

## Exhibit VII.C.1.e – Geological or Structural Defect in Project Site

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*Submit as Exhibit VIII.C.1.e. a description of any geological or structural defect of the Project Site, and include a description of the engineering, design, and construction plans to remedy the defect. Indicate whether or not any of the Project Site is proposed to be located in a floodplain and, if so, include a description of the flood history of the site.*

CHA performed a preliminary subsurface exploration and geotechnical evaluation to satisfy Exhibit VIII.C.1.e of the RFA Requirements for the proposed Capital View Casino and Resort project in East Greenbush, Rensselaer County, New York. The preliminary exploration included four (4) test borings, twenty-seven (27) test pits and one (1) infiltration test at various locations throughout the site. The intent of the preliminary exploration was to identify the general subsurface conditions at the site and evaluate the potential for development of the site as a resort casino. A copy of the report is included as Attachment A to Exhibit VIII.C.1.e.

In general, the results of the exploration indicate that the subsurface conditions at the site are suitable to support the proposed development. The subsurface conditions generally consist of limited overburden soil overlying highly weathered and more competent bedrock. Wetlands are present in limited areas of the site, and the soil in these areas is anticipated to consist of soft organic material overlying the dense soil encountered elsewhere. Drilling and excavation into weathered rock was feasible to various depths using the equipment available. Site construction will likely require regrading involving potentially significant cuts and fills. The cut areas of the site are anticipated to encounter weathered bedrock and competent bedrock materials. Fill areas will be constructed over relatively dense glacial till soils. Rock removal, if necessary, should be feasible for a variety of techniques. The proposed building structure and associated parking structures will likely be supported by shallow spread foundations bearing on the dense natural soil materials or bedrock.

The preliminary geotechnical exploration did not identify the presence of geologic hazards which can impede site development, including active faults, sinkholes, liquefiable soils, expansive soil or rock, and landslide susceptibility. The subsurface conditions at the site do not meet the requirements needed to warrant the implementation of special measures to address these conditions. Additionally, the site does not include any mapped 100-year flood plains identified by the Federal Emergency Management Agency (FEMA) on their website (<https://msc.fema.gov>).

A final geotechnical exploration will be performed to provide additional subsurface information during the final design of the site. The exploration will consider the location of buildings, parking areas, site retaining walls, subsurface utilities, drainage areas and roadway improvements. Designs for these elements will be developed based on the results of the exploration in accordance with New York State Building Code requirements.

**Attachments:** Preliminary Geotechnical  
Engineering Report



# Preliminary Geotechnical Engineering Report

## Capital View Resort Casino

East Greenbush, New York



Prepared for  
**Saratoga Racing & Gaming,  
Inc.**

342 Jefferson Street  
Saratoga, New York

June 2014

CHA Project No.27966.1007.32000

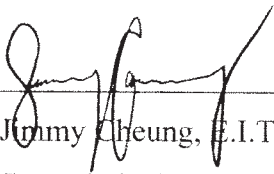


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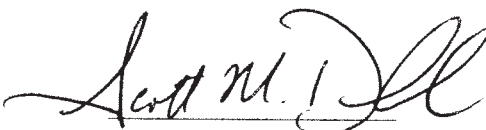
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This report has been prepared and reviewed by the following qualified engineers employed by  
CHA.

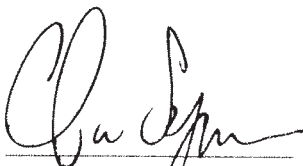
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## 1.0 INTRODUCTION

CHA Consulting, Inc. (CHA) was retained by Saratoga Racing & Gaming, Inc. to complete a preliminary geotechnical exploration to evaluate subsurface conditions for the potential development of a site located in the Town of East Greenbush, Rensselaer County, New York. The project site is shown on Figure 1 - Site Location Map, included in Appendix A.

The primary objectives of the exploration were to evaluate subsurface conditions within select areas of the project site and to provide preliminary geotechnical design and construction recommendations. This report summarizes the results of the geotechnical exploration.

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## 2.0 PROJECT AND SITE DESCRIPTION

The existing property for the proposed development currently consists of multiple parcels of partially developed and undeveloped land that is bordered by Thompson Hill Road and Route 4 to the west, commercial buildings and wooded areas to the north, and wooded areas to the east and south. Water tanks are located north east of the site. The site generally slopes upwards towards the east, with variable surface contours across the site. Surface elevations across the site range from approximately El. 330 feet to 440 feet. The ground surface is covered with grass and dense wooded areas that separate three relatively open field areas. Wetlands are scattered on the south and north east ends of the site, within relatively low-lying valleys at various elevations across the hillside. Photographs of the site are contained within the Photograph Log in Appendix C.

Based on our review of conceptual site plans, we understand that the proposed construction will consist of approximately 350,000 square feet (sf) of gaming entertainment area with a 600 key hotel above the gaming area, 80,000 sf of conference/event space, 150,000 sf of retail space, two parking garages with a 250 space per level footprint, surface parking areas, and stormwater retention basins. Finished Floor Elevations (FFE) were not finalized at the time of this report but are anticipated to be on the order of El. 410 feet for the gaming building.

Grading plans were not available at the time this report was prepared. Based on site topography, cuts and fills on the order of 15 to 20 feet may be necessary to construct driveways, parking areas, and buildings. The current concept plans also require construction within existing wetlands and construction of new wetlands. It is our understanding that the concept plans are preliminary and may be subject to change.

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### 3.0 PRELIMINARY SUBSURFACE EXPLORATION

CHA conducted a subsurface exploration program consisting of four (4) borings, designated as B-01, B-02, B-02A, and B-3; twenty-seven (27) test pits, designated as TP-1 and TP-4 through TP-29; and one (1) infiltration test, designated as IT-01. The test pit exploration began on May 8, 2014 and was completed on May 9, 2014. The boring exploration and infiltration testing began on May 16, 2014 and was completed on May 19, 2014. The borings and test pits were marked in the field by CHA, using a hand-held GPS device with sub-meter accuracy. Elevations at the boring, test pit, and infiltration testing locations were estimated by interpolating between contours on the topographic survey. The locations and elevations of the borings, test pits, and infiltration tests should be considered accurate only to the degree implied by the method used to determine them. The approximate boring, test pit, and infiltration test locations are shown on Figure 2, Subsurface Exploration Plan, in Appendix A.

QC/QA Laboratories, Inc. was retained by CHA to advance the borings. The drilling subcontractor contacted Dig Safely New York for utility clearance prior to drilling. The borings were advanced with a rubber tire ATV-mounted drill rig using hollow stem augers with an inside diameter of 3.25 inches to depths ranging from 7 to 29.1 feet below grade. Within boring B-1, split spoon samples were obtained continuously to approximately 12 feet below grade and at standard five (5)-foot intervals, thereafter. Within borings B-2, B-2A, and B-3, split spoon samples were obtained continuously throughout. Sampling was performed in general accordance with ASTM International standard ASTM D 1586. The split spoon samples were advanced by a 140 ( $\pm$ ) pound hammer free falling 30 ( $\pm$ ) inches. “Blow counts” are recorded on the boring logs, and indicate the penetration resistance for a 6-inch advancement of the split spoon. Initially, the spoon is driven six inches to seat the sampler in undisturbed material. The number of blows required to drive the sampler the next 12 inches is taken as the standard penetration test (SPT) resistance or “N” value. This value is indicative of the soil’s in-place density or consistency. The final 6-inch increment that the spoon is driven is not included in the

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determination of “N”. Refusal is defined as a resistance of greater than 50 blows per six inches of penetration.

A NX size core barrel was used to obtain a bedrock core sample with boring B-02A. The Rock Quality Designation (RQD) value was determined in the field for the core sample. RQD is defined as the sum of the lengths of core pieces 4 inches and longer, divided by the length of the core run, expressed as a percentage. The RQD value provides an indication of the degree of jointing or fracturing of the bedrock.

Infiltration testing was conducted at one location by drilling a solid 4-inch inside diameter steel casing to a depth of 5 feet below grade, and flushing the inside of the casing. The infiltration was measured by the water surface drop within the casing at 60 minute increments.

Tom Jenkins Excavating, LLC was retained by CHA to advance the test pits using a Kobelco 140 SR excavator. Test pits were excavated through soil and weathered rock material to a depth of 15 feet or where bucket refusal was encountered, which occurred at depths ranging between 0.3 and 12.5 feet. All test pits were backfilled with excavation spoils upon completion.

A CHA geotechnical engineer observed the field exploration to verify that proper drilling methods were used, described soil samples, and prepared field logs documenting subsurface conditions. Soil conditions were described based upon visual observation of soil samples and observations of the drilling and excavating action. A typed copy of the boring and test pit logs prepared by CHA is included in Appendix B.



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## 4.0 SUBSURFACE CONDITIONS

The subsurface conditions at the site were assessed based on a review of published geologic maps and the results of the explorations performed on-site, and are summarized below.

### 4.1 Regional Geology

According to the *Surficial Geologic Map of New York: Hudson-Mohawk Sheet* (Cadwell, et. al, 1991) the site is located in an area of deposits of kame and till, which generally consists of medium compact to very compact mixtures of gravel, sand, silt, and clay and may contain cobbles and boulders.

According to the *Geologic Bedrock Map of New York: Hudson-Mohawk Sheet* (Fisher, et. al, 1970) the site is located within an area of slate, shale, or quartzite from the Nassau Formation.

### 4.2 Subsurface Stratigraphy

Subsurface conditions encountered in individual borings are detailed and described on the boring logs included in Appendix B of this report. Subsurface conditions can generally be described as follows, in order of increasing depth:

Topsoil – Topsoil was encountered at the ground surface borings B-1 and all of the test pits with the exception of TP-05. The topsoil extended to depths ranging from 2 inches to 2 feet.

Clayey Silt – Clayey silt was encountered at the ground surface within borings B-2 and B-3 and extended to depths of 2.4 and 2.7 feet, respectively. The clayey silt contained trace to some fine to coarse sand, little to no fine to coarse gravel, and trace organics. The clayey silt was brown and visual classified as moist or wet. The SPT “N” values within the clayey silt ranged between 3 and 4 blows per foot (bpf), indicating a soft consistency.

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Sand – Sand was encountered below the topsoil in all the test pits with the exception of TP-05, TP-08, and TP-21 and extended to depths ranging between 0.5 feet and 7 feet. The sand consisted of fine to coarse sand, little to some silt, and little to some fine to coarse gravel. Within TP-09 a 1.0 foot thick lens of fine sand with no silt or gravel was encountered at a depth of 1.5 feet. The sand was generally brown, orange, or red and visually classified as visually classified as moist or wet.

Glacial Till- Glacial till was encountered below the sand within test pits TP-06, TP-11, TP-15, and TP-18 and extended to depths ranging between 7 and 15 feet. The glacial till consisted of fine to coarse gravel, with little to some silt, and some fine to coarse sand. The till was generally brown, black, or gray, and visually classified as moist or wet.

Highly Weathered Bedrock – Highly weathered bedrock was encountered at the ground surface, below the topsoil, sand, or till within all the borings and test pits, with the exception of TP-06, TP-15, TP-21, TP-22, and TP-26 and extended to the exploration termination depths ranging between 2 and 29.1 feet. The highly weathered rock consisted of fine to coarse sand, fine to coarse gravel, or silt, with trace to little silt, some fine to coarse sand, and no to little fine to coarse gravel. The highly weathered rock was generally black, brown, or gray and visually classified as moist or moist to wet. Slate fragments were observed throughout the highly weathered bedrock layer. Test pit TP-14 contained several boulders, some of which had diameters ranging between 18 and 24 inches, and B-02A contained a 2.0 foot boulder. The SPT “N” values within the completely weathered rock generally ranged between refusal and 95 bpf, indicating a very compact condition.

Slate – Slate was encountered within boring B-02A and within all the test pits, with the exception of TP-06. A bedrock core sample was obtained within B-02A at a depth of 11 feet and extended to a depth of 13 feet. The slate was gray and brown and moderately weathered. The slate was soft and had a measured RQD value of 0 percent, indicating a very poor rock mass quality. Excavator bucket refusal was encountered within all the test pits at depths ranging from

0.5 to 12.5 feet, with the exception of TP-06. Excavator bucket refusal was interpreted as the top of competent bedrock.

### 4.3 Groundwater Conditions

Groundwater was measured within borings B-01 and B-02 and within test pits TP-06, TP-09, TP-10, TP-11, TP-12, TP-13, TP-14, TP-18, and TP-28. Groundwater ranged in depth from 3 to 12 feet, but was not encountered in the other borings or test pits. Groundwater levels reported on the boring and test pit logs were based on observations at the time of the exploration. It should be noted that some of the on-site soils contained a significant percentage of fine grained particles which may produce water slowly. Therefore, groundwater observations made during exploration may not represent static conditions. Additionally, seasonal factors such as temperature and precipitation can also affect groundwater levels.

### 4.4 Infiltration Test Data

An infiltration test was performed at location IT-01. The test was conducted at a depth of 5 feet with readings taken approximately each hour to observe changes in the water level. Groundwater was not encountered within location IT-01 and the infiltration testing was performed May 19, 2014. The results of the infiltration test are summarized in the table below

**Table 1: Infiltration Testing Results**

		60 minute increment readings			
		1	2	3	4
IT-01	Begin	12:00 p.m.	1:00 p.m.	2:00 p.m.	3:00 p.m.
	End	1:00 p.m.	2:00 p.m.	3:00 p.m.	4:00 p.m.
	Result	0.625 inches/hour	0 inches/hour	0 inches/hour	0 inches/hour

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## **5.0 PRELIMINARY RECOMMENDATIONS**

Based on the results of the subsurface exploration, construction of the proposed building and site development is feasible from a geotechnical standpoint. The following sections outline our preliminary recommendations for design and construction of the project.

### **5.1 Flood Plain Evaluation**

Based on a review of FEMA flood plain mapping publically available through the FEMA website (<https://msc.fema.gov>), the project site does not lie within an area identified as Zone C – Areas of Minimal Flooding. Given the project setting and the distance to the nearest watercourse, the potential for flooding at the site is considered to be low.

### **5.2 Geologic Hazards**

Based on the results of the preliminary subsurface exploration, an evaluation of potential geologic hazards was performed for the site. The following hazards were evaluated and the potential for these hazards to exist is considered to be low: active fault lines; sinkholes; landslides; expansive soil conditions; and collapsible soils. According to the *Landslide Susceptibility within the Lake Clays of the Hudson Valley, New York: Northern Sheet* (Fickies, et. al, 1983) the site is located in an area with low susceptibility to landslides. The soils at the site contain significant fines content and are not susceptible to liquefaction under design earthquake conditions based on the current New York State Building Code. Clay soils were encountered in relatively small quantities, and the potential for expansive soils at the site is considered to be minimal.

The slate bedrock encountered at the site is considered to have little to no potential for sinkhole development, and is not considered to be an expansive shale.

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### 5.3 Foundations

The subsurface conditions at the site are suitable for the use of shallow foundations for support of moderate building loads. Grading plans were not available at the time this report was prepared, but foundation construction is anticipated to require cutting and filling to achieve foundation subgrade elevations across the site. In cut areas of the proposed structures, foundations may bear on competent bedrock, highly weathered bedrock, or glacial till. In fill areas, foundations should bear on structural fill placed and compacted over these materials. Alternatively, foundations could be deepened to bear on native soils or bedrock. The existing topsoil material is not suitable for support of the shallow foundation and should be stripped and the exposed subgrade should be prepared in accordance with *Section 5.6 - Site Preparation*.

For preliminary planning purposes, the net allowable soil bearing pressures provided in Table 2 below may be assumed. A final geotechnical exploration should be performed to obtain values for design.

**Table 2: Preliminary Bearing Pressures**

<b>Foundation Subgrade Material</b>	<b>Allowable Bearing Pressure</b>
Structural Fill	3 ksf
Glacial Till	3 ksf
Highly Weathered Bedrock	4 ksf
Bedrock	6 ksf

Exterior foundations should be founded at a minimum depth of 4.0 feet below finished grade to provide frost protection. Interior foundations in heated areas may be founded at a minimum of 2.0 feet below the bottom of the floor slab, if permitted by local building codes. We recommend that isolated footings be a minimum of 36 inches in least dimension and continuous footings be a minimum of 18 inches wide.

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Foundations should be constructed as soon as possible after excavation to minimize the risk of disturbance of the bearing surface by exposure to precipitation or other adverse conditions. Any disturbed, frozen or softened subgrade soil should be removed and replaced with structural fill or the bottom of the foundations should be lowered as required to minimize detrimental impacts to foundation performance.

Foot traffic from placing forms and reinforcement during wet weather may create soft unstable areas in the native site soils containing fines. Soft or disturbed soils should be removed prior to placing concrete to minimize detrimental impacts to foundation performance. If it is anticipated that foundation subgrades will be exposed for some time or if wet weather conditions are anticipated, we recommend that a mud mat comprised of 2 to 3 inches of concrete be placed on bearing grades immediately after exposure. The mud mat will provide a firm and stable working platform during foundation construction and will protect the subgrade soils. Use of a mud mat will also aid in keeping the foundation reinforcement clean.

An alternative method of protecting the subgrade would be to place a geotextile fabric on the exposed bearing grade and placing at least 6 inches of crushed stone on the geotextile. This alternative to a mud mat will provide a stable and firm working platform and will allow free drainage of water to temporary sumps and pumps. The geotextile should be a 6 oz per square yard or heavier, non-woven filter fabric with an apparent opening size (AOS) equal to or smaller than the U.S. Standard sieve size of 100, such as a Mirafi 160N or a geotextile of similar qualities. The stone should be an open graded, free draining crushed aggregate such as a 50/50 blend of New York State Department of Transportation (NYSDOT) Table 703-4 Size 1 and Size 2 crushed stone, as described in *Section 5.7.3 - Crushed Stone*.

Foundation excavations should be backfilled with structural fill in accordance with the placement and compaction procedures included in *Section 5.7.1- Structural Fill* as soon as possible.

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A detailed settlement analysis was beyond the scope of this study. However, based on the information obtained during this study and the recommendations outlined in this report, we anticipate that total settlement of proposed footings will be less than 1 inch, with differential settlements across individual column lines of about ½ inch or less. These estimates are based on the assumption that proper site preparation and construction monitoring is performed and that foundations are constructed on compacted fill materials.

#### **5.4 Floor Slabs**

Floor slabs for the proposed building can likely be supported by a layer of crushed stone bearing on newly placed fill, glacial till, or weathered bedrock. Onsite soils may be re-used as fill up to within three (3) feet below the floor slabs provided that they meet the requirements outlined in *Section 5.7.2-Re-use of Onsite Soil* of this report. Above this elevation, structural fill should be used. It should be understood that significant construction delays could result if the moisture on the onsite soils is not carefully controlled during construction. The following features are recommended as part of the floor slab construction:

- Any deleterious material found below the floor slab area should be removed and replaced with compacted fill.
- A minimum of 6 inches of clean, compacted crushed stone should be placed beneath the slab to enhance support and provide a working base above the soil subgrade. The stone should be an open graded, free draining crushed aggregate such as a 50/50 blend of New York State Department of Transportation (NYSDOT) Table 703-4 Size 1 and Size 2 crushed stone. The actual thickness of the stone layer should be based on design requirements. The stone should be underlain by a 6 ounce per square yard or heavier, non-woven filter fabric with an apparent opening size (AOS) equal to or smaller than the U.S. Standard sieve size of 100 such as a Mirafi 160N or a geotextile of similar qualities. This will provide separation between the stone and the undisturbed in-situ or structural fill soils.

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- The crushed stone should be kept moist, but not wet, immediately prior to the slab concrete placement.
  - A polyethylene vapor barrier should be used between the crushed stone and the concrete slab.
  - If a polyethylene vapor barrier is used, adequate curing procedures should be specified to prevent slab curling due to excessive moisture loss in the slab surface.
  - Subgrade preparation should be performed as described in *Section 5.6-Site Preparation*.
  - A geotechnical engineer should be retained to observe proof rolling of the subgrade and review subgrade conditions prior to slab construction and make recommendations for any unsuitable conditions encountered.

## **5.5 Earth Retaining Structures**

Based on subsurface conditions encountered during the site exploration, conventional earth retaining structures such as gravity retaining walls or mechanically stabilized earth retaining walls are feasible from a geotechnical standpoint.

Retaining walls and structures that retain earth and are restrained against lateral movement should be designed to resist “at rest” earth pressures. Where the top of wall movement is both possible and tolerable, active earth pressures should be used. Passive earth pressures should be ignored. The appropriate temporary and permanent surcharge loading should be applied the areas behind the wall during design of the earth retaining structures.

Structural fill should be used to backfill earth retaining walls and should extend a distance behind the wall at least half the wall height. The walls can then be designed based on the engineering properties of the structural fill and site foundation as follows:



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- Total unit weight: 125 pcf
  - Buoyant unit weight: 63 pcf
  - Angle of internal friction 34 degrees
  - Coefficient of at-rest earth pressures ( $K_o$ ) 0.43
  - Coefficient of active earth pressures ( $K_a$ ) 0.28
  - Friction factor, concrete footing on site soils 0.45
  - Friction factor, concrete footing on structural fill 0.45

Walls that retain existing soil without structural fill placed and compacted behind the wall are considered cut walls. Design of cut walls requires geotechnical exploration at the specific wall location. These explorations should be performed once grading plans are developed and the location, length, and height of the cut walls are known.

## 5.6 Site Preparation

The areas within the footprint of the proposed construction should be stripped of any vegetation and topsoil. This is anticipated to include soft, highly organic soil within existing wetlands. The site should then be brought to grade where necessary using structural fill to establish the required subgrade elevations beneath foundations and on-site soils beneath site improvements up to within three (3) feet of floor slabs. Exposed subgrade soil should be proof rolled using a smooth drum roller with a gross weight of at least 10 tons. The roller should operate in its vibratory mode, and complete at least six passes over the subgrade at a speed not exceeding 3 feet per second (fps). Any areas which pump or weave during proof rolling should be undercut by a minimum of 12 inches and stabilized with structural fill. If the vibratory roller tends to “bring up” moisture, the subgrade should be proof rolled with the roller operating in the static mode. Structural fill should meet the gradation and compaction requirements outlined in *Section 5.7.1-Structural Fill*.

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Where excavations extend into the existing slopes, the slopes should be benched to allow proper compaction of the fill materials. Benches should have a vertical dimension not exceeding 2 feet and 1/2 times the horizontal dimension of the bench. Site slopes constructed of compacted fill materials should not exceed 3 to 1 (Horizontal to Vertical) in steepness.

The existing site soils contain a significant percentage of fine grained particles. These soils are frost susceptible and may contribute to upward ground movement below exterior pavements and concrete flatwork such as slabs or sidewalks when in the presence of water and exposed to freezing temperatures. Differential ground heave below concrete flatwork will be more prevalent at transitional areas with varying depths and sections such as curb lines and building entrances. Therefore we recommend that underdrains be provided to a depth of four (4) feet at these transitions to allow water to freely drain from the subsurface soils to minimize frost action upon concrete flatwork.

The onsite soils likely contain cobbles and boulders, some of which could be several feet in diameter. Excavation contractors should anticipate the need to remove, and possibly reduce the size of, large boulders.

## **5.7 Fill Materials**

The following subsections provide recommendations for the use of soil materials as fill at the site.

### **5.7.1 Structural Fill**

Structural fill should be used for backfilling foundation excavations, and raising grades beneath foundations. Material suitable for structural fill should consist of sound, durable, non-plastic sand and gravel, free of stumps, roots, other organics and any frozen or deleterious materials. Structural fill shall conform to the following gradation:

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**TABLE 3**  
**Gradation Requirements for Structural Fill**

Sieve Size	Percent Passing by Weight
4 inch	100
No. 40	0 to 70
No. 200	0 to 10

**The on-site soils likely do not meet the requirements for structural fill.** The on-site material may, however, be used provided that care is taken to control the moisture content of soils during placement so that soils remain workable and required compaction may be achieved.

Structural fill should be placed in loose lifts not exceeding 8 inches in thickness and should be compacted to at least 95 percent of the maximum laboratory dry density as determined by the modified Proctor test (ASTM D 1557). Actual lift thickness should be based on the type of construction equipment used during construction. Structural fill below and around footings should be thoroughly compacted to provide uniform slab and footing support.

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### 5.7.2 Re-use of On-Site Soil

The onsite soils may be used as fill beneath pavements and up to within 3 feet of floor slabs provided that the contain no particles larger than 4 inches and no deleterious materials such as glass, wood, asphalt, or other non-soil materials. The on-site soils should be placed in lifts not exceeding 8 inches in loose thickness and compacted to at least 95 percent of the modified Proctor density. The moisture content of the on-site soils should be within 1 percent of the optimum moisture content determined by the modified Proctor test (ASTM D1557). It should be understood that the on-site soils are highly sensitive to moisture and will become readily disturbed when exposed to moisture. Significant construction delays should be anticipated when using the on-site soils as fill if wet weather conditions occur during construction.

### 5.7.3 Crushed Stone

The crushed stone should be an open graded, free draining crushed aggregate such as a 50/50 blend of New York State Department of Transportation (NYSDOT) Standard Specifications Table 703-4 Size 1 and Size 2 crushed stone.

The crushed stone should be underlain by a 6 ounce per square yard or heavier, non-woven filter fabric with an apparent opening size (AOS) equal to or smaller than the U.S. Standard sieve size of 70 such as Mirafi 160N or a geotextile of similar qualities. When utilized as a separation material for drainage layers behind retaining walls, the geotextile should extend along the bottom of the stone, up the sides, and across portions in contact with other backfill materials. The geotextile does not need to extend below the concrete.

## 5.8 Control of Water

Based on conditions observed during the subsurface exploration, groundwater may be encountered during construction. Groundwater should be anticipated at shallow depths within the existing wetlands. Project specifications should require that groundwater be maintained at a

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minimum depth of two feet below excavation bottom at all times to maintain stable conditions. It should be the responsibility of the contractor to maintain dry conditions so that foundation construction may be completed in the dry. Dewatering methods suitable for this site include the use of sumps and pumps, diversion and drainage ditches, and other similar methods. Pumps should be of sufficient capacity to control the groundwater, and operated in a manner which will limit the withdrawal of fines from the soil. It is recommended that pumps be installed in sumps lined with filter fabric and crushed stone meeting the requirements of *Section 5.7.3-Crushed Stone*

Surface runoff should be diverted away from excavations during construction. Landscaping areas that are proposed to abut the exterior walls of the structure shall be provided with an underdrain to allow water to freely drain away from the walls. Removing excess water from the landscaped areas adjacent to the structure will prevent water from wicking into interior slabs on grade. Water that wicks into interior slabs on grade could cause water damage to interior elements. Landscaped areas between the building perimeter and sidewalks shall be designed with internal drainage to prevent pooling of water that could seep towards sidewalks and parking areas, potentially causing an icing hazard.

It should be understood that the site soils contain significant percentages of fine grained soils which are highly moisture sensitive and should be protected from moisture to ensure the load-carrying capacity of the soil.

Based on preliminary discussions, the building and parking garage FFE is anticipated to be on the order of El. 410 feet. The results of the preliminary exploration indicate that the groundwater elevation within these areas may be at or above the proposed FFE. A waterproofing membrane may be required to maintain dry conditions within the building for permanent construction. The use of a slab underdrain system may also be necessary. The final geotechnical exploration should identify the presence of groundwater and the need for protective measures during final design.

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## **5.9 Rock Removal**

Based on the information obtained during the subsurface exploration, rock removal may be required for the proposed building or site grading. A bedrock core sample was obtained within boring B-02A at a depth of 11 feet. Bucket refusal was encountered within all the test pits at depths ranging between 0.5 and 12.5 feet, with the exception of test pit TP-06, which was advanced to the test pit termination depth of 15 feet.

Rock removal techniques suitable for this project may include the use of mechanical hoe-rams, drilling, and splitting, or controlled blasting. The method of rock removal should attempt to minimize the potential for over break to occur within the underlying bedrock. The appropriate risk management techniques for the method of rock removal selected should be planned for during final design. These may include pre-condition surveys and vibration, noise and air monitoring.

## **5.10 Additional Subsurface Exploration**

Additional subsurface explorations should be performed for the proposed building design and site improvements. Based on the results of this exploration, the on-site soils are likely adequate to support the proposed construction, but the subsurface soils should be better defined to identify areas requiring remediation. The subsurface exploration should also include borings advanced to sufficient depths to confirm subsurface conditions such as subsurface stratigraphy, the in-place density or consistency of the soil, and groundwater conditions.

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## 6.0 EXCAVATIONS

In general, all excavation should be performed in accordance with the Occupational Safety and Health Administration (OSHA) standards and other applicable State and Federal regulations. In areas where sufficient sloping of excavation cuts is not possible, the excavation should be shored, sheeted and braced. All excavation support systems should be designed by a Professional Engineer licensed in New York State.

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## 7.0 OBSERVATION DURING CONSTRUCTION

A qualified geotechnical engineer should carefully inspect the final excavation surface for spread foundations and concrete slabs to ascertain that the subgrade has been properly prepared. The inspection of subgrade should include probing at select locations, specifically to verify the bearing capacity of the supporting soils and where load bearing soils may have been disturbed.

Materials used as structural fill, including those used beneath footings, floor slabs and pavement should be tested by a qualified soils laboratory to verify they meet the specified gradations and to determine their maximum dry density for compaction. In-place density tests should be performed to verify that compaction methods and equipment achieve the required densities.



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## 8.0 CLOSURE

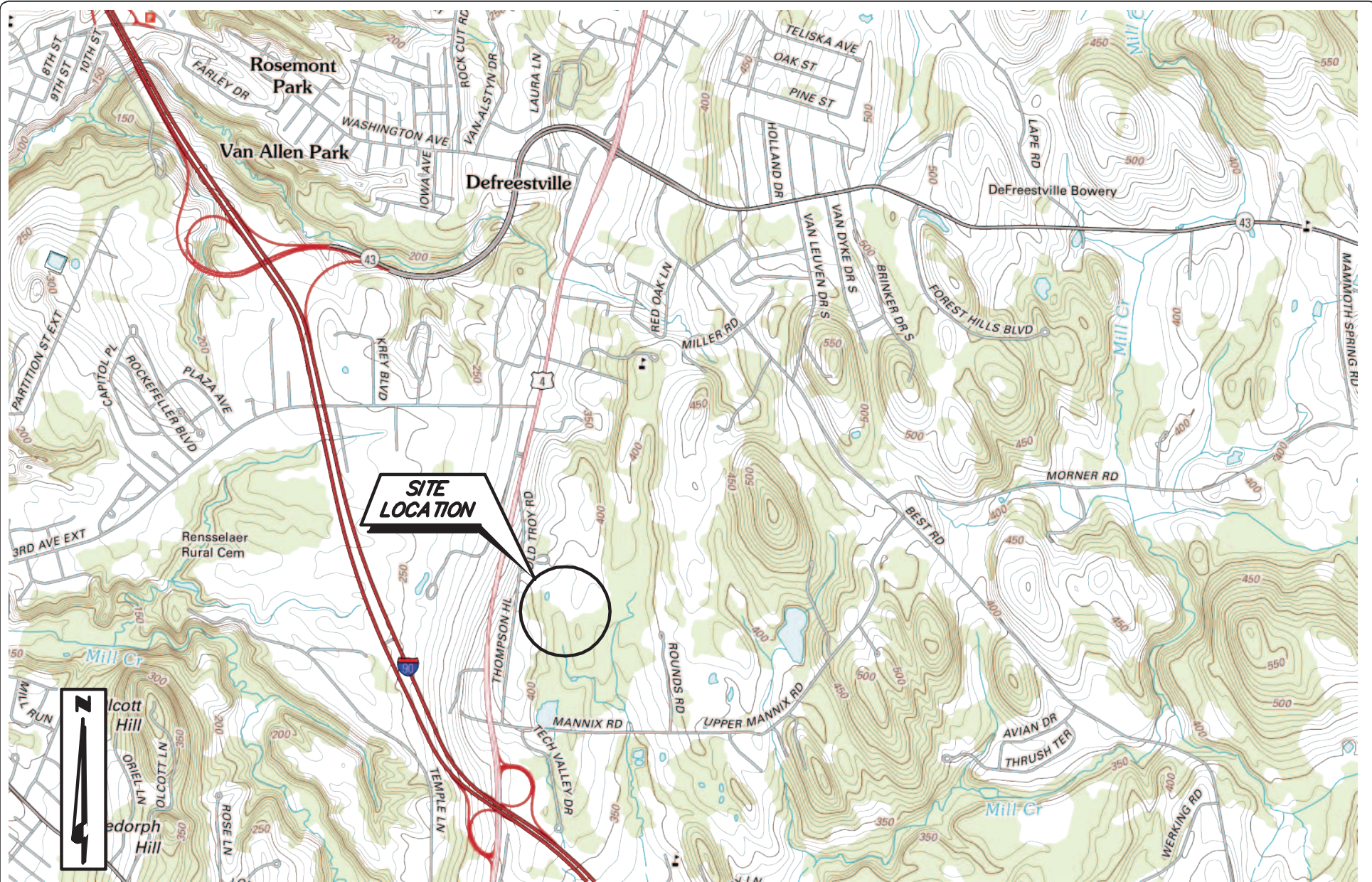
The geotechnical recommendations presented in this report are based, in part, on project and subsurface information available at the time this report was prepared and in accordance with generally accepted soil and foundation engineering practices. No other warranty, expressed or implied, is made. Some variation of subsurface conditions may occur between locations explored that may not become evident until construction. Depending on the nature and extent of the variations, it may be necessary to re-evaluate the recommendations presented in this report.

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**APPENDIX A**

**Figures**

File: V:\PROJECTS\NY\K3\27966\CADD\FIGURES\27966\_SITELOC.DWG  
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SOURCE: U.S.G.S. 7.5' Topographic  
QUADRANGLE: TROY SOUTH, NY

SCALE: 1"=2000'

**FIG. 1**

# CAPITOL VIEW RESORT CASINO

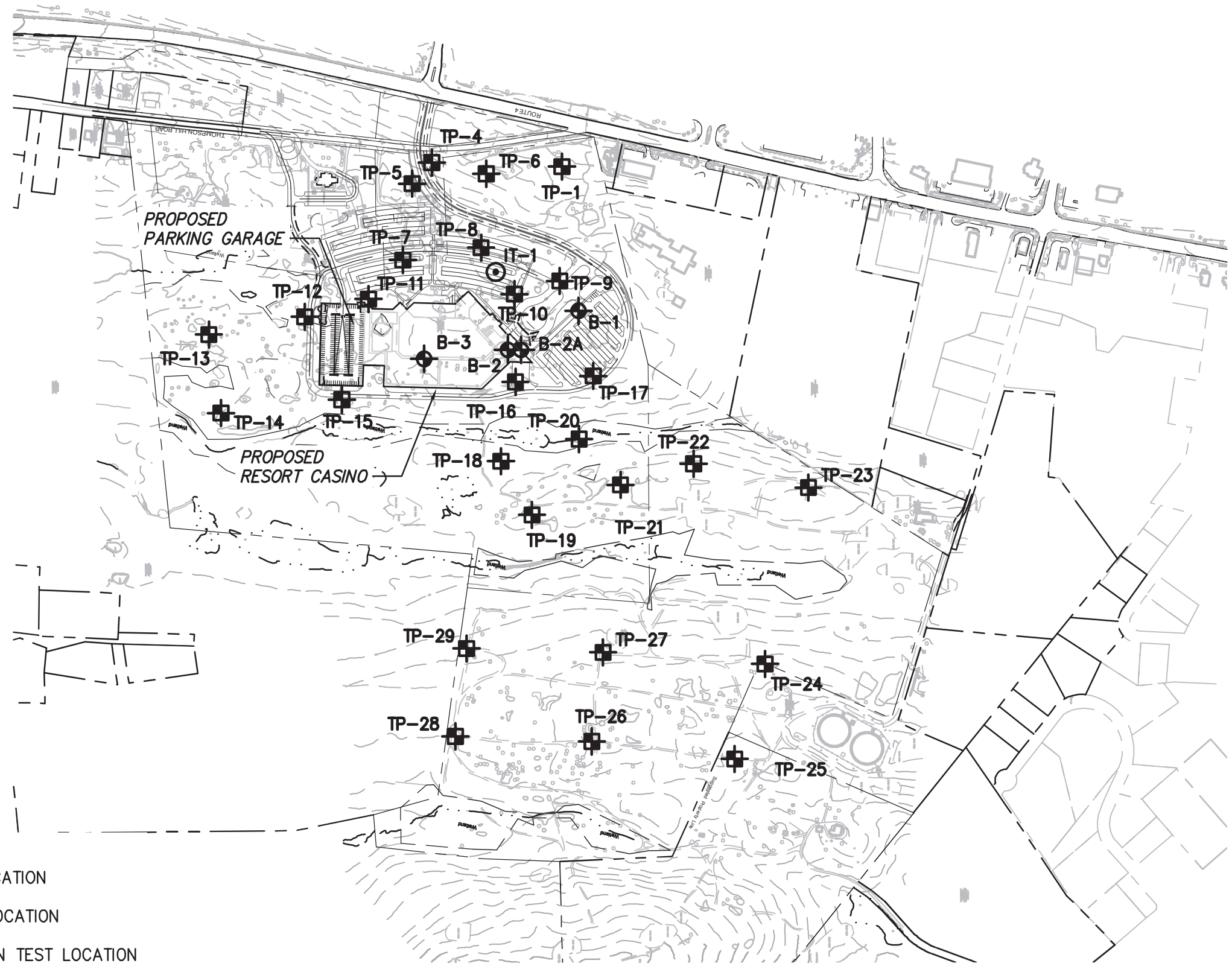


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SITE LOCATION MAP

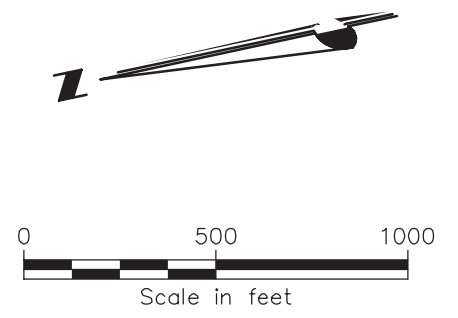


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**LEGEND**

-  B-1 APPROXIMATE BORING LOCATION
-  TP-1 APPROXIMATE TEST PIT LOCATION
-  IT-1 APPROXIMATE INFILTRATION TEST LOCATION



**FIG. 2**

**CAPITOL VIEW  
RESORT CASINO**



**SUBSURFACE EXPLORATION PLAN**

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**APPENDIX B**

**Subsurface Logs**



# LEGEND TO SUBSURFACE LOGS

SAMP./CORE NUMBER	SAMP. ADV (ft) LEN CORE (ft)	RECOVERY (ft)	Blows per 6" on Split Spoon Sampler	"N" VALUE or RQD%	SAMPLE	DEPTH (Feet)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	ELEVATION (Feet)	Remarks on Character of Drilling, water return, etc	WATER LEVELS AND/OR WELL DATA
S1	2.0	1.8	2-3-4-5	7				f. SAND, Some Silt, trace f. gravel, brown, loose, moist (SM)	100		
R1	2.0	2.0	N/A	88%				Mica SCHIST, gray, soft, slightly weathered, closely fractured, good RQD			

Subsurface Logs present material classifications, test data, and observations from subsurface investigations at the subject site as reported by the inspecting geologist or engineer. In some cases, the classifications may be made based on laboratory test data when available. It should be noted that the investigation procedures only recover a small portion of the subsurface materials at the site. Therefore, actual conditions between borings and sampled intervals may differ from those presented on the Subsurface Logs. The information presented on the logs provide a basis for an evaluation of the subsurface conditions and may indicate the need for additional exploration. Any evaluation of the conditions reported on the logs must be performed by Professional Engineers or Geologists.

- SAMP./CORE NUMBER – Samples are numbered for identification on containers, laboratory reports or in text reports.
- SAMP.ADV/LEN.CORE – Length of sampler advance or length of coring run measured in feet.
- RECOVERY – Amount of sample actually recovered after withdrawing sampler or core barrel from bore hole measured in feet.
- SAMPLE BLOWS/6" – Unless otherwise noted, blow counts represent values obtained by driving a 2.0" (O.D.), 1-3/8" (I.D.) split spoon sampler into the subsurface strata with a 140 pound weight falling 30" as per ASTM International D1586. After an initial penetration of 6" to seat the sampler into undisturbed material, the sampler is then driven an additional 2 or 3 six inch increments. Refusal is defined as a resistance greater than 50 blows per 6" of penetration.
- "N" Value or RQD % – "N" VALUE – The sum of the second and third sample blow increments is generally termed the Standard Penetration Test (SPT) "N" value. Refusal (R) is defined as a resistance greater than 50 blows for 6 inches of penetration. CORE RQD – Core Rock Quality Designation, RQD, is defined as the summed length of all pieces of core equal to or longer than 4 inches divided by the total length of the coring run. Fresh, irregular breaks distinguishable as being caused by drilling or recovery operations are ignored and the pieces are counted as intact lengths. RQD values are valid only for cores obtained with NX size core barrels.
- SAMPLE – Graphical presentation of sample type and advance or core run length. See Table 1.
- DEPTH – Depth as measured from the ground surface in feet.
- GRAPHICS – Graphical presentation of subsurface materials. See Table 4. Dual soil classification and rock graphics may vary and are not shown on Table 4.
- DESCRIPTION AND CLASSIFICATION – SOIL – Recovered samples are visually classified in the field by the supervising geologist or engineer unless otherwise noted. Particle size and plasticity classification is based on field observations, and using the Unified Soil Classification System (USCS). See Table 4. USCS symbols are presented in parentheses following the soil description. Where necessary, dual symbols may be used for combinations of soil types. Relative proportions, by weight and/or plasticity, are described in general accordance with "Suggested Methods of Test for Identification of Soils" by D.M. Burmister, ASTM Special Publication 479, 6-1970. See Table 2. Soil density or consistency description is based on the penetration resistance. See Table 3. Soil moisture description is based on the observed wetness of the soil recovered being dry, moist, wet, or saturated. Water introduced into the boring during drilling may affect the moisture content of the materials. Other geologic terms may also be used to further describe the subsurface materials. ROCK – Rock core descriptions are based on the inspector's observations and may be examined and described in greater detail by the project engineer or geologist. Terms used in the description of rock core are presented in Table 5.
- DIVISION LINES – Division lines between deposits are based on field observations and changes in recovered material. Solid lines depict contacts between two deposits of different geologic depositional environment of known elevation. Dashed lines represent estimated elevation of contacts between two deposits of different geologic depositional environment. Dotted lines depict transitions of deposits within the same depositional environment, such as grain size or density.
- ELEVATION – Elevation of strata changes in feet.
- REMARKS – Miscellaneous observations.
- WATER LEVELS & WELL DATA – Hollow water level symbol, if present, represents level at which first saturated sample or water level was encountered. Solid water level symbol, if present, depicts the most probable static water elevation at the time of drilling or as measured in an installed observation well at a later date. Subsurface water conditions are influenced by factors such as precipitation, stratigraphic composition, and drilling/coring methods. Conditions at other times may differ from those described on the logs. For graphical presentation of observation/monitoring well construction, see Table 6. Elevations of changes in construction are noted at the bottom of each section.



TABLE 1  
TYPICAL SAMPLE TYPES

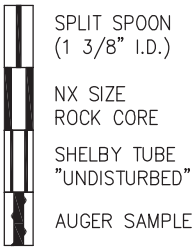


TABLE 2  
SAMPLE MATERIAL PROPORTIONS

ADJECTIVE	PERCENTAGE OF SAMPLE
"and"	35% - 50%
"some"	20% - 35%
"little"	10% - 20%
"trace"	< 10%

Standard split spoon samples may not recover particles with any dimension larger than 1 3/8". Therefore, reported gravel percentages may not reflect actual conditions.

TABLE 3  
DENSITY/CONSISTENCY

GRANULAR SOILS		COHESIVE SOILS	
Blows/ft.	Density	Blows/ft.	Consistency
< 5	Very Loose	< 2	Very Soft
5-10	Loose	2-4	Soft
11-30	Med. Compact	5-8	Med. Stiff
31-50	Compact	9-15	Stiff
> 50	Very Compact	16-30	Very Stiff
		> 30	Hard

TABLE 4  
USCS CLASSIFICATION, PARTICLE SIZE, & GRAPHICS

MAJOR PARTICLE SIZE DIVISION	USCS SYMBOL	GRAPHIC SYMBOL	GENERAL DESCRIPTION
GRAVEL Coarse: 3" - 3/4" Fine: 3/4" - #4  Classification based on > 50% being gravel	GW		Well graded gravels, gravel & sand mix.
	GP		Poorly graded gravels, gravel & sand mix.
	GM		Gravel, sand and silt mix.
	GC		Gravel, sand and clay mix.
SAND Coarse: #4 - #10 Med.: #10 - #40 Fine: #40 - #200  Classification based on > 50% being sand	SW		Well graded sand, sand & gravel mix.
	SP		Poorly graded sand, sand & gravel mix.
	SM		Sand and silt mix.
	SC		Sand and clay mix.
SILT & CLAY  Classification based on > 50% passing #200 sieve.	ML		Inorganic silt, low plasticity.
	CL		Inorganic clay, low plasticity.
	OL		Organic silt/clay, low plasticity.
	MH		Inorganic silt, high plasticity.
	CH		Inorganic clay, high plasticity.
	OH		Organic silt/clay, high plasticity.
ORGANIC SOILS	Pt		Peat and other highly organic soils.
FILL	Fill		Miscellaneous fill materials.

TABLE 5  
ROCK CLASSIFICATION TERMS

**HARDNESS:**

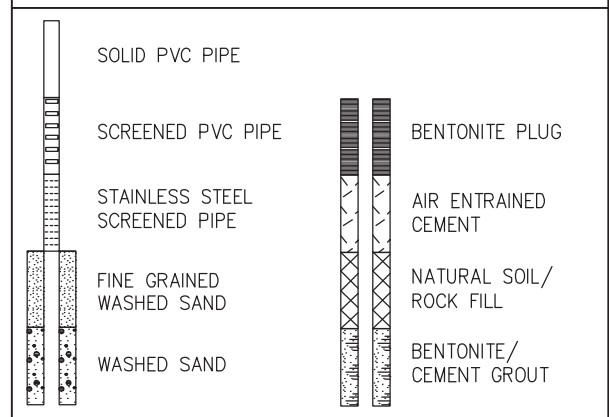
Very Soft	Carves
Soft	Grooves with knife
Med. Hard	Scatched easily with knife
Hard	Scatched with difficulty
Very Hard	Cannot be scratched with knife

**WEATHERING:**

Fresh	Slight or no staining of fractures, little or no discoloration, few fractures.
Slightly	Fractures stained, discoloration may extend into rock 1", some soil in fractures.
Moderately	Significant portions of rock stained and discolored, soil in fractures, loss of strength.
Highly	Entire rock discolored and dull except quartz grains, severe loss of strength.
Complete	Weathered to a residual soil.

<b>BEDDING:</b>	<b>FRACTURE SPACING:</b>	<b>RQD:</b>
Massive > 40"	Massive/V. Wide > 6'	Excellent > 90%
Thick 12" - 40"	Thick/Wide 2' - 6'	Good 76% - 90%
Medium 4" - 12"	Med./Med. 8" - 24"	Fair 51% - 75%
Thin < 4"	Thin/Close 2 1/2" - 8"	Poor 25% - 50%
	V. Thin/V. Close < 2 1/2"	V. Poor < 25%

TABLE 6  
WELL CONSTRUCTION





**Capital View Resort Casino  
SUBSURFACE LOG  
HOLE NUMBER B-01**

PROJECT NUMBER: 27966.1007.32000

LOCATION: East Greenbush, New York		DRILL FLUID: None	DRILLING METHOD: 3.25" HSA						
CLIENT: Saratoga Racing & Gaming		HAMMER TYPE: Automatic		ROD SIZE: NW					
CONTRACTOR: QCQA Laboratories, Inc.		DRILL RIG TYPE & MODEL: Rubber Tire ATV, CME 550X							
DRILLER: J. Burrowbridge	INSPECTOR: J. Cheung		WATER LEVEL OBSERVATIONS	DATE	TIME	READING TYPE	WATER DEPTH (ft)	CASING BOTTOM (ft)	HOLE BOTTOM (ft)
START DATE and TIME: 5/16/2014 2:40:00 PM				5-16-14	5:00 PM	During Drilling	None	29	29.1
FINISH DATE and TIME: 5/16/2014 5:00:00 PM				5-19-14	8:00 AM	24 Hours	12	N/A	15
SURFACE ELEV: 416.00 (ft; Estimated)		CHECKED BY: S. Doehla							

SAMP./CORE NUMBER	SAMP. ADV. (ft)	RECOVERY (ft)	Blows Per 6" on Split Spoon Sampler	"N" Value or RQD%	SAMPLE	DEPTH (Feet)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	ELEVATION (Feet)	Remarks on Character of Drilling, Water Return, etc.	WATER LEVELS AND/OR WELL DATA
S-1	1.6	1.6	5-37-87-50/1"	R		0		<b>TOPSOIL</b> <b>f.m.c. SAND.</b> Some Silt, Some f.c. Gravel, light gray/brown, very compact, moist. Coarse gravel in shoe of spoon. ( <b>HIGHLY WEATHERED BEDROCK</b> )	416		
S-2	0.9	0.6	44-100/5"	R		2		<b>f.c. GRAVEL.</b> Some f.m.c. Sand, little silt, gray/brown, very compact, moist. Coarse gravel in shoe of spoon. ( <b>HIGHLY WEATHERED BEDROCK</b> )	414		
S-3	0.8	0.7	44-50/3"	R		4		<b>Similar Soil (HIGHLY WEATHERED BEDROCK)</b>	412		
S-4	2	1	23-46-20-22	66		6		<b>Similar Soil (HIGHLY WEATHERED BEDROCK)</b>	410		
S-5	0.8	0.7	20-50/3"	R		8		<b>Similar Soil (HIGHLY WEATHERED BEDROCK)</b>	408		
S-6	0.9	0.8	21-50/4"	R		10		<b>Similar Soil (HIGHLY WEATHERED BEDROCK)</b>	406		
S-7	0.6	0.5	40-50/1"	R		14		<b>f.c. GRAVEL.</b> Some f.m.c. Sand, trace silt, black/brown, very compact, moist to wet ( <b>HIGHLY WEATHERED BEDROCK</b> )	402		
										Groundwater observations may not represent static conditions.	

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**Capital View Resort Casino**  
**SUBSURFACE LOG**  
**HOLE NUMBER B-01**

PROJECT NUMBER: 27966.1007.32000

SAMP./CORE NUMBER	SAMP. ADV. (ft)	RECOVERY (ft)	Blows Per 6" on Split Spoon Sampler	"N" Value or RQD%	SAMPLE	DEPTH (Feet)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	ELEVATION (Feet)	Remarks on Character of Drilling, Water Return, etc.	WATER LEVELS AND/OR WELL DATA
						16		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, trace silt, black/brown, very compact, moist to wet ( <b>HIGHLY WEATHERED BEDROCK</b> ) <i>(continued)</i>	400		
S-8	0.4	0.3	100/3"	R		20		<b>SILT</b> , Some f.m.c. Sand, black/light brown, hard, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )	396	Drill rig chatter at 20'.	
						22			394		
S-9	0.3	0.2	50/3"	R		24		<b>Similar Soil (HIGHLY WEATHERED BEDROCK)</b>	392		
						26			390		
						28			388		
S-10	0.1	0.1	100/1"	R		30		<b>Similar Soil (HIGHLY WEATHERED BEDROCK)</b> End of Boring at 29.1 ft	386		
						32			384		

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**Capital View Resort Casino  
SUBSURFACE LOG  
HOLE NUMBER B-02**

PROJECT NUMBER: 27966.1007.32000

Page 1 of 2

LOCATION: East Greenbush, New York		DRILL FLUID: None	DRILLING METHOD: 3.25" HSA						
CLIENT: Saratoga Racing & Gaming		HAMMER TYPE: Automatic		ROD SIZE: AW					
CONTRACTOR: QCQA Laboratories, Inc.		DRILL RIG TYPE & MODEL: Rubber Tire ATV, CME 550X							
DRILLER: J. Leonhardt	INSPECTOR: K. Owens		WATER LEVEL OBSERVATIONS	DATE	TIME	READING TYPE	WATER DEPTH (ft)	CASING BOTTOM (ft)	HOLE BOTTOM (ft)
START DATE and TIME: 5/19/2014 8:30:00 AM		5-19-14		10:05 AM	During Drilling	17	18	18.3	
FINISH DATE and TIME: 5/19/2014 10:30:00 AM		5-19-14		2:15 PM	End of Day	9	N/A	12	
SURFACE ELEV: 416.00 (ft; Estimated)		CHECKED BY: S. Doehla							

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SAMP./CORE NUMBER	SAMP. ADV. (ft)	RECOVERY (ft)	Blows Per 6" on Split Spoon Sampler	"N" Value or RQD%	SAMPLE	DEPTH (Feet)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	ELEVATION (Feet)	Remarks on Character of Drilling, Water Return, etc.	WATER LEVELS AND/OR WELL DATA
S-1	2	1.1	1-1-2-3	3		0-2		<b>Clayey SILT</b> , trace f. sand, trace organics, light brown, soft, moist ( <b>ML</b> )	414		
						2		becomes stiff ( <b>ML</b> )	414		
S-2	1.7	0.6	3-3-9-50/2"	12		2-4		<b>f.c. GRAVEL</b> , little silt, little f.m.c. sand, gray, medium compact, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )	412		
S-3	0.7	0.2	9-50/3"	R		4-6		becomes very compact ( <b>HIGHLY WEATHERED BEDROCK</b> )	412	Hard drilling from 4' to boring completion.	
S-4	1	0.4	33-52/6"	R		6-8		<b>SILT</b> , little f.m.c. sand, little f.c. gravel, dark brown, very compact, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )	410		
						8-10		<b>f.c. GRAVEL</b> , little f.m.c. sand, trace silt, gray, very compact, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )	408		
S-5	1.8	1	45-62-33-55/4"	95		10-12		becomes black/ dark brown ( <b>HIGHLY WEATHERED BEDROCK</b> )	406		
						12-14		becomes gray ( <b>HIGHLY WEATHERED BEDROCK</b> )	406		
S-6	0.7	0.2	35-50/3"	R		14-16		<b>SILT</b> , little f.m.c. sand, gray, very compact, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )	404		
S-7	0.4	0	50/5"	R		16-18		No recovery	404		
S-8	0.4	0.4	50/5"	R		18-20		<b>SILT</b> , little f.m.c. sand, dark gray, very compact, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )	402		



Groundwater observations may not represent static conditions.



**Capital View Resort Casino**  
**SUBSURFACE LOG**  
**HOLE NUMBER B-02**

PROJECT NUMBER: 27966.1007.32000

SAMP./CORE NUMBER	SAMP. ADV. (ft)	LEN. CORE (ft)	RECOVERY (ft)	Blows Per 6" on Split Spoon Sampler	"N" Value or RQD%	SAMPLE	DEPTH (Feet)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	ELEVATION (Feet)	Remarks on Character of Drilling, Water Return, etc.	WATER LEVELS AND/OR WELL DATA
S-9	0.3	0.2		50/4"	R		16		<b>f.c. GRAVEL.</b> Some f.m.c. Sand, light gray, very compact, moist ( <b>HIGHLY WEATHERED BEDROCK</b> ) <i>(continued)</i>  Coarse gravel in shoe of spoon ( <b>HIGHLY WEATHERED BEDROCK</b> )	400		
S-10	0.2	0.1		50/3"	R		18		Coarse gravel in shoe of spoon ( <b>HIGHLY WEATHERED BEDROCK</b> )	398	Spoon S-10 wet when extracted.	
S-11	0.2	0.1		50/2"	R		20		Coarse gravel in shoe of spoon ( <b>HIGHLY WEATHERED BEDROCK</b> ) End of Boring at 20.2 ft	396	Auger refusal at 20'. Spoon bouncing at 20.2'.  Offset 7' northeast to boring B-2A to set casing for rock coring operations.	
							22			394		
							24			392		
							26			390		
							28			388		
							30			386		
							32			384		

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**Capital View Resort Casino  
SUBSURFACE LOG  
HOLE NUMBER B-02A**

PROJECT NUMBER: 27966.1007.32000

Page 1 of 1

LOCATION: East Greenbush, New York		DRILL FLUID: Water @ 0'	DRILLING METHOD: 4" FJC						
CLIENT: Saratoga Racing & Gaming		HAMMER TYPE: Automatic			ROD SIZE: NW				
CONTRACTOR: QCQA Laboratories, Inc.		DRILL RIG TYPE & MODEL: Rubber Tire ATV, CME 550X							
DRILLER: J. Leonhardt	INSPECTOR: K. Owens		WATER LEVEL OBSERVATIONS	DATE	TIME	READING TYPE	WATER DEPTH (ft)	CASING BOTTOM (ft)	HOLE BOTTOM (ft)
START DATE and TIME: 5/19/2014 11:45:00 AM		5-19-14		2:15 PM	During Drilling	None	4	13	
FINISH DATE and TIME: 5/19/2014 2:15:00 PM									
SURFACE ELEV: 416.00 (ft; Estimated)		CHECKED BY: S. Doehla							

SAMP./CORE NUMBER	SAMP. ADV. (ft)	LEN. CORE (ft)	RECOVERY (ft)	Blows Per 6" on Split Spoon Sampler	"N" Value or RQD%	SAMPLE	DEPTH (Feet)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	ELEVATION (Feet)	Remarks on Character of Drilling, Water Return, etc.	WATER LEVELS AND/OR WELL DATA
							2			414	Boring offset from boring B-2 to attempt to core bedrock. Advance rollerbit to refusal without sampling.	
							4			412	Groundwater observations may not represent static conditions.	
							6			410		
							8			408		
R-1	2	2			40%		10		<b>BOULDER</b>	406	Rollerbit refusal at 9'.	
R-2	2	0.4			0%		12		<b>SLATE</b> , gray, brown, soft, moderately weathered, very closely fractured, very poor RQD	404		
							14		End of Boring at 13 ft	402		

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**Capital View Resort Casino  
SUBSURFACE LOG  
HOLE NUMBER B-03**

PROJECT NUMBER: 27966.1007.32000

Page 1 of 1

LOCATION: East Greenbush, New York		DRILL FLUID: None	DRILLING METHOD: 3.25" HSA						
CLIENT: Saratoga Racing & Gaming		HAMMER TYPE: Automatic		ROD SIZE: AW					
CONTRACTOR: QCQA Laboratories, Inc.		DRILL RIG TYPE & MODEL: Rubber Tire ATV, CME 550X							
DRILLER: J. Leonhardt	INSPECTOR: K. Owens		WATER LEVEL OBSERVATIONS	DATE	TIME	READING TYPE	WATER DEPTH (ft)	CASING BOTTOM (ft)	HOLE BOTTOM (ft)
START DATE and TIME: 5/19/2014 2:30:00 PM		5-19-14		3:45 PM	During Drilling	None	10	10.5	
FINISH DATE and TIME: 5/19/2014 3:45:00 PM									
SURFACE ELEV: 412.00 (ft; Estimated)		CHECKED BY: S. Doehla							

SAMP./CORE NUMBER	SAMP. ADV. (ft)	RECOVERY (ft)	Blows Per 6" on Split Spoon Sampler	"N" Value or RQD%	SAMPLE	DEPTH (Feet)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	ELEVATION (Feet)	Remarks on Character of Drilling, Water Return, etc.	WATER LEVELS AND/OR WELL DATA
S-1	2	0.6	2-1-3-3	4		0-2		<b>Clayey SILT</b> , trace f.m.c. sand, brown, soft, moist ( <b>ML</b> )	410	Groundwater observations may not represent static conditions.	
S-2	2	1.5	14-47-52-19	99		2-4		<b>Clayey SILT</b> , Some f.m.c. Sand, little f.c. gravel, dark brown, hard, moist ( <b>ML</b> )	410		
S-3	0.9	0.2	18-56/5"	R		4-6		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, trace silt, gray, very compact, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )	408		
S-4	0.6	0.5	52-56/2"	R		6-8		grades to little silt ( <b>HIGHLY WEATHERED BEDROCK</b> )	406		
S-5	0.6	0.3	41-50/1"	R		8-10		<b>SILT</b> , Some f.m.c. Sand, trace f. gravel, dark brown, very compact, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )	406		
S-6	0.1	0.1	50/2"	R		10-10.5		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, gray, very compact, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )	404		
						10-10.5		<b>Similar Soil</b> , Lenses of dark brown silt ( <b>HIGHLY WEATHERED BEDROCK</b> )	404	Auger refusal at 10.5'.	
						10-10.5		<b>f.c. GRAVEL</b> , little silt, gray, very compact, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )	402		
						10-10.5		End of Boring at 10.5 ft	402		
						10-10.5			400		
						10-10.5			398		

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**Capital View Resort Casino  
SUBSURFACE LOG  
HOLE NUMBER IT-01**

PROJECT NUMBER: 27966.1007.32000

Page 1 of 1

LOCATION: East Greenbush, New York		DRILL FLUID: Water @ 4'	DRILLING METHOD: 4" FJC						
CLIENT: Saratoga Racing & Gaming		HAMMER TYPE: Automatic		ROD SIZE: NW					
CONTRACTOR: QCQA Laboratories, Inc.		DRILL RIG TYPE & MODEL: Rubber Tire ATV, CME 550X							
DRILLER: J. Leonhardt	INSPECTOR: K. Owens		WATER LEVEL OBSERVATIONS	DATE	TIME	READING TYPE	WATER DEPTH (ft)	CASING BOTTOM (ft)	HOLE BOTTOM (ft)
START DATE and TIME: 5/19/2014 11:00:00 AM				5-19-14	4:00 PM	During Drilling	None	5	7
FINISH DATE and TIME: 5/19/2014 4:00:00 PM									
SURFACE ELEV: 398.00 (ft; Estimated)		CHECKED BY: S. Doehla							

SAMP./CORE NUMBER	SAMP. ADV. (ft)	RECOVERY (ft)	Blows Per 6" on Split Spoon Sampler	"N" Value or RQD%	SAMPLE	DEPTH (Feet)	GRAPHICS	DESCRIPTION AND CLASSIFICATION	ELEVATION (Feet)	Remarks on Character of Drilling, Water Return, etc.	WATER LEVELS AND/OR WELL DATA
S-1	2	0.3	WH-2-1-3	3		0-2		<b>Clayey SILT</b> , trace f. sand, trace organics, brown, soft, moist. Coarse gravel in shoe of spoon. (ML)	396	Groundwater observations may not represent static conditions.	
S-2	2	1.3	3-6-12-19	18		2-4		<b>Clayey SILT</b> , little f.m.c. sand, trace f.c. gravel, brown, very stiff, moist (ML)	394		
S-3	2	1.1	18-36-42-50	78		4-6		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, light brown, very compact, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )	392		
								End of Boring at 7 ft	390	After sample S-2, casing advanced to 5' and filled with water. Readings taken approximately each hour to observe change in water level: 1st Hour: 0.625" 2nd Hour: 0" 3rd Hour: 0" 4th Hour: 0"	
									388		
									386		
									384		

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-01**

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 7 ft

BOTTOM: 4 X 6 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/8/2014 8:00:00 AM

FINISH DATE and TIME: 5/8/2014 8:50:00 AM

SURFACE

ELEV: 344.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE

TIME

WATER  
DEPTH (ft)

NUMBER OF  
BOULDERS  
ENCOUNTERED

5-7-14

8:50 PM

None

8 to 18 inches Diam: 10  
Over 18 inches Diam: 0

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		Groundwater levels encountered within test pits may not represent static condition.
				<b>f.m.c. SAND</b> , Some Silt, Some f.c. Gravel, trace organics, brown, moist ( <b>SM</b> )		
	342	2				
				<b>f. SAND</b> , Some Silt, light brown, moist ( <b>SM</b> )		
	340	4				
				<b>f.m.c. SAND</b> , Some Silt, Some f.c. Gravel, brown, moist ( <b>SM</b> )		Excavation resistance increased at 4.8 feet.
	338	6				
				<b>f.c. GRAVEL</b> , Some f.m.c. Sand, black/brown, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )		Slate rock fragments encountered at 7 feet.
	336	8				
				End of Test Pit at 9.3 ft		Bucket refusal encountered at 9.25 feet.
	334	10				
	332	12				
	330	14				

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-04**

LOCATION: East Greenbush, New York		PIT DIMENSIONS - TOP: 4 X 10 ft		BOTTOM: 4 X 9 ft		
CLIENT: Saratoga Racing & Gaming		WATER LEVEL OBSERVATIONS DURING/AFTER EXCAVATION	DATE	TIME	WATER DEPTH (ft)	NUMBER OF BOULDERS ENCOUNTERED  8 to 18 inches Diam: 15 Over 18 inches Diam: 0
CONTRACTOR: Tom Jenkins Excavating, LLC			5-7-14	3:51 PM	None	
EQUIPMENT: Kobelco 140 SR	INSPECTOR: J. Cheung					
START DATE and TIME: 5/8/2014 3:26:00 PM						
FINISH DATE and TIME: 5/8/2014 3:51:00 PM						
SURFACE ELEV: 374.00 (ft; Estimated)		CHECKED BY: S. Doehla				

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		Groundwater levels encountered within test pits may not represent static condition.
				<b>f.m.c. SAND</b> , Some Silt, Some f.c. Gravel, brown, moist ( <b>SM</b> )		
372 - 2						
				<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, brown/black, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )		Excavation resistance increased and slate rock fragments encountered at 6.5 feet.
370 - 4						
				End of Test Pit at 9 ft		Bucket refusal encountered at 9 feet.
368 - 6						
366 - 8						
364 - 10						
362 - 12						
360 - 14						

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




PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino**  
**SUBSURFACE LOG**  
**TEST PIT NUMBER TP-05**

LOCATION: East Greenbush, New York		PIT DIMENSIONS - TOP: 4 X 6 ft		BOTTOM: 4 X 6 ft		
CLIENT: Saratoga Racing & Gaming		WATER LEVEL OBSERVATIONS DURING/AFTER EXCAVATION	DATE	TIME	WATER DEPTH (ft)	NUMBER OF BOULDERS ENCOUNTERED  8 to 18 inches Diam: 0 Over 18 inches Diam: 0
CONTRACTOR: Tom Jenkins Excavating, LLC			5-7-14	3:19 PM	None	
EQUIPMENT: Kobelco 140 SR	INSPECTOR: J. Cheung					
START DATE and TIME: 5/8/2014 3:15:00 PM						
FINISH DATE and TIME: 5/8/2014 3:19:00 PM						
SURFACE ELEV: 394.00 (ft; Estimated)		CHECKED BY: S. Doehla				

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>SLATE</b> , black/brown, moist		Groundwater levels encountered within test pits may not represent static condition. Bucket refusal on bedrock encountered at 0.5 feet.
				End of Test Pit at 0.5 ft		
	392	2				
	390	4				
	388	6				
	386	8				
	384	10				
	382	12				
	380	14				



PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-06**

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 15 ft

BOTTOM: 4 X 12 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/9/2014 7:10:00 AM

FINISH DATE and TIME: 5/9/2014 7:30:00 AM

SURFACE

ELEV: 364.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE  
5-9-14

TIME  
7:30 AM

WATER  
DEPTH (ft)  
11

NUMBER OF  
BOULDERS  
ENCOUNTERED

8 to 18 inches Diam: 15  
Over 18 inches Diam: 8

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		
				<b>f.m. SAND</b> , Some Silt, Some f.c. Gravel, brown, moist to wet ( <b>SM</b> )		
362 - 2		2				
360 - 4		4				
				<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, brown/black, moist ( <b>GM-TILL</b> )		Excavation resistance increased and slate rock fragments encountered at 4.5 feet.
358 - 6		6				
356 - 8		8				
354 - 10		10				
				Becomes wet ( <b>GM-TILL</b> )		Groundwater levels encountered within test pits may not represent static condition.
352 - 12		12				
350 - 14		14				

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End of Test Pit at 15 ft



PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-07**

LOCATION: East Greenbush, New York		PIT DIMENSIONS - TOP: 4 X 7 ft		BOTTOM: 4 X 5 ft		
CLIENT: Saratoga Racing & Gaming		WATER LEVEL OBSERVATIONS DURING/AFTER EXCAVATION	DATE	TIME	WATER DEPTH (ft)	NUMBER OF BOULDERS ENCOUNTERED  8 to 18 inches Diam: 0 Over 18 inches Diam: 0
CONTRACTOR: Tom Jenkins Excavating, LLC			5-7-14	11:07 AM	None	
EQUIPMENT: Kobelco 140 SR	INSPECTOR: J. Cheung					
START DATE and TIME: 5/8/2014 10:55:00 AM						
FINISH DATE and TIME: 5/8/2014 11:07:00 AM						
SURFACE ELEV: 412.00 (ft; Estimated)		CHECKED BY: S. Doehla				

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		Groundwater levels encountered within test pits may not represent static condition.
	410	2		<b>f.m.c. SAND</b> , Some Silt, little f.c. gravel, brown, moist (SM)		
	408	4		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, brown/black, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )		
	406	6		End of Test Pit at 5.2 ft		Bucket refusal encountered at 5.2 feet.
	404	8				
	402	10				
	400	12				
	398	14				

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino**  
**SUBSURFACE LOG**  
**TEST PIT NUMBER TP-08**

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 15 ft

BOTTOM: 4 X 12 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/8/2014 10:00:00 AM

FINISH DATE and TIME: 5/8/2014 10:15:00 AM

SURFACE

ELEV: 398.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE

TIME

WATER  
DEPTH (ft)

NUMBER OF  
BOULDERS  
ENCOUNTERED

5-7-14

10:15 AM

None

8 to 18 inches Diam: 0  
Over 18 inches Diam: 0

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		
				<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, brown/black, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )		Groundwater levels encountered within test pits may not represent static condition. Slate fragments encountered at 0.2 feet.
	396	2				
	394	4				
	392	6				
				End of Test Pit at 7 ft		Bucket refusal encountered at 7 feet.
	390	8				
	388	10				
	386	12				
	384	14				



PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-09**

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 14 ft

BOTTOM: 4 X 12 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/8/2014 8:53:00 AM

FINISH DATE and TIME: 5/8/2014 9:20:00 AM

SURFACE

ELEV: 402.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE

TIME

WATER  
DEPTH (ft)

5-7-14

9:05 AM

5

NUMBER OF  
BOULDERS  
ENCOUNTERED

8 to 18 inches Diam: 0

Over 18 inches Diam: 0

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		
				<b>f. SAND</b> , Some Silt, light brown/orange, moist ( <b>SM</b> )		
				<b>f. SAND</b> , dark brown, moist ( <b>SP</b> )		
400	400	2		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, Some Silt, brown/black, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )		Excavation resistance increased and slate rock fragments encountered at 2.5 feet.
				Becomes wet ( <b>HIGHLY WEATHERED BEDROCK</b> )		Groundwater levels encountered within test pits may not represent static condition.
398	398	4				
396	396	6				
394	394	8				
392	392	10		End of Test Pit at 9.5 ft		Bucket refusal encountered at 9.5 feet.
390	390	12				
388	388	14				

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-10**

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 13 ft

BOTTOM: 4 X 11 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/8/2014 9:27:00 AM

FINISH DATE and TIME: 5/8/2014 9:56:00 AM

SURFACE ELEV: 402.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL OBSERVATIONS DURING/AFTER EXCAVATION

DATE

TIME

WATER DEPTH (ft)

5-7-14

9:43 AM

5.2

NUMBER OF BOULDERS ENCOUNTERED

8 to 18 inches Diam: 0

Over 18 inches Diam: 0

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
G-1 1 - 1.5	400	2		<b>TOPSOIL</b>		
				<b>f.m. SAND.</b> Some Silt, light brown, moist ( <b>SM</b> )		
				<b>f.c. GRAVEL.</b> Some f.m.c. Sand, little silt, brown/black, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )		
				Becomes wet ( <b>HIGHLY WEATHERED BEDROCK</b> )		
				End of Test Pit at 8.3 ft		
	398	4				Excavation resistance increased and slate rock fragments encountered at 3.5 feet.
	396	6				Groundwater levels encountered within test pits may not represent static condition.
	394	8				Bucket refusal encountered at 8.25 feet.
	392	10				
	390	12				
	388	14				

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino**  
**SUBSURFACE LOG**  
**TEST PIT NUMBER TP-11**

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 14 ft

BOTTOM: 4 X 12 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/8/2014 11:48:00 AM

FINISH DATE and TIME: 5/8/2014 12:00:00 PM

SURFACE ELEV: 402.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL OBSERVATIONS DURING/AFTER EXCAVATION

DATE  
5-8-14

TIME  
12:00 PM

WATER DEPTH (ft)  
5.5

NUMBER OF BOULDERS ENCOUNTERED

8 to 18 inches Diam: 4  
Over 18 inches Diam: 0

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		
				<b>f.m. SAND</b> , Some Silt, light brown/orange, moist ( <b>SM</b> )		
	400	2				
				<b>f.m.c. SAND</b> , Some Silt, Some f.c. Gravel, brown/gray, moist to wet ( <b>SM</b> )		
	398	4				
				<b>f.c. GRAVEL</b> , Some Silt, Some f.m.c. Sand, gray, wet ( <b>GM-TILL</b> )		Excavation resistance increased at 5.5 feet. Groundwater levels encountered within test pits may not represent static condition.
	396	6				
				<b>f.c. GRAVEL</b> , Some f.m.c. Sand, black/brown, wet ( <b>HIGHLY WEATHERED BEDROCK</b> )		
	394	8				
				End of Test Pit at 11 ft		Bucket refusal encountered at 11 feet.
	392	10				
	390	12				
	388	14				

G-1  
7 - 7.5

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-12**

Page 1 of 1

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 15 ft

BOTTOM: 4 X 12 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/8/2014 12:10:00 PM

FINISH DATE and TIME: 5/8/2014 12:25:00 PM

SURFACE

ELEV: 394.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE

TIME

WATER  
DEPTH (ft)

5-8-14

12:25 PM

6

NUMBER OF  
BOULDERS  
ENCOUNTERED

8 to 18 inches Diam: 2  
Over 18 inches Diam: 0

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		
				<b>f.m. SAND</b> , little silt, brown, moist ( <b>SM</b> )		
392 - 2		2		<b>f.m.c. SAND</b> , Some f.c. Gravel, little silt, brown, moist ( <b>SM</b> )		
390 - 4		4		<b>f.m.c. SAND</b> , Some f.c. Gravel, little silt, brown, moist ( <b>SM</b> )		
388 - 6		6		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, brown, wet ( <b>HIGHLY WEATHERED BEDROCK</b> )		Excavation resistance increased and slate rock fragments encountered at 6 feet.
				End of Test Pit at 7 ft		Groundwater levels encountered within test pits may not represent static condition.
386 - 8		8				Bucket refusal encountered at 7 feet.
384 - 10		10				
382 - 12		12				
380 - 14		14				

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-13**

LOCATION: East Greenbush, New York		PIT DIMENSIONS - TOP: 4 X 12 ft		BOTTOM: 4 X 9 ft		
CLIENT: Saratoga Racing & Gaming		WATER LEVEL OBSERVATIONS DURING/AFTER EXCAVATION	DATE	TIME	WATER DEPTH (ft)	NUMBER OF BOULDERS ENCOUNTERED  8 to 18 inches Diam: 0 Over 18 inches Diam: 0
CONTRACTOR: Tom Jenkins Excavating, LLC			5-8-14	1:13 PM	None	
EQUIPMENT: Kobelco 140 SR	INSPECTOR: J. Cheung					
START DATE and TIME: 5/8/2014 1:00:00 PM FINISH DATE and TIME: 5/8/2014 1:13:00 PM						
SURFACE ELEV: 396.00 (ft; Estimated)			CHECKED BY: S. Doehla			

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.	
G-1 2 - 2.5	394	2		<b>TOPSOIL</b>		Groundwater levels encountered within test pits may not represent static condition.	
				<b>f.m.c. SAND</b> , Some Silt, little f. gravel, brown, moist (SM)			
		392	4		<b>f.m.c. SAND</b> , Some f.c. Gravel, brown/black, moist (HIGHLY WEATHERED BEDROCK)		Excavation resistance increased and slate rock fragments encountered at 3.3 feet.
		390	6				
	388	8		End of Test Pit at 8 ft		Bucket refusal encountered at 8 feet.	
	386	10					
	384	12					
	382	14					

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino**  
**SUBSURFACE LOG**  
**TEST PIT NUMBER TP-14**

Page 1 of 1

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 14 ft

BOTTOM: 4 X 12.5 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/8/2014 1:25:00 AM

FINISH DATE and TIME: 5/8/2014 1:45:00 PM

SURFACE

ELEV: 390.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE

TIME

WATER  
DEPTH (ft)

5-8-14

1:40 PM

9

NUMBER OF  
BOULDERS  
ENCOUNTERED

8 to 18 inches Diam: 0  
Over 18 inches Diam: 0

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		
				<b>f.m.c. SAND</b> , Some Silt, little f.c. gravel, brown, moist (SM)		
388		2		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, brown/black, moist (HIGHLY WEATHERED BEDROCK)		Excavation resistance increased and slate rock fragments encountered at 2 feet.
386		4				2.5 foot diameter boulder encountered at 3 feet.
384		6				Two (2) 1.5 foot diameter boulders encountered at 4 feet.
382		8				
380		10		Becomes wet (HIGHLY WEATHERED BEDROCK)		Groundwater levels encountered within test pits may not represent static condition.
378		12				
				End of Test Pit at 12.5 ft		Bucket refusal encountered at 12.5 feet.
376		14				

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino**  
**SUBSURFACE LOG**  
**TEST PIT NUMBER TP-15**

LOCATION: East Greenbush, New York  
 CLIENT: Saratoga Racing & Gaming  
 CONTRACTOR: Tom Jenkins Excavating, LLC  
 EQUIPMENT:  
 START DATE and TIME: 5/8/2014 2:00:00 PM  
 FINISH DATE and TIME: 5/8/2014 2:15:00 PM  
 SURFACE ELEV: 402.00 (ft; Estimated)  
 INSPECTOR: J. Cheung  
 CHECKED BY: S. Doehla

PIT DIMENSIONS - TOP:			BOTTOM:	
WATER LEVEL OBSERVATIONS DURING/AFTER EXCAVATION	DATE	TIME	WATER DEPTH (ft)	NUMBER OF BOULDERS ENCOUNTERED
	5-8-14	2:15 PM	None	
				8 to 18 inches Diam: Over 18 inches Diam:

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		Groundwater levels encountered within test pits may not represent static condition.
				<b>f.m.c. SAND</b> , Some f. Gravel, Some Silt, brown, moist ( <b>SM</b> )		
				<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, brown, moist ( <b>GM-TILL</b> )		
	400	2				
	398	4				
	396	6				
				End of Test Pit at 7 ft		Bucket refusal encountered at 7 feet.
	394	8				
	392	10				
	390	12				
	388	14				

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-16**

Page 1 of 1

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 12 ft

BOTTOM: 4 X 10 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/8/2014 2:26:00 PM

FINISH DATE and TIME: 5/8/2014 1:40:00 PM

SURFACE

ELEV: 420.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE

TIME

WATER  
DEPTH (ft)

NUMBER OF  
BOULDERS  
ENCOUNTERED

5-8-14

1:40 PM

None

8 to 18 inches Diam: 8  
Over 18 inches Diam: 0

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b> <b>f.m. SAND</b> , Some Silt, little f.c. gravel, brown, moist <b>(SM)</b>		Groundwater levels encountered within test pits may not represent static condition.
418		2		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, brown, moist <b>(HIGHLY WEATHERED BEDROCK)</b>		Excavation resistance increased and slate rock fragments encountered at 2 feet.
416		4				
414		6				
412		8				
				End of Test Pit at 9 ft		Bucket refusal encountered at 9 feet.
410		10				
408		12				
406		14				

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-17**

LOCATION: East Greenbush, New York  
 CLIENT: Saratoga Racing & Gaming  
 CONTRACTOR: Tom Jenkins Excavating, LLC  
 EQUIPMENT:  
 START DATE and TIME: 5/9/2014 8:04:00 AM  
 FINISH DATE and TIME: 5/9/2014 8:24:00 AM  
 SURFACE ELEV: 422.00 (ft; Estimated)  
 INSPECTOR: J. Cheung  
 CHECKED BY: S. Doehla

PIT DIMENSIONS - TOP:			BOTTOM:	
WATER LEVEL OBSERVATIONS DURING/AFTER EXCAVATION	DATE	TIME	WATER DEPTH (ft)	NUMBER OF BOULDERS ENCOUNTERED
	5-9-14	8:24 AM	None	
				8 to 18 inches Diam: Over 18 inches Diam:

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.	
G-1 3 - 3.5				<b>TOPSOIL</b>		Groundwater levels encountered within test pits may not represent static condition.	
				<b>f.m. SAND</b> , Some Silt, Some f.c. Gravel, brown, moist (SM)			
		420	2		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, brown, moist (HIGHLY WEATHERED BEDROCK)		Excavation resistance increased and slate rock fragments increased at 2 feet.
		418	4				
		416	6				
	414	8					
	412	10		End of Test Pit at 10 ft		Bucket refusal encountered at 10 feet.	
	410	12					
	408	14					

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-18**

Page 1 of 1

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP:

BOTTOM:

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT:

INSPECTOR: J. Cheung

START DATE and TIME: 5/9/2014 8:45:00 AM

FINISH DATE and TIME: 5/9/2014 9:00:00 AM

SURFACE

ELEV: 394.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE

TIME

WATER  
DEPTH (ft)

5-9-14

9:00 AM

3

NUMBER OF  
BOULDERS  
ENCOUNTERED

8 to 18 inches Diam:  
Over 18 inches Diam:

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		
				<b>f.m. SAND</b> , Some Silt, trace organics, light brown, moist <b>(SM)</b>		Groundwater levels encountered within test pits may not represent static condition.
392-2		2		<b>f.m.c. SAND</b> , Some f.c. Gravel, little silt, brown, wet <b>(SM)</b>		
390-4		4		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, brown, wet <b>(GM-TILL)</b>		Excavation resistance increased and slate rock fragments encountered at 4 feet.
388-6		6				
386-8		8				
384-10		10		End of Test Pit at 10 ft		Bucket refusal encountered at 10 feet.
382-12		12				
380-14		14				

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-19**

LOCATION: East Greenbush, New York		PIT DIMENSIONS - TOP: 4 X 17 ft		BOTTOM: 4 X 12 ft		
CLIENT: Saratoga Racing & Gaming		WATER LEVEL OBSERVATIONS DURING/AFTER EXCAVATION	DATE	TIME	WATER DEPTH (ft)	NUMBER OF BOULDERS ENCOUNTERED  8 to 18 inches Diam: 40 Over 18 inches Diam: 15
CONTRACTOR: Tom Jenkins Excavating, LLC			5-9-14	9:21 AM	None	
EQUIPMENT: Kobelco 140 SR	INSPECTOR: J. Cheung					
START DATE and TIME: 5/9/2014 9:10:00 AM FINISH DATE and TIME: 5/9/2014 9:21:00 AM						
SURFACE ELEV: 404.00 (ft; Estimated)			CHECKED BY: S. Doehla			

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.	
				<b>TOPSOIL</b>		Groundwater levels encountered within test pits may not represent static condition. Slate rock fragments encountered below topsoil at 0.2 feet.  Plate fragments of slate encountered within highly weathered bedrock layer.	
	402	2		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, brown, moist <b>(HIGHLY WEATHERED BEDROCK)</b>			
	400	4					
				End of Test Pit at 5 ft			Bucket refusal encountered at 5 feet.
	398	6					
	396	8					
	394	10					
	392	12					
	390	14					

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino**  
**SUBSURFACE LOG**  
**TEST PIT NUMBER TP-20**

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 14 ft

BOTTOM: 4 X 12 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/9/2014 9:30:00 AM

FINISH DATE and TIME: 5/9/2014 9:40:00 AM

SURFACE

ELEV: 390.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE

TIME

WATER  
DEPTH (ft)


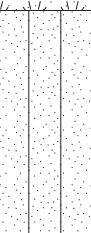

NUMBER OF  
BOULDERS  
ENCOUNTERED

5-9-14

9:40 AM

None

8 to 18 inches Diam: 5  
Over 18 inches Diam: 10

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		Groundwater levels encountered within test pits may not represent static condition.
	388	2		<b>f.m.c. SAND</b> , Some Silt, Some f.c. Gravel, brown, moist (SM)		
	386	4		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, brown, moist (HIGHLY WEATHERED BEDROCK)		
				End of Test Pit at 4.8 ft		Bucket refusal encountered at 4.8 feet.
	384	6				
	382	8				
	380	10				
	378	12				
	376	14				

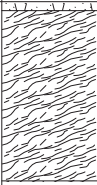




PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino**  
**SUBSURFACE LOG**  
**TEST PIT NUMBER TP-21**

LOCATION: East Greenbush, New York		PIT DIMENSIONS - TOP: 4 X 9 ft		BOTTOM: 4 X 7 ft		
CLIENT: Saratoga Racing & Gaming		WATER LEVEL OBSERVATIONS DURING/AFTER EXCAVATION	DATE	TIME	WATER DEPTH (ft)	NUMBER OF BOULDERS ENCOUNTERED  8 to 18 inches Diam: 0 Over 18 inches Diam: 0
CONTRACTOR: Tom Jenkins Excavating, LLC			5-9-14	9:55 AM	None	
EQUIPMENT: Kobelco 140 SR	INSPECTOR: J. Cheung					
START DATE and TIME: 5/9/2014 9:50:00 AM						
FINISH DATE and TIME: 5/9/2014 9:55:00 AM						
SURFACE ELEV: 406.00 (ft; Estimated)		CHECKED BY: S. Doehla				

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<u>TOPSOIL</u> <u>SLATE</u> , brown/black, moist		Groundwater levels encountered within test pits may not represent static condition.
	404	2		End of Test Pit at 2 ft		Bucket refusal encountered at 2 feet.
	402	4				
	400	6				
	398	8				
	396	10				
	394	12				
	392	14				



PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino**  
**SUBSURFACE LOG**  
**TEST PIT NUMBER TP-22**

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 7 ft

BOTTOM: 4 X 7 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/9/2014 10:25:00 AM

FINISH DATE and TIME: 5/9/2014 10:30:00 AM

SURFACE

ELEV: 402.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE

TIME

WATER  
DEPTH (ft)

NUMBER OF  
BOULDERS  
ENCOUNTERED




5-9-14

10:30 AM

None

8 to 18 inches Diam: 0

Over 18 inches Diam: 0

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		Groundwater levels encountered within test pits may not represent static condition.
				<b>f.m.c. SAND</b> , little silt, brown, moist ( <b>SM</b> )		
				<b>SLATE</b> , brown/gray, moist		
	400	2		End of Test Pit at 1.5 ft		Bucket refusal encountered at 1.5 feet.
	398	4				
	396	6				
	394	8				
	392	10				
	390	12				
	388	14				



PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino**  
**SUBSURFACE LOG**  
**TEST PIT NUMBER TP-23**

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 7 ft

BOTTOM: 4 X 7 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/9/2014 10:35:00 AM

FINISH DATE and TIME: 5/9/2014 10:50:00 AM

SURFACE

ELEV: 410.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE

TIME

WATER  
DEPTH (ft)



NUMBER OF  
BOULDERS  
ENCOUNTERED

5-9-14

10:50 AM

None

8 to 18 inches Diam: 0  
Over 18 inches Diam: 0

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b> <b>f.m. SAND.</b> Some Silt, Some f.c. Gravel, brown, moist ( <b>SM</b> )		Groundwater levels encountered within test pits may not represent static condition.
	408	2		<b>f.c. GRAVEL.</b> Some f.m.c. Sand, little silt, brown/black, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )		Excavation resistance increased and slate rock fragments encountered at 1.7 feet.
	406	4		End of Test Pit at 3 ft		Bucket refusal encountered at 3 feet.
	404	6				
	402	8				
	400	10				
	398	12				
	396	14				



PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino**  
**SUBSURFACE LOG**  
**TEST PIT NUMBER TP-24**

LOCATION: East Greenbush, New York		PIT DIMENSIONS - TOP: 4 X 8 ft		BOTTOM: 4 X 6 ft		
CLIENT: Saratoga Racing & Gaming		WATER LEVEL OBSERVATIONS DURING/AFTER EXCAVATION	DATE	TIME	WATER DEPTH (ft)	NUMBER OF BOULDERS ENCOUNTERED  8 to 18 inches Diam: 0 Over 18 inches Diam: 0
CONTRACTOR: Tom Jenkins Excavating, LLC			5-9-14	12:00 PM	None	
EQUIPMENT: Kobelco 140 SR	INSPECTOR: J. Cheung					
START DATE and TIME: 5/9/2014 11:15:00 AM						
FINISH DATE and TIME: 5/9/2014 12:00:00 PM						
SURFACE ELEV: 444.00 (ft; Estimated)		CHECKED BY: S. Doehla				

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		
				<b>f.m. SAND</b> , Some f.c. Gravel, little silt, brown, moist (SM)		Groundwater levels encountered within test pits may not represent static condition. Excavation resistance increased and slate rock fragments encountered at 0.5 feet.
				<b>f.c. GRAVEL</b> , Some f.m.c. Sand, trace silt, brown/black, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )		
				End of Test Pit at 3.8 ft		
	442	2				Bucket refusal encountered at 3.75 feet.
	440	4				
	438	6				
	436	8				
	434	10				
	432	12				
	430	14				



PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-25**

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 15 ft

BOTTOM: 4 X 12 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/9/2014 12:20:00 PM

FINISH DATE and TIME: 5/9/2014 12:30:00 PM

SURFACE

ELEV: 444.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE

TIME

WATER  
DEPTH (ft)

NUMBER OF  
BOULDERS  
ENCOUNTERED

5-9-14

12:30 PM

None

8 to 18 inches Diam: 5  
Over 18 inches Diam: 1

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		Groundwater levels encountered within test pits may not represent static condition.
				<b>f.m. SAND</b> , Some Silt, light brown/orange, moist ( <b>SM</b> )		
442 - 2				<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, brown, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )		
440 - 4				End of Test Pit at 4.3 ft		Bucket refusal encountered at 4.25 feet.
438 - 6						
436 - 8						
434 - 10						
432 - 12						
430 - 14						



PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino**  
**SUBSURFACE LOG**  
**TEST PIT NUMBER TP-26**

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 5 ft

BOTTOM: 4 X 5 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/9/2014 12:15:00 PM

FINISH DATE and TIME: 5/9/2014 12:20:00 PM

SURFACE

ELEV: 454.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE

TIME

WATER  
DEPTH (ft)



NUMBER OF  
BOULDERS  
ENCOUNTERED

5-9-14

12:20 PM

None

8 to 18 inches Diam: 0  
Over 18 inches Diam: 0




SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		Groundwater levels encountered within test pits may not represent static condition.  Bucket refusal encountered at 1.1 feet.
				<b>f.m.c. SAND</b> , Some f.c. Gravel, little silt, brown, moist <b>(SM)</b>		
				End of Test Pit at 1.1 ft		
	452	2				
	450	4				
	448	6				
	446	8				
	444	10				
	442	12				
	440	14				



PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-27**

LOCATION: East Greenbush, New York		PIT DIMENSIONS - TOP: 4 X 11 ft		BOTTOM: 4 X 9 ft		
CLIENT: Saratoga Racing & Gaming		WATER LEVEL OBSERVATIONS DURING/AFTER EXCAVATION	DATE	TIME	WATER DEPTH (ft)	NUMBER OF BOULDERS ENCOUNTERED  8 to 18 inches Diam: 0 Over 18 inches Diam: 0
CONTRACTOR: Tom Jenkins Excavating, LLC			5-9-14	11:40 AM	None	
EQUIPMENT: Kobelco 140 SR	INSPECTOR: J. Cheung					
START DATE and TIME: 5/9/2014 11:30:00 AM						
FINISH DATE and TIME: 5/9/2014 11:40:00 AM						
SURFACE ELEV: 438.00 (ft; Estimated)		CHECKED BY: S. Doehla				

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		Groundwater levels encountered within test pits may not represent static condition.  Excavation resistance increased and slate rock fragments encountered at 1.4 feet, Bucket refusal at 2 feet.
				<b>f.m.c. SAND</b> , Some Silt, little f.c. gravel, red, moist ( <b>SM</b> )		
				<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, brown/black, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )		
				End of Test Pit at 2 ft		
	436	2				
	434	4				
	432	6				
	430	8				
	428	10				
	426	12				
	424	14				

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-28**

Page 1 of 1

LOCATION: East Greenbush, New York

PIT DIMENSIONS - TOP: 4 X 15 ft

BOTTOM: 4 X 12 ft

CLIENT: Saratoga Racing & Gaming

CONTRACTOR: Tom Jenkins Excavating, LLC

EQUIPMENT: Kobelco 140 SR

INSPECTOR: J. Cheung

START DATE and TIME: 5/9/2014 11:50:00 AM

FINISH DATE and TIME: 5/9/2014 12:05:00 PM

SURFACE

ELEV: 430.00 (ft; Estimated)

CHECKED BY: S. Doehla

WATER LEVEL  
OBSERVATIONS  
DURING/AFTER  
EXCAVATION

DATE

5-9-14

TIME

12:00 PM

WATER  
DEPTH (ft)

9.8

NUMBER OF  
BOULDERS  
ENCOUNTERED

8 to 18 inches Diam: 10  
Over 18 inches Diam: 2

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b>		
	428	2		<b>f.m. SAND</b> , Some Silt, light brown, orange, moist ( <b>SM</b> )		
	426	4		<b>f.c. GRAVEL</b> , Some f.m.c. Sand, little silt, brown/black, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )		Excavation resistance increased and slate rock fragments encountered at 3 feet.
	424	6				
	422	8				
	420	10		Becomes wet ( <b>HIGHLY WEATHERED BEDROCK</b> )		Groundwater levels encountered within test pits may not represent static condition. Bucket refusal encountered at 10.5 feet.
				End of Test Pit at 10.5 ft		
	418	12				
	416	14				

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PROJECT NUMBER: 27966.1007.32000

**Capital View Resort Casino  
SUBSURFACE LOG  
TEST PIT NUMBER TP-29**

LOCATION: East Greenbush, New York		PIT DIMENSIONS - TOP: 4 X 12 ft		BOTTOM: 4 X 10 ft		
CLIENT: Saratoga Racing & Gaming		WATER LEVEL OBSERVATIONS DURING/AFTER EXCAVATION	DATE	TIME	WATER DEPTH (ft)	NUMBER OF BOULDERS ENCOUNTERED  8 to 18 inches Diam: 3 Over 18 inches Diam: 0
CONTRACTOR: Tom Jenkins Excavating, LLC			5-9-14	11:46 AM	None	
EQUIPMENT: Kobelco 140 SR	INSPECTOR: J. Cheung					
START DATE and TIME: 5/9/2014 11:43:00 AM						
FINISH DATE and TIME: 5/9/2014 11:46:00 AM						
SURFACE ELEV: 426.00 (ft; Estimated)		CHECKED BY: S. Doehla				

SAMPLE # AND DEPTH RANGE (Feet)	ELEVATION (Feet)	DEPTH (Feet)	STRATA	DESCRIPTION AND CLASSIFICATION	WATER AND/OR SEEP ELEV.	Remarks on Character of Excavation, Water seeps, etc.
				<b>TOPSOIL</b> <b>f.m.c. SAND.</b> Some Silt, little f.c. gravel, red, moist ( <b>SM</b> )		Groundwater levels encountered within the test pits may not represent static conditions.
	424	2		<b>f.c. GRAVEL.</b> Some f.m.c. Sand, little silt, brown/black, moist ( <b>HIGHLY WEATHERED BEDROCK</b> )		Excavation resistance increased and shale rock fragments encountered at 2.2 feet.
	422	4		End of Test Pit at 3.5 ft		Bucket refusal encountered at 3.5 feet.
	420	6				
	418	8				
	416	10				
	414	12				
	412	14				

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**APPENDIX C**

**Photograph Log**

1.



Site photograph,  
Thompson Hill Road, looking east

2.



Site photograph  
In the vicinity of TP-9, looking south



Capital View Resort Casino

East Greenbush, New York

CHA#: 27966.1007.32000

June 2014

3.



Site photograph  
In the vicinity of of TP-9, looking west

4.



Site photograph  
In the vicinity of TP-9, looking east



Capital View Resort Casino

East Greenbush, New York

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5.



Drilling B-1, looking east  
Note: Variable surface topography

6.



Advancing TP-1, looking west



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Capital View Resort Casino

East Greenbush, New York

June 2014