

scenario b

- high-rise residential
- low-rise residential
- parking structure
- mixed-use development



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parking structure - scenario b



sample of activated parking garage

The parking structure should present a bold visual profile to drivers arriving in the neighborhood from I-280, as shown in the photo above. The new streets introduced in Scenario A would also appear in this scenario.



sample of activated living space

transit - scenario b

Parcel 1 would accommodate the BRT platform as proposed in Scenario A as well as an additional saw-tooth platform for regional and local NJ TRANSIT buses. This arrangement is illustrated in the diagram 1b. All buses would enter the site from First Street and exit west of the Light Rail crossing at Orange Street. From this same access point, drivers would also be able to access the parking structure at parcel 1 and the retail rooftop parking at parcel 8.

detailed plan view - scenario b



circulation

scenario b plan

parcel development - scenario b

This scenario envisions a moderate level of development, shown at right. The development program for the eight parcels is as follows:

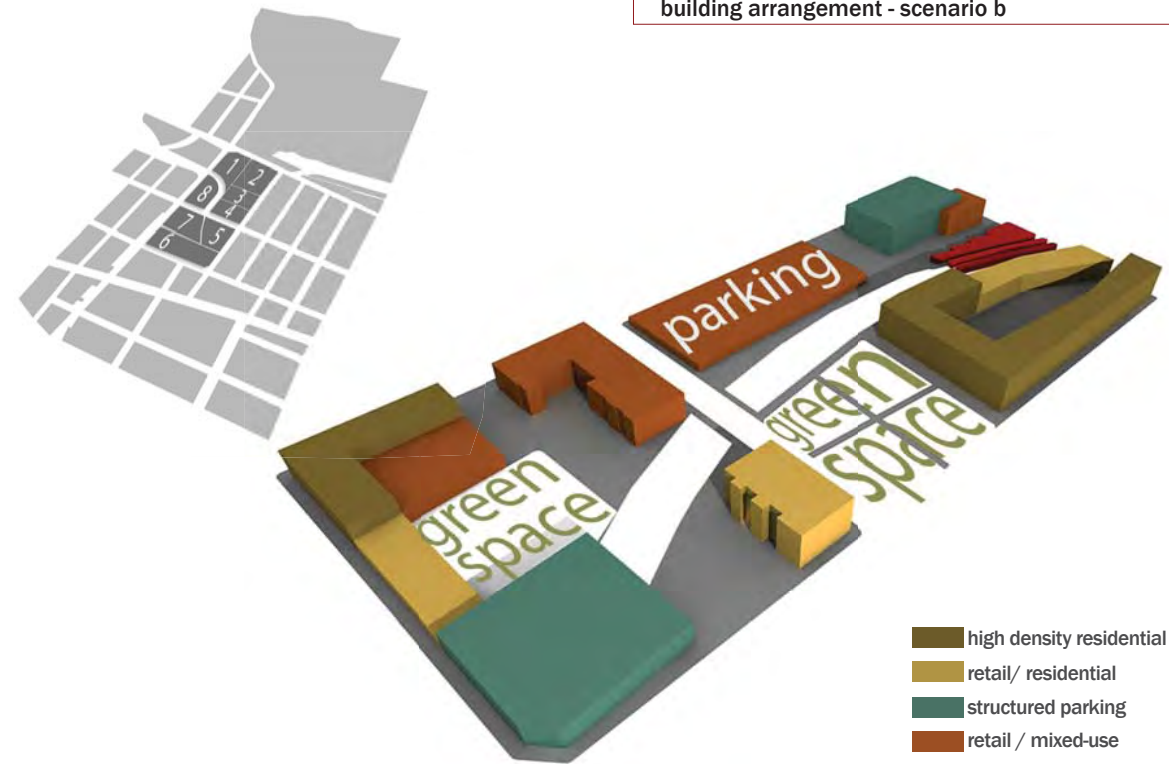
1. The Tung-Sol factory would be demolished to make way for a large parking structure with a substantial ground floor retail component. The parking garage would be between four and five stories in height, with retail space of up to 10,000 square feet on the first floor. While standard parking garage dimensions will be the primary consideration in this building's form, it will be built around the portion of the Interstate 280 overpass that extends over the site.

2. A retail/office building similar to that proposed in Scenario A would be located on this parcel, but could rise to between three and four stories. As in Scenario A, a surface parking lot serving Sites 2 and 3 would be located adjacent to this structure.

3. The remainder of the northeast quadrant of the study area would be occupied by townhouse and apartment-style housing between four and six stories high. This residential development would take on similar design characteristics to those proposed in the previous scenario. This site would be served by the shared parking lot located behind parcels 2 and 3.

4. This site, in this scenario and all others, is dedicated as a Green Acres park facility.

5. This existing residential building, already converted from prior industrial use, would remain unchanged in this scenario.



6. The single-story retail structure proposed in Scenario A would be augmented by apartments, rising up to three stories above the retail component at the corner of First and Dickerson Streets. Housing would be added along Dickerson up to four stories in height, and the retail and residential components on this site would be served by a parking structure at the corner of Dickerson and Duryea. In conjunction with the residential conversion on parcel 7, the interior space of parcels 6 and 7 could be pooled to create a recreational space for residents on this block. The Light Rail cut on this parcel would be capped to allow for more intensive development.

7. The Tuck-It-Away personal storage building, in this scenario and all others, would be adaptively reused for residential lofts. The accessory building south of the main Tuck-It-Away building would be removed in order to offer additional parking.

8. Scenario B offers an opportunity to bring a large-footprint national retailer to the Orange Street area to be located on this parcel, where a single-story retail structure of over 67,000 square feet with one level of rooftop parking could be accommodated. A large supermarket or medium-sized discount retailer could comfortably occupy a floor area of this size. Access to the rooftop parking would be provided by a ramp along the east side of the structure, roughly parallel to the Light Rail tracks.

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community development - scenario c

The potential for development on parcels 2 and 3 to transform the character of the neighborhood is envisioned in the photo below. The new streets introduced in Scenario A would remain unchanged.



rendering of envisioned development along duryea st

transit - scenario c

Parcel 1 would accommodate the BRT platform as proposed in Scenario A. Two platforms would be added to the west of the BRT platform to serve heavy regional and local bus throughput. NJ TRANSIT has expressed interest in using the Orange Street site for regional bus activity approaching 50 buses per hour during peak hours, or six to eight buses at any given time. This scenario fully satisfies these requirements. This arrangement is illustrated in the circulation diagram at right. All buses would enter the site from First Street and exit west of the light rail crossing at Orange Street. From this same access point, drivers would also be able to access the parking structure at parcel 1 and the retail rooftop parking at parcel 8.

detailed plan view - scenario c



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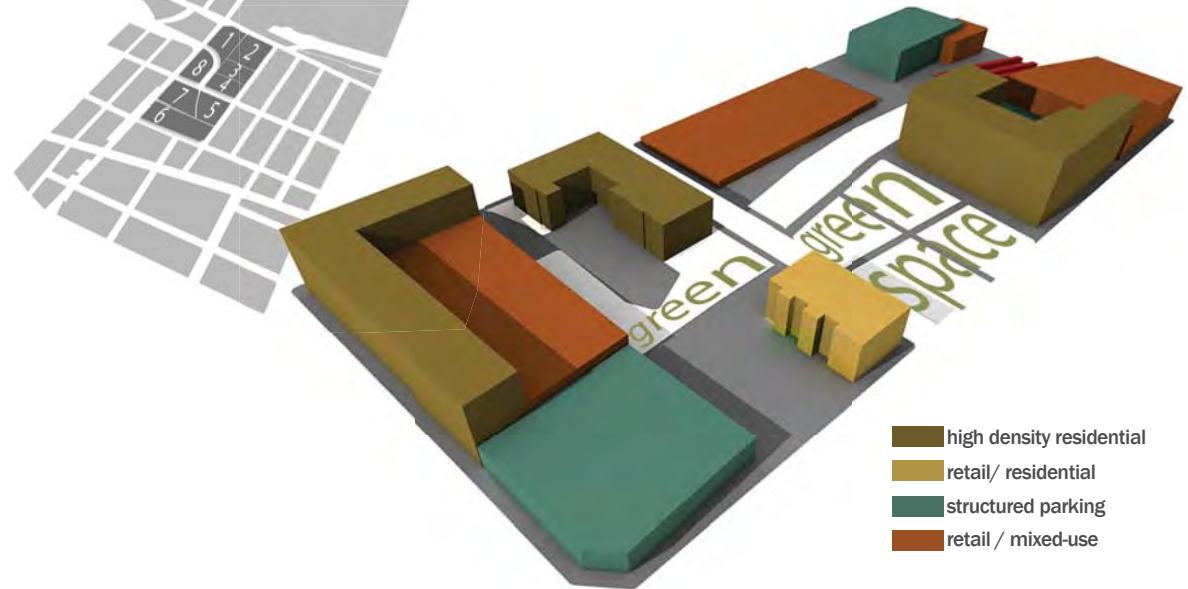
parcel development - scenario c

The highest level of development intensity is proposed in scenario C. The development program for the eight parcels is shown at right. Development would take on the following characteristics:

1. The large parking structure with ground-floor retail from the previous scenario would grow to as high as eight stories. A parking facility of this size would allow for over 500 parking spaces that could be used to intercept commuters bound for downtown Newark or University Heights.
2. In this scenario the retail/office footprint would extend from Duryea west to the Light Rail Station. This expanded footprint of over 35,000 square feet could accommodate a significant amount of retail to capitalize on the proximity to park-and-ride and transit commuters. Office uses above the ground floor could include annexes for the area universities or other businesses that would benefit from transit access. This site would be served by a parking garage shared with the residential development at parcel 3.
3. The residential element would be further intensified on this site in this scenario, rising from four stories facing Duryea to as many as ten stories in a tower facing the light rail tracks. This parcel would be served by the shared parking garage located between Parcels 2 and 3.
4. This parcel, in this scenario and all others, is dedicated as a Green Acres park facility.
5. This existing residential building, already converted from prior industrial use, would remain unchanged in this scenario.



building arrangement - scenario c



6. The residential footprint at this parcel remains similar to that of Scenario B, with heights rising to as high as seven stories along First Street. The ground floor retail footprint would be further expanded through the middle of the parcel up to approximately 75,000 square feet. A footprint of this size could accommodate a large national retailer as described above, or two or three retail storefronts with entrances on First Street and Dickerson Street. The retail and residential uses on this parcel would be served by a parking structure at the corner of Dickerson and Duryea, as in Scenario B.

7. The Tuck-It-Away personal storage building, in this scenario and all others, would be adaptively reused for residential lofts. The accessory building south of the main Tuck-It-Away building would be removed in order to offer additional parking on the parcel. The light rail cut would be capped next to the Tuck-It-Away building to encourage pedestrian access to the Green Acres park.

8. The large footprint retail proposed for this parcel in Scenario B would be increased to two stories with parking atop the second story. Successful examples exist of discount retailers occupying two-story spaces in urban areas, or two or more retailers connecting by common escalators and elevators. As in Scenario B, access to the rooftop parking would be provided by a ramp along the east side of the structure. The possibility of adding residential or office uses atop this structure at a later date should be addressed at the time of construction.

leed/sustainability

Transit Oriented Development at the Orange Street site will result in a positive environmental impact. Redevelopment of this site has the potential to improve conditions on the local neighborhood scale, as well as the surrounding area, in addition to contributing to the mitigation of accelerated global climate change.

The following is a list of site-specific sustainable and regenerative features and requirements. The list has been developed to ensure that easily accomplished sustainable strategies are not overlooked, and that the environmental gains made by taking cars off the street are not lost to a lack of planning for sustainability.

bus waiting areas and idling

In two of the development scenarios, regional buses are incorporated into the site's transit mix. While buses are waiting for passengers, they will be required to turn off their engines. Idling diesel engines emit particulates, greenhouse gases, and smog forming nitrogen oxides. Electrical auxiliary power units, either on the vehicle or accessible at the site, can provide electricity for the waiting vehicles heating and cooling systems, and awnings can keep them shaded in the summertime.

using on-site materials

Felled trees and demolished building materials are to be reused on the site. Trees can be turned into park furniture. Bricks from the Tung-Sol building and cinder blocks from the flea market can be used for walkways, outdoor furniture, retaining walls, or even in new building construction. When reused as outdoor paving, they should be spaced properly to allow storm water to penetrate. Reusing materials has a number of positive impacts. Socially, reusing materials would require skilled workers, creating more jobs than traditional wrecking ball demolition. Environmentally careful demolition and on-site reuse would eliminate many disposal truck trips, heavy deconstruction equipment operation and its resultant particulate dust, and would not take up landfill space. Additionally, the embodied energy (energy used to create the product) of bricks and cinder blocks is high, and reusing this material would reduce demand for new bricks and thus save energy.



runoff mitigation

Rainstorms in urban areas result in polluting runoff, as streets and lawns are washed clean of vehicle drippings, animal waste, fertilizers, and pesticides. When runoff reaches a body of water, the drippings and pesticides create an unhealthy environment for aquatic life.

Stormwater control and runoff mitigation can be accomplished through various means. Parking lots and walkways on the redevelopment site are to be constructed using permeable materials, which allow storm water to enter the ground where it falls, instead of carrying pollutants to a water body. Permeable surfaces can be created out of common materials with the proper design, or from specially constructed permeable pavers. Plastic mesh biopaving can be laid over grass and used instead of asphalt for areas that only encounter light or infrequent vehicle traffic. Additionally, rooftops on the site should be landscaped for the purpose of absorbing storm water and providing additional building insulation.

wildlife

Downtown Newark is home to a population of peregrine falcons. Originally cliff dwellers, peregrines have adapted to the local environment by building their nests in church towers, under bridges, and on the edge of tall buildings. Construction at Orange Street in Scenarios B and C would raise buildings tall enough for peregrines to nest, and hunt. Peregrines hunt a variety of prey, but usually feed on other birds. In urban environments, they often feed on pigeons, and can help control their population.

solar orientation

Final design of new construction should be oriented for optimal passive solar heating, and capture of solar energy with photovoltaics and solar water heating. Additionally, materials should be carefully selected for their insulating properties. Awnings should also be used comprehensively to keep living and working spaces cool in the summer. A report published by the McKinsey Corporation identifies improvements in insulation to be the most cost effective greenhouse gas emission reducing (and therefore energy saving) strategy. Over time, insulation results in a net profit over not insulating. Green rooftops insulate buildings in the winter and summer, and should be implemented on all open flat roof spaces.

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development phasing

For Scenario A, development phasing could take place in any number of ways. This study recommends that market demand for different uses guide which parcels are developed first.

For Scenarios B and C, it is recommended that development phasing begin nearest the station on the north end of the site. This would allow for the parking structure and the mixed-use parcel nearest the station to be built first and for construction materials to be staged to the south. The retail portion south of the parking structure would then be phased in.

Next, the light rail would be capped and the southern portion developed.



capacity analysis

The fiscal impact of the Orange Street Site is based on each development scenario's maximum capacity. The study uses the maximum number of residential units and commercial square footage to calculate potential revenues and costs to the City of Newark and the public school system.

type of development	A	B	C
Residential Units	335	329	453
Market rate	268	263	362
Affordable	67	66	90
Office/Retail Square Footage	87,200	216,633	580,550
Parking Spaces	1,100	1,150	2,300

An average, one bedroom apartment size of 1,100 square feet was assumed. It was further assumed that 20% of the total residential units will be set aside as affordable housing.

The scenarios yield an especially wide range of retail square footage while maintaining a significant number of housing units.

fiscal impact

All three development scenarios generate a positive fiscal impact on both the City of Newark and the public school system.

impact	A	B	C
city of newark revenue	\$296,000	\$495,000	\$1,122,000
public school revenue	\$336,000	\$544,000	\$1,209,000
total	\$632,000	\$1,039,000	\$2,331,000
jobs created	131	325	871

The Fiscal Impact Section explains the methodology used to calculate fiscal impact. The job figures are based on New Jersey Department of Community Affairs' Council on Affordable Housing job generation numbers.