

New York Gaming Facility Location Board  
Response to Request for Applications to Develop and Operate a  
Gaming Facility in New York State

TIOGA DOWNS RACETRACK, LLC  
Exhibit VIII.C.1.f.



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November 26, 2012

Climans Green Liang Architects, Inc.  
160 Pears Avenue, Suite 418  
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Attn: Mr. Bob Green

Telephone: 416-925-8100

Re: Subsurface Investigation and Geotechnical Evaluation  
Proposed Tioga Downs Casino and Hotel Expansion  
Nichols, Tioga County, New York  
ATL No. CD3443E-01-11-12

Ladies and Gentlemen:

Enclosed are three copies of the referenced report. ATL appreciates the opportunity to provide geotechnical services for your project.

Please note that upon completion of the subsurface investigation, the boreholes were backfilled with on-site soil. It is important that the backfilled borings be monitored for settlement or subsidence. This will be the responsibility of Climans Green Liang Architects, Inc. and/or their client. ATL assumes no liability for borehole settlement.

The soil samples obtained during this investigation will be retained for a period of six months and subsequently discarded, unless otherwise instructed.

Please contact our office should you have any questions or comments on this information, or if we may be of further service. We look forward to our continued association to obtain a successful completion of this project.

Sincerely,  
ATLANTIC TESTING LABORATORIES, Limited

  
Adam J. Schneider, PE  
Engineer

AJS/BTB/ajs

Enclosures

**SUBSURFACE INVESTIGATION  
AND  
GEOTECHNICAL EVALUATION**

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**PROPOSED TIOGA DOWNS CASINO  
AND HOTEL EXPANSION  
NICHOLS, TIOGA COUNTY,  
NEW YORK**

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**CLIMANS GREEN LIANG ARCHITECTS, INC.**

**PREPARED FOR: Climans Green Liang Architects, Inc.  
160 Pears Avenue, Suite 418  
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**PREPARED BY: Atlantic Testing Laboratories, Limited  
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**ATL Report No. CD3443E-01-11-12**

**November 26, 2012**

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**SUBSURFACE INVESTIGATION  
AND  
GEOTECHNICAL EVALUATION**

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**PROPOSED TIOGA DOWNS CASINO  
AND HOTEL EXPANSION  
NICHOLS, TIOGA COUNTY,  
NEW YORK**

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**CLIMANS GREEN LIANG ARCHITECTS, INC.**

**1.0 INTRODUCTION**

At the request of Mr. Bob Green, representing Climans Green Liang Architects, Inc. (CGL), and in accordance with our proposal (ATL File No. CD998-326-09-12, dated September 19, 2012) Atlantic Testing Laboratories, Limited (ATL) performed a subsurface investigation and geotechnical evaluation for the referenced project. The subsurface investigation was performed on October 3 through November 1, 2012.

The purpose of the investigation was to ascertain the general subsurface soil and groundwater conditions at the site, to evaluate the engineering significance of these findings, and to provide recommendations related to foundation design and construction.

The proposed project is located at the existing Tioga Downs Casino located on West River Road in Nichols, New York. The project coordinates are N 42°01'25" latitude and W 76°24'43" longitude. A **Site Location Plan** is included in **Appendix A**. All dimensions and elevations referenced in this report are in units of feet, unless otherwise noted.

**2.0 PROJECT DESCRIPTION**

The proposed project consists of constructing a six-story hotel, two-story hotel amenity space that will include multipurpose rooms, and a three-story parking garage all located to the east of the existing casino. A one-story casino expansion and two-story office expansion will be located on the west side of the existing casino. A new paddock will be constructed to the west of the race track near the horse barns and a new water slide will be constructed to the north of the proposed hotel amenities building. The proposed new structures will reportedly have footprints and finish floor elevations in accordance with the following table:



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| Structure        | Footprint<br>(sq ft) | Finish Floor Elevation<br>(ft) |
|------------------|----------------------|--------------------------------|
| Hotel            | 14,000               | 802                            |
| Hotel Amenities  | 29,000               | 802-804                        |
| Parking Garage   | 35,000               | 807-812.5                      |
| Casino Expansion | 17,400               | 824                            |
| Paddock          | 11,000               | 796.5                          |

The structures for the proposed hotel, hotel amenities space, casino expansion, and office expansion will be steel framed with precast concrete plank floors. The maximum anticipated exterior column loads are approximately 200 kips and interior column loads are approximately 400 kips. The proposed parking garage will have maximum anticipated interior column loads of approximately 530 kips and exterior column loads of 275 kips.

Based on the structural drawings and geotechnical report provided to ATL by CGL for the existing casino building, it appears that the existing structure is a slab-on-grade, steel framed structure with a finish floor elevation of approximately 824.85. The drawings and geotechnical report were prepared by CGL and Acres International. The structure appears to be supported on shallow, cast-in-place concrete footings founded on the native soils utilizing a safe allowable soil bearing capacity of 3000 psf.

### 3.0 SITE SURFACE CONDITIONS

The site currently supports a horse race track and casino complex. The areas of the proposed development are generally located to the immediate east and west of the existing casino building. The areas surrounding the existing building are generally covered with pavement, grass and other landscaped areas. The site slopes downward to the east of the existing building from approximately elevation 824 to elevation 799 on the eastern end of the proposed hotel. The area of the proposed paddock is generally level at approximately elevation 796.

### 4.0 SUBSURFACE INVESTIGATION & SAMPLING METHODOLOGY

The boring locations were selected, staked and ground surface elevations were obtained in the field by representatives of ATL. The elevations were determined utilizing differential GPS techniques and referenced with NAVD 1988. The accuracy of the elevations determined by the GPS is plus or minus 0.5 feet. A **Boring Location Plan**, depicting the approximate boring locations, is included in **Appendix B**.

Thirty-six borings were advanced utilizing 3¼- and 4¼-inch inside diameter hollow stem augers. Soil sampling and standard penetration testing was performed utilizing a 2-inch outside diameter split spoon sampler in accordance with ASTM D 1586. Soil sampling was generally performed continuously to a depth of 12 feet beneath the surface, and at 5-foot intervals thereafter to boring termination at depths ranging from 6 to 52 feet.

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The soil samples were visually classified in the laboratory by an engineering technician in general accordance with the **Burmister Soil Classification System**. The split spoon sampler does not recover material larger than 1 $\frac{1}{2}$ -inch in nominal dimension; therefore, the soil classifications may not be representative of the entire soil matrix. The visual classifications and the standard penetration test results are presented on the **Subsurface Investigation Logs** included in **Appendix C**.

Temporary observation wells were installed in borings B-2, B-7, B-24, and B-29 to depths ranging from 22 to 27 feet utilizing 1-inch PVC machine slot screen and riser pipe to facilitate future water readings.

Infiltration test pipes consisting of 4-inch PVC Pipe were installed in 6 locations. Infiltration tests were performed in accordance NYSDEC guidelines. The infiltration test results are tabulated below:

#### Infiltration Test Results

| Test | Infiltration Rate<br>(in/hr) |
|------|------------------------------|
| I-1  | 360                          |
| I-2  | 7.2                          |
| I-3  | 22                           |
| I-4  | 5                            |
| I-5  | 14                           |
| I-6  | 19                           |

The boreholes were backfilled with on-site soils upon completion. The borings located within the existing parking lots were patched with asphalt cold patch. It is important that the backfilled borings be monitored for settlement or subsidence. This will be the responsibility of CGL and/or their client. ATL assumes no liability for loss or damage resulting from borehole settlement.

## 5.0 SITE SUBSURFACE CONDITIONS

The following description of subsurface conditions is based on the soil and groundwater conditions encountered during this subsurface investigation. Actual subsurface conditions may vary across the site in both the horizontal and vertical dimensions. Detailed subsurface descriptions are provided on the Subsurface Investigation Logs. The thickness of the topsoil and organic material and asphalt pavement presented on the subsurface investigation logs should not be utilized to determine material quantities.

### 5.1 Soil Borings

#### 5.1.1 Hotel Borings (Boring B-1 through B-5)

Borings B-1 through B-5 generally encountered a layer of stiff (N values 8 to 15) to hard (N values greater than 30) sandy silt at the surface that extended to a depth of approximately 4 feet (approximate elevation 796 to 799). The sandy silt was underlain by medium compact (N values 10 to 30) to compact (N values 30 to 50) silty, gravelly sand and sandy gravel that

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extended to boring termination at depths ranging from 27 to 52 feet (approximate elevation 747.9 to 776.1). The exception was a very loose (N values less than 4) silty sand that was encountered from approximately 38 to 43 feet in boring B-2.

#### **5.1.2 Amenities (Borings B-5 through B-12)**

Borings B-7 and B-10 encountered 2 to 3 inches of topsoil and organic material at the surface. At the surface in the remaining borings and underlying the topsoil and organic material in borings B-7 and B-10 was generally medium compact (N values 4 to 10) to compact (N values 30 to 50) silty, gravelly sand and sandy gravel that extended to boring termination at a depth of approximately 27 feet (approximate elevation 775 to 796.5). The exception was a layer of very stiff (N values 15 to 30) to hard (N values greater than 30) sandy silt that was encountered from the surface to a depth of 4 feet (approximate elevation 799) in boring B-5. Occasional cobbles were noted throughout the depths of the borings.

#### **5.1.3 Parking Garage (Borings B-13 through B-18)**

Borings B-13, B-14, and B-17 encountered stiff (N values 8 to 15) to hard (N values greater than 30) sandy silt at the surface that extended to depths ranging from 2 to 4 feet (approximate elevation 812.5 to 804.5). At the surface of borings B-15, B-16, and B-18 and underlying the sandy silt in borings B-13, B-14, and B-17 was medium compact (N values 10 to 30) to very compact (N values greater than 50) silty, gravelly sand and sandy gravel that extended to boring termination at depths ranging from 27 to 37 feet (approximate elevation 776.5 to 797).

Cobbles were noted throughout the depths of the borings.

#### **5.1.4 Water Slide (Boring B-19)**

Boring B-19 encountered very stiff (N values 15 to 30) sandy silt at the surface that extended to a depth of approximately 2 feet (elevation 799.5) and was underlain by medium compact (N values 4 to 10) silty gravelly sand and sandy gravel that extended boring termination at a depth of 27 feet (elevation 774.5). Cobbles were noted throughout the depths of the boring.

#### **5.1.5 Casino Expansion (Borings B-20 through B-24)**

Borings B-22 and B-23 encountered 5 to 6 inches of asphalt pavement at the surface. Underlying the asphalt pavement and at the surface in the remaining borings was medium compact (N values 10 to 30) to very compact (N values greater than 50) silty, gravelly sand and sandy gravel that extended to boring termination at depths ranging from 27 to 47 feet (approximate elevation 795 to 774). Cobbles were noted throughout the depths of the borings.

#### **5.1.6 Pylon Sign (Boring B-25)**

Boring B-25 generally encountered medium compact (N values 10 to 30) to very compact (N values greater than 50) silty, gravelly sand and sandy gravel that extended to boring termination at a depth of 27 feet (approximate elevation 794.5).

**5.1.7 Paddock (Borings B-26 through B-29)**

Borings B-26 through B-29 generally encountered medium compact (N values 10 to 30) silty, gravelly sand and sandy gravel that extended to boring termination at a depth of 22 feet (approximately elevation 773.5 to 774.5). Cobbles were noted throughout the depths of the borings.

**5.1.8 Road Realignment and Parking Lot Borings (Borings B-30 through B-36)**

Borings B-30 through B-36 generally encountered medium compact (N values 10 to 30) to very compact (N values greater than 50) silty, gravelly sand and sandy gravel that extended to boring termination at a depth of 6 feet.

**5.2 Groundwater**

Groundwater measurements were performed during the subsurface investigation through cased and open boreholes, and in the temporary observation wells. The soil samples were also classified for coloration and relative moisture conditions.

Based on groundwater measurements and soil moisture content, freestanding groundwater was encountered at depths ranging from approximately 17 to 32.5 feet (approximate elevation 771 to 797.5) below the surface of the borings at the time of the subsurface investigation.

Since the borings were backfilled upon completion, freestanding groundwater readings may not have had sufficient time to stabilize. Perched water may be encountered at higher elevations, especially during wetter periods of the year.

Fluctuations in water levels may occur due to seasonal and climatic variations, changes in surface runoff patterns, construction activity, and subsequent development of the site along with other interrelated factors.

**6.0 LABORATORY ANALYSES**

Select soil samples were submitted to ATL's geotechnical laboratory for physical analyses. Water Content Determination of Soil (ASTM D 2216) was performed on 38 soil samples. The test results are located on the subsurface investigation logs included in Appendix C.

A Particle Size Analysis with and without Hydrometer (ASTM D 422) was performed on ten soil samples. The Particle Size Distribution Curves are included in Appendix D.

**7.0 GEOTECHNICAL ENGINEERING DISCUSSION**

The Geotechnical Engineering Discussion is based on information provided by Climans Green Liang Architects, Inc., and the subsurface conditions outlined in this report.

## **7.1 Proposed Buildings, Parking Garage, and Additions**

### **7.1.1 Site Work**

Site work will require the removal of surficial asphalt pavement and topsoil and organic material with the footprint of the structures. The building pads should be prepared to the approximate slab subgrade elevation at approximately 1.2 feet below the finished floor elevations (assuming a 6-inch concrete slab-on-grade and 8 inches of Engineered Structural Fill). Based on the boring surface elevations this will require cuts up to approximately 20.5 feet and fills up to approximately 3.5 feet.

Fill utilized within the building footprints should consist of Granular Fill placed and compacted in accordance with Geotechnical Recommendations 8.5.4 and 8.5.5.

After performing the cuts and prior to placing Granular Fill, the subgrade soils should be compacted with a minimum 10-ton roller and proof rolled in accordance with Geotechnical Recommendation 8.3.2. The subgrade compaction and proof rolling must be conducted under the direction of the Geotechnical Engineer. Any areas noted to weave or deflect should be excavated to stable material, at the direction of the Geotechnical Engineer, and replaced with compacted Granular Fill.

It appears that the cuts on the eastern end of the existing casino building could extend to depths of 13 to 20.5 feet. Care must be exercised during the excavation process to prevent undermining of the existing structures. The zone of influence from the existing structure footings should be assumed to extend at a slope of 1 horizontal to 1 vertical from the edge of the bottom of the footing. Excavations that extend within the zone of influence of adjacent footings will require shoring or underpinning of the adjacent structure. The contractor should prepare an excavation plan indicating means and methods of shoring the excavation to prevent disturbance of the existing structures.

### **7.1.2 Foundations**

Exterior footings should be founded a minimum of 4 feet below final exterior grade. Interior footings for heated building areas should be founded a minimum of 2 feet below the slab-on-grade. Foundation excavations should be advanced with a flat-lipped bucket to minimize disturbance to the subgrade soils. Footing subgrades loosened during foundation excavations should be recompacted to their original consistency under the direction of a Geotechnical Engineer.

Footing subgrade soils that become saturated and unstable should be over excavated and replaced with a 6-inch layer of NYSDOT Number 2, crushed stone. The Number 2, crushed stone should be compacted with four passes of a dual-drum walk-behind vibratory roller; a Wacker DPU 6055 vibrating plate tamper; or equivalent, under the direction of the Geotechnical Engineer. The NYSDOT Number 2, crushed stone will provide a stable working surface and dewatering media if ground or surface water enters the excavation.

New footings should be placed at the same elevation as existing footing's to avoid overstressing the existing footings and foundation walls. If necessary, step footings may be utilized to achieve the proposed new footing elevation for the remainder of the structure. Excavations that extend within the zone of influence below existing footing elevations may require underpinning of the existing footings.

Care must be exercised while excavating in the vicinity of the existing structures to prevent disturbance of the existing foundations, utilities, or existing foundation drainage systems, if present.

The on-site soils may be utilized as exterior foundation backfill, provided all deleterious organic and oversize material (particles larger than 4 inches in diameter) are removed and the material is properly moisture conditioned. Interior backfill should consist of Granular Fill. All fill must be placed in accordance with Geotechnical Recommendations 8.5.4 and 8.5.5.

### **7.1.3 Soil Bearing Capacity and Settlement**

Footings founded on stable in-situ soils, compacted Granular Fill, or compacted NYSDOT Number 2, crushed stone overlying stable in-situ soils may be designed using an allowable soil bearing capacity of 3000 psf, provided the recommendations in this report are followed. A detailed settlement analysis was outside the scope of this investigation; however, total and differential settlement less than 1-inch and ½-inch, respectively, are estimated.

Spread footings should be a minimum of 3 feet wide and strip footings a minimum of 2 feet wide.

### **7.1.4 Slabs-on-Grade**

The concrete slabs-on-grade should be supported on a minimum of 8 inches of Engineered Structural Fill. The slabs-on-grade may be designed using a modulus of subgrade reaction of 125 pci.

A vapor retarder should be installed beneath slabs with moisture sensitive floor coverings. The vapor retarder should be installed in accordance with current ACI 302.1 recommendations.

### **7.2 Frost Protection**

Shallow foundations must be founded a minimum of 4 feet below final exterior grade to provide adequate frost protection.

### **7.3 Seismic**

Based on the field standard penetration test results, the seismic site classification for the project site has been determined to be D. The maximum considered earthquake spectral response acceleration for short periods, ( $S_{MS}$ ) is 0.195g and at 1-second period, ( $S_{M1}$ ) is 0.131g as determined from the Building Code of New York State 2010. Seismic exposure should be considered in the design of the structures.

### **7.4 General**

The in-situ soils are slightly moisture sensitive and frost susceptible. Construction traffic should be limited on exposed subgrades, especially during wetter periods of the year. Where possible, building subgrades should be sloped to drainage swales or a sump and pump system during construction to prevent surface run-off and perched groundwater from ponding on the subgrades.

Perched groundwater should be anticipated in shallow foundation and utility excavations, especially during wetter periods. The granular in-situ soils will be susceptible to side wall sloughing in open excavations.

The soil parameters presented in the following table may be used for the following backfill materials.

**Table of Soil Properties**

| Soil Property                            | Granular Fill | Engineered Structural Fill |
|--|---------------|----------------------------|
| Angle of Internal Friction (°)           | 32            | 34                         |
| Active Earth Coefficient ( $K_a$ )*      | 0.31          | 0.28                       |
| At Rest Earth Coefficient ( $K_o$ )*     | 0.47          | 0.44                       |
| Passive Earth Coefficient ( $K_p$ )*     | 3.25          | 3.54                       |
| Ultimate Coefficient of Sliding Friction | 0.44          | 0.47                       |
| Wet Unit Weight (pcf)                    | 135-145       | 140-150                    |

\*The Rankine earth pressure coefficients are for level backfill placed in a fully drained condition.

**7.5 Pavement Design**

**7.5.1 Pavement Site Work**

Site work will require the removal of surficial topsoil and organic material. The pavement subgrade soils should be compacted with a minimum 10-ton vibratory roller under the direction of the Geotechnical Engineer. The pavement subgrade soils should also be proof rolled in accordance with Geotechnical Recommendation 8.6.1.

The on-site soils are slightly moisture sensitive and frost susceptible. To minimize potential frost action in the pavement structures, a minimum of 2 feet of Granular Fill is recommended beneath the Granular Subbase. If this is not possible, based on economic considerations, the depth of Granular Fill can be reduced. If the depth of Granular Fill is reduced, premature pavement deterioration and/or maintenance should be anticipated.

Proper drainage and control of surface water will be important to the longevity of the pavement structures.

**7.5.2 Sidewalks and Curbs**

Granular fill should be utilized beneath sidewalks and curbs similar to the pavement structures.

**8.0 GEOTECHNICAL RECOMMENDATIONS**

The following recommendations are presented as the minimum requirements for the design, planning, and construction of the foundation system, slab-on-grade, and pavement

structures. The concepts and geotechnical engineering considerations presented in the preceding sections must be considered in project design and construction.

### **8.1 Site Preparation**

- 8.1.1** In planning excavations adjacent to existing structures and utilities, care must be taken to locate and maintain their stability. The project should be designed to minimize disturbance to existing structures and utilities.
- 8.1.2** Site work should be scheduled during the drier portions of the year to avoid possible delays and additional costs associated with construction during the wet seasons.
- 8.1.3** The building and parking lot subgrades must be prepared as discussed in Section 7.1.1 and 7.5.1 of the Geotechnical Engineering Discussion.
- 8.1.4** Site surface grading must be designed to convey surface water away from building and pavement structures.
- 8.1.5** The contractor must follow excavation safety practices as mandated by 29 CFR Part 1926 (OSHA) and by applicable state regulations.

### **8.2 Foundations**

- 8.2.1** Exterior footings should be founded a minimum of 4 feet below final exterior grade to provide adequate frost protection. Interior footings for heated building areas should be founded a minimum of 2 feet below the finish floor elevation.
- 8.2.2** All foundation excavations should be monitored by a Geotechnical Engineer to verify the stability and soil bearing capacity of the foundation subgrades.
- 8.2.3** Footings founded on stable in-situ soils, compacted Granular Fill, or compacted NYSDOT Number 2, crushed stone overlying stable in-situ soils may be designed using a safe allowable soil bearing capacity of 3000 psf, provided the recommendations presented in this report are followed.

### **8.3 Slab-on-Grade Preparation**

- 8.3.1** A minimum of 8 inches of Engineered Structural Fill, conforming to Geotechnical Recommendation 8.5.3, should be placed to support the concrete slabs-on-grade for the structures. All fill material should be placed and compacted in accordance with Geotechnical Recommendations 8.5.4 and 8.5.5. The slabs may be designed using a modulus of subgrade reaction of 125 pci.
- 8.3.2** Areas to receive slabs-on-grade should be proof rolled, where possible, prior to placing the Engineered Structural Fill. Proof rolling should be conducted using a tandem axle truck with a minimum gross weight of 40,000 lbs. Rollers or low ground pressure construction equipment shall not be used for proof rolling. The proof rolling must be conducted under the observation of the Geotechnical Engineer. Any areas noted to weave or deflect should be excavated to stable material, at the direction of the Geotechnical Engineer, and replaced with compacted Granular Fill.



**8.4 Dewatering**

- 8.4.1.** It will be the contractor's responsibility to maintain adequate water control at all times. Project specifications should clearly indicate that standing water, and/or saturated, unstable soil conditions will not be tolerated in areas to receive foundations or utilities. The project specifications should state that the contractor will not be reimbursed for extras related to the control of water.
- 8.4.2.** All dewatering activities must comply with New York State Department of Environmental Conservation (NYSDEC) storm water discharge requirements for construction.

**8.5 Backfill and Compaction Requirements**

- 8.5.1** The on-site soils, excluding deleterious organics and oversize material (particles larger than 4 inches in diameter), may be used for exterior foundation backfill and general site fill, provided the soil is placed and compacted in accordance with Geotechnical Recommendations 8.5.4 and 8.5.5. Granular Fill should be utilized as interior foundation backfill.
- 8.5.2** Granular Fill should consist of a clean, screened, crushed, or bank-run gravel conforming to the following gradation:

| Sieve Size | Percent Passing |
|------------|-----------------|
| 4"         | 100             |
| ¼"         | 35-65           |
| #200       | 0-10            |

- 8.5.3** Engineered Structural Fill should consist of a screened, crushed gravel or crushed ledge rock conforming to the following gradation:

| Sieve Size | Percent Passing |
|------------|-----------------|
| 3"         | 100             |
| 1"         | 80 - 95         |
| ½"         | 45 - 75         |
| #4         | 30 - 60         |
| #40        | 10 - 40         |
| #200       | 0 - 7           |

- 8.5.4** All fill and backfill should be placed and compacted in lifts not exceeding eight inches in loose thickness, at a moisture content of  $\pm 2\%$  of the Optimum Moisture Content, and to densities in excess of 95%, as determined by ASTM D1557, or as directed by the Geotechnical Engineer.
- 8.5.5** Compaction should be performed with vibratory rollers unless there is concern for damage to adjacent structures or underground utilities.

**8.6 Pavement Design**

**8.6.1** Where possible, areas to receive pavement structures should be proof rolled. Proof rolling should be conducted using a tandem axle truck with a minimum gross weight of 40,000 lbs. Rollers or low ground pressure construction equipment shall not be used for proof rolling. The proof rolling must be conducted under the observation of the Geotechnical Engineer. Any areas noted to weave or deflect should be excavated to stable material, at the direction of the Geotechnical Engineer, and replaced with Granular Fill.

**8.6.2 Light Duty Asphalt Pavement (Passenger Cars and Light Trucks) structure should consist of the following:**

| Thickness | Course                   | NYSDOT Item No.          |
|-----------|--------------------------|--------------------------|
| 1 ½"      | Bituminous Top Course    | Table 403.1, Type 6F     |
| 3"        | Bituminous Binder Course | Table 403.1, Type 3      |
| 8"        | * Granular Subbase       | 304, Type 2              |
| 24"       | ** Granular Fill         | Recommendation No. 8.5.2 |

\* The product of crushed ledge rock.

\*\* The thickness may be reduced based on the economic considerations discussed in the Geotechnical Engineering Discussion; however, should be a minimum of 8 inches.

**8.6.3 Heavy Duty Asphalt Pavement (Trucks) structure should consist of the following:**

| Thickness | Course                   | NYSDOT Item No.          |
|-----------|--------------------------|--------------------------|
| 1 ½"      | Bituminous Top Course    | Table 403.1, Type 6F     |
| 2"        | Bituminous Binder Course | Table 403.1, Type 3      |
| 3"        | Bituminous Base Course   | Table 403.1, Type 1      |
| 12"       | * Granular Subbase       | 304, Type 2              |
| 24"       | ** Granular Fill         | Recommendation No. 8.5.2 |

\* The product of crushed ledge rock.

\*\* The thickness may be reduced based on the economic considerations discussed in the Geotechnical Engineering Discussion; however, should be a minimum of 8 inches.

**8.6.4** The granular subbase and granular fill should be placed and compacted in accordance with Geotechnical Recommendations 8.5.4 and 8.5.5. Drainage should be provided in the Granular Fill to prevent the bathtub effect and to enhance the longevity of the pavement structure.

**8.6.5** The bituminous pavements should be compacted with a vibratory roller to densities in excess of 92% of the maximum theoretical specific gravity of bituminous paving materials as determined by ASTM D 2041.

**8.6.6** It is anticipated there will be future revisions to the New York State DOT specifications for bituminous mixtures. Prior to bidding this project, ATL must review the final pavement specifications.

### 8.7 Testing and Inspection

- 8.7.1 Subgrade preparation, foundation installations, and slab-on-grade subbase placement and compaction must be continuously observed by an experienced Geotechnical Engineer, and/or their representative, familiar with the subsurface conditions and analysis described in this report. The engineer will be required to assess any unusual conditions and to ensure that adequate bearing capacities and proper foundation installation requirements are achieved.
- 8.7.2 All backfilling, placement of fill, compaction of in-situ soils, and concrete construction should be inspected by an Independent Testing Laboratory, which conforms to ASTM E-329, "The Standard Practice for use in the Evaluation of Testing and Inspection Agencies as Used in Construction". It should be the Independent Testing Laboratory's responsibility to monitor construction practices to determine if they are in accordance with the project documents.
- 8.7.3 The final foundation plans and project specifications should be reviewed by our office to ensure that there has not been a misinterpretation of this report.

### 9.0 SUMMARY

The subsurface investigation logs and this report in its entirety should be provided to the contractors for information and interpretation. The subsurface investigation logs may not be representative of the entire site subsurface conditions, but only what was found at the individual test locations at the time the investigation was made. The subsurface soil and groundwater conditions may be different from those described on the subsurface investigation logs and summarized in this report.

This report was prepared to present the findings of our subsurface investigation and engineering evaluation, and to outline concepts to be utilized in foundation design and construction. These concepts may require alterations to meet the specific design and economic considerations for this project.

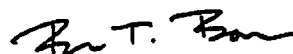
Prepared by:



Adam J. Schneider, PE  
Engineer

AJS/BTB/ajs

Reviewed by:



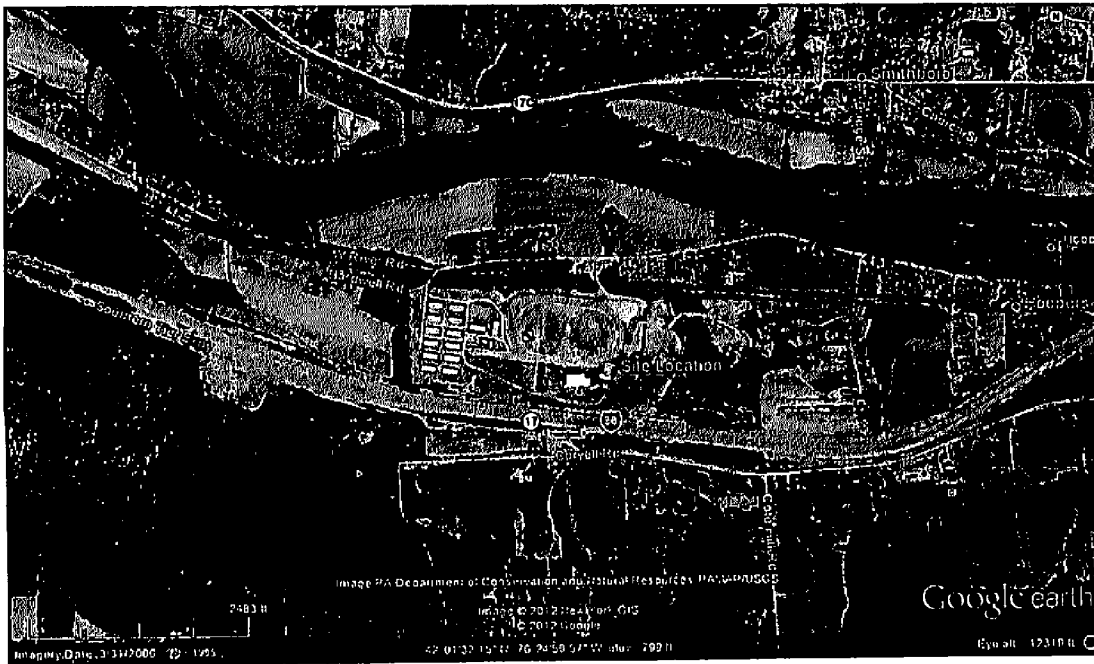
Brian T. Barnes, PE  
Senior Engineer

*APPENDIX A*  
*SITE LOCATION PLAN*



***ATLANTIC TESTING LABORATORIES***

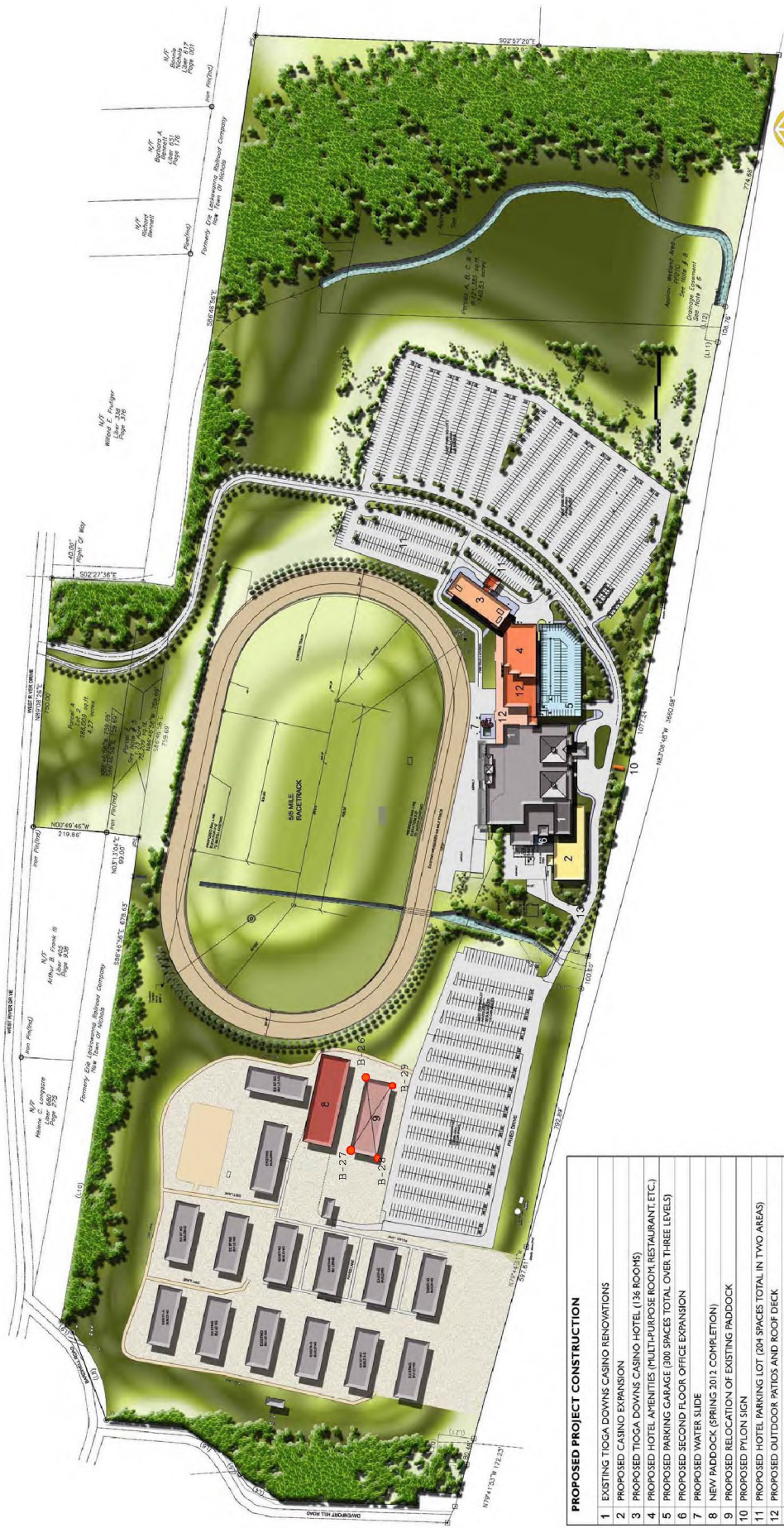
**Proposed Casino and Hotel Expansion  
Tioga Downs  
Nichols, New York  
ATL No CD3443E-01-11-12  
SITE LOCATION PLAN**



*APPENDIX B*

*BORING LOCATION PLAN*

TIOGA DOWNS RACETRACK, LLC  
Exhibit VIII.C.1.f. (cont.)



**PROPOSED PROJECT CONSTRUCTION**

|    |   |
|----|---|
| 1  | EXISTING TIOGA DOWNS CASINO RENOVATIONS                         |
| 2  | PROPOSED CASINO EXPANSION                                       |
| 3  | PROPOSED TIOGA DOWNS CASINO HOTEL (136 ROOMS)                   |
| 4  | PROPOSED HOTEL AMENITIES (MULTI-PURPOSE ROOM, RESTAURANT, ETC.) |
| 5  | PROPOSED PARKING GARAGE (300 SPACES TOTAL OVER THREE LEVELS)    |
| 6  | PROPOSED SECOND FLOOR OFFICE EXPANSION                          |
| 7  | PROPOSED WATER SLIDE  |
| 8  | NEW PADDOCK (BRING 2012 COMPLETION)                             |
| 9  | PROPOSED RELOCATION OF EXISTING PADDOCK                         |
| 10 | PROPOSED PYLON SIGN   |
| 11 | PROPOSED HOTEL PARKING LOT (204 SPACES TOTAL IN TWO AREAS)      |
| 12 | PROPOSED OUTDOOR PATIOS AND ROOF DECK                           |
| 13 | PROPOSED INTERIOR DRIVE REALIGNMENT                             |



**SITE MASTER PLAN**  
TIOGA DOWNS GAMING-HOTEL-RELATED AMENITIES EXPANSION  
TIOGA DOWNS CASINO  
TOWN OF NICHOLS, TIOGA COUNTY, NEW YORK





TIOGA DOWNS RACETRACK, LLC  
Exhibit VIII.C.1.f. (cont.)



**SITE PLAN - EXISTING CASINO/CLUBHOUSE BUILDING AND HOTEL**  
 TIOGA DOWNS GAMING-HOTEL-RELATED AMENITIES EXPANSION  
 TIOGA DOWNS CASINO  
 TOWN OF NICHOLS, TIOGA COUNTY, NEW YORK





TIOGA DOWNS RACETRACK, LLC  
Exhibit VIII.C.1.f. (cont.)



INFILTRATION TESTING LOCATIONS

TIOGA DOWNS  
TIOGA DOWNS CASINO  
GAMING/HOTEL/RELATED AMENITIES EXPANSION  
TOWN OF NICHOLS, TIOGA COUNTY, NEW YORK



DRAWN BY: KAB

CHECKED BY: MPM

DATE: 10-15-12

FIGURE NO:

101512.1

PROJECT NO: 6644-001

*APPENDIX C*

*SUBSURFACE INVESTIGATION LOGS*

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Cilmans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
 Hotel \_\_\_\_\_

Boring No.: B-1 Sheet 1 of 2

Start Date: 10/4/2012 Finish Date: 10/4/2012

Coordinates  
 Northing \_\_\_\_\_  
 Easting \_\_\_\_\_

Sampler Hammer  
 Weight: 140 lbs.  
 Fall: 30 in.  
 Hammer Type: Automatic

| Groundwater Observations |       |              |            |
|--------------------------|-------|--------------|------------|
| Date                     | Time  | Depth        | Casing     |
| <u>10/4/2012</u>         |       | <u>29.6'</u> | <u>30'</u> |
| _____                    | _____ | _____        | _____      |
| _____                    | _____ | _____        | _____      |

Ground Elev.: 800.5 Boring Advance By: 3 1/4" Auger

Borehole caved at 21 feet.

| DEPTH | METHOD OF ADVANCE     | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER  | DEPTH OF CHANGE   | CLASSIFICATION OF MATERIAL   | Recovery (Inches) |
|-------|-----------------------|------------|-----------------|------|-------------|--|---|--|-------------------|
|       |                       |            | From            | To   |             |  |   |  |                   |
| 1     | A<br>R<br>E<br>C<br>S | 1          | 0.0             | 2.0  | SS          | 5 7 4 4  | 2.0   | Brown SILT; some mf GRAVEL; little cmf SAND (wet, non-plastic)           | 12                |
| 2     |                       | 2          | 2.0             | 4.0  | SS          | 12 17 12 11  |   | Brown cmf GRAVEL; some cmf SAND; little SILT (moist, non-plastic) w=4.2% | 14                |
| 3     |                       |            |                 |      |             |  |   |  |                   |
| 4     |                       | 3          | 4.0             | 6.0  | SS          | 7 9 9 14   | Brown cmf SAND; some mf GRAVEL; little SILT (wet, non-plastic), w=11.4% | 16   |                   |
| 5     |                       |            |                 |      |             |  |   |  |                   |
| 6     |                       | 4          | 6.0             | 8.0  | SS          | 5 5 8 19   | Similar Soil, w=6.3%  | 16   |                   |
| 7     |                       |            |                 |      |             |  |   |  |                   |
| 8     |                       | 5          | 8.0             | 10.0 | SS          | 30 12 13 15  | NO RECOVERY   | 0  |                   |
| 9     |                       |            |                 |      |             |  |   |  |                   |
| 10    |                       |            |                 |      |             |  |   |  |                   |
| 11    | 6                     | 10.0       | 12.0            | SS   | 11 12 11 10 | Brown cmf GRAVEL; some cmf SAND; little SILT (wet, non-plastic), w=4.8%                          | 14  |  |                   |
| 12    |                       |            |                 |      |             |  |   |  |                   |
| 13    |                       |            |                 |      |             |  |   |  |                   |
| 14    |                       |            |                 |      |             |  |   |  |                   |
| 15    |                       |            |                 |      |             |  |   |  |                   |
| 16    | 7                     | 15.0       | 17.0            | SS   | 7 9 11 18   | NO RECOVERY  | 0   |  |                   |
| 17    |                       |            |                 |      |             |  |   |  |                   |
| 18    |                       |            |                 |      |             |  |   |  |                   |
| 19    |                       |            |                 |      |             |  |   |  |                   |
| 20    |                       |            |                 |      |             |  |   |  |                   |
| 21    | 8                     | 20.0       | 22.0            | SS   | 21 33 44 19 | Brown mf GRAVEL (mostly cobble fragments); some cmf SAND; little SILT (wet, non-plastic), w=4.6% | 14  |  |                   |
| 22    |                       |            |                 |      |             |  |   |  |                   |
| 23    |                       |            |                 |      |             |  |   |  |                   |
| 24    |                       |            |                 |      |             |  |   |  |                   |
| 25    |                       |            |                 |      |             |  |   |  |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOC-WELL.GDT 11/27/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample ( Shelby Tube)  
 Estimated Groundwater

Drillers: Tony Mallory; Tyler Weston  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Boring No.: B-1

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER |    |    |    | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|----|----|----|-----------------|--|-------------------|
|       |                   |            | From            | To   |             | 9                                       | 12 | 14 | 19 |                 |  |                   |
| 26    |                   | 9          | 25.0            | 27.0 | SS          | 9                                       | 12 | 14 | 19 |                 | Brown mf GRAVEL; some cmf SAND; little SILT (wet, non-plastic), w=5.0%           | 12                |
| 27    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 28    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 29    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 30    |                   | 10         | 30.0            | 32.0 | SS          | 10                                      | 12 | 14 | 16 |                 | Brown cmf GRAVEL; little cmf SAND; little SILT (saturated, non-plastic), w=10.5% | 10                |
| 31    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 32    |                   |            |                 |      |             |   |    |    |    | 32.0            | Boring terminated at 32 feet.  |                   |
| 33    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 34    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 35    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 36    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 37    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 38    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 39    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 40    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 41    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 42    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 43    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 44    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 45    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 46    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 47    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 48    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 49    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 50    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 51    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 52    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 53    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 54    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 55    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 56    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 57    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 58    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 59    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 60    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 61    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 62    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/27/12

Notes:  
1. Boring backfilled with on-site soil.

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
 Hotel \_\_\_\_\_

Boring No.: B-2 Sheet 1 of 2

Start Date: 10/3/2012 Finish Date: 10/4/2012

Coordinates  
 Northing \_\_\_\_\_  
 Easting \_\_\_\_\_

Sampler Hammer  
 Weight: 140 lbs.  
 Fall: 30 in.

| Groundwater Observations |      |       |         |
|--------------------------|------|-------|---------|
| Date                     | Time | Depth | Casing  |
| 10/3/2012                |      | DRY   | 30'     |
| 10/3/2012                |      | 35.6' | 52'     |
| 10/12/2012               |      | 35.8' | TOW@25' |
| 10/26/2012               |      | 32.3' | TOW@25' |

Ground Elev.: 799.9 Boring Advance By:  
3 1/4" Auger

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE   | CLASSIFICATION OF MATERIAL  | Recovery (inches) |  |
|-------|-------------------|------------|-----------------|------|-------------|---|---|---|-------------------|--|
|       |                   |            | From            | To   |             |   |   |   |                   |  |
| 1     | AUGERS            | 1          | 0.0             | 2.0  | SS          | 10 15 9 12                              | 8.0   | Brown cmf SAND; and mf GRAVEL; little SILT (wet, non-plastic)     | 18                |  |
| 2     |                   | 2          | 2.0             | 4.0  | SS          | 5 7 10 5                                |   | Similar Soil  | 16                |  |
| 3     |                   |            |                 |      |             |   |   |   |                   |  |
| 4     |                   | 3          | 4.0             | 6.0  | SS          | 7 15 6 6                                |   | Brown cmf SAND; some mf GRAVEL; some SILT (wet, non-plastic)      | 14                |  |
| 5     |                   |            |                 |      |             |   |   |   |                   |  |
| 6     |                   | 4          | 6.0             | 8.0  | SS          | 5 7 7 9                                 |   | Brown cmf GRAVEL; some cmf SAND; little SILT (moist, non-plastic) | 14                |  |
| 7     |                   |            |                 |      |             |   |   |   |                   |  |
| 8     |                   | 5          | 8.0             | 10.0 | SS          | 13 15 12 12                             |   | Brown cmf SAND; little cmf GRAVEL; trace SILT (wet, non-plastic)  | 18                |  |
| 9     |                   |            |                 |      |             |   |   |   |                   |  |
| 10    |                   | 6          | 10.0            | 12.0 | SS          | 10 12 20 21                             | Brown cmf GRAVEL ; some cmf SAND; trace SILT (moist, non-plastic)         | 14  |                   |  |
| 11    |                   |            |                 |      |             |   |   |   |                   |  |
| 12    |                   |            |                 |      |             |   |   |   |                   |  |
| 13    |                   |            |                 |      |             |   |   |   |                   |  |
| 14    |                   |            |                 |      |             |   |   |   |                   |  |
| 15    |                   | 7          | 15.0            | 17.0 | SS          | 12 14 19 17                             | Similar Soil; little SILT (wet, non-plastic), w=4.7%                      | 20  |                   |  |
| 16    |                   |            |                 |      |             |   |   |   |                   |  |
| 17    |                   |            |                 |      |             |   |   |   |                   |  |
| 18    |                   |            |                 |      |             |   |   |   |                   |  |
| 19    |                   |            |                 |      |             |   |   |   |                   |  |
| 20    |                   | 8          | 20.0            | 22.0 | SS          | 5 7 7 9                                 | Brown cmf SAND; little mf GRAVEL; little SILT (wet, non-plastic), w=11.2% | 18  |                   |  |
| 21    |                   |            |                 |      |             |   |   |   |                   |  |
| 22    |                   |            |                 |      |             |   |   |   |                   |  |
| 23    |                   |            |                 |      |             |   |   |   |                   |  |
| 24    |                   |            |                 |      |             |   |   |   |                   |  |
| 25    |                   |            |                 |      |             |   |   |   |                   |  |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/13/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shotby Tube)  
 Estimated Groundwater

Drillers: Tony Mallory; Tyler Weston  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-2

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|--|-------------------|
|       |                   |            | From            | To   |             |   |                 |  |                   |
| 25    |                   | 9          | 25.0            | 27.0 | SS          | 5 5 7 7                                 |                 | Brown cmf SAND; little f GRAVEL; little SILT (wet, non-plastic), w=13.4% | 14                |
| 27    |                   |            |                 |      |             |   |                 |  |                   |
| 28    |                   |            |                 |      |             |   |                 |  |                   |
| 29    |                   |            |                 |      |             |   |                 |  |                   |
| 30    |                   | 10         | 30.0            | 32.0 | SS          | 22 21 13 12                             |                 | Brown cmf SAND; some SILT; some f GRAVEL (wet, non-plastic), w=5.4%      | 6                 |
| 31    |                   |            |                 |      |             |   |                 |  |                   |
| 32    |                   |            |                 |      |             |   |                 |  |                   |
| 33    |                   |            |                 |      |             |   |                 |  |                   |
| 34    |                   |            |                 |      |             |   |                 |  |                   |
| 35    |                   | 11         | 35.0            | 37.0 | SS          | 5 7 7 7                                 |                 | NO RECOVERY  | 0                 |
| 36    |                   |            |                 |      |             |   |                 |  |                   |
| 37    |                   |            |                 |      |             |   | 38.0            |  |                   |
| 38    |                   |            |                 |      |             |   |                 |  |                   |
| 39    |                   |            |                 |      |             |   |                 |  |                   |
| 40    |                   | 12         | 40.0            | 42.0 | SS          | WOH/24"                                 |                 | Brown mf+ SAND; and SILT (saturated, non-plastic), w=29.9%               | 14                |
| 41    |                   |            |                 |      |             |   |                 |  |                   |
| 42    |                   |            |                 |      |             |   |                 |  |                   |
| 43    |                   |            |                 |      |             |   | 43.0            |  |                   |
| 44    |                   |            |                 |      |             |   |                 |  |                   |
| 45    |                   | 13         | 45.0            | 47.0 | SS          | 4 4 5 9                                 |                 | Brown f SAND; some SILT (saturated, non-plastic), w=18.0%                | 18                |
| 46    |                   |            |                 |      |             |   |                 |  |                   |
| 47    |                   |            |                 |      |             |   |                 |  |                   |
| 48    |                   |            |                 |      |             |   |                 |  |                   |
| 49    |                   |            |                 |      |             |   |                 |  |                   |
| 50    |                   | 14         | 50.0            | 52.0 | SS          | 5 9 9 12                                |                 | Similar Soil, w=16.9%  | 22                |
| 51    |                   |            |                 |      |             |   | 52.0            |  |                   |
| 52    |                   |            |                 |      |             |   |                 | Boring terminated at 52 feet.  |                   |
| 53    |                   |            |                 |      |             |   |                 |  |                   |
| 54    |                   |            |                 |      |             |   |                 |  |                   |
| 55    |                   |            |                 |      |             |   |                 | Notes:   |                   |
| 56    |                   |            |                 |      |             |   |                 | 1. Temporary observation well installed to a depth of 25 feet.           |                   |
| 57    |                   |            |                 |      |             |   |                 |  |                   |
| 58    |                   |            |                 |      |             |   |                 |  |                   |
| 59    |                   |            |                 |      |             |   |                 |  |                   |
| 60    |                   |            |                 |      |             |   |                 |  |                   |
| 61    |                   |            |                 |      |             |   |                 |  |                   |
| 62    |                   |            |                 |      |             |   |                 |  |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/13/12

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Report No.: CD3443-01-10-12

Boring Location: See Boring Location Plan

Hotel: \_\_\_\_\_

Client: Climans Green Liang Architects, Inc.

Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Boring No.: B-3 Sheet 1 of 2

Start Date: 10/4/2012 Finish Date: 10/4/2012

Groundwater Observations

| Date             | Time  | Depth      | Casing       |
|------------------|-------|------------|--------------|
| <u>10/4/2012</u> | _____ | <u>DRY</u> | <u>10'</u>   |
| <u>10/4/2012</u> | _____ | <u>DRY</u> | <u>30'</u>   |
| <u>10/4/2012</u> | _____ | <u>DRY</u> | <u>CAVED</u> |

Coordinates \_\_\_\_\_ Sampler Hammer \_\_\_\_\_

Northing \_\_\_\_\_ Weight: 140 lbs.

Easting \_\_\_\_\_ Fall: 30 in.

Hammer Type: Automatic

Ground Elev.: 802.6 Boring Advance By: Borehole caved at 19 feet.

3 1/4" Auger

| DEPTH | METHOD OF ADVANCE          | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | Recovery (Inches) |
|-------|----------------------------|------------|-----------------|------|-------------|---|-----------------|--|-------------------|
|       |                            |            | From            | To   |             |   |                 |  |                   |
| 1     | A<br>G<br>C<br>R<br>E<br>S | 1          | 0.0             | 2.0  | SS          | 8 10 10 12                              | 2.0             | Brown SILT; some cmf SAND; some cmf GRAVEL; trace Organic Material (root) (wet, non-plastic) | 14                |
| 2     |                            | 2          | 2.0             | 4.0  | SS          | 10 19 22 27                             |                 |  |                   |
| 3     |                            |            |                 |      |             |   |                 |  |                   |
| 4     |                            | 3          | 4.0             | 6.0  | SS          | 20 14 16 14                             |                 |  |                   |
| 5     |                            |            |                 |      |             |   |                 |  |                   |
| 6     |                            | 4          | 6.0             | 8.0  | SS          | 16 7 5 14                               |                 |  |                   |
| 7     |                            |            |                 |      |             |   |                 |  |                   |
| 8     |                            | 5          | 8.0             | 10.0 | SS          | 3 4 4 5                                 |                 |  |                   |
| 9     |                            |            |                 |      |             |   |                 |  |                   |
| 10    |                            |            |                 |      |             |   |                 |  |                   |
| 11    |                            | 6          | 10.0            | 12.0 | SS          | 6 6 7 6                                 |                 | 16   |                   |
| 12    |                            |            |                 |      |             |   |                 |  |                   |
| 13    |                            |            |                 |      |             |   |                 |  |                   |
| 14    |                            |            |                 |      |             |   |                 |  |                   |
| 15    |                            | 7          | 15.0            | 17.0 | SS          | 11 4 4 4                                |                 | 10   |                   |
| 16    |                            |            |                 |      |             |   |                 |  |                   |
| 17    |                            |            |                 |      |             |   |                 |  |                   |
| 18    |                            |            |                 |      |             |   |                 |  |                   |
| 19    |                            |            |                 |      |             |   |                 |  |                   |
| 20    |                            | 8          | 20.0            | 22.0 | SS          | 5 7 7 12                                |                 | 0  |                   |
| 21    |                            |            |                 |      |             |   |                 |  |                   |
| 22    |                            |            |                 |      |             |   |                 |  |                   |
| 23    |                            |            |                 |      |             |   |                 |  |                   |
| 24    |                            |            |                 |      |             |   |                 |  |                   |
| 25    |                            |            |                 |      |             |   |                 |  |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/13/12

SS Split Spoon Sample  
NX Rock Core  
SH Undisturbed Sample (Shelby Tube)  
Estimated Groundwater

Drillers: Tony Mallory; Tyler Weston

Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.:  B-3

Report No.:  CD3443-01-10-12

Sheet  2  of  2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                   |            | From            | To   |             |   |                 |   |                   |
| 26    |                   | 9          | 25.0            | 27.0 | SS          | 14 8 7 8                                |                 | Brown cmf GRAVEL; some cmf SAND; some SILT (saturated, non-plastic) | 10                |
| 27    |                   |            |                 |      |             |   |                 |   |                   |
| 28    |                   |            |                 |      |             |   |                 |   |                   |
| 29    |                   |            |                 |      |             |   |                 |   |                   |
| 30    |                   | 10         | 30.0            | 32.0 | SS          | 14 9 10 8                               |                 | Brown cmf GRAVEL; and cmf SAND; some SILT (saturated, non-plastic)  | 12                |
| 31    |                   |            |                 |      |             |   | 32.0            |   |                   |
| 32    |                   |            |                 |      |             |   |                 | Boring terminated at 32 feet.                                       |                   |
| 33    |                   |            |                 |      |             |   |                 |   |                   |
| 34    |                   |            |                 |      |             |   |                 |   |                   |
| 35    |                   |            |                 |      |             |   |                 | Notes:  |                   |
| 36    |                   |            |                 |      |             |   |                 | 1. Boring backfilled with on-site soil.                             |                   |
| 37    |                   |            |                 |      |             |   |                 |   |                   |
| 38    |                   |            |                 |      |             |   |                 |   |                   |
| 39    |                   |            |                 |      |             |   |                 |   |                   |
| 40    |                   |            |                 |      |             |   |                 |   |                   |
| 41    |                   |            |                 |      |             |   |                 |   |                   |
| 42    |                   |            |                 |      |             |   |                 |   |                   |
| 43    |                   |            |                 |      |             |   |                 |   |                   |
| 44    |                   |            |                 |      |             |   |                 |   |                   |
| 45    |                   |            |                 |      |             |   |                 |   |                   |
| 46    |                   |            |                 |      |             |   |                 |   |                   |
| 47    |                   |            |                 |      |             |   |                 |   |                   |
| 48    |                   |            |                 |      |             |   |                 |   |                   |
| 49    |                   |            |                 |      |             |   |                 |   |                   |
| 50    |                   |            |                 |      |             |   |                 |   |                   |
| 51    |                   |            |                 |      |             |   |                 |   |                   |
| 52    |                   |            |                 |      |             |   |                 |   |                   |
| 53    |                   |            |                 |      |             |   |                 |   |                   |
| 54    |                   |            |                 |      |             |   |                 |   |                   |
| 55    |                   |            |                 |      |             |   |                 |   |                   |
| 56    |                   |            |                 |      |             |   |                 |   |                   |
| 57    |                   |            |                 |      |             |   |                 |   |                   |
| 58    |                   |            |                 |      |             |   |                 |   |                   |
| 59    |                   |            |                 |      |             |   |                 |   |                   |
| 60    |                   |            |                 |      |             |   |                 |   |                   |
| 61    |                   |            |                 |      |             |   |                 |   |                   |
| 62    |                   |            |                 |      |             |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/13/12



**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Report No.: CD3443-01-10-12

Client: Climans Green Liang Architects, Inc.

Boring Location: See Boring Location Plan

Project: Subsurface Investigation

Tioga Downs Casino and Hotel Expansion

Nichols, New York

Hotel \_\_\_\_\_

Boring No.: B-4 Sheet 1 of 2

Start Date: 10/4/2012 Finish Date: 10/4/2012

Coordinates \_\_\_\_\_

Sampler Hammer \_\_\_\_\_

Northing \_\_\_\_\_ Weight: 140 lbs.

Easting \_\_\_\_\_ Fall: 30 in.

Hammer Type: Automatic

Ground Elev.: 803.0 Boring Advance By: \_\_\_\_\_

3 1/4" Auger

| Groundwater Observations |       |             |            |
|--------------------------|-------|-------------|------------|
| Date                     | Time  | Depth       | Casing     |
| <u>10/4/2012</u>         | _____ | <u>29.8</u> | <u>30'</u> |
| _____                    | _____ | _____       | _____      |
| _____                    | _____ | _____       | _____      |
| _____                    | _____ | _____       | _____      |

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | Recovery (Inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|--|-------------------|
|       |                   |            | From            | To   |             |   |                 |  |                   |
| 1     | A<br>G<br>E<br>S  | 1          | 0.0             | 2.0  | SS          | 7 19 10 15                              | 4.0             | Brown SILT; and cmf SAND; little mf GRAVEL (moist, non-plastic)      | 14                |
| 2     |                   | 2          | 2.0             | 4.0  | SS          | 18 15 24 21                             |                 | Similar Soil; some mf GRAVEL   | 16                |
| 3     |                   | 3          | 4.0             | 6.0  | SS          | 19 16 13 13                             |                 | Brown cmf SAND; and SILT; some mf GRAVEL (wet, non-plastic)          | 14                |
| 4     |                   |            |                 |      |             |   |                 |  |                   |
| 5     |                   |            |                 |      |             |   |                 |  |                   |
| 6     |                   | 4          | 6.0             | 8.0  | SS          | 8 11 11 12                              |                 | Brown cmf SAND; some SILT; some mf GRAVEL (wet, non-plastic)         | 14                |
| 7     |                   |            |                 |      |             |   |                 |  |                   |
| 8     |                   | 5          | 8.0             | 10.0 | SS          | 9 11 10 7                               |                 | NO RECOVERY  | 0                 |
| 9     |                   |            |                 |      |             |   |                 |  |                   |
| 10    |                   | 6          | 10.0            | 12.0 | SS          | 11 4 5 7                                | 10.5            | Brown cmf SAND; some cmf GRAVEL; little SILT (wet, non-plastic)      | 18                |
| 11    |                   |            |                 |      |             |   |                 |  |                   |
| 12    |                   |            |                 |      |             |   |                 |  |                   |
| 13    |                   |            |                 |      |             |   |                 |  |                   |
| 14    |                   |            |                 |      |             |   |                 |  |                   |
| 15    |                   | 7          | 15.0            | 17.0 | SS          | 3 4 5 5                                 |                 | Brown cmf SAND; some mf GRAVEL; little SILT (saturated, non-plastic) | 12                |
| 16    |                   |            |                 |      |             |   |                 |  |                   |
| 17    |                   |            |                 |      |             |   |                 |  |                   |
| 18    |                   |            |                 |      |             |   |                 |  |                   |
| 19    |                   |            |                 |      |             |   |                 |  |                   |
| 20    |                   | 8          | 20.0            | 22.0 | SS          | 9 5 5 5                                 |                 | Brown cmf GRAVEL; some cmf SAND; some SILT (saturated, non-plastic)  | 14                |
| 21    |                   |            |                 |      |             |   |                 |  |                   |
| 22    |                   |            |                 |      |             |   |                 |  |                   |
| 23    |                   |            |                 |      |             |   |                 |  |                   |
| 24    |                   |            |                 |      |             |   |                 |  |                   |
| 25    |                   |            |                 |      |             |   |                 |  |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/13/12

SS Spill Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Sheby Tube)  
 Estimated Groundwater

Drillers: Tony Mallory; Tyler Weston

Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-4

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER |   |   |   | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|---|---|---|-----------------|---|-------------------|
|       |                   |            | From            | To   |             |   |   |   |   |                 |   |                   |
| 26    |                   | 9          | 25.0            | 27.0 | SS          | 4                                       | 4 | 2 | 2 |                 | Brown mf GRAVEL ;some cmf SAND; some SILT; trace ORGANIC MATERIAL (root hairs) (saturated, non-plastic) | 10                |
| 27    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 28    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 29    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 30    |                   | 10         | 30.0            | 32.0 | SS          | 4                                       | 4 | 5 | 5 |                 | Brown cmf GRAVEL; some cmf SAND; some SILT (saturated, non-plastic)                                     | 10                |
| 31    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 32    |                   |            |                 |      |             |   |   |   |   | 32.0            | Boring terminated at 32 feet.   |                   |
| 33    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 34    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 35    |                   |            |                 |      |             |   |   |   |   |                 | Notes:  |                   |
| 36    |                   |            |                 |      |             |   |   |   |   |                 | 1. Boring backfilled with on-site soil.   |                   |
| 37    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 38    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 39    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 40    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 41    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 42    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 43    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 44    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 45    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 46    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 47    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 48    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 49    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 50    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 51    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 52    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 53    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 54    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 55    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 56    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 57    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 58    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 59    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 60    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 61    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |
| 62    |                   |            |                 |      |             |   |   |   |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/13/12

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Client: Climans Green Liang Architects, Inc. Report No.: CD3443-01-10-12  
 Project: Subsurface Investigation Boring Location: See Boring Location Plan  
Tioga Downs Casino and Hotel Expansion Hotel/ Amenities \_\_\_\_\_  
Nichols, New York Start Date: 10/4/2012 Finish Date: 10/4/2012

Boring No.: B-5 Sheet 1 of 2

Coordinates \_\_\_\_\_ Sampler Hammer \_\_\_\_\_  
 Northing \_\_\_\_\_ Weight: 140 lbs.  
 Easting \_\_\_\_\_ Fall: 30 in.  
 Hammer Type: Automatic

Ground Elev.: 803.1 Boring Advance By: Borehole caved at 16 feet.  
4 1/4" Auger

Groundwater Observations

| Date      | Time | Depth | Casing |
|-----------|------|-------|--------|
| 10/4/2012 | PM   | 24.3' | 25'    |
| 10/4/2012 | PM   | DRY   | CAVED  |

| DEPTH | METHOD OF ADVANCE   | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE   | CLASSIFICATION OF MATERIAL   | Recovery (inches) |  |
|-------|---|------------|-----------------|------|-------------|---|---|--|-------------------|--|
|       |   |            | From            | To   |             |   |   |  |                   |  |
| 1     | A<br>G<br>C<br>R<br>E<br>F<br>E<br>R<br>E<br>N<br>C<br>E<br>S | 1          | 0.0             | 2.0  | SS          | 18 26 21 20                             | 4.0   | Brown SILT; and cmf SAND; some mf GRAVEL (moist, non-plastic)  | 18                |  |
| 2     |   | 2          | 2.0             | 4.0  | SS          | 20 11 11 12                             |   | Similar Soil   | 5                 |  |
| 3     |   |            |                 |      |             |   |   |  |                   |  |
| 4     |   | 3          | 4.0             | 6.0  | SS          | 8 12 11 10                              |   | A fiber optic line was encountered at about 4 feet. The boring was moved 5 feet south and samples resampled at 4 feet. | 16                |  |
| 5     |   |            |                 |      |             |   |   | Brown cmf SAND; some SILT; little mf GRAVEL (wet, non-plastic)   | 20                |  |
| 6     |   | 4          | 6.0             | 8.0  | SS          | 10 12 12 14                             |   | Brown cmf SAND; and mf GRAVEL; some SILT (moist, non-plastic)  | 18                |  |
| 7     |   |            |                 |      |             |   |   | Brown cmf SAND; and mf GRAVEL; little SILT (wet, non-plastic)  | 16                |  |
| 8     |   | 5          | 8.0             | 10.0 | SS          | 14 12 11 13                             |   | Similar Soil   | 11                |  |
| 9     |   |            |                 |      |             |   |   |  |                   |  |
| 10    |   |            |                 |      |             |   |   |  |                   |  |
| 11    |   |            |                 |      |             |   |   |  |                   |  |
| 12    |   |            |                 |      |             |   |   |  |                   |  |
| 13    |   |            |                 |      |             |   |   |  |                   |  |
| 14    |   |            |                 |      |             |   |   |  |                   |  |
| 15    |   | 7          | 15.0            | 17.0 | SS          | 11 14 10 8                              | Brown cmf SAND; some mf GRAVEL; some SILT (moist, non-plastic)      | 11   |                   |  |
| 16    |   |            |                 |      |             |   |   |  |                   |  |
| 17    |   |            |                 |      |             |   |   |  |                   |  |
| 18    |   |            |                 |      |             |   |   |  |                   |  |
| 19    |   |            |                 |      |             |   |   |  |                   |  |
| 20    |   | 8          | 20.0            | 22.0 | SS          | 5 6 4 3                                 | Brown cmf GRAVEL ;some cmf SAND; some SILT (saturated, non-plastic) | 11   |                   |  |
| 21    |   |            |                 |      |             |   |   |  |                   |  |
| 22    |   |            |                 |      |             |   |   |  |                   |  |
| 23    |   |            |                 |      |             |   |   |  |                   |  |
| 24    |   |            |                 |      |             |   |   |  |                   |  |
| 25    |   |            |                 |      |             |   |   |  |                   |  |

ATL-LOG1\_CD3443-01-10-12\_GPJ\_LOG-WELL\_GDT\_11/13/12

SS Sp4 Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Justin Sochia  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Boring No.: B-5

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL    | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|-------------------------------|-------------------|
|       |                   |            | From            | To   |             |   |                 |                               |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 4 4 5 6                                 |                 | Similar Soil                  | 16                |
| 28    |                   |            |                 |      |             |   | 27.0            |                               |                   |
| 27    |                   |            |                 |      |             |   |                 | Boring terminated at 27 feet. |                   |
| 28    |                   |            |                 |      |             |   |                 |                               |                   |
| 29    |                   |            |                 |      |             |   |                 |                               |                   |
| 30    |                   |            |                 |      |             |   |                 |                               |                   |
| 31    |                   |            |                 |      |             |   |                 |                               |                   |
| 32    |                   |            |                 |      |             |   |                 |                               |                   |
| 33    |                   |            |                 |      |             |   |                 |                               |                   |
| 34    |                   |            |                 |      |             |   |                 |                               |                   |
| 35    |                   |            |                 |      |             |   |                 |                               |                   |
| 38    |                   |            |                 |      |             |   |                 |                               |                   |
| 37    |                   |            |                 |      |             |   |                 |                               |                   |
| 38    |                   |            |                 |      |             |   |                 |                               |                   |
| 39    |                   |            |                 |      |             |   |                 |                               |                   |
| 40    |                   |            |                 |      |             |   |                 |                               |                   |
| 41    |                   |            |                 |      |             |   |                 |                               |                   |
| 42    |                   |            |                 |      |             |   |                 |                               |                   |
| 43    |                   |            |                 |      |             |   |                 |                               |                   |
| 44    |                   |            |                 |      |             |   |                 |                               |                   |
| 45    |                   |            |                 |      |             |   |                 |                               |                   |
| 46    |                   |            |                 |      |             |   |                 |                               |                   |
| 47    |                   |            |                 |      |             |   |                 |                               |                   |
| 48    |                   |            |                 |      |             |   |                 |                               |                   |
| 49    |                   |            |                 |      |             |   |                 |                               |                   |
| 50    |                   |            |                 |      |             |   |                 |                               |                   |
| 51    |                   |            |                 |      |             |   |                 |                               |                   |
| 52    |                   |            |                 |      |             |   |                 |                               |                   |
| 53    |                   |            |                 |      |             |   |                 |                               |                   |
| 54    |                   |            |                 |      |             |   |                 |                               |                   |
| 55    |                   |            |                 |      |             |   |                 |                               |                   |
| 56    |                   |            |                 |      |             |   |                 |                               |                   |
| 57    |                   |            |                 |      |             |   |                 |                               |                   |
| 58    |                   |            |                 |      |             |   |                 |                               |                   |
| 59    |                   |            |                 |      |             |   |                 |                               |                   |
| 60    |                   |            |                 |      |             |   |                 |                               |                   |
| 61    |                   |            |                 |      |             |   |                 |                               |                   |
| 62    |                   |            |                 |      |             |   |                 |                               |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/13/12

**CLASSIFICATION OF MATERIAL**  
 f - fine and - 35-50%  
 m - medium some - 20-35%  
 c - coarse little - 10-20%  
 trace - 0-10%

Notes:  
 1. Boring backfilled with on-site soil.

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Report No.: CD3443-01-10-12

Boring Location: See Boring Location Plan

Amenities: \_\_\_\_\_

Start Date: 10/3/2012 Finish Date: 10/4/2012

Client: Climans Green Liang Architects, Inc.

Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Boring No.: B-6 Sheet 1 of 2

Groundwater Observations

| Date             | Time      | Depth        | Casing     |
|------------------|-----------|--------------|------------|
| <u>10/3/2012</u> | <u>PM</u> | <u>DRY</u>   | <u>15'</u> |
| <u>10/4/2012</u> | <u>AM</u> | <u>DRY</u>   | <u>15'</u> |
| <u>10/4/2012</u> | <u>AM</u> | <u>24.2'</u> | <u>25'</u> |

Coordinates \_\_\_\_\_ Sampler Hammer \_\_\_\_\_

Northing \_\_\_\_\_ Weight: 140 lbs.

Easting \_\_\_\_\_ Fall: 30 in.

Hammer Type: Automatic

Ground Elev.: 802.5 Boring Advance By: Borehole caved at 16 feet.

4 1/4" Auger

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE  | CLASSIFICATION OF MATERIAL  | Recovery (Inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|--|---|-------------------|
|       |                   |            | From            | To   |             |   |  |   |                   |
| 1     | A                 | 1          | 0.0             | 2.0  | SS          | 20 14 15 18                             | 8.0  | Brown cmf SAND; some cmf GRAVEL; trace SILT (moist, non-plastic)                                | 16                |
| 2     | G                 | 2          | 2.0             | 4.0  | SS          | 16 14 9 10                              |  | Brown cmf SAND; and ORGANIC MATERIAL (WOOD); little cmf GRAVEL; trace SILT (moist, non-plastic) | 10                |
| 3     | P                 | 3          | 4.0             | 6.0  | SS          | 14 14 11 7                              |  | Brown cmf SAND; and mf GRAVEL; trace SILT (moist, non-plastic), w=6.7%                          | 16                |
| 4     | R                 | 4          | 6.0             | 8.0  | SS          | 12 11 10 10                             |  | Brown cmf SAND; and cmf GRAVEL; trace SILT; trace CLAY (moist, very slightly plastic), w=12.8%  | 12                |
| 5     | T                 | 5          | 8.0             | 10.0 | SS          | 7 7 7 7                                 |  | Brown cmf SAND; and cmf GRAVEL; trace SILT (moist, non-plastic), w=5.0%                         | 10                |
| 6     | S                 | 6          | 10.0            | 12.0 | SS          | 6 5 7 6                                 |  | Brown mf GRAVEL; some cmf SAND; little SILT (moist, non-plastic), w=6.6%                        | 12                |
| 7     |                   |            |                 |      |             |   |  |   |                   |
| 8     |                   |            |                 |      |             |   |  |   |                   |
| 9     |                   |            |                 |      |             |   |  |   |                   |
| 10    |                   |            |                 |      |             |   |  |   |                   |
| 11    |                   |            |                 |      |             |   |  |   |                   |
| 12    |                   |            |                 |      |             |   |  |   |                   |
| 13    |                   |            |                 |      |             |   |  |   |                   |
| 14    |                   |            |                 |      |             |   |  |   |                   |
| 15    |                   | 7          | 15.0            | 17.0 | SS          | 12 22 7 6                               | NO RECOVERY  | 0   |                   |
| 16    |                   |            |                 |      |             |   |  |   |                   |
| 17    |                   |            |                 |      |             |   |  |   |                   |
| 18    |                   |            |                 |      |             |   |  |   |                   |
| 19    |                   |            |                 |      |             |   |  |   |                   |
| 20    |                   | 8          | 20.0            | 22.0 | SS          | 6 14 10 12                              | Brown cmf SAND; and cmf GRAVEL; little SILT; trace CLAY (wet, very slightly plastic) | 6   |                   |
| 21    |                   |            |                 |      |             |   |  |   |                   |
| 22    |                   |            |                 |      |             |   |  |   |                   |
| 23    |                   |            |                 |      |             |   |  |   |                   |
| 24    |                   |            |                 |      |             |   |  |   |                   |
| 25    |                   |            |                 |      |             |   |  |   |                   |

ATL-LOG: CD3443-01-10-12 GP-1 LOG-WELL GDT 11/6/12

SS Split Spoon Sample  
 NK Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Justin Sochia

Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-6

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                   |            | From            | To   |             |   |                 |   |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 6 9 13 10                               |                 | f - fine<br>m - medium<br>c - coarse<br>and - 35-50%<br>some - 20-35%<br>little - 10-20%<br>trace - 0-10% |                   |
| 26    |                   |            |                 |      |             |   |                 | Brown cmf SAND; some mf GRAVEL; little SILT (wet, non-plastic)  | 10                |
| 27    |                   |            |                 |      |             |   | 27.0            | Boring terminated at 27 feet.   |                   |
| 28    |                   |            |                 |      |             |   |                 |   |                   |
| 29    |                   |            |                 |      |             |   |                 |   |                   |
| 30    |                   |            |                 |      |             |   |                 |   |                   |
| 31    |                   |            |                 |      |             |   |                 | Notes:<br>1. Boring backfilled with on-site soil.   |                   |
| 32    |                   |            |                 |      |             |   |                 |   |                   |
| 33    |                   |            |                 |      |             |   |                 |   |                   |
| 34    |                   |            |                 |      |             |   |                 |   |                   |
| 35    |                   |            |                 |      |             |   |                 |   |                   |
| 36    |                   |            |                 |      |             |   |                 |   |                   |
| 37    |                   |            |                 |      |             |   |                 |   |                   |
| 38    |                   |            |                 |      |             |   |                 |   |                   |
| 39    |                   |            |                 |      |             |   |                 |   |                   |
| 40    |                   |            |                 |      |             |   |                 |   |                   |
| 41    |                   |            |                 |      |             |   |                 |   |                   |
| 42    |                   |            |                 |      |             |   |                 |   |                   |
| 43    |                   |            |                 |      |             |   |                 |   |                   |
| 44    |                   |            |                 |      |             |   |                 |   |                   |
| 45    |                   |            |                 |      |             |   |                 |   |                   |
| 46    |                   |            |                 |      |             |   |                 |   |                   |
| 47    |                   |            |                 |      |             |   |                 |   |                   |
| 48    |                   |            |                 |      |             |   |                 |   |                   |
| 49    |                   |            |                 |      |             |   |                 |   |                   |
| 50    |                   |            |                 |      |             |   |                 |   |                   |
| 51    |                   |            |                 |      |             |   |                 |   |                   |
| 52    |                   |            |                 |      |             |   |                 |   |                   |
| 53    |                   |            |                 |      |             |   |                 |   |                   |
| 54    |                   |            |                 |      |             |   |                 |   |                   |
| 55    |                   |            |                 |      |             |   |                 |   |                   |
| 56    |                   |            |                 |      |             |   |                 |   |                   |
| 57    |                   |            |                 |      |             |   |                 |   |                   |
| 58    |                   |            |                 |      |             |   |                 |   |                   |
| 59    |                   |            |                 |      |             |   |                 |   |                   |
| 60    |                   |            |                 |      |             |   |                 |   |                   |
| 61    |                   |            |                 |      |             |   |                 |   |                   |
| 62    |                   |            |                 |      |             |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/8/12

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
 Amenties \_\_\_\_\_

Boring No.: B-7 Sheet 1 of 2

Start Date: 10/3/2012 Finish Date: 10/3/2012

Coordinates  
 Northing \_\_\_\_\_  
 Easting \_\_\_\_\_

Sampler Hammer  
 Weight: 140 lbs.  
 Fall: 30 in.

| Date              | Groundwater Observations |              |                |
|-------------------|--------------------------|--------------|----------------|
|                   | Time                     | Depth        | Casing         |
| <u>10/3/2012</u>  | <u>PM</u>                | <u>DRY</u>   | <u>TOW@27'</u> |
| <u>10/11/2012</u> | <u>PM</u>                | <u>23.4'</u> | <u>TOW@27'</u> |
| <u>10/12/2012</u> | <u>PM</u>                | <u>23.5'</u> | <u>TOW@27'</u> |
| <u>10/26/2012</u> | <u>PM</u>                | <u>24.0'</u> | <u>TOW@27'</u> |

Hammer Type: Automatic

Ground Elev.: 802.2 Boring Advance By: \_\_\_\_\_  
4 1/4" Auger

| DEPTH | METHOD OF ADVANCE               | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE  | CLASSIFICATION OF MATERIAL   | Recovery (inches) |
|-------|---------------------------------|------------|-----------------|------|-------------|---|--|--|-------------------|
|       |                                 |            | From            | To   |             |   |  |  |                   |
| 1     | A<br>C<br>C<br>E<br>R<br>E<br>S | 1          | 0.0             | 2.0  | SS          | 4 8 7 10                                | 0.2  | 2" TOPSOIL and ORGANIC MATERIAL  | 18                |
| 2     |                                 | 2          | 2.0             | 4.0  | SS          | 13 13 13 13                             | 6.5  | Brown cmf SAND; trace f GRAVEL; trace SILT; trace ORGANIC MATERIAL (root hairs) (moist, non-plastic) | 16                |
| 3     |                                 | 3          | 4.0             | 6.0  | SS          | 13 16 11 10                             |  | Brown cmf SAND; and cmf GRAVEL; trace SILT (moist, non-plastic)                                      | 10                |
| 4     |                                 | 4          | 6.0             | 8.0  | SS          | 10 6 7 6                                | Brown cmf SAND; some cmf GRAVEL; trace SILT; trace CLAY (moist, very slightly plastic) | 10   |                   |
| 5     |                                 | 5          | 8.0             | 10.0 | SS          | 6 5 6 4                                 | 16.5   | Brown cmf SAND; little mf GRAVEL; trace SILT (moist, non-plastic)                                    | 12                |
| 6     |                                 | 6          | 10.0            | 12.0 | SS          | 4 5 4 3                                 |  | Brown cmf SAND; some cmf GRAVEL; trace SILT (wet, non-plastic)                                       | 10                |
| 7     |                                 | 7          | 15.0            | 17.0 | SS          | 3 4 4 12                                | Brown cmf SAND; some cmf GRAVEL; trace SILT (wet, non-plastic)                         | 12   |                   |
| 8     |                                 | 8          | 20.0            | 22.0 | SS          | 7 12 11 14                              | Brown cmf SAND; and mf GRAVEL; trace SILT; trace CLAY (wet, very slightly plastic)     | 8  |                   |
| 9     |                                 |            |                 |      |             |   |  |  |                   |
| 10    |                                 |            |                 |      |             |   |  |  |                   |
| 11    |                                 |            |                 |      |             |   |  |  |                   |
| 12    |                                 |            |                 |      |             |   |  |  |                   |
| 13    |                                 |            |                 |      |             |   |  |  |                   |
| 14    |                                 |            |                 |      |             |   |  |  |                   |
| 15    |                                 |            |                 |      |             |   |  |  |                   |
| 16    |                                 |            |                 |      |             |   |  |  |                   |
| 17    |                                 |            |                 |      |             |   |  |  |                   |
| 18    |                                 |            |                 |      |             |   |  |  |                   |
| 19    |                                 |            |                 |      |             |   |  |  |                   |
| 20    |                                 |            |                 |      |             |   |  |  |                   |
| 21    |                                 |            |                 |      |             |   |  |  |                   |
| 22    |                                 |            |                 |      |             |   |  |  |                   |
| 23    |                                 |            |                 |      |             |   |  |  |                   |
| 24    |                                 |            |                 |      |             |   |  |  |                   |
| 25    |                                 |            |                 |      |             |   |  |  |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOC-WELL GDT 11/8/12

SS Sptt Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Justin Sochia  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-7

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                   |            | From            | To   |             |   |                 |   |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 5 9 10 10                               |                 | Brown cmf SAND; and cmf GRAVEL; trace SILT; trace CLAY (wet, very slightly plastic) | 7                 |
| 26    |                   |            |                 |      |             |   | 27.0            |   |                   |
| 27    |                   |            |                 |      |             |   |                 | Boring terminated at 27 feet.   |                   |
| 28    |                   |            |                 |      |             |   |                 |   |                   |
| 29    |                   |            |                 |      |             |   |                 |   |                   |
| 30    |                   |            |                 |      |             |   |                 |   |                   |
| 31    |                   |            |                 |      |             |   |                 |   |                   |
| 32    |                   |            |                 |      |             |   |                 |   |                   |
| 33    |                   |            |                 |      |             |   |                 |   |                   |
| 34    |                   |            |                 |      |             |   |                 |   |                   |
| 35    |                   |            |                 |      |             |   |                 |   |                   |
| 36    |                   |            |                 |      |             |   |                 |   |                   |
| 37    |                   |            |                 |      |             |   |                 |   |                   |
| 38    |                   |            |                 |      |             |   |                 |   |                   |
| 39    |                   |            |                 |      |             |   |                 |   |                   |
| 40    |                   |            |                 |      |             |   |                 |   |                   |
| 41    |                   |            |                 |      |             |   |                 |   |                   |
| 42    |                   |            |                 |      |             |   |                 |   |                   |
| 43    |                   |            |                 |      |             |   |                 |   |                   |
| 44    |                   |            |                 |      |             |   |                 |   |                   |
| 45    |                   |            |                 |      |             |   |                 |   |                   |
| 46    |                   |            |                 |      |             |   |                 |   |                   |
| 47    |                   |            |                 |      |             |   |                 |   |                   |
| 48    |                   |            |                 |      |             |   |                 |   |                   |
| 49    |                   |            |                 |      |             |   |                 |   |                   |
| 50    |                   |            |                 |      |             |   |                 |   |                   |
| 51    |                   |            |                 |      |             |   |                 |   |                   |
| 52    |                   |            |                 |      |             |   |                 |   |                   |
| 53    |                   |            |                 |      |             |   |                 |   |                   |
| 54    |                   |            |                 |      |             |   |                 |   |                   |
| 55    |                   |            |                 |      |             |   |                 |   |                   |
| 56    |                   |            |                 |      |             |   |                 |   |                   |
| 57    |                   |            |                 |      |             |   |                 |   |                   |
| 58    |                   |            |                 |      |             |   |                 |   |                   |
| 59    |                   |            |                 |      |             |   |                 |   |                   |
| 60    |                   |            |                 |      |             |   |                 |   |                   |
| 61    |                   |            |                 |      |             |   |                 |   |                   |
| 62    |                   |            |                 |      |             |   |                 |   |                   |

f - fine  
 m - medium  
 c - coarse  
 and - 35-50%  
 some - 20-35%  
 little - 10-20%  
 trace - 0-10%

Notes:  
 1. Temporary observation well was installed to a depth of 27 feet.

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 1/16/12



**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
 Amenities \_\_\_\_\_

Boring No.: B-9 Sheet 1 of 2

Start Date: 10/11/2012 Finish Date: 10/11/2012

Coordinates \_\_\_\_\_  
 Northing \_\_\_\_\_  
 Easting \_\_\_\_\_  
 Sampler Hammer Weight: 140 lbs.  
 Fall: 30 in.  
 Hammer Type: Automatic

| Groundwater Observations |      |       |        |
|--------------------------|------|-------|--------|
| Date                     | Time | Depth | Casing |
| 10/11/2012               | PM   | DRY   | 25'    |
| 10/11/2012               | PM   | DRY   | CAVED  |
|                          |      |       |        |
|                          |      |       |        |

Ground Elev.: 823.3 Boring Advance By: 4 1/4" Auger

**Borehole caved at 21 feet.**

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE  | CLASSIFICATION OF MATERIAL | Recovery (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|--|----------------------------|-------------------|
|       |                   |            | From            | To   |             |   |  |                            |                   |
| 1     | A<br>G<br>C<br>S  | 1          | 0.0             | 2.0  | SS          | 3 5 9 12                                | Brown cmf SAND; some mf GRAVEL; some SILT; trace ORGANIC MATERIAL (shoot) (wet, non-plastic) | 12                         |                   |
| 2     |                   | 2          | 2.0             | 4.0  | SS          | 10 10 15 12                             |  | 10                         |                   |
| 3     |                   | 3          | 4.0             | 6.0  | SS          | 13 56 77 15                             |  | 8                          |                   |
| 4     |                   | 4          | 6.0             | 8.0  | SS          | 14 19 30 22                             |  | 10                         |                   |
| 5     |                   | 5          | 8.0             | 10.0 | SS          | 6 10 14 17                              |  | 18                         |                   |
| 6     |                   | 6          | 10.0            | 12.0 | SS          | 12 13 13 18                             |  | 14                         |                   |
| 7     |                   |            |                 |      |             |   |  |                            |                   |
| 8     |                   |            |                 |      |             |   |  |                            |                   |
| 9     |                   |            |                 |      |             |   |  |                            |                   |
| 10    |                   |            |                 |      |             |   |  |                            |                   |
| 11    |                   |            |                 |      |             |   |  |                            |                   |
| 12    |                   |            |                 |      |             |   |  |                            |                   |
| 13    |                   |            |                 |      |             |   |  |                            |                   |
| 14    |                   |            |                 |      |             |   |  |                            |                   |
| 15    |                   | 7          | 15.0            | 17.0 | SS          | 10 14 19 22                             | Brown cmf SAND; some mf GRAVEL; some SILT (moist, non-plastic)                               | 16                         |                   |
| 16    |                   |            |                 |      |             |   |  |                            |                   |
| 17    |                   |            |                 |      |             |   |  |                            |                   |
| 18    |                   |            |                 |      |             |   |  |                            |                   |
| 19    |                   |            |                 |      |             |   |  |                            |                   |
| 20    |                   |            |                 |      |             |   |  |                            |                   |
| 21    |                   | 8          | 20.0            | 22.0 | SS          | 14 19 26 24                             | Brown cmf SAND; some mf GRAVEL; some SILT (moist, non-plastic)                               | 18                         |                   |
| 22    |                   |            |                 |      |             |   |  |                            |                   |
| 23    |                   |            |                 |      |             |   |  |                            |                   |
| 24    |                   |            |                 |      |             |   |  |                            |                   |
| 25    |                   |            |                 |      |             |   |  |                            |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/13/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Mark Childs; Tyler Weston  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Boring No.: B-9

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL                                  | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                   |            | From            | To   |             |   |                 |   |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 8 13 17 19                              |                 | Brown cmf SAND; and mf GRAVEL; some SILT (wet, non-plastic) | 10                |
| 26    |                   |            |                 |      |             |   | 27.0            |   |                   |
| 27    |                   |            |                 |      |             |   |                 | Boring terminated at 27 feet.                               |                   |
| 28    |                   |            |                 |      |             |   |                 |   |                   |
| 29    |                   |            |                 |      |             |   |                 |   |                   |
| 30    |                   |            |                 |      |             |   |                 |   |                   |
| 31    |                   |            |                 |      |             |   |                 |   |                   |
| 32    |                   |            |                 |      |             |   |                 |   |                   |
| 33    |                   |            |                 |      |             |   |                 |   |                   |
| 34    |                   |            |                 |      |             |   |                 |   |                   |
| 35    |                   |            |                 |      |             |   |                 |   |                   |
| 36    |                   |            |                 |      |             |   |                 |   |                   |
| 37    |                   |            |                 |      |             |   |                 |   |                   |
| 38    |                   |            |                 |      |             |   |                 |   |                   |
| 39    |                   |            |                 |      |             |   |                 |   |                   |
| 40    |                   |            |                 |      |             |   |                 |   |                   |
| 41    |                   |            |                 |      |             |   |                 |   |                   |
| 42    |                   |            |                 |      |             |   |                 |   |                   |
| 43    |                   |            |                 |      |             |   |                 |   |                   |
| 44    |                   |            |                 |      |             |   |                 |   |                   |
| 45    |                   |            |                 |      |             |   |                 |   |                   |
| 46    |                   |            |                 |      |             |   |                 |   |                   |
| 47    |                   |            |                 |      |             |   |                 |   |                   |
| 48    |                   |            |                 |      |             |   |                 |   |                   |
| 49    |                   |            |                 |      |             |   |                 |   |                   |
| 50    |                   |            |                 |      |             |   |                 |   |                   |
| 51    |                   |            |                 |      |             |   |                 |   |                   |
| 52    |                   |            |                 |      |             |   |                 |   |                   |
| 53    |                   |            |                 |      |             |   |                 |   |                   |
| 54    |                   |            |                 |      |             |   |                 |   |                   |
| 55    |                   |            |                 |      |             |   |                 |   |                   |
| 56    |                   |            |                 |      |             |   |                 |   |                   |
| 57    |                   |            |                 |      |             |   |                 |   |                   |
| 58    |                   |            |                 |      |             |   |                 |   |                   |
| 59    |                   |            |                 |      |             |   |                 |   |                   |
| 60    |                   |            |                 |      |             |   |                 |   |                   |
| 61    |                   |            |                 |      |             |   |                 |   |                   |
| 62    |                   |            |                 |      |             |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/13/12

I - fine  
 m - medium  
 c - coarse  
 and - 35-50%  
 some - 20-35%  
 little - 10-20%  
 trace - 0-10%

Notes:  
 1. Boring backfilled with on-site soils on completion.

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Cilmans Green Liang Architects, Inc. Report No.: CD3443-01-10-12  
 Project: Subsurface Investigation Boring Location: See Boring Location Plan  
Tioga Downs Casino and Hotel Expansion Amenities: \_\_\_\_\_  
Nichols, New York  
 Boring No.: B-10 Sheet 1 of 2 Start Date: 10/5/2012 Finish Date: 10/5/2012  
 Coordinates Sampler Hammer  
 Northing \_\_\_\_\_ Weight: 140 lbs.  
 Easting \_\_\_\_\_ Fall: 30 in.  
 Hammer Type: Automatic  
 Ground Elev.: 811.6 Boring Advance By: Borehole caved at 17 feet.  
4 1/4" Auger

Groundwater Observations

| Date             | Time      | Depth        | Casing       |
|------------------|-----------|--------------|--------------|
| <u>10/5/2012</u> | <u>AM</u> | <u>26.8'</u> | <u>27'</u>   |
| <u>10/5/2012</u> | <u>AM</u> | <u>DRY</u>   | <u>CAVED</u> |
| _____            | _____     | _____        | _____        |
| _____            | _____     | _____        | _____        |

| DEPTH | METHOD OF ADVANCE     | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | Recovery (inches) |
|-------|-----------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                       |            | From            | To   |             |   |                 |   |                   |
| 1     | A<br>G<br>E<br>E<br>S | 1          | 0.0             | 2.0  | SS          | 10 14 18 16                             | 0.3             | 3" TOPSOIL and ORGANIC MATERIAL                                   | 16                |
| 2     |                       | 2          | 2.0             | 4.0  | SS          | 20 21 19 17                             |                 | 20  |                   |
| 3     |                       |            |                 |      |             |   |                 |   |                   |
| 4     |                       | 3          | 4.0             | 6.0  | SS          | 17 17 18 16                             |                 | 8   |                   |
| 5     |                       |            |                 |      |             |   |                 |   |                   |
| 6     |                       | 4          | 6.0             | 8.0  | SS          | 16 15 14 16                             |                 | 15  |                   |
| 7     |                       |            |                 |      |             |   |                 |   |                   |
| 8     |                       | 5          | 8.0             | 10.0 | SS          | 15 12 18 14                             |                 | 12  |                   |
| 9     |                       |            |                 |      |             |   |                 |   |                   |
| 10    |                       | 6          | 10.0            | 12.0 | SS          | 15 16 17 14                             |                 | 20  |                   |
| 11    |                       |            |                 |      |             |   |                 |   |                   |
| 12    |                       |            |                 |      |             |   |                 |   |                   |
| 13    |                       |            |                 |      |             |   |                 |   |                   |
| 14    |                       |            |                 |      |             |   |                 |   |                   |
| 15    |                       | 7          | 15.0            | 17.0 | SS          | 13 12 6 5                               | 16.0            | Brown cmf SAND; some cmf GRAVEL; trace SILT (moist, non-plastic)  | 12                |
| 16    |                       |            |                 |      |             |   |                 |   |                   |
| 17    |                       |            |                 |      |             |   |                 |   |                   |
| 18    |                       |            |                 |      |             |   |                 |   |                   |
| 19    |                       |            |                 |      |             |   |                 |   |                   |
| 20    |                       | 8          | 20.0            | 22.0 | SS          | 4 7 8 6                                 |                 | Brown cmf SAND; some cmf GRAVEL; little SILT (moist, non-plastic) | 12                |
| 21    |                       |            |                 |      |             |   |                 |   |                   |
| 22    |                       |            |                 |      |             |   |                 |   |                   |
| 23    |                       |            |                 |      |             |   |                 |   |                   |
| 24    |                       |            |                 |      |             |   |                 |   |                   |
| 25    |                       |            |                 |      |             |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/13/12

SS Spill Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Justin Sochia  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-10

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER |    |    | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL<br><br><small>f - fine<br/>m - medium<br/>c - coarse</small><br><small>and - 35-50%<br/>some - 20-35%<br/>little - 10-20%<br/>trace - 0-10%</small> | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|----|----|-----------------|--|-------------------|
|       |                   |            | From            | To   |             |   |    |    |                 |  |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 8                                       | 14 | 27 | 29              |  | 16                |
| 26    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 27    |                   |            |                 |      |             |   |    |    | 27.0            | Brown cmf SAND; and cmf GRAVEL; little SILT (wet, non-plastic)   |                   |
| 28    |                   |            |                 |      |             |   |    |    |                 | Boring terminated at 27 feet.  |                   |
| 29    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 30    |                   |            |                 |      |             |   |    |    |                 | Notes:   |                   |
| 31    |                   |            |                 |      |             |   |    |    |                 | 1. Boring backfilled with on-site soil.  |                   |
| 32    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 33    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 34    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 35    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 36    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 37    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 38    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 39    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 40    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 41    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 42    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 43    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 44    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 45    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 46    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 47    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 48    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 49    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 50    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 51    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 52    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 53    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 54    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 55    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 56    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 57    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 58    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 59    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 60    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 61    |                   |            |                 |      |             |   |    |    |                 |  |                   |
| 62    |                   |            |                 |      |             |   |    |    |                 |  |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/13/12

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Report No.: CD3443-01-10-12

Client: Climans Green Liang Architects, Inc.

Boring Location: See Boring Location Plan

Project: Subsurface Investigation

Tioga Downs Casino and Hotel Expansion

Nichols, New York

Amentities \_\_\_\_\_

Start Date: 10/4/2012 Finish Date: 10/5/2012

Boring No.: B-11 Sheet 1 of 2

Groundwater Observations

| Date             | Time      | Depth      | Casing       |
|------------------|-----------|------------|--------------|
| <u>10/4/2012</u> | <u>PM</u> | <u>DRY</u> | <u>15'</u>   |
| <u>10/5/2012</u> | <u>AM</u> | <u>DRY</u> | <u>15'</u>   |
| <u>10/5/2012</u> | <u>AM</u> | <u>DRY</u> | <u>25'</u>   |
| <u>10/5/2012</u> | <u>AM</u> | <u>DRY</u> | <u>CAVED</u> |

Coordinates \_\_\_\_\_ Sampler Hammer \_\_\_\_\_

Northing \_\_\_\_\_ Weight: 140 lbs.

Easting \_\_\_\_\_ Fall: 30 in.

Hammer Type: Automatic

Ground Elev.: 808.4 Boring Advance By: Borehole caved at 19 feet.

4 1/4" Auger

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | Recovery (Inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|--|-------------------|
|       |                   |            | From            | To   |             |   |                 |  |                   |
| 1     | A                 | 1          | 0.0             | 2.0  | SS          | 10 11 16 19                             | 0.3             | 3" TOPSOIL and ORGANIC MATERIAL  | 7                 |
| 2     | G                 | 2          | 2.0             | 4.0  | SS          | 38 36 22 16                             |                 | Brown cmf SAND; trace mf GRAVEL; trace SILT; trace ORGANIC MATERIAL (root hairs) (moist, non-plastic)    | 6                 |
| 3     | R                 |            |                 |      |             |   |                 | Brown cmf SAND; some cmf GRAVEL; trace SILT (moist, non-plastic); COBBLES encountered from 2.2 to 4 feet |                   |
| 4     | S                 | 3          | 4.0             | 6.0  | SS          | 14 16 12 11                             |                 | Brown cmf SAND; and cmf GRAVEL; trace SILT (moist, non-plastic)  | 8                 |
| 5     |                   |            |                 |      |             |   |                 |  |                   |
| 6     |                   | 4          | 6.0             | 8.0  | SS          | 16 11 10 10                             |                 | Brown cmf SAND; some mf GRAVEL; little SILT (moist, non-plastic)   | 14                |
| 7     |                   |            |                 |      |             |   |                 |  |                   |
| 8     |                   | 5          | 8.0             | 10.0 | SS          | 12 14 13 10                             |                 | Brown cmf SAND; some mf GRAVEL; little SILT; trace CLAY (moist, very slightly plastic)                   | 12                |
| 9     |                   |            |                 |      |             |   |                 |  |                   |
| 10    |                   | 6          | 10.0            | 12.0 | SS          | 20 18 16 12                             |                 | Brown cmf SAND; trace SILT (moist, non-plastic)  | 3                 |
| 11    |                   |            |                 |      |             |   |                 |  |                   |
| 12    |                   |            |                 |      |             |   |                 |  |                   |
| 13    |                   |            |                 |      |             |   |                 |  |                   |
| 14    |                   |            |                 |      |             |   |                 |  |                   |
| 15    |                   | 7          | 15.0            | 17.0 | SS          | 4 2 1 2                                 |                 | Brown cmf SAND; trace SILT (wet, non-plastic)  | 20                |
| 16    |                   |            |                 |      |             |   |                 |  |                   |
| 17    |                   |            |                 |      |             |   |                 |  |                   |
| 18    |                   |            |                 |      |             |   |                 |  |                   |
| 19    |                   |            |                 |      |             |   |                 |  |                   |
| 20    |                   | 8          | 20.0            | 22.0 | SS          | 20 27 33 20                             |                 | Brown cmf SAND; and cmf GRAVEL; trace SILT (moist, non-plastic)  | 18                |
| 21    |                   |            |                 |      |             |   |                 |  |                   |
| 22    |                   |            |                 |      |             |   |                 |  |                   |
| 23    |                   |            |                 |      |             |   |                 |  |                   |
| 24    |                   |            |                 |      |             |   |                 |  |                   |
| 25    |                   |            |                 |      |             |   |                 |  |                   |

ATL-LOG1\_CD3443-01-10-12\_GPJ\_LOG-WELL\_GDT\_11/13/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shalby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Justin Sochia

Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-11

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER |   |    |    | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL                                    | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|---|----|----|-----------------|---|-------------------|
|       |                   |            | From            | To   |             | 6                                       | 7 | 10 | 11 |                 |   |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 6                                       | 7 | 10 | 11 |                 | Brown cmf SAND; and mf GRAVEL; little SILT (wet, non-plastic) | 7                 |
| 26    |                   |            |                 |      |             |   |   |    |    | 27.0            | Boring terminated at 27 feet.                                 |                   |
| 27    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 28    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 29    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 30    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 31    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 32    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 33    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 34    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 35    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 36    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 37    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 38    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 39    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 40    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 41    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 42    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 43    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 44    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 45    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 46    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 47    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 48    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 49    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 50    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 51    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 52    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 53    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 54    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 55    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 56    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 57    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 58    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 59    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 60    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 61    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |
| 62    |                   |            |                 |      |             |   |   |    |    |                 |   |                   |

ATL-LOG1 CD3443-01-10-12 GPFJ LOG-WELL GDT 11/13/12

f - fine  
m - medium  
c - coarse

and - 35-50%  
some - 20-35%  
lime - 10-20%  
trace - 0-10%

Notes:  
1. Borehole backfilled with on-site soils.

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc. Report No.: CD3443-01-10-12  
 Project: Subsurface Investigation Boring Location: See Boring Location Plan  
Tioga Downs Casino and Hotel Expansion Amenities: \_\_\_\_\_  
Nichols, New York  
 Boring No.: B-12 Sheet 1 of 2 Start Date: 10/4/2012 Finish Date: 10/4/2012  
 Coordinates \_\_\_\_\_ Sampler Hammer \_\_\_\_\_  
 Northing \_\_\_\_\_ Weight: 140 lbs. \_\_\_\_\_  
 Easting \_\_\_\_\_ Fall: 30 in. \_\_\_\_\_  
 Hammer Type: Automatic  
 Ground Elev.: 805.7 Boring Advance By: \_\_\_\_\_  
3 1/4" Auger

Groundwater Observations

| Date      | Time | Depth | Casing |
|-----------|------|-------|--------|
| 10/4/2012 |      | DRY   | 4'     |
| 10/4/2012 |      | DRY   | 25'    |
|           |      |       |        |
|           |      |       |        |

| DEPTH | METHOD OF ADVANCE                    | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER                             | DEPTH OF CHANGE  | CLASSIFICATION OF MATERIAL   | Recovery (Inches) |  |
|-------|--------------------------------------|------------|-----------------|------|-------------|---|--|--|-------------------|--|
|       |                                      |            | From            | To   |             |   |  |  |                   |  |
| 1     | A<br>G<br>C<br>C<br>R<br>I<br>T<br>S | 1          | 0.0             | 2.0  | SS          | 9 14 15 15  | 13.0   | Brown cmf SAND; little cmf GRAVEL; trace SILT (moist, non-plastic) | 18                |  |
| 2     |                                      | 2          | 2.0             | 4.0  | SS          | 15 14 17 17   |  | Similar Soil (moist, non-plastic)                                  | 16                |  |
| 3     |                                      |            |                 |      |             |   |  |  |                   |  |
| 4     |                                      | 3          | 4.0             | 6.0  | SS          | 9 14 14 15  |  | Brown cmf SAND; and cmf GRAVEL; trace SILT (moist, non-plastic)    | 14                |  |
| 5     |                                      |            |                 |      |             |   |  |  |                   |  |
| 6     |                                      | 4          | 6.0             | 8.0  | SS          | 16 17 17 18   |  | Brown cmf SAND; little cmf GRAVEL; trace SILT (moist, non-plastic) | 16                |  |
| 7     |                                      |            |                 |      |             |   |  |  |                   |  |
| 8     | 5                                    | 8.0        | 10.0            | SS   | 9 10 19 19  | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic)     | 14   |  |                   |  |
| 9     |                                      |            |                 |      |             |   |  |  |                   |  |
| 10    | 6                                    | 10.0       | 12.0            | SS   | 17 19 22 27 | Brown cmf SAND; little cmf GRAVEL; trace SILT; (moist, non-plastic) | 14   |  |                   |  |
| 11    |                                      |            |                 |      |             |   |  |  |                   |  |
| 12    |                                      |            |                 |      |             |   |  |  |                   |  |
| 13    |                                      |            |                 |      |             |   |  |  |                   |  |
| 14    |                                      |            |                 |      |             |   |  |  |                   |  |
| 15    |                                      | 7          | 15.0            | 17.0 | SS          | 4 4 5 4   | NO RECOVERY  | 0  |                   |  |
| 16    |                                      |            |                 |      |             |   |  |  |                   |  |
| 17    |                                      |            |                 |      |             |   |  |  |                   |  |
| 18    |                                      |            |                 |      |             |   |  |  |                   |  |
| 19    |                                      |            |                 |      |             |   |  |  |                   |  |
| 20    |                                      | 8          | 20.0            | 22.0 | SS          | 5 9 9 12  | Brown cmf SAND; and cmf GRAVEL; trace SILT; (moist, non-plastic) | 18   |                   |  |
| 21    |                                      |            |                 |      |             |   |  |  |                   |  |
| 22    |                                      |            |                 |      |             |   |  |  |                   |  |
| 23    |                                      |            |                 |      |             |   |  |  |                   |  |
| 24    |                                      |            |                 |      |             |   |  |  |                   |  |
| 25    |                                      |            |                 |      |             |   |  |  |                   |  |

ATL-LOG1 CD3443-01-10-12 GP1 LOG-WELL GDT 11/13/12

SS Split Spoon Sample      Drillers: Tony Mallory; Tyler Weston  
 NX Rock Core      Inspector: \_\_\_\_\_  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-12

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER |   |    | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL | RECOVERY (inches)   |    |
|-------|-------------------|------------|-----------------|------|-------------|---|---|----|-----------------|----------------------------|---|----|
|       |                   |            | From            | To   |             | 5                                       | 9 | 12 |                 |                            |   | 14 |
|       |                   | 9          | 25.0            | 27.0 | SS          | 5                                       | 9 | 12 | 14              |                            |   | 16 |
| 26    |                   |            |                 |      |             |   |   |    |                 |                            | Brown crmf SAND; some mf GRAVEL; trace SILT; (moist, non-plastic) |    |
| 27    |                   |            |                 |      |             |   |   |    |                 | 27.0                       | Boring terminated at 27 feet.                                     |    |
| 28    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 29    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 30    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 31    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 32    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 33    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 34    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 35    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 36    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 37    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 38    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 39    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 40    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 41    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 42    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 43    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 44    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 45    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 46    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 47    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 48    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 49    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 50    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 51    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 52    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 53    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 54    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 55    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 56    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 57    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 58    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 59    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 60    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 61    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |
| 62    |                   |            |                 |      |             |   |   |    |                 |                            |   |    |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/13/12

Notes:  
1. Boring backfilled with on-site soil.



**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc. Report No.: CD3443-01-10-12

Project: Subsurface Investigation Boring Location: See Boring Location Plan

Tioga Downs Casino and Hotel Expansion Parking Garage

Nichols, New York

Boring No.: B-13 Sheet 1 of 2 Start Date: 10/26/2012 Finish Date: 10/26/2012

Coordinates Sampler Hammer  
 Northing \_\_\_\_\_ Weight: 140 lbs.  
 Easting \_\_\_\_\_ Fall: 30 in.  
 Hammer Type: Automatic

Ground Elev.: 806.7 Boring Advance By: Borehole caved at 14.5 feet.  
4 1/4" Auger

Groundwater Observations  
 Date Time Depth Casing  
10/26/2012 AM DRY 25'

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | Recovery (inches) |  |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|--|-------------------|--|
|       |                   |            | From            | To   |             |   |                 |  |                   |  |
| 1     | AUGER             | 1          | 0.0             | 2.0  | SS          | 7 5 7 9                                 | 2.0             | Brown SILT; little mf GRAVEL; little cmf SAND; trace ORGANIC MATERIAL (root hairs, fine organics) (wet, non-plastic) | 10                |  |
| 2     |                   | 2          | 2.0             | 4.0  | SS          | 5 5 9 6                                 |                 |  | 8                 |  |
| 3     |                   |            |                 |      |             |   |                 |  |                   |  |
| 4     |                   | 3          | 4.0             | 6.0  | SS          | 7 14 14 11                              |                 |  | 10                |  |
| 5     |                   |            |                 |      |             |   |                 |  |                   |  |
| 6     |                   | 4          | 6.0             | 8.0  | SS          | 8 11 10 10                              |                 |  | 12                |  |
| 7     |                   |            |                 |      |             |   |                 |  |                   |  |
| 8     |                   |            |                 |      |             |   |                 |  |                   |  |
| 9     |                   |            |                 |      |             |   |                 |  |                   |  |
| 10    |                   |            |                 |      |             |   |                 |  |                   |  |
| 11    |                   | 6          | 10.0            | 12.0 | SS          | 7 7 7 9                                 |                 | 6  |                   |  |
| 12    |                   |            |                 |      |             |   |                 |  |                   |  |
| 13    |                   |            |                 |      |             |   |                 |  |                   |  |
| 14    |                   |            |                 |      |             |   |                 |  |                   |  |
| 15    |                   |            |                 |      |             |   |                 |  |                   |  |
| 16    |                   | 7          | 15.0            | 17.0 | SS          | 5 5 5 6                                 |                 | 10   |                   |  |
| 17    |                   |            |                 |      |             |   |                 |  |                   |  |
| 18    |                   |            |                 |      |             |   |                 |  |                   |  |
| 19    |                   |            |                 |      |             |   |                 |  |                   |  |
| 20    |                   |            |                 |      |             |   |                 |  |                   |  |
| 21    |                   | 8          | 20.0            | 22.0 | SS          | 9 15 15 12                              |                 | 10   |                   |  |
| 22    |                   |            |                 |      |             |   |                 |  |                   |  |
| 23    |                   |            |                 |      |             |   |                 |  |                   |  |
| 24    |                   |            |                 |      |             |   |                 |  |                   |  |
| 25    |                   |            |                 |      |             |   |                 |  |                   |  |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GOT 11/13/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Kevin Remington  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-13

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL    | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|-------------------------------|-------------------|
|       |                   |            | From            | To   |             |   |                 |                               |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 13 13 13 11                             |                 | Similar Soil                  | 8                 |
| 26    |                   |            |                 |      |             |   | 27.0            |                               |                   |
| 27    |                   |            |                 |      |             |   |                 | Boring terminated at 27 feet. |                   |
| 28    |                   |            |                 |      |             |   |                 |                               |                   |
| 29    |                   |            |                 |      |             |   |                 |                               |                   |
| 30    |                   |            |                 |      |             |   |                 |                               |                   |
| 31    |                   |            |                 |      |             |   |                 |                               |                   |
| 32    |                   |            |                 |      |             |   |                 |                               |                   |
| 33    |                   |            |                 |      |             |   |                 |                               |                   |
| 34    |                   |            |                 |      |             |   |                 |                               |                   |
| 35    |                   |            |                 |      |             |   |                 |                               |                   |
| 36    |                   |            |                 |      |             |   |                 |                               |                   |
| 37    |                   |            |                 |      |             |   |                 |                               |                   |
| 38    |                   |            |                 |      |             |   |                 |                               |                   |
| 39    |                   |            |                 |      |             |   |                 |                               |                   |
| 40    |                   |            |                 |      |             |   |                 |                               |                   |
| 41    |                   |            |                 |      |             |   |                 |                               |                   |
| 42    |                   |            |                 |      |             |   |                 |                               |                   |
| 43    |                   |            |                 |      |             |   |                 |                               |                   |
| 44    |                   |            |                 |      |             |   |                 |                               |                   |
| 45    |                   |            |                 |      |             |   |                 |                               |                   |
| 46    |                   |            |                 |      |             |   |                 |                               |                   |
| 47    |                   |            |                 |      |             |   |                 |                               |                   |
| 48    |                   |            |                 |      |             |   |                 |                               |                   |
| 49    |                   |            |                 |      |             |   |                 |                               |                   |
| 50    |                   |            |                 |      |             |   |                 |                               |                   |
| 51    |                   |            |                 |      |             |   |                 |                               |                   |
| 52    |                   |            |                 |      |             |   |                 |                               |                   |
| 53    |                   |            |                 |      |             |   |                 |                               |                   |
| 54    |                   |            |                 |      |             |   |                 |                               |                   |
| 55    |                   |            |                 |      |             |   |                 |                               |                   |
| 56    |                   |            |                 |      |             |   |                 |                               |                   |
| 57    |                   |            |                 |      |             |   |                 |                               |                   |
| 58    |                   |            |                 |      |             |   |                 |                               |                   |
| 59    |                   |            |                 |      |             |   |                 |                               |                   |
| 60    |                   |            |                 |      |             |   |                 |                               |                   |
| 61    |                   |            |                 |      |             |   |                 |                               |                   |
| 62    |                   |            |                 |      |             |   |                 |                               |                   |

f - fine  
m - medium  
c - coarse

end - 35-50%  
some - 20-35%  
little - 10-20%  
trace - 0-10%

Notes:  
1) Boring backfilled with on-site soils.

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/13/12

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Cilmans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
Parking Garage

Boring No.: B-14 Sheet 1 of 2

Start Date: 10/11/2012 Finish Date: 10/11/2012

Coordinates Northing \_\_\_\_\_ Easting \_\_\_\_\_  
 Sampler Hammer Weight: 140 lbs.  
 Fall: 30 in.  
 Hammer Type: Automatic

| Groundwater Observations |       |            |            |
|--------------------------|-------|------------|------------|
| Date                     | Time  | Depth      | Casing     |
| <u>10/11/2012</u>        | _____ | <u>DRY</u> | <u>25'</u> |
| _____                    | _____ | _____      | _____      |
| _____                    | _____ | _____      | _____      |

Ground Elev.: 814.5 Boring Advance By: 4 1/4" Auger

Borehole caved at 18.8 feet.

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/8/12

| DEPTH | METHOD OF ADVANCE          | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | Recovery (Inches) |  |
|-------|----------------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|--|
|       |                            |            | From            | To   |             |   |                 |   |                   |  |
| 1     | A<br>R<br>E<br>G<br>C<br>S | 1          | 0.0             | 2.0  | SS          | 2 4 7 7                                 | 2.0             | Brown SILT; some cmf SAND; some mf GRAVEL; trace ORGANIC MATERIAL (root hair) (wet, non-plastic)          | 10                |  |
| 2     |                            | 2          | 2.0             | 4.0  | SS          | 17 13 9 14                              |                 |   | 16                |  |
| 3     |                            |            |                 |      |             |   |                 |   |                   |  |
| 4     |                            | 3          | 4.0             | 6.0  | SS          | 11 15 17 17                             |                 |   | 10                |  |
| 5     |                            |            |                 |      |             |   |                 |   |                   |  |
| 6     |                            | 4          | 6.0             | 8.0  | SS          | 11 14 19 22                             |                 |   | 14                |  |
| 7     |                            |            |                 |      |             |   |                 |   |                   |  |
| 8     |                            | 5          | 8.0             | 10.0 | SS          | 9 12 17 16                              |                 |   | 16                |  |
| 9     |                            |            |                 |      |             |   |                 |   |                   |  |
| 10    |                            |            |                 |      |             |   |                 |   |                   |  |
| 11    |                            |            |                 |      |             |   |                 |   |                   |  |
| 12    |                            |            |                 |      |             |   |                 |   |                   |  |
| 13    |                            |            |                 |      |             |   |                 |   |                   |  |
| 14    |                            |            |                 |      |             |   |                 |   |                   |  |
| 15    |                            |            |                 |      |             |   |                 |   |                   |  |
| 16    |                            | 7          | 15.0            | 17.0 | SS          | 9 11 14 11                              | 19.0            | Brown mf GRAVEL; some cmf SAND; some SILT; trace ORGANIC MATERIAL (root hairs) (wet, non-plastic), w=7.6% | 20                |  |
| 17    |                            |            |                 |      |             |   |                 |   |                   |  |
| 18    |                            |            |                 |      |             |   |                 |   |                   |  |
| 19    |                            |            |                 |      |             |   |                 |   |                   |  |
| 20    |                            | 8          | 20.0            | 22.0 | SS          | 4 5 5 7                                 |                 | Brown cmf+ SAND; some SILT (wet, non-plastic), w=12.5%  | 10                |  |
| 21    |                            |            |                 |      |             |   |                 |   |                   |  |
| 22    |                            |            |                 |      |             |   |                 |   |                   |  |
| 23    |                            |            |                 |      |             |   |                 |   |                   |  |
| 24    |                            |            |                 |      |             |   |                 |   |                   |  |
| 25    |                            |            |                 |      |             |   |                 |   |                   |  |

SS Spat Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Mark Childs; Tyler Weston  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Boring No.: B-14

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|--|-------------------|
|       |                   |            | From            | To   |             |   |                 |  |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 4 9 10 17                               |                 | Brown cmf GRAVEL; and SILT; some cmf SAND (wet, non-plastic), w=6.5% | 2                 |
| 26    |                   |            |                 |      |             |   | 27.0            |  |                   |
| 27    |                   |            |                 |      |             |   |                 | Boring terminated at 27 feet.  |                   |
| 28    |                   |            |                 |      |             |   |                 |  |                   |
| 29    |                   |            |                 |      |             |   |                 |  |                   |
| 30    |                   |            |                 |      |             |   |                 |  |                   |
| 31    |                   |            |                 |      |             |   |                 |  |                   |
| 32    |                   |            |                 |      |             |   |                 |  |                   |
| 33    |                   |            |                 |      |             |   |                 |  |                   |
| 34    |                   |            |                 |      |             |   |                 |  |                   |
| 35    |                   |            |                 |      |             |   |                 |  |                   |
| 36    |                   |            |                 |      |             |   |                 |  |                   |
| 37    |                   |            |                 |      |             |   |                 |  |                   |
| 38    |                   |            |                 |      |             |   |                 |  |                   |
| 39    |                   |            |                 |      |             |   |                 |  |                   |
| 40    |                   |            |                 |      |             |   |                 |  |                   |
| 41    |                   |            |                 |      |             |   |                 |  |                   |
| 42    |                   |            |                 |      |             |   |                 |  |                   |
| 43    |                   |            |                 |      |             |   |                 |  |                   |
| 44    |                   |            |                 |      |             |   |                 |  |                   |
| 45    |                   |            |                 |      |             |   |                 |  |                   |
| 46    |                   |            |                 |      |             |   |                 |  |                   |
| 47    |                   |            |                 |      |             |   |                 |  |                   |
| 48    |                   |            |                 |      |             |   |                 |  |                   |
| 49    |                   |            |                 |      |             |   |                 |  |                   |
| 50    |                   |            |                 |      |             |   |                 |  |                   |
| 51    |                   |            |                 |      |             |   |                 |  |                   |
| 52    |                   |            |                 |      |             |   |                 |  |                   |
| 53    |                   |            |                 |      |             |   |                 |  |                   |
| 54    |                   |            |                 |      |             |   |                 |  |                   |
| 55    |                   |            |                 |      |             |   |                 |  |                   |
| 56    |                   |            |                 |      |             |   |                 |  |                   |
| 57    |                   |            |                 |      |             |   |                 |  |                   |
| 58    |                   |            |                 |      |             |   |                 |  |                   |
| 59    |                   |            |                 |      |             |   |                 |  |                   |
| 60    |                   |            |                 |      |             |   |                 |  |                   |
| 61    |                   |            |                 |      |             |   |                 |  |                   |
| 62    |                   |            |                 |      |             |   |                 |  |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/8/12

**CLASSIFICATION OF MATERIAL**

f - fine  
m - medium  
c - coarse

and - 35-50%  
some - 20-35%  
little - 10-20%  
trace - 0-10%

Notes:  
1. Boring backfilled with on-site soil.

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Client: Climans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
Parking Garage

Boring No.: B-15 Sheet 1 of 2

Start Date: 10/11/2012 Finish Date: 10/11/2012

Coordinates Northing \_\_\_\_\_ Easting \_\_\_\_\_  
 Sampler Hammer Weight: 140 lbs.  
 Fall: 30 in.

| Groundwater Observations |      |       |        |
|--------------------------|------|-------|--------|
| Date                     | Time | Depth | Casing |
| 10/11/2012               | AM   | DRY   | 25'    |
| 10/11/2012               | AM   | DRY   | CAVED  |
|                          |      |       |        |
|                          |      |       |        |

Ground Elev.: 824.0 Hammer Type: Automatic  
 Boring Advance By: 4 1/4" Auger

Borehole caved at 22 feet.

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | Recovery (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|--|-------------------|
|       |                   |            | From            | To   |             |   |                 |  |                   |
| 1     | AUGERS            | 1          | 0.0             | 2.0  | SS          | 3 4 9 32                                |                 | Brown cmf SAND; little mf GRAVEL; trace SILT; trace ORGANIC MATERIAL (root hairs) (moist, non-plastic) | 16                |
| 2     |                   | 2          | 2.0             | 4.0  | SS          | 35 29 23 22                             |                 | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic)  | 14                |
| 3     |                   |            |                 |      |             |   |                 |  |                   |
| 4     |                   | 3          | 4.0             | 6.0  | SS          | 50 52 18 14                             |                 | Similar Soil (moist, non-plastic)  | 10                |
| 5     |                   |            |                 |      |             |   |                 |  |                   |
| 6     |                   | 4          | 6.0             | 8.0  | SS          | 17 19 23 21                             |                 | Brown cmf SAND; some cmf GRAVEL; trace SILT (moist, non-plastic)                                       | 14                |
| 7     |                   |            |                 |      |             |   |                 |  |                   |
| 8     |                   | 5          | 8.0             | 10.0 | SS          | 10 12 14 17                             |                 | Brown cmf SAND; trace cmf GRAVEL; trace SILT (moist, non-plastic)                                      | 16                |
| 9     |                   |            |                 |      |             |   |                 |  |                   |
| 10    |                   | 6          | 10.0            | 12.0 | SS          | 17 19 22 22                             |                 | Brown cmf SAND; little mf GRAVEL; trace SILT (moist, non-plastic)                                      | 18                |
| 11    |                   |            |                 |      |             |   |                 |  |                   |
| 12    |                   |            |                 |      |             |   |                 |  |                   |
| 13    |                   |            |                 |      |             |   |                 |  |                   |
| 14    |                   |            |                 |      |             |   |                 |  |                   |
| 15    |                   | 7          | 15.0            | 17.0 | SS          | 14 19 19 17                             |                 | Brown cmf SAND; little cmf GRAVEL; trace SILT; (moist, non-plastic)                                    | 16                |
| 16    |                   |            |                 |      |             |   |                 |  |                   |
| 17    |                   |            |                 |      |             |   |                 |  |                   |
| 18    |                   |            |                 |      |             |   |                 |  |                   |
| 19    |                   |            |                 |      |             |   |                 |  |                   |
| 20    |                   |            |                 |      |             |   |                 |  |                   |
| 21    |                   | 8          | 20.0            | 22.0 | SS          | 16 16 17 22                             |                 | Brown cmf SAND; some cmf GRAVEL; trace SILT; trace CLAY (moist, very slightly plastic)                 | 18                |
| 22    |                   |            |                 |      |             |   |                 |  |                   |
| 23    |                   |            |                 |      |             |   |                 |  |                   |
| 24    |                   |            |                 |      |             |   |                 |  |                   |
| 25    |                   |            |                 |      |             |   |                 |  |                   |

ATL-LOG1 CD3443-01-10-12 GP1 LOG-WELL GDT 1/11/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Mark Childs; Tyler Weston  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Boring No.: B-15

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER |    |    |    | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|----|----|----|-----------------|--|-------------------|
|       |                   |            | From            | To   |             | 10                                      | 12 | 14 | 17 |                 |  |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 10                                      | 12 | 14 | 17 |                 | Brown cmf SAND; some mf GRAVEL; trace SILT; trace CLAY; (moist, very slightly plastic) | 14                |
| 26    |                   |            |                 |      |             |   |    |    |    | 27.0            | Boring terminated at 27 feet.  |                   |
| 27    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 28    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 29    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 30    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 31    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 32    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 33    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 34    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 35    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 36    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 37    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 38    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 39    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 40    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 41    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 42    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 43    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 44    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 45    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 46    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 47    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 48    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 49    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 50    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 51    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 52    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 53    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 54    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 55    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 56    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 57    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 58    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 59    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 60    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 61    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |
| 62    |                   |            |                 |      |             |   |    |    |    |                 |  |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/13/12

f - fine  
m - medium  
c - coarse

and - 35-50%  
some - 20-35%  
25% - 10-20%  
trace - 0-10%

Notes:  
1. Boring backfilled with on-site soil.

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Client: Climans Green Liang Architects, Inc. Report No.: CD3443-01-10-12  
 Project: Subsurface Investigation Boring Location: See Boring Location Plan  
Tioga Downs Casino and Hotel Expansion Parking Garage  
Nichols, New York  
 Boring No.: B-16 Sheet 1 of 2 Start Date: 10/31/2012 Finish Date: 10/31/2012  
 Coordinates Sampler Hammer  
 Northing \_\_\_\_\_ Weight: 140 lbs.  
 Easting \_\_\_\_\_ Fall: 30 in.  
 Hammer Type: Automatic  
 Ground Elev.: 820.3 Boring Advance By: Borehole caved at 22 feet.  
4 1/4" Auger

| Groundwater Observations |      |       |        |
|--------------------------|------|-------|--------|
| Date                     | Time | Depth | Casing |
| 10/31/2012               | PM   | DRY   | 25'    |
|                          |      |       |        |
|                          |      |       |        |

| DEPTH | METHOD OF ADVANCE               | SAMPLE NO. | DEPTH OF SAMPLE |     | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE   | CLASSIFICATION OF MATERIAL   | Recovery (inches) |
|-------|---------------------------------|------------|-----------------|-----|-------------|---|---|--|-------------------|
|       |                                 |            | From            | To  |             |   |   |  |                   |
| 1     | A<br>G<br>C<br>C<br>E<br>R<br>S | 1          | 0.0             | 0.9 | SS          | 13 100/5"                               |   | Brown cmf SAND; and mf GRAVEL; trace SILT; trace ORGANIC MATERIALS (root hairs) (wet, non-plastic) | 8                 |
| 2     |                                 | 2          | 2.0             | 4.0 | SS          | 54 22 10 10                             |   | Brown cmf SAND; and mf GRAVEL; trace SILT (wet, non-plastic)                                       | 10                |
| 3     |                                 |            |                 |     |             |   |   |  |                   |
| 4     |                                 | 3          | 4.0             | 6.0 | SS          | 16 16 13 15                             |   | Similar Soil (wet, non-plastic)  | 10                |
| 5     |                                 |            |                 |     |             |   |   |  |                   |
| 6     |                                 | 4          | 6.0             | 8.0 | SS          | 10 11 7 6                               |   | Brown cmf SAND; trace f GRAVEL; trace SILT; trace ORGANIC MATERIAL (root hairs) (wet, non-plastic) | 18                |
| 7     |                                 |            |                 |     |             |   |   |  |                   |
| 8     | 5                               | 8.0        | 10.0            | SS  | 11 11 13 15 |   | Similar Soil (wet, non-plastic)   | 10   |                   |
| 9     |                                 |            |                 |     |             |   |   |  |                   |
| 10    | 6                               | 10.0       | 12.0            | SS  | 12 10 15 16 |   | Brown cmf SAND; little SILT; trace CLAY; trace ORGANIC MATERIAL (root hairs) (wet, very slightly plastic) | 12   |                   |
| 11    |                                 |            |                 |     |             |   |   |  |                   |
| 12    |                                 |            |                 |     |             |   |   |  |                   |
| 13    |                                 |            |                 |     |             |   |   |  |                   |
| 14    |                                 |            |                 |     |             |   |   |  |                   |
| 15    | 7                               | 15.0       | 17.0            | SS  | 9 9 7 13    |   | Brown cmf SAND; and mf GRAVEL; little SILT (wet, non-plastic)   | 10   |                   |
| 16    |                                 |            |                 |     |             |   |   |  |                   |
| 17    |                                 |            |                 |     |             |   |   |  |                   |
| 18    |                                 |            |                 |     |             |   |   | COBBLES encountered at approximately 15 feet   |                   |
| 19    |                                 |            |                 |     |             |   |   |  |                   |
| 20    | 8                               | 20.0       | 22.0            | SS  | 10 6 9 13   |   | Similar Soil (wet, non-plastic)   | 10   |                   |
| 21    |                                 |            |                 |     |             |   |   |  |                   |
| 22    |                                 |            |                 |     |             |   |   |  |                   |
| 23    |                                 |            |                 |     |             |   |   |  |                   |
| 24    |                                 |            |                 |     |             |   |   |  |                   |
| 25    |                                 |            |                 |     |             |   |   |  |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/9/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shear Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Kevin Remington  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-18

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL      | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|---------------------------------|-------------------|
|       |                   |            | From            | To   |             |   |                 |                                 |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 7 7 16 12                               |                 | Similar Soil (wet, non-plastic) | 12                |
| 26    |                   |            |                 |      |             |   |                 |                                 |                   |
| 27    |                   |            |                 |      |             |   | 27.0            | Boring terminated at 27 feet.   |                   |
| 28    |                   |            |                 |      |             |   |                 |                                 |                   |
| 29    |                   |            |                 |      |             |   |                 |                                 |                   |
| 30    |                   |            |                 |      |             |   |                 |                                 |                   |
| 31    |                   |            |                 |      |             |   |                 |                                 |                   |
| 32    |                   |            |                 |      |             |   |                 |                                 |                   |
| 33    |                   |            |                 |      |             |   |                 |                                 |                   |
| 34    |                   |            |                 |      |             |   |                 |                                 |                   |
| 35    |                   |            |                 |      |             |   |                 |                                 |                   |
| 36    |                   |            |                 |      |             |   |                 |                                 |                   |
| 37    |                   |            |                 |      |             |   |                 |                                 |                   |
| 38    |                   |            |                 |      |             |   |                 |                                 |                   |
| 39    |                   |            |                 |      |             |   |                 |                                 |                   |
| 40    |                   |            |                 |      |             |   |                 |                                 |                   |
| 41    |                   |            |                 |      |             |   |                 |                                 |                   |
| 42    |                   |            |                 |      |             |   |                 |                                 |                   |
| 43    |                   |            |                 |      |             |   |                 |                                 |                   |
| 44    |                   |            |                 |      |             |   |                 |                                 |                   |
| 45    |                   |            |                 |      |             |   |                 |                                 |                   |
| 46    |                   |            |                 |      |             |   |                 |                                 |                   |
| 47    |                   |            |                 |      |             |   |                 |                                 |                   |
| 48    |                   |            |                 |      |             |   |                 |                                 |                   |
| 49    |                   |            |                 |      |             |   |                 |                                 |                   |
| 50    |                   |            |                 |      |             |   |                 |                                 |                   |
| 51    |                   |            |                 |      |             |   |                 |                                 |                   |
| 52    |                   |            |                 |      |             |   |                 |                                 |                   |
| 53    |                   |            |                 |      |             |   |                 |                                 |                   |
| 54    |                   |            |                 |      |             |   |                 |                                 |                   |
| 55    |                   |            |                 |      |             |   |                 |                                 |                   |
| 56    |                   |            |                 |      |             |   |                 |                                 |                   |
| 57    |                   |            |                 |      |             |   |                 |                                 |                   |
| 58    |                   |            |                 |      |             |   |                 |                                 |                   |
| 59    |                   |            |                 |      |             |   |                 |                                 |                   |
| 60    |                   |            |                 |      |             |   |                 |                                 |                   |
| 61    |                   |            |                 |      |             |   |                 |                                 |                   |
| 62    |                   |            |                 |      |             |   |                 |                                 |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/9/12

f - fine  
m - medium  
c - coarse

and - 35-50%  
some - 20-35%  
little - 10-20%  
trace - 0-10%

Notes:  
1) Boring backfilled with on-site soils.



**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc. Report No.: CD3443-01-10-12

Project: Subsurface Investigation Boring Location: See Boring Location Plan  
Tioga Downs Casino and Hotel Expansion Parking Garage

Nichols, New York

Boring No.: B-17 Sheet 1 of 2 Start Date: 10/31/2012 Finish Date: 10/31/2012

Coordinates \_\_\_\_\_ Sampler Hammer \_\_\_\_\_  
 Northing \_\_\_\_\_ Weight: 140 lbs.  
 Easting \_\_\_\_\_ Fall: 30 in.  
 Hammer Type: Automatic

Ground Elev.: 813.3 Boring Advance By: Borehole caved at 37 feet.  
4 1/4" Auger

Groundwater Observations

| Date       | Time | Depth | Casing |
|------------|------|-------|--------|
| 10/31/2012 | PM   | 30'   | 35'    |
|            |      |       |        |
|            |      |       |        |
|            |      |       |        |

| DEPTH | METHOD OF ADVANCE          | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER                             | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | Recovery (Inches) |  |
|-------|----------------------------|------------|-----------------|------|-------------|---|-----------------|--|-------------------|--|
|       |                            |            | From            | To   |             |   |                 |  |                   |  |
| 1     | A<br>C<br>C<br>E<br>R<br>S | 1          | 0.0             | 2.0  | SS          | 6 6 7 9   | 4.0             | Brown SILT; little cmf SAND; little mf GRAVEL; trace ORGANIC MATERIAL (grass, root hairs) (wet, non-plastic) | 12                |  |
| 2     |                            | 2          | 2.0             | 4.0  | SS          | 7 12 26 19  |                 | Brown SILT; some cmf SAND; some mf GRAVEL (wet, non-plastic)   | 12                |  |
| 3     |                            |            |                 |      |             |   |                 |  |                   |  |
| 4     |                            | 3          | 4.0             | 6.0  | SS          | 15 10 12 10   |                 | Brown cmf SAND; and mf GRAVEL; little SILT (wet, non-plastic)  | 14                |  |
| 5     |                            |            |                 |      |             |   |                 |  |                   |  |
| 6     |                            | 4          | 6.0             | 8.0  | SS          | 14 14 16 18   |                 | Brown cmf GRAVEL; some cmf SAND; little SILT (wet, non-plastic)  | 10                |  |
| 7     |                            |            |                 |      |             |   |                 |  |                   |  |
| 8     |                            | 5          | 8.0             | 10.0 | SS          | 10 15 14 10   |                 | Similar Soil   | 12                |  |
| 9     |                            |            |                 |      |             |   |                 |  |                   |  |
| 10    |                            | 6          | 10.0            | 12.0 | SS          | 11 11 16 15   |                 | Brown cmf SAND; some mf GRAVEL; little SILT (wet, non-plastic)   | 14                |  |
| 11    |                            |            |                 |      |             |   |                 |  |                   |  |
| 12    |                            |            |                 |      |             |   |                 |  |                   |  |
| 13    |                            |            |                 |      |             |   |                 |  |                   |  |
| 14    |                            |            |                 |      |             |   |                 |  |                   |  |
| 15    | 7                          | 15.0       | 17.0            | SS   | 8 8 8 10    | Similar Soil  | 12              |  |                   |  |
| 16    |                            |            |                 |      |             |   |                 |  |                   |  |
| 17    |                            |            |                 |      |             |   |                 |  |                   |  |
| 18    |                            |            |                 |      |             |   |                 |  |                   |  |
| 19    |                            |            |                 |      |             |   |                 |  |                   |  |
| 20    | 8                          | 20.0       | 22.0            | SS   | 11 10 12 12 | Brown cmf SAND; and mf GRAVEL; little SILT (saturated, non-plastic) | 6               |  |                   |  |
| 21    |                            |            |                 |      |             |   |                 |  |                   |  |
| 22    |                            |            |                 |      |             |   |                 |  |                   |  |
| 23    |                            |            |                 |      |             |   |                 |  |                   |  |
| 24    |                            |            |                 |      |             |   |                 |  |                   |  |
| 25    |                            |            |                 |      |             |   |                 |  |                   |  |

ATL-LOG1\_CD3443-01-10-12 GPJ LOG-WELL GDT 11/9/12

SS Split Spoon Sample      Drillers: Brad Perry; Kevin Remington  
 NX Rock Core      Inspector: \_\_\_\_\_  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-17

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                   |            | From            | To   |             |   |                 |   |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 16 16 13 15                             |                 | Brown cmf GRAVEL; some cmf SAND; little SILT (saturated, non-plastic) | 10                |
| 26    |                   |            |                 |      |             |   |                 |   |                   |
| 27    |                   |            |                 |      |             |   |                 |   |                   |
| 28    |                   |            |                 |      |             |   |                 |   |                   |
| 29    |                   |            |                 |      |             |   |                 |   |                   |
| 30    |                   | 10         | 30.0            | 32.0 | SS          | 11 13 11 13                             |                 | Similar Soil  | 8                 |
| 31    |                   |            |                 |      |             |   |                 |   |                   |
| 32    |                   |            |                 |      |             |   |                 |   |                   |
| 33    |                   |            |                 |      |             |   |                 |   |                   |
| 34    |                   |            |                 |      |             |   |                 |   |                   |
| 35    |                   | 11         | 35.0            | 37.0 | SS          | 14 12 12 11                             |                 | Brown mf GRAVEL; and cmf SAND; little SILT (saturated, non-plastic)   | 10                |
| 36    |                   |            |                 |      |             |   |                 |   |                   |
| 37    |                   |            |                 |      |             |   | 37.0            | Boring terminated at 37 feet.   |                   |
| 38    |                   |            |                 |      |             |   |                 |   |                   |
| 39    |                   |            |                 |      |             |   |                 |   |                   |
| 40    |                   |            |                 |      |             |   |                 | Notes:  |                   |
| 41    |                   |            |                 |      |             |   |                 | 1) Boring backfilled with on-site soils.                              |                   |
| 42    |                   |            |                 |      |             |   |                 |   |                   |
| 43    |                   |            |                 |      |             |   |                 |   |                   |
| 44    |                   |            |                 |      |             |   |                 |   |                   |
| 45    |                   |            |                 |      |             |   |                 |   |                   |
| 46    |                   |            |                 |      |             |   |                 |   |                   |
| 47    |                   |            |                 |      |             |   |                 |   |                   |
| 48    |                   |            |                 |      |             |   |                 |   |                   |
| 49    |                   |            |                 |      |             |   |                 |   |                   |
| 50    |                   |            |                 |      |             |   |                 |   |                   |
| 51    |                   |            |                 |      |             |   |                 |   |                   |
| 52    |                   |            |                 |      |             |   |                 |   |                   |
| 53    |                   |            |                 |      |             |   |                 |   |                   |
| 54    |                   |            |                 |      |             |   |                 |   |                   |
| 55    |                   |            |                 |      |             |   |                 |   |                   |
| 56    |                   |            |                 |      |             |   |                 |   |                   |
| 57    |                   |            |                 |      |             |   |                 |   |                   |
| 58    |                   |            |                 |      |             |   |                 |   |                   |
| 59    |                   |            |                 |      |             |   |                 |   |                   |
| 60    |                   |            |                 |      |             |   |                 |   |                   |
| 61    |                   |            |                 |      |             |   |                 |   |                   |
| 62    |                   |            |                 |      |             |   |                 |   |                   |

ATL-LOG1\_CD3443-01-10-12.GPJ LOG-WELL.GDT 11/9/12

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Report No.: CD3443-01-10-12

Boring Location: See Boring Location Plan

Client: Climans Green Liang Architects, Inc.

Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Parking Garage

Start Date: 10/31/2012 Finish Date: 10/31/2012

Boring No.: B-18 Sheet 1 of 2

Groundwater Observations

| Date              | Time      | Depth      | Casing       |
|-------------------|-----------|------------|--------------|
| <u>10/31/2012</u> | <u>AM</u> | <u>DRY</u> | <u>25'</u>   |
| <u>10/31/2012</u> | <u>AM</u> | <u>DRY</u> | <u>CAVED</u> |

Coordinates Northing \_\_\_\_\_ Easting \_\_\_\_\_

Sampler Hammer Weight: 140 lbs. Fall: 30 in. Hammer Type: Automatic

Ground Elev.: 808.7 Boring Advance By: 4 1/4" Auger

Borehole caved at 17 feet.

| DEPTH | METHOD OF ADVANCE          | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | Recovery (Inches) |
|-------|----------------------------|------------|-----------------|------|-------------|---|-----------------|--|-------------------|
|       |                            |            | From            | To   |             |   |                 |  |                   |
| 1     | A<br>C<br>G<br>R<br>E<br>S | 1          | 0.0             | 2.0  | SS          | 7 7 9 7                                 |                 | Brown cmf SAND; some SILT; some mf GRAVEL; trace ORGANIC MATERIAL (grass, root hairs) (wet, non-plastic) | 10                |
| 2     |                            | 2          | 2.0             | 4.0  | SS          | 10 10 11 8                              |                 | Brown cmf SAND; and mf GRAVEL; some SILT (wet, non-plastic)  | 12                |
| 3     |                            | 3          | 4.0             | 6.0  | SS          | 8 8 8 8                                 |                 | Similar Soil   | 6                 |
| 4     |                            | 4          | 6.0             | 8.0  | SS          | 6 5 6 7                                 |                 | Brown SILT; little cmf SAND; trace mf GRAVEL (wet, non-plastic)  | 8                 |
| 5     |                            | 5          | 8.0             | 10.0 | SS          | 7 8 10 7                                |                 | COBBLES encountered from 6 to 27 feet<br>NO RECOVERY   | 0                 |
| 6     |                            | 6          | 10.0            | 12.0 | SS          | 4 4 5 4                                 |                 | Brown f SAND; trace SILT; trace f GRAVEL (wet, non-plastic)  | 16                |
| 7     |                            |            |                 |      |             |   |                 |  |                   |
| 8     |                            |            |                 |      |             |   |                 |  |                   |
| 9     |                            |            |                 |      |             |   |                 |  |                   |
| 10    |                            |            |                 |      |             |   |                 |  |                   |
| 11    |                            |            |                 |      |             |   |                 |  |                   |
| 12    |                            |            |                 |      |             |   |                 |  |                   |
| 13    |                            |            |                 |      |             |   |                 |  |                   |
| 14    |                            |            |                 |      |             |   |                 |  |                   |
| 15    |                            | 7          | 15.0            | 17.0 | SS          | 7 8 7 7                                 |                 | Similar Soil   | 8                 |
| 16    |                            |            |                 |      |             |   |                 |  |                   |
| 17    |                            |            |                 |      |             |   |                 |  |                   |
| 18    |                            |            |                 |      |             |   |                 |  |                   |
| 19    |                            |            |                 |      |             |   |                 |  |                   |
| 20    |                            | 8          | 20.0            | 22.0 | SS          | 8 10 8 7                                |                 | Brown mf SAND; trace f GRAVEL; trace SILT (saturated, non-plastic)                                       | 8                 |
| 21    |                            |            |                 |      |             |   |                 |  |                   |
| 22    |                            |            |                 |      |             |   |                 |  |                   |
| 23    |                            |            |                 |      |             |   |                 |  |                   |
| 24    |                            |            |                 |      |             |   |                 |  |                   |
| 25    |                            |            |                 |      |             |   |                 |  |                   |

ATL-LOG: CD3443-01-10-12 GPJ LOG-WELL GDT 11/9/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Kevin Remington

Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-18

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                   |            | From            | To   |             |   |                 |   |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 11 9 9 7                                |                 | f - fine<br>m - medium<br>c - coarse<br>and - 35-50%<br>some - 20-35%<br>little - 10-20%<br>trace - 0-10% | 12                |
| 26    |                   |            |                 |      |             |   |                 | Brown mf GRAVEL; some cmf SAND; little SILT (saturated, non-plastic)                                      |                   |
| 27    |                   |            |                 |      |             |   | 27.0            | Boring terminated at 27 feet.   |                   |
| 28    |                   |            |                 |      |             |   |                 | Notes:<br>1) Boring backfilled with on-site soils.  |                   |
| 29    |                   |            |                 |      |             |   |                 |   |                   |
| 30    |                   |            |                 |      |             |   |                 |   |                   |
| 31    |                   |            |                 |      |             |   |                 |   |                   |
| 32    |                   |            |                 |      |             |   |                 |   |                   |
| 33    |                   |            |                 |      |             |   |                 |   |                   |
| 34    |                   |            |                 |      |             |   |                 |   |                   |
| 35    |                   |            |                 |      |             |   |                 |   |                   |
| 36    |                   |            |                 |      |             |   |                 |   |                   |
| 37    |                   |            |                 |      |             |   |                 |   |                   |
| 38    |                   |            |                 |      |             |   |                 |   |                   |
| 39    |                   |            |                 |      |             |   |                 |   |                   |
| 40    |                   |            |                 |      |             |   |                 |   |                   |
| 41    |                   |            |                 |      |             |   |                 |   |                   |
| 42    |                   |            |                 |      |             |   |                 |   |                   |
| 43    |                   |            |                 |      |             |   |                 |   |                   |
| 44    |                   |            |                 |      |             |   |                 |   |                   |
| 45    |                   |            |                 |      |             |   |                 |   |                   |
| 46    |                   |            |                 |      |             |   |                 |   |                   |
| 47    |                   |            |                 |      |             |   |                 |   |                   |
| 48    |                   |            |                 |      |             |   |                 |   |                   |
| 49    |                   |            |                 |      |             |   |                 |   |                   |
| 50    |                   |            |                 |      |             |   |                 |   |                   |
| 51    |                   |            |                 |      |             |   |                 |   |                   |
| 52    |                   |            |                 |      |             |   |                 |   |                   |
| 53    |                   |            |                 |      |             |   |                 |   |                   |
| 54    |                   |            |                 |      |             |   |                 |   |                   |
| 55    |                   |            |                 |      |             |   |                 |   |                   |
| 56    |                   |            |                 |      |             |   |                 |   |                   |
| 57    |                   |            |                 |      |             |   |                 |   |                   |
| 58    |                   |            |                 |      |             |   |                 |   |                   |
| 59    |                   |            |                 |      |             |   |                 |   |                   |
| 60    |                   |            |                 |      |             |   |                 |   |                   |
| 61    |                   |            |                 |      |             |   |                 |   |                   |
| 62    |                   |            |                 |      |             |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOC-WELL GDT 11/19/12

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Report No.: CD3443-01-10-12

Client: Climans Green Liang Architects, Inc.

Boring Location: See Boring Location Plan

Project: Subsurface Investigation

Tioga Downs Casino and Hotel Expansion

Nichols, New York

Water Slide \_\_\_\_\_

Start Date: 11/1/2012 Finish Date: 11/1/2012

Boring No.: B-19 Sheet 1 of 2

Groundwater Observations

| Date             | Time      | Depth      | Casing     |
|------------------|-----------|------------|------------|
| <u>11/1/2012</u> | <u>AM</u> | <u>25'</u> | <u>25'</u> |
| _____            | _____     | _____      | _____      |
| _____            | _____     | _____      | _____      |
| _____            | _____     | _____      | _____      |

Coordinates \_\_\_\_\_

Sampler Hammer \_\_\_\_\_

Weight: 140 lbs.

Easting \_\_\_\_\_

Fall: 30 in.

Hammer Type: Automatic

Ground Elev.: 801.5

Boring Advance By: Borehole caved at 16 feet.

4 1/4" Auger

| DEPTH | METHOD OF ADVANCE          | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER |    |    |    | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL                                      | Recovery (Inches)  |   |
|-------|----------------------------|------------|-----------------|------|-------------|---|----|----|----|-----------------|---|--|---|
|       |                            |            | From            | To   |             |   |    |    |    |                 |   |  |   |
| 1     | A<br>C<br>C<br>E<br>R<br>S | 1          | 0.0             | 2.0  | SS          | 9                                       | 11 | 11 | 7  | 2.0             | Brown SILT; some cmf SAND; little mf GRAVEL (wet, non-plastic)  | 14   |   |
| 2     |                            | 2          | 2.0             | 4.0  | SS          | 10                                      | 10 | 10 | 13 |                 | Brown cmf SAND; some SILT; some mf GRAVEL (wet, non-plastic)    | 12   |   |
| 3     |                            |            |                 |      |             |   |    |    |    |                 |   | NO RECOVERY  | 0 |
| 4     |                            | 3          | 4.0             | 6.0  | SS          | 7                                       | 7  | 5  | 7  |                 |   |  |   |
| 5     |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 6     |                            | 4          | 6.0             | 8.0  | SS          | 4                                       | 4  | 5  | 6  |                 |   | Brown cmf SAND; little SILT; trace f GRAVEL (wet, non-plastic) | 2 |
| 7     |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 8     |                            | 5          | 8.0             | 10.0 | SS          | 5                                       | 5  | 5  | 8  |                 | Brown f SAND; trace mf GRAVEL; trace SILT (wet, non-plastic)    | 6  |   |
| 9     |                            |            |                 |      |             |   |    |    |    |                 | COBBLES encountered from 8 to 20 feet                           |  |   |
| 10    |                            | 6          | 10.0            | 12.0 | SS          | 8                                       | 9  | 8  | 9  |                 | Brown cmf GRAVEL; some cmf SAND; little SILT (wet, non-plastic) | 8  |   |
| 11    |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 12    |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 13    |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 14    |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 15    |                            | 7          | 15.0            | 17.0 | SS          | 9                                       | 13 | 8  | 10 |                 | Similar Soil (saturated, non-plastic)                           | 6  |   |
| 16    |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 17    |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 18    |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 19    |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 20    |                            | 8          | 20.0            | 22.0 | SS          | 8                                       | 7  | 7  | 7  |                 | NO RECOVERY   | 0  |   |
| 21    |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 22    |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 23    |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 24    |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |
| 25    |                            |            |                 |      |             |   |    |    |    |                 |   |  |   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/9/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Kevin Remington

Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Boring No.: B-19

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                   |            | From            | To   |             |   |                 |   |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 8 11 11 5                               |                 | f - fine<br>m - medium<br>c - coarse<br>and - 35-50%<br>some - 20-35%<br>little - 10-20%<br>trace - 0-10% | 6                 |
| 26    |                   |            |                 |      |             |   |                 | Brown cmf GRAVEL; some cmf SAND; little SILT (saturated, non-plastic)                                     |                   |
| 27    |                   |            |                 |      |             |   | 27.0            | Boring terminated at 27 feet.   |                   |
| 28    |                   |            |                 |      |             |   |                 |   |                   |
| 29    |                   |            |                 |      |             |   |                 |   |                   |
| 30    |                   |            |                 |      |             |   |                 |   |                   |
| 31    |                   |            |                 |      |             |   |                 | Notes:  |                   |
| 32    |                   |            |                 |      |             |   |                 | 1) Boring backfilled with on-site soils.  |                   |
| 33    |                   |            |                 |      |             |   |                 |   |                   |
| 34    |                   |            |                 |      |             |   |                 |   |                   |
| 35    |                   |            |                 |      |             |   |                 |   |                   |
| 36    |                   |            |                 |      |             |   |                 |   |                   |
| 37    |                   |            |                 |      |             |   |                 |   |                   |
| 38    |                   |            |                 |      |             |   |                 |   |                   |
| 39    |                   |            |                 |      |             |   |                 |   |                   |
| 40    |                   |            |                 |      |             |   |                 |   |                   |
| 41    |                   |            |                 |      |             |   |                 |   |                   |
| 42    |                   |            |                 |      |             |   |                 |   |                   |
| 43    |                   |            |                 |      |             |   |                 |   |                   |
| 44    |                   |            |                 |      |             |   |                 |   |                   |
| 45    |                   |            |                 |      |             |   |                 |   |                   |
| 46    |                   |            |                 |      |             |   |                 |   |                   |
| 47    |                   |            |                 |      |             |   |                 |   |                   |
| 48    |                   |            |                 |      |             |   |                 |   |                   |
| 49    |                   |            |                 |      |             |   |                 |   |                   |
| 50    |                   |            |                 |      |             |   |                 |   |                   |
| 51    |                   |            |                 |      |             |   |                 |   |                   |
| 52    |                   |            |                 |      |             |   |                 |   |                   |
| 53    |                   |            |                 |      |             |   |                 |   |                   |
| 54    |                   |            |                 |      |             |   |                 |   |                   |
| 55    |                   |            |                 |      |             |   |                 |   |                   |
| 56    |                   |            |                 |      |             |   |                 |   |                   |
| 57    |                   |            |                 |      |             |   |                 |   |                   |
| 58    |                   |            |                 |      |             |   |                 |   |                   |
| 59    |                   |            |                 |      |             |   |                 |   |                   |
| 60    |                   |            |                 |      |             |   |                 |   |                   |
| 61    |                   |            |                 |      |             |   |                 |   |                   |
| 62    |                   |            |                 |      |             |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOC-WELL GDT 11/9/12

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
Casino Expansion

Boring No.: B-20 Sheet 1 of 2

Start Date: 11/1/2012 Finish Date: 11/1/2012

Coordinates Northing \_\_\_\_\_ Easting \_\_\_\_\_  
 Sampler Hammer Weight: 140 lbs.  
 Fall: 30 in.  
 Hammer Type: Automatic

Groundwater Observations  
 Date 11/1/2012 Time AM Depth DRY Casing 25'

Ground Elev.: 822.2 Boring Advance By: 4 1/4" Auger

Borehole caved at 15.2 feet.

| DEPTH | METHOD OF ADVANCE          | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | Recovery (Inches) |
|-------|----------------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                            |            | From            | To   |             |   |                 |   |                   |
| 1     | A<br>C<br>C<br>E<br>R<br>S | 1          | 0.0             | 2.0  | SS          | 7 8 9 11                                |                 | Brown cmf GRAVEL; and cmf SAND; trace SILT (wet, non-plastic)                                       | 14                |
| 2     |                            | 2          | 2.0             | 4.0  | SS          | 9 9 9 6                                 |                 | Brown cmf SAND; and mf GRAVEL; little SILT (wet, non-plastic)                                       | 12                |
| 3     |                            |            |                 |      |             |   |                 | COBBLES encountered from 2 to 17 feet   |                   |
| 4     |                            | 3          | 4.0             | 6.0  | SS          | 11 13 10 12                             |                 | Brown cmf SAND; some SILT; little mf GRAVEL; trace ORGANIC MATERIAL (root hairs) (wet, non-plastic) | 12                |
| 5     |                            |            |                 |      |             |   |                 |   |                   |
| 6     |                            | 4          | 6.0             | 8.0  | SS          | 10 10 11 10                             |                 | Brown cmf SAND; some mf GRAVEL; some SILT (wet, non-plastic)  | 10                |
| 7     |                            |            |                 |      |             |   |                 |   |                   |
| 8     |                            | 5          | 8.0             | 10.0 | SS          | 100/3"                                  |                 | NO RECOVERY   | 0                 |
| 9     |                            |            |                 |      |             |   |                 |   |                   |
| 10    |                            | 6          | 10.0            | 12.0 | SS          | 21 19 17 13                             |                 | Rocks in shoe   | 1                 |
| 11    |                            |            |                 |      |             |   |                 |   |                   |
| 12    |                            |            |                 |      |             |   |                 |   |                   |
| 13    |                            |            |                 |      |             |   |                 |   |                   |
| 14    |                            |            |                 |      |             |   |                 |   |                   |
| 15    |                            | 7          | 15.0            | 17.0 | SS          | 12 8 13 17                              |                 | Brown cmf SAND; some SILT; little mf GRAVEL (wet, non-plastic)                                      | 6                 |
| 16    |                            |            |                 |      |             |   |                 |   |                   |
| 17    |                            |            |                 |      |             |   |                 |   |                   |
| 18    |                            |            |                 |      |             |   |                 |   |                   |
| 19    |                            |            |                 |      |             |   |                 |   |                   |
| 20    |                            | 8          | 20.0            | 22.0 | SS          | 11 12 11 16                             |                 | Similar Soil  | 10                |
| 21    |                            |            |                 |      |             |   |                 |   |                   |
| 22    |                            |            |                 |      |             |   |                 |   |                   |
| 23    |                            |            |                 |      |             |   |                 |   |                   |
| 24    |                            |            |                 |      |             |   |                 |   |                   |
| 25    |                            |            |                 |      |             |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOC-WELL.GDT 11/9/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Kevin Remington  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-20

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 8" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                   |            | From            | To   |             |   |                 |   |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 15 10 13 9                              |                 | f - fine<br>m - medium<br>c - coarse<br>and - 35-50%<br>some - 20-35%<br>little - 10-20%<br>trace - 0-10% |                   |
| 26    |                   |            |                 |      |             |   | 27.0            | Brown cmf SAND; and SILT; some mf GRAVEL (wet, non-plastic)   | 12                |
| 27    |                   |            |                 |      |             |   |                 | Boring terminated at 15.2 feet.   |                   |
| 28    |                   |            |                 |      |             |   |                 |   |                   |
| 29    |                   |            |                 |      |             |   |                 |   |                   |
| 30    |                   |            |                 |      |             |   |                 | Notes:  |                   |
| 31    |                   |            |                 |      |             |   |                 | 1) Boring backfilled with on-site soils.  |                   |
| 32    |                   |            |                 |      |             |   |                 |   |                   |
| 33    |                   |            |                 |      |             |   |                 |   |                   |
| 34    |                   |            |                 |      |             |   |                 |   |                   |
| 35    |                   |            |                 |      |             |   |                 |   |                   |
| 36    |                   |            |                 |      |             |   |                 |   |                   |
| 37    |                   |            |                 |      |             |   |                 |   |                   |
| 38    |                   |            |                 |      |             |   |                 |   |                   |
| 39    |                   |            |                 |      |             |   |                 |   |                   |
| 40    |                   |            |                 |      |             |   |                 |   |                   |
| 41    |                   |            |                 |      |             |   |                 |   |                   |
| 42    |                   |            |                 |      |             |   |                 |   |                   |
| 43    |                   |            |                 |      |             |   |                 |   |                   |
| 44    |                   |            |                 |      |             |   |                 |   |                   |
| 45    |                   |            |                 |      |             |   |                 |   |                   |
| 46    |                   |            |                 |      |             |   |                 |   |                   |
| 47    |                   |            |                 |      |             |   |                 |   |                   |
| 48    |                   |            |                 |      |             |   |                 |   |                   |
| 49    |                   |            |                 |      |             |   |                 |   |                   |
| 50    |                   |            |                 |      |             |   |                 |   |                   |
| 51    |                   |            |                 |      |             |   |                 |   |                   |
| 52    |                   |            |                 |      |             |   |                 |   |                   |
| 53    |                   |            |                 |      |             |   |                 |   |                   |
| 54    |                   |            |                 |      |             |   |                 |   |                   |
| 55    |                   |            |                 |      |             |   |                 |   |                   |
| 56    |                   |            |                 |      |             |   |                 |   |                   |
| 57    |                   |            |                 |      |             |   |                 |   |                   |
| 58    |                   |            |                 |      |             |   |                 |   |                   |
| 59    |                   |            |                 |      |             |   |                 |   |                   |
| 60    |                   |            |                 |      |             |   |                 |   |                   |
| 61    |                   |            |                 |      |             |   |                 |   |                   |
| 62    |                   |            |                 |      |             |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/9/12



**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Client: Cilmans Green Liang Architects, Inc. Report No.: CD3443-01-10-12  
 Project: Subsurface Investigation Boring Location: See Boring Location Plan  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York Casino Expansion  
 Start Date: 10/25/2012 Finish Date: 10/25/2012  
 Boring No.: B-21 Sheet 1 of 2  
 Groundwater Observations  
 Date: 10/25/2012 Time: PM Depth: 29.3' Casing: 45'  
 Coordinates Northing \_\_\_\_\_ Easting \_\_\_\_\_  
 Sampler Hammer Weight: 140 lbs. Fall: 30 in. Hammer Type: Automatic  
 Ground Elev.: 821.0 Boring Advance By: 4 1/4" Auger  
Borehole caved at 25 feet.

| DEPTH | METHOD OF ADVANCE   | SAMPLE NO. | DEPTH OF SAMPLE |     | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE  | CLASSIFICATION OF MATERIAL  | Recovery (inches) |
|-------|---|------------|-----------------|-----|-------------|---|--|---|-------------------|
|       |   |            | From            | To  |             |   |  |   |                   |
| 1     | A<br>G<br>C<br>C<br>R<br>E<br>F<br>E<br>R<br>E<br>N<br>C<br>E | 1          | 0.0             | 2.0 | SS          | 7 15 27 36                              | 2.0  | Brown cmf SAND; some mf GRAVEL; some SILT (moist, non-plastic)<br>COBBLES encountered from 2 to 17 feet | 14                |
| 2     |   | 2.0        | 4.0             | SS  | 11 7 14 14  |   |  |   |                   |
| 3     |   | 3          | 4.0             | 6.0 | SS          | 7 7 10 13                               | 4.0  | Brown SILT; some cmf SAND; little mf GRAVEL (wet, non-plastic)  | 22                |
| 4     | 4   | 6.0        | 8.0             | SS  | 8 9 7 12    |   |  |   |                   |
| 5     |   |            |                 |     |             |   | Brown cmf SAND; some SILT; some mf GRAVEL (wet, non-plastic)<br>Similar Soil | 10  |                   |
| 6     | 5   | 8.0        | 10.0            | SS  | 9 10 12 9   |   |  |   |                   |
| 7     |   |            |                 |     |             |   | Brown cmf SAND; some mf GRAVEL; little SILT (wet, non-plastic)               | 8   |                   |
| 8     | 6   | 10.0       | 12.0            | SS  | 11 7 9 12   |   |  |   |                   |
| 9     |   |            |                 |     |             |   | Brown cmf GRAVEL; and cmf SAND; some SILT (wet, non-plastic)                 | 10  |                   |
| 10    | 7   | 15.0       | 17.0            | SS  | 13 23 16 16 |   |  |   |                   |
| 11    |   |            |                 |     |             |   | Similar Soil (mf GRAVEL)   | 6   |                   |
| 12    |   |            |                 |     |             |   |  |   |                   |
| 13    |   |            |                 |     |             |   | Brown cmf SAND; and SILT; some mf GRAVEL (wet, non-plastic)                  | 2   |                   |
| 14    | 8   | 20.0       | 22.0            | SS  | 6 18 22 19  |   |  |   |                   |
| 15    |   |            |                 |     |             |   | Brown cmf SAND; and SILT; some mf GRAVEL (wet, non-plastic)                  | 14  |                   |
| 16    |   |            |                 |     |             |   |  |   |                   |
| 17    |   |            |                 |     |             |   |  |   |                   |
| 18    |   |            |                 |     |             |   |  |   |                   |
| 19    |   |            |                 |     |             |   |  |   |                   |
| 20    |   |            |                 |     |             |   |  |   |                   |
| 21    |   |            |                 |     |             |   |  |   |                   |
| 22    |   |            |                 |     |             |   |  |   |                   |
| 23    |   |            |                 |     |             |   |  |   |                   |
| 24    |   |            |                 |     |             |   |  |   |                   |
| 25    |   |            |                 |     |             |   |  |   |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/9/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: \_\_\_\_\_  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-21

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                   |            | From            | To   |             |   |                 |   |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 11 12 11 11                             |                 | Similar Soil  | 16                |
| 26    |                   |            |                 |      |             |   |                 |   |                   |
| 27    |                   |            |                 |      |             |   |                 |   |                   |
| 28    |                   |            |                 |      |             |   |                 |   |                   |
| 29    |                   |            |                 |      |             |   |                 |   |                   |
| 30    |                   | 10         | 30.0            | 32.0 | SS          | 11 15 16 23                             |                 | Brown cmf SAND; some SILT; some cmf GRAVEL (wet, non-plastic)     | 16                |
| 31    |                   |            |                 |      |             |   |                 |   |                   |
| 32    |                   |            |                 |      |             |   |                 |   |                   |
| 33    |                   |            |                 |      |             |   |                 |   |                   |
| 34    |                   |            |                 |      |             |   |                 |   |                   |
| 35    |                   | 11         | 35.0            | 37.0 | SS          | 38 100/2"                               |                 | Similar Soil  | 6                 |
| 36    |                   |            |                 |      |             |   |                 |   |                   |
| 37    |                   |            |                 |      |             |   |                 |   |                   |
| 38    |                   |            |                 |      |             |   |                 |   |                   |
| 39    |                   |            |                 |      |             |   |                 |   |                   |
| 40    |                   | 12         | 40.0            | 42.0 | SS          | 17 100/3"                               |                 | Brown mf GRAVEL; and cmf SAND; some SILT (saturated, non-plastic) | 6                 |
| 41    |                   |            |                 |      |             |   |                 |   |                   |
| 42    |                   |            |                 |      |             |   |                 |   |                   |
| 43    |                   |            |                 |      |             |   |                 |   |                   |
| 44    |                   |            |                 |      |             |   |                 |   |                   |
| 45    |                   | 13         | 45.0            | 47.0 | SS          | 62 100/1"                               |                 | Similar Soil  | 2                 |
| 46    |                   |            |                 |      |             |   |                 |   |                   |
| 47    |                   |            |                 |      |             |   | 47.0            | Boring terminated at 47 feet.                                     |                   |
| 48    |                   |            |                 |      |             |   |                 |   |                   |
| 49    |                   |            |                 |      |             |   |                 | Notes:  |                   |
| 50    |                   |            |                 |      |             |   |                 | 1) Boring backfilled with on-site soils.                          |                   |
| 51    |                   |            |                 |      |             |   |                 |   |                   |
| 52    |                   |            |                 |      |             |   |                 |   |                   |
| 53    |                   |            |                 |      |             |   |                 |   |                   |
| 54    |                   |            |                 |      |             |   |                 |   |                   |
| 55    |                   |            |                 |      |             |   |                 |   |                   |
| 56    |                   |            |                 |      |             |   |                 |   |                   |
| 57    |                   |            |                 |      |             |   |                 |   |                   |
| 58    |                   |            |                 |      |             |   |                 |   |                   |
| 59    |                   |            |                 |      |             |   |                 |   |                   |
| 60    |                   |            |                 |      |             |   |                 |   |                   |
| 61    |                   |            |                 |      |             |   |                 |   |                   |
| 62    |                   |            |                 |      |             |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 1/19/12

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
Casino Expansion

Boring No.: B-22 Sheet 1 of 2

Start Date: 10/25/2012 Finish Date: 10/25/2012

Coordinates  
 Northing \_\_\_\_\_  
 Easting \_\_\_\_\_

Sampler Hammer  
 Weight: 140 lbs.  
 Fall: 30 in.

| Groundwater Observations |           |            |            |
|--------------------------|-----------|------------|------------|
| Date                     | Time      | Depth      | Casing     |
| <u>10/25/2012</u>        | <u>AM</u> | <u>DRY</u> | <u>25'</u> |
|                          |           |            |            |
|                          |           |            |            |

Hammer Type: Automatic

Ground Elev.: 822.2 Boring Advance By: 4 1/4" Auger

Borehole caved at 15 feet.

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | Recovery (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|--|-------------------|
|       |                   |            | From            | To   |             |   |                 |  |                   |
| 1     | A<br>R<br>E<br>S  | 1          | 0.5             | 2.5  | SS          | 8 8 12 14                               | 0.5             | 6" ASPHALT PAVEMENT  | 6                 |
| 2     |                   | 2          | 2.5             | 4.5  | SS          | 9 10 11 13                              |                 | Brown cmf SAND; some SILT; some mf GRAVEL (wet, non-plastic)<br>Similar Soil | 8                 |
| 3     |                   | 3          | 4.5             | 6.5  | SS          | 9 13 14 15                              |                 | Grey cmf SAND; some SILT; some mf GRAVEL (wet, non-plastic)                  | 16                |
| 4     |                   | 4          | 6.5             | 8.5  | SS          | 10 13 13 12                             |                 | Similar Soil   | 10                |
| 5     |                   | 5          | 8.5             | 10.5 | SS          | 7 10 13 9                               |                 | Brown cmf SAND; and mf GRAVEL; some SILT (wet, non-plastic)                  | 8                 |
| 6     |                   | 6          | 10.5            | 12.5 | SS          | 9 9 8 13                                |                 | Brown cmf GRAVEL; and cmf SAND; some SILT (wet, non-plastic)                 | 10                |
| 7     |                   | 7          | 15.0            | 17.0 | SS          | 11 22 47 31                             |                 | Similar Soil   | 12                |
| 8     |                   | 8          | 20.0            | 22.0 | SS          | 12 14 14 17                             |                 | Brown cmf SAND; some cmf GRAVEL; little SILT (wet, non-plastic)              | 12                |
| 9     |                   |            |                 |      |             |   |                 |  |                   |
| 10    |                   |            |                 |      |             |   |                 |  |                   |
| 11    |                   |            |                 |      |             |   |                 |  |                   |
| 12    |                   |            |                 |      |             |   |                 |  |                   |
| 13    |                   |            |                 |      |             |   |                 |  |                   |
| 14    |                   |            |                 |      |             |   |                 |  |                   |
| 15    |                   |            |                 |      |             |   |                 |  |                   |
| 16    |                   |            |                 |      |             |   |                 |  |                   |
| 17    |                   |            |                 |      |             |   |                 |  |                   |
| 18    |                   |            |                 |      |             |   |                 |  |                   |
| 19    |                   |            |                 |      |             |   |                 |  |                   |
| 20    |                   |            |                 |      |             |   |                 |  |                   |
| 21    |                   |            |                 |      |             |   |                 |  |                   |
| 22    |                   |            |                 |      |             |   |                 |  |                   |
| 23    |                   |            |                 |      |             |   |                 |  |                   |
| 24    |                   |            |                 |      |             |   |                 |  |                   |
| 25    |                   |            |                 |      |             |   |                 |  |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/9/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Kevin Remington  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-22

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL    | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|-------------------------------|-------------------|
|       |                   |            | From            | To   |             |   |                 |                               |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 13 13 11 18                             |                 | Similar Soil                  | 10                |
| 26    |                   |            |                 |      |             |   | 27.0            |                               |                   |
| 27    |                   |            |                 |      |             |   |                 | Boring terminated at 27 feet. |                   |
| 28    |                   |            |                 |      |             |   |                 |                               |                   |
| 29    |                   |            |                 |      |             |   |                 |                               |                   |
| 30    |                   |            |                 |      |             |   |                 |                               |                   |
| 31    |                   |            |                 |      |             |   |                 |                               |                   |
| 32    |                   |            |                 |      |             |   |                 |                               |                   |
| 33    |                   |            |                 |      |             |   |                 |                               |                   |
| 34    |                   |            |                 |      |             |   |                 |                               |                   |
| 35    |                   |            |                 |      |             |   |                 |                               |                   |
| 36    |                   |            |                 |      |             |   |                 |                               |                   |
| 37    |                   |            |                 |      |             |   |                 |                               |                   |
| 38    |                   |            |                 |      |             |   |                 |                               |                   |
| 39    |                   |            |                 |      |             |   |                 |                               |                   |
| 40    |                   |            |                 |      |             |   |                 |                               |                   |
| 41    |                   |            |                 |      |             |   |                 |                               |                   |
| 42    |                   |            |                 |      |             |   |                 |                               |                   |
| 43    |                   |            |                 |      |             |   |                 |                               |                   |
| 44    |                   |            |                 |      |             |   |                 |                               |                   |
| 45    |                   |            |                 |      |             |   |                 |                               |                   |
| 46    |                   |            |                 |      |             |   |                 |                               |                   |
| 47    |                   |            |                 |      |             |   |                 |                               |                   |
| 48    |                   |            |                 |      |             |   |                 |                               |                   |
| 49    |                   |            |                 |      |             |   |                 |                               |                   |
| 50    |                   |            |                 |      |             |   |                 |                               |                   |
| 51    |                   |            |                 |      |             |   |                 |                               |                   |
| 52    |                   |            |                 |      |             |   |                 |                               |                   |
| 53    |                   |            |                 |      |             |   |                 |                               |                   |
| 54    |                   |            |                 |      |             |   |                 |                               |                   |
| 55    |                   |            |                 |      |             |   |                 |                               |                   |
| 56    |                   |            |                 |      |             |   |                 |                               |                   |
| 57    |                   |            |                 |      |             |   |                 |                               |                   |
| 58    |                   |            |                 |      |             |   |                 |                               |                   |
| 59    |                   |            |                 |      |             |   |                 |                               |                   |
| 60    |                   |            |                 |      |             |   |                 |                               |                   |
| 61    |                   |            |                 |      |             |   |                 |                               |                   |
| 62    |                   |            |                 |      |             |   |                 |                               |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/9/12

f - fine  
m - medium  
c - coarse

and - 35-50%  
ortho - 20-35%  
lime - 10-20%  
trace - 0-10%

Notes:  
1) Boring backfilled with on-site soils.

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc. Report No.: CD3443-01-10-12  
 Project: Subsurface Investigation Boring Location: See Boring Location Plan  
Tioga Downs Casino and Hotel Expansion Casino Expansion  
Nichols, New York  
 Boring No.: B-23 Sheet 1 of 2 Start Date: 10/25/2012 Finish Date: 10/25/2012  
 Coordinates Sampler Hammer  
 Northing \_\_\_\_\_ Weight: 140 lbs.  
 Easting \_\_\_\_\_ Fall: 30 in.  
 Hammer Type: Automatic  
 Ground Elev.: 820.5 Boring Advance By: Borehole caved at 20 feet.  
4 1/4" Auger

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL                                      | Recovery (Inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                   |            | From            | To   |             |   |                 |   |                   |
| 1     | A                 | 1          | 0.4             | 2.4  | SS          | 4 4 15 21                               | 0.4             | 5" ASPHALT PAVEMENT   | 3                 |
| 2     | C                 |            |                 |      |             |   |                 | Brown cmf SAND; some cmf GRAVEL; little SILT (wet, non-plastic) |                   |
| 3     | B                 | 2          | 2.4             | 4.4  | SS          | 10 16 13 13                             |                 | NO RECOVERY   | 0                 |
| 4     | F                 |            |                 |      |             |   |                 |   |                   |
| 5     | S                 | 3          | 4.4             | 8.4  | SS          | 7 12 18 12                              |                 | Brown cmf SAND; some mf GRAVEL; little SILT (wet, non-plastic)  | 14                |
| 6     |                   |            |                 |      |             |   |                 | COBBLES encountered from 5 to 20 feet                           |                   |
| 7     |                   | 4          | 6.4             | 8.4  | SS          | 10 7 7 9                                |                 | Similar Soil  | 3                 |
| 8     |                   |            |                 |      |             |   |                 |   |                   |
| 9     |                   | 5          | 8.4             | 10.4 | SS          | 6 7 8 7                                 |                 | Brown cmf SAND; and mf GRAVEL; little SILT (wet, non-plastic)   | 6                 |
| 10    |                   |            |                 |      |             |   |                 |   |                   |
| 11    |                   | 6          | 10.4            | 12.4 | SS          | 7 9 9 8                                 |                 | Brown cmf GRAVEL; some cmf SAND; little SILT (wet, non-plastic) | 8                 |
| 12    |                   |            |                 |      |             |   |                 |   |                   |
| 13    |                   |            |                 |      |             |   |                 |   |                   |
| 14    |                   |            |                 |      |             |   |                 |   |                   |
| 15    |                   | 7          | 15.0            | 17.0 | SS          | 11 13 13 13                             |                 | Brown cmf GRAVEL; some cmf SAND; some SILT (wet, non-plastic)   | 12                |
| 16    |                   |            |                 |      |             |   |                 |   |                   |
| 17    |                   |            |                 |      |             |   |                 |   |                   |
| 18    |                   |            |                 |      |             |   |                 |   |                   |
| 19    |                   |            |                 |      |             |   |                 |   |                   |
| 20    |                   | 8          | 20.0            | 22.0 | SS          | 6 15 18 15                              |                 | Brown cmf GRAVEL; some cmf SAND; little SILT (wet, non-plastic) | 6                 |
| 21    |                   |            |                 |      |             |   |                 |   |                   |
| 22    |                   |            |                 |      |             |   |                 |   |                   |
| 23    |                   |            |                 |      |             |   |                 |   |                   |
| 24    |                   |            |                 |      |             |   |                 |   |                   |
| 25    |                   |            |                 |      |             |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12 CPJ LOG-WELL GDT 11/9/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Kevin Remington  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-23

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL<br><br>f - fine<br>m - medium<br>c - coarse<br><br>and - 35-50%<br>some - 20-35%<br>little - 10-20%<br>trace - 0-10% | RECOVERY (inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                   |            | From            | To   |             |   |                 |   |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 19 11 13 10                             |                 | Similar Soil  | 8                 |
| 26    |                   |            |                 |      |             |   | 27.0            |   |                   |
| 27    |                   |            |                 |      |             |   |                 | Boring terminated at 27 feet.   |                   |
| 28    |                   |            |                 |      |             |   |                 |   |                   |
| 29    |                   |            |                 |      |             |   |                 |   |                   |
| 30    |                   |            |                 |      |             |   |                 |   |                   |
| 31    |                   |            |                 |      |             |   |                 |   |                   |
| 32    |                   |            |                 |      |             |   |                 |   |                   |
| 33    |                   |            |                 |      |             |   |                 |   |                   |
| 34    |                   |            |                 |      |             |   |                 |   |                   |
| 35    |                   |            |                 |      |             |   |                 |   |                   |
| 36    |                   |            |                 |      |             |   |                 |   |                   |
| 37    |                   |            |                 |      |             |   |                 |   |                   |
| 38    |                   |            |                 |      |             |   |                 |   |                   |
| 39    |                   |            |                 |      |             |   |                 |   |                   |
| 40    |                   |            |                 |      |             |   |                 |   |                   |
| 41    |                   |            |                 |      |             |   |                 |   |                   |
| 42    |                   |            |                 |      |             |   |                 |   |                   |
| 43    |                   |            |                 |      |             |   |                 |   |                   |
| 44    |                   |            |                 |      |             |   |                 |   |                   |
| 45    |                   |            |                 |      |             |   |                 |   |                   |
| 46    |                   |            |                 |      |             |   |                 |   |                   |
| 47    |                   |            |                 |      |             |   |                 |   |                   |
| 48    |                   |            |                 |      |             |   |                 |   |                   |
| 49    |                   |            |                 |      |             |   |                 |   |                   |
| 50    |                   |            |                 |      |             |   |                 |   |                   |
| 51    |                   |            |                 |      |             |   |                 |   |                   |
| 52    |                   |            |                 |      |             |   |                 |   |                   |
| 53    |                   |            |                 |      |             |   |                 |   |                   |
| 54    |                   |            |                 |      |             |   |                 |   |                   |
| 55    |                   |            |                 |      |             |   |                 |   |                   |
| 56    |                   |            |                 |      |             |   |                 |   |                   |
| 57    |                   |            |                 |      |             |   |                 |   |                   |
| 58    |                   |            |                 |      |             |   |                 |   |                   |
| 59    |                   |            |                 |      |             |   |                 |   |                   |
| 60    |                   |            |                 |      |             |   |                 |   |                   |
| 61    |                   |            |                 |      |             |   |                 |   |                   |
| 62    |                   |            |                 |      |             |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/9/12

Notes:  
1. Borehole filled with on-site soils.

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Client: Climans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
Casino Expansion

Boring No.: B-24 Sheet 1 of 2

Start Date: 10/12/2012 Finish Date: 10/12/2012

Coordinates  
 Northing \_\_\_\_\_  
 Easting \_\_\_\_\_  
 Ground Elev.: 819.5

Sampler Hammer  
 Weight: 140 lbs.  
 Fall: 30 in.  
 Hammer Type: Automatic  
 Boring Advance By:  
4 1/4" Auger

| Groundwater Observations |      |            |                |
|--------------------------|------|------------|----------------|
| Date                     | Time | Depth      | Casing         |
| <u>10/12/2012</u>        |      | <u>DRY</u> | <u>25'</u>     |
| <u>10/24/2012</u>        |      | <u>DRY</u> | <u>TOW@25'</u> |
| <u>10/26/2012</u>        |      | <u>DRY</u> | <u>TOW@25'</u> |

| DEPTH | METHOD OF ADVANCE                    | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | Recovery (Inches) |
|-------|--------------------------------------|------------|-----------------|------|-------------|---|-----------------|--|-------------------|
|       |                                      |            | From            | To   |             |   |                 |  |                   |
| 1     | A<br>S<br>T<br>E<br>R<br>I<br>E<br>S | 1          | 0.0             | 2.0  | SS          | 2 4 4 6                                 |                 | Brown cmf SAND; trace f GRAVEL; trace SILT; trace ORGANIC MATERIAL (root hairs) (moist, non-plastic) | 10                |
| 2     |                                      | 2          | 2.0             | 4.0  | SS          | 12 14 21 26                             |                 | Brown cmf SAND; and cmf GRAVEL; trace SILT (moist, non-plastic), w=2.5%                              | 18                |
| 3     |                                      |            |                 |      |             |   |                 |  |                   |
| 4     |                                      | 3          | 4.0             | 6.0  | SS          | 17 21 23 33                             |                 | Brown cmf GRAVEL; some cmf SAND; little SILT (moist, non-plastic), w=4.5%                            | 9                 |
| 5     |                                      |            |                 |      |             |   |                 |  |                   |
| 6     |                                      | 4          | 6.0             | 8.0  | SS          | 12 21 28 29                             |                 | Similar Soil (moist, non-plastic), w=4.1%  | 12                |
| 7     |                                      |            |                 |      |             |   |                 |  |                   |
| 8     |                                      | 5          | 8.0             | 10.0 | SS          | 16 15 19 18                             |                 | Brown cmf SAND; and cmf GRAVEL; trace SILT (moist, non-plastic), w=5.4%                              | 22                |
| 9     |                                      |            |                 |      |             |   |                 |  |                   |
| 10    |                                      | 6          | 10.0            | 12.0 | SS          | 19 22 26 20                             |                 | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic), w=7.1%                              | 14                |
| 11    |                                      |            |                 |      |             |   |                 |  |                   |
| 12    |                                      |            |                 |      |             |   |                 |  |                   |
| 13    |                                      |            |                 |      |             |   |                 |  |                   |
| 14    |                                      |            |                 |      |             |   |                 |  |                   |
| 15    |                                      | 7          | 15.0            | 17.0 | SS          | 17 25 20 16                             |                 | Brown cmf SAND; little cmf GRAVEL; trace SILT (moist, non-plastic), w=6.8%                           | 14                |
| 16    |                                      |            |                 |      |             |   |                 |  |                   |
| 17    |                                      |            |                 |      |             |   |                 |  |                   |
| 18    |                                      |            |                 |      |             |   |                 |  |                   |
| 19    |                                      |            |                 |      |             |   |                 |  |                   |
| 20    |                                      | 8          | 20.0            | 22.0 | SS          | 35 51 77 63                             |                 | Similar Soil (moist, non-plastic), w=5.2%  | 19                |
| 21    |                                      |            |                 |      |             |   |                 |  |                   |
| 22    |                                      |            |                 |      |             |   |                 |  |                   |
| 23    |                                      |            |                 |      |             |   |                 |  |                   |
| 24    |                                      |            |                 |      |             |   |                 |  |                   |
| 25    |                                      |            |                 |      |             |   |                 |  |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/27/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample ( Shelby Tube )  
 Estimated Groundwater

Drillers: Mark Childs; Tyler Weston  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Boring No.: B-24

Report No.: CD3443-01-10-12

Sheet 2 of 2

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | RECOVERY (Inches) |
|-------|-------------------|------------|-----------------|------|-------------|---|-----------------|---|-------------------|
|       |                   |            | From            | To   |             |   |                 |   |                   |
|       |                   | 9          | 25.0            | 27.0 | SS          | 14 17 19 16                             |                 | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic), w=6.4% | 12                |
| 26    |                   |            |                 |      |             |   | 27.0            |   |                   |
| 27    |                   |            |                 |      |             |   |                 | Boring terminated at 27 feet.   |                   |
| 28    |                   |            |                 |      |             |   |                 |   |                   |
| 29    |                   |            |                 |      |             |   |                 |   |                   |
| 30    |                   |            |                 |      |             |   |                 |   |                   |
| 31    |                   |            |                 |      |             |   |                 |   |                   |
| 32    |                   |            |                 |      |             |   |                 |   |                   |
| 33    |                   |            |                 |      |             |   |                 |   |                   |
| 34    |                   |            |                 |      |             |   |                 |   |                   |
| 35    |                   |            |                 |      |             |   |                 |   |                   |
| 36    |                   |            |                 |      |             |   |                 |   |                   |
| 37    |                   |            |                 |      |             |   |                 |   |                   |
| 38    |                   |            |                 |      |             |   |                 |   |                   |
| 39    |                   |            |                 |      |             |   |                 |   |                   |
| 40    |                   |            |                 |      |             |   |                 |   |                   |
| 41    |                   |            |                 |      |             |   |                 |   |                   |
| 42    |                   |            |                 |      |             |   |                 |   |                   |
| 43    |                   |            |                 |      |             |   |                 |   |                   |
| 44    |                   |            |                 |      |             |   |                 |   |                   |
| 45    |                   |            |                 |      |             |   |                 |   |                   |
| 46    |                   |            |                 |      |             |   |                 |   |                   |
| 47    |                   |            |                 |      |             |   |                 |   |                   |
| 48    |                   |            |                 |      |             |   |                 |   |                   |
| 49    |                   |            |                 |      |             |   |                 |   |                   |
| 50    |                   |            |                 |      |             |   |                 |   |                   |
| 51    |                   |            |                 |      |             |   |                 |   |                   |
| 52    |                   |            |                 |      |             |   |                 |   |                   |
| 53    |                   |            |                 |      |             |   |                 |   |                   |
| 54    |                   |            |                 |      |             |   |                 |   |                   |
| 55    |                   |            |                 |      |             |   |                 |   |                   |
| 56    |                   |            |                 |      |             |   |                 |   |                   |
| 57    |                   |            |                 |      |             |   |                 |   |                   |
| 58    |                   |            |                 |      |             |   |                 |   |                   |
| 59    |                   |            |                 |      |             |   |                 |   |                   |
| 60    |                   |            |                 |      |             |   |                 |   |                   |
| 61    |                   |            |                 |      |             |   |                 |   |                   |
| 62    |                   |            |                 |      |             |   |                 |   |                   |

I - fine  
 m - medium  
 c - coarse  
 and - 35-50%  
 some - 20-35%  
 little - 10-20%  
 trace - 0-10%

Notes:  
 1. Temporary observation well was installed to a depth of 25 feet.

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/27/12



**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
Paddock

Boring No.: B-27 Sheet 1 of 1

Start Date: 10/24/2012 Finish Date: 10/24/2012

Coordinates  
 Northing \_\_\_\_\_  
 Easting \_\_\_\_\_

Sampler Hammer  
 Weight: 140 lbs.  
 Fall: 30 in.  
 Hammer Type: Automatic

Groundwater Observations  
 Date 10/24/2012 Time AM Depth DRY Casing OUT

Ground Elev.: 795.7 Boring Advance By: 4 1/4" Auger

Borehole caved at 10 feet.

| DEPTH | METHOD OF ADVANCE          | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE  | CLASSIFICATION OF MATERIAL   | Recovery (Inches) |
|-------|----------------------------|------------|-----------------|------|-------------|---|--|--|-------------------|
|       |                            |            | From            | To   |             |   |  |  |                   |
| 1     | A<br>G<br>C<br>R<br>F<br>S | 1          | 0.0             | 2.0  | SS          | 6 10 13 12                              |  | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic)  | 14                |
| 2     |                            | 2          | 2.0             | 4.0  | SS          | 7 14 21 19                              |  | COBBLES encountered from 2 to 22 feet<br>Brown cmf SAND; little mf GRAVEL; trace SILT (wet, non-plastic) | 8                 |
| 3     |                            |            |                 |      |             |   |  |  |                   |
| 4     |                            | 3          | 4.0             | 6.0  | SS          | 13 15 22 24                             |  | Brown cmf SAND; and mf GRAVEL; trace SILT (moist, non-plastic)   | 12                |
| 5     |                            |            |                 |      |             |   |  |  |                   |
| 6     |                            | 4          | 6.0             | 8.0  | SS          | 27 17 17 17                             |  | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic)  | 8                 |
| 7     |                            |            |                 |      |             |   |  |  |                   |
| 8     |                            | 5          | 8.0             | 10.0 | SS          | 32 25 14 19                             |  | Similar Soil (moist, non-plastic)  | 12                |
| 9     |                            |            |                 |      |             |   |  |  |                   |
| 10    | 6                          | 10.0       | 12.0            | SS   | 18 15 15 17 |   | Brown cmf SAND; and mf GRAVEL; trace SILT (moist, non-plastic)   | 10   |                   |
| 11    |                            |            |                 |      |             |   |  |  |                   |
| 12    |                            |            |                 |      |             |   |  |  |                   |
| 13    |                            |            |                 |      |             |   |  |  |                   |
| 14    |                            |            |                 |      |             |   |  |  |                   |
| 15    | 7                          | 15.0       | 17.0            | SS   | 19 21 16 15 |   | Brown cmf SAND; some mf GRAVEL; little SILT (moist, non-plastic) | 10   |                   |
| 16    |                            |            |                 |      |             |   |  |  |                   |
| 17    |                            |            |                 |      |             |   |  |  |                   |
| 18    |                            |            |                 |      |             |   |  |  |                   |
| 19    |                            |            |                 |      |             |   |  |  |                   |
| 20    | 8                          | 20.0       | 22.0            | SS   | 22 28 19 22 |   | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic)  | 12   |                   |
| 21    |                            |            |                 |      |             |   |  |  |                   |
| 22    |                            |            |                 |      |             | 22.0                                    | Boring terminated at 22 feet.                                    |  |                   |
| 23    |                            |            |                 |      |             |   |  |  |                   |
| 24    |                            |            |                 |      |             |   |  |  |                   |
| 25    |                            |            |                 |      |             |   |  |  |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/27/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shear Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Kevin Remington  
 Inspector: \_\_\_\_\_

Notes:  
 1) Boring backfilled with on-site soils.

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
Paddock

Boring No.: B-27 Sheet 1 of 1

Start Date: 10/24/2012 Finish Date: 10/24/2012

Coordinates  
 Northing \_\_\_\_\_  
 Easting \_\_\_\_\_  
 Sampler Hammer  
 Weight: 140 lbs.  
 Fall: 30 in.  
 Hammer Type: Automatic

Groundwater Observations  
 Date Time Depth Casing  
10/24/2012 AM DRY OUT

Ground Elev.: 795.7 Boring Advance By:  
4 1/4" Auger

Borehole caved at 10 feet.

| DEPTH | METHOD OF ADVANCE          | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | Recovery (inches) |
|-------|----------------------------|------------|-----------------|------|-------------|---|-----------------|--|-------------------|
|       |                            |            | From            | To   |             |   |                 |  |                   |
| 1     | A<br>C<br>C<br>E<br>R<br>S | 1          | 0.0             | 2.0  | SS          | 8 10 13 12                              |                 | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic)<br>COBBLES encountered from 2 to 22 feet | 14                |
| 2     |                            | 2          | 2.0             | 4.0  | SS          | 7 14 21 19                              |                 | Brown cmf SAND; little mf GRAVEL; trace SILT (wet, non-plastic)  | 8                 |
| 3     |                            |            |                 |      |             |   |                 |  |                   |
| 4     |                            | 3          | 4.0             | 6.0  | SS          | 13 15 22 24                             |                 | Brown cmf SAND; and mf GRAVEL; trace SILT (moist, non-plastic)   | 12                |
| 5     |                            |            |                 |      |             |   |                 |  |                   |
| 6     |                            | 4          | 6.0             | 8.0  | SS          | 27 17 17 17                             |                 | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic)  | 8                 |
| 7     |                            |            |                 |      |             |   |                 |  |                   |
| 8     |                            | 5          | 8.0             | 10.0 | SS          | 32 25 14 19                             |                 | Similar Soil (moist, non-plastic)  | 12                |
| 9     |                            |            |                 |      |             |   |                 |  |                   |
| 10    |                            |            |                 |      |             |   |                 |  |                   |
| 11    |                            | 6          | 10.0            | 12.0 | SS          | 18 15 15 17                             |                 | Brown cmf SAND; and mf GRAVEL; trace SILT (moist, non-plastic)   | 10                |
| 12    |                            |            |                 |      |             |   |                 |  |                   |
| 13    |                            |            |                 |      |             |   |                 |  |                   |
| 14    |                            |            |                 |      |             |   |                 |  |                   |
| 15    |                            |            |                 |      |             |   |                 |  |                   |
| 16    |                            | 7          | 15.0            | 17.0 | SS          | 19 21 16 15                             |                 | Brown cmf SAND; some mf GRAVEL; little SILT (moist, non-plastic)   | 10                |
| 17    |                            |            |                 |      |             |   |                 |  |                   |
| 18    |                            |            |                 |      |             |   |                 |  |                   |
| 19    |                            |            |                 |      |             |   |                 |  |                   |
| 20    |                            |            |                 |      |             |   |                 |  |                   |
| 21    |                            | 8          | 20.0            | 22.0 | SS          | 22 28 19 22                             |                 | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic)  | 12                |
| 22    |                            |            |                 |      |             | 22.0                                    |                 | Boring terminated at 10 feet.  |                   |
| 23    |                            |            |                 |      |             |   |                 |  |                   |
| 24    |                            |            |                 |      |             |   |                 |  |                   |
| 25    |                            |            |                 |      |             |   |                 |  |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/9/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Kevin Remington  
 Inspector: \_\_\_\_\_

Notes:  
 1) Boring backfilled with on-site soils.

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
Paddock

Boring No.: B-28 Sheet 1 of 1

Start Date: 10/24/2012 Finish Date: 10/24/2012

Coordinates  
 Northing \_\_\_\_\_  
 Easting \_\_\_\_\_

Sampler Hammer  
 Weight: 140 lbs.  
 Fall: 30 in.

| Groundwater Observations |           |              |            |
|--------------------------|-----------|--------------|------------|
| Date                     | Time      | Depth        | Casing     |
| <u>10/24/2012</u>        | <u>PM</u> | <u>19.7'</u> | <u>OUT</u> |
|                          |           |              |            |
|                          |           |              |            |
|                          |           |              |            |

Hammer Type: Automatic

Ground Elev.: 796.5 Boring Advance By: 4 1/4" Auger

Borehole caved at 15.4 feet.

| DEPTH | METHOD OF ADVANCE               | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | Recovery (Inches) |
|-------|---------------------------------|------------|-----------------|------|-------------|---|-----------------|--|-------------------|
|       |                                 |            | From            | To   |             |   |                 |  |                   |
| 1     | A<br>G<br>C<br>C<br>E<br>R<br>S | 1          | 0.0             | 2.0  | SS          | 7 10 14 16                              |                 | Brown cmf SAND; trace f GRAVEL; trace SILT (wet, non-plastic)                        | 6                 |
| 2     |                                 | 2          | 2.0             | 4.0  | SS          | 9 7 11 15                               |                 | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic)                      | 8                 |
| 3     |                                 |            |                 |      |             |   |                 | COBBLES encountered 2 to 22 feet   |                   |
| 4     |                                 | 3          | 4.0             | 6.0  | SS          | 11 12 19 21                             |                 | Brown cmf SAND; and mf GRAVEL; little SILT (moist, non-plastic)                      | 8                 |
| 5     |                                 |            |                 |      |             |   |                 |  |                   |
| 6     |                                 | 4          | 6.0             | 8.0  | SS          | 26 24 38 32                             |                 | Brown cmf SAND; some mf GRAVEL; little SILT (moist, non-plastic)                     | 12                |
| 7     |                                 |            |                 |      |             |   |                 |  |                   |
| 8     |                                 | 5          | 8.0             | 10.0 | SS          | 100/3"                                  |                 | Grey mf GRAVEL; trace cmf SAND; trace SILT (moist, non-plastic)                      | 2                 |
| 9     |                                 |            |                 |      |             |   |                 |  |                   |
| 10    |                                 | 6          | 10.0            | 12.0 | SS          | 17 14 23 31                             |                 | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic)                      | 8                 |
| 11    |                                 |            |                 |      |             |   |                 |  |                   |
| 12    |                                 |            |                 |      |             |   |                 |  |                   |
| 13    |                                 |            |                 |      |             |   |                 |  |                   |
| 14    |                                 |            |                 |      |             |   |                 |  |                   |
| 15    |                                 | 7          | 15.0            | 17.0 | SS          | 11 18 21 21                             |                 | Similar Soil (wet, non-plastic)  | 14                |
| 16    |                                 |            |                 |      |             |   |                 |  |                   |
| 17    |                                 |            |                 |      |             |   |                 |  |                   |
| 18    |                                 |            |                 |      |             |   |                 |  |                   |
| 19    |                                 |            |                 |      |             |   |                 |  |                   |
| 20    |                                 | 8          | 20.0            | 22.0 | SS          | 14 19 23 26                             |                 | Brown cmf SAND; some mf GRAVEL; little SILT; trace CLAY (wet, very slightly plastic) | 6                 |
| 21    |                                 |            |                 |      |             |   |                 |  |                   |
| 22    |                                 |            |                 |      |             |   | 22.0            | Boring terminated at 22 feet.  |                   |
| 23    |                                 |            |                 |      |             |   |                 |  |                   |
| 24    |                                 |            |                 |      |             |   |                 |  |                   |
| 25    |                                 |            |                 |      |             |   |                 |  |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/9/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Kevin Remington  
 Inspector: \_\_\_\_\_

Notes:  
 1) Boring backfilled with on-site soils.

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Client: Climans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
Paddock

Boring No.: B-29 Sheet 1 of 1

Start Date: 10/24/2012 Finish Date: 10/24/2012

Coordinates  
 Northing \_\_\_\_\_  
 Easting \_\_\_\_\_  
 Sampler Hammer  
 Weight: 140 lbs.  
 Fall: 30 in.  
 Hammer Type: Automatic

| Groundwater Observations |      |       |         |
|--------------------------|------|-------|---------|
| Date                     | Time | Depth | Casing  |
| 10/24/2012               | AM   | 20'   | OUT     |
| 10/24/2012               | PM   | 16.7' | TOW@22' |
| 10/25/2012               | PM   | 16.7' | TOW@22' |
| 10/26/2012               | PM   | 17.2' | TOW@22' |

Ground Elev.: 796.4 Boring Advance By:  
4 1/4" Auger

| DEPTH | METHOD OF ADVANCE          | SAMPLE NO. | DEPTH OF SAMPLE |      | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE   | CLASSIFICATION OF MATERIAL                                      | Recovery (inches) |
|-------|----------------------------|------------|-----------------|------|-------------|---|---|---|-------------------|
|       |                            |            | From            | To   |             |   |   |   |                   |
| 1     | A<br>R<br>F<br>G<br>C<br>S | 1          | 0.0             | 2.0  | SS          | 13 24 38 31                             |   | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic) | 8                 |
| 2     |                            | 2          | 2.0             | 4.0  | SS          | 17 26 29 30                             |   | NO RECOVERY   | 0                 |
| 3     |                            |            |                 |      |             |   |   | COBBLES encountered from 2 to 22 feet                           |                   |
| 4     |                            | 3          | 4.0             | 6.0  | SS          | 7 8 7 7                                 |   | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic) | 10                |
| 5     |                            |            |                 |      |             |   |   |   |                   |
| 6     |                            | 4          | 6.0             | 8.0  | SS          | 14 19 29 36                             |   | Similar Soil (moist, non-plastic)                               | 10                |
| 7     |                            |            |                 |      |             |   |   |   |                   |
| 8     |                            | 5          | 8.0             | 10.0 | SS          | 50/2"                                   |   | Brown cmf SAND; and mf GRAVEL; trace SILT (moist, non-plastic)  | 1.5               |
| 9     |                            |            |                 |      |             |   |   |   |                   |
| 10    | 6                          | 10.0       | 12.0            | SS   | 14 11 17 23 |   | Brown cmf SAND; little mf GRAVEL; trace SILT (moist, non-plastic) | 8   |                   |
| 11    |                            |            |                 |      |             |   |   |   |                   |
| 12    |                            |            |                 |      |             |   |   |   |                   |
| 13    |                            |            |                 |      |             |   |   |   |                   |
| 14    |                            |            |                 |      |             |   |   |   |                   |
| 15    |                            |            |                 |      |             |   |   |   |                   |
| 16    | 7                          | 15.0       | 17.0            | SS   | 17 19 16 23 |   | Brown cmf SAND; and mf GRAVEL; trace SILT (wet, non-plastic)      | 8   |                   |
| 17    |                            |            |                 |      |             |   |   |   |                   |
| 18    |                            |            |                 |      |             |   |   |   |                   |
| 19    |                            |            |                 |      |             |   |   |   |                   |
| 20    |                            |            |                 |      |             |   |   |   |                   |
| 21    | 8                          | 20.0       | 22.0            | SS   | 14 17 21 27 |   | Brown cmf SAND; some mf GRAVEL; trace SILT (wet, non-plastic)     | 10  |                   |
| 22    |                            |            |                 |      |             | 22.0                                    |   |   |                   |
| 23    |                            |            |                 |      |             |   |   |   |                   |
| 24    |                            |            |                 |      |             |   |   |   |                   |
| 25    |                            |            |                 |      |             |   |   |   |                   |

AT-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/13/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shear Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Kevin Remington  
 Inspector: \_\_\_\_\_

Notes:  
 1) Temporary observation well installed to a depth of 22 feet.

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Client: Climans Green Liang Architects, Inc. Report No.: CD3443-01-10-12  
 Project: Subsurface Investigation Boring Location: See Boring Location Plan  
Tioga Downs Casino and Hotel Expansion Road Realignment  
Nichols, New York  
 Start Date: 10/25/2012 Finish Date: 10/25/2012  
 Boring No.: B-30 Sheet 1 of 1  
 Groundwater Observations  
 Date: 10/25/2012 Time: PM Depth: DRY Casing: OUT  
 Coordinates: \_\_\_\_\_ Sampler Hammer: \_\_\_\_\_  
 Northing: \_\_\_\_\_ Weight: 140 lbs.  
 Easting: \_\_\_\_\_ Fall: 30 in.  
 Hammer Type: Automatic  
 Ground Elev.: 820.3 Boring Advance By: \_\_\_\_\_  
4 1/4" Auger

| DEPTH | METHOD OF ADVANCE | SAMPLE NO. | DEPTH OF SAMPLE |     | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | Recovery (Inches) |
|-------|-------------------|------------|-----------------|-----|-------------|---|-----------------|--|-------------------|
|       |                   |            | From            | To  |             |   |                 |  |                   |
| 1     | A                 | 1          | 0.0             | 2.0 | SS          | 7 7 9 7                                 | 6.0             | Brown cmf SAND; trace f GRAVEL; trace SILT; trace ORGANIC MATERIAL (root hairs) (wet, non-plastic) | 14                |
| 2     | G                 | 2          | 2.0             | 4.0 | SS          | 11 13 12 16                             |                 | Brown cmf SAND; little mf GRAVEL; little SILT (moist, non-plastic)                                 | 10                |
| 3     | R                 |            |                 |     |             |   |                 | Brown cmf SAND; little SILT; trace f GRAVEL (moist, non-plastic)                                   | 8                 |
| 4     | S                 | 3          | 4.0             | 6.0 | SS          | 12 13 13 11                             |                 | Boring terminated at 6 feet.   |                   |
| 5     |                   |            |                 |     |             |   |                 |  |                   |
| 6     |                   |            |                 |     |             |   |                 |  |                   |
| 7     |                   |            |                 |     |             |   |                 |  |                   |
| 8     |                   |            |                 |     |             |   |                 |  |                   |
| 9     |                   |            |                 |     |             |   |                 |  |                   |
| 10    |                   |            |                 |     |             |   |                 |  |                   |
| 11    |                   |            |                 |     |             |   |                 |  |                   |
| 12    |                   |            |                 |     |             |   |                 |  |                   |
| 13    |                   |            |                 |     |             |   |                 |  |                   |
| 14    |                   |            |                 |     |             |   |                 |  |                   |
| 15    |                   |            |                 |     |             |   |                 |  |                   |
| 16    |                   |            |                 |     |             |   |                 |  |                   |
| 17    |                   |            |                 |     |             |   |                 |  |                   |
| 18    |                   |            |                 |     |             |   |                 |  |                   |
| 19    |                   |            |                 |     |             |   |                 |  |                   |
| 20    |                   |            |                 |     |             |   |                 |  |                   |
| 21    |                   |            |                 |     |             |   |                 |  |                   |
| 22    |                   |            |                 |     |             |   |                 |  |                   |
| 23    |                   |            |                 |     |             |   |                 |  |                   |
| 24    |                   |            |                 |     |             |   |                 |  |                   |
| 25    |                   |            |                 |     |             |   |                 |  |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/8/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Sherby Tube)  
 Estimated Groundwater

Drillers: Brad Perry; Kevin Remington  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc. Report No.: CD3443-01-10-12  
 Project: Subsurface Investigation Boring Location: See Boring Location Plan  
Tioga Downs Casino and Hotel Expansion Parking Lot: \_\_\_\_\_  
Nichols, New York Start Date: 10/3/2012 Finish Date: 10/3/2012

Boring No.: B-31 Sheet 1 of 1

Coordinates Northing \_\_\_\_\_ Easting \_\_\_\_\_

Sampler Hammer Weight: 140 lbs. Fall: 30 in. Hammer Type: Automatic

Ground Elev.: 803.0 Boring Advance By: 2" Split Spoon

| Date             | Time  | Depth      | Casing      |
|------------------|-------|------------|-------------|
| <u>10/3/2012</u> | _____ | <u>DRY</u> | <u>6.0'</u> |
| _____            | _____ | _____      | _____       |
| _____            | _____ | _____      | _____       |
| _____            | _____ | _____      | _____       |

| DEPTH | METHOD OF ADVANCE          | SAMPLE NO. | DEPTH OF SAMPLE |     | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | Recovery (inches) |  |
|-------|----------------------------|------------|-----------------|-----|-------------|---|-----------------|---|-------------------|--|
|       |                            |            | From            | To  |             |   |                 |   |                   |  |
| 1     | A<br>G<br>C<br>E<br>R<br>S | 1          | 0.0             | 2.0 | SS          | 10 7 7 5                                | 6.0             | Brown cmf SAND; trace mf GRAVEL; trace SILT (moist, non-plastic)        | 16                |  |
| 2     |                            | 2          | 2.0             | 4.0 | SS          | 7 10 12 15                              |                 | Brown cmf GRAVEL; some cmf SAND; some SILT (moist, non-plastic), w=7.9% | 15                |  |
| 3     |                            |            |                 |     |             |   |                 |   |                   |  |
| 4     |                            | 3          | 4.0             | 6.0 | SS          | 6 6 7 7                                 |                 | Similar Soil (moist, non-plastic)                                       | 12                |  |
| 5     |                            |            |                 |     |             |   |                 |   |                   |  |
| 6     |                            |            |                 |     |             |   |                 | Boring terminated at 6 feet.  |                   |  |
| 7     |                            |            |                 |     |             |   |                 |   |                   |  |
| 8     |                            |            |                 |     |             |   |                 |   |                   |  |
| 9     |                            |            |                 |     |             |   |                 |   |                   |  |
| 10    |                            |            |                 |     |             |   |                 |   |                   |  |
| 11    |                            |            |                 |     |             |   |                 |   |                   |  |
| 12    |                            |            |                 |     |             |   |                 |   |                   |  |
| 13    |                            |            |                 |     |             |   |                 |   |                   |  |
| 14    |                            |            |                 |     |             |   |                 |   |                   |  |
| 15    |                            |            |                 |     |             |   |                 |   |                   |  |
| 16    |                            |            |                 |     |             |   |                 |   |                   |  |
| 17    |                            |            |                 |     |             |   |                 |   |                   |  |
| 18    |                            |            |                 |     |             |   |                 |   |                   |  |
| 19    |                            |            |                 |     |             |   |                 |   |                   |  |
| 20    |                            |            |                 |     |             |   |                 |   |                   |  |
| 21    |                            |            |                 |     |             |   |                 |   |                   |  |
| 22    |                            |            |                 |     |             |   |                 |   |                   |  |
| 23    |                            |            |                 |     |             |   |                 |   |                   |  |
| 24    |                            |            |                 |     |             |   |                 |   |                   |  |
| 25    |                            |            |                 |     |             |   |                 |   |                   |  |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/27/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Tony Mallory; Tyler Weston  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Report No.: CD3443-01-10-12

Boring Location: See Boring Location Plan

Parking Lot: \_\_\_\_\_

Client: Climans Green Liang Architects, Inc.

Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Start Date: 10/3/2012 Finish Date: 10/3/2012

Boring No.: B-32 Sheet 1 of 1

Groundwater Observations

| Date             | Time  | Depth      | Casing      |
|------------------|-------|------------|-------------|
| <u>10/3/2012</u> | _____ | <u>DRY</u> | <u>6.0'</u> |
| _____            | _____ | _____      | _____       |
| _____            | _____ | _____      | _____       |
| _____            | _____ | _____      | _____       |

Coordinates \_\_\_\_\_ Sampler Hammer \_\_\_\_\_

Northing \_\_\_\_\_ Weight: 140 lbs.

Easting \_\_\_\_\_ Fall: 30 in.

Hammer Type: Automatic

Ground Elev.: 799.6 Boring Advance By: \_\_\_\_\_

2" Split Spoon

| DEPTH | METHOD OF ADVANCE               | SAMPLE NO. | DEPTH OF SAMPLE |     | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | Recovery (inches) |
|-------|---------------------------------|------------|-----------------|-----|-------------|---|-----------------|---|-------------------|
|       |                                 |            | From            | To  |             |   |                 |   |                   |
| 1     | A<br>C<br>G<br>E<br>F<br>E<br>S | 1          | 0.0             | 2.0 | SS          | 12 15 22 27                             | 6.0             | Brown cmf SAND; trace cmf GRAVEL; trace SILT (moist, non-plastic) | 18                |
| 2     |                                 | 2          | 2.0             | 4.0 | SS          | 15 17 17 20                             |                 | Brown cmf SAND; some cmf GRAVEL; trace SILT (moist, non-plastic)  | 14                |
| 3     |                                 | 3          | 4.0             | 6.0 | SS          | 6 7 6 7                                 |                 | Similar Soil (moist, non-plastic)                                 | 12                |
| 4     |                                 |            |                 |     |             |   |                 |   |                   |
| 5     |                                 |            |                 |     |             |   |                 |   |                   |
| 6     |                                 |            |                 |     |             |   |                 | Boring terminated at 6 feet.                                      |                   |
| 7     |                                 |            |                 |     |             |   |                 |   |                   |
| 8     |                                 |            |                 |     |             |   |                 |   |                   |
| 9     |                                 |            |                 |     |             |   |                 |   |                   |
| 10    |                                 |            |                 |     |             |   |                 |   |                   |
| 11    |                                 |            |                 |     |             |   |                 |   |                   |
| 12    |                                 |            |                 |     |             |   |                 |   |                   |
| 13    |                                 |            |                 |     |             |   |                 |   |                   |
| 14    |                                 |            |                 |     |             |   |                 |   |                   |
| 15    |                                 |            |                 |     |             |   |                 |   |                   |
| 16    |                                 |            |                 |     |             |   |                 |   |                   |
| 17    |                                 |            |                 |     |             |   |                 |   |                   |
| 18    |                                 |            |                 |     |             |   |                 |   |                   |
| 19    |                                 |            |                 |     |             |   |                 |   |                   |
| 20    |                                 |            |                 |     |             |   |                 |   |                   |
| 21    |                                 |            |                 |     |             |   |                 |   |                   |
| 22    |                                 |            |                 |     |             |   |                 |   |                   |
| 23    |                                 |            |                 |     |             |   |                 |   |                   |
| 24    |                                 |            |                 |     |             |   |                 |   |                   |
| 25    |                                 |            |                 |     |             |   |                 |   |                   |

ATL-LOG - CD3443-01-10-12 GPJ LOG-WELL GDT 11/13/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shotby Tube)  
 Estimated Groundwater

Drillers: Tony Mallory; Tyler Weston

Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Client: Climans Green Liang Architects, Inc.  
 Project: Subsurface Investigation  
Tioga Downs Casino and Hotel Expansion  
Nichols, New York

Report No.: CD3443-01-10-12  
 Boring Location: See Boring Location Plan  
Parking Lot

Boring No.: B-33 Sheet 1 of 1

Start Date: 10/3/2012 Finish Date: 10/3/2012

Coordinates  
 Northing \_\_\_\_\_  
 Easting \_\_\_\_\_

Sampler Hammer  
 Weight: 140 lbs.  
 Fall: 30 in.  
 Hammer Type: Automatic

| Groundwater Observations |      |       |        |
|--------------------------|------|-------|--------|
| Date                     | Time | Depth | Casing |
| 10/3/2012                |      | DRY   | 6.0'   |
|                          |      |       |        |
|                          |      |       |        |
|                          |      |       |        |
|                          |      |       |        |

Ground Elev.: 798.1 Boring Advance By:  
2" Split Spoon

| DEPTH | METHOD OF ADVANCE                    | SAMPLE NO. | DEPTH OF SAMPLE |     | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL   | Recovery (inches) |
|-------|--------------------------------------|------------|-----------------|-----|-------------|---|-----------------|--|-------------------|
|       |                                      |            | From            | To  |             |   |                 |  |                   |
| 1     | A<br>G<br>C<br>C<br>B<br>E<br>R<br>S | 1          | 0.0             | 2.0 | SS          | 12 21 22 15                             | 6.0             | Brown cmf SAND; some cmf SAND; trace SILT (moist, non-plastic)           | 18                |
| 2     |                                      | 2          | 2.0             | 4.0 | SS          | 14 14 15 25                             |                 | Brown mf GRAVEL; some cmf SAND; little SILT (moist, non-plastic), w=5.3% | 20                |
| 3     |                                      | 3          | 4.0             | 6.0 | SS          | 29 16 17 23                             |                 | Brown cmf SAND; some cmf GRAVEL; trace SILT (moist, non-plastic)         | 14                |
| 4     |                                      |            |                 |     |             |   |                 |  |                   |
| 5     |                                      |            |                 |     |             |   |                 |  |                   |
| 6     |                                      |            |                 |     |             |   |                 | Boring terminated at 6 feet.   |                   |
| 7     |                                      |            |                 |     |             |   |                 |  |                   |
| 8     |                                      |            |                 |     |             |   |                 |  |                   |
| 9     |                                      |            |                 |     |             |   |                 |  |                   |
| 10    |                                      |            |                 |     |             |   |                 |  |                   |
| 11    |                                      |            |                 |     |             |   |                 |  |                   |
| 12    |                                      |            |                 |     |             |   |                 |  |                   |
| 13    |                                      |            |                 |     |             |   |                 |  |                   |
| 14    |                                      |            |                 |     |             |   |                 |  |                   |
| 15    |                                      |            |                 |     |             |   |                 |  |                   |
| 16    |                                      |            |                 |     |             |   |                 |  |                   |
| 17    |                                      |            |                 |     |             |   |                 |  |                   |
| 18    |                                      |            |                 |     |             |   |                 |  |                   |
| 19    |                                      |            |                 |     |             |   |                 |  |                   |
| 20    |                                      |            |                 |     |             |   |                 |  |                   |
| 21    |                                      |            |                 |     |             |   |                 |  |                   |
| 22    |                                      |            |                 |     |             |   |                 |  |                   |
| 23    |                                      |            |                 |     |             |   |                 |  |                   |
| 24    |                                      |            |                 |     |             |   |                 |  |                   |
| 25    |                                      |            |                 |     |             |   |                 |  |                   |

ATL-LOG1 CD3443-01-10-12 GP1 LOC-WELL GDT 11/13/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Tony Mallory; Tyler Weston  
 Inspector: \_\_\_\_\_



**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Climans Green Liang Architects, Inc. Report No.: CD3443-01-10-12  
 Project: Subsurface Investigation Boring Location: See Boring Location Plan  
Tioga Downs Casino and Hotel Expansion Parking Lot  
Nichols, New York  
 Boring No.: B-34 Sheet 1 of 1 Start Date: 10/3/2012 Finish Date: 10/3/2012  
 Coordinates Sampler Hammer  
 Northing \_\_\_\_\_ Weight: 140 lbs.  
 Easting \_\_\_\_\_ Fall: 30 in.  
 Hammer Type: Automatic  
 Ground Elev.: 797.7 Boring Advance By:  
2" Split Spoon

| Groundwater Observations |       |            |             |
|--------------------------|-------|------------|-------------|
| Date                     | Time  | Depth      | Casing      |
| <u>10/3/2012</u>         |       | <u>DRY</u> | <u>6.0'</u> |
| _____                    | _____ | _____      | _____       |
| _____                    | _____ | _____      | _____       |
| _____                    | _____ | _____      | _____       |

| DEPTH | METHOD OF ADVANCE          | SAMPLE NO. | DEPTH OF SAMPLE |     | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL                                      | Recovery (inches) |
|-------|----------------------------|------------|-----------------|-----|-------------|---|-----------------|---|-------------------|
|       |                            |            | From            | To  |             |   |                 |   |                   |
| 1     | A<br>C<br>C<br>E<br>R<br>S | 1          | 0.0             | 2.0 | SS          | 9 11 15 27                              | 6.0             | Brown cmf SAND; and cmf GRAVEL; trace SILT (moist, non-plastic) | 18                |
| 2     |                            | 2          | 2.0             | 4.0 | SS          | 45 39 43 22                             |                 | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic) | 20                |
| 3     |                            | 3          | 4.0             | 6.0 | SS          | 19 10 15 15                             |                 | Brown cmf SAND; little mf GRAVEL; trace SILT (wet, non-plastic) | 20                |
| 4     |                            |            |                 |     |             |   |                 |   |                   |
| 5     |                            |            |                 |     |             |   |                 |   |                   |
| 6     |                            |            |                 |     |             |   |                 | Boring terminated at 6 feet.                                    |                   |
| 7     |                            |            |                 |     |             |   |                 |   |                   |
| 8     |                            |            |                 |     |             |   |                 |   |                   |
| 9     |                            |            |                 |     |             |   |                 | Notes:<br>1. Boring backfilled with on-site soil.               |                   |
| 10    |                            |            |                 |     |             |   |                 |   |                   |
| 11    |                            |            |                 |     |             |   |                 |   |                   |
| 12    |                            |            |                 |     |             |   |                 |   |                   |
| 13    |                            |            |                 |     |             |   |                 |   |                   |
| 14    |                            |            |                 |     |             |   |                 |   |                   |
| 15    |                            |            |                 |     |             |   |                 |   |                   |
| 16    |                            |            |                 |     |             |   |                 |   |                   |
| 17    |                            |            |                 |     |             |   |                 |   |                   |
| 18    |                            |            |                 |     |             |   |                 |   |                   |
| 19    |                            |            |                 |     |             |   |                 |   |                   |
| 20    |                            |            |                 |     |             |   |                 |   |                   |
| 21    |                            |            |                 |     |             |   |                 |   |                   |
| 22    |                            |            |                 |     |             |   |                 |   |                   |
| 23    |                            |            |                 |     |             |   |                 |   |                   |
| 24    |                            |            |                 |     |             |   |                 |   |                   |
| 25    |                            |            |                 |     |             |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/13/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Tony Mallory; Tyler Weston  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

**Subsurface Investigation**

Client: Cilmans Green Liang Architects, Inc. Report No.: CD3443-01-10-12  
 Project: Subsurface Investigation Boring Location: See Boring Location Plan  
Tioga Downs Casino and Hotel Expansion Parking Lot  
Nichols, New York  
 Start Date: 10/3/2012 Finish Date: 10/3/2012  
 Boring No.: B-35 Sheet 1 of 1  
 Date: 10/3/2012 Time: \_\_\_\_\_ Depth: DRY Casing: 6.0'  
 Coordinates: \_\_\_\_\_ Sampler Hammer: \_\_\_\_\_  
 Northing: \_\_\_\_\_ Weight: 140 lbs.  
 Easting: \_\_\_\_\_ Fall: 30 in.  
 Hammer Type: Automatic  
 Ground Elev.: 796.5 Boring Advance By: \_\_\_\_\_  
2" Split Spoon

| DEPTH | METHOD OF ADVANCE          | SAMPLE NO. | DEPTH OF SAMPLE |     | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL                                       | Recovery (Inches) |
|-------|----------------------------|------------|-----------------|-----|-------------|---|-----------------|--|-------------------|
|       |                            |            | From            | To  |             |   |                 |  |                   |
| 1     | A<br>C<br>C<br>E<br>S<br>S | 1          | 0.0             | 2.0 | SS          | 7 9 14 22                               | 6.0             | Brown cmf SAND; some cmf GRAVEL; trace SILT (moist, non-plastic) | 14                |
| 2     |                            | 2          | 2.0             | 4.0 | SS          | 34 24 27 33                             |                 | Brown cmf SAND; some mf GRAVEL; trace SILT (moist, non-plastic)  | 10                |
| 3     |                            | 3          | 4.0             | 6.0 | SS          | 20 26 20 22                             |                 | Brown cmf SAND; and cmf GRAVEL; trace SILT (moist, non-plastic)  | 16                |
| 4     |                            |            |                 |     |             |   |                 |  |                   |
| 5     |                            |            |                 |     |             |   |                 |  |                   |
| 6     |                            |            |                 |     |             |   |                 | Boring terminated at 6 feet.                                     |                   |
| 7     |                            |            |                 |     |             |   |                 |  |                   |
| 8     |                            |            |                 |     |             |   |                 |  |                   |
| 9     |                            |            |                 |     |             |   |                 |  |                   |
| 10    |                            |            |                 |     |             |   |                 |  |                   |
| 11    |                            |            |                 |     |             |   |                 |  |                   |
| 12    |                            |            |                 |     |             |   |                 |  |                   |
| 13    |                            |            |                 |     |             |   |                 |  |                   |
| 14    |                            |            |                 |     |             |   |                 |  |                   |
| 15    |                            |            |                 |     |             |   |                 |  |                   |
| 16    |                            |            |                 |     |             |   |                 |  |                   |
| 17    |                            |            |                 |     |             |   |                 |  |                   |
| 18    |                            |            |                 |     |             |   |                 |  |                   |
| 19    |                            |            |                 |     |             |   |                 |  |                   |
| 20    |                            |            |                 |     |             |   |                 |  |                   |
| 21    |                            |            |                 |     |             |   |                 |  |                   |
| 22    |                            |            |                 |     |             |   |                 |  |                   |
| 23    |                            |            |                 |     |             |   |                 |  |                   |
| 24    |                            |            |                 |     |             |   |                 |  |                   |
| 25    |                            |            |                 |     |             |   |                 |  |                   |

ATL-LOG1 CD3443-01-10-12 GPJ LOG-WELL GDT 11/13/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shelby Tube)  
 Estimated Groundwater

Drillers: Tony Mallory; Tyler Weston  
 Inspector: \_\_\_\_\_

**ATLANTIC TESTING LABORATORIES, Limited**

Subsurface Investigation

Client: Climans Green Liang Architects, Inc. Report No.: CD3443-01-10-12  
 Project: Subsurface Investigation Boring Location: See Boring Location Plan  
Tioga Downs Casino and Hotel Expansion Parking Lot: \_\_\_\_\_  
Nichols, New York Start Date: 10/3/2012 Finish Date: 10/3/2012

Boring No.: B-36 Sheet 1 of 1

Coordinates: Northing \_\_\_\_\_ Easting \_\_\_\_\_

Sampler Hammer: Weight: 140 lbs. Fall: 30 in. Hammer Type: Automatic

Ground Elev.: 795.8 Boring Advance By: 2" Split Spoon

Groundwater Observations:  
 Date: 10/3/2012 Time: \_\_\_\_\_ Depth: DRY Casing: OUT

| DEPTH | METHOD OF ADVANCE          | SAMPLE NO. | DEPTH OF SAMPLE |     | SAMPLE TYPE | BLOWS ON SAMPLER PER 6" 2" O.D. SAMPLER | DEPTH OF CHANGE | CLASSIFICATION OF MATERIAL  | Recovery (inches) |
|-------|----------------------------|------------|-----------------|-----|-------------|---|-----------------|---|-------------------|
|       |                            |            | From            | To  |             |   |                 |   |                   |
| 1     | A<br>C<br>C<br>U<br>R<br>S | 1          | 0.0             | 2.0 | SS          | 15 22 27 32                             | 6.0             | Brown cmf SAND; and cmf GRAVEL; trace SILT (moist, non-plastic)         | 18                |
| 2     |                            | 2          | 2.0             | 4.0 | SS          | 52 42 27 33                             |                 | Brown cmf+ SAND; and SILT; trace mf GRAVEL (moist, non-plastic), w=9.5% | 16                |
| 3     |                            | 3          | 4.0             | 6.0 | SS          | 28 9 10 12                              |                 | Brown cmf SAND; trace f GRAVEL; trace SILT (moist, non-plastic)         | 20                |
| 4     |                            |            |                 |     |             |   |                 |   |                   |
| 5     |                            |            |                 |     |             |   |                 |   |                   |
| 6     |                            |            |                 |     |             |   |                 | Boring terminated at 6 feet.  |                   |
| 7     |                            |            |                 |     |             |   |                 |   |                   |
| 8     |                            |            |                 |     |             |   |                 |   |                   |
| 9     |                            |            |                 |     |             |   |                 |   |                   |
| 10    |                            |            |                 |     |             |   |                 |   |                   |
| 11    |                            |            |                 |     |             |   |                 |   |                   |
| 12    |                            |            |                 |     |             |   |                 |   |                   |
| 13    |                            |            |                 |     |             |   |                 |   |                   |
| 14    |                            |            |                 |     |             |   |                 |   |                   |
| 15    |                            |            |                 |     |             |   |                 |   |                   |
| 16    |                            |            |                 |     |             |   |                 |   |                   |
| 17    |                            |            |                 |     |             |   |                 |   |                   |
| 18    |                            |            |                 |     |             |   |                 |   |                   |
| 19    |                            |            |                 |     |             |   |                 |   |                   |
| 20    |                            |            |                 |     |             |   |                 |   |                   |
| 21    |                            |            |                 |     |             |   |                 |   |                   |
| 22    |                            |            |                 |     |             |   |                 |   |                   |
| 23    |                            |            |                 |     |             |   |                 |   |                   |
| 24    |                            |            |                 |     |             |   |                 |   |                   |
| 25    |                            |            |                 |     |             |   |                 |   |                   |

ATL-LOG1 CD3443-01-10-12.GPJ LOG-WELL.GDT 11/8/12

SS Split Spoon Sample  
 NX Rock Core  
 SH Undisturbed Sample (Shear Tube)  
 Estimated Groundwater

Drillers: Tony Mallory; Tyler Weston  
 Inspector: \_\_\_\_\_

*APPENDIX D*

*PARTICLE SIZE DISTRIBUTION CURVES*

### Particle Size Distribution Report

**Project:** Tioga Downs Casino & Hotel Expansion

**Report No.:** CD3443SL-01-10-12

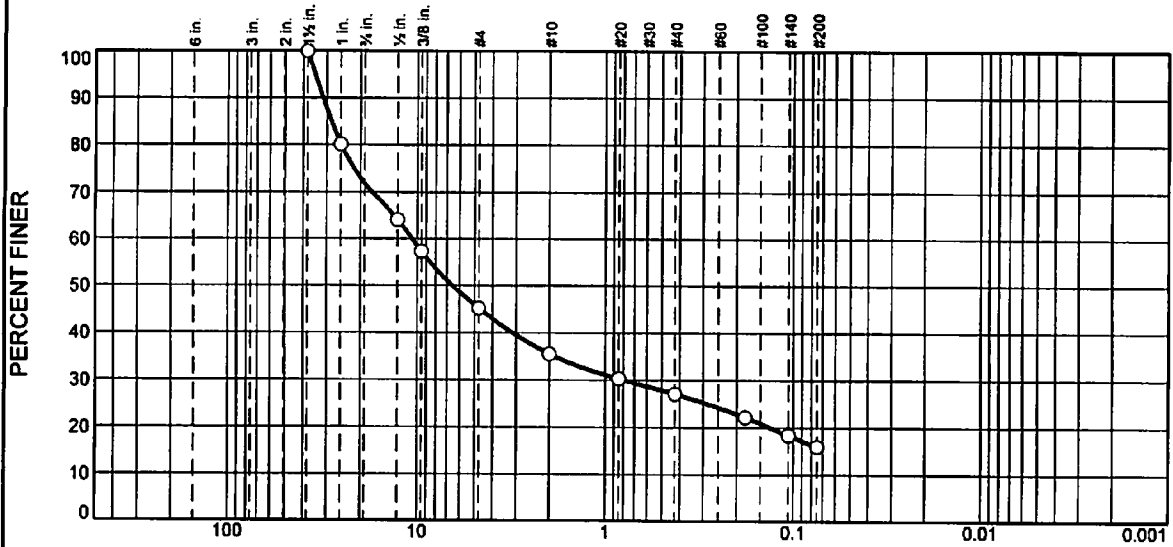
**Client:** Climans Green Liang Architects, Inc.

**Date:** 10/30/12

**Sample No:** B-1; S-2  
**Location:**

**Source of Sample:** Boring Sample

**Elev./Depth:** 2.0 - 4.0'



GRAIN SIZE - mm.

| % +3" | % Gravel |      | % Sand |        |      | % Fines |      |
|-------|----------|------|--------|--------|------|---------|------|
|       | Coarse   | Fine | Coarse | Medium | Fine | Silt    | Clay |
| 0     | 28       | 27   | 9      | 9      | 11   | 16      |      |

| SIEVE SIZE | PERCENT FINER | SPEC.* PERCENT | OUT OF SPEC. (X) |
|------------|---------------|----------------|------------------|
| 1-1/2"     | 100           |                |                  |
| 1"         | 80            |                |                  |
| 1/2"       | 64            |                |                  |
| 3/8"       | 57            |                |                  |
| #4         | 45            |                |                  |
| #10        | 36            |                |                  |
| #20        | 30            |                |                  |
| #40        | 27            |                |                  |
| #80        | 22            |                |                  |
| #140       | 18            |                |                  |
| #200       | 16            |                |                  |

**Soil Description**

Brown cmf GRAVEL; some cmf SAND; little SILT

**Atterberg Limits**

PL= --      LL= --      PI= --

**Coefficients**

D<sub>85</sub>= 28.5065      D<sub>60</sub>= 10.6702      D<sub>50</sub>= 6.5645  
D<sub>30</sub>= 0.7990      D<sub>15</sub>=                      D<sub>10</sub>=  
C<sub>u</sub>=                      C<sub>c</sub>=

**Classification**

USCS= GM                      AASHTO=

**Remarks**

Moisture content 4.2%

\* (no specification provided)

ATLANTIC TESTING LABORATORIES, LIMITED

Figure

Reviewed by: *[Signature]*

Date: 11/25/12

### Particle Size Distribution Report

**Project:** Tioga Downs Casino & Hotel Expansion

**Report No.:** CD3443SL-02-10-12

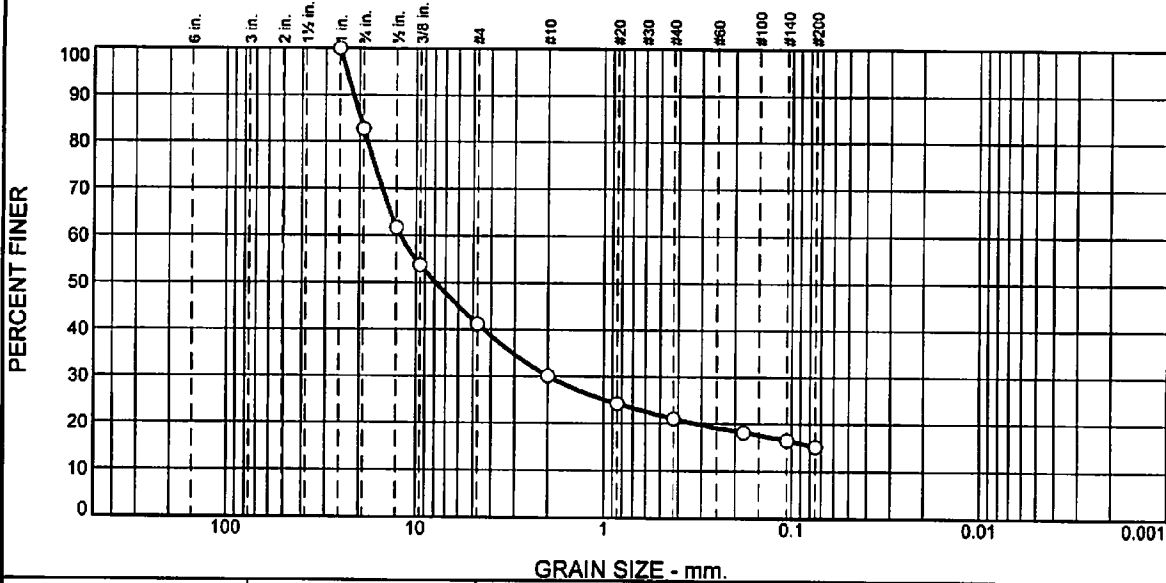
**Client:** Climans Green Liang Architects, Inc.

**Date:** 10/30/12

**Sample No:** B-1; S-9  
**Location:**

**Source of Sample:** Boring Sample

**Elev./Depth:** 25.0 - 27.0



| % +3" | % Gravel |      | % Sand |        |      | % Fines |      |
|-------|----------|------|--------|--------|------|---------|------|
|       | Coarse   | Fine | Coarse | Medium | Fine | Silt    | Clay |
| 0     | 17       | 42   | 11     | 9      | 6    | 15      |      |

| SIEVE SIZE | PERCENT FINER | SPEC.* PERCENT | OUT OF SPEC. (X) |
|------------|---------------|----------------|------------------|
| 1"         | 100           |                |                  |
| 3/4"       | 83            |                |                  |
| 1/2"       | 62            |                |                  |
| 3/8"       | 54            |                |                  |
| #4         | 41            |                |                  |
| #10        | 30            |                |                  |
| #20        | 24            |                |                  |
| #40        | 21            |                |                  |
| #80        | 18            |                |                  |
| #140       | 17            |                |                  |
| #200       | 15            |                |                  |

**Soil Description**  
Brown mf GRAVEL; some cmf SAND; little SILT

**Atterberg Limits**  
PL= --      LL= --      PI= --

**Coefficients**  
D<sub>85</sub>= 19.7854      D<sub>60</sub>= 12.1075      D<sub>50</sub>= 7.9141  
D<sub>30</sub>= 1.9766      D<sub>15</sub>=              D<sub>10</sub>=  
C<sub>u</sub>=              C<sub>c</sub>=

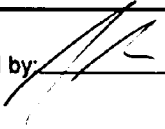
**Classification**  
USCS= GM              AASHTO=

**Remarks**  
Moisture content 5.0%

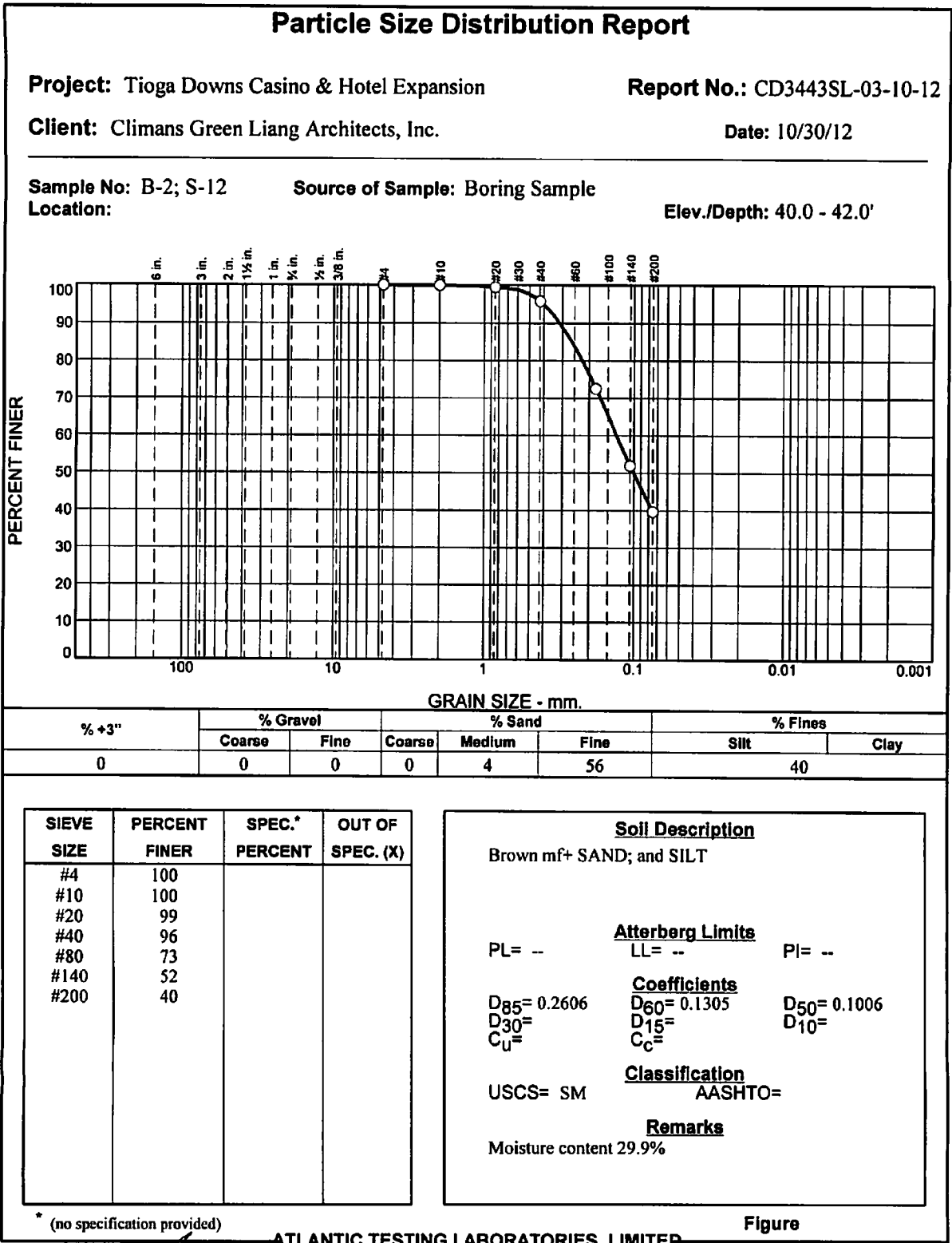
\* (no specification provided)

ATLANTIC TESTING LABORATORIES, LIMITED

Figure

Reviewed by: 

Date: 11/26/12



ATLANTIC TESTING LABORATORIES, LIMITED

Figure

Reviewed by: *[Signature]*

Date: 11/26/12

# Particle Size Distribution Report

**Project:** Tioga Downs Casino & Hotel Expansion

**Report No.:** CD3443SL-04-10-12

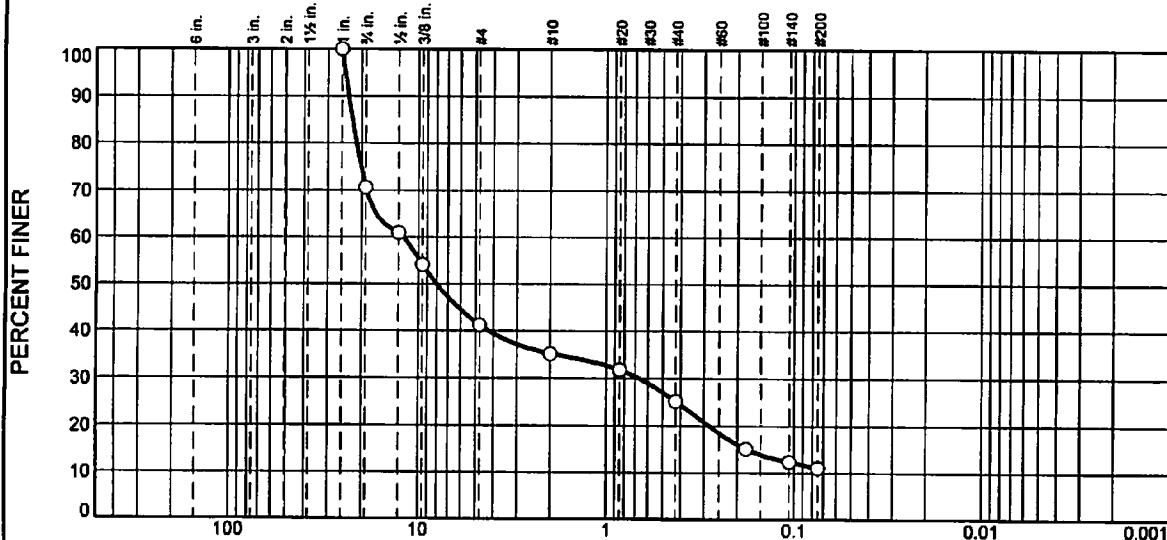
**Client:** Climans Green Liang Architects, Inc.

**Date:** 10/30/12

**Sample No:** B-6; S-6  
**Location:**

**Source of Sample:** Boring Sample

**Elev./Depth:** 10.0 - 12.0'



| % +3" | % Gravel |      | % Sand |        |      | % Fines |      |
|-------|----------|------|--------|--------|------|---------|------|
|       | Coarse   | Fine | Coarse | Medium | Fine | Silt    | Clay |
| 0     | 29       | 30   | 6      | 10     | 14   | 11      |      |

| SIEVE SIZE | PERCENT FINER | SPEC.* PERCENT | OUT OF SPEC. (X) |
|------------|---------------|----------------|------------------|
| 1"         | 100           |                |                  |
| 3/4"       | 71            |                |                  |
| 1/2"       | 61            |                |                  |
| 3/8"       | 54            |                |                  |
| #4         | 41            |                |                  |
| #10        | 35            |                |                  |
| #20        | 32            |                |                  |
| #40        | 25            |                |                  |
| #80        | 15            |                |                  |
| #140       | 12            |                |                  |
| #200       | 11            |                |                  |

**Soil Description**  
Brown mf GRAVEL; some cmf SAND; little SILT

**Atterberg Limits**  
PL= --      LL= --      PI= --

**Coefficients**  
D<sub>85</sub>= 22.3294      D<sub>60</sub>= 12.0189      D<sub>50</sub>= 8.0561  
D<sub>30</sub>= 0.6669      D<sub>15</sub>= 0.1756      D<sub>10</sub>=  
C<sub>u</sub>=      C<sub>c</sub>=

**Classification**  
USCS= GM      AASHTO=

**Remarks**  
Moisture content 6.6%

\* (no specification provided)

ATLANTIC TESTING LABORATORIES, LIMITED

Figure

Reviewed by: *[Signature]*

Date: 11/24/12



TIOGA DOWNS RACETRACK, LLC

Exhibit VIII.C.1.f. (cont.)

### Particle Size Distribution Report

**Project:** Tioga Downs Casino & Hotel Expansion

**Report No.:** CD3443SL-05-10-12

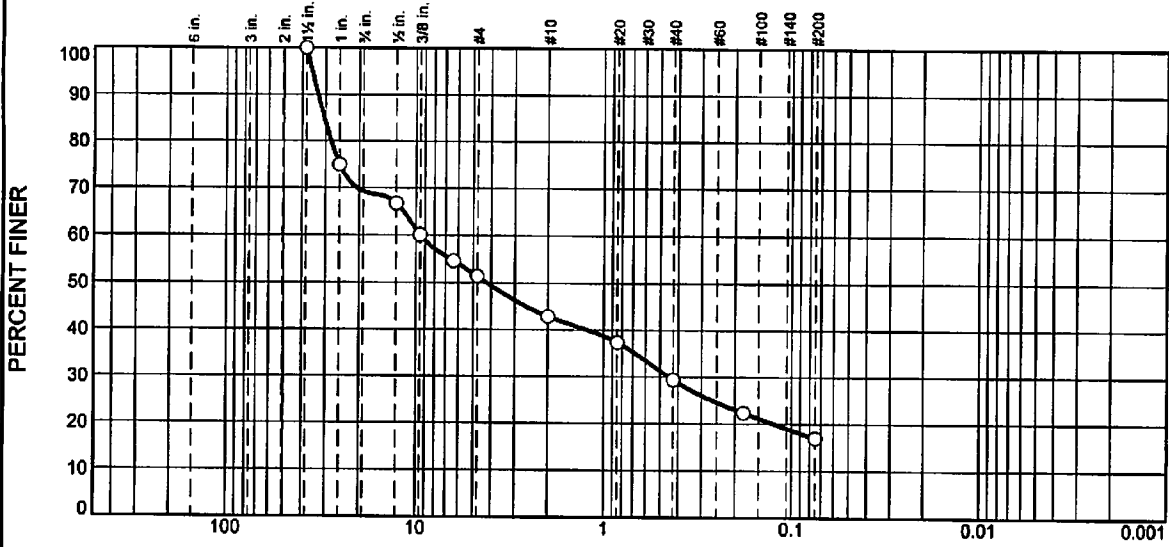
**Client:** Climans Green Liang Architects, Inc.

**Date:** 10/30/12

**Sample No:** B-14; S-3  
**Location:**

**Source of Sample:** Boring Sample

**Elev./Depth:** 4.0 - 6.0'



| % +3" | % Gravel |      | % Sand |        |      | % Fines |      |
|-------|----------|------|--------|--------|------|---------|------|
|       | Coarse   | Fine | Coarse | Medium | Fine | Silt    | Clay |
| 0     | 31       | 18   | 8      | 14     | 12   | 17      |      |

| SIEVE SIZE | PERCENT FINER | SPEC.* PERCENT | OUT OF SPEC. (X) |
|------------|---------------|----------------|------------------|
| 1-1/2"     | 100           |                |                  |
| 1"         | 75            |                |                  |
| 1/2"       | 67            |                |                  |
| 3/8"       | 60            |                |                  |
| 1/4"       | 55            |                |                  |
| #4         | 51            |                |                  |
| #10        | 43            |                |                  |
| #20        | 37            |                |                  |
| #40        | 29            |                |                  |
| #80        | 22            |                |                  |
| #200       | 17            |                |                  |

**Soil Description**

Brown cmf GRAVEL; some cmf SAND; little SILT

---

**Atterberg Limits**

PL = --      LL = --      PI = --

---

**Coefficients**

D<sub>85</sub> = 30.7404      D<sub>60</sub> = 9.4681      D<sub>50</sub> = 4.2093  
 D<sub>30</sub> = 0.4487      D<sub>15</sub> =              D<sub>10</sub> =  
 C<sub>u</sub> =                  C<sub>c</sub> =

---

**Classification**

USCS = GM                  AASHTO =

---

**Remarks**

Moisture content 6.0%

\* (no specification provided)

Figure

ATLANTIC TESTING LABORATORIES, LIMITED

Reviewed by:

Date: 11/26/12

### Particle Size Distribution Report

**Project:** Tioga Downs Casino & Hotel Expansion

**Report No.:** CD3443SL-06-10-12

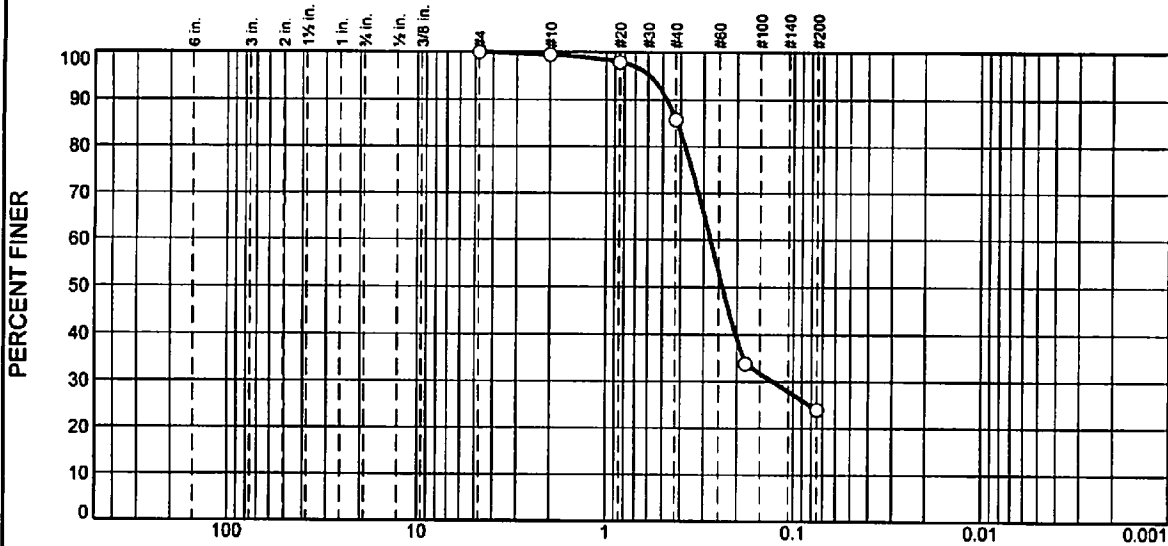
**Client:** Climans Green Liang Architects, Inc.

**Date:** 10/30/12

**Sample No:** B-14; S-8  
**Location:**

**Source of Sample:** Boring Sample

**Elev./Depth:** 20.0 - 22.0'



GRAIN SIZE - mm.

| % +3" | % Gravel |      | % Sand |        |      | % Fines |      |
|-------|----------|------|--------|--------|------|---------|------|
|       | Coarse   | Fine | Coarse | Medium | Fine | Silt    | Clay |
| 0     | 0        | 0    | 1      | 13     | 62   | 24      |      |

| SIEVE SIZE | PERCENT FINER | SPEC.* PERCENT | OUT OF SPEC. (X) |
|------------|---------------|----------------|------------------|
| #4         | 100           |                |                  |
| #10        | 99            |                |                  |
| #20        | 98            |                |                  |
| #40        | 86            |                |                  |
| #80        | 34            |                |                  |
| #200       | 24            |                |                  |

**Soil Description**  
Brown cmf+ SAND; some SILT

**Atterberg Limits**  
PL= --      LL= --      PI= --

**Coefficients**  
D<sub>85</sub>= 0.4180      D<sub>60</sub>= 0.2775      D<sub>50</sub>= 0.2394  
D<sub>30</sub>= 0.1280      D<sub>15</sub>=              D<sub>10</sub>=  
C<sub>u</sub>=              C<sub>c</sub>=

**Classification**  
USCS= SM      AASHTO=

**Remarks**  
Moisture content 12.5%

\* (no specification provided)

ATLANTIC TESTING LABORATORIES, LIMITED

Figure

Reviewed by: *[Signature]*

Date: 11/26/12

**Particle Size Distribution Report**

**Project:** Tioga Downs Casino & Hotel Expansion

**Report No.:** CD3443SL-07-10-12

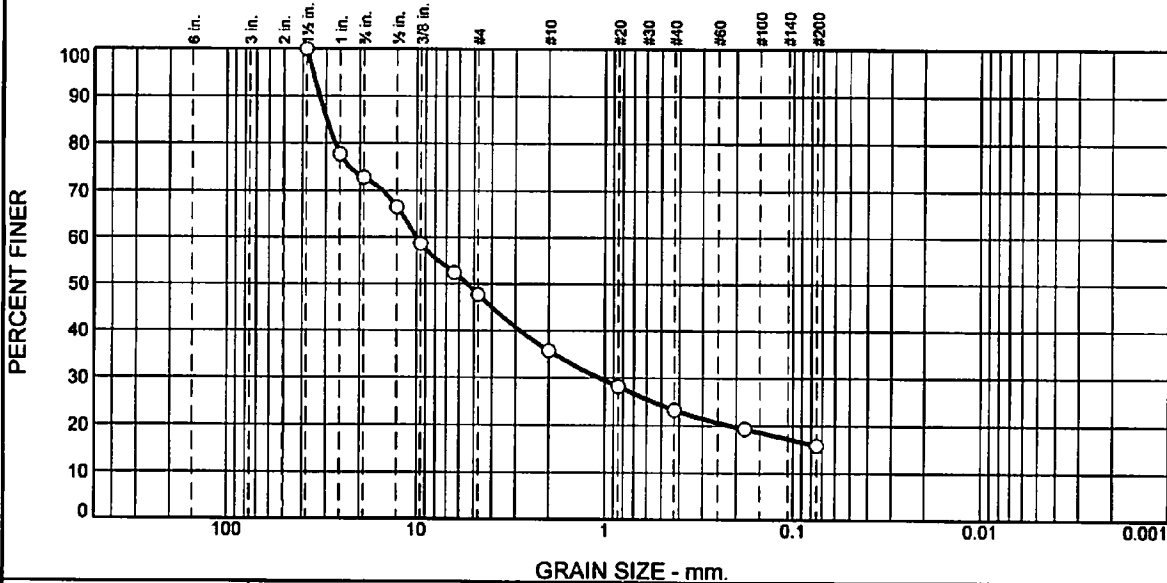
**Client:** Climans Green Liang Architects, Inc.

**Date:** 10/30/12

**Sample No:** B-24; S-3  
**Location:**

**Source of Sample:** Boring Sample

**Elev./Depth:** 4.0 - 6.0'



| % +3" | % Gravel |      | % Sand |        |      | % Fines |      |
|-------|----------|------|--------|--------|------|---------|------|
|       | Coarse   | Fine | Coarse | Medium | Fine | Silt    | Clay |
| 0     | 27       | 25   | 12     | 13     | 7    | 16      |      |

| SIEVE SIZE | PERCENT FINER | SPEC.* PERCENT | OUT OF SPEC. (X) |
|------------|---------------|----------------|------------------|
| 1-1/2"     | 100           |                |                  |
| 1"         | 78            |                |                  |
| 3/4"       | 73            |                |                  |
| 1/2"       | 67            |                |                  |
| 3/8"       | 59            |                |                  |
| 1/4"       | 52            |                |                  |
| #4         | 48            |                |                  |
| #10        | 36            |                |                  |
| #20        | 28            |                |                  |
| #40        | 23            |                |                  |
| #80        | 19            |                |                  |
| #200       | 16            |                |                  |

**Soil Description**  
Brown cmf GRAVEL; some cmf SAND; little SILT

**Atterberg Limits**  
PL= -- LL= -- PI= --

**Coefficients**  
D<sub>85</sub>= 29.9242 D<sub>60</sub>= 10.0296 D<sub>50</sub>= 5.4447  
D<sub>30</sub>= 1.0701 D<sub>15</sub>= D<sub>10</sub>=  
C<sub>u</sub>= C<sub>c</sub>=

**Classification**  
USCS= GM AASHTO=

**Remarks**  
Moisture content 4.5%

\* (no specification provided)

ATLANTIC TESTING LABORATORIES, LIMITED

Figure

Reviewed by: *[Signature]*

Date: 11/26/12

### Particle Size Distribution Report

**Project:** Tioga Downs Casino & Hotel Expansion

**Report No.:** CD3443SL-08-10-12

**Client:** Climans Green Liang Architects, Inc.

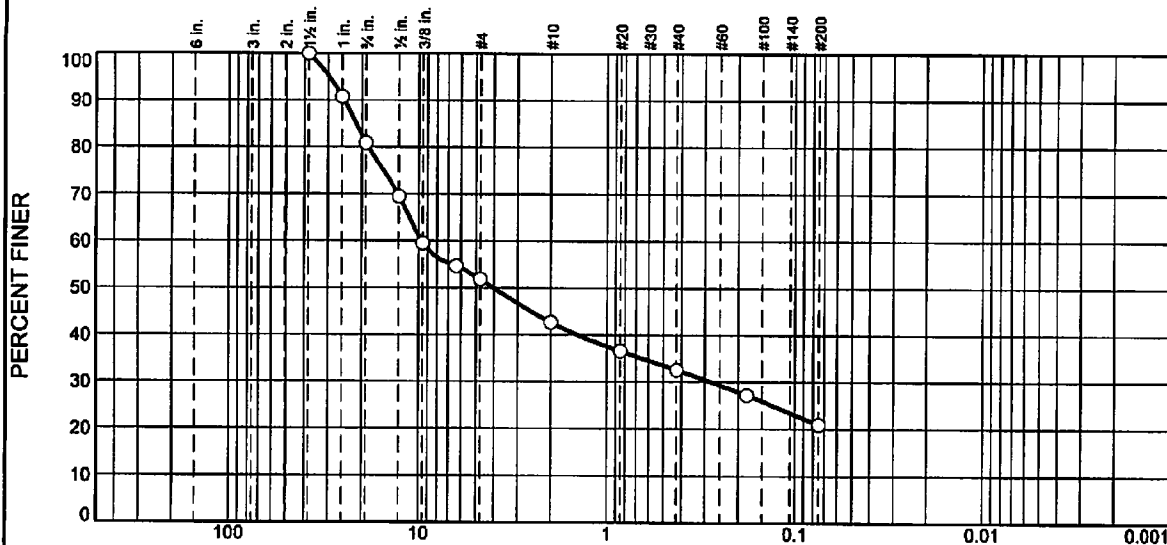
**Date:** 10/30/12

**Sample No:** B-31; S-2

**Source of Sample:** Boring Sample

**Location:**

**Elev./Depth:** 2.0 - 4.0'



GRAIN SIZE - mm.

| % +3" | % Gravel |      | % Sand |        |      | % Fines |      |
|-------|----------|------|--------|--------|------|---------|------|
|       | Coarse   | Fine | Coarse | Medium | Fine | Silt    | Clay |
| 0     | 19       | 29   | 9      | 10     | 12   | 21      |      |

| SIEVE SIZE | PERCENT FINER | SPEC.* PERCENT | OUT OF SPEC. (X) |
|------------|---------------|----------------|------------------|
| 1-1/2"     | 100           |                |                  |
| 1"         | 91            |                |                  |
| 3/4"       | 81            |                |                  |
| 1/2"       | 69            |                |                  |
| 3/8"       | 60            |                |                  |
| 1/4"       | 55            |                |                  |
| #4         | 52            |                |                  |
| #10        | 43            |                |                  |
| #20        | 37            |                |                  |
| #40        | 33            |                |                  |
| #80        | 27            |                |                  |
| #200       | 21            |                |                  |

**Soil Description**  
Brown cmf GRAVEL; some cmf SAND; some SILT

**Atterberg Limits**  
PL= --      LL= --      PI= --

**Coefficients**  
D<sub>85</sub>= 21.4994      D<sub>60</sub>= 9.6784      D<sub>50</sub>= 4.0279  
D<sub>30</sub>= 0.2773      D<sub>15</sub>=      D<sub>10</sub>=  
C<sub>u</sub>=      C<sub>c</sub>=

**Classification**  
USCS= GM      AASHTO=

**Remarks**  
Moisture content 7.9%

\* (no specification provided)

ATLANTIC TESTING LABORATORIES, LIMITED

Figure

Reviewed by: *[Signature]*

Date: 11/20/12

### Particle Size Distribution Report

**Project:** Tioga Downs Casino & Hotel Expansion

**Report No.:** CD3443SL-09-10-12

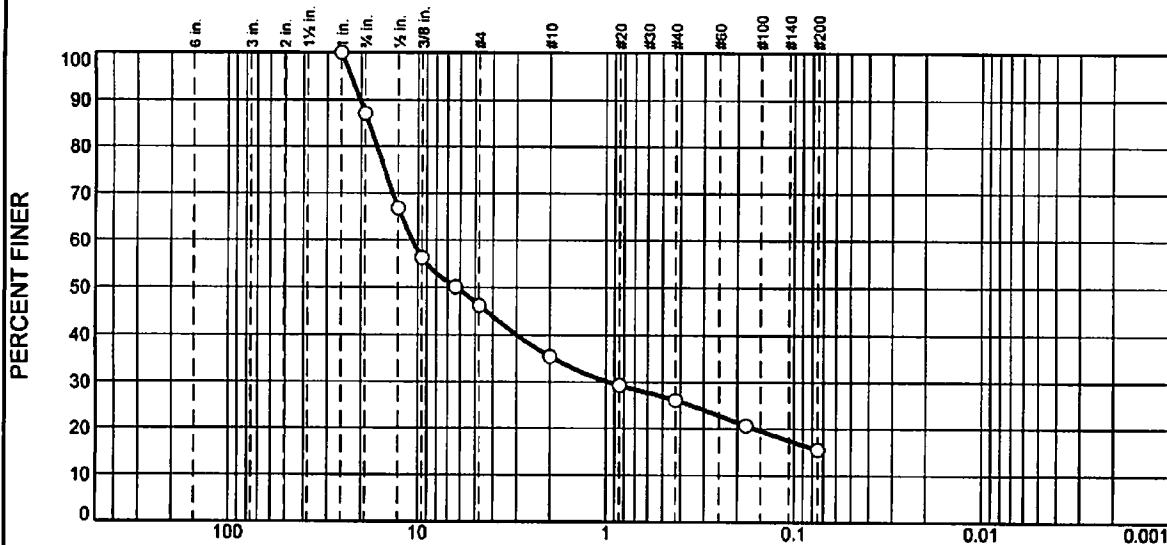
**Client:** Climans Green Liang Architects, Inc.

**Date:** 10/30/12

**Sample No:** B-33; S-2  
**Location:**

**Source of Sample:** Boring Sample

**Elev./Depth:** 2.0 - 4.0'



GRAIN SIZE - mm.

| % +3" | % Gravel |      | % Sand |        |      | % Fines |      |
|-------|----------|------|--------|--------|------|---------|------|
|       | Coarse   | Fine | Coarse | Medium | Fine | Silt    | Clay |
| 0     | 13       | 41   | 11     | 9      | 11   | 15      |      |

| SIEVE SIZE | PERCENT FINER | SPEC.* PERCENT | OUT OF SPEC. (X) |
|------------|---------------|----------------|------------------|
| 1"         | 100           |                |                  |
| 3/4"       | 87            |                |                  |
| 1/2"       | 67            |                |                  |
| 3/8"       | 56            |                |                  |
| 1/4"       | 50            |                |                  |
| #4         | 46            |                |                  |
| #10        | 35            |                |                  |
| #20        | 29            |                |                  |
| #40        | 26            |                |                  |
| #80        | 21            |                |                  |
| #200       | 15            |                |                  |

**Soil Description**  
Brown mf GRAVEL; some cmf SAND; little SILT

**Atterberg Limits**  
PL= --      LL= --      PI= --

**Coefficients**  
D<sub>85</sub>= 18.2693      D<sub>60</sub>= 10.7554      D<sub>50</sub>= 6.3128  
D<sub>30</sub>= 0.9634      D<sub>15</sub>=              D<sub>10</sub>=  
C<sub>u</sub>=              C<sub>c</sub>=

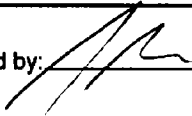
**Classification**  
USCS= GM      AASHTO=

**Remarks**  
Moisture content 5.3%

\* (no specification provided)

ATLANTIC TESTING LABORATORIES, LIMITED

Figure

Reviewed by: 

Date: 11/26/12

### Particle Size Distribution Report

**Project:** Tioga Downs Casino & Hotel Expansion

**Report No.:** CD3443SL-10-10-12

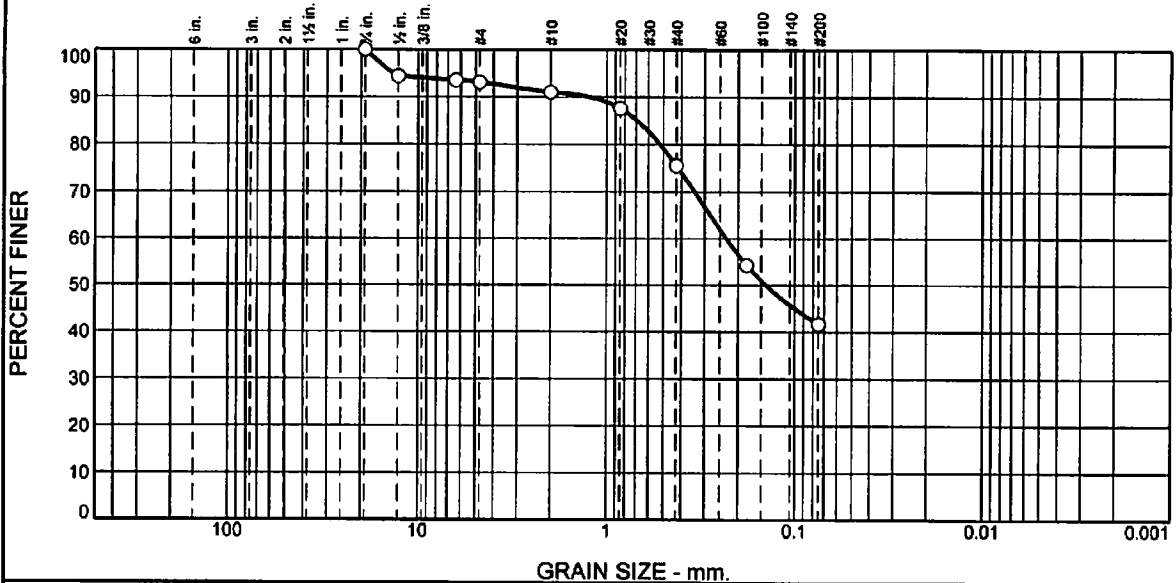
**Client:** Climans Green Liang Architects, Inc.

**Date:** 10/30/12

**Sample No:** B-36; S-2  
**Location:**

**Source of Sample:** Boring Sample

**Elev./Depth:** 2.0 - 4.0'



| % +3" | % Gravel |      | % Sand |        |      | % Fines |      |
|-------|----------|------|--------|--------|------|---------|------|
|       | Coarse   | Fine | Coarse | Medium | Fine | Silt    | Clay |
| 0     | 0        | 7    | 2      | 15     | 34   | 42      |      |

| SIEVE SIZE | PERCENT FINER | SPEC.* PERCENT | OUT OF SPEC. (X) |
|------------|---------------|----------------|------------------|
| 3/4"       | 100           |                |                  |
| 1/2"       | 94            |                |                  |
| 1/4"       | 94            |                |                  |
| #4         | 93            |                |                  |
| #10        | 91            |                |                  |
| #20        | 88            |                |                  |
| #40        | 76            |                |                  |
| #80        | 54            |                |                  |
| #200       | 42            |                |                  |

**Soil Description**  
Brown cmf+ SAND; and SILT; trace mf GRAVEL

**Atterberg Limits**  
PL= -- LL= -- PI= --

**Coefficients**  
D<sub>85</sub>= 0.6917 D<sub>60</sub>= 0.2308 D<sub>50</sub>= 0.1426  
D<sub>30</sub>= D<sub>15</sub>= D<sub>10</sub>=  
C<sub>u</sub>= C<sub>c</sub>=

**Classification**  
USCS= SM AASHTO=

**Remarks**  
Moisture content 9.5%

\* (no specification provided)

ATLANTIC TESTING LABORATORIES, LIMITED

Figure

Reviewed by: AL

Date: 11/29/12

*APPENDIX E*

*TABLE OF SUBSURFACE CONDITIONS*

TIOGA DOWNS RACETRACK, LLC

Exhibit VIII.C.1.f. (cont.)

ATLANTIC TESTING LABORATORIES, Limited  
 Proposed Tioga Downs Expansion  
 ATL No. CD3443E-01-11-12

| Boring | Location         | Surface Elevation (ft)                        | Depth of Boring Termination (ft) | Elevation of Termination (ft) | Depth of Groundwater (ft) | Elevation of Groundwater (ft) | Finish Floor Elevation (ft) | Depth of (Cut)/Fill to Slab Subgrade (ft) | Depth of (Cut)/Fill to Bottom of Footing (ft) |  |
|--------|------------------|---|----------------------------------|-------------------------------|---------------------------|-------------------------------|-----------------------------|---|---|--|
| B-1    | Hotel            | 800.5   | 32.0                             | 768.5                         | 29.6                      | 770.9                         | 802.0                       | 0.3                                       | (3.0)   |  |
| B-2    | Hotel            | 799.9   | 52.0                             | 747.9                         | 32.3                      | 767.6                         | 802.0                       | 0.9                                       | (2.4)   |  |
| B-3    | Hotel            | 802.6   | 32.0                             | 770.6                         | --                        | --                            | 802.0                       | (1.9)                                     | (5.1)   |  |
| B-4    | Hotel            | 803.0   | 32.0                             | 771.0                         | 29.8                      | 773.2                         | 802.0                       | (2.3)                                     | (5.5)   |  |
| B-5    | Hotel            | 803.1   | 27.0                             | 776.1                         | 24.3                      | 778.8                         | 802.0                       | (2.4)                                     | (5.6)   |  |
| B-6    | Amenities        | 802.5   | 27.0                             | 775.5                         | 24.2                      | 778.3                         | 802.0                       | (1.8)                                     | (5.0)   |  |
| B-7    | Amenities        | 802.2   | 27.0                             | 775.2                         | 23.4                      | 778.8                         | 804.0                       | 0.5                                       | (2.7)   |  |
| B-8    | Amenities        | Boring was not advanced due to existing slope |                                  |                               |                           |                               |                             |   |   |  |
| B-9    | Amenities        | 823.3   | 27.0                             | 796.3                         | --                        | --                            | 804.0                       | (20.6)                                    | (23.8)  |  |
| B-10   | Amenities        | 811.6   | 27.0                             | 784.6                         | 26.8                      | 784.8                         | 804.0                       | (8.9)                                     | (12.1)  |  |
| B-11   | Amenities        | 808.4   | 27.0                             | 781.4                         | --                        | --                            | 802.0                       | (7.6)                                     | (10.9)  |  |
| B-12   | Amenities        | 805.7   | 27.0                             | 778.7                         | --                        | --                            | 802.0                       | (5.0)                                     | (8.2)   |  |
| B-13   | Parking Garage   | 806.7   | 27.0                             | 779.7                         | --                        | --                            | 807.0                       | (1.0)                                     | (4.2)   |  |
| B-14   | Parking Garage   | 814.5   | 27.0                             | 787.5                         | --                        | --                            | 807.0                       | (8.8)                                     | (12.0)  |  |
| B-15   | Parking Garage   | 824.0   | 27.0                             | 797.0                         | --                        | --                            | 812.5                       | (12.8)                                    | (16.0)  |  |
| B-16   | Parking Garage   | 820.3   | 27.0                             | 793.3                         | --                        | --                            | 812.5                       | (9.0)                                     | (12.3)  |  |
| B-17   | Parking Garage   | 813.3   | 37.0                             | 776.3                         | 30.0                      | 783.3                         | 807.0                       | (7.5)                                     | (10.8)  |  |
| B-18   | Parking Garage   | 808.7   | 27.0                             | 781.7                         | --                        | --                            | 807.0                       | (3.0)                                     | (6.2)   |  |
| B-19   | Water Slide      | 801.5   | 27.0                             | 774.5                         | 25.0                      | 776.5                         | --                          | --  | --  |  |
| B-20   | Casino Expansion | 822.2   | 27.0                             | 795.2                         | --                        | --                            | 824.0                       | 0.5                                       | (2.7)   |  |
| B-21   | Casino Expansion | 821.0   | 47.0                             | 774.0                         | 29.3                      | 791.7                         | 824.0                       | 1.8                                       | (1.5)   |  |
| B-22   | Casino Expansion | 822.2   | 27.0                             | 795.2                         | --                        | --                            | 824.0                       | 0.5                                       | (2.7)   |  |
| B-23   | Casino Expansion | 820.5   | 27.0                             | 793.5                         | --                        | --                            | 824.0                       | 2.3                                       | (1.0)   |  |
| B-24   | Casino Expansion | 819.5   | 27.0                             | 792.5                         | --                        | --                            | 824.0                       | 3.3                                       | 0.0   |  |
| B-25   | Pylon Sign       | 821.3   | 27.0                             | 794.3                         | 24.0                      | 797.3                         | --                          | --  | --  |  |
| B-26   | Paddock          | 795.5   | 22.0                             | 773.5                         | --                        | --                            | 796.5                       | (0.3)                                     | (3.5)   |  |
| B-27   | Paddock          | 795.7   | 22.0                             | 773.7                         | --                        | --                            | 796.5                       | (0.5)                                     | (3.7)   |  |
| B-28   | Paddock          | 796.5   | 22.0                             | 774.5                         | 19.7                      | 776.8                         | 796.5                       | (1.3)                                     | (4.5)   |  |
| B-29   | Paddock          | 796.4   | 22.0                             | 774.4                         | 16.7                      | 779.7                         | 796.5                       | (1.1)                                     | (4.4)   |  |