APPENDIX

H. Community Health and Safety Plan (CHASP)

COMMUNITY HEALTH AND SAFETY PLAN

Lakeview Amphitheater Project
Geddes, Onondaga County, NY

Prepared for:

Onondaga County

Prepared by:

Gilbane Building Company
221 South Warren Street, Suite 210
Syracuse, New York 13202

January 2015

TABLE OF CONTENTS

LIST OF APPENDICES

1.0 INTRODUCTION

This Community Health and Safety Plan (CHASP) has been developed to address potential community health and safety issues related to the Lakeview Amphitheater construction activities at Onondaga Lake. The planning and design effort for the Onondaga Lake amphitheater resulted in a project with the health and safety of project employees and members of the public as its primary goal. Gilbane and its contractors are all committed to protecting human health and the environment during the amphitheater construction at Onondaga Lake.

Gilbane Site contacts include:

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2.0 MANAGEMENT AND MONITORING

Management and monitoring will be implemented for the following:

- Air quality
- Traffic
- Noise
- Spills from vehicles and/or equipment
- Site security

2.1 AIR QUALITY

Air quality criteria have been established for the Lakeview Amphitheater construction project. The air quality criteria follow the guidelines established by the NYSDOH Generic Community Air Monitoring Plan for remediation programs (2000). In addition to the guidance values, which have been established as work perimeter limits for this project, lower levels have been established (investigation and control levels) which provide additional assurance that the criteria will not be exceeded. The air quality criteria that will be in place for the construction project are presented in the table below:

	Air Quality Criteria		
Target Compound	Investigation Level	Control Level	Work Perimeter Limit
Total VOC	2 ppm	3 ppm	5 ppm
Dust (as PM_{10})	N/A	100 µg/m^3	150 µg/m^3

Criteria represent 15 minute averages above background levels
Investigation Level – Evaluate reading with background, identify source
Control Level – Apply controls/countermeasures
Work Perimeter Limit – Restrict/stop operations and reassess work

The levels and responses presented above are consistent with levels that have been instituted in past by the remediation contractor. The Community Air Monitoring Plan (CAMP; Appendix A) presents a more detailed analysis of the site perimeter air monitoring that will be in place during the Lakeview Amphitheater construction activities.

2.2 TRAFFIC

Access to the site is limited to the entrance designated for construction. At no time are Trade Contractor personnel or vehicles allowed to obstruct traffic or entry driveways. Each contractor requiring vehicle entry into the Onondaga Amphitheater Project will be required to supply trained flag person(s) when receiving deliveries.

2.3 NOISE

Noise is not expected to affect the community during the Lakeview Amphitheater construction activities. Noise mitigation measures will include the distance of noise receptors from the construction activities and limiting the work hours that pile driving activities will take place (during daytime work hours only). Noise monitoring will be conducted to demonstrate that noise from construction activities falls within the established limits and does not negatively impact the surrounding community. Noise at the perimeter of the site shall not exceed the Town of Geddes established noise limit. Referencing the Town of Geddes Noise Code standards identified below, these minimum standards shall be in addition to meeting any and all federal, New York State and Onondaga County health and safety requirements and standards:

(1) Noise. No use within an industrial zone shall emit a measurable noise which shall be unreasonably loud or disturbing to surrounding property owners and/or users. The standards for determining whether a noise is unreasonably loud or disturbing shall be as follows:

(a) No noise measured at a property line of an industrially zoned property shall exceed 70 decibels during the period between 6:00 a.m. and 10:00 p.m. or 60 decibels during the period between 10:00 p.m. and 6:00 a.m. The decibel limits shall be decreased by five decibels for any industrially zoned property adjacent to a residentially zoned property.

(b) Sound-pressure levels in decibels shall be measured on the A-weighted response scale with a meter set to the slow response mode. Sound level meters used shall have the characteristics defined in the American National Standards Institute Publication S1.4 1971 (R1983). Measurements shall be conducted in accordance with ANSI S1-36, 1979.

(c) The sound level may not exceed these established sound levels by more than six decibels for a period of more than six minutes during any sixty-minute continuous period.

(d) Noise as measured at the property line shall not be objectionable due to intermittence, beat frequency, high frequency or other disturbing characteristics. For noises that the Code Enforcement Officer determines to be impulsive in character (example, hammering) or objectionable for any of the other above-noted characteristics, then the standards cited in Subsection E(1)(a) shall be reduced by five decibels. Sounds of short duration, such as impact noises, shall be measured with either an impact analyzer or a sound-level meter having a standardized I (impulse) characteristic.

(e) Exemptions. The following uses and activities shall be exempt from the noise level regulations:

[1] Noises emanating from temporary construction and maintenance activities between 7:00 a.m. and 6:00 p.m.

[2] The noises of safety signals, warning devices, emergency pressure-relief valves or other emergency warning signals.

[3] Transient noises of moving sources such as automobiles, trucks, airplanes and railroads. Uses requiring regular deliveries by truck may be required by the Board with appropriate jurisdiction to reduce noise levels to an approved level based on proximity of residential uses. In no case shall the required noise levels be lower than those outlined above.

2.4 PREVENTING SPILLS FROM VEHICLES AND/OR EQUIPMENT

Preventing spills from vehicles and construction equipment is necessary at all construction sites. Procedures that will be in place to prevent spills during construction are listed below. In the unlikely event that a spill does occur, site workers will take the appropriate response and reporting actions as indicated below.

Petroleum-based fuels and oils will be used on the site for operation of heavy equipment. Fuels will be brought onto the site by a fuel dispensing truck. The following are material management practices that will be used to reduce the risk of spills:

1. Materials will be stored in a neat, orderly manner in their appropriate containers.

2. Products will be kept in their original containers with the original manufacturer’s label.

3. Substances will not be mixed with one another unless recommended by the manufacturer.

4. Whenever possible, product will be used up or packages resealed before proper disposal of contents and containers off-site.

5. Manufacturers' recommendations for proper use and disposal will be followed.

6. Inspection will be made for proper use and disposal of materials during periodic inspections and recorded on an inspection form.

7. On-site vehicles will be monitored for leaks and receive regular preventative maintenance to reduce the chance of leakage of petroleum products. Petroleum products will be stored in closed containers that are clearly labeled. Used oils will be disposed of properly.

8. Materials will be brought on-site in quantities that limit or minimize the amount of on-site storage.

9. Paint containers will be tightly sealed and properly stored when not required for use. Excess paint, solvents, etc., will not be discharged to the storm sewer facilities but will be properly disposed of according to manufacturer's instructions, and state and local regulations.

2.4.1 Spill Response

A spill response kit will be on-site at all times. Used spill containment and absorbent materials will be properly contained, labeled, and disposed of in accordance with state and local regulations.

2.4.2 Spill Reporting

All reportable petroleum spills and hazardous materials spills within New York State must be reported to DEC hotline (1-800-457-7362) within 2 hours of discovery.

2.5 SITE SECURITY

No work shall be performed in any area occupied by the public unless specifically reviewed and permitted by the Construction Manager. When the Project interfaces with the public, precautions to be taken include, but are not limited to:

- Public use of sidewalks, entrances to buildings, lobbies, corridors, aisles, doors, exits and vehicular roadways will be protected and maintained, as necessary. The public will be protected with appropriate sidewalk sheds, canopies, catch platforms, fences, guardrails, barricades, shields, and adequate visibility as required by laws and regulations of governing authorities. Such protection will guard against flying materials, falling or moving materials and equipment, hot or poisonous materials, flammable or toxic liquids and gases, open flames, energized electric circuits or other harmful exposures.
- Temporary sidewalks, ramps or stairs will be provided with guardrails on both sides whenever permanent sidewalks, ramps or stairs are obstructed by the work.
- The Onondaga Lake Bike Trail is temporarily restricted at two locations by Onondaga County, segregating the public from site construction. Bike trail shall be re-opened at Project's completion. Reference Site Logistics Map (CAMP Figure 1) for access barricades.
- During excavation activities (of the force main) the public shall be segregated from the construction activities using temporary excavation perimeter protection until perimeter site fencing is installed.
- Appropriate warnings, signs and instructional safety signs shall be conspicuously posted where necessary. In addition, a flagman shall control the moving of motorized equipment in areas where the public might be endangered. Warning lights, including lantern, torches, flares and electric lights, meeting the requirements of governing authorities shall be provided and maintained from dusk to sunrise along guardrails, barricades, temporary sidewalks and at every obstruction to the public. These warning signs and lights shall be placed at both ends of such protection or obstruction and not over twenty (20) feet apart alongside of such protection or obstructions.
- A temporary six foot high fence shall be provided and maintained in order to control access to the work to restrict access by unauthorized individuals. The site logistics map (Figure 1 of the CAMP) shows the location of the site fence during construction.

Appendix A

Community Air Monitoring Plan

COMMUNITY AIR MONITORING PLAN

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Table of Contents

FIGURES

1. INTRODUCTION

The objective of this Community Air Monitoring Plan (CAMP) is to describe air monitoring during ground intrusive construction activities for the Onondaga County Lakeview Amphitheater. This plan was developed to be consistent with the community air monitoring plan developed by the Integrated Interim Remedial Measure (IRM) contractor. Air monitoring locations, work perimeter criteria and corrective responses for the various contaminants, quality control/assurance requirements and data reporting requirements are consistent with the IRM contractor's CAMP.

Perimeter air monitoring will evaluate potential air quality impacts from the Lakeview Amphitheater construction activities at the site from VOCs, H2S, odors, and dust. The air monitoring program described herein has been designed using the New York State Department of Health (NYSDOH) *Generic Community Air Monitoring Plan* (gCAMP) guidance for evaluation of potential airborne contaminant.

Surface and subsurface soil sampling in the amphitheater construction area has detected the limited presence of Benzene, Toluene, Ethyl Benzene, Xylene (BTEX), naphthalene, polycyclic aromatic hydrocarbons (PAHs), phenolic compounds, various inorganics, and some PCB and pesticides. Volatile organic compounds in the groundwater have also been identified as a potential source of soil vapors in some areas. Hydrogen sulfide (H2S) may be present in the marl layer that is present at various depths across the site. In general, the highest presence and concentration of these compounds are located remote from the main amphitheater Project site in the central and southeastern portions of the Wastebed 1-8 area while the majority of the amphitheater Project site area is generally considered to exhibit relatively low levels of these contaminants.

Gilbane will be performing all monitoring required by this CAMP.

2. COMMUNITY RECEPTORS

The project site is bordered to the north and east by Onondaga Lake, and to the south and west by Interstate 690 (I-690). Based on review of aerial photographs, the nearest residential receptors

to the project site consist of homes approximately 1,000 feet west of the northwest end of the site. Additional residential receptors are located approximately one mile south and southeast, one mile north and two miles east of the site.

2.1. MONITORING LOCATIONS

Air monitoring will be conducted along or within the perimeter boundary line around the work site. In general, the perimeter boundary follows the Lake shoreline north and west of the work site. On the southwest side of the site where Ninemile Creek runs between the site and I-690, the air monitoring perimeter boundary is located between I-690 and Ninemile Creek. Southeast of that point, the perimeter boundary follows site access roads to the State Fair parking area, and then follows along the northeast side of the parking area over to the southeast portion of the site.

Air monitors will be located at the beginning of each work day based on the predicted predominant wind direction for the day. Air monitoring locations may be moved through the day if the predominant wind direction shifts into a new quadrant or if the work area changes. Site wind conditions will be monitored each day by a portable on-site weather station. Gilbane will mark air monitoring locations prominently in the field and protect them from damage during construction. This includes, at a minimum, no operation of heavy equipment within 10 feet of the air monitoring locations.

2.2. VOC MONITORING

VOC monitoring will consist of continuous real-time air monitoring of total VOCs (TVOCs) upwind and downwind of the work site during daily activities. There will be one upwind and at least one downwind monitoring location. In cases where two or more work areas are spatially separated such that one monitor cannot be downwind of both, then one or more additional downwind monitors will be operated, and one upwind TVOC monitor will be used to evaluate ambient background TVOCs for all downwind monitors.

Measurements at each location will be made using real-time TVOC analyzers (RAE Systems MultiRae, or equivalent). The MultiRae has a UV-light photo-ionizing detector (PID) that continuously measures TVOCs from 0.1 to 15,000 parts per million (ppm), and records the results in time-averaged concentrations.

TVOC work perimeter limits will be based on guidance contained in the NYSDOH gCAMP. Additional lower level criteria have also been incorporated to provide corrective responses prior to reaching the Project CAMP TVOC guidance limits. TVOC results will be expressed as 15-minute time-averaged concentrations. Work perimeter criteria and corrective responses will be as follows:

- **Investigation Level -** If the downwind TVOC level is 2 ppm above the upwind (background) level for a 15-minute period, then the emission sources will be investigated and evaluated.
- **Control Level -** If the downwind TVOC level is 3 ppm above the background level for a 15-minute period, controls or countermeasures will be employed on the operation activity(ies) causing the concentration increase. Controls/countermeasures will include modifications to work activities. Work may continue with controls/countermeasures provided that downwind VOC levels do not exceed 3 ppm above the background level.
- **Work Perimeter Limit -** If the downwind TVOC level exceeds 5 ppm above the background level for the 15-minute period, work activities will be temporarily halted or restricted and monitoring continued. If the TVOC level readily decreases (per instantaneous readings) below 5 ppm (above background), work activities can resume with continued monitoring. If the downwind TVOC level persists in excess of 5 ppm (above background), work activities will continue to be halted, the source of vapors identified, controls/countermeasures taken to abate emissions, and monitoring continued.

  After these steps, work activities can resume provided that the TVOC at the downwind perimeter site is below 5 ppm (above background) for the 15-minute average. After work activities resume they may continue following Investigation or Control level (>2 ppm or >3ppm respectively) responses as defined above.

Background will be identified by an upwind perimeter sample for each 15-minute period. Each PID will automatically alert the air monitoring technician (either visual or audible alarm, pager, or text message) to indicate high readings that may lead to potential exceedances of action criteria. The air monitoring technician will then alert the site construction manager.

2.3. HYDROGEN SULFIDE MONITORING

Hydrogen sulfide (H_2S) monitoring will consist of real-time measurements made using a MultiRae equipped with a H_2S Sensor.

The work perimeter limit for H_2S will be 10 parts per billion (ppb) based on the 1-hour average according to the New York State Department of Environmental Conservation (NYSDEC) short-term guideline concentration. If a single measurement at the perimeter is at 10 ppb or above, additional measurements will be made to evaluate a 1-hour average, during which the operational activity causing the elevated concentration will be controlled, modified or curtailed until additional perimeter measurements indicate H_2S concentrations are within the work perimeter limit.

Since H_2S is recognizable down to 5 ppb as a rotten-egg type odor, spot checks of H2S will only be conducted when rotten-egg odors are observed at the downwind site perimeter.

2.4. ODOR MONITORING

Perimeter odor monitoring will consist of qualitative on-site odor observations downwind of daily work activities. Observations will be made at or within the site perimeter. There are no applicable Federal, State or local regulations that provide guidance on odor levels. However, if odor levels at the site are observed to increase noticeably due to site activities or if community complaints are received that can be attributed to the site activities, then controls and/or countermeasures will be implemented to control odors. If odors are observed they will be investigated to determine where the odors are coming from and then controls/countermeasures implemented.

2.5. DUST MONITORING

Dust monitoring will consist of continuous real-time air monitoring of particulate matter less than 10 microns (PM10) upwind and downwind of the work site during daily activities including intrusive and soil handling activities. There will be one upwind and at least one downwind monitoring location. In cases where there are two or more work areas that are spatially separated

such that one monitor cannot be placed downwind of both, then one or more additional downwind monitors will be operated, and one upwind dust monitor will be used to evaluate ambient background dust for all downwind monitors.

Dust measurements at each location will be made using real-time aerosol monitors (TSI DustTrak with Environmental Enclosure). The DustTrak is a photometric light-scattering instrument that continuously measure airborne particulates from 1 microgram per cubic meter (μg/m3) to over 100 milligrams per cubic meter (mg/m3) and record the results in time-averaged concentrations.

Dust monitoring work perimeter limits will be based on guidance contained in the NYSDOH gCAMP. Dust levels will be expressed as 15-minute time-averaged concentrations. Work perimeter limits and corrective responses will be as follows:

- **Control Level** - If the downwind PM10 level is 100 $\mu g/m^3$ above the upwind level for a 15-minute period or if airborne dust is observed leaving the site perimeter, then additional dust suppression techniques will be employed. Work may continue with dust suppression techniques provided that downwind PM10 levels do not exceed 150 μg/m3 above the upwind level and provided that no visible dust is migrating from the work area.
- **Work Perimeter Limit** - If, after implementation of dust suppression techniques, downwind PM10 levels are greater than 150 $\mu g/m^3$ above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM10 concentration to within 150 $\mu g/m^3$ of the upwind level and in preventing visible off-site dust migration.

Each dust monitor will automatically alert an air monitoring technician (either visual or audible alarm, pager, or text message) to indicate high readings that may lead to potential exceedances of work perimeter limits.

3. QUALITY CONTROL AND QUALITY ASSURANCE

Zero and span calibration checks, and routine maintenance of real-time analyzers will be conducted at the beginning of each day following applicable manufacturer's calibration guidelines. Records of daily field activities and instrument field checks will be documented in the project site log. Daily calibrations will be documented on pre-printed field forms.

4. DATA MANAGEMENT AND REPORTING

Data will be manually or automatically saved to a PC computer each day for review and validation to evaluate the collected data for periods of valid and invalid data and review of daily report summaries. Background levels, exceedances of action levels or compliance criteria, and a summary of response actions taken will be recorded in daily summary field forms. The county's construction manager, NYSDEC and NYSDOH will be notified of exceedances of the action levels pursuant to the requirements in NYSDEC's DER-10 guidance (Section 5.4(a)3).

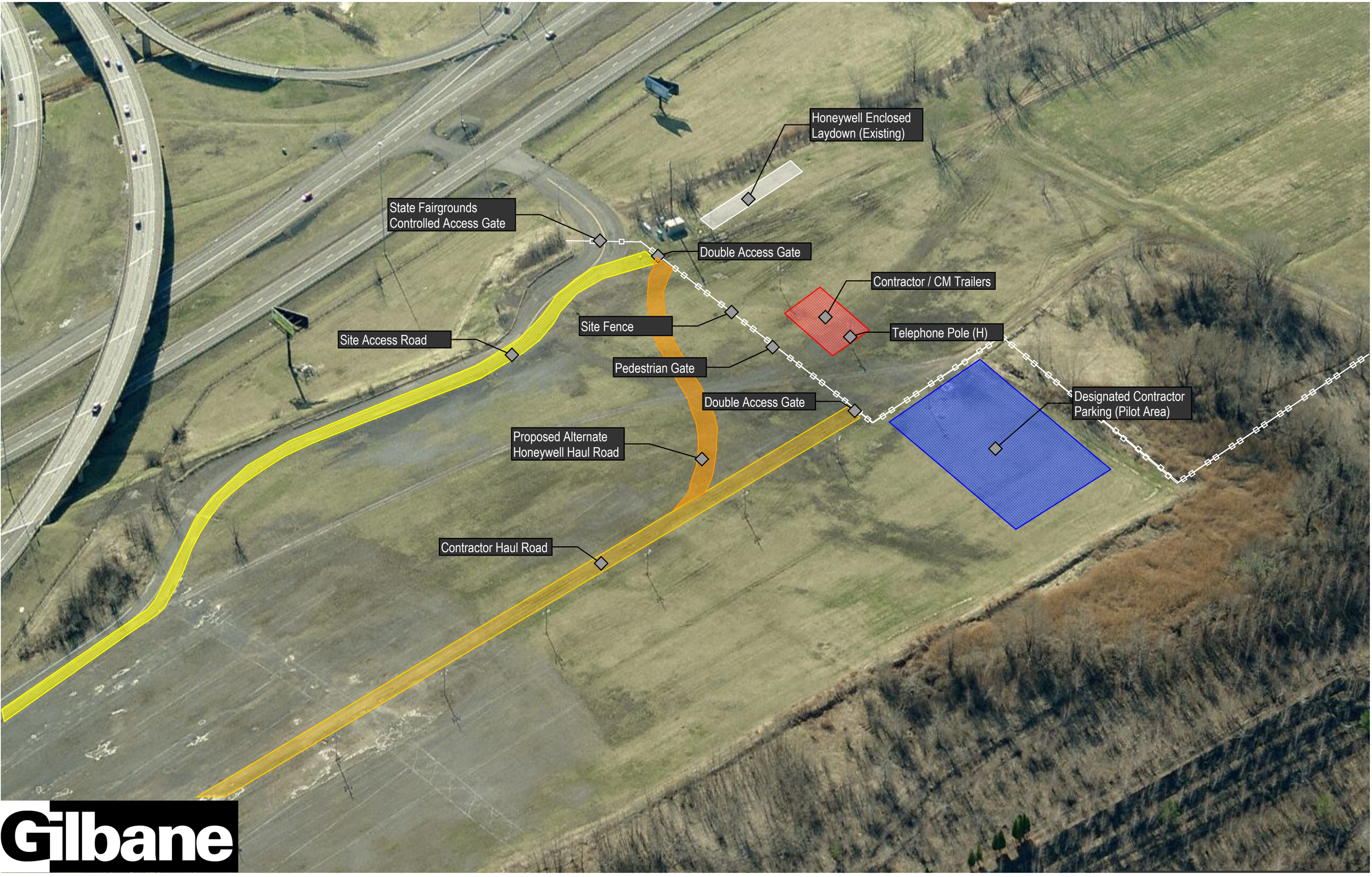
As required by DER-10, any monitoring results which exceed the action levels set by the CAMP are to be:

1) reported, or notice provided by another arrangement acceptable to DER:
    a) When identified, when a DER representative is present at the site; or
    b) Within two hours by phone call or e-mail, to DER project manager when no DER representative is on the site;

In addition, a bi-weekly report will be submitted to DEC and DOH. This report will contain a summary of the CAMP monitoring performed over the previous 2 weeks, a range of concentrations (e.g., dust, VOCs), and indicate if there were any exceedances, including the duration of the exceedance and the response actions taken.

Figure 1

Site Logistics Map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State Fairgrounds Controlled Access Gate
Double Access Gate
Contractor / CM Trailers
Site Fence
Telephone Pole (H)
Site Access Road
Pedestrian Gate
Double Access Gate
Designated Contractor Parking (Pilot Area)
Proposed Alternate Honeywell Haul Road
Contractor Haul Road

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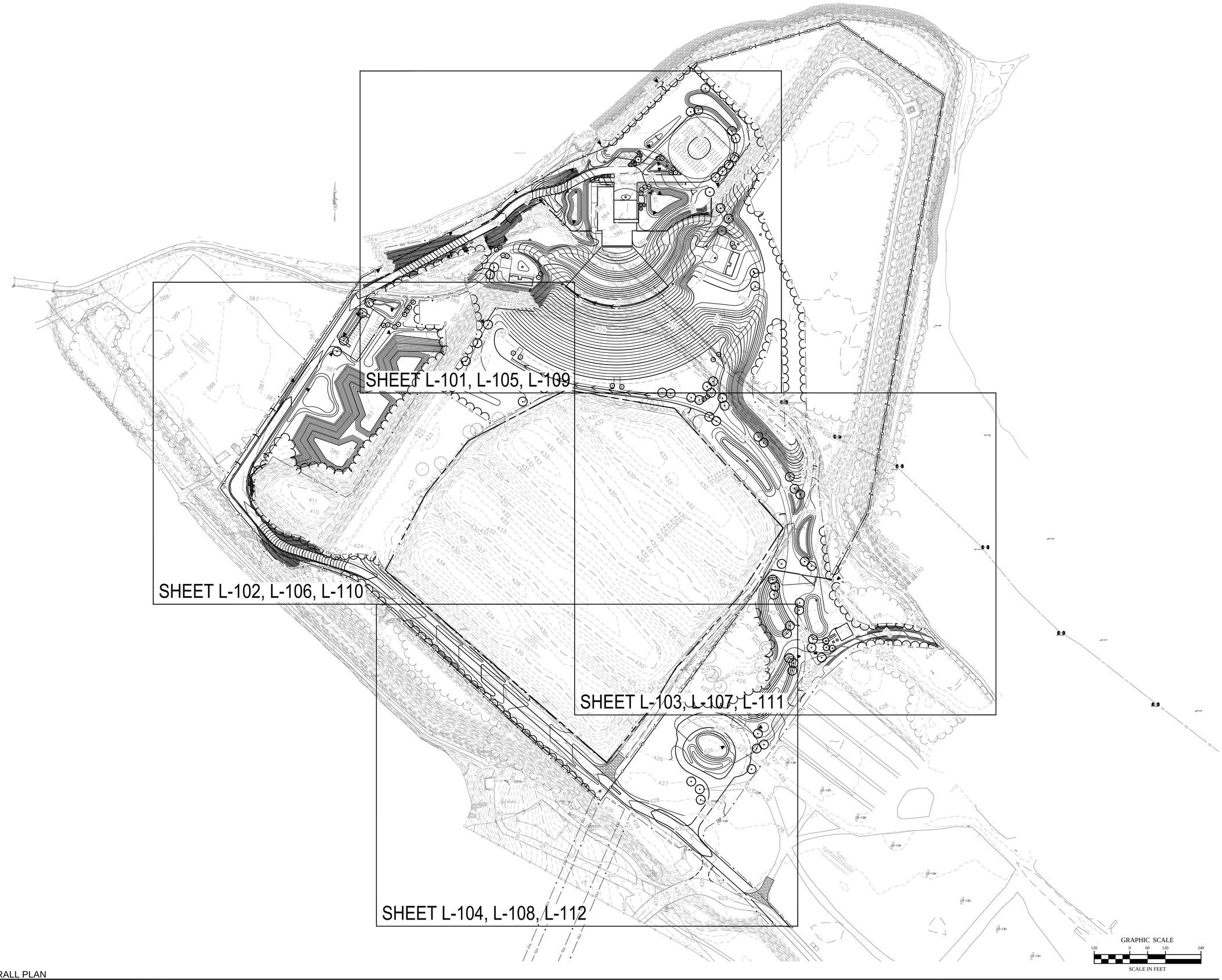
Access Restricted
Access Restricted
Site Fence
Designated Contractor Parking (Pilot Area)
Contractor / CM Trailers
Honeywell Enclosed Laydown (Existing)
Double Access Gate
State Fairgrounds Controlled Access Gate
Proposed Alternate Honeywell Haul Road
Double Access Gate
Contractor Haul Road
Site Access Road
Orange Parking Lot Access Gate
Honeywell
690 (Westbound)Exit 7 (Fairgrounds | Solvay)
Gilbane



Issued / Revised

No.	Date	Description
1	12/12/2014	PRICING SET

Not For Construction

Client

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Onondaga Lakeview Amphitheater

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A1 OVERALL PLAN
1" =120'

OVERALL PLAN

PRICING SET

L-002