Turtle Creek Connector Trail Feasibility Study

Westmoreland Heritage Trail (WHT)

to the

Great Allegheny Passage (GAP)

Final Report: January 2022

Allegheny County Public Works

Allegheny County Economic Development

Office of the Allegheny County Executive

Allegheny County, Pennsylvania

wsp

TABLE OF CONTENTS

I. INTRODUCTION

Acknowledgments

This study was overseen by a project steering committee comprised of the following individuals:

- Meghan Sexton, P.E., Assistant Deputy Director, Allegheny County Department of Public Works
- Jason Molinero, P.E., Deputy Director, Allegheny County Department of Public Works
- Dave Wright, P.E., Civil Engineer, Allegheny County Department of Public Works
- Ann Ogoreuc, AICP, Assistant Director of Mobility and Transportation Initiatives, Allegheny County Economic Development
- Anthony Schneider, AICP, Planner II – Transportation, Allegheny County Economic Development
- Jessica Mooney, Manager of Special Projects, Allegheny County Executive's Office
- Darla Cravotta, Director of Community Relations and Special Projects, Allegheny County Executive's Office
- Mark Young, District Environmental Planning Manager, PennDOT Engineering District 11-0
- Todd Crouch, Environmental Supervisor – NEPA, PennDOT Engineering District 11-0
- Stephanie Spang, Design Planner – PennDOT Connects, PennDOT Engineering District 11-0
- Bill Lesterick, Pedestrian and Bicycle Coordinator, PennDOT Engineering District 11-0
- Ryan Gordon, Manager, Transportation Program Development, Southwestern Pennsylvania Commission
- Lillian Gabreski, Project Development Planner, Southwestern Pennsylvania Commission
- Courtney Mahronich Vita, Director of Trail Development, Friends of the Riverfront
- John Nicholson Jr., P.E., Consultant Project Manager, WSP USA Inc.
- Chad Smedley, EIT, Consultant Civil Engineer, WSP USA Inc.

The Steering Committee would like to acknowledge the guidance and assistance provided by the following individuals and organizations: Shane' Lanham (Rankin Borough); Deborah Brown, Tina Doose, and Chardaé Jones (Braddock Borough); Douglas Marguriet, Vicki Vargo (North Braddock Borough); Seth Abrams (East Pittsburgh Borough); Julie Pantalone, Kelly Kelley (Turtle Creek Borough); Caroline Lang, Glen Gilliland (Wilmerding Borough); Patricia Logo (North Versailles Township); Annette Dietz, Mike Bolen (Pitcairn Borough); Tim Little, Paul Estok (Municipality of Monroeville); Ashley Stack (Trafford Borough); Brandon Simpson (Westmoreland County Parks & Recreation); Stan Rudge (Westmoreland Heritage Trail); Amanda Settelmaier (Turtle Creek Valley COG); Erin Deasy (Redevelopment Authority of Allegheny County); Jason McCabe (Turtle Creek Watershed Association); Tim White (Regional Industrial Development Corporation), and Matt Kundrat.

This project was also greatly assisted by the many individuals that participated at the general public and stakeholder meetings.

Background

The Allegheny County Department of Public Works (ACDPW), Allegheny County Economic Development (ACED), and the Office of the Allegheny County Executive, in partnership with the Southwestern Pennsylvania Commission (SPC), the Pennsylvania Department of Transportation (PennDOT), the Federal Highway Administration (FHWA), and Friends of the Riverfront, conducted a study to assess the feasibility

of providing a multimodal, or active transportation, connection through the communities of the Turtle Creek Valley that will connect the Great Allegheny Passage (GAP) via a future rehabilitation of the Carrie Furnace Hot Metal Bridge in Rankin Borough to the Westmoreland Heritage Trail (WHT) in Trafford Borough.

The study was funded by a Livability through Smart Transportation grant from SPC. PennDOT provided oversight for the grant. Allegheny County provided local match funding.

The study area is shown in Figure 1.1. On the western end, the corridor begins on the Carrie Furnace Redevelopment site in Rankin and Swissvale. This is where a future connection to the GAP trail will be made via a future rehabilitation of the site's Hot Metal Bridge over the Monongahela River. To the east, the corridor includes Braddock, North Braddock, and East Pittsburgh. From East Pittsburgh, the corridor generally follows Turtle Creek through the communities of Turtle Creek, Wilmerding, Monroeville, Pitcairn and Trafford and passes closely to North Versailles, East McKeesport, and Wall. The connection to the existing WHT is in B-Y Park in Trafford.

Project Purpose and Need

To comply with the National Environmental Policy Act (NEPA), project partners defined the study's purpose and need. The Project Purpose and Need was prepared pursuant to PennDOT Publication 319 – Need Study Handbook (May 2020).

Purpose Statement

The purpose of the proposed project is to provide an accessible, convenient, and equitable system linkage between the GAP and the WHT, thereby improving the connectivity and utilization of these and other existing transportation assets while improving the well-being of the citizens in and around the corridor.

Needs Statement

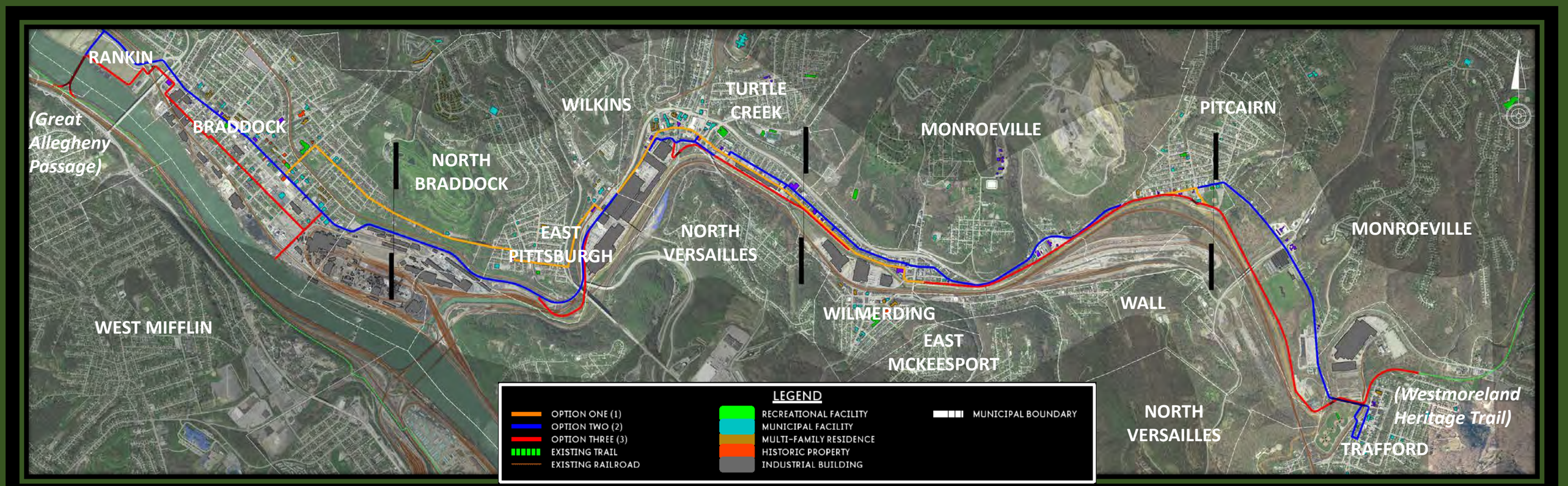
System Linkage

Currently there is no physical connection between the GAP and WHT trail systems. By establishing a system linkage between the WHT and the GAP, citizens in the region will be provided with a physical and thereby an economic connection between the economically disadvantaged communities of the Turtle Creek Valley and surrounding communities. The project will ultimately connect to a vast trail network with direct access to regional attractions and employment centers in Pittsburgh including Downtown, Oakland, the Southside and Homestead, as well as points east including Murrysville, Delmont, Saltsburg, PA, Washington, D.C. and beyond.

Multimodal Connectivity

The proposed corridor has deteriorated and fragmented pedestrian and bicycle facilities with minimal connectivity to transit and roadway facilities. The proposed connection would provide multimodal connectivity by linking several of the communities in the Turtle Creek Valley including Rankin, Braddock, North Braddock, East Pittsburgh, Turtle Creek, Wilmerding, Monroeville, Pitcairn and Trafford, PA and will pass closely to North Versailles, East McKeesport, and Wall. Decades ago, before widespread automobile travel, people in these communities relied mainly on trolley rail service or walking for transportation in and among the industry-centered company towns of the Monongahela River and Turtle Creek Valleys. Construction of the Tri-Boro expressway (carrying a portion of PA 130) in 1968 and other urban renewal projects allowed for reduced vehicle delays but fragmented the pedestrian facilities.

Figure 1.1: Study Area Map



Relationship to Existing Plans

During the planning process the project team took careful consideration and evaluation of existing plans that have been completed throughout the corridor. These plans served as the foundation for this effort. The connectivity of the GAP and WHT trails systems has been noted and discussed in many recent planning studies including the Five Boroughs Active Transportation Plan (2018); the BEN Comprehensive Plan (2021) for Braddock, East Pittsburgh, and North Braddock; and the Monroeville Active Transportation Plan (2019). In addition, the project team considered work developed by a local interested party. This study seeks to address some of the key goals and objectives of these existing studies by evaluating possible alternatives and feasibility within the respective municipalities.

Overview of the Study Process and Report Organization

The feasibility study was completed over a two-year period beginning in January 2020. The process began with the development of the study's purpose and needs. The existing conditions analysis (Chapter II) provided an overview of the study area's history and topography, traffic and transportation network characteristics, public transportation services, and demographics. Upon completing the existing conditions review and conducting field views in the corridor, the project team began developing alternatives for trail alignments and their associated costs, benefits, and constraints (Chapter III). Throughout the study, project team members utilized a wide variety of tools to obtain input from stakeholders such as outreach meetings with municipal officials, a project website, a virtual public meeting, and two in-person public open houses (Chapter IV). The study concluded in early 2022 with the release of this final report. An overview of next steps is described in Chapter V.

II. SUMMARY OF EXISTING CONDITIONS

Introduction

This chapter describes the existing attributes of the study corridor including its geographical features, historical development patterns, transportation networks, and demographic characteristics. A graphical depiction of the existing conditions of the infrastructure and land use may be found in the *Existing Conditions Figures* (Appendix A).

Study Area Context

The following sections provide context with details of the study corridor's geography; historical and projected population changes and related industrial history; traffic on the existing highways and local streets; existing multi-use trails including the Great Allegheny Passage and Westmoreland Heritage Trail, planned trail extensions and land development plans in and near the corridor.

Geography

The beautiful hills and valleys of the corridor are well described in the *Final Report- Ethnographic Survey- Turtle Creek Valley-* Bob Carlin and Steffi Domike- October 29, 1992:

> *The Turtle Creek Valley runs [11 miles] east of [Downtown] Pittsburgh, built along a tributary of the Monongahela River, which runs north/south. The Valley itself consists of a small, level area that runs along both sides of the Creek in Eastern Allegheny County, rapidly rising up to thickly forested hills. Because of the difficulty of building homes on these hillsides, combined with the location of workplaces and business districts close by the Creek, the hills have remained thinly populated. Although the industrial buildings still remain, the closing of riverfront commercial sites have cleared the air, making it more possible to appreciate the beauty of the area. In the early morning or at sunset, the view from the hilltops is quite spectacular, and remind one of what the Valley must have been like before the coming of industry.*
>
> *Because the Turtle Creek separates municipalities from one another, bridges were built to connect towns to each other and to outside communities. These physical bridges help define relationships between communities. For example, it is relatively easy to get from Turtle Creek to Wilmerding because a bridge joins the two communities. However, there is no bridge between Pitcairn proper and the town of Wall. The Westinghouse Bridge, opened in 1932, helped join East Pittsburgh to a larger geographic area, but, also divided the community in two and routed traffic away from the Turtle Creek Valley. The Bridge also facilitated the out-migration of area residents to Westmoreland County. Towns are built along the level ground on both sides of the Creek. From west to east, they include East Pittsburgh, Turtle Creek (both on the north side), Wilmerding (both sides), Pitcairn (north side), Wall and Trafford (both on the south side).*

Industrial History and Outmigration

The corridor has undergone several changes since modern settlement began around the 1850s with the establishment of accommodations for stagecoach passengers, followed by coal mines, railroad stations and heavy industry of national significance. Population peaks in these industrial communities varied mainly between the decades of 1920s to 1930s. Central Business Districts (CBDs) in the corridor served most of the day-to-day needs of their citizens including work, shopping, entertainment, schools, and other institutions. After WWII, outmigration grew with the preponderance of the personal automobile and

suburban sprawl: The Penn-Lincoln I-376 Parkway East (3 miles to the north) opened to regional traffic in 1956 to connect the eastern suburbs with Oakland and Downtown Pittsburgh. Within the corridor, the Tri-Boro Expressway opened in 1968 between East Pittsburgh and Wilmerding. Suburban shopping centers began supplanting the old town centers as early as the 1950s: Miracle Mile shopping center opened in Monroeville in 1954, followed by Eastland Shopping Mall in North Versailles in 1964 and Monroeville Shopping Mall in Monroeville in 1969. These projects highlight the Post-WWII suburbanization trend which in part reflects the population loss of many of the communities in the study. Ultimately, offshoring and automation of manufacturing jobs contributed to the industrial collapse and economic downturn of the 1980s which further devastated many of communities of the Monongahela and Turtle Creek Valleys, including many of the communities in the study area.

The rich history of heavy industry is still visible, including the steel-making along the Monongahela River and electrical and railroad equipment production in the Turtle Creek Valley. Beginning at the western edge of the corridor the Rivers of Steel: The Carrie Blast Furnaces National Historic Landmark stands in tribute to the former Homestead Steel Works Carrie Furnace near the site's Hot Metal Bridge in Swissvale and Rankin, PA. The Carrie Blast Furnaces stopped operations in 1982 but guided tours of the remnants are provided by the Rivers of Steel nonprofit. Moving east is the existing Mon Valley Works—Edgar Thomson Plant of the United States Steel Corporation in Braddock, active since 1872 and still in operation producing steel slabs. Then, moving east toward the center of the corridor, passing under the magnificent concrete arch George Westinghouse Bridge, into the Turtle Creek Valley, is the former Westinghouse Electric Plant in East Pittsburgh, Turtle Creek and North Versailles, PA. This plant closed in 1987 and is now operating as the RIDC Keystone Commons Industrial Park. Continuing east, in Wilmerding, the Westinghouse Airbrake Plant is still manufacturing railway air brakes under the name WABTEC as of 2020. Finally, the Pitcairn Rail Yard in the east of the corridor, which opened in 1882, is now an intermodal freight transport yard for Norfolk Southern. Several other supporting industries operated among these major players which together employed tens of thousands of workers during their peak years. While some of these industrial sites still employ workers, their influence on the towns has greatly diminished from the peak production years of and prior to WWII.

Overview of Existing Highways and Local Streets

Three highways play the most significant role in the transportation of people and goods within the corridor, each flowing into the next. From east to west in the corridor: Braddock Avenue, the Tri-Boro Expressway / PA-130, and Broadway Boulevard / PA-130. These form the main motor vehicle backbone of the area.

Beginning in the west of the corridor, near the Rankin Bridge, Braddock Avenue carries over 8,500 ADT (Average Daily Traffic) through the central business district of Braddock, PA. Transit service feeds into and along this artery and sidewalks accommodate pedestrians on both sides of the street of this recovering business district. Moving eastward out of Braddock and into North Braddock and East Pittsburgh, past the Mon Valley Works—Edgar Thomson Plant, Braddock Avenue carries about 6,700 ADT. Sidewalks are limited or do not exist and the road becomes unfriendly to cyclists and pedestrians. There is no transit service in this stretch of road.

Continuing east under the George Westinghouse Bridge (which carries US Route 30, over 200 feet overhead), Braddock Avenue widens to four lanes and divides and bifurcates into an upper and lower portion of expressway-like highway. Its lower portion carries eastbound traffic and its upper portion carries westbound traffic. Portions of this section are on structure and its width and geometry encourage higher speeds. Moving east into Turtle Creek Borough, the eastbound portion of Braddock Avenue diverts

to the right on its pre-1968 alignment and towards the Turtle Creek central business district. The main highway changes its name to Tri-Boro Expressway at the intersection with Electric Avenue, one of several signalized intersections in this stretch. This 4-lane arterial section carries the highest traffic volumes of the corridor, over 15,600 ADT. While sidewalks exist here, they are often limited to only one side of the highway and the narrow width, geometry, and automobile speeds leave pedestrians with an uneasy feeling. Transit service runs across but not along this section of highway. PA-130 joins the Tri-Boro at the signalized intersection with Brown Avenue (which connects to Wilkins Township and Churchill and I-376 The Parkway East 3 miles to the north). Leaving Turtle Creek Borough and heading east towards neighboring Wilmerding, Tri-Boro Expressway has a near freeway-like geometry and no traffic signals and has no sidewalks nor transit service.

Tri-Boro Expressway / PA-130 continues east out of Wilmerding then skirts the southern edge of Monroeville, returns to a two-lane arterial carrying about 12,000 ADT where is changes its name to Broadway Boulevard. Transit Route P69 Trafford rejoins here and Broadway Boulevard continues into the central business district of Pitcairn through several traffic signals. Broadway Boulevard / PA-130 passes out of Pitcairn and again through Monroeville and the major signalized intersection with PA-48 / Mosside Boulevard. Continuing east, approaching Trafford, the route then passes through the Haymaker Road / Forbes Road signal and finally turns left into Trafford, PA becoming Fifth Street / PA-130 then through the heart of Trafford along Fifth Street, Forest Avenue and Seventh Street / PA-130 where the study corridor ends at the intersection with Forbes Road and the trail head at Parkside Creamery, a few hundred feet northeast of B-Y Park in Trafford Borough, Westmoreland County.

Additionally, two second-tier routes run roughly parallel this main backbone: the first, running to the north of Braddock Avenue and sitting at a higher elevation on the hill in North Braddock and East Pittsburgh, comprises Bell Avenue, Center Avenue and Center Street. They carry approximately 2,300, 2,100 and 2,800 ADT respectively, through North Braddock and East Pittsburgh boroughs and sit just north of and parallel to the Norfolk Southern rail lines. These minor arterials have sidewalks of varying quality as they run through residential neighborhoods. Route 61A North Braddock provides transit service along two blocks of Bell Avenue in the west and the P68 Braddock Hills Flyer provides service on the eastern side of this route, when it ends at a signalized T-intersection at US-30 / Lincoln Highway.

The second set of second-tier streets run through lower East Pittsburgh, Turtle Creek and into Wilmerding and includes the eastern-most portion of Braddock Avenue, Penn Avenue Extension and Airbrake Avenue. This route formed one of the corridor's main thoroughfares before the construction of the Tri-Boro Expressway in 1968. It begins at the former Westinghouse Electric in East Pittsburgh (now home to RIDC's Keystone Commons) passes through downtown Turtle Creek where it is called Penn Avenue then becomes Airbrake Avenue at the signalized intersection with Monroeville Avenue / Greensburg Pike. Finally, Airbrake Avenue leads to Wilmerding as it passes Wabtec Global Services (formerly Westinghouse Airbrake plant). It terminates at the signalized intersection with Patton Avenue which leads to Wall, PA south of the Turtle Creek. The ADT is about 2,400 and four transit routes provide service along these 2-lane minor arterials: 69 Trafford, P69 Trafford Flyer, 59 Mon Valley and P68 Braddock Hills Flyer. A circuitous route on Avenue U, Watkins Avenue and State Street connects with Broadway Boulevard / PA-130 (at the end of the Tri Boro Expressway).

Also noteworthy is SR 2183 in East Pittsburgh: this partially abandoned road carries 186 ADT and veers right off eastbound South Braddock Avenue on the eastern side of the Edgar Thomson Plant. It appears to have been the original alignment of South Braddock Avenue and bypass the bike-unfriendly Tri Boro Expressway portion of Braddock Ave. SR 2183 is blocked by a locked gate which is reportedly controlled by Keystone Commons.

Existing Street Design Deficiencies

The original streets of the corridor were built in the late 1800s to accommodate street cars, pedestrians and horse-drawn vehicles through central business districts—typically one in each town—and to and from the residences of varying size and quality built for factory workers and their families. As automobile ownership and use expanded post-1945, and as the interstate highway system was built with the Federal Aid Highway Act of 1956, motor vehicle traffic increased throughout the region. The Tri Boro Expressway, carrying a portion of PA 130 cut through the corridor and opened to traffic in 1968. This semi-limited access 4-lane divided urban renewal project was primarily designed to handle freight and other motor vehicle traffic passing through the corridor and outside of the CBDs. However, the expressway lacks connections with any regional highways of similar classification or capacity—aside from the similarly-constrained SR 2037 East Pittsburgh-McKeesport Blvd to the south. It is connected to the 2-lane Braddock Avenue in the west and the 2-lane Broadway Boulevard in the east. Its construction involved extensive right-of-way takes including razing 320 buildings. Furthermore, the expressway dead-ended several local streets, partially severing local connectivity. Although many of the local roads still have sidewalks and bus service, the street network and traffic signals are currently overall oriented more towards automobile users. Aside from the Tri-Boro Expressway, there is significant on-street parking throughout much of the corridor. Cyclists must operate in mixed traffic with cars, trucks, and buses.

Realizing the need to rethink how best to accommodate the needs of travelers using the region's streets, the Five Boroughs (Rankin, Braddock, North Braddock, East Pittsburgh, and Turtle Creek) and the Municipality of Monroeville have recently completed active transportation studies and reports. The guidance from these reports includes shifting local policy which views streets as primarily for automobiles to one which seeks balance among transit riders, pedestrians, bicyclists, and motor vehicle operators. Design criteria and policies resulting from the studies has been developed to support context sensitive and multi-modal priorities and to change the engineering standards that have prioritized automobile travel since at least 1945.

Refer to Table 2.1 for Average Daily Traffic (ADT) of primary corridor streets and other pertinent data from the PennDOT Traffic Information Repository (TIRe).

Table 2.1: Highway Characteristics and ADT

Street	ADT	Municipality	Functional Classification	Truck Percent	Number of Lanes	Traffic Growth Rate
Rankin Bridge	21,513	Rankin, Whitaker	Principal Arterial	5	4	1.53%
Braddock Avenue (Downtown Braddock)	8,557	Rankin, Braddock	Principal Arterial	8	2	0.50%
Braddock Ave (between O'Connell and SR 2183)	6,727	East Pittsburgh	Principal Arterial	6	2	0.50%
Braddock Ave SR 2083 (between SR 2183 and East Pittsburgh / McKeesport Blvd., SR 2037)	6,728	East Pittsburgh	Expressway (Divided)	6	4	0.50%
Braddock Ave (between East Pittsburgh / McKeesport Blvd., SR 2037 and Electric Avenue, SR 2112)	9,411	Turtle Creek	Expressway (Bifurcated)	7	4	0.50%
Bell Avenue	2,327	North Braddock	Minor Arterial	5	2	0.50%
SR 2183	186	East Pittsburgh		7	2	0.50%
Center Avenue	2,115	East Pittsburgh	Minor Arterial	2	2	0.50%
Center Street	2,816	East Pittsburgh	Minor Arterial	3	2	0.50%
Tri-Boro (between Electric Avenue SR 2112 and Brown Avenue, PA-130)	13,287	Turtle Creek	Expressway (Divided)	7	4	0.50%
Tri-Boro (between Brown Avenue PA-130 and Larimer Avenue, SR 2065)	15,699	Turtle Creek	Expressway (Divided)	5.5	4	0.50%
Tri-Boro PA-130 (between Larimer Avenue, SR 2065 and Spring Street and Broadway Blvd)	12,364	Turtle Creek Wilmerding Monroeville	Expressway (Divided)	7.5	4	0.50%
Penn Ave./Airbrake Ave.	2,451	Turtle Creek Wilmerding	Collector	10	2	0.50%
Broadway Boulevard 1, PA-130	12,364	Monroeville Pitcairn	Principal Arterial	7	2	0.50%
Broadway Boulevard 2, PA-130	11,841	Monroeville	Principal Arterial	7	2	0.50%
Fifth Street, PA-130	7,055	Trafford	Minor Arterial	3	2	0.50%
Forest Ave. / Seventh St / PA-130	2,361	Trafford	Minor Arterial	6	2	1.53%
Forbes Road, SR 2021	5,724	Trafford	Major Collector	5	2	1.53%

Source: PennDOT Traffic Information Repository (TIRe) https://gis.penndot.gov/TIRe

Overview of Existing and Proposed Transit Service

The Port Authority of Allegheny County operates regularly scheduled bus service in the study corridor on six routes of varying service areas, operating times, and headways. Refer to Table 2.2 for a detailed list of bus routes and attributes. All bus stops are presented in the Existing Conditions Figures in Appendix A.

Several of the routes, (P7, P68, and P69) use the Martin Luther King Jr. East Busway (a two-lane bus-only highway running between Swissvale and Downtown Pittsburgh) to shorten travel time between the east and Downtown. The busway terminates approximately a half mile from the eastern edge of the study corridor at Swissvale Station. While outside the limits of this project, future opportunities may arise for a trail connection with the busway, either at Swissvale Station or Hamnet Station (both in Swissvale about a half mile and 1 ½ miles to the northeast, respectively). As a result of its recently adopted NexTransit 25-year long-range plan, Port Authority may explore an extension of the East Busway into the study corridor. A busway extension is among the plan's short-term recommendations. An extension could potentially utilize the existing railroad corridor and/or on-street bus rapid transit with stops in Braddock and East Pittsburgh. Future planning efforts would determine the extension's terminus, possibly Monroeville or McKeesport.

A multi-use trail could enhance the quality of transit service in the corridor by providing last-mile connections from bus stops to destinations. Each of the Port Authority buses is equipped with a front-mounted bike rack that holds two bicycles, thereby extending the range of cyclist-bus riders.

Additionally, the Downtown-Uptown-Oakland-East End Bus Rapid Transit (BRT) project is currently in final design and scheduled to begin to operate in 2023. While the main physical infrastructure for the BRT will be outside of the multi-use trail study limits, two of the routes in the corridor, 61A North Braddock and 61B Braddock – Swissvale, will become BRT routes using exclusive bus lanes and thereby potentially enhancing service to trail users in the study corridor. Refer to Table 2.2 for existing transit service details including route names, communities served, service frequency, and average daily ridership.

Table 2.2: Transit Service Overview

Transit Route and Type of Service	Communities Served	Service Frequency Weekdays (Headway Time, Minutes)			Average Daily Ridership		
		AM	Off-Peak	PM	M-F	Sat	Sun
59 Mon Valley ***Local - no service to Downtown***	North Versailles • Turtle Creek • East Pittsburgh Forest Hills • Braddock Hills • North Braddock • Braddock • Swissvale • Rankin • Munhall The Waterfront • Homestead • Whitaker • Duquesne McKeesport • Dravosburg • West Mifflin	30	60	60	1,462	1,254	814
P7 McKeesport Flyer ***Commuter***	**Via East Busway** Downtown • Edgewood • Swissvale • Rankin • West Mifflin • Duquesne • McKeesport	30	-	30	174	-	-
61B Braddock - Swissvale ***Local (Slated to become BRT Route outside of Study Corridor)***	Downtown • Uptown • Soho • Oakland •Squirrel Hill • Regent Square • Swissvale • Rankin • Braddock	15	20	30	1,312	1,075	695
61A North Braddock ***Local (Slated to become BRT Route outside of Study Corridor)***	Downtown • Uptown • Soho • Oakland Squirrel Hill • Wilkinsburg • Edgewood • Swissvale North Braddock • Braddock	15-20	15-20	30	1,643	1,327	905
P68 Braddock Hills Flyer ***Local***	Via East Busway Downtown • Wilkinsburg Braddock Hills • North Braddock • East Pittsburgh Turtle Creek • Monroeville	30	60	30-60	632	440	311
69 Trafford ***Local***	Downtown • Oakland • Squirrel Hill • Point Breeze Wilkinsburg • Forest Hills • Chalfont • East Pittsburgh Turtle Creek • Wilmerding • Pitcairn • Trafford	30	60	30	559	178	124
P69 Trafford Flyer ***Commuter***	**Via East Busway** Downtown • Wilkinsburg Forest Hills • Chalfont • East Pittsburgh • Turtle Creek Wilmerding • Pitcairn • Trafford	30	-	30	94	-	-

Source: Port Authority of Allegheny County System Map and PDF Time Tables https://www.portauthority.org/system-map/, accessed November 15, 2021.

Existing Multipurpose Trails - GAP and WHT

Both the GAP[1] and the WHT[2] are well-used important regional assets, enjoyed by both recreational riders and commuters. Potential connections to the GAP and WHT are shown in Figure 1.1. The study corridor's relationship to the larger regional trail network, much of which is itself still in development or under construction, is shown in Figure 2.1.

On the GAP, there were 151,148 users[3] counted in 2020 near milepost 138.3 near the Rankin Bridge in Whitaker, just east of the trail head at the Rivers of Steel Pump House & Water Tower at The Waterfront lifestyle center. This averages to about 414 users per day for the year with the busiest months being May, August, and September and very low activity in January and February. The daily average for May and August is about 767 users per day on this section of the GAP. Overall, this site is on the western side of the study corridor. Trail usage varies through the seasons as shown in Table 2.3.

Table 2.3: 2020 Monthly Usage (persons) on Great Allegheny Passage Trail at the Rankin Bridge

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
152	152	13,796	15,122	23,802	16,949	10,086	21,607	23,021	14,647	9,443	2,371	151,148

Source: Analysis of 2020 Trail Usage Patterns along the Great Allegheny Passage Final Report, February 8, 2021, by Dr. Andrew R. Herr, Associate Professor of Economics Saint Vincent College

The GAP runs 150 miles, continuously, from Point State Park in Pittsburgh to Cumberland, Maryland where it meets the 184.5-mile C & O Towpath trail, creating a complete 334.5-mile connection to Washington, D.C., free of automobile traffic. It is one segment of the Potomac Heritage National Scenic Trail and is described as follows:

> *"The 150-mile Great Allegheny Passage soars over valleys, snakes around mountains, and skirts alongside three rivers (the Casselman, Youghiogheny, and Monongahela) on its nearly level path. Cyclists pass through the Cumberland Narrows, cross the Mason-Dixon Line, top the Eastern Continental Divide at 2,392', weave through the breathtaking Laurel Highlands, wind their way through 19,052-acre Ohiopyle State Park, journey through the region's coke, coal, mining, and steel-making corridor, and end at Pittsburgh's majestic Point State Park."*[4]

Less count information is available regarding usage for the WHT; however, a one-week count in July and August in 2020 indicated the daily average is about 730 users on the WHT near Duff Park in Murrysville (R. Cronauer, email communication, August 28, 2020).

The WHT currently comprises two completed sections, separated by a gap between northeastern edge of Delmont and Export. The trail is most popular on Sundays when a great number of recreational users of all ages enjoy biking and hiking on the trail (on Sunday August 16, 2020 there were 1,313 trail users counted in Murrysville). The WHT is described as follows, starting in the northeast at Saltsburg and running to the southwest at Trafford:

> *"… a scenic bicycle and walking trail covering 8.5 miles from Saltsburg to Delmont and 9.3 miles from Export to Trafford. Future expansion is in progress to connect the two sections [between*

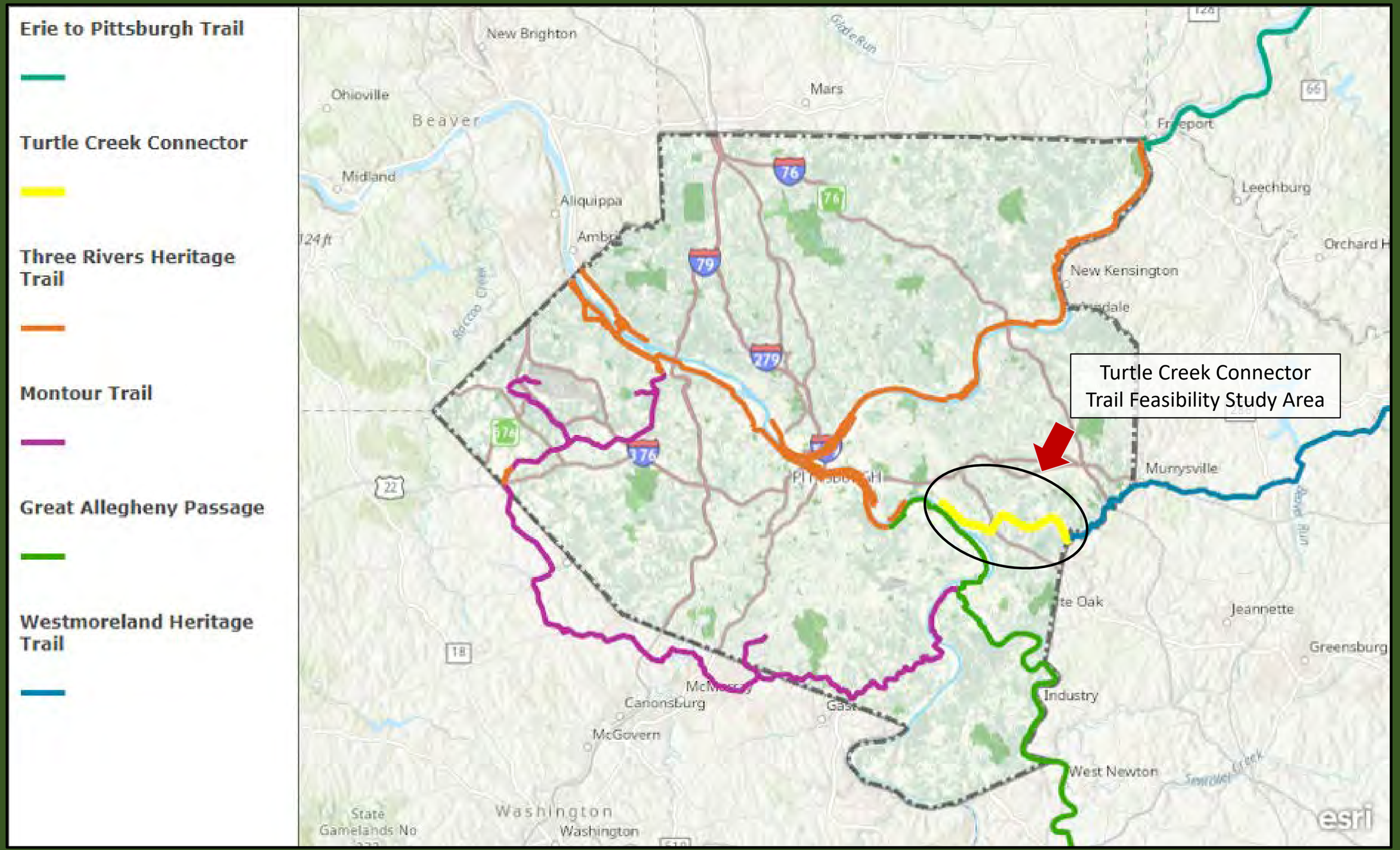
[1] GAP trail map can be found at www.gaptrail.org

[2] WHT trail map can be found at www.westmorelandheritagetrail.com

[3] Analysis of 2020 Trail Usage Patterns along the Great Allegheny Passage, Final Report February 8, 2021 by Dr. Andrew R. Herr, Associate Professor of Economics, Saint Vincent College

[4] https://heritagepa.com/rivers-of-steel-national-heritage-area/ retrieved October 29, 2021

Figure 2.1 Trail System Network in Greater Allegheny County



Export and Delmont] to complete the goal of a 22-mile-long trail from Saltsburg to Trafford and extend four miles to connect to the Great Allegheny Passage [the subject of this study]. The trail is ideal for walking, jogging, bicycling, and cross-country skiing. It has a wide and flat handicapped accessible surface and will accommodate everyone regardless of age or physical ability. There are a few parks located just off the trail along the sections, including Duff Park behind the Robert's Parcel trailhead, B-Y Park near the Trafford trailhead, and Saltsburg Park near the Saltsburg trailhead. The Heritage corridor includes historic community centers in Saltsburg, Slickville, Export, South Murrysville, and Trafford, which grew from local industries in salt mining, coal mining, natural gas extraction, and the manufacture of electrical generation equipment."[5]

Planned Trails in the Corridor:

The popularity and success of multi-use trails like the GAP and WHT have mobilized citizens in the corridor to plan several new trails and or extensions, in various stages of planning:

- Future tail spur into Delmont, extension from the Trafford B-Y Park area into downtown, and
- Trafford pedestrian bridge connection and parking access at Valley Park on Abers Creek Road.

Land Development Plans

Several large-scale land development plans are under development at the time of this writing:

- An online retail distribution warehouse in Churchill Borough: Borough Council will decide in the fall of 2021 whether to move forward with the 133-acre parcel known as Churchill Crossing, formerly the George Westinghouse Research Park (A. Graziani, AICP, Churchill Borough Manager, personal communication, September 8, 2020).
- Churchill Valley Greenway: The Allegheny Land Trust is working with community members in Churchill and surrounding areas to create a greenspace on the abandoned site of the former Churchill Valley Country Club to enhance livability of the area and with the hope of attracting development nearby[6].
- Carrie Furnace Redevelopment at the Hot Metal Bridge: This 168-acre site at the western limits of the project includes the Hot Metal Bridge. Ultimately, it is anticipated that the long-term trail connection will be provided through the Carrie Furnace site and across the repurposed rail bridge. The Redevelopment Authority of Allegheny County (RAAC) recently entered into an agreement with the Regional Industrial Development Corporation (RIDC) to develop the site for various commercial uses.

Mon-Fayette Expressway

The Mon-Fayette Expressway is a tolled, four-lane divided, limited access freeway connecting I-68 near Morgantown, West Virginia to PA-51 in Large, Pennsylvania. The Pennsylvania Turnpike Commission plans to extend the highway from its existing terminus in Large (15 miles to the south of the trail corridor) through the Monongahela River and Turtle Creek valleys to connect with I-376 in Monroeville (3 miles to the north). This extension is the last remaining unconstructed section of the project and is divided into two segments, south of and north of the Monongahela River. The future of the northern segment of the highway—the portion slated to run through the multi-use trail corridor— is uncertain because of revenue

[5] https://westmorelandheritagetrail.com/ retrieved August 17, 2020

[6] https://alleghenylandtrust.org/churchill-valley/ retrieved September 8, 2020

shortfalls created by the COVID-19 pandemic.[7] Currently, the northern segment plans included an interchange just southeast of the corridor, with East Pittsburgh-McKeesport Boulevard.

Demographics

The following sections detail population loss, poverty rate, employment rate and motor vehicle ownership in the corridor.

Population Trends

Over the past 70 years, population decline has presented challenges for the relatively small municipalities in the corridor. The area particularly reflects the fragmented nature of the larger Southwestern Pennsylvania region which has the country's most local governments per capita. Fortunately, the governments and citizens have worked together on cooperative initiatives in planning and resource sharing like this trail study. As shown in Table 2.4 below, based off census data obtained from 1930 to 2018, the collective population within the study area has steadily declined.

Population in almost every one of the individual study corridor municipalities peaked in the 1920s or 1930s. Monroeville and North Versailles being the exceptions, peaking in the 1980s and 1970s, respectively. Across all the corridor municipalities, population has steadily declined with each census decade since 1980. Refer to Table 2.4 for historical population in the corridor[8].

Table 2.4 - Historical Population

Location	Year									
	1930	1940	1950	1960	1970	1980	1990	2000	2010	2018
Rankin	7,956	7,470	6,941	5,164	3,817	2,892	2,503	2,315	2,122	2,100
Braddock	19,329	18,326	16,488	12,337	8,795	5,634	4,682	2,912	2,159	1,729
North Braddock	16,782	15,679	14,724	13,204	10,838	8,711	7,036	6,410	4,857	4,758
East Pittsburgh	6,214	6,079	5,259	4,122	3,006	2,493	2,160	2,017	1,822	1,755
Turtle Creek	10,690	9,805	12,363	10,607	8,308	6,959	6,556	6,076	5,349	5,244
Monroeville	4,687	4,689	7,841	22,446	29,011	30,977	29,169	29,349	28,386	27,893
Wilmerding	6,291	5,662	5,325	4,349	3,218	2,421	2,222	2,145	2,190	1,949
Pitcairn	6,317	6,310	5,857	5,383	4,741	4,175	4,087	3,689	3,294	3,230
Trafford	4,187	4,017	3,965	4,330	4,383	3,662	3,345	3,236	3,174	3,039
Wall	2,236	2,098	1,850	1,493	1,265	989	853	727	580	667
North Versailles	5,668	6,341	9,821	13,583	13,416	13,294	12,302	11,125	10,229	10,081
East McKeesport	6,214	6,079	5,259	4,122	3,006	2,493	2,160	2,017	1,822	2,106
Total	96,571	92,555	95,693	101,140	93,804	84,700	77,075	72,018	65,984	64,551

Source: Southwestern Pennsylvania Commission

[7] Blazina, Ed (September 6, 2020). " Mon-Fayette Expressway include expensive utility relocations ". Pittsburgh Post-Gazette. Retrieved September 10, 2020.

[8] SPC Southwestern Pennsylvania Commission and US Decimal Censuses

Poverty Rate, Employment Rate, and Motor Vehicle Ownership

Based on 2018 U.S. Census data[9], the study area is home to 64,551 residents, 25,724 households (approximately 5 percent of the County's households). Minority populations comprise approximately 30 percent of the study area population, which is greater than the Allegheny county-wide composition (20 percent). Notably, the proportion of households below the poverty line is higher within the study area compared to county-wide demographics. The poverty rate comprises approximately 12 percent of the population Allegheny County-wide, but within the study area the poverty rate is at 16 percent. Zero-vehicle households make up approximately 13 percent of the total households within Allegheny County but approximately 22 percent of households within the study area (where data was available[10]) are zero-car households. Individual municipalities with rates of zero-car households higher than the Allegheny County overall rate are: Rankin, 49%; Braddock 35%; Wilmerding, 32%, East Pittsburgh, 31%; North Braddock 24%; Turtle Creek 19% and Pitcairn 16%.

Moreover, half of the municipalities in the study have poverty rates between two and three times higher than the overall Allegheny County rate; they are: Braddock, Wilmerding, North Braddock, Turtle Creek, Rankin, and East Pittsburgh. Three municipalities have poverty rates between one and two times the Allegheny County rate: Pitcairn, Wall, and Trafford. Only North Versailles and Monroeville have poverty rates lower than Allegheny County. Similarly, median household income in all but one of the corridor municipalities fall below the overall Allegheny County median. Braddock, East Pittsburgh, and Wilmerding have median household incomes less than half of the overall Allegheny County rate and Turtle Creek, North Braddock, Rankin, Pitcairn, Wall, North Versailles and Trafford each have median household incomes between one-half and one times the overall Allegheny County rate. Only Monroeville has a median household income greater than the overall Allegheny County rate.

Comparing employment rates of the study municipalities with Allegheny County overall, a majority have employment rates lower than Allegheny County: Braddock, Wilmerding, North Braddock, North Versailles, Pitcairn, Turtle Creek, East McKeesport, and Wall. Trafford and Monroeville have employment rates equal to Allegheny County's and Rankin and East Pittsburgh have employment rates slightly higher than Allegheny County's overall rate.

Comparing minority population percentages of the study municipalities with Allegheny County overall, a majority have minority populations higher than Allegheny County (20 percent) and four have majority minority population: Rankin, Braddock, East Pittsburgh, and North Braddock have greater than 50 percent minority populations. Wilmerding, Pitcairn, Turtle Creek, Monroeville, and North Versailles have a minority population proportion less than 50 percent but still greater than Allegheny County's overall proportion. Wall and Trafford have minority population proportions lower than Allegheny County's overall. Refer to Table 2.5 for more information.

[9] 2018 American Community Survey

[10] Rankin, Braddock, North Braddock, East Pittsburgh, Turtle Creek, Wilmerding, Pitcairn, Trafford, Wall and East McKeesport

Table 2.5: Poverty Rate, Employment Rate, Median Household Income and Minority Populations

Location	2018 Population	Poverty Rate %	Employment Rate %	Median Household Income	Median Household Income as a ratio of County Median	Minority Population	Minority Population as a ratio of County Minority Population
Rankin	2,100	28.5%	63.8%	$32,321.00	0.55	85%	4.2
Braddock	1,729	35.7%	34.8%	$22,340.00	0.38	77%	3.8
North Braddock	4,758	30.0%	53.8%	$31,406.00	0.54	53%	2.6
East Pittsburgh	1,755	28.0%	66.6%	$25,848.00	0.44	74%	3.7
Turtle Creek	5,244	28.8%	56.8%	$30,643.00	0.52	31%	1.5
Monroeville	27,893	8.6%	61.4%	$61,834.00	1.06	24%	1.2
Wilmerding	1,949	35.5%	43.3%	$27,564.00	0.47	39%	2.0
Pitcairn	3,230	21.1%	56.4%	$33,769.00	0.58	32%	1.6
Trafford	3,039	14.1%	61.1%	$49,028.00	0.83	3%	0.2
Wall	667	14.4%	58.7%	$42,500.00	0.73	9%	0.4
North Versailles	10,081	10.3%	56.0%	$43,750.00	0.75	20%	1.0
East McKeesport	2,106	10.4%	57.8%	$45,292.00	0.78	13%	0.7
Allegheny CO.	1,225,561	12.1%	61.2%	$58,383.00	1.00	20%	1.0
Westmoreland CO.	354,751	10.0%	58.2%	$58,866.00	1.01	5%	0.3

Source: Southwestern Pennsylvania Commission

Demographic Forecast

Per SPC data[11], the total population within the study is forecasted to increase by 9.0% between the years 2020 and 2045. The population is forecasted to increase from 65,650 people in year 2020 to 71,551 people in year 2045. This represents a 9.0% increase, compared to 14% for Allegheny County. Most notably, Trafford Borough is projected to have a 79.8% increase in population, going from 721 people to 1,296 people. Additionally, Rankin Borough is projected to increase its employment by 509 jobs resulting in an 88.2% increase. However, the East Pittsburgh Borough will see a decrease of 313 jobs resulting in a 21% decrease. Moreover, the population of nearly every corridor municipality is forecasted to increase, the one exception being North Braddock, which is forecasted to decline 6.3 percent.

Total employment within the study area is forecasted to slightly increase by 2.6% between year 2020 and 2045, while Allegheny County is forecasted to increase by 11.0%. The study area is forecasted to have a total of 52,195 jobs in year 2020 which will increase to a total of 53,552 jobs in 2045. Table 2.6 below shows a summary of the SPC projected population and employment data**.**

[11] SPC Southwestern Pennsylvania Commission, Cycle 11 Forecast of Population, Households, and Employment by Municipality, 2015-2045

Table 2.6: Employment and Population Projections

Municipality	Projected Population			Projected Employment		
	2020	2045	Percent Change	2020	2045	Percent Change
Braddock Borough	1,852	1,877	1.3%	2,261	2,213	-2.1%
East Pittsburgh Borough	1,752	1,805	3.0%	1,494	1,181	-21.0%
Monroeville, Municipality of	28,175	30,793	9.3%	35,268	36,048	2.2%
North Braddock Borough	4,529	4,243	-6.3%	777	585	-24.7%
Pitcairn Borough	3,167	3,310	4.5%	1,130	1,216	7.6%
Rankin Borough	2,142	2,861	33.6%	577	1,086	88.2%
Trafford Borough (part)	721	1,296	79.8%	239	294	23.0%
Turtle Creek Borough	5,137	5,265	2.5%	1,553	1,574	1.4%
Wall Borough	765	809	5.8%	153	171	11.8%
Wilmerding Borough	1,675	1,698	1.4%	2,061	2,098	1.8%
Trafford Borough (part)	2,982	3,321	11.4%	1,255	1,087	-13.4%
North Versailles	10,671	12,071	13.1%	4,802	5,294	10.2%
East McKeesport	2,082	2,202	5.8%	625	705	12.8%
Total	**65,650**	**71,551**	**9.0%**	**52,195**	**53,552**	**2.6%**
Allegheny County	1,229,020	1,400,888	14.0%	934,510	1,037,234	11.0%
Westmoreland County	355,285	394,643	11.0%	188,855	196,830	4.2%

Source: Southwestern Pennsylvania Commission

Benefits of Active Recreational Facilities

A multi-use trail has great potential to improve economic conditions and increase health and wellbeing by providing active recreation options.

Economic and Health Benefit from Trails

Multi-use trails have been documented to improve the local economy of the towns through which they pass, increasing property values, attracting businesses and new residents while increasing civic pride[12].

A 2012 economic impact study[13] of business associated with and located near the GAP found that:

- on average, about 30 percent of businesses' gross revenues were attributed to the GAP trail.
- overall, about one-fourth of responding businesses reported gross revenue of more than $250K.
- the GAP trail accounted for between $650,000 and $2.1 million in weighted average annual revenue, per establishment, at the county and firm type aggregation levels, respectively.

Businesses in the GAP study included lodging like hotel/motel/B&Bs, retail/gift/specialty stores and bike rental/sales/supplies businesses. Their peak months were summer (June, July, and August) followed by

[12] 2000 Greenways & Trails Bringing Economic Benefits to New York. New York Parks & Conservation Association and The Business Council of New York State, Inc.

[13] 2012 Trail Town Business Survey Report for The Progress Fund May, 2012. Center for Regional Progress College of Business Frostburg State University Frostburg, Maryland 21532

Autumn (September, October, and November) then Spring (March, April, and May) and their off-peak was reported as the winter months (December, January, and February).

Likewise, a 2021 study[14] of GAP trail-related businesses in 2019 found that:

- The total economic impact of the trail was $121 million - $800,000 per mile.
- The direct spending impact by GAP tourists at businesses in the Trail Impact Zone was $74.7 million
- The average expenditure by trail users was $90 for day users and $496 for overnight users.
- The GAP supports 1,393 jobs, generating $52.6 million in employee wages.

Over three-quarters of the overnight trail users reported using the trail for recreation. In contrast, using the trail for health and/or fitness was mentioned by more than half of the local and day trip trail users.

The Allegheny County Redevelopment Authority through the Qualified Opportunity Zone program has tax incentivized the purchase of vacant properties in Rankin Borough and Borough of Braddock. A multi-use trail would increase pedestrian and cycle traffic complementing the economic development goals for both the redevelopment of the Carrie Furnace Site and the Braddock Business Community Initiative.

Project will Help to Meet Community Health Initiatives

The corridor's two nearest hospitals have conducted Community Health Needs Assessments and have identified prevention of obesity and related chronic diseases as priorities for their populations. Many of the areas in the study corridor have been identified as Medically Underserved Areas and Medically Underserved Populations. Statistically, African American populations in Allegheny County are more likely to be affected by obesity, which is associated with the development of other chronic diseases including diabetes, heart disease, stroke and cancer[15]. Active outdoor recreation, like that which would be provided by an accessible multi-use trail, can help prevent or reduce obesity and related chronic diseases, including behavioral health issues. According to the Centers for Disease Control, "Active people generally live longer and are at less risk for serious health problems like heart disease, type 2 diabetes, obesity, and some cancers. For people with chronic diseases, physical activity can help manage these conditions and complications".[16]

As shown in Table 2.7, several of the corridor communities exceed the Allegheny County rates for prevalence of chronic health conditions. For hypertension (i.e., high blood pressure), the prevalence rates in six of the communities exceed the Allegheny County rate of 28 percent. For diabetes, only one community, East Pittsburgh, is below the county's rate of nine percent. The prevalence of the simultaneous presence, or comorbidity, of diabetes and hypertension is higher than the Allegheny County rate of 7 percent in all corridor communities. Finally, in the case of hyperlipidemia, or high cholesterol, 9 of the 12 corridor communities have lower rates than Allegheny County's 21 percent rate.

[14] Great Allegheny Passage Economic Impact Report, Fourth Economy on behalf of the Great Allegheny Passage Conservancy, November 2021.

[15] Community Health Needs Assessment Community Health Strategic Plan Allegheny County, June 30, 2019

[16] Centers for Disease Control, *About Physical Activity*. Retrieved from https://www.cdc.gov/physicalactivity/about-physical-activity/ on 2020, September 10

Table 2.7: Prevalence of Chronic Conditions in Priority Communities

Location	Hypertension (2016)	Diabetes (2016)	Comorbidity of Diabetes and Hypertension (2016)	Hyperlipidemia (2016)
Rankin	21%	9%	10%	12%
Braddock	24%	12%	12%	15%
North Braddock	25%	12%	12%	18%
East Pittsburgh	19%	8%	8%	12%
Turtle Creek	27%	11%	11%	22%
Monroeville	28%	10%	9%	27%
Wilmerding	20%	11%	9%	14%
Pitcairn	22%	9%	8%	17%
Trafford*	30%	12%	11%	19%
Wall*				
North Versailles*				
East McKeesport	28%	11%	10%	24%
Allegheny County	25%	9%	7%	21%

*These communities are the same census tract and grouped together due to the small population. Data only includes the portion of the Trafford population within Allegheny County.
Source: WPRDC; claims data representing approximately 70% of Allegheny county

Existing Conditions Figures (Appendix A)

Refer to Appendix A for a detailed map of existing conditions with topography and environmental features, including existing trails, railroads, bus routes and stops, industrial buildings, commercial centers, recreational facilities, municipal facilities, multi-family residences, historic properties, managed waste facilities, and municipal boundaries. Also included are photographs depicting existing streets, sidewalks, other pedestrian facilities and aerial views of the corridor including SR 2183 in East Pittsburgh, the George Westinghouse Bridge, the Westinghouse flood gate in Turtle Creek, and the wooded area and remnants of the abandoned Turtle Creek Industrial Railroad tracks just west of B-Y Park in Trafford. Norfolk Southern now owns the abandoned tracks; there is interest in acquiring a portion of this track to extend the rail-trail to the Trafford business district. Per a news report, "Organizers want to extend [The WHT] down to the Veterans Memorial Bridge near the intersection of Fifth Street and Brinton Avenue. To do that, they would need cooperation from Norfolk Southern to use about 3,800 feet of its property for the trail"[17].

[17] McGee, Tom (April 27, 2016). *Westmoreland Heritage Trail supporters hope for cooperation from Norfolk Southern*. Pittsburgh Tribune-Review retrieved 10 September 2020.

III. OVERVIEW OF ALTERNATIVES

Introduction

Throughout the study corridor, the project team developed preliminary design proposals and trail alignments.[1] Due to the corridor's existing geography and land uses, these proposals include a mix of on-road and off-road connections. Some of these design proposals include facilities that are shared by multiple modes or dedicated just for bicycle and pedestrian use. This chapter provides an overview of the potential trail alignment alternatives within the study corridor municipalities using a variety of options such as shared use lanes, shared use paths, and cycle tracks. Each design option has its own advantages and disadvantages (e.g., cost, ease of implementation, etc.) and confers different levels of user comfort[2]. The following is a brief description of each type of trail facility:

Shared Use Lanes: Shared use lanes accommodate bicyclists and motorists in the same travel lane within the existing road infrastructure. On-road pavement markings and share-the-road signage alert drivers to the presence of bicyclists. These improvements are generally only appropriate on roads with a low number of cars and slower traffic speeds.

Figure 3.1: Shared Use Lanes

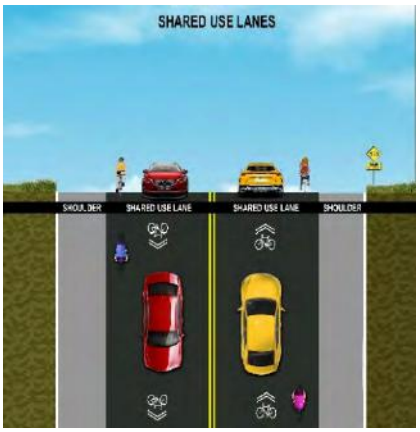


Figure 3.2: Shared Use Lanes on Grand Ave (Neville Township)

Shared Use Path: A shared use path is a facility that is physically separated from the roadway and typically accommodates bicycle and pedestrian travel in both directions. A preferred minimum width for this type of facility is 10 feet, though wider is better if a large number of users is expected. This type of facility is what is currently used on the Great Allegheny Passage and Westmoreland Heritage Trails today.

[1] At this stage of evaluation, the proposed alignments meet guidelines established by the Manual on Uniform Traffic Control Devices (MUTCD) and the American Association of State Highway Transportation Officials (AASHTO). Subsequent design phases will confirm the alignments' adherence to these national standards.

[2] Bicyclist comfort is often evaluated according to a methodology that rates roadways according to a system known as Bicycle Level of Stress (BLOS). BLOS considerations include built environment factors such as grade change, traffic volume, traffic speed, and whether dedicated bicycle facilities are provided.

Figure 3.3: Shared Use Path

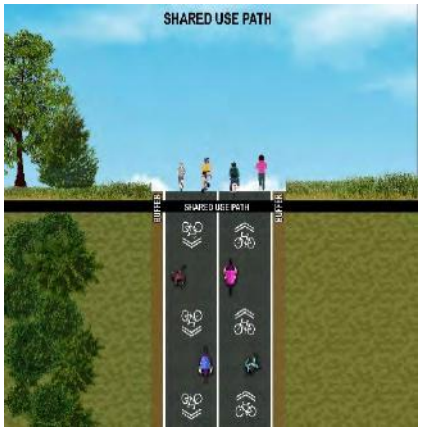


Figure 3.4: Westmoreland Heritage Trail

Cycle Track: A cycle track is a two-way bicycle lane that is adjacent to the roadway but separated by a physical barrier such as delineator posts or curb. In this type of facility, you may also see single bicycle lanes moving in the direction of traffic or bicycle lanes on the opposite side of the roadway where the cyclist moves against the flow of traffic (also known as contraflow bike lanes).

Figure 3.5: Cycle Track

Figure 3.6: Cycle Track in downtown Pittsburgh

Future phases of project development will also include a more in-depth evaluation of pedestrian improvements needed within these corridors. Pedestrian improvements that will be evaluated in the future include improved crosswalks, intersection upgrades, and enhancements around transit stops.

On the following pages, the proposed alignments are exhibited on roadway plan sheets, starting on the western end of the corridor in Rankin and proceeding eastward to Trafford. Throughout the corridor, the project team attempted to identify multiple opportunities for connections to evaluate. These will be identified on the roadway plan sheets as Option 1 – Yellow, Option 2 – Blue, and Option 3 – Red. For evaluation purposes, the colors are not associated with a particular type of improvement such as a shared use path or cycle track, but demonstrate a location for potential options. In some areas of the corridor, there is not enough space for three options. In these areas, some segments may have fewer than three

options to review. The final trail alignment within a municipality could be a mix of corridor options, e.g., a through route and a local circulator route. A summary of the alignment options within each municipality follows the roadways plans. Each municipal profile also includes a description of the opportunities, challenges, and preliminary cost[3] of each proposed option.

Throughout the corridor there is a mix of County, State, local, private, and railroad property owners. The project team did their best to identify and label the ownership of affected roads and properties. There will be significant discussion and coordination with road and property owners as elements of this project advance to design and construction. Where alignments are proposed to be constructed in the existing right-of-way, further verification with the road owner will be required. In addition, the project partners will work with Port Authority of Allegheny County to coordinate the multimodal improvements with existing and planned transit routes and stops to ensure that transit service is not hampered. In fact, well-designed bicycle and pedestrian improvements should increase access to transit.

Additional visual depictions of the potential alignments and local context can be found in Appendix B.

[3] The preliminary alignment cost estimates assume a 20-year design life and do not include expenses associated with maintenance, utility relocation, right-of-way acquisition, erosion and sedimentation control, traffic control, traffic signals, lighting, signage and pavement marking, and parking lots. The cost estimates include 35% for contingency funds, 6% for mobilization, and 20% for design and engineering.

PLOTTED: 11/10/2021

OPERATOR: smedley
FILE NAME: T:\22007A_WAT to GAP Study\CADD\022083.RDp1_07.dgn

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

CHARTIER AVENUE

VIEW OF PROPOSED CONNECTION AT BRADDOCKFIELD ROAD

SECTION A.1-A.1

VIEW OF PROPOSED CONNECTION AT HOT METAL BRIDGE

SECTION A.3-A.3

MATCH LINE

HAWKINS AVENUE

RANKIN BOULEVARD

SHARED USE PATH RIGHT SIDEWALK

SECTION A.4 - A.4

BRADDOCKFIELD ROAD

A.1

CARRIE FURNACE BOULEVARD

A.4

CARRIE FURNACE BOULEVARD

A.3

A.3

A.4

SWISSVALE

RANKIN

PROJECT LANDMARK

CARRIE BLAST FURNACE

SHEET 2 OF 2

SHARED USE PATH

SECTION A.2-A.2

A.2

A.2

SCALE

0 100 200 FEET

FIGURE 3.7

PLOTTED: 11/10/2021

OPERATOR: smedley
FILE NAME: T:\22007A_WHT to GAP Study\CADD\022083.RDp1_08.dgn

SHEET 1 OF 2

HAWKINS AVENUE

3RD AVENUE

RANKIN BOULEVARD

MT OLIVE CHRIST EPISCOPAL CHURCH

RIVERS EDGE VOLUNTEER FIRE DEPARTMENT

CHRISTIAN CENTER

WOODLAND HILLS PROMISE

ST MICHAEL'S ORTHODOX CHURCH

PALISADES MANOR APARTMENTS

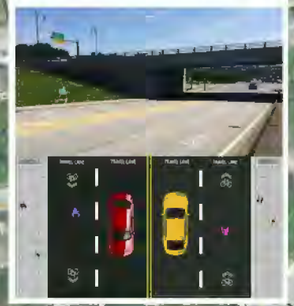
VIEW OF PROPOSED CONNECTION AT HOT METAL BRIDGE

SECTION A.3–A.3

SHARED USE PATH RIGHT SIDEWALK

SECTION A.4 – A.4

SHARED USE LANE UPHILL / DOWNHILL



SECTION A.5 – A.5

SOUTH BRADDOCK AVENUE OWNED BY ALLEGHENY COUNTY

PATTISON AVENUE

FLEET STREET

HOLLAND AVENUE

HAMILTON STREET

MAPLE WAY

LINE STREET

A.5

A.5

KENMAWR / BRADDOCK AVENUE END ALLEGHENY COUNTY OWNERSHIP

CARRIE FURNACE BOULEVARD OWNED BY ALLEGHENY COUNTY

WEST BRADDOCK AVENUE

CLARA STREET

FLEET STREET

MON RIVER INDUSTRIAL CORPORATION

B.1

TALBOT AVENUE

B.1

A.4

CARRIE FURNACE BOULEVARD

A.4

A.3

A.3

RANKIN

MATCH LINE

HOT METAL BRIDGE GAP CONNECTION

SECTION A.1–A.1

SHARED USE LANE UPHILL / DOWNHILL

SECTION B.1 – B.1

A.2

A.2

SCALE

0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.8

PLOTTED: 11/10/2021

OPERATOR: smedley
FILE NAME: T:\22007A_MHT to GAP Study\CADD\022083_RDp1_09.dgn

RIGHT SHOULDER CYCLE TRACK

SECTION B.2 – B.2

PROJECT LANDMARK

BRADDOCK CIVIC PLAZA

SHARED USE LANE UPHILL / DOWNHILL

SECTION B.1 – B.1

SHARED USE PATH RIGHT SIDEWALK

SECTION B.3 – B.3

RANKIN

BRADDOCK

MAPLE WAY

LINE STREET

BRADDOCK AVENUE
BEGIN BRADDOCK OWNERSHIP

HOLLAND AVENUE

OVERLOOK APARTMENTS

AVENUE APARTMENTS

BRADDOCK CIVIC PLAZA

UNITY BAPTIST

A.H.N. URGENT CARE

NDC APT.

BRADDOCK BOROUGH

COREY AVENUE

HAVATH CHURCH

STUMP CHURCH

NEW HOPE BAPTIST

HERITAGE FAMILY LEARNING CENTER

COST REALTY

CHURCH OF THE LIVING GOD

SHEET 2 OF 2

MON RIVER INDUSTRIAL CORPORATION

G.F. HOLDINGS L.L.C.

FIRST AMENDED & RESTATED J&B REVOCABLE TRUST

R.C.T.J. ASSOCIATES

EPIC METALS CORPORATION

TENNENT MANAGEMENT LTD.

JOSH STEEL COMPANY INC.

HOLIDAY MEMORIAL AME ZION

MATCH LINE

1ST STREET
2ND STREET
3RD STREET
4TH STREET
5TH STREET
6TH STREET

B.1
B.2
B.3

TALBOT AVENUE

SCALE
0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.9

PLOTTED: 11/10/2021

OPERATOR: smedley
FILE NAME: T:\22007A_MXT to GAP Study\CADD\022083_RDp1_10.dgn

BRADDOCK

BRADDOCK AVENUE

TALBOT AVENUE

WASHINGTON AVENUE

LIBRARY STREET

VERONA STREET

8TH STREET

9TH STREET

11TH STREET

MATCH LINE

SHEET 1 OF 2

B.4

B.4

PARKER AVE

APARTMENTS

HISTORIC POSTAL SITE

MON VALLEY INITIATIVE

BRADDOCK CARNEGIE LIBRARY

LIBRARY STREET BASKETBALL COURTS

FLK'S LODGE

NEW HOPE COMMUNITY CENTRE

BRADDOCK AVENUE PLAYGROUND

ST PETER & PAUL BYZANTINE

GATEWAY REHABILITATION CENTER

MAPLEVIEW TERRACE

PATHWAY HUMAN SERVICES

GOOD SHEPARD CATHOLIC SCHOOL

GOOD SHEPARD CATHOLIC CHURCH

RIVERS EDGE V.F.D.

GROW PITTSBURGH BRADDOCK FARMS

RIVERS EDGE V.F.D. SOCIAL HALL

SANCTIFIED MINISTRIES

SAHARA TEMPLE IMPROV. ASSOC.

HOLIDAY MEMORIAL AMUSEMENT

FIRST CHURCH OF GOD

SHAH INVESTMENT INC.

SHARED USE LANE
UPHILL / DOWNHILL

SECTION B.4 – B.4

PROJECT LANDMARK

BRADDOCK BOAT LAUNCH

SCALE
0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.10

PLOTTED: 11/11/2021

OPERATOR: gmedley
FILE NAME: T:\2200\A. WiT to GAP Study\CADD\022083-RDpl_11.dgn

SHEET 2 OF 3

SHARED USE LANE
UPHILL / DOWNHILL

SECTION B.3 – B.3

SHARED USE LANE
UPHILL / DOWNHILL

SECTION C.1 – C.1

SHARED USE PATH
LEFT SHOULDER

SECTION C.2 – C.2

NORTH BRADDOCK

BRADDOCK

BELL AVENUE

REBECCA AVENUE

JONES AVENUE

LIBRARY STREET

VERONA STREET

8TH STREET

9TH STREET

11TH STREET

BRADDOCK AVENUE

TALBOT AVENUE

BRADDOCK AVENUE
END BRADDOCK

MATCH LINE

C.1

C.2

B.3

CHARLES SCHWAB MANSION

WOODLAND HILL ADMINISTRATION

NORTH BRADDOCK BOROUGH MUNICIPAL BUILDING

NORTH BRADDOCK LITTLE LEAGUE BASEBALL

LIBRARY STREET BASKETBALL COURTS

NYLA RAGE COMMUNITY CENTER

ST. PETER & PAUL BYZANTINE

REHABILITATION CENTER

CHURCH OF THE LIVING GOD

BRADDOCK AVENUE PLAYGROUND

TRAINING CENTER

HERITAGE INITIATIVES

MAPLEVIEW TERRACE

GOOD SHEPARD CATHOLIC SCHOOL

GOOD SHEPARD CATHOLIC CHURCH

CROWN CASTLE BRADDOCK BOOMS

RIVERS EDGE V.F.D. SOCIAL HALL

HOROWITZ FAMILY PARTNERSHIP

RIVERS EDGE V.F.D.

POST OFFICE

SCALE
0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.11

PLOTTED: 11/11/2021

OPERATOR: smedley
FILE NAME: T:\22007A_MHT to GAP Study\CADD\022083_RDpl_12.dgn

SHEET 1 OF 3

SHEET 3 OF 3

REBECCA AVENUE

BELL AVENUE

BELL AVENUE

BICYCLE LANE UPHILL / SHARED USE LANE DOWNHILL

SECTION C.3 – C.3

C.3

C.3

SHARED USE PATH LEFT SHOULDER

SECTION C.2 – C.2

NORTH BRADDOCK

MATCH LINE

BRADDOCK

BRADDOCK AVENUE

BRADDOCK AVENUE
END BRADDOCK

BRADDOCK AVENUE
BEGIN NORTH BRADDOCK

BRADDOCK AVENUE

MATCH LINE

C.2

C.2

PROJECT LANDMARK

EDGAR THOMSON WORKS

SCALE

0 100 200

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.12

PLOTTED: 11/11/2021

OPERATOR: gmadisyc
FILE NAME: T:\22007A_MXT to CAP Study\CADD\022083_RDpl_13.dgn

NORTH BRADDOCK

EAST PITTSBURGH

ST. MARY CATHOLIC CHURCH

KINGDOM HALL OF JEHOVAH'S WITNESSES

CENTER STREET

D.1

D.1

BESSEMER AVENUE PARK

BICYCLE LANE DOWNHILL / SHARED USE LANE UPHILL

SECTION D.1 – D.1

SHEET 2 OF 3

NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK)

NORFOLK SOUTHERN RAILWAY COMPANY

BRADDOCK AVENUE

BRADDOCK AVENUE END NORTH BRADDOCK

SR 2087 / 2083 BEGIN PENNDOT

MATCH LINE

SCALE

0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.13

PLOTTED: 11/11/2021

OPERATOR: smedley
FILE NAME: T:\22007A_WHT to GAP Study\CADD\022083_RDpl_14.dgn

EAST PITTSBURGH

ST. MARY CATHOLIC CHURCH

MANNA FROM ON HIGH MINISTRIES

WESTERN AVENUE

BEGIN PENNDOT SR 2051

SR 2051 PENNDOT

GRANDVIEW

MATCH LINE

SHEET 2 OF 2

CENTER STREET END E. PITTSBURGH

CENTER STREET

BESSEMER AVENUE

D.1

D.1

BOUNDARY STREET

BESSEMER AVENUE PARK

QUARRY FIELD

UNION RAILROAD COMPANY

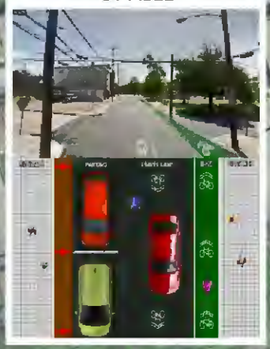
D.3

D.3

SHARED USE PATH

SECTION D.3 – D.3

BICYCLE LANE DOWNHILL / SHARED USE LANE UPHILL



SECTION D.1 – D.1

NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK)

NORFOLK SOUTHERN RAILWAY COMPANY

SR 2087 / 2083

SR 2087 / 2083 BEGIN PENNDOT

D.2

D.2

BOUNDARY STREET

UNION RAILROAD COMPANY

BEGIN BRADDOCK AVE LOCAL ROAD

WESTINGHOUSE INTERWORKS RAILWAY

UNION RAILROAD COMPANY

BEGIN SR 2183 PENNDOT

END SR 2183 PENNDOT

CYCLE TRACK OUTSIDE LANE

SECTION D.2 – D.2

NORTH VERSAILLES

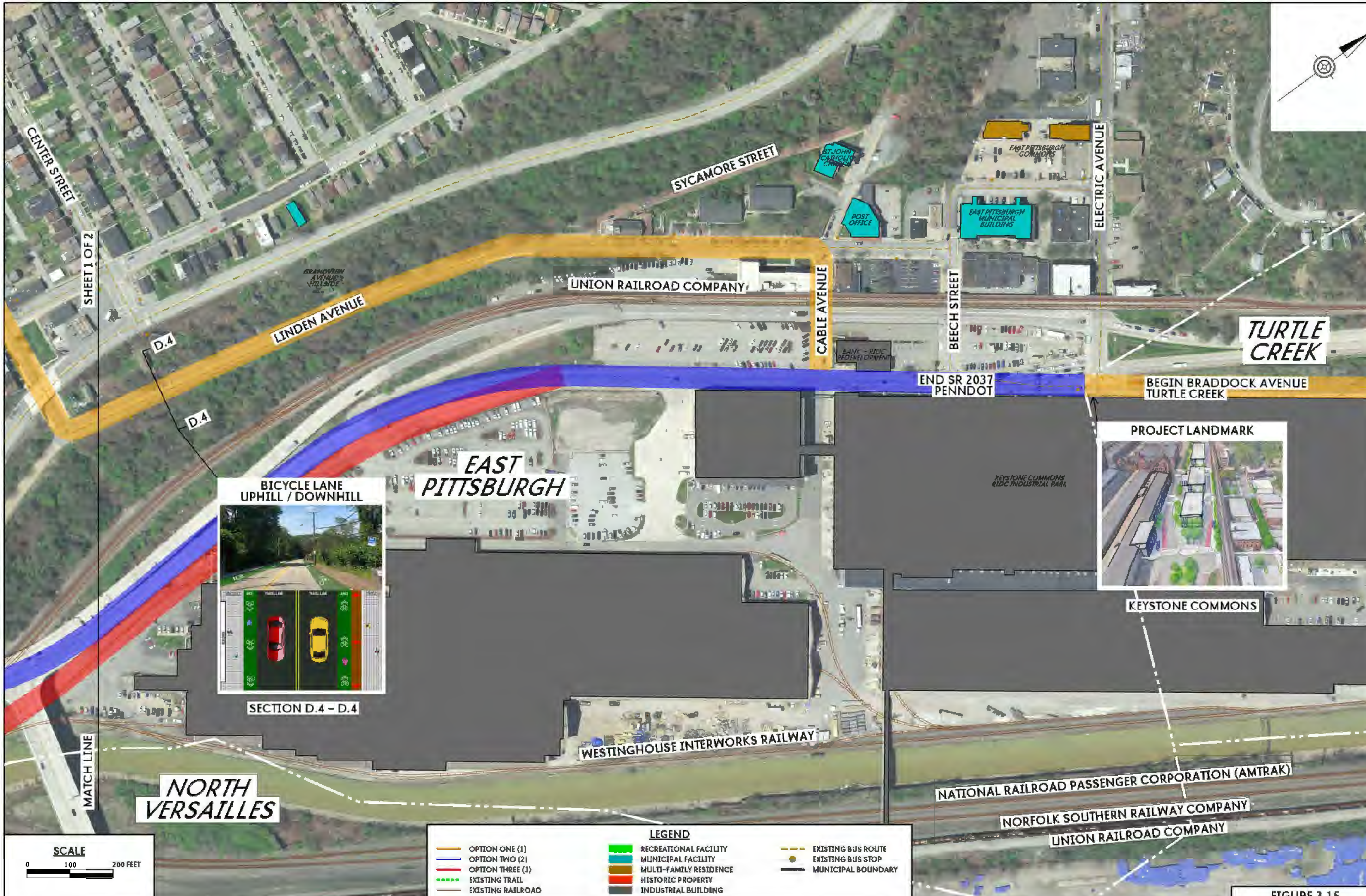
SCALE

0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.14



CENTER STREET
SYCAMORE STREET
ST JOHN CATHOLIC CHURCH
EAST PITTSBURGH COMMONS
POST OFFICE
EAST PITTSBURGH MUNICIPAL BUILDING
ELECTRIC AVENUE
SHEET 1 OF 2
GRANDVIEW AVENUE HILLSIDE
UNION RAILROAD COMPANY
CABLE AVENUE
BEECH STREET
TURTLE CREEK
LINDEN AVENUE
D.4
D.4
END SR 2037 PENNDOT
BEGIN BRADDOCK AVENUE TURTLE CREEK
PROJECT LANDMARK
EAST PITTSBURGH
KEYSTONE COMMONS RIDC INDUSTRIAL PARK
BICYCLE LANE UPHILL / DOWNHILL
SECTION D.4 - D.4
KEYSTONE COMMONS
WESTINGHOUSE INTERWORKS RAILWAY
MATCH LINE
NORTH VERSAILLES
NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK)
NORFOLK SOUTHERN RAILWAY COMPANY
UNION RAILROAD COMPANY
SCALE
0 100 200 FEET
LEGEND
OPTION ONE (1)
OPTION TWO (2)
OPTION THREE (3)
EXISTING TRAIL
EXISTING RAILROAD
RECREATIONAL FACILITY
MUNICIPAL FACILITY
MULTI-FAMILY RESIDENCE
HISTORIC PROPERTY
INDUSTRIAL BUILDING
EXISTING BUS ROUTE
EXISTING BUS STOP
MUNICIPAL BOUNDARY

FIGURE 3.15

PLOTTED: 11/11/2021

OPERATOR: gmedley
FILE NAME: T:\22007A_MKT to GAP Study\CADD\022083_RDpl_16.dgn

EAST PITTSBURGH

ELECTRIC AVENUE

PROJECT LANDMARK

KEYSTONE COMMONS

BEGIN BRADDOCK AVENUE
TURTLE CREEK

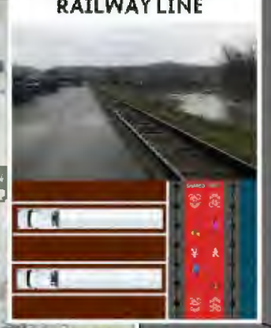
BICYCLE LANE
GRASS SHOULDER
NORTHBOUND /
SHARED USE LANE
SOUTHBOUND

SECTION E.1 – E.1

E.1

E.1

SHARED USE PATH
RAILWAY LINE



SECTION E.3– E.3

UNION RAILROAD COMPANY

BROWN AVENUE

TRI-BORO EXPRESSWAY

SHAW AVENUE

END BRADDOCK AVENUE
TURTLE CREEK

BEGIN PENN AVENUE
TURTLE CREEK

HUNTER STREET

TURTLE CREEK

SHARED USE PATH
RAILROAD SIDING

SECTION E.2– E.2

E.2

E.2

E.3

E.3

WESTINGHOUSE INTERWORKS RAILWAY

NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK)

NORFOLK SOUTHERN RAILWAY COMPANY

NORTH VERSAILLES

GRANT STREET

MATCH LINE

SHEET 2 OF 2

SCALE
0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.16

PLOTTED: 11/11/2021

SHEET 1 OF 2

TRI-BORO EXPRESSWAY

MONROEVILLE AVE

TURTLE CREEK MUNICIPAL BUILDING

IGLESIA MUNCH

POST OFFICE

OXFORD STREET

11TH STREET

E.4

SHARED USE LANE ALLEY

SECTION E.4– E.4

SYCAMORE STREET

9TH STREET

8TH STREET

TURTLE CREEK

7TH STREET

SHARED USE LANE DOWNHILL

SECTION F.1 – F.1

WILMERDING

5TH STREET

F.1

VIRGIN ALLEY

END VIRGIN ALLEY TURTLE CREEK

BEGIN MIDDLE AVE WILMERDERDING

END PENN AVE TURTLE CREEK

BEGIN AIRBRAKE AVE TURTLE CREEK

AIRBRAKE AVENUE

END AIRBRAKE AVE TURTLE CREEK

BEGIN AIRBRAKE AVE WILMERDERDING

1219 AIRBRAKE AVENUE LLC

F.2

WESTINGHOUSE INTERWORKS RAILWAY

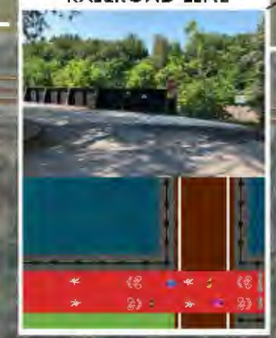
MATCH LINE

1ST STREET

GREENSBURG AVENUE

NORTH VERSAILLES

SHARED USE PATH RAILROAD LINE



SECTION F.2 – F.2

SCALE

0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.17

OPERATOR: smedleyg
FILE NAME: T:\22007A_MHT to GAP Study\CADD\022083_RDpl_17.dgn

PLOTTED: 11/11/2021

OPERATOR: smedleyc
FILE NAME: T:\22007A_MHT to GAP Study\CADD\022083_RDpl_18.dgn

TURTLE CREEK

SHARED USE LANE DOWNHILL

SECTION F.1 – F.1

5TH STREET

3RD STREET

2ND STREET

MAPLE AVENUE

TRI-BORO EXPRESSWAY

1ST STREET

BEGIN MIDDLE AVE WILMERDERDING

F.1

F.1

BEGIN AIRBRAKE AVE WILMERDERDING

WILMERDING

MIDDLE AVENUE

AIRBRAKE AVENUE

AIRBRAKE PARK

F.2

F.2

F.3

F.3

BICYCLE LANE SHOULDERS

SECTION F.3 – F.3

MONROEVILLE

SHEET 2 OF 2

F.4

AIRBRAKE AVENUE WALKING TRAIL

F.4

SHARED USE PATH RAILROAD LINE

SECTION F.2 – F.2

NORTH VERSAILLES

AMERICAN WIRE RESEARCH INC.

WABTEC CORPORATION

MATCH LINE

BICYCLE LANE NORTHBOUND / SHARED USE LANE SOUTHBOUND

SECTION F.4– F.4

SCALE

0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.18

PLOTTED: 1/12/2022

OPERATOR: smedley
FILE NAME: T:\22007A_WHT to GAP Study\CADD\022083_ROpt_19.dgn

BICYCLE LANE NORTHBOUND / SHARED USE LANE SOUTHBOUND

SHARED USE PATH RAILROAD LINE

SECTION G.1 – G.1

MONROEVILLE

MONROEVILLE

WILMERDING

JEFFERSON STREET

SHEET 1 OF 2

SECTION F.4– F.4

F.4

F.4

PATTON STREET

TRI-BORO EXPRESSWAY

END MIDDLE AVENUE WILMERDING

END STATE STREET WILMERDING

BEGIN STATE STREET MONROEVILLE

END AIRBRAKE AVENUE WILMERDING

BEGIN AVENUE U WILMERDING

WATKINS AVENUE

UKRAINIAN CLUB

G.1

G.1

BEGIN NORFOLK SOUTHERN RAILWAY

END AVENUE U WILMERDING

MATCHLINE

WABTEC CORPORATION

ALLEGHENY PETROLEUM PRODUCTS

NORTH VERSAILLES

WALL AVENUE

WALL

WILMERDING

POST OFFICE

CALDWELL APARTMENTS

STATION STREET

WILMERDING BOROUGH MUNICIPAL

WILMERDING APARTMENTS

ALLEGHENY INDEPENDANT LIVING

COMMERCE STREET

SCALE

0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.19

PLOTTED: 11/11/2021

OPERATOR: smedley
FILE NAME: T:\22007A_WHT to GAP Study\CADD\022083.RDp1_20.dgn

JEFFERSON STREET

SHARED USE PATH
RAILROAD LINE

SECTION G.1 – G.1

THOMAS DRIVE

CYCLE TRACK
PLATEAU

SECTION G.2 – G.2

MONROEVILLE

QUARRY ROAD

SHEET 2 OF 2

END TRI-BORO EXPRESSWAY
PENNDOT

G.1

STATE STREET

G.1

G.2

BEGIN BROADWAY BOULEVARD
PENNDOT

NORFOLK SOUTHERN RAILWAY

G.2

BRIDGE STREET

NORTH
VERSAILLES

MATCH LINE

NORTH
VERSAILLES

WALL

WALL AVENUE

SCALE
0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.20

PLOTTED: 1/12/2022

OPERATOR: smedleyc
FILE NAME: T:\22007A_WHT to GAP Study\CADD\022083_ROpl_21.dgn

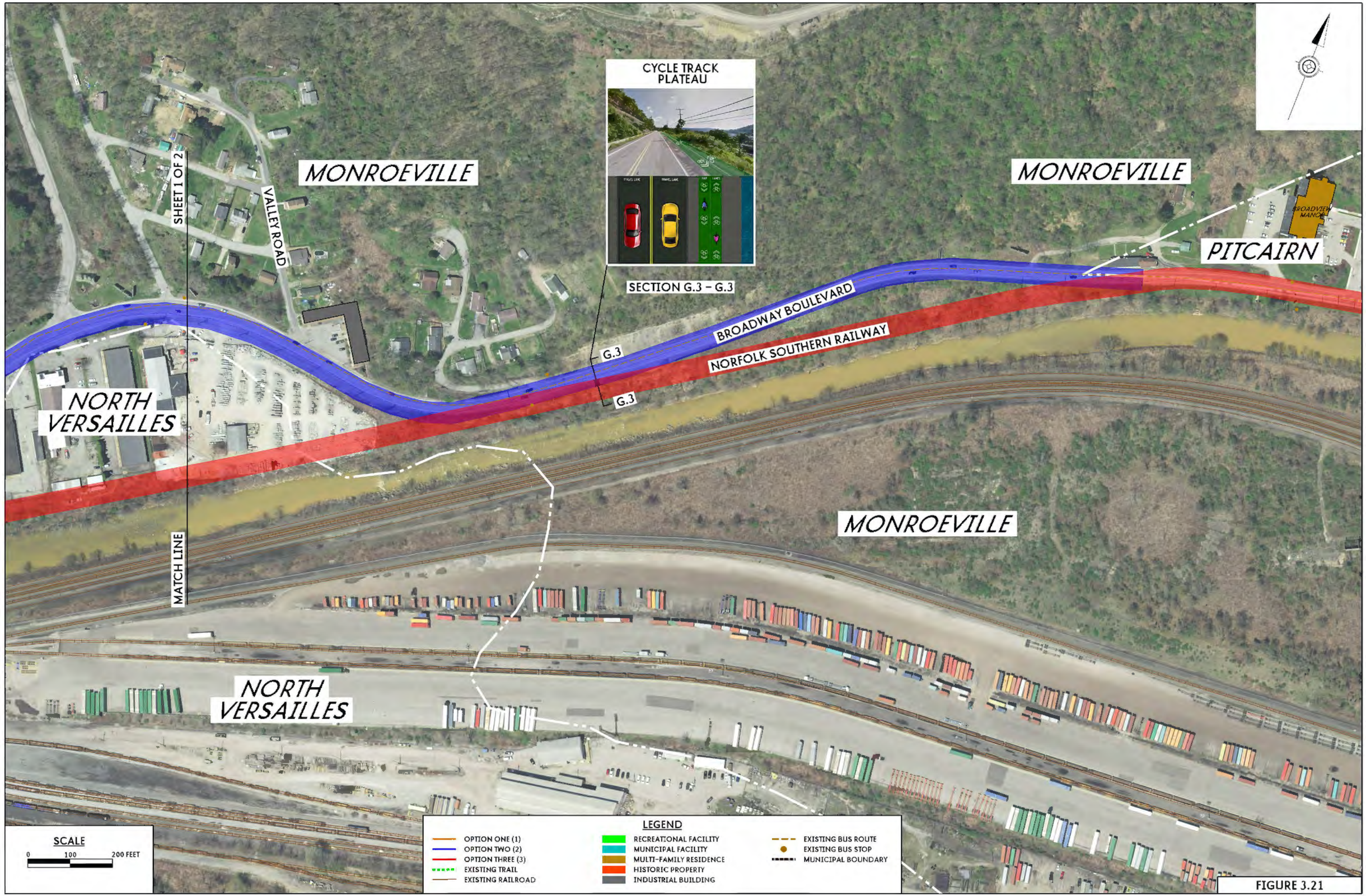


FIGURE 3.21

PLOTTED: 11/11/2021

OPERATOR: smedleyG
FILE NAME: T:\22007A_MHT to GAP Study\CADD\022083_RDp1_22.dgn

MONROEVILLE

PITCAIRN

2ND STREET

WALL AVENUE

CENTER AVENUE

HIGHLAND AVENUE

BROADWAY BOULEVARD

H.1

H.1

H.2

H.2

H.3

H.3

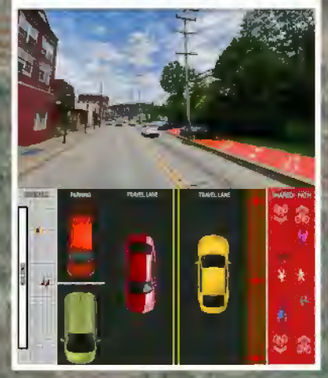
MONROEVILLE

MONROEVILLE

MATCH LINE

SHEET 2 OF 3

SHARED USE PATH
RAILROAD LINE



SECTION H.1 – H.1

SHARED USE LANE
DRIVEWAY

SECTION H.2 – H.2

CYCLE TRACK
SHOULDER

SECTION H.3 – H.3

BROADWAY MANOR

PITCAIRN APT

PITCAIRN SCHOOL

CENTER UNITED METHODIST CHURCH

McGINNIS PRESBYTERIAN CHURCH

PRESBYTERIAN CHURCH OF PITCAIRN

MARKOSER SPORTS COMPLEX

PITCAIRN BOROUGH MUNICIPAL

PITCAIRN MOSE CO. #1

PITCAIRN PARK

SCALE

0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.22

PLOTTED: 11/11/2021

OPERATOR: smedley
FILE NAME: T:\22007A_WHT to GAP Study\CADD\022083_RDpl_23.dgn

CYCLE TRACK SHOULDER

SECTION H.3 – H.3

SHARED USE PATH WIDENING

SECTION H.4 – H.4

PITCAIRN

MONROEVILLE

BROADWAY BOULEVARD

MOSSIDE BOULEVARD

McDAIN

STORAGE SENSE

MONROEVILLE

H.3

H.3

H.4

H.4

SHEET 1 OF 3

SHEET 3 OF 3

MATCH LINE

MATCH LINE

NORFOLK SOUTHERN RAILWAY

NORTH VERSAILLES

SCALE

0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.23

PLOTTED: 11/11/2021

OPERATOR: smedley
FILE NAME: T:\22007A_WHT to GAP Study\CADD\022083.RDp1.24.dgn

BROADWAY AVENUE

HAYMAKER ROAD

FORBES ROAD

MONROEVILLE

TRAFFORD

MONROEVILLE

BROADWAY BOULEVARD

BICYCLE LANE WIDENING

SECTION I.1 – I.1

I.1

I.1

SHEET 2 OF 3

NORFOLK SOUTHERN RAILWAY

END NORFOLK SOUTHERN RAILWAY

BEGIN PRIVATE SIDING

MATCH LINE

NORFOLK SOUTHERN RAILWAY

NORTH VERSAILLES

SCALE

0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.24

BICYCLE LANE WIDENING

TRAFFORD

MONROEVILLE

NORTH VERSAILLES

TRAFFORD

TRAFFORD

MATCH LINE

SHEET 2 OF 2

BEGIN 72" STORM SEWER

5" STREET

STEWART STATION PRIVATE DRIVE

ADRIAN AVE TRAFFORD

BRINTON AVE

3RD STREET TRAFFORD

1ST STREET

WESTMORELAND ROAD

TURTLE CREEK INDUSTRIAL RAILROAD

STEWART STREET

BRUSH CREEK

ALL AMERICA BASEBALL PARK

ALL AMERICA BASEBALL PARK

THEATRE FACTORY

LEGION POST #131

TRAFFORD PUBLIC WORKS

I.1

I.1

SECTION I.1 – I.1

I.2

I.2

SHARED USE PATH UNDER BRIDGE

SECTION I.2 – I.2

BEGIN PRIVATE SIDING

END NORFOLK SOUTHERN RAILWAY

SCALE

0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.25

PLOTTED: 11/11/2021

OPERATOR: gmedley
FILE NAME: T:\2200TA...MXT to GAP Study\CADD\022083_RDp1_26.dgn

BICYCLE LANE WIDENING

SECTION I.1 – I.1

SHARED USE PATH UNDER BRIDGE

SECTION I.2 – I.2

I.1

I.1

I.2

I.2

TURTLE CREEK

SHEET 1 OF 2

5TH STREET

BEGIN 72" STORM SEWER

END 5TH STREET PENNDOT

STEWART STATION PRIVATE DRIVE

ALL AMERICAN BASEBALL PARK

STEWART STATION PRIVATE DRIVE

BRINTON AVENUE PENNDOT

ADRIAN AVE TRAFFORD

NORFOLK SOUTHERN RAILWAY

WESTMORELAND ROAD

MATCH LINE

12TH STREET TRAFFORD

ADRIAN AVENUE

THEATER

TRAFFORD BOROUGH MUNICIPAL

POST OFFICE

TRAFFORD

4TH STREET

DUQUESNE AVENUE

TRAFFORD MANOR

PLAY GROUND

CAVITT AVENUE

7TH STREET

6TH STREET

NORFOLK SOUTHERN RAILWAY

FORBES ROAD

TURTLE CREEK

WESTMORELAND HERITAGE TRAIL

FOREST AVENUE

8TH STREET

7TH STREET

6TH STREET

FAIRMONT AVENUE

5TH STREET

GILMORE AVENUE

ST. ROSE ROMAN CATHOLIC CHURCH

SCALE

0 100 200 FEET

LEGEND

- OPTION ONE (1)
- OPTION TWO (2)
- OPTION THREE (3)
- EXISTING TRAIL
- EXISTING RAILROAD
- RECREATIONAL FACILITY
- MUNICIPAL FACILITY
- MULTI-FAMILY RESIDENCE
- HISTORIC PROPERTY
- INDUSTRIAL BUILDING
- EXISTING BUS ROUTE
- EXISTING BUS STOP
- MUNICIPAL BOUNDARY

FIGURE 3.26

Description of Potential Alignments by Municipality

Rankin Borough (Refer to Figures 3.7 and 3.8)

The western end of the study corridor begins in Rankin on the Carrie Furnace redevelopment site. West of the site, the multimodal corridor will connect to a future extension of the Duck Hollow Trail from Pittsburgh. The Carrie Furnace site offers two options for continuing east along the corridor. In addition, the Carrie Furnace site provides the connection to the Great Allegheny Passage via a planned rehabilitation of the site's Hot Metal Bridge. The exact alignment of a multimodal corridor through the Carrie Furnace site and access to the Hot Metal Bridge will be finalized in consultation with its developer.

Blue Alignment – .68 mile (3,585 feet)

The blue alignment is a curb-separated shared use path that is already constructed along Carrie Furnace Boulevard. The shared use path continues east on the flyover ramp to the intersection with Kenmawr Avenue. For a short distance the alignment uses shared travel lanes before entering the Braddock commercial district.

Opportunities:

- Utilizes existing infrastructure already constructed for multimodal use
- Attractive to a wide variety of users
- Points of Interest – Hot Metal Bridge, Carrie Blast Furnaces Historic National Landmark, future connection to Duck Hollow Trail
- Important feature of the Carrie Furnace site's redevelopment

RANKIN	
Alignment	**Total Cost**
Yellow	-
Blue	$1,323,000
Red	$2,186,000

Challenges:

- Steep grade (5%) along Carrie Furnace Boulevard Bridge and Kenmawr Avenue Ramp Bridge
- Increased bicyclist level of stress due to vehicle interactions at intersection with Kenmawr Avenue

Red Alignment – .73 mile (3,861 feet)

The red alignment through the Carrie Furnace site is a new shared use path that begins at the Hot Metal Bridge and continues east through the site along the river. The proposed shared use path requires crossing two rail lines at noted public crossings. After passing under the Rankin Bridge and Talbot Avenue Bridge, the alignment uses existing streets to access Braddock Borough. The relaxed nature of the trail promotes recreational use and emphasizes historical landmarks to regional audiences.

Opportunities:

- Attractive to a wide variety of users
- Points of Interest - Hot Metal Bridge, Carrie Blast Furnaces Historic National Landmark, riverfront access/views
- Important feature of the Carrie Furnace site's redevelopment

Challenges:

- Requires use of shared lanes on local streets to access Talbot Avenue in Braddock Borough

Braddock Borough (Refer to Figures 3.9 to 3.11)

Yellow Alignment – Library .1 mile (518 feet)

The yellow alignment utilizes existing road infrastructure for a shared use lane along the transition from Library Street in Braddock to Jones Avenue in North Braddock before heading southeast on Bell Avenue. This section of the trail alignment is small and mostly uphill from Braddock into North Braddock (see North Braddock profile for a complete description of this portion of the alignment).

Blue Alignment – 1.07 miles (5,636 feet)

Utilizing a cycle track in an existing parking lane along Braddock Avenue, the proposed alignment supports local businesses and redevelopment efforts by providing direct access to the Braddock commercial district. The buffered and protected nature of cycle tracks reduces the bicycle level of stress and may be more attractive to a wider *range of users than shared use lanes.*

Opportunities:

- Utilizes existing infrastructure
- Potentially attractive to a wide range of users
- Points of Interest – Braddock Civic Plaza, AHN Urgent Care Center, the Ohringer Building, Heritage Community Initiatives, Grow Pittsburgh Braddock Farms
- Potential catalyst for redevelopment efforts (e.g., AlleghenyTogether)
- Provides access to transit stops

Challenges:

- Requires removal of one parking lane
- Existing high volumes of vehicular, bus, and truck traffic
- May require re-paving Braddock Avenue before installing the cycle track

BRADDOCK	
Alignment	**Total Cost**
Yellow	$186,000
Blue	$2,750,000
Red	$3,192,000

Red Alignment – 1.26 miles (6,661 feet)

After exiting the Carrie Furnace site, red alignment uses shared use lanes on West Braddock Avenue and Fleet Street and Talbot Avenue. Beginning at Talbot Avenue and Third Street, the red alignment is a shared use path utilizing existing right-of-way along the lower traffic volume, mixed residential and industrial corridor. The termination of the path at 11th Street provides a connection to the Braddock boat launch.

Opportunities:

- Low volume of existing traffic
- Attractive to a wide range of users
- Points of Interest – Monongahela River access, Edgar Thomson Works, Fifth Season vertical farm
- Potential for activation of vacant lots

Challenges:

- More remote from businesses along Braddock Avenue
- Used by heavy trucks serving local industries
- Requires potential coordination/relocation of utilities
- Requires use of shared lanes on local streets to access Talbot Avenue in Braddock Borough

North Braddock Borough (Refer to Figures 3.11 to 3.13)

Yellow Alignment – 1.19 miles (6,278 feet)

The yellow alignment utilizes existing on-road infrastructure on a low volume, neighborhood street and supports residential connectivity between North Braddock and East Pittsburgh. The shared use lanes proceed north on Library Street in Braddock and continue Jones Avenue in North Braddock. It turns east on Bell Avenue. Preliminary assessment shows that there may be enough room for a bike lane in one direction on Bell Avenue east of 14th Street. The shared use lanes may be less attractive to a wide range of user types, but has the ability to enhance connectivity between boroughs and connect points of interest.

Opportunities:

- Utilizes existing on-road infrastructure
- Provides a navigable route for commuters
- Points of Interest – General Braddock's Defeat, Carnegie Library of Braddock, the Schwab-Dixon Mansion, North Braddock Park
- Provides access to transit stops

Challenges:

- Steep grade (8%) along Jones Avenue connecting Braddock and North Braddock
- Shared use lanes might be less attractive to non-cyclists and inexperienced riders

NORTH BRADDOCK	
Alignment	**Total Cost**
Yellow	$1,136,000
Blue	$1,989,000
Red	-

Blue Alignment – .78 mile (4,098 feet)

Exiting Braddock, the blue alignment is a shared use path within the existing right-of-way along Braddock Avenue. The preliminary assessment shows that installation of a shared use path will require coordination with US Steel to reconfigure on-street parking in front of Edgar Thomson Works. The buffered and protected nature of this shared use path would improve user comfort and reduce the bicycle level of stress making this option more attractive to a wider range of users around the US Steel Edgar Thomson Works.

Opportunities:

- Utilizes existing right-of-way
- Potentially attractive to a wider range of users
- Points of Interest – US Steel Edgar Thomson Works, Steel Valley heritage tourism
- Enhanced connectivity between Braddock and East Pittsburgh

Challenges:

- Requires a reconfiguration of on-street parking in front of Edgar Thomson Works
- Requires potential coordination/relocation of utilities

East Pittsburgh Borough (Refer to Figures 3.13 to 3.15)

Yellow Alignment – .81 mile (4,273 feet)

The yellow alignment utilizes existing right-of-way on low-volume streets to create a bicycle route connecting North Braddock to East Pittsburgh via Center Street, Bessemer Avenue, Linden Avenue, and Cable Avenue. Preliminary assessment indicates that bike lanes on one side of Bessemer Avenue and two sides of Linden may be feasible. Traveling this route requires significant grade change which increases bicycle level of stress. This alignment connects to the mixed-use district of East Pittsburgh and to the regional employment center at the Keystone Commons.

Opportunities:

- Utilizes existing infrastructure
- Low volume of traffic
- Points of Interest – Keystone Commons (former Westinghouse Electric & Manufacturing Co.)
- Potential catalyst for mixed-use development / Supports redevelopment of the Bank Building and vicinity

Challenges:

- Steep grade (7%) along Linden Avenue
- Shared use lanes might be less attractive to non-cyclists and inexperienced riders

Blue Alignment – 1.09 mile (5,760 feet)

Through East Pittsburgh the blue alignment is a curb-separated cycle track in an existing eastbound travel lane of SR 2087/SR 2083, requiring close coordination with PennDOT. The buffered and protected nature of the cycle track will improve user comfort in a high-volume traffic corridor while also reducing the bicycle level of stress, making this alternative attractive to a wider range of users.

Opportunities:

- Potentially attractive to a wider range of users
- Points of Interest – George Westinghouse Bridge, Keystone Commons (former Westinghouse Electric & Manufacturing Co.)
- Potential catalyst for mixed-use development / Supports redevelopment of the Bank Building and vicinity

Challenges:

- Roadway reconfiguration required - SR 2083 lane reduction.
- Requires potential coordination/relocation of utilities

EAST PITTSBURGH	
Alignment	**Total Cost**
Yellow	$1,239,000
Blue	$3,818,000
Red	$1,709,000

Red Alignment – .67 mile (3,539 feet)

The red alignment is a shared use path that utilizes SR 2183 and historic Braddock Avenue that follows Turtle Creek (a combination of state and locally owned right-of-way). It is a visually attractive corridor due to the proximity to Turtle Creek, dominating views of the Westinghouse Bridge, and historical significance of the Turtle Creek flood gate. It will require coordination with RIDC's railroad to facilitate the rail-with-trail path.

Opportunities:

- Attractive to a wide range of users
- Separated from vehicular traffic
- Points of Interest – Turtle Creek Flood Gate, Westinghouse Bridge, Keystone Commons (former Westinghouse Electric & Manufacturing Co.)
- Potential catalyst for activation of undeveloped commercial parcels

Challenges:

- Heavy truck traffic in Keystone Commons would require a separated shared use path
- Requires access coordination with RIDC Railroad, PennDOT, and the Pennsylvania Turnpike Commission

Turtle Creek Borough (Refer to Figures 3.15 to 3.17)

Yellow Alignment – 1.08 miles (5,707 feet)

In Turtle Creek, the yellow alignment re-starts at Electric Avenue and features a mix of shared use lanes and bike lanes within the existing right-of-way on Braddock Avenue and Penn Avenue. The yellow alignment continues along Airbrake Avenue to Wilmerding. The alignment along Braddock / Penn / Airbrake Avenues travels through mixed-use areas of with a high level of access to local destinations and residential areas.

Opportunities:

- Utilizes existing right-of-way and infrastructure
- Enhancement of community access to Turtle Creek destinations
- Points of Interest – Turtle Creek STEAM Academy, Turtle Creek Senior Center
- Potential catalyst for new development

Challenges:

- Numerous intersections (Fourteen (14) along Braddock / Penn /Airbrake Avenues) require additional consideration for safe accommodations
- Shared use lanes might be less attractive to non-cyclists and inexperienced riders

Blue Alignment – .43 mile (2,295 feet)

In Turtle Creek, the blue alignment picks up again at Keystone Commons North Yard Portal No. 9 entrance on Braddock Avenue. From there the alignment is a cycle track that travels through Keystone Commons and adjacent businesses. It crosses Thompson Run and ends after passing under Greensburg Avenue, connecting to the red alignment. The blue alignment re-starts on Virgin Alley where it utilizes shared use lanes to travel through Turtle Creek.

Opportunities:

- Cycle track sections of the alignment will be attractive to a wide range of users
- Portions of the alignment utilize existing infrastructure
- Points of Interest – Keystone Commons (former Westinghouse Electric & Manufacturing Co.), Turtle Creek tributaries

TURTLE CREEK	
Alignment	**Total Cost**
Yellow	$2,680,000
Blue	$1,807,000
Red	$3,023,000

Challenges:

- Existing parking restrictions and stop signs on Virgin Alley
- Potential access coordination with RIDC Railroad and the Pennsylvania Turnpike Commission
- Shared use lanes sections might not be attractive to a wide range of users

Red Alignment – .7 mile (3,670 feet)

The red alignment is a shared use path that begins in Keystone Commons and follows Turtle Creek along the former Westinghouse Interworks Railway line into Wilmerding Borough. The separated and at-grade nature of the path along Turtle Creek will be attractive to a wide range of users.

Opportunities:

- Attractive to a wide range of users

- Points of Interest – Keystone Commons (former Westinghouse Electric & Manufacturing Co.), Turtle Creek
- Potential catalyst for developing adjacent properties
- Provides access to transit stops

Challenges:

- Requires access coordination with RIDC Railroad, Pennsylvania Turnpike Commission, and ALCOSAN

Wilmerding Borough (Refer to Figures 3.17 to 3.19)

Yellow Alignment – .93 mile (4,928 feet)

In Wilmerding, the yellow alignment continues along Airbrake Avenue as a mix of shared use lanes and bicycle lanes within the existing right-of-way in an established, mixed-residential corridor. This alignment includes a southbound shared use lane and a northbound, contraflow bike lane on Airbrake Avenue and Avenue U. It connects to the red alignment on its eastern end.

Opportunities:

- Utilizes existing infrastructure
- Provides a dedicated lane for northbound bicycle travel
- Provides access to transit stops
- Points of Interest – former Westinghouse Air Brake Factory, Airbrake Park Walking Trail, Turtle Creek

Challenges:

- Potential design complications regarding parked vehicles and guide rails
- Southbound shared use lane might be less attractive to non-cyclists and inexperienced riders

Blue Alignment – 1.05 miles (5,525 feet)

Heading into Wilmerding, the blue alignment continues along Middle Avenue. Between Fifth Street and First Street it features a single-direction, southbound shared use lane. The alignment provides dedicated bike lanes from First Street to State Street. This route utilizes the existing right-of-way as Middle Avenue is substantially wide due to its prior use as a trolley corridor.

Opportunities:

- Utilizes existing infrastructure
- Provides access to transit stops
- Points of Interest - Wilmerding Ukrainian Club

WILMERDING	
Alignment	**Total Cost**
Yellow	$1,414,000
Blue	$3,448,000
Red	$1,278,000

Challenges:

- One-way travel from Fifth Street to First Street
- Steep grade (5%) along Middle Avenue
- Shared use lanes might be less attractive to non-cyclists and inexperienced riders

Red Alignment – .61 mile (3,206 feet)

In Wilmerding, the red alignment continues as a shared use path along Turtle Creek. It transitions from the former Westinghouse Interworks right-of-way to the Airbrake Park Walking Trail. The red alignment ends at the southeastern corner of Airbrake Park. It restarts near the intersection of Avenue U and Watkins Avenue where a shared use path begins on inactive Norfolk Southern right-of-way.

Opportunities:

- Attractive to a wide range of users
- Points of Interest – former Westinghouse Air Brake Factory, Turtle Creek

Challenges:

- Requires coordination with RIDC Railroad and Norfolk Southern

- Shared use path would need to transition to on-road facilities for part of Airbrake Avenue and U Avenue

Municipality of Monroeville (Refer to Figures 3.19 to 3.21)

Blue Alignment – 2.01 miles (10,610 feet)

Heading into Monroeville, the blue alignment is a cycle track in the right-of-way adjacent to the eastbound travel lane along Broadway Boulevard between State Street and Second Street. The grade of the cycle track increases bicycle level of stress on the route, but the buffered and protected nature of the path allows for connectivity with minimal excavation and infrastructure reconfiguration.

Opportunities:

- Provides access to transit stops
- Creates regional connectivity between Wilmerding and Pitcairn

MONROEVILLE	
Alignment	**Total Cost**
Yellow	$1,914,000
Blue	$7,270,000
Red	$11,240,000

Challenges:

- Steep grade (5%) along State Street and Broadway Avenue
- Requires potential coordination/relocation of utilities
- Requires coordination/design consideration regarding adjacent property driveways
- Topography constraints may be less attractive to a wide variety of users

Red Alignment – 2.36 miles (12,436 feet)

The red alignment restarts right before entering Monroeville. At this location the alignment is a shared use path that utilizes inactive Norfolk Southern Railroad right-of-way. While the right-of-way lacks any remnants of track, its use would require significant improvements including structural modifications, land excavation, and installation of retaining walls. The buffered and protected nature of the shared use path and its location next to Turtle Creek will be attractive to a wide range of users.

Opportunities:

- Attractive to a wide variety of users
- Points of Interest – former Westinghouse Air Brake Factory, Turtle Creek

Challenges:

- Coordination with Norfolk Southern Railway
- Major structural modifications are necessary to convert the right-of-way to multimodal use

Note: The costs shown here for Monroeville are for the entire alignment within Monroeville, including the portion described below with the Pitcairn overview.

Pitcairn / Monroeville Overview (Refer to Figures 3.22 to 3.25)

Yellow Alignment – .23 mile (1,198 feet)

In Pitcairn, the yellow alignment utilizes existing infrastructure to incorporate shared use lanes along Broadway Boulevard over Dirty Camp Run and into Pitcairn Park.

Opportunities:

- Potential economic impact for the Pitcairn Business District / Supports Allegheny Together business revitalization efforts
- Connectivity of the Pitcairn Business District to neighboring communities via non-vehicular modes

Challenges:

- Shared use lanes may be less attractive to non-cyclists and inexperienced riders
- High volume of existing heavy truck traffic
- Constrained right of way width limits dedicated facilities

Blue Alignment – .39 mile (2,042 feet)

The blue alignment is a dedicated cycle track that utilizes the shoulder and adjacent right-of-way along Broadway Boulevard when traveling out of Pitcairn into Monroeville. The grade change of the cycle track may limit access to certain users, but the dedicated cycle track allows for a direct connection with minimal excavation. Reconfiguration of the Mosside Boulevard (SR 48) Intersection will be required to facilitate non-vehicular movement through the intersection.

Opportunities:

- Provides access to transit stops
- Potential economic impact for the Pitcairn Business District / Supports the Allegheny Together business revitalization efforts

Challenges:

- Steep Grade (7%) along Broadway Boulevard
- Reconfiguration of Mosside Boulevard (SR 48) intersection to accommodate non-vehicular movement
- Less attractive to non-cyclists and inexperienced riders.
- Existing high volume of heavy truck traffic
- Requires coordination with PennDOT

PITCAIRN	
Alignment	**Total Cost**
Yellow	$657,000
Blue	$934,000
Red	$771,000

Red Alignment – .16 mile (840 feet)

The red alignment is a shared use path that utilizes inactive Norfolk Southern Railroad right of way along Turtle Creek in Pitcairn and Monroeville. A portion of the railroad right-of-way near the Monroeville-Trafford border is privately owned. This alignment would require the construction of a new structure to cross Dirty Camp Run at the Pitcairn Hose Company No. 1 site. The buffered and protected nature of the shared use path and its location next to Turtle Creek will be attractive to a wide range of users.

Opportunities:

- Attractive to a wide variety of users
- Points of Interest – Norfolk Southern Pitcairn Intermodal Terminal and Pitcairn Borough Park

Challenges:

- Coordination with Norfolk Southern Railway
- Trail is disconnected from the Pitcairn Business District which may yield less economic impact

Note: The costs shown on the previous page are just for the portion of the alignment in Pitcairn. The total cost for the alignments within Monroeville is shown on page III – 13.

Trafford Borough (Refer to Figures 3.25 to 3.26)

Blue Alignment – .26 mile (1,366 feet)

Moving from Monroeville into Trafford, the blue alignment utilizes the roadway shoulder of Fifth Street for the addition of on-street bike lanes. The addition of bike lanes within the existing right-of-way allows for connectivity into Trafford with minimal excavation. After crossing over the Fifth Street Bridge, the blue route uses Brinton Avenue, Third Street, and Adrian Avenue to access a future extension of the Westmoreland Heritage Trail from B-Y Park, shown as the red alignment.

Opportunities:

- Utilizes existing infrastructure
- Provides access to transit
- Dedicated connection between Trafford and Pitcairn

Challenges:

- May be less attractive to a wider variety of users
- Steep grade (7%) along Fifth Street (correct map)

TRAFFORD	
Alignment	**Total Cost**
Yellow	-
Blue	$4,425,000
Red	$2,116,000

Red Alignment – .6 mile (3,191 feet)

The red alignment is a shared use path connecting into Trafford that utilizes the existing crossing over Turtle Creek continuing under the Fifth Street / Veterans Bridge. Rehabilitation of the existing crossing over Turtle Creek will be required to support the shared use path at the Veterans Bridge undercrossing. The red alignment terminates at the existing WHT.

Opportunities:

- Attractive to a wide variety of users
- Reduces bicycle level of stress
- Seamless connection to the Westmoreland Heritage Trail

Challenges:

- Coordination with Norfolk Southern Railway and private landowners
- Rehabilitation of the Turtle Creek Crossing

Summary

The following tables summarize many of the key costs, benefits, and challenges associated with each of the trail alignments broken down by municipality. These tables consolidate the information provided throughout the document into a visual aid that provides useful metrics for future phases of the project development, fundraising, and implementation.

The Trail Alignment Option Summary (Table 3.1) provides a high-level summary of important factors that the study considered for evaluating the feasibility of each alignment. The table highlights the level of connectivity that each alignment provides to the municipalities where they are located. The yellow alignment provides a good amount of connectivity in the study communities, the blue alignment provides an excellent level of connectivity, and the red alignment has a fair amount of connectivity. The yellow and blue alignments mostly utilize existing road infrastructure or follow established corridors; however, the red alignment is more pastoral in nature and removed from, or adjacent to, the existing road network in most parts of the study corridor. Knowing this, the red alignment provides the lowest level of connectivity while providing the highest level of accessibility due to the nature of the shared use path design. This table also outlines cost estimates, trail length, and other constraints such as water crossings and railroad crossings.

The Trail Segment Cost Summary (Table 3.2) provides a detailed cost estimate for each of the municipalities and the respective alignment options – Option One, Option Two, and Option Three. The cost estimates assume a 20-year design life and do not include expenses associated with maintenance, utility relocation, right-of-way acquisition, erosion and sedimentation control, traffic control, traffic signals, lighting, signage and pavement marking, and parking lots. The cost estimates include 35% for contingency funds, 6% for mobilization, and 20% for design and engineering.

The Assessment of Complexity of Next Steps (Table 3.3) provides a high-level summary of potential complications and associated challenges that may arise or would need to be addressed prior to pursuing further work on each section. Some sections, such as Rankin, depict a low level of concern as many of the elements required to move forward have clear resolutions and lower concerns. However, sections such as Turtle Creek and Pitcairn have more tasks to navigate such as stream crossing and engineering studies for existing bridges and roadways.

Finally, Table 3.4 summarizes typical project implementation steps and the approximate length of time required to complete them. The actual amount of time required to complete any of the steps will depend on the complexity of the segment (e.g., requires determining property ownership, coordination with a railroad, and/or relocation of utilities, etc.), the availability of funding for design and construction, and project sponsor capacity to manage implementation among others.

Table 3.1: Trail Alignment Option Summary

Factors	Option One (1) Yellow	Option Two (2) Blue	Option Three (3) Red
Accessibility to Varied Users	Poor (contains mostly shared-lane segments; cyclists of medium to high ability will be able to travel)	Good (contains mostly cycle track segments; cyclists of low to high ability will be able to travel)	Excellent (contains majority off-road segments)
Level of Connectivity to Residential, Commercial, and Recreational Areas	Good	Excellent	Fair
Water Crossings	2	3	4
Road Crossings	37	59	24
Railroad Crossings (At-Grade)	-	1	4
Level of PennDOT Coordination Required	Medium	High	Low
Number of Trailheads	2	3	5
Length of Option (mi)	4.39	8.51	7.28
On-Road Length (mi)	4.39	7.68	4.63*
Off-Road Length (mi)	-	0.83	2.65
Engineer's Conceptual Cost Estimate	$9,300,000	$27,800,000	$25,600,000

*This estimate includes road-adjacent segments (e.g., those within the right-of-way but not on the road).

Table 3.2: Trail Segment Cost Summary

Segment Characteristics	Rankin	Braddock	North Braddock	East Pittsburgh	Turtle Creek	Wilmerding	Monroeville	Pitcairn	Trafford
Option One (1) Cost	-	$186,000	$1,136,000	$1,239,000	$2,680,000	$1,414,000	$1,914,000	$675,000	-
Option Two (2) Cost	$1,323,000	$2,750,000	$1,989,000	$3,818,000	$1,807,000	$3,448,000	$7,270,000	$934,000	$4,425,000
Option Three (3) Cost	$2,186,000	$3,192,000	-	$1,709,000	$3,023,000	$1,278,000	$11,240,000	$771,000	$2,116,000

Note: The preliminary alignment cost estimates assume a 20-year design life and do not include expenses associated with maintenance, utility relocation, right-of-way acquisition, erosion and sedimentation control, traffic control, traffic signals, lighting, signage and pavement marking, and parking lots. The cost estimates include 35% for contingency funds, 6% for mobilization, and 20% for design and engineering.

Table 3.3: Assessment of Complexity of Next Steps

Segment Characteristics	Rankin	Braddock	North Braddock	East Pittsburgh	Turtle Creek	Wilmerding	Monroeville	Pitcairn	Trafford
Property Ownership	1	1	3	2	2	2	2	3	4
Legal clearances and property maintenance	1	1	2	3	3	1	2	2	2
Safety *Traffic volumes & road speed*	1	2	2	3	2	1	2	3	4
Environmental clearance	1	1	3	3	3	2	4	3	4
Constructability	1	2	3	5	2	2	4	4	3
Bridges	Future Hot Metal Bridge connection	N/A	Dooker Hollow Bridge to open 2022	Engineering Study for Flyover Bridge Lane Reduction & Railroad Tunnel	Engineering Study for RIDC Bridge over Thompson Run	N/A	Engineering Study for Railroad Bridge over Turtle Creek	Engineering Study for Proposed Bridge over Dirty Camp Run	Engineering Study for Rehabilitation of Existing Bridge
Stream Crossings	N/A	N/A	N/A	N/A	One	N/A	Six Unnamed Tributaries	One	One

Key:

1 – Less of a concern, clear resolution anticipated
2 – Minor concerns and complications anticipated
3 – Moderate concern and moderate complications anticipated
4 – Unclear, more complicated
5 – Very unclear, very complicated, more known challenges, more effort anticipated

Table 3.4: Project Development Timeline

Project Phase	Approximate Time to Complete
Project Initiation	**12 to 36 months**
Title Search	12 - 24 months
Fundraising/Grant application	12 - 36 months
Preliminary Engineering	**12 to 24 months**
Environmental clearance	12 months
Right-of-way plan	6 months
Utility plan	6 to 9 months
Preliminary project design	12 months
Final Design	**12 to 24 months**
Right-of-way acquisition / approvals	12 to 18 months
Utility clearance	12 months
Permit approvals	12 months
Final project design	12 months
Construction	**12 to 24 months**

IV. SUMMARY OF PUBLIC ENGAGEMENT

Throughout the course of the feasibility study, the project team used a variety of tools to inform the public and stakeholders about the project and to obtain their input. The tools included a website, press releases, a virtual public meeting, fliers and brochures, signs along trails, public open houses, and direct engagement with municipal officials and stakeholders. The following is a summary of the public engagement process and feedback.

Project Website and Public Meetings

In March 2021, the project team published a webpage on the Allegheny County Department of Public Works website. This platform was used to begin getting the word out about the planning process to study the feasibility of a trail system in the Turtle Creek Valley. The purpose was to inform the community of the goal to study possible connections between the Westmoreland Heritage Trail in Trafford Borough and the Great Allegheny Passage trail system across the Monongahela River from Rankin Borough. The project's Purpose and Need report was published on the website for public review and provided a way for interested parties to stay informed about the project by providing basic contact information. Twenty individuals provided contact information to obtain project updates.

In June 2021, the County issued a press release to announce the date of a public meeting which was held virtually on June 23, 2021 at 6:00 p.m. The website became a way for participants to get more information and to register to attend the meeting. In addition to 20 information requests, the team received 112 requests to attend the public meeting for a total of 132 interested parties. After the public meeting, a recording of the meeting was published on the site for anyone to view, the project maps were posted in PDF format, and an online comment form was utilized to gather community feedback. As of July 30, 2021, the website had more than 1,600 clicks.

In June 2021, the project team determined that with the uncertainty of the COVID-19 pandemic, local regulations, and countywide mandates that the public meeting should be held virtually on the Microsoft TEAMS platform. The team also decided to hold two in-person, public open houses in the corridor, one in Braddock and the other in Pitcairn. The Pitcairn meeting was held on Tuesday, July 20th from 5:00 to 7:00 p.m. at the Pitcairn Park Building and the Braddock event was held on Saturday, July 24th from 11:00 a.m. to 1:00 p.m. at the Braddock Civic Plaza. The goal was to ensure that community members had as many opportunities as possible to participate in the process and voice their concerns.

The virtual public meeting held on the evening of June 23rd was very well attended with 67 members of the public in attendance (see Table 4.1). The attendees overwhelmingly supported the intent of the study and the alternatives that the project team presented. A number of questions submitted by the attendees focused on right-of-way capacity, safety, railroad right-of-way and ownership, economic development in the corridor, and environmental concerns.

Table 4.1 Virtual Meeting Attendance

Metric	Totals
Meeting Registrations	132
Persons that attended online	58
Persons that attended via telephone	9
Total Meeting Attendees	67

The public open houses held in Braddock and Pitcairn were also well attended. The events had a total of 68 attendees between the two open houses with 49 people attending in Pitcairn and 19 people attending the Braddock event (see Table 4.2). At each open house, the project team displayed full-length prints of the project maps organized by borough(s) and provided comment sheets, post-it notes, and a brochure to ensure everyone who participated was able to voice concerns and support or ask questions.

Table 4.2: Open House Meeting Attendance

Metric	Totals
Open House Attendees	68
Pitcairn	49
Braddock	19

Throughout the public engagement process, the project received overwhelming support for the trail connection from both members of the public and public officials. From the public engagement participants, there were common themes among the comments they shared. Many participants indicated a preference to the trail being completely separated from vehicular traffic where possible and ideally running along the creek and rail corridors. Additionally, the safety of trail users was of high concern, especially regarding on-road trail facilities where there might be minimal separation of trail users from vehicular traffic—in these instances, most people were opposed to the "sharrow" and preferred at a minimum a buffered or protected cycle lane. A summary of the comments received during the public engagement process is provided in Table 4.3.

Public Officials Meetings

Following the initial study kick off of the project, members of the project team met with elected officials and administrative staff at each of the municipalities in the study area. The initial connection with the officials was with a meeting at the Turtle Creek Valley Council of Governments (TCVCOG). This meeting set the expectations for the project and timeline. Following the meeting with the TCVCOG, project team members met with the municipal officials individually for each community to gather local knowledge about the corridor through their communities. Some of these meetings were held at the municipal building prior to the pandemic and some were held virtually to adhere to pandemic mitigations. Throughout the study the project team remained in contact with the municipal officials through emails, phone, and virtual meetings. The project team continued to review and gather feedback on the alignments from municipal officials prior to being presented to the public.

Coordination with Allegheny Together

Allegheny Together is a program that provides strategic planning and technical support for traditional business districts throughout Allegheny County. The program is supported by Allegheny County Executive Rich Fitzgerald and the Allegheny County Economic Development. The process stresses community organization and data-driven planning as a way to direct public investment, spur private investment, and revitalize our communities.

In the program, communities (Braddock, North Braddock, East Pittsburgh, and Pitcairn) are led through a facilitated strategic planning process, utilizing data analysis, community engagement, and an urban design review. Through this process, priorities are established, which are then addressed through technical assistance. A principal objective of Allegheny Together is to help existing businesses thrive in the county's downtown shopping districts. By helping existing enterprises succeed, Allegheny Together hopes to attract new entrepreneurs to the market, thus increasing district vibrancy.

County staff attended Allegheny Together Build Sessions in Pitcairn Borough on August 12, 2021 and in Braddock Borough on August 23, 2021. The sessions were presented in partnership with Allegheny Together consultant EvolveEA. As part of the meetings, County staff had the opportunity to further discuss how the Turtle Creek Connector study might impact the communities and how it could be coordinated with other work being done through Allegheny Together. In Pitcairn, staff received comments from citizens and business owners supporting and preferring at least a partial connection of the trail along Broadway Boulevard to help stimulate economic development in their business district. In Braddock, participants shared a preference for the trail connection to go through the business district, noting that Talbot Avenue seems a little more remote from activity in the community. Project planners noted that there may be an opportunity for both a through route and a local route in the community.

Key Themes and Future Considerations Based on Public Comments

The public comments that the project team received through the public engagement effort was largely supportive of the project as a whole with an eagerness for implementation to begin soon. Community input was rooted in a few major themes including: a preferred trail route that is completely separated from the roadway, concerns for the safety of trail users when the trail must be on road, and a concern for issues of right-of-way constraints that would constrict the flow of traffic or remove parking. Taking into account the general theme of the comments received throughout the public engagement process, there are a few design considerations the project team should assess in subsequent phases of preliminary engineering and final design.

- Considerations of where to place trail heads and what amenities will be necessary.
  - Locations
  - Parking—Vacant Lot Activation, etc.
  - Bathrooms
  - Bicycle Repair Stations
- Transit coordination with any on-road facilities.
- Consideration of pavement materials for off-road sections of the trail to ensure accessibility to a larger number of users including people with mobility challenges and those who choose other recreation modes such as roller skates and skateboards.
- Safety accommodations at rail crossings to ensure safe access for all trail users, not just cyclists.
- Connections to the Carrie Furnace Hot Metal Bridge.
- Trail segments near protected watersheds will need to be coordinated accordingly and have the potential to enhance water quality.
- Vehicular speed and traffic studies performed along to the corridor to ensure the safety of trail users for on-road or road-adjacent trail sections on the following roadways:
  - Lane taking on Tri-Boro Expressway
  - Braddock Avenue with trucks
  - Trafford- 5th Street truck issues
  - Broadway Boulevard in Pitcairn
- How to ensure safe crossing at all on-road intersections.
- Narrow right-of-way issues on Broadway Boulevard as the sections approach Pitcairn.
- Study potential safety issues regarding the various routes as proposed. Is one on-road section safer than another, etc.

In addition, the team received a few comments that do not have an ideal home among the selected metrics, including the following:

- The trail in Pitcairn could go around the ball fields in Pitcairn Park as an alternative to the Norfolk Southern right-of-way or the on-road option on Broadway Boulevard in the heavy traffic area of downtown Pitcairn. This option could re-connect with the on-road alignment on Broadway Boulevard east of downtown Pitcairn.
- Issues concerning the behaviors of some cyclists regarding safety when using vehicular travel lanes.
- Concerns about the compensation of landowners should they dedicate the land for the trail.

Table 4.3: Summary of Public Engagement Comments by Corridor Segment

Rankin/Braddock	North Braddock	East Pittsburgh/Turtle Creek	Wilmerding/Monroeville/North Versailles	Pitcairn	Monroeville	Trafford
Residents use a path to walk from Harriet Street in Rankin Borough to Fleet Street & Talbot in Braddock	Sending the Yellow Line Alternative into North Braddock adds an element of inclusivity	Section in front of RIDC by Electric Avenue will be difficult. How ill bikes cross the traffic by the bank?	Consider taking a lane on the Tri-Boro Expressway for the trail	PA Rt. 130 (Broadway Blvd) is too narrow and dangerous for a trail. A number of cars have slid off the curve near the Monroeville-Pitcairn Border making the route dangerous without a safety barrier.	The Blue Line Alternative is less appealing than the Red Alignment	5th Street (PennDOT Section) traffic & truck traffic create a narrow path--adding a bike lane could be a danger to cyclists and trail users
Connect Rankin residential area near St. Mary's to Braddock Avenue from Kenmawr Avenue	Bike/Ped Improvements on Rt. 30 are needed	Red Line Alternative is ideal for recreational riders. Commuters may end up using the Tri-Boro Expressway	Two-Way traffic on the Turtle Creek side of at Airbrake & 5th Street	Red Line Alternative is the safest choice as the other options could cause pedestrian and cycle accidents with vehicular traffic.	Preference for the Red Line Alternative or even if shifted slightly north & parallel with the Red Line Alternative	Recent landslides on the Norfolk Southern Bend
Could we look at utilizing vacant lots on Braddock Avenue to add parking in the event a parking lane is eliminated on Braddock Avenue. (Could also serve as Trail Head Parking)		Consider using the creek crossing near RIDC & Westinghouse Bridge to run parallel to the Norfolk-Southern tracks.	Red Line Alternative is the preferred route	I like the Red Route the best: hugging the water gives the straightest, flattest most scenic path. It will have the fewest hill climbs and fewest stop signs. More separation from traffic makes for a safer, better ride and walk.	The Norfolk Southern right of way is clearly the best choice were available. Great opportunity for post-industrial restoration of the banks of Turtle Creek.	Are there any plans for trailheads between Trafford and the other end in Braddock?
Coordinate with Allegheny Together on Braddock Avenue improvements		Please consider using trail surfaces that support other recreational modes such as roller skates, skate boarding, etc.	Transition from the Yellow Line Alternative at Avenue U and go up Miller Street to Middle Avenue for a route towards Turtle Creek with traffic. Trail should go toward Pitcairn on Yellow Airbrake Avenue			Possible Alternate route connecting the Stewart Station Drive (Private) to the current end of the WHT
Concerns regarding the safety of trail goers on Braddock Avenue in conjunction with heavy truck traffic in the corridor		Look to York County as an example of a Rails to Trails Strategy.				Truck traffic is supposed to go down Forbes Road, however GPS sends them down 5th & Brinton

Table 4.3: Summary of Public Engagement Comments by Corridor Segment (cont.)

Rankin/Braddock	North Braddock	East Pittsburgh/Turtle Creek	Wilmerding/Monroeville	Pitcairn	Monroeville	Trafford
Complete the Hot Metal Bridge Restoration		Speed of vehicles along Braddock Avenue is greater than the speed of the freight rail trails on the Norfolk Southern lines.				At the end of the present trail headed toward Trafford you come to a set of older RR Tracks. To the right it could be possible to perform some excavation work and then it would run into Steward Station Road and once there you can go to Forbes Road or toward Trafford Bridge
Put trail alignment on Braddock Avenue as a means of stimulating economic development		Only 15' of clearance behind RIDC along the creek between the Rail Lines				Trafford would like the trail to continue all the way to 4th Street or beyond as to use for business parking.
Talbot Avenue is a safer option because of traffic		Has the trail analysis and alternatives taken into account the future Mon Fayette Expressway alternatives through the same general area? Doesn't the alignment of the Mon Fayette EXPW roughly follow Thompson Run?				The Turtle Creek Watershed Association (TCWA) has found the Westmoreland Heritage Trail to be an excellent partner in raising awareness and interest in water quality and outdoor activities. If they haven't already, can the team for the Turtle Creek Trail project reach out and work with the watershed association on partnering efforts and ways to work together?

Table 4.3: Summary of Public Engagement Comments by Corridor Segment (cont.)

Rankin/Braddock	North Braddock	East Pittsburgh/Turtle Creek	Wilmerding/Monroeville	Pitcairn	Monroeville	Trafford
Red Line Alternative seems inherently safer than the Blue and Yellow Line Alternatives		Does the Norfolk Southern Right of way and the Westinghouse Interworks Railway have sufficient width to be of interest to PAT as an extension of the east Busway from the current Swissvale/Rankin terminus to Monroeville/Trafford/Murrysville?				This project has tremendous potential to improve the land/water quality of the Turtle Creek Watershed.
500 Block (between 5th & 6th Streets) on Talbot could pose a safety concern--crime.		Do we have usage statistics on the live or potentially live tracks? A train an hour is one thing, a train a week is a lot easier to deal with. Also, the speed of those trains. 45 mph? or 5 mph?				
Please clean and maintain the Rankin Bridge Bike lanes--excessive glass and sharp objects cause cycle damages		Has the group considered potentially using part of the unused US Steel land east of the ET works to connect to the road through the Westinghouse floodgate without going up onto the Triboro Expressway approach?				
Would bike to work daily if the route was on Talbot Avenue--concerned about safety with traffic on Braddock Avenue						

V. CONCLUSION

This final report will serve as a guide for project partners to begin advancing segments of the project into design and construction. As a federally funded feasibility study, the process did not include the selection of a preferred alignment(s). All alternatives will be carried forward into preliminary engineering for further evaluation. Similar to other multi-municipal trail planning efforts in the county, it is expected that the corridor will be advanced in phases or in segments due to the complexity, cost, and road and property ownership characteristics along the corridor.

The project partners will work closely with the public, municipal officials, the Turtle Creek Council of Governments, stakeholders, and property owners as elements of the plan move forward. Support from the study municipalities is critical because it is the local communities that will likely be responsible for maintenance and upkeep once construction is complete. While that is an important consideration, the communities stand to benefit greatly from economic development and revenue derived from heritage and recreational tourism and non-motorized commuter spending.

Certainly, the implementation process may be lengthy, difficult, and expensive. Some segments will be especially complicated, but it was important to show them as a possibility and long-term goal. These segments will require coordination with private and railroad property owners. Working with these types of property owners and stakeholders can be a long and time-consuming task that may not be completed in the short term. These processes require coordination across multiple government agencies, work within the judicial system's processes, and several other factors—many of which are described in this report. In those specific segments where significant coordination is required, their completion is an ultimate aspiration for this trail network and their completion will likely take many years to come to fruition.

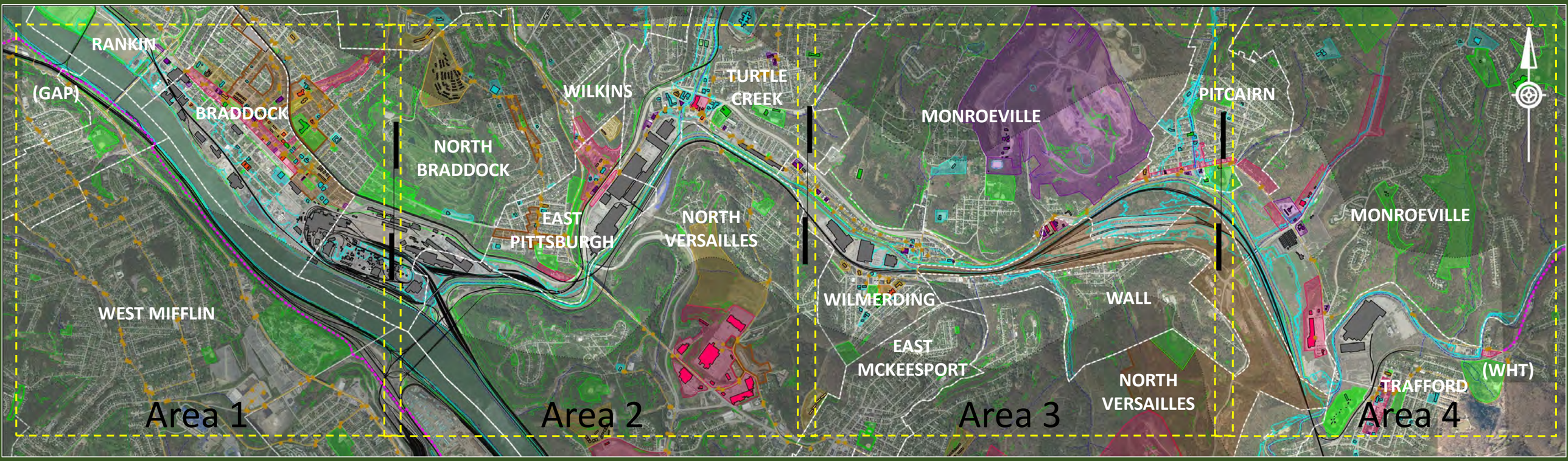
The completion of this study is the critical first step in establishing the importance of this corridor as a multimodal connection. It demonstrates the communities' long interest and support of enhanced active transportation opportunities and connections to local and regional destinations and amenities. In the short term, the report will serve as the foundation for grant funding requests to begin the selection of preferred alternatives and engineering and design activities. Table 5.1 provides a summary of several grant programs that should be considered to support the advancement of trail elements to implementation.

Table 5.1: Summary of Multimodal Grant Funding Programs

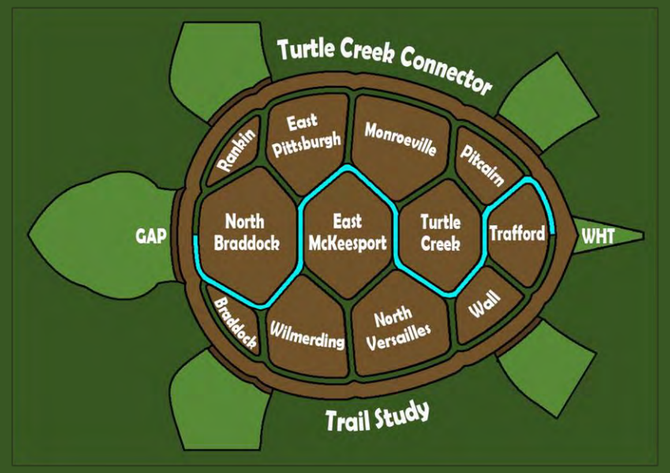
Program Name	Eligible Activities	Match	Request Limit	Application Cycle
PennDOT Multimodal Transportation Fund (State funds) www.penndot.gov	Full-range of multimodal improvements. Acquisition of easements & ROW, construction. Engineering, design, and construction inspection limited to 10 percent of request. Administrative fee of 2 percent is allowed.	30 percent from local cash contribution; no in-kind. Pre-construction activities can count towards match (if follow Pub 93 or qualifications-based consultant selection)	Minimum request is $100,000. Maximum request is $3 million. Can request more than $3 million if project significantly leverages private investment and creates jobs. All funding must be secured by application deadline.	Applications typically due each November.
PA DCED Multimodal Transportation Fund (State Funds) www.dced.pa.gov	Full-range of multimodal improvements. Acquisition of easements & ROW, construction. Engineering, design, and construction inspection limited to 10 percent of request. Administrative fee of 2 percent is allowed.	30 percent from local cash contribution; no in-kind. Local match contributions from municipalities waived through December 31, 2022.	Minimum request is $100,000. Maximum request is $3 million. All funding must be secured by application deadline.	Applications typically due each July.

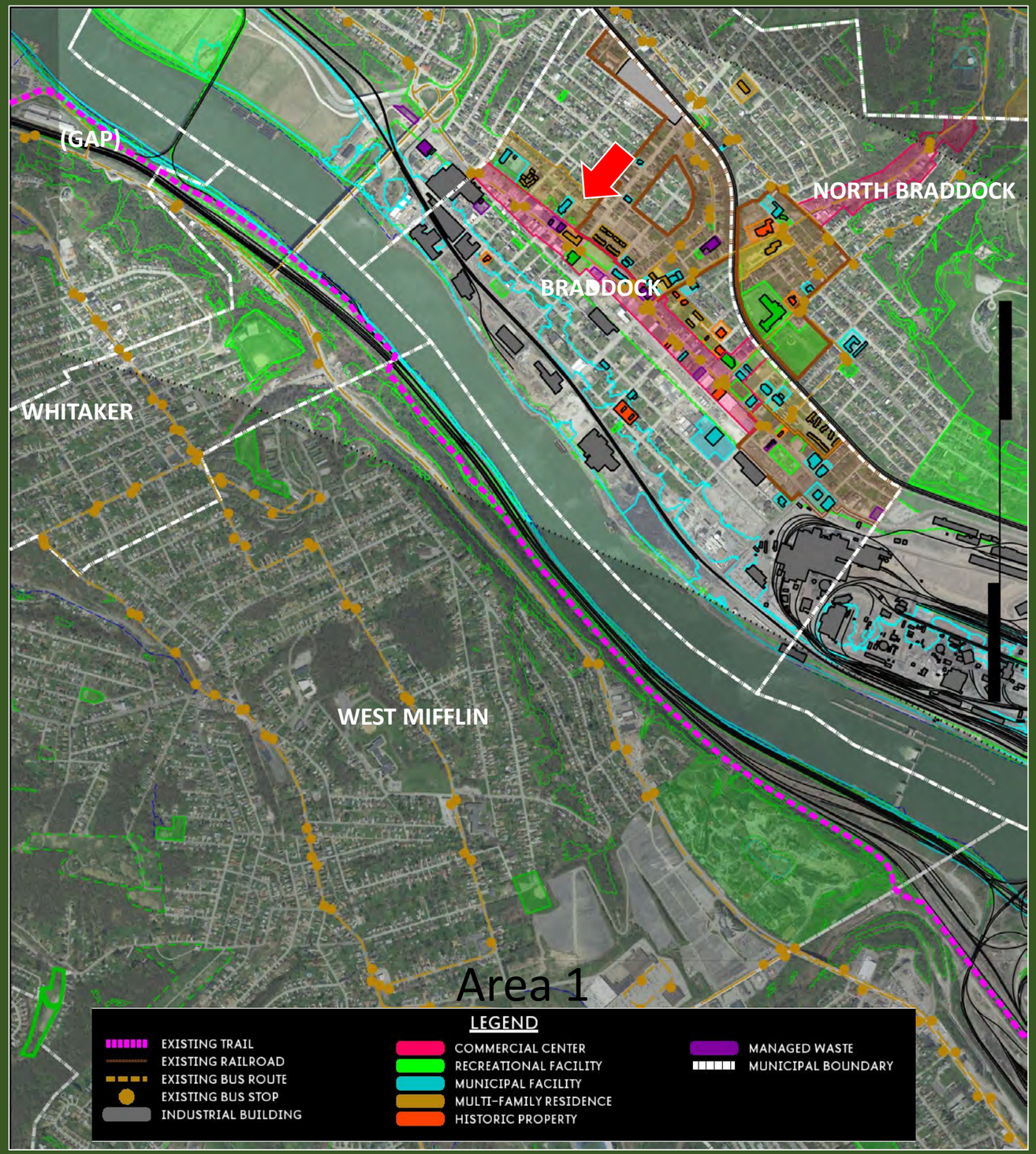
Program Name	Eligible Activities	Match	Request Limit	Application Cycle
PennDOT Transportation Alternatives Program – SPC Region Allocation (Federal funds administered by PennDOT) www.spcregion.org	Construction of bicycle and pedestrian facilities, rails to trails conversion, safe routes to school programs, historic preservation of transportation facilities among others.	$0 match if sponsor has paid for all pre-construction activities including utilities and right-of-way. Construction includes inspection.	Minimum request for infrastructure projects is $50,000. Maximum request is $1 million. Approximately $1.8 million is available per year.	Applications typically accepted biannually in the late summer.
PA DCED: Greenways, Trails, and Recreation Program (GTRP)- (State Funds) www.dced.pa.gov	Planning, acquisition, development, rehabilitation, and repair of greenways, recreation trails, open space, parks, and beautification projects.	15 percent from local cash contribution; no in-kind.	Maximum request is $250,000. Match commitment documentation is required to be provided along with the application.	Applications are typically due by the end of May.
PA DCNR: Community Conservation Partnerships Program: (State Funds) www.dcnr.pa.gov	Planning, acquisition, and development of public parks; recreation areas; motorized and non-motorized trails; river conservation and access; and the conservation of open space. Grant funds can also be used to support regional and statewide partnerships that build capacity to better develop and manage resources.	Most require a cash or noncash match from the applicant of 50 percent of the project cost. Match requirements vary based on the grant program and funding source that is being utilized.	Request limits, minimums, and maximums vary based on the grant program and funding source is being utilized. See state website for further details.	Applications are typically due by the end of April.

Program Name	Eligible Activities	Match	Request Limit	Application Cycle
Community Infrastructure and Tourism Fund (State funds administered by Allegheny County) www.alleghenycounty.us/econdev	Planning, design, and construction of infrastructure improvements and facilities.	No match is required.	Projects must have a minimum budget of $100,000. Maximum grant award is $250,000.	Applications typically accepted annually.
Gaming Economic Development Tourism Fund (State funds administered by Allegheny County) www.alleghenycounty.us/econdev	Planning, design, and construction of infrastructure improvements and facilities.	No match is required.	Projects must have a minimum budget of $150,000. Maximum grant award is $500,000.	Applications typically accepted annually.

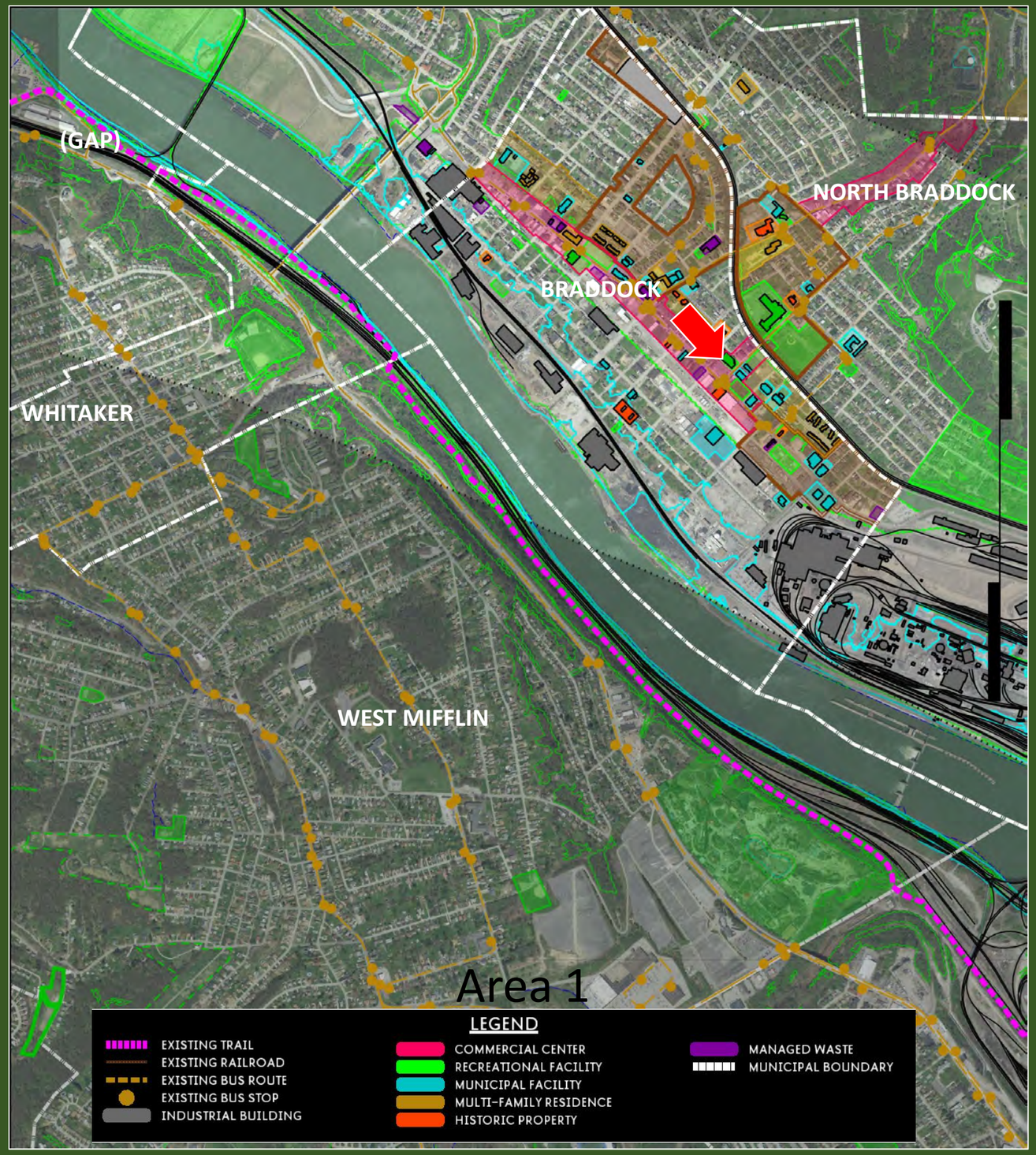


Appendix A: Existing Conditions Figures

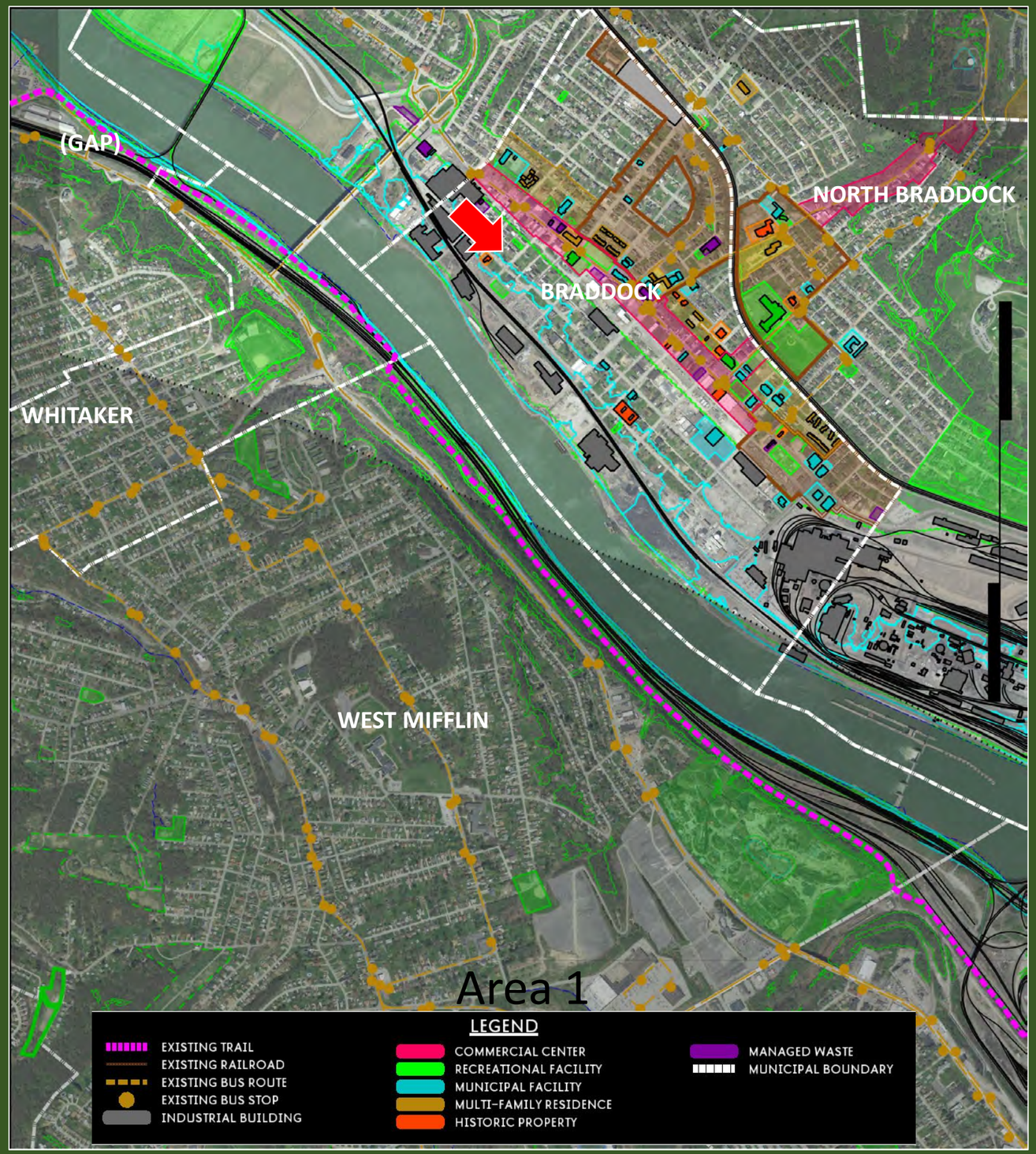




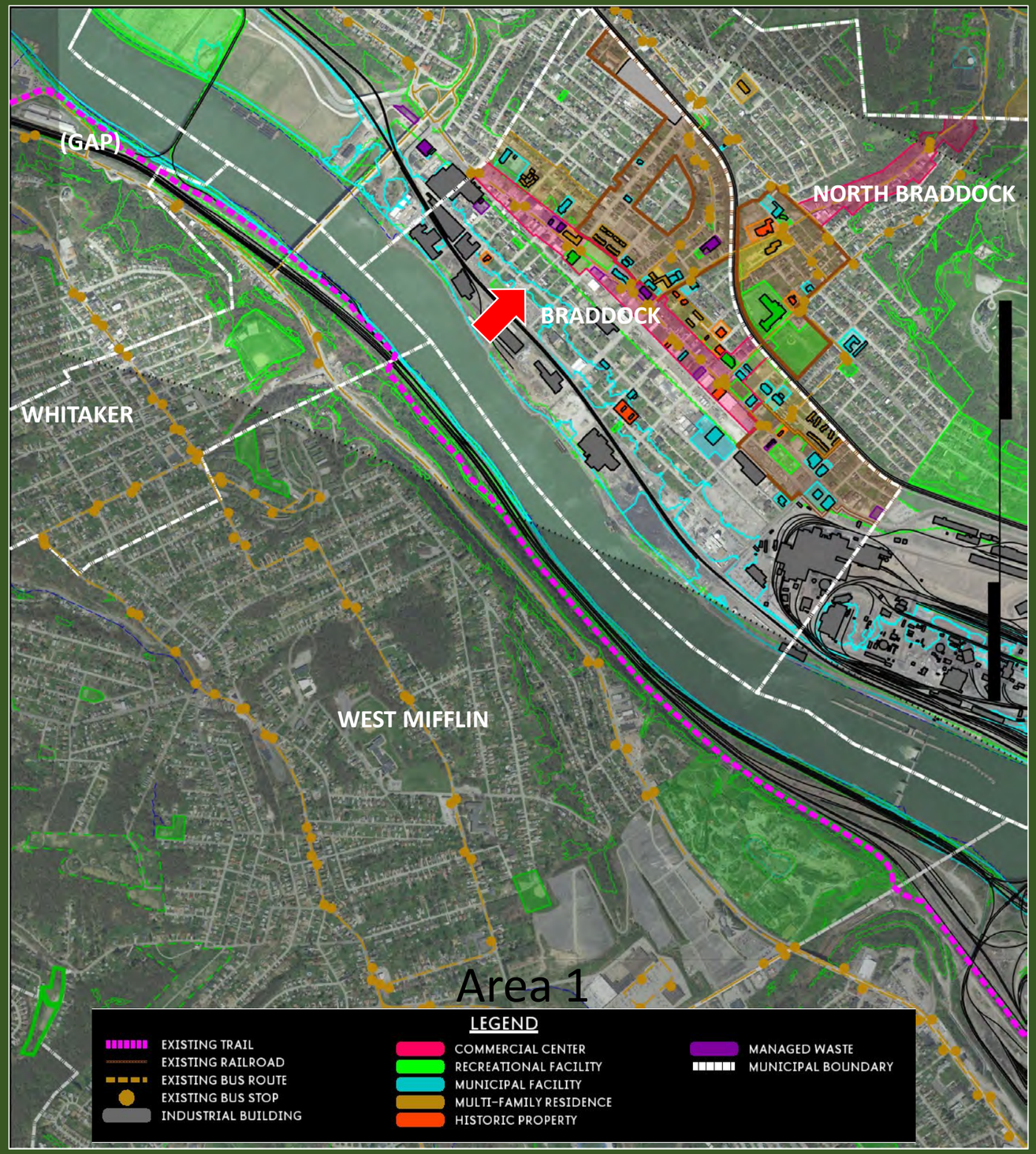
Braddock Ave. & 4th St. – Braddock
Braddock Civic Plaza with Utility & Pedestrian Infrastructure



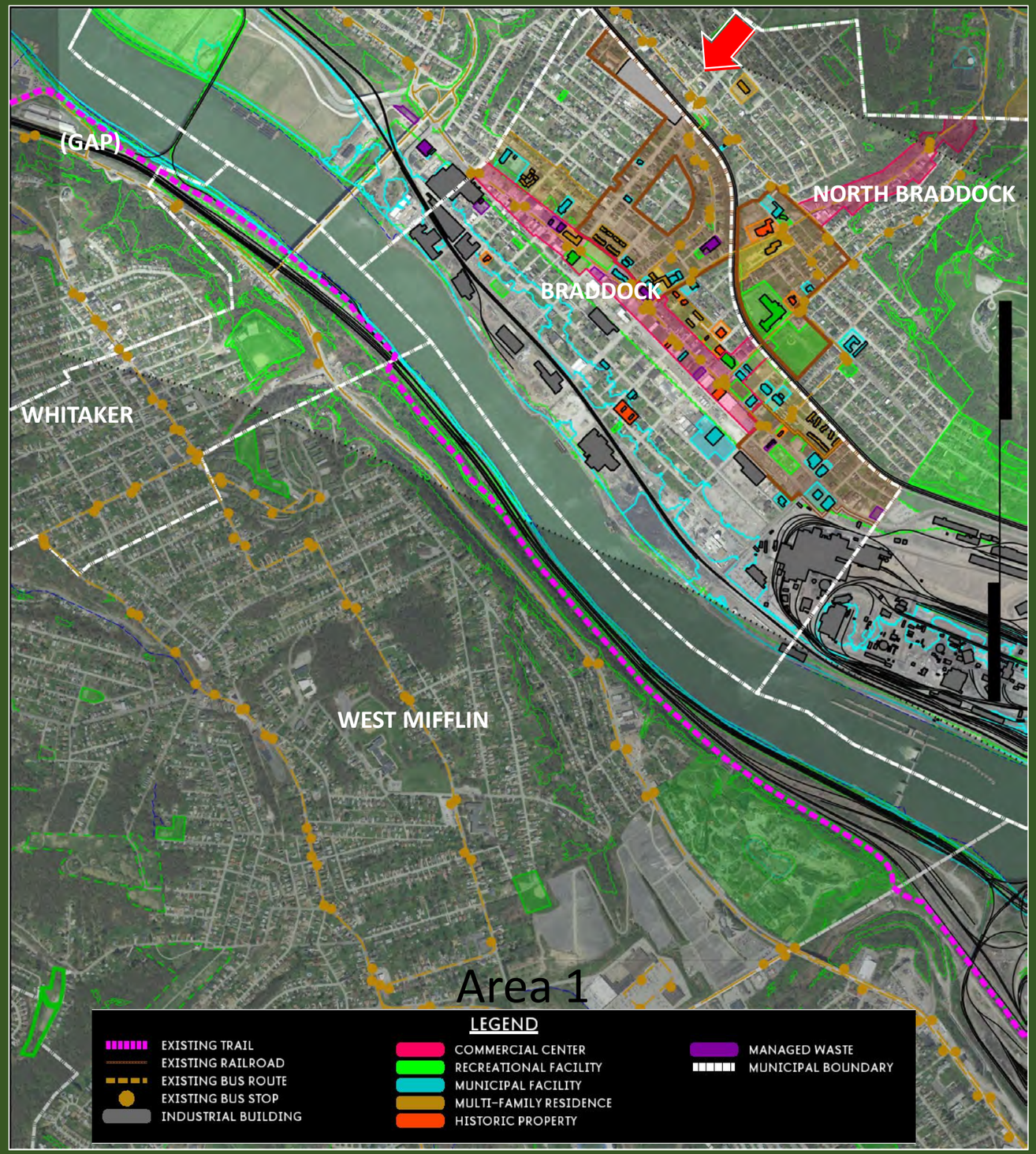
Braddock Ave. & Library St. - Braddock
View of Braddock Ave. with Parking on
Both Sides of the Street



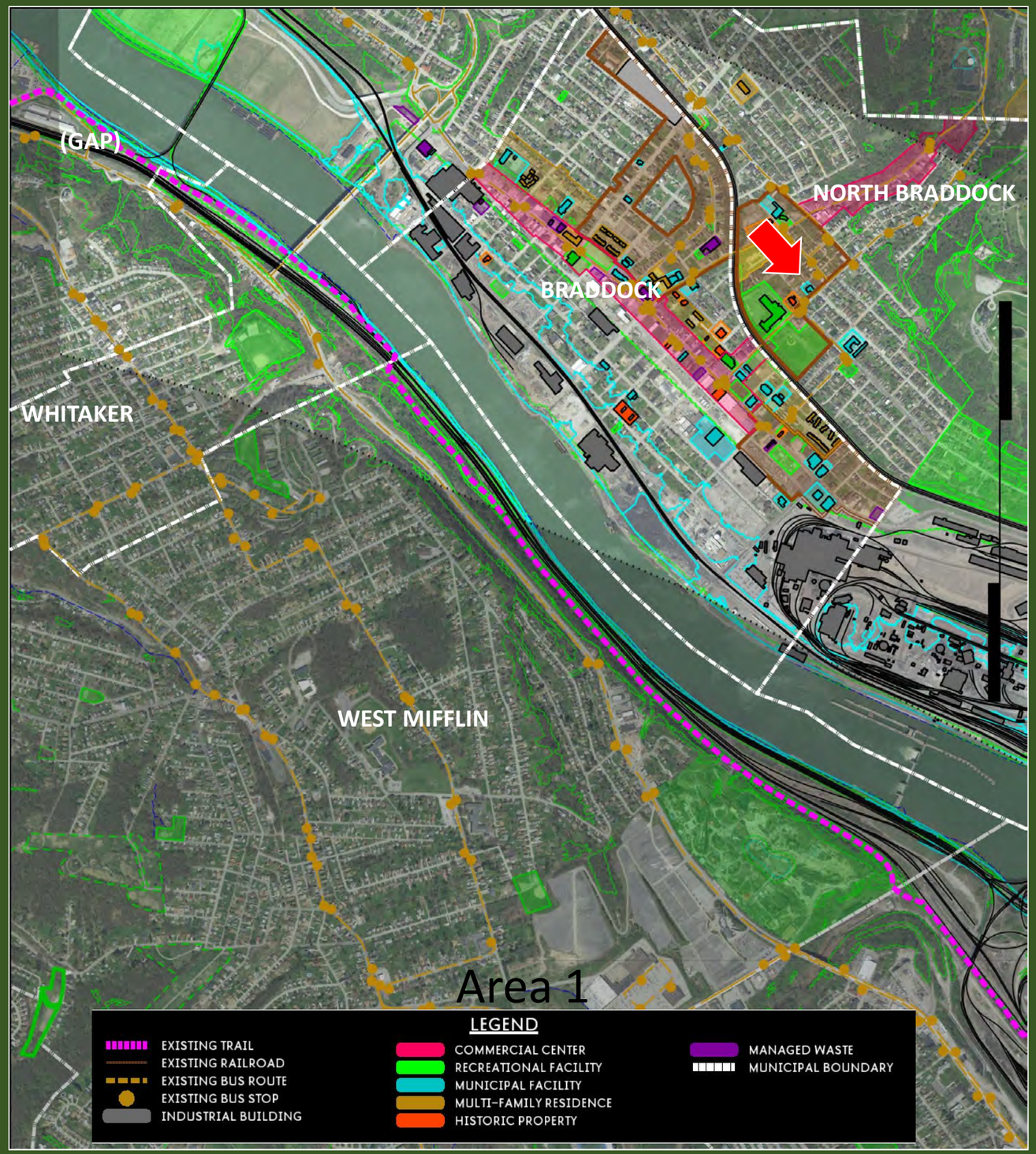
Talbot Ave. & 4th St. – Braddock
View of Talbot Ave. with Parking on Both Sides of the Street and Aging Pedestrian Infrastructure



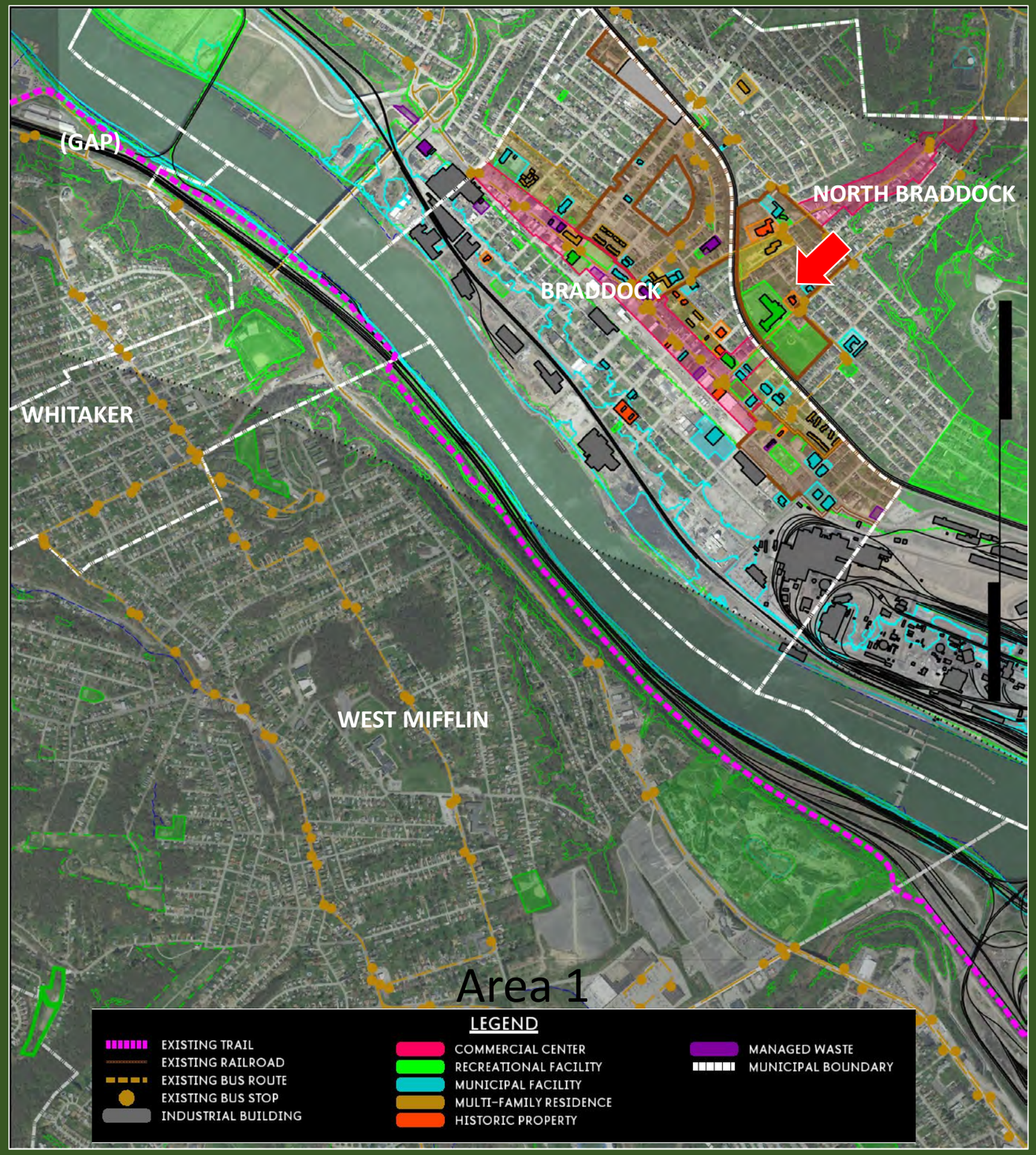
Talbot Ave. & 4th St. – Braddock
Parking on Both Sides of 4th St. with
Existing Pedestrian Infrastructure

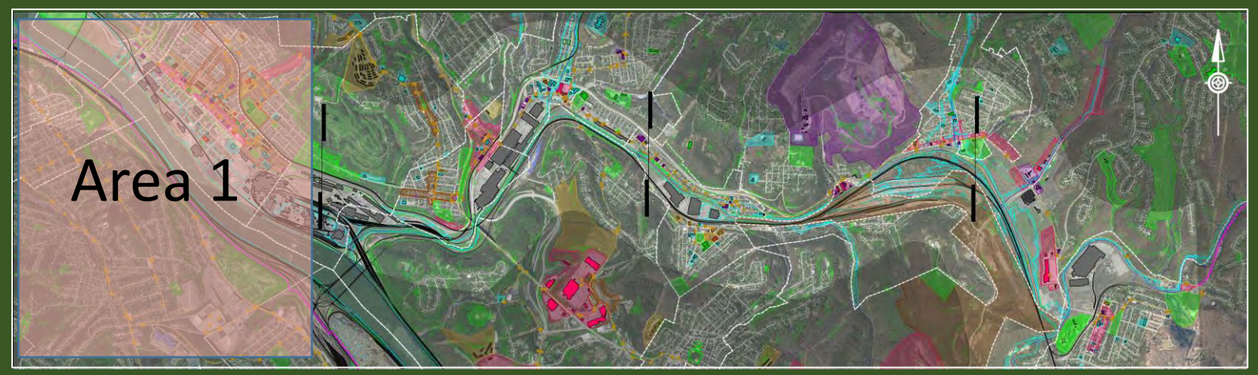


Hawkins Ave. & 4th St. – North Braddock
Existing Crosswalks and Pedestrian Infrastructure with Utilities Installed on the Sidewalks

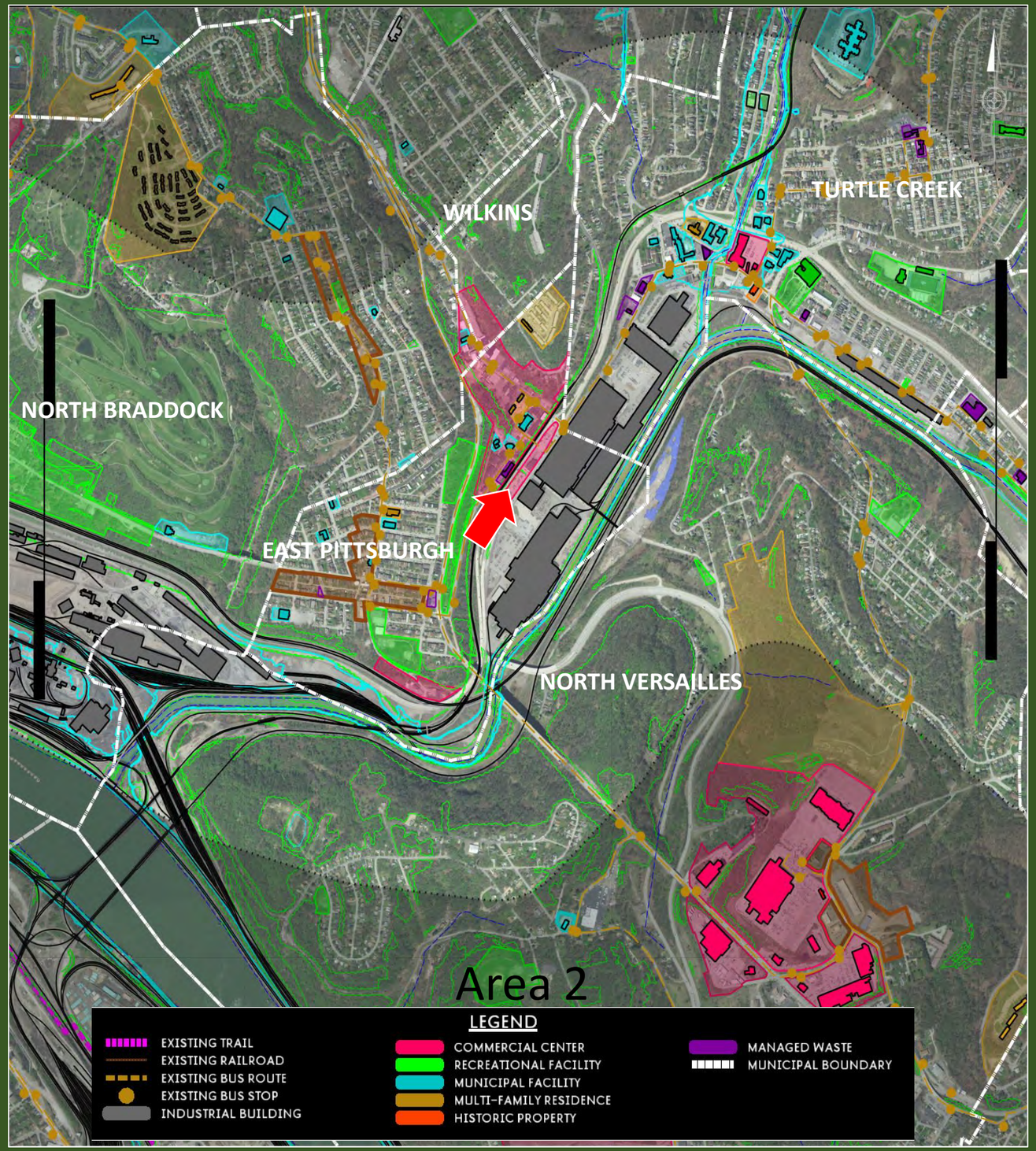


Bell Ave. & Jones Ave. – North Braddock
View of Bell Ave. with Crosswalk and Existing Pedestrian and Utility Infrastructure

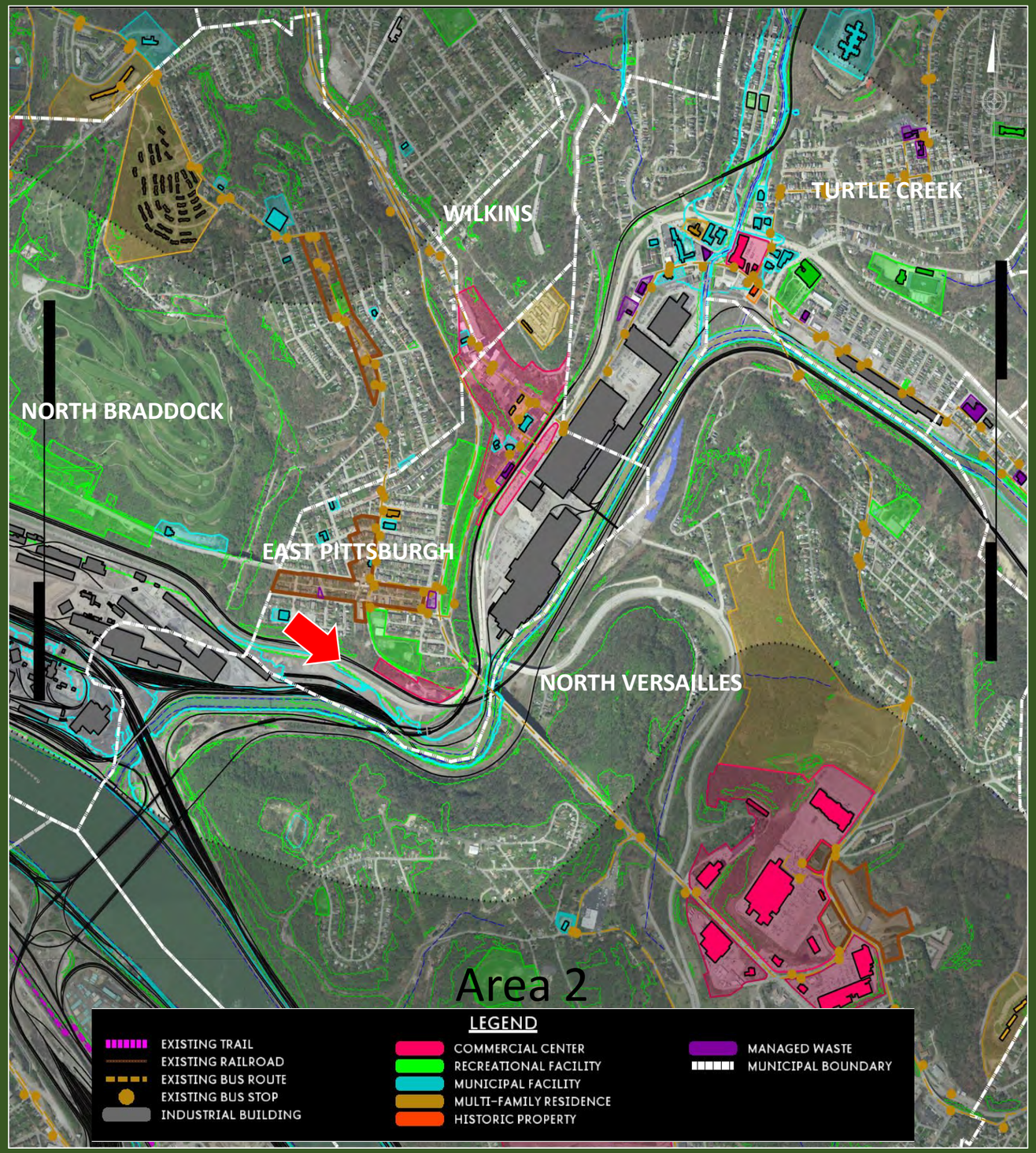


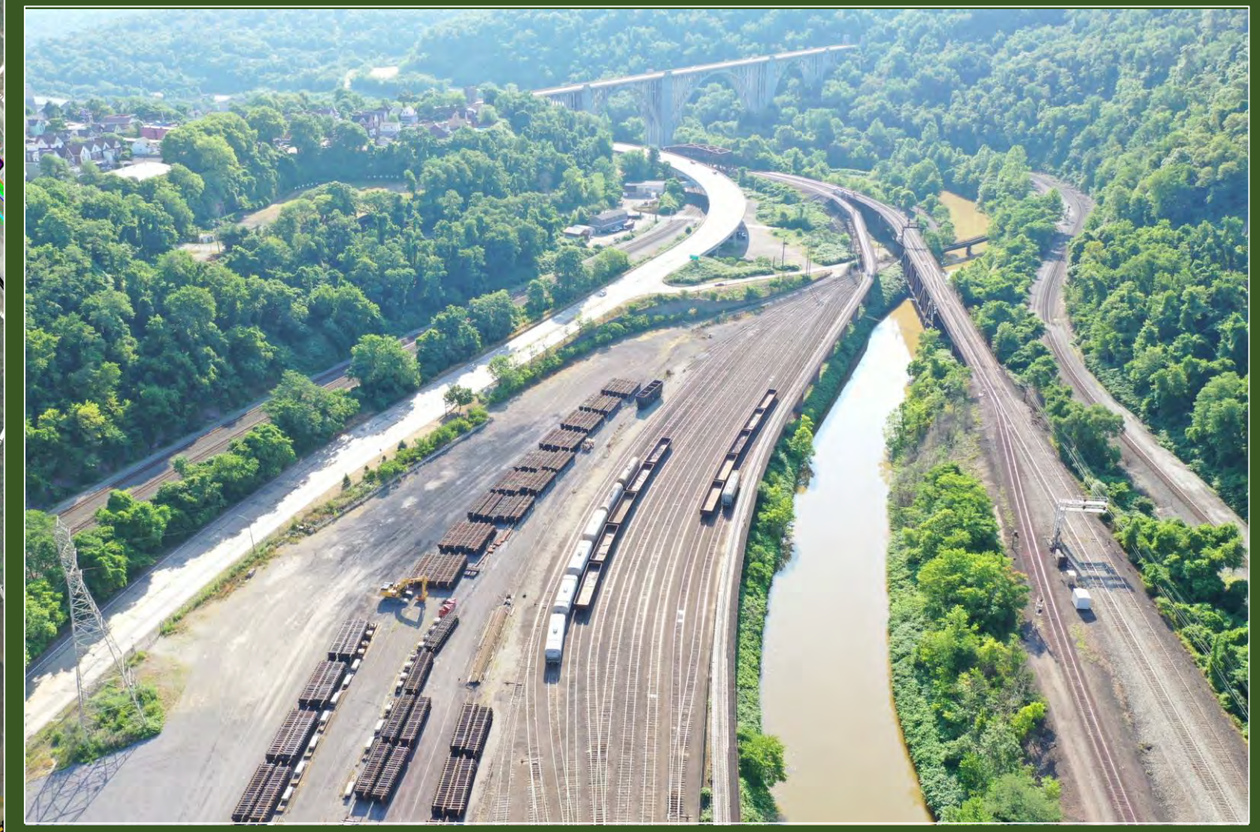


Bell Ave. & Jones Ave. – North Braddock
View of Jones Ave. Looking Toward the
Railroad Underpass with a Steep Grade

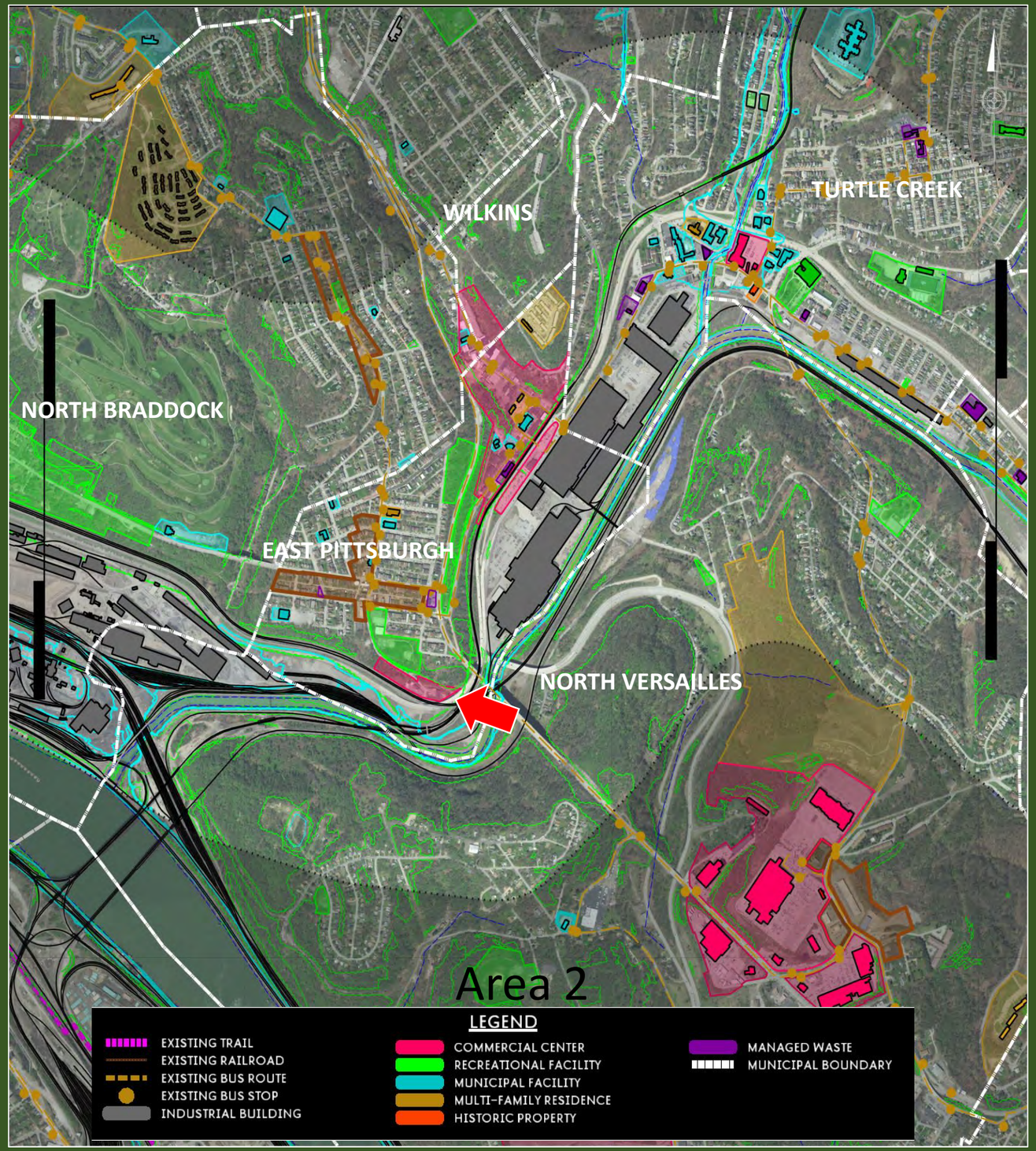


Braddock Ave. & Keystone Commons - East Pittsburgh
View from Inside RIDC/Keystone Commons
looking onto Braddock Ave.

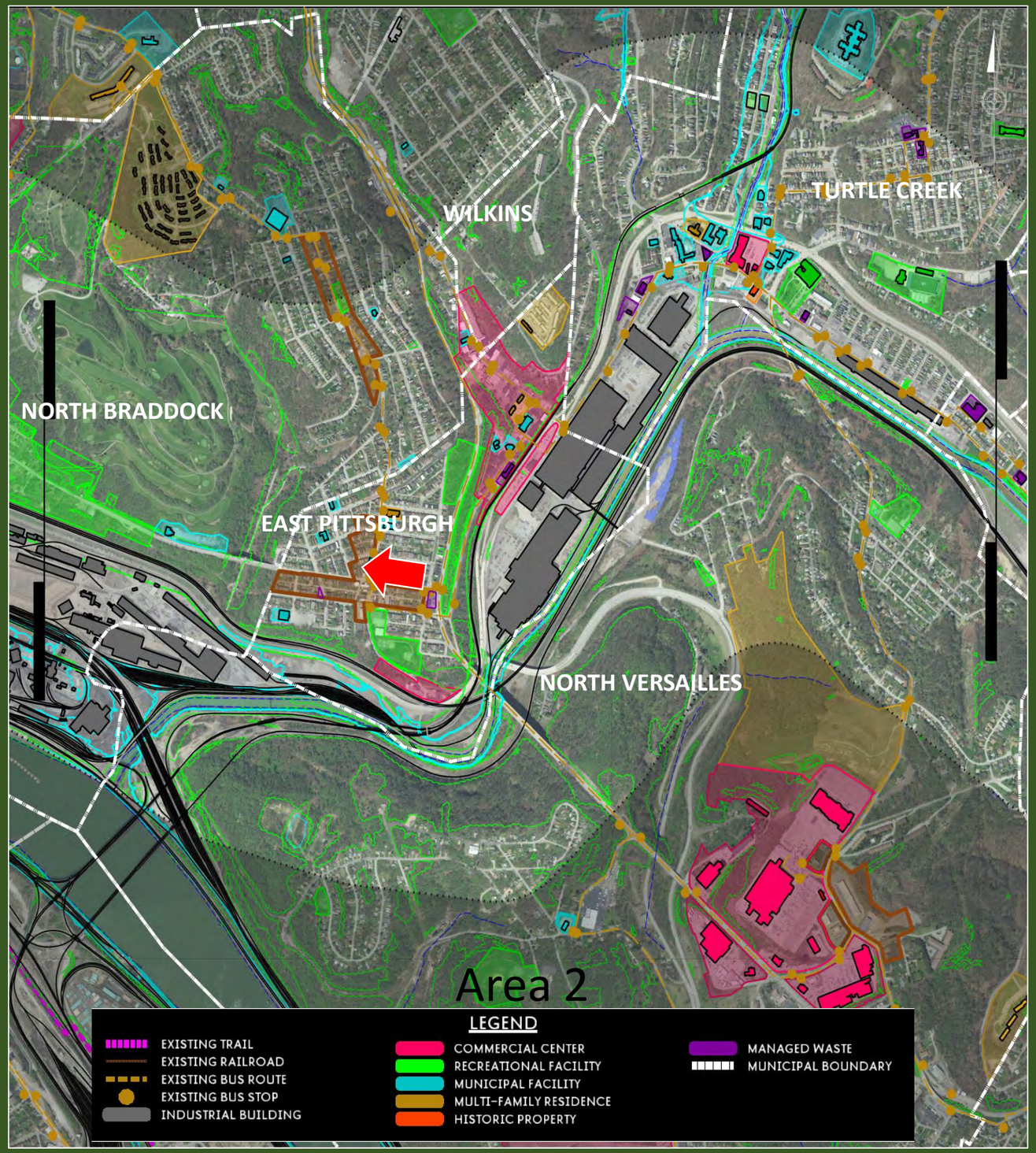




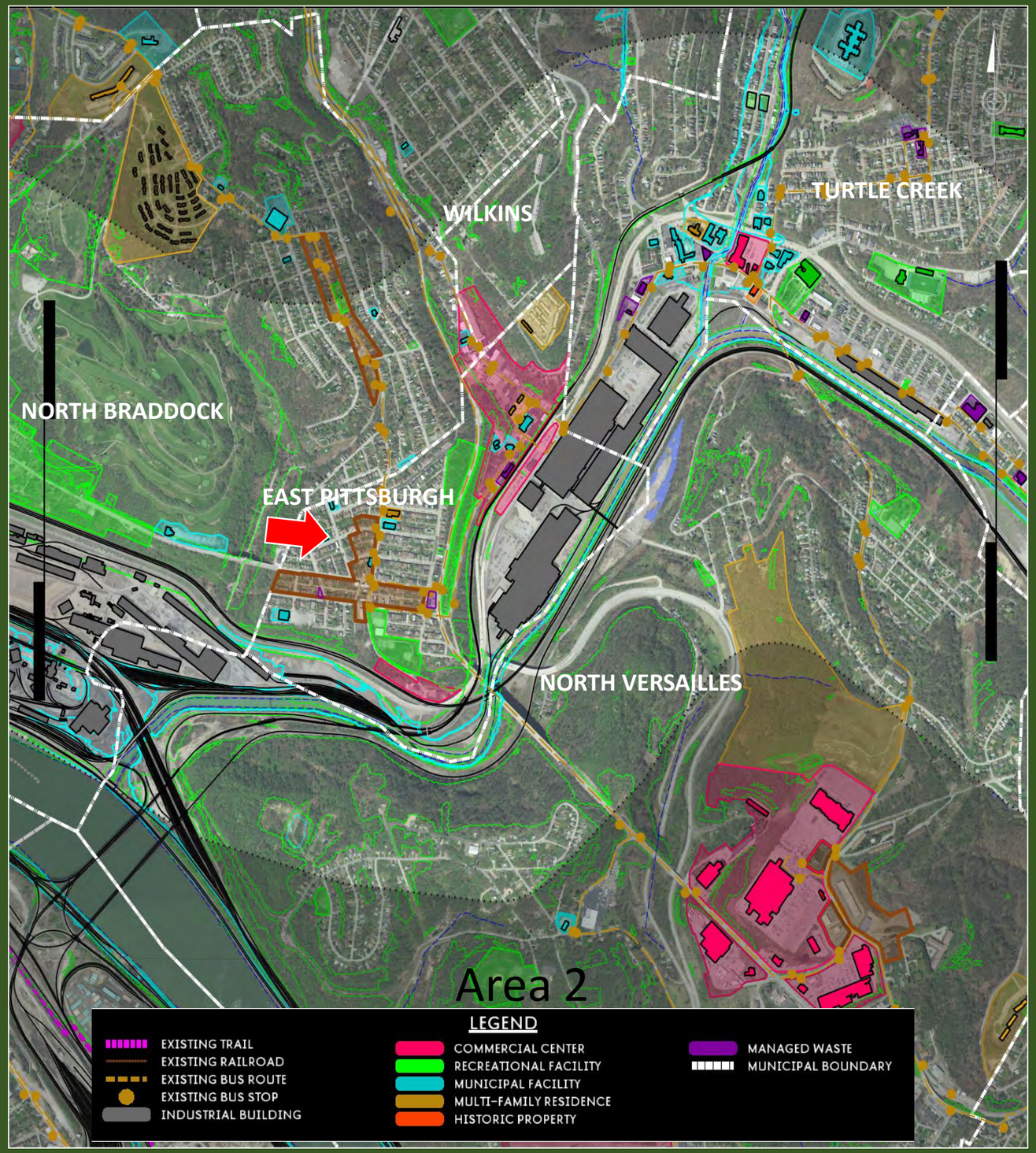
SR2183 & Braddock Ave. – East Pittsburgh
View Looking East Toward Braddock Ave.



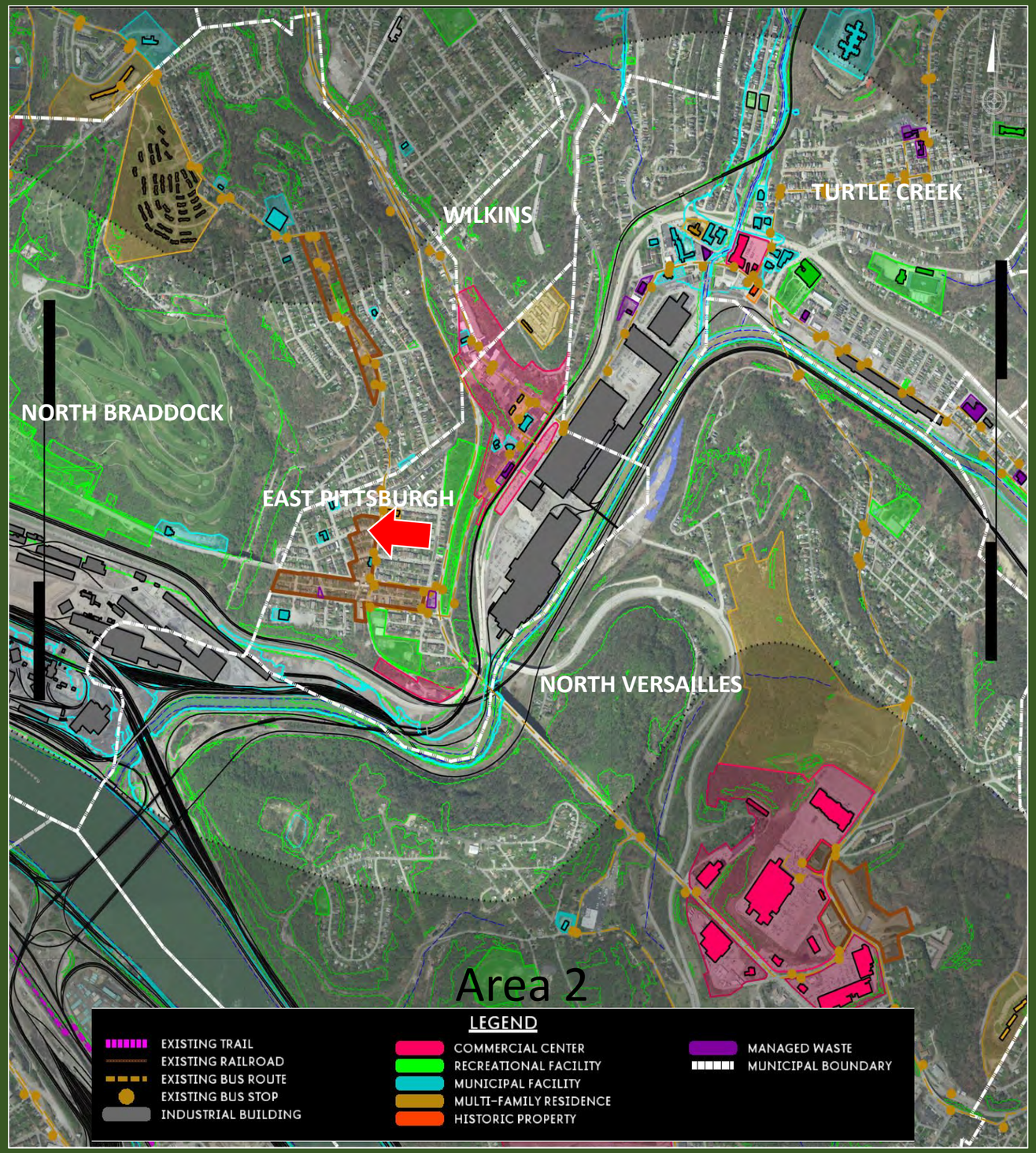
SR2183 & Braddock Ave. – East Pittsburgh
View Looking West at US Steel Property



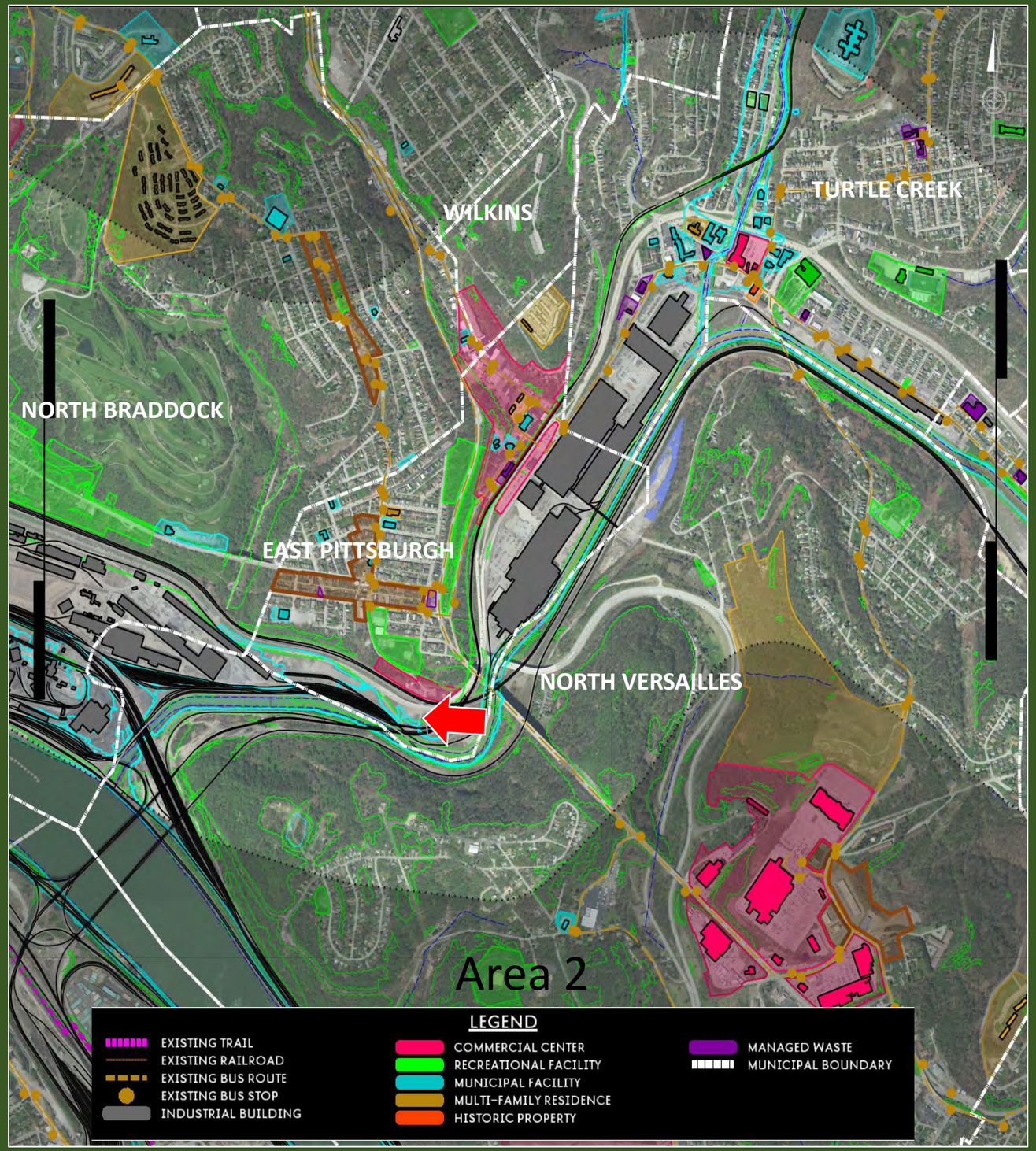
Bessemer Ave. & Main St. – East Pittsburgh
View of Bessemer Ave. Looking East with
Pedestrian and Utility Infrastructure



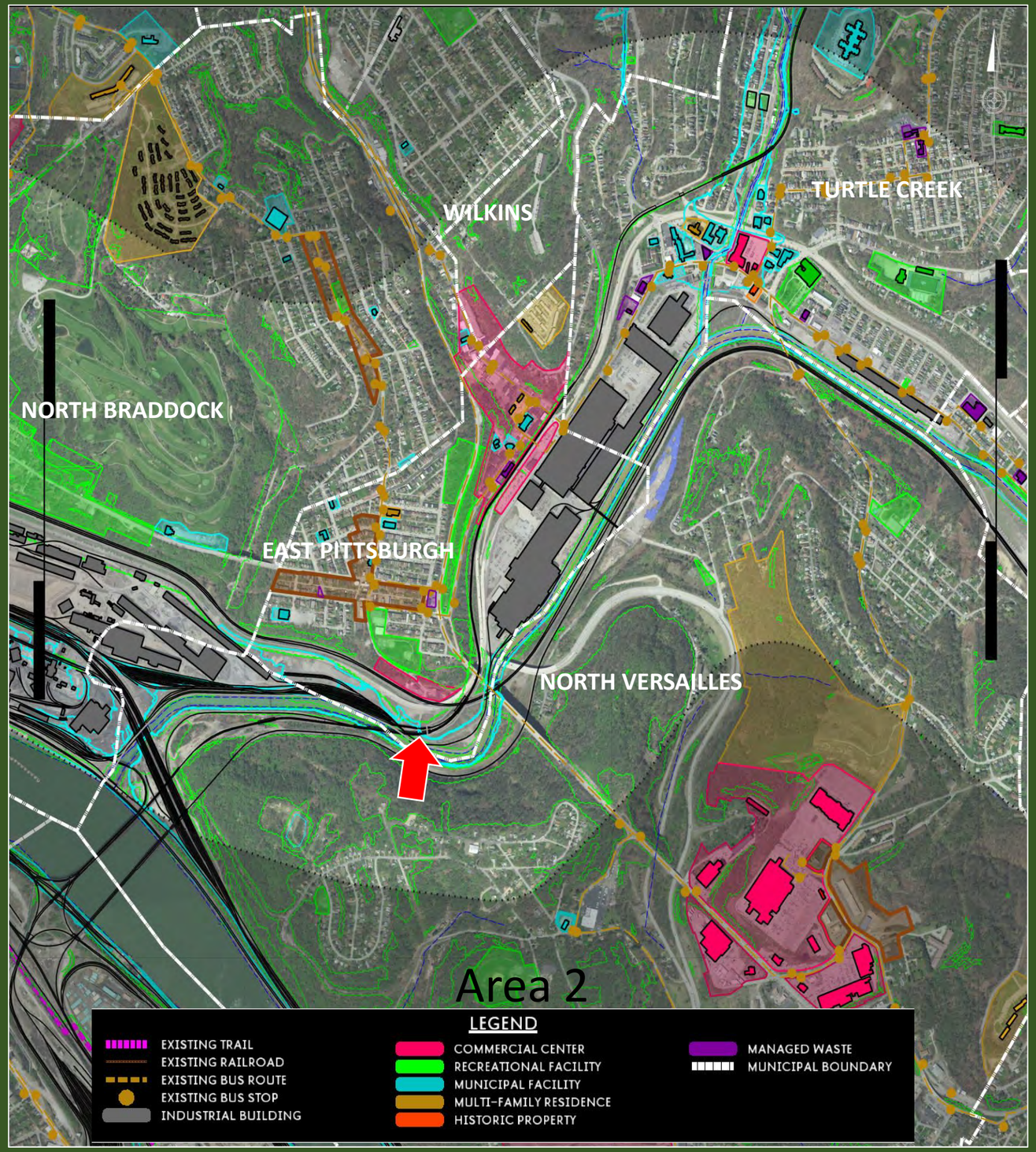
Bessemer Ave. & Main St. – East Pittsburgh
View of Bessemer Ave. with Existing
Pedestrian Crossings and Infrastructure



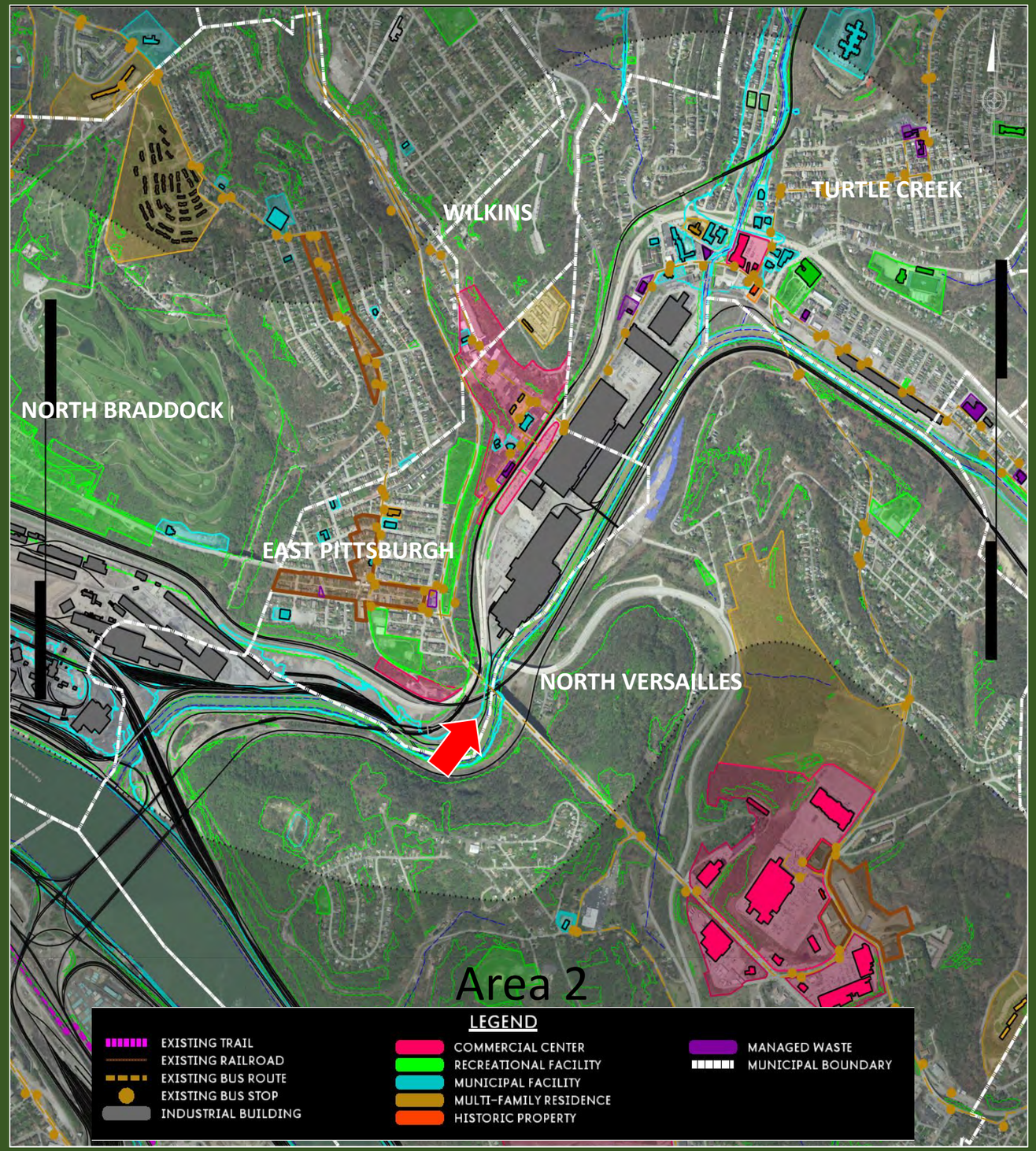
Center St. & Main St. – East Pittsburgh View
Looking West Down a One-Way Street



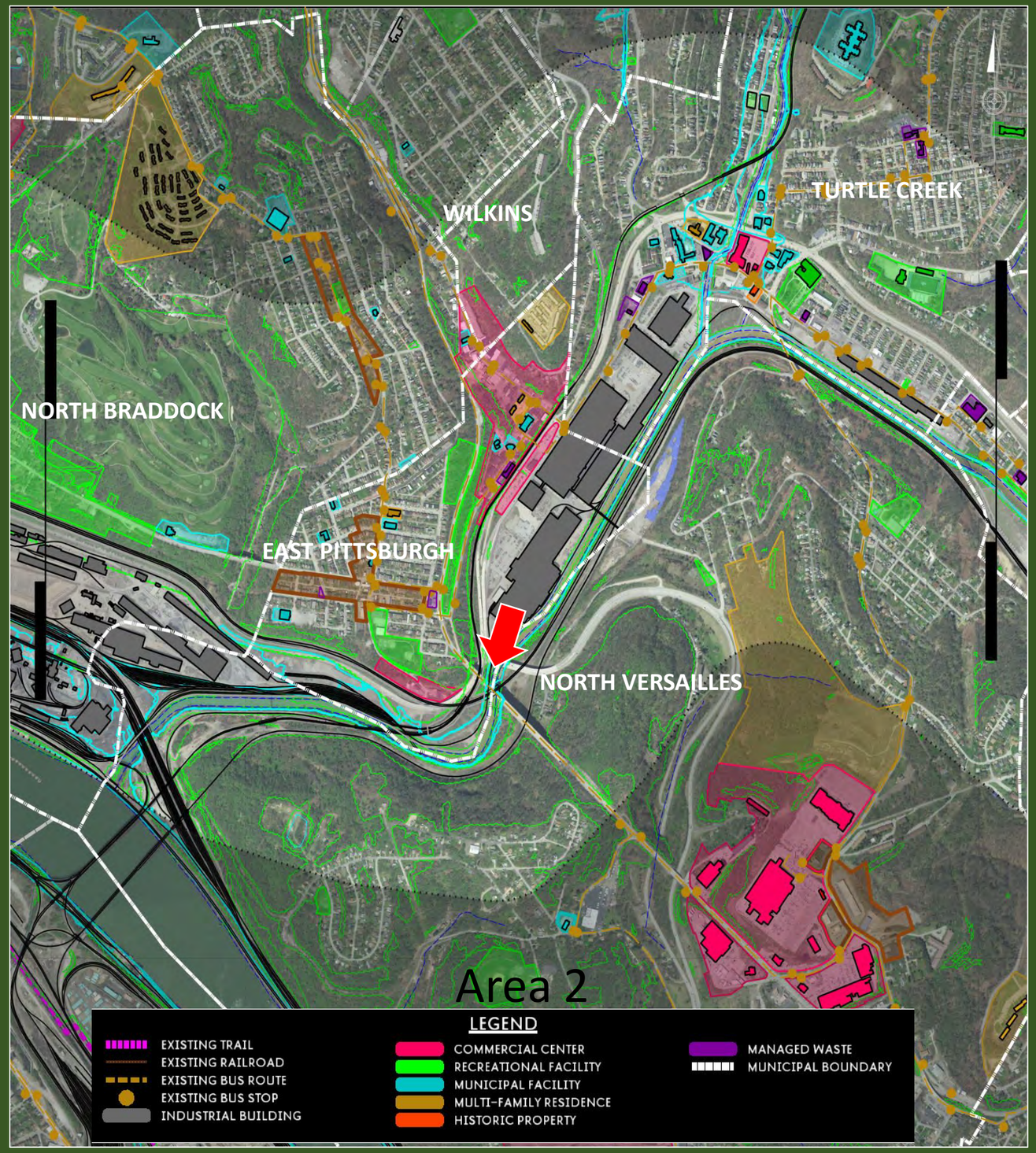
State Route 2183 & Braddock Ave. – East Pittsburgh
Looking West onto US Steel Railyard



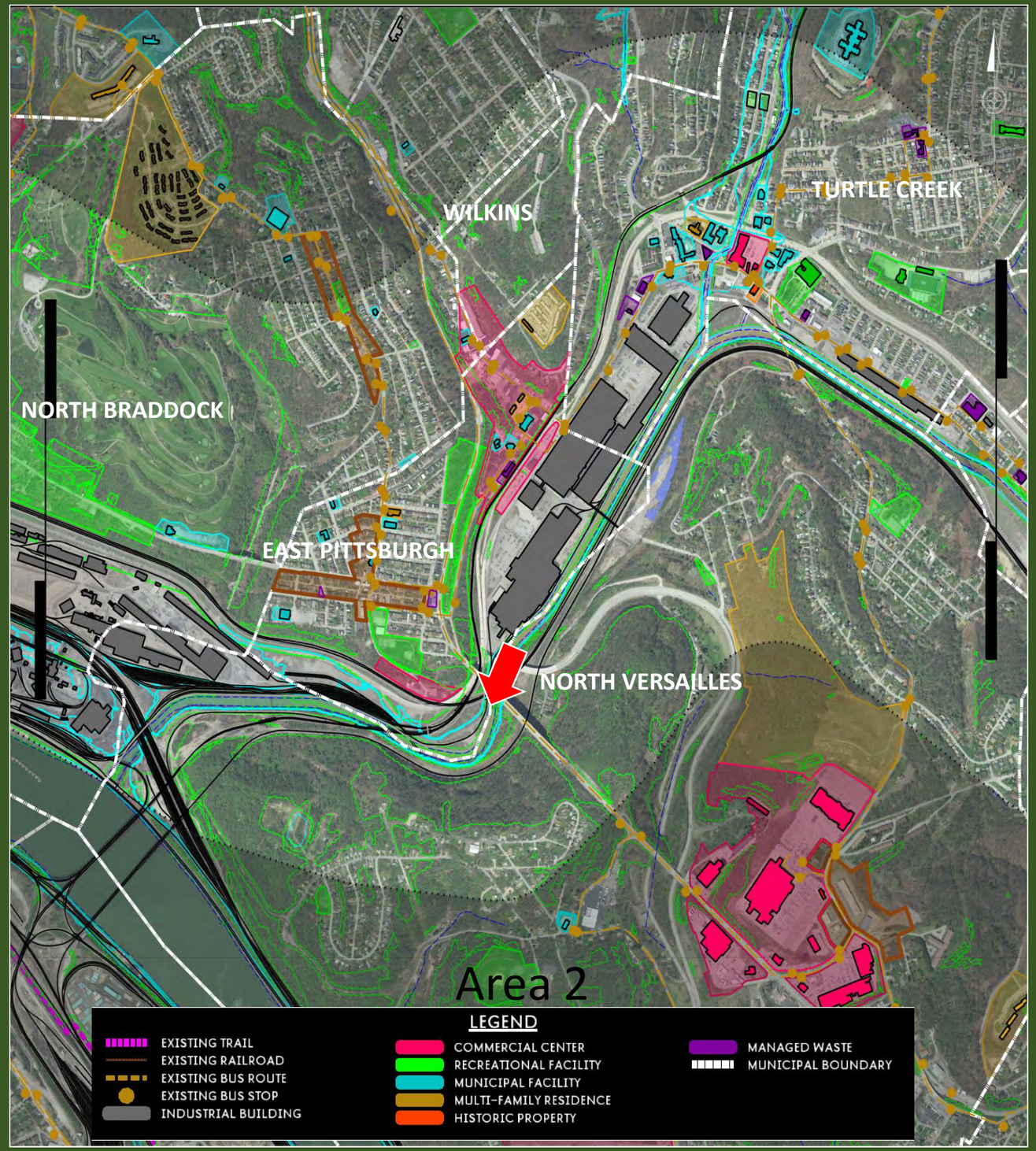
State Route 2183 & Main St. – East Pittsburgh
View Looking North on Main St.



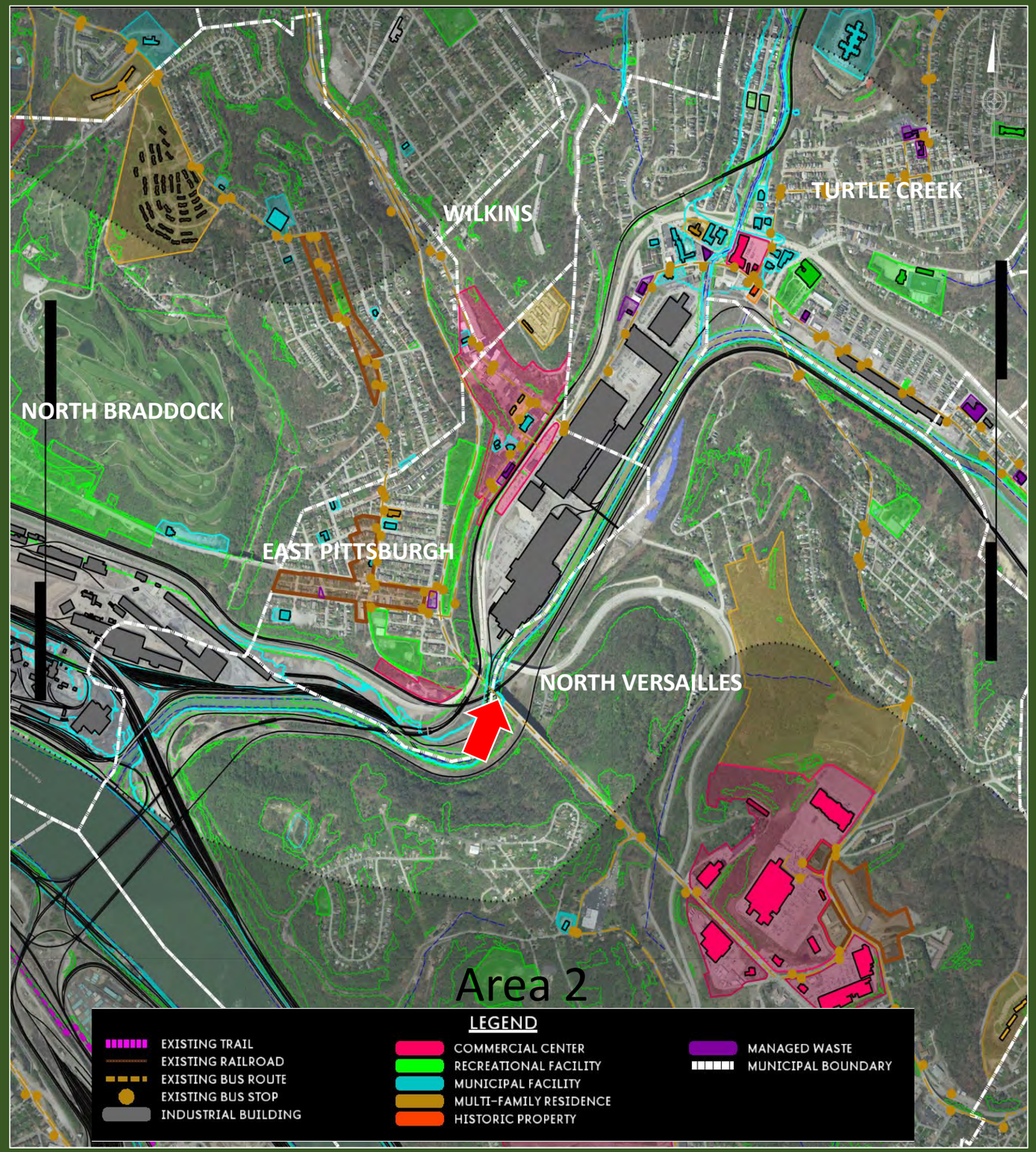
State Route 2183 & Braddock Ave. – East Pittsburgh
View Looking East at George Westinghouse Bridge



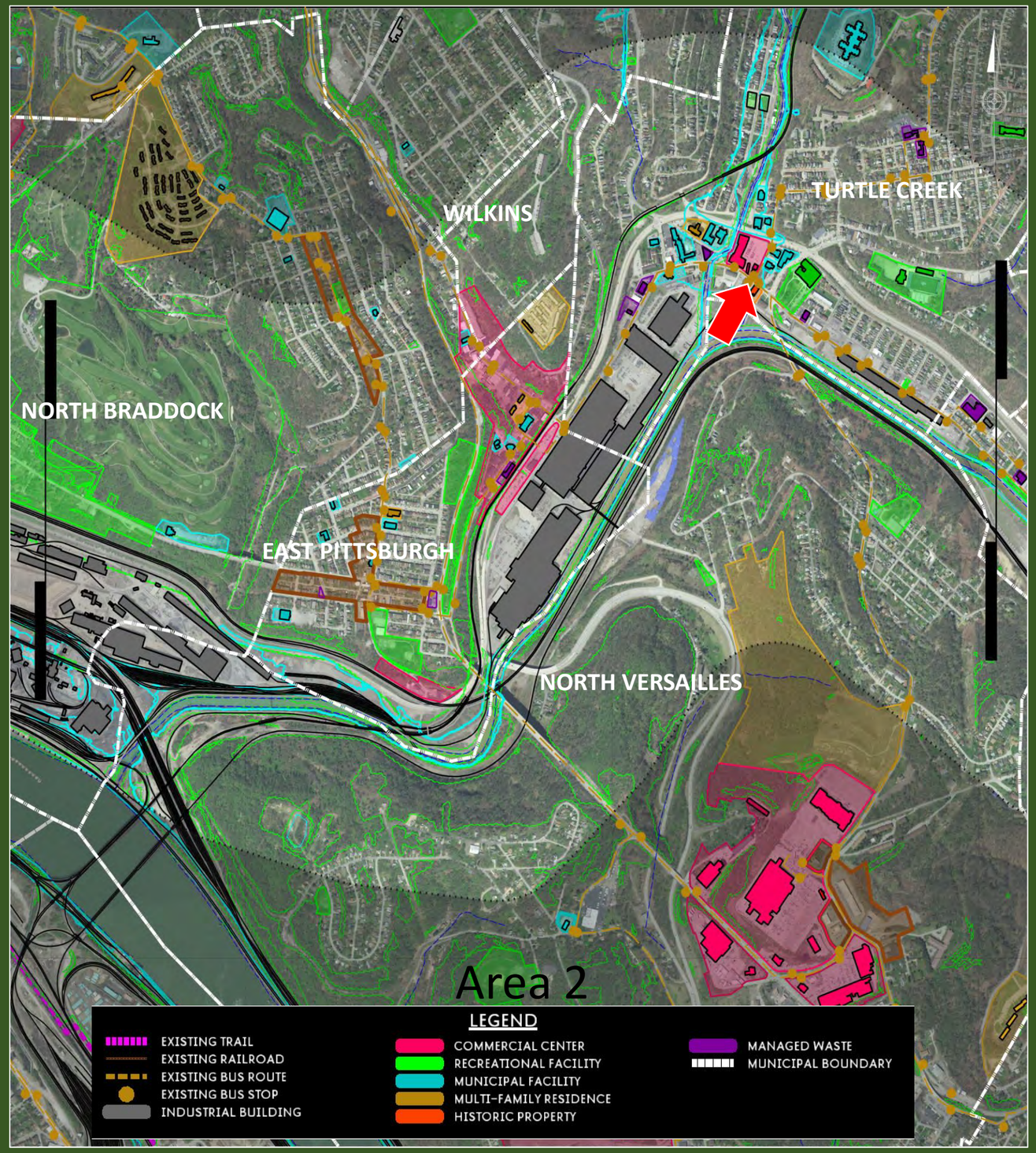
State Route 2183 – East Pittsburgh
View Looking South Under
George Westinghouse Bridge toward
Railroad Tunnel



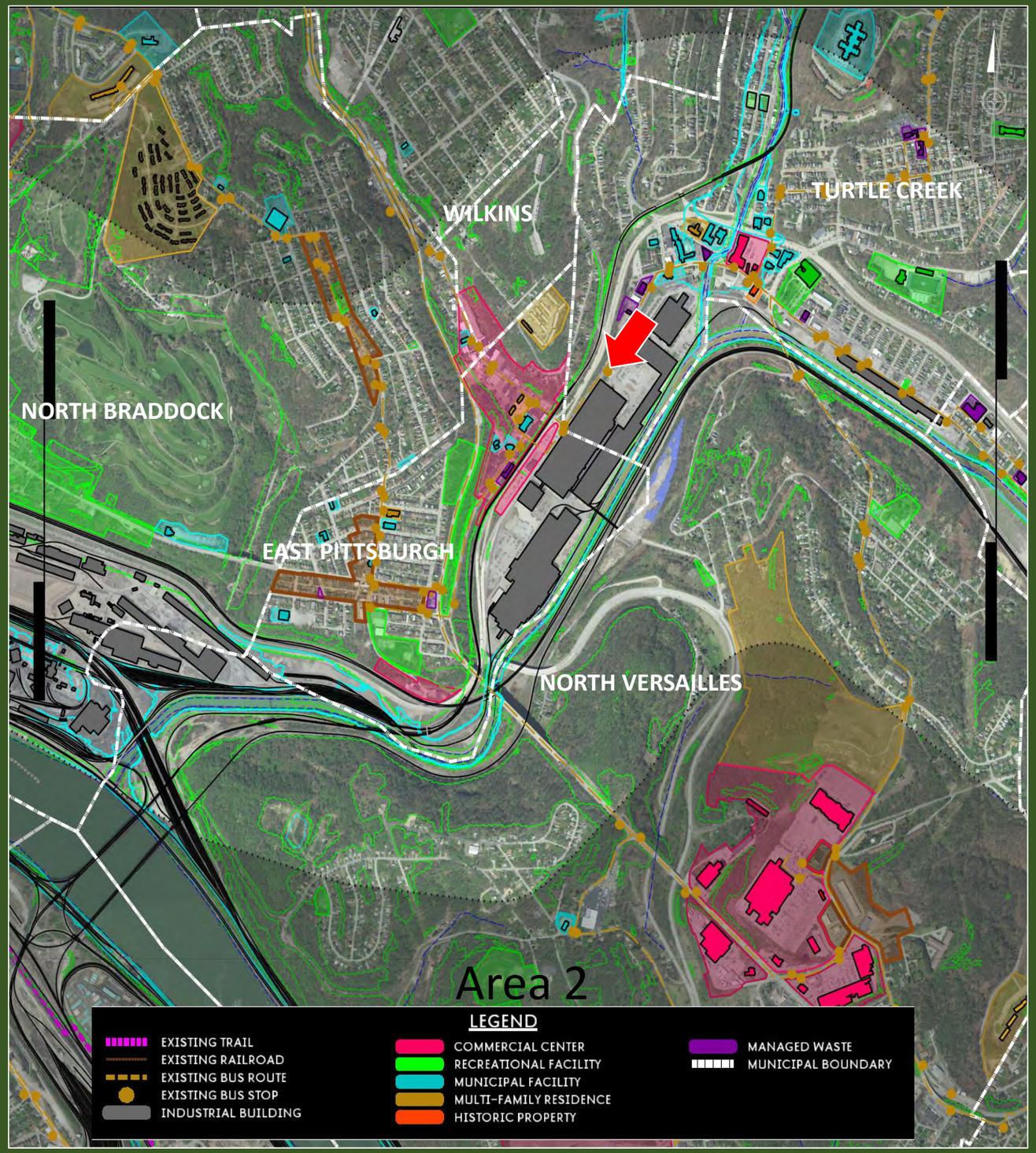
State Route 2183 – East Pittsburgh
View Looking South at Westinghouse Flood Gate



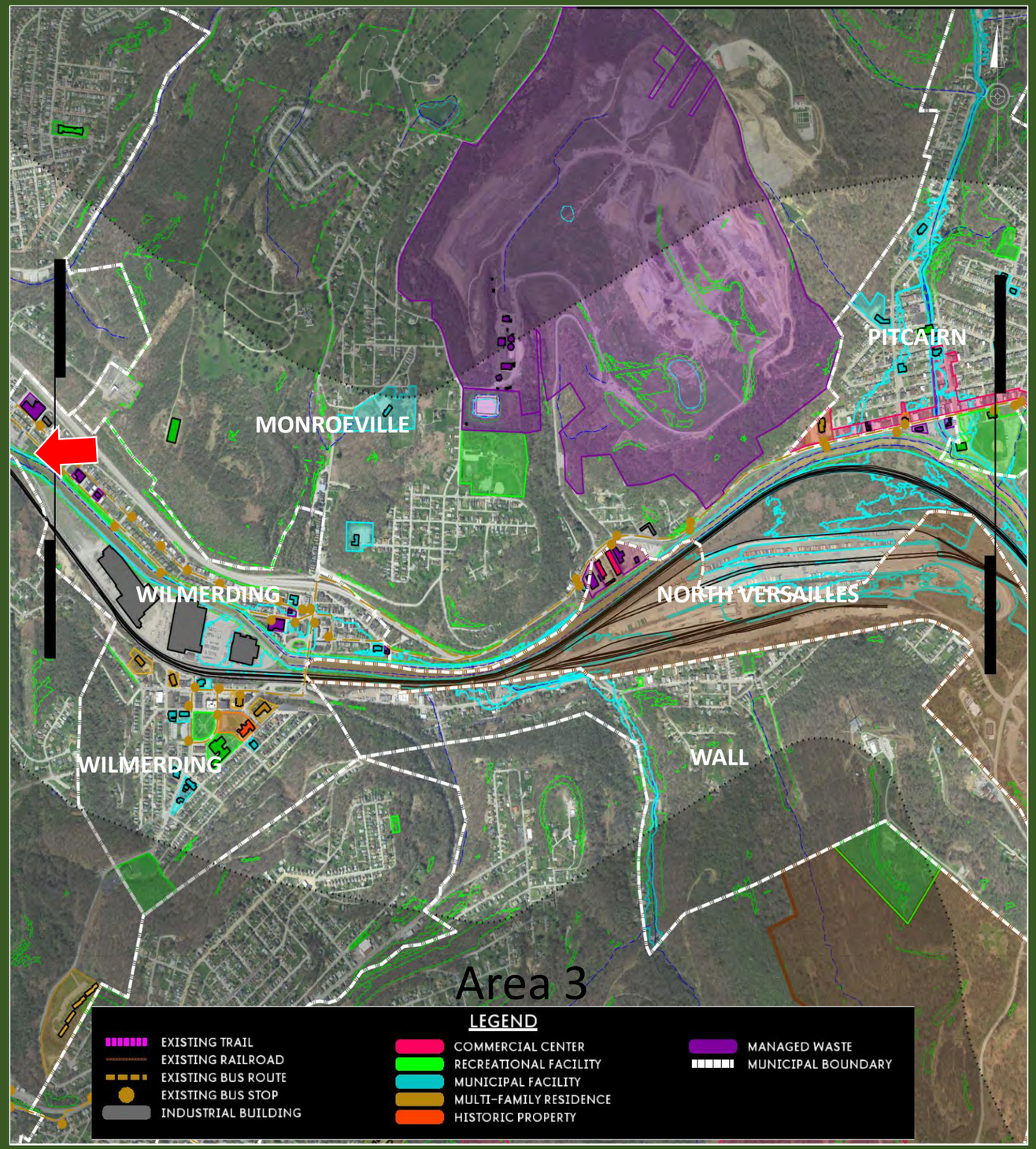
State Route 2183 – East Pittsburgh
View Looking North at Railroad Bridge



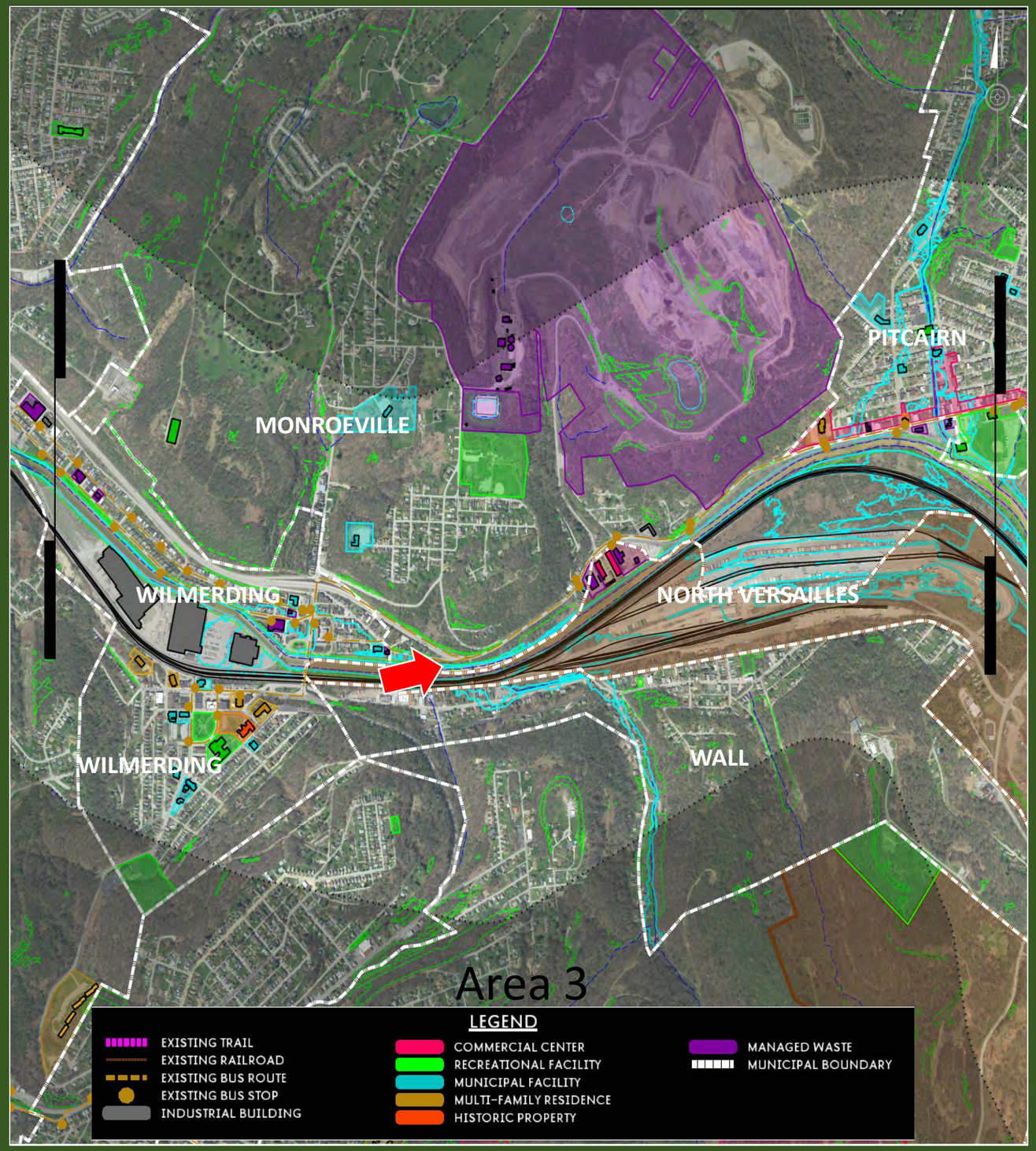
Airbrake Ave. & Grant St. – Turtle Creek
View Looking North on Grant St. with Existing Pedestrian Infrastructure and Street Parking



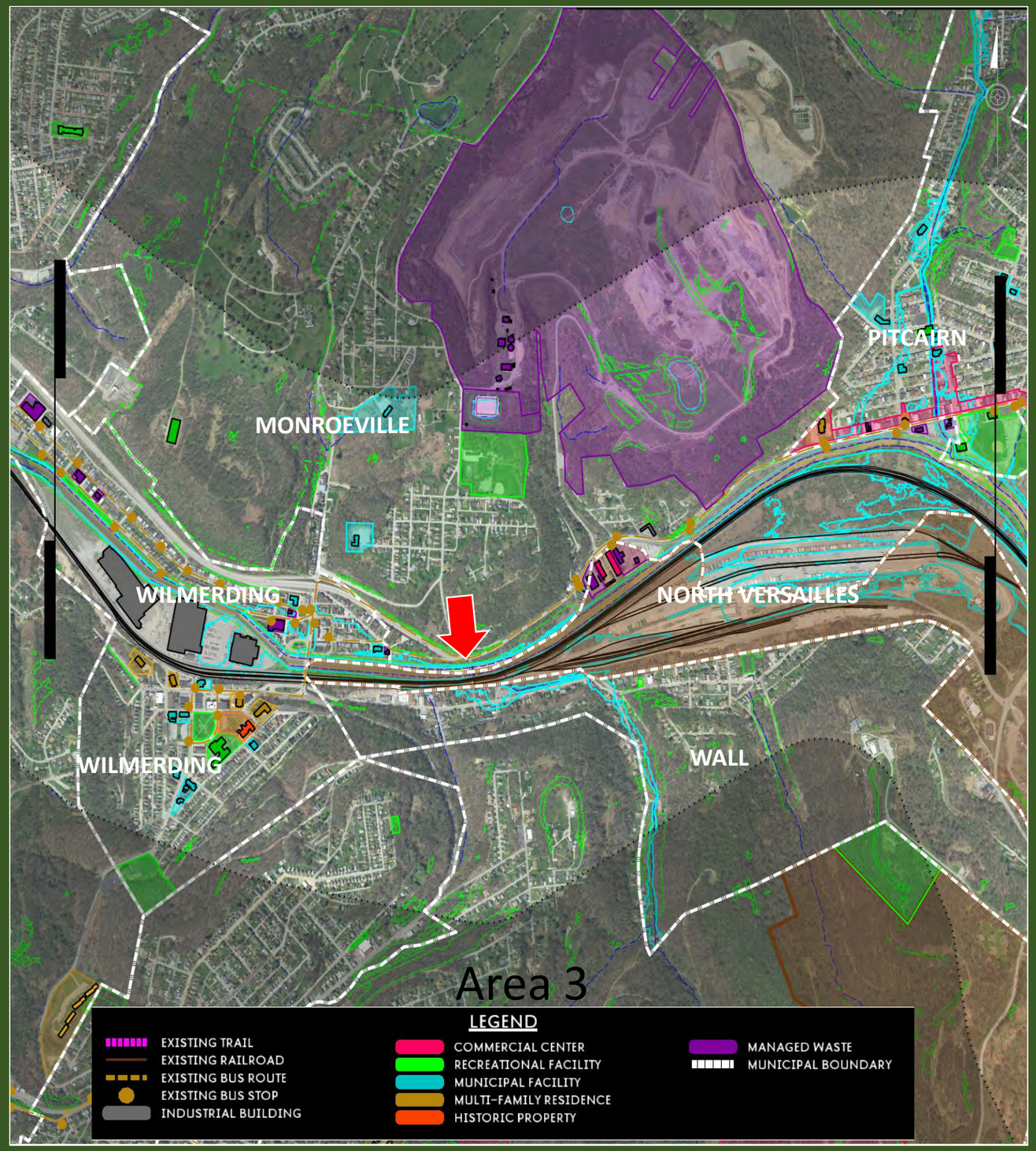
Braddock Ave. & RIDC Entrance– Turtle Creek
View of RIDC West Entrance Looking West



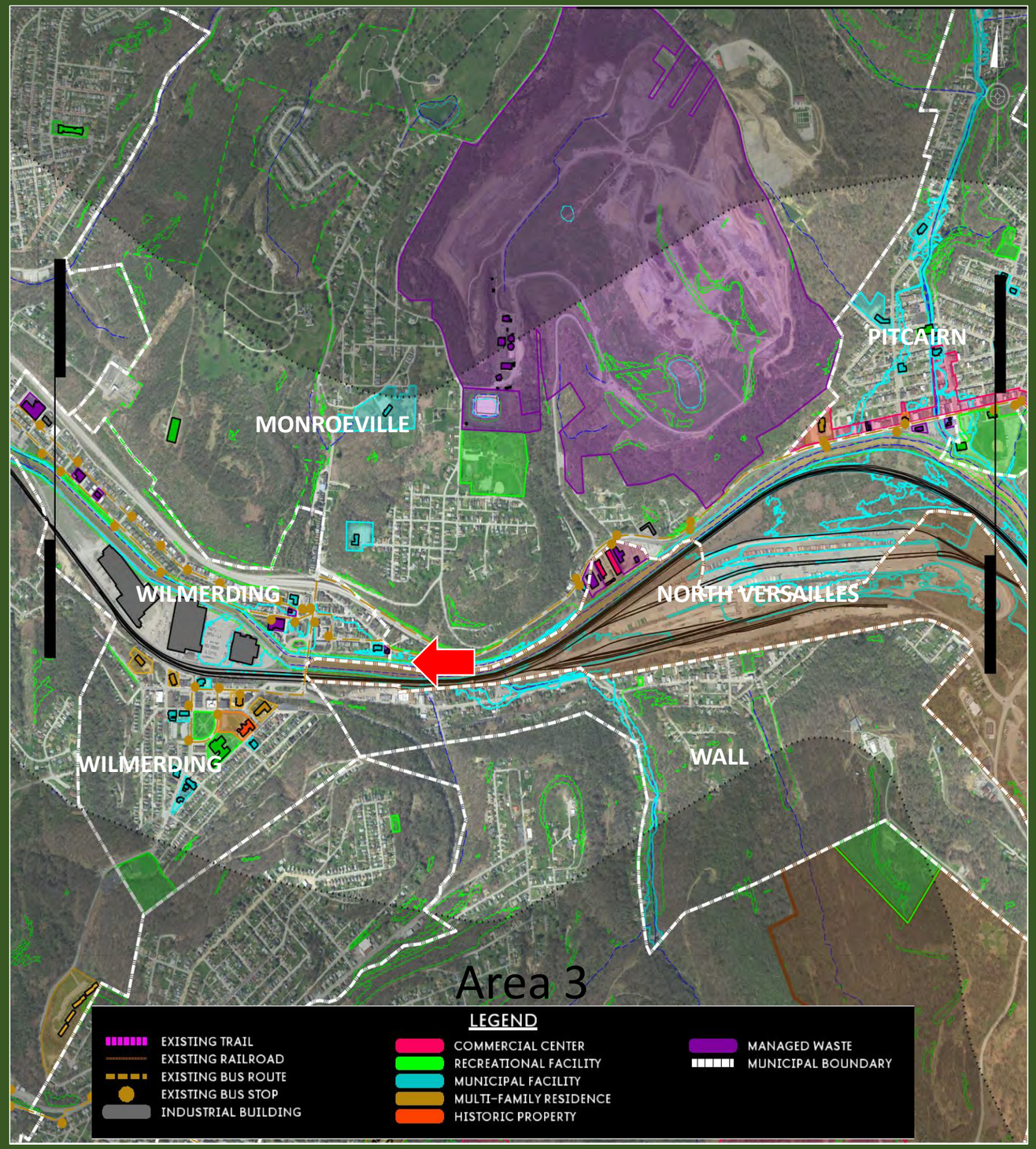
Airbrake Ave. & 4th St. – Wilmerding
View of Private Crossing over Turtle Creek
Looking South



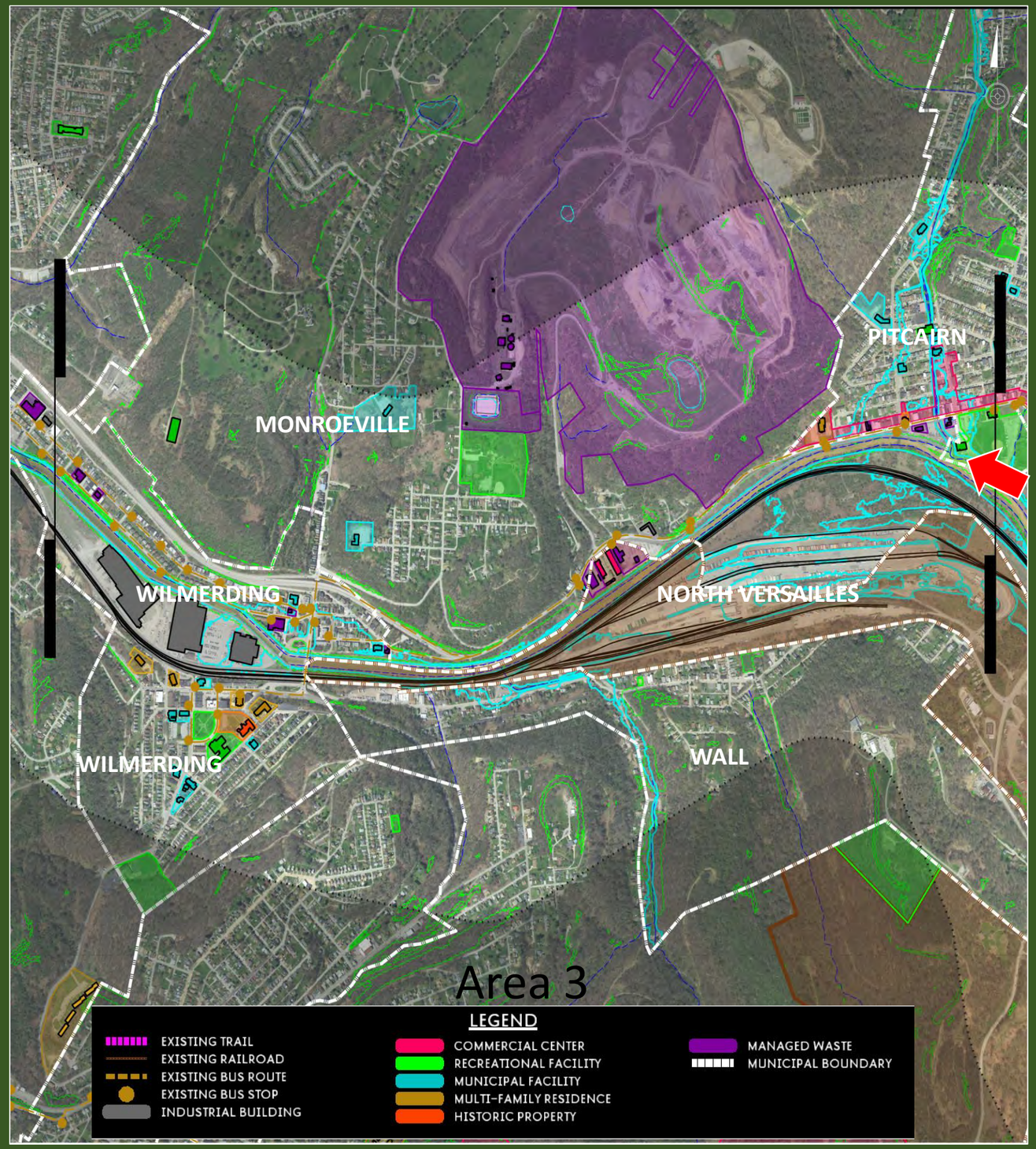
Tri-Boro Expy & Bridge St. - Wilmerding
View of Existing ROW and Shoulder Area



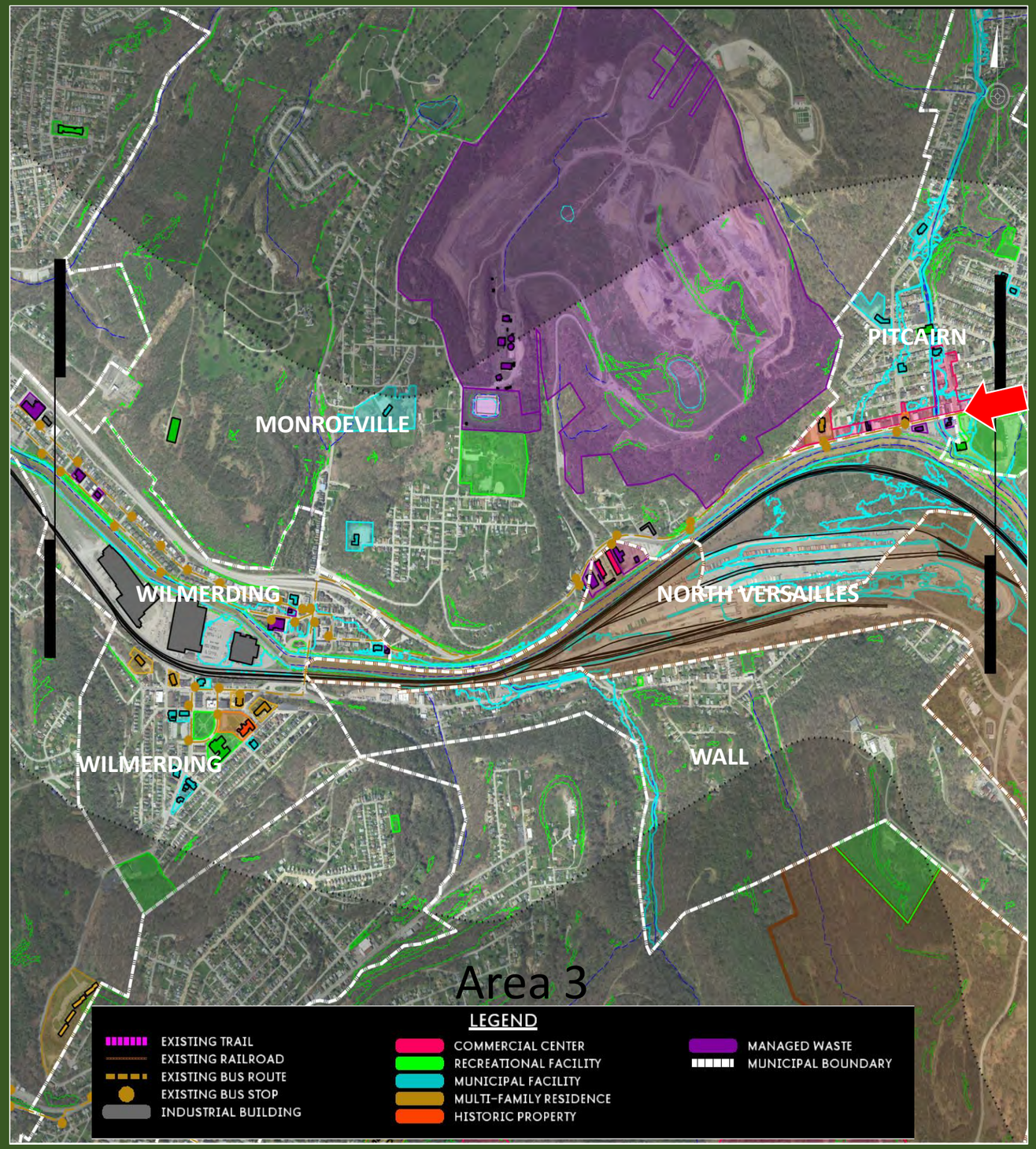
Tri-Boro Expy & Bridge St. - Wilmerding
Abandoned Bridge over Turtle Creek with Sidewalk



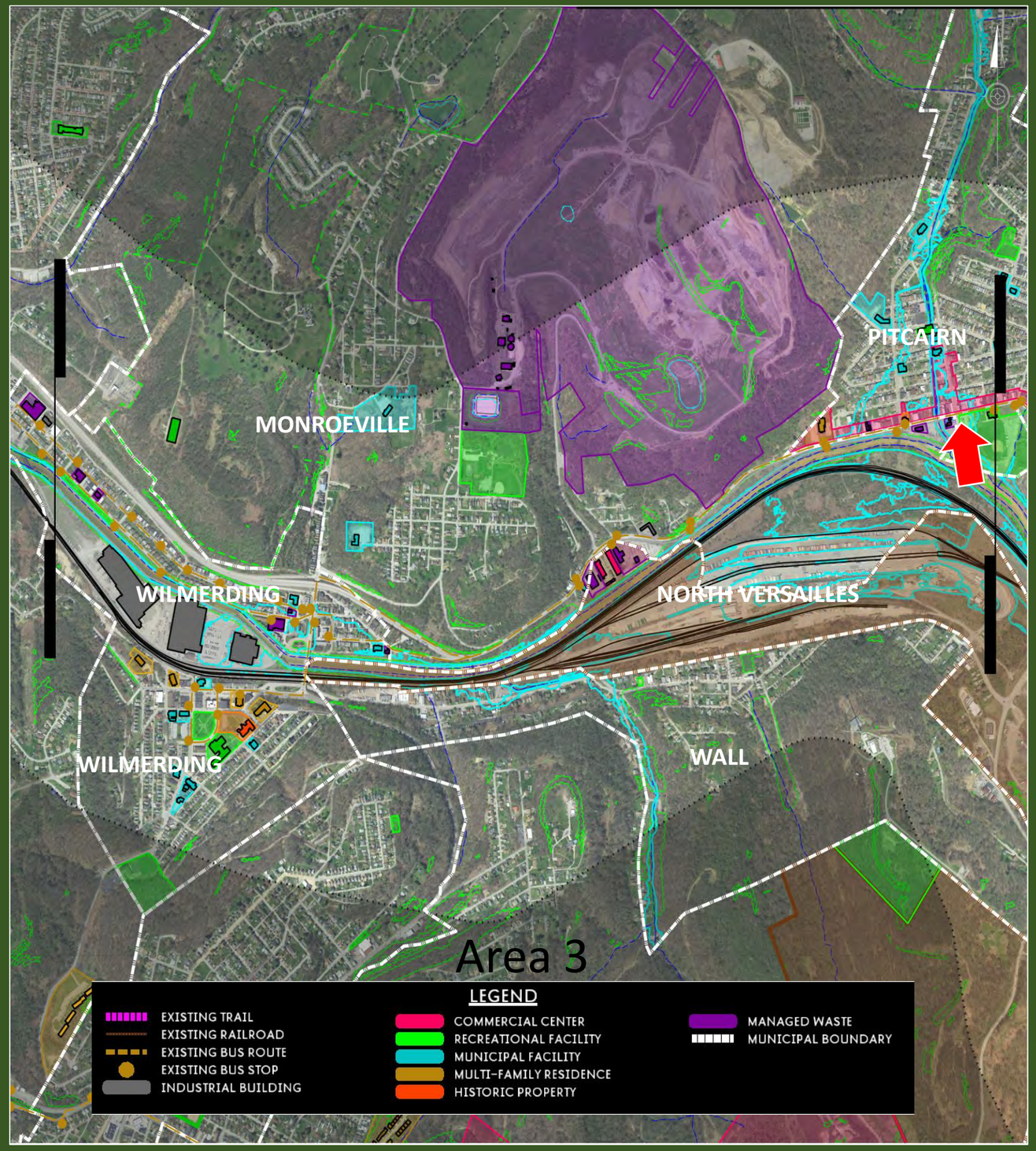
Avenue U & Watkins Ave. – Wilmerding
View Looking West Along Turtle Creek for
Potential Improvements



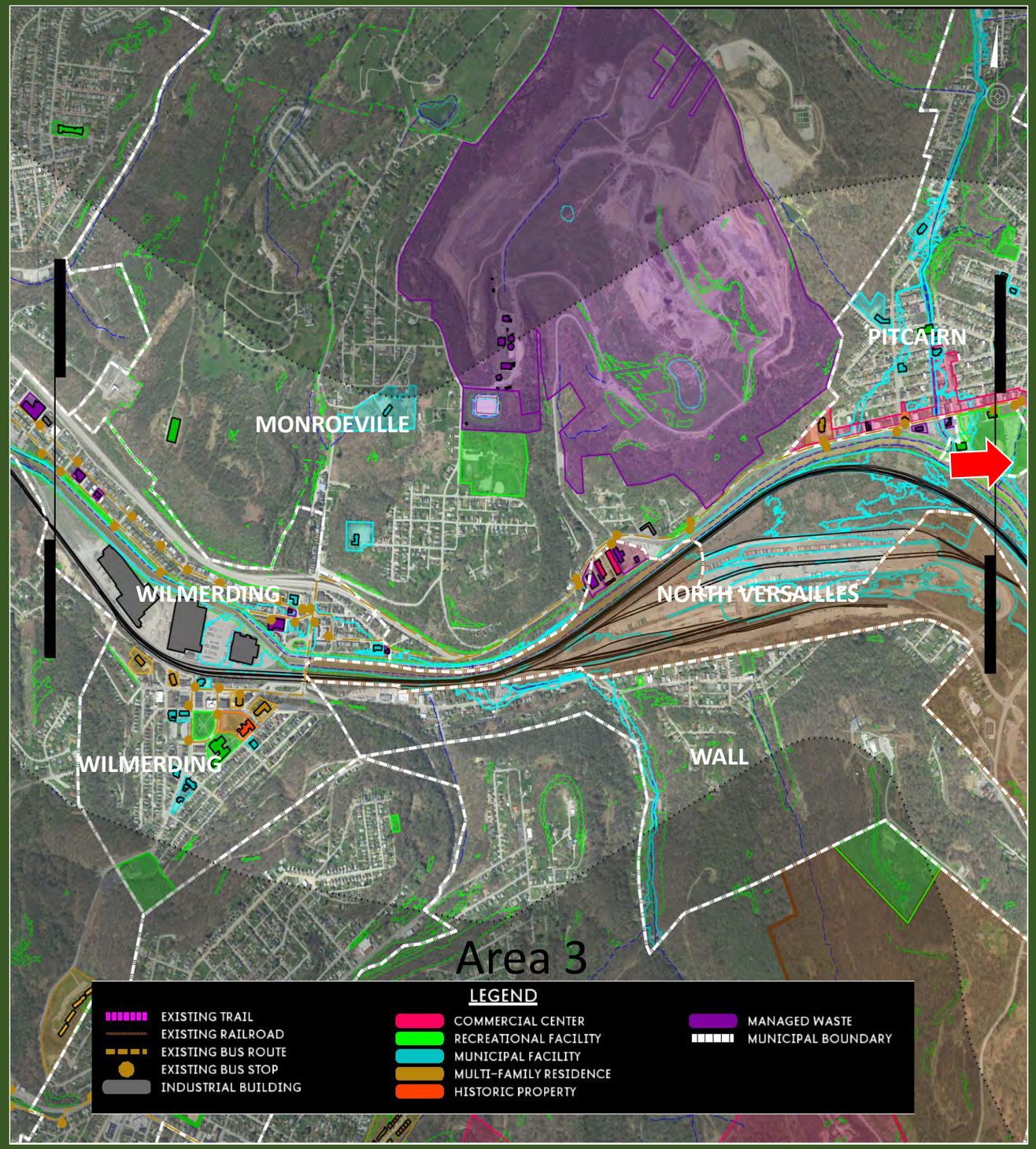
Pitcairn Park – Pitcairn
View Looking Northwest Toward
Pitcairn Park & Broadway Blvd.



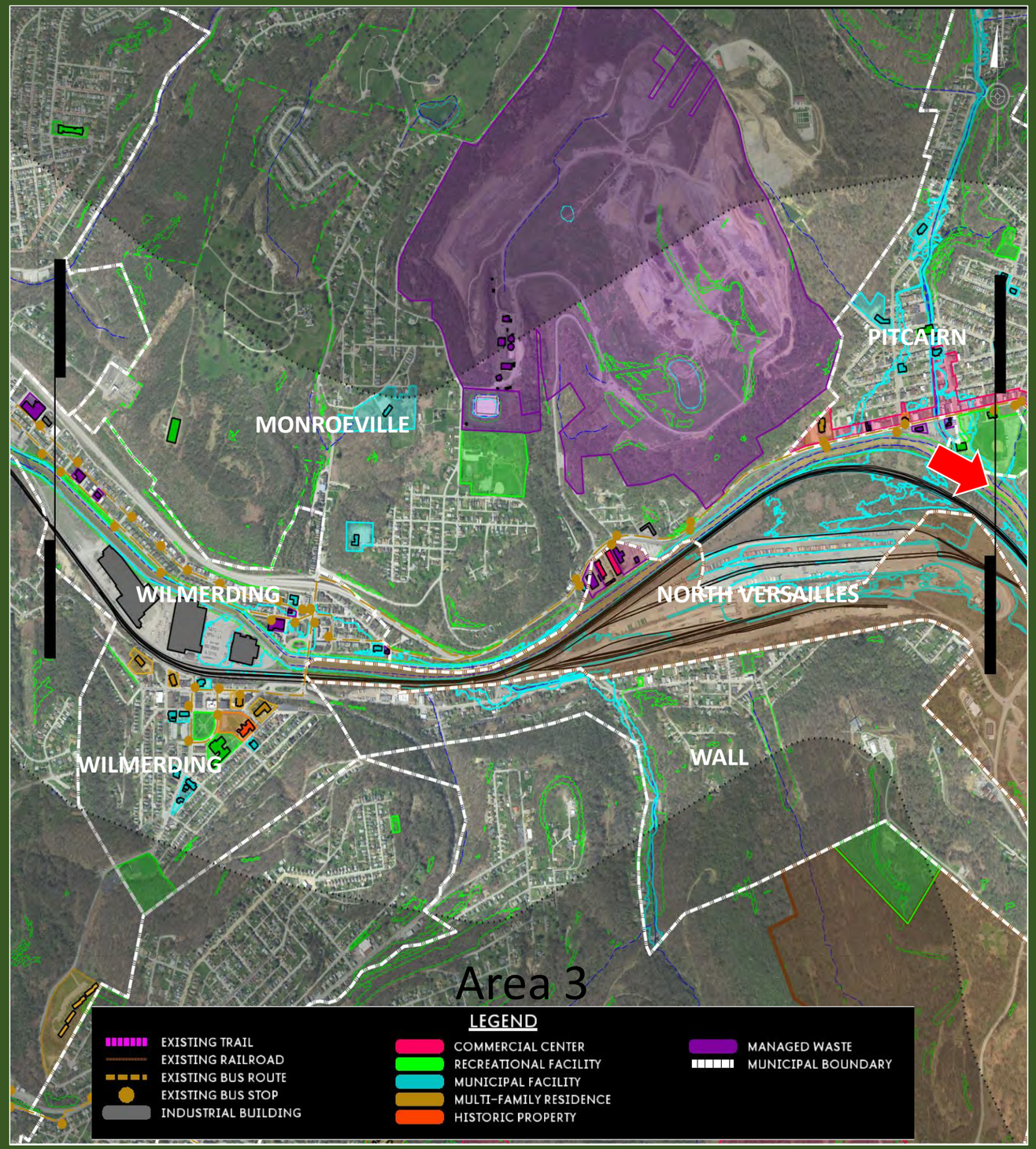
Pitcairn Park – Pitcairn
View from Pitcairn park near Borough Building
Looking West to Broadway Blvd

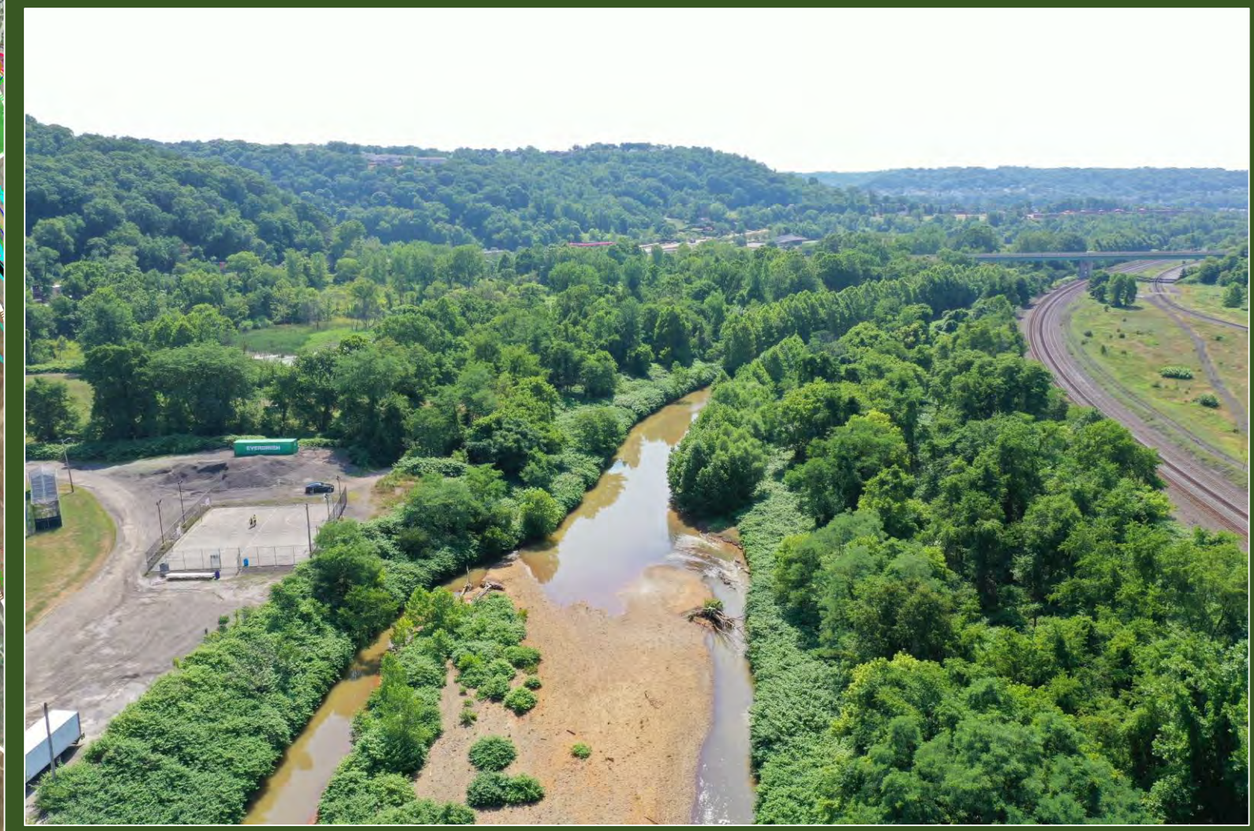


Broadway Blvd. & Center Ave. – Pitcairn
View Looking North on Center Ave. from Pitcain Park Parking Lot & Pitcairn Hose Co.

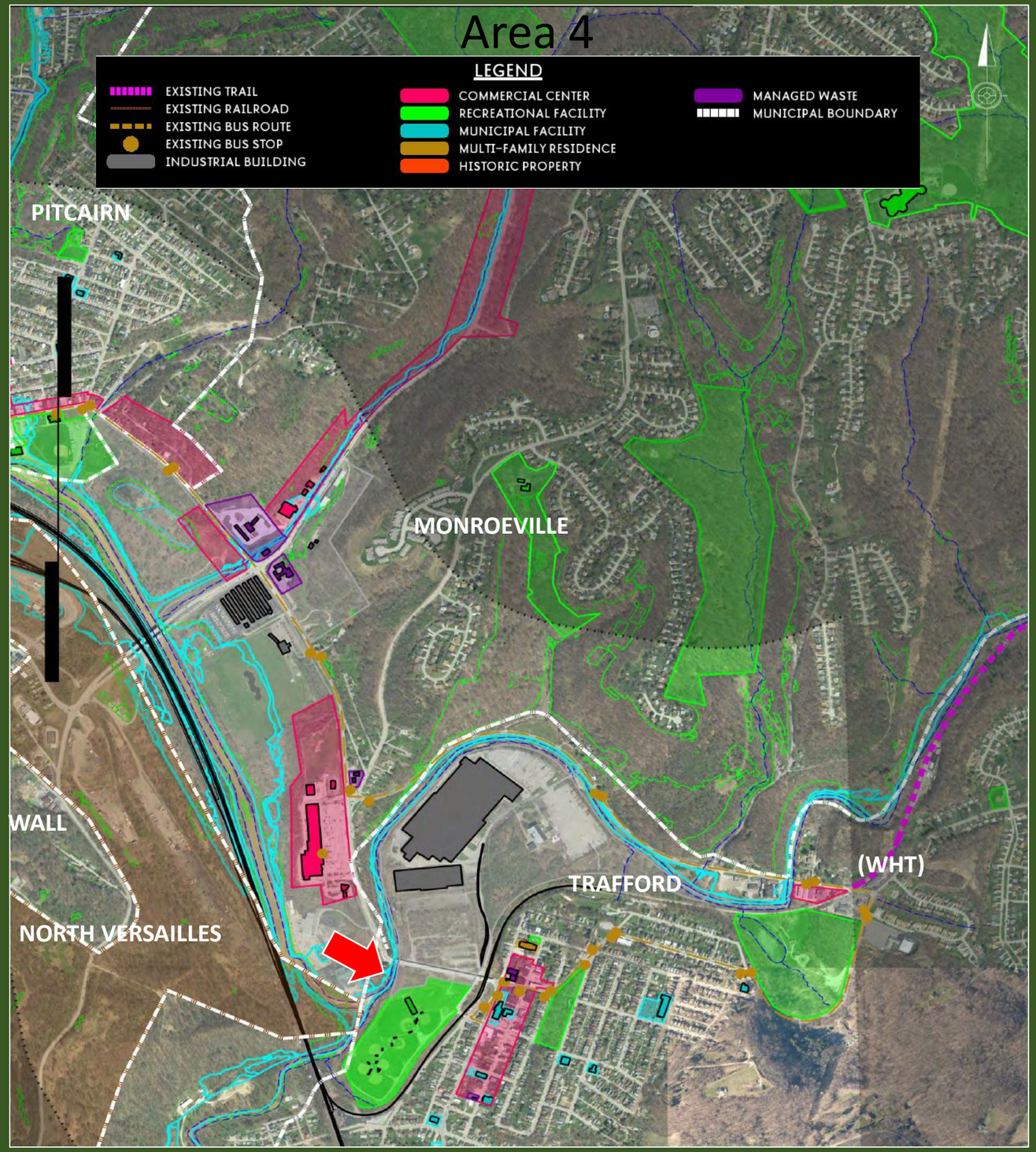


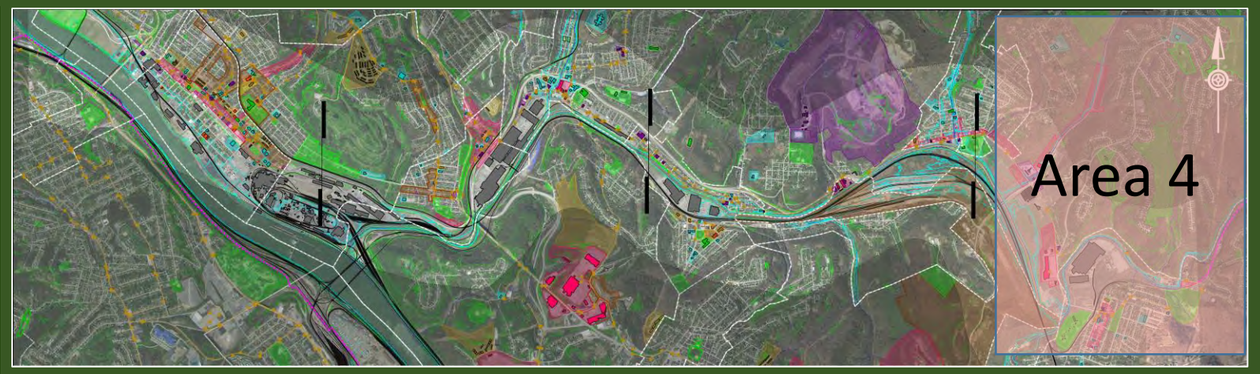
Pitcairn Park – Pitcairn
View Looking East on Gravel Access Road to
Pitcairn Park Baseball Fields



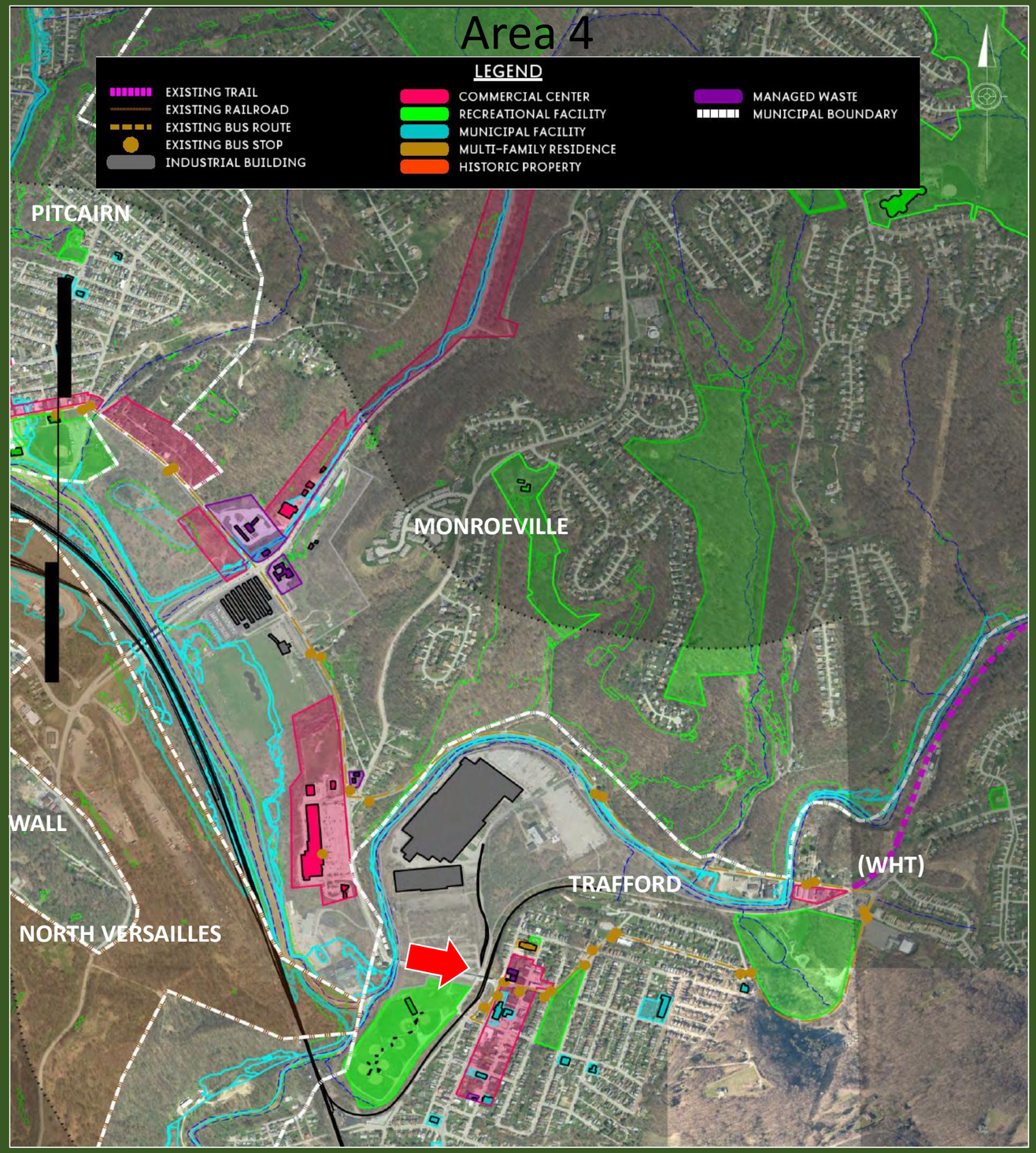


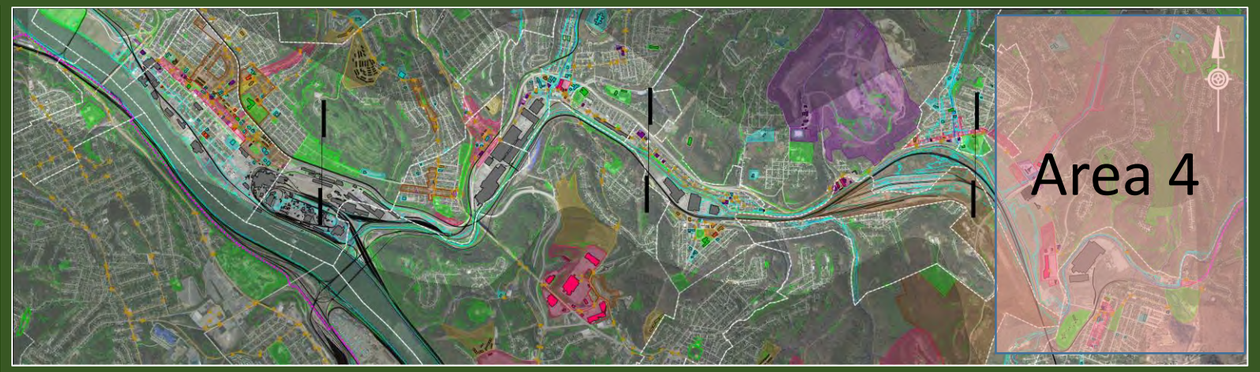
Pitcairn Park – Pitcairn
View from the Park Looking South



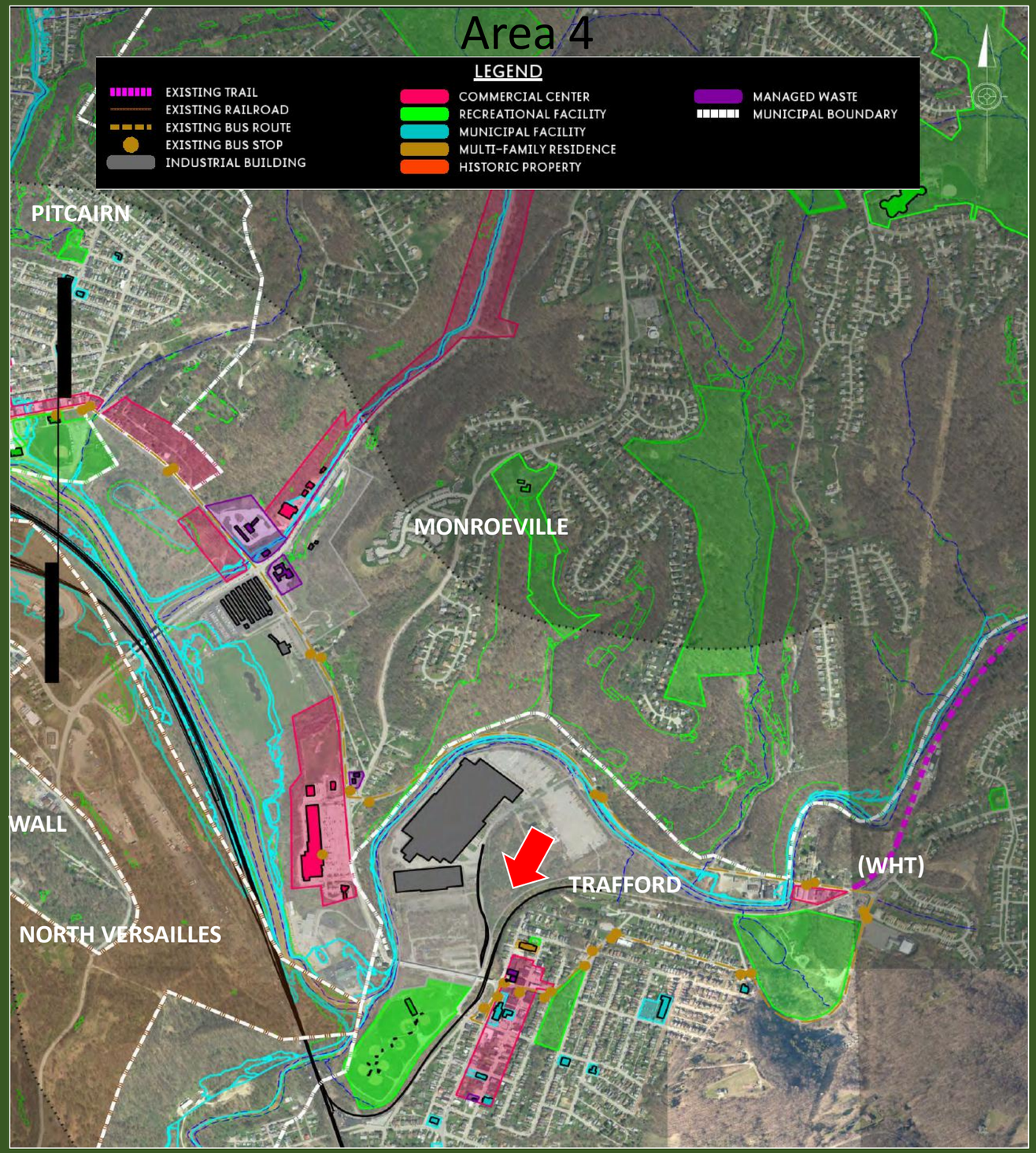


Rt. 130 Looking at Turtle Creek – Trafford
View Looking South at All American Park

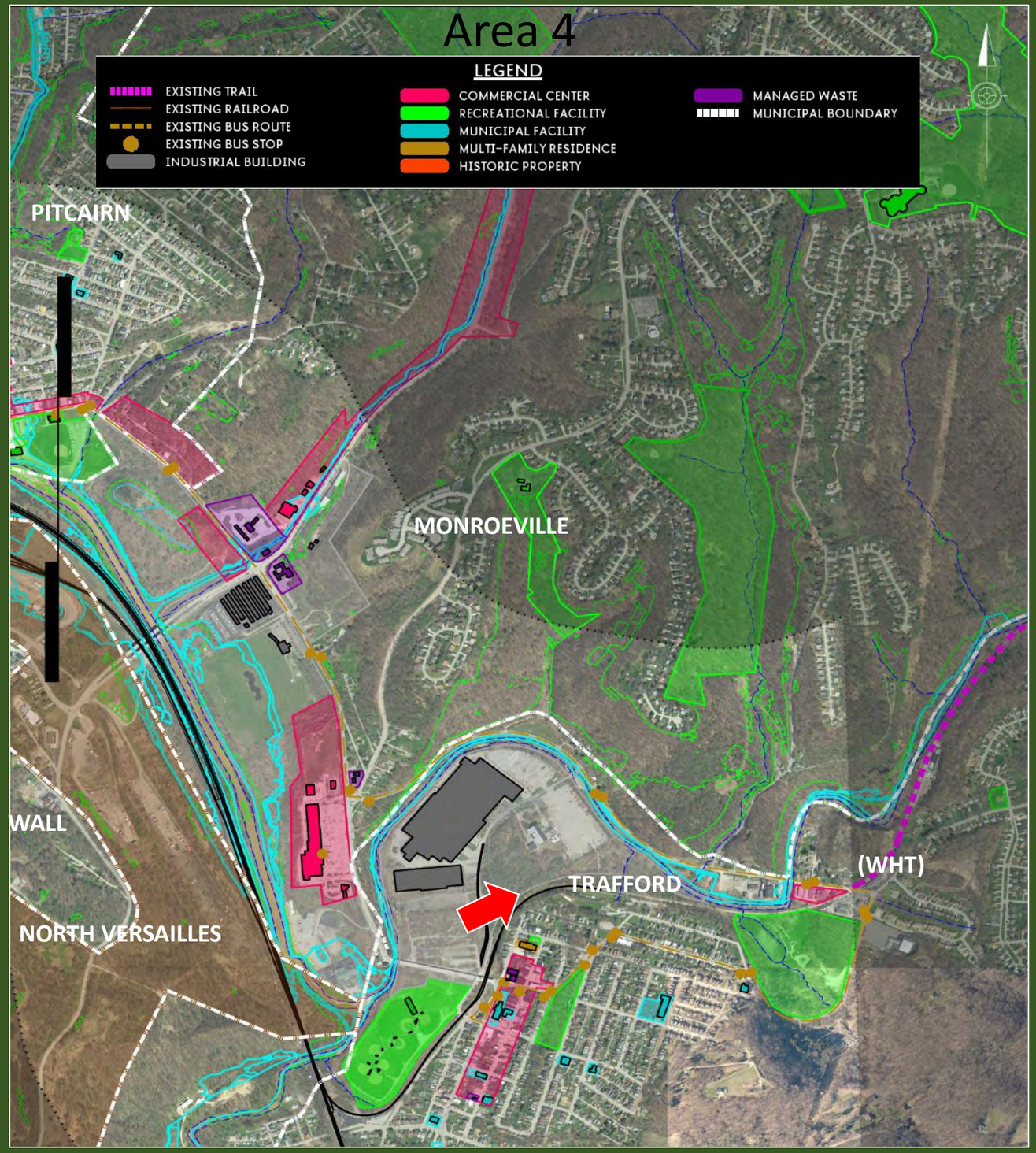


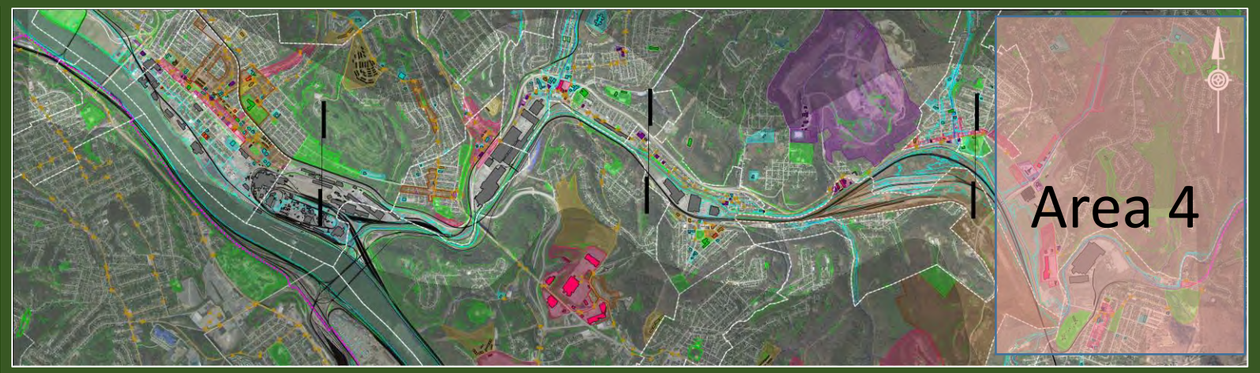


Stewart Station Drive – Trafford
View Looking East at 5th St. Ext.
Flyover Structure

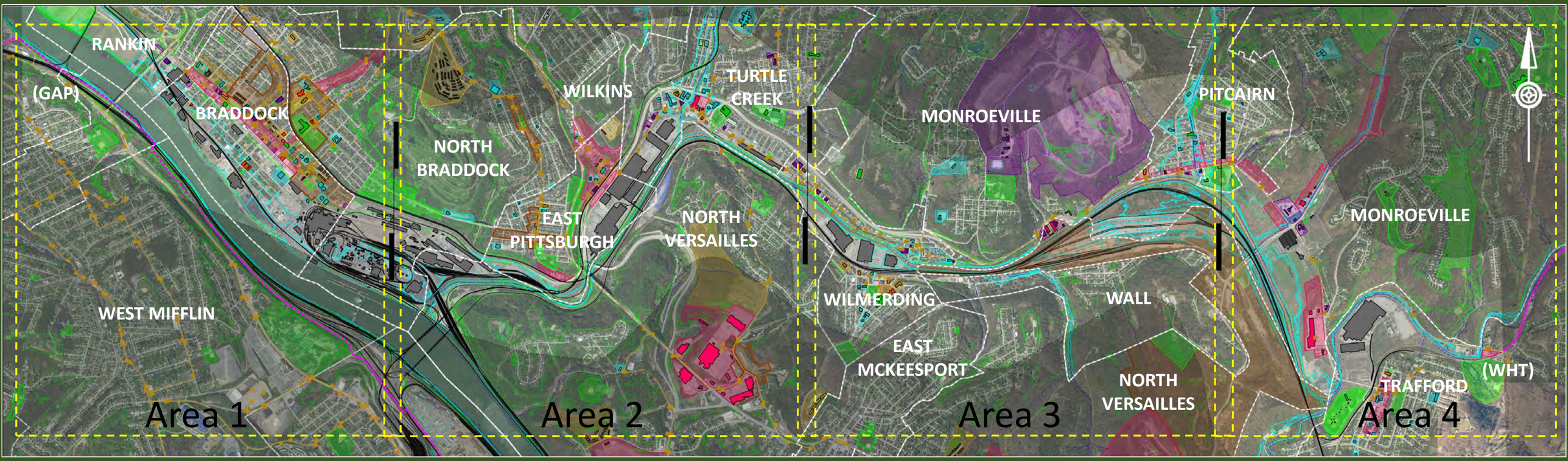


Stewart Station Drive – Trafford
View Looking South Toward Brinton Ave.

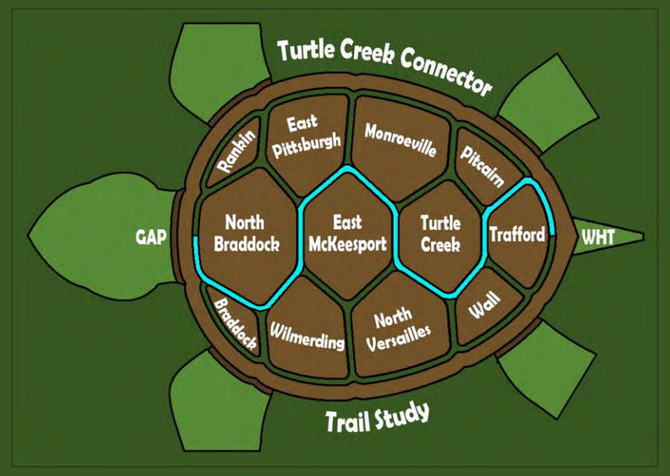


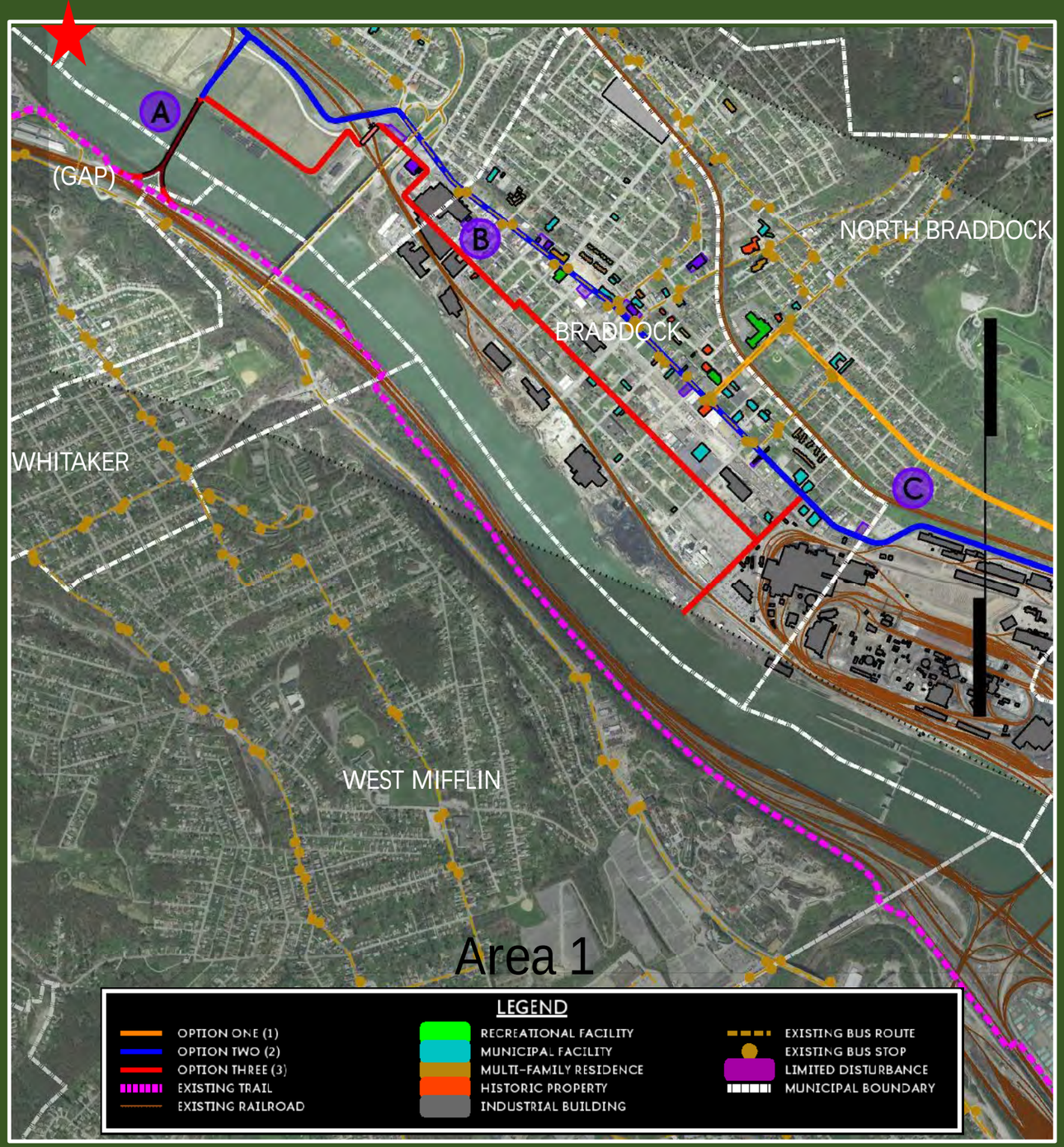


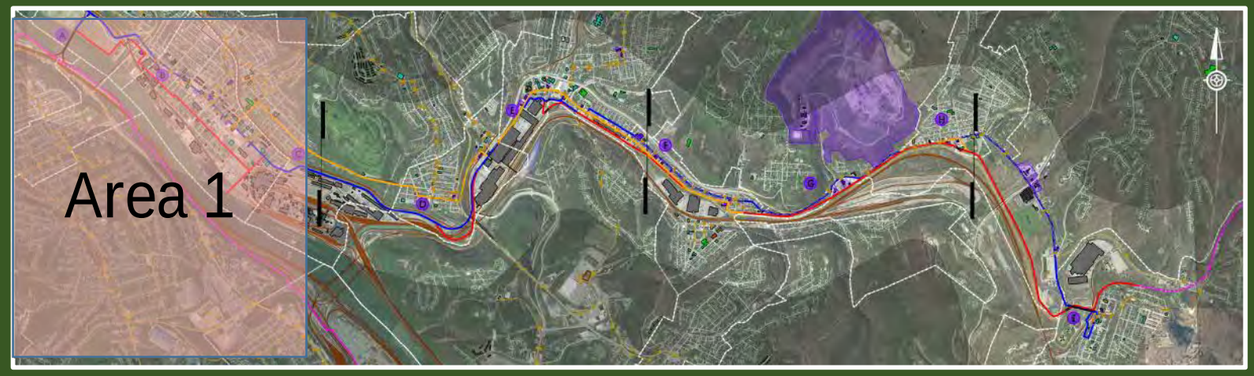
Stewart Station Drive – Trafford
View Looking North at Path Parallel to
Existing Railroad



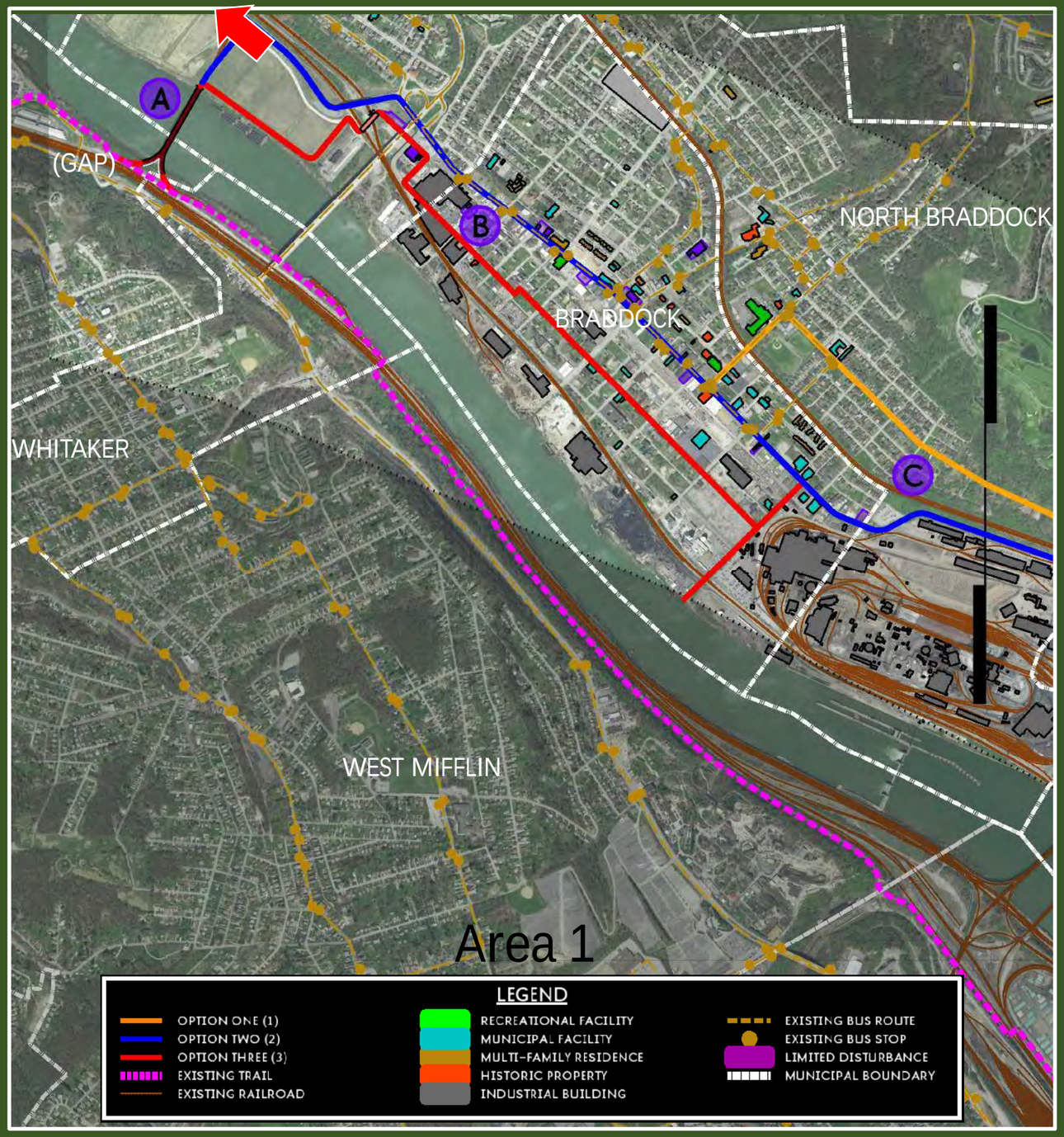
Appendix B: Alignment Visualizations

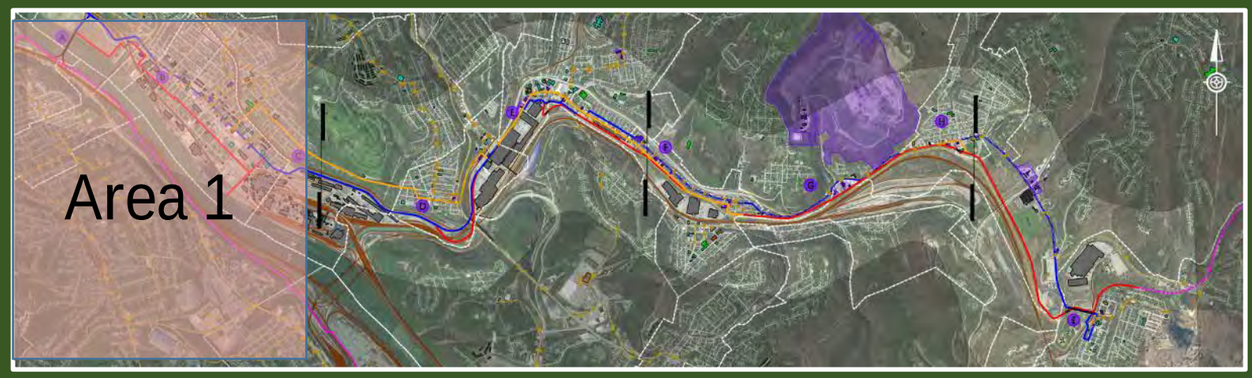




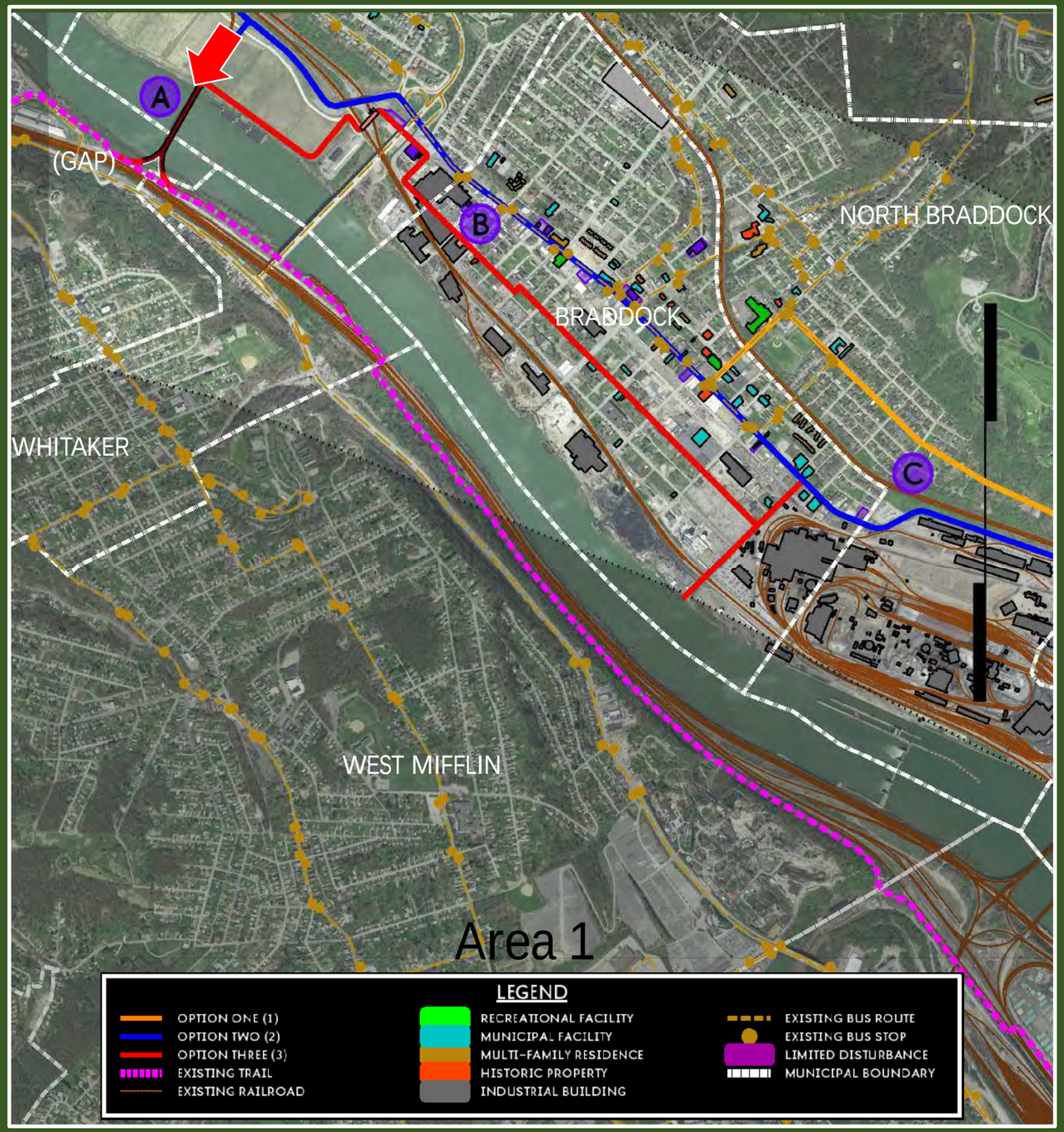


Carrie Blast Furnace
Swissvale

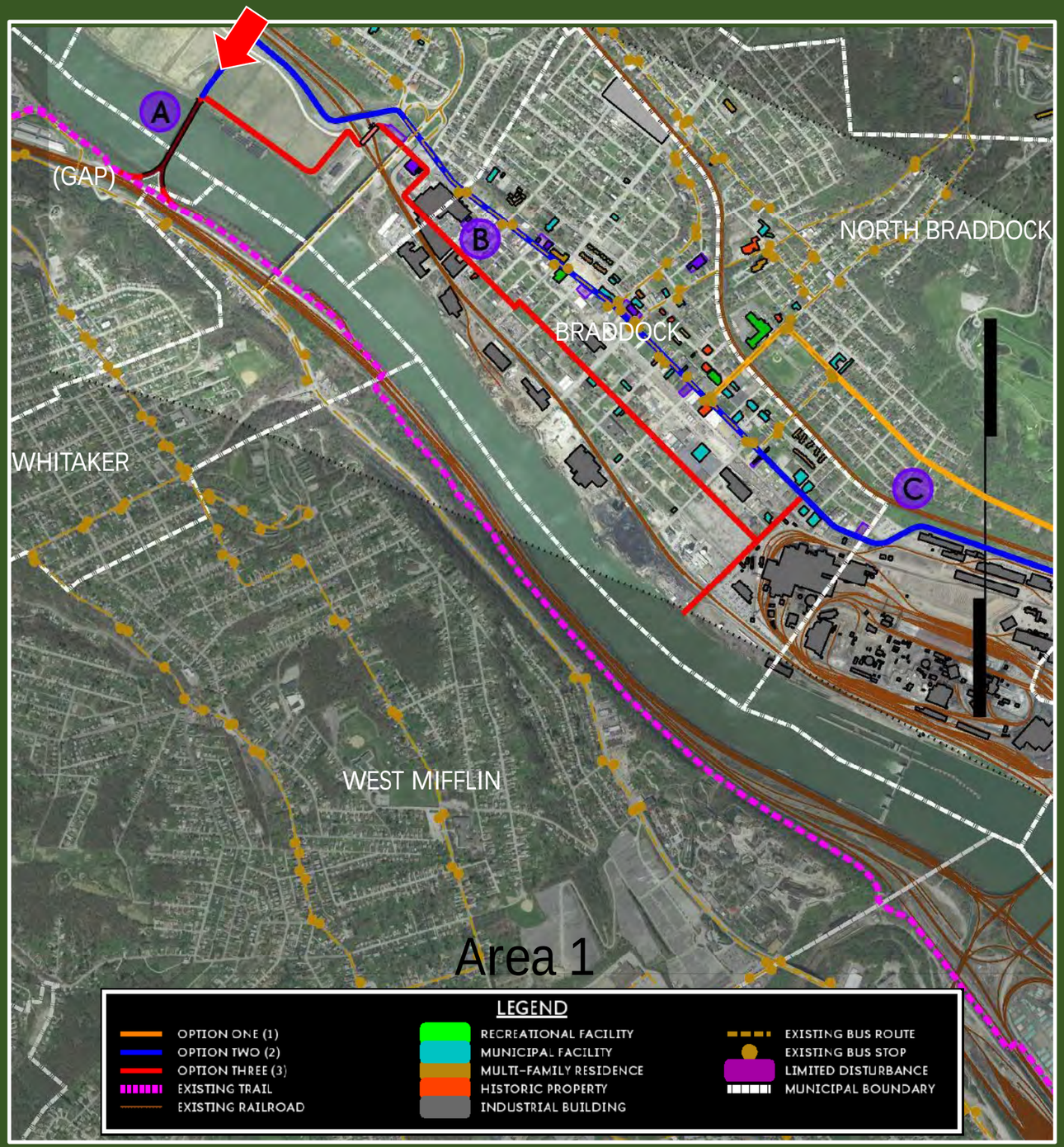


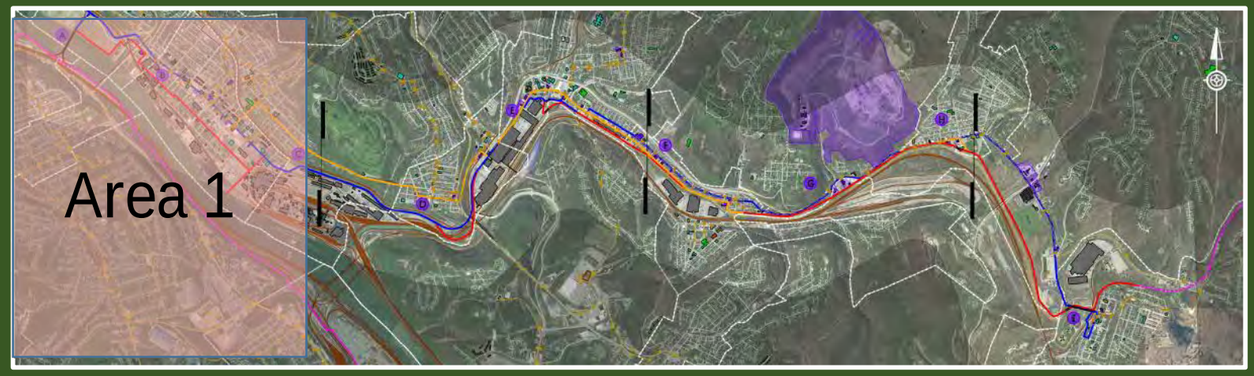


Carrie Furnace Site: Potential Connection via Swissvale Tunnel

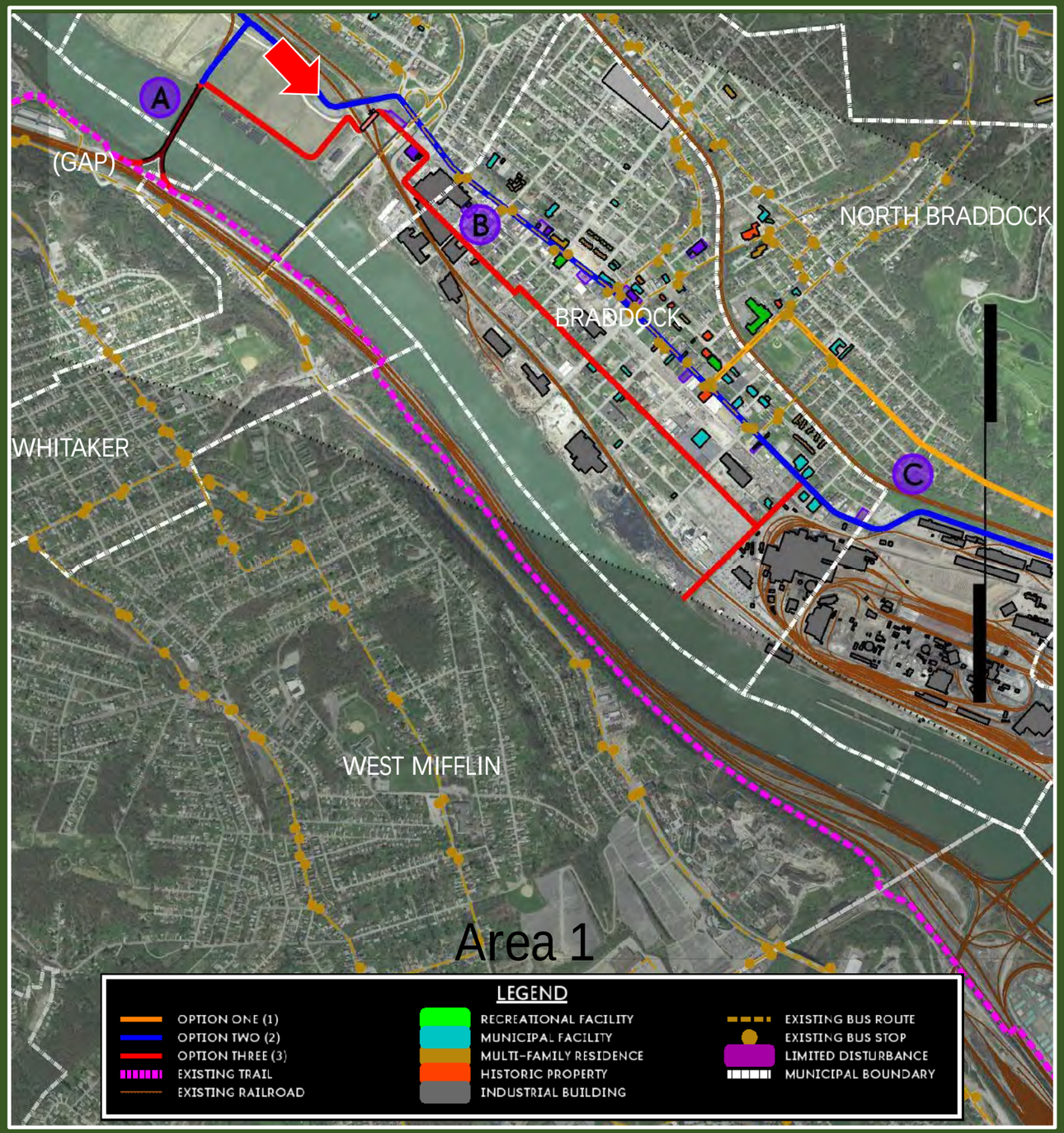


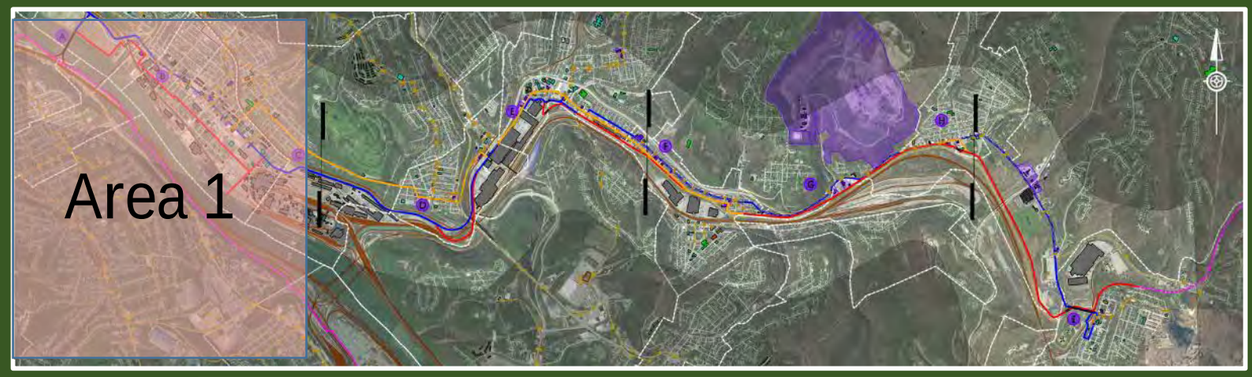
Hot Metal Bridge
Rankin

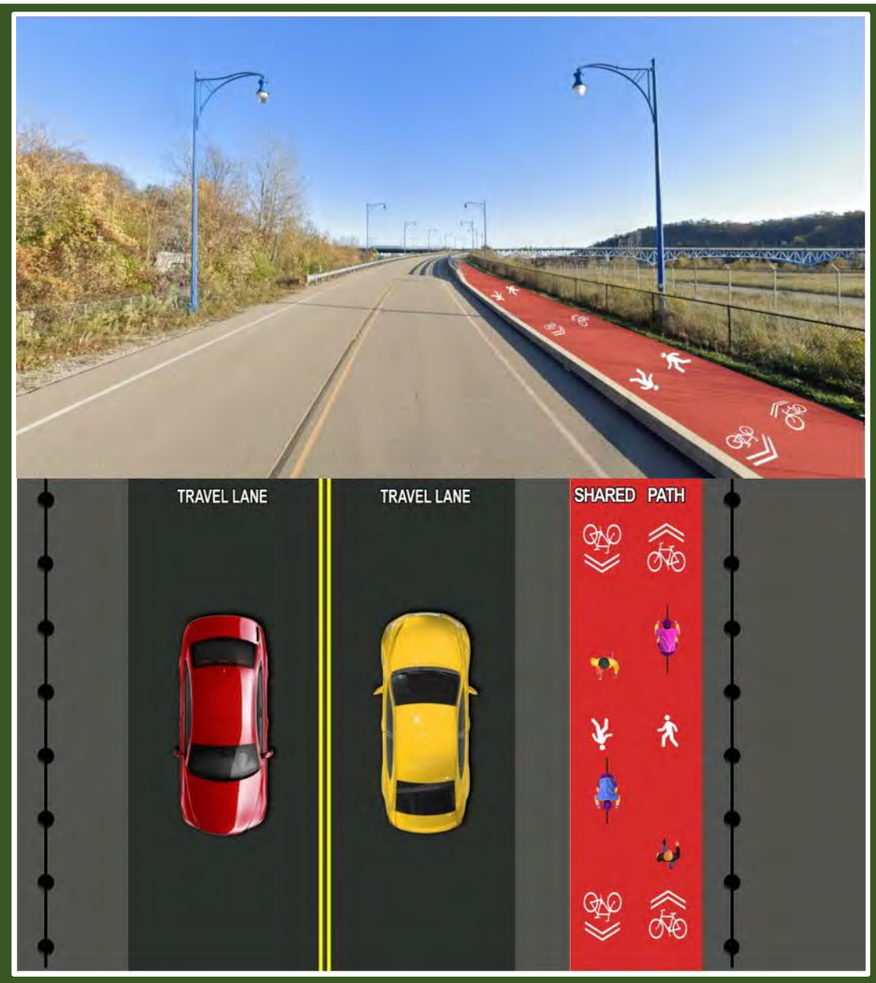




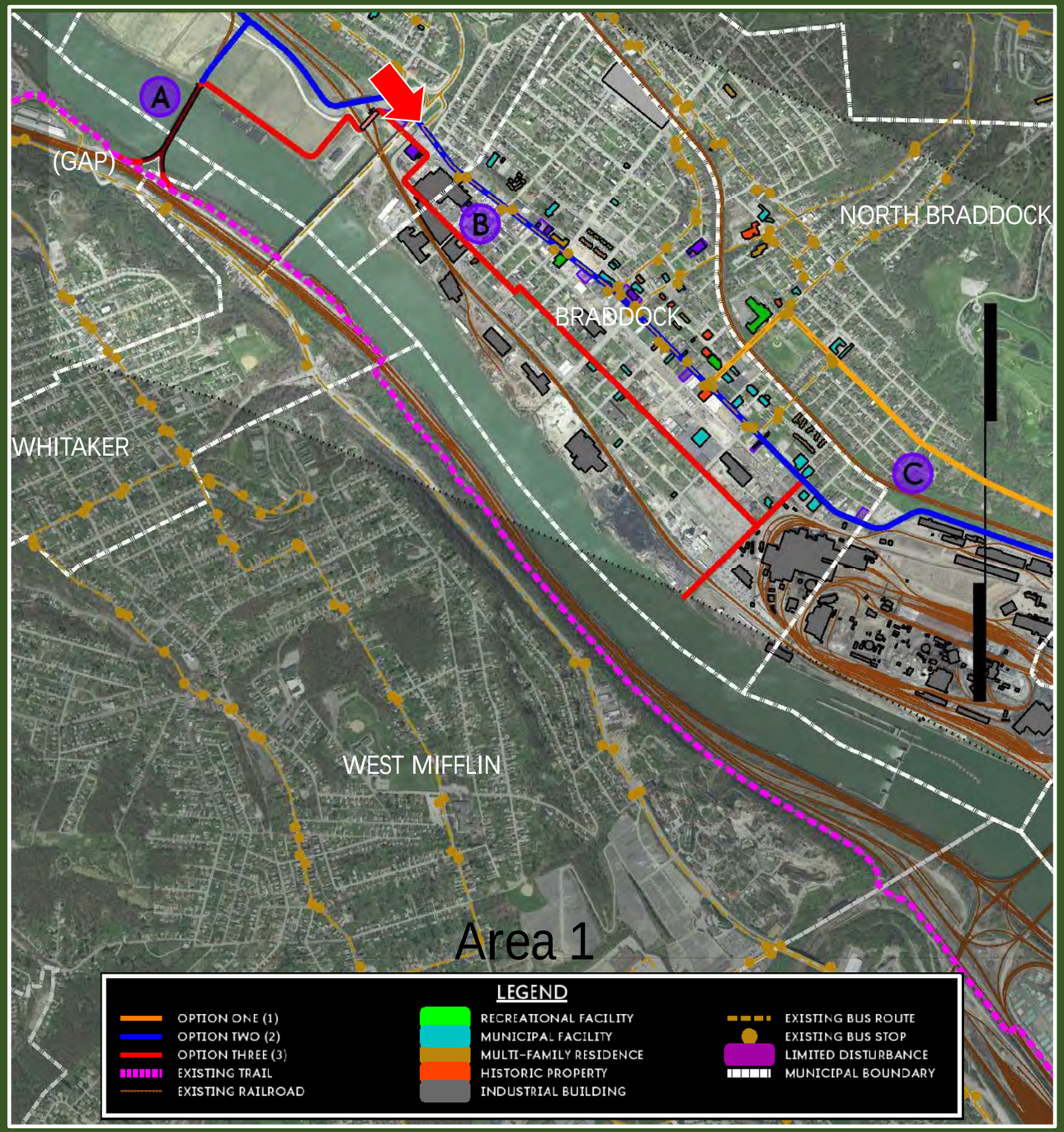
Carrie Furnace Site
Rankin

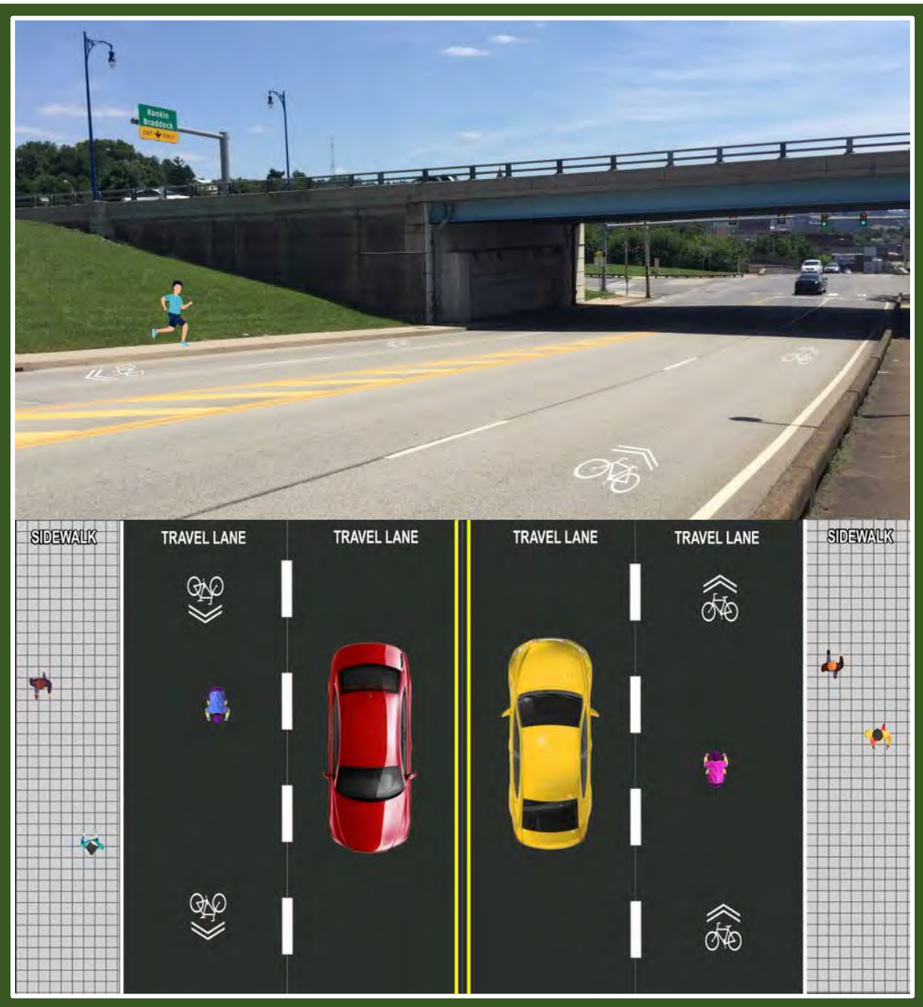




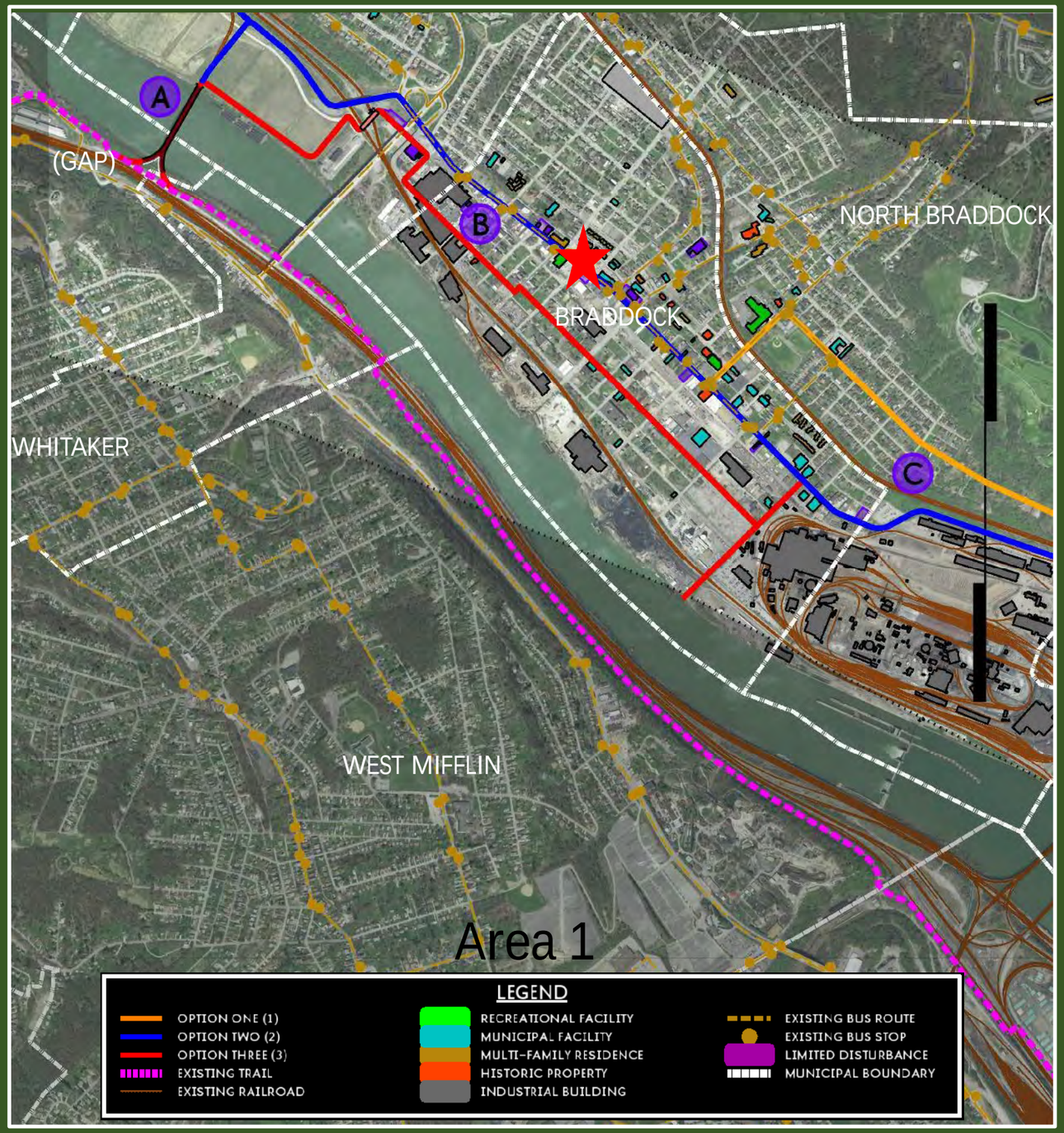


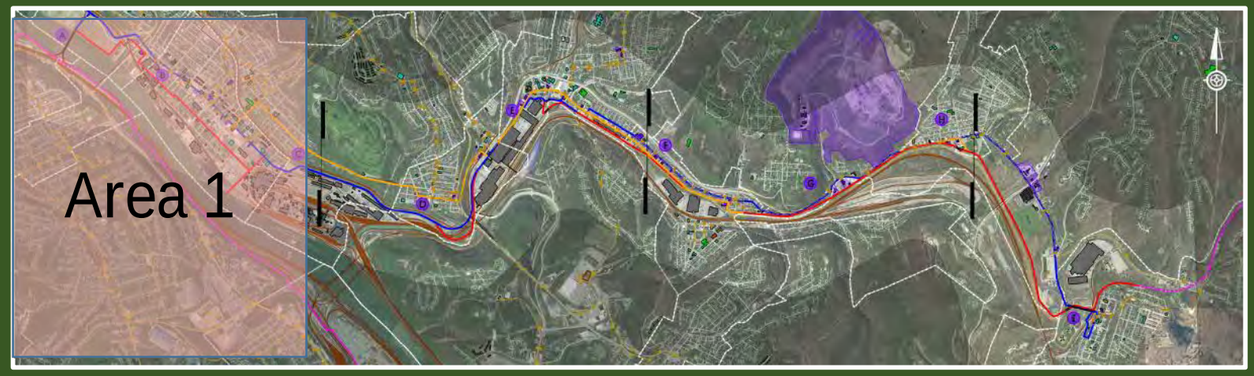
Carrie Furnace Boulevard
Rankin



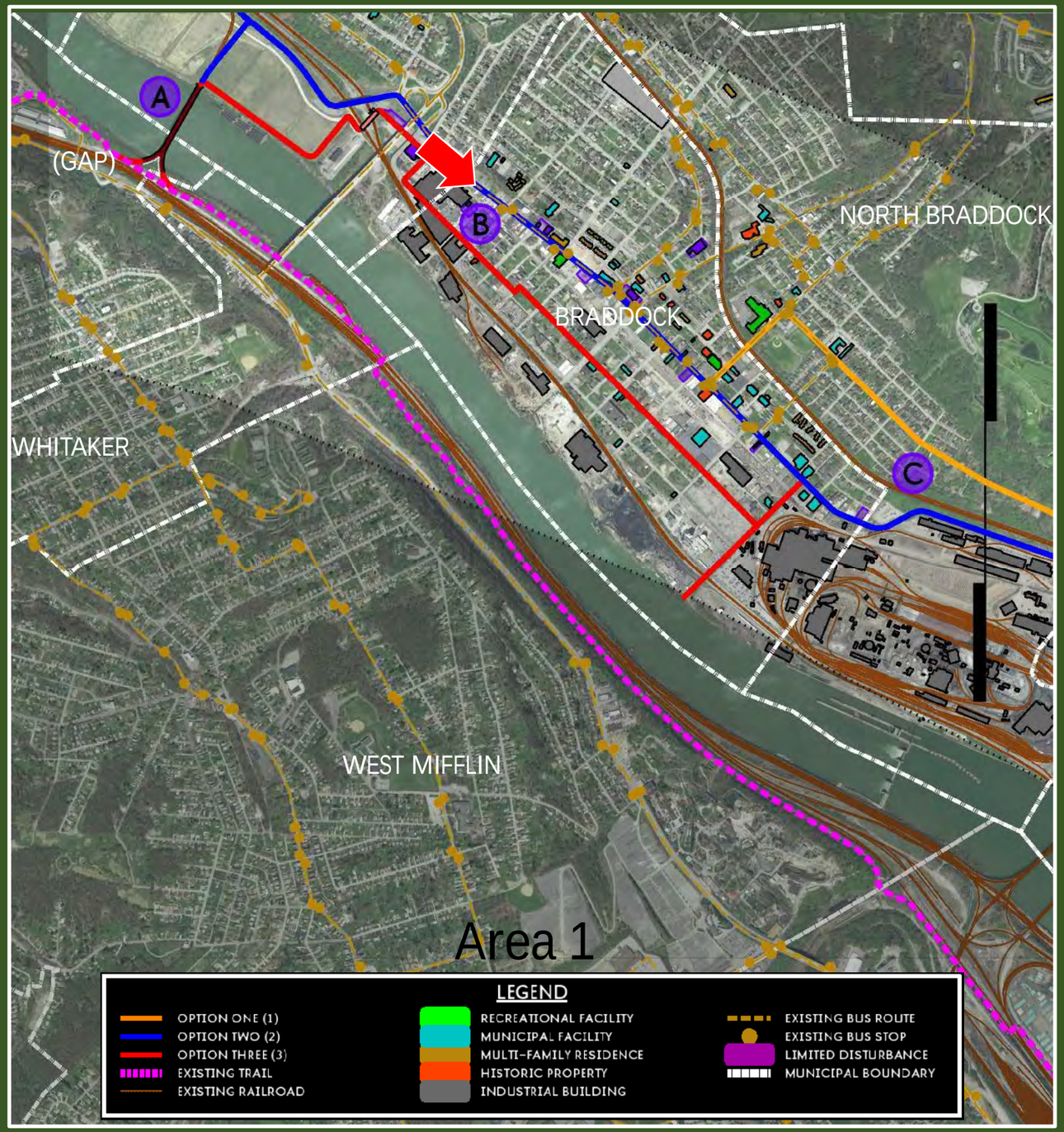


Kenmawr Avenue
Rankin

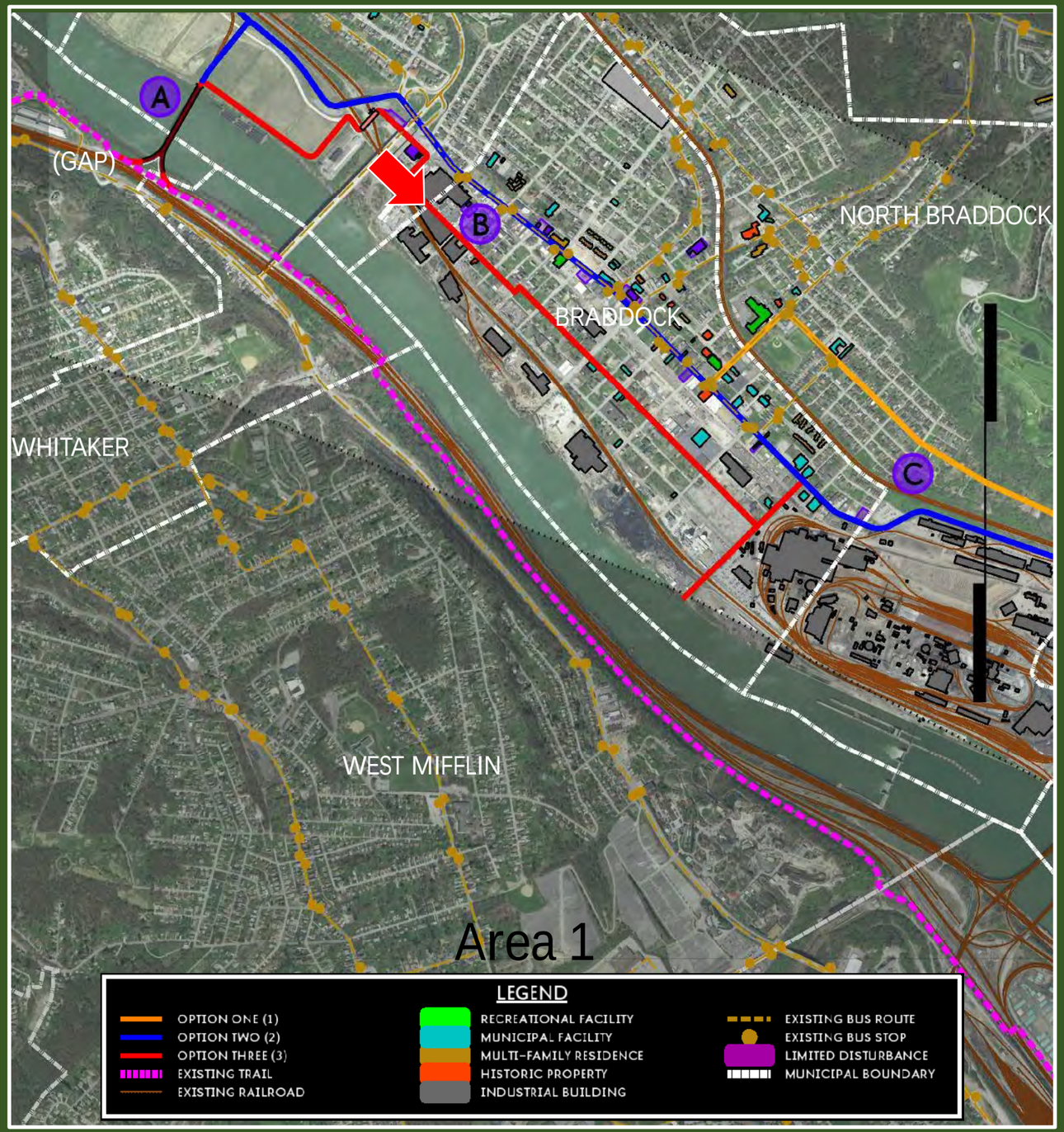


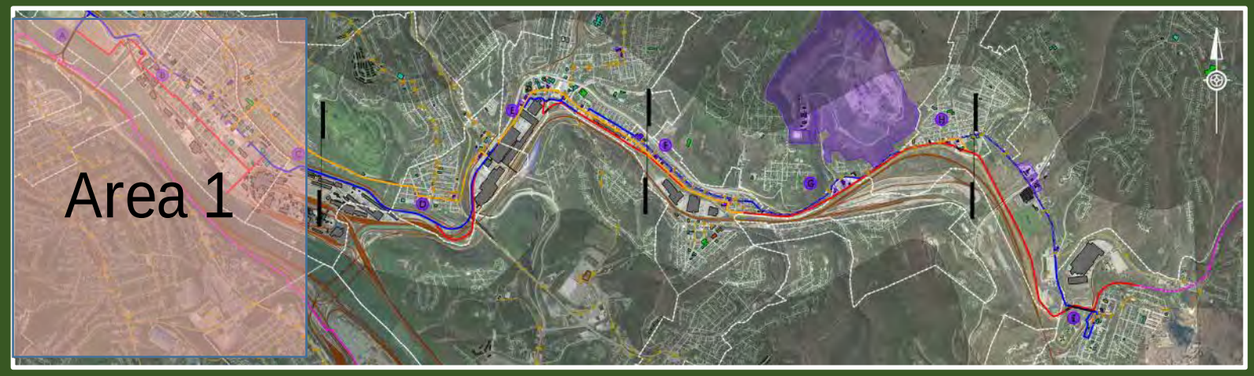


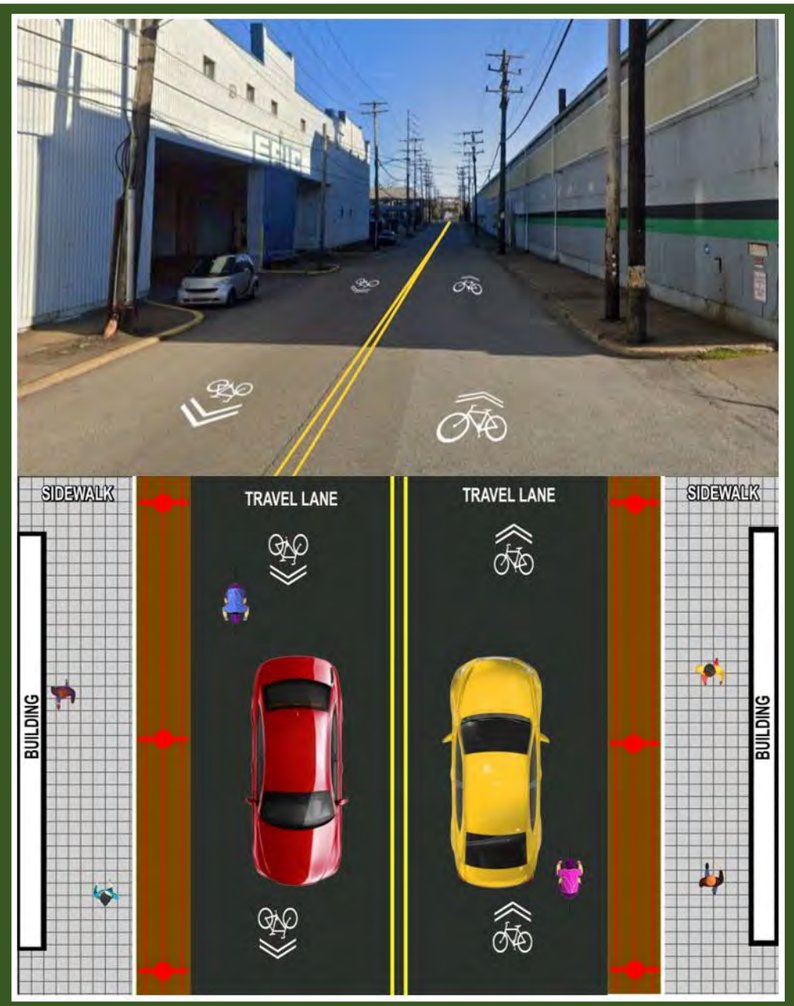
Braddock Civic Plaza
Braddock



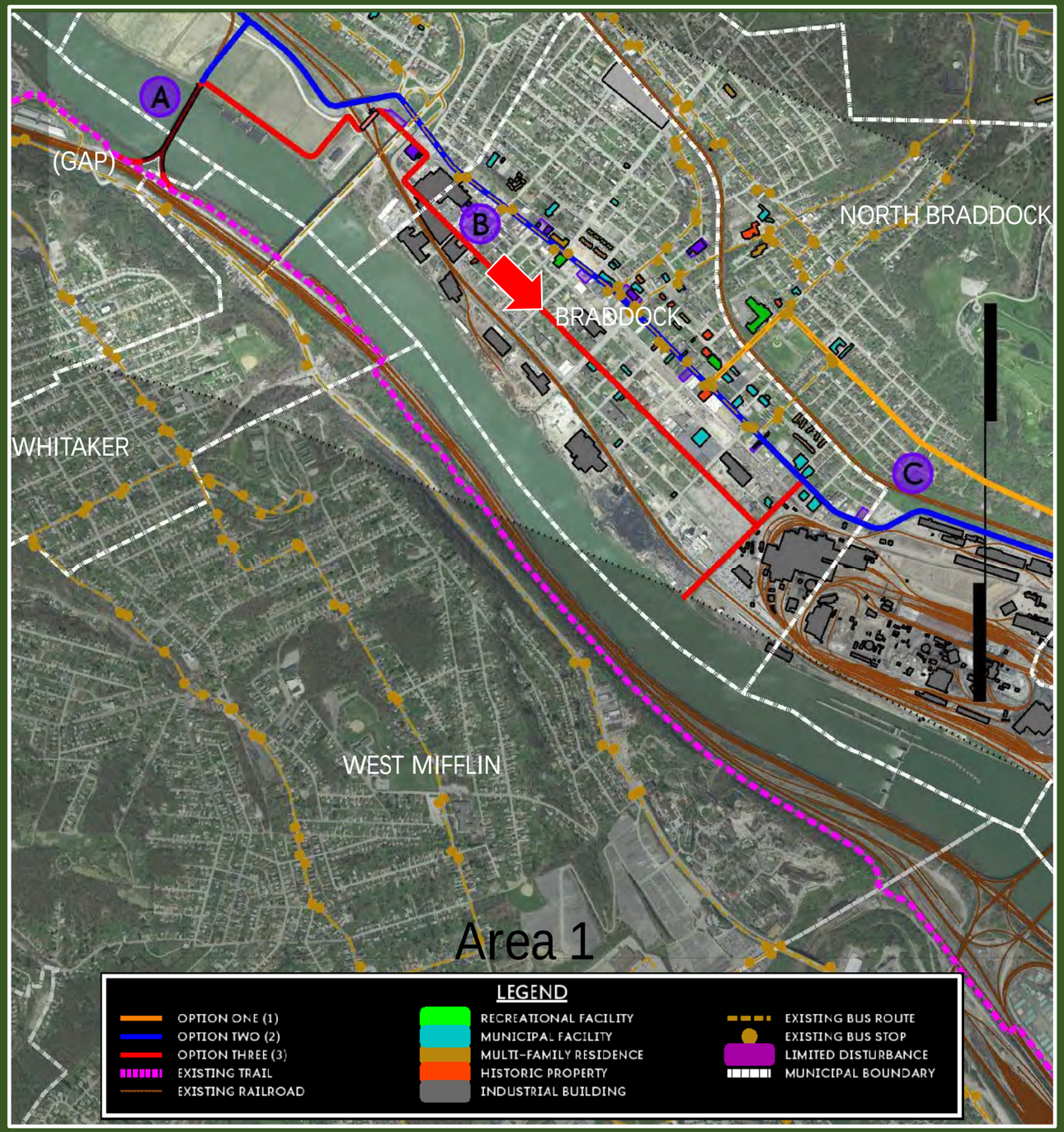
Braddock Avenue
Braddock

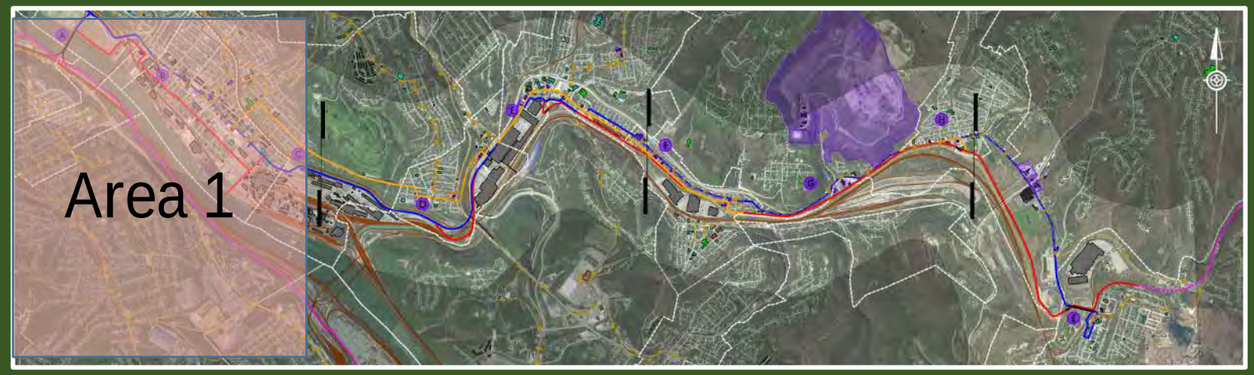


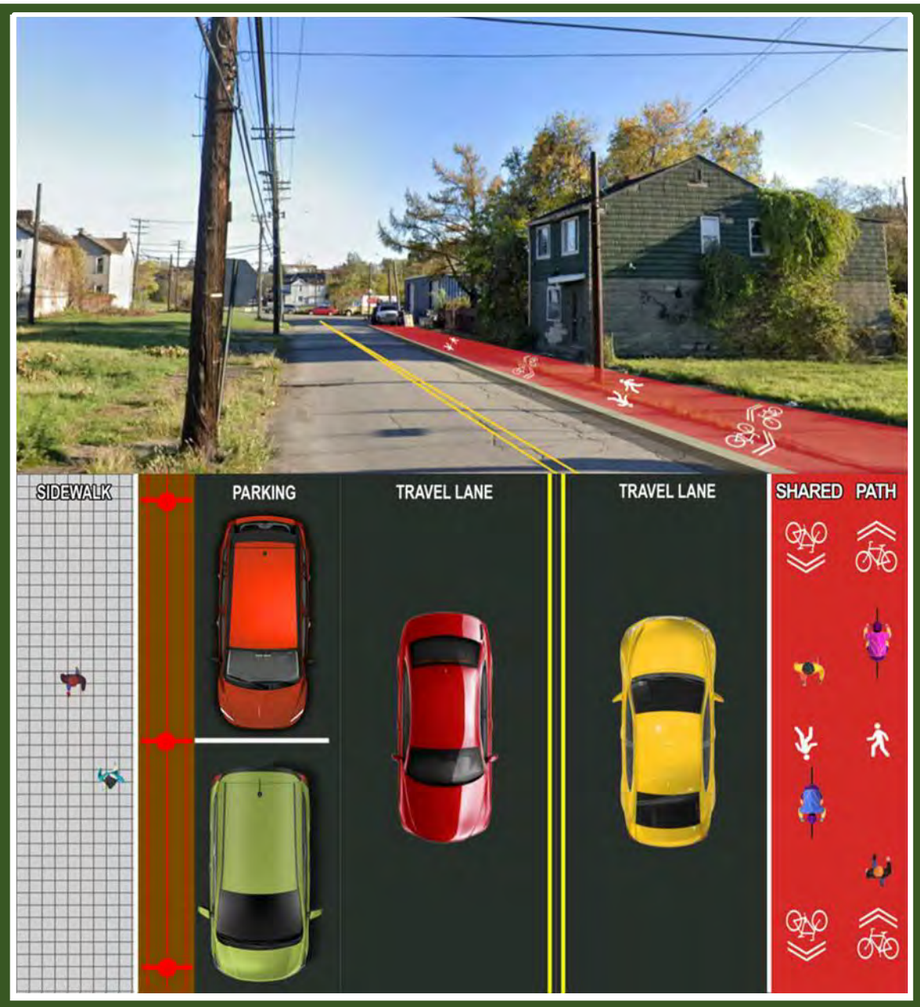




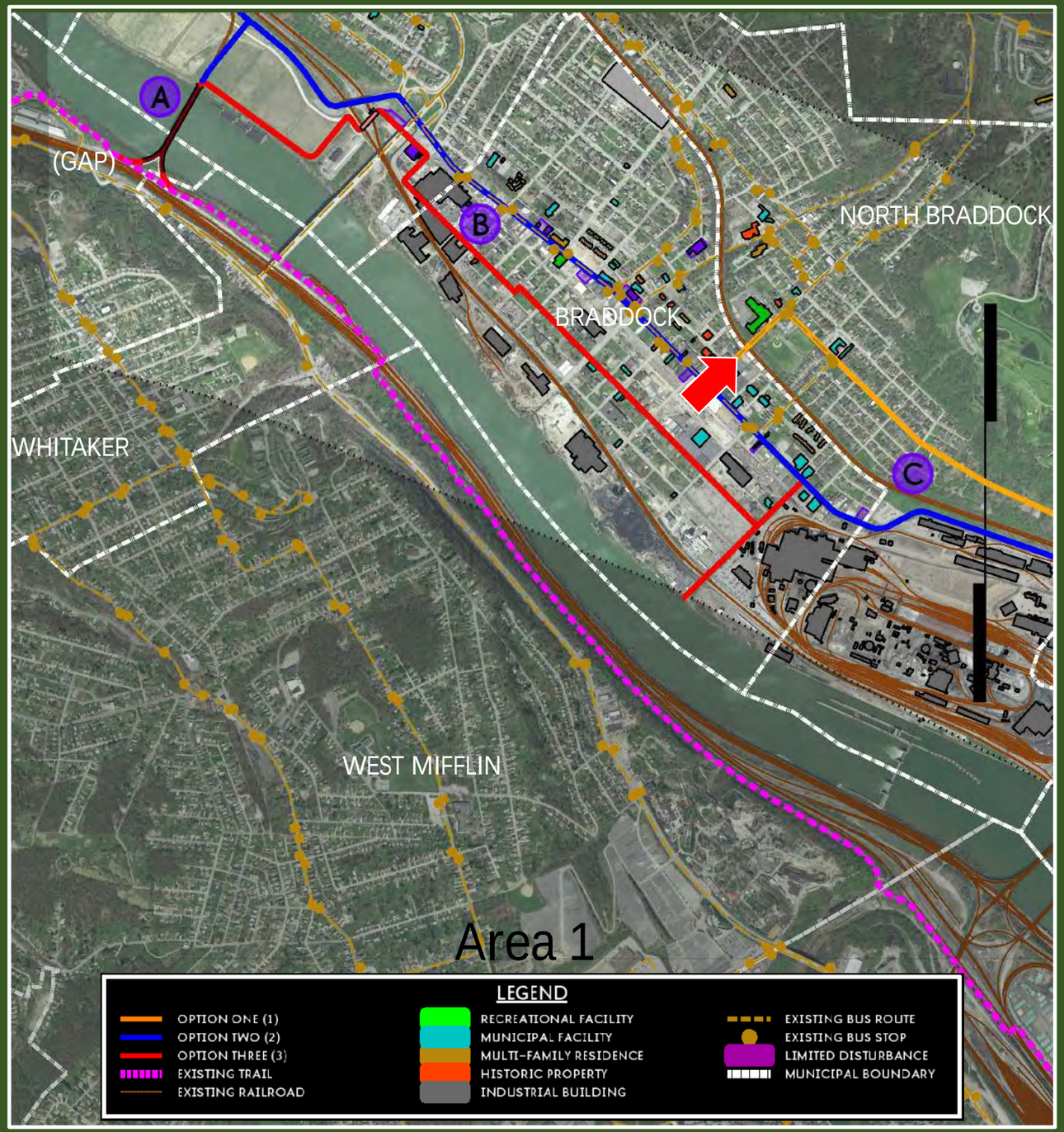
Talbot Avenue
Braddock

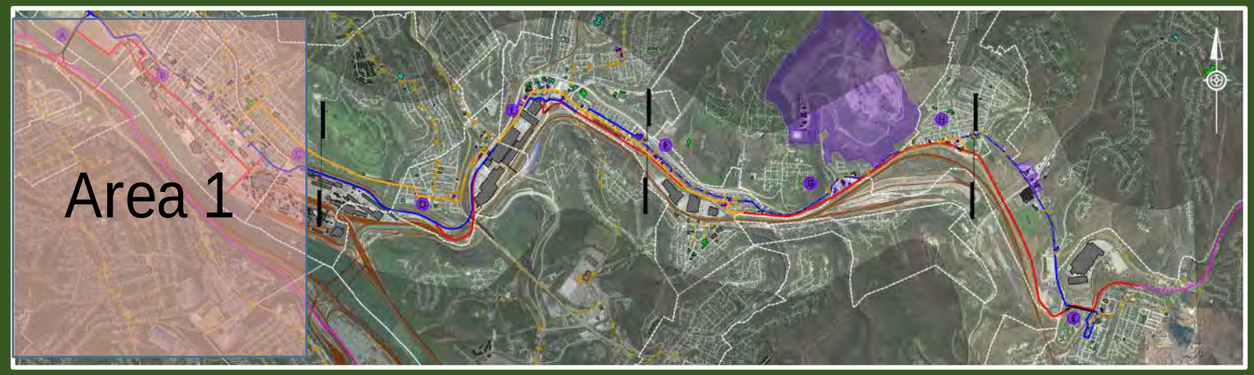


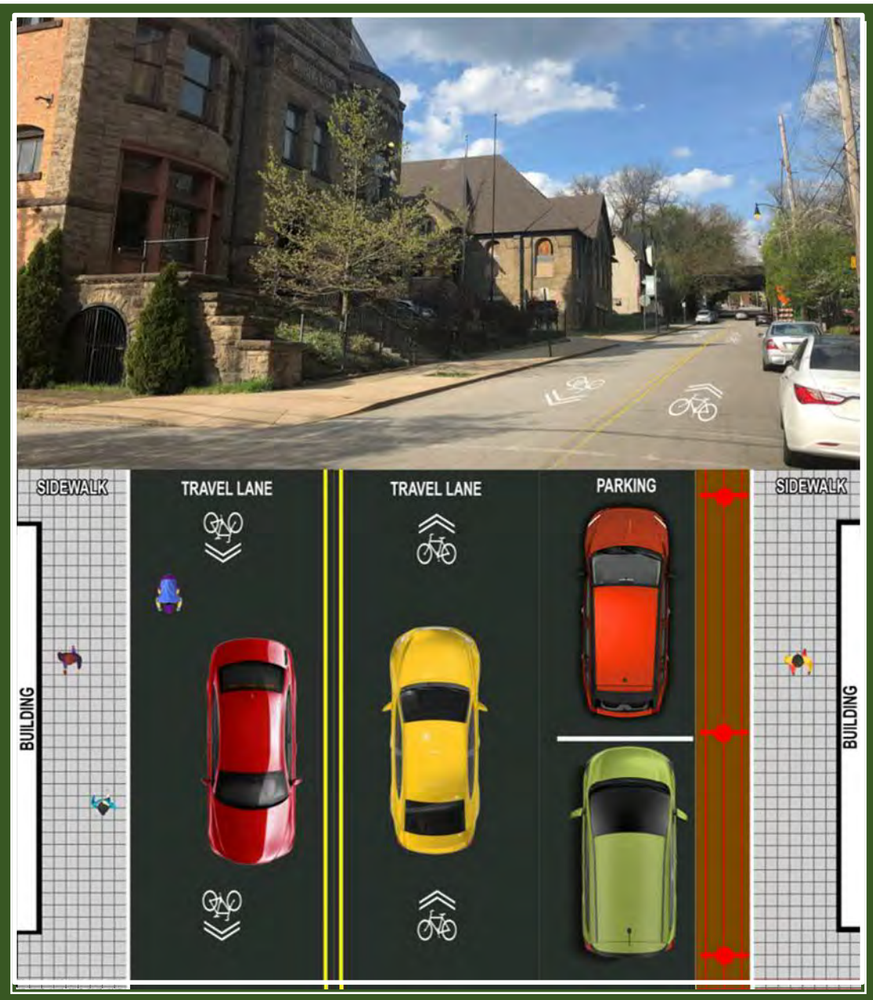




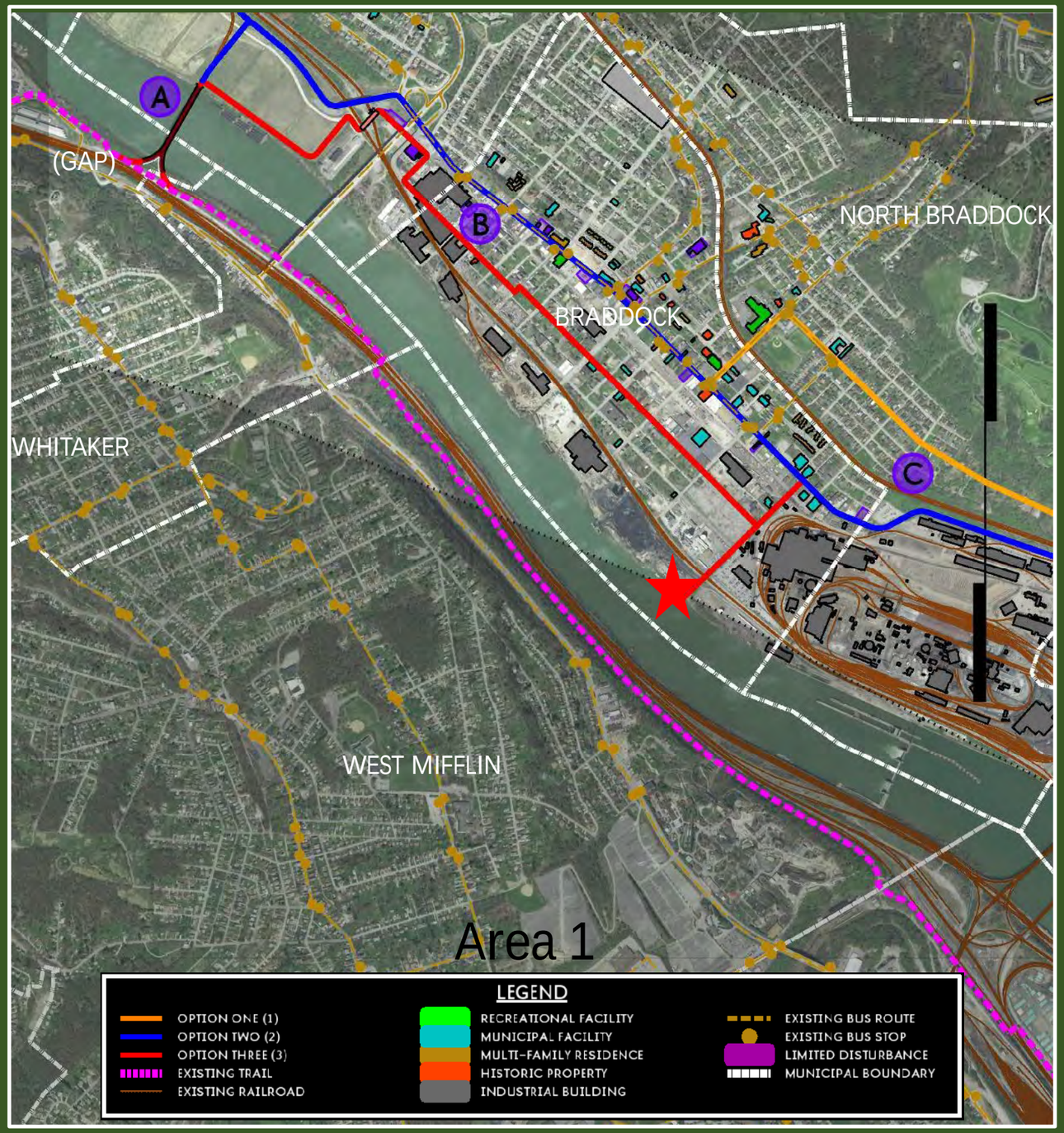
Talbot Avenue
Braddock

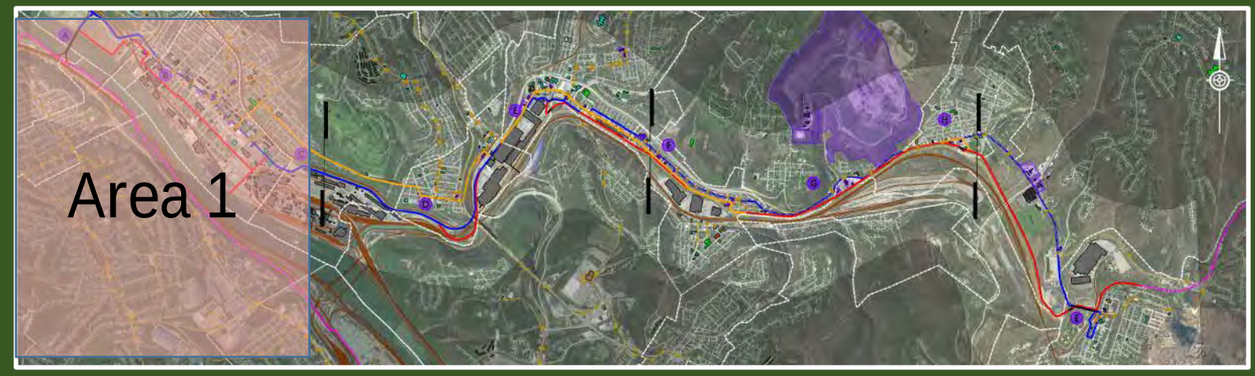




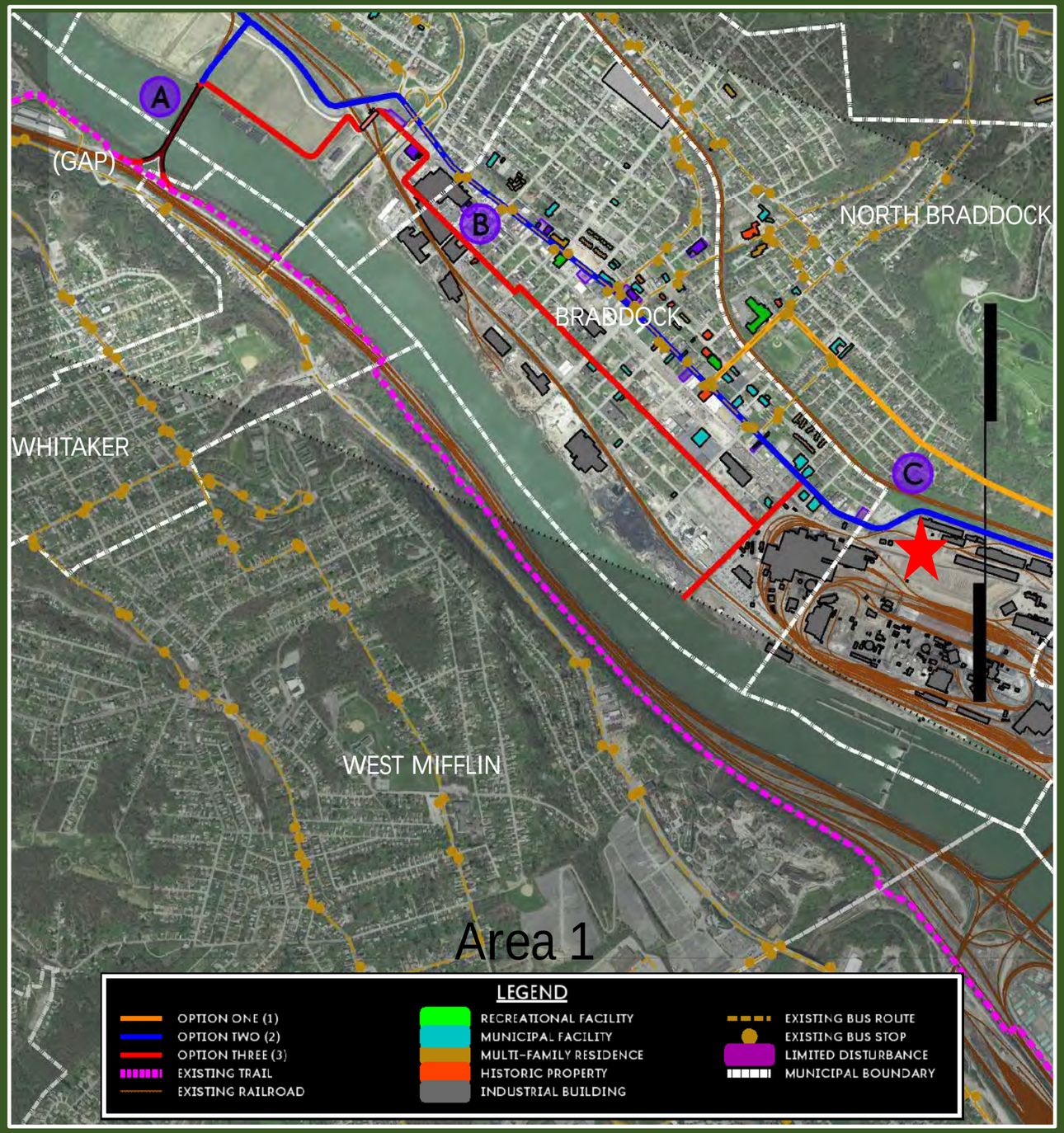


Library Street
Braddock

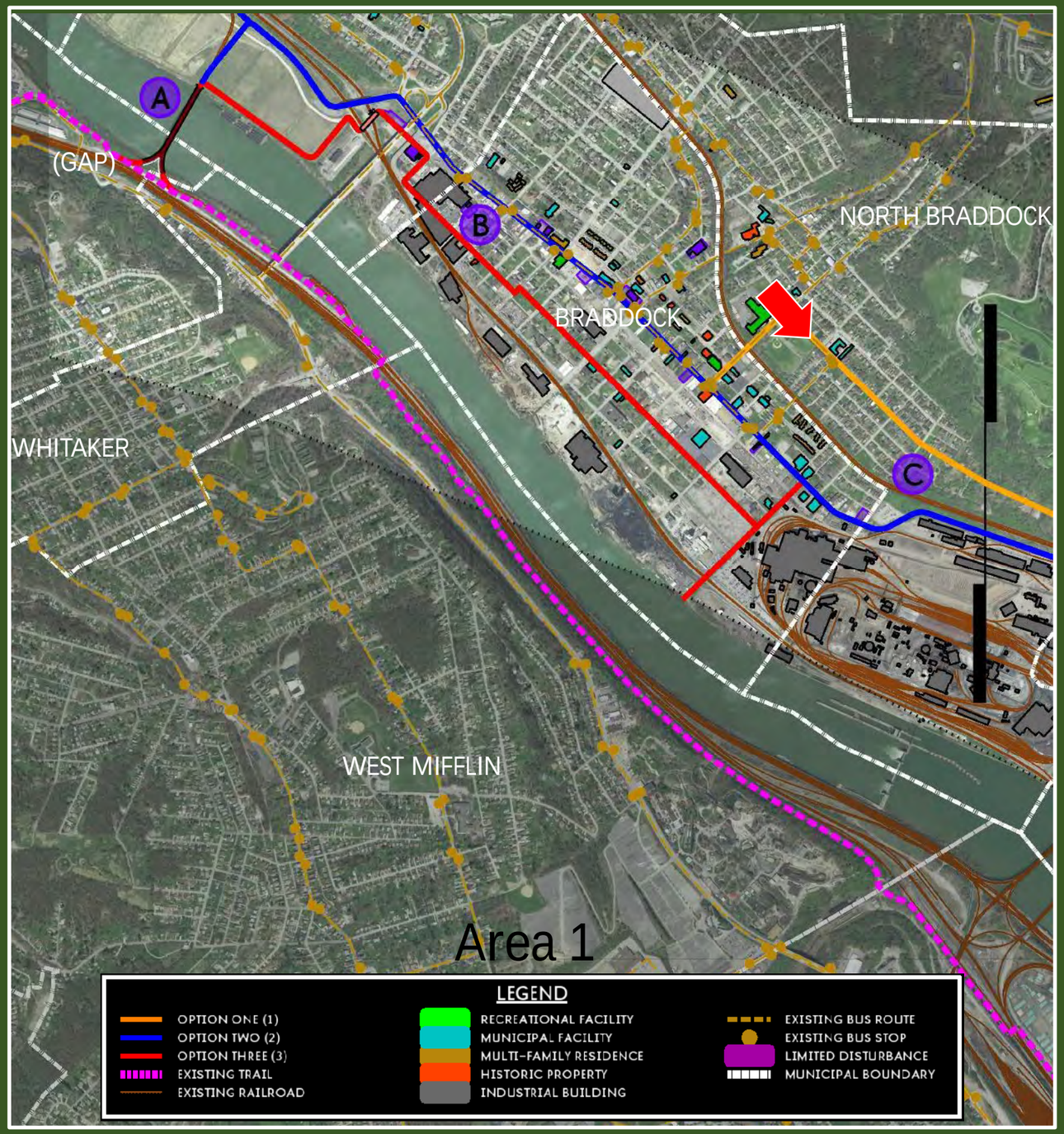


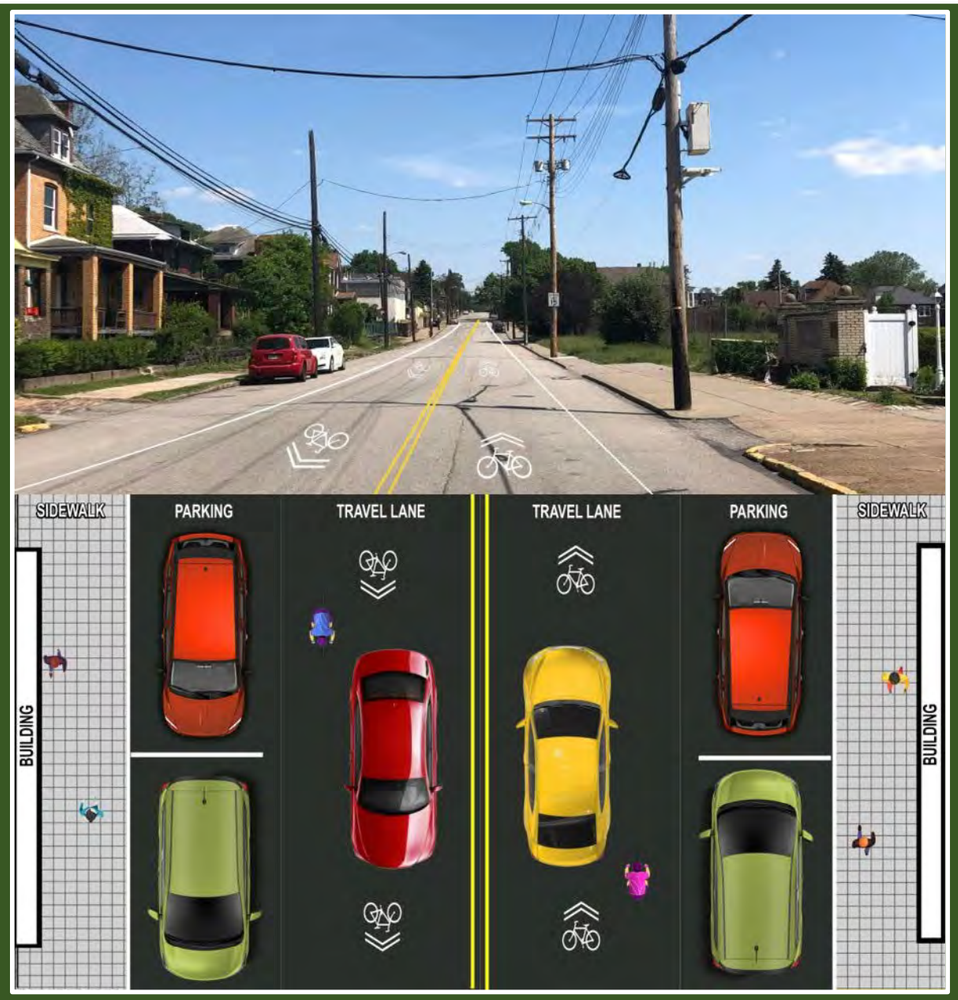


Eleventh (11th) Street Boat Launch
Braddock

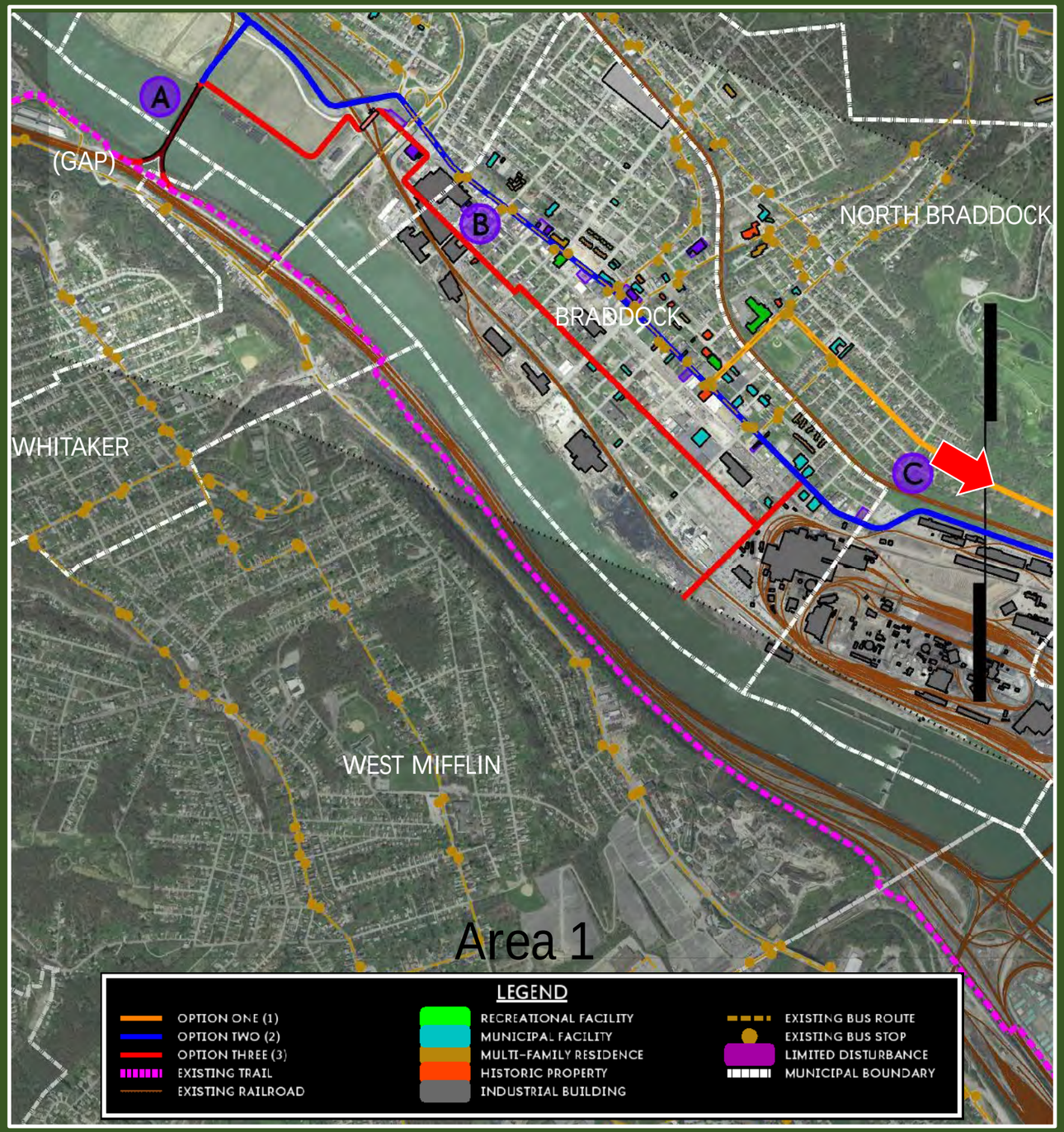


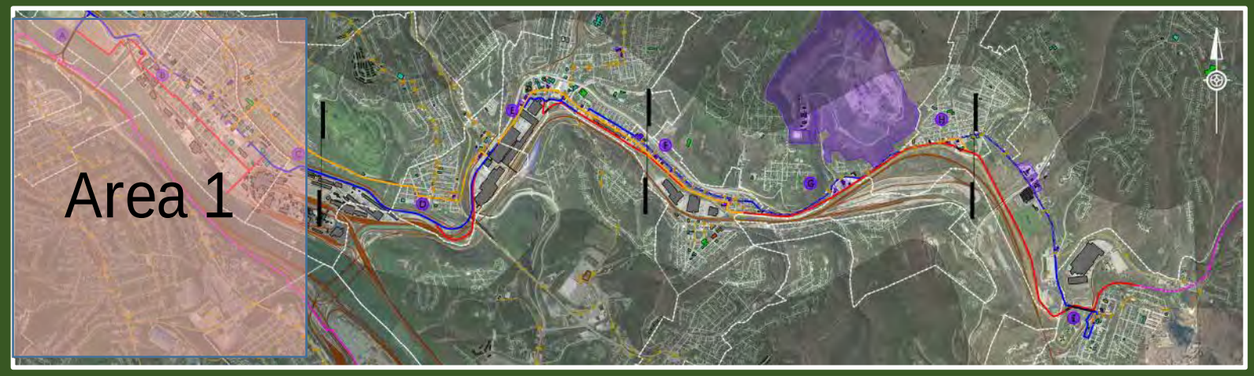
Edgar Thompson Works
North Braddock



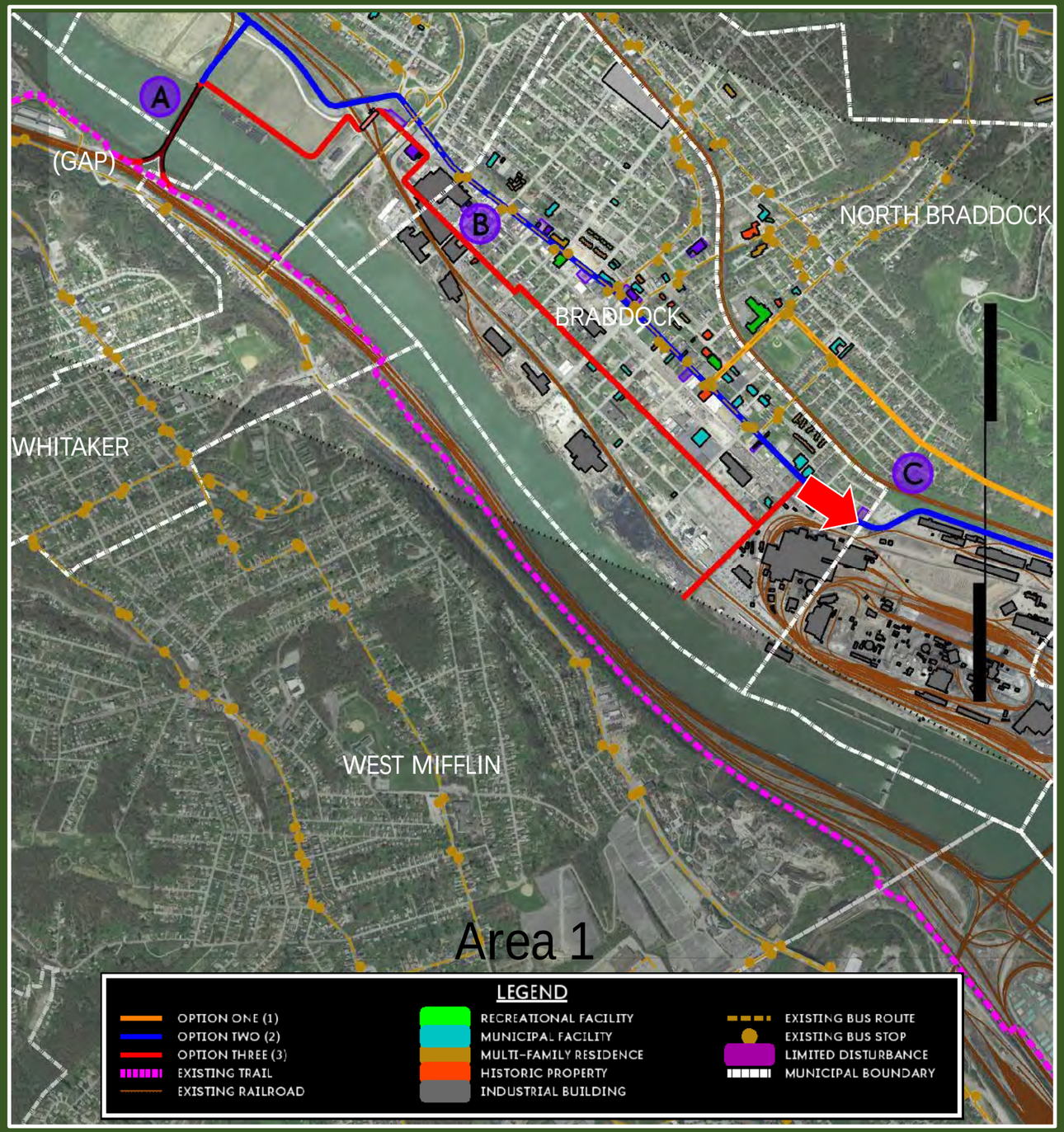


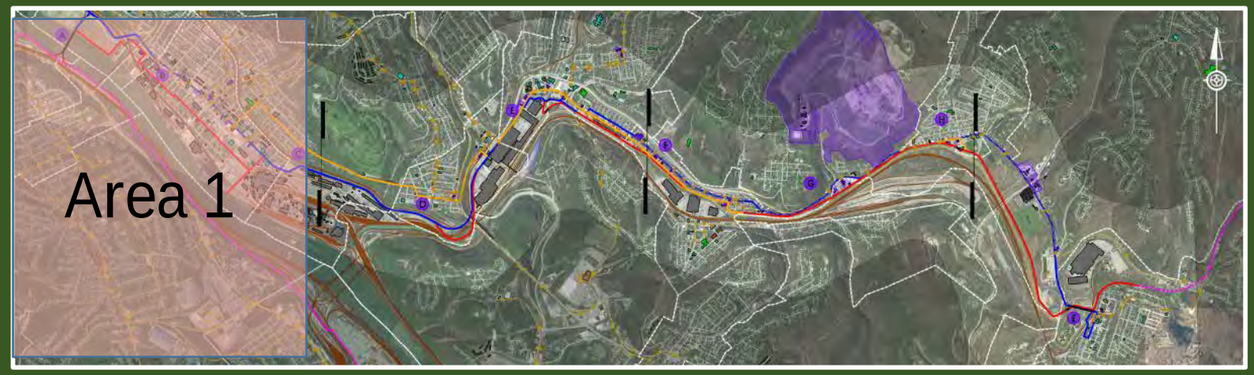
Bell Avenue
North Braddock



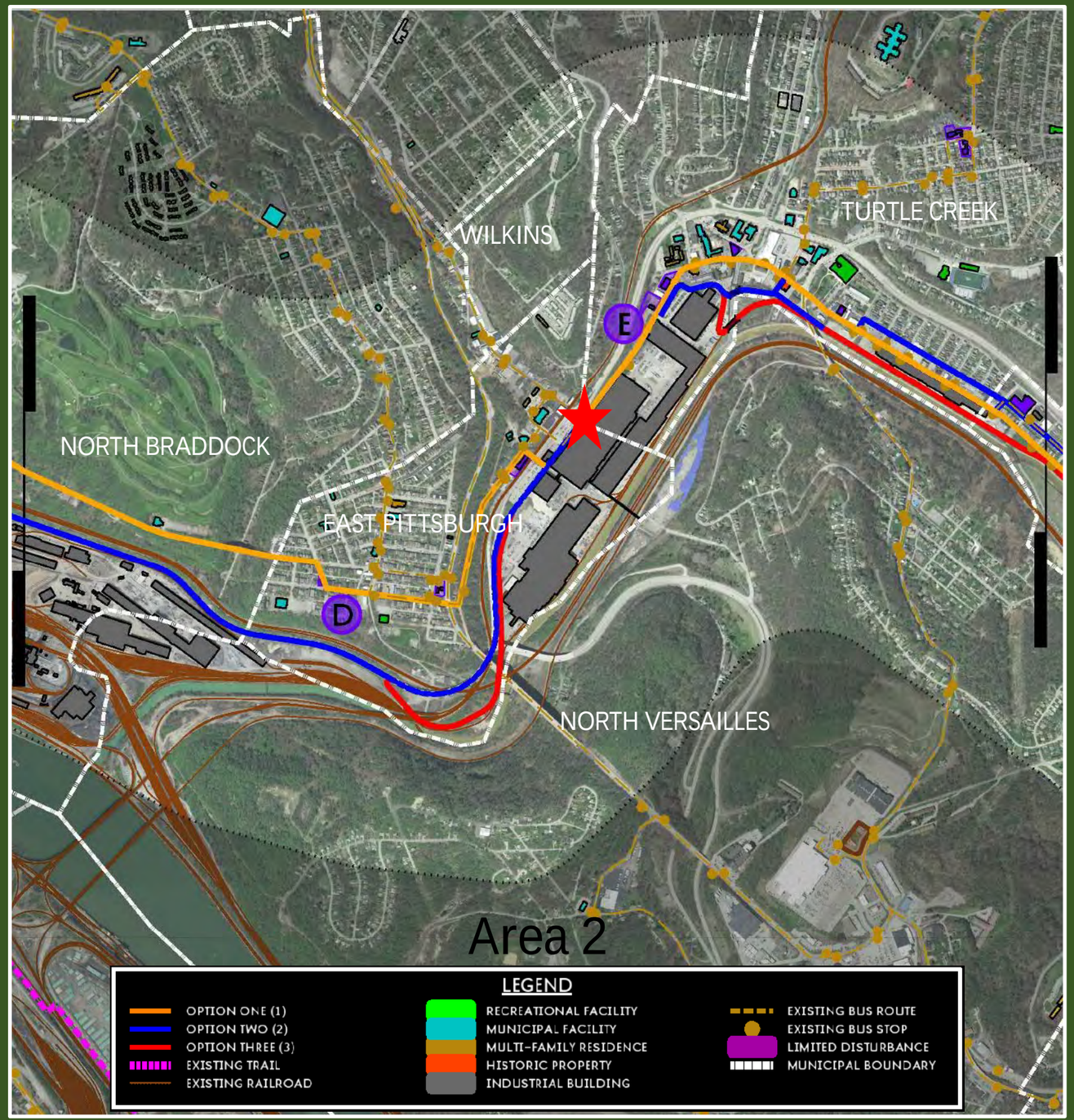


Jones Avenue
North Braddock

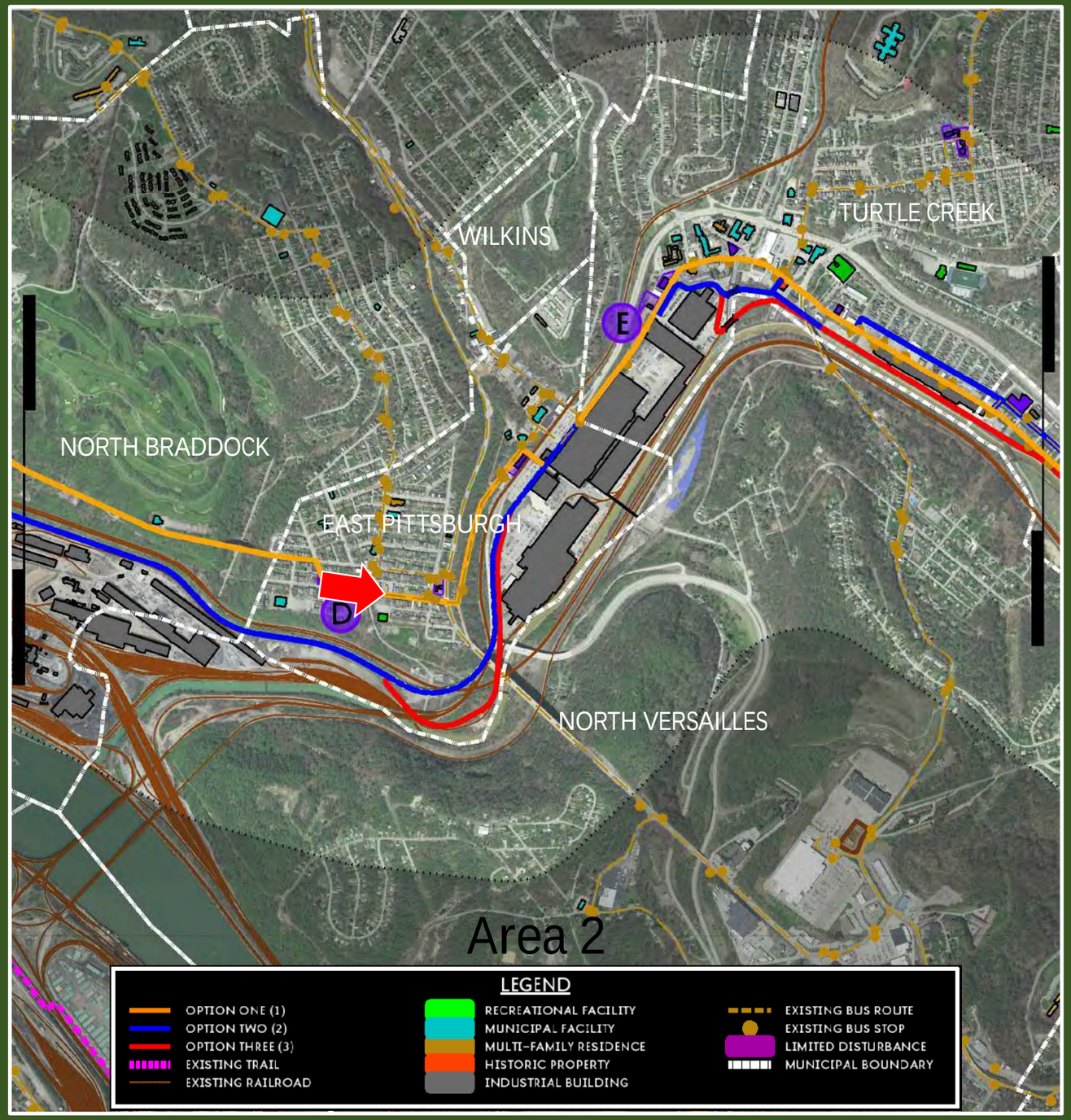




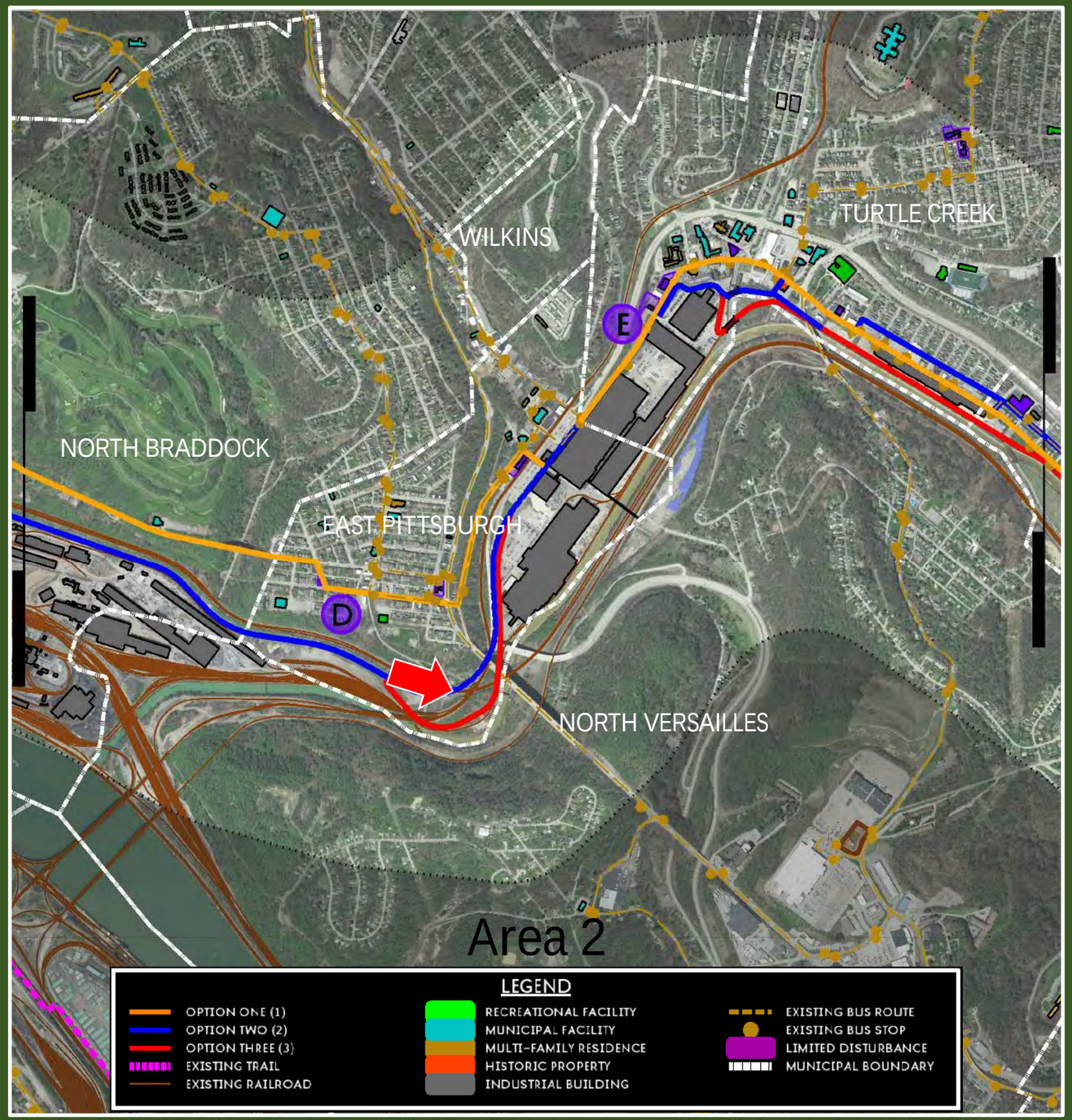
Braddock Avenue
North Braddock



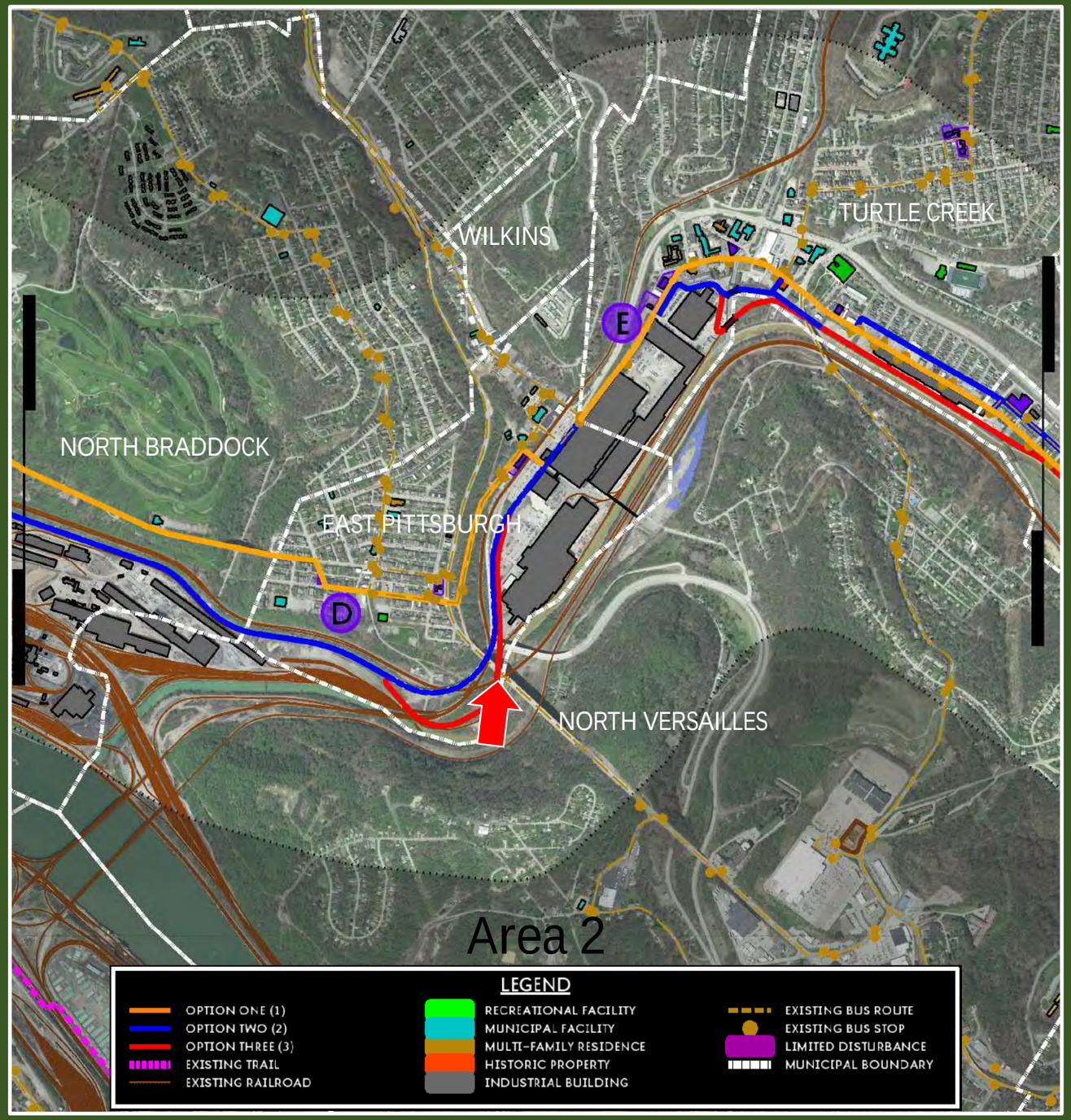
Electric Avenue
East Pittsburgh



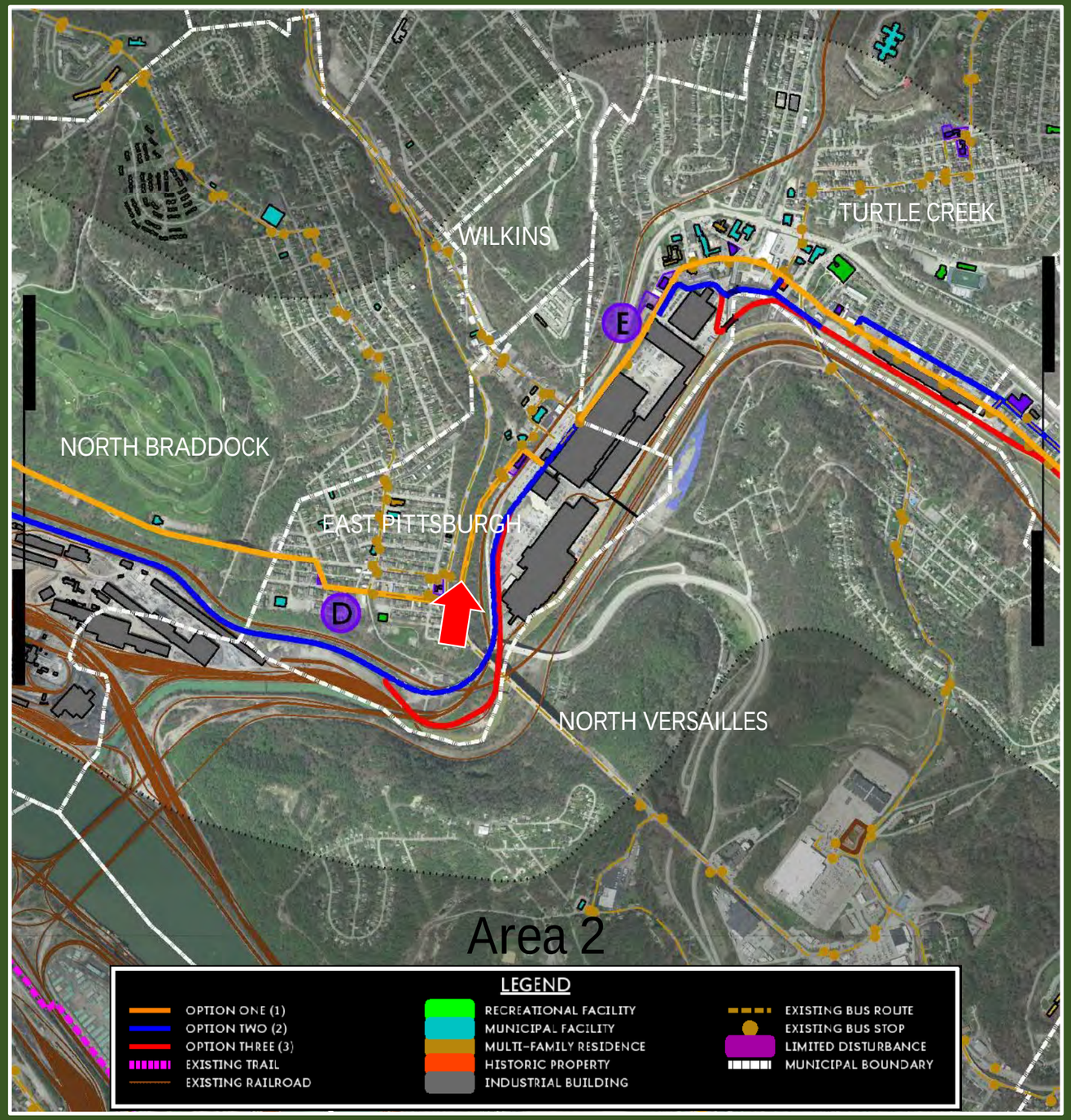
Bessemer Avenue
East Pittsburgh



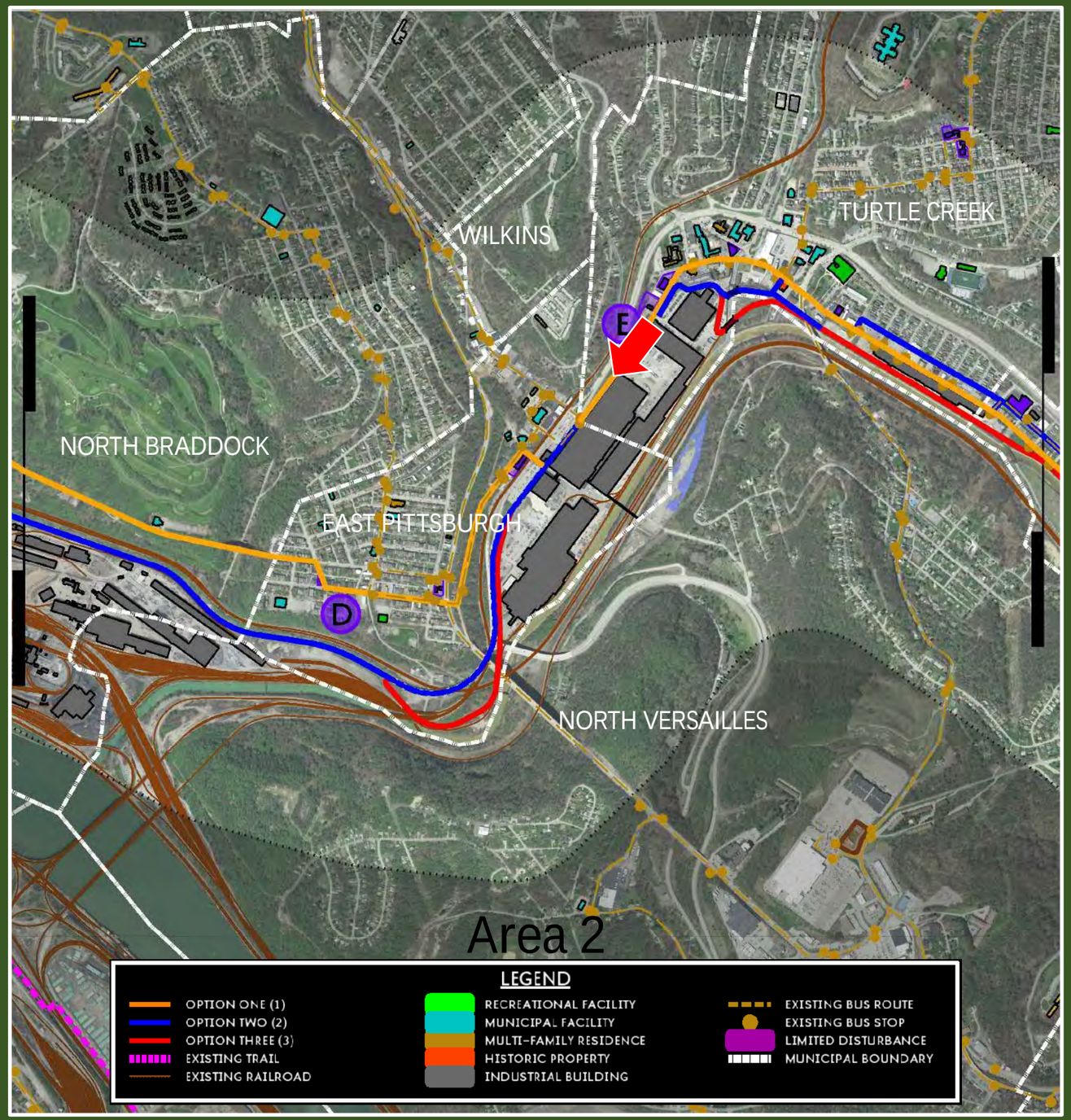
SR 2183 Flyover
East Pittsburgh



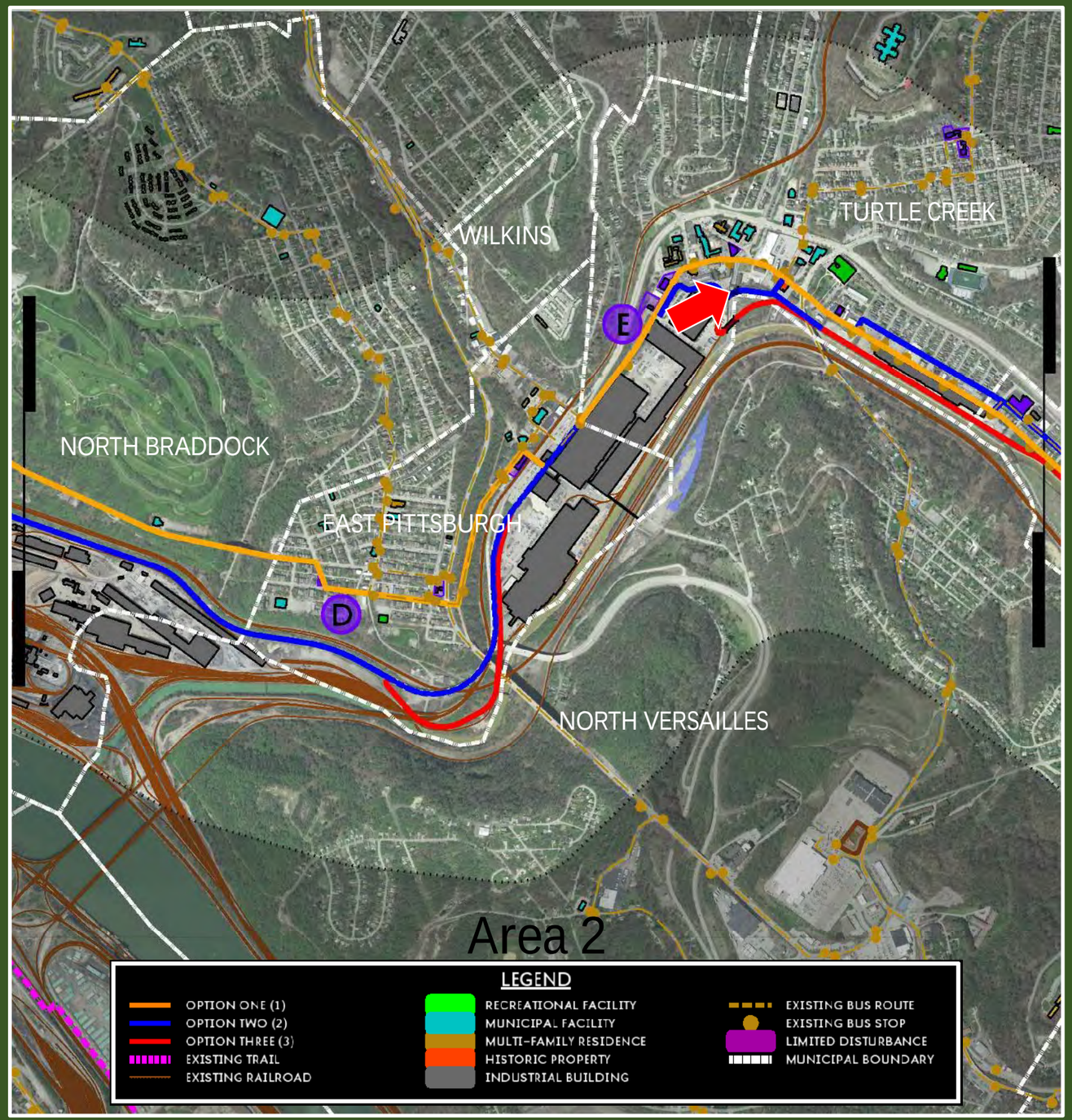
Norfolk Southern Arch Bridge
East Pittsburgh



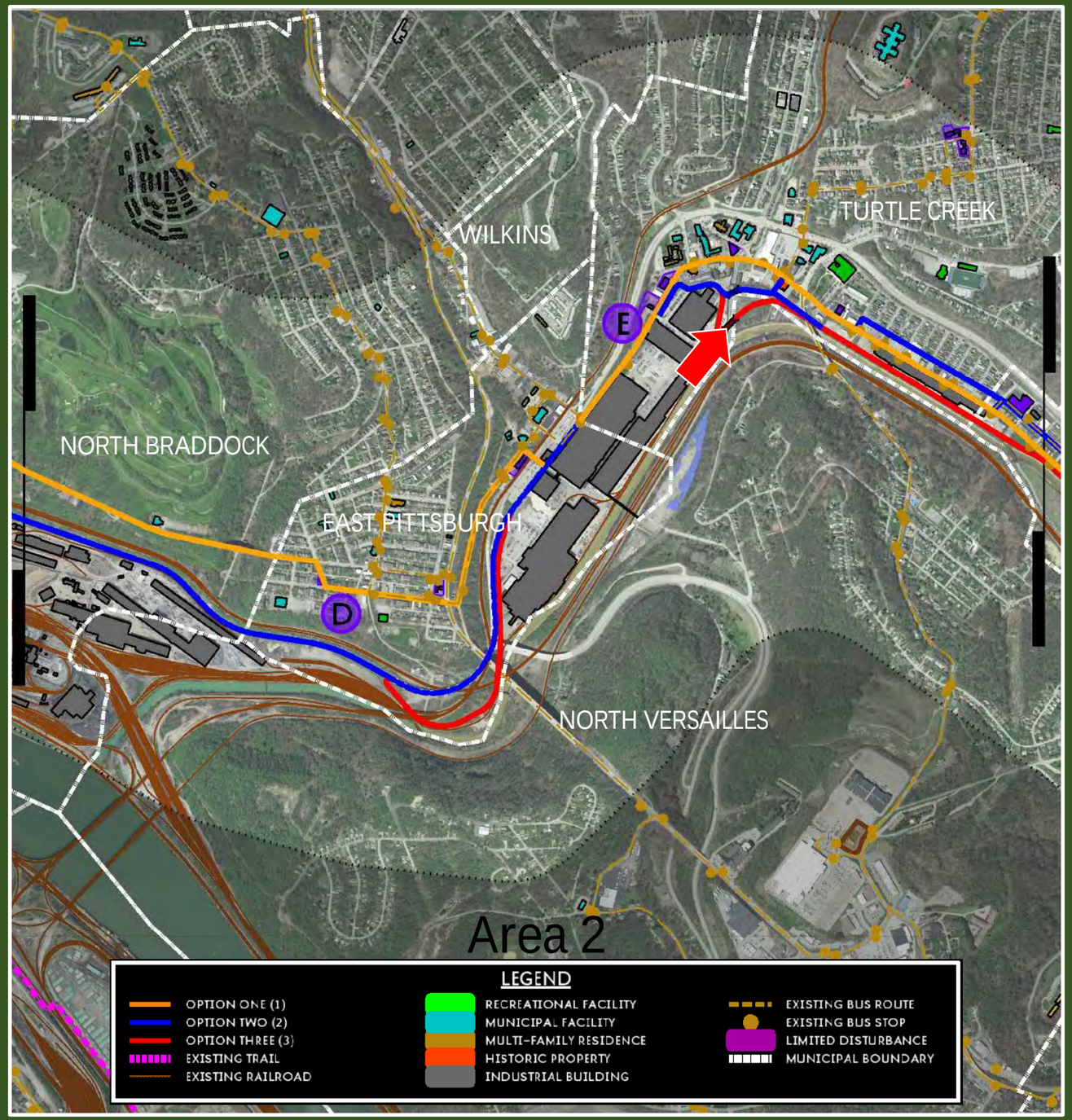
Linden Avenue
East Pittsburgh



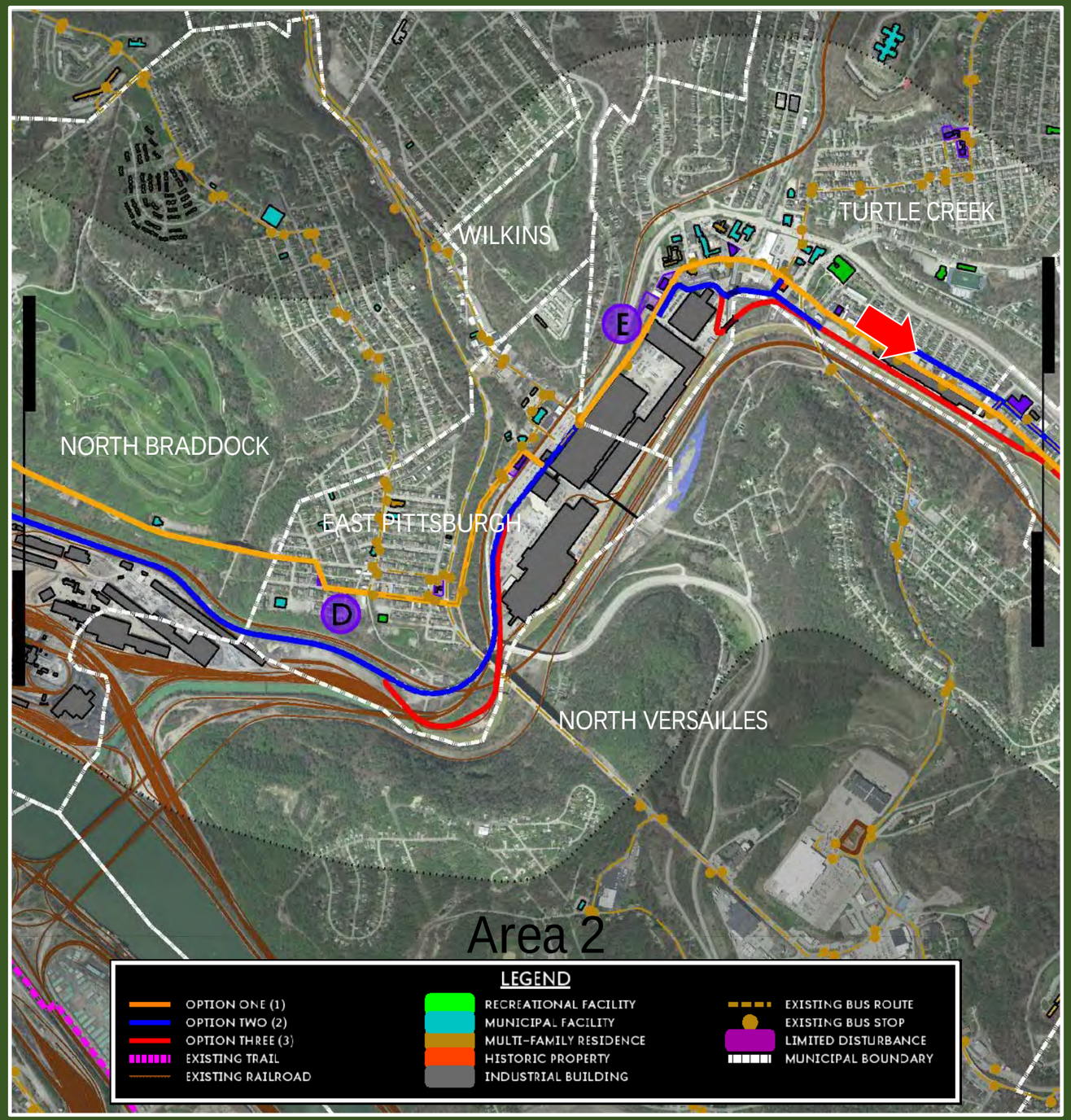
Braddock Avenue
Turtle Creek



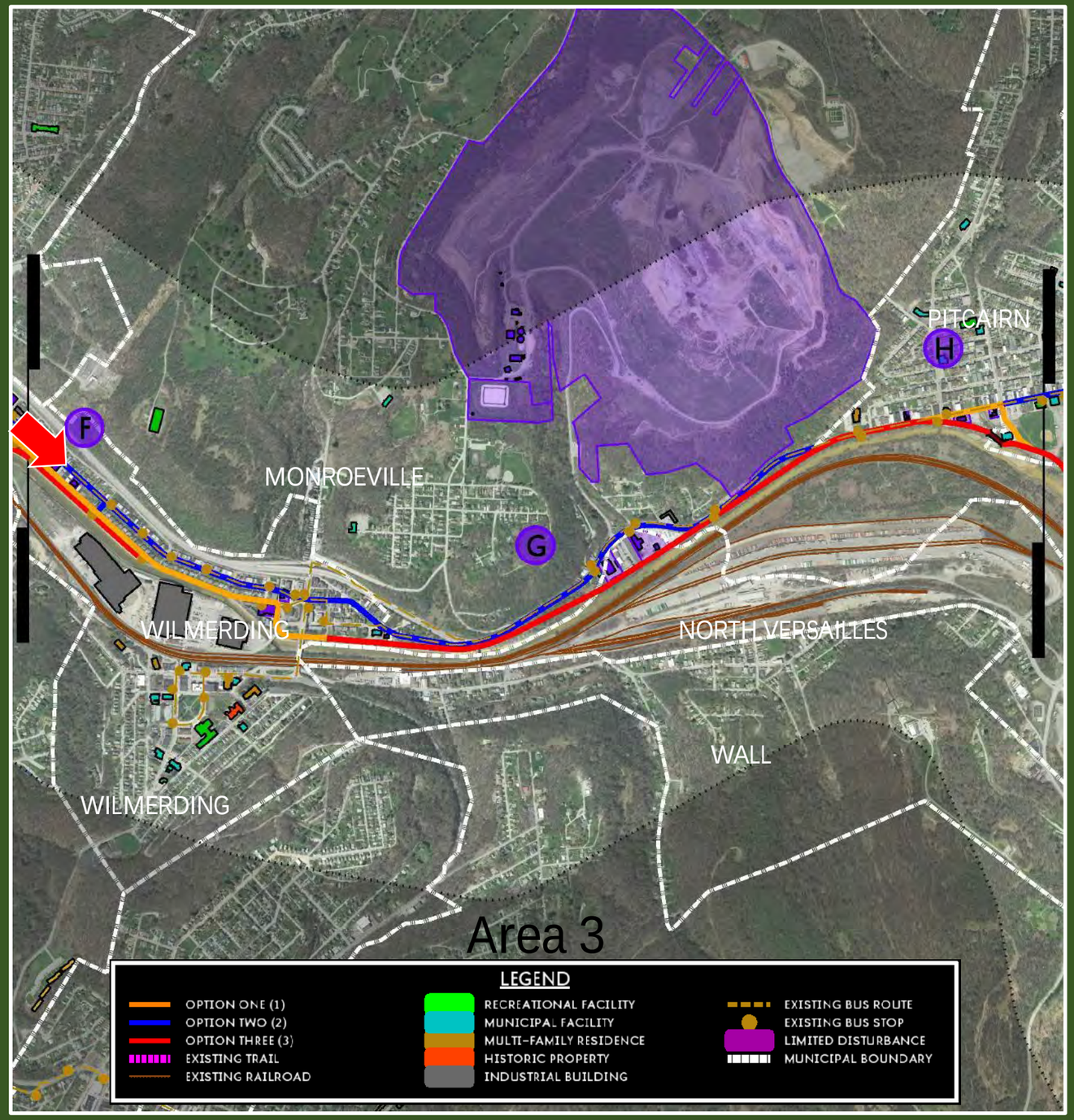
RIDC Railroad Siding
Turtle Creek



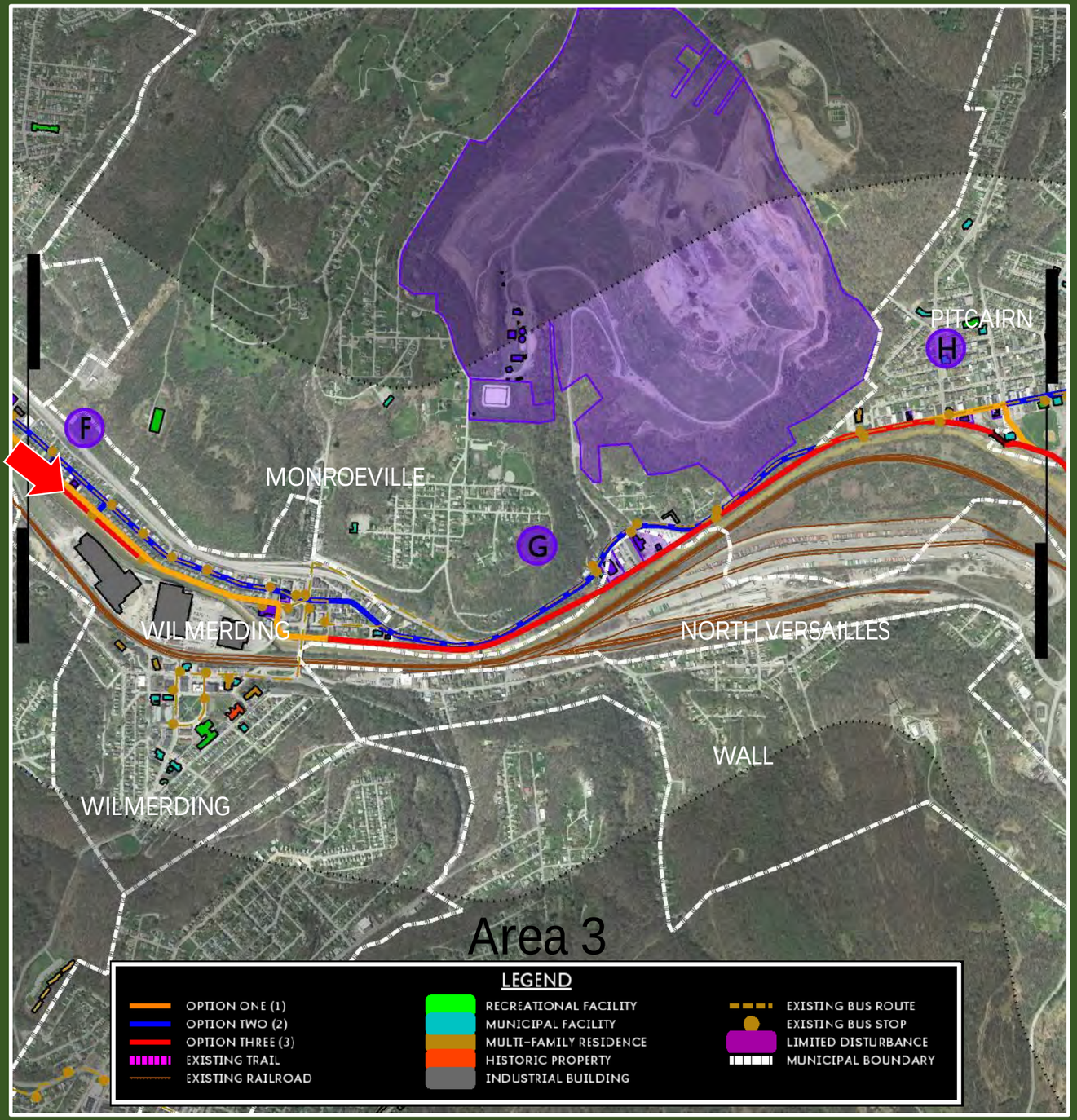
RIDC Railroad Track
Turtle Creek

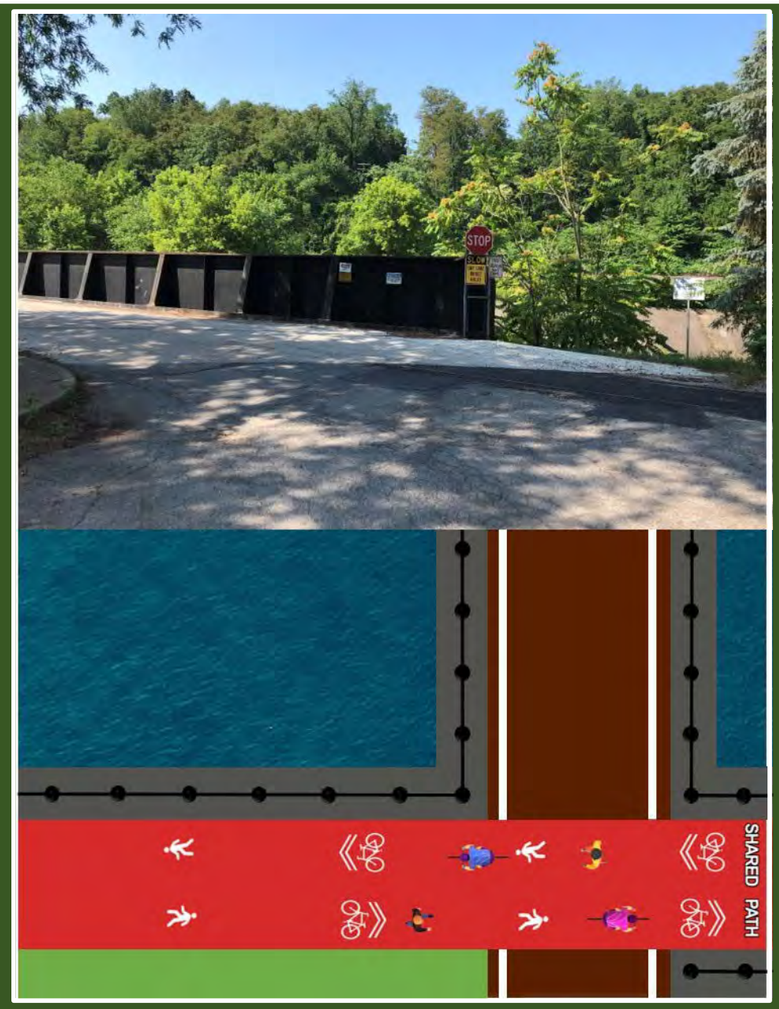


Virgin Alley
Turtle Creek

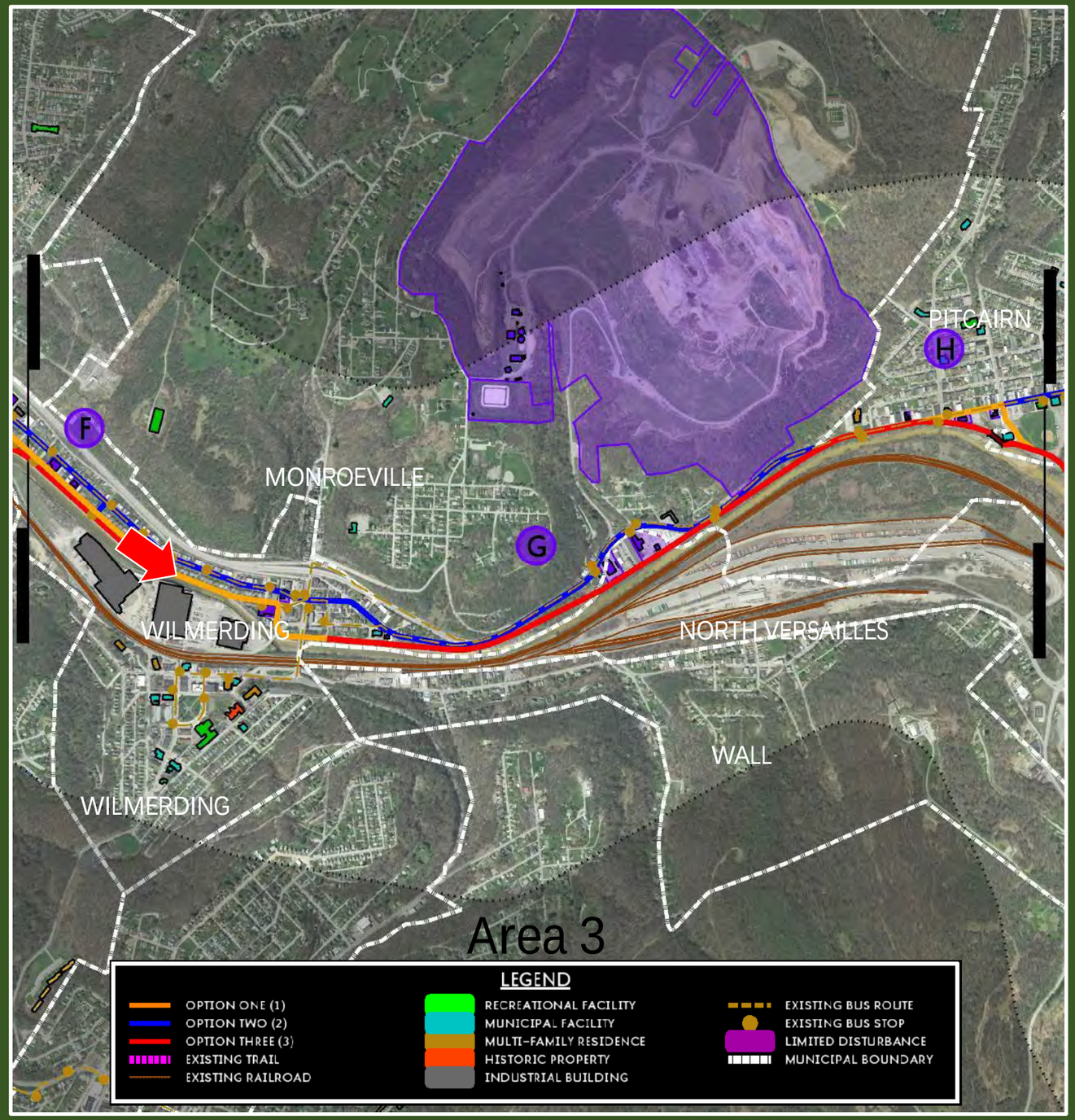


Middle Avenue
Wilmerding

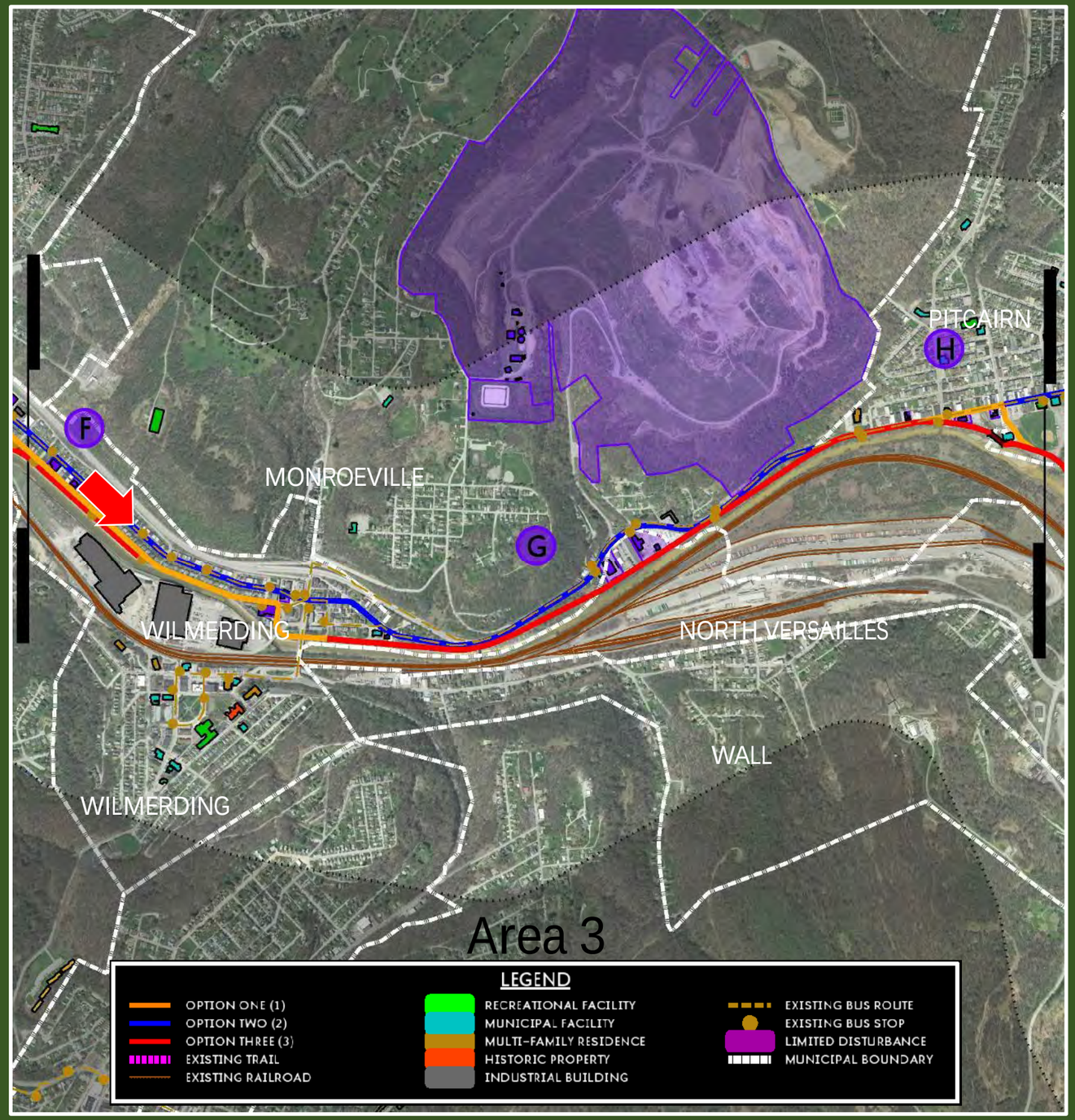


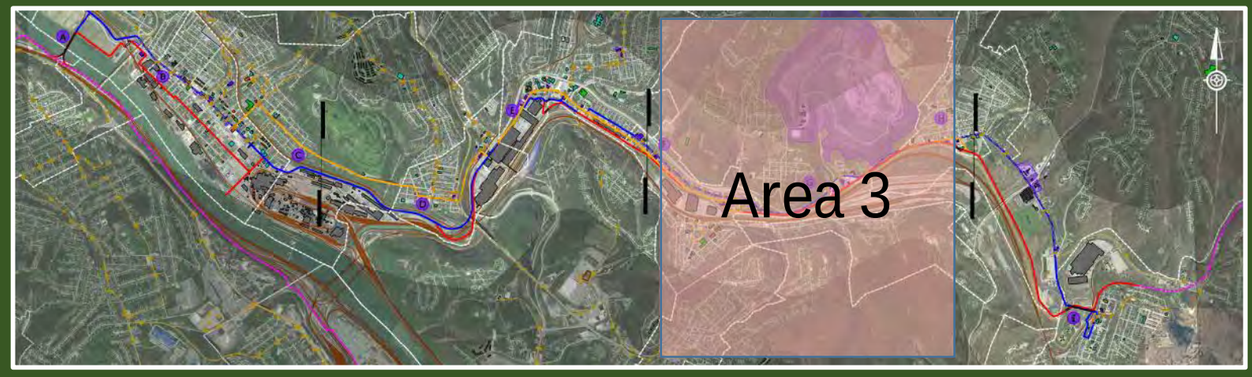


American Wire Bridge
Wilmerding

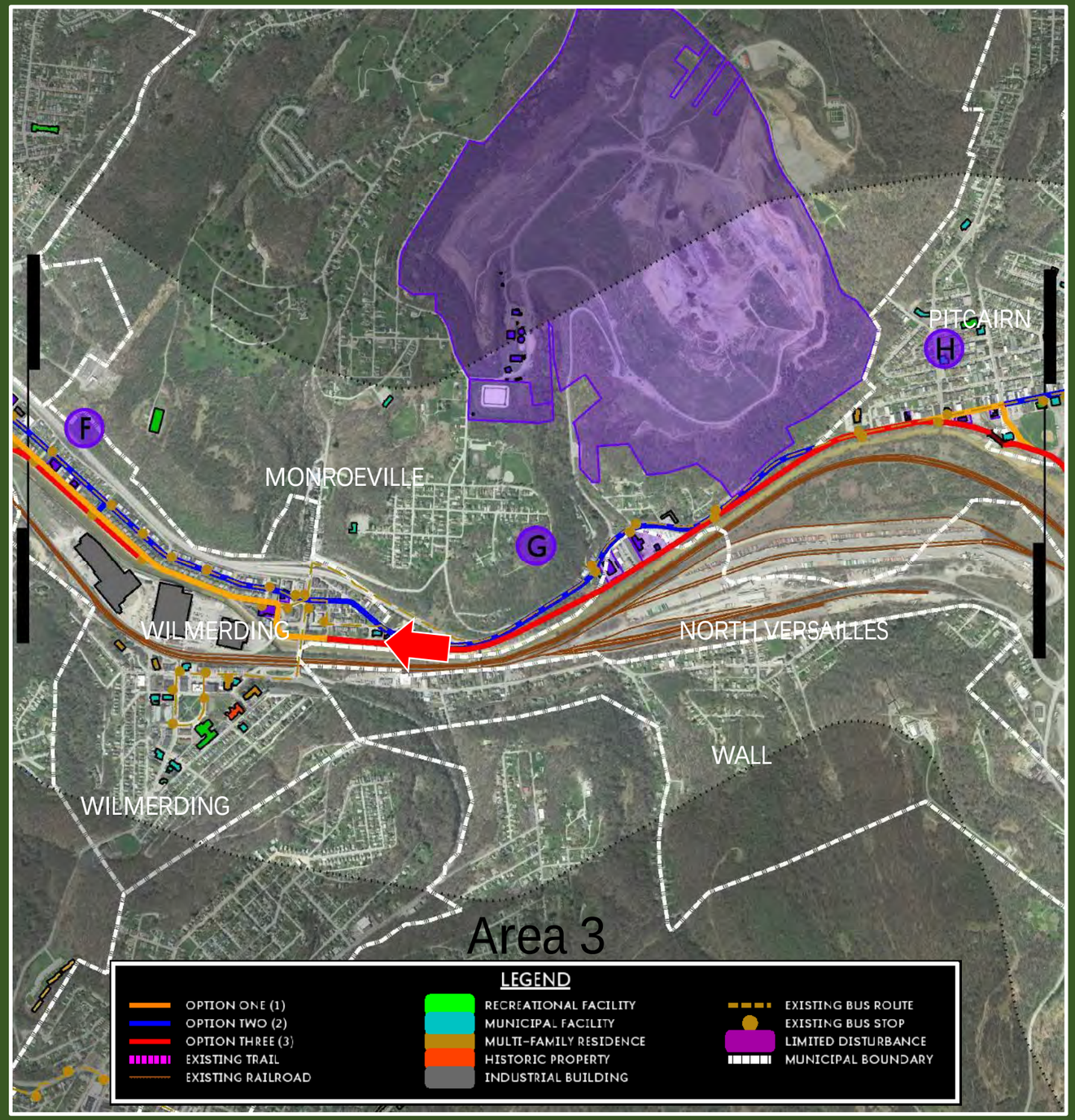


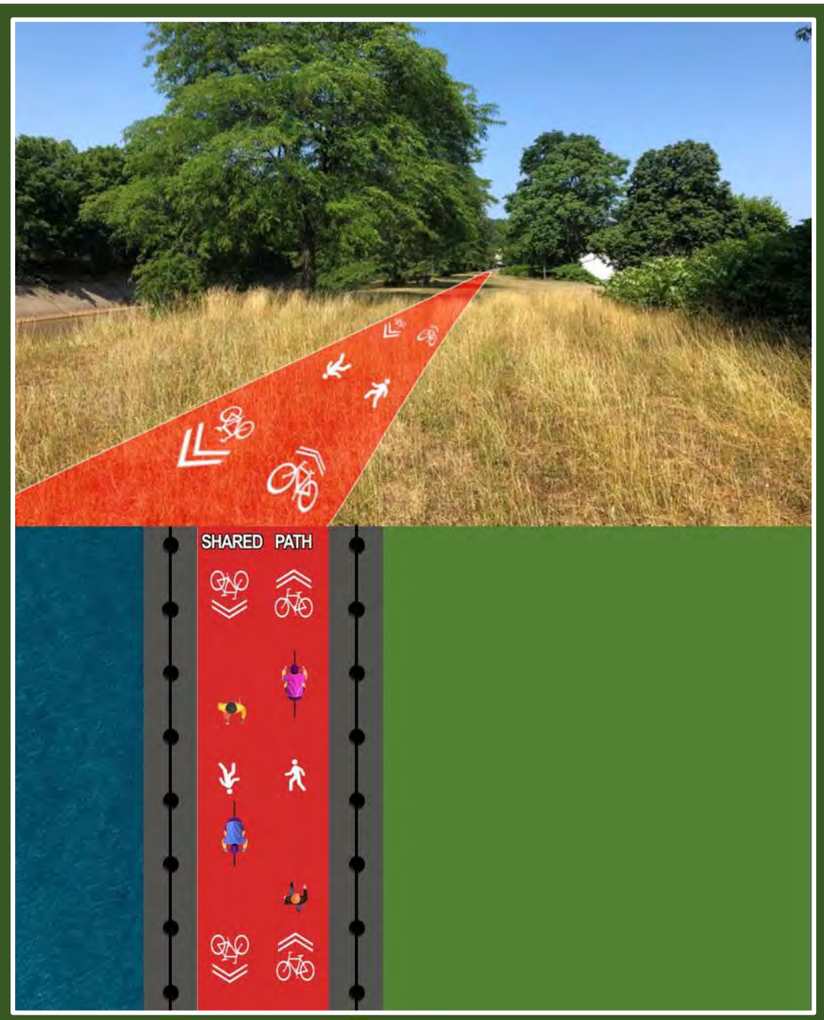
Airbrake Avenue
Wilmerding



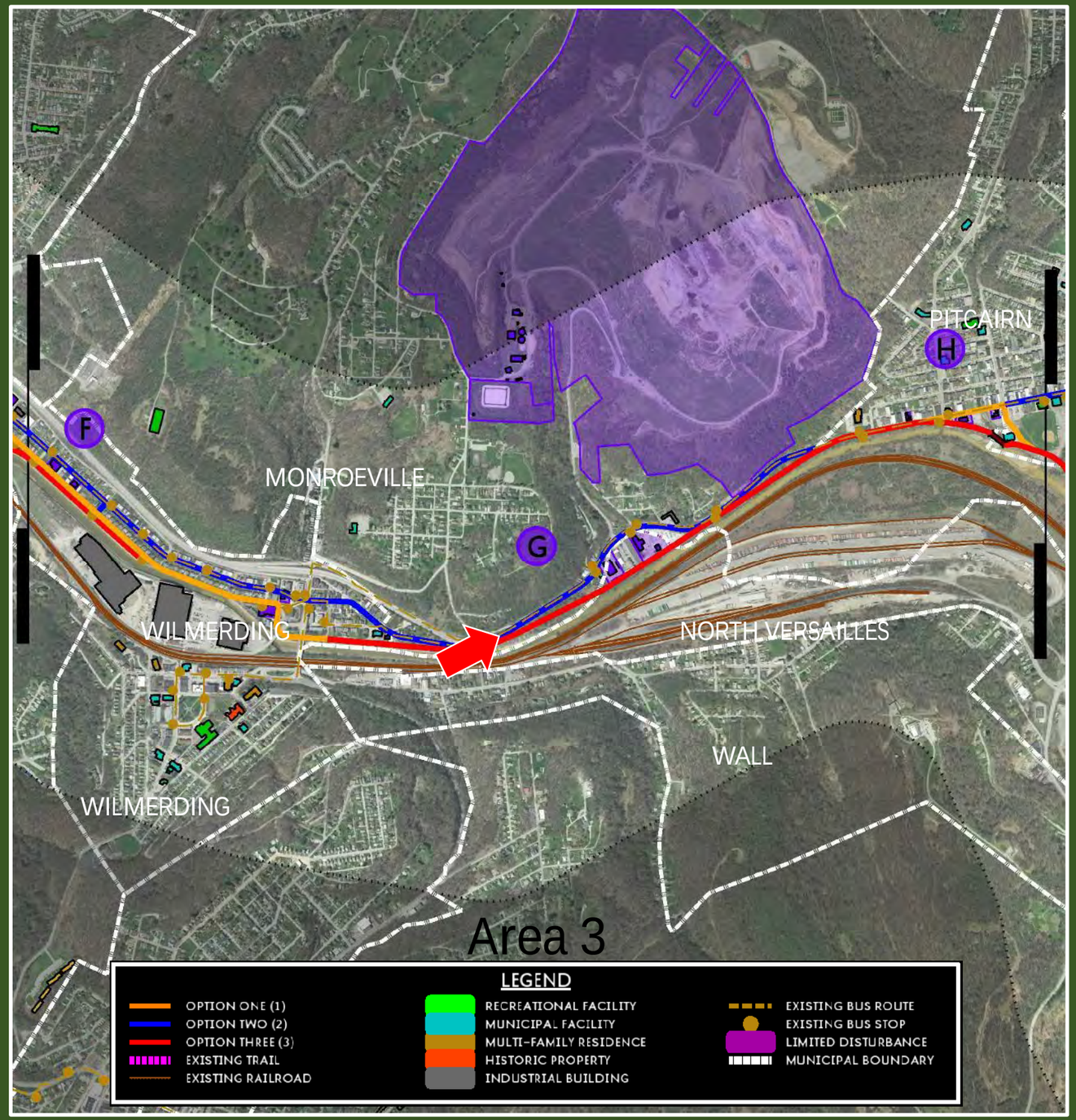


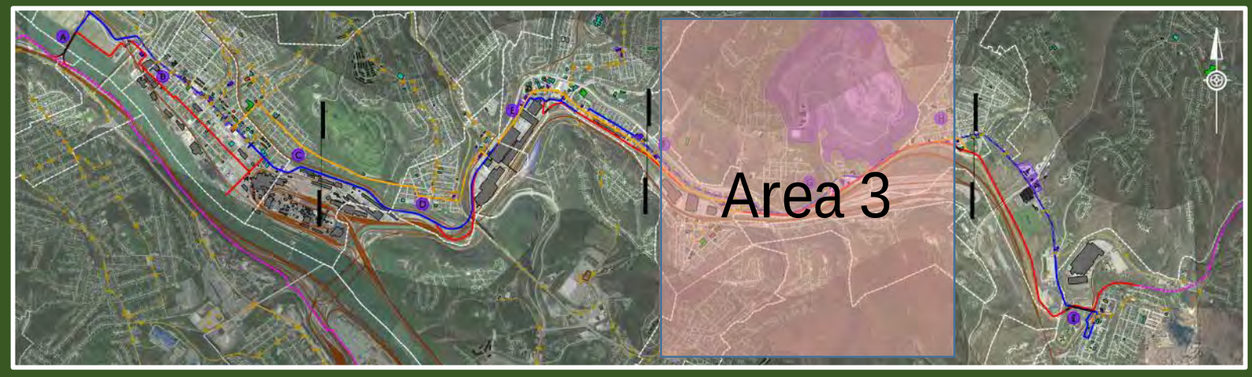
Middle Avenue
Wilmerding

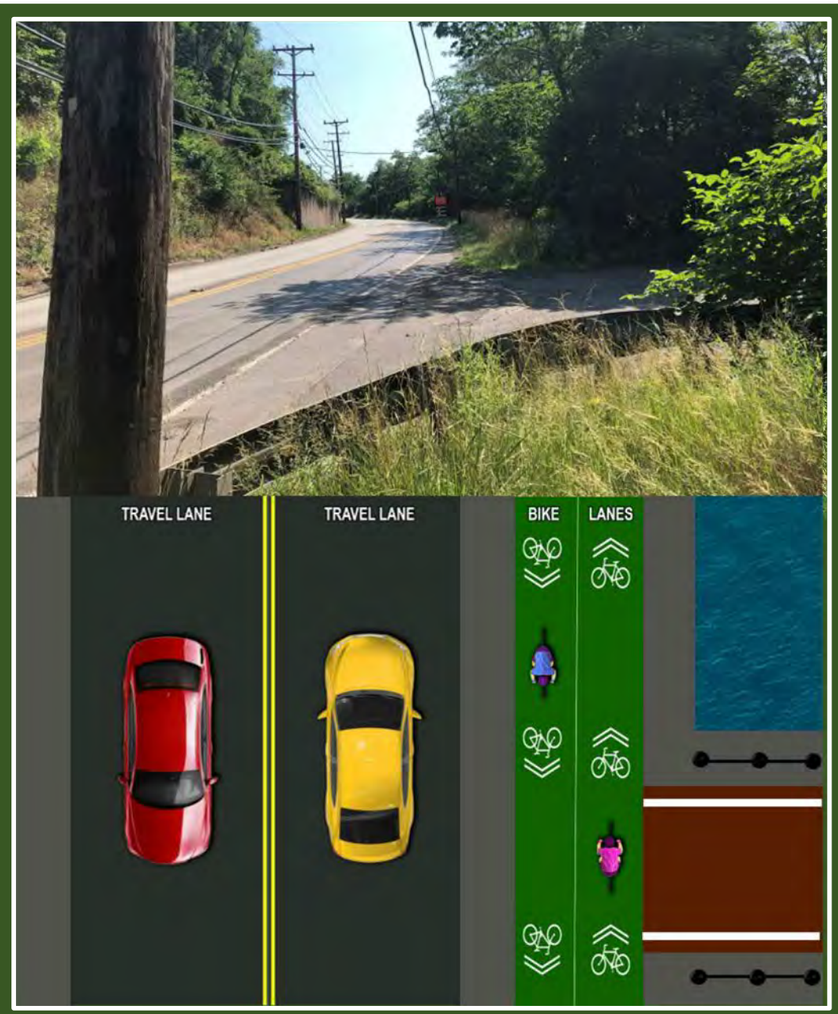




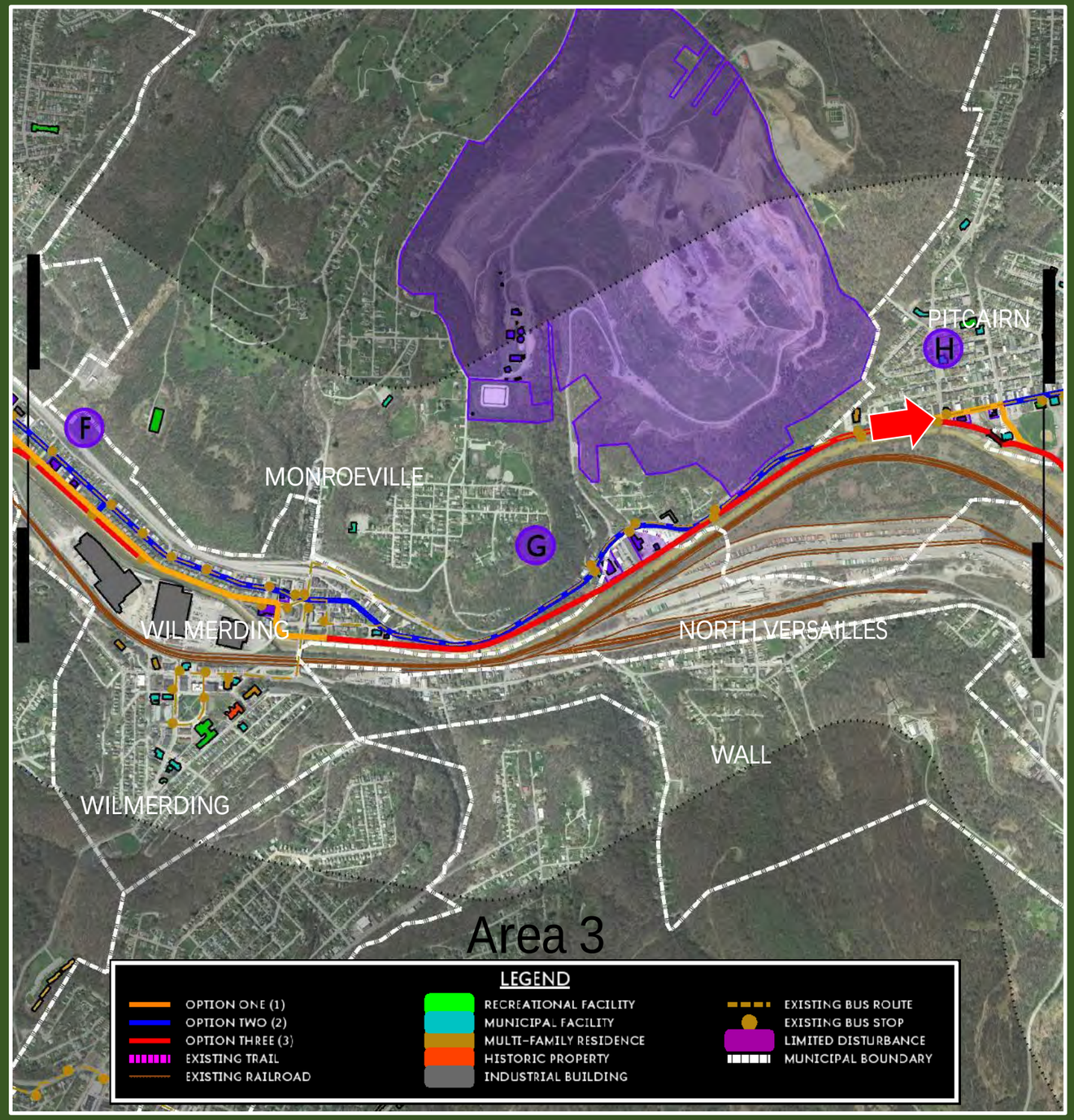
Norfolk Southern Railway
Monroeville / North Versailles



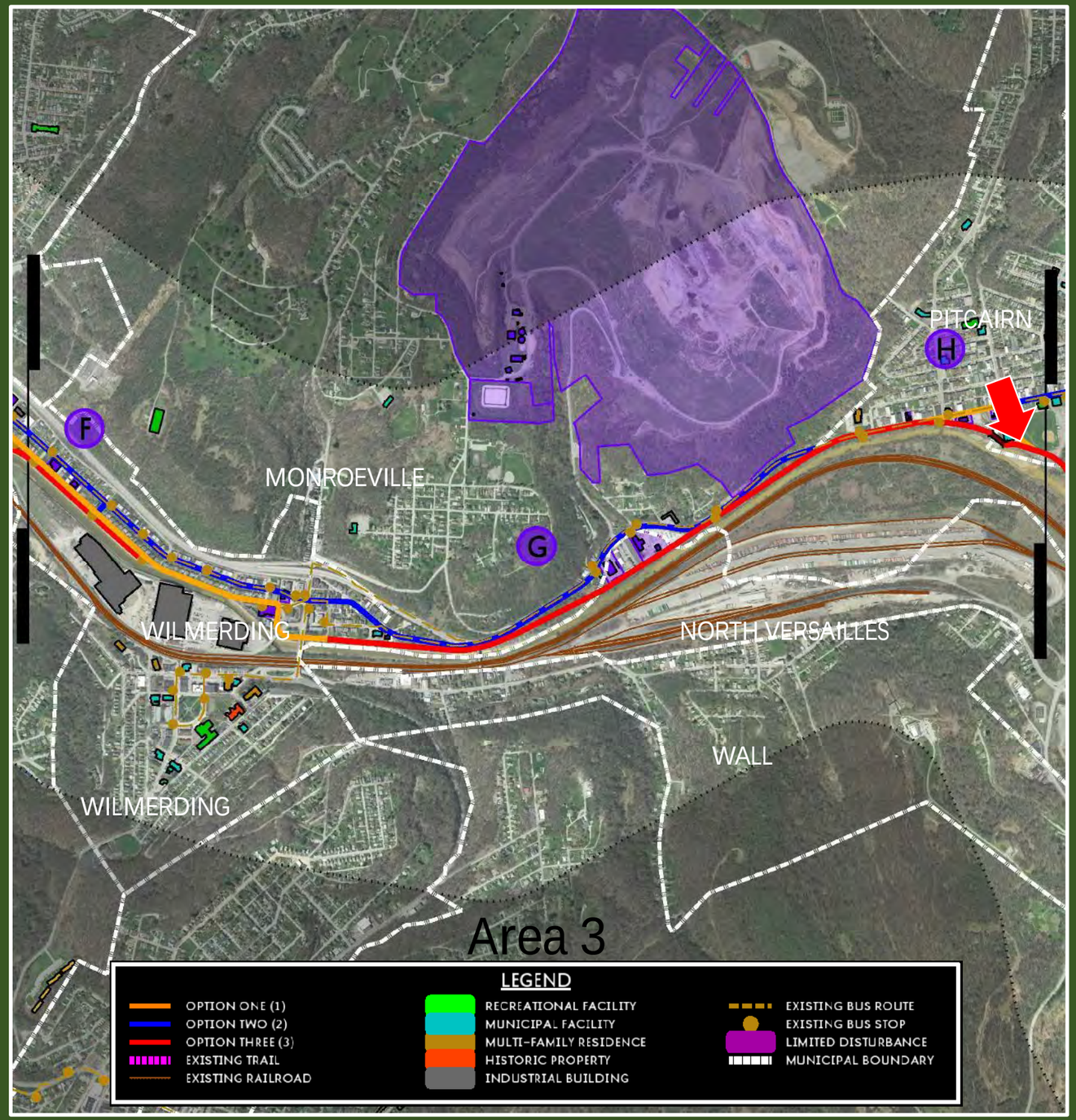


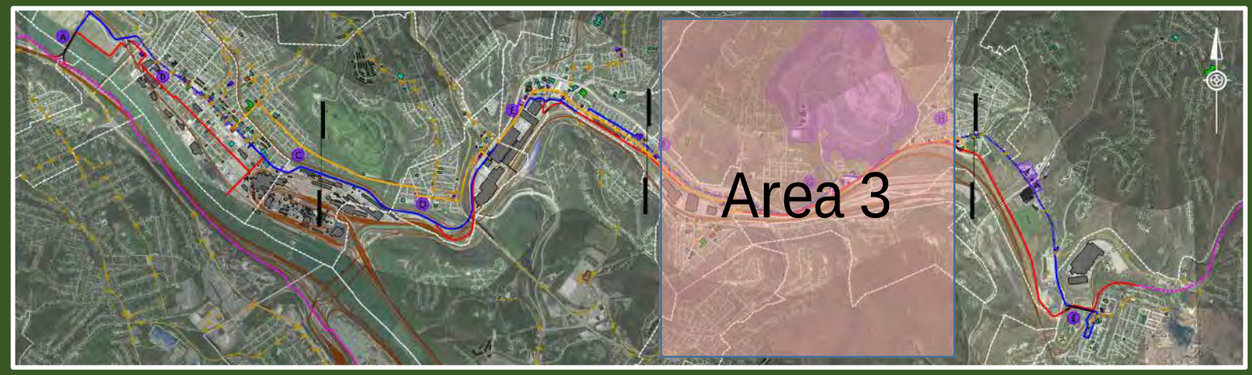


Broadway Boulevard
Monroeville / North Versailles

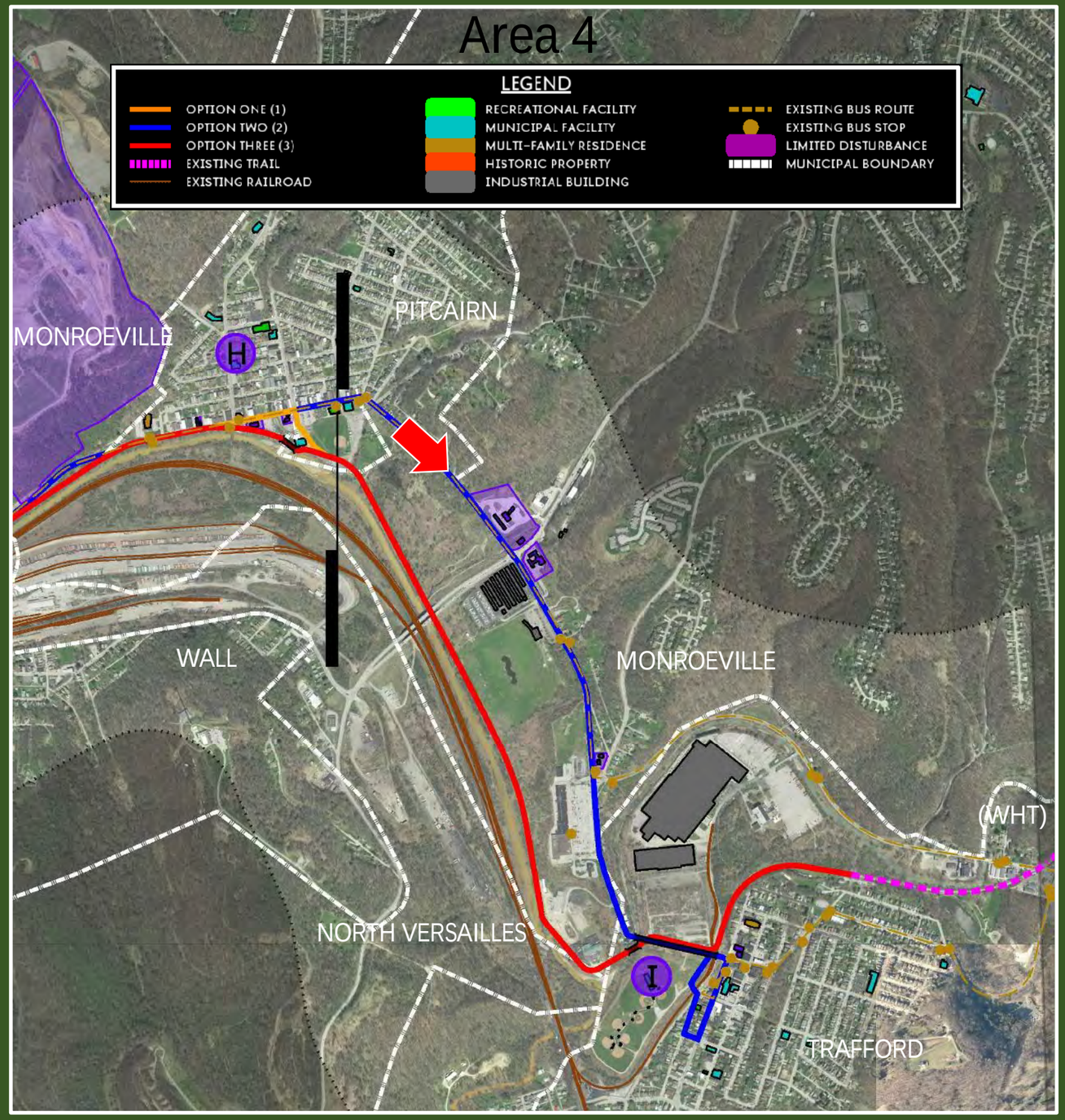


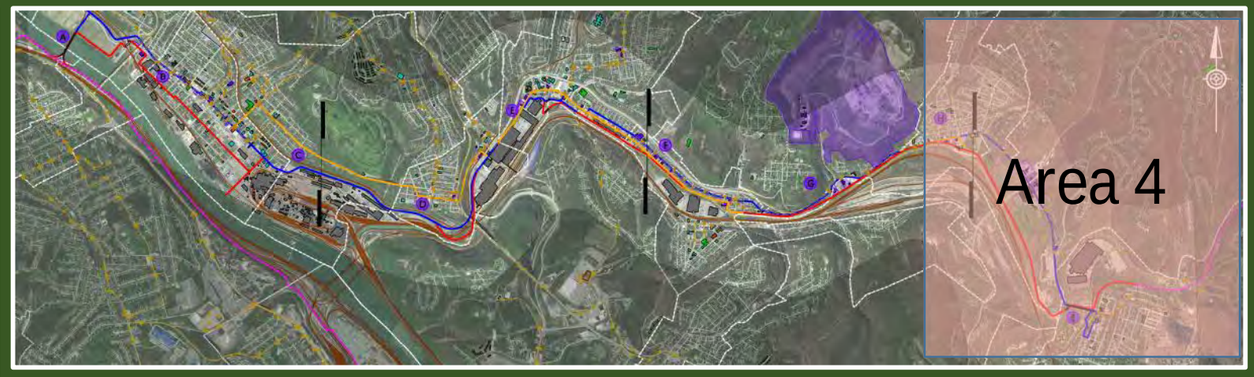
Broadway Boulevard
Pitcairn / Monroeville



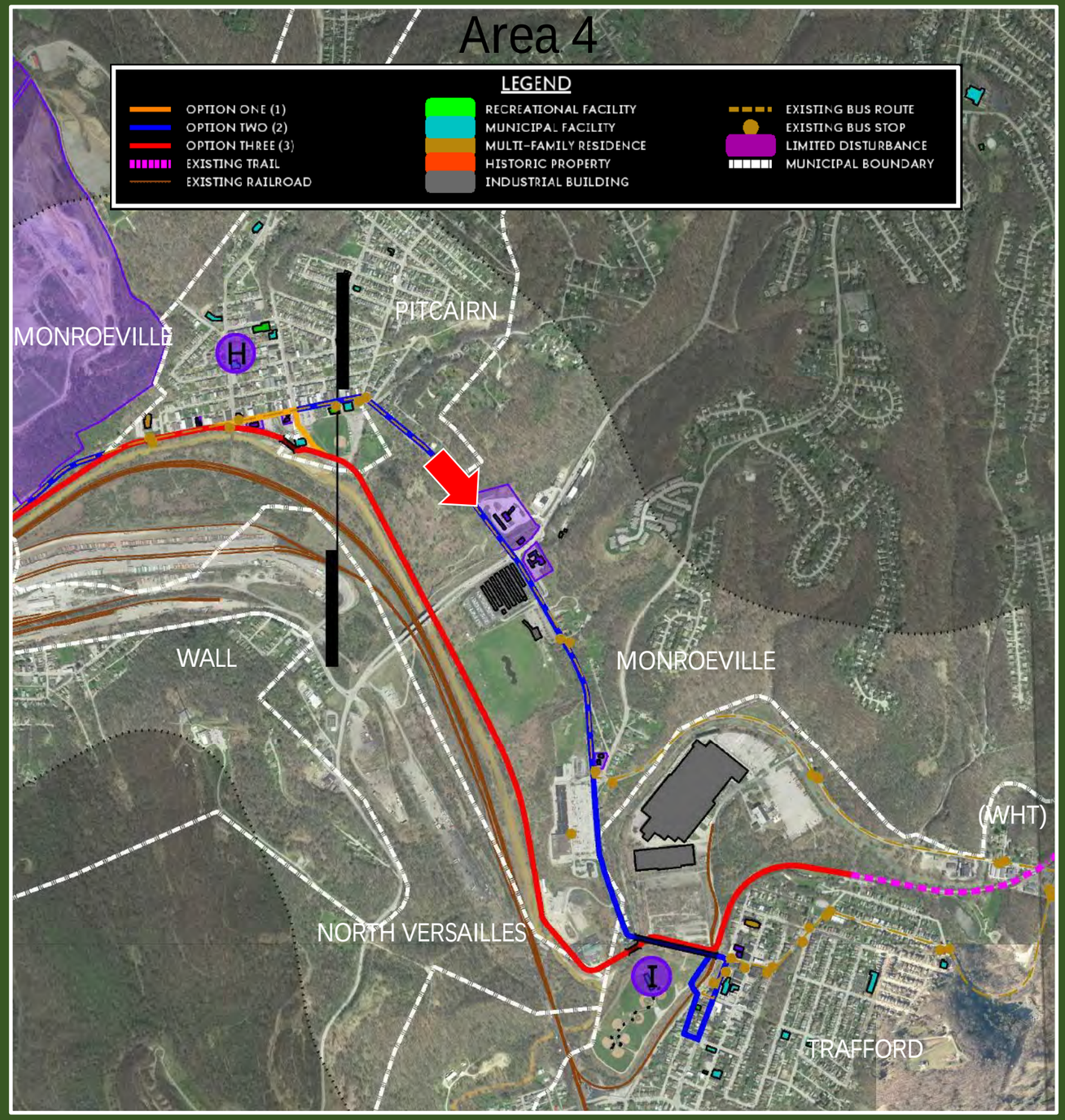


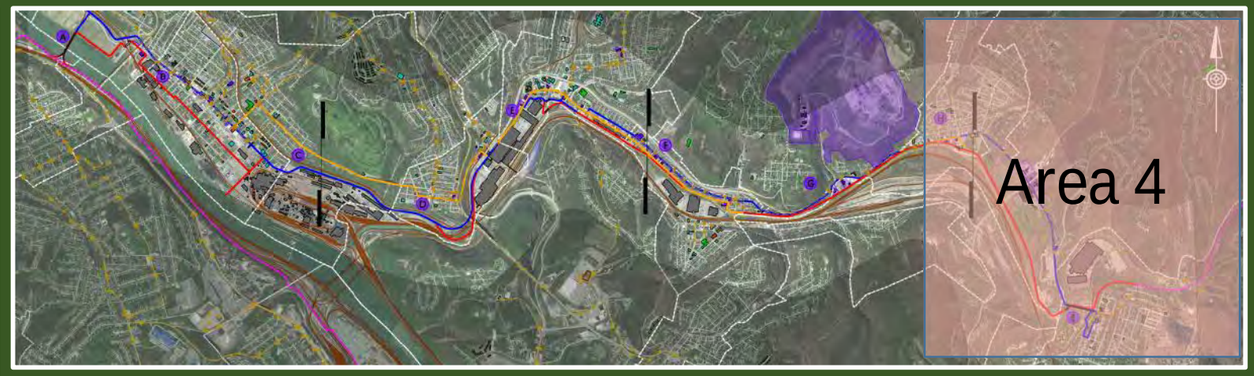
Center Avenue
Pitcairn / Monroeville

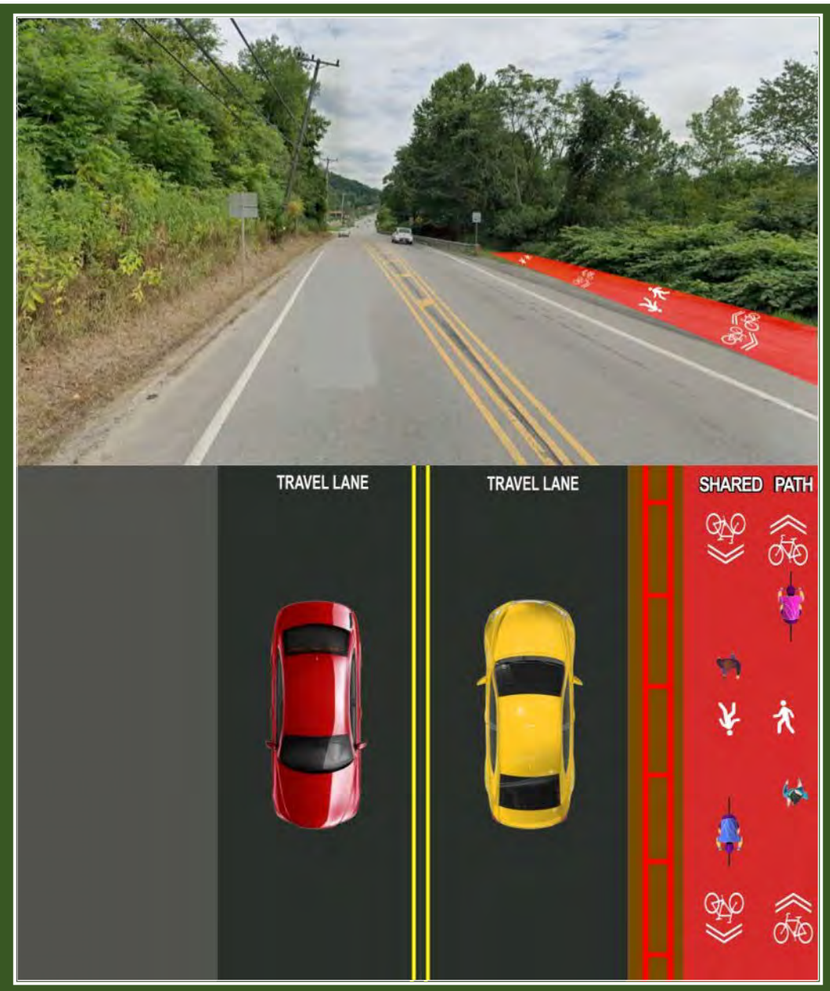




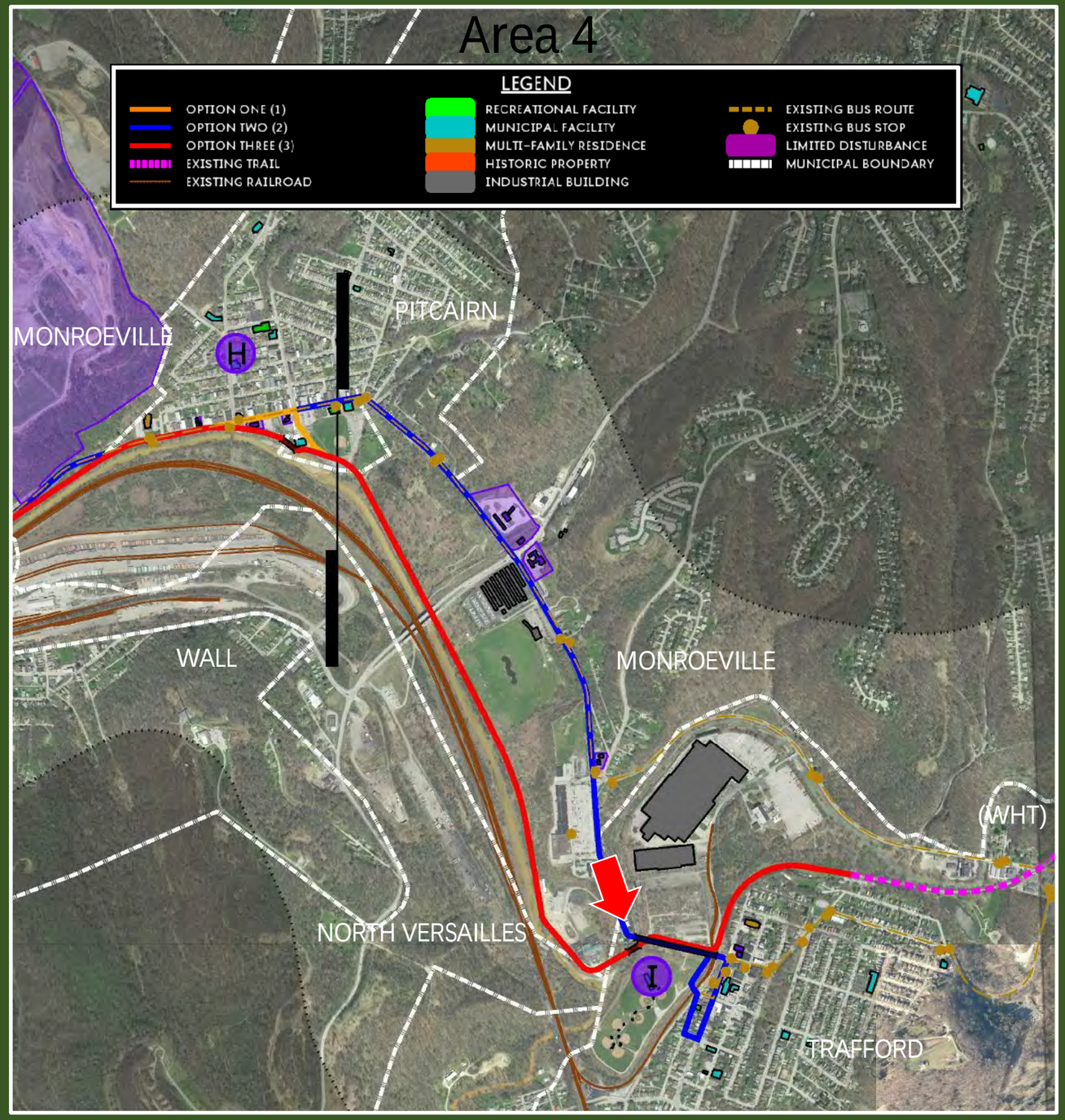
Broadway Boulevard
Pitcairn / Monroeville

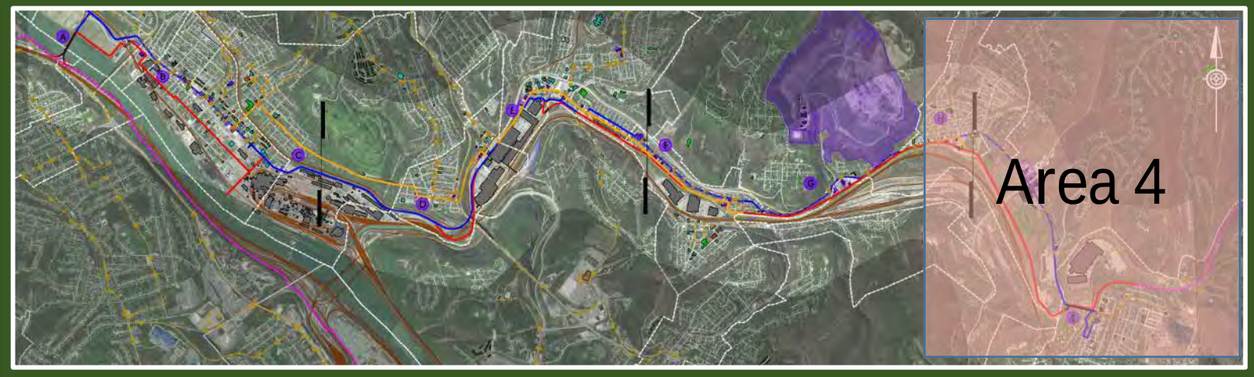


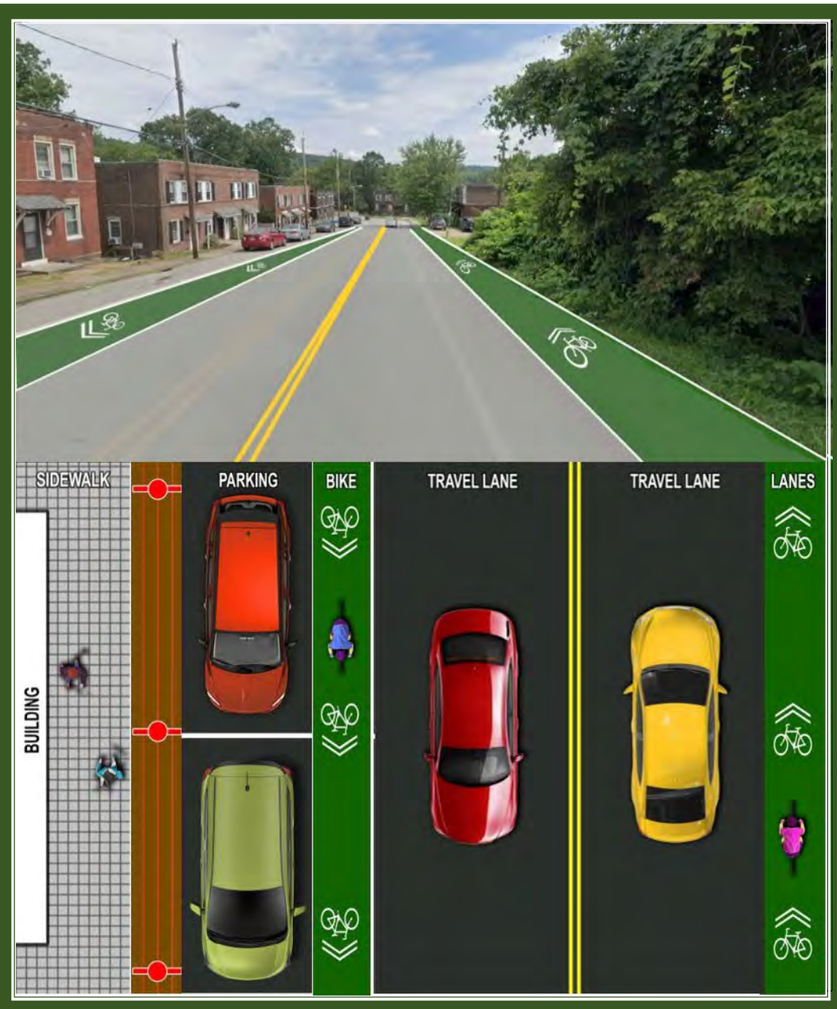




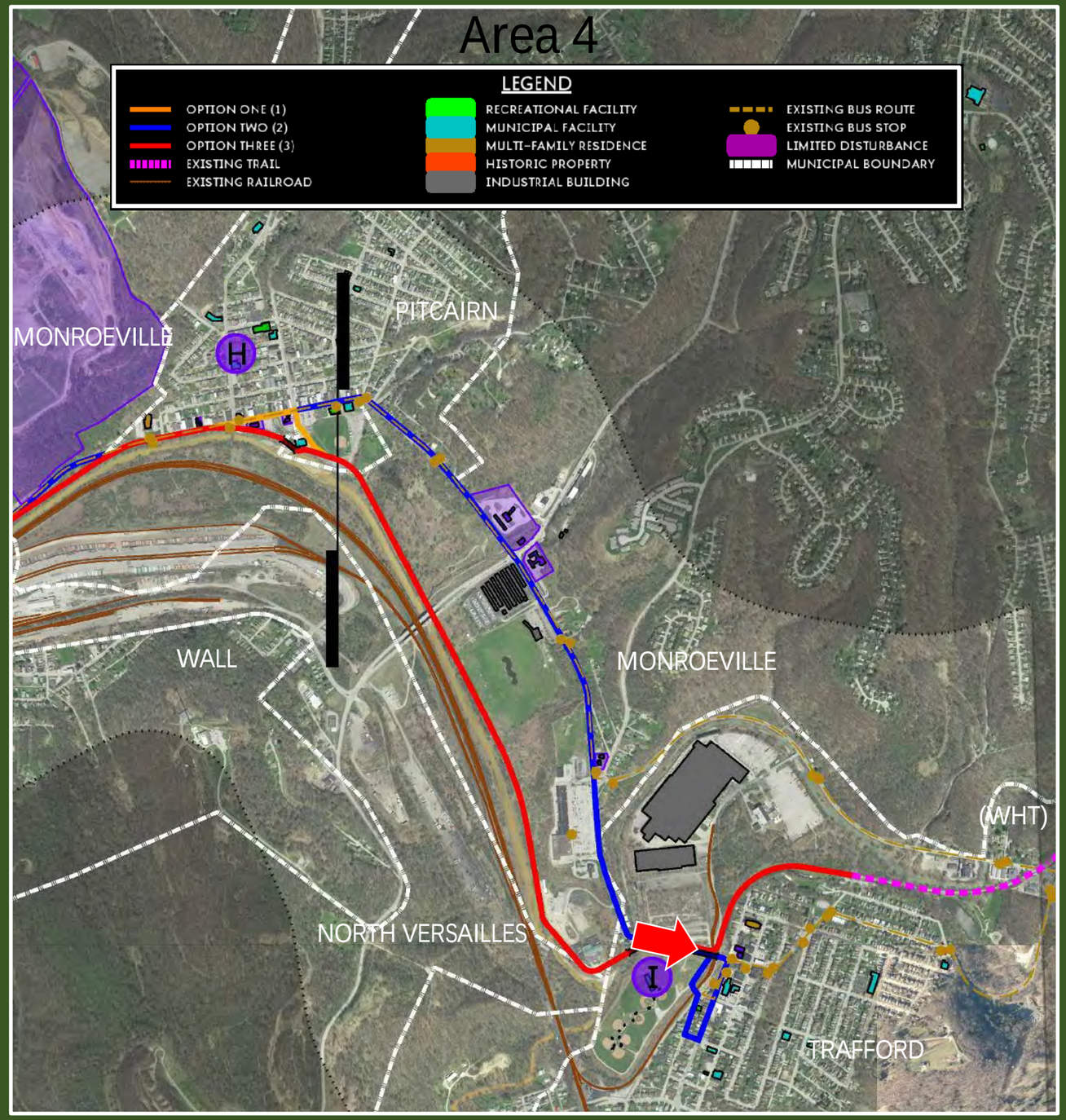
Broadway Boulevard
Pitcairn / Monroeville

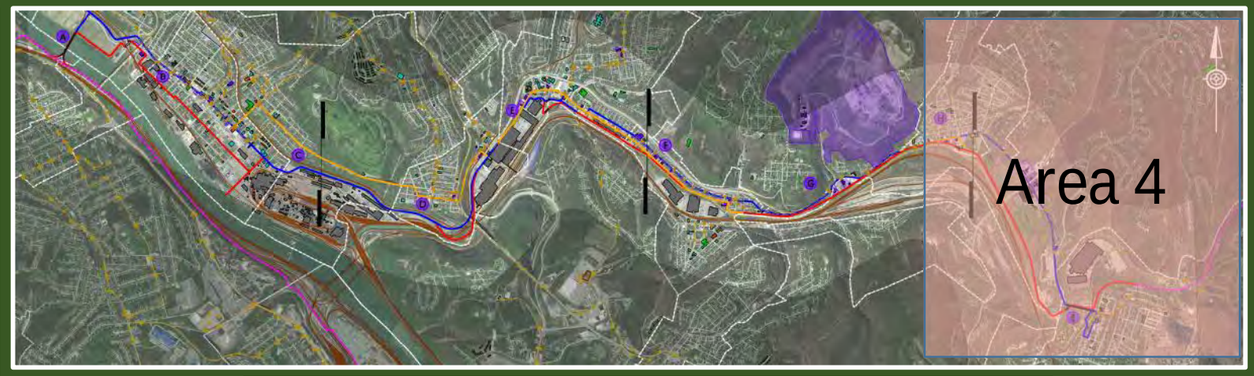


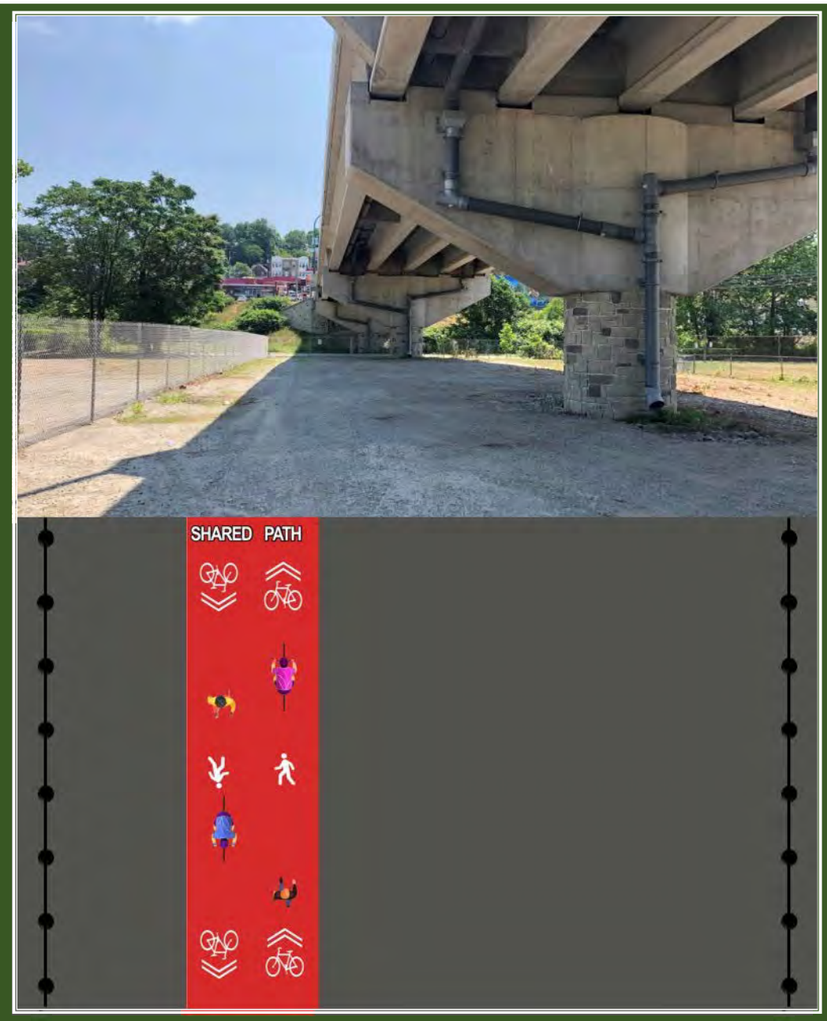




Fifth (5th) Street
Trafford / Monroeville







Veterans Bridge
Trafford / Monroeville