23.0 Alternatives

CEQR requires that alternatives to the Proposed Action be identified and evaluated in the EIS. As under the State Environmental Quality Review Act (SEQRA), alternatives considered should reduce or eliminate impacts of the Proposed Action while substantively meeting the goals and objectives of the action. Alternatives demonstrate to the decision-maker the possible options to the Proposed Action and provide a framework for comparison of potential impacts and project objectives. The range of alternatives to be considered is determined by the nature of the specific action and its potential impacts. The alternatives to the Preferred Development Program that are evaluated in this chapter include a no action alternative, a reduced density alternative, and alternatives that would reconfigure the bulk of the proposed structure.

A. NO ACTION ALTERNATIVE

As required by SEQRA and CEQR, a No Action Alternative must be examined. The No Action Scenario is evaluated in detail in each of the chapters of this EIS under "Future Conditions without the Proposed Action." These assessments include the effects of anticipated development that would occur separate from the Proposed Action by the identified analysis year (2009). As detailed in Table 2-1, "Anticipated Development Projects, 2009," and shown on Figure 2-4, "Anticipated Development Projects, 2009," this includes approximately 6.3 million square feet of new development, including approximately 2.2 million square feet of commercial development and approximately 4.1 million square feet of residential development in the vicinity of the Project Site.

1. Land Use, Zoning and Public Policy

With the No Action Alternative, no new development would be expected to occur on the Project Site by 2009. The New York Architectural Terra Cotta Company building would remain vacant, though newly restored. The DSNY de-icing salt and sand storage pile would remain in its existing location on the mapped but unopened segment of 43rd Avenue, but the NYPA facility would have been removed from its existing location on Lot 24. Land use in the Primary Study Area would be essentially the same as existing conditions. However, considerable new development would occur in the Secondary Study Area in the vicinity of Queens Plaza and along the Hunters Point waterfront, including completion of the Queens West and River East development projects. Unlike the Proposed Action, this alternative would not be consistent with public policies that encourage provision of public access to and use of the waterfront and redevelopment of the long underutilized waterfront in Long Island City as a vital mixed-use community. This alternative would also be inconsistent with recent trends toward such redevelopment in the vicinity of the Project Site.

2. Socioeconomic Conditions

With the No Action Alternative, the Project Site would continue to be underutilized and not generate any economic activity. However, the new development anticipated in the vicinity of Queens Plaza and along the Hunters Point waterfront would result in approximately 900 new dwelling units with a population of approximately 2,480 people in the ½-mile Study Area. This would represent a significant increase in Study Area population without the Proposed Action.

3. Neighborhood Character

The neighborhood character of the Study Area would be substantially the same as it is under the Existing Conditions except that new development in the vicinity of Queens Plaza and along the Hunters Point waterfront will have a beneficial effect on socioeconomic conditions in the area but would generate increased levels of traffic and noise.

4. Community Facilities and Services

Under the No Action Alternative, the New York City Department of Education (NYCDOE) would continue to develop new schools and restructure and improve existing schools in accordance with its *Children First 2005-2009 Five-Year Capital Plan-2005 Amendment.* In addition, the Queens Borough Public Library would implement its plan to build a new branch, the Long Island City Library, at 21st Street and 37th Avenue, effectively replacing the existing Ravenswood and Queensbridge branches.

5. Open Space

Under the No Action Alternative, no new public open space would be provided on the Project Site. The community would not enjoy the benefits of new public waterfront access on the East River or landscaped plazas on Vernon Boulevard.

6. Shadows

Under the No Action Alternative, the Project Site would continue to be vacant, except for the New York Architectural Terra Cotta Company building and the de-icing salt and sand pile along the mapped but unopened segment of 43rd Avenue. The NYPA facility would be removed and would no longer cast shadows on the New York Architectural Terra Cotta Company building or the Project Site. Shadows cast by the Project on Queensbridge Park, Roosevelt Island esplanade, and Queensbridge House open space would not occur under the No-Action Alternative. However, as discussed in the shadow analysis, the Proposed Action would not result in significant shadow impact on these resources.

7. Historic and Archaeological Resources

There are several properties in the Study Area that the New York City Landmark Preservation Commission (NYCLPC) has stated are eligible for listing in the State and National Registers of Historic Places and for New York City Landmark designation. There is the possibility that some of these properties may be officially designated under the No Action Alternative. Additionally, the New York Architectural Terra Cotta Company building will be restored. The restoration program would include preservation of the building's original terra cotta and brick exterior and interior features, as described in permits approved by the NYCLPC. No other changes to any inventoried architectural resource, including the Queensboro Bridge, are anticipated.

8. Urban Design and Visual Resources

Under the No Action Alternative, the urban design and visual quality of most of the Study Area will remained unchanged from its current condition. The NYPA facility located on the southern portion of the Project Site will be removed, resulting in some additional unobstructed views of the Queensboro Bridge from sidewalks to the south of the Bridge. However, the de-icing salt and sand pile will remain within the mapped but unopened segment of 43rd Avenue, obstructing views of the Bridge from the south and of the river from the west. The improvements to the area's urban design and visual character that would be expected to occur under the Proposed Action through development

of the Project, would not be achieved under this Alternative. Development in the vicinity of Queens Plaza and along the Hunters Point waterfront, including the completion of the Queens West and River East development projects, will change and improve the urban design in those areas, but also affect some views of the Queensboro Bridge. No projects are planned that will significantly alter the urban form or visual character of the inland blocks south of the Queensboro Bridge, or that will affect the appearance of Queensbridge Park and New York City Housing Authority (NYCHA) Queensbridge Houses north of the Project Site.

9. Traffic and Parking

Under the No Action Alternative, mitigation measures primarily along the Queens Plaza/Queens Boulevard and Jackson Avenue corridors that were proposed and approved as part of the *Queens Plaza Bike and Pedestrian Improvement Project* and the *LIC Rezoning FEIS* would be implemented. These measures would include physical/geometric modifications at 11 locations along those corridors. Based on these physical modifications and projected increases in traffic volumes associated with a number of City-approved projects and rezoning actions in Long Island City, it is projected that, under the No Action Alternative, a number of intersections in the area would operate at unacceptable levels of service during the weekday and Saturday AM, Midday and PM peak traffic periods. In addition, it is projected that a number of on- and off-street parking spaces would be lost compared to existing conditions as a result of a number of anticipated development projects. These conditions are detailed in Chapter 9, "Traffic and Parking." The traffic impacts that would result from the Proposed Action would not occur under the No Action Alternative. However, as described in Chapter 27, "Mitigation," all of the traffic impacts would be mitigated for the Proposed Action.

10. Transit and Pedestrians

As detailed in Chapter 10, "Transit and Pedestrians," all subway stairways, corridors, turnstiles, and escalators on the Queensboro Plaza N/W/7 station, 21st Street-Queensbridge F Station and the 23rd Street/Ely Avenue E/V station would operate at acceptable levels of service during both the AM and PM peak periods under the No Action Alternative. The analysis of bus ridership indicates that all bus routes are projected to operate with available capacity under the No Action Alternative. However, the analysis of crosswalk and street corners indicates that four crossing locations most proximate to the Project Site would experience unacceptable levels of service during the AM- and PM-peak analysis periods under the No Action Alternative. The pedestrian impact at Vernon Boulevard and Queens Plaza South, and bus impact on the Q103, would not occur in the No Action Alternative. However, these impacts would be fully mitigated under the Proposed Action.

11. Air Quality

As detailed in Chapter 11, "Air Quality," air quality conditions under the No Action Alternative are anticipated to remain approximately the same as under existing conditions, and there would be no exceedances of any ambient air quality standard.

12. Noise

Under the No Action Alternative, noise levels at noise-sensitive sites in the vicinity of the Project Site would remain in the Marginally Acceptable to Marginally Unacceptable range, as defined under CEQR noise criteria. Noise levels on and in the immediate vicinity of the Project Site would be less than existing noise levels due to the removal of the temporary NYPA facility.

13. Infrastructure, Solid Waste and Energy

Under the No Action Alternative, the NYPA facility would be relocated, eliminating its demand on the municipal solid waste management, water supply and wastewater management systems. Conditions on the Project Site related to infrastructure would otherwise be the same as under Existing Conditions. Projects anticipated to be completed by 2009 would total approximately 2,163,000 square feet of commercial and approximately 4,183,000 square feet of residential development. These projects would increase demand on local infrastructure but would be within the available capacities of all systems of concern.

14. Natural Resources

Under the No Action Alternative, the temporary NYPA facility would be relocated and a continuous bulkhead reestablished along the western edge of the Project Site. Neither action would be anticipated to have a significant adverse impact on natural resources. The DSNY de-icing salt and sand storage pile would remain in its current location, salt-laden runoff from which would continue to remain a potential on-site source of surface and groundwater contamination.

15. Hazardous Materials

In the future without the project, the temporary NYPA facility would vacate the site, and a new continuous bulkhead would re-establish the western edge of the entire Project Site. Removal of the temporary NYPA facility would be completed and the Site Investigation Work Plan (SIWP) would be implemented. In addition, renovation of the New York Architectural Terra Cotta building would be undertaken, along with any necessary removal of asbestos containing materials (ACM) and lead in accordance with applicable regulations and guidelines. Without the Proposed Action, contaminated soils and groundwater in the northern portion of the Project Site would be left in place.

16. Construction Impacts

In the future without the project, the temporary NYPA facility would vacate the site, and a new continuous bulkhead would re-establish the western edge of the entire Project Site. Removal of the temporary NYPA facility would be completed. In addition, renovation of the New York Architectural Terra Cotta building would be undertaken. Without the Proposed Action, contaminated soils that would be removed with the Preferred Development Program would be left in place. Stormwater would continue to percolate through the soils on the Project Site into the East River.

17. Waterfront Revitalization Program

In the future without the project, the temporary NYPA facility would vacate the site, and a new continuous bulkhead would re-establish the western edge of the entire Project Site. In addition, renovation of the New York Architectural Terra Cotta building would be undertaken. Without the Proposed Action, the public access to the waterfront would remain impeded, both through the site and on 43rd Avenue. Revitalization of this portion of the waterfront would not occur.

18. Public Health

In the future without the project, contaminated soils would be left in place. Since the Project Site would not be redeveloped under the No Action Alternative, the testing and remediation of the Project Site would not be conducted.

19. Generic Analysis of Impacts from Salt Pile Relocation

In the future without the project, 43rd Avenue would remain closed, and would continue to be used for the open storage of deicing material. It would remain a source of pollutant loading in this portion of the East River and an impediment to physical and visual access to the river.

B. REDUCED DENSITY ALTERNATIVE

This Alternative considers the potential environmental effect of reducing the density of development, as compared with the Preferred Development Program. This Alternative is being considered since the Proposed Action would result in density-related impacts on traffic, pedestrian and bus conditions, although all of these impacts would be mitigated with the Proposed Action. For the purposes of this analysis it is assumed that the site would be developed consistent with the uses programmed in the Preferred Development Program, but in accordance with the bulk requirements of an M1-5/R8 zoning district. In this alternative the FAR would be lowered to 6.5, for the mixed use development. The redevelopment of the site would result in a similar site layout, because of physical constraints related to the placement of the studios, described in detail below in the discussion of the Reconfiguration of Bulk Alternatives. However, total floor area would be 2,396,644 sf, a 14.4 percent reduction of 381,656 sf compared to the Proposed Action. This reduction would be divided between the commercial and residential portions reducing the height of the westernmost residential tower by 21 floors (five half floors and 16 full floors) to approximately 250 feet. The tower closest to the bridge (proposed for commercial use under the Preferred Development Program) by 10 floors (five half-sized floors and five full-sized floors, with an additional reduction by approximately 60 percent of one additional floor). The top elevation would be approximately 400 feet. The Core Complex and eastern residential tower would be the same size and shape, and the towers would have to same horizontal dimensions as under the Proposed Action. In this alternative, the salt pile would be relocated, as with the Preferred Development Program.

1. Land Use, Zoning, and Public Policy

The Reduced Density Alternative, like the Preferred Development Program and variations, would be consistent with City policies regarding the development of the East River waterfront with a mixture of uses. While the Reduced Density Alternative would introduce slightly fewer residential units and offices than the Preferred Development Program, it would remain supportive of the long-term goal of the City to provide additional office space outside Manhattan. This alternative would also be consistent with trends toward residential development in the vicinity of the Project Site.

In this alternative, the site would be developed according a M1-5/R8 zoning district, compared to the M1-5/R10 zoning district proposed with the Preferred Development program. The zoning districts are similar in that they both provide a manufacturing/residential mixed-use zone. The alternative would be developed in strict conformance with the Restrictive Declaration, and therefore within a defined building envelope very similar to that of the Preferred Development Program.

2. Socioeconomic Conditions

The Reduced Density Alternative, as with the Preferred Development Program, would not result in any significant adverse impacts. The Reduced Density Alternative would be constructed in the same footprint as the Preferred Development Program, and as such would have the same effect on direct displacement. Therefore, there would be no additional potential for direct displacement of residential business or institutional uses.

No significant adverse impact as a result of secondary displacement would occur as a result of the alternative. The alternative would result in the development of fewer residential units and less commercial floor area. Therefore, the alternative's potential for indirect displacement of residents and businesses, beyond that which would occur in the Future Without the Proposed Action, may be marginally lower than for the Preferred Development Program.

3. Neighborhood Character

The Reduced Density Alternative would result in the development of a new commercial, residential and community facility complex that would not differ from the Preferred Development in its effect on neighborhood character.

As with the Preferred Development Program and variations, the Reduced Density Alternative would result in no significant adverse impacts to neighborhood character. The Reduced Density Alternative would also provide for the expansion of Silvercup Studios, part of the economic base of the Study Area, and enliven the waterfront site with new uses and open space. Analyses related to traffic and transit indicate that, similar to the Preferred Development Program, all significant adverse impacts would be mitigated through standard means. In this alternative, as with the Preferred Development Program, there would be no significant adverse impacts to community noise levels or changes in the requirements for window wall attenuation of new residential structures.

4. Community Facilities and Services

The Reduced Density Alternative, like the Preferred Development Program and variations, would result in no significant adverse impacts to community facilities and services. Because it would introduce fewer housing units, there would be a somewhat reduced demand for public school seats and library services than under the Preferred Development Program.

5. Open Space

The Reduced Density Alternative, like the Preferred Development Program and variations, would result in no significant impact to open space serving the study area in the year 2009.

6. Shadows

The Reduced Density Alternative, like the Preferred Development Program and variations, would result in no significant adverse shadow impacts. This alternative would be developed in strict conformance with the Restrictive Declaration, and, therefore, within a building envelope very similar to that of the Preferred Development Program or a portion of the development. The reduction in building heights would result in a reduction in the length of shadows cast by the development. As with the Proposed Action, there would be no significant adverse shadow impacts on any significant historic resource or public open space.

7. Historic Resources

The Reduced Density Alternative would be developed within a building envelope very similar to that of the Preferred Development Program and on the same footprint. Site development would adopt the same construction techniques to protect the adjacent New York Architectural Terra Cotta Company building. The development that would be constructed as part of the Reduced Density Alternative would still be much larger than the New York Architectural Terra Cotta Company building and taller than the Queensboro Bridge. However, similar to the Preferred Development Program, the design of this alternative would complement these historic resources. The Reduced Density Alternative, therefore, like the Preferred Development Program and variations, would result in no significant adverse impacts to historic resources.

8. Urban Design and Visual Resources

The Reduced Density Alternative, like the Preferred Development Program and variations, would result in no significant adverse effects to urban design or visual quality. The Reduced Density Alternative would be developed in conformance with a Restrictive Declaration, which would define a building envelope very similar to that of the Preferred Development Program. Though the commercial tower and one residential tower would be shorter than the development proposed with the Preferred Development Program, the overall maximum height of the structure (approximately 400 feet) would still be substantially higher than the nearby Queensboro Bridge. The residential and office towers would also retain similar surface treatments and proportions. The landscaping would be virtually identical between the Reduced Density Alternative and the Preferred Development Program.

9. Traffic and Parking

The Reduced Density Alternative would reduce residential space from approximately 1,047,881 sf (1,000 dwelling units) to approximately 862,659 sf (815 dwelling units) and commercial/office space from approximately 655,048 sf to approximately 462,058 sf. Vehicle trips that would be generated by the Reduced Density Alternative are shown in Tables 23-1 through 23-4. These tables indicate that a total of approximately 290, 367, and 576 vehicle trips would be generated during the weekday AM, Midday, and PM peak hours, respectively. Approximately 498 vehicle trips would be generated during the Saturday Midday peak hour. Comparisons to projected trip generation for the Preferred Development Program are provided later in this section (Table 23-5).

TABLE 23-1: VEHICLE TRIPS GENERATED BY THE REDUCED DENSITY ALTERNATIVE: WEEKDAY AM PEAK HOUR

Land Use	Autos		Taxis		Trucks		Total	
	In	Out	In	Out	In	Out	In	Out
Office (new)	115	9	9	9	4	4	128	22
Health Club	7	13	1	1	0	0	8	14
Residential (new)	8	44	3	3	3	3	14	50
Television Studio	40	2	3	3	2	2	45	7
Catering Hall	0	0	0	0	0	0	0	0
Retail Street	0	0	0	0	1	1	1	1
Museum	0	0	0	0	0	0	0	0
TOTAL	**170**	**68**	**16**	**16**	**10**	**10**	**196**	**94**

TABLE 23-2: VEHICLE TRIPS GENERATED BY THE REDUCED DENSITY ALTERNATIVE: WEEKDAY MIDDAY PEAK HOUR

Land Use	Autos		Taxis		Trucks		Total	
	In	Out	In	Out	In	Out	In	Out
Office (new)	13	15	10	10	4	4	27	29
Health Club	11	12	1	1	0	0	12	13
Residential (new)	6	4	1	1	2	2	9	7
Television Studio	10	10	7	7	1	1	18	18
Catering Hall	42	3	3	2	0	0	45	5
Retail Street	7	7	26	26	1	1	34	34
Museum	52	46	9	9	0	0	61	55
TOTAL	**141**	**97**	**57**	**56**	**8**	**8**	**206**	**161**

TABLE 23-3: VEHICLE TRIPS GENERATED BY THE REDUCED DENSITY ALTERNATIVE: WEEKDAY PM PEAK HOUR

Land Use	Autos		Taxis		Trucks		Total	
	In	Out	In	Out	In	Out	In	Out
Office (new)	3	92	7	7	2	2	12	101
Health Club	18	11	2	2	0	0	20	13
Residential (new)	32	11	2	2	1	1	35	14
Television Studio	2	35	3	3	0	0	5	38
Catering Hall	84	6	5	4	0	0	89	10
Retail Street	7	7	24	24	1	1	32	32
Museum	81	68	13	13	0	0	94	81
TOTAL	**227**	**230**	**56**	**55**	**4**	**4**	**287**	**289**

TABLE 23-4: VEHICLE TRIPS GENERATED BY THE REDUCED DENSITY ALTERNATIVE: SATURDAY MIDDAY PEAK HOUR

Land Use	Autos		Taxis		Trucks		Total	
	In	Out	In	Out	In	Out	In	Out
Office (new)	3	3	2	2	0	0	5	5
Health Club	7	8	1	1	0	0	8	9
Residential (new)	26	26	3	3	2	2	31	31
Television Studio	5	5	4	4	1	1	10	10
Catering Hall	126	8	7	6	0	0	133	14
Retail Street	10	10	34	34	1	1	45	45
Museum	51	79	11	11	0	0	62	90
TOTAL	**228**	**139**	**62**	**61**	**4**	**4**	**294**	**204**

TABLE 23-5: COMPARISON OF THE REDUCED DENSITY ALTERNATIVE WITH THE PREFERRED DEVELOPMENT PROGRAM

	Weekday AM Peak		Weekday Midday Peak		Weekday PM Peak		Saturday Midday Peak	
	In	Out	In	Out	In	Out	In	Out
Preferred Development Program	251	112	220	175	301	335	301	211
	363		395		636		512	
Reduced Density Alternative	196	94	206	167	287	289	294	204
	288		367		576		498	

Overall, the Reduced Density Alternative would generate a lesser volume of vehicle trips as compared to the Preferred Development Program during all four traffic analysis peak hours, as shown in Table 23-5.

The Reduced Density Alternative would generate approximately 75, 28, 60, and 14 fewer vehicles per hour than would the Preferred Development Program during the weekday AM, Midday, PM and

Saturday midday peak hours, respectively. These amount to volume reductions of approximately 21 percent, 7 percent, 9 percent, and 3 percent during the four traffic analysis peak hours, respectively.

When the total volume of vehicle trips generated by the Reduced Density Alternative are distributed throughout the Study Area's 32-intersection network, the overall set of significant traffic impacts and mitigation requirements is expected to be very similar to the Preferred Development Program with just one exception—the intersection of Northern Boulevard and 31st Street is not expected to have significant impacts during the AM peak hour with the Reduced Density Alternative. However, similar to the Preferred Development Program, this intersection would continue to remain a significantly impacted location during the PM peak hour. No new significant adverse traffic impacts are expected. As with the Preferred Development Program, there should be no parking shortfalls.

Development of the Project Site under the Lower Density Alternative would result in substantially the same traffic impacts as the Proposed Action and require substantially the same mitigation measures along Vernon Boulevard—including the need for two new traffic signals.

10. Transit and Pedestrians

The reduction of floor area by approximately 380,000 sf in the alternative would result in a proportionate reduction in the demand on transit and pedestrian facilities.

The Reduced Density Alternative would have no significant impact on subways, similar to the Preferred Development Program. The significant adverse impact to the Q103 bus route with the Preferred Development Program would be reduced but would still remain and require an additional northbound bus as mitigation.

Development of the Project Site under the Lower Density Alternative would result in substantially the same pedestrian and bus impacts as the Proposed Action and require substantially the same mitigation measures. The potential significant adverse impact to pedestrian safety at two locations on Vernon Boulevard (Queens Plaza South and 43rd Avenue), would still require the installation of traffic signals at these locations.

11. Air Quality

Similar to the Preferred Development Program, the Reduced Density Alternative would not result in any significant adverse impacts to air quality, as indicated hereafter:

- **Mobile Sources:** The alternative would result in fewer peak-hour vehicle trips traveling through intersections within the study area. This would likely correspond with a marginal reduction of emissions, from predicted levels with the Preferred Development Program.
- **Stationary Sources/Boiler Emissions:** The reduction in the floor area in the Reduced Density Alternative would result in a proportionate reduction in the demand for on-site heating and cooling. A slight reduction in emissions would therefore be expected, and the effect on buildings within the development site would not change.
- **Stationary Sources/Air Toxics Analysis:** Since the development footprint would not change, the areas of highest pollutant concentration would be the same. Results of the analysis for this Alternative would therefore be identical to those for the Preferred Development Program.
- **Stationary Sources/Ravenswood Power Plant:** The analysis for the Preferred Development Program indicated that pollutant concentrations increase with height. Since two of the towers proposed for the Reduced Density Alternative would be developed at a lower height, the

maximum pollutant concentrations would be lower than for the Preferred Development Program at those locations.

- **Construction Phase Impacts:** The duration and intensity of the construction phase of the project is unlikely to change substantially for this Alternative. The effect on air quality would be similar to that depicted for the Preferred Development Program.

12. Noise

Similar to the Preferred Development Program, the Reduced Density Alternative would not result in any significant adverse impacts to noise. The alternative would result in fewer peak-hour vehicle trips traveling through the study area. This would likely correspond with a marginal reduction of noise levels from those predicted with the Preferred Development Program. This alternative would, similar to the Preferred Development Program, require an E designation to achieve 45 dBA interior noise levels in commercial use not covered by the 35 dBA required attenuation within a mixed-use district.

The duration, intensity and methods used in the construction phase of the project would not change substantially for this Alternative. The effect on noise would be similar to that depicted for the Preferred Development Program.

13. Infrastructure, Solid Waste, and Energy

The Reduced Density Alternative, like the Preferred Development Program and variations, would result in no significant adverse impacts related to infrastructure, solid waste and energy. Because it would introduce fewer housing units and less commercial space, the demand on infrastructure, solid waste and energy services would be marginally reduced.

14. Natural Resources

The Reduced Density Alternative would be developed within a building envelope very similar to that of the Preferred Development Program and on the same footprint. Like the Preferred Development Program, the reduced density alternative would require reconstruction of the southern portion of the bulkhead if NYPA fails to secure necessary approvals and would involve coverage of regulated Tidal Wetlands adjacent area with impervious surfaces. However, the Reduced Density Alternative, like the Preferred Development Program and variations, would result in no significant adverse impacts to natural resources as a result of these activities.

15. Hazardous Materials

The Reduced Density Alternative would be developed within a building envelope very similar to that of the Preferred Development Program and on the same footprint. Construction and pre-construction activities would be the same. As with the Preferred Development Program, construction activities would occur in accordance with a HASP and all soils and groundwater would be managed in accordance with applicable laws and regulations. The Reduced Density Alternative, therefore, like the Preferred Development Program and variations, would result in no significant adverse impacts related to hazardous materials. As with the Proposed Action, hazardous materials testing and remediation would be conducted in accordance with a Restrictive Declaration recorded against the Project Site.

16. Construction Impacts

The construction-related impacts of the Reduced Density Alternative would be the same as with the Preferred Development Program and variations, as construction would occur in similar stages during a slightly shortened time period. The Reduced Density Alternative would require the use of the same construction techniques and the same types and number of construction equipment as the Preferred Development Program. Therefore, the Reduced Density Alternative would likewise result in no significant adverse impacts related to construction.

17. Waterfront Revitalization Program

The Reduced Density Alternative would be developed within a building envelope very similar to that of the Preferred Development Program and on the same footprint. Site preparations would also remain the same, including the possible need for reconstruction of the southern portion of the bulkhead as part of the project. Therefore, as with the Preferred Development Program and variations, the Reduced Density Alternative would be consistent with the Coastal Zone Management/Waterfront Revitalization Program policies.

18. Public Health

Similar to the Preferred Development Program, the Reduced Density Alternative would include the mechanisms to protect public health during construction. Contamination would be identified as part of routine screening and testing procedures of site soils to be disturbed. Hazardous materials, if identified, would be handled in accordance with a Health and Safety Plan (HASP) and disposed of in accordance with State and Federal requirements.

19. Generic Analysis of Impacts from Salt Pile Relocation

With this alternative, as with the development of the Preferred Development Program and variations, the salt storage facility would be relocated from 43rd Avenue. Therefore, the analysis included in the assessment of the Preferred Development Program, indicating that there would be no significant adverse impacts resulting from its relocation, would not change for the Reduced Development Program.

C. RECONFIGURATION OF BULK ALTERNATIVES

According to the *CEQR Manual*, an alternative design or configuration should be considered for actions where potential significant adverse impacts are related to the proposed action's bulk, visual character, contextual or direct effect on historic or other environmentally sensitive resources, or its physical relationship to another use, such as a power plant stack, a noise generator, or an area of soil contamination. Although the analyses in this DEIS have not identified any significant adverse impacts related to any of these considerations, an analysis was undertaken to determine the feasibility of constructing an alternative design to the Proposed Project that would meet the goals and objectives of the Proposed Action which are to meet current and anticipated demand for film and production facilities that are competitive and conform to industry standards; provide support for redevelopment of Long island City as a "24-hour" neighborhood; and to provide improved access to the East River waterfront from locations in Queens. However, because of the restricted dimensions of the Project Site in conjunction with requirements of the Zoning Resolution; the need to construct studios that meet special requirements of the film and television industry while accommodating convenient truck access; building height limitations imposed by the Federal Aviation Administration (FAA); and the need to maximize views and the utility of open space within the structure for prospective residents

and commercial tenants, no alternative design to that of the Proposed Action was identified that would substantively meet the goals and objectives of the project. This analysis is summarized below.

1. *Requirements imposed by Article VI, Chapter 2 – Special Regulations Applying in the Waterfront Area of the New York City Zoning Resolution, including the detailed requirements of Section 62-851, Waterfront Access Plan Q-1: Northern Hunters Point.* These requirements mandate the provision of a 40-foot wide shore public walkway along the East River. For this Project and site, the shore public walkway must be improved to the level of a public waterfront esplanade and must have a minimum width of 40 feet. In addition, these requirements also mandate the provision of an "upland connection" along the northern boundary of the Project Site between Vernon Boulevard and the shore public walkway, the provision of continuous public access along the mapped right-of-way of 43rd Avenue between Vernon Boulevard and the public waterfront esplanade, and the provision of designated east-west visual corridors along the northern boundary of the Project Site between Vernon Boulevard and the East River pierhead line, and along the mapped right-of-way of 43rd Avenue between Vernon Boulevard and the East River. These requirements limited the orientation of the Project's bulk to outside of these prescribed open areas..

2. *Need to provide for the minimum dimensions of a television and movie production studio required to meet the functional requirements of the industry, including the need to provide at least 18,000 square feet of contiguous space at a minimum height of 30-to-40 feet.* In today's marketplace, a new sound stage must be at least 110 feet wide to accommodate sets that are 100 feet wide, the typical width for many feature film sets, with a fire walkway on either side. Proportionately, studios must be built at a ratio of at least 2:3 in width to length. Thus, a 110-foot wide stage would have to be at least 165 feet in length, though a bit longer is preferable to accommodate multiple sets laid out in a row. These are the dimensions of Silvercup West's proposed sound stages.

   Each stage must have adjacent support spaces, containing dressing rooms, green rooms, and audio and visual control rooms, on the same level as the stage floor. Each stage requires 10 to 14 dressing rooms with attached bathrooms. These are typically located at one end of the soundstage in a double loaded corridor. This support space zone is typically 38 to 42 feet in width.

   Spaces are required at the opposite ends of each studio for the movement of vehicles and heavy lighting and grip equipment so as not to conflict with the actor traffic going to the dressing rooms. This equipment movement zone must be a minimum of 45 feet in width to accommodate the clearances required for the equipment to be staged and moved past other gear. These spaces must be on the same level as the studio floor (Figure 23-1 and Figure 23-2).

   The net result of these requirements is that the minimum east-west dimension of the studio space must be approximately 448 feet at its widest point. The entire Project Site, after the shoreline is reestablished as proposed at the location of the original bulkhead along the NYPA-occupied property would have an east–west dimension of approximately 505.5 feet from the western edge of Vernon Boulevard to the proposed bulkhead. Under the Proposed Development Program (or any of the Variations), at the widest point of the proposed structure, the esplanade would only achieve the minimum width of 40 feet required by the Zoning Resolution, with the exception of an allocation of one foot nine inches, which would be used for an illuminated sign. The remainder of the site width would be taken up by a sidewalk to the east of the building, along Vernon Boulevard.

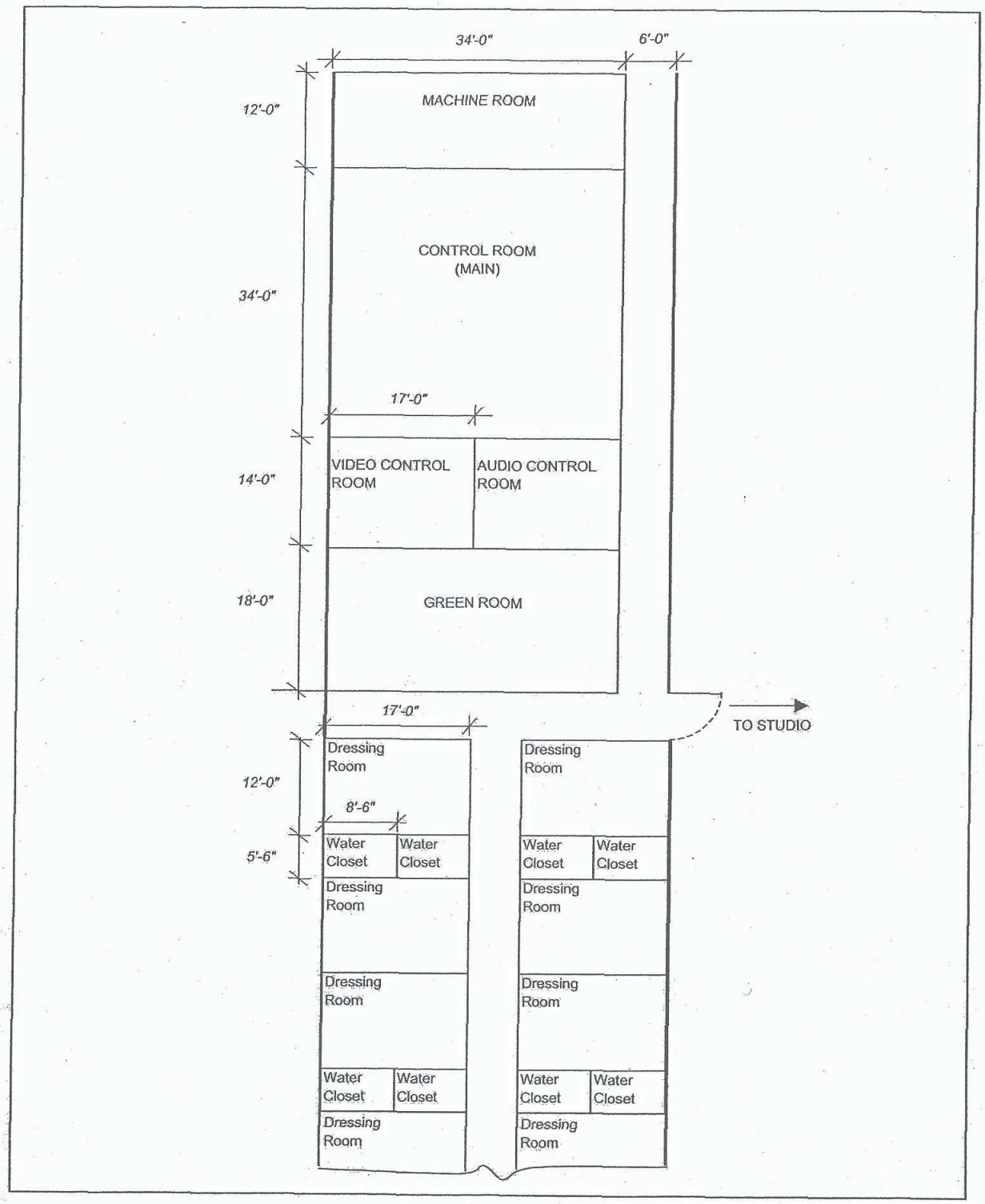


Figure 23-1:
Typical Support Space Detail

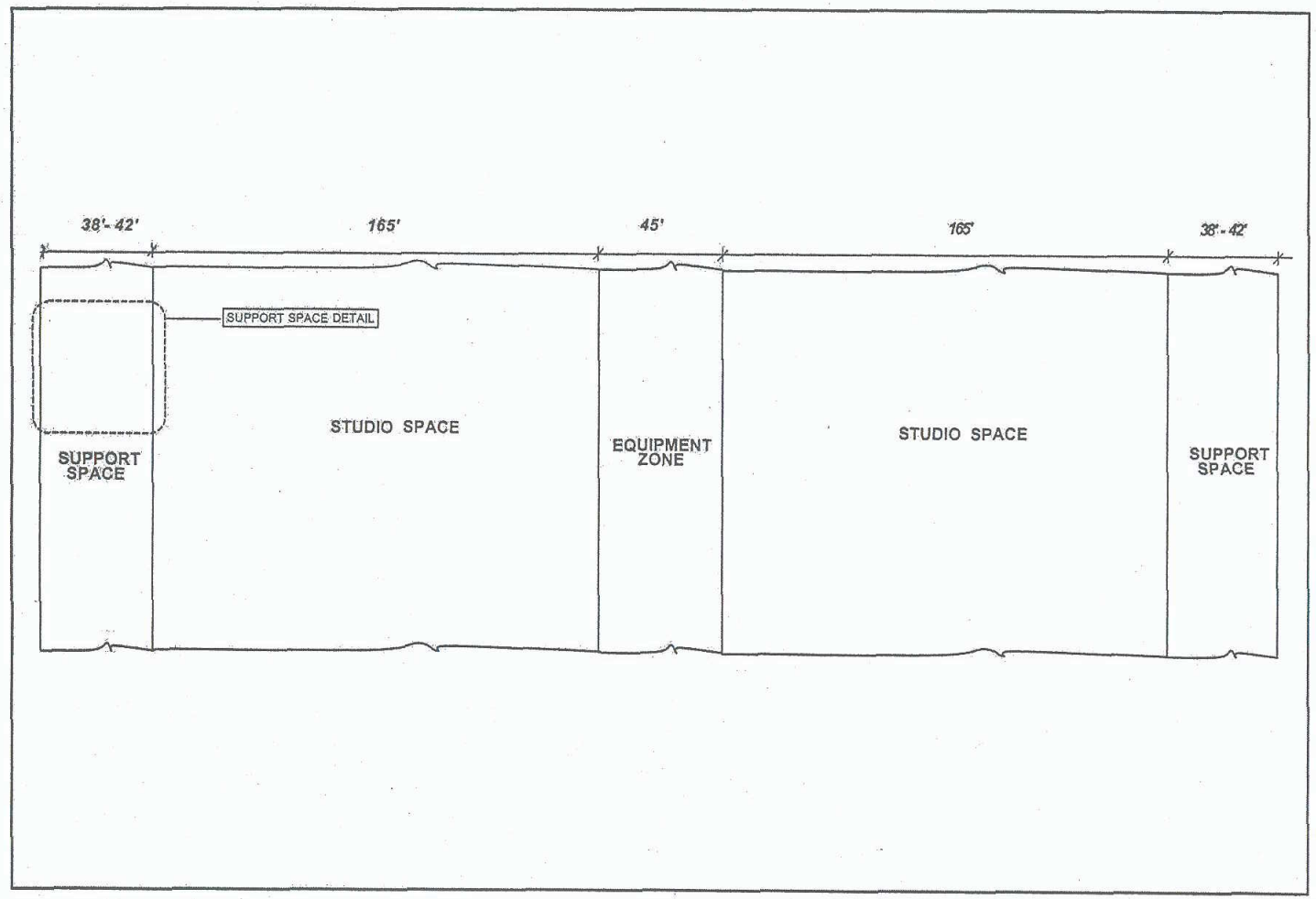


Figure 23-2:
Typical Studio Layout

3. *Need to provide for column free contiguous studio space. In addition to providing studio space of sufficient dimensions to meet modern industry needs. all studio space must be column free to provide for necessary flexibility in the development of movie and television sets.* This necessity renders infeasible schemes in which the massive residential and commercial towers are located on top of studio space, and requires that the towers be pushed to the perimeter of the Project Site. Otherwise, without internal columns, there would be insufficient structural support for the towers.

4. *Need to provide for truck access to the studio space.* Trucks laden with construction supplies, specialized materials for sets, and other apparatus and equipment must be provided with easy access to each studio. The use of elevators for this purpose is too time consuming and would take up too much space to be operationally and structurally feasible. The proposed structure would have two layers of studios stacked on top of one another, allowing for the use of internal loading berths for trucks to access both layers. Reconfiguring the bulk to include more layers of studios within a smaller footprint would not be feasible because this would require the use of elevators.

5. *Federal Aviation Administration-imposed 600-feet limitation on the height of structures within the flight paths to and from LaGuardia Airport.* This limits the maximum height of both the residential and commercial elements of the project to less than 600 feet, meaning that designs with fewer, taller towers are not feasible.

6. *Maximization of views.* To ensure the economic viability of the Proposed Action, the residential and commercial towers must provide a maximum amount of uninterrupted views of the East River, the Manhattan skyline and the historic Queensboro Bridge. This dictated that the proposed residential towers be placed as far apart as possible to maximize these views, and that the towers be oriented with their longer sides facing north and south, so as to minimize the east-facing walls with no views. It also foreclosed schemes orienting the commercial tower on the western side of the site with the residential towers along Vernon Boulevard on the eastern side, as views from the latter would be blocked by the former.

7. *Other considerations.* Finally, marketing of space in the project, either to residents or commercial tenants, will require that it meet certain aesthetic and functional requirements. For example, shadows from the proposed towers should not fall on the proposed public and private open space features on the roof of the Core Complex during the majority of the day, as this would reduce or eliminate the utility of this space and negate it as a marketable amenity of the Project. The need to minimize the length of time in which these open spaces are in shadow mandates that two slender residential towers be placed on the southern portion of the Project Site to allow for sunlight to fall on the open spaces during at least a portion of the day. Convenient public access from street level must also be provided to proposed retail uses to ensure profitability. Finally, the overall aesthetic quality of the Proposed Action must be at a high level to attract tenants, visitors and shoppers.

   A rotated configuration, in which the length of the studio space is oriented north and south and the towers are located along the east and west ends of the Project Site is also not feasible. As discussed above, locating the commercial tower in the western boundary of site and the residential towers along Vernon Boulevard on the eastern boundary of the site would result in the blocking of views of the East River and Manhattan skyline from the residential towers by the commercial tower. Locating the commercial tower on the eastern boundary of the site would result in the loss of leasable space within the tower due to the presence of the lot on which the New York Architectural Terra Cotta Building is located, which would require reduction of the floorplate of this tower. In addition, ingress and egress to the residential towers would be constrained by locating them on the western boundary of the Project Site, away from roadways.

In summary, for these reasons, no alternative configuration was identified that would substantively meet the goals and objectives of the Proposed Project.

TABLE 23-6: PREFERRED DEVELOPMENT PROGRAM AND POTENTIAL VARIATIONS

Use	Preferred Development Program (gsf)	Variation 1 *(Residential)* (gsf)	Variation 2 *(Studio)* (gsf)	Variation 3 *(Residential and Studio)* (gsf)
Residential	1,044,970	1,700,018	1,044,970	1,700,018
Commercial	816,538	161,490	816,538	161,490
Office	*655,048*	*0*	*655,048*	*0*
Retail	*76,581*	*76,581*	*76,581*	*76,581*
Health Club	*40,013*	*40,013*	*40,013*	*40,013*
Catering	*44,896*	*44,896*	*44,896*	*44,896*
Cultural/Community Facility	126,401	126,401	0	0
Studio/Studio Support	346,574	346,574	473,282	473,282
Loading/Parking	433,761	433,761	433,761	433,761
TOTAL Floor Area	**2,768,551**	**2,768,551**	**2,768,551**	**2,768,551**
Public Open Space (Upland Connection and Esplanade)	55,000	55,000	55,000	55,000