

## Town of Tyre

### State Environmental Quality Review Act Lago Resort and Casino Proposal

#### Review of Potential Impacts

#### Parts 2 and 3 of the Full Environmental Assessment Form

##### Introduction

The Tyre Town Board (the “Board”) must review the Full Environmental Assessment Form (“FEAF”), which includes Part 1 provided by the Applicant and Parts 2 and 3, together with all the supplemental information provided by the Applicant, the public, and the Town’s Engineer,<sup>1</sup> and decide whether the proposal to construct a resort and casino in the Town (the “Project”) is likely to have a “significant adverse impact upon the environment.” SEQRA requires the approving agency to identify and assess the potential impacts of a proposed action “in order to avoid or reduce significant adverse environmental impacts while meeting the social and economic needs of a community.”<sup>2</sup> Completing Part 2 of the FEAF will help the Board identify those topics that need to be discussed further in Part 3. Together, Parts 2 and 3 assist the Board in making its determination of environmental significance. If the Board finds that the Project will result in one or more impacts that are both “significant” and “adverse,” then it must issue a positive declaration identifying the significant adverse impacts and requiring the preparation of an Environmental Impact Statement (“EIS”). If the Board finds that the Project will have no significant adverse impacts on the environment, no EIS is necessary and a negative declaration must be prepared.

##### Part 2 Analysis

Part 2 is designed to help the Board, as lead agency, inventory all potential resources that could be affected by the Project and assess whether there are any potential adverse impacts that need further consideration. Specifically, Part 2 is designed to assist the Board in determining whether

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<sup>1</sup> The SEQRA Workbook makes it clear that the Board may consider any information submitted by the Applicant as part of the Application. The Workbook also indicates that the Board may request clarification or expansion of information submitted in Part 1 in order to complete Parts 2 and 3.

<sup>2</sup> NYSDEC, Local Official’s Guide to SEQR, <http://www.dec.ny.gov/permits/36860.html>, accessed 9/8/2015.

any identified impacts will have no impact or a small impact, or a moderate to large impact. This decision should be based on the magnitude of the potential impact. Magnitude is not just the physical size of the project, but also depends on the scale,<sup>3</sup> context<sup>4</sup> and severity of a project's potential impacts. Interpretation on the size or significance of an impact is at the discretion of the Board as the lead agency.

### Part 3 Analysis

For each impact in Part 2 that the Board identifies as moderate to large, the Board must undertake further analysis in Part 3 to determine whether those impacts are both significant and adverse and require further study. Specifically, in Part 3, the Board must discuss for each potential moderate to large impact the magnitude, duration of impact, likelihood of the impact and importance of the impact in the context of the site and the community. Part 3 is also the place where the Board may identify whether the Project includes aspects or design features that lessen an impact to the point where it is no longer a significant concern.

- **Magnitude** assesses factors such as severity, size or extent of an impact. Magnitude is conveyed as moderate to large. Moderate impacts tend to be more localized. Large impacts tend to be broader and of regional concern.
- **Duration** looks at how long the impact will occur. Duration is assessed as short-term, medium-term, long-term or irreversible.
- **Likelihood** measures the probability of an impact occurring. Likelihood involves determining whether the impact is unlikely to occur, will possibly occur or will probably occur.
- **Importance** relates to how people or resources will be qualitatively impacted in the context of the status quo conditions in the community and the environment. Importance is more subjective and is based on a consideration of the magnitude, duration, likelihood, environmental setting and on the scale and context of the project, the site and the community.

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<sup>3</sup> Scale refers to the overall size of the project and features that measure the intensity of the project.

<sup>4</sup> Context refers to the conditions on the project site and its relation to adjacent parcels, the neighborhood, and the community as a whole.

Example

For each potential impact, there are combinations of magnitude, duration and likelihood. However, there is no universally accepted measure of significance – the criteria must be considered on a case-by-case basis. The SEQRA Handbook published by the New York State Department of Environmental Conservation provides the following example to illustrate the process an agency must use when evaluating the above factors:

“A bridge is proposed to cross a river. Potential erosion during construction could be large in magnitude. If the stream into which the eroded soil would fall is presently a relatively "muddy" stream, already carrying large quantities of sediment, the addition of such a temporary load during construction would likely not be important. However, if the same amount of material were to wash into a clear trout stream, particularly during or immediately following spawning, or to settle downstream in a productive wetland, this impact should be viewed as more important because of the high value of the wetland and trout stream resources.”

**I. Impact on Transportation (Page 8 of Part 2 of FEAF): The proposed action may result in a change to existing transportation systems.**

According to the workbook, a project that generates more than 100 peak hour vehicle trips per hour may result in a significant impact on traffic and require the preparation of a traffic study.

The Project will generate more than 100 vehicular trips per peak hour. The Applicant retained McFarland Johnson to prepare a Traffic Impact Study and to address all Traffic related issues and concerns associated with the Project.

**A. Part 2, Section 13, Item a – “Projected traffic increase may exceed capacity of existing road network.”**

1. Relevant Project Information:

- a) Based on the Applicant’s marketing study, the Project is expected to generate 9,000 daily trips.
- b) A comprehensive Traffic Impact Study was prepared in 2014 by McFarland Johnson (Appendix ES.A). This report was prepared pursuant to a scope identified by both the New York State Department of Transportation (NYSDOT) and the Town of Tyre. The report was supplemented by several follow-up letters prepared by McFarland Johnson addressing various issues and comments raised over the course of the Project review process.
- c) According to the Report, the weekday peak hour is expected to generate 1,208 trips and the weekend peak hour will generate 1,115 trips.
- d) Trip distribution analysis concluded that 69% of the trips will use the NYS Thruway, while 27% will arrive from the south and 4% will arrive from the north.
- e) Table 5 of the Traffic Study demonstrates that additional traffic associated with the Project would result in degradation in current operating levels associated with certain movements at 4 of the 7 intersections studied.

- f) The Traffic Study suggested a number of off-site improvements to minimize the potential impacts associated with roadway capacity. These improvements were reviewed by the relevant state agencies, including the NYSDOT and New York State Thruway Authority (NYSTA).
  - (1) The NYSDOT suggested additional modifications and improvements to lessen traffic impacts. These modifications were incorporated into the Project design by the Applicant.
  - (2) The NYSTA suggested additional studies be completed with respect to the toll plaza and the NYS Route 414 bridge. The Applicant completed these studies and additional modifications to the toll plaza were incorporated into the Project design by the Applicant.
- g) These mitigation measures were outlined in a letter dated August 3, 2015 (Appendix 13.E) and include:
  - (1) Expansion of NYS Route 414 to four lanes from the NYS Thruway interchange to the project entrance;
  - (2) Addition of turning lanes to the project entrance, NYS Route 414/NYS Thruway intersection, and NYS Route 318/414 intersection;
  - (3) New and improved signals at identified intersections;
  - (4) Installation of an additional toll plaza lane;
  - (5) Widened shoulders (8 feet) for buggies, pedestrians and cyclists on both sides of NYS Route 414; and
  - (6) NYS Thruway bridge expansion.
- h) The report found that with the implementation of the suggested mitigation measures, the transportation

network that would serve the Project site would do so at a satisfactory level of service. Specifically, with the proposed improvements, all existing overall levels of service were maintained in comparison to the no-build conditions with one exception.

- i) The exception is the intersection of Route 414 at Exit 41, where the no-build condition has an LOS 'A' and the intersection with proposed improvements has a 13 and 10 second increases in delay that result in a LOS 'B' for the build scenario for both peak periods. LOS 'B' is an acceptable operating level.
- j) The Applicant is also including in the overall Project development appropriate control and/or safety mechanisms at the entrance of the Project site from NYS Route 414. These design features address NYSDOT permitting and commercially reasonable safety measures.

2. Relevant Public Comment:

- a) Environmental Resource Management (ERM) submitted report dated August 10, 2015, which included a review of the traffic study prepared by McFarland Johnson. ERM asserts that there were several deficiencies in the McFarland Johnson traffic study.
  - (1) ERM asserts that trip generation estimates do not include the hotel and conference center uses.
  - (2) ERM notes that the report does not analyze construction traffic.
  - (3) ERM claims that analyzing the first year traffic conditions would not be indicative of typical traffic in the future.
  - (4) ERM criticizes the collection of traffic counts in November/December.

(5) ERM claims the report does not state the daily traffic volumes and that the peak hour analysis is not sufficient to consider traffic impacts.

(6) ERM asserts that the report does not consider the region's drumlin topography and the presence of Amish buggies on local roads.

b) Several other individuals commented on the amount of traffic that would be generated by the Project.

3. Key Considerations:

a) This question talks about capacity of the road network. Capacity is defined as the maximum number of vehicles for any given unit of time that can be accommodated on a road. Capacity is semi-independent of the demand for roads and it considers the traffic conditions, road way characteristics, and traffic controls such as the signing or signals at intersections. It addresses the physical amount of vehicles and pedestrians a road can handle and does not depend on the total number of vehicles demanding service, but is influenced by the relative distribution of vehicles by lane. The geometric design of the road influences capacity.

b) A term closely related to capacity is the level of service (LOS). While road capacity gives a quantitative measure of the amount of traffic that can be handled, the level of service gives a qualitative measure of how well that traffic flows.

c) For a given road, capacity would be constant, although it may vary at intersections. But actual traffic flow will be different for different days and at different times during a day itself. The intention of the level of service (LOS) is to relate the quality of traffic service to a given flow rate. LOS is a term that designates a range of operating conditions, based on delay, on a particular road or at an intersection.

- d) According to the NYSDEC Workbook, LOS is the typical measurement included in a traffic study and the lead agency will need to know if any LOS of the road network will be substantively worsened by the proposed Project.
- e) Accordingly, despite ERM's comment that the peak hour analysis is not sufficient to consider traffic impacts, the NYSDEC Workbook indicates that quality of traffic service over a given period of time (such as the peak hour) is a typical consideration in the assessment of traffic impacts by a lead agency as part of its SEQRA review.
- f) In fact, the industry standard for the analysis of traffic capacity is to analyze the peak travel periods. If the capacity of the road network can withstand the peak hour traffic flow (based on level of service), then other non-peak times would operate at better levels and do not require analysis.
- g) The Institute of Transportation Engineers' Trip Generation Manual does not include a category for Resort Casino.
- h) Traffic generated by the development was conservatively estimated using trip generation rates similar to those calculated at Turning Stone Resort and Casino. In addition, McFarland Johnson consulted ITE trip generation studies for resort style casinos. These studies indicate that generation rates based on the number of gaming machines provide the most accurate correlation between casinos and the traffic they generate.
- i) Turning Stone was selected for study because it was located in a similar upstate New York rural community, it is in close proximity to the NYS Thruway and it is comparable in size in gaming machines. The Project site has 2000 gaming machines, which equals 91% of the 2200 gaming machines at Turning Stone. Relying on the proportion of gaming machines, the traffic

consultant concluded that the number of trips per peak hour for the Project site would be 91% of the number of peak hour trips generated by Turning Stone.

- j) The trip generation rates taken at Turning Stone include trips generated by all of the non-gaming amenities at Turning Stone. Accordingly, the trip generation rate selected for the Project likewise accounts for the non-gaming amenities as well.
- k) The trip generation rate selected for the Project is also very conservative because Turning Stone has significantly more non-gaming amenities including 4 golf courses, more restaurants/bars/nightclubs, a 5,800 seat event theater, and more retail shops and the traffic generated by these uses has been included in the trip generation rate used in the traffic study.
- l) As a result, the peak hour trip generation analysis assumes the worst possible case scenario (91% of the Turning Stone traffic) compared to the daily traffic estimate for the Project (which was estimated to be 73% of the Turning Stone traffic).
- m) Peak hours for existing commuter traffic differed from the peak hours associated with casino traffic. However, for purpose of the analysis, the report relied on a worst case scenario with peak casino traffic occurring simultaneously with the peak commuter background traffic. Actual scenarios would likely operate at better levels of service.
- n) Peak hours for existing commuter traffic were determined using significant historic traffic count data available from NYSDOT. Traffic data collection occurred during historic peak hours for existing commuter traffic and the proposed peak hours associated with the Project (which correlated with the peak hours for the Turning Stone Resort). Intersection turn movement counts were performed

over a 60 hour period from a Friday morning to a Sunday evening.

- o) Adjustments were not required for seasonal fluctuations because the primary intersections have a significant amount of truck traffic, commuter traffic and traffic associated with the Petro Plaza and the Seneca Meadows Landfill. None of these traffic generators are affected by the season. This approach was confirmed by NYSDOT when it approved the base traffic volumes without requiring a seasonal adjustment.
- p) NYSDOT requires developments to analyze and mitigate traffic impacts associated with the approved full build out of the site at the time that full build out becomes operational. Future year analysis is not required by the NYSDOT. If any future expansions occur, then an additional traffic analysis associated with that expansion would be required.
- q) The report accounted for future growth buffering. McFarland Johnson reviewed NYSDOT historical traffic data over the past 15 years within the study area to determine the traffic growth trends in the area. The results showed that independent of the proposed casino development, average annual traffic growth ranged from 0.5% to 2.0% per year varying based on location and the timeframe analyzed. The TIS used an annual background traffic growth rate of 2.0% annually as a buffer for anticipated annual growth in the surrounding area. The inclusion of projected annual traffic growth at the conservative growth rate of 2.0% is in accordance with Institute of Transportation Engineers (ITE) standards, as well as New York State Department of Transportation and New York State Thruway Authority guidelines, which require traffic impact studies to include all approved proposed developments traffic within the project

study area as background traffic in the No-Build scenario.

- r) By supplemental letter dated August 13, 2014, McFarland Johnson analyzed future operating conditions for the Exit 41 toll plaza and the NYS Route 414 bridge.
  - (1) The toll plaza was analyzed 20 years into the future using a 1% growth rate. Based on the simulation results, the peak hour traffic volumes for each lane are less than approved NYSTA processing rates, with the exception of the exiting cash lane during the Saturday peak hour. It was recommended that the toll plaza be re-evaluated after full build out to allow for efficient traffic progression through the plaza.
  - (2) Rather than wait until full build out, NYSTA provided revised processing rates and the operating conditions of the Route 41 toll plaza were re-evaluated. Based on the results of the revised traffic analysis, all parties agreed that an additional toll plaza lane was warranted prior to opening of the Project.
  - (3) The NYS Route 414 bridge was analyzed 30 years into the future using a 1% growth rate. The bridge's level of service will improve from a 'C' to an 'A.'
- s) The Traffic Impact Study also included a highway safety analysis. The highway safety analysis reviewed accident summary reports for all study area intersections over a three year period. At the request of the Town, McFarland Johnson also performed a safety analysis at two additional intersections.
  - (1) The 12 miles of roadway segments accounted for 186 mainline related accidents. All segments were at or below the statewide average with the exception of the segment of NYS Route 414 from the Thruway interchange

to Chase Road. This segment had 9 accidents of which 7 were deer strikes, the other two non-animal related accidents were attributed to driver inattention or icy roadway conditions.

- (2) The intersections included in the study area accounted for 90 accidents. All intersections, with the exception of the Chase Road/NYS Route 414 Intersection had accident rates higher than the statewide average. Accidents caused as a result of one vehicle striking another vehicle at a right angle were the most prevalent with rear end accidents also accounting for a large percentage of the total.
  - (3) The addition of turn lanes and the addition and modification of traffic signals at several of the study area intersections will increase intersection safety.
  - (4) This safety analysis included an assessment of sight lines and traffic speeds, which implicitly required consideration of the rolling drumlin topography.
- t) With respect to a reported accident in proximity to the construction site entrance, the accident report demonstrates that the accident was not the result of construction related traffic (Appendix 13.F).
  - u) The Intersection Capacity Analysis showed that additional traffic associated with the Project would result in degradation in current operating levels associated with certain movements at 4 of the 7 intersections studied.
  - v) As a result, the Traffic Study suggested a number of off-site improvements to minimize the potential impacts associated with roadway capacity.
    - (1) NYS Route 318/I-90 Exit 42 at NYS Route 14
      - (a) The Project will have a negligible impact and will not cause any drops in the

intersection's existing 'B' LOS. The Project adds 72 vehicles and 67 vehicles during the Friday and Saturday peak hours, respectively, which represents 3.9% and 5.0% increases in traffic at this intersection. Peak hour traffic volumes typically vary from day to day by more than the projected increase in traffic from the Project. Therefore, it is unlikely that there will be a noticeable increase in existing traffic volumes. No intersection modifications are proposed.

(2) NYS Route 318 at Waterloo Premium Outlet Mall Entrance

(a) When compared to the No-Build LOS, the Project will have a negligible traffic impact since the intersection will maintain its 'A' LOS for the Friday peak hour and its 'B' LOS for the Saturday peak hour.

(3) NYS Route 318 at NYS Route 414

(a) The Project will not have an impact on the operating conditions at this intersection with the inclusion of the recommended improvements.

(b) These improvements include a new westbound dedicated right turn lane as well as adding signalized left turn arrows to the northbound, southbound and eastbound approaches as there are currently dedicated left turn lanes with no protected signal phase.

(c) With the improvements, the Project will create slightly improved operating conditions as the overall delay at the intersection will decrease by 8 seconds during the Friday peak and 6 seconds for the Saturday peak.

(d) The improvements will also reduce some individual movement delay, specifically the eastbound left will improve from an 'F' and

'E' LOS in the No-Build to a 'C' LOS in the mitigated build. The improvements will also help to improve the safety at this intersection.

(4) NYS Route 414 at I-90 Exit 41/Truck Station Entrance

(a) The Project will have a negligible impact on the operating conditions at this intersection with the inclusion of recommended improvements.

(b) These improvements include a new eastbound dedicated left turn lane and a second westbound lane to access the toll plaza, creating a 6-lane section east of the toll booths consisting of eastbound dual left lanes, a through lane and a channelized right turn lane with two westbound lanes. The westbound approach has an additional through lane proposed to access the new travel lane to the toll plaza. The southbound approach has a new dedicated right turn lane and a new northbound lane to accommodate the new eastbound dual left turn lanes, creating a 5-lane approach with a left turn, through the right turn lanes southbound with two northbound lanes. The northbound approach has a new through lane creating a 4-lane approach with a left turn, through and through-right lanes with a single southbound lane.

(c) The intersection as improved will operate a 'B' LOS during the Friday and Saturday peak hours, while the no build had a 'A' LOS. The overall intersection delay will increase by 13 seconds and 10 seconds during the Friday and Saturday peak hours respectively.

(d) The change is in overall LOS is acceptable as a LOS 'B' is considered a very

acceptable operation level and is comparable to the surrounding intersections.

(5) NYS Route 414 at Chase Road

(a) The Project will have a no impact to the operations at the intersection and will not cause any drop in LOS.

(b) The Project will only increase the vehicles passing through the intersection by 49 and 45 vehicles during the Friday and Saturday peak hours respectively.

(6) NYS Route 318 at NYS Route 5 & 20

(a) The project is projected to increase the southbound left turning vehicles at the intersection by 85 and 69 vehicles during the Friday and Saturday peak hours respectively

(b) The Project will have a beneficial impact on traffic operations at this intersection, after installation of the proposed improvements, which includes adding a traffic signal to provide protected turning movements resulting in a more balanced and safer traffic flow.

(c) The traffic signal will be coordinated with the adjacent traffic signal at Route 89 just 450 feet east on Route 5 & 20.

(d) The recommended signal will provide good levels of operation as both the Friday and Saturday peak hours will have an overall 'B' LOS.

(7) NYS Route 5 & 20 at NYS Route 89

(a) The Project will have no impacts on the operating conditions at this intersection.

(b) Without any mitigation, the overall LOS for the Friday peak hour degrades from a 'B' to a 'C' LOS due to a 5 second increase in delay, while the Saturday peak hour has an 'A'

LOS which degrades to a 'B' due to a one second increase in delay.

(c) With the proposed improvements, which includes optimizing the signal timings to the new traffic volumes and coordinating the signal with the new proposed signal at the Route 318 intersection 450 feet to the west, the result is no change to the existing overall intersection operation levels of service.

w) Additional highway improvements include:

(1) Expansion of NYS Route 414 to four lanes from the NYS Thruway interchange to the Project entrance;

(2) Addition of turning lanes to the Project entrance;

(3) New traffic signal at the Project entrance;

(4) Installation of an additional toll plaza lane;

(5) Widened shoulders (8 feet) for buggies, pedestrians and cyclists on both sides of NYS Route 414; and

(6) NYS Thruway bridge expansion to four lanes.

x) These improvements were reviewed and refined by the relevant state agencies, including the NYSDOT and New York State Thruway Authority (NYSTA).

(1) By letter dated August 6, 2015 (Appendix 13.B of the BME binder), the NYSDOT stated that its comments set forth in its April 23, 2014 letter were still valid.

(2) The comments in the April 23, 2014 letter set forth additional mitigation measures all of which have been integrated into the Project design by the Applicant.

(3) The Applicant has also addressed the NYSDOT comment with respect to stormwater management by mitigating the stormwater runoff

associated with offsite road improvements with DEC approved stormwater management practices (including dry swales) within NYSDOT and NYSTA right of ways.

(4) By letter dated August 14, 2015 (Appendix 13.C of the BME binder), the NYSTA stated that it has been working closely with McFarland Johnson regarding modifications to the Exit 41 Interchange, the Exit 41 Toll Plaza, and the NYS Route 414 Bridge over the Thruway.

(5) The NYSTA also suggested additional studies be completed with respect to the toll plaza and the NYS Route 414 bridge. The Applicant completed these studies and additional modifications to the toll plaza were incorporated into the Project design by the Applicant.

y) The report found that with the implementation of the suggested mitigation measures, the transportation network that would serve the Project site would do so at a satisfactory level of service. Specifically, with the proposed improvements, all existing overall levels of service were maintained in comparison to the no-build conditions with one exception.

z) The exception is the intersection of Route 414 at Exit 41, where the no-build condition has an LOS 'A' and the intersection with proposed improvements has a 13 and 10 second increases in delay that result in a LOS 'B' for the build scenario for both peak periods. LOS 'B' is an acceptable operating level.

aa) The Applicant is also including in the overall Project development appropriate control and/or safety mechanisms at the entrance of the Project site from NYS Route 414. These design features address NYSDOT permitting and commercially reasonable safety measures.

4. Item identified as:

No impact

Potential small impact

\_\_\_ Potential moderate to large impact

5. Part 3 Analysis required? \_\_\_ Yes \_\_\_ No
  - a) Magnitude
  - b) Duration
  - c) Likelihood
  - d) Importance
  - e) Key Question: Is the impact significant and adverse?

**B. Part 2, Section 13, Item b** – “The proposed action may result in the construction of paved parking area for 500 or more vehicles.”

1. Relevant Project Information:
  - a) The Project will create a paved parking area and a 4-story parking garage to accommodate 3,190± parking spaces.
2. Relevant Public Comment:
  - a) Public comment letters raised concerns about pollution from the parking lot impacting nearby ponds and waterbodies, including the Tschache Pool of the Montezuma Wildlife Refuge.
  - b) Public comment letters raised concerns about lighting in the parking lot.
3. Key Considerations:
  - a) According to the SEQRA Workbook, issues related to large parking lots could include stormwater runoff, loss of vegetation, impaired aesthetics, lighting and traffic congestion.
  - b) Pursuant to NYS regulations, the Applicant prepared a Storm Water Pollution Prevention Plan ("SWPPP") to meet the overall water quantity and quality criteria required by the regulations. The SWPPP was reviewed and approved by the NYSDEC. Implementing the design and management features identified in the SWPPP will result in the quantity and quality of stormwater

runoff should be the same (or no different) post-development than pre-development.

- c) The development of the Project site includes the installation of a collection system to direct stormwater runoff from the developed areas and convey it to the two stormwater management facilities (ponds) or the underground chamber system north of the parking garage.
  - (1) The two stormwater management facilities (ponds) have been designed as wet ponds that detain runoff for an extended period of time to allow for sediment settling and pollutant removal.
  - (2) The underground infiltration chamber system located north of the garage will allow stormwater to infiltrate into the soil and for larger storm events the chamber system will release excess runoff at a controlled rate.
  - (3) Each of these facilities will control the discharge from the project site, ensuring that runoff rates downstream of the development meet the design criteria relative to quantity controls, overbank flood protect and extreme storm protection.
  - (4) To meet water quality and runoff reduction volume requirements, the stormwater management system also includes upstream practices to provide treatment prior to runoff entering into the stormwater management ponds and underground infiltration chamber system north of the garage.
  - (5) Six bio-retention areas, two additional underground infiltration chamber systems, dry vegetated swales, grass filter strips, and tree plantings throughout the Project site.
  - (6) The bioretention practices will provide stormwater filtration and pollutant removal.

- (7) The underground infiltration chamber systems, an NYSDEC-approved (BAT/BPT) available technology practice, have "Isolation Rows" that capture the "first flush" from rainfall events, which typically contains the majority of suspended solids associated with storm runoff. The isolation rows are designed to capture and detain this runoff, promoting the removal of any containment through particle settling. These rows also protect the remainder of the system from sediment, and are easily cleaned using the same methods for cleaning storm and sanitary sewer pipes.
- d) NYSDEC guidance has indicated that by complying with the Design Manual and with all regulations set forth by the General Permit GP 0-10-001 that a project is complying with the U.S. Environmental Protection Agency's water quality standards.
- e) All site-generated runoff from the developed portion of the site is treated prior to its discharge downstream in a manner that complies with the Design Manual and all regulations and, therefore, will not adversely impact downstream water resources.
- f) The project's lighting will not be detrimental to the area, as the area is currently affected by the lighting of the Petro Stopping Center and NYS Thruway toll plaza, both having light poles over twice the height of those proposed for this project. The project also will utilize dark sky compliant LED fixtures and as previously stated will preserve and supplement the natural vegetated buffer along the north property line. In addition, the Project site has been designed so that travel patterns at the perimeter of the will be parallel to the north property line to minimize the potential for headlight glare to adjoining properties. The parking garage has been designed with wall heights that exceed the average heights of vehicle headlights to further reduce the likelihood of

headlight glare from vehicles reaching adjacent properties.

- g) The parking lots will be visible from NYS Route 414, as will the Casino building, the hotel building and the parking garage. Visual simulations from Chase Road and the NYS Thruway demonstrate that the parking lots will be screened by existing natural vegetation year round. The Applicant has committed to preserving such screening, which will also be supplemented with additional plantings.
- h) The Project will not result in any traffic congestion. After incorporating the proposed mitigation, all existing overall levels of service were maintained in comparison to the no-build conditions with one exception where the no build condition has an LOS 'A' and the intersection with proposed improvements has an LOS 'B', which is an acceptable operating level.
- i) The area of the proposed parking lot was formerly used for agricultural purposes, specifically soybeans. Although the proposed action will result in a loss of approximately 45 acres of agricultural land, it represents approximately less than one percent of the total agricultural lands in the Town of Tyre. Thus, the loss is negligible. In addition, the Applicant has committed, as part of the overall development of the project, to implement a plan for agricultural programs and initiatives, including funding the preservation of agricultural lands.
- j) Emergency access to the Site will be provided via NYS Route 414. The internal road network was designed to accommodate emergency vehicles and other large vehicles.

4. Item identified as:

- No impact
- Potential small impact
- Potential moderate to large impact

5. Part 3 Analysis required? \_\_\_ Yes \_\_\_ No
  - a) Magnitude
  - b) Duration
  - c) Likelihood
  - d) Importance
  - e) Key Question: Is the impact significant and adverse?

**C. Part 2, Section 13, Item c** – “The proposed action will degrade existing transit access.”

Transit services or facilities include bus, taxi, train, park and ride lots, parking lots, and subways.

1. Relevant Project Information:
  - a) The Applicant will promote pre-existing public transportation for the Project site.
2. Relevant Public Comment:
  - a) NYSDOT noted in its April 23, 2014 correspondence that the Applicant should provide discussion of public transit.
3. Key Considerations:
  - a) Transit services or facilities include bus, taxi, train, park and ride lots, parking lots, and subways. Placement of public and private transportation services or facilities more than one-half mile distant means that pedestrians will be less likely to use those facilities. One-half mile is the distance that reflects the typical walking distance pedestrians would use. Transit services can be degraded by overcrowding a system so that it becomes harder to conveniently use it. Degrading access could also mean either eliminating a bus stop or limiting access to a bus stop, such as making it harder for pedestrians to reach a transit stop, forcing a reroute of a railroad, transit route, or reducing access to such, relocating a transit stop, or removing an area that is used as a park and ride location.

b) The Seneca Transit System (STS), a regional subsidiary of the Rochester Genesee Regional Transportation Authority, has been providing minibus service in Seneca County since 2004. STS provides three scheduled routes throughout the county. The buses generally operate between 6:00 a.m. and 5:00 p.m. Monday through Friday, with some exceptions for certain routes or service. At present, none of these existing bus routes provide service to the Town of Tyre.

4. Item identified as:

No impact

Potential small impact

Potential moderate to large impact

5. Part 3 Analysis required?  Yes  No

a) Magnitude

b) Duration

c) Likelihood

d) Importance

e) Key Question: Is the impact significant and adverse?

**D. Part 2, Section 13, Item d** – “The proposed action will degrade existing pedestrian or bicycle accommodations.”

1. Relevant Project Information:

a) Proposed off-site roadway mitigation includes widened shoulders (8 feet) to accommodate buggies, pedestrians and cyclists on both sides of NYS Route 414.

b) The project will also implement bicycle racks, storage, as well as electric car charging stations.

2. Relevant Public Comment:

- a) NYSDOT noted in its April 23, 2014 correspondence that the Applicant should provide discussion of pedestrian traffic.

3. Key Considerations:

- a) This question explores the potential impacts on pedestrian or bicycle accommodations including but not limited to sidewalks, crosswalks, trails or paths, bike paths, dedicated bike lanes, or bike parking areas.
- b) Provision of pedestrian accommodations (sidewalks and paths), or bicycle routes (trails, paths, sidewalks, bicycle parking, or bike lanes) can work towards improving health and reducing impacts on the environment by offering alternative transportation routes to the proposed site. This could reduce traffic volumes and air emissions
- c) The Project site is located in a rural area and is adjacent to the NYS Thruway. There are no sidewalks located along NYS Route 414 or NYS Route 318 and walking to the Project site is not practicable.
- d) Nevertheless, the Applicant has provided for widened shoulders (8 feet) for buggies, pedestrians and cyclists on both sides of NYS Route 414.
- e) In addition, the project will include bicycle racks and storage.

4. Item identified as:

- No impact
- Potential small impact
- Potential moderate to large impact

5. Part 3 Analysis required?  Yes  No

- a) Magnitude
- b) Duration
- c) Likelihood

- d) Importance
- e) Key Question: Is the impact significant and adverse?

**E. Part 2, Section 13, Item e** – “The proposed action may alter the present pattern of movement of people or goods”

1. Relevant Project Information:

- a) The Project includes off-site roadway improvements that include widened roadways, the addition of turn lanes, and new and improved traffic signals.
- b) A new signalized intersection will be created at the entry drive to the Project site and NYS Route 414.
- c) Existing roads and intersections will be altered to handle the additional demand related to the Project.
- d) New signal systems will be installed and existing signal systems will be altered to handle the additional demand related to the Project.
- e) These measures will create a roadway network with more efficient operations and improved safety for all users, including the high percentage of existing tractor trailer traffic.

2. Relevant Public Comment: None

3. Key Considerations:

- a) Alterations of traffic patterns include re-routing, creation of one-way streets, installation of roundabouts, construction of new streets, addition of new intersections or ramps, to streets, roads, intersections, sidewalks or other pathways, and new or altered roads, intersections, transit facilities, access control, or signal systems.
- b) Existing roads and intersections will be altered, new signal systems will be installed and existing signal systems will be altered to handle the additional demand and lessen traffic impacts associated with the Project.

(1) NYS Route 318/I-90 Exit 42 at NYS Route 14

(a) The Project will have a negligible impact and will not cause any drops in the intersection's existing 'B' LOS. The Project adds 72 vehicles and 67 vehicles during the Friday and Saturday peak hours, respectively, which represents 3.9% and 5.0% increases in traffic at this intersection. Peak hour traffic volumes typically vary from day to day by more than the projected increase in traffic from the Project. Therefore, it is unlikely that there will be a noticeable increase in existing traffic volumes. No intersection modifications are proposed.

(2) NYS Route 318 at Waterloo Premium Outlet Mall Entrance

(a) When compared to the No-Build LOS, the Project will have a negligible traffic impact since the intersection will maintain its 'A' LOS for the Friday peak hour and its 'B' LOS for the Saturday peak hour.

(3) NYS Route 318 at NYS Route 414

(a) The Project will not have an impact on the operating conditions at this intersection with the inclusion of the recommended improvements.

(b) These improvements include a new westbound dedicated right turn lane as well as adding signalized left turn arrows to the northbound, southbound and eastbound approaches as there are currently dedicated left turn lanes with no protected signal phase.

(c) With the improvements, the Project will create slightly improved operating conditions as the overall delay at the intersection will decrease by 8 seconds during the Friday peak and 6 seconds for the Saturday peak.

(d) The improvements will also reduce some individual movement delay, specifically the eastbound left will improve from an 'F' and 'E' LOS in the No-Build to a 'C' LOS in the mitigated build. The improvements will also help to improve the safety at this intersection.

(4) NYS Route 414 at I-90 Exit 41/Truck Station Entrance

(a) The Project will have a negligible impact on the operating conditions at this intersection with the inclusion of recommended improvements.

(b) These improvements include a new eastbound dedicated left turn lane and a second westbound lane to access the toll plaza, creating a 6-lane section east of the toll booths consisting of eastbound dual left lanes, a through lane and a channelized right turn lane with two westbound lanes. The westbound approach has an additional through lane proposed to access the new travel lane to the toll plaza. The southbound approach has a new dedicated right turn lane and a new northbound lane to accommodate the new eastbound dual left turn lanes, creating a 5-lane approach with a left turn, through the right turn lanes southbound with two northbound lanes. The northbound approach has a new through lane creating a 4-lane approach with a left turn, through and through-right lanes with a single southbound lane.

(c) The intersection as improved will operate a 'B' LOS during the Friday and Saturday peak hours, while the no build had a 'A' LOS. The overall intersection delay will increase by 13 seconds and 10 seconds

during the Friday and Saturday peak hours respectively.

(d) The change in overall LOS is acceptable as a LOS 'B' is considered a very acceptable operation level and is comparable to the surrounding intersections.

(5) NYS Route 414 at Chase Road

(a) The Project will have no impact to the operations at the intersection and will not cause any drop in LOS.

(b) The Project will only increase the vehicles passing through the intersection by 49 and 45 vehicles during the Friday and Saturday peak hours respectively.

(6) NYS Route 318 at NYS Route 5 & 20

(a) The project is projected to increase the southbound left turning vehicles at the intersection by 85 and 69 vehicles during the Friday and Saturday peak hours respectively

(b) The Project will have a beneficial impact on traffic operations at this intersection, after installation of the proposed improvements, which includes adding a traffic signal to provide protected turning movements resulting in a more balanced and safer traffic flow.

(c) The traffic signal will be coordinated with the adjacent traffic signal at Route 89 just 450 feet east on Route 5 & 20.

(d) The recommended signal will provide good levels of operation as both the Friday and Saturday peak hours will have an overall 'B' LOS.

(7) NYS Route 5 & 20 at NYS Route 89

(a) The Project will have no impacts on the operating conditions at this intersection.

(b) Without any mitigation, the overall LOS for the Friday peak hour degrades from a 'B' to a 'C' LOS due to a 5 second increase in delay, while the Saturday peak hour has an 'A' LOS which degrades to a 'B' due to a one second increase in delay.

(c) With the proposed improvements, which includes optimizing the signal timings to the new traffic volumes and coordinating the signal with the new proposed signal at the Route 318 intersection 450 feet to the west, the result is no change to the existing overall intersection operation levels of service.

c) Additional highway improvements include:

(1) Expansion of NYS Route 414 to four lanes from the NYS Thruway interchange to the Project entrance;

(2) Addition of turning lanes to the Project entrance;

(3) New traffic signal at the Project entrance;

(4) Installation of an additional toll plaza lane;

(5) Widened shoulders (8 feet) for buggies, pedestrians and cyclists on both sides of NYS Route 414; and

(6) NYS Thruway bridge expansion to four lanes.

d) These improvements were reviewed and refined by the relevant state agencies, including the NYSDOT and New York State Thruway Authority (NYSTA).

(1) By letter dated August 6, 2015 (Appendix 13.B of the BME binder), the NYSDOT stated that its comments set forth in its April 23, 2014 letter were still valid.

(2) The comments in the April 23, 2014 letter set forth additional mitigation measures all of which have been integrated into the Project design by the Applicant.

(3) By letter dated August 14, 2015 (Appendix 13.C of the BME binder), the NYSTA stated that it has been working closely with McFarland Johnson regarding modifications to the Exit 41 Interchange, the Exit 41 Toll Plaza, and the NYS Route 414 Bridge over the Thruway.

(4) The NYSTA also suggested additional studies be completed with respect to the toll plaza and the NYS Route 414 bridge. The Applicant completed these studies and additional modifications to the toll plaza were incorporated into the Project design by the Applicant.

- e) The report found that with the implementation of the suggested mitigation measures, the transportation network that would serve the Project site would do so at a satisfactory level of service.
- f) The Applicant is also including in the overall Project development appropriate control and/or safety mechanisms at the entrance of the Project site from NYS Route 414. These design features address NYSDOT permitting and commercially reasonable safety measures.
- g) Off-site highway improvements will alleviate impacts associated with the Project, will provide the necessary capacity for full development of the Project, will produce no noticeable increase in delays, will provide infrastructure necessary to increase safety and potentially decrease the accident rates at the mitigated intersections.

4. Item identified as:

- No impact
- Potential small impact
- Potential moderate to large impact

5. Part 3 Analysis required?  Yes  No

- a) Magnitude
- b) Duration

- c) Likelihood
- d) Importance
- e) Key Question: Is the impact significant and adverse?

**F. Part 2, Section 13, Item f – “Other Impacts.”**

1. Relevant Public Comment:

- a) A number of public comments were raised about the impacts on horse and buggy transportation used by the Town’s Amish residents.
- b) A number of public comments were raised about the impacts associated with construction vehicles.

2. Key Considerations:

a) Amish Impacts

(1) Video recordings were taken of all traffic traveling within the Project’s traffic impact study area along NYS Route 414 and NYS Route 318 on November 22, 2013 and November 23, 2014. These video recordings did not show one Amish vehicle.

(2) Additional video recordings were taken of all traffic traveling within the Project’s traffic impact study area along NYS Route 414 and NYS Route 318 from September 26, 2014 to September 30, 2014.

(3) It was determined that 3-4 Amish buggies per day travel on NYS Route 414 north of the Project site to access Chase Road.

(4) Less than 4% of the Project traffic is expected to traverse the area of NYS Route 414 north of the Project site.

(5) The nearest Amish residence is located 750 feet to the north of the Project entrance. Access to this property is provided via NYS Route 414 and from Alder Road. The next closest Amish farm is 2.5 miles to the northeast on West Tyre Road. An

Amish school and meeting point are located further east on Tyre Road. All of these locations are north of the Project site.

(6) McFarland Johnson inspected the pavement and shoulder areas along NYS Route 414 from the Thruway to the Project site entrance and found no evidence of buggy or horse traffic. However, buggy wheel and horse shoe marks are visible on Alder and Chase Roads north of the Project site. It appears that most, if not all, of the observed buggy traffic terminates at the Amish farm 750 feet north of the Project site.

(7) Proposed off-site roadway mitigation includes widening of the shoulder from 3-4 feet to 8 feet for buggies, pedestrians and cyclists on both sides of NYS Route 414.

(8) Buggy traffic signage will also be utilized to notify casino patrons and area commuters to use caution around non-motorized vehicles.

(9) The installation of a traffic signal at the Project entrance will also calm traffic flows and result in lower speeds in comparison to driving along an open rural road.

b) Construction Traffic

(1) As discussed in the letter from McFarland Johnson, dated September 9, 2015, a review of the magnitude of construction traffic occurred and an analysis of the worst case scenario peak hour volumes was performed.

(2) The anticipated construction related truck traffic from the remaining construction activities is project below:

(a) Concrete Trucks (consistent over 6 months of construction):

(b) Average 10-15 trips per day, one truck every 45 minutes (100-150 CY/day)

- (c) Maximum 20 trips per day, one truck every 30 minutes (200 CY/day)
- (d) Asphalt Trucks (6 weeks this fall and 4 weeks next spring):
- (e) 40 trips per day during paving days, 5 trucks per hour
- (f) Miscellaneous Standard Delivery Trucks - 1 per hour on average

(3) The current/future construction entrance is located at proposed casino entrance which has adequate site distance for entering and exiting the NYS Route 414 corridor. The entrance capacity was analyzed using the proposed background traffic along with the worst case scenario projected construction traffic to determine intersection operation levels. The results from the model showed that the truck and worker traffic utilizing the construction entrance would operate at a 'B' Level of Service experiencing minimal delay with adequate opportunity to turn onto NYS Route 414.

(4) No local roads will be impacted by the construction truck traffic as trucks from the concrete plant will use NYS Route 318 to NYS Route 414 to access the site while the asphalt deliveries will not utilize any local roads. The majority of the miscellaneous construction deliveries will utilize 1-90 and NYS Route 414 to access the site. These roads have the capacity to absorb the additional construction related traffic without significantly deteriorating levels of service.

(5) Any potential impacts associated with construction traffic are temporary.

3. Item identified as:

- No impact
- Potential small impact
- Potential moderate to large impact

4. Part 3 Analysis required?  Yes  No
  - a) Magnitude
  - b) Duration
  - c) Likelihood
  - d) Importance
  - e) Key Question: Is the impact significant and adverse?

**II. Impact on Air (Page 4 of Part 2 of FEAF): The proposed action may include a state regulated air emission source.** Emission sources proposed at the Project will be regulated, for example, there will be two emergency generators that will not require permitting provided they operate only when the usual source of power is unavailable and they operate less than 500 hours a year. Also, there will be seven boilers at the facility that will be subject

**A. Part 2, Section 6, Item a** – “If the proposed action requires federal or state air emission permits, the action may also emit one or more greenhouse gases at or above the following levels: (i) More than 1000 tons/year of carbon dioxide (CO<sub>2</sub>) (ii) More than 3.5 tons/year of nitrous oxide (N<sub>2</sub>O) (iii) More than 1000 tons/year of carbon equivalent of perfluorocarbons (PFCs) (iv) More than .045 tons/year of sulfur hexafluoride (SF<sub>6</sub>) (v) More than 1000 tons/year of carbon dioxide equivalent of hydrochloroflourocarbons (HFCs) emissions (vi) 43 tons/year or more of methane.”

1. Relevant Project Information:

- a) This item focuses on stationary sources of air emissions, not mobile sources.
- b) There will be no process emissions from the Project; there will be emissions from combustion sources (boilers, emergency generators, portable generators).
- c) During construction, the contractors will be relying on available existing electric service connections; however, contractors may occasionally use small, light commercial/residential style gas-powered portable generators. They will be utilized only when or if needed between the hours of 7:00 AM and 7:00 PM, and not continuously. Their emissions will conform to EPA requirements for generators of the type used. They will be exempt from permitting based on their fuel use and their maximum rated heat input capacity less than 10 million Btu/hr.
- d) Onsite combustion emission sources during operation will be seven (7) natural gas-fired low nitrogen oxide (NOX) boilers for the Project’s HVAC units. Each boiler will have a maximum rated heat

input capacity of 6 MBtu/hr. Based on this capacity, the fuel burned and the level of combustion emissions anticipated, the boilers are expected to be exempt from permitting under State regulations at 6 NYCRR Subpart 201-3 because they are less than 10Mbtu/hr boilers.

- e) Other onsite combustion sources during operation will be two natural gas-fired emergency generators (1000Kw) that will operate only when the usual source of power to the Project is not available and for less than 500 hours a year. Based on these operations, the emergency generators will be exempt from permitting.
- f) Emissions from Project combustion sources may exceed the referenced level for CO<sub>2</sub> because CO<sub>2</sub> is a product of combustion. For comparison, a mid-sized industrial facility emits approximately 3,600 tons of CO<sub>2</sub> a year from natural gas combustion units.
- g) Project sources will be in compliance with all applicable federal and state regulatory requirements for CO<sub>2</sub>.
- h) Some odors are expected to be emitted from the restaurant exhaust or ventilating systems.
- i) Based on available information, the Project does not require a federal or state air emission permit.

2. Relevant Public Comment: None

3. Key Considerations:

- a) The Federal Clean Air Act and Article 19 of the State Environmental Conservation Law provide the framework for the State's air pollution control program. The State statute requires the use of all available, practical and reasonable methods to prevent and control air pollution in New York. Pursuant to the State statute, the Department of Environmental Conservation has the power to adopt and promulgate regulations for preventing,

controlling and prohibiting air pollution and the power to establish standards for the coordination of State and Federal air pollution programs.

- b) New York's air permitting program identifies and controls sources of air pollution that range in size from large industrial facilities and power plants to small commercial operations, such as dry cleaners. Most large sources are major air emission facilities and require air quality permits, while smaller sources may be covered by DEC's air source registration program. Some small sources are specifically identified in the regulations as exempt or trivial activities.
- c) This question is intended to address the potential emission of greenhouse gases at facilities that must obtain air emission permits. Each of the identified pollutants is considered a greenhouse gas. Greenhouse gases are emitted by many sources, including from the combustion of fossil fuels such as coal, oil and gas.
- d) Executive Order No. 24 set a goal to reduce greenhouse gas (GHG) emissions in New York State by 80 percent below the levels emitted in 1990 by the year 2050.
- e) To minimize the potential for the Project's energy demand to result in the generation of greenhouse gases generation, the Applicant intends to implement numerous green energy initiatives and building design features.
  - (1) Use of alternate, renewable energies generating approximately 15% of the Project's annual electricity consumption:
  - (2) On-site solar power: 350 KW Photovoltaic (PV, solar) system, requiring approximately 20,000 sq. ft. of area, will be mounted on the hotel roof. The PV system will convert sunlight into usable electricity, will be connected to the electrical system to help reduce the peak

electrical loads, and will be metered. Coordination with the electrical utility company will prevent any back feeding into the utility lines. The PV system will generate approximately 10% of on-site energy.

- (3) Food waste recycling and methane power: Methane power will be purchased from an existing methane power plant located less than 20 miles from the site on the Lawnhurst Dairy Farm. The Applicant entered into a Memorandum of Understanding to purchase renewable energy from this Farm's existing Anaerobic Digester and agreed to dispose of the Project's food waste by dumping it into the digester, turning the food waste into power.

The process of Anaerobic Digestion works by mixing cow manure from the dairy farm and food waste from the Project and storing the mixture in an air tight vessel, during which time organisms convert the remaining volatile organic compounds into methane gas. The methane is then captured and utilized to generate electricity in a biomethane engine generator, thereby avoiding methane emissions. This renewable energy production system is now common in the U.S. and New York State has over 25 dairy farm based anaerobic digesters in operation. This process will generate enough power to offset 5-10% of the Project's annual energy cost.

Benefits of this process include: (1) support of the local dairy farm operation; (2) renewable electricity will be purchased from a local dairy farm; (3) Project food waste will be utilized in a sustainable and productive manner rather than being disposed in a landfill; (4) compost created from the digestate from the digester will be available for use on the Project site as mulch; (5) reduction of carbon footprint for

both the Project and the dairy farm; (6) improved water quality through utilization of digesters to reduce phosphorous levels in manure; and (7) improved air quality through utilization of digester to reduce odors from manure.

- (4) High efficiency HVAC systems served by a highly efficient Central Heating and Cooling Plant, located in a standalone building adjacent to the loading dock area:
  - (a) Chiller system:
    - (i) 3 high efficient chillers with variable speed chilled water pumps and variable speed condenser water pumps.
    - (ii) Free cooling heat exchanger will utilize the cooling tower water to provide chilled water during off-peak seasons and save hours of operation on the chillers.
    - (iii) Closed circuit fluid coolers serving ice machines, kitchen equipment, and data closet air conditioning requirements.
    - (iv) 3 centrifugal chillers, each sized for 50% capacity, resulting in 1 redundant chiller and 3 cooling towers (each also sized for 50% capacity resulting in 1 redundant cooling tower)
  - (b) Heating System:
    - (i) High efficient low NOx hot water boilers served by variable speed pumps to serve all heating requirements.
    - (ii) Heating system operating at a high temperature differential to minimize pumping energy and enable proper control.

(iii) 1 redundant boiler

- f) Project incorporates building design elements and measures that make it eligible for a Leadership in Energy and Environmental Design (LEED®) Silver certification under the United States Green Building Council's (USGBC) 2009 LEED® for New Construction & Major Renovations rating system:
- (1) Creation of bus stops at the site
  - (2) Bicycle racks and showers/changing rooms
  - (3) Vegetated open space (62% of the Project site)
  - (4) Enhanced storm water design to control storm water runoff
  - (5) Use of a light roof
  - (6) Car charging stations
  - (7) Landscaping on the site using diverted storm water for irrigation
  - (8) Low-flow plumbing fixtures
  - (9) Optimizing energy performance through an enhanced building envelope, reduced interior and site lighting power, high-efficiency HVAC systems, and other features
  - (10) Use of alternate, renewable energies (on-site solar power and purchase of electricity generated by methane energy)
  - (11) Implementation of recycling program
  - (12) Construction Waste Management Plan to divert debris from disposal in landfills
  - (13) Materials used for the Project will have high amount of recycled content and be sourced regionally (e.g. concrete, steel, asphalt) and will be low-emitting (e.g. adhesives, sealants, paints, coatings, flooring systems)

- (14) Monitoring outdoor air delivery of ventilation units
  - (15) Implementation of Construction IAQ Management Plan, minimizing the uses of pesticides and encouraging natural pest control mechanisms.
  - (16) Green cleaning policy
  - (17) Integrated Pest Management Plan
4. Item identified as:
- No impact
  - Potential small impact
  - Potential moderate to large impact
5. Part 3 Analysis required?  Yes  No
- a) Magnitude
  - b) Duration
  - c) Likelihood
  - d) Importance
  - e) Key Question: Is the impact significant and adverse?

**B. Part 2, Section 6, Item b** – “The proposed action may generate 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants.”

- 1. Relevant Project Information:
  - a) The combustion sources identified above will emit very low levels of hazardous air pollutants that will be significantly below the referenced levels of 10 tons/year or more of any one designated hazardous air pollutant, or 25 tons/year or more of any combination of such hazardous air pollutants (HAPs). For comparison, a facility with similar types of combustion sources emits approximately 0.1 ton of HAPs a year.
- 2. Relevant Public Comment: None

3. Key Considerations:
  - a) The Project's combustion sources will emit extremely low levels of HAPs that do not exceed the referenced levels.
4. Item identified as:  
 No impact  
 Potential small impact  
 Potential moderate to large impact
5. Part 3 Analysis required?  Yes  No
  - a) Magnitude
  - b) Duration
  - c) Likelihood
  - d) Importance
  - e) Key Question: Is the impact significant and adverse?

**C. Part 2, Section 6, Item c** – “The proposed action may require a state air registration, or may produce an emissions rate of total contaminants that may exceed 5 lbs per hour, or may include a heat source capable of producing more than 10 million BTUs per hour.”

1. Relevant Project Information:
  - a) The only emission sources at the facility are combustion sources that, based on their maximum rated heat input capacity, qualify as exempt activities that do not require a permit or state air registration. Emissions from combustion are not expected to trigger a requirement to obtain a permit.
  - b) The Project may emit CO<sub>2</sub> in excess of 5 lbs per hour from its combustion sources.
  - c) The Project will not include a heat source capable of producing more than 10 million Btus per hour.
2. Relevant Public Comment: None
3. Key Considerations:

- a) The Project may exceed the 5 lbs per hour threshold for CO<sub>2</sub> from combustion sources. This will mean that the Project may have an emissions rate of total contaminants that may exceed 5 lbs per hour.
  - b) Applicable regulations authorize this rate of emissions of CO<sub>2</sub> without a permit.
4. Item identified as:
- No impact
  - Potential small impact
  - Potential moderate to large impact
5. Part 3 Analysis required?  Yes  No
- a) Magnitude
  - b) Duration
  - c) Likelihood
  - d) Importance
  - e) Key Question: Is the impact significant and adverse?

**D. Part 2, Section 6, Item d** – “The proposed action may reach 50% of any of the thresholds in “a” through “c”, above”

- 1. Relevant Project Information:
  - a) Project emissions of CO<sub>2</sub> from combustion sources are expected to exceed 2.5 lbs per hour as explained in item c above.
  - b) Project combustion sources are expected to produce more than 5 million BTUs per hour as explained in item c above.
- 2. Relevant Public Comment: None
- 3. Key Considerations:
  - a) Project emissions of CO<sub>2</sub> and of all other regulated air contaminants will comply with applicable federal and state regulatory requirements.

- b) The Project's emissions are minor and the Project is expected to qualify as exempt from New York's air permitting program.
- 4. Item identified as:
  - No impact
  - Potential small impact
  - Potential moderate to large impact
- 5. Part 3 Analysis required?  Yes  No
  - a) Magnitude
  - b) Duration
  - c) Likelihood
  - d) Importance
  - e) Key Question: Is the impact significant and adverse?

**E. Part 2, Section 6, Item e** – “The proposed action may result in the combustion or thermal treatment of more than 1 ton of refuse per hour.”

- 1. Relevant Project Information:
  - a) The Project does not result in the combustion or thermal treatment of refuse.
- 2. Relevant Public Comment: None
- 3. Key Considerations: This question relates to onsite incineration or autoclaving facilities, which will not occur on the Project site.
- 4. Item identified as:
  - No impact
  - Potential small impact
  - Potential moderate to large impact
- 5. Part 3 Analysis required?  Yes  No
  - a) Magnitude
  - b) Duration

- c) Likelihood
- d) Importance
- e) Key Question: Is the impact significant and adverse?

**F. Part 2, Section 6, Item f – “Other Impacts.”**

1. Relevant Project Information:

- a) The Project will involve the use of heavy equipment onsite during construction activities. Heavy equipment associated with earth moving activities may result in the generation of dust.
- b) The Project will result in a substantial increase in traffic.
- c) Dust control practices are listed in the SWPPP and they follow the best management practices described in the NYSDEC Standards and Specifications for Erosion and Sediment Control.

2. Relevant Public Comment:

- a) Several comment letters contained complaints about dust allegedly generated during construction.
- b) Several comment letters, including the letter submitted by Akin Gump expressed concerns that the increase in traffic would result in air pollution. These comment letters were critical that no modeling was done to study the potential impacts associated traffic emissions.
- c) The Town Engineer indicated that the Town Supervisor inquired about bacterial growth in cooling towers associated with HVAC equipment could cause Legionnaire’s Disease.

3. Key Considerations:

**a) Potential Impact from Dust**

- (1) Project site is located in a generally rural area consisting predominantly of agricultural lands. Agricultural lands are typically plowed once to several times a year, and often left bare, with no

soil stabilization until the crop starts to establish itself. Once a crop is fully grown, it is harvested, typically leaving the fields barren once again. In these barren states, agricultural lands are susceptible to the generation of fugitive dust, which is typical in rural areas with large amounts of agricultural fields. This is also typically experienced during field preparation and planting activities, especially during periods of little precipitation and barren fields.

(2) The majority of the earth work at the Project site has been substantially completed. Any fugitive dust generated from the Project site during future construction will be temporary in nature.

(3) Dust controls measures have been utilized in the design of the Project site and were implemented at the outset of construction in accordance with the NYSDEC Standards and Specifications for Erosion and Sediment Control referenced as Appendix 6.A.

(4) The existing trees along the north and east property limits were preserved with the design of the Project site to preserve the natural windbreak barrier and limit the transportation of temporary dust particles due to construction.

(5) Silt fencing has also been installed around the limits of disturbance for the project construction which can, "...control air currents at intervals equal to ten times the barrier height." (NYSDEC Standards and Specifications for Erosion and Sediment Control).

(6) A water truck has been, and will be, used on-site during construction, providing dust control on haul roads and actively worked areas.

(7) Street sweeping has occurred, and will occur, as necessary to clean the roadways of any dust that has accumulated on adjacent streets so that it does not pose an impact to traffic safety.

(8) Both temporary and permanent stabilization has been, and will be, utilized to control dust and has been applied in accordance with the NYSDEC General Permit requirements, including vegetative cover, straw mulching, and stone stabilization.

(9) A community air monitoring plan is not required for this site because it is typically used for sites with contaminated soils where there is a concern that the contaminated soils could become airborne through earth disturbance activities. There is no record of contaminated soils on the Project site.

(10) NYSDEC and NYSDOH indicated that they were not aware of any projects using a community air monitoring plan in the absence of contaminated soils or remediation activities.

(11) NYSDEC noted that the NYSDEC Standards and Specifications for Erosion and Sediment Control had specification sheets that could be used for controlling fugitive dust. The Project has implemented erosion and sediment control features that are in conformance with NYSDEC Standards and Specifications for Erosion and Sediment Control).

(12) The predominant wind direction in this area and Central New York is westerly, which indicates that receptors would more likely be located to the east of the project site. As the nearest neighbor to the east is approximately 3,000 feet (with 1,700 feet of woods) it is unlikely they would be affected by dust. There are also neighbors to the north (nearest receptor at approximately 600 feet), but given the predominant wind direction and the stand of trees to the north of the site, impacts would be minimal.

**b) Potential impact from traffic**

(1) There will not be any significant changes to post construction air quality in the area due to the

project. It is projected that approximately 4,500 vehicles will be introduced to the project site each day. By comparison, the NYS Thruway, which directly borders the project site to the south, averages approximately 33,000 vehicles per day. Because the project site is located adjacent to the NYS Thruway and Petro Stopping Center, the additional vehicles will not significantly compromise the existing air quality in this vicinity. The applicant is not aware of any reports of degraded air quality associated with the NYS Thruway or Petro Stopping Center in this area nor is the project site located in a non-attainment area. As more fully discussed in Section 13, Impact on Transportation, the analysis of mobile source emissions utilizing traffic air dispersion models is not warranted given the rural nature of the project site.

(2) An air quality analysis for vehicular traffic is not necessary since the Project will not increase traffic volumes, reduce source-receptor distances or change other conditions to such a degree as to jeopardize attainment of the National Ambient Air Quality Standards.

(3) The Clean Air Act required EPA to set National Ambient Air Quality Standards for pollutants considered harmful to public health and the environment. EPA has set National Ambient Air Quality Standards for six principal pollutants, which are called "criteria" pollutants. They include: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter, and sulfur dioxide. The EPA then established non-attainment areas, which are areas of the country where air pollution levels consistently exceed the NAAQS. These areas must develop a maintenance plan to address air quality.

(4) NYSDOT publishes an Environmental Procedures Manual with respect to Air Quality. The NYSDOT manual establishes screening

criteria to determine if modeling is warranted. The Project did not meet any of the criteria necessary in the first screening phase:

(a) The Project study area is not within a NAAQS air quality maintenance or non-attainment area.

(b) The Project site is not in the area of sensitive receptors.

(c) The proposed traffic intersections will have operation levels of A, B, and C after mitigation, which exceed the established trigger level of service grade of D or worse that require air modeling to be performed.

(5) The predominant wind direction in this area and Central New York is westerly, which indicates that receptors would more likely be located to the east of the project site. As the nearest neighbor to the east is approximately 3,000 feet (with 1,700 feet of woods). There are also neighbors to the north (nearest receptor at approximately 600 feet), but given the predominant wind direction and the stand of trees to the north of the site, modeling was not warranted.

(6) In addition, the number of vehicles the Project will generate does not exceed the threshold that the NYSDOT states in their Environmental Manual.

(7) Considering the nature of the area, and the service levels (LOS) at the intersections, and the number of vehicles generated as a result of the Project, the results of any modeling would be inappropriate and unreliable. The algorithms used in the modeling rely on value constants and equation boundaries that are based on certain assumptions for areas with high CO and GHG constituent levels, or areas that cannot attain the National Air Quality Standards or require constant traffic maintenance to attain the National Standards. Using these algorithms in situations

outside of the boundary parameters would require significant model calibration and an unreasonable and unnecessary amount of data collection to create analytical sample sets that would achieve results with an adequate level of confidence. Moreover, the results will likely display a negligible impact value, which is why the NYSDOT provided guidance thresholds (i.e. LOS below a grade of C, projects within nonattainment areas, projects that involve greater than 7,000 vehicles per hour). For this Project, none of these thresholds are exceeded.

**c) Potential impact from Legionnaire's Disease**

(1) At the Central Plant, there will be 3 Forced Draft, Counterflow Cooling Towers and 1 Closed Circuit Fluid Cooler.

(2) The Forced Draft Cooling Towers will be served by a complete water treatment system.

(3) The Closed Circuit Fluid Cooler will be served by a complete water treatment system.

(4) These water treatment systems will provide the capability of controlling the presence of organic material, biofilm, algae and other visible contaminants.

(5) The maintenance staff will be trained to properly manage these water treatment systems through a maintenance plan and program. They will schedule routine bacteriological sampling which can then be analyzed for microbiological activity to minimize the risk of Legionnaire's Disease bacterial growth.

4. Item identified as:

No impact

Potential small impact

Potential moderate to large impact

5. Part 3 Analysis required?  Yes  No

- a) Magnitude
- b) Duration
- c) Likelihood
- d) Importance
- e) Key Question: Is the impact significant and adverse?

**III. Impact on Energy (page 8 of Part 2 of EAF): The proposed action may cause an increase in the use of any form of energy.**

An increase in energy use means a need for more energy production, either on-site or off-site, which could necessitate upgrades to a delivery or generation system and result in environmental impacts. If the project includes some form of construction activity, a change to a more intensive land use, or a new or expanded building or structure, there will be an increase in the use of energy. When evaluating if there will be an impact from that use, consideration should be given to the use during and after construction, as well as to whether the proposed action incorporates energy efficient design features and technologies.

**A. Part 2, Section 14, Item a:** “The proposed action will require a new, or an upgrade to an existing, substation.”

1. Relevant Project Information:

- a. New York State Gas and Electric (“NYSEG”) will provide electricity and natural gas service to the Project. NYSEG has the ability to provide the necessary service to the site.
- b. The Project will not require a new substation or an upgrade to an existing substation, as confirmed by a letter from NYSEG dated July 31, 2015.
- c. Some infrastructure improvements to the delivery system will be required for both electricity and natural gas. There are currently overhead electric lines located on Route 414 adjacent to the site, which will be extended to the site. Natural gas infrastructure exists south of the NYS Thruway, on the east side of Route 414, so improvements will be needed to cross the Thruway to serve the site. The Applicant will pay for the costs of these improvements.

2. Item identified as:

- No impact
- Potential small impact
- Potential moderate to large impact

3. Part 3 Analysis required?  Yes  No

a. Magnitude

- b. Duration
- c. Likelihood
- d. Importance
- e. Key Question: Is the impact significant and adverse?

**B. Part 2, Section 14, Item b:** “The proposed action will require the creation or extension of an energy transmission or supply system to serve more than 50 single or two-family residences or to serve a commercial or industrial use.”

1. Relevant Project Information:

- a. NYSEG will provide electricity and natural gas service to the Project. NYSEG has the capacity to provide the necessary service to the site.
- b. Electricity and natural gas service is currently provided by NYSEG in the Town and the vicinity of the site. Large commercial energy users, as well as residential users, already exist nearby. Some infrastructure improvements to the delivery system will be required for both electricity and natural gas to connect to the Project site. There are currently overhead electric lines located on Route 414 adjacent to the site, which will be extended to the site. Natural gas infrastructure exists south of the NYS Thruway, on the east side of Route 414, so improvements will be needed to cross the Thruway to serve the site. The Applicant will pay for the costs of these improvements.
- c. The Project is designed in accordance with the National Electric Code (NEC) and the NYS Energy Conservation Construction Code. The NEC states the installation requirements of electricity-related items (e.g. wiring, electrical equipment, raceways, conductors, fiber optics, etc.). The NEC is administered by the National Fire Protection Association (NFPA) and is the “benchmark for safe electrical design, installation, and inspection to protect people and property from electrical hazards.” The NYS Energy Code is part of the NYS Building Code and it was created for Energy Conservation Measures and

Implementation for Construction projects for Commercial Buildings in NYS.

- d. The Applicant intends to implement numerous green energy initiatives and building design features:
- i. Lighting will utilize high efficiency technology (fluorescent and LED) and automatic lighting controls for compliance with energy conservation codes. Light sensitive button photo-cell operation will be included on each individual exterior lighting fixture, or for each individual lighting circuit on the site, to ensure greater energy efficiency of the lighting fixtures.
  - ii. Use of alternate, renewable energies generating approximately 15% of the Project's annual electricity consumption:
    - On-site solar power: 350 KW Photovoltaic (PV, solar) system, requiring approximately 20,000 sq. ft. of area, will be mounted on the hotel roof. The PV system will convert sunlight into usable electricity, will be connected to the electrical system to help reduce the peak electrical loads, and will be metered. Coordination with the electrical utility company will prevent any back feeding into the utility lines. The PV system will generate approximately 10% of on-site energy.
    - Food waste recycling and methane power: Methane power will be purchased from an existing methane power plant located less than 20 miles from the site on the Lawnhurst Dairy Farm. The Applicant entered into a Memorandum of Understanding to purchase renewable energy from this Farm's existing Anaerobic Digester and agreed to dispose of the Project's food waste by dumping it into the digester, turning the food waste into power. The process of Anaerobic Digestion works by mixing cow manure from the dairy farm and food

waste from the Project and storing the mixture in an air tight vessel, during which time organisms convert the remaining volatile organic compounds into methane gas. The methane is then captured and utilized to generate electricity in a biomethane engine generator. This renewable energy production system is now common in the U.S. and New York State has over 25 dairy farm based anaerobic digesters in operation. This process will generate enough power to offset 5-10% of the Project's annual energy cost.

Benefit of this process include: (1) support of the local dairy farm operation; (2) renewable electricity will be purchased from a local dairy farm; (3) Project food waste will be utilized in a sustainable and productive manner rather than being disposed in a landfill; (4) compost from the digester will be available for use on the Project site as mulch; (5) reduction of carbon footprint for both the Project and the dairy farm; (6) improved water quality through utilization of digesters to reduce phosphorous levels in manure; and (7) improved air quality through utilization of digester to reduce odors from manure.

iii. High efficiency HVAC systems served by a highly efficient Central Heating and Cooling Plant, located in a standalone building adjacent to the loading dock area:

- Chiller system:

- 3 high efficient chillers with variable speed chilled water pumps and variable speed condenser water pumps.
- Free cooling heat exchanger will utilize the cooling tower water to provide chilled water during off-peak seasons and save hours of operation on the chillers.

- Closed circuit fluid coolers serving ice machines, kitchen equipment, and data closet air conditioning requirements.
- 3 centrifugal chillers, each sized for 50% capacity, resulting in 1 redundant chiller and 3 cooling towers (each also sized for 50% capacity resulting in 1 redundant cooling tower)
- Heating System:
  - High efficient low NOx hot water boilers served by variable speed pumps to serve all heating requirements.
  - Heating system operating at a high temperature differential to minimize pumping energy and enable proper control.
  - 1 redundant boiler
- Ventilation System:
  - Gaming areas, hotel ventilation and restaurant spaces will be served by energy recovery ventilation units providing code-required ventilation in the most efficient manner.
  - The hotel served by 4 pipe fan coil units.
  - Gaming area served by 3 Energy Recovery Ventilation Units and 3 Rooftop Air Handling Units which will allow the space to be maintained comfortably in the event of 1 unit failure
  - All pumping systems will have 1 standby pump for redundancy
- iv. Project incorporates building design elements and measures that make it eligible for a Leadership in Energy and Environmental Design (LEED<sup>®</sup>) Silver certification under the United States Green Building Council's (USGBC) 2009 LEED<sup>®</sup> for New Construction & Major Renovations rating system:

- Creation of bus stops at the site
- Bicycle racks and showers/changing rooms
- Vegetated open space (62% of the Project site)
- Enhanced storm water design to control storm water runoff
- Use of a light roof
- Car charging stations
- Landscaping on the site using diverted storm water for irrigation
- Low-flow plumbing fixtures
- Optimizing energy performance through an enhanced building envelope, reduced interior and site lighting power, high-efficiency HVAC systems, and other features
- Use of alternate, renewable energies (on-site solar power and purchase of electricity generated by methane energy)
- Implementation of recycling program
- Construction Waste Management Plan to divert debris from disposal in landfills
- Materials used for the Project will have high amount of recycled content and be sourced regionally (e.g. concrete, steel, asphalt) and will be low-emitting (e.g. adhesives, sealants, paints, coatings, flooring systems)
- Monitoring outdoor air delivery of ventilation units
- Implementation of Construction IAQ Management Plan, minimizing the uses of pesticides and encouraging natural pest control mechanisms.
- Green cleaning policy

- Integrated Pest Management Plan

- v. Metering will be provided for the Project and the Applicant will share whole-project energy and water usage data for five years with the USGBC.

2. Item identified as:

- No impact
- Potential small impact
- Potential moderate to large impact

3. Part 3 Analysis required?  Yes  No

- a) Magnitude
- b) Duration
- c) Likelihood
- d) Importance
- e) Key Question: Is the impact significant and adverse?

**C. Part 2, Section 14, Item c:** “The proposed action may utilize more than 2,500 MWhrs per year of electricity.”

2. Relevant Project Information:

- a. NYSEG will provide electricity and natural gas service to the Project. NYSEG has the capacity to provide the necessary service to the site. Electricity and natural gas service is currently provided by NYSEG in the Town and the vicinity of the site. Large commercial energy users, as well as residential users, already exist nearby.
- b. NYSEG will provide electricity to the site via a high-voltage transmission line, which will be transformed down to 480V power and distributed throughout the facility to serve lighting and electrical loads.
- c. Two 1000kW generators will be provided for emergency power during the loss of normal power, which will serve legally required loads (egress lighting, exit signs, fire alarm system, smoke control system, etc.) along with owner optional loads (cage lighting, casino floor and equipment, select restaurants and kitchens, etc.). These generators will have sound attenuation enclosures and air

pollution control measures to minimize NOx emissions, hydrocarbons, and particulate matter, in accordance with federal regulations. An uninterruptible power system will be provided for slots, security system, and telecommunication systems.

- d. During operation, the annual average diversified electricity demand is estimated to be 4.422 MW and the estimated yearly usage will be approximately 20,800 MWhrs. Energy use during construction will be de minimis as most will be portable and self-powered.
- e. The Applicant intends to implement numerous green energy initiatives and building design features:
  - i. Lighting will utilize high efficiency technology (fluorescent and LED) and automatic lighting controls for compliance with energy conservation codes. Light sensitive button photo-cell operation will be included on each individual exterior lighting fixture, or for each individual lighting circuit on the site to ensure greater energy efficiency of the lighting fixtures.
  - ii. Use of alternate, renewable energies generating approximately 15% of the Project's annual electricity consumption:
    - On-site solar power: 350 KW Photovoltaic (PV, solar) system, requiring approximately 20,000 sq. ft. of area, will be mounted on the hotel roof. The PV system will convert sunlight into usable electricity, will be connected to the electrical system to help reduce the peak electrical loads, and will be metered. Coordination with the electrical utility company will prevent any back feeding into the utility lines. The PV system will generate approximately 10% of on-site energy.
    - Food waste recycling and methane power: Methane power will be purchased from an existing methane power plant located less than 20 miles from the site on the Lawnhurst Dairy

Farm. The Applicant entered into a Memorandum of Understanding to purchase renewable energy from this Farm's existing Anaerobic Digester and agreed to dispose of the Project's food waste by dumping it into the digester, turning the food waste into power.

The process of Anaerobic Digestion works by mixing cow manure from the dairy farm and food waste from the Project and storing the mixture in an air tight vessel, during which time organisms convert the remaining volatile organic compounds into methane gas. The methane is then captured and utilized to generate electricity in a biomethane engine generator. This renewable energy production system is now common in the U.S. and New York State has over 25 dairy farm based anaerobic digesters in operation. This process will generate enough power to offset 5-10% of the Project's annual energy cost.

Benefit of this process include: (1) support of the local dairy farm operation; (2) renewable electricity will be purchased from a local dairy farm; (3) Project food waste will be utilized in a sustainable and productive manner rather than being disposed in a landfill; (4) compost from the digester will be available for use on the Project site as mulch; (5) reduction of carbon footprint for both the Project and the dairy farm; (6) improved water quality through utilization of digesters to reduce phosphorous levels in manure; and (7) improved air quality through utilization of digester to reduce odors from manure.

iii. High efficiency HVAC systems served by a highly efficient Central Heating and Cooling Plant, located in a standalone building adjacent to the loading dock area:

- Chiller system:

- 3 high efficient chillers with variable speed chilled water pumps and variable speed condenser water pumps.
- Free cooling heat exchanger will utilize the cooling tower water to provide chilled water during off-peak seasons and save hours of operation on the chillers.
- Closed circuit fluid coolers serving ice machines, kitchen equipment, and data closet air conditioning requirements.
- 3 centrifugal chillers, each sized for 50% capacity, resulting in 1 redundant chiller and 3 cooling towers (each also sized for 50% capacity resulting in 1 redundant cooling tower)
- Heating System:
  - High efficient low NOx hot water boilers served by variable speed pumps to serve all heating requirements.
  - Heating system operating at a high temperature differential to minimize pumping energy and enable proper control.
  - 1 redundant boiler
- Ventilation System:
  - Gaming areas, hotel ventilation and restaurant spaces will be served by energy recovery ventilation units providing code-required ventilation in the most efficient manner.
  - The hotel served by 4 pipe fan coil units.
  - Gaming area served by 3 Energy Recovery Ventilation Units and 3 Rooftop Air Handling Units which will allow the space to be maintained comfortably in the event of 1 unit failure

- All pumping systems will have 1 standby pump for redundancy
- iv. Project incorporates building design elements and measures that make it eligible for a Leadership in Energy and Environmental Design (LEED<sup>®</sup>) Silver certification under the United States Green Building Council's (USGBC) 2009 LEED<sup>®</sup> for New Construction & Major Renovations rating system:
- Creation of bus stops at the site
  - Bicycle racks and showers/changing rooms
  - Vegetated open space (62% of the Project site)
  - Enhanced storm water design to control storm water runoff
  - Use of a light roof
  - Car charging stations
  - Landscaping on the site using diverted storm water for irrigation
  - Low-flow plumbing fixtures
  - Optimizing energy performance through an enhanced building envelope, reduced interior and site lighting power, high-efficiency HVAC systems, and other features
  - Use of alternate, renewable energies (on-site solar power and purchase of electricity generated by methane energy)
  - Implementation of recycling program
  - Construction Waste Management Plan to divert debris from disposal in landfills
  - Materials used for the Project will have high amount of recycled content and be sourced regionally (e.g. concrete, steel, asphalt) and will be low-emitting (e.g. adhesives, sealants, paints, coatings, flooring systems)

- Monitoring outdoor air delivery of ventilation units
  - Implementation of Construction IAQ Management Plan, minimizing the uses of pesticides and encouraging natural pest control mechanisms.
  - Green cleaning policy
  - Integrated Pest Management Plan
- v. Metering will be provided for the Project and the Applicant will share whole-project energy and water usage data for five years with the USGBC.
3. Relevant Public Comment: Comment received stated that the Project should incorporate green design elements.
4. Item identified as:
- No impact
  - Potential small impact
  - Potential moderate to large impact
5. Part 3 Analysis required?  Yes  No
- a) Magnitude
  - b) Duration
  - c) Likelihood
  - d) Importance
  - e) Key Question: Is the impact significant and adverse?

**D. Part 2, Section 14, Item d:** “The proposed action may involve heating and/or cooling of more than 100,000 square feet of building area when completed.”

1. Relevant Project Information:
- a. The structures on the site will be heated with natural gas and cooled using heat transfer equipment powered by electricity.
  - b. The Project consists of a six-story hotel, a 210,640+/- square foot casino (including support service areas,

restaurants, and a theater), and a 4-story parking garage. The parking garage will not be heated or cooled. Approximately 428,390 square feet of building space will be heated and cooled.

- c. The Project will be heated and cooled by high efficiency HVAC systems served by a highly efficient Central Heating and Cooling Plant, located in a standalone building adjacent to the loading dock area:
  - i. Chiller system:
    - 3 high efficient chillers with variable speed chilled water pumps and variable speed condenser water pumps.
    - Free cooling heat exchanger will utilize the cooling tower water to provide chilled water during off-peak seasons and save hours of operation on the chillers.
    - Closed circuit fluid coolers serving ice machines, kitchen equipment, and data closet air conditioning requirements.
    - 3 centrifugal chillers, each sized for 50% capacity, resulting in 1 redundant chiller and 3 cooling towers (each also sized for 50% capacity resulting in 1 redundant cooling tower)
  - ii. Heating System:
    - High efficient low NOx hot water boilers served by variable speed pumps to serve all heating requirements.
    - Heating system operating at a high temperature differential to minimize pumping energy and enable proper control.
    - 1 redundant boiler
  - iii. Ventilation System:
    - Gaming areas, hotel ventilation and restaurant spaces will be served by energy recovery

ventilation units providing code-required ventilation in the most efficient manner.

- Hotel served by 4 pipe fan coil units.
  - Gaming area served by 3 Energy Recovery Ventilation Units and 3 Rooftop Air Handling Units which will allow the space to be maintained comfortably in the event of 1 unit failure
  - All pumping systems will have 1 standby pump for redundancy
- d. The Applicant intends to implement numerous green energy initiatives and building design features:
- i. Use of alternate, renewable energies generating approximately 15% of the Project's annual electricity consumption:
    - On-site solar power: 350 KW Photovoltaic (PV, solar) system, requiring approximately 20,000 sq. ft. of area, will be mounted on the hotel roof. The PV system will convert sunlight into usable electricity, will be connected to the electrical system to help reduce the peak electrical loads, and will be metered. Coordination with the electrical utility company will prevent any back feeding into the utility lines. The PV system will generate approximately 10% of on-site energy.
    - Food waste recycling and methane power: Methane power will be purchased from an existing methane power plant located less than 20 miles from the site on the Lawnhurst Dairy Farm. The Applicant entered into a Memorandum of Understanding to purchase renewable energy from this Farm's existing Anaerobic Digester and agreed to dispose of the Project's food waste by dumping it into the digester, turning the food waste into power.

The process of Anaerobic Digestion works by mixing cow manure from the dairy farm and food waste from the Project and storing the mixture in an air tight vessel, during which time organisms convert the remaining volatile organic compounds into methane gas. The methane is then captured and utilized to generate electricity in a biomethane engine generator. This renewable energy production system is now common in the U.S. and New York State has over 25 dairy farm based anaerobic digesters in operation. This process will generate enough power to offset 5-10% of the Project's annual energy cost.

Benefit of this process include: (1) support of the local dairy farm operation; (2) renewable electricity will be purchased from a local dairy farm; (3) Project food waste will be utilized in a sustainable and productive manner rather than being disposed in a landfill; (4) compost from the digester will be available for use on the Project site as mulch; (5) reduction of carbon footprint for both the Project and the dairy farm; (6) improved water quality through utilization of digesters to reduce phosphorous levels in manure; and (7) improved air quality through utilization of digester to reduce odors from manure.

- ii. Project incorporates building design elements and measures that make it eligible for a Leadership in Energy and Environmental Design (LEED<sup>®</sup>) Silver certification under the United States Green Building Council's (USGBC) 2009 LEED<sup>®</sup> for New Construction & Major Renovations rating system. Features relevant to heating and cooling systems and activities are:
  - Optimizing energy performance through an enhanced building envelope, reduced interior and site lighting power, high-efficiency HVAC systems, and other features

- Use of alternate, renewable energies (on-site solar power and purchase of electricity generated by methane energy)
- Monitoring outdoor air delivery of ventilation units
- Metering will be provided for the Project and the Applicant will share whole-project energy and water usage data for five years with the USGBC.

2. Item identified as:

- No impact
- Potential small impact
- Potential moderate to large impact

3. Part 3 Analysis required?  Yes  No

a) Magnitude

b) Duration

c) Likelihood

d) Importance

e) Key Question: Is the impact significant and adverse?

**E. Part 2, Section 14, Item e: "Other Impacts"**

**IV. Impact on Noise, Odor, and Light (page 8 of Part 2 of FEAF):  
“The proposed action may result in an increase in noise, odors, or outdoor lighting.”**

Noise, odors and lighting generated by a proposed project can arise during both construction and operation. This question explores whether the proposed project will increase noise, odors, or lighting levels.

If noises or odors will be produced or outdoor lighting used, the Workbook states that the preliminary question should be answered “Yes.”

**A. Part 2, Section, 15, Item a – “The proposed action may produce sound above noise levels established by local regulation.”**

Noise is defined as any loud, discordant or disagreeable sound or sounds. More commonly, in an environmental context, noise is defined simply as unwanted sound. Sources of noise can come from fixed or mobile equipment, process operations, or the transportation of products, materials, or wastes.

Numerous factors determine the level or perceptibility of sound at a given point of reception, including distance from the source of sound to receptor; surrounding terrain; ambient sound level; time of day; wind direction; temperature gradient; and relative humidity. The characteristics of a sound are also important determining factors for considering it as noise. The loudness, pitch, impulse patterns and duration of sound all affect the potential for a sound to be a noise. Sounds may be minimized or avoided at the point of generation, thereby diminishing the effects at the receptor, in several ways such as through construction or operational methods, equipment maintenance, physical barriers, or established work hours. The combination of these factors and the sensitivity of a receptor to a sound determine whether or not a sound will be perceived as a noise.

Ambient noise level is the total background noise in an area. Physical disturbances to a property such as construction activities may, at least temporarily, result in noise levels that exceed ambient conditions.

1. Relevant Project Information:

- a) The Town does not have any local noise level regulations.
- b) Noise will be produced during the temporary construction phase of the Project, as equipment will be used that produces noise levels similar to farming equipment, but these noise levels will be within all applicable regulatory limits. Noise related to construction will be minimized: construction will occur only from the hours of 7:00 am to 7:00 pm; all motorized construction equipment will be maintained in sound operating order (including exhaust and muffler systems to minimize sound generated); stationary equipment will be placed as far away as practicable from sensitive receptors; existing vegetative buffers will reduce transmission of construction noise; the existing hedgerow along the north portion of the Site will remain, which will help buffer the temporary construction noise from surrounding residents.
- c) After construction of the Project has been completed, possible sources of noise include normal site maintenance such as mowing the lawn, road traffic, snow plowing, and HVAC units. During power outages or maintenance testing, some noise will also be generated by the on-site emergency generators. All equipment will be housed inside the Central Plant building.
- d) The Site is adjacent to the NYS Thruway, which already generates significant levels of noise associated with vehicular traffic (approximately 33,000 vehicles per day). The site is also adjacent to NYS Route 414 (north of Thruway, approximately 2,500 vehicles per day; between Thruway and NYS Route 318, approximately 10,600 vehicles per day).
- e) There are homes in the area with the closest being approximately 600 feet from the Project's entrance; the building would be located approximately 900 feet from this home. There is also one home

northwest of the Site, on the opposite side of Route 414, approximately 1100 feet from the Project entrance road and 1900 feet from the building. There are multiple homes on Chase Road, north of the Site, which are from 1700 to 2000 feet from the Project entrance and buildings. Home are also located on Blackbrook Road, east of the Site, which are more than 3,000 feet away. These nearby properties to the project area are classified under either Activity Category B or F, based on their residential and agricultural uses, according to the Noise Abatement Criteria of the NYSDOT Noise Policy. Activity Category F relates to land uses that are not sensitive to noise and a noise analysis is not required for these location. To be conservative, this Project was compared to the Activity B Criteria. Noise created by the Project will not exceed either the Leg or the L10 values listed for this Activity Criteria.

- Ambient noise readings were taken at various locations on the Site to determine the background level of noise present:
  - i. Test location at 1026 Blackbrook Road: 52.5 dBA (Comparative noise level: quiet suburb, conversation at home, quiet house)
  - ii. Test location at Blackbrook/Chase Road: 40.3 dBA (Comparative noise level: Birds, library to quiet suburb or conversation at home)
  - iii. Test location at 1700 Chase Road: 39.3 dBA (Comparative noise level: Birds, library to quiet suburb or conversation at home)
  - iv. Test Location at 1100 Route 414: 60.9 dBA (Comparative noise level: office, conversation)

- The predominant wind direction in this area and Central New York is from the west, which would likely decrease noise received from the Project received by these receptors.
  - Most of the noise associated with the operation of the Project will be south and west of the primary building, and the building will help to limit sound carrying toward nearby residences, which are generally located north and east of the site.
  - Only 3.8% of the proposed traffic from the Project is expected to access the Site from the north via Route 414 (average of roughly 1 car every 3 minutes).
- f) The Applicant also measured background noise levels at three locations around the Turning Stone Casino site in an effort to approximate the anticipated noise of the Project during operation. The Turning Stone noise level readings (49.9 dBA from approximately 825 feet away, 46.4 dBA from approximately 1180 feet away, and 46.5 dBA from approximately 140 feet away) indicate that they are consistent with a quiet suburb or moderate rainfall. Virtually all of the appreciable noise was produced by vehicle traffic rather than casino operations.
- g) The Applicant also measured background noise at the Montezuma National Wildlife Refuge adjacent to the Tschache Pool Observation Area, approximately 1000 feet north of the NYS Thruway, which yielded an average of 55.9 dBA.
- h) Noise decreases with distance. At distances greater than 50 feet from a sound source, every doubling of the distance produces a 6 dBA reduction in the sound. Also, the noise levels created by multiple sound sources does not create a mathematical additive effect. For instance, two proximal noise sources that are 70 dBA each do not have a combined noise level of 140 dBA.

- i) Noise produced by the Project's operations is expected to be consistent with existing ambient noise levels at the Site.
- j) According to NYSDOT and NYSDEC noise policies, and given the proximity to the local receptors and ambient noise from the adjacent Thruway, the human reaction to this increase is considered "unnoticed to tolerable."
- k) Existing vegetation has been preserved as a noise buffer on the northern portion of the Site.

2. Relevant Public Comment:

- a) Some commenters raised concerns about the noise of construction equipment.
- b) Akin Gump and others commented that noise levels produced by construction and operation of the Project would be disruptive to six neighboring residences.
- c) Akin Gump commented that quantitative noise modeling should be completed by the applicant prior to any decision by the board.

3. Item identified as:

- No impact
- Potential small impact
- Potential moderate to large impact

4. Part 3 Analysis required?  Yes  No

- a) Magnitude
- b) Duration
- c) Likelihood
- d) Importance
- e) Key Question: Is the impact significant and adverse?

**B. Part 2, Section, 15, Item b** – “The proposed action may result in blasting within 1,500 feet of any residence, hospital, school, licensed day care center, or nursing home.”

1. Relevant Project Information: There will not be any blasting associated with the Project.
2. Relevant Public Comment: None.
3. Item identified as:
  - No impact
  - Potential small impact
  - Potential moderate to large impact
4. Part 3 Analysis required?  Yes  No
  - a) Magnitude
  - b) Duration
  - c) Likelihood
  - d) Importance
  - e) Key Question: Is the impact significant and adverse?

**C. Part 2, Section, 15, Item c** – “The proposed action may result in routine odors for more than one hour per day.”

An odor is a chemical in the air that is “smelled” or sensed by our nose (olfactory system). Odor can be a significant environmental concern related to manufacturing, food processing, composting, landfills, and institutional or municipal facilities such as water and wastewater treatment plants.

1. Relevant Project Information:
  - a) The Project includes restaurants which have the potential to generate food odors at various times of day.
  - b) All HVAC and restaurant exhaust systems will be fitted with the necessary ventilation equipment and filters to minimize cooking odors in accordance with county health department codes and related requirements.

- c) The predominant wind direction in the Project area and in Central New York is westerly, which indicates that receptors would most likely be located east of the site.
- d) The nearest neighbor to the east is approximately 3000 feet (including 1700 feet of woods) away from the building and unlikely to be affected by food odors.
- e) Neighbors to the north of the site are approximately 1500-2500 feet away from the food service area, and given the predominant westerly wind direction and their location upwind, would be unlikely to receive food odors.
- f) The existing agricultural uses in the area produce odors, with some seasonal variations.

2. Relevant Public Comment: None.

3. Item identified as:

No impact

Potential small impact

Potential moderate to large impact

4. Part 3 Analysis required?  Yes  No

a) Magnitude

b) Duration

c) Likelihood

d) Importance

e) Key Question: Is the impact significant and adverse?

**D. Part 2, Section, 15, Item d** – “The proposed action may result in light shining onto adjoining properties.”

1. Relevant Project Information:

- a) Lighting will be incorporated onto the Site to provide illumination to pedestrian walkways, parking areas and areas immediately surrounding the building.

- b) The applicant will utilize a combination of pole mounted and building-mounted lights.
- c) All lights will be Dark Sky compliant, full cut-off LED luminaries. Full cut-off fixtures control up lighting and glare by distributing light to a desired area and restricting light emittance from exceeding 90 degrees above nadir.
- d) Light levels in the parking area (the dominant lighting source) and on pedestrian ways will not exceed 0.5 foot candles, as recommended by the Illuminating Engineering Society of North America. High mast, full cut-off fixtures with overall mounting heights between 30-40 feet will be utilized within the larger parking fields on the site.
- e) Light sensitive button photo-cell operation will be included on each individual exterior lighting fixture, or for each individual lighting circuit on the site to ensure greater energy efficiency of the lighting fixtures.
- f) Lighting along the perimeter of the Site will utilize house side shields in order to minimize the ability to see light from beyond the border of the site and controlling unwanted light spillage off the site to neighboring properties.
- g) A photometric plot for the project employing industry accepted methodology does not show any light spill onto adjoining properties. Light from the 0.5 foot candle-lights will not spill over the property line at any location.
- h) Exterior lighting features, like lights that change colors, may be incorporated in the Project. However, animated or changing lighting will not be visible from adjoining properties.
- i) The nearest light receptor is a residence located north of the Site approximately 600 feet from the Project entrance. Residents on Chase Road, also

to the north of the Site, are approximately 1300 feet from the nearest Project lighting source.

- j) Existing perimeter vegetation will be preserved to provide a buffer for Site lighting. For instance, a mature stand of woods has been and will be preserved in the northwest corner of the Site in order to provide a barrier between the Project and the residence to the immediate north. All of the existing mature treed hedgerows along the north property line will also be maintained in their current state. Additional evergreen and deciduous plantings (majority to be evergreen) will be made along the north boundary of the Site to augment what currently exists and to provide additional screening of site lighting year-round.
- k) The Site has been designed so that travel patterns at the perimeter of the Site are ones where the majority of the vehicular traffic will travel parallel to the north property line. Additionally, new landscape screening elements (e.g. deciduous and coniferous trees and shrubs) are proposed to further minimize the potential for headlight glare to adjoining properties.
- l) The parking garage has been designed with wall heights of 46". The average vehicle headlights are located approximately 24"-40" from ground level. Thus, it is not anticipated that headlight glare from vehicles in the parking garage will reach adjacent properties.

2. Relevant Public Comment:

- a) Some commenters raised concerns about the effects of light from the Project at night.
- b) Akin Gump and others have commented that the Project may produce light spillage and sky glow.
- c) Akin Gump commented that more studies should be conducted of the potential for light pollution resulting from the Project.

3. Item identified as:
  - No impact
  - Potential small impact
  - Potential moderate to large impact
4. Part 3 Analysis required?  Yes  No
  - a) Magnitude
  - b) Duration
  - c) Likelihood
  - d) Importance
  - e) Key Question: Is the impact significant and adverse?

**E. Part 2, Section, 15, Item e** – “The proposed action may result in lighting creating sky-glow brighter than existing area conditions.”

1. Relevant Project Information:
  - a) Lighting will be incorporated onto the Site to provide illumination to pedestrian walkways, parking areas and areas immediately surrounding the building.
  - b) The applicant will utilize a combination of pole mounted and building-mounted lights.
  - c) All lights will be Dark Sky compliant, full cut-off LED luminaries. Full cut-off fixtures control up lighting and glare by distributing light to a desired area and restricting light emittance from exceeding 90 degrees above nadir.
  - d) The Project light fixtures will not shine directly onto neighboring properties or upward and instead will focus the light downward onto the ground of the Project Site.
  - e) Light levels in the parking area (the dominant lighting source) and on pedestrian ways will not exceed 0.5 foot candles, as recommended by the Illuminating Engineering Society of North America. High mast, full cut-off fixtures with overall mounting

heights between 30-40 feet will be utilized within the larger parking fields on the site.

- f) Light sensitive button photo-cell operation will be included on each individual exterior lighting fixture, or for each individual lighting circuit on the site to ensure greater energy efficiency of the lighting fixtures.
- g) Lighting along the perimeter of the Site will utilize house side shields in order to minimize the ability to see light from beyond the border of the site and controlling unwanted light spillage off the site to neighboring properties.
- h) A photometric plot for the project employing industry accepted methodology does not show any light spill onto adjoining properties. Light from the 0.5 foot candle-lights will not spill over the property line at any location.
- i) The Site is located adjacent to the NYS Thruway. The Site is within 0.3 miles from the Thruway toll plaza which uses 90 foot light poles. The Site is also located across the Thruway from the Petro Shopping Center (within 0.2 miles) which utilizes tall light poles (105 feet tall) and produces significant existing skyglow. In contrast, no light pole at the Project Site will be taller than 40 feet, less than half the height of the existing poles at these other locations.

2. Relevant Public Comment:

- a) Some commenters raised concerns about the effects of light from the Project at night.
- b) Akin Gump commented that further study was required to determine the impact of skyglow.

3. Item identified as:

- No impact
- Potential small impact
- Potential moderate to large impact

4. Part 3 Analysis required? \_\_\_ Yes \_\_\_ No
  - a) Magnitude
  - b) Duration
  - c) Likelihood
  - d) Importance
  - e) Key Question: Is the impact significant and adverse?

**F. Part 2, Section, 7, Item f – “Other Impacts”**