

1 EXECUTIVE SUMMARY

St. Francis Hospital - The Heart Center, located in the Village of Flower Hill on Long Island, is proposing to implement a major modernization project, hereafter referred to as the “Master Facilities Project” (MFP). The project is intended to “right-size” patient diagnostics, treatment, support service and care facilities to address operational, technological and planning deficiencies within the existing infrastructure. (The “right-size” is the size necessary to serve the Hospital’s market area with a facility that would provide patient care at an occupancy rate consistent with industry standards and on par with comparable regional facilities.) The improvements are intended to enhance the quality of services provided, eliminate bottlenecks, restore reasonable hours of operation and promote patient privacy for the highly acute patient population served by the Hospital.

Over the years, St. Francis Hospital (herein after referred to as “the Hospital”) has gained regional, state, and national recognition for its successful care and treatment of heart-related maladies, maintaining the industry’s lowest risk adjusted mortality rate in New York State. This accomplishment has been achieved under extremely demanding constraints, most clearly exemplified by the Hospital’s average occupancy operating statistics as compared to other similarly sized regional facilities. The Hospital, the cardiac surgical facility of choice for Long Island residents, has operated at greater than 112% utilization since 1990. In 2001, the Hospital operated at 115% with an average daily census of 321 patients against a certified bed capacity of 279 or 42 more patients on average than its certified bed capacity. These trends continued in 2002. The completed MFP would enable the Hospital to reduce overcrowding and expand overburdened

facilities, allowing their patients to be served in a more dignified, effectively sized, and technologically sophisticated environment. The Hospital is proposing the construction of a 68,000 square foot addition at cellar level with a three-story hospital bed building erected above the addition and renovations to the existing physical plant. This building would replace the St. Joseph, St. Rose, and Our Lady Pavilions, also referred to as “the Cottages.” The new building would house 200 patient care beds, including 85 new beds and 115 replacement beds, bringing the Hospital to an occupancy rate of 88%. This rate more closely approaches the average hospital occupancy rate on Long Island (81% in 2001) and the bed need methodology for medical/surgical beds in urban counties (which includes Nassau, Suffolk and Queens) contained in 10 NYCRR 709.2(d)(14) which uses an occupancy rate of 85%. Additionally, the new space would also allow other services to be relocated from within the Hospital to permit needed expansion of numerous ancillary departments. Also included in this plan is the expansion of parking by 307 spaces to accommodate the re-sizing of the facilities. The new parking would be in a four-level below-grade expansion of the East Parking Garage.

The project includes the addition of 85 new inpatient beds to appropriately house the Hospital’s existing patient census in rooms with state-of-the-art technology, suitable amenities and privacy, eight new operating and procedure rooms, three additional cardiac catheterization laboratories and one additional angiography room.

The goals of this project are to improve and modernize patient care throughout the facility; "right-size" the facility to meet demands of modern technology and practices; eliminate bottlenecks; restore sustainable hours of labor; promote patient privacy; and improve infrastructure to support hospital modernization. The design goals have been to

implement site improvements along Port Washington Boulevard, locate building additions with the least impact on the neighborhood and community, avoid expansion of existing structures along the Hospital perimeter, and comply with Village zoning requirements.

Location and Site Description

The Hospital is located at 100 Port Washington Boulevard, in the Village of Flower Hill, Town of North Hempstead, Nassau County, New York. The entire Hospital campus is 15.15 acres, which includes ten medical and administrative buildings and two parking structures. The Hospital campus is located in a suburban residential area immediately bounded on three sides by residential properties. The fourth side of the campus is bounded by a signalized, four-lane state highway.

The site is zoned H-1, Hospital District. This is the only site in the Village so designated. The zoning code restricts the use of this district to a “hospital or sanitarium.” However, this section of the zoning code provides no other restrictions. Existing land use control is derived from a Declaration of Covenants and Restrictions. The immediately surrounding zoning districts are residential.

The project site has no natural bodies of water nearby. There are no prominent natural features on the Hospital campus. Prior to the 1920’s, the site was the estate of steamship line owner Carlos Munson. At that time, the land was devoted to the home site, orchards, and meadow. In 1922, the site became a summer camp for inner city children. In 1936, the site also became a sanatorium for children afflicted with rheumatic fever. St. Rose, Our Lady, and St. Joseph Pavilions were constructed in 1940 and the St.

Elizabeth Pavilion and St. Francis Chapel were built in 1950. In 1954, the Hospital opened to adult patients and changed its name to St. Francis Hospital and Sanatorium. The Maria Assunta Pavilion was added in 1961 and the Robert F. Vizza Pavilion in 1970. The Heart Center was constructed in 1972, the Heart Center Addition in 1982, the North Parking Garage in 1989, and the Casey Pavilion in 1991. The latest major addition was the below-grade East Parking Garage in 2000.

There are presently two points for vehicular entry, which adequately provide access to and from Port Washington Boulevard and would continue to do so upon completion of the project. The campus is developed within authorized limitations and includes building, road, hardscape, and softscape improvements. The proposed new construction would be built to have the least possible impact on the surrounding community and would comply with all local, regional, state, and national planning, zoning and code requirements.

Project Description

The Master Facilities Project proposes construction of new clinical, diagnostic and treatment space, patient care areas, improvements to existing support services, enhancements to the physical plant and expansion of on-campus parking facilities and site amenities. The new construction would replace obsolete operating and procedure rooms, and acute care and intensive care beds. It would include 154,000 square feet of new hospital space, 75,000 square feet of renovations, Central Utility Plant renovations including a 700 square foot chiller plant expansion, construction of 345 below-ground parking spaces and associated site improvements. Demolition of St. Joseph, St. Rose,

and Our Lady Pavilions would be required in order to provide the site area for the building additions.

Total patient care capacity would increase by 85 beds for a new licensed bed capacity of 364 beds. The project would increase operating and procedure room capacity by eight and Cardiac Cath Labs by three. Pre- and post-operative care services would be increased in capacity and centralized, and support service departments would be right-sized. Key to the success of the Heart Surgical program is the proximity of the Cardiac Surgical facilities to the Catheterization Laboratory and to the ICU beds. The new construction would connect with all four levels of the existing Hospital, as well as linking adjacent parking structures. Site circulation would be altered to redirect visitors to the front door of the Hospital, providing access to the main lobby, a new ambulatory services lobby, and conveniently located, dedicated covered parking. Staff entrances and parking would be provided to ensure discrete, secure points of access for Hospital employees.

Required Approvals

The Certificate of Need (CON) process governs the establishment and construction of health care facilities in New York State. Certificate of Need applications are required for all health care facilities that propose construction, acquisition of major medical equipment, changes in ownership and the addition of services. The Certificate of Need application for the expansion of the medical facilities at the Hospital was approved by New York State Department of Health on June 3, 2003 and the CON application for the expansion of the parking garage was approved on July 3, 2003. The CON application identified specific deficiencies that included:

- Insufficient beds and space to house the Hospital's existing and projected patient volume.
- Lack of sufficient operating and procedure rooms to efficiently meet demand on a timely basis. The operating room is currently in operation 14 to 16 hours per day and hours of operation cannot be expanded to accommodate additional volume.
- Need to improve facilities and expand technology for both cardiac and non-cardiac services needed to support cardiac patients.
- Insufficient support and storage space to meet the need of patients, employees, and medical staff.
- Some patient care areas were technologically obsolete and needed replacement with state-of-the-art facilities.

Other agencies from whom approvals are required, include: Village of Flower Hill Board of Trustees, Nassau County Fire Marshal, Nassau County Planning Commission, Dormitory Authority of the State of New York, New York State Department of Environmental Conservation, Port Washington Water District, and Port Washington Water Pollution Control District. The Hospital's traffic engineer recommended a traffic signal for the north drive entrance. Although optimal, this signal is not required for the project to successfully function. Approval of the traffic signal would be by the New York State Department of Transportation.

Scoping

Scoping is a process that develops a written document ("scope") that outlines the topics and analyses of potential environmental impacts of an action that would be addressed in a Draft Environmental Impact Statement (DEIS). A draft Scope of Issues was submitted to the Village of Flower Hill on July 14, 2003. Public Scoping Meetings were held on August 6, 2003, and on September 11, 2003, at the Flower Hill Village Hall. On September 22, 2003, the Village of Flower Hill Board of Trustees approved the Final Scope for this Draft Environmental Impact Statement.

Project Purpose, Need and Benefits

The Hospital offers general and specialized care services to a local and regional patient population. Over the past ten years, patient capacity increases and technology advances have stretched hospital infrastructure well beyond its designed capacity. Normal hours of operations have been extended and facilities have been reconfigured in an attempt to address overcrowding and to keep diagnostic and treatment technology and building infrastructure up to date. The Hospital has reached the point where further improvements and modernization of patient care services require the addition of new space.

The goals of this project are to improve and modernize patient care throughout the facility; "right-size" the facility to meet demands of modern technology and practices; eliminate bottlenecks; restore sustainable hours of labor; promote patient privacy; and improve infrastructure to support the Hospital's modernization. The design goals have been to implement site improvements along Port Washington Boulevard, locate building additions with the least impact on the neighborhood and community, avoid expansion of

existing structures along the Hospital perimeter, and comply with Village zoning requirements.

The implementation of the MFP would enable the Hospital to operate a patient-care environment at an occupancy rate consistent with industry standards and on par with comparable regional facilities. New surgical, diagnostic, and procedure space would reduce the hours of operation to industry-accepted norms. The reconfigured Hospital would promote patient privacy and ease of access to patient care. Improvements in critical department adjacencies within the existing Hospital and the interconnectivity of services vertically and horizontally on the campus would improve the efficiency and quality of care provided at The Hospital. The proposed improvements would enable the Hospital to more responsively address patient needs and community concerns.

Environmental Conditions, Probable Impacts, and Mitigation Measures

Soils – The soils on-site are classified as Ug-Urban land, where the majority of soils have been previously disturbed and are usually covered by asphalt, concrete, or other impervious building materials. Areas not appreciably altered or under impervious cover are mainly lawns or other landscaped areas and are usually well drained.

Approximately 98,000 cubic yards of earth materials would be removed during excavation. This would include the surface soils of this material that will be excavated. Removal of this amount of material could potentially result in substantial erosion and sedimentation impacts. Mitigation measures for soil erosion includes the Hospital's engineer preparing a Storm Water Pollution Prevention Plan (SWPPP) that describes the measures that would be used to control storm water discharges from construction

activities and applying Best Management Practices (BMP). Specific methods and materials employed in the installation and maintenance of erosion control measures would conform to the NYSDEC's technical standards and the notes indicated on the Site Grading and Drainage Plan. Actual erosion control measures would be dictated by field conditions as construction progresses and as directed by the engineer. The first 2 inches of stormwater runoff within areas of new work would continue to be retained on-site within drywells and recharged to the subsurface soils. The sequence of construction requires that existing stormwater drainage pipes, inlets, and drywells that are affected by the new work would be replaced in kind prior to the start of excavation. Consequently, the stormwater collection system from roof and site areas and recharge within drywells would continue to function without interruption during construction and there should be no impact on area roadways or nearby residential properties. No substantial long-term impacts on remaining surface soils are anticipated; therefore, no mitigation measures beyond the reestablishment of landscape materials would be necessary.

Subsurface Geology – The subsurface geology of the Manhasset Neck area is somewhat complex and is not typical of Long Island as a whole. This is mostly due to glacial erosion, ice shove deformation, and post-glacial lake infilling. Approximately 98,000 cubic yards of earth materials would be removed, but none of the upper glacial tills and outwash beyond the excavations would be altered. As indicated above, removal of this amount of material could potentially result in substantial erosion and sedimentation impacts. The Hospital's engineer would prepare a Storm Water Pollution Prevention Plan that describes the measures that would be used to control storm water discharges from the construction activities and apply Best Management Practices. Mitigation for

possible erosion and resulting sedimentation includes sediment barriers that would be installed as needed prior to any grading work. No sediment from the site would be permitted to wash into adjacent properties or roads. The first 2 inches of stormwater runoff within areas of new work would be retained on-site within drywells and recharged to the subsurface soils. The sequence of construction for the proposed project requires that existing stormwater drainage pipes, inlets and drywells that are affected by the new work would be replaced in kind prior to the start of excavation. Consequently, the stormwater collection system from roof and site areas and recharge within drywells would continue to function without interruption during construction. A stabilized access pad would be installed at construction entrances and construction vehicles exiting the site would be washed down to prevent dirt being tracked from the site to local roads and from contributing to fugitive dust. Sweeping of the construction entry and exiting points would also take place. Other methods of dust control include minimizing the area of the site which is subject to disturbance at any one time, use of mulch or other temporary covers on exposed soil areas, limiting the movement of trucks and construction equipment over exposed soil surfaces, and covering haul trucks to prevent dust emissions while in transit to a disposal site. During dry weather conditions dust would also be controlled by spraying water on unpaved areas subject to heavy construction vehicle traffic. Another potential impact is the truck traffic generated by the removal of this material. Turner Construction estimates that, during the period of greatest activity, 30 to 50 trucks per day can be expected to enter and leave the Hospital site. Based on an 8-hour workday, between 4 and 7 trucks per hour would be added to the highway system. This small number of additional vehicles is not expected to have any discernable impact

on operating conditions on the adjacent roadway network. Potential vibration sources during construction would mainly be from heavy equipment usage and heavy-impact activities. As a significant mitigation measure, there would be no vibratory or impact pile driving during construction. As pile driving is almost always the most significant vibration generating activity, the pile holes would instead be pre-drilled with an auger. In the area of the East Garage Extension, a new replacement deep piezometer was dry at a depth of more than 60 feet, which indicates that the water table is below the 50-foot excavation depth for the Garage Extension and dewatering should not be required for mass excavation. In the area of the Hospital building the recorded stabilized ground water was at about 69-feet in depth and excavation will be to ± 15 feet, placing the water table more than 50 feet below the excavated site. The Parking Garage extension would require piles with lagging and sheeting. The piles will be predrilled in lieu of hammer driving. This will greatly reduce vibration impacts on the Hospital functions and the local neighborhood. No impact on the subsurface geology is anticipated. Although not likely, if perched water requires dewatering, required NYSDEC permits would be obtained. No other mitigation measures are necessary.

Topography –The Village of Flower Hill is located in the area of the eroded north shore headlands at the southern base of the Manhasset Neck. The topography of the village could be characterized as moderately hilly. There are no unique or unusual landforms on the project site. The project site is on a minor rise and northeast-facing slope. Elevations on the site vary from just over 140 feet to just over 170 feet. The largest short-term changes in site topography would involve excavation during construction. The excavation for the Hospital building would be to a depth of ± 15 feet. There is no

requirement for stabilization at this excavation other than local underpinning. The East Parking Garage extension will be excavated to a depth of ± 50 feet. This excavation would be stabilized with drilled piles with lagging. The use of a drill in lieu of the use of hammer driven piles will substantially reduce vibration transmitted to the rest of the Hospital site and to the neighboring residences. Drywell excavation will be to a depth of ± 25 feet and the stabilization methods will vary depending on location. Major long-term changes in site topography are not anticipated and no special mitigation measures would be needed.

Terrestrial Ecology – The terrestrial communities present on-site are communities that are either created and maintained by human activities, or are modified by human influence to such a degree that the current biological community is substantially different from the community as it existed prior to human influence. Based on the present character of the site and the absence of rare flora and fauna, no long-term significant adverse impacts on the terrestrial ecology are anticipated and no mitigation measures are required.

Also considered were commensal rodents. Commensal rodents are the three species of rats and mice that live in close contact with humans. All three are destructive to structures and can be disease vectors. In order to get a demolition permit from Nassau County Department of Health, a rodent free certification is required. Therefore, before the Cottages can be removed, an inspection for and, if necessary, extermination of any rodent populations shall take place.

Groundwater – As is true of all Long Island, all freshwater on Manhasset Neck is derived from precipitation that infiltrates the soil. About one-half of the precipitation returns to the atmosphere through evaporation and transpiration, the rest percolates to the water table, where it becomes shallow groundwater. Some moves laterally into stream channels and becomes base flow of surface waters. The rest moves downward into the deeper aquifers and eventually discharges to the surrounding saltwater bodies. Pumping generally lowers water levels in aquifers and thereby induces a flow gradient toward the pumped wells. A major concern is that contaminated water from adjacent or overlying aquifers may be induced to flow toward the well. Since Manhasset Neck is a peninsula, surrounded on three sides by saltwater, a flow towards the wells causes the intrusion of saltwater into the freshwater aquifers.

The Hospital uses a drywell system to drain stormwater from impermeable surfaces such as walks, roadways, parking areas and rooftops. The drywells are designed to leach stormwater runoff into the underlying sandy soils and recharge to groundwater. Groundwater lies about 70 to 80 feet below the surface at the project site. Since stormwater from impermeable surfaces flows to a drywell system, a larger percentage of precipitation moves into the groundwater system than under natural conditions. Pollutants, such as sediment, road chemicals, pathogens, etc., that are typically present in the first flush of the stormwater runoff, are trapped within catch basins and drywells or removed through filtration in the soils.

Calculations were made for drainage for the Hospital campus. Currently building and garage areas cover 210,997.00 square feet (32.4%) of the property's surface area. Pavement areas cover an additional 274,771.17 square feet (42.2%). Lawn and

landscaped areas cover 165,690.69 square feet (25.4%). Stormwater runoff calculated for a 2-inch rainfall event is 89,258.87 cubic feet. Calculations were also made for drainage for the proposed conditions. The building and garage areas would cover 297,513.37 square feet (45.7%) of the property's surface area. Since below grade structures inhibit the flow of groundwater, they were considered in this category even if covered by landscaping. Pavement areas would cover an additional 199,041.07 square feet (30.5%). Lawn and landscaped areas would cover 154,904 square feet (23.8%). Stormwater runoff calculated for a 2-inch rainfall event for the proposed project is 90,504.29 cubic feet.

As a water consumer, the Hospital uses water at a rate of 115,730 gallons per day. The Hospital's water use represents about 2.9% of the Port Washington Water District's total consumption. Water for irrigation at the Hospital comes from a private well on-site and not from the public water supply. Estimated water usage for the proposed project would be 352.6 gallons per day for the 200 new beds served by low flow fixtures and 370 gallons per day for the 164 older beds served by remaining fixtures. This would be an annual usage of 48,804,507 gallons, at a rate of 133,710.97 gallons per day. This is an increase of 6,562,631 gallons annually. This would be 3.4% of total pumpage and would represent an increase of 0.45% in total water demand on the Port Washington Water District over pre-construction consumption. The Port Washington Water District is requiring the Hospital to demonstrate the conservation measures to be implemented and the project schedule to reduce present consumption. Towards that end, the Hospital presently maintains 105 older style water closets that would be upgraded during the Master Facilities Project. The modifications have been budgeted and scheduled by the Hospital to coincide with the project work, with a replace rate of one fixture per week.

At the end of the project, when all the fixtures are replaced by low-flow fixtures, the average consumption would be 130,851 gallons per day. Long-term increase in water consumption by the Hospital would be 13.1%

Surface Water – The project site neither contains, nor is contiguous to, any surface waters, streams, or wetlands. The nearest freshwater body is a small pond, 0.52 miles west-northwest of the Hospital’s campus. The nearest saltwater is Hempstead Harbor which, at its closest point, is 0.80 miles east of the Hospital. Since there appears to be no surface or groundwater contributions to the nearest freshwater water bodies, no impact is expected. Mitigation measures include the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that would describe the measures that would be used to control storm water discharges from construction activities and applying Best Management Practices. Specific methods and materials employed in the installation and maintenance of erosion control measures would conform to the NYSDEC’s technical standards and the notes indicated on the Site Grading and Drainage Plan.

Erosion and Stormwater Impact – Site topography and grading causes the site, in general, to drain from the west to the east. Currently building and garage areas cover 210,997.00 square feet (32.4%) of the property’s surface area. Pavement areas cover an additional 274,771.17 square feet (42.2%). Lawn and landscaped areas cover 165,690.69 square feet (25.4%). Stormwater runoff as calculated for a 2-inch rainfall event is 89,258.87 cubic feet. Stormwater runoff from existing landscaping, parking, and driveway areas is collected by drainage inlets and piped to on-site drywells. Runoff from roof areas of existing buildings is piped directly to on-site drywells. The drywells are designed to leach stormwater runoff into the underlying sandy soils and recharge to

groundwater. Calculations were made for drainage for the Hospital campus for the proposed conditions. The building and garage areas would cover 297,513.37 square feet (45.7%) of the property's surface area. Since below grade structures inhibit the flow of groundwater, they were considered in this category even if covered by landscaping. Pavement areas would cover an additional 199,041.07 square feet (30.5%). Lawn and landscaped areas would cover 154,904 square feet (23.8%). Stormwater runoff calculated for a 2-inch rainfall event is 90,504.29 cubic feet. The net increase in stormwater runoff for a 2-inch rainfall event due to the proposed project would be 1,245.42 cubic feet. The first two inches of stormwater runoff within areas of new work would be retained on-site within drywells and recharged to the subsurface soils. Additional drainage facilities would be provided at the Hospital's two driveways at Port Washington Boulevard to prevent direct stormwater runoff onto the roadway. Proposed site drainage would be designed to prevent erosion and concentrated flows to adjacent properties. The project would be subject to the new Phase II Stormwater Management Regulations. This project would comply with the requirements under the general permit. Pursuant to the permit, a Storm Water Pollution Prevention Plan (SWPPP) would be prepared by the Hospital's engineer, and a Notice of Intent (NOI) would be filed with the NYSDEC. The SWPPP would describe mitigation measures that would be used to control stormwater discharges from construction activities. Appropriate methods of dust control would also be used. These methods include a stabilized access pad that would be installed at construction entrances to limit soil movement from the site and that may contribute to fugitive dust. Construction vehicles exiting the site would be washed down before they leave the excavation area to prevent dirt being tracked from the site to local

roads and from contributing to fugitive dust. Sweeping of the construction entry and exiting points would also take place. Other methods of dust control include minimizing the area of the site which is subject to disturbance at any one time, use of mulch or other temporary covers on exposed soil areas, limiting the movement of trucks and construction equipment over exposed soil surfaces, and covering haul trucks to prevent dust emissions while in transit to a disposal site. During dry weather conditions dust would also be controlled by spraying water on unpaved areas subject to heavy construction vehicle traffic. Demolition would be staged and managed to minimize dust generation. Demolition debris would be thoroughly wet down before loading and while dumping into trucks or other containers. With site maintenance and careful attention to construction activities, fugitive dust would be minimized.

Land Use and Zoning – The current land use of the immediate project site is institutional, as it has been since the mid 1930’s. The Hospital campus is surrounded by residential use. The major land use within a one-mile area is medium density (one quarter acre to one acre) residential. A substantial area of low-density (one acre or more) residential use is found northwest of the Hospital. Most all of the commercial use is found south of the Hospital site, along Northern Boulevard. The dominant recreational land use is golf course. Two golf courses are found north of the Hospital campus. To the northeast is a large area of industrial/manufacturing, waste handling, and landfill uses.

Existing activities and operations on-site include the nationally recognized cardiac services, emergency room care, ambulatory surgery, laparoscopic gastric bypass, orthopedic services, endoscopy, and interventional radiology. Supporting these activities are food service, laundry, maintenance, grounds keeping, and security operations. The

additional building area and increased operational activities of the proposed additions and renovations would not alter the types of medical and support activities that occur.

The traffic generated would increase, as would demand for parking. Parking would be accommodated by the expansion of the East Parking Garage. On-site traffic circulation would change, as visitor parking would be moved from the North Parking Garage to the expanded East Parking Garage. Visitors would be able to enter the Hospital directly from the parking garage. Staff parking would utilize both the North Parking Garage and a portion of the East Parking Garage, as well as the at-grade parking spaces. Delivery and waste disposal traffic would not appreciably increase. There would be some changes to the service areas of the Hospital. The Linen and Laundry area would change from its existing location behind the Maria Assunta Building to a new area between the existing Central Utility Plant and the St. Elizabeth Building. The new location would eliminate the need for tractor-trailer traffic to travel along the perimeter service road on the western side of the Hospital campus where the road comes closest to the residences on Crabapple Road. This new location would also reduce the level of sound at the residences on Crabapple Road by being further away and in a confined location that would help attenuate noise.

The number of truck exchanges is not expected to increase as a result of the new construction. The existing trash compactor at St. Francis Hospital is currently serviced six days per week, Monday through Saturday. The closed 30 cubic yard compaction container has a capacity of 8 tons. Records from St. Francis Hospital's waste hauler indicate that the average daily weight of the trash disposed from the Hospital's trash compactor is approximately 5 to 6 tons. The additional average spare capacity in each

container is 2 to 3 tons, which allows for a 33% to 60% increase in trash before an additional container pick-up and delivery would be necessary. Therefore, the projected increase of 15% would not necessitate any increase in the frequency of trash container removal. Likewise, adequate capacity exists in all the regular daily delivery trucks, making it unlikely that additional trucks would be needed.

There would not be a change in the type of land use as a result of this proposed project and there would be no change in zoning. The East Parking Garage extension is below grade and the new hospital building would be surrounded by the North Parking Garage, St. Francis Chapel, Casey Pavilion, the Heart Center, St. Elizabeth's, and Maria Assunta, making both major elements of the proposed project inconspicuous from the surrounding area.

Site lighting for the Master Facilities Project would have a limited impact on the community as the new construction would occur within the center of the campus, shielded by existing structures and perimeter landscape buffers. The lighting quality that is presently in existence on the Campus would be maintained. Lighting of entries, pathways, general site illumination, and rooftops would be accomplished using low glare sources.

During construction, equipment noise would be attenuated by the surrounding structures as well. The new hospital building would be well shielded by the surrounding buildings, which are solid and massive enough to resist the passage of sound. Similarly, the parking garage expansion would be a below-ground structure, and therefore noise would be mitigated, as most activity would occur below-ground. Where there is open space

between the existing buildings at the Hospital addition site, and at the parking garage expansion site, an 8-foot continuous plywood fence would be constructed to minimize noise emissions to the residences.

About 200 staff parking spaces would be displaced to Christopher Morley Park during the approximately 12 months of the garage expansion phase. Shuttle bus service would be provided for employees. Staff currently working in the Cottages would be relocated to temporary quarters situated in existing parking areas.

The locations of waste compactors would not change as a result of this project. The service and loading dock area are not visible from the nearby residences. Noise from this area would be attenuated by the proposed sound barrier wall, which should lower sound levels by about 10 dBA, cutting perceived noise in half.

There are no historically or culturally sensitive resources found on or adjacent to the project site and no toxic sites have been identified within a half-mile of the Hospital campus. The Hospital fully occupies the only H-1, Hospital District, zoning district in the Village of Flower Hill. The Hospital has applied to the Village of Flower Hill Board of Trustees for site plan approval. As part of that approval it would be necessary for the Board of Trustees to consent to the modification of a certain Declaration of Restrictive Covenants executed by the Hospital, which states that the total area occupied by all buildings now standing or hereafter erected on the Grantor's Property shall not exceed 33⅓% of the entire area of the Grantor's Property. This project would increase the building coverage from 33.00% to 36.20%, and would therefore increase the building

coverage 2.87% over the maximum coverage stated in the Declaration of Restrictive Covenants.

No new construction is currently taking place in the Village and only two other projects in the area are pending. Joanne's Pizzeria and Easthill Chevrolet, both on Northern Boulevard, are pending site plan review. These projects would not cause any cumulative impact on the area.

The first 2 inches of stormwater runoff within areas of new work would continue to be retained on-site within drywells and recharged to the subsurface soils. The sequence of construction for the proposed project requires that existing stormwater drainage pipes, inlets, and drywells that are effected by the new work would be replaced in kind prior to the start of excavation for the new facilities. Consequently, the stormwater collection system from roof and site areas and recharge within drywells would continue to function without interruption during construction and there should be no impact on area roadways or nearby residential properties.

Mitigation for possible erosion and resulting sedimentation includes sediment barriers that would be installed as needed prior to any grading work along the limits of disturbances and would be maintained for the duration of the work. No sediment from the site would be permitted to wash into adjacent properties or roads. Graded and stripped areas and stockpiles would be kept stabilized through the use of temporary seeding or other suitable means.

A stabilized access pad would be installed at construction entrances to limit soil movement from the site. Construction vehicles exiting the site would be washed down

before they leave the excavation area to prevent dirt being tracked from the site to local roads and from contributing to fugitive dust. Sweeping of the construction entry and exiting points would also take place. Other methods of dust control include minimizing the area of the site which is subject to disturbance at any one time, use of mulch or other temporary covers on exposed soil areas, limiting the movement of trucks and construction equipment over exposed soil surfaces, and covering haul trucks to prevent dust emissions while in transit to a disposal site. During dry weather conditions dust would also be controlled by spraying water on unpaved areas subject to heavy construction vehicle traffic.

Trucks will utilize the northerly site access driveway exclusively, so as to minimize their interference with visitor and especially, emergency vehicles, which utilize the southerly, signalized access driveway.

Potential vibration sources during construction would mainly be from heavy equipment usage and heavy-impact activities. As a significant mitigation measure, there would be no vibratory or impact pile driving during construction. As pile driving is almost always the most significant vibration generating activity, the pile holes would instead be pre-drilled with an auger. It is not expected that any perceptible vibration would be transmitted beyond the Hospital property line during the pre-drilling activity.

Excavation activity would be handled with front-loaders and backhoes, and all pavement removal areas would be saw-cut before excavation. This technique is the quietest method of excavation, and would minimize vibration. As such, typical excavation activity is not

expected to cause perceptible vibration to be transmitted beyond the Hospital property lines from this activity.

An additional potential vibration source is movement of construction vehicles. Vibration generation in this case is mainly a function of road surface discontinuities. To mitigate vibration, the road surface would be maintained and repaired whenever mitigation measures are needed. In addition, construction equipment would pull into internal portions of the site (further away from the residences) to avoid the perimeter of the Hospital property.

No equipment would be permitted to idle in place for more than 15 minutes when on the construction site. Truck staging would occur at off site areas such as Christopher Morley Park and the LIE service road.

In compliance with requirements for a demolition permit from Nassau County Department of Health and to help ensure that vermin do not impact the residential neighborhood, a rodent inspection will be conducted and a rodent free certification obtained.

After construction, the project site would be re-landscaped. Major shade trees to be planted would include Honeylocusts and Littleleaf Lindens with a height of 14 to 18 feet. Ornamental deciduous trees to be planted would include Kwanzan Cherries, Dogwoods, Birches, and Magnolias with a height of 12 to 16 feet. Bamboo, with a minimum height of 8 to 12 feet, will be planted in planters along the south side of the North Parking Garage. All new lawn areas will be sodded. Terraces with stone pavers will be

constructed northeast of Casey Pavilion and east of St. Elizabeth. Existing light fixtures and benches will be reused where possible.

The three new and more efficient boilers with low-NO_x burners would be replacing four older boilers with standard atmospheric burners. This would serve to increase energy efficiency with lower NO_x.

Abatement procedures for both asbestos-containing materials and lead-based paint would take place before any demolition occurs. Qualified abatement technicians would conduct all abatement procedures for both asbestos-containing materials and lead-based paint.

Since the Hospital is interested in not having any odor problems develop, regular walk-around inspections for odors would be conducted. The Hospital will continue with its current and effective sanitation methods and the use of closed containers. If a problem regarding the Sani-Pak develops in the future, the Hospital would not be opposed to taking additional steps to mitigate the problem.

In the interest of limiting the noise from the loading dock area, the project includes a proposed 15.5 foot tall wall, which would be installed approximately 50 feet from the property line, and be constructed of pre-cast sound absorptive concrete. In their April 24, 2003 report, Shen, Milsom & Wilke noted that after construction of the barrier wall, activity noises from the receiving dock are predicted to be reduced to less than 58 dBA at the property line. Since dock activity is limited by the Hospital to 8:00 A.M. to 4:00 P.M. only, the expected noise transmittance is below both the limits of the residential and commercial sections of the Code during daytime hours. Since the garbage compactors are run periodically from 8:00 A.M. until about 11:00 P.M., they should also meet the

more stringent 6:00 P.M. to 8:00 A.M. commercial district standards. With the predicted reduction to 50 dBA, the use of compactors would meet both commercial and residential noise code.

Building entries would be lit using various methods including in-grade directional uplights, existing pole lights, and building mounted overhead fixtures. The proposed extension of the Casey Lobby, which connects the existing lobby to the new parking garage, would be lit with in-grade directional uplights. These lights would be focused on the canopy and north, south and east facades of the new one story structure. Other entries around the campus would be lit primarily by wall mounted low glare fixtures.

The Hospital is piloting a “Room Service” food delivery arrangement for inpatients housed on certain units within the Hospital. The room service food delivery initiative will be permanently established on other units within the Hospital and eventually throughout the house. Aside from the desired result of improved patient satisfaction and better nutritional service provided, there were two unexpected by-products of the room service model. Since food is ordered by the patient or the patient’s family members, and delivered within 45 minutes of the order, the pilot study has shown that the patient more readily and completely consumes the food, thus generating significantly less food waste. The other unexpected result was that since the patient now consumed more food at mealtime, many patients ordered only two meals per day, rather than the traditional three meals per day, further reducing waste. The reduction in waste is so significant, and the patient satisfaction so improved that the Hospital is committed to converting the entire food service operation to a room service delivery model by the time the project is

completed. When the project is complete, there will be less generated food waste than there is currently.

Waste receptacles that would be placed at the bus stop and on the paved path between the southernmost parking lot and Crabapple Road may resolve some of the litter problem.

During the public scoping session, anecdotal evidence of a significant increase in Hospital related on-street parking activity during previous construction projects at the Hospital was presented. It is possible that this activity could recur during this proposed project. Prior to the beginning of construction, the Hospital would distribute a memorandum to all Hospital personnel, advising them of the reduced availability of on-site parking, and of the arrangements made for off site parking at Christopher Morley Park. Included in the memorandum would be information regarding available public transportation to and from the Hospital. The Hospital maintains a database of all staff license plate numbers. In order to encourage utilization of the off site parking, the Hospital would periodically survey the streets surrounding the Hospital and cross reference the license numbers of vehicles parked there to the database. Employees whose vehicles are found to be parked on the streets around the Hospital would be notified that they are not in compliance with Hospital policy. Local residents would also be encouraged to notify the Hospital of any parking related problems. This policy would also be extended to include contractor and sub contractor employees. A contact person would be designated by the Hospital and the number made available for local residents to express concerns regarding any aspect of the project.

These mitigation measures are aimed to minimize significant impacts to local land use, neighborhood character, local homeowners' enjoyment of aesthetic views and qualities, or cumulative impact caused by this project.

Area Plans – There are no known local or regional plans that indicate the community's intentions for the project site and the surrounding area other than the zoning code, which designates this site as H-1, Hospital District. The most recent Town of North Hempstead and Nassau County Master Plans are silent on this project area.

Transportation – Dunn Engineering Associates conducted a Full Traffic Impact Study and a comprehensive Parking Study for this proposed project. They found that although the site would generate additional traffic, the adjacent roadway network with the recommended mitigation measures, the proposed access locations, and the internal site layout could adequately handle this traffic. At present, two driveways on Port Washington Boulevard serve the Hospital site. The southerly driveway provides three lanes, one for entering traffic and two for exiting traffic, and is controlled by a traffic signal. All movements out of the Hospital driveway are permitted, and left turns into the Hospital are provided with a protected left-turn phase on the traffic signal. Thru traffic into the Hospital and left turns onto Port Washington Boulevard from Middle Neck Road are not permitted. The second, northerly, driveway provides two lanes, one for entering traffic and one for exiting traffic. This driveway forms a three-leg intersection with Port Washington Boulevard. All movements into the site are permitted, along with right turns only out of the site.

As part of the MFP, it is proposed that the existing East Parking Garage would be expanded to provide an additional 345 spaces. Since other aspects of the Hospital expansion result in the displacement of 38 spaces, the expanded parking garage would add 307 new spaces, for a total of 1,682 spaces located on the Hospital site. This total exceeds the requirements of the Village code (1,264) and estimated future peak demand (1,545). Thus, the Hospital would be able to provide sufficient parking to accommodate visitors, employees, patients, and staff at the expanded Hospital facility.

The conservative, worst-case estimate of traffic volumes generated by the proposed hospital expansion would be a weekday A.M. peak hour rise from 492 vehicles to 639 vehicles and a weekday P.M. peak hour rise from 509 vehicles to 661 vehicles.

The results of the intersection capacity analyses performed for this study indicate that vehicles traveling on Port Washington Boulevard and/or turning into or out of the Hospital driveways are not experiencing significant delays during the weekday A.M. and P.M. peak hours. However, during the weekday A.M. peak hour on Port Washington Boulevard, the queue of vehicles waiting to make a northbound left turn into the southerly Hospital driveway has been observed to extend beyond the limit of the left-turn storage lanes provided on Port Washington Boulevard. Northbound vehicles have been observed bypassing the signalized intersection to utilize the unsignalized northerly driveway to make this left-turn movement into the site. Intersection capacity analyses indicate that sufficient capacity exists at the unsignalized northerly driveway to accommodate this demand although the southbound queue from the signalized driveway often extends back beyond the northerly driveway, effectively blocking vehicles from

entering the Hospital via the northbound left turn, and in turn causing the northbound left-turn queue to extend beyond the limit of the storage lane at this location as well.

Vehicles traveling on Port Washington Boulevard and/or turning into or out of the southerly, signalized Hospital driveway are not experiencing significant delays during the weekday A.M. and P.M. peak hours. Overall intersection levels of service (LOS) are C for both the A.M. and P.M. peak hours in the existing and no-build condition. For the 2004 Build Condition, LOS during the A.M. peak hour deteriorates slightly to D, and remains at C for the P.M. peak hour. In order to mitigate this deterioration in LOS, it is recommended that a right-turn green overlap arrow and interval be added to the existing signal operation. Addition of this phase to the signal operation is sufficient to return the LOS to C during the A.M. peak hour.

In order to accommodate the future traffic volumes, and lessen the likelihood of certain accident types by increasing storage capacity for left turning vehicles, the following roadway modifications are recommended:

- Increase the left-turn lane storage for northbound vehicles turning left into the northerly Hospital access driveway and southbound vehicles turning left into Middle Neck Road.
- Increase the left-turn storage for northbound vehicles turning left into the southerly Hospital access driveway.
- Install a right-turn green arrow overlap for eastbound to southbound vehicles leaving the Hospital via the southerly site access driveway.

- Reconfigure the northerly Hospital access driveway to provide two lanes, a separate left-turn lane, and a separate right-turn lane for traffic leaving the driveway.

Implementation of the roadway improvements that are recommended as a result of the traffic study should result in a decrease in the rates of occurrence of congestion-related accidents. Roadway improvements on NYS Route 101, Port Washington Boulevard, require approval and issuance of a permit from the New York State Department of Transportation. The applicant is willing to bear the cost of these improvements, pending approval by NYSDOT.

Parking Study – A parking analysis was conducted in order to determine the amount of parking which would be necessary to accommodate the future demand after the proposed hospital expansion has been completed. At present, there are 1,375 parking spaces on the Hospital site, 1,013 in two parking structures, and the remaining 362 at grade, in various parking areas throughout the site. Aside from a small number of at-grade spaces, mostly designated for persons with handicaps, and located in close proximity to several Hospital facilities, the North Garage provides the only visitor parking on the Hospital site. Parking demand can be generated by employees and staff, by patients remaining in the Hospital over a period of time for care (in-patient) and their visitors, by patients visiting the Hospital for surgical procedures and leaving the same day (out-patient) and their visitors, by patients visiting the Hospital for appointments with their doctors, as well as by deliveries, messengers, and possibly others. Employees and staff generate by far the major component of Hospital parking demand, and they remain on-site for a longer duration. During times just before and after shift changes, parking demand is higher due

to the presence of employees arriving for the next shift prior to those from the previous shift leaving for the day.

During the early morning hours, when the main Hospital shift is arriving at the site, the Hospital carefully manages employee-parking demand, so as to make the most efficient use possible of the available parking. During these times, parking attendants are present at the East Garage, and the North Garage is not open. As employees arrive, the attendants direct them to the lower garage levels while parking is available. As the garage fills, employees leave their vehicles with the attendants, and the attendants park the cars. By utilizing spaces that are not formally striped out, such as in the ramps and parking aisles, the attendants are able to accommodate significantly more vehicles in the East Garage than the number of marked spaces would allow. By utilizing this strategy, the Hospital is able to accommodate approximately 35 to 40 more vehicles in the East Garage than the number of spaces formally designated. In addition, there are virtually no unoccupied spaces in the lower levels during this time, so the garage is utilized in the most efficient manner possible.

In recognition that the potential exists for the patient census to exceed 88%, and the fact that hospital staff would be added, it has been conservatively assumed that total parking demand at the Hospital would increase by approximately 15%. The peak parking demand detected during the parking occupancy study, including those vehicles parked off site on Port Washington Boulevard and the single vehicle parked on Oaktree Lane was 1,342 spaces. Assuming a 15% increase, 1,545 parking spaces would be required to accommodate total future parking demand on the Hospital site, with no on street parking needed. The expanded parking garage would add 307 new spaces, for a total of 1,682

spaces located on the Hospital site. Should demand occur for 1,545 spaces on-site, a surplus of 137 spaces would be available, or 8% of the capacity.

Upon completion of the project, the North Garage will be designated for employees only. In addition, employees will also utilize part of the expanded East Garage. This will eliminate the necessity to park employee vehicles in the aisles, etc., as is current practice, since ample employee parking will be available. In addition, visitor parking will now be located in the East Garage, adjacent to the main southerly access driveway. Upon entering the site via the existing signalized access driveway, visitors will be directed via internal signing to the entrances to the expanded East Garage.

In order to minimize the impact of the construction activities on the availability of parking, the proposed expansion of the East Garage would be completed and the new parking areas made available prior to the beginning of other major construction phases. However, construction of the East Garage expansion itself would have an impact on several parking areas, making them unavailable during the construction activities. Specifically, immediately upon commencement of construction, 130 parking spaces, all at present reserved for doctors and hospital staff, would not be accessible and would remain inaccessible for the duration of the construction of the proposed East Garage expansion. In addition, the area adjacent to the main Hospital entrance, where the valet parking operations are currently located, would also be impacted. Furthermore, prior to the completion of the expansion of the East Garage, demolition work would begin on subsequent phases of construction. This would result in the loss of an additional 18 undesignated parking spaces. Finally, 50 contractor vehicles can be expected to be on the Hospital grounds during peak construction activity. In order to ensure an adequate

supply of parking during construction phases, the Hospital has made Arrangements with the Nassau County Department of Parks to lease 200 parking spaces located in Christopher Morley Park for the duration of this phase of construction and a shuttle bus operation would be instituted, whereby Hospital staff parking at the Christopher Morley Park would be provided with timely transportation to and from the Hospital. Prior to the beginning of construction, the Hospital will distribute a memorandum to all Hospital personnel, advising them of the reduced availability of on-site parking, and of the arrangements made for off site parking. Included in the memorandum will be information regarding available public transportation to and from the Hospital. The Hospital maintains a database of all staff license plate numbers. In order to encourage utilization of the off site parking, the Hospital will periodically survey the streets surrounding the Hospital and cross reference the license numbers of vehicles parked there to the database. Employees whose vehicles are found to be parked on the streets around the Hospital will be notified that they are not in compliance with Hospital policy. Local residents will also be encouraged to notify the Hospital of any parking related problems. This policy will also be extended to include contractor and sub contractor employees. Non-essential contractor vehicles would also be required to park in the off site parking facility and use the shuttle service. Other contractor vehicles would be located within the areas of construction, so as not to occupy additional parking spaces. The valet parking operation would be relocated to the temporary main Hospital entrance, located along the south side of the main Hospital building.

It should be noted that the proposed East Garage expansion is scheduled to be completed in one year, whereupon the newly constructed 307 spaces as well as 68 of the at-grade

spaces which were inaccessible during construction would now be available to serve the Hospital's needs. Therefore, although 80 parking spaces would continue to be unavailable during subsequent construction phases, the newly expanded East Garage would provide a more than adequate supply of parking on the Hospital site. In addition, the newly constructed main entrance to the Hospital would also be open, and the valet parking operation can be resumed at that location.

Subsequent to the completion and reopening of the East Garage, construction activity would result in the loss of 50 visitor spaces adjacent to the Vizza Pavilion. Patients visiting their doctors whose offices are located within the Pavilion typically use these spaces. The parking area adjacent on the east to the Pavilion, which is at present reserved for doctors, would be made available to serve this demand.

By providing off site parking at Christopher Morley Park, and a shuttle service between the park and the Hospital site, as well as through careful scheduling of construction activities, impacts on parking supply due to construction activities during the proposed expansion would be minimized. Upon completion of the proposed Hospital expansion, with the addition of 307 new parking spaces in the East Garage, adequate parking would be available to serve the needs of employees, staff, and visitors to St. Francis Hospital.

Vehicle Impact on Air Quality – Air quality analysis of vehicle impact focused on the potential carbon monoxide (CO) impacts due to project-generated traffic within the expanded underground parking garage. A significant air quality impact would occur if CO emissions due to the proposed project would cause a violation of the 1-hour ambient standard of 35 parts per million (ppm) or the 8-hour ambient standard of 9 ppm. The

study predicted 1-hour levels of 13.0, 10.2, and 10.2 ppm and 8-hour levels of 6.7, 5.5, and 5.5 ppm at the receptor sites. The total CO concentrations would not exceed the 1-hour or the 8-hour ambient standard (35 ppm and 9 ppm, respectively). Therefore, the proposed project would not have a significant air quality impact.

Construction equipment would emit minimal amounts of criteria pollutants. The emissions must meet the provisions by New York State Department of Environmental Conservation. The emissions from the addition of temporary construction-related equipment and vehicles would not significantly increase ambient air pollution levels.

The movement of vehicles and building demolition would generate fugitive dust during construction activities. This emission would temporarily raise Total Suspended Particulates (TSP) levels near the site but would not permanently increase TSP levels in the project area. Through the use of various dust control measures, i.e. water sprinkling, gravel packing, etc., the TSP levels would be reduced and thereby significantly decrease any short-term TSP impacts.

Stationary Source Impacts on Air Quality – The stationary source emitters present at the Hospital are six dual-fuel (natural gas and fuel oil) boilers, four emergency generators, an ethylene oxide (EtO) sterilization facility (four EtO sterilizers and an EtO abatement system), a laboratory fume hood, and for Volatile Organic Compounds (VOCs), the underground fuel storage tanks. The Hospital is classified as a major facility because of its potential to emit 49.1 tons per year of NO_x and, therefore, had to submit a permit application to New York State Department of Environmental Conservation (NYSDEC). The Hospital was able to submit a Cap by Rule Permit Application to the NYSDEC

because the actual NO_x from this facility was 4.58 tons per year, which is below the 50% threshold. As part of the St. Francis Hospital Master Facility Project, four of the existing six boilers would be removed. Two boilers would remain and continue to serve the Vizza Pavilion. Three new low-NO_x boilers would replace three of the removed boilers. The sixth boiler would not be replaced as it now serves the Cottages that would be removed.

The three new low-NO_x boilers have a maximum fuel consumption of 20,925 CFH in natural gas and 149.5 GPH in #2 fuel oil. The new total maximum hourly capacity would be 62,775 CFH in natural gas and 476.1 GPH in #2 fuel oil. However, since only two of the boilers would be used at any one time, the third boiler being used as a standby, the effective maximum hourly capacity would be 41,850 CFH in natural gas and 326.6 GPH in #2 fuel oil. This would be less than the present maximum hourly capacity of 42,000 CFH in natural gas and 351.3 GPH in #2 fuel oil.

Since the criteria used for classifying the Hospital as a major facility was its potential to emit an over-the-threshold quantity of NO_x, and since the actual NO_x from this facility was already well below the 50% threshold, enabling it to qualify for the Cap by Rule Permit, it is likely that this status would continue and that the proposed project would not significantly impact air quality. As this project would not negatively impact air quality and would serve to increase energy efficiency with lower NO_x, no additional mitigation measures are needed.

Cumulative impacts of stationary and mobile sources are unlikely to create a significant environmental impact. Both stationary and mobile sources are below threshold emission standards. Vehicle sources, measured at what would be their highest concentration, in

proximity to the garage vents and directly down wind, would be below 1-hour and 8-hour ambient standards (37 % and 74%, respectively at the nearest receptor). With stationary sources, the reason that the Hospital is considered a major facility under Title V is due to its potential to emit over 25 tons per year of nitrogen oxides (NO_x). However, actual emissions are only 4.58 tons per year (or 18% of the threshold amount), and since this is more than 50% below the threshold for any of the Criteria Air Pollutants, the Hospital qualifies for a Cap by Rule Permit under Title V. Replacement boilers will be equipped with low-NO_x burners, further reducing emissions.

Asbestos and Lead-based Paint – An asbestos and lead-based paint survey was performed in the Cottage buildings (St. Joseph Pavilion, Our Lady Pavilion, and St. Rose Pavilion). The objective of this survey was to determine and report the existence and location of asbestos-containing building materials and lead-based painted components within these structures that would be demolished during the proposed project. Both asbestos and lead-based paint were found. Therefore, abatement procedures would take place before any demolition occurs.

Odors – Odor perception is subjective, making odors very difficult to measure. Some people have more acute olfactory senses than others; they are simply more sensitive to odors. Potential sources of odors include the point and non-point emitters discussed above. As shown, these sources are well within air quality standards. Vehicle traffic and stationary point source emitters are not expected to have a significant impact on air quality during or after construction. Other potential sources of odors are related to the composition and handling of solid waste.

Unregulated, normal household waste is collected from various areas of the Hospital, bagged, transported in closed “Environmental Transport Carts” and deposited in a closed 30 cubic yard compaction container. The waste is compacted and then the container is hauled away by a private hauler. The container is exchanged for an empty container daily, except on Sundays. The frequency of the container exchange helps prevent spoilage of the food component of the household waste. Bagging the waste and keeping the containers closed significantly reduces the emission of odors. The transport carts are cleaned and disinfected once a week, or more often as needed, as per the Hospital’s Policy and Procedure Manual. Containing the waste and keeping carts, containers and the surrounding area clean would continue to be an effective means of minimizing odors. It is the opinion of St. Francis Hospital that there is no significant odor problem related to the Sani-Pak machine, as supported by the absence of complaints either internally from employees at the Hospital or from the nearby residents.

Noise – The factors considered in assessing the noise impacts of this project are: existing background noise levels, land uses potentially affected by project noise, applicable noise regulations and criteria, forecast of future noise attributable to the project, and mitigating factors. Several sources of noise have been considered, as well as the ability to mitigate such noise. One previous focus of concern was the noise associated with the operation of the two existing sets of roof-mounted cooling towers. Shen, Milsom & Wilke conducted acoustical testing after the installation of a sound barrier wall. That study showed the effectiveness of the installed noise wall by finding only a 0.0 to 1.0-dBA difference when the cooling towers were 100% on or completely off. This difference of sound level is typically imperceptible. Shen, Milsom & Wilke, Inc. also performed analysis of the

existing loading dock area in preparation for the sound barrier wall that is part of the current proposal. Noise measurements of receiving dock activity were taken April 16, 2003 from about 11:00 A.M. to 4:00 P.M. This time was chosen to capture the typical noisy service area activity. Noise from each trash compactor was measured, as was the truck noise for trash container pick-up, typical service area traffic from trucks and utility vehicles as well as operation of the cooling towers. Receiving dock hours of operation for the Hospital are from 8:00 A.M. to 4:00 P.M., Monday through Friday. The dock is closed to activities during all other hours. Their measurements indicated that none of the noises occurring in the loading dock exceeds the daytime Flower Hill Noise Code for commercial districts. However, many noises are still clearly audible at the property lines because of the degree to which these noises exceed the background ambient noise level in the area. Their study showed that the 15.5-foot noise barrier wall proposed by the MFP would produce a 9 to 10 dBA reduction in sound. For most people a 10-dBA reduction is perceived as halving the loudness of sound, which is a significantly noticeable diminution in noise level.

Because of the location of the proposed hospital building, construction noise would be greatly attenuated by the existing structures surrounding the site. The existing buildings would effectively act as a sound wall around the construction area.

Visual Resources – Criteria used in evaluating visual impacts include visibility, number of viewers, contrast, dominance, character, and community policy. Visibility is the extent to which physical changes brought about by the project would be seen by the public. The number of viewers is the number of people who could potentially see the project related changes. Contrast is the extent to which the form, line, color, and scale of

project elements either would contrast with or be visually absorbed by the area's existing features. Dominance is the extent to which project elements would be dominant in views of landscapes or cityscapes. Character is the extent to which the changes would be compatible with the character of the setting. Community policy is the extent to which the changes would be consistent with aesthetic policies and guidelines adopted by local governments. The project's visibility is very low. The project site is somewhat centrally located within the Hospital grounds and is surrounded by the Visitors Parking Garage to the north, Maria Assunta Pavilion to the west, St. Elizabeth Pavilion to the southwest, the Heart Center and Casey Pavilion to the south, and St. Francis Chapel to the east. Scaled drawings and photographs from the surrounding neighborhood reveal that the project would not be visible from Crabapple Road and Oaktree Lane and just slightly visible over existing rooftops from Port Washington Boulevard. The number of viewers is relatively low and mostly confined to site users, contrast with its surroundings is low, dominance is low, site character remains the same, and the project is not inconsistent with community aesthetic policies. It is evident that there would be little visual impact caused by the project.

Site lighting for the Master Facilities Project would have a limited impact on the community. The new construction would occur within the center of the campus, shielded by existing structures and perimeter landscape buffers. The lighting quality that is presently in existence on the Campus would be maintained. Lighting of entries, pathways, general site illumination, and rooftops would be accomplished using low glare sources.

Community Facilities and Services – The community services include police and fire protection. The Hospital is protected by the Sixth Precinct of the Nassau County Police Department and by the Port Washington Fire Department, Inc. Police are usually only asked to respond one or two times a year, and this project would not cause this rate to rise. Logs are kept at the Hospital for fire related incidents. In 2002, 21 fire alarms were logged. The Fire Department responded to 14 of these alarms. Many times a chief responded and fire trucks did not roll. Only one alarm was an actual fire (in a microwave oven). Five alarms were due to defective smoke heads, seven were dust related, and two were steam related. From January 1, 2003 to October 15, 2003, 17 fire alarms were logged, five from equipment defects, four were dust related, three were water flow alarm related, and two were accidental box pulls. Since approximately 25% of fire alarms were because of system or smoke head failures, new equipment installed in the newly constructed and renovated areas may reduce the total number of false alarms. Port Washington Fire Department requested and received site plans and does not anticipate impact or service problems.

Solid Waste – Solid waste removal is contracted to private carters. The nearest solid waste facility is the Town of North Hempstead Transfer Station, West Shore Road, Roslyn, New York. Unregulated, normal household waste is collected from various areas of the Hospital and deposited in a closed 30 cubic yard compaction container. The waste is compacted and then the container is hauled away by a private hauler. The container is exchanged for an empty container daily, except on Sundays. Items classified as untreated regulated medical waste is collected from the various patient care areas and deposited in the Sani-Pak unit located in the service yard. The Sani-Pak unit subjects the waste to

very high vacuum to reduce bulk and volume and then heats the waste with 300-degree steam to the point of sterilization, rendering the waste non-infectious, and classified as treated regulated medical waste.

A litter survey was conducted on October 1, 2003 along the west side of Port Washington Boulevard. The rate of litter per one hundred feet of roadway was approximately 18.5 items north of the Hospital, 7.9 items in front of the Hospital, and 53.3 items south of the Hospital. Of the identifiable pieces of litter, the majority was candy wrappers or food related. None of the litter could be identified as having the Hospital as its source. The drain near Crabapple Road and Port Washington Boulevard was free of litter. Most of the older litter south of the Hospital appeared to be anchored by plant growth and soil accumulation, and if freed they would be small enough to pass through the storm drain grating without clogging it.

Waste disposal traffic would not appreciably increase. The increase in beds, from the actual daily census to the number of beds in the new facility at 100% capacity, would be under 15%. The current delivery and waste disposal trucks can accommodate a 15% increase in load. The existing trash compactor at St. Francis Hospital is currently serviced six days per week, Monday through Saturday. The closed 30 cubic yard compaction container has a capacity of 8 tons. A survey of records from St. Francis Hospital's waste hauler indicates that the average daily weight of the trash disposed from the Hospital's trash compactor is approximately 5 to 6 tons. The additional average spare capacity in each container is 2 to 3 tons, which allows for a 33% to 60% increase in trash before an additional container pick-up and delivery would be necessary. Therefore, the

projected increase of 15% would not necessitate any increase in the frequency of trash container removal.

Water Supply – Water usage by the Hospital, between June 2, 2002 and June 2, 2003, was 42,241,878 gallons. This translates to an average of 115,731 gallons per day (gpd). This does not include any irrigation water, which is all provided by a private well. The Hospital's water use represents about 2.9% of the Port Washington Water District's total consumption. When all the fixtures are replaced by low-flow fixtures, the average consumption would be 130,851 gallons per day. Long-term increase in water consumption by the Hospital would be about 13.1%.

A meeting was held on May 28, 2003, with the Port Washington Water District where conservation goals and techniques, as well as the details for application for a Letter of Water Availability, application review, and procedure for obtaining water supply were discussed. Subsequently, Lazardos Engineering Associates, on behalf of the Hospital, submitted a letter requesting a Letter of Water Availability to the Port Washington Water District. On June 4, 2003, the Port Washington Water District sent a letter saying that the Hospital would have to demonstrate the conservation measures to be implemented and the project schedule to reduce present consumption. Lazardos Engineering Associates submitted a letter of application, which included a description of the proposed use and the approximate estimate of water requirements, in accordance with Article XXVIII, Section 65. Originally drafted August 28, 2003, the letter of application was revised September 10, 2003 and later revised on January 6, 2004. The application process is still in progress and the Hospital will continue to respond to the Port Washington Water District's comments and requests. The last submittal was hand delivered to the Port Washington

Water District on January 13, 2004. The issuance of a Letter of Water Availability is anticipated.

Sewage – Based on the commonly used design flow standard of 300 gallons per day per hospital bed, and the average occupancy of 321 beds, the Hospital currently produces an average 96,300 gallons per day of sewage waste. Typically, design flow exceeds actual flow. Given that the water usage per bed is relatively high, estimation of sewage flow based on water usage was examined. Sewage flow is usually estimated to be about 80 to 85% of water usage. The reason for this is that water is lost to the system in consumptive uses such as evaporation in cooling tower water usage, boiler water makeup, cooking, laundry, etc. Using the more conservative 85% of water usage, current water usage of 370 gallons per day, and 321 beds occupied results in an estimated 100,950 gallons per day of sewage waste. Cooling tower water and boiler makeup water are sub-metered separately at the Hospital. These consumptive usages represent 13.3% of the total water usage by the Hospital. This percentage does not include any other consumptive uses such as in cooking or laundry. Using 86.7% as a maximum of estimated sewage flow, the current flow would average no more than 103,000 gallons per day of sewage waste.

Using the design flow standard of 300 gallons per day per hospital bed and 364 beds, the Hospital would produce an estimated average of 109,200 gallons per day of sewage waste. By using 85% of water flow to estimate sewage flow and using the rate of water usage based on reduced-flow fixtures (352.6 gallons per day per hospital bed), an estimate is made of 109,100 gallons per day of sewage waste. Alternatively, using the known consumptive use by the cooling tower and boiler makeup water of 13.3 % (and not considering other consumptive uses such as cooking and laundry), and also using the

rate of water flow based on reduced flow fixtures, the estimate of sewer flow would be 111,300 gallons per day of sewage waste. These estimates represent an 8 to 13% increase in sewage flow that would be produced by the Hospital. The Hospital's demand on sewer services is estimated to be 2.7% of Port Washington Water Pollution Control District's total capacity. The increase represents approximately 0.2% to 0.3% of the District's capacity.

In reply to the inquiry as to the availability of sewer service, the Superintendent of the Port Washington Water Pollution Control District stated that, based on the preliminary estimated sewage flow of 109,200 gallons per day, the public sewers are adequate to provide service to the expanded hospital facility.

Electricity and Natural Gas – The Hospital campus is served by two separate 13,200-volt feeds. These are primarily buried lines, with the only exception being a short aerial section west of St Elizabeth's and Maria Assunta. Transformers are located at the Central Utilities Plant and on the northwest corner of Maria Assunta. The various buildings are connected with 480-volt feeds. Projected demands indicate a 100% increase over existing usage. The proposed project calls for an additional transformer that would be installed east of the East Parking Garage, between the garage and the entrance drive.

Two natural gas lines enter the Hospital campus. One line enters from the main at Port Washington Boulevard near the north entrance, with a valve at the center island of the entrance drive. This line serves the Vizza Pavilion and the Cottages. A second line enters from the main at Port Washington Boulevard north of the southernmost parking lot

and serves the boilers, kitchen, and laundry. As part of the St. Francis Hospital Master Facility Project, four of the existing six boilers would be removed. Three new low-NO_x boilers would replace three of the removed boilers. The three new low-NO_x boilers have a maximum fuel consumption of 20,925 CFH in natural gas. The new total maximum hourly capacity would be 62,775 CFH in natural gas. However, since only two of the boilers would be used at any one time, the third boiler being used as a standby, the effective maximum hourly capacity would be 41,850 CFH in natural gas. This would be less than the present maximum hourly capacity of 42,000 CFH in natural gas.

Socio-Economics – Census 2000 Summary File information from the U.S. Census Bureau was used to help ascertain the area's demographic and economic characteristics. Census Tract 3016 corresponds with the Village of Flower Hill. Selected Census Tract 3016 information was compared with that of both Nassau County and New York State as a whole. The Flower Hill area has a very well educated population with proportionally more family households, more married couple families, and more married couple families with their own children under 18 than average for either Nassau County or New York State. Although the Village of Flower Hill enjoys a significantly higher per capita income than Nassau County and New York State, a lower percentage of the population age 16 years or older is in the work force. The percentage of women in the workforce is lower than that of Nassau County and New York State as well. A significantly lower percentage of children under six years of age have all parents in their family in the workforce can also be seen. Also of note is the relatively large percentage (8%) of the workforce in the Village of Flower Hill work from home. Over 55% of the population of the Village of Flower Hill in the labor force has employment in management,

professional, or related occupations. The Village of Flower Hill is an area of high income, with a median household income of \$121,999 and a median family income of \$133,075. The per capita income for Flower Hill is \$64,997. Given the economic characteristics of the community, it is unlikely that the new jobs created by the Hospital expansion would have any economic impact on the residents of Flower Hill. There are no indications that there would be any change in employment characteristics or home values that are related to this project.

Alternatives and Their Impacts

The Hospital is quite constrained as to viable options because of its well-defined set of needs.

No-Action Alternative – The no-action or no-build alternative must be considered in all Environmental Impact Statements. In this case, the no-build alternative would mean the avoidance of short-term impacts during construction, such as a temporary increase in truck traffic, noise, and fugitive dust. It would also mean the avoidance of some long-term impacts such as an increase in the generation of vehicular traffic, energy, water consumption, and sewage flow. It would also mean that serious deficiencies would not be met. The Hospital would continue to operate at 115% occupancy. This overcrowding would continue to cause patients to be housed in the emergency department, PACU, and other holding units. Bottlenecks in the delivery of patient care would continue, and there would be an inability to provide the appropriate number of beds to house patients in a patient room with improved technology, suitable amenities, and required privacy. The New York State Department of Health has indicated its concurrence for facility

improvement as outlined in the Hospital's application by approving a Certificate of Need (CON) for the Hospital.

Alternate Location Alternative – Another alternative examined was the location of the three-story hospital building over the expanded East Parking Garage. This alternative would provide the same amount of space as the preferred alternative, however the building location would not allow the same efficient interconnections between buildings. As stated previously, the architectural key to the success of the Heart Surgical program is the proximity of the Cardiac Surgical facilities to the Catheterization Laboratory and to the ICU beds. The hospital building in this location would have much greater visibility and would dominate the view from Port Washington Boulevard. In the short-term, there is also the likelihood of greater noise during the construction phase since this site does not provide the attenuation and deflection of sound by the surrounding buildings, as would the preferred location. Since this alternative location does not provide the medical care advantages of the preferred alternative, has a greater visual impact, and does not reduce any other environmental impacts, this alternative was discarded in favor of the preferred alternative.

Reduced Density Alternative– The architects for the project have studied options to further reduce the total area of new above ground construction in an effort to consider a Reduced Density Alternative, or a lesser scale to that planned in the proposed project. The Reduced Density Alternative considered in this DEIS is a maximum building mass reduction of 5% or 7,500 gross square feet, which, in the applicant's opinion, is the only Reduced Density Alternative that could possibly be considered, based upon healthcare design requirements and how nursing areas are configured in a hospital facility. These

healthcare design requirements dictate the design and layout of nursing units in a manner consistent with appropriately meeting functional and operational needs of said hospital facilities. To accomplish this alternative, the overall length of the above ground construction would be reduced by 30 feet. This change translates to a 10% reduction of new beds constructed; one hundred eighty (180) total new beds, and requires the Hospital to continue to maintain twenty (20) beds within the existing facility.

The planning requirements listed below describe some of the key issues that the Hospital must address with new nursing space construction. (It should be noted that this list does not include diagnostic, treatment, and service modifications requiring new construction).

1. All seventy-two (72) acute care beds in the St. Elizabeth/Maria Assunta building must be replaced in the new construction at the completion of the Master Facilities Project. Vacating these bed units is required due to the significant finished floor elevation variances between the St. Elizabeth/Maria Assunta buildings and the adjacent Heart Center building.
2. A total of twenty-four (24) acute care beds must be replaced in the proposed new construction in order to address code compliance and patient care space deficiencies in the first and second floor nursing care.
3. A total of thirty-five (35) acute and intensive respiratory care beds must be replaced in the proposed new construction in order to address infection control concerns and nursing space deficiencies on the second floor west wing.

4. All thirty-seven (37) acute care beds on the third floor need to be replaced in new construction in order to address operational deficiencies and overcrowding in the Emergency Department. The operative holding and recovery unit will be relocated to the north wing of the third floor to make room for the required Emergency Department expansion.

The above stated loss of one hundred sixty-eight (168) existing beds would be barely offset by the one hundred eighty (180) new beds constructed in the Reduced Density Alternative. This alternative does not address the present overcrowding and also fails to provide the needed service enhancements and proposed increase in beds, as documented in the approved CON, which are addressed by the proposed action. Thus, the Reduced Density Alternative does not meet the project sponsor's minimum functional and operational objectives to be considered a reasonable scale alternative.

As noted previously, the new building construction is internal to the site and concealed behind existing Hospital structures. The Reduced Density Alternative would neither diminish the impact of the proposed project on the community, nor would it reduce the interim disruptions caused by the construction of the project. The length of time, amount of construction, number of staff and visitors entering and exiting the site, impacts on geology, terrestrial ecology, water resources, land use, air quality, noise, visual resources, community services, and socio-economics are all the same as with the proposed project. The Reduced Density Alternative provides all of the impacts, but the Hospital's project objectives, as the project sponsor, will not be met. This relatively minor space reduction will cause significant space constraints, limiting the Hospital in its ability to accommodate current and projected patient care volumes.

The modernization of St. Francis Hospital has undergone scrutiny by design professionals, the Department of Health, and the Hospital's administration and finance executives. It is the applicant's opinion that the investment in the Reduced Density Alternative would be unjustified, as the costs and neglected deficiencies would outweigh the benefits to the Hospital and the community.

Alternative Location and/or Enclosure of Service and Delivery Area – The architects for the proposed project have studied options to relocate, enclose or mitigate the noise generated in the Receiving Dock as a response to concerns raised by the Village Trustees and neighbors in close proximity to existing services. Options investigated include: 1.) Off site linen, food service and materials handling operations; 2.) Services relocated on-site; 3.) Services enclosed in the existing location; 4.) Services buried under ground; and 5.) Implementing sound mitigation measures in the existing Receiving Dock to reduce the noise generated or transmitted to neighboring properties.

Each of these alternatives for the relocation and/or enclosure of services and delivery area have been carefully considered by the applicant and are detailed as follows:

1. Options that require off site material handling were studied by the Hospital and ruled out because the care provided to a highly acuity patient population at St. Francis Hospital might be jeopardized. An off site option requires that par levels of materials are on hand at all times with delivery resources available round-the-clock. If materials are stored off site and are unavailable immediately, patient safety could be jeopardized. While this option might reduce tractor-trailer traffic on-site, there would be an increase in the volume of smaller vehicles required to

manage the materials each day for expanded delivery periods. To accommodate this additional traffic, the size and configuration of the existing Receiving Dock would require modifications and expansion. While this option was thoroughly considered by the applicant, it is the applicant's opinion that it is an unacceptable alternative.

2. Options to relocate the Receiving Dock on the campus were considered. Due to the limited space constraints on the campus, variation of existing grades across the site, limitations of critical internal functional adjacencies and traffic patterns both on-site and off site, the applicant concluded that in their opinion there are no viable alternate sites for the relocation of the Receiving Dock. However, it is important to note that the Linen Receiving Dock, presently on the west side of Maria Assunta, will be moved to a new location on the south side of the St. Elizabeth building more than 200 feet from the western property line. All truck traffic behind St. Elizabeth and Maria Assunta buildings will be eliminated with this proposed change.
3. Options to enclose the Receiving Dock services in the existing location were evaluated. Through careful study, the applicant has determined that it is not possible to fully enclose all activities within a single structure while maintaining the existing property line setbacks. Even if a partial enclosure were considered, tractor-trailer traffic would be required to egress behind the St. Elizabeth and Maria Assunta buildings, exiting the site via the north Hospital driveway. This solution would add unwanted traffic truck on the west and north side of the site, adversely effecting neighboring properties on Oaktree and Crabapple Roads. This

option was thoroughly considered by the applicant and in their opinion was determined to be an unacceptable alternative.

4. Options to bury services underground in the area of the existing Receiving Dock were evaluated. Through careful study, the applicant has determined that it is not possible to bury the Receiving Dock while maintaining existing property line setbacks, underground utility pathways, critical vehicle traffic and parking requirements for the Emergency Department, mature landscape buffer, and avoiding undesirable truck traffic adjacency to Crabapple Road property rear yards. This option was thoroughly considered by the applicant and in their opinion was determined to be an unacceptable alternative.

5. Options to mitigate sound transmission in the existing Receiving Dock by reducing the noise transmitted to neighboring properties with a sound barrier wall was studied. Site analysis, noise readings, and reports were developed by a nationally recognized acoustical engineer. It was determined that the placement of a 15 ft. high sound absorptive wall along the west and south sides of the Receiving Dock will further reduce the sound transmittance between the dock and the neighboring properties by 10 dBA, or a perceived loudness reduction of 50%. This mitigation measure reduces the noise transmittance at the property line far below the Village's present daytime ordinance for both Commercial and Residential Districts. Since the Hospital adheres to hours of operation in the Receiving Dock of 8:00 A.M. to 4:00 P.M. during weekdays, and the dock is closed at all other times, the applicant has concluded that this solution, the implementation of a sound barrier wall, will most effectively respond to the

concerns raised by the Village. A site plan demonstrating this solution was submitted to the Village in the applicant's Site Plan Review submittal and is included as an attachment herewith in Drawing A011 in Appendix K.

As stated above, the alternatives for the relocation and/or enclosure of services and delivery area have been carefully considered by the applicant. It is the applicant's opinion that the reduction of noise generated in the Receiving Dock area can be accomplished most effectively by the proposed sound barrier wall. In addition, the Hospital has agreed to incorporate the sound barrier wall at the start of the Master Facilities Project construction. This will provide the neighboring properties, adjacent to the area of the new wall, with the added advantage of having the sound barrier wall provide construction noise mitigation during the Master Facilities Project construction.

Unavoidable Adverse Impacts

Unavoidable impacts during construction of the proposed project include increased truck traffic, noise, and fugitive dust. These impacts can be expected to be most significant during the early construction phases of demolition, excavation, and grading. These activities would be relatively short in duration. There would be an increase in the generation of vehicular traffic, although mitigation measures would remove the adverse effect of a reduced level of service on local roadways. There would be an increase in electrical and fossil fuel consumption for lighting, heating, cooling and equipment usage, although newer and more energy efficient systems would be replacing older systems. There may be a small increase in water consumption and sewage effluent because of the increased number of beds, however the Hospital and the architects are

working with the water supplier to maximize the conservation of water. No other significant unavoidable adverse impacts are anticipated from the proposed project.

Irreversible and Irrecoverable Commitment of Resources

Natural and man-made resources would be expended in the construction of the proposed action, including funding, building materials, energy, and human resources to construct the structures. All of these resources are considered irretrievably committed since once these resources are expended, redevelopment in the future is not anticipated, nor is it cost effective.

Growth-Inducing Aspects of the Project

The project would add approximately 285 new jobs to the area. These new jobs would be spread over several shifts. In addition, during construction, approximately 70 short-term construction jobs would be created. Usually many of these jobs go to local and nearby area residents. However, it is uncertain, given the local demographics (education, income level, current occupations and industries of residents, and housing costs) how many of these jobs would be taken by local residents. The project would not be adding to the local real estate tax base, nor is it expected to increase the demand for community services.

Displacement

Primary displacement is the removal and possible relocation of those uses currently located on the proposed project site. Since the use of the site would remain the same, no primary displacement is involved. Secondary displacement refers to the involuntary dislocation of people, businesses, institutions, or community facilities that

result from a project, even though these entities are not located on the project site. Since no additional local services, commercial or municipal, would be required by the development of this site, no secondary displacement is expected.

Use and Conservation of Energy

Existing and projected supplies of energy resources are adequate to supply the project. It is not expected that the project would pose any adverse impacts to the use and conservation of energy.