EXHIBIT 6

PART 2 OF 2

cubic feet of that amount will be retained. The surplus 61,488 cubic feet will enter an overflow structure to be constructed at the northwest corner of the pond, and conveyed through underground piping into the stormwater detention network within the tributary shed area of DRAs 1 and 2, combining with 69,940 cubic feet of stormwater runoff generated by that shed, for a total of 131,428 cubic feet, distributed between the drywells and drainage reserve areas. The 21,746 cubic feet of stormwater volume generated from the southerly portion of Road A will be contained within DRA 3. The 18,121 cubic feet of stormwater generated by the impervious cover due to the water reclamation plant will be contained within underground drywells.

The proposed stormwater management practices, combining vegetated open swales, drywells, and infiltration basins in the form of drainage reserve areas, work together to preserve natural resources, reduce impervious surface, and reduce runoff. The preliminary subdivision is designed to slow down the flow of runoff to increase the time of concentration over vegetative swales, promote infiltration and evapotranspiration, and improve groundwater recharge. These practices are also expected to reduce sedimentation and dissolved pollutants from reaching the ponds, which will protect the wetlands and provide water quality improvements.

The subdivision will also significantly increase active stormwater retention and leaching throughout the property.

8.3. Proposed Mitigation

The proposed preliminary drainage design is based on a desire to improve the quality of stormwater through natural, aesthetically pleasing on-site treatments which maximize on-site recharge. The subdivision had been planned using green infrastructure practices, incorporating the preservation of natural features and conservation, the reduction of impervious cover, and the reduction of runoff using green infrastructure techniques.

Preservation of natural features and conservation has been accomplished by planning new development in the less environmentally sensitive areas on the east side of the property, where land was cleared for farming purposes, preserving 200 to 300 feet of naturally vegetated space along NYS Route 25A, and a 100-foot wetland setback to the existing ponds. Clearing and grading for the preliminary subdivision is limited to the development of the private roads and drainage reserve areas. The proposed subdivision maintains approximately 36.5 acres of open space, 48.7% of the site.

Planning practices for reducing impervious cover on the site include the minimization of the roadway pavement width to 30 feet, from the standard 40-foot paved width. Sidewalks are not proposed for the subdivision, further reducing impervious cover. The cul-de-sac proposed on Road B has been designed with an interior, permeable landscaped island. Conceptual building footprints have been minimized by proposing multi-story buildings.

The green infrastructure techniques proposed for the preliminary subdivision were planned to utilize the natural features of the site to further runoff reduction. Existing topography, natural buffers, ponds and wetlands, and underlying granular soils provide natural characteristics which encourage the use of these techniques. Upon completion of the proposed subdivision and subsequent development, all runoff would be collected and

recharged on-site. Only limited undisturbed perimeter areas would remain outside of the proposed drainage collection system area.

The subdivision plan was planned incorporating Best Management Practices (BMPs) based on the NYSDEC *New York State Stormwater Management Design Manual* to minimize surface runoff and maximize groundwater recharge. The subdivision incorporates vegetated, open, roadside swales to convey stormwater first to water quality treatment structures or drywells along the swale, and ultimately to the existing NYSDEC wetland pond or drainage reserve areas, respectively, for extended detention and infiltration of larger storm events. The vegetated swales will provide the initial pre-treatment of the surface runoff, and the treatment structures and drywells will provide treatment of the full water quality volume. Additional specific BMPs would be selected for future development of each individual lot during the commercial site plan application submission (post-subdivision approval). Lot development plans may include BMPs such as bioswales, rain gardens, porous pavements, tree plantings, and other infiltration practices. Therefore, the expectation is that the quality and quantity of stormwater runoff will be enhanced as a result of the proposed subdivision.

One of the major infiltration practices proposed is the construction of drainage reserve areas (DRAs) on the property to collect site drainage. The DRAs would receive runoff from within the private right-of-way, including additional front yard areas which are sloped toward the private right-of-way. The drainage from the proposed paved roadway area would first be directed to vegetated open swales adjacent to the pavement edge. The swale will slow down flow to increase the time of concentration promoting surface filtration through the swale vegetation, promote infiltration, and increase opportunity for evapotranspiration. Drywells positioned along the length of the swale will intercept the first 3 inches of stormwater, recharging the groundwater table. In a 100-year storm event, 8 inches of rain is estimated for this region of New York State in the *New York State Stormwater Management Design Manual.* If the proposed drywells were to fill after storing the runoff volume of 3 inches, the remaining 5 inches would continue to travel downstream toward the pond and ultimately toward the drainage reserve areas. The drywells nearest the low end of the roadway will include overflow pipes leading into the DRAs. The DRAs would then detain the runoff volume of any of the remaining 5 inches for an extended period of time, and recharge the stormwater over time, through the permeable granular bottom back to groundwater.

Additionally, the drainage reserve areas have excess drainage capacity to account for New York State climate change projections. NYSERDA has released an update to the 2011 ClimAID Climate Risk Information entitled *Climate Change in New York State: Updating the 2011 ClimAID Climate Risk Information* (2014 Update). Precipitation increases are projected out to the year 2100, and estimate a 0 to 20% increase in the percent of precipitation for the seven regions of New York State. The combined volumes of drainage reserve areas 1, 2 and 3, the wetland pond, and drywells within the private right-of-way, as currently proposed, provide an excess of 18,464 cubic feet of storage volume. DRA 3 has the ability to be enlarged in the future to provide an additional 28,697 cubic feet of storage volume, for a total of 47,161 cubic feet of excess storage volume, equivalent to an additional 1.53 inches of storm capacity above the 8 inches required. This is 19.1% above

the current storm water design requirement, and targets the high-end projection of a 20% increase in precipitation made by New York State in the 2014 Update.

The subdivision drainage design will maximize stormwater recharge and infiltration. Stormwater collected in drywells would infiltrate through a 3-foot sand collar, filtering the stormwater before flowing through the surrounding soils and recharging the groundwater.

The quality of the stormwater discharged from the site would meet or exceed the requirements of the State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities required for all projects of five (5) or more acres. The SPDES requires that "the release of stormwater runoff from development should not exceed predevelopment (natural) conditions...the site will generate no greater peak than prior to development for a 2-year, 10-year, and 100-year 24-hour storm considered individually. Attenuation of the 2-year frequency design storm is intended to achieve the stream channel erosion objective. Attenuation of the 10-year frequency design storm is intended to assure the adequacy of existing and proposed culverts and storm drain systems. Attenuation of the 100-year frequency design storm is intended to reduce the rate of runoff from development to prevent expansion of the 10-year floodplain so as to alleviate flooding of improved properties and roadways."[59]

In accordance with SPDES recommendations, priority is given to natural drainage systems. Overflow from the drainage collection system is conveyed to proposed drainage reserve areas. And, as required, the stormwater conveyance system is sized to accommodate a 100-year storm event and contains 8 inches of rainfall on-site.

Per SPDES, safe overland conveyance of flow from a 100-year storm is provided for. The proposed stormwater collection system follows SPDES order of preference; increase time of concentration, reduce peak discharge, increase infiltration, retention, and extended detention. Flow from impervious areas goes first to vegetated open channels, then into drywells, overflowing to the DRA's (retention) after storing 3 inches in drywells, and infiltrates through the granular bottom of the DRA, recharging the groundwater (extended detention and infiltration).

The existing paved parking areas in use for Lots 1 and 2 will be maintained. The existing drainage system is piped to the existing ponds, and provides the quantity of water needed to maintain current water levels. The quality of water being sent to the ponds, however, can be improved by filtration techniques and the drainage inlets, or just prior to discharge. Newly proposed components introduced to improve stormwater quality would be based on features recommended in publications such as "*Design of Stormwater Wetland Systems*[60]," and Best Management Practices recognized by the NYSDEC. Stormwater reaching the pond would be treated by these systems and incorporated into the drainage design. Emergent plants recommended for the pond would help treat stormwater by removing nutrients and settling fine solids with their associated contaminants. Bacteria in the pond bottom would break down nitrogen compounds and organic materials. The vegetation

[59] *General Permit for Construction Activities, Stormwater Guidelines for New Development.* New York State Department of Environmental Conservation, Technical and Operational Guidance Series 5.1.10

[60] *Design of Stormwater Wetland Systems* - Anacostia Restoration Team, Metropolitan Washington Council of Governments, October 1992.

would provide forage and cover for wildlife including fish, amphibians and birds. Mosquitofish would be stocked in the pond to consume insects including mosquito larvae.

The stormwater treatments described above in conjunction with the Grading and Drainage Plans (see Sheets M-3 through M-5 in Appendix M) and the future Erosion and Sediment Control Plan will constitute the Stormwater Pollution Prevention Plan.

9. Traffic

The following information is described in more detail in Appendix F: Traffic Impact Study.

9.1. Existing Conditions

The site is currently zoned LI and is partially developed by a mix of industrial-commercial uses, including Flowerfield Celebrations catering hall. Uses in the vicinity include single-family residential and Stony Brook University.

NYS Route 25A (North Country Road) on the north side of the property is a New York State Department of Transportation (NYSDOT) arterial with one lane in each direction. The Average Annual Daily Traffic (AADT) volume between Moriches Road and Stony Brook Road is ±17,300 vehicles per day ("vpd") and the speed limit is 45 mph.

Mills Pond Road on the west side of the property is a north-south Town of Smithtown collector with one lane in each direction and a 30 mph posted speed limit. It generally runs north-south between Route 25A and Moriches Road.

Stony Brook Road is a north-south Town of Brookhaven roadway with one lane in each direction and turn lanes at key intersections. The speed limit near the site is 30 mph.

Pedestrian Conditions

The predominant land uses on the site and in the immediate area are not the type of land uses that generally attract high numbers of pedestrians. In our experience, land uses that typically generate pedestrian activity include residential uses, schools, local retail in proximity to residential homes, and recreational uses such as parks and walking trails. The land uses on and near this site consist mainly of light industrial, storage, offices, and a catering hall, which in our experience typically draw vehicle traffic from a large area, and which do not typically generate significant numbers of pedestrians on a regular basis.

The roads that front the Flowerfield property (Route 25A and Mills Pond Road) do not have sidewalks. Additionally, observed pedestrian activity in the area has been fairly low.

Transit

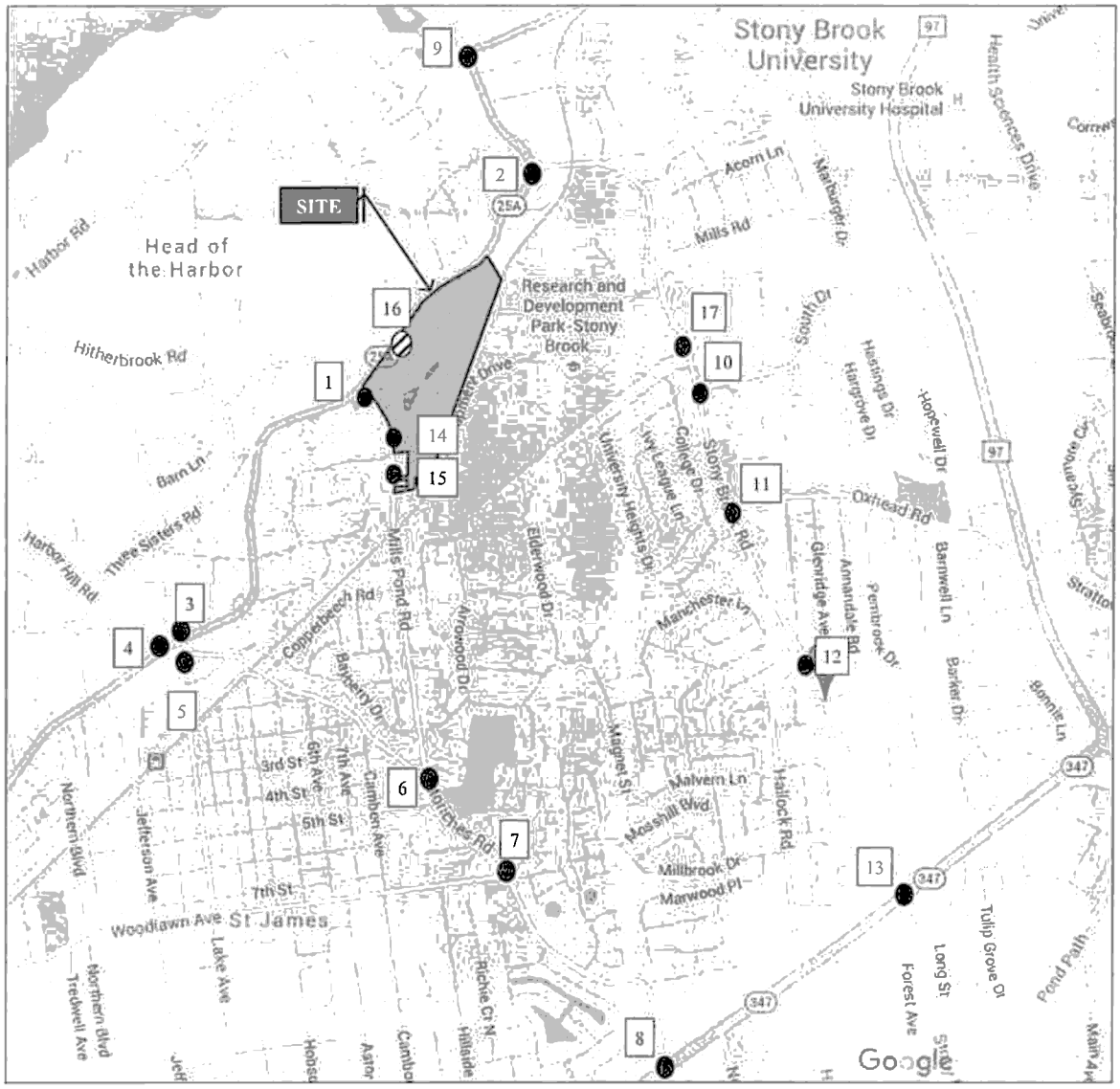
Suffolk County Transit (SCT), which runs the local bus system, has no bus routes or stops within ½ mile of the property or its site driveways[61].

Study Intersections

The traffic study includes sixteen existing intersections and one proposed driveway. See the map and list in Figure 9-1 below.

[61] Suffolk County Transit System Map accessed at http://www.sct-bus.org/sctmap.html in April 2017

Figure 9-1: Study Intersections



KEY:

1. Route 25A at Mills Pond Road
2. Route 25A at Stony Brook Road
3. Route 25A at Lake Avenue
4. Route 25A at Moriches Road
5. Moriches Road at Lake Avenue
6. Moriches Road at Mills Pond Road
7. Moriches Road at Woodlawn Avenue
8. Route 347 at Moriches Road
9. Route 25A at Main Street
10. Stony Brook Road at South Drive
11. Stony Brook Road at Oxhead Road
12. Stony Brook Road at Hallock Road
13. Stony Brook Road at Route 347
14. Mills Pond Road Site Access 1
15. Mills Pond Road Site Access 2
16. Route 25A Site Access (future)
17. Stony Brook Road at Development Drive south of the LIRR (weekday only)

Traffic Counts and Adjustments

Traffic counts were collected in February 2017 at locations 1-15 during typical weekday AM (7:00-9:00), PM (4:00-6:00), and Saturday (11:00 a.m.-2:00 p.m.) peak periods. Select locations were also counted on weekdays until 10:00 a.m. and starting at 3:00 p.m.

The intersection of Stony Brook Road and Development Drive was added to the scope at a later date, so it was counted on Wednesday, March 30, 2018 from 7:00-9:00 a.m. and 4:00-6:00 p.m. It was not counted on a Saturday because the Research and Development Park buildings are closed on weekends.

The counted volumes were slightly increased to reflect an average month of the year. The traffic study refers to the adjusted volumes as the Existing Condition.

Level of Service / Delay

The Existing Condition volumes were used to calculate travel delays and "Levels of Service" (LOS). There are six Level of Service (LOS) grades: LOS A, B, C, D, E, and F. LOS A denotes the best traffic flow (minimal to no congestion); LOS grades B, C, D, and E denote increasing delay; and LOS F denotes the highest delays. The overall intersections range from LOS A to E during peak periods. Generally, most individual lane groups (such as "northbound right turn at Route 25A/Mills Pond Road") operate between LOS A and D, with some movements operating at LOS E or F in the current condition. See Table 3-3 of Appendix F.

9.2. Potential Impacts of Proposed Subdivision

Traffic Volumes

The future Year 2020 "No Build" volumes reflect the Existing volumes with three years of general ambient growth (a 3.3% increase), full occupancy in the existing industrial buildings, a near-peak guest count at the Flowerfield catering hall (based on events held over five years), and the proposed IDC at the Stony Brook Research and Development Park. The ambient growth rate of 1.1% per year was sourced from the NYSDOT Highway Data Services Bureau.

The Year 2020 "Build" scenario includes site-generated traffic, distributed throughout the local road network and added to the "No Build" volumes. Trip generation information is sourced from the ITE *Trip Generation* manual (10th Edition). In Appendix F, this information is provided in Tables 6-3 and 6-4. In the main body of this DEIS, the trip generation data are summarized in Table 9-1 starting on page 9-5.

Site Access

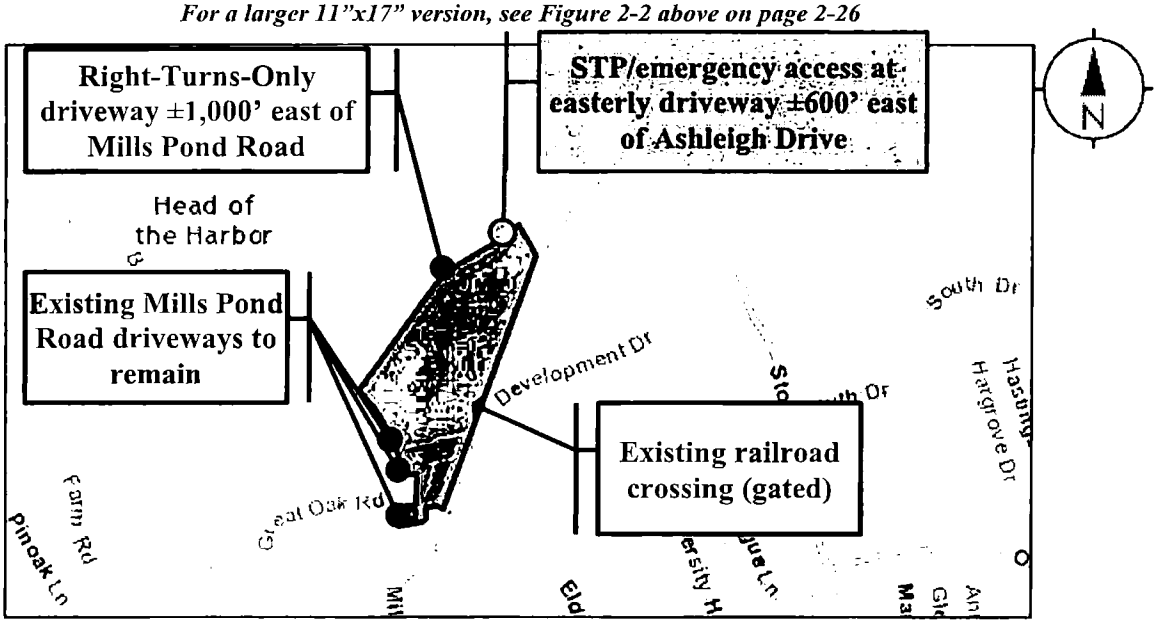
The property would retain its existing driveways and curb cuts on Route 25A and Mills Pond Road. The center existing driveway on Mills Pond Road will remain a primary site access. The other primary site access is a proposed right-turns-only driveway on Route 25A approximately halfway along the Gyrodyne frontage. The new driveway would have a raised concrete island and appropriate signage to prevent errant left turns onto or off Route 25A, as directed by NYSDOT (most recently in July 2018).

The existing Route 25A access (about 600 feet east of Ashleigh Drive) will remain an unsignalized T-intersection. For the subdivision, this access will serve the on-site sewage treatment plant and can provide an additional emergency access.

The existing northerly Mills Pond Road driveway will continue to serve the Flowerfield Celebrations catering hall. The existing southernmost Mills Pond Road driveway will continue as a minor access to the existing buildings on Lot 1.

Figure 9-2: Site Access Schematic

For a larger 11"x17" version, see Figure 2-2 above on page 2-26



LIRR Grade Crossing

The existing railroad crossing between Gyrodyne and the Stony Brook R&D Park is fenced on both sides. Gyrodyne has been actively coordinating the re-opening of the railroad crossing. While significant progress has been made in this effort, including support from Stony Brook University, there is still a degree of uncertainty as to when this might be accomplished. Timing associated with LIRR and NYSDOT involvement and with one or more public hearings required to secure an approval results in an uncertain timeframe. Accordingly, Gyrodyne has modified the proposed Preliminary Subdivision Plan to clarify the railroad crossing as a "possible/future re-opening of railroad crossing". The updated Preliminary Subdivision Plan would not result in the re-opening the railroad crossing.

Section 1 (Alternatives) discusses the relative impacts if this crossing is possibly re-opened in the future (Alternative 8). The Appendix F: Traffic Impact Study includes a synopsis of potential daily crossing traffic and pedestrian/cyclist volumes, the existing condition of the crossing, and the improvements that may be required to re-open the crossing to traffic.

Internal Trips

The anticipated new land uses would have synergy with each other, to varying degrees, so some traffic (a nominal 5% for most uses, 20% between the hotel and catering hall) which would otherwise be generated off-site will remain as internal traffic within the property. The net new off-site generated traffic will be smaller than the total traffic as follows:

Table 9-1: Summary of Proposed Action Trip Generation

	AM Peak	PM Peak	Saturday Peak
Total Generated	357	538	323
Internal Generated	28	41	32
Off-site Generated	329	497	291

Level of Service / Delay

As shown in Table 7-1 starting on page 7-10 in Appendix F, most lane groups will operate at the same or similar LOS with or without the proposed subdivision. For the purposes of a traffic study, traffic impacts are denoted by significant delay increases, or by a LOS change that bring a movement to LOS F. Overall intersection LOS is summarized below. Six intersections warrant traffic mitigation, as further described in Section 0.

Table 9-2: Intersection Level of Service Summary

Key: No Build LOS / Build or Mitigated Build LOS

	AM Peak	PM Peak	Saturday Peak	Mitigation
Route 25A at Mills Pond Road	A / B	D / C	A / B	√
Route 25A at Stony Brook Road	C / B	C / C	A / A-B	√
Route 25A at Moriches Road	A / A	A / B	A / A	
Route 25A at Lake Avenue	B / B	B / C	A / A	
Lake Avenue at Moriches Road	A / A	A / A	A / A	
Moriches Road at Mills Pond-	A / B	C / C	B / C	
Moriches Road at Woodlawn	B / B	B / B	B / B	
Route 347 at Moriches Road/Smith Haven Mall	B / C	C / C	C / D	√
Route 25A at Main Street	B / B	C / C	B / B	
Stony Brook Road at South Drive	F / C	D / C	B / B	√
Stony Brook Road at Oxhead	B / C	F / B	A / B	√
Stony Brook Road at Hallock	A / A	B / B	A / A	
Route 347 at Stony Brook Road	E / E	E / E	E / E	√
Mills Pond Road Site Access 1	A / A	A / A	A / A	
Mills Pond Road Site Access 2	A / A	A / A	A / A	
NYS Route 25A Site Access	A / A	A / A	A / A	
Stony Brook Road at	A / A	A / A		

Complete Streets / Bicycle Accommodations

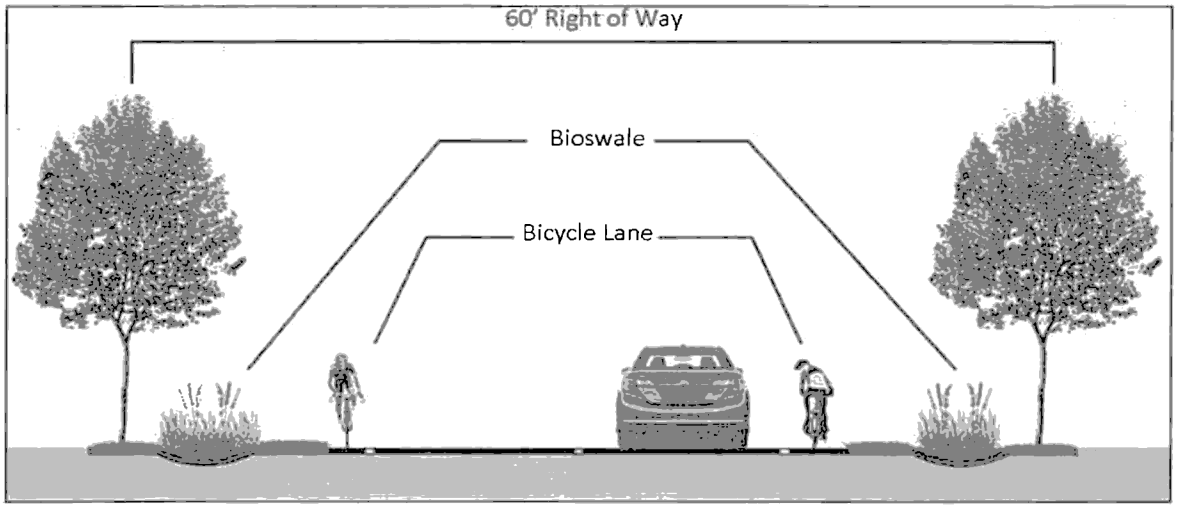
The subdivision layout includes a number of Complete Streets elements to cater to pedestrians and bicyclists.

First, the subdivision is planned to have just over two miles of nature trails throughout the property. This is a noticeable benefit compared to the current conditions with the site comprised largely of unmanaged landscaping surrounding paved parking lots and narrow roads, utilized by some residents as a walking route.

Next, the interior subdivision roads have been designed to meander slightly, avoiding the type of long straightaway segments that can encourage vehicle speeding. Additionally, the proposed interior roads are designed to be wide enough for vehicles as well as bicycles, with appropriate landscaping to provide an attractive walking and cycling network within the property that does not exist today. The striped bicycle lanes will help to visually narrow the remainder of the travel way, which is considered a traffic calming measure that encourages reduced vehicle speeds.

Bicycles will be able to connect to the "Share the Road" bicycle route on Route 25A.

Figure 9-3: Proposed Interior Subdivision Road Cross Section



Construction Phase Traffic

At the preliminary subdivision stage, it is premature to quantify construction duration, phasing, routes, numbers of workers, etc.

In qualitative terms, the subdivision has enough paved, open/unused space (e.g. the area formerly utilized as the Towne Bus depot parking) that it should be able to accommodate construction workers and construction vehicles. There is no anticipated need for off-site parking for workers (who would then require shuttles to get to the work site), and there is no anticipated displacement of existing tenants' parking on Lot 1 or Lot 2.

The subdivision could be developed one lot at a time or multiple lots at once.

The most labor-intensive phase would entail the earthwork required to grade and level the future interior site roads and lot areas, and to excavate the DRAs and STP leaching areas. As described in Section 2.13, this represents a net of approximately 38,000 cubic yards). Considering 67% of the excavation by 40-yard trucks and the remainder by 30-yard trucks, these tasks could take roughly 50 days. This projection considers the volume of material to be removed, adjusted with a 5% "fluff" factor to account for the fact that moving the material will introduce air voids, and the material will not be packed down for transport.

- 38,000 cubic yards + 5% fluff = 39,900 cubic yards of space / average 36.7 yards
- This works out to 1,088 trips:

- (38,000 x 1.05) / 36.7 average cubic yards per truck = 1,088 trips

- These trip numbers are then increased by 10% to be conservative and to account for individual days when conditions may not permit work (i.e., holidays, inclement weather, potential truck breakdowns):
  - 1,088 x 1.1 = 1,197 trips
- 30-yard trucks can be loaded in approximately 15 minutes, and 40-yard trucks can be loaded in approximately 30 minutes. If there are ten working hours per day, this works out to 24 truck hauls per day, resulting in calculated timeframes of 37-46 days:
  - 1,197087 total trips / 24 trips per day = 50 days

Construction worker traffic is expected to be far less than the projected subdivision trip generation. Large work sites generally have fewer than 200 workers, who would comprise up to 133 trips per hour (compared to the subdivision's projected trips up to 538 trips per hour). Additionally, construction workers tend to work staggered hours compared to typical 8:00-6:00 commuters. Truck activity would be restricted to 8:00-6:00, but workers would generally be expected to arrive at the work site by 7:00 a.m. (outside the AM peak hour) and many would leave before 3:30-4:00 p.m. (outside the PM peak hour).

With respect to the routes construction vehicles would take, it will depend on local haul sites to be selected by the contractor. The property will likely be accessed via Route 347 and CR 97-Nicolls Road, designated truck routes. The construction manager(s) would coordinate with the Town, the NYSDOT, and other interested parties regarding potential designated construction routes to execute the best means of operation.

9.3. Parking

Based on the proposed land use mix, the Town will require 2,346 on-site parking spaces:

Lot 1: Existing Mixed-Use Buildings: 660 spaces[62]

- Existing buildings: 478 spaces
  - Light industrial uses at 1 space per 500 s.f. x 33,615 s.f. = 67.2 = 68
  - Retail uses at 1 space per 100 s.f. x 750 s.f. = 7.5 = 8
  - Office/medical office uses at 1 space per 150 s.f. x 25,481 s.f. = 169.87 = 170
  - Fitness center over 5,000 s.f. at 1 space per 150 s.f. x 15,491 = 103.27 = 104
  - Fitness center under 5,000 s.f. at 1 space per 100 s.f. x 3,469 = 34.69 = 35
  - Education uses at 1 space per 100 s.f. x 7,904 s.f. = 79.04 = 80
  - Exhibition Space at 1 space per 150 s.f. x 1,905 s.f. = 12.7 = 13
- Future new tenants to reach full occupancy (41,911 s.f. vacant): 182 spaces
  - Light industrial uses at 1 space per 500 s.f. x 20,956 s.f. = 41.9 = 42 spaces
  - Office/medical office uses at 1 space per 150 s.f. x 20,956 s.f. = 139.71 = 140

Lot 2: Existing Catering Hall: 219

[62] This is a conservative projection compared to examining the entire building space as light industrial: 1 space per 500 s.f. for entire space is a requirement for 302 spaces.

- 1 space per 4 people x 874 people (maximum rated occupancy)[63] = 218.5 = 219

Lot 3: Landbanked Parking: 0

Lot 4: Proposed Hotel with Restaurant: 380

- 1.25 spaces per hotel room x 150 = 187.5 = 188
- 1 space per 150 s.f. day spa/fitness x 10,000 s.f. = 66.67 = 67
- 1 space per 4 conference center seats x 500 = 125

Lot 5: Proposed Medical Office: 369

- 1 space per 150 s.f. x 55,350 = 369

Lot 6: Proposed Medical Office: 498

- 1 space per 150 s.f. x 74,650 = 498

Lot 7 and Lot 8: Proposed Assisted Living: 110 for each lot = 220

- 1 space per unit x 220 units = 220

Lot 9: Proposed STP: 2 (spaces for workers)

As a "green" planning measure, some of the required parking would be satisfied using spaces that are shared among adjacent lots, and/or landbanked spaces that can be paved if they are genuinely needed. The subdivision plan avoids over-paving to minimize the loss of green space, to retain a more rural character on-site, and to present a "green," Complete Streets-oriented approach. The subdivision has complementary uses whose peak parking needs occur at different times, which make this a suitable opportunity for landbanked[64] and shared parking.[65] These concepts are described in more detail in Appendix F. Overall:

- Landbanked parking is a set-aside that can be paved in the future if a need is identified, and until such time as that occurs, landbanked spaces can remain green.
- Shared parking spaces serve multiple, proximate land uses, one use at a time, for uses that peak at different times. One shared parking space is functionally equivalent to two or more "available" spaces. Shared parking is a sustainable technique because it leaves green space instead of paving "extra" parking that is not genuinely needed.

At the Flowerfield property, the catering facility is most active on nights and weekends, when the industrial space is almost completely inactive, and typical weekday work hours, the scenario is reversed. With the planned cross connections between Lots 1 and 2, parking spaces near either facility can serve either use, so sharing parking spaces makes

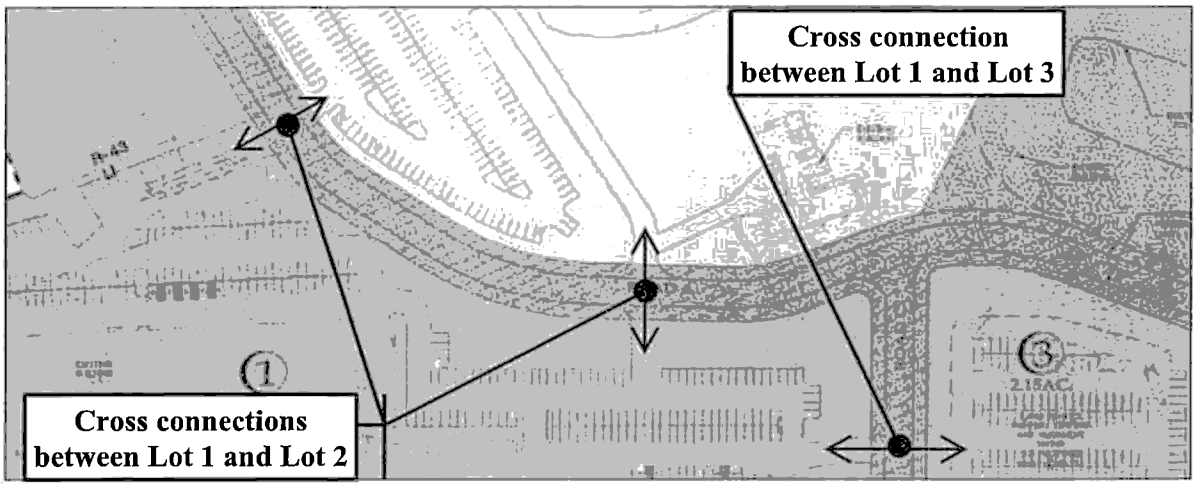
[63] Public assembly occupant limit for the Flowerfield catering facility (copy of Town of Smithtown Fire Prevention Division permit provided to Cameron Engineering). See Appendix L page L-14.

[64] Landbanked parking: spaces that will not be paved (i.e. kept green), which can be utilized as temporary overflow if needed, and which can be paved in the future if needed on a regular basis.

[65] Shared parking: spaces that will serve different land uses at different times of the day or week, potentially on a different lot than the land use it serves.

sense. The following figure is an excerpt of the Subdivision Plan to illustrate this concept. Lot 3 (if needed to be paved) is meant to support potential expansion on Lot 1, since Lot 2 inherently has excess parking.

Figure 9-4: Subdivision Plan Excerpt



The Preliminary Subdivision Plan provides sufficient parking overall and for each individual lot, using a mix of paved spaces, shared spaces (which serve different uses at different times), and land-banked spaces.

The following tables summarize the total available parking, and the type of parking (paved, landbanked, and/or shared) for each lot. Based on the genuinely available parking, there will be a site-wide surplus of up to 319 spaces, which is the calculated difference between 2,665 "total available" and 2,346 required.

Table 9-3: Excerpt of Traffic Study Parking Data
Parking on Lot 1 and Lot 2 (Existing Uses)

Lot	Land Use	Required Spaces	Existing	Displaced	*Shared Parking*	Total Available
1	Mixed-Use Buildings	660 with full occupancy	557	-116 displaced by Roads A, B, C	*At least 219 spaces on Lot 2 (catering hall) are available for Lot 1 during weekday daytime periods*	660 total 441 + *219 shared*
2	Catering Hall	219	355	0		355 during evenings and weekends
Total Parking: Existing Uses		879	912			796 paved
Lot 1 will have access to 660 or more spaces because Lot 2 (a catering hall) utilizes little or no weekday daytime parking. Lot 2 will have more parking than required by code.						

Proposed Parking on Lots 3 through 9 (Potential New Uses)

Lot	Land Use	Required Spaces	Proposed Parking: Paved and Striped	Proposed Parking: Land-banked	Proposed Parking: *Shared Parking*	Proposed Parking: Total Available	Notes
3	Landbanked	0	0	181	0	181	181 excess spaces
4	Hotel	188	258	0	*122 spaces to be shared with Lot 2 and/or 3 during weekday evenings and weekends*	258 + *122 shared*	380 required *380 available including 122 spaces shared with Lot 2 and/or 3*
	Day Spa/Fitness	67					
	Conference Center	125					
5	Medical / R&D Office	369	308	61	0	369	369 required *369 available including landbanked*
6	Medical / R&D Office	498	418	80	0	498	498 required *498 available including landbanked*
7	Assisted Living	110	110	0	0	110	110 required, 110 available
8	Assisted Living	110	110	0	0	110	110 required, 110 available
9	STP*	0					
Total Parking: New		1,467	1,204	322		1,526	

- Total Required parking spaces: 879 + 1,467 = 2,346
- Total Paved parking spaces: 796 + 1,204 = 2,000
- Total Land-banked parking spaces: 322
- Total Available spaces, including paved and land-banked: 2,322
- Some of the 2,322 parking spaces can serve multiple lots at different times. The same spaces in Lot 2 can also serve Lot 1 or Lot 4, and spaces in Lot 3 can serve Lot 1 or Lot 4.
- Therefore, the site will function as if it has at least 2,346 spaces, without actually paving 2,346 spaces (a "green" approach). (** Note: this excludes 2 spaces provided next to the STP since these spaces will be for maintenance vehicles only and will not be available to the public*)

Figure 9-5: Depiction of Lot 1 shared spaces with Lot 2 and Lot 3

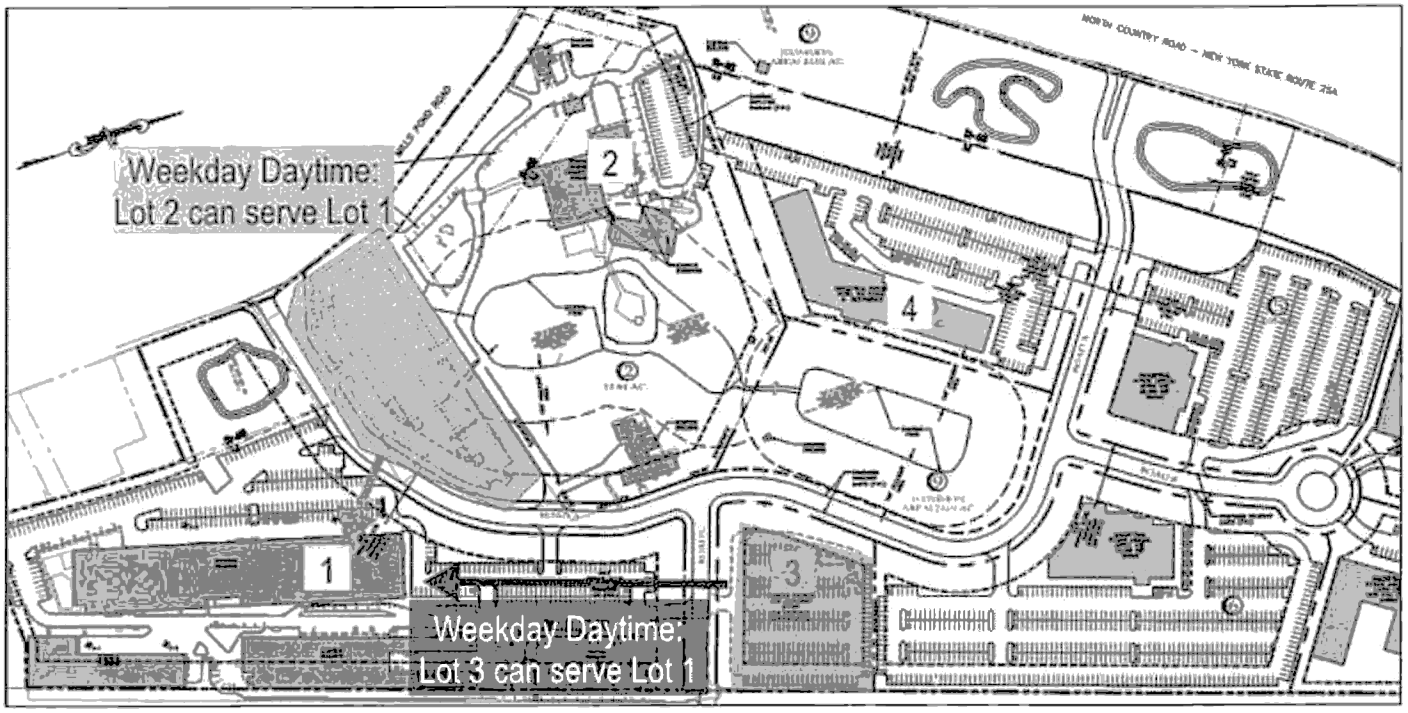
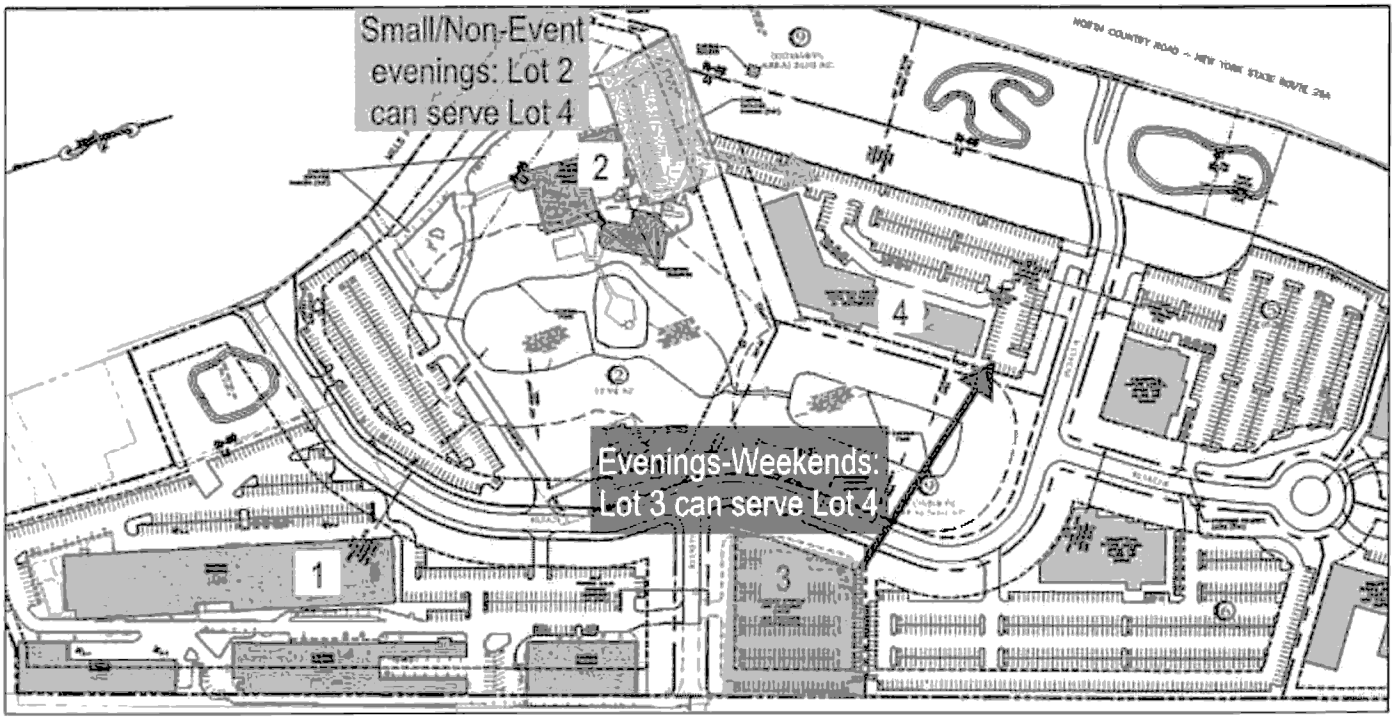


Figure 9-6: Depiction of Lot 4 shared spaces with Lot 2 and Lot 3



9.4. Proposed Mitigation / Improvements

Based on GIS parcel data, the respective right-of-way widths on Route 25A and Stony Brook Road are 50 feet and 60 feet. It is anticipated that any improvements can be achieved within public right-of-way, and no acquisitions or easements are required.

As stated above, and in the Traffic Study, mitigation is warranted if there would be significant delay increases, or a LOS change that brings a movement to LOS F. The intersections not listed below as needing mitigation, maintain their No Build LOS or would experience Build LOS at LOS E or better.

1. Route 25A and Mills Pond Road

The intersection will need to be signalized (based on a signal warrant study, see the Traffic Study in Appendix F, page 5-1) and needs a westbound left turn arrow phase and a northbound right turn arrow overlap as part of the timing plan. The intent is for westbound drivers to have a left turn arrow, but also be permitted to make a left turn with a solid green ball, so long as they yield to oncoming eastbound traffic. A 50-foot westbound left turn lane is needed on Route 25A, with restriping the eastbound and westbound approaches for appropriate tapers. The existing geometry provides room for a flared eastbound right turn area to accommodate at least one vehicle.

2. Route 25A and Stony Brook Road

The NYSDOT is in the process of analyzing improvements at this intersection. Without mitigation, this intersection would experience degraded LOS during the PM and Saturday peak hours. There are two potential mitigation measures that would each improve circulation and safety, and that would each conceivably be approvable by NYSDOT, which has jurisdiction. As noted in the *Route 25A - Three Village Area: Visioning Report for the Hamlets of Stony Brook, Setauket and East Setauket* prepared on behalf of the Town of Brookhaven in 2017[66], NYSDOT is in the process of vetting a signal vs. a roundabout for this intersection to address existing safety and congestion concerns. Based on July 2018 NYSDOT comments (pages B-58 through B-62), this selection has not yet been made by the State.

If the NYSDOT elects to install a signal, there would be a southbound left turn arrow phase and geometry improvements achieved with pavement markings:

- Shift the southbound left turn to the signal, and provide a lane to receive southbound left turn traffic.
- Add yield control for northbound right turns, which is a two-part safety measure: it avoids southbound left turns from queuing through the intersection, and it assigns the yield to an approach where drivers can look straight ahead for the traffic to which they need to yield right-of-way.
- Stripe the westbound right turn lane to be perpendicular with Route 25A. This will improve sight lines for westbound drivers, compared to the existing condition where drivers have to turn their heads almost 180 degrees to see oncoming northbound traffic.

[66] The entire *Visioning Report* is posted on the Town of Brookhaven website, and is excerpted in the DEIS Traffic Study: https://www.brookhavenny.gov/Forms?Command=Core_Download&EntryId=11103

3. Route 347 and Moriches Road

The NYSDOT has directed mitigation at this intersection, which would otherwise have a movement degrade to LOS F during the PM peak hour. The mitigation is to modify the signal timing plan to shift 3 seconds of green time to the eastbound approach, and for the off-peak (Saturday) phase plan, also move 2 seconds of green time from the northbound (mall exit) approach to the southbound (Moriches Road) approach. While the intersection would operate similarly to its No Build operation with no lane changes, NYSDOT stated in a July 2018 letter that a second eastbound left turn lane is required as additional mitigation. This study considers a 75-foot storage bay, which can be accommodated within the existing median on Route 347.

4. Stony Brook Road and South Drive

Without mitigation, the intersection would have AM and PM movements noticeably degrade within LOS F.

The proposed mitigation is to add a 100-foot southbound left turn lane and restripe a portion of northbound and southbound Stony Brook Road on either side of the intersection to provide appropriate tapers in both directions. Add a southbound left turn arrow phase to the existing signal, for "protected-permitted" operation (drivers can turn on a left turn arrow, or during a green ball, so long as they yield to oncoming northbound traffic). Add a northbound right turn arrow so these right turns can proceed at the same time as the westbound South Drive approach. Minor signal adjustments will be required to add the turn arrows and to ensure that all signal heads retain optimal visibility based on the new lane alignments. "Cone of vision" requirements are dictated by the national *Manual on Uniform Traffic Control Devices* (*MUTCD*).

This mitigation is far preferable to adding through lanes. Left turns comprise up to 60% of the southbound traffic volume, so accommodating left turns in their own lane with a turn arrow yields significant improvements over current conditions.

5. Stony Brook Road and Oxhead Road

Without mitigation, the intersection would have PM movements noticeably degrade within LOS F, and would have noticeable movement delay increases during the AM peak hour.

The proposed mitigation is to restripe a portion of northbound and southbound Stony Brook Road on either side of the intersection to add a 100-foot southbound left turn lane and appropriate tapers in both directions. Next, add a southbound left turn arrow phase to the existing signal's timing plan, with protected-permitted operation. Minor signal work will be required to add signal faces for the turn arrows and to ensure that all signal heads retain optimal visibility per the *MUTCD.*

6. Stony Brook Road at Route 347

Without mitigation, the intersection would have PM left turn movements noticeably degrade within LOS F.

The proposed mitigation is to modify the traffic signal timing plan by shifting green time from the east-west phase to the southbound approach on Stony Brook Road.

Though not proposed, an alternate mitigation is to widen northbound Stony Brook Road for a ±120-foot northbound right turn lane, and to re-designate the existing right turn lane as a second through lane. The northbound approach would therefore change from Left,

Through, Right, to Left, Through, Through, Right. Under this alternate mitigation, the signal would also be modified to add right turn overlaps in each direction. NYSDOT did not declare a preference in its July 2018 letter.

Remaining Intersections 7 through 17

The applicant believes no mitigation is required at the following intersections, because the delay changes are not significant, because Build LOS will be LOS E or better, and/or because there are no LOS changes:

7. Route 25A at Lake Avenue
8. Route 25A at Moriches Road
9. Moriches Road at Lake Avenue
10. Moriches Road at Mills Pond Road
11. Moriches Road at Woodlawn Avenue
12. Route 25A at Main Street
13. Stony Brook Road at Hallock Road
14. Mills Pond Road Site Access 1
15. Mills Pond Road Site Access 2
16. Route 25A Site Access (future)
17. Stony Brook Road and Development Drive

August 2019 Update:

As of August 2019, there are road improvements underway along Stony Brook Road near Gyrodyne and the Stony Brook Research and Development Park. Upon review of the Town's 2019 Adopted Capital Budget[67], these are Town of Brookhaven capital improvements. These improvements, described below, post-date the DEIS traffic study, but do not change the study's conclusions or mitigation recommendations. In fact, some of the underway improvements comprise the recommended mitigation in the traffic study. As such, it is the applicant's opinion that the traffic study's findings remain valid.

Included improvements (based on the 2019 Adopted Capital Budget and as observed in August 2019) are:

- Install new curb, sidewalk, and bicycle lane on the west side of Stony Brook Road from Development Drive south to the Stony Brook Fire Department (just south of Oxhead Road)
    - This has no impact on traffic flow or analysis
- Signalize the Research and Development Park/Development Drive intersection on Stony Brook Road; upon observation in August 2019, there does not appear to be any change in the number of lanes
    - This will enable better side street flow than the traffic study shows, but does not change the conclusions thereof (i.e. no intersection mitigation associated with the proposed subdivision)
- Install left turn lanes on Stony Brook Road at the South Drive and Oxhead Road intersections

[67] https://www.brookhavenny.gov/Archive.aspx?ADID=3370 accessed August 26, 2019

- These measures are recommended in the proposed DEIS traffic study

- Build a southbound acceleration lane from Development Drive onto southbound Stony Brook Road, and build a northbound acceleration lane from South Drive onto northbound Stony Brook Road
  - This yields better east-west right turn flow than the traffic study shows, and does not change the conclusions thereof as to recommended mitigation

10. Community Services

10.1. Existing Conditions

Police
The site is served by the Fourth Precinct of the Suffolk County Police Department, which provides regular patrols near the property.

Fire
The site is served by the St. James Fire District. The nearest firehouse is at 533 North Country Road, across from Lake Avenue (±1.1 miles west of the site). The district also has another firehouse at 221 Jefferson Avenue[68]. The district provides emergency medical services in addition to fire protection.

Schools
The Flowerfield property is located in the Smithtown Central School District and currently does not generate any students for the District.

Water
The St. James Water District supplies potable water to the site. Water use for the existing industrial buildings was 18,850 cubic feet (141,000 gallons) during the latest available 12-month period (November 16, 2015 to November 16, 2016) according to Gyrodyne, LLC bills from the St. James Water District. In addition, the on-site well was utilized for make-up water for the on-site ponds.

Solid Waste
For the existing operations, solid waste was estimated at 1,959.6 pounds per day, or 17.1 tons per month.[69] 1,509.6 pounds per day (15.1 tons per month) of solid waste is attributed to the existing light industrial operations, while the catering operation produces an estimated 450 pounds of solid waste per day of operation (2 tons per month). The solid waste calculation for the existing catering operation is based upon over five years of operational data: 623 events held over 72 months = an average of 9 events per month.

Solid waste removal and recycling are handled by Jet Sanitation Service Corp. in Islandia. According to Jet Sanitation representatives, solid waste is brought to the Covanta Resource Recovery Plant in East Northport and recycled items are brought to Island Recyling in Central Islip.

Energy
The existing facility uses electricity, fuel oil, and propane gas.

10.2. Potential Impacts of Proposed Subdivision

Police and Fire
New development at the site would increase the demand for community services. However, the fire/emergency services and police departments will benefit from the additional tax revenues generated by the proposed subdivision.

[68] St. James Fire District website http://www.stjamesfd.org/ accessed April 2017.
[69] National Solid Wastes Management Association Technical Bulletin #85-6

Schools

Since the proposed development will not include any residential uses which might house school-aged children, no new students will be generated by the subdivision. All tax revenues generated from the proposed subdivision would be expected to have a positive impact on the schools.

Water

The estimated potable water usage is 87,534 gpd (see Table 10-1 below) accounting for Suffolk County demand rates for the existing uses (18,834 gpd). This exceeds the actual water demand at the existing uses, based on water bills, as described above.

Table 10-1: Proposed Potable Water Use

Unit Type	Number/Size[70]	Daily Potable Water Demand Rate	Potable Water Demand (gpd)
Existing Industrial Park			
General Light Industry	35,715 s.f.	0.04 gpd / s.f.	1,429
Retail	750 s.f.	0.15 gpd / s.f.	113
Office	23,123 s.f.	0.06 gpd / s.f.	1,387
Medical Office	2,817 s.f.	0.1 gpd / s.f.	282
Fitness Center Over 5,000 s.f.	15,491 s.f.	0.3 gpd / s.f.	4,647
Fitness Center Under 5,000 s.f.	3,469 s.f.	0.1 gpd / s.f.	347
School (184 occupants)	9,175 s.f.	7.5 gpd / person	1,380
Exhibition Space (71 occupants)	2,130 s.f.	0.03 gpd/s.f. + 2.5 gpd/person	241
Occupy Vacant Space	37,067 s.f.	50% at 0.06 gpd / s.f. 50% at 0.04 gpd / s.f.	1,853
Existing Catering Hall	874 occupants	7.5 gpd / person	6,555
Existing Residence on Caterer Lot	2 units	300 gpd / unit	600
Total of Existing Land Uses			**18,834 gpd**
Hotel	150 rooms	150 gpd / room	22,500
Restaurant	150 seats	30 gpd / seat	4,500
Conference Center	500 seats	3 gpd / seat	1,500
Day Spa / Fitness	10,000 s.f.	0.3 gpd / s.f.	3,000
Medical Office	130,000 s.f.	0.1 gpd / s.f.	13,000
Assisted Living	220 units	110 gpd / unit	24,200
Total of Proposed Subdivision Uses			**68,700 gpd**
		Total	**87,534 gpd**

The St. James Water District indicated in a letter dated June 18, 2018 (page B-36) that there is an existing 12-inch main on Route 25A, and there are existing 12-inch and 8-inch mains on Mills Pond Road, so a water main extension is not necessary. The Water District Superintendent did not indicate capacity concerns. A follow-up letter was sent to the District on April 19, 2019 to confirm that the District has adequate capacity to serve the subject property.

[70] Source: Rent roll data provided by Gyrodyne LLC.

Irrigation would be provided by the existing on-site well. Irrigation would be approximately one inch per week for seven months each year (April through October) over the managed landscape areas. This corresponds to 11,000 gallons per day on average.

Solid Waste

The estimated solid waste associated with the proposed subdivision is approximately 86.3 tons per month (a calculated increase of 69.2 tons per month) per Table 10-2. This table takes a conservative approach with respect to the solid waste associated with the hotel: 200 events per year with 80% average attendance (i.e. 400 attendees); 150 meals each served for breakfast, lunch, and dinner (i.e. 450 meals/day).

Table 10-2: Proposed Solid Waste

	Rate[71]	pounds per day	Tons per month
Existing Uses			
150,959 s.f. Light industrial	1 lb/day per 100 s.f.	1,509.6	15.1
Caterer (300 guests typically, 9 events per month on average)	1.5 lb/meal x 300 guests	450	2.0
	Existing Subtotal	1,959.6	17.1
Subdivision Uses			
150-room first class hotel	3.2 lb/day per room	480	7.3
10,000 s.f. day spa/fitness	(included in room rate)	0	0
150-seat restaurant (say 3 meals/day)	2 lb/day per meal	900	13.7
500-seat conference center	2 lb/day per meal	800	6.7
130,000 s.f. office	1 lb/day per 100 s.f.	1,300	19.8
220 assisted living units (consider 286 residents at 1.3/room on average)	5 lbs/day/resident	1,430	21.7
	Proposed Subtotal	4,910	69.2
	TOTAL	6,870	86.3

The proposed subdivision would have solid waste picked up by a private carter who would deliver the waste to a permitted solid waste management facility.

Energy

An increase in energy consumption would occur as a result of the development. At the preliminary subdivision phase, it is premature to develop specific load calculations for electricity, heating oil, and/or natural gas. Gyrodyne and/or the eventual developers will coordinate new service connections with National Grid and PSEG-LI as required.

10.3. Proposed Mitigation

It is the applicant's opinion that no mitigation is required, apart from coordinating with service providers on the types and locations of service connections because the subdivision elements minimize Town involvement (no new public streets to maintain), there would be no new school-aged children living at the site, and there is no indication from community service providers regarding an inability to serve the proposed land uses.

[71] National Solid Wastes Management Association Technical Bulletin #85-6

11. Taxes/Economic Impacts

11.1. Existing Conditions

HR&A Advisors, Inc. (HR&A) prepared an economic and fiscal impact analysis of the Proposed Action, analyzing the likely economic, fiscal, and employment impacts of the Proposed Action, as well as a no-action scenario and five alternative development scenarios. A full copy of the economic and fiscal impact analysis is provided in Appendix H.

Tax revenues for the existing operations (in 2017 dollars) are presented in Table 11-1 below. Existing tax revenues were calculated by applying the applicable $2,259.01 mill rate for the site's tax code 76 to the assessed value of the property.

Table 11-1: Summary of Tax Revenues from Existing Operations

Smithtown Central School District	Town Wide General Town and County	Town Wide Excluding Villages	Smithtown Library	St. James Fire District	Street and Arterial Highway	Total Taxes
$273,000	$30,000	$66,000	$10,000	$19,000	$1,000	**$399,000**

Since the existing uses would remain, the existing tax revenues are expected to continue with the proposed subdivision, pending changes to the assessed valuation.

11.2. Potential Impacts of Proposed Subdivision

HR&A performed a market analysis to determine the viability of the subdivision's proposed uses. The number of residents over the age of 75 is expected to increase over the next five years, and the proximity of the site to Stony Brook Medicine would support the medical needs of residents living in the proposed assisted living development who require around-the-clock staff and other medical services. Robust demand from local and regional customers, as well as visitors to the University would support a 150-key hotel. The penetration of hotels in the Study Area has been strong with average occupancies of 73% even after 1.5 years of doubling the supply of rooms in 2016. Finally, Stony Brook Medicine is expected to nearly double the size of its facilities by 2020. The expansion of the Hospital is expected to drive demand for additional Class A medical office space.

HR&A utilized the IMpact analysis for PLANning (IMPLAN) input-output model for Suffolk County, New York, created by MIG, Inc. (formerly Minnesota IMPLAN Group, Inc.), to analyze the Proposed Action's economic impacts from both construction and annual ongoing operations at full development buildout. The IMPLAN model is the industry standard, and is used to conduct economic impact analyses by leading public and private sector organizations across the United States. This analysis estimates economic output, job creation, and wages/income paid to employees at the following levels: Direct Impacts, Indirect Impacts and Induced Impacts.

HR&A's economic impact analysis found that the Proposed Action would generate $228 million in economic activity and 1,507 total jobs during the construction phase. $127.7

million in annual net new economic activity would be generated by the Proposed Action, and 1,078 total jobs would be created as a result when the project is fully built out and operational. Based on the Proposed Action, HR&A's fiscal impact analysis found that the site would generate $3 million in recurring net new fiscal impact per year after full build out, accounting for a total net tax revenue of $3.76 million and $0.76 million in net new fiscal costs for workers and residents.

Construction

HR&A developed a series of assumptions to model the one-time economic impacts of construction of the Proposed Action. The total costs for the Proposed Action are $147.1 million. The Proposed Action is estimated to generate $228 million in total economic output, as shown in Table 11-2.

Table 11-2: Summary of One-Time Impacts from Construction (Economic Output)

Direct	Indirect	Induced	Total Impacts
$147,100,000	$27,600,000	$53,300,000	**$228,000,000**

The Proposed Action is estimated to generate approximately 1,507 total jobs from construction of the project, as shown in Table 11-3.

Table 11-3: Summary of One-Time Impacts from Construction (Employment (FTE))

Direct Jobs	Indirect Jobs	Induced Jobs	Total Jobs
999	142	366	**1,507**

Operation

In assessing the one-time and ongoing fiscal impact at full build-out, HR&A analyzed the local tax structure for the Town of Smithtown. The Town of Smithtown does not have local sales tax, personal income tax, business income tax, or hotel tax. Therefore, one-time impacts on sales tax or from construction activities are not relevant to this analysis. HR&A also assessed the annual recurring fiscal impact of property tax revenue at the local level to estimate annual recurring fiscal impacts from the proposed project's operations. The Proposed Action's estimated capitalized value of $127.9 million results in an assessed value of $1,852,690, which represents an approximately $1.67 million increase.

Table 11-4 shows the total anticipated tax revenue generated by the Proposed Action broken down by receiving entity (in 2017 dollars) after applying the applicable $2,259.01 mill rate for the site's tax code 76 to the assessed value. The Proposed Action would generate $3.76 million in net new property taxes as compared to the existing conditions of the site. The bulk of the taxes, $2.85 million, would be received by the Smithtown Central School District and the remaining $1.31 million would be received by the Town and other entities.

Table 11-4: Summary of Annual Property Taxes at Full Build Out (2017$)

	Smithtown Central School District	Town and Other Entities	Total Taxes	Net New Taxes
Existing Conditions	$270,000	$130,000	$400,000	-
Proposed Action	$2,850,000	$1,310,000	$4,160,000	**$3,760,000**

HR&A has also estimated the annual cost to the Town of Smithtown for the Proposed Action as compared to the existing conditions. For the Proposed Action, the net new cost to the Town of Smithtown is estimated at $760,000 in 2017 dollars, shown in Table 11-5.

Table 11-5: Summary of Estimated Costs for Town of Smithtown (2017$)

	Number of Residents (Assisted Living)	Number of Workers	Projected Cost per Resident	Projected Cost per Worker	Residents Cost	Workers Costs	Total Costs	Net New Costs
Existing Conditions	0	172	$1,350	$450	$0	$80,000	$80,000	-
Proposed Action	320	911	$1,350	$450	$430,000	$410,000	$840,000	**$760,000**

Finally, HR&A projected the net fiscal impact to the Town of Smithtown for the Proposed Action as compared to the existing conditions, by subtracting the projected costs from the property tax revenues generated by the proposed development. As shown in Table 11-6, the Proposed Action would have a total net new impact of $3 million in 2017 dollars.

Table 11-6: Summary of Net Fiscal Impact for Town of Smithtown (2017$)

	Total Taxes	Total Costs	Net Fiscal Impact	Net New Fiscal Impact
Existing Conditions	$400,000	($80,000)	$320,000	-
Proposed Action	$4,160,000	($840,000)	$3,320,000	**$3,000,000**

Secondary Impacts

In addition, the Town requested additional information related to secondary impacts, referred to as the "economic ripple effect" in the Final Scope. These impacts would include an increase potential school-age children, demand for workforce housing and impact on community services. This secondary impact analysis was addressed by a memorandum prepared by Todd J. Poole, Managing Principal of 4ward Planning, which is provided in Appendix H (starting on page H-13) and summarized below.

As the Proposed Action does not include a residential component, no school-age children will be generated. In terms of workforce housing, among those workers who currently commute from a considerable distance, very few may choose to seek housing close to their new place of employment (in this case, the Flowerfield site), generally due to external considerations, such as where a spouse currently works or the school district in which their

children are currently enrolled; this is an anecdotal (but reasonable, in the applicant's opinion) statement based on personal experience and general knowledge of what drives housing choice.

Additionally, many low- and moderate-income workers who would be required to staff a large number of positions at the assisted living facility and hotel are likely to commute from within a 40-minute distance (because there is little to no ability to commute to this site without a private vehicle – see Appendix F: Traffic Impact Study section 3.2, which explains there is no transit stop within ½ mile of the property) and, therefore, create a limited amount of demand for local area workforce housing.

Consequently, while there are a large number of direct jobs projected to be created by the Proposed Action, it is the applicant's opinion that likely only a small fraction of these new workers (less than five-percent) will generate new demand for local area housing. Further, and given this relatively conservative estimate, it is more likely than not that those workers seeking local area housing will do so through the purchase or rental of existing area housing stock – placing little, if any, increased demand on local municipal and school district services.

Impacts to Local Hotel Market

The Final Scope also requested a market analysis about the potential impacts of new hotel development (envisioned for Lot 4) on the existing local hotel market. Cushman & Wakefield performed an analysis of the local market utilizing Smith Travel Reports (STR), a national hotel industry analytic company. A full copy of this analysis is provided in Appendix H starting on page H-16.

Overall, the analysis found that the both the general Long Island hotel market, and in particular, the local market surrounding the Flowerfield site, show strong signs of growth and a high level of demand.

As a region, Long Island has the highest occupancy rate compared against similar areas for 2017, averaging 71.3%. STR data shows that the local market is particularly strong, as the Hilton Garden Inn at Stony Brook University has an average occupancy rate of 90%.

Due to its unique location, the demand driving increased hotel activity and occupancy for hotel rooms outweighs the current supply. The following unique factors play a significant role in driving this level of demand within the local hotel market: higher education institutions, hospitals, senior assisted living and nursing homes, and wedding and event venues.

11.3. Proposed Mitigation

It is the applicant's opinion that no mitigation is required because the proposed subdivision would be tax-positive to the local school district, the Town, and Suffolk County.

Key: "P" means permitted; "BA" means permitted by special exception by the Board of Appeals; "TB" means permitted by special exception by the Town Board; "–" means not permitted	
Type of Use	**Light Industrial**
Signs	P

12.1.1. Relevant Land Use and Visioning Plans

In April 2010, the Conservation Strategy Working Group issued on behalf of the Three Village Community Trust the *Three Village Conservation Strategy 2030.* This Visioning document focuses on the Three Village community (Stony Brook, Setauket, and East Setauket) but mentions the Flowerfield property as follows:

"Although not in the [Three Village] study area, but immediately adjacent to it, is property that still belongs to the Gyrodyne Corporation...about 76 acres that include a significant (70% plus) park-like undeveloped area along the southerly side of NYS Route 25A and a complex of small industrial/commercial buildings mostly along the LIRR tracks and Moriches Road [sic]...Protective covenants may require significant buffers along NYS Route 25A, but the [prior] development plans have usually included buffers of only about 100 feet (a standard distance that cannot be considered "significant"). This property is the gateway to the Three Village Area. The farmland property to the north of NYS Route 25A is protected by the Suffolk County Farmland protection program."

In July 2017, the Town of Brookhaven issued the *Route 25A – Three Village Area Visioning Report for the Hamlets of Stony Brook, Setauket, and East Setauket* intended as a precursor to an eventual Town-led Route 25A Corridor Land Use Plan and GEIS (Generic Environmental Impact Statement). The *Visioning Report* summarized the results of focus group meetings and visioning workshops. The extent of the *Visioning Report* ends just east of the Flowerfield property:[74]

Some of the relevant findings included "wish list" items to:

- Reduce congestion
- Improve safety, specifically at Route 25A-Stony Brook Road; Route 25A-Main Street; and Route 25A-Nicolls Road
- Improve pedestrian connections across LIRR
- Continuous sidewalks along 25A, especially to the museum area
- Improve streetscape in commercial areas with lighting, seating, sidewalks, landscaping
- Make corridor more comfortable for bicyclists

[74] *Visioning Report* Figure 2 (Zoning Map) on page 19.

12. Land Use and Open Space Preservation

12.1. Existing Conditions

The majority of the subject property is currently vacant, with development on only two of the proposed lots (which comprise 30.76 acres of the 74.98-acre property). Actual building space comprises ±151,000 s.f. for the existing industrial-commercial buildings on Lot 1, and ±34,700 s.f. for the catering hall buildings and arbor on Lot 2.

Land use to the north and west is primarily agriculture and single-family homes, with retail space further west. Land use to the south consists of Stony Brook University; the CEWIT building is directly across the railroad tracks.

The existing zoning, by acreage, is provided in Table 12-1. No zone changes are proposed; only the acreage in each lot would change as a result of the subdivision.

Table 12-1: Existing Zoning by Acreage

Zoning District	Acreage	Use
Light Industrial (LI)	65.63	18.2 acres of industrial-commercial, 12.56 acres for catering hall, remainder vacant
R-43	9.32	Vacant
B Residence (in	0.03	Vacant

Surrounding zoning consists of R-43 and LI within the Town of Smithtown, B-1 within the Town of Brookhaven, and A within the Village of Head of the Harbor.

No development is proposed on any R-43 zoned land. Any land on the property that is zoned R-43 is either part of the NYS Route 25A (North Country Road) buffer, or it is part of the catering hall Lot 2 that the subdivision would not change. Therefore, R-43 and Residence B dimensional requirements will not apply to the proposed subdivision, except that all proposed buildings and parking spaces satisfy the required 100-foot buffer from R-43 areas.

Dimensional regulations for the existing LI zone are provided in Table 12-2 starting below. Table 12-3 starting on page 12-2 provides the Use Regulations for the existing LI zone.

Table 12-2: Dimensional Regulations for Existing Zone[72]

Dimension / Criterion	Light Industrial (LI)
Minimum lot area (square feet)	80,000 (2 acres)
Minimum lot area per dwelling unit (square feet)	80,000 (2 acres)
Minimum lot frontage at setback line (feet)	100
Minimum road frontage (feet)	50
Minimum front yard depth (feet)	50
Minimum rear yard depth (feet)	50
Minimum side yard width – any one yard (feet)	20
Minimum side yard width – total of both yards	40

[72] Town of Smithtown Ordinance, § 322-9.B Table of Dimensional Regulations, last updated May 2016 and accessed via ecode360.com/documents/SM0115/SM0115-322h%20ID-TDIMR.pdf

Dimension / Criterion	Light Industrial (LI)
Maximum gross floor area (percent of lot area)	42
Minimum landscape area (percent of lot area)	18, with at least 80% of the required front yard
Maximum height (Feet)	35
Accessory building or structure	
Maximum occupancy of required rear yard	25
Maximum height (feet)	18
Minimum distance from any lot line (feet)	10

Table 12-3: Use Regulations for Existing LI Zone[73]

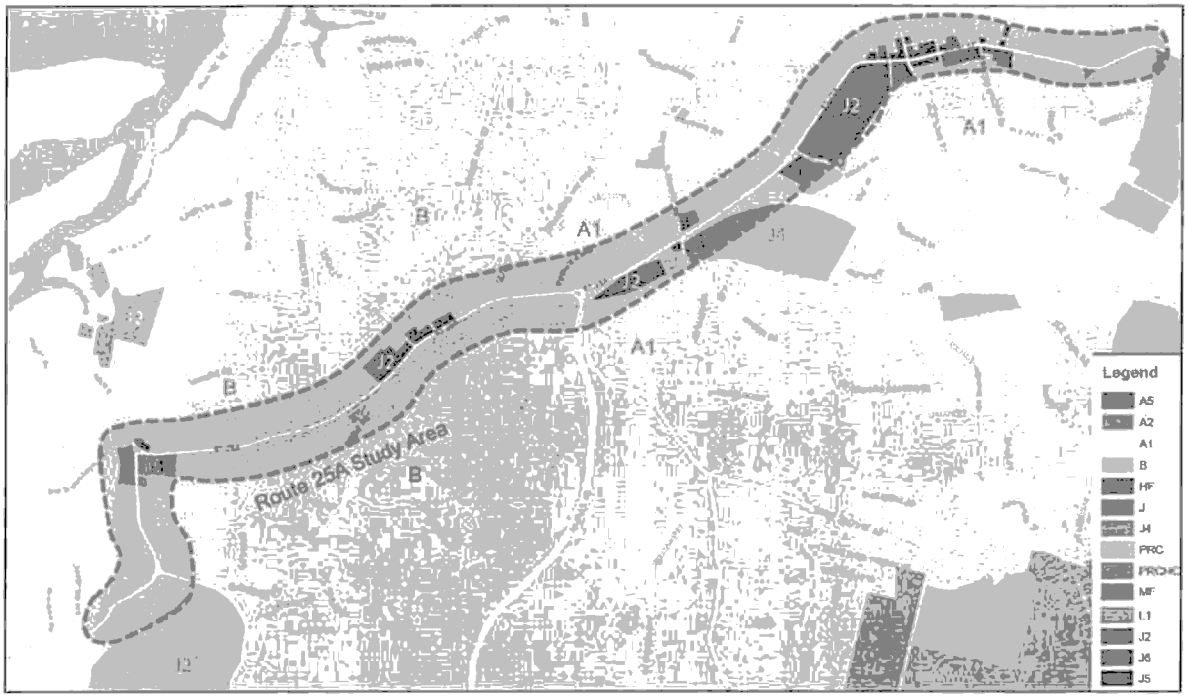
Key: "P" means permitted; "BA" means permitted by special exception by the Board of Appeals; "TB" means permitted by special exception by the Town Board; "–" means not permitted	
Type of Use	**Light Industrial**
RESIDENTIAL USE – none permitted on the LI zone	
COMMUNITY FACILITY USES	
Airport or heliport	TB
Arena or assembly hall	BA
Cemetery	-
Church or similar place of worship	P
College or university	-
Convent or monastery	P
Day camp	BA
Day-care center; nursery school	BA
Fire or ambulance station	P
Golf course or country club of 50 acres or more	P
Hospital or nursing home	TB
Membership club, nonprofit	BA
Park, playground, or nature preserve	P
Public library, museum, or similar use	P
Public utility facility	TB
Rail or bus station	TB
School, elementary or high	P
Swimming or boat club	BA
BUSINESS USES	
Adult entertainment, Adult retail shop	-
Agriculture	P
Animal hospital, veterinarian or kennel; animal hospice; animal boarding	BA
Animal husbandry	BA
Appliance, office machine, or furniture repair	-
Bank	P
Barbershop or similar personal service shop	-
Billiard hall	-

[73] Town of Smithtown Ordinance, §322 Attachment 9, last updated November 2016 and accessed via http://ecode360.com/documents/SM0115/SM0115-322i%20ID-TUSER.pdf

Key: "P" means permitted; "BA" means permitted by special exception by the Board of Appeals; "TB" means permitted by special exception by the Town Board; "–" means not permitted	
Type of Use	**Light Industrial**
Boat sales and/or rental showroom	-
Bowling alley	TB
Broadcast studio or station, not including antennas	P
Canoe rental showroom	-
Car wash	-
Coin-operated laundromat	-
Commercial public recreation not otherwise listed herein	TB
Counter service restaurant	-
Dance, self-defense, or martial arts schools	-
Dry-cleaning plant of less than 4,000 square feet	
Fence or swimming pool sales	-
Filling station	-
Fitness center or gymnasium	P
Funeral home	-
Game center	-
Health spa	P
Horsemanship school or horse boarding	BA
Hotel or motel	TB
Lumberyard	-
Medical laboratory	P
Mini storage warehouse	BA
Motor vehicle sales or rental showroom	-
Nursery	-
Office	P
Outdoor golf driving range/miniature golf	TB
Power equipment shop	-
Repair garage	-
Restaurant	P
Retail establishment, not otherwise listed herein	-
Shipping center	-
Shoe repair, tailoring, or dressmaking	-
Shooting range	TB
Skating rink	TB
Studio for musician, painter, sculptor, or photographer	P
Tavern, bar, or inn	-
Taxi or limousine establishment	-
Tennis or racquet club	TB
Theater or Theater multiplex	-
Video rental shop	-
Vocational school	P
INDUSTRIAL USES	

Key: "P" means permitted; "BA" means permitted by special exception by the Board of Appeals; "TB" means permitted by special exception by the Town Board; "–" means not permitted	
Type of Use	**Light Industrial**
Asphalt, brick or tile, burlap, textile thread, candle, or wax manufacturing	-
Cement batching	-
Concrete products manufacture	-
Construction equipment and supplies storage yard	-
Dyestuff manufacture	-
Forge plant	-
Foundry	-
Fuel storage or distribution	BA
Laundry or dry-cleaning plant of more than 4,000 square feet	P
Licensed junkyard	-
Machine shop	-
Monument manufacture	-
Non-nuisance industry (except specific prohibited uses in §322-11)	P
Plating works	-
Printing plant	P
Research laboratory	P
Rock crusher	-
Sand and gravel mining or processing	-
Trucking station	BA
Warehouse	P
Wholesale business or distributor	P
ACCESSORY USES	
Accessory apartment; Accommodations for 1 boarder	-
Cafeteria or restaurant incidental to primary use	P
Car wash, accessory to filling station	-
Christmas tree sales	P
Coin-operated machine	-
Customary accessory structure and/or use	P
Dish antenna	P
Game room	-
Home occupation	-
Horse stabling	-
Incidental retail not exceeding 3% gross floor area	P
Living quarters for parent	-
Outdoor dining area	BA
Outdoor storage	BA
Parking for business and/or industrial uses	P
Parking garage	BA
Private garage or off-street parking	P
Private swimming pool	P
Propane exchange	-

Figure 12-1: Town of Brookhaven *Visioning Report* Figure 2 (Zoning Map)



Presented here are some direct quotes from the Town of Brookhaven's Visioning Report:

> *"Any changes along the road should respect the residential nature of the surrounding area; Route 25A should not be widened to accommodate higher traffic volumes. Route 25A should become more "walkable." This includes filling in gaps in the sidewalk network, improving crossings, and adding streetscape amenities where appropriate. The corridor should also become more comfortable for bicyclists, by incorporating bicycle facilities such as bike lanes, off-road paths, pavement markings (e.g. sharrows), and bike parking where feasible. The sidewalk and bicycle network should connect key destinations such as Stony Brook University, the Stony Brook train station, the Greenway Trail, the waterfront, and the museum area.*
>
> *Safety:*
> *The capacity of the roadway needs to be maintained in order to avoid further congestion and using alternative roads. This basic roadway objective was consistently expressed in all of the community meetings. One potential way to do this would be to support designs that slightly reduce traffic speeds on the roadway, while maintaining capacity. Traffic studies have consistently found that low to moderate speeds allow the maximum number of cars to use a roadway…As speeds increase, capacity slightly decreases because cars spread out more along the road. The average driver will correctly seek a greater distance from other cars as speed increases.*
>
> *Three intersections along Route 25A were identified by participants as being particularly problematic for motorists and pedestrians: at Stony Brook Road,*

Main Street (Stony Brook), and Nicolls Road...Participants supported the study of traffic conditions at these intersections to improve vehicular and pedestrian safety and encourage smooth traffic circulation. There were concerns for pedestrians crossing near the museums on Main Street, where sidewalks and crosswalks are warranted."

The following excerpt is very relevant to the Gyrodyne subdivision application:

"NYSDOT recently studied Route 25A at Stony Brook Road and determined that a traffic signal was appropriate. Participants also supported studying the potential for a modern roundabout, both at Nicolls Road and Stony Brook Road, which could be more desirable to a signalized intersection...Roundabouts have increasingly been accepted in the United States, due to two main factors:

1. Increased capacity and reduced vehicle delay: A high degree of capacity and fluidity can be achieved by the modern roundabout. When greater capacity is required, relatively simple improvements can be implemented such as widening the entries to provide more than one entry lane, and widening the circulatory roadway.

2. Improved Safety: Roundabout design has consistently proven to be superior in safety to cross intersections. Reduced speeds alone make impacts less likely and less severe when they do occur. Driver error is less likely because the driver who enters the roundabout must be alert to only one traffic movement – he looks left for an acceptable gap to enter into the flow. By contrast, a driver at a four- way intersection has to deal with two or three different movements. In a roundabout, no driver can run a red light; therefore, right-angle collisions are not possible. The presence of the center island interrupts an otherwise straight path, forcing speed reduction and heightened awareness in the roundabout. It also is worth noting that reduced delays at roundabouts compared to signalized intersections have the effect of decreasing the level of frustration and aggressiveness of drivers must wait for a gap in the circulating flow. Also, modern roundabouts are designed for slow entry speeds (typically 10 to 20 mph) making them very safe."

Next, the *Visioning Report* discusses Pedestrian and Bicycle Infrastructure (and the lack thereof):

"One objective generally expressed by participants in the Visioning workshops was to enhance the safety of all users of Route 25A including pedestrians and bicyclists...Currently, there are many sections along Route 25A that have narrow sidewalks, sidewalks on only one side of the street, and large curb-cuts where no sidewalks are present (e.g. in the section between Nicolls Road and Main Street in Stony Brook). Gaps in the sidewalk network, such as between Hawkins Road and Main Street should be filled. Improving conditions for biking was also supported amongst community members. There was a safety concern with adding bicycle lanes on Route 25A because of high traffic volumes and speeds. However, safety, accessibility, and efficiency for all users should be promoted when designing or improving a right-of-way, or reviewing

> *site plan or subdivision applications of property fronting the roadway, or in close proximity to the roadway. Where feasible, bike lanes or share-the-lane pavement markings ("sharrows") should be considered for the roadway. In some locations, it may be possible to create an off-road pathway which would be preferred from a safety standpoint...it may not be possible to do both sidewalk and bicycle lanes in all areas because of the arrangement of the roadway. If this occurs, sidewalks should be given priority as they were deemed to be safer and more inclusive of all population groups."*

The *Visioning Report* also touts mixed uses, as presented at visioning workshops.

12.2. Potential Impacts of Proposed Subdivision

The change in land use that would accompany this subdivision would be expected to have positive impacts on adjoining properties due to the enhanced synergy with the nearby catering hall and University and Medical Center, along with enhanced landscaping treatment throughout the site. While there would be minor increases in traffic during some time periods, and minor changes in the visual environment, the proposed subdivision is consistent with surrounding land use and would follow all height/landscaping/buffer requirements to minimize visual impacts.

Additionally, there is no proposed change of zone associated with this application.

12.2.1. Design Measures to Preserve Open Space

Lot 9, which would fall under shared/common ownership, is intended to be a combination of open space and roads/infrastructure to support the rest of the subdivision. This common area will be just over 24 acres, much of which will be open space (or at least, undisturbed vegetation) along the Route 25A buffer and surrounding the proposed STP at the eastern portion of the property.

Each lot will abide by required building setbacks, and incorporates a single building on each lot. This too will help preserve open space. Overall, the Proposed Action will preserve over 36.5 acres of open space on the property (48.7% of the site's land area). See Figure 12-2 on page 12-9.

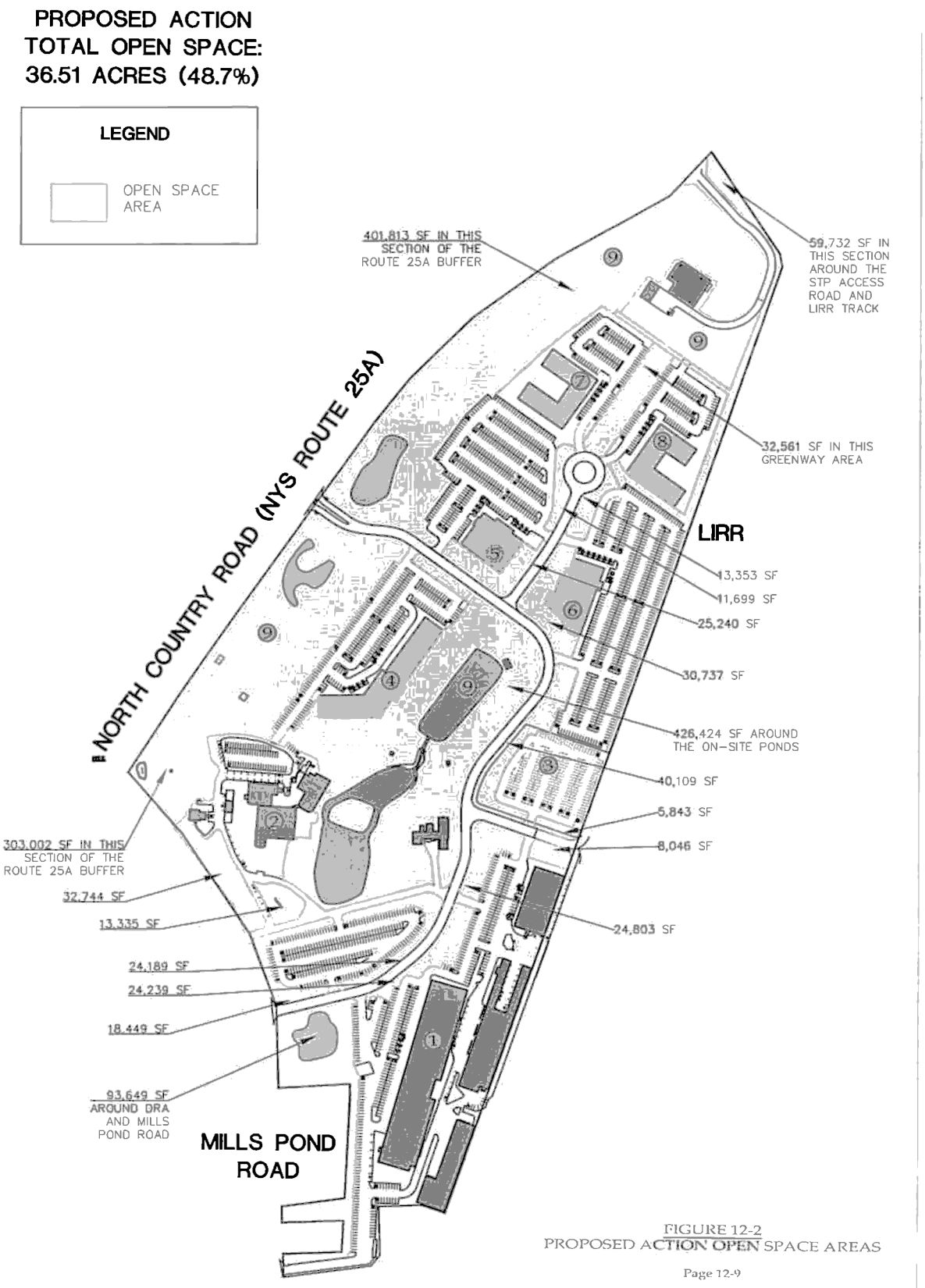


FIGURE 12-2
PROPOSED ACTION OPEN SPACE AREAS

GRAPHIC SCALE

300 0 150 300 600

(IN FEET)
HORIZ. 1 inch = 300 ft.

CAMERON ENGINEERING & ASSOCIATES, LLP

Additionally, the Cameron Engineering Subdivision Plan incorporates two parking layout measures to preserve open space: shared parking and landbanked parking, as discussed earlier in Section 9.3 and Appendix F: Traffic Impact Study.

Shared parking can be utilized for nearby/adjacent complementary land uses which experience peak parking demand at different times of the day or the week. Landbanked parking can be used as peak or overflow parking as needed, while it reduces the loss of green space associated with new paved parking lots.

- 122: The proposed hotel (Lot 4) will share 122 parking spaces on Lot 1, 2, or 3
- 181: All of Lot 3 will be left undisturbed, and the portions of the existing bus depot not included in Lot 3 will be restored with heavy turf
- 219: If needed, Lot 1 will have use of up to 219 parking spaces shared with Lot 2
- 61: Lot 5 (medical office) will have 61 landbanked parking spaces
- 80: Lot 6 (medical office) will have 80 landbanked parking spaces

In total, up to 141 parking spaces would be landbanked, an area with 181 spaces will remain undisturbed, and up to 122 spaces will serve different uses at different times, which avoids the need to pave these 122 spaces.

On a large property, traffic engineering spatial planning methodology equates an individual parking space and its access to approximately 350 s.f. of space. Based on this ratio, and based on 263 (141 + 122) parking spaces that will not need to be paved to satisfy genuine parking demand, the use of shared and landbanked parking will preserve 92,050 s.f. of open space, equivalent to 2.1 acres. This represents 2.8% of the total site area[75], and it represents 4.7% of the lot areas to be subdivided[76].

12.3. Proposed Mitigation

The proposed subdivision plan preserves nearly half of the site (48.7%) as open space. Mitigation measures to reduce impacts on the physical environment are discussed in the sections on topography, soils, groundwater, stormwater, and ecological resources. Proposed mitigation techniques to reduce the human impacts of the change in land use are included in the discussions of noise, transportation, community services, visual quality, and utilities.

[75] Example calculation: 3.4 acres of the 74.98-acre site is 4.5%
[76] Example calculation: 3.4 acres of the 44.22-acre lots to be subdivided (74.98 – 18.20 – 12.56) is 7.7%

13. Air Quality

13.1. Existing Conditions

The U.S. Environmental Protection Agency (USEPA) established the National Ambient Air Quality Standards (NAAQS) for six principal pollutants: carbon monoxide (CO), nitrogen dioxide (NO2), ozone (O3), lead, particulate matter (PM), and sulfur dioxide.[77] These standards are classified as primary or secondary standards, per the EPA website[77]. Primary standards provide public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Areas that exceed the thresholds of any principal pollutant are called "non-attainment" areas for the pollutant. Suffolk County is a moderate non-attainment area for ozone (2008 standard).[78] The designation for the 2015 Ozone NAAQS is currently pending, though the NYSDEC has recommended non-attainment status; the EPA is expected to issue final designation by October 1, 2017.[79] The 2015 NAAQS for ozone lower the 8-hour threshold from 0.075 ppm (the 2008 primary and secondary standard) to 0.070 ppm. The closest NYSDEC air quality monitoring station for ozone is in Farmingdale in the Town of Babylon. Ozone levels are typically highest when the weather is hot, humid, and calm (little to no wind). According to the NYSDEC website,[80] the 2015 ozone standard was only exceeded four (4) days out of the year 2016, and as of May 12, 2017, the measured ozone levels have not exceeded the 2015 standard. Based on this, the air quality near the Flowerfield site typically does not pose health concerns.

As part of the "Long Island area," Suffolk County is a maintenance attainment area for PM-2.5 (fine particulate matter) and for carbon monoxide (CO).[81] The term "maintenance attainment" is another way to describe "attainment with a maintenance plan, for areas that used to be classified as non-attainment areas." Maintenance areas meet the NAAQS by demonstrating air quality monitoring, modeling, controls, and contingency plans to the satisfaction of the USEPA. For Suffolk County, maintenance attainment is under the New York Metropolitan Area (NYMA) carbon monoxide (CO) limited maintenance plan

[77] USEPA NAAQS standards and descriptions, accessed via https://www.epa.gov/criteria-air-pollutants/naaqs-table
[78] Current Nonattainment Counties for All Criteria Pollutants (New York counties) accessed via https://www3.epa.gov/airquality/greenbook/ancl.html#NY
[79] NYSDEC Designation Recommendations for the 2015 Ozone NAAQS, accessed May 12, 2017 via http://www.dec.ny.gov/chemical/108008.html
[80] NYSDEC High Ozone Values During 2017, 8-Hour Averages, and 2016 High Ozone Values data table, both accessed May 12, 2017 via http://www.dec.ny.gov/chemical/38377.html
[81] USEPA Status of New York Designated Areas, accessed May 12, 2017 via https://www3.epa.gov/airquality/urbanair/sipstatus/reports/ny_areabypoll.html

(LMP)[82] and the NY State Implementation Plan: Infrastructure Assessment for the 2012 Annual PM2.5 NAAQS Pursuant to Sections 110(a)(1) and (2) of the Clean Air Act.[83]

13.2. Potential Impacts of Proposed Subdivision

The subdivision will not generate high traffic volumes (as discussed in Section 9 starting on page 9-1) and does not include land uses which tend to generate large numbers of trucks on a regular basis. The proposed land uses will not create a new point source for pollutants, and is not expected to incur activities which might create air quality impacts.

Short-term air quality impacts may occur during construction, associated with construction vehicle exhaust, trucks raising dust, earthwork/clearing/grading operations, etc. Any construction on this property will be governed by a Stormwater Pollution Prevention Plan (SWPPP) that will include Erosion and Sediment Control (ESC) to minimize such impacts (e.g. by preventing the propagation of dust off-site). ESC elements may include silt fences, hay bales, a gravel or crushed-stone construction entrance/exit with a wash-down area, and/or sandbags to protect inlets. Typically, the Town would require regular SWPPP inspections as an oversight measure, to ensure that all ESC requirements are carried out as planned. Therefore, construction phase air quality impacts will be minimized as an inherent part of the planning process. Any unavoidable construction phase impacts would be temporary and will end once the work is completed.

13.2.1. NYSDOT Air Quality Comments

NYSDOT made the following comments in a letter dated July 3, 2018:

"a. If the intersections of NY 25A with Mills Pond Road and Stony Brook Road are to become signalized, include an air quality screening for Carbon Monoxide and other pollutants in the Draft EIS, using procedures in the NYSDOT Environmental Manual. The screening should include years ETC (2020), ETC+10 (2030), and ETC+20 (2040). The Traffic Impact Study should extend the traffic volume projections to include 2030 and 2040, so the project DEIS can include air quality screening results for those years.

b. If modifications to signalized intersections on Stony Brook Road that include new turning lanes with traffic queues are proposed, include an air quality screening for Carbon Monoxide and other pollutants in the Draft EIS, using procedures in the NYSDOT TEM. The screening should include years ETC (2020), ETC+10 (2030), and ETC+20 (2040). The Traffic Impact Study should extend the traffic volume projections to include 2030 and 2040, so the project DEIS can include air quality screening results for those years.

[82] NYSDEC NY Metropolitan Area Carbon Monoxide Limited Maintenance Plan for 2012-2022 - Final Submission, accessed May 12, 2017 via http://www.dec.ny.gov/chemical/91042.html
[83] NYSDEC Infrastructure Assessment for the 2012 Annual PM2.5 NAAQS accessed May 12, 2017 via http://www.dec.ny.gov/chemical/107187.html

c. Page 3-2: The traffic impact study was extended to the intersections of NY 347 with Moriches Road and with Stony Brook Road. These signalized intersections are about 1.5-2.0 miles from the proposed subdivision location. Air quality levels at these intersections were evaluated earlier as part of the NY 347 Safety and Mobility Project Final Environmental Impact Statement in 2005-07. The evaluation included a Carbon Monoxide (CO) screening for both intersections, and a microscale CO analysis for the intersection of NY 347 and Stony Brook Road, for years 2015, 2025 and 2035. The FEIS concluded that the project would not cause air quality impacts at these locations."

Comment "c" does not require analysis. In response to comments "a" and "b," Cameron Engineering conducted an Air Quality Analysis Screening for carbon monoxide. In the NYSDOT Environmental Procedures Manual (EPM), there are two levels of criteria for determining whether and where pollutant analyses are warranted.

First, the pollutant must fall into one of two categories: (1) it is associated with vehicular traffic (when the site use itself will not generate pollutants), and (2) it is typically studied on the local (as opposed to the regional) level. Of the pollutants in the NAAQS, only nitrogen oxides, hydrocarbons, ozone, and carbon monoxide are associated with vehicular emissions. Nitrogen oxides and hydrocarbons are important on a regional level, as opposed to individual projects. Therefore, only carbon monoxide remains as a potential subject pollutant.

Next, the EPM has a three-step secondary procedure to determine what intersections might warrant air quality screening of the pollutants that pass the above test, based on meeting all three criteria. This second level of screening determines which study intersections should be considered for micro-scale CO emissions analysis, based on conditions during the AM, PM, and Saturday Build peak hours.

A) Level of Service (LOS) Screening

This first step screens intersections based on their peak hour LOS. Only signalized intersections that will operate at LOS D, E, or F proceed to the next level of screening.

The DEIS Traffic Study includes seventeen (17) study intersections, four of which meet the criteria of the NYSDOT comments:

- Route 25A at Mills Pond Road
- Route 25A at Stony Brook Road
- Stony Brook Road at South Drive
- Stony Brook Road at Oxhead Road

All four of these intersections will operate at LOS C or better during every 2020 Build or 2020 Mitigated Build peak hour analysis. See Table 13-1 on the next page.

Table 13-1: CO Screening Level 1 (2020 Build)

Intersection *Peak*	*AM*	*PM*	*Saturday*
NYS Route 25A and Mills Pond Road	B	C	B
NYS Route 25A at Stony Brook Road	B	C	B

Stony Brook Road at South Drive	C	C	B
Stony Brook Road at Oxhead Road	C	B	B

None of the intersections pass through to the next screening level, and therefore, Build conditions will not incur the need to do a microscale CO analysis.

It should be noted that 2020 No Build conditions at each of these four intersections include LOS F (congested) operation during at least one peak hour period; all four intersections will be improved as a result of the subdivision, addressing existing/No Build LOS F congestion on multiple approaches.

Since 2020 No Build conditions will operate at LOS F at approaches to these intersections, 2030 and 2040 No Build conditions will inherently have LOS F operation as well, with associated excess vehicle emissions from lengthy stoppages.

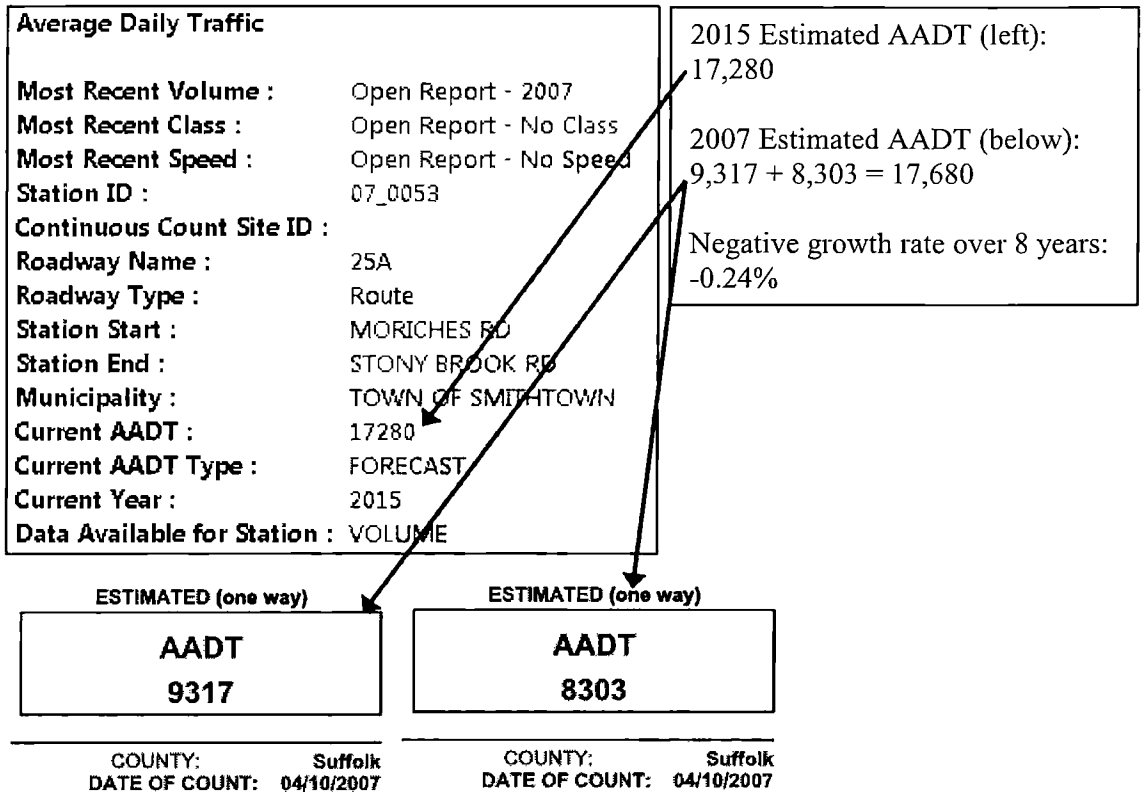
The proposed subdivision will mitigate these conditions and improve overall and targeted (side street) traffic flow through each of these intersections; this will in turn minimize vehicle emissions, as a result of the subdivision. The subdivision is therefore not expected to create impacts on air quality or impact CO attainment status, based on the 2020 analyses in the traffic study.

Cameron Engineering then prepared additional worst-case peak hour Build analyses for the years 2030 and 2040 to address the rest of the NYSDOT comment. These projections are based on reasonable ambient growth rates: 0.5% from 2020 to 2030, and 0.2% from 2030 to 2040, with the potential railroad grade crossing re-opened in 2040. This is reasonable for a subdivision whose land use mix and density will be determined in the future and for potential conditions more than twenty years away.

In fact, it is conservative to increase traffic volume projections, based on NYSDOT estimates for the AADT (Average Annual Daily Traffic) on Route 25A' have actually decreased over time.

- Traffic Data Viewer data[84]: Year 2015 AADT is lower than the AADT based on actual counts taken on the section of Route 25A between Moriches Road and Stony Brook Road in 2007. Below are excerpts of the 2015 projected AADT (17,280 vehicles per day) compared with the AADT based on actual 2007 counts (9,317 + 8,303 = 17,620 vehicles day). The corresponding annual rate of change is negative: -0.24% per year.

[84] Accessed via the Traffic Data Viewer, a GIS web application (https://www.dot.ny.gov/tdv) to view AADT and traffic reports for individual road segments, calculated by the NYSDOT Highway Data Services Bureau.



- Traffic Data Report data[85]: Year 2014 AADT is lower than the Year 2004 AADT in this area (see below). For sections west, near Edgewood Avenue, the historical 2004-2014 growth corresponds to 0.5% per year from 2004-2014.

The projected increases for No Build volumes are therefore conservative.

Excerpt of NYSDOT Traffic Data Report (PDF page 167):

	LATEST COUNT		PREVIOUS COUNTS					
	EST AADT	YR	EST AADT	YR	EST AADT	YR	EST AADT	YR
RR OVERPASS	29641	14	29267	08	40965	04	41475	03
T/SMITHTOWN - V/OFTHEBRANCH	24087	14	24087	14	46468	04	30894	00
EDGEWOOD AVE	17157	14	17157	14	16230	04	13315	98
TOWN SMITHTOWN & VILLAGE HEAD OF HARBOR	14799	14	14418	06	19258	02	20390	98
VILLAGE OF HEAD OF HARBOR TOWN OF SMITHTOWN	18041	14	17691	07	18940	04	20689	98

Accounting for signal timing adjustments at some locations (reasonable for a managing entity to undertake over a 10-20 year period), the four intersections will operate at LOS C, so they will not pass through to the next level of screening.

[85] Accessed via the latest available (2014) NYSDOT *Traffic Data Report* (page 167) showing historical AADTs for sections of Route 25A.

Table 13-2: CO Screening Level 1 (2030 Build / 2040 Build)

Intersection *Peak Hour:*	*AM 2030/2040*	*PM 2030/2040*	*Saturday 2030/2040*
NYS Route 25A and Mills Pond Road	C / C	C / C	C / C
NYS Route 25A at Stony Brook Road	B / B	C / C	B / B
Stony Brook Road at South Drive	C / C	C / C	B / B
Stony Brook Road at Oxhead Road	C / C	C / C	B / B

Corresponding traffic volume projections are shown on the next page.

13.3. Proposed Mitigation

Since the project is not expected to create significant adverse impacts as described above, it is the applicant's opinion that no mitigation is required beyond what will be implemented as part of the eventual SWPPP. As discussed, a SWPPP includes Erosion and Sediment Control measures that will prevent or mitigate off-site dust propagation.

Table 13-3: 2030 / 2040 Projected Build Volumes and Synchro 10 Reports

2030 and 2040 PM Peak Hour levels of service

PM Peak Hour has the highest volumes and represents the critical period

Level of Service for CO Screening - NYS Route 25A and Mills Pond Road *Considers LIRR Crossing Open*

PM Peak Hour	2020 Build - Signalized			2030 Build - Signalized			2040 Build - Signalized		
Movement	Delay	v/c Ratio	LOS	Delay	v/c Ratio	LOS	Delay	v/c Ratio	LOS
Northbound Left	40.1	0.26	D	45.9	1.01	F	34.3	0.97	C
Right	47.3	0.70	D	6.3	0.06	A	4.8	0.06	A
Eastbound Thru	17.1	0.83	B	74.8	0.88	E	58.0	0.85	E
Right	0.0	0.00	A	5.7	0.67	A	5.0	0.68	A
Westbound Left	18.0	0.58	B	77.1	0.80	E	114.6	0.95	F
Through	6.3	0.65	A	47.4	0.57	D	57.4	0.71	E
INTERSECTION	*15.0*		*B*	*34.1*		*C*	*29.4*		*C*

Level of Service for CO Screening - NYS Route 25A and Stony Brook Road

PM Peak Hour	2020 Build - Signalized			2030 Build - Signalized	2040 Build - Signalized		
Stony Brook Rd Left	64.1	0.93	E		80.0	0.96	E
Stony Brook Rd Right	0.0	0.00	A		0.0	0.00	A
North/East 25A Thru	34.3	0.95	C	Not necessary - if 2020 and 2040 are both LOS C, 2030 will also be LOS C	55.2	1.01	F
North/East 25A Right	0.0	0.00	A		0.0	0.00	A
South/West 25A Left	66.2	0.94	E		68.8	0.88	E
South/West 25A Through	10.2	0.68	B		11.9	0.70	B
INTERSECTION	*31.9*		*C*		*34.4*		*C*

Level of Service for CO Screening - Stony Brook Road and South Drive

PM Peak Hour	2020 Build - Signalized			2030 Build - Signalized	2040 Build - Signalized		
Westbound Left	34.8	0.93	C		41.0	0.96	D
Right	14.5	0.40	B		14.2	0.41	B
Northbound Thru	24.0	0.58	C	Not necessary - if 2020 and 2040 are both LOS C, 2030 will also be LOS C	26.6	0.63	C
Right	4.2	0.33	A		4.1	0.35	A
Southbound Left	30.6	0.72	C		43.7	0.83	D
Through	21.3	0.74	C		25.6	0.80	C
INTERSECTION	*23.0*		*C*		*27.3*		*C*

Level of Service for CO Screening - Stony Brook Road and Oxhead Road

PM Peak Hour	2020 Build - Signalized			2030 Build - Signalized	2040 Build - Signalized		
Westbound LR	44.2	0.84	D		59.4	0.92	E
Northbound TR	27.1	0.90	C	Not necessary - 2020 is 0.1 seconds from LOS C, and 2040 is LOS C, so 2030 will be LOS C	30.1	0.92	C
Southbound Left	14.7	0.67	B		17.8	0.74	B
Through	10.1	0.79	B		11.6	0.83	B
INTERSECTION	*19.9*		*B*		*23.6*		*C*

Trip Distribution & Assignment (If no Railroad Crossing)

Growth Factor: 1.1% for 13 years, to 2030

13-year multiplier: 1.086

	Existing volumes x	Total Site-wide		
		AM	PM	SAT
Passby Percentages	1.033	242	162	159
0% Weekday	to show 3 years of	87	336	132
0% Weekend	ambient growth	329	497	291

The other intersections operate at LOS C in 2020 and 2040, so they operate at LOS C in the 2030 Build scenario as well

AM PHF	PM PHF	SAT PHF	Dir. Mvmt	2030 No Build Volumes AM	PM	SAT	Total Site Traffic AM	PM	SAT	2030 Build Volumes AM	PM	SAT	2030 Approach Volumes AM	PM	SAT	% Increase over No Build (2030) AM	PM	SAT
Mills Pond Road and NYS Route 25A																		
Peak hours start at			NB Left	15	53	38	20	73	30	35	126	68	177	336	218			
745	1630	1230	Right	95	177	117	47	33	33	142	210	150						
			EB Thr	1,006	1,189	689	53	36	36	1,059	1,225	725	1,119	1,284	784		PM	
			Right	60	59	59	0	0	0	60	59	59					LOS C	
Hourly Peak Hour			WB Left	57	109	144	118	77	74	175	186	218	1,136	1,172	778			
Factors (PHFs)			Thr	961	986	560	0	0	0	961	986	560						
0.95	0.95	0.98	Intersection							2,431	2,792	1,780				9.8%	7.8%	9.7%

Table 13-3 (continued)

Trip Distribution & Assignment (Railroad Crossing Open)

Growth Factor: 1.1% for 23 years, to 2040

23-year multiplier: 1.108

Table 13-3 (continued)

Existing volumes x 1.033 to show 3 years of ambient growth	Total Site-wide AM	PM	SAT
	242	162	159
	87	336	132
	329	497	291

Passby Percentages
0% Weekday
0% Weekend

AM PHF	PM PHF	SAT PHF	Dir. Mvmt	2040 No Build Volumes AM	PM	SAT	Total Site Traffic AM	PM	SAT	2040 Build Volumes AM	PM	SAT	2040 Approach Volumes AM	PM	SAT	% Increase over No Build (2040) AM	PM	SAT
Mills Pond Road and NYS Route 25A																		
Peak hours start at			NB Left	15	53	39	20	73	30	35	126	69	179	339	221		PM	
745	1630	1230	Right	97	180	119	47	33	33	144	213	152					LOS D	
			EB Thr	1,026	1,213	703	53	36	36	1,079	1,249	739	1,140	1,309	800		retimed	
			Right	61	60	61	0	0	0	61	60	61					to get	
Hourly Peak Hour			WB Left	58	111	146	90	61	61	148	172	207	1,128	1,178	779		LOS C	
Factors (PHFs)			Thr	980	1,006	572	0	0	0	980	1,006	572						
0.95	0.95	0.98	Intersection							2,447	2,826	1,800				8.6%	7.2%	8.9%
Stony Brook Road and NYS Route 25A																		
Peak hours start at			NE Thr	694	1,020	601	4	17	7	698	1,037	608	1,149	1,550	877		PM	
745	1630	1230	25A Right	414	366	215	36	148	54	450	514	269					LOS D	
			SW Left	114	167	176	0	0	0	114	167	176	1,002	1,046	752		retimed	
			25A Thr	876	871	568	12	8	8	888	879	576					to get	
Hourly Peak Hour			SB Left	160	262	144	105	69	66	265	331	210	379	527	407		LOS C	
Factors (PHFs)			Road Right	114	196	197	0	0	0	114	196	197						
0.95	0.97	0.94	Intersection							2,530	3,123	2,035				6.3%	7.7%	6.6%
Stony Brook Road and South Drive																		
Peak hours start at			NB Thr	372	253	272	78	53	53	450	306	325	1,231	688	522			
800	1645	1230	Right	781	382	197	0	0	0	781	382	197						
			SB Left	363	182	69	7	40	10	370	222	79	592	800	462		PM	
			Thr	193	470	339	29	108	44	222	578	383					LOS C	
Hourly Peak Hour			WB Left	89	733	184	0	0	0	89	733	184	224	1,013	254			
Factors (PHFs)			Right	107	264	57	28	16	13	135	280	70						
0.92	0.96	0.95	Intersection							2,047	2,500	1,238				6.9%	8.6%	9.7%
Stony Brook Road and Oxhead Road																		
Peak hours start at			NB Thr	949	523	354	36	24	24	985	547	378	1,024	698	471			
800	1700	1230	Right	39	151	93	0	0	0	39	151	93						
			SB Left	104	238	137	16	57	25	120	295	162	332	1,279	573		PM	
			Thr	199	933	392	13	50	20	212	983	412					LOS C	
Hourly Peak Hour			WB Left	45	122	76	0	0	0	45	122	76	300	251	228			
Factors (PHFs)			Right	213	100	123	42	29	29	255	129	152						
0.92	0.95	0.93	Intersection							1,656	2,228	1,272				6.4%	7.2%	7.6%

HCM 6th Signalized Intersection Summary
1: Mills Pond Road & NYS Route 25A

Table 13-3 (continued)

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱	↰	↑	↰	↱
Traffic Volume (veh/h)	1225	59	186	986	126	210
Future Volume (veh/h)	1225	59	186	986	126	210
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1885	1885	1900	1900
Adj Flow Rate, veh/h	1289	62	196	1038	133	168
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	1	1	0	0
Cap, veh/h	1280	1084	223	1539	166	294
Arrive On Green	0.68	0.68	0.09	0.82	0.09	0.09
Sat Flow, veh/h	1870	1585	1795	1885	1810	1610
Grp Volume(v), veh/h	1289	62	196	1038	133	168
Grp Sat Flow(s),veh/h/ln	1870	1585	1795	1885	1810	1610
Q Serve(g_s), s	82.0	1.5	8.9	27.0	8.6	11.0
Cycle Q Clear(g_c), s	82.0	1.5	8.9	27.0	8.6	11.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1280	1084	223	1539	166	294
V/C Ratio(X)	1.01	0.06	0.88	0.67	0.80	0.57
Avail Cap(c_a), veh/h	1280	1084	225	1541	166	294
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.9	6.2	44.6	4.5	53.4	44.7
Incr Delay (d2), s/veh	27.0	0.1	30.3	1.2	23.7	2.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	38.7	0.5	5.8	6.9	5.0	10.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.9	6.3	74.8	5.7	77.1	47.4
LnGrp LOS	F	A	E	A	E	D
Approach Vol, veh/h	1351			1234	301	
Approach Delay, s/veh	44.1			16.7	60.5	
Approach LOS	D			B	E	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.9	88.0		16.0		103.9
Change Period (Y+Rc), s	5.0	6.0		5.0		6.0
Max Green Setting (Gmax), s	11.0	82.0		11.0		98.0
Max Q Clear Time (g_c+I1), s	10.9	3.5		13.0		0.0
Green Ext Time (p_c), s	0.0	0.3		0.0		0.0

Intersection Summary	
HCM 6th Ctrl Delay	34.1
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
1: Mills Pond Road & NYS Route 25A

Table 13-3 (continued)

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↱	↰	↑	↰	↱
Traffic Volume (veh/h)	1249	60	172	1006	126	213
Future Volume (veh/h)	1249	60	172	1006	126	213
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1870	1885	1885	1900	1900
Adj Flow Rate, veh/h	1315	63	181	1059	133	161
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	1	1	0	0
Cap, veh/h	1349	1144	212	1561	140	227
Arrive On Green	0.72	0.72	0.06	0.83	0.08	0.08
Sat Flow, veh/h	1870	1585	1795	1885	1810	1610
Grp Volume(v), veh/h	1315	63	181	1059	133	161
Grp Sat Flow(s),veh/h/ln	1870	1585	1795	1885	1810	1610
Q Serve(g_s), s	76.8	1.3	5.2	25.6	8.5	9.0
Cycle Q Clear(g_c), s	76.8	1.3	5.2	25.6	8.5	9.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1349	1144	212	1561	140	227
V/C Ratio(X)	0.97	0.06	0.85	0.68	0.95	0.71
Avail Cap(c_a), veh/h	1349	1144	267	1619	140	227
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	4.7	39.0	3.9	53.5	47.7
Incr Delay (d2), s/veh	19.1	0.1	19.0	1.1	61.1	9.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	32.3	0.4	6.2	5.8	6.2	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	34.3	4.8	58.0	5.0	114.6	57.4
LnGrp LOS	C	A	E	A	F	E
Approach Vol, veh/h	1378			1240	294	
Approach Delay, s/veh	33.0			12.8	83.3	
Approach LOS	C			B	F	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	12.4	90.0	14.0	102.4
Change Period (Y+Rc), s	5.0	6.0	5.0	6.0
Max Green Setting (Gmax), s	11.0	84.0	9.0	100.0
Max Q Clear Time (g_c+I1), s	7.2	3.3	11.0	0.0
Green Ext Time (p_c), s	0.2	0.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
2: 25A & Stony Brook Road

Table 13-3 (continued)

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	331	196	1037	514	167	879
Future Volume (veh/h)	331	196	1037	514	167	879
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1945	1870	1945	1870	1870
Adj Flow Rate, veh/h	341	0	1069	0	172	906
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	356		1054		195	1292
Arrive On Green	0.20	0.00	0.56	0.00	0.07	0.69
Sat Flow, veh/h	1781	1648	1870	0	1781	1870
Grp Volume(v), veh/h	341	0	1069	0	172	906
Grp Sat Flow(s),veh/h/ln	1781	1648	1870	0	1781	1870
Q Serve(g_s), s	20.8	0.0	62.0	0.0	6.4	31.9
Cycle Q Clear(g_c), s	20.8	0.0	62.0	0.0	6.4	31.9
Prop In Lane	1.00	1.00		0.00	1.00	
Lane Grp Cap(c), veh/h	356		1054		195	1292
V/C Ratio(X)	0.96		1.01		0.88	0.70
Avail Cap(c_a), veh/h	356		1054		195	1292
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	0.0	24.0	0.0	34.6	10.2
Incr Delay (d2), s/veh	36.4	0.0	31.2	0.0	34.2	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	0.0	32.8	0.0	4.3	11.0
Unsig. Movement Delay, s/veh		0.00		0.00		
LnGrp Delay(d),s/veh	80.0	0.0	55.2	0.0	68.8	11.9
LnGrp LOS	E	A	F	A	E	B
Approach Vol, veh/h	491	A	1599	A	1078	
Approach Delay, s/veh	55.5		36.9		21.0	
Approach LOS	E		D		C	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	14.0	68.0			82.0	28.0
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	8.0	62.0			76.0	22.0
Max Q Clear Time (g_c+I1), s	8.4	64.0			33.9	22.8
Green Ext Time (p_c), s	0.0	0.0			4.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	34.4
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, WBR] is included in calculations of the approach delay and intersection delay.

HCM 6th Signalized Intersection Summary
10: Stony Brook Road & South Drive

Table 13-3 (continued)

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	733	280	306	382	222	578
Future Volume (veh/h)	733	280	306	382	222	578
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	764	292	319	398	231	602
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	800	711	503	1138	280	754
Arrive On Green	0.45	0.45	0.27	0.27	0.05	0.40
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	764	292	319	398	231	602
Grp Sat Flow(s),veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	30.8	9.3	11.2	7.0	4.0	21.1
Cycle Q Clear(g_c), s	30.8	9.3	11.2	7.0	4.0	21.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	800	711	503	1138	280	754
V/C Ratio(X)	0.96	0.41	0.63	0.35	0.83	0.80
Avail Cap(c_a), veh/h	814	724	503	1138	280	754
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.8	13.9	24.0	4.0	25.6	19.5
Incr Delay (d2), s/veh	21.2	0.4	2.6	0.2	18.1	6.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	3.1	5.1	6.5	3.5	9.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.0	14.2	26.6	4.1	43.7	25.6
LnGrp LOS	D	B	C	A	D	C
Approach Vol, veh/h	1056		717			833
Approach Delay, s/veh	33.6		14.1			30.6
Approach LOS	C		B			C

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.0	26.0			36.0	38.4
Change Period (Y+Rc), s	6.0	6.0			6.0	5.0
Max Green Setting (Gmax), s	4.0	20.0			30.0	34.0
Max Q Clear Time (g_c+I1), s	6.0	13.2			23.1	32.8
Green Ext Time (p_c), s	0.0	2.0			2.2	0.6

Intersection Summary	
HCM 6th Ctrl Delay	27.3
HCM 6th LOS	C

HCM 6th Signalized Intersection Summary
11: Oxhead Road & Stony Brook Road

Table 13-3 (continued)

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	122	129	547	151	295	983
Future Volume (veh/h)	122	129	547	151	295	983
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1976	1976	1945	1870	1870	1870
Adj Flow Rate, veh/h	128	136	576	159	311	1035
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	2	2	2	2
Cap, veh/h	140	148	627	173	418	1250
Arrive On Green	0.17	0.17	0.43	0.43	0.15	0.67
Sat Flow, veh/h	841	894	1467	405	1781	1870
Grp Volume(v), veh/h	265	0	0	735	311	1035
Grp Sat Flow(s),veh/h/ln	1742	0	0	1872	1781	1870
Q Serve(g_s), s	9.9	0.0	0.0	24.6	5.5	27.3
Cycle Q Clear(g_c), s	9.9	0.0	0.0	24.6	5.5	27.3
Prop In Lane	0.48	0.51		0.22	1.00	
Lane Grp Cap(c), veh/h	289	0	0	800	418	1250
V/C Ratio(X)	0.92	0.00	0.00	0.92	0.74	0.83
Avail Cap(c_a), veh/h	289	0	0	960	499	1494
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	0.0	0.0	17.9	12.9	8.2
Incr Delay (d2), s/veh	32.2	0.0	0.0	12.1	4.9	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.5	0.0	0.0	12.0	2.3	8.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	59.4	0.0	0.0	30.1	17.8	11.6
LnGrp LOS	E	A	A	C	B	B
Approach Vol, veh/h	265		735			1346
Approach Delay, s/veh	59.4		30.1			13.0
Approach LOS	E		C			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	16.0	34.3			50.3	16.0
Change Period (Y+Rc), s	6.0	6.0			6.0	5.0
Max Green Setting (Gmax), s	13.0	34.0			53.0	11.0
Max Q Clear Time (g_c+I1), s	7.5	26.6			29.3	11.9
Green Ext Time (p_c), s	0.5	1.8			9.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	23.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

14. Noise

14.1. Existing Conditions

The existing site is characterized by light industrial use on 18.20 acres and the Flowerfield catering hall on ±12.94 acres of the property; the remainder of the site is vacant. The primary exterior noise sources are the vehicle and truck trips at the driveways and the associated vehicle movements on the site. Indoor noises reflect typical office/light industrial uses and periodic events at the catering hall that often include music.

14.2. Potential Impacts of Proposed Subdivision

Short-Term (Construction-Related) Impacts

Construction of buildings, interior roads, parking lots, and associated infrastructure/utilities will involve on-site clearing, grading, excavation, and associated functions that will generate short-term noise. Said activities will occur during limited timeframes and will follow the stipulations of Town Code §207 (Noise)[86], which will minimize the potential for significant impacts. Noise limitations include limits on work hours, work days, and idling times for large vehicles. Construction will be restricted to the hours of 7:00 a.m. to 6:00 p.m. on weekdays, except for emergency work or for activities that are quieter than the limits in the Town's Noise Control Table 1[86] (excerpted below).

NOISE CONTROL TABLE I

Maximum Permissible A-Weighted Sound Pressure Levels by Receiving Property Category, in Dba [Amended 10-7-2003]

	Receiving Property Category			
Sound Source Property Category	**Residential, 7:00 a.m. to 10:00 p.m. (dBA)**	**Residential, 10:00 p.m. to 7:00 a.m. (dBA)**	**Commercial, all times (dBA)**	**Industrial, all times (dBA)**
Residential	45	40	65	70
Commercial or public lands or rights-of-way	55	45	65	70
Industrial	55	45	65	70

Town code limits vehicles with a gross vehicle weight rating (GVWR) above 10,000 pounds from idling more than five minutes in any hour within 150 feet of a residential area between 10:00 p.m. and 8:00 a.m., except for emergency purposes, or for traffic congestion on a public right-of-way or public space. It is expected that this only pertains to limited areas of the property on Lot 3 and Lot 4 that are within 150 feet of parcels zoned R-43.

Construction noise will therefore be short-term, temporary, and controlled with respect to noise generation.

Long-Term (Occupancy) Impacts

The existing uses and their associated activities would remain. The new land uses will generate moderate increases in ambient noise associated with incremental traffic

[86] Town of Smithtown Noise ordinance §207 (Noise) accessed via http://ecode360.com/15100070 on May 17, 2017

generation on local roads, property maintenance activity (snow removal, landscaping), and services (solid waste removal, deliveries). These activities already occur on the property in the developed sections and in the areas with managed landscaping. It is the applicant's opinion that the new uses will not add to the types of noise sources, nor will they establish ongoing outdoor activities that would generate noticeable ambient noise. It is the applicant's opinion that the proposed land uses (hotel, general-medical office, and assisted living) do not regularly generate noticeable outdoor activity, like (for example) outdoor restaurants or heavy industrial uses can. Further, it is the applicant's opinion that the types of outdoor activity that would occur are expected during typical weekday daytime hours. As such, it is the applicant's opinion that the proposed uses will fit the character of the area with respect to when sound generation would be highest.

Typical sound levels for wooded residential areas are in the range of 50 dBA[87] and in the range of 60 dBA for commercial areas and busier residential areas. It is expected that the proposed uses will generate sound levels within these ranges during daytime hours. Except for weekday and Saturday daytime hours and some weekday evenings, the medical offices would generally be closed and would not generate any noise. The assisted living units would generate limited to no noise overnight, similar to residential uses, just with less vehicle traffic, per Appendix F: Traffic Impact Study. The hotel would operate 24/7 but would also have limited overnight noise generation, similar to residential uses in that regard.

The proposed uses would be held to the Town's noise control standards, which prohibit certain activities and limit certain noises to specific timeframes, based on the Town's "Noise Control Table 1"[86]. Additionally, the proposed subdivision layout maintains lengthy setbacks from the adjacent roads and the nearest existing off-site buildings. The nearest lots to Route 25A and Mills Pond Road will be Lots 4, 5, and 6.

According to the Cameron Engineering Subdivision Plan, the building on Lot 4 would be ±360 to 650 feet from Mills Pond Road, the nearest home across Mills Pond Road, and Route 25A. The building on Lot 5 (the northern medical office lot) would be ±450 to 640 feet from Route 25A and the nearest building. The building on Lot 6 (the northern assisted living lot) would be ±215 to 330 feet from Route 25A and the nearest building. The eventual building layouts may change somewhat, but not significantly, because any new buildings must be beyond required buffers and setbacks from the adjacent roads, residential uses, and pond.

[87] USEPA, Protective Noise Levels (1979) Figure 4: Examples of Outdoor Day-Night Average Sound Levels in dB Measured at Various Locations, accessed via http://www.nonoise.org/library/levels/levels.htm.

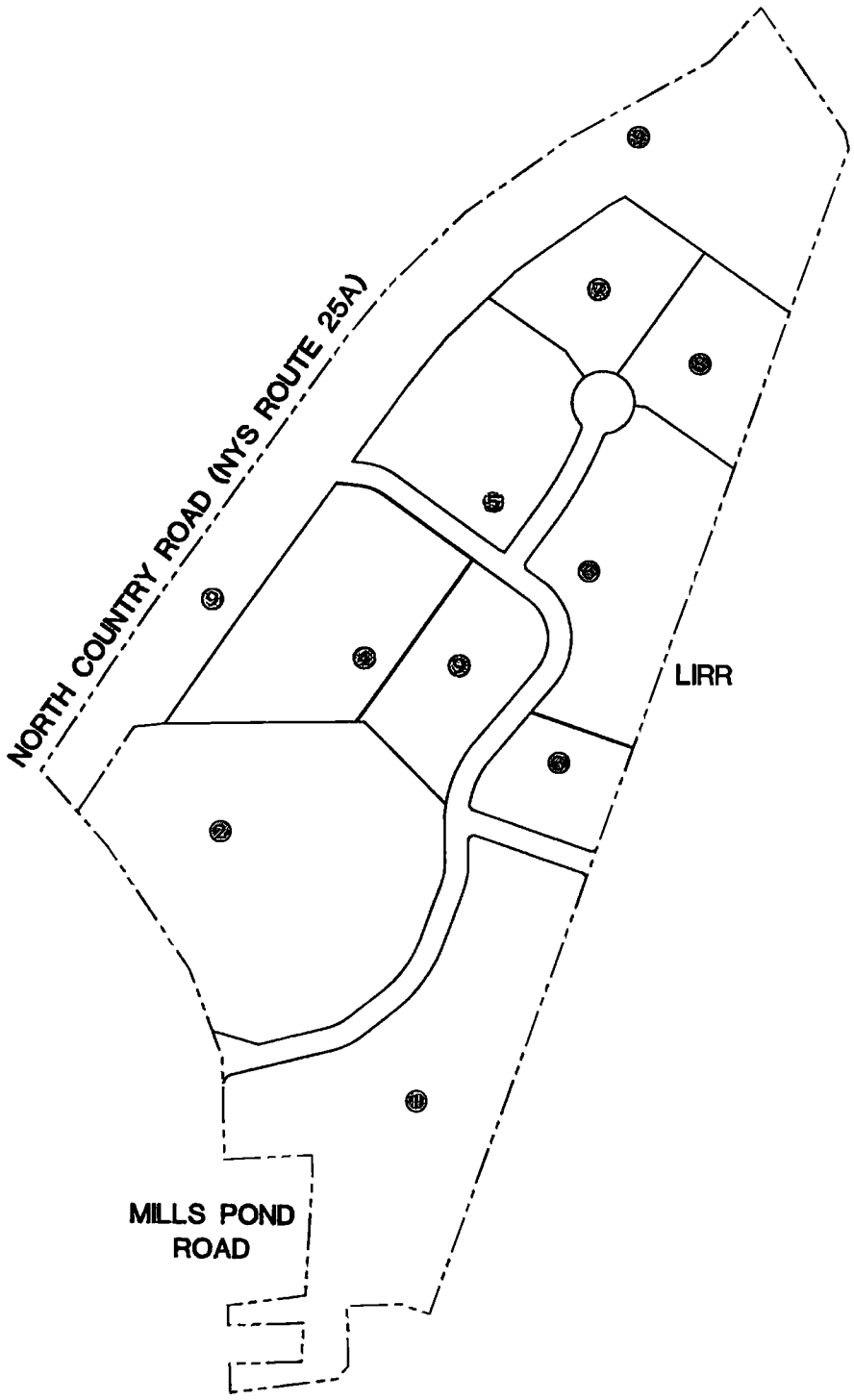


FIGURE 14-1
SUBDIVISION LOT NUMBERS

GRAPHIC SCALE
300 0 150 300 600
(IN FEET)
HORIZ. 1 inch = 300 ft.

CAMERON ENGINEERING & ASSOCIATES, LLP

The preliminary STP design includes a sanitary pump station for the Lot 2 catering hall, sited on a 20' x 40' concrete pad, with most of its infrastructure underground. Only a control panel and emergency generator (which would not be regularly utilized) would be above grade. The pad will be ±180 feet from Mills Pond Road and ±205 feet from Route 25A, so the pump station will be too far to incur noise impacts off-site because sound pressure decreases with distance (known as the "inverse square law"). For example, if the generator emitted 80dB (which is louder than genuinely anticipated) at a distance of 10 feet, at the distance of 180 feet, the perceived sound level would be just under 55 dB, similar to a quiet conversation.[88] To summarize, it is the applicant's opinion that no significant long-term noise impacts are anticipated because construction will follow Town code, because the proposed subdivision uses are not expected to generate loud noises outside each building, and because the proposed buildings will be set back significantly from the adjacent roads and nearest existing buildings. Additionally, the anticipated types of noise are similar to what occurs on the property today (e.g. traffic generation, snow removal) and there will not be peak sound generation overnight or on weekends.

14.3. Proposed Mitigation

Because of the building and STP setbacks, the anticipated limited outdoor activity and timing of outside activity occurring during typical daytime hours, it is the applicant's opinion that no mitigation is required.

[88] The difference in sound level between two points is equal to 20 multiplied by the log of the quotient of the two distances: 20 x log (Distance 2 / Distance 1) = 20 x log (180 / 10) = 20 x the log of 18 (which is 1.26) = 25.1 dB. The change of 25.1 dB is 54.9 dB below the initial 80dB sound pressure.

15. Visual Impacts

15.1. Existing Conditions

The Flowerfield property has significant road frontage. There is approximately 0.51 miles (2,700 feet) of road frontage along NYS Route 25A, a designated historic corridor also known as 'The Washington Spy Trail'. The existing conditions of the Route 25A corridor along the Flowerfield property has a pastoral character with a combination of farmland along much of the westerly side of Route 25A (Note: farmland transitions to single family residences north of Shep Jones Lane) and the heavily vegetated buffer along the Flowerfield property (easterly side of Route 25A). The Flowerfield property also has approximately 0.34 miles (1,770 feet) of road frontage along Mills Pond Road. Similar to Route 25A, the Mills Pond road corridor has a pastoral character. There are no sidewalks or curbing and the road is heavily vegetated along both sides. In general, the architectural style of the area is colonial, or a more modern interpretation of the colonial style.

The site is generally screened by evergreens on Route 25A and Mills Pond Road. The extent of views into the Flowerfield property is generally limited due to heavy underbrush and lower vegetation along and adjacent to the property fencelines on Route 25A and Mills Pond Road. The Visual Simulation, which is described in greater detail in Section 15.2, and included in full in Appendix K: Visual Simulation, provides additional photographs documenting the influence of seasonal changes and the influence of on views into the property (i.e., whether deciduous trees and shrubs are leaved).

The current lighting is generally comprised of street lighting along the surrounding roads and within the currently utilized portions of the property

15.2. Potential Impacts of Proposed Subdivision

The Map of Flowerfield has been designed with minimal disturbance and visual change to the entire road frontage of Route 25A and Mills Pond Road. Along the 0.51 miles of road frontage of Route 25A, only 106 feet will be disturbed for the construction of a limited access (right turns in and right turns out) into the Flowerfield campus. A visual rendering of this proposed site access road is provided below.

Figure 15-1: Site Access Rendering

Along Mills Pond Road, one existing site driveway will be widened and improved with disturbance limited to the immediate area. A key focus of analyzing potential visual impacts was determining to what extent future buildings would be visible from Route 25A and Mills Pond Road. Within the Flowerfield campus, the subdivision plan incorporates multiple "green" approaches as further described in this section. The site development plans that will eventually be prepared for individual lots would be encouraged to build upon the below design approach, with extensive use of landscaping treatments and proper setbacks to create/maintain the visual buffers around existing/new buildings.

Campus signage would be limited to two ground monument-style signs at each driveway entrance (Mills Pond Road and Route 25A). These signs would be located out of the State right-of-way and limited to approximately five feet in height. Campus signs would comply with height and size regulations set forth in §322 Article X ('Signs') and §322 Attachment 5 ('Schedule of Sign Regulations').

The main viewshed of the site is from Route 25A, which will have a maintained 200-foot landscaped buffer. The existing buffers along Mills Pond Road will not change, because none of the new development lots are adjacent to Mills Pond Road.

Special attention has been paid in the subdivision plan to be compatible with the surrounding area. A 200-foot wide buffer shall be maintained on the northern stretch along Route 25A. The buffer consists of the existing evergreen trees and will be supplemented with additional native trees, shrubs and wildflowers. Most existing trees will be protected and remain in place. Within the campus property as well, hundreds of mature evergreen trees/ hedgerows will be preserved, and about 20 acres of successional field, meadow and the freshwater pond will remain in place. The proposed landscape plantings will utilize indigenous trees, shrubs and groundcovers and strategically augment the existing landscape along the proposed campus roadways, campus entrances and reinforcement of buffers along Route 25A and Mills Pond Road.

Within the campus property (inside the buffer), hundreds of mature evergreen trees/ hedgerows will be preserved, and about 20 acres of successional field, meadow, and the freshwater pond will remain in place. The proposed landscape plantings within the property will utilize indigenous trees, shrubs, and groundcovers, and will strategically augment the existing landscape along the proposed campus roadways, campus entrances, and reinforcement of buffers along Route 25A and Mills Pond Road.

The proposed interior roads will have dedicated bike lanes, vegetated swales and tree-lined corridors to provide a campus environment and character, also providing traffic calming benefits and connectivity benefits to the surrounding road network. The dedicated bike lanes proposed on the campus roads will have direct connectivity to bike routes on 25A and Mills Pond Road.

Similar to existing hedgerows on the property, proposed tree plantings will frame open space areas and provide "classic" tree canopies framing the interior roadways. The proposed plant list will include a mix of both native plants and ornamental plants. No invasive plantings will be introduced.

The interior street tree plantings and foundation plantings will consist of both nursery-grown ornamental and native plantings. The introduction of native/indigenous plantings (trees, shrubs and groundcovers) is proposed to promote wildlife and reduce dependence on irrigation, fertilizers, and pesticides

The design intent is also to create green spaces connected through the lots. About two (2) miles of walking trails and nature trails are designed within the expansive open space areas to be preserved. These open space areas will be open to the public. Additionally, several parking areas shall be designated as land banked parking (see Section 9.3) to increase the green area on the property.

The pond area will be integrated as a major component of the landscape and stormwater management system. Aesthetic improvements of the pond area would enhance views of the lake.

For purposes of the visual analysis and the anticipation that all new buildings would satisfy Town code, the maximum building height would be 35 feet. There is no specific limit on the number of stories for buildings in the LI zone; a 35-foot building typically corresponds to three stories.

At this preliminary stage, the landscaping and lighting designs are not yet complete, but initial design concepts are integrated into the subdivision plan.

With respect to lighting, although the interior roads will likely be privately owned and maintained, the applicant expects street lighting will follow or approximate Town Code §248-41,[89] which designates street light installation at "every street intersection...every cul-de-sac...every other property line," with ±150-200 foot separation between light poles.

The lighting plan will be designed for safety: with the necessary foot-candle values along interior roads, sidewalks, and around the buildings, and without superfluous brightness. Additional site lighting would be aimed to highlight aesthetic elements of the buildings

[89] Town Code, Public Utilities: Standards and Features, accessed via http://ecode360.com/15101607

and/or landscaping. Lighting fixtures would be chosen for aesthetics and for energy savings; the applicant expects that LEDs (Light Emitting Diodes) will be considered, which minimizes electricity demand and minimizes potential glare. Also, while the Town does not yet have a "dark skies" zoning ordinance, on-site lighting would be shielded and configured to avoid light spillover onto the adjacent roadways/properties.

As shown on the Cameron Engineering Preliminary Subdivision Plan, the potential building setbacks would be as follows:

Table 15-1: Building Setbacks

Lot No.	Route 25A Setback	Mills Pond Road Setback
1 and 2 (existing light industrial & catering)	No change	No change
4 (hotel)	± 365 feet	± 560 feet (further than the catering hall)
5 and 6 (medical/R&D office)	± 450 feet minimum	± 1,300 feet minimum
7 and 8 (assisted living)	± 210 feet minimum	± 1,800 feet minimum

Additionally, the buildings on Lots 7 and 8 are at least ± 630 feet from the property line to the east, and they are at least 140 feet from the LIRR tracks.

Visual Impact Simulation: Summer/Winter

To provide a more detailed analysis of potential visual impacts, the proposed Gyrodyne subdivision was analyzed from the perspective of various users – including drivers, bicyclists, and pedestrians. This complete visual impact simulation is provided in Appendix K.

Methodology for this analysis entailed a visual analysis performed by identifying different view sheds on the road corridor. The view sheds were photographed and analyzed in winter-early spring months before the trees leaved and again in summer after the leafing. The analysis was based on representation of views into the site while driving/ walking or biking on the roadway in both directions. Generally, the plant overgrowth and rows of evergreen tree plantings along the Route 25A corridor and Mills Pond Road screen the views into the site. However, select areas had some gaps within the planting, providing partial views into the property. As a result, further analysis of these areas was performed representing views when a bicyclist or pedestrian or passenger in a vehicle is standing on the opposite side of the road and views into the site at a right angle or at a 45-degree angle. A key map identifying the various vantage points and perspectives for the visual simulation is provided in Figure 15-7 at the end of this section.

As discussed above, the primary visual impact associated with the proposed action would be the construction of the site access driveway off Route 25A (see Figure 15-1). Proposed buildings on-site are generally screened and/or set back from property lines enough to not be visible. However, under certain seasonal conditions, it will be possible to see portions of the buildings from Route 25A. These selected viewsheds are provided below, along with an explanation of anticipated visual impacts at each location.

Figure 15-2: Viewshed E – Mitigated Built Condition at 45° View

Figure 15-2 shows a 45-degree view (traveling north) into the Flowefield site from Route 25A during the winter months. The built masses are not visible from the road while driving or walking/biking based on a tangential view angle. However, if a bicyclist/pedestrian or a passenger in a car views the property while facing the site at a 45-degree angle, a substantial view of the proposed medical office structure is observed in the winter months. The proposed location of the medical building is over 400 feet from the road. Mitigation in the form of supplemental evergreen planting provides additional screening of the built masses. The planting in the built mitigated is shown at about five-year maturity after installation.

Figure 15-3: Viewshed E – Mitigated Built Condition at 90° View

Figure 15-3 shows a 90-degree view into the Flowerfield site from Route 25A during the winter months. The built masses are not visible from the road while driving or

walking/biking based on the view angle and the row of proposed evergreen trees, however, if a bicyclist, pedestrian, or a passenger in a car views the property standing perpendicular to the property (as shown in the image), a partial view of the proposed medical office and hotel is observed in the winter months, on the sides of the main entrance driveway. Mitigation is provided in the form of flowering trees in the central median and evergreen tree plantings along the property boundary and site access driveway. The planting in the built mitigated is shown at about five-year maturity after installation.

Figure 15-4: Viewshed E – Mitigated Built Condition at 45° View

Figure 15-4 shows a 45-degree view (traveling south) into the Flowefield site from Route 25A during the winter months. As one views the proposed driveway, a limited view of the hotel structure under the branching and gaps from sparse tree growth is observed in the winter months. The proposed location of the hotel structure is over 350 feet from the road. Mitigation in the form of supplemental evergreen tree plantings provides additional screening of the built masses. The planting in the built mitigated condition is shown at about the five-year maturity after installation.

Figure 15-5: Viewshed F – Mitigated Built Condition at 90° View

Figure 15-5 shows a 90-degree view into the Flowerfield site from Route 25A during the winter months. The built masses are not visible from the road while driving or walking/biking based on the view angle and the row of evergreen trees, however, if a bicyclist/pedestrian or a passenger in a car views the property while standing across the road at 90 degrees (as shown in the image), a limited view of the proposed Assisted Living structure is observed in the winter months. The proposed location of the Assisted Living structure is over 250 feet from the road. Mitigation in the form of supplemental evergreen planting provides additional screening of the built masses. The planting in the built mitigated view above is shown at about five-year maturity after installation.

Figure 15-6: Viewshed H – Mitigated Built Condition at 45° View

Figure 15-6 shows a 45-degree view (traveling south) into the Flowefield site from Route 25A during the winter months. This view illustrates the aesthetic character at the northernmost section of the property on the Route 25A corridor while traveling south. This section has a narrow shoulder, fence line and property boundary lined with mature evergreens trees and deciduous natural growth underneath which provides screening. Some gaps are seen while travelling south in the winter, but the site elevation is substantially higher than street elevation which provides additional screening to the property. The elevation difference and evergreen planting provide sufficient screening of the site from the road level; hence no change is observed after development. Supplemental evergreen planting is proposed in this area, as shown in the image to further enhance the screening.

Other disturbances to the site along Route 25A would be limited to the proposed drainage reserve areas and STP leaching areas. These disturbances would not result in any perceptible visual change from the surrounding road network. The proposed action would retain the existing trees between Route 25A and the drainage reserve areas, with supplemental plantings proposed to provide further screening and vegetative cover on the site. Further north, the proposed STP leaching areas would be located in an area without dense vegetation, with limited tree clearing proposed in this area. However, the existing trees along Route 25A and within the northern end of the site will be maintained, preserving the existing viewsheds from the surrounding road network. Similar to the drainage reserve areas, supplemental plantings are proposed to enhance the site's natural buffers and existing vegetative cover.

While there is a change, the proposed views demonstrate that the change is mitigation through extensive landscape re-vegetation, monument signs are set back and done in natural materials, in a contextual design aesthetic.

Generally the plant overgrowth and rows of evergreen tree plantings along the Route 25A corridor and Mills Pond Road screen the views into the site. Select sections had some gaps within the planting, providing partial views into the property. The select sections were identified and a further analysis was done representing views when a bicyclist or pedestrian or passenger in a vehicle is standing on the opposite side of the road and views the site at right angle or at a 45 degree angle. Based on these views, the proposed building structures were superimposed as simplified architectural massing models, followed by a comparative analysis of existing conditions, built unmitigated and built mitigated conditions. Mitigation shown is in the form of additional native deciduous and evergreen plantings in the buffer to maintain the current rural character of the road corridor and provide sufficient screening of the development from the adjacent areas.

Tree Clearing

The Tree Preservation and Land Clearing Plan on page M-14 (sheet C-13 in the Preliminary Engineering Plans in Appendix M) depicts the tree removals for the Proposed Action. This plan is intended to depict the clearing necessary for the layout of lots, roads, and drainage structures as proposed in the Conceptual Development Plan only. Future development applications for individual lots will include the submittal and review of a site-specific Tree Preservation and Land Clearing Plan during the Site Plan Review process.

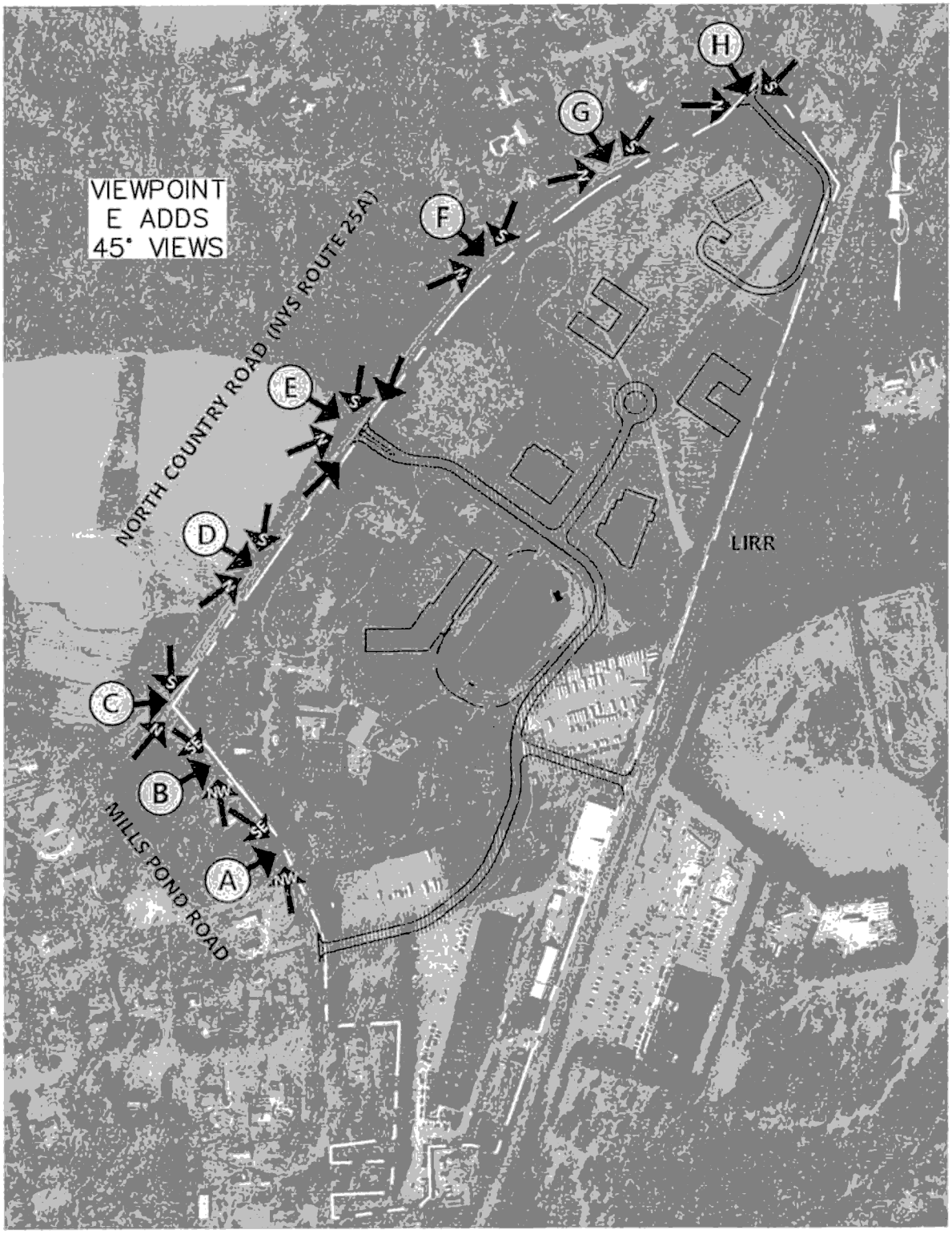


FIGURE 15-7
VISUAL SIMULATION KEY MAP

15.3. Proposed Mitigation

As shown in the visual simulation (provided in Appendix K), the applicant anticipates there will be new planting along portions of Route 25A, with an evergreen and ornamental tree screen behind existing trees. This is anticipated to maintain the existing visual character along this roadway. For most of the property frontage, the views will be almost indistinguishable between the current and post-subdivision conditions.

At the proposed Route 25A driveway, there will be an interruption or gap in the existing landscape. The proposed buildings are primarily screened from the road (with exceptions highlighted in Section 15.2 above), and the proposed plantings (a combination of mature deciduous and evergreen plantings) will provide an aesthetic infill of new plantings across and within the entrance area. The proposed campus signage is envisioned to be a natural stone material, blending into the landscape.

The lighting has not yet been designed, but in general terms, roadway/walkway lighting will be designed for safety, and supplemental lighting will highlight visually appealing elements of the architecture and landscaping.

Additionally, the proposed building heights will comply with Town ordinance limits, and setbacks will be at least 200 feet from Route 25A and 100 feet from Mills Pond Road.

Accordingly, further mitigation beyond the proposed perimeter landscaped buffers and significant building setbacks as described above, would be anticipated to be limited to specific lot site plan applications that would proceed at a future date, subsequent to subdivision approval.

17. Growth Inducing Impacts

Growth-inducing impacts are generally described as the long-term secondary effects of the proposed action. Specifically, with respect to growth inducement, The ***SEQR Handbook*** (3rd Edition) states that, "Some activities will encourage or lead to further increases in population or business activity. This type of secondary impact is called growth inducement...it is important to recognize activities which may induce growth because a consideration of the whole action must examine likely impacts of such growth, such as the need for additional sewer, water and other services; increased traffic congestion; or accelerated loss of open space."

The proposed subdivision is not envisioned as a catalyst for off-site growth. Rather, it is meant to capitalize on the opportunities for synergy with other existing uses, namely Stony Brook University, the R&D Park, and the Medical Center. The subdivision will synergize with these other uses and retain activity in the area, rather than inducing growth off-site.

The Smithtown Town Supervisor has asked Gyrodyne to build its STP with extra capacity to accommodate flow from the St. James Lake Avenue Business District. Gyrodyne LLC remains amenable to this concept. The decision will depend in part on the ongoing sewer study of the business district's flows (the study is being done by a private consulting firm). The request for additional STP capacity is not a component of the subdivision application, so the subdivision would not induce off-site growth.

Gyrodyne notes that if SCDHS limits are capping the business district's potential yield or use mix, sewering the sanitary flow could induce infill development. This should be incorporated into the district's sewer study being done by others.

18. Irretrievable and Irreversible Commitment of Resources

This section pertains to resources that can not be recovered or reversed. A significant portion of the Flowerfield site has been utilized for commercial/industrial purposes for many years, and much of the currently vacant space will remain vacant as required by the State and/or Town of Smithtown. However, some of the property that is currently undeveloped would be graded and built, resulting in a small loss of green space.

In addition, certain resources would be committed for construction of new buildings, roads, and supporting utility infrastructure, such as concrete, steel, asphalt, lumber, paint, and clean fill. The operation of construction equipment would require electricity, fossil fuels, and water resources (e.g. for cleaning construction vehicles and washing down work areas to prevent off-site sediment transport). Further, construction would commit manpower resources and time.

Post-construction, the new buildings and street lights would require electricity, water, and fossil fuels for heating, cooling, lighting, operation of the STP, and other purposes.

19. Alternatives

As the Gyrodyne campus property is solely an application for a subdivision, the land use mix studied in the base proposal is a preferred land use mix based on market demand studies and consistency with a plan aligned with strengthening synergies with Stony Brook University and Stony Brook Medical. Accordingly, Gyrodyne LLC developed three potential alternative land use combinations to satisfy three criteria:

1) Meet Town of Smithtown zoning requirements such as parking, setbacks, and all Town-required design elements; sufficient room and setback for the proposed sewage treatment plant; no change of zone; and synergies with Stony Brook University (including the Research and Development Park and the Medical Center) and Flowerfield Celebrations
2) Satisfy identified needs in Gyrodyne's market studies
3) Keep a similar level of trip generation, sanitary demand, water demand, etc. by increasing some components (i.e. more assisted living units) while decreasing other components (i.e. smaller hotel, smaller office) to demonstrate similar overall environmental impacts

- Alternative 1: 100-room hotel, 150,000 s.f. medical office, 150 assisted living units
- Alternative 2: 150,000 s.f. medical office, 50,000 s.f. general office, 192 assisted living units
- Alternative 3: 120-room hotel, 136,000 s.f. medical office, 250 assisted living units

Two additional alternatives were then developed which do not meet the above three criteria, but which could be achieved without requiring a subdivision:

- Alternative 4: 244,000 s.f. medical office uses
- Alternative 5: 382,500 s.f. general light industrial uses

Two more alternatives were then added at the direction of the Town:

- Alternative 6: a "public acquisition" alternative if the Town or County subdivides, acquires, and preserves the ±47.85-acre vacant area (comprising most of Lots 3 through 9) as public open space. This public space could be utilized as passive or active recreation. This document contemplates the Route 25A buffer remaining as passive recreation (±12.1 acres) and the remaining ±35.8 acres as active recreation uses (defined in the ITE *Trip Generation Manual* as a ±48-acre public park).
- Alternative 7 (complies with the unadopted Draft CPU's 50% open space and 300-foot Route 25A buffer, subject to a Suffolk County Health Department variance for the setback of the STP expansion area from the LIRR tracks): 125-room hotel, 128,000 s.f. medical office, 240 assisted living units

The Final Scope requires analysis of the (previously) proposed use of the railroad crossing between Gyrodyne and the Stony Brook Research and Development Park. Gyrodyne has been

actively coordinating the proposed re-opening of the railroad crossing. While significant progress has been made in this effort, including support from Stony Brook University, there is still a degree of uncertainty as to when this might be accomplished. Timing associated with LIRR and NYSDOT involvement and with one or more public hearings required to secure an approval results in an uncertain timeframe. Accordingly, Gyrodyne has modified the proposed Preliminary Subdivision Plan to clarify the railroad crossing as a "possible/future re-opening of railroad crossing". The updated Preliminary Subdivision Plan would not result in the re-opening the railroad crossing. As such, Alternative 8 reflects conditions with the railroad crossing re-opened, to analyze the possible/future use of the crossing.

- Alternative 8: The proposed action, with re-opening the railroad grade crossing

Alternative 9 was developed to provide an analysis of a potential expanded STP. The Town Supervisor has previously discussed with Gyrodyne the possibility of a STP with expanded capacity to accommodate flow from the St. James Avenue Business District. Based on the results of a Preliminary Evaluation of the St. James Sewer District prepared by the Town's consulting engineer and furnished to Gyrodyne, Alternative 9 represents an assessment of the possible STP expansion.

- Alternative 9: The proposed action, with an expanded on-site STP.

Finally, Alternative 10 was developed to provide a subdivision layout that retains a similar land use mix as the Proposed Action but creates fewer individual lots within the Flowerfield property.

- Alternative 10: 115-room hotel, 183,150 s.f. office, and 280 assisted living units on a six-lot subdivision.

The intent is for the eventual developing entity/entities to rely on this DEIS and the Town's SEQR findings to be able to develop individual lots, and if prescribed development thresholds and mitigation measures to ultimately be adopted in SEQRA Findings are complied with, it is possible that development would not require EISs associated with individual site plans. There are many similar land use mixes that could meet the above criteria; it does not make sense to analyze every possible combination. An example of this type of alternative land use mix and density in compliance with the overall criteria, which would yield similar or fewer environmental impacts to the alternatives herein, is for more assisted living units (280 vs. 220), a smaller hotel (100 rooms vs. 150) and slightly smaller office (128,000 s.f. vs. 130,000): the resulting trip generation, water demand, sanitary demand, etc. would be similar, such that there would be no difference in required traffic mitigation, visual impacts, STP design, etc.

The following tables and discussions compare the No Action, the Proposed Action, and the ten above-mentioned alternatives. The alternatives are also depicted in Figure 19-1: Alternative Plan 1 through Figure 19-10: Alternative Plan 10 on pages 19-21 through 19-30.

19.1. Geology

Any of the potential alternatives would only involve grading activity near the surface, with no genuine impact to sub-surface geology.

Table 19-1: Summary of Alternatives - Geology

Name	General Description of Impacts and Proposed
No Action	No anticipated impacts.
Proposed Action	No anticipated impacts.
Alternative 1	No anticipated impacts – same as Proposed Action.
Alternative 2	No anticipated impacts – same as Proposed Action.
Alternative 3	No anticipated impacts – same as Proposed Action.
Alternative 4	No anticipated impacts – same as Proposed Action.
Alternative 5	No anticipated impacts – same as Proposed Action.
Alternative 6	No anticipated impacts – same as Proposed Action.
Alternative 7	No anticipated impacts – same as Proposed Action.
Alternative 8	No anticipated impacts – same as Proposed Action.
Alternative 9	No anticipated impacts – same as Proposed Action.
Alternative 10	No anticipated impacts – same as Proposed Action.

19.2. Soils

The applicant anticipates that any alternate use would likely follow similar layouts for buildings, parking lots, and connecting interior roads, and will have limited to no impact on land use based on the types of soil on-site. While Alternative 10 does utilize a slightly modified interior road network/lot layout, the on-site soils would not affect this layout (which ultimately features a similar land use mix to the Proposed Action)

Apart from Alternative 6, the Alternatives would yield *de minimis* changes compared to the Proposed Action.

Table 19-2: Summary of Alternatives - Soils

Name	General Description of Impacts and Proposed
No Action	No anticipated impacts.
Proposed Action	No anticipated impacts.
Alternative 1	No anticipated impacts – same as Proposed Action.
Alternative 2	No anticipated impacts – same as Proposed Action.
Alternative 3	No anticipated impacts – same as Proposed Action.
Alternative 4	No anticipated impacts – same as Proposed Action.
Alternative 5	No anticipated impacts – same as Proposed Action.
Alternative 6	No anticipated impacts – same as Proposed Action.

Name	General Description of Impacts and Proposed
Alternative 7	No anticipated impacts – same as Proposed Action.
Alternative 8	No anticipated impacts – same as Proposed Action.
Alternative 9	No anticipated impacts – same as Proposed Action.
Alternative 10	No anticipated impacts – same as Proposed Action.

19.3. Topography

Any of the potential alternatives would involve similar mitigation and erosion control measures and will require a SWPPP (Stormwater Pollution Prevention Plan). The alternatives would also be designed to minimize excavation, and to equalize cut and fill volume to the greatest practical extent. The alternatives would differ from the Proposed Action's square footage of areas to be graded and excavated, based largely on their building sizes and numbers of required parking spaces. The differences are largely comprised of building/parking areas only because almost every alternative would involve a new STP of the same size, new utility infrastructure, and new interior roads. There are some exceptions, such as Alternatives 4, 5, and 6 that would not have an STP; Alternative 9 would have a larger STP, and Alternative 10 would utilize less interior roadway and therefore would require less grading for interior roads than the Proposed Action. Different alternatives may also have different roadway layouts, though not significantly different for the purposes of a proposed DEIS.

For each alternative, the total building area reflects the relative building square footages from Figure 19-1 through Figure 19-10 (Alternative Plans 1 through 10 on pages 19-21 through 19-30), including the STP footprint. The required number of parking spaces is simply calculated based on the different land use mix and size. Please note that the use of shared parking could modify the parking space counts under each alternative.

The change in parking lot area is based on standard traffic engineering methodology, which provides that a parking lot typically provides about 325-350 s.f. of paved area per parking space.[92] This overall average includes the spaces, drive aisles, handicapped access aisles, and landscaping. For space planning purposes, if an alternative requires 100 fewer parking spaces, it corresponds to a 35,000 s.f. reduction in parking lot area: 100 spaces x 350 s.f. per space = 35,000 s.f.

The alternatives were considered to have the following building footprints and parking lot sizes. Except for industrial use and the STP, each use is considered to have three levels (Town code allows 35' building heights). Additionally, formulas are rounded and may not add directly.

[92] ITE Transportation Planning Handbook, Third Edition, page 869.

Alternative 1: In addition to the existing light industrial buildings and catering hall, construct a 100-room hotel with restaurant, 150,000 s.f. of medical office space, and 150 assisted living units.

Table 19-3: Alternative 1 Grading and Excavation Area

Alternative 1	Change in Size compared to Proposed Action	Change in Footprint
Hotel	-37,100 s.f.	-37,100 / 3 stories = -12,367 s.f.
Medical Office	20,000 s.f.	20,000 / 3 stories = 6,667 s.f.
Assisted Living	-54,550 s.f.	-54,550 / 3 stories = -18,183 s.f.
STP	0 s.f.	0 s.f.
		Total = -23,883 s.f.
	Change in Required Parking	-63 spaces
	Area of changed parking	-63 x 350 = 22,050 s.f.
Total grading/excavation area = decreased by ±45,933 s.f. (1.05 acres)		

Alternative 2: In addition to the existing light industrial buildings and catering hall, construct 150,000 s.f. of medical office space, 50,000 s.f. of general office space, and 192 assisted living units.

Table 19-4: Alternative 2 Grading and Excavation Area

Alternative 2	Change in Size	Change in Footprint
Hotel	-110,200 s.f. (no hotel)	-110,200 / 3 stories = -36,733 s.f.
Medical Office	20,000 s.f.	20,000 / 3 stories = 6,667 s.f.
General Office	50,000 s.f.	50,000 / 3 stories = 16,667 s.f.
Assisted Living	-27,750 s.f.	-27,750 / 3 stories = -9,250 s.f.
STP	0 s.f.	0 s.f.
		Total = ± -22,650 s.f.
	Change in Required Parking	59 spaces
	Area of changed parking	59 x 350 = 20,650 s.f.
Total grading/excavation area = decreased by ±2,000 s.f. (0.05 acres)		

Alternative 3: In addition to the existing light industrial buildings and catering hall, construct a 120-room hotel with restaurant, 136,000 s.f. of medical office space, and 250 assisted living units.

Table 19-5: Alternative 3 Grading and Excavation Area

Alternative 3	Change in Size	Change in Footprint
Hotel	-22,400 s.f.	-22,400 / 3 stories = -7,467 s.f.
Medical Office	6,000 s.f.	6,000 / 3 stories = 2,000 s.f.
Assisted Living	7,500 s.f.	7,500 / 3 stories = 2,500 s.f.

Alternative 3	Change in Size	Change in Footprint
STP	0 s.f.	0 s.f.
		Total = -2,967 s.f.
	Change in Required Parking	-6 spaces
	Area of changed parking	-6 x 350 = -2,100 s.f.
Total grading/excavation area = decreased by ±5,067 s.f. (0.12 acres)		

Alternative 4: In addition to the existing light industrial buildings and catering hall, there would be no new hotel, office, or assisted living; construct 244,000 s.f. of offices.

Table 19-6: Alternative 4 Grading and Excavation Area

Alternative 4	Change in Size	Change in Footprint
Hotel	-110,200 s.f. (no hotel)	-110,200 / 3 stories = -36,733 s.f.
Medical Office	114,000 s.f.	114,000 / 3 stories = 38,000 s.f.
Assisted Living	-148,000 s.f. (no a. living)	-148,000 / 3 stories = -49,333 s.f.
STP	-7,950 s.f. (no STP)	-7,950 s.f.
		Total = ± -56,016 s.f.
	Change in Required Parking	161 spaces
	Area of changed parking	161 x 350 = 56,350 s.f.
Total grading/excavation area = increased by ± 334 s.f. (0.01 acres)		

Alternative 5: In addition to the existing light industrial buildings and catering hall, there would be no new hotel, office, or assisted living; construct 382,500 s.f. of light industrial space that would likely yield single-story rather than 3-story buildings.

Table 19-7: Alternative 5 Grading and Excavation Area

Alternative 5	Change in Size	Change in Footprint
Hotel	-110,200 s.f. (no hotel)	-110,200 / 3 stories = -36,733 s.f.
Medical Office	-130,000 s.f. (no office)	-130,000 / 3 stories = -43,333 s.f.
Assisted Living	-148,000 s.f. (no a. living)	-148,000 / 3 stories = -49,333 s.f.
Industrial	382,500 s.f.	382,500 s.f.
STP	-7,950 s.f. (no STP)	-7,950 s.f.
		Total = ± 245,150 s.f.
	Change in Required Parking	-701 spaces
	Area of changed parking	-701 x 350 = -245,350 s.f.
Total grading/excavation area = decreased by ± 200 s.f. (0.00 acres)		

Alternative 6: The Town or County acquires, subdivides, and preserves the vacant area as public open space.

Table 19-8: Alternative 6 Grading and Excavation Area

Alternative 6	Change in Size	Change in Footprint
Hotel	-110,200 s.f. (no hotel)	-110,200 / 3 stories = -36,733 s.f.
Medical Office	-130,000 s.f. (no office)	-130,000 / 3 stories = -43,333 s.f.
Assisted Living	-148,000 s.f. (no assisted living)	-148,000 / 3 stories = -49,333 s.f.
STP	-7,950 s.f. (no STP)	-7,950 s.f.
		Total = ± -137,350 s.f.
	Change in Required Parking	Unknown, estimate -1,200 spaces
	Area of changed parking	-1,200 x 350 = -420,000 s.f.
Total grading/excavation area = decreased by ±557,350 s.f. (12.79 acres)		

Alternative 7: In addition to the existing light industrial buildings and catering hall, construct a 125-room hotel, 128,000 s.f. of medical office space, and 240 assisted living units.

Alternative 7 was developed to comply with the unadopted Draft CPU's 50% open space and 300-foot Route 25A buffer.

Table 19-9: Alternative 7 Grading and Excavation Area

Alternative 7	Change in Size	Change in Footprint
Hotel	-10,500 s.f.	-10,500 / 3 stories = -3,500 s.f.
Medical Office	-2,000 s.f.	-2,000 / 3 stories = - 667 s.f.
STP	0 s.f.	0 s.f.
		Total = ± -4,167 s.f.
	Change in Required Parking	-57 spaces
	Area of changed parking	-57 x 350 = -19,950 s.f.
Total grading/excavation area = decreased by ±24,117 s.f. (0.55 acres)		

Alternative 8: Alternative 8 will retain the same land use mix as the Proposed Action, with the railroad crossing re-opened.

Table 19-10: Alternative 8 Grading and Excavation Area

Alternative 8	Change in Size	Change in Footprint
Hotel	0 – same as Proposed Action	0 s.f.
Medical Office	0 – same as Proposed Action	0 s.f.
Assisted Living	0 – same as Proposed Action	0 s.f.
Industrial	0 – same as Proposed Action	0 s.f.

Alternative 8	Change in Size	Change in Footprint
STP	0 s.f.	0 s.f.
Change in Required Parking		0 spaces
Total grading/excavation area = same as Proposed Action		

Alternative 9: Alternative 9 will retain the same land use mix as the Proposed Action, with an expanded on-site STP. An expansion of the proposed STP from 100,000 gpd to 171,000 gpd could be accommodated within the same overall design layout.

Table 19-11: Alternative 9 Grading and Excavation Area

Alternative 9	Change in Size	Change in Footprint
Hotel	0 – same as Proposed Action	0 s.f.
Medical Office	0 – same as Proposed Action	0 s.f.
Assisted Living	0 – same as Proposed Action	0 s.f.
Industrial	0 – same as Proposed Action	0 s.f.
STP	7,950 s.f.	7,950 s.f.
Change in Required Parking		0 spaces
Total grading/excavation area = increased by 7,950 s.f. (0.18 acres)		

Alternative 10: Alternative 10 retains a similar land use mix as the Proposed Action, with fewer subdivision lots (six lots vs. nine lots). While Alternative 10 has more grading and excavation associated with building and parking areas, this subdivision layout allows for a reduction of interior roadway area by approximately ±26,700 s.f. (0.61 acres) compared to the Proposed Action.

Table 19-12: Alternative 10 Grading and Excavation Area

Alternative 10	Change in Size	Change in Footprint
Hotel	-20,900 s.f.	-20,900 / 3 stories = -6,967 s.f.
Medical Office	-130,000 s.f. (no med. office)	-130,000 / 3 stories = -43,333 s.f.
Office	183,150 s.f.	183,150 / 3 stories = 61,050 s.f.
Assisted Living	31,500 s.f.	31,500 / 3 stories = 10,500 s.f.
Industrial	-19,841 s.f. (changes to office)	-19,841 s.f.
STP	0 s.f.	0 s.f.
		Total = ± 1,409 s.f.
Change in Required Parking		139 spaces
Area of changed parking		139 x 350 = 48,650 s.f.
Change in Area of Interior Roadway		-26,700 s.f.
Total grading/excavation area = increased by ±23,359 s.f. (0.54 acres)		

Table 19-13: Summary of Alternatives – Topography

Name	General Description of Impacts and Proposed Mitigation
No Action	No anticipated impacts.
Proposed Action	No anticipated impacts.
Alternative 1	No anticipated impacts – approximately 1.05 acres less to be excavated and graded, compared to the Proposed Action, to satisfy parking requirements.
Alternative 2	No anticipated impacts – minimally less excavation (±0.05 acres less) compared to the Proposed Action, to satisfy parking requirements.
Alternative 3	No anticipated impacts – approximately 0.12 acres less excavation compared to the Proposed Action, to satisfy parking requirements.
Alternative 4	No anticipated impacts – minimally more excavation (less than 0.01 acres more) compared to the Proposed Action, to satisfy parking requirements.
Alternative 5	No anticipated impacts – minimally more excavation (less than 0.01 acres) compared to the Proposed Action, to satisfy parking requirements.
Alternative 6	Noticeably less excavation (12.79 acres) compared to the Proposed Action.
Alternative 7	No anticipated impacts – approximately 0.55 acres less excavation compared to the Proposed Action.
Alternative 8	No anticipated impacts – same excavation as the Proposed Action.
Alternative 9	No anticipated impacts – same excavation as the Proposed Action, apart from 7,950 s.f. for the larger on-site STP.
Alternative 10	No anticipated impacts – more excavation (0.54 acres) compared to the Proposed Action, to satisfy parking requirements.

19.4. Vegetation and Wildlife

Similar to the Proposed Action, the potential development of the site under Alternatives 1 through 5 and 8 would result in the loss of 30.3 acres of mowed lawn and mowed lawn with trees habitat and 1.1 acres of successional old fields through conversion to hard surfaces, buildings, and landscaping. Accordingly, any existing non-breeding habitat for grassland birds provided by these areas would be lost under these alternatives. Open habitats utilized by grassland birds require periodic disturbance (such as mowing) to prevent the encroachment of woody trees and shrubs and conversion to shrublands or forests. In the absence of periodic mowing, the 3.5 acres of successional old fields, 2.9 acres of mowed lawn, and 0.9 acres of mowed lawn with trees maintained in the Lot 9-Common Area under these alternatives will gradually convert to young successional southern hardwoods that do not provide suitable habitat for grassland birds. Maintenance of these open habitats would require mowing once per year (or once every two to three years) in the late summer. It is not anticipated that the Lot 9-Common Area would be managed in this manner and, accordingly, grassland bird habitat would gradually be lost due to tree and shrub encroachment thereby restricting the habitat for these species to the meadows/grasslands at Avalon Preserve and agricultural habitats at BB & GG Farms. Under Alternative 7, the "50% open space and 300-foot Route 25A buffer" alternative, additional open space areas are provided at the margins of the proposed parking areas and roadways. However, these additional open space areas are not expected to be managed to

maintain open, tall grassy habitats. Therefore, similar to Alternatives 1-5 and 8, it is expected that these open habitats would gradually be lost as they transition to young successional southern hardwoods or converted to landscaping areas.

Under Alternative 6, the "public acquisition alternative", the existing mowed lawn, mowed lawn with trees, and successional old fields would be preserved as public open space. It is not known if the Town or County would actively manage these areas to provide grassland bird habitat. Accordingly, while the potential exists for maintaining or enhancing grassland bird habitat under Alternative 6, the existing grassland bird habitat may also be lost over time under Alternative 6 if these areas are allowed to convert to forests or if they are managed to provide other public open space amenities.

Under the No Action Alternative, the existing mowed lawn, mowed lawn with trees, and successional old fields utilized by grassland habitats would not be developed. However, it is not known if the property owner would continue the existing mowing regime in these areas under the No Action Alternative. Therefore, while the potential exists for maintaining or enhancing grassland bird habitat under the No Action Alternative 6, the existing grassland bird habitat may also be lost over time under this alternative if the current or future property owner allows these areas to convert to forest habitats.

19.5. Groundwater

Alternatives 1 through 3 and Alternatives 7 through 10 would require an on-site STP. The potential wastewater flows from these Alternatives would generally range from approximately 70,000 to 100,000 gpd, with Alternative 9 providing an analysis of a potential expanded STP that could treat up to 171,000 gpd to accommodate flow from the St. James Business District. With the exception of Alternative 9, the STP would most likely be designed to accommodate 100,000 gpd under any Alternative, based on the modular capacity of standard STPs. As such, a more detailed analysis of Alternative 9 is provided below.

Alternative 9 Assessment:

The Town Supervisor has previously discussed with Gyrodyne the possibility of a STP with expanded capacity to accommodate flow from the St. James Avenue Business District. While it is Gyrodyne's position that a municipality may not impose this expansion as a condition without further justification, Gyrodyne remains amenable to this concept under certain conditions and could be open to this alternative at a future time. Based on the results of a Preliminary Evaluation of the St. James Sewer District prepared by the Town's consulting engineer and furnished to Gyrodyne, the following represents an assessment of the possible STP expansion.

The proposed subdivision build-out, including the existing campus uses, has a projected flow of 87,534 gallons per day (gpd). The proposed STP design capacity is 100,000 gpd. This would leave approximately 12,466 gpd of excess capacity or approximately 12.4% of

overall plant capacity. The preliminary evaluation of the proposed St. James sewer district (furnished by the Town) estimates ±69,600 gallons per day of flow from existing uses in the St. James business district. The evaluation states that it does not discuss potential future build-out of the proposed St. James business district area, should sewers become available. Experience suggests that once a sewer district is established, additional flow is likely.

For the Gyrodyne STP to accommodate the proposed sewer district, the design capacity of the Gyrodyne STP facility would need to be increased. The proposed build-out of Gyrodyne is estimated at 87,534 gallons per day of sewage flow. The proposed sewer district flow adds an estimated 69,600 gallons per day for a total of 157,134 gallons per day. Adding 8.5% for a cushion results in a projected flow of 170,490 gallons per day, which would be rounded up to 171,000 gallons per day. The 8.5% value is used as New York State Department of Environmental Conservation (NYSDEC) and Suffolk County Department of Health Services (SCDHS) would require that a Flow Management Plan be prepared and submitted once flow approaches 95% of design capacity (95,000 gpd). With respect to spatial requirements for the proposed STP, as per SCDHS "Standards for Approval of Plans and Construction for Sewage Disposal Systems for Other Than Single-Family Residences, December 2017, Section Xi.(5)(b), "an adequate area shall be set aside to allow for a minimum of 100% expansion and/or replacement of sewage treatment and disposal systems". A preliminary engineering spatial evaluation of the current STP layout and associated leaching area could be expanded to 171,000 gpd to accommodate the proposed St. James sewer district flow. A future expansion of the STP to 342,000 gpd (per SCDHS requirements) indicates that the current STP parcel in combination with the open space buffer can accommodate this expansion without impact to developable parcels on the subdivision map. However, additional flow or unanticipated design requirements mandated by SCDHS could negatively impact the level of development.

The proposed STP operating at 100,000 gpd capacity will discharge approximately 5.84 pounds of nitrogen per day (2,132 pounds per year) from the STP building. This calculation, for comparison purposes, will not take into account the further nitrogen reductions as the effluent traverses through soil and groundwater. This includes treatment of the sewage flow from current uses at the Gyrodyne site that are utilizing on-site wastewater treatment systems (OWTS). An STP sized with a 171,000 gpd capacity would discharge approximately 9.98 pounds of nitrogen per day (3,643 pounds per year). This would be an increase of 4.14 pounds per day of nitrogen (1,511 pounds per year), an increase of 71% of nitrogen discharged to the groundwater at the Gyrodyne site from wastewater. The increase in nitrogen loading to the soils at the Gyrodyne site from wastewater would be offset by the decrease in nitrogen loading to the soils from the proposed sewer district at St. James Business District once sewers are available and properties are connected. Nitrogen loading from the unsewered area on Lake Avenue would be currently estimated at 0.071 MGD x 50 mg/L x 8.34 = 29.6 pounds per day. The 50 mg/L nitrogen value for on-site system discharge concentration has been calculated based on SCDHS recommendations (General Guidance Memorandum #28, July 24, 2017,

see page J-14). Nitrogen loading calculation is based on flow, concentration, and an 8.34 conversion factor previously cited in this report.[93]. This volume of sewage transported to the Gyrodyne STP would be treated to a level of 7 mg/L, or 4.14 pounds per day as previously stated. Overall reduction of nitrogen currently being discharged to the soils from the properties within the proposed sewer district of the St. James Business District would be 25.46 pounds per day (9,293 pounds per year).

It is Gyrodyne's position that the County of Suffolk Department of Health Services can only require an applicant to demonstrate the ability to accommodate its own sanitary flow and pursuant to New York State Town Law (TWN § 277) and applicable New York State case law. See Sepco Ventures, Ltd. V. Planning Bd. of Town of Woodbury, 230 A.D. 2d 913, 915 (2nd Dept., 1996). The Town may not require a subdivision applicant to provide off-site improvements in relation to a land use application. Further, the United States Supreme Court Decision in Koontz v. St John's River Water Management District (570 U.S. 595, 133 S. Ct. 2586) held that a municipality may not require an applicant to perform off-site improvements without a direct nexus and rough proportionality between the impact of the application and the request, and that such a request/requirement is an illegal exaction under the United States Constitution. That being said, Gyrodyne remains amenable to the alternative of enlarging the plant, provided it does not materially affect Gyrodyne's requirements regarding costs of such, timing of subdivision, and sale of development assets. Should enlargement of the plant materially affect the cost, or timing of ultimate sale of the subdivision property, the alternative may not be feasible.

Table 19-14: Summary of Alternatives – Groundwater

Name	General Description of Impacts and Proposed Mitigation
No Action	Lower groundwater demand and wastewater flow than the Proposed Action, but no on-site STP, so wastewater would continue to be treated via on-site septic
Proposed	On-site STP for 100,000 gpd accommodates all anticipated impacts.
Alternative 1	On-site STP for 100,000 gpd accommodates all anticipated impacts.
Alternative 2	On-site STP for 100,000 gpd accommodates all anticipated impacts.
Alternative 3	On-site STP for 100,000 gpd accommodates all anticipated impacts.
Alternative 4	No new on-site STP.
Alternative 5	No new on-site STP.
Alternative 6	No new on-site STP (unless publicly funded, designed, and installed).
Alternative 7	On-site STP for 100,000 gpd accommodates all anticipated impacts.
Alternative 8	On-site STP for 100,000 gpd accommodates all anticipated impacts.
Alternative 9	On-site STP for 171,000 gpd would discharge approximately 71% more nitrogen than discharge associated with the Proposed Action.
Alternative 10	On-site STP for 100,000 gpd accommodates all anticipated impacts.

[93] A typical wastewater conversion rate of 8.34 has been applied to simplify the formula converting mg/L to lb/day or vice versa.

19.6. Stormwater Collection, Treatment and Recharge

Any of the alternatives would be designed to accommodate the same storm event and would add stormwater management and green infrastructure that does not exist today. The differences pertain to the amount of new impervious coverage from new buildings and new parking lots and access roads. Figure 19-1 through Figure 19-10 (pages 19-21 through 19-30) provide detailed stormwater calculations for each Alternative.

The new impervious coverage in Alternatives 1 through 3, and 7 through 9 would be similar to the Proposed Action since these alternatives have the same building heights and similar parking requirements. Alternative 10 introduces more building and parking area but reduces overall interior road area.

The new impervious coverage in Alternative 4 would be similar to the Proposed Action, so the overall change may not be significant. However, Alternative 4 and Alternative 5 do not involve a subdivision application, so they would not include the same "green" approach and would likely have less green infrastructure than the Proposed Action.

Additionally, for Alternative 5 (100% new industrial), the new impervious coverage would be significantly higher than the Proposed Action, because new industrial buildings would be one story rather than three stories tall. This results in a much larger building footprint relative to the square footage.

Alternative 6 would have minimal added impervious space, so it would have less new on-site stormwater infrastructure than the Proposed Action

Table 19-15: Summary of Alternatives - Stormwater

Name	General Description of Impacts and Proposed Mitigation
No Action	No new on-site stormwater management infrastructure.
Proposed Action	Net benefit to stormwater management based on new drainage reserve areas, green infrastructure, and underground structures to offset the new impervious coverage.
Alternative 1	Similar to the Proposed Action (no significant difference).
Alternative 2	Similar to the Proposed Action (no significant difference).
Alternative 3	Similar to the Proposed Action (no significant difference).
Alternative 4	Similar to the Proposed Action with fewer opportunities for integration of green infrastructure.
Alternative 5	Requires more stormwater storage infrastructure than the Proposed Action due to significantly more impervious area; less use of "green" infrastructure.
Alternative 6	Retains maximum pervious surface area on-site. New on-site stormwater management infrastructure would likely be installed as well.
Alternative 7	Similar to the Proposed Action (no significant difference).
Alternative 8	Same as the Proposed Action (no difference).
Alternative 9	Same as the Proposed Action (no difference).
Alternative 10	Similar to the Proposed Action (slight increase in impervious area compared to the Proposed Action).

19.7. Traffic

The alternatives were developed, in part, based on the applicant's desire to maintain similar numbers of site-generated trips during peak hours so the same off-site traffic mitigation measures would accommodate any of the alternatives.

Additionally, as described above, each alternative should be able to provide sufficient parking, possibly with similar levels of shared and/or landbanked spaces. For the purpose of comparing alternatives, each 325-350 s.f. of extra or reduced building space corresponds to one parking space. This is a standard accepted design ratio that includes room for the parking space itself, the adjacent drive aisle, end islands, and handicapped stalls and aisles. For example, if an alternative has 10,000 s.f. less building space, it leaves room for ±28 additional parking spaces since $^{10,000}/_{350} = 28.6$ (the result gets rounded down).

The main difference, therefore, is that compared to the Proposed Action, Alternatives 1, 2, and 3 have different mixes of land uses with potentially less synergy/connectivity with Stony Brook University and the Flowerfield catering facility.

Truck Trips: The analyzed alternatives would have similar percentages of truck trips. Alternative 5[94] would have a higher truck component than the Proposed Action or any of the analyzed alternatives in this DEIS, based on industrial vs. non-industrial use. Multiple sources were researched because truck trip generation is less straightforward than total trip generation, largely because of the variety in truck size categories (e.g. tractor trailer vs. delivery truck). Based on a review of three sources,[95,96,97] it is realistic to expect up to an 8% truck component for peak hour trips at general light industrial uses, and 10-13% trucks over the course of a typical weekday (24 hours). The daily percentage is higher because truck trips are often made outside typical peak hour periods. In comparison, the proposed land uses at the Flowerfield site have much smaller expected truck trip percentages[96]:

- Industrial uses: 10-13% daily truck trips
- Assisted living: 1-2% daily truck trips
- R&D offices: 0.4 to 4% with an average of 1.84% daily truck trips

In terms of peak hour traffic, the industrial alternative #5 (which the Applicant does not wish to implement) could have up to 8% trucks in its peak hour generated traffic. This alternative could generate 362-390 trips during peak hours, which corresponds to roughly 31 trucks an hour during peak weekday hours.

[94] As described in Section 19.7, Alternative 5 consists of 382,500 s.f. of new light industrial use. The Applicant does not intend to pursue this Alternative; it is presented here for comparison purposes only.
[95] ITE Journal, July 1994. Truck Trip Generation Characteristics of Nonresidential Land Uses.
[96] ITE Trip Generation Handbook, 3rd Edition. Table J.1: Truck Trip Generation Information. August 2014. The table reflects industrial parks, which is similar enough to light industry for the purposes of this DEIS.
[97] National Cooperative Highway Research Program, Truck Trip Generation: a Synthesis of Highway Practice. 2001.

Table 19-16: Projected Peak Hour Trips and Required Parking – Alternatives

	Total Hourly Trips (Includes Internal Trips)			Required Parking (above existing)
	AM Peak Hour	PM Peak Hour	Saturday Peak Hour	
Proposed Action	357	538	324	1,466
Alternative 1	345	533	295	1,403
Alternative 2	385	555	260	1,525
Alternative 3	354	538	319	1,460
Alternative 4	409	697	294	1,627
Alternative 5	260	241	157	765
Alternative 6	18	84	95	Not listed in § 322-62 parking schedule
Alternative 7	343	517	310	1,409
Alternative 8	357	538	324	1,466
Alternative 9	357	538	324	1,466
Alternative 10	314	344	256	1,605

Table 19-17: Summary of Alternatives – Traffic and Parking

Name	General Description of Impacts and Proposed Mitigation
No Action	No traffic-related changes to any of the study intersections.
Proposed Action	Sufficient on-site parking; traffic improvements/mitigation at five (5) intersections, including two new traffic signals where existing volumes warrant signalization.
Alternative 1	Sufficient parking; same anticipated traffic mitigation as the Proposed Action.
Alternative 2	Sufficient parking; same anticipated traffic mitigation as the Proposed Action.
Alternative 3	Sufficient parking; same anticipated traffic mitigation as the Proposed Action.
Alternative 4	Sufficient parking; more potential traffic mitigation than the Proposed Action.
Alternative 5	Sufficient parking; more potential traffic mitigation than the Proposed Action.
Alternative 6	Sufficient parking; no anticipated traffic mitigation required.
Alternative 7	Sufficient parking; same anticipated traffic mitigation as the Proposed Action.
Alternative 8	Sufficient parking; same anticipated traffic mitigation as the Proposed Action.
Alternative 9	Sufficient parking; same anticipated traffic mitigation as the Proposed Action.
Alternative 10	Sufficient parking including shared parking; same or less anticipated traffic mitigation than the Proposed Action.

19.8. Community Services

Overall, community service impacts are anticipated to be similar across all of the Alternatives. None of the Alternatives would generate any school-aged children and all would require police, fire/EMS, utility (water, electric, natural gas/fuel oil) and solid waste services for operations. Site access (for emergency service providers) would also remain similar across all of the Alternatives.

19.9. Taxes/Economic Impacts

Overall tax and economic impacts are positive across all Alternatives with the exception of Alternative 6, which would result in significant costs to the public entity responsible (i.e., Town of Smithtown, Suffolk County etc.) for the acquisition, development, debt service, operation, maintenance, and facility upgrades associated with the public open space.

Table 19-18: Summary of Alternatives – Taxes and Economic Impacts

Name	General Description of Impacts and Proposed Mitigation
No Action	No benefits to local taxing entities (same revenue and outlays as today)
Proposed Action	1,507 total construction jobs, 1,078 net new jobs, and a significantly positive net benefit to all local taxing entities, with no new school children.
Alternative 1	1,279 total construction jobs, 1,078 net new jobs, and a significantly positive net benefit to all local taxing entities, with no new school children.
Alternative 2	1,298 total construction jobs, 1,171 net new jobs, and a significantly positive net benefit to all local taxing entities, with no new school children.
Alternative 3	1,531 total construction jobs, 1,106 net new jobs, and a significantly positive net benefit to all local taxing entities, with no new school children.
Alternative 4	969 total construction jobs, 1,349 net new jobs, and a significantly positive net benefit to all local taxing entities, with no new school children.
Alternative 5	781 total construction jobs, 731 net new jobs, and a significantly positive net benefit to all local taxing entities, with no new school children.
Alternative 6	Negative impact compared to the Proposed Action: the overall cost of acquisition, development, debt service, operations/maintenance and periodic facility improvements would be very significant expenses for the Town. Such a facility would also not produce tax revenues. In addition, new job creation would be anticipated to be minimal as workers would likely be municipal employees. As such, Alternative 6 would likely result in significant adverse fiscal impacts.
Alternative 7	1,507 total construction jobs, 1,077 net new jobs, and a significantly positive net benefit to all local taxing entities, with no new school children.
Alternative 8	The same impacts as the Proposed Action – the only change to construction would likely involve MTA-LIRR workers to improve the crossing (no new jobs created)
Alternative 9	1,507 total construction jobs, 1,078 net new jobs, and a significantly positive net benefit to all local taxing entities, with no new school children.
Alternative 10	1,518 total construction jobs, 1,085 net new jobs, and a significantly positive net benefit to all local taxing entities, with no new school children.

19.10. Land Use and Open Space

Table 19-19: Summary of Alternatives – Land Use and Open Space

Name	General Description of Impacts and Proposed Mitigation
No Action	Continued use of the existing light industrial buildings and catering hall, with the remainder of the site left vacant
Proposed Action	Reduction in open space, but an increase in usable, managed undeveloped space that can be utilized for greenways and bicyclists. Overall open space acreage would be 36.51 acres or 48.7% of the total site area.
Alternative 1	Similar impacts to the Proposed Action
Alternative 2	Similar impacts to the Proposed Action
Alternative 3	Similar impacts to the Proposed Action
Alternative 4	Significant reduction in open space.
Alternative 5	Significant reduction in open space.
Alternative 6	Increased open space, but open space will not necessarily be managed or configured to accommodate bicyclists and pedestrians. In addition, given the large percentage of open space provided by the Proposed Action (nearly 49% of total site area) and many of the Alternatives (50% open space provided in Alternative 7), Alternative 6 would not necessarily offer a significant improvement in open space.
Alternative 7	Minimal increase in open space compared to the Proposed Action (50% vs. 48.7%)
Alternative 8	Same impacts as the Proposed Action
Alternative 9	Similar impacts to the Proposed Action
Alternative 10	Similar impacts to the Proposed Action

19.11. Air Quality

Any of the potential alternatives would require a SWPPP based on the total amount of land that will need to be disturbed during construction. Short-term air quality impacts that could occur during construction, such as construction vehicle exhaust, trucks raising dust, and earthwork/clearing/grading operations, will be governed by a Stormwater Pollution Prevention Plan (SWPPP) that will include Erosion and Sediment Control (ESC) to minimize such impacts (e.g. by preventing the propagation of dust off-site).

It is the applicant's opinion that, apart from the all-industrial alternative which is not being proposed, none of the alternatives (and none of the proposed subdivision alternatives) would create specific new point sources for air pollution. A point source is a specific air pollution source that would be modeled at a single point location in an air quality model. Point sources include, for example, factories, smokestacks, and incinerators. These types of point sources would be subject to exhaust air discharge permits issued by the New York State Department of Environmental Conservation.

Alternative 5 (382,000 s.f. of new general light industry) has the potential to generate a higher percentage of trucks compared to its total number of site-generated trips. See Section 19.7 beginning on page 19-14 for further information. Therefore, on a relative

basis, Alternative 5 could create higher air quality impacts than the Proposed Action and the other alternatives.

Table 19-20: Summary of Alternatives – Air Quality

Name	General Description of Impacts and Proposed Mitigation
No Action	No air quality impacts.
Proposed Action	Minimal air quality impacts will be minimized during construction using standard Erosion and Sediment Control measures to be designed on engineering plans and to be inspected during construction. No new point sources of air pollution.
Alternative 1	Same conclusion as the Proposed Action: no significant air quality impacts
Alternative 2	Same conclusion as the Proposed Action: no significant air quality impacts
Alternative 3	Same conclusion as the Proposed Action: no significant air quality impacts
Alternative 4	Same conclusion as the Proposed Action: no significant air quality impacts
Alternative 5	Slightly higher air quality impacts than the Proposed Action due to truck trips
Alternative 6	Same conclusion as the Proposed Action: no significant air quality impacts
Alternative 7	Same conclusion as the Proposed Action: no significant air quality impacts
Alternative 8	Same conclusion as the Proposed Action: no significant air quality impacts
Alternative 9	Same conclusion as the Proposed Action: no significant air quality impacts
Alternative 10	Same conclusion as the Proposed Action: no significant air quality impacts

19.12. Noise

Any of the proposed alternatives would involve similar building setbacks and adherence to the required setbacks from Route 25A and from any residentially zoned parcel. No proposed land use would create peak sound generation overnight or on weekends.

Because Alternative 5 (100% general light industry expansion) could involve higher percentages of trucks (see Section 19.7), this Alternative could involve more on-site noise associated with truck trips vs. standard-size vehicle trips. The other alternatives are expected to be consistent with the lack of significant impacts for the Proposed Action.

Table 19-21: Summary of Alternatives - Noise

Name	General Description of Impacts and Proposed Mitigation
No Action	No impacts
Proposed Action	No significant long-term impacts are expected
Alternative 1	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 2	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 3	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 4	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 5	Potential for increased noise associated with truck trips compared to the Proposed Action – no significant long-term impacts are expected
Alternative 6	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 7	Same as the Proposed Action – no significant long-term impacts are expected

Name	General Description of Impacts and Proposed Mitigation
Alternative 8	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 9	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 10	Same as the Proposed Action – no significant long-term impacts are expected

19.13. Visual Impacts

Each alternative would involve the same required buffers, the same building height limits, and similar or smaller limits of disturbance, so each alternative would have the same or a similar impact on visual resources as the Proposed Action.

Because Alternative 5 (100% general light industry expansion) could involve higher percentages of trucks (see Section 19.7), this Alternative could involve more trucks in the general area as opposed to standard-size vehicles.

Table 19-22: Summary of Alternatives – Visual Impacts

Name	General Description of Impacts and Proposed Mitigation
No Action	No impacts
Proposed Action	No significant long-term impacts are expected; the applicant anticipates providing enhanced vegetative screening along portions of Route 25A
Alternative 1	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 2	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 3	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 4	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 5	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 6	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 7	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 8	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 9	Same as the Proposed Action – no significant long-term impacts are expected
Alternative 10	Same as the Proposed Action – no significant long-term impacts are expected

19.14. Historic and Cultural Resources

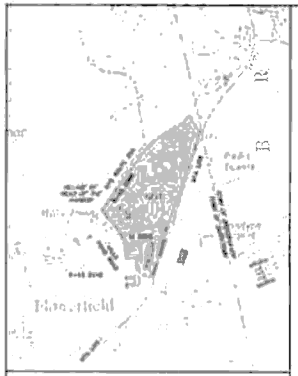
Each alternative would involve the same required buffers, and similar or smaller limits of disturbance, so each alternative has no impact on historic and cultural resources.

Table 19-23: Summary of Alternatives – Historic and Cultural Resources

Name	General Description of Impacts and Proposed
No Action	Same as Proposed Action – no impacts
Proposed Action	Same as Proposed Action – no impacts
Alternative 1	Same as Proposed Action – no impacts
Alternative 2	Same as Proposed Action – no impacts
Alternative 3	Same as Proposed Action – no impacts

Name	General Description of Impacts and Proposed
Alternative 4	Same as Proposed Action – no impacts
Alternative 5	Same as Proposed Action – no impacts
Alternative 6	Same as Proposed Action – no impacts
Alternative 7	Same as Proposed Action – no impacts
Alternative 8	Same as Proposed Action – no impacts
Alternative 9	Same as Proposed Action – no impacts
Alternative 10	Same as Proposed Action – no impacts

The following figures depict site layouts under each alternative, plus a comparison to the Proposed Action's base plan.



KEY LOCATION MAP
(NOT TO SCALE)

EXISTING AND PROPOSED DEVELOPMENT DATA

LOT NUMBER	LOT SIZE (ACRES)	LAND USE	BUILDING SIZE/YIELD	
1	12.75	EXISTING WHITE-COX BUILDING	122,718	S.F.
2	12.84	EXISTING CATERING HALL	24,886	S.F.
3	2.15	PROPOSED ADDITIONAL PARKING	66	
4	4.66	PROPOSED HOTEL WITH RESTAURANT	72,586	S.F.
			100	ROOMS
5	9.89	PROPOSED MEDICAL OR R&D OFFICE	69,000	S.F.
6	3.97	PROPOSED ASSISTED LIVING	63,458	S.F.
			150	UNITS
7	4.00	PROPOSED MEDICAL OR R&D OFFICE	45,000	S.F.
8	4.06	PROPOSED MEDICAL OR R&D OFFICE	45,000	S.F.
9	13.35	PROPOSED COMMON AREA AND STP	9,900	S.F.
TOTAL	74.68			

LANDSCAPE COVERAGE DATA

LOT NUMBER	LANDSCAPE AREA (ACRES)	LOT AREA (ACRES)	PERCENTAGE OF LANDSCAPED AREAS
1	2.24	12.75	17%
2	6.34	12.84	49%
3	0.94	2.15	44%
4	2.83	4.66	61%
5	2.24	9.89	23%
6	1.11	3.97	28%
7	1.35	4.00	33%
8	1.28	4.06	32%
9	13.14	13.35	98%
TOTAL	74.68	74.68	72%

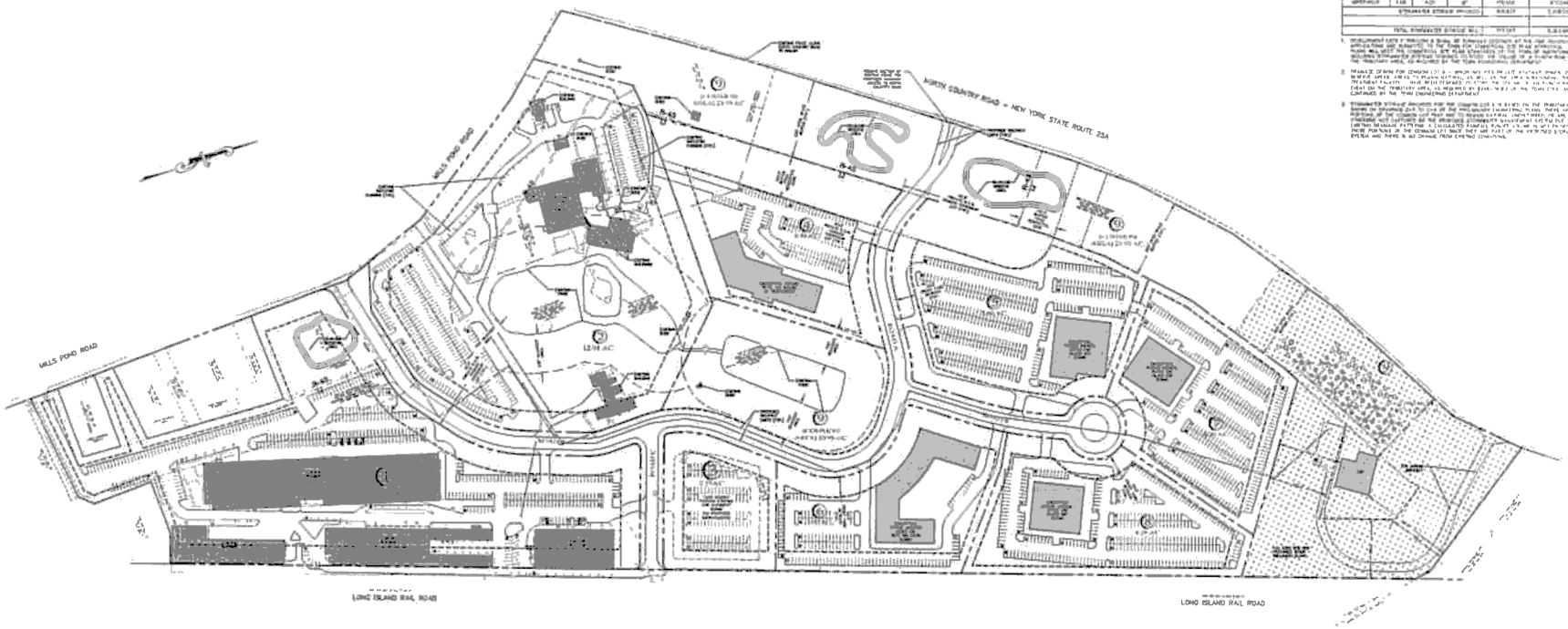
COMPARISON TO BASE PLAN

ENVIRONMENTAL RESOURCE	BASE PLAN/PROPOSED ACTION	ALTERNATIVE 1
GEOLOGY	NO IMPACTS	SAME AS BASE PLAN
SOILS	NO IMPACTS	SAME AS BASE PLAN
TOPOGRAPHY (GRADING AND EXCAVATION AREA FROM BUILDING+PARKING LOT FOOTPRINT)	137,350 S.F. NEW BUILDING FOOTPRINT INCLUDING NEW ON-SITE STP	SIMILAR TO (SMALLER THAN) BASE PLAN: 113,487 S.F. NEW BUILDING FOOTPRINT & 32,000 S.F. SMALLER PARKING AREA NEEDED
VEGETATION AND WILDLIFE	HABITATS CONVERT TO HARDSCAPE OR SUCCESSIONAL FORESTS	SIMILAR TO BASE PLAN AND THE ADDITIONAL OPEN SPACE WOULD TRANSITION TO SUCCESSIONAL FOREST
WETLANDS/ WATERWAY	ON-SITE STP AND STP	SAME AS BASE PLAN
TRAFFIC GENERATION	324 TO 338 TRIPS INCLUDING INTERNAL TRIPS	SIMILAR TO BASE PLAN: 295 TO 313 TRIPS INCLUDING INTERNAL TRIPS
OFF-SITE TRAFFIC MITIGATION	MITIGATING AGGREGATE OFF-SITE IMPACTS & EXISTING CONDITIONS AT 2 LOCATIONS	SAME MITIGATION AS BASE PLAN
PARKING	1,586 MORE SPACES REQUIRED SUFFICIENT ON-SITE PARKING INCLUDING SHARED & LAND-BANKED PARKING	1,533 MORE SPACES REQUIRED 4% FEWER THAN BASE PLAN; SUFFICIENT PARKING INCLUDING SHARED & LAND-BANKED
COMMUNITY SERVICES	NO NEW SCHOOL ENROLLMENT, SCHOOL BUILDING, FIRE, AND LIBRARY SERVICE NEEDS	SAME AS BASE PLAN
TAXES AND ECONOMIC IMPACTS	1,507 CONSTRUCTION JOBS; 1,073 POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY	SIMILAR TO BASE PLAN: 1,378 CONSTRUCTION JOBS; 1,078 POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY
OPEN SPACE	9.38 S ACRES, 46.7% OF THE SITE	6.38 S ACRES, 31.8% OF THE SITE
AIR QUALITY	STANDARD IMPACTS, ADHERENCE TO SWPPP AND STANDARD EROSION & SEDIMENT CONTROL	SAME AS BASE PLAN
NOISE	NO SIGNIFICANT LONG-TERM IMPACTS	SAME AS BASE PLAN
VISUAL IMPACTS	ENHANCED SCREENING, 3-STORY BUILDING HEIGHTS, LENGTHY SETBACKS AVOID VISUAL IMPACTS, 368,150 S.F. NEW BUILDING AREA INCLUDING NEW ON-SITE STP	SAME AS STP SHOWN TO BASE PLAN; ENHANCED SCREENING, 3-STORY BUILDING HEIGHTS, LENGTHY SETBACKS AVOID VISUAL IMPACTS; 319,250 S.F. NEW BUILDING AREA
HISTORIC AND CULTURAL RESOURCES	NO IMPACTS	SAME AS BASE PLAN
WATER AND IRRIGATION	660,336 gpd	612,600 gpd
WASTEWATER	673,334 gpd	737,999 gpd
IMPERVIOUS LEVELS	32.6 ha or 80.5 acres/ACRE	27.7 ha or 68.4 acres/ACRE

DRAINAGE CALCULATIONS

DESCRIPTION	C	A (ACRES)	Qp (cfs)	VOLUME (CF)	VOLUME (GALLONS)
LOT 1		12.75			
PERVIOUS	0.35	6.38	5"	51,446	401,286
IMPERVIOUS	1.00	6.37	5"	102,208	764,594
			STORAGE REQ'D	153,653	1,149,879
LOT 2		12.84			
PERVIOUS	0.35	6.38	5"	51,179	382,937
IMPERVIOUS	1.00	6.46	5"	77,919	583,048
			STORAGE REQ'D	103,098	771,985
LOT 3		2.15			
PERVIOUS	0.35	0.99	5"	5,794	43,357
IMPERVIOUS	1.00	1.16	5"	13,998	104,736
			STORAGE REQ'D	19,792	148,093
LOT 4		4.66			
PERVIOUS	0.35	1.63	5"	9,551	71,463
IMPERVIOUS	1.00	3.03	5"	36,469	272,878
			STORAGE REQ'D	47,020	351,840
LOT 5		9.89			
PERVIOUS	0.35	3.46	5"	20,278	151,736
IMPERVIOUS	1.00	6.43	5"	77,419	579,290
			STORAGE REQ'D	97,697	731,026
LOT 6		3.97			
PERVIOUS	0.35	1.39	5"	8,141	60,918
IMPERVIOUS	1.00	2.58	5"	30,968	231,765
			STORAGE REQ'D	39,109	292,683
LOT 7		4.00			
PERVIOUS	0.35	1.40	5"	8,197	61,331
IMPERVIOUS	1.00	2.60	5"	31,208	233,500
			STORAGE REQ'D	39,405	294,831
LOT 8		4.06			
PERVIOUS	0.35	1.42	5"	8,317	62,240
IMPERVIOUS	1.00	2.64	5"	31,670	236,972
			STORAGE REQ'D	39,987	299,212
DRAINAGE LOT 9*		13.35			
PERVIOUS AREA (WITHOUT STP)		9.09			
PERVIOUS	0.35	74.54	5"	110,017	823,019
IMPERVIOUS	1.00	4.26	5"	170,400	1,275,048
			STORAGE REQ'D	280,417	2,098,067
TOTAL STORAGE REQ'D				970,997	7,265,648

1. PRELIMINARY STATE OF THE ART DRAINAGE CALCULATIONS ARE PROVIDED FOR THE PROPOSED ACTION-BASE PLAN AND ALTERNATIVE 1 TO DEMONSTRATE THAT THE PROPOSED STP AND STORMWATER MANAGEMENT SYSTEM INCLUDING STORAGE REQUIREMENTS OF THE TOWN OF SMITHTOWN CAN BE ACCOMMODATED ON-SITE. THE FINAL DESIGN OF THE STORMWATER MANAGEMENT SYSTEM WILL BE PERFORMED AT THE SITE PLAN STAGE AND WILL BE REVIEWED AND APPROVED BY THE TOWN ENGINEER.
2. DRAINAGE DATA FOR DRAINAGE LOT 9 – WHICH HAS TO ACCOMMODATE RUNOFF FROM LOTS 1 THROUGH 8 AS WELL AS THE PROPOSED ACTION-BASE PLAN AND ALTERNATIVE 1 – WAS PREPARED ASSUMING THAT ON-SITE STORMWATER RUNOFF WILL BE DIRECTED TO THE PROPOSED STP AND THAT THE STP WILL BE DESIGNED TO ACCOMMODATE THE RUNOFF FROM THE ENTIRE SITE. THIS APPROACH WAS CONFIRMED BY THE TOWN ENGINEER (SEPTEMBER).
3. STORMWATER STORAGE AMOUNTS FOR THE DRAINAGE LOT 9 IS BASED ON THE PERVIOUS AREA AS REQUIRED BY DRAINAGE LOT 9 AND THE IMPERVIOUS AMOUNT EQUIVALENT TO THE ALTERNATIVE 1 PLAN. THE ACTUAL STORMWATER STORAGE REQUIREMENTS FOR THE PROPOSED ACTION-BASE PLAN AND ALTERNATIVE 1 WILL BE LESS THAN SHOWN AS THE DRAINAGE LOT 9 STORAGE REQUIREMENT INCLUDES THE AREAS OF THE PROPOSED ACTION-BASE PLAN AND ALTERNATIVE 1 PLUS THE 2 CALCULATED PERVIOUS AREAS (LOTS 9A AND 9B) AS WELL AS THE PERVIOUS PORTIONS OF THE DRAINAGE LOT 9 WHICH THEY ARE PART OF THE PROPOSED STORMWATER SYSTEM AND THERE IS NO CHANGE FROM EXISTING CONDITIONS.



ALTERNATIVE PLAN NO. 1

- 100-ROOM HOTEL (50 FEWER THAN PROPOSED ACTION-BASE PLAN)
- 150,000 S.F. MEDICAL OFFICE (20,000 MORE S.F. THAN PROPOSED ACTION-BASE PLAN)
- 150 ASSISTED LIVING UNITS (70 FEWER THAN PROPOSED ACTION-BASE PLAN)

GYRODYNE, LLC
LIE OVER FIELD
ST. JAMES, TOWN OF
SMITHTOWN, SUFFOLK
COUNTY, NEW YORK

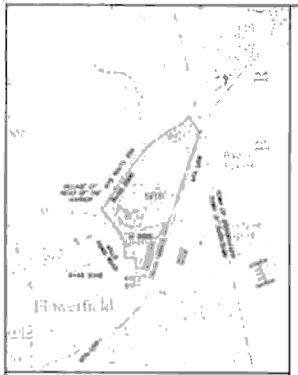
CAMPBELL FOSTER ENGINEERING & ASSOCIATES, LLP

JERRY P. LaRIE

NOVEMBER 2019

Figure 19-1: Alternative Plan 1

GRAPHIC SCALE
1 IN FEET
1 inch = 100 ft.



KEY LOCATION MAP
(no scale provided)

EXISTING AND PROPOSED DEVELOPMENT DATA

LOT NUMBER	LOT SIZE (ACRES)	LAND USE	BUILDING SIZE/YIELD	
1	12.75	EXISTING MIXED-USE BUILDINGS	122,719	S.F.
2	12.94	EXISTING EATING HALL	34,685	S.F.
3	2.15	PROPOSED ADDITIONAL PARKING	n/a	
4	5.66	PROPOSED GENERAL OFFICE	50,000	S.F.
5	5.29	PROPOSED MEDICAL OR R&D OFFICE	53,000	S.F.
6	4.11	PROPOSED ASSISTED LIVING	192,250	S.F.
			150	UNITS
7	4.23	PROPOSED MEDICAL OR R&D OFFICE	80,000	S.F.
8	4.73	PROPOSED MEDICAL OR R&D OFFICE	80,000	S.F.
9	23.83	PROPOSED OPEN AREA AND ROW	8,000	S.F.
TOTAL	74.89			

LANDSCAPE COVERAGE DATA

LOT NUMBER	LANDSCAPE AREA (ACRES)	LOT AREA (ACRES)	PERCENTAGE OF LANDSCAPED AREAS
1	9.76	12.75	77%
2	9.38	12.94	72%
3	2.04	2.15	95%
4	2.82	5.66	50%
5	2.24	5.29	42%
6	1.14	4.11	28%
7	1.75	4.23	41%
8	1.27	4.73	27%
9	18.42	23.83	77%
TOTAL	74.89	74.89	100%

COMPARISON TO BASE PLAN

ENVIRONMENTAL RESOURCE	BASE PLAN/PROPOSED ACTION	ALTERNATIVE 2
GEOLOGY	NO IMPACTS	SAME AS BASE PLAN
SOILS	NO IMPACTS	SAME AS BASE PLAN
TOPOGRAPHY (GRADING AND EXCAVATION AREA FROM BUILDING+PARKING FOOTPRINT)	127,500 S.F. NEW BUILDING FOOTPRINT INCLUDING NEW ON-SITE STP	SIMILAR TO SMALLER THAN BASE PLAN: 114,750 S.F. NEW BUILDING FOOTPRINT (170,250 S.F. LARGER GRADING AREA MAXIMUM)
VEGETATION AND WILDLIFE	HABITATE CONVERT TO HARDSCAPE OR SUCCESSIONAL FORESTS	SIMILAR TO BASE PLAN AND SOME ADDITIONAL OPEN SPACE WOULD TRANSITION TO SUCCESSIONAL FOREST
ENDANGERED SPECIES	SAME AS BASE PLAN	SAME AS BASE PLAN
TRAFFIC GENERATION	256 TO 508 TRIPS INCLUDING INTERNAL TRIPS	SIMILAR TO BASE PLAN: 290 TO 555 TRIPS INCLUDING INTERNAL TRIPS
OFF-SITE TRAFFIC MITIGATION	MITIGATION ADDRESSES OFF-SITE IMPACTS @ EXISTING DEFICIENT AT 2 LOCATIONS	SAME MITIGATION AS BASE PLAN
PARKING	1,146 MORE SPACES REQUIRED SUFFICIENT ON-SITE PARKING INCLUDING SHARED & LAND-BANKED PARKING	1,525 MORE SPACES REQUIRED 48 MORE THAN BASE PLAN; SUFFICIENT PARKING INCLUDING SHARED & LAND-BANKED
COMMUNITY SERVICES	NO NEW SCHOOL CHILDREN; NEED POLICE-FIRE-EMS AND UTILITY SERVICE NEEDS	SAME AS BASE PLAN
TAXES AND ECONOMIC IMPACTS	1,507 CONSTRUCTION JOBS; 1,074 POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY	SIMILAR TO BASE PLAN: 1,238 CONSTRUCTION JOBS; 1,171 POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY
LAND USE AND OPEN SPACE	4.36 S. ACRES 45.7% OF THE SITE	6.98 S. ACRES 20.5% OF THE SITE
AIR QUALITY	MINIMAL IMPACTS; ADDRESSED BY ENERGY AND STANDARD DESIGN & DEVELOPMENT CONTROLS	SAME AS BASE PLAN
NOISE	NO SIGNIFICANT LONG-TERM IMPACTS	SAME AS BASE PLAN
VISUAL IMPACTS	ENHANCED SCREENING; 3-STORY BUILDING HEIGHTS; LENGTHY SETBACKS AVOID VISUAL IMPACTS; 294,150 S.F. NEW BUILDING AREA INCLUDING NEW ON-SITE STP	SAME AS OR SIMILAR TO BASE PLAN: ENHANCED SCREENING; 3-STORY BUILDING HEIGHTS; LENGTHY SETBACKS AVOID VISUAL IMPACTS; 305,400 S.F. NEW BUILDING AREA
WASTEWATER REQUIREMENTS	NO IMPACTS	SAME AS BASE PLAN
WATER AND IRRIGATION	66,224 gpd	66,000 gpd
WASTEWATER	97,534 gpd	90,000 gpd
EMISSIONS (CO2)	32.4 lbs of N./YEAR/HOME	31.7 lbs of N./YEAR/HOME

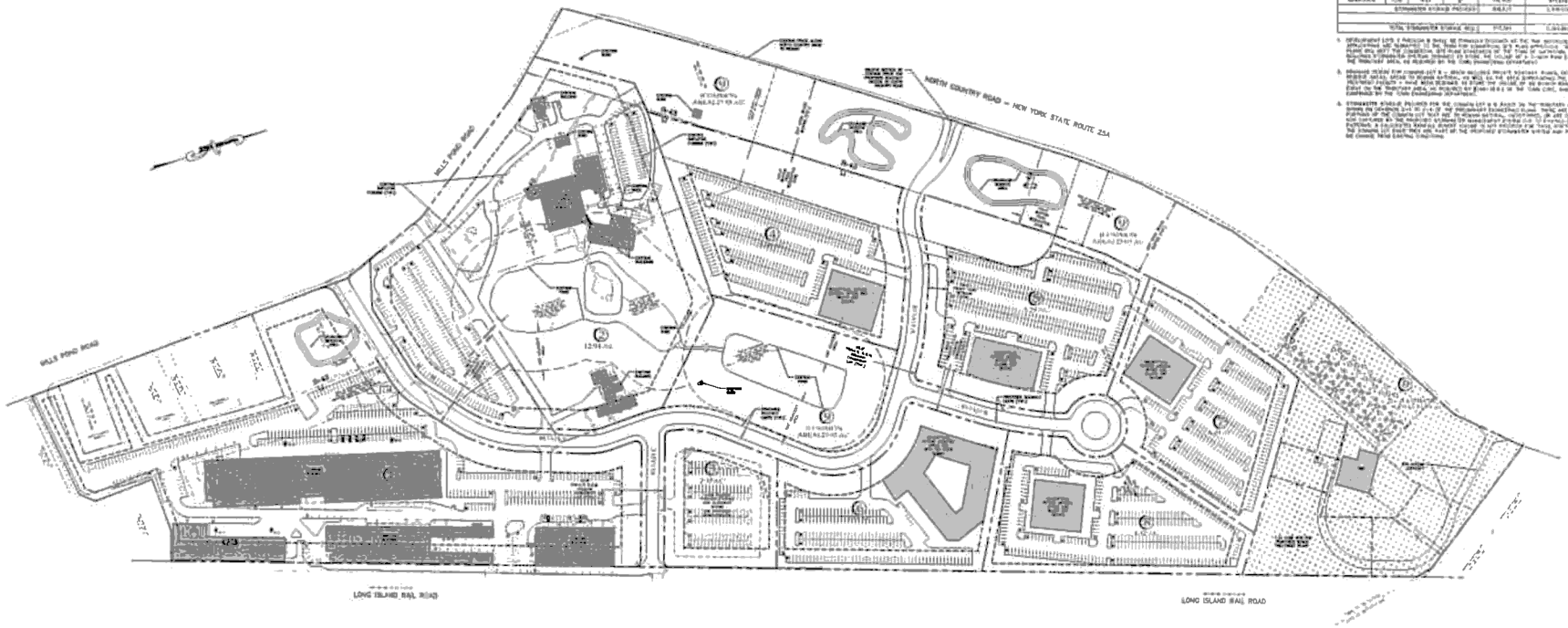
DRAINAGE CALCULATIONS

DESCRIPTION	C	Tc (MIN)	I (in/hr)	Q (cfs)	VOLUME (cu.ft.)
LOT 1		12.75			
PERVIOUS	0.35	3.98	5"	10.00	43,560
IMPERVIOUS	1.00	8.47	5"	100.00	190,000
		STORMWATER STORAGE REQ.		110.00	233,560
LOT 2		12.94			
PERVIOUS	0.35	6.38	5"	32.79	102,827
IMPERVIOUS	1.00	9.99	5"	91.00	310,000
		STORMWATER STORAGE REQ.		59.00	207,173
LOT 3		2.15			
PERVIOUS	0.15	0.84	5"	2.94	10,327
IMPERVIOUS	1.00	1.21	5"	19.00	109,700
		STORMWATER STORAGE REQ.		19.00	121,026
LOT 4		5.40			
PERVIOUS	0.35	2.83	5"	8.77	[illegible]
IMPERVIOUS	1.00	3.13	5"	[illegible]	[illegible]
		STORMWATER STORAGE REQ.		[illegible]	[illegible]
LOT 5		5.29			
PERVIOUS	0.35	3.44	5"	9.28	32,478
IMPERVIOUS	1.00	3.58	5"	51.74	310,000
		STORMWATER STORAGE REQ.		40.00	309,194
LOT 6		4.11			
PERVIOUS	0.35	3.14	5"	9.00	31,500
IMPERVIOUS	1.00	3.30	5"	50.00	299,000
		STORMWATER STORAGE REQ.		38.00	313,000
LOT 7		4.23			
PERVIOUS	0.35	3.28	5"	9.27	34,000
IMPERVIOUS	1.00	3.58	5"	51.74	310,000
		STORMWATER STORAGE REQ.		38.00	318,000
LOT 8		4.73			
PERVIOUS	0.35	3.77	5"	9.98	37,000
IMPERVIOUS	1.00	3.85	5"	51.07	310,140
		STORMWATER STORAGE REQ.		39.00	347,140
DRAINAGE LOT 9*		23.83			
PERVIOUS AREA OUTSIDE LOT 9		6.00			
PERVIOUS	0.35	14.24	5"	130.97	475,000
IMPERVIOUS	1.00	4.03	5"	116.00	675,000
		STORMWATER STORAGE REQUIRED		848.97	1,150,000
TOTAL					
		STORMWATER STORAGE REQ.		975.94	1,150,000

a. DRAINAGE LOT 9 INCLUDES A SMALL AREA OF PERVIOUS GRASS AT THE NW CORNER. APPROXIMATELY 6.0 ACRES OF IMPERVIOUS AREA ARE NORMALLY TO BE TREATED DIRECTLY BY PLANS APPROVED. SITE PLANS WILL MEET THE CONDITION THAT PEAK RUNOFF RATES OF THE TOWN OF SMITHTOWN, INCLUDING STORMWATER DISTRICTS TO STORE THE VOLUME OF 2 1/2 INCH RAIN EVENT ON THE TRANSFERRED AREA, AS REQUIRED BY THE TOWN ENGINEERING DEPARTMENT.

b. STORMWATER RUNOFF FROM ENTIRE LOT 9 = AREA INCLUDING PERVIOUS AREAS, DRAINAGE BASINS, AREAS TO REMAIN ACTIVE, AS WELL AS THE AREA APPROACHING THE TRANSFERRED PARCEL + AREA WITHIN BASINS TO START THE VOLUME OF 2½ INCH RAINFALL EVENT ON THE TRANSFERRED AREA, AS REQUIRED BY SECTION 86-83.1 OF THE TOWN CODE, AND AS CONFIRMED BY THE TOWN ENGINEERING DEPARTMENT.

c. STORMWATER STORAGE REQUIRED FOR THE ENTIRE LOT 9 IS BASED ON THE VOLUMES AREA AS SHOWN ON DRAINAGE LOT 9 = 6.0 AC OF IMPERVIOUS EXISTING PLANS, TAKING INTO CONSIDERATION THAT NOT ALL OF THE IMPERVIOUS AREA WILL BE TREATED BY THE PROPOSED STORMWATER SYSTEM AND THAT SOME OF THE IMPERVIOUS AREA MAY REMAIN UNTREATED. A SLIGHTLY SMALLER STORAGE AMOUNT COULD BE USED BASED ON THE ENGINEERING JUDGEMENT THAT THE ENTIRE IMPERVIOUS AREA WILL NOT BE TREATED, BUT THE ENTIRE STORAGE VOLUME WILL BE PROVIDED.



ALTERNATIVE PLAN NO. 2

- NO HOTEL
- 150,000 S.F. MEDICAL OFFICE (20,000 MORE S.F. THAN PROPOSED ACTION-BASE PLAN)
- 50,000 S.F. GENERAL OFFICE (MORE THAN PROPOSED ACTION-BASE PLAN)
- 192 ASSISTED LIVING UNITS (28 FEWER THAN PROPOSED ACTION-BASE PLAN)

GYRODYNE, LLC
LEE OWERFIELD
ST. JAMES, TOWN OF SMITHTOWN, SUFFOLK COUNTY, NEW YORK

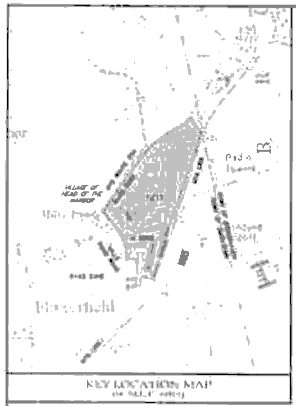
CAMERON ENGINEERING & ASSOCIATES, LLP

HERBY P. LARIE

NOVEMBER 2019

Figure 19-2: Alternative Plan 2

GRAPHIC SCALE



EXISTING AND PROPOSED DEVELOPMENT DATA

LOT NUMBER	LOT SIZE (ACRES)	LAND USE	BUILDING SIZE/YIELD	
1	12.75	EXISTING MIXED-USE BUILDINGS	131,719	S.F.
2	12.94	EXISTING CATERING HALL	[illegible]	S.F.
3	2.15	PROPOSED ADDITIONAL PARKING	--	
4	[illegible]	PROPOSED HOTEL AND RESTAURANT	[illegible]	S.F.
			120	ROOMS
5	[illegible]	PROPOSED MEDICAL OR R&D OFFICE	[illegible]	S.F.
6	[illegible]	PROPOSED ASSISTED LIVING	[illegible]	S.F.
			250	UNITS
7	[illegible]	PROPOSED MEDICAL OR R&D OFFICE	[illegible]	S.F.
8	[illegible]	PROPOSED MEDICAL OR R&D OFFICE	[illegible]	S.F.
9	[illegible]	PROPOSED COMMON AREA AND STP	[illegible]	S.F.
TOTAL	[illegible]			

LANDSCAPE COVERAGE DATA

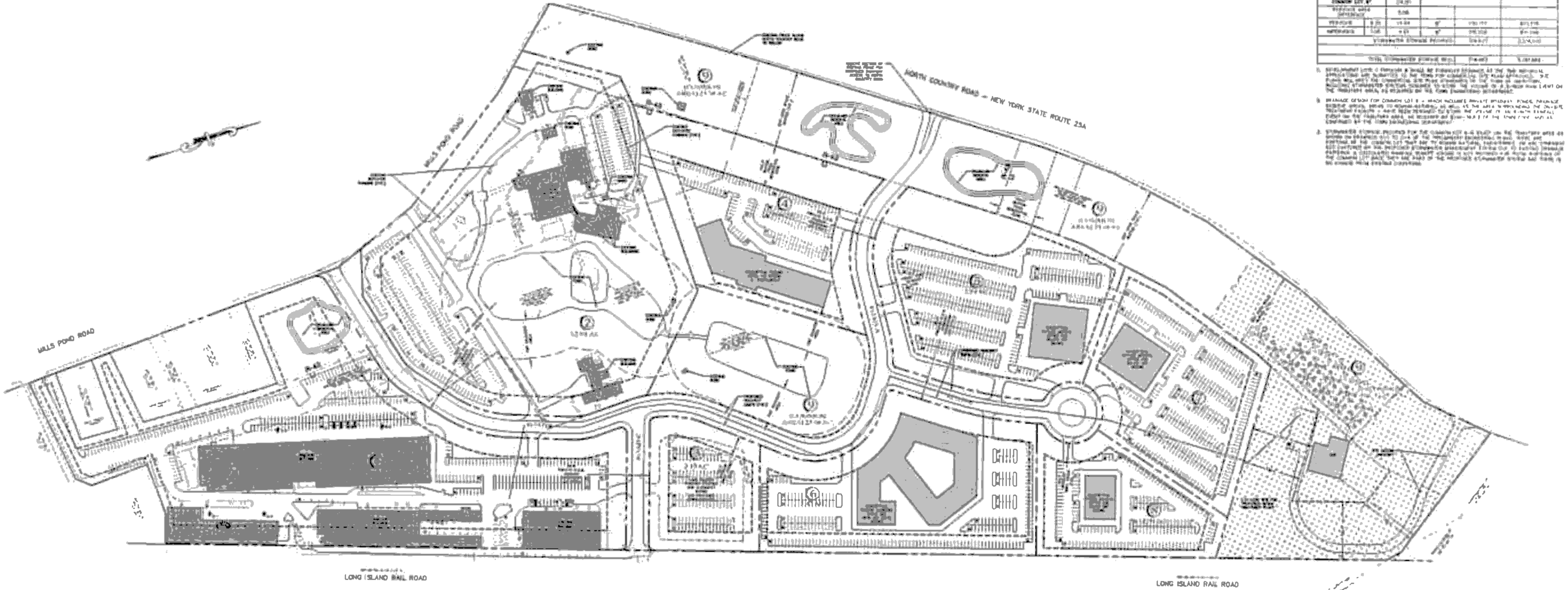
LOT NUMBER	LANDSCAPE AREA (ACRES)	LOT AREA (ACRES)	PERCENTAGE OF LANDSCAPED AREAS
1	3.36	12.75	27%
2	[illegible]	12.94	48%
3	[illegible]	2.15	[illegible]
4	[illegible]	8.03	44%
5	[illegible]	[illegible]	[illegible]
6	[illegible]	5.99	22%
7	[illegible]	3.10	37%
8	[illegible]	[illegible]	[illegible]
9	[illegible]	[illegible]	[illegible]
TOTAL	[illegible]	[illegible]	[illegible]

COMPARISON TO BASE PLAN

ENVIRONMENTAL RESOURCE	BASE PLAN/PROPOSED ACTION	ALTERNATIVE 3
GEOLOGY	NO IMPACTS	SAME AS BASE PLAN
SOILS	NO IMPACTS	SAME AS BASE PLAN
TOPOGRAPHY (GRADING AND EXCAVATION AREA FROM BUILDING-PARKING FOOTPRINT)	137,350 S.F. NEW BUILDING FOOTPRINT INCLUDING NEW ON-SITE STP	SIMILAR TO (SMALLER THAN) BASE PLAN: 134,383 S.F. NEW BUILDING FOOTPRINT 82,100 S.F. SMALLER PARKING AREA NEEDED
VEGETATION AND WILDLIFE	HABITATS CONVERT TO HARDSCAPE OR SUCCESSIONAL FORESTS	SIMILAR TO BASE PLAN AND THE ADDITIONAL OPEN SPACE WOULD TRANSITION TO SUCCESSIONAL FOREST
WASTEWATER TREATMENT	ON-SITE [illegible] STP	SAME AS BASE PLAN
TRAFFIC GENERATION	[illegible] TRIPS INCLUDING INTERNAL TRIPS	SIMILAR TO BASE PLAN, [illegible] TRIPS INCLUDING INTERNAL TRIPS
OFF-SITE TRAFFIC MITIGATION	MITIGATING [illegible] OFF-SITE IMPACTS & EXISTING CONCERNS AT 3 LOCATIONS	SAME MITIGATION AS BASE PLAN
PARKING	[illegible] MORE SPACES REQUIRED SUFFICIENT ON-SITE PARKING INCLUDING SHARED & LAND-BANKED PARKING	[illegible] MORE SPACES REQUIRED 0.4% FEWER THAN BASE PLAN; SUFFICIENT PARKING INCLUDING SHARED & LAND-BANKED
COMMUNITY SERVICES	NO NEW SCHOOL CHILDREN ADDED; [illegible]	SAME AS BASE PLAN
FISCAL AND ECONOMIC IMPACTS	1,507 CONSTRUCTION JOBS; 1,078 POST-CONSTRUCTION JOBS, TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY	SIMILAR TO BASE PLAN: 1,531 CONSTRUCTION JOBS; 1,106 POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY
OPEN SPACE	[illegible] ACRES: 48.7% OF THE SITE	[illegible] ACRES: [illegible] OF THE SITE
AIR QUALITY	MINIMAL IMPACTS; ADDRESSED BY SWPPP AND STANDARD EROSION & SEDIMENT CONTROL	SAME AS BASE PLAN
NOISE	NO SIGNIFICANT LONG-TERM IMPACTS	SAME AS BASE PLAN
VISUAL IMPACTS	ENHANCED SCREENING, 3-STORY BUILDING HEIGHTS, LENGTHY SETBACKS AVOID VISUAL IMPACTS: 386,150 S.F. NEW BUILDING AREA INCLUDING NEW ON-SITE STP	[illegible]
HISTORIC AND CULTURAL RESOURCES	NO IMPACTS	SAME AS BASE PLAN
WATER	98,534 gpd	[illegible] gpd
WASTEWATER	[illegible] gpd	[illegible] gpd
NITROGEN LOAD	[illegible] lbs of N/YEAR/ACRE	[illegible] lbs of N/YEAR/ACRE

DRAINAGE CALCULATIONS

[illegible]



ALTERNATIVE PLAN NO. 3

- 120-ROOM HOTEL (30 FEWER THAN PROPOSED ACTION-BASE PLAN)
- 136,000 S.F. MEDICAL OFFICE (6,000 MORE S.F. THAN PROPOSED ACTION-BASE PLAN)
- 250 ASSISTED LIVING UNITS (30 MORE THAN PROPOSED ACTION-BASE PLAN)

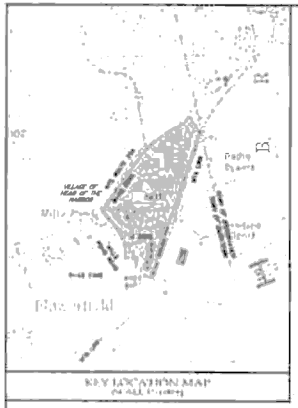
GYRODYNE, LLC
FLOWERFIELD
ST. JAMES, TOWN OF
SMITHTOWN, SUFFOLK
COUNTY, NEW YORK

CAMERON ENGINEERING
& ASSOCIATES, LLP

NOVEMBER 2019

Figure 19-3: Alternative Plan 3

GRAPHIC SCALE



EXISTING AND PROPOSED DEVELOPMENT DATA

LOT NUMBER	LOT SIZE (ACRES)	LAND USE	BUILDING SIZE/FIELD	
1	15.58	EXISTING MIXED-USE BUILDINGS	132,718	S.F.
2	9.084	EXISTING CATERING HALL	34,845	S.F.
3	5.45	PROPOSED ADDITIONAL PARKING	NA	
4	6.28	PROPOSED MEDICAL OR R&D OFFICE	36,500	S.F.
5	4.85	PROPOSED MEDICAL OR R&D OFFICE	38,000	S.F.
6	3.88	PROPOSED MEDICAL OR R&D OFFICE	34,880	S.F.
7	3.50	PROPOSED MEDICAL OR R&D OFFICE	38,750	S.F.
8	3.36	PROPOSED MEDICAL OR R&D OFFICE	38,750	S.F.
9	24.24	PROPOSED COMMON AREA	NA	
TOTAL	79.88			

LANDSCAPE COVERAGE DATA

LOT NUMBER	LANDSCAPE AREA (SQ.FT.)	LOT AREA (ACRES)	PERCENTAGE OF LANDSCAPED AREAS
1	0.29	15.58	21%
2	6.38	9.84	99%
3	0.84	2.15	39%
4	1.37	4.03	50%
5	0.81	4.03	27%
6	2.71	5.84	46%
7	0.42	3.08	30%
8	0.84	3.08	27%
9	20.09	24.01	83%
TOTAL	46.57	79.88	58%

COMPARISON TO BASE PLAN

ENVIRONMENTAL RESOURCE	BASE PLAN/PROPOSED ACTION	ALTERNATIVE 4
GEOLOGY	NO IMPACTS	SAME AS BASE PLAN
SOILS	NO IMPACTS	SAME AS BASE PLAN
TOPOGRAPHY (GRADING AND EXCAVATION AREA FROM BUILDING+PARKING FOOTPRINT)	127,230 S.F. NEW BUILDING FOOTPRINT INCLUDING NEW ON-SITE STP	SLIGHTLY MORE THAN BASE PLAN; 81,333 S.F. NEW BUILDING FOOTPRINT #36,350 S.F. LARGER PARKING AREA NEEDED
VEGETATION AND WILDLIFE	HABITATS CONVERT TO HARDSCAPE OR SUCCESSIONAL FORESTS	SIMILAR TO BASE PLAN AND THE ADDITIONAL OPEN SPACE WOULD TRANSITION TO SUCCESSIONAL FOREST
WASTEWATER TREATMENT	ON-SITE 100 MGD STP	NO STP – NOTABLY LESS SEWERY EFFLUENT TO THE BASE PLAN
TRAFFIC GENERATION	324 TO 336 TRIPS INCLUDING INTERNAL TRIPS	NOTABLY MORE THAN BASE PLAN: 794 TO 887 TRIPS INCLUDING INTERNAL TRIPS
OFF-SITE TRAFFIC MITIGATION	MITIGATING ADVERSE OFF-SITE IMPACTS @ EXISTING CONDITIONS AT 2 LOCATIONS	MORE MITIGATION THAN BASE PLAN
PARKING	1,888 MORE SPACES REQUIRED; SUFFICIENT ON-SITE PARKING INCLUDING SHARED & LAND-BANKED PARKING	1,837 MORE SPACES REQUIRED; 119 MORE THAN BASE PLAN; SUFFICIENT PARKING INCLUDING SHARED & LAND-BANKED
COMMUNITY SERVICES	NO NEW SCHOOL ENROLLMENT; ADDED POLICE+FIRE+EMS AND WATER SERVICE NEEDS	SAME AS BASE PLAN
TAXES AND ECONOMIC IMPACTS	1,507 CONSTRUCTION JOBS; 1,078 POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY	NOTABLY DIFFERENT FROM BASE PLAN: 869 CONSTRUCTION JOBS; 1,044 POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY
OPEN SPACE	+38.5 ACRES 48.7% OF THE SITE	+20.6 ACRES 26.0% OF THE SITE
AIR QUALITY	MINIMAL IMPACTS; ADDRESSED BY SWPP AND STANDARD EROSION & SEDIMENT CONTROL	SAME AS BASE PLAN
NOISE	NO SIGNIFICANT LONG-TERM IMPACTS	SAME AS BASE PLAN
VISUAL IMPACTS	ENHANCED SCREENING; 3-STORY BUILDING HEIGHT; LENGTHY SETBACK AVOID VISUAL IMPACTS; 304,150 S.F. NEW BUILDING AREA INCLUDING NEW ON-SITE STP	SIMILAR TYPE BASE PLAN; ENHANCED SCREENING; 3-STORY BUILDING HEIGHTS; LENGTHY SETBACKS AVOID VISUAL IMPACTS; 244,000 S.F. NEW BUILDING AREA
HISTORIC AND CULTURAL RESOURCES	NO IMPACTS	SAME AS BASE PLAN
WATER AND IRRIGATION	98,534 GPD	51,374 GPD
WASTEWATER	83,534 GPD	43,224 GPD
NITROGEN LOAD	20.4 lbs of N /YEAR/ACRE	8.2 lbs of N /YEAR/ACRE

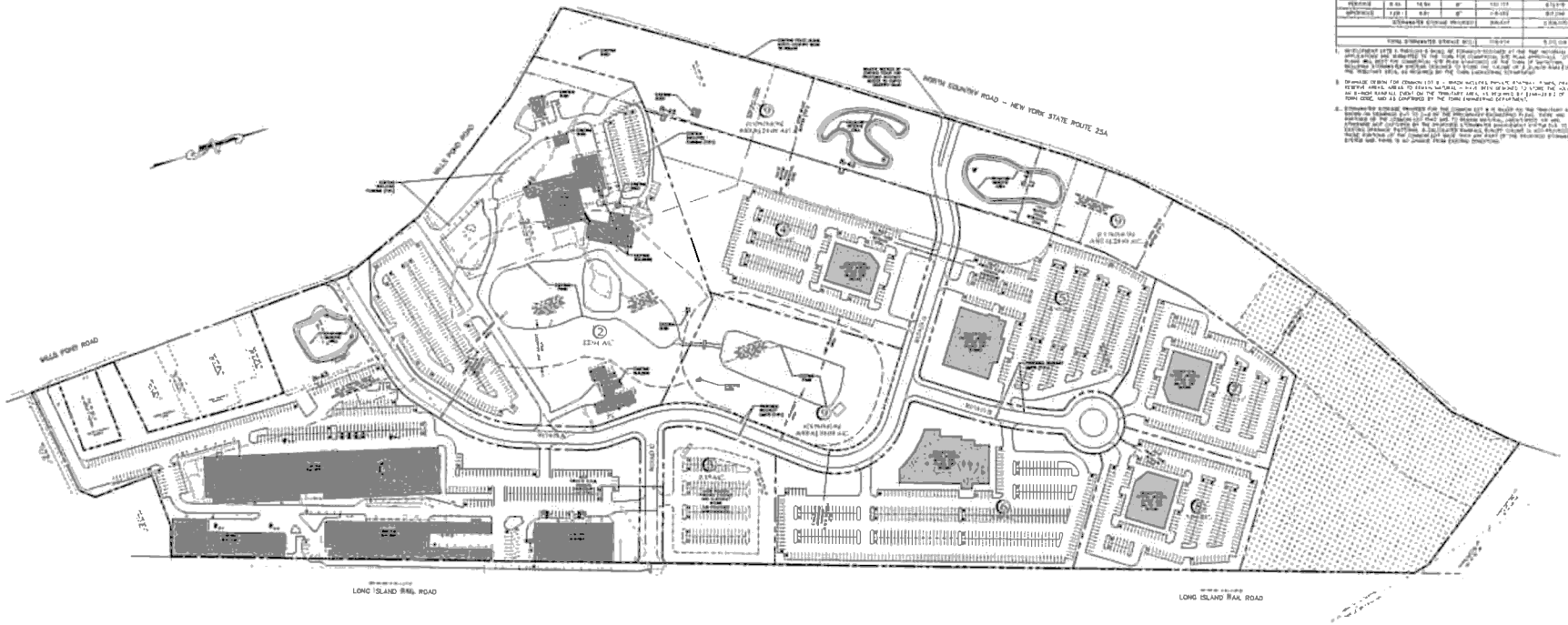
DRAINAGE CALCULATIONS

DESCRIPTION	C	AREA (ACRES)	DEPTH (FT)	VOLUME (CF)	VOLUME (GALLONS)
LOT 1		15.70			
PERVIOUS	0.30	3.06	2"	11,663	86,880
IMPERVIOUS	0.95	8.39	2"	127,216	951,754
STORMWATER STORAGE REQ.				113,063	845,874
LOT 2		12.99			
PERVIOUS	0.30	4.56	2"	25,779	192,920
IMPERVIOUS	0.95	8.43	2"	71,654	536,066
STORMWATER STORAGE REQ.				83,434	624,078
LOT 3		7.15			
PERVIOUS	0.30	2.66	8"	5,744	42,970
IMPERVIOUS	0.95	4.49	8"	19,098	142,908
STORMWATER STORAGE REQ.				24,842	185,878
LOT 4		6.65			
PERVIOUS	0.30	2.31	2"	19,819	87,867
IMPERVIOUS	0.95	4.34	2"	39,471	177,549
STORMWATER STORAGE REQ.				59,290	443,417
LOT 5		6.65			
PERVIOUS	0.30	1.80	2"	9,693	44,028
IMPERVIOUS	0.95	3.96	2"	26,196	195,996
STORMWATER STORAGE REQ.				35,748	267,324
LOT 6		5.59			
PERVIOUS	0.30	2.71	2"	8,954	66,974
IMPERVIOUS	0.95	2.88	2"	25,713	192,340
STORMWATER STORAGE REQ.				34,513	258,164
LOT 7		3.50			
PERVIOUS	0.30	0.67	2"	2,208	16,512
IMPERVIOUS	0.95	2.83	2"	25,240	188,795
STORMWATER STORAGE REQ.				27,448	205,308
LOT 8		3.50			
PERVIOUS	0.30	0.69	2"	2,744	20,527
IMPERVIOUS	0.95	2.58	2"	24,478	183,072
STORMWATER STORAGE REQ.				27,222	203,599
COMMON LOT 9*		24.24			
PERVIOUS AREA REMAINING		5.58			
PERVIOUS	0.30	14.54	8"	102,159	676,948
IMPERVIOUS	0.95	4.24	8"	119,492	893,946
STORMWATER STORAGE REQUIRED				221,651	1,658,895
TOTAL STORMWATER STORAGE REQ.				1,109,914	8,301,018

1. DEVELOPMENT LOTS 1 THROUGH 8 SHALL BE STORMWATER AT THE TIME OF SITE PLAN APPLICATION AND REVIEWED BY THE TOWN ENGINEER. THE FINAL APPROVED SITE PLANS SHALL MEET THE STORMWATER REQUIREMENTS OF THE TOWN CODE AND SHALL INCLUDE STORMWATER SYSTEMS DESIGNED TO STORE THE VOLUME OF RUNOFF FROM ALL OF THE PROPOSED AREAS AS REQUIRED BY THE TOWN ENGINEERING STANDARDS.

2. STORMWATER STORAGE FOR COMMON LOT 9 IS BASED ON THE TOTAL AREA OF THE PROPOSED COMMON AREA, INCLUDING ROADWAYS, PARKING AREAS, AND RESERVE AREAS, AREAS TO BE DEDICATED TO THE TOWN, AND THE VOLUME OF AN 8-INCH RAINFALL EVENT ON THE TRIBUTARY AREA, AS REQUIRED BY THE TOWN CODE, AND AS CONFIRMED BY THE TOWN ENGINEERING DEPARTMENT.

3. STORMWATER STORAGE PROVIDED FOR THE COMMON LOT 9 IS BASED ON THE TOTAL AREA OF THE PROPOSED COMMON AREA, INCLUDING ROADWAYS, PARKING AREAS, AND RESERVE AREAS, AREAS TO BE DEDICATED TO THE TOWN, AND THE VOLUME OF AN 8-INCH RAINFALL EVENT ON THE TRIBUTARY AREA, AS REQUIRED BY THE TOWN CODE, AND AS CONFIRMED BY THE TOWN ENGINEERING DEPARTMENT. STORMWATER STORAGE PROVIDED FOR THE COMMON LOT 9 IS BASED ON THE TOTAL AREA OF THE PROPOSED COMMON AREA, INCLUDING ROADWAYS, PARKING AREAS, AND RESERVE AREAS, AREAS TO BE DEDICATED TO THE TOWN, AND THE VOLUME OF AN 8-INCH RAINFALL EVENT ON THE TRIBUTARY AREA, AS REQUIRED BY THE TOWN CODE, AND AS CONFIRMED BY THE TOWN ENGINEERING DEPARTMENT. A 2.56 ACRE PORTION OF THE COMMERCIAL LOT 9 WAS NOT PART OF THE PROPOSED STORMWATER SYSTEM AND THERE IS NO ONSITE FLOW ENTERING THIS AREA.



ALTERNATIVE PLAN NO. 4

** 244,000 S.F. MEDICAL OFFICE (114,000 MORE S.F. THAN PROPOSED ACTION-BASE PLAN)

** NOTE: THIS ALTERNATIVE IS NOT BEING PROPOSED, AND DOES NOT NECESSARILY REQUIRE A SUBDIVISION

GYRODYNE, LLC
1 FLOWERFIELD
ST. JAMES, TOWN OF SMITHTOWN, SUFFOLK COUNTY, NEW YORK

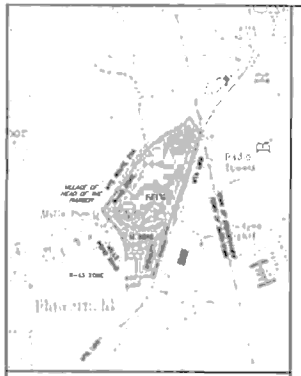
CAMERON ENGINEERING & ASSOCIATES, LLP

JERRY P. LARIE

NOVEMBER 2019

Figure 19-4: Alternative Plan 4

GRAPHIC SCALE



KEY LOCATION MAP
(SCALE: 1"=800')

EXISTING AND PROPOSED DEVELOPMENT DATA			
LOT NUMBER	LOT SIZE (ACRES)	LAND USE	BUILDING COVERAGE
7	13.75	EXISTING SINGLE-FAMILY DWELLING	1,372 SF 0.2
8	12.84	EXISTING EARTHEN BERM	24,880 SF
9	2.75	PROPOSED ADDITIONAL PARKING	NA
a	8.03	PROPOSED LIGHT INDUSTRIAL	150,000 SF
b	4.95	PROPOSED LIGHT INDUSTRIAL	85,000 SF
c	5.85	PROPOSED LIGHT INDUSTRIAL	84,000 SF
d	3.10	PROPOSED LIGHT INDUSTRIAL	61,500 SF
e	3.09	PROPOSED LIGHT INDUSTRIAL	48,000 SF
s	24.89	PROPOSED CONSERVATION AREA	NA
TOTAL	79.26		

LANDSCAPE COVERAGE DATA			
LOT NUMBER	LANDSCAPED AREA (SQ.FEET)	LOT AREA (SQ.FEET)	PERCENTAGE OF LANDSCAPED AREAS
7	3.28	13.75	27%
8	6.35	12.84	49%
a	0.84	2.75	30%
c	3.28	8.03	40%
b	1.84	4.95	37%
e	0.71	5.85	12%
d	0.82	3.10	26%
e	0.94	3.09	30%
s	10.00	24.89	40%
TOTAL	68.57	79.26	86%

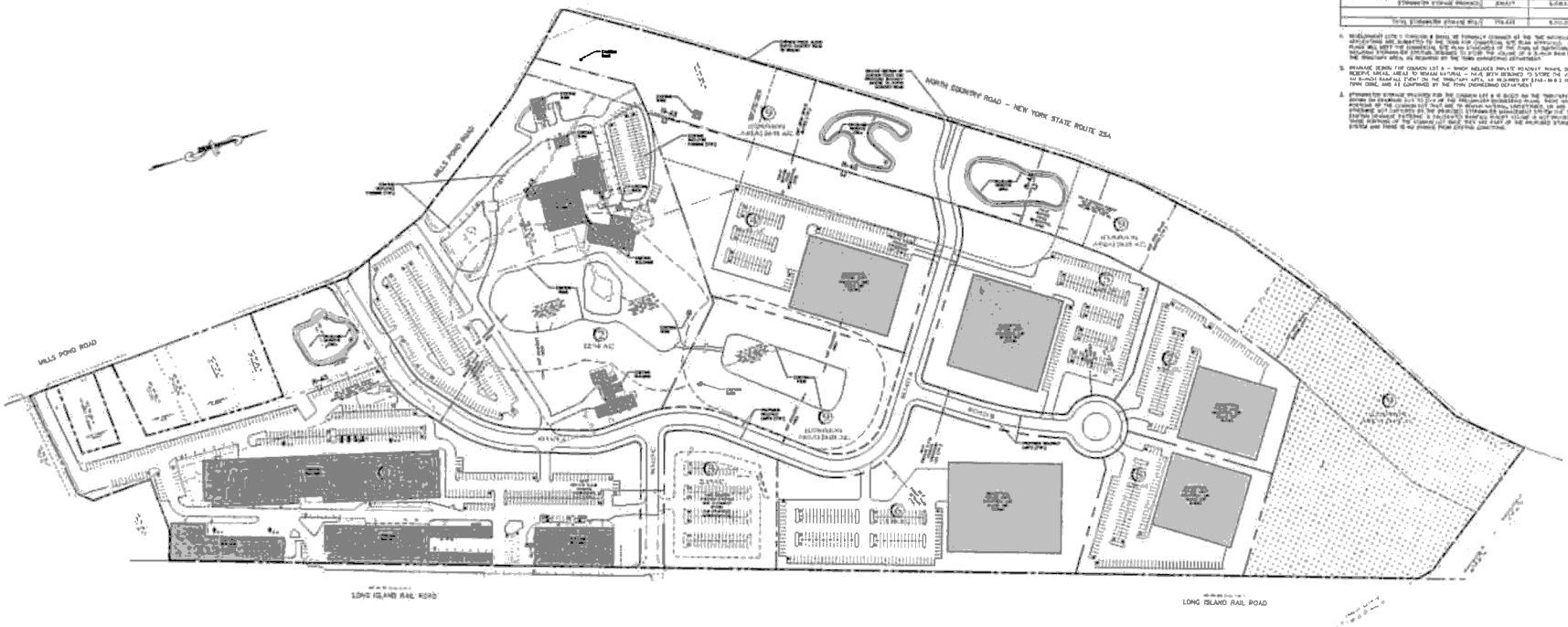
COMPARISON TO BASE PLAN		
ENVIRONMENTAL RESOURCE	BASE PLAN (PROPOSED ACTION)	ALTERNATIVE 5 (NOT PROPOSED)
GEOLOGY	NO IMPACTS	SAME AS BASE PLAN
SOILS	NO IMPACTS	SAME AS BASE PLAN
TOPOGRAPHY (GRADING AND EXCAVATION AREA FROM BUILDING+PARKING FOOTPRINT)	637,350 S.F. NEW BUILDING FOOTPRINT INCLUDING NEW ON-SITE STP	SIGNIFICANTLY LESS THAN BASE PLAN: 363,500 S.F. NEW BUILDING FOOTPRINT 1,145,350 S.F. SMALLER PARKING AREA NEEDED
VEGETATION AND WILDLIFE	HABITATS CONVERT TO HARDSCAPE OR SUCCESSIONAL FORESTS	SIMILAR TO BASE PLAN AND THE FOOTPRINT OF OPEN SPACE WOULD TRANSITION TO SUCCESSIONAL FOREST
WASTEWATER TREATMENT	ON-SITE 130,000 GPD STP	130 STP = NOTABLY LESS ENERGY EXPENDED TO THE BASE PLAN
TRAFFIC GENERATION	224 TO 238 TRIPS INCLUDING INTERNAL TRIPS	FEWER THAN BASE PLAN: 157 TO 260 TRIPS, BUT MUCH HIGHER TRUCK COMPONENT OF 147 TO 176 TRUCKS PER HOUR (NOTE: THIS IS THE ONLY ALTERNATIVE WITH NOTABLY HIGHER TRUCK TRIP GENERATION THAN THE BASE PLAN)
OFF-SITE TRAFFIC MITIGATION	MITIGATION ADDRESSES OFF-SITE IMPACTS AT EXISTING CONCERNS AT 2 LOCATIONS	SIMILAR SAME MITIGATION AS BASE PLAN
PARKING	1,186 WORK SPACES REQUIRED SUFFICIENT ON-SITE PARKING INCLUDING SHARED & LAND-BANKED PARKING	763 WORK SPACES REQUIRED 488 FEWER THAN BASE PLAN; SUFFICIENT PARKING ON-SITE
COMMUNITY SERVICES	NO NEW SCHOOL CHILDREN; ADDED POLICE-FIRE-EMS AND UTILITY SERVICE NEEDS	SAME AS BASE PLAN
FISCAL AND ECONOMIC IMPACTS	1,507 CONSTRUCTION JOBS; 1,076 POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY	NOTABLY SMALLER THAN BASE PLAN: 781 CONSTRUCTION JOBS; 771 POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY
OPEN SPACE	4.38 ± ACRES 46.7% OF THE SITE	17.60 ACRES 27.2% OF THE SITE
AIR QUALITY	GENERAL IMPACTS, ADDRESSED BY SHARP AND STANDARD EROSION & SEDIMENT CONTROL	SAME AS BASE PLAN
NOISE	NO SIGNIFICANT LONG-TERM IMPACTS	SAME AS BASE PLAN
VISUAL IMPACTS	ENHANCED SCREENING, 2-STORY BUILDING HEIGHT, LENGTHY SETBACKS & AVOID VISUAL IMPACTS; 709,150 S.F. NEW BUILDING AREA INCLUDING NEW ON-SITE STP	SMALLER THAN BASE PLAN: ENHANCED SCREENING, 1-STORY BUILDING HEIGHTS, LENGTHY SETBACKS AVOID VISUAL IMPACTS; 382,500 S.F. NEW BUILDING AREA
HISTORIC AND CULTURAL RESOURCES	NO IMPACTS	SAME AS BASE PLAN
WATER AND IRRIGATION	68.5 ± gpm	43.4 ± gpm
SANITARY	87.5 ± gpd	24.3 ± gpd
NITROGEN LOAD	23.4 ± lbs of N /lbs/yr/acre	9.4 ± lbs of N /lbs/yr/acre

DRAINAGE CALCULATIONS					
DESCRIPTION	C	I (IN/HR)	D (HR)	VOLUME (CF)	VOLUME (GALLONS)
LOT 1		12.75			
RUNOFF	0.80	2.36	6"	190,811	1,427,468
IMPERVIOUS	1.00	2.36	6"	142,209	1,063,594
			STORAGE REQ'D	113,583	849,892
LOT 2		12.84			
RUNOFF	0.80	2.36	6"	192,196	1,437,628
IMPERVIOUS	1.00	2.36	6"	71,604	535,498
			STORAGE REQ'D	83,939	628,018
LOT 3		2.75			
RUNOFF	0.80	2.36	6"	9,798	73,307
IMPERVIOUS	1.00	2.36	6"	14,196	106,198
			STORAGE REQ'D	17,245	129,008
LOT a		8.03			
RUNOFF	0.80	2.36	6"	115,914	867,167
IMPERVIOUS	1.00	2.36	6"	76,521	572,504
			STORAGE REQ'D	92,217	689,671
LOT b		4.95			
RUNOFF	0.80	2.36	6"	71,434	534,403
IMPERVIOUS	1.00	2.36	6"	47,190	353,046
			STORAGE REQ'D	57,063	426,878
LOT c		5.85			
RUNOFF	0.80	2.36	6"	84,414	631,572
IMPERVIOUS	1.00	2.36	6"	55,764	417,183
			STORAGE REQ'D	67,478	504,844
LOT d		3.10			
RUNOFF	0.80	2.36	6"	44,727	334,617
IMPERVIOUS	1.00	2.36	6"	29,547	221,052
			STORAGE REQ'D	35,758	267,503
LOT e		3.09			
RUNOFF	0.80	2.36	6"	44,569	333,429
IMPERVIOUS	1.00	2.36	6"	29,445	220,308
			STORAGE REQ'D	35,648	266,668
COMMON LOT #7		24.89			
REMAINING AREA WITHOUT		2.75			
RUNOFF	0.80	19.84	6"	358,159	2,679,428
IMPERVIOUS	1.00	4.21	6"	126,436	945,796
			STORAGE REQ'D	206,617	1,546,439
TOTAL STORAGE REQ'D				778,433	5,823,838

a. MISCELLANEOUS LOTS 1 THROUGH 9 SHALL BE FORMALLY DESIGNED AT THE TIME INDIVIDUAL APPLICATIONS ARE SUBMITTED TO THE TOWN FOR CONSTRUCTION SITE PLAN APPROVAL. SITE PLANS WILL MEET THE COMMERCIAL SITE PLAN STANDARDS OF THE TOWN OF SMITHTOWN, INCLUDING STORMWATER MITIGATION MEASURES TO PROVIDE THE VOLUME OF 6.5-INCH RAIN EVENT ON THE PROPERTY AFTER, AS REQUIRED BY THE TOWN ENGINEERING DEPARTMENT.

b. DRAINAGE DESIGN FOR COMMON LOT 6 – SHOW INCLUDES PRIVATE ROADWAY, DRAINAGE RESERVE AREAS, AREAS TO REMAIN NATURAL – HAS BEEN DESIGNED TO STORE THE VOLUME OF 6.5-INCH RAINFALL EVENT ON THE TRIBUTARY AREA, AS REQUIRED BY §348-38 B.2 OF THE TOWN CODE, AND AS CONFIRMED BY THE TOWN ENGINEERING DEPARTMENT.

c. STORMWATER STORAGE PROVIDED FOR THE COMMON LOT 6 IS BASED ON THE TRIBUTARY AREA AS SHOWN ON DRAWINGS SCH TO SCH OF THE PRELIMINARY SUBDIVISION PLANS. THESE AREAS INCLUDE PORTIONS OF THE COMMON LOT THAT ARE TO REMAIN NATURAL, LANDSCAPED, OR ARE OTHERWISE NOT IMPACTED BY THE PROPOSED STORMWATER MANAGEMENT SYSTEM DUE TO EXISTING TOPOGRAPHIC PATTERNS & SUBSURFACE BEDROCK. DIRECT VOLUME IS NOT PROVIDED FOR THESE AREAS AS THE FLOWS FROM THEY ARE NOT PART OF THE PROPOSED STORMWATER SYSTEM AND THERE IS NO IMPACT FROM EXISTING CONDITIONS.



ALTERNATIVE PLAN NO. 5

** 382,500 S.F. GENERAL LIGHT INDUSTRIAL

** NOTE: THIS ALTERNATIVE IS NOT BEING PROPOSED, AND DOES NOT NECESSARILY REQUIRE A SUBDIVISION

GYRODYNE, LLC
FLOWERFIELD
ST. JAMES, TOWN OF
SMITHTOWN, SUFFOLK
COUNTY, NEW YORK

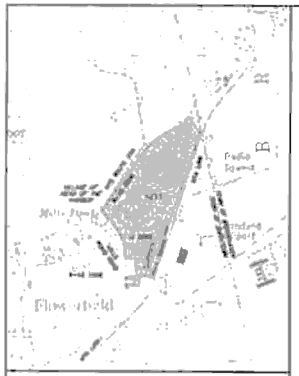
CAMERON ENGINEERING & ASSOCIATES LLP

JERRY P. LaRIE

NOVEMBER 2019

Figure 19-5: Alternative Plan 5

GRAPHIC SCALE



KEY LOCATION MAP

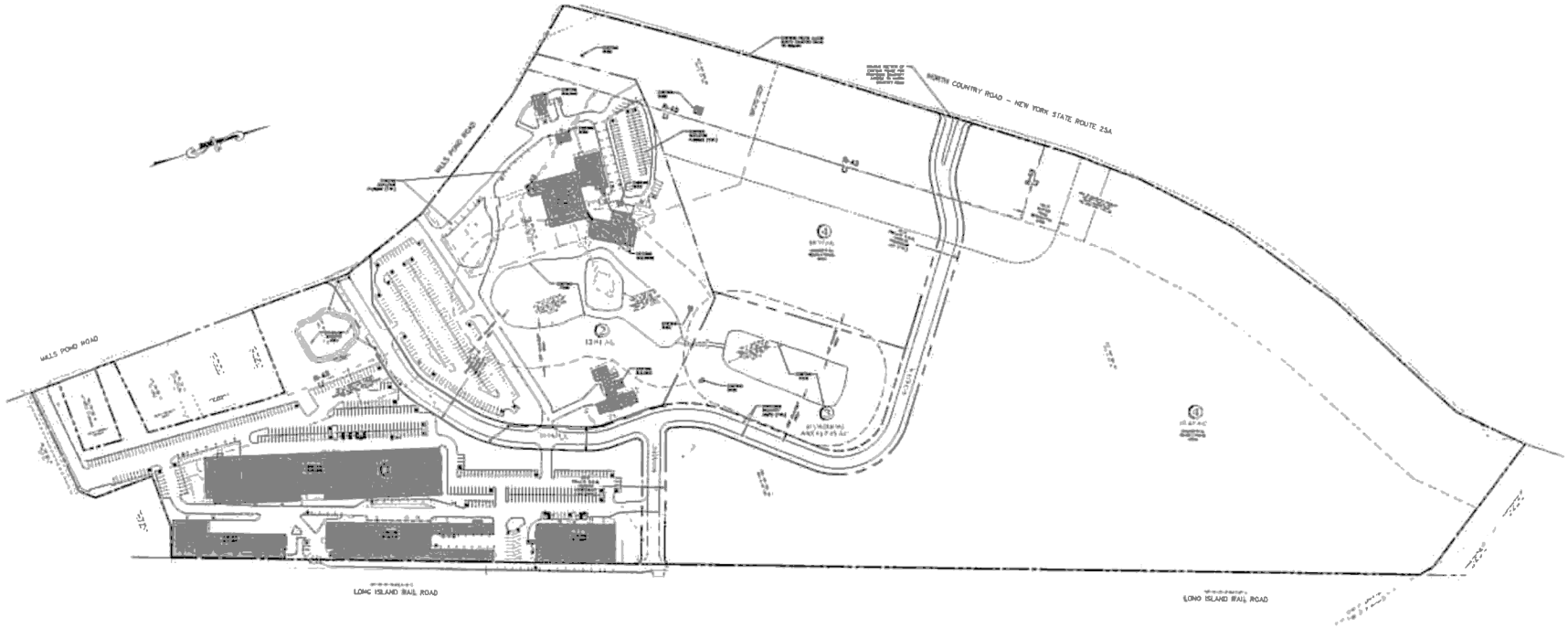
EXISTING AND PROPOSED DEVELOPMENT DATA			
SITE NUMBER	SITE SIZE (ACRES)	LAND USE	BUILDING SIZE/USE
1	19.70	OWNERS WATERFRONT RESIDENCE	13,378 S.F.
2	17.94	EXISTING CATERING HALL	24,660 S.F.
3	7.46	PROPOSED TOWNHOUSE AREA	N/A
4	41.69	CONCEPTUAL RECREATIONAL AREA	N/A
TOTAL	86.79		

LANDSCAPE COVERAGE DATA			
SITE NUMBER	LANDSCAPE AREA (ACRES)	SITE AREA (ACRES)	PERCENTAGE OF LANDSCAPED AREAS
1	2.36	19.75	27%
2	8.36	17.94	46%
3	3.84	7.46	51%
4	28.16	41.69	67%
TOTAL	38.72	86.84	45%

COMPARISON TO BASE PLAN		
ENVIRONMENTAL RESOURCE	BASE PLAN/PROPOSED ACTION	ALTERNATIVE 6
GEOLOGY	NO IMPACTS	SAME AS BASE PLAN
SOILS	NO IMPACTS	SAME AS BASE PLAN
TOPOGRAPHY (GRADING AND EXCAVATION AREA FROM BUILDING+PARKING FOOTPRINT)	137,330 S.F. NEW BUILDING FOOTPRINT INCLUDING NEW ON-SITE STP	LESS THAN BASE PLAN: SIMILAR NEW BUILDING FOOTPRINT AND 9,420,000 S.F. SMALLER PARKING AREA INDICED
VEGETATION AND WILDLIFE	HABITATS CONVERT TO HARDSCAPE OR SUCCESSIONAL FORESTS	SIMILAR TO BASE PLAN AND THE WOODLAND, OPEN SPACE WOULD TRANSITION TO SUCCESSIONAL FOREST
WASTEWATER TREATMENT	ON-SITE 100 MOD STP	NO DIFF - ALTHOUGH LESS BENEFIT COMPARED TO THE BASE PLAN
TRAFFIC GENERATION	334 TO 536 TRIPS HOURLY INTERVAL TRIPS	FEWER THAN PROPOSED ACTION
OFF-SITE TRAFFIC MITIGATION	MITIGATION ADDRESSES OFF-SITE IMPACTS & EXISTING DEFICIENCIES AT 9 LOCATIONS	LESS MITIGATION THAN THE BASE PLAN
PARKING	1,900 MORE SPACES REQUIRED SUFFICIENT ON-SITE PARKING INCLUDING SHARED & LAND-BANKED PARKING	6,800 MORE PARKING SPACES REQUIRED 3,500 FEWER THAN BASE PLAN
COMMUNITY SERVICES	NO NEW SCHOOL CHILDREN ADDED POLICE+FIRE+EMS AND UTILITY SERVICE NEEDS	NO NEW SCHOOL CHILDREN, LIKE BASE PLAN, LESS DEMAND ON SERVICES THAN BASE PLAN
TAXES AND ECONOMIC IMPACTS	+$2M CONSTRUCTION JOBS; +$17M POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY	NEITHER A SMALLER THAN BASE PLAN; NEW CONSTRUCTION JOBS AND $5M IN JOBS POST-CONSTRUCTION JOBS; TAX NEGATIVE FROM ADDED MUNICIPAL COSTS AND REMOVING LAND FROM THE TAX ROLL
OPEN SPACE	43.8 ACRES 46.7% OF THE SITE	43.8 ACRES 46.7% OF THE SITE
AIR QUALITY	ORGANIC IMPACTS, ADDRESSED BY EARTH AND STORMWATER EROSION & SEDIMENT CONTROLS	SAME AS BASE PLAN
NOISE	NO SIGNIFICANT LONG-TERM IMPACTS	SAME AS BASE PLAN
VISUAL IMPACTS	ENHANCED SCREENING, 3-STORY BUILDING HEIGHTS, LENGTHY SETBACKS AVOID VISUAL IMPACTS; 394,150 S.F. NEW BUILDING AREA INCLUDING NEW ON-SITE STP	SMALLER THAN PROPOSED ACTION: LESS NEW BUILDING AREA AND GREATER SETBACKS
HISTORIC AND CULTURAL RESOURCES	NO IMPACTS	SAME AS BASE PLAN
WATER AND IRRIGATION	98,536 gpd	21,834 gpd
WASTEWATER	87,224 gpd	19,834 gpd
NITROGEN LOAD	22.4 lbs of N /YEAR/ACRE	10.6 lbs of N /YEAR/ACRE

DRAINAGE CALCULATIONS					
DESCRIPTION	C	T_c (MIN)	I (IN/HR)	VOLUME (CF)	VOLUME (GALLONS)
LOT 1					
PERVIOUS	0.20	10.00	5"	11,243	83,988
IMPERVIOUS	0.90	5.00	6"	15,008	112,156
		STORAGE REQUIRED (CF)		26,250	196,144
LOT 2					
PERVIOUS	0.20	10.00	5"	10,078	75,310
IMPERVIOUS	0.90	5.00	6"	13,450	100,496
		STORAGE REQUIRED (CF)		23,528	175,806
LOT 3					
PERVIOUS	0.20	10.00	5"	3,744	27,977
IMPERVIOUS	0.90	5.00	6"	4,995	37,323
		STORAGE REQUIRED (CF)		8,739	65,299
LOT 4					
PERVIOUS	0.20	10.00	5"	217,872	1,628,580
IMPERVIOUS	0.90	10.00	6"	48,848	365,068
		STORAGE REQUIRED (CF)		266,720	1,993,648
		TOTAL STORAGE REQUIRED		325,236	2,430,897

1. DEVELOPMENT LOTS 1 THROUGH 3 SHALL BE FORMALLY DESIGNED AT THE TIME INDIVIDUAL APPLICATIONS ARE SUBMITTED TO THE TOWN FOR CONSIDERED SITE PLAN APPROVALS. SITE PLANS SHALL MEET THE STORMWATER AND FLOOD REGULATIONS OF THE TOWN OF SOUTHOLD, INCLUDING THE REQUIREMENT TO RETAIN THE RUNOFF VOLUME OF A 5-INCH RAIN EVENT ON THE INDIVIDUAL LOTS, AS REQUIRED BY THE TOWN ENGINEERING DEPARTMENT.
6. DRAINAGE DESIGN FOR LOT 4 – WHICH INCLUDES PRIVATE ROADWAY, POND, DRAINAGE RESERVE AREAS, AREAS TO REMAIN NATURAL – HAVE BEEN DESIGNED TO STORE THE VOLUME OF AN 8-INCH RAINFALL EVENT ON THE PROPERTY WITH, AS PROPOSED IN §144-20.2 OF THE TOWN CODE, AND AS CONFIRMED BY THE TOWN ENGINEERING DEPARTMENT.



ALTERNATIVE PLAN NO. 6

- PUBLIC ENTITY ACQUIRES AND SUBDIVIDES VACANT AREAS FOR PUBLIC (RECREATIONAL?) USE
- NOTE: THIS ALTERNATIVE IS NOT BEING PROPOSED

GYRODYNE, LLC
FLOWERFIELD
ST. JAMES, TOWN OF
SMITHTOWN, SUFFOLK
COUNTY, NEW YORK

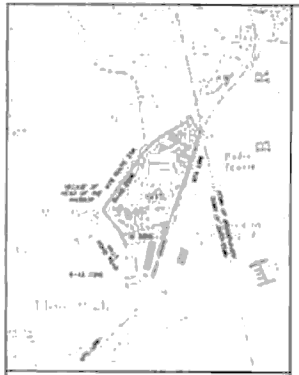
CULLEN PACKARD & ASSOCIATES, LLP

JERRY P. LABIE

NOVEMBER 2019

Figure 19-6: Alternative Plan 6

GRAPHIC SCALE



KEY LOCATION MAP

EXISTING AND PROPOSED DEVELOPMENT DATA

LOT NUMBER	LOT SIZE (ACRES)	LAND USE	BUILDING SIZE/YIELD
1	13.79	EXISTING MIXED-USE BUILDING	131,718 S.F.
2	12.84	EXISTING CATERING HALL	24,685 S.F.
3	2.16	PROPOSED ADDITIONAL PARKING	NA
4	9.89	PROPOSED HOTEL w/RESTAURANT	98,705 S.F. 125 ROOMS
5	9.51	PROPOSED MEDICAL OR P&O OFFICE	82,000 S.F.
6	8.84	PROPOSED MEDICAL OR P&O OFFICE	75,000 S.F.
7	3.49	PROPOSED ASSISTED LIVING	147,800 S.F. 240 UNITS
8	23.91	PROPOSED COMMON AREA AND STP	2,950 S.F.
TOTAL	74.64		

LANDSCAPE COVERAGE DATA

LOT NUMBER	LANDSCAPE AREA (ACRES)	LOT AREA (ACRES)	PERCENTAGE OF LANDSCAPED AREAS
1	7.34	13.79	53%
2	6.35	12.84	49%
3	1.60	2.16	74%
4	3.07	9.89	31%
5	2.56	9.51	27%
6	4.39	8.84	50%
7	1.80	3.49	52%
8	23.28	23.91	97%
TOTAL	50.39	77.69	65%

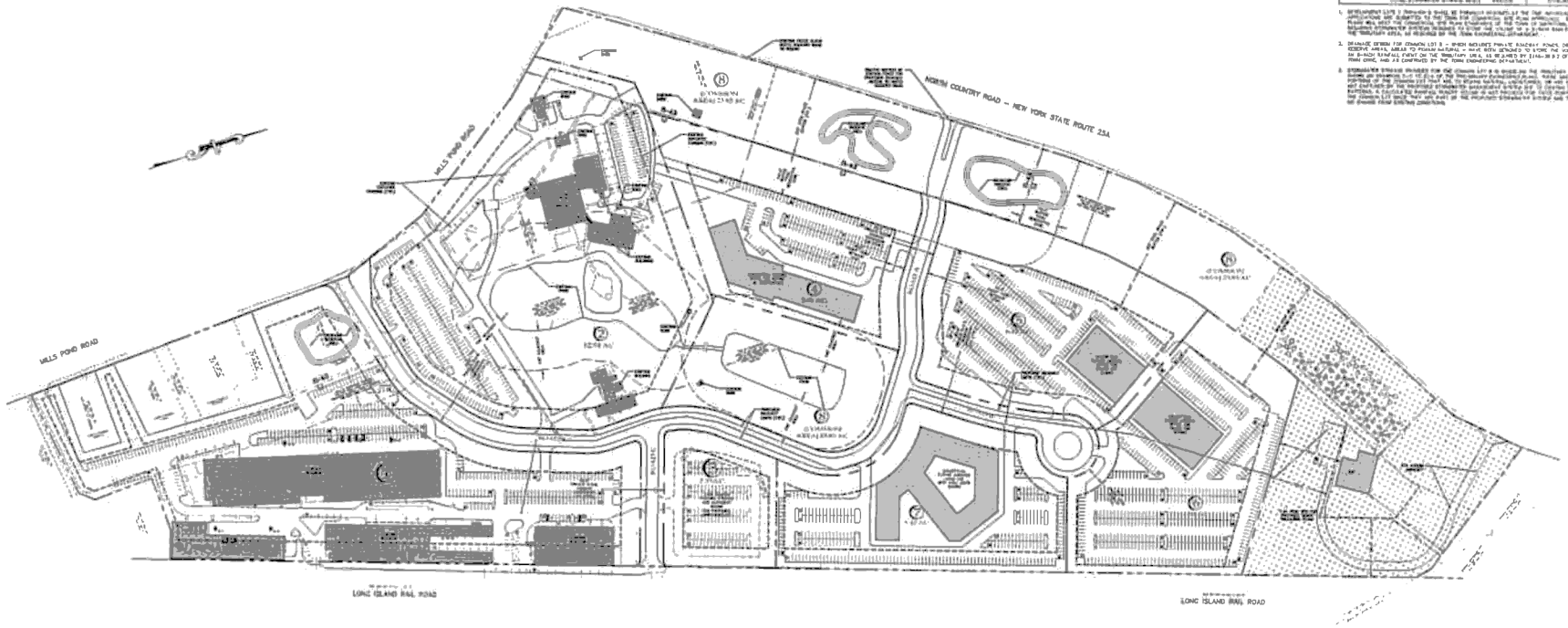
COMPARISON TO BASE PLAN

ENVIRONMENTAL RESOURCE	BASE PLAN/PROPOSED ACTION	ALTERNATIVE 7
GEOLOGY	NO IMPACTS	SAME AS BASE PLAN
SOILS	NO IMPACTS	SAME AS BASE PLAN
TOPOGRAPHY (GRADING AND EXCAVATION AREA FROM BUILDING+PARKING FOOTPRINT)	127,350 S.F. NEW BUILDING FOOTPRINT INCLUDING NEW ON-SITE STP	SLIGHTLY LESS THAN BASE PLAN 133,163 S.F. NEW BUILDING FOOTPRINT 110,930 S.F. SMALLER PARKING AREA NEEDED
VEGETATION AND WILDLIFE	HABITATS CONVERT TO HARDSCAPE OR SUCCESSIONAL FORESTS	SIMILAR TO BASE PLAN AND THE ADDITIONAL OPEN SPACE WOULD TRANSITION TO SUCCESSIONAL FOREST
GROUNDWATER RECHARGE	[illegible]	SAME AS BASE PLAN
TRAFFIC GENERATION	228 TO 238 TRIPS INCLUDING INTERNAL TRIPS	SIMILAR TO PROPOSED ACTION; 310 TO 317 TRIPS INCLUDING INTERNAL TRIPS
OFFSITE TRAFFIC MITIGATION	MITIGATION ADDRESSES OFF-SITE IMPACTS	SAME MITIGATION AS BASE PLAN
PARKING	1,606 SPACES REQUIRED SUFFICIENT ON-SITE PARKING INCLUDING SHARED & LAND-BANKED PARKING	1,606 MORE SPACES REQUIRED SIMILAR TO BASE PLAN; SUFFICIENT PARKING INCLUDING SHARED & LAND-BANKED PARKING
COMMUNITY SERVICES	NO NEW SCHOOL CHILDREN ADDED POLICE-FIRE-EMS AND UTILITY SERVICES	SAME AS BASE PLAN
TAXES AND ECONOMIC IMPACTS	1,967 CONSTRUCTION JOBS; 1,215 OPERATING JOBS; TAX POSITIVE TO ALL ENTITIES	SIMILAR TO BASE PLAN 1,507 CONSTRUCTION JOBS; 1,077 OPERATING JOBS; TAX POSITIVE TO ALL ENTITIES
OPEN SPACE	8.75 ACRES AS % OF THE SITE	8.70 ACRES 7% OF THE SITE
AIR QUALITY	[illegible] IMPACTS, ADDRESSED BY SUBPART 360 STANDARD EMISSION & TECHNOLOGY CONTROL	SAME AS PROPOSED ACTION
NOISE	NO SIGNIFICANT LONG-TERM IMPACTS	SAME AS PROPOSED ACTION
VISUAL IMPACTS	[illegible] SCREENING, 3-STORY BUILDING HEIGHTS (EXCEPT ALTERNATE ALONG VISUAL IMPACTS 286,150 S.F. NEW BUILDING AREA INCLUDING NEW ON-SITE STP	SAME AS OR SIMILAR TO PROPOSED ACTION; 348,431 S.F. NEW BUILDING AREA
HISTORIC AND CULTURAL RESOURCES	NO IMPACTS	SAME AS PROPOSED ACTION
WATER AND IRRIGATION	[illegible] gpd	[illegible] gpd
WASTEWATER	[illegible] gpd	[illegible] gpd
EMISSION LEVELS	[illegible] lbs of N/YEAR/ACRE	[illegible] lbs of N/YEAR/ACRE

DRAINAGE CALCULATIONS

DESCRIPTION	C	Tc (HOURS)	I (IN/HR)	VOLUME (CF)	VOLUME (GALLONS)
LOT 1		15.75			
PERVIOUS	0.20	0.00	8"	[illegible]	[illegible]
IMPERVIOUS	0.90	0.17	8"	[illegible]	[illegible]
			STORMWATER STORAGE REQ'D	[illegible]	[illegible]
LOT 2		12.84			
PERVIOUS	0.20	0.00	8"	[illegible]	[illegible]
IMPERVIOUS	0.90	0.19	8"	[illegible]	[illegible]
			STORMWATER STORAGE REQ'D	[illegible]	[illegible]
LOT 3		2.16			
PERVIOUS	0.20	0.00	8"	[illegible]	[illegible]
IMPERVIOUS	0.90	0.07	8"	[illegible]	[illegible]
			STORMWATER STORAGE REQ'D	[illegible]	[illegible]
LOT 4		9.89			
PERVIOUS	0.20	0.00	8"	[illegible]	[illegible]
IMPERVIOUS	0.90	0.16	8"	[illegible]	[illegible]
			STORMWATER STORAGE REQ'D	[illegible]	[illegible]
LOT 5		9.51			
PERVIOUS	0.20	0.00	8"	[illegible]	[illegible]
IMPERVIOUS	0.90	0.16	8"	[illegible]	[illegible]
			STORMWATER STORAGE REQ'D	[illegible]	[illegible]
LOT 6		8.84			
PERVIOUS	0.20	0.00	8"	[illegible]	[illegible]
IMPERVIOUS	0.90	0.15	8"	[illegible]	[illegible]
			STORMWATER STORAGE REQ'D	[illegible]	[illegible]
LOT 7		3.49			
PERVIOUS	0.20	0.00	8"	[illegible]	[illegible]
IMPERVIOUS	0.90	0.08	8"	[illegible]	[illegible]
			STORMWATER STORAGE REQ'D	[illegible]	[illegible]
JOHNSON LOT 8*		24.00			
PERVIOUS AREA		9.00			
PERVIOUS	0.20	14.64	8"	[illegible]	[illegible]
IMPERVIOUS	0.90	9.21	8"	[illegible]	[illegible]
			STORMWATER STORAGE REQ'D	[illegible]	[illegible]
			TOTAL STORMWATER STORAGE REQ'D	[illegible]	[illegible]

1. DEVELOPMENT LOTS 1 THROUGH 7 SHALL BE FURNISHED WITH ONE OR MORE RECHARGE BASINS AS SHOWN ON THE SITE PLAN AND AS APPROVED BY THE PLANNING BOARD AND THE TOWN ENGINEER. THE FINAL SITE PLAN SHALL MEET THE REQUIREMENTS OF THE SITE PLAN STANDARDS OF THE TOWN OF SMITHTOWN. RECHARGE STORAGE FOR EXISTING DEVELOPED AREAS SHALL BE BASED ON THE VOLUME OF A 2-INCH RAINFALL EVENT ON THE TRIBUTARY AREA, AS REQUIRED BY §144-38.B.2 OF THE TOWN CODE, AND AS CONFIRMED BY THE TOWN ENGINEERING DEPARTMENT.
2. DRAINAGE DESIGN FOR JOHNSON LOT 8 – WHEN INCLUDES PRIVATE RECHARGE PONDS, DRAINAGE RECEIVING AREAS, SIMILAR TO POND NUMBER 1 – WAS BASED ON STORING THE VOLUME OF AN 8-INCH RAINFALL EVENT ON THE TRIBUTARY AREA, AS REQUIRED BY §144-38.B.2 OF THE TOWN CODE, AND AS CONFIRMED BY THE TOWN ENGINEERING DEPARTMENT.
3. STORMWATER STORAGE PROVIDED FOR THE JOHNSON LOT 8 IS BASED ON THE TRIBUTARY AREA AS SHOWN ON DRAWING SHT. NO. C2.0 OF THE PRELIMINARY SUBDIVISION PLAN, DATED [illegible], PREPARED BY THE ENGINEER OF RECORD FOR THE PROJECT. THE PROPOSED STORMWATER MANAGEMENT SYSTEM WILL CONSIST OF [illegible] RECHARGE BASINS. A CALCULATED RUNOFF VOLUME IS NOT PROVIDED FOR THESE PORTIONS OF THE JOHNSON LOT SINCE THEY ARE PART OF THE PROPOSED STORMWATER SYSTEM AND THERE IS NO CHANGE FROM EXISTING CONDITIONS.



ALTERNATIVE PLAN NO. 7 (COMPLIES WITH UN-ADOPTED DRAFT CPU)

- 125-ROOM HOTEL (25 FEWER ROOMS THAN THE PROPOSED ACTION-BASE PLAN)
- 128,000 S.F. MEDICAL OFFICE (2,000 S.F. SMALLER THAN THE PROPOSED ACTION-BASE PLAN)
- 240 ASSISTED LIVING UNITS (20 MORE THAN THE PROPOSED ACTION-BASE PLAN)

GYRODYNE, LLC
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ST. JAMES, TOWN OF
SMITHTOWN, SUFFOLK
COUNTY, NEW YORK

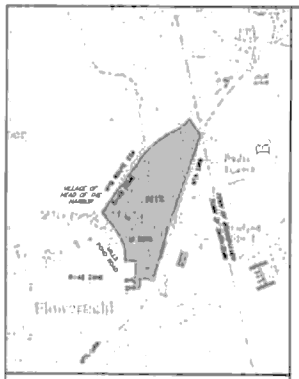
CAMERON ENGINEERING & ASSOCIATES, LLP

JERRY P. LaBRIE

NOVEMBER 2019

Figure 19-7: Alternative Plan 7

GRAPHIC SCALE



KEY LOCATION MAP
(± MILE FROM)

EXISTING AND PROPOSED DEVELOPMENT DATA

LOT NUMBER	LOT SIZE (ACRES)	LAND USE	BUILDING SIZE/YIELD
1	12.75	EXISTING MIXED-USE BUILDING	102,918 S.F.
2	12.60	EXISTING CATERING HALL	34,685 S.F.
3	5.78	PROPOSED ADDITIONAL PARKING	N/A
4	8.82	PROPOSED HOTEL WITH RESTAURANT	150,000 S.F. 150 ROOMS
5	4.82	PROPOSED MEDICAL OR R&D OFFICE	65,000 S.F.
6	5.82	PROPOSED MEDICAL OR R&D OFFICE	64,000 S.F.
7	5.82	PROPOSED ASSISTED LIVING	74,000 S.F. 110 UNITS
8	5.06	PROPOSED ASSISTED LIVING	74,000 S.F. 110 UNITS
9	34.01	PROPOSED STORAGE AREA AND STP	1,200 S.F.
TOTAL	74.88		

LANDSCAPE COVERAGE DATA

LOT NUMBER	LANDSCAPE AREA (ACRES)	LOT AREA (ACRES)	PERCENTAGE OF LANDSCAPED AREAS
1	3.39	12.75	27%
2	7.34	12.60	44%
3	4.89	5.78	34%
4	3.74	8.82	42%
5	1.27	4.82	26%
6	1.00	5.82	23%
7	4.46	5.82	41%
8	1.27	5.06	25%
9	28.09	34.01	83%
TOTAL	56.67	84.86	67%

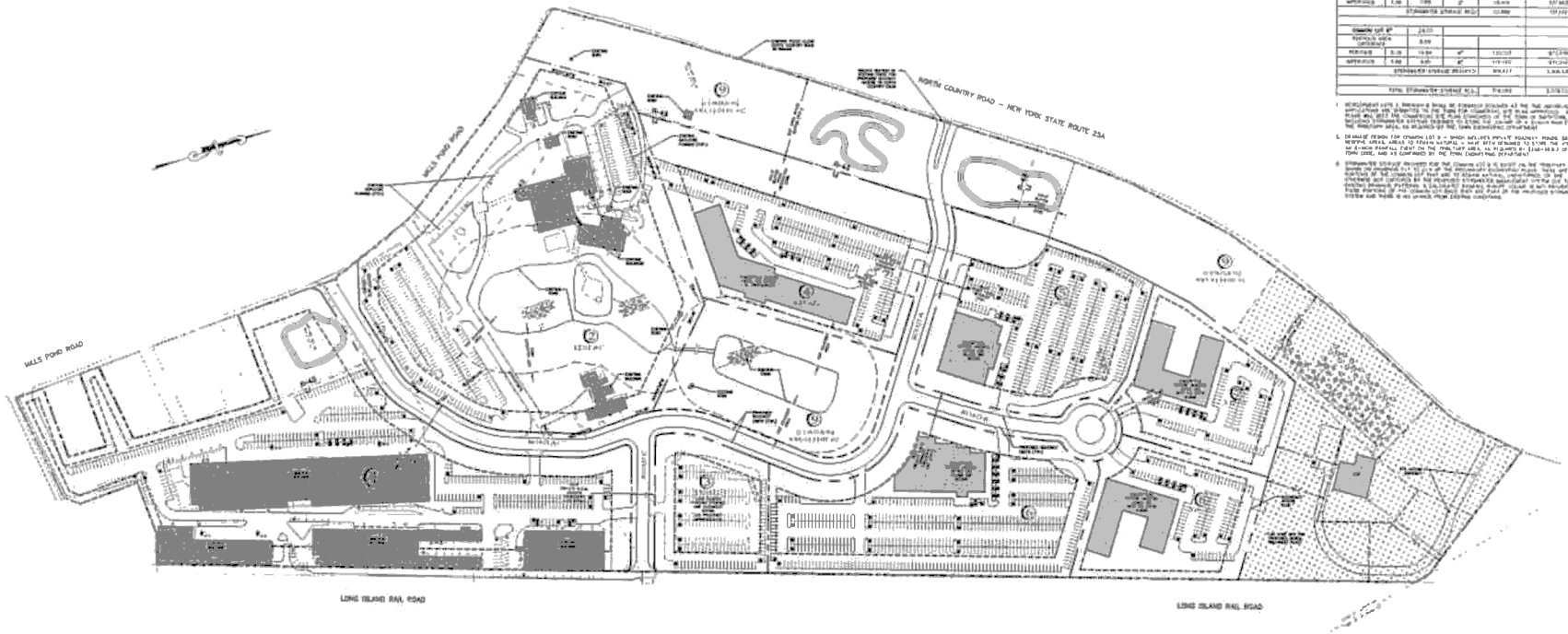
COMPARISON TO BASE PLAN

ENVIRONMENTAL RESOURCE	BASE PLAN/PROPOSED ACTION	ALTERNATIVE 8
GEOLOGY	NO IMPACTS	NO IMPACTS
SOILS	NO IMPACTS	NO IMPACTS
TOPOGRAPHY (GRADING AND EXCAVATION AREA FROM BUILDING+PARKING FOOTPRINT)	127,350 S.F. NEW BUILDING FOOTPRINT INCLUDING NEW ON-SITE STP	SAME AS BASE PLAN 137,350 S.F. NEW BUILDING FOOTPRINT
VEGETATION AND WILDLIFE	HABITATS CONVERT TO HARDSCAPE OR SUCCESSIONAL FORESTS	HABITATS CONVERT TO HARDSCAPE OR SUCCESSIONAL FORESTS
WASTEWATER TREATMENT	On-SITE 100 MGD STP	On-SITE 100 MGD STP
TRAFFIC GENERATION	324 TO 538 TRIPS INCLUDING INTERNAL TRIPS	324 TO 538 TRIPS INCLUDING INTERNAL TRIPS
OFF-SITE TRAFFIC MITIGATION	MITIGATION ADDRESSES OFF-SITE IMPACTS @ EXISTING SIGNALIZED AT 2 LOCATIONS	MITIGATION ADDRESSES OFF-SITE IMPACTS @ EXISTING SIGNALIZED AT 2 LOCATIONS
PARKING	1,466 MORE SPACES REQUIRED SUPPORTED ON-SITE PARKING INCLUDING SHARED & LAND-BANKED PARKING	1,466 MORE SPACES REQUIRED SUPPORTED ON-SITE PARKING INCLUDING SHARED & LAND-BANKED PARKING
COMMUNITY SERVICES	NO NEW SCHOOL CHILDREN ADDED POLICE-FIRE-EMS AND UTILITY SERVICE NEEDS	NO NEW SCHOOL CHILDREN ADDED POLICE-FIRE-EMS AND UTILITY SERVICE NEEDS
TAXES AND LICENSING IMPACTS	1,507 CONSTRUCTION JOBS; 1 OTR POST-CONSTRUCTION JOBS: 161 POSITIVE TO SCHOOL DISTRICT, TOWN COUNTY	1,507 CONSTRUCTION JOBS; 1 OTR POST-CONSTRUCTION JOBS: 161 POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY
OPEN SPACE	8.38 S. ACRES; 48.7% OF THE SITE	9.063 ACRES; 48.7% OF THE SITE
AIR QUALITY	MINIMAL IMPACTS; ADDRESSED BY SWPPP AND STANDARD EROSION & SEDIMENT CONTROL	MINIMAL IMPACTS; ADDRESSED BY SWPPP AND STANDARD EROSION & SEDIMENT CONTROL
NOISE	NO SIGNIFICANT LONG-TERM IMPACTS	NO SIGNIFICANT LONG-TERM IMPACTS
VISUAL IMPACTS	ENHANCED SCREENING, 3-STORY BUILDING HEIGHTS, LENGTHY SETBACKS AVOID VISUAL IMPACTS. 1MM,150 S.F. NEW BUILDING AREA INCLUDING NEW ON-SITE STP	ENHANCED SCREENING, 3-STORY BUILDING HEIGHTS, LENGTHY SETBACKS AVOID VISUAL IMPACTS. 387,660 S.F. NEW BUILDING AREA
HISTORIC AND CULTURAL RESOURCES	NO IMPACTS	NO IMPACTS
WATER AND IRRIGATION	89,536 gpd	98,234 gpd
WASTEWATER	89,536 gpd	89,536 gpd
NITROGEN LOAD	.72 lb/ac/yr N (TOTAL/ACRE)	32.4 lbs of N /YEAR/ACRE

DRAINAGE CALCULATIONS

DESCRIPTION	C	Tc (MIN)	Rainfall (IN/HR)	Peak Discharge (CFS)	Volume (GALLONS)
LOT 1		12.75			
PERVIOUS	0.35	6.00	5"	11,250	29,688
IMPERVIOUS	1.00	6.00	5"	158,000	416,850
			STORMWATER STORAGE REQ.	141,000	446,538
LOT 2		12.60			
PERVIOUS	0.35	6.00	5"	69,300	182,880
IMPERVIOUS	0.95	6.00	5"	70,000	1,85,000
			STORMWATER STORAGE REQ.	63,000	466,000
LOT 3		5.78			
PERVIOUS	0.35	7.00	5"	5,799	15,307
IMPERVIOUS	0.95	7.00	5"	14,700	38,808
			STORMWATER STORAGE REQ.	10,500	27,720
LOT 4		8.82			
PERVIOUS	0.35	7.00	5"	8,953	23,630
IMPERVIOUS	1.00	7.00	5"	25,375	237,464
			STORMWATER STORAGE REQ.	17,767	134,913
LOT 5		4.82			
PERVIOUS	0.35	6.29	5"	3,478	20,478
IMPERVIOUS	1.00	6.29	5"	24,290	142,917
			STORMWATER STORAGE REQ.	13,912	108,066
LOT 6		5.82			
PERVIOUS	0.35	6.00	5"	8,601	50,618
IMPERVIOUS	1.00	6.45	5"	28,000	165,000
			STORMWATER STORAGE REQ.	16,100	115,080
LOT 7		5.82			
PERVIOUS	0.35	6.00	5"	8,601	50,618
IMPERVIOUS	1.00	6.45	5"	28,000	165,000
			STORMWATER STORAGE REQ.	16,100	115,080
LOT 8		5.06			
PERVIOUS	0.35	6.29	5"	4,478	23,170
IMPERVIOUS	1.00	6.29	5"	28,000	237,463
			STORMWATER STORAGE REQ.	13,912	137,332
COMMON LOT 9*		34.01			
PERVIOUS AREA		8.09			
PERVIOUS	0.35	10.84	5"	1,00,000	872,000
IMPERVIOUS	1.00	6.00	5"	119,000	870,000
			STORMWATER STORAGE PROVIDED	104,417	3,366,130
			TOTAL STORMWATER STORAGE REQ.	114,000	3,000,000

1. STORMWATER LOT 9 INCLUDES A TOTAL OF 17 DRAINAGE BASINS AS THE TOP ADDRESS APPLICANT AND CONNECTS TO THE TOWN DRAINAGE SYSTEM AT THE INTERSECTION OF THE TOWN OF SMITHTOWN, SITE FLOW WILL REACH THE DRAINAGE SYSTEM AT THE INTERSECTION OF THE TOWN OF SMITHTOWN, SITE DRAINAGE SYSTEM HAS BEEN DESIGNED TO STORE THE RUNOFF OF A 25-YEAR STORM EVENT ON THE PROPERTY WITH NO DISCHARGE TO THE TOWN DRAINAGE SYSTEM. NO RELEASE OF THE TOWN EXISTING STORMWATER.
2. DRAINAGE DESIGN FOR DRAINAGE LOT 9 - WHICH INCLUDES PRIVATE ROADWAY, PUBLIC ROADWAY, PARKING AREAS, AND OPEN AREAS TO STORM NATURAL + MAY WITH DRAINED TO STORE THE 25-YEAR OF 24-HOUR RAINFALL EVENT ON THE PROPERTY AREA, AS SHOWN BY [illegible] OF THE TOWN CODE, AND AS CONFIRMED BY THE TOWN ENGINEERING DEPARTMENT.
3. STORMWATER STORAGE PROVIDED FOR THE DRAINAGE LOT 9 IS BASED ON THE PERMITTED AREA AS SHOWN ON DRAINAGE PLAN SHEET 10 OF 21 OF THE PRELIMINARY SUBDIVISION PLANS. THE LOT LAYOUT OF THE DRAINAGE LOT MAY BE ADJUSTED DURING FINAL SUBDIVISION PLANS, HOWEVER, THE LOT LAYOUT AND CONTOURS MAY BE REVISED ACCORDINGLY WITHOUT REQUIRING ADDITIONAL LOT TO EXISTING DRAINAGE PATTERNS. A SUBSEQUENT REVISED DRAINAGE REPORT SHALL BE SUBMITTED FOR THOSE PORTIONS OF THE DRAINAGE LOT THAT ARE AFFECTED BY THE REVISED LAYOUT AND THERE IS NO INCREASE FROM EXISTING CONDITIONS.



ALTERNATIVE PLAN NO. 8 (RAILROAD CROSSING RE-OPENED)

- 150-ROOM HOTEL (SAME AS BASE PLAN)
- 130,000 S.F. MEDICAL (OR GENERAL OR R&D) OFFICE (SAME AS BASE PLAN)
- 220 ASSISTED LIVING UNITS (SAME AS BASE PLAN)

GYRODYNE, LLC
PROPERTIES IN
ST. JAMES, TOWN OF
SMITHTOWN, SUFFOLK
COUNTY, NEW YORK

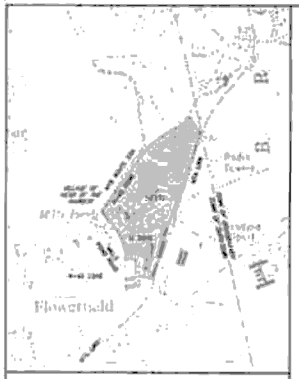
CAMERON ENGINEERING & ASSOCIATES, LLP

JERRY P. LaRIE

NOVEMBER 2019

Figure 19-8: Alternative Plan 8

GRAPHIC SCALE



KEY LOCATION MAP
(NOT TO SCALE)

EXISTING AND PROPOSED DEVELOPMENT DATA

LOT NUMBER	LOT SIZE (ACRES)	LAND USE	BUILDING SIZE/YIELD	
1	12.75	EXISTING MIXED-USE BUILDING	132,758	S.F.
2	12.84	EXISTING EATING HALL	24,826	S.F.
3	2.13	PROPOSED ADDITIONAL PARKING	NA	
4	6.03	PROPOSED HOTEL WITH RESTAURANT	172,200	S.F.
			150	ROOMS
5	4.66	PROPOSED MEDICAL OR R&D OFFICE	65,300	S.F.
6	3.50	PROPOSED MEDICAL OR R&D OFFICE	74,800	S.F.
7	2.98	PROPOSED ASSISTED LIVING	74,800	S.F.
			110	UNITS
8	9.16	PROPOSED ASSISTED LIVING	74,000	S.F.
			110	UNITS
9	29.67	PROPOSED OPEN AREA AND STP	15,000	S.F.
TOTAL	74.66			

LANDSCAPE COVERAGE DATA

LOT NUMBER	LANDSCAPE AREA (ACRES)	LOT AREA (ACRES)	PERCENTAGE OF LANDSCAPED AREAS
1	2.36	12.75	19%
2	8.34	12.84	65%
3	0.84	2.13	39%
4	2.74	6.03	45%
5	1.37	4.65	29%
6	1.50	3.86	39%
7	1.80	2.98	60%
8	1.77	3.04	58%
9	12.00	29.01	41%
TOTAL	36.57	74.98	51%

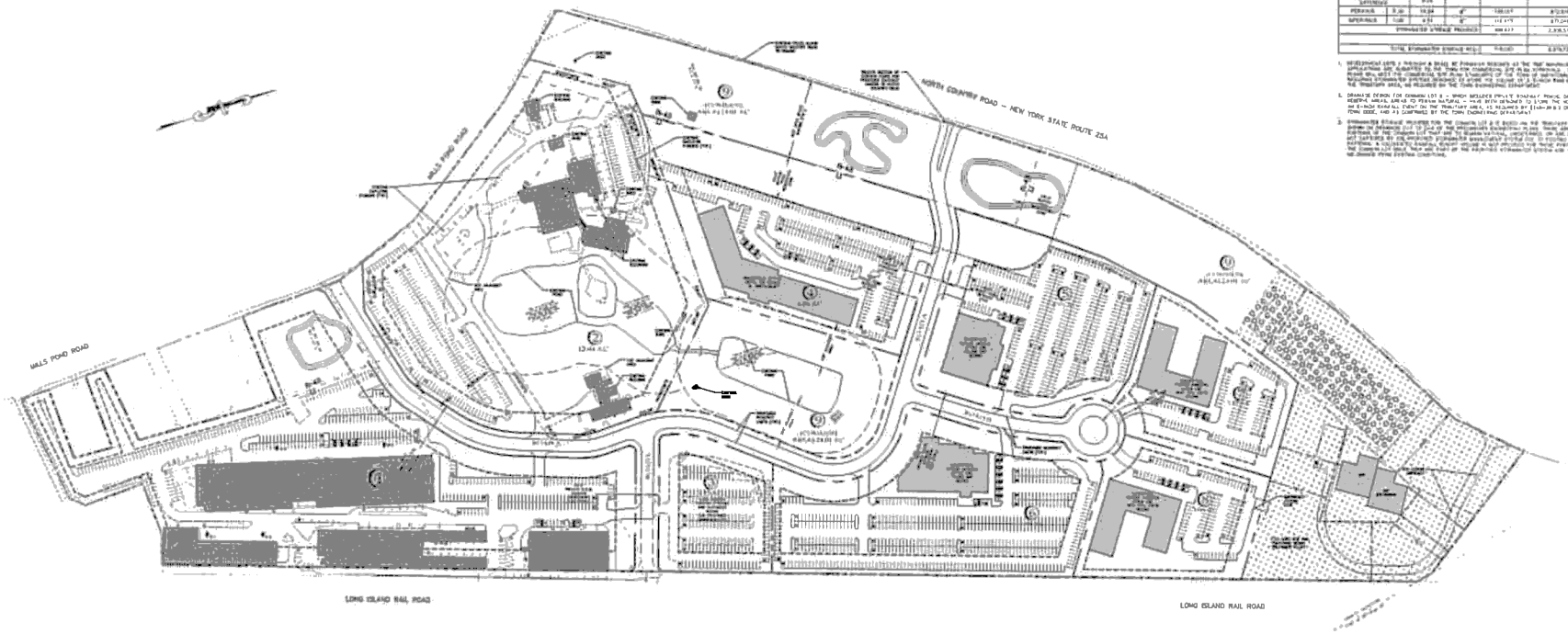
COMPARISON TO BASE PLAN

ENVIRONMENTAL RESOURCE	BASE PLAN/PROPOSED ACTION	ALTERNATIVE 9
GEOLOGY	NO IMPACTS	NO IMPACTS
SOILS	NO IMPACTS	NO IMPACTS
TOPOGRAPHY (GRADING AND EXCAVATION AREA FOR BUILDING/PARKING/EQUIPMENT)	137,330 S.F. NEW BUILDING FOOTPRINT INCLUDING NEW ON-SITE STP	SLIGHTLY MORE THAN BASE PLAN: 145,300 S.F. NEW BUILDING FOOTPRINT (ONLY CHANGE IS THE LARGER STP)
VEGETATION AND WILDLIFE	HABITATS CONVERT TO HARDSCAPE OR SUCCESSIONAL FORESTS	HABITATS CONVERT TO HARDSCAPE OR SUCCESSIONAL FORESTS
GROUNDWATER RECHARGE	ON-SITE 120,000 STP	ON-SITE 171,000 STP
TRAFFIC GENERATION	224 TO 336 PMPH INCLUDING INTERNAL TRIPS	224 TO 336 PMPH INCLUDING INTERNAL TRIPS
OFF-SITE TRAFFIC MITIGATION	MITIGATION ADDRESSES OFF-SITE IMPACTS @ EXISTING CONCERNS AT 2 LOCATIONS	MITIGATION ADDRESSES OFF-SITE IMPACTS @ EXISTING CONCERNS AT 2 LOCATIONS
PARKING	1,662 MORE SPACES REQUIRED. SUFFICIENT ON-SITE PARKING INCLUDING SHARED & LAND-BANKED PARKING	1,662 MORE SPACES REQUIRED. SUFFICIENT ON-SITE PARKING INCLUDING SHARED & LAND-BANKED PARKING
COMMUNITY SERVICES	NO NEW SCHOOL CHILDREN ADDED. POLICE-FIRE-EMS AND UTILITY SERVICE NEEDS	NO NEW SCHOOL CHILDREN ADDED. POLICE-FIRE-EMS AND UTILITY SERVICE NEEDS
TAXES AND ECONOMIC IMPACTS	1,507 CONSTRUCTION JOBS; 1,075 POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY	1,507 CONSTRUCTION JOBS; 1,278 POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY
OPEN SPACE	8.98.5 ACRES 46.7% OF THE SITE	9.53.0 ACRES 46.7% OF THE SITE
AIR QUALITY	MINIMAL IMPACTS, ADDRESSED BY SUPPLY AND STANDARD EROSION & SEDIMENT CONTROL	MINIMAL IMPACTS, ADDRESSED BY SUPPLY AND STANDARD EROSION & SEDIMENT CONTROL
NOISE	NO SIGNIFICANT LONG-TERM IMPACTS	NO SIGNIFICANT LONG-TERM IMPACTS
VISUAL IMPACTS	ENHANCED SCREENING, 3-STORY BUILDING HEIGHTS, LENGTHY SETBACKS AVOID VISUAL IMPACTS, 398,150 S.F. NEW BUILDING AREA INCLUDING NEW ON-SITE STP	ENHANCED SCREENING, 3-STORY BUILDING HEIGHTS, LENGTHY SETBACKS AVOID VISUAL IMPACTS, 343,988 S.F. NEW BUILDING AREA
HISTORIC AND CULTURAL RESOURCES	NO IMPACTS	NO IMPACTS
WATER AND IRRIGATION	84.8.M gpd	80.324 gpd
WASTEWATER	97.5.M gpd	157,194 gpd
GENERATED LOAD	33.4 tons of N/year/acre	48.8 tons of N/year/acre

DRAINAGE CALCULATIONS

DESCRIPTION	A (acres)	I (in/hr)	Volume (CF)	Vr=Qdes (MG/day)
LOT 1	12.75			
PERVIOUS	10.40	2.40	0	87,360
IMPERVIOUS	1.09	4.27	155,206	992,384
		STORMWATER STORAGE REQ'D	155,206	880,024
LOT 2	12.84			
PERVIOUS	8.18	2.39	0	85,970
IMPERVIOUS	1.66	4.26	24,826	216,268
		STORMWATER STORAGE REQ'D	24,826	345,438
LOT 3	2.13			
PERVIOUS	0.38	2.39	0	3,746
IMPERVIOUS	1.25	4.19	19,062	166,759
		STORMWATER STORAGE REQ'D	19,062	137,774
LOT 4	6.03			
PERVIOUS	0.38	2.39	0	8,262
IMPERVIOUS	5.65	4.26	86,106	751,989
		STORMWATER STORAGE REQ'D	86,106	674,053
LOT 5	4.66			
PERVIOUS	0.00	1.00	0	0
IMPERVIOUS	4.66	3.96	46,644	369,743
		STORMWATER STORAGE REQ'D	46,644	369,743
LOT 6	3.50			
PERVIOUS	0.00	1.00	0	0
IMPERVIOUS	3.50	3.96	34,650	274,680
		STORMWATER STORAGE REQ'D	34,650	274,680
LOT 7	2.98			
PERVIOUS	0.00	1.00	0	0
IMPERVIOUS	2.98	3.96	29,404	233,061
		STORMWATER STORAGE REQ'D	29,404	233,061
LOT 8	3.04			
PERVIOUS	0.00	1.00	0	0
IMPERVIOUS	3.04	3.96	30,000	237,773
		STORMWATER STORAGE REQ'D	30,000	237,773
LOT 9	29.01			
PERVIOUS	0.00	1.00	0	0
IMPERVIOUS	29.01	3.96	286,300	2,268,948
		STORMWATER STORAGE REQ'D	286,300	2,268,948
TOTAL	74.98	STORMWATER STORAGE REQ'D	741,192	5,875,733

1. HYDROLOGIC DATA & METHODS & RAINFALL BY PERMEATION RESEARCH AS THE TIME RAINFALL APPLICATIONS ARE ADJUSTED TO THE TOWN FOR CONSIDERING SITE PEAK INTENSITY, SITE RUNOFF VOLUMES, AND TIME CONCENTRATION FOR A TRIBUTARY OF THE TOWN OF SMITHTOWN. SITE RAINFALL STORAGE FOR SYSTEMS DESIGNED TO STORE THE VOLUME IN A 2-INCH RAINFALL EVENT ON THE TRIBUTARY AREA, AS REQUIRED BY §144-39 B(3) OF THE TOWN CODE, AND AS CONFIRMED BY THE TOWN ENGINEERING DEPARTMENT.
2. DRAINAGE DESIGN FOR COMMON LOT 8 – WHICH INCLUDES PRIVATE ROADWAY PONDS, DRAINAGE RECHARGE AREAS, AND AS TO REMAIN NATURAL – HAS BEEN DESIGNED TO STORE THE VOLUME OF AN 8-INCH RAINFALL EVENT ON THE TRIBUTARY AREA, AS REQUIRED BY §144-39 B(3) OF THE TOWN CODE, AND AS CONFIRMED BY THE TOWN ENGINEERING DEPARTMENT.
3. STORMWATER STORAGE VOLUMES FOR THE COMMON LOT 8 IS BASED ON THE TRIBUTARY AREA AS SHOWN ON DRAINAGE LOT 9 (LOT OF THE APPLICANT'S ENGINEERING PLANS) WHERE ANY PORTIONS OF THE COMMON LOT THAT MAY BE TRIBUTARY TO DRAINAGE LOT 9 (SUCH AS THE ENTRANCE ROADWAY) ARE ACCOUNTED FOR. STORMWATER STORAGE FOR WHICH IS NOT PROVIDED FOR WITHIN THE COMMON LOT 8 AREA MAY ALSO BE PROVIDED WITHIN LOT 9 IF THE APPROVED STORMWATER SYSTEM AND PARK AS AS-BUILTED ITEMS EXISTING CONDITIONS.



ALTERNATIVE PLAN NO. 9 (EXPANDED STP)

- 150-ROOM HOTEL (SAME AS BASE PLAN)
- 130,000 S.F. MEDICAL OFFICE (SAME AS BASE PLAN)
- 220 ASSISTED LIVING UNITS (SAME AS BASE PLAN)

GYRODYNE, LLC
LT TOWERFIELD
ST. JAMES, TOWN OF
SMITHTOWN, SUFFOLK
COUNTY, NEW YORK

CAMPION ENGINEERING & ASSOCIATES, LLP

JERRY P. LaRUE

NOVEMBER 2019

Figure 19-9: Alternative Plan 9

GRAPHIC SCALE

KEY LOCATION MAP
(NOT TO SCALE)

EXISTING AND PROPOSED DEVELOPMENT DATA

LOT NUMBER	LOT SIZE (ACRES)	LAND USE	BUILDING SIZE/YIELD	
1	10.62	3 OF 4 EXISTING MIXED-USE BUILDINGS (4TH BUILDING RE-DESIGNATED TO LOT 3)	112,878	S.F.
2	4.05	EXISTING DAYCARE CNTR.	14,540	S.F.
3	14.43	CORPORATE TECHNOLOGY / OFFICE	183,150	S.F.
4	9.68	PROPOSED ASSISTED LIVING	378,000	S.F.
			280	UNITS
5	6.87	PROPOSED HOTEL INCLUDING 8,000 S.F. SPA	88,000	S.F.
			115	ROOMS
6	32.87	PROPOSED STORAGE AREA AND SITE	5,000	S.F.
TOTAL	79.50			

LANDSCAPE COVERAGE DATA

LOT NUMBER	LANDSCAPE AREA (ACRES)	LOT AREA (ACRES)	PERCENTAGE OF LANDSCAPED AREAS
1	2.72	10.6	26%
2	1.91	4.0	47%
3	2.52	14.4	17%
4	3.80	9.2	39%
5	0.71	4.0	17%
6	18.98	32.8	57%
TOTAL	44.58	74.99	59%

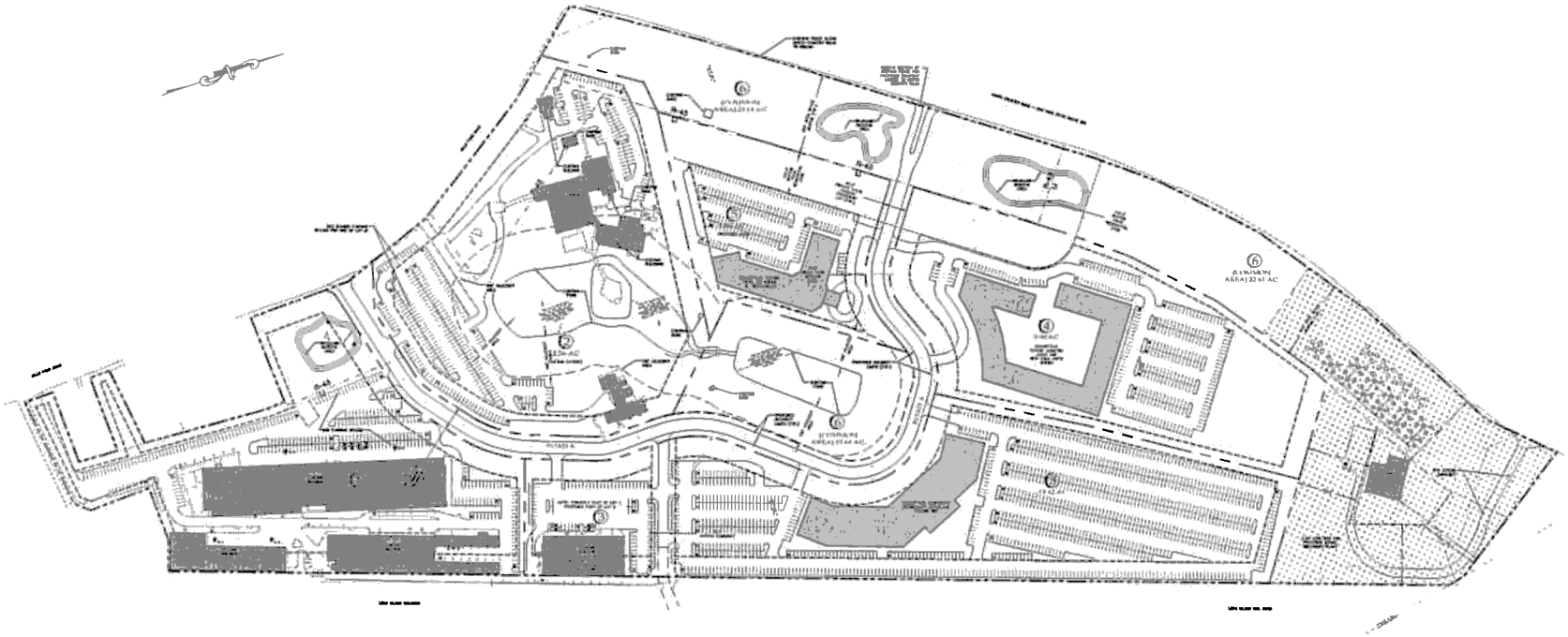
COMPARISON TO BASE PLAN

ENVIRONMENTAL RESOURCE	BASE PLAN/PROPOSED ACTION	ALTERNATIVE 10
GEOLOGY	NO IMPACTS	SAME AS BASE PLAN
SOILS	NO IMPACTS	SAME AS BASE PLAN
TOPOGRAPHY (GRADING AND EXCAVATION AREA FROM BUILDING+PARKING FOOTPRINT)	137,250 S.F. NEW BUILDING FOOTPRINT INCLUDING NEW ON-SITE STP	ALTERNATE MORE THAN BASE PLAN: 198,750 S.F. NEW BUILDING FOOTPRINT 448,500 S.F. EXCESS PARKING AREA, AND 28,750 S.F. SMALLER BUILDING AREA NEEDED
VEGETATION AND WILDLIFE	HABITATS CONVERT TO HARDSCAPE OR SUCCESSIONAL FORESTS	SIMILAR TO BASE PLAN AND THE ADDITIONAL OPEN SPACE WOULD TRANSITION TO SUCCESSIONAL FOREST
WASTEWATER TREATMENT	ON-SITE STP WITH SBR	SAME AS BASE PLAN
TRAFFIC GENERATION	309 TO 378 TRIPS INCLUDING INTERNAL TRIPS	LESS THAN BASE PLAN: 214 TO 244 TRIPS INCLUDING INTERNAL TRIPS
OFF-SITE TRAFFIC MITIGATION	MITIGATION ADDRESSES OFF-SITE IMPACTS & EXISTING CONDITIONS AT 2 LOCATIONS	SAME OR LESS MITIGATION AS BASE PLAN
PARKING	1,488 NEW SPACES REQUIRED SUFFICIENT ON-SITE PARKING INCLUDING SHARED & LAND-BANKED PARKING	1,803 NEW SPACES REQUIRED 58 MORE THAN BASE PLAN; SUFFICIENT PARKING INCLUDING SHARED PARKING
COMMUNITY SERVICES	NO NEW SCHOOL CHILDREN, SCHOOL AGED CHILDREN AND SENIOR HOUSING NEEDS	SAME AS BASE PLAN
TAXES AND ECONOMIC IMPACTS	1,807 CONSTRUCTION JOBS; 1,075 POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY	SIMILAR TO BASE PLANS: 1,518 CONSTRUCTION JOBS; 1,085 POST-CONSTRUCTION JOBS; TAX POSITIVE TO SCHOOL DISTRICT, TOWN, COUNTY
OPEN SPACE	±36.5 ACRES: 46.7% OF THE SITE	±19.8 ACRES: 25.5% OF THE SITE
AIR QUALITY	MINIMAL IMPACTS, MITIGATED BY ENERGY AND STANDARDS DESIGN & DEVELOPMENT CONTROLS	SAME AS BASE PLAN
NOISE	NO SIGNIFICANT LONG-TERM IMPACTS	SAME AS BASE PLAN
VISUAL IMPACTS	ENHANCED SCREENING, 3-STORY BUILDING HEIGHTS, LENGTHY SETBACKS AVOID VISUAL IMPACTS; 398,150 S.F. NEW BUILDING AREA INCLUDING NEW ON-SITE STP	SAME AS FOR PLANS TO BASE PLANS; ENHANCED SCREENING, 3-STORY BUILDING HEIGHTS, LENGTHY SETBACKS AVOID VISUAL IMPACTS; 448,500 S.F. NEW BUILDING AREA
HISTORIC AND CULTURAL RESOURCES	NO IMPACTS	SAME AS BASE PLAN
WATER AND RECHARGE	68,324 gpd	87,928 gpd
WASTEWATER	87,324 gpd	91,995 gpd
TRAFFIC LOAD	2.2 ± lbs of N/YEAR/ACRE	2.3 ± lbs of N/YEAR/ACRE

DRAINAGE CALCULATIONS

DESCRIPTION	C	A (ACRES)	TC (MIN)	RAINFALL (IN/HR)	RUNOFF (CFS)	RUNOFF VOLUME (GALLONS)
LOT 1		10.62				
PERVIOUS	0.20	2.72	5'	9.86	26.82	869,958
IMPERVIOUS	0.95	7.90	5'	9.86	74.03	2,401,514
				SUBTOTAL	100.85	3,271,472
LOT 2		13.95				
PERVIOUS	0.20	3.91	5'	9.86	38.58	1,251,414
IMPERVIOUS	0.95	9.95	5'	9.86	93.28	3,025,696
				SUBTOTAL	131.86	4,277,110
LOT 3		14.43				
PERVIOUS	0.20	3.02	5'	9.86	29.80	966,750
IMPERVIOUS	0.95	11.41	5'	9.86	106.97	3,469,923
				SUBTOTAL	136.77	4,436,673
LOT 4		9.68				
PERVIOUS	0.20	0.93	5'	9.86	9.17	297,450
IMPERVIOUS	0.95	8.75	5'	9.86	82.04	2,661,696
				SUBTOTAL	91.21	2,959,146
LOT 5		6.87				
PERVIOUS	0.20	2.31	5'	9.86	22.77	738,630
IMPERVIOUS	0.95	4.56	5'	9.86	42.76	1,386,912
				SUBTOTAL	65.53	2,125,542
LOT 6		32.87				
PERVIOUS	0.20	11.05	5'	9.86	108.97	3,535,710
IMPERVIOUS	0.95	21.82	5'	9.86	204.58	6,637,068
				SUBTOTAL	313.55	10,172,778
DRAINAGE LOT #7		32.87				
PERVIOUS AREA		0.89				
IMPERVIOUS	0.20	14.89	5'	9.86	139.57	4,528,716
IMPERVIOUS	0.95	9.89	5'	9.86	92.73	3,009,042
				SUBTOTAL	232.30	7,537,758
				TOTAL	1,072.07	34,780,482

1. DEVELOPMENT LOTS 1 THROUGH 5 SHALL BE FORMALLY DESIGNED AT THE TIME INDIVIDUAL APPLICATIONS ARE SUBMITTED TO THE TOWN FOR COMMERCIAL SITE PLAN APPROVALS. SITE PLANS WILL MEET THE COMMERCIAL SITE PLAN STANDARDS OF THE TOWN OF SMITHTOWN, INCLUDING STORMWATER SYSTEMS DESIGNED TO STORE THE VOLUME OF A 1-INCH RAIN EVENT ON THE TRIBUTARY AREA, AS REQUIRED BY THE TOWN ENGINEERING DEPARTMENT.
2. DRAINAGE DESIGN FOR COMMON LOT 8 – BEACH INCLUDES PRIVATE SWIMMING POOLS, DRAINAGE RESERVE AREAS, AREAS TO REMAIN NATURAL – HAVE BEEN DESIGNED TO STORE THE VOLUME OF AN 8-INCH RAINFALL EVENT ON THE TRIBUTARY AREA, AS REQUIRED BY §144-28 B.1 OF THE TOWN CODE, AND AS CONFIRMED BY THE TOWN ENGINEERING DEPARTMENT.
3. STORMWATER STORAGE PROVIDED FOR THE COMMON LOT 8 IS BASED ON THE TRIBUTARY AREA AS SHOWN ON DRAINAGE EXH. #2 OF THE PRELIMINARY ENGINEERING PLANS. THESE ARE FOR SOME OF THE COMMON LOT THAT ARE TO REMAIN NATURAL UNDISTURBED, OR ARE OTHERWISE NOT CAPTURED BY THE PROPOSED STORMWATER MANAGEMENT SYSTEM (I.E. TO FLOW ON USUAL PATTERNS). A CALCULATED RAINFALL RUNOFF VOLUME IS NOT PROVIDED FOR THESE PORTIONS OF THE COMMON LOT SINCE THEY ARE PART OF THE PROPOSED STORMWATER SYSTEM AND THERE IS NO CHANGE FROM EXISTING CONDITIONS.



ALTERNATIVE PLAN NO. 10
- 115-ROOM HOTEL (35 FEWER THAN BASE PLAN)
- 183,150 S.F. CORPORATE TECHNOLOGY OFFICE
- 280 ASSISTED LIVING UNITS (60 MORE THAN BASE PLAN)

GYRODYNE, LLC
(FLOWERFIELD)
ST. JAMES, TOWN OF
SMITHTOWN, SUFFOLK
COUNTY, NEW YORK

CAMERON ENGINEERING & ASSOCIATES, LLP

JERRY P. LaPIPE

NOVEMBER 2019

Figure 19-10: Alternative Plan 10

GRAPHIC SCALE