



ATTACHMENT 3

Man-Made Resources

Technical Report

Glassboro-Camden Line FEIS
February 2021

Prepared by:



Prepared for:



Project information contained in this document, including estimated limits of disturbance that could result with construction or operation of the proposed GCL, is based on conceptual design parameters that represent a reasonably conservative basis for conducting environmental analyses. As the proposed GCL is advanced through preliminary engineering and construction, efforts will continue to be made to further refine the design and minimize the project footprint. These refinements may result in the potential to avoid and further reduce the adverse effects outlined in this document and as described within this Environmental Impact Statement.

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Appendix 3-A: Environmental Justice

Foreword

Following the issuance of the Draft Environmental Impact Statement (November 2nd, 2020), revisions have been made to this Technical Report (Attachment 3, “Man-Made Resources Technical Report”) in preparation of the Final Environmental Impact Statement as follows:

- Section 1.4.2.2, Page 74: Revised text to clarify that the municipal parking garage that would serve the proposed Woodbury Station has been constructed
- Section 1.4.2.2, Page 76: Revised text to clarify that the municipal parking garage that would serve the proposed Glassboro Station has been constructed
- Section 4, Page 156: Updated the website address for the NJGIN Areas in Need of Redevelopment data
- Section 4, Page 156: Updated the website address for the DVRPC 2015 Land Use data
- Section 4, Page 156: Updated the website address for the City of Camden zoning ordinance
- Section 4, Page 156: Updated the website address for the City of Gloucester zoning ordinance
- Section 4, Page 156: Updated the website address for the Borough of Pitman zoning ordinance
- After the release of the Draft Environmental Impact Statement, refinements to the Acquisitions and Displacements Analysis were conducted by the GCL Project Team, resulting in changes to several acquisition determinations. Tables, analyses and calculations throughout this Technical Report, as well as Appendix 3-A, “Environmental Justice,” have been updated accordingly. Specifically, the following seven acquisition effects were reconsidered between Draft and Final EIS:
 - Refinement to the proposed Limit of Disturbance (LOD) mapping file resulted in five parcels, which were identified as full acquisitions in the DEIS, being determined not to be properties that would be fully or even partially acquired; specifically, parcels 0408_477_42, 0408_489_55, 0414_187_17, 0414_187_9, and 0414_192_9.02.
 - Parcel 0810_278.01_4.01, previously identified as a full acquisition in the DEIS (due to potential for the proposed GCL limiting access to the southern portion of the property) was downgraded to a partial acquisition, as further inspection clarified that the portion of the proposed LOD mapping file crossing the parcel’s access was intended to represent proposed sidewalk and pedestrian facilities, which would improve access to the parcel; a partial acquisition would still be required for the northern portion of the parcel.
 - Parcel 0815_82.01_2, previously identified as a full acquisition in the DEIS (due to the potential for the proposed GCL to preclude use of this property’s driveway, which currently serves “drive-through” activity for the business) was downgraded to a de minimis acquisition, as the permanent LOD would not encroach on the property to such an extent; however, a conservative interpretation assumes that some minor portion of this driveway may still be affected and require minor reconfiguration to maintain functionality.

- Minor editorial and typographical revisions, as well as formatting adjustments, have been made as appropriate

1 LAND USE, PUBLIC POLICY AND ZONING

1.1 Introduction

This attachment includes an evaluation of existing land use, zoning, and long-term planning efforts, as well as potential direct effects of the proposed Glassboro - Camden Line (“the proposed GCL” or “the proposed project”) on land use patterns along the corridor and within ½ mile of proposed stations and vehicle maintenance facility (VMF) sites. Where necessary, mitigation measures for potential land use impacts are identified.

The proposed GCL would operate primarily within the ROW of an existing Conrail line, which would minimize necessary property acquisitions and land use displacements. While station and maintenance facility areas may experience displacements or require rezoning of a property, the effect would be positive given that the project would likely increase access to public transportation, expand opportunities for redevelopment, and link transportation with adjacent land uses.

1.2 Principal Conclusions

An analysis of land uses and local zoning ordinances was conducted for the project, resulting in the determination that the project would have no significant adverse impacts on land uses and local zoning ordinances. Potential adverse impacts to existing land uses or zoning have been assessed at several station areas, however no significant impacts to surrounding land uses or current zoning districts are found evident. The proposed GCL would operate primarily within the ROW of an existing Conrail line, which would minimize necessary property acquisitions or displacements. It is expected that where necessary, design elements of station areas or vehicle maintenance facilities would conform with the surrounding existing context. While station and maintenance facility areas may experience displacements or require rezoning, the effect is expected to be positive for these areas with increased access to public transportation, and expanded opportunities for redevelopment and for linking transportation with adjacent land uses.

1.3 Affected Environment

The proposed GCL is a proposed 18 mile expansion of transit service in Southern New Jersey that would traverse eleven communities between Camden City and Glassboro Borough. These communities, listed from north to south, include the following within Camden County - Camden City, Gloucester City, and Brooklawn Borough - and the following communities within Gloucester County - Westville Borough, Woodbury City, Woodbury Heights Borough, Deptford Township, Wenonah Borough, Mantua Township, Pitman Borough, and Glassboro Borough. The proposed GCL would restore passenger rail service primarily within an existing Conrail freight right-of-way (ROW) using light rail vehicles similar to the NJ TRANSIT River LINE. The light rail would operate on new dedicated tracks with peak service operating every 15 minutes. There would be two dedicated tracks in Camden and one dedicated track between Camden and Woodbury with a passing siding in Westville and Woodbury. South of Woodbury, the GCL would operate

on one new dedicated GCL track and share one track with Conrail. On this shared track, GCL trains would operate during the day and evening hours, with Conrail trains operating in the late evening and overnight.

The proposed project would provide 14 new transit stations in addition to an existing station at the Walter Rand Transportation Center (WRTC) and two vehicle maintenance facilities.

The proposed GCL would link activity centers, including downtown Camden, Rutgers—Camden, Cooper Hospital, and Rowan University; employment destinations, including Inspira Health Network, Holt Logistics, and South Jersey Port Corporation properties; established residential areas; and areas identified by New Jersey Department of Community Affairs (NJCA) as being in need of redevelopment or rehabilitation throughout the eleven study area municipalities. Existing land uses within ½ mile of the proposed alignment, proposed vehicle maintenance facilities, and station areas have been evaluated to identify local context and baseline conditions for the corridor. The analysis of existing land uses was developed using 2015 land use classification data from the Delaware Valley Regional Planning Commission (DVRPC) and 2016 Google Earth imagery.

1.3.1 Existing Land Use – GCL Corridor

The GCL corridor is situated within the counties of Camden and Gloucester in New Jersey. The study area for this land use analysis extends ½ mile from the centerline of the proposed alignment and the proposed stations/vehicle maintenance facilities. The GCL alignment would be located within or adjacent to the existing Conrail railroad ROW, which previously supported passenger rail service. Within a ½ mile of the proposed GCL alignment, there are several established residential neighborhoods and commercial corridors (Figure 1, “Existing Land Use – GCL Corridor”).

In aggregate, the land area within ½ mile of the proposed GCL alignment is 19 square miles in size. Primary land uses along the proposed alignment in the Camden County portion of the corridor are dense residential and commercial development, which is generally consistent with development patterns found throughout the northern portion of the county. Land uses in Gloucester County tend toward more single-family residential areas, with wooded lands predominating in the west and south of the corridor. The land use patterns in the Gloucester County portion of the corridor are generally more developed along the proposed alignment than the rest of the county. Other land uses in corridor study area include commercial and recreational uses and vacant land.

Traveling south along the alignment from Camden to Glassboro, the corridor changes dramatically from denser urban environments in Camden County and northern Gloucester County to suburban land uses in central and southern Gloucester County. Within the City of Camden, the proposed alignment is located along the eastern edge of dense residential neighborhoods comprised of row homes. Further south in Camden, the alignment parallels Interstate 676 adjacent to heavy industrial uses north and south of the more residential Waterfront South neighborhood. Continuing south through Gloucester City, Brooklawn Borough, Westville Borough, Deptford Township, and Woodbury, the alignment travels through built-out, dense urban residential neighborhoods, which transition from smaller lot row homes to larger lot single-family homes. As the alignment continues south through Wenonah Borough, the density of

development continues to decrease. Upon entering Mantua Township, the context surrounding the alignment shifts to traditional suburban land use patterns, characterized by larger lot single-family homes and a significant amount of open space. South of Mantua Township, in Pitman Borough, the alignment shifts back toward a built-out, dense residential community similar to northern Gloucester County. Entering Glassboro Borough, the proposed alignment is adjacent to Rowan University and continues south into a mix of light industrial and lower density residential before terminating near a primary commercial corridor within the borough.

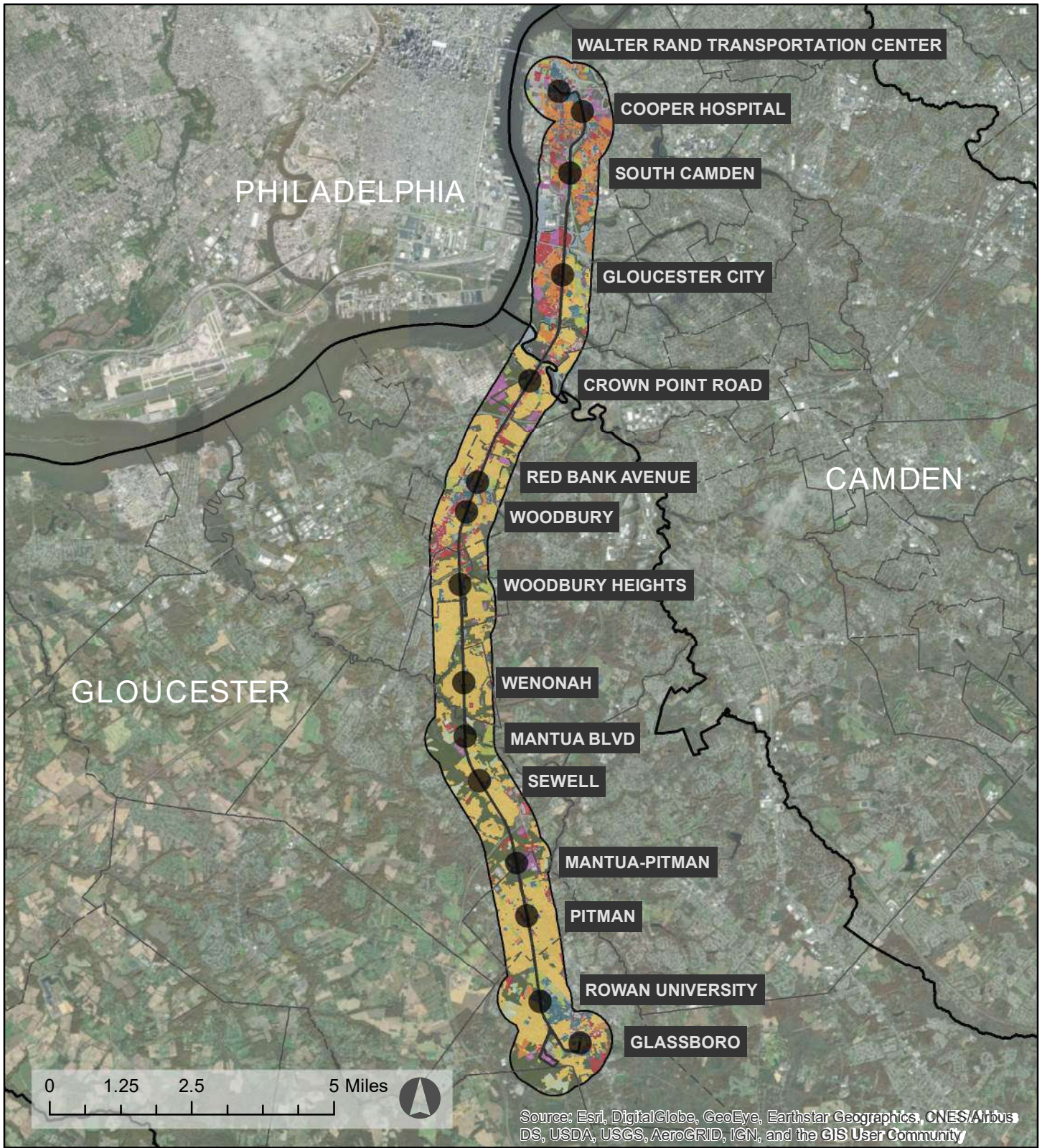
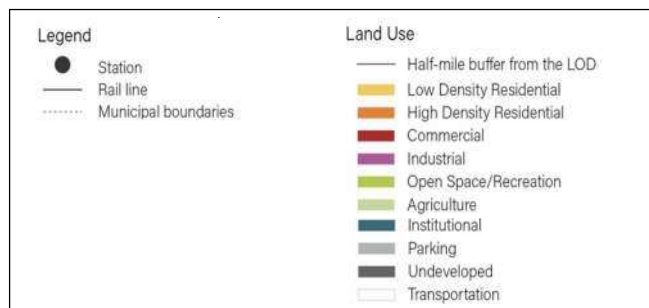


Figure 1: Existing Land Use - GCL Corridor



Source: DVRPC, 2015; GCL Project Team, 2020.

1.3.2 Existing Land Use and Zoning – Proposed Station Areas

This section provides a review of existing land uses surrounding each of the 14 proposed stations and the existing WRTC for the GCL. Refer to Section 3.4.2, “Community Services and Service Providers” for a detailed inventory and description of community facilities within the project corridor. For information regarding parks and open space, see Attachment 9, “Parklands Technical Report.” Other information regarding specific property impacts can be found in Attachment 12, “Acquisitions and Displacements Technical Report.”

1.3.2.1 Walter Rand Transportation Center (WRTC), Camden

Land Use – WRTC is the only existing station along the GCL. Located between Dr. Martin Luther King Boulevard and Federal Street in downtown Camden, the WRTC serves as the transfer hub for the Port Authority Transit Corporation (PATCO), NJ TRANSIT Bus and River LINE services. Existing land use classifications within ½ mile of the existing WRTC Station are presented on Figure 2, “Existing Land Use – WRTC.” More than half of the ½ mile area surrounding the station is classified by the New Jersey Department of Community Affairs as an Urban Enterprise Zone or an area designated in need of redevelopment (63.9 percent) or rehabilitation (2.3 percent). The ½ mile station area contains 5.4 percent undeveloped land. The land use composition within a ½ mile of the WRTC is broken down by percentage in Table 1, “Existing Walter Rand Transportation Center (WRTC) Area (Land Use Composition).”

Table 1: Existing Walter Rand Transportation Center (WRTC) Area (Land Use Composition)

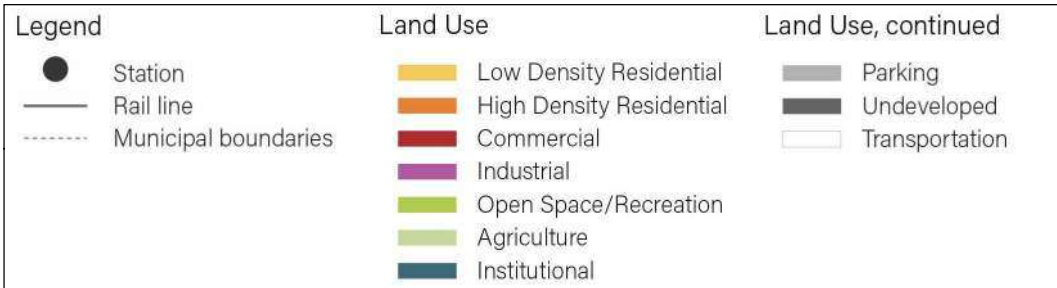
Walter Rand Transportation Center (WRTC) Land Use Categories	Land Use Composition (%)
Parking	25.8%
Residential: High Density	21.4%
Institutional	16.9%
Transportation	16.7%
Commercial	7.9%
Undeveloped	5.4%
Open Space	3.8%
Industrial	1.7%
Agriculture	0.3%

Note: Totals due not add to 100 percent due to rounding

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey



Figure 2: Existing Land Use - WRTC



Source: DVRPC, 2015; GCL Project Team, 2020.

The station area contains a mix of residential, commercial, and institutional uses. Transportation and commercial parking account for a significant amount of the land coverage. Few manufacturing/industrial and recreational uses exist in the area. The WRTC Station is located near two major activity centers, both classified as institutional uses: the Cooper University Hospital and Rutgers University-Camden. Residential land uses are located primarily to the south and major employment centers are located north of the station. Several parkland areas are located within ½ mile of the station area, including Triangle Park, Roosevelt Plaza, and Cooper Plaza, as well as additional smaller neighborhood parks. The Walt Whitman House Museum, Camden City Hall, various Camden County Government offices, and the Camden County Jail are adjacent to the station. Several institutions are located to the north of the WRTC: the 40-acre Rutgers University-Camden Campus, which includes the School of Law and the Nursing and Science Building; United States Post Office; Leap Academy University Charter School; and County Court House. Camden County College is located to the east of the WRTC. The Rowan University-Camden Campus, Environment Community Opportunity (ECO) Charter School, Catholic Partnership Schools' administrative offices, and U.S. Department of Housing and Urban Development office are located northeast of WRTC. KIPP Cooper Norcross Academy is located south of the WRTC.

Multi-family residential and Mickle Towers, a senior public housing facility, are located southwest of WRTC. Large tracts of surface parking lots and parking structures owned by the Parking Authority of the City of Camden are located west of WRTC.

Several churches and the Camden Community Health Center are located throughout the residential neighborhood west of the station. Most commercial uses are located south of the station along Broadway and north of the station along Market Street. These commercial corridors include restaurants, specialty retail, personal services, banks, and professional offices.

Zoning – The ½ mile area surrounding the WRTC has been divided into several zones designated by the City of Camden's zoning ordinance: Medium and High Density Residential, Medical and Support Services, University and Support Services, Office Light Industrial Uses, and Center City Commercial Uses. Medium-Density Residential (R-2) and High-Density Residential (R-3) allow for single-family and multi-family residential units or institutional uses including parks, schools, or municipal facilities. The Medical and Support Zone (MS) permits numerous uses, including single-family and multi-family residential, medical and dental facilities, commercial, restaurant and retail uses, as well as institutional uses. The Office Light Industrial Zone (OLI) permits warehousing and low-density office uses, as well as commercial /restaurant facilities, and also permits railroad passenger stations, facilities, and uses. The Center City Zone (CC) permits residential, commercial, retail, restaurant, institutional, and railroad-associated uses. The University and Support Zone (US) permits similar uses to the CC Zone but provides specific permitted uses for college and university uses. Vacant properties are scattered throughout the ½ mile area, and throughout the zoning districts.

Walter Rand Transportation Center (WRTC), Camden – Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and Transit Oriented Development (TOD) estimates developed through a review of existing vacant or underutilized properties. A 2017 DRPA report outlines a plan for

improvements to WRTC intended to facilitate TOD, improving transit service and passenger convenience. The plan includes a new and redesigned bus terminal, multi-story development featuring street-level retail, and attractive sidewalk amenities to transform the pedestrian experience. For the City of Camden, DVRPC municipal-wide projections indicate 10.1 percent growth in employment and 2.7 percent growth in population. While redevelopment of properties is anticipated near WRTC, no specific properties were highlighted for TOD.

1.3.2.2 Cooper Hospital Station, Camden

Land Use – The proposed Cooper Hospital Station would be located adjacent to Interstate 676, near major Camden County employers Cooper University Hospital and Campbell Soup Company Headquarters. The station is also located less than ½ mile from Subaru of America’s new corporate headquarters in Camden’s Gateway District. The ½ mile station area contains 17.4 percent undeveloped land. Existing land use classifications within ½ mile of the proposed Cooper Hospital Station are shown on Figure 3, “Existing Land Use – Cooper Hospital Station.” As shown on Figure 3, “Underutilized Land – Cooper Hospital Station,” a significant portion of land to the north and west of the proposed station is classified by the New Jersey Department of Community Affairs as an Urban Enterprise Zone, an area in need of redevelopment (28.3 percent) or in need of rehabilitation (1.3 percent). The land use composition within a ½ mile of the proposed station is broken down by percentage in Table 2, “Proposed Cooper Hospital Station Area (Land Use Composition).”

Table 2: Proposed Cooper Hospital Station Area (Land Use Composition)

Cooper Hospital Station Area Land Use Categories	Land Use Composition (%)
Residential: High Density	26.1%
Undeveloped	17.4%
Transportation	15.3%
Parking	11.0%
Institutional	10.2%
Commercial	8.2%
Industrial	7.5%
Wooded	1.7%
Water	1.7%
Open Space	0.5%
Agriculture	0.2%

Note: Totals due not add to 100 percent due to rounding

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey

The ½ mile area surrounding the proposed station encompasses primarily single-family and multi-family residential, manufacturing, commercial, parking, and vacant land. Several institutional uses are also located in this area. KIPP Whittier Middle School is located to the south of the proposed station. Triangle Park is located adjacent to the corridor north of the proposed station. The Camden County Salvation Army facility is located southeast of the proposed station. Camden City Government and County Government offices are located to the north. Several churches and the Camden County Health Department are found throughout the residential neighborhood west of the station. Most commercial uses are located west of the station along Broadway, which is characterized by a mix of restaurants, specialty retail, and personal

services. Commercial uses are also located south of the station along Mt. Ephraim Avenue, such as automotive services and a few neighborhood restaurants. KIPP Cooper Norcross Academy is located to the west of this station as well.



Figure 3: Existing Land Use - Cooper Hospital Station

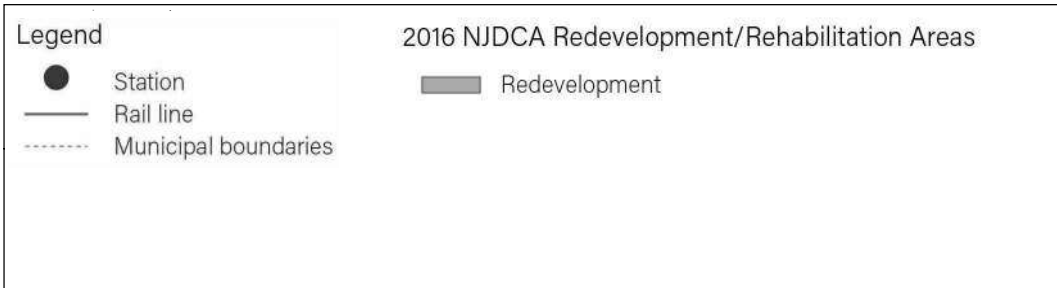


Legend		Land Use	Land Use, continued
●	Station	Low Density Residential	Parking
—	Rail line	High Density Residential	Undeveloped
- - -	Municipal boundaries	Commercial	Transportation
		Industrial	
		Open Space/Recreation	
		Agriculture	
		Institutional	

Source: DVRPC, 2015; GCL Project Team, 2020.



Figure 4: Underutilized Land - Cooper Hospital Station



Source: DVRPC, 2015; GCL Project Team, 2020.

Zoning – Within ½ mile of the proposed Cooper Hospital Station, most parcels are zoned Medium or High Density Residential, Center City Commercial, Conservation Overlay, Medical and Support, or Office Light Industrial, as designated by the City of Camden’s zoning ordinance. Medium-Density Residential (R-2) and High-Density Residential (R-3) allow for single-family and multi-family residential units or institutional uses including parks, schools, or municipal facilities. The Medical and Support Zone (MS) permits numerous uses, including single-family and multi-family residential, medical and dental facilities, commercial, restaurant and retail uses, as well as institutional uses. The Office Light Industrial Zone (OLI) permits warehousing and low-density office uses, as well as commercial /restaurant facilities, and also permits railroad passenger stations, facilities, and uses. The Center City Zone (CC) permits residential, commercial, retail, restaurant, institutional, and railroad-associated uses. The Commercial Zone (C-1) permits nearly identical uses as the CC Zone, at lower densities, but does not explicitly permit railroad associated uses. The Conservation Overlay Zone (CV-2) permits recreational uses and associated commercial uses.

There are several vacant properties surrounding the proposed station, most of which are designated Commercial, Office Light Industrial, or Residential.

Cooper Hospital Station, Camden – Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For the City of Camden, DVRPC municipal-wide projections indicate 10.1 percent growth in employment and 2.7 percent growth in population. While redevelopment of properties is anticipated near the proposed Cooper Hospital Station, no specific properties were highlighted for TOD.

1.3.2.3 South Camden Station, Camden

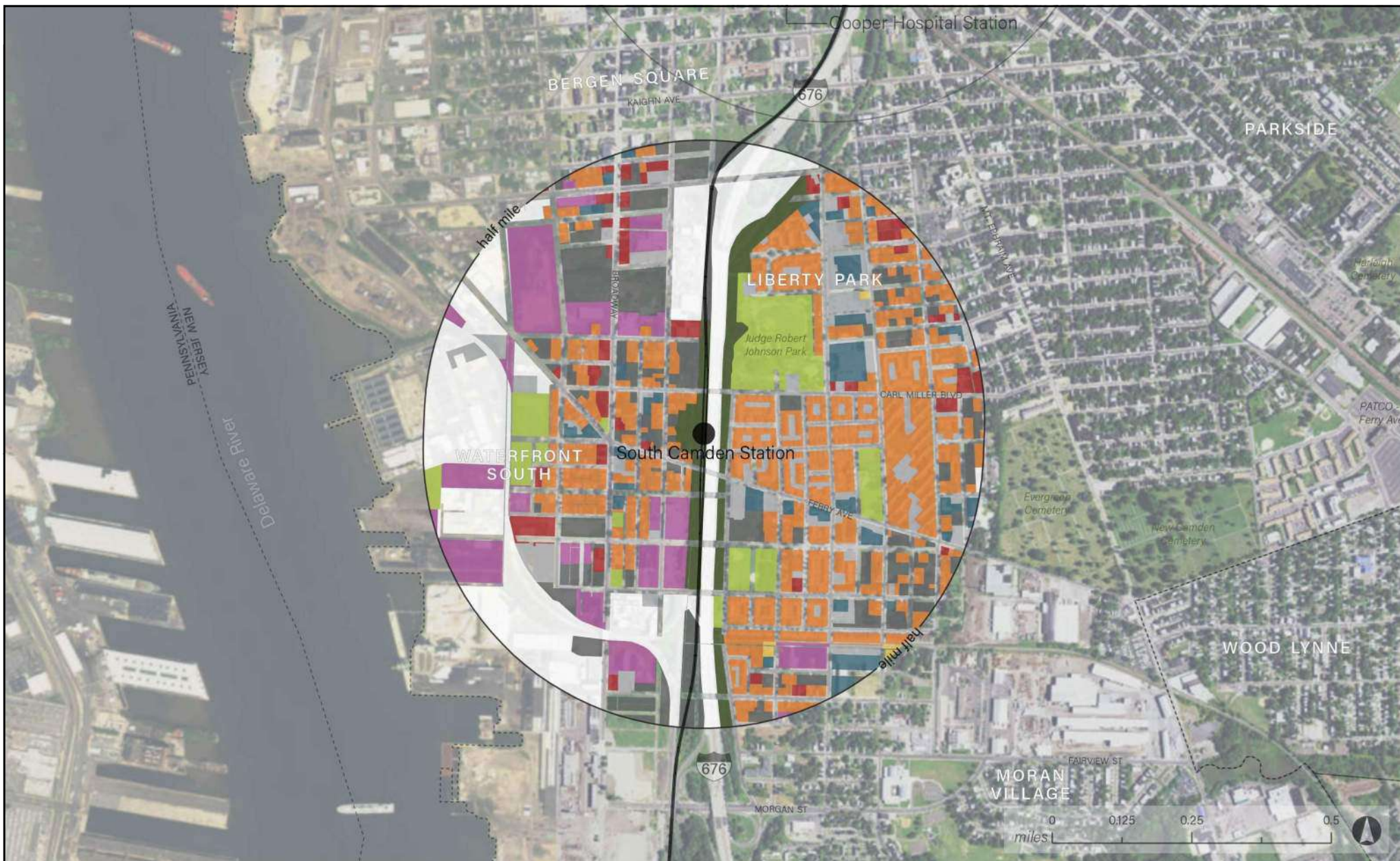
Land Use – The proposed South Camden Station would be located between Ferry Avenue and Carl Miller Boulevard in the City of Camden. Most of the land within the ½ mile station area is classified as an Urban Enterprise Zone. Existing land use classifications within ½ mile of the proposed South Camden Station are shown on Figure 5, “Existing Land Use – South Camden Station.” As Figure 6, “Underutilized Land – South Camden Station,” indicates, the New Jersey Department of Community Affairs has designated 25.8 percent of the land within the ½ mile station area as being in need of redevelopment. In addition, 14.1 percent of the land is classified as undeveloped. The land use composition within ½ mile of the proposed station is broken down by percentage in Table 3, “Proposed South Camden Station Area (Land Use Composition).”

Table 3: Proposed South Camden Station Area (Land Use Composition)

South Camden Station Area Land Use Categories	Land Use Composition (%)
Residential: High Density	29.3%
Transportation	20.2%
Undeveloped	14.1%
Industrial	9.8%
Parking	6.9%
Open Space	6.7%
Institutional	4.4%
Commercial	4.3%
Wooded	4.2%
Residential: Low Density	0.2%











Note: Totals do not add to 100 percent due to rounding

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey



**Figure 5: Existing Land Use -
South Camden Station**



Legend		Land Use		Land Use, continued	
●	Station		Low Density Residential		Parking
—	Rail line		High Density Residential		Undeveloped
- - -	Municipal boundaries		Commercial		Transportation
			Industrial		
			Open Space/Recreation		
			Agriculture		
			Institutional		

Source: DVRPC, 2015;
GCL Project Team, 2020.



Figure 6: Under Utilized Land - South Camden Station



Legend		2016 NJDCA Redevelopment/Rehabilitation Areas	
●	Station	■	Redevelopment
—	Rail line		
- - - -	Municipal boundaries		

Source: DVRPC, 2015; GCL Project Team, 2020.

A mix of land uses are located throughout the ½ mile station area. West of the proposed station, in the Waterfront South neighborhood, land use is predominantly comprised of single-family residential and manufacturing areas associated with the Delaware River waterfront. Community resources in the neighborhood include five recreational parks, the Isabel Miller Community Center, the Camden Shipyard and Maritime Museum, South Camden Theatre Company, Camden Rescue Mission, and other non-profit community organizations. The Waterfront South neighborhood also includes the County sewage treatment facility, scrap metal recycling facilities, two Environmental Protection Agency (EPA) Superfund sites, and 26 known contaminated sites identified by the New Jersey Department of Environmental Protection (as of 2011).

To the east of the station, a wooded buffer extends to Interstate 676. Also, to the east of the station is the Centerville neighborhood, which is predominantly multi-family residential. The Branch Village public housing complex is located in Centerville. Other uses located east of the station area include: recreational uses such as the Judge Robert Johnson Park, Staley Park, and Elijah Perry Park; and institutional land uses including the Isabel Miller Community Center, Sumner Elementary School, Sacred Heart Elementary School, and Ferry Avenue Branch Library.

Zoning – The ½ mile area surrounding the proposed South Camden Station has been divided into several zones designated by the City of Camden’s zoning ordinance: Residential, Commercial, Port-Related Industry, and General Industry. The Residential district permits single-family detached dwellings, semi-detached dwellings, duplex dwellings, and townhomes. The Commercial district allows for residential uses like what is designated in the residential districts, but also allows for banks, business services, convenience stores, offices, and retail stores. The General Industrial Zone permits manufacturing, wholesale, offices, and restaurants, while the Port-Related Industry zone permits uses more specific to waterfront industry, including manufacturing, transit sheds, marinas, docks, wharfs, and piers.

There are several vacant parcels distributed throughout the ½ mile station radius. Several large parcels are designated General Industry and many smaller parcels to the east and west of the proposed station are designated Residential.

South Camden Station, Camden – Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For the City of Camden, DVRPC municipal-wide projections indicate 10.1 percent growth in employment and 2.7 percent growth in population. While redevelopment of properties is anticipated near the proposed South Camden Station, no specific properties were highlighted for TOD.

1.3.2.4 Gloucester City Station, Gloucester City

Land Use – The proposed Gloucester City Station would be located between Cumberland and Market Streets, adjacent to South Filmore Street in Gloucester City. Existing land use classifications within ½ mile

of the proposed Gloucester City Station are presented on Figure 7, “Existing Land Use – Gloucester City Station.” As Figure 8, “Underutilized Land – Gloucester City Station,” indicates, approximately 7.0 percent of the land area has been identified as being in need of redevelopment by the New Jersey Department of Community Affairs. In addition, 7.9 percent of the land is classified as undeveloped. The land use composition within ½ mile of the proposed station is broken down by percentage of in Table 4, “Proposed Gloucester City Station Area (Land Use Composition).”



Figure 7: Existing Land Use - Gloucester City Station



Legend		Land Use		Land Use, continued	
●	Station		Low Density Residential		Parking
—	Rail line		High Density Residential		Undeveloped
- - -	Municipal boundaries		Commercial		Transportation
			Industrial		
			Open Space/Recreation		
			Agriculture		
			Institutional		

Source: DVRPC, 2015; GCL Project Team, 2020.

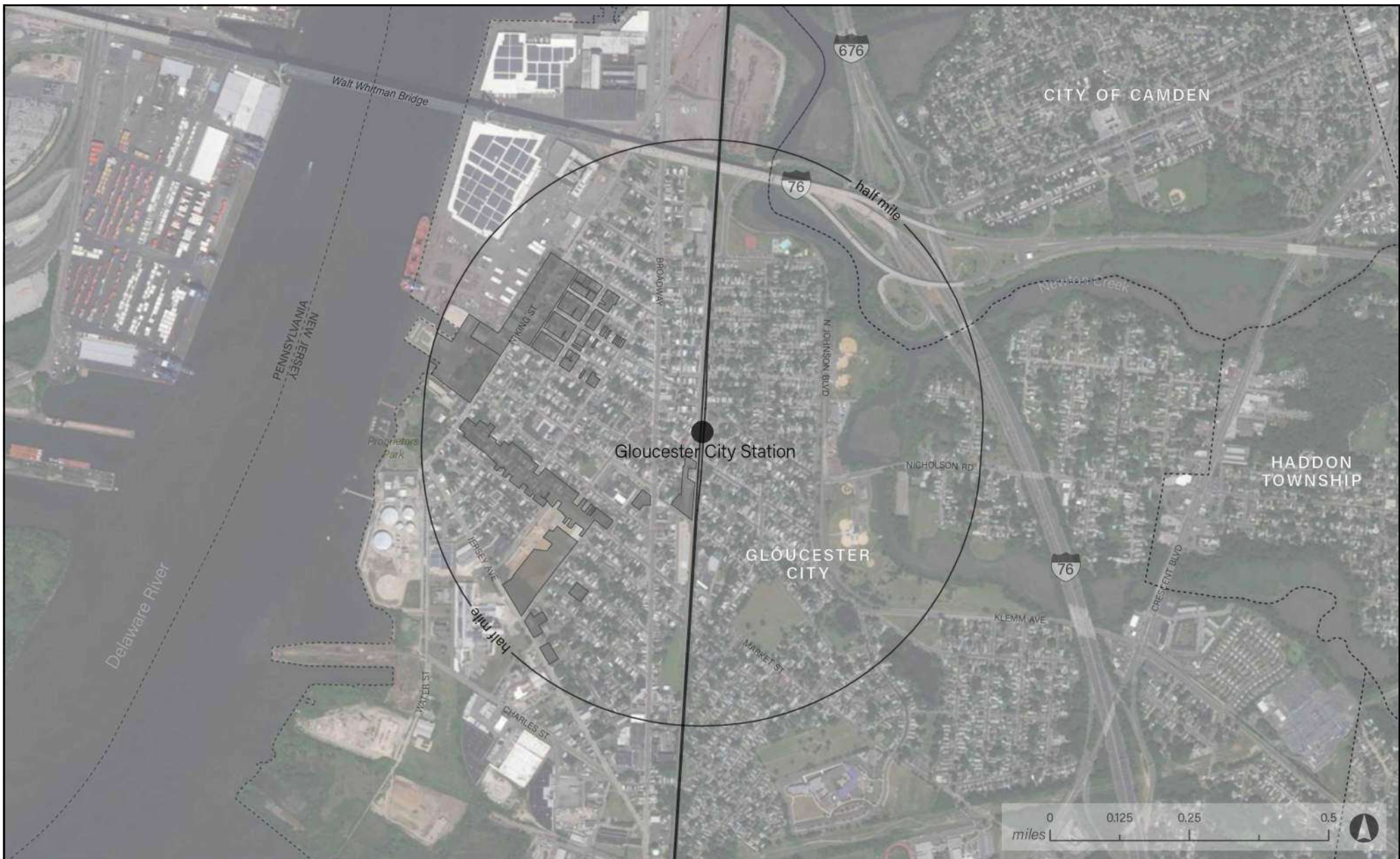
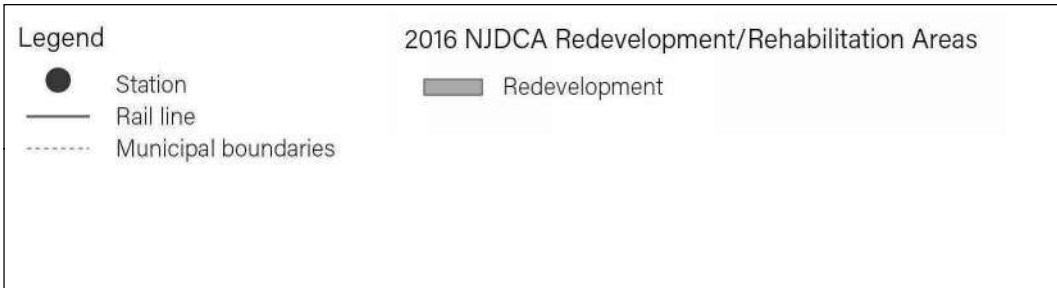


Figure 8: Underutilized Land - Gloucester City Station



Source: DVRPC, 2015; GCL Project Team, 2020.

Table 4: Proposed Gloucester City Station Area (Land Use Composition)

Gloucester City Station Area Land Use Categories	Land Use Composition (%)
Residential: High Density	28.5%
Residential: Low Density	18.7%
Open Space	8.1%
Undeveloped	7.9%
Industrial	6.9%
Commercial	6.4%
Transportation	6.1%
Water	5.9%
Parking	4.6%
Institutional	4.1%
Wooded	2.8%
Agriculture	0.1%

Note: Totals do not add to 100 percent due to rounding

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey

The Gloucester City Municipal Office and Public Library are both located north of the site. Higher-density residential is the primary land use and accounts for a quarter of the land coverage for the ½ mile area surrounding the proposed station. The recently constructed Gloucester City Middle School is located just west of the proposed station. Commercial uses are located west of the station along Broadway (CR 551), and include professional offices, restaurants, specialty retail, and automotive services. Cold Pack Storage, a major fruit distribution center, as well as several large industrial facilities, such as GAF Building Materials and John Jeffries, which are located southwest of the proposed station. At the western edge of the ½ mile station area, Blueknight Energy Partners is located on a tract of manufacturing/industrial land.

In addition to the newly constructed middle school, institutional uses are distributed throughout the ½ mile station area. These include the Gloucester City Municipal Office, Gloucester City Public Library, Gloucester City Municipal Court, County Government Office, Water Plant, Gloucester City Historical Society, post office, banks, churches, cemeteries, St. Mary's Grade School, the Cool Springs Elementary School, and Gloucester Catholic High School. Four small neighborhood parks are in the ½ mile station area: Paul Street Playground, Washington Street Play Lot, Martin Lake, and Johnson Park are located east of the proposed station, and Middlesex Neighborhood Park, Proprietors Park, and the Gloucester City Marina are located to the west.

Zoning – Within ½ mile of the proposed station location, the land is divided into several zoning districts designated by Gloucester City's zoning ordinance. Most of the land is designated Residential Medium, Residential Low, Retail and Commercial Services, and Park/Greenway. The Residential Low Zone (R-L) permits single-family detached homes, while the Residential Medium Zone (R-M) permits single-family semi-detached and townhouse homes. The Retail and Commercial Services Zone (RCS) permits commercial, office, and professional service uses. The Park/Greenway Zone (P/GW) permits recreational and conservation uses, and the intent is for these lands to remain vacant with the exception of necessary ancillary uses.

Gloucester City Station – Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC municipal-wide projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For Gloucester City, DVRPC projections indicate 34.7 percent growth in employment and a 0.1 percent decline in population. Further, TOD estimates completed as part of this effort indicated several TOD-eligible properties located near the proposed Gloucester City Station.

1.3.2.5 Crown Point Road Station, Westville Borough

Land Use – The proposed Crown Point Road Station would be in Westville Borough, adjacent to NJ Route 45. Existing land use classifications within ½ mile of the proposed Crown Point Road Station are presented on Figure 9, “Existing Land Use – Crown Point Road Station.” As shown on Figure 10, “Underutilized Land – Crown Point Road Station,” undeveloped land comprises 10.7 percent of the proposed station area. The percentage of land use composition is identified in Table 5, “Proposed Crown Point Road Station Area (Land Use Composition).”

Table 5: Proposed Crown Point Road Station Area (Land Use Composition)

Crown Point Road Station Area Land Use Categories	Land Use Composition (%)
Residential: Low Density	38.8%
Wooded	12.0%
Undeveloped	10.7%
Water	10.0%
Transportation	6.9%
Open Space	5.8%
Commercial	4.4%
Industrial	3.5%
Parking	3.0%
Institutional	2.5%
Residential: High Density	2.3%

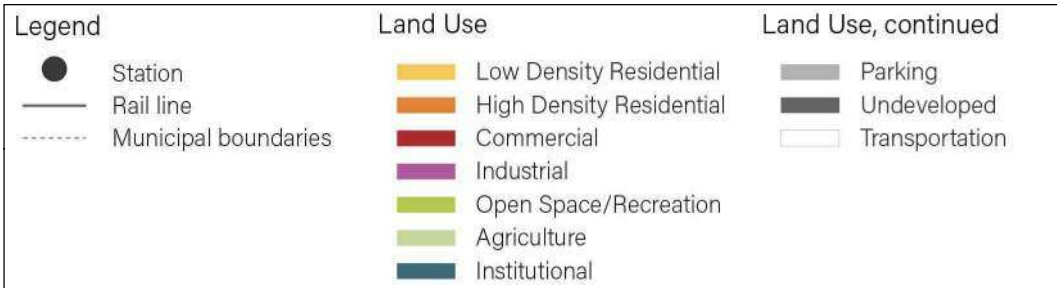
Note: Totals do not add to 100 percent due to rounding

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey

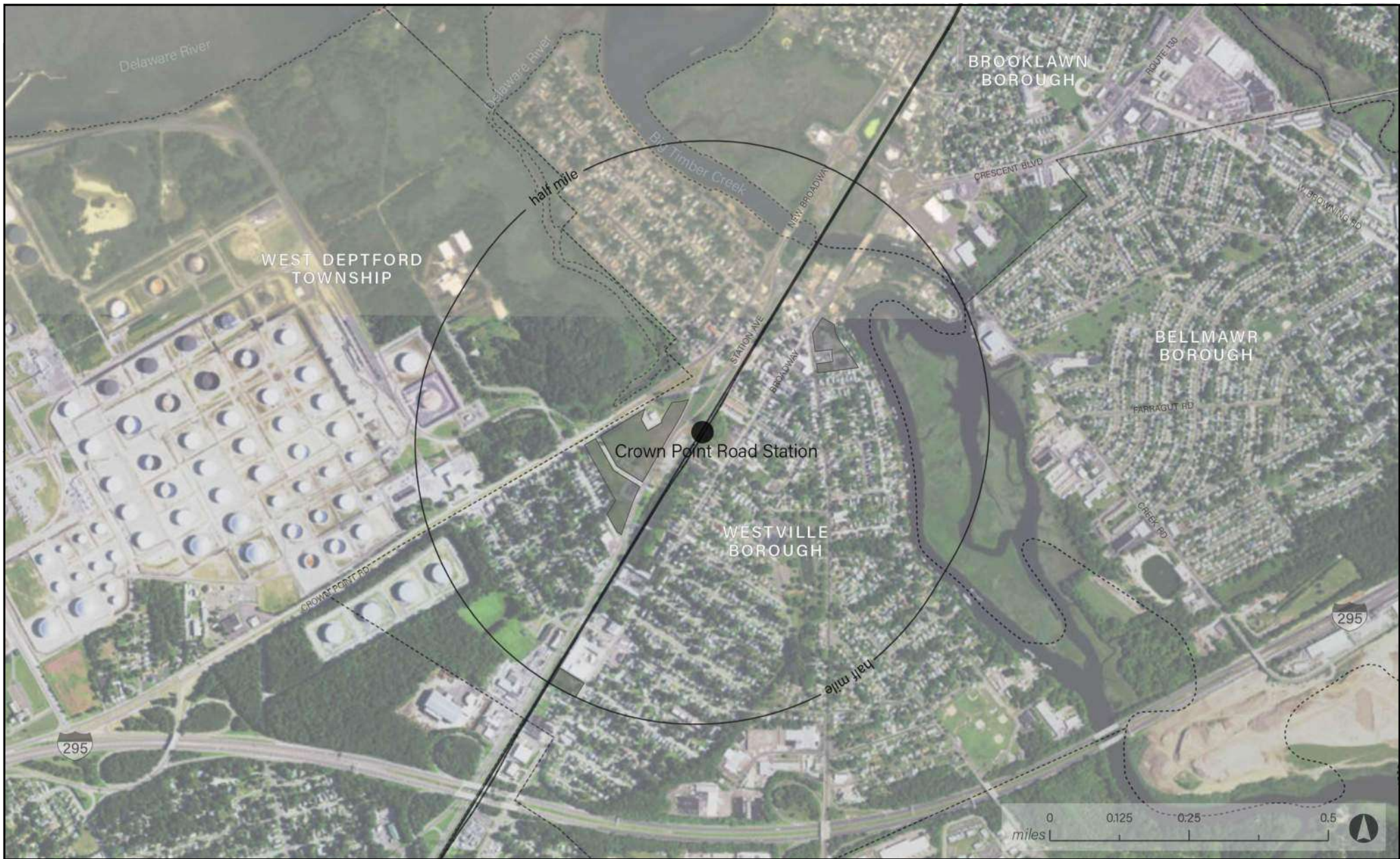
Most of the ½ mile area surrounding the proposed station area is single-family residential, water, or wooded. The proposed station is adjacent to several multi-family residential properties. The Parkview Elementary School is located two blocks from the proposed station location. A post office, bank, and Kelsch Associates (a social services organization) are located adjacent to the proposed station location. Other institutional uses include the Westville Borough Police Department, located to the north, and to the south of the proposed station is the headquarters of Services to Overcome Drug Abuse Among Teenagers, Inc. (SODAT) of New Jersey, which is a non-profit drug/alcohol outpatient agency. The Thomas West Park, Park Avenue Baseball Field, and Westville Borough Park are located within ½ mile of the station area. Five churches are located within the proposed station area. Neighborhood recreational land uses are located throughout the station area, including the Iron Workers Union recreational area, located directly west from the proposed station, and the Westville Boat Launch, located on Big Timber Creek.



**Figure 9: Existing Land Use -
Crown Point Rd Station**



Source: DVRPC, 2015;
GCL Project Team, 2020.



**Figure 10: Underutilized Land -
Crown Point Rd Station**



Legend

- Station
- Rail line
- - - Municipal boundaries

2016 NJDCA Redevelopment/Rehabilitation Areas

- Redevelopment

Source: DVRPC, 2015;
GCL Project Team, 2020.

Commercial uses include various retail establishments, a convenience store, restaurants, and bars. The New Jersey Department of Community Affairs has designated 2.5 percent of the land within the ½ mile station area of the proposed station as being in need of redevelopment, with the largest identified area located to the west of the station. Two smaller outlying parcels located to the northeast and southwest of the station are also identified as being in need of redevelopment.

Zoning – The ½ mile radius around the proposed Crown Point Road Station lies within Westville Borough. Parcels within this zone are designated Residential, Business, and Parks and Conservation. The Residential district permits primarily single-family detached dwellings and accommodates secondary uses such as places of worship and professional offices. The Business District permits commercial uses, as well as single apartments located on the second, or higher, story of a building whose primary use is commercial. Lastly, the Parks and Conservation district permits the uses of public owned parks and conservation or public recreation open spaces.

Crown Point Road Station, Westville Borough – Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For Gloucester City, DVRPC municipal-wide projections indicate 16.0 percent growth in employment and 14.0 percent growth in population. Further, TOD estimates completed as part of this effort indicated several TOD-eligible properties located near the proposed Crown Point Road Station.

1.3.2.6 Red Bank Avenue Station, Woodbury

Land Use – The proposed Red Bank Avenue Station would be in Woodbury, on Red Bank Avenue between Green Street and Washington Avenue. Existing land use classifications within ½ mile of the proposed Red Bank Avenue Station are presented on Figure 11, “Existing Land Use – Red Bank Avenue Station. The percentage of land use composition is identified in Table 6, “Proposed Red Bank Avenue Station Area (Land Use Composition).”

As illustrated on Figure 12, “Underutilized Land – Red Bank Avenue Station,” a small portion of land (2.9 percent) west of the station is identified by the New Jersey Department of Community Affairs as being in need of redevelopment. Less than 1 percent of the proposed station area is undeveloped.

Table 6: Proposed Red Bank Avenue Station Area (Land Use Composition)

Red Bank Avenue Station Area Land Use Categories	Land Use Composition (%)
Residential: Low Density	44.7%
Institutional	9.7%
Parking	8.9%
Open Space	8.1%
Commercial	7.2%
Water	7.0%
Wooded	6.4%
Residential: High Density	4.3%
Transportation	3.1%
Undeveloped	0.5%
Agriculture	0.1%

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey



Figure 11: Existing Land Use - Red Bank Ave Station



Legend

- Station
- Rail line
- - - Municipal boundaries

Land Use

- Low Density Residential
- High Density Residential
- Commercial
- Industrial
- Open Space/Recreation
- Agriculture
- Institutional

Land Use, continued

- Parking
- Undeveloped
- Transportation

Source: DVRPC, 2015; GCL Project Team, 2020.

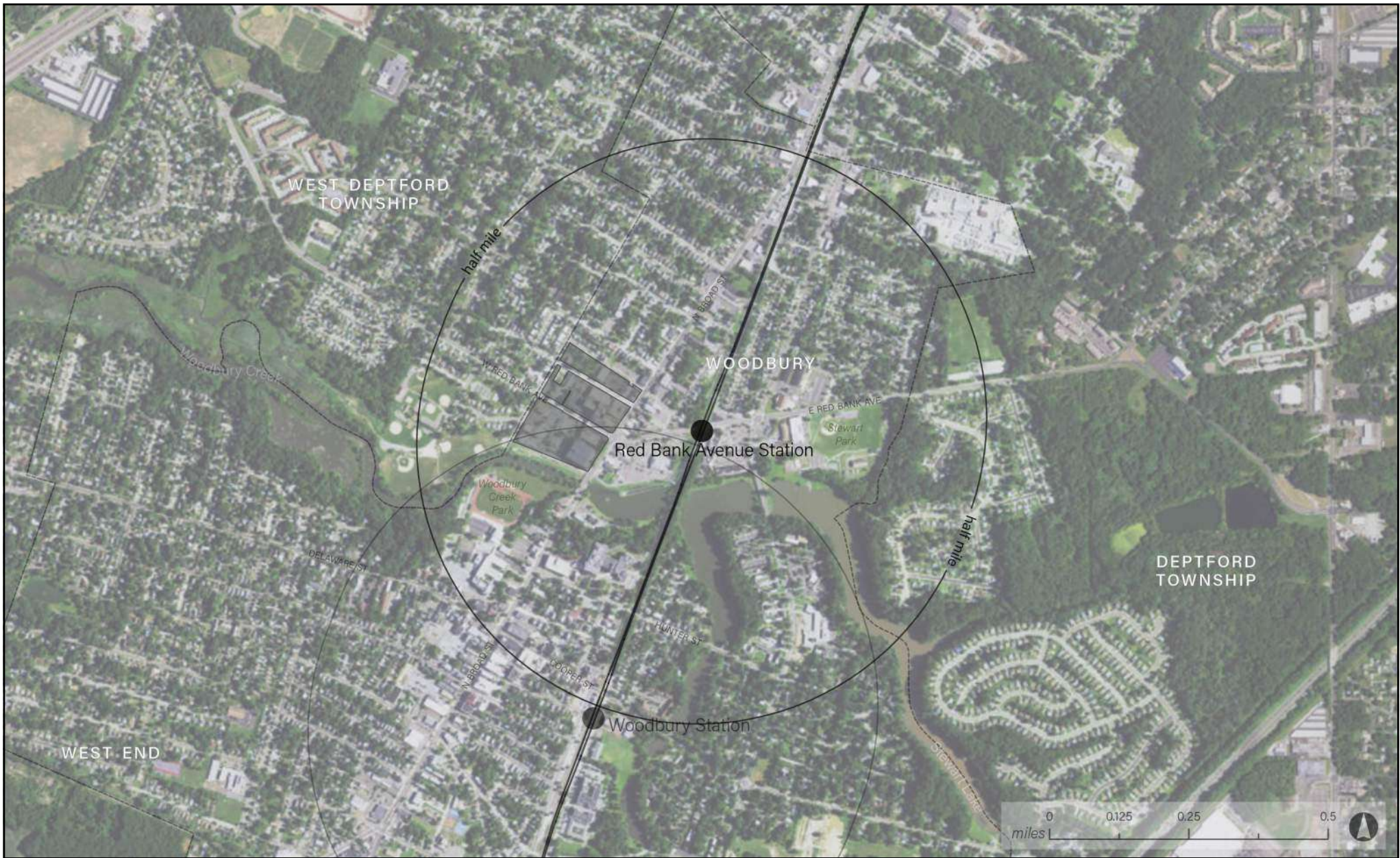


Figure 12: Underutilized Land - Red Bank Ave Station



Legend

- Station
- Rail line
- Municipal boundaries

2016 NJDCA Redevelopment/Rehabilitation Areas

- Redevelopment

Source: DVRPC, 2015; GCL Project Team, 2020.

Nearly half of the ½ mile area surrounding the proposed station is single-family residential, with some multi-family residential uses located to the east of the proposed station. Potential transit-supportive development areas are located to the adjacent east and west of the proposed station site. The Military and Veterans Affairs Department, Woodbury Lake Park, and Stewart Lake Park are located in close proximity of the proposed station. The station would be within close proximity to commercial, institutional, and both single- and multi-family residential land uses. Several health care facilities are located within the ½ mile area, including the Inspira Medical Center located west of the proposed station. This facility provides a full range of medical services, including physical therapy, home care nursing services, medical laboratories, physician offices, and social services. A new facility in Harrison Township—Inspira Medical Center Mullica Hill—has replaced the Woodbury facility. However, the Woodbury facility remains a satellite emergency facility and provides outpatient services.

A number of other institutional uses also exist in the area. The Evergreen Avenue Elementary School, as well as Durand Academy and Community Services, a private special needs school, are located southeast of the proposed station. A post office and Woodbury Junior–Senior High School are located to the southwest and Walnut Street Elementary School is located west of the proposed station. Several churches and banks are also located within the ½ mile area. County government offices and services are located to the immediate south of Broad Street Lake, including Gloucester County Courthouse, Gloucester County Superior Court, Gloucester County Sheriff Department, and the Gloucester County Historical Museum and Library.

Other land use types within the station area include professional offices and commercial uses including eating establishments, automotive repair and service, specialty retail, and convenience markets. Most of these land uses are situated between NJ Route 45 and the proposed GCL alignment.

Zoning – The proposed Red Bank Avenue Station is subject to the City of Woodbury’s zoning code, which designates parcels within a ½ mile radius of the station as Commercial, Planned Apartment, Medical Hospital, Residential, and Professional Office Overlay. Residential Districts (R-35 and R-15) permit single-family detached dwellings at different maximum lot sizes (3,500 and 1,500 square feet, respectively). The Planned Apartment District (PA) permits low-density apartment complexes, as well as ancillary support uses. Professional Office Districts (PO-1 and PO-2) permit low density commercial office or professional service uses. The Commercial District (C-1) permits office, retail, commercial, or professional services, as well as mixed use buildings where residential apartments are permitted on upper floors. The Medical-Hospital District (MH) permits medical, dental, or hospital facilities, as well as support uses related to these facilities. The MH district also permits single-family detached residential uses as permitted in the R-35 District.

Red Bank Avenue Station, Woodbury– Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For Woodbury, DVRPC municipal-wide projections indicate 0.8 percent growth in employment and 4.4 percent growth in population. Further, TOD estimates completed as part of this effort indicated several TOD-eligible properties located near the proposed Red Bank Avenue Station.

1.3.2.7 Woodbury Station, Woodbury

Land Use – The proposed Woodbury Station would be in the City of Woodbury on Green Avenue, south of Cooper Street. It would be adjacent to St. Patrick Church and the Holy Angels Catholic Elementary School and surrounded by a mix of land uses. Existing land use classifications within ½ mile of the proposed station are presented on Figure 13, “Existing Land Use – Woodbury Station.” The percentage of land use composition is identified in Table 7, “Proposed Woodbury Station Area (Land Use Composition).” In the proposed station area, 5.8 percent of the land area is identified by the New Jersey Department of Community Affairs as being in need of redevelopment, as shown on Figure 14, “Underutilized Land – Woodbury Station.” This includes an area just west of the proposed station in addition to two more outlying areas to the north and southeast of the station. Undeveloped land comprises 4.4 percent of the proposed station area. The proposed Woodbury Station aligns with the Woodbury Master Plan, which emphasizes transit-supportive development and specifically recommends capitalizing on underutilized, undeveloped sites to support TOD.

Table 7: Proposed Woodbury Station Area (Land Use Composition)

Woodbury Station Area Land Use Categories	Land Use Composition (%)
Residential: Low—Density	37.4%
Parking	11.0%
Commercial	10.4%
Institutional	9.6%
Wooded	6.8%
Water	6.0%
Transportation	5.0%
Residential: High Density	4.4%
Undeveloped	4.4%
Open Space	4.3%

Note: Totals do not add to 100 percent due to rounding

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey

Relatively dense, single-family residential neighborhoods and commercial uses along NJ Route 45 are the predominant uses within the ½ mile station area. These commercial uses include automotive retail and services, pharmacies, personal services, restaurants, and specialty retail. The Gloucester County Times are located along the southern section of NJ Route 45 within the ½ mile station area.

A post office, Woodbury Junior-Senior High School, and county government offices are located northwest of the proposed station and to the immediate south of Broad Street Lake. Government services include the Gloucester County Courthouse, Gloucester County Superior Court, Gloucester County Sherriff Department, and the Gloucester County Historical Museum and Library. The Evergreen Avenue Elementary School and Durand Academy and Community Services are located northeast of the proposed station. Several churches and other institutional uses are located throughout the station area. Recreational uses include: Rotary Park, which is located south of the proposed station; Hendricksen Park, which is located to the eastern extent of the ½ mile area; Woodbury Lake Park; and Wing/Dickerson Park.

Zoning – The proposed Woodbury Station area is divided into several zoning districts designated by the City of Woodbury’s zoning code. Most of the proposed station area is zoned Residential for single-family dwellings. Other zoning districts in the proposed station area articulate a lower-density development model, and include Commercial, Professional Office Overlay, and Planned Apartment Districts. Residential Districts (R-35 and R-15) permit single-family detached dwellings at different maximum lot sizes (3,500 and 1,500 square feet, respectively). The Planned Apartment District (PA) permits low-density apartment complexes, as well as ancillary support uses. Professional Office Districts (PO-1 and PO-2) permit low density commercial office or professional service uses. The C-1 Commercial District permits office, retail, commercial, or professional services, as well as mixed use buildings where residential apartments are permitted on upper floors. The C-2 Commercial District permits similar uses as the C-1 District but does not permit mixed-use or residential uses, aside from accessory apartment uses associated with storage or office uses.



Figure 13: Existing Land Use - Woodbury Station



Legend		Land Use		Land Use, continued	
●	Station	Yellow	Low Density Residential	Grey	Parking
—	Rail line	Orange	High Density Residential	Dark Grey	Undeveloped
- - -	Municipal boundaries	Red	Commercial	White	Transportation
		Purple	Industrial		
		Light Green	Open Space/Recreation		
		Light Green	Agriculture		
		Dark Blue	Institutional		

Source: DVRPC, 2015; GCL Project Team, 2020.

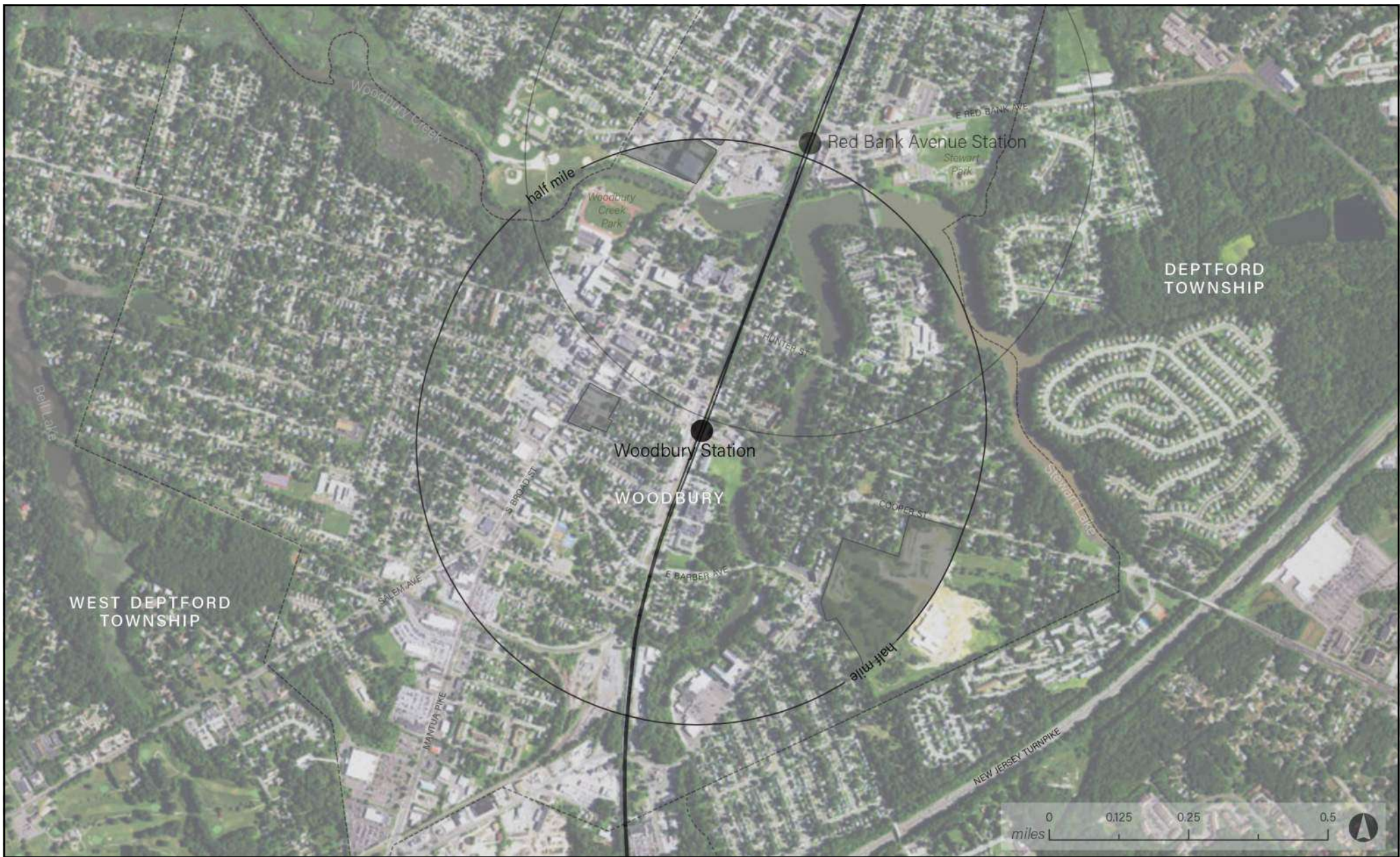


Figure 14: Underutilized Land - Woodbury Station



Source: DVRPC, 2015; GCL Project Team, 2020.

Woodbury Station, Woodbury– Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For Woodbury, DVRPC municipal-wide projections indicate 0.8 percent growth in employment and 4.4 percent growth in population. Further, TOD estimates completed as part of this effort indicated several TOD-eligible properties located near the proposed Woodbury Station.

1.3.2.8 Woodbury Heights Station, Woodbury Heights Borough and Deptford Township

Land Use – The ½ mile surrounding the proposed Woodbury Heights Station straddles two municipalities: Woodbury Heights Borough to the north and east, and Deptford Township to the south and west. The proposed Woodbury Heights Station would be located along West Jersey Avenue, at the intersection with Elm Avenue. Existing land use classifications within ½ mile of the proposed Woodbury Heights Station are presented on Figure 15, “Existing Land Use – Woodbury Heights Station.” The ½ mile proposed station area does not have any land that has been identified as in need of redevelopment by the New Jersey Department of Community Affairs. However, undeveloped land comprises 4.0 percent of the proposed station area. The percentage of land use composition is identified in Table 8, “Proposed Woodbury Heights Station Area (Land Use Composition).”

Table 8: Proposed Woodbury Heights Station Area (Land Use Composition)

Woodbury Heights Station Area Land Use Categories	Land Use Composition (%)
Residential: Low Density	55.2%
Wooded	25.2%
Open Space	4.0%
Undeveloped	4.0%
Commercial	3.3%
Institutional	3.1%
Transportation	2.5%
Parking	2.1%
Residential: High Density	0.4%
Water	0.1%

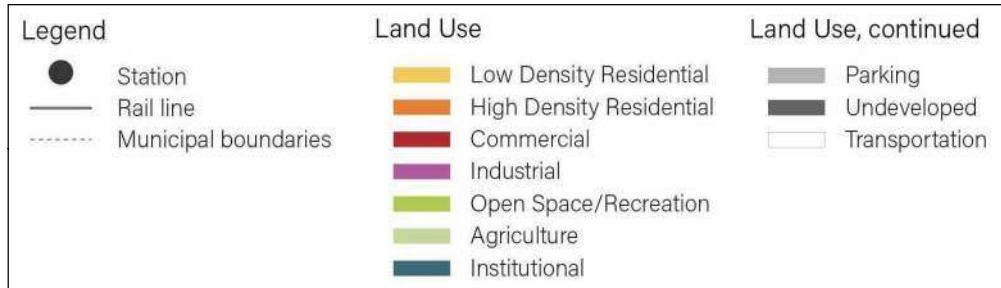
Note: Totals do not add to 100 percent due to rounding

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey

The station would be surrounded primarily by single-family residential neighborhoods, with wooded areas to the east. The ½ mile area surrounding the proposed station is predominantly residential with other land uses including commercial, institutional, recreational, and manufacturing. St. Margaret’s Church and Regional School is to the west of the proposed station, and Woodbury Heights Elementary School is directly adjacent to the east of the proposed station. Woodbury Heights Fire Department is situated at the northern limit of the ½ mile station area. Veterans’ Park is located directly to the northwest of the proposed station, while two additional parks (Woodbrook Park and Oak Valley Little League Complex) are located south of the proposed station.



Figure 15: Existing Land Use - Woodbury Heights Station



Source: DVRPC, 2015; GCL Project Team, 2020.

Zoning – Within ½ mile of the proposed station, within Woodbury Heights Borough, parcels are designated Residential and Age-Restricted Residential. The Residential District designates single-family detached dwellings as the principal permitted use, whereas the Residential Age-Restricted District permits multi-family age-restricted residential uses, in which each development is subject to a minimum percentage of affordable housing units.

Within Deptford Township, the parcels within ½ mile radius of the proposed station are designated Institutional, Multi-Family Residential, or High Density Residential.

The Institutional District permits public and quasi-public land uses, which may include government buildings, community centers, libraries, and/or parks. Multi-Family Residential Zones allow for multi-family dwellings and provide the borough with the ability to meet the requirements under the Mount Laurel doctrine, which dictates that municipalities, through their zoning code, must provide opportunities for affordable housing. The High Density Residential District permits single- and two-family detached and semi-detached dwellings located in planned unit developments

Woodbury Heights Station – Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For Woodbury Heights Borough, DVRPC municipal-wide projections indicate 1.9 percent growth in employment and 7.6 percent growth in population. While redevelopment of properties is anticipated near the proposed Woodbury Heights Station, no specific properties were highlighted for TOD.

1.3.2.9 Wenonah Station, Wenonah Borough

Land Use – The proposed Wenonah Station would be located along North East and North West Avenues, between Mantua Avenue and Poplar Street. Existing land use classifications within ½ mile of the proposed Wenonah Station are presented on Figure 16, “Existing Land Use – Wenonah Station.” The ½ mile proposed station area does not have any land that has been identified as being in need of redevelopment by the New Jersey Department of Community Affairs. However, undeveloped land comprises 1.1 percent of the proposed station area. The percentage of land use composition is identified in Table 9, “Proposed Wenonah Station Area (Land Use Composition).”

Table 9: Proposed Wenonah Station Area (Land Use Composition)

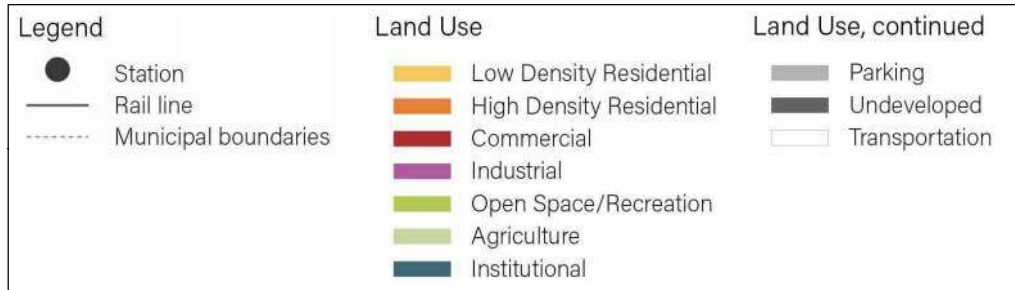
Wenonah Station Area Land Use Categories	Land Use Composition (%)
Residential: Low Density	65.3%
Wooded	25.3%
Open Space	2.4%
Institutional	2.1%
Commercial	1.7%
Water	1.6%
Undeveloped	1.1%
Parking	0.3%
Transportation	0.1%

Note: Totals do not add to 100 percent due to rounding

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey



**Figure 16: Existing Land Use -
Wenonah Station**



Source: DVRPC, 2015;
GCL Project Team, 2020.

Within ½ mile radius of the proposed station area, surrounding land uses are predominately (approximately 90 percent) single-family residential or wooded areas. The station would be adjacent to the existing Wenonah Community Center. The proposed station is surrounded by a grid street network of residential land uses, as well as the Wenonah Elementary School, Wenonah Public Library, a post office, and commercial uses that are situated along the intersection of Wenonah and West Avenues. Wenonah Park is located at the intersection of Mantua and East Avenues and two other recreational parks are located at the western (Lisle Field) and southern (Langston Field) extents of the ½ mile station area. Wenonah Lake, a public lake owned by the Borough of Wenonah, is located north of the proposed station. A small number of commercial and community supportive land uses are located at the farthest reaches of the ½ mile area.

Zoning – Most of the land within ½ mile of the proposed Wenonah Station lies within Wenonah Borough; small portions are in Deptford and Mantua Townships. Within Wenonah, land is zoned for Residential, Low Density Residential, Professional Office, Institutional, Commercial, Parks and Conservation, and Senior Citizen Overlay. The Residential District permits single-family detached dwellings, as well as secondary uses of public open spaces and “community residences” which provide accommodations for disabled persons. The Low Density Residential District permits single-family detached dwellings built at densities no higher than one unit per acre, where public sewer is unavailable. Portions of the station area in Deptford and Mantua Townships are zoned for Medium Density Residential Districts.

The Professional Office District permits all uses allowed in the Residential District and office uses that are adjacent to or near existing governmental and commercial uses, excluding uses that include store fronts, store windows, and other elements of retail commercial uses. The Commercial District permits traditional retail commercial uses, including personal services, retail sales, and limited office uses. The Institutional District accommodates a variety of public service uses, including Municipal Buildings, utility and pumping stations, water storage tanks and treatment facilities, public educational facilities, firehouses, and religious places of worship. The Parks and Conservation District dedicates area to publicly-owned space to be preserved in perpetuity. The Senior Citizen Overlay preserves area for age-restricted housing, allowing for both detached and attached single-family dwellings.

Wenonah Station – Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For Wenonah Borough, DVRPC municipal-wide projections indicate 14.6 percent growth in employment and 14.8 percent growth in population. While redevelopment of properties may occur near the proposed Wenonah Station, no specific properties were highlighted for TOD.

1.3.2.10 Mantua Boulevard Station, Mantua Township

Land Use – The proposed Mantua Boulevard Station would be on Mantua Boulevard (CR 676). Existing land use classifications within ½ mile of the proposed Mantua Boulevard Station are presented on Figure 17, “Existing Land Use – Mantua Boulevard Station.” The ½ mile proposed station area does not have any

land that has been identified as being in need of redevelopment by the New Jersey Department of Community Affairs. However, undeveloped land comprises 5.8 percent of the proposed station area. The percentage of land use composition is identified in Table 10, “Proposed Mantua Boulevard Station Area (Land Use Composition).”

Table 10: Proposed Mantua Boulevard Station Area (Land Use Composition)

Mantua Boulevard Station Area Land Use Categories	Land Use Composition (%)
Wooded	45.8%
Residential: Low Density	16.9%
Agriculture	12.2%
Open Space	11.0%
Undeveloped	5.8%
Industrial	4.3%
Commercial	1.8%
Parking	1.4%
Water	0.7%

Note: Totals do not add to 100 percent due to rounding

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey

The proposed station is surrounded by agricultural and wooded land, as well as commercial and residential areas. Adjacent to the proposed station is the headquarters of KEE Action Sports, a distributor of paintball products. Other commercial uses directly adjacent to the site include Proof Productions and DVFlora, a global distribution site for fresh cut flowers. A single-family residential neighborhood is located to the immediate southeast of the proposed station and additional single-family residential land uses are also located to the northeast and northwest. Delaware Valley Wholesale Florist, a major employer in Gloucester County, is also located within the ½ mile area. Manufacturing land uses are located southwest and northeast of the ½ mile station area.

A substantial amount of undeveloped wooded land is also in the station area. Maple Ridge Golf Course, which is located at the eastern extent of the ½ mile proposed station area, was closed in 2006 and initially slated for the construction of 100+ homes. Due to changing economic conditions, the golf course has been converted to the Tall Pines State Preserve, Gloucester County’s first state park, which includes numerous passive recreational amenities. Wescott Field is located at the southern extent of the ½ mile station area.

Zoning – The areas south and west of the proposed Mantua Boulevard Station within the ½ mile station area are subject to Mantua Township’s zoning ordinance. Most of the proposed station area is Light Industrial or Low, Medium, or High Density Residential. There are also several large parcels of vacant property in residential districts surrounding the proposed station.

The areas to the north and east of the proposed station fall within Deptford Township. This area is comprised of Low Density Residential and Age-Restricted Institutional Districts. The intent of the Low Density Residential District is to allow development for single-family detached dwellings. The Age Restricted District accommodates a combination of medical and residential uses, intended to aid the elderly.



Figure 17: Existing Land Use - Mantua Blvd Station



Legend	Land Use	Land Use, continued
● Station	Low Density Residential	Parking
— Rail line	High Density Residential	Undeveloped
- - - Municipal boundaries	Commercial	Transportation
	Industrial	
	Open Space/Recreation	
	Agriculture	
	Institutional	

Source: DVRPC, 2015; GCL Project Team, 2020.

Mantua Boulevard Station, Mantua Township – Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For Mantua Township, DVRPC municipal-wide projections indicate 57.4 percent growth in employment and 44.3 percent growth in population. While redevelopment of properties is anticipated near the proposed Mantua Boulevard Station, no specific properties were highlighted for TOD.

1.3.2.11 Sewell Station, Mantua Township

Land Use – The proposed Sewell Station would be on Center Street between East and West Atlantic Avenues. Existing land use classifications within ½ mile of the proposed Sewell Station are depicted on Figure 18, “Existing Land Use – Sewell Station.” The ½ mile proposed station area does not have any land that has been identified as being in need of redevelopment by the New Jersey Department of Community Affairs. However, undeveloped land represents 2.9 percent of the land cover within ½ mile of the proposed station. The percentage of land use composition is identified in Table 11, “Proposed Sewell Station Area (Land Use Composition).”

Table 11: Proposed Sewell Station Area (Land Use Composition)

Sewell Station Area Land Use Categories	Land Use Composition (%)
Residential: Low Density	49.8%
Wooded	32.9%
Agriculture	6.9%
Open Space	3.7%
Undeveloped	2.9%
Commercial	1.3%
Institutional	1.3%
Parking	0.8%
Residential: High Density	0.2%
Water	0.2%

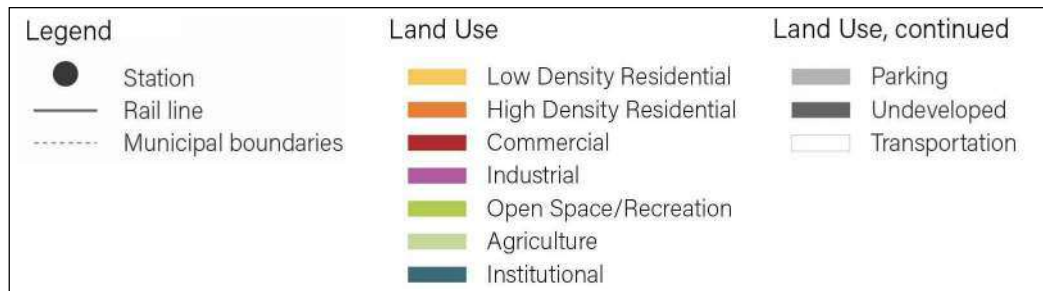
Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey

The area around the proposed station is a predominantly higher-density, single-family residential area. In addition to the residential land uses, which account for roughly one-half of the land area, wooded and agricultural land combined account for approximately 40 percent of the land area. A small percentage of the station area, generally along Center Street, contains commercial, institutional, or recreational uses.

A post office, church, and the Sewell Elementary School are located east of the proposed station. Commercial uses are primarily retail and located to the immediate south and southwest of the proposed station. Two municipal parks are located northwest (Wescott Field) and southeast (Sewell Park and Mantua Community Center) of the proposed station. Tall Pines State Preserve is located approximately ½ mile north of the proposed station location.



Figure 18: Existing Land Use - Sewell Station



Source: DVRPC, 2015; GCL Project Team, 2020.

Zoning – The ½ mile area surrounding the proposed Sewell Station is subject to Mantua Township’s zoning ordinance, which designates this area as Neighborhood Commercial, High-Density Residential, Medium-Density Residential, Apartment/Townhouse, or Community Commercial Districts. In addition, there are a few vacant parcels in this area, most of which fall within the Neighborhood Commercial District. The Neighborhood Commercial (NC) and Community Commercial (CC) Districts permit retail, commercial, or office uses. Medium (R-22) and High (R-11) Density Residential Districts permit single-family residential dwellings on ½-acre and ¼-acre lots, respectively. Institutional uses may be permitted in these districts, but planned residential communities are not permitted in these districts. The Apartment/Townhouse District (A/T) permits multi-family residential uses and provides the township with the ability to meet affordable housing guidelines.

There are a few vacant parcels in this area, most of which fall within the Neighborhood Commercial District.

Sewell Station, Mantua Township – Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For Mantua Township, DVRPC municipal-wide projections indicate 57.4 percent growth in employment and 44.3 percent growth in population. Further, TOD estimates completed as part of this effort indicated several TOD-eligible properties located near the proposed Sewell Station.

1.3.2.12 Mantua-Pitman Station, Mantua Township

Land Use – The proposed Mantua-Pitman Station would be located on Lambs Road (CR 635) south of Woodbury-Glassboro Road (CR 553) in Mantua Township. Existing land use classifications within ½ mile of the proposed Mantua-Pitman Station are presented on Figure 19, “Existing Land Use – Mantua-Pitman Station.” As shown on Figure 20, “Underutilized Land – Mantua-Pitman Station,” 1.5 percent of the area within ½ mile of the proposed station, located west of the proposed station, is classified by NJDCA as an area in need of redevelopment. In the ½ mile around the proposed station 3.7 percent of the land is considered undeveloped. The percentage of land use composition is identified in Table 12, “Proposed Mantua-Pitman Station Area (Land Use Composition).”

Table 12: Proposed Mantua-Pitman Station Area (Land Use Composition)

Mantua-Pitman Station Area Land Use Categories	Land Use Composition (%)
Wooded	44.0%
Residential: Low Density	19.6%
Transportation	8.1%
Industrial	7.3%
Commercial	6.6%
Undeveloped	3.7%
Agriculture	3.2%
Parking	3.2%
Open Space	2.1%
Institutional	1.5%
Residential: High Density	0.4%
Water	0.3%

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey



**Figure 19: Existing Land Use -
Mantua - Pitman Station**



Legend	Land Use	Land Use, continued
● Station	Low Density Residential	Parking
— Rail line	High Density Residential	Undeveloped
- - - - Municipal boundaries	Commercial	Transportation
	Industrial	
	Open Space/Recreation	
	Agriculture	
	Institutional	

Source: DVRPC, 2015;
GCL Project Team, 2020.

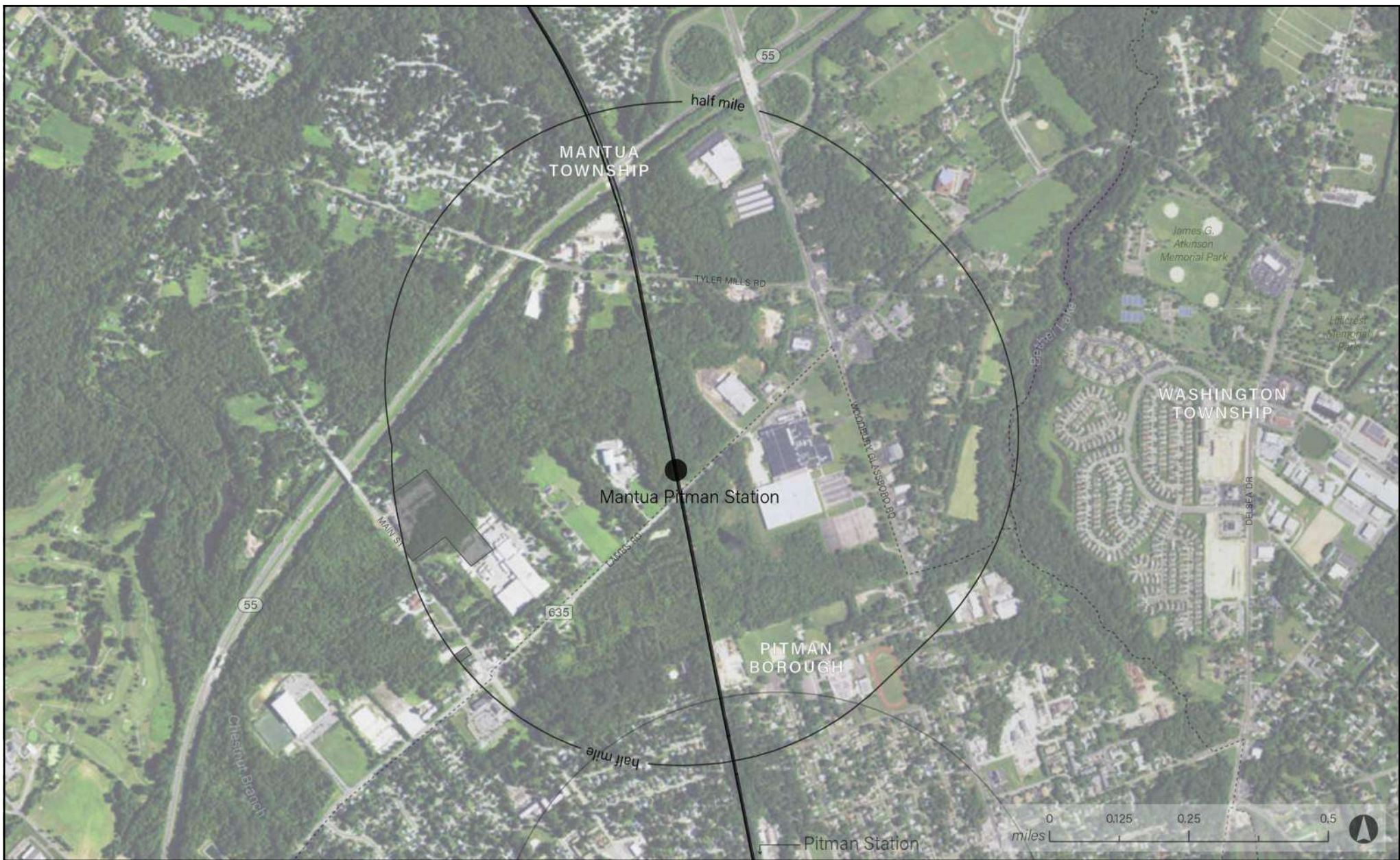
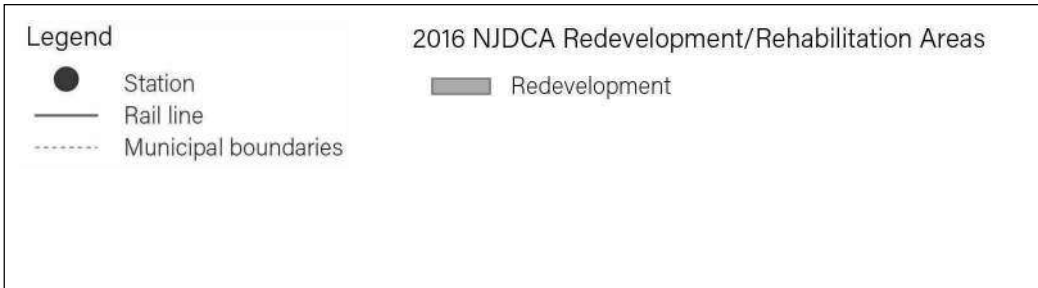


Figure 20: Underutilized Land - Mantua - Pitman Station



Source: DVRPC, 2015; GCL Project Team, 2020.

The proposed station would be located adjacent to East Coast Steel, a steel fabricating facility. A large (approximately 500,000 sf) vacant former manufacturing site (Former Sony digital media production plant) is located across Lambs Road from the proposed station. Other uses near the proposed station include low-density single-family residential, transportation, commercial, manufacturing, and agriculture uses. Campbell's Auto Express, a third-party trucking/logistics company, is located approximately ½ mile south of the proposed station area. Wooded land is the prominent land use in this area, comprising nearly half of the land within the ½ mile station area.

Zoning – This proposed station is in the southern portion of Mantua Township, adjacent to the boundary with Pitman Borough. The portions of the proposed station area in Mantua Township's zoning code are zoned Industrial, Highway Commercial, Community Commercial, Low-Density Residential, Medium-Density Residential, High-Density Residential, Apartment/Townhouse Residential, and Agriculture Residential. The Highway Commercial (HC) and Neighborhood Commercial (NC) Districts permit retail, commercial, or office uses. Low (R-40), Medium (R-22) and High (R-11) Density Residential Districts permit single-family residential dwellings on 1 acre, ½ acre and ¼ acre lots, respectively. Institutional uses may be permitted in these districts, but planned residential communities are only permitted in the R-40 district. The Agricultural Residential District (AR) permits residential uses on a minimum three-acre lot. Institutional uses are permitted in this district, including retail uses associated with residential agriculture. The Apartment/Townhouse District (A/T) permits multi-family residential uses and provides the township with the ability to meet affordable housing guidelines.

The portions of the ½ mile station radius within Pitman Borough are zoned Park Conservation and Planned Industrial. The Park-Conservation District (P) primarily supports institutional park uses but permits single-family detached dwellings. The Planned Industrial District (PI) permits manufacturing, commercial, warehousing, or hospital uses.

Vacant parcels scattered throughout the station area are zoned residential, commercial, and industrial.

Mantua-Pitman Station, Mantua Township – Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For Mantua Township, DVRPC municipal-wide projections indicate 57.4 percent growth in employment and 44.3 percent growth in population. Further, TOD estimates completed as part of this effort indicated several TOD-eligible properties located near the proposed Mantua-Pitman Station.

1.3.2.13 Pitman Station, Pitman Borough

Land Use – The proposed Pitman Station would be located north of Pitman Avenue and adjacent to Broadway in Pitman Borough. Existing land use classifications within ½ mile of the proposed Pitman Station are presented on Figure 21, "Existing Land Use – Pitman Station." The ½ mile proposed station area does not have any land that has been identified as being in need of redevelopment by the New Jersey Department of Community Affairs. However, undeveloped land represents less than 1 percent of the land cover within ½ mile of the proposed station. The percentage of land use composition is identified in Table 13, "Proposed Pitman Station Area (Land Use Composition)."

Table 13: Proposed Pitman Station Area (Land Use Composition)

Land Use Categories	Land Use Composition (%)
Residential: Low Density	78.7%
Commercial	4.2%
Open Space	4.0%
Parking	3.4%
Institutional	3.2%
Wooded	2.1%
Residential: High Density	1.9%
Transportation	1.6%
Industrial	0.7%
Undeveloped	0.2%

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey

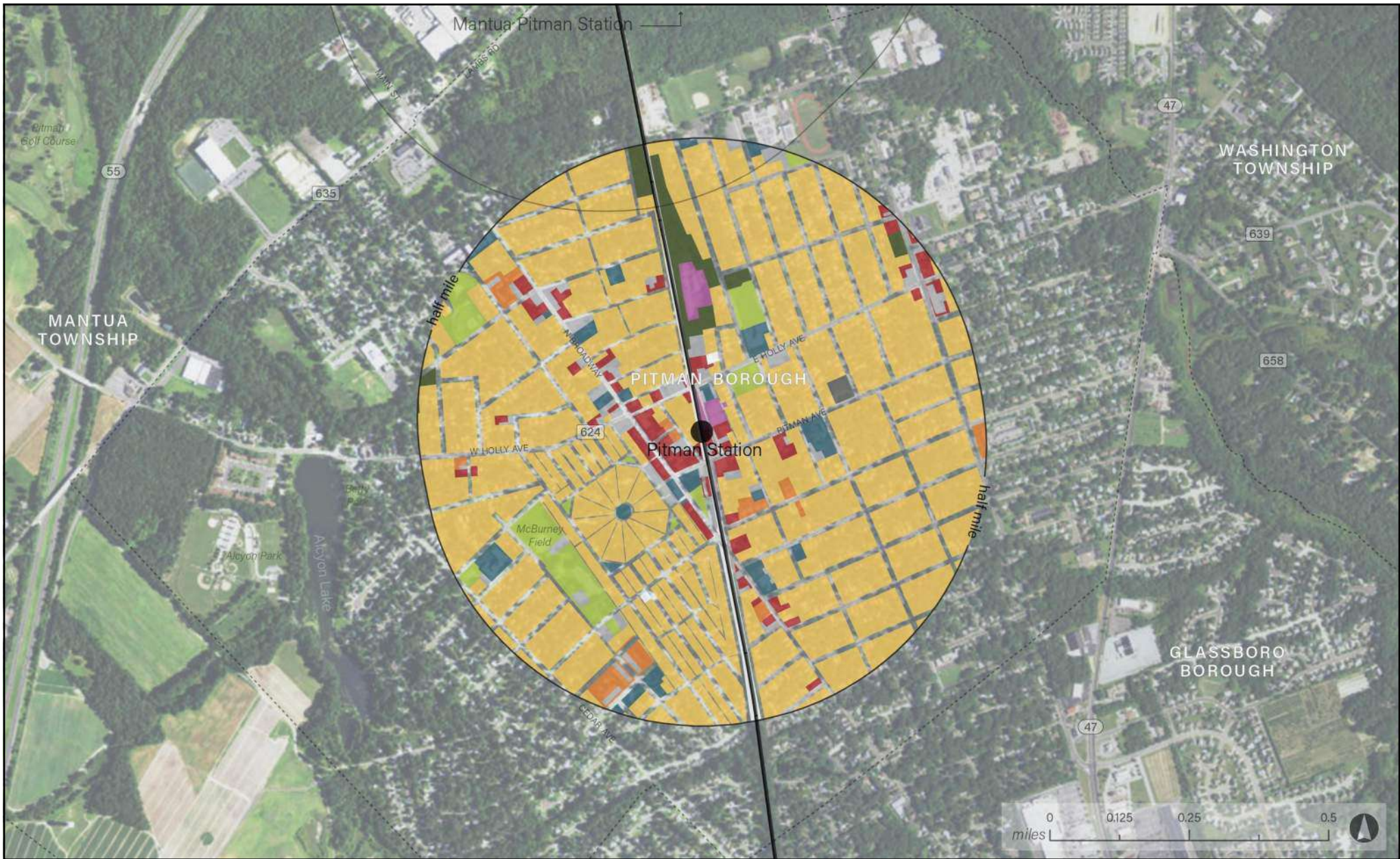


Figure 21: Existing Land Use - Pitman Station



Legend		Land Use	Land Use, continued
●	Station	 Low Density Residential	 Parking
—	Rail line	 High Density Residential	 Undeveloped
- - - -	Municipal boundaries	 Commercial	 Transportation
		 Industrial	
		 Open Space/Recreation	
		 Agriculture	
		 Institutional	

Source: DVRPC, 2015; GCL Project Team, 2020.

The proposed station is primarily surrounded by single-family residential areas. Commercial uses near the proposed station include health clubs, specialty retail, grocery, financial institutions, and a post office. Ballard Park, Pitman Borough Municipal Building, and McCowan Memorial Library are located to the immediate west of the proposed station. Shertel Park and McBurney Field, and the WCK Walls Elementary School are located west of the Broadway corridor. To the north are Pitman Middle School and a manufacturing company. Pitman High School is located north of the proposed station just beyond the ½ mile radius. Several churches are in the proposed station area.

Zoning – The ½ mile area surrounding the proposed Pitman Station is subject to Pitman Borough’s zoning ordinance, which designates most of the area as Commercial, Residential, or Historic Residence District. The Commercial District allows for general commercial activities including hotels, retail stores, restaurants, personal service shops, and day-care centers.

The Residential Districts allow the building of single-family detached- or semi-detached dwellings, small public parks and playgrounds, or group homes. The Historic Residence District applies to the Pitman Grove Historic District, allowing for single-family detached dwellings. The Historic Residence District protects the historic integrity of Pitman Grove, a residential development and former turn-of-the-century Methodist Camp Meeting site. The neighborhood is listed in the New Jersey and National Registers of Historic Places.

The Historic Residence District allows for a principal use of all new structures to be single-family detached dwellings, the height of which cannot exceed existing building heights. Applications for construction, alteration, removal or demolition for structures within the district must be submitted to the Planning Board for review. Proposed alterations to existing structures or additional development are required to conform to the architectural style of existing historic structures.

Pitman Station, Pitman Borough – Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For Pitman Borough, DVRPC municipal-wide projections indicate 17.3 percent growth in employment and 11.4 percent growth in population. Further, TOD estimates completed as part of this effort indicated several TOD-eligible properties located near the proposed Pitman Station.

1.3.2.14 Rowan University Station, Glassboro Borough

Land Use – The proposed Rowan University Station would be located on the Rowan University campus adjacent to Mullica Hill Road (U.S. Route 322). Existing land use classifications within ½ mile of the proposed Rowan University Station are illustrated on Figure 22, “Existing Land Use – Rowan University Station.” The ½ mile proposed station area does not have any land that has been identified as being in need of redevelopment by the New Jersey Department of Community Affairs. However, undeveloped land represents two percent of the land cover within ½ mile of the proposed station. The percentage of land use composition is identified in Table 14, “Proposed Rowan University Station Area (Land Use Composition).”



**Figure 22: Existing Land Use -
Rowan University Station**



Legend		Land Use		Land Use, continued	
●	Station	Yellow	Low Density Residential	Grey	Parking
—	Rail line	Orange	High Density Residential	Black	Undeveloped
- - - -	Municipal boundaries	Red	Commercial	White	Transportation
		Purple	Industrial		
		Light Green	Open Space/Recreation		
		Medium Green	Agriculture		
		Dark Blue	Institutional		

Source: DVRPC, 2015;
GCL Project Team, 2020.

Table 14: Proposed Rowan University Station Area (Land Use Composition)

Rowan University Station Area Land Use Categories	Land Use Composition (%)
Residential: Low Density	34.2%
Institutional	22.4%
Open Space	13.4%
Wooded	9.9%
Parking	9.5%
Residential: High Density	2.9%
Agriculture	2.6%
Transportation	2.3%
Undeveloped	2.0%
Commercial	0.6%
Water	0.2%

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey

The ½ mile area surrounding the proposed station contains primarily university (east) and single-family residential land uses (southwest). Existing student housing (Triad Apartments) and Rowan Surface lot F are to the west of the proposed station and Rowan University Business Hall and Surface lots A and A-1 are to the east. Most campus buildings, athletic facilities, and campus parking are located to the east of the proposed station.

Glassboro High School is located to the north, and J. Harvey Rodgers Elementary School is located southwest of the proposed station. Bowe Park is located at the northern extent of the station area. Off-campus multi-family residential uses associated with the university campus, limited low-density commercial areas, and wooded lands are also found within the station area, primarily to the west.

Zoning – The ½ mile area surrounding the proposed Rowan University Station is subject to Glassboro Borough’s zoning ordinance, which designates most of the area within ½ mile radius as Public, Single-Family, Medium Density Residential, Garden Apartment and Townhouse, or Low Density Residential Districts. A small number of commercial properties are zoned Highway Business.

The Public District accommodates the educational use of Rowan University, as well as any other municipal use authorized by the Borough. The Public District allows for educational, housing, and recreational uses afforded to Rowan University as an educational institution. The Low, Medium and Single-Family Residential Districts provide for low- to medium-density detached housing development, while the Garden Apartment and Townhouse District accommodates compact apartment and townhome development. The Highway Business District places performance limitations to existing business uses to minimize the effects of commercial activity on nearby residences and highway traffic.

Rowan University Station, Glassboro Borough – Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For Glassboro Borough, DVRPC municipal-wide projections indicate 41.1 percent growth in employment and 31.6 percent growth in population. While redevelopment of

properties is anticipated near of the proposed Rowan University Station, no specific properties were highlighted for TOD.

1.3.2.15 Glassboro Station, Glassboro Borough

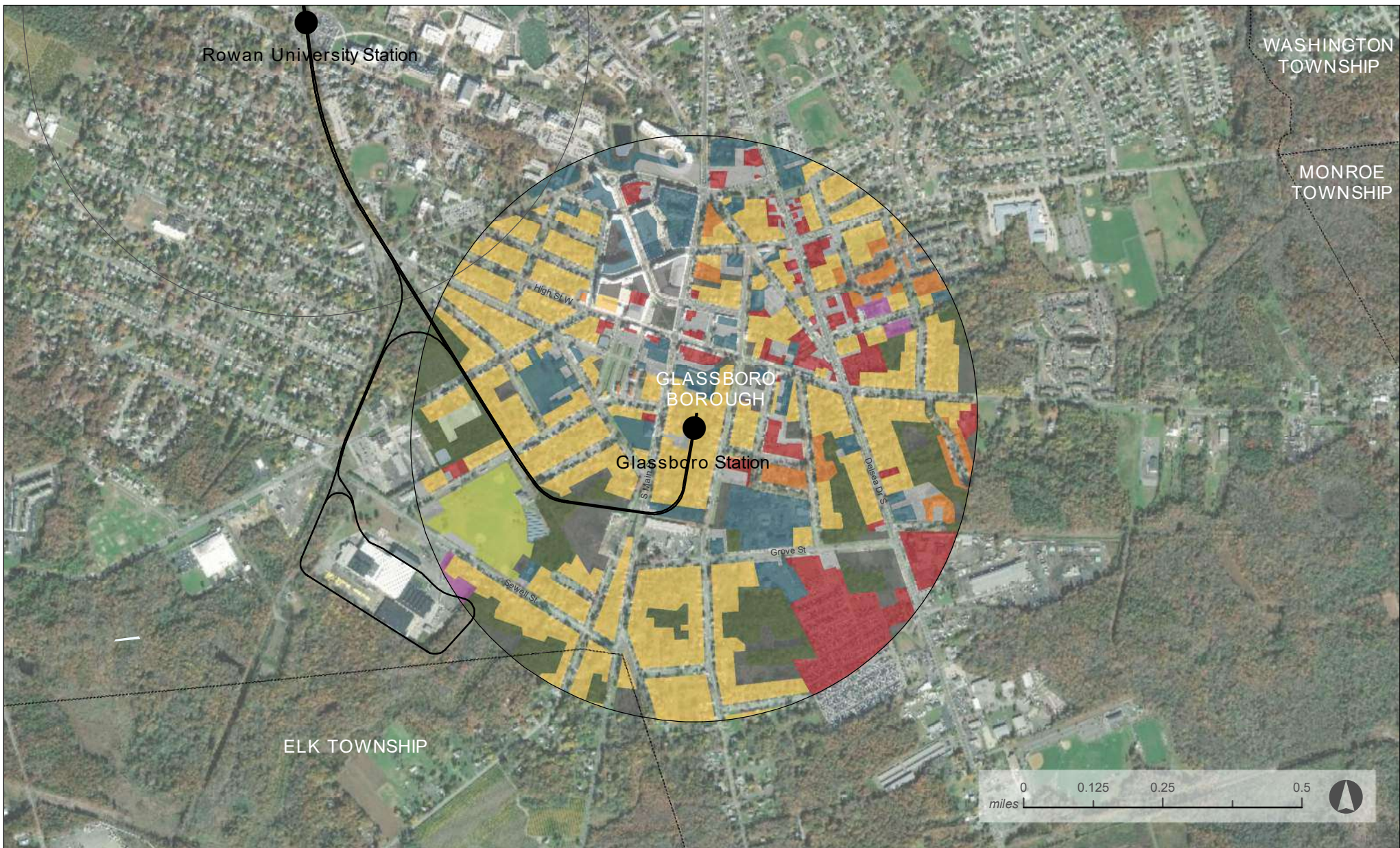
Land Use – The proposed Glassboro Station would be located between Main Street and Academy Street, south of High Street in an area surrounded primarily by single-family residential development. Land use classifications within ½ mile of the proposed Glassboro Station are illustrated on Figure 23, “Existing Land Use – Glassboro Station.” According to NJDCA data, illustrated on Figure 24, “Underutilized Land – Glassboro Station,” more than half (51.7 percent) of the land within ½ mile of the proposed station area is classified as being in need of redevelopment. This land surrounds the proposed station to the north, east, south, and west and includes much of downtown Glassboro. A substantial portion of the area identified as being in need of redevelopment has been recently improved. The Glassboro Town Square, a substantial recent redevelopment project, is located north of the proposed station area. Undeveloped land represents 7.1 percent of the land cover within ½ mile of the proposed station. The percentage of land use composition within this area is identified in Table 15, “Proposed Glassboro Station Area (Land Use Composition).”

Table 15: Proposed Glassboro Station Area (Land Use Composition)

Glassboro Station Area Land Use Categories	Land Use Composition (%)
Residential: Low Density	42.8%
Institutional	12.0%
Commercial	10.2%
Wooded	9.3%
Parking	8.1%
Undeveloped	7.1%
Residential: High Density	4.1%
Open Space	3.0%
Transportation	2.1%
Industrial	0.8%
Agriculture	0.3%
Water	0.2%

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey

Pockets of multi-family residential, commercial, manufacturing, or institutional uses are located within ½ mile of the station. Owens Park, a municipal park, is located to the adjacent west of the proposed station. Other institutional uses include the Glassboro Municipal Building and waste removal facility, Heritage Glass Museum, Glassboro VFW, and several churches. Commercial land uses include a specialty construction industry, a bus company, service uses, and an automotive retail establishment.



**Figure 23: Existing Land Use -
Glassboro Station**



Legend

- Station
- Rail line
- Municipal boundaries

Land Use

- Low Density Residential
- High Density Residential
- Commercial
- Industrial
- Open Space/Recreation
- Agriculture
- Institutional

Land Use, continued

- Parking
- Undeveloped
- Transportation

Source: DVRPC, 2015;
GCL Project Team, 2020.



Figure 24: Underutilized Land - Glassboro Station



Legend

- Station
- Rail line
- - - Municipal boundaries

2016 NJDCA Redevelopment/Rehabilitation Areas

- Redevelopment

Source: DVRPC, 2015; GCL Project Team, 2020.

Zoning – The ½ mile area surrounding the proposed Glassboro Station is subject to Glassboro Borough’s zoning ordinance, which designates most of the area as Central Business (commercial), Medium Density and High Density Residential, or Industrial/Light Industrial. The Central Business District provides for higher-density commercial uses intended to be proximate in use to surrounding areas.

The Medium Density Residential designation allows for detached single-family or two-family dwellings, as well as churches; elementary, intermediate, and secondary schools; parks and recreational spaces; and municipal spaces. The purpose of this district is to support the surrounding existing pattern of detached single-family and multi-unit dwelling uses near Rowan University. High Density Residential zones are similar but predominantly comprise smaller lot sizes than Medium Density Residential zones.

The Light Industrial District is intended to promote small scale industrial or office uses outside of the Office Park zone designation. The Industrial District promotes larger industrial (warehousing, manufacturing, or assembly) uses.

Glassboro Station, Glassboro Borough – Growth

The project team reviewed development potential within the vicinity of the proposed station using DVRPC projections (forecast year 2045) and TOD estimates developed through a review of existing vacant or underutilized properties. For Glassboro Borough, DVRPC municipal-wide projections indicate 41.1 percent growth in employment and 31.6 percent growth in population. While redevelopment of properties is anticipated near the proposed Rowan University Station, no specific properties were highlighted for TOD. Further, TOD estimates completed as part of this effort indicated several TOD-eligible properties located near the proposed Glassboro Station.

1.3.3 Proposed Vehicle Maintenance Facilities (VMF)

A VMF supporting GCL needs for regular preventive and unscheduled corrective vehicle maintenance and maintenance-of-way equipment would be necessary to ensure efficient operations of the proposed service. Currently, two potential locations for the VMF are under evaluation in Glassboro Borough and Woodbury Heights Borough. Following is an analysis of existing land uses and zoning within ½ mile of the proposed VMF sites.

1.3.3.1 Vehicle Maintenance Facility (VMF), Woodbury Heights Borough

Land Use – The ½ mile area surrounding the proposed VMF straddles two municipalities: Woodbury Heights Borough to the north and east and Deptford Township to the south and west. The proposed VMF would be located on a former light industrial site bounded by Chestnut Avenue to the south, Academy Avenue to the east, the proposed GCL alignment to the west, and a vacant wooded area to the north. The VMF would be surrounded by single-family residential neighborhoods, with a wooded area and Woodbury Heights Elementary School to the north. The ½ mile area surrounding the proposed facility is predominantly residential or wooded with other land uses including commercial, institutional, recreational, and manufacturing. The ½ mile proposed maintenance facility area does not have any land that has been identified as being in need of redevelopment by the New Jersey Department of Community Affairs. Existing land uses within ½ mile of the proposed VMF are presented on Figure 25, “Existing Land

Use – Woodbury Heights Vehicle Maintenance Facility (VMF).” The percentage of land use composition is identified in Table 16, “Proposed Vehicle Maintenance Facility – Woodbury Heights (Land Use Composition).”

Table 16: Proposed Vehicle Maintenance Facility – Woodbury Heights (Land Use Composition)

Woodbury Heights VMF Area Land Use Categories	Land Use Composition (%)
Residential: Low Density	59.8%
Wooded	23.6%
Open Space	5.3%
Institutional	2.8%
Undeveloped	2.4%
Parking	1.6%
Water	1.4%
Commercial	1.2%
Transportation	1.1%
Industrial	0.8%
Residential: High Density	0.1%

Note: Totals do not add to 100 percent due to rounding

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey

St. Margaret’s Church and Regional School, Gateway Regional High School, and the Woodbury Heights Elementary School represent are important local institutional uses in the area. Two parks (Woodbrook Park and Oak Valley Little League Complex) are located south of the proposed facility, while Veterans’ Park is located north of the proposed facility. An electronic manufacturing design services company is located at the eastern extent of the proposed facility area.

Zoning – Within the portion of the ½ mile area of the proposed VMF that is in Woodbury Heights, parcels are designated Residential and Age-Restricted Residential. The Residential District designates single-family detached dwellings as the principal permitted use. The Residential Age-Restricted District permits multi-family age-restricted residential uses, in which each development is subject to a minimum percentage of affordable housing units.

Within Deptford Township, the parcels falling within the ½ mile area of the proposed facility are designated Multi-family Residential, High Density Residential, Institutional, and Light Industrial.

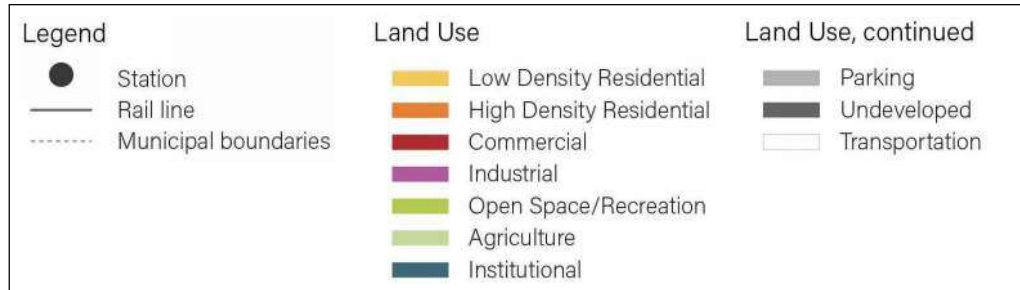
The Multi-family Residential District accommodates single-family detached dwellings, whereas High Density Residential District permits single-family dwellings to be built as infill development and redevelopment in and near older neighborhoods on relatively small light sizes. The High Density Residential District also permits single and two-family detached and semi-detached dwellings located in planned unit developments.

The Institutional District permits public and quasi-public land uses, which may include government buildings, community centers, libraries, and/or parks. The Light Industrial District permits industrial development located near major arterial roadways and industrial parks with non-polluting uses. These

uses may include scientific or industrial research centers, business or governmental offices, and warehouse, storage, and distribution facilities.



Figure 25: Existing Land Use - Woodbury Heights VMF



Source: DVRPC, 2015; GCL Project Team, 2020.

1.3.3.2 Vehicle Maintenance Facility (VMF), Glassboro Borough

Land Use – The proposed Glassboro VMF is in Glassboro, south of the proposed Glassboro Station, adjacent to the municipal boundary with Elk Township. The proposed VMF would be located on Sewell Street, on the Route 55 Industrial Center site. The VMF would be surrounded primarily by single-family residential neighborhoods to the north, and open space to the south, east, and west. Owens Field, a municipal park, is located across Sewell Street from the proposed facility. The ½ mile area surrounding the proposed station is predominantly wooded, residential, or agricultural, with other land uses including commercial, utility, and institutional uses. Existing land use classifications within ½ mile of the proposed VMF are presented on Figure 26, “Existing Land Use – Glassboro Vehicle Maintenance Facility.” The percentage of land use composition is identified in Table 17, “Proposed Vehicle Maintenance Facility – Glassboro (Land Use Composition).” As shown on Figure 27, “Underutilized Land – Glassboro Vehicle Maintenance Facility (VMF),” a significant portion of the proposed VMF site, as well as areas west and south adjacent to the site, are classified by New Jersey Department of Community Affairs (NJDEA) as areas in need of redevelopment.

Table 17: Proposed Vehicle Maintenance Facility – Glassboro (Land Use Composition)

Glassboro VMF Area Land Use Categories	Land Use Composition (%)
Residential: Low Density	33.5%
Wooded	33.1%
Agriculture	6.6%
Undeveloped	6.6%
Industrial	4.3%
Transportation	3.7%
Institutional	3.3%
Residential: High Density	3.1%
Parking	2.3%
Open Space	2.1%
Commercial	1.3%
Water	0.2%

Note: Totals do not add to 100 percent due to rounding

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey



**Figure 26: Existing Land Use -
Glassboro VMF**



Legend	Land Use	Land Use, continued
● Station	Low Density Residential	Parking
— Rail line	High Density Residential	Undeveloped
- - - Municipal boundaries	Commercial	Transportation
	Industrial	
	Open Space/Recreation	
	Agriculture	
	Institutional	

Source: DVRPC, 2015;
GCL Project Team, 2020.



**Figure 27: Underutilized Land -
Glassboro VMF**



Legend

- Station
- Rail line
- Municipal boundaries

2016 NJDCA Redevelopment/Rehabilitation Areas

- Redevelopment

Source: DVRPC, 2015;
GCL Project Team, 2020.

Zoning – Within Glassboro Borough, parcels within the ½ mile area of the proposed facility are predominantly designated as Medium Density Residential, Industrial, or Public. The Medium Density Residential designation allows for detached single-family or two-family dwellings, as well as churches; elementary, intermediate, and secondary schools; parks and recreational spaces; and municipal spaces. The purpose of this district is to support the surrounding existing pattern of detached single-family dwelling use, as well as multi-unit land use in proximity to Rowan University. Industrial Districts are intended to provide employment opportunities adjacent to residential centers, while taking advantage of rail facilities and major highways. Public Districts identify land serving a public or quasi-public purpose.

Within the Elk Township portion of the ½ mile area of the proposed VMF, parcels are designated predominantly Moderate Density Residential or Light Manufacturing, with small areas designated as Rural Environmental Residential. Moderate Density Residential zones predominantly promote single-family detached housing at a density of 1.5 dwelling units per acre. The Light Manufacturing designation generally permits non-retail lower density manufacturing or commercial activities. Rural Environmental Residential zones generally permit residential uses on areas that have been identified as sensitive through the New Jersey State Development and Redevelopment Plan (SDRP).

1.3.4 Development Activity

A review of recent, approved, and proposed development activity indicated several proposed station locations may experience proximate development:

- **WRTC/Cooper Hospital Stations:** Numerous redevelopment projects are ongoing or have been completed along the Camden Waterfront, including commercial space (American Water headquarters – 2018; Camden Tower – 2019), the Philadelphia 76ers Training Complex (2016), the Rutgers University – Camden Nursing and Science Building (2017), a 180-room hotel (2020), 156 residential units (2020), twenty townhomes (2021), and numerous reconfigured parking areas. Knights Crossing includes existing properties (Campbell’s Soup) as well as future developments, including the headquarters for Subaru of America (2018) and other potential planned development.
- **South Camden Station:** The Holtec Technology Campus includes numerous industrial buildings near Delaware River port facilities employing 400 workers with the potential to grow to 1,000 employees by 2022.
- **Gloucester City Station:** In Fall 2017, the city opened a new Middle School, located approximately ¼ mile west of the proposed station area. The previous Middle School site has potential for future redevelopment.
- **Red Bank Avenue Station:** The Inspira Hospital has transitioned from a primary facility to a satellite facility with the opening of a new facility in Harrison Township.
- **Woodbury Station:** *The Woodbury Downtown Business Direct Redevelopment Plan* recommends numerous mixed-use redevelopments west of and adjacent to the proposed station area.

- **Rowan University/Glassboro Stations:** Numerous developments are proposed or nearly complete near these stations. Several of these are located adjacent to the US 322/NJ 55 interchange, including the Inspira Medical Center Mullica Hill, Richwood Town Center, a Rowan University sports complex, and expansions to Rowan’s West Campus.

In addition, several municipalities anticipate and encourage redevelopment and reuse of vacant properties. For example, Woodbury recognizes and promotes redevelopment to support a reactivated commuter rail line through its *Broad Street Business District Redevelopment Plan* (City of Woodbury, 2010). The City is encouraging development of a transit village south of the proposed Red Bank Avenue Station and redevelopment of properties adjacent to the proposed Woodbury Station to support a future commuter rail transit option. In its *Uptown Pitman Revitalization Plan*, Pitman Borough has identified a redevelopment/reuse opportunity for numerous parcels adjacent to the GCL alignment. Other municipalities within the GCL corridor contain areas designated by NJDCA as identified in Section 1.3.5, “Vacant and Underutilized Land,” as being in need of redevelopment or rehabilitation and encourage redevelopment of underutilized land and infill of vacant land parcels.

1.3.5 Vacant and Underutilized Land

Undeveloped and underutilized land parcels exist throughout the ½ mile radius of the corridor and proposed station areas. This analysis focuses on two available datasets: the 2015 Digital Land Use Survey produced by DVRPC, which classifies “undeveloped” land, and 2016 NJDCA areas in need of redevelopment or rehabilitation.

The 2015 Digital Land Use Survey produced by DVRPC defines “undeveloped” land as:

Open space that is either vacant or cleared or in a natural state, that is not clearly wooded and is not tied to another use. In residential areas, includes undeveloped parcels in mature subdivisions (when not owned by an adjacent landowner), as well as undeveloped parcels in newer subdivisions where general construction activities have been completed or appear suspended. Does not include vacant developed properties where buildings and infrastructure are intact.¹

As indicated in Table 18, “Undeveloped Land by Proposed Station Area,” vacant land within ½ mile of station areas varies from less than 1 percent to over 17 percent of the land coverage. Three stations: Cooper Hospital, South Camden, and Crown Point Road, contain more than ten percent undeveloped land. Two stations have less than 1 percent undeveloped land within ½ mile of the proposed station. Overall, undeveloped land accounts for 4.4 percent of the land use composition within ½ mile of the corridor study area. These areas should be considered as being viable to support potential transit-supportive development.

¹ Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey

Table 18: Undeveloped Land by Proposed Station Area

Proposed Station	Vacant Land (%)
Walter Rand Transportation Center	5.4%
Cooper Hospital	17.4%
South Camden	14.1%
Gloucester City	7.9%
Crown Point Road	10.7%
Red Bank Avenue	0.5%
Woodbury	4.4%
Woodbury Heights	4.0%
Wenonah	1.1%
Mantua Boulevard	5.8%
Sewell	2.9%
Mantua-Pitman	3.7%
Pitman	0.2%
Rowan University	2.0%
Glassboro	7.1%

Source: Delaware Valley Regional Planning Commission, 2015 Digital Land Use Survey

Areas designated by the NJDCA as being in need of redevelopment or rehabilitation, as defined under New Jersey Statutes Annotated (NJS) 40A:12A-3, exist within ½ mile of seven proposed station sites. NJS 40A:12A-3 defines redevelopment areas and rehabilitation areas. Redevelopment areas may include lands, buildings, or improvements in areas determined as blighted or in need of redevelopment. Rehabilitation areas are designated in locations where renovation, reconstruction, or elimination of substandard structures is desired to cease deterioration in an area. Rehabilitation areas can qualify for five-year tax abatements on improvements to encourage investment (NJS, 2018). Table 19, “NJDCA Areas in Need of Redevelopment or Rehabilitation,” identifies the percentage of land designated as being in need of redevelopment or rehabilitation within each impacted station area.

Table 19: NJDCA Areas in Need of Redevelopment or Rehabilitation

Proposed Station*	Area in need of Redevelopment	Area in need of Rehabilitation
Walter Rand Transportation Center	63.9%	2.3%
Cooper Hospital	30.0%	1.5%
South Camden	25.8%	0%
Gloucester City	7.0%	0%
Crown Point Road	2.5%	0%
Red Bank Avenue	2.9%	0%
Woodbury	5.8%	0%
Mantua-Pitman	1.5%	0%
Glassboro	51.7%	0%
Glassboro VMF	11.8%	0%

*Rowan University, Pitman, Sewell, Mantua Boulevard, Wenonah, and Woodbury Heights Stations and the Woodbury Heights VMF have no areas identified as being in need of rehabilitation or redevelopment within ½ mile of the proposed station or VMF area.

Source: New Jersey Department of Community Affairs, 2012

1.3.6 Land Use Guidelines and Policies

Municipal Master Plans and regional or statewide plans, including the DVRPC Long-Range Plan and the New Jersey State Development and Redevelopment Plan (SDRP), were reviewed to identify future land use goals that may guide development patterns throughout the study area. Common themes among the reviewed municipal, regional, and statewide plans include goals to:

- encourage redevelopment in downtown areas
- establish more mixed-use areas
- invest in downtowns
- enhance public transit opportunities
- work regionally to solve complex issues
- preserve open space

Several of the municipal Master Plans highlight the importance of providing more public transportation options. The proposed GCL would support many of the goals set forth in these Master Plans. Following is a summary of land use objectives from identified Master Plans.

Camden City. The City of Camden released its Master Plan, known as *FutureCAMDEN*, in 2002. The 2008 and 2018 *General Reexamination of the Master Plan and Master Plan Amendment* documents are amendments to the original 2002 Master Plan and provide updates on the extent to which there have been significant changes in the assumptions, policies, and objectives forming the basis for the master plan or development regulations as last revised; specific changes recommended for the master plan or development regulations; and recommendations of the planning board concerning the incorporation of redevelopment plans adopted pursuant to the “Local Redevelopment and Housing Law.” Since the original 2002 Master Plan, the transportation section has been amended to include discussion of the NJ TRANSIT River LINE service, as well as the Camden – Glassboro Light Rail Transit Analysis. The 2002 plan notes that a new proposed access road for the Port of Camden would utilize existing Conrail ROW which would be in conflict with the current route for the proposed GCL; this has not been amended in either Master Plan Reexamination document.

The original 2002 Master Plan recommendations, reaffirmed by the 2008 and 2018 Master Plan Reexamination documents, are organized into three Neighborhood Planning Districts (NPD) that contain twenty neighborhoods (City of Camden, 2002). The proposed GCL alignment traverses two of the planning districts. The alignment and stations areas are located within or adjacent to eight of the neighborhoods. WRTC and proposed Cooper Hospital station are in the NPD1. NPD1 includes the central business district (CBD) and the more built up commercial core of the City of Camden. The land use plan for this district supports primarily medium and high density residential, retail, and medical and university support uses. The Lanning Square neighborhood which is in the WRTC and Cooper Hospital ½ mile station areas is identified as a potential neighborhood targeted improvement area for rehabilitation (City of Camden, 2002).

The proposed South Camden Station is in the NPD3. NPD3 is generally less intensely developed and more residential than NPD1, with supporting neighborhood retail. The land use plan for this district promotes a mixed land use corridor along major roadways, medium density residential, recreation/open space, and port-related industrial uses. The Waterfront South and Morgan Village neighborhoods, located within the ½ mile station area, are identified for potential neighborhood targeted improvement areas (City of Camden, 2002).

The Master Plan contains eight goals to support the overall vision for the City's future. The "Integrating Camden's Transportation System" goal emphasizes the important role that transportation plays in the economy of the City and the larger region (City of Camden, 2002). Major planning concepts are identified to advance the integration of all transportation modes, including public transit. Improving mass transit facility linkages at the Camden Transportation Center (WRTC) is emphasized.

The Master Plan supports smart growth principles and emphasizes compact development that focuses on the re-use of existing transportation infrastructure. The Plan acknowledges that the existing transportation network offers a unique opportunity to attract businesses and people to the Central Business District (City of Camden, 2002). The Plan also recognizes that Camden's location between Philadelphia and the South Jersey region, excellent regional accessibility via the highway network, and the PATCO High-Speed line provides the ability to capture a significant metropolitan labor force and tourist economy (City of Camden, 2002). The proposed GCL would help support this regional accessibility.

In addition, the City of Camden, working with the Camden Redevelopment Agency, completed seventeen neighborhood-focused multi-use redevelopment studies and plans. Several of these plans were completed for neighborhoods traversed by the GCL or adjacent to the GCL. These include:

Centerville (2002) – Adjacent to the GCL, east of I-676. A Centerville Neighborhood Strategic Plan was later published in 2005.

Cooper Plaza (2005) – Area south and west of Cooper Hospital, including area in and around Cooper Hospital Station.

Downtown (2004) – Includes several focus areas including "Project Area E" that is centered on the WRTC area. A Cooper Grant and Central Waterfront Neighborhood Plan was later published in 2015, which includes portions of the Downtown area.

Gateway (2005, amended 2009) – Primarily area south of and adjacent to the GCL. Includes short section of GCL between Cooper Hospital and South Camden Stations.

Lanning Square (2008) – Adjacent to the GCL, south of WRTC and west of Cooper Hospital Station.

Liberty Park (2006) – Adjacent to the GCL, east of I-676

The 2008 *General Reexamination of the Master Plan and Master Plan Amendment* reaffirmed the 2002 Master Plan, while also identifying the following problems: a declining population, impediments to

waterfront development, an increasing concentration of social services uses (methadone clinics, halfway houses, and residential treatment programs) within the City compared to Camden County, diminishing neighborhood and housing conditions, need for infrastructural expansion to support expanded institutional uses, need for improved transit connections for residents, inactive planning initiatives, lack of interagency coordination, and public safety concerns (City of Camden, 2018). Goals and objectives for housing, neighborhood improvement, economic development, physical and historical assets, the environment, transportation, plan implementation, public facilities, education, and safety were laid out to address identified problems (City of Camden, 2018). The *2018 General Reexamination of the Master Plan and Master Plan Amendment* reaffirms the goals and objectives of the 2002 Master Plan and 2008 Master Plan Reexamination documents, while also providing a progress report on those goals and objectives. Additionally, the 2018 document provides recommendations for potential future updates to the Master Plan and development regulations.

Woodbury City. Redevelopment of the downtown is an important component of the land use goals identified in the Woodbury Master Plan. The plan identifies Woodbury as a major public transportation (bus) hub for Gloucester County, and indicates that the existing rail corridor is a candidate for future passenger rail service. The plan states that a goal for the redevelopment of Woodbury is encouraging the use of public transportation as an alternative to the single-occupancy vehicle (Ragan Design Group, 2006; Melvin Group Design, 2019).

A potential “Transit Village” location at Barber Avenue at the existing Conrail alignment is noted in the Woodbury Master Plan (Ragan Design Group, 2006; Melvin Group Design, 2019). Part of the proposed redevelopment area is within ½ mile of the proposed Woodbury Station. There are several underutilized and vacant parcels and an opportunity to redevelop the proposed station area with a more transit friendly design, such as having a mix of land uses, or housing for various income levels. The Master Plan lays out the following principles for establishing a “Transit Village” redevelopment plan: 1) create the conditions that will demonstrate a willingness to grow in housing, population, and jobs to support the development of a commuter rail station; 2) build public spaces/streets that will generate and encourage pedestrianism; 3) maintain and enhance green infrastructure; 4) provide integrated housing opportunities for various income levels; and 5) encourage mixed uses without detracting from the existing downtown business district (Ragan Design Group, 2006; Melvin Group Design, 2019). Plans for a “Transit Village” have been further refined in the *2007 Woodbury Transit Hub Feasibility Analysis* and the *2012 Gloucester County Transit Expansion Framework Study*.

The Woodbury Master Plan also emphasizes that future land development should maintain the existing character of Woodbury, which has been designated a Traditional Main Street Program community by the New Jersey Department of Community Affairs. This designation provides Woodbury’s historic downtown with technical assistance and support from the Main Street New Jersey program.

In addition, the City of Woodbury completed the Red Bank Avenue Transit Hub Feasibility Analysis in 2017 as part of DVRPC’s Transportation and Community Development Initiative (TCDI) Grant program. This document includes several mentions of the GCL, noting that “the construction of the GCL will likely prove

transformative for Woodbury, Gloucester County, and South Jersey.” Many of the long-term recommendations for bus hubs and connections in Woodbury made within the document are generally contingent on the completion and operation of the GCL. These include the Packer Street Bus Station and an extension of Red Bank Avenue and Green Street to provide additional areas for development. Further, the document outlines numerous smaller scale improvements to existing streets for vehicular, bicycle, and pedestrian traffic.

Mantua Township. Mantua Township’s Master Plan reinforces its general rural character, which includes well-defined neighborhoods and a collection of commercial centers and community facilities. (Melvin Kernan Development Strategies, 2006). Preserving open space and promoting complementary patterns of development are important goals identified in the Master Plan. These development patterns support the use and expansion of public transportation. The plan lays out recommended zoning changes, including a recommended rezoning near the proposed Mantua Boulevard Station from R-22 residential zoning along Mantua Boulevard to Agricultural Residential zoning due to proximity to the Maple Ridge Golf Course, which is a proposed conservation zone (Melvin Kernan Development Strategies, 2006).

Pitman Borough. In 2012, the borough produced the *Uptown Pitman Revitalization Plan* which used the proposed GCL as one of its guiding principles in identifying opportunities to revitalize Pitman’s core. The document promotes the potential for land use linkages between the proposed station and the need for walkable uses at a density suitable for transit use. A proposed station area plan is included, as well as a detailed discussion of the surrounding highway network and need for enhancements to pedestrian circulation.

In 2017, the Borough of Pitman produced a reexamination report and amendment to their borough master plan. The plan acknowledges the need for infrastructure upgrades, as well as the need to update the Uptown Broadway Business District, proximate to the proposed project. Numerous rezoning recommendations are provided within the reexamination document, none of which directly impact any properties within or adjacent to the proposed project.

The 2017 reexamination directly references the proposed GCL, noting the need to study the potential for the line and for the station in Pitman in order to “not only incentivize uptown businesses, but provide an added layer of mobility for residents.” The plan further notes the need to promote redevelopment of the former Sony Digital Media Plant in coordination with the GCL, including the potential for TOD.

Glassboro Borough. The Borough of Glassboro last updated its Master Plan in 2004. The general land use goals for the borough include encouraging a fiscally beneficial mix of retail, office, and industrial uses. The Master Plan also discusses dedicating space to recreational open space and affordable housing for all ages (Alaimo Group, 2004).

The 2004 Plan references the proposed GCL, noting that the proposed transit connection into Camden/Philadelphia would link population centers and employment districts within the region (Alaimo Group, 2004).

In 2010, the Borough of Glassboro released a Redevelopment Plan, which is an extension of the Land Use section of the Borough's 2004 Master Plan. The goal of the Redevelopment Plan was to reduce blighted conditions within the Borough, stimulate private investment, and encourage affordable housing. More than half of the area designated for redevelopment is zoned for residential use, with the remainder of the land zoned for commercial use. Areas designated for redevelopment are included in the Borough's zoning ordinance as overlay zones (Alaimo Group, 2010).

Rowan University Long-Range Master Facilities Plan (2013). As an addendum to the 2007 Rowan University Master Plan, Rowan outlined a vision for the growth of its campuses, including those directly adjacent to the proposed GCL in Glassboro and Camden. One of the key goals outlined by the plan is the need to clarify the role of the University in planning for rail transit as a driver of economic development for Glassboro and the region. Further, the plan notes the potential for transit in the area directly adjacent to the proposed Rowan University station. The plan also notes the positive impact of having two stations proximate to the Glassboro campus, which will not only improve connectivity of the campus, but also mesh with Glassboro's Smart Growth planning initiatives. The Borough was recently recognized by the Delaware Valley Smart Growth Alliance for a collaboration with Rowan University on the Rowan Boulevard Town Center project.

New Jersey State Development and Redevelopment Plan (SDRP). Updated in 2011, the New Jersey SDRP focuses on providing an integrated approach to land use planning (State of New Jersey, 2011). Many of the Master Plans are consistent with the values of the SDRP to encourage redevelopment, infill, and to strengthen existing infrastructure. In addition, the SDRP promotes sustainable practices including providing more transportation options and improving transportation access (State of New Jersey, 2011). The SDRP also notes the importance of focusing on transit hubs throughout the state as a way to drive mixed-use developments.

DVRPC Connections 2045 Plan. The DVRPC Long-Range Transportation Plan, *Connections 2045*, in draft form as of January 2018, outlines a vision for land use, the environment, economic development, equity, and transportation. The GCL is directly referenced in the plan, acknowledging linkages to Camden, Gloucester City, Woodbury, Pitman, as well as Rowan University, noting the ability of the GCL to support the substantial investments currently occurring at the University and in Glassboro. The previous DVRPC Long-Range Transportation Plan, *Connections 2040*, identified the GCL as a new transit expansion project but did not mention associated development opportunities. As such, *Connections 2040* will serve as a baseline scenario.

Gloucester County Transit Expansion Framework Study. In 2012, Gloucester County produced the *Transit Expansion Framework Study*, the culmination of a 6-month regional planning project in support of the proposed GCL. The study, conducted prior to the confirmation of station locations and subsequent in-depth planning, provides comprehensive documentation of existing conditions and an explanation of how TOD could potentially unfold in the involved municipalities. The document provides an overview of the initial planning stages of the proposed GCL, as well as brief station analyses for the proposed stations

located in Gloucester County. In effect, the study was intended to be used by each municipality as a guide for decision-making surrounding station stop locations and surrounding development.

1.4 Environmental Consequences

This section outlines land use impacts of the proposed project that are the direct result of the proposed project. As with the existing land use analysis, the study area for the impacts analysis extends ½ mile from the proposed alignment, proposed stations/park-and-ride facilities, and vehicle maintenance facilities.

1.4.1 No-Action Alternative

The No-Action Alternative is a scenario where the GCL corridor and transit stations are not constructed. This alternative would have no direct project-related impact on specific parcels or development patterns in the municipalities through which the proposed project would operate. This alternative would not result in increased transit access beyond the background growth estimated by DVRPC into the region, nor result in supportive developments at and near station areas. Therefore, the No-Action Alternative would be consistent with land use guidelines and policies.

1.4.2 The GCL

The GCL would alter existing land uses at several proposed station locations throughout the corridor and in the City of Camden and Glassboro Borough, where full and partial parcel acquisitions would be undertaken to accommodate new alignment. Land use changes at the corridor and station area levels are described in Section 1.4.2.1, “Corridor Impacts,” and Section 1.4.2.2, “Station Area Impacts.” Potential positive impacts within the proposed station areas include increased access to public transportation, supporting redevelopment opportunities, and the improved integration of transportation and land by developing transit oriented development on underutilized land.

1.4.2.1 Corridor Impacts

The proposed 18 mile GCL would operate between Glassboro and Camden primarily within the ROW of an existing Conrail freight alignment, the former Pennsylvania-Reading Seashore Line. The northernmost segment in Camden would follow a new ROW adjacent to Interstate 676 before entering an on-street alignment to reach the WRTC, where riders could transfer to the PATCO Speedline (Broadway Station), the NJ TRANSIT River LINE, several NJ Transit bus routes, and Greyhound Bus service.

Use of the existing Conrail right-of-way by the proposed GCL would minimize property acquisition and displacements from Camden to Glassboro. For the new section of alignment along Interstate 676 in Camden, property acquisitions and displacements, where necessary, would be minimized. Within ½ mile of the proposed GCL alignment, there are established communities throughout the corridor. These communities consist of primarily residential and commercial land uses. The proposed GCL alignment through these established communities would encourage growth and economic development consistent with the long-term planning goals at local, state, and regional levels, as noted in Section 1.3.4, “Development Activity.” Given that the proposed alignment is primarily located on or along existing

railroad rights-of-way, the proposed project would not substantially change the current land uses within the study area.

Within Gloucester County, as the GCL travels north along the existing Conrail alignment from the proposed station location in Glassboro, direct land use impacts would be limited to the proposed station locations or vehicle maintenance facilities.

1.4.2.2 Station Area Impacts

This section evaluates direct land use impacts at station areas and adjacent park-and-ride facilities. Detailed information on impacts to individual properties, and proposed mitigation measures where applicable, can be found in Attachment 12, “Acquisitions and Displacements Technical Report.” In general, the proposed stations would have beneficial land use and connectivity effects because they support existing transit patrons, attract new transit users, and can serve as a stimulus for future development.

Existing WRTC. The existing WRTC facility provides connections to the PATCO Speedline and NJ TRANSIT River LINE. The addition of GCL service at WRTC would have no impact on the existing station area with respect to land use, zoning, or parking. In order to accommodate the proposed station platforms for the GCL, a full acquisition of a commercial parcel at 525 Martin Luther King Blvd (former CVS) would be necessary; the project would preclude the reuse of existing structure, and potentially result in the displacement of future businesses that may utilize existing structure before the project is constructed. A detailed description of these impacts and proposed mitigation measures is presented in Attachment 12, “Acquisitions and Displacements.”

Cooper Hospital Station. The proposed Cooper Hospital Station would be located between Haddon Avenue and Pine Street in the City of Camden. The station is anticipated to have a single center platform and would provide access to the Cooper University Hospital complex. The station area would be on an embankment structure built adjacent to the Interstate 676 ROW. A “park-and-ride” facility is not proposed at this location, thus there are no anticipated impacts to existing parking, and no displacements would occur. Impacts to Triangle Park, constructed in 2011, related to the proposed elevated structure are anticipated. A detailed description of these impacts and proposed mitigation measures is presented in Attachment 9, “Parklands.”

While the area west of the station area is currently zoned for residential use, the surrounding properties are ancillary uses for Cooper Hospital. While this may require a rezoning of the station area, the station would be compatible with adjacent land uses, including those associated with Cooper Hospital to the west and Interstate 676 to the east. Therefore, the proposed station would have no significant impact on existing land uses. Employees of Cooper University Hospital and residents to the south, as well as major employers east of Interstate 676 (NJ TRANSIT, Campbell’s Soup) would benefit from increased transit access and mobility.

South Camden Station. The proposed South Camden Station would be located adjacent to Interstate 676 and east of South 6th Street. The elevated station would include a single center platform with access to

Ferry Avenue to the south and Carl Miller Boulevard to the north. The station area would be built within an existing ROW. Therefore, there are no anticipated impacts to existing parking, and no displacements are anticipated.

The station is compatible with adjacent land uses, including numerous vacant parcels to the west and Interstate 676 to the east, therefore the proposed station would have no significant impact on existing land uses. Residents of the Waterfront South and Centerville neighborhoods would benefit from increased transit access and mobility.

Gloucester City Station. The proposed Gloucester City Station would be located between Market Street and Cumberland Street. The at-grade station would include a single center platform, providing connections to adjacent land uses. The station area would be built within an existing ROW. The proposed station is expected to create parking demand and to impact 41 local parking spaces, public and private. The proposed project plans to construct 70 surface parking local spaces to meet demand and to offset the anticipated parking impact. There are no anticipated impacts to land uses, and no displacements would occur.

The station is generally compatible with surrounding land uses and is in an area appropriate for commercial development. Accommodations for adjacent residential properties along Cumberland Street may require additional consideration during station design. Gloucester City residents and visitors to the Gloucester City Historic District would benefit from increased transit access and mobility.

Crown Point Road Station. The proposed Crown Point Road Station would be located between NJ Route 45 and Broadway near Willow Drive. The at-grade station would include a single center platform with access to the adjacent potential transit-supportive development and residential areas to the east and west. The station area is not expected to impact existing land uses. The proposed station is expected to create parking demand and to impact 49 private parking spaces. The proposed project plans to construct 330 surface parking spaces by 2040 to meet demand and to offset the anticipated parking impact. However, the proposed surface parking lot would be located on several vacant and underutilized parcels and use of these parcels would require acquisition. There are no expected impacts to land uses, and no displacements would occur.

The station is compatible with surrounding land uses and is in an area appropriate for commercial development. Westville residents, located to the east of the proposed station, would benefit from increased transit access and mobility.

Red Bank Avenue Station. The proposed Red Bank Avenue Station would be located north of Red Bank Avenue west of Evergreen Avenue. The above-grade station would include a single center platform with access to existing commercial areas along Red Bank Avenue. The proposed station is expected to generate demand for parking but is not expected to impact local parking spaces; public and private. The proposed project plans to meet demand with 500 surface parking spaces by 2040 as a part of municipal redevelopment master plans that address shared parking facilities. There are no expected impacts to land uses, and no displacements would occur.

The station is compatible with surrounding land uses and is in an area appropriate for commercial development. Existing businesses along Red Bank Avenue and Woodbury residents to the north would benefit from increased transit access, which could strengthen this area as a location for commercial activity.

Woodbury Station. The proposed Woodbury Station would be located adjacent to Green Avenue and south of Cooper Street. The at-grade station would include a single center platform with connections to existing uses along Green Avenue and Railroad Avenue. The proposed station is expected to generate parking demand and to impact 110 local public parking spaces. At the time of analysis, it was anticipated that a 1,200 parking space garage would be built by 2040 as a part of municipal redevelopment master plans that address shared parking facilities; this facility, as of the issuance of this FEIS, has been constructed. There are no expected impacts to existing land use, and no displacements would occur.

The station is compatible with surrounding land uses and is in an area appropriate for commercial development. Woodbury residents to the north and west of the proposed station would benefit from increased transit access, which could strengthen this area as a location for commercial activity.

Woodbury Heights Station. The proposed Woodbury Heights Station would be located along West Jersey Avenue near Elm and Oak Avenues. The at-grade station would include two side platforms with access to existing residential areas to the west and potential transit-supportive developments to the east. The proposed station is expected to generate additional parking demand and to impact ten local private parking spaces. To mitigate this impact, the proposed project plans to provide 50 surface parking spaces by 2040 to meet demand and offset the anticipated parking impact as a part of municipal redevelopment master plans that address shared parking facilities. There are no significant impacts to land uses, and no displacements would occur. The station area is zoned residential, which means that a rezoning would likely be necessary.

Residents of Woodbury Heights to the east and west, as well as Deptford Township residents to the west, would benefit from increased transit access which would also strengthen the vacant areas east of the station area.

Wenonah Station. The proposed Wenonah Station would be located adjacent to North West and North East Avenues and north of Mantua Avenue. The at-grade station would include two side platforms. The proposed station is expected to affect 11 local public parking spaces, which would be removed with the construction of the proposed station area. While no mitigation measures are proposed as a part of the GCL, it is assumed that on street parking would continue to be allowed on East Avenue where the 11 existing head-in parking spaces currently are, resulting in a negligible impact to parking in the area. For more information on parking and traffic impacts, see Attachment 5, "Traffic Analysis Technical Report." There are no anticipated impacts to land uses and no displacements would occur.

Residents of Wenonah would benefit from increased transit access, especially residents within walking distance of the station area.

Mantua Boulevard Station. The proposed Mantua Boulevard Station would be located along Mantua Boulevard (CR 676). The at-grade station is anticipated to have two side platforms and would be built within an existing ROW. The station area is in an area zoned for Light Industrial development. The proposed project is anticipated to construct 700 surface parking spaces by 2040 to meet projected demand. However, the proposed surface parking lot would be located on a vacant parcel and use of the parcel would require acquisition. There are no anticipated impacts to existing parking or land uses and no displacements would occur. Proximate residential areas east of the proposed station would be considered during station design.

Residents of Mantua Township would benefit from the proposed station that is anticipated to provide increased transit access.

Sewell Station. The proposed Sewell Station would be located adjacent to West Atlantic and Atlantic Avenues, north of Center Street. The at-grade station would include two side platforms and would be in the Sewell portion of Mantua Township. The station area would be built within existing ROW; there are no anticipated impacts to existing parking, and no displacements would occur. Most of the proposed station area is zoned residential, with a small area to the east of the proposed station zoned as neighborhood commercial. A rezoning of the station area would be required unless it is permitted as a conditional use. The station area is north to an area zoned for commercial development. The proposed station area would not have an impact on existing land uses.

Residents of Sewell would benefit from proposed station that is anticipated to provide increased transit access for many residents, as well as potential commercial development south of the proposed station.

Mantua-Pitman Station. The proposed Mantua-Pitman Station would be located on Lambs Road east of NJ Route 55 and south of Woodbury-Glassboro Road (CR 553). The at-grade station would include two side platforms. The station area would be built within existing ROW in an area zoned for industrial uses. The proposed project is anticipated to construct 1,200 garage parking spaces by 2040 to meet projected demand. However, the proposed parking garage would be located on a vacant parcel and use of the parcel would require acquisition. There are no anticipated impacts to existing parking or land uses, and no displacements would occur. Residents of Mantua Township, Pitman Borough, and Washington Township would benefit from the proposed station that is anticipated to provide increased transit access.

Pitman Station. The proposed Pitman Station would be located adjacent to Commerce Avenue between Pitman and East Holly Avenues. The at-grade station would include two side platforms and is generally centrally located within Pitman Borough. The station area would be built within an existing ROW. The proposed station would have a significant impact on parking with the removal of 110 local private and public parking spaces within the station area. There are no impacts to land uses, and no displacements would occur.

The station would be compatible with surrounding land uses and is located in an area appropriate for commercial development. Therefore, there are no impacts to existing zoning. Pitman residents and

visitors would benefit from increased transit access and mobility, as well as potential commercial developments located in the vicinity of the station area.

Rowan University Station. The proposed Rowan University Station would be located on the southwestern corner of the campus of Rowan University next to the intersection of Girard Road and U.S. Route 322. The at-grade station would include two side platforms. The station area would be built within existing ROW. The proposed station would impact parking through the removal of three local private parking spaces within the station area. While no mitigation measures are proposed as a part of the GCL, it is assumed that the remainder of existing parking at this location would sufficiently serve Rowan University, resulting in a negligible impact to parking in the area. For more information on parking and traffic impacts, see Attachment 5, “Traffic Analysis Technical Report.” There would be no impacts to existing land uses, and no displacements would occur.

The station would be compatible with surrounding land uses. Rowan University students and employees would benefit from increased transit access.

Glassboro Station. The proposed Glassboro Station would be located between South Main and Academy Streets, south of High Street. The at-grade station would include two side platforms and is in downtown Glassboro. The station area would be built within existing ROW. The proposed station would generate demand and impact 25 local private parking spaces located within the study area. At the time of analysis, it was anticipated that a 1,000 parking space garage would be constructed by 2040 to meet projected demand as a part of municipal redevelopment master plans that address shared parking facilities; this facility, as of the issuance of this FEIS, has been constructed. There would be no impacts to existing land uses. Multiple displacements are anticipated at this proposed station location, including whole or partial displacements of several parcels. The station area is mostly zoned residential, which would require rezoning. However, the station area is also located in a redevelopment area, indicating the potential for reuse in the proposed station area, and therefore there are no adverse impacts to existing land uses.

1.4.2.3 Vehicle Maintenance Facility (VMF) Impacts

Woodbury Heights Borough. The proposed VMF would be located on a former light industrial site bounded by Chestnut Avenue to the south, Academy Avenue to the east, the proposed GCL alignment to the west, and a currently vacant wooded area to the north.

The Woodbury Heights VMF area is zoned Residential-Age Restricted; therefore, a rezoning would be necessary, given that the only permitted use in this zone is multi-family age-restricted residential units. There would be land use impacts given the proximity of residential areas to the VMF, however these would be mitigated in the facility design, including appropriate mitigation of ambient noise emitted from the facility. Use of this property as a VMF would require acquisition of the parcel. There are no displacements associated with the VMF, as the parcel is currently vacant.

Glassboro Borough. The proposed VMF would be located on Sewell Street, on the current location of the Route 55 Industrial Center. The Glassboro VMF area is zoned Industrial, and therefore there are no impacts to zoning. There are land use impacts given the proximity of residential areas to the east of the

proposed VMF. However, these would be mitigated in the design of the facility, including appropriate mitigation of ambient noise emitted from the facility. Use of this property as a VMF would require acquisition and displacement of several parcels. For more detailed information on property impacts, refer to Attachment 12, “Acquisitions and Displacements Technical Report.”

1.5 Mitigation

Direct land use changes would result from the GCL. Zoning changes would be primarily required for specific station areas identified in Section 1.4, “Environmental Consequences.” No changes identified would significantly change the overall land use composition of the corridor. However, as indicated within each station area discussion (Section 1.3.2, “Existing Land Use and Zoning – Proposed Station Areas”), station design would address where proposed stations abut existing residential areas.

2 SOCIO-ECONOMIC CONDITIONS

2.1 Introduction

The Glassboro-Camden Line (GCL) is a proposed 18-mile expansion of transit service in Southern New Jersey that would traverse ten communities between Camden (Camden County) and Glassboro (Gloucester County). The proposed line would provide passenger rail service primarily along an existing Conrail right-of-way using light rail vehicles. If constructed, the GCL would provide connections (in Camden) to Philadelphia, Trenton, and other points in the region via the PATCO Speedline, the NJ TRANSIT River LINE, and NJ TRANSIT bus routes.

This section (Section 2, “Socio-Economic Conditions”) describes the existing demographic and employment conditions and redevelopment opportunities within the Study Area of the proposed Glassboro-Camden Line (GCL).

2.2 Principal Conclusions

Detailed analyses of population, households, and employment, and were conducted for the project, resulting in the determination that the project would not result in any significant impacts on population, households, and employment; development and redevelopment; and government finances and tax sources. However, final conclusions are dependent on the information to be provided in Attachment 12, “Acquisitions and Displacements Technical Report.”

The detailed analysis of economic output, jobs creation, and income resulted in the determination that the project construction would result in a positive, significant impact to the regional economy by adding temporary construction labor and regionally sourced construction materials. The analysis of any economic impacts of project operations and maintenance will conclude during the project’s subsequent design phase.

2.3 Methodology

Demographic trends from 2000 to 2010 were analyzed for Gloucester and Camden counties and along the proposed 18 mile corridor using data from the 2000 and 2010 Census. While more recent demographic information is available through the American Community Survey (ACS), the ACS is a measure of the changing social and economic characteristics of the US population and therefore does not provide official counts of the population between censuses. The margin of error of the ACS estimates is low (1-10 percent) at the county level, but at times is 100 percent at the census tract level, which is the level of analysis used at the corridor level. To allow for comparison between the county and the corridor, the decennial census is used. Existing demographic conditions within a ½ mile catchment area of each proposed station location and future conditions for the No-Action Alternative and proposed GCL were analyzed using Traffic Analysis Zone (TAZ) data from the Delaware Valley Regional Planning Commission (DVRPC) regional travel model.

Economic trends from 2000 to 2010 were assessed using several data sources. Commuting travel mode, employment industries, and income of county residents were collected from the 2000 Census and 2006–2010 ACS (Five-Year Estimates). Data on the number of establishments and employees per industry of county businesses were collected from 2000 and 2010 US Census County Business Patterns reports, an alternative US Census Bureau product that produces annual sub-national economic data by industry. County Business Patterns provides a profile of economic activity at the county and zip code level. Data are compiled from the Business Register, which maintains records of the number of employees of all known establishments within specific geographies, regardless of residing location. This differs significantly from US Census and American Community Survey data, which reflect demographic and economic trends of residents of a given area.

2.4 Affected Environment

The proposed GCL is a proposed 18-mile expansion of transit service in Southern New Jersey that would traverse eleven communities between Camden (Camden County) and Glassboro (Gloucester County). The proposed project would provide 14 new transit stations, including five “walk-up” stations four “moderate park-and-ride” stations, and five “park-and-ride” stations. In general, this new transit service would operate at-grade, but some portions would be grade-separated by viaducts carrying the rail infrastructure over existing roads and waterways. Four quadrant gated crossings would be used at at-grade roadway crossings along the GCL corridor.

The following analysis focuses on population, housing, and employment at three geographic levels: county, corridor, and station area. The county level analysis covers the counties of Camden and Gloucester. The corridor analysis includes a review of socio-economic conditions for all census tracts located within or adjacent to the proposed GCL alignment. The station area analysis includes all area of TAZs within a ½ mile of each proposed individual station and two proposed sites for vehicle maintenance facilities. These station and facility areas include all areas within a ½ mile radius of one existing (WRTC), 14 proposed transit stations, and two potential sites for two vehicle maintenance facilities.

Beyond population, housing, and employment, the area surrounding the proposed GCL contains many cultural and social resources, such as parks and recreational facilities and historical, archeological, and architectural features. These social and cultural resources are the backdrop for population, housing, and employment trends and impacts.

2.4.1 Population, Housing, and Employment – Counties

The proposed alignment of the GCL traverses Gloucester and Camden counties which are within the 11 county Philadelphia-Camden-Wilmington, PA-NJ-DE-MD Metropolitan Statistical Area (MSA). From 2000 to 2010, this MSA experienced a 4.9 percent growth in population. In 2010, the MSA was ranked the fifth largest in the United States with a population of 5,965,343.

Camden and Gloucester Counties both experienced growth in income and housing units, but where Gloucester also experienced growth in population and households, Camden experienced a decline. Both counties saw jobs among residents increase between 2010 and 2018, with most employed in the

Education, Health, and Social Services sector (approximately 25 percent). Other dominant industries employing Camden and Gloucester County residents include Retail, Manufacturing, Professional Services, and Arts, Entertainment, Recreation, Accommodation, and Food Services.

Between 2010 and 2017, County Business Pattern data showed a growth in the number of employees located in both Gloucester and Camden County. In both Camden and Gloucester County, the employment sectors with the most employees were Retail Trade and Health Care and Social Assistance. These employment sectors grew 2.2 percent and 21.9 percent, respectively, in Gloucester County, and grew 6.2 percent and 16.8 percent, respectively, in Camden County. In both counties the Retail sector and the Healthcare sector had the largest and second-largest number and percentage of employment establishments.

More than three-quarters of workers in both counties drove alone to work (75.9 percent in Camden County, 88.6 percent in Gloucester County) followed by carpooling (9.9 percent in Camden County, 8.2 percent in Gloucester County). In Camden County, the number of workers who drove to work decreased (7.6 percent change), whereas in Gloucester County more workers commuted by driving (2.6 percent change). Further, significantly more workers in Camden used public transportation (7.9 percent) than Gloucester County (2.6 percent). However, the number of workers taking public transportation to work in Camden County declined between 2000 and 2010 (6.8 percent change) and increased in Gloucester County (13.3 percent change). In both Camden and Gloucester counties, approximately 2 percent of workers walked to work, which declined between 2000 and 2010 (7.6 percent change in Camden County and 10.3 percent change in Gloucester County). In both counties, the number of employees working at home constituted a small percentage (2.3 percent in Camden County and 2.6 percent in Gloucester County) but increased significantly between 2000 and 2010 (26.6 percent change in Camden and 37.8 percent change in Gloucester).

2.4.1.1 Population

Gloucester and Camden Counties experienced varied population growth between 2010 and 2018 (see Table 20, “Population and Age by County (2010-2018)”). Population in Gloucester County experienced a slight population increase whereas Camden County experienced a slight population decrease.

Table 20: Population and Age by County (2010-2018)

County	Total Population (2010)	Total Population (2018)	Percentage Change (2010-2018)	Median Age (2010)	Median Age (2018)
Camden	513,657	507,367	-1.2%	37.9	38.7
Gloucester	288,288	290,852	0.9%	38.7	40.3

Source: 2010 Decennial Census, US Census Bureau; 2014-2018 American Community Survey.

Camden County. The population in Camden County decreased from 513,657 in 2010 to 507,367 in 2018, representing a 1.2 percent decrease. In 2018, the median age for the county was 38.7.

Gloucester County. The population in Gloucester County increased by less than 1 percent between 2010 and 2018. The population increased from 288,288 in 2010 to 290,852 in 2018. In 2010, the median age for the county was 40.3.

2.4.1.2 Housing

Camden and Gloucester Counties experienced varied growth rates in housing units and total households between 2010 and 2018 (see Table 21, “Housing and Households by County”). While Camden County experienced a decrease in total households and Gloucester County experienced a slight increase in total households, total housing units increased in both counties.

Table 21: Housing and Households by County

County	Total Housing Units (2010)	Total Housing Units (2018)	Percentage Change	Vacancy Rate (2010)	Vacancy Rate (2018)	Total Households (2010)	Total Households (2018)	Percentage Change
Camden	204,943	206,013	0.5%	6.8%	9.2%	190,980	187,158	-2.0%
Gloucester	109,796	113,024	2.9%	5.0%	7.5%	104,271	104,587	0.3%

Source: 2010 Decennial Census, US Census Bureau; 2014-2018 American Community Survey.

Camden County. In 2018, there were 187,158 households and 206,013 housing units in Camden County. The county housing vacancy rate was 9.2 percent. Between 2010 and 2018, the total number of housing units increased only incrementally in comparison to Gloucester County at 2.9 percent. The total number of households decreased by 2.0 percent, and the vacancy rate increased from 6.8 percent to 9.2 percent between 2010 and 2018.

Gloucester County. In 2018, there were 104,587 households and 113,024 housing units in Gloucester County. The housing vacancy rate was 7.5 percent. Between 2010 and 2018, the total number of housing units increased by 2.9 percent and the total number of households increased minimally, by 0.3 percent. The vacancy rate increased from 5.0 percent in 2010 to 7.5 percent in 2018.

2.4.1.3 Employment

Major employers within Gloucester and Camden Counties include the Campbell Soup Company, Rutgers University–Camden, Holtec International, Cooper University Health Care System, American Water Works, Bancroft Neurohealth, Rowan University, Inspira Medical Center, and Jefferson Washington Township Hospital. Several of these major employers are within ½ mile of proposed station locations.

Camden County – Industry and Employment. From 2010 to 2018, the average median household income increased by approximately 10 percent in Camden County from \$60,976 to \$67,118 (see Table 22, “Income and Earnings in Camden County”).

Table 22: Income and Earnings in Camden County

	2010	2018	Percentage Change
Median household income (dollars)	\$60,976	\$67,118	10.1%
Mean earnings (dollars)	\$79,985	\$68,862	-13.9%
Median family income (dollars)	\$74,385	\$84,894	14.1%

Source: 2006-2010 American Community Survey; 2014-2018 American Community Survey

According to the 2014-2018 American Community Survey 5-year estimates, the total number of workers 16 years and over in Camden County was estimated to be 247,509 in 2018, which represents a 3.3 percent increase in the total number of workers in the county from the year 2010. In both 2010 and 2018, more than one in five Camden County residents was employed by the Education, Health, and Social Services industry (Table 23, “Industry of Employed Camden County Residents”). Other leading industries include Retail and Professional Services.

Table 23: Industry of Employed Camden County Residents

Industry	2010 Workers	Percentage	2018 Workers	Percentage	Percentage Change
Agriculture, Forestry, Fishing, Hunting, and Mining	612	0.3%	423	0.2%	-30.9%
Construction	14,276	6.0%	13,218	5.3%	-7.4%
Manufacturing	20,508	8.6%	17,976	7.3%	-12.3%
Wholesale Trade	9,310	3.9%	8,348	3.4%	-10.3%
Retail Trade	30,230	12.6%	29,633	12.0%	-2.0%
Transportation, Warehousing, and Utilities	13,837	5.8%	15,501	6.3%	12.0%
Information	5,495	2.3%	4,831	2.0%	-12.1%
Finance, Insurance, Real Estate, and Rental and Leasing	18,835	7.9%	17,664	7.1%	-6.2%
Professional Services (scientific management administrative and waste management services)	28,895	12.1%	29,899	12.1%	3.5%
Education, Health, and Social Services	62,128	25.9%	66,365	26.8%	6.8%
Arts, Entertainment, Recreation, Accommodation, and Food Services	19,575	8.2%	21,577	8.7%	10.2%
Other Services (except public administration)	11,024	4.6%	10,577	4.3%	-4.1%
Public Administration	11,729	4.9%	11,497	4.6%	-2.0%
Total	239,660	100.0%	247,509	100.0%	3.3%

Source: 2006-2010 American Community Survey; 2014-2018 American Community Survey

From 2010 to 2018, the greatest loss of employment occurred in the Agriculture, Forestry, Fishing, Hunting, and Mining industry; however, the industry employed the least number of workers across comparison years (see Table 23, “Industry of Employed Camden County Residents”). The Manufacturing and Information industries also experienced a loss of employment between 2010 and 2018. The Transportation, Warehousing, and Utilities industry and the Arts, Entertainment, Recreation, Accommodation, and Food Services industry experienced relatively significant gains in employment with a 12.0 percent and 10.2 percent increase, respectively.

The County Business Pattern data reflect employment numbers in various industries located within Camden County, regardless of where the employees reside. These data show Camden County gaining employment between 2010 and 2017 with an 8.2 percent increase (see Table 24, “Number of Employees by Industry in Camden County”). Health Care and Social Assistance along with Retail Trade dominated the local economy between 2010 and 2017. In 2010, Retail Trade 13.6 percent of the workforce, and Health Care and Social Assistance employed 22.3 percent. In 2017, Retail Trade employed 13.4 percent of the workforce, and Health Care and Social Assistance employed 24.0 percent.

Table 24: Number of Employees by Industry in Camden County

Industry	2010 Workers	Percentage	2017 Workers	Percentage	Percentage Change
Forestry, fishing, hunting, and agriculture support	N/A	N/A	49	0.0%	N/A
Mining	N/A	N/A	N/A	N/A	N/A
Utilities	N/A	N/A	949	0.5%	N/A
Construction	7,280	4.3%	8,347	4.6%	14.7%
Manufacturing	12,448	7.4%	11,990	6.6%	-3.7%
Wholesale trade	9,180	5.5%	9,360	5.2%	2.0%
Retail trade	22,896	13.6%	24,308	13.4%	6.2%
Transportation & warehousing	7,367	4.4%	7,253	4.0%	-1.5%
Information	3,742	2.2%	3,550	2.0%	-5.1%
Finance & insurance	5,945	3.5%	4,751	2.6%	-20.1%
Real estate & rental & leasing	2,862	1.7%	2,434	1.3%	-15.0%
Professional, scientific, & technical services	12,089	7.2%	13,318	7.3%	10.2%
Management of companies & enterprises	5,058	3.0%	6,806	3.7%	34.6%
Admin, support, waste mgt, remediation services	12,285	7.3%	12,496	6.9%	1.7%
Educational services	3,499	2.1%	4,111	2.3%	17.5%
Health care and social assistance	37,376	22.3%	43,643	24.0%	16.8%
Arts, entertainment & recreation	2,104	1.3%	2,727	1.5%	29.6%
Accommodation & food services	13,709	8.2%	16,277	9.0%	18.7%
Other services (except public administration)	9,002	5.4%	9,304	5.1%	3.4%
Unclassified establishments	N/A	N/A	6	0.0%	N/A
Total	167,916	100%	181,679	100.0%	8.2%

Source: Camden County, 2010 and 2017 County Business Patterns Report (NAICS), US Census Bureau.

Census and County Business Pattern data report that most Camden County workers predominantly work in Accommodation, Healthcare, Retail, and Professional Services. In 2010, the industry with the greatest percentage of business establishments was the Retail Trade industry (see Table 25, “Number of Employment Establishments by Industry in Camden County”). This trend held in 2017, with 14.8 percent of the total number of business establishments in the county identified in Retail Trade. Other industries with a large presence in Camden County include Professional, Scientific, and Technical Services, as well as Health Care and Social Assistance.

Table 25: Number of Employment Establishments by Industry in Camden County

Industry	2010 Establishments	Percent	2017 Establishments	Percent	Percent Change
Forestry, fishing, hunting, and agriculture support	3	0.0%	5	0.0%	66.7%
Mining	2	0.0%	N/A	N/A	N/A
Utilities	27	0.2%	23	0.2%	-14.8%
Construction	1,062	9.0%	994	8.6%	-6.4%
Manufacturing	420	3.6%	382	3.3%	-9.0%
Wholesale trade	676	5.8%	569	4.9%	-15.8%
Retail trade	1,772	15.1%	1,709	14.8%	-3.6%
Transportation & warehousing	270	2.3%	276	2.4%	2.2%
Information	173	1.5%	174	1.5%	0.6%
Finance & insurance	590	5.0%	501	4.4%	-15.1%
Real estate & rental & leasing	410	3.5%	424	3.7%	3.4%
Professional, scientific, & technical services	1,520	12.9%	1,363	11.8%	-10.3%
Management of companies & enterprises	78	0.7%	134	1.2%	71.8%
Admin, support, waste mgt, remediation services	704	6.0%	715	6.2%	1.6%
Education services	153	1.3%	172	1.5%	12.4%
Health care and social assistance	1,526	13.0%	1,588	13.8%	4.1%
Arts, entertainment & recreation	144	1.2%	157	1.4%	9.0%
Accommodation & food services	1,000	8.5%	1,063	9.2%	6.3%
Other services (except public administration)	1,211	10.3%	1,258	10.9%	3.9%
Unclassified establishments	9	0.1%	9	0.1%	0.0%
Total	11,750	100%	11,516	100.0%	-2.0%

Source: Camden County, 2010 and 2017 County Business Patterns Report (NAICS), US Census Bureau.

Gloucester County – Industry and Employment. In Gloucester County, the average median household income between 2010 and 2018 increased by approximately 17 percent from \$72,664 to \$85,160 (see Table 26, “Income and Earnings in Gloucester County”).

Table 26: Income and Earnings in Gloucester County

	2010	2018	Percentage Change
Median household income (dollars)	\$72,664	\$85,160	17.2%
Mean earnings (dollars)	\$87,435	\$74,527	-14.8%
Median family income (dollars)	\$85,832	\$103,259	20.3%

Source: 2006-2010 American Community Survey; 2014-2018 American Community Survey.

In both 2010 and 2018, the Education, Health, and Social Services industry employed the most residents in Gloucester County (see Table 27, “Industry of Employed Gloucester County Residents”). In 2010, 25.5 percent of Gloucester County residents worked in Education, Health, and Social Services, increasing to 27.9 percent in 2018. Other dominant industries employing Gloucester County residents include Retail Trade, Manufacturing, and Professional Services.

Table 27: Industry of Employed Gloucester County Residents

Industry	2010 Workers	Percentage	2018 Workers	Percentage	Percentage Change
Agriculture, forestry, fishing, hunting, and mining	742	0.5%	1,010	0.7%	36.1%
Construction	9,406	6.8%	9,779	6.6%	4.0%
Manufacturing	13,438	9.7%	11,257	7.6%	-16.2%
Wholesale trade	5,808	4.2%	5,839	4.0%	0.5%
Retail trade	18,443	13.4%	16,857	11.4%	-8.6%
Transportation, warehousing, and utilities	8,991	6.5%	8,340	5.6%	-7.2%
Information	3,045	2.2%	3,028	2.1%	-0.6%
Finance, insurance, real estate, and rental and leasing	10,595	7.7%	10,132	6.9%	-4.4%
Professional Services (scientific management administrative and waste management services)	14,292	10.4%	16,480	11.2%	15.3%
Education, health, and social services	35,174	25.5%	41,226	27.9%	17.2%
Arts, entertainment, recreation, accommodation, and food services	10,106	7.3%	10,959	7.4%	8.4%
Other services (except public administration)	5,533	4.0%	5,887	4.0%	6.4%
Public administration	6,535	4.7%	6,913	4.7%	5.8%
Total	137,875	100.0%	147,707	100.0%	7.1%

Source: 2006-2010 American Community Survey; 2014-2018 American Community Survey.

Between 2010 and 2018, the total number of workers age 16 and over increased from 137,875 in 2010 to 147,707 in 2018, representing an increase of 7.1 percent (see Table 27, “Industry of Employed Gloucester County Residents”). The greatest gain in employment for Gloucester County residents occurred in the Agriculture, Forestry, Fishing, Hunting, and Mining Industry, which experienced a 36.1 percent gain, though the industry continues to employ the least number of people. Other industries experiencing sizable growth include Education, Health, and Social Services and Professional Services. The greatest losses occurred in the Retail Trade and Manufacturing Industries which experienced an 8.6 percent and 16.2 percent decline, respectively (see Table 27 “Industry of Employed Gloucester County Residents”).

County Business Pattern data from 2010 to 2017 showed Gloucester County’s local economy was dominated by the Retail Trade, Manufacturing, Accommodation and Food Services, and Healthcare and Social Assistance. In 2010, Gloucester County businesses in the Retail Trade accounted for 19.6 percent of the total number of employees, Manufacturing and Accommodation and Food Services each accounted for 9.4 percent, and Health Care and Social Assistance accounted for 14.8 percent (see Table 28, “Number of Employees by Industry in Gloucester County”). In 2017, the share of workers for the respective industries was 17.5 percent, 10.3 percent, 10.7 percent, and 15.8 percent.

Between 2010 and 2017, the Utilities sector experienced the greatest percent loss in employees, whereas the Professional, Scientific, and Technical Services sector experienced the greatest loss in absolute number of employees (see Table 28, “Number of Employees by Industry in Gloucester County”). The Construction, Transportation and Warehousing, and Management of Companies and Enterprises sectors experienced the greatest percent gain in employees during this timeframe. Other growth sectors include

Healthcare and Social Assistance; Arts, Entertainment, and Recreation; and Accommodation and Food Services.

Table 28: Number of Employees by Industry in Gloucester County

Industry	2010 Workers	Percentage	2017 Workers	Percentage	Percentage Change
Forestry, fishing, hunting, and agriculture support	N/A	N/A	11	0.0%	N/A
Mining	20	0.0%	N/A	N/A	N/A
Utilities	177	0.2%	0	0.0%	-100.0%
Construction	4,885	5.8%	7,381	7.7%	51.1%
Manufacturing	7,882	9.4%	9,895	10.3%	25.5%
Wholesale trade	7,049	8.4%	7,882	8.2%	11.8%
Retail trade	16,503	19.6%	16,870	17.5%	2.2%
Transportation & warehousing	3,561	4.2%	5,154	5.3%	44.7%
Information	1,095	1.3%	1,231	1.3%	12.4%
Finance & insurance	1,832	2.2%	1,782	1.8%	-2.7%
Real estate & rental & leasing	1,185	1.4%	1,383	1.4%	16.7%
Professional, scientific & technical services	4,696	5.6%	3,706	3.8%	-21.1%
Management of companies & enterprises	385	0.5%	560	0.6%	45.5%
Admin, support, waste mgt, remediation services	7,529	9.0%	7,680	8.0%	2.0%
Education services	1,185	1.4%	1,171	1.2%	-1.2%
Health care and social assistance	12,474	14.8%	15,203	15.8%	21.9%
Arts, entertainment & recreation	1,187	1.4%	1,464	1.5%	23.3%
Accommodation & food services	7,914	9.4%	10,336	10.7%	30.6%
Other services (except public administration)	4,509	5.4%	4,626	4.8%	2.6%
Unclassified establishments	N/A	N/A	22	0.0%	N/A
Total	84,075	100.0%	96,357	100.0%	14.6%

Source: Gloucester County, 2010 and 2017 County Business Patterns Report (NAICS), US Census Bureau

Between 2010 and 2018, Retail Trade, Construction, and Health Care and Social Assistance establishments dominated the economic landscape in Gloucester County (see Table 29, “Number of Employment Establishments by Industry in Gloucester County”). Accommodation and Food Services along with Professional, Scientific, and Technical Services also had a strong presence within the County. Between 2010 and 2018, Retail Trade and Professional, Scientific, and Technical Services had decreased slightly in the number of businesses, whereas Health Care and Social Assistance and Accommodation and Food Services experiences relatively significant gains. Wholesale Trade exhibited positive growth in the number of resident workers and employees for industries located in Gloucester County between 2010 and 2018, but declined in the number of employment establishments. Construction, Arts, Entertainment, and Recreation, and Healthcare and Social Assistance exhibited positive growth in all three categories between 2010 and 2018. Healthcare and Social Assistance demonstrated the greatest increase in the number of employment establishments during this timeframe.

Table 29: Number of Employment Establishments by Industry in Gloucester County

Industry	2010 Establishments	Percentage	2017 Establishments	Percentage	Percentage Change
Forestry, fishing, hunting, and agriculture support	5	0.1%	4	0.1%	-20.0%
Mining	3	0.1%	N/A	N/A	N/A
Utilities	5	0.1%	4	0.1%	-20.0%
Construction	712	12.2%	729	12.0%	2.4%
Manufacturing	244	4.2%	244	4.0%	0.0%
Wholesale trade	342	5.9%	337	5.5%	-1.5%
Retail trade	949	16.2%	914	15.0%	-3.7%
Transportation & warehousing	190	3.3%	203	3.3%	6.8%
Information	71	1.2%	89	1.5%	25.4%
Finance & insurance	251	4.3%	247	4.1%	-1.6%
Real estate & rental & leasing	172	2.9%	172	2.8%	0.0%
Professional, scientific & technical services	522	8.9%	500	8.2%	-4.2%
Management of companies & enterprises	19	0.3%	32	0.5%	68.4%
Admin, support, waste mgt, remediation services	373	6.4%	409	6.7%	9.7%
Education services	70	1.2%	76	1.2%	8.6%
Health care and social assistance	638	10.9%	775	12.7%	21.5%
Arts, entertainment & recreation	88	1.5%	108	1.8%	22.7%
Accommodation & food services	485	8.3%	541	8.9%	11.5%
Other services (except public administration)	700	12.0%	700	11.5%	0.0%
Unclassified establishments	2	0.0%	6	0.1%	200.0%
Total	5,841	100%	6,090	100.0%	4.3%

Source: Gloucester County, 2010 and 2017 County Business Patterns Report (NAICS), US Census Bureau.

2.4.2 Population, Housing, and Employment – the GCL Corridor

Overall trends in the proposed GCL alignment corridor are slightly inconsistent with trends observed in each County as a whole for each metric. Between 2010 and 2018, total population increased in Gloucester County and decreased in Camden County; it declined by 1.7 percent in the corridor Study Area. The number of houses and households both declined in the Study Area, and the percentage of vacant houses increased slightly between 2010 and 2018. Between 2010 and 2018, there was a 0.1 percent decrease in the total number of workers in the Study Area, balancing losses in the Manufacturing, Construction, and Public Administration sectors and gains in the Arts, Entertainment, Recreation, Accommodation, and Food Services sector.

2.4.2.1 Population

In 2018, census tracts in the Study Area (all census tracts that intersect ½ mile radius of the limits of disturbance) included 132,401 people and represented 16.6 percent of the Camden and Gloucester County populations (see Table 30, “Population and Age in GCL Study Area”). The median age was 36.1. Between 2010 and 2018, total population in the Study Area declined by 1.7 percent.

Table 30: Population and Age in GCL Study Area

	Total Population (2010)	Total Population (2018)	Percentage Change	Median Age (2018)
All Census Tracts Adjacent to Proposed Alignment	134,735	132,401	-1.7%	36.1

Source: 2010 Decennial Census, US Census Bureau; 2014-2018 American Community Survey.

2.4.2.2 Housing

In 2010, a total of 53,771 housing units were located in the Study Area (see Table 31, “Housing – GCL Corridor Study Area (2010 Census Tracts)”). By 2018, the total number of housing units for census tracts within the Study Area declined slightly, by 0.07 percent (see Table 32, “Housing – GCL Corridor Study Area (2018 Census Tracts)”). In 2010, 9.8 percent of the housing units within the corridor were vacant. This increased to 11.75 percent of housing units in 2018.

US Census data indicate a 2.5 percent decrease in total households between 2010 and 2018 within the Study Area. In 2018, the census tracts containing the highest number of households were located within Fairview in Camden County, and Mantua Township in Gloucester County.

Table 31: Housing - GCL Corridor Study Area (2010 Census Tracts)

2010 Census Tract Number	Total Housing Units (2010)	Total Occupied Housing Units (2010)	Vacancy Rate (2010)	Number of Households (2010)
5001	1,912	1,755	8.2%	1,755
5002.01	1,017	980	3.6%	980
5002.02	1,909	1,838	3.7%	1,838
5007.02	2,168	2,031	6.3%	2,031
5007.03	524	501	4.4%	501
5008	860	829	3.6%	829
5009	1,125	1,081	3.9%	1,081
5010.01	869	806	7.2%	806
5010.02	2,014	1,810	10.1%	1,810
5010.03	1,573	1,472	6.4%	1,472
5011.01	1,958	1,847	5.7%	1,847
5011.05	1,365	1,184	13.3%	1,184
5011.06	1,386	1,322	4.6%	1,322
5011.07	1,733	1,639	5.4%	1,639
5013.01	1,409	1,348	4.3%	1,348
5013.02	1,229	1,136	7.6%	1,136
5013.03	1,067	1,005	5.8%	1,005
5014.02	1,242	1,098	11.6%	1,098
5014.03	1,488	1,391	6.5%	1,391
5014.04	578	548	5.2%	548
5014.06	1,890	1,761	6.8%	1,761
5019	1,577	1,475	6.5%	1,475
6002	972	706	27.4%	706
6004	1,425	1,025	28.1%	1,025
6008	1,940	1,747	9.9%	1,747
6014	1,815	1,521	16.2%	1,521
6016	936	800	14.5%	800
6017	1,303	1,166	10.5%	1,166
6018	608	428	29.6%	428
6019	1,100	999	9.2%	999
6020	2,565	2,245	12.5%	2,245
6051	959	893	6.9%	893
6052	1,184	1,035	12.6%	1,035
6053	806	759	5.8%	759
6070	2,016	1,941	3.7%	1,941
6103	1,126	1,026	8.9%	1,026
6104	1,554	1,150	26.0%	1,150
6110	2,569	2,320	9.7%	2,320
Totals	53,771	48,618	9.8%	48,618

Source: US 2010 Decennial Census; for selected census tracts, US Census Bureau.

Table 32: Housing - GCL Corridor Study Area (2018 Census Tracts)

2010 Census Tract Number	Total Housing Units (2018)	Total Occupied Housing Units (2018)	Vacancy Rate (2018)	Number of Households (2018)
5001	1,793	1,636	8.8%	1,636
5002.01	960	869	9.5%	869
5002.02	1,821	1,661	8.8%	1,661
5007.02	2,119	2,026	4.4%	2,026
5007.03	533	499	6.4%	499
5008	828	765	7.6%	765
5009	1,125	1,095	2.7%	1,095
5010.01	882	755	14.4%	755
5010.02	2,075	1,779	14.3%	1,779
5010.03	1,585	1,369	13.6%	1,369
5011.01	1,975	1,844	6.6%	1,844
5011.05	1,323	1,271	3.9%	1,271
5011.06	1,482	1,406	5.1%	1,406
5011.07	1,585	1,558	1.7%	1,558
5013.01	1,396	1,364	2.3%	1,364
5013.02	1,194	1,023	14.3%	1,023
5013.03	1,030	972	5.6%	972
5014.02	1,245	971	22%	971
5014.03	1,739	1,487	14.5%	1,487
5014.04	549	458	16.6%	458
5014.06	1,786	1,588	11.1%	1,588
5019	1,588	1,408	11.3%	1,408
6002	917	674	26.5%	674
6004	1,227	914	25.5%	914
6008	2,044	1,712	16.2%	1,712
6014	1,920	1,608	16.3%	1,608
6016	1,049	963	8.2%	963
6017	1,480	1,308	11.6%	1,308
6018	606	445	26.6%	445
6019	1,278	1,051	17.8%	1,051
6020	2,846	2,266	20.4%	2,266
6051	947	842	11.1%	842
6052	1,065	977	8.3%	977
6053	810	698	13.8%	698
6070	1,927	1,790	7.1%	1,790
6103	1,120	946	15.5%	946
6104	1,561	1,261	19.2%	1,261
6110	2,324	2,162	7%	2,162
Totals	53,734	47,421	11.75%	47,421

Source: 2014-2018 American Community Survey.

2.4.2.3 Employment

Between 2010 and 2018, there was a 0.1 percent decrease in the total number of workers residing within the Study Area (see Table 33, “Industry of Employed Residents of GCL Study Area”). The Study Area lost 60 workers, which is a result of various fluctuations in workers across industries. The Study Area experienced significant losses in the Manufacturing sector, the Construction sector, and the Public Administration sector at 13.1 percent (727 workers), 13.2 percent (461 workers), and 12.9 percent (314 workers) decreases, respectively. However, the Study Area simultaneously experienced gains in various industries, most notably a 38.3 percent (1,605 workers) gain in the Arts, Entertainment, Recreation, Accommodation, and Food Services sector.

In both 2010 and 2018, the Education, Health, and Social Services sector employed the most residents, employing over one quarter of the workforce over this time period. Retail Trade was the second most dominant industry of employed workers in both 2010 and 2018, employing 12.8 and 13.5 percent of the workforce, respectively.

Table 33: Industry of Employed Residents of GCL Study Area

Industry	2010 Workers	Percentage	2018 Workers	Percentage	Percentage Change	Absolute Change
Agriculture forestry fishing and hunting and mining	81	0.1%	262	0.5%	223.5%	181
Construction	3,502	5.8%	3,041	5.3%	-13.2%	-461
Manufacturing	5,564	9.6%	4,837	8.4%	-13.1%	-727
Wholesale trade	2,464	3.9%	2,242	3.9%	-9.0%	-222
Retail trade	7,503	12.8%	7,791	13.5%	3.8%	288
Transportation and warehousing and utilities	3,973	6.7%	3,604	6.2%	-9.3%	-369
Information	1,228	1.9%	1,389	2.4%	13.1%	161
Finance, insurance, real estate, and rental and leasing	3,361	5.4%	3,191	5.5%	-5.1%	-170
Professional scientific management administrative and waste management services	5,653	9.7%	5,848	10.1%	3.4%	195
Education, health, and social services	15,170	27.6%	15,210	26.3%	0.3%	40
Arts, entertainment, recreation, accommodation, and food services	4,190	7.7%	5,795	10.0%	38.3%	1,605
Other services (except public administration)	2,762	4.7%	2,495	4.3%	-9.7%	-267
Public administration	2,428	4.1%	2,114	3.7%	-12.9%	-314
Total	57,879	100.0%	57,819	100.0%	-0.1%	-60

Source: 2006-2010 American Community Survey; 2014-2018 American Community Survey.

2.4.3 Population, Housing, and Employment – Proposed Stations and Vehicle Maintenance Facility Areas

The following analysis presents existing socio-economic and employment conditions for the area around the WRTC station area, the 14 proposed station areas, and the two proposed locations under consideration for two vehicle maintenance facilities (VMF).

2.4.3.1 Population, Housing, and Employment

Data from the DVRPC regional travel model indicates a current estimated population of 128,384, comprised of 45,951 households, and 70,825 employed residents, within the ½ mile area surrounding the aggregate of proposed stations and VMF sites. Table 34, “Population, Housing, and Employment within ½ mile of Proposed Stations and Vehicle Maintenance Facilities, 2015,” provides existing population, household, and employment estimates within the ½ mile radius of each proposed station and VMF site. Some of the proposed station and VMF areas overlap the same TAZ which accounts for the discrepancy

between individual station and VMF area data identified in the table and the aggregate totals for the station and VMF area findings mentioned above.

Table 34: Population, Housing, and Employment within ½ mile of Proposed Stations and Vehicle Maintenance Facilities, 2015

Proposed Station & Vehicle Maintenance Facility (VMF) Area (½ mile radius)	Population	Households	Employment
Walter Rand Transportation Center (existing station)	19,483	6,224	27,066
Cooper Hospital	17,099	5,113	21,792
South Camden	14,570	5,203	8,238
Gloucester City	15,775	5,558	5,150
Crown Point Road	11,383	4,436	3,876
Red Bank Avenue	17,355	6,907	10,903
Woodbury	13,732	5,757	10,414
Woodbury Heights	8,233	3,064	2,515
VMF #1	15,058	5,422	3,709
Wenonah	9,521	3,347	2,151
Mantua Boulevard	5,439	1,939	1,222
Sewell	5,022	1,740	1,949
Mantua-Pitman	12,214	4,663	4,663
Pitman	8,898	3,389	2,481
Rowan University	11,416	3,303	5,123
Glassboro	11,015	3,160	5,186
VMF Site #2	9,342	2,479	4,281

Source: DVRPC (VISSUM Model) Transportation Analysis Zone (TAZ) projections for proposed station areas, 2017

Several major employers of Camden and Gloucester Counties are located within the ½ mile areas surrounding the proposed stations:

- Rutgers University – Camden. Rutgers University is a national research university and the largest institute of higher education in New Jersey, with three regional campuses located in Camden, Newark, and New Brunswick. Approximately 1,355 employees are employed at the Rutgers University – Camden campus.
- American Water – Camden. American Water, a water and wastewater services company, has recently relocated its corporate headquarters from Voorhees, New Jersey to a parcel on the Camden waterfront. The new headquarters now employs over 600 people.
- L-3 Communications – Camden. L-3 Communications is a prime defense contractor in intelligence, surveillance, and reconnaissance and other government services. Approximately 1,075 employees are employed at the Camden Waterfront facility.
- Cooper Hospital – Camden. The main campus of Cooper Hospital is located in Camden and serves as the clinical campus of the Cooper Medical School of Rowan University. The hospital employs more than 630 physicians. The hospital is adjacent to Cooper Plaza and the Lanning Square neighborhood. Recent expansion of the hospital includes the construction of a medical tower and new medical school.

- Subaru – Camden. The automaker moved their U.S. corporate headquarters from Cherry Hill, New Jersey to a 13 acre parcel in Camden adjacent to Campbell Soup Company. The campus, called Knight’s Crossings, opened in 2018. Subaru employs over 500 workers at this location.
- Campbell Soup Company – Camden. The world headquarters and principal executive offices of the Campbell Soup Company, located in Camden, employs 1,582 administrative and sales employees.
- Holtec – Camden. The energy company opened a technology campus which includes a corporate office and manufacturing plant on a 50 acre parcel on the South Camden waterfront in early 2018. Presently Holtec is hosting approximately 400 employees.
- Delaware Valley Wholesale Florist – Sewell. The Delaware Valley Wholesale Florist corporate headquarters employs 500 employees and is the eighth largest employer in Gloucester County.
- Rowan University – Glassboro. Rowan University is the third largest employer in Gloucester County. The university employs approximately 1,483 employees and enrolls approximately 14,000 students.

2.4.4 Development and Redevelopment Opportunities

The GCL corridor traverses several established communities that contain underutilized and vacant parcels available for redevelopment. Many of these municipalities promote redevelopment of underutilized land and encourage infill development opportunities. The City of Camden is in the process of converting 26 acres of waterfront surface parking lots to a mixed-use center with 1.5 million square feet of commercial retail space, 211 residential units, a 180 room hotel, and 4,000 parking spaces. Development at Rowan University, near the southern terminus of the alignment, has also been developing quickly; the 1,400 bed Holly Pointe Commons dormitory opened in late 2017, and the University has released preliminary plans to lease 300 acres to develop an arena, dozens of sports fields, and a hotel on Route 322.

Several vacant and underutilized land parcels are located within the ½ mile radius of the station areas. Section 1, “Land Use, Public Policy and Zoning,” shows the vacant land coverage within the station areas which varies from less than 1 percent to over 17 percent. The proposed Crown Point Road and Cooper Hospital Station areas contain over 10 percent vacant land coverage.

Municipalities within the GCL corridor also contain areas designated by the New Jersey Department of Community Affairs (NJDCAs) as in need of redevelopment or rehabilitation. Areas designated by the NJDCAs as in need of redevelopment or rehabilitation areas exist within ½ mile of ten proposed station sites. Section 1, “Land Use, Public Policy and Zoning,” identifies the percentage of land designated as being in need of redevelopment or rehabilitation within each impacted station area.

The State of New Jersey has established a number of Urban Enterprise Zones (UEZs), where the sales tax rate is cut in half, to 3.5 percent, to encourage economic development (State of New Jersey, 2013). There are currently two UEZs located within close proximity of the Study Area: in the City of Camden and Gloucester City. All state tax revenue is allocated to general state use. This includes a variety of services and programs in environmental protection, human services, public safety, and others (State of New Jersey, 2011).

The New Jersey Economic Opportunity Act of 2013 also bolsters economic development by providing tax credit/incentive programs to attract new jobs and increase economic development throughout the state. This law expands the Economic Redevelopment and Growth (ERG) and Grow New Jersey Assistance (GROWNJ) programs to promote real estate development and encourage capital investment throughout the state. Additional incentives in the form of increased grants and reduced requirements for tax credits are available for Garden State Growth Zone areas, which includes the City of Camden (NJEDA, 2013).

2.5 Environmental Consequences

A comparative analysis that examines anticipated future socio-economic conditions for a No-Action Alternative and the future with the GCL provides the opportunity to evaluate the potential socio-economic impacts that each alternative may have within the Study Area. This evaluation helps to summarize the anticipated impacts regarding population, employment, housing, jobs, and economic output to name a few. The two Project Alternatives are described below.

2.5.1 No-Action Alternative

The No-Build Alternative is the future scenario that considers the current transportation services provided and planned investments that are expected to be implemented without the addition of the GCL. Potential negative impacts of not constructing the GCL may result in reduced opportunities for redevelopment and revitalization within the Study Area and particularly near the proposed station sites further impacting the future population, employment and economic conditions near the station areas.

2.5.2 The GCL

The proposed GCL would provide an additional transportation service to the residents, employees, and visitors along the 18 mile transit corridor from Camden to Glassboro. The proposed GCL offers several potential benefits including increased connectivity, mobility, and expanded transportation mode choice. Redevelopment, an important theme identified in many of the Master Plans of the municipalities within the project corridor, could also be an outcome of this investment.

Other development projects in the study area are not anticipated to have a significant impact on population, households, or employment, and are not expected to result in adverse impacts to economic output, jobs creation, or income.

2.5.2.1 Population, Households and Employment

Transportation Analysis Zone data from DVRPC's model output was used to generate the GCL projections. Table 35, "Projected Population, Household, and Employment within Proposed Station Areas and Vehicle Maintenance Facility Sites, 2040," provides the 2040 projections for population, households, and employment for the WRTC station area, 14 proposed station areas and two proposed VMF site locations. In general, the proposed station areas in Gloucester County are projected to experience a greater increase in population, households, and employment than the station areas in Camden County. The proposed Sewell and Glassboro station areas are projected to experience the greatest increase in population at 39.1 percent and 31.3 percent, respectively. This significant population growth at Glassboro is likely due

to plans for expansion of the University. The Sewell Station area is also projected to experience the greatest increase in households (39.1 percent). The Mantua Boulevard Station is projected to experience the greatest increase in employment (111.1 percent). Household and employment projections for the Glassboro station area also indicate considerable growth with an increase of 31.7 percent and 35.8 percent, respectively.

The construction of the proposed GCL would not have a significant effect on population, household, and employment within the proposed station and VMF areas before 2040. The impact of the proposed GCL on population, household, and employment would likely be realized beyond 2040.

Table 35: Projected Population, Household, and Employment within Proposed Station Areas and Vehicle Maintenance Facility Sites, 2040

Proposed Station & VMF Area (½ mile radius)	2040 Population	Percentage Change from 2015	2040 Households	Percentage Change from 2015	2040 Employment	Percentage Change from 2015
Walter Rand Transportation Center (existing station)	19,945	2.4%	6,371	2.4%	29,434	2.4%
Cooper Hospital	17,506	2.4%	5,113	0.0%	21,792	0.0%
South Camden	14,917	2.4%	5,326	2.4%	9,519	2.4%
Gloucester City	15,869	0.6%	5,591	0.6%	6,410	0.6%
Crown Point Road	12,519	10.0%	4,884	10.1%	4,308	10.1%
Red Bank Avenue	19,454	12.1%	7,737	12.0%	11,790	12.0%
Woodbury	14,849	8.1%	6,242	8.4%	11,122	8.4%
Woodbury Heights and VMF Site #10	9,246	12.3%	3,448	12.5%	2,722	12.5%
Wenonah	17,075	13.4%	6,152	13.5%	4,094	13.5%
Mantua Boulevard	11,498	20.8%	4,051	21.0%	2,697	21.0%
Sewell	6,783	24.7%	2,425	25.1%	2,580	25.1%
Mantua-Pitman	6,986	39.1%	2,421	39.1%	2,782	39.1%
Pitman	14,625	19.7%	5,555	19.1%	5,889	19.1%
Rowan University	9,791	10.0%	3,729	10.0%	2,908	10.0%
Glassboro	14,596	27.9%	4,224	27.9%	6,879	27.9%
VMF Site #1	14,460	31.3%	4,163	31.7%	7,042	31.7%
VMF Site #2	12,321	31.9%	3,291	32.8%	5,826	32.8%

Source: DVRPC (VISSUM Model) Transportation Analysis Zone (TAZ) projections for proposed station areas, 2017

2.5.2.2 Development and Redevelopment

Construction of the proposed GCL would result in significant, positive development and redevelopment impacts in land use throughout the 18 mile corridor. Significant and positive effects from development and redevelopment would not result in any impacts to socioeconomic conditions. This development activity would most likely be focused near the proposed transit station sites. Several established communities along the proposed alignment have redevelopment plans and/or future land use policies in place to promote new economic development, and in some instances specifically encourage transit-supportive land uses. The proposed GCL would encourage growth and economic development consistent with these local plans and policies. One specific example of potential future transit-supportive development is located in Woodbury. The City's Master Plan identifies a future transit village near and

within the proposed Woodbury Station area. Section 1, “Land Use, Public Policy and Zoning,” identifies additional potential transit-supportive development areas within the proposed station areas.

2.5.2.3 Government Finance and Tax Sources

The significance of the impacts caused by the construction of the proposed GCL on government finance and tax sources requires further information that will be provided after Attachment 12, “Acquisitions and Displacements Technical Report,” is complete. A total of 71 parcels along the alignment or proposed station and VMF areas would be impacted by full or partial acquisition due to construction of the GCL. These acquisitions would result in the relocation of businesses and employees.

2.5.2.4 Economic Output, Jobs Creation and Income

Input-output (I/O) modeling was used to estimate the total economic effect of the proposed GCL. I/O analysis examines relationships within an economy, both between businesses, as well as between businesses and consumers. The analysis captures consumptive market transactions and estimates the resulting “indirect” and “induced” economic effects.

Regional economic analysis and I/O models produce quantitative estimates of the magnitude of regional economic activity resulting from a specified change in the regional economy. I/O models rely on multipliers that mathematically represent the relationship between the initial change in one sector of the economy and the effect of that change on economic output, income, or employment in other regional industries.

This regional economic analysis utilizes RIMS II multipliers, an I/O model developed and maintained by the US Bureau of Economic Analysis (BEA). The RIMS II multipliers are widely used across the United States by government and private entities to prepare location-specific economic impact analysis.

Regional economic analysis provides a means of estimating the significance of economic activity in a regional economy by quantifying contributions to output and employment. Because industries in a geographic area are interdependent, the total economic contribution of any one specific project will be larger than its individual (direct) effect on regional output and employment, a concept referred to as the “multiplier” effect. Industries in a geographic region are interdependent in the sense that they both purchase output from and supply input to other industries in the region.

The economic impact analysis for the proposed GCL does not take into account geographical purchasing coefficients as the anticipated financing structure is unknown at the time of publication. As such, this early analysis should be considered hypothetical and for illustrative purposes includes total economic impacts of project construction and operations and maintenance (O&M) without factoring in the location of purchasing or production. For example, the manufacturing of vehicles has been included in the analysis even though a considerable proportion of these expenditures would occur outside of the MSA capture area.

Interpretation of Model Results. Economic impacts can be described as the sum of economic activity within a defined geographic region resulting from an initial change in the economy. This initial change spurs a series of subsequent indirect and induced activities as a result of interconnected economic relationships. The total economic impacts presented in this analysis include *direct*, *indirect*, and *induced* impacts.

- **Direct Impact:** Direct impacts represent the change in output attributable to a change in demand or supply. For example, total expenditures associated with the construction phase of the proposed GCL would represent the direct impact of the project on the economy.
- **Indirect and Induced Impacts, commonly referred to as the “multiplier effect”:**
 - **Indirect Impacts:** Indirect impacts result from industry-to-industry transactions. This effect is a measure of the change in the output of suppliers linked to the industry that is directly affected. For example, the proposed GCL project would purchase goods and services from suppliers, who in turn would make purchases from their own upstream suppliers. When the rail project begins construction, and subsequently operations, direct and indirect suppliers would experience an increase in demand for their goods and services.
 - **Induced Impacts:** Induced impacts consist of impacts from employee spending in the regional economy. Employees of the GCL and affected businesses would contribute to this effect.
- **Total Impacts:** The cumulative impact of the above components.

For this analysis, impacts are expressed in terms of three variables: Output, Employment, and Wages, which are defined as:

- **Output:** Output represents the change in regional sales or revenue.
- **Employment:** Employment represents the change in the number of jobs in the regional economy resulting from a change in regional output.
- **Wages:** Wages represent the change in gross employee wages and salaries in the regional economy resulting from a change in regional output.

Key Assumptions. The following are key assumptions of this economic impact analysis:

- All dollar values are presented in 2018 constant dollars (budget base year) using 2015 multipliers (the most recent multiplier data available) unless otherwise noted.
- The region of influence used in this analysis is the Philadelphia-Camden-Wilmington MSA.
- Impacts from the proposed GCL are based on the Project’s capital and O&M cost estimates.
- Separate BEA RIMS II multipliers were used for differing economic activities.

This regional economic impact analysis considers economic impacts expected to occur within the Philadelphia metropolitan area as a result of both the increased short-term employment and expenditures

in the project area during construction, as well as long-term economic benefits resulting from the project operations and maintenance (O&M) expenditures necessary after service initiation. The following discussion provides an overview of the categories of analysis, selection of input data and final results.

Project Construction. Construction of the proposed GCL and its employees would be a source of economic stimulus within the Philadelphia-Camden-Wilmington MSA. The construction project would purchase inputs to production from other businesses, supporting jobs and employee compensation. Demand that is met by suppliers would further stimulate the economy by supporting additional jobs and creating additional new demand for raw inputs. The employees of the project would spend their income on local retail purchases, housing, and other services. These expenditures support regional jobs in the associated industries.

Construction of the proposed GCL is expected to provide a significant one-time direct benefit to the regional economy. In addition to temporarily supporting local construction labor, the project is expected to require regionally supplied construction materials. Specifically, it is anticipated that development and construction of the transportation project itself would generate total *direct spending* of approximately \$1.40 billion, as shown in Table 36, “Capital Expenditures – The GCL.” Direct construction-related expenditures are expected to constitute approximately \$839 million, or 60 percent, of the project budget. Professional services would account for \$248 million, or 18 percent, of the budget. The purchase of rail vehicles would cost approximately \$264 million, or 19 percent, of the total budget. In order to conduct the economic impact analysis to estimate the multiplier effects of this direct spending, the budget line items were translated to corresponding BEA RIMS II sector classifications.

Table 36: Capital Expenditures – the GCL

Industry Description	BEA RIMS II Sector Classification	Cost	% of Total Budget
Construction	Construction	\$839,981,000	60%
Guideway & Track Elements	Construction	\$318,564,000	23%
Stations, Stops, Terminals, Intermodal	Construction	\$64,444,000	5%
Support Facilities	Construction	\$200,297,000	14%
Site work & Special Conditions	Construction	\$142,790,000	10%
Systems	Construction	\$113,886,000	8%
Vehicles	Railroad rolling stock manufacturing	\$263,970,000	19%
Professional Services	Professional, scientific, and technical services	\$248,380,000	18%
Contingency: Construction	Construction	\$41,999,000	3%
Contingency: Vehicles	Railroad rolling stock manufacturing	\$5,279,400	0.4%
Contingency: Professional Services	Professional, scientific, and technical services	\$4,967,600	0.4%
Total		\$1,404,577,000	100%
Note: The cost estimate does not include the purchase or lease of real estate and the budget breakdown and industry categorization was reclassified into appropriate BEA sectors for the purposes of this analysis.			

Source: GCL Project Team data, April 2018; US Bureau of Economic Analysis, RIMS II, 2015 multipliers.

Based on the anticipated multiplier effects for the various industry sectors affected by the project, Table 37, “Regional Economic Impacts of Construction – the GCL (2018)” presents the estimated total regional

economic impacts in 2018 constant dollars (sum of direct, indirect, and induced impacts) resulting from construction of the GCL.

Table 37: Regional Economic Impacts of Construction – the GCL (2018)

Expenditure Type	Regional Expenditures	Employment Impacts	Wages Impacts	Output Impacts
Construction	\$881,980,000	10,425	\$557,852,350	\$1,812,557,098
Other Transportation Equipment Manufacturing	\$269,249,400	1,943	\$111,819,276	\$538,848,824
Professional, Scientific, and Technical Services	\$253,347,600	3,283	\$195,407,004	\$549,409,605
Total Regional Impact	\$1,404,577,000	15,650	\$865,078,630	\$2,900,815,528

Source: GCL Project Team data, US Bureau of Economic Analysis. Estimates are in 2018 dollars.

Construction of the project is estimated to have a *total one-time regional impact* of approximately \$2.9 billion. The regional economic impact represents revenue generated by direct regional spending, indirect spending by suppliers, and induced impacts from employee expenditures in the Philadelphia-Camden-Wilmington MSA regional economy. The construction phase of the proposed GCL is projected to support full-time equivalent construction and ancillary employment of approximately 15,560 jobs with total associated wages of approximately \$865 million.

Project Operations and Maintenance. The project would also create jobs and output from O&M expenditures. O&M expenditures include, but are not limited to, the expenses associated with general maintenance and administration, fare inspectors, insurance, fuel, purchased transportation, vehicle and non-vehicle maintenance, and operations. O&M expenditures and the anticipated impact of those expenditures will be determined in the subsequent design phase of the project.

Direct spending in O&M for the proposed GCL is estimated at approximately \$27 million annually (see Table 38, “Regional Economic Impacts of Annual O&M Costs – the GCL (2018)”). Applying the anticipated multiplier effects for the transit and ground passenger transportation industry category to these expenditures results in a total annual regional impact of approximately \$60 million. The O&M expenditures are projected to support total annual employment of approximately 651 jobs related to the operations of the proposed GCL with total associated wages of approximately \$20 million.

Table 38: Regional Economic Impacts of Annual O&M Costs – the GCL (2018)

	Regional Expenditures	Employment Impacts	Wages Impacts	Output Impacts
Transit and ground passenger transportation	\$27,070,879	651	\$20,258,913	\$60,511,884

Source: GCL Project Team data, US Bureau of Economic Analysis

2.6 Mitigation

2.6.1 No-Action Alternative

Under the No-Action Alternative, there would not be any changes to the existing transportation system. The projected change in population, housing, and employment within the project corridor would be a result of other influences. The No-Action Alternative may have a negative impact on the potential for

redevelopment and future economic development by not providing a catalyst within the project corridor, particularly within the proposed ½ mile station areas.

2.6.2 The Proposed GCL

The proposed GCL is not expected to have an immediate impact on population, households, or employment, and is not expected to result in adverse impacts to economic output, jobs creation, or income. Therefore, no mitigation measures would be warranted. Other development projects in the study area resulting from the proposed GCL are not anticipated to have a significant impact on population, households, or employment, and are not expected to result in adverse impacts to economic output, jobs creation, or income.

3 NEIGHBORHOODS AND COMMUNITY SERVICES

3.1 Introduction

This technical report includes an evaluation of impacts of the GCL on existing neighborhoods and community services. Issues that are important to neighborhoods (access, neighborhood travel patterns, loss of parking, overflow parking from stations, relocation, separation, isolation, noise, and vibration) were identified and assessed against the impacts of the GCL corridor, stations, and maintenance facilities. Where necessary, mitigation measures for potential impacts are identified.

The proposed GCL would operate primarily within the ROW of an existing Conrail line. Given that the proposed GCL would primarily run within an existing rail corridor, the proposed project would not physically divide neighborhoods, reduce access to, or disrupt the cohesion of existing communities. The alignment would also not be likely to alter neighborhood boundaries or the setting in which these neighborhoods exist. In addition, access to neighborhoods would not be severed. While corridor, station, and maintenance facility areas may result in displacements, there is a positive impact for the overall communities, which would benefit from enhanced access to transit that would be associated with the implementation of the proposed light rail.

3.2 Principal Conclusions

The potential impacts of the proposed GCL on the 28 neighborhoods that comprise the corridor were analyzed to determine the effects of the proposed project on the cohesiveness of residential areas and the neighborhood setting in general. Direct impacts related to travel patterns and accessibility, noise and vibration, displacements and relocation, and neighborhood cohesion were studied. In many cases, details on specific impacts, such as land use changes, noise and vibration effects, and traffic access impacts are presented in their respective sections and technical reports (see Section 1, “Land Use, Zoning, and Public Policy,” Attachment 11, “Noise and Vibration Technical Report,” and Attachment 5, “Traffic Analysis Report”). In this section, overall impacts to the neighborhoods and community services within the project corridor are assessed and expressed quantitatively or qualitatively as appropriate.

Seven neighborhoods may experience potential impacts to travel patterns and accessibility. While the proposed project would not sever or divide any streets within the corridor, as the majority of the proposed project would be constructed primarily along existing railway and roadway, there are locations where the proposed project would cross streets and require motorists to wait for the light rail traffic to pass. Some of these locations already experience wait times for vehicles due to the existing railway traffic. In addition, overflow parking in neighborhoods would affect available on-street parking in those neighborhoods, as well as introduce additional traffic.

It was found that 12 neighborhoods may experience potential impacts relating to displacements and relocations. Acquisitions would primarily be required for development of the station areas with parking facilities. Development of the proposed GCL would require the full and partial acquisitions of approximately 211 parcels across Camden and Gloucester counties, including 39 full, 32 partial, and 140

de minimis acquisitions. De minimis acquisitions refer to those acquisitions which would require a very small minor portion of the property to be acquired that would not adversely affect the features, attributes, or activities on the property.

Ten neighborhoods may experience potential impacts from noise and vibration. Corridor-wide, a total of 815 dwellings (equivalent single-family units) are estimated to experience impacts according to FTA noise impact criteria; these consist of 577 moderate impacts and 188 severe impacts from daily GCL operations. In addition, 50 dwellings will experience moderate noise impacts associated with maintenance yard activities from the Woodbury Heights and Glassboro yards. For a detailed explanation of impact criteria regarding noise and vibration, and specific information regarding project related impacts and mitigation measures, refer to Attachment 11, “Noise and Vibration Technical Report.”

Approximately 164 community facilities have been identified within the GCL corridor including approximately 91 religious/faith-based facilities, 36 schools, seven fire stations, six libraries, nine police stations, two medical centers, and one YMCA. The majority of these facilities would experience a positive impact that increased access to transit and transportation choices would offer.

3.3 Methodology

3.3.1 Study Area

The study area for the assessment of neighborhoods includes all neighborhoods, cities, boroughs, and townships located adjacent to the project corridor. Existing community facilities within ½ mile of the project corridor have been identified. The GCL study area is shown on Figure 28 (Plates “a” – “c”), “Neighborhoods.”

3.3.2 Existing Conditions

Information on existing neighborhoods and community facilities was obtained from Camden and Gloucester counties and the United States Census Bureau. The following plans and data were obtained and reviewed as part of the assessment for this technical report.

- Community Facilities – Field observations; Google Earth
- Demographic Data – 2014-2018 American Community Survey Five-Year Estimates
- Community issues and concerns gathered through public involvement.
- STV field surveys (February/March 2013).
- STV supplemental field tours of station areas (2017).

3.3.3 Impact Assessment

The assessment of neighborhoods and community services includes an evaluation of the effects of the proposed project on the cohesiveness of residential areas and the neighborhood setting in general. Issues that are important to neighborhoods (access, neighborhood travel patterns, loss of parking, overflow

parking from stations, relocation, separation, isolation, noise, and vibration) were identified. The technical report evaluates the direct impacts that would result from the proposed project on these communities and services and the effect that it would potentially have on their quality of life.

Effects on neighborhoods and community facilities were evaluated and the types of impacts assessed are as follows:

- Travel patterns and accessibility
- Acquisitions and displacements
- Potential noise and vibration effects
- Disruption of community cohesion and the physical division of a neighborhood
- Disruption of community facilities and services

Data was collected at the census tract level for the study area and for Camden and Gloucester counties for comparative purposes. Entire counties were selected as the appropriate comparison tool because of the potential regional influence of the proposed project and because it best represents the regional project area.

In many cases, details on specific impacts, such as land use changes, noise and vibration effects, and traffic access impacts are presented in their respective sections and technical reports (see Section 1, “Land Use, Zoning, and Public Policy,” Attachment 11, “Noise and Vibration Technical Report,” and Attachment 5, “Traffic Analysis Report”). In this section, overall impacts to the neighborhoods and community services within the project corridor are assessed. The potential for impacts is expressed quantitatively or with the following qualitative terms:

- **No impact:** This category applies if the GCL is not expected to result in impacts on existing conditions. Positive impacts, such as improved access to neighborhoods and community facilities, may also occur and are represented as no impact. Also included in this category are impacts to individual residential properties that would not result in an impact to the collective neighborhood.
- **Potential impact:** This category applies if the GCL may result in a minimal or moderate impact. Minimal impacts include changes from the existing conditions that typically would not need mitigation; moderate impacts include changes from existing conditions that could be addressed through mitigation. For neighborhoods and community facilities, minimal impacts include proximity impacts that do not alter the primary use of the resource. For example, the introduction of increased noise and vibration in areas with high noise and vibration levels, like active transportation corridors. Moderate noise and vibration levels are also classified as a potential impact. In addition, minor acquisitions that would not cause displacements or interfere with the functioning of a property are considered potential impacts.
- **Potentially significant impact:** This category applies if the GCL would likely result in substantial changes that represent an “adverse impact” to the activities relating to neighborhoods and

community facilities. In some cases, the impacts might not be fully addressed through the proposed mitigation. Significant impacts could include severe noise impacts to several properties within a neighborhood, as well as acquiring property that would result in multiple displacements.

Only the direct impacts of the GCL are presented in this technical report. Historic and cultural resources, parks and recreational facilities, and natural resources are community features that are addressed in detail in other technical reports, specifically, Attachment 7, “Cultural Resources Technical Report,” Attachment 9, “Parklands Technical Report,” and Attachment 1, “Natural Resources Technical Report,” respectively. In addition, impacts to the transportation network are analyzed in Attachment 5, “Traffic Analysis Technical Report” and Attachment 6, “Transit Analysis Technical Report.” A detailed list of property acquisitions and potential displacements is included in Attachment 12, “Acquisitions and Displacements Technical Report.” The safety and security measures related to the development and operation of the proposed project are included in Attachment 8, “Safety and Security Technical Report.”

3.4 Affected Environment

The corridor generally spans south from the city of Camden through the northwest section of Camden County and into the northern section of Gloucester County, ending just south of Glassboro. The project corridor would travel through various neighborhoods, populations, and land uses including high to low density residential and commercial, industrial, historic communities, suburban communities, and rural lands.

3.4.1 Neighborhoods

Descriptions of study area neighborhoods are based on-site visits, aerial photography, and research conducted on each specific neighborhood. Utilizing city/borough websites and community organization resources, descriptions of land use, community facilities, and other characteristics were created for each neighborhood.

Table 39, “Summary of GCL Corridor Neighborhoods,” presents demographics on each neighborhood along the project corridor. Due to the fact that several neighborhoods and boroughs have unofficial boundaries, the census tract in which they are located are used to calculate median income and average home value. Population is calculated using 2014-2018 American Community Survey data at the neighborhood and block level. For those neighborhoods with more than one census tract associated with it, the average of all the incomes is calculated. Neighborhood delineations within the GCL study area are shown on Figure 28 (Plates “a” – “c”), “Neighborhoods.”

Table 39: Summary of GCL Corridor Neighborhoods

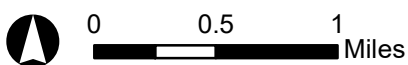
Census Tract	Neighborhood	Population	Median Income	Average Home Value (\$)
6007	Cooper Poynt	1,497	\$27,708	\$80,700
6008	Pyne Point	5,270	\$19,520	\$82,500
6103	Cooper Grant/Central Waterfront	2,151	\$32,000	\$123,100
6104	Central Business District/Lanning Square	4,939	\$29,063	\$91,600
6002	Gateway	1,933	\$25,705	\$62,700
6004	Bergen Square	2,904	\$19,621	\$71,400
6014	Parkside	4,623	\$34,549	\$86,300
6016	Liberty Park	2,649	\$23,638	\$68,200
6015	Whitman Park	4,932	\$19,011	\$67,700
6018	Waterfront South	1,206	\$29,229	\$55,600
6017	Centerville	3,146	\$12,443	\$73,400
6019	Morgan Village	2,727	\$23,995	\$77,300
6020	Fairview	6,478	\$31,427	\$69,500
6110 6051 6052	Gloucester City	11,246	\$59,040	\$130,367
6053	Brooklawn	2,023	\$63,897	\$134,600
6070	Western Bellmawr	4,480	\$42,384	\$152,700
5001	Westville	4,185	\$53,986	\$148,700
5002.01	Verga	2,427	\$76,964	\$172,300
5010.01 5010.02 5010.03	Woodbury	9,929	\$60,722	\$163,733
5009	Woodbury Heights	2,993	\$82,188	\$200,700
5011.07	Oak Valley	4,394	\$78,553	\$168,200
5011.06	Jericho	3,882	\$67,092	\$203,600
5008	Wenonah	2,225	\$122,159	\$273,700
5007.02	Sewell	5,907	\$95,724	\$236,900
5013.01 5013.02 5013.03	Pitman	8,830	\$72,667	\$180,700
5014.02 5014.03 5014.04 5014.06	Glassboro	15,106	\$55,817	\$186,650

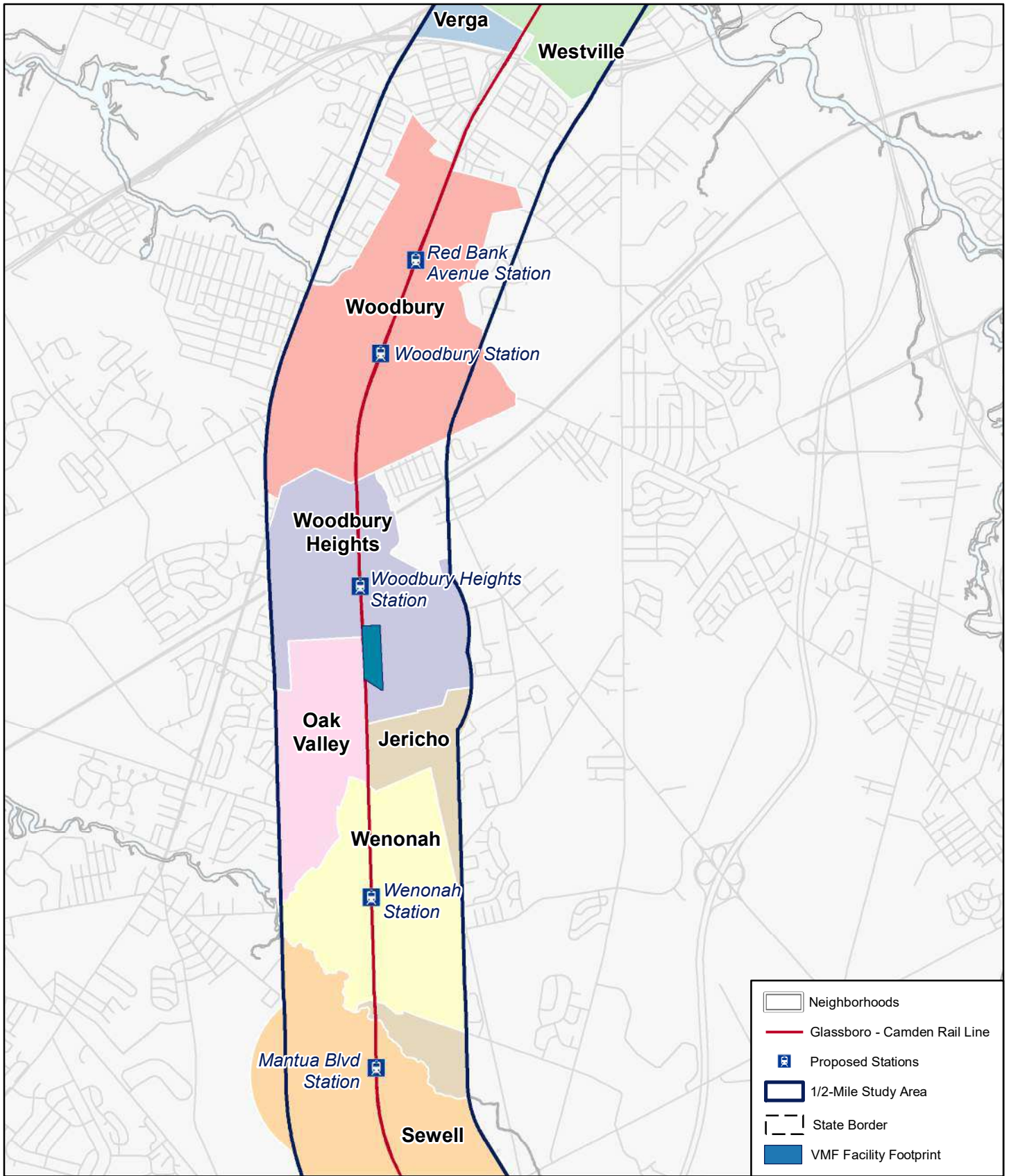
Source: 2014-2018 American Community Survey.



Source: U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2019.

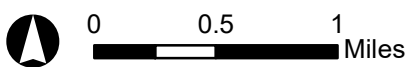
Figure 28a

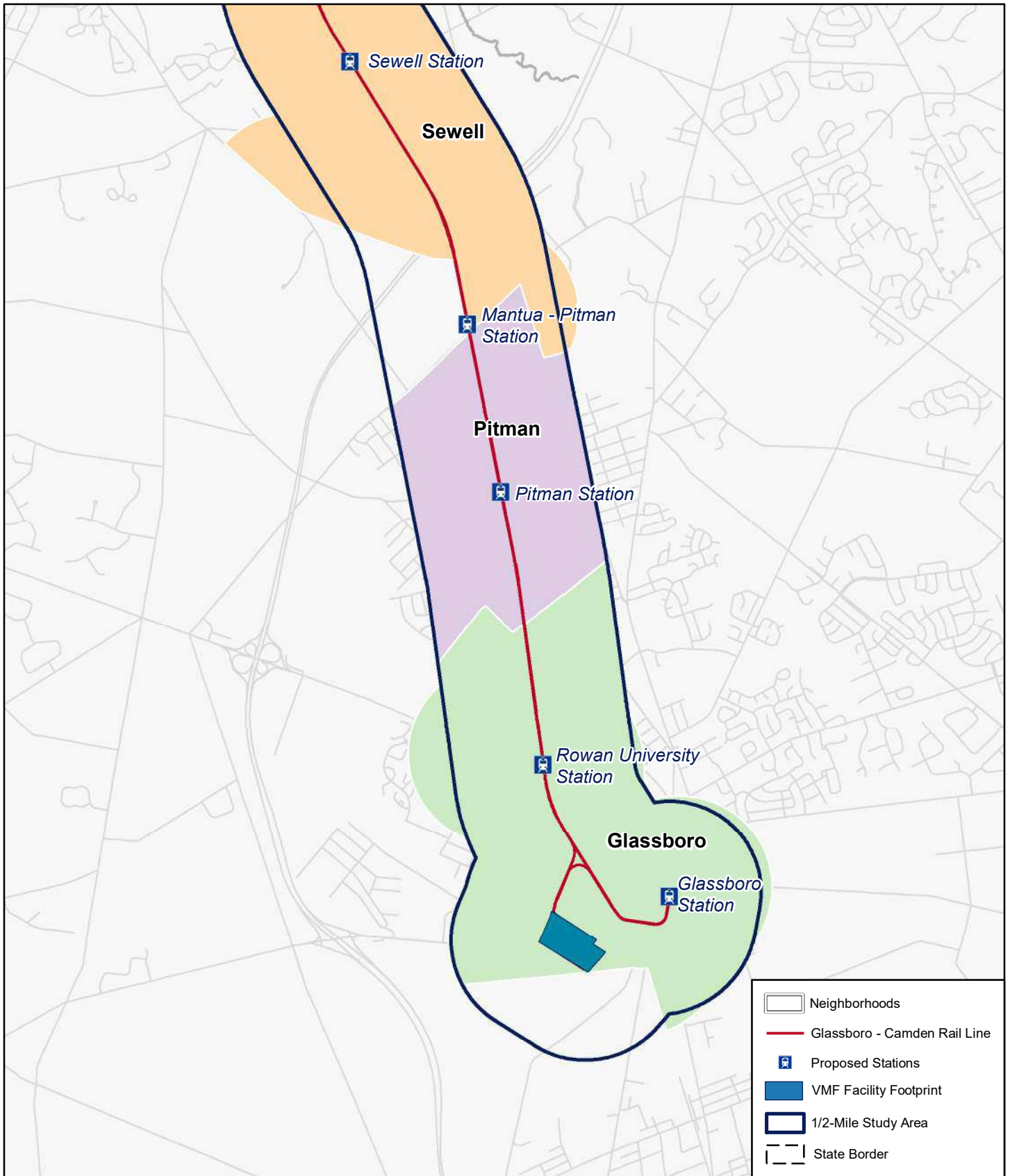




Source: U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2019.

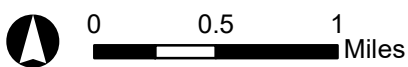
Figure 28b





Source: U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2019.

Figure 28c



Individual neighborhood characteristics are further described below:

- Cooper Poynt: The Cooper Poynt neighborhood is located in the northwestern part of the City of Camden. The neighborhood is bound on the north and west by the Delaware River, on the east by North 4th Street, and extends south to I-676. Cooper Poynt encompasses a mix of uses including single- and multi-family residential, as well as light industrial. The neighborhood is also home to community facilities including a school, a church, and a park. The neighborhood includes sidewalks throughout and is within walking distance to many downtown amenities within the City of Camden.
- Pyne Point: The Pyne Point neighborhood is located in the northwestern part of the City of Camden. The neighborhood is bound on the north by the Delaware River, on the west by North 4th Street, on the east by the Cooper River, and extends south to the intersection of US-30 and I-676. Pyne Point includes a mixture of land uses including both single- and multi-family residential, neighborhood retail, light industrial, and institutional. The neighborhood also contains community facilities including four parks, four schools, and several religious institutions. Pyne Point is within walking distance to many of the City of Camden’s downtown amenities.
- Cooper Grant: The Cooper Grant neighborhood is located in the northwestern part of the City of Camden. The neighborhood is roughly bound on the north by I-676, on the west by the Delaware River, on the east by North 3rd Street, and Clinton Street to the south. The area was historically an industrial neighborhood. The proximity to downtown has made it a popular area for redevelopment, particularly in recent years with the construction of American Water’s headquarters and several other office and residential buildings. This neighborhood includes several entertainment venues including Adventure Aquarium, Wiggins Waterfront Park and marina, and a BB&T concert and entertainment venue. The neighborhood encompasses a mix of land uses including single- and multi-family residential, retail, and commercial. The neighborhood includes sidewalks throughout and is within walking distance of many downtown amenities.
- Central Business District: The Central Business District (CBD) is located in downtown Camden just north of Dr. Martin Luther King (MLK) Boulevard. The neighborhood is bound by I-676 to the north and east, as well as North 3rd Street to the west. The area is comprised of mainly office, governmental and institutional, light commercial, and light industrial land uses. The CBD contains several community facilities such as three police stations, a fire station, three colleges and universities, several schools and religious institutions, and a park. The area is considered pedestrian friendly. It also contains two PATCO stations (City Hall and Broadway).
- Lanning Square: Lanning Square is located just south of the CBD in downtown Camden. It is roughly bordered by MLK Boulevard, I-676, Pine Street, and South 3rd Street. Lanning Square is comprised of mainly single-family residences, light commercial, neighborhood retail, and institutional land uses. The neighborhood houses several religious institutions, a few parks, one school, and the Cooper University Medical Center. Lanning Square contains sidewalks throughout and is within walking distance of many downtown amenities.
- Central Waterfront: The area of Central Waterfront is located in the northwestern part of the City of Camden, on the banks of the Delaware River. The area is bound on the north by Clinton Street, on

the east by South 3rd Street, the Delaware River to the west, and extends south toward Atlantic Avenue. Central Waterfront's land use is comprised of mainly industrial and vacant land with a small area of residential along Mt. Vernon Street. The neighborhood is home to community facilities including three churches, a school, and a park.

- Gateway: The Gateway neighborhood is located in the central area of the City of Camden. The neighborhood is roughly bordered by I-676 to the west, Federal Street to the north, the Cooper River to the east, and Atlantic Avenue to the south. There are a variety of land uses within the neighborhood including single- and multi-family residential, institutional, office, and commercial uses. There is a large concentration of commercial uses along Haddon Avenue. The Gateway neighborhood also contains several community facilities including churches, schools, and a large park along the Cooper River.
- Bergen Square: The Bergen Square neighborhood is located in the central area of Camden. The neighborhood bordered by I-676 to the east, Atlantic Avenue to the south, South 3rd Street to the west, and extends north toward Pine Street. Land use in the neighborhood is predominantly residential, (primarily single-family), with neighborhood retail scattered throughout the area. The neighborhood also includes several schools, churches, and a park.
- Parkside: The Parkside neighborhood is located in the eastern central area of the City of Camden. The neighborhood is bound by Haddon Avenue to the southwest, Ferry Avenue to the southeast, and extends north to the Cooper River. Parkside includes the 72 acre Farnham Park, which recently underwent a \$1,000,000 million renovation. Parkside is made up of mainly single-family residences, and also includes commercial uses specifically along Haddon Avenue. The neighborhood also includes three schools, several churches, and a cemetery. Sidewalks can be found throughout Parkside.
- Liberty Park: The Liberty Park neighborhood is located in the central part of the City of Camden and is bordered by Ferry Avenue to the south, Mt. Ephraim Avenue to the east, Atlantic Avenue to the north, and I-676 to the west. The neighborhood is made up of mainly single-family residences with some multi-family residential along Atlantic Avenue as well as South 8th Street. Liberty Park also includes some neighborhood retail along Mt. Ephraim Avenue. Liberty Park has three churches, two parks, and three schools. Sidewalks can be found throughout the neighborhood.
- Whitman Park: The Whitman Park neighborhood is located north of Ferry Avenue and is bordered by Mt. Ephraim Avenue, Kaighns Avenue, and Haddon Avenue. The southern portion of the neighborhood is composed of multi-family residential, surface parking lots, and a cemetery, while the northern portion includes mainly single-family and light industrial uses. The neighborhood is divided by the PATCO rail line. Two schools, one park, and several churches can also be found within this neighborhood. Whitman Park includes sidewalks throughout.
- Waterfront South: This neighborhood is located along the Delaware River and is bound by I-676 to the east, Atlantic Avenue to the north, and extends south to the Walt Whitman Bridge (I-76). The area is celebrated as a federal and state historic district. The area has historically housed Camden's largest employer during World War II, the New York Shipbuilding Company. Waterfront South provided homes to many of the company's workers and their families. The proximity of the neighborhood to

the CBD of Camden has made it a popular area for revitalization and infill housing. The neighborhood is composed of mainly industrial uses but includes single-family residential, commercial, and vacant/undeveloped land. The neighborhood also includes several parks and churches and has plans for a large community center in the historic Star Theater building at Broadway and Viola Streets.

- Centerville: The Centerville neighborhood is located in the central area of Camden, bound by Van Hook Street to the north, Mt. Ephraim Avenue to the east, Bulson Street to the south, and I-676 to the west. The neighborhood is dominated by multi-family residential uses, with few single-family residences. The area also contains industrial uses (primarily along the existing railway corridor), with neighborhood retail scattered throughout. Centerville includes several community facilities such as a school, two parks, several churches, a cemetery, and a library.
- Morgan Village: Morgan Village is located in the southeastern part of the City of Camden. The neighborhood is bound by I-676 to the west, Bulson Street to the north, Mt. Ephraim Avenue to the east, and extends south toward an arm of the Delaware River. Morgan Village contains several different land uses including single- and multi-family residential with industrial uses located in the northeastern portion of the neighborhood. The neighborhood also contains community facilities including two parks, three schools, and a few religious institutions.
- Fairview: Fairview is located in the southern part of Camden City and is bound Newton Creek North Branch to the north, Newton Creek to the south, I-676 to the west, and Mt. Ephraim Avenue to the east. Historically, the area was built to provide housing for ship builders and is one of the first federally funded planned communities in the United States. It is now classified as a historic area and was placed on the National Register of Historic Places. The primary land use in the neighborhood is residential (single-family and multi-family) with some neighborhood retail scattered throughout. The neighborhood also includes two schools, two parks, and three churches.
- Gloucester City: Gloucester City is located in the northwestern portion of Camden County. The City's defining borders on the north, south, and west are Newtown Creek, Little Timber Creek, and the Delaware River respectively. The eastern-most part of the City extends just east of I-76. As a small city, Gloucester City contains several different land uses. Most of the community's retail and commercial space is located along North Broadway and South Broadway, with neighborhood retail scattered throughout the surrounding areas. Many construction and redevelopment projects are planned throughout the City, specifically in the North King Street, South Port, West Market Street, and Sixth Street areas. Gloucester's historic district is located in the western portion of the city, roughly between Mercer Street and Jersey Avenue along King and South Burlington Streets. Single-family residential is the dominant land use of the city with industrial uses being found in the western area of the city along the Delaware River, as well as along Crescent Boulevard near Gloucester City High School. Office and institutional uses can also be found in the downtown area of the city. Gloucester City includes numerous community facilities including over ten parks, several religious institutions, a marina and fishing pier, four schools, a few cemeteries, a police and fire department, and a library. The north-central area of the city encompasses a few of the parks and includes a greenway, bike paths, and trails.

- Brooklawn: Brooklawn is a borough of Camden County and located in the northwestern part of the county. Brooklawn is bound by the Delaware River to the west, Little Timber Creek to the north, and Big Timber Creek to the south and extends east toward West Kings Highway and McClelland Avenue. The area is predominantly single-family residential, with some multi-family residences and light industrial uses scattered throughout. Commercial uses can be found along Crescent Boulevard. Brooklawn contains a few community facilities including one school, one church, a police department, and several small parks.
- Western Bellmawr: The Western Bellmawr neighborhood is located west of I-76, north of I-295, east of Big Timber Creek, and south of County Road 551. Bellmawr is a borough of Camden County. Land uses throughout Western Bellmawr include mainly single-family residential with multi-family residential located in the western and northwestern part of the area. Commercial uses can be found along County Road 551, while industrial uses can be found at the southern intersection of I-76 and I-295. Community facilities in the neighborhood include two schools, three churches, a marina, and a few small parks/recreation fields.
- Westville: Westville is a borough located in Gloucester County, NJ. It is in the northern portion of the county and is bound by I-295 to the south, Big Timber Creek to the east and north, and extends west toward Crown Point Road and the Delaware River. The neighborhood is composed of mainly single-family residential, with some industrial uses located between Gateway Boulevard and Crown Point Road, as well as along Harvard Avenue in the southern portion of Westville. Neighborhood retail and light commercial uses can be found scattered throughout. Westville also shares a large industrial campus with West Deptford township; the industrial site is located in the western portion of Westville. Several religious institutions, a library, an elementary school, police and fire departments, and several parks (including the Wheelabrator Wildlife Refuge and Butterfly Garden) are also located within this neighborhood.
- Verga: Verga is an unincorporated community within the township of West Deptford. It is located in the northern part of Gloucester County. Verga is roughly bound by Red Bank Avenue to the west, I-295 to the south, Gateway Boulevard to the east, and extends north to the Delaware River. The Verga community is composed of mainly industrial uses, with single-family residential and light commercial uses scattered throughout. Just north of Crown Point Road is the Coastal Eagle Point Plant, a large industrial campus, which sits on the bank of Delaware River. There are three churches, two schools, and several parks located in the Verga community. A portion of the Wheelabrator Wildlife Refuge and Butterfly Garden is included in Verga.
- Woodbury: Woodbury is a small city in Gloucester County, located in the northern portion of the county. It is the County seat for Gloucester County. Woodbury is located between the New Jersey Turnpike and I-295, just west of Highway 47/Delsea Drive. Woodbury is the county seat and is home to the county's largest employer, the Inspira Medical Center. Woodbury contains several land uses, but is predominantly made up of single-family residential. Multi-family residences can be found in the northeastern area of the city. Commercial uses exist mainly along North Broad and South Broad Streets, and in the southern area along Mantua Pike. Office and governmental uses are scattered throughout the downtown area and a rail yard can be found in the southern portion of the city, just

west of the project corridor. Woodbury includes police and fire departments, two libraries, several parks and religious institutions, four schools, one university, and a YMCA.

- Woodbury Heights: The Borough of Woodbury Heights is located in Gloucester County. Woodbury Heights is bordered by Mantua Pike to the west, Tanyard Road to the east, the freight rail line to the north, and Vanderbilt Avenue to the south. Woodbury Heights is mainly made up of single-family residential, with commercial uses focused around Mantua Pike. Light industrial uses can be found scattered throughout the area. Woodbury Heights contains several community facilities, including three schools, two parks, three churches, and fire and police departments.
- Oak Valley: The Oak Valley neighborhood is an unincorporated community within Deptford Township in Gloucester County. Oak Valley is roughly bound by Mantua Pike to the west, Ogden Station Road to the south, the existing rail corridor to the east, and Vanderbilt Avenue and Haverford Avenue to the north. The neighborhood is composed of mainly single-family residential; commercial uses can be found along Mantua Pike. A fire and police department, a church, two schools, and several parks/recreational areas can be found within this neighborhood.
- Jericho: Jericho is a small neighborhood located in the Deptford Township of Gloucester County. It is roughly bound by the Conrail/GCL corridor to the west, Woodland Avenue to the north, Boundary Road to the east, and Cattell Road to the south. Jericho is comprised of mostly single-family residences, along with some undeveloped/wooded land. Jericho contains three churches and several parks.
- Wenonah: Wenonah is a borough in northeastern Gloucester County. Wenonah is bordered by Glassboro Road to the East, Bark Bridge Road and Greenes Lake to the south, Mantua Creek to the west, and East Linden Street to the north. Historically, numerous dams were installed to create recreational lakes around Wenonah; there are more than six miles of hiking trails threaded around the lakes and waterways. Over 21 percent of Wenonah's land area is conservation land, which is protected by ordinance from development. This borough is comprised mainly of single-family residential. Neighborhood retail can be found scattered along the "main street" area of Wenonah, along West and East Avenues. Wenonah contains a fire and police station, a library, one school, and four churches.
- Sewell: Sewell is an unincorporated community within Mantua Township in Gloucester County. It is located in the northeastern part of Gloucester County. Sewell is a large community, straddling the project rail corridor, generally bordering Main Street to the west, Tylers Mill Road to the south, Mantua Creek to the east, and Wenonah Avenue to the north. Sewell encompasses a mix of single- and multi-family residential, commercial and light industrial uses, as well as areas of undeveloped/wooded lands. Most of the commercial establishments can be found along Glassboro Road. The community includes five churches, one school, a cemetery, and several parks/recreational areas.
- Pitman: Pitman is a borough in central Gloucester County. This community is bound by NJ-55 to the west and north, Delsea Drive to the east, and extends south to US-322. Pitman contains several different land uses including single- and multi-family residential with industrial uses located in the

northeastern portion of the neighborhood. Commercial uses are mainly located along Main Street and neighborhood retail is scattered throughout the area. The Pitman Grove historic district is located in the center of the borough, roughly bounded by West Holly Avenue (County Route 624) to the north, West Avenue to the west, East Avenue to the east, and Laurel Avenue to the south. Pitman also contains community facilities including three schools, several religious institutions, a police and fire department, a theater, one library, and over ten parks, including the Alcyon Lake Park which offers trails, an arboretum, a butterfly garden, and a boat ramp.

- **Glassboro:** Glassboro is a borough located in the central portion of Gloucester County. It is located south of Pitman and north of Clayton extending east to Fries Mill Road and West to Aura Road. Being larger in size, Glassboro contains several different land uses. Single-family residential is the dominant land use of the area with multi-family residences also being present throughout the borough. Industrial uses are found in the southern area along the Delsea Drive, as well as near the intersection of Sewell and Ellis Streets. Office and governmental uses can be found in the downtown area of Glassboro. Most of the community's retail and commercial is located along Delsea Drive, with smaller, neighborhood retail scattered throughout the surrounding areas. Many construction and redevelopment projects are planned throughout the borough, specifically around the Rowan University campus and in downtown Glassboro. Glassboro includes numerous community facilities including several religious institutions, six schools, including Rowan University, four cemeteries, a police and fire department, and two libraries. The area also contains several parks including the Glassboro Fish and Wildlife Management area.

3.4.2 Community Services and Social Service Providers

Community services/facilities and social service providers accommodate a range of social needs within a neighborhood or, in some cases, within a larger geographic area. These services and facilities range from, but are not limited to, educational, religious, and healthcare facilities to public libraries, police/fire stations, and post offices. Community services/facilities and social services are typically supported by local (private and public), state, or federal organizations/entities. The evaluation of the impact of the proposed GCL on neighborhoods and communities includes consideration of the potential direct and indirect impacts of the proposed project on these services/facilities as these services/facilities contribute to the overall quality of life and sense of community in these areas. The number of community services/facilities provided typically corresponds to the density of development and proximity to neighborhoods. For example, more densely populated areas (i.e., Camden County) have more services/facilities. As density decreases from the center of Camden to the Camden-Gloucester County line, fewer services/facilities are present. Activity Centers, such as the Camden Waterfront area, also have an increase in services/facilities.

Services/facilities within ½ mile of the proposed GCL have been identified and are summarized in Table 40, "Community Services and Social Service Providers," and shown on Figure 29 (Plates "a" – "r"), "Community Facilities." Community services/facilities located within the GCL Corridor include 91 religious institutions, 36 schools, 12 government facilities, nine police departments or stations, seven fire departments or stations, six libraries, two medical centers, and one YMCA facility. The highest

concentration of community facilities are clustered in and around Camden City, particularly the more densely developed areas such as the Central Business District/Lanning Square and Bergen Square neighborhoods. Religious institutions, schools, government facilities, libraries, and police and fire departments were all found throughout the study area. Sewell Township, which contains both the Mantua Boulevard and Sewell GCL Stations, is the one notable exception, containing just one school (Sewell Elementary School) and one religious facility (Sewell Community Baptist Church).

Table 40: Community Services and Social Service Providers

ID No.	Facility Name	Address	Facility Type
1	Rutgers University – Camden	303 Cooper Street, Camden	School
2	Camden Community College	200 N. Broadway, Camden	School
3	Delaware River Port Authority	2 Riverside Drive, Camden	Government Facility
4	Leap Academy University Charter School	549 Cooper Street, Camden	School
5	Mt. Zion Highway of Holiness	295 Chestnut Street, Camden	Religious Institution
6	Holy Trinity Baptist Church	253 Mechanic Street, Camden	Religious Institution
7	Powell Elementary School	1000 Linden Street, Camden	School
8	Mt. Calvary Baptist Church	119698 Penn Street, Camden	Religious Institution
9	U.S. District Court Clerk	401 Market Street, Camden	Government Facility
10	St. Paul’s Episcopal Church	422 Market Street, Camden	Religious Institution
11	Camden County City Hall	520 Market Street, Camden	Government Facility
12	Rowan University – Camden	129 N. Broadway, Camden	School
13	Mt. Calvary Church – God in Christ	106 N. 7 th Street, Camden	Religious Institution
14	Cathedral of the Immaculate Conception	642 Market Street, Camden	Religious Institution
15	Life Assembly of God	815 Federal Street, Camden	Religious Institution
16	Camden City Police Department	800 Federal Street, Camden	Police Station
17	US Department of Housing and Urban Development	800 Cooper Street, Camden	Government Facility
18	Camden Courthouse	101 S. 5 th Street, Camden	Government Facility
19	Emmanuel United Pentecostal	438 Stevens Street, Camden	Religious Institution
20	New Mickle Baptist Church	416 S. 4 th Street, Camden	Religious Institution
21	Cooper University Medical Center	1 Cooper Plaza, Camden	Medical Facility
22	Shalom Baptist Church	435 Chambers Avenue, Camden	Religious Institution
23	Camden County Health Department	519 West Street, Camden	Government Facility
24	St. Augustine Episcopal Church	525 Royal Street, Camden	Religious Institution
25	Sword of the Spirit Christian	1237 Kaighns Avenue, Camden	Religious Institution
26	New Jerusalem Baptist Church	1306 Mt. Ephraim Avenue, Camden	Religious Institution
27	St. Joseph’s Church	1010 Liberty Street, Camden	Religious Institution
28	Kaighn Avenue Baptist Church	831 Kaighns Avenue, Camden	Religious Institution
29	House of God – Living God	1300 S. 9 th Street, Camden	Religious Institution
30	St. Luke UAME Church	821 S. 8 th Street, Camden	Religious Institution
31	New Wesley AME Zion	701 Ramona Gonzalez Street, Camden	Religious Institution
32	Faith Tabernacle Church	553 Spruce Street, Camden	Religious Institution
33	US Wiggins Elementary School	400 Mt Vernon Street	School
34	Baptist Temple Church	1029 S. 4 th Street, Camden	Religious Institution
35	Shalom Baptist Church	1036 S. Broadway, Camden	Religious Institution
36	South Camden Alternative School	555 Mt. Vernon Street, Camden	School
37	Friendship Baptist Church	1002 S. 8 th Street, Camden	Religious Institution
38	Whittier Elementary School	740 Chestnut Street, Camden	School
39	Chestnut Street UAME Church	718 Chestnut Street, Camden	Religious Institution
40	First Church Deliverance	1117 S. Broadway, Camden	Religious Institution
41	New Freedom Full Gospel Church	441 Liberty Street, Camden	Religious Institution
42	St. Bartholomew’s Church	751 Kaighns Avenue, Camden	Religious Institution
43	Zion Baptist Church	1419 S. Broadway, Camden	Religious Institution
44	Grace Apostolic Church	440 Lansdowne Avenue, Camden	Religious Institution
45	New Hope Temple	448 Jackson Street, Camden	Religious Institution

Table 40: Community Services and Social Service Providers (continued)

ID No.	Facility Name	Address	Facility Type
165	Camden County Municipal Utility	1645 Ferry Avenue, Camden	Government Facility
46	Holy Bethel Pentecostal Temple	1800 S. Broadway, Camden	Religious Institution
47	Camden County Energy Recovery	600 Morgan Street, Camden	Government Facility
48	First Nazarene Baptist church	1500 S. 8 th Street, Camden	Religious Institution
49	Due Season Charter School	1000 Atlantic Avenue, Camden	School
50	Sumner Elementary School	1600 S. 8 th Street, Camden	School
51	Community Baptist Church	1529 Mt. Ephraim Avenue, Camden	Religious Institution
52	Antioch Baptist Church	690 Ferry Avenue, Camden	Religious Institution
53	Bethel AME Church	1841 Phillips Street, Camden	Religious Institution
54	Ferry Avenue United Methodist Church	768 Ferry Avenue, Camden	Religious Institution
55	Ferry Avenue Branch Library	852 Ferry Avenue, Camden	Library
56	Tenth Street Baptist Church	1860 S. 10 th Street, Camden	Religious Institution
57	R.T. Cream Elementary School	1875 Leon Huff Street, Camden	School
58	Mt. Olivet Seventh Day Adventist	800 Chelton Avenue, Camden	Religious Institution
59	Woodland Avenue Presbyterian Church	2300 S. 8 th Street, Camden	Religious Institution
60	HB Wilson Elementary School	2250 S. 8 th Street, Camden	School
61	Harris Temple AME Zion Church	926 Florence Street, Camden	Religious Institution
62	Gloucester Police Department	313 Monmouth Street, Gloucester	Police Station
63	Gloucester Fire Department	S. 9 th Street, Gloucester	Fire Station
64	Morgan Village Middle School	1000 Morgan Street, Camden	School
65	Cornerstone Bible Baptist Church	2523 Morgan Boulevard, Camden	Religious Institution
66	First Presbyterian Church of Gloucester City	301 Monmouth Street, Gloucester	Religious Institution
67	Gloucester City Municipal Court	313 Monmouth Street, Gloucester	Government Facility
68	Gloucester Catholic High School	333 Ridgeway Street, Gloucester	School
69	First Baptist Church of Gloucester City	400 Monmouth Street, Gloucester	Religious Institution
70	St. Mary's Church	426 Monmouth Street, Gloucester	Religious Institution
71	Church of the Ascension	110 S. Sussex Street, Gloucester	Religious Institution
72	Gloucester County Public Library	50 N. Railroad Avenue, Gloucester	Library
73	Trinity United Methodist Church	741 Division Street, Gloucester	Religious Institution
74	Fairview Community Baptist Church	2995 Sumter Road, Camden	Religious Institution
75	Lighthouse Baptist Church	811 Market Street, Gloucester	Religious Institution
76	Brooklawn Police Department	30 Haakon Road, Gloucester	Police Station
77	Church of God	111 Baynes Avenue, Gloucester	Religious Institution
78	Cold Springs Elementary School	1 Cold Springs Avenue, Gloucester	School
79	Highland Park School	1300 Market Street, Gloucester	School
80	Gloucester City High School	1300 Market Street, Gloucester	School
81	Brooklawn United Methodist	213 Maude Avenue, Gloucester	Religious Institution
82	Westville Baptist Church	225 Summit Avenue, Westville	Religious Institution
83	St. Luke's Episcopal Church	3 rd Street and Highland Avenue, Westville	Religious Institution
84	St. Anne's Roman Catholic Church	213 Woodbine Avenue, Westville	Religious Institution
85	Westville Police Department	114 Crown Point Road, Westville	Police Station
86	Westville Fire Department	230 Olive Street, Westville	Fire Station
87	Westville United Methodist Church	14 Center Avenue, Westville	Religious Institution
88	Bible Church of Westville	307 Delsea Drive, Westville	Religious Institution
89	Parkview Elementary	101 Birch Avenue, Westville	School
90	Westville Public Library	1035 Broadway, Westville	Library
91	Colonial Manor United Methodist Church	56 Elbern Avenue, West Deptford	Religious Institution
92	Woodbury Community of Christ	62 Progress Avenue, West Deptford	Religious Institution

Table 40: Community Services and Social Service Providers (continued)

ID No.	Facility Name	Address	Facility Type
93	Inspira Health Center	75 W. Red Bank Avenue, Woodbury	Medical Facility
94	YMCA	235 E. Red Bank Avenue, Woodbury	YMCA
95	Campbell AME Church	220 Park Avenue, Woodbury	Religious Institution
96	North Baptist Church	1020 N. Evergreen Avenue, Woodbury	Religious Institution
97	Walnut Street Elementary School	60 Walnut Street, Woodbury	School
98	First Baptist Church – Woodbury	554 N. Broad Street, Woodbury	Religious Institution
99	Woodbury Junior/Senior High School	25 N. Broad Street, Woodbury	School
100	Christ Episcopal Church	62 Delaware Street, Woodbury	Religious Institution
101	Gloucester County Courthouse	1 N. Broad Street, Woodbury	Government Facility
102	Woodbury Public Library	33 Delaware Street, Woodbury	Library
103	Kemble Memorial Church	19 S. Broad Street, Woodbury	Religious Institution
104	Presbyterian Church – Woodbury	67 S. Broad Street, Woodbury	Religious Institution
105	Stephen’s Lutheran Church	230 N. Evergreen Avenue, Woodbury	Religious Institution
106	Woodbury Police Department	200 N. Broad Street, Woodbury	Police Department
107	Evergreen Avenue Elementary	160 N. Evergreen Avenue, Woodbury	School
108	St. Patrick’s Church	64 County Road 706, Woodbury	Religious Institution
109	St. Patrick’s Elementary School	211 Cooper Street, Woodbury	School
110	Bethlehem Baptist Church	515 Mantua Pike, Woodbury	Religious Institution
111	Holy Trinity Church of God	20 Railroad Avenue, Woodbury	Religious Institution
112	Gethsemane Church of God	43 Stuart Street, Woodbury	Religious Institution
113	Highway Church of Christ	69 Stuart Street, Woodbury	Religious Institution
114	Spoken Word Evangelical Church	667 S. Evergreen Avenue, Woodbury	Religious Institution
115	Woodbury Heights Police Department	500 Elm Avenue, Woodbury Heights	Police Department
116	Woodbury Heights Fire Department	534 Elm Avenue, Woodbury Heights	Fire Department
117	First Presbyterian Church	335 Elm Avenue, Woodbury Heights	Religious Institution
118	Woodbury Heights Fire Department	534 Elm Avenue, Woodbury Heights	Fire Department
119	Woodbury Heights Elementary School	100 Academy Avenue, Woodbury Heights	School
120	Gateway Regional High School	775 Woodbury Heights, Woodbury Heights	School
121	St. Margaret Regional School	773 3 rd Street, Woodbury Heights	School
122	Oak Valley Elementary School	525 College Boulevard, Wenonah	School
123	Oak Valley Fire Department	595 Princeton Boulevard, Wenonah	Fire Department
124	Deptford Church of God	1076 Mail Avenue, Deptford	Religious Institution
125	Wenonah Elementary School	200 N. Clinton Avenue, Wenonah	School
126	Holy Trinity Episcopal Church	11 N. Monroe Avenue, Wenonah	Religious Institution
127	Wenonah Public Library	101 E. Mantua Avenue, Wenonah	Library
128	Wenonah Fire Department	14 SW Avenue, Wenonah	Fire Department
129	Wenonah Police Department	1 SW Avenue, Wenonah	Police Department
130	Memorial Presbyterian	202 E. Mantua Avenue, Wenonah	Religious Institution
131	Holy Nativity Lutheran Church	3 Lenape Trail, Wenonah	Religious Institution
132	Sewell Community Baptist Church	806 Mantua Boulevard, Sewell	Religious Institution
133	Sewell Elementary School	40 McAnally Drive, Sewell	School
134	Jesus Christ of Latter-Day Saints	259 Lambs Road, Sewell	Religious Institution
135	Pitman High School	225 Linden Avenue, Pitman	School
136	Rock Church	205 E. Esplanade Avenue, Pitman	Religious Institution
137	Pitman Middle School	138 E. Holly Avenue, Pitman	School
138	Church of the Good Shepherd	315 Highland Terrace, Pitman	Religious Institution
139	First Baptist Church	30 N. Broadway, Pitman	Religious Institution

Table 40: Community Services and Social Service Providers (continued)

ID No.	Facility Name	Address	Facility Type
140	Pitman Fire Department	199 West Avenue, Pitman	Fire Department
141	Pitman Police Station	110 S. Broadway Avenue, Pitman	Police Station
142	McCowan Memorial Library	15 Pitman Avenue, Pitman	Library
143	WCK Wall Elementary School	320 Grant Avenue, Pitman	School
144	New Philippian Baptist Church	711 Donald Barger Boulevard, Pitman	Religious Institution
145	Ambassador Christ Academy	535 Mullica Hill Road, Glassboro	School
146	Calvary Hill Church	535 Mullica Hill road, Glassboro	Religious Institution
147	Glassboro High School	569 Joseph L. Bowe Boulevard, Glassboro	School
148	Rowan University	201 Mullica Hill Road, Glassboro	School
149	First Presbyterian Church	300 University Boulevard, Glassboro	Religious Institution
150	Rodgers School	301 Georgetown Road, Glassboro	School
151	Faith and Hope Fellowship	213 Cornell Road, Glassboro	Religious Institution
152	Faith Fellowship Church	Main Street and Arthur Avenue, Glassboro	Religious Institution
153	Church of Saint Bridget	202 Ellis Street, Glassboro	Religious Institution
154	Saint Bridget Regional School	25 High Street, Glassboro	School
155	Glassboro Municipal Court	1 S. Main Street, Glassboro	Government Facility
156	Bethel AME Church	115 S. Main Street, Glassboro	Religious Institution
157	Trinity Bible Church	115 S. Main Street, Glassboro	Religious Institution
158	Bethel United Church – Christ	1375 S. Main Street, Glassboro	Religious Institution
159	First Baptist Church	103 Grove Street, Glassboro	Religious Institution
160	New Birth Missionary Baptist Church	230 Academy Street, Glassboro	Religious Institution
161	St. John’s Holy Church	Academy Street and Lincoln Avenue	Religious Institution
162	Glassboro Housing Authority	30 Williams Street, Glassboro	Government Facility
163	Glassboro Fire Department	27 High Street E, Glassboro	Fire Station
164	Glassboro Police Station	1 S. Main Street, Glassboro	Police Station

Source: New Jersey Department of Treasury MOD-IV dataset.

3.5 Environmental Consequences

This section discusses the potential impacts of the proposed GCL, including the No-Action Alternative and the GCL on neighborhoods and community facilities. Table 41, “Summary of Potential Impacts on Neighborhoods,” is a summary of those impacts.

Table 41: Summary of Potential Impacts on Neighborhoods

Neighborhood	No-Action Alternative	With the GCL
Cooper Poynt	No Impact	No Impact
Pyne Point	No Impact	No Impact
Cooper grant	No Impact	No Impact
Central Business District	No Impact	Potential Impact (DR, NV)
Lanning Square	No Impact	Potential Impact (DR)
Central Waterfront	No Impact	No Impact
Gateway	No Impact	No Impact
Bergen Square	No Impact	Potential Impact (DR, NV)
Parkside	No Impact	No Impact
Liberty Park	No Impact	No Impact
Whitman Park	No Impact	No Impact
Waterfront South	No Impact	Potential Impact (DR)
Centerville	No Impact	No Impact
Morgan Village	No Impact	No Impact
Fairview	No Impact	No Impact
Gloucester City	No Impact	Potential Impact (TA, DR, NV)
Brooklawn	No Impact	Potential Impact (DR)
Western Bellmawr	No Impact	No Impact
Westville	No Impact	Potential Impact (TA, DR, NV)
Verga	No Impact	No Impact
Woodbury	No Impact	Potential Impact (TA, DR, NV)
Woodbury Heights	No Impact	Potential Impact (TA, DR, NV)
Oak Valley	No Impact	No Impact
Jericho	No Impact	No Impact
Wenonah	No Impact	Potential Impact (TA, NV)
Sewell	No Impact	Potential Impact (DR, NV)
Pitman	No Impact	Potential Impact (TA, DR, NV)
Glassboro	No Impact	Potential Impact (TA, DR, NV)
“...”	Indicates no additional impacts over the GCL	
TA	Indicates impacts to neighborhood travel patterns and accessibility	
DR	Indicates impacts from displacements and relocations	
NV	Indicates impacts from noise and vibrations	
CO	Indicates impacts to neighborhood cohesion	

Source: GCL Project Team, 2020.

3.5.1 No-Action Alternative

The No-Action Alternative would consist of a future scenario with no changes to transportation services or facilities in the GCL Corridor, beyond the projects that are already committed. As a result, project-generated impacts to neighborhoods and community facilities would not occur under the No-Action Alternative. With the No-Action Alternative, neighborhoods and community facilities in the GCL Corridor would not benefit from enhanced access to transit that would be associated with the implementation of the proposed light rail.

3.5.2 The Future With the GCL

The following sections describe the direct impacts to neighborhoods and community services. The introduction of the physical elements of proposed GCL, when proximate to neighborhoods and community facilities would have the potential to cause both positive and negative impacts.

The GCL would include new stations, park-and-ride facilities, and trackwork to be located along neighborhoods within the corridor which would result in a permanent physical change of the corridor as well as changes to local traffic operations and street patterns. Physical effects include residential or business displacements, new access barriers, or noise and vibration impacts. While some impacts would have a negative impact resulting from these physical changes, the GCL would also provide mobility benefits to neighborhood residents by providing improved access to transit and destinations along the GCL Corridor.

As part of the proposed GCL, two vehicle maintenance facilities are planned. The Woodbury Heights Vehicle Maintenance Facility, in the middle of the line in Woodbury Heights, will function as a light-maintenance location and will host activities such as inspection, cleaning, fueling and overnight storage. The Glassboro Vehicle Maintenance Facility (Glassboro VMF), at the end of the line in Glassboro, will operate as a full-service maintenance and vehicle storage facility. The Glassboro VMF will sit on an approximately 26-acre parcel on Sewell Street. The site is mostly zoned for industrial use with a small portion of the eastern side zone for medium-density residential. The current land use is industrial. The surrounding area also consists of mostly industrial development with some residential development to the east. Small amounts of rezoning may be required for the use of a VMF on the site; however, the change in zoning classification should not have an adverse impact on the surrounding properties.

The Woodbury Heights VMF will sit on an approximately 18-acre parcel on Academy Avenue. The site is zoned as limited industrial, and the current land use is vacant. The surrounding areas consist of residential developments. Rezoning may be required for the use of a VMF on the site, however, the change in zoning classification should not have an adverse impact on the surrounding properties.

Neither VMF is expected to produce noise or vibration impacts. Traffic generated from the VMFs would be primarily be employee trips, and, therefore, minimal. Further, traffic impacts anticipated from the GCL are generally minimal due in part to the associated reduction in auto trips in the future with the GCL. Where traffic impacts represent a significant adverse impact, mitigation measures have been proposed to minimize adverse effects. Detailed information on traffic impacts and mitigation is discussed in Attachment 05, "Traffic Analysis Technical Report."

Citizens within the proposed project corridor have been involved throughout the planning process in an attempt to avoid or minimize potential impacts from the proposed GCL on surrounding neighborhoods. As part of this involvement, a Public Involvement Plan (PIP) was developed and implemented for the planning and design phases of the proposed project. The PIP serves as the guideline for coordinating public activities, distributing public information, and engaging the public and interested parties throughout the EIS process. This plan outlines and identifies public outreach strategies, public comment opportunities, and methods for disseminating project information. The PIP reflects the GCL Project Team's well-established history of conducting proactive outreach programs in the community and focuses on achieving public awareness and interaction throughout the entire project development process.

3.5.2.1 Neighborhoods

Given that the proposed GCL would run within an existing rail corridor, the proposed project would not physically divide neighborhoods, reduce access to, or disrupt the cohesion of existing communities. The alignment would also not be likely to alter neighborhood boundaries or the setting in which these neighborhoods exist. In addition, access to neighborhoods would not be severed. However, noise and vibration impacts would occur in some areas.

The proposed GCL makes use of an active rail corridor. While the commercial areas along the rail corridor are within the boundaries of specific neighborhoods, these commercial areas are typically not part of the core residential part of the neighborhood. As a result, an impact to a non-residential use within a neighborhood would not be considered an impact to the entire neighborhood.

Travel Patterns and Accessibility

Given the use of the existing rail corridor, overall negative impacts to automobile travel patterns and accessibility are not anticipated within these neighborhoods. The proposed project would not sever or divide any streets within the corridor, as the majority of the proposed project would be constructed along existing railway and roadway.

The proposed project would be both at-grade and grade-separated along the corridor to eliminate most conflicts between vehicular traffic and the proposed GCL. In addition, new signals and the addition of turn lanes would also help to alleviate vehicular traffic conflicts resulting from the proposed project. There are locations where the proposed project would cross streets and require motorists to wait for the light rail traffic to pass. Some of these locations already experience wait times for vehicles due to the existing railway traffic. Increased wait times at these locations are not expected to negatively affect vehicular travel patterns or accessibility within the corridor. As a result, accessibility for vehicles within the corridor is not anticipated to change significantly in the future with the GCL.

Generally, accessibility for transit patrons, bicyclists, and pedestrians within the GCL Corridor would be positively affected by the proposed project. The proposed GCL would provide another mode of transportation for residents and provide a more efficient option to automobile and bus travel. In addition, the frequency at which transit would be provided within this corridor would also increase with the proposed project. Pedestrian improvements (sidewalks, crossings, etc.) are also proposed, including bicycle parking spaces at stations. Specific details on how travel and accessibility would be altered as a result of the proposed project are included in Attachment 5, "Traffic Analysis Technical Report," and Attachment 6, "Transit Analysis Technical Report."

There is potential for transit patrons to utilize neighborhood streets for parking. This potential exists at "walk-up" stations where park-and-ride lots would not exist, as well as at park-and-ride stations where dedicated parking could overflow. Overflow parking in neighborhoods would affect available on-street parking in neighborhoods, as well as introduce additional traffic.

Displacements and Relocations

Property acquisitions would be required for development of the proposed GCL. Acquisitions would primarily be required for development of the station areas with parking facilities. Development of the proposed GCL would result in permanent impacts to approximately 211 parcels across Camden and Gloucester counties, including 39 full, 32 partial, and 140 de minimis acquisitions. The full acquisition of 39 parcels is anticipated to result in significant adverse impacts to 9 commercial and 13 residential parcels. These full acquisitions would, in turn, generate the displacement of an estimated nine businesses and 20 residents living within eight single- or multi-family residential properties. The other 27 parcels that would be fully acquired feature a range of uses but are not actively used for commercial or residential purposes. Therefore, no significant impacts would result on these 27 parcels because acquiring them would not result in the displacement of businesses or residents. Relocation assistance would be provided and property owners would be fairly compensated according to federal, state, and local laws. Specific details on guidelines for these relocations and compensation are included in Attachment 12, “Acquisitions and Displacements Technical Report.”

Noise and Vibration

As part of the Noise and Vibration Impact Analysis, noise monitoring was conducted at noise-sensitive receptors within the neighborhoods immediately adjacent to the proposed alignment. A noise and vibration impact assessment was conducted and is detailed in Attachment 11, “Noise and Vibration Technical Report.” While individual noise and vibration impacts may occur at various sites along the project corridor, those individual impacts do not necessarily constitute an effect on the overall neighborhood. The results of the noise and vibration assessment indicates that corridor-wide, a total of 754 dwellings (equivalent single-family units) are projected to experience impacts; these consist of 577 moderate impacts and 177 severe impacts from daily GCL operations. In addition, 50 dwellings will experience moderate noise impacts associated with maintenance yard activities. However, no peak hour noise impacts are expected to occur from daily traffic movement entering and departing the major parking facilities proposed along the corridor. Noise mitigation measures consists of undercar sound absorption treatment, rail car vehicle skirts and track lubrication to mitigate wheel squeal on tight curves. These abatement measures are expected to eliminate noise impacts at 569 out of 754 impacted properties. The remaining noise impacts are all attributable to horn noise soundings. Ground vibration generated through proposed GCL operations would not exceed FTA impact thresholds during daily service operations. Therefore, no vibration-related mitigation measures would be required.

Cohesion

Generally, the proposed GCL would be located along an existing rail corridor. As a result, the proposed project would not create a new physical barrier to neighborhood residents or physically divide neighborhoods.

3.5.2.2 Neighborhood Assessments

Generally, the proposed GCL would be located along an existing rail corridor. Where the proposed GCL would introduce new rail infrastructure where none currently exists, it would be operating on an elevated

viaduct structure adjacent to I-676, or along former rail corridor. As a result, the proposed GCL would not create a new physical barrier to neighborhood residents or physically divide neighborhoods.

An assessment of each neighborhood was undertaken with regards to effects of the proposed GCL on travel patterns and accessibility, displacements and relocations, noise and vibration, visual and aesthetics, and cohesion. The following summarizes the assessment of impacts to neighborhoods that would be affected by the proposed GCL. Neighborhoods that would experience no impacts are not included in this discussion.

Central Business District

The proposed GCL would begin in Camden City at the WRTC, utilizing existing NJ TRANSIT River LINE tracks. At approximately Haddon Avenue, the proposed GCL alignment would be elevated onto a viaduct structure that would run parallel to the existing elevated I-676 structure. The proposed GCL would utilize the existing WRTC and introduce a new station at Cooper Hospital, adjacent to the Camden County Police Department building and the Camden County Community Affairs Department building.

In Camden's Central Business District, the proposed GCL would be surrounded primarily by commercial land uses that are set back approximately 100-150 feet from the rail ROW. As the proposed GCL nears Cooper Hospital, it would be approximately 35 feet from Cooper Hospital alongside I-676. Before reaching Cooper Hospital, the land uses east of the track become more residential.

One property in Camden City's Central Business District would have to be acquired to accommodate the GCL. 525 Martin Luther King Boulevard is a 55,815 square feet parcel that formerly contained a CVS pharmacy and is currently vacant.

Additionally, as part of the Noise and Vibration Impact Analysis, it was determined that the proposed GCL would result in moderate noise impacts at 30 residential units in the Central Business District.

Lanning Square

The proposed GCL would operate on an elevated viaduct structure adjacent to I-676 through Lanning Square. Land uses in the vicinity of the Cooper Hospital Station are generally residential. While Cooper Hospital would be as close as 40 feet away from the GCL corridor, residential homes are set back 50-75 feet away from the station and down the corridor. The Lanning Square neighborhood is on the west side of the GCL corridor.

Bergen Square

The proposed GCL would operate within existing Conrail ROW through Bergen Square. There would be no stops in Bergen Square. Community facilities adjacent to the proposed GCL corridor include Whittier Elementary School, Bethel Deliverance Church, and Kaighn Avenue Baptist Church.

The proposed GCL extends past Lanning Square into Bergen Square east of the tracks as it rises onto I-676. The proposed corridor passes mostly residential housing which comes within 50-100 feet of the tracks.

The proposed GCL would require full acquisition of five residential multi-family properties and two vacant properties in Bergen Square. Acquisition of these properties would result in one business impacted and three employees displaced, as well as two residences impacted, and 2.55 residents displaced.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would occur at 51 residential units in Bergen Square.

Waterfront South

The proposed GCL would continue on the elevated viaduct structure as it passes along the eastern edge of the Waterfront South neighborhood. The proposed South Camden Station would be located within the Waterfront South neighborhood and directly adjacent to the Centerville neighborhood. The closest community facilities include Grace Baptist Church and Memorial Park.

As the proposed GCL passes along the eastern edge of the neighborhood, the proposed GCL would pass within 75 feet of commercial uses and within 75-100 feet of residential uses.

It is expected that the GCL would require full acquisition of one vacant property in Camden City's Waterfront South neighborhood.

Gloucester City

The proposed GCL would be located within the existing Conrail ROW through Gloucester City operating at-grade directly adjacent to the existing tracks. A proposed GCL station (Gloucester City Station) would be constructed between Cumberland and Market Streets.

As the proposed GCL would be located within existing Conrail ROW, it would not create a new physical barrier to Gloucester City or physically divide the neighborhood. Therefore, neighborhood cohesion would not be altered by the proposed GCL.

A total of 36 parcels in Gloucester City would be affected by the proposed GCL. These include nine commercial, four manufacturing, 12 multi-family residential, 10 single-family residential, and one vacant property. Of these, full acquisitions would result in the displacement of two businesses, affecting approximately 20-38 employees. It is estimated that full acquisitions would not result in the displacement of residences in Gloucester City.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would occur around 56 S. Railroad Avenue and Thompson Street/Lane Avenue Park, affecting 34 residential units in Gloucester City. No noise impacts would occur at Gloucester Public Library.

Construction of the proposed GCL would have impacts on travel patterns. In Gloucester City, the location of LOD line encroaches the roadway of S. Railroad Avenue, requiring it to be narrowed from a two-way to a one-way road northbound. At-grade crossings at Market Street would be installed, causing minor delays. Due to the reduction of traffic as a result of the proposed GCL, delays and traffic volume are slightly lower in the A.M./P.M. peak hours at the intersections of N. Broadway and Hudson Street, S. Broadway and Monmouth Street, Market Street and S. Broadway, and S. Broadway and Koehler Street.

N. Broadway and Hudson Street will experience a decrease in LOS from B to C. A proposed GCL surface parking facility at Gloucester City station will result in 160 new parking spots.

Brooklawn

The proposed GCL would be located within the existing Conrail ROW through Brooklawn. There would be no proposed GCL station within the neighborhood; however, tracks would run next to the Brooklawn American Legion/Senior Citizen Center.

Residential uses, primarily along New Broadway, Old Broadway, Marne Road, and N. Wilson Avenue where homes are situated parallel to existing Conrail track on both sides, are less than 75 feet away from the proposed project. Commercial uses are found on New Broadway on the south side of town past Marne Road, and on the west side of the corridor, about 50 feet away from the tracks.

A total of five parcels in Brooklawn would be affected by the proposed GCL. One full acquisition would be required. No displacements or impacts to businesses or residents are anticipated in Brooklawn.

Westville

The proposed GCL would be located within the existing Conrail ROW through Westville. The proposed Crown Point Road Station would be located on Broadway and Willow Drive across from the Westville US Post Office. The proposed GCL would be located to the west of Westville Fire Department.

All residential and commercial uses near the Crown Point Road Station are about 75 feet apart on the east side of the proposed GCL. Development on the east side of the proposed GCL corridor is closer in proximity than the west, as the tracks run parallel with Route 45 and Route 130. Land uses north and south of the proposed station are mostly commercial, while development towards the center between Olive and Pine streets is more residential. Commercial land uses are much closer in proximity, getting as close as 20 feet away from the proposed GCL. Multi-family residences are located approximately 50 feet away on the north and south ends of the proposed station site.

A total of 27 parcels in Westville would be affected by the proposed GCL. Five of these properties, all of which are located along Broadway, would be fully acquired for the construction of the proposed GCL. One business would be affected, resulting in the displacement of approximately 10 employees.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would occur at 75 residential units in Westville.

The proposed Crown Point Station, which is a center island station, would encroach onto Woodbine Avenue, requiring the width of the road to be decreased from 24 feet to 22 feet. At-grade crossings at E. Olive Street and Broadway would be installed, causing minor delays. The propagating eastbound queue approaching the Olive Street Grade Crossing would extend through intersection at Olive Street and NJ Route 45, which requires coordination of traffic signal with grade crossing equipment. Broadway and Delsea Drive will experience an increase in LOS from F to B. A proposed GCL surface parking facility at Crown Point Road Station would result in 325 new parking spots. 26 parking spots would be lost at 1060

Broadway, 368 Broadway, and at the parking lot adjacent to the vacant properties between 368-300 Broadway.

Woodbury

The proposed GCL would be located within the Conrail ROW through Woodbury. Two stations would be constructed in Woodbury, Red Bank Avenue Station, adjacent to the Gloucester YMCA, and Woodbury Station, parallel to St. Patrick's Church on Green Avenue.

Commercial uses are located on both sides of Red Bank Station, approximately 100-150 feet away from the tracks. Across the lake, land use is mostly residential and is setback approximately 75 feet away from track on both sides.

At Woodbury Station, a large multi-family residence is about 150 feet away and east of the tracks. Homes on the west are slightly closer at 125 feet to the tracks, where the proposed Woodbury Station will be built. Further down the tracks are slightly closer to homes at 100 feet before entering Woodbury Heights.

A total of 14 parcels in Woodbury would be affected by the proposed GCL. Two commercial properties would require full acquisition. A total of three businesses would be affected, one of which is a construction yard. This would result in the displacement of 11 employees.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would affect 68 residential units.

Green Avenue, a 17-foot-wide one-way southbound street, overlaps with the proposed GCL alignment and would be required to be reduced to 13 feet. This would be sufficient for access to the Woodbury Mews senior-care facility, however, the passenger loading zone would be displaced. Impacts to at-grade crossings on Cooper Street and E. Barber Avenue would result in minor delays. E Red Bank Avenue and N. Broad Street would experience a decrease in LOS from D to C. Increases in LOS would occur at the intersections of E. Barber Avenue and S. Evergreen Avenue (E to F), E. Barber Avenue and Railroad Avenue (A to B), Cooper Street and S. Evergreen Avenue (B to E), and E. Red Bank Avenue and N. Evergreen Avenue (C to E). Woodbury would lose 125 parking spots in lots adjacent to Green Avenue and Laurel Street, as well as Railroad Avenue.

Woodbury Heights

The proposed GCL would be located within the Conrail ROW through Woodbury Heights. The proposed Woodbury Heights Station would be constructed on W Jersey Avenue from Elm Avenue to Central Avenue. Woodbury Heights Fire Department is located adjacent to the track on Elm Avenue to the east.

North of the proposed Woodbury Heights Station, the proposed GCL passes through a commercial area and is approximately 50 feet apart from these facilities. After crossing the NJ Turnpike, land use is generally residential, with single-family residential on the west side and commercial uses on the east. Residences are more than 125 feet apart from the tracks until passing the maintenance facility where houses to the east border the tracks by about 30 feet separated by brush. On the east side, track is located just beyond the backyards of the adjacent neighborhood.

Three parcels in Woodbury Heights would be affected by the proposed GCL. One of these properties, a vacant 17.5-acre parcel, would require full acquisition to accommodate parking, access, and landscaping.

Additionally, as determined in the Noise and Vibration Impact Analysis, the VMF in Woodbury Heights would have moderate noise impacts, while remaining below the 72 VdB impact threshold. Further refinement during future project phases may alter noise exposure levels later in the project. Comparing existing noise conditions against anticipated project-related noise, it was determined that moderate impacts would also occur at Veterans' Park, with severe impacts occurring at 348 East-West Jersey Avenue, affecting a total of 90 residential units in Woodbury Heights.

At-grade crossings on Elm Avenue would be installed, causing minor delays. Due to the reduction of traffic as a result of the proposed GCL, delays and traffic volume are slightly lower in the A.M./P.M. peak hours at the intersection of Elm Avenue and W Jersey Avenue, which would experience a decrease in LOS from B to C. A proposed GCL surface parking facility at the Woodbury Heights Station would result in 25 new parking spots. Ten parking spots would be affected in order to accommodate the proposed GCL alignment.

Wenonah

The proposed GCL would be located in the Conrail ROW through Wenonah. The proposed Wenonah Station would be constructed adjacent to N. West Avenue and N. East Avenue from approximately E Poplar Street to W Mantua Avenue. The tracks run through the center of town along the US Post Office and Wenonah Police Department on S. West Avenue as well as Wenonah Elementary School on N. East Avenue.

On both sides of the proposed GCL alignment, the land use is predominantly residential. Single-family residences run parallel with tracks along S West Avenue and N. East Avenue, setback a little under 100 feet from the tracks. Town facilities, such as the County Clerk's Office, are directly next to the tracks.

Two parcels in Wenonah would be affected by GCL. No properties would require full acquisition.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would occur at 64 residential units.

The proposed Wenonah Station would affect parking along N. West Avenue and N. East Avenue immediately adjacent to the station; however, the station would not encroach on roadway lanes, and as such, would have no effect on street circulation. At-grade crossings at Maple Street, Mantua Avenue, and Willow Street would be installed, causing minor delays. Delays and traffic volume would be slightly higher in the A.M./P.M. peak hours at the intersection of N. East Avenue and E. Mantua Avenue, which would experience a slight increase in peak traffic volume. Due to construction, 11 parking spots would be lost at the surface lot adjacent to East Avenue.

Sewell

The proposed GCL would be located within the Conrail ROW through Sewell. The proposed Sewell Station would be constructed on Atlantic Avenue between Center Street and Essex Street. The US Post Office in Sewell is east of the station on Center Street.

Coming from Mantua Boulevard into Sewell, residential use is mainly on the east side over 100 feet away while commercial is on the west at least 150 feet away until reaching the baseball fields. Running through the center of Sewell, the tracks are surrounded by residential, single family uses, about 100 feet on each side as well. Before crossing Route 55, the proposed GCL would pass through southern Sewell between backyards of houses set about 50 feet away from the track.

One commercial property would require full acquisition in Sewell. The property appears to be vacant and is not anticipated to result in any displaced businesses or residences.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would occur at 92 residential units in Sewell.

Pitman

The proposed GCL would be located within the Conrail ROW through Pitman. The proposed Pitman Station would be located in the center of town adjacent to Simpson Avenue. The Pitman Boro Municipal building is adjacent to the tracks/station on S. Broadway.

The proposed GCL would pass mostly residential, single-family homes in the north of Pitman, about 75 feet away from homes on the west side of the tracks. Homes to the east are a little further as their backyards border the rails until reaching the proposed Pitman Station site, which is surrounded by commercial land use approximately 100 feet away on both sides. As tracks depart the town, the track is surrounded by single-family homes on both sides which are approximately 90 feet from the tracks until the track runs through Cedar Avenue.

One commercial parcel in Pitman would be affected by the proposed GCL, requiring full acquisition. The parcel, located on Commerce Avenue, would be used as overflow parking for a nearby auto body shop.

Additionally, as determined in the Noise and Vibration Impact Analysis, moderate noise impacts would affect 50 residential units.

Parking along W. Jersey Avenue would be affected by the proposed GCL's double-track alignment, but street functionality and circulation would not be affected. At-grade crossings at Pitman Avenue and S. Broadway would be installed, causing minor delays. Delays and traffic volume are slightly higher in the A.M./P.M. peak hours at the intersections of Broadway & Holly Avenue and Pitman Avenue & S. Broadway, which would experience a slight increase but would not change LOS. Due to construction, 110 parking spots would be lost along W. Jersey Avenue and the vacant surface lot on Commerce Avenue.

Pitman Station would consist of two outside platforms surrounded by landscaping consistent with the railway corridor. Existing trees and vegetation would be replaced in the area proposed for new station

development, with new trees and vegetation being planted in their place to ensure the station contributes positively to the adjacent properties. However, views to the station may be increased as a result of tree removal, diminishing the visual “buffer” enjoyed by current residents to the west which will expose their rear yards and the rail corridor. The proposed landscaping would enhance the appearance of the station area and integrate it with the surrounding neighborhood while buffering views of the rail corridor. Therefore, no significant effects to the aesthetic character of the station will occur.

Glassboro

The proposed GCL would be located within the Conrail ROW as well as two historic rail corridors (one going to the proposed Glassboro VMF, and the other to the Glassboro Station) through Glassboro. Two stations, Rowan University Station and Glassboro Station, would be located in Glassboro. The track runs through Glassboro High School as well as Bethlehem United Church of Christ and Faith Fellowship Church.

The proposed GCL would first run through Glassboro High School and then into downtown Glassboro where Rowan University is located. Running through residential neighborhoods, the track would be surrounded by both single and multi-family residences as it runs parallel down Girard Road N/S. The distance between tracks and homes ranges from less than 60 feet to a little more than 100 feet away between the Rowan University Station and the Glassboro Station.

A total of 55 parcels in Glassboro would be affected by the proposed GCL. Sixteen of these properties would require full acquisition. The parcels that would need to be acquired include one community service, seven manufacturing, seven single-family, and one wooded. Overall, the proposed GCL would affect one business, six residences, and displace an estimated 30 employees and 15 residents.

Additionally, as determined in the Noise and Vibration Impact Analysis, the VMF in Glassboro would have moderate noise impacts while remaining below the 72 VdB impact threshold. Further refinement during future project phases may alter noise exposure levels later in the project. These moderate impacts would affect 70 residential units. Severe noise impacts would affect 123 residential units in Glassboro.

Construction of the proposed GCL through Glassboro would have numerous impacts on travel patterns. At the proposed Rowan University Station, Mullica Hill Road would face major delays, reducing roadway capacity and contribute to increasing delays, with its westbound LOS dropping to E. Potential mitigation includes widening Mullica Hill Road to a three-lane roadway, with two lanes westbound and one eastbound. Bowe Boulevard would cause a propagation of cars northbound which would extend through Mullica Hill Road and Bowe Boulevard. Potential mitigation includes widening Bowe Boulevard to a three-lane roadway, with two lanes northbound and one lane southbound. This would allow both the A.M. and P.M. peak delays to reduce greatly, changing LOS from F to E.

The proposed Glassboro Station would also generate impacts. Zane Street coincides with a portion of the proposed double track GCL alignment and should be terminated as a dead end at the Conrail ROW. The proposed Glassboro Station would include a new roadway for vehicular station access that extends from Wilmer Street and Main Street east to Academy Street. The proposed extension is a two-way road and may potentially warrant a signal at Wilmer Street and Main Street. The proposed Wilmer Street Extension

could act as a shorter route for traffic along Main Street or Wilmer Street, which would reduce traffic volumes at the signalized intersection of Main Street and High Street but could potentially increase traffic along the stop-controlled approach on Academy Street at High Street. It is recommended that Glassboro installs marked crossing at Wilmer Street with traffic calming measures.

Grade crossings within Glassboro are located at Carpenter Street, Bowe Boulevard, Mullica Hill Road, and S Main Street. It is recommended that Glassboro install a new crosswalk on west leg of intersection on Girard Avenue North with traffic calming measures at Rowan University Townhomes about 380 feet east of the grade crossing. After construction of the proposed GCL, the crossing at S. Main Street would decrease from LOS C to D. Construction of the proposed GCL would result in the loss of three parking spots in a Rowan University lot and 23 parking spots at 137 S. Main Street, 102 S. Main Street, and 38 S. Main Street.

The Rowan University Station would consist of two outside platforms surrounded by extensive landscaping and consistent with the railway corridor landscape, which would not be visible from adjacent parking areas. The proposed landscaping would enhance the station area, integrating it with the strip of naturalized area bordering the tracks and buffering views between the proposed GCL corridor to the east and west. No significant effects to the aesthetic character would be associated with this station.

The Glassboro Station would consist of two outside platforms, new to the historic railway corridor landscape. Parking spots would be introduced at the end of the station area and the proposed landscaping would enhance the appearance of the station area, integrating it with the surrounding neighborhood. No significant effects to the aesthetic character of the landscape would be associated with this station.

3.5.2.3 Community Services and Social Service Providers

The development of transit projects (specifically rail) have the potential to delay law enforcement and emergency services when these vehicles are required to wait for the light rail to cross an intersection. As shown on Figure 29 (Plates “a” – “r”), “Community Facilities,” several police and fire stations are located within the GCL Corridor as well as two medical facilities. It is not anticipated that the proposed GCL would cause an increase or decrease in the demand for local law enforcement services. NJ TRANSIT and/or DRPA would be responsible for providing transit police on GCL vehicles and at station areas. In addition to patrolling vehicles and stations along the proposed GCL, law enforcement at all proposed stations would be provided. The GCL project is also not anticipated to cause an increase or decrease in the demand for local emergency response services. The GCL project will be designed in a manner that would not compromise the access to roads, buildings, neighborhoods, or the railway in the event of an emergency. Additional safety and security measures are detailed in Attachment 8, “Safety and Security Technical Report.”

Approximately 164 community facilities have been identified within the GCL corridor including approximately 91 religious/faith-based facilities, 36 schools, seven fire stations, six libraries, nine police stations, two medical centers, and one YMCA. The majority of these facilities would experience a positive impact that increased access to transit and transportation choices would offer.

One community facility would experience potentially negative impacts from the proposed project in the terms of a full acquisition:

Bethlehem United Church of Christ (Glassboro)

In the portion abutting County Road 553, this parcel backs up to Bethlehem United Church of Christ's primary building. Acquisition of this parcel would directly eliminate ten parking spaces for that use and may potentially impact pick-up/drop-off activities and use of the ADA ramp that leads to the back of the church.

Travel Patterns and Accessibility

With respect to transit service, the GCL would provide a significant level of benefit to the communities along the GCL corridor, and particularly transit-dependent populations. The GCL would utilize an exclusive guideway that would provide increased reliability, increased service frequencies, and significant travel time savings over the No-Action Alternative. There would be an increase in transit accessibility as well as mobility to origins and destinations throughout the entire NJT system. Improved access to employment centers along the GCL light rail service and within the project corridor would result.

However, negative impacts to local streets near the GCL include reduction of lanes widths, slight relocation of roadways, and full closures of one-way streets affecting local circulation patterns; street circulation patterns would be most-heavily affected in Gloucester City. At-grade crossings could potentially have significant impacts on the roadway network adjacent to the GCL. In addition, public and private parking spaces may be lost. In total, approximately 233 public parking spaces are anticipated to be lost. In total, approximately 132 private parking spaces are anticipated to be lost.

The GCL would also have at-grade crossings at 39 public roadways and one private driveway location. These roadway modifications would change travel patterns for both drivers and pedestrians; however, they would provide a safer environment. The results of the analysis reveal that there would be minor delays throughout the corridor, with most at-grade crossings operating at LOS A or LOS B with delays up to 21 seconds per vehicle. The following 15 grade crossings would experience minor delays as a result of the proposed GCL:

- Market Street
- Olive Street
- E. Barber Ave
- Elm Ave
- Maple St
- Mantua Ave
- Center St
- Lambs Road
- Pitman Ave
- S. Broadway
- Carpenter St
- Bowe Blvd

- Mullica Hill Rd
- Ellis St
- South Main St

While all of these intersections would experience delays, none of these represent significant adverse impacts.

In addition, the GCL Project Team analyzed transportation conditions at 42 key intersections and roadways adjacent to or within proximity of proposed station areas. Due to the reduction in traffic anticipated for the future with the GCL, roadway and intersection delays with the GCL are generally lower compared to the No-Action condition at locations where no new trips would be generated by GCL stations and parking facilities; they are generally higher compared to the No-Action condition at locations where new drive access trips would be anticipated as a direct result of the proposed GCL parking facilities. Detailed information on the intersections that would be adversely affected and the proposed mitigation to minimize these effects can be found in Attachment 5, “Traffic Analysis Technical Report.”

Displacements and Relocations

Overall, impacts resulting from acquisitions and displacements would not be adverse or disproportionate among minority and low-income communities in the future with the proposed GCL. Of the 39 full property acquisitions expected with the GCL corridor, 35 are located within communities of concern. Of these, nine are commercial, one is community service, seven are manufacturing, one is parking, 12 are residential, four are vacant land, and one is wooded land. These acquisitions will impact nine businesses, displace approximately 92 employees, and impact eight residences. These full acquisitions are potentially significant, and therefore adverse, but not disproportionate within communities of concern.

The GCL would require partial acquisition or de minimis acquisition of approximately 172 parcels. Of these, 27 partial acquisitions and 104 de minimis acquisitions would occur in communities of concern. There is no evidence that the impact would be disproportionate.

Community Services and Facilities

As stated in Section 3.5.2.3, “Community Services and Social Service Providers,” in the future with the proposed GCL, one community facility (Bethlehem United Church of Christ) located within a community of concern (Glassboro) would experience impacts relating to direct acquisition of ten parking spaces which may impact activities and ADA ramp usage at the back of the church. The church itself would not be displaced and no physical alteration to the building would occur. This impact would not be considered adverse or disproportionate.

Neighborhoods

The GCL would not adversely affect character or connectivity of neighborhoods within the proposed project corridor. While some impacts would occur to specific properties, none of these impacts would collectively affect a neighborhood. The improved access to transit and increased mobility to other destinations in the region would provide residents, particularly transit-dependent populations, with improved connectivity within and between neighborhoods.

Noise and Vibration

Of 27 representative locations used as receptor sites, moderate noise impacts are likely to occur at 13 representative locations within communities of concern as a result of the proposed GCL activities and severe noise impacts are likely to occur at two representative locations within communities of concern. The severe impacts are anticipated at Zane Street in Glassboro and at Rowan University's Girard House. The severe noise impact at these locations would be considered adverse; however, no disproportionate impacts are anticipated.

In addition, moderate noise impacts at residential properties adjacent to the proposed vehicle maintenance and storage facilities are expected to occur at each of the two proposed yards located in the communities of Woodbury Heights and Glassboro, with Glassboro considered a community of concern. Further refinement of the maintenance facility activities at the two proposed storage yards would occur during a future project phase at which more details related to the location, types, and duration of various maintenance activities would be developed. These changes may alter noise exposure levels.

Mitigation for these impacts from noise exposure would be determined during final design and it is likely that the impacts can be successfully mitigated. The GCL team estimated with future project noise exposure levels with mitigation measures and found that severe noise impacts at receptor sites would be eliminated but moderate noise impacts would remain at four receptor sites within communities of concern in Gloucester City and Glassboro. The remaining moderate noise impacts are all caused by noise generated from horn soundings.

Vibration levels during daily service operations at all receptor sites were found to be below the FTA Impact Threshold.

3.6 Mitigation

Through the course of the EIS, the GCL team has undertaken extensive public information activities to inform residents and provide the opportunity for participation in evaluating the proposed project, station locations, environmental concerns, etc. Public presentations have been offered to the public at large, community groups, public officials, institutional officials, and local, state, and federal agencies. As a result of public involvement, several design decisions were made. Public involvement will continue through the end of the environmental review process, and comments and concerns from area residents will continue to be solicited.

3.6.1 No-Action Alternative

3.6.1.1 Neighborhoods

The No-Action Alternative would consist of a future scenario with no changes to transportation services or facilities in the Glassboro to Camden Corridor, beyond the projects that are already committed. As a result, project-generated impacts to neighborhoods would not occur under the No-Action Alternative.

3.6.1.2 Community Services

The No-Action Alternative would consist of a future scenario with no changes to transportation services or facilities in the Glassboro to Camden Corridor, beyond the projects that are already committed. As a result, project-generated impacts to community services would not occur under the No-Action Alternative.

3.6.2 The Proposed GCL

3.6.2.1 Neighborhoods

Impacts to neighborhoods resulting from the proposed GCL would be reduced through a number of mitigation measures. Neighborhoods of particular concern include Gloucester City, Brooklawn, Westville, Woodbury, Woodbury Heights, Wenonah, Sewell, Pitman, and Glassboro, which would be affected by displacements/relocations, changes to noise/vibration level, and/or changes to the existing visual/aesthetic character. Mitigation measures that would be employed are as follows:

Travel Patterns and Accessibility

As detailed in Attachment 5, “Traffic Analysis Technical Report,” signal timing adjustments, intersection relocations, and modifications to traffic lanes would help mitigate the effects of the GCL in certain locations within the corridor. No additional mitigation, beyond what is listed in Attachment 5, “Traffic Analysis Technical Report,” would be required.

Overflow parking in neighborhoods located near to proposed stations would be monitored through visual survey to determine whether additional parking is needed. Additional parking would be added with the development of park-and-ride facilities within and near neighborhoods near to proposed park-and-ride stations. Where existing parking would be impacted, if overflow parking becomes an issue for adjacent neighborhood streets, local resources near to the problematic stations would be assessed to determine whether additional dedicated or shared parking could be secured. If necessary, parking enforcement would be instituted, allowing only residents of particular neighborhoods to park on specified streets.

Displacements and Relocations

Where displacements and relocations are unavoidable, relocation services and payments would be provided. Property owners would be paid for property acquired, and relocation procedures for displaced residents would be guided by the Uniform Relocation Assistance and Real Property Acquisition Policies Act. The Act requires that comparable replacement housing be available before displacements occur. Refer to Attachment 12, “Acquisitions and Displacements Technical Report,” for additional mitigation details.

Noise and Vibration

The FTA requires that mitigation for moderate impacts be incorporated into the proposed project when it is considered reasonable. For severe impacts, mitigation should be incorporated into the proposed project unless there are extenuating circumstances to prevent it. The goal is to gain substantial reductions in noise level. Example of general noise mitigation measures include, but are not limited to, operational

restrictions, the use of vehicle skirts, and resilient or damped wheels, sound barriers, and buffer zone acquisitions.

The most practical noise and vibration mitigation recommendations for properties affected by the GCL include the modification of light rail vehicle skirts, sound barriers, and sound insulation. Specific mitigation measures designed for each property would be proposed during final design. These measures will be based on more accurate and specific operational engineering and environmental data that will be available for use in a detailed noise assessment. As such, the final mitigation methods may differ with those mitigation measures recommended here. Coordination with property owners regarding acceptable mitigation methods would occur during final design.

Cohesion

Neighborhood cohesion would not be negatively affected by the GCL. Therefore, mitigation measures are not needed.

3.6.2.2 Community Services

The GCL project sponsor will work Bethlehem United Church of Christ in Glassboro if property is acquired for the project which would impact church parking and ADA access.

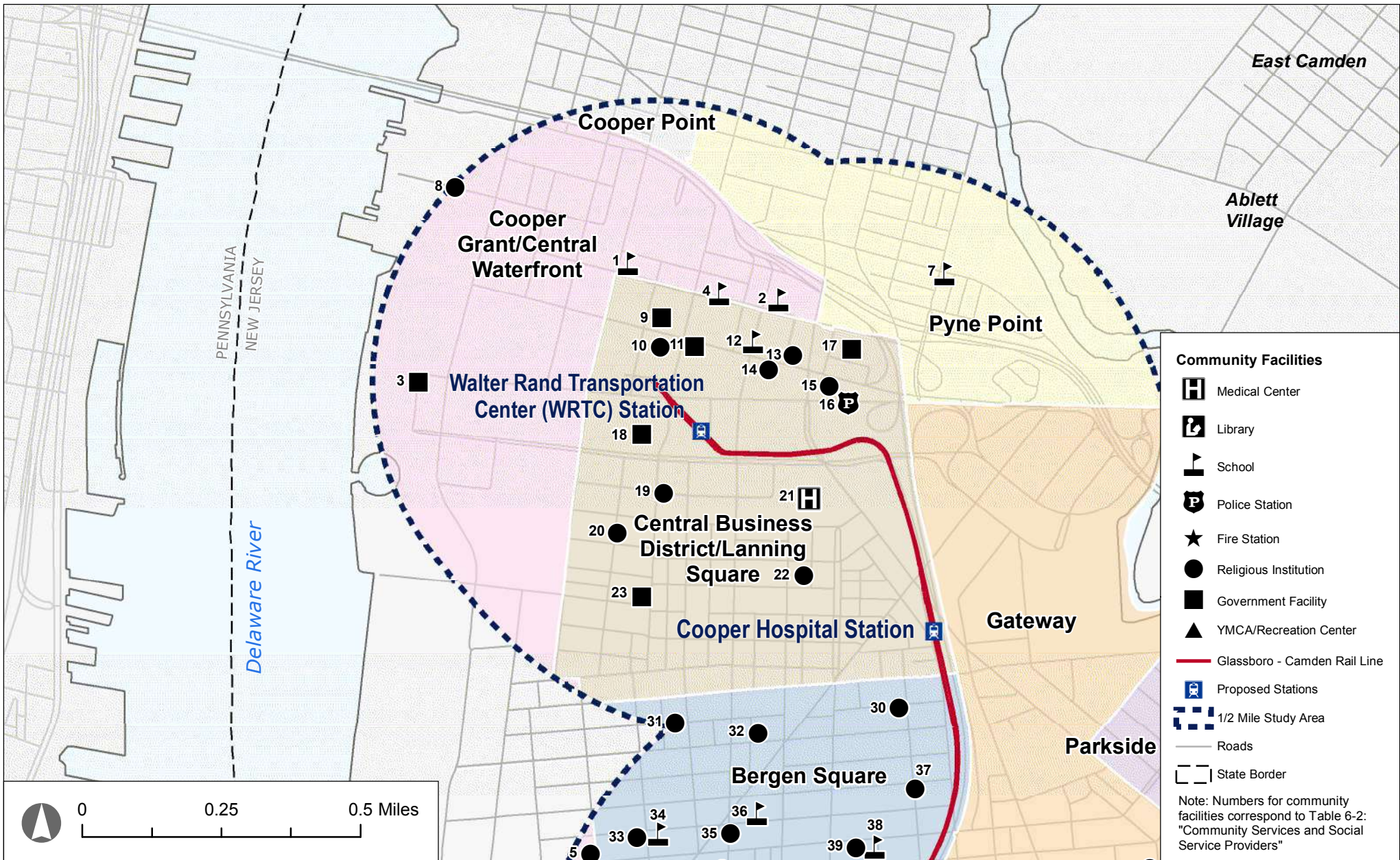
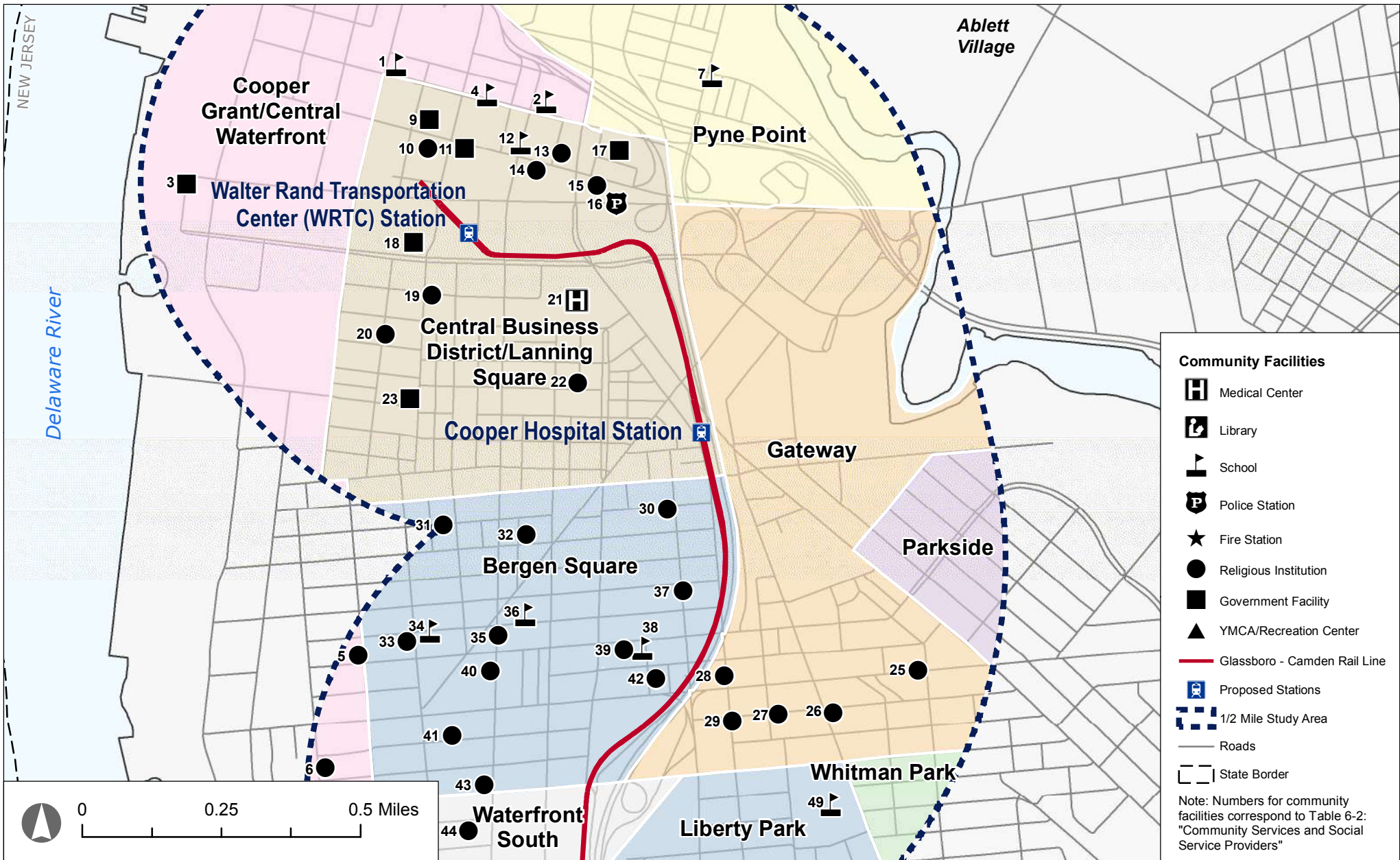


Figure 29a: Community Facilities
Walter Rand Transportation Center Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.



Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

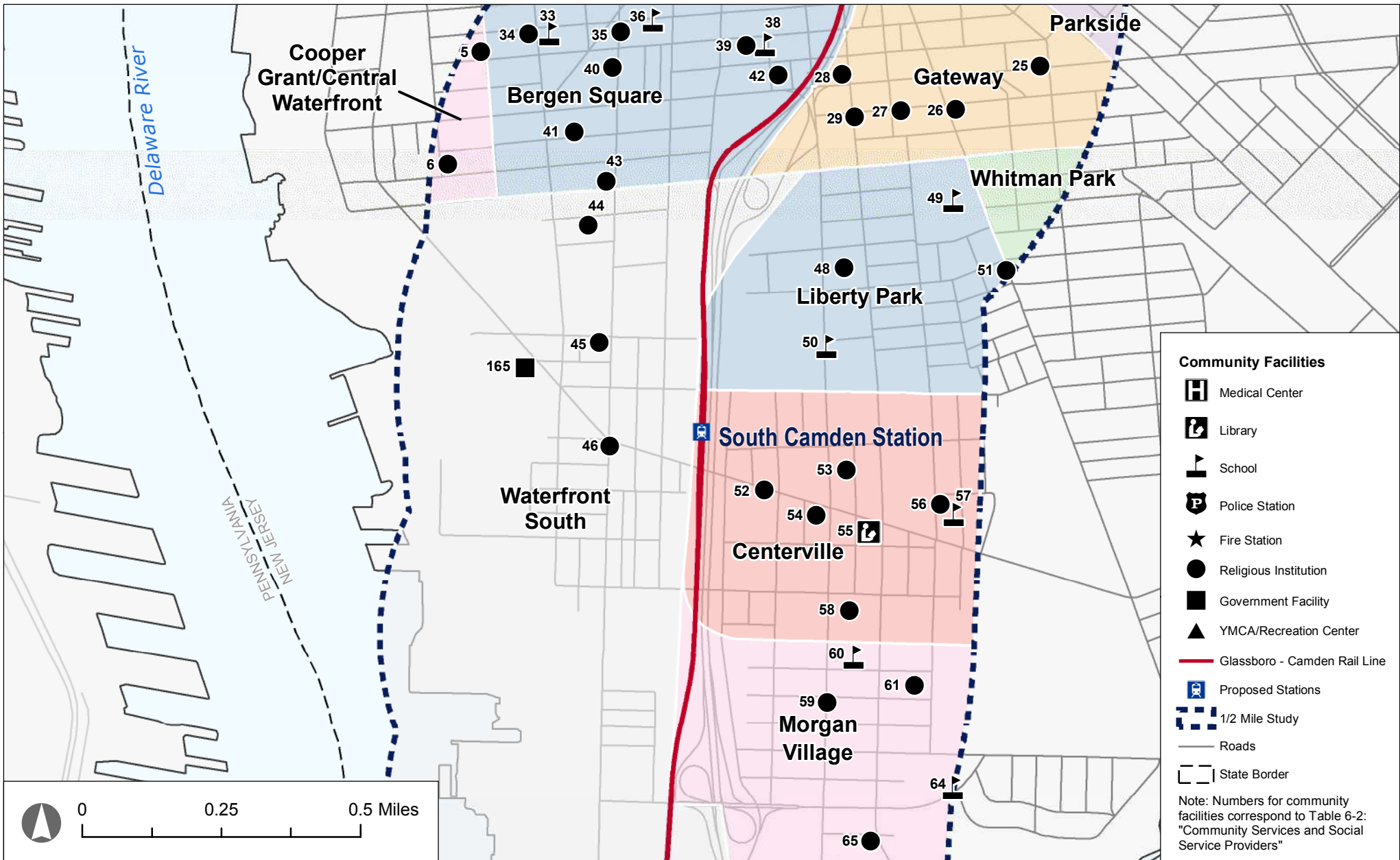


Figure 29c: Community Facilities
South Camden Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

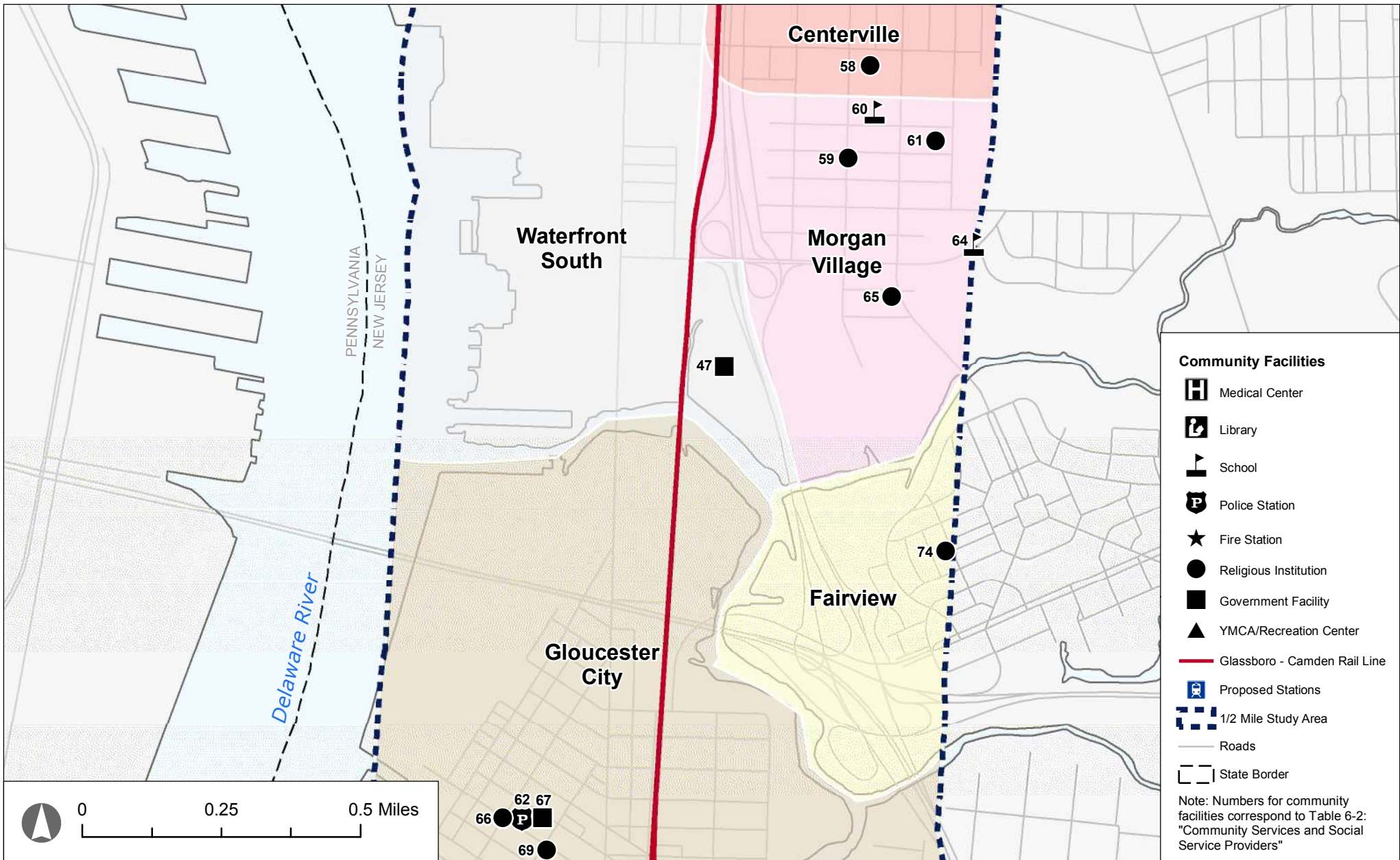


Figure 29d: Community Facilities

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

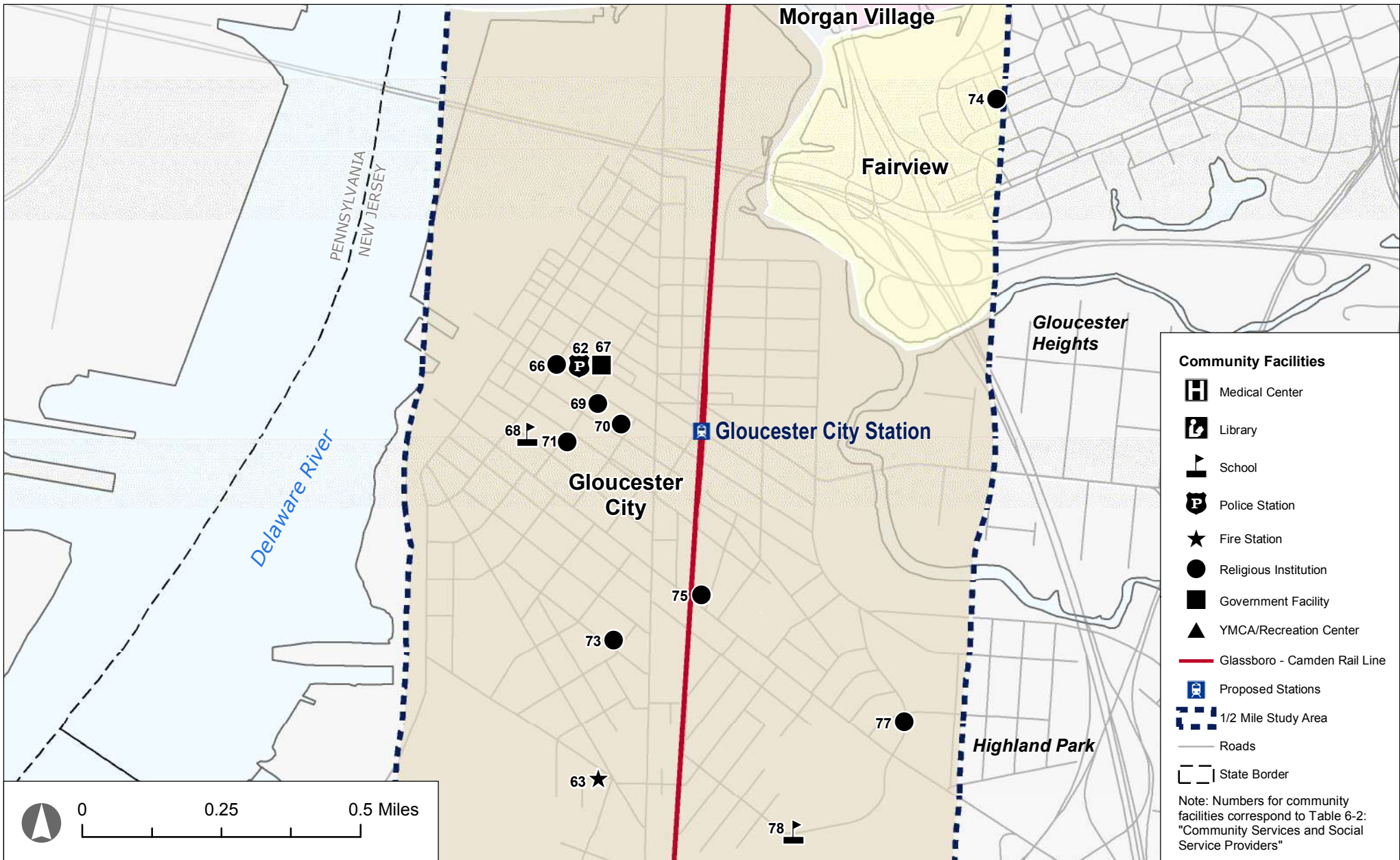


Figure 29e: Community Facilities
Gloucester City Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

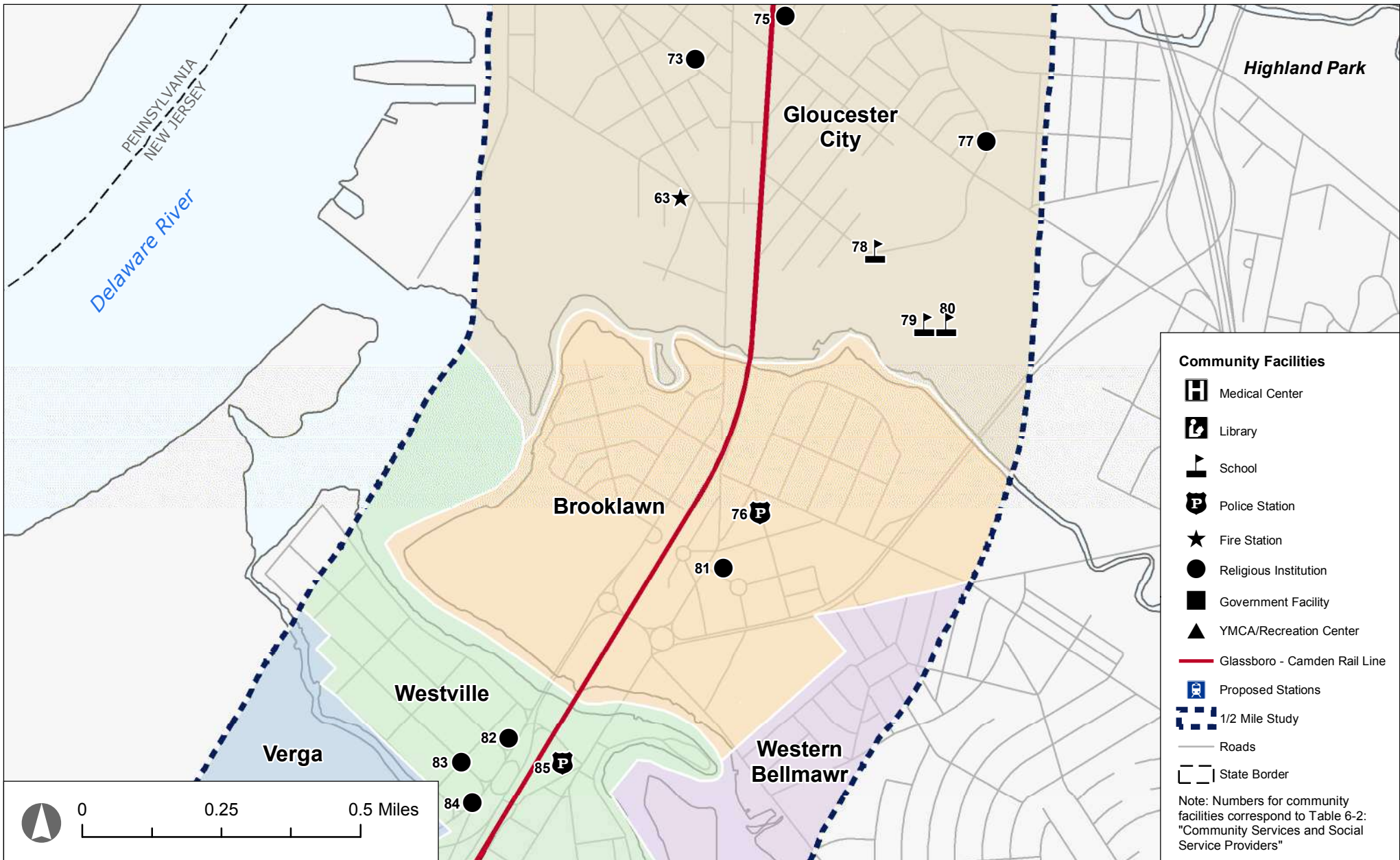


Figure 29f: Community Facilities

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

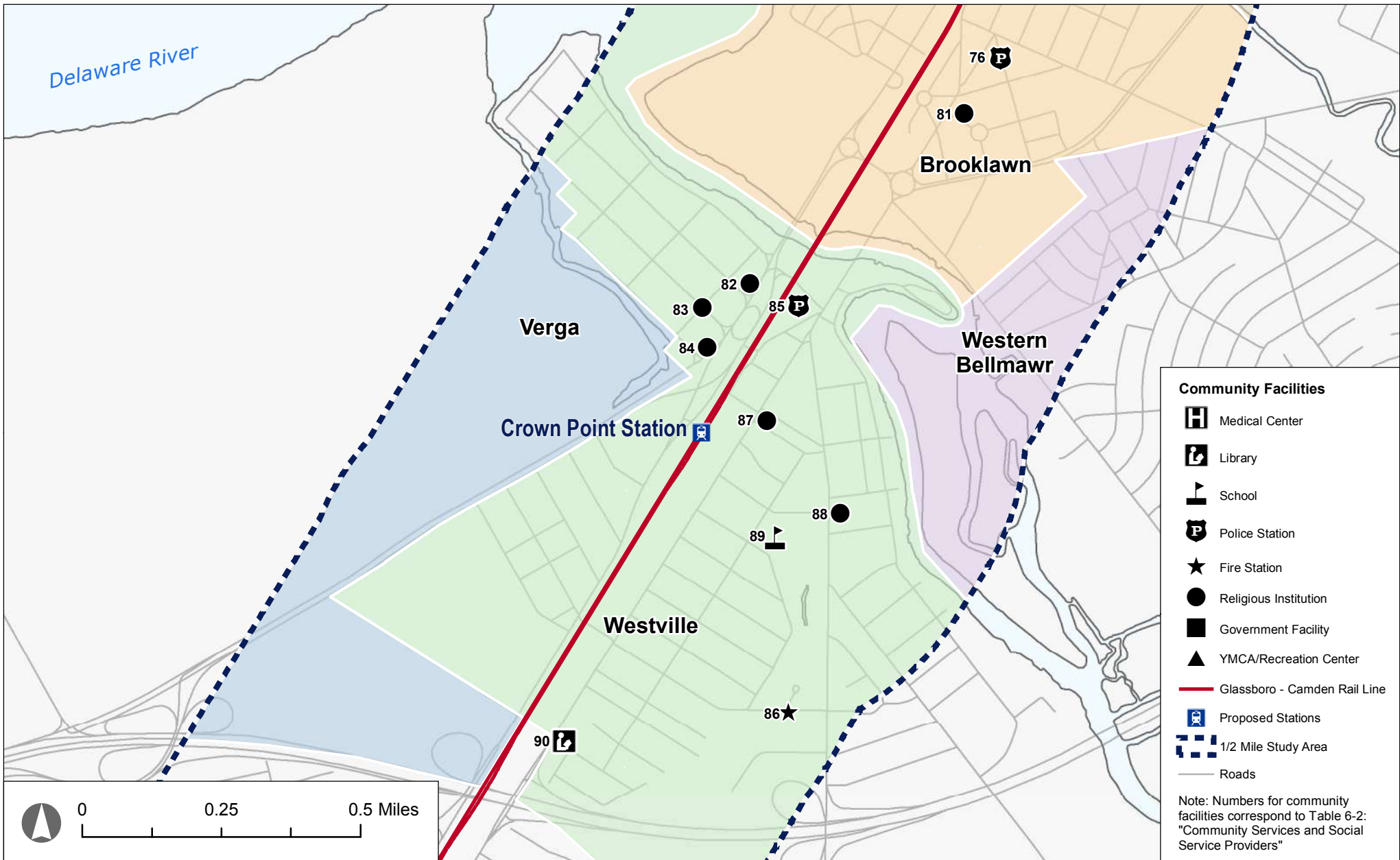


Figure 29g: Community Facilities
Crown Point Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.



Figure 29h: Community Facilities

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

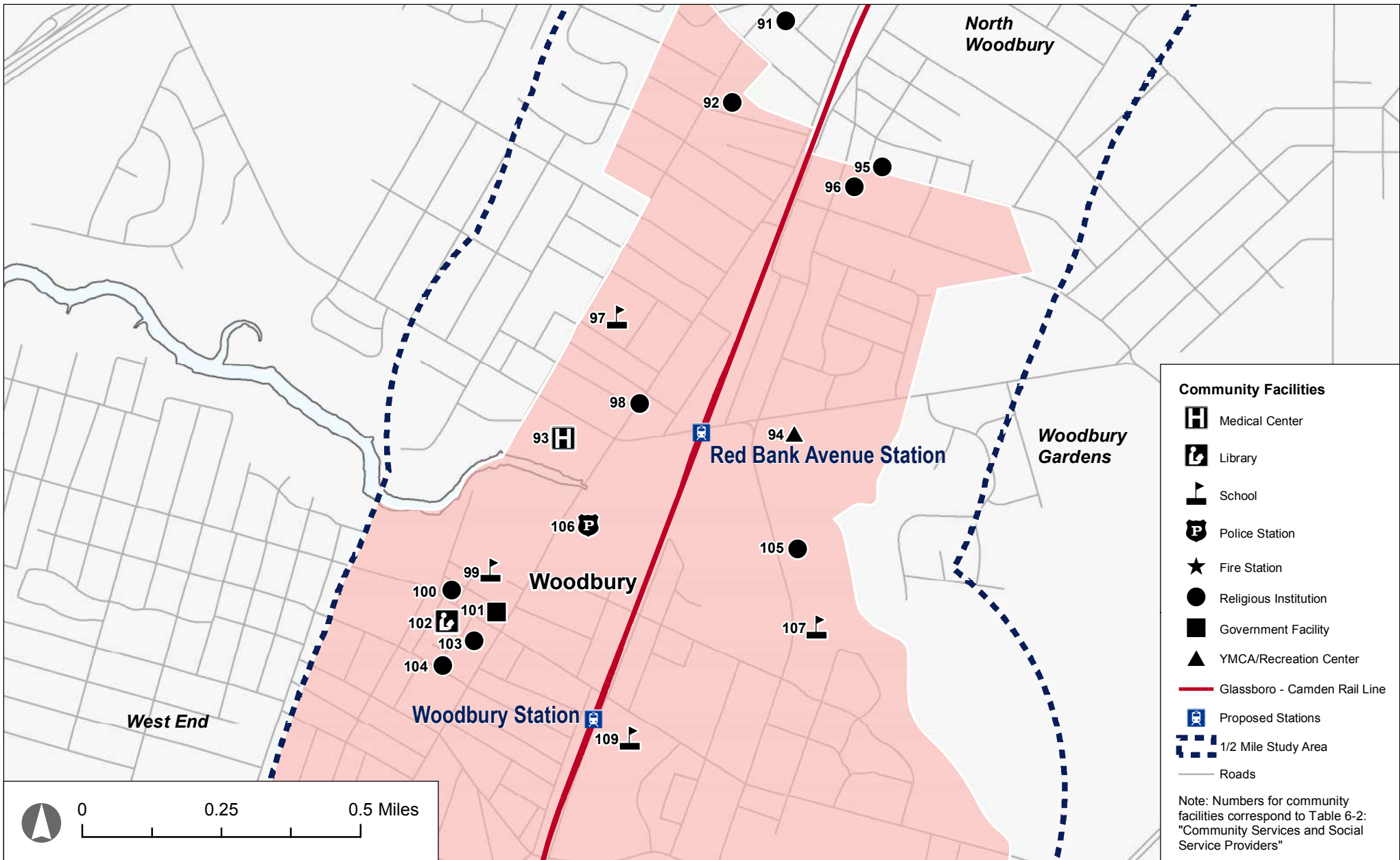


Figure 29i: Community Facilities
Red Bank Avenue Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

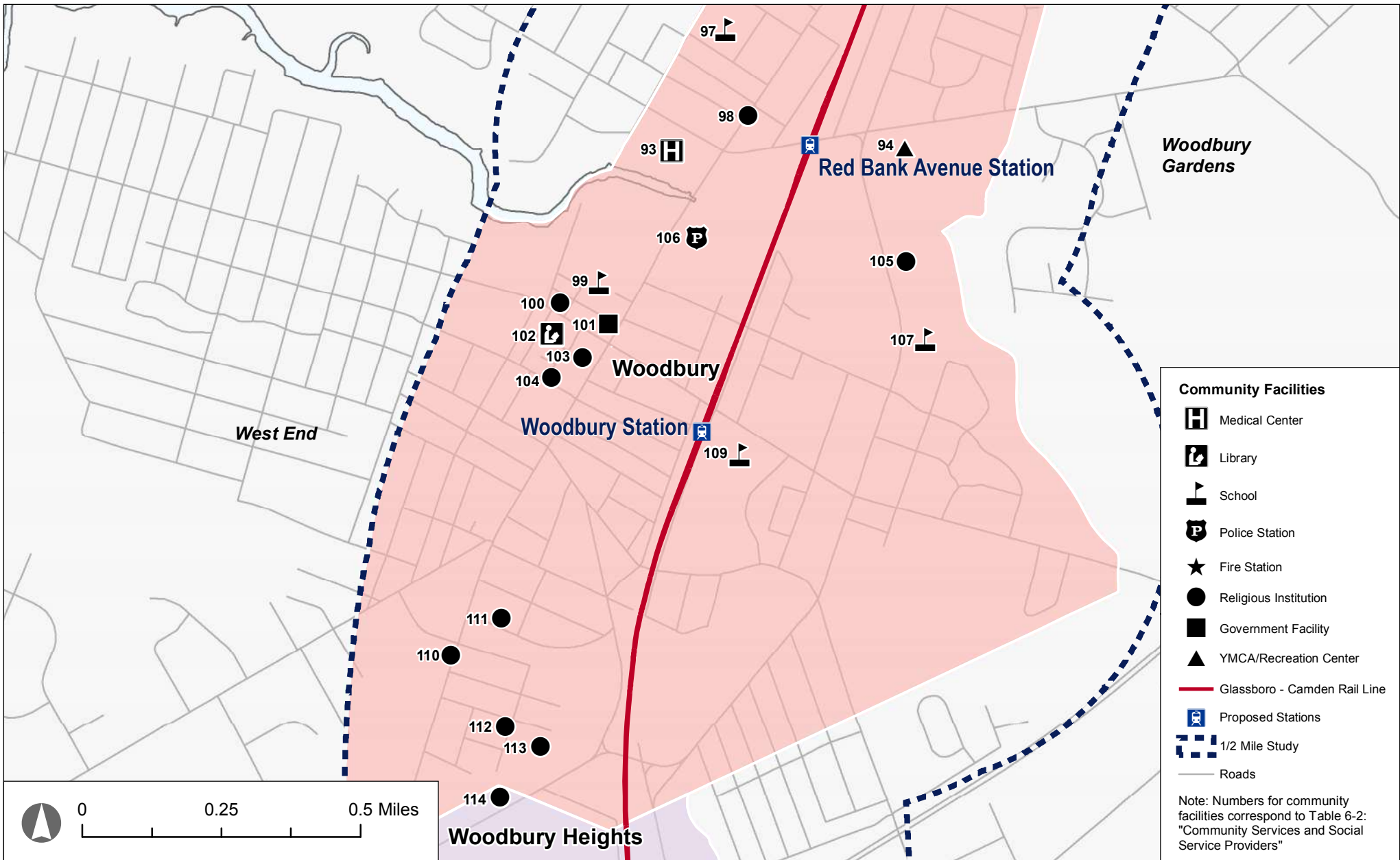


Figure 29j: Community Facilities
Woodbury Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

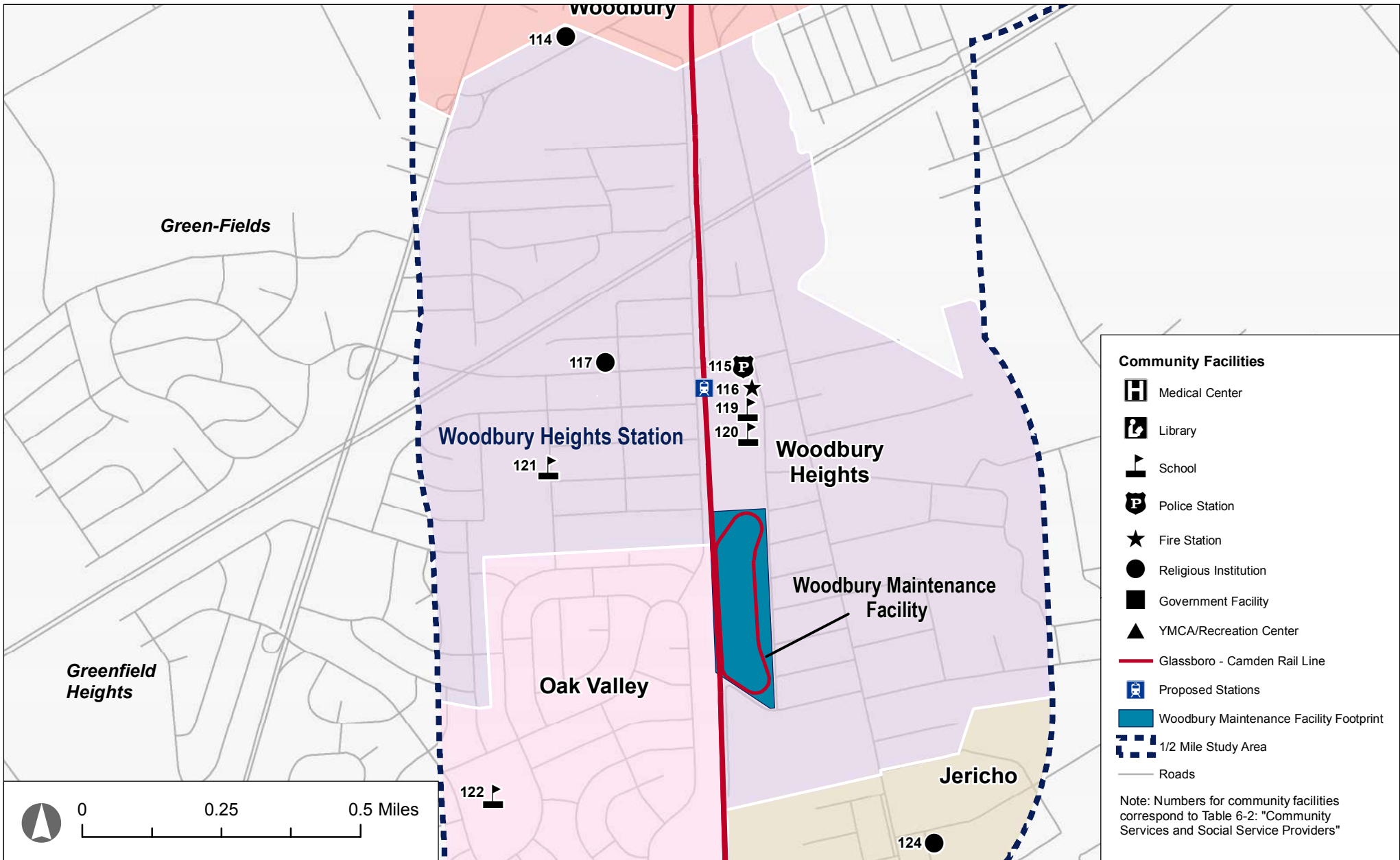


Figure 29k: Community Facilities
Woodbury Heights Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

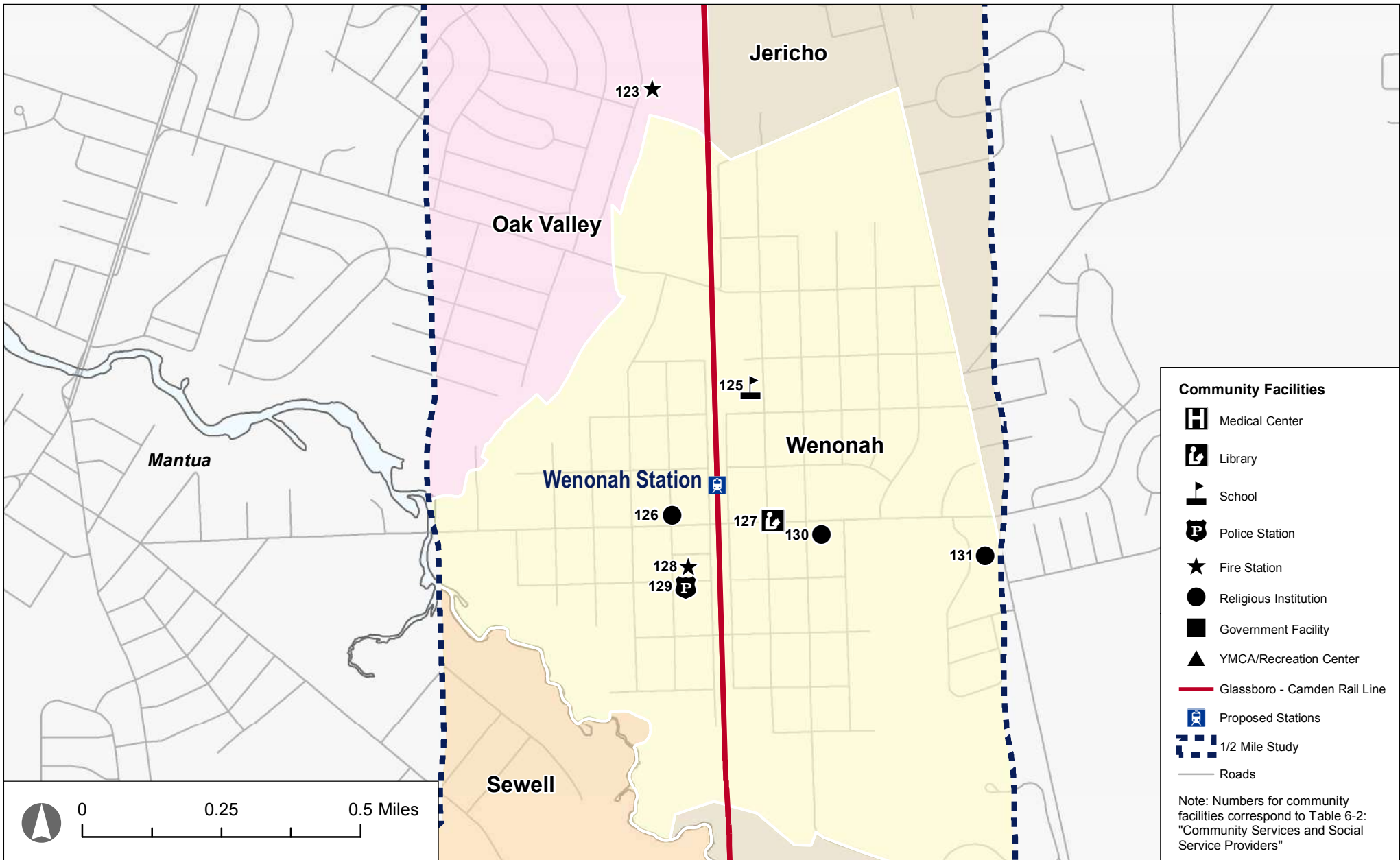


Figure 29I: Community Facilities
Wenonah Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

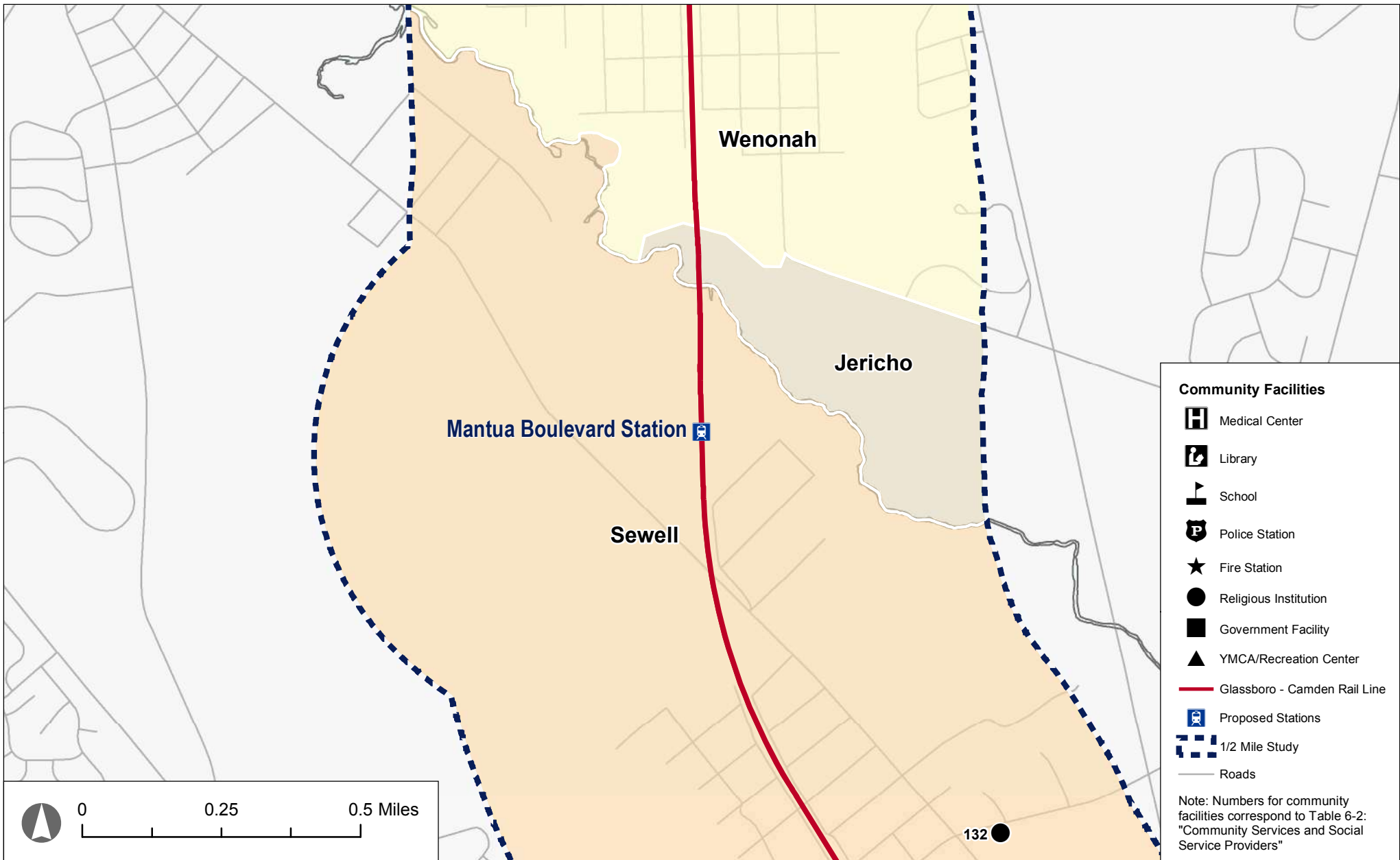


Figure 29m: Community Facilities
Mantua Boulevard Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

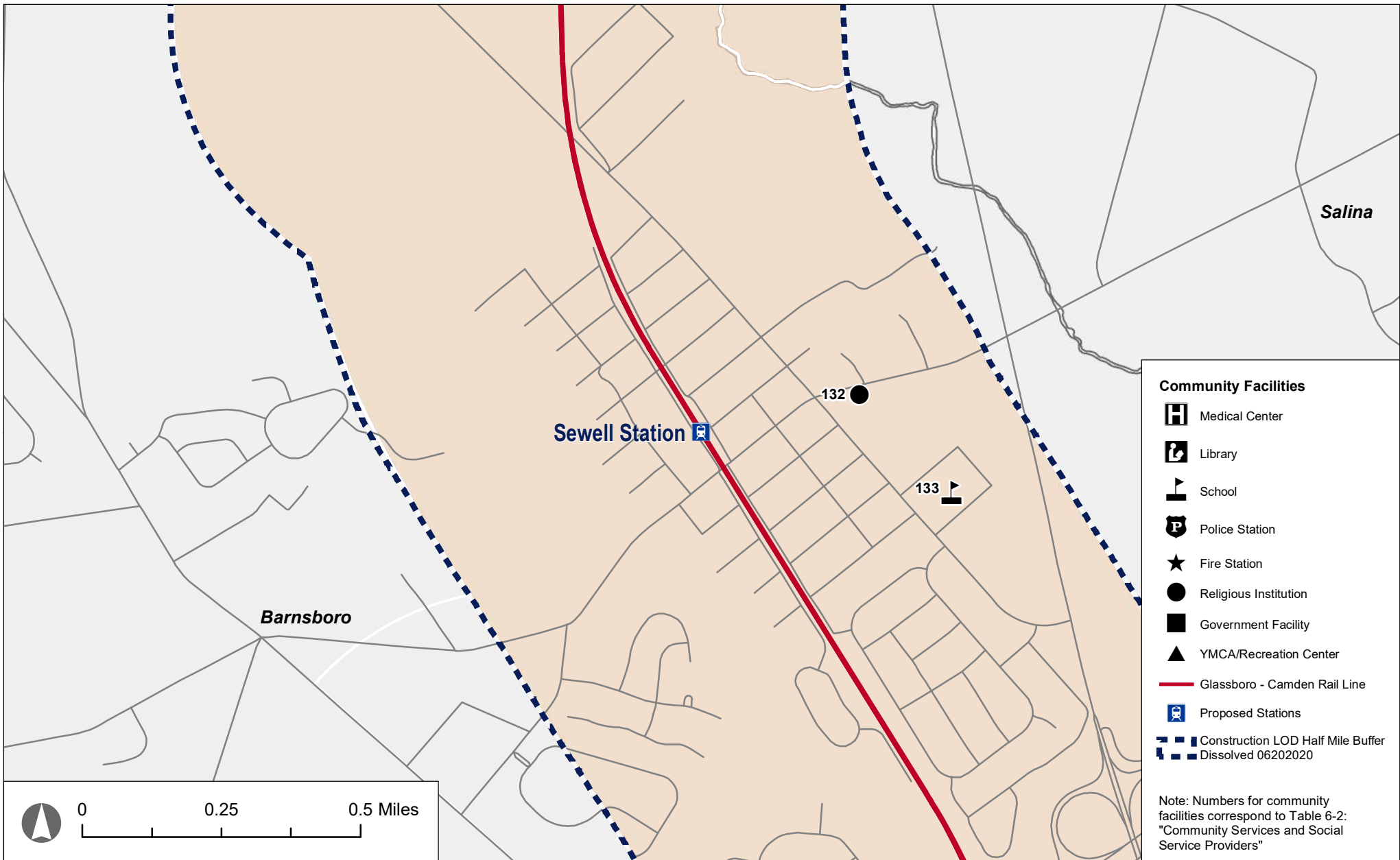


Figure 29n: Community Facilities
Sewell Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

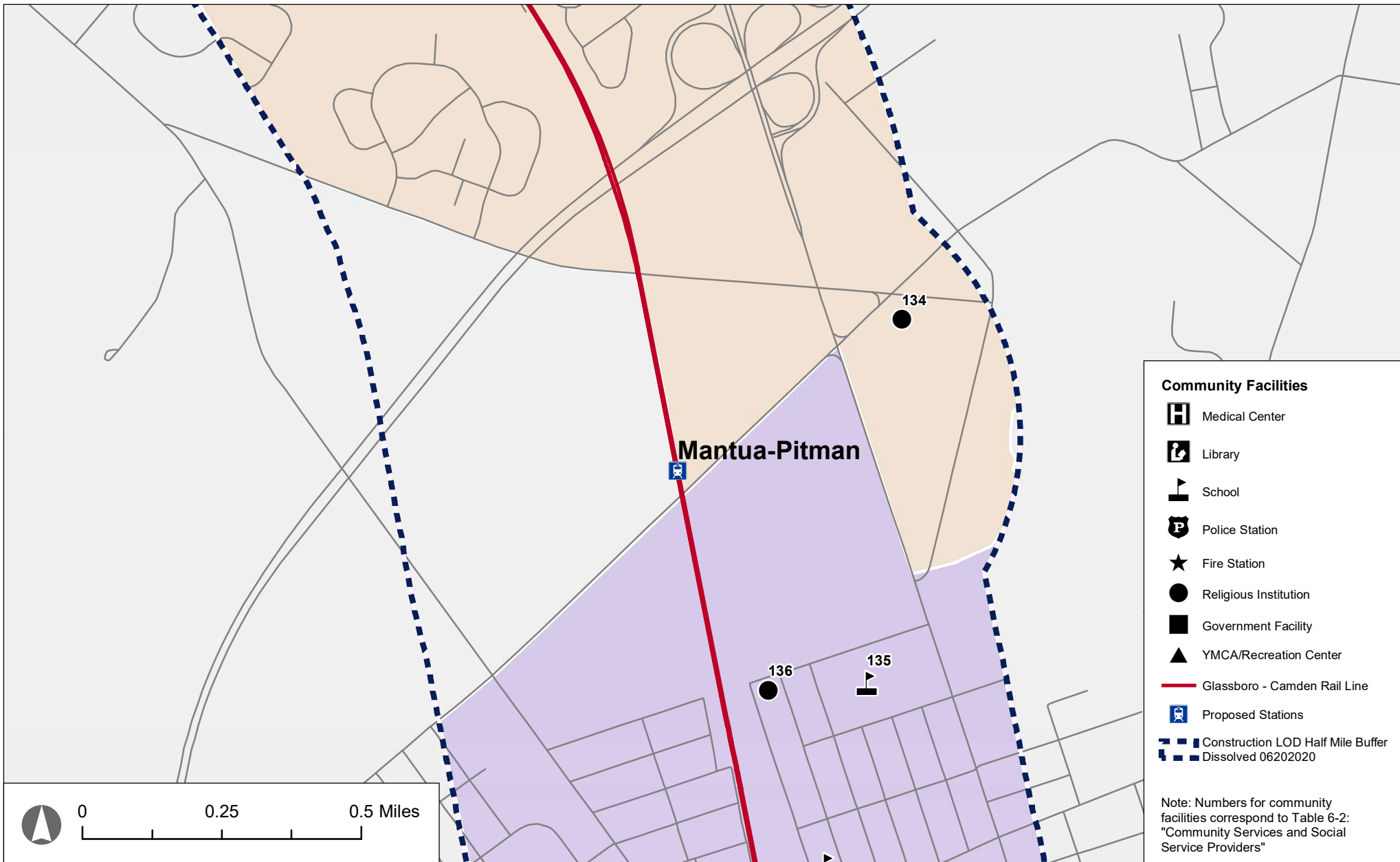


Figure 29o: Community Facilities
Mantua - Pitman Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

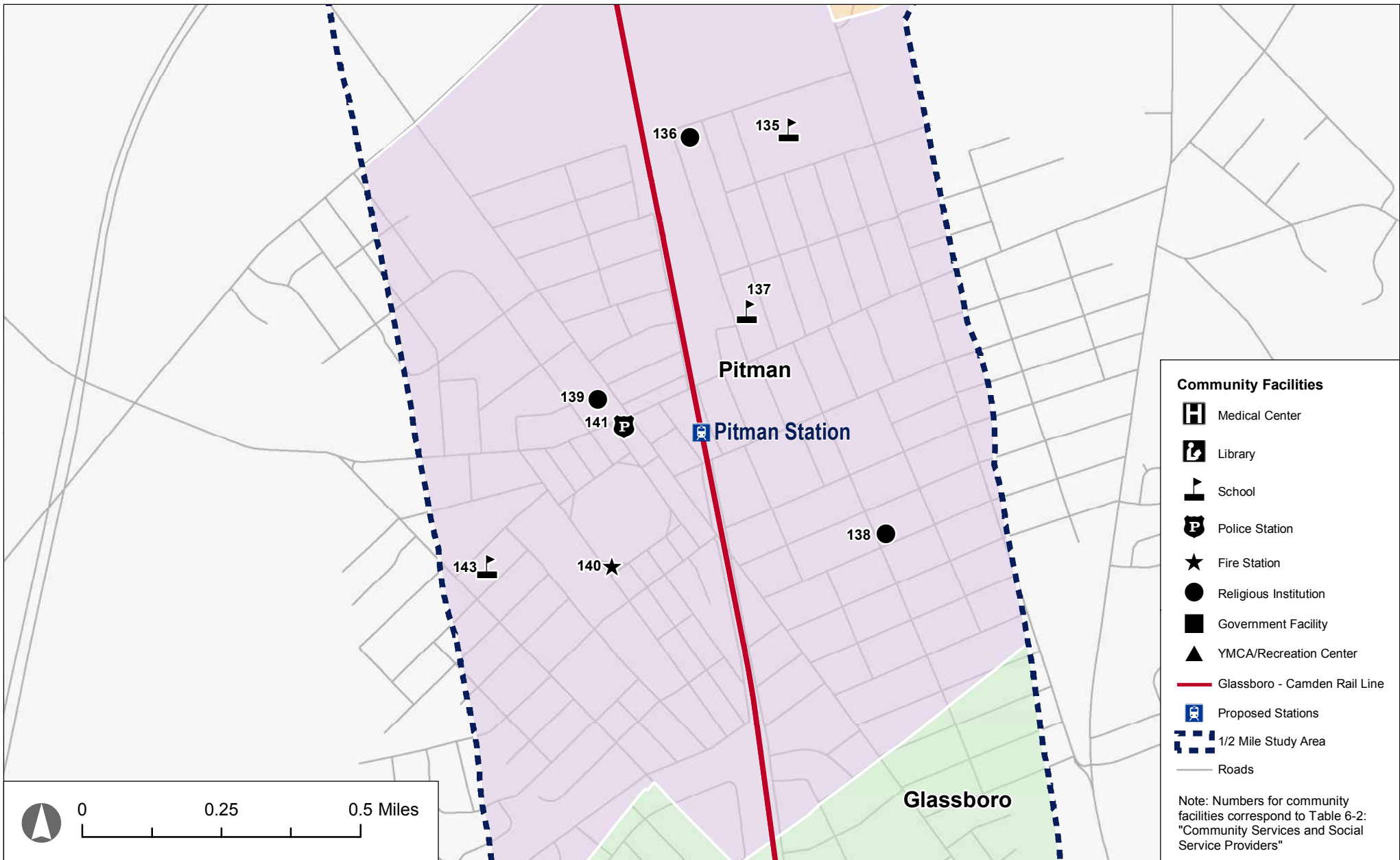


Figure 29p: Community Facilities
Pitman Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

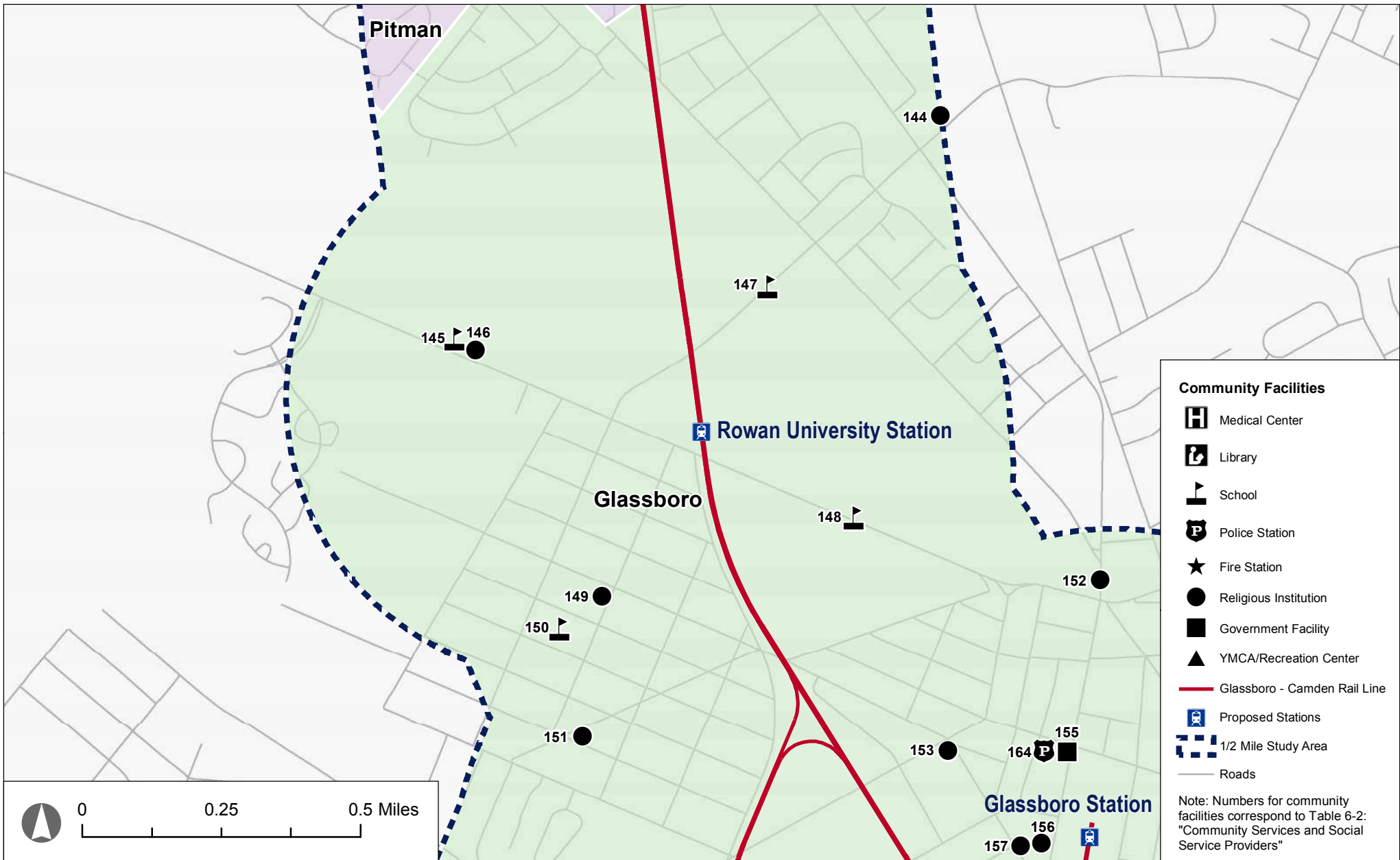


Figure 29q: Community Facilities
Rowan University Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

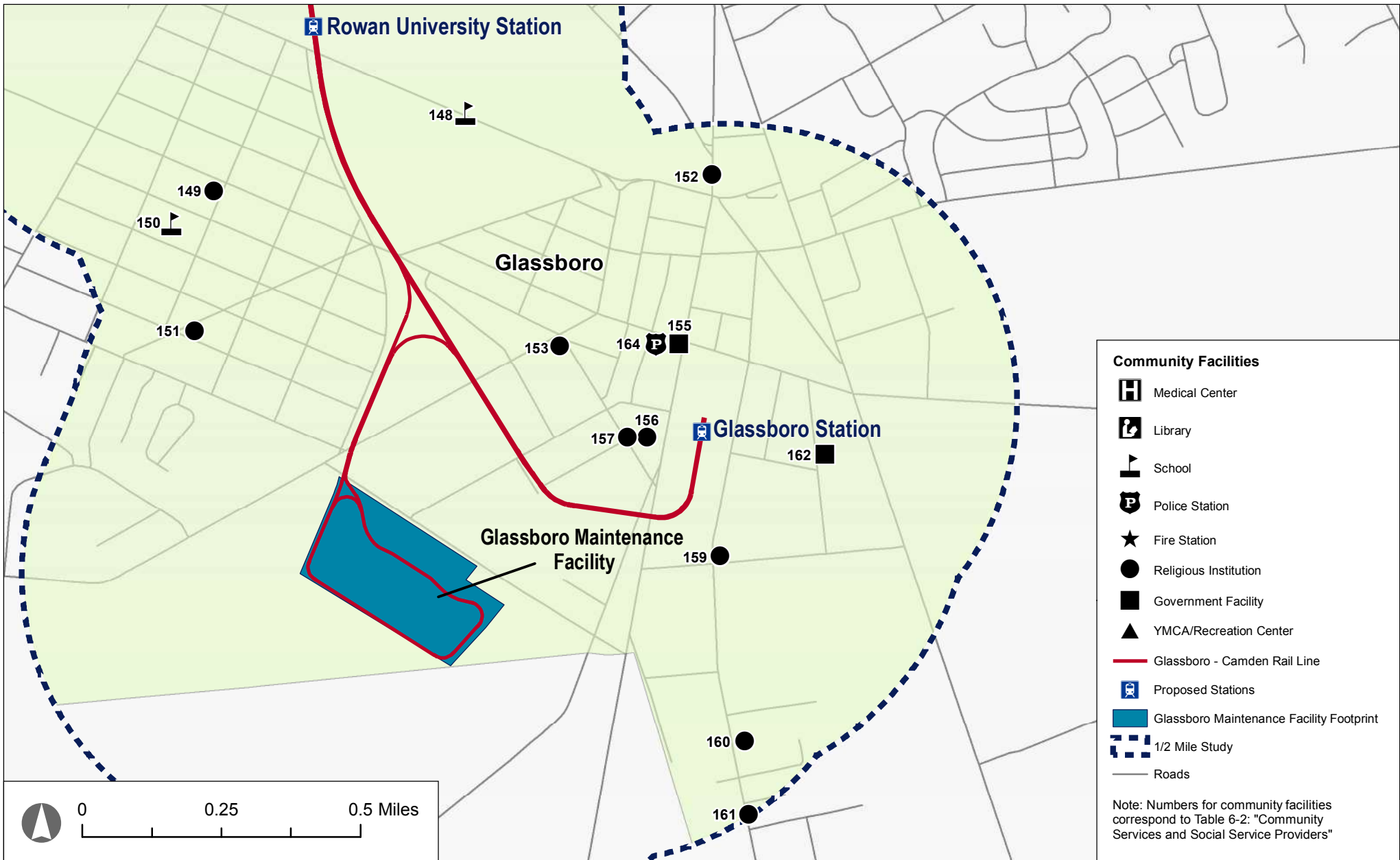


Figure 29r: Community Facilities
Glassboro Station

Source: EPA Environmental Justice Screening and Mapping Tool; U.S. Census Bureau TIGER/Line Shapefiles; STV Incorporated, 2018.

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Appendix 3A: Environmental Justice

Introduction

Overall, the proposed project would improve accessibility for all communities of concern including low-income, minority, and transit-dependent populations. Any impacts to communities of concern are minimal compared with the proposed project's benefits to the larger environmental justice populations including increased accessibility, a new mode choice, and reduced travel times along the corridor.

Legal and Regulatory Context

Federal Regulatory Environment

Title VI of the Civil Rights Act of 1964 requires that Federal agencies ensure that no person is excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving Federal assistance on the basis of race, color, or national origin.

Federal laws and regulations specifically require the evaluation of the effects of transportation actions on special populations. Executive Order (EO) 12898 requires that "each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." The overall intent of the Order is to prevent projects and programs from placing disproportionate negative effects on minority and low-income communities and to ensure these communities have ample opportunity to participate in project development.

The federal guidance for evaluating environmental justice issues is found in *Guidance for Federal Agencies on Key Terms in Executive Order 12898*, which was developed by the Interagency Working Group on Environmental Justice, August 1995. In addition, both the U.S. Department of Transportation (DOT) and the U.S. Environmental Protection Agency (EPA) have developed guidelines for addressing environmental justice concerns.

State Regulatory Environment

Formally established under New Jersey Executive Order No. 96 (EO 96) in 2003, the New Jersey Environmental Justice Advisory Council (EJAC) was created with the stated mission to "ensure that the [New Jersey Department of Environmental Protection] develops communication programs, implements and enforces environmental regulations, and policies so that such actions do not unfairly burden any New Jersey Population of people with a disproportionate share of environmental pollution." EJAC was initially created in response to the environmental justice work at the federal level to affirm that the State of New Jersey was also working to uphold the tenets of environmental justice developed at EPA. In doing so, EJAC advises and provides recommendations to the New Jersey Department of Environmental Protection (NJDEP) on matters related to environmental justice.

Introduced in 2018, New Jersey Executive Order No. 23 (EO 23) reaffirmed the advisory role of EJAC, and further required that NJDEP develop guidance for all state agencies and departments with respect to environmental justice. While EO 23 does not establish any explicit regulatory, legislative, or statutory

requirements, or authority related to environmental justice, this guidance and decision-making framework is in the process of being developed. The overarching goals of EJAC guidance remain in accordance with federal initiatives, guidelines, and statutes in providing that state actions, policies, and approvals protect low-income communities and communities of color from disproportionate exposure to environmental hazards.

Environment Prior to the Implementation of the Proposed Project

Study Area

The environmental justice study area is defined as any census tract partially or wholly within ½ mile of the proposed alignment for the GCL. The 2010 U.S. census tract boundaries were used. The GCL study area is shown on Figure 28 (Plates “a” – “c”) in Attachment 3, “Man-Made Resources Tech Report.”

Methodology

Data was collected at the census tract level for the study area and for Camden and Gloucester counties for comparative purposes (including for minority households, transit-dependent populations, and low-income households). Entire counties were selected as the appropriate comparison tool because of the potential regional influence of the proposed project and because it best represents the regional project area.

DOT Order (5610.2) on Environmental Justice provides clear definitions of the four minority groups addressed by Executive Order 12898. These groups are:

- **Black** – a person having origins in any of the black racial groups of Africa;
- **Hispanic** – a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;
- **Asian American** – a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands; and
- **American Indian and Alaskan Native** – a person having origins in any of the original people of North America and who maintain cultural identification through tribal affiliation or community recognition.

To determine the total number of minority residents in each neighborhood, the number of Black, Hispanic, Asian American, and American Indian or Alaskan Natives were tallied and added together for each Census tract within each neighborhood. Because Hispanic residents may be of any race, people of any ethnic group could categorize themselves as Hispanic or non-Hispanic. In addition, concentrations of transit-dependent populations, such as the elderly, children, and households without a vehicle, were identified. Concentrations of minorities and other special population groups near the project corridor were identified through analysis of the 2014-2018 American Community Survey Five-Year Estimates at both the County and census tract level. The individual tract data were compared to the countywide data to determine if

any of the tracts would qualify as having large concentrations of one or more special populations. These concentrations are referred to as communities of concern.

Communities of concern were identified as those census tracts with either a large concentration of minority residents or median income levels substantially lower than the countywide median income. A tract was categorized as having a community of concern if:

- Minority population within that tract is greater than or equal to 49 percent of total tract population; or,
- Median income for that tract is less than \$53,694 (80 percent of the 2018 Camden County median income) or less than \$68,128 (80 percent of the 2018 Gloucester County median income).

Table 1, “Communities of Concern within the Study Area,” lists the 2010 census tracts, populated with 2014-2018 American Community Survey Five-Year Estimates, that are located within the ½-mile study area and indicates whether high concentrations of minority and/or low-income residents are present. This information is also shown on Figure 1a, “Potential Environmental Justice Communities,” and Figure 1b, “Potential Environmental Justice Communities.” In addition, the median household incomes listed in the following table are based on census tracts.

As shown in Table 1, “Communities of Concern within the Study Area,” 18 of the 26 neighborhoods in the GCL corridor include communities of concern. The majority of environmental justice communities, both low-income and minority, are concentrated in the northern portion of the study area, in and around the city of Camden. However, low-income communities are also dispersed throughout the study area, particularly in the other urban centers such as Woodbury and Glassboro, although these communities tended to be less severely low-income as those communities in the northern portion of the study area near Camden. Minority communities are also found elsewhere in the study area, however, these communities were less concentrated than those identified in Camden County.

Table 1: Communities of Concern within the Study Area

Census Tracts	Associated Neighborhood	Total Population (Census Tract)	Total Minority Population	% Minority Population	Median Household Income	Communities of Concern	
						Minorities	Low-Income
6007	Cooper Point	1,497	1,109	74%	\$27,708	●	●
6008	Pyne Point	5,270	3,997	76%	\$19,520	●	●
6103	Cooper Grant/ Central Water Front	2,151	1,338	62%	\$32,000	●	●

6104	Central Business District/Lanning Square	4,939	3,610	73%	\$29,063	●	●
6002	Gateway	1,933	1,686	87%	\$25,705	●	●
6004	Bergen Square	2,904	2,467	85%	\$19,621	●	●
6014	Parkside	4,623	4,195	91%	\$34,549	●	●
6016	Liberty Park	2,649	2,322	88%	\$23,638	●	●
6015	Whitman Park	4,932	4,154	84%	\$19,011	●	●
6018	Waterfront South	1,206	837	69%	\$29,229	●	●
6017	Centerville	3,146	2,886	92%	\$12,443	●	●
6019	Morgan Village	2,727	2,469	91%	\$23,995	●	●
6020	Fairview	6,478	5,207	80%	\$31,427	●	●
6110	Gloucester City	6,274	1,803	29%	\$53,652		●
6051		2,115	111	5%	\$57,946		
6052		2,857	522	18%	\$65,521		
6053	Brooklawn	2,023	351	17%	\$63,897		
6070	Western Bellmawr	4,480	755	17%	\$42,384		●
5001	Westville	4,185	648	15%	\$53,986		●
5002.01	Verga	2,427	167	7%	\$76,964		
5010.01	Woodbury	2,114	613	29%	\$83,165		
5010.02		4,315	2,550	59%	\$31,064	●	●
5010.03		3,500	1,118	32%	\$67,938		●
5009	Woodbury Heights	2,993	172	6%	\$82,188		
5011.07	Oak Valley	4,394	473	11%	\$78,553		
5011.06	Jericho	3,882	1,657	43%	\$67,092		●
5008	Wenonah	2,225	172	8%	\$122,159		
5007.02	Sewell	5,907	478	8%	\$95,724		
5013.01	Pitman	3,527	345	10%	\$80,375		
5013.02		2,753	99	4%	\$71,125		
5013.03		2,550	207	8%	\$66,500		●
5014.02	Glassboro	3,406	1,056	31%	\$47,227		●
5014.03		3,837	1,110	29%	\$84,534		
5014.04		3,197	838	26%	\$26,250		●
5014.06		4,666	1,461	31%	\$65,257		●

Source: American Community Survey, 2014-2018; US EPA Environmental Justice Mapper, 2019

In addition to communities of concern, special populations of interest for this Draft EIS include transit-dependent populations, such as the elderly, children, zero-car households, and low-income populations.

Table 2, “Transit-Dependent Populations in the GCL Corridor,” includes the first three indicators for transit dependency. Low-income populations are discussed earlier in this section and are shown in Table 1, “Communities of Concern within the Study Area.”

The threshold for the transit-dependent categories is if the percentage of the population of a particular group within a tract is at least 10 percent greater than the percentage of that population in the county. These criteria resulted in the following threshold values for transit dependency:

- The elderly population (age 65 and older) within a tract is greater than or equal to 25.0 percent (Camden County) and 24.9 percent (Gloucester County) of total tract population;
- The youth population (age 0 to 17) within a tract is greater than or equal to 33.0 percent (Camden County) and 32.4 percent (Gloucester County) of total tract population;
- The percentage of zero-car housing units (based on occupied housing units) within a tract is greater than or equal to 21.4 percent (for Camden County) and 15.9 percent (for Gloucester County).

Data was collected at the census tract level, and, where applicable, the weighted average was obtained for the neighborhood as a whole. GCL Corridor Transit-Dependent Neighborhood maps are included in Figure 1c, “Potential Environmental Justice Communities,” Figure 1d, “Potential Environmental Justice Communities,” and Figure 1e, “Potential Environmental Justice Communities.” 13 of the 15 transit-dependent neighborhoods are within the city of Camden, while the remaining two are located in Gloucester City and Woodbury..

Table 2: Transit-Dependent Populations in the GCL Corridor

Census Tract	Associated Neighborhoods	% Elderly	% Youth	% Zero-Car Housing Units	Median Household Income	Large Concentration of Transit-Dependent		
						Elderly	Youth	Zero-Car
Camden County		15%	23.00%	11.40%	\$67,118			
6007	Cooper Point	6.20%	36.90%	29.90%	\$27,708		●	●
6008	Pyne Point	13.10%	27.00%	60.00%	\$19,520			●
6103	Cooper Grant; Central Waterfront	18.70%	11.60%	32.30%	\$32,000			●
6104	Central Business District; Lanning Square	6.70%	20.30%	37.70%	\$29,063			●
6002	Gateway	11.70%	22.90%	39.20%	\$25,705			●
6004	Bergen Square	9.50%	41.30%	39.90%	\$19,621		●	●
6014	Parkside	11.70%	30.10%	30.10%	\$34,549			●

6016	Liberty Park	8.00%	39.80%	40.90%	\$23,638		●	●
6015	Whitman Park	11.50%	26.20%	28.70%	\$19,011			●
6018	Waterfront South	11.70%	20.30%	34.60%	\$29,229			●
6017	Centerville	11.10%	45.00%	58.60%	\$12,443		●	●
6019	Morgan Village	9.80%	28.30%	25.10%	\$23,995			●
6020	Fairview	5.20%	36.00%	32.80%	\$31,427		●	●
6110	Gloucester City	9.00%	29.00%	13.20%	\$53,652			●
6051		15.10%	19.40%	5.60%	\$57,946			
6052		12.30%	26.60%	9.40%	\$65,521			●
6053	Brooklawn	8.70%	20.80%	12.50%	\$63,897			
6070	Western Bellmawr	16.00%	21.10%	11.10%	\$42,384			
Gloucester County		14.90%	22.40%	5.90%	\$85,160			
5001	Westville	12.20%	24.50%	12.40%	\$53,986			
5002.01	Verga	15.50%	17.80%	8.60%	\$76,964			
5010.01	Woodbury	11.50%	24.50%	5.70%	\$83,165			
5010.02		18.70%	22.20%	32.50%	\$31,064			●
5010.03		10.90%	22.10%	15.00%	\$67,938			
5009	Woodbury Heights	16.20%	20.60%	2.90%	\$82,188			
5011.07	Oak Valley	14.60%	19.20%	3.90%	\$78,553			
5011.06	Jericho	18.40%	22.80%	4.30%	\$67,092			
5008	Wenonah	14.80%	24.80%	3.10%	\$122,159			
5007.02	Sewell	13.00%	24.50%	2.70%	\$95,724			
5013.01	Pitman	15.60%	20.90%	4.10%	\$80,375			
5013.02		11.90%	20.80%	12.00%	\$71,125			
5013.03		23.50%	20.40%	10.50%	\$66,500			
5014.02	Glassboro	10.90%	17.40%	10.90%	\$47,227			
5014.03		20.00%	19.40%	4.00%	\$84,534			
5014.04		3.30%	5.40%	10.30%	\$26,250			
5014.06		13.20%	21.50%	4.50%	\$65,257			

Source: 2014-2018 American Community Survey.

No-Action Alternative

The No-Action Alternative would consist of a future scenario with no changes to transportation services or facilities in the GCL Corridor, beyond the projects that are already committed. As a result, project-generated impacts to neighborhoods and community facilities would not occur under the No-Action Alternative. With the No-Action Alternative, neighborhoods and community facilities in the GCL Corridor would not benefit from enhanced access to transit that would be associated with the implementation of the proposed light rail.

Environmental Consequences

After identifying the minority and low-income communities, the potential for environmental benefits and disproportionate or adverse impacts of the GCL on minority and low-income neighborhoods was determined. The impact assessment results from each of the major technical areas were analyzed to determine whether significant impacts would disproportionately occur mostly within communities of concern.

In many cases, details on specific impacts, such as land use changes, noise and vibration effects, and traffic access impacts are presented in other technical reports. In this section, overall impacts to the special populations within the project corridor are assessed. The potential for impacts is expressed quantitatively or with the following qualitative terms:

- **No impact:** This category applies if the GCL is not expected to result in impacts on existing conditions. Positive impacts, such as improved access to neighborhoods and community facilities, may also occur and are represented as no impact. Also included in this category are impacts to individual residential properties that would not result in an impact to the collective neighborhood.
- **Potential impact:** This category applies if the GCL may result in a minimal or moderate impact. Minimal impacts include changes from the existing conditions that typically would not need mitigation; moderate impacts include changes from existing conditions that could be addressed through mitigation.
- **Potentially significant impact:** This category applies if the GCL would likely result in substantial changes that represent an “adverse impact” to the activities relating to a community of concern. In some cases, the impacts might not be fully addressed through the proposed mitigation.

The key criteria for environmental justice analyses is whether or not adverse impacts identified in each of the environmental analysis categories are disproportionate within communities of concern. In other words, would the impacts within a minority or low-income community be appreciably more severe or greater in magnitude than those that would be experienced in non-minority or non-low-income communities.

Summary

Impacts to communities of concern with regards to travel patterns and accessibility, displacement and relocations, community services and facilities, neighborhoods, and noise and vibration are outlined below. These impacts are minimal compared with the proposed project’s benefits to the larger environmental justice populations, including increased accessibility, a new mode choice, and reduced travel times along the corridor. While these do represent impacts on communities of concern, including low-income, minority, and transit-dependent populations, they do not represent a disproportionate impact in these communities. Therefore, it can be determined that no potential for disproportionately high environmental justice impacts would result from the proposed GCL. For more information, see Table 3,

“Potential Impacts to Communities of Concern and Transit-Dependent Populations in the GCL Corridor,” and Table 4, “List of Potential Impacts Corridor-Wide Impacts.”

The identified adverse impacts are capable of being mitigated and are expected to be reduced significantly with appropriate measures. These measures are outlined in Section 4, “Avoidance Measures and Mitigation.”

Table 3: Potential Impacts to Communities of Concern and Transit-Dependent Populations in the GCL Corridor

Census Tracts	Associated Neighborhood	Associated Municipality	Communities of Concern		Large Concentration of Transit-Dependent			Significant Impacts	Less Than Significant Impacts *
			Minorities	Low-Income	Elderly	Youth	Zero-Car		
6007	Cooper Point	City of Camden	●	●		●	●	20401, 20402, 20403, 30701	
6008	Pyne Point		●	●			●		
6103	Cooper Grant/ Central Water Front		●	●			●		
6104	Central Business District/Lanning Square		●	●			●		
6002	Gateway		●	●			●		
6004	Bergen Square		●	●		●	●		
6014	Parkside		●	●			●		
6016	Liberty Park		●	●		●	●		
6015	Whitman Park		●	●			●		
6018	Waterfront South		●	●			●		
6017	Centerville		●	●		●	●		
6019	Morgan Village		●	●			●		
6020	Fairview		●	●		●	●		

6110	Gloucester City	City of Gloucester		●			●	20404, 30703	20414, 30702
6051									
6052						●			
6053	Brooklawn	Borough of Brooklawn							
6070	Western Bellmawr	Borough of Bellmawr		●					
5001	Westville	Borough of Westville		●				20406	
5002.01	Verga	West Deptford Township							
5010.01	Woodbury	City of Woodbury						20408	30704, 30705
5010.02			●	●			●		
5010.03				●					
5009	Woodbury Heights	Borough of Woodbury Heights						30808, 31005	20107, 30706, 30707
5011.07	Oak Valley	Deptford Township							30710
5011.06	Jericho			●					
5008	Wenonah	Borough of Wenonah						30804	
5007.02	Sewell	Mantua Township							
5013.01	Pitman	Borough of Pitman						30806	
5013.02									
5013.03				●					
5014.02	Glassboro			●					

5014.03	Borough of Glassboro						20409,	20108, 30712, 30713, 30903
5014.04			●				20410, 20412,	
5014.06			●				20413, 31005	
<p>* In addition to the significant impacts listed above (all fully mitigated), additional mitigation/avoidance measures will be considered for certain less than significant impacts. Please refer to Section 4, "Avoidance Measures and Mitigation."</p> <p>Note: Natural Resources impacts to be determined in consultation with NJDEP, please refer to Section 3.2, "Natural Resources." Hazardous Materials impacts to be determined in consultation with NJDEP, please refer to Section 3.3.3, "Hazardous Materials." Cultural Resources impacts to be determined in consultation with New Jersey SHPO, please refer to Section 3.4.2, "Cultural Resources"; see also Section 3.4.9.6 for potential visual effects that may be associated with the Glassboro Vehicle Maintenance Facility, pending consultation with New Jersey SHPO.</p>								

Source: GCL Project Team, 2020; American Community Survey, 2014-2018.

Table 4: List of Potential Corridor-Wide Impacts

ID	Impact	Significant Adverse Impact
10101	Acid Producing Soils	No impact currently determined
10201	Surface Waters	No
10220	Flood Hazard Areas	No impact currently determined
10301	Plant Communities - Forest	No impact currently determined
10302	Plant Communities - Agriculture	No impact currently determined
10303	Plant Communities - Old Field	No impact currently determined
10305	Threatened and Endangered Species - Federally-Listed Species - Northern Long Eared Bat	No impact currently determined
10306	Threatened and Endangered Species - Federally-Listed Species - Atlantic Sturgeon and Shortnose Sturgeon	No impact currently determined
10308	Threatened and Endangered Species - State-Listed Species - Bald Eagle	No impact currently determined
10309	Threatened and Endangered Species - State-Listed Species - Barred Owl and Red Shouldered Hawk	No impact currently determined
30601	No Impacts to local law enforcement services	No
30602	No impacts related to station platforms and park-and-ride facilities	No

30603	No impacts related to rail safety	No
30604	No impacts related to vehicular, bicycle, and pedestrian safety	No
30605	No impacts related to operational provisions for safety and security	No
30606	No impacts related to training and education provisions for safety and security	No
31001	Severe noise impacts at 3 monitoring sites (177 dwellings)	Yes
31002	Moderate Noise impacts at 11 monitoring sites (577 dwellings)	Yes

Source: GCL Project Team, 2020.

Travel Patterns and Accessibility

With respect to transit service, the GCL would provide a significant level of benefits for environmental justice populations, particularly the transit-dependent. The GCL would utilize an exclusive guideway that would provide increased reliability, increased service frequencies, and significant travel time savings over the No-Action Alternative. There would be an increase in transit accessibility as well as mobility to origins and destinations throughout the entire NJT system. Improved access to employment centers along the GCL light rail service and within the project corridor would result.

However, negative impacts to local streets near the GCL include reduction of lanes widths, slight relocation of roadways, and full closures of one-way streets affecting local circulation patterns; street circulation patterns would be most-heavily affected in Gloucester City. At-grade crossings could potentially have significant impacts on the roadway network adjacent to the GCL. In addition, public and private parking spaces may be lost. In total, approximately 233 public parking spaces are anticipated to be lost. In total, approximately 132 private parking spaces are anticipated to be lost.

The GCL would also have at-grade crossings at 39 public roadways and one private driveway location. These roadway modifications would change travel patterns for both drivers and pedestrians; however, they would provide a safer environment. A screening process was applied to analyze the 39 GCL at-grade crossings to identify locations with the highest potential impact on vehicular traffic. Sixteen locations were identified as having high potential impacts. Eight of these intersections are located in communities of concern:

- Olive St, Westville
- Cooper St, Woodbury
- East Barber Ave, Woodbury
- Carpenter St, Pitman/Glassboro
- Bowe Blvd, Glassboro
- Mullica Hill Road, Glassboro

- Ellis St, Glassboro
- South Main Street, Glassboro

In addition, the GCL Project Team analyzed transportation conditions at the key intersections and roadways adjacent to or within proximity of proposed station areas. These are locations that are typically impacted by the initiation of light rail service, as the roadways and bicycle and pedestrian facilities are most directly impacted by passenger flows to and from stations. In other instances, the anticipated GCL operations would result in delays related to grade crossing protections such as gates and flashers. Intersections that exhibit high levels of delay and congestion in future-year projections are analyzed to determine the most likely cause of the congestion. In some locations, a queue of left-turning vehicles would exceed the length of the storage turning lane, or the current number of lanes would not provide the roadway capacity required to accommodate projected future roadway volumes.

It was found that roadway and intersection delays with the GCL are generally lower compared to the No-Action condition at locations where no new trips would be generated by GCL stations and parking facilities; they are generally higher compared to the No-Action condition at locations where new drive access trips would be anticipated as a direct result of the proposed GCL parking facilities. However, several locations experienced negative traffic growth in the future with the GCL but also generate traffic due to parking facility activity. Of the 41 intersections analyzed, the majority would experience improvements or no change in future level of service (LOS) with the introduction of the GCL. Those located in communities of concern experiencing an increase in LOS include:

- Broadway Blvd (CR 551) at Delsea Dr (NJ 47) (Westville): F to B
- E. Red Bank Ave at N. Broad St (NJ 45) (Woodbury): D to C

Those intersections experiencing a decrease in LOS and located in communities of concern include:

- E. Red Bank Ave at N. Evergreen Ave (CR 650) (Woodbury): C to E
- Cooper St (CR 534) at S. Evergreen Ave (CR 553) (Woodbury): B to E
- E. Barber Ave at S. Evergreen Ave (CR 553) (Woodbury): E to F
- High St E. at S. Main St (CR 553) (Glassboro): C to D
- E. Barber Ave at Railroad Ave (Woodbury): A to B

Those with projected decreases to LOS E or F and are thus considered significant and adverse. These four intersections would also experience a decreased LOS under the No-Action Alternative. However, these adverse impacts are not disproportionate within communities of concern.

Pedestrian and bicycle accessibility would improve under the GCL. These benefits would be realized throughout the corridor, including in communities of concern.

Displacements and Relocations

Overall, impacts resulting from acquisitions and displacements would not be adverse or disproportionate among minority and low-income communities in the future with the proposed GCL. Of the 39 full property

acquisitions expected with the GCL corridor, 35 are located within communities of concern. Of these, nine are commercial, one is community service, seven are manufacturing, one is parking, 12 are residential, four are vacant land, and one is wooded land. These acquisitions will impact nine businesses, displace approximately 92 employees, and impact eight residences. These full acquisitions are potentially significant, and therefore adverse, but not disproportionate within communities of concern.

The GCL would require partial acquisition or de minimis acquisition of approximately 172 parcels. Of these, 27 partial acquisitions and 104 de minimis acquisitions would occur in communities of concern. There is no evidence that the impact would be disproportionate.

Community Services and Facilities

As stated in Section 3.5.2.3, “Community Services and Social Service Providers” in Attachment 3, “Man-Made Resources Tech Report,” in the future with the proposed GCL, one community facility (Bethlehem United Church of Christ) located within a community of concern (Glassboro) would experience impacts relating to direct acquisition of ten parking spaces which may impact activities and ADA ramp usage at the back of the church. The church itself would not be displaced and no physical alteration to the building would occur. This impact would not be considered adverse or disproportionate.

Neighborhoods

The GCL would not adversely or disproportionately affect neighborhoods with high concentrations of minority or low-income residents within the proposed project corridor. While some impacts would occur to specific properties, none of these impacts would collectively affect a neighborhood. The improved access to transit and increased mobility to other destinations in the region would result in a positive impact to these communities of concern and transit-dependent populations.

Noise and Vibration

Of 27 representative locations used as receptor sites, moderate noise impacts are likely to occur at 13 representative locations within communities of concern as a result of the proposed GCL activities and severe noise impacts are likely to occur at two representative locations within communities of concern. The severe impacts are anticipated at Zane Street in Glassboro and at Rowan University’s Girard House. The severe noise impact at these locations would be considered adverse; however, no disproportionate impacts are anticipated.

In addition, moderate noise impacts at residential properties adjacent to the proposed vehicle maintenance and storage facilities are expected to occur at each of the two proposed yards located in the communities of Woodbury Heights and Glassboro, with Glassboro considered a community of concern. Further refinement of the maintenance facility activities at the two proposed storage yards would occur during a future project phase at which more details related to the location, types, and duration of various maintenance activities would be developed. These changes may alter noise exposure levels.

Mitigation for these impacts from noise exposure would be determined during final design and it is likely that the impacts can be successfully mitigated. Upon estimating future project noise exposure levels with mitigation measures, the GCL team found that severe noise impacts at receptor sites would be eliminated, but moderate noise impacts would remain at four receptor sites within communities of concern, in Gloucester City and Glassboro. The remaining moderate noise impacts would all be caused by noise generated from horn soundings.

Vibration levels during daily service operations at all receptor sites were found to be below the FTA Impact Threshold.

Avoidance Measures and Mitigation

No-Action Alternative

Project-generated impacts to environmental justice populations would not occur under the No-Action Alternative. Mitigation is not required for the No-Action Alternative.

The Proposed GCL

Mitigation that would allow for avoidance or reduction of impacts to less than significant levels is proposed for all impacts to communities of concern (see Mitigation sections in Attachment 3 – Man-Made Resources Technical Report, Attachment 5 – Traffic Analysis Technical Report, and Attachment 11 – Noise and Vibration Technical Report).

Although mitigation would not eliminate all adverse impacts, impacts would not be concentrated in potential communities of concern, but instead present throughout the entire corridor. Therefore, no community of concern would suffer a burden of being disproportionately affected either directly by a singular significant impact, nor as a result of combinations of impacts that, considered individually, may be less than significant.

Further, these impacts are minimal compared with the proposed project's benefits to the larger environmental justice populations—including increased accessibility, a new mode choice, and reduced travel times—and do not constitute a disproportionate impact on these communities.