

PATCO Transit-Oriented Development Master Plans Study

Prepared by Wallace Roberts & Todd, LLC



for: The Delaware River Port Authority
and: The Port Authority Transit Corporation

PATCO Transit-Oriented Development Master Plans Study

Prepared by Wallace Roberts & Todd, LLC



for: The Delaware River Port Authority
and: The Port Authority Transit Corporation

Delaware River Port Authority and Port Authority Transit Corporation Project Staff:

John J. Matheussen, CEO, President of PATCO
David G. Murphy, DRPA
William C. Shanahan, DRPA
Robert A. Box, General Manager of PATCO
Cheryl Y. Spicer, Assistant General Manager, PATCO
David D. Fullerton, Project Manager, PATCO

Consultants:

Wallace Roberts & Todd, LLC

John Beckman, AICP, NJPP, Principal in Charge
Ferdinando Micale, AIA, AICP, NJPP, Project Director
Adam Krom, AICP
Wei Jin
Kyle Gradinger
Michael Tweed
Clara Wong
Doris Rios

– *with* –

Carl Walker, Inc.

William L. Surna

DMJM+Harris, Inc.

Michelle M. MacKinnon, Esq. NJPP/AICP
Preethi Narayanan

Medina Consultants, PC

Malini Swaminathan, PE, NJPP

ZHA, Inc.

Sarah Woodworth
Christine Graziano

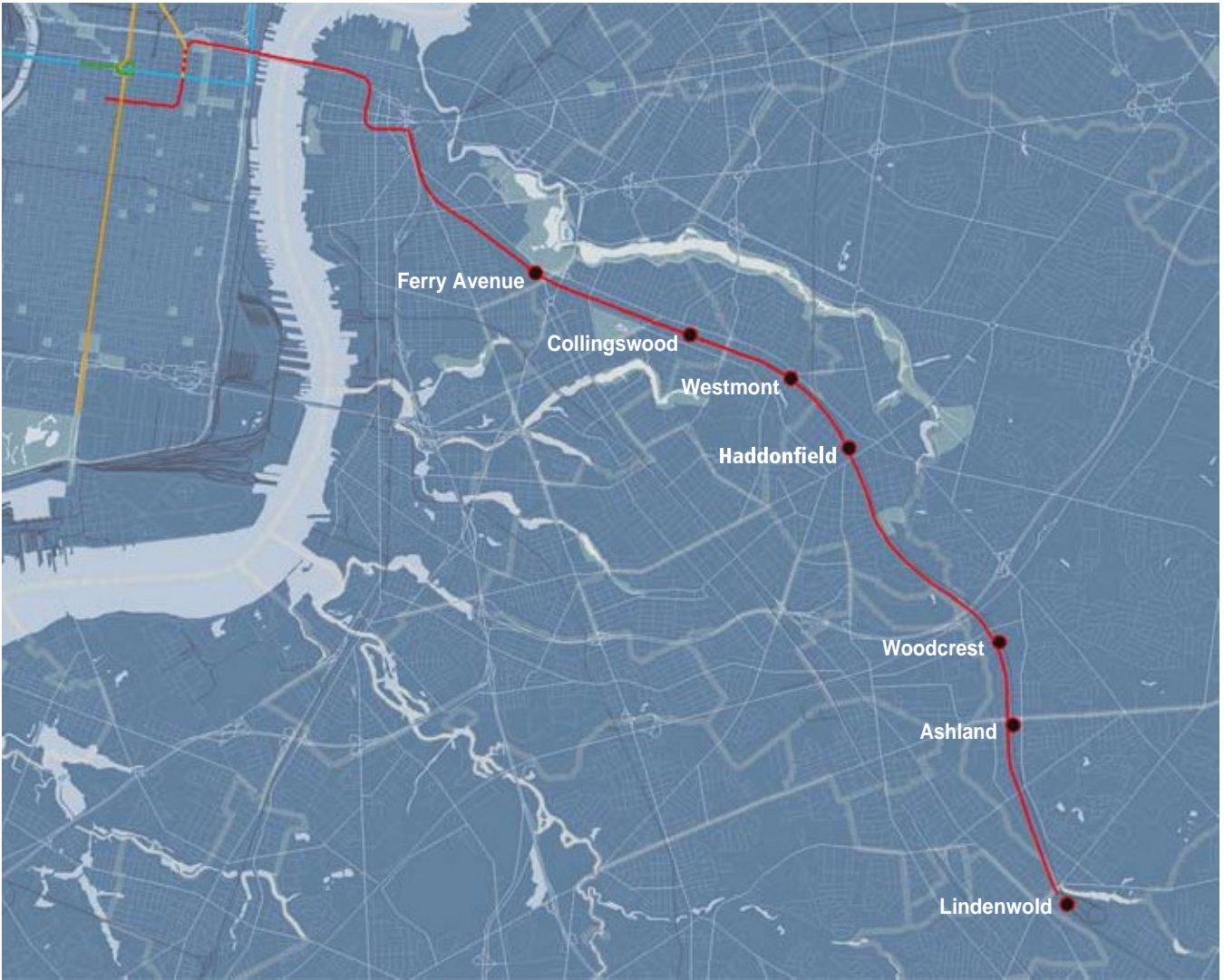


Figure 1.1: Stations that were Studied



BACKGROUND AND PURPOSE OF THE STUDY

The Delaware River Port Authority (DRPA) and its transit subsidiary company, Port Authority Transit Corporation (PATCO), commissioned this study to evaluate the mixed-use development opportunities at each of the seven PATCO stations in New Jersey that include park-and-ride facilities – Ferry Ave., Collingswood, Westmont, Haddonfield, Woodcrest, Ashland, and Lindenwold. In recent years, DRPA has been approached by developers and municipalities about possible use or redevelopment of their station parking lots. This interest prompted DRPA and PATCO to seek professional advice to help them understand development potential for its property that would maximize economic return, advance economic development in its host communities, improve inter-modal passenger connections, enhance alternative transportation choices, and increase ridership.

One of the most effective methods of achieving these goals is through Transit Oriented Development (TOD). TOD is defined as higher density mixed-use development located within $\frac{1}{4}$ - $\frac{1}{2}$ mile of transit facilities and routes. Such development allows sites to realize maximum benefits because of their proximity to public transit. TOD is one of the Smart Growth planning concepts recommended in the New Jersey State Development and Redevelopment Plan, prepared by the State Smart Growth Office and the State Planning Commission.

Through a competitive procurement process DRPA and PATCO selected a team of consultants led by the planning and design firm of Wallace Roberts & Todd, LLC (WRT) to evaluate TOD potential and create a plan for each of the stations which includes a development program, financial feasibility, design criteria, and implementation. The consultant team also included:

- ZHA, Inc. – Market and Financial Feasibility
- DMJM+Harris – Traffic and Infrastructure Impacts
- Carl Walker, Inc. – Parking Operations and Management
- Medina Consulting, Inc. - Mapping

THE TOD CONCEPT

Transit oriented development is compact, mixed use development within an easy walk of a transit station. Its pedestrian-oriented design encourages residents and workers to drive their cars less and ride mass transit more. These “transit villages” are usually moderate to high density compatible with the existing scale of development, and can be new construction or redevelopment. Mixed uses include residences, commercial space, and office space, or a combination of these.

Uses that are transit “supportive” include those that cater to convenience goods and service needs of residents, employees, and transit stop users. These can include food markets, restaurants, salons, dry cleaners, news stands, bookstores, hardware stores, and other retail uses. Uses that entertain, such as movie or professional theatres, uses that create activity on the street, such as sidewalk cafes, and uses that attract day and night activity are all transit supportive.

A system of TODs along a rail corridor can produce benefits in multiple categories, including transportation, environmental, economic, and quality of life.

What makes a TOD successful depends on a variety of characteristics. Simply locating development next to a transit stop does not necessarily qualify as TOD. TOD is development designed to create connections between communities and transit in a way that encourages transit use, walking, and bicycling instead of creating dependence on the automobile. A well designed TOD will display the following physical characteristics:

- Mix of land uses
- Compact, higher residential densities than typical development.
- A transit stop or station that is a center of activity.
- Easily accessible via all modes of transportation.
- Pedestrian and bicycle friendly.
- Provides a public place of activity in the larger community.

TOD also needs to be judged on its success in achieving transportation goals and helping Camden County and the region move toward a less automobile-dependent pattern of development. TODs vary enormously in their reliance on transit. Development near transit that has the same parking ratio, roadway design, and auto usage as any other development is more correctly termed “transit adjacent development” rather than a true TOD. The most successful TODs have increased transit ridership and lowered automobile dependency through a range of actions, including reduced parking and careful overall transportation planning.

Quality design is not the only element necessary for a successful TOD. If the market for TOD is not in place or if the transit infrastructure is not adequate, the likelihood of success for development is limited.

In general, the success of TOD in a particular community will depend on the following elements being in place:

- A supportive real estate market.
- Quality transit system design.
- Community partnerships.
- Planning for growing smart.
- The right mix of incentives.

The Benefits Of TOD

TOD success, of course, also depends on the benefits it brings to a particular community. Each community has different goals and objectives for transportation and land use planning. Whether promoting reinvestment in older towns or reducing traffic congestion in rapidly growing suburbs, TOD in general can provide the following benefits:

- Accommodates growth while preserving natural resource lands;
- Accommodates growth while reducing traffic congestion;
- Enhances accessibility to non-drivers (elderly, disabled, youth, low income residents);
- Improves the local economy;
- Improves air quality;
- Reduces infrastructure costs associated with sprawl;
- Increases tax ratables for the municipality;
- Increases the real estate value of the surrounding community;
- Encourages socialization and community interaction;

- Enhances pedestrian and bicycle circulation around the station area; and
- Provides a civic focal point.

The Impact of TOD on Transit Ridership

It is important to remember that TOD is about more than new development and increased land value near transit stations. A well-planned TOD will draw more riders to transit and away from their cars, which in turn benefits regional transportation infrastructure by reducing congestion and pollution. Logically, increased ridership translates into a healthier bottom line for the transit agency as well.

There are numerous nationwide examples of the impact that TOD has on transit ridership:

- Research shows that residents of well designed new development at transit stations ride transit up to five or six times more often than residents of comparable development located away from transit.
- In Arlington County, Virginia, every two units of housing added within a station area resulted in approximately one new Metrorail trip per day.
- One additional daily Metrorail trip was added for every 2,000 square feet of commercial development.
- Nearly 80 percent of residents living near the Portland MAX Orenco station stated their transit usage had increased since moving into their new TOD residence.

The mixed-use nature of TODs is also conducive to off-peak transit usage as more restaurant, retail and entertainment options are developed around stations. In addition to ridership increases, this factor helps to create demand for frequent mid-day and evening rail service. Off-peak ridership improves the economic efficiency of a rail system by absorbing under-utilized capacity.

“One-to-one” replacement parking policies ensure that existing park-and-ride transit patrons will continue to enjoy access to the system after TOD development. However, these patrons rarely take more than one transit trip per day. Because of the convenience of living near transit, TOD residents are more likely to take transit for trips outside of their regular work commute. Simply put, successful transit oriented development will attract new riders who will use transit more often than conventional park-and-ride commuters.

New Jersey TOD Policy

Compared to most of the country, New Jersey is positioned at the forefront of national TOD practice. With the State's extensive transit network, major employment centers and historic towns, New Jersey is poised to be a national TOD leader. Camden County in particular has significant potential to expand opportunities for TOD. The County's location next to Philadelphia, connections to the NJ Transit Atlantic City Line, and Smart Growth policies, all make it ideal for promoting and expanding TOD opportunities.

The New Jersey Department of Transportation (NJDOT) and New Jersey Transit (NJ Transit) have recognized the potential for advancing smart growth initiatives through TOD by establishing the Transit Village Initiative. The Transit Village Initiative is a multi-agency Smart Growth partnership that promotes redevelopment and revitalization of communities around transit facilities. Being designated a Transit Village provides a municipality with the following benefits:

- State of New Jersey commitment to the municipality's vision for redevelopment;
- Coordination among the State agencies that make up the Transit Village task force;
- Priority funding from some State agencies;
- Technical assistance from some State agencies; and
- Eligibility for grants from the annual \$1 million in NJDOT's Transit Village funding.

Several communities in New Jersey have been designated as Transit Villages, including Collingswood Borough.

In addition to the Transit Village Initiative, NJ Transit has sponsored a statewide Transit-Friendly Planning Assistance Program. The goal of this program is to provide eligible transit-oriented communities with specialized planning, design and marketing services with the intent of creating station area vision plans for designated study areas within walking distance of transit facilities. These "vision plans" have served as a model for new transit-oriented development adjacent to the transit facilities and also jump started development efforts in several downtowns, resulting in reinvestment in the surrounding neighborhoods.

STUDY ASSUMPTIONS

As stated above by this report, the purpose of this work is to create station plans that allow DRPA and PATCO to evaluate station development interest relative to their primary business of transit. Through a stakeholder and host community outreach process, the consultant team evaluated the market, land use, and local sentiment regarding density. An evaluation of financial feasibility, economic and ridership impacts, and political interest are key factors to identifying how ready each station is for TOD. The assumptions that feed into the evaluation are important to understanding the findings of the study.

The following are the assumptions that the DRPA, PATCO, and the consultant team worked with in the course of the study:

- Ridership is price sensitive at both the fare and parking fee level. Fare and parking fee increases phased in from 1999 to 2001 contributed to a slight decline in ridership that has been reversed since 2004.
- Station parking and its convenience to the station are critical to maintaining the recent ridership increase and should be replaced one-for-one.
- The cost of replacement PATCO parking is included in the TOD financial feasibility analysis. This assumes that it is the responsibility of the developer or development partnership to replace PATCO parking.
- Pricing for proposed PATCO parking garages that would facilitate TOD would be a fee per day, with entry before 10:00 AM. This parking will be located immediately adjacent to the station lobby and incorporate the convenient automated systems in coordination with the Smart Card technology to be adopted by PATCO in the coming years.
- Traffic and infrastructure improvements are included in the TOD financial feasibility analysis. This assumes that it is the responsibility of the developer or development partnership to address and pay for TOD-related improvements.
- Where host communities have concerns about height, land use, and fiscal impacts, DRPA and PATCO will respect their concerns.

- Analysis of other TOD projects shows that public school impacts are likely to be small because of the self-selecting nature of TOD development — resulting in small school-age populations. Recent studies of TODs conducted by David Listokin, PhD at the Center for Urban Policy Research (CUPR) at Rutgers University and 10-year study by the Haddon Township Board of Education in 2005 indicated that school-aged children represent only 2 to 3% of the TOD and apartment style housing populations.
- Where the value of DRPA / PATCO property is enhanced by the inclusion of private or local publicly-owned property, that land is included in the station plans. Conversely property that the consultant team does not view as substantially adding value to DRPA / PATCO property is excluded.
- DRPA and PATCO have begun to establish a process for development of the station property.
- DRPA does not intend to dispose of any station property, and anticipates any development interest will result in discussions of long-term leases with intergovernmental agreements related to maintenance of infrastructure.
- Parking resources would be shifted from station to station on a system-wide basis in order to accommodate the redevelopment of surface parking lots. However, this can only be evaluated in relation to specific development proposals which will be more detailed than the development concepts presented in this report.



FINDINGS

All of PATCO's stations have the potential for TOD development, but financial feasibility will be a serious challenge at some stations. Current PATCO policy is that the number of existing commuter parking spaces at each station must be maintained. At many of the stations, the financial return to a potential TOD developer will not support the cost of providing the necessary parking in a parking garage. In those cases, in order for development to proceed, the assumptions must be changed to make the project financially feasible. This could include outside (e.g. government) funding for parking facilities, a subsidy for redevelopment, an increase in real estate values and rents over today's conditions, changes to the land use program or density of a particular TOD, or a change in PATCO's replacement parking policy.

Looking only from a private investment perspective (without need for public investment), only the Collingswood and Haddonfield stations are likely to be feasible for TOD with little and no gap financing at the present time. A portion of the Ferry Avenue station property might be feasible in the long term and is viewed as having potential to catalyze additional development in conjunction with expansion and investment by Lourdes Medical Center.

The TOD concepts were evaluated based on:

- Increased Transit Ridership
- Economic Impacts
- Financial Feasibility
- Circulation Impacts
- Staging and Operations Impacts
- Community Support / Impacts

The station findings for short-term station planning are as follows:

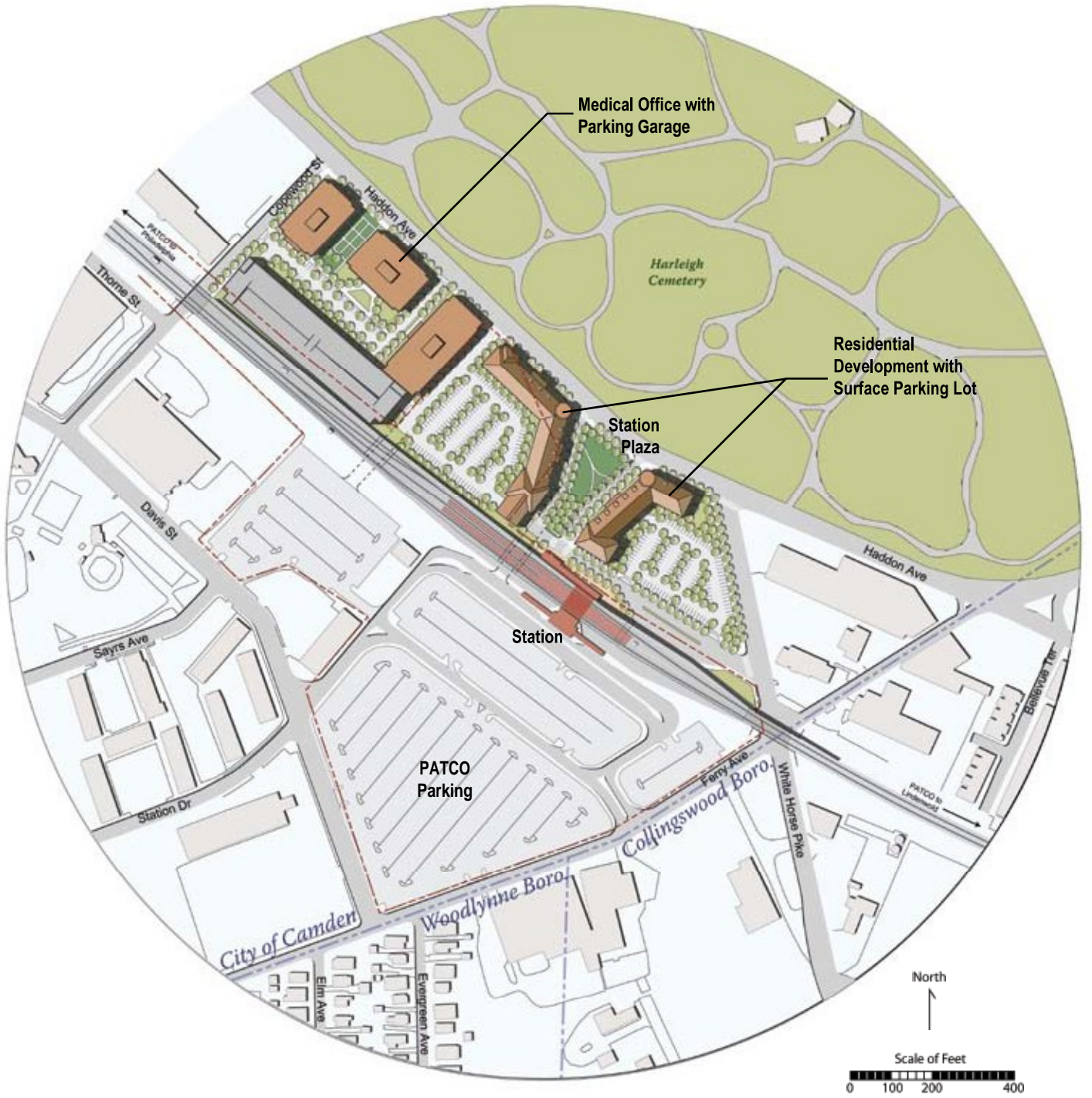


Figure 2.1: Ferry Avenue Conceptual Illustrative Site Plan

Ferry Avenue

This concept plan focuses on the land north of the PATCO station, reserving the land south of the station for future development. Note that this is only a concept plan used for evaluation. It is likely that other development ideas will surface in the future.

The value of the DRPA property that is currently leased by Lourdes Medical Center for employee parking is contingent on the redevelopment and reconfiguration of the Haddon Avenue frontage from the Lourdes property to the station entrance at White Horse Pike.

While the market conclusions foresee only long-term potential for this part of the station study area, partnerships with the City and Lourdes might shorten the term and create a catalyzing development that could accelerate the market coming to this side of Camden, adjacent to an economically thriving Collingswood Borough.

- **Transit Ridership** – Increases in ridership are expected through medical center workforce housing and medical offices integrated with a new station plaza and entrance.
- **Economic Impacts** – The redevelopment of the DRPA property will bring jobs and new housing into Camden. These will have positive property and sales tax impacts as well as serve as a catalyst for redeveloping the rest of Haddon Avenue and eventually the station parking lots.
- **Market Feasibility** – The market is not ready in the short-term without intervention by the City or another entity.
- **Financial Feasibility** – If the market is brought to this station through tax incentives or partnership opportunities, this concept plan would be feasible for private investors but only if both the office and residential development occurs as part of one financing structure.
- **Capital / Subsidy Required** – The subsidy required is in the form of incentives to locate development in what is not now a market-driven location.
- **Circulation Impacts** – Reconfiguration of diagonal streets and integrating them with station access and upgrades will have positive impacts on both vehicular and pedestrian circulation.
- **Staging and Operations Impacts** – Since no PATCO parking is affected, there are no impacts on staging. Upon build-out there will be positive operations impacts with two station entrances with new PATCO customers as residents of the area.
- **Community Support / Impacts** – The City and surrounding stakeholders are supportive of redevelopment because of the obvious economic benefits and the potential safety benefits of having more residents at the station area.
- **Local Partnership Interest** – Lourdes Medical Center has expansions plans that do not include this area.

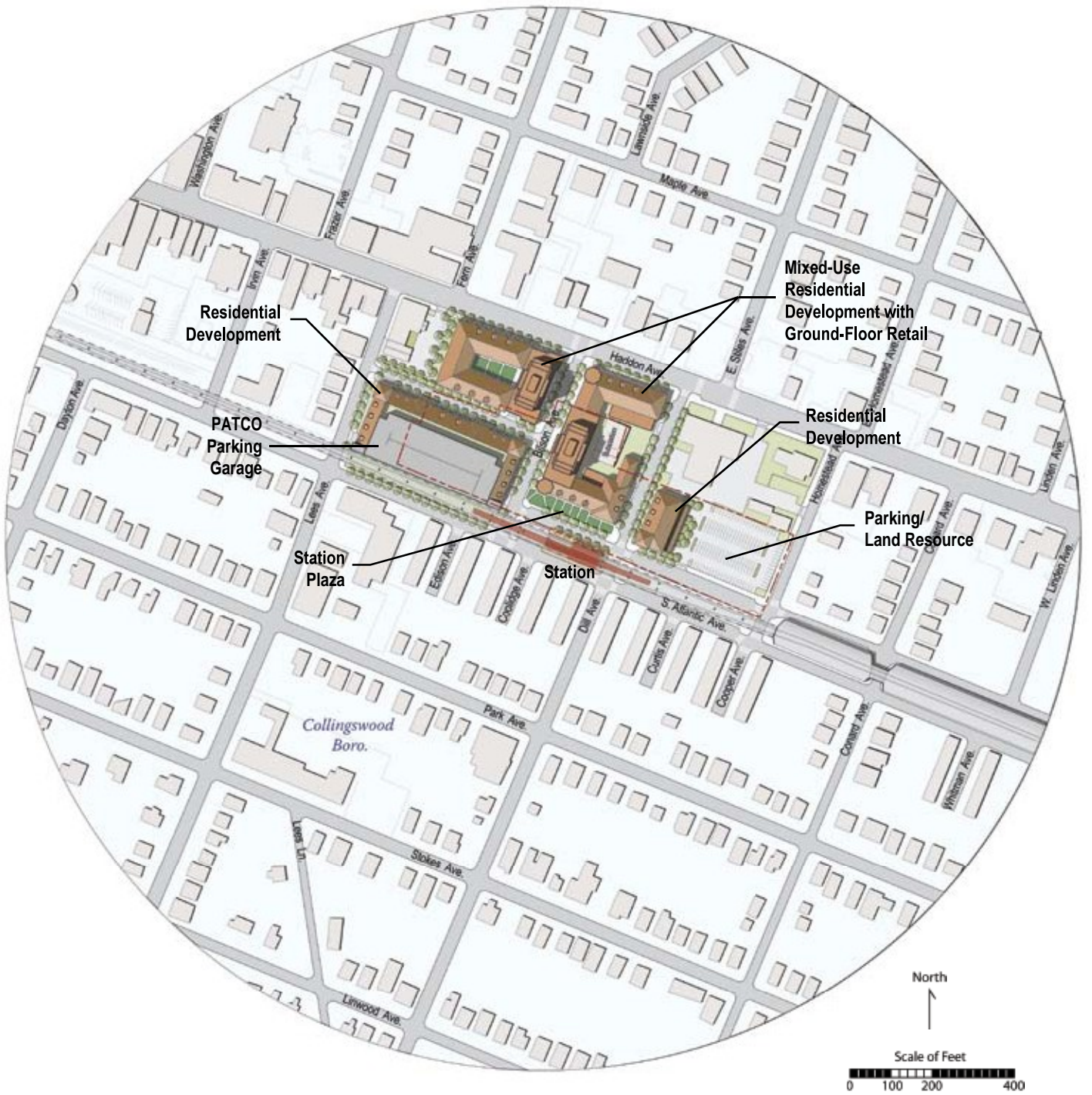


Figure 2.2: Collingswood Conceptual Illustrative Site Plan

Collingswood

The value of PATCO's parking lots at the Collingswood station is for Transit Oriented Development as part of "main street" redevelopment along Haddon Avenue in accordance with the Borough's vision for a transit village. The market is strong enough to support residential mixed-use development with underground parking. While replacement PATCO parking creates a small financing gap, it is likely that it can be overcome through private/public partnerships.

- **Transit Ridership** – Increases in ridership are expected as a result of medium and high density residential development immediately adjacent to the station and limited ridership related to an expanded "main street" environment.
- **Economic Impacts** – The redevelopment of the station property will bring new housing units and set the stage for other private redevelopment. Of particular interest is the redevelopment of the existing office and utilizing excess PATCO property for staging redevelopment of the other side of Haddon Avenue east to Homestead Avenue.
- **Market Feasibility** – The market is strongest for residential development with retail amenities for the residential use and as an extension of the "main street."
- **Financial Feasibility** – The concept plan evaluated in this study is feasible for private investors with reasonable gap financing to cover a small portion of the replacement PATCO parking garages' cost.
- **Capital / Subsidy Required** – The subsidy required to carry out this concept plan is to finance a gap created by burdening redevelopment with the cost of replacement PATCO parking. This gap is small and is viewed as reasonable for this type of development from an investor's perspective.
- **Circulation Impacts** – Reconfiguration of streets and integrating them with station and the access and adjacent neighborhood will improve both vehicular and pedestrian circulation.
- **Staging and Operations Impacts** – Construction of replacement PATCO garage should be accomplished on a combination of publicly acquired land and DRPA land to minimize operations impacts. This could be achieved as part of the Borough's redevelopment zoning and a potential development partnership with the Borough for staging.
- **Community Support / Impacts** – The Borough supports the DRPA/PATCO effort to identify Collingswood as a potential TOD. The Borough's elected officials have expressed interest in working with DRPA in realizing their adopted redevelopment plan, including the PATCO property.
- **Local Partnership Interest** – The Borough's elected officials expressed an interest in a partnership interest in the station property.

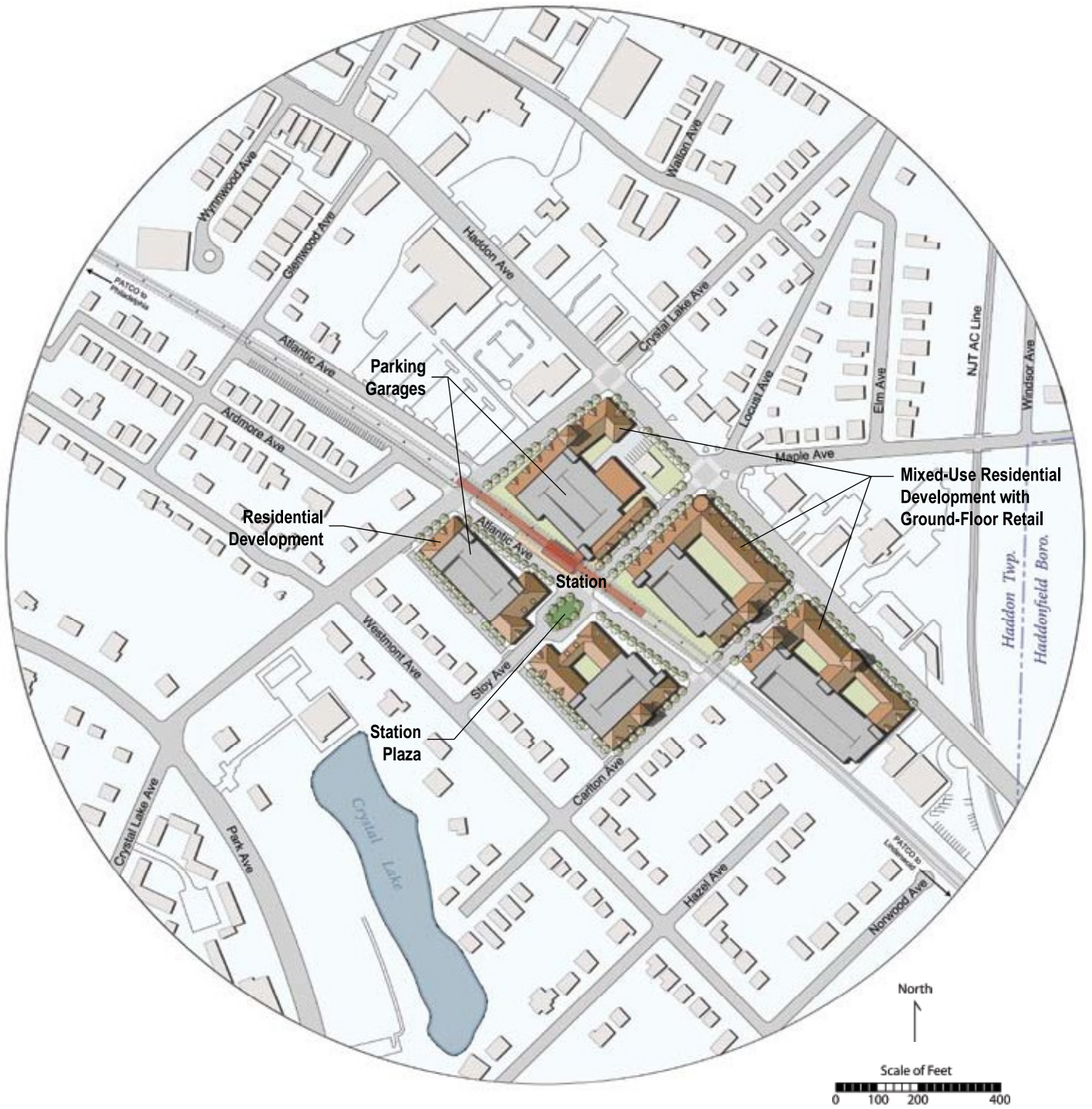


Figure 2.3: Westmont Conceptual Illustrative Site Plan

Westmont

The value of PATCO's parking lots at the Westmont station is as TOD development as part of "main street" redevelopment along Haddon Avenue as part of the vision for a downtown business center. Note that this is only a concept plan used for evaluation. It is likely that other development ideas will surface in the future.

- **Transit Ridership** – Increases in ridership would be expected as a result of medium and high density residential development immediately adjacent to the station and limited ridership related to an expanded "main street" environment.
- **Economic Impacts** – The redevelopment of the station property would bring new housing units and set the stage for other private redevelopment. Of particular interest is the development of office to the west of the study area.
- **Market Feasibility** – The market is strong for residential development with retail amenities for the residents and as an extension of the "main street."
- **Financial Feasibility** – For the concept plan evaluated in this study, the replacement PATCO parking creates a large financing gap that led the consultant team to conclude that the project would not be feasible from a private investor perspective without significant public funding.
- **Capital / Subsidy Required** – The subsidy required is to finance a large gap created by burdening redevelopment with the cost of replacement PATCO parking. This gap is too large to attract private investment without significant public investment.
- **Circulation Impacts** – There is little positive impact on circulation outside of improving the pedestrian experience through development. Traffic impacts would require infrastructure upgrades.
- **Staging and Operations Impacts** – Because of site constraints, construction of replacement PATCO parking garages would negatively impact station operations and staging would be difficult.
- **Community Support / Impacts** – The Township supports the DRPA/PATCO effort to identify Westmont station as a potential TOD.
- **Local Partnership Interest** – While the stakeholder outreach was generally positive, the Municipal officials do not appear to be pro-active about TOD development at the station property.

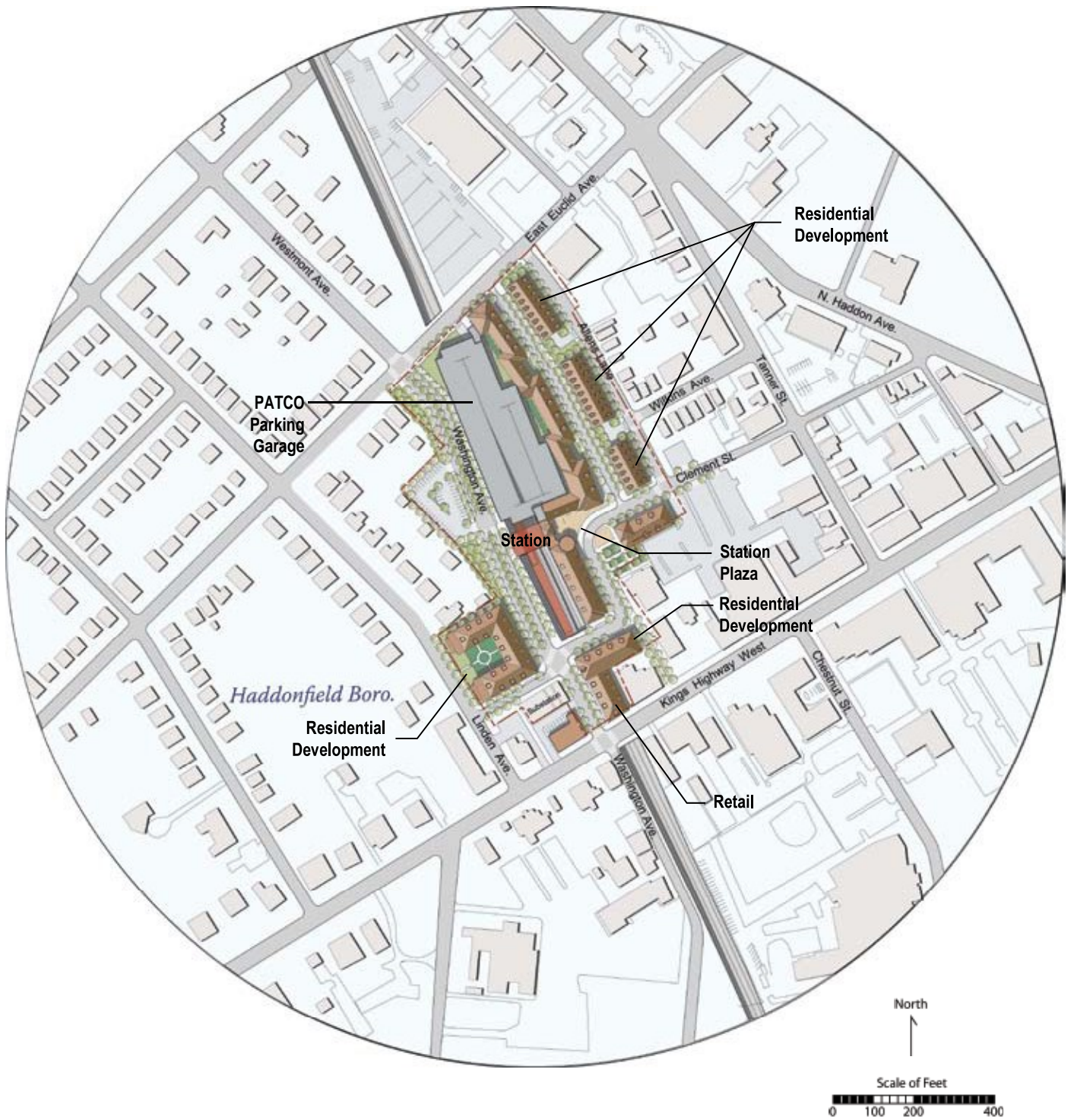


Figure 2.4: Haddonfield Conceptual Illustrative Site Plan

Haddonfield

The value of PATCO's parking lots at the Haddonfield station is for TOD development incorporated into the context of downtown.

- **Transit Ridership** – Increases in ridership are expected as a result of medium density residential development immediately adjacent to the station and additional ridership related to expanded downtown activity.
- **Economic Impacts** – The redevelopment of the station property will bring new housing units and set the stage for other private redevelopment in the downtown.
- **Market Feasibility** – The market is strongest for residential development with retail amenities.
- **Financial Feasibility** – This concept plan is feasible for a private investor.
- **Capital / Subsidy Required** – There is no subsidy required.
- **Circulation Impacts** – Reconfiguration of streets and integrating them with station access and the adjacent neighborhood will improve both vehicular and pedestrian circulation.
- **Staging and Operations Impacts** – Construction of replacement PATCO parking should be accomplished on DRPA land including construction over the rail cut to minimize operations impacts.
- **Community Support / Impacts** – The Borough supports the DRPA/PATCO effort to identify Haddonfield as a potential TOD. The Borough's elected officials have expressed interest in working with DRPA in realizing their downtown vision plan, including PATCO property.
- **Local Partnership Interest** – The Borough's elected officials expressed interest in a partnership involving the station property, although they expressed concerns about potential impacts on the school system.

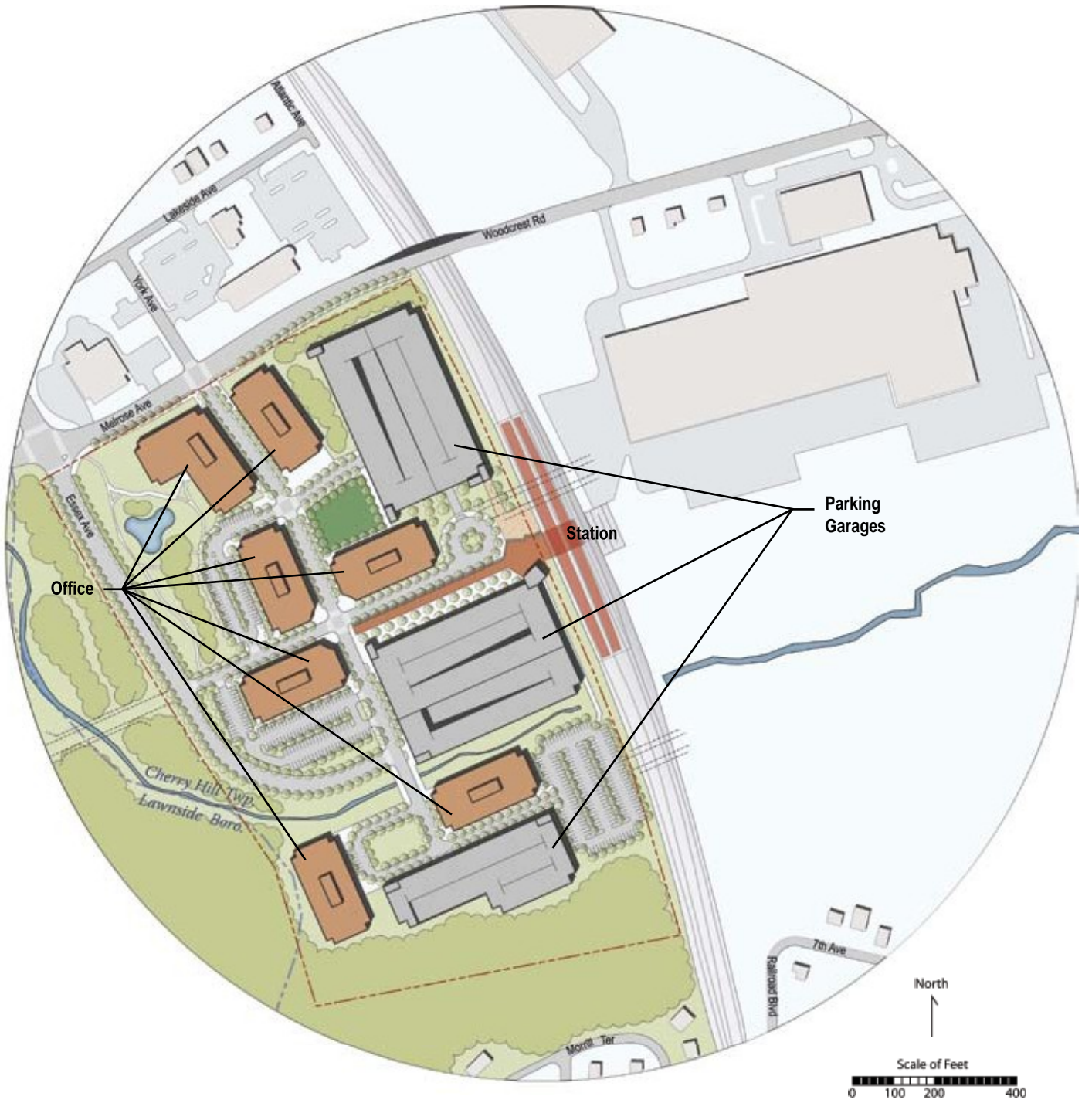


Figure 2.5: Woodcrest Illustrative Site Plan

Woodcrest

The value of PATCO's parking lots at the Woodcrest station is for stand alone TOD development or as a business center/office campus with direct highway access. There was local opposition to developing the site as residences and no local interest in developing it as office.

- **Transit Ridership** – Increases in ridership would be expected to be limited by the type of office.
- **Economic Impacts** – The redevelopment of the station property would bring new jobs and taxes to the Municipality.
- **Market Feasibility** – The market is strong for residential and office development.
- **Financial Feasibility** – For the conceptual plan analyzed, the replacement PATCO parking creates a large financing gap that led the consultant team to conclude that a station TOD is not feasible from a private investor perspective without significant public funding or a unique development scenario.
- **Capital / Subsidy Required** – The subsidy required is to finance a large gap created by burdening redevelopment with the cost of replacement PATCO parking. This gap is too large to attract private investment without significant public investment.
- **Circulation Impacts** – There is little positive impact on circulation outside of improving the pedestrian experience through development. Traffic impacts would require infrastructure upgrades.
- **Staging and Operations Impacts** – Construction of replacement PATCO parking would not negatively impact station operations, but staging would be difficult.
- **Community Support / Impacts** – There is not Township support for the DRPA/PATCO effort to identify Woodcrest station as a potential TOD after this time.
- **Local Partnership Interest** – While stakeholder outreach was generally positive, municipal officials do not appear to be pro-active about TOD development at the station property.

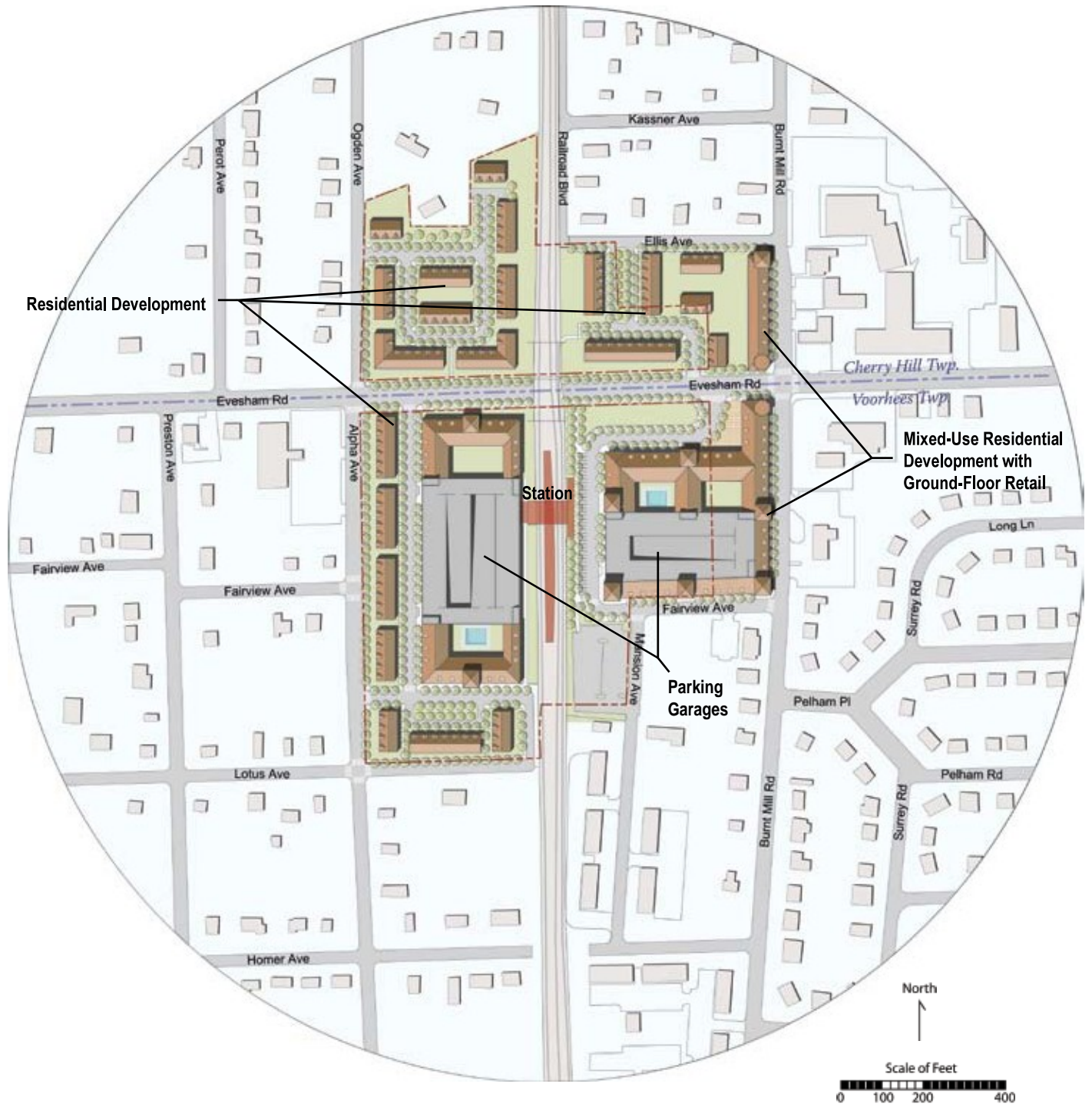


Figure 2.6: Ashland Conceptual Illustrative Site Plan

Ashland

The value of PATCO's parking lots at the Ashland station is as part of TOD including property along Burnt Mill Road.

- **Transit Ridership** – Increases in ridership would be expected as a result of medium density residential development immediately adjacent to the station.
- **Economic Impacts** – The redevelopment of the station property would bring new residents and taxes to the Municipalities.
- **Market Feasibility** – The market is strong for residential development.
- **Financial Feasibility** – Replacement PATCO parking for this conceptual plan creates a large financing gap that the consultant team concludes renders the plan not feasible from a private investor perspective without significant public funding.
- **Capital / Subsidy Required** – The subsidy required is to finance a large gap created by burdening redevelopment with the cost of replacement PATCO parking. This gap is too large to attract private investment without significant public investments.
- **Circulation Impacts** – There is little positive impact on circulation outside of improving the pedestrian experience through development. Traffic impacts would require major infrastructure upgrades and corridor improvements leading to the station.
- **Staging and Operations Impacts** – Construction of replacement PATCO parking would not negatively impact station operations, but staging would be difficult.
- **Community Support / Impacts** – There is opposition to development of the station property by both Voorhees and Cherry Hill Townships.
- **Local Partnership Interest** – While stakeholder outreach was generally positive, Municipal officials oppose TOD development at the station property.

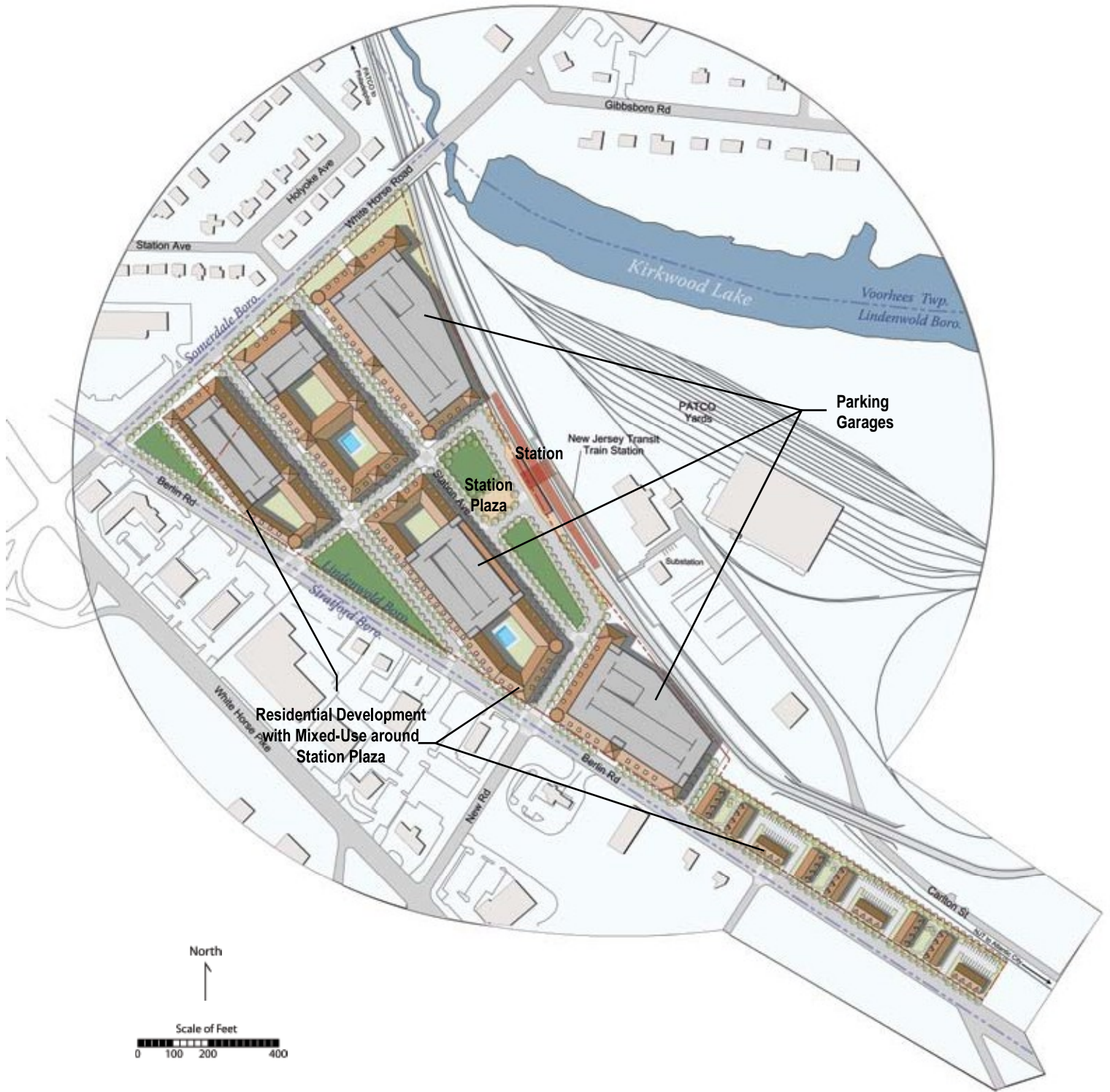


Figure 2.7: Lindenwold Conceptual Illustrative Site Plan

Lindenwold

The value of PATCO's parking lots at the Lindenwold station is for a TOD with limited retail and office at a station plaza.

- **Transit Ridership** – Increases in ridership would be expected as a result of medium density residential development immediately adjacent to the station.
- **Economic Impacts** – The redevelopment of the station property would bring new residents and taxes to the Borough.
- **Market Feasibility** – The market is strong for residential development.
- **Financial Feasibility** – For the conceptual plan in this study, replacement PATCO parking creates a large financing gap that led the consultant team to conclude that this conceptual station TOD is not feasible from a private investor perspective without significant public investments. However, other development proposals may surface in the future with different market characteristics.
- **Capital / Subsidy Required** – The subsidy required is to finance a large gap created by burdening redevelopment with the cost of replacement PATCO parking. This gap is too large to attract private investment without significant public investment.
- **Circulation Impacts** – There is little positive impact on circulation outside of improving the pedestrian experience through development. Traffic impacts would require major infrastructure upgrades and corridor improvements leading to the station.
- **Staging and Operations Impacts** – Construction of replacement PATCO parking would negatively impact station operations and staging would be difficult.
- **Community Support / Impacts** – The Borough supports the DRPA/PATCO effort to identify Lindenwold as a potential TOD. The Borough elected officials and stakeholders have expressed interest in working with DRPA in realizing their plans for a transit village designation, focusing on the PATCO property.
- **Local Partnership Interest** – The Borough's elected official expressed a partnership interest in the station property.