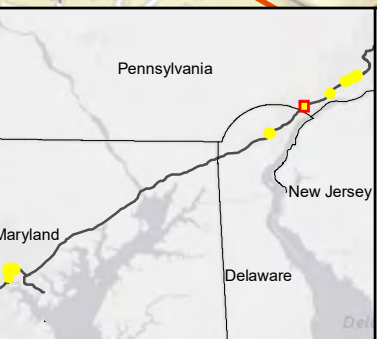
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Legend


 Work Area (Above Ground)	 Census Tract
 Work Area (Below Ground)	 1000 foot Radius Around Work Area
 Track Lowering	
 CSX Mainline	

Note: Project Areas assume Option 2 for Howard Street Tunnel and Boone Tunnel.

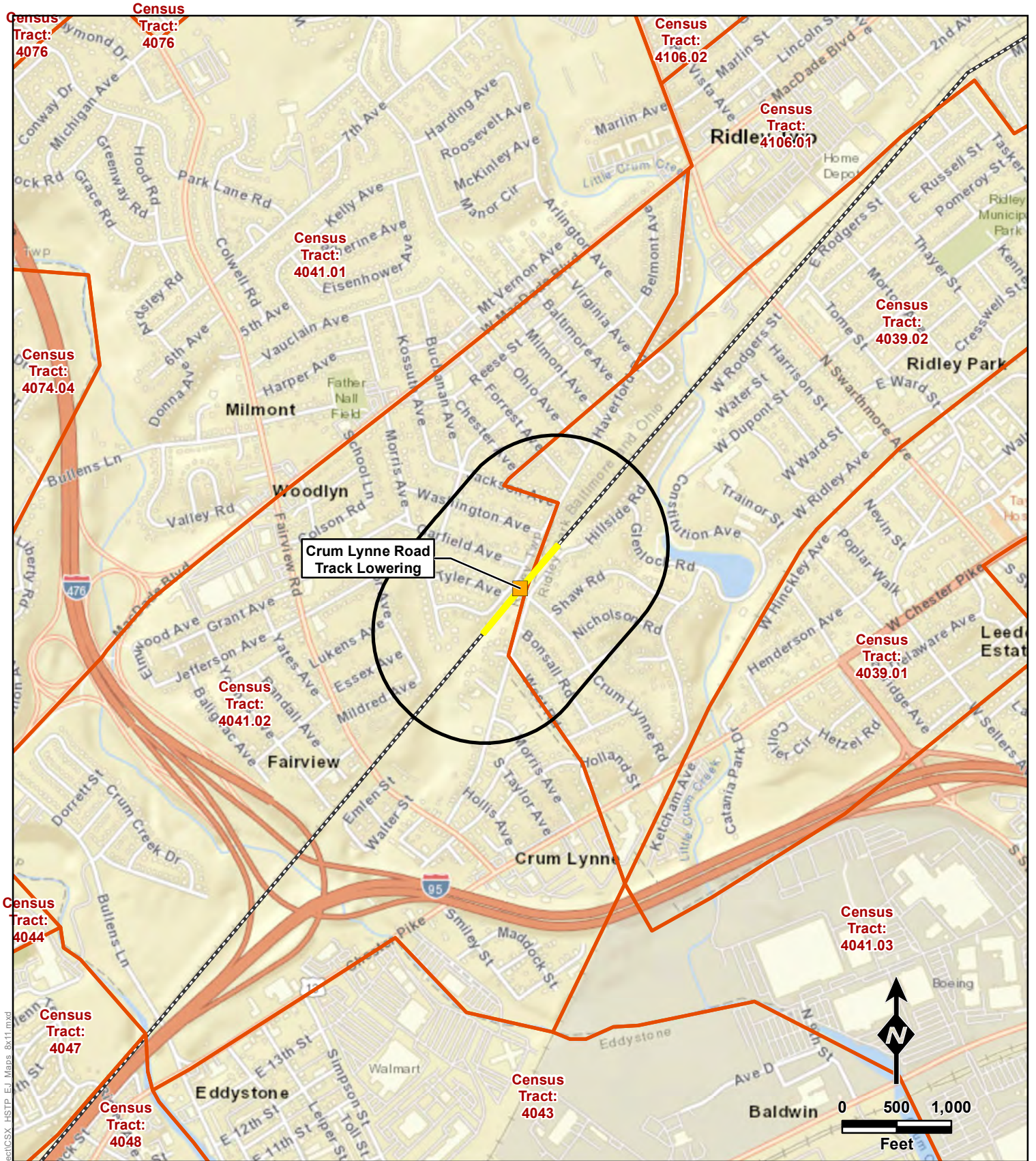


Howard Street Project
Pennsylvania

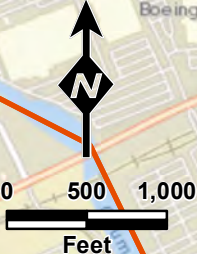
Figure 1
Census Tracts in the Vicinity of the Project
Delaware County, PA
Sheet 6 of 10



14 Gabriel Drive
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Crum Lynne Road
Track Lowering



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Legend

- Approximate Limits of Proposed Work Area
- Work Area (Above Ground)
- Work Area (Below Ground)
- Track Lowering
- CSX Mainline
- Census Tract
- 1000 foot Radius Around Work Area

[CSX]

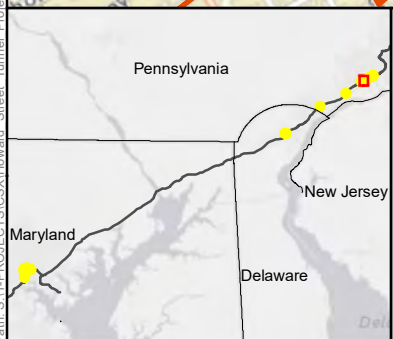
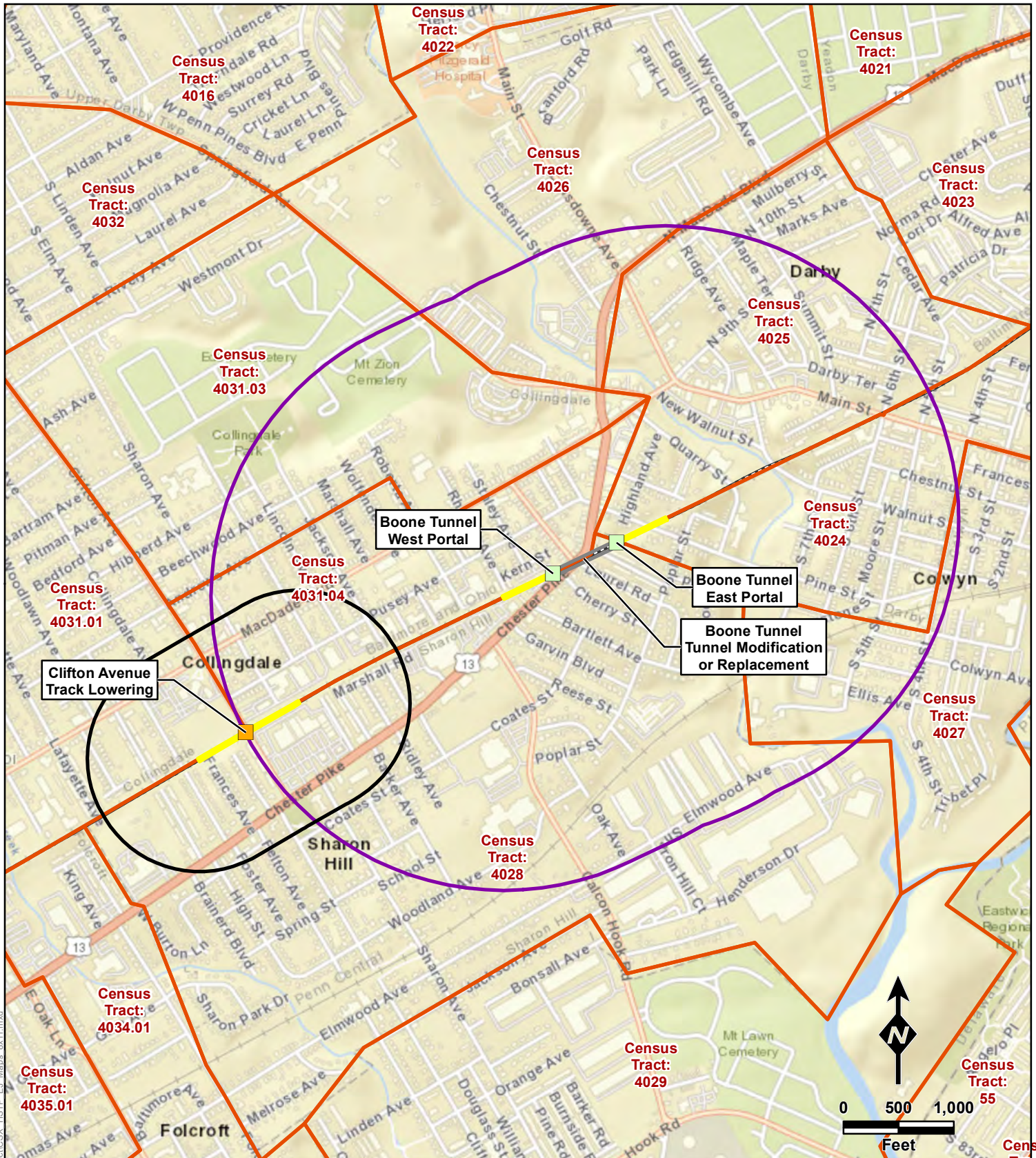
Howard Street Tunnel Project
Pennsylvania

Figure 1
Census Tracts in the Vicinity of the Project
Delaware County, PA
Sheet 7 of 10

TRC

14 Gabriel Drive
Augusta, ME 04330

Note: Project Areas assume Option 2 for Howard Street Tunnel and Boone Tunnel.



Legend

- Approximate Limits of Proposed Work Area
- Work Area (Above Ground)
- Work Area (Below Ground)
- Track Lowering
- Portal
- CSX Mainline
- Census Tract
- 1000 foot Radius Around Work Area
- Half-Mile Radius Around Work Area

Note: Project Areas assume Option 2 for Howard Street Tunnel and Boone Tunnel.

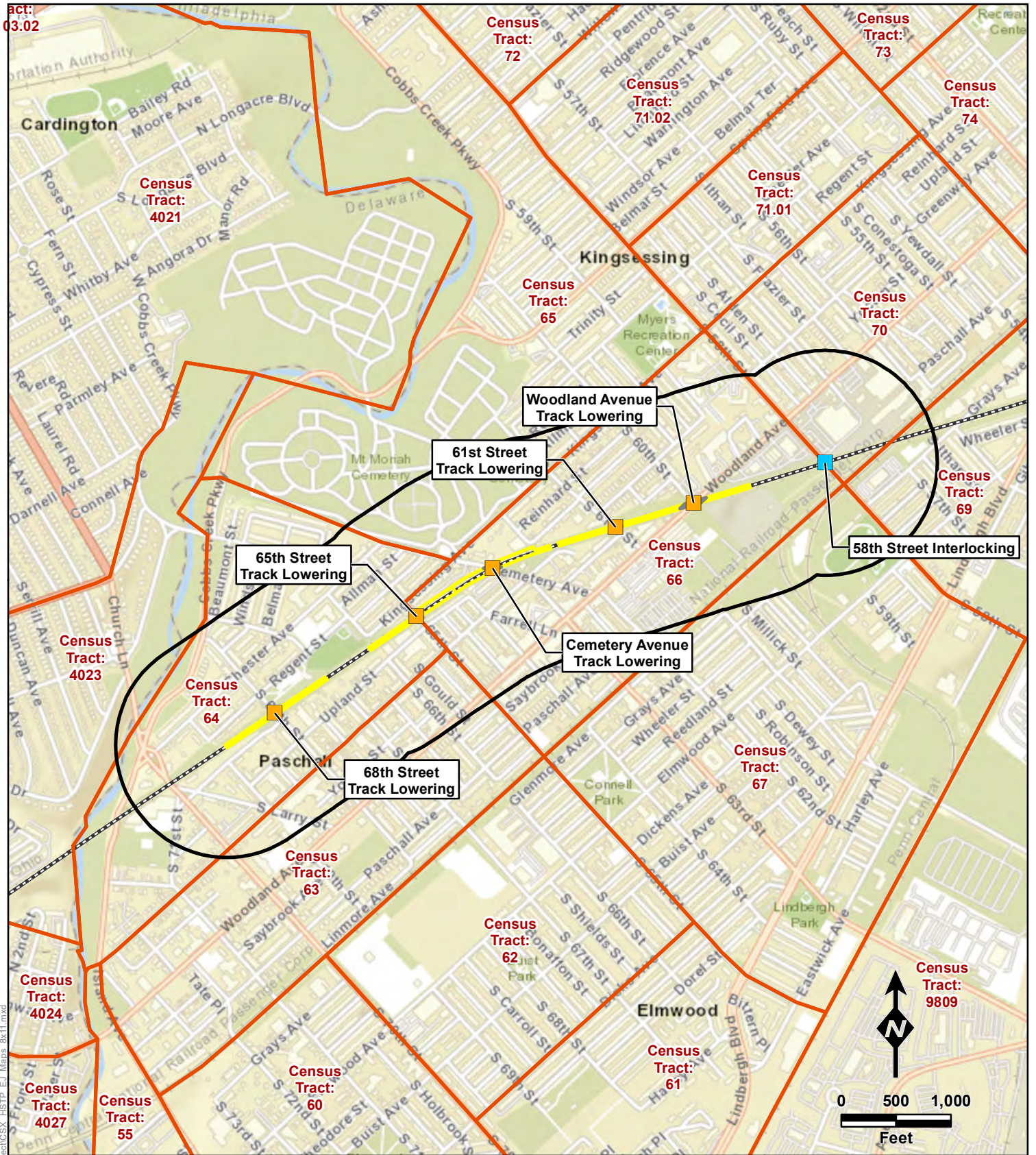
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Howard Street Tunnel Project
 Pennsylvania
Figure 1
 Census Tracts in the Vicinity of the Project
 Delaware County, PA
 Sheet 8 of 10

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Legend

Work Area (Above Ground)	Census Tract
Work Area (Below Ground)	1000 foot Radius Around Work Area
Track Lowering	
Interlocking	
CSX Mainline	

Note: Project Areas assume Option 2 for Howard Street Tunnel and Boone Tunnel.

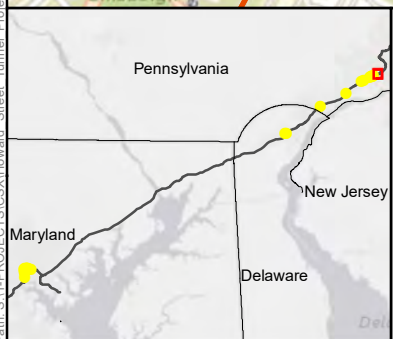
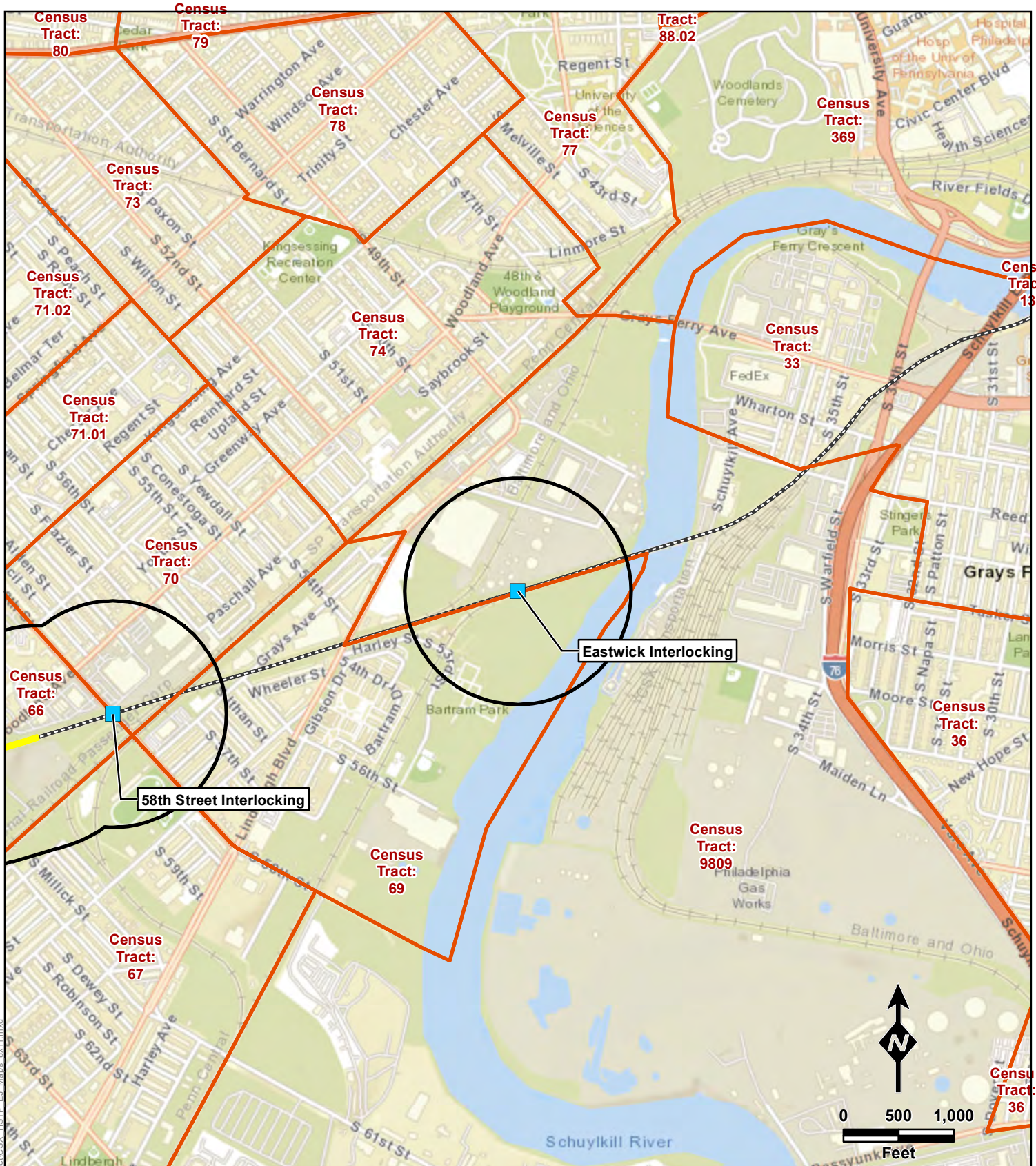


Howard Street Tunnel Project
 Pennsylvania
Figure 1
 Census Tracts in the Vicinity of the Project
 Philadelphia, PA
 Sheet 9 of 10



14 Gabriel Drive
 Augusta, ME 04330

8/11/2020



- Legend**
- Approximate Limits of Proposed Work Area Census Tract
 - Work Area (Above Ground)
 - Interlocking
 - CSX Mainline
 - 1000 foot Radius Around Work Area

[CSX]

Howard Street Tunnel Project
Pennsylvania

Figure 1
 Census Tracts in the Vicinity of the Project
Philadelphia, PA
 Sheet 10 of 10

Note: Project Areas assume Option 2 for Howard Street Tunnel and Boone Tunnel.

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3.1 Baltimore, MD Project Sites

3.1.1 Howard Street Tunnel

3.1.1.1 West Portal

The Study Area for the Howard Street Tunnel’s west portal is located between Oriole Park at Camden Yards and M&T Bank Stadium, with Interstate 395 (I-395) directly to the east of the site. Residential properties within the Study Area are across I-395 to the east. As shown in Table 3.1-1a below, the Study Area includes three Census tracts.

Minority populations in the Census tracts within the Study Area vary from a low of 33.6 percent in Tract 2201 to a high of 71.4 percent in Tract 2101 located east of the site. The portion of the population identified as low-income ranges from 10.4 percent in Tract 2201 to a high of 17.1 percent in Tract 2101.

Table 3.1-1a Low-Income and Minority Populations, Howard Street Tunnel, West Portal (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 2101	71.4%	17.1%	Yes
Tract 2201	33.6%	10.4%	No
Tract 2301	36.1%	15.9%	No

Source: U.S. Census Bureau, 2014 - 2018 American Community Survey (ACS).

Census Tract 2101 has a minority population greater than 50 percent and is, thereby, considered an EJ area.

3.1.1.2 Mined Tunnel Segment

The Study Area for HST’s Mined Tunnel Segment begins just north of West Lombard Street and continues to the East Portal (just north of Dolphin Street). The HST Mined Tunnel Segment Study Area includes a 0.5 mile buffer around the Project site to account for the potential of impacts beyond the CSX right-of-way. As shown in Table 3.1-1b below, the Study Area, which cover more than one square mile includes 13 Census tracts. Minority populations in the Census tracts within the Study Area vary from a low of 33.6 percent in Tract 2201 to a high of 98.4 percent in Tract 1703. The portion of the population identified as low-income ranges from 10.4 percent in Tract 2201 to a high of 52.1 percent in Tract 1702.

Table 3.1-1b Low-Income and Minority Populations, HST Mined Tunnel Segment (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 401	51.5%	19.8%	Yes

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
Tract 402	60.2%	21.2%	Yes
Tract 1001	98.3%	49.1%	Yes
Tract 1003 ¹	N/A	N/A	N/A
Tract 1101	45.8%	13.0%	No
Tract 1102	39.6%	19.5%	No
Tract 1205	66.4%	21.6%	Yes
Tract 1401	51.1%	20.7%	Yes
Tract 1402	95.3%	43.8%	Yes
Tract 1702	93.6%	52.1%	Yes
Tract 1703	98.4%	35.6%	Yes
Tract 2101	71.4%	17.1%	Yes
Tract 2201	33.6%	10.4%	No

Source: U.S. Census Bureau, 2014 - 2018 ACS.

¹The population of Tract 1003 are inmates in the Baltimore Correctional Complex.

Census Tract 410, Tract 1001, Tract 1205, Tract 1401, Tract 1402, Tract 1702, and Tract 2101 have minority populations greater than 50 percent and have more than 20 percent of the population below poverty level. These tracts are considered to be EJ areas.

3.1.1.3 East Portal

The Study Area for the Howard Street Tunnel's East Portal is located near the Mount Royal Train Station. As shown in Table 3.1-1c below, the Study Area includes three Census tracts. Minority populations in the Census tracts within the Study Area vary from a low of 39.6 percent in Tract 1102 to a high of 93.6 percent in Tract 1702 located east of the site. The portion of the population identified as low-income ranges from 19.5 percent in Tract 1102 to a high of 52.1 percent in Tract 1702.

Table 3.1-1c Low-Income and Minority Populations, Howard Street Tunnel, East Portal (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1102	39.6%	19.5%	No
Tract 1401	51.1%	20.7%	Yes
Tract 1702	93.6%	52.1%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Census Tract 1401 and Census Tract 1702 have minority populations greater than 50 percent and have more than 20 percent of the population below poverty level. These tracts are considered to be EJ areas.

3.1.2 Mount Royal Avenue

The Mount Royal Avenue Study Area is located just north of the Howard Street Tunnel’s east portal. As shown in Table 3.1-2 below, the Study Area includes three Census tracts. Minority populations in the Census tracts within the Study Area range from 39.6 percent in Tract 1102 to 66.4 percent in Tract 1205. The portions of the population identified as low-income range from 19.5 percent in Tract 1102 to 21.6 percent in Tract 1205.

Table 3.1-2 Low-Income and Minority Populations, Mount Royal Avenue (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1102	39.6%	19.5%	No
Tract 1205	66.4%	21.6%	Yes
Tract 1401	51.1%	20.7%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Census Tract 1401 and Tract 1205 have a minority population greater than 50 percent and have more than 20 percent of the population below poverty level. These tracts are considered to be EJ areas.

3.1.3 MTA Bridge

The Maryland Transit Administration (MTA) Bridge Study Area is located at Interstate 83 (I-83), north of the Mount Royal Avenue Project site. The Study Area includes five Census tracts, as shown in Table 3.1-3 below. Minority populations in the Census tracts within the Study Area vary from a low of 32.6 percent in Tract 1207 to a high of 66.4 percent in Tract 1205. The portion of the population identified as low-income ranges from 8.1 percent in Tract 1207 to a high of 34.9 percent in Tract 1206.

Table 3.1-3 Low-Income and Minority Populations, MTA Bridge (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1102	39.6%	19.5%	No
Tract 1205	66.4%	21.6%	Yes
Tract 1206	64.0%	34.9%	Yes
Tract 1207	32.6%	8.1%	No
Tract 1401	51.1%	20.7%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Census Tract 1205 and Census Tract 1401 have minority populations greater than 50 percent and have more than 20 percent of the population below poverty level. These two tracts are considered to be EJ areas.

3.1.4 North Avenue

The North Avenue Study Area is located at I-83. For this site, the Study Area was expanded to include a 0.5-mile buffer around the Project site to account for the potential of impacts beyond the CSX right-of-way as a result of the bridge modification anticipated at this location. The Study Area includes eight Census tracts, as shown in Table 3.1-4 below. Minority populations in the Census tracts within the Study Area vary from a low of 32.6 percent in Tract 1207 to a high of 93.6 percent in Tract 1702. The portion of the population identified as low-income ranges from 8.1 percent in Tract 1207 to a high of 52.1 percent in Tract 1702.

Table 3.1-4 Low-Income and Minority Populations, North Avenue (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1102	39.6%	19.5%	No
Tract 1204	77.1%	36.1%	Yes
Tract 1205	66.4%	21.6%	Yes
Tract 1206	64.0%	34.9%	Yes
Tract 1207	32.6%	8.1%	No
Tract 1302	84.8%	17.9%	Yes
Tract 1401	51.1%	20.7%	Yes
Tract 1702	93.6%	52.1%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Based on minority and low-income population measures, the following tracts in the North Avenue Study Area are considered to be EJ areas: Tract 1204, Tract 1205, Tract 1206, Tract 1302, Tract 1401, and Tract 1702.

3.1.5 Sisson Street

The Sisson Street Study Area is located in an area with residential and commercial/industrial development. The Study Area includes two Census tracts, as shown in Table 3.1-5 below. Minority populations in the Census tracts within the Study Area vary, with Tract 1206 at 64.0 percent and Tract 1207 at 32.6 percent. The portion of the population identified as low-income is 34.9 percent in Tract 1206 and 8.1 percent in Tract 1207.

Table 3.1-5 Low-Income and Minority Populations, Sisson Street (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1206	64.0%	34.9%	Yes
Tract 1207	32.6%	8.1%	No

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Census Tract 1206 is an EJ area, with a minority population greater than 50 percent and more than 20 percent of the population below poverty level.

3.1.6 Huntington Avenue

The Huntington Avenue Study Area is located in an area with mixed development. The Study Area includes the same two Census tracts as the Sisson Street Study Area. As shown in Table 3.1-6 below, minority populations in the Census tracts within the Study Area vary, with Tract 1206 at 64.0 percent and Tract 1207 at 32.6 percent. The portion of the population identified as low-income is 34.9 percent in Tract 1206 and 8.1 percent in Tract 1207.

Table 3.1-6 Low-Income and Minority Populations, Huntington Avenue (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1206	64.0%	34.9%	Yes
Tract 1207	32.6%	8.1%	No

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Census Tract 1206 is an EJ area, with a minority population greater than 50 percent and more than 20 percent of the population below poverty level.

3.1.7 Charles Street

There is no Study Area for EJ associated with the Charles Street Project site. All Project activity will be underground.

3.1.8 St. Paul/Calvert Street

The St. Paul/Calvert Street Study Area is located in an area with mixed development. The Study Area includes two Census tracts, as shown in Table 3.1-8 below. Minority populations in the Census tracts within the Study Area vary, with Tract 1203 at 65.1 percent and Tract 1206 at 64.0 percent. The portion of the population identified as low-income is 26.1 percent in Tract 1203 and 34.9 percent in Tract 1206.

Table 3.1-8 Low-Income and Minority Populations, St. Paul/Calvert Street (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 1203	65.1%	26.1%	Yes
Tract 1206	64.0%	34.9%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Census Tract 1203 and Census Tract 1206 are EJ areas, with minority populations greater than 50 percent and more than 20 percent of the population below poverty level.

3.1.9 Guilford Avenue

The Guilford Avenue Study Area includes a 0.5-mile buffer around the Project site to account for the potential of impacts beyond the CSX right-of-way due to the bridge replacement expected at this location. The Study Area includes nine Census tracts, as shown in Table 3.1-9 below. Minority populations in the Census tracts within the Study Area vary from a low of 30.9 percent in Tract 1202.01 to a high of 98.2 percent in Tract 908. The portion of the population identified as low-income ranges from 8.1 percent in Tract 1207 to a high of 37.8 percent in Tract 904.

Table 3.1-9 Low-Income and Minority Populations, Guilford Avenue (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 904	80.8%	37.8%	Yes
Tract 905	94.6%	18.9%	Yes
Tract 908	98.2%	32.3%	Yes
Tract 1202.01	30.9%	15.6%	Yes
Tract 1202.02	49.7%	35.6%	Yes
Tract 1203	65.1%	26.1%	Yes
Tract 1204	77.1%	36.1%	Yes
Tract 1206	64.0%	34.9%	Yes
Tract 1207	32.6%	8.1%	No

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Based on minority and low-income population measures, the following tracts in the Guilford Avenue Study Area are considered to be EJ areas: Tract 904, Tract 905, Tract 908, Tract 1202.01, Tract 1202.02, Tract 1203, Tract 1204, and Tract 1206.

3.1.10 Barclay Street

The Barclay Street Study Area is located within the Study Area for the Guilford Street Project site. As shown in Table 3.1-10 below, the Barclay Street Study Area includes four Census tracts. Minority populations in the Census tracts within the Study Area vary from 65.1 percent in Tract 1203 to 98.2 percent in Tract 908. The portion of the population identified as low-income ranges from 26.1 percent in Tract 1203 to a high of 37.8 percent in Tract 904.

Table 3.1-10 Low-Income and Minority Populations, Barclay Street (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 904	80.8%	37.8%	Yes
Tract 905	94.6%	18.9%	Yes
Tract 908	98.2%	32.3%	Yes
Tract 1203	65.1%	26.1%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Based on minority and low-income population measures, Tract 904, Tract 905, Tract 908, and Tract 1203 are EJ areas.

3.1.11 Greenmount Avenue

The Greenmount Avenue Study Area, like the nearby Barclay Street Study Area, is located within the Study Area for the Guilford Street Project site. As shown in Table 3.1-11 below, the Greenmount Street Study Area includes four Census tracts. Minority populations in the Census tracts within the Study Area vary from 65.1 percent in Tract 1203 to 98.2 percent in Tract 908. The portion of the population identified as low-income ranges from 26.1 percent in Tract 1203 to a high of 37.8 percent in Tract 904.

Table 3.1-11 Low-Income and Minority Populations, Greenmount Street (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 904	80.8%	37.8%	Yes
Tract 908	98.2%	32.3%	Yes
Tract 1203	65.1%	26.1%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Based on minority and low-income population measures, Tract 904, Tract 905, Tract 908, and Tract 1203 are EJ areas.

3.1.12 Harford Road

The Harford Road Study Area includes a 0.5-mile buffer around the Project site to account for the potential of impacts beyond the CSX right-of-way due to the bridge replacement anticipated at this location. The Project site is near The REACH! Partnership School. The Study Area includes eight Census tracts, as shown in Table 3.1-12 below. Minority populations in the Census tracts within the Study Area vary from a low of 68.5 percent in Tract 801.01 to a high of 99.6 percent in Tract 907. The portion of the population identified as low-income ranges from 13.4 percent in Tract 801.01 to a high of 33.9 percent in Tract 806.

Table 3.1-12 Low-Income and Minority Populations, Harford Road (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 801.01	68.5%	13.4%	Yes
Tract 802	95.5%	26.0%	Yes
Tract 806	91.8%	33.9%	Yes
Tract 905	94.6%	18.9%	Yes
Tract 906	90.4%	25.7%	Yes
Tract 907	99.6%	33.0%	Yes
Tract 908	98.2%	32.3%	Yes
Tract 909	94.4%	18.6%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Based on minority and low-income population measures, the following tracts in the Guilford Avenue Study Area are considered to be EJ areas: Tract 801.01, Tract 802, Tract 806, Tract 905, Tract 906, Tract 907, Tract 908, and Tract 909.

3.1.13 Bayview Rail Yard

The Bayview Rail Yard will be used as a staging area for the Project. As shown in Table 3.1-13 below, the Study Area includes two Census tracts. Minority populations in the Census tracts within the Study Area are 51.8 percent in Tract 2604.01 and 76.7 percent in Tract 2604.04. The portions of the population identified as low-income are 24.5 percent in Tract 2604.01 and 25.9 percent in Tract 2604.04.

Table 3.1-13 Low-Income and Minority Populations, Bayview Rail Yard (MD) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Maryland	49.5%	9.0%	N/A
City of Baltimore, MD	72.2%	18.9%	N/A
Tract 2604.01	51.8%	24.5%	Yes
Tract 2604.04	76.7%	25.9%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Based on minority and low-income population measures, Tract 2604.01 and Tract 2604.04 are EJ areas.

3.2 Wilmington, DE Project Sites

3.2.1 Lancaster Avenue

The Lancaster Avenue Study Area includes a mix of residential and commercial uses, with a large cemetery located to the southeast of the Project site. As shown in Table 3.2-1 below, minority populations in the Census tracts within the Study Area are 57.8 percent in Tract 24 and 48.0 percent in Tract 122. The proportions of the population identified as low-income are 23.0 percent in Tract 24 and 17.0 percent in Tract 122.

Table 3.2-1 Low-Income and Minority Populations, 4th Street (DE) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Delaware	37.3%	11.9%	N/A
New Castle County, DE	43.2%	11.4%	N/A
City of Wilmington, DE	70.8%	25.1%	N/A
Tract 24	57.8%	23.0%	Yes
Tract 122	48.0%	17.0%	No

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Based on minority and low-income population measures, Tract 24 is an EJ area.

3.2.2 4th Street

The 4th Street Project site in Wilmington is approximately 0.2 miles north of the Lancaster Avenue Project site. The site is adjacent to Woodlawn Park, a neighborhood park located generally to the northeast. As shown in Table 3.2-2 below, minority populations are 9.8 percent in Tract 13 and 57.8 percent in Tract 24. The proportions of the total population below the poverty level are 2.7 percent in Tract 13 and 23.0 percent in Tract 24.

Table 3.2-2 Low-Income and Minority Populations, 4th Street (DE) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Delaware	37.3%	11.9%	N/A
New Castle County, DE	43.2%	11.4%	N/A
City of Wilmington, DE	70.8%	25.1%	N/A
Tract 13	9.8%	2.7%	No
Tract 24	57.8%	23.0%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Based on minority and low-income population measures, Tract 24 is an EJ area.

3.3 Greater Philadelphia, PA Project Sites

3.3.1 Chichester Road

The Chichester Road Study Area is located in Boothwyn, Pennsylvania, in an area with residential and commercial development. The Study Area includes three Census tracts, as shown in Table 3.3-1 below. Minority populations in the Census tracts within the Study Area range from 13.8 percent in Tract 4068.02 to 16.1 percent in Tract 4068.01. The portion of the population identified as low-income ranges from 4.9 percent in Tract 4068.03 to 12.5 percent in Tract 4068.01.

Table 3.3-1 Low-Income and Minority Populations, Chichester Road (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Delaware County, PA	33.7%	8.8%	N/A
Boothwyn, PA	8.8%	3.2%	N/A
Tract 4068.01	16.1%	12.5%	No
Tract 4068.02	13.8%	8.7%	No
Tract 4068.03	14.5%	4.9%	No

Source: U.S. Census Bureau, 2014 - 2018 ACS.

There are no EJ areas in the Chichester Road Study Area.

3.3.2 Crum Lynne Road

The Crum Lynne Road Study Area is located in a residential area of Ridley Park, Pennsylvania. The Study Area includes two Census tracts, as shown in Table 3.3-2 below. Minority populations in the Census tracts within the Study Area are 5.2 percent in Tract 4039.02 and 26.8 percent in Tract 4041.02. The portions of the population identified as low-income are 4.2 percent in Tract 4039.02 and 11.9 percent in Tract 4041.02.

Table 3.3-2 Low-Income and Minority Populations, Crum Lynne Road (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Delaware County, PA	33.7%	8.8%	N/A
Ridley Park, PA	8.2%	5.4%	N/A
Tract 4039.02	5.2%	4.2%	No
Tract 4041.02	26.8%	11.9%	No

Source: U.S. Census Bureau, 2014 - 2018 ACS.

There are no EJ areas in the Crum Lynne Road Study Area.

3.3.3 Clifton Avenue

The Clifton Avenue Study Area is located in a residential and commercial area of Sharon Hill, Pennsylvania. The Study Area includes three Census tracts, as shown in Table 3.3-3 below. Minority populations in the Census tracts within the Study Area vary from a low of 51.4 percent in Tract 4031.01 to a high of 77.1 percent in Tract 4028. The portion of the population identified as low-income ranges from 11.1 percent in Tract 4028 to a high of 30.2 percent in Tract 4031.04.

Table 3.3-3 Low-Income and Minority Populations, Clifton Avenue (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Delaware County, PA	33.7%	8.8%	N/A
Sharon Hill, PA	77.1%	11.1%	N/A
Tract 4028	77.1%	11.1%	Yes
Tract 4031.01	51.4%	15.2%	Yes
Tract 4031.04	69.5%	30.2%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

The following are EJ areas in the Clifton Avenue Study Area: Tract 4028, Tract 4031.01, and Tract 4031.04.

3.3.4 Boone Tunnel

The Boone Tunnel Study Area is located in an area with commercial and residential development. The Boone Tunnel Study Area includes six Census tracts, as shown in Table 3.3-4 below. Minority populations in the Census tracts within the Study Area vary from a low of 50.5 percent in Tract 4031.03 to a high of 95.3 percent in Tract 4025. The portion of the population identified as low-income ranges from 11.1 percent in Tract 4028 to a high of 40.0 percent in Tract 4024.

Table 3.3-4 Low-Income and Minority Populations, Boone Tunnel (PA) Project Sites

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Delaware County, PA	33.7%	8.8%	N/A
Sharon Hill, PA	77.1%	11.1%	N/A
Tract 4024	92.1%	40.0%	Yes
Tract 4025	95.3%	30.8%	Yes
Tract 4027	85.1%	15.1%	Yes
Tract 4028	77.1%	11.1%	Yes
Tract 4031.03	50.5%	19.0%	Yes
Tract 4031.04	69.5%	30.2%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

The following are EJ areas in the Boone Tunnel Study Area: Tract 4024, Tract 4025, Tract 4027, Tract 4028, Tract 4031.03, and Tract 4031.04.

3.3.5 68th Street

The 68th Street Study Area is located in Philadelphia, Pennsylvania, in an area with residential, commercial, and light industrial development. The Study Area includes two Census tracts, as shown in Table 3.3-5 below. Minority populations in the Census tracts within the Study Area are 96.6 percent in Tract 63 and 92.8 percent in Tract 64. The portions of the population identified as low-income are 42.1 percent in Tract 63 and 33.3 percent in Tract 64.

Table 3.3-5 Low-Income and Minority Populations, 68th Street (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 63	96.6%	42.1%	Yes
Tract 64	92.8%	33.3%	Yes
Delaware County, PA	33.7%	8.8%	N/A
Tract 4023	98.1%	6.5%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Tract 63 and Tract 64 are EJ areas based on their minority and low-income populations.

3.3.6 65th Street

The 65th Street Study Area is located in Philadelphia, Pennsylvania near the 68th Street Project site. As shown in Table 3.3-6 below, the 65th Street Study Area includes four Census tracts. Minority populations in the Census tracts within the Study Area range from 92.8 percent in Tract 64 to 98.4 percent in Tract 65. The portions of the population identified as low-income range from 32.0 percent in Tract 65 to 42.5 percent in Tract 66.

Table 3.3-6 Low-Income and Minority Populations, 65th Street (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 63	96.6%	42.1%	Yes
Tract 64	92.8%	33.3%	Yes
Tract 65	98.4%	32.0%	Yes
Tract 66	97.3%	42.5%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

The following are EJ areas in the 65th Street Study Area: Tract 63, Tract 64, Tract 65, and Tract 66.

3.3.7 Cemetery Avenue

The Cemetery Avenue Study Area is located in an area with residential and light industrial development. As shown in Table 3.3-7 below, the Study Area includes four Census tracts. Minority populations in the Census tracts within the Study Area range from 92.8 percent in Tract 64 to 97.3 percent in Tract 66. The portions of the population identified as low-income range from 32.0 percent in Tract 65 to 42.5 percent in Tract 66.

Table 3.3-7 Low-Income and Minority Populations, Cemetery Avenue (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 63	96.6%	42.1%	Yes
Tract 64	92.8%	33.3%	Yes
Tract 65	98.4%	32.0%	Yes
Tract 66	97.3%	42.5%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Tract 63, Tract 64, Tract 65, and Tract 66 are EJ areas based on their minority and low-income populations.

3.3.8 61st Street

The 61st Street Study Area is contained in Tract 65 and Tract 66, as shown in Table 3.3-8 below. The minority population in the Census tract is 97.3 percent. The portion of the population identified as low-income is 42.5 percent.

Table 3.3-8 Low-Income and Minority Populations, 61st Street (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 65	98.4%	32.0%	Yes
Tract 66	97.3%	42.5%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Tract 65 and Tract 66 are EJ areas based on their minority and low-income populations.

3.3.9 Woodland Avenue

The Woodland Avenue Study Area is located in a residential and commercial area. The Study Area includes three Census tracts, as shown in Table 3.3-9 below. Minority populations in the Census tracts within the Study Area are 92.8 percent in Tract 67, 97.3 percent in Tract 66, and 97.7 percent in Tract 70. The portions of the population identified as low-income are 17.6 percent in Tract 70, 33.4 percent in Tract 67, and 42.5 percent in Tract 66.

Table 3.3-9 Low-Income and Minority Populations, Woodland Avenue (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 66	97.3%	42.5%	Yes
Tract 67	92.8%	33.4%	Yes
Tract 70	97.7%	17.6%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Based on the minority and low-income population percentages, Tract 66, Tract 67, and Tract 70 are EJ areas.

3.3.10 58th Street

The 58th Street Study Area includes the existing interlocking site and is located in a commercial and light industrial area. As shown in Table 3.3-10 below, the 58th Street Study Area includes four Census tracts. Minority populations in the Census tracts within the Study Area range from 92.8 percent in Tract 67 to 97.7 percent in Tract 70. The portions of the population identified as low-income range from 17.6 percent in Tract 70 to 42.5 percent in Tract 66.

Table 3.3-11 Low-Income and Minority Populations, 58th Street (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 66	97.3%	42.5%	Yes
Tract 67	92.8%	33.4%	Yes
Tract 69	97.1%	52.5%	Yes
Tract 70	97.7%	17.6%	Yes

Source: U.S. Census Bureau, 2014 - 2018 ACS.

The following are EJ areas in the 58th Street Study Area: Tract 66, Tract 67, Tract 69, and Tract 70.

3.3.11 Eastwick Interlocking

The Eastwick Interlocking Study Area includes the site of the relocated interlocking. Bartram's Garden, a 45-acre National Historic Landmark, is located to the south of the Project site. To the north of the Project site is a Plains All American Pipeline facility. As shown in Table 3.3-11 below, the Eastwick Interlocking Study Area includes two Census tracts. Tract 9809 consists of industrial properties, with no residential housing. Minority populations in Census Tract 69 are 92.8 percent of the total population. The portion of the population identified as low-income is 52.5 percent.

Table 3.3-11 Low-Income and Minority Populations, 65th Street (PA) Project Site

Location	Minority Population (non-white and/or Hispanic)	Low-income Population	EJ Area?
State of Pennsylvania	23.9%	12.2%	N/A
Philadelphia City/County, PA	65.4%	24.9%	N/A
Tract 69	97.1%	52.5%	Yes
Tract 9809	N/A	N/A	No

Source: U.S. Census Bureau, 2014 - 2018 ACS.

Census Tract 69 in the Eastwick Interlocking Study Area is an EJ area based on the minority population and low-income population in the tract.

4 IMPACT ANALYSIS

This impact analysis evaluates the effects of No Build Alternative (No Action Alternative) and the Build Alternative, which is described in Section 4.2 and more fully in the EA.

Potential impacts can be direct, indirect, or cumulative. Direct impacts occur as a result of the proposed action, at the same time and place of implementation. Indirect impacts occur as a result of the proposed action, but later in time or farther in distance from the action. Cumulative impacts result from the “incremental impact of the action when added to other past, present, or reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions” (40 Code of Federal Regulations 1508.7 (2019)).

The cumulative impacts analysis assesses the synergistic effect of combining the impacts of the Federal Actions, any indirect impacts following the Federal Actions, and the impacts of the past, present, or reasonably foreseeable actions that are unrelated to the Federal Actions. No Build Alternative

The No Build Alternative would involve no action to create a double-stack rail network to and from the Port of Baltimore and along CSX’s I-95 Rail Corridor. The existing single-stack capable Railway Section would remain operational without improving the capacity constraint in the national freight rail network.

4.1.1 Direct Impacts

There are no direct disproportionate or negative impacts to the low-income and minority communities in the Project Study Area associated with the No Build Alternative, because the proposed actions would not occur.

4.1.2 Indirect Impacts

There are no indirect disproportionate or negative impacts to the low-income and minority communities in the Project Study Area associated with the No Build Alternative.

4.1.3 Cumulative Impacts

Other past, present, or reasonably foreseeable future projects near the Study Area, unrelated to the Project, would have negligible impacts on the social and economic environment as a whole. The No Build Alternative would not contribute to any cumulative impacts because no federal action would occur under this alternative.

4.1.4 Mitigation

There would be no direct, indirect, or cumulative impacts associated with the No Build Alternative; therefore, mitigation is not considered.

4.2 Build Alternative

With advances in engineering technology and the introduction of the Infrastructure for Rebuilding America (INFRA) grant program, the Build Alternative, as described below is now financially feasible to complete with far fewer impacts than the build options previously considered. The U.S. Department of Transportation announced a \$125 million INFRA grant in July 2019. Additional funding has been received from the State of Maryland, CSX, a PennDOT grant, and Federal Highway Administration (FHWA) Formula Funds, totaling \$443.5 million. FRA is the lead Federal agency for compliance with the National Environmental Policy Act (NEPA), 42 U.S.C. § 4321 et seq.

The Build Alternative consists of improvements that would remove all obstructions restricting passage of modern double-stack intermodal trains, allowing for a 21-foot clearance along the noted stretch of the corridor between Baltimore and Philadelphia. In general, the physical obstructions generally consist of a bridge or tunnel for which CSX has developed a tailored approach to achieve clearance. The proposed Project consists of 18 track lowering locations, one bridge modification, two bridge replacements, track lowering, arch and/or invert modification at two tunnel locations, and the relocation of an existing interlocking location to facilitate the track lowering work proposed at the Woodland Avenue site in Philadelphia. In addition, staging and storage activities are proposed at CSX's Bayview Rail Yard in Baltimore to support the project.

During the construction of the Project, a number of State of Good Repair issues would simultaneously be addressed, such as maintenance to the existing ballast and tracks, improving drainage along the corridor, and updates to structures such as retaining walls, thereby further increasing the overall reliability of the rail corridor.

Proposed actions associated with the Build Alternative are described in more detail in Section 2.4 of the EA, Alternatives.

4.2.1 Direct Impacts

The EJ areas surrounding the Project areas suffer from high poverty rates, as described above. The Build Alternative will generate both jobs and local spending, which are expected to improve the economic condition of the EJ areas. The proposed track modifications and improvements would cause beneficial temporary impacts to employment and income during the construction period for the numerous projects. The economic impact of the proposed Howard Street Project was evaluated by the Sage Policy Group and

reported in the INFRA Grant Application. Although the scope of the Project evaluated has changed slightly from the one evaluated, the impacts found are illustrative of those that will occur with the scope of the current Howard Street Project. Impacts during the design and construction phase were calculated to include:

- employment of 6,859 person-year jobs, including 4,376 direct and indirect person-year jobs related to construction (CSX and MDOT, March 2019) and
- more than \$392 million in associated employee compensation (Sage Policy Group, 2017).

The economic activity generated by the Project could provide a short-term increase in incomes and a subsequent decline in poverty rates in the communities in which the Project is located as construction workers purchase from local businesses. Local tax revenues would also be expected to have a short-term increase from the economic activity generated by construction of the Project.

Long-term economic impacts will include an estimated 7,872 net new jobs in the transportation sector, which are linked to over 60,000 jobs that are supported among port users in the Baltimore region. The created and supported jobs translate into an expenditure of approximately \$6,500 per job (CSX and MDOT, March 2019).³

The residents in the EJ areas would benefit from the job opportunities generated by the Project's construction and operation. The economic activity created by the Project is expected to provide a short-term increase in incomes in the local EJ communities and have a positive effect on poverty rates. Minority business owners in the EJ areas would benefit as the result of secondary economic activity generated as construction workers and local suppliers spend income and revenues at local business, which in turn could hire additional workers.

The construction activity associated with the Project will require limited disruption to traffic and vehicle access in the areas surrounding North Avenue, Guilford Avenue, and Harford Tunnel in Baltimore, Maryland. Additional disruptions may occur at HST in Baltimore, Maryland.⁴ Each of these areas are home to minority and low-income (EJ) populations. Traffic disruption is not expected to occur at the remaining sites in Baltimore or at the sites in Delaware and Pennsylvania. Anticipated traffic impacts are:

³ See the Socioeconomic Report for additional information.

⁴ The method of construction will determine transportation impacts at HST. Studies are ongoing to determine the appropriate method of construction. Additional information on traffic disruptions are included in the Socioeconomic Report.

Table 4.2-1 Anticipated Traffic Impacts, Howard Street Tunnel Project

Site	Action	Traffic Impacts
Howard Street Tunnel	Tunnel modification: conventional method of construction	None
	Tunnel modification: boring machine	<ul style="list-style-type: none"> • Closure of Howard Street—impacts to be determined when construction method is finalized • Potential disruptions of MDOT Light Rail service between North Avenue and Conway Street—impacts to be determined when construction method is finalized
North Avenue	Bridge modification	<ul style="list-style-type: none"> • Phased maintenance of traffic • Potential for traffic congestion at peak times • No disruptions of access to area properties • No disruptions to recreational resources
Guilford Avenue	Bridge replacement	<ul style="list-style-type: none"> • Full closure of Guilford Avenue with detours • No disruptions of access to area properties • No disruptions to recreational resources
Harford Road	Bridge replacement	<ul style="list-style-type: none"> • Phased maintenance of traffic • No disruptions of access to area properties • No disruptions to recreational resources

Note: The methods of construction for the Howard Street Tunnel is still under investigation.

As shown above, disruptions to traffic are expected as a result of the Project. CSX will utilize traffic management plans and will strive to minimize traffic-related disruptions at the Project sites. At times, disruptions may impact public transportation options on which the residents in EJ areas likely depend. If the temporary closure of the MDOT Light Rail line or rerouting of bus lines is required, additional time may be spent commuting during the limited period of disruption. Overall, impacts to transportation that might affect EJ area residents are anticipated to be limited in both time and scope.

After the Project’s completion, community cohesion in the EJ areas is not anticipated to be negatively impacted by the Project, as the proposed operations of the Project improvements will not geographically divide or isolate the residents or businesses within the Study Area. There will be no right-of-way acquisition or relocations of residential or commercial properties. The Project’s operation will not encroach upon residential property or disrupt access to education and childcare facilities, community centers, or places of worship within the EJ areas surrounding the Project sites (see Community Resources and Land Use, Section 4.9 in of the EA). The Project’s construction will be limited to existing sites. Therefore, the Project is not anticipated to have a substantial impact on public facilities in the Project Study Area.

CSX will be undertaking efforts to minimize construction impacts related to the proposed track modifications and improvements. As discussed in Section 4.0 of the EA, no major adverse impacts are anticipated to air quality, water quality, wetlands, floodplains, or other environmental resources.

Input from the public is an important consideration in the EJ process. Section 5.0, Public Coordination and Agency Consultation, in the EA provides detail about the public outreach and coordination associated with the Build Alternative. No groups or individuals have been or will be excluded from participation in public involvement activities, denied the benefit of the project, or subjected to discrimination in any way on the basis of ethnicity, religion, race, elderly, color, age, sex, national origin, or religion.

The impact of the actions in the Build Alternative would be neither adverse nor disproportionate in relation to the overall social, economic, health, and environmental characteristics of minority and low-income populations in the Study Area.

4.2.2 Indirect Impacts

There are no indirect disproportionate or negative impacts to the low-income and minority communities in the Project Study Area associated with the Build Alternative.

4.2.3 Cumulative Impacts

As discussed above, the direct impacts associated with the proposed action may provide increased employment and other long-term economic benefits. Other past, present, or reasonably foreseeable future projects near the Study Area, unrelated to the Project, would have negligible impacts on the low-income and minority communities as a whole. The cumulative impacts to socioeconomic resources are anticipated to be beneficial under the Build Alternative.

4.2.4 Mitigation

There would be no adverse and disproportionate direct, indirect, or cumulative impacts on the Project area, including minority and low-income populations, associated with the Build Alternative; therefore, mitigation related to Environmental Justice is not considered.⁵

⁵ A Memorandum of Agreement (MOA) will address mitigating impacts to Section 106 properties.

REFERENCES

- Council on Environmental Quality. December 10, 1997. *Environmental Justice Guidance under the National Economic Policy Act*. Washington, DC: Executive Office of the President.
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