Economic Development and Professional Architectural Design Services for the Walter Rand Transportation Center

Final Report

County of Camden
Delaware Valley Regional Planning Commission
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Economic Development and Professional Architectural Design Services for the Walter Rand Transportation Center

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EXECUTIVE SUMMARY

Camden is experiencing a surge of development interest. In the downtown area, an “eds and meds” corridor is emerging with projects including a new Rutgers-Camden Nursing School, a planned Rowan University/Rutgers-Camden Joint Health Sciences Center, and continued expansion by Cooper University Hospital. Just west of downtown, the Camden waterfront is being redeveloped with jobs, housing, entertainment, and public open space. Just east of downtown, the Campbell Soup headquarters and its new neighbor, the Subaru North America headquarters, are creating a regionally significant employment center.

The Walter Rand Transportation Center (WRTC) is located in the core of this development activity. The WRTC is a hub for local and regional transit services, including the PATCO Speedline subway, 26 New Jersey Transit (NJ TRANSIT) bus routes, intercity buses, and NJ TRANSIT’s RiverLINE light rail system. The WRTC is thus well-positioned to play a key role in the continuing revitalization of the city. But there are concerns about its function and form.

The current design of the terminal and surrounding area does not provide for seamless transfers among the various transit services. Many riders cross Broadway mid-block, amid bus and automobile traffic, to transfer from one service to another. Furthermore, some view the building itself, with a dark façade and stark architecture, as being derelict or obsolete. It has maintenance issues, and there are public safety concerns due to loitering in the area.

Previous studies and plans have explored potential improvements to WRTC. The primary goal of this study, funded by the Delaware Valley Regional Planning Commission (DVRPC), was to identify a comprehensive redesign concept. Key objectives included the following:

- Accommodate more and better transit services.
- Improve passenger amenity, convenience, and safety.
- Fundamentally change WRTC’s urban form.
- Create a place-making and economic development opportunity organized around transit and transit-oriented development (TOD).

The work included assessing current circulation issues, preparing a development market analysis, conducting public outreach activities, and recommending design improvements that will help to make the WRTC a premier mixed-use transportation gateway.

The proposed design concept meets the project goals by providing the following improvements:

- A new and redesigned bus terminal with 25 off-street, weather-protected berths—nearly doubling the existing berthing capacity and creating safer, more convenient transfers.
- A central concourse leading to the bus berths and connecting to the PATCO and RiverLINE platforms.
- A public parking deck.
- Ground floor restaurants and retail along Broadway.
- Upper level office and residential space, with possible additional future air rights development.

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1 PATCO is the Port Authority Transit Corporation, a subsidiary of the bi-state Delaware River Port Authority (DRPA).
Pedestrian and streetscape improvements along Broadway and throughout the station area.

Bicycle parking and storage.

The County of Camden will work with NJ TRANSIT, DRPA, DVRPC, and key local stakeholders, including the City, Rowan University/Rutgers-Camden Board of Governors, and Cooper University Hospital, to identify potential funding sources, development incentives, and implementation strategies to advance the design and construction of a new WRTC. It is recommended that the parties explore the delivery of the project’s transportation and development components through some form of public-private partnership.
I. INTRODUCTION

Revitalization in Camden

The City of Camden is experiencing a surge of development interest. In the downtown area, an “eds and meds” corridor is emerging, with specific projects including the following:

- Downtown includes a robust and growing higher education district, consisting of the campuses of the University of Rutgers at Camden, Rowan University, and Camden County College.

- Rowan University, a state-chartered research university, opened the Cooper Medical School of Rowan University in 2012.

- Rutgers-Camden has built a new School of Nursing Sciences at the corner of Federal and 5th Streets. This 107,000 square foot building, with classrooms, laboratories, and offices, opened in 2017.

- Rowan University and Rutgers-Camden are partnering to construct a new four-story, 65,000 square foot Joint Health Sciences Center along Martin Luther King, Jr. Boulevard between Broadway and 5th Street.

- Cooper University Hospital is continuing to expand by adding new operating rooms, constructing new medical suites, and renovating and expanding the hospital pharmacy. On a broader scale, Cooper envisions its campus as the core of a larger redevelopment area that expands health care facilities, revitalizes the adjacent historic Cooper Plaza neighborhood, rebuilds the Broadway retail district, and improves access to WRTC.

Important as “eds and meds” are, there is more to the Camden revitalization story. On the western edge of downtown is Camden’s waterfront, which enjoys a direct view of the Philadelphia skyline. It is being redeveloped with multiple projects:

- approximately 1.5 million square feet of office space, anchored by the headquarters of American Water Company, Conner Strong & Buckelew Insurance, the Michaels Organization, and National Freight, as well as several other key tenancies including Lockheed Martin;

- a 180-room hotel;

- a 184-unit residential development;

- the Philadelphia 76ers training complex;

- extensive waterfront parkland.

Nearby, the iconic RCA Victor factory has been adaptively reused as The Victor, a 341-unit loft apartment building; 86 more units are in the pipeline through the planned reuse of an adjacent historic building as the Radio Lofts.

Just east of downtown, Campbell Soup, which has been headquartered in Camden for 137 years, is expanding its world headquarters. Next door, Subaru of America is building its consolidated headquarters and training center. These projects are part of a larger industrial campus known as Knights Crossing.²

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² The master developer for the waterfront master plan is Liberty Property Trust. The master developer of Knight’s Crossing is Brandywine Real Estate Investment Trust. For recent descriptions of Camden’s redevelopment, see the Downtown Institutional Plan (http://camdenredevelopment.org/plans/CamdenDowntown.pdf); the 2016 Cooper Ferry Annual Report (http://www.coopersferry.com/files/reports/CFP_2016AnnualRep).
Walter Rand Transportation Center

As shown in Figure 1, WRTC is located in the very center of the activities described above. WRTC includes the following components, which are described in greater detail in Section II (Operations and Circulation):

- The Broadway Station of the PATCO Speedline subway, a division of the Delaware River Port Authority (DRPA). The PATCO station has twin entrances on either side of Broadway.

- The WRTC terminal building, owned by NJ TRANSIT, at the corner of Broadway and MLK Boulevard. It contains the PATCO station’s east entrance; NJ TRANSIT’s bus ticketing and waiting area; PATCO’s transit police and operations units; and upper-level office and training space occupied by NJ TRANSIT.

- The WRTC garage, also owned by NJ TRANSIT, in the interior of the block east of Broadway. In addition to 450 parking spaces, the garage includes eight bus berths at ground level. Figure 2 identifies the NJ TRANSIT-owned terminal and garage buildings.

- Six curbside bus berths on Broadway, near the WRTC terminal building and the PATCO subway entrances. Along with the eight berths located in the garage, this gives NJ TRANSIT a total of 14 berths, which currently serve 26 NJ TRANSIT and several intercity bus routes.

- The passenger platforms for NJ TRANSIT’s RiverLINE light rail, which connects the Camden’s waterfront and downtown to Trenton.

NJ TRANSIT is planning two additional regional rapid transit services that would serve WRTC: the Glassboro-Camden Line light rail line (GCL, in collaboration with DRPA), and the South Jersey Bus Rapid Transit (BRT).

Figure 3 places the WRTC components in their immediate setting—the two-block rectangle bisected by Broadway and bounded by Federal Street, Haddon Avenue, Dr. Martin Luther King, Jr., Boulevard (MLK), and 5th Street. The rectangle contains the new Rutgers Nursing School, the state office building at 101 Haddon Avenue, several standalone retail outlets, and a small convenience retail strip center. City Hall is directly across Federal Street, while Cooper Hospital and the future Joint Health Sciences Center are directly across MLK Boulevard.

WRTC thus appears well-positioned to play a key role in the continuing revitalization of Camden’s downtown. There are fundamental concerns, however, about WRTC’s current function, form, and capacity. The design and location of the transit components do not provide for seamless transfers among services. Many riders cross Broadway mid-block to transfer from one service to another. Furthermore, some view the terminal building itself, with a dark façade and stark architecture, as derelict or obsolete. It has maintenance issues, including a leaky roof, and public safety concerns due to loitering in the area.

Together, the WRTC buildings, the adjoining one-story convenience retail center, and the PATCO entrances create a disjointed streetscape and prevent Broadway’s emergence as a coherent urban corridor welcoming transit passengers and connecting them to City Hall, Cooper...
I. Introduction

Hospital, and other key destinations. Underlying these concerns is the fact that the existing WRTC lacks both the capacity and the physical organization to accommodate the anticipated growth in bus and rail services.

This study seeks a comprehensive solution that can make WRTC a 21st-century transit hub and an integral part of Camden’s downtown revitalization.

Figure 1: WRTC in Context
I. Introduction

Figure 2: WRTC Buildings (NJ TRANSIT Ownership)
Figure 3: WRTC Station Blocks
II. OPERATIONS AND CIRCULATION

The initial phase of this study was to assess current transportation operations and circulation patterns within and around WRTC. These include vehicular traffic, public transit, and pedestrian and bicycle activity. The information and findings from this assessment helped guide the development of alternative design concepts.

Many previous plans and studies have covered the WRTC station area. Working with Camden County, the project team identified several of these, including the Delaware Valley Regional Planning Commission (DVRPC) City of Camden Access Study (2012); the DVRPC Camden Parking Study (Finding Space: Balancing Parking Needs and Urban Vitality in the City of Camden; 2011); the City of Camden Downtown/Riverfront Traffic Circulation and Management Study (2005); and a 2014 study of WRTC operations and design concepts prepared for NJ TRANSIT. The study team also made multiple field visits to WRTC and its environs to observe operations and circulation under various conditions.

Street Network

Figure 4 shows the street network, including signalized intersections, in the area surrounding the WRTC. The focus is on the area bounded by MLK Boulevard, Federal Street, Haddon Avenue, and 5th Street, and including Broadway. All streets carry two-way traffic, except Federal Street, which currently is one-way eastbound.

Previous studies have found that vehicular traffic in the WRTC area operates at generally acceptable levels of service and will continue to do so in the future, even with projected development. The location of greatest concern is the intersection of MLK Boulevard and Haddon Avenue, at the southeast corner of the station area. One study has projected this intersection to have a level of service of F under future conditions. Due to right-of-way constraints and geometry limitations, previous studies have found no feasible options for expanding this intersection and instead have proposed improving signal timing as the best means of ensuring adequate traffic flow.4

WRTC Components

WRTC opened in May 1989 as the Camden Transportation Center, and it was renamed in 1994 for Walter Rand, a former state Senator who specialized in transportation issues. The WRTC terminal building was built above the east entrance of the PATCO Broadway Station, which was one of the four original stations on the Philadelphia Rapid Transit Bridge Line in 1936. It was co-located with a station of the Pennsylvania-Reading Seashore Lines. As described previously, NJ TRANSIT owns the terminal building, which is located on the east side of Broadway.

Figure 5 shows the current layout of the WRTC terminal building. Its key components include entrances from Broadway and MLK Boulevard, a separate internal entrance with escalators and stairs to the PATCO station, NJ TRANSIT ticket machines, a passenger information board, and upper floor offices for NJ TRANSIT and PATCO.

The ground level of the adjacent WRTC garage houses eight diagonal sawtooth bus berths, of which seven are currently

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3 The traffic and parking studies are summarized in the DVRPC Camden Access Study: https://www.dvrpc.org/reports/12008.pdf. See also NJ TRANSIT, Concept Plans for the New Walter Rand Transit Center (2014).

used (see Figure 6). Outside on Broadway are two curbside bus stops (one on either side of the street), each long enough to accommodate three berths.

The parking levels of the WRTC parking garage, owned by NJ TRANSIT and operated by the Parking Authority of the City of Camden (PACC), contain 450 spaces. The parking levels are open only on weekdays and receive nearly all their revenue from monthly permits, mostly for workers in the adjacent state office building. PACC sells slightly more permits than the total capacity each month, so only about ten public non-permit vehicles can be accommodated on a daily basis, although many public employees enter and leave during the course of the day. A recent survey found a peak mid-day occupancy of 302 vehicles, an occupancy rate of 67%.

Located across Broadway from the terminal building are NJ TRANSIT’s RiverLINE station and the west headhouse for PATCO’s Broadway Station. The west headhouse was renovated and expanded in 2003 to better serve transfers between PATCO and the RiverLINE, which opened in 2004.
II. Operations & Circulation

Figure 4: WRTC Street Network

Source: AECOM, from Aerial Data, 2017 Microsoft Corp.; Parcels and Streets Data, NJGINExplorer.
Figure 5: WRTC Existing Operating Layout

Source: NJ TRANSIT
Figure 6: WRTC Interior Bus Berths (Ground Floor of Garage)
Public Transit Services

Several public transit services currently operate at the WRTC. These include PATCO, the RiverLINE light rail, 26 NJ TRANSIT bus routes, Greyhound, and shuttle services. The schedules and operations of these services are described below.

PATCO

The PATCO Speedline provides urban heavy rail service between Lindenwold, NJ, and Philadelphia, with intermediate service through Camden. The service operates seven days a week, 24 hours a day, with frequencies ranging between three and 45 minutes. Service along the existing alignment began in 1969. Within Camden, the line has three stations, including Broadway, the station located at the WRTC. At this location, the line is underground.

The Broadway East entrance, located within the WRTC terminal building, is open 24 hours a day, seven days a week. The Broadway West entrance, located in the west headhouse, is open from 5:00 AM to 10:00 PM daily. There are approximately 5,400 PATCO boardings and alightings at Broadway Station (WRTC) on an average weekday. There are approximately 3,000 on Saturdays and 2,000 on Sundays.5

NJ TRANSIT RiverLINE

The RiverLINE is a diesel light rail service that connects Camden and Trenton. Service began in 2004 on the 20-station alignment, four of which are in Camden. Service is offered roughly between 6:00 AM and 10:00 PM, with 15-minute peak and 30-minute off-peak headways.

As previously noted, the WRTC RiverLINE stop is located across Broadway from the WRTC terminal building, adjoining the smaller PATCO/WRTC west headhouse (see Figure 5). There are approximately 3,800 RiverLINE boardings and alightings at WRTC on an average weekday. There are approximately 2,400 on Saturdays and 1,900 on Sundays.6

NJ TRANSIT Bus Routes

Currently, 26 NJ TRANSIT bus routes serve WRTC (see Table 1). These routes operate in many different patterns. Some routes stop at the interior berths on the ground level of the WRTC garage, some at the curbside berths along Broadway, and some in both locations. Figure 7 is a composite route density map, summarizing how buses circulate within and around WRTC.

The current entrance for buses using the berths in the WRTC garage is from MLK Boulevard, and departing buses exit onto Federal Street, which currently is one-way eastbound. Upon exiting the garage berths, the one-way Federal Street pattern requires that buses turn right onto Federal Street. The automobile entrance and exit to the parking floors of the garage are adjacent to the bus entrance and exit.

Table 2 shows the daily ridership on all NJ TRANSIT bus routes serving the WRTC. There are approximately 10,300 boardings and alightings on an average weekday. There are approximately 6,500 on Saturdays and 4,200 on Sundays.

An estimated 55% of bus boardings are transfers from other the transit services at the WRTC.

5 PATCO, 2014 data.

6 NJ Transit, 2014 data.
II. Operations & Circulation

Figure 7: WRTC Bus Route Density Map
Table 1: Current Composite Schedule of NJ TRANSIT Bus Routes Serving WRTC

<table>
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<th>Route #</th>
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<th>Outbound Stop(s)</th>
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II. Operations & Circulation
Table 2: Current NJ TRANSIT Bus Ridership at WRTC

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<td>Total</td>
<td>5,769</td>
<td>4,618</td>
<td>3,539</td>
<td>2,952</td>
<td>2,330</td>
<td>1,838</td>
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</table>

Prepared By: Beth Waltrip, Principal Service Planner, NJ Transit
Date: March 27, 2017

**Based on 2016 Ridecheck Plus Data - Ridership estimates are based on automated processing may under-report the total. In some cases, passenger activity is attributed to a nearby, unidentified location by mistake.**
II. Operations & Circulation

Other Transit Services
A few other transit routes provide service to the WRTC, further enhancing its role and importance as a regional transportation hub.

- The national intercity bus carrier Greyhound serves WRTC, where it has one interior gate assigned to it. Among its routes, it provides four trips daily to New York City.

- South Jersey Transportation Authority (SJTA)’s Camden Rising Shuttle provides weekday service for County workers and university students and staff. This service runs a loop route connecting the waterfront area with other key downtown locations, including WRTC. In addition, SJTA operates a weekday shuttle between WRTC and the Pureland Industrial Complex in Logan Township, Gloucester County. The ridership totals in Table 2 do not include the Greyhound and SJTA services.

Planned New Services
The Glassboro Camden Line (GCL) would be a light rail service, similar to the RiverLINE, between Camden and Glassboro. It would stop at WRTC. The proposed service would have 7.5 minute peak headways and 15 minute off peak headways. During peak hours, eight GCL trains would thus pass through WRTC in either direction, for a total of 16.

The RiverLINE, with 15-minute peak headways, has four trains operating in either direction during peak periods, for a total of eight. Combined, the two services would operate 24 trains per hour into and out of WRTC during peak periods, or one every 2.5 minutes.

This potential frequency of light rail service creates a challenge for vehicular access to the WRTC garage. In order to enter the garage from MLK Boulevard, buses (accessing the ground floor) and cars (accessing the parking levels above) must cross the RiverLINE tracks. This crossing is not protected by any safety devices such as signage or gates. With the potential for a train every 2.5 minutes, NJ TRANSIT has indicated that any new design concept should avoid or minimize buses and automobiles crossing the tracks (other than at the already signalized intersections at Haddon Avenue and at Broadway). If the redesigned WRTC remains in its current location, this would require that buses enter and exit via Federal Street, and that the parking deck access be moved off MLK Boulevard.

The South Jersey Bus Rapid Transit (BRT) service would provide express bus service along the Route 42 and Route 55 corridors into Camden, with a stop at WRTC and then on to Philadelphia. Within Camden, the proposed system would also include transit signal priority (TSP) at several intersections. This service would provide 10-15-minute peak period headways. It is anticipated that the service would require using two additional bus berths at WRTC.

Pedestrian Circulation Patterns
The WRTC area’s current pedestrian circulation patterns reflect transit vehicle boardings and departures among the transit services. As described in the previous section, the various transit services have different stop locations within the WRTC area. Also, as noted, about 55% of bus boardings are transfers. Thus, under current conditions, some persons who wish to transfer between transit services must walk some distance.

Of particular interest are pedestrian safety issues, especially for persons who cross Broadway at mid-block; this issue, which is evident during any rush hour, has been identified in previous studies. Also of potential concern are pedestrian
II. Operations & Circulation

crossings of MLK Boulevard, a six-lane arterial roadway. Previous studies have noted concerns about safe crossings of MLK Boulevard at Broadway and Haddon Avenue. These studies have identified the possible need for pedestrian and bicycle facility improvements including signage, striping, crosswalks, and signals.
III. MARKET ANALYSIS

As part of this study, a real estate market analysis was undertaken for two reasons:

- to assess the feasibility, in the near to mid-term, of transit-oriented development in the Downtown Camden-WRTC study area;
- more specifically, to test the ability of the proposed WRTC design concept to support TOD on-site, so as to activate the project and its environs, generate additional transit riders, and create value for NJ TRANSIT that could help support the cost of a new Walter Rand Transportation Center.7

Background

By way of context, Downtown Camden and its immediate environs are undergoing a significant surge of development. Summarized in the Introduction on page 3 of this report, this surge includes:

- “eds and meds” development in close walking distance of WRTC, led by Rutgers-Camden, Rowan University, and Cooper Rowan Memorial Hospital;
- large-scale, mixed-use waterfront revitalization just west of downtown;
- industrial expansion just east of downtown.

This development is fueled by Camden’s location in the core of the bi-state Philadelphia metro area, its institutional base of universities and hospitals, and a series of New Jersey laws designed to incentivize economic development in general and concerted investment in Camden and four other cities in particular.8

The Downtown Institutional Plan prepared for the City by the Coopers Ferry Partnership in 2015 identifies a major gap, and a major opportunity, in the revitalization process. Of the roughly 7,000 employees represented by Camden’s educational, medical, and corporate institutions, only 2% live in Downtown Camden. And of the roughly 11,000 college and university students who attend school in Camden, only 7.6% live Downtown, and when dormitory residents are excluded, the percentage shrinks to 2%.9 If Camden can attract more of its growing student and workforce populations to live downtown—close to their jobs, labs, or classrooms and with strong transit connections to Philadelphia and throughout the bi-state metropolitan area—downtown would gain not only a residential population, but the retail, dining, entertainment, and other activities that it would support.

The WRTC Market Analysis: a Summary

The complete WRTC market analysis is available as an on-line appendix; a summary is presented here.10 The analysis took into account several overlapping market geographies:

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7 The market analysis was performed by 4ward Planning, Inc., a leading land use economics firm specializing in TOD.

8 The New Jersey Economic Opportunity Act of 2013 consolidated and expanded several tax credit and other incentives under two umbrella programs: Grow New Jersey, and Economic Redevelopment & Growth (ERG). The incentives are amplified in five designated Garden State Growth Zones (Camden, Trenton, Patterson, Passaic, and a portion of Atlantic City), and in Urban Transit Hub Communities (of which Camden is one, with incentive bonuses extending a mile from WRTC).

9 http://camdenredevelopment.org/plans/CamdenDowntown.pdf

10 The full report findings summarized here are presented in detail in 4ward Planning, Inc., Walter Rand Transportation Center
WRTC Planning and Design Study

III. Market Analysis

- The smallest is the half-mile study area surrounding WRTC (see Figure 1, page 5).
- The Primary Market Area (PMA) radiating out from WRTC and its immediate environs is defined by a 15-minute driving contour. This “15-minute PMA”—the aggregate of all the places that can access the target location by a 15-minute drive—is a standard “apples to apples” analytic footprint.
- Because of its transit-rich location, the study also generated a “20-minute transit shed”, consisting of the half-mile circles surrounding all of the rail transit stations that can reach WRTC by a 20-minute transit trip. This “shed” includes all stations on the PATCO Speedline, from Philadelphia to Lindenwold, and the RiverLINE stations from the Camden waterfront to Cinnaminson.

The relationship among these primary market geographies is shown in Figure 8.

The larger or secondary market area is the nine-county bi-state metropolitan region covered by the Delaware Valley Regional Planning Commission. For purposes of the office and multi-family residential markets, the analysis also considered, respectively:

- the Camden-Gloucester Office Submarket (Camden and Gloucester Counties);
- the Camden Apartment Submarket (a subset of the 15-minute Primary Market Area consisting of Camden and Gloucester Cities; Collingswood, Merchantville, and Brooklawn Boroughs; and Pennsauken Township.)

Figure 8: WRTC Primary Market Area

![WRTC Primary Market Area](image)

Source: 4ward Planning, Inc., 2017

Existing conditions with respect to population, income, density, office employment, and transit use are summarized in Figure 9.

### Figure 9: WRTC Market Analysis, Existing Conditions

#### Existing Conditions:

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2016</th>
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</thead>
<tbody>
<tr>
<td>Workers Commuting by Public Transport</td>
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<td></td>
</tr>
<tr>
<td>Half Mile Radius</td>
<td>14%</td>
<td>6,118</td>
</tr>
<tr>
<td>20-Minute Transit Shed</td>
<td>16%</td>
<td>124,728</td>
</tr>
<tr>
<td>15-Minute PMA</td>
<td>19%</td>
<td>225,095</td>
</tr>
<tr>
<td>DVRCP Region</td>
<td>10%</td>
<td>1,352,118</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Office Workers</th>
<th>Population</th>
<th>Housing Units</th>
<th>Households</th>
<th>Median HH Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Half Mile Radius</td>
<td>7,810</td>
<td>11,014</td>
<td>3,896</td>
<td>3,216</td>
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<tr>
<td>20-Minute Transit Shed</td>
<td>10,255</td>
<td>8,597</td>
<td>4,477</td>
<td>4,097</td>
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<tr>
<td>15-Minute PMA</td>
<td>3,371</td>
<td>8,678</td>
<td>3,984</td>
<td>3,626</td>
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<tr>
<td>DVRCP Region</td>
<td>363</td>
<td>1,546</td>
<td>629</td>
<td>583</td>
<td></td>
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</tbody>
</table>

Source: 4ward Planning, Inc., ESRI; 2017
WRTC Planning and Design Study

III. Market Analysis

The key findings of the market analysis are as follows:

1. **Multi-family residential.** The half-mile WRTC study area should generate demand for between 180 and 530 units between now and 2021, or 200 to 610 units between now and 2026. These results reflect a supply and demand analysis in the 15-minute Primary Market Area, where vacancies are tight, 65% of residents express a preference for apartment living, and a demand for nearly 18,000 net new units is projected by 2021. The WRTC study area’s share of this regional demand assumes a “capture rate” in the conservative range of 1% to 3%. The analysis is shown in Table 3.

Given Downtown Camden’s surging eds, meds, and corporate development, its re-emerging waterfront, and its immediate transit access to Center City Philadelphia, the higher (3%) capture rate is a credible outcome. Even the lower rate would support a substantial multi-family development at or adjoining a new WRTC.

2. **Office space.** Camden’s eds and meds cluster generates its own, purpose-built market for offices, laboratories, and classrooms. The analysis of the general office market, both in the 15-minute Primary Market Area and the Camden-Gloucester Office Submarket, reveals a soft condition, with flat growth and high vacancy. By 2026, a demand for about one million square feet of net new office space is expected, but much of this can be absorbed in the existing vacant inventory. Downtown Camden is capable of attracting a share of the net new demand, particularly at the Class A or near-Class A level, due to its waterfront amenity, strong transit connectivity to Center City and much of the Primary Market Area, and the corporate office development already underway, helping to establish the location.

3. **Retail.** The WRTC half-mile study area, while relatively low in purchasing power, is nonetheless characterized by retail “leakage”—that is, either people living within the study area travel outside it to shop, or they consume less than would be expected given their income levels. Additional residential development would add to retail demand, as will the continued eds and meds development underway and planned in the immediate vicinity of WRTC. There is demand for street-level convenience retail and potentially for full-service dining.\(^\text{11}\)

4. **Lodging.** The bi-state Philadelphia metropolitan region is one of the top 25 hotel markets in the United States. The principal concentration of hotels is in Center City Philadelphia, and at this time there are none in Downtown Camden. The mixed-use Camden waterfront redevelopment includes a 180-room hotel, and it is conceivable that Camden’s corporate growth and close proximity to Center City, including a short, one-seat subway connection on PATCO, could support a second hotel in the foreseeable future.

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\(^\text{11}\) It should also be noted that some existing retail has been or will be displaced by the Health Sciences Center development on the south side of MLK Boulevard.
### Table 3: Residential Supply/Demand Analysis

<table>
<thead>
<tr>
<th>Net Dwelling Unit Demand Through 2026</th>
<th>2016</th>
<th>2021</th>
<th>2026</th>
</tr>
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<tbody>
<tr>
<td><strong>Housing Demand Metrics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated households in 15-minute PMA (0.6% growth rate)</td>
<td>242,084</td>
<td>249,434</td>
<td>257,008</td>
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<tr>
<td>Estimated workers in 15-minute PMA (0.6% growth rate)</td>
<td>474,400</td>
<td>488,804</td>
<td>503,645</td>
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<td>Estimated workers residing outside the 15-minute PMA (75%)</td>
<td>354,690</td>
<td>365,456</td>
<td>376,552</td>
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<tr>
<td>Estimated pent-up housing unit demand from commuting area workers (5%)</td>
<td>17,735</td>
<td>18,273</td>
<td>18,828</td>
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<tr>
<td>Estimated number of naturally-occurring vacant housing units (5%)</td>
<td>13,306</td>
<td>13,456</td>
<td>13,668</td>
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<tr>
<td>Estimated aggregate housing unit demand in 15-minute PMA</td>
<td>273,119</td>
<td>281,162</td>
<td>289,503</td>
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<tr>
<td><strong>Housing Supply Metrics</strong></td>
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<tr>
<td>Estimated housing units in 15-minute PMA</td>
<td>266,007</td>
<td>269,110</td>
<td>273,356</td>
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<tr>
<td>Subtract physically obsolescent units (3.5% of total, 1% annual obsolescence rate)</td>
<td>9,310</td>
<td>9,785</td>
<td>10,284</td>
</tr>
<tr>
<td>New units to add (based on units under construction, planned, and proposed)</td>
<td>3,103</td>
<td>4,246</td>
<td>6,047</td>
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<tr>
<td>Estimated net marketable housing units in 15-minute PMA</td>
<td>259,800</td>
<td>263,571</td>
<td>269,119</td>
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<tr>
<td><strong>Net Housing Demand/Supply Calculation</strong></td>
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<tr>
<td>Estimated aggregate housing unit demand in 15-minute PMA</td>
<td>273,119</td>
<td>281,162</td>
<td>289,503</td>
</tr>
<tr>
<td>Subtract estimated net marketable housing units in 15-minute PMA</td>
<td>259,800</td>
<td>263,571</td>
<td>269,119</td>
</tr>
<tr>
<td>Net Housing Unit Demand/(Excess Units)</td>
<td>13,319</td>
<td>17,592</td>
<td>20,384</td>
</tr>
<tr>
<td>Half-mile radius capture (3%)</td>
<td>400</td>
<td>530</td>
<td>610</td>
</tr>
<tr>
<td>Half-mile radius capture (1%)</td>
<td>130</td>
<td>180</td>
<td>200</td>
</tr>
</tbody>
</table>

Source: 4ward Planning, Inc., 2017
IV. PUBLIC INVOLVEMENT

Outreach activities were an important component of this study. The project team designed these activities to engage stakeholders and the general public, provide information on draft work products, and obtain feedback. The public involvement activities were an important bridge between the initial, research-oriented phases of the study (the review of existing operation and circulation patterns and the real estate market analysis) and the development of the proposed design concept.

The two principal activities were to establish a Steering Committee and hold consultative meetings with it; and to conduct two public information sessions.\(^\text{12}\)

The Steering Committee comprised representatives from the following stakeholder organizations:

- County of Camden
- City of Camden
- DVRPC
- NJ TRANSIT
- PATCO
- Rowan University/Rutgers-Camden Board of Governors
- Cooper University Hospital
- Coopers Ferry Partnership

Steering Committee meetings occurred on the following dates:

- January 12, 2017, at Waterfront Technology Center (kick off meeting);
- June 12, 2017, at Camden City Hall (presentation of market analysis results, preliminary design concepts)
- August 23, 2017, at Waterfront Technology Center (presentation of draft design concept alternatives for review and discussion).

In addition, the project team organized and conducted two public information sessions. These sessions were both in an open house format, including a presentation and discussion.

The first session occurred on May 25, 2017, at Cooper University Hospital. At this session, the project team:

- discussed Walter Rand Transportation Center, the study area in and around the station, and the overall goals of the Walter Rand study;
- presented the operations and circulation analysis and an overview of the real estate market analysis;
- gained valuable input on some key design features of a redesigned Walter Rand, particularly with respect to expanded bus service and the treatment of Broadway.

The second session occurred on October 2, 2017, at the Waterfront Technology Center. The focus of this session was the final proposed design concept.

The project team also conducted several key stakeholder interviews, which served to inform and supplement the study team’s interaction with the Steering Committee and the public. These Interviews were conducted with:

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\(^\text{12}\) The study team’s public outreach program was led by its subconsultant PS&S.
IV. Public Involvement

- City of Camden: Mayor, Council President, and Director of Planning and Capital Improvements, Camden City Parking Authority.

- County of Camden: Freeholder Director, Camden County Director of Planning, Camden County Improvement Authority, Camden County Police Department, and Camden County Public Information staff.

- Neighborhood associations: Cooper Plaza, Lanning Square, Cooper Grant, and North Camden Neighborhood Associations.

- Institutional stakeholders: Cooper’s Ferry, Cooper Hospital, DRPA, NJ TRANSIT, and Rowan University/Rutgers-Camden Board of Governors.

Information was continually made available to the public through a webpage created for this project on the Camden County website:

V. PROPOSED DESIGN CONCEPT

Background
The principal product of this study is a concept for the expansion and redesign of WRTC. The Proposed Concept resulted from an iterative process involving the project team, the Steering Committee, and the public. The goal was to arrive at a concept achieving several key objectives:

- Accommodate a significant expansion of WRTC’s bus loading and unloading capacity. NJ TRANSIT currently operates 14 berths (eight in the ground level of the WRTC garage and six at the curb on Broadway). Based on an analysis provided by NJ TRANSIT, the agency’s ideal capacity would be 28 berths, providing each route or route cluster a dedicated berth and accommodating future growth.

- Position the bus berths in an off-street location that is weather-protected, safe, and convenient for passengers, optimizing convenience of transfers among bus routes and between buses and the PATCO subway and NJ TRANSIT light rail platforms.

- Minimize the need for buses or cars to cross the light rail tracks on MLK Boulevard, other than at signalized intersections.

- Transform the key block of Broadway, between MLK Boulevard and Federal Street, into a downtown urban street with multi-story development, retail at street level, and attractive sidewalk amenities. As part of a redesigned Broadway, ensure safe pedestrian crossings for transit passengers and others.

- Support transit-oriented development within the “station blocks” rectangle formed by Federal Street, Haddon Avenue, MLK Boulevard, and 5th Street, and bisected by the block of Broadway described above (see Figure 3 on page 7.)

- Create a marketable joint development opportunity (land and/or air rights) on the new WRTC site, to help directly integrate TOD with transit.

- Preserve a parallel right-of-way alongside the RiverLINE light rail platforms west of Broadway for potential use by the Glassboro-Camden Line (GCL).

A point of departure was a plan prepared for NJ TRANSIT in 2014 and shown in Figure 10. The NJ TRANSIT 2014 Plan assumed the availability of the entire block on the east side of Broadway out to Haddon Avenue, including not only the existing WRTC facilities but the state office building at 101 Haddon, the fast food restaurant at the corner of Federal and Haddon, and their parking lots. With the entire block available, the NJ TRANSIT 2014 Plan included a 28-berth at-grade bus terminal, multi-story development on Broadway and Haddon, and substantial air rights development above the new facility. Bus and automobile access and egress were achieved through well-separated curb cuts and ramps.

As of 2017, however, the state and Camden County have determined that the office building at 101 Haddon Avenue will remain in use and in public ownership, and is consequently not available as part of an expanded WRTC site. The Proposed Concept, presented in the pages that follow, reflects this significant change.
V. Proposed Design Concept

**NJ TRANSIT 2014 Plan**

- Utilizes the entire block formed by Broadway, Federal Street, Haddon Avenue, and MLK Boulevard, demolishing the state office building at 101 Haddon.
- A terminal with 28 bus berths at-grade, accessed and egressed from Federal Street.
- Parking level(s) above, accessed and egressed via separate “up” and “down” helical ramps with entrances and exits on both Haddon Avenue and Federal Street.
- “Liner” buildings fronting on Broadway and Haddon; air rights development above the terminal.
Proposed Concept

The Proposed Concept developed under the current study is shown in Figures 11-15. Its key features are as follows:

- A 25-berth bus terminal at street level. While fewer than the 28 berths ideally preferred by NJ TRANSIT, this provides a near-doubling of existing capacity and achieves the objective of bringing all berths into one weather-protected, off-street location. From the sidewalk, passengers enter a day-lit, multi-story public atrium lobby, with vertical circulation to the bus concourse above. The westernmost row of berths can be accessed directly from the lobby.

- An extension of 7th Street, as a busway, emergency access/fire lane, and pedestrian/bicycle connection only, between Federal Street and the Cooper Hospital entrance plaza on MLK Boulevard. This will enhance connectivity, create a more attractive environment on the west side of the 101 Haddon office building, and afford NJ TRANSIT the flexibility to allow buses exiting south-facing berths to cross the light rail tracks and turn west (right) onto MLK Boulevard. All other bus moves into and out of the terminal would occur on Federal Street.

- A bus concourse and waiting area with transit-oriented convenience retail at the second level, connected by fully ADA-compliant vertical circulation to the bus platforms below. This allows passengers safe access to all berths—whether entering and leaving the terminal or transferring to another bus route or to rail—without having to walk across active bus lanes.

- A future pedestrian bridge over Broadway, connecting the second-level bus concourse to an expanded PATCO west headhouse and the adjoining light rail platforms. This bridge can be implemented concurrently with the Glassboro-Camden light rail project, when the platform configuration in relation to the PATCO headhouse has been determined.

- A parking deck of roughly 280 spaces above the bus concourse at Level Three. This deck, accessed and egressed by a two-way helical ramp on Haddon Avenue, could be expanded to two levels if needed.

- Two multi-story “liner” buildings fronting on Broadway and flanking the atrium lobby: (a) At the corner of Broadway and MLK Boulevard, a building containing the existing PATCO subway entrance at ground level and multiple floors of office space above. This could be occupied by NJ TRANSIT, replacing the office and training area in the existing WRTC complex.

(b) Between the atrium and Federal Street, an oblong liner building with street-level retail and 6-12 stories of development above. This building would have sufficient depth to accommodate “single-loaded” offices or apartments (units on the street-facing side of the corridor). Its program could consist of office and residential (with the residential floors at sufficient height to clear the multi-story Block N garage; see Figure 14 and discussion on page 35) or a hotel. The actual mix of uses, and the extent of ground-floor lobby, service, and elevator space required to support them, will be determined by the real estate market.

- Pedestrian connections and amenities throughout the WRTC area.
V. Proposed Design Concept

- The structural capacity to support several floors of future air rights office space above the parking deck(s). It should be noted, however, that a development program of 150,000-175,000 square feet can be accommodated in the two *terra firma* liner buildings without additional air rights development.
V. Proposed Design Concept

Street Level Plan:

- 25 bus berths at grade, with bus access and egress principally from Federal Street.
- 7th Street extended as a busway, emergency/fire lane, and pedestrian/bicycle connector between Federal Street and MLK Boulevard. (Buses exiting the terminal from south-facing berths could, at NJ TRANSIT’s option, cross the light rail tracks.)
- Development frontage along Broadway, with PATCO east entrance, public atrium lobby, and retail at sidewalk level.
- Helical ramp accessed from Haddon Avenue to parking above.
Second Level Plan:
- Bus waiting area and concourse with convenience retail for passengers and office workers.
- Elevators, escalators, and stairs down to bus berth platforms.
- NJ TRANSIT offices begin at second level.
- Other development (office, hotel, or residential) begin at second level.
- Future pedestrian bridge from bus waiting area across Broadway to PATCO west entrance and light rail.
V. Proposed Design Concept

Third Level Plan:
- At least one level of parking above the bus concourse; access and egress via helical ramp.
- Upper floors of development program fronting on Broadway.
- Potential future air rights above.
V. Proposed Design Concept

Figure 14: Proposed Concept: Rendering

**Rendering:**

A. State Office Building, 101 Haddon Avenue.
B. Future Camden Parking Authority garage and retail ("Block N", in design).
C. Rutgers University School of Nursing (opened 2017).
V. Proposed Design Concept

Figure 15: Proposed Design Concept: Pedestrian Improvements
Areas for Future Study and Refinement

The Proposed Concept has been developed and evaluated at a preliminary level. Several aspects should be further studied and potentially refined in the next phase of planning and design:

- The feasibility of building the WRTC parking below grade (beneath the bus facility) rather than above it should be evaluated. If feasible, this move would enable the helical ramp to be replaced by a more conventional up/down driveway ramp intersecting Haddon Avenue at roughly the same location. This would in turn enable more of the corner parcel to be preserved for development. The feasibility of below-grade parking depends in part on soil conditions and the height of the water table, which require testing and analysis. Below-grade parking would also be limited to the portion of the site north of the PATCO tunnel, which cuts across the southern end of the parcel from east to west.

- Federal Street is currently one-way eastbound. Consistent with this pattern, the Proposed Concept shows all of the Federal Street bus movements entering and leaving the terminal as “right-in/right-out”. This would force some buses to travel around the block on Haddon Avenue, MLK Boulevard, and Broadway in order to reach Federal Street or depart from it. Alternatively, allowing buses to make left turns would require two-way bus traffic, at least between Broadway and Haddon Avenue.

This tradeoff—directness of routing versus traffic operations on Federal Street—should be evaluated through a more advanced traffic study, addressing whether Federal Street (which is only 44 feet wide) could handle four-way bus movements; any mitigation required to make this major change in circulation work; and the role of Federal Street in the larger east-west traffic pattern involving MLK Boulevard and Market Street.

- As part of this study, a conceptual development *pro forma* analysis was conducted to assess the feasibility of a residential, office, and retail program in the liner buildings on a purely private, non-subsidized basis. This analysis is, by definition, preliminary and conceptual, using model development costs and rent levels justifiable in downtown Camden under current conditions. The analysis indicates that development on this site, like other development occurring in and near the half-mile study area, would require incentives to attract developer participation. The extent of incentive or subsidy required will depend on the actual design of the project, the attractiveness of the site to public or institutional tenants, and the relationship between the transportation and development components of the overall project.

- Air rights development above the bus terminal and parking deck will require solutions to the issues of lobby location, pedestrian circulation, loading, servicing, and the physical connection, if any, between the air rights levels and the upper floors of the liner buildings. The optimal location of the air rights footprint within the larger footprint of the terminal and parking deck must also be determined. These design and logistical issues will be more complex if the potential air rights development is reserved as a future phase of development (as the market may dictate) rather than as part of the initial
V. Proposed Design Concept

The proposed design for the WRTC project requires a more detailed analysis of logistics and phasing.

- The replacement office and training space for NJ TRANSIT could be located in the southerly liner building (above the PATCO entrance) or in the northerly liner building, occupying the lower floors where views are limited by the multi-story Block N garage across the street. The NJ TRANSIT office location should reflect the overall needs of the joint development program.

- The Glassboro-Camden Line project team will determine, in the next two to three years, whether the GCL will share the RiverLINE’s existing tracks and platforms at WRTC or require a separate, parallel configuration. This outcome will influence the linkage between the light rail platforms, the PATCO west headhouse, and the future pedestrian bridge across Broadway to the bus concourse.

Other Alternatives

The study team was charged with evaluating at least one alternative in addition to the Proposed Concept. Since the site east of Broadway has the known constraint of the 101 Haddon office building, an effort was made to explore potential alternatives on the west side of Broadway. A west-of-Broadway location would place the WRTC bus terminal in closer proximity to the light rail platforms, while using PATCO’s west headhouse for bus/subway transfers.

One significant vacant parcel on the west side of Broadway is unavailable: the “Block N” site located immediately east of the new Rutgers Nursing School and bounded by Broadway, Federal Street, and Hudson Street. The Camden Redevelopment Agency owns the site and is developing a six-level garage for Rutgers and other users, with the potential for future air rights office space above.13

(If it should be noted that the Block N garage will include street-level retail along Broadway and street-level retail or office space on Federal Street, facing City Hall. These uses will complement and reinforce the street-level retail in the Proposed Concept’s “liner” building on Broadway.)

The other potential site west of Broadway is the large triangle formed by the light rail tracks, MLK Boulevard, and 5th Street. A concept was examined (shown in Figure 16) in which up to 24 bus berths could be accommodated on this site, with a joint development building at the southwest corner. This concept would have required NJ TRANSIT to acquire the bank and drug store properties fronting on MLK, but would have enabled NJ TRANSIT to convert its entire existing WRTC property east of Broadway into future TOD. However, this concept was not adopted, for three reasons:

- It did not allow a right of way reservation for potential GCL tracks and platforms. (If this right of way were reserved, the bus berth capacity of the triangle site would diminish from 24 to 15, unacceptably short of NJ TRANSIT’s requirements.)

- The bus circulation required to enter and exit the terminal from MLK Boulevard or 5th Street would add distance and travel time to the majority of bus routes, which are oriented east and north of WRTC.

- Enclosing the bus terminal in a weather-protected building would be difficult and unattractive, compared to the rectangular, mid-block location of the Proposed Concept east of Broadway.

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13 While the Block N site is too small for the WRTC bus terminal, if available it might have been combinable with PATCO’s west headhouse.
Consequently, a split alternative, shown in Figure 17, was also examined, with 14 bus berths in a terminal east of Broadway (in the approximate location of the Proposed Concept), and 14 in a western terminal on the triangle site. The two would be linked by a pedestrian bridge over Broadway and function as a single facility. This alternative would allow the reservation of land for potential GCL platforms, as well as a more generous footprint for the “liner” buildings on the eastern site. However, the split concept was also not adopted, for two reasons:

- Operationally, it would have made transfers between bus routes more complex and, for many passengers, more distant.

- It would have required real estate acquisitions on both sides of Broadway, while creating relatively limited TOD opportunities. The Proposed Concept, by comparison, leaves the entire western triangle—a 2.25-acre site after the right of way reservation for GCL, or 2.75 acres if that land is ultimately not needed—for privately initiated, market-driven TOD when conditions are ripe.
V. Proposed Design Concept

**West Triangle Alternative (Not Proposed)**
- A 24-berth bus terminal in the triangle formed by MLK Boulevard, 5th Street, and LRT tracks.
- Joint development office building.
- With the 24-berth configuration, no room for a right of way reservation alongside tracks for potential Glassboro-Camden platforms.
- NJ TRANSIT property east of Broadway (existing WRTC site) available for future TOD.
Figure 17: Split Concept Alternative (Not Proposed)

Split Concept Alternative (Not Proposed)

- 14-berth bus terminals on both west and east sides, joined by pedestrian bridge.
- Operates as one facility; lengthy transfers between east and west bus berths.
- Smaller joint development office building on west side, liner building and potential air rights on east side.
- Right of way reservation alongside tracks for potential Glassboro-Camden platforms.