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

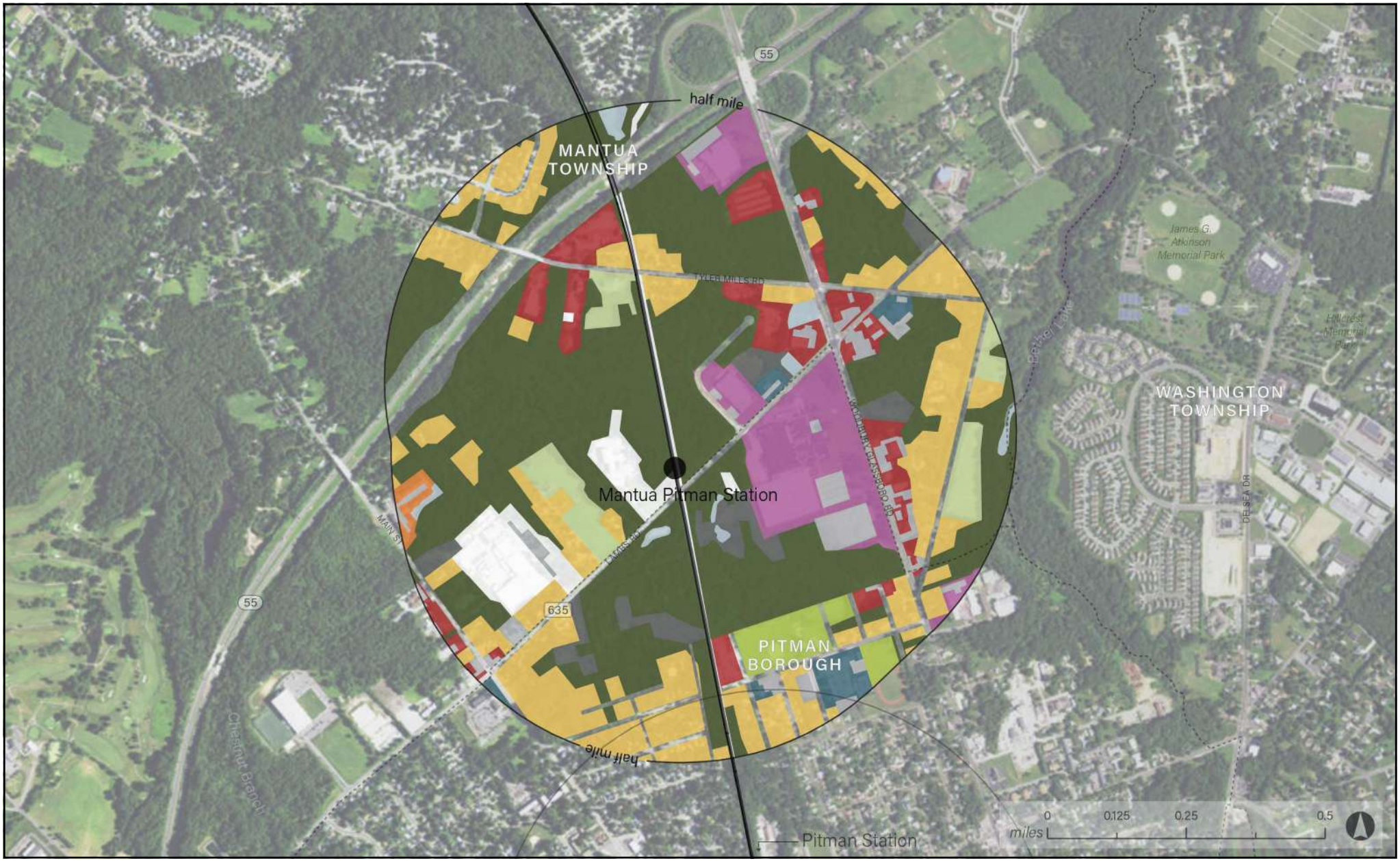

Figure 19: Existing Land Use - Mantua - Pitman Station

GCL
GLASSBORO-CAMDEN LINE

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

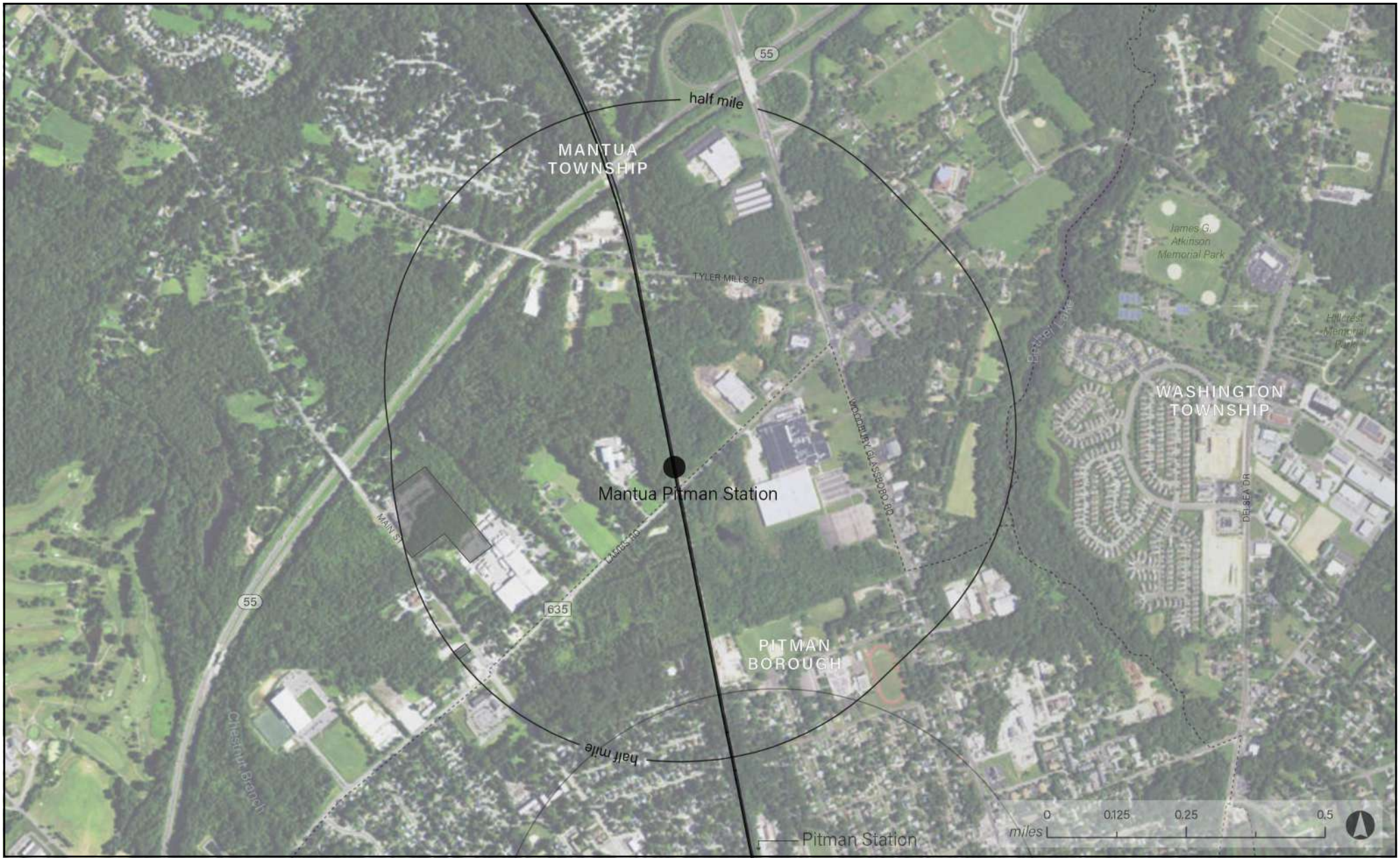

Figure 20: Underutilized Land - Mantua - Pitman Station

GCL
GLASSBORO-CAMDEN LINE

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 plan) 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

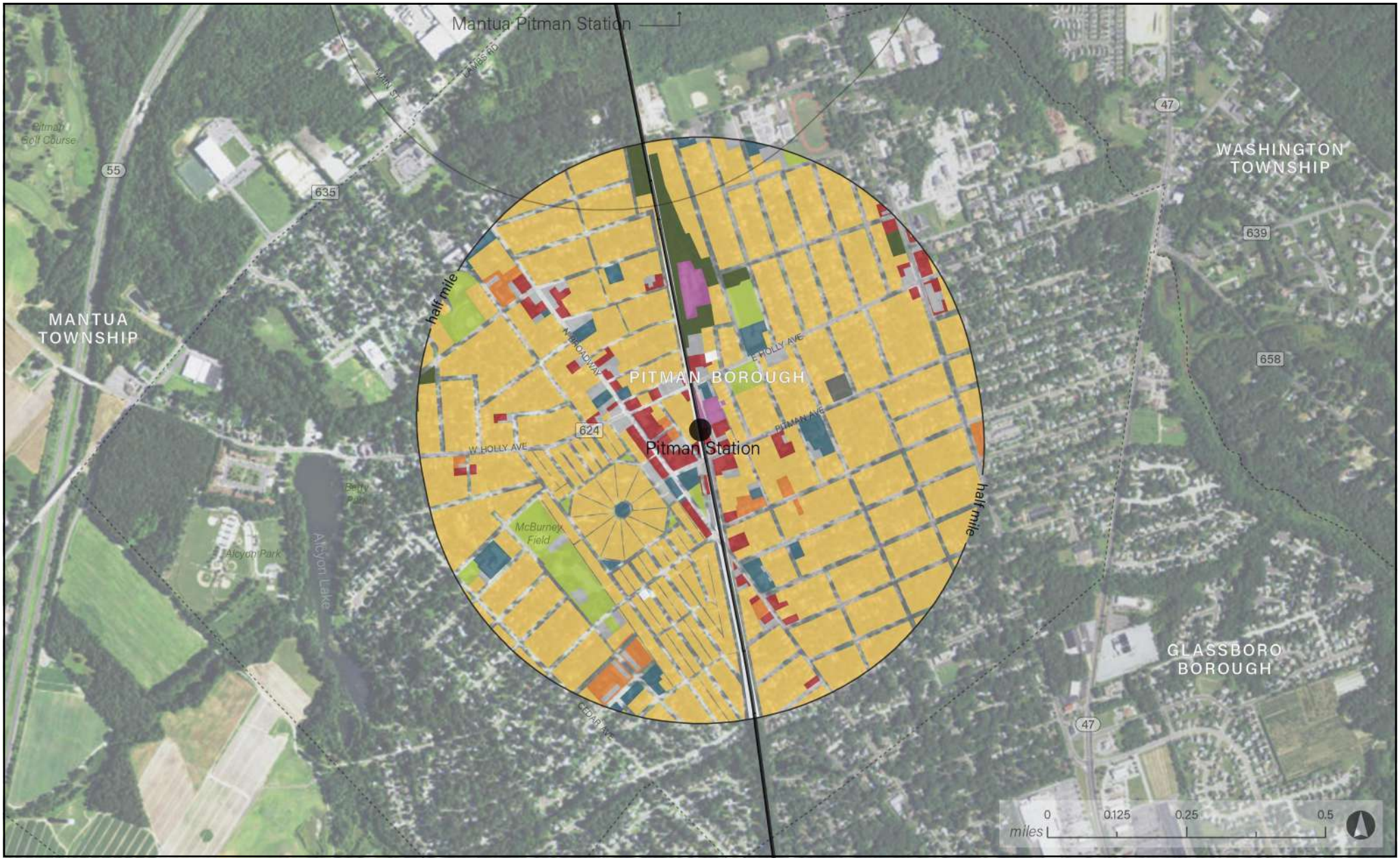

Figure 21: Existing Land Use - Pitman Station

GCL
GLASSBORO-CAMDEN LINE

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

GCL
GLASSBORO-CAMDEN LINE

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.

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.

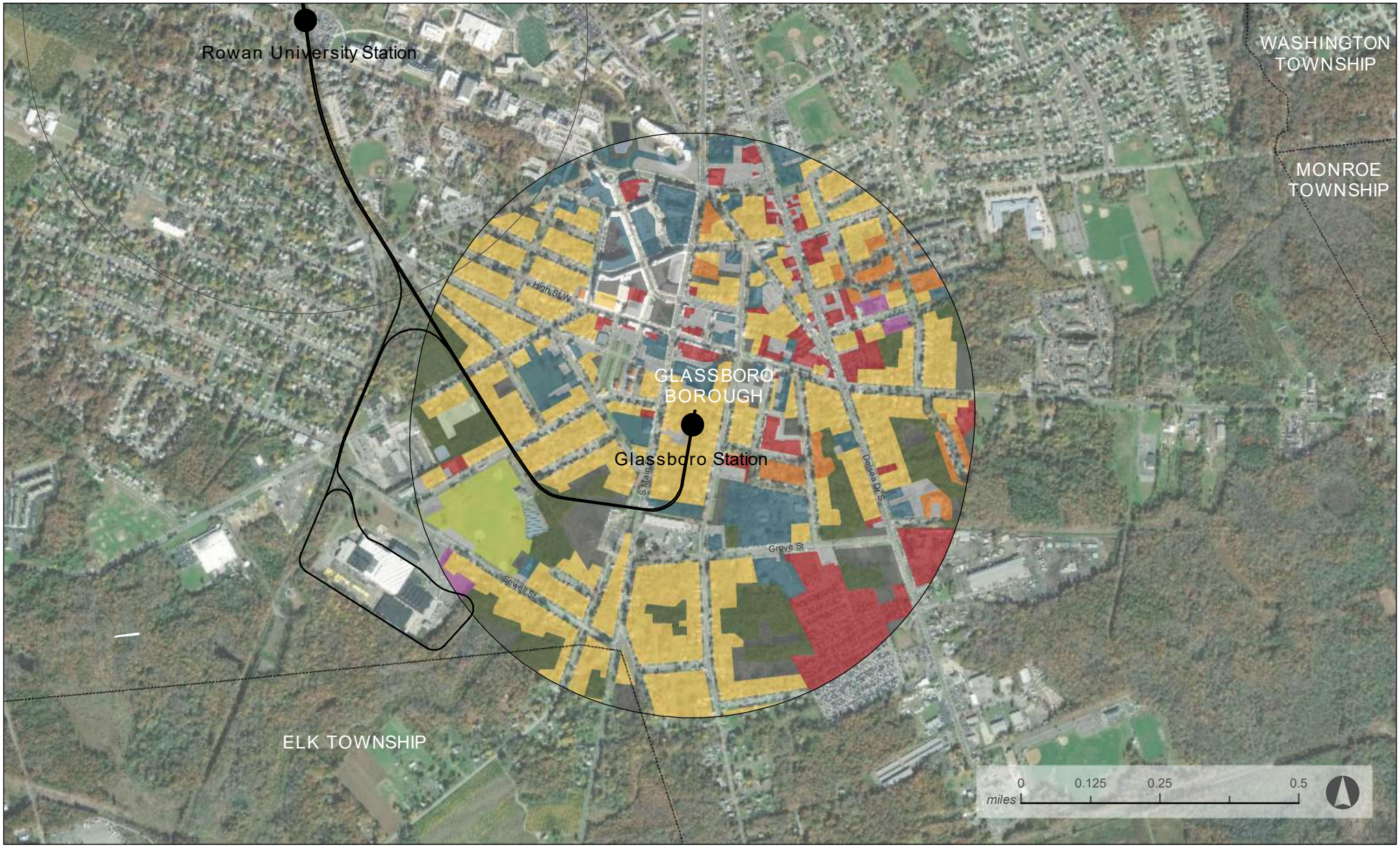

Figure 23: Existing Land Use - Glassboro Station

GCL
GLASSBORO-CAMDEN LINE

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

Figure 24: Underutilized Land - Glassboro Station

GCL
GLASSBORO-CAMDEN LINE

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 use 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

GCL GLASSBORO-CAMDEN LINE

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 (NJDCA) 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

GCL GLASSBORO-CAMDEN LINE

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

Figure 27: Underutilized Land - Glassboro VMF

GCL
GLASSBORO-CAMDEN LINE

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 (NJSA) 40A:12A-3, exist within ½ mile of seven proposed station sites. NJSA 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 (NJSA, 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 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 a 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, 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 by providing 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. It is 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. 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 were 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 05, “Traffic Analysis 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; however, displacement associated with the acquisition of a single parcel adjacent to the station area would be necessary.

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 05, "Traffic Analysis 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. It is 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. 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 catagories 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