2 October 2019

Jeffrey W. Davis
Barclay Damon, LLP
125 East Jefferson Street
Syracuse, NY 13202

Re: Response to Comments from Barclay Damon
TC Syracuse Development Associates, LLC
7211,7219 Morgan Road
Town of Clay, Onondaga County, New York
Langan Project No.: 100796101

Dear Mr. Davis:

This letter is in response to comments received from Barclay Damon in a memorandum dated 17 September 2019. The comments are identified in italics and Langan's responses are in bold.

GENERAL COMMENTS

The Applicant should provide a list of all required permits associated with this project, the permitting agency, and the anticipated dates of applications.

Response: A list of required permits, the agency having jurisdiction, and the anticipated application dates will be provided in the FEAF resubmission.

EAF PART 1

- *B.c. - It's possible that ZBA approval will be required based on setbacks, lighting requirements, etc. This may need to be checked yes after Clay meetings and review.*

  Response: As a result of feedback from OCIDA and the Town of Clay, as well as subsequent modifications made to the conceptual plan in order to improve internal vehicle flow within the site, approval from the Zoning Board will now be required for the perimeter landscape strip along Morgan Road and the location of certain sound reduction fences and landscaping berms within setback areas along the site's property lines. As a result, the FEAF has been updated accordingly.

- *C.2.a – The Applicant should identify the land use documents consulted to answer this question.*

  Response: The Town of Clay has not adopted a comprehensive plan. County land use documents consulted are as follows:

  - **2010 Development Guide for Onondaga County, Syracuse-Onondaga County Planning Agency, June 1998.**

- **Framework for Growth in Onondaga County, Syracuse-Onondaga County Planning Agency, June 1998.**
- **Onondaga County Settlement Plan, The Regional Plan and Pilot Projects, Syracuse-Onondaga County Planning Agency, 2001.**

- *D.2.b.i. – Federal wetlands should also be listed.*

  Response: The federal wetlands will be listed in the FEAF resubmission.

- *D.2.f. – Air Emissions – Proposed action includes extended (18 months) site construction (potential temporary stationary sources) and fleet/delivery vehicle operations (mobile operational sources). Per NYSDEC guidance (SEQR EAF workbook); "Answer 'yes' to this question if there are any air pollutants that will be generated or used in either construction or post-construction phases of the proposed project. Consider both minor and major sources of air emission including vehicles and equipment that use gas or diesel fuels." Answer should be changed to Yes and additional discussion provided. Per 6 NYCRR 201-3.3.c.(10) through (13), mobile sources are considered trivial and exempt from permitting requirements, but this should still be identified on the EAF. There are also gas heaters on the roof that should be mentioned.*

  Response: The FEAF has been revised to include air emissions from vehicles and HVAC units. No potential significant adverse impacts to air emissions are projected to result from the development.

- *D.2.l. – Hours of Operation – Saturday construction hours (7a-7p) are outside of allowable construction hours per Town of Clay code (as identified in 152-4.H.) of 8a-5p on Saturdays. Also conflicts with sound study which states Saturday construction hours of 8a-7p.*

  Response: The hours of operation listed in the FEAF will be revised to meet the Town of Clay code.

- *D.2.m.i – Does not include reference to planned Saturday construction hours. Sound study still under review.*

  Response: The hours of operation listed in the FEAF will be revised to meet the Town of Clay code.

- *E.2.d. – The most recent depth to groundwater should be listed.*

  Response: The depth to groundwater is listed in the FEAF at depths ranging from 8 to 12 feet below existing grade.

EXHIBIT A PROJECT DESCRIPTION AND B SITE PLAN EXHIBITS

- *Applicant should provide an updated Project Description and plans showing the revised drainage basin design.*

  Response: An updated project description will be provided with the FEAF resubmission.

- *Add a statement that any required improvements for roadway enhancements will be paid by the Applicant.*

  Response: This statement has been added to the project description.

EXHIBIT C PUBLIC SERVICE IMPACT ASSESSMENT

The EAF questions regarding existing community services (Question C. 4 et. seq.) addresses the capacity of the current services and how the proposed action may affect it. The Assessment in Exhibit C provides detailed information on call times and access points, but letters from the local police, fire and EMS stating that each has the capacity to handle an increase in calls directly related to the distribution facility should be provided. This increase would include calls 24/7 for an additional 700 +/- personnel per shift working labor jobs with heavy equipment and large tractor trailers.

Response: We are in the process of reaching out to emergency services to obtain letters stating that each has the capacity to handle an increase in calls directly related to the distribution facility.

EXHIBIT D ARCHITECTURAL ELEVATIONS

Viewshed Screening and assessment is necessary to evaluate potential impact. The Applicant should provide an inventory of sensitive receptors in the viewshed, selection of key viewpoints, and visual simulations.

Response: Two rendered perspectives of the proposed development from Morgan Road and Plantation Boulevard will be provided with the FEAF resubmission.

EXHIBIT E WETLANDS/WATERS IMPACT ASSESSMENT

- *The Wetlands/Waters Impact Assessment includes a map of the boundaries for the stream, pond, and wetlands that were field-delineated, but does not include further detail on the individual wetlands. The Applicant should provide a delineation report with flagged boundary survey and the USACE Determination Data Forms to properly document the existing conditions.*

  Response: The delineation report / JD application will be provided with the FEAF resubmission.

- *The Applicant should submit a drawing that clearly depicts the wetland areas that will be impacted by the proposed project, with the wetlands labeled with resource ID's (e.g., Wetland A, Wetland B, etc.). This information is required to demonstrate that the proposed wetland disturbance is eligible for coverage under the specified nationwide permits, and to provide the OCIDA with a sound basis for an impact determination.*

  Response: A Wetland Impact Plan will be provided in the FEAF resubmission.

EXHIBIT F STORMWATER POLLUTION PREVENTION ASSESSMENT

General Comment:

The Exhibit does not specify that it is a SWPPP; but rather a preliminary stormwater pollution prevention assessment. It does state it was prepared in accordance with the SPDES Construction General Permit, New York State Stormwater Design Manual, and New York State Standards and Specifications for Erosion and Sediment Control. It is our understanding that a complete SWPPP will be prepared prior to submitting a Notice of Intent for coverage under the General Permit, meeting all State and Town of Clay requirements. However, certain items related to stormwater control are requested:

- *Provide a Stormwater Modeling and Analysis Report that includes:*
  - *Map(s) showing pre-development conditions and sub-drainage areas*
  - *Map(s) showing post-development conditions and sub-drainage areas*
  - *Summary table of pre- and post-development discharge rates*
  - *Stormwater modeling output*
  - *Detention design sizing calculations*

  Response: The full Stormwater Pollution Prevention Plan (SWPPP) will be provided with the FEAF resubmission.

- *The site is within the Onondaga Lake Watershed. Post-construction stormwater management practices must be designed to conform to Enhanced Phosphorus Removal Standards, included in the technical standard, New York State Stormwater Management Design Manual ("Design Manual"). There is no reference to these standards and it is therefore unclear whether the design conforms to them. Please confirm and make the applicable reference in the appropriate section of the Stormwater Pollution Prevention Assessment.*

  Response: The stormwater management practices are designed to conform to enhanced phosphorous removal standards. The full SWPPP will include the applicable reference, which will be provided in the FEAF resubmission.

- *Erosion and Sediment Control (E&SC) Plan - must include all locations of proposed temporary and permanent stormwater management features and erosion and sediment control measures. Include specific location and size of each post-construction stormwater management practices. Details, including dimensions, material specifications, installation details, and operation and maintenance requirements for all erosion and sediment control practices. Include the location and sizing of any temporary sediment basins and structural practices that will be used to divert flows from exposed soils.*

  Response: A Soil Erosion and Sediment Control Plan will be included in the SWPPP, which will be provided with the FEAF resubmission.

- Site Plans showing:
  - Areas of disturbance and areas that will not be disturbed;
  - Tabulated acreage of disturbed, impervious and pervious areas (pre- and postconstruction) summing to total site acreage.
  - Existing and final (proposed) contours
  - Material, waste, and equipment storage areas onsite and on adjacent properties
  - Location of stormwater discharges
  - All improvements
  - Drainage patterns (flow direction)

  Response: The above-mentioned plans will be included in the SWPPP, which will be provided with the FEAF resubmission.

- *Page 9 of 12: "Site inspections will be conducted twice every seven calendar days by a qualified inspector to ensure the stability and effectiveness of all protective measures and practices during construction for as long as more than five acres of land remain undisturbed." Should be replaced with, "Site inspections will be conducted twice every seven calendar days by a qualified inspector to ensure the stability and effectiveness of all protective measures and practices during construction. The two inspections shall be separated by a minimum of two full calendar days." This is a requirement of the Permit, because the site is located within the Onondaga Watershed, regardless of the amount of soil disturbance.*

  Response: This note has been modified in the SWPPP.

- *Page 11 of 12: "The use of detergents for large-scale (e.g., vehicles, buildings, pavement surfaces) washing is prohibited." Revise to include "soaps and solvents" as also being prohibited.*

  Response: This note has been modified in the SWPPP.

- *Page 12 of 12: "Hazardous spills shall be immediately contained to prevent pollutants from entering the surrounding habitat or water supply… Spills greater than 5 gallons shall be reported to the NYSDEC Response Unit…" Need to modify this statement to accurately reflect the state's reporting requirement. Change "hazardous" to "petroleum". Per NYSDEC, " All petroleum spills that occur within New York State (NYS) must be reported to the NYS Spill Hotline (1-800-4577362) within 2 hours of discovery, except spills which meet all of the following criteria:*

    - *The quantity is known to be less than 5 gallons; and*
    - *The spill is contained and under the control of the spiller; and*
    - *The spill has not and will not reach the State's water or any land; and*
    - *The spill is cleaned up within 2 hours of discover.*
    - *A spill is considered to have not impacted land if it occurs on a paved surface such as asphalt or concrete. A spill in a dirt or gravel parking lot is considered to have impacted land and is reportable."*

  Response: This note has been modified in the SWPPP.

EXHIBIT G TRAFFIC

The following comments are provided to indicate areas where further information is needed from the Applicant:

- *A map that clearly shows the anticipated truck route and areas of proposed roadway widening or other enhancements (e.g. new turn lanes, stop lights, etc.).*

  Response: A conceptual map that depicts the anticipated truck route and areas of proposed roadway widening and other improvements will be provided as part of the FEAF resubmission.

- *In areas where widening is being proposed, an evaluation of whether the existing right of way has adequate room for the proposed change.*
    - *Does the Applicant anticipate that OCIDA will need to exercise eminent domain in connection with roadway improvements?*

  Response: We are currently in the process of determining the geometry of the existing rights-of-way in the vicinity of the site improvements. At this time, we anticipate that OCIDA may need to exercise eminent domain in connection with certain (but not all) roadway improvements, but cannot yet detail the extent of the takings since this is subject to further consideration by the Town of Clay and CDOT. Taking a conservative approach in addressing this issue, general scopes of the potential minor land acquisitions to be completed in conjunction with specific traffic improvements will be provided in the conceptual map which will be provided in FEAF resubmission.

- *Saturday peak times were not evaluated in the traffic study. The traffic analysis should be extended to Saturdays as well, including data on existing weekend traffic counts.*

Response: Contrary to the comment, Saturday traffic volumes on Morgan Road were reviewed and evaluated as part of the traffic impact study. The proposed distribution facility will operate the same shifts on Saturday that are used on weekdays. Facility peak hours for trip generation will occur between 6:30-7:30 AM and 5:30-6:30PM. Saturday peak hours occur during the middle of the day when there are no shift changes at the site. During the shift change time periods (AM and PM peak hours), Saturday traffic volumes on Morgan Road are 74% lower than the weekday AM peak hour, and 28% lower than the weekday PM peak hour traffic volumes. Therefore, the traffic improvements proposed by the project are based upon analysis of the higher, more intense weekday peak hours, and a further analysis of the Saturday traffic volumes are unwarranted since the existing Saturday traffic data shows weekend volumes well below the weekday peak flows.

- *Did the existing traffic model evaluate peak hourly conditions for both truck traffic and worker automobiles? The table 3 value of 10 trucks per hour appears low.*

  Response: The traffic model accounts for both existing truck traffic already using study area highways as well as the proposed truck trips generated by the project. Truck trip generation is based upon information that was provided by a facility operator familiar with logistics and e commerce users' requirements based on other similar facilities located around the country. As a result, the trucks per hour assessment is not low, but based on actual data from existing, similarly situated facilities. Truck trips are spread out over the course of the day with the majority of truck trips entering and exiting the site between 8:00AM and noon. Operators of these types of facilities intentionally keep the truck trips low during the peak shift time changes.

- *There is a residential area north of the Morgan/Waterhouse intersection and Morgan is a principle link between towns to the north and downtown Syracuse. The Traffic Study for this project ended about one mile south of the Morgan/Waterhouse intersection. Please provide the rationale for excluding the Morgan/Waterhouse intersection and Morgan/SR 31 Intersection in the study.*

  Response: Reviewing agencies, including the New York State Department of Transportation (NYSDOT), use a guideline in determining whether a project warrants the preparation of a TIS. The applicable guideline is that if a proposed project is projected to add 100 site generated vehicles per hour (vph) on any specific intersection approach, then the intersection should be studied for potential traffic impacts. The guideline was developed to identify locations where the magnitude of the traffic generated has the potential to impact operations at off-site intersections and screen locations from requiring detailed analysis as they are unlikely to result in the need for improvements. In the present scenario, the project will add less than the 100 vph threshold at intersections on Morgan Road north of Wetzel Road (see TIS Figure 7). Therefore, no potential adverse traffic impacts are projected at the Morgan/Waterhouse or Morgan/SR 31 intersections.

EXHIBIT I EVALUATION OF SITE SOUND EMISSIONS

We have worked with the Town Engineer and Town Planning Department to better understand the nature of the Town's local noise ordinance and its requirements. It has been acknowledged that the Town largely relies on its noise ordinance for enforcement purposes, and not for land use planning. This results in a certain level of ambiguity that creates challenges in determining the best manner in which to assess and avoid adverse noise impacts created by new development projects in the Town. In light of these challenges, we have decided to take the most conservative approach in avoiding potential adverse noise impacts by revising our conceptual site plans to locate sound reduction fencing and landscaping berms at specific locations along the site's property lines. The inclusion of such fencing and landscaping berms at these locations are designed to avoid adverse noise impacts to those sensitive receptors identified in the report, as well as those commented on by OCIDA. The conceptual plan outlining these locations will be provided in the FEAF resubmission.

The following comments are provided to indicate areas where further information is needed from the Applicant

- *TNM model files. There is nothing in this report that identifies the modeled route that the cars and trucks were using – only a statement that "…all traffic passed as close to receptors as possible."*

  Response: There are no assigned routes on site with the exception that trucks and cars have designated areas. These vehicles can use any of the drive paths within their respective area. Therefore, to be most conservative, the TNM model route assumed that vehicles passed by the receptor in the closest traffic lane/location possible, which resulted in the shortest distance.

- *Noise modeling inputs/outputs and field notes/transcripts that will allow OCIDA to verify that assumptions are reasonable, and that the methodology is appropriate.*

  Response: TNM model inputs use TNM database sound levels for cars and heavy trucks using 10 mph for trucks and 20 mph for cars. Input data for CadnaA modelling are sound pressure levels measured by Ostergaard Acoustical Associates (OAA) for vehicle sound and manufacturer's sound data for HVAC. Overall sound pressure levels are provided in the sound study.

Regulations/Goals section:

- Town of Clay Zoning Code 230-17.A.(1) includes additional requirements for noise emissions at *industrial properties; please include this section in the regulatory review and assessment of impacts.*

  Response: Noted, and the provisions will be provided in the FEAF resubmission.

- *While the report accurately references the Town code definitions of steady-state and transient, no additional discussion is provided on the nature of repetitive transient noise, which may have implications on the metrics used to analyze potential impacts. Please discuss further.*

  Response: To address the acoustical impact of intermittent maximum sound levels attributed to the site, OAA compared projected maximum site sound to compare with the lowest documented ambient maximum sound levels. This mimics NYDEC's approach to have new transient noise sources not be dramatically different than existing ambient conditions.

- *Please further explain why D-weighting, as referenced in the Town code, is not applicable to this project (e.g., D-weighting is nearly-singularly appropriate for evaluating noise impacts from non-bypass jet* engines, i.e., military planes).

  Response: D-weighting is no longer used in professional acoustical evaluations. Standard sound level meters do not have the capability of processing D-weighting.

Sound Level Survey (Ambient/Baseline conditions):

- *All 4 ambient observation locations are proximal to multi-lane roads and highway and may not reflect ambient sound levels at adjacent residential properties to the north and west. Recommend additional ambient monitoring location(s) to assess residential areas, such as in the vicinity of Plantation Blvd/Grampian Rd to the north (e.g., Model Receptor B).*

  Response: Ambient survey locations were selected to typify the receptors that were most likely to be impacted by site sound. Location B and residences to the north are located at substantial distances from site activity so as not to be impacted. Transient noise sources from local traffic influence maximum ambient sound documented; minimum ambient sound documented is influenced by distant traffic and steady local noise sources. The lowest documented sound level for all locations (across all periods) was determined to be 47 dB(A), which is on the same order of magnitude projected for maximum site sound in the vicinity of Location B. Therefore, no acoustical impacts are projected to occur at Location B or the residential properties located north of the site and additional ambient monitoring locations are unwarranted.

- *All ambient monitoring occurred on weekdays; recommend additional ambient monitoring on weekend days as site will operate 24/7/365.*

  Response: Based on generally recognized, acceptable, and reliable noise modeling and assessment methodologies and the noted existing ambient data, weekend ambient levels are of the same magnitude as weekday ambient levels. Retail and local traffic are expected to remain about the same as during the week. Given that the major contributor in the area is due to local and distant traffic, if traffic in the area were to decrease in volume by half, average ambient sound levels would only

decrease by 3 dB. As a result, this change is considered de minimis, thus not warranting additional ambient monitoring.

- *Results provided include Lmin/Lmax; please specify whether these results utilize the fast or slow time constant. Please note the Town noise code indicates use of the slow time constant for compliance observations.*

  Response: All results reported are using the slow time constant.

- *Monitoring events consisted of one (1), 10-minute observation period at each location for each assessment period (morning/afternoon/night). Such observation periods are potentially subject to statistical aberrations, as indicated by the apparent variability of the observations and the discussion on Page 8. Additional discussion of the impact of field conditions (including detailed field notes) on the variability of data observed is required (e.g., clarify 18 dB(A) difference in Leq for Location 1 morning vs afternoon observations). Statements such as "maximum sound levels were due to other sources, such as an aircraft passby" likewise lack clarity. Recommend additional ambient monitoring to consist of two non-consecutive observation events for a minimum of 15 minutes each at each location for each assessment period (i.e., minimum of six, 15-minute observation events per location).*

  Response: The ambient sound survey protocol was designed to remove potential aberrations while being efficient. Pursuant to generally recognized, acceptable and reliable noise assessment methodologies, 15 minute measurements do not significantly change statistics compared to 10 minute measurements.

  An error was found in Table 2. The Leq for Location 1 should be 67 dB(A), and the study will be revised accordingly.

  The maximum sound level documented at Location 3 during the afternoon was caused by an aircraft passby, and not by any motor vehicle traffic.

- *The text references "background sound levels," please clarify if this means L90, as defined on page 7.*

  Response: Correct, background sound levels mean L90.

- *Please specify at what height the sound meter microphone was placed for monitoring events.*

  Response: Ear height, 5 feet above grade.

Noise Model

- *Per NYSDEC guidance (Assessing and Mitigating Noise Impacts) V.B.b. Receptor Locations:*
    - *"Appropriate receptor locations may be either at the property line of the parcel on which the facility is located or at the location of use or inhabitance on adjacent property. .... The most conservative approach utilizes the property line. The property line should be the point of reference when adjacent land use is proximal to the property line. Reference points at other locations on adjacent properties can be chosen after determining that existing property usage between the property line and the reference point would not be impaired by noise, i.e., property uses are relatively remote from the property line. The location of the facility should be shown on a map in relation to each potential receptor. … The map and narrative should also include the distance of the operation to each point of reception including the distance at the point in time when an expanding operation will be closest to the receptors."*

      Response: Noted, and where not already indicated in the study, supplemental information will be provided.

- Several receptors are located beyond the property line; please add receptor locations at *the intervening property line and, if any of these property-line receptors are not relied upon for the impact analysis, provide a discussion of why it is appropriate to exclude them.*

  Response: Model contours are provided for the surrounding area and accurately indicate the projected sound level of site sound emissions. The focus of this sound study was to evaluate the potential acoustical impact at receptors during the more sensitive nighttime hours. As a result, receptor locations were selected to be the closest position where an actual receptor can reasonably be on their property during sleeping hours.

- *Include a property-line receptor location at the west corner of the site (adjacent to Sharkey's Bar and Grill).*

  Response: Noted.

- *Clarify site traffic patterns and the rationale for modeling only 5 trucks (rather than 40) at receptor locations D and E. Please clarify whether modeled sound levels at locations D and E incorporate sound contributions from truck events at more distant points of the site.*

Response: There is no set traffic pattern for site operations. It is assumed that vehicle activity is evenly distributed across the site. Five trucks over an hour time period were used for the TNM for Locations D and E because these receptors will only see a small, singular portion of truck traffic. Other locations, such as Location C, have the potential to see trucks twice. Note that CadnaA model is a snapshot in time (over that hour period), showing maximum sound levels, not an average, and conservatively shows two trucks nearby Location D and E.

- *The report states on Page 12 under Cumulative Hourly Average Site Sound Emissions: "It is the combined contribution of HVAC sound and hourly average on-site traffic sound that is important to compare to project criteria." Please clarify; while average sound levels are important, repetitive transient and impulse sounds can be very intrusive despite short durations. While Leq is useful, additional metrics should be considered.*

  Response: The sound study compared HVAC and average traffic sound levels to average ambient levels documented. Repetitive transient and impulse sounds can be intrusive and hence were evaluated by comparing maximum sound due to vehicle activity to existing vehicle maximum sound documented in the area. To be conservative, the lowest documented maximum across all periods was used to evaluate the potential acoustical impact. As a result, the appropriate and relevant metrics were used to determine potential noise impacts.

- *Table 6 does not account for ambient sound levels, which have an additive effect on final sound levels, as noted on Page 13 ("Future sound levels which include site noise and ambient will result in an increase of 4 dB(A) when comparing to existing conditions"). Incorporate ambient sound levels on Table 6.*

  Response: We respectfully disagree with this comment. Ambient average sound levels are provided in Table 6 under the column "Lowest Measured 1 hour Leq". The "Difference" column compares lowest measured 1 hour Leq to projected 1 hour average site sound. If site sound and ambient were to be combined, all locations but Location C would remain unchanged. Location C would increase to 56 dB(A), a 4 dB(A) increase compared to existing conditions.

- *The model appears to incorporate noise control barrier/berm along north driveway, adjacent to Receptor C; however, the text states: "Future sound levels which include site noise and ambient will result in an increase of 4 dB(A) when compare to existing conditions. The DEC states that an increase of 3-6 dB is tolerable but may have potential for an adverse noise impact only in cases where the most sensitive of receptors are present. For this reason, a combination noise control barrier and berm is proposed along this portion of the driveway. Results conclude that with this proposed sound barrier, no negative impact is anticipated and hence, site sound emissions comply with NY DEC guidelines." Clarify 1) whether receptor C is considered a highly sensitive receptor, 2) whether the noise control barrier/berm is included in the noise model and 3) whether additional measures to attenuate noise are proposed for this location. It may help to provide model results both with and without sound barriers.*

Response: Given the proximity of Location C to Morgan Road, we do not consider this receptor to be highly noise sensitive. The sound fence/berm near this location is shown in all CadnaA models and was included in the TNM. Moreover, no additional measures to attenuate noise are proposed for this location since the potential for significant levels of noise impacts to these receptors are not projected.

- *The Maximum Site Sound Levels section does not specify whether maximum site sound levels were determined using CadnaA or TNM software.*

  Response: CadnaA input data are maximum sound levels. TNM software uses only hourly average sound levels.

- *The model evaluates maximum sound levels resulting from truck activity and passenger vehicle activity separately on the assumption that peak activity for each vehicle class will not overlap. However, it is expected that truck and vehicle activity will at least partially overlap. Clarify operational timeframes and incorporate simultaneous-modeling of truck and vehicle impacts at appropriate levels.*

  Response: We acknowledge that truck and passenger vehicle activities can and will overlap, but all site sounds will be dynamic and varying under actual site conditions. A hybrid model would look at motor vehicles in states of maximum, average, and minimum sound levels and not be as conservative as the models we have provided, which utilize only maximum sound level data. Further, overlap activities will occur at significantly lower noise volumes than analyzed in the noise study, thus below the conservative, projected maximum-noise modeling completed for the site.

- *The report states that "multiple maximums [truck] events will rarely synchronize in time." Provide rationale for this statement.*

  Response: OAA has considerable experience surveying heavy truck and vehicle activity at similar sites across the country. Motor vehicle sound is dynamic and varying under actual site conditions. Conversely, models provided in the noise assessment study show a snapshot in time, and assume that all vehicles are producing their maximum sound level at the same time. Although this approach has been undertaken to provide the most conservative approach in noise modeling and assessment, statistically, maximum sound levels occurring at the same time rarely occur. In the rare instance that maximum sound from multiple noise sources were to overlap, site noise sources are distributed throughout the site such that there would be no significant cumulative increase at off-site receptors. All vehicles modeled fully comply with NYS VAT allowable maximum sound levels.

- *Peak activity truck counts are proposed to be 40 trucks entering the site per hour, which equates to 3.33 trucks in a 5 minute period. The model presents 1 driving movement during peak truck activity. Clarify how model inputs reflect peak truck activity. Clarify whether driving event was modeled at a single location, multiple locations, or along a traveled path.*

  Response: The analysis conservatively rounds up from 3.33 to 5 trucks over a 5 minute period. Further, yard activity noise is higher in sound level than driving, and hence was focused on for four of the five truck locations.

- *Table 7 presents a "Modelled Maximum" traffic sound level; clarify what metric is presented/appropriate for comparison to.*

  Response: Modelled maximums are Lmax values. They are compared to Lmax values attributable to traffic from the ambient surveys.

- *Include the additive effect of baseline ambient sound levels in Table 7.*

  Response: Table 7 compares maximum sound levels. Based on generally recognized, acceptable and reliable noise modeling and assessment practices, it is not projected that maximum sound levels from the site will typically coincide with ambient maximum sound levels. Given the difference shown in Table 7, in the rare occasion that they did coincide, only Location E would see a change of +3 dB, which will have no appreciable effect on receptors. All other locations would remain the same.

Additional Considerations

- *The report incorrectly states the Town of Clay noise ordinance as restricting construction-associate noise to 8a – 7p on Saturdays (regulation is 8a-5p). This also conflicts with entry on EAF which states construction hours of 7a-7p on Saturdays.*

  Response: Noted, and the study will be revised accordingly.

- *Clarify whether the Applicant is proposing to follow the specified construction noise control strategies.*

  Response: Yes.

- *Identify laydown area locations and discuss potential impacts.*

  Response: Laydown areas are not known at this point. As part of the site plan and building permit processes, the applicant will work with the Town of Clay to select locations that will comply with the Town's local noise ordinance.

- *Recommend adding a requirement to construct any sound barriers in advance of other site construction activities.*

Response: As explained above, after consultation with the Town of Clay, the applicant has agreed to install sound reduction fencing and landscaping berms at specific locations along the site's property lines to avoid adverse noise impacts emanating from the site. The conceptual plan will be revised to show those locations and included on the FEAF resubmission.

Metrics

- *Multiple metrics are discussed but it is unclear what metric is produced via the modeling. Due to the intermittent and transient nature of sound sources, and the 24-hour operational period, comparison of current- and future-condition Lmax, L10, SEL, and/or some similar approximation (in addition to Leq) would appear to be the most appropriate metric for determining potential impacts.*

  Response: The sound study used both Leq and Lmax metrics. The TNM model uses average hourly sound levels for comparison to the NYDEC guidelines. The CadnaA model uses maximum sound levels, which are a worst-case snapshot in time of a dynamic noise source, and are compared to the lowest documented ambient maximum sound levels across all survey periods.

- *Town of Clay Code – Noise ordinance is confusing but language suggests that Lmax, L10 or SEL would be more appropriate metric than Leq for measuring or modeling potential impacts. Zoning ordinance (230-17.A.(1)) indicates metrics roughly equivalent to L10 and Lmax.*

  Response: Our analysis utilized multiple metrics to evaluate potential sound impacts. Average sound levels were modeled using the TNM software and maximum truck sound levels were modeled using CadnaA software.

- *Lmin/Lmax should specify which time constant is used.*

  Response: Slow response.

Other

- The *project Energy Conservation Assessment refers to installation of electrical transformers; include an assessment of the potential for transformer-generated noise impacts.*

  Response: Based on generally recognized, acceptable and reliable noise modeling and assessment practices, as well as observation of actual site conditions, such equipment is low in sound level, and is not anticipated to have any impact on nearby receptors.

- *The report states in Project Criteria that "existing nighttime background sound levels are higher than Town of Clay nighttime limits by 4-to-8 dB(A)." Assuming "background" refers to L90, this appears true for "steady-state" limits as defined in the code, observed ambient Lmax is lower than the transient limits (72 dB(A) day/65 dB(A) night) in four (4) instances, and L10 is below the threshold in all instances. We agree that evaluating impacts against existing sound levels is a required approach, but Town limits do still apply. Please clarify.*

  Response: Background sound levels refer to L90. The comparison was not made to exclude the Town code, but rather to put it into context so as to determine the most appropriate project criteria to use to ensure no negative acoustical impact.

- *Minimal discussion of vehicle backup alarms is included until the Recommendations section of the report; please include additional discussion of backup alarms, potential impacts, and effectiveness of "alternative" backup alarm technologies.*

  Response: Standard backup alarm sound levels are included in all CadnaA models and therefore not anticipated to have a negative acoustical impact on receptors based on magnitude. The tonal content of a standard backup alarm has the potential to be more annoying than a broadband sound of equal strength. As such, should this create an issue, smart broadband backup alarms are available for switcher engines and other trucks controlled by the site, which will remove the tonal component as well as reduce the sound level of the alarm.

Should you have any questions, or should you require additional information, please do not hesitate to contact me at (973) 560-4704.

Sincerely,
Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.

Richard Burrow, P.E., LEED AP
Senior Principal

cc: George Laigaie, John Pollock - Trammell Crow Company
Frank Pavia - Harris Beach, PLLC
Robert Murray - Harris Beach, PLLC
Amy Dake - SRF Associates, DPC
Benjamin Mueller - Ostergaard Acoustical Associates
Alan Lothian, Trista Kuna - Langan