

5.0 ALTERNATIVES

Section 617.9(b)(5) of the regulations implementing SEQRA requires that a DEIS include a description and evaluation of a range of reasonable alternatives to the proposed action which are feasible, considering the objectives and capabilities of the project sponsor. The range of alternatives must include the “No Action” alternative.

This Section includes an evaluation of the following alternatives as required by the Scoping Document:

- No Action;
- Conventional Site Plan;
- Teutonia Hall Alternative;
- Different Building Massing and Location;
- East and West Side Alternative;
- Alternative Use to Hydroponic Garden; and
- Different No Build Alternative.

With the exception of the “No Action” and “Conventional Plan” alternatives, every other alternative examines the impacts associated with the construction of 412 rental dwelling units, although the building design may vary. The No Action alternative evaluates impacts that would result in the absence of the proposed Project. The Conventional Plan alternative proposes a use that would not require PUR special use permit approval - this alternative evaluates construction of a live-work residential development as allowed by special use permit in the DW district. Under the “Teutonia Hall” alternative and the “Alternative Use to Hydroponic Garden” alternative, the proposed land use and building program for the Project Site is essentially the same - the Teutonia Hall alternative examines retention of that building or facade in the same location; the hydroponic garden alternative examines the project without the hydroponic garden. The “Different Building Massing and Location” alternative evaluates different building designs for the apartment building, including construction of a conventional garage. The East and West Side alternative was not deemed feasible by the Project Sponsor given the lack of buildable area on the portion of the Project Site on the east side of Buena Vista Avenue. Lastly, the Different No Build Alternative presents a summary of project impacts associated with the construction of the Buena Vista Teutonia project in the absence of the Struever Fidelco Cappelli (“SFC”) project, i.e., the Buena Vista Teutonia PUR project would precede construction of SFC.

The following sections summarize the evaluation of each alternative. A summary matrix of the varying impacts associated with each alternative is provided as Table 5-1 at the end of this section.

5.1 No Action Alternative

This alternative compares the proposed action to an alternative in which the site remains in its current state. Under this alternative, no improvements would be made to the three residential buildings on the east side of Buena Vista Avenue. The two multifamily residential buildings on the west side of Buena Vista Avenue would not be removed. The nonresidential buildings located on the Project Site would remain vacant and abandoned - no improvements would be

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made to these buildings. Trolley Barn would remain in its present state and continue to consist of 40 live-work lofts with commercial space fronting to Main Street.

Under the No-Action alternative, none of the impacts identified in this report, whether adverse or beneficial, would occur.

Geology, Soils and Topography: No disturbances would result to geology, soils and topography under this alternative. The existing site's soil conditions would not be remediated.

Stormwater: The rate and amount of stormwater runoff would remain the same. There would be no benefit from the installation of a water cistern that will reduce the amount of stormwater entering the combined stormwater/sewer line serving the Project.

Utilities: There would be no increase in demand for gas, electric, cable and phone service under this alternative. Water and sewer line improvements proposed to serve the site, which would also benefit adjacent property owners, would not occur.

Land Use and Zoning: The existing land use pattern of the Project Site would continue. The blighting conditions within the Riverview Urban Renewal Area found on the Project Site would not be mitigated. Existing commercial uses in the project vicinity would not benefit from the introduction of new residents within the immediate market area. The City of Yonkers would not benefit from a transit-oriented development located adjacent to the Yonkers train station. Local markets would not benefit from the introduction of a hydroponic garden that would grow produce to be consumed locally.

Transportation: There would be no vehicular trips introduced under this alternative. The number of vehicular trips presently generated by the occupied residential buildings on the Project Site would continue. See the Chapter 3.5 discussion on No Build Condition for detailed operational information.

Aesthetic Resources: The vacant and dilapidated viewshed along the west side of Buena Vista Avenue would remain. Although Teutonia Hall would not be removed, the facade would not be preserved or restored. In addition, if the site remains in its present state, additional deterioration of the Teutonia Hall facade is anticipated. The three residential buildings on the east side of Buena Vista Avenue would remain in their present state - no exterior rehabilitation to the facades would occur. The streetscape would remain in its current state along Buena Vista Avenue. This alternative would not result in any new shadows being cast onto adjoining properties given the low-rise scale of the existing buildings.

Historic and Archaeological Resources: The Trolley Barn's side wall would not be altered to attach it to the new apartment building under this alternative. Teutonia Hall would not be removed and would likely continue to deteriorate.

Community Facilities: Under this alternative, no increase in existing demand would be placed on community facilities and services, including police, fire, governmental, recreation, or schools. The local neighborhood would not benefit from the community classroom space as it would not be constructed. There would be no relocation of existing residents from the five on-site residential properties.

Fiscal Impacts: Property values would remain the same, and there would be no increase in the City's tax ratable base. There would be no short- or long-term employment

opportunities created. The deteriorated condition of the Project Site would continue to have a negative effect on adjoining property market values.

Noise and Air Resources: Under this alternative, there would be no change to existing ambient noise levels or air quality.

Hazardous Materials: Under this alternative, existing brownfield conditions would remain the same and would not be remediated.

Construction Related Effects: This alternative would not result in any short-term impacts associated with the construction of the new apartment building or rehabilitation of the three residential buildings.

Given the viability of this site for development under existing zoning, and the ongoing tax burden associated with vacant land, the No Action Alternative is not a viable alternative.

5.2 Conventional Site Plan

The Conventional Site Plan alternative examines development of the site with a use allowed in the DW zoning district. This alternative is shown in Figure 5-1. As per the architect's concept, a five-story live-work rental building could be constructed consisting of 120 dwelling units. A live work building is defined by the City of Yonker's Zoning Law as "a building where 50% or more of the units or gross floor area is comprised of live-work units". A "live-work unit" is defined as a "unit designed to provide space to conduct a business or trade, including offices, studios, craft workshop area or laboratory space and/or to be occupied as an apartment." Accordingly, this alternative proposes a project wherein 50 percent of the gross floor area would be developed with live-work lofts (74,600 square feet). Dwelling units would consist of 45 two-bedroom live-work units and 75 residential units. Of the 75 residential units, 45 would be one-bedroom dwellings and 30 would be two-bedroom dwellings. The live-work units would be located on the first three stories (first two stories would be live-work units only), and conventional residential units would be constructed in the upper three stories. A conventional parking garage would be constructed in two stories located below the building's main level at Buena Vista Avenue and 145 parking spaces would be provided. With the enactment of a new Section 43-130-B, for new construction of Apartments and Live-Work Units within one quarter mile (1/4) of a mile of an active train station used for passenger rail-transportation purposes, the minimum number of required parking spaces is one parking space per apartment or live-work unit. Since the Project Site is located within 1/4-mile of the train station, the parking requirement is 120 parking spaces.

Two plazas would front to Buena Vista Avenue. A loading area would be located along the southerly property line, and a ramp would be constructed between the new building and the Trolley Barn to access the below grade parking garage.

Under this alternative, the Project Sponsor would not seek a PUR special use permit, and the three residential dwellings on the east side of Buena Vista Avenue would not be rehabilitated. In addition, no interconnection would be created between the new building and the Trolley Barn and the Trolley Barn would not benefit from the amenities being provided in the proposed action. Trolley Barn residents would also not have access to the proposed automated garage that is part of the proposed action. This alternative would be constructed with conventional utilities rather than the sustainable design proposed for the PUR. The community space and hydroponic garden would not be constructed. Lastly, the conventional site plan alternative would not incorporate affordable housing units into its design.

A summary of the impacts of this alternative as compared to the proposed plan is presented below.

Geology, Soils and Topography: The amount of disturbance, i.e., 1.21 acres, would be the same as the proposed action since this alternative proposes to occupy the entire site on the west side of Buena Vista Avenue. It is anticipated that a reduced quantity of soil material would be excavated as one less “ground level” story would be constructed. Like the proposed action, blasting would not be required.

Stormwater: This alternative proposes approximately the same amount of impervious surface area as the proposed action. However, the hydroponic garden would not capture any of the runoff. Thus, it is anticipated that the amount of stormwater runoff that would be discharged to the combined stormwater/sewer line would be higher than with the proposed action. A water cistern would still be required to capture runoff from the project site.

Utilities: With this alternative, the sustainable energy systems proposed under the proposed action would not likely be installed. There would be reduced level of water supply demanded, and wastewater flow generated. It is anticipated that water demand would be 7,378 gallons per day, and the same amount of wastewater flow would be generated. The Project would demand less in electric, natural gas, telephone and cable services.

Land Use and Zoning: Under this alternative, the proposed Project would require a special use permit and site plan approval from the Yonkers Planning Board, and special use permit approval from the City Council. In terms of land uses, the hydroponic garden would not be constructed. The multifamily dwellings on the east side of Buena Vista Avenue would remain in their present use and would not be rehabilitated. The development would result in a taller building being constructed adjacent to the existing daycare center separated only by a loading area.

Transportation: This alternative would generate fewer vehicular trips - 74 trips are anticipated during the PM peak hour. The benefit of having residents access the Trolley Barn to exit to Main Street would not occur. In addition, residents of the Trolley Barn would not have use of the proposed automated garage as contemplated under the proposed action. Operational characteristics would be slightly less than the Build Condition shown in Chapter 3.5.

Aesthetic Resources: This alternative would propose a single structure with two plazas fronting to Buena Vista Avenue. The structure would rise four stories above Buena Vista Avenue, and five stories would be visible from the waterfront. Given the reduced height of the proposed building, this alternative would not be visible from distant vantage points within the City. This alternative would not improve the aesthetics of other properties in the neighborhood as the three residential buildings on the east side of Buena Vista Avenue would not be rehabilitated to reflect their original architectural character. The project would not be anticipated to cast shadows significantly beyond the footprint of the building since the building is limited to 66 feet in height.

Historic and Archaeological Resources: Under the conventional site plan alternative, the Teutonia Hall facade would not be preserved. The cost associated with removing, cleaning, and reinstalling the Teutonia facade would be prohibitive under a conventional site plan alternative. *At this time, the building has not been designated a local landmark. It is unknown what action the Landmarks Preservation Board will take with regard to the designation process in the absence of the Applicant submitting a landmark application. If the LPB designates the*

entire building as a landmark, a certificate of appropriateness will be required to demolish the structure.

Community Facilities: This alternative would introduce 199 new residents to the Yonkers population and ten (10) schoolage children, less than under the proposed action. The demand placed on community services and facilities would be reduced as a result.

Fiscal Impacts: The live-work building would have a reduced market and assessed value as a result of the reduction in the total number of dwelling units and amenities for this alternative. A total of 120 rental units would be developed compared to the 412 dwelling units contemplated with the proposed action. For an order of magnitude comparison, the anticipated revenues would be approximately \$303,000. This alternative would eliminate employment opportunities as the hydroponic garden would not be constructed. In addition, given the limited scale of this project, the Project Sponsor would not be able to incorporate affordable rental housing into this alternative. Lastly, the number of temporary construction employment jobs generated would be less than with the proposed action given the reduced size of this alternative.

Noise and Air Resources: This alternative would generate noise and would introduce vehicular trips that would generate some level of air pollutants. Noise levels would be consistent with other multifamily developments.

Hazardous Materials: Under this alternative, the brownfield site would be remediated as is anticipated with the proposed action.

Construction Related Effects: This alternative would, like the proposed action, result in the removal of structures on the west side of Buena Vista Avenue.

5.3 Teutonia Hall Alternative

This section addresses two alternatives which would preserve Teutonia Hall in its existing location as follows:

- retain existing facade at current location (remainder of building demolished); or
- remediate brownfield with Teutonia Hall in place.

Figure 5-2 illustrates the two scenarios described above.

Teutonia Hall was built as a freestanding structure. The Project Sponsor's proposal to relocate the facade onto the smaller parking structure allows the architect to retain the original size and scale of the entire Teutonia Hall, not just its facade. Under the proposed design, two walls and the parapet roof will be visible paying homage to the original massing and scale of Teutonia Hall. Programmatically, if the facade is retained in place, it will become part of the semi-public space lobby area of the apartment building and will not be open to the public at large. The relocated facade and space would serve as the entrance to the new classroom facility and be accessible to Yonkers residents and visitors.

Engineering consultants were retained to determine whether the building or facade could be retained in its present location. A bracing system was designed to protect the facade during construction and demolition activities of the adjoining structures. However, the consultants could not ensure that the bracing would be adequate to prevent collapse of the facade given the excavation required to remediate this brownfield site. Excavation activities could undermine the

existing footings and the bracing system would be susceptible to vibrations cause by construction activities as well as trains passing next to the site. Dismantling and reassembling the facade is a more cost effective solution for the Project Sponsor, especially considering that the construction activities could unintentionally result in the facade's collapse.

There would be no difference in the type or magnitude of impacts, or proposed mitigation measures, when comparing the proposed action to this alternative with regard to the following topics: geology, soils and topography; stormwater; utilities; land use and zoning; fiscal impacts; noise and air resources, and hazardous materials.

Transportation: Retaining the facade in its present location would result in the alternative incorporating two more bays to exit the automated garage. Operational characteristics would be similar to the Build Condition shown in Chapter 3.5. Automated garage waiting times and internal queues during peak demand would be slightly reduced with two additional bays.

Aesthetic Resources: The alternative would result in a variation in the streetscape that results from preserving the Teutonia Hall facade in its existing location. From the Project Sponsor's perspective, retaining the facade in its present location makes the appearance of the new building awkward and unbalanced at street level. With this alternative, the shadow effects described in Chapter 3.6 would remain the same as the new apartment's building's massing would remain the same.

Historic and Archaeological Resources: This alternative would result in the facade and or space being preserved in its present location. However, the multistory building facade that rises above it would not pay it the same homage as in its proposed location.

Community Facilities: This alternative would eliminate the community space and the space would be used to accommodate two additional parking bays or an area for stacking and parking lanes.

5.4 Different Building Mass/Location

Figures 5-3, 5-4, 5-5, and 5-6 illustrate various building mass/location alternatives as required by the Scoping document. Under these alternatives, the total number of dwelling units would remain the same.

Conventional Parking Garage Alternative

This alternative proposes the construction of a conventional garage. The same number of dwelling units, 412 units, would be constructed. The new apartment building would be connected to the Trolley Barn. The residential buildings on the east side of Buena Vista Avenue would be rehabilitated. The garage would be located on the south side of the project site located on the west side of Buena Vista Avenue. The apartment complex would remain in its present location, as necessary to be eligible for financing under the Brownfield Cleanup Program. The garage structure would abut the Queens Daughters Daycare Center. The alternative drawing illustrates a three-story parking garage with rooftop parking would be constructed.¹ As shown on the 1st level conceptual site plan shown on Figure 5-3, access to

¹ Figure 5-3 demonstrates conceptually that approximately 561 spaces could be accommodated. An additional 20 spaces could be incorporated with variations in the internal parking layout design to meet zoning law requirements.

the parking garage would be from a driveway located between the new apartment building and the conventional garage. The hydroponic garden is no longer feasible given the required height of the structure, as freight elevators would be required, and the required rooftop parking to meet zoning law requirements. The classroom facility would not be feasible with a conventional parking garage because drive lanes and ramps carrying vehicles prevent floor space from being dedicated for that use. Furthermore, the classroom space was introduced in response to the hydroponic garden and education opportunities afforded by its inclusion in the proposed action.

Geology, Soils and Topography: The amount of disturbance, i.e., 1.21 acres, would be the same as the proposed action since this alternative proposes to occupy the entire site on the west side of Buena Vista Avenue. The quantity of soil material would be comparable as three levels of below ground parking would still be constructed.

Stormwater: This alternative proposes approximately the same amount of impervious surface area as the proposed action. However, the hydroponic garden would not capture any of the runoff. Thus, it is anticipated that the amount of stormwater runoff that would be discharged to the combined stormwater/sewer line would be higher than with the proposed action. A water cistern would still be required to capture runoff from the project site.

Utilities: With this alternative, the sustainable energy systems proposed under the proposed action would be installed but operation of the CHP would be less efficient in the absence of the hydroponic garden, i.e., the surplus heat that is generated by the combined heat and power system is not recycled for use in the hydroponic garden. The same amount of water supply would be required, and the same amount of wastewater flow would be generated. Electric, natural gas, phone and cable service demand would be the same.

Land Use and Zoning: Under this alternative, the proposed Project would require a PUR special use permit and site plan approval from the Yonkers Planning Board, and special use permit approval from the City Council. In terms of land uses, the hydroponic garden would not be constructed. The residential dwellings on the east side of Buena Vista Avenue would be rehabilitated. This alternative may have more significant impacts to the adjoining day care center, as the parking structure would adjoin it. Ambient noise levels and air pollutants may be elevated in this location.

Transportation: The alternative would generate the same number of residential trips as the proposed action and no hydroponic trips would occur. The same mass transit utilization rate would be anticipated. Operational characteristics would be similar to the Build Condition shown in Chapter 3.5. Fewer on-street parking spaces immediately in front of the building would be eliminated, as there would be one driveway only from which to access the parking garage.

Aesthetic Resources: This alternative would result in comparable impacts to the viewshed from the perspective that the same 25-story building would be constructed in the same location, and would be visible from the same vantage points. However, construction of an above ground parking structure would be to the detriment of the adjoining streetscape as a larger portion of the frontage would be dedicated to a parking structure.

Historic and Archaeological Resources: Under this alternative, the Teutonia Hall facade would not be preserved. The Trolley Barn would be attached to the apartment building as is the case with the proposed action.

Community Facilities: This alternative would introduce the same number of new residents and would place comparable demand on community services and facilities. This alternative may demand more in police service, as the conventional parking garage does not have the same level of security control as an automated garage.

Fiscal Impacts: The assessed value of the property would be approximately the same, thus the tax revenues would be comparable. Long-term employment opportunities would be reduced as the hydroponic garden would be eliminated.

Noise and Air Resources: This alternative would likely generate more noise and may increase the level of air pollutants by introducing a conventional above ground structured garage when compared with the proposed action. There would be more vehicle miles expended in the garage, searching for a parking space, resulting in an increase in vehicle exhaust emissions.

Hazardous Materials: Under this alternative, the brownfield site would be remediated as is anticipated with the proposed action.

Construction Related Effects: This alternative would, like the proposed action, result in the removal of structures on the west side of Buena Vista Avenue. As the proposed project is comparable, the same short-term construction effects would be anticipated.

Reduced Building Height Alternative

Figure 5-4 illustrates this alternative. Under this alternative, the proposed building will be reduced in height to 14 stories as viewed from Buena Vista Avenue. The building would still be connected to the Trolley Barn building. An automated parking garage would still be constructed. The three residential buildings on the east side of Buena Vista Avenue would still be rehabilitated. The hydroponic garden would not be constructed.

Programmatically, the Project Sponsor notes that the building becomes less efficient, i.e., more interior space has to be dedicated to longer hallways and additional stairwells. The driveway, which provides off-street tenant pick-up, moving van parking, refuse pickup, mail deliveries, etc., will be eliminated. More of the units will have limited views of the City and river. On the whole, the building would be less appealing to tenants and would likely have a reduced market value.

The proposed action which is the subject of this DEIS is designed as a U-shaped building with a 15,000 square foot floor plate which maximizes efficiencies of construction. Some of the direct savings result from: minimizing common area losses (both the length of hallways and the number of required emergency stairs), reducing the exterior surface area of building relative to the usable square footage, minimizing construction time due to crane operation efficiency, and reducing the amount of structural steel or concrete required for torsion control. A shorter building with increased square footage per floor will result in high per square foot construction costs.

Geology, Soils and Topography: The amount of disturbance, i.e., 1.21 acres, would be the same as the proposed action since this alternative proposes to occupy the entire site on the west side of Buena Vista Avenue. The quantity of soil material would be comparable as three levels of below ground parking would still be constructed.

Stormwater: This alternative proposes approximately the same amount of impervious surface area as the proposed action. However, the hydroponic garden would not capture any of the runoff. Thus, it is anticipated that the amount of stormwater runoff that would be discharged to the combined stormwater/sewer line would be higher than with the proposed action. A water cistern would still be required to capture runoff from the project site.

Utilities: With this alternative, the sustainable energy systems proposed under the proposed action would be installed but operation of the CHP would be less efficient in the absence of the hydroponic garden. The waste heat that is created by a CHP would not be used by a source, i.e., the greenhouse. According to the Applicant, the payback period on the CHP will be increased substantially to the point where it may not be an economically viable upgrade.

The same amount of water supply would be required, and the same amount of wastewater flow would be generated. Electric, natural gas, phone and cable service demand would be the same.

Land Use and Zoning: Under this alternative, the proposed Project would still require a PUR special use permit and site plan approval from the Yonkers Planning Board, and special use permit approval from the City Council. In terms of land uses, the hydroponic garden would not be constructed. The residential dwellings on the east side of Buena Vista Avenue would still be rehabilitated. This alternative would situate a significantly taller building next to the adjoining day care center.

Transportation: The alternative would generate the same number of residential trips as the proposed action. and no hydroponic trips would occur. Operational characteristics would be similar to the Build Condition shown in Chapter 3.5. The same mass transit utilization rate would be anticipated.

Aesthetic Resources: This alternative, with its lower building height and more massive footprint, would result in different visual impact than the proposed action. The building would be less visible or not visible from several vantage points, as its building height is reduced by 11 stories. However, view corridors from surrounding street would be altered, as the unbroken facade would create an effective and expansive building "wall", approximately 375 feet in length, as part of the streetscape.

Historic and Archaeological Resources: Under this alternative, the Teutonia Hall facade would not be preserved. Trolley Barn would still be attached to the apartment building as is the case with the proposed action.

Community Facilities: This alternative would introduce the same number of new residents and would place comparable demand on community services and facilities.

Fiscal Impacts: The assessed value of the property would be approximately the same, thus the tax revenues would be comparable. Long-term employment opportunities would be reduced as the hydroponic garden would be eliminated.

Noise and Air Resources: This alternative would likely generate comparable noise and would result in the same level of vehicular exhaust emission as it also would integrate an automated garage into its design.

Hazardous Materials: Under this alternative, the brownfield site would be remediated as is anticipated with the proposed action.

Construction Related Effects: This alternative would, like the proposed action, result in the removal of structures on the west side of Buena Vista Avenue. As the proposed project is comparable, the same short-term construction effects would be anticipated.

Relocation of Proposed Tower Alternative

Figure 5-5 illustrates this proposed alternative. Here, the mechanized parking structure and the apartment building have been “swapped”, with the apartment building located on the south side of the Project Site located on the west side of Buena Vista Avenue. Potential impacts would be virtually the same as with the proposed action, with one exception - the daycare center would adjoin a 25-story building instead of the two-story automated garage.

If the building is relocated to the south end of the site, it would (a) create shadows that would compromise the viability of the hydroponic garden, (b) eliminate or significantly compromise the connection to the existing Trolley Barn tenants and the viability of shared amenities.

More significantly, the boundary of the Brownfield site does not include any residential lots and is therefore limited to Block 512, Lots 11, 13, 15 and 17. This alternative positions the new apartment building over the two residential lots. The developer is relying on New York State tax credits under the Brownfield Cleanup program as an eventual source of financing. No credits are earned for construction costs that do not occur on the brownfield lots. This alternative, of all the alternatives, reduces the amount of construction that would occur on the brownfield site and would thus reduce the brownfield tax credits. The Project Sponsor, for the reasons noted above, has concluded that this alternative is not feasible, considering its objectives and capabilities.

Two Point Tower Alternative

Figure 5-6 illustrates the Two Point Tower Alternative. In this alternative, two towers are located on either side of a low rise structure that would house the automated parking garage. The automated garage would extend below the ground level of Buena Vista Avenue comparable to the proposed action. Each tower would be 25 stories and located on an 8,000 square foot footprint. At 25 stories, shadow impacts would be comparable to the proposed action. The total number of apartment dwellings would be 412 dwelling units. The northerly tower would still be attached to the Trolley Barn building, and the applicant would still rehabilitate the three residential buildings as part of a PUR.

The Project Sponsor evaluated the feasibility of a two point tower and finds that this type of design would not be feasible. The hydroponic garden would no longer be feasible because one of the towers will occupy the southern part of the site, creating a shadow in the one place between the buildings where the garden could be located. Two towers will also result in substantially less efficient building operations as two lobbies will need to be manned and two sets of building systems will need to be maintained.

Building two towers costs substantially more than constructing one because of the following doubling of requirements: two cranes, two sets of elevators and stairs, two sets of building systems such as domestic water pressurization and fire protection pumps, two sets of trash/recycling chutes, etc. In addition, the narrow footprint of the buildings require additional structural fortification. According to the Applicant, the cost to construct this type of tower is cost

prohibitive given the rent levels that the market in Yonkers can support i.e., the rent would not be sufficient to justify the additional construction cost.

As mentioned previously, the boundary of the Brownfield clean-up site does not include any former residential lots and is therefore limited to Block 512, Lots 11, 13, 15 and 17. No credits are earned for construction costs that do not occur on these four lots. Relocating a substantial portion of the project on the non-eligible residential sites would result in a substantial reduction in this integral source of financing. The Project Sponsor, for the reasons noted above, has concluded that this alternative is not feasible, considering its objectives and capabilities.

One Taller Point Tower

Figure 5-7 illustrates the one taller point tower concept. The tower shown is 38 stories with rooftop mechanicals. If constructed, this building would result in greater shadow impacts given the increased building height. The apartment building which is the subject of the DEIS is a U-shaped building with an approximately 15,000 square-foot floor plate which maximizes efficiencies of construction as mentioned previously under "Reduce Height Building Alternative". A taller point tower with decreased square footage per floor would result in a higher per square foot construction cost. Construction at heights above 25 stories will require a more costly type of crane that needs to be attached to the building during construction, commonly called a self-erecting crane. The Project Sponsor, for the reasons noted above, has concluded that this alternative is not feasible, considering its objectives and capabilities.

Comparative Massing

Figure 5-8 illustrates the massing of the proposed project, with an outline of the "One Taller Point Tower" and the "Two Point Tower" alternatives superimposed. The purpose of this graphic is to show the relative differences in the building massing for the proposed action versus the two alternatives.

As noted previously, the two alternative massing alternatives are not feasible, considering the objectives and capabilities of the project sponsor as the additional construction requirements to construct the alternatives would be cost prohibitive.

5.5 East and West Site Alternative

Under this alternative, a smaller residential building with a reduced building height would be constructed on the west side of Buena Vista Avenue, and a larger, taller single building would be constructed on the three lots on the west side of Buena Vista Avenue. The three residential buildings on the east side would be demolished to accommodate the new building. The aggregate size of the three lots on the east side of Buena Vista Avenue is 0.26 acres - the site is 115 feet in width and 100 feet in depth. The site is significantly smaller than the 1.21 acres proposed for the apartment complex on the west side of Buena Vista Avenue. The Project Sponsor concludes that there is insufficient space to accommodate any significant increase in dwelling units on the east side of Buena Vista Avenue to offset the additional costs that would result from the dwelling units' relocation as noted below.

The boundary of the Brownfields site does not include any former residential lots and is therefore limited to the tax parcels designated as Block 512, Lots 11, 13, 15, and 17 on the west side of Buena Vista Avenue. The Project Sponsor is relying on the promise of New York State

credits under the Brownfields clean-up program as an eventual source of financing. No credits are earned for construction costs that do not occur on these four lots. Relocating part or all of the construction on the site would result in a substantial reduction in this integral source of financing.

The Project Sponsor indicates that two separate buildings will compromise the programmed use of space. Two multistory buildings will result in substantially less efficient building operations as two lobbies will need to be manned, two driveways accessing two loading docks (for recycling and tenant moving vans) will be needed, and two sets of building systems will need to be maintained. Building two separate residential buildings costs substantially more than constructing one because two of everything is required: two cranes, two sets of elevators and stairs, two sets of building systems such as domestic water pressurization and fire protection pumps, two sets of trash/recycling shoots, etc.

The Project Sponsor, for the reasons noted above, has concluded that this alternative is not feasible, considering its objectives and capabilities.

5.6 Alternative Use to Hydroponic Garden

The hydroponic garden was introduced to the Project because it integrates seamlessly with the overall mechanical (HVAC) system for the residential building. Geothermal wells are being installed to provide tempered water that is circulated throughout the building to water source heat pumps. The heating and cooling system only requires electricity to power the circulating pumps, compressors in the heat pumps, and fans in the air handlers. Thus, the building will have efficient but substantial electric consumption and is therefore a great candidate for cogeneration of electricity. One of the downsides to hydroponic gardens which are housed in greenhouses is that they consume large amounts of energy for heating the facility in the winter months. However, one of the byproducts of co-generation is surplus heat which can be used to heat the greenhouses. Thus, a very efficient use of energy is created by integrating geothermal wells with co-generation and a greenhouse. Furthermore, the hydroponic garden also utilizes stormwater stored in the proposed water cistern and thereby reduces the amount of runoff that would enter the combined stormwater/sewer lines.

The Project Sponsor has indicated that if the hydroponic garden is not installed, no other use would be accommodated atop the garage structure. The community center space would also likely be eliminated and an additional two bays, comparable to the configuration of bays shown in Figure 5-2, would be constructed. No additional on-street parking spaces would be gained from this alternative, as the automated parking garage would still be an integral component of this alternative.

Geology, Soils and Topography: This alternative would not result in any changes associated with geology, soils and topography when compared to the proposed action.

Stormwater: The elimination of the hydroponic garden would eliminate the beneficial use of stormwater for irrigation purposes. As a result, stormwater that would have been retained and used on-site for irrigation would now be discharged to the combined sewer/stormwater lines.

Utilities: The HVAC equipment would be less efficient as there would be no use for the surplus heat being generated by the CHP. Otherwise, there would be no change in the water supply demand or wastewater generation when compared with the proposed action.

Land Use and Zoning: Removal of the hydroponic garden would eliminate this “urban farm” from proposed land uses envisioned for the proposed project. As there would be no purpose to setting aside space to educate visitors about the hydroponic garden operation, the community classroom space would be removed and replaced with additional parking bays.

Transportation: Elimination of the hydroponic garden would reduce minimally the number of vehicle trips generated by persons who would be employed by the garden, and would eliminate any truck trips associated with the pick-up of produce from the site. No long-term employment would be generated by the hydroponic garden.

Aesthetic Resources: Views of the apartment complex would differ in that the rooftop greenhouses would no longer be viewed. The potential change in view is not considered significant, as the greenhouses are located atop the lower structure of the apartment complex and would not be visible from most vantage points examined. Visually, residents of the proposed apartment building would view a conventional rooftop rather than a series of greenhouses.

Historic and Archaeological Resources: There would be no difference in historic and archaeological impacts associated with this alternative compared to the proposed action.

Community Facilities: With elimination of the hydroponic garden, the classroom space, a community amenity, would be eliminated.

Fiscal Impacts: The elimination of the hydroponic garden would have a limited impact on the market value of the project, and would reduce slightly the assessed value of the overall project. As mentioned previously, potential employment opportunities associated with the hydroponic garden would be eliminated.

Noise and Air Resources: Elimination of the hydroponic garden may result in a slight diminution in noise levels - most activities that would generate noise would be contained within the greenhouses thereby reducing noise levels audible from off-site locations.

Hazardous Materials: Elimination of the hydroponic garden will have no effect on the impacts and mitigation measures associated with hazardous materials when compared to the proposed action.

Construction Related Effects: Construction effects would be slightly reduced as there would be no construction activities associated within installation of the hydroponic garden.

5.7 Different No Build Alternative

This alternative section summarizes the impacts associated with the proposed action that would result if the SFC project is not constructed prior to this Project’s build year, i.e., 2014. The following impact areas are described as required by the Scoping Document:

- Surface water;
- Utilities;
- Transportation;
- Aesthetic Resources.

Surface Water: Potential surface water impacts for the SFC project areas were fully analyzed and evaluated in the SFC DEIS and FEIS. The SFC environmental review identified several no-build projects which were in the planning stages. If constructed, these projects would contribute to the overall stormwater infrastructure flows. Since 2008, no major no-build projects have been completed in the vicinity of the Buena Vista Teutonia project site. Therefore, the stormwater analysis provided in this DEIS provides a thorough evaluation of current and post development impacts to the City and County stormwater system.

The stormwater management study analyzes a total watershed area of approximately 1.21 acres under both existing and proposed conditions. The Project proposes to detain stormwater on-site to ensure that pre-development stormwater quality and flow rates will be maintained. Stormwater will be detained in a subsurface stormwater cistern storage system consisting of storage pipes and galleys located under the proposed parking garage. The storage system will have a capacity of approximately 200,000 gallons. The storage volumes for the Project are calculated in the SWPPP (see Appendix E) and are estimated to total 167,789 gallons. The approximately 200,000 gallon capacity system will provide adequate storage for required and designed criteria.

Following on-site storage and treatment, stormwater will be directed to a stormwater lateral force main crossing the sidewalk and Buena Vista Avenue to a new combined sanitary/stormwater sewer manhole in at the eastern side of Buena Vista Avenue. The manhole will intercept the existing 18-inch combined sanitary/stormwater sewer. The applicant will coordinate construction of the proposed infrastructure with the City of Yonkers Engineering Department. Following construction, the maintenance of all piping and manholes installed in the City right-of-way will be the responsibility of the City of Yonkers. Maintenance of the stormwater storage system below the parking garage will be the responsibility of the applicant/owner.

The stormwater flow rates to the City collection system will be maintained at or below the current flow rates. By maintaining or reducing stormwater run-off rates, the project will minimize any potential impact to Combined Sewer Overflow (CSO) events. In addition to providing the increase in volume storage for the 100-year storm event, the subsurface system will supply 100 percent of the irrigation demand for the hydroponic garden located on the roof of the parking garage. Stormwater will also be stored to offset the anticipated increase in wastewater generation that will be discharged to the combined sewer system.

Utilities: Potential impacts to utilities for the SFC project areas were fully analyzed and evaluated in the SFC DEIS and FEIS. The SFC environmental review identified several no-build projects which were in the planning stages. If constructed these projects would contribute to the overall stormwater infrastructure flows. Since 2008, no major no-build projects have been completed in the vicinity of the Buena Vista Teutonia project site. Therefore, the utilities analysis provided in this DEIS provides a thorough evaluation of current and post development impacts to the City, County and private utility infrastructure. The discussion of utilities is specifically focused on water supply and wastewater generation. The projected water demand is estimated to be approximately 29,099 gallons per day (gpd), according to Edwards & Zuck, P.C., mechanical engineers.

The overall peak domestic water flow is estimated to be 535 gallons per minute (gpm). The first eight floors of the building will be supplied by street pressure. The upper floors of the building will be supplied by a domestic booster pump. The duplex booster pump will be sized to provide a total flow of 385 gpm at an output pressure of 130 pounds per square inch (psi). The booster

pump is sized to provide adequate pressure for domestic flow to all upper portions of the building, including to the top floor.

The City of Yonkers Bureau of Water was contacted to evaluate existing water infrastructure conditions, capacity, and maintenance issues. The project engineer has determined that the existing 6-inch water main located in Buena Vista Avenue is not adequate to service the proposed project. In coordination with the City of Yonkers, the applicant proposes to extend the existing 12-inch water main at the intersection of Prospect Street and Hawthorne Avenue easterly to Buena Vista Avenue. The 12-inch main would be extended to the north along Buena Vista Avenue, past the project site to Main Street where the main would be connected to an existing 12-inch line. Approximately 950 feet of water main would be replaced. All existing service laterals currently supplied by the 6-inch main will be reconnected to the 12-inch main including existing fire hydrants. The costs and details of the proposed water service upgrades will be determined in consultation with the City of Yonkers. The location and extent of the proposed water main replacement is shown in Drawing GR - Site Plan Grading and Utilities.

A separate dedicated fire protection water service connection will be provided from Buena Vista Avenue. The maximum flow rate for the building's fire protection system will be 1,000 gpm. The building's fire protection water service is proposed to be an 8-inch line and the location of the proposed connection is shown in Drawing GR - Site Plan Grading and Utilities. The building's fire protection system will be supplied by a fire pump sized to provide a total flow of 1,000 gpm at an output pressure of 160 psi. The pump will provide adequate fire pressure throughout the building including to the top floor of the building. A single new hydrant is proposed on the west side of Buena Vista Avenue, at the front of the residential building. The location and number of proposed hydrants will be finalized in consultation with the City of Yonkers Water Bureau.

The Project will discharge 29,099 gallons per day of wastewater flow. The buildings sanitary sewer is to be either 12 inches at 2% pitch or 15 inches at 1% pitch depending on site conditions. Wastewater from the project will be discharged to the existing 18-inch County combined sewer located in the approximate center of Buena Vista Avenue. A new manhole is proposed at the connection of the project sewer line and existing combined sewer line. It should be noted that existing stormwater flow from the site largely flows to the 18-inch combined sanitary/ stormwater line in Buena Vista Avenue. The project proposes to detain stormwater volumes up to the estimated 100-year stormwater volume. Peak stormwater flows to the 18-inch combined sewer will be reduced following construction of the project. To mitigate the potential impacts of the anticipated increase in wastewater discharge to the existing infrastructure, the applicant has proposed remote television inspection of the existing combined sewer line and to provide spot repairs, as appropriate. The applicant is working with the City of Yonkers Sewer Bureau to determine specific mitigation measures. Based upon the estimated 12 MGD capacity of the Westchester County Yonkers Joint Wastewater Treatment Plant (WWTP), the project is not expected to result in adverse impacts to the County treatment plant.

Transportation: In the Existing Condition, levels of service for all intersections studied are equal to or better than level of service C as shown in Table 3.5-11 of the DEIS except the intersection of Prospect Street, Nepperhan Avenue and South Broadway which operates at level of service E. Some individual lane groups as indicated in Appendix G tables have worse levels of service.

Table 3.5-11 of the DEIS summarizes the level of service for the No Build Condition without SFC. All intersections will operate at a level of service D or better. The improvement in level of

service and reduction in delay is based on a higher cycle length in the p.m. peak hour, better coordination, and signal timing, however the longer cycle lengths may increase queues lengths. In the Build Condition without SFC, delays will increase by up to one second per vehicle at most intersections. However, all intersections will operate with an increase in delay less than three seconds per vehicle. Intersection level of service remains unchanged from the No Build to the Build Condition as shown in Table 3.5-11. There were only three instances of lanes groups changing level of service and two were from level of service B to C and one from A to B as indicated in Tables G1 to G4.

For the Build Condition with SFC, the levels of service at the studied intersections remain unchanged from the No Build Condition with SFC except the Prospect Street and Buena Vista Avenue intersection declines from B to C in the p.m. peak hour. There are three lane groups that decline from level of service C to D. In most cases, the intersection delays increase less than one second per vehicle., but in no case does the delay increase more than three seconds per vehicle. .

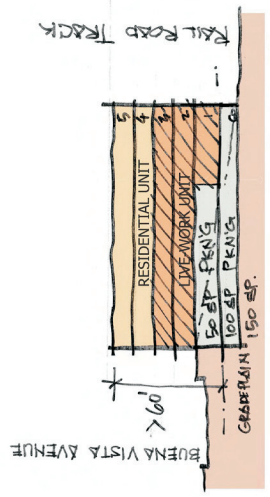
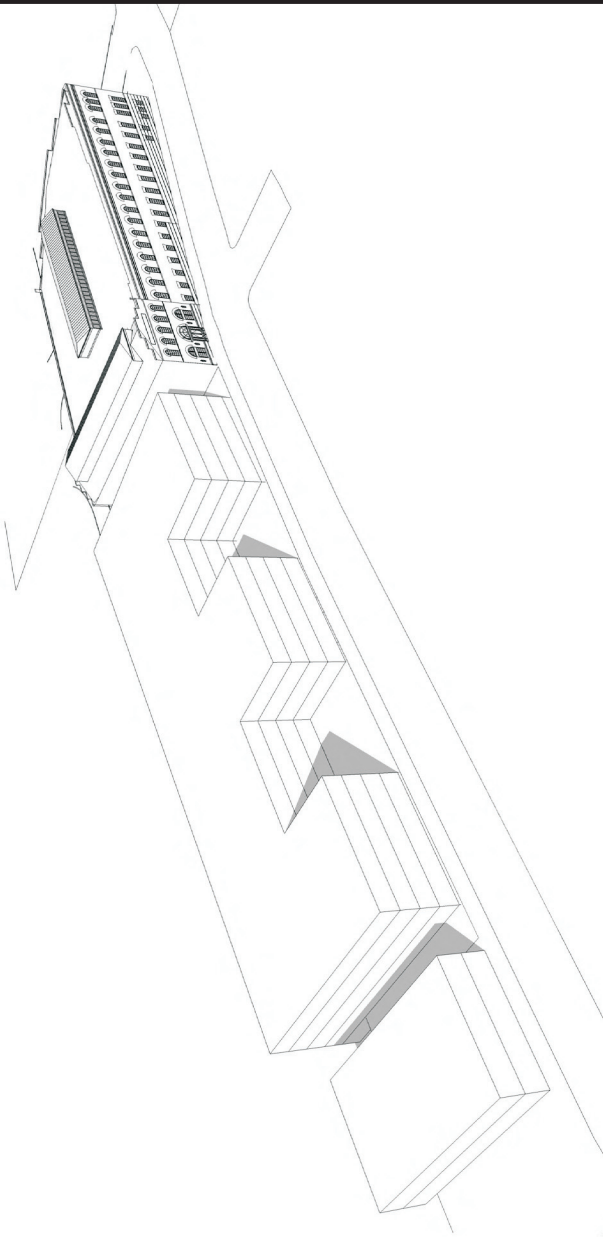
Aesthetic Resources: Figure 5-7 provides a comparative view of the Project with and without SFC. As is evident from the photo, the Palisades Point development is located in close proximity to the Project Site. If the proposed project is constructed in advance of SFC, there would be only one 25-story building located generally south of Main Street within the downtown waterfront area until such time that Palisades Point is constructed. However, in the long-term, the viewshed will change, as additional multistory buildings of comparable height are proposed to be constructed within the Alexander Street Urban Renewal Area, and Palisades Point will eventually move forward.

5.8 Impact Comparisons

Table 5-1 below summarizes the impacts associated with certain project parameters as described above.

Table 5-1 Alternative Impact Comparisons*					
Area of Concern	<i>Proposed Project</i>	<i>No Action</i>	<i>Conventional Plan Alternative</i>	<i>Different No Build Alternative, Teutonia Hall Alternative, Alternative to Hydroponic Garden Use</i>	<i>Different Building Massing/Location & Reduced Building Height</i>
Developed Area					
Residential Units	412	0	119	412	412
Commercial Building Space (SF)	n/a	vacant	n/a	n/a	n/a
Impervious Surfaces (acres)	1.17	0.97	1.17	1.17	1.17
Total Construction Disturbance	1.2	0.0	1.2	1.2	1.2
Brownfield clean-up?	Yes	None	Cost prohibitive	Yes - same as proposed action	Cost prohibitive
Amenities Provided?	Yes, see Section 2.0	None	None	Same	Same
Use of CHP	Yes	None	None	Varies - see note below	Yes
Hydroponic Garden?	Yes	None	None	Yes, Teutonia Hall alternative and Different No Build	
Community Resources					
Population	791	0	199	791	791
School-age Children	56	0	10	56	56
Utility Demand					
Sewer/Water Demand (gpd)	29,099	0	7,378	29,099	29,099
Traffic					
Site Vehicular Trip Generation (Total PM Peak Hour Trips)	119	0	62*	114*	114*
Garage type	automated	None	conventional	automated	automated
Parking spaces in garage	540	0	145	540	540
Garage parking for Trolley Barn?	Yes	None	None	Yes	Yes, except for Reduced Building Height
Shadow Effect?	Yes, refer to Section 3.6	None	Limited to none	Same as proposed action	Less (Reduced Building Height.), same or greater impact (One Point Tower)
<p>Note: Information provided in this table compares differences in impacts associated with different alternatives for the apartment building site. See narrative for discussion of implications for Trolley Barn and east side of Buena Vista Avenue components of the PUR. Source: Tim Miller Associates, Inc., 2010.</p> <p>* Based on all apartment use (Land Use Code 220)² and comparable 25 percent mass transit.</p> <p>Note: Hydroponic garden would be constructed with Teutonia Hall alternative; would not likely be feasible with Relocation of Proposed Alternative (garden in building shadow);</p>					

² Trip Generation, Institute of Transportation Engineers, 8th edition, Washington, DC, 2008.



SECTION

SITE ANALYSIS
 CURRENT ZONE: DW DISTRICT
 TOTAL TRACT AREA: 49,959 SF
 224,815 GSF DEVELOPMENT ALLOWED (FAR:4.5)
 HEIGHT: 5 STORY / 66 FEET ALLOWED

PROPOSED
 USE: LIVE-WORK BUILDING
 TOTAL FLOOR AREA: 149,200 GSF
 LIVE-WORK UNIT 50%: 74,600 GSF / 63,410 NSF (85% EFF.)
 45 UNITS / 1,400 NSF UNIT AVERAGE

RESIDENTIAL UNITS 50%: 74,600 GSF / 63,410 NSF (85% EFF.)
 74 UNITS / 864 NSF UNIT AVERAGE

PARKING
 REQUIRED: RESIDENTIAL: 1 C/U + .33 C/BDRM : 87 SP
 LIVE-WORK: 1.33 C/U : 60 SP TOTAL: 147 SP
 PROVIDED: UPPER GARAGE: 50 SP
 LOWER GARAGE: 100 SP, TOTAL: 150 SP

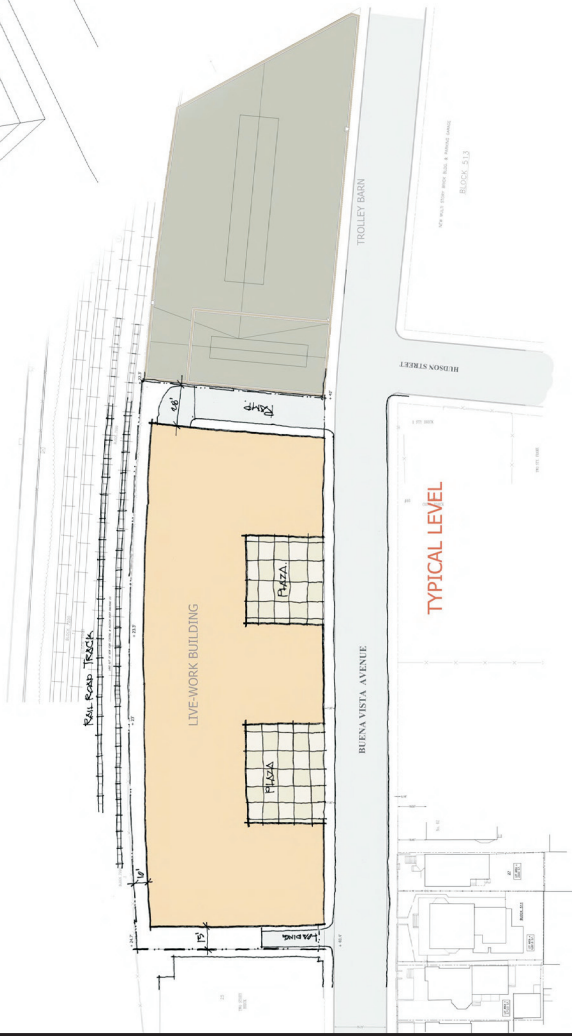
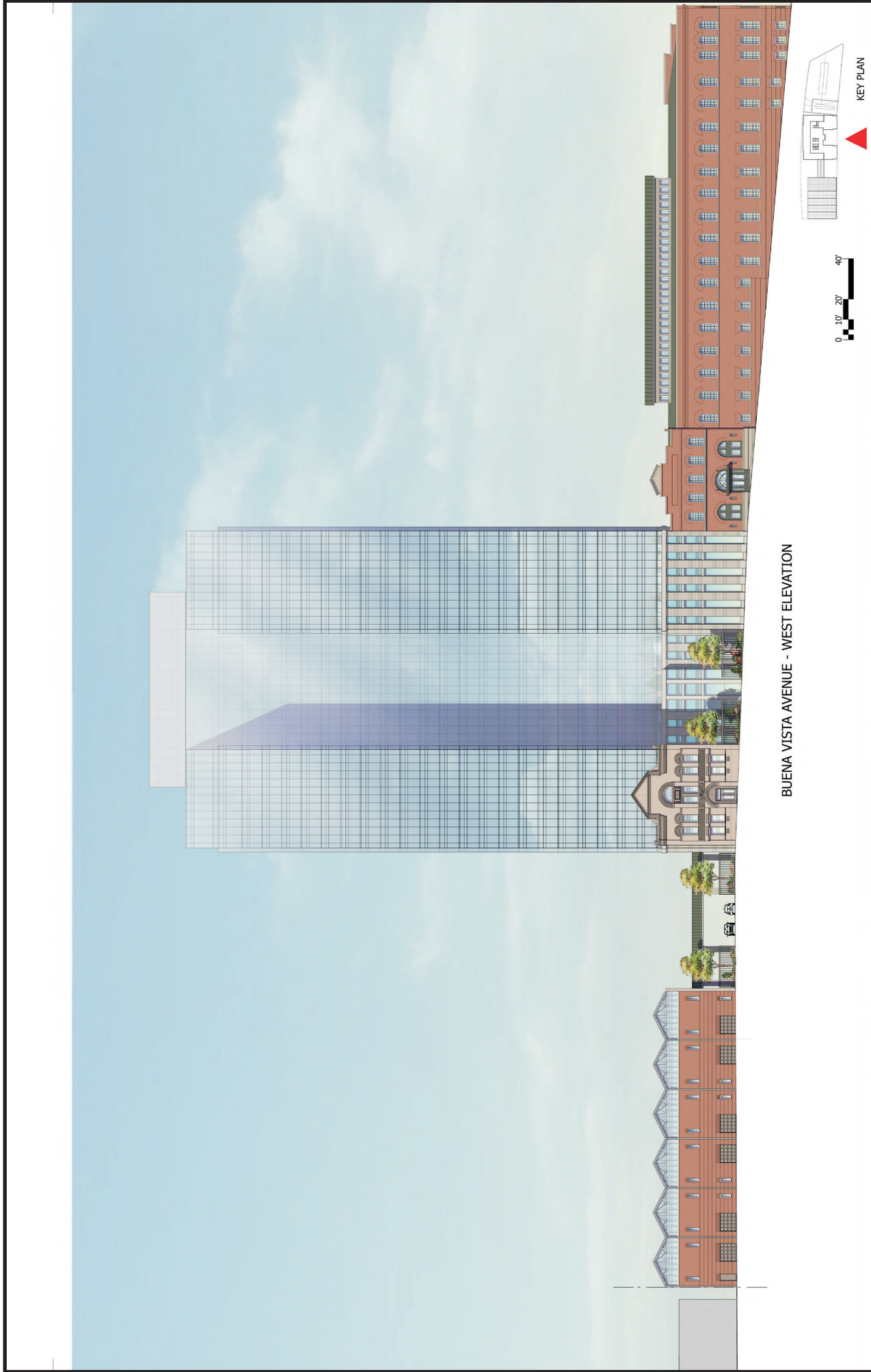
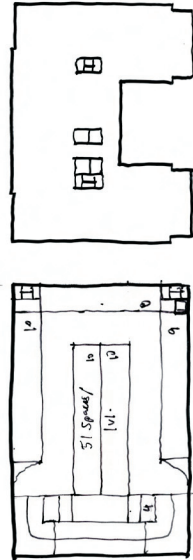
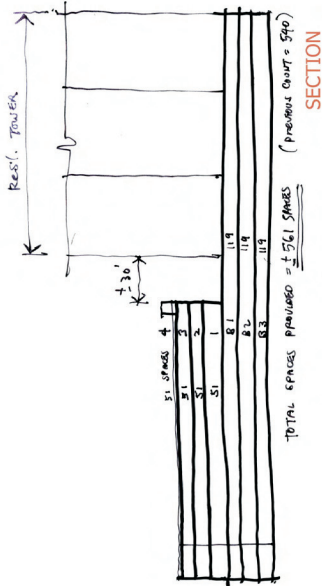


Figure 5-1: Conventional Site Plan Alternative
 Buena Vista Teutonia PUR
 City of Yonkers, Westchester County, New York
 Source: The Lessard Architectural Group, P.C.
 BKSK Architects, LLP
 Drawing Date: 02/26/10

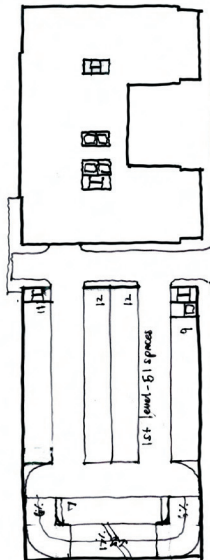


BUENA VISTA AVENUE - WEST ELEVATION

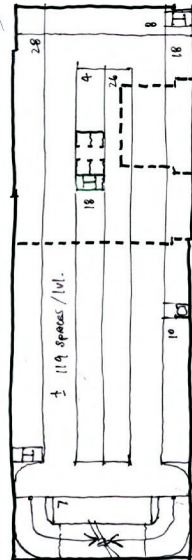
Figure 5-2: Teutonia Hall Alternative
Buena Vista Teutonia PUR
City of Yonkers, Westchester County, New York
Source: The Lessard Architectural Group, P.C.
BKSK Architects, LLP
Drawing Date: 02/26/10



TYPICAL LEVEL



1ST LEVEL



BELOW GRADE PARKING LEVEL

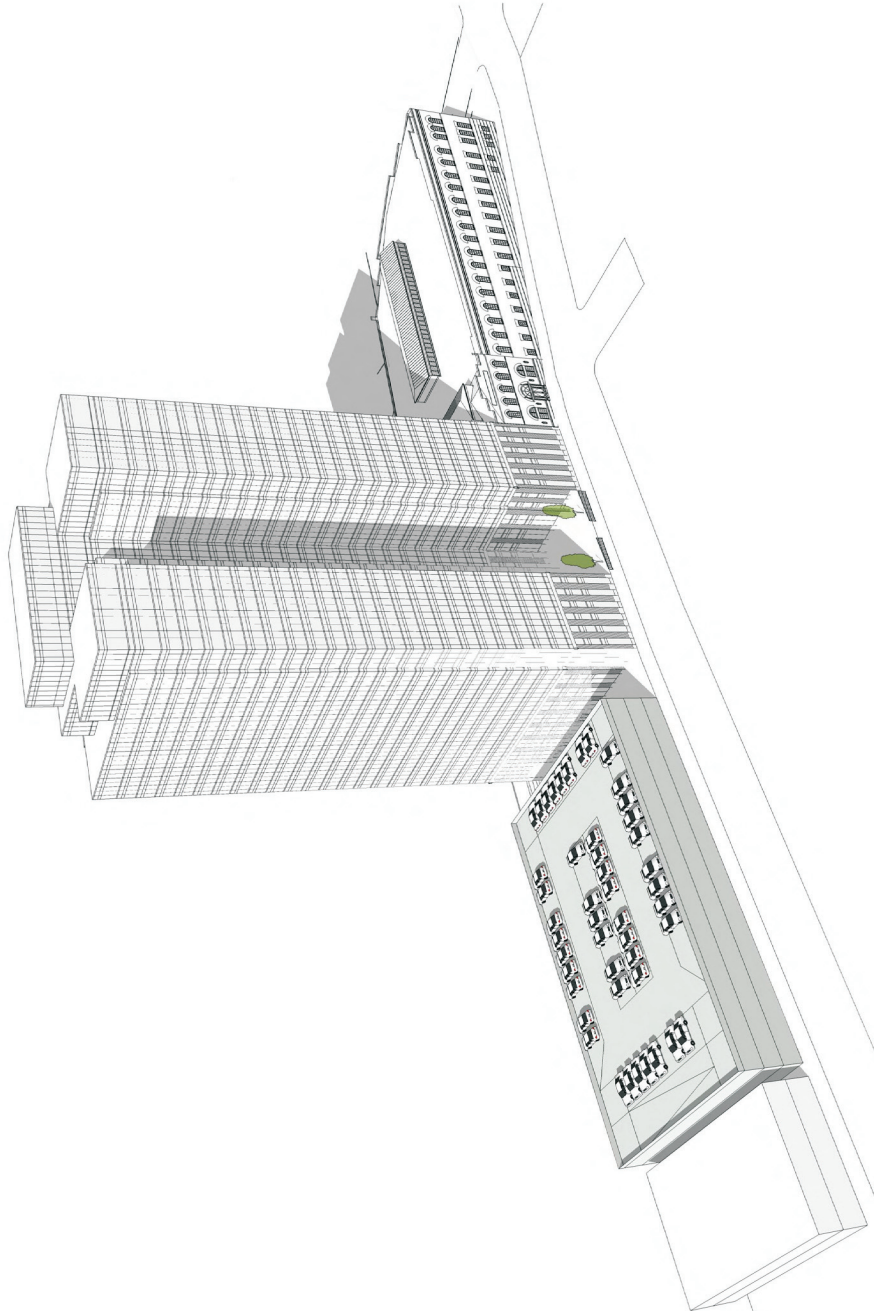
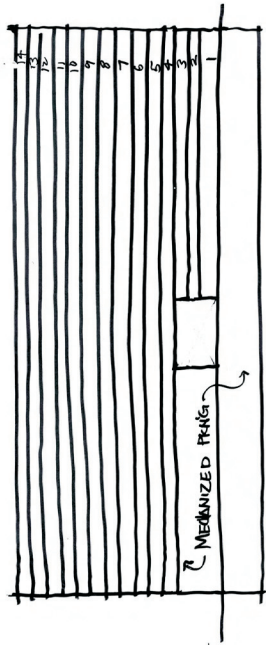
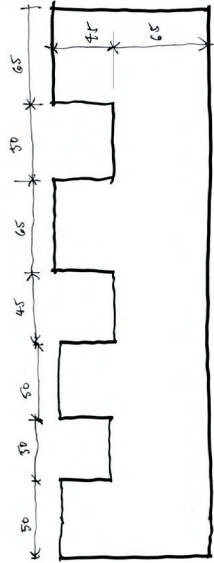


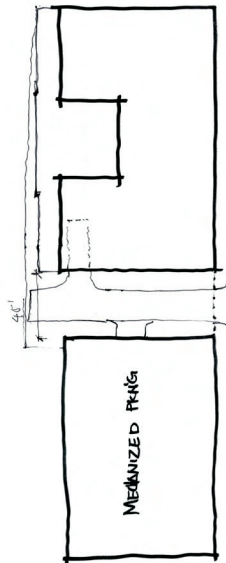
Figure 5-3: Conventional Garage Alternative
 Buena Vista Teutonia PUR
 City of Yonkers, Westchester County, New York
 Source: The Lessard Architectural Group, P.C.
 BSKS Architects, LLP
 Drawing Date: 02/26/10



SECTION



TYPICAL LEVEL



1ST, 2ND & 3RD LEVEL

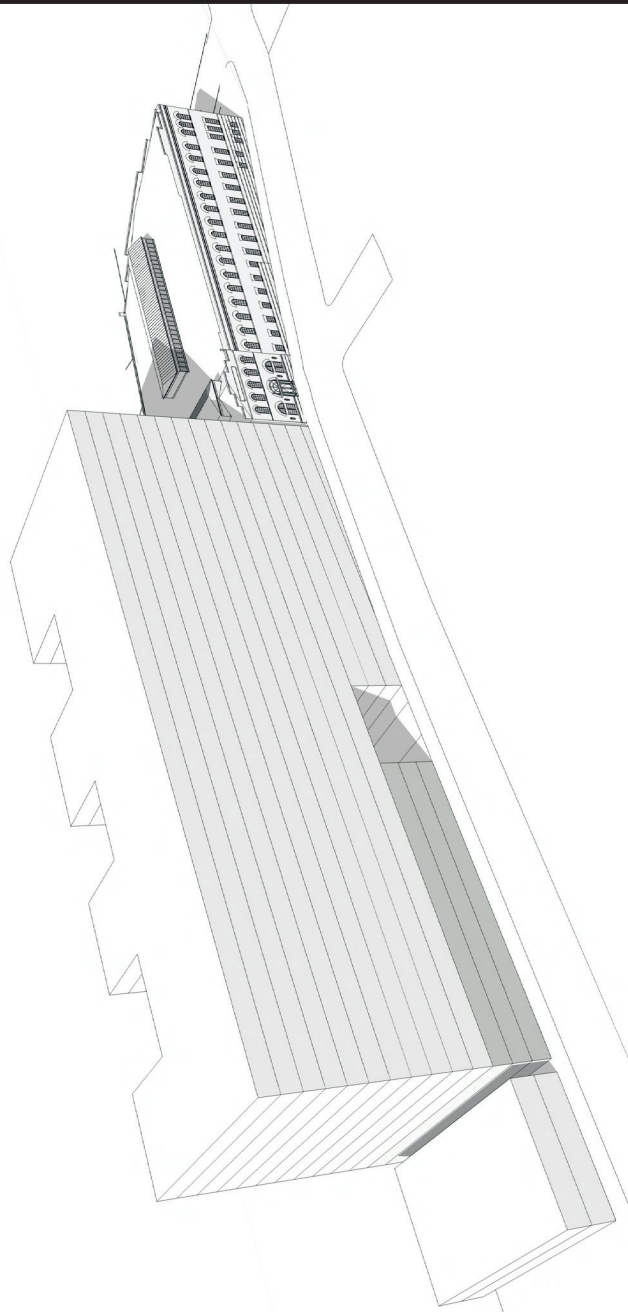
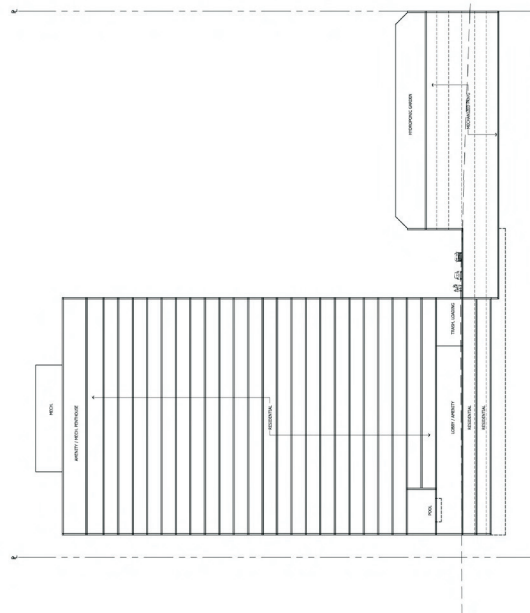
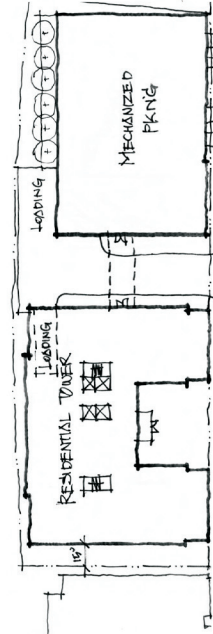


Figure 5-4: Reduced Building Height Alternative
 Buena Vista Teutonia PUR
 City of Yonkers, Westchester County, New York
 Source: The Lessard Architectural Group, P.C.
 BSKK Architects, LLP
 Drawing Date: 02/26/10



SECTION



TYPICAL LEVEL

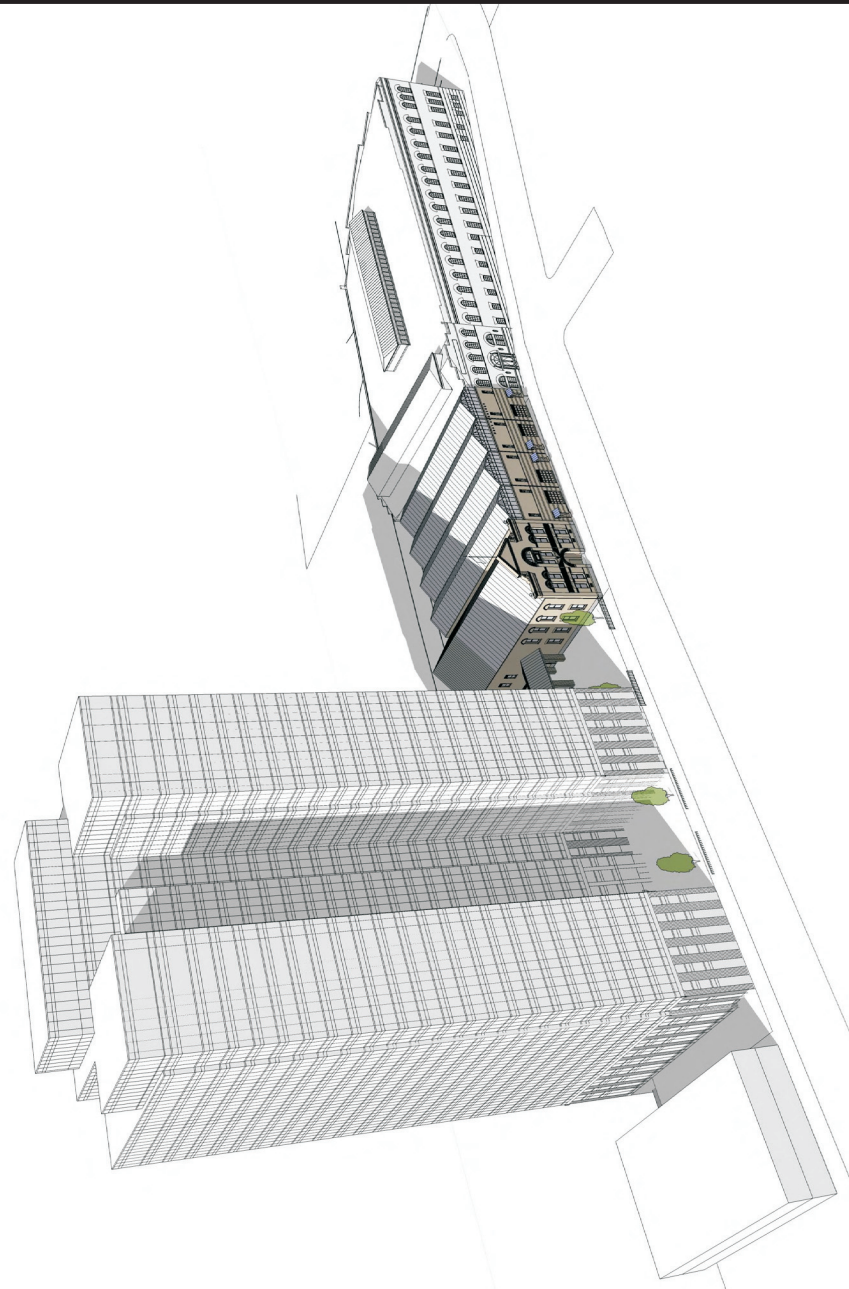
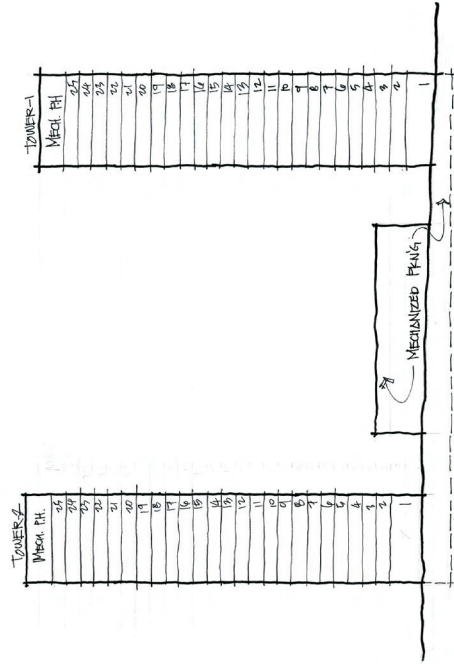
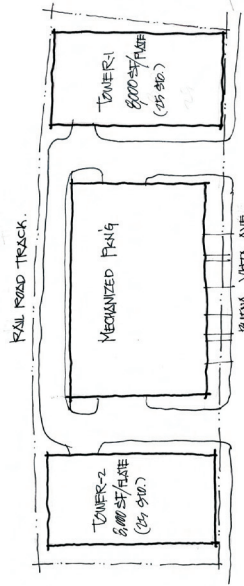


Figure 5-5: Relocation of Proposed Tower Alternative
 Buena Vista Teutonia PUR
 City of Yonkers, Westchester County, New York
 Source: The Lessard Architectural Group, P.C.
 BSKS Architects, LLP
 Drawing Date: 02/26/10



SECTION



TYPICAL LEVEL

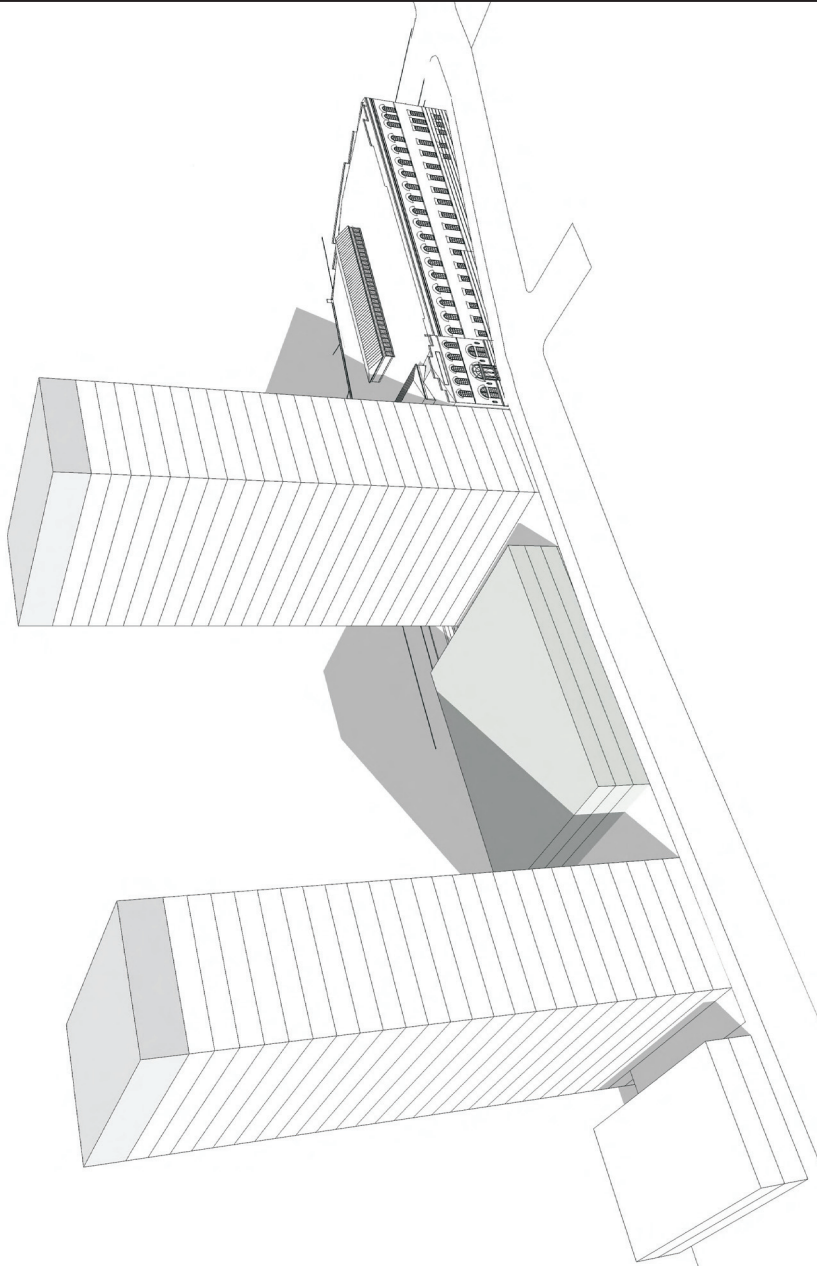


Figure 5-6: Two Point Tower Alternative
 Buena Vista Teutonia PUR
 City of Yonkers, Westchester County, New York
 Source: The Lessard Architectural Group, P.C.
 BSKS Architects, LLP
 Drawing Date: 09/23/10

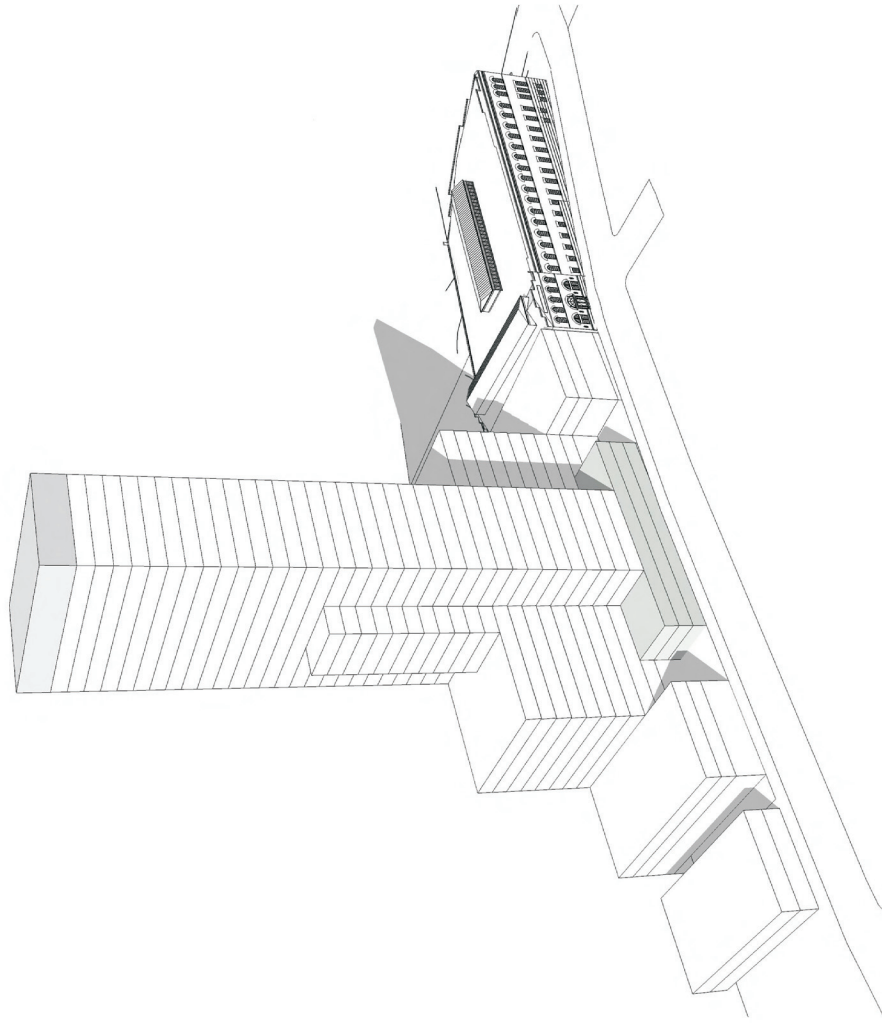
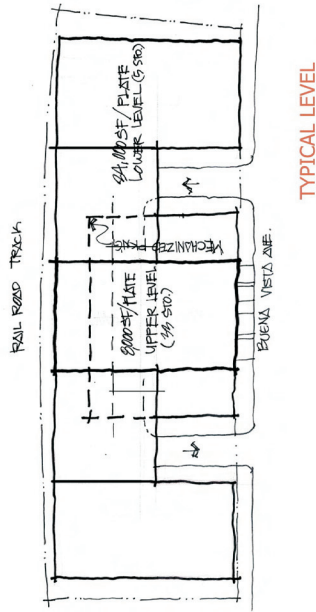
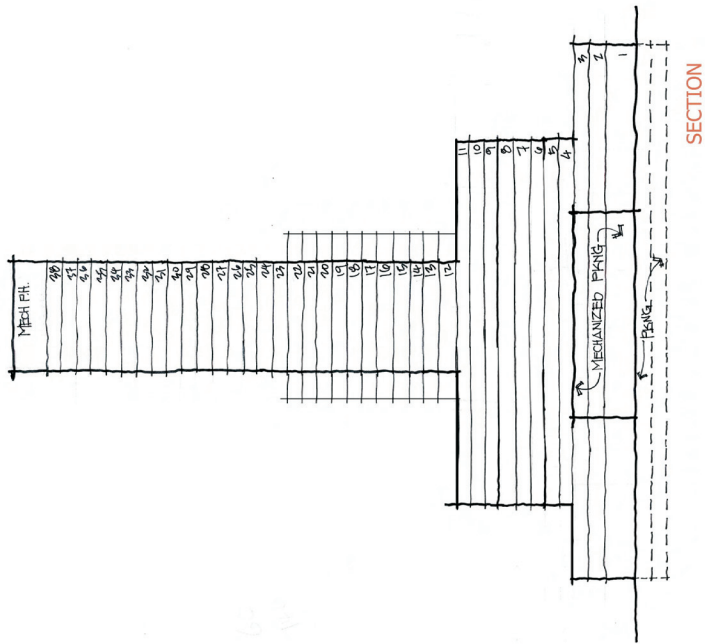


Figure 5-7: One Taller Point Tower Alternative
 Buena Vista Teutonia PUR
 City of Yonkers, Westchester County, New York
 Source: The Lessard Architectural Group, P.C.
 BSKS Architects, LLP
 Drawing Date: 09/23/10

ONE POINT TOWER

TWO POINT TOWER



KEY PLAN

**Figure 5-8: Comparative Study
One Point Tower and Two Point Tower Alternatives Superimposed**

Buena Vista Teutonia PUR
City of Yonkers, Westchester County, New York
Source: The Lessard Architectural Group, P.C.
BKSJ Architects, LLP
Drawing Date: 09/23/10

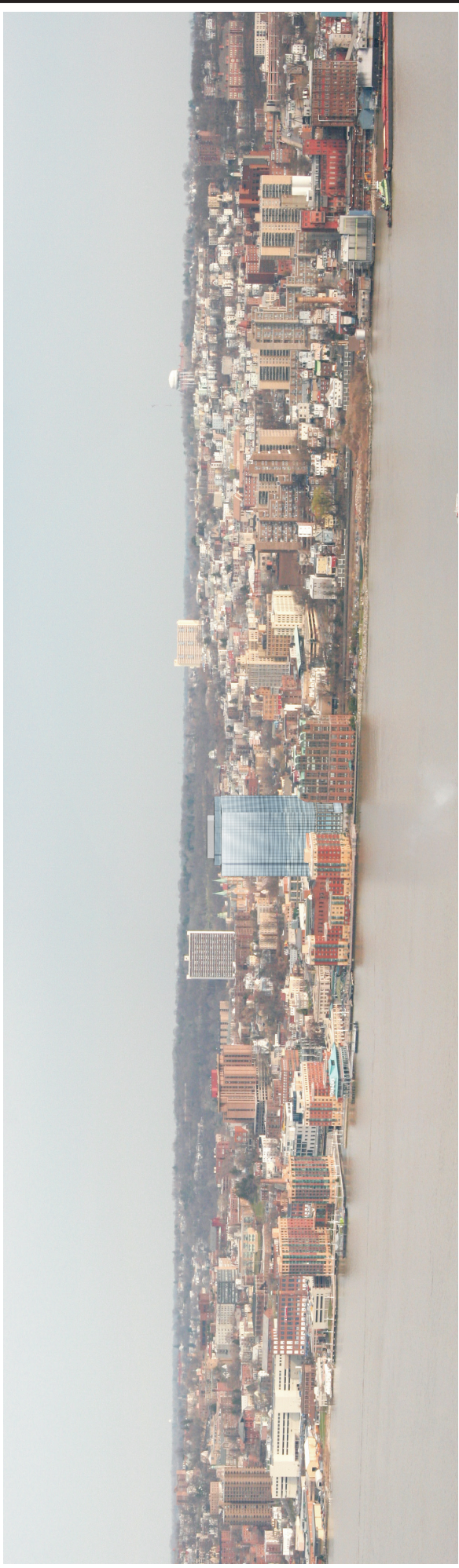
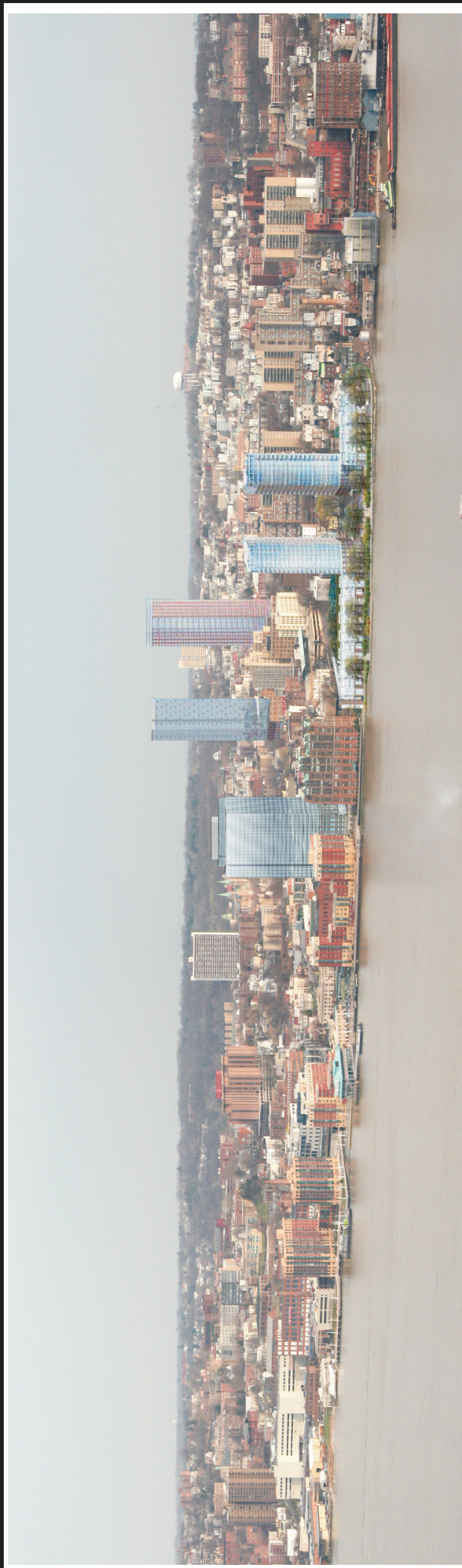


Figure 5-9: Comparative View from PIP Overlook
Buena Vista Teutonia PUR
City of Yonkers, Westchester County, New York
Photo and Site Building Simulation: TMA, 3/25/10
Off-site Building Simulation: Struever Fidelco Cappelli LLC,
DEIS for the River Park Center, Cacace Center,
Larkin Plaza and Palisades Point, July 2007