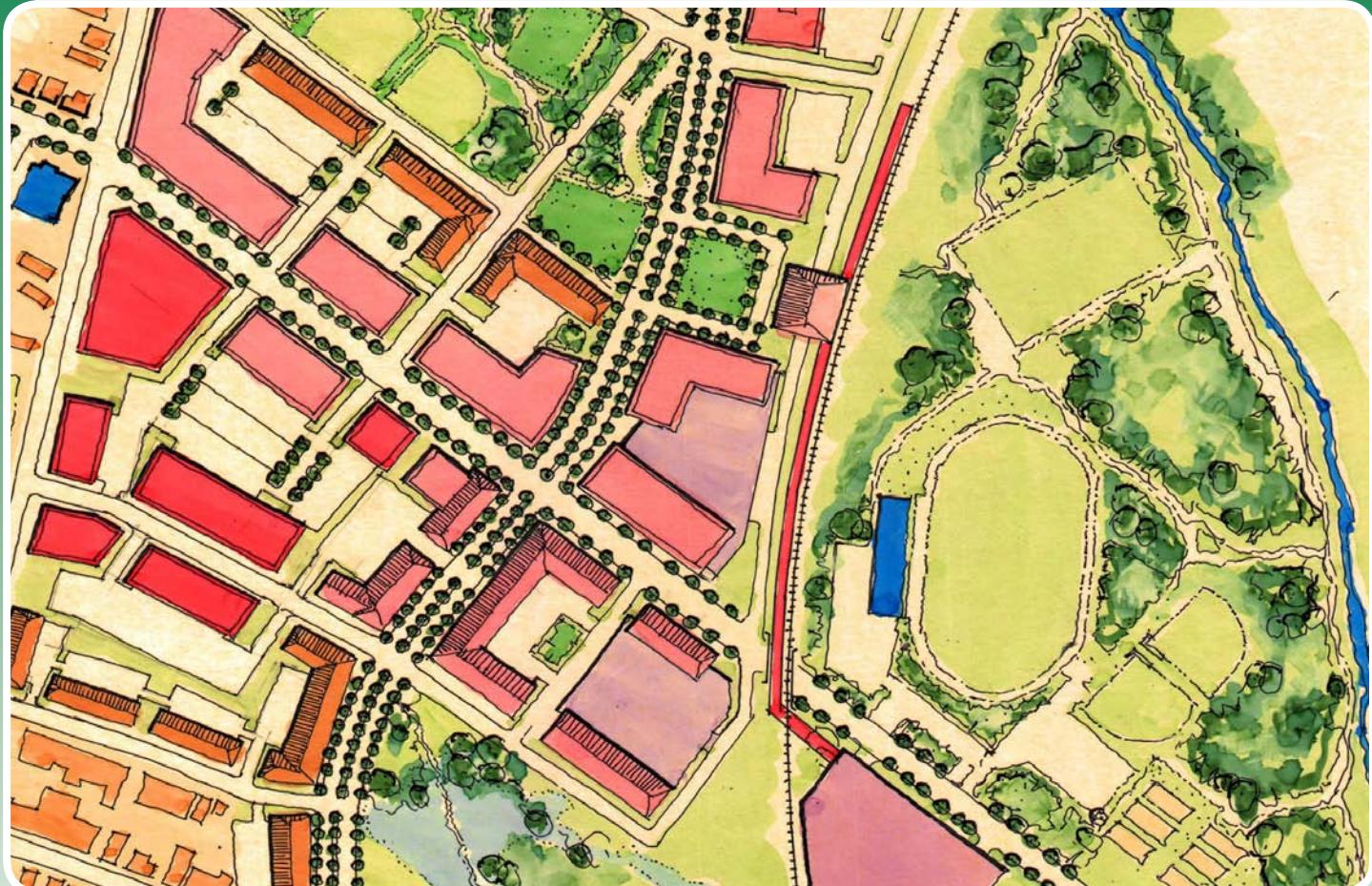


Kearny

Transit-Oriented Development Vision Plan



Summer 2009

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Regional Plan Association

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Executive Summary

In the fall of 2007, RPA was hired by the town of Kearny, New Jersey and NJ TRANSIT to conduct a visioning and planning exercise for the future Kearny Station area.

With construction of its Access to the Region's Core (ARC) project underway, NJ TRANSIT recognized the need for a new rail yard in the town of Kearny to accommodate the dramatic increase in capacity that would result from having a second passenger rail tunnel under the Hudson River. Mayor Al Santos requested the agency investigate the possibility of restoring service on the Harrison-Kingsland branch and making commuter rail service into Manhattan available to the residents of Kearny once again.

NJ TRANSIT's preliminary analysis determined that a passenger facility just south of the intersection of Bergen Avenue and the Harrison Kingsland branch line would be the preferred alternative. With this alternative in mind, the town of Kearny and NJ TRANSIT approached RPA to carry out a planning study of the area and conduct a public visioning process to determine how land use surrounding a new Kearny passenger station might evolve, over time, to be more transit-oriented. As NJ TRANSIT's analysis of reactivating the Harrison-Kingsland branch progresses, the findings of this report will be taken into consideration.

This visioning effort builds on prior endeavors to ensure that residents, businesses and landowners, and other interested parties help shape the future of the Kearny Station area into a compact, walkable, mixed-use center with emphasis on public spaces, civic identity and access to public transportation.

Through a series of stakeholder meetings, a public community design workshop, and other public participation efforts, two consensus plans were developed. A synopsis of these alternatives, presented as architectural plans with open spaces delineated and rendered, can be seen on the opposite page. The body of this report describes the process and recommendations in full detail. It is clear that either plan, or any other alternative, will best be implemented in phases. These plans represent a long-term vision that is meant to guide many short- and intermediate-term decisions. The speed and sequence of implementation will depend upon the aggressiveness with which the town tackles those features of both plans that are beyond the control of private developers.

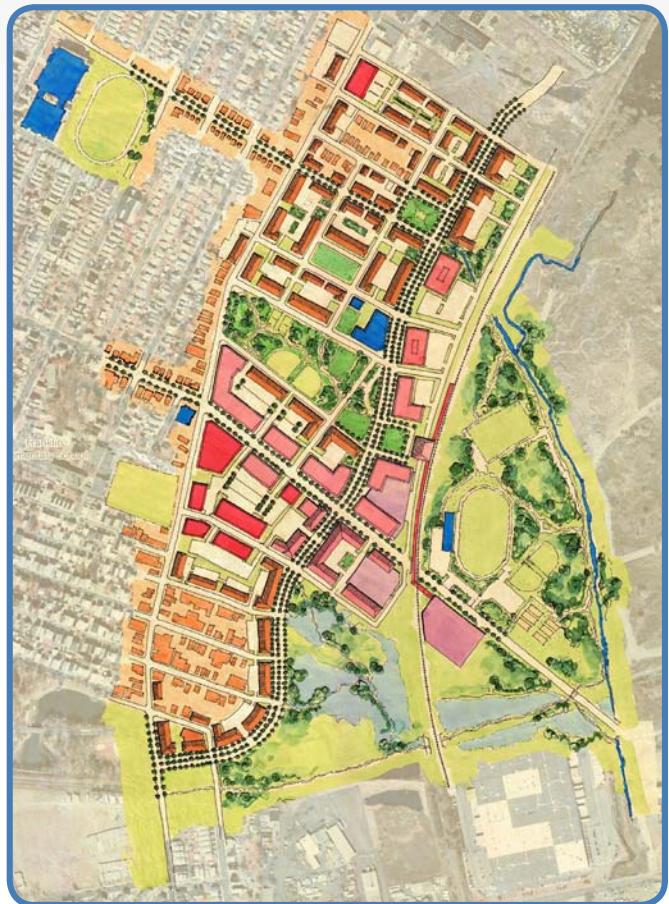
In engaging the public and undertaking a comprehensive visioning process now, perhaps ten years before the station is actually up and running, the town of Kearny has taken the first step in laying a foundation for future development, and will be poised to deal with the pressures and take advantage of the opportunities that will inevitably come with the reintroduction of commuter service.

Mission Statement

To create a community-based vision for a future transit-oriented place near Bergen Avenue and the Harrison-Kingsland Branch Line in Kearny, NJ.



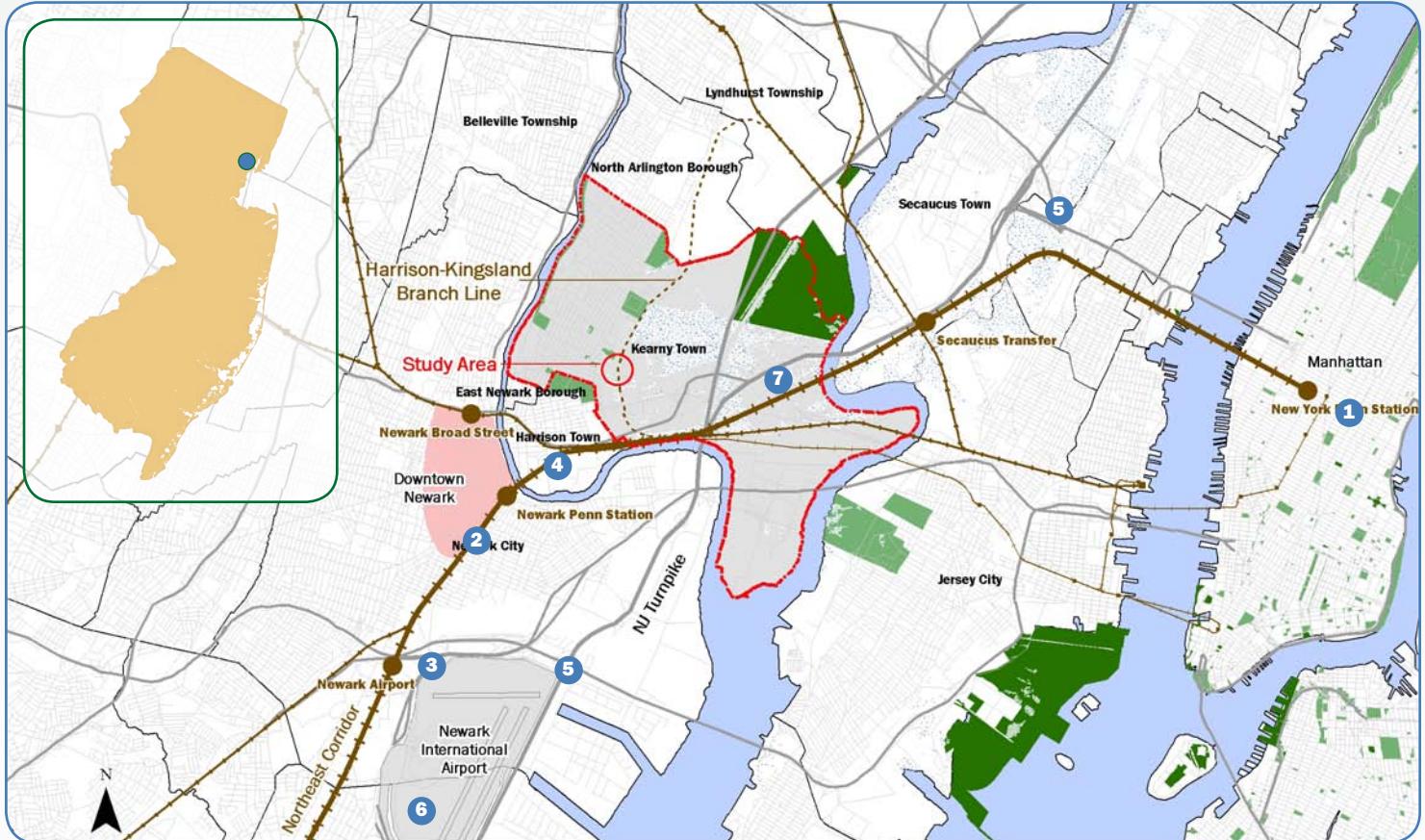
Consensus Plan 1 has three big ideas: the orthogonal street and block pattern of the existing residential neighborhoods in the town are recreated in the northern part of the site; viable industrial uses are preserved within the site, while the infrastructure that supports it is significantly upgraded; and the station square is located to the south of Bergen Avenue, with a separate loop access road. Plan 1 could accommodate 467,000 square feet of commercial space, 169,000 square feet of industrial space, and up to 1,037 residential dwelling units. Detailed discussions of this plan can be found on pages 24-25 of this report.



Consensus Plan 2 can be thought of as a more transformational scheme. A curvilinear, landscaped boulevard serves as the major north-south corridor through the site. The scheme features higher density residential and office uses along the boulevard. The station area is located north of Bergen Avenue, and is connected to an updated Harvey Field by a town-green style station square. Plan 2 could result in 911,400 square feet of commercial space and up to 1,408 dwelling units. Detailed discussions of this plan can be found on pages 26-27 of this report.

Overview of Existing Conditions

Regional Context



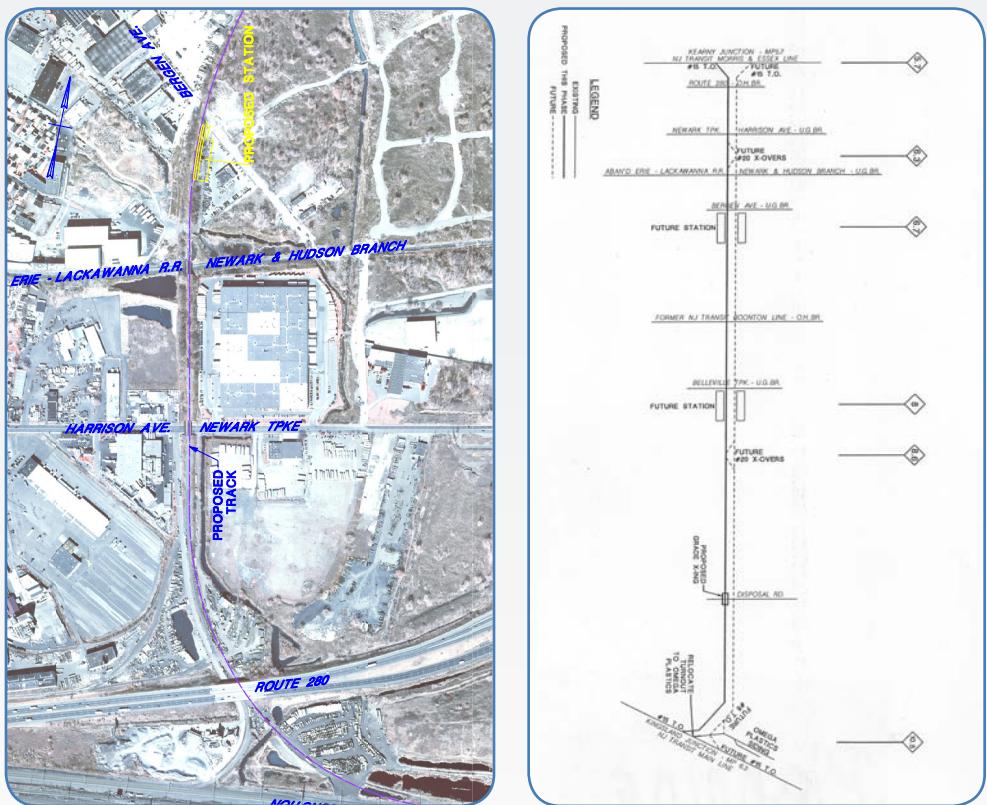
The town of Kearny is strategically located less than ten miles west of Manhattan and minutes from downtown Newark. This close proximity, coupled with excellent highway access to the greater region, creates tremendous potential for transit-oriented development in the town of Kearny, once passenger service is restored to the town. NJ Transit's current plans include reactivating the Harrison Kingsland branch line and building a passenger facility where the tracks cross over Bergen Avenue. Once completed, the new service would connect Kearny into the wealth of transit options that surround the town but do not presently serve it.

- 1** **Manhattan CBD**, the region's economic and cultural hub, is located just ten miles to the west of Kearny.
- 2** **Downtown Newark** is located a few minutes to the south of the town. NJ Transit buses connect the town to downtown Newark, where passengers can access the commuter rail system at Newark's two downtown stations.
- 3** **The Northeast Corridor**, the country's busiest rail corridor, passes through but has no stops in Kearny. The closest stops are Secaucus Transfer and Newark Penn Station, both major hubs of the NJ Transit commuter rail network.
- 4** **Harrison PATH Station**, offering 24 hour service to Manhattan, is located in the adjacent town of Harrison, and is connected to Kearny by a NJ Transit bus line.
- 5** **The New Jersey Turnpike** provides excellent access to the region's extensive highway network. The proposed station is located less than a mile away from exit 17 on I-280, which feeds directly into the turnpike and is a short ride from the Holland and Lincoln tunnels.
- 6** **Newark International Airport** is located to the south, and is easily accessible by rail and highway.
- 7** **The Meadowlands** are made up of over 8,400 acres of wetlands and open space that surround the Hackensack River in northern New Jersey. The majority of land to the east of the Harrison Kingsland branch falls within the official Meadowlands District, meaning it is under the control of the New Jersey Meadowlands Commission, a planning authority that can override local zoning.

NJ TRANSIT and Access to the Region's Core

Currently, all rail traffic on the Northeast Corridor, the country's busiest rail corridor by far, funnels into a two-track tunnel under the Hudson River that leads to Penn Station in midtown Manhattan. NJ Transit is addressing the severe congestion and limitations on service caused by this bottleneck with its Access to the Region's Core (ARC) project. When completed in 2017, a new passenger tunnel and station under 34th Street will double rail capacity under the Hudson River.

An integral component of the ARC project is a new rail yard in South Kearny, where trains will be stored during off-peak hours. Seeing an opportunity to restore commuter rail service to the town, Kearny Mayor Alberto Santos approached NJ Transit about the possibility of rehabilitating the now-abandoned Harrison-Kingsland branch, which feeds into the future rail yard, and constructing a passenger facility just south of where the tracks cross over Bergen Avenue. If completed as planned, Kearny residents would enjoy a direct, one-seat ride into midtown Manhattan.



Route map and schematic showing the location of the Harrison-Kingsland branch line and the potential future Kearny train station south of Bergen Avenue



The Study Area

Land Use

The area north of Bergen Avenue is primarily industrial, with the exception of Harvey Field and several pockets of residential areas – old and new – closer to Schuyler Avenue. While some industrial uses line the south side of Bergen Avenue, much of the land to the south is commercial, institutional, and, in the several blocks south of Devon Terrace, residential. Several former industrial properties in the southern part of the study area are being redeveloped as housing. There is some new residential development in the northern part of the study area as well.

In contrast to the South Kearny area, which is host to large-scale industrial uses such as warehousing and manufacturing, the study area features smaller industrial

businesses housed mostly in modestly sized single-story buildings. While there are still many viable businesses in the area, the overall trend has been one of disinvestment. Several of the properties near the future station area are now vacant, including the largest single parcel along the south side of Bergen Avenue. The area immediately surrounding the train station area is dominated by a gravel operation, a single property of twelve acres. Schuyler Avenue serves as a clear border between the industrial station area and the residential neighborhoods that surround Kearny Avenue, the town's 'Main Street'. Starting abruptly on the west side of the street, and continuing up the hill towards the center of town, are tight-knit blocks of single family homes on small lots.

Kearny Avenue, at the peak of that hill, is a thriving commercial strip of shops, bakeries, and restaurants. The strip is pedestrian-friendly, with distinctive pavings, street furniture, and very few vacant storefronts, and is also home to some of the town's major civic buildings, including Town Hall and the Public Library.

Kearny Avenue is the town's main commercial area



A residential street in Kearny



The area immediately surrounding the future train station is dominated by industrial uses, such as this gravel operation (right) on Bergen Avenue

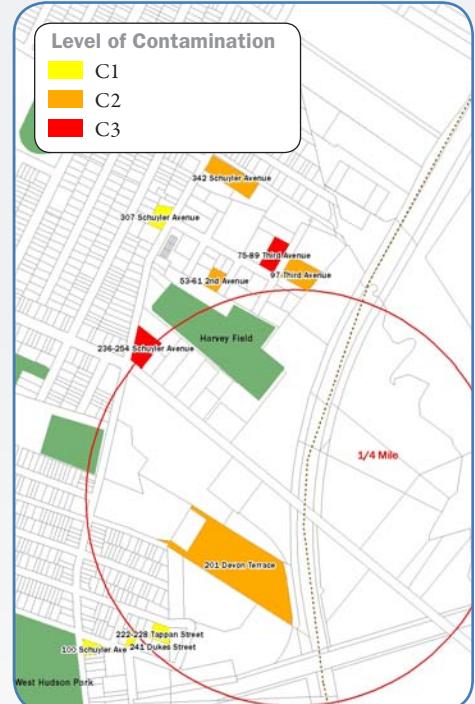


Industrial Land Uses

To better understand the types of industrial businesses operating in the area, RPA surveyed the businesses in the area with a local landowner and businessman Jon Giordano. It was found that much of the industrial land is either vacant or underutilized. As with many older industrial districts that are in transition, the overall appearance of the district is one of disinvestment: vacant and underutilized buildings predominate, roads are in poor condition and yards are used for poorly kept open storage. However, as is often the case in older industrial districts, the outward appearance of the buildings may obscure significant activities inside. As such, surveyed businesses were classified into one of three categories: Auto/Truck Related, Warehousing/Distribution, and Manufacturing, as shown in the diagram below. Industrial uses in general tend not to be conducive to transit-oriented development, as they generate mostly automobile and truck trips rather than transit trips. Those types of industrial businesses, shown in the two lighter shades of purple, would likely do as well (or better) in South Kearny, where a large number of similar businesses are currently located. However, manufacturing businesses, identified here in dark purple, provide well-paying jobs to town residents and add value by producing finished goods. A real interest was expressed in finding a way for them to stay in the area. Fortunately, those businesses were clustered in the northern part of the site, allowing for areas closest to the future train station to be redeveloped as residential or commercial/mixed-use, far more transit-supportive uses.

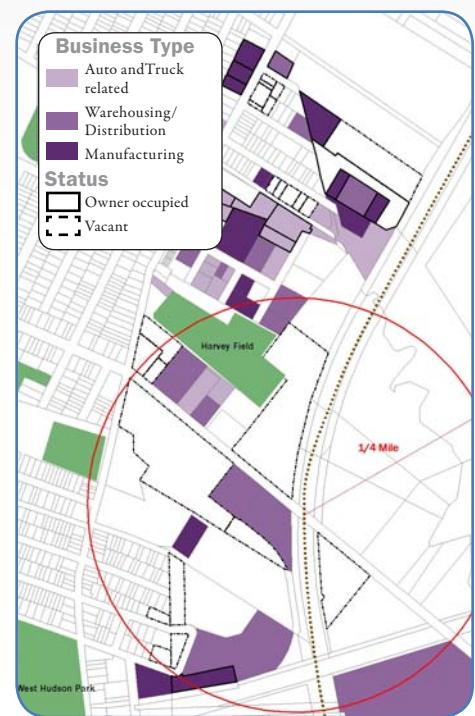
Environmental Issues

As with most industrial areas, there are several contaminated sites within the study area, though as a whole, the contamination seems neither widespread nor severe. The contaminated sites, shown below, are shown in order of degree of contamination, as defined by the New Jersey Department of Environmental Protection. C1, the lowest level, denotes that the source of contamination has been identified and that contamination may or may not have reached groundwater sources. C2 similarly refers to a site where the contaminant has been identified and where it is known to be leaking into the groundwater. Finally, C3, the highest level of contamination, is given to a site where the source of contamination is still unknown. These sites require more complicated, multi-phased cleanup processes. However, these sites, having all been identified by the New Jersey DEP, have case managers and are actively being cleaned up.



Drainage/Flooding

A primary concern raised by several stakeholders is that of drainage and flooding in the low-lying area. Indeed, several site visits revealed large puddles of water on streets in several of the interior blocks that never seemed to go away. The area has chronic flooding and drainage problems because of its low elevation and because the natural drainage patterns of the Meadowlands have been severely compromised over the years by the filling and blocking of channels. This is exacerbated by the huge expanses of impermeable surface – the roads and, especially, paved loading and storage areas. A 2001 study by Neglia Engineering, the town engineers, recommends a comprehensive approach to this problem rather than a patchwork of solutions for individual projects. While the price tag for the comprehensive solution is very expensive – some 50 million dollars – it is possible to have portions of the system constructed incrementally by private development projects as was done with a new culvert section at the Wal-Mart site. However, it is unlikely that the entire system can be built in this way, and so public investment will be required. There are non-municipal sources for funding, including the New Jersey Environmental Infrastructure Trust fund. Any reduction in impermeable surfaces through creative landscape design will help and contribute to the cost-effectiveness of this so-called “passive” storm water solution.



Traffic and Mobility

Regional Setting

Regionally, the study area has excellent access to the New Jersey Turnpike and Route 280. With the completion of the Bergen connector between Schuyler Avenue and the Newark-Jersey City Turnpike/Harrison Avenue access and egress to the Turnpike and Route 280 has been improved. However, congestion has increased at the intersection of Bergen and Schuyler Avenues mostly due to additional turning vehicles that are now turning onto Bergen Avenue to reach the Turnpike or Route 280. Currently this intersection is over capacity during the AM and PM peak periods. Operational improvements are proposed as part of the Meadowlands District Plan.



Bergen and Schuyler Avenues both see a large amount of truck traffic. The intersection of the two roadways is often congested.

Existing Conditions

Schuyler Avenue is a two-lane roadway that runs northeast to Kingsland Avenue and southwest to Harrison Avenue. It serves a mixed-use residential/commercial area and tends to carry a fair amount of trucks due to the industrial area that is adjacent. Currently Schuyler Avenue has limited capacity due to the residential land uses on one side and the industrial land uses on the other side. Bergen Avenue starts at Passaic Avenue and runs southeast to Harrison Avenue/Newark/Jersey City Turnpike. A lot of trucks travel on Bergen Avenue between Harrison Avenue/Newark/Jersey City Turnpike and Schuyler Avenue. West on Bergen Avenue toward Kearny Avenue is more residential with less truck traffic. Pedestrians were observed walking to a nearby bus stop and children were observed walking and bicycling to school along Bergen Avenue.

The road network is discontinuous in many places, and poorly defined elsewhere, with roads bleeding into lots, turning into paved cut-throughs, parking lots and loading areas. The study area as a whole contains a vast amount of paved area, which aggravates already pressing drainage issues.



Many of the interior roads in the industrial area east of Schuyler Avenue are poorly defined and discontinuous



Despite relatively unfriendly conditions for pedestrians and bicyclists, a significant number of walkers and bikers were observed in the area.

Pedestrian and Bicycle Challenges

Existing sidewalks are narrow or non-existent. Bergen Avenue, which will be the principal link from the station area to the rest of Kearny, currently offers an unpleasant pedestrian experience. There are uneven sidewalks on one side only, ice and snow plow up onto the sidewalk in the winter, and large trucks rumble up and down the avenue. The intersection at Bergen and Schuyler is congested at peak hours and difficult to cross. In addition, there are no designated bicycle lanes in the study area and the topography on Bergen Avenue heading toward Kearny Avenue is somewhat difficult for pedestrians and bicyclists. On the positive side, even with the existing challenges, people are walking and bicycling now and an off-road bike path is proposed as part of the Meadowlands District Plan.

Transit Connections

Currently, Kearny is served by three bus routes. One of these, route 40, connects Kearny to Harrison, stopping at the PATH station, into downtown Newark and then on to both Newark Liberty International airport and the Port of Newark & Elizabeth. Weekday peak service frequency on each route is about every 20 minutes. NJ TRANSIT is currently exploring the possibility of expanding service on one of the lines to accommodate some express moves so that both employees and shoppers from Newark can get to and from the Kearny Wal-Mart more easily. Also, NJ TRANSIT's Newark Bus Study, which is looking at improvements to existing bus services into and out of Newark Penn Station Bus hub, is exploring service improvements that would include better service connections to both the Airport and the Port, which could benefit Kearny residents. Besides the proximity to the Northeast Corridor at Newark Penn station, there is a PATH station in Harrison approximately one mile from the Kearny town line and 1.5 miles from the intersection of Bergen and Schuyler Avenues.



Present conditions along Bergen Avenue leading to the site of the future train station

The Market

The real estate market in northern New Jersey has been impacted by many of the same forces that have hurt the overall economy, including tightened lending standards, dropping housing prices, fluctuating gas prices and increasing unemployment. The outlook is not all bleak, however, as certain market segments have been buffered from these trends, or even benefited from them to some extent. It is also important to consider that current conditions will likely change over the time it takes for new development to occur around the proposed Bergen Avenue station.

Residential

The residential market as a whole currently is in its first prolonged slump in a number of years. Single-family detached homes and condominium units have been particularly hard hit due to the increased scrutiny by lenders for mortgages and construction loans. However, there has been somewhat less of an impact on multi-family housing, particularly for rental units due to overbuilding in the for-sale sector.

Retail

As for the non-residential market, one sector that has remained somewhat strong in northern New Jersey is retail. This is due in large part to a combination of significant spending power and a very limited amount of available commercial land in the region. The retail market is more robust in certain locations, such as highway corridors and some downtown areas. Convenience retail uses are also generally viable near transit stations. These types of uses fit well in such locations, as they are small in scale and are often in mixed-use buildings or even on the ground floor of parking structures.



The housing stock in the area consists primarily of single and two-family homes

Office

The office market is generally in poor condition at this time. New larger scale office development is only viable in certain prime locations at this time.

Industrial

Demand for modern, large-scale warehouse and distribution space is primarily limited to areas with available land area close to a major highway interchange, where sizable one-story buildings with high ceilings can be built. But other types of industrial space can be viable in some instances. These uses include "flex" space (office in front, industrial in the rear) or reuse of existing buildings for artisans and local service providers. New construction is generally not viable for this type of use.

Mobility and Market Opportunities

Mobility

Schuyler Avenue and Bergen Avenue, the two main thoroughfares through the site, would both benefit from significant design improvements. Traffic conditions on Schuyler Avenue would be greatly improved through widening. Bergen Avenue is about 40 to 45 feet wide, yet carries only two lanes of traffic, so there may be some opportunities for better use of the roadway via a better designed cross section.

The street network east of Schuyler Avenue is limited, with poorly maintained roads that dead end. With new development, consideration should be given to filling in the street network and designing additional north/south streets that could absorb some of the local volume that is on Schuyler. This would also lessen the volume that passes through the Schuyler/Bergen Avenue intersection.

With new and improved roadways, traffic congestion could be lessened while pedestrian and bicycling conditions could be vastly improved. Wider sidewalks and pedestrian and bicycle treatments could help transform Bergen Avenue into a gateway into Kearny. Additional bicycle paths could be considered parallel to the rail line to connect new and existing neighborhoods to Gunnell Oval and the other recreational land uses, as well as to the future train station.

Market

Residential

Housing demand has also remained relatively strong in areas with good transit service and other amenities. Therefore, the provision of passenger rail service will help with the viability of residential development in this portion of Kearny. There also has been limited new residential development in Kearny within the past decade, meaning there may be pent-up demand for new housing.

Commercial

As mentioned in the previous section, the most viable commercial uses in the immediate station will probably be convenience retail, such as coffee shops and newsstands, serving the commuter population. Larger scale retail development is a harder sell in areas with limited visibility and road access, and the sizable land area such uses require means they do not often fit in the vicinity of transit stations.

Office

There may be the possibility of smaller scale, locally oriented office uses in this portion of Kearny as part of a mixed-use development.

A Planning Framework for the Kearny Station Area

What is TOD?

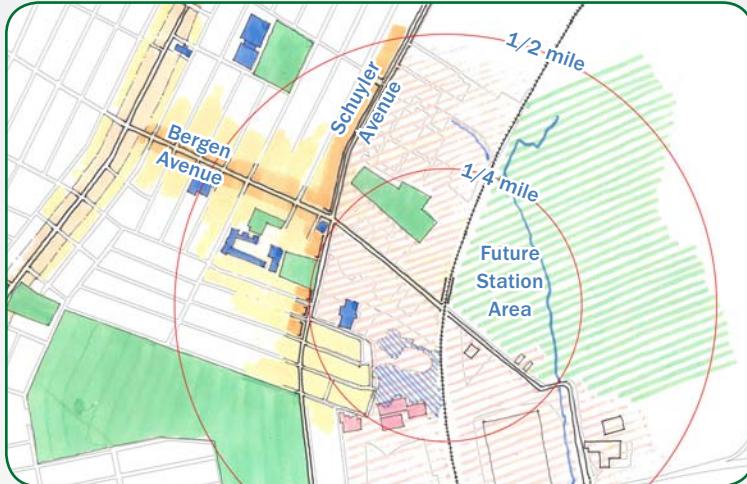
Transit-Oriented Development (TOD) generally consists of a mix of housing, shops, restaurants, offices, civic buildings and open space in a compact, pedestrian-friendly environment within walking distance of a train station, and that supports both community character and transit ridership.

Some defining characteristics of a successful transit-oriented development include:

- ① Connects the surrounding area to the transit facility by creating an environment that accommodates the automobile but favors alternative forms of mobility: pedestrians, bicyclists, and buses, for example**
- ② Favors uses that support compact, mixed-use environments as opposed to auto-dependent uses**
- ③ Orients buildings towards streets and public spaces and solves the parking problem creatively**
- ④ Encourages building architecture that is scaled to pedestrian activity**



Setting Priorities for the Study Area



Land Use

The existing residential neighborhoods west of Schuyler Avenue are tight-knit and stable, and should be preserved. However, the industrial area closer to the train tracks is viewed by most in the town as an eyesore, and will probably see the most dramatic change with the arrival of a train station at Bergen Avenue. In any TOD, residential is the preferred use, as it is most likely to take advantage of the transit service nearby, but other complementary uses are possible as well. It is even conceivable that there would be support for preserving the value-adding industrial businesses in the area, in which case a redesigned “modern industrial park” located in the northern end of the site is preferred. In order to ensure a vibrant street life and encourage walking, mixed-use is encouraged throughout the site.



Open Space

To better utilize the town’s considerable open space resources, connections must be made linking existing and future parks and open spaces, including those in the “upland” west of Schuyler Avenue, West Hudson Park and new recreational facilities planned for the Meadowlands area. Opportunities for new, neighborhood-scale parks and open spaces should be explored as well.

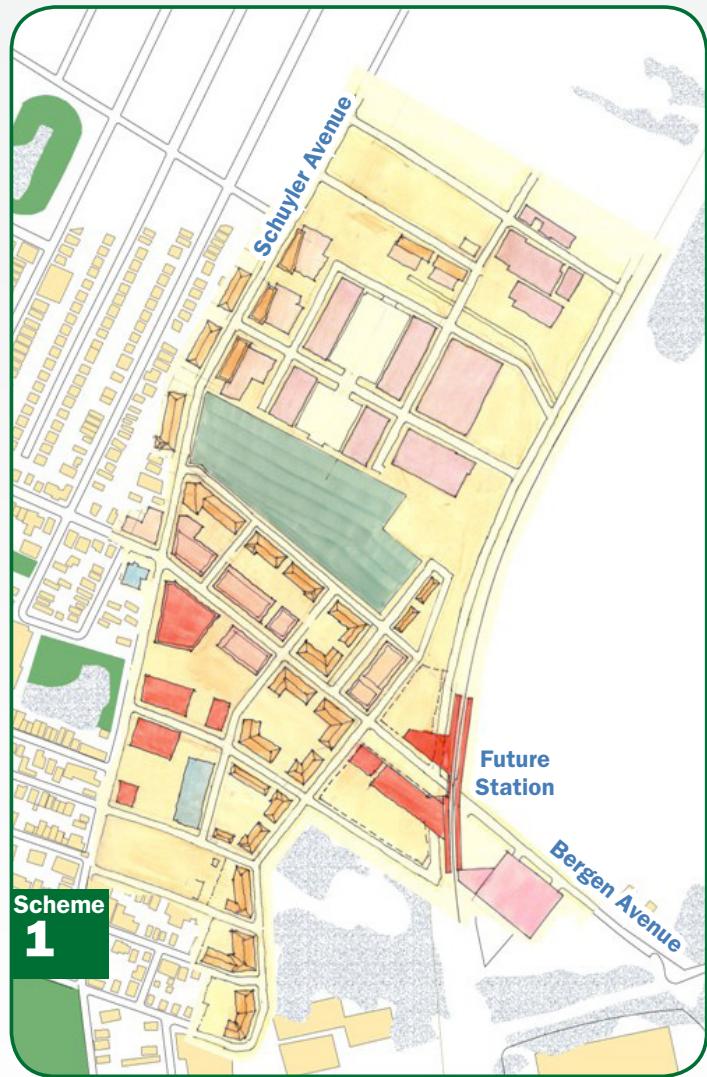


Street and Block Network

Redevelopment of the larger study area should be organized around a new street-and-block network that improves the overall connectivity within the larger study area and favors development that is in scale with the adjacent Kearny neighborhoods. One key objective is to lessen the burden on the Schuyler Avenue/Bergen Avenue intersection by creating additional north-south routes. If industrial uses continue to be a significant presence, a truck route to Bergen Avenue, perhaps following the rail embankment, should be considered, although this would link to Bergen Avenue at the future station area, and that conflict would have to be resolved.

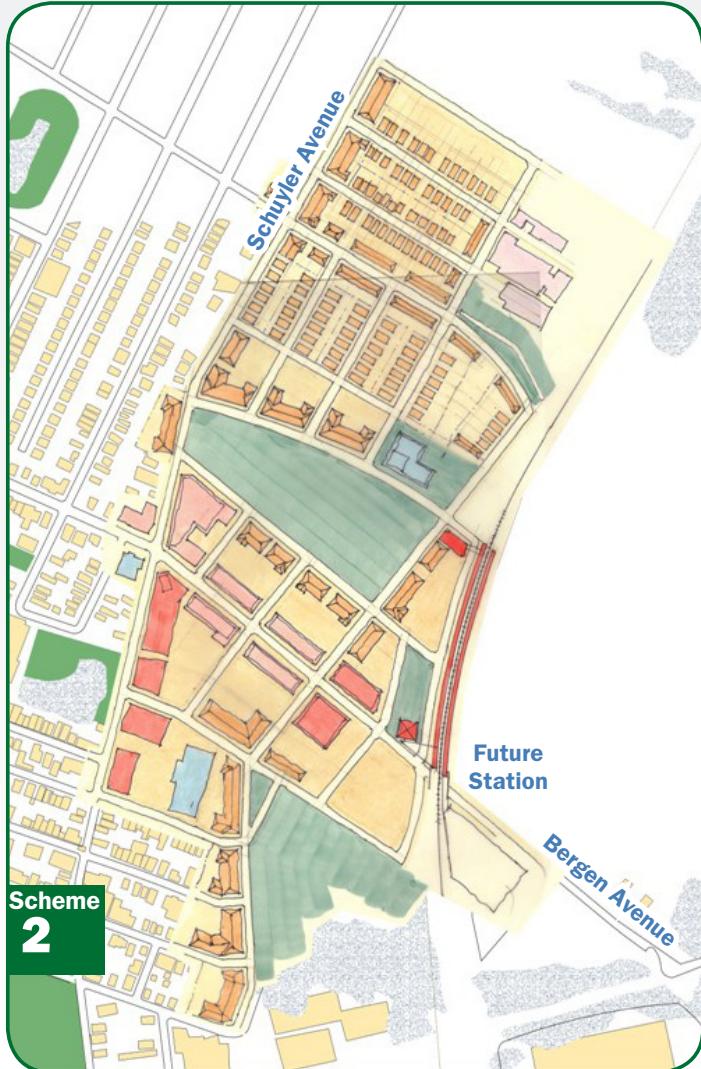
Three Test Schemes

Building on these planning framework diagrams, three distinct test schemes were developed to provoke responses from stakeholders and give suggestions as to what forms future redevelopment could take. Though distinct from each other in many ways, the three share several basic features. All seek to reactivate Harvey Field, the area's central open space, by lining it with active uses and orienting development toward it. Higher density housing is clustered closest to the train station, and Bergen Avenue is envisioned as a mixed-use boulevard that serves as a gateway to the revitalized station area. The street-and-block networks, where the three schemes perhaps differ the most, still share a similar intimate scale and allow for a high level of connectivity throughout the site.



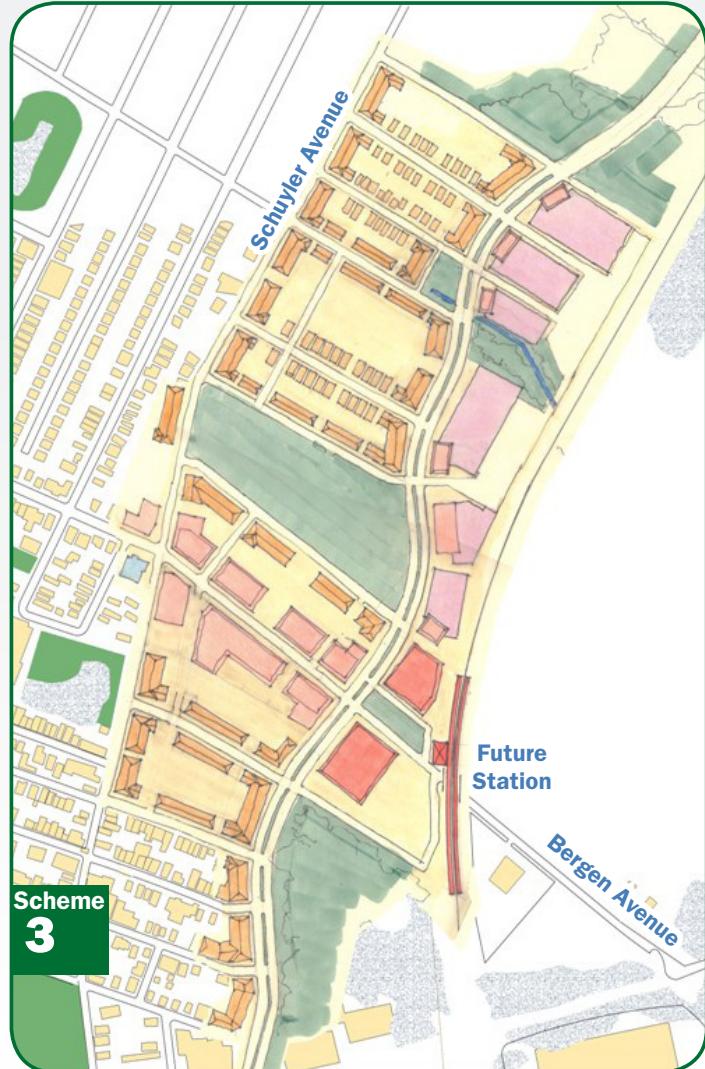
The Machine Next Door

The most distinctive feature of this scheme is that it aims to preserve the northern part of the study area as a manufacturing industrial neighborhood, but seeks to enhance it by organizing the district in a more rational manner and providing necessary infrastructure. This 'new industrial park', would offer flexible, state-of-the-art industrial space, but not at the expense of an aesthetically pleasing, pedestrian-friendly environment. The concentration of industrial uses on the northern part of the site allows for more transit-supportive uses (residential and commercial) closer to the future train station.



New Neighborhoods

The second test scheme focuses on expanding the existing residential neighborhoods across Schuyler Avenue into the study area. It replicates the existing pattern of that neighborhood, with single family homes on similarly sized blocks and lot sizes. Harvey Field, the park currently surrounded by industrial uses, is reborn as a central open space amenity, with multi-family residential units ringing the perimeter. This allows a larger number of people to have direct access to the park.



Green Boulevard

As its name implies, the central organizing feature of this scheme is a curvilinear green boulevard running north-south through the interior of the site. In addition to providing a much-needed alternative to parallel Schuyler Avenue, the boulevard would connect at least three of the site's major open spaces: West Hudson Park to the south, Harvey Field in the center, and Gunnell Oval to the north. Lining the pedestrian- and bike-friendly boulevard would be multi-family housing, mixed-use buildings, and potentially, to the north, office and industrial flex buildings.

Towards a Shared Vision

The Public Workshop

The Community Design

Workshop

An interactive public design workshop was held at the Kearny Public Library on June 28th, 2008. Over fifty residents turned out for a full day of presentations and discussions about the future of Kearny. The first part of the day laid the foundation for discussion by presenting the existing issues and opportunities for the site and laying out NJ Transit's plans for ARC and a future station at Bergen Avenue.

Following the presentation, residents were broken up into four groups, each facilitated by a trained architect or urban planner, for further discussion. To aid in the discussion, the workshop featured physical models which enabled residents to visualize various development scenarios. Also included were valuable tools created during RPA's previous work in Somerville, NJ, fiscal and traffic worksheets that clearly laid out, in tax dollar and trip number amounts, the impacts that different development types would have on the larger community. Finally, a sheet detailing how much various amenities (new parks, sewer systems, community centers, etc) would cost was handed out. With these tools in hand, residents were empowered to make informed decisions about the type and intensity of development that they wanted to see, and, with the help of architecture and urban design expert

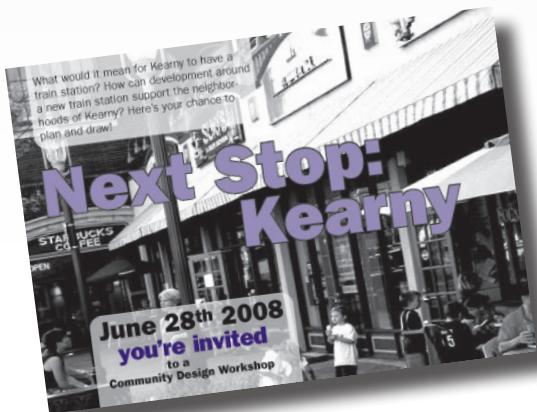


Workshop Products

The matrices on pages 16 through 21 summarize work from each of the four groups. The first two columns of the matrix are the original sketch from the workshop and highlighted core ideas from that group. Starting with the third column, they are then followed by three analysis diagrams, described below, generated to synthesize the work of all participants. Abstracting the schemes in this way, allows easy comparison between them.

facilitators, to design the new neighborhood in a way that is consistent with TOD principles as well as with the existing context of the town.

Finally, the groups were encouraged to go back to the drawing table, where they, with the assistance of the facilitators, sketched out various scenarios for the study area. Groups were asked to produce three framework diagrams in addition to the overall sketch - Open Space, Land Use, and Road Network – and then to present their results back to the general group for discussion.



Workshop postcard

Physical Model with drop-in pieces



Trip Generation Factors

| Land Use | Single Family | Apartment | Townhouse | Office | Retail | Flex Industrial | Warehousing | Manufacturing |
|------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Unit | per dwelling unit | per dwelling unit | per dwelling unit | per 1,000 sq. ft. |
| WITHOUT Train Station | 1.25 | 0.77 | 0.74 | 1.62 | 2.62 | 0.86 | 0.47 | 0.74 |
| WITH Train Station | 0.80 | 0.50 | 0.48 | 1.38 | 1.92 | 0.85 | 0.44 | 0.71 |

Fiscal Impact Factors

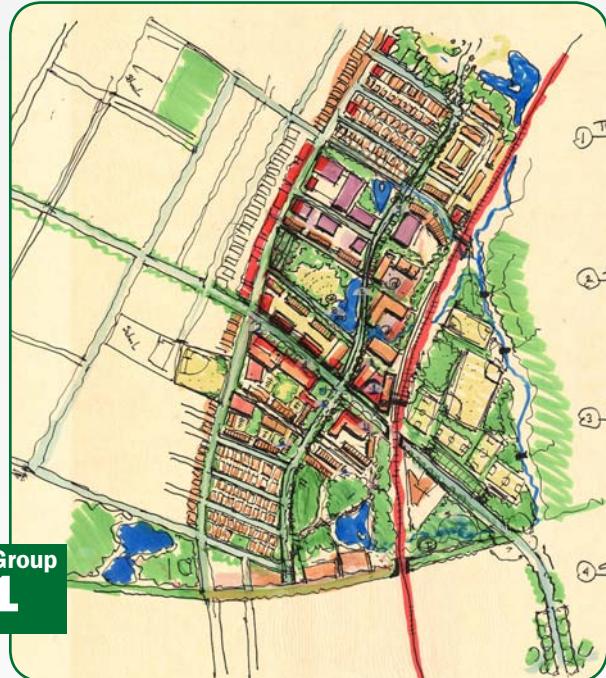
| Land Use | Single Family | Apartment | Townhouse | Office | Retail | Flex Industrial | Warehousing | Manufacturing |
|------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| Unit | per dwelling unit | per dwelling unit | per dwelling unit | per 1,000 sq. ft. |
| WITHOUT Train Station | -\$3,160 | \$2,230 | \$1,500 | \$1,970 | \$2,475 | \$1,490 | \$2,490 | \$1,230 |
| WITH Train Station | -\$1,510 | \$5,215 | \$7,355 | \$1,970 | \$2,695 | \$1,490 | \$2,490 | \$1,230 |



Table sketch

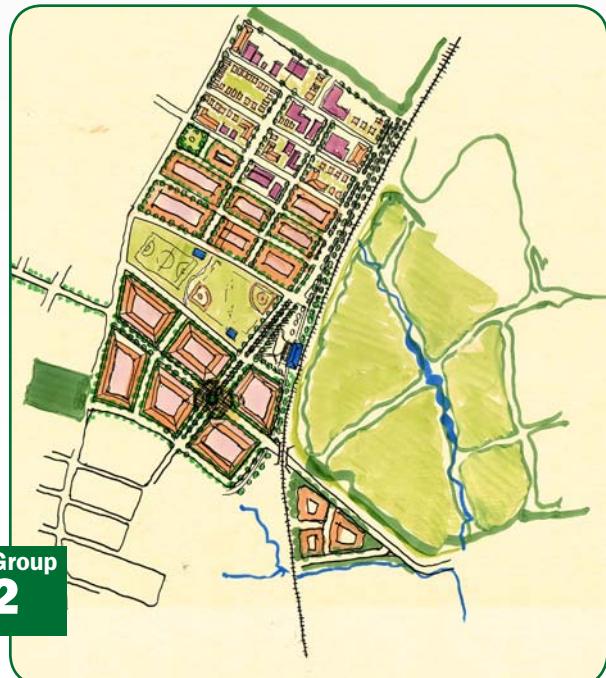
Group Drawings 1 and 2

Workshop Sketches



Core Ideas

- Giving the station area a strong, transit-oriented identity, unique from pedestrian-oriented Kearny Avenue and auto-oriented River Road
- Constructing several neighborhood-scale parks featuring small lakes and ponds throughout the site
- Considering recreational fields planned for Keegan Landfill, turning Harvey Field into a more passive recreational space
- Converting the abandoned rail line just to the south of West Hudson Park into a rail-trail, connecting the area's green spaces while also serving as a signature gateway to the town
- Encouraging fairly dense residential and commercial development



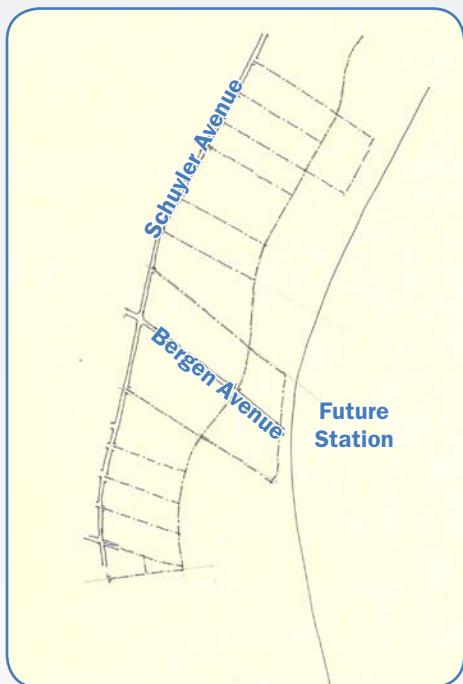
- Placing a major north-south boulevard along the train tracks, rather than through the middle of the site, so as to not divide the neighborhood into halves
- Envisioning three stories of residential above ground floor retail in the immediate station area
- Several single-family residences in the northern part of the site to replicate the fabric of the neighborhoods across Schuyler Avenue
- Preserving viable existing smaller-scale industrial uses while suggesting that warehousing and other truck-traffic generating uses be moved to other areas of town
- Placing fairly dense residential development on the triangular corner southwest of the intersection of the train tracks and Bergen Avenue

Legend

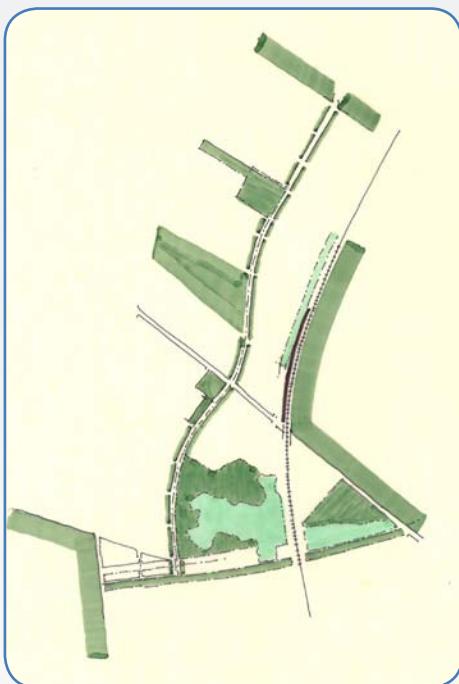
Parks and active green space
Wetlands

Residential
Commercial
Industrial
Civic/Institutional

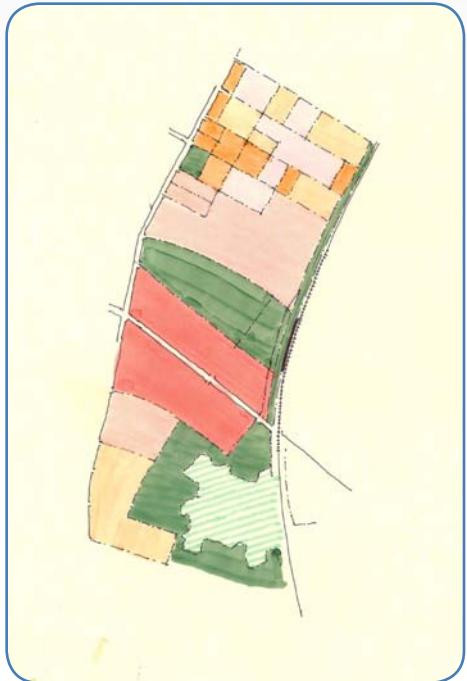
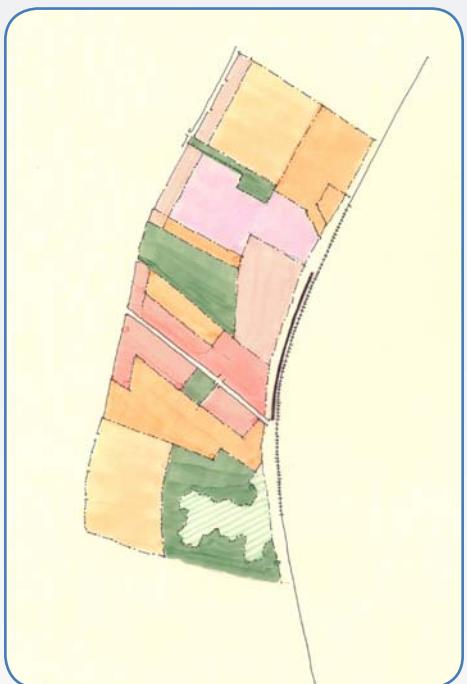
Street and Block Network



Open Space Network

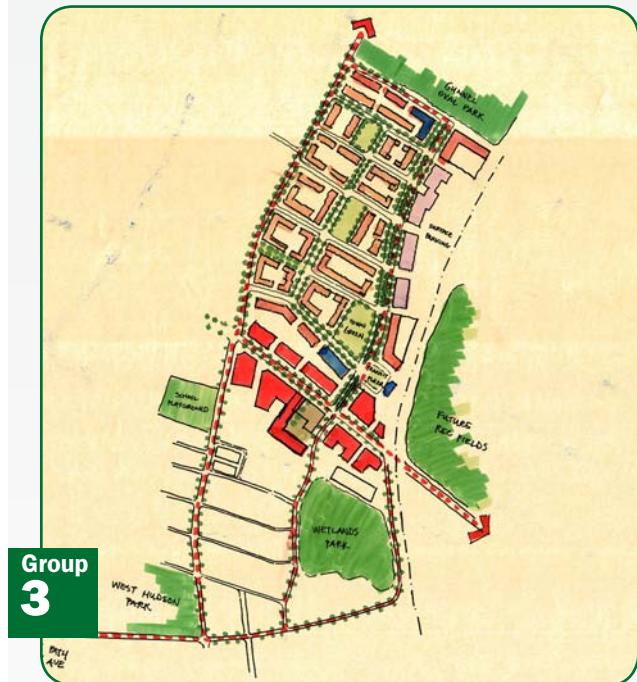


Land Use



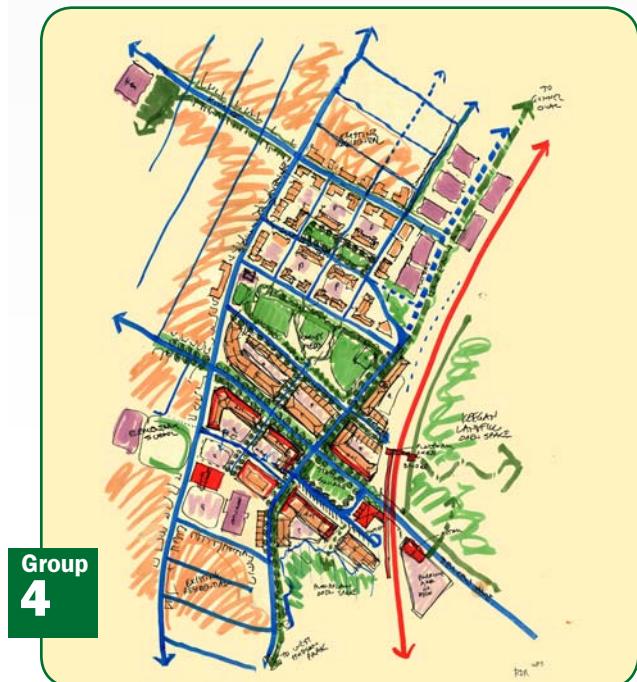
Group Drawings 3 and 4

Workshop Sketches



Core Ideas

- Striped bike lanes throughout the area
- A rail-trail or new road along the abandoned rail line to the south
- Refashioning Harvey Field as a smaller, passive space similar to a town green (in recognition of the future recreational fields at the Keegan Landfill)
- Light industrial uses along the rail line to buffer residential and mixed-use areas of the neighborhood
- Encouraging a vibrant street life through mixed use



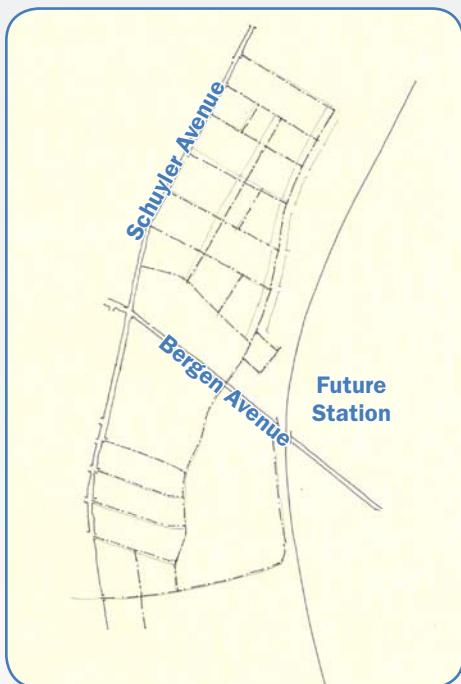
- Locate the station on the south side of Bergen Avenue
 - more evenly distribute traffic throughout the area
 - station square with Kiss & Ride and shuttle bus facilities located south of the main road so as to not negatively impact traffic flow
- Focusing the core of the area's mixed-use retail and housing to the south of Bergen Avenue, organized around a new "station square" green space
- Phasing development from the west to the east, organically "growing" the town
- Locating Flex industrial uses closer to the tracks
- A parking deck in the triangle below Bergen Avenue and the tracks
- A large scale greenway system throughout the whole study area

Legend

Parks and active green space
Wetlands

Residential
Commercial
Industrial
Civic/Institutional

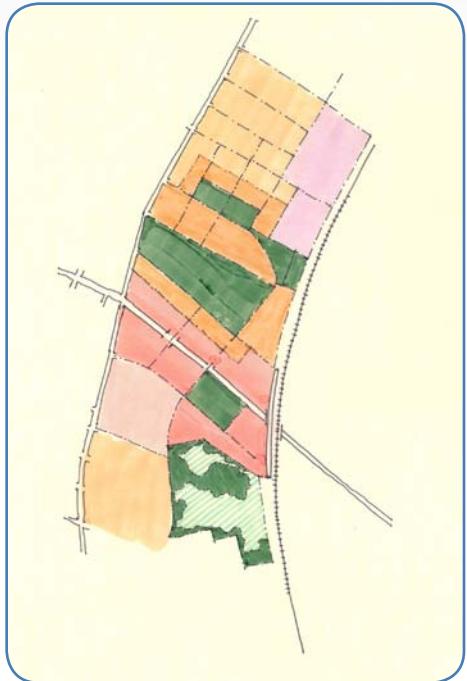
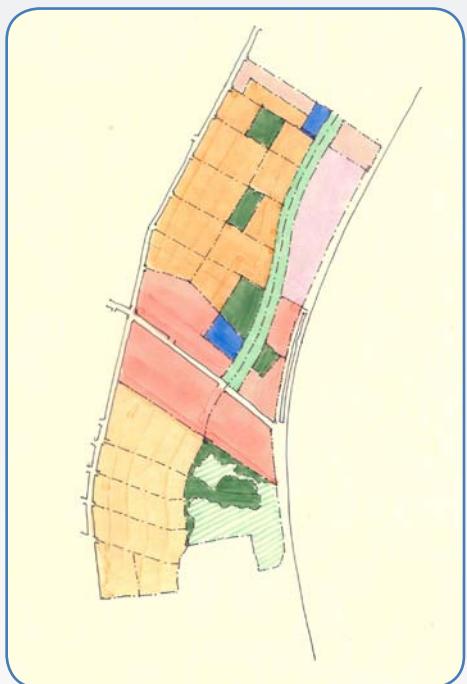
Street and Block Network



Open Space Network



Land Use



Coming to Consensus

Street and Block Network

All of the groups tried to increase the overall connectivity of the area. The design studies all share certain features:

- All create a new north-south road linking the areas north and south of Bergen Avenue and, beyond that, north to the Gunnel Oval area.
- All of the studies suggest a new extension of King Street, or one of the streets parallel and to the north of it, into the study area.
- They all propose a new street and block network in the area north of Bergen Avenue.

But there are also significant differences:

- Only two of the four studies embraced the curvilinear parkway concept. The other two groups created a new north-south route in segments that more or less followed the orientation of the rest of their proposed street and block network.
- The groups created street and block networks that were of different scales and not all of the groups tried to reinforce the pattern of the existing pattern of both mapped and “informal” streets that currently organize this area.
- Only some of the groups tried to create a north-south service road abutting the railroad embankment.
- In one proposal, the train station was located on the south side of Bergen Avenue with a loop drop-off road.

Open Space

All of the groups tried to create a comprehensive open space network linking existing and proposed open space resources. They all share certain features:

- They all anticipate that the future park on the Keegan Landfill will be an important part of the open-space network.
- All but one of the sketches assumed that the wetland to the south of Bergen Avenue would be reclaimed as open space.
- All of the sketches anticipate a linkage north to the Gunnel Oval Park.
- All of the sketches suggest the need for a new neighborhood-scale of open spaces

But there are also significant differences:

- One group all but eliminated the existing Harvey Field, under the assumption that the new park over the Keegan Landfill, together with the existing parks, would provide enough active open space for the area.
- This same group landscaped the curvilinear boulevard so intensely that it is essentially a linear park.
- The groups created and located the neighborhood open spaces in different parts of the plan, in part retrofitting the different street and block networks.
- One group extended the wetlands area southwest of the train tracks north to the future station area, contemplating a link over (or under) the tracks to the future Keegan Landfill Park.
- As described above, one group created the station plaza south of Bergen Avenue.

Land Use

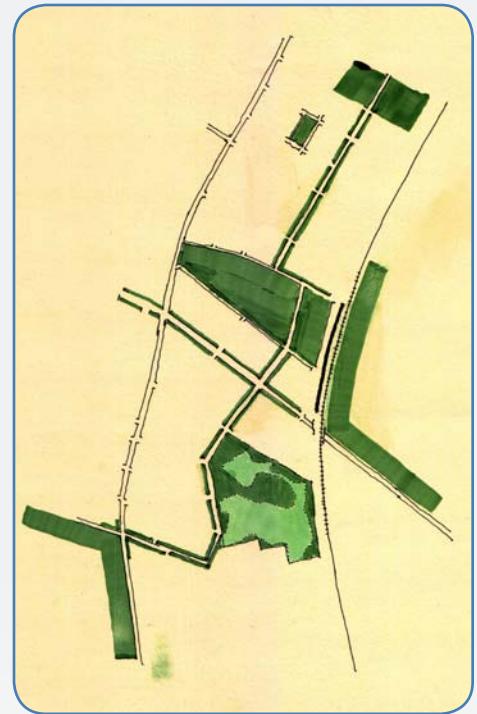
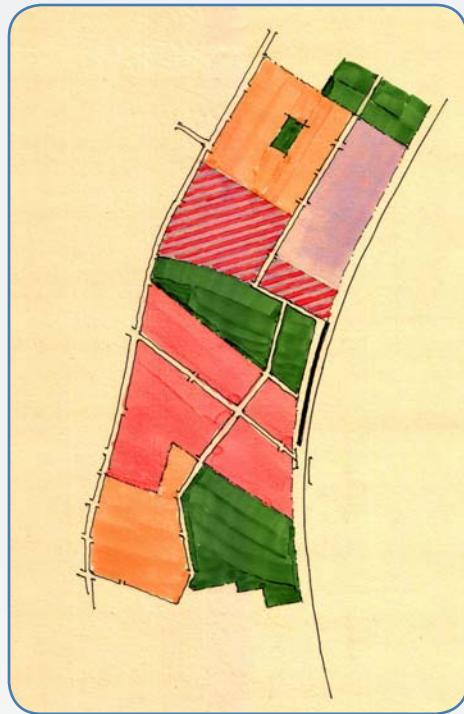
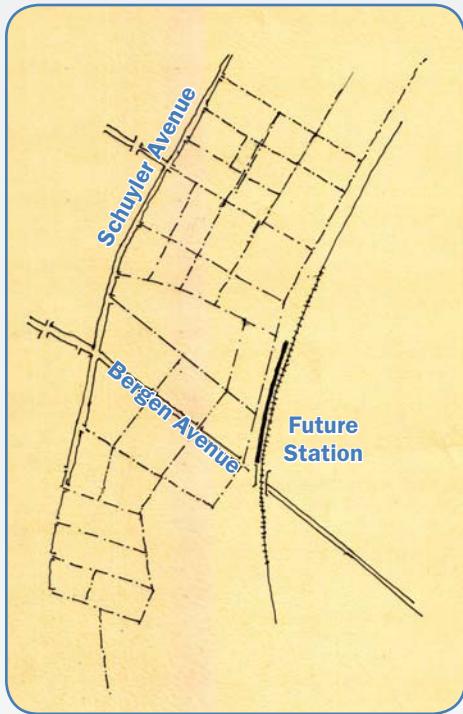
All of the groups contemplate a more intensively developed mixed-use area.

The sketches share some features:

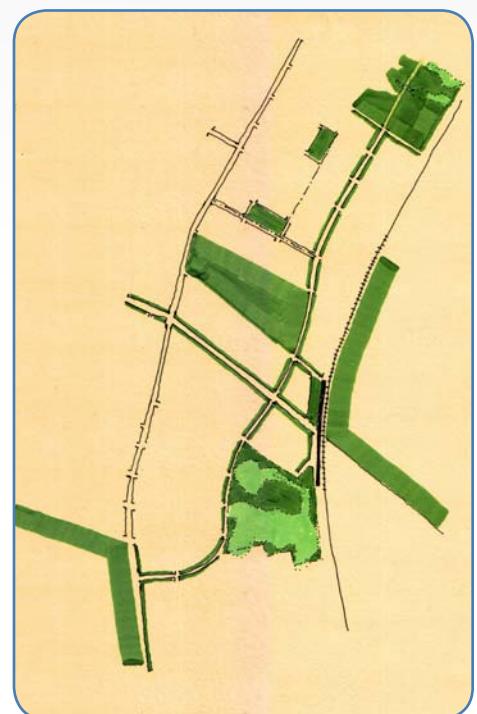
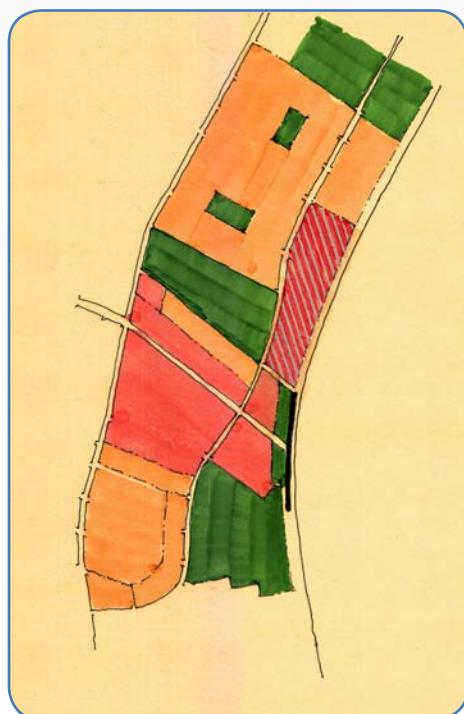
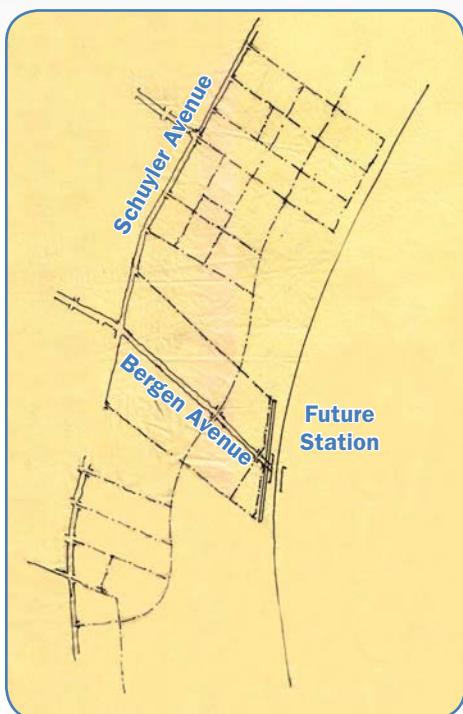
- In all cases, the Bergen Avenue corridor and the area immediately around the future train station is contemplated to be mixed use, primarily office or office and retail with apartments above.
- All of the sketches anticipate a new residential neighborhood north of Harvey Field.
- All of the sketches reinforce the existing residential character of the neighborhood south of Bergen Avenue.
- All of the sketches support some level of industrial retention

But there are also significant differences:

- The different groups suggest different levels of density for the new neighborhood north of Harvey Field
- While all of the schemes attempted to retain manufacturing to some degree, the strategies are different. Some proposals tried to reinforce the existing pattern where houses and manufacturing are side-by-side. Other groups tried to consolidate and then relocate the industrial and commercial uses along the railroad embankment.



Consensus Diagrams Scheme 1



Consensus Diagrams Scheme 2

TWO Illustrative Proposals

The rich diversity of ideas expressed at the workshop does not necessarily point the way to a single “consensus proposal,” and at this stage in the process that should not be the objective.

In particular, there is a contradictory finding. Those studies which were the most aggressive in terms of remaking the street and block infrastructure – for example, by superimposing new street alignments and the highly figural curvilinear boulevard – were also the schemes that embraced the existing industrial-residential mixed use pattern. However, the more ambitious reworking of the infrastructure would presuppose a more aggressive transition away from the existing manufacturing uses in favor higher density residential uses and non-industrial commercial uses such as office and retail.

For this reason, the results of the workshop are here synthesized into two test schemes that try to reconcile these two degrees of ambition: Consensus Scheme A which can be thought of as the “Incremental Scheme”; and Consensus Scheme B which can be thought of as the “Transformational Scheme”. Rather than embracing all of the ideas from any one workshop study, these two schemes borrow from each of the workshop products those features that support either the incremental or transformative approach

Consensus Scheme 1

Consensus Scheme 1 is characterized by a street and block pattern that primarily reflects the existing pattern of both mapped and informal streets. This orthogonal street pattern is maintained except for the roads that follow the north and east edges of Harvey Field. As a result, the north-south connecting route is segmented, requiring several left and right turns. Also, the eastern edge of the residential blocks south of Bergen Avenue follows the alignment of the existing blocks.

In terms of land use, this proposal is also committed to trying to reinforce the existing industrial-residential mixed-use pattern. Several of the existing small industrial buildings abutting the railroad embankment are retained and/or expanded. This scheme does, however, assume that over time, the existing industrial uses in the core industrial area can be consolidated into a campus of more modern “flex” industrial buildings that could house both small and higher-value added manufacturers, as well as some office uses.

On the two principal corridors – Schuyler Avenue and King Street - this industrial/commercial campus is surrounded by residential uses. On the other orientations – along the new north-south connecting road and facing Harvey Field, the front-office component of the flex buildings creates street activity and passive security.

The new service road that follows the railroad embankment enables dedicated access to both the service areas behind the existing manufacturing buildings and, by way of our east-west extension, to the shared service and loading area of the new flex industrial campus. It is important to note that the scale of the industrial enterprises is such that the majority of service vehicles will be smaller trucks and step vans, not tractor-trailers.

Finally, in this scheme, the station and station plaza is south of Bergen Avenue, serviced by a new loop route.

BIG IDEAS:

- An orthogonal grid mimics the existing pattern of development on the west side of Schuyler Avenue
- Viable industrial uses are maintained in the northern portion of the site
- The station plaza is located south of Bergen Avenue, serviced by a new loop route

ADVANTAGES:

- Industrial uses are preserved and improved with new infrastructure
- A service road parallel to the rail embankment enables dedicated access to industrial traffic, prioritizing local auto, pedestrian and bike traffic in the core area of the site

DISADVANTAGES:

- The north-south connecting route is segmented, requiring several left and right turns
- There may be traffic issues created by the location of the station plaza loop south of Bergen Avenue

Program Totals:

467,000 sf. Commercial
259,000 sf. Retail
208,000 sf. Office
169,000 sf. Flex Industrial
1,037 Dwelling Units

| | Trips Generated | Fiscal Impact |
|-----------------|-----------------|---------------|
| Without Station | 1738 | \$3,571,000 |
| With Station | 1304 | \$7,217,000 |



2 Consensus Scheme

Consensus Scheme 2 can be thought of as the Transformational Scheme in that it assumes a more aggressive reworking of the area's infrastructure. In particular, this is the scheme that embraces the curvilinear boulevard concept. Because of the scale of this intervention, which would need to be supported by higher-value-added revenues from commercial uses, the commercial uses are primarily intermediate scale office uses and there is little manufacturing. The residential densities are also higher, particularly along the boulevard frontage.

In terms of land use, as well, scheme #2 is transformational in that it proposes a complete overhaul of uses within the study area. In addition to a higher-density mixed-use and retail area in the blocks surrounding Bergen Avenue, the scheme imagines a new residential neighborhood in the northern half of the site, as well as office buildings along the new boulevard.

The boulevard itself would be heavily landscaped, and serves not only as a north-south alternative to Schuyler Avenue, but also as a connection between the town's major open spaces. Traffic calming measures should be implemented to ensure the roadway becomes a signature multi-modal route through the area, safe for bicycles and pedestrians, and does not become a conduit for speeding through-traffic. Outside of the curvilinear boulevard, the plan extends the orthogonal grid pattern of existing residential areas of the town.

In the new residential areas in the northern part of the area, small neighborhood parks and green spaces permeate, and even surface parking lots are heavily landscaped. In the wetlands area to the west of the train tracks, south of the station, an existing industrial building is brought down and the entire area is reverted to wetlands, which can serve as a passive open space amenity. Finally, Harvey Field is extended up to the station plaza, which becomes one of the open spaces linked by the green boulevard.

While this scheme places the train station north of Bergen Avenue, NJ TRANSIT's preliminary analysis has determined that locating the station south of Bergen Avenue is the preferred alternative.

BIG IDEAS:

- A curvilinear boulevard runs north-south through the center of the site, offering an alternative to Schuyler Avenue
- Harvey Field is extended to link up with a town-green style station square area
- Parking decks wrapped with moderately dense mixed-use buildings accomodate a large portion of the area's parking demand

ADVANTAGES:

- The boulevard links several of the town's major open space resources, and could be designed in a way that prioritizes pedestrians and bicycles
- Higher density office and residential uses provide significant rateables for the town, enabling the construction of a community facility to the north of Harvey Field

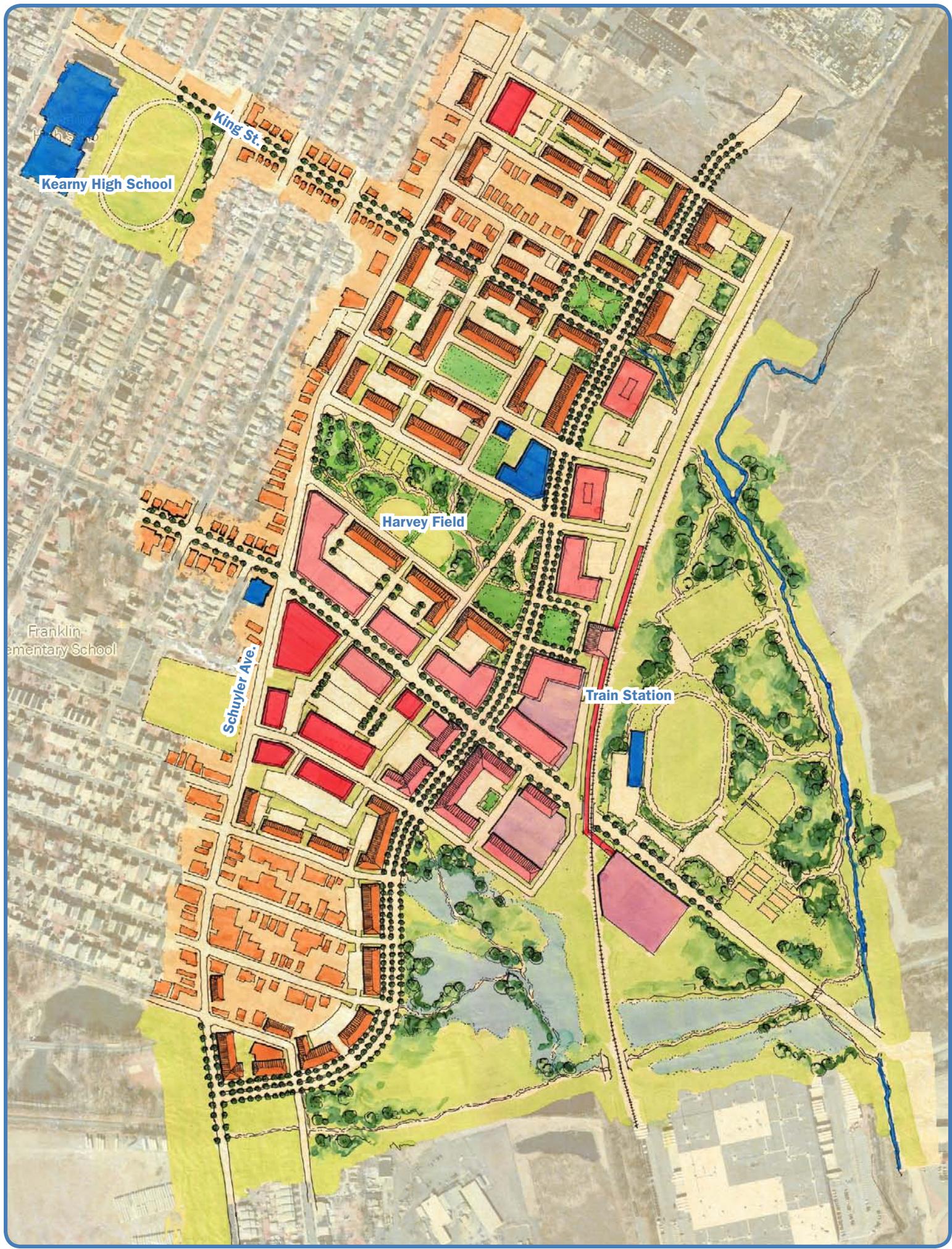
DISADVANTAGES:

- The curvilinear green boulevard running through the center of the site would be much more complicated to implement than a traditional block pattern
- The boulevard is a more difficult to implement and requires expanded right-of-way.

Program Totals:

911,400 sf Commercial
514,800 sf Office
396,600 sf Retail
1,408 Dwelling Units

| | Trips Generated | Fiscal Impact |
|-----------------|-----------------|---------------|
| Without Station | 2660 | \$5,085,000 |
| With Station | 1980 | \$9,951,000 |



Market Assessment

General comments

- Both projected alternatives are fiscally positive, either with or without a train station (more detail on each alternative in the chart below).
- Alternative #2 will result in more residents, schoolchildren and employees than alternative #1, but will also have a greater projected fiscal surplus – roughly 40% more.
- Alternative #1 is more realistic in the short term from a market perspective, given the lower number of units and the lesser amount of larger-scale office space.
- The viability of residential will depend on the presence of the station – without it, the likelihood of construction for a substantial amount of new multi-family units is diminished greatly.

- New housing near Secaucus Junction station is a good nearby example of a multi-family residential market being created from scratch due to a new railroad station being created.
- Bergen Avenue and Schuyler Avenue have the most potential as medium-scale retail locations.
- Ground floor retail could work along main streets particularly closer to the railroad station.
- There is not much precedent in this portion of the state for larger scale office space in this type of setting (e.g., away from a highway interchange, not adjacent to a large downtown, near a transit station that is not a major hub).

| | Alternative #1 | Alternative #2 | Difference |
|----------------------------------|-----------------------|-----------------------|-------------------|
| Residents (without station) | 2,114 | 2,858 | 744 |
| Residents (with station) | 1,607 | 2,182 | 575 |
| Difference | 507 | 676 | |
| Schoolchildren (without station) | 159 | 211 | 52 |
| Schoolchildren (with station) | 18 | 24 | 6 |
| Difference | 141 | 187 | |
| Employees -without station | 1,334 | 1,985 | 651 |
| Employees -with station | 1,334 | 1,985 | 651 |
| Difference | 0 | 0 | |
| Fiscal Impact -without station | \$3,571,000 | \$5,085,000 | \$1,514,000 |
| Fiscal Impact -with station | \$7,217,000 | \$9,951,000 | \$2,734,000 |
| Difference | \$3,646,000 | \$4,866,000 | |

Alternative #1

(1,037 residential units, retail, office, flex)

- This alternative would be a fiscal positive, and more so with a train station.
- The retail locations on Schuyler Avenue make sense with regard to access and visibility, but any on interior blocks would seem somewhat less desirable.
- The flex space would seem to make sense primarily as a location for relocated industrial and heavy commercial businesses.
- It seems more likely to be marketable than the office space on the blocks north of Harvey Field in the near term.

Alternative #2

(1,408 residential units, retail, office)

- This mix of land uses would be very positive from a fiscal impact point-of-view but is somewhat unlikely for the foreseeable future from a market point-of-view.
- The larger scale office buildings would be a tough sell even adjacent to a highway interchange or major transit station.
- The retail would be pretty dependent on the office and residential space, and likely a train station as well.
- The retail locations make sense with regard to access and visibility.

Mobility Assessment

General comments

- Traffic volumes increase significantly over existing volumes.
- Bergen/Schuyler Avenue intersection improvements will be needed including:
 - * Widening and turn lanes
 - * Signal timing improvements
- Improve the Bergen Avenue corridor
 - Traffic signal and crosswalks at the new north/south roadway and possibly at the new roadway parallel to the tracks.
- The site distance for vehicles turning from the new roadway that parallels the tracks to Bergen Ave is a safety concern.
- Add left turn lanes with queue storage from Bergen Avenue to the new internal roadways

- The train station parking garage is in a good location for quick access to the regional roadway network without impacting the new development area.
- Driveway access to the parking garage should be placed as far east of the railroad trestle for better site distance.
- Provide pedestrian walkways or tunnels so passengers can get to the other side of the tracks without crossing roadways.
- Provide crosswalks and other pedestrian treatments for passengers crossing the parallel roadway
- Provide ample storage for vehicles waiting at the train to pick up passengers.
 - Consider designing a passenger pick up area in the garage.

Alternative #1

(1,037 residential units, retail, office, flex)

- The misalignment of the station drop-off area and the road that parallels the tracks may be a traffic and safety problem.
- Limited site distance with the railroad trestle
- Simultaneous turning movements very close together
- The concept of the road that parallels the tracks is a good one to alleviate some of the traffic traveling through the Bergen/Schuyler intersection but it needs to be designed in a fashion that discourages high travel speeds and is pedestrian and bicycle friendly.
- Many of the residential land uses are within walking distance of the train station.
- A pedestrian and bicycle friendly design is needed
- The tracks in Alternative 1 don't extend as far back as Alt. 2 so the north neighborhood is a bit distant from the station.

Alternative #1

| Land Use | Traffic w/o Station | Traffic w/Station |
|---|---------------------|-------------------|
| Residential | | |
| Apartments | 842 | 483 |
| Townhouses (40 stacked and 155 regular) | 195 | 104 |
| Commercial | | |
| Office | 208,000 sq. ft. | 336 |
| Retail (174,000 sq. ft. small and 85,000 sq. ft medium) | 259,000 sq. ft | 669 |
| Flex Industrial | 169,000 sq. ft. | 146 |
| | TOTALS | 1,738 |
| | | 1,304 |

Alternative #2

| Land Use | Traffic w/o Station | Traffic w/Station |
|---|---------------------|-------------------|
| Residential | | |
| Apartments | 1140 | 653 |
| Townhouses (92 stacked and 176 regular) | 268 | 135 |
| Commercial | | |
| Office | 514,800 sq. ft. | 832 |
| Retail (205,200 sq. ft. small and 191,400 sq. ft med) | 396,600 sq. ft. | 1,040 |
| | TOTALS | 2,660 |
| | | 1,980 |

Alternative #2

(1,408 residential units, retail, office)

- The Boulevard and the road that parallels the tracks are good alternates to the Bergen/Schuyler intersection.
- These roadways need to be designed in a fashion that discourages high speed travel and is pedestrian and bicycle friendly
- The train station drop-off area is internal to the project area in this alternative.
 - This will put vehicles on the internal roadway network traveling past residential and recreational areas.
 - Roadways should be designed to discourage high speeds and be pedestrian and bicycle friendly.

Implementation

Consensus Objectives and Strategies

While at first glance, these two consensus schemes may not seem to be significantly different, in fact they have profoundly different implications for implementation. The curvilinear boulevard is an organizing urban design form that derives its strength from its continuity -- in other words, it needs to be completed as an integrated whole, not in disparate segments. This does not mean that it would have to be built all at once. However, it does mean that there would have to be an almost unswerving and long-term commitment to its implementation and to the many negotiations with the multiple land owners whose properties would need to accommodate the new alignment.

As was pointed out during the workshop, it is not necessary to make an either-or commitment to one scheme or the other. Another way to reconcile the two schemes is to think of the Incremental Scheme #1 as the short to medium term objective and the Transformational Scheme #2 as a potential long-term vision. Indeed, with the station itself at least ten years away, a provisional approach to the redevelopment of this area is important. As recent economic events have shown all too clearly, there may be profound changes in market strategies.

Because the future of Kearny is so closely tied to a variety of regional scale initiatives, Kearny must continually look to the larger context. This includes an on-going partnership with New Jersey Transit and the Meadowlands

Commission, both which have actively participated in this process. In addition, there are significant and potentially important political changes on the horizon in the City of Newark, some of which may have direct significance for Kearny. For example, the City of Newark is actively rethinking its relationship with the Port and Airport, including the potential to find industries that are synergistic with the Port. If Kearny is interested in growing its industrial base, the relationship to the port/airport complex may be valuable. Preserving and growing the industrial uses in this area in the face of higher land values created by the redevelopment plan and the future station will require an array of public policies.

As described above, all of the various part plans, workshop sketches and consensus plans share certain essential features which can guide this effort over the long term and which are and captured by the consensus framework diagrams reproduced here:

Street and Block Network

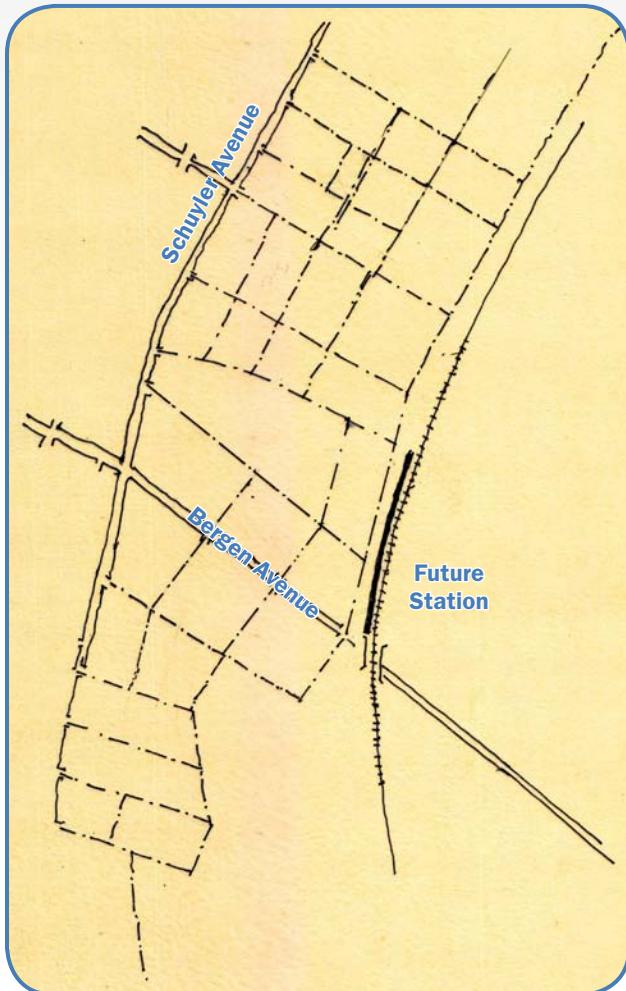
Overall Objectives:

- Increase the overall land of network connectivity in the larger study area
- Design multi-modal streets
- Rationalize automobile and truck traffic

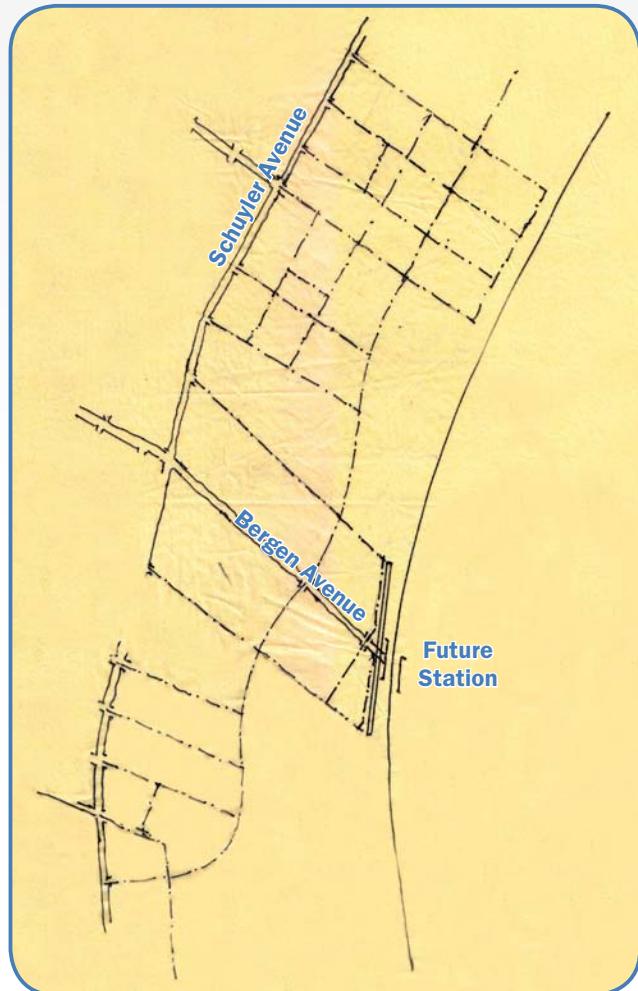
Strategies and Interventions:

- Create a new north-south connecting route through the area between Schuyler Avenue and the railroad embankment. Ultimately, this route should extend as far north as the Gunnell Oval area.
- Create a service road adjacent to the railroad embankment extending north from Bergen Avenue
- Extend the King Street corridor into the site
- Create a street and block network with a high degree of interconnectivity
- To the greatest extent possible, blocks should approximate the scale of the existing blocks in Kearny. Blocks should not be wider than approximately 350' and no longer in any one dimension than approximately 650'.

- South of Bergen Avenue, the north-south road should be designed as a frontage road to a restored wetlands
- The network should anticipate a future station access to accommodate all modes of access: pedestrian, bike, bus and automobile
- Parking needs to be managed creatively: minimize requirements; promote shared parking and interconnectivity between parking lots; place parking lots behind and to the sides of buildings
- Streets should be thought of as public open spaces and designed as such with a commitment to uniform pedestrian and landscape amenities and associated with design guidelines that ensure the proper orientation and character of the buildings that define these streets



Consensus Scheme 1



Consensus Scheme 2

Open Space

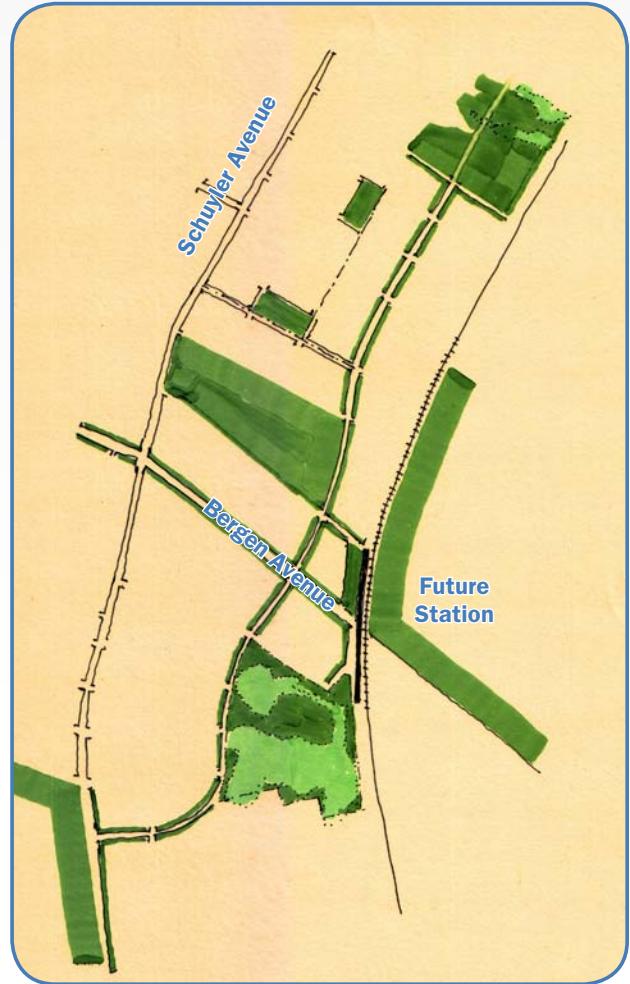
Overall Objectives:

- Create a comprehensive network of linked passive and active open spaces that are supported by the land uses that surround them
- Continue mitigation of flooding issues

Strategies and Interventions:

- Reconfigure the edges of Harvey Field as needed to engage the new street and block pattern
- Restore the wetlands area south of Bergen Avenue to create a passive open space amenity
- Create well-landscaped, pedestrian-friendly green streets connecting new open spaces to existing open spaces including West Hudson Park, Harvey Field, Gunnell Oval and the future park at the Keegan Landfill
- Anticipate the creation of a “station plaza” – a space with a discrete identity as a destination that is activated by the uses that surround it and that accommodates all forms of intermodal access

- Pursue strategies for linking to the future park on the Keegan Landfill, including the Bergen Avenue underpass and the possibility, as part of the future station design, of going over the tracks
- Green all streets as a way of helping to reduce urban heat island effects.
- Replace impermeable surfaces with permeable surfaces whenever possible.



Consensus Scheme 1

Consensus Scheme 2

Land Use

Overall Objectives:

- Promote a mixed use environment that reinforces the existing pattern of residential and industrial uses and supports the liveliness of streets and open spaces
- Allow enough residential intensification to create a new neighborhood north of Bergen Avenue
- Anticipate creation of a compact, mixed-use station area.

Strategies and Interventions:

- Create land use regulations that promote mixed use buildings. Consider advanced zoning tools, such as performance zoning*, to resolve industrial-residential land use conflicts.
- Use form-based coding* to control the design-character, scale and orientation of the buildings that define/frame the public spaces and the most important public streets. A preliminary list of these urban spaces would include Bergen and Schuyler Avenues; the King Street extension; the future north-south connecting roads including the roads fronting the wetlands. Buildings should be controlled through design guidelines where they surround open spaces including Harvey Field, any new neighborhood parks, the restored wetlands (see above), and the future station area.
- NJ EDA, the Industrial Technologies Assistance Corporation (ITAC) and other resources should be actively engaged. Industrial retention policies will include some mix of the following: grants for technology; prohibitions against conversion to non-industrial uses in the core area; and energy subsidies.
- Both to support transit and to reinforce the existing residential uses, land use regulations should promote higher-density attached housing formats. Residential design guidelines should control the scale and character of these buildings to create a contextual transition to the largely single-family neighborhoods that surround the redevelopment area.
- Land use regulations and other policies should promote a diversity of housing stock, as this can help ensure the long-term viability and affordability of the neighborhoods.



Consensus Scheme 1



Consensus Scheme 2

Implementation Strategies

Beyond these specific ideas, and because the train station itself is some time away, it may be useful to put these specific recommendations into a long-term planning context that thinks of implementation in terms of tiers, each tier representing different levels of commitment and different time frames.

The comprehensive plan is complex and there are multiple land-owners and public entities involved. Acknowledging these realities, the implementation strategies can be conceived in terms of three levels, each progressively more challenging in terms of politics and administration, but each promising a better long-term outcome that is more consistent with this preliminary vision plan:

Level One: Review existing land use regulations for conformity with the Draft Vision Plan.

At the very least, once there is consensus around the comprehensive vision, the municipality should review their current master plan and zoning documents and change those provisions that directly undermine the vision – in other words, even if the revised regulations do not promote the vision, they should at minimum at least enable the vision. This means changing the most basic elements of the redevelopment plan and zoning ordinance's allowed uses, FAR, coverage, parking,

Level Two: Create a TOD Overlay Zone

At this level, Kearny would adopt land use regulations that promote the vision. This would differ from the basic level of implementation in several ways including density bonuses to encourage the scale and character of the vision plan and incentives to build the greenways and other public spaces. Connections between the properties would be required even if the exact location and design is not fixed. Design standards would ensure some level of coordination and transition in scale and massing among the properties and at points of transition to the existing context.

Level Three: Create a TOD Design District

For the most part the existing zoning does not support the vision described here. To the extent that this is a matter of the uses, densities and coverages allowed, the Level One strategies can address those issues. The real problem is that zoning is simply too blunt an instrument to manage a comprehensive plan of this complexity, involving a large geography with multiple land owners. The objective should be to develop and administer a new Design District.

A Design District would go beyond zoning in several ways. Parking strategies can be more creatively managed – shared parking, shared facilities – across the entire study area. Environmental systems can be more effectively protected over a larger geographic area, to ensure a continuous greensward for amenity and storm water management.

Most importantly, it would enable the long-term implementation of the plan, recognizing that the comprehensive plan is likely to be built over several business cycles and several political administrations. The joint administrating body would ensure that the main elements of the long-term plan were protected from short-term compromises. At the same time, changes could be made to the plan when necessary and in a way that does not undermine the most important aspects of the vision plan. Similarly, the phasing of the plan can be better managed, enabling the progressive completion of the vision plan in a way that will still achieve the objectives of the comprehensive plan.

Short Term Implementation Actions

Street and Block Network

- Work with NJ DOT and other state and county agencies to re-design and pedestrianize Schuyler and Bergen Avenues.
- Re-design the intersection at Schuyler and Bergen and at King Street and Bergen to anticipate the role that these intersections will play in connecting a future station area to the surrounding neighborhoods.
- Develop strategies for cross-access between commercial properties. (These can be part of the zoning revisions described below).
- To increase the overall level of connectivity, begin to negotiate with land-owners to map, as official town streets, the various informal and unimproved connecting roads that exist in the industrial area. Work with NJ EDA and NJ DOT to secure funding for these road improvements.
- Begin negotiations with property owners on the creation of a new north-south connecting road adjacent to the railroad embankment north of Bergen Avenue. Redevelopment of properties adjacent to the railroad embankment should be conditioned on the reservation of this easement. (The approximate width of this easement can be determined by Eng-Wong, Taub & Associates).

Land Use

- Commission a comprehensive review of the redevelopment plan and zoning regulations in the study area to ensure that the regulations do not undermine the vision. Key elements of this review should be the following:
 - Ability to use shared-parking and reduced parking ratios for mixed-use developments along the Bergen and Schuyler Avenue corridors.
 - Reduced parking requirements in the study area
 - Best-practice storm water management techniques for new developments. This should include strategies for reducing impermeable surfaces
 - Allow higher density mixed-use development along Schuyler and Bergen Avenues
- Develop design guidelines for new developments along Schuyler and Bergen Avenues. These guidelines should control the massing and placement of buildings so that they relate to the space of the street. Guidelines should control the placement of surface parking so that the street frontage is not broken up by curb cuts and surface parking lots. Access should be shared wherever possible to minimize driveway interruptions of the sidewalk. Requirements for ground floor transparency should ensure an active pedestrian environment.
- Develop design guidelines for the properties around Harvey Field. Any new development should not “turn its back” on the park but should have primary or secondary entrances oriented towards it. An easement for a future frontage road along the park edges should be reserved as part of site plan approval.
- Launch an industrial retention strategy that engages NJ EDA, the City of Newark and other entities such as ITAC (Industrial Technologies and Assistance Corporation) to reinforce and protect the smaller scale industrial uses in the study area.

Open Space

- Restore the wetlands area to the south of Bergen Avenue, with the objective that ultimately, this should become an open space amenity.
- Work with the Meadowlands commission to ensure that there is a very strong pedestrian connection along Bergen Avenue to the future park. This includes working with NJ DOT and NJ Transit to make the passageway under the railroad trestle generous, attractive and safe.
- Begin a “green streets” initiative. Require street trees as part of site redevelopment

Technical Appendix

Implementation Coordination Review

Consistency Review with Schuyler Avenue Redevelopment Plan (Heyer, Gruel, & Associates, 2002) and the Strategic Vision Plan (Heyer, Gruel, & Associates, 2007), and the Kearny Area Redevelopment Plan (Hackensack Meadowlands Development Commission, 2000)

At the beginning of this process, the consultant team reviewed several existing documents including the Kearny Area Redevelopment Plan (Hackensack Meadowlands Development Commission, 2000), the Schuyler Avenue Redevelopment Plan (Heyer, Gruel, & Associates, 2002 and the Town of Kearny Strategic Vision Plan (Heyer, Gruel, & Associates, 2007). Now, at the end of the public process to create a TOD Vision Plan, it is important to revisit those documents to see to what extent supporting or contradictory findings have emerged.

The Kearny Area Redevelopment Plan
The Kearny Area Redevelopment Plan by the Hackensack Meadowlands Development Commission (2000) has little bearing on this study because it focuses on that part of the Meadowlands that is east of the rail road right-of-way and therefore not in the study area. Still the plan is relevant for a number of reasons. Most of the land immediately to the east of the study area is planned to be a “Light Industrial Center” which supports the notion of preserving some of the industrial uses on the west side of the tracks that are in the Vision Plan study area. Also, the plan calls for the closing and capping of the Keegan landfill. This will become a significant open space amenity that needs to be linked back to the Town. The Vision Plan reflects this. The one potential conflict between the Meadowlands plan and the Vision Plan is that the reactivation of rail service may make it necessary to re-route the “Meadows Path”, a 21-mile trail that links the municipalities around the larger Meadowlands area.

I. The Schuyler Avenue Redevelopment Plan (2002) and the Town of Kearny Strategic Vision Plan (2007).

The single most relevant document for this analysis is the Schuyler Avenue Redevelopment Plan (2002). While the Town of Kearny Strategic Vision Plan is a more

recent document, for the most part it simply reiterates the recommendations in the Schuyler Avenue Redevelopment Plan when addressing this part of the Town. It does note the possibility of the new train station, and suggests that if the station is built, then the area “would be more appropriately developed as a TOD district, which would be characterized by a mixed-use district with retail, office, parks and open spaces; a pedestrian-oriented residential neighborhood.” There are no more specific plans or descriptions that explain the scale or other design characteristics of the future TOD.*

The details of this comparison follow below. However, this broad observation can be made at the outset: the Vision Plan is basically in conformance with the Strategic Vision Plan, but there are significant differences with the Schuyler Avenue Redevelopment Plan because at the time no new train station was anticipated.

Ideas that are consistent with The Vision Plan:

A. Land Use

- Commitment to higher-value-added light manufacturing.
- Re-design Schuyler Avenue as a mixed-use, pedestrian-friendly corridor.
- Design guidelines create a consistent and rational relationship to the street throughout the district.
- Design guidelines and streetscape improvements along Schuyler Avenue create a vibrant, mixed-use “main street”.

B. Street and Block network

- Creation of interior roadways to improve access and circulation and create redevelopment value
- Investment in the overall appearance of the area through design standards and streetscape/public realm improvements.
- Reconfigure intersection at Bergen and Schuyler
- New north-south access road adjacent to railroad right-of-way extending north from Bergen Avenue

C. Open Space

- Link recreational open spaces, in particular Gunnell Oval, West Hudson Park and the Meadowlands
- Preserve and restore wetlands

- Highlight Harvey Field and connect it to residential neighborhoods
- Link to West Hudson Park

Ideas that are inconsistent with the Vision Plan

A. Land Use

- Incentivize assembly for larger footprint developments around north end of study area. The Vision Plan does not promote assembly at the same scale.
- Create a light industrial district for large-parcel development of light industrial, research and development, office, warehousing and distribution, self storage, public uses. The Vision Plan contemplates a much more fine-grained mix of uses, including residential uses and a mixed-use station area not contemplated at the time of the Redevelopment Plan.

B. Street and Block network

- New north-south access road adjacent to railroad right-of-way extending south from Bergen Avenue. The Vision Plan does not extend the access road south in order to avoid the wetlands in that area.
- The new north-south access road terminates at the intersection of Schuyler and Quincy Avenues. The Vision Plan contemplates a road that has multiple connections to a re-established street network, not a single point of connection to Schuyler.

C. Open Space

- A principal link between Gunnell Oval, West Hudson Park and the Meadowlands is the Marshlands Regional recreation Trail which follows the Kingsland Branch right-of-way. In the Vision Plan, this Recreation Trail must find a different route because rail service will have been reestablished on the branch line.

*In late 2008, Kearny adopted an amendment to the Schuyler Avenue Redevelopment Plan that provides for a TOD district.

II. The Design Guidelines

Beyond the specific development standards which are discussed below, the Redevelopment Plan and the Vision Plan share similar ideas about new design guidelines. What the redevelopment plan calls “General Design Guidelines” comport with the suggestions in the Vision Plan. Among these are the following:

- There are architectural standards that demand appropriate massing and siting relative to each other and other buildings in the context; that create interesting massing and articulation; that respond to important sight lines; that locate service access and parking properly.
- There are design standards for the design, configuration, landscaping and pedestrianization of off-street parking areas.
- There are landscape standards to ensure the greening of open spaces around buildings, treatment of open spaces and best practice storm water management.
- There are streetscape standards that address lighting, materials and street furniture.

As the Redevelopment Plan suggests, these are “general” guidelines which presumably apply throughout the entire redevelopment area. The problem is that, precisely because they are “general” and apply anywhere, it is difficult to know how they should be tailored to specific parts of the area or at particular development proposals. The entire redevelopment area would not be treated the same way. Similarly, there are parts of the plan that need to be treated uniformly, for example a grouping of buildings around a public space. While the general streetscape standards are fine, the fact is that one comprehensive and uniform set of design standards is needed for sections of important roads, including Schuyler and Bergen Avenues. Similarly, while the architectural massing concepts are fine, these need to be tailored to specific parts of the urban design plan to be useful. Now that there are at least two potential design studies in the Vision Plan, it is possible to begin to develop standards that apply to different groupings of buildings that address particular edge conditions (for

example the two sides of Schuyler); that address the edges of important parks (Harvey Field), intersections (Bergen and Schuyler), or important corridors. At this point, with two potential designs in the Vision Plan available, the Town can begin to develop location-specific/context-specific/corridor-specific design guidelines.

III. Shared Ideas, but Two Visions

The list of individual recommendations above suggests that in many ways, and in particular around a variety of particular recommendations, the Vision Plan and the Redevelopment Plan agree. But there are several fundamental differences between these two visions:

Most significant is the fact that, with the exception of the Schuyler Avenue Mixed-Use District, the driving principle behind the Redevelopment Plan is to create large areas of consolidated land use. The Vision Plan, on the other hand, creates a series of finer-grained neighborhoods where commercial, residential and light industrial uses are either mixed or where the transition between adjacent land uses is almost seamless. Of course, in part this is because, at the time of the Redevelopment Plan, a new TOD was not contemplated. But even beyond the station area, the overall approach of the Redevelopment Plan is to create larger, single-purpose districts that may be adjacent to each other, but that do not relate to each other very much. In several places, the Redevelopment Plan suggests that assembly for larger footprint commercial and industrial uses should be encouraged. This conflicts with the neighborhood-scale redevelopment of the Vision Plan.

The design guidelines for the Light Industrial District support this conclusion. The Light Industrial District design guidelines suggest more of a modern suburban “flex industrial park” than an urban light industrial district:

| | |
|----------------------------|---------|
| Minimum Lot Size: | 5 acres |
| Minimum Building Set-back: | 35 feet |
| Mixed-Use Buffer: | |

30 foot landscaped buffer

These standards would make a beautiful industrial park, but are not compatible with the Vision Plan idea of a more organic looking, mixed-use district. In the Vision Plan, there is the expectation that the light indus-

trial buildings would have the same kind of direct, positive relationship to streets and public spaces that the residential, commercial and mixed-use buildings do: the entrances would face the streets and the public spaces and there might be no setbacks. There is also no discussion of the adaptive re-use of some of the existing older buildings which would contribute to the sense of integration of historic and proposed land use patterns standards would make.

The design guidelines for the Schuyler Avenue Mixed-use District raise issues as well: the proposed Floor Area Ratio of .5 is too low to create a corridor with real intensity. The 10 foot minimum to 25 foot maximum setbacks on Schuyler Avenue will not create the uniform street wall at the edge of the sidewalk which a “main street” requires. The minimum lot size of 20,000 square feet will not allow for infill development of small sites. Finally, the off-street parking ratios are typical suburban ratios that do not account for creative strategies around shred parking, let alone TOD. (3/1000sf for office, 4.5/1000 for retail, RSIS standards for residential). These standards will not promote the kind of compact, street-oriented corridors drawn in the Vision Plan.

Of course, the land use strategy in the Redevelopment Plan has real advantages: larger areas of consolidated land use are easier to administer because land-use regulations and design controls do not need to manage mixed-uses or transitions between uses that are right next to each other or not separated by setbacks and buffers.

The Town of Kearny needs to reconcile these two approaches, although there may be some middle ground: there could be a finer-grained mixed-use district along Bergen Avenue along the same lines of what has been suggested for the mixed-use district along Schuyler Avenue. However, this new mixed-use district would still have to be different from Schuyler Avenue in order to be transit-friendly: higher densities and lower parking ratios would be encouraged.

Fiscal Impacts

| <u>Type</u> | BR | Estimated Sales Price | | |
|--------------------------------------|----|-----------------------|------------|-----------------------------|
| | | w/o station | w/ station | Assumptions - w/ station |
| Residential | | | | |
| Apartments | 1 | \$275,000 | \$330,000 | increased value by 20% |
| | 2 | \$325,000 | \$390,000 | increased value by 20% |
| Average | | \$300,000 | \$360,000 | |
| Townhouses | 2 | \$350,000 | \$420,000 | increased value by 20% |
| | 3 | \$450,000 | \$540,000 | increased value by 20% |
| Average | | \$400,000 | \$480,000 | |
| Single Family | 3 | \$450,000 | \$475,000 | increased value by about 5% |
| | 4 | \$550,000 | \$575,000 | increased value by about 5% |
| Average | | \$500,000 | \$525,000 | |
| Commercial | | | | |
| Intermediate-scale office (<150,000) | | \$150 | \$150 | no increased value |
| Professional office (<50,000) | | \$175 | \$175 | no increased value |
| Neighborhood/small/gr.flr. retail | | \$200 | \$225 | increased value by \$25/sf |
| Intermediate-scale retail | | \$150 | \$150 | no increased value |
| Subtotal | | | | |
| Industrial | | | | |
| Flex industrial | | \$125 | \$125 | no increased value |
| Warehouse/distribution | | \$150 | \$150 | no increased value |
| Manufacturing | | \$100 | \$100 | no increased value |
| Mixed-use artisan studios | | \$150 | \$175 | increased value by \$25/sf |

Assumptions about real estate prices, by land use, used to calculate the fiscal impact of various scenarios

TRADITIONAL MULTIPLIERS

| Type | Size (bedrooms) | Total persons | Public school children | Employees/ 1000 sf |
|--------------------------------------|--------------------|------------------|------------------------------|-----------------------|
| Apartments | 1 | 1.526 | 0.066 | - |
| | 2 | 2.106 | 0.206 | - |
| | 3 | | - | |
| | 4 | | - | |
| | Average | 1.816 | 0.136 | |
| Townhouses | 1 | | - | |
| | 2 | 2.651 | 0.126 | - |
| | 3 | 3.529 | 0.381 | - |
| | 4 | | - | |
| | Average | 3.090 | 0.254 | |
| Single Family | 1 | - | - | - |
| | 2 | | - | |
| | 3 | 2.977 | 0.484 | - |
| | 4 | 3.774 | 0.872 | - |
| | Average | 3.376 | 0.678 | |
| Intermediate-scale office (<150,000) | | | 2.5 | |
| Professional office (<50,000) | | | 2.5 | |
| Neighborhood/small/gr.flr. retail | | | 2 | |
| Intermediate-scale retail | | | 1.5 | |
| Flex industrial | | | 2 | |
| Warehouse/distribution | | | 0.5 | |
| Manufacturing | | | 1.5 | |
| Mixed-use artisan studios | | | 2 | |

NJ TOD MULTIPLIERS

| Type | Size (bedrooms) | Total persons | Public school children | Employees/ 1000 sf |
|--------------------------------------|--------------------|------------------|------------------------------|-----------------------|
| Apartments | 1 | | - | |
| | 2 | | - | |
| | 3 | | - | |
| | 4 | | - | |
| | Average | 1.550 | 0.017 | |
| Townhouses | 1 | | - | |
| | 2 | | - | |
| | 3 | | - | |
| | 4 | | - | |
| | Average | 1.550 | 0.017 | |
| Single Family | 1 | | - | |
| | 2 | | - | |
| | 3 | | - | |
| | 4 | | - | |
| | Average | 3.038 | 0.610 | decreased by 10% |
| Intermediate-scale office (<150,000) | | | 2.5 | |
| Professional office (<50,000) | | | 2.5 | |
| Neighborhood/small/gr.flr. retail | | | 2 | |
| Intermediate-scale retail | | | 1.5 | |
| Flex industrial | | | 2 | |
| Warehouse/distribution | | | 0.5 | |
| Manufacturing | | | 1.5 | |
| Mixed-use artisan studios | | | 2 | |

Sources: ¹ Rutgers University, Center for Urban Policy Research. "Who Lives in New Jersey Housing?" November 2006.

² Rutgers University, Center for Urban Policy Research.

³ "What About Our Schools?" Urbanomics and Edison Exchange. March 2008.

⁴ ULI Development Impact Assessment Handbook. 1994

⁵ Phillips Preiss Shapiro Associates, 2008

FROM ULI Development Impact Assessment Handbook 1994

| Employees per 1,000 square feet: | per 1 sf |
|----------------------------------|----------|
| Retail | 2.5 |
| Office | 2.5 |
| Industrial | 1.5 |
| Hotel | 0.7 |
| Public | 4 |
| | 0.0025 |
| | 0.0025 |
| | 0.0015 |
| | 0.0007 |
| | 0.004 |

"What About Our Schools?" Urbanomics and Edison Exchange. March 2008.

NOTE: Urbanomics was requested by InterCap Holdings, LLC, to provide an independent assessment of the number of school-aged children living in Transit Oriented Developments (TODs) in the United States and identify those most comparable to a potential TOD in Edison Township, New Jersey. Our report presents the analysis of these comparable TODs with selected demographics, socioeconomic characteristics, school performance and the number of school-aged children anticipated.

The study concluded that on average, TOD developments generated only 3 schoolchildren per 100 units.

Multipliers used to calculate the number of schoolchildren, employees, and overall fiscal impact of various scenarios

Traffic Impacts

Average Trip Generation Factors

| Land Use | Single Family | Apartment | Townhouse | Office | Retail | Flex Industrial | Warehousing | Manufacturing |
|-----------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|
| ITE Land Use Code | 210 | 220 | 230 | 710 | 814 | 130 | 150 | 140 |
| Unit | per dwelling unit | per dwelling unit | per dwelling unit | per 1,000 sq. ft |
| WITHOUT Train Station | 1.25 | 0.77 | 0.74 | 1.62 | 2.62 | 0.86 | 0.47 | 0.74 |
| WITH Train Station | 0.80 | 0.50 | 0.48 | 1.38 | 1.92 | 0.85 | 0.44 | 0.71 |

1. WITHOUT Train Station Trip Generation Factors were determined for the PM peak hour using the ITE Trip Generation, 7th Edition (2003). Each rate is based on the specified ITE Land Use code using either the average rate or calculated using the fitted curve equation for each land use and the average amount of development for the alternatives studied.

2. WITH Train Station Trip Generation Factors were determined as per #1 above and by applying transit oriented development factors based on findings in Transit Cooperative Research Program Report 95, Chapter 17: Transit Oriented Development (2007)

Alternatives 1 and 2

Alternative 1

| Land Use | Traffic without Station | Traffic with Station |
|---|-------------------------|----------------------|
| Residential | | |
| Apartments | 842 apartments | 483 |
| Townhouses (40 stacked and 155 regular) | 195 townhouses | 104 |
| Commercial | | |
| Office | 208,000 sq. ft. | 336 |
| Retail (174,000 sq. ft. small and 85,000 sq. ft medium) | 259,000 sq. ft | 669 |
| Flex Industrial | 169,000 sq. ft. | 146 |
| ALTERNATIVE 1 | TOTALS | 1,738 |
| 1,304 | | |

Alternative 2

| Land Use | Traffic without Station | Traffic with Station |
|---|-------------------------|----------------------|
| Residential | | |
| Apartments | 1140 apartments | 653 |
| Townhouses (92 stacked and 176 regular) | 268 townhouses | 135 |
| Commercial | | |
| Office | 514,800 sq. ft. | 832 |
| Retail (205,200 sq. ft. small and 191,400 sq. ft med) | 396,600 sq. ft. | 1,040 |
| ALTERNATIVE 2 | TOTALS | 2,660 |
| 1,980 | | |

Multipliers used to calculate the number of trips generated by various scenarios

KEARNY DEVELOPMENT - TRIP GENERATION CALCULATION

AUTOS

| Scenario : | | Alternative 1 | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------|-----------|----------------------|
| | | 220 | 230 | 710 | 814 | 130 |
| Land Use | | Apartment | Stand-Alone Townhouse | Office | Retail | Flex Industrial Park |
| Units | DU | DU | SF X 1000 | SF X 1000 | SF X 1000 | |
| Size | 842 | 195 | 208 | 259 | 169 | |
| Activation Factor (enter 1 or 0 only) --> | | 1 | 1 | 1 | 1 | 1 |
| Nominal Trip Gen Rates | Weekday - AM | | | | | |
| | Weekday - PM | 0.57 | 0.53 | 1.607 | 2.614 | 0.86 |
| | Saturday Midday Pk Hr | | | | | |
| Trip Credits | Linked -Trip (%) | Weekday - AM | | | | |
| | | Weekday - PM | | | | |
| | | Saturday Midday Pk Hr | | | | 25% |
| | TOD (%) | Weekday - AM | | | | |
| | | Weekday - PM | 35% | 35% | 15% | 2% |
| | | Saturday Midday Pk Hr | | | | 5% |
| % Directional Split (IN) | Weekday - AM | | | | | |
| | Weekday - PM | 67% | 67% | 17% | 44% | 21% |
| | Saturday Midday Pk Hr | | | | | |
| Trips (before credits -- WITHOUT TRAIN STATION) | Weekday - AM | | | | | |
| | Weekday - PM | 480 | 103 | 334 | 677 | 145 |
| | Saturday Midday Pk Hr | | | | | |
| Total Credited Trips | Weekday - AM | | | | | |
| | Weekday - PM | -168 | -36 | -50 | -183 | -7 |
| | Saturday Midday Pk Hr | | | | | |
| Resulting Trips (after credits -- WITH TRAIN STATION) | Weekday - AM | | | | | |
| | Weekday - PM | 312 | 67 | 284 | 494 | 138 |
| | Saturday Midday Pk Hr | | | | | |
| Resulting Trips (IN) | Weekday - AM | | | | | |
| | Weekday - PM | 209 | 45 | 48 | 217 | 29 |
| | Saturday Midday Pk Hr | | | | | |
| Resulting Trips (OUT) | Weekday - AM | | | | | |
| | Weekday - PM | 103 | 22 | 236 | 277 | 109 |
| | Saturday Midday Pk Hr | | | | | |

1. *WITHOUT Train Station Trip Generation Factors were determined for the PM peak hour using the ITE Trip Generation, 7th Edition (2003). Each rate is based on the specified ITE Land Use code using either the average rate or calculated using the fitted curve equation for each land use and the average amount of development for the alternatives studied.*

2. *WITH Train Station Trip Generation Factors were determined as per #1 above and by applying transit oriented development factors based on findings in Transit Cooperative Research Program Report 95, Chapter 17: Transit Oriented Development (2007)*

Traffic Impacts

KEARNY DEVELOPMENT - TRIP GENERATION CALCULATION

AUTOS

| Scenario : | | Alternative 2 | | | |
|---|--|-----------------------|--------------------------|-----------|-----------|
| | | 220 | 230 | 710 | 814 |
| Land Use | | Apartment | Stand-Alone Townhouse | Office | Retail |
| Units | | DU | DU | SF X 1000 | SF X 1000 |
| Size | | 1,140 | 268 | 514.8 | 396.6 |
| Activation Factor (enter 1 or 0 only) --> | | 1 | 1 | 1 | 1 |
| Nominal Trip Gen Rates | Weekday - AM | | | | |
| | Weekday - PM | 0.57 | 0.50 | 1.607 | 2.614 |
| | Saturday Midday Pk Hr | | | | |
| Trip Credits | Linked -Trip (%) | Weekday - AM | | | |
| | | Weekday - PM | | | |
| | | Saturday Midday Pk Hr | | | 25% |
| | Pass-By (%) | Weekday - AM | | | |
| | | Weekday - PM | | | |
| | | Saturday Midday Pk Hr | | | |
| | TOD (%) | Weekday - AM | 35% | 35% | 15% |
| | | Weekday - PM | | | 2% |
| | | Saturday Midday Pk Hr | | | |
| % Directional Split (IN) | Weekday - AM | | | | |
| | Weekday - PM | 67% | 67% | 17% | 44% |
| | Saturday Midday Pk Hr | | | | |
| Trips (before credits -- WITHOUT TRAIN STATION) | Weekday - AM | | | | |
| | Weekday - PM | 650 | 134 | 827 | 1,037 |
| | Saturday Midday Pk Hr | | | | |
| | Total Credited Trips | Weekday - AM | -227 | -47 | -124 |
| | | Weekday - PM | | | -280 |
| | | Saturday Midday Pk Hr | | | |
| | Resulting Trips (after credits – WITH TRAIN STATION) | Weekday - AM | 422 | 87 | 703 |
| | | Weekday - PM | | | 757 |
| | | Saturday Midday Pk Hr | | | |
| Resulting Trips (IN) | Weekday - AM | | | | |
| | Weekday - PM | 283 | 58 | 120 | 333 |
| | Saturday Midday Pk Hr | | | | |
| Resulting Trips (OUT) | Weekday - AM | | | | |
| | Weekday - PM | 139 | 29 | 583 | 424 |
| | Saturday Midday Pk Hr | | | | |

1. *WITHOUT Train Station Trip Generation Factors were determined for the PM peak hour using the ITE Trip Generation, 7th Edition (2003). Each rate is based on the specified ITE Land Use code using either the average rate or calculated using the fitted curve equation for each land use and the average amount of development for the alternatives studied.*

2. *WITH Train Station Trip Generation Factors were determined as per #1 above and by applying transit oriented development factors based on findings in Transit Cooperative Research Program Report 95, Chapter 17: Transit Oriented Development (2007)*

| TRUCKS / BUSES | | | | | |
|---------------------------------------|---|-----------------------|----------|----------|----------------------|
| Scenario | Alternative 1 | | | | |
| Land Use | Apartment | Stand-Alone Townhouse | Office | Retail | Flex Industrial Park |
| Units | DU | DU | SFX 1000 | SFX 1000 | SFX 1000 |
| Size | 842 | 195 | 208 | 259 | 169 |
| Activation Factor (enter 1 or 0 only) | 1 | 1 | 1 | 1 | 1 |
| Daily Trip Gen | 0.06 | 0.06 | 0.20 | 0.35 | 0.35 |
| Temporal Distribution (%) | Weekday - AM Weekday - PM Saturday Midday Pk Hr | 5.1% | 5.1% | 5.1% | 2.0% 1.0% |
| % Directional Split (IN) | Weekday - AM Weekday - PM Saturday Midday Pk Hr | 50% | 50% | 50% | 50% |
| Total Trips (IN & OUT) | Weekday - AM Weekday - PM Saturday Midday Pk Hr | 3 | 1 | 2 | 2 1 |
| Resulting Trips (IN) | 150,000 sf Weekday - PM Saturday Midday Pk Hr | 2 | 1 | 1 | 1 |
| Resulting Trips (OUT) | Weekday - AM Weekday - PM Saturday Midday Pk Hr | 1 | | 1 | |

1. Truck factors based on Curbside Pickup and Delivery Operations & Arterial Traffic Impacts, FHWA (1981)

| TRUCKS / BUSES | | | | | |
|---------------------------------------|---|-----------------------|----------|----------|------|
| Scenario | Alternative 2 | | | | |
| Land Use | Apartment | Stand-Alone Townhouse | Office | Retail | |
| Units | DU | DU | SFX 1000 | SFX 1000 | |
| Size | 1,140 | 268 | 514.8 | 396.6 | |
| Activation Factor (enter 1 or 0 only) | 1 | 1 | 1 | 1 | |
| Daily Trip Gen | 0.06 | 0.06 | 0.20 | 0.35 | |
| Temporal Distribution (%) | Weekday - AM Weekday - PM Saturday Midday Pk Hr | 5.1% | 5.1% | 5.1% | 2.0% |
| % Directional Split (IN) | Weekday - AM Weekday - PM Saturday Midday Pk Hr | 50% | 50% | 50% | 50% |
| Total Trips (IN & OUT) | Weekday - AM Weekday - PM Saturday Midday Pk Hr | 3 | 1 | 5 | 3 |
| Resulting Trips (IN) | 150,000 sf Weekday - PM Saturday Midday Pk Hr | 2 | 1 | 3 | 2 |
| Resulting Trips (OUT) | Weekday - AM Weekday - PM Saturday Midday Pk Hr | 1 | | 2 | 1 |

1. Truck factors based on Curbside Pickup and Delivery Operations & Arterial Traffic Impacts, FHWA (1981)

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Regional Plan Association (RPA) is an independent regional planning organization that improves the quality of life and the economic competitiveness of the 31-county, New York-New Jersey-Connecticut region through research, planning, and advocacy. Since 1922, RPA has been shaping transportation systems, protecting open spaces, and promoting better community design for the region's continued growth. We anticipate the challenges the region will face in the years to come, and we mobilize the region's civic, business, and government sectors to take action.

RPA's current work is aimed largely at implementing the ideas put forth in the Third Regional Plan, with efforts focused in five project areas: community design, open space, transportation, workforce and the economy, and housing. For more information about Regional Plan Association, please visit our website, www.rpa.org.

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