Appendix H

Geotechnical Report

CORNERSTONE EARTH GROUP

TYPE OF SERVICES	Geotechnical Investigation
PROJECT NAME	Qume Drive Industrial Warehouses
LOCATION	2222 and 2350 Qume Drive and 2150 Commerce Drive San Jose, California
CLIENT	Bridge Industrial
PROJECT NUMBER	1054-4-1
DATE	May 25, 2021

CORNERSTONE EARTH GROUP

Type of Services	**Geotechnical Investigation**
Project Name	**Qume Drive Industrial Warehouses**
Location	**2222 and 2350 Qume Drive and 2150 Commerce Drive San Jose, California**
Client	**Bridge Industrial**
Client Address	**11100 Santa Monica Boulevard, Suite 700 Los Angeles, California**
Project Number	**1054-4-1**
Date	**May 25, 2021**

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SECTION 1: INTRODUCTION

This geotechnical report was prepared for the sole use of Bridge Industrial for the Qume Drive Industrial Warehouses project in San Jose, California. The location of the site is shown on the Vicinity Map, Figure 1. For our use, we were provided with the following documents:

- A conceptual site plan titled "Bridge – Qume & Commerce Dr., Scheme 1 Site Plan, San Jose, CA," prepared by Herdman Architecture + Design, dated February 9, 2021.

1.1 PROJECT DESCRIPTION

The project will include redeveloping the approximately 32.6-acre site for a new industrial warehouse facility. The new facility will include four buildings. Building 1 through 4 will total about 72,100 to 352,250 square feet each. The buildings will likely be high-bay, 36 to 38 feet clear, and of tilt-up construction. Dock doors will be located along the north or south side of each building. At-grade pavement and trailer parking will surround the new buildings. Appurtenant utilities, landscaping, stormwater management areas, and other improvements necessary for overall site development will also be constructed.

Building loads were not provided to us at the time of this report; however, building loads are expected to be typical of this type of construction. Site grading with cuts and fills on the order of 2 to 5 feet are estimated for loading dock areas. At this time we are not aware of any significant fill placement across the site.

1.2 SCOPE OF SERVICES

Our scope of services was presented in our proposal dated March 23, 2021 and consisted of field and laboratory programs to evaluate physical and engineering properties of the subsurface soils, engineering analysis to prepare recommendations for site work and grading, building foundations, flatwork, retaining walls, and pavements, and preparation of this report. Brief descriptions of our exploration and laboratory programs are presented below.

1.3 EXPLORATION PROGRAM

Field exploration consisted of nine borings drilled on May 7 and 10, 2021 with truck-mounted and track-mounted, hollow-stem auger drilling equipment and nine Cone Penetration Tests (CPTs) advanced on April 30 and May 6, 2021. The borings were drilled to depths of 25 to 45 feet; the CPTs were advanced to depths of 50 to 120 feet. Seismic shear wave velocity measurements were collected from CPT-2, CPT-4, and CPT-9. All of the borings were advanced adjacent to the corresponding numbered CPT for direct evaluation of physical samples to correlated soil behavior. The borings and CPTs were backfilled with cement grout in accordance with local requirements; exploration permits were obtained as required by local jurisdictions.

The approximate locations of our exploratory borings are shown on the Site Plan, Figure 2. Details regarding our field program are included in Appendix A.

1.4 LABORATORY TESTING PROGRAM

In addition to visual classification of samples, the laboratory program focused on obtaining data for foundation design and seismic ground deformation estimates. Testing included moisture contents, dry densities, washed sieve analyses, Plasticity Index tests, and consolidation tests. Details regarding our laboratory program are included in Appendix B.

1.5 ENVIRONMENTAL SERVICES

Environmental services were not requested for this project. If environmental concerns are determined to be present during future evaluations, the project environmental consultant should review our geotechnical recommendations for compatibility with the environmental concerns.

SECTION 2: REGIONAL SETTING

2.1 GEOLOGICAL SETTING

The site is located within the Santa Clara Valley, which is a broad alluvial plane between the Santa Cruz Mountains to the southwest and west, and the Diablo Range to the northeast. The San Andreas Fault system, including the Monte Vista-Shannon Fault, exists within the Santa Cruz Mountains and the Hayward and Calaveras Fault systems exist within the Diablo Range. Alluvial soil thicknesses in the area of the site is mapped at greater than 500 feet (Rogers & Williams, 1974).

2.2 REGIONAL SEISMICITY

The San Francisco Bay area region is one of the most seismically active areas in the Country. While seismologists cannot predict earthquake events, geologists from the U.S. Geological Survey have recently updated earlier estimates from their 2014 Uniform California Earthquake Rupture Forecast (Version 3) publication. The estimated probability of one or more magnitude 6.7 earthquakes (the size of the destructive 1994 Northridge earthquake) expected to occur

somewhere in the San Francisco Bay Area has been revised (increased) to 72 percent for the period 2014 to 2043 (Aagaard et al., 2016). The faults in the region with the highest estimated probability of generating damaging earthquakes between 2014 and 2043 are the Hayward (33%), Rodgers Creek (33%), Calaveras (26%), and San Andreas Faults (22%). In this 30-year period, the probability of an earthquake of magnitude 6.7 or larger occurring is 22 percent along the San Andreas Fault and 33 percent for the Hayward or Rodgers Creek Faults.

The faults considered capable of generating significant earthquakes are generally associated with the well-defined areas of crustal movement, which trend northwesterly. The table below presents the State-considered active faults within 25 kilometers of the site.

Table 1: Approximate Fault Distances

Fault Name	Distance	
	(miles)	(kilometers)
Hayward (Southeast Extension)	2.5	4.0
Hayward (Total Length)	5.3	8.5
Calaveras	5.3	8.5
Monte Vista-Shannon	10.6	17.1
San Andreas (1906)	14.7	23.6

A regional fault map is presented as Figure 3, illustrating the relative distances of the site to significant fault zones.

SECTION 3: SITE CONDITIONS

3.1 SURFACE DESCRIPTION

The site is currently occupied by the BD Sciences campus which consists of four one-story at-grade buildings. The existing buildings are surrounded by at-grade asphalt concrete parking lots, sidewalks, and landscaping. In addition, a small man-made pond is present in the northeast corner of the site. The site is relatively level with gradual grade changes ranging from about Elevation 62 to 67 feet (based on Google Earth) and isolated areas of higher elevation (up to Elevation 71 feet in landscaping berms or at existing buildings).

Surface pavements generally consist of 1 to 6 inches of asphalt concrete over 2 to 10 inches of aggregate base. Based on visual observations, the existing pavements are in poor to very poor condition with significant rutting and alligator cracking in some areas.

3.2 SUBSURFACE CONDITIONS

Beneath the existing pavements, Borings EB-2, EB-3, EB-4, EB-6, EB7, and EB-9 encountered approximately 1½ to 8 feet of undocumented fill consisting of stiff to hard clays with varying amounts of sand and loose to dense sands with varying amounts of silt, clay, and gravel. Beneath the fills or existing pavements, Borings EB-1 through EB-7 generally encountered lean clays with varying amounts of sand and silt and interbedded layers of loose to dense sands with varying amounts of clay, silt, and gravel to the terminal boring depths of about 25 to 45 feet. In general, the clays in the upper 6½ to 12 feet were stiff to hard and clays below a depth of about 6½ to 12 feet were soft to medium stiff. Beneath the surface pavements, Boring EB-8 encountered medium dense to dense sands with varying amounts of clay, silt, and gravel to a depth of about 12 feet underlain by soft sandy silt to a depth of about 17 feet and soft to medium stiff lean clay with varying amounts of sand to a depth of about 23½ feet. Beneath the clays, Boring EB-8 encountered medium dense poorly graded sand with silt and gravel to a depth of about 26½ feet underlain by medium stiff lean clay to the terminal boring depth of about 30 feet. Beneath the undocumented fill, Boring EB-9 generally encountered medium dense to dense sands with varying amounts of clay, silt, and gravel to a depth of about 14¼ feet underlain by interbedded layers of medium stiff to stiff lean clay with varying amounts of sand and medium dense clayey sand with gravel to the terminal boring depth of 25 feet. Beneath terminal boring depths, our CPTs generally encountered interbedded layers of stiff to hard clays with varying amounts of sand and silt and medium dense to dense sands with varying amounts of clay, silt, and gravel to the maximum depth explored of 100 feet.

3.2.1 Plasticity/Expansion Potential

We performed one Plasticity Index (PI) test on a representative sample of the surficial soils and three Plasticity Index (PI) tests on representative samples of sand layers to aid in soil classification and liquefaction analysis. The surficial soil test resulted in a PI of 15, indicating low expansion potential to wetting and drying cycles.

3.2.2 In-Situ Moisture Contents

Laboratory testing indicated that the in-situ moisture contents within the upper 10 feet range from about 8 percent below to about 15 percent over the estimated laboratory optimum moisture.

3.3 GROUNDWATER

Groundwater was encountered in our borings at depths of about 10½ to 20 feet below existing grades. We note that groundwater rose to a depth of about 6½ feet in Boring EB-5 during drilling but does not appear to be representative of historic high groundwater levels. Pore pressure measurements taken while advancing CPT-2 through CPT-9 indicated highly variable groundwater depths ranging from less than 1 foot to approximately 13½ feet below current grades. All measurements were taken at the time of drilling and may not represent the stabilized levels that can be higher than the initial levels encountered. Historic high groundwater levels are mapped at a depth of approximately 8 to 10 feet below current grades

(CGS, Milpitas 7.5 Minute Quadrangle, 2004). In addition, we reviewed select monitoring well data available on Geotracker. Based on the data we reviewed, groundwater levels to the north of the site vary from about 6 to 11½ feet and groundwater levels to the south vary from about 9 to 16 feet. Based on the above information, we recommend a design groundwater depth of 8 feet be used.

Fluctuations in groundwater levels occur due to many factors including seasonal fluctuation, underground drainage patterns, regional fluctuations, and other factors.

SECTION 4: GEOLOGIC HAZARDS

4.1 FAULT RUPTURE

As discussed above several significant faults are located within 25 kilometers of the site. The site is not located within a State-designated Alquist Priolo Earthquake Fault Zone, or a Santa Clara County Fault Hazard Zone, or a City of San Jose Potential Hazard Zone. As shown in Figure 3, no known surface expression of fault traces is thought to cross the site; therefore, fault rupture hazard is not a significant geologic hazard at the site.

4.2 ESTIMATED GROUND SHAKING

Moderate to severe (design-level) earthquakes can cause strong ground shaking, which is the case for most sites within the San Francisco Bay Area region. A peak ground acceleration (PGA_M) was estimated following the ground motion hazard analysis procedure presented in Chapter 21, Section 21.2 of ASCE 7-16 and Supplement No. 1. For our liquefaction analysis we used a PGA_M of 0.874g, which was determined in accordance with Section 21.5 of ASCE 7-16.

4.3 LIQUEFACTION POTENTIAL

The site is within a State-designated Liquefaction Hazard Zone (CGS, Milpitas Quadrangle, 2004) as well as a Santa Clara County Liquefaction Hazard Zone (Santa Clara County, 2003). Our field and laboratory programs addressed this issue by testing and sampling potentially liquefiable layers to depths of at least 50 feet, performing visual classification on sampled materials, evaluating CPT data, and performing various tests to further classify soil properties.

4.3.1 Background

During strong seismic shaking, cyclically induced stresses can cause increased pore pressures within the soil matrix that can result in liquefaction triggering, soil softening due to shear stress loss, potentially significant ground deformation due to settlement within sandy liquefiable layers as pore pressures dissipate, and/or flow failures in sloping ground or where open faces are present (lateral spreading) (NCEER 1998). Limited field and laboratory data is available regarding ground deformation due to settlement; however, in clean sand layers settlement on the order of 2 to 4 percent of the liquefied layer thickness can occur. Soils most susceptible to liquefaction are loose, non-cohesive soils that are saturated and are bedded with poor drainage, such as sand and silt layers bedded with a cohesive cap.

4.3.2 Analysis

As discussed in the "Subsurface" section above, several sand layers were encountered below the design ground water depth of 8 feet. Following the liquefaction analysis framework in the 2008 monograph, *Soil Liquefaction During Earthquakes* (Idriss and Boulanger, 2008), incorporating updates in *CPT and SPT Based Liquefaction Triggering Procedures* (Boulanger and Idriss, 2014), and in accordance with CDMG Special Publication 117A guidelines (CDMG, 2008) for quantitative analysis, these layers were analyzed for liquefaction triggering and potential post-liquefaction settlement. These methods compare the ratio of the estimated cyclic shaking (Cyclic Stress Ratio - CSR) to the soil's estimated resistance to cyclic shaking (Cyclic Resistance Ratio - CRR), providing a factor of safety against liquefaction triggering. Factors of safety less than or equal to 1.3 are considered to be potentially liquefiable and capable of post-liquefaction re-consolidation (i.e. settlement).

The CSR for each layer quantifies the stresses anticipated to be generated due to a design-level seismic event, is based on the peak horizontal acceleration generated at the ground surface discussed in the "Estimated Ground Shaking" section above, and is corrected for overburden and stress reduction factors as discussed in the procedure developed by Seed and Idriss (1971) and updated in the 2008 Idriss and Boulanger monograph.

The soil's CRR is estimated from the in-situ measurements from CPTs and laboratory testing on samples retrieved from our borings. SPT "N" values obtained from hollow-stem auger borings were not used in our analyses, as the "N" values obtained are less reliable in sands below ground water. The tip pressures are corrected for effective overburden stresses, taking into consideration both the ground water level at the time of exploration and the design ground water level, and stress reduction versus depth factors. The CPT method utilizes the soil behavior type index (I_C) to estimate the plasticity of the layers.

The results of our CPT analyses (CPT-1 through CPT-9) are presented on Figures 4A through 4I of this report. Calculations for these CPTs are attached as Appendix C.

4.3.3 Summary

Our analyses indicate that several layers could potentially experience liquefaction triggering that could result in post-liquefaction total settlement at the ground surface ranging up to about ⅔-inch in CPT-1 through CPT-8 and approximately 1¼ inches in CPT-9 based on the Yoshimine (2006) method. As discussed in SP 117A, differential movement for level ground sites over deep soil sites will be up to about two-thirds of the total settlement between independent foundation elements. In our opinion, differential settlements are anticipated to be on the order of ½-inch or less between independent foundation elements, or over a horizontal distance of about 50 to 60 feet in the vicinity of CPT-1 through CPTt-8 and on the order of less than 1 inch in the vicinity of CPT-9.

4.3.4 Ground Deformation and Surficial Cracking Potential

The methods used to estimate liquefaction settlements assume that there is a sufficient cap of non-liquefiable material to prevent ground deformation or sand boils. For ground deformation to occur, the pore water pressure within the liquefiable soil layer will need to be great enough to break through the overlying non-liquefiable layer, which could cause significant ground deformation and settlement. The work of Youd and Garris (1995) indicates that the minimum 8-foot thick layer of non-liquefiable cap is sufficient to prevent ground deformation and significant surficial cracking; therefore, the above total settlement estimates are reasonable

4.4 LATERAL SPREADING

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. As failure tends to propagate as block failures, it is difficult to analyze and estimate where the first tension crack will form.

There are no open faces within a distance considered susceptible to lateral spreading; therefore, in our opinion, the potential for lateral spreading to affect the site is low.

4.5 SEISMIC SETTLEMENT/UNSATURATED SAND SHAKING

Loose unsaturated sandy soils can settle during strong seismic shaking. As the soils encountered at the site above the design groundwater depth were predominantly stiff to very stiff clays and medium dense to dense sands, in our preliminary opinion, the potential for significant differential seismic settlement affecting the proposed improvements is low.

4.6 TSUNAMI/SEICHE

The terms tsunami or seiche are described as ocean waves or similar waves usually created by undersea fault movement or by a coastal or submerged landslide. Tsunamis may be generated at great distance from shore (far field events) or nearby (near field events). Waves are formed, as the displaced water moves to regain equilibrium, and radiates across the open water, similar to ripples from a rock being thrown into a pond. When the waveform reaches the coastline, it quickly raises the water level, with water velocities as high as 15 to 20 knots. The water mass, as well as vessels, vehicles, or other objects in its path create tremendous forces as they impact coastal structures.

Tsunamis have affected the coastline along the Pacific Northwest during historic times. The Fort Point tide gauge in San Francisco recorded approximately 21 tsunamis between 1854 and 1964. The 1964 Alaska earthquake generated a recorded wave height of 7.4 feet and drowned eleven people in Crescent City, California. For the case of a far-field event, the Bay area would have hours of warning; for a near field event, there may be only a few minutes of warning, if any.

A tsunami or seiche originating in the Pacific Ocean would lose much of its energy passing through San Francisco Bay. Based on the study of tsunami inundation potential for the San Francisco Bay Area (Ritter and Dupre, 1972), areas most likely to be inundated are marshlands, tidal flats, and former bay margin lands that are now artificially filled, but are still at or below sea level, and are generally within 1½ miles of the shoreline. The site is approximately 8 miles inland from the San Francisco Bay shoreline, and is approximately 62 to 71 feet above mean sea level. Therefore, the potential for inundation due to tsunami or seiche is considered low.

4.7 FLOODING

Based on our internet search of the Federal Emergency Management Agency (FEMA) flood map public database, the site is located within Zone D, an area of undetermined, but possible flood hazard. We recommend the project civil engineer be retained to confirm this information and verify the base flood elevation, if appropriate.

The California Division of Safety of Dams has compiled an interactive map showing Dam Failure Breach Inundation Maps. Based on our review of these maps, areas in the northern side of the site appear to be within a dam inundation zone for a postulated dam failure at Cherry Flat Reservoir located abou7 miles east of the site. We recommend the project civil engineer be retained to confirm this information.

SECTION 5: CONCLUSIONS

5.1 SUMMARY

From a geotechnical viewpoint, the project is feasible provided the concerns listed below are addressed in the project design. Descriptions of each concern with brief outlines of our recommendations follow the listed concerns.

- Potential for significant localized liquefaction-induced settlements
- Presence of undocumented fill
- Redevelopment considerations

5.1.1 Potential for Liquefaction-Induced Settlements

As discussed, our liquefaction analysis indicates that there is a potential for liquefaction of localized sand layers during a significant seismic event. Although the potential for liquefied sands to vent to the ground surface through cracks in the surficial soils is low, our analysis indicates that liquefaction-induced settlement on the order 1¼ inches could occur within the vicinity of CPT-9 and on the order of ⅔-inch or less could occur throughout the remainder of the site. Foundations should be designed to tolerate the anticipated total and differential settlements. If the anticipated total and differential settlement is determined to not be feasible for conventional shallow foundations from a structural viewpoint, we anticipate shallow foundations over ground improvement will be a feasible alternative. Detailed foundation recommendations are presented in the “Foundations” section of this report.

5.1.2 Presence of Undocumented Fill

As previously discussed, our exploratory borings encountered about 1½ to 8 feet of undocumented fill. Undocumented fills are expected to vary in thickness, density, and consistency across the site. We recommend all undocumented fill be removed from within the building areas. Additional recommendations are provided in the "Earthwork" sections of this report.

5.1.3 Redevelopment Considerations

The proposed new warehouse locations are currently occupied by existing buildings and paved at-grade parking lots. Potential issues that are often associated with redeveloping sites include demolition of existing improvements, abandonment of existing utilities, and undocumented fill. In addition to the undocumented fill encountered in our borings, additional fills associated with previous development may be present at the site. We recommend all undocumented fill and existing improvements within future building areas be removed and replaced as engineered fill. Foundations and slabs-on-grade spanning from fill to native materials could experience additional differential movement. To reduce the potential for differential movement, over excavation beyond the demolished improvements and undocumented fill removal excavations and replacement with engineered fill may be required. Additional recommendations addressing this concern are provided in the "Earthwork" sections of this report.

5.2 PLANS AND SPECIFICATIONS REVIEW

We recommend that we be retained to review the geotechnical aspects of the project structural, civil, and landscape plans and specifications, allowing sufficient time to provide the design team with any comments prior to issuing the plans for construction.

5.3 CONSTRUCTION OBSERVATION AND TESTING

As site conditions may vary significantly between the small-diameter borings performed during this investigation, we also recommend that a Cornerstone representative be present to provide geotechnical observation and testing during earthwork and foundation construction. This will allow us to form an opinion and prepare a letter at the end of construction regarding contractor compliance with project plans and specifications, and with the recommendations in our report. We will also be allowed to evaluate any conditions differing from those encountered during our investigation, and provide supplemental recommendations as necessary. For these reasons, the recommendations in this report are contingent of Cornerstone providing observation and testing during construction. Contractors should provide at least a 48-hour notice when scheduling our field personnel.

SECTION 6: EARTHWORK

6.1 SITE DEMOLITION

All existing improvements not to be reused for the current development, including all foundations, flatwork, pavements, utilities, and other improvements should be demolished and removed from the site. Recommendations in this section apply to the removal of these improvements, which are currently present on the site, prior to the start of mass grading or the construction of new improvements for the project.

Cornerstone should be notified prior to the start of demolition, and should be present on at least a part-time basis during all backfill and mass grading as a result of demolition. Occasionally, other types of buried structures (wells, cisterns, debris pits, etc.) can be found on sites with prior development. If encountered, Cornerstone should be contacted to address these types of structures on a case-by-case basis.

6.1.1 Demolition of Existing Slabs, Foundations and Pavements

All slabs, foundations, and pavements should be completely removed from within planned building areas.

As an owner value-engineered option, existing slabs, foundations, and pavements that extend into planned flatwork, pavement, or landscape areas may be left in place provided there is at least 3 feet of engineered fill overlying the remaining materials, they are shown not to conflict with new utilities, and that asphalt and concrete more than 10 feet square is broken up to allow subsurface drainage. Future distress and/or higher maintenance may result from leaving these prior improvements in place. A discussion of recycling existing improvements is provided later in this report.

Special care should be taken during the demolition and removal of existing floor slabs, foundations, utilities and pavements to minimize disturbance of the subgrade. Excessive disturbance of the subgrade, which includes either native or previously placed engineered fill, resulting from demolition activities can have serious detrimental effects on planned foundation and paving elements.

Existing foundations are typically mat-slabs, shallow footings, or piers/piles. If slab or shallow footings are encountered, they should be completely removed. If drilled piers are encountered, they should be cut off at an elevation at least 60-inches below proposed footings or the final subgrade elevation, whichever is deeper. The remainder of the drilled pier could remain in place. Foundation elements to remain in place should be surveyed and superimposed on the proposed development plans to determine the potential for conflicts or detrimental impacts to the planned construction. Following review, additional mitigation or planned foundation elements may need to be modified.

6.1.2 Abandonment of Existing Utilities

All utilities should be completely removed from within planned building areas. For any utility line to be considered acceptable to remain within building areas, the utility line must be completely backfilled with grout or sand-cement slurry (sand slurry is not acceptable), the ends outside the building area capped with concrete, and the trench fills either removed and replaced as engineered fill with the trench side slopes flattened to at least 1:1, or the trench fills are determined not to be a risk to the structure. The assessment of the level of risk posed by the particular utility line will determine whether the utility may be abandoned in place or needs to be completely removed. The contractor should assume that all utilities will be removed from within building areas unless provided written confirmation from both the owner and the geotechnical engineer.

Utilities extending beyond the building area may be abandoned in place provided the ends are plugged with concrete, they do not conflict with planned improvements, and that the trench fills do not pose significant risk to the planned surface improvements.

The risk for owners associated with abandoning utilities in place include the potential for future differential settlement of existing trench fills, and/or partial collapse and potential ground loss into utility lines that are not completely filled with grout.

6.2 SITE CLEARING AND PREPARATION

6.2.1 Site Stripping

The site should be stripped of all surface vegetation, and surface and subsurface improvements to be removed within the proposed development area. Demolition of existing improvements is discussed in the prior paragraphs. A detailed discussion of removal of existing fills is provided later in this report. Surface vegetation and topsoil should be stripped to a sufficient depth to remove all material greater than 3 percent organic content by weight.

6.2.2 Tree and Shrub Removal

Trees and shrubs designated for removal should have the root balls and any roots greater than ½-inch diameter removed completely. Mature trees are estimated to have root balls extending to depths of 2 to 4 feet, depending on the tree size. Significant root zones are anticipated to extend to the diameter of the tree canopy. Grade depressions resulting from root ball removal should be cleaned of loose material and backfilled in accordance with the recommendations in the “Compaction” section of this report.

6.3 REMOVAL OF EXISTING FILLS

As previously discussed, our borings encountered up to approximately 8 feet of undocumented fill. In addition, based on existing site development, additional fills may be present in localized areas across the site. The undocumented fill is expected to vary some across the site. Please refer to Appendix A for additional information and exploratory boring logs. All fills should be

completely removed from within building areas and to a lateral distance of at least 5 feet beyond the building footprint or to a lateral distance equal to fill depth below the perimeter footing, whichever is greater. Side slopes of the demolition and/or fill removal excavations should be over-excavated or benched to inclinations no steeper than 3:1 (horizontal:vertical) until the footings are supported entirely on either native material or engineered fill to reduce abrupt fill thickness transitions. The exact depth of engineered fill should be reviewed once final structural plans are available as well as reviewed again during demolition.

Provided the fills meet the "Material for Fill" requirements below, the fills may be reused when backfilling the excavations. Based on review of the samples collected from our borings, it appears that the fill may be reused. If materials are encountered that do not meet the requirements, such as debris, wood, trash, those materials should be screened out of the remaining material and be removed from the site. Backfill of excavations should be placed in lifts and compacted in accordance with the "Compaction" section below.

Fills extending into planned pavement and flatwork areas may be left in place provided they are determined to be a low risk for future differential settlement and that the upper 12 to 18 inches of fill below pavement subgrade is re-worked and compacted as discussed in the "Compaction" section below.

6.3.1 Supplemental Exploratory Test Pits

At your option, a supplemental field exploration program including test pits can be performed to better evaluate the existing undocumented fill and further define its limits and depths. We recommend this supplemental program be performed after the existing buildings are demolished and prior to site mass grading, if appropriate.

6.4 TEMPORARY CUT AND FILL SLOPES

The contractor is responsible for maintaining all temporary slopes and providing temporary shoring where required. Temporary shoring, bracing, and cuts/fills should be performed in accordance with the strictest government safety standards. On a preliminary basis, the upper 10 feet at the site may be classified as OSHA Soil Type B or C materials. A Cornerstone representative should be retained to confirm the preliminary site classification.

Excavations performed during site demolition and fill removal should be sloped at 3:1 (horizontal:vertical) within the upper 5 feet below building subgrade. Excavations extending more than 5 feet below building subgrade and excavations in pavement and flatwork areas should be sloped in accordance with the OSHA classification.

6.5 SUBGRADE PREPARATION

After site clearing and demolition is complete, and prior to backfilling any excavations resulting from fill removal or demolition, the excavation subgrade and subgrade within areas to receive additional site fills, slabs-on-grade and/or pavements should be scarified to a depth of 6 inches, moisture conditioned, and compacted in accordance with the "Compaction" section below.

Due to the sandy soils likely to be encountered at some areas of subgrade elevation, we recommend that subgrade compaction and proof rolling be performed within 24 hours of capillary break layer or slab-on-grade construction.

6.6 SUBGRADE STABILIZATION MEASURES

Soil subgrade and fill materials, especially soils with high fines contents such as clays and silty soils, can become unstable due to high moisture content, whether from high in-situ moisture contents or from winter rains. This also includes the subgrade soils within the existing man-made pond. As the moisture content increases over the laboratory optimum, it becomes more likely the materials will be subject to softening and yielding (pumping) from construction loading or become unworkable during placement and compaction.

As discussed in the "Subsurface" section in this report, the in-situ moisture contents are up to about 15 percent over the estimated laboratory optimum in the upper 10 feet of the soil profile. The contractor should anticipate drying the soils prior to reusing them as fill. In addition, repetitive rubber-tire loading will likely de-stabilize the soils.

There are several methods to address potential unstable soil conditions and facilitate fill placement and trench backfill. Some of the methods are briefly discussed below. Implementation of the appropriate stabilization measures should be evaluated on a case-by-case basis according to the project construction goals and the particular site conditions.

6.6.1 Scarification and Drying

The subgrade may be scarified to a depth of 8 to 12 inches and allowed to dry to near optimum conditions, if sufficient dry weather is anticipated to allow sufficient drying. More than one round of scarification may be needed to break up the soil clods.

6.6.2 Removal and Replacement

As an alternative to scarification, the contractor may choose to over-excavate the unstable soils and replace them with dry on-site or import materials. A Cornerstone representative should be present to provide recommendations regarding the appropriate depth of over-excavation, whether a geosynthethic (stabilization fabric or geogrid) is recommended, and what materials are recommended for backfill.

6.6.3 Chemical Treatment

Where the unstable area exceeds about 5,000 to 10,000 square feet and/or site winterization is desired, chemical treatment with quicklime (CaO), kiln-dust, or cement may be more cost-effective than removal and replacement. Recommended chemical treatment depths will typically range from 12 to 18 inches depending on the magnitude of the instability.

6.7 MATERIAL FOR FILL

6.7.1 Re-Use of On-site Soils

On-site soils with an organic content less than 3 percent by weight may be reused as general fill. General fill should not have lumps, clods or cobble pieces larger than 6 inches in diameter; 85 percent of the fill should be smaller than 2½ inches in diameter. Minor amounts of oversize material (smaller than 12 inches in diameter) may be allowed provided the oversized pieces are not allowed to nest together and the compaction method will allow for loosely placed lifts not exceeding 12 inches.

6.7.2 Re-Use of On-Site Site Improvements

We anticipate that significant quantities of asphalt concrete (AC) grindings and aggregate base (AB) will be generated during site demolition. If the AC grindings are mixed with the underlying AB to meet Class 2 AB specifications, they may be reused within the new pavement and flatwork structural sections. AC/AB grindings may not be reused within habitable building areas. Laboratory testing will be required to confirm the grindings meet project specifications. Due to the existing alligator cracking of the AC pavements, it is likely that the grinding operation will leave significant oversize chunks and won't meet the Class 2 AB gradation requirements but may meet Caltrans subbase requirements. Depending on the quantities of oversized material, the grindings may still be used within the structural section; however, the pavement design will need to be modified to account for the difference, typically resulting in the addition of about 1 inch to the structural section.

6.7.3 Potential Import Sources

Imported and non-expansive material should be inorganic with a Plasticity Index (PI) of 15 or less, and not contain recycled asphalt concrete where it will be used within habitable building areas. To prevent significant caving during trenching or foundation construction, imported material should have sufficient fines. Samples of potential import sources should be delivered to our office at least 10 days prior to the desired import start date. Information regarding the import source should be provided, such as any site geotechnical reports. If the material will be derived from an excavation rather than a stockpile, potholes will likely be required to collect samples from throughout the depth of the planned cut that will be imported. At a minimum, laboratory testing will include PI tests. Material data sheets for select fill materials (Class 2 aggregate base, ¾-inch crushed rock, quarry fines, etc.) listing current laboratory testing data (not older than 6 months from the import date) may be provided for our review without providing a sample. If current data is not available, specification testing will need to be completed prior to approval.

Environmental and soil corrosion characterization should also be considered by the project team prior to acceptance. Suitable environmental laboratory data to the planned import quantity should be provided to the project environmental consultant; additional laboratory testing may be required based on the project environmental consultant's review. The potential import source

should also not be more corrosive than the on-site soils, based on pH, saturated resistivity, and soluble sulfate and chloride testing.

6.8 COMPACTION REQUIREMENTS

All fills, and subgrade areas where fill, slabs-on-grade, and pavements are planned, should be placed in loose lifts 8 inches thick or less and compacted in accordance with ASTM D1557 (latest version) requirements as shown in the table below. In general, clayey soils should be compacted with sheepsfoot equipment and sandy/gravelly soils with vibratory equipment; open-graded materials such as crushed rock should be placed in lifts no thicker than 18 inches consolidated in place with vibratory equipment. Each lift of fill and all subgrade should be firm and unyielding under construction equipment loading in addition to meeting the compaction requirements to be approved. The contractor (with input from a Cornerstone representative) should evaluate the in-situ moisture conditions, as the use of vibratory equipment on soils with high moistures can cause unstable conditions. General recommendations for soil stabilization are provided in the "Subgrade Stabilization Measures" section of this report.

Table 2: Compaction Requirements

Description	Material Description	Minimum Relative[1] Compaction (percent)	Moisture[2] Content (percent)
General Fill (within upper 5 feet)	On-Site Soils	90	>1
General Fill (below a depth of 5 feet)	On-Site Soils	95	>1
Trench Backfill	On-Site Soils	90	>1
Trench Backfill (upper 6 inches of subgrade)	On-Site Soils	95	>1
Crushed Rock Fill	¾-inch Clean Crushed Rock	Consolidate In-Place	NA
Non-Expansive Fill	Imported Non-Expansive Fill	90	Optimum
Flatwork Subgrade	On-Site Soils	90	>1
Flatwork Aggregate Base	Class 2 Aggregate Base[3]	90	Optimum
Pavement Subgrade	On-Site Soils	95	>1
Pavement Aggregate Base	Class 2 Aggregate Base[3]	95	Optimum
Asphalt Concrete	Asphalt Concrete	95	NA

1 – Relative compaction based on maximum density determined by ASTM D1557 (latest version)
2 – Moisture content based on optimum moisture content determined by ASTM D1557 (latest version)
3 – Class 2 aggregate base shall conform to Caltrans Standard Specifications, latest edition, except that the relative compaction should be determined by ASTM D1557 (latest version)

6.8.1 Construction Moisture Conditioning

Expansive soils can undergo significant volume change when dried then wetted. The contractor should keep all exposed expansive soil subgrade (and also trench excavation side walls) moist until protected by overlying improvements (or trenches are backfilled). If expansive soils are

allowed to dry out significantly, re-moisture conditioning may require several days of re-wetting (flooding is not recommended), or deep scarification, moisture conditioning, and re-compaction.

6.9 TRENCH BACKFILL

Utility lines constructed within public right-of-way should be trenched, bedded and shaded, and backfilled in accordance with the local or governing jurisdictional requirements. Utility lines in private improvement areas should be constructed in accordance with the following requirements unless superseded by other governing requirements.

All utility lines should be bedded and shaded to at least 6 inches over the top of the lines with crushed rock (⅜-inch-diameter or greater) or well-graded sand and gravel materials conforming to the pipe manufacturer's requirements. Open-graded shading materials should be consolidated in place with vibratory equipment and well-graded materials should be compacted to at least 90 percent relative compaction with vibratory equipment prior to placing subsequent backfill materials.

General backfill over shading materials may consist of on-site native materials provided they meet the requirements in the "Material for Fill" section, and are moisture conditioned and compacted in accordance with the requirements in the "Compaction" section.

Where utility lines will cross perpendicular to strip footings, the footing should be deepened to encase the utility line, providing sleeves or flexible cushions to protect the pipes from anticipated foundation settlement, or the utility lines should be backfilled to the bottom of footing with sand-cement slurry or lean concrete. Where utility lines will parallel footings and will extend below the "foundation plane of influence," an imaginary 1:1 plane projected down from the bottom edge of the footing, either the footing will need to be deepened so that the pipe is above the foundation plane of influence or the utility trench will need to be backfilled with sand-cement slurry or lean concrete within the influence zone. Sand-cement slurry used within foundation influence zones should have a minimum compressive strength of 75 psi.

On expansive soils sites it is desirable to reduce the potential for water migration into building and pavement areas through the granular shading materials. We recommend that a plug of low-permeability clay soil, sand-cement slurry, or lean concrete be placed within trenches just outside where the trenches pass into building and pavement areas.

6.10 SITE DRAINAGE

6.10.1 Surface Drainage

Ponding should not be allowed adjacent to building foundations, slabs-on-grade, or pavements. Hardscape surfaces should slope at least 2 percent towards suitable discharge facilities; landscape areas should slope at least 3 percent towards suitable discharge facilities. Roof runoff should be directed away from building areas in closed conduits, to approved infiltration facilities, or on to hardscaped surfaces that drain to suitable facilities. Retention, detention or infiltration facilities should be spaced at least 10 feet from buildings, and preferably at least 5

feet from slabs-on-grade or pavements. However, if retention, detention or infiltration facilities are located within these zones, we recommend that these treatment facilities meet the requirements in the Storm Water Treatment Design Considerations section of this report.

6.11 LOW-IMPACT DEVELOPMENT (LID) IMPROVEMENTS

The Municipal Regional Permit (MRP) requires regulated projects to treat 100 percent of the amount of runoff identified in Provision C.3.d from a regulated project's drainage area with low impact development (LID) treatment measures onsite or at a joint stormwater treatment facility. LID treatment measures are defined as rainwater harvesting and use, infiltration, evapotranspiration, or biotreatment. A biotreatment system may only be used if it is infeasible to implement harvesting and use, infiltration, or evapotranspiration at a project site.

Technical infeasibility of infiltration may result from site conditions that restrict the operability of infiltration measures and devices. Various factors affecting the feasibility of infiltration treatment may create an environmental risk, structural stability risk, or physically restrict infiltration. The presence of any of these limiting factors may render infiltration technically infeasible for a proposed project. To aid in determining if infiltration may be feasible at the site, we provide the following site information regarding factors that may aid in determining the feasibility of infiltration facilities at the site.

- The near-surface soils at the site are clayey, and categorized as Hydrologic Soil Group D, and is expected to have infiltration rates of less than 0.2 inches per hour. In our opinion, these clayey soils will significantly limit the infiltration of stormwater.

- Locally, historic high groundwater is mapped at a depth of 8 feet, and therefore is expected to be within 10 feet of the base of the infiltration measure.

- The site is not known, to our knowledge, to have pollutants with the potential for mobilization as a result of stormwater infiltration.

- The site has a known geotechnical hazard consisting of soils subject to liquefaction; therefore, stormwater infiltration facilities may not be feasible.

- In our opinion, infiltration locations within 10 feet of the buildings would create a geotechnical hazard.

- Infiltration measures, devices, or facilities may conflict with the location of existing or proposed underground utilities or easements. Infiltration measures, devices, or facilities should not be placed on top of or very near to underground utilities such that they discharge to the utility trench, restrict access, or cause stability concerns.

- Local Water District policies or guidelines may limit locations where infiltration may occur, require greater separation from seasonal high groundwater, or require greater setbacks from potential sources of pollution.

6.11.1 Storm Water Treatment Design Considerations

If storm water treatment improvements, such as shallow bio-retention swales, basins or pervious pavements, are required as part of the site improvements to satisfy Storm Water Quality (C.3) requirements, we recommend the following items be considered for design and construction.

6.11.1.1 GENERAL BIOSWALE DESIGN GUIDELINES

- If possible, avoid placing bioswales or basins within 10 feet of the building perimeter or within 5 feet of exterior flatwork or pavements. If bioswales must be constructed within these setbacks, the side(s) and bottom of the trench excavation should be lined with 10-mil visqueen to reduce water infiltration into the surrounding expansive clay.

- Bioswales constructed within 3 feet of proposed buildings may be within the foundation zone of influence for perimeter wall loads. Therefore, where bioswales will parallel foundations and will extend below the "foundation plane of influence," an imaginary 1:1 plane projected down from the bottom edge of the foundation, the foundation will need to be deepened so that the bottom edge of the bioswale filter material is above the foundation plane of influence.

- The bottom of bioswale or detention areas should include a perforated drain placed at a low point, such as a shallow trench or sloped bottom, to reduce water infiltration into the surrounding soils near structural improvements, and to address the low infiltration capacity of the on-site clay soils.

6.11.1.2 BIOSWALE INFILTRATION MATERIAL

- Gradation specifications for bioswale filter material, if required, should be specified on the grading and improvement plans.

- Compaction requirements for bioswale filter material in non-landscaped areas or in pervious pavement areas, if any, should be indicated on the plans and specifications to satisfy the anticipated use of the infiltration area.

- If required, infiltration (percolation) testing should be performed on representative samples of potential bioswale materials prior to construction to check for general conformance with the specified infiltration rates.

- It should be noted that multiple laboratory tests may be required to evaluate the properties of the bioswale materials, including percolation, landscape suitability and possibly environmental analytical testing depending on the source of the material. We recommend that the landscape architect provide input on the required landscape suitability tests if bioswales are to be planted.

- If bioswales are to be vegetated, the landscape architect should select planting materials that do not reduce or inhibit the water infiltration rate, such as covering the bioswale with grass sod containing a clayey soil base.

- If required by governing agencies, field infiltration testing should be specified on the grading and improvement plans. The appropriate infiltration test method, duration and frequency of testing should be specified in accordance with local requirements.

- Due to the relatively loose consistency and/or high organic content of many bioswale filter materials, long-term settlement of the bioswale medium should be anticipated. To reduce initial volume loss, bioswale filter material should be wetted in 12 inch lifts during placement to pre-consolidate the material. Mechanical compaction should not be allowed, unless specified on the grading and improvement plans, since this could significantly decrease the infiltration rate of the bioswale materials.

- It should be noted that the volume of bioswale filter material may decrease over time depending on the organic content of the material. Additional filter material may need to be added to bioswales after the initial exposure to winter rains and periodically over the life of the bioswale areas, as needed.

6.11.1.3 BIOSWALE CONSTRUCTION ADJACENT TO PAVEMENTS

If bio-infiltration swales or basins are considered adjacent to proposed parking lots or exterior flatwork, we recommend that mitigative measures be considered in the design and construction of these facilities to reduce potential impacts to flatwork or pavements. Exterior flatwork, concrete curbs, and pavements located directly adjacent to bio-swales may be susceptible to settlement or lateral movement, depending on the configuration of the bioswale and the setback between the improvements and edge of the swale. To reduce the potential for distress to these improvements due to vertical or lateral movement, the following options should be considered by the project civil engineer:

- Improvements should be setback from the vertical edge of a bioswale such that there is at least 1 foot of horizontal distance between the edge of improvements and the top edge of the bioswale excavation for every 1 foot of vertical bioswale depth, or

- Concrete curbs for pavements, or lateral restraint for exterior flatwork, located directly adjacent to a vertical bioswale cut should be designed to resist lateral earth pressures in accordance with the recommendations in the “Retaining Walls” section of this report, or concrete curbs or edge restraint should be adequately keyed into the native soil or engineered to reduce the potential for rotation or lateral movement of the curbs.

SECTION 7: 2019 CBC SEISMIC DESIGN CRITERIA

We developed site-specific seismic design parameters in accordance with Chapter 16, Chapter 18 and Appendix J of the 2019 California Building Code (CBC) and Chapters 11, 12, 20, and 21 and Supplement No. 1 of ASCE 7-16.

7.1 SITE LOCATION AND PROVIDED DATA FOR 2019 CBC SEISMIC DESIGN

The project is located at latitude 37.395165° and longitude -121.887390°, which is based on Google Earth (WGS84) coordinates at the approximate center of the site at Qume Drive and Commerce Drive in San Jose, California. We have assumed that a Seismic Importance Factor (I_e) of 1.00 has been assigned to the structure in accordance with Table 1.5-2 of ASCE 7-16 for structures classified as Risk Category II. The building period has not been provided by the project structural engineer.

7.2 SITE CLASSIFICATION – CHAPTER 20 OF ASCE 7-16

Code-based site classification and ground motion attenuation relationships are based on the time-weighted average shear wave velocity of the top approximately 100 feet (30 meters) of the soil profile (V_{S30}).

Our explorations generally encountered medium dense to very dense sands and gravels with varying amounts of clay and silt and medium stiff to hard clay deposits to a depth of 100 feet, the maximum depth explored. Shear wave velocity (V_S) measurements were performed while advancing CPT-2, CPT-4, and CPT-9, resulting in a time-averaged shear wave velocity for the top 30 meters (V_{S30}) of 243, 235, and 253 meters per second, respectively. In accordance with Table 20.3-1 of ASCE 7-16, we recommend the site be classified as Soil Classification D, which is described as a "stiff soil" profile. Because we used site specific data from our explorations and laboratory testing, the site class should be considered as "determined" for the purposes of estimating the seismic design parameters from the code outlined below. Our site-specific ground motion hazard analysis considered a V_{S30} of 253 m/s (896 ft/s).

7.3 CODE-BASED SEISMIC DESIGN PARAMETERS

Code-based spectral acceleration parameters were determined based on mapped acceleration response parameters adjusted for the specific site conditions. Mapped Risk-Adjusted Maximum Considered Earthquake (MCE_R) spectral acceleration parameters (S_S and S_1) were determined using the ATC Hazards by Location website (https://hazards.atcouncil.org).

The mapped acceleration parameters were adjusted for local site conditions based on the average soil conditions for the upper 100 feet (30 meters) of the soil profile. Code-based MCE_R spectral response acceleration parameters adjusted for site effects (S_{MS} and S_{M1}) and design spectral response acceleration parameters (S_{DS} and S_{D1}) are presented in Table 3.

In accordance with Section 11.4.8 of ASCE 7-16, structures on Site Class D sites with mapped 1-second period spectral acceleration (S_1) values greater than or equal to 0.2 require a site-specific ground motion hazard analysis be performed in accordance with Section 21.2 of ASCE 7-16. ***Design seismic parameters determined by performing a Ground Motion Hazard Analysis per Section 21.2 of ASCE 7-16 are presented in Table 6. Recommended values in Table 3 should not be used for design unless in the judgement of the structural engineer an exception can be taken in accordance with Section 11.4.8 of ASCE 7-16.*** Values summarized in Table 3 are only used to determine Seismic Design Category and

comparison with minimum code requirements for further use in our ground motion hazard analysis (GMHA).

Table 3: 2019 CBC Site Categorization and Site Coefficients

Classification/Coefficient	Design Value
Site Class	D
Site Latitude	37.395165°
Site Longitude	-121.887390°
Risk Category	II**
Short Period Mapped Spectral Acceleration – S_S	1.795
1-second Period Mapped Spectral Acceleration – S_1	0.683
Short-Period Site Coefficient – F_a	1.000
Long-Period Site Coefficient – F_v	*null
Short Period MCE Spectral Response Acceleration Adjusted for Site Effects – S_{MS}	1.795
1-second Period MCE Spectral Response Acceleration Adjusted for Site Effects – S_{M1}	*null
Short Period, Design Earthquake Spectral Response Acceleration – S_{DS}	1.197
1-second Period, Design Earthquake Spectral Response Acceleration – S_{D1}	*null
Long-Period Transition – T_L	12
Site Coefficient – F_{PGA}	1.100
Site Modified Peak Ground Acceleration – PGA_M	0.831

*null – per section 11.4.8 of ASCE 7-16
**Assumed, to be confirmed by Structural Engineer

7.4 SITE-SPECIFIC GROUND MOTION HAZARD ANALYSIS

Following Section 11.4.8 of ASCE 7-16, we performed a ground motion hazards analysis (GMHA) in accordance with Chapter 21, Section 21.2 of ASCE 7. We evaluated both Probabilistic MCE_R Ground Motions in accordance with Method 1 and Deterministic MCE_R Ground Motions to generate our recommended design response spectrum for the project. Our analyses were performed using the USGS interface Unified Hazard Tool (UHT) based on the UCERF 3 Data Set, Building Seismic Safety Council (BSSC) Scenario Catalog 2014 event set (BSSC 2014), and the 2014 National Seismic Hazard Maps – Source Parameters (NSHMP deterministic event set). Additionally, we utilized the USGS program Response Spectra Plotter with combined models (Combined: WUS 2014 (4.1)) and the USGS program Risk-Targeted Ground Motion Calculator.

Our analysis utilized the mean ground motions predicted by four of the Next Generation Attenuation West 2 (NGA-West 2) relationships: Boore-Atkinson (2013), Campbell-Bozorgnia (2013), Chiou-Youngs (2013), and Abrahamson-Silva (2013). Rotation factors (scale factors)

were determined as specified in ASCE 7-16 Chapter 21, Section 21.2, to calculate the maximum rotated component of ground motions (ASCE, 2016).

7.4.1 Probabilistic MCE_R

We performed a probabilistic seismic hazard analysis (PSHA) in accordance with ASCE 7-16 Sections 21.2.1 and 21.2.1.2. The probabilistic MCE acceleration response spectrum is defined as the 5 percent damped acceleration response spectrum having a 2 percent probability of exceedance in a 50-year period (2,475-year return period). The probabilistic MCE spectrum was multiplied by Risk Coefficients (C_R) to determine the probabilistic MCE_R. We used Risk Coefficients (C_{RS} and C_{R1}) of 0.940 and 0.919, respectively, based on ASCE 7-16 Section 21.2.1.1 - Method 1 and the ATC website. Risk coefficients for the various periods are presented in Table 4, Column 3.

The resulting probabilistic MCE_R for site class D are presented on Figure 5 (red line). Spectral ordinates are tabulated in Table 4, Column 6.

7.4.2 Deterministic MCE_R

We performed deterministic seismic hazard analyses in accordance with ASCE 7-16 Section 21.2.2 and ASCE 7-16 Supplement No. 1. The deterministic MCE_R acceleration response spectrum is calculated as the largest 84th percentile ground motion in the direction of maximum horizontal response for each period for characteristic earthquakes on all known active faults within the region. The largest deterministic ground motion resulted from a M_w 7.08 earthquake on the Hayward (HS + HE) Fault, located at a distance of 5.6 km from the site.

In accordance with Supplement No.1 of ASCE 7-16, when the largest spectral response acceleration of the resulting deterministic ground motion response spectrum is less than $1.5F_a$ then the largest 84th percentile rotated response spectrum (Table 4, Column 4) shall be scaled by a single factor such that the maximum response spectral acceleration equals $1.5F_a$. For Site Classes A, B, C and D, F_a is determined using Table 11.4.1 with the value of S_s taken as 1.5; for Site Class E, F_a shall be taken as 1.0. When the largest spectral response acceleration of the probabilistic ground motion response of 21.2.1 is less than $1.2F_a$, the deterministic ground motion response spectrum does not need to be calculated. As the largest probabilistic spectral response acceleration was determined to be 2.950 which is greater than $1.2F_a$, where F_a is taken as 1.000 from Table 11.4-1 in ASCE 7-16 Supplement No.1, the 84th percentile rotated response spectrum was calculated as part of the deterministic analyses.

7.4.3 Site-Specific MCE_R

The site-specific MCE_R is defined by ASCE 7-16 Section 21.2.3 as the lesser of the deterministic and probabilistic MCE_R's at each period. Spectral ordinates for the site-specific MCE_R are tabulated in Table 4, Column 7 and shown graphically on Figure 5 (dashed black line).

Table 4: Development of Site-Specific MCE_R Spectrum

Period (seconds)	CBC General Spectrum (g)	Risk Coefficient	Det. 84th Percentile Rotated	Deterministic MCE_R (g)	Probabilistic MCE_R (g)	Site-Specific MCE_R (g)
0.000	0.479	0.940	0.962	0.962	1.099	0.962
0.050	0.667	0.940	1.028	1.028	1.472	1.028
0.100	0.856	0.940	1.481	1.481	1.844	1.481
0.150	1.045	0.940	1.806	1.806	2.126	1.806
0.190	1.196	0.940	1.967	1.967	2.352	1.967
0.200	1.197	0.940	2.007	2.007	2.408	2.007
0.250	1.197	0.939	2.146	2.146	2.610	2.146
0.300	1.197	0.937	2.228	2.228	2.812	2.228
0.400	1.197	0.935	2.285	2.285	2.881	2.285
0.500	1.197	0.932	2.247	2.247	2.950	2.247
0.750	1.197	0.926	1.889	1.889	2.607	1.889
0.951	1.197	0.920	1.663	1.663	2.359	1.663
1.000	1.138	0.919	1.608	1.608	2.299	1.608
2.000	0.569	0.919	0.806	0.806	1.318	0.806
3.000	0.379	0.919	0.507	0.507	0.885	0.507
4.000	0.285	0.919	0.338	0.338	0.631	0.338
5.000	0.228	0.919	0.249	0.249	0.482	0.249

7.4.4 Design Response Spectrum

The Design Response Spectrum (DRS) is defined in ASCE 7-16 Section 21.3 as:

- two-thirds of the site-specific MCE_R, but
- not less than 80% of the general design response spectrum

Spectral accelerations corresponding to two-thirds of the MCE_R are tabulated in Table 5, Column 2. Ordinates corresponding to 80% of the general Site Class D response spectrum are tabulated below in Table 5, Column 3. Ordinates of the site-specific DRS are tabulated in Table 5, Column 4. Development of the site-specific DRS is presented graphically on Figure 6 (dashed black line).

Table 5: Development of Site-Specific Design Response Spectrum

Period (seconds)	2/3 Site-Specific MCE_R (g)	80% CBC Site Class C Spectrum (g)	Design Response Spectrum (g)
0.000	0.641	0.383	0.641
0.050	0.685	0.534	0.685
0.100	0.987	0.685	0.987
0.150	1.204	0.836	1.204
0.190	1.311	0.957	1.311
0.200	1.338	0.957	1.338
0.250	1.430	0.957	1.430
0.300	1.485	0.957	1.485
0.400	1.523	0.957	1.523
0.500	1.498	0.957	1.498
0.750	1.260	0.957	1.260
0.951	1.109	0.957	1.109
1.000	1.072	0.911	1.072
2.000	0.537	0.455	0.537
3.000	0.338	0.304	0.338
4.000	0.225	0.228	0.228
5.000	0.166	0.182	0.182

7.5 DESIGN ACCELERATION PARAMETERS

Design acceleration parameters (S_{DS} and S_{D1}) were determined in accordance with Section 21.4 of ASCE 7-16. S_{DS} is defined as the design spectral acceleration at 90% of the maximum spectral acceleration, S_a, obtained from the site-specific spectrum, at any period within the range from 0.2 to 5 seconds, inclusive. S_{D1} is defined as the maximum value of the product, TS_a, for periods from 1 to 2 seconds for sites with $v_{s,30}$ > 1,200 ft/s ($v_{s,30}$ > 365.76 m/s) and for periods from 1 to 5 seconds for sites with $v_{s,30}$ ≤ 1,200 ft/s ($v_{s,30}$ ≤ 365.76 m/s).

Site-specific MCE_R spectral response acceleration parameters (S_{MS} and S_{M1}) are calculated as:

- 1.5 times the S_{DS} and S_{D1} values, respectively, but
- not less than 80% of the code-based values presented in Table 3

Recommended design acceleration parameters are summarized in Table 6.

When using the Equivalent Lateral Force Procedure, ASCE 7-16 Section 21.4 allows using the spectral acceleration at any period (T) in lieu of S_{D1}/T in Eq. 12.8-3 and $S_{D1}T_L/T_2$ in Eq. 12.8-4.

The site-specific spectral acceleration at any period may be calculated by interpolation of the spectral ordinates in Table 5, Column 4.

Table 6: Site Class D: Site-Specific Design Acceleration Parameters

Parameter	Value
S_{DS}	1.371
S_{D1}	1.074
S_{MS}	2.056
S_{M1}	1.611

7.6 SITE-SPECIFIC MCE_G PEAK GROUND ACCELERATION

7.6.1 Site Class D: Site-Specific MCE_G Peak Ground Acceleration

We calculated the Site-Specific MCE_G Peak Ground Acceleration (PGA_M) in accordance with ASCE 7-16 Section 21.5. The Site-Specific PGA_M is calculated as the lesser of probabilistic and deterministic geometric mean PGA. The 2% in 50-year probabilistic geometric mean PGA is 1.063g. The deterministic PGA is considered the greater of the largest 84th percentile deterministic geometric mean PGA (0.874g) or one-half of the tabulated F_{PGA} value from ASCE 7-16 Table 11.8.1 with the value of PGA taken as 0.5g. For the site, F_{PGA} is 1.100 and one-half of the F_{PGA} is 0.55g; therefore, the deterministic PGA is 0.874g. Additionally, the Site-Specific PGA_M may not be less than 80% of the mapped PGA_M determined from ASCE 7-16 Equation 11.8-1. The mapped PGA_M for the site is 0.831g; 80% of PGA_M is 0.665g.

Based on the above, the recommended Site-Specific PGA_M for the site is 0.874g.

SECTION 8: FOUNDATIONS

8.1 SUMMARY OF RECOMMENDATIONS

In our opinion, the proposed structures may be supported on shallow foundations provided the total and differential settlements are considered tolerable from a structural standpoint, and the recommendations in the “Earthwork” section and the sections below are followed. We also recommend the project structural engineer review our settlement estimates per his requirements. If it is determined that shallow foundations are not feasible, additional field exploration and laboratory testing may be performed, as needed.

In addition, our analysis has assumed that the site will not be raised and therefore no significant fill will be placed across the site. If this changes, we should be notified to revise our analysis as needed.

8.2 SHALLOW FOUNDATIONS

8.2.1 Spread Footings and Continuous Strip Footings

Spread footings and continuous strip footings should bear on natural, undisturbed soil or engineered fill, be at least 12 inches wide, and extend at least 12 inches below the lowest adjacent grade. Lowest adjacent grade is defined as the deeper of the following: 1) bottom of the adjacent interior slab-on-grade, or 2) finished exterior grade, excluding landscaping topsoil.

Footings constructed to the above dimensions and in accordance with the "Earthwork" recommendations of this report are capable of supporting maximum allowable bearing pressures of 2,000 psf for dead loads, 3,000 psf for combined dead plus live loads, and 4,000 psf for all loads including wind and seismic. These pressures are based on factors of safety of 3.0, 2.0, and 1.5 applied to the ultimate bearing pressure for dead, dead plus live, and all loads, respectively. These pressures are net values; the weight of the footing may be neglected for the portion of the footing extending below grade (typically, the full footing depth). Top and bottom mats of reinforcing steel should be included in continuous footings to help span irregularities and differential settlement.

The site is underlain by some cohesionless soils that are considered potentially liquefiable; therefore, we considered the potential effects of liquefaction in the foundation design as required by ASCE 7, Section 12.13.9. The potentially liquefiable layers are at depths of 8 feet or greater and do not appear continuous across the site; therefore, the potential for liquefaction causing a reduction in bearing capacity is neglible for shallow foundations. As footing sizes and depths were assumed, we recommend we be retained to review the final footing layout and loading, and verify the liquefiable layers do not cause a reduction in bearing capacity.

8.2.2 Footing Settlement

Structural loads were not provided to us at the time this report was prepared; therefore, we assumed the typical loading in the following table.

Table 7: Assumed Structural Loading

Foundation Area	Range of Assumed Loads
Interior Isolated Column Footing	100 to 150 kips
Exterior Isolated Column Footing	50 to 75 kips
Perimeter Strip Footing	2 to 4 kips per lineal foot

Based on the above loading and the allowable bearing pressures presented above, we estimate that the total static footing settlement will be on the order of ¼- to ¾-inch, with about ⅓-inch of post-construction differential settlement between adjacent foundation elements. In addition, in the vicinity of CPT-1 through CPT-8 (Buildings 1 through 3) we estimate that differential seismic movement will be on the order of ½-inch or less, resulting in a total estimated differential footing movement of less than about 1-inch between foundation elements, assumed to be on the order

of 50 to 60 feet for Buildings 1 through 3. In the vicinity of CPT-9 (Building 4), we estimate that differential seismic movement will be on the order of less than 1-inch, resulting in an increase total estimated differential footing movement on the order of 1⅓ inch, or less between foundation elements for Building 4. As our footing loads were assumed, we recommend we be retained to review the final footing layout and loading, and verify the settlement estimates above.

8.2.3 Lateral Loading

Lateral loads may be resisted by friction between the bottom of footing and the supporting subgrade, and also by passive pressures generated against footing sidewalls. An ultimate frictional resistance of 0.4 applied to the footing dead load, and an ultimate passive pressure based on an equivalent fluid pressure of 400 pcf may be used in design. The structural engineer should apply an appropriate factor of safety (such as 1.5) to the ultimate values above. Where footings are adjacent to landscape areas without hardscape, the upper 12 inches of soil should be neglected when determining passive pressure capacity.

8.2.4 Spread Footing Construction Considerations

Where utility lines will cross perpendicular to strip footings, the footing should be deepened to encase the utility line, providing sleeves or flexible cushions to protect the pipes from anticipated foundation settlement, or the utility lines should be backfilled to the bottom of footing with sand-cement slurry or lean concrete. Where utility lines will parallel footings and will extend below the "foundation plane of influence," an imaginary 1:1 plane projected down from the bottom edge of the footing, either the footing will need to be deepened so that the pipe is above the foundation plane of influence or the utility trench will need to be backfilled with sand-cement slurry or lean concrete within the influence zone. Sand-cement slurry used within foundation influence zones should have a minimum compressive strength of 75 psi.

Footing excavations should be filled as soon as possible or be kept moist until concrete placement by regular sprinkling to prevent desiccation. A Cornerstone representative should observe all footing excavations prior to placing reinforcing steel and concrete. If there is a significant schedule delay between our initial observation and concrete placement, we may need to re-observe the excavations.

8.3 GROUND IMPROVEMENT

If total and/or differential settlement is not acceptable from a structural standpoint, proposed buildings may also be supported on shallow foundations over ground improvement. As previously discussed, additional exploration may also be performed to potentially reduce the areas required for ground improvement within the vicinity of CPT-9 (Building 4). We should be retained to provide additional recommendations if this alternative is appropriate.

SECTION 9: CONCRETE SLABS AND PEDESTRIAN PAVEMENTS

9.1 INTERIOR OFFICE SLABS-ON-GRADE

As the Plasticity Index (PI) of the surficial soils is 15 or less, the proposed slabs-on-grade may be supported directly on subgrade prepared in accordance with the recommendations in the "Earthwork" section of this report. If moisture-sensitive floor coverings are planned, the recommendations in the "Interior Slabs Moisture Protection Considerations" section below may be incorporated in the project design if desired. If significant time elapses between initial subgrade preparation and slab-on-grade construction, the subgrade should be proof-rolled to confirm subgrade stability, and if the soil has been allowed to dry out, the subgrade should be re-moisture conditioned to near optimum moisture content.

The structural engineer should determine the appropriate slab reinforcement for the loading requirements and considering the expansion potential of the underlying soils. Consideration should be given to limiting the control joint spacing to a maximum of about 2 feet in each direction for each inch of concrete thickness.

9.2 WAREHOUSE SLABS-ON-GRADE

Warehouse slabs-on-grade should be at least 6 inches thick should have a minimum compressive strength of 3,500 psi. The warehouse slab should also be supported on at least 6 inches of non-expansive, crushed granular base having an R-value of at least 50 and no more than 10 percent passing the No. 200 sieve, such as Class 2 aggregate base. All base and sub-base materials should be placed and compacted in accordance with the "Compaction" section of this report. If there will be areas within the warehouse that are moisture sensitive, such as equipment and elevator rooms, a vapor barrier may be placed over the upper granular base prior to slab construction. Please refer to the recommendations in the "Interior Slabs Moisture Protection Considerations" section for vapor barrier construction. Consideration should be given to limiting the control joint spacing to a maximum of about 2 feet in each direction for each inch of concrete thickness.

9.3 INTERIOR SLABS MOISTURE PROTECTION CONSIDERATIONS

The following general guidelines for concrete slab-on-grade construction where floor coverings are planned are presented for the consideration by the developer, design team, and contractor. These guidelines are based on information obtained from a variety of sources, including the American Concrete Institute (ACI) and are intended to reduce the potential for moisture-related problems causing floor covering failures, and may be supplemented as necessary based on project-specific requirements. The application of these guidelines or not will not affect the geotechnical aspects of the slab-on-grade performance.

- Place a minimum 10-mil vapor retarder conforming to ASTM E 1745, Class C requirements or better directly below the concrete slab; the vapor retarder should extend to the slab edges and be sealed at all seams and penetrations in accordance with manufacturer's recommendations and ASTM E 1643 requirements. A 4-inch-thick

capillary break, consisting of crushed rock should be placed below the vapor retarder and consolidated in place with vibratory equipment. The mineral aggregate shall be of such size that the percentage composition by dry weight as determined by laboratory sieves will conform to the following gradation:

Sieve Size	Percentage Passing Sieve
1”	100
¾”	90 – 100
No. 4	0 - 10
No. 200	0 - 5

- The concrete water:cement ratio should be 0.45 or less. Mid-range plasticizers may be used to increase concrete workability and facilitate pumping and placement.
- Water should not be added after initial batching unless the slump is less than specified and/or the resulting water:cement ratio will not exceed 0.45.
- Polishing the concrete surface with metal trowels is not recommended.
- Where floor coverings are planned, all concrete surfaces should be properly cured.
- Water vapor emission levels and concrete pH should be determined in accordance with ASTM F1869-98 and F710-98 requirements and evaluated against the floor covering manufacturer’s requirements prior to installation.

9.4 EXTERIOR FLATWORK

9.4.1 Pedestrian Concrete Flatwork

Exterior concrete flatwork subject to pedestrian and/or occasional light pick up loading should be at least 4 inches thick and supported on at least 4 inches of Class 2 aggregate base overlying subgrade prepared in accordance with the “Earthwork” recommendations of this report. Flatwork that will be subject to heavier or frequent vehicular loading should be designed in accordance with the recommendations in the “Vehicular Pavements” section below. To help reduce the potential for uncontrolled shrinkage cracking, adequate expansion and control joints should be included. Consideration should be given to limiting the control joint spacing to a maximum of about 2 feet in each direction for each inch of concrete thickness. Flatwork should be isolated from adjacent foundations or retaining walls except where limited sections of structural slabs are included to help span irregularities in retaining wall backfill at the transitions between at-grade and on-structure flatwork.

SECTION 10: VEHICULAR PAVEMENTS

10.1 ASPHALT CONCRETE

The following asphalt concrete pavement recommendations tabulated below are based on the Procedure 608 of the Caltrans Highway Design Manual, estimated traffic indices for various pavement-loading conditions, and on a design R-value of 5. The design R-value was chosen based on engineering judgment considering the variable surface conditions. We have also included pavement structural section alternatives for lime-treated subgrade soil with an estimated R-value of 50 for your consideration. If it is desired to lime-treat, we recommend the upper 12 inches of subgrade soil can be treated. Additional testing will need to be performed to determine the appropriate lime percentage to be mixed with the subgrade soil.

Table 8: Asphalt Concrete Pavement Recommendations (Design R-value = 5)

Design Traffic Index (TI)	Asphalt Concrete (inches)	Class 2 Aggregate Base* (inches)	Total Pavement Section Thickness (inches)
4.0	2.5	7.5	10.0
4.5	2.5	9.5	12.0
5.0	3.0	10.0	13.0
5.5	3.0	12.0	15.0
6.0	3.5	13.0	16.5
6.5	4.0	14.0	18.0
7.0	4.0	16.0	20.0
7.5	4.5	17.0	21.5
8.0	5.0	18.0	23.0
8.5	5.0	20.0	25.0
9.0	5.5	21.0	26.5
9.5	6.0	22.0	28.0
10.0	6.5	23.0	29.5
10.5	6.5	25.0	31.5
11.0	7.0	26.0	33.0

*Caltrans Class 2 aggregate base; minimum R-value of 78.

Table 9: Asphalt Concrete Pavement Recommendations (Lime-Treated Subgrade)

Design Traffic Index (TI)	Asphalt Concrete (inches)	Class 2 Aggregate Base* (inches)	Total Pavement Section Thickness (inches)
4.0/4.5	2.5	4.0	6.5
5.0/5.5	3.0	4.0	7.0
6.0	3.5	4.0	7.5
6.5	4.0	4.0	8.0
7.0	4.0	4.5	8.5
7.5	4.5	5.0	9.5
8.0	5.0	5.0	10.0
8.5	5.0	6.5	11.5
9.0	5.5	6.5	12.0
9.5	6.0	7.0	13.0
10.0	6.5	7.5	14.0
10.5	6.5	8.5	15.0
11.0	7.0	8.5	15.5

*Caltrans Class 2 aggregate base with minimum R-value of 78; minimum chemical-treated subgrade R-value assumed to be 5.

Frequently, the full asphalt concrete section is not constructed prior to construction traffic loading. This can result in significant loss of asphalt concrete layer life, rutting, or other pavement failures. To improve the pavement life and reduce the potential for pavement distress through construction, we recommend the full design asphalt concrete section be constructed prior to construction traffic loading. Alternatively, a higher traffic index may be chosen for the areas where construction traffic will be using the pavements.

Asphalt concrete pavements constructed on expansive subgrade where the adjacent areas will not be irrigated for several months after the pavements are constructed may experience longitudinal cracking parallel to the pavement edge. These cracks typically form within a few feet of the pavement edge and are due to seasonal wetting and drying of the adjacent soil. The cracking may also occur during construction where the adjacent grade is allowed to significantly dry during the summer, pulling moisture out of the pavement subgrade. Any cracks that form should be sealed with bituminous sealant prior to the start of winter rains. One alternative to reduce the potential for this type of cracking is to install a moisture barrier at least 24 inches deep behind the pavement curb.

10.2 PORTLAND CEMENT CONCRETE

The exterior Portland Cement Concrete (PCC) pavement recommendations provided below are based on methods presented in “Concrete Pavement for Trucking Facilities” by the American Concrete Pavement Association (ACPA, 1995), and the Portland Cement Association (PCA)

design manual (PCA, 1984). The exterior truck docks and stationing areas where trucks turn, brake, or stop (e.g. park) should be constructed of reinforced Portland Cement Concrete (PCC) pavement. We recommend PCC parking dock areas and stationing areas be at least 6½ inches thick for Average Daily Truck Traffic (ADTT) not exceeding 80 truck passes per day.

The PCC thickness recommended above is based on a concrete flexural strength of at least 550 psi, minimum 28-day compressive strength of 4,000 psi, and supporting the PCC on at least 6 inches of Class 2 aggregate base compacted to a minimum relative compaction of 95 percent (ASTM D1557) as recommended in the "Earthwork" section, and laterally restraining the PCC with curbs or concrete shoulders. The aggregate base should be constructed over compacted subgrade prepared in accordance with previous recommendations in this letter. The PCC should have a low water-cement ratio (industry standards), and in no case exceed a water-cement plus pozzolan ratio of 0.53.

Adequate expansion and control joints should be included. Joint spacing should not exceed about 24 times the pavement thickness, in approximately square panels for unreinforced concrete. Joint spacing could be increased somewhat for reinforced concrete where light reinforcing steel is provided to help hold together intermediate cracks that may form in panels. Construction and expansion joints, and dowels or continuous reinforcing, should be designed in accordance with industry standards and joint sealing should be included due to the expansive soils at the site.

If the subgrade soils are to be chemically treated (lime/cement), the PCC thickness recommended above could be decreased to 6 inches. For chemically treated subgrade, we recommend the upper 15 inches of subgrade soil be treated and the treated subgrade should obtain a minimum R-value of 50 (or minimum unconfined strength target). Additional testing will need to be performed to determine the appropriate lime/cement percentage to be mixed with the subgrade soil to achieve an estimated R-value of 50. The remaining design and construction details should be consistent with the above recommendations for PCC pavements over untreated subgrade.

10.2.1 Stress Pads for Trash Enclosures

Pads where trash containers will be stored, and where garbage trucks will park while emptying trash containers, should be constructed on Portland Cement Concrete. We recommend that the trash enclosure pads and stress (landing) pads where garbage trucks will store, pick up, and empty trash be increased to a minimum PCC thickness of 7 inches. The compressive strength, underlayment, and construction details should be consistent with the above recommendations for PCC pavements.

10.3 PAVEMENT CUTOFF

Surface water penetration into the pavement section can significantly reduce the pavement life, due to the native expansive clays. While quantifying the life reduction is difficult, a normal 20-year pavement design could be reduced to less than 10 years; therefore, increased long-term maintenance may be required.

It would be beneficial to include a pavement cut-off, such as deepened curbs, redwood-headers, or “Deep-Root Moisture Barriers” that are keyed at least 4 inches into the pavement subgrade. This will help limit the additional long-term maintenance.

SECTION 11: RETAINING WALLS

11.1 STATIC LATERAL EARTH PRESSURES

The structural design of any site retaining wall should include resistance to lateral earth pressures that develop from the soil behind the wall, any undrained water pressure, and surcharge loads acting behind the wall. Provided a drainage system is constructed behind the wall to prevent the build-up of hydrostatic pressures as discussed in the section below, we recommend that the walls with level backfill be designed for the following pressures:

Table 10: Recommended Lateral Earth Pressures

Wall Condition	Lateral Earth Pressure*	Additional Surcharge Loads
Unrestrained – Cantilever Wall	45 pcf	⅓ of vertical loads at top of wall
Restrained – Braced Wall	45 pcf + 8H** psf	½ of vertical loads at top of wall

* Lateral earth pressures are based on an equivalent fluid pressure for level backfill conditions
** H is the distance in feet between the bottom of footing and top of retained soil

If adequate drainage cannot be provided behind the wall, an additional equivalent fluid pressure of 40 pcf should be added to the values above for both restrained and unrestrained walls for the portion of the wall that will not have drainage. Damp proofing or waterproofing of the walls may be considered where moisture penetration and/or efflorescence are not desired.

11.2 SEISMIC LATERAL EARTH PRESSURES

11.2.1 Site Walls

The 2019 CBC states that lateral pressures from earthquakes should be considered in the design of basements and retaining walls. At this time, we are not aware of any retaining walls for the project. However, minor landscaping walls (i.e. walls 6 feet or less in height) may be proposed. In our opinion, design of these walls for seismic lateral earth pressures in addition to static earth pressures is not warranted.

11.3 WALL DRAINAGE

11.3.1 At-Grade Site Walls

Adequate drainage should be provided by a subdrain system behind all walls. This system should consist of a 4-inch minimum diameter perforated pipe placed near the base of the wall (perforations placed downward). The pipe should be bedded and backfilled with Class 2

Permeable Material per Caltrans Standard Specifications, latest edition. The permeable backfill should extend at least 12 inches out from the wall and to within 2 feet of outside finished grade. Alternatively, ½-inch to ¾-inch crushed rock may be used in place of the Class 2 Permeable Material provided the crushed rock and pipe are enclosed in filter fabric, such as Mirafi 140N or approved equivalent. The upper 2 feet of wall backfill should consist of compacted on-site soil. The subdrain outlet should be connected to a free-draining outlet or sump.

Miradrain, Geotech Drainage Panels, or equivalent drainage matting can be used for wall drainage as an alternative to the Class 2 Permeable Material or drain rock backfill. Horizontal strip drains connecting to the vertical drainage matting may be used in lieu of the perforated pipe and crushed rock section. The vertical drainage panel should be connected to the perforated pipe or horizontal drainage strip at the base of the wall, or to some other closed or through-wall system such as the TotalDrain system from AmerDrain. Sections of horizontal drainage strips should be connected with either the manufacturer's connector pieces or by pulling back the filter fabric, overlapping the panel dimples, and replacing the filter fabric over the connection. At corners, a corner guard, corner connection insert, or a section of crushed rock covered with filter fabric must be used to maintain the drainage path.

Drainage panels should terminate 18 to 24 inches from final exterior grade. The Miradrain panel filter fabric should be extended over the top of and behind the panel to protect it from intrusion of the adjacent soil.

11.3 BACKFILL

Where surface improvements will be located over the retaining wall backfill, backfill placed behind the walls should be compacted to at least 95 percent relative compaction using light compaction equipment. Where no surface improvements are planned, backfill should be compacted to at least 90 percent. If heavy compaction equipment is used, the walls should be temporarily braced.

11.4 FOUNDATIONS

Retaining walls may be supported on a continuous spread footing designed in accordance with the recommendations presented in the "Foundations" section of this report.

SECTION 12: LIMITATIONS

This report, an instrument of professional service, has been prepared for the sole use of Bridge Industrial specifically to support the design of the Qume Drive Industrial Development project in San Jose, California. The opinions, conclusions, and recommendations presented in this report have been formulated in accordance with accepted geotechnical engineering practices that exist in Northern California at the time this report was prepared. No warranty, expressed or implied, is made or should be inferred.

Recommendations in this report are based upon the soil and ground water conditions encountered during our subsurface exploration. If variations or unsuitable conditions are

encountered during construction, Cornerstone must be contacted to provide supplemental recommendations, as needed.

Bridge Industrial may have provided Cornerstone with plans, reports and other documents prepared by others. Bridge Industrial understands that Cornerstone reviewed and relied on the information presented in these documents and cannot be responsible for their accuracy.

Cornerstone prepared this report with the understanding that it is the responsibility of the owner or his representatives to see that the recommendations contained in this report are presented to other members of the design team and incorporated into the project plans and specifications, and that appropriate actions are taken to implement the geotechnical recommendations during construction.

Conclusions and recommendations presented in this report are valid as of the present time for the development as currently planned. Changes in the condition of the property or adjacent properties may occur with the passage of time, whether by natural processes or the acts of other persons. In addition, changes in applicable or appropriate standards may occur through legislation or the broadening of knowledge. Therefore, the conclusions and recommendations presented in this report may be invalidated, wholly or in part, by changes beyond Cornerstone's control. This report should be reviewed by Cornerstone after a period of three (3) years has elapsed from the date of this report. In addition, if the current project design is changed, then Cornerstone must review the proposed changes and provide supplemental recommendations, as needed.

An electronic transmission of this report may also have been issued. While Cornerstone has taken precautions to produce a complete and secure electronic transmission, please check the electronic transmission against the hard copy version for conformity.

Recommendations provided in this report are based on the assumption that Cornerstone will be retained to provide observation and testing services during construction to confirm that conditions are similar to that assumed for design, and to form an opinion as to whether the work has been performed in accordance with the project plans and specifications. If we are not retained for these services, Cornerstone cannot assume any responsibility for any potential claims that may arise during or after construction as a result of misuse or misinterpretation of Cornerstone's report by others. Furthermore, Cornerstone will cease to be the Geotechnical-Engineer-of-Record if we are not retained for these services.

SECTION 13: REFERENCES

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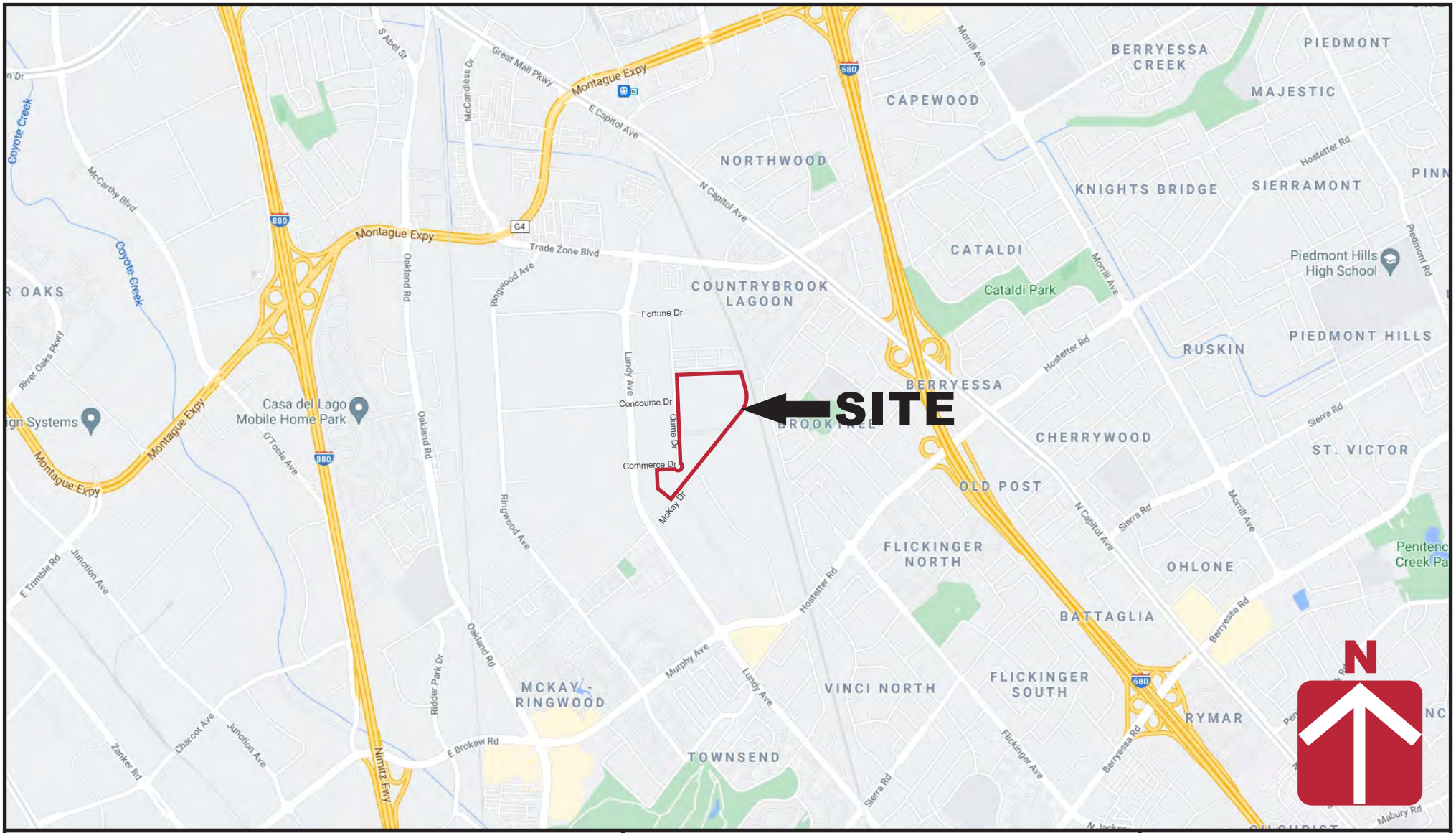


CORNERSTONE EARTH GROUP

Vicinity Map

2222 Qume Drive Industrial
San Jose, CA

Project Number	1054-4-1
Figure Number	Figure 1
Date	May 2021
Drawn By	RRN

Base by Google Earth, dated 09/26/2020
Overlay by Herdman, Scheme 1: Conceptual Site Plan, dated 02/09/2021

Legend

Approximate location of exploratory boring (EB)

Approximate location of cone penetration test (CPT)

APPROXIMATE SCALE (FEET)

0 200 400

N

Commerce Drive

Concourse Drive

Qume Drive

McKay Drive

Automation Parkway

Approximate Site Boundary

Railroad tracks

BUILDING 4
72,113 S.F.

BUILDING 3
90,746 S.F.

BUILDING 2
195,394 S.F.

BUILDING 1
352,240 S.F.

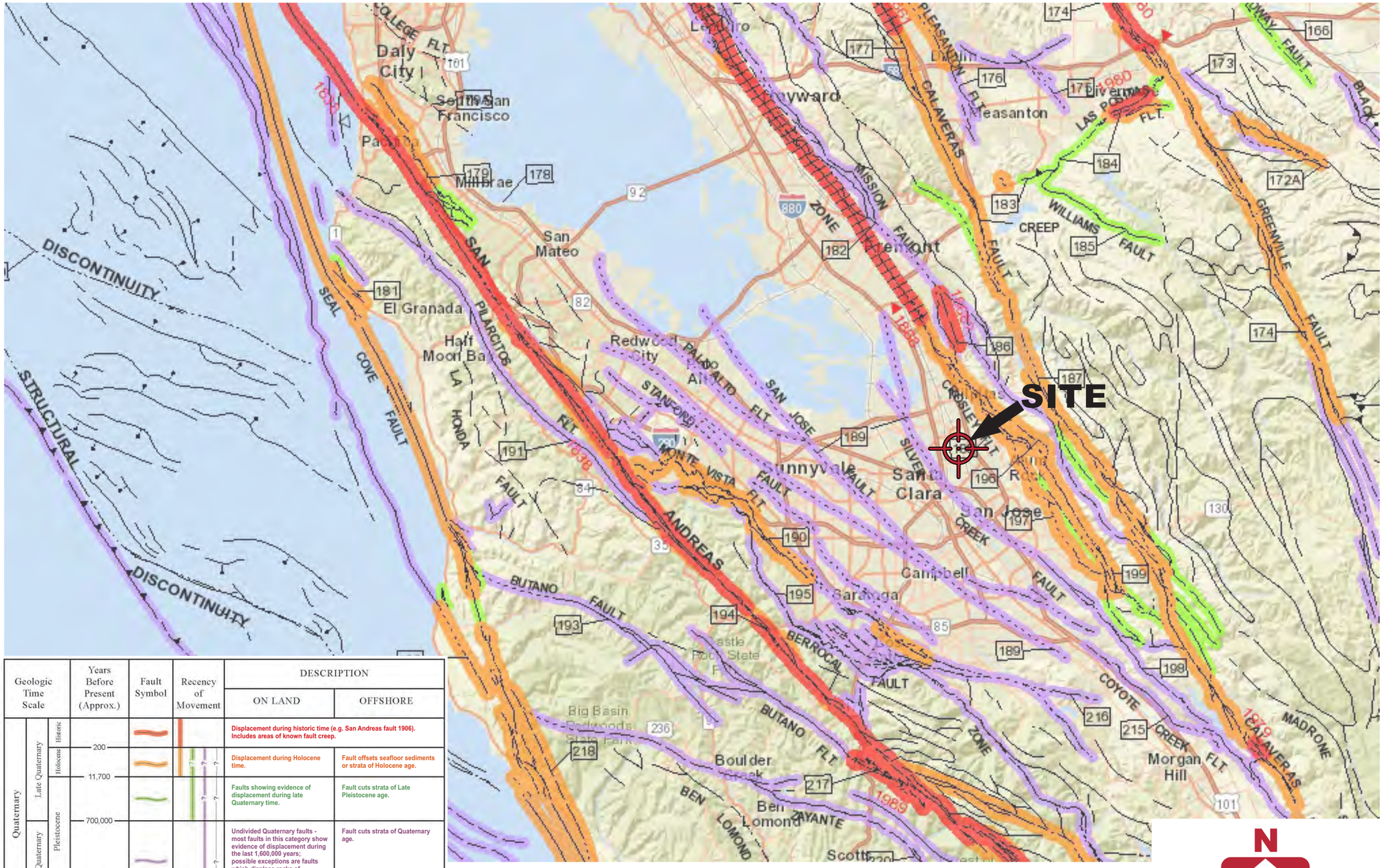
EB-1 CPT-1
EB-2 CPT-2
EB-3 CPT-3
EB-4 CPT-4
EB-5 CPT-5
EB-6 CPT-6
EB-7 CPT-7
EB-8 CPT-8
EB-9 CPT-9

CORNERSTONE EARTH GROUP

2222 Qume Drive Industrial
San Jose, CA

Site Plan

Project Number	Figure Number	Date	Drawn By
1054-4-1	Figure 2	May 2021	RRN



Geologic Time Scale			Years Before Present (Approx.)	Fault Symbol	Recency of Movement	DESCRIPTION	
						ON LAND	OFFSHORE
Quaternary	Late Quaternary	Historic				Displacement during historic time (e.g. San Andreas fault 1906). Includes areas of known fault creep.	
		Holocene	200			Displacement during Holocene time.	Fault offsets seafloor sediments or strata of Holocene age.
			11,700			Faults showing evidence of displacement during late Quaternary time.	Fault cuts strata of Late Pleistocene age.
	Early Quaternary	Pleistocene	700,000			Undivided Quaternary faults - most faults in this category show evidence of displacement during the last 1,600,000 years; possible exceptions are faults which displace rocks of undifferentiated Plio-Pleistocene age.	Fault cuts strata of Quaternary age.
Pre-Quaternary			1,600,000			Faults without recognized Quaternary displacement or showing evidence of no displacement during Quaternary time. Not necessarily inactive.	Fault cuts strata of Pliocene or older age.
			4.5 billion (Age of Earth)				

Base by California Geological Survey - 2010 Fault Activity Map of California (Jennings and Bryant, 2010)

Project Number 1054-4-1

Figure Number Figure 3

Drawn By RRN

Date May 2021

Regional Fault Map

2222 Qume Drive Industrial
San Jose, CA

CORNERSTONE EARTH GROUP

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FIGURE 4A

CPT NO. 1

PROJECT/CPT DATA

Project Title	Qume Drive Industrial Warehouse
Project No.	1054-4-1
Project Manager	MFR

SEISMIC PARAMETERS

Controlling Fault	Hayward	
Earthquake Magnitude (Mw)	7.08	
PGA (Amax)	0.874	(g)

SITE SPECIFIC PARAMETERS

Ground Water Depth at Time of Drilling (feet)	14
Design Water Depth (feet)	8
Ave. Unit Weight Above GW (pcf)	127
Ave. Unit Weight Below GW (pcf)	125

CPT ANALYSIS RESULTS

DRY SAND SETTLEMENT FROM	8	FEET
	0.02	(Inches)
LIQUEFACTION SETTLEMENT FROM	50	FEET
	0.11	(Inches)
TOTAL SEISMIC SETTLEMENT	**0.1**	**INCHES**

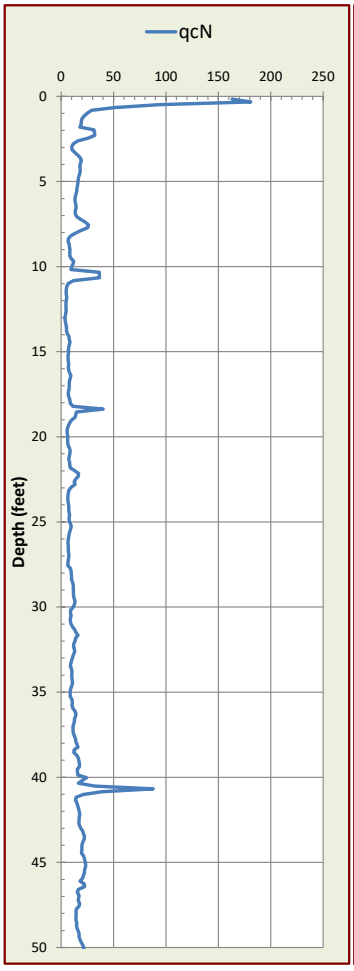
POTENTIAL LATERAL DISPLACEMENT

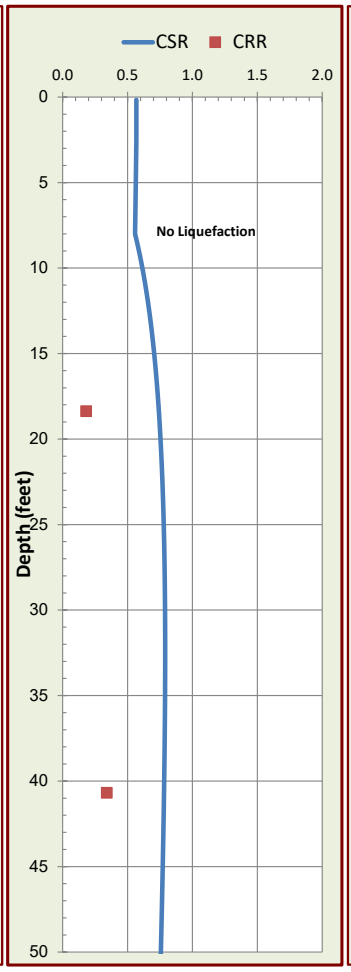
LDI[2]	0.05	L/H	670.0
LDI[1] Corrected for Distance	0.00	(4 < L/H < 40)	

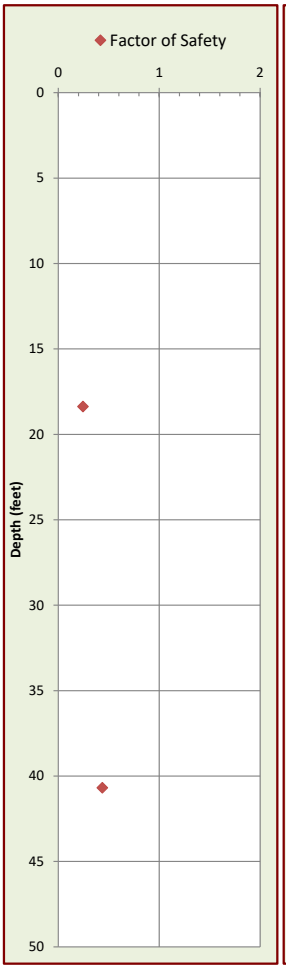
EXPECTED RANGE OF DISPLACEMENT

0.0 to 0.0 feet

[1] Not Valid for L/H Values < 4 and > 40.
[2] LDI Values Only Summed to 2H Below Grade.







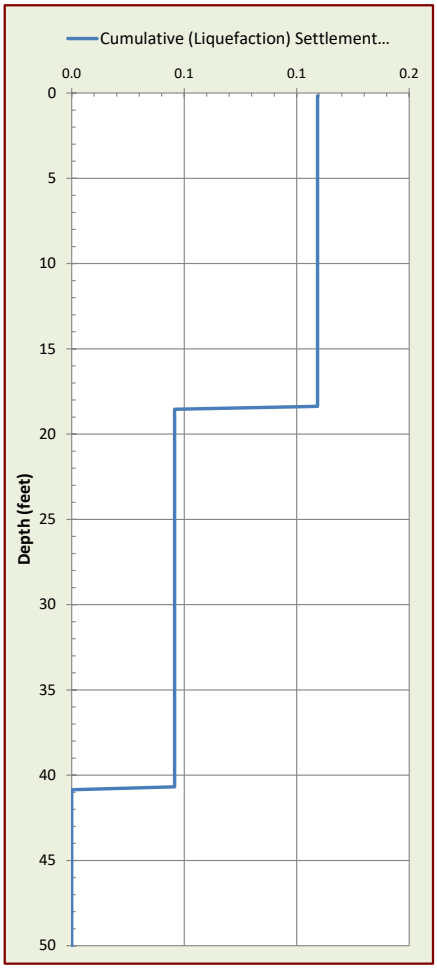


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FIGURE 4B

CPT NO. 2

PROJECT/CPT DATA

Project Title	Qume Drive Industrial Warehouse
Project No.	1054-4-1
Project Manager	MFR

SEISMIC PARAMETERS

Controlling Fault	Hayward	
Earthquake Magnitude (Mw)	7.08	
PGA (Amax)	0.874	(g)

SITE SPECIFIC PARAMETERS

Ground Water Depth at Time of Drilling (feet)	20
Design Water Depth (feet)	8
Ave. Unit Weight Above GW (pcf)	130
Ave. Unit Weight Below GW (pcf)	125

CPT ANALYSIS RESULTS

DRY SAND SETTLEMENT FROM	8	FEET
	0.06	(Inches)
LIQUEFACTION SETTLEMENT FROM	50	FEET
	0.05	(Inches)
TOTAL SEISMIC SETTLEMENT	**0.1**	**INCHES**

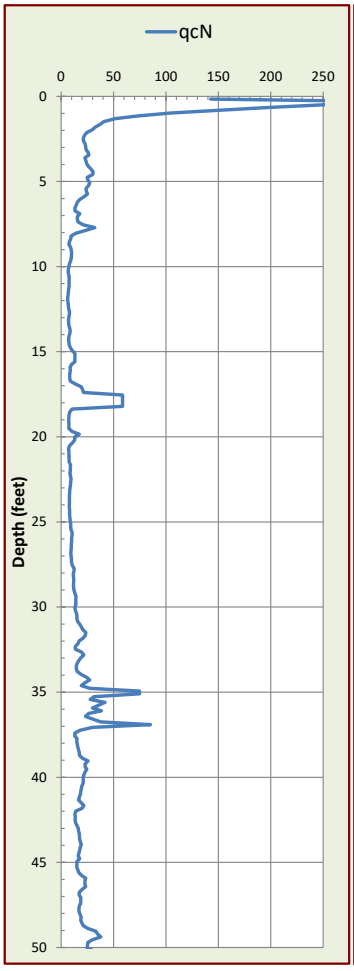
POTENTIAL LATERAL DISPLACEMENT

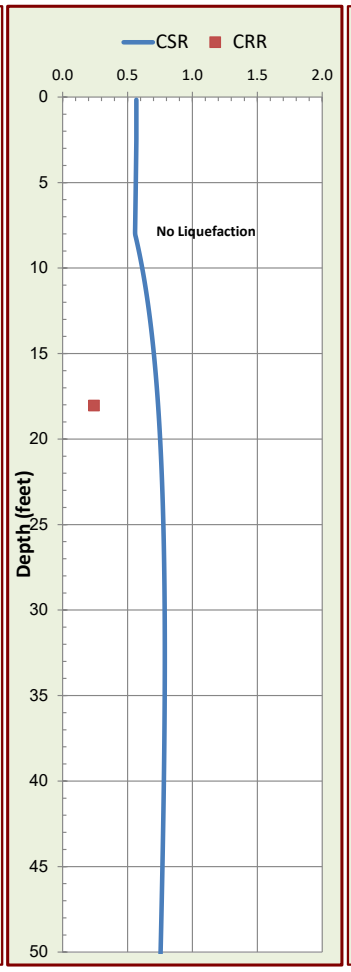
LDI[2]	0.03	L/H	770.0
LDI[1] Corrected for Distance	0.00	(4 < L/H < 40)	

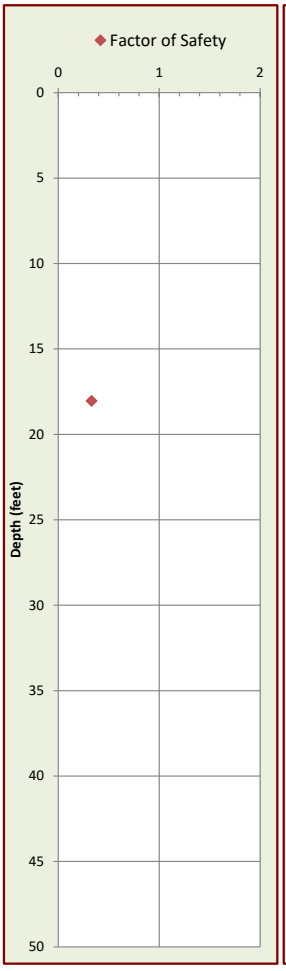
EXPECTED RANGE OF DISPLACEMENT

0.0 to 0.0 feet

[1] Not Valid for L/H Values < 4 and > 40.
[2] LDI Values Only Summed to 2H Below Grade.







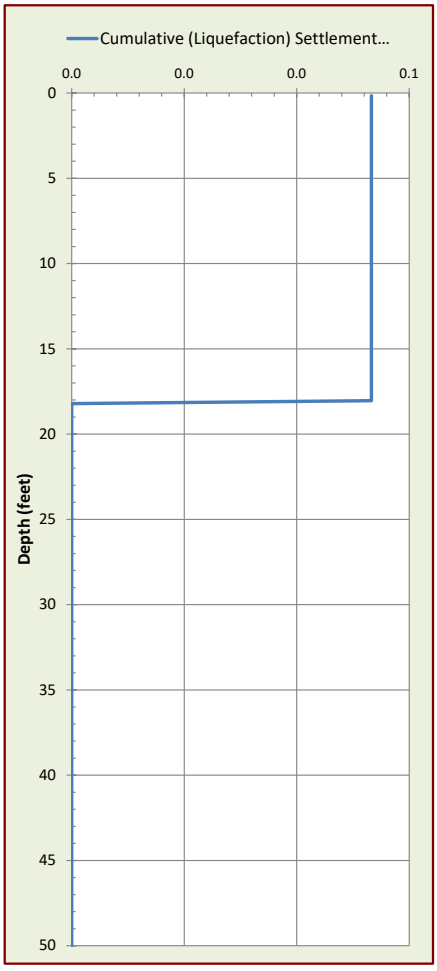


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FIGURE 4C

CPT NO. 3

PROJECT/CPT DATA

Project Title	Qume Drive Industrial Warehouse
Project No.	1054-4-1
Project Manager	MFR

SEISMIC PARAMETERS

Controlling Fault	Hayward	
Earthquake Magnitude (Mw)	7.08	
PGA (Amax)	0.874	(g)

SITE SPECIFIC PARAMETERS

Ground Water Depth at Time of Drilling (feet)	13
Design Water Depth (feet)	8
Ave. Unit Weight Above GW (pcf)	125
Ave. Unit Weight Below GW (pcf)	121

CPT ANALYSIS RESULTS

DRY SAND SETTLEMENT FROM	8	FEET
	0.05	(Inches)
LIQUEFACTION SETTLEMENT FROM	50	FEET
	0.00	(Inches)
TOTAL SEISMIC SETTLEMENT	**0.0**	**INCHES**

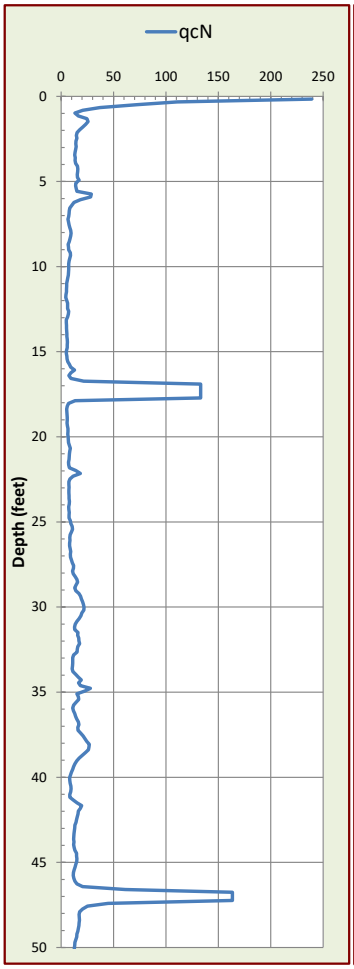
POTENTIAL LATERAL DISPLACEMENT

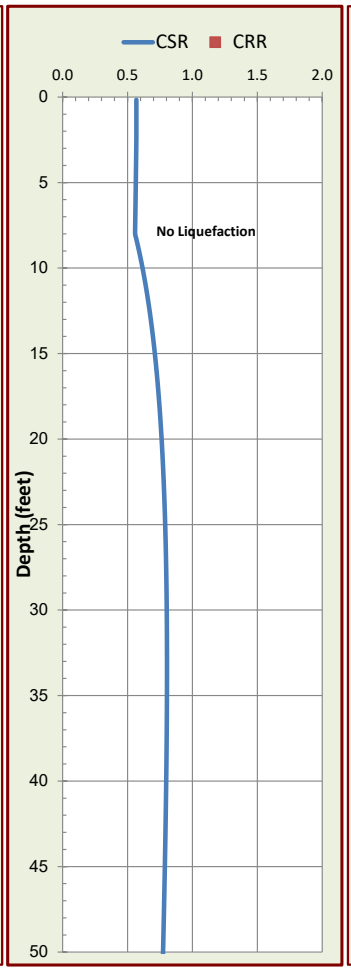
LDI[2]	0.00	L/H	770.0
LDI[1] Corrected for Distance	0.00	(4 < L/H < 40)	

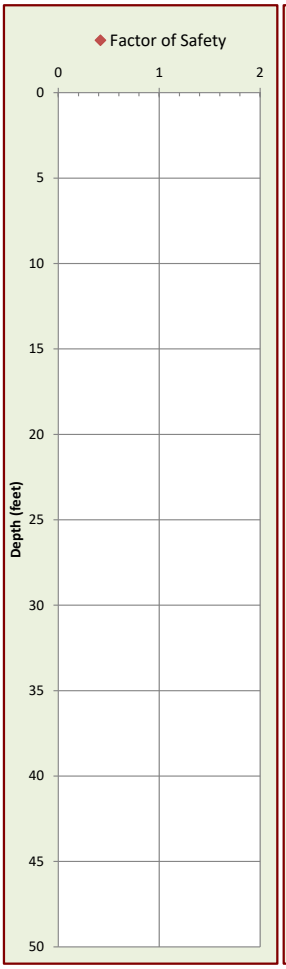
EXPECTED RANGE OF DISPLACEMENT

0.0 to 0.0 feet

[1] Not Valid for L/H Values < 4 and > 40.
[2] LDI Values Only Summed to 2H Below Grade.







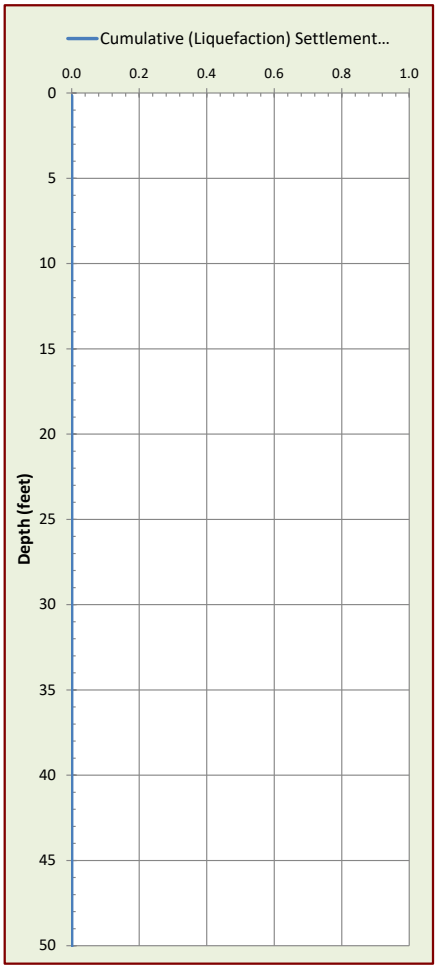


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FIGURE 4D

CPT NO. 4

PROJECT/CPT DATA

Project Title	Qume Drive Industrial Warehouse
Project No.	1054-4-1
Project Manager	MFR

SEISMIC PARAMETERS

Controlling Fault	Hayward	
Earthquake Magnitude (Mw)	7.08	
PGA (Amax)	0.874	(g)

SITE SPECIFIC PARAMETERS

Ground Water Depth at Time of Drilling (feet)	13.5
Design Water Depth (feet)	8
Ave. Unit Weight Above GW (pcf)	130
Ave. Unit Weight Below GW (pcf)	123

CPT ANALYSIS RESULTS

DRY SAND SETTLEMENT FROM	8	FEET
	0.00	(Inches)
LIQUEFACTION SETTLEMENT FROM	50	FEET
	0.39	(Inches)
TOTAL SEISMIC SETTLEMENT	**0.4**	**INCHES**

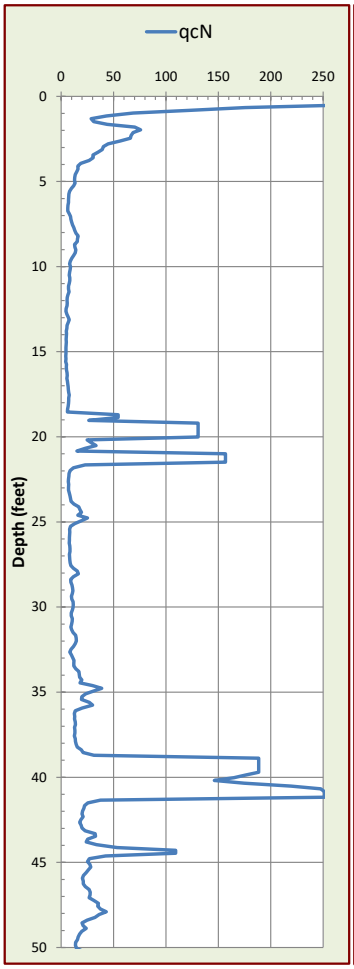
POTENTIAL LATERAL DISPLACEMENT

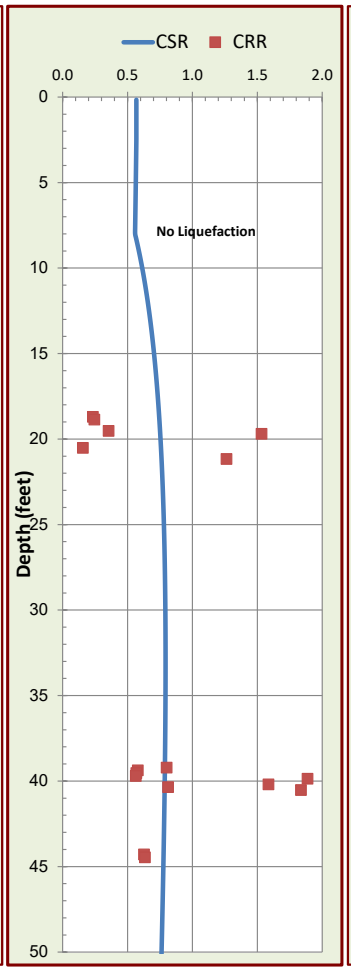
LDI[2]	0.08	L/H	670.0
LDI[1] Corrected for Distance	0.00	(4 < L/H < 40)	

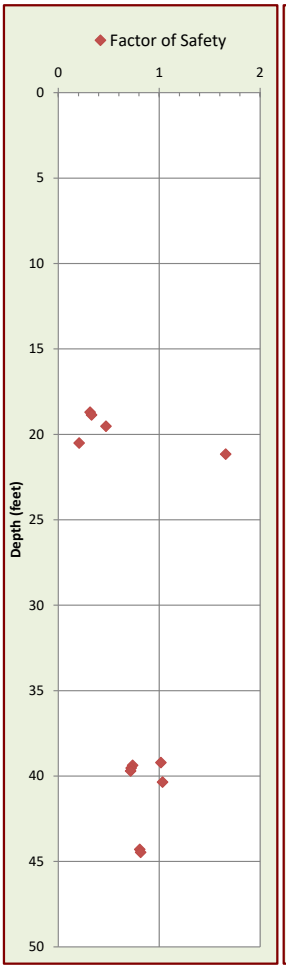
EXPECTED RANGE OF DISPLACEMENT

0.0 to 0.0 feet

[1]Not Valid for L/H Values < 4 and > 40.
[2]LDI Values Only Summed to 2H Below Grade.







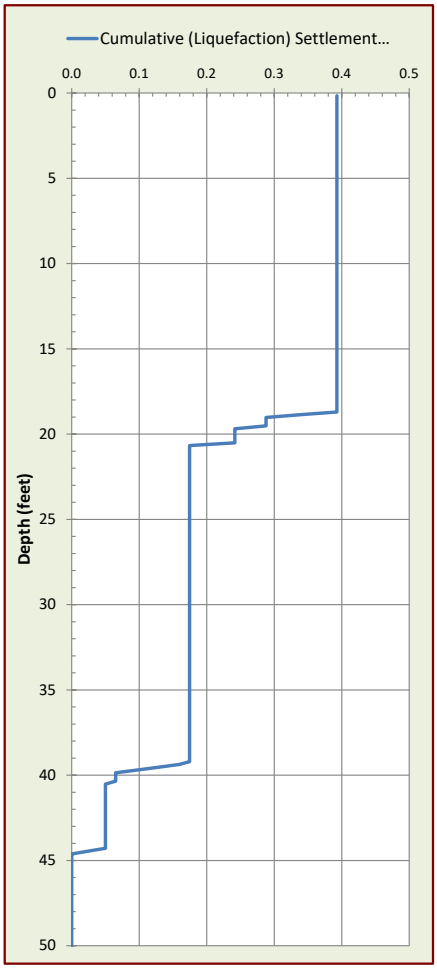


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FIGURE 4E

CPT NO. 5

PROJECT/CPT DATA

Project Title	Qume Drive Industrial Warehouse
Project No.	1054-4-1
Project Manager	MFR

SEISMIC PARAMETERS

Controlling Fault	Hayward	
Earthquake Magnitude (Mw)	7.08	
PGA (Amax)	0.874	(g)

SITE SPECIFIC PARAMETERS

Ground Water Depth at Time of Drilling (feet)	6.5
Design Water Depth (feet)	8
Ave. Unit Weight Above GW (pcf)	125
Ave. Unit Weight Below GW (pcf)	125

CPT ANALYSIS RESULTS

DRY SAND SETTLEMENT FROM	8	FEET
	0.01	(Inches)
LIQUEFACTION SETTLEMENT FROM	50	FEET
	0.09	(Inches)
TOTAL SEISMIC SETTLEMENT	**0.1**	**INCHES**

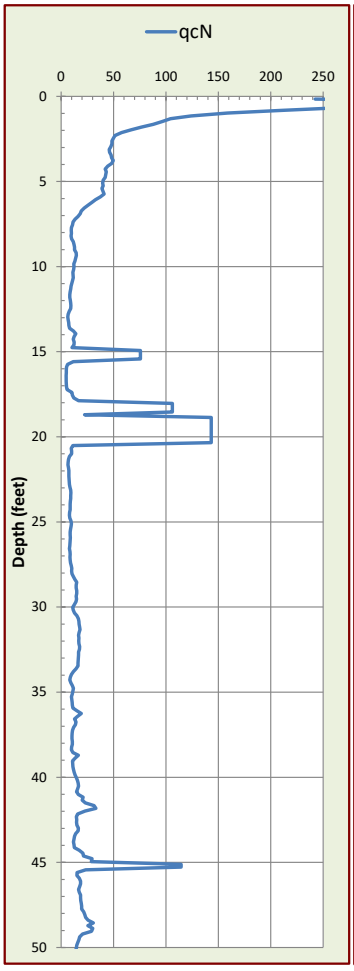
POTENTIAL LATERAL DISPLACEMENT

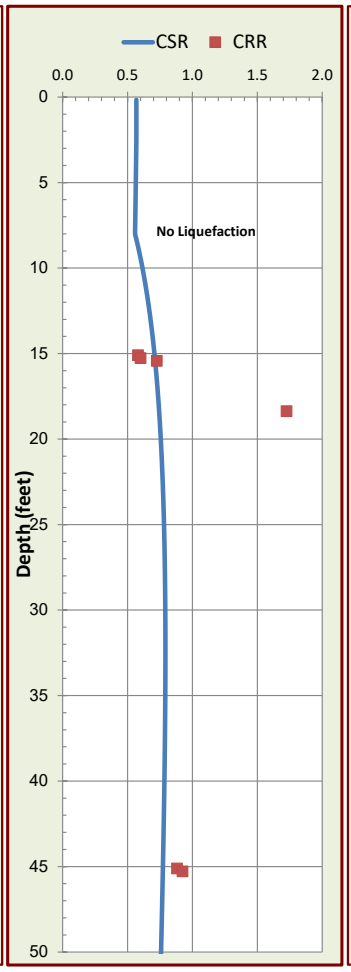
LDI[2]	0.02	L/H	720.0
LDI[1] Corrected for Distance	0.00	(4 < L/H < 40)	

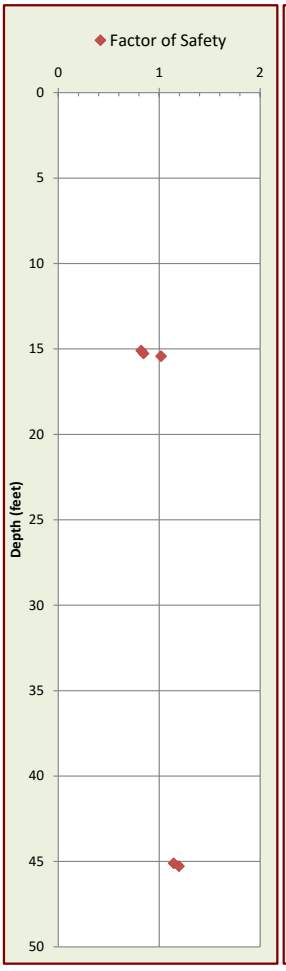
EXPECTED RANGE OF DISPLACEMENT

0.0 to 0.0 feet

[1]Not Valid for L/H Values < 4 and > 40.
[2]LDI Values Only Summed to 2H Below Grade.







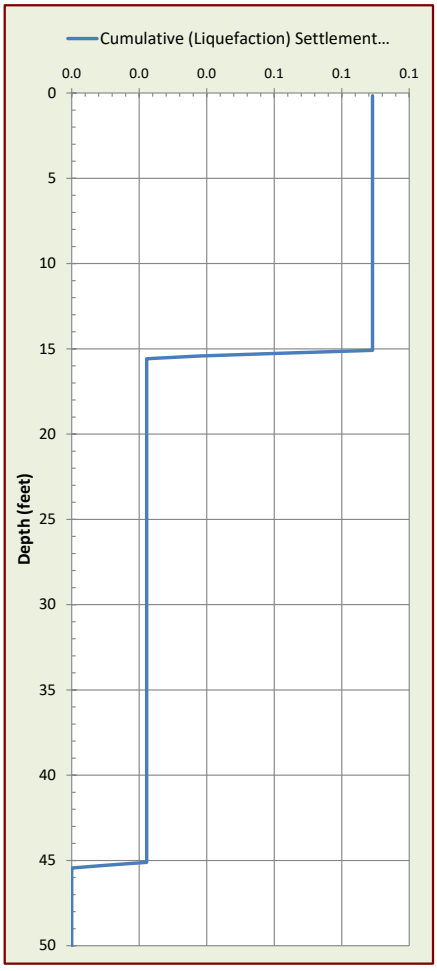


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FIGURE 4F

CPT NO. 6

PROJECT/CPT DATA

Project Title	Qume Drive Industrial Warehouse
Project No.	1054-4-1
Project Manager	MFR

SEISMIC PARAMETERS

Controlling Fault	Hayward	
Earthquake Magnitude (Mw)	7.08	
PGA (Amax)	0.874	(g)

SITE SPECIFIC PARAMETERS

Ground Water Depth at Time of Drilling (feet)	10.5
Design Water Depth (feet)	8
Ave. Unit Weight Above GW (pcf)	118
Ave. Unit Weight Below GW (pcf)	125

CPT ANALYSIS RESULTS

DRY SAND SETTLEMENT FROM	8	FEET
	0.06	(Inches)
LIQUEFACTION SETTLEMENT FROM	50	FEET
	0.08	(Inches)
TOTAL SEISMIC SETTLEMENT	**0.1**	**INCHES**

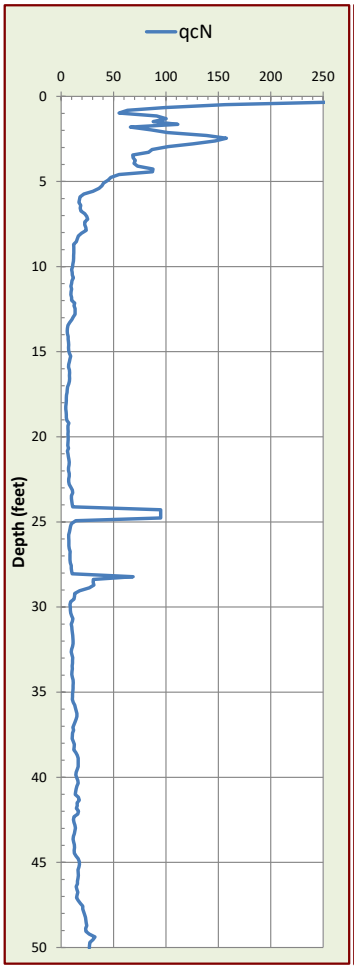
POTENTIAL LATERAL DISPLACEMENT

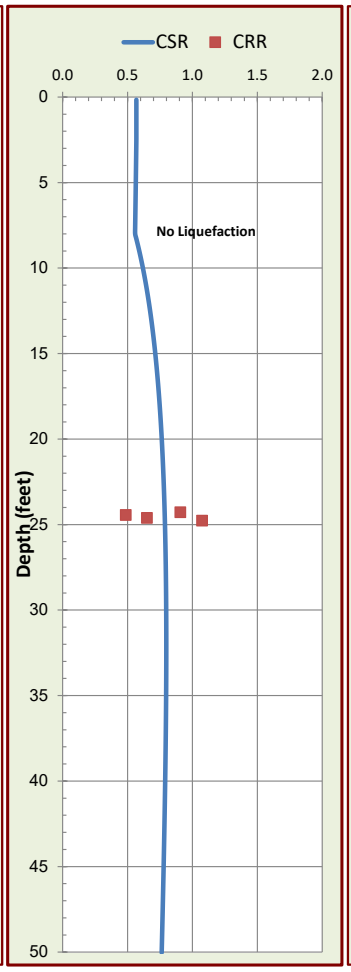
LDI[2]	0.00	L/H	650.0
LDI[1] Corrected for Distance	0.00	(4 < L/H < 40)	

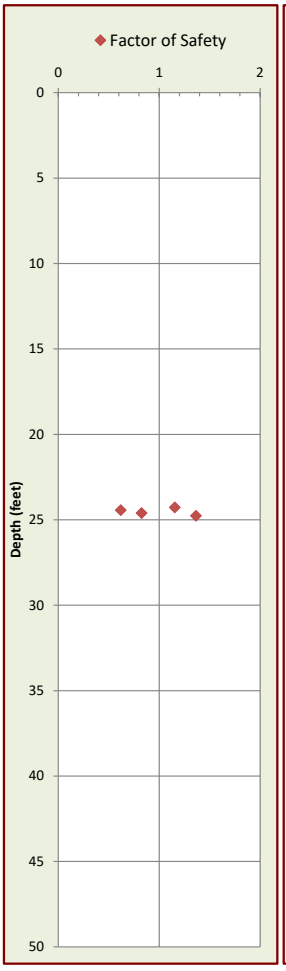
EXPECTED RANGE OF DISPLACEMENT

0.0 to 0.0 feet

[1] Not Valid for L/H Values < 4 and > 40.
[2] LDI Values Only Summed to 2H Below Grade.







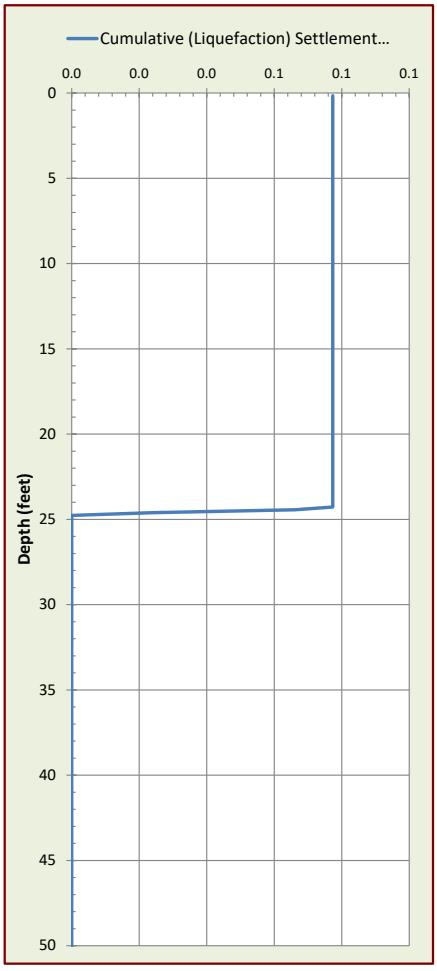


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FIGURE 4G

CPT NO. 7

PROJECT/CPT DATA

Project Title	Qume Drive Industrial Warehouse
Project No.	1054-4-1
Project Manager	MFR

SEISMIC PARAMETERS

Controlling Fault	Hayward	
Earthquake Magnitude (Mw)	7.08	
PGA (Amax)	0.874	(g)

SITE SPECIFIC PARAMETERS

Ground Water Depth at Time of Drilling (feet)	14
Design Water Depth (feet)	8
Ave. Unit Weight Above GW (pcf)	126
Ave. Unit Weight Below GW (pcf)	126

CPT ANALYSIS RESULTS

DRY SAND SETTLEMENT FROM	8	FEET
	0.01	(Inches)
LIQUEFACTION SETTLEMENT FROM	50	FEET
	0.19	(Inches)
TOTAL SEISMIC SETTLEMENT	**0.2**	**INCHES**

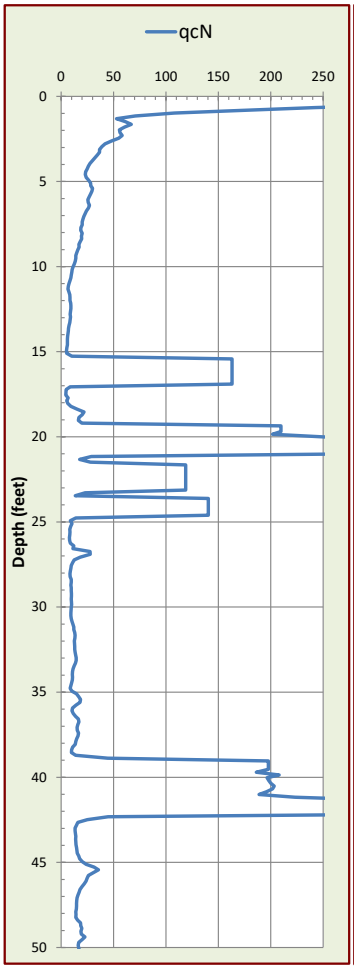
POTENTIAL LATERAL DISPLACEMENT

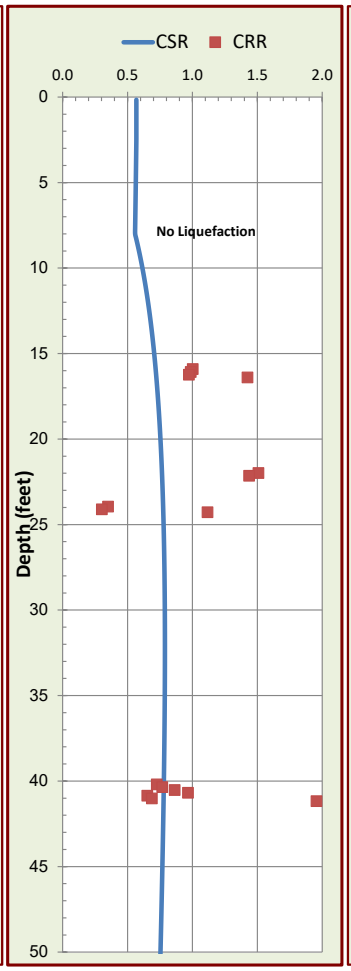
LDI[2]	0.01	L/H	720.0
LDI[1] Corrected for Distance	0.00	(4 < L/H < 40)	

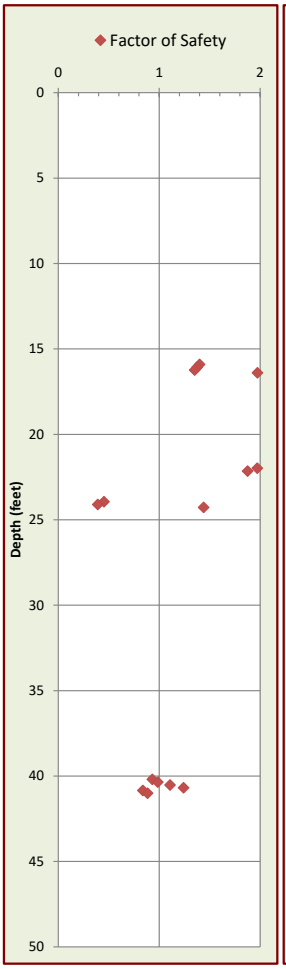
EXPECTED RANGE OF DISPLACEMENT

0.0 to 0.0 feet

[1] Not Valid for L/H Values < 4 and > 40.
[2] LDI Values Only Summed to 2H Below Grade.







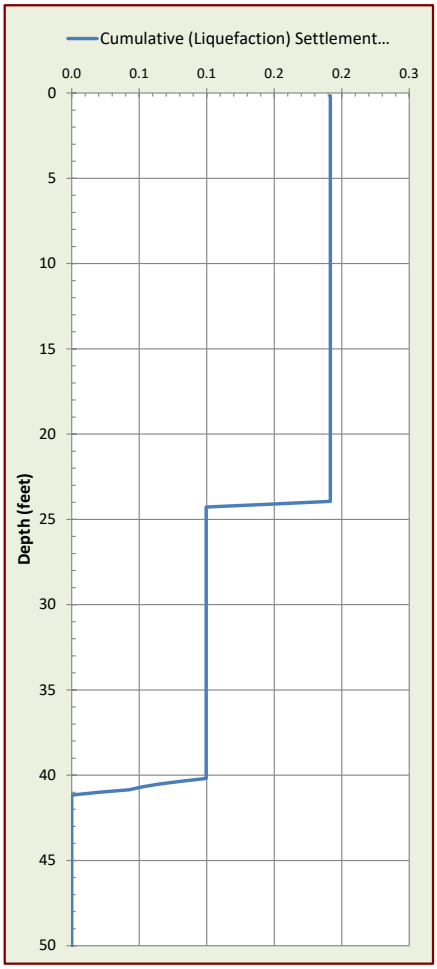


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FIGURE 4H

CPT NO. 8

PROJECT/CPT DATA

Project Title	Qume Drive Industrial Warehouse
Project No.	1054-4-1
Project Manager	MFR

SEISMIC PARAMETERS

Controlling Fault	Hayward	
Earthquake Magnitude (Mw)	7.08	
PGA (Amax)	0.874	(g)

SITE SPECIFIC PARAMETERS

Ground Water Depth at Time of Drilling (feet)	13
Design Water Depth (feet)	8
Ave. Unit Weight Above GW (pcf)	120
Ave. Unit Weight Below GW (pcf)	135

CPT ANALYSIS RESULTS

DRY SAND SETTLEMENT FROM	8	FEET
	0.01	(Inches)
LIQUEFACTION SETTLEMENT FROM	50	FEET
	0.64	(Inches)
TOTAL SEISMIC SETTLEMENT	**0.7**	**INCHES**

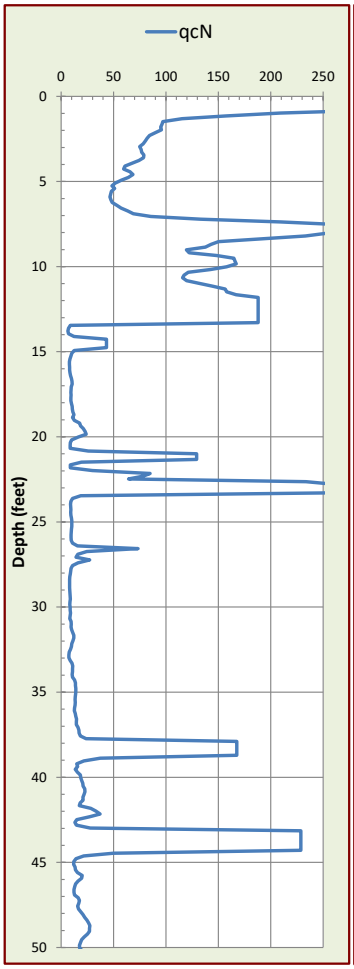
POTENTIAL LATERAL DISPLACEMENT

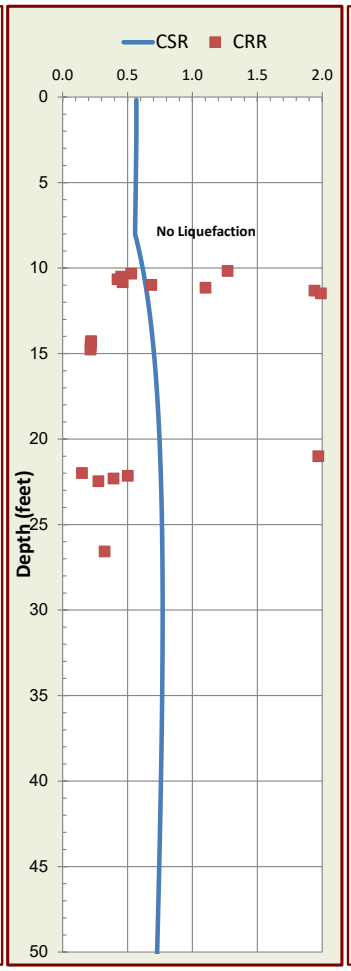
LDI[2]	0.20	L/H	640.0
LDI[1] Corrected for Distance	0.01	(4 < L/H < 40)	

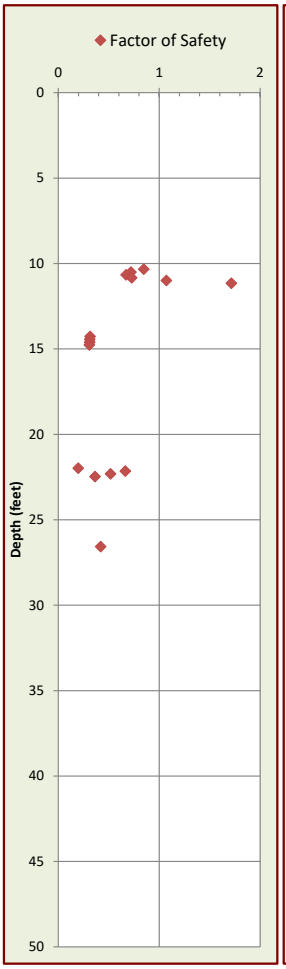
EXPECTED RANGE OF DISPLACEMENT

0.0 to 0.0 feet

[1] Not Valid for L/H Values < 4 and > 40.
[2] LDI Values Only Summed to 2H Below Grade.







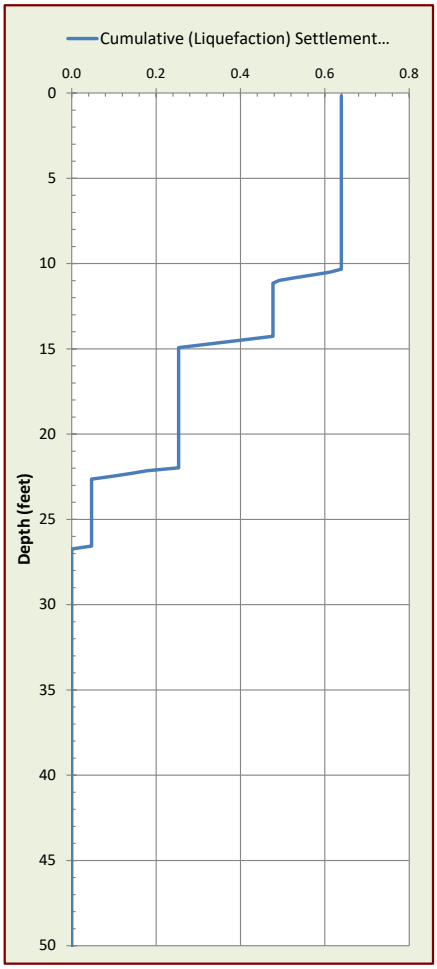


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FIGURE 4l

CPT NO. 9

PROJECT/CPT DATA

Project Title	Qume Drive Industrial Warehouse
Project No.	1054-4-1
Project Manager	MFR

SEISMIC PARAMETERS

Controlling Fault	Hayward	
Earthquake Magnitude (Mw)	7.08	
PGA (Amax)	0.874	(g)

SITE SPECIFIC PARAMETERS

Ground Water Depth at Time of Drilling (feet)	12
Design Water Depth (feet)	8
Ave. Unit Weight Above GW (pcf)	130
Ave. Unit Weight Below GW (pcf)	125

CPT ANALYSIS RESULTS

DRY SAND SETTLEMENT FROM	8	FEET
	0.02	(Inches)
LIQUEFACTION SETTLEMENT FROM	50	FEET
	1.22	(Inches)
TOTAL SEISMIC SETTLEMENT	**1.2**	**INCHES**

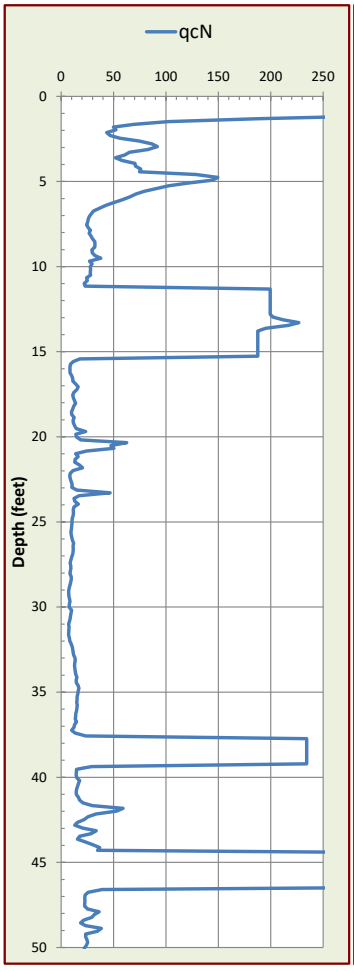
POTENTIAL LATERAL DISPLACEMENT

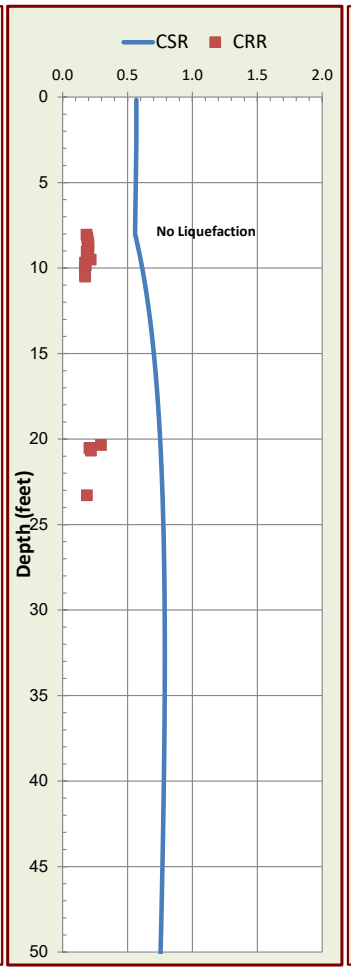
LDI[2]	0.80	L/H	590.0
LDI[1] Corrected for Distance	0.03	(4 < L/H < 40)	

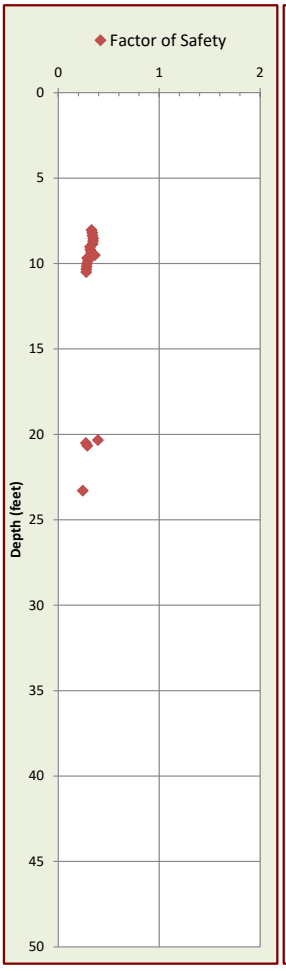
EXPECTED RANGE OF DISPLACEMENT

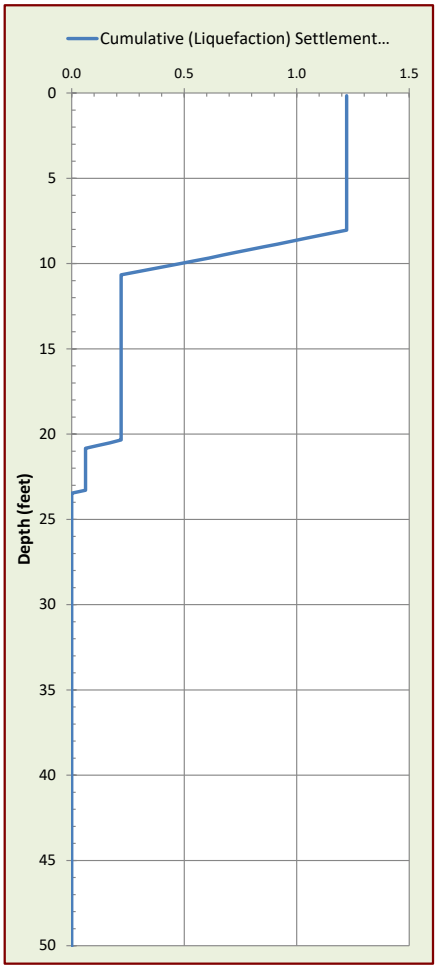
0.0 to 0.1 feet

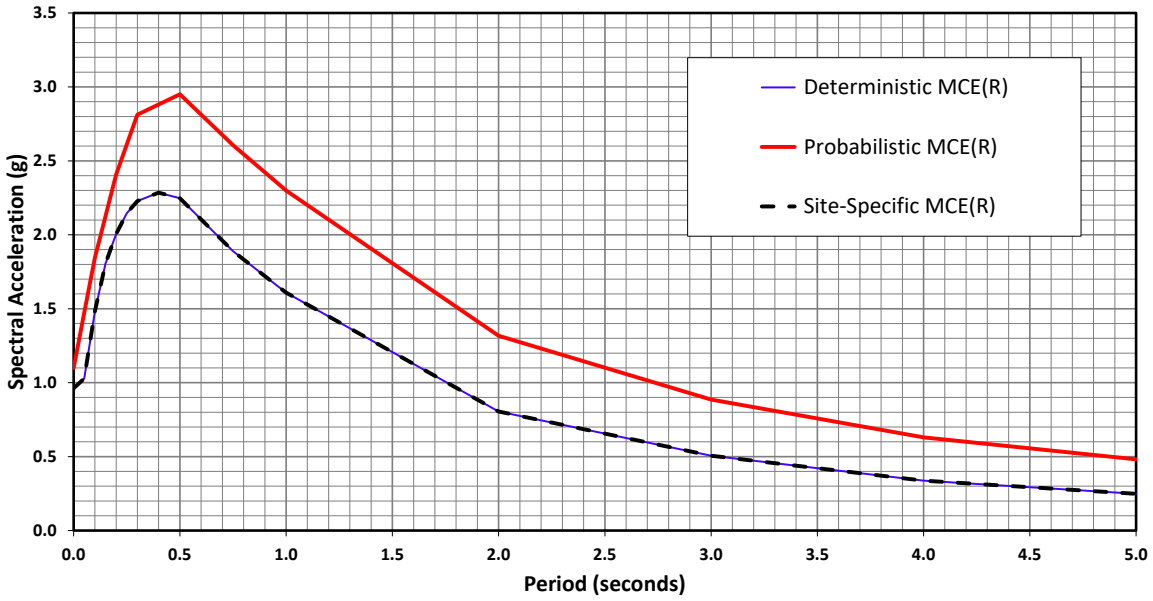
[1]Not Valid for L/H Values < 4 and > 40.
[2]LDI Values Only Summed to 2H Below Grade.











The Site-Specific Maximum Considered Earthquake (MCE_R) is defined as the lesser of the following at all periods:

- Deterministic MCE_R – maximum 84th percentile deterministic, or
- Probabilistic MCE_R – defined as the 2,475–year ground motion.

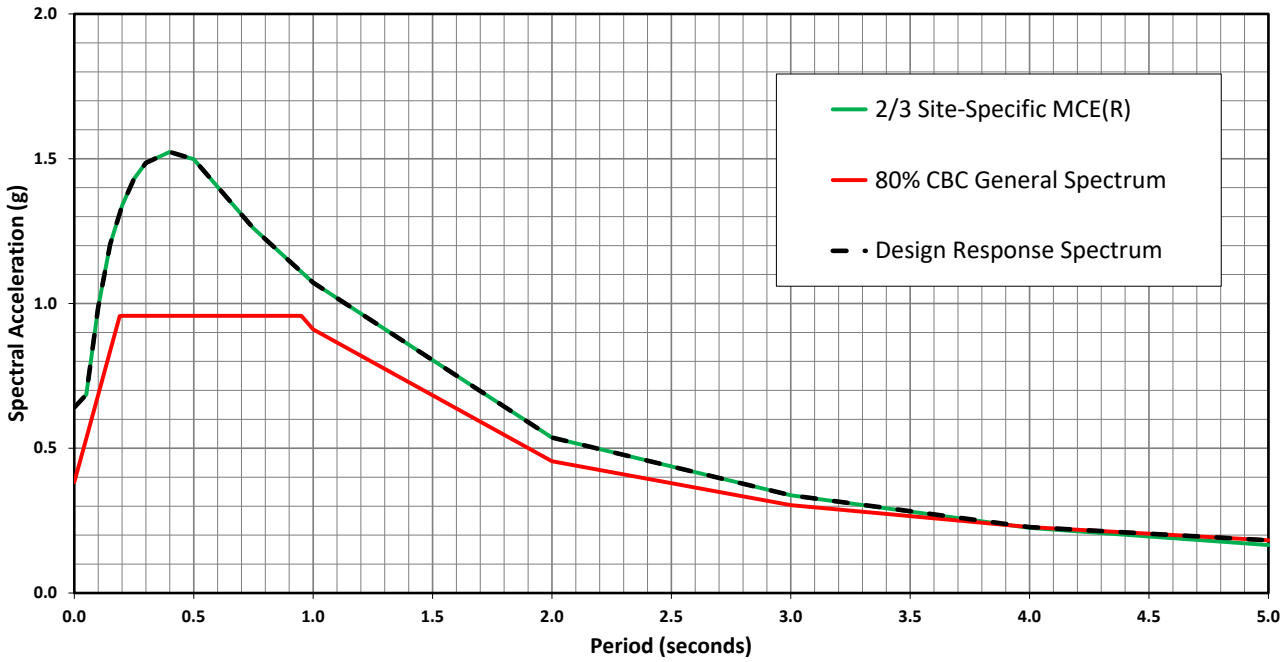
Site-Specific MCE_R	
Period (Seconds)	Spectral Acceleration (g)
0.00	0.962
0.05	1.028
0.10	1.481
0.15	1.806
0.19	1.967
0.20	2.007
0.25	2.146
0.30	2.228
0.40	2.285
0.50	2.247
0.75	1.889
0.95	1.663
1.00	1.608
2.00	0.806
3.00	0.507
4.00	0.338
5.00	0.249

References:

ASCE/SEI 7-16: Minimum Design Loads and Associated Criteria for Buildings and Other Strutures with Supplement No. 1.
2019 California Building Code, Title 24, Part 2, Volume 2

CORNERSTONE EARTH GROUP

	MCE_R RESPONSE SPECTRA	FIGURE 5
	Qume Drive Industrial Development Qume Drive and Commerce Drive San Jose, CA	PROJECT NO. 1054-4-1
		May 14, 2021 | MFR



The Site-Specific Design Response Spectrum per Section 21.2, 21.3 and 21.4 of ASCE 7-16 is defined as the greater of the following at all periods:

- 2/3 of the Site-Specific MCE_R, or
- 80% of the CBC General Spectrum.

Design Response Spectra	
Period (Seconds)	Spectral Acceleration (g)
0.00	0.641
0.05	0.685
0.10	0.987
0.15	1.204
0.19	1.311
0.20	1.338
0.25	1.430
0.30	1.485
0.40	1.523
0.50	1.498
0.75	1.260
0.95	1.109
1.00	1.072
2.00	0.537
3.00	0.338
4.00	0.228
5.00	0.182

Site Design	Design Values
Site Class (Per Chapter 20 ASCE 7-16)	D
Shear Wave Velocity, V_{S30} (m/sec)	253
Site Latitude (degrees)	37.395165
Site Longitude (degrees)	-121.88739
Risk Category	II
Building Period (sec)	Unknown
Importance Factor, I_e	1
[1]Site Specific PGA_M (g)	0.874

[1] Lower of Deterministic and Probabilistic, but not less than 80% of mapped value of FM x PGA, determined in accordance with Section 21.5 of ASCE 7-16.

Design Acceleration Parameters[1]	
S_{DS}	1.371
S_{D1}	1.074
S_{MS}	2.056
S_{M1}	1.611

References:

ASCE/SEI 7-16: Minimum Design Loads and Associated Criteria for Buildings and Other Strutures with Supplement No. 1.
2019 California Building Code, Title 24, Part 2, Volume 2

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DESIGN RESPONSE SPECTRA

FIGURE 6

Qume Drive Industrial Development
Qume Drive and Commerce Drive
San Jose, CA

PROJECT NO. 1054-4-1

May 14, 2021 | MFR

APPENDIX A: FIELD INVESTIGATION

The field investigation consisted of a surface reconnaissance and a subsurface exploration program using truck-mounted and track-mounted, hollow-stem auger drilling equipment and 20-ton truck-mounted Cone Penetration Test equipment. Seven 8-inch-diameter exploratory borings were drilled on May 7 and 10, 2021 to depths of approximately 25 to 45 feet and two 6½-inch-diameter exploratory borings were drilled on May 10, 2021 to depths of approximately 25 feet. Nine CPT soundings were also performed in accordance with ASTM D 5778-95 (revised, 2002) on April 30 and May 6, 2021, to depths ranging from 50 to 120 feet. The approximate locations of exploratory borings and CPTs are shown on the Site Plan, Figure 2. The soils encountered were continuously logged in the field by our representative and described in accordance with the Unified Soil Classification System (ASTM D2488). Boring logs, as well as a key to the classification of the soil and bedrock, are included as part of this appendix.

Boring and CPT locations were approximated using existing site boundaries, a hand-held GPS unit, and other site features as references. Boring and CPT elevations were not determined. The locations of the borings and CPTs should be considered accurate only to the degree implied by the method used.

Representative soil samples were obtained from the borings at selected depths. All samples were returned to our laboratory for evaluation and appropriate testing. The standard penetration resistance blow counts were obtained by dropping a 140-pound hammer through a 30-inch free fall. The 2-inch O.D. split-spoon sampler was driven 18 inches and the number of blows was recorded for each 6 inches of penetration (ASTM D1586). 2.5-inch I.D. samples were obtained using a Modified California Sampler driven into the soil with the 140-pound hammer previously described. Relatively undisturbed samples were also obtained with 2.875-inch I.D. Shelby Tube sampler which were hydraulically pushed. Unless otherwise indicated, the blows per foot recorded on the boring log represent the accumulated number of blows required to drive the last 12 inches. The various samplers are denoted at the appropriate depth on the boring logs.

The CPT involved advancing an instrumented cone-tipped probe into the ground while simultaneously recording the resistance at the cone tip (q_c) and along the friction sleeve (f_s) at approximately 5-centimeter intervals. Based on the tip resistance and tip to sleeve ratio (R_f), the CPT classified the soil behavior type and estimated engineering properties of the soil, such as equivalent Standard Penetration Test (SPT) blow count, internal friction angle within sand layers, and undrained shear strength in silts and clays. A pressure transducer behind the tip of the CPT cone measured pore water pressure (u_2). Graphical logs of the CPT data is included as part of this appendix.

Field tests included an evaluation of the unconfined compressive strength of the soil samples using a pocket penetrometer device. The results of these tests are presented on the individual boring logs at the appropriate sample depths.

Attached boring and CPT logs and related information depict subsurface conditions at the locations indicated and on the date designated on the logs. Subsurface conditions at other locations may differ from conditions occurring at these boring and CPT locations. The passage

of time may result in altered subsurface conditions due to environmental changes. In addition, any stratification lines on the logs represent the approximate boundary between soil types and the transition may be gradual.

UNIFIED SOIL CLASSIFICATION (ASTM D-2487-98)

MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND
COARSE-GRAINED SOILS >50% RETAINED ON NO. 200 SIEVE	GRAVELS >50% OF COARSE FRACTION RETAINED ON NO 4. SIEVE	CLEAN GRAVELS <5% FINES	Cu>4 AND 1<Cc<3	GW	WELL-GRADED GRAVEL
			Cu>4 AND 1>Cc>3	GP	POORLY-GRADED GRAVEL
		GRAVELS WITH FINES >12% FINES	FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL
			FINES CLASSIFY AS CL OR CH	GC	CLAYEY GRAVEL
	SANDS >50% OF COARSE FRACTION PASSES ON NO 4. SIEVE	CLEAN SANDS <5% FINES	Cu>6 AND 1<Cc<3	SW	WELL-GRADED SAND
			Cu>6 AND 1>Cc>3	SP	POORLY-GRADED SAND
		SANDS AND FINES >12% FINES	FINES CLASSIFY AS ML OR CL	SM	SILTY SAND
			FINES CLASSIFY AS CL OR CH	SC	CLAYEY SAND
FINE-GRAINED SOILS >50% PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT<50	INORGANIC	PI>7 AND PLOTS>"A" LINE	CL	LEAN CLAY
			PI>4 AND PLOTS<"A" LINE	ML	SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OL	ORGANIC CLAY OR SILT
	SILTS AND CLAYS LIQUID LIMIT>50	INORGANIC	PI PLOTS >"A" LINE	CH	FAT CLAY
			PI PLOTS <"A" LINE	MH	ELASTIC SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OH	ORGANIC CLAY OR SILT
HIGHLY ORGANIC SOILS		PRIMARILY ORGANIC MATTER, DARK IN COLOR, AND ORGANIC ODOR		PT	PEAT

OTHER MATERIAL SYMBOLS

- Poorly-Graded Sand with Clay
- Clayey Sand
- Sandy Silt
- Artificial/Undocumented Fill
- Poorly-Graded Gravelly Sand
- Topsoil
- Well-Graded Gravel with Clay
- Well-Graded Gravel with Silt
- Sand
- Silt
- Well Graded Gravelly Sand
- Gravelly Silt
- Asphalt
- Boulders and Cobble

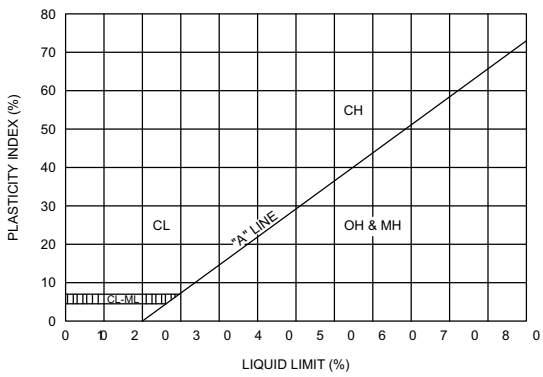
SAMPLER TYPES

- SPT
- Modified California (2.5" I.D.)
- Rock Core
- Shelby Tube
- No Recovery
- Grab Sample

ADDITIONAL TESTS

CA	-	CHEMICAL ANALYSIS (CORROSIVITY)	PI	-	PLASTICITY INDEX
CD	-	CONSOLIDATED DRAINED TRIAXIAL	SW		SWELL TEST
CN	-	CONSOLIDATION	TC	-	CYCLIC TRIAXIAL
CU	-	CONSOLIDATED UNDRAINED TRIAXIAL	TV	-	TORVANE SHEAR
DS	-	DIRECT SHEAR	UC	-	UNCONFINED COMPRESSION
PP	-	POCKET PENETROMETER (TSF)	(1.5)	-	(WITH SHEAR STRENGTH IN KSF)
(3.0)	-	(WITH SHEAR STRENGTH IN KSF)			
RV	-	R-VALUE	UU	-	UNCONSOLIDATED UNDRAINED TRIAXIAL
SA	-	SIEVE ANALYSIS: % PASSING #200 SIEVE			
	-	WATER LEVEL			

PLASTICITY CHART



PENETRATION RESISTANCE
(RECORDED AS BLOWS / FOOT)

SAND & GRAVEL		SILT & CLAY		
RELATIVE DENSITY	BLOWS/FOOT*	CONSISTENCY	BLOWS/FOOT*	STRENGTH** (KSF)
VERY LOOSE	0 - 4	VERY SOFT	0 - 2	0 - 0.25
LOOSE	4 - 10	SOFT	2 - 4	0.25 - 0.5
MEDIUM DENSE	10 - 30	MEDIUM STIFF	4 - 8	0.5 - 1.0
DENSE	30 - 50	STIFF	8 - 15	1.0 - 2.0
VERY DENSE	OVER 50	VERY STIFF	15 - 30	2.0 - 4.0
		HARD	OVER 30	OVER 4.0

* NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (1-3/8 INCH I.D.) SPLIT-BARREL SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE (ASTM-1586 STANDARD PENETRATION TEST).

** UNDRAINED SHEAR STRENGTH IN KIPS/SQ. FT. AS DETERMINED BY LABORATORY TESTING OR APPROXIMATED BY THE STANDARD PENETRATION TEST, POCKET PENETROMETER, TORVANE, OR VISUAL OBSERVATION.

CORNERSTONE EARTH GROUP

LEGEND TO SOIL DESCRIPTIONS

Figure Number A-1

BORING NUMBER EB-1

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road
PROJECT NUMBER 1054-4-1
PROJECT LOCATION San Jose, CA

DATE STARTED 5/10/21 **DATE COMPLETED** 5/10/21
GROUND ELEVATION 62 FT +/- **BORING DEPTH** 25 ft.
DRILLING CONTRACTOR Cuesta Geoservices **LATITUDE** 37.398007° **LONGITUDE** -121.888313°
DRILLING METHOD MPP LAD Track Rig, 6½ inch Hollow-Stem Auger **GROUND WATER LEVELS:**
LOGGED BY MBT ▽ **AT TIME OF DRILLING** 14 ft.
NOTES ▼ **AT END OF DRILLING** 23 ft.

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ELEVATION (ft)	DEPTH (ft)	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
62.0	0	3½ inches asphalt concrete over 2 inches aggregate base						
61.8								
61.6		**Lean Clay with Sand (CL)** hard, moist, dark brown to brown, fine sand, low plasticity	18	MC-1B	115	16		
			14	MC-2B	109	17		
	5	becomes very stiff	15	MC-3B	108	19		
54.5		**Lean Clay (CL)** stiff, moist, brown with gray mottles, some fine sand, low to moderate plasticity	5	MC-4B	102	20		
52.0	10	**Sandy Lean Clay (CL)** medium stiff, moist, brown, fine sand, low plasticity	2	SPT				
49.5		**Lean Clay with Sand (CL)** medium stiff, moist, brown with gray mottles, fine sand, low to moderate plasticity	7	MC				
	15							
45.0		**Sandy Lean Clay (CL)** medium stiff, moist, gray and brown, fine to coarse sand, low plasticity	8	MC-7B	101	25		
	20							
40.0		**Lean Clay with Sand (CL)** medium stiff, moist, gray with brown mottles, fine sand, moderate plasticity	9	MC				
37.0	25	Bottom of Boring at 25.0 feet.						

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0
>4.5

CORNERSTONE EARTH GROUP2 - CORNERSTONE 0812.GDT - 5/19/21 10:48 - P:\DRAFTING\GINT FILES\1054-4-1 QUME ROAD.GPJ

BORING NUMBER EB-2

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road
PROJECT NUMBER 1054-4-1
PROJECT LOCATION San Jose, CA

DATE STARTED 5/10/21 **DATE COMPLETED** 5/10/21
GROUND ELEVATION 65 FT +/- **BORING DEPTH** 36.5 ft.
DRILLING CONTRACTOR Exploration Geoservices, Inc. **LATITUDE** 37.398450° **LONGITUDE** -121.885196°
DRILLING METHOD Mobile B-53, 8 inch Hollow-Stem Auger **GROUND WATER LEVELS:**
LOGGED BY JLC ▽ **AT TIME OF DRILLING** 20 ft.
NOTES ▼ **AT END OF DRILLING** 20 ft.

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ELEVATION (ft)	DEPTH (ft)	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf
65.0	0	0 inches asphalt concrete over 0 inches aggregate base							
64.8		**Lean Clay with Sand (CL) [Fill]** hard, moist, brown, fine to coarse sand, low plasticity	27	MC-1B	120	14			>4.5
64.5			20	MC-2B	118	13			4.0
	5		25	MC-3B		8			
59.5		**Well Graded Sand with Silt and Gravel (SW-SM)** medium dense, moist, gray and brown, fine to coarse sand, fine subangular to subrounded gravel	5	SPT					1.0
58.5		**Lean Clay (CL)** medium stiff, moist, brown with gray mottles, some fine sand, low to moderate plasticity	14	MC-5B	100	21			1.0
	10			ST					1.0
			20	MC-7B	103	23			1.0
50.0	15	**Silty, Clayey Sand (SC-SM)** loose to medium dense, moist, brown, fine sand	5	SPT					
		Liquid Limit = 24, Plastic Limit = 19	17	SPT-9		20	5		
47.0		**Lean Clay with Sand (CL)** medium stiff, moist, brown, some fine sand, low plasticity							
	20 ▼		15	MC					1.0
			13	MC-11B	99	25			1.0
	25								
39.0									

Continued Next Page

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

BORING NUMBER EB-2

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road

PROJECT NUMBER 1054-4-1

PROJECT LOCATION San Jose, CA

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ELEVATION (ft)	DEPTH (ft)	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
39.0		**Lean Clay (CL)** stiff, moist, gray with brown mottles, some fine sand, mottles plasticity						
	30		18	MC				
30.5			26	MC-13B	109	22		
30.0	35	**Sandy Lean Clay (CL)** stiff, moist, brown, fine sand, low plasticity	30	SPT				
28.5		**Silty Sand (SM)** dense, moist, brown, fine sand						
		Bottom of Boring at 36.5 feet.						
	40							
	45							
	50							
	55							

UNDRAINED SHEAR STRENGTH, ksf

○ HAND PENETROMETER

△ TORVANE

● UNCONFINED COMPRESSION

▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL

1.0 2.0 3.0 4.0

BORING NUMBER EB-3

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road
PROJECT NUMBER 1054-4-1
PROJECT LOCATION San Jose, CA

DATE STARTED 5/10/21 **DATE COMPLETED** 5/10/21
GROUND ELEVATION 65 FT +/- **BORING DEPTH** 25 ft.
DRILLING CONTRACTOR Cuesta Geoservices **LATITUDE** 37.397382° **LONGITUDE** -121.885134°
DRILLING METHOD MPP LAD Track Rig, 6½ inch Hollow-Stem Auger **GROUND WATER LEVELS:**
LOGGED BY MBT ▽ **AT TIME OF DRILLING** 13 ft.
NOTES ▼ **AT END OF DRILLING** 20 ft.

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ELEVATION (ft)	DEPTH (ft)	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
65.0	0	2 inches asphalt concrete over 4 inches aggregate base						
64.8								
64.5		**Lean Clay with Sand (CL) [Fill]** very stiff, moist, dark brown with gray mottles, fine sand, low plasticity	13	MC-1B	103	19		
			11	MC-2B	108	16		
60.0	5	**Clayey Sand with Gravel (SC) [Fill]** loose, moist, brown, fine to medium sand, fine to coarse subangular to subrounded gravel	10	MC-3B	113	12		
57.0		**Lean Clay with Sand (CL)** soft, moist, brown with gray, fine sand, moderate plasticity	5	MC-4B	98	25		
	10							
53.0		**Clayey Sand (SC)** loose, wet, brown, fine to coarse sand, some fine subangular to subrounded gravel	1	MC				
	15							
48.0		**Lean Clay with Sand (CL)** soft, moist, brown, some fine sand, low plasticity	4	MC-6B	97	24		
	20							
43.0		**Lean Clay (CL)** medium stiff, moist, gray with brown mottles, some fine sand, mottles plasticity	9	MC				
40.0	25	Bottom of Boring at 25.0 feet.						

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

BORING NUMBER EB-4

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road
PROJECT NUMBER 1054-4-1
PROJECT LOCATION San Jose, CA

DATE STARTED 5/10/21 **DATE COMPLETED** 5/10/21
GROUND ELEVATION 64 FT +/- **BORING DEPTH** 45 ft.
DRILLING CONTRACTOR Exploration Geoservices, Inc. **LATITUDE** 37.396884° **LONGITUDE** -121.888148°
DRILLING METHOD Mobile B-53, 8 inch Hollow-Stem Auger **GROUND WATER LEVELS:**
LOGGED BY JLC ▽ **AT TIME OF DRILLING** 13.5 ft.
NOTES ▼ **AT END OF DRILLING** 24.2 ft.

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ELEVATION (ft)	DEPTH (ft)	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
64.0	0	4 inches asphalt concrete over 6 inches aggregate base						
63.7								
63.2		**Clayey Sand (SC) [Fill]** medium dense to dense, moist, brown, fine to coarse sand	50 6"	MC-1B	125	12		
			45	MC-2B	122	13		
59.0	5	**Sandy Lean Clay (CL)** very stiff, moist, dark brown with brown mottles, fine sand, low plasticity	24	MC-3B	106	18		
56.0		**Lean Clay with Sand (CL)** very stiff, moist, brown with gray mottles, fine sand, low plasticity	27	MC-4B	103	20		
	10							
		becomes medium stiff	11	MC				
	15							
46.0		**Well Graded Sand with Clay (SW-SC)** medium dense, moist, brown, fine to coarse sand, some fine to coarse subangular to subrounded gravel	22	MC				
44.0	20	**Silty, Clayey Sand (SC-SM)** medium dense, moist, brown, fine to medium sand	28	SPT-7		23		
39.5			26	MC				
39.0	25							

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

Continued Next Page

BORING NUMBER EB-4

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road

PROJECT NUMBER 1054-4-1

PROJECT LOCATION San Jose, CA

This log is a part of a report by Cornerstone Earth Group, and should not be used as a stand-alone document. This description applies only to the location of the exploration at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with time. The description presented is a simplification of actual conditions encountered. Transitions between soil types may be gradual.

ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
39.0	25		**Sandy Lean Clay (CL)** medium stiff, moist, brown, fine sand, low plasticity						
37.0			**Lean Clay with Sand (CL)** very stiff, moist, gray with brown mottles, fine sand, low plasticity	36	MC-9B	97	27		
	30								
32.0			**Sandy Lean Clay (CL)** stiff, moist, brown, fine to coarse sand, low plasticity	20	MC				
29.0	35		**Clayey Sand with Gravel (SC)** very dense, moist, brown, fine to medium sand, some fine subangular to subrounded gravel	50 5"	MC-11B	113	19		
24.5	40		**Well Graded Sand with Clay (SW-SC)** medium dense, moist, gray and browwn, fine to coarse sand, some fine subangular to subrounded gravel	21	SPT				
21.0			**Lean Clay with Sand (CL)** stiff, moist, gray, fine sand, moderate plasticity	24	MC-13		23		
19.0	45		Bottom of Boring at 45.0 feet.						
	50								

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

BORING NUMBER EB-5

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road
PROJECT NUMBER 1054-4-1
PROJECT LOCATION San Jose, CA

DATE STARTED 5/10/21 **DATE COMPLETED** 5/10/21
GROUND ELEVATION 65 FT +/- **BORING DEPTH** 27.5 ft.
DRILLING CONTRACTOR Exploration Geoservices, Inc. **LATITUDE** 37.396829° **LONGITUDE** -121.886127°
DRILLING METHOD Mobile B-40, 8 inch Hollow-Stem Auger **GROUND WATER LEVELS:**
LOGGED BY EA ▽ **AT TIME OF DRILLING** 12 ft.
NOTES ▼ **AT END OF DRILLING** 6.5 ft.

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ELEVATION (ft)	DEPTH (ft)	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
65.0	0	4 inches asphalt concrete over 6 inches aggregate base						
64.7								
64.2		**Lean Clay with Sand (CL)** hard, moist, dark brown to brown, fine sand, low plasticity	43	MC-1B	112	17		
			32	MC-2B	102	17		
59.5	5	**Sandy Lean Clay (CL)** very stiff, moist, brown, fine sand, low plasticity	36	MC-3B	104	19		
			9	SPT				
57.0		**Lean Clay with Sand (CL)** medium stiff, moist, brown, fine sand, moderate plasticity	12	MC-5B	98	27		
52.0	10	**Sandy Lean Clay (CL)** medium stiff, moist, brown, fine sand, low plasticity Liquid Limit = 27, Plastic Limit = 18	10	MC-6B	103	24	9	
49.0	15	**Lean Clay with Sand (CL)** medium stiff, moist, brown, fine sand, low plasticity						
47.0		**Silty Sand (SM)** medium dense, moist, brown, fine to medium sand	38	MC				
45.0	20	**Lean Clay with Sand (CL)** stiff, moist, gray with brown mottles, fine sand, moderate plasticity	17	MC-8B	93	30		
				ST-9	95	30		
37.5	25	Bottom of Boring at 27.5 feet.						

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0
>4.5

CORNERSTONE EARTH GROUP2 - CORNERSTONE 0812.GDT - 5/19/21 10:48 - P:\DRAFTING\GINT FILES\1054-4-1 QUME ROAD.GPJ

BORING NUMBER EB-6

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road
PROJECT NUMBER 1054-4-1
PROJECT LOCATION San Jose, CA

DATE STARTED 5/7/21 **DATE COMPLETED** 5/7/21
GROUND ELEVATION 67 FT +/- **BORING DEPTH** 30 ft.
DRILLING CONTRACTOR Exploration Geoservices, Inc. **LATITUDE** 37.395975° **LONGITUDE** -121.888204°
DRILLING METHOD Mobile B-40, 8 inch Hollow-Stem Auger **GROUND WATER LEVELS:**
LOGGED BY EA **AT TIME OF DRILLING** 10.5 ft.
NOTES **AT END OF DRILLING** 15 ft.

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ELEVATION (ft)	DEPTH (ft)	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
67.0	0	4 inches asphalt concrete over 4 inches aggregate base						
66.7								
66.3		**Sandy Lean Clay (CL) [Fill]** stiff, moist, brown, low plasticity	86	MC-1B		5		
65.5		**Well Graded Sand with Silt and Gravel (SW-SM) [Fill]** dense, moist, brown and gray, fine to coarse sand, fine subangular to subrounded gravel	64	MC-2B	113	4		
61.5	5	**Sandy Lean Clay (CL)** very stiff, moist, brown, fine sand, low plasticity	20	MC-3B	97	22		
			19	MC-4B	104	19		
53.5	10	**Lean Clay with Sand (CL)** medium stiff, moist, gray and brown mottles, fine sand, moderate plasticity	10	MC-5B	97	28		
	15			ST-6	100	24		
			11	MC				
	20							
43.0		**Poorly Graded Sand with Silt (SP-SM)** medium dense, moist, gray and brown, fine to coarse sand	23	MC-8B	105	21		
42.0	25							
41.0		*Continued Next Page*						

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

BORING NUMBER EB-6

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road

PROJECT NUMBER 1054-4-1

PROJECT LOCATION San Jose, CA

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
41.0			**Lean Clay with Sand (CL)** medium stiff, moist, brown, fine sand, low plasticity						
39.0			**Clayey Sand (SC)** medium dense, moist, brown, fine sand						
37.8			**Lean Clay with Sand (CL)** stiff, moist, gray, fine sand, moderate plasticity	37	MC				
37.0	30		Bottom of Boring at 30.0 feet.						
	35								
	40								
	45								
	50								
	55								

UNDRAINED SHEAR STRENGTH, ksf

- ○ HAND PENETROMETER
- △ TORVANE
- ● UNCONFINED COMPRESSION
- ▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL

1.0 2.0 3.0 4.0

BORING NUMBER EB-7

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road
PROJECT NUMBER 1054-4-1
PROJECT LOCATION San Jose, CA

DATE STARTED 5/7/21 **DATE COMPLETED** 5/7/21
GROUND ELEVATION 68 FT +/- **BORING DEPTH** 35 ft.
DRILLING CONTRACTOR Exploration Geoservices, Inc. **LATITUDE** 37.396216° **LONGITUDE** -121.886093°
DRILLING METHOD Mobile B-40, 8 inch Hollow-Stem Auger **GROUND WATER LEVELS:**
LOGGED BY EA ▽ **AT TIME OF DRILLING** 18 ft.
NOTES ▼ **AT END OF DRILLING** 14 ft.

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ELEVATION (ft)	DEPTH (ft)	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf
68.0	0	6 inches asphalt concrete over 4 inches aggregate base							
67.5		(CL)							
67.2		**Sandy Lean Clay (CL) [Fill]** hard, moist, brown, fine to coarse sand, low plasticity	36	MC-1B	109	18	15		>4.5
66.5		**Lean Clay with Sand (CL)** hard, moist, dark brown, fine sand, low plasticity Liquid Limit = 33, Plastic Limit = 18	21	MC-2B	113	18			>4.5
	5		19	MC-3B	102	17			>4.5
			11	SPT					
60.0		**Lean Clay (CL)** stiff to medium stiff, moist, brown with gray mottles, fine sand, moderate plasticity	13	MC-5B	99	21			
	10								
			13	MC					
	15								
52.5		**Poorly Graded Sand with Clay (SP-SC)** medium dense, moist, gray and brown, fine to coarse sand, some fine subangular to subrounded gravel							
50.5		**Lean Clay (CL)** medium stiff, moist, brown, fine sand, moderate plasticity							
48.8		**Silty Sand with Gravel (SM)** dense, moist, gray and brown, fine to coarse sand, fine subangular to subrounded gravel	47	MC-7B	118	16			
	20								
			59	MC					
43.0	25								

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

Continued Next Page

BORING NUMBER EB-7

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road

PROJECT NUMBER 1054-4-1

PROJECT LOCATION San Jose, CA

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
43.0	25								
42.5			**Lean Clay (CL)** stiff, moist, gray, some fine sand, moderate plasticity						
	30			26	MC-9B	93	30		
				26	MC-10		29		
33.0	35		Bottom of Boring at 35.0 feet.						
	40								
	45								
	50								

UNDRAINED SHEAR STRENGTH, ksf
- ○ HAND PENETROMETER
- △ TORVANE
- ● UNCONFINED COMPRESSION
- ▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL

1.0 2.0 3.0 4.0

BORING NUMBER EB-8

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road
PROJECT NUMBER 1054-4-1
PROJECT LOCATION San Jose, CA

DATE STARTED 5/10/21 **DATE COMPLETED** 5/10/21
GROUND ELEVATION 68 FT +/- **BORING DEPTH** 30 ft.
DRILLING CONTRACTOR Exploration Geoservices, Inc. **LATITUDE** 37.394323° **LONGITUDE** -121.888059°
DRILLING METHOD Mobile B-53, 8 inch Hollow-Stem Auger **GROUND WATER LEVELS:**
LOGGED BY JLC **AT TIME OF DRILLING** 15 ft.
NOTES **AT END OF DRILLING** 13 ft.

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ELEVATION (ft)	DEPTH (ft)	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
68.0	0	4 inches asphalt concrete over 10 inches aggregate base						
67.7								
66.8		**Clayey Sand with Gravel (SC)** medium dense, moist, brown, fine to coarse sand, fine subangular to subrounded gravel	34	MC-1B	120	8		
65.0		**Silty Sand (SM)** dense, moist, gray and brown, fine to medium sand, some fine subangular to subrounded gravel	28	MC-2B	105	5		
	5		36	MC-3B	113	6		
61.5		**Poorly Graded Sand with Silt and Gravel (SP-SM)** medium dense, moist, gray and brown, fine to coarse sand, fine subangular to subrounded gravel	21	MC-4B		6		
	10							
56.0		**Sandy Silt (ML)** soft, wet, brown, fine sand, nonplastic	13	MC-5		31		
	15							
51.0		**Sandy Lean Clay (CL)** soft, wet, brown, fine sand, low plasticity	13	MC-6B	112	18		
	20							
45.5		**Lean Clay (CL)** medium stiff, moist, brown, fine sand, moderate plasticity	7	SPT				
44.5			26	MC-8B	116	21		
43.0	25							

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

Continued Next Page

BORING NUMBER EB-8

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road

PROJECT NUMBER 1054-4-1

PROJECT LOCATION San Jose, CA

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ELEVATION (ft)	DEPTH (ft)	SYMBOL	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE	UNDRAINED SHEAR STRENGTH, ksf
43.0	25		**Poorly Graded Sand with Silt and Gravel (SP-SM)** medium dense, moist, gray and brown, fine to coarse sand, fine subangular to subrounded gravel							
41.5			**Lean Clay (CL)** medium stiff, moist, gray, some fine sand, moderate plasticity	21	MC					○
38.0	30		Bottom of Boring at 30.0 feet.							
	35									
	40									
	45									
	50									

UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

BORING NUMBER EB-9

CORNERSTONE EARTH GROUP

PROJECT NAME 2222 Qume Road
PROJECT NUMBER 1054-4-1
PROJECT LOCATION San Jose, CA

DATE STARTED 5/10/21 **DATE COMPLETED** 5/10/21
GROUND ELEVATION 64 FT +/- **BORING DEPTH** 25 ft.
DRILLING CONTRACTOR Exploration Geoservices, Inc. **LATITUDE** 37.393451° **LONGITUDE** -121.889274°
DRILLING METHOD Mobile B-53, 8 inch Hollow-Stem Auger **GROUND WATER LEVELS:**
LOGGED BY JLC ▽ **AT TIME OF DRILLING** 12 ft.
NOTES ▼ **AT END OF DRILLING** 12 ft.

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ELEVATION (ft)	DEPTH (ft)	DESCRIPTION	N-Value (uncorrected) blows per foot	SAMPLES TYPE AND NUMBER	DRY UNIT WEIGHT PCF	NATURAL MOISTURE CONTENT	PLASTICITY INDEX, %	PERCENT PASSING No. 200 SIEVE
64.0	0	1 inch asphalt concrete over 2 inches aggregate base						
63.7		**Clayey Sand with Gravel (SC) [Fill]** medium dense, moist, dark brown and brown mottled, fine to coarse sand, fine subangular to subrounded gravel	34	MC-1B	126	11		
			80	MC-2B	122	10		
59.5	5	**Clayey Sand (SC)** medium dense, moist, brown, fine to coarse sand, some fine subangular to subrounded gravel	31	MC-3B	110	14		
		becomes loose	8	SPT				
56.0		**Silty Sand (SM)** dense, moist, gray and brown, fine to coarse sand, some fine subangular to subrounded gravel NP = nonplastic	36	SPT-5		10	NP	
53.0	10	**Poorly Graded Sand with Silt and Gravel (SP-SM)** medium dense, moist, gray and brown, fine to coarse sand, fine subangular to subrounded gravel						
49.8	15	**Lean Clay with Sand (CL)** medium stiff, moist, brown, fine sand, low plasticity	7	MC-6B	99	27		
48.0		**Clayey Sand with Gravel (SC)** medium dense, moist, gray, fine to coarse sand, some fine subangular to subrounded gravel	22	MC				
44.0	20	**Sandy Lean Clay (CL)** medium stiff, moist, brown, fine sand, low plasticity	11	SPT-8		26		
42.0		**Lean Clay (CL)** stiff, moist, brown with gray mottles, some fine sand, moderate plasticity	30	MC				
39.0	25	Bottom of Boring at 25.0 feet.						

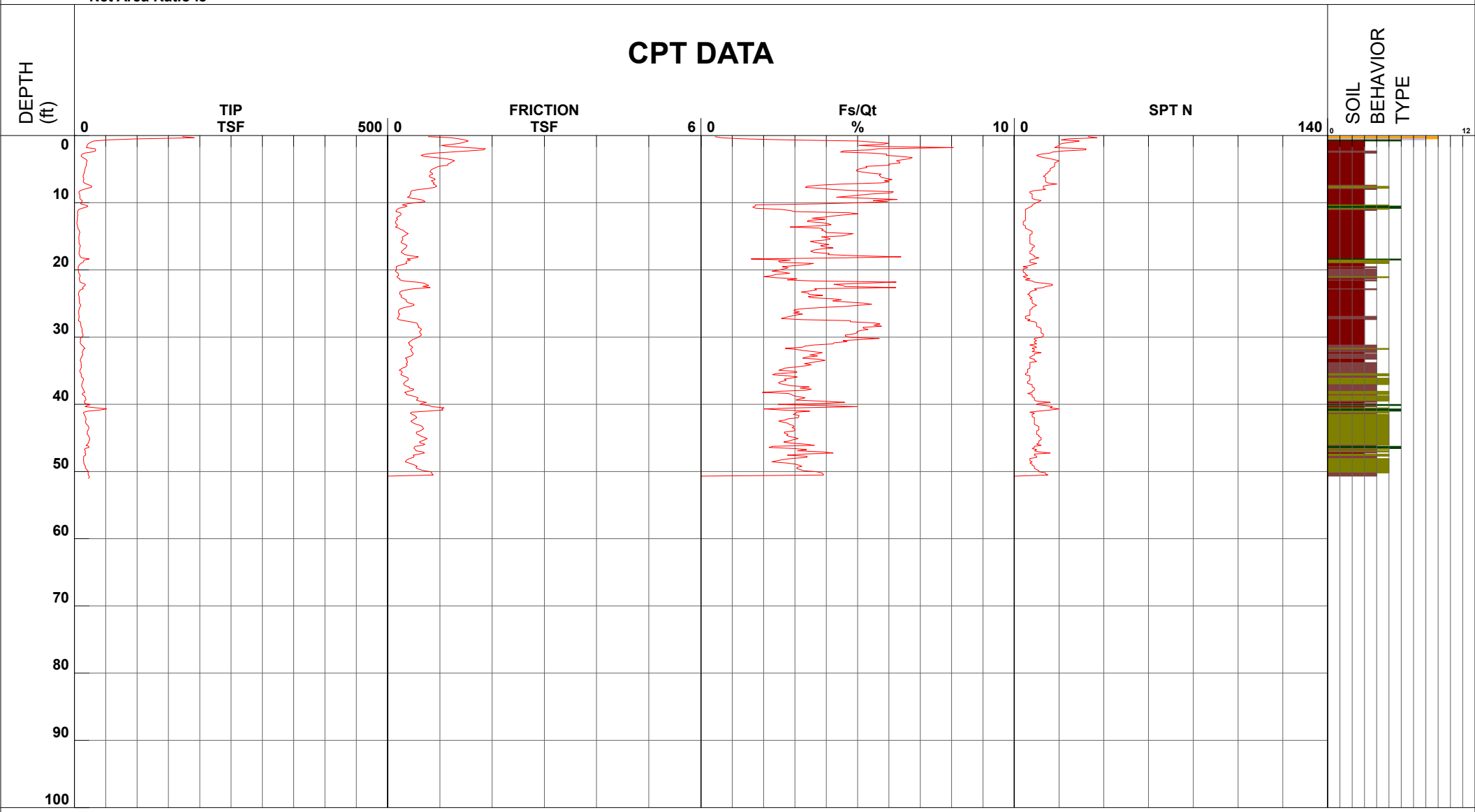
UNDRAINED SHEAR STRENGTH, ksf
○ HAND PENETROMETER
△ TORVANE
● UNCONFINED COMPRESSION
▲ UNCONSOLIDATED-UNDRAINED TRIAXIAL
1.0 2.0 3.0 4.0

Cornerstone Earth Group

Project	2222 Qume Drive	Operator	JM-BH	Filename	SDF(370).cpt
Job Number	1054-4-1	Cone Number	DDG1596	GPS	
Hole Number	CPT-01	Date and Time	5/6/2021 11:22:59 AM	Maximum Depth	51.02 ft
EST GW Depth During Test		12.00 ft			

Net Area Ratio .8

CPT DATA



1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 15cm squared

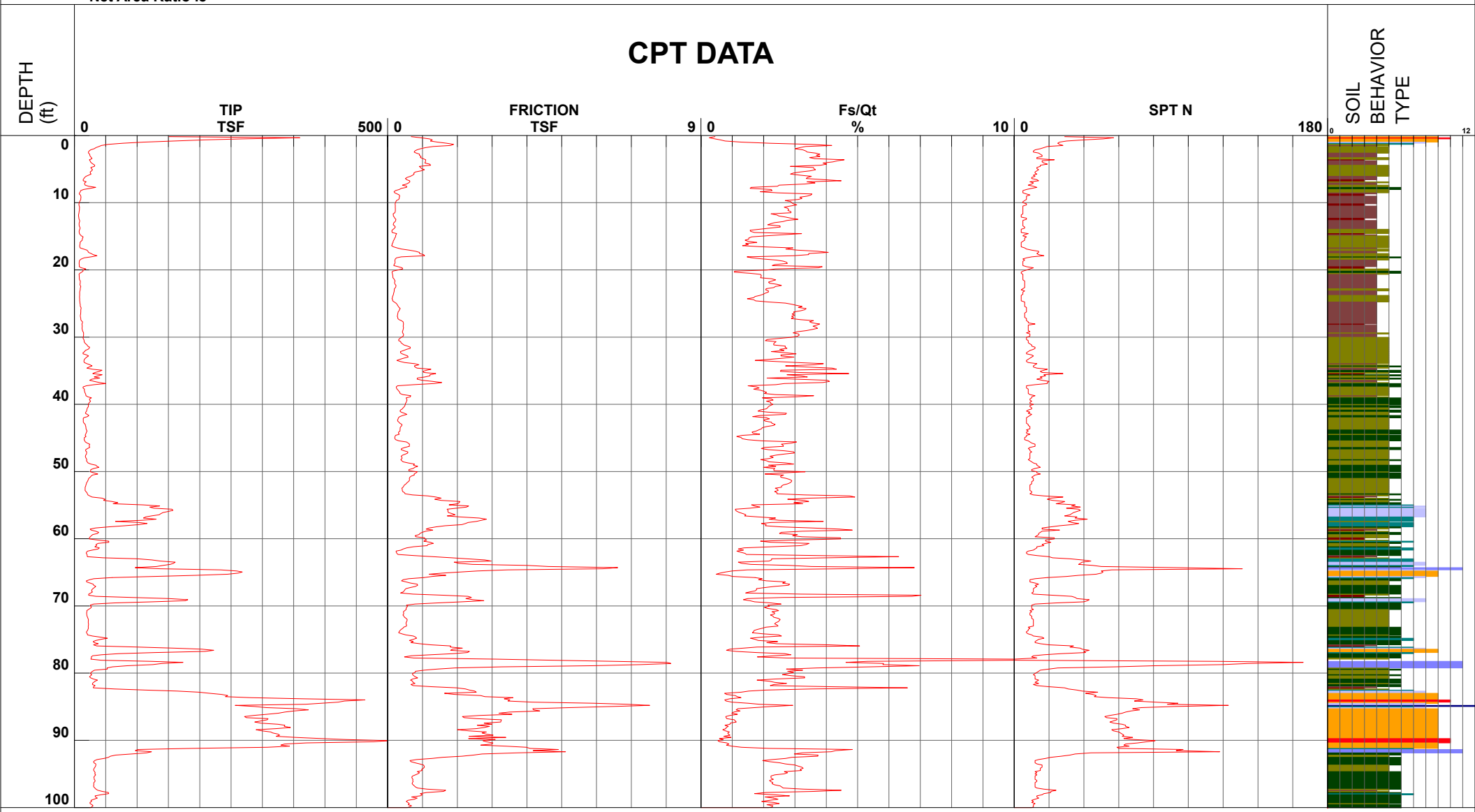
S*Soil behavior type and SPT based on data from UBC-1983

Cornerstone Earth Group

Project	2222 Qume Drive	Operator	JM-ZG	Filename	SDF(345).cpt
Job Number	1054-4-1	Cone Number	DDG1596	GPS	
Hole Number	CPT-02	Date and Time	4/30/2021 7:42:44 AM	Maximum Depth	100.72 ft
EST GW Depth During Test		1.00 ft			

Net Area Ratio .8

CPT DATA



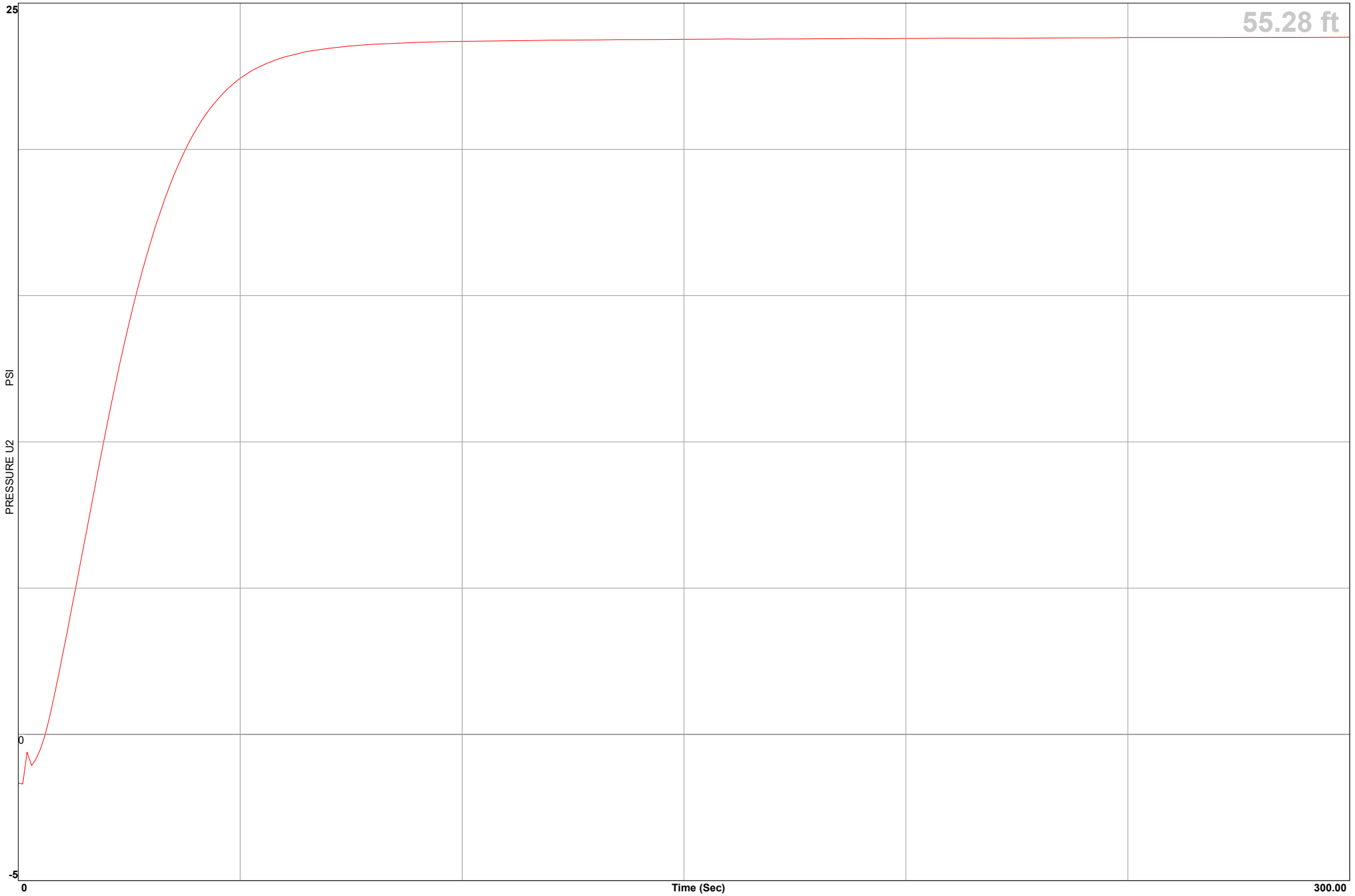
1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 15cm squared

S*Soil behavior type and SPT based on data from UBC-1983

Cornerstone Earth Group

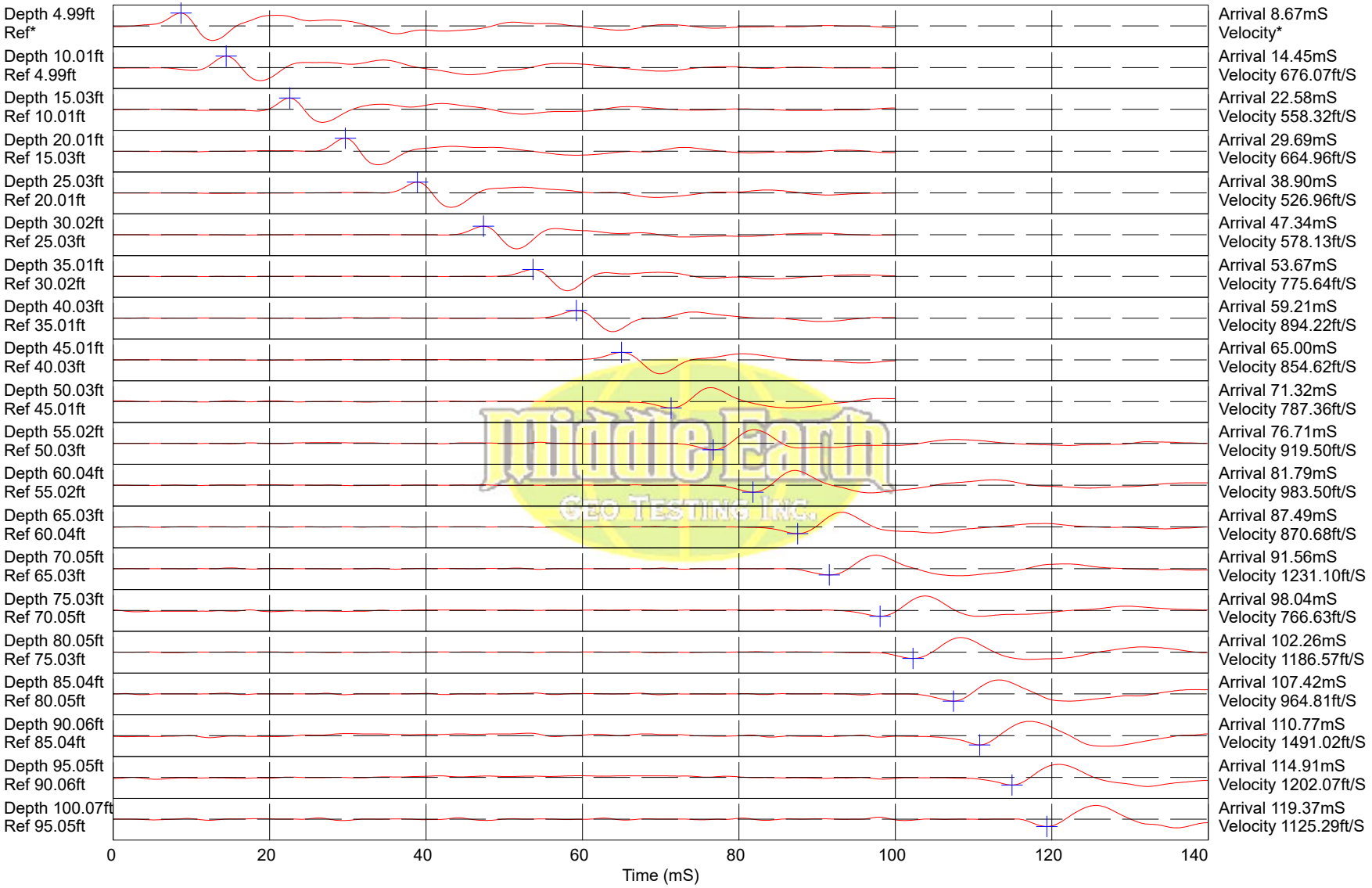
Location	2222 Qume Drive	Operator	JM-ZG	GPS
Job Number	1054-4-1	Cone Number	DDG1596	
Hole Number	CPT-02	Date and Time	4/30/2021 7:42:44 AM	
Equilized Pressure	23.7	EST GW Depth During Test	.3	



CPT-02

Cornerstone Earth Group

2222 Qume Drive



Hammer to Rod String Distance (ft): 5.83

* = Not Determined

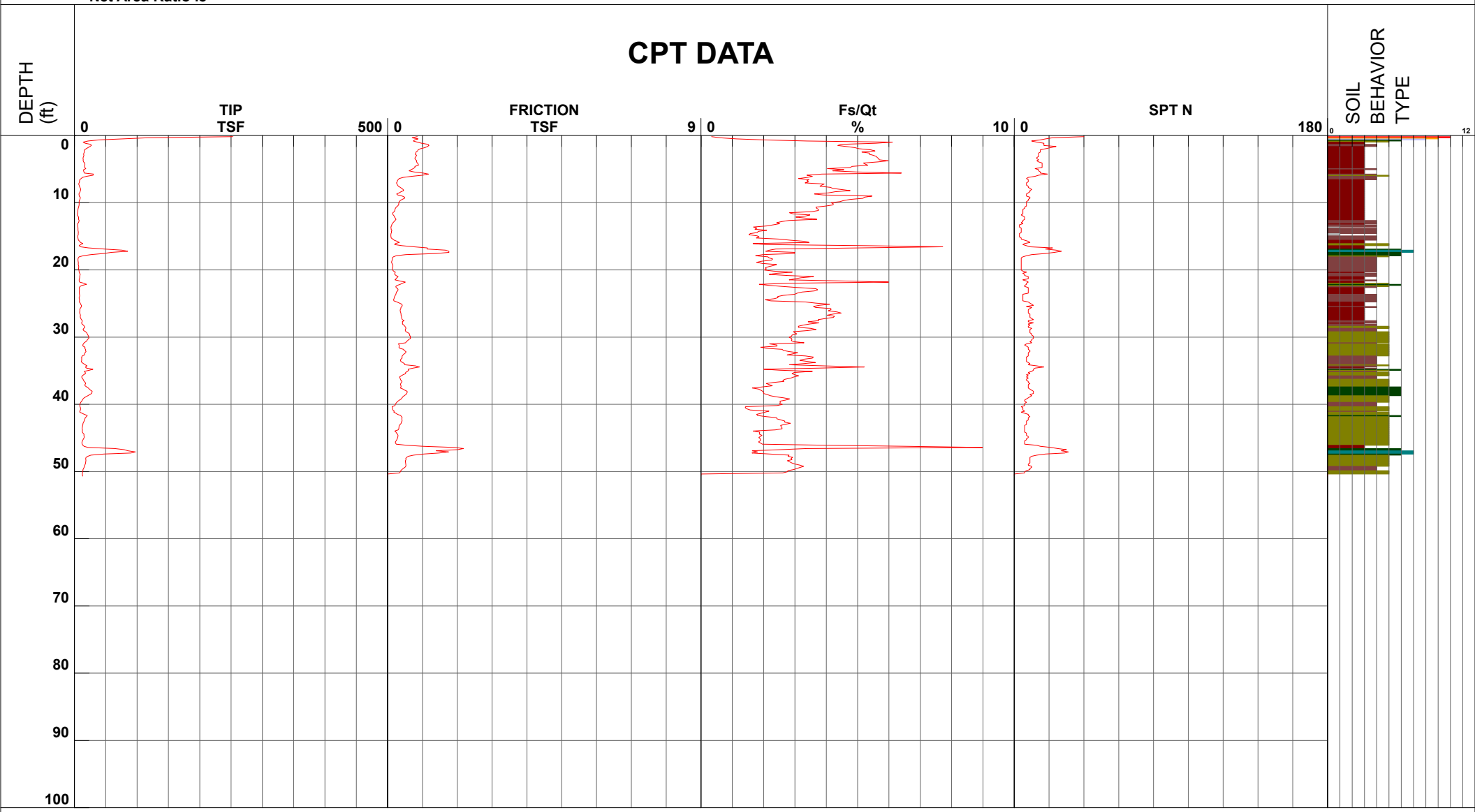
COMMENT:

Cornerstone Earth Group

Project	2222 Qume Drive	Operator	JM-ZG	Filename	SDF(346).cpt
Job Number	1054-4-1	Cone Number	DDG1596	GPS	
Hole Number	CPT-03	Date and Time	4/30/2021 9:41:11 AM	Maximum Depth	50.69 ft
EST GW Depth During Test		10.00 ft			

Net Area Ratio .8

CPT DATA



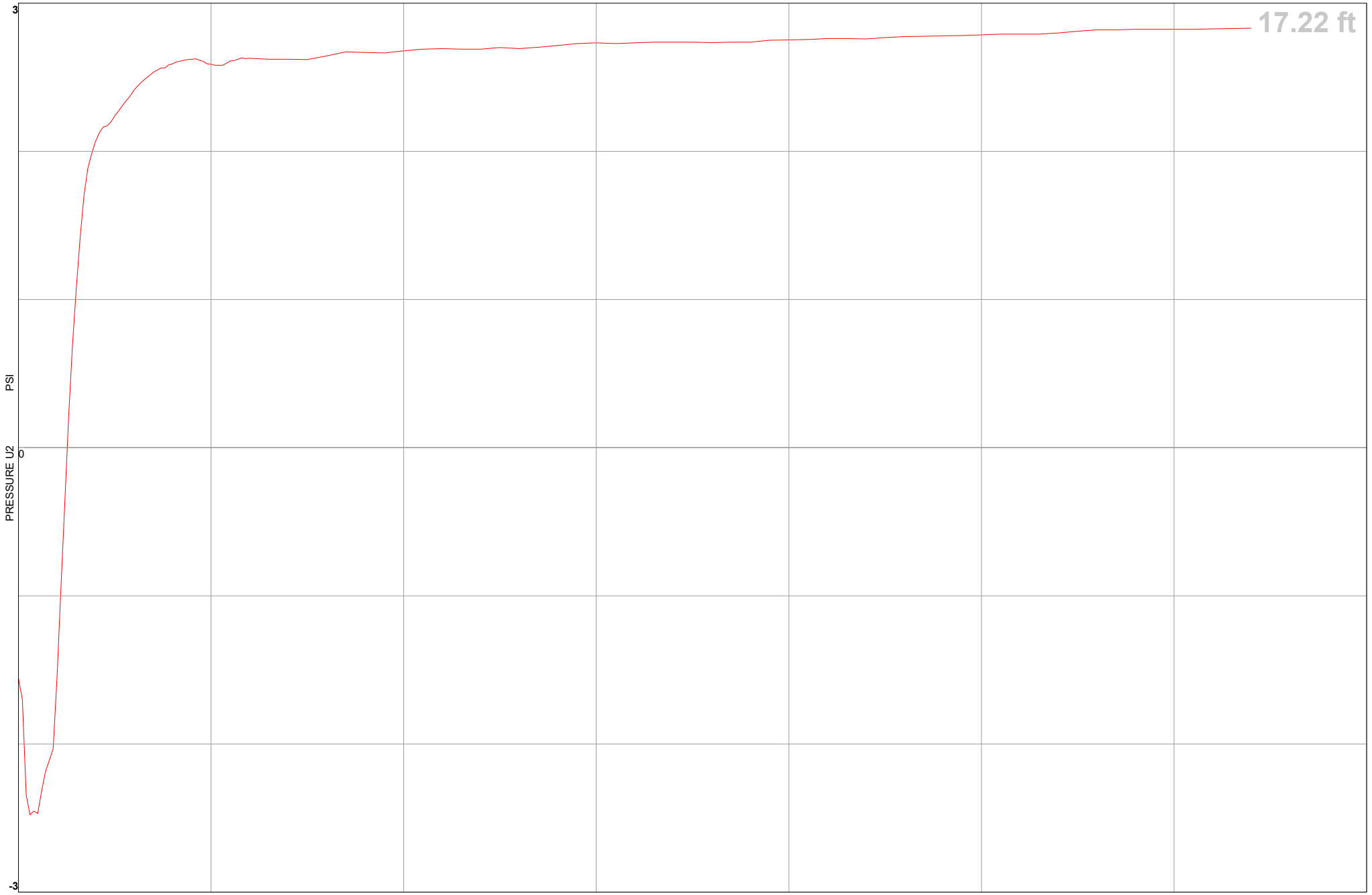
1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 15cm squared

S*Soil behavior type and SPT based on data from UBC-1983

Cornerstone Earth Group

Location	2222 Qume Drive	Operator	JM-ZG	GPS
Job Number	1054-4-1	Cone Number	DDG1596	
Hole Number	CPT-03	Date and Time	4/30/2021 9:41:11 AM	
Equilized Pressure	2.8	EST GW Depth During Test	10.6	

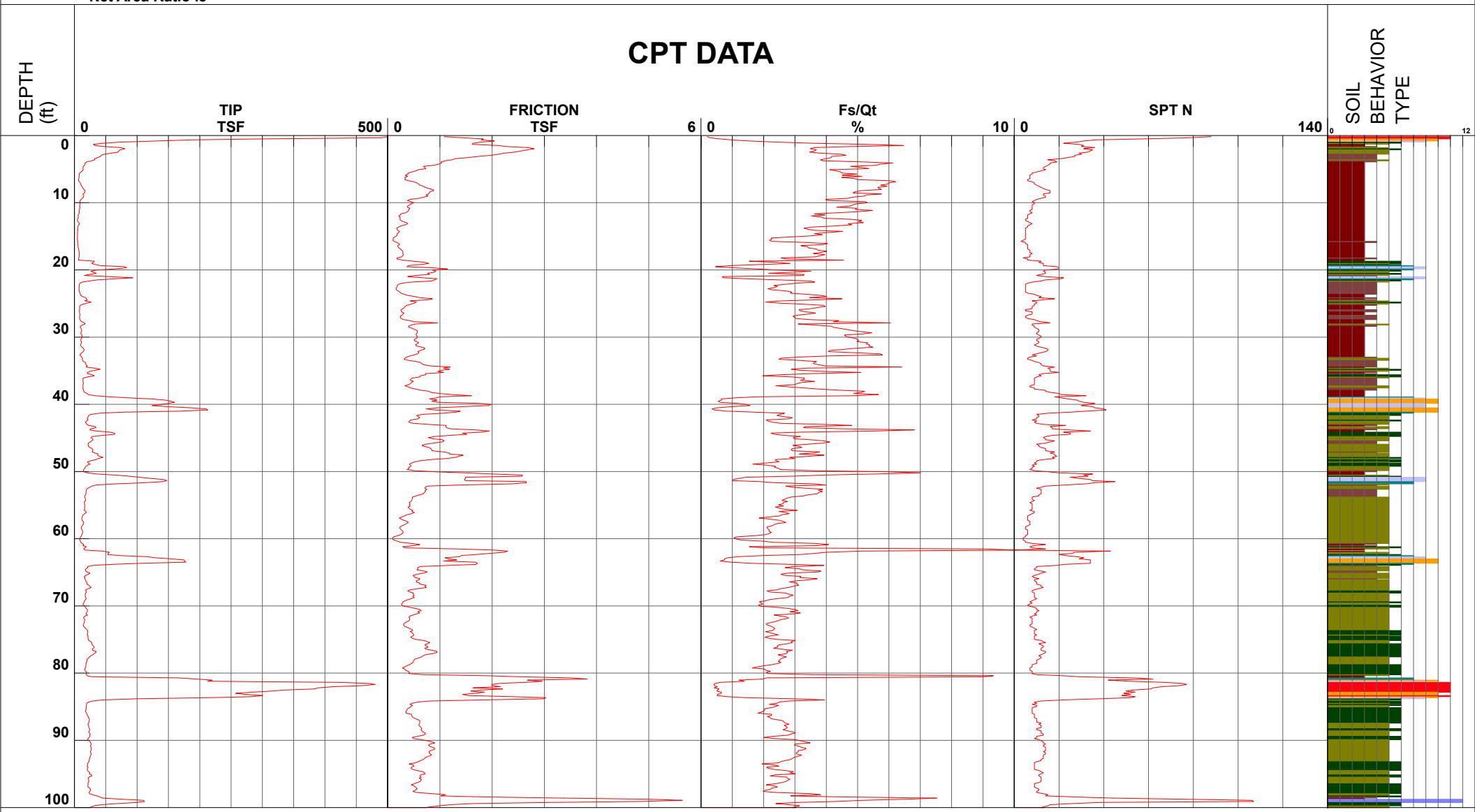


Cornerstone Earth Group

Project	2222 Qume Drive	Operator	JM-BH	Filename	SDF(368).cpt
Job Number	1054-4-1	Cone Number	DDG1596	GPS	
Hole Number	CPT-04	Date and Time	5/6/2021 7:25:09 AM	Maximum Depth	100.72 ft
EST GW Depth During Test		12.00 ft			

Net Area Ratio .8

CPT DATA



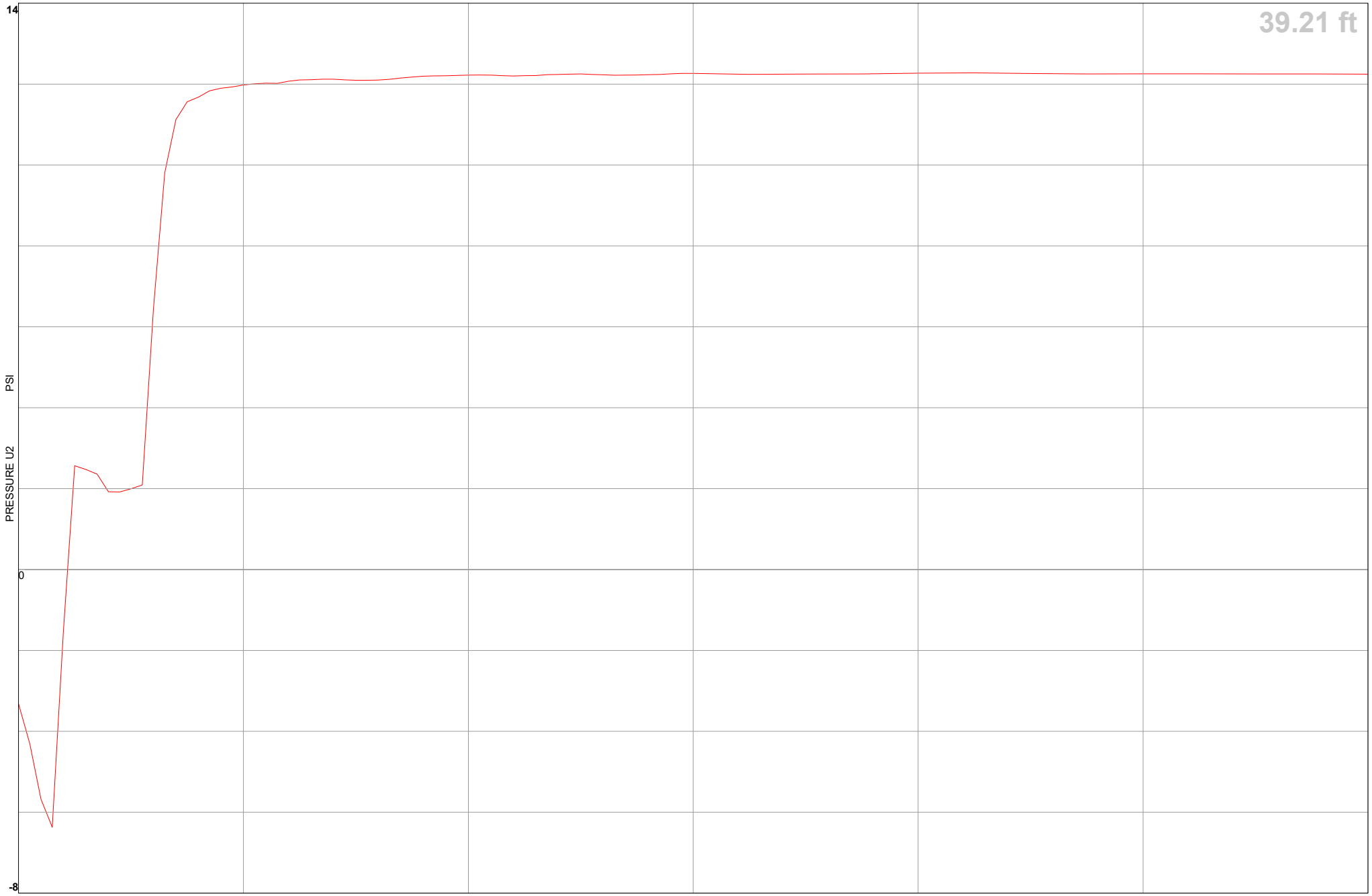
1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 15cm squared

S*Soil behavior type and SPT based on data from UBC-1983

Cornerstone Earth Group

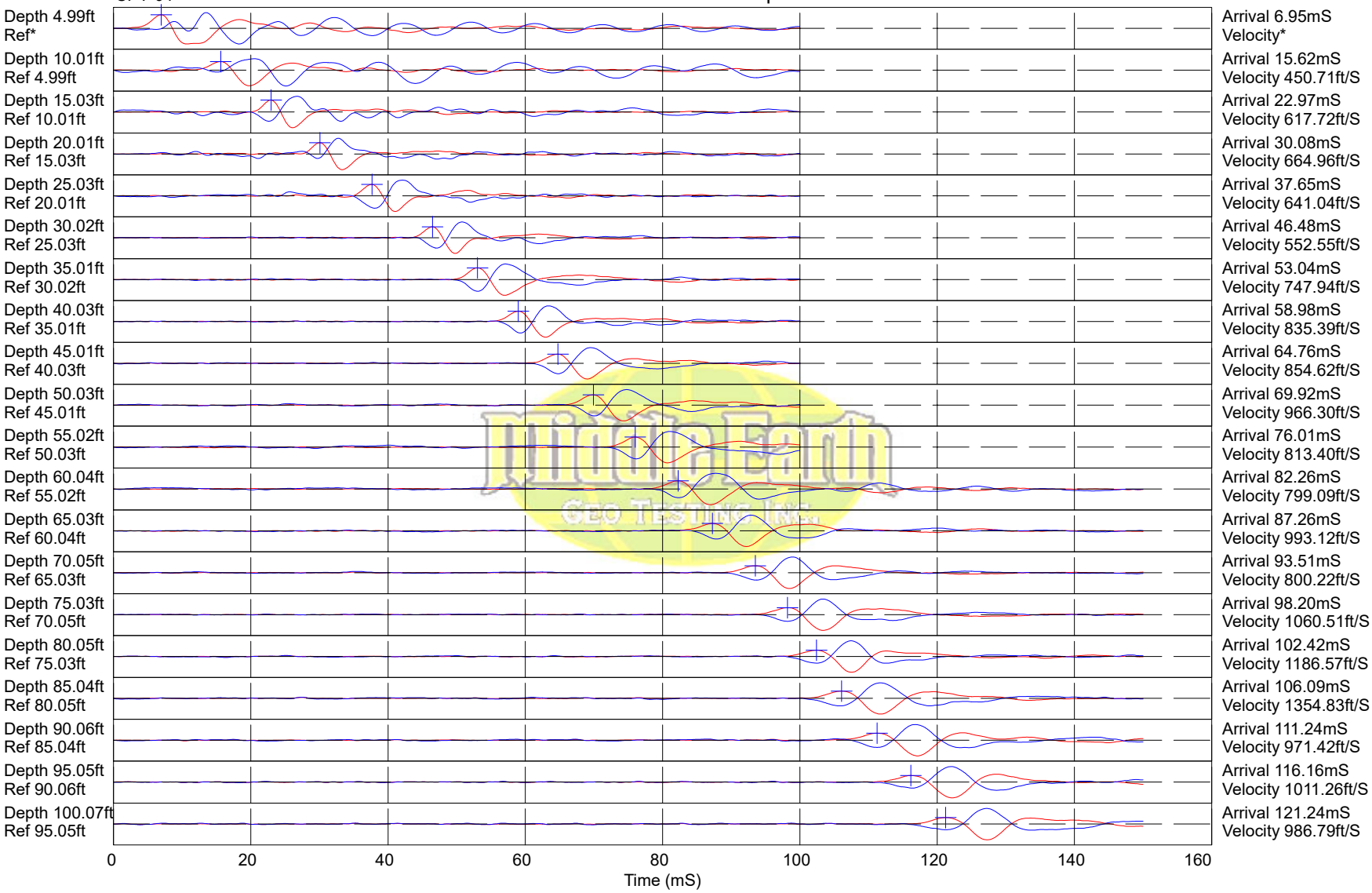
Location	2222 Qume Drive	Operator	JM-BH	GPS
Job Number	1054-4-1	Cone Number	DDG1596	
Hole Number	CPT-04	Date and Time	5/6/2021 7:25:09 AM	
Equilized Pressure	12.2	EST GW Depth During Test	10.9	



CPT-04

Cornerstone Earth Group

2222 Qume Drive



Hammer to Rod String Distance (ft): 5.83

* = Not Determined

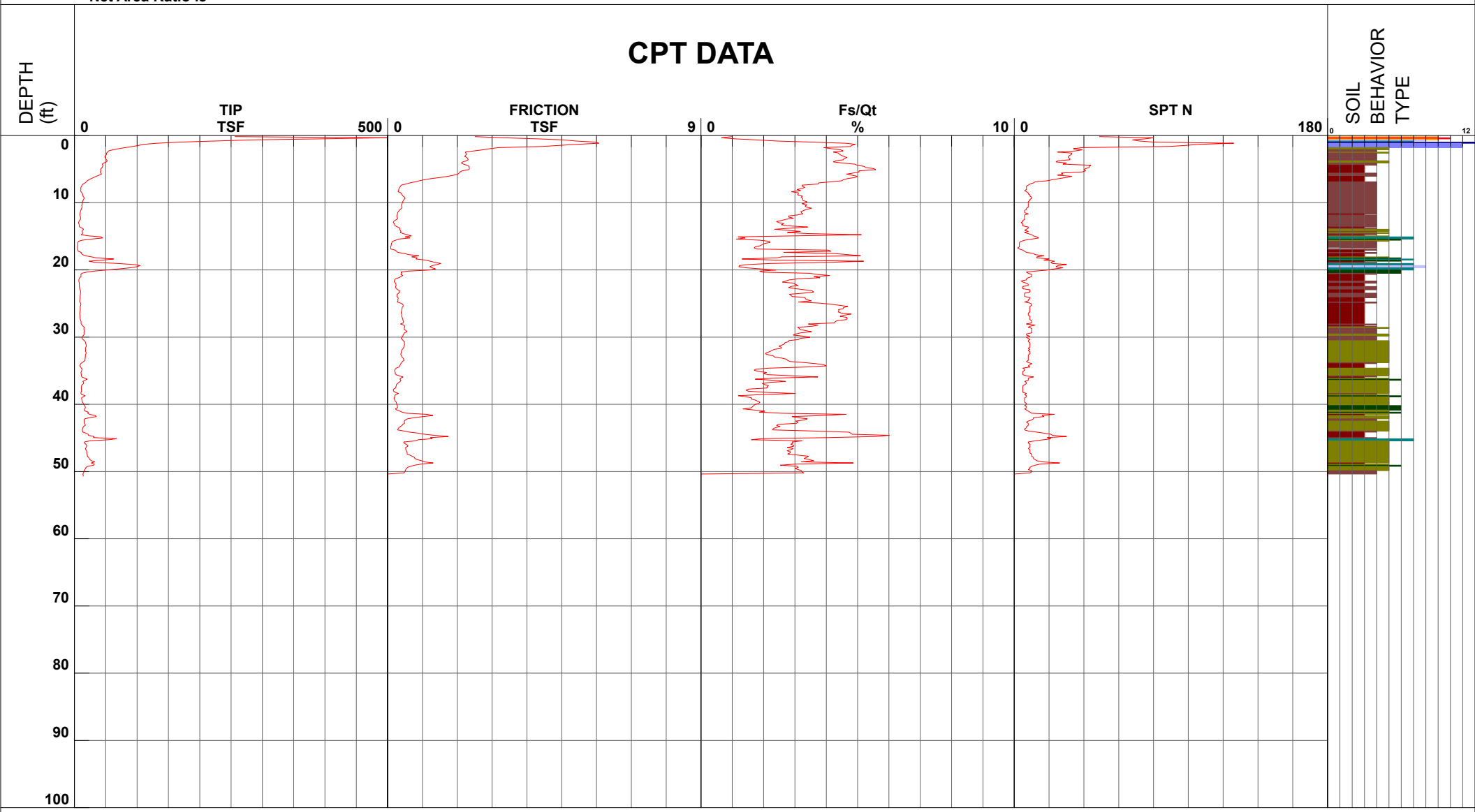
COMMENT:

Cornerstone Earth Group

Project	2222 Qume Drive	Operator	JM-ZG	Filename	SDF(347).cpt
Job Number	1054-4-1	Cone Number	DDG1596	GPS	
Hole Number	CPT-05	Date and Time	4/30/2021 11:14:10 AM	Maximum Depth	50.69 ft
EST GW Depth During Test		12.00 ft			

Net Area Ratio .8

CPT DATA



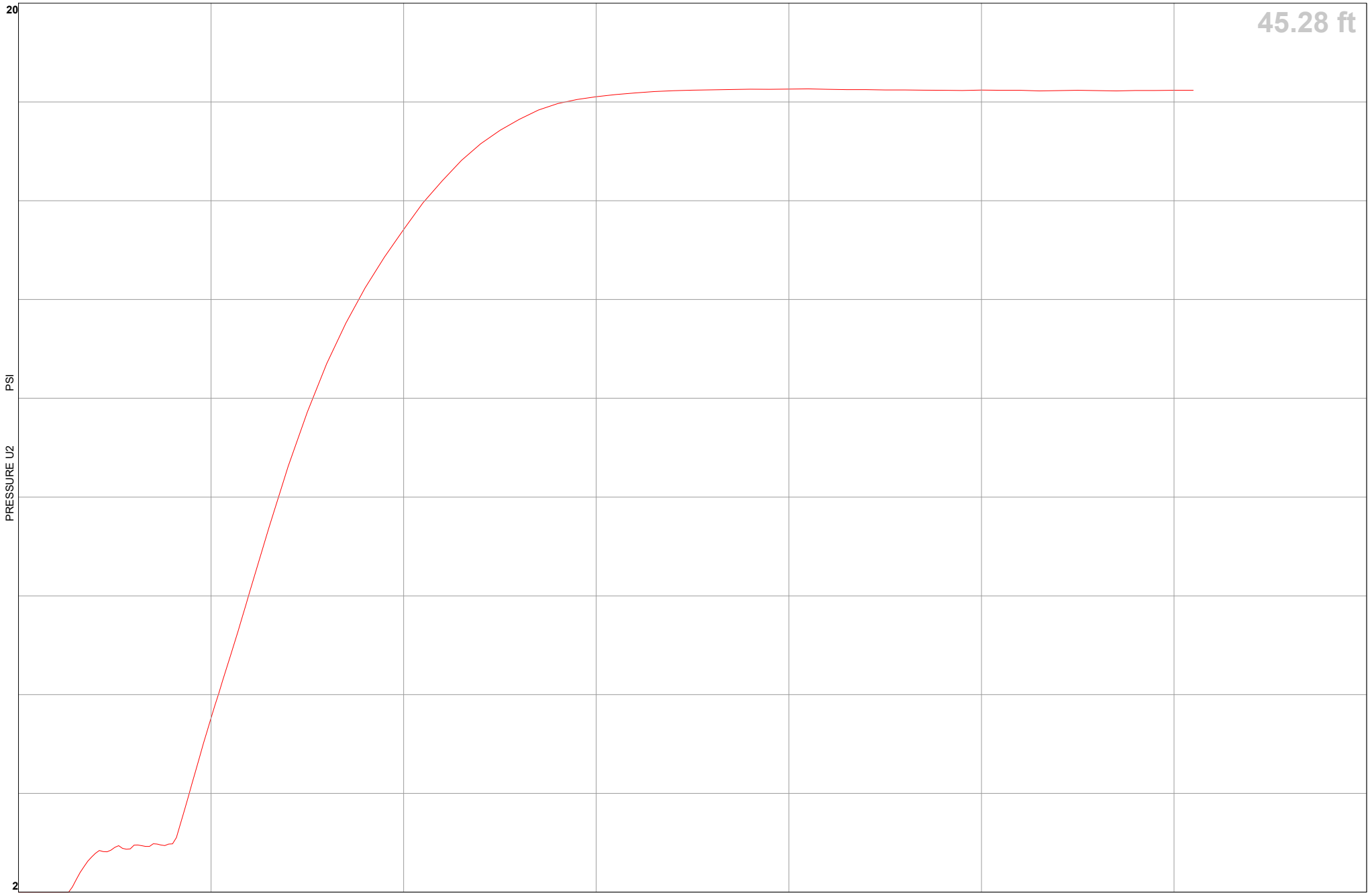
1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 15cm squared

S*Soil behavior type and SPT based on data from UBC-1983

Cornerstone Earth Group

Location	2222 Qume Drive	Operator	JM-ZG	GPS
Job Number	1054-4-1	Cone Number	DDG1596	
Hole Number	CPT-05	Date and Time	4/30/2021 11:14:10 AM	
Equilized Pressure	18.2	EST GW Depth During Test	3.2	

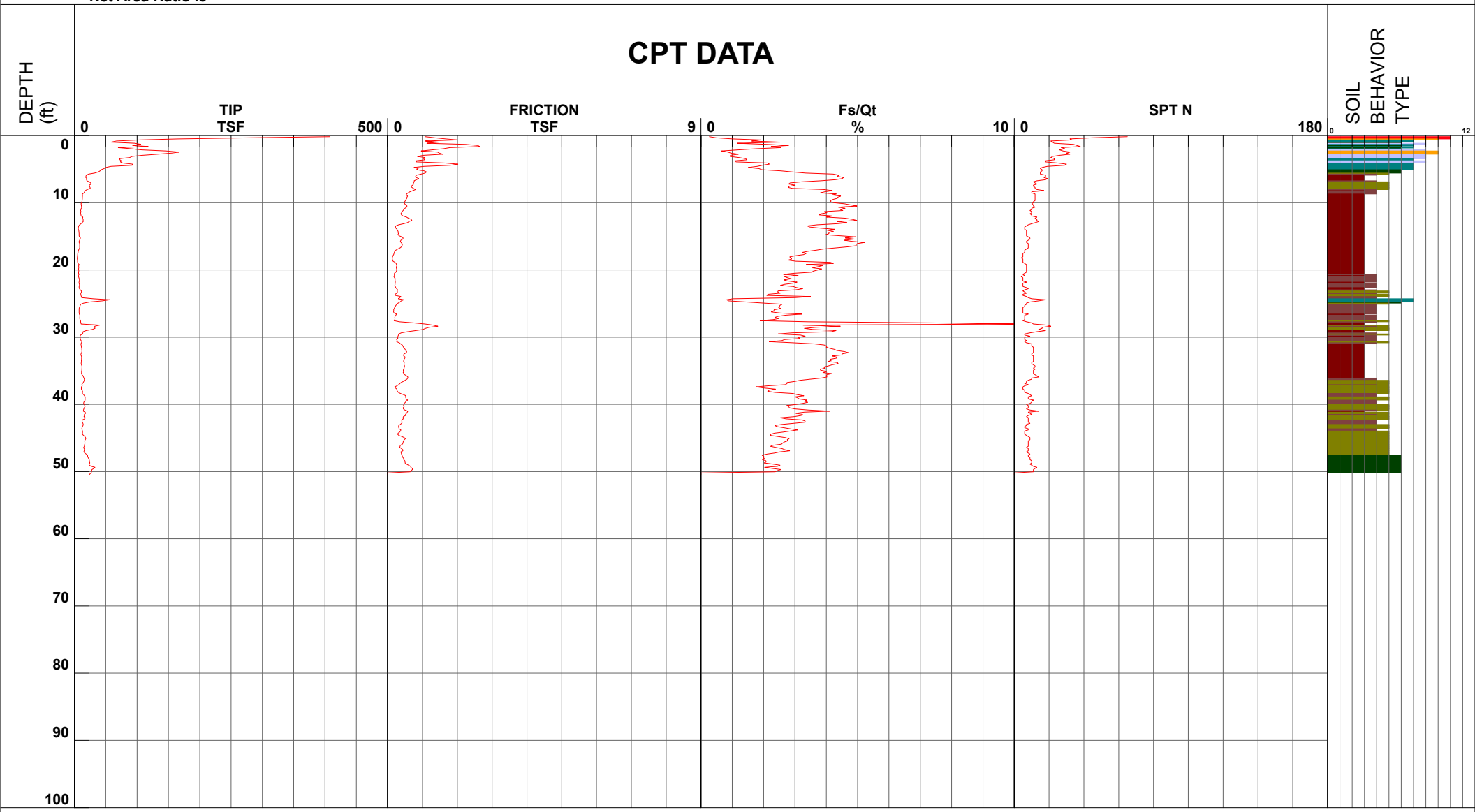


Cornerstone Earth Group

Project	2222 Qume Drive	Operator	JM-ZG	Filename	SDF(349).cpt
Job Number	1054-4-1	Cone Number	DDG1596	GPS	
Hole Number	CPT-06	Date and Time	4/30/2021 1:11:55 PM	Maximum Depth	50.52 ft
EST GW Depth During Test		14.00 ft			

Net Area Ratio .8

CPT DATA



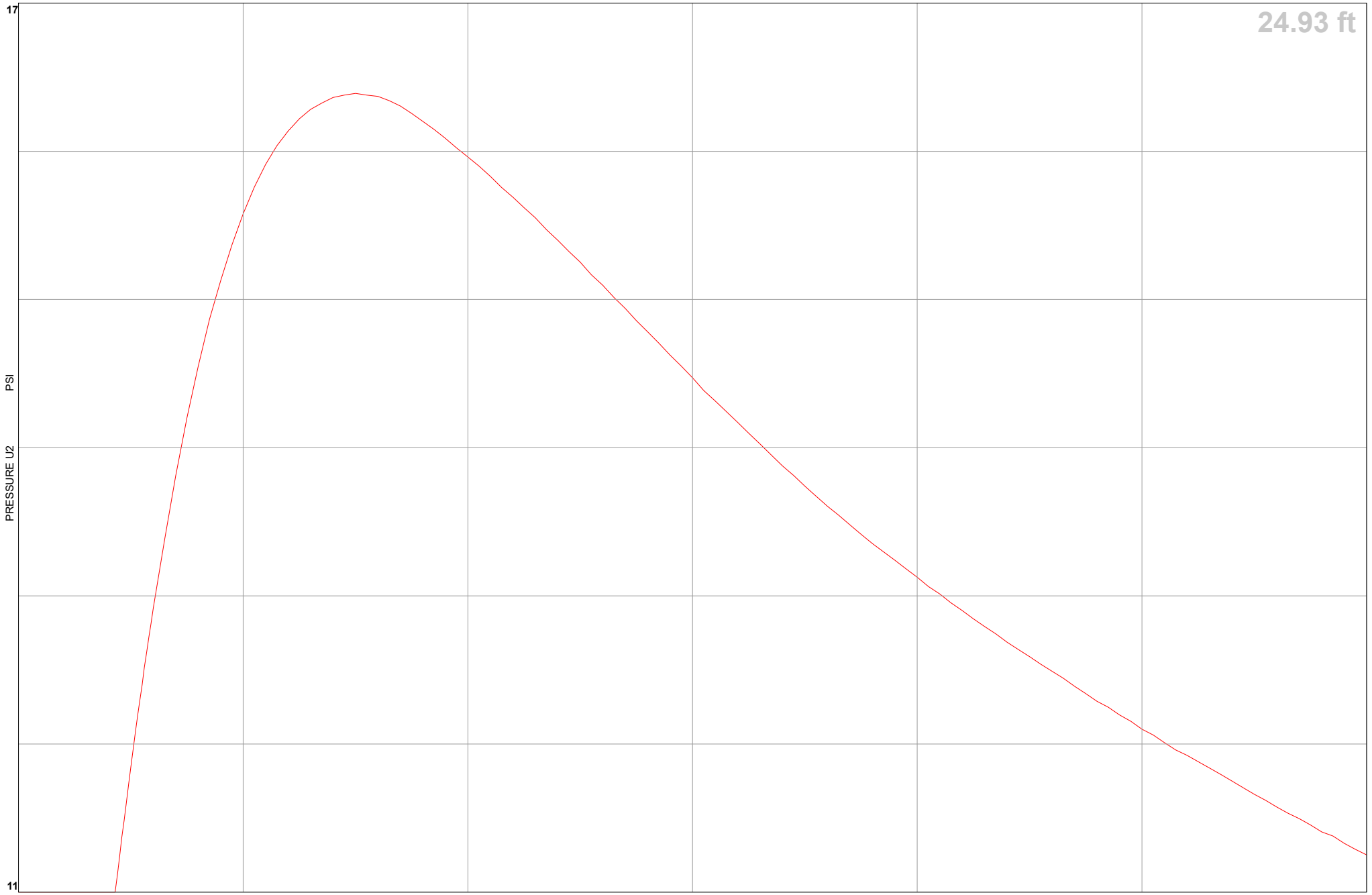
1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 15cm squared

S*Soil behavior type and SPT based on data from UBC-1983

Cornerstone Earth Group

Location	2222 Qume Drive	Operator	JM-ZG	GPS
Job Number	1054-4-1	Cone Number	DDG1596	
Hole Number	CPT-06	Date and Time	4/30/2021 1:11:55 PM	
Equilized Pressure	11.2	EST GW Depth During Test	+1.1	

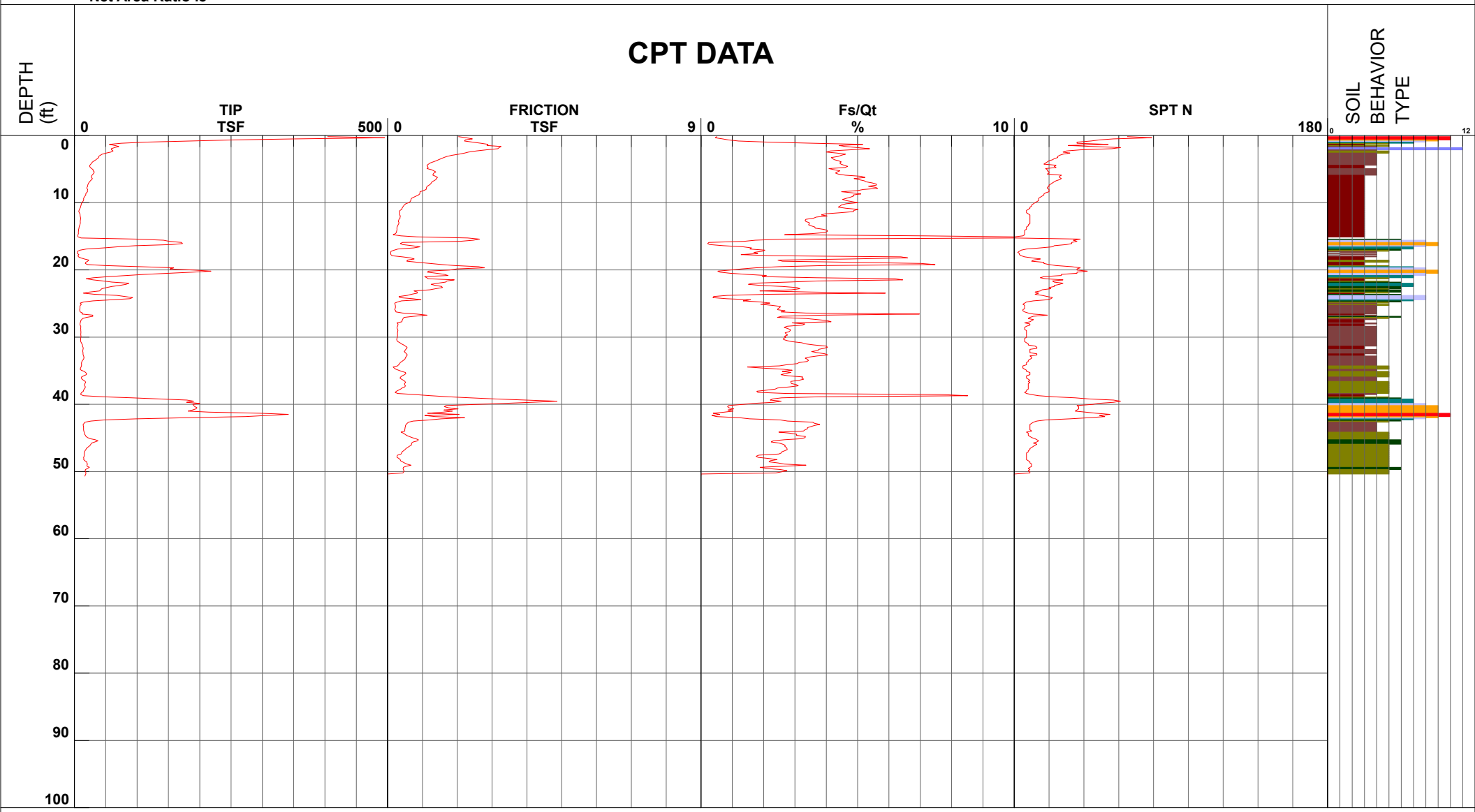


Cornerstone Earth Group

Project	2222 Qume Drive	Operator	JM-ZG	Filename	SDF(348).cpt
Job Number	1054-4-1	Cone Number	DDG1596	GPS	
Hole Number	CPT-07	Date and Time	4/30/2021 12:30:06 PM	Maximum Depth	50.69 ft
EST GW Depth During Test		12.00 ft			

Net Area Ratio .8

CPT DATA



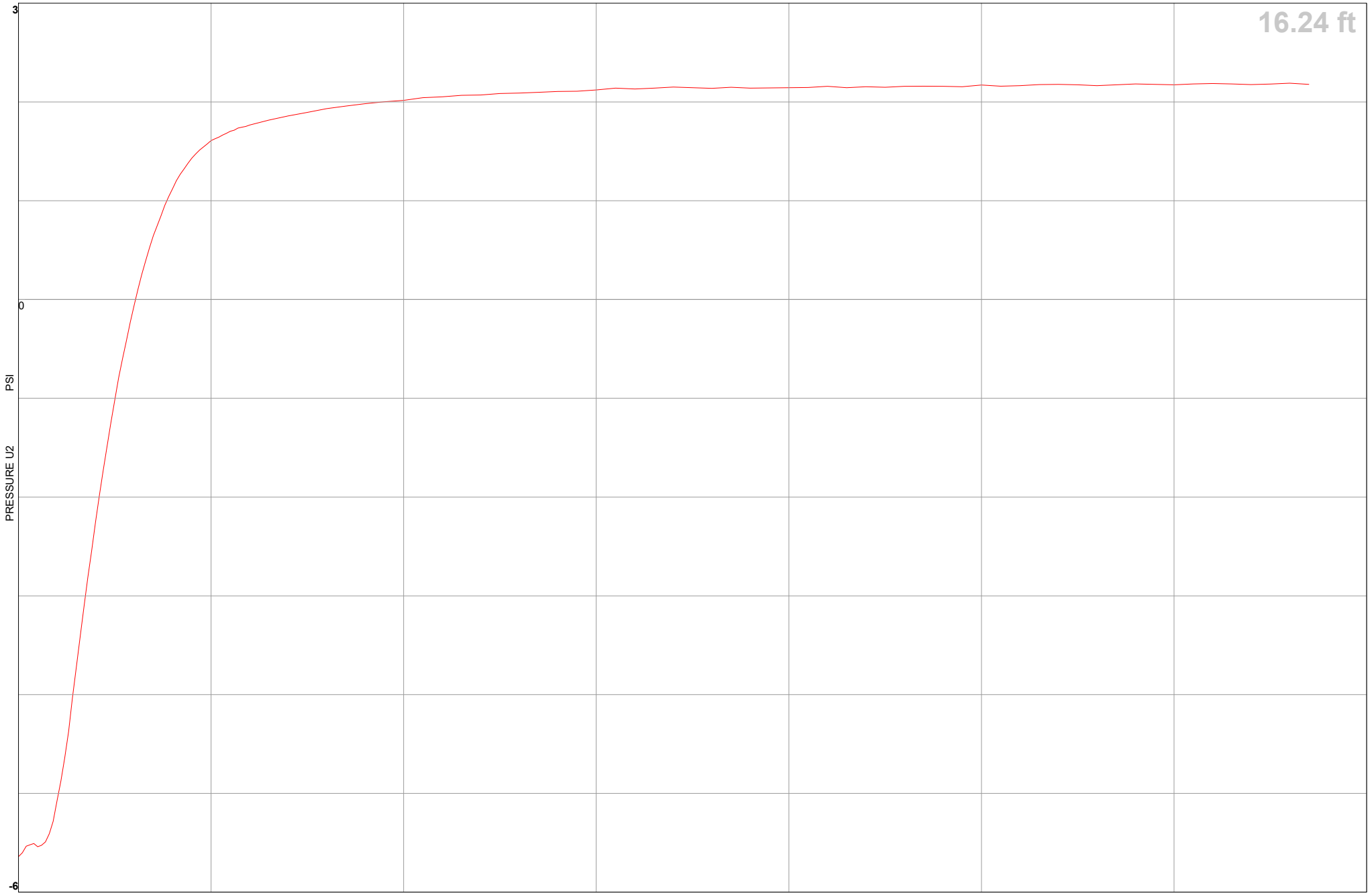
1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 15cm squared

S*Soil behavior type and SPT based on data from UBC-1983

Cornerstone Earth Group

Location	2222 Qume Drive	Operator	JM-ZG	GPS	
Job Number	1054-4-1	Cone Number	DDG1596		
Hole Number	CPT-07	Date and Time	4/30/2021 12:30:06 PM		
Equilized Pressure	2.1	EST GW Depth During Test	11.2		

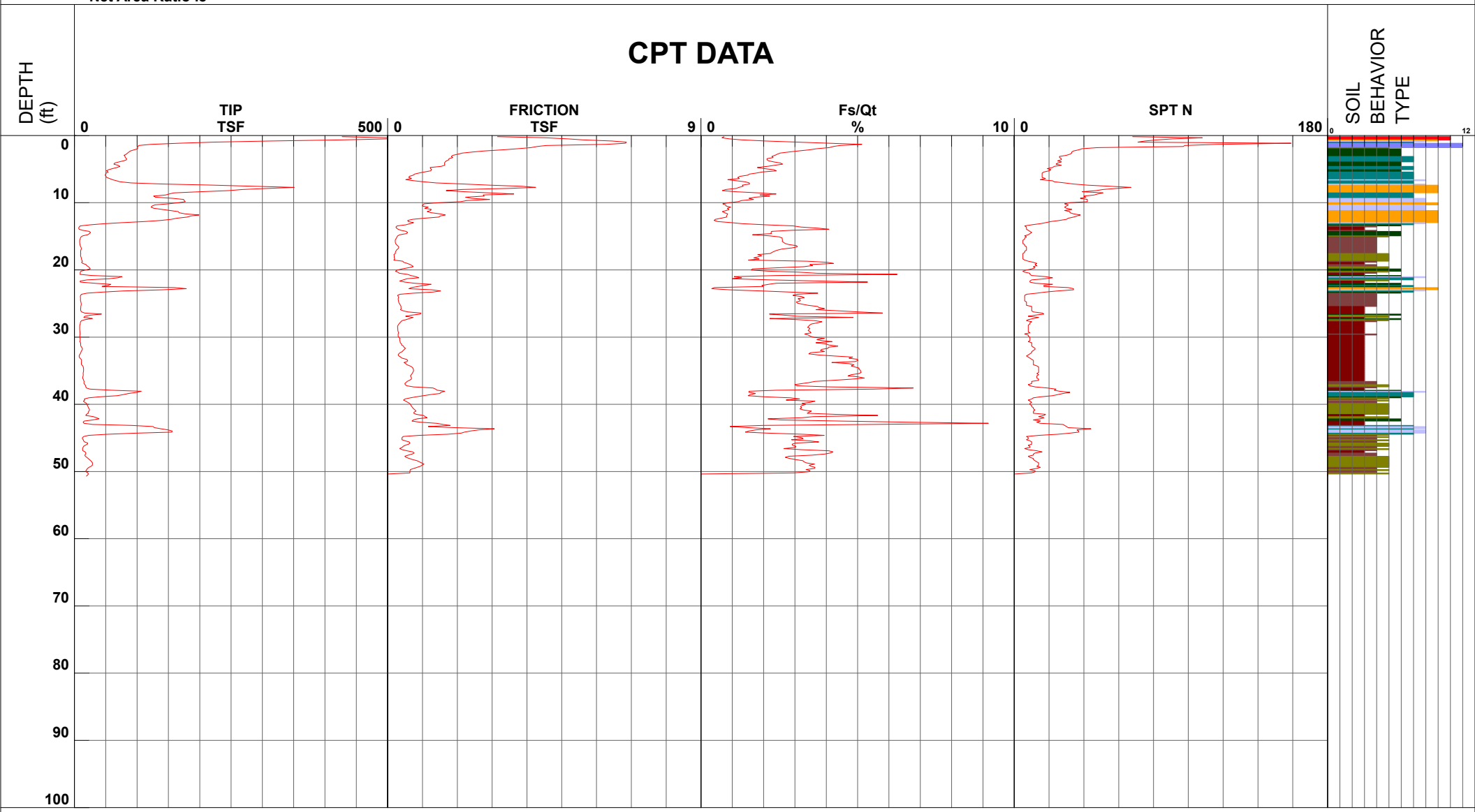


Cornerstone Earth Group

Project	2222 Qume Drive	Operator	JM-ZG	Filename	SDF(350).cpt
Job Number	1054-4-1	Cone Number	DDG1596	GPS	
Hole Number	CPT-08	Date and Time	4/30/2021 1:56:45 PM	Maximum Depth	50.69 ft
EST GW Depth During Test		12.00 ft			

Net Area Ratio .8

CPT DATA



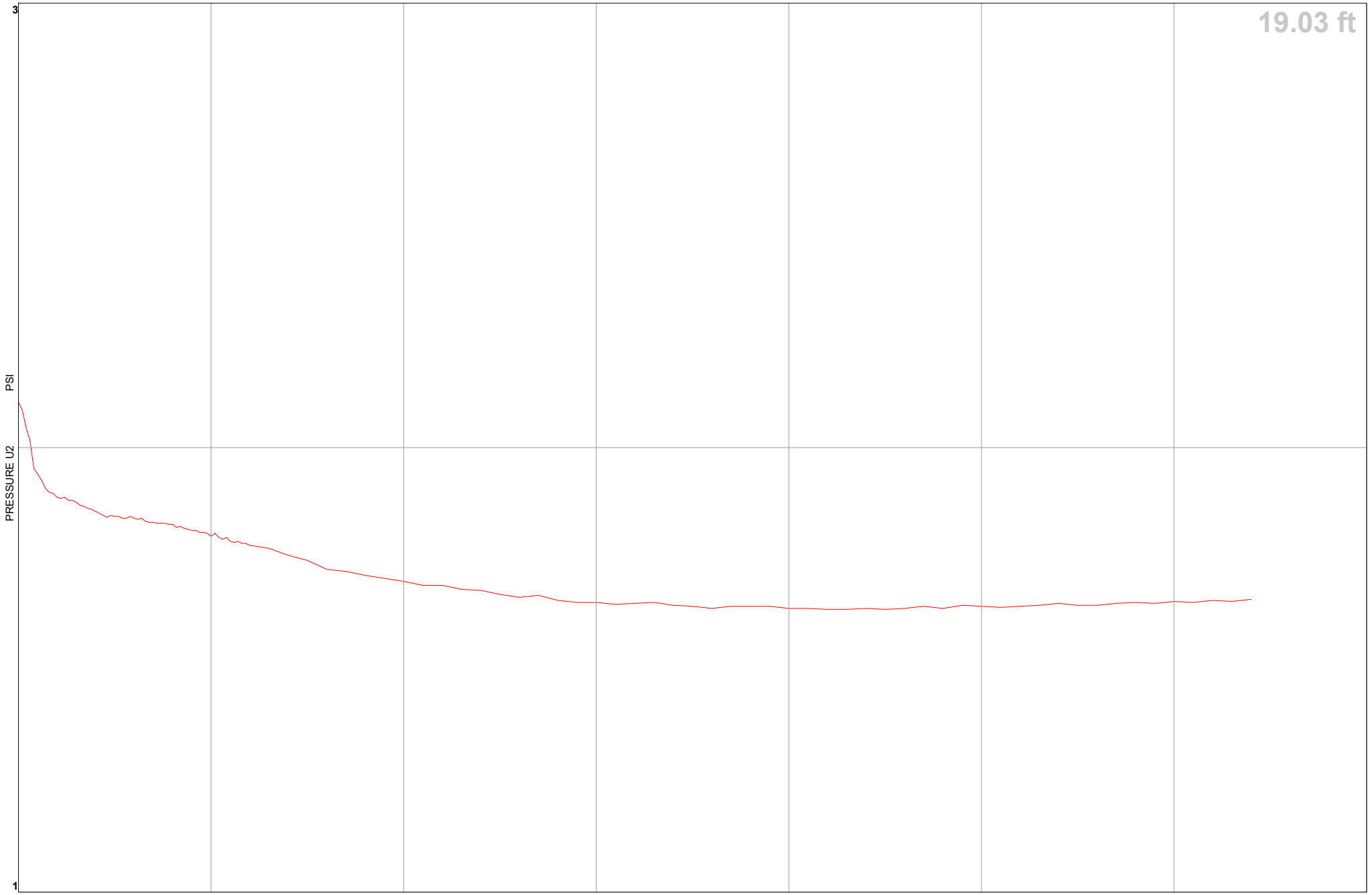
1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 15cm squared

S*Soil behavior type and SPT based on data from UBC-1983

Cornerstone Earth Group

Location	2222 Qume Drive	Operator	JM-ZG	GPS
Job Number	1054-4-1	Cone Number	DDG1596	
Hole Number	CPT-08	Date and Time	4/30/2021 1:56:45 PM	
Equilized Pressure	1.6	EST GW Depth During Test	15.1	

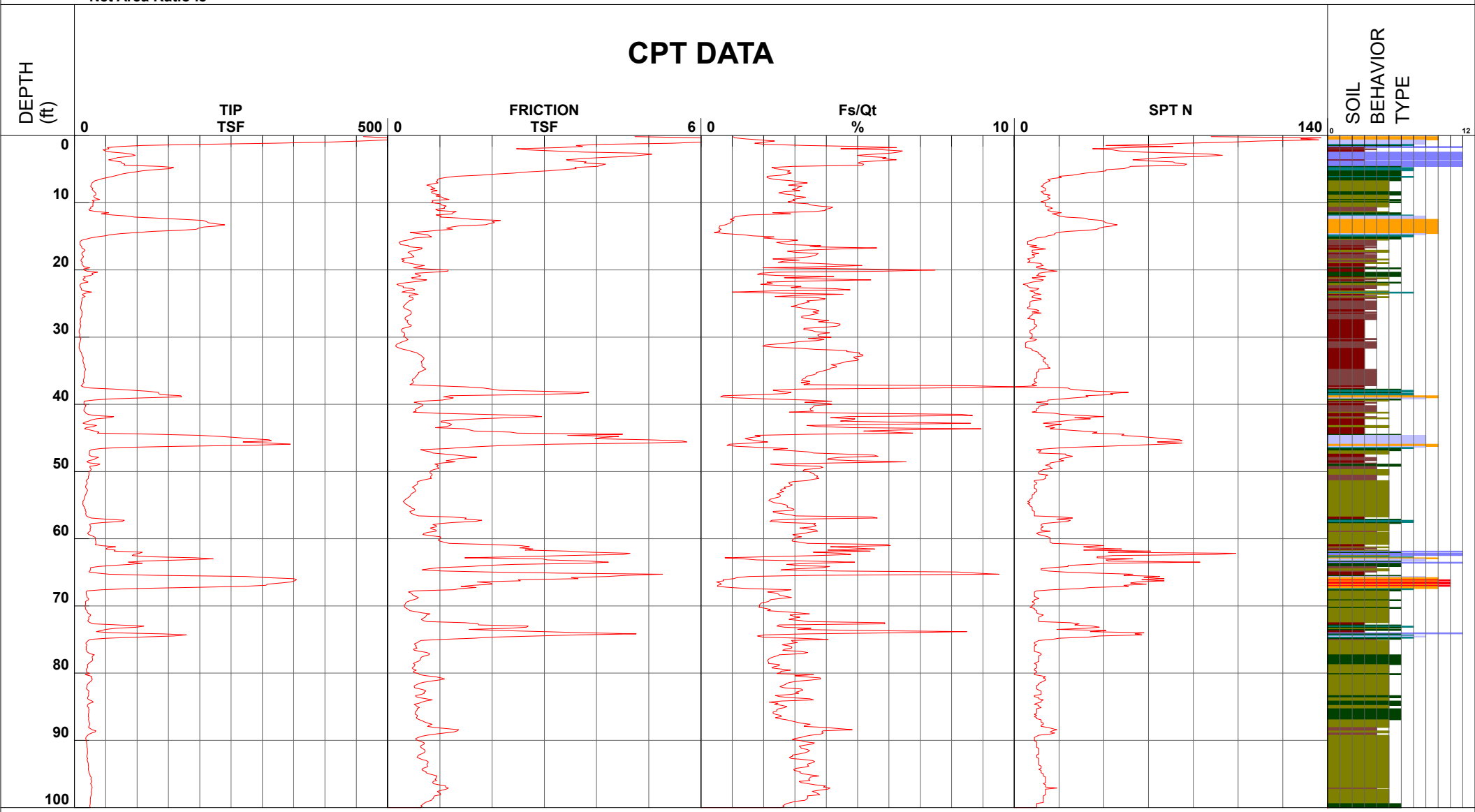


Cornerstone Earth Group

Project	2222 Qume Drive	Operator	JM-BH	Filename	SDF(369).cpt
Job Number	1054-4-1	Cone Number	DDG1596	GPS	
Hole Number	CPT-09	Date and Time	5/6/2021 9:50:28 AM	Maximum Depth	100.72 ft
EST GW Depth During Test		12.00 ft			

Net Area Ratio .8

CPT DATA



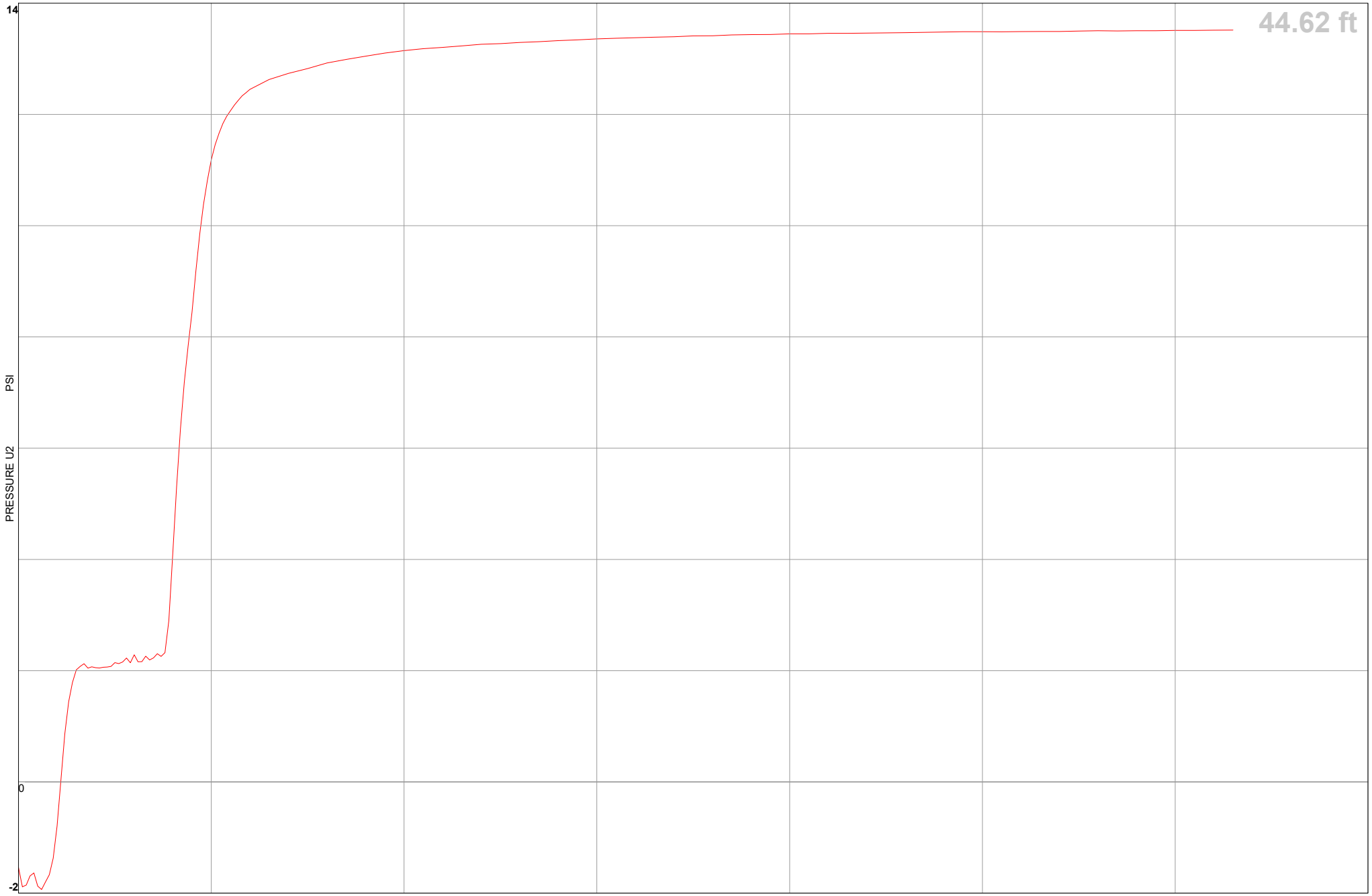
1 - sensitive fine grained
2 - organic material
3 - clay
4 - silty clay to clay
5 - clayey silt to silty clay
6 - sandy silt to clayey silt
7 - silty sand to sandy silt
8 - sand to silty sand
9 - sand
10 - gravelly sand to sand
11 - very stiff fine grained (*)
12 - sand to clayey sand (*)

Cone Size 15cm squared

S*Soil behavior type and SPT based on data from UBC-1983

Cornerstone Earth Group

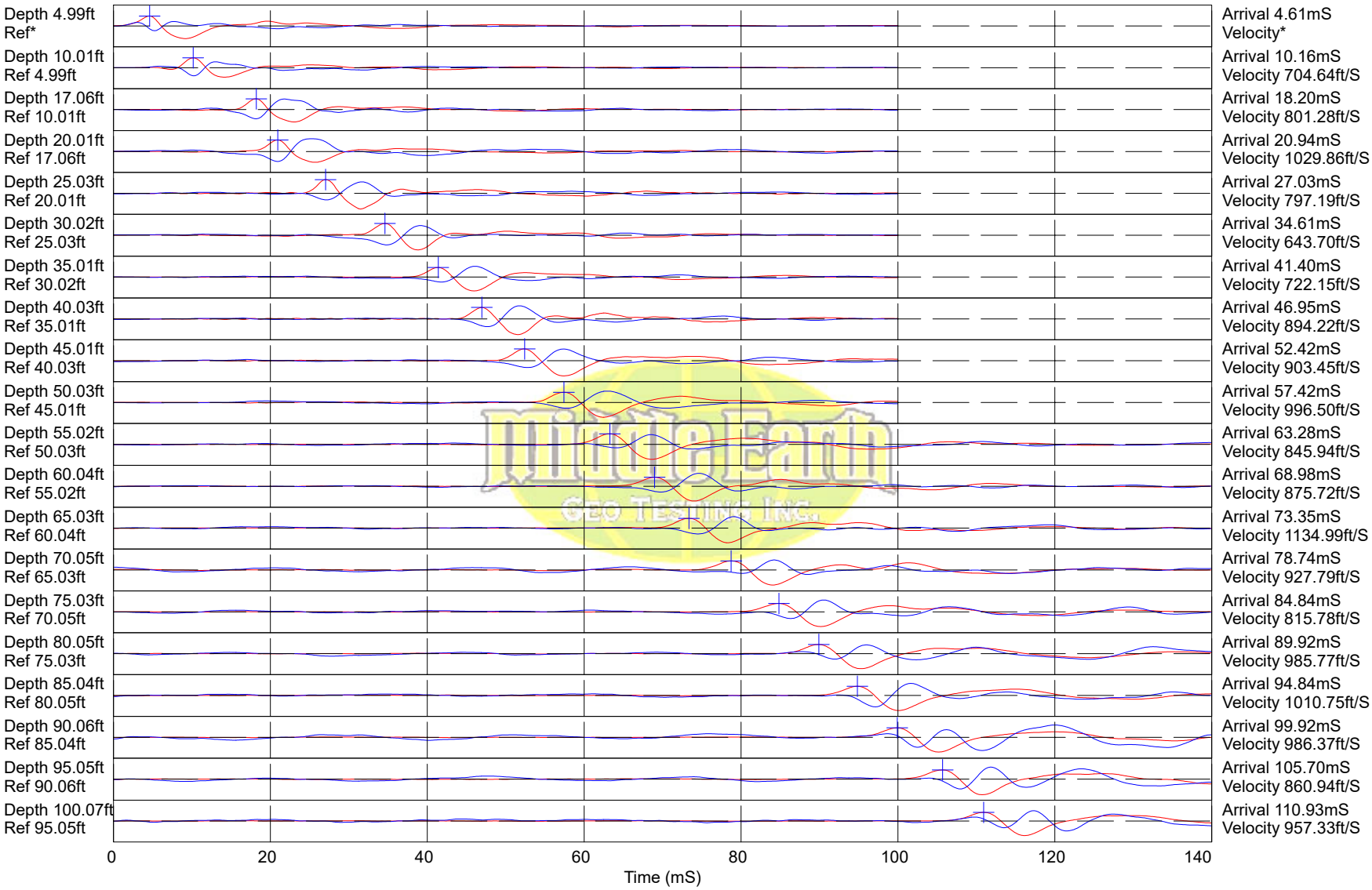
Location	2222 Qume Drive	Operator	JM-BH	GPS
Job Number	1054-4-1	Cone Number	DDG1596	
Hole Number	CPT-09	Date and Time	5/6/2021 9:50:28 AM	
Equilized Pressure	13.4	EST GW Depth During Test	13.5	



Cornerstone Earth Group

CPT-09

2222 Qume Drive



Hammer to Rod String Distance (ft): 5.83

* = Not Determined

COMMENT:

APPENDIX B: LABORATORY TEST PROGRAM

The laboratory testing program was performed to evaluate the physical and mechanical properties of the soils retrieved from the site to aid in verifying soil classification.

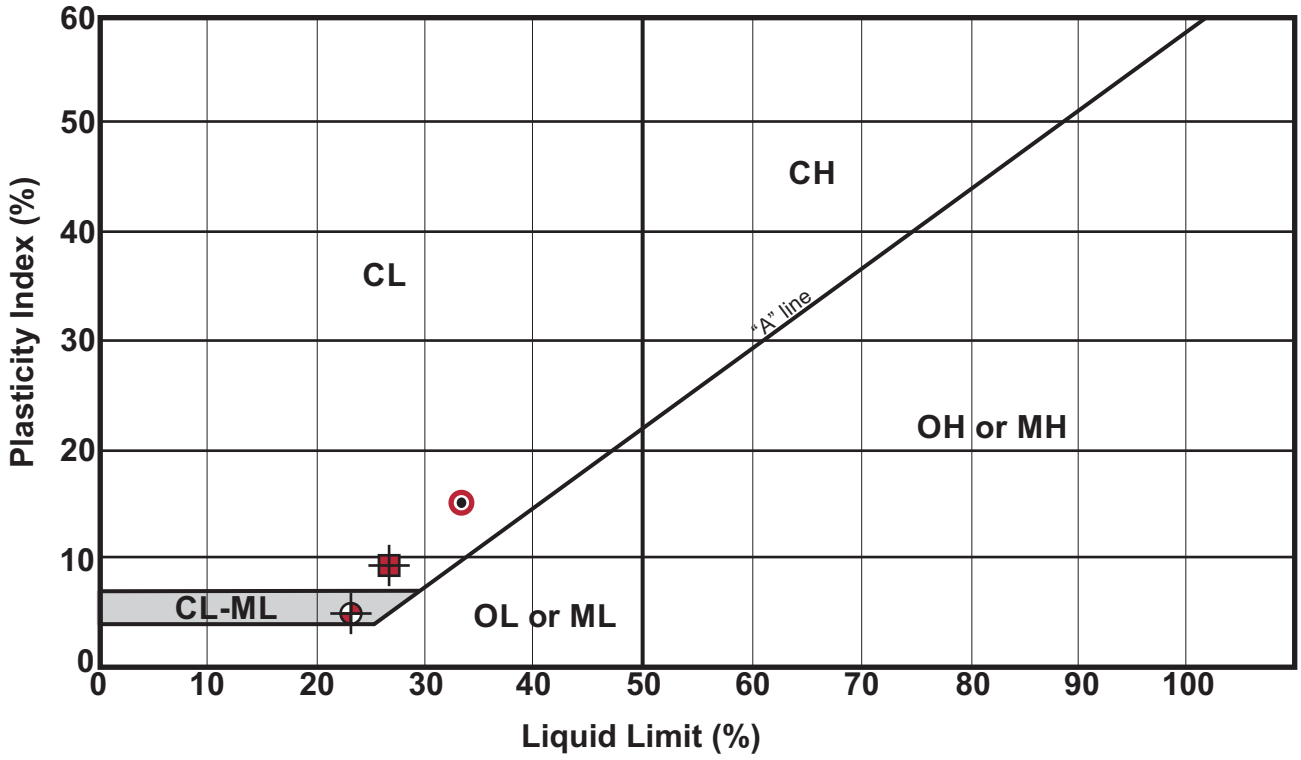
Moisture Content: The natural water content was determined (ASTM D2216) on 60 samples of the materials recovered from the borings. These water contents are recorded on the boring logs at the appropriate sample depths.

Dry Densities: In place dry density determinations (ASTM D2937) were performed on 50 samples to measure the unit weight of the subsurface soils. Results of these tests are shown on the boring logs at the appropriate sample depths.

Plasticity Index: Four Plasticity Index determinations (ASTM D4318) were performed on samples of the subsurface soils to measure the range of water contents over which this material exhibits plasticity. The Plasticity Index was used to classify the soil in accordance with the Unified Soil Classification System and to evaluate the soil expansion potential. Results of these tests are shown on the boring logs at the appropriate sample depths.

Consolidation: Two consolidation tests (ASTM D2435) were performed on relatively undisturbed samples of the subsurface clayey soils to assist in evaluating the compressibility property of this soil. Results of the consolidation tests are presented graphically in this appendix.

Plasticity Index (ASTM D4318) Testing Summary



Symbol	Boring No.	Depth (ft)	Natural Water Content (%)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index	Passing No. 200 (%)	Group Name (USCS - ASTM D2487)
⊕	EB-2	16.5	20	24	19	5	—	Silty, Clayey Sand (SC-SM)(CL-ML fines)
⊞	EB-5	14.5	24	27	18	9	—	Sandy Lean Clay (CL)
◉	EB-7	2.0	18	33	18	15	—	Lean Clay with Sand (CL)
	EB-9	8.5	10	determined nonplastic			—	Silty Sand (SM)

Samples prepared in accordance with ASTM D421

CORNERSTONE EARTH GROUP

Plasticity Index Testing Summary

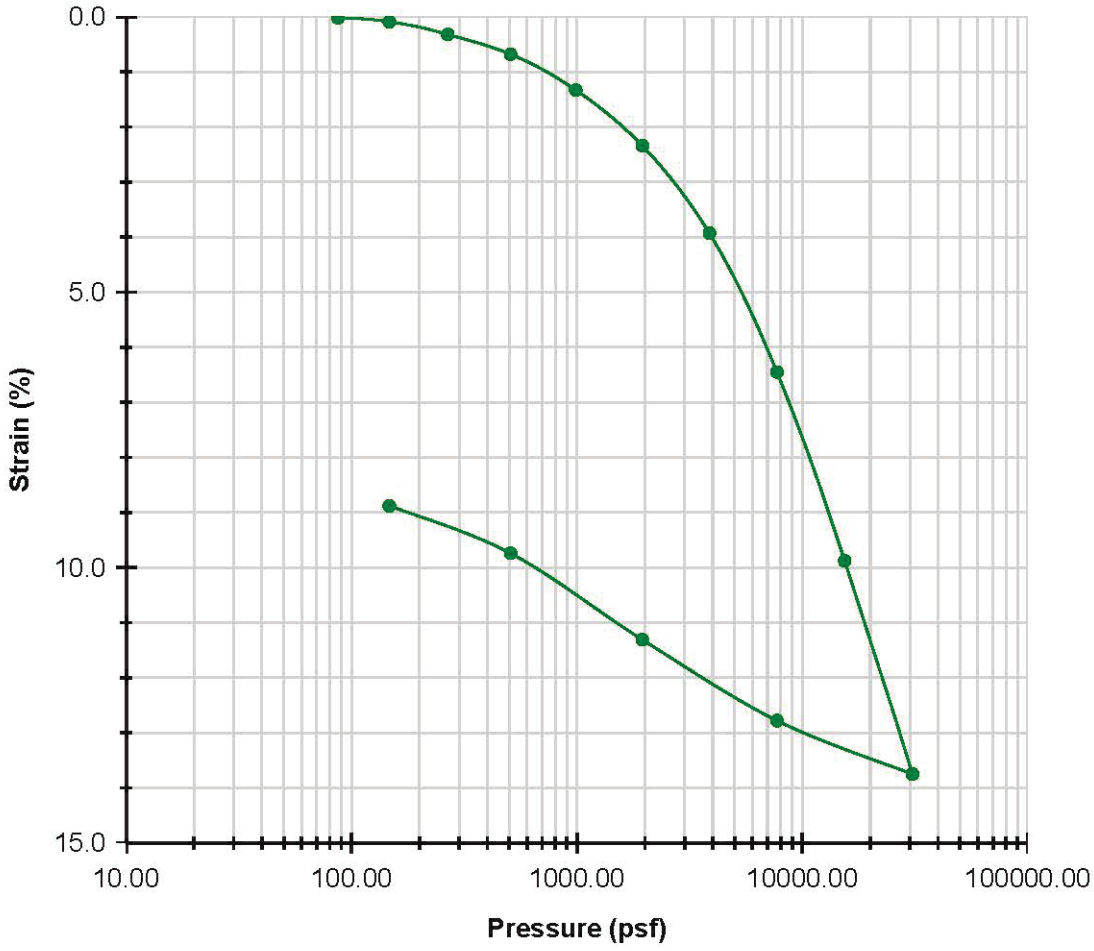
2222 Qume Drive Industrial
San Jose, CA

Project Number	1054-4-1
Figure Number	Figure B1
Date	May 2021
Drawn By	FLL

Consolidation Test ASTM D2435

Boring: EB-5 **Sample:** 9 **Depth:** 27.0'

Description: Lean Clay with Sand (CL)



	BEFORE	AFTER
Moisture (%)	29.8	24.0
Dry Density (pcf)	94.7	102.8
Saturation (%)	102.0	100.0
Void Ratio	0.79	0.65

(A) Stress Strain Curve

CORNERSTONE EARTH GROUP

Strain-Log Curve - EB-5 @ 27.0'

2222 Qume Drive Industrial
San Jose, CA

Project Number: 1054-4-1

Figure Number: Figure B2

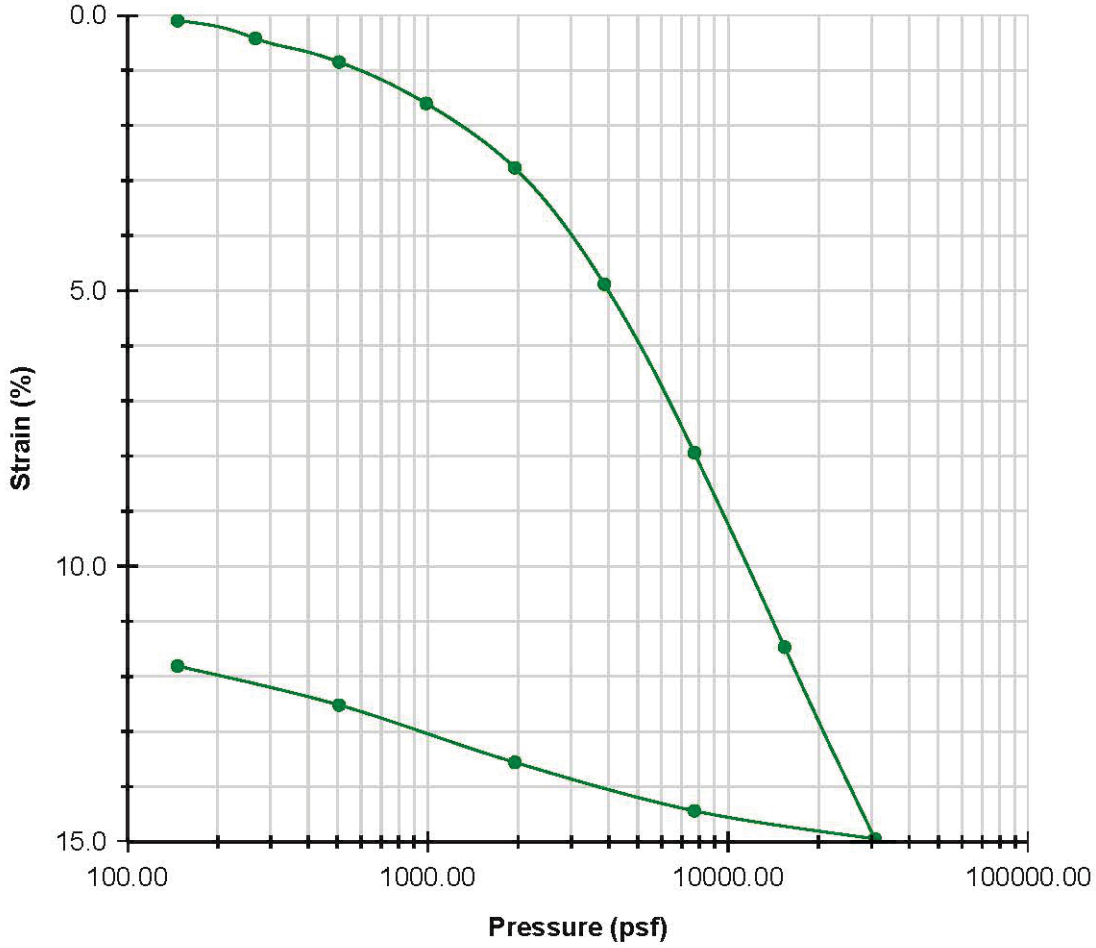
Date: May 2021

Drawn By: FLL

Consolidation Test ASTM D2435

Boring: EB-6 **Sample:** 6 **Depth:** 17.0'

Description: Lean Clay with Sand (CL)



	BEFORE	AFTER
Moisture (%)	24.0	18.4
Dry Density (pcf)	100.4	113.1
Saturation (%)	94.6	100.0
Void Ratio	0.69	0.50

(A) Stress Strain Curve

CORNERSTONE EARTH GROUP

Strain-Log Curve - EB-6 @ 17.0'

2222 Qume Drive Industrial
San Jose, CA

Project Number: 1054-4-1

Figure Number: Figure B3

Date: May 2021

Drawn By: FLL

APPENDIX C: LIQUEFACTION ANALYSES CALCULATIONS

CORNERSTONE EARTH GROUP

CPT No.	1

PGA (A_{max})	0.87

Total Settlement:	0.11	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
0.160	172.480	0.779	20.3	20.3	1663.503	0.452	0.91		Unsaturated	0.0			163.02	1.70	277.14	277.14	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.330	191.420	1.222	41.9	41.9	1285.444	0.639	1.09		Unsaturated	0.0			180.93	1.70	307.57	307.57	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.490	99.120	1.369	62.2	62.2	546.131	1.382	1.55		Unsaturated	0.0			93.69	1.70	159.27	159.27	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.660	54.030	1.479	83.8	83.8	256.387	2.739	1.97		Unsaturated	20.5			51.07	1.70	86.82	123.08	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.820	30.740	1.543	104.1	104.1	130.747	5.027	2.35		Unsaturated	51.0			29.05	1.70	49.39	108.90	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.980	26.640	1.465	124.5	124.5	103.580	5.511	2.44		Unsaturated	58.4			25.18	1.70	42.81	103.05	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.150	23.250	1.390	146.1	146.1	83.383	5.998	2.53		Unsaturated	65.2			21.98	1.70	37.36	97.85	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.310	21.090	1.226	166.4	166.4	70.810	5.836	2.56		Unsaturated	68.0			19.93	1.70	33.89	93.99	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.480	20.410	1.029	188.0	188.0	64.429	5.067	2.54		Unsaturated	66.4			19.29	1.70	32.79	92.23	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.640	20.090	1.162	208.3	208.3	95.729	5.815	2.48		Unsaturated	61.5			18.99	1.70	32.28	90.43	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.800	18.940	1.527	228.6	228.6	84.484	8.112	2.63		Unsaturated	73.4			17.90	1.70	30.43	90.52	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.970	33.080	1.868	250.2	250.2	90.585	5.668	2.49		Unsaturated	61.9			31.27	1.70	53.15	117.32	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.130	33.860	1.835	270.5	270.5	89.152	5.441	2.48		Unsaturated	61.1			32.00	1.70	54.41	118.71	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.300	33.780	1.535	292.1	292.1	85.563	4.564	2.43		Unsaturated	57.3			31.93	1.70	54.28	117.37	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.460	26.980	1.204	312.4	312.4	65.982	4.487	2.50		Unsaturated	62.7			25.50	1.70	43.35	104.93	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.620	16.660	0.909	332.7	332.7	56.914	5.511	2.61		Unsaturated	71.4			15.75	1.70	26.77	85.44	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.790	12.210	0.725	354.3	354.3	39.734	6.024	2.74		Unsaturated	82.1			11.54	1.70	19.62	77.78	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.950	10.770	0.638	374.7	374.7	56.494	6.024	2.64		Unsaturated	73.9			10.18	1.70	17.31	73.62	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.120	10.990	0.702	396.2	396.2	54.471	6.501	2.67		Unsaturated	76.8			10.39	1.70	17.66	74.51	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.280	13.460	0.908	416.6	416.6	63.625	6.850	2.65		Unsaturated	74.7			12.72	1.70	21.63	79.34	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.440	16.580	1.105	436.9	436.9	46.660	6.755	2.73		Unsaturated	81.3			15.67	1.70	26.64	86.81	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.610	19.140	1.230	458.5	458.5	52.139	6.502	2.68		Unsaturated	77.7			18.09	1.70	30.75	91.65	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.770	20.460	1.278	478.8	478.8	54.084	6.319	2.66		Unsaturated	76.2			19.34	1.70	32.88	94.15	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.940	19.390	1.230	500.4	500.4	49.637	6.428	2.69		Unsaturated	78.6			18.33	1.70	31.16	92.29	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.100	18.930	1.202	520.7	520.7	47.087	6.436	2.71		Unsaturated	79.8			17.89	1.70	30.42	91.51	1.00	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.270	19.240	1.153	542.3	542.3	46.500	6.076	2.70		Unsaturated	78.6			18.19	1.70	30.91	91.99	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.430	19.150	1.150	562.6	562.6	45.079	6.093	2.71		Unsaturated	79.4			18.10	1.70	30.77	91.92	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.590	18.530	0.974	582.9	582.9	42.504	5.340	2.68		Unsaturated	77.4			17.51	1.70	29.77	90.33	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.760	17.630	0.933	604.5	604.5	39.367	5.386	2.71		Unsaturated	79.5			16.66	1.70	28.33	88.75	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.920	17.180	0.873	624.8	624.8	53.990	5.177	2.60		Unsaturated	71.0			16.24	1.70	27.60	86.45	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.090	16.850	0.839	646.4	646.4	51.132	5.074	2.61		Unsaturated	71.8			15.93	1.70	27.07	85.90	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.250	16.540	0.819	666.8	666.8	48.614	5.054	2.62		Unsaturated	72.8			15.63	1.70	26.58	85.44	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.410	15.830	0.811	687.1	687.1	45.080	5.235	2.66		Unsaturated	75.5			14.96	1.70	25.44	84.41	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.580	15.780	0.850	708.7	708.7	43.535	5.510	2.68		Unsaturated	77.7			14.91	1.70	25.36	84.63	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.740	15.070	0.865	729.0	729.0	40.345	5.885	2.73		Unsaturated	81.1			14.24	1.70	24.21	83.64	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.910	14.190	0.806	750.6	750.6	36.811	5.836	2.75		Unsaturated	83.1			13.41	1.70	22.80	82.06	0.99	0.562	1.096	n.a.	n.a.	n.a.	0.00	0.00
6.070	13.930	0.796	770.9	770.9	35.140	5.875	2.77		Unsaturated	84.4			13.17	1.70	22.38	81.67	0.99	0.562	1.093	n.a.	n.a.	n.a.	0.00	0.00
6.230	14.300	0.821	791.2	791.2	35.147	5.905	2.77		Unsaturated	84.5			13.52	1.70	22.98	82.46	0.99	0.561	1.091	n.a.	n.a.	n.a.	0.00	0.00
6.400	15.080	0.895	812.8	812.8	36.106	6.099	2.77		Unsaturated	84.7			14.25	1.67	23.83	83.59	0.99	0.561	1.089	n.a.	n.a.	n.a.	0.00	0.00
6.560	14.910	0.909	833.1	833.1	34.793	6.271	2.79		Unsaturated	86.3			14.09	1.65	23.28	83.06	0.99	0.561	1.087	n.a.	n.a.	n.a.	0.00	0.00
6.730	14.310	0.838	854.7	854.7	32.485	6.037	2.80		Unsaturated	87.0			13.53	1.63	22.11	81.62	0.99	0.561	1.083	n.a.	n.a.	n.a.	0.00	0.00
6.890	14.320	0.859	875.0	875.0	31.730	6.187	2.81		Unsaturated	88.2			13.53	1.61	21.85	81.42	0.99	0.560	1.081	n.a.	n.a.	n.a.	0.00	0.00
7.050	15.500	0.891	895.4	895.4	33.623	5.921	2.78		Unsaturated	85.7			14.65	1.59	23.28	82.99	0.99	0.560	1.080	n.a.	n.a.	n.a.	0.00	0.00
7.220	19.410	0.876	916.9	916.9	41.336	4.622	2.64		Unsaturated	74.5			18.35	1.55	28.47	88.17	0.99	0.560	1.081	n.a.	n.a.	n.a.	0.00	0.00
7.380	24.090	0.919	937.3	937.3	39.480	3.891	2.61		Unsaturated	71.4			22.77	1.51	34.45	95.37	0.98	0.559	1.083	n.a.	n.a.	n.a.	0.00	0.00
7.550	27.690	0.939	958.9	958.9	38.206	3.449	2.58		Unsaturated	69.4			26.17	1.48	38.78	100.57	0.98	0.559	1.085	n.a.	n.a.	n.a.	0.00	0.00
7.710	27.010	0.900	979.2	979.2	36.849	3.392	2.59		Unsaturated	69.9			25.53	1.47	37.54	99.06	0.98	0.559	1.081	n.a.	n.a.	n.a.	0.00	0.00
7.870	20.400	0.786	999.5	999.5	39.821	3.951	2.61		Unsaturated	71.6			19.28	1.48	28.62	87.86	0.98	0.558	1.073	n.a.	n.a.	n.a.	0.00	0.00
8.040	14.320	0.603	1021.1	1021.1	27.049	4.367	2.76		Clay	83.7			13.53	1.21	n.a.	n.a.	0.98	0.559	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.200	9.500	0.468	1041.4	1041.4	17.245	5.211	2.96		Clay	99.5			8.98	1.21	n.a.	n.a.	0.98	0.564	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.370	7.220	0.444	1063.0	1063.0	12.584	6.632	3.13		Clay	100.0			6.82	1.20	n.a.	n.a.	0.98	0.570	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.530	7.140	0.434	1083.3	1083.3	12.182	6.582	3.14		Clay	100.0			6.75	1.19	n.a.	n.a.	0.98	0.575	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.690	8.170	0.446	1103.6	1103.6	13.806	5.854	3.06		Clay	100.0			7.72	1.19	n.a.	n.a.	0.98	0.579	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.860	8.380	0.427	1125.2	1125.2	13.895	5.457	3.04		Clay	100.0			7.92	1.18	n.a.	n.a.	0.98	0.584	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.020	8.850	0.421	1145.5	1145.5	14.451	5.080	3.01		Clay	100.0			8.36	1.18	n.a.	n.a.	0.98	0.589	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.190	8.770	0.378	1167.1	1167.1	14.028	4.622	2.99		Clay	100.0			8.29	1.17	n.a.	n.a.	0.98	0.593	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.350	8.750	0.463	1187.5	1187.5	13.737	5.680	3.06		Clay	100.0			8.27	1.16	n.a.	n.a.	0.98	0.598	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.510	9.880	0.617	1207.8	1207.8	15.361	6.649	3.06		Clay	100.0			9.34	1.16	n.a.	n.a.	0.98	0.602	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.680	12.580	0.690	1229.4	1229.4	19.466	5.768	2.95		Clay	98.7			11.89	1.15	n.a.	n.a.	0.98	0.606	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.840	11.980	0.712	1249.7	1249.7	18.173	6.274	2.99		Clay	100.0			11.32	1.15	n.a.	n.a.	0.98	0.610	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.010	10.500	0.544	1271.3	1271.3	15.519	5.510	3.01		Clay	100.0			9.92	1.14	n.a.	n.a.	0.97	0.615	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.170	9.780	0.371	1291.6	1291.6	14.144	4.062	2.95		Clay	99.3			9.24	1.14	n.a.	n.a.	0.97	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.330	16.260	0.281	1311.9	1311.9	20.610	1.798	2.61	plastic	Clay	72.0	20.26	1.8	36.47	1.13	n.a.	n.a.	0.97	0.622	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.500	21.430	0.372	1333.5	1333.5	24.721	1.791	2.55	plastic	Clay	66.7		1.8	36.46	1.13	n.a.	n.a.	0.97	0.626	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.660	19.280	0.318	1353.8	1353.8	21.982	1.708	2.58	plastic	Clay	69.1	20.26	1.8	36.47	1.13	n.a.	n.a.	0.97	0.630	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.830	12.340	0.216	1375.4	1375.4	16.944	1.855	2.69		Clay	78.2			11.66	1.12	n.a.	n.a.	0.97	0.634	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	1

PGA (A_{max})	0.87

Total Settlement:	0.11	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
10.990	7.250	0.183	1395.7	1395.7	9.389	2.799	3.00		Clay	100.0			6.85	1.12	n.a.	n.a.	0.97	0.637	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.150	5.730	0.163	1416.1	1416.1	7.093	3.238	3.14		Clay	100.0			5.42	1.11	n.a.	n.a.	0.97	0.641	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.320	5.310	0.158	1437.6	1437.6	6.387	3.433	3.19		Clay	100.0			5.02	1.11	n.a.	n.a.	0.97	0.644	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.480	5.070	0.238	1458.0	1458.0	5.955	5.489	3.33		Clay	100.0			4.79	1.10	n.a.	n.a.	0.97	0.648	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.650	5.180	0.258	1479.6	1479.6	6.002	5.815	3.34		Clay	100.0			4.90	1.10	n.a.	n.a.	0.97	0.651	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.810	5.580	0.252	1499.9	1499.9	6.441	5.207	3.29		Clay	100.0			5.27	1.10	n.a.	n.a.	0.97	0.654	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.980	5.300	0.223	1521.5	1521.5	5.967	4.913	3.30		Clay	100.0			5.01	1.09	n.a.	n.a.	0.97	0.657	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.140	4.840	0.190	1541.8	1541.8	5.278	4.674	3.33		Clay	100.0			4.57	1.09	n.a.	n.a.	0.97	0.660	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.300	4.810	0.169	1562.1	1562.1	5.158	4.202	3.32		Clay	100.0			4.55	1.08	n.a.	n.a.	0.97	0.663	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.470	4.920	0.193	1583.7	1583.7	5.213	4.685	3.34		Clay	100.0			4.65	1.08	n.a.	n.a.	0.97	0.666	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.630	4.970	0.169	1604.0	1604.0	5.197	4.045	3.31		Clay	100.0			4.70	1.08	n.a.	n.a.	0.96	0.669	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.800	4.510	0.152	1625.6	1625.6	4.549	4.117	3.36		Clay	100.0			4.26	1.07	n.a.	n.a.	0.96	0.672	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.960	3.910	0.150	1645.9	1645.9	3.751	4.849	3.47		Clay	100.0			3.70	1.07	n.a.	n.a.	0.96	0.675	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.120	4.010	0.161	1666.2	1666.2	3.813	5.074	3.47		Clay	100.0			3.79	1.07	n.a.	n.a.	0.96	0.678	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.290	4.510	0.186	1687.8	1687.8	4.344	5.076	3.42		Clay	100.0			4.26	1.06	n.a.	n.a.	0.96	0.680	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.450	5.000	0.186	1708.2	1708.2	4.854	4.489	3.35		Clay	100.0			4.73	1.06	n.a.	n.a.	0.96	0.683	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.620	5.360	0.151	1729.7	1729.7	5.197	3.368	3.26		Clay	100.0			5.07	1.05	n.a.	n.a.	0.96	0.686	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.780	5.490	0.207	1750.1	1750.1	5.274	4.494	3.33		Clay	100.0			5.19	1.05	n.a.	n.a.	0.96	0.688	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.940	6.270	0.243	1770.4	1770.4	6.083	4.509	3.28		Clay	100.0			5.93	1.05	n.a.	n.a.	0.96	0.691	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.110	7.810	0.299	1791.8	1784.9	7.747	4.327	3.18		Clay	100.0			7.38	1.05	n.a.	n.a.	0.96	0.693	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.270	8.140	0.322	1811.8	1794.9	8.061	4.448	3.17		Clay	100.0			7.69	1.04	n.a.	n.a.	0.96	0.695	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.440	8.840	0.350	1833.0	1805.5	8.777	4.417	3.14		Clay	100.0			8.36	1.04	n.a.	n.a.	0.96	0.698	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.600	8.140	0.393	1853.0	1815.6	7.946	5.452	3.23		Clay	100.0			7.69	1.04	n.a.	n.a.	0.96	0.700	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.760	7.690	0.359	1873.0	1825.6	7.399	5.311	3.25		Clay	100.0			7.27	1.04	n.a.	n.a.	0.96	0.702	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.930	7.250	0.327	1894.3	1836.2	6.865	5.188	3.27		Clay	100.0			6.85	1.04	n.a.	n.a.	0.96	0.704	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.090	7.360	0.282	1914.3	1846.2	6.936	4.398	3.22		Clay	100.0			6.96	1.04	n.a.	n.a.	0.95	0.707	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.260	6.930	0.280	1935.5	1856.9	6.422	4.696	3.27		Clay	100.0			6.55	1.04	n.a.	n.a.	0.95	0.709	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.420	7.140	0.293	1955.5	1866.9	6.602	4.756	3.26		Clay	100.0			6.75	1.03	n.a.	n.a.	0.95	0.711	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.580	7.340	0.285	1975.5	1876.9	6.769	4.482	3.24		Clay	100.0			6.94	1.03	n.a.	n.a.	0.95	0.713	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.750	7.560	0.262	1996.8	1887.6	6.953	3.999	3.20		Clay	100.0			7.15	1.03	n.a.	n.a.	0.95	0.715	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.910	7.180	0.259	2016.8	1897.6	6.505	4.197	3.23		Clay	100.0			6.79	1.03	n.a.	n.a.	0.95	0.717	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.080	7.550	0.290	2038.0	1908.2	6.845	4.440	3.23		Clay	100.0			7.14	1.03	n.a.	n.a.	0.95	0.719	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.240	8.520	0.346	2058.0	1918.2	7.810	4.620	3.19		Clay	100.0			8.05	1.03	n.a.	n.a.	0.95	0.720	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.400	9.740	0.371	2078.0	1928.2	9.025	4.258	3.12		Clay	100.0			9.21	1.02	n.a.	n.a.	0.95	0.722	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.570	9.120	0.356	2099.3	1938.9	8.325	4.407	3.16		Clay	100.0			8.62	1.02	n.a.	n.a.	0.95	0.724	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.730	8.350	0.350	2119.3	1948.9	7.482	4.802	3.22		Clay	100.0			7.89	1.02	n.a.	n.a.	0.95	0.726	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.900	8.240	0.312	2140.5	1959.5	7.318	4.347	3.20		Clay	100.0			7.79	1.02	n.a.	n.a.	0.95	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.060	8.170	0.292	2160.5	1969.6	7.199	4.121	3.19		Clay	100.0			7.72	1.02	n.a.	n.a.	0.95	0.729	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.220	7.730	0.269	2180.5	1979.6	6.708	4.048	3.21		Clay	100.0			7.31	1.02	n.a.	n.a.	0.95	0.731	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.390	7.260	0.260	2201.8	1990.2	6.189	4.225	3.25		Clay	100.0			6.86	1.02	n.a.	n.a.	0.94	0.732	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.550	7.290	0.296	2221.8	2000.2	6.178	4.792	3.28		Clay	100.0			6.89	1.01	n.a.	n.a.	0.94	0.734	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.720	8.170	0.329	2243.0	2010.9	7.010	4.670	3.23		Clay	100.0			7.72	1.01	n.a.	n.a.	0.94	0.736	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.880	8.890	0.442	2263.0	2020.9	7.678	5.697	3.25		Clay	100.0			8.40	1.01	n.a.	n.a.	0.94	0.737	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.040	9.250	0.586	2283.0	2030.9	7.985	7.232	3.30		Clay	100.0			8.74	1.01	n.a.	n.a.	0.94	0.739	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.210	11.940	0.530	2304.3	2041.5	10.568	4.909	3.10		Clay	100.0			11.29	1.01	n.a.	n.a.	0.94	0.740	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.370	23.570	0.376	2324.3	2051.6	21.510	1.677	2.58		Sand	69.4		1.8	40.10	1.02	40.71	103.07	0.94	0.741	1.003	0.141	0.181	0.24	0.03	0.06
18.540	15.420	0.439	2345.5	2062.2	13.817	3.084	2.89		Clay	94.1			14.57	1.01	n.a.	n.a.	0.94	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.700	14.740	0.364	2365.5	2072.2	13.085	2.683	2.87		Clay	92.9			13.93	1.01	n.a.	n.a.	0.94	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.860	13.910	0.351	2385.5	2082.2	12.215	2.758	2.90		Clay	95.4			13.15	1.00	n.a.	n.a.	0.94	0.746	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.030	10.210	0.366	2406.8	2092.9	8.607	4.067	3.13		Clay	100.0			9.65	1.00	n.a.	n.a.	0.94	0.747	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.190	8.540	0.287	2426.8	2102.9	6.968	3.917	3.19		Clay	100.0			8.07	1.00	n.a.	n.a.	0.94	0.748	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.360	7.200	0.217	2448.0	2113.5	5.655	3.624	3.25		Clay	100.0			6.81	1.00	n.a.	n.a.	0.94	0.750	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.520	6.290	0.163	2468.0	2123.6	4.762	3.220	3.28		Clay	100.0			5.95	1.00	n.a.	n.a.	0.93	0.751	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.690	6.030	0.167	2489.3	2134.2	4.484	3.481	3.32		Clay	100.0			5.70	1.00	n.a.	n.a.	0.93	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.850	6.320	0.166	2509.3	2144.2	4.725	3.277	3.29		Clay	100.0			5.97	1.00	n.a.	n.a.	0.93	0.753	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.010	6.610	0.164	2529.3	2154.2	4.963	3.066	3.26		Clay	100.0			6.25	1.00	n.a.	n.a.	0.93	0.754	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.180	6.490	0.147	2550.5	2164.9	4.818	2.809	3.25		Clay	100.0			6.13	0.99	n.a.	n.a.	0.93	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.340	6.610	0.171	2570.5	2174.9	4.897	3.217	3.27		Clay	100.0			6.25	0.99	n.a.	n.a.	0.93	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.510	7.110	0.201	2591.8	2185.5	5.321	3.448	3.26		Clay	100.0			6.72	0.99	n.a.	n.a.	0.93	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.670	8.610	0.205	2611.8	2195.5	6.654	2.801	3.13		Clay	100.0			8.14	0.99	n.a.	n.a.	0.93	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.830	9.130	0.207	2631.8	2205.6	7.086	2.648	3.09		Clay	100.0			8.63	0.99	n.a.	n.a.	0.93	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.000	8.800	0.177	2653.0	2216.2	6.744	2.363	3.08		Clay	100.0			8.32	0.99	n.a.	n.a.	0.93	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.160	8.140	0.193	2673.0	2226.2	6.112	2.837	3.16		Clay	100.0			7.69	0.99	n.a.	n.a.	0.93	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.330	7.660	0.232	2694.3	2236.9	5.644	3.672	3.25		Clay	100.0			7.24	0.99	n.a.	n.a.	0.93	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.490	8.500	0.232	2714.3	2246.9	6.358	3.249	3.18		Clay	100.0			8.03	0.98	n.a.	n.a.	0.93	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.650	8.750	0.311	2734.3	2256.9	6.543	4.215	3.23		Clay	100.0			8.27	0.98	n.a.	n.a.	0.92	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	1

PGA (A_{max})	0.87

Total Settlement:	0.11	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, s'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
21.820	9.020	0.557	2755.5	2267.5	6.741	7.286	3.36		Clay	100.0			8.53	0.98	n.a.	n.a.	0.92	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.980	13.520	0.698	2775.5	2277.5	10.654	5.756	3.14		Clay	100.0			12.78	0.98	n.a.	n.a.	0.92	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.150	17.520	0.740	2796.8	2288.2	14.091	4.588	2.99		Clay	100.0			16.56	0.98	n.a.	n.a.	0.92	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.310	17.360	0.782	2816.8	2298.2	13.882	4.902	3.01		Clay	100.0			16.41	0.98	n.a.	n.a.	0.92	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.470	14.820	0.676	2836.8	2308.2	11.612	5.040	3.08		Clay	100.0			14.01	0.98	n.a.	n.a.	0.92	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.640	13.190	0.815	2858.0	2318.9	10.144	6.928	3.21		Clay	100.0			12.47	0.98	n.a.	n.a.	0.92	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.800	14.160	0.510	2878.0	2328.9	10.925	4.012	3.04		Clay	100.0			13.38	0.98	n.a.	n.a.	0.92	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.970	10.060	0.369	2899.3	2339.5	7.361	4.284	3.19		Clay	100.0			9.51	0.97	n.a.	n.a.	0.92	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.130	8.050	0.277	2919.3	2349.5	5.610	4.205	3.29		Clay	100.0			7.61	0.97	n.a.	n.a.	0.92	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.290	7.330	0.232	2939.3	2359.6	4.967	3.966	3.32		Clay	100.0			6.93	0.97	n.a.	n.a.	0.92	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.460	6.830	0.231	2960.5	2370.2	4.514	4.324	3.37		Clay	100.0			6.46	0.97	n.a.	n.a.	0.92	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.620	6.750	0.229	2980.5	2380.2	4.420	4.360	3.38		Clay	100.0			6.38	0.97	n.a.	n.a.	0.92	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.790	6.940	0.266	3001.8	2390.9	4.550	4.887	3.40		Clay	100.0			6.56	0.97	n.a.	n.a.	0.91	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.950	7.470	0.253	3021.8	2400.9	4.964	4.244	3.33		Clay	100.0			7.06	0.97	n.a.	n.a.	0.91	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.110	7.840	0.271	3041.8	2410.9	5.242	4.287	3.32		Clay	100.0			7.41	0.97	n.a.	n.a.	0.91	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.280	7.710	0.320	3063.0	2421.5	5.103	5.176	3.37		Clay	100.0			7.29	0.97	n.a.	n.a.	0.91	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.440	8.050	0.356	3083.0	2431.5	5.353	5.468	3.37		Clay	100.0			7.61	0.96	n.a.	n.a.	0.91	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.610	8.490	0.352	3104.3	2442.2	5.682	5.079	3.33		Clay	100.0			8.02	0.96	n.a.	n.a.	0.91	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.770	8.050	0.369	3124.3	2452.2	5.291	5.684	3.38		Clay	100.0			7.61	0.96	n.a.	n.a.	0.91	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.930	8.160	0.416	3144.3	2462.2	5.351	6.319	3.41		Clay	100.0			7.71	0.96	n.a.	n.a.	0.91	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.100	9.340	0.503	3165.5	2472.9	6.274	6.478	3.36		Clay	100.0			8.83	0.96	n.a.	n.a.	0.91	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.260	10.160	0.503	3185.5	2482.9	6.901	5.874	3.30		Clay	100.0			9.60	0.96	n.a.	n.a.	0.91	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.430	9.410	0.427	3206.8	2493.5	6.262	5.463	3.31		Clay	100.0			8.89	0.96	n.a.	n.a.	0.91	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.590	8.460	0.324	3226.8	2503.5	5.470	4.734	3.33		Clay	100.0			8.00	0.96	n.a.	n.a.	0.91	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.750	7.950	0.258	3246.8	2513.6	5.034	4.070	3.32		Clay	100.0			7.51	0.96	n.a.	n.a.	0.90	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.920	7.460	0.219	3268.0	2524.2	4.616	3.757	3.33		Clay	100.0			7.05	0.95	n.a.	n.a.	0.90	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.080	7.110	0.207	3288.0	2534.2	4.314	3.791	3.36		Clay	100.0			6.72	0.95	n.a.	n.a.	0.90	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.250	6.800	0.209	3309.3	2544.9	4.044	4.066	3.40		Clay	100.0			6.43	0.95	n.a.	n.a.	0.90	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.410	7.180	0.209	3329.3	2554.9	4.318	3.780	3.36		Clay	100.0			6.79	0.95	n.a.	n.a.	0.90	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.570	7.310	0.232	3349.3	2564.9	4.394	4.124	3.37		Clay	100.0			6.91	0.95	n.a.	n.a.	0.90	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.740	7.240	0.215	3370.5	2575.5	4.313	3.865	3.36		Clay	100.0			6.84	0.95	n.a.	n.a.	0.90	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.900	7.730	0.217	3390.5	2585.5	4.668	3.593	3.32		Clay	100.0			7.31	0.95	n.a.	n.a.	0.90	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.070	7.640	0.202	3411.8	2596.2	4.571	3.404	3.31		Clay	100.0			7.22	0.95	n.a.	n.a.	0.90	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.230	7.280	0.183	3431.8	2606.2	4.270	3.296	3.33		Clay	100.0			6.88	0.95	n.a.	n.a.	0.90	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.400	6.840	0.215	3453.0	2616.8	3.908	4.197	3.42		Clay	100.0			6.47	0.95	n.a.	n.a.	0.90	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.560	6.610	0.308	3473.0	2626.9	3.711	6.318	3.53		Clay	100.0			6.25	0.94	n.a.	n.a.	0.90	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.720	9.250	0.433	3493.0	2636.9	5.691	5.775	3.36		Clay	100.0			8.74	0.94	n.a.	n.a.	0.89	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.890	10.090	0.550	3514.3	2647.5	6.295	6.594	3.36		Clay	100.0			9.54	0.94	n.a.	n.a.	0.89	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.050	10.180	0.575	3534.3	2657.5	6.331	6.834	3.37		Clay	100.0			9.62	0.94	n.a.	n.a.	0.89	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.220	10.490	0.572	3555.5	2668.2	6.531	6.569	3.35		Clay	100.0			9.91	0.94	n.a.	n.a.	0.89	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.380	10.420	0.595	3575.5	2678.2	6.446	6.888	3.36		Clay	100.0			9.85	0.94	n.a.	n.a.	0.89	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.540	11.430	0.586	3595.5	2688.2	7.166	6.083	3.29		Clay	100.0			10.80	0.94	n.a.	n.a.	0.89	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.710	12.300	0.633	3616.8	2698.8	7.775	6.030	3.26		Clay	100.0			11.63	0.94	n.a.	n.a.	0.89	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.870	12.230	0.647	3636.8	2708.9	7.687	6.209	3.28		Clay	100.0			11.56	0.94	n.a.	n.a.	0.89	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.040	12.400	0.626	3658.0	2719.5	7.774	5.922	3.26		Clay	100.0			11.72	0.94	n.a.	n.a.	0.89	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.200	12.330	0.610	3678.0	2729.5	7.687	5.814	3.26		Clay	100.0			11.65	0.94	n.a.	n.a.	0.89	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.360	12.530	0.622	3698.0	2739.5	7.798	5.822	3.25		Clay	100.0			11.84	0.93	n.a.	n.a.	0.89	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.530	13.250	0.642	3719.3	2750.2	8.283	5.635	3.22		Clay	100.0			12.52	0.93	n.a.	n.a.	0.89	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.690	14.080	0.646	3739.3	2760.2	8.847	5.288	3.18		Clay	100.0			13.31	0.93	n.a.	n.a.	0.88	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.860	13.400	0.615	3760.5	2770.8	8.315	5.334	3.21		Clay	100.0			12.67	0.93	n.a.	n.a.	0.88	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.020	12.080	0.575	3780.5	2780.9	7.329	5.646	3.27		Clay	100.0			11.42	0.93	n.a.	n.a.	0.88	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.180	9.540	0.541	3800.5	2790.9	5.475	7.081	3.43		Clay	100.0			9.02	0.93	n.a.	n.a.	0.88	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.350	9.490	0.480	3821.8	2801.5	5.411	6.329	3.40		Clay	100.0			8.97	0.93	n.a.	n.a.	0.88	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.510	10.050	0.454	3841.8	2811.5	5.783	5.581	3.35		Clay	100.0			9.50	0.93	n.a.	n.a.	0.88	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.680	9.260	0.430	3863.0	2822.2	5.194	5.865	3.40		Clay	100.0			8.75	0.93	n.a.	n.a.	0.88	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.840	9.360	0.395	3883.0	2832.2	5.239	5.325	3.37		Clay	100.0			8.85	0.93	n.a.	n.a.	0.88	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.000	9.980	0.419	3903.0	2842.2	5.649	5.218	3.34		Clay	100.0			9.43	0.93	n.a.	n.a.	0.88	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.170	11.590	0.416	3924.3	2852.8	6.750	4.320	3.23		Clay	100.0			10.95	0.92	n.a.	n.a.	0.88	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.330	13.760	0.454	3944.3	2862.9	8.235	3.854	3.13		Clay	100.0			13.01	0.92	n.a.	n.a.	0.88	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.500	14.900	0.481	3965.5	2873.5	8.991	3.721	3.09		Clay	100.0			14.08	0.92	n.a.	n.a.	0.87	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.660	17.040	0.457	3985.5	2883.5	10.437	3.034	2.98		Clay	100.0			16.11	0.92	n.a.	n.a.	0.87	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.820	14.560	0.439	4005.5	2893.5	8.680	3.492	3.08		Clay	100.0			13.76	0.92	n.a.	n.a.	0.87	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.990	14.050	0.453	4026.8	2904.2	8.289	3.761	3.12		Clay	100.0			13.28	0.92	n.a.	n.a.	0.87	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.150	12.820	0.456	4046.8	2914.2	7.410	4.221	3.19		Clay	100.0			12.12	0.92	n.a.	n.a.	0.87	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.320	12.520	0.480	4068.0	2924.8	7.170	4.579	3.22		Clay	100.0			11.83	0.92	n.a.	n.a.	0.87	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.480	13.320	0.490	4088.0	2934.8	7.684	4.345	3.18		Clay	100.0			12.59	0.92	n.a.	n.a.	0.87	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	1

PGA (A_{max})	0.87

Total Settlement:	0.11	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, s'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
32.640	13.690	0.473	4108.0	2944.9	7.903	4.063	3.16		Clay	100.0			12.94	0.92	n.a.	n.a.	0.87	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.810	12.240	0.451	4129.3	2955.5	6.886	4.432	3.23		Clay	100.0			11.57	0.92	n.a.	n.a.	0.87	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.970	11.560	0.388	4149.3	2965.5	6.397	4.087	3.23		Clay	100.0			10.93	0.91	n.a.	n.a.	0.87	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.140	10.550	0.339	4170.5	2976.2	5.688	4.008	3.27		Clay	100.0			9.97	0.91	n.a.	n.a.	0.87	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.300	9.860	0.369	4190.5	2986.2	5.200	4.751	3.34		Clay	100.0			9.32	0.91	n.a.	n.a.	0.87	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.460	9.210	0.360	4210.5	2996.2	4.743	5.071	3.39		Clay	100.0			8.71	0.91	n.a.	n.a.	0.86	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.630	10.350	0.380	4231.8	3006.8	5.477	4.620	3.32		Clay	100.0			9.78	0.91	n.a.	n.a.	0.86	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.790	10.850	0.379	4251.8	3016.9	5.784	4.343	3.28		Clay	100.0			10.26	0.91	n.a.	n.a.	0.86	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.960	10.820	0.354	4273.0	3027.5	5.736	4.077	3.27		Clay	100.0			10.23	0.91	n.a.	n.a.	0.86	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.120	10.810	0.376	4293.0	3037.5	5.704	4.339	3.29		Clay	100.0			10.22	0.91	n.a.	n.a.	0.86	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.280	11.030	0.362	4313.0	3047.5	5.823	4.082	3.27		Clay	100.0			10.43	0.91	n.a.	n.a.	0.86	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.450	11.470	0.343	4334.3	3058.2	6.084	3.691	3.23		Clay	100.0			10.84	0.91	n.a.	n.a.	0.86	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.610	10.700	0.282	4354.3	3068.2	5.556	3.310	3.23		Clay	100.0			10.11	0.91	n.a.	n.a.	0.86	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.780	9.860	0.251	4375.5	3078.8	4.984	3.275	3.27		Clay	100.0			9.32	0.91	n.a.	n.a.	0.86	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.940	9.150	0.223	4395.5	3088.8	4.502	3.212	3.30		Clay	100.0			8.65	0.91	n.a.	n.a.	0.86	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.100	9.130	0.271	4415.5	3098.9	4.468	3.913	3.35		Clay	100.0			8.63	0.90	n.a.	n.a.	0.86	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.270	9.310	0.279	4436.8	3109.5	4.561	3.938	3.35		Clay	100.0			8.80	0.90	n.a.	n.a.	0.85	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.430	10.960	0.258	4456.8	3119.5	5.598	2.952	3.20		Clay	100.0			10.36	0.90	n.a.	n.a.	0.85	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.600	11.260	0.252	4478.0	3130.2	5.764	2.798	3.18		Clay	100.0			10.64	0.90	n.a.	n.a.	0.85	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.760	10.960	0.299	4498.0	3140.2	5.548	3.427	3.24		Clay	100.0			10.36	0.90	n.a.	n.a.	0.85	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.930	11.740	0.354	4519.3	3150.8	6.018	3.735	3.23		Clay	100.0			11.10	0.90	n.a.	n.a.	0.85	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.090	13.740	0.390	4539.3	3160.8	7.258	3.398	3.14		Clay	100.0			12.99	0.90	n.a.	n.a.	0.85	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.250	14.970	0.392	4559.3	3170.9	8.004	3.091	3.08		Clay	100.0			14.15	0.90	n.a.	n.a.	0.85	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.420	14.480	0.388	4580.5	3181.5	7.663	3.179	3.11		Clay	100.0			13.69	0.90	n.a.	n.a.	0.85	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.580	13.460	0.343	4600.5	3191.5	6.993	3.071	3.13		Clay	100.0			12.72	0.90	n.a.	n.a.	0.85	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.750	13.320	0.325	4621.8	3202.2	6.876	2.948	3.13		Clay	100.0			12.59	0.90	n.a.	n.a.	0.85	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.910	12.410	0.304	4641.8	3212.2	6.282	3.013	3.17		Clay	100.0			11.73	0.90	n.a.	n.a.	0.85	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.070	11.890	0.314	4661.8	3222.2	5.933	3.283	3.21		Clay	100.0			11.24	0.89	n.a.	n.a.	0.84	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.240	12.040	0.339	4683.0	3232.8	6.000	3.500	3.22		Clay	100.0			11.38	0.89	n.a.	n.a.	0.84	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.400	12.210	0.412	4703.0	3242.8	6.080	4.181	3.26		Clay	100.0			11.54	0.89	n.a.	n.a.	0.84	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.570	13.410	0.416	4724.3	3253.5	6.791	3.767	3.19		Clay	100.0			12.67	0.89	n.a.	n.a.	0.84	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.730	14.440	0.499	4744.3	3263.5	7.396	4.138	3.18		Clay	100.0			13.65	0.89	n.a.	n.a.	0.84	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.890	14.800	0.488	4764.3	3273.5	7.587	3.931	3.16		Clay	100.0			13.99	0.89	n.a.	n.a.	0.84	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.060	16.000	0.400	4785.5	3284.2	8.287	2.937	3.06		Clay	100.0			15.12	0.89	n.a.	n.a.	0.84	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.220	16.950	0.327	4805.5	3294.2	8.832	2.247	2.97		Clay	100.0			16.02	0.89	n.a.	n.a.	0.84	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.390	13.060	0.357	4826.8	3304.8	6.443	3.349	3.18		Clay	100.0			12.34	0.89	n.a.	n.a.	0.84	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.550	12.790	0.360	4846.8	3314.8	6.255	3.474	3.20		Clay	100.0			12.09	0.89	n.a.	n.a.	0.84	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.710	15.680	0.454	4866.8	3324.8	7.968	3.427	3.11		Clay	100.0			14.82	0.89	n.a.	n.a.	0.84	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.880	17.420	0.537	4888.0	3335.5	8.980	3.586	3.08		Clay	100.0			16.47	0.89	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.040	17.870	0.581	4908.0	3345.5	9.216	3.769	3.08		Clay	100.0			16.89	0.89	n.a.	n.a.	0.83	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.210	18.490	0.573	4929.3	3356.1	9.550	3.576	3.06		Clay	100.0			17.48	0.89	n.a.	n.a.	0.83	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.370	18.540	0.552	4949.3	3366.2	9.545	3.433	3.05		Clay	100.0			17.52	0.88	n.a.	n.a.	0.83	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.530	16.190	0.612	4969.3	3376.2	8.119	4.462	3.17		Clay	100.0			15.30	0.88	n.a.	n.a.	0.83	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.700	16.490	0.740	4990.5	3386.8	8.264	5.288	3.21		Clay	100.0			15.59	0.88	n.a.	n.a.	0.83	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.860	16.910	0.653	5010.5	3396.8	8.481	4.532	3.16		Clay	100.0			15.98	0.88	n.a.	n.a.	0.83	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.030	25.740	0.625	5031.8	3407.5	13.631	2.691	2.86		Clay	91.8			24.33	0.88	n.a.	n.a.	0.83	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.190	21.180	0.795	5051.8	3417.5	10.917	4.263	3.06		Clay	100.0			20.02	0.88	n.a.	n.a.	0.83	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.350	17.330	0.848	5071.8	3427.5	8.633	5.729	3.21		Clay	100.0			16.38	0.88	n.a.	n.a.	0.83	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.520	34.160	1.077	5093.0	3438.2	18.390	3.406	2.82		Clay	88.3			32.29	0.88	n.a.	n.a.	0.83	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.680	51.600	1.034	5113.0	3448.2	36.313	2.109	2.46		Sand	59.5		1.8	87.79	0.81	71.51	140.11	0.83	0.781	0.928	0.235	0.340	0.44	0.02	0.05
40.850	40.900	1.059	5134.3	3458.8	22.165	2.764	2.70		Clay	78.8			38.66	0.88	n.a.	n.a.	0.82	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.010	22.300	0.771	5154.3	3468.8	11.371	3.908	3.02		Clay	100.0			21.08	0.88	n.a.	n.a.	0.82	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.170	15.160	0.460	5174.3	3478.8	7.228	3.655	3.16		Clay	100.0			14.33	0.88	n.a.	n.a.	0.82	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.340	14.470	0.436	5195.5	3489.5	6.805	3.671	3.18		Clay	100.0			13.68	0.88	n.a.	n.a.	0.82	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.500	15.920	0.465	5215.5	3499.5	7.608	3.490	3.13		Clay	100.0			15.05	0.88	n.a.	n.a.	0.82	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.670	16.690	0.518	5236.8	3510.1	8.018	3.678	3.13		Clay	100.0			15.78	0.88	n.a.	n.a.	0.82	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.830	17.560	0.542	5256.8	3520.2	8.483	3.633	3.10		Clay	100.0			16.60	0.87	n.a.	n.a.	0.82	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.990	18.190	0.559	5276.8	3530.2	8.811	3.593	3.09		Clay	100.0			17.19	0.87	n.a.	n.a.	0.82	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.160	18.890	0.519	5298.0	3540.8	9.174	3.198	3.04		Clay	100.0			17.85	0.87	n.a.	n.a.	0.82	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.320	18.270	0.487	5318.0	3550.8	8.793	3.121	3.05		Clay	100.0			17.27	0.87	n.a.	n.a.	0.82	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.490	18.200	0.447	5339.3	3561.5	8.721	2.880	3.04		Clay	100.0			17.20	0.87	n.a.	n.a.	0.82	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.650	18.000	0.466	5359.3	3571.5	8.579	3.038	3.06		Clay	100.0			17.01	0.87	n.a.	n.a.	0.81	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.810	18.360	0.505	5379.3	3581.5	8.751	3.221	3.06		Clay	100.0			17.35	0.87	n.a.	n.a.	0.81	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.980	19.800	0.552	5400.5	3592.1	9.521	3.228	3.03		Clay	100.0			18.71	0.87	n.a.	n.a.	0.81	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.140	21.550	0.627	5420.5	3602.2	10.460	3.326	3.01		Clay	100.0			20.37	0.87	n.a.	n.a.	0.81	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.310	22.600	0.665	5441.8	3612.8	11.005	3.346	2.99		Clay	100.0			21.36	0.87	n.a.	n.a.	0.81	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	1

PGA (A_{max})	0.87

Total Settlement:	0.11	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'Vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
43.470	23.420	0.674	5461.8	3622.8	11.422	3.259	2.97		Clay	100.0			22.14	0.87	n.a.	n.a.	0.81	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.640	23.200	0.688	5483.0	3633.5	11.261	3.363	2.98		Clay	100.0			21.93	0.87	n.a.	n.a.	0.81	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.800	22.020	0.655	5503.0	3643.5	10.577	3.401	3.01		Clay	100.0			20.81	0.87	n.a.	n.a.	0.81	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.960	21.110	0.617	5523.0	3653.5	10.044	3.361	3.02		Clay	100.0			19.95	0.87	n.a.	n.a.	0.81	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.130	20.860	0.549	5544.3	3664.1	9.873	3.034	3.00		Clay	100.0			19.72	0.87	n.a.	n.a.	0.81	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.290	20.850	0.549	5564.3	3674.2	9.835	3.040	3.01		Clay	100.0			19.71	0.86	n.a.	n.a.	0.81	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.460	20.590	0.565	5585.5	3684.8	9.660	3.172	3.02		Clay	100.0			19.46	0.86	n.a.	n.a.	0.80	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.620	22.640	0.611	5605.5	3694.8	10.738	3.079	2.98		Clay	100.0			21.40	0.86	n.a.	n.a.	0.80	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.780	23.380	0.650	5625.5	3704.8	11.103	3.162	2.97		Clay	100.0			22.10	0.86	n.a.	n.a.	0.80	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.950	24.280	0.719	5646.8	3715.5	11.550	3.352	2.97		Clay	100.0			22.95	0.86	n.a.	n.a.	0.80	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.110	24.700	0.754	5666.8	3725.5	11.739	3.448	2.98		Clay	100.0			23.35	0.86	n.a.	n.a.	0.80	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.280	24.560	0.711	5688.0	3736.1	11.625	3.273	2.97		Clay	100.0			23.21	0.86	n.a.	n.a.	0.80	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.440	23.610	0.658	5708.0	3746.1	11.081	3.172	2.97		Clay	100.0			22.32	0.86	n.a.	n.a.	0.80	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.600	23.450	0.610	5728.0	3756.2	10.961	2.964	2.96		Clay	99.9			22.16	0.86	n.a.	n.a.	0.80	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.770	22.460	0.632	5749.3	3766.8	10.399	3.229	3.00		Clay	100.0			21.23	0.86	n.a.	n.a.	0.80	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.930	21.650	0.711	5769.3	3776.8	9.937	3.788	3.06		Clay	100.0			20.46	0.86	n.a.	n.a.	0.80	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.100	18.960	0.672	5790.5	3787.5	8.483	4.182	3.14		Clay	100.0			17.92	0.86	n.a.	n.a.	0.80	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.260	23.350	0.529	5810.5	3797.5	10.768	2.589	2.93		Clay	97.7			22.07	0.86	n.a.	n.a.	0.80	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.420	23.650	0.506	5830.5	3807.5	10.892	2.439	2.92		Clay	96.3			22.35	0.86	n.a.	n.a.	0.79	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.590	17.250	0.505	5851.8	3818.1	7.503	3.527	3.14		Clay	100.0			16.30	0.86	n.a.	n.a.	0.79	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.750	16.230	0.535	5871.8	3828.2	6.945	4.023	3.20		Clay	100.0			15.34	0.86	n.a.	n.a.	0.79	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.920	17.980	0.542	5893.0	3838.8	7.832	3.607	3.13		Clay	100.0			16.99	0.85	n.a.	n.a.	0.79	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.080	17.740	0.674	5913.0	3848.8	7.682	4.557	3.20		Clay	100.0			16.77	0.85	n.a.	n.a.	0.79	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.240	17.130	0.706	5933.0	3858.8	7.341	4.983	3.23		Clay	100.0			16.19	0.85	n.a.	n.a.	0.79	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.410	18.620	0.606	5954.3	3869.5	8.085	3.873	3.14		Clay	100.0			17.60	0.85	n.a.	n.a.	0.79	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.570	18.180	0.490	5974.3	3879.5	7.832	3.225	3.10		Clay	100.0			17.18	0.85	n.a.	n.a.	0.79	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.740	15.400	0.507	5995.5	3890.1	6.376	4.084	3.23		Clay	100.0			14.56	0.85	n.a.	n.a.	0.79	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.900	15.000	0.492	6015.5	3900.1	6.150	4.103	3.25		Clay	100.0			14.18	0.85	n.a.	n.a.	0.79	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.060	15.110	0.422	6035.5	3910.2	6.185	3.492	3.21		Clay	100.0			14.28	0.85	n.a.	n.a.	0.79	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.230	14.960	0.376	6056.8	3920.8	6.086	3.155	3.19		Clay	100.0			14.14	0.85	n.a.	n.a.	0.78	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.390	15.020	0.350	6076.8	3930.8	6.096	2.920	3.17		Clay	100.0			14.20	0.85	n.a.	n.a.	0.78	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.560	15.720	0.341	6098.0	3941.5	6.430	2.694	3.13		Clay	100.0			14.86	0.85	n.a.	n.a.	0.78	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.720	15.470	0.403	6118.0	3951.5	6.282	3.244	3.18		Clay	100.0			14.62	0.85	n.a.	n.a.	0.78	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.880	16.120	0.465	6138.0	3961.5	6.589	3.564	3.19		Clay	100.0			15.24	0.85	n.a.	n.a.	0.78	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.050	17.340	0.522	6159.3	3972.1	7.180	3.661	3.16		Clay	100.0			16.39	0.85	n.a.	n.a.	0.78	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.210	18.140	0.564	6179.3	3982.1	7.559	3.745	3.15		Clay	100.0			17.15	0.85	n.a.	n.a.	0.78	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.380	18.190	0.540	6200.5	3992.8	7.559	3.576	3.14		Clay	100.0			17.19	0.85	n.a.	n.a.	0.78	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.540	19.020	0.560	6220.5	4002.8	7.949	3.522	3.12		Clay	100.0			17.98	0.85	n.a.	n.a.	0.78	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.700	20.260	0.619	6240.5	4012.8	8.542	3.609	3.10		Clay	100.0			19.15	0.84	n.a.	n.a.	0.78	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.870	22.000	0.696	6261.8	4023.5	9.380	3.687	3.07		Clay	100.0			20.79	0.84	n.a.	n.a.	0.78	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.030	23.000	0.823	6281.8	4033.5	9.847	4.144	3.08		Clay	100.0			21.74	0.84	n.a.	n.a.	0.77	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.200	22.620	0.847	6303.0	4044.1	9.628	4.350	3.10		Clay	100.0			21.38	0.84	n.a.	n.a.	0.77	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.360	22.420	0.849	6323.0	4054.1	9.501	4.407	3.11		Clay	100.0			21.19	0.84	n.a.	n.a.	0.77	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.520	22.990	0.871	6343.0	4064.2	9.753	4.395	3.10		Clay	100.0			21.73	0.84	n.a.	n.a.	0.77	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	2

PGA (A_{max})	0.87

Total Settlement:	0.05	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'Vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
0.160	150.920	0.675	20.8	20.8	1438.657	0.448	0.93		Unsaturated	0.0			142.65	1.70	242.50	242.50	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.330	359.680	0.957	42.9	42.9	2387.448	0.266	0.65		Unsaturated	0.0			339.96	1.70	577.94	577.94	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.490	268.040	1.198	63.7	63.7	1459.992	0.447	0.92		Unsaturated	0.0			253.35	1.70	430.69	430.69	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.660	207.590	1.285	85.8	85.8	974.193	0.619	1.12		Unsaturated	0.0			196.21	1.70	333.56	333.56	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.820	158.560	1.227	106.6	106.6	667.485	0.774	1.28		Unsaturated	0.0			149.87	1.70	254.78	254.78	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.980	110.230	1.433	127.4	127.4	424.362	1.301	1.58		Unsaturated	0.0			104.19	1.70	177.12	177.12	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.150	77.280	1.696	149.5	149.5	274.535	2.196	1.87		Unsaturated	12.7			73.04	1.70	124.17	141.45	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.310	54.150	1.894	170.3	170.3	180.127	3.502	2.14		Unsaturated	34.4			51.18	1.70	87.01	144.94	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.480	43.140	1.802	192.4	192.4	134.921	4.187	2.28		Unsaturated	45.2			40.78	1.70	69.32	131.26	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.640	39.280	1.314	213.2	213.2	116.646	3.355	2.24		Unsaturated	42.2			37.13	1.70	63.12	121.70	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.800	34.510	1.088	234.0	234.0	97.754	3.164	2.27		Unsaturated	44.5			32.62	1.70	55.45	113.50	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.970	31.440	0.946	256.1	256.1	85.070	3.020	2.29		Unsaturated	46.5			29.72	1.70	50.52	108.32	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.130	25.790	0.839	276.9	276.9	67.023	3.271	2.39		Unsaturated	54.2			24.38	1.70	41.44	99.98	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.300	23.380	0.783	299.0	299.0	58.411	3.371	2.44		Unsaturated	58.2			22.10	1.70	37.57	96.32	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.460	22.330	0.759	319.8	319.8	53.901	3.421	2.47		Unsaturated	60.6			21.11	1.70	35.88	94.81	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.620	22.480	0.822	340.6	340.6	52.559	3.683	2.50		Unsaturated	63.0			21.25	1.70	36.12	95.74	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.790	24.140	0.916	362.7	362.7	54.697	3.825	2.50		Unsaturated	63.0			22.82	1.70	38.79	99.16	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.950	24.690	0.910	383.5	383.5	54.391	3.713	2.49		Unsaturated	62.4			23.34	1.70	39.67	100.14	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.120	25.200	0.957	405.6	405.6	53.965	3.829	2.50		Unsaturated	63.3			23.82	1.70	40.49	101.43	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.280	27.110	0.940	426.4	426.4	56.632	3.493	2.46		Unsaturated	59.9			25.62	1.70	43.56	104.46	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.440	28.090	1.019	447.2	447.2	57.293	3.656	2.47		Unsaturated	60.7			26.55	1.70	45.14	106.71	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.610	23.930	1.094	469.3	469.3	64.272	4.615	2.51		Unsaturated	64.0			22.62	1.70	38.45	98.97	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.770	24.970	1.089	490.1	490.1	48.558	4.402	2.58		Unsaturated	69.4			23.60	1.70	40.12	102.30	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.940	25.760	1.083	512.2	512.2	48.996	4.246	2.57		Unsaturated	68.3			24.35	1.70	41.39	103.71	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.100	27.380	1.067	533.0	533.0	51.062	3.936	2.53		Unsaturated	65.4			25.88	1.70	43.99	106.42	1.00	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.270	30.020	1.205	555.1	555.1	54.886	4.052	2.52		Unsaturated	64.4			28.37	1.70	48.24	111.63	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.430	32.310	1.235	575.9	575.9	58.016	3.855	2.48		Unsaturated	61.8			30.54	1.70	51.92	115.69	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.590	31.920	0.911	596.7	596.7	56.283	2.882	2.40		Unsaturated	55.3			30.17	1.70	51.29	112.90	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.760	26.260	0.944	618.8	618.8	45.357	3.636	2.54		Unsaturated	66.3			24.82	1.70	42.19	104.32	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.920	27.120	0.978	639.6	639.6	46.074	3.648	2.54		Unsaturated	66.0			25.63	1.70	43.58	106.03	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.090	28.810	1.054	661.7	661.7	48.136	3.702	2.53		Unsaturated	65.3			27.23	1.70	46.29	109.36	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.250	27.480	0.958	682.5	682.5	45.166	3.531	2.53		Unsaturated	65.7			25.97	1.70	44.16	106.71	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.410	25.100	0.797	703.3	703.3	40.574	3.222	2.54		Unsaturated	66.2			23.72	1.70	40.33	101.90	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.580	25.440	0.749	725.4	725.4	40.482	2.988	2.52		Unsaturated	64.5			24.05	1.70	40.79	102.09	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.740	26.550	0.759	746.2	746.2	41.664	2.900	2.50		Unsaturated	63.1			25.09	1.67	41.88	103.14	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.910	22.640	0.717	768.3	768.3	34.910	3.221	2.59		Unsaturated	70.1			21.40	1.67	35.71	96.74	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.070	18.520	0.653	789.1	789.1	34.172	3.605	2.63		Unsaturated	73.2			17.50	1.68	29.33	89.08	0.99	0.562	1.096	n.a.	n.a.	n.a.	0.00	0.00
6.230	16.300	0.555	809.9	809.9	29.426	3.492	2.67		Unsaturated	76.4			15.41	1.67	25.72	84.91	0.99	0.561	1.091	n.a.	n.a.	n.a.	0.00	0.00
6.400	15.100	0.508	832.0	832.0	35.298	3.462	2.61		Unsaturated	71.5			14.27	1.66	23.68	81.46	0.99	0.561	1.086	n.a.	n.a.	n.a.	0.00	0.00
6.560	13.890	0.547	852.8	852.8	31.575	4.060	2.69		Unsaturated	78.1			13.13	1.64	21.58	79.78	0.99	0.561	1.082	n.a.	n.a.	n.a.	0.00	0.00
6.730	14.120	0.632	874.9	874.9	31.278	4.620	2.73		Unsaturated	81.4			13.35	1.62	21.61	80.28	0.99	0.561	1.080	n.a.	n.a.	n.a.	0.00	0.00
6.890	18.770	0.636	895.7	895.7	31.611	3.470	2.64		Unsaturated	74.4			17.74	1.57	27.92	87.43	0.99	0.560	1.083	n.a.	n.a.	n.a.	0.00	0.00
7.050	16.510	0.602	916.5	916.5	35.028	3.751	2.63		Unsaturated	73.6			15.60	1.57	24.49	82.87	0.99	0.560	1.078	n.a.	n.a.	n.a.	0.00	0.00
7.220	16.240	0.540	938.6	938.6	33.605	3.422	2.62		Unsaturated	72.5			15.35	1.55	23.84	81.83	0.99	0.560	1.075	n.a.	n.a.	n.a.	0.00	0.00
7.380	17.060	0.426	959.4	959.4	27.263	2.570	2.61		Unsaturated	71.5			16.12	1.53	24.70	82.79	0.98	0.559	1.073	n.a.	n.a.	n.a.	0.00	0.00
7.550	22.450	0.549	981.5	981.5	30.475	2.500	2.56		Unsaturated	67.9			21.22	1.49	31.61	91.02	0.98	0.559	1.076	n.a.	n.a.	n.a.	0.00	0.00
7.710	33.980	0.544	1002.3	1002.3	45.977	1.625	2.31		Unsaturated	47.4			32.12	1.44	46.34	103.49	0.98	0.559	1.082	n.a.	n.a.	n.a.	0.00	0.00
7.870	24.960	0.391	1023.1	1023.1	33.233	1.599	2.41		Unsaturated	56.1			23.59	1.46	34.36	91.58	0.98	0.558	1.072	n.a.	n.a.	n.a.	0.00	0.00
8.040	14.790	0.331	1045.2	1045.2	22.094	2.319	2.65	plastic	Clay	75.1			13.98	1.20	n.a.	n.a.	0.98	0.559	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.200	9.980	0.226	1066.0	1066.0	17.724	2.389	2.74		Clay	81.9			9.43	1.20	n.a.	n.a.	0.98	0.564	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.370	9.590	0.181	1088.1	1088.1	16.627	2.001	2.72		Clay	80.2			9.06	1.19	n.a.	n.a.	0.98	0.569	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.530	8.280	0.202	1108.9	1108.9	13.934	2.615	2.84		Clay	90.6			7.83	1.19	n.a.	n.a.	0.98	0.574	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.690	7.830	0.276	1129.7	1129.7	12.862	3.798	2.97		Clay	100.0			7.40	1.18	n.a.	n.a.	0.98	0.579	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.860	9.510	0.333	1151.8	1151.8	15.513	3.724	2.90		Clay	94.9			8.99	1.17	n.a.	n.a.	0.98	0.584	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.020	10.220	0.346	1172.6	1172.6	16.431	3.591	2.87		Clay	92.5			9.66	1.17	n.a.	n.a.	0.98	0.588	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.190	10.550	0.331	1194.7	1194.7	16.661	3.328	2.84		Clay	90.5			9.97	1.16	n.a.	n.a.	0.98	0.593	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.350	10.330	0.332	1215.5	1215.5	15.997	3.413	2.86		Clay	92.2			9.76	1.16	n.a.	n.a.	0.98	0.597	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.510	10.200	0.316	1236.3	1236.3	15.501	3.301	2.87		Clay	92.4			9.64	1.15	n.a.	n.a.	0.98	0.601	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.680	9.460	0.253	1258.4	1258.4	14.035	2.870	2.87		Clay	92.2			8.94	1.15	n.a.	n.a.	0.98	0.605	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.840	8.360	0.239	1279.2	1279.2	12.071	3.094	2.94		Clay	98.0			7.90	1.14	n.a.	n.a.	0.98	0.609	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.010	7.780	0.224	1301.3	1301.3	10.957	3.143	2.98		Clay	100.0			7.35	1.14	n.a.	n.a.	0.97	0.613	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.170	7.260	0.213	1322.1	1322.1	9.983	3.226	3.02		Clay	100.0			6.86	1.13	n.a.	n.a.	0.97	0.617	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.330	7.140	0.217	1342.9	1342.9	9.634	3.359	3.04		Clay	100.0			6.75	1.13	n.a.	n.a.	0.97	0.621	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.500	7.830	0.222	1365.0	1365.0	10.473	3.103	2.99		Clay	100.0			7.40	1.12	n.a.	n.a.	0.97	0.625	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.660	8.170	0.216	1385.8	1385.8	10.791	2.887	2.96		Clay	99.8			7.72	1.12	n.a.	n.a.	0.97	0.628	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.830	8.050	0.222	1407.9	1407.9	10.435	3.015	2.98		Clay	100.0			7.61	1.11	n.a.	n.a.	0.97	0.632	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	2

PGA (A_{max})	0.87

Total Settlement:	0.05	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5, s'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
10.990	8.000	0.223	1428.7	1428.7	10.199	3.059	2.99		Clay	100.0			7.56	1.11	n.a.	n.a.	0.97	0.636	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.150	7.920	0.219	1449.5	1449.5	9.928	3.041	3.00		Clay	100.0			7.49	1.10	n.a.	n.a.	0.97	0.639	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.320	7.610	0.217	1471.6	1471.6	9.342	3.163	3.03		Clay	100.0			7.19	1.10	n.a.	n.a.	0.97	0.642	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.480	7.270	0.208	1492.4	1492.4	8.743	3.185	3.06		Clay	100.0			6.87	1.10	n.a.	n.a.	0.97	0.646	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.650	7.070	0.157	1514.5	1514.5	8.336	2.493	3.02		Clay	100.0			6.68	1.09	n.a.	n.a.	0.97	0.649	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.810	6.780	0.164	1535.3	1535.3	7.832	2.719	3.06		Clay	100.0			6.41	1.09	n.a.	n.a.	0.97	0.652	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.980	6.590	0.163	1557.4	1557.4	7.463	2.798	3.09		Clay	100.0			6.23	1.08	n.a.	n.a.	0.97	0.655	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.140	7.030	0.189	1578.2	1578.2	7.909	3.030	3.08		Clay	100.0			6.64	1.08	n.a.	n.a.	0.97	0.658	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.300	7.170	0.205	1599.0	1599.0	7.968	3.218	3.10		Clay	100.0			6.78	1.08	n.a.	n.a.	0.97	0.661	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.470	7.660	0.236	1621.1	1621.1	8.450	3.443	3.09		Clay	100.0			7.24	1.07	n.a.	n.a.	0.97	0.664	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.630	8.400	0.230	1641.9	1641.9	9.232	3.031	3.03		Clay	100.0			7.94	1.07	n.a.	n.a.	0.96	0.667	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.800	8.300	0.217	1664.0	1664.0	8.976	2.903	3.03		Clay	100.0			7.84	1.07	n.a.	n.a.	0.96	0.670	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.960	7.720	0.180	1684.8	1684.8	8.164	2.617	3.04		Clay	100.0			7.30	1.06	n.a.	n.a.	0.96	0.673	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.120	7.490	0.166	1705.6	1705.6	7.783	2.506	3.04		Clay	100.0			7.08	1.06	n.a.	n.a.	0.96	0.675	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.290	7.590	0.161	1727.7	1727.7	7.786	2.392	3.03		Clay	100.0			7.17	1.05	n.a.	n.a.	0.96	0.678	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.450	7.840	0.197	1748.5	1748.5	7.968	2.825	3.06		Clay	100.0			7.41	1.05	n.a.	n.a.	0.96	0.681	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.620	8.720	0.220	1770.6	1770.6	8.850	2.803	3.02		Clay	100.0			8.24	1.05	n.a.	n.a.	0.96	0.683	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.780	9.080	0.199	1791.4	1791.4	9.137	2.427	2.98		Clay	100.0			8.58	1.04	n.a.	n.a.	0.96	0.686	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.940	8.710	0.162	1812.2	1812.2	8.613	2.072	2.96		Clay	100.0			8.23	1.04	n.a.	n.a.	0.96	0.688	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.110	7.890	0.123	1834.3	1834.3	7.603	1.765	2.98		Clay	100.0			7.46	1.04	n.a.	n.a.	0.96	0.691	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.270	7.610	0.120	1855.1	1855.1	7.204	1.797	3.00		Clay	100.0			7.19	1.04	n.a.	n.a.	0.96	0.693	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.440	7.790	0.132	1877.2	1877.2	7.300	1.932	3.01		Clay	100.0			7.36	1.03	n.a.	n.a.	0.96	0.695	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.600	8.100	0.259	1898.0	1898.0	7.535	3.623	3.14		Clay	100.0			7.66	1.03	n.a.	n.a.	0.96	0.697	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.760	9.210	0.241	1918.8	1918.8	8.600	2.919	3.04		Clay	100.0			8.71	1.03	n.a.	n.a.	0.96	0.700	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.930	11.100	0.228	1940.9	1940.9	10.438	2.252	2.91		Clay	96.0			10.49	1.02	n.a.	n.a.	0.96	0.702	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.090	13.970	0.226	1961.7	1961.7	13.243	1.743	2.77		Clay	84.2			13.20	1.02	n.a.	n.a.	0.95	0.704	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.260	13.330	0.203	1983.8	1983.8	12.439	1.641	2.78		Clay	85.0	13.2		13.20	1.02	n.a.	n.a.	0.95	0.706	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.420	12.600	0.191	2004.6	2004.6	11.571	1.649	2.80		Clay	87.2	13.2		13.20	1.01	n.a.	n.a.	0.95	0.708	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.580	12.590	0.176	2025.4	2025.4	11.432	1.524	2.79		Clay	86.2	13.2		13.20	1.01	n.a.	n.a.	0.95	0.710	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.750	10.610	0.158	2047.5	2047.5	9.364	1.652	2.88		Clay	93.6			10.03	1.01	n.a.	n.a.	0.95	0.712	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.910	9.020	0.159	2068.3	2068.3	7.722	1.992	3.00		Clay	100.0			8.53	1.01	n.a.	n.a.	0.95	0.714	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.080	9.230	0.130	2090.4	2090.4	7.831	1.586	2.94		Clay	98.3			8.72	1.00	n.a.	n.a.	0.95	0.716	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.240	8.880	0.132	2111.2	2111.2	7.412	1.691	2.98		Clay	100.0			8.39	1.00	n.a.	n.a.	0.95	0.718	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.400	8.520	0.111	2132.0	2132.0	6.992	1.493	2.97		Clay	100.0			8.05	1.00	n.a.	n.a.	0.95	0.719	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.570	8.730	0.167	2154.1	2154.1	7.105	2.178	3.05		Clay	100.0			8.25	1.00	n.a.	n.a.	0.95	0.721	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.730	9.270	0.267	2174.9	2174.9	7.525	3.268	3.12		Clay	100.0			8.76	0.99	n.a.	n.a.	0.95	0.723	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.900	14.690	0.393	2197.0	2197.0	12.373	2.890	2.91		Clay	95.9			13.88	0.99	n.a.	n.a.	0.95	0.725	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.060	20.250	0.617	2217.8	2217.8	17.261	3.226	2.82		Clay	88.9			19.14	0.99	n.a.	n.a.	0.95	0.726	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.220	21.620	0.801	2238.6	2238.6	18.316	3.908	2.86		Clay	91.5			20.43	0.99	n.a.	n.a.	0.95	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.390	22.610	0.915	2260.7	2260.7	19.003	4.261	2.87		Clay	92.4			21.37	0.98	n.a.	n.a.	0.94	0.730	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.550	26.750	0.916	2281.5	2281.5	22.449	3.576	2.76		Clay	84.0	34.02	1.72	58.51	0.98	n.a.	n.a.	0.94	0.731	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.720	30.100	1.032	2303.6	2303.6	25.133	3.566	2.72		Clay	81.0	34.02	1.72	58.51	0.98	n.a.	n.a.	0.94	0.733	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.880	35.990	1.062	2324.4	2324.4	29.967	3.050	2.62		Clay	72.8		1.72	58.51	0.98	n.a.	n.a.	0.94	0.734	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.040	26.530	0.391	2345.2	2345.2	22.766	1.542	2.54		Sand	66.1	34.02	1.72	58.51	0.95	55.85	121.86	0.94	0.736	0.987	0.175	0.243	0.33	0.03	0.05
18.210	15.540	0.254	2367.3	2367.3	12.129	1.766	2.80		Clay	87.1	34.02	1.72	58.51	0.97	n.a.	n.a.	0.94	0.737	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.370	11.000	0.218	2388.1	2388.1	8.212	2.226	3.00		Clay	100.0			10.40	0.97	n.a.	n.a.	0.94	0.739	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.540	8.660	0.209	2410.2	2410.2	6.186	2.797	3.15		Clay	100.0			8.19	0.97	n.a.	n.a.	0.94	0.740	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.700	7.930	0.208	2431.0	2431.0	5.524	3.099	3.22		Clay	100.0			7.50	0.96	n.a.	n.a.	0.94	0.741	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.860	7.820	0.213	2451.8	2451.8	5.379	3.232	3.24		Clay	100.0			7.39	0.96	n.a.	n.a.	0.94	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.030	7.550	0.207	2473.9	2473.9	5.104	3.284	3.26		Clay	100.0			7.14	0.96	n.a.	n.a.	0.94	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.190	7.800	0.184	2494.7	2494.7	5.253	2.802	3.22		Clay	100.0			7.37	0.96	n.a.	n.a.	0.94	0.745	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.360	7.850	0.178	2516.8	2516.8	5.238	2.697	3.21		Clay	100.0			7.42	0.96	n.a.	n.a.	0.94	0.747	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.520	7.780	0.300	2537.6	2537.6	5.132	4.607	3.34		Clay	100.0			7.35	0.95	n.a.	n.a.	0.93	0.748	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.690	11.170	0.417	2559.7	2559.7	7.728	4.220	3.17		Clay	100.0			10.56	0.95	n.a.	n.a.	0.93	0.749	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.850	18.360	0.434	2580.5	2580.5	13.230	2.544	2.86		Clay	91.5			17.35	0.95	n.a.	n.a.	0.93	0.750	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.010	13.760	0.290	2601.3	2600.6	9.582	2.326	2.95		Clay	99.1			13.01	0.95	n.a.	n.a.	0.93	0.751	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.180	13.710	0.147	2622.5	2611.3	9.496	1.186	2.81		Clay	87.7			12.96	0.95	n.a.	n.a.	0.93	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.340	11.620	0.123	2642.5	2621.3	7.858	1.198	2.88		Clay	93.7			10.98	0.95	n.a.	n.a.	0.93	0.753	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.510	8.640	0.135	2663.8	2631.9	5.553	1.845	3.10		Clay	100.0			8.17	0.94	n.a.	n.a.	0.93	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.670	7.350	0.139	2683.8	2641.9	4.548	2.315	3.23		Clay	100.0			6.95	0.94	n.a.	n.a.	0.93	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.830	7.750	0.148	2703.8	2652.0	4.825	2.318	3.21		Clay	100.0			7.33	0.94	n.a.	n.a.	0.93	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.000	7.810	0.149	2725.0	2662.6	4.843	2.313	3.20		Clay	100.0			7.38	0.94	n.a.	n.a.	0.93	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.160	7.950	0.150	2745.0	2672.6	4.922	2.284	3.20		Clay	100.0			7.51	0.94	n.a.	n.a.	0.93	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.330	7.960	0.179	2766.3	2683.3	4.902	2.716	3.23		Clay	100.0			7.52	0.94	n.a.	n.a.	0.93	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.490	8.260	0.196	2786.3	2693.3	5.099	2.851	3.23		Clay	100.0			7.81	0.94	n.a.	n.a.	0.93	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.650	9.480	0.214	2806.3	2703.3	5.976	2.652	3.16		Clay	100.0			8.96	0.94	n.a.	n.a.	0.92	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No. 2

PGA (A_{max}) 0.87

Total Settlement: 0.05 (Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5, s'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
21.820	9.260	0.199	2827.5	2713.9	5.782	2.536	3.16		Clay	100.0			8.75	0.94	n.a.	n.a.	0.92	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.980	9.190	0.200	2847.5	2723.9	5.702	2.574	3.17		Clay	100.0			8.69	0.94	n.a.	n.a.	0.92	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.150	8.870	0.215	2868.8	2734.6	5.438	2.894	3.21		Clay	100.0			8.38	0.93	n.a.	n.a.	0.92	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.310	9.390	0.240	2888.8	2744.6	5.790	3.024	3.20		Clay	100.0			8.88	0.93	n.a.	n.a.	0.92	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.470	10.090	0.239	2908.8	2754.6	6.270	2.770	3.15		Clay	100.0			9.54	0.93	n.a.	n.a.	0.92	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.640	9.730	0.225	2930.0	2765.3	5.978	2.724	3.16		Clay	100.0			9.20	0.93	n.a.	n.a.	0.92	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.800	9.400	0.195	2950.0	2775.3	5.711	2.462	3.16		Clay	100.0			8.88	0.93	n.a.	n.a.	0.92	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.970	9.180	0.189	2971.3	2785.9	5.524	2.452	3.17		Clay	100.0			8.68	0.93	n.a.	n.a.	0.92	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.130	8.790	0.188	2991.3	2795.9	5.218	2.581	3.20		Clay	100.0			8.31	0.93	n.a.	n.a.	0.92	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.290	8.520	0.183	3011.3	2806.0	5.000	2.602	3.22		Clay	100.0			8.05	0.93	n.a.	n.a.	0.92	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.460	8.370	0.171	3032.5	2816.6	4.867	2.499	3.22		Clay	100.0			7.91	0.93	n.a.	n.a.	0.92	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.620	8.430	0.167	3052.5	2826.6	4.885	2.413	3.21		Clay	100.0			7.97	0.93	n.a.	n.a.	0.92	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.790	8.350	0.156	3073.8	2837.3	4.803	2.290	3.20		Clay	100.0			7.89	0.93	n.a.	n.a.	0.91	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.950	8.280	0.142	3093.8	2847.3	4.730	2.105	3.19		Clay	100.0			7.83	0.92	n.a.	n.a.	0.91	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.110	8.240	0.138	3113.8	2857.3	4.678	2.059	3.19		Clay	100.0			7.79	0.92	n.a.	n.a.	0.91	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.280	8.460	0.124	3135.0	2867.9	4.807	1.802	3.15		Clay	100.0			8.00	0.92	n.a.	n.a.	0.91	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.440	8.630	0.144	3155.0	2877.9	4.901	2.038	3.17		Clay	100.0			8.16	0.92	n.a.	n.a.	0.91	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.610	8.450	0.145	3176.3	2888.6	4.751	2.117	3.19		Clay	100.0			7.99	0.92	n.a.	n.a.	0.91	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.770	8.930	0.188	3196.3	2898.6	5.059	2.564	3.21		Clay	100.0			8.44	0.92	n.a.	n.a.	0.91	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.930	9.020	0.237	3216.3	2908.6	5.096	3.200	3.26		Clay	100.0			8.53	0.92	n.a.	n.a.	0.91	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.100	9.630	0.267	3237.5	2919.3	5.489	3.338	3.24		Clay	100.0			9.10	0.92	n.a.	n.a.	0.91	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.260	9.700	0.285	3257.5	2929.3	5.511	3.529	3.25		Clay	100.0			9.17	0.92	n.a.	n.a.	0.91	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.430	9.870	0.307	3278.8	2939.9	5.599	3.731	3.26		Clay	100.0			9.33	0.92	n.a.	n.a.	0.91	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.590	10.850	0.327	3298.8	2949.9	6.238	3.551	3.21		Clay	100.0			10.26	0.92	n.a.	n.a.	0.91	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.750	11.060	0.362	3318.8	2960.0	6.352	3.847	3.22		Clay	100.0			10.45	0.92	n.a.	n.a.	0.90	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.920	10.500	0.339	3340.0	2970.6	5.945	3.843	3.24		Clay	100.0			9.92	0.91	n.a.	n.a.	0.90	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.080	10.550	0.328	3360.0	2980.6	5.952	3.693	3.23		Clay	100.0			9.97	0.91	n.a.	n.a.	0.90	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.250	10.370	0.300	3381.3	2991.3	5.803	3.452	3.23		Clay	100.0			9.80	0.91	n.a.	n.a.	0.90	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.410	10.160	0.295	3401.3	3001.3	5.637	3.490	3.24		Clay	100.0			9.60	0.91	n.a.	n.a.	0.90	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.570	10.160	0.288	3421.3	3011.3	5.612	3.406	3.24		Clay	100.0			9.60	0.91	n.a.	n.a.	0.90	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.740	9.800	0.286	3442.5	3021.9	5.347	3.534	3.26		Clay	100.0			9.26	0.91	n.a.	n.a.	0.90	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.900	9.830	0.276	3462.5	3031.9	5.342	3.407	3.25		Clay	100.0			9.29	0.91	n.a.	n.a.	0.90	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.070	10.160	0.291	3483.8	3042.6	5.534	3.453	3.24		Clay	100.0			9.60	0.91	n.a.	n.a.	0.90	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.230	10.450	0.291	3503.8	3052.6	5.699	3.349	3.23		Clay	100.0			9.88	0.91	n.a.	n.a.	0.90	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.400	10.650	0.327	3525.0	3063.2	5.803	3.676	3.24		Clay	100.0			10.07	0.91	n.a.	n.a.	0.90	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.560	11.300	0.393	3545.0	3073.3	6.200	4.121	3.25		Clay	100.0			10.68	0.91	n.a.	n.a.	0.90	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.720	13.110	0.441	3565.0	3083.3	7.348	3.896	3.17		Clay	100.0			12.39	0.91	n.a.	n.a.	0.89	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.890	13.000	0.453	3586.3	3093.9	7.244	4.044	3.19		Clay	100.0			12.29	0.90	n.a.	n.a.	0.89	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.050	12.220	0.455	3606.3	3103.9	6.712	4.367	3.23		Clay	100.0			11.55	0.90	n.a.	n.a.	0.89	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.220	12.490	0.453	3627.5	3114.6	6.856	4.243	3.22		Clay	100.0			11.81	0.90	n.a.	n.a.	0.89	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.380	12.750	0.448	3647.5	3124.6	6.994	4.097	3.20		Clay	100.0			12.05	0.90	n.a.	n.a.	0.89	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.540	12.580	0.455	3667.5	3134.6	6.857	4.236	3.22		Clay	100.0			11.89	0.90	n.a.	n.a.	0.89	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.710	12.340	0.451	3688.8	3145.2	6.674	4.297	3.23		Clay	100.0			11.66	0.90	n.a.	n.a.	0.89	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.870	12.680	0.443	3708.8	3155.3	6.862	4.089	3.21		Clay	100.0			11.98	0.90	n.a.	n.a.	0.89	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.040	13.170	0.437	3730.0	3165.9	7.142	3.866	3.18		Clay	100.0			12.45	0.90	n.a.	n.a.	0.89	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.200	13.910	0.422	3750.0	3175.9	7.579	3.510	3.13		Clay	100.0			13.15	0.90	n.a.	n.a.	0.89	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.360	14.900	0.432	3770.0	3185.9	8.170	3.317	3.09		Clay	100.0			14.08	0.90	n.a.	n.a.	0.89	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.530	14.750	0.452	3791.3	3196.6	8.043	3.513	3.11		Clay	100.0			13.94	0.90	n.a.	n.a.	0.89	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.690	14.860	0.458	3811.3	3206.6	8.080	3.538	3.11		Clay	100.0			14.05	0.90	n.a.	n.a.	0.88	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.860	14.720	0.448	3832.5	3217.2	7.959	3.495	3.12		Clay	100.0			13.91	0.90	n.a.	n.a.	0.88	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.020	13.880	0.393	3852.5	3227.3	7.408	3.291	3.13		Clay	100.0			13.12	0.89	n.a.	n.a.	0.88	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.180	14.250	0.350	3872.5	3237.3	7.607	2.839	3.08		Clay	100.0			13.47	0.89	n.a.	n.a.	0.88	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.350	15.330	0.317	3893.8	3247.9	8.241	2.372	3.01		Clay	100.0			14.49	0.89	n.a.	n.a.	0.88	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.510	15.850	0.320	3913.8	3257.9	8.529	2.300	2.99		Clay	100.0			14.98	0.89	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.680	15.950	0.375	3935.0	3268.6	8.556	2.681	3.03		Clay	100.0			15.08	0.89	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.840	16.670	0.384	3955.0	3278.6	8.963	2.614	3.00		Clay	100.0			15.76	0.89	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.000	18.720	0.425	3975.0	3288.6	10.176	2.540	2.95		Clay	99.0			17.69	0.89	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.170	20.590	0.469	3996.3	3299.2	11.270	2.522	2.91		Clay	95.9			19.46	0.89	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.330	21.750	0.571	4016.3	3309.3	11.931	2.891	2.92		Clay	97.0			20.56	0.89	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.500	24.950	0.651	4037.5	3319.9	13.814	2.837	2.87		Clay	92.4			23.58	0.89	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.660	24.400	0.648	4057.5	3329.9	13.437	2.897	2.88		Clay	93.7			23.06	0.89	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.820	22.360	0.543	4077.5	3339.9	12.169	2.672	2.90		Clay	94.9			21.13	0.89	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.990	18.040	0.460	4098.8	3350.6	9.545	2.878	3.00		Clay	100.0			17.05	0.89	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.150	17.020	0.369	4118.8	3360.6	8.904	2.464	2.99		Clay	100.0			16.09	0.89	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.320	14.180	0.369	4140.0	3371.2	7.184	3.050	3.12		Clay	100.0			13.40	0.88	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.480	14.360	0.416	4160.0	3381.2	7.264	3.388	3.14		Clay	100.0			13.57	0.88	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	2

PGA (A_{max})	0.87

Total Settlement:	0.05	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
32.640	20.520	0.500	4180.0	3391.3	10.869	2.715	2.94		Clay	98.4			19.40	0.88	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.810	22.870	0.575	4201.3	3401.9	12.210	2.767	2.91		Clay	95.4			21.62	0.88	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.970	19.970	0.587	4221.3	3411.9	10.469	3.285	3.00		Clay	100.0			18.88	0.88	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.140	17.850	0.463	4242.5	3422.6	9.191	2.942	3.02		Clay	100.0			16.87	0.88	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.300	16.240	0.355	4262.5	3432.6	8.220	2.513	3.03		Clay	100.0			15.35	0.88	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.460	15.450	0.264	4282.5	3442.6	7.732	1.981	2.99		Clay	100.0			14.60	0.88	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.630	15.410	0.366	4303.8	3453.2	7.679	2.760	3.07		Clay	100.0			14.57	0.88	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.790	16.200	0.488	4323.8	3463.3	8.107	3.476	3.11		Clay	100.0			15.31	0.88	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.960	20.350	0.774	4345.0	3473.9	10.465	4.257	3.07		Clay	100.0			19.23	0.88	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.120	25.410	0.899	4365.0	3483.9	13.334	3.870	2.96		Clay	99.9			24.02	0.88	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.280	28.810	0.764	4385.0	3493.9	15.236	2.869	2.84		Clay	89.9			27.23	0.88	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.450	23.820	0.787	4406.3	3504.6	12.336	3.640	2.97		Clay	100.0			22.51	0.88	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.610	20.300	0.841	4426.3	3514.6	10.292	4.651	3.10		Clay	100.0			19.19	0.87	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.780	29.070	1.244	4447.5	3525.2	15.231	4.634	2.96		Clay	100.0			27.48	0.87	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.940	43.970	1.120	4467.5	3535.2	23.612	2.682	2.67		Clay	76.4		1.8	74.81	0.87	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.100	40.010	1.015	4487.5	3545.3	21.305	2.687	2.70		Clay	79.2	41.56	1.8	74.81	0.87	n.a.	n.a.	0.86	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.270	33.000	1.038	4508.8	3555.9	17.293	3.377	2.84		Clay	89.8			31.19	0.87	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.430	29.300	1.383	4528.8	3565.9	15.163	5.116	2.99		Clay	100.0			27.69	0.87	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.600	44.250	1.216	4550.0	3576.6	23.472	2.896	2.69		Clay	78.2			41.82	0.87	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.760	38.020	1.216	4570.0	3586.6	19.927	3.403	2.79		Clay	86.1			35.94	0.87	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.930	31.610	1.074	4591.3	3597.2	16.298	3.662	2.88		Clay	93.2			29.88	0.87	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.090	40.530	0.854	4611.3	3607.2	21.193	2.235	2.66		Clay	75.5			38.31	0.87	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.250	27.670	0.848	4631.3	3617.3	14.019	3.344	2.91		Clay	95.4			26.15	0.87	n.a.	n.a.	0.85	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.420	24.490	0.989	4652.5	3627.9	12.219	4.464	3.03		Clay	100.0			23.15	0.87	n.a.	n.a.	0.85	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.580	31.510	1.291	4672.5	3637.9	16.039	4.424	2.93		Clay	97.8			29.78	0.87	n.a.	n.a.	0.85	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.750	39.940	1.552	4693.8	3648.6	20.607	4.129	2.83		Clay	89.5			37.75	0.87	n.a.	n.a.	0.85	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.910	50.060	1.332	4713.8	3658.6	26.077	2.793	2.64		Clay	74.6		1.8	85.17	0.87	n.a.	n.a.	0.85	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.070	31.680	0.758	4733.8	3668.6	15.981	2.587	2.79		Clay	86.5			29.94	0.86	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.240	19.070	0.287	4755.0	3679.2	9.074	1.717	2.90		Clay	95.2			18.02	0.86	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.400	13.940	0.247	4775.0	3689.2	6.263	2.135	3.09		Clay	100.0			13.18	0.86	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.570	13.720	0.255	4796.3	3699.9	6.120	2.249	3.11		Clay	100.0			12.97	0.86	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.730	16.120	0.271	4816.3	3709.9	7.392	1.973	3.01		Clay	100.0			15.24	0.86	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.890	15.740	0.299	4836.3	3719.9	7.162	2.241	3.05		Clay	100.0			14.88	0.86	n.a.	n.a.	0.84	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.060	16.200	0.324	4857.5	3730.6	7.383	2.356	3.05		Clay	100.0			15.31	0.86	n.a.	n.a.	0.84	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.220	16.750	0.350	4877.5	3740.6	7.652	2.446	3.05		Clay	100.0			15.83	0.86	n.a.	n.a.	0.84	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.390	17.620	0.356	4898.8	3751.2	8.088	2.347	3.02		Clay	100.0			16.65	0.86	n.a.	n.a.	0.84	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.550	18.290	0.434	4918.8	3761.2	8.418	2.740	3.04		Clay	100.0			17.29	0.86	n.a.	n.a.	0.84	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.710	18.500	0.664	4938.8	3771.2	8.502	4.143	3.14		Clay	100.0			17.49	0.86	n.a.	n.a.	0.84	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.880	21.420	0.650	4960.0	3781.9	10.016	3.433	3.03		Clay	100.0			20.25	0.86	n.a.	n.a.	0.84	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.040	27.150	0.532	4980.0	3791.9	13.007	2.158	2.82		Clay	88.8			25.66	0.86	n.a.	n.a.	0.83	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.210	24.170	0.542	5001.3	3802.5	11.397	2.503	2.91		Clay	95.5			22.84	0.86	n.a.	n.a.	0.83	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.370	24.280	0.558	5021.3	3812.6	11.420	2.565	2.91		Clay	95.9			22.95	0.86	n.a.	n.a.	0.83	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.530	25.840	0.540	5041.3	3822.6	12.201	2.316	2.86		Clay	92.0			24.42	0.86	n.a.	n.a.	0.83	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.700	24.080	0.534	5062.5	3833.2	11.243	2.479	2.91		Clay	95.7			22.76	0.85	n.a.	n.a.	0.83	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.860	22.930	0.510	5082.5	3843.2	10.610	2.502	2.93		Clay	97.5			21.67	0.85	n.a.	n.a.	0.83	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.030	22.160	0.508	5103.8	3853.9	10.176	2.591	2.95		Clay	99.4			20.95	0.85	n.a.	n.a.	0.83	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.190	22.350	0.493	5123.8	3863.9	10.243	2.491	2.94		Clay	98.5			21.12	0.85	n.a.	n.a.	0.83	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.350	22.260	0.478	5143.8	3873.9	10.164	2.426	2.94		Clay	98.2			21.04	0.85	n.a.	n.a.	0.83	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.520	20.930	0.445	5165.0	3884.6	9.446	2.423	2.97		Clay	100.0			19.78	0.85	n.a.	n.a.	0.83	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.680	20.310	0.421	5185.0	3894.6	9.099	2.373	2.97		Clay	100.0			19.20	0.85	n.a.	n.a.	0.83	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.850	19.770	0.372	5206.3	3905.2	8.792	2.168	2.97		Clay	100.0			18.69	0.85	n.a.	n.a.	0.82	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.010	19.460	0.354	5226.3	3915.2	8.606	2.100	2.97		Clay	100.0			18.39	0.85	n.a.	n.a.	0.82	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.170	18.290	0.388	5246.3	3925.2	7.983	2.479	3.03		Clay	100.0			17.29	0.85	n.a.	n.a.	0.82	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.340	17.560	0.478	5267.5	3935.9	7.585	3.200	3.11		Clay	100.0			16.60	0.85	n.a.	n.a.	0.82	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.500	20.430	0.551	5287.5	3945.9	9.015	3.095	3.04		Clay	100.0			19.31	0.85	n.a.	n.a.	0.82	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.670	23.000	0.433	5308.8	3956.5	10.285	2.130	2.90		Clay	95.4			21.74	0.85	n.a.	n.a.	0.82	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.830	21.060	0.347	5328.8	3966.6	9.275	1.886	2.92		Clay	96.2			19.91	0.85	n.a.	n.a.	0.82	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.990	14.870	0.310	5348.8	3976.6	6.134	2.538	3.14		Clay	100.0			14.05	0.85	n.a.	n.a.	0.82	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.160	13.950	0.304	5370.0	3987.2	5.651	2.694	3.18		Clay	100.0			13.19	0.85	n.a.	n.a.	0.82	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.320	14.260	0.284	5390.0	3997.2	5.787	2.453	3.15		Clay	100.0			13.48	0.85	n.a.	n.a.	0.82	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.490	14.140	0.288	5411.3	4007.9	5.706	2.521	3.16		Clay	100.0			13.36	0.84	n.a.	n.a.	0.82	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.650	14.370	0.323	5431.3	4017.9	5.801	2.769	3.18		Clay	100.0			13.58	0.84	n.a.	n.a.	0.81	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.810	15.650	0.354	5451.3	4027.9	6.417	2.737	3.14		Clay	100.0			14.79	0.84	n.a.	n.a.	0.81	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.980	17.270	0.408	5472.5	4038.5	7.198	2.807	3.10		Clay	100.0			16.32	0.84	n.a.	n.a.	0.81	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.140	17.620	0.408	5492.5	4048.6	7.348	2.745	3.09		Clay	100.0			16.65	0.84	n.a.	n.a.	0.81	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.310	18.340	0.384	5513.8	4059.2	7.678	2.462	3.05		Clay	100.0			17.33	0.84	n.a.	n.a.	0.81	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	2

PGA (A_{max})	0.87

Total Settlement:	0.05	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
43.470	18.410	0.359	5533.8	4069.2	7.689	2.296	3.03		Clay	100.0			17.40	0.84	n.a.	n.a.	0.81	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.640	18.610	0.359	5555.0	4079.9	7.761	2.266	3.02		Clay	100.0			17.59	0.84	n.a.	n.a.	0.81	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.800	19.330	0.356	5575.0	4089.9	8.089	2.149	3.00		Clay	100.0			18.27	0.84	n.a.	n.a.	0.81	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.960	20.280	0.356	5595.0	4099.9	8.528	2.039	2.96		Clay	100.0			19.17	0.84	n.a.	n.a.	0.81	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.130	19.320	0.314	5616.3	4110.5	8.034	1.900	2.97		Clay	100.0			18.26	0.84	n.a.	n.a.	0.81	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.290	18.730	0.309	5636.3	4120.6	7.723	1.944	2.99		Clay	100.0			17.70	0.84	n.a.	n.a.	0.81	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.460	17.890	0.334	5657.5	4131.2	7.291	2.220	3.04		Clay	100.0			16.91	0.84	n.a.	n.a.	0.80	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.620	17.230	0.226	5677.5	4141.2	6.950	1.571	2.99		Clay	100.0			16.29	0.84	n.a.	n.a.	0.80	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.780	18.720	0.212	5697.5	4151.2	7.647	1.338	2.92		Clay	96.3			17.69	0.84	n.a.	n.a.	0.80	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.950	15.920	0.204	5718.8	4161.9	6.276	1.562	3.02		Clay	100.0			15.05	0.84	n.a.	n.a.	0.80	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.110	15.960	0.208	5738.8	4171.9	6.276	1.585	3.03		Clay	100.0			15.09	0.84	n.a.	n.a.	0.80	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.280	15.810	0.233	5760.0	4182.5	6.183	1.805	3.06		Clay	100.0			14.94	0.84	n.a.	n.a.	0.80	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.440	16.770	0.320	5780.0	4192.5	6.621	2.308	3.09		Clay	100.0			15.85	0.83	n.a.	n.a.	0.80	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.600	17.810	0.536	5800.0	4202.6	7.096	3.597	3.16		Clay	100.0			16.83	0.83	n.a.	n.a.	0.80	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.770	20.610	0.589	5821.3	4213.2	8.402	3.329	3.08		Clay	100.0			19.48	0.83	n.a.	n.a.	0.80	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.930	24.800	0.630	5841.3	4223.2	10.361	2.878	2.97		Clay	100.0			23.44	0.83	n.a.	n.a.	0.80	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.100	24.020	0.624	5862.5	4233.9	9.962	2.957	2.99		Clay	100.0			22.70	0.83	n.a.	n.a.	0.80	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.260	24.060	0.626	5882.5	4243.9	9.953	2.965	3.00		Clay	100.0			22.74	0.83	n.a.	n.a.	0.80	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.420	24.770	0.497	5902.5	4253.9	10.258	2.278	2.92		Clay	96.7			23.41	0.83	n.a.	n.a.	0.79	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.590	21.140	0.402	5923.8	4264.5	8.525	2.210	2.98		Clay	100.0			19.98	0.83	n.a.	n.a.	0.79	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.750	18.290	0.387	5943.8	4274.6	7.167	2.528	3.08		Clay	100.0			17.29	0.83	n.a.	n.a.	0.79	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.920	18.100	0.474	5965.0	4285.2	7.056	3.132	3.13		Clay	100.0			17.11	0.83	n.a.	n.a.	0.79	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.080	19.910	0.581	5985.0	4295.2	7.877	3.433	3.12		Clay	100.0			18.82	0.83	n.a.	n.a.	0.79	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.240	19.720	0.579	6005.0	4305.2	7.766	3.462	3.12		Clay	100.0			18.64	0.83	n.a.	n.a.	0.79	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.410	19.600	0.515	6026.3	4315.9	7.686	3.105	3.10		Clay	100.0			18.53	0.83	n.a.	n.a.	0.79	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.570	18.230	0.429	6046.3	4325.9	7.031	2.822	3.11		Clay	100.0			17.23	0.83	n.a.	n.a.	0.79	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.740	17.980	0.388	6067.5	4336.5	6.893	2.593	3.10		Clay	100.0			16.99	0.83	n.a.	n.a.	0.79	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.900	18.190	0.410	6087.5	4346.5	6.969	2.709	3.10		Clay	100.0			17.19	0.83	n.a.	n.a.	0.79	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.060	19.300	0.412	6107.5	4356.6	7.458	2.533	3.06		Clay	100.0			18.24	0.83	n.a.	n.a.	0.79	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.230	20.240	0.377	6128.8	4367.2	7.866	2.196	3.01		Clay	100.0			19.13	0.83	n.a.	n.a.	0.78	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.390	19.770	0.404	6148.8	4377.2	7.628	2.417	3.04		Clay	100.0			18.69	0.83	n.a.	n.a.	0.78	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.560	20.910	0.443	6170.0	4387.9	8.125	2.485	3.03		Clay	100.0			19.76	0.82	n.a.	n.a.	0.78	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.720	22.340	0.590	6190.0	4397.9	8.752	3.066	3.05		Clay	100.0			21.12	0.82	n.a.	n.a.	0.78	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.880	26.760	0.771	6210.0	4407.9	10.733	3.261	2.99		Clay	100.0			25.29	0.82	n.a.	n.a.	0.78	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.050	35.000	0.741	6231.3	4418.5	14.432	2.325	2.80		Clay	87.2			33.08	0.82	n.a.	n.a.	0.78	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.210	36.690	0.861	6251.3	4428.5	15.158	2.564	2.81		Clay	87.8			34.68	0.82	n.a.	n.a.	0.78	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.380	40.050	0.779	6272.5	4439.2	16.631	2.111	2.73		Clay	81.3			37.85	0.82	n.a.	n.a.	0.78	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.540	31.710	0.736	6292.5	4449.2	12.840	2.577	2.87		Clay	92.6			29.97	0.82	n.a.	n.a.	0.78	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.700	26.980	0.613	6312.5	4459.2	10.685	2.571	2.94		Clay	97.8			25.50	0.82	n.a.	n.a.	0.78	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.870	26.570	0.604	6333.8	4469.9	10.472	2.580	2.94		Clay	98.5			25.11	0.82	n.a.	n.a.	0.78	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.030	26.260	0.851	6353.8	4479.9	10.305	3.687	3.04		Clay	100.0			24.82	0.82	n.a.	n.a.	0.77	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.200	33.530	0.816	6375.0	4490.5	13.514	2.689	2.86		Clay	92.0			31.69	0.82	n.a.	n.a.	0.77	0.754	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.360	38.290	0.760	6395.0	4500.5	15.595	2.166	2.76		Clay	83.6			36.19	0.82	n.a.	n.a.	0.77	0.754	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.520	30.170	0.766	6415.0	4510.6	11.955	2.841	2.92		Clay	96.6			28.52	0.82	n.a.	n.a.	0.77	0.753	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.690	27.860	0.677	6436.3	4521.2	10.901	2.746	2.94		Clay	98.5			26.33	0.82	n.a.	n.a.	0.77	0.753	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.850	26.160	0.640	6456.3	4531.2	10.122	2.791	2.97		Clay	100.0			24.73	0.82	n.a.	n.a.	0.77	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
51.020	23.940	0.621	6477.5	4541.9	9.116	3.001	3.03		Clay	100.0			22.63	0.82	n.a.	n.a.	0.77	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
51.180	23.370	0.630	6497.5	4551.9	8.841	3.131	3.05		Clay	100.0			22.09	0.82	n.a.	n.a.	0.77	0.751	n.a.	n.a.	n.a.	n.a.	0.00	0.00
51.350	22.550	0.622	6518.8	4562.5	8.456	3.226	3.07		Clay	100.0			21.31	0.82	n.a.	n.a.	0.77	0.751	n.a.	n.a.	n.a.	n.a.	0.00	0.00
51.510	21.720	0.596	6538.8	4572.5	8.070	3.231	3.09		Clay	100.0			20.53	0.82	n.a.	n.a.	0.77	0.750	n.a.	n.a.	n.a.	n.a.	0.00	0.00
51.670	20.660	0.555	6558.8	4582.5	7.586	3.192	3.11		Clay	100.0			19.53	0.82	n.a.	n.a.	0.77	0.750	n.a.	n.a.	n.a.	n.a.	0.00	0.00
51.840	20.300	0.529	6580.0	4593.2	7.407	3.112	3.11		Clay	100.0			19.19	0.82	n.a.	n.a.	0.77	0.749	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.000	19.590	0.483	6600.0	4603.2	7.078	2.966	3.12		Clay	100.0			18.52	0.81	n.a.	n.a.	0.76	0.749	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.170	19.140	0.461	6621.3	4613.8	6.862	2.913	3.13		Clay	100.0			18.09	0.81	n.a.	n.a.	0.76	0.748	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.330	18.380	0.441	6641.3	4623.9	6.514	2.930	3.15		Clay	100.0			17.37	0.81	n.a.	n.a.	0.76	0.748	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.490	18.440	0.406	6661.3	4633.9	6.521	2.688	3.13		Clay	100.0			17.43	0.81	n.a.	n.a.	0.76	0.747	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.660	18.480	0.420	6682.5	4644.5	6.519	2.776	3.13		Clay	100.0			17.47	0.81	n.a.	n.a.	0.76	0.746	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.820	18.410	0.419	6702.5	4654.5	6.471	2.781	3.14		Clay	100.0			17.40	0.81	n.a.	n.a.	0.76	0.746	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.990	19.930	0.432	6723.8	4665.2	7.103	2.610	3.09		Clay	100.0			18.84	0.81	n.a.	n.a.	0.76	0.745	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.150	21.610	0.485	6743.8	4675.2	7.802	2.658	3.06		Clay	100.0			20.43	0.81	n.a.	n.a.	0.76	0.745	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.310	22.470	0.501	6763.8	4685.2	8.148	2.625	3.04		Clay	100.0			21.24	0.81	n.a.	n.a.	0.76	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.480	23.280	0.711	6785.0	4695.8	8.470	3.575	3.10		Clay	100.0			22.00	0.81	n.a.	n.a.	0.76	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.640	26.310	1.157	6805.0	4705.9	9.736	5.052	3.14		Clay	100.0			24.87	0.81	n.a.	n.a.	0.76	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.810	29.730	1.383	6826.3	4716.5	11.159	5.256	3.10		Clay	100.0			28.10	0.81	n.a.	n.a.	0.76	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.970	44.870	1.537	6846.3	4726.5	17.538	3.708	2.86		Clay	91.5			42.41	0.81	n.a.	n.a.	0.75	0.742	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.130	49.740	1.354	6866.3	4736.5	19.553	2.925	2.76		Clay	83.4			47.01	0.81	n.a.	n.a.	0.75	0.742	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No. 2

PGA (A_{max}) 0.87

Total Settlement: 0.05 (Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
54.300	46.940	1.533	6887.5	4747.2	18.325	3.525	2.83		Clay	89.2			44.37	0.81	n.a.	n.a.	0.75	0.741	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.460	60.950	2.073	6907.5	4757.2	24.172	3.606	2.74		Clay	82.3			57.61	0.81	n.a.	n.a.	0.75	0.741	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.630	69.430	2.056	6928.8	4767.8	27.671	3.117	2.66		Clay	75.4			65.62	0.81	n.a.	n.a.	0.75	0.740	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.790	61.890	2.005	6948.8	4777.9	24.453	3.433	2.72		Clay	80.9			58.50	0.81	n.a.	n.a.	0.75	0.739	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.950	109.690	1.766	6968.8	4787.9	66.734	1.663	2.19		Sand	38.0	128.46		128.46	0.73	93.14	155.88	0.75	0.739	0.862	0.333	0.499	0.68	0.02	0.00
55.120	135.910	2.328	6990.0	4798.5	83.111	1.758	2.13		Sand	33.6			128.46	0.72	92.44	150.82	0.75	0.738	0.868	0.294	0.428	0.58	0.02	0.00
55.280	120.410	2.266	7010.0	4808.5	73.299	1.938	2.20		Sand	39.1			113.81	0.71	80.79	141.55	0.75	0.738	0.878	0.241	0.334	0.45	0.02	0.00
55.450	126.800	1.976	7031.3	4819.2	77.214	1.602	2.13		Sand	33.3			119.85	0.71	84.98	141.40	0.75	0.737	0.878	0.241	0.333	0.45	0.02	0.00
55.610	155.640	1.706	7051.3	4829.2	95.171	1.121	1.96		Sand	19.7			147.11	0.71	104.15	140.97	0.75	0.737	0.878	0.239	0.329	0.45	0.02	0.00
55.770	157.140	1.735	7071.3	4839.2	96.004	1.130	1.96		Sand	19.6			148.53	0.71	105.22	142.02	0.74	0.736	0.877	0.244	0.338	0.46	0.02	0.00
55.940	149.760	1.727	7092.5	4849.8	91.284	1.181	1.99		Sand	22.0	148.53		148.53	0.71	106.10	148.61	0.74	0.736	0.869	0.280	0.402	0.55	0.02	0.00
56.100	141.160	1.744	7112.5	4859.9	85.820	1.267	2.03		Sand	25.2	148.53		148.53	0.72	107.13	156.38	0.74	0.735	0.859	0.337	0.506	0.69	0.02	0.00
56.270	137.860	1.855	7133.8	4870.5	83.664	1.382	2.06		Sand	27.8	148.53		148.53	0.73	107.79	161.69	0.74	0.735	0.852	0.389	0.602	0.82	0.01	0.00
56.430	135.280	1.940	7153.8	4880.5	81.966	1.473	2.09		Sand	29.8	148.53		148.53	0.73	108.19	165.17	0.74	0.734	0.847	0.432	0.681	0.93	0.01	0.00
56.590	122.900	1.712	7173.8	4890.5	74.179	1.435	2.11		Sand	31.8	148.53		148.53	0.73	108.54	168.29	0.74	0.733	0.842	0.476	0.764	1.04	0.01	0.00
56.760	113.860	2.067	7195.0	4901.2	68.478	1.875	2.21		Sand	40.1	148.53		148.53	0.74	109.81	178.30	0.74	0.733	0.825	0.679	1.156	1.58	0.00	0.00
56.920	110.330	2.623	7215.0	4911.2	66.212	2.458	2.31		Sand	47.4	148.53		148.53	0.74	110.53	184.34	0.74	0.732	0.814	0.870	1.532	2.09	0.00	0.00
57.090	130.330	2.836	7236.3	4921.8	78.528	2.238	2.22		Sand	40.9	148.53		148.53	0.74	109.71	178.84	0.74	0.732	0.823	0.693	1.182	1.62	0.00	0.00
57.250	108.710	2.700	7256.3	4931.9	65.057	2.569	2.32		Sand	48.9	148.53		148.53	0.74	110.47	185.14	0.74	0.731	0.811	0.901	1.591	2.18	0.00	0.00
57.410	65.460	2.553	7276.3	4941.9	25.020	4.129	2.77		Clay	84.5			61.87	0.80	n.a.	n.a.	0.74	0.731	n.a.	n.a.	n.a.	n.a.	0.00	0.00
57.580	103.320	2.310	7297.5	4952.5	61.579	2.318	2.31		Sand	47.8			97.66	0.69	67.30	130.10	0.74	0.730	0.885	0.198	0.257	0.35	0.02	0.00
57.740	115.910	2.237	7317.5	4962.5	69.281	1.993	2.23		Sand	41.2			109.56	0.70	76.30	137.51	0.73	0.729	0.878	0.224	0.302	0.41	0.02	0.00
57.910	102.520	2.133	7338.8	4973.2	60.945	2.157	2.29		Sand	46.4			96.90	0.69	66.48	128.32	0.73	0.729	0.886	0.192	0.248	0.34	0.02	0.00
58.070	80.070	1.648	7358.8	4983.2	47.050	2.157	2.38		Sand	53.1			75.68	0.67	50.39	110.97	0.73	0.728	0.901	0.154	0.183	0.25	0.03	0.00
58.230	54.630	1.389	7378.8	4993.2	20.404	2.727	2.72		Clay	80.7			51.64	0.80	n.a.	n.a.	0.73	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.400	33.750	1.196	7400.0	5003.8	12.011	3.981	3.00		Clay	100.0			31.90	0.80	n.a.	n.a.	0.73	0.727	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.560	25.070	1.109	7420.0	5013.9	8.520	5.190	3.19		Clay	100.0			23.70	0.80	n.a.	n.a.	0.73	0.727	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.730	26.750	1.291	7441.3	5024.5	9.167	5.604	3.19		Clay	100.0			25.28	0.80	n.a.	n.a.	0.73	0.726	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.890	34.010	1.095	7461.3	5034.5	12.029	3.616	2.98		Clay	100.0			32.15	0.80	n.a.	n.a.	0.73	0.726	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.060	38.610	0.989	7482.5	5045.2	13.823	2.837	2.87		Clay	92.4			36.49	0.80	n.a.	n.a.	0.73	0.725	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.220	37.040	0.928	7502.5	5055.2	13.170	2.787	2.88		Clay	93.4			35.01	0.79	n.a.	n.a.	0.73	0.724	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.380	29.330	0.902	7522.5	5065.2	10.096	3.527	3.03		Clay	100.0			27.72	0.79	n.a.	n.a.	0.73	0.724	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.550	27.040	0.789	7543.8	5075.8	9.168	3.390	3.06		Clay	100.0			25.56	0.79	n.a.	n.a.	0.73	0.723	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.710	25.160	0.810	7563.8	5085.8	8.407	3.788	3.12		Clay	100.0			23.78	0.79	n.a.	n.a.	0.73	0.723	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.880	23.930	1.063	7585.0	5096.5	7.903	5.279	3.22		Clay	100.0			22.62	0.79	n.a.	n.a.	0.72	0.722	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.040	23.810	1.061	7605.0	5106.5	7.836	5.302	3.23		Clay	100.0			22.50	0.79	n.a.	n.a.	0.72	0.722	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.200	37.440	1.117	7625.0	5116.5	13.145	3.322	2.93		Clay	97.1			35.39	0.79	n.a.	n.a.	0.72	0.721	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.370	54.870	1.042	7646.3	5127.2	19.912	2.040	2.66		Clay	75.5			51.86	0.79	n.a.	n.a.	0.72	0.720	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.530	54.950	1.222	7666.3	5137.2	19.901	2.391	2.70		Clay	78.7			51.94	0.79	n.a.	n.a.	0.72	0.720	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.700	37.990	1.310	7687.5	5147.8	13.266	3.835	2.96		Clay	99.8			35.91	0.79	n.a.	n.a.	0.72	0.719	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.860	34.450	1.156	7707.5	5157.8	11.864	3.777	2.99		Clay	100.0			32.56	0.79	n.a.	n.a.	0.72	0.719	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.020	35.620	1.133	7727.5	5167.9	12.290	3.568	2.97		Clay	100.0			33.67	0.79	n.a.	n.a.	0.72	0.718	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.190	32.670	0.743	7748.8	5178.5	11.121	2.581	2.92		Clay	96.8			30.88	0.79	n.a.	n.a.	0.72	0.718	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.350	39.880	0.549	7768.8	5188.5	13.875	1.524	2.72		Clay	80.4			37.69	0.79	n.a.	n.a.	0.72	0.717	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.520	37.950	0.450	7790.0	5199.2	13.100	1.322	2.71		Clay	79.7			35.87	0.79	n.a.	n.a.	0.72	0.716	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.680	28.580	0.386	7810.0	5209.2	9.474	1.565	2.87		Clay	92.3			27.01	0.79	n.a.	n.a.	0.72	0.716	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.840	21.310	0.244	7830.0	5219.2	6.666	1.400	2.98		Clay	100.0			20.14	0.79	n.a.	n.a.	0.71	0.715	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.010	19.400	0.245	7851.3	5229.8	5.918	1.583	3.05		Clay	100.0			18.34	0.79	n.a.	n.a.	0.71	0.715	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.170	19.010	0.266	7871.3	5239.8	5.754	1.761	3.08		Clay	100.0			17.97	0.79	n.a.	n.a.	0.71	0.714	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.340	20.370	0.294	7892.5	5250.5	6.256	1.792	3.05		Clay	100.0			19.25	0.79	n.a.	n.a.	0.71	0.713	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.500	20.440	0.760	7912.5	5260.5	6.267	4.609	3.27		Clay	100.0			19.32	0.79	n.a.	n.a.	0.71	0.713	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.660	20.790	1.303	7932.5	5270.5	6.384	7.747	3.40		Clay	100.0			19.65	0.79	n.a.	n.a.	0.71	0.712	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.830	45.980	1.843	7953.8	5281.2	15.907	4.387	2.93		Clay	97.8			43.46	0.79	n.a.	n.a.	0.71	0.712	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.990	101.240	2.279	7973.8	5291.2	58.130	2.343	2.33		Sand	49.5			95.69	0.67	63.66	126.31	0.71	0.711	0.880	0.187	0.236	0.33	0.03	0.00
63.160	123.640	2.787	7995.0	5301.8	71.441	2.329	2.27		Sand	44.2			116.86	0.68	79.95	144.00	0.71	0.711	0.861	0.253	0.349	0.49	0.02	0.00
63.320	136.750	2.971	8015.0	5311.8	79.188	2.238	2.22		Sand	40.7			129.25	0.69	89.68	153.77	0.71	0.710	0.848	0.316	0.458	0.65	0.02	0.00
63.480	160.830	1.913	8035.0	5321.8	93.459	1.220	1.99		Sand	22.1			152.01	0.69	104.28	146.77	0.71	0.710	0.857	0.269	0.376	0.53	0.02	0.00
63.650	158.180	2.040	8056.3	5332.5	91.782	1.323	2.02		Sand	24.4			149.51	0.69	103.00	150.09	0.71	0.709	0.852	0.289	0.411	0.58	0.02	0.00
63.810	152.950	2.439	8076.3	5342.5	88.579	1.638	2.09		Sand	30.3			144.57	0.70	100.50	156.62	0.71	0.708	0.843	0.339	0.500	0.71	0.02	0.00
63.980	141.610	4.001	8097.5	5353.1	81.745	2.908	2.29		Sand	46.5			133.85	0.70	93.81	162.76	0.70	0.708	0.834	0.402	0.612	0.87	0.01	0.00
64.140	131.040	4.616	8117.5	5363.2	75.388	3.635	2.39		Sand	54.1			123.86	0.69	85.97	156.60	0.70	0.707	0.842	0.339	0.499	0.71	0.02	0.00
64.300	96.990	6.606	8137.5	5373.2	34.587	7.110	2.83		Clay	89.6			91.67	0.78	n.a.	n.a.	0.70	0.707	n.a.	n.a.	n.a.	n.a.	0.00	0.00
64.470	136.510	6.175	8158.8	5383.8	78.472	4.663	2.46		Sand	59.7			129.03	0.70	90.46	164.45	0.70	0.706	0.830	0.422	0.649	0.92	0.01	0.00
64.630	233.330	3.444	8178.8	5393.8	135.711	1.503	1.93		Sand	17.7			220.54	0.73	162.04	200.07	0.70	0.705	0.754	1.897	3.147	4.46	0.00	0.00
64.800	259.200	2.569	8200.0	5404.5	150.871	1.007	1.78		Sand	5.3			244.99	0.71	173.88	174.19	0.70	0.705	0.813	0.582	0.945	1.34	0.00	0.00
64.960	267.790	2.094	8220.0	5414.5	155.801	0.794	1.70		Sand	0.0			253.11	0.72	181.26	181.26	0.70	0.704	0.799	0.764	1.288	1.83	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	2

PGA (A_{max})	0.87

Total Settlement:	0.05	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, s'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
65.120	261.210	1.575	8240.0	5424.5	151.767	0.613	1.64		Sand	0.0			246.89	0.71	175.25	175.25	0.70	0.704	0.810	0.605	0.986	1.40	0.00	0.00
65.290	244.580	1.191	8261.3	5435.2	141.804	0.495	1.60		Sand	0.0			231.17	0.69	160.57	160.57	0.70	0.703	0.834	0.377	0.566	0.81	0.01	0.00
65.450	193.400	1.673	8281.3	5445.2	111.513	0.884	1.84		Sand	10.2			182.80	0.66	120.74	129.54	0.70	0.703	0.873	0.196	0.250	0.36	0.02	0.00
65.620	126.480	1.282	8302.5	5455.8	72.006	1.048	2.03		Sand	25.8			119.55	0.65	78.00	123.07	0.70	0.702	0.879	0.178	0.221	0.31	0.03	0.00
65.780	60.380	1.041	8322.5	5465.8	20.571	1.852	2.62		Clay	72.6			57.07	0.78	n.a.	n.a.	0.70	0.701	n.a.	n.a.	n.a.	n.a.	0.00	0.00
65.940	31.040	0.606	8342.5	5475.8	9.814	2.255	2.94		Clay	97.8			29.34	0.78	n.a.	n.a.	0.70	0.701	n.a.	n.a.	n.a.	n.a.	0.00	0.00
66.110	24.360	0.447	8363.8	5486.5	7.356	2.215	3.04		Clay	100.0			23.02	0.78	n.a.	n.a.	0.69	0.700	n.a.	n.a.	n.a.	n.a.	0.00	0.00
66.270	19.070	0.397	8383.8	5496.5	5.414	2.669	3.19		Clay	100.0			18.02	0.78	n.a.	n.a.	0.69	0.700	n.a.	n.a.	n.a.	n.a.	0.00	0.00
66.440	19.690	0.531	8405.0	5507.1	5.625	3.427	3.24		Clay	100.0			18.61	0.78	n.a.	n.a.	0.69	0.699	n.a.	n.a.	n.a.	n.a.	0.00	0.00
66.600	25.030	0.652	8425.0	5517.2	7.546	3.130	3.11		Clay	100.0			23.66	0.78	n.a.	n.a.	0.69	0.699	n.a.	n.a.	n.a.	n.a.	0.00	0.00
66.770	30.120	0.850	8446.3	5527.8	9.370	3.284	3.04		Clay	100.0			28.47	0.78	n.a.	n.a.	0.69	0.698	n.a.	n.a.	n.a.	n.a.	0.00	0.00
66.930	30.890	0.861	8466.3	5537.8	9.627	3.231	3.03		Clay	100.0			29.20	0.78	n.a.	n.a.	0.69	0.697	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.090	34.110	0.800	8486.3	5547.8	10.767	2.678	2.94		Clay	98.4			32.24	0.78	n.a.	n.a.	0.69	0.697	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.260	32.060	0.655	8507.5	5558.5	10.005	2.354	2.94		Clay	98.1			30.30	0.78	n.a.	n.a.	0.69	0.696	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.420	29.610	0.524	8527.5	5568.5	9.103	2.069	2.94		Clay	98.5			27.99	0.77	n.a.	n.a.	0.69	0.696	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.590	27.770	0.492	8548.8	5579.1	8.423	2.093	2.97		Clay	100.0			26.25	0.77	n.a.	n.a.	0.69	0.695	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.750	27.470	0.475	8568.8	5589.2	8.297	2.047	2.98		Clay	100.0			25.96	0.77	n.a.	n.a.	0.69	0.695	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.910	28.750	0.442	8588.8	5599.2	8.735	1.808	2.93		Clay	97.3			27.17	0.77	n.a.	n.a.	0.69	0.694	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.080	26.110	0.372	8610.0	5609.8	7.774	1.705	2.96		Clay	99.8			24.68	0.77	n.a.	n.a.	0.69	0.694	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.240	22.880	0.727	8630.0	5619.8	6.607	3.917	3.21		Clay	100.0			21.63	0.77	n.a.	n.a.	0.68	0.693	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.410	22.800	1.599	8651.3	5630.5	6.562	8.653	3.42		Clay	100.0			21.55	0.77	n.a.	n.a.	0.68	0.692	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.570	34.320	2.308	8671.3	5640.5	10.632	7.698	3.23		Clay	100.0			32.44	0.77	n.a.	n.a.	0.68	0.692	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.730	91.620	2.406	8691.3	5650.5	50.480	2.757	2.42		Sand	57.0			86.60	0.64	55.12	118.34	0.68	0.691	0.879	0.168	0.203	0.29	0.03	0.00
68.900	151.230	2.247	8712.5	5661.1	84.872	1.530	2.09		Sand	29.8			142.94	0.67	96.24	150.79	0.68	0.691	0.842	0.294	0.415	0.60	0.02	0.00
69.060	181.030	2.454	8732.5	5671.2	101.996	1.389	2.00		Sand	22.9			171.11	0.69	117.48	163.73	0.68	0.690	0.822	0.413	0.626	0.91	0.01	0.00
69.230	177.010	2.762	8753.8	5681.8	99.576	1.600	2.05		Sand	26.8			167.31	0.69	115.80	169.57	0.68	0.690	0.811	0.496	0.776	1.12	0.01	0.00
69.390	124.360	2.126	8773.8	5691.8	69.140	1.772	2.19		Sand	38.5			117.54	0.66	77.09	136.50	0.68	0.689	0.859	0.220	0.288	0.42	0.02	0.00
69.550	63.780	1.424	8793.8	5701.8	20.829	2.398	2.68		Clay	77.5			60.28	0.77	n.a.	n.a.	0.68	0.688	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.720	30.620	0.783	8815.0	5712.5	9.177	2.986	3.03		Clay	100.0			28.94	0.77	n.a.	n.a.	0.68	0.688	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.880	25.420	0.542	8835.0	5722.5	7.340	2.578	3.07		Clay	100.0			24.03	0.77	n.a.	n.a.	0.68	0.687	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.050	26.370	0.575	8856.3	5733.1	7.654	2.622	3.06		Clay	100.0			24.92	0.77	n.a.	n.a.	0.68	0.687	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.210	27.070	0.547	8876.3	5743.1	7.881	2.417	3.03		Clay	100.0			25.59	0.77	n.a.	n.a.	0.68	0.686	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.370	25.100	0.531	8896.3	5753.2	7.179	2.570	3.08		Clay	100.0			23.72	0.77	n.a.	n.a.	0.68	0.686	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.540	22.380	0.533	8917.5	5763.8	6.219	2.975	3.17		Clay	100.0			21.15	0.77	n.a.	n.a.	0.67	0.685	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.700	19.790	0.490	8937.5	5773.8	5.307	3.197	3.24		Clay	100.0			18.71	0.77	n.a.	n.a.	0.67	0.685	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.870	19.960	0.452	8958.8	5784.5	5.352	2.921	3.22		Clay	100.0			18.87	0.77	n.a.	n.a.	0.67	0.684	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.030	19.460	0.456	8978.8	5794.5	5.167	3.048	3.24		Clay	100.0			18.39	0.77	n.a.	n.a.	0.67	0.683	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.190	19.650	0.460	8998.8	5804.5	5.220	3.037	3.24		Clay	100.0			18.57	0.77	n.a.	n.a.	0.67	0.683	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.360	19.810	0.438	9020.0	5815.1	5.262	2.865	3.22		Clay	100.0			18.72	0.77	n.a.	n.a.	0.67	0.682	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.520	20.300	0.465	9040.0	5825.2	5.418	2.947	3.22		Clay	100.0			19.19	0.77	n.a.	n.a.	0.67	0.682	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.690	20.850	0.483	9061.3	5835.8	5.593	2.959	3.20		Clay	100.0			19.71	0.77	n.a.	n.a.	0.67	0.681	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.850	21.530	0.530	9081.3	5845.8	5.812	3.119	3.20		Clay	100.0			20.35	0.76	n.a.	n.a.	0.67	0.681	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.010	22.260	0.562	9101.3	5855.8	6.048	3.172	3.19		Clay	100.0			21.04	0.76	n.a.	n.a.	0.67	0.680	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.180	22.370	0.558	9122.5	5866.5	6.071	3.136	3.19		Clay	100.0			21.14	0.76	n.a.	n.a.	0.67	0.680	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.340	22.120	0.546	9142.5	5876.5	5.973	3.108	3.19		Clay	100.0			20.91	0.76	n.a.	n.a.	0.67	0.679	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.510	22.130	0.528	9163.8	5887.1	5.962	3.011	3.19		Clay	100.0			20.92	0.76	n.a.	n.a.	0.67	0.679	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.670	22.540	0.528	9183.8	5897.1	6.087	2.943	3.17		Clay	100.0			21.30	0.76	n.a.	n.a.	0.67	0.678	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.830	22.450	0.544	9203.8	5907.2	6.043	3.048	3.18		Clay	100.0			21.22	0.76	n.a.	n.a.	0.66	0.677	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.000	22.130	0.544	9225.0	5917.8	5.920	3.103	3.19		Clay	100.0			20.92	0.76	n.a.	n.a.	0.66	0.677	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.160	22.180	0.460	9245.0	5927.8	5.924	2.619	3.16		Clay	100.0			20.96	0.76	n.a.	n.a.	0.66	0.676	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.330	22.390	0.436	9266.3	5938.5	5.980	2.455	3.14		Clay	100.0			21.16	0.76	n.a.	n.a.	0.66	0.676	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.490	21.630	0.389	9286.3	5948.5	5.711	2.288	3.14		Clay	100.0			20.44	0.76	n.a.	n.a.	0.66	0.675	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.650	20.990	0.355	9306.3	5958.5	5.484	2.175	3.14		Clay	100.0			19.84	0.76	n.a.	n.a.	0.66	0.675	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.820	19.530	0.328	9327.5	5969.1	4.981	2.204	3.18		Clay	100.0			18.46	0.76	n.a.	n.a.	0.66	0.674	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.980	19.360	0.316	9347.5	5979.1	4.912	2.154	3.18		Clay	100.0			18.30	0.76	n.a.	n.a.	0.66	0.674	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.150	20.650	0.412	9368.8	5989.8	5.331	2.582	3.19		Clay	100.0			19.52	0.76	n.a.	n.a.	0.66	0.673	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.310	20.940	0.519	9388.8	5999.8	5.415	3.195	3.23		Clay	100.0			19.79	0.76	n.a.	n.a.	0.66	0.673	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.480	28.610	0.734	9410.0	6010.4	7.954	3.068	3.08		Clay	100.0			27.04	0.76	n.a.	n.a.	0.66	0.672	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.640	41.590	0.805	9430.0	6020.5	12.250	2.183	2.85		Clay	90.7			39.31	0.76	n.a.	n.a.	0.66	0.672	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.800	52.680	0.830	9450.0	6030.5	15.904	1.731	2.70		Clay	78.7			49.79	0.76	n.a.	n.a.	0.66	0.671	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.970	42.480	0.734	9471.3	6041.1	12.496	1.943	2.81		Clay	88.0			40.15	0.76	n.a.	n.a.	0.66	0.670	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.130	34.400	0.626	9491.3	6051.1	9.801	2.110	2.92		Clay	96.6			32.51	0.76	n.a.	n.a.	0.66	0.670	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.300	30.230	0.736	9512.5	6061.8	8.405	2.890	3.05		Clay	100.0			28.57	0.76	n.a.	n.a.	0.65	0.669	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.460	31.850	0.665	9532.5	6071.8	8.921	2.457	2.99		Clay	100.0			30.10	0.76	n.a.	n.a.	0.65	0.669	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.620	38.160	0.920	9552.5	6081.8	10.978	2.757	2.94		Clay	98.4			36.07	0.76	n.a.	n.a.	0.65	0.668	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.790	30.550	1.244	9573.8	6092.5	8.457	4.828	3.18		Clay	100.0			28.88	0.76	n.a.	n.a.	0.65	0.668	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	2

PGA (A_{max})	0.87

Total Settlement:	0.05	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, s'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
75.950	35.900	1.809	9593.8	6102.5	10.194	5.816	3.16		Clay	100.0			33.93	0.76	n.a.	n.a.	0.65	0.667	n.a.	n.a.	n.a.	n.a.	0.00	0.00
76.120	100.850	1.801	9615.0	6113.1	53.408	1.875	2.29		Sand	46.6			95.32	0.61	58.52	118.42	0.65	0.667	0.870	0.168	0.201	0.30	0.03	0.00
76.280	160.210	2.144	9635.0	6123.1	86.341	1.380	2.05		Sand	27.0			151.43	0.65	98.54	149.32	0.65	0.666	0.831	0.284	0.392	0.59	0.02	0.00
76.440	203.960	1.864	9655.0	6133.1	110.554	0.936	1.86		Sand	11.7			192.78	0.63	122.36	136.00	0.65	0.666	0.849	0.218	0.281	0.42	0.02	0.00
76.610	222.630	1.804	9676.3	6143.8	120.808	0.828	1.79		Sand	6.6			210.43	0.63	133.03	134.26	0.65	0.665	0.851	0.212	0.271	0.41	0.02	0.00
76.770	208.430	2.348	9696.3	6153.8	112.834	1.153	1.91		Sand	15.9			197.00	0.66	130.00	158.63	0.65	0.665	0.816	0.358	0.518	0.78	0.01	0.00
76.940	129.450	2.291	9717.5	6164.4	68.994	1.839	2.21		Sand	39.4			122.35	0.64	77.80	138.08	0.65	0.664	0.846	0.226	0.295	0.44	0.02	0.00
77.100	70.790	1.892	9737.5	6174.5	21.353	2.870	2.72		Clay	80.6			66.91	0.75	n.a.	n.a.	0.65	0.664	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.260	43.140	1.236	9757.5	6184.5	12.373	3.230	2.94		Clay	98.2			40.78	0.75	n.a.	n.a.	0.65	0.663	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.430	29.230	0.677	9778.8	6195.1	7.858	2.781	3.07		Clay	100.0			27.63	0.75	n.a.	n.a.	0.65	0.663	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.590	27.120	0.484	9798.8	6205.1	7.162	2.178	3.04		Clay	100.0			25.63	0.75	n.a.	n.a.	0.65	0.662	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.760	27.510	0.745	9820.0	6215.8	7.272	3.298	3.13		Clay	100.0			26.00	0.75	n.a.	n.a.	0.65	0.662	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.920	26.520	3.102	9840.0	6225.8	6.939	14.362	3.54		Clay	100.0			25.07	0.75	n.a.	n.a.	0.64	0.661	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.080	43.160	4.753	9860.0	6235.8	12.261	12.433	3.32		Clay	100.0			40.79	0.75	n.a.	n.a.	0.64	0.661	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.250	122.530	6.507	9881.3	6246.5	37.650	5.533	2.73		Clay	81.2			115.81	0.75	n.a.	n.a.	0.64	0.660	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.410	173.360	8.017	9901.3	6256.5	92.571	4.760	2.42		Sand	56.7			163.86	0.69	113.41	192.62	0.64	0.660	0.738	1.277	2.074	3.14	0.00	0.00
78.580	139.610	8.135	9922.5	6267.1	42.970	6.041	2.72		Clay	80.3			131.96	0.75	n.a.	n.a.	0.64	0.659	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.740	125.240	7.272	9942.5	6277.1	38.320	6.046	2.75		Clay	83.0			118.37	0.75	n.a.	n.a.	0.64	0.659	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.900	84.530	5.885	9962.5	6287.1	25.305	7.398	2.94		Clay	98.1			79.90	0.75	n.a.	n.a.	0.64	0.658	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.070	60.780	3.283	9983.8	6297.8	17.717	5.885	2.98		Clay	100.0			57.45	0.75	n.a.	n.a.	0.64	0.658	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.230	52.140	1.933	10003.8	6307.8	14.946	4.100	2.94		Clay	98.0			49.28	0.75	n.a.	n.a.	0.64	0.657	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.400	52.580	1.432	10025.0	6318.4	15.057	3.010	2.85		Clay	91.2			49.70	0.75	n.a.	n.a.	0.64	0.657	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.560	32.210	1.044	10045.0	6328.5	8.592	3.839	3.11		Clay	100.0			30.44	0.75	n.a.	n.a.	0.64	0.656	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.720	28.840	0.797	10065.0	6338.5	7.512	3.348	3.13		Clay	100.0			27.26	0.75	n.a.	n.a.	0.64	0.656	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.890	26.670	0.787	10086.3	6349.1	6.813	3.637	3.18		Clay	100.0			25.21	0.75	n.a.	n.a.	0.64	0.655	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.050	25.560	0.713	10106.3	6359.1	6.450	3.475	3.19		Clay	100.0			24.16	0.75	n.a.	n.a.	0.64	0.655	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.220	27.770	0.720	10127.5	6369.8	7.129	3.170	3.13		Clay	100.0			26.25	0.75	n.a.	n.a.	0.64	0.654	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.380	25.930	0.751	10147.5	6379.8	6.538	3.598	3.19		Clay	100.0			24.51	0.75	n.a.	n.a.	0.64	0.654	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.540	24.080	0.793	10167.5	6389.8	5.946	4.177	3.26		Clay	100.0			22.76	0.75	n.a.	n.a.	0.63	0.653	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.710	26.100	0.861	10188.8	6400.4	6.564	4.097	3.22		Clay	100.0			24.67	0.75	n.a.	n.a.	0.63	0.653	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.870	30.360	0.715	10208.8	6410.5	7.880	2.832	3.07		Clay	100.0			28.70	0.75	n.a.	n.a.	0.63	0.652	n.a.	n.a.	n.a.	n.a.	0.00	0.00
81.040	36.780	0.657	10230.0	6421.1	9.863	2.075	2.91		Clay	96.1			34.76	0.75	n.a.	n.a.	0.63	0.652	n.a.	n.a.	n.a.	n.a.	0.00	0.00
81.200	33.050	0.719	10250.0	6431.1	8.684	2.573	3.01		Clay	100.0			31.24	0.75	n.a.	n.a.	0.63	0.651	n.a.	n.a.	n.a.	n.a.	0.00	0.00
81.360	30.860	0.725	10270.0	6441.1	7.988	2.817	3.06		Clay	100.0			29.17	0.75	n.a.	n.a.	0.63	0.651	n.a.	n.a.	n.a.	n.a.	0.00	0.00
81.530	28.970	0.787	10291.3	6451.8	7.385	3.302	3.13		Clay	100.0			27.38	0.75	n.a.	n.a.	0.63	0.650	n.a.	n.a.	n.a.	n.a.	0.00	0.00
81.690	28.950	0.670	10311.3	6461.8	7.365	2.815	3.09		Clay	100.0			27.36	0.74	n.a.	n.a.	0.63	0.650	n.a.	n.a.	n.a.	n.a.	0.00	0.00
81.860	33.180	0.729	10332.5	6472.4	8.656	2.602	3.01		Clay	100.0			31.36	0.74	n.a.	n.a.	0.63	0.649	n.a.	n.a.	n.a.	n.a.	0.00	0.00
82.020	30.680	1.272	10352.5	6482.5	7.869	4.986	3.21		Clay	100.0			29.00	0.74	n.a.	n.a.	0.63	0.649	n.a.	n.a.	n.a.	n.a.	0.00	0.00
82.190	30.400	1.988	10373.8	6493.1	7.766	7.884	3.34		Clay	100.0			28.73	0.74	n.a.	n.a.	0.63	0.648	n.a.	n.a.	n.a.	n.a.	0.00	0.00
82.350	63.740	2.236	10393.8	6503.1	18.005	3.819	2.86		Clay	91.4			60.25	0.74	n.a.	n.a.	0.63	0.648	n.a.	n.a.	n.a.	n.a.	0.00	0.00
82.510	113.730	2.350	10413.8	6513.1	58.466	2.165	2.31		Sand	47.5			107.50	0.61	65.36	127.51	0.63	0.648	0.851	0.190	0.234	0.36	0.02	0.00
82.680	163.890	2.502	10435.0	6523.8	85.413	1.577	2.09		Sand	30.4			154.91	0.64	99.32	155.22	0.63	0.647	0.811	0.327	0.460	0.71	0.02	0.00
82.840	198.610	2.547	10455.0	6533.8	104.018	1.317	1.98		Sand	21.1			187.72	0.65	122.45	165.32	0.63	0.647	0.793	0.433	0.641	0.99	0.01	0.00
83.010	215.880	1.632	10476.3	6544.4	113.209	0.775	1.80		Sand	6.9			204.05	0.60	123.05	124.61	0.63	0.646	0.854	0.182	0.221	0.34	0.03	0.00
83.170	234.830	1.920	10496.3	6554.4	123.294	0.836	1.79		Sand	6.3			221.96	0.62	137.64	138.55	0.63	0.646	0.836	0.228	0.295	0.46	0.02	0.00
83.330	244.730	2.668	10516.3	6564.5	128.507	1.114	1.86		Sand	11.8			231.31	0.65	150.81	166.07	0.63	0.645	0.791	0.444	0.658	1.02	0.01	0.00
83.500	240.860	2.796	10537.5	6575.1	126.322	1.187	1.88		Sand	13.7			227.66	0.66	149.94	172.36	0.62	0.645	0.777	0.546	0.835	1.30	0.00	0.00
83.660	281.550	3.600	10557.5	6585.1	148.022	1.303	1.86		Sand	12.1			266.12	0.69	183.46	201.44	0.62	0.644	0.697	2.051	3.144	4.88	0.00	0.00
83.830	363.770	3.346	10578.8	6595.8	191.913	0.933	1.68		Sand	0.0			343.83	0.74	254.73	254.73	0.62	0.644	0.659	232.140	336.520	522.69	0.00	0.00
83.990	463.780	3.511	10598.8	6605.8	245.263	0.766	1.54		Sand	0.0			438.36	0.74	324.63	324.63	0.62	0.643	0.658	########	########	#########	0.00	0.00
84.150	431.100	3.455	10618.8	6615.8	227.603	0.811	1.59		Sand	0.0			407.47	0.74	301.64	301.64	0.62	0.643	0.658	########	########	1574332.42	0.00	0.00
84.320	421.120	4.147	10640.0	6626.4	222.084	0.997	1.66		Sand	0.0			398.03	0.74	294.53	294.53	0.62	0.642	0.658	########	########	346221.66	0.00	0.00
84.480	394.000	5.936	10660.0	6636.4	207.437	1.527	1.82		Sand	8.3			372.40	0.74	275.45	281.58	0.62	0.642	0.657	13095.110	18930.126	29484.19	0.00	0.00
84.650	369.140	6.873	10681.3	6647.1	194.007	1.889	1.91		Sand	15.6			348.90	0.74	257.96	296.98	0.62	0.642	0.657	########	########	576336.29	0.00	0.00
84.810	256.740	7.525	10701.3	6657.1	133.960	2.993	2.16		Sand	36.1			242.67	0.74	179.34	260.06	0.62	0.641	0.656	465.711	672.271	1048.54	0.00	0.00
84.970	287.460	6.453	10721.3	6667.1	150.212	2.287	2.04		Sand	26.3			271.70	0.74	200.72	269.04	0.62	0.641	0.656	1683.448	2428.447	3790.20	0.00	0.00
85.140	306.360	5.232	10742.5	6677.8	160.143	1.738	1.93		Sand	17.6			289.57	0.74	213.83	257.21	0.62	0.640	0.655	319.052	459.910	718.32	0.00	0.00
85.300	354.680	4.167	10762.5	6687.8	185.707	1.193	1.77		Sand	4.4			335.24	0.73	244.41	244.49	0.62	0.640	0.655	69.413	99.990	156.27	0.00	0.00
85.470	373.310	4.192	10783.8	6698.4	195.451	1.139	1.74		Sand	2.0			352.84	0.74	260.35	260.35	0.62	0.639	0.654	484.071	696.797	1089.80	0.00	0.00
85.630	350.030	4.371	10803.8	6708.4	182.941	1.268	1.79		Sand	6.3			330.84	0.73	239.96	241.25	0.62	0.639	0.654	48.988	70.468	110.29	0.00	0.00
85.790	335.510	3.497	10823.8	6718.5	175.098	1.059	1.75		Sand	2.8			317.12	0.71	224.76	224.76	0.62	0.639	0.653	10.445	15.015	23.51	0.00	0.00
85.960	325.500	3.200	10845.0	6729.1	169.648	1.000	1.74		Sand	2.2			307.66	0.70	214.88	214.88	0.62	0.638	0.653	4.875	7.002	10.97	0.00	0.00
86.120	307.000	3.571	10865.0	6739.1	159.719	1.184	1.81		Sand	7.8			290.17	0.69	198.92	202.70	0.62	0.638	0.686	2.208	3.331	5.22	0.00	0.00
86.290	286.000	2.656	10886.3	6749.8	148.474	0.947	1.77		Sand	4.2			270.32	0.66	178.06	178.11	0.62	0.637	0.759	0.674	1.053	1.65	0.00	0.00
86.450	271.310	2.147	10906.3	6759.8	140.590	0.808	1.74		Sand	2.0			256.44	0.64	165.05	165.05	0.62	0.637	0.787	0.430	0.630	0.99	0.01	0.00
86.610	274.610	2.199	10926.3	6769.8	142.224	0.817	1.74		Sand	1.9			259.56	0.65	167.77	167.77	0.61	0.636	0.782	0.468	0.695	1.09	0.01	0.00

CORNERSTONE EARTH GROUP

CPT No.	2

PGA (A_{max})	0.87

Total Settlement:	0.05	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, s'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
86.780	309.230	2.559	10947.5	6780.4	160.387	0.843	1.71		Sand	0.0			292.28	0.68	198.75	198.75	0.61	0.636	0.698	1.762	2.707	4.26	0.00	0.00
86.940	307.780	3.267	10967.5	6790.4	159.498	1.081	1.78		Sand	5.6			290.91	0.68	197.49	198.00	0.61	0.636	0.701	1.692	2.607	4.10	0.00	0.00
87.110	298.210	3.259	10988.8	6801.1	154.322	1.113	1.80		Sand	7.1			281.86	0.67	189.33	191.65	0.61	0.635	0.721	1.218	1.931	3.04	0.00	0.00
87.270	287.760	3.246	11008.8	6811.1	148.698	1.150	1.82		Sand	8.9			271.98	0.67	181.46	187.75	0.61	0.635	0.732	1.012	1.630	2.57	0.00	0.00
87.430	297.100	2.772	11028.8	6821.1	153.501	0.951	1.76		Sand	3.5			280.81	0.67	187.04	187.04	0.61	0.634	0.734	0.980	1.582	2.49	0.00	0.00
87.600	324.790	2.999	11050.0	6831.8	167.941	0.939	1.72		Sand	0.9			306.98	0.69	212.72	212.72	0.61	0.634	0.648	4.189	5.976	9.43	0.00	0.00
87.760	335.850	2.573	11070.0	6841.8	173.627	0.779	1.66		Sand	0.0			317.44	0.70	223.31	223.31	0.61	0.633	0.648	9.268	13.211	20.86	0.00	0.00
87.930	334.950	2.925	11091.3	6852.4	173.013	0.888	1.70		Sand	0.0			316.59	0.70	222.27	222.27	0.61	0.633	0.647	8.526	12.145	19.19	0.00	0.00
88.090	344.670	2.773	11111.3	6862.4	177.983	0.818	1.66		Sand	0.0			325.78	0.71	231.73	231.73	0.61	0.633	0.647	19.196	27.326	43.19	0.00	0.00
88.250	322.420	2.555	11131.3	6872.5	166.179	0.806	1.68		Sand	0.0			304.74	0.69	209.88	209.88	0.61	0.632	0.651	3.456	4.951	7.83	0.00	0.00
88.420	289.960	2.005	11152.5	6883.1	149.034	0.705	1.68		Sand	0.0			274.06	0.66	179.77	179.77	0.61	0.632	0.751	0.719	1.127	1.78	0.00	0.00
88.580	299.440	2.329	11172.5	6893.1	153.885	0.793	1.70		Sand	0.0			283.02	0.66	188.18	188.18	0.61	0.631	0.728	1.032	1.653	2.62	0.00	0.00
88.750	313.340	2.832	11193.8	6903.8	161.034	0.920	1.73		Sand	1.5			296.16	0.68	200.86	200.86	0.61	0.631	0.686	1.984	2.995	4.75	0.00	0.00
88.910	316.490	2.713	11213.8	6913.8	162.559	0.873	1.71		Sand	0.0			299.14	0.68	203.68	203.68	0.61	0.631	0.675	2.339	3.474	5.51	0.00	0.00
89.070	324.920	2.825	11233.8	6923.8	166.841	0.885	1.71		Sand	0.0			307.11	0.69	211.54	211.54	0.61	0.630	0.644	3.864	5.477	8.69	0.00	0.00
89.240	327.300	3.029	11255.0	6934.4	167.950	0.941	1.72		Sand	1.0			309.36	0.69	213.68	213.68	0.61	0.630	0.644	4.476	6.341	10.07	0.00	0.00
89.400	321.930	2.339	11275.0	6944.4	165.022	0.740	1.66		Sand	0.0			304.28	0.68	208.40	208.40	0.61	0.629	0.654	3.137	4.517	7.18	0.00	0.00
89.570	353.630	3.394	11296.3	6955.1	181.417	0.975	1.71		Sand	0.0			334.24	0.72	239.39	239.39	0.61	0.629	0.643	40.412	57.169	90.88	0.00	0.00
89.730	393.920	2.324	11316.3	6965.1	202.271	0.599	1.53		Sand	0.0			372.33	0.73	271.90	271.90	0.61	0.629	0.643	2618.512	3701.756	5888.35	0.00	0.00
89.900	434.100	3.090	11337.5	6975.7	223.027	0.721	1.56		Sand	0.0			410.30	0.73	299.52	299.52	0.60	0.628	0.642	########	########	988923.61	0.00	0.00
90.060	506.340	2.735	11357.5	6985.8	260.441	0.546	1.42		Sand	0.0			478.58	0.73	349.23	349.23	0.60	0.628	0.642	########	########	#########	0.00	0.00
90.220	477.430	2.837	11377.5	6995.8	245.221	0.601	1.47		Sand	0.0			451.26	0.73	329.17	329.17	0.60	0.628	0.641	########	########	#########	0.00	0.00
90.390	370.190	3.022	11398.8	7006.4	189.326	0.829	1.65		Sand	0.0			349.90	0.73	255.13	255.13	0.60	0.627	0.641	244.108	344.139	548.77	0.00	0.00
90.550	335.190	2.985	11418.8	7016.4	171.019	0.906	1.71		Sand	0.0			316.81	0.69	220.16	220.16	0.60	0.627	0.640	7.223	10.176	16.24	0.00	0.00
90.720	329.440	2.672	11440.0	7027.1	167.901	0.825	1.69		Sand	0.0			311.38	0.69	214.43	214.43	0.60	0.626	0.640	4.721	6.647	10.61	0.00	0.00
90.880	343.220	3.382	11460.0	7037.1	174.919	1.002	1.73		Sand	1.5			324.40	0.70	227.77	227.77	0.60	0.626	0.639	13.488	18.976	30.31	0.00	0.00
91.040	308.060	3.986	11480.0	7047.1	156.579	1.318	1.85		Sand	11.0			291.17	0.69	200.47	214.85	0.60	0.626	0.639	4.864	6.838	10.93	0.00	0.00
91.210	188.580	4.084	11501.3	7057.7	94.620	2.234	2.17		Sand	36.3			178.24	0.65	116.55	183.16	0.60	0.625	0.737	0.827	1.306	2.09	0.00	0.00
91.370	101.370	4.899	11521.3	7067.8	27.055	5.124	2.81		Clay	87.5			95.81	0.73	n.a.	n.a.	0.60	0.625	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.540	97.120	4.178	11542.5	7078.4	25.811	4.574	2.79		Clay	86.0			91.80	0.73	n.a.	n.a.	0.60	0.624	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.700	122.970	5.108	11562.5	7088.4	33.065	4.359	2.69		Clay	78.6			116.23	0.73	n.a.	n.a.	0.60	0.624	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.860	115.450	3.728	11582.5	7098.4	30.897	3.399	2.64		Clay	74.5			109.12	0.73	n.a.	n.a.	0.60	0.624	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.030	91.020	2.716	11603.8	7109.1	23.974	3.187	2.71		Clay	79.7			86.03	0.73	n.a.	n.a.	0.60	0.623	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.190	65.800	2.460	11623.8	7119.1	16.853	4.101	2.90		Clay	94.8			62.19	0.73	n.a.	n.a.	0.60	0.623	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.360	57.360	2.140	11645.0	7129.7	14.457	4.152	2.95		Clay	99.2			54.22	0.73	n.a.	n.a.	0.60	0.623	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.520	54.430	1.576	11665.0	7139.8	13.613	3.243	2.91		Clay	95.6			51.45	0.73	n.a.	n.a.	0.60	0.622	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.680	47.340	1.280	11685.0	7149.8	11.608	3.084	2.95		Clay	99.1			44.74	0.73	n.a.	n.a.	0.60	0.622	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.850	36.260	0.828	11706.3	7160.4	8.493	2.722	3.03		Clay	100.0			34.27	0.72	n.a.	n.a.	0.60	0.622	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.010	32.600	0.642	11726.3	7170.4	7.458	2.400	3.05		Clay	100.0			30.81	0.72	n.a.	n.a.	0.60	0.621	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.180	30.450	0.669	11747.5	7181.1	6.845	2.721	3.11		Clay	100.0			28.78	0.72	n.a.	n.a.	0.60	0.621	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.340	31.240	0.786	11767.5	7191.1	7.052	3.100	3.13		Clay	100.0			29.53	0.72	n.a.	n.a.	0.60	0.621	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.500	34.100	0.917	11787.5	7201.1	7.834	3.252	3.10		Clay	100.0			32.23	0.72	n.a.	n.a.	0.60	0.620	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.670	34.330	1.030	11808.8	7211.7	7.883	3.623	3.13		Clay	100.0			32.45	0.72	n.a.	n.a.	0.59	0.620	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.830	33.760	1.049	11828.8	7221.8	7.712	3.766	3.15		Clay	100.0			31.91	0.72	n.a.	n.a.	0.59	0.620	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.000	32.850	1.057	11850.0	7232.4	7.446	3.926	3.17		Clay	100.0			31.05	0.72	n.a.	n.a.	0.59	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.160	31.500	1.028	11870.0	7242.4	7.060	4.021	3.19		Clay	100.0			29.77	0.72	n.a.	n.a.	0.59	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.320	30.810	0.976	11890.0	7252.4	6.857	3.926	3.20		Clay	100.0			29.12	0.72	n.a.	n.a.	0.59	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.490	30.890	0.992	11911.3	7263.1	6.866	3.978	3.20		Clay	100.0			29.20	0.72	n.a.	n.a.	0.59	0.618	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.650	32.050	0.853	11931.3	7273.1	7.173	3.271	3.14		Clay	100.0			30.29	0.72	n.a.	n.a.	0.59	0.618	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.820	33.100	0.915	11952.5	7283.7	7.448	3.373	3.13		Clay	100.0			31.29	0.72	n.a.	n.a.	0.59	0.618	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.980	32.560	0.865	11972.5	7293.7	7.287	3.256	3.13		Clay	100.0			30.78	0.72	n.a.	n.a.	0.59	0.617	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.140	33.940	0.800	11992.5	7303.8	7.652	2.863	3.08		Clay	100.0			32.08	0.72	n.a.	n.a.	0.59	0.617	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.310	32.230	0.720	12013.8	7314.4	7.170	2.747	3.10		Clay	100.0			30.46	0.72	n.a.	n.a.	0.59	0.617	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.470	31.090	0.694	12033.8	7324.4	6.846	2.768	3.12		Clay	100.0			29.39	0.72	n.a.	n.a.	0.59	0.616	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.640	31.450	0.704	12055.0	7335.1	6.932	2.770	3.11		Clay	100.0			29.73	0.72	n.a.	n.a.	0.59	0.616	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.800	31.570	0.729	12075.0	7345.1	6.952	2.854	3.12		Clay	100.0			29.84	0.72	n.a.	n.a.	0.59	0.616	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.960	32.950	0.721	12095.0	7355.1	7.315	2.679	3.08		Clay	100.0			31.14	0.72	n.a.	n.a.	0.59	0.615	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.130	32.920	0.730	12116.3	7365.7	7.294	2.718	3.09		Clay	100.0			31.12	0.72	n.a.	n.a.	0.59	0.615	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.290	31.020	0.711	12136.3	7375.8	6.766	2.849	3.13		Clay	100.0			29.32	0.72	n.a.	n.a.	0.59	0.615	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.460	30.970	0.702	12157.5	7386.4	6.740	2.821	3.13		Clay	100.0			29.27	0.72	n.a.	n.a.	0.59	0.614	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.620	31.150	0.731	12177.5	7396.4	6.777	2.916	3.13		Clay	100.0			29.44	0.72	n.a.	n.a.	0.59	0.614	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.780	30.440	0.769	12197.5	7406.4	6.573	3.158	3.16		Clay	100.0			28.77	0.72	n.a.	n.a.	0.59	0.614	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.950	31.150	0.802	12218.8	7417.1	6.752	3.203	3.15		Clay	100.0			29.44	0.72	n.a.	n.a.	0.59	0.613	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.110	32.760	0.859	12238.8	7427.1	7.174	3.225	3.13		Clay	100.0			30.96	0.72	n.a.	n.a.	0.59	0.613	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.280	34.520	1.133	12260.0	7437.7	7.634	3.990	3.16		Clay	100.0			32.63	0.72	n.a.	n.a.	0.59	0.613	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.440	37.270	1.666	12280.0	7447.7	8.360	5.351	3.21		Clay	100.0			35.23	0.72	n.a.	n.a.	0.59	0.613	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	2

PGA (A_{max})	0.87

Total Settlement:	0.05	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
97.600	44.500	1.606	12300.0	7457.8	10.285	4.188	3.07		Clay	100.0			42.06	0.72	n.a.	n.a.	0.59	0.612	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.770	54.340	1.121	12321.3	7468.4	12.902	2.326	2.84		Clay	90.5			51.36	0.72	n.a.	n.a.	0.59	0.612	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.930	54.770	0.937	12341.3	7478.4	12.997	1.927	2.80		Clay	86.7			51.77	0.72	n.a.	n.a.	0.58	0.612	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.100	42.740	0.996	12362.5	7489.1	9.763	2.725	2.98		Clay	100.0			40.40	0.72	n.a.	n.a.	0.58	0.611	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.260	33.040	0.933	12382.5	7499.1	7.161	3.474	3.15		Clay	100.0			31.23	0.72	n.a.	n.a.	0.58	0.611	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.430	33.750	0.690	12403.8	7509.7	7.337	2.503	3.07		Clay	100.0			31.90	0.72	n.a.	n.a.	0.58	0.611	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.590	36.430	0.842	12423.8	7519.7	8.037	2.786	3.06		Clay	100.0			34.43	0.72	n.a.	n.a.	0.58	0.611	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.750	31.350	0.770	12443.8	7529.8	6.674	3.064	3.15		Clay	100.0			29.63	0.72	n.a.	n.a.	0.58	0.610	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.920	26.530	0.580	12465.0	7540.4	5.384	2.857	3.21		Clay	100.0			25.08	0.72	n.a.	n.a.	0.58	0.610	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.080	27.580	0.534	12485.0	7550.4	5.652	2.502	3.16		Clay	100.0			26.07	0.71	n.a.	n.a.	0.58	0.610	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.250	24.850	0.577	12506.3	7561.1	4.919	3.100	3.26		Clay	100.0			23.49	0.71	n.a.	n.a.	0.58	0.609	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.410	24.990	0.623	12526.3	7571.1	4.947	3.325	3.28		Clay	100.0			23.62	0.71	n.a.	n.a.	0.58	0.609	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.570	28.180	0.591	12546.3	7581.1	5.779	2.700	3.17		Clay	100.0			26.64	0.71	n.a.	n.a.	0.58	0.609	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.740	29.930	0.687	12567.5	7591.7	6.229	2.904	3.16		Clay	100.0			28.29	0.71	n.a.	n.a.	0.58	0.609	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.900	27.480	0.623	12587.5	7601.7	5.574	2.940	3.20		Clay	100.0			25.97	0.71	n.a.	n.a.	0.58	0.608	n.a.	n.a.	n.a.	n.a.	0.00	0.00
100.070	26.240	0.566	12608.8	7612.4	5.238	2.839	3.22		Clay	100.0			24.80	0.71	n.a.	n.a.	0.58	0.608	n.a.	n.a.	n.a.	n.a.	0.00	0.00
100.230	25.170	0.542	12628.8	7622.4	4.947	2.874	3.24		Clay	100.0			23.79	0.71	n.a.	n.a.	0.58	0.608	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	3

PGA (A_{max})	0.87

Total Settlement:	0.00	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
0.160	252.970	0.850	20.0	20.0	2459.286	0.336	0.75		Unsaturated	0.0			239.10	1.70	406.47	406.47	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.330	117.100	0.703	41.3	41.3	792.575	0.601	1.15		Unsaturated	0.0			110.68	1.70	188.16	188.16	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.490	76.860	0.871	61.3	61.3	426.822	1.133	1.53		Unsaturated	0.0			72.65	1.70	123.50	123.50	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.660	39.140	0.779	82.5	82.5	187.158	1.993	1.93		Unsaturated	17.8			36.99	1.70	62.89	89.89	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.820	21.820	0.739	102.5	102.5	93.485	3.392	2.30		Unsaturated	47.4			20.62	1.70	35.06	89.27	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.980	13.940	0.851	122.5	122.5	96.390	6.132	2.50		Unsaturated	62.8			13.18	1.70	22.40	78.07	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.150	17.450	0.973	143.8	143.8	63.019	5.598	2.58		Unsaturated	69.5			16.49	1.70	28.04	86.73	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.310	25.960	1.160	163.8	163.8	87.925	4.481	2.41		Unsaturated	56.2			24.54	1.70	41.71	100.98	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.480	27.240	1.189	185.0	185.0	86.779	4.379	2.41		Unsaturated	55.8			25.75	1.70	43.77	103.50	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.640	24.780	1.146	205.0	205.0	74.937	4.642	2.47		Unsaturated	60.7			23.42	1.70	39.82	99.87	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.800	21.770	1.069	225.0	225.0	62.775	4.937	2.54		Unsaturated	66.3			20.58	1.70	34.98	95.03	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.970	18.690	0.945	246.3	246.3	79.095	5.088	2.49		Unsaturated	61.9			17.67	1.70	30.03	87.65	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.130	16.130	0.875	266.3	266.3	64.522	5.469	2.57		Unsaturated	68.4			15.25	1.70	25.92	83.77	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.300	15.430	0.858	287.5	287.5	58.429	5.613	2.60		Unsaturated	71.3			14.58	1.70	24.79	82.87	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.460	15.830	0.813	307.5	307.5	57.164	5.187	2.58		Unsaturated	69.7			14.96	1.70	25.44	83.41	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.620	15.050	0.811	327.5	327.5	51.941	5.449	2.63		Unsaturated	73.2			14.22	1.70	24.18	82.41	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.790	14.720	0.791	348.8	348.8	48.568	5.439	2.65		Unsaturated	74.7			13.91	1.70	23.65	81.97	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.950	15.090	0.831	368.8	368.8	47.864	5.575	2.66		Unsaturated	75.7			14.26	1.70	24.25	82.90	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.120	14.540	0.816	390.0	390.0	44.293	5.690	2.69		Unsaturated	78.1			13.74	1.70	23.36	82.10	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.280	14.020	0.790	410.0	410.0	41.189	5.718	2.71		Unsaturated	79.9			13.25	1.70	22.53	81.28	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.440	13.790	0.784	430.0	430.0	39.146	5.772	2.73		Unsaturated	81.4			13.03	1.70	22.16	80.99	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.610	14.170	0.806	451.3	451.3	38.876	5.782	2.73		Unsaturated	81.6			13.39	1.70	22.77	81.81	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.770	13.990	0.836	471.3	471.3	58.374	6.080	2.63		Unsaturated	73.4			13.22	1.70	22.48	80.24	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.940	14.680	0.830	492.5	492.5	58.614	5.751	2.61		Unsaturated	71.9			13.88	1.70	23.59	81.41	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.100	16.450	0.853	512.5	512.5	41.299	5.270	2.68		Unsaturated	77.8			15.55	1.70	26.43	86.04	1.00	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.270	16.760	0.879	533.8	533.8	40.883	5.328	2.69		Unsaturated	78.3			15.84	1.70	26.93	86.77	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.430	16.630	0.885	553.8	553.8	39.505	5.413	2.71		Unsaturated	79.5			15.72	1.70	26.72	86.67	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.590	16.230	0.783	573.8	573.8	37.570	4.911	2.69		Unsaturated	78.3			15.34	1.70	26.08	85.66	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.760	16.410	0.781	595.0	595.0	37.015	4.846	2.69		Unsaturated	78.4			15.51	1.70	26.37	86.04	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.920	18.150	0.733	615.0	615.0	40.051	4.106	2.62		Unsaturated	72.4			17.16	1.70	29.16	88.71	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.090	14.770	0.674	636.3	636.3	45.428	4.664	2.62		Unsaturated	72.4			13.96	1.70	23.73	81.69	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.250	14.580	0.614	656.3	656.3	43.434	4.311	2.61		Unsaturated	71.6			13.78	1.70	23.43	81.15	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.410	15.230	0.757	676.3	676.3	44.043	5.081	2.65		Unsaturated	75.3			14.40	1.70	24.47	83.13	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.580	15.920	1.018	697.5	697.5	44.649	6.539	2.73		Unsaturated	81.5			15.05	1.70	25.58	85.46	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.740	30.380	1.172	717.5	717.5	48.729	3.904	2.54		Unsaturated	66.3			28.71	1.67	47.91	111.67	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.910	29.770	1.006	738.8	738.8	47.031	3.422	2.51		Unsaturated	63.9			28.14	1.65	46.54	109.35	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.070	19.470	0.692	758.8	758.8	36.994	3.626	2.60		Unsaturated	71.4			18.40	1.70	31.28	91.27	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.230	13.000	0.441	778.8	778.8	32.387	3.499	2.64		Unsaturated	73.9			12.29	1.70	20.89	78.26	0.99	0.561	1.090	n.a.	n.a.	n.a.	0.00	0.00
6.400	10.740	0.334	800.0	800.0	25.850	3.233	2.69		Unsaturated	78.0			10.15	1.70	17.26	74.17	0.99	0.561	1.084	n.a.	n.a.	n.a.	0.00	0.00
6.560	8.690	0.299	820.0	820.0	20.195	3.614	2.80		Unsaturated	87.1			8.21	1.70	13.96	71.01	0.99	0.561	1.080	n.a.	n.a.	n.a.	0.00	0.00
6.730	8.250	0.278	841.3	841.3	18.614	3.552	2.82		Unsaturated	88.9			7.80	1.70	13.23	70.25	0.99	0.561	1.078	n.a.	n.a.	n.a.	0.00	0.00
6.890	8.070	0.276	861.3	861.3	17.740	3.618	2.85		Unsaturated	90.6			7.63	1.68	12.78	69.84	0.99	0.560	1.075	n.a.	n.a.	n.a.	0.00	0.00
7.050	7.630	0.253	881.3	881.3	16.316	3.519	2.87		Unsaturated	92.3			7.21	1.66	11.95	68.92	0.99	0.560	1.073	n.a.	n.a.	n.a.	0.00	0.00
7.220	6.880	0.270	902.5	902.5	14.247	4.200	2.96		Unsaturated	99.8			6.50	1.64	10.66	67.88	0.99	0.560	1.070	n.a.	n.a.	n.a.	0.00	0.00
7.380	7.400	0.284	922.5	922.5	15.043	4.094	2.93		Unsaturated	97.8			6.99	1.62	11.30	68.56	0.98	0.559	1.069	n.a.	n.a.	n.a.	0.00	0.00
7.550	8.080	0.306	943.8	943.8	16.123	4.026	2.91		Unsaturated	95.5			7.64	1.59	12.15	69.48	0.98	0.559	1.067	n.a.	n.a.	n.a.	0.00	0.00
7.710	8.790	0.362	963.8	963.8	17.241	4.360	2.91		Unsaturated	95.5			8.31	1.57	13.03	70.62	0.98	0.559	1.066	n.a.	n.a.	n.a.	0.00	0.00
7.870	9.630	0.404	983.8	983.8	18.578	4.421	2.89		Unsaturated	93.8			9.10	1.55	14.07	71.83	0.98	0.558	1.065	n.a.	n.a.	n.a.	0.00	0.00
8.040	9.940	0.445	1005.0	1005.0	18.781	4.710	2.90		Clay	95.0			9.40	1.22	n.a.	n.a.	0.98	0.559	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.200	9.600	0.457	1025.0	1025.0	17.732	5.028	2.94		Clay	98.0			9.07	1.21	n.a.	n.a.	0.98	0.564	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.370	9.000	0.385	1046.3	1046.3	16.204	4.542	2.94		Clay	98.1			8.51	1.20	n.a.	n.a.	0.98	0.570	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.530	8.150	0.332	1066.3	1066.3	14.287	4.361	2.97		Clay	100.0			7.70	1.20	n.a.	n.a.	0.98	0.575	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.690	7.140	0.258	1086.3	1086.3	12.146	3.917	3.00		Clay	100.0			6.75	1.19	n.a.	n.a.	0.98	0.580	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.860	7.410	0.289	1107.5	1107.5	12.381	4.217	3.01		Clay	100.0			7.00	1.19	n.a.	n.a.	0.98	0.585	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.020	7.710	0.421	1127.5	1127.5	12.676	5.884	3.09		Clay	100.0			7.29	1.18	n.a.	n.a.	0.98	0.589	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.190	9.340	0.487	1148.8	1148.8	15.261	5.554	3.01		Clay	100.0			8.83	1.17	n.a.	n.a.	0.98	0.594	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.350	9.380	0.485	1168.8	1168.8	15.051	5.511	3.02		Clay	100.0			8.87	1.17	n.a.	n.a.	0.98	0.599	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.510	8.770	0.417	1188.8	1188.8	13.755	5.105	3.03		Clay	100.0			8.29	1.16	n.a.	n.a.	0.98	0.603	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.680	7.940	0.361	1210.0	1210.0	12.124	4.920	3.06		Clay	100.0			7.50	1.16	n.a.	n.a.	0.98	0.607	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.840	7.590	0.336	1230.0	1230.0	11.341	4.813	3.07		Clay	100.0			7.17	1.15	n.a.	n.a.	0.98	0.612	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.010	7.680	0.318	1251.3	1251.3	11.276	4.514	3.06		Clay	100.0			7.26	1.15	n.a.	n.a.	0.97	0.616	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.170	7.610	0.321	1271.3	1271.3	10.972	4.603	3.07		Clay	100.0			7.19	1.14	n.a.	n.a.	0.97	0.620	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.330	7.420	0.312	1291.3	1291.3	10.493	4.604	3.09		Clay	100.0			7.01	1.14	n.a.	n.a.	0.97	0.624	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.500	7.220	0.287	1312.5	1312.5	10.002	4.376	3.09		Clay	100.0			6.82	1.13	n.a.	n.a.	0.97	0.628	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.660	6.750	0.247	1332.5	1332.5	9.131	4.060	3.10		Clay	100.0			6.38	1.13	n.a.	n.a.	0.97	0.632	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.830	6.120	0.225	1353.8	1353.8	8.042	4.141	3.15		Clay	100.0			5.78	1.13	n.a.	n.a.	0.97	0.636	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	3

PGA (A_{max})	0.87

Total Settlement:	0.00	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
10.990	5.630	0.210	1373.8	1373.8	7.197	4.254	3.20		Clay	100.0			5.32	1.12	n.a.	n.a.	0.97	0.639	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.150	5.540	0.207	1393.8	1393.8	6.950	4.276	3.21		Clay	100.0			5.24	1.12	n.a.	n.a.	0.97	0.643	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.320	5.480	0.194	1415.0	1415.0	6.746	4.061	3.21		Clay	100.0			5.18	1.11	n.a.	n.a.	0.97	0.647	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.480	5.330	0.150	1435.0	1435.0	6.429	3.252	3.18		Clay	100.0			5.04	1.11	n.a.	n.a.	0.97	0.650	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.650	4.930	0.144	1456.3	1456.3	5.771	3.434	3.23		Clay	100.0			4.66	1.10	n.a.	n.a.	0.97	0.653	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.810	4.660	0.161	1476.3	1476.3	5.313	4.108	3.30		Clay	100.0			4.40	1.10	n.a.	n.a.	0.97	0.657	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.980	5.530	0.184	1497.5	1497.5	6.386	3.844	3.22		Clay	100.0			5.23	1.10	n.a.	n.a.	0.97	0.660	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.140	6.560	0.198	1517.5	1517.5	7.646	3.411	3.12		Clay	100.0			6.20	1.09	n.a.	n.a.	0.97	0.663	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.300	6.590	0.220	1537.5	1537.5	7.572	3.786	3.15		Clay	100.0			6.23	1.09	n.a.	n.a.	0.97	0.666	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.470	6.510	0.240	1558.8	1558.8	7.353	4.179	3.19		Clay	100.0			6.15	1.08	n.a.	n.a.	0.97	0.670	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.630	7.670	0.215	1578.8	1578.8	8.717	3.128	3.06		Clay	100.0			7.25	1.08	n.a.	n.a.	0.96	0.673	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.800	7.240	0.186	1600.0	1600.0	8.050	2.882	3.07		Clay	100.0			6.84	1.08	n.a.	n.a.	0.96	0.676	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.960	6.460	0.155	1620.0	1620.0	6.975	2.750	3.11		Clay	100.0			6.11	1.07	n.a.	n.a.	0.96	0.678	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.120	5.290	0.132	1639.5	1632.0	5.478	2.946	3.21		Clay	100.0			5.00	1.07	n.a.	n.a.	0.96	0.681	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.290	5.170	0.119	1660.1	1642.0	5.286	2.735	3.21		Clay	100.0			4.89	1.07	n.a.	n.a.	0.96	0.684	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.450	5.400	0.113	1679.5	1651.4	5.523	2.482	3.17		Clay	100.0			5.10	1.07	n.a.	n.a.	0.96	0.687	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.620	5.490	0.092	1700.0	1661.3	5.586	1.972	3.12		Clay	100.0			5.19	1.07	n.a.	n.a.	0.96	0.690	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.780	5.620	0.100	1719.4	1670.7	5.699	2.092	3.12		Clay	100.0			5.31	1.06	n.a.	n.a.	0.96	0.692	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.940	5.720	0.098	1738.7	1680.1	5.774	2.018	3.11		Clay	100.0			5.41	1.06	n.a.	n.a.	0.96	0.695	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.110	5.790	0.121	1759.3	1690.0	5.811	2.460	3.15		Clay	100.0			5.47	1.06	n.a.	n.a.	0.96	0.697	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.270	6.060	0.110	1778.7	1699.4	6.085	2.125	3.10		Clay	100.0			5.73	1.06	n.a.	n.a.	0.96	0.700	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.440	6.260	0.112	1799.2	1709.4	6.272	2.091	3.08		Clay	100.0			5.92	1.06	n.a.	n.a.	0.96	0.702	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.600	6.080	0.095	1818.6	1718.8	6.017	1.837	3.07		Clay	100.0			5.75	1.06	n.a.	n.a.	0.96	0.705	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.760	6.060	0.092	1838.0	1728.1	5.950	1.793	3.07		Clay	100.0			5.73	1.05	n.a.	n.a.	0.96	0.707	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.930	5.320	0.095	1858.5	1738.1	5.052	2.157	3.17		Clay	100.0			5.03	1.05	n.a.	n.a.	0.96	0.709	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.090	5.170	0.095	1877.9	1747.5	4.842	2.248	3.20		Clay	100.0			4.89	1.05	n.a.	n.a.	0.95	0.712	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.260	5.810	0.102	1898.5	1757.4	5.532	2.094	3.13		Clay	100.0			5.49	1.05	n.a.	n.a.	0.95	0.714	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.420	5.920	0.147	1917.8	1766.8	5.616	2.955	3.20		Clay	100.0			5.60	1.05	n.a.	n.a.	0.95	0.716	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.580	6.630	0.188	1937.2	1776.2	6.375	3.315	3.18		Clay	100.0			6.27	1.05	n.a.	n.a.	0.95	0.718	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.750	8.310	0.273	1957.8	1786.2	8.209	3.727	3.12		Clay	100.0			7.85	1.05	n.a.	n.a.	0.95	0.720	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.910	9.710	0.333	1977.1	1795.5	9.715	3.822	3.07		Clay	100.0			9.18	1.04	n.a.	n.a.	0.95	0.722	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.080	13.460	0.223	1997.7	1805.5	13.804	1.791	2.76		Clay	83.5			12.72	1.04	n.a.	n.a.	0.95	0.724	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.240	9.770	0.200	2017.0	1814.9	9.655	2.277	2.94		Clay	98.5			9.23	1.04	n.a.	n.a.	0.95	0.726	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.400	7.810	0.413	2036.4	1824.2	7.446	6.074	3.28		Clay	100.0			7.38	1.04	n.a.	n.a.	0.95	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.570	9.830	0.755	2057.0	1834.2	9.597	8.579	3.29		Clay	100.0			9.29	1.04	n.a.	n.a.	0.95	0.730	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.730	22.640	1.140	2076.3	1843.6	23.435	5.275	2.86		Clay	91.8			21.40	1.04	n.a.	n.a.	0.95	0.732	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.900	47.390	1.133	2096.9	1853.5	46.800	2.444	2.41		Sand	56.1	80.23	1.66	133.18	1.04	138.55	224.42	0.95	0.734	1.040	10.153	23.224	31.64	0.00	0.00
17.060	75.970	1.661	2116.3	1862.9	75.462	2.218	2.23		Sand	41.7	80.23	1.66	133.18	1.04	138.54	215.36	0.95	0.736	1.038	5.043	11.519	15.66	0.00	0.00
17.220	84.880	1.756	2135.6	1872.3	84.216	2.095	2.18		Sand	37.6		1.66	133.18	1.04	138.40	211.35	0.95	0.737	1.037	3.815	8.700	11.80	0.00	0.00
17.390	58.740	1.759	2156.2	1882.3	57.786	3.051	2.41		Sand	56.0	80.23	1.66	133.18	1.04	137.93	223.62	0.94	0.739	1.035	9.505	21.645	29.28	0.00	0.00
17.550	46.780	1.395	2175.6	1891.6	45.677	3.053	2.49		Sand	61.9	80.23	1.66	133.18	1.03	137.69	225.75	0.94	0.741	1.034	11.349	25.808	34.83	0.00	0.00
17.720	26.330	0.523	2196.1	1901.6	25.157	2.072	2.58		Sand	69.2	80.23	1.66	133.18	1.03	137.43	227.85	0.94	0.743	1.032	13.579	30.832	41.52	0.00	0.00
17.880	14.020	0.246	2215.5	1911.0	13.514	1.907	2.78		Clay	85.3			13.25	1.03	n.a.	n.a.	0.94	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.040	7.500	0.163	2234.8	1920.3	6.647	2.548	3.11		Clay	100.0			7.09	1.03	n.a.	n.a.	0.94	0.746	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.210	6.070	0.134	2255.4	1930.3	5.121	2.719	3.22		Clay	100.0			5.74	1.02	n.a.	n.a.	0.94	0.747	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.370	5.610	0.131	2274.8	1939.7	4.612	2.920	3.27		Clay	100.0			5.30	1.02	n.a.	n.a.	0.94	0.749	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.540	5.740	0.132	2295.3	1949.6	4.711	2.863	3.26		Clay	100.0			5.43	1.02	n.a.	n.a.	0.94	0.750	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.700	5.920	0.117	2314.7	1959.0	4.862	2.452	3.22		Clay	100.0			5.60	1.02	n.a.	n.a.	0.94	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.860	6.190	0.111	2334.1	1968.4	5.104	2.218	3.18		Clay	100.0			5.85	1.02	n.a.	n.a.	0.94	0.753	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.030	6.160	0.122	2354.6	1978.4	5.037	2.452	3.20		Clay	100.0			5.82	1.02	n.a.	n.a.	0.94	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.190	5.950	0.145	2374.0	1987.7	4.792	3.053	3.27		Clay	100.0			5.62	1.02	n.a.	n.a.	0.94	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.360	6.400	0.150	2394.6	1997.7	5.209	2.873	3.22		Clay	100.0			6.05	1.02	n.a.	n.a.	0.94	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.520	6.860	0.150	2413.9	2007.1	5.633	2.648	3.18		Clay	100.0			6.48	1.01	n.a.	n.a.	0.93	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.690	6.820	0.142	2434.5	2017.0	5.555	2.527	3.17		Clay	100.0			6.45	1.01	n.a.	n.a.	0.93	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.850	6.640	0.140	2453.9	2026.4	5.343	2.583	3.19		Clay	100.0			6.28	1.01	n.a.	n.a.	0.93	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.010	7.030	0.144	2473.2	2035.8	5.692	2.479	3.16		Clay	100.0			6.64	1.01	n.a.	n.a.	0.93	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.180	7.300	0.171	2493.8	2045.7	5.918	2.823	3.17		Clay	100.0			6.90	1.01	n.a.	n.a.	0.93	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.340	7.520	0.221	2513.1	2055.1	6.095	3.525	3.21		Clay	100.0			7.11	1.01	n.a.	n.a.	0.93	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.510	8.400	0.204	2533.7	2065.1	6.908	2.858	3.12		Clay	100.0			7.94	1.01	n.a.	n.a.	0.93	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.670	9.300	0.204	2553.1	2074.5	7.735	2.536	3.05		Clay	100.0			8.79	1.01	n.a.	n.a.	0.93	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.830	8.670	0.241	2572.4	2083.8	7.087	3.258	3.14		Clay	100.0			8.19	1.00	n.a.	n.a.	0.93	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.000	8.300	0.299	2593.0	2093.8	6.690	4.274	3.23		Clay	100.0			7.84	1.00	n.a.	n.a.	0.93	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.160	8.230	0.264	2612.4	2103.2	6.584	3.807	3.21		Clay	100.0			7.78	1.00	n.a.	n.a.	0.93	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.330	7.960	0.240	2632.9	2113.1	6.288	3.614	3.21		Clay	100.0			7.52	1.00	n.a.	n.a.	0.93	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.490	7.520	0.212	2652.3	2122.5	5.836	3.426	3.22		Clay	100.0			7.11	1.00	n.a.	n.a.	0.93	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.650	7.710	0.352	2671.7	2131.9	5.980	5.516	3.33		Clay	100.0			7.29	1.00	n.a.	n.a.	0.92	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	3

PGA (A_{max})	0.87

Total Settlement:	0.00	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
21.820	8.430	0.506	2692.2	2141.9	6.615	7.139	3.36		Clay	100.0			7.97	1.00	n.a.	n.a.	0.92	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.980	14.830	0.425	2711.6	2151.2	12.527	3.154	2.93		Clay	97.4			14.02	1.00	n.a.	n.a.	0.92	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.150	19.360	0.360	2732.2	2161.2	16.652	2.002	2.71		Clay	80.2			18.30	0.99	n.a.	n.a.	0.92	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.310	12.120	0.267	2751.5	2170.6	9.900	2.486	2.96		Clay	99.4			11.46	0.99	n.a.	n.a.	0.92	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.470	8.870	0.232	2770.9	2179.9	6.867	3.093	3.14		Clay	100.0			8.38	0.99	n.a.	n.a.	0.92	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.640	7.880	0.245	2791.4	2189.9	5.922	3.772	3.24		Clay	100.0			7.45	0.99	n.a.	n.a.	0.92	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.800	7.880	0.289	2810.8	2199.3	5.888	4.465	3.28		Clay	100.0			7.45	0.99	n.a.	n.a.	0.92	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.970	8.030	0.299	2831.4	2209.2	5.988	4.517	3.28		Clay	100.0			7.59	0.99	n.a.	n.a.	0.92	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.130	7.860	0.285	2850.7	2218.6	5.801	4.421	3.29		Clay	100.0			7.43	0.99	n.a.	n.a.	0.92	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.290	7.880	0.254	2870.1	2228.0	5.785	3.946	3.26		Clay	100.0			7.45	0.99	n.a.	n.a.	0.92	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.460	7.910	0.243	2890.7	2238.0	5.777	3.757	3.25		Clay	100.0			7.48	0.99	n.a.	n.a.	0.92	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.620	7.960	0.238	2910.0	2247.3	5.789	3.662	3.24		Clay	100.0			7.52	0.98	n.a.	n.a.	0.92	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.790	8.300	0.217	2930.6	2257.3	6.056	3.178	3.19		Clay	100.0			7.84	0.98	n.a.	n.a.	0.91	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.950	8.150	0.199	2950.0	2266.7	5.890	2.987	3.19		Clay	100.0			7.70	0.98	n.a.	n.a.	0.91	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.110	7.670	0.188	2969.3	2276.0	5.435	3.044	3.22		Clay	100.0			7.25	0.98	n.a.	n.a.	0.91	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.280	7.810	0.182	2989.9	2286.0	5.525	2.880	3.20		Clay	100.0			7.38	0.98	n.a.	n.a.	0.91	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.440	8.210	0.168	3009.2	2295.4	5.842	2.501	3.15		Clay	100.0			7.76	0.98	n.a.	n.a.	0.91	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.610	8.060	0.179	3029.8	2305.3	5.678	2.741	3.18		Clay	100.0			7.62	0.98	n.a.	n.a.	0.91	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.770	7.970	0.265	3049.2	2314.7	5.569	4.111	3.28		Clay	100.0			7.53	0.98	n.a.	n.a.	0.91	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.930	9.290	0.339	3068.5	2324.1	6.674	4.368	3.23		Clay	100.0			8.78	0.98	n.a.	n.a.	0.91	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.100	9.920	0.406	3089.1	2334.1	7.177	4.848	3.23		Clay	100.0			9.38	0.97	n.a.	n.a.	0.91	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.260	11.210	0.421	3108.5	2343.4	8.241	4.362	3.16		Clay	100.0			10.60	0.97	n.a.	n.a.	0.91	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.430	11.400	0.408	3129.0	2353.4	8.359	4.149	3.14		Clay	100.0			10.78	0.97	n.a.	n.a.	0.91	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.590	10.430	0.380	3148.4	2362.8	7.496	4.294	3.19		Clay	100.0			9.86	0.97	n.a.	n.a.	0.91	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.750	9.150	0.378	3167.8	2372.2	6.379	4.997	3.28		Clay	100.0			8.65	0.97	n.a.	n.a.	0.90	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.920	8.720	0.360	3188.3	2382.1	5.983	5.055	3.31		Clay	100.0			8.24	0.97	n.a.	n.a.	0.90	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.080	8.870	0.359	3207.7	2391.5	6.077	4.943	3.30		Clay	100.0			8.38	0.97	n.a.	n.a.	0.90	0.794	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.250	8.530	0.369	3228.3	2401.5	5.760	5.331	3.34		Clay	100.0			8.06	0.97	n.a.	n.a.	0.90	0.794	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.410	8.480	0.378	3247.6	2410.8	5.688	5.507	3.35		Clay	100.0			8.02	0.97	n.a.	n.a.	0.90	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.570	9.140	0.384	3267.0	2420.2	6.203	5.120	3.30		Clay	100.0			8.64	0.97	n.a.	n.a.	0.90	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.740	9.630	0.386	3287.5	2430.2	6.573	4.838	3.27		Clay	100.0			9.10	0.96	n.a.	n.a.	0.90	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.900	9.340	0.396	3306.9	2439.5	6.302	5.156	3.30		Clay	100.0			8.83	0.96	n.a.	n.a.	0.90	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.070	9.550	0.402	3327.5	2449.5	6.439	5.101	3.29		Clay	100.0			9.03	0.96	n.a.	n.a.	0.90	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.230	10.300	0.407	3346.8	2458.9	7.017	4.721	3.24		Clay	100.0			9.74	0.96	n.a.	n.a.	0.90	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.400	11.320	0.422	3367.4	2468.8	7.806	4.378	3.18		Clay	100.0			10.70	0.96	n.a.	n.a.	0.90	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.560	12.580	0.471	3386.8	2478.2	8.786	4.325	3.13		Clay	100.0			11.89	0.96	n.a.	n.a.	0.90	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.720	12.350	0.421	3406.1	2487.6	8.560	3.955	3.12		Clay	100.0			11.67	0.96	n.a.	n.a.	0.89	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.890	11.430	0.429	3426.7	2497.6	7.781	4.414	3.18		Clay	100.0			10.80	0.96	n.a.	n.a.	0.89	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.050	12.200	0.422	3446.1	2506.9	8.358	4.029	3.13		Clay	100.0			11.53	0.96	n.a.	n.a.	0.89	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.220	14.320	0.466	3466.6	2516.9	10.002	3.703	3.05		Clay	100.0			13.53	0.96	n.a.	n.a.	0.89	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.380	15.980	0.496	3486.0	2526.3	11.271	3.481	2.99		Clay	100.0			15.10	0.95	n.a.	n.a.	0.89	0.800	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.540	16.680	0.518	3505.3	2535.6	11.774	3.467	2.98		Clay	100.0			15.77	0.95	n.a.	n.a.	0.89	0.800	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.710	15.030	0.526	3525.9	2545.6	10.423	3.962	3.05		Clay	100.0			14.21	0.95	n.a.	n.a.	0.89	0.800	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.870	13.790	0.506	3545.3	2555.0	9.407	4.207	3.10		Clay	100.0			13.03	0.95	n.a.	n.a.	0.89	0.800	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.040	14.860	0.504	3565.8	2564.9	10.197	3.856	3.05		Clay	100.0			14.05	0.95	n.a.	n.a.	0.89	0.801	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.200	17.900	0.527	3585.2	2574.3	12.514	3.269	2.94		Clay	98.1			16.92	0.95	n.a.	n.a.	0.89	0.801	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.360	19.630	0.589	3604.6	2583.7	13.800	3.303	2.91		Clay	95.6			18.55	0.95	n.a.	n.a.	0.89	0.801	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.530	20.580	0.628	3625.1	2593.7	14.472	3.345	2.89		Clay	94.5			19.45	0.95	n.a.	n.a.	0.89	0.801	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.690	21.590	0.627	3644.5	2603.0	15.188	3.170	2.86		Clay	92.1			20.41	0.95	n.a.	n.a.	0.88	0.802	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.860	22.490	0.649	3665.1	2613.0	15.811	3.144	2.85		Clay	90.8			21.26	0.95	n.a.	n.a.	0.88	0.802	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.020	23.050	0.648	3684.4	2622.4	16.175	3.056	2.83		Clay	89.6			21.79	0.94	n.a.	n.a.	0.88	0.802	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.180	22.850	0.659	3703.8	2631.7	15.958	3.138	2.84		Clay	90.5			21.60	0.94	n.a.	n.a.	0.88	0.802	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.350	20.960	0.607	3724.4	2641.7	14.459	3.179	2.88		Clay	93.5			19.81	0.94	n.a.	n.a.	0.88	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.510	19.880	0.573	3743.7	2651.1	13.585	3.180	2.90		Clay	95.2			18.79	0.94	n.a.	n.a.	0.88	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.680	18.150	0.536	3764.3	2661.0	12.227	3.295	2.95		Clay	98.9			17.16	0.94	n.a.	n.a.	0.88	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.840	15.840	0.520	3783.6	2670.4	10.446	3.725	3.04		Clay	100.0			14.97	0.94	n.a.	n.a.	0.88	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.000	14.280	0.312	3803.0	2679.8	9.238	2.516	2.98		Clay	100.0			13.50	0.94	n.a.	n.a.	0.88	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.170	13.490	0.326	3823.6	2689.8	8.609	2.812	3.04		Clay	100.0			12.75	0.94	n.a.	n.a.	0.88	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.330	13.730	0.333	3842.9	2699.1	8.750	2.817	3.03		Clay	100.0			12.98	0.94	n.a.	n.a.	0.88	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.500	17.040	0.325	3863.5	2709.1	11.154	2.148	2.88		Clay	93.2			16.11	0.94	n.a.	n.a.	0.87	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.660	16.720	0.350	3882.9	2718.5	10.873	2.369	2.91		Clay	95.8			15.80	0.94	n.a.	n.a.	0.87	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.820	17.680	0.457	3902.2	2727.9	11.532	2.907	2.94		Clay	98.1			16.71	0.94	n.a.	n.a.	0.87	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.990	17.940	0.471	3922.8	2737.8	11.673	2.948	2.94		Clay	98.0			16.96	0.93	n.a.	n.a.	0.87	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.150	18.620	0.524	3942.2	2747.2	12.121	3.145	2.94		Clay	98.2			17.60	0.93	n.a.	n.a.	0.87	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.320	16.910	0.520	3962.7	2757.2	10.829	3.483	3.01		Clay	100.0			15.98	0.93	n.a.	n.a.	0.87	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.480	16.330	0.478	3982.1	2766.5	10.366	3.335	3.01		Clay	100.0			15.43	0.93	n.a.	n.a.	0.87	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	3

PGA (A_{max})	0.87

Total Settlement:	0.00	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
32.640	16.050	0.441	4001.4	2775.9	10.122	3.135	3.00		Clay	100.0			15.17	0.93	n.a.	n.a.	0.87	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.810	12.570	0.418	4022.0	2785.9	7.580	3.954	3.16		Clay	100.0			11.88	0.93	n.a.	n.a.	0.87	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.970	11.610	0.415	4041.4	2795.2	6.861	4.329	3.22		Clay	100.0			10.97	0.93	n.a.	n.a.	0.87	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.140	11.660	0.413	4061.9	2805.2	6.865	4.288	3.22		Clay	100.0			11.02	0.93	n.a.	n.a.	0.87	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.300	11.590	0.377	4081.3	2814.6	6.786	3.948	3.20		Clay	100.0			10.95	0.93	n.a.	n.a.	0.87	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.460	11.580	0.364	4100.7	2824.0	6.749	3.820	3.20		Clay	100.0			10.95	0.93	n.a.	n.a.	0.86	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.630	11.180	0.381	4121.2	2833.9	6.436	4.180	3.24		Clay	100.0			10.57	0.93	n.a.	n.a.	0.86	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.790	11.880	0.432	4140.6	2843.3	6.900	4.405	3.22		Clay	100.0			11.23	0.93	n.a.	n.a.	0.86	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.960	14.800	0.480	4161.2	2853.3	8.916	3.775	3.09		Clay	100.0			13.99	0.92	n.a.	n.a.	0.86	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.120	17.440	0.491	4180.5	2862.6	10.724	3.199	2.99		Clay	100.0			16.48	0.92	n.a.	n.a.	0.86	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.280	20.300	0.797	4199.9	2872.0	12.674	4.381	3.01		Clay	100.0			19.19	0.92	n.a.	n.a.	0.86	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.450	17.530	0.911	4220.5	2882.0	10.701	5.910	3.15		Clay	100.0			16.57	0.92	n.a.	n.a.	0.86	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.610	19.400	0.730	4239.8	2891.3	11.953	4.222	3.02		Clay	100.0			18.34	0.92	n.a.	n.a.	0.86	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.780	29.550	0.590	4260.4	2901.3	18.902	2.152	2.69		Clay	78.0			27.93	0.92	n.a.	n.a.	0.86	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.940	23.850	0.604	4279.7	2910.7	14.918	2.780	2.84		Clay	89.9			22.54	0.92	n.a.	n.a.	0.86	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.100	15.990	0.567	4299.1	2920.1	9.480	4.097	3.09		Clay	100.0			15.11	0.92	n.a.	n.a.	0.86	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.270	17.380	0.516	4319.7	2930.0	10.389	3.391	3.01		Clay	100.0			16.43	0.92	n.a.	n.a.	0.85	0.804	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.430	17.780	0.516	4339.0	2939.4	10.622	3.305	3.00		Clay	100.0			16.81	0.92	n.a.	n.a.	0.85	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.600	14.920	0.445	4359.6	2949.4	8.639	3.494	3.09		Clay	100.0			14.10	0.92	n.a.	n.a.	0.85	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.760	12.570	0.390	4379.0	2958.7	7.017	3.760	3.18		Clay	100.0			11.88	0.92	n.a.	n.a.	0.85	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.930	11.620	0.343	4399.5	2968.7	6.346	3.644	3.21		Clay	100.0			10.98	0.91	n.a.	n.a.	0.85	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.090	12.410	0.355	4418.9	2978.1	6.850	3.478	3.17		Clay	100.0			11.73	0.91	n.a.	n.a.	0.85	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.250	13.640	0.367	4438.3	2987.5	7.646	3.210	3.11		Clay	100.0			12.89	0.91	n.a.	n.a.	0.85	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.420	14.700	0.383	4458.8	2997.4	8.321	3.069	3.07		Clay	100.0			13.89	0.91	n.a.	n.a.	0.85	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.580	15.670	0.413	4478.2	3006.8	8.934	3.076	3.04		Clay	100.0			14.81	0.91	n.a.	n.a.	0.85	0.803	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.750	17.370	0.397	4498.8	3016.8	10.024	2.628	2.96		Clay	100.0			16.42	0.91	n.a.	n.a.	0.85	0.802	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.910	17.980	0.374	4518.1	3026.1	10.390	2.377	2.93		Clay	97.1			16.99	0.91	n.a.	n.a.	0.85	0.802	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.070	16.790	0.365	4537.5	3035.5	9.568	2.516	2.97		Clay	100.0			15.87	0.91	n.a.	n.a.	0.84	0.802	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.240	16.990	0.386	4558.0	3045.5	9.661	2.622	2.98		Clay	100.0			16.06	0.91	n.a.	n.a.	0.84	0.802	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.400	19.590	0.384	4577.4	3054.8	11.327	2.222	2.88		Clay	93.4			18.52	0.91	n.a.	n.a.	0.84	0.802	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.570	22.180	0.363	4598.0	3064.8	12.974	1.827	2.78		Clay	85.7			20.96	0.91	n.a.	n.a.	0.84	0.802	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.730	23.990	0.441	4617.3	3074.2	14.105	2.036	2.78		Clay	85.3			22.67	0.91	n.a.	n.a.	0.84	0.801	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.890	25.930	0.495	4636.7	3083.6	15.315	2.097	2.76		Clay	83.5			24.51	0.91	n.a.	n.a.	0.84	0.801	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.060	28.420	0.558	4657.3	3093.5	16.868	2.139	2.73		Clay	81.1			26.86	0.90	n.a.	n.a.	0.84	0.801	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.220	28.130	0.562	4676.6	3102.9	16.624	2.179	2.74		Clay	81.9			26.59	0.90	n.a.	n.a.	0.84	0.801	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.390	27.580	0.549	4697.2	3112.9	16.211	2.176	2.74		Clay	82.6			26.07	0.90	n.a.	n.a.	0.84	0.801	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.550	24.600	0.520	4716.6	3122.2	14.247	2.339	2.81		Clay	87.7			23.25	0.90	n.a.	n.a.	0.84	0.800	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.710	21.400	0.473	4735.9	3131.6	12.155	2.483	2.88		Clay	93.4			20.23	0.90	n.a.	n.a.	0.84	0.800	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.880	18.210	0.435	4756.5	3141.6	10.079	2.750	2.97		Clay	100.0			17.21	0.90	n.a.	n.a.	0.84	0.800	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.040	15.720	0.412	4775.8	3150.9	8.462	3.092	3.06		Clay	100.0			14.86	0.90	n.a.	n.a.	0.83	0.800	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.210	13.800	0.390	4796.4	3160.9	7.214	3.416	3.15		Clay	100.0			13.04	0.90	n.a.	n.a.	0.83	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.370	12.670	0.340	4815.8	3170.3	6.474	3.313	3.18		Clay	100.0			11.98	0.90	n.a.	n.a.	0.83	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.530	11.710	0.293	4835.1	3179.7	5.845	3.157	3.20		Clay	100.0			11.07	0.90	n.a.	n.a.	0.83	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.700	10.380	0.261	4855.7	3189.6	4.986	3.280	3.27		Clay	100.0			9.81	0.90	n.a.	n.a.	0.83	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.860	9.410	0.235	4875.1	3199.0	4.359	3.370	3.33		Clay	100.0			8.89	0.90	n.a.	n.a.	0.83	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.030	8.630	0.222	4895.6	3209.0	3.853	3.596	3.39		Clay	100.0			8.16	0.90	n.a.	n.a.	0.83	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.190	8.730	0.210	4915.0	3218.3	3.898	3.350	3.37		Clay	100.0			8.25	0.90	n.a.	n.a.	0.83	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.350	9.050	0.128	4934.4	3227.7	4.079	1.944	3.23		Clay	100.0			8.55	0.89	n.a.	n.a.	0.83	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.520	9.790	0.137	4954.9	3237.7	4.517	1.875	3.19		Clay	100.0			9.25	0.89	n.a.	n.a.	0.83	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.680	9.950	0.145	4974.3	3247.0	4.597	1.940	3.19		Clay	100.0			9.40	0.89	n.a.	n.a.	0.83	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.850	9.710	0.151	4994.9	3257.0	4.429	2.092	3.22		Clay	100.0			9.18	0.89	n.a.	n.a.	0.82	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.010	8.790	0.188	5014.2	3266.4	3.847	2.995	3.35		Clay	100.0			8.31	0.89	n.a.	n.a.	0.82	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.170	8.790	0.178	5033.6	3275.8	3.830	2.829	3.34		Clay	100.0			8.31	0.89	n.a.	n.a.	0.82	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.340	12.370	0.235	5054.1	3285.7	5.991	2.383	3.13		Clay	100.0			11.69	0.89	n.a.	n.a.	0.82	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.500	16.070	0.283	5073.5	3295.1	8.214	2.090	2.98		Clay	100.0			15.19	0.89	n.a.	n.a.	0.82	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.670	20.740	0.372	5094.1	3305.1	11.009	2.043	2.87		Clay	92.6			19.60	0.89	n.a.	n.a.	0.82	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.830	19.450	0.400	5113.4	3314.4	10.194	2.365	2.93		Clay	97.6			18.38	0.89	n.a.	n.a.	0.82	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.990	17.460	0.417	5132.8	3323.8	8.962	2.801	3.02		Clay	100.0			16.50	0.89	n.a.	n.a.	0.82	0.794	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.160	16.950	0.407	5153.4	3333.8	8.623	2.828	3.04		Clay	100.0			16.02	0.89	n.a.	n.a.	0.82	0.794	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.320	16.310	0.412	5172.7	3343.2	8.210	3.003	3.07		Clay	100.0			15.42	0.89	n.a.	n.a.	0.82	0.794	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.490	15.610	0.413	5193.3	3353.1	7.762	3.172	3.10		Clay	100.0			14.75	0.89	n.a.	n.a.	0.82	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.650	14.920	0.394	5212.7	3362.5	7.324	3.203	3.12		Clay	100.0			14.10	0.88	n.a.	n.a.	0.81	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.810	13.820	0.389	5232.0	3371.9	6.646	3.470	3.18		Clay	100.0			13.06	0.88	n.a.	n.a.	0.81	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.980	13.760	0.362	5252.6	3381.8	6.584	3.254	3.17		Clay	100.0			13.01	0.88	n.a.	n.a.	0.81	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.140	13.340	0.334	5271.9	3391.2	6.313	3.122	3.17		Clay	100.0			12.61	0.88	n.a.	n.a.	0.81	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.310	12.970	0.327	5292.5	3401.2	6.071	3.166	3.19		Clay	100.0			12.26	0.88	n.a.	n.a.	0.81	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	3

PGA (A_{max})	0.87

Total Settlement:	0.00	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'Vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
43.470	12.740	0.324	5311.9	3410.5	5.913	3.211	3.20		Clay	100.0			12.04	0.88	n.a.	n.a.	0.81	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.640	12.590	0.321	5332.4	3420.5	5.803	3.234	3.21		Clay	100.0			11.90	0.88	n.a.	n.a.	0.81	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.800	12.980	0.303	5351.8	3429.9	6.008	2.943	3.18		Clay	100.0			12.27	0.88	n.a.	n.a.	0.81	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.960	12.630	0.207	5371.2	3439.3	5.783	2.083	3.11		Clay	100.0			11.94	0.88	n.a.	n.a.	0.81	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.130	13.120	0.242	5391.7	3449.2	6.044	2.320	3.12		Clay	100.0			12.40	0.88	n.a.	n.a.	0.81	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.290	13.960	0.257	5411.1	3458.6	6.508	2.280	3.09		Clay	100.0			13.19	0.88	n.a.	n.a.	0.81	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.460	15.580	0.286	5431.7	3468.6	7.418	2.222	3.04		Clay	100.0			14.73	0.88	n.a.	n.a.	0.80	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.620	15.460	0.296	5451.0	3477.9	7.323	2.324	3.05		Clay	100.0			14.61	0.88	n.a.	n.a.	0.80	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.780	15.830	0.294	5470.4	3487.3	7.510	2.245	3.03		Clay	100.0			14.96	0.88	n.a.	n.a.	0.80	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.950	15.710	0.285	5491.0	3497.3	7.414	2.198	3.03		Clay	100.0			14.85	0.88	n.a.	n.a.	0.80	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.110	14.830	0.274	5510.3	3506.6	6.887	2.272	3.07		Clay	100.0			14.02	0.88	n.a.	n.a.	0.80	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.280	14.120	0.262	5530.9	3516.6	6.458	2.309	3.10		Clay	100.0			13.35	0.87	n.a.	n.a.	0.80	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.440	13.220	0.244	5550.2	3526.0	5.925	2.334	3.13		Clay	100.0			12.50	0.87	n.a.	n.a.	0.80	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.600	12.430	0.223	5569.6	3535.4	5.456	2.313	3.16		Clay	100.0			11.75	0.87	n.a.	n.a.	0.80	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.770	12.300	0.228	5590.2	3545.3	5.362	2.396	3.17		Clay	100.0			11.63	0.87	n.a.	n.a.	0.80	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.930	12.850	0.245	5609.5	3554.7	5.652	2.443	3.16		Clay	100.0			12.15	0.87	n.a.	n.a.	0.80	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.100	13.930	0.558	5630.1	3564.7	6.236	5.022	3.29		Clay	100.0			13.17	0.87	n.a.	n.a.	0.80	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.260	15.990	1.027	5649.5	3574.0	7.367	7.802	3.35		Clay	100.0			15.11	0.87	n.a.	n.a.	0.80	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.420	21.700	1.915	5668.8	3583.4	10.529	10.153	3.31		Clay	100.0			20.51	0.87	n.a.	n.a.	0.79	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.590	64.810	2.174	5689.4	3593.4	34.489	3.508	2.62		Clay	72.4			61.26	0.87	n.a.	n.a.	0.79	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.750	79.350	2.012	5708.8	3602.8	55.410	2.631	2.38		Sand	53.5	91.83	1.78	163.46	0.85	139.45	224.31	0.79	0.783	0.840	10.059	18.598	23.75	0.00	0.00
46.920	85.470	1.397	5729.3	3612.7	59.754	1.691	2.23		Sand	41.3	91.83	1.78	163.46	0.85	138.47	214.93	0.79	0.783	0.840	4.893	9.037	11.55	0.00	0.00
47.080	97.160	1.750	5748.7	3622.1	68.114	1.856	2.21		Sand	40.0		1.78	163.46	0.85	138.23	213.50	0.79	0.782	0.839	4.420	8.156	10.43	0.00	0.00
47.240	90.170	1.472	5768.0	3631.5	62.976	1.686	2.21		Sand	39.8	91.83	1.78	163.46	0.84	138.08	213.15	0.79	0.782	0.838	4.316	7.956	10.18	0.00	0.00
47.410	47.450	1.037	5788.6	3641.4	24.472	2.327	2.62		Clay	72.4			44.85	0.87	n.a.	n.a.	0.79	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.570	26.530	0.745	5808.0	3650.8	12.943	3.154	2.92		Clay	96.4			25.08	0.87	n.a.	n.a.	0.79	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.740	21.570	0.597	5828.5	3660.8	10.192	3.199	3.01		Clay	100.0			20.39	0.87	n.a.	n.a.	0.79	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.900	18.720	0.546	5847.9	3670.1	8.608	3.454	3.09		Clay	100.0			17.69	0.86	n.a.	n.a.	0.79	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.060	18.120	0.519	5867.3	3679.5	8.255	3.416	3.10		Clay	100.0			17.13	0.86	n.a.	n.a.	0.79	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.230	18.300	0.529	5887.8	3689.5	8.324	3.447	3.10		Clay	100.0			17.30	0.86	n.a.	n.a.	0.78	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.390	18.490	0.508	5907.2	3698.9	8.401	3.268	3.08		Clay	100.0			17.48	0.86	n.a.	n.a.	0.78	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.560	18.080	0.509	5927.8	3708.8	8.151	3.369	3.10		Clay	100.0			17.09	0.86	n.a.	n.a.	0.78	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.720	17.940	0.517	5947.1	3718.2	8.050	3.454	3.11		Clay	100.0			16.96	0.86	n.a.	n.a.	0.78	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.880	17.360	0.519	5966.5	3727.6	7.714	3.611	3.14		Clay	100.0			16.41	0.86	n.a.	n.a.	0.78	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.050	16.750	0.527	5987.1	3737.5	7.361	3.829	3.17		Clay	100.0			15.83	0.86	n.a.	n.a.	0.78	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.210	15.970	0.520	6006.4	3746.9	6.921	4.007	3.20		Clay	100.0			15.09	0.86	n.a.	n.a.	0.78	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.380	15.700	0.496	6027.0	3756.9	6.754	3.911	3.20		Clay	100.0			14.84	0.86	n.a.	n.a.	0.78	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.540	14.780	0.450	6046.3	3766.2	6.243	3.824	3.23		Clay	100.0			13.97	0.86	n.a.	n.a.	0.78	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.700	13.850	0.408	6065.7	3775.6	5.730	3.772	3.25		Clay	100.0			13.09	0.86	n.a.	n.a.	0.78	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.870	13.670	0.377	6086.3	3785.6	5.614	3.543	3.25		Clay	100.0			12.92	0.86	n.a.	n.a.	0.78	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.030	13.350	0.366	6105.6	3795.0	5.427	3.550	3.26		Clay	100.0			12.62	0.86	n.a.	n.a.	0.77	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.200	13.100	0.339	6126.2	3804.9	5.276	3.376	3.26		Clay	100.0			12.38	0.86	n.a.	n.a.	0.77	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	4

PGA (A_{max})	0.87

Total Settlement:	0.39	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
0.160	551.860	1.085	20.8	20.8	5260.914	0.197	0.57		Unsaturated	0.0			521.61	1.70	886.73	886.73	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.330	489.990	1.431	42.9	42.9	3252.458	0.292	0.69		Unsaturated	0.0			463.13	1.70	787.32	787.32	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.490	301.490	1.829	63.7	63.7	1642.213	0.607	1.03		Unsaturated	0.0			284.96	1.70	484.44	484.44	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.660	185.840	1.796	85.8	85.8	872.102	0.967	1.32		Unsaturated	0.0			175.65	1.70	298.61	298.61	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.820	130.770	2.040	106.6	106.6	550.459	1.561	1.59		Unsaturated	0.0			123.60	1.70	210.12	210.12	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.980	72.710	1.779	127.4	127.4	279.834	2.448	1.91		Unsaturated	15.5			68.72	1.70	116.83	143.02	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.150	45.750	1.633	149.5	149.5	162.417	3.575	2.17		Unsaturated	37.0			43.24	1.70	73.51	130.82	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.310	30.320	1.616	170.3	170.3	100.733	5.346	2.44		Unsaturated	58.1			28.66	1.70	48.72	110.52	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.480	32.820	2.120	192.4	192.4	102.573	6.480	2.50		Unsaturated	63.1			31.02	1.70	52.74	117.09	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.640	46.550	2.263	213.2	213.2	138.294	4.872	2.33		Unsaturated	49.0			44.00	1.70	74.80	140.14	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.800	74.370	2.688	234.0	234.0	211.047	3.620	2.12		Unsaturated	32.3			70.29	1.70	119.50	182.10	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.970	80.180	2.802	256.1	256.1	217.490	3.501	2.10		Unsaturated	30.7			75.78	1.70	128.83	191.29	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.130	72.690	2.681	276.9	276.9	189.565	3.695	2.15		Unsaturated	34.9			68.71	1.70	116.80	181.95	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.300	70.660	2.557	299.0	299.0	177.293	3.626	2.16		Unsaturated	35.7			66.79	1.70	113.54	178.78	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.460	69.940	2.433	319.8	319.8	169.654	3.487	2.16		Unsaturated	35.4			66.11	1.70	112.38	177.10	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.620	59.780	2.251	340.6	340.6	140.432	3.776	2.23		Unsaturated	41.5			56.50	1.70	96.05	162.30	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.790	47.460	2.127	362.7	362.7	107.935	4.498	2.36		Unsaturated	51.9			44.86	1.70	76.26	143.30	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.950	42.600	1.978	383.5	383.5	94.154	4.664	2.41		Unsaturated	55.8			40.26	1.70	68.45	134.93	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.120	41.600	1.739	405.6	405.6	89.370	4.200	2.39		Unsaturated	54.1			39.32	1.70	66.84	132.25	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.280	37.160	1.548	426.4	426.4	77.793	4.189	2.43		Unsaturated	57.1			35.12	1.70	59.71	124.25	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.440	32.180	1.292	447.2	447.2	65.702	4.043	2.46		Unsaturated	60.1			30.42	1.70	51.71	114.93	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.610	32.330	1.236	469.3	469.3	64.415	3.849	2.45		Unsaturated	59.3			30.56	1.70	51.95	115.01	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.770	28.230	1.100	490.1	490.1	54.961	3.932	2.51		Unsaturated	63.6			26.68	1.70	45.36	107.74	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.940	19.740	1.023	512.2	512.2	49.710	5.249	2.63		Unsaturated	73.3			18.66	1.70	31.72	92.17	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.100	16.830	1.033	533.0	533.0	62.152	6.234	2.62		Unsaturated	72.7			15.91	1.70	27.04	86.02	1.00	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.270	17.060	0.978	555.1	555.1	60.466	5.825	2.61		Unsaturated	71.5			16.12	1.70	27.41	86.29	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.430	15.760	0.887	575.9	575.9	53.732	5.734	2.63		Unsaturated	73.8			14.90	1.70	25.32	83.98	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.590	14.330	0.688	596.7	596.7	47.031	4.905	2.62		Unsaturated	72.9			13.54	1.70	23.03	80.85	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.760	13.780	0.711	618.8	618.8	43.538	5.276	2.67		Unsaturated	76.6			13.02	1.70	22.14	80.29	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.920	13.550	0.729	639.6	639.6	41.370	5.509	2.70		Unsaturated	78.9			12.81	1.70	21.77	80.15	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.090	14.130	0.583	661.7	661.7	41.708	4.224	2.61		Unsaturated	72.1			13.36	1.70	22.70	80.30	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.250	12.630	0.548	682.5	682.5	36.011	4.459	2.67		Unsaturated	77.0			11.94	1.70	20.29	77.96	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.410	10.430	0.466	703.3	703.3	28.660	4.621	2.76		Unsaturated	83.6			9.86	1.70	16.76	74.25	0.99	0.563	1.096	n.a.	n.a.	n.a.	0.00	0.00
5.580	8.590	0.387	725.4	725.4	22.683	4.704	2.84		Unsaturated	90.0			8.12	1.70	13.80	71.11	0.99	0.563	1.091	n.a.	n.a.	n.a.	0.00	0.00
5.740	7.860	0.391	746.2	746.2	20.067	5.218	2.91		Unsaturated	95.6			7.43	1.70	12.63	70.11	0.99	0.562	1.088	n.a.	n.a.	n.a.	0.00	0.00
5.910	7.580	0.341	768.3	768.3	18.732	4.736	2.90		Unsaturated	95.2			7.16	1.70	12.18	69.48	0.99	0.562	1.085	n.a.	n.a.	n.a.	0.00	0.00
6.070	7.460	0.382	789.1	789.1	17.908	5.405	2.95		Unsaturated	99.4			7.05	1.70	11.99	69.59	0.99	0.562	1.083	n.a.	n.a.	n.a.	0.00	0.00
6.230	7.360	0.329	809.9	809.9	17.175	4.733	2.93		Unsaturated	97.4			6.96	1.70	11.83	69.22	0.99	0.561	1.080	n.a.	n.a.	n.a.	0.00	0.00
6.400	6.970	0.340	832.0	832.0	15.755	5.192	2.99		Unsaturated	100.0			6.59	1.70	11.20	68.61	0.99	0.561	1.077	n.a.	n.a.	n.a.	0.00	0.00
6.560	6.610	0.330	852.8	852.8	14.502	5.338	3.02		Unsaturated	100.0			6.25	1.69	10.58	67.80	0.99	0.561	1.075	n.a.	n.a.	n.a.	0.00	0.00
6.730	6.750	0.407	874.9	874.9	14.430	6.443	3.08		Unsaturated	100.0			6.38	1.67	10.65	67.88	0.99	0.561	1.073	n.a.	n.a.	n.a.	0.00	0.00
6.890	8.090	0.501	895.7	895.7	17.064	6.558	3.03		Unsaturated	100.0			7.65	1.64	12.51	70.33	0.99	0.560	1.072	n.a.	n.a.	n.a.	0.00	0.00
7.050	9.380	0.561	916.5	916.5	19.469	6.287	2.97		Unsaturated	100.0			8.87	1.61	14.24	72.59	0.99	0.560	1.072	n.a.	n.a.	n.a.	0.00	0.00
7.220	9.900	0.593	938.6	938.6	20.095	6.284	2.96		Unsaturated	99.9			9.36	1.58	14.80	73.32	0.99	0.560	1.070	n.a.	n.a.	n.a.	0.00	0.00
7.380	10.640	0.612	959.4	959.4	21.181	6.023	2.93		Unsaturated	97.6			10.06	1.56	15.68	74.28	0.98	0.559	1.069	n.a.	n.a.	n.a.	0.00	0.00
7.550	11.510	0.686	981.5	981.5	22.454	6.225	2.92		Unsaturated	96.9			10.88	1.54	16.70	75.55	0.98	0.559	1.067	n.a.	n.a.	n.a.	0.00	0.00
7.710	12.720	0.719	1002.3	1002.3	24.382	5.887	2.88		Unsaturated	93.5			12.02	1.51	18.18	77.18	0.98	0.559	1.066	n.a.	n.a.	n.a.	0.00	0.00
7.870	13.640	0.778	1023.1	1023.1	25.664	5.922	2.87		Unsaturated	92.3			12.89	1.49	19.23	78.43	0.98	0.558	1.065	n.a.	n.a.	n.a.	0.00	0.00
8.040	15.000	0.865	1045.2	1045.2	27.703	5.973	2.85		Clay	90.6			14.18	1.20	n.a.	n.a.	0.98	0.559	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.200	17.190	0.882	1066.0	1066.0	31.251	5.296	2.77		Clay	84.7			16.25	1.20	n.a.	n.a.	0.98	0.564	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.370	16.470	0.813	1088.1	1088.1	29.273	5.103	2.78		Clay	85.4			15.57	1.19	n.a.	n.a.	0.98	0.569	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.530	16.330	0.795	1108.9	1108.9	28.453	5.037	2.79		Clay	85.8			15.43	1.19	n.a.	n.a.	0.98	0.574	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.690	13.540	0.782	1129.7	1129.7	22.971	6.026	2.91		Clay	95.5			12.80	1.18	n.a.	n.a.	0.98	0.579	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.860	13.940	0.736	1151.8	1151.8	23.206	5.508	2.88		Clay	93.1			13.18	1.17	n.a.	n.a.	0.98	0.584	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.020	14.830	0.773	1172.6	1172.6	24.294	5.429	2.86		Clay	91.6			14.02	1.17	n.a.	n.a.	0.98	0.588	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.190	14.290	0.691	1194.7	1194.7	22.922	5.043	2.85		Clay	91.4			13.51	1.16	n.a.	n.a.	0.98	0.593	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.350	12.600	0.592	1215.5	1215.5	19.732	4.935	2.90		Clay	94.7			11.91	1.16	n.a.	n.a.	0.98	0.597	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.510	10.720	0.427	1236.3	1236.3	16.342	4.229	2.92		Clay	96.3			10.13	1.15	n.a.	n.a.	0.98	0.601	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.680	9.340	0.379	1258.4	1258.4	13.844	4.354	2.98		Clay	100.0			8.83	1.15	n.a.	n.a.	0.98	0.605	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.840	8.450	0.443	1279.2	1279.2	12.211	5.671	3.09		Clay	100.0			7.99	1.14	n.a.	n.a.	0.98	0.609	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.010	9.390	0.498	1301.3	1301.3	13.432	5.700	3.06		Clay	100.0			8.88	1.14	n.a.	n.a.	0.97	0.614	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.170	9.130	0.454	1322.1	1322.1	12.811	5.360	3.06		Clay	100.0			8.63	1.13	n.a.	n.a.	0.97	0.617	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.330	8.600	0.416	1342.9	1342.9	11.808	5.246	3.08		Clay	100.0			8.13	1.13	n.a.	n.a.	0.97	0.621	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.500	8.170	0.388	1365.0	1365.0	10.971	5.178	3.11		Clay	100.0			7.72	1.12	n.a.	n.a.	0.97	0.625	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.660	8.730	0.377	1385.8	1385.8	11.599	4.692	3.06		Clay	100.0			8.25	1.12	n.a.	n.a.	0.97	0.629	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.830	8.660	0.429	1407.9	1407.9	11.302	5.388	3.11		Clay	100.0			8.19	1.11	n.a.	n.a.	0.97	0.633	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	4

PGA (A_{max})	0.87

Total Settlement:	0.39	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, s'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
10.990	8.260	0.406	1428.7	1428.7	10.563	5.386	3.13		Clay	100.0			7.81	1.11	n.a.	n.a.	0.97	0.636	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.150	7.400	0.405	1449.5	1449.5	9.210	6.069	3.21		Clay	100.0			6.99	1.10	n.a.	n.a.	0.97	0.639	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.320	7.440	0.376	1471.6	1471.6	9.111	5.607	3.19		Clay	100.0			7.03	1.10	n.a.	n.a.	0.97	0.643	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.480	7.950	0.348	1492.4	1492.4	9.654	4.825	3.13		Clay	100.0			7.51	1.10	n.a.	n.a.	0.97	0.646	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.650	6.920	0.251	1514.5	1514.5	8.138	4.074	3.15		Clay	100.0			6.54	1.09	n.a.	n.a.	0.97	0.650	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.810	6.160	0.243	1535.3	1535.3	7.024	4.512	3.22		Clay	100.0			5.82	1.09	n.a.	n.a.	0.97	0.653	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.980	6.030	0.212	1557.4	1557.4	6.744	4.043	3.21		Clay	100.0			5.70	1.08	n.a.	n.a.	0.97	0.656	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.140	6.220	0.239	1578.2	1578.2	6.882	4.395	3.22		Clay	100.0			5.88	1.08	n.a.	n.a.	0.97	0.659	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.300	6.010	0.235	1599.0	1599.0	6.517	4.502	3.25		Clay	100.0			5.68	1.08	n.a.	n.a.	0.97	0.662	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.470	4.970	0.237	1621.1	1621.1	5.132	5.686	3.39		Clay	100.0			4.70	1.07	n.a.	n.a.	0.97	0.665	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.630	4.940	0.253	1641.9	1641.9	5.017	6.130	3.42		Clay	100.0			4.67	1.07	n.a.	n.a.	0.96	0.668	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.800	5.800	0.290	1664.0	1664.0	5.971	5.843	3.35		Clay	100.0			5.48	1.07	n.a.	n.a.	0.96	0.671	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.960	7.080	0.366	1684.8	1684.8	7.405	5.860	3.27		Clay	100.0			6.69	1.06	n.a.	n.a.	0.96	0.674	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.120	8.100	0.380	1705.6	1705.6	8.498	5.237	3.20		Clay	100.0			7.66	1.06	n.a.	n.a.	0.96	0.676	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.290	7.120	0.342	1727.7	1727.7	7.242	5.460	3.26		Clay	100.0			6.73	1.05	n.a.	n.a.	0.96	0.679	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.450	6.000	0.259	1748.5	1748.5	5.863	5.049	3.32		Clay	100.0			5.67	1.05	n.a.	n.a.	0.96	0.682	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.620	5.800	0.207	1769.8	1762.3	5.578	4.211	3.29		Clay	100.0			5.48	1.05	n.a.	n.a.	0.96	0.684	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.780	5.250	0.172	1789.4	1772.0	4.916	3.954	3.32		Clay	100.0			4.96	1.05	n.a.	n.a.	0.96	0.687	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.940	5.480	0.186	1809.1	1781.7	5.136	4.070	3.31		Clay	100.0			5.18	1.05	n.a.	n.a.	0.96	0.689	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.110	5.310	0.189	1830.0	1792.0	4.905	4.309	3.34		Clay	100.0			5.02	1.04	n.a.	n.a.	0.96	0.692	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.270	5.020	0.226	1849.7	1801.7	4.546	5.519	3.43		Clay	100.0			4.74	1.04	n.a.	n.a.	0.96	0.694	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.440	5.170	0.210	1870.6	1812.0	4.674	4.957	3.39		Clay	100.0			4.89	1.04	n.a.	n.a.	0.96	0.697	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.600	5.050	0.182	1890.3	1821.7	4.507	4.431	3.38		Clay	100.0			4.77	1.04	n.a.	n.a.	0.96	0.699	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.760	4.780	0.184	1910.0	1831.4	4.177	4.813	3.43		Clay	100.0			4.52	1.04	n.a.	n.a.	0.96	0.701	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.930	4.930	0.172	1930.9	1841.7	4.305	4.333	3.39		Clay	100.0			4.66	1.04	n.a.	n.a.	0.96	0.703	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.090	4.820	0.141	1950.6	1851.4	4.153	3.660	3.36		Clay	100.0			4.56	1.04	n.a.	n.a.	0.95	0.705	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.260	4.740	0.106	1971.5	1861.7	4.033	2.821	3.32		Clay	100.0			4.48	1.03	n.a.	n.a.	0.95	0.708	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.420	4.810	0.108	1991.2	1871.4	4.077	2.837	3.31		Clay	100.0			4.55	1.03	n.a.	n.a.	0.95	0.710	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.580	4.570	0.099	2010.8	1881.0	3.790	2.780	3.34		Clay	100.0			4.32	1.03	n.a.	n.a.	0.95	0.712	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.750	5.400	0.121	2031.8	1891.4	4.636	2.751	3.26		Clay	100.0			5.10	1.03	n.a.	n.a.	0.95	0.714	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.910	5.280	0.174	2051.4	1901.0	4.476	4.099	3.36		Clay	100.0			4.99	1.03	n.a.	n.a.	0.95	0.716	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.080	5.460	0.219	2072.3	1911.3	4.629	4.955	3.40		Clay	100.0			5.16	1.03	n.a.	n.a.	0.95	0.718	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.240	5.900	0.229	2092.0	1921.0	5.053	4.707	3.35		Clay	100.0			5.58	1.03	n.a.	n.a.	0.95	0.720	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.400	6.100	0.194	2111.7	1930.7	5.225	3.838	3.29		Clay	100.0			5.77	1.02	n.a.	n.a.	0.95	0.721	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.570	5.790	0.196	2132.6	1941.0	4.867	4.154	3.34		Clay	100.0			5.47	1.02	n.a.	n.a.	0.95	0.723	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.730	6.330	0.216	2152.3	1950.7	5.387	4.111	3.30		Clay	100.0			5.98	1.02	n.a.	n.a.	0.95	0.725	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.900	6.660	0.244	2173.2	1961.0	5.684	4.385	3.29		Clay	100.0			6.29	1.02	n.a.	n.a.	0.95	0.727	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.060	7.110	0.264	2192.9	1970.7	6.103	4.390	3.27		Clay	100.0			6.72	1.02	n.a.	n.a.	0.95	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.220	7.250	0.290	2212.6	1980.4	6.204	4.722	3.28		Clay	100.0			6.85	1.02	n.a.	n.a.	0.95	0.730	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.390	7.570	0.290	2233.5	1990.7	6.483	4.500	3.25		Clay	100.0			7.16	1.02	n.a.	n.a.	0.94	0.732	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.550	8.100	0.290	2253.2	2000.4	6.972	4.153	3.21		Clay	100.0			7.66	1.01	n.a.	n.a.	0.94	0.733	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.720	7.680	0.303	2274.1	2010.7	6.508	4.628	3.26		Clay	100.0			7.26	1.01	n.a.	n.a.	0.94	0.735	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.880	7.550	0.285	2293.7	2020.4	6.338	4.448	3.26		Clay	100.0			7.14	1.01	n.a.	n.a.	0.94	0.737	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.040	7.450	0.271	2313.4	2030.1	6.200	4.303	3.26		Clay	100.0			7.04	1.01	n.a.	n.a.	0.94	0.738	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.210	6.980	0.178	2334.3	2040.4	5.698	3.055	3.21		Clay	100.0			6.60	1.01	n.a.	n.a.	0.94	0.740	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.370	6.550	0.179	2354.0	2050.1	5.242	3.322	3.26		Clay	100.0			6.19	1.01	n.a.	n.a.	0.94	0.741	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.540	6.280	0.284	2374.9	2060.4	4.943	5.581	3.40		Clay	100.0			5.94	1.01	n.a.	n.a.	0.94	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.700	31.980	0.493	2394.6	2070.1	29.416	1.602	2.46		Sand	59.5		1.8	54.41	1.01	54.96	118.94	0.94	0.744	1.003	0.169	0.233	0.31	0.03	0.05
18.860	29.660	0.702	2414.3	2079.8	27.126	2.469	2.60		Sand	70.8	30.23	1.8	54.41	1.01	54.84	121.61	0.94	0.745	1.002	0.175	0.245	0.33	0.03	0.05
19.030	27.820	0.790	2435.2	2090.1	25.455	2.970	2.67		Clay	76.6			26.29	1.00	n.a.	n.a.	0.94	0.747	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.190	33.430	0.630	2454.9	2099.8	30.554	1.956	2.49		Sand	62.6	78.75	1.66	130.73	1.00	131.03	217.46	0.94	0.748	1.002	5.882	12.971	17.34	0.00	0.00
19.360	41.160	0.397	2475.8	2110.1	37.786	0.995	2.25		Sand	43.1	78.75	1.66	130.73	1.00	130.84	206.88	0.94	0.749	1.001	2.848	6.271	8.37	0.00	0.00
19.520	79.490	0.372	2495.5	2119.8	73.886	0.475	1.84		Sand	9.8	78.75	1.66	130.73	1.00	130.63	138.73	0.93	0.751	1.000	0.229	0.354	0.47	0.02	0.05
19.690	83.320	0.849	2516.4	2130.1	77.306	1.034	2.01		Sand	23.5		1.66	130.73	1.00	130.42	180.24	0.93	0.752	0.999	0.733	1.533	2.04	0.00	0.00
19.850	64.010	1.147	2536.1	2139.8	58.972	1.828	2.25		Sand	43.4	78.75	1.66	130.73	1.00	130.26	206.39	0.93	0.753	0.997	2.763	6.059	8.05	0.00	0.00
20.010	36.230	0.862	2555.7	2149.5	32.778	2.465	2.53		Sand	65.7	78.75	1.66	130.73	1.00	130.10	217.30	0.93	0.754	0.995	5.815	12.733	16.88	0.00	0.00
20.180	26.320	0.922	2576.6	2159.8	23.180	3.684	2.76		Clay	83.9			24.88	0.99	n.a.	n.a.	0.93	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.340	30.270	0.894	2596.3	2169.5	26.708	3.086	2.66		Clay	76.1			28.61	0.99	n.a.	n.a.	0.93	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.510	35.270	0.763	2617.2	2179.8	31.626	2.247	2.52		Sand	64.6			33.34	0.98	32.83	91.88	0.93	0.758	0.997	0.128	0.156	0.21	0.03	0.07
20.670	24.390	0.803	2636.9	2189.5	21.075	3.481	2.78		Clay	85.1			23.05	0.99	n.a.	n.a.	0.93	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.830	15.950	0.521	2656.6	2199.2	13.297	3.566	2.94		Clay	98.2			15.08	0.99	n.a.	n.a.	0.93	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.000	56.720	0.386	2677.5	2209.5	51.226	0.697	2.06		Sand	27.5	88.06	1.78	156.75	0.99	154.68	216.97	0.93	0.761	0.987	5.675	12.322	16.19	0.00	0.00
21.160	93.170	0.664	2697.2	2219.2	84.746	0.723	1.88		Sand	13.6		1.78	156.75	0.98	154.07	176.27	0.93	0.762	0.990	0.628	1.263	1.66	0.00	0.00
21.330	67.230	0.941	2718.1	2229.5	60.654	1.429	2.18		Sand	37.1	88.06	1.78	156.75	0.98	154.38	230.58	0.93	0.763	0.984	17.290	37.442	49.07	0.00	0.00
21.490	36.580	0.900	2737.8	2239.2	32.352	2.557	2.55		Sand	66.8	88.06	1.78	156.75	0.98	154.37	248.95	0.93	0.764	0.983	115.061	248.836	325.72	0.00	0.00
21.650	24.160	0.844	2757.5	2248.9	20.260	3.705	2.81		Clay	87.6			22.84	0.98	n.a.	n.a.	0.92	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	4

PGA (A_{max})	0.87

Total Settlement:	0.39	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
21.820	12.370	0.448	2778.4	2259.2	9.721	4.081	3.08		Clay	100.0			11.69	0.98	n.a.	n.a.	0.92	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.980	9.160	0.277	2798.0	2268.9	6.841	3.567	3.18		Clay	100.0			8.66	0.98	n.a.	n.a.	0.92	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.150	7.980	0.213	2819.0	2279.2	5.766	3.243	3.21		Clay	100.0			7.54	0.98	n.a.	n.a.	0.92	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.310	7.870	0.183	2838.6	2288.9	5.637	2.834	3.19		Clay	100.0			7.44	0.98	n.a.	n.a.	0.92	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.470	7.510	0.182	2858.3	2298.6	5.291	2.998	3.23		Clay	100.0			7.10	0.98	n.a.	n.a.	0.92	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.640	7.320	0.171	2879.2	2308.9	5.094	2.899	3.23		Clay	100.0			6.92	0.98	n.a.	n.a.	0.92	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.800	7.530	0.161	2898.9	2318.6	5.245	2.641	3.20		Clay	100.0			7.12	0.98	n.a.	n.a.	0.92	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.970	7.450	0.168	2919.8	2328.9	5.144	2.806	3.22		Clay	100.0			7.04	0.98	n.a.	n.a.	0.92	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.130	7.460	0.202	2939.5	2338.6	5.123	3.365	3.27		Clay	100.0			7.05	0.97	n.a.	n.a.	0.92	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.290	8.200	0.236	2959.2	2348.3	5.724	3.513	3.24		Clay	100.0			7.75	0.97	n.a.	n.a.	0.92	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.460	8.830	0.251	2980.1	2358.6	6.224	3.416	3.20		Clay	100.0			8.35	0.97	n.a.	n.a.	0.92	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.620	9.420	0.315	2999.8	2368.3	6.689	3.982	3.21		Clay	100.0			8.90	0.97	n.a.	n.a.	0.92	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.790	10.100	0.386	3020.7	2378.6	7.223	4.489	3.21		Clay	100.0			9.55	0.97	n.a.	n.a.	0.91	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.950	12.940	0.519	3040.4	2388.3	9.563	4.541	3.12		Clay	100.0			12.23	0.97	n.a.	n.a.	0.91	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.110	17.670	0.611	3060.0	2398.0	13.461	3.786	2.95		Clay	99.1			16.70	0.97	n.a.	n.a.	0.91	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.280	19.100	0.858	3080.9	2408.3	14.583	4.886	2.99		Clay	100.0			18.05	0.97	n.a.	n.a.	0.91	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.440	20.570	0.777	3100.6	2418.0	15.732	4.087	2.92		Clay	96.5			19.44	0.97	n.a.	n.a.	0.91	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.610	16.860	0.434	3121.5	2428.3	12.601	2.834	2.90		Clay	95.0			15.94	0.96	n.a.	n.a.	0.91	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.770	26.650	0.549	3141.2	2438.0	20.574	2.187	2.66		Clay	75.9			25.19	0.96	n.a.	n.a.	0.91	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.930	20.540	0.513	3160.9	2447.7	15.492	2.707	2.82		Clay	88.3			19.41	0.96	n.a.	n.a.	0.91	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.100	13.690	0.447	3181.8	2458.0	9.845	3.694	3.05		Clay	100.0			12.94	0.96	n.a.	n.a.	0.91	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.260	9.410	0.366	3201.5	2467.7	6.329	4.682	3.27		Clay	100.0			8.89	0.96	n.a.	n.a.	0.91	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.430	8.520	0.333	3222.4	2478.0	5.576	4.816	3.32		Clay	100.0			8.05	0.96	n.a.	n.a.	0.91	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.590	8.650	0.318	3242.1	2487.7	5.651	4.517	3.30		Clay	100.0			8.18	0.96	n.a.	n.a.	0.91	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.750	8.530	0.296	3261.8	2497.4	5.525	4.283	3.30		Clay	100.0			8.06	0.96	n.a.	n.a.	0.90	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.920	8.310	0.254	3282.7	2507.7	5.319	3.815	3.28		Clay	100.0			7.85	0.96	n.a.	n.a.	0.90	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.080	8.440	0.261	3302.3	2517.3	5.394	3.839	3.28		Clay	100.0			7.98	0.96	n.a.	n.a.	0.90	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.250	8.160	0.268	3323.3	2527.7	5.142	4.123	3.31		Clay	100.0			7.71	0.95	n.a.	n.a.	0.90	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.410	8.750	0.312	3342.9	2537.3	5.579	4.406	3.30		Clay	100.0			8.27	0.95	n.a.	n.a.	0.90	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.570	8.870	0.295	3362.6	2547.0	5.645	4.109	3.28		Clay	100.0			8.38	0.95	n.a.	n.a.	0.90	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.740	8.950	0.269	3383.5	2557.3	5.676	3.703	3.25		Clay	100.0			8.46	0.95	n.a.	n.a.	0.90	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.900	8.430	0.240	3403.2	2567.0	5.242	3.573	3.27		Clay	100.0			7.97	0.95	n.a.	n.a.	0.90	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.070	8.470	0.246	3424.1	2577.3	5.244	3.637	3.28		Clay	100.0			8.01	0.95	n.a.	n.a.	0.90	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.230	8.750	0.257	3443.8	2587.0	5.433	3.655	3.26		Clay	100.0			8.27	0.95	n.a.	n.a.	0.90	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.400	9.180	0.311	3464.7	2597.3	5.735	4.170	3.28		Clay	100.0			8.68	0.95	n.a.	n.a.	0.90	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.560	9.920	0.423	3484.4	2607.0	6.274	5.170	3.30		Clay	100.0			9.38	0.95	n.a.	n.a.	0.90	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.720	12.500	0.515	3504.1	2616.7	8.215	4.787	3.18		Clay	100.0			11.81	0.95	n.a.	n.a.	0.89	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.890	16.190	0.958	3525.0	2627.0	10.984	6.641	3.17		Clay	100.0			15.30	0.94	n.a.	n.a.	0.89	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.050	17.350	0.532	3544.7	2636.7	11.816	3.413	2.97		Clay	100.0			16.40	0.94	n.a.	n.a.	0.89	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.220	12.330	0.446	3565.6	2647.0	7.969	4.230	3.16		Clay	100.0			11.65	0.94	n.a.	n.a.	0.89	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.380	9.710	0.401	3585.2	2656.7	5.960	5.061	3.31		Clay	100.0			9.18	0.94	n.a.	n.a.	0.89	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.540	9.900	0.409	3604.9	2666.4	6.074	5.051	3.30		Clay	100.0			9.36	0.94	n.a.	n.a.	0.89	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.710	10.860	0.470	3625.8	2676.7	6.760	5.196	3.27		Clay	100.0			10.26	0.94	n.a.	n.a.	0.89	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.870	11.430	0.523	3645.5	2686.4	7.152	5.445	3.27		Clay	100.0			10.80	0.94	n.a.	n.a.	0.89	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.040	11.790	0.565	3666.4	2696.7	7.384	5.671	3.27		Clay	100.0			11.14	0.94	n.a.	n.a.	0.89	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.200	11.270	0.572	3686.1	2706.4	6.966	6.063	3.30		Clay	100.0			10.65	0.94	n.a.	n.a.	0.89	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.360	10.370	0.562	3705.8	2716.1	6.272	6.593	3.36		Clay	100.0			9.80	0.94	n.a.	n.a.	0.89	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.530	10.680	0.546	3726.7	2726.4	6.468	6.196	3.33		Clay	100.0			10.09	0.94	n.a.	n.a.	0.89	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.690	11.980	0.546	3746.4	2736.1	7.388	5.398	3.25		Clay	100.0			11.32	0.93	n.a.	n.a.	0.88	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.860	12.310	0.566	3767.3	2746.4	7.593	5.427	3.24		Clay	100.0			11.64	0.93	n.a.	n.a.	0.88	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.020	12.050	0.566	3787.0	2756.1	7.370	5.574	3.26		Clay	100.0			11.39	0.93	n.a.	n.a.	0.88	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.180	11.310	0.556	3806.6	2765.8	6.802	5.915	3.31		Clay	100.0			10.69	0.93	n.a.	n.a.	0.88	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.350	10.230	0.509	3827.6	2776.1	5.991	6.123	3.36		Clay	100.0			9.67	0.93	n.a.	n.a.	0.88	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.510	10.120	0.507	3847.2	2785.8	5.884	6.191	3.37		Clay	100.0			9.57	0.93	n.a.	n.a.	0.88	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.680	11.280	0.559	3868.1	2796.1	6.685	5.984	3.31		Clay	100.0			10.66	0.93	n.a.	n.a.	0.88	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.840	11.200	0.593	3887.8	2805.8	6.598	6.410	3.34		Clay	100.0			10.59	0.93	n.a.	n.a.	0.88	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.000	10.580	0.558	3907.5	2815.5	6.128	6.463	3.36		Clay	100.0			10.00	0.93	n.a.	n.a.	0.88	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.170	9.910	0.532	3928.4	2825.8	5.624	6.692	3.40		Clay	100.0			9.37	0.93	n.a.	n.a.	0.88	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.330	10.580	0.566	3948.1	2835.5	6.070	6.573	3.37		Clay	100.0			10.00	0.93	n.a.	n.a.	0.88	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.500	12.130	0.664	3969.0	2845.8	7.130	6.541	3.32		Clay	100.0			11.47	0.92	n.a.	n.a.	0.87	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.660	14.640	0.715	3988.7	2855.5	8.857	5.651	3.20		Clay	100.0			13.84	0.92	n.a.	n.a.	0.87	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.820	15.240	0.695	4008.4	2865.2	9.239	5.249	3.17		Clay	100.0			14.40	0.92	n.a.	n.a.	0.87	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.990	15.410	0.631	4029.3	2875.5	9.317	4.708	3.14		Clay	100.0			14.57	0.92	n.a.	n.a.	0.87	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.150	14.250	0.578	4049.0	2885.2	8.475	4.727	3.17		Clay	100.0			13.47	0.92	n.a.	n.a.	0.87	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.320	12.330	0.600	4069.9	2895.5	7.111	5.831	3.29		Clay	100.0			11.65	0.92	n.a.	n.a.	0.87	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.480	10.010	0.573	4089.5	2905.2	5.483	7.194	3.43		Clay	100.0			9.46	0.92	n.a.	n.a.	0.87	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	4

PGA (A_{max})	0.87

Total Settlement:	0.39	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
32.640	8.770	0.508	4109.2	2914.9	4.608	7.569	3.50		Clay	100.0			8.29	0.92	n.a.	n.a.	0.87	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.810	10.420	0.426	4130.1	2925.2	5.712	5.102	3.33		Clay	100.0			9.85	0.92	n.a.	n.a.	0.87	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.970	11.660	0.366	4149.8	2934.9	6.532	3.821	3.21		Clay	100.0			11.02	0.92	n.a.	n.a.	0.87	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.140	12.960	0.330	4170.7	2945.2	7.385	3.037	3.11		Clay	100.0			12.25	0.92	n.a.	n.a.	0.87	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.300	12.740	0.316	4190.4	2954.9	7.205	2.970	3.11		Clay	100.0			12.04	0.92	n.a.	n.a.	0.87	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.460	12.870	0.403	4210.1	2964.6	7.262	3.744	3.17		Clay	100.0			12.16	0.91	n.a.	n.a.	0.86	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.630	14.850	0.542	4231.0	2974.9	8.561	4.252	3.14		Clay	100.0			14.04	0.91	n.a.	n.a.	0.86	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.790	17.920	0.637	4250.7	2984.6	10.584	4.031	3.05		Clay	100.0			16.94	0.91	n.a.	n.a.	0.86	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.960	18.330	0.651	4271.6	2994.9	10.815	4.022	3.04		Clay	100.0			17.33	0.91	n.a.	n.a.	0.86	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.120	18.700	0.696	4291.3	3004.6	11.019	4.206	3.05		Clay	100.0			17.67	0.91	n.a.	n.a.	0.86	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.280	20.850	0.812	4310.9	3014.3	12.404	4.345	3.02		Clay	100.0			19.71	0.91	n.a.	n.a.	0.86	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.450	18.970	1.200	4331.9	3024.6	11.112	7.143	3.19		Clay	100.0			17.93	0.91	n.a.	n.a.	0.86	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.610	31.770	1.070	4351.5	3034.3	19.507	3.617	2.81		Clay	88.1			30.03	0.91	n.a.	n.a.	0.86	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.780	41.010	1.184	4372.4	3044.6	25.504	3.050	2.68		Clay	77.1			38.76	0.91	n.a.	n.a.	0.86	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.940	32.750	1.032	4392.1	3054.3	20.007	3.379	2.79		Clay	85.9			30.95	0.91	n.a.	n.a.	0.86	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.100	24.800	0.963	4411.8	3064.0	14.748	4.264	2.95		Clay	99.2			23.44	0.91	n.a.	n.a.	0.86	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.270	20.910	1.071	4432.7	3074.3	12.161	5.729	3.10		Clay	100.0			19.76	0.91	n.a.	n.a.	0.85	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.430	20.520	0.725	4452.4	3084.0	11.864	3.964	3.01		Clay	100.0			19.40	0.91	n.a.	n.a.	0.85	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.600	28.530	0.731	4473.3	3094.3	16.995	2.779	2.79		Clay	86.2			26.97	0.90	n.a.	n.a.	0.85	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.760	31.670	0.624	4493.0	3104.0	18.959	2.119	2.68		Clay	77.6			29.93	0.90	n.a.	n.a.	0.85	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.930	21.170	0.617	4513.9	3114.3	12.146	3.263	2.95		Clay	98.9			20.01	0.90	n.a.	n.a.	0.85	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.090	14.220	0.469	4533.6	3124.0	7.653	3.924	3.16		Clay	100.0			13.44	0.90	n.a.	n.a.	0.85	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.250	13.380	0.442	4553.3	3133.7	7.087	3.976	3.19		Clay	100.0			12.65	0.90	n.a.	n.a.	0.85	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.420	13.640	0.433	4574.2	3144.0	7.222	3.810	3.17		Clay	100.0			12.89	0.90	n.a.	n.a.	0.85	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.580	13.590	0.492	4593.8	3153.6	7.162	4.359	3.21		Clay	100.0			12.84	0.90	n.a.	n.a.	0.85	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.750	14.170	0.453	4614.8	3164.0	7.499	3.822	3.16		Clay	100.0			13.39	0.90	n.a.	n.a.	0.85	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.910	14.390	0.440	4634.4	3173.6	7.608	3.646	3.14		Clay	100.0			13.60	0.90	n.a.	n.a.	0.85	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.070	13.540	0.404	4654.1	3183.3	7.045	3.606	3.17		Clay	100.0			12.80	0.90	n.a.	n.a.	0.84	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.240	13.840	0.330	4675.0	3193.6	7.203	2.870	3.10		Clay	100.0			13.08	0.90	n.a.	n.a.	0.84	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.400	13.870	0.391	4694.7	3203.3	7.194	3.389	3.14		Clay	100.0			13.11	0.90	n.a.	n.a.	0.84	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.570	13.380	0.442	4715.6	3213.6	6.860	4.009	3.20		Clay	100.0			12.65	0.90	n.a.	n.a.	0.84	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.730	14.300	0.540	4735.3	3223.3	7.404	4.523	3.21		Clay	100.0			13.52	0.89	n.a.	n.a.	0.84	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.890	14.390	0.635	4755.0	3233.0	7.431	5.289	3.25		Clay	100.0			13.60	0.89	n.a.	n.a.	0.84	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.060	15.120	0.789	4775.9	3243.3	7.851	6.196	3.27		Clay	100.0			14.29	0.89	n.a.	n.a.	0.84	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.220	16.190	0.828	4795.6	3253.0	8.480	6.000	3.23		Clay	100.0			15.30	0.89	n.a.	n.a.	0.84	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.390	20.360	0.987	4816.5	3263.3	11.002	5.498	3.12		Clay	100.0			19.24	0.89	n.a.	n.a.	0.84	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.550	22.110	1.244	4836.2	3273.0	12.033	6.315	3.13		Clay	100.0			20.90	0.89	n.a.	n.a.	0.84	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.710	33.100	1.606	4855.8	3282.7	18.687	5.236	2.93		Clay	97.5			31.29	0.89	n.a.	n.a.	0.84	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.880	56.650	0.998	4876.7	3293.0	41.074	1.842	2.38		Sand	53.2	150.74	1.25	188.43	0.89	167.67	260.01	0.84	0.788	0.867	462.392	882.288	1119.00	0.00	0.00
39.040	85.680	0.939	4896.4	3302.7	62.969	1.128	2.10		Sand	31.0	150.74	1.25	188.43	0.88	166.07	236.68	0.83	0.788	0.866	30.775	58.661	74.42	0.00	0.00
39.210	123.780	0.805	4917.3	3313.0	91.642	0.663	1.83		Sand	9.6	150.74	1.25	188.43	0.84	159.20	167.35	0.83	0.788	0.916	0.462	0.801	1.02	0.01	0.01
39.370	144.230	0.943	4937.0	3322.7	106.926	0.665	1.78		Sand	5.3	150.74	1.25	188.43	0.84	158.03	158.33	0.83	0.788	0.922	0.355	0.579	0.74	0.02	0.03
39.530	153.570	0.847	4956.7	3332.4	113.798	0.560	1.71		Sand	0.1	150.74	1.25	188.43	0.84	157.79	157.79	0.83	0.787	0.922	0.350	0.569	0.72	0.02	0.03
39.700	159.480	0.973	4977.6	3342.7	118.059	0.620	1.73		Sand	1.1		1.25	188.42	0.84	157.57	157.57	0.83	0.787	0.922	0.348	0.564	0.72	0.02	0.03
39.860	149.280	1.772	4997.3	3352.4	110.221	1.207	1.93		Sand	17.6		1.25	176.37	0.85	150.28	186.52	0.83	0.787	0.896	0.957	1.887	2.40	0.00	0.00
40.030	139.450	1.982	5018.2	3362.7	102.674	1.447	2.01		Sand	23.7		1.25	164.76	0.85	140.78	192.60	0.83	0.787	0.888	1.276	2.494	3.17	0.00	0.00
40.190	123.770	1.933	5037.9	3372.4	90.779	1.594	2.08		Sand	29.1		1.25	146.23	0.85	124.06	183.09	0.83	0.786	0.898	0.824	1.586	2.02	0.00	0.00
40.350	147.720	1.443	5057.6	3382.1	108.547	0.994	1.88		Sand	13.5		1.25	174.53	0.84	146.37	167.81	0.83	0.786	0.912	0.469	0.812	1.03	0.01	0.02
40.520	185.620	0.963	5078.5	3392.4	136.666	0.526	1.63		Sand	0.0		1.25	219.31	0.85	186.03	186.03	0.83	0.786	0.894	0.937	1.836	2.34	0.00	0.00
40.680	209.650	0.741	5098.1	3402.1	154.376	0.358	1.50		Sand	0.0		1.25	247.70	0.86	213.60	213.60	0.83	0.785	0.858	4.453	8.402	10.70	0.00	0.00
40.850	212.670	0.917	5119.1	3412.4	156.383	0.436	1.54		Sand	0.0		1.25	251.26	0.86	216.91	216.91	0.82	0.785	0.857	5.647	10.643	13.56	0.00	0.00
41.010	169.380	1.388	5138.7	3422.1	123.979	0.832	1.79		Sand	6.0	201.01	1.25	251.26	0.86	216.82	217.67	0.82	0.785	0.856	5.977	11.254	14.34	0.00	0.00
41.170	77.230	1.312	5158.4	3431.8	55.405	1.758	2.26		Sand	44.1	201.01	1.25	251.26	0.88	221.17	320.81	0.82	0.785	0.855	########	########	#########	0.00	0.00
41.340	39.710	1.058	5179.3	3442.1	21.568	2.850	2.71		Clay	80.2			37.53	0.88	n.a.	n.a.	0.82	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.500	27.010	0.665	5199.0	3451.8	14.144	2.724	2.85		Clay	91.0			25.53	0.88	n.a.	n.a.	0.82	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.670	23.690	0.556	5219.9	3462.1	12.178	2.639	2.89		Clay	94.6			22.39	0.88	n.a.	n.a.	0.82	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.830	22.850	0.586	5239.6	3471.8	11.654	2.896	2.93		Clay	97.7			21.60	0.88	n.a.	n.a.	0.82	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.990	21.670	0.616	5259.3	3481.5	10.938	3.233	2.98		Clay	100.0			20.48	0.88	n.a.	n.a.	0.82	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.160	21.150	0.577	5280.2	3491.8	10.602	3.118	2.99		Clay	100.0			19.99	0.88	n.a.	n.a.	0.82	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.320	22.180	0.451	5299.9	3501.5	11.155	2.311	2.89		Clay	94.5			20.96	0.88	n.a.	n.a.	0.82	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.490	20.000	0.414	5320.8	3511.8	9.875	2.387	2.95		Clay	98.7			18.90	0.87	n.a.	n.a.	0.82	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.650	18.590	0.404	5340.5	3521.5	9.041	2.539	2.99		Clay	100.0			17.57	0.87	n.a.	n.a.	0.81	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.810	20.160	0.490	5360.1	3531.2	9.900	2.801	2.98		Clay	100.0			19.05	0.87	n.a.	n.a.	0.81	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.980	21.030	0.787	5381.0	3541.5	10.357	4.289	3.08		Clay	100.0			19.88	0.87	n.a.	n.a.	0.81	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.140	24.250	1.118	5400.7	3551.2	12.137	5.188	3.07		Clay	100.0			22.92	0.87	n.a.	n.a.	0.81	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.310	34.360	1.114	5421.6	3561.5	17.773	3.519	2.84		Clay	90.0			32.48	0.87	n.a.	n.a.	0.81	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	4

PGA (A_{max})	0.87

Total Settlement:	0.39	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
43.470	34.640	1.126	5441.3	3571.2	17.876	3.528	2.84		Clay	89.9			32.74	0.87	n.a.	n.a.	0.81	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.640	26.750	1.193	5462.2	3581.5	13.413	4.967	3.03		Clay	100.0			25.28	0.87	n.a.	n.a.	0.81	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.800	25.350	1.680	5481.9	3591.2	12.591	7.431	3.16		Clay	100.0			23.96	0.87	n.a.	n.a.	0.81	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.960	35.600	1.944	5501.6	3600.9	18.245	5.918	2.97		Clay	100.0			33.65	0.87	n.a.	n.a.	0.81	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.130	56.510	1.805	5522.5	3611.2	29.768	3.358	2.65		Clay	75.2			53.41	0.87	n.a.	n.a.	0.81	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.290	64.060	1.431	5542.2	3620.9	44.284	2.335	2.42		Sand	56.5	60.67	1.8	109.21	0.81	88.78	161.12	0.81	0.778	0.905	0.383	0.627	0.81	0.01	0.03
44.460	64.190	1.511	5563.1	3631.2	44.307	2.461	2.43		Sand	57.7		1.8	109.21	0.81	88.71	161.48	0.80	0.777	0.904	0.387	0.634	0.82	0.01	0.02
44.620	44.830	1.197	5582.8	3640.9	23.093	2.846	2.69		Clay	78.3			42.37	0.87	n.a.	n.a.	0.80	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.780	28.410	0.903	5602.4	3650.6	14.030	3.527	2.92		Clay	96.5			26.85	0.87	n.a.	n.a.	0.80	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.950	26.540	0.781	5623.4	3660.9	12.963	3.291	2.93		Clay	97.3			25.09	0.87	n.a.	n.a.	0.80	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.110	29.020	0.863	5643.0	3670.6	14.275	3.293	2.89		Clay	94.6			27.43	0.86	n.a.	n.a.	0.80	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.280	29.910	1.042	5663.9	3680.9	14.713	3.849	2.93		Clay	97.1			28.27	0.86	n.a.	n.a.	0.80	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.440	27.590	1.082	5683.6	3690.6	13.412	4.372	2.99		Clay	100.0			26.08	0.86	n.a.	n.a.	0.80	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.600	25.360	1.042	5703.3	3700.3	12.166	4.630	3.04		Clay	100.0			23.97	0.86	n.a.	n.a.	0.80	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.770	22.480	0.874	5724.2	3710.6	10.574	4.454	3.08		Clay	100.0			21.25	0.86	n.a.	n.a.	0.80	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.930	21.520	0.732	5743.9	3720.3	10.025	3.925	3.06		Clay	100.0			20.34	0.86	n.a.	n.a.	0.80	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.100	22.400	0.657	5764.8	3730.6	10.464	3.368	3.01		Clay	100.0			21.17	0.86	n.a.	n.a.	0.80	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.260	22.320	0.695	5784.5	3740.3	10.388	3.579	3.03		Clay	100.0			21.10	0.86	n.a.	n.a.	0.80	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.420	24.450	0.786	5804.2	3750.0	11.492	3.648	3.00		Clay	100.0			23.11	0.86	n.a.	n.a.	0.79	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.590	28.290	0.823	5825.1	3760.3	13.498	3.243	2.91		Clay	95.8			26.74	0.86	n.a.	n.a.	0.79	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.750	29.420	0.846	5844.8	3770.0	14.057	3.194	2.89		Clay	94.4			27.81	0.86	n.a.	n.a.	0.79	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.920	29.100	0.848	5865.7	3780.3	13.844	3.242	2.90		Clay	95.1			27.50	0.86	n.a.	n.a.	0.79	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.080	28.290	1.071	5885.3	3789.9	13.376	4.223	2.98		Clay	100.0			26.74	0.86	n.a.	n.a.	0.79	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.240	32.990	1.181	5905.0	3799.6	15.811	3.932	2.91		Clay	95.6			31.18	0.86	n.a.	n.a.	0.79	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.410	37.680	1.183	5925.9	3809.9	18.224	3.408	2.82		Clay	88.6			35.61	0.86	n.a.	n.a.	0.79	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.570	36.840	1.447	5945.6	3819.6	17.733	4.272	2.89		Clay	94.3			34.82	0.86	n.a.	n.a.	0.79	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.740	39.590	1.375	5966.5	3829.9	19.116	3.756	2.83		Clay	89.4			37.42	0.86	n.a.	n.a.	0.79	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.900	45.540	1.289	5986.2	3839.6	22.162	3.029	2.72		Clay	80.7			43.04	0.85	n.a.	n.a.	0.79	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.060	38.470	1.147	6005.9	3849.3	18.428	3.233	2.80		Clay	87.2			36.36	0.85	n.a.	n.a.	0.79	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.230	34.220	0.812	6026.8	3859.6	16.171	2.603	2.79		Clay	86.3			32.34	0.85	n.a.	n.a.	0.78	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.390	26.160	0.627	6046.5	3869.3	11.959	2.710	2.91		Clay	95.6			24.73	0.85	n.a.	n.a.	0.78	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.560	21.050	0.523	6067.4	3879.6	9.288	2.902	3.02		Clay	100.0			19.90	0.85	n.a.	n.a.	0.78	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.720	22.200	0.462	6087.1	3889.3	9.851	2.412	2.95		Clay	99.0			20.98	0.85	n.a.	n.a.	0.78	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.880	25.220	0.417	6106.7	3899.0	11.370	1.881	2.84		Clay	90.1			23.84	0.85	n.a.	n.a.	0.78	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.050	20.940	0.443	6127.7	3909.3	9.145	2.478	2.98		Clay	100.0			19.79	0.85	n.a.	n.a.	0.78	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.210	18.660	0.443	6147.3	3919.0	7.954	2.844	3.07		Clay	100.0			17.64	0.85	n.a.	n.a.	0.78	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.380	17.230	0.403	6168.2	3929.3	7.200	2.852	3.10		Clay	100.0			16.29	0.85	n.a.	n.a.	0.78	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.540	16.410	0.408	6187.9	3939.0	6.761	3.066	3.14		Clay	100.0			15.51	0.85	n.a.	n.a.	0.78	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.700	14.710	0.371	6207.6	3948.7	5.878	3.197	3.20		Clay	100.0			13.90	0.85	n.a.	n.a.	0.78	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.870	14.510	0.508	6228.5	3959.0	5.757	4.460	3.29		Clay	100.0			13.71	0.85	n.a.	n.a.	0.78	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.030	15.440	0.914	6248.2	3968.7	6.206	7.421	3.40		Clay	100.0			14.59	0.85	n.a.	n.a.	0.77	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.200	21.190	1.483	6269.1	3979.0	9.075	8.211	3.30		Clay	100.0			20.03	0.85	n.a.	n.a.	0.77	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.360	36.440	2.015	6288.8	3988.7	16.695	6.052	3.01		Clay	100.0			34.44	0.85	n.a.	n.a.	0.77	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.520	64.990	2.575	6308.5	3998.4	30.930	4.164	2.70		Clay	79.2			61.43	0.85	n.a.	n.a.	0.77	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.690	86.510	2.579	6329.4	4008.7	57.234	3.094	2.42		Sand	56.6			81.77	0.75	61.55	126.44	0.77	0.760	0.916	0.187	0.246	0.32	0.03	0.00
50.850	103.790	1.493	6349.1	4018.4	69.010	1.483	2.14		Sand	34.5			98.10	0.75	74.01	129.20	0.77	0.760	0.914	0.195	0.260	0.34	0.02	0.00
51.020	121.750	1.487	6370.0	4028.7	81.217	1.255	2.04		Sand	26.4			115.08	0.76	87.32	135.14	0.77	0.759	0.909	0.215	0.295	0.39	0.02	0.00
51.180	141.900	1.471	6389.6	4038.4	94.899	1.061	1.94		Sand	18.5			134.12	0.76	101.66	135.11	0.77	0.759	0.909	0.215	0.295	0.39	0.02	0.00
51.350	147.300	1.483	6410.6	4048.7	98.460	1.029	1.92		Sand	16.9			139.22	0.76	105.35	134.56	0.77	0.758	0.909	0.213	0.291	0.38	0.02	0.00
51.510	140.740	2.651	6430.2	4058.4	93.859	1.928	2.12		Sand	32.8			133.02	0.78	103.76	163.72	0.77	0.758	0.882	0.413	0.671	0.89	0.01	0.00
51.670	111.320	2.654	6449.9	4068.1	73.685	2.456	2.27		Sand	44.7			105.22	0.76	80.39	144.87	0.77	0.757	0.900	0.258	0.374	0.49	0.02	0.00
51.840	66.780	2.385	6470.8	4078.4	31.161	3.753	2.67		Clay	76.6			63.12	0.84	n.a.	n.a.	0.77	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.000	35.270	1.411	6490.5	4088.1	15.667	4.405	2.94		Clay	98.3			33.34	0.84	n.a.	n.a.	0.76	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.170	28.200	0.767	6511.4	4098.4	12.173	3.074	2.93		Clay	97.6			26.65	0.84	n.a.	n.a.	0.76	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.330	24.730	0.721	6531.1	4108.1	10.450	3.360	3.01		Clay	100.0			23.37	0.84	n.a.	n.a.	0.76	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.490	21.340	0.714	6550.8	4117.8	8.774	3.951	3.11		Clay	100.0			20.17	0.84	n.a.	n.a.	0.76	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.660	19.260	0.750	6571.7	4128.1	7.739	4.698	3.20		Clay	100.0			18.20	0.84	n.a.	n.a.	0.76	0.754	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.820	19.060	0.717	6591.4	4137.8	7.620	4.547	3.20		Clay	100.0			18.02	0.84	n.a.	n.a.	0.76	0.753	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.990	18.680	0.726	6612.3	4148.1	7.412	4.719	3.22		Clay	100.0			17.66	0.84	n.a.	n.a.	0.76	0.753	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.150	18.550	0.698	6632.0	4157.8	7.328	4.579	3.21		Clay	100.0			17.53	0.84	n.a.	n.a.	0.76	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.310	18.430	0.685	6651.6	4167.5	7.249	4.536	3.21		Clay	100.0			17.42	0.84	n.a.	n.a.	0.76	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.480	17.680	0.604	6672.5	4177.8	6.867	4.211	3.21		Clay	100.0			16.71	0.84	n.a.	n.a.	0.76	0.751	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.640	16.610	0.545	6692.2	4187.5	6.335	4.107	3.24		Clay	100.0			15.70	0.84	n.a.	n.a.	0.76	0.751	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.810	16.500	0.477	6713.1	4197.8	6.262	3.626	3.21		Clay	100.0			15.60	0.83	n.a.	n.a.	0.76	0.750	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.970	17.190	0.473	6732.8	4207.5	6.571	3.422	3.18		Clay	100.0			16.25	0.83	n.a.	n.a.	0.75	0.750	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.130	17.470	0.467	6752.5	4217.2	6.684	3.310	3.17		Clay	100.0			16.51	0.83	n.a.	n.a.	0.75	0.749	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	4

PGA (A_{max})	0.87

Total Settlement:	0.39	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
54.300	17.850	0.462	6773.4	4227.5	6.843	3.197	3.15		Clay	100.0			16.87	0.83	n.a.	n.a.	0.75	0.749	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.460	16.150	0.447	6793.1	4237.2	6.020	3.505	3.22		Clay	100.0			15.26	0.83	n.a.	n.a.	0.75	0.748	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.630	15.620	0.411	6814.0	4247.5	5.751	3.365	3.22		Clay	100.0			14.76	0.83	n.a.	n.a.	0.75	0.748	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.790	16.410	0.429	6833.7	4257.2	6.104	3.304	3.20		Clay	100.0			15.51	0.83	n.a.	n.a.	0.75	0.747	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.950	16.660	0.414	6853.4	4266.9	6.203	3.128	3.18		Clay	100.0			15.75	0.83	n.a.	n.a.	0.75	0.747	n.a.	n.a.	n.a.	n.a.	0.00	0.00
55.120	16.440	0.432	6874.3	4277.2	6.080	3.324	3.20		Clay	100.0			15.54	0.83	n.a.	n.a.	0.75	0.746	n.a.	n.a.	n.a.	n.a.	0.00	0.00
55.280	16.450	0.391	6893.9	4286.9	6.066	3.009	3.18		Clay	100.0			15.55	0.83	n.a.	n.a.	0.75	0.745	n.a.	n.a.	n.a.	n.a.	0.00	0.00
55.450	16.470	0.411	6914.9	4297.2	6.056	3.161	3.19		Clay	100.0			15.57	0.83	n.a.	n.a.	0.75	0.745	n.a.	n.a.	n.a.	n.a.	0.00	0.00
55.610	15.840	0.424	6934.5	4306.9	5.746	3.425	3.23		Clay	100.0			14.97	0.83	n.a.	n.a.	0.75	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
55.770	15.630	0.479	6954.2	4316.6	5.631	3.943	3.27		Clay	100.0			14.77	0.83	n.a.	n.a.	0.74	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
55.940	18.610	0.464	6975.1	4326.9	6.990	3.068	3.13		Clay	100.0			17.59	0.83	n.a.	n.a.	0.74	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
56.100	18.940	0.511	6994.8	4336.6	7.122	3.312	3.14		Clay	100.0			17.90	0.83	n.a.	n.a.	0.74	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
56.270	16.280	0.458	7015.7	4346.9	5.876	3.584	3.23		Clay	100.0			15.39	0.83	n.a.	n.a.	0.74	0.742	n.a.	n.a.	n.a.	n.a.	0.00	0.00
56.430	14.170	0.364	7035.4	4356.6	4.890	3.416	3.29		Clay	100.0			13.39	0.83	n.a.	n.a.	0.74	0.742	n.a.	n.a.	n.a.	n.a.	0.00	0.00
56.590	12.960	0.325	7055.1	4366.3	4.321	3.440	3.33		Clay	100.0			12.25	0.83	n.a.	n.a.	0.74	0.741	n.a.	n.a.	n.a.	n.a.	0.00	0.00
56.760	12.450	0.271	7076.0	4376.6	4.073	3.035	3.33		Clay	100.0			11.77	0.83	n.a.	n.a.	0.74	0.740	n.a.	n.a.	n.a.	n.a.	0.00	0.00
56.920	12.100	0.224	7095.7	4386.3	3.900	2.624	3.31		Clay	100.0			11.44	0.83	n.a.	n.a.	0.74	0.740	n.a.	n.a.	n.a.	n.a.	0.00	0.00
57.090	11.810	0.260	7116.6	4396.6	3.754	3.153	3.37		Clay	100.0			11.16	0.82	n.a.	n.a.	0.74	0.739	n.a.	n.a.	n.a.	n.a.	0.00	0.00
57.250	12.200	0.305	7136.3	4406.3	3.918	3.528	3.38		Clay	100.0			11.53	0.82	n.a.	n.a.	0.74	0.739	n.a.	n.a.	n.a.	n.a.	0.00	0.00
57.410	14.230	0.372	7155.9	4415.9	4.824	3.496	3.30		Clay	100.0			13.45	0.82	n.a.	n.a.	0.74	0.738	n.a.	n.a.	n.a.	n.a.	0.00	0.00
57.580	14.640	0.396	7176.8	4426.2	4.994	3.582	3.29		Clay	100.0			13.84	0.82	n.a.	n.a.	0.74	0.738	n.a.	n.a.	n.a.	n.a.	0.00	0.00
57.740	14.790	0.361	7196.5	4435.9	5.046	3.224	3.26		Clay	100.0			13.98	0.82	n.a.	n.a.	0.73	0.737	n.a.	n.a.	n.a.	n.a.	0.00	0.00
57.910	13.850	0.323	7217.4	4446.2	4.607	3.150	3.29		Clay	100.0			13.09	0.82	n.a.	n.a.	0.73	0.737	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.070	12.380	0.281	7237.1	4455.9	3.932	3.203	3.35		Clay	100.0			11.70	0.82	n.a.	n.a.	0.73	0.736	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.230	11.320	0.239	7256.8	4465.6	3.445	3.105	3.40		Clay	100.0			10.70	0.82	n.a.	n.a.	0.73	0.735	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.400	10.880	0.229	7277.7	4475.9	3.236	3.168	3.42		Clay	100.0			10.28	0.82	n.a.	n.a.	0.73	0.735	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.560	11.470	0.246	7297.4	4485.6	3.487	3.140	3.39		Clay	100.0			10.84	0.82	n.a.	n.a.	0.73	0.734	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.730	12.320	0.268	7318.3	4495.9	3.853	3.098	3.35		Clay	100.0			11.64	0.82	n.a.	n.a.	0.73	0.734	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.890	13.310	0.288	7338.0	4505.6	4.280	2.991	3.31		Clay	100.0			12.58	0.82	n.a.	n.a.	0.73	0.733	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.060	13.230	0.296	7358.9	4515.9	4.230	3.103	3.32		Clay	100.0			12.50	0.82	n.a.	n.a.	0.73	0.733	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.220	12.930	0.282	7378.6	4525.6	4.084	3.056	3.33		Clay	100.0			12.22	0.82	n.a.	n.a.	0.73	0.732	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.380	12.010	0.248	7398.2	4535.3	3.665	2.979	3.36		Clay	100.0			11.35	0.82	n.a.	n.a.	0.73	0.732	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.550	11.240	0.193	7419.2	4545.6	3.313	2.568	3.37		Clay	100.0			10.62	0.82	n.a.	n.a.	0.73	0.731	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.710	10.230	0.119	7438.8	4555.3	2.858	1.823	3.36		Clay	100.0			9.67	0.82	n.a.	n.a.	0.73	0.730	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.880	8.920	0.093	7459.7	4565.6	2.274	1.800	3.45		Clay	100.0			8.43	0.82	n.a.	n.a.	0.72	0.730	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.040	8.530	0.095	7479.4	4575.3	2.094	1.992	3.50		Clay	100.0			8.06	0.82	n.a.	n.a.	0.72	0.729	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.200	8.730	0.110	7499.1	4585.0	2.172	2.207	3.50		Clay	100.0			8.25	0.82	n.a.	n.a.	0.72	0.729	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.370	9.580	0.187	7520.0	4595.3	2.533	3.215	3.52		Clay	100.0			9.05	0.81	n.a.	n.a.	0.72	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.530	10.310	0.239	7539.7	4605.0	2.840	3.657	3.50		Clay	100.0			9.74	0.81	n.a.	n.a.	0.72	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.700	12.390	0.448	7560.6	4615.3	3.731	5.198	3.49		Clay	100.0			11.71	0.81	n.a.	n.a.	0.72	0.727	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.860	15.080	0.613	7580.3	4625.0	4.882	5.427	3.40		Clay	100.0			14.25	0.81	n.a.	n.a.	0.72	0.726	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.020	13.500	0.500	7600.0	4634.7	4.186	5.159	3.44		Clay	100.0			12.76	0.81	n.a.	n.a.	0.72	0.726	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.190	18.870	0.291	7620.9	4645.0	6.484	1.935	3.06		Clay	100.0			17.84	0.81	n.a.	n.a.	0.72	0.725	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.350	16.530	0.340	7640.6	4654.7	5.461	2.676	3.19		Clay	100.0			15.62	0.81	n.a.	n.a.	0.72	0.725	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.520	14.940	1.357	7661.5	4665.0	4.763	12.219	3.62		Clay	100.0			14.12	0.81	n.a.	n.a.	0.72	0.724	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.680	17.780	2.045	7681.1	4674.7	5.964	14.668	3.60		Clay	100.0			16.81	0.81	n.a.	n.a.	0.72	0.724	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.840	44.720	2.300	7700.8	4684.4	17.449	5.627	2.97		Clay	100.0			42.27	0.81	n.a.	n.a.	0.71	0.723	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.010	55.350	2.232	7721.7	4694.7	21.935	4.336	2.83		Clay	89.0			52.32	0.81	n.a.	n.a.	0.71	0.722	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.170	54.260	1.973	7741.4	4704.4	21.422	3.916	2.80		Clay	87.3			51.29	0.81	n.a.	n.a.	0.71	0.722	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.340	53.100	1.709	7762.3	4714.7	20.879	3.472	2.78		Clay	85.3			50.19	0.81	n.a.	n.a.	0.71	0.721	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.500	71.360	1.403	7782.0	4724.4	42.678	2.079	2.40		Sand	54.8			67.45	0.68	45.65	105.56	0.71	0.721	0.911	0.145	0.171	0.24	0.03	0.00
62.660	115.090	1.379	7801.7	4734.1	70.261	1.240	2.09		Sand	30.0			108.78	0.70	76.10	126.86	0.71	0.720	0.894	0.188	0.242	0.34	0.03	0.00
62.830	129.870	1.102	7822.6	4744.4	79.508	0.875	1.95		Sand	19.2			122.75	0.69	84.58	117.68	0.71	0.720	0.901	0.166	0.205	0.29	0.03	0.00
62.990	153.640	1.159	7842.3	4754.1	94.409	0.774	1.86		Sand	11.9			145.22	0.68	99.11	112.35	0.71	0.719	0.905	0.156	0.188	0.26	0.03	0.00
63.160	175.320	1.319	7863.2	4764.4	107.957	0.769	1.81		Sand	8.1			165.71	0.69	113.88	117.23	0.71	0.718	0.901	0.165	0.204	0.28	0.03	0.00
63.320	175.900	1.077	7882.9	4774.1	108.206	0.626	1.76		Sand	3.7			166.26	0.68	113.45	113.46	0.71	0.718	0.904	0.158	0.191	0.27	0.03	0.00
63.480	177.490	1.677	7902.5	4783.8	109.089	0.966	1.87		Sand	12.7			167.76	0.71	118.28	135.28	0.71	0.717	0.885	0.215	0.288	0.40	0.02	0.00
63.650	106.950	1.723	7923.5	4794.1	64.671	1.673	2.20		Sand	38.9			101.09	0.70	70.52	128.68	0.71	0.717	0.891	0.193	0.251	0.35	0.02	0.00
63.810	58.490	1.692	7943.1	4803.8	22.698	3.104	2.72		Clay	80.6			55.28	0.81	n.a.	n.a.	0.71	0.716	n.a.	n.a.	n.a.	n.a.	0.00	0.00
63.980	29.950	1.170	7964.0	4814.1	10.788	4.504	3.07		Clay	100.0			28.31	0.81	n.a.	n.a.	0.70	0.716	n.a.	n.a.	n.a.	n.a.	0.00	0.00
64.140	21.800	0.626	7983.7	4823.8	7.383	3.514	3.14		Clay	100.0			20.60	0.80	n.a.	n.a.	0.70	0.715	n.a.	n.a.	n.a.	n.a.	0.00	0.00
64.300	21.870	0.574	8003.4	4833.5	7.394	3.211	3.12		Clay	100.0			20.67	0.80	n.a.	n.a.	0.70	0.714	n.a.	n.a.	n.a.	n.a.	0.00	0.00
64.470	19.060	0.579	8024.3	4843.8	6.213	3.848	3.23		Clay	100.0			18.02	0.80	n.a.	n.a.	0.70	0.714	n.a.	n.a.	n.a.	n.a.	0.00	0.00
64.630	18.380	0.566	8044.0	4853.5	5.917	3.939	3.25		Clay	100.0			17.37	0.80	n.a.	n.a.	0.70	0.713	n.a.	n.a.	n.a.	n.a.	0.00	0.00
64.800	19.120	0.692	8064.9	4863.8	6.204	4.589	3.27		Clay	100.0			18.07	0.80	n.a.	n.a.	0.70	0.713	n.a.	n.a.	n.a.	n.a.	0.00	0.00
64.960	21.370	0.759	8084.6	4873.5	7.111	4.378	3.21		Clay	100.0			20.20	0.80	n.a.	n.a.	0.70	0.712	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No. 4

PGA (A_{max}) 0.87

Total Settlement: 0.39 (Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
65.120	25.650	0.689	8104.3	4883.2	8.846	3.191	3.06		Clay	100.0			24.24	0.80	n.a.	n.a.	0.70	0.712	n.a.	n.a.	n.a.	n.a.	0.00	0.00
65.290	23.460	0.573	8125.2	4893.5	7.928	2.955	3.08		Clay	100.0			22.17	0.80	n.a.	n.a.	0.70	0.711	n.a.	n.a.	n.a.	n.a.	0.00	0.00
65.450	19.170	0.486	8144.9	4903.2	6.158	3.221	3.19		Clay	100.0			18.12	0.80	n.a.	n.a.	0.70	0.710	n.a.	n.a.	n.a.	n.a.	0.00	0.00
65.620	16.920	0.505	8165.8	4913.5	5.225	3.930	3.30		Clay	100.0			15.99	0.80	n.a.	n.a.	0.70	0.710	n.a.	n.a.	n.a.	n.a.	0.00	0.00
65.780	17.940	0.529	8185.4	4923.2	5.625	3.820	3.26		Clay	100.0			16.96	0.80	n.a.	n.a.	0.70	0.709	n.a.	n.a.	n.a.	n.a.	0.00	0.00
65.940	17.750	0.616	8205.1	4932.9	5.533	4.512	3.31		Clay	100.0			16.78	0.80	n.a.	n.a.	0.70	0.709	n.a.	n.a.	n.a.	n.a.	0.00	0.00
66.110	18.530	0.603	8226.0	4943.2	5.833	4.181	3.27		Clay	100.0			17.51	0.80	n.a.	n.a.	0.69	0.708	n.a.	n.a.	n.a.	n.a.	0.00	0.00
66.270	19.130	0.550	8245.7	4952.9	6.060	3.663	3.23		Clay	100.0			18.08	0.80	n.a.	n.a.	0.69	0.708	n.a.	n.a.	n.a.	n.a.	0.00	0.00
66.440	20.660	0.549	8266.6	4963.2	6.660	3.320	3.17		Clay	100.0			19.53	0.80	n.a.	n.a.	0.69	0.707	n.a.	n.a.	n.a.	n.a.	0.00	0.00
66.600	21.210	0.615	8286.3	4972.9	6.864	3.601	3.18		Clay	100.0			20.05	0.80	n.a.	n.a.	0.69	0.706	n.a.	n.a.	n.a.	n.a.	0.00	0.00
66.770	21.490	0.613	8307.2	4983.2	6.958	3.535	3.17		Clay	100.0			20.31	0.80	n.a.	n.a.	0.69	0.706	n.a.	n.a.	n.a.	n.a.	0.00	0.00
66.930	24.820	0.735	8326.9	4992.9	8.274	3.557	3.11		Clay	100.0			23.46	0.80	n.a.	n.a.	0.69	0.705	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.090	25.680	0.712	8346.6	5002.6	8.598	3.311	3.08		Clay	100.0			24.27	0.80	n.a.	n.a.	0.69	0.705	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.260	27.780	0.739	8367.5	5012.9	9.414	3.134	3.03		Clay	100.0			26.26	0.80	n.a.	n.a.	0.69	0.704	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.420	23.670	0.577	8387.2	5022.6	7.756	2.962	3.09		Clay	100.0			22.37	0.80	n.a.	n.a.	0.69	0.704	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.590	19.110	0.438	8408.1	5032.9	5.923	2.937	3.18		Clay	100.0			18.06	0.80	n.a.	n.a.	0.69	0.703	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.750	19.750	0.384	8427.8	5042.6	6.162	2.468	3.13		Clay	100.0			18.67	0.80	n.a.	n.a.	0.69	0.702	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.910	20.870	0.425	8447.4	5052.2	6.590	2.554	3.11		Clay	100.0			19.73	0.79	n.a.	n.a.	0.69	0.702	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.080	19.720	0.494	8468.3	5062.5	6.118	3.190	3.19		Clay	100.0			18.64	0.79	n.a.	n.a.	0.69	0.701	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.240	18.770	0.487	8488.0	5072.2	5.728	3.349	3.22		Clay	100.0			17.74	0.79	n.a.	n.a.	0.68	0.701	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.410	18.680	0.509	8508.9	5082.5	5.676	3.525	3.24		Clay	100.0			17.66	0.79	n.a.	n.a.	0.68	0.700	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.570	18.650	0.481	8528.6	5092.2	5.650	3.346	3.23		Clay	100.0			17.63	0.79	n.a.	n.a.	0.68	0.700	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.730	19.610	0.509	8548.3	5101.9	6.012	3.318	3.21		Clay	100.0			18.53	0.79	n.a.	n.a.	0.68	0.699	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.900	20.250	0.459	8569.2	5112.2	6.246	2.875	3.16		Clay	100.0			19.14	0.79	n.a.	n.a.	0.68	0.699	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.060	19.050	0.384	8588.9	5121.9	5.762	2.602	3.16		Clay	100.0			18.01	0.79	n.a.	n.a.	0.68	0.698	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.230	17.750	0.338	8609.8	5132.2	5.239	2.516	3.19		Clay	100.0			16.78	0.79	n.a.	n.a.	0.68	0.697	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.390	17.090	0.291	8629.5	5141.9	4.969	2.280	3.19		Clay	100.0			16.15	0.79	n.a.	n.a.	0.68	0.697	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.550	16.380	0.287	8649.2	5151.6	4.680	2.382	3.22		Clay	100.0			15.48	0.79	n.a.	n.a.	0.68	0.696	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.720	15.000	0.265	8670.1	5161.9	4.132	2.484	3.28		Clay	100.0			14.18	0.79	n.a.	n.a.	0.68	0.696	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.880	16.590	0.274	8689.7	5171.6	4.736	2.240	3.21		Clay	100.0			15.68	0.79	n.a.	n.a.	0.68	0.695	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.050	17.820	0.316	8710.7	5181.9	5.197	2.344	3.18		Clay	100.0			16.84	0.79	n.a.	n.a.	0.68	0.695	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.210	18.980	0.425	8730.3	5191.6	5.630	2.905	3.20		Clay	100.0			17.94	0.79	n.a.	n.a.	0.68	0.694	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.370	20.640	0.529	8750.0	5201.3	6.254	3.251	3.19		Clay	100.0			19.51	0.79	n.a.	n.a.	0.68	0.694	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.540	21.590	0.615	8770.9	5211.6	6.602	3.575	3.19		Clay	100.0			20.41	0.79	n.a.	n.a.	0.67	0.693	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.700	22.000	0.641	8790.6	5221.3	6.743	3.642	3.19		Clay	100.0			20.79	0.79	n.a.	n.a.	0.67	0.692	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.870	21.610	0.578	8811.5	5231.6	6.577	3.361	3.18		Clay	100.0			20.43	0.79	n.a.	n.a.	0.67	0.692	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.030	20.500	0.613	8831.2	5241.3	6.138	3.813	3.23		Clay	100.0			19.38	0.79	n.a.	n.a.	0.67	0.691	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.190	19.840	0.553	8850.9	5251.0	5.871	3.588	3.23		Clay	100.0			18.75	0.79	n.a.	n.a.	0.67	0.691	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.360	21.430	0.486	8871.8	5261.3	6.460	2.859	3.14		Clay	100.0			20.26	0.79	n.a.	n.a.	0.67	0.690	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.520	17.290	0.425	8891.5	5271.0	4.874	3.307	3.28		Clay	100.0			16.34	0.79	n.a.	n.a.	0.67	0.690	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.690	15.380	0.409	8912.4	5281.3	4.137	3.743	3.37		Clay	100.0			14.54	0.79	n.a.	n.a.	0.67	0.689	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.850	15.750	0.421	8932.1	5291.0	4.265	3.734	3.36		Clay	100.0			14.89	0.79	n.a.	n.a.	0.67	0.689	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.010	17.230	0.421	8951.7	5300.7	4.812	3.297	3.29		Clay	100.0			16.29	0.78	n.a.	n.a.	0.67	0.688	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.180	17.310	0.411	8972.6	5311.0	4.829	3.207	3.28		Clay	100.0			16.36	0.78	n.a.	n.a.	0.67	0.687	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.340	16.780	0.376	8992.3	5320.7	4.617	3.064	3.28		Clay	100.0			15.86	0.78	n.a.	n.a.	0.67	0.687	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.510	16.210	0.336	9013.2	5331.0	4.391	2.874	3.29		Clay	100.0			15.32	0.78	n.a.	n.a.	0.67	0.686	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.670	15.970	0.311	9032.9	5340.7	4.289	2.714	3.28		Clay	100.0			15.09	0.78	n.a.	n.a.	0.67	0.686	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.830	15.430	0.304	9052.6	5350.4	4.076	2.784	3.31		Clay	100.0			14.58	0.78	n.a.	n.a.	0.66	0.685	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.000	15.580	0.321	9073.5	5360.7	4.120	2.910	3.31		Clay	100.0			14.73	0.78	n.a.	n.a.	0.66	0.685	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.160	17.120	0.365	9093.2	5370.4	4.682	2.901	3.27		Clay	100.0			16.18	0.78	n.a.	n.a.	0.66	0.684	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.330	18.870	0.413	9114.1	5380.7	5.320	2.885	3.22		Clay	100.0			17.84	0.78	n.a.	n.a.	0.66	0.684	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.490	21.350	0.463	9133.8	5390.4	6.227	2.758	3.15		Clay	100.0			20.18	0.78	n.a.	n.a.	0.66	0.683	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.650	22.600	0.480	9153.5	5400.1	6.675	2.663	3.12		Clay	100.0			21.36	0.78	n.a.	n.a.	0.66	0.683	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.820	22.760	0.434	9174.4	5410.4	6.718	2.389	3.09		Clay	100.0			21.51	0.78	n.a.	n.a.	0.66	0.682	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.980	22.880	0.468	9194.0	5420.1	6.746	2.558	3.10		Clay	100.0			21.63	0.78	n.a.	n.a.	0.66	0.682	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.150	22.690	0.491	9215.0	5430.4	6.660	2.713	3.12		Clay	100.0			21.45	0.78	n.a.	n.a.	0.66	0.681	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.310	21.830	0.503	9234.6	5440.1	6.328	2.924	3.16		Clay	100.0			20.63	0.78	n.a.	n.a.	0.66	0.680	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.480	23.480	0.478	9255.5	5450.4	6.918	2.537	3.09		Clay	100.0			22.19	0.78	n.a.	n.a.	0.66	0.680	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.640	23.330	0.441	9275.2	5460.1	6.847	2.357	3.08		Clay	100.0			22.05	0.78	n.a.	n.a.	0.66	0.679	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.800	23.720	0.471	9294.9	5469.8	6.974	2.472	3.08		Clay	100.0			22.42	0.78	n.a.	n.a.	0.66	0.679	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.970	24.010	0.535	9315.8	5480.1	7.063	2.764	3.10		Clay	100.0			22.69	0.78	n.a.	n.a.	0.66	0.678	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.130	24.270	0.684	9335.5	5489.8	7.141	3.489	3.15		Clay	100.0			22.94	0.78	n.a.	n.a.	0.66	0.678	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.300	28.160	0.760	9356.4	5500.1	8.539	3.236	3.07		Clay	100.0			26.62	0.78	n.a.	n.a.	0.65	0.677	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.460	29.290	0.806	9376.1	5509.8	8.930	3.275	3.06		Clay	100.0			27.68	0.78	n.a.	n.a.	0.65	0.677	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.620	29.630	0.767	9395.8	5519.5	9.034	3.078	3.04		Clay	100.0			28.01	0.78	n.a.	n.a.	0.65	0.676	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.790	30.480	0.710	9416.7	5529.8	9.321	2.754	3.00		Clay	100.0			28.81	0.78	n.a.	n.a.	0.65	0.676	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	4

PGA (A_{max})	0.87

Total Settlement:	0.39	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
75.950	32.790	0.739	9436.4	5539.5	10.135	2.633	2.96		Clay	99.8			30.99	0.78	n.a.	n.a.	0.65	0.675	n.a.	n.a.	n.a.	n.a.	0.00	0.00
76.120	34.020	0.776	9457.3	5549.8	10.556	2.648	2.95		Clay	98.8			32.16	0.78	n.a.	n.a.	0.65	0.675	n.a.	n.a.	n.a.	n.a.	0.00	0.00
76.280	32.510	0.709	9476.9	5559.5	9.991	2.553	2.96		Clay	99.6			30.73	0.78	n.a.	n.a.	0.65	0.674	n.a.	n.a.	n.a.	n.a.	0.00	0.00
76.440	30.610	0.739	9496.6	5569.2	9.287	2.856	3.01		Clay	100.0			28.93	0.77	n.a.	n.a.	0.65	0.674	n.a.	n.a.	n.a.	n.a.	0.00	0.00
76.610	31.510	0.853	9517.5	5579.5	9.589	3.187	3.03		Clay	100.0			29.78	0.77	n.a.	n.a.	0.65	0.673	n.a.	n.a.	n.a.	n.a.	0.00	0.00
76.770	36.740	0.944	9537.2	5589.2	11.440	2.953	2.94		Clay	98.6			34.73	0.77	n.a.	n.a.	0.65	0.673	n.a.	n.a.	n.a.	n.a.	0.00	0.00
76.940	36.270	0.941	9558.1	5599.5	11.248	2.988	2.95		Clay	99.3			34.28	0.77	n.a.	n.a.	0.65	0.672	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.100	33.870	0.859	9577.8	5609.2	10.369	2.952	2.98		Clay	100.0			32.01	0.77	n.a.	n.a.	0.65	0.672	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.260	31.380	0.723	9597.5	5618.9	9.461	2.720	2.99		Clay	100.0			29.66	0.77	n.a.	n.a.	0.65	0.671	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.430	28.310	0.678	9618.4	5629.2	8.350	2.885	3.05		Clay	100.0			26.76	0.77	n.a.	n.a.	0.65	0.670	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.590	25.810	0.649	9638.1	5638.9	7.445	3.092	3.11		Clay	100.0			24.40	0.77	n.a.	n.a.	0.65	0.670	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.760	24.370	0.588	9659.0	5649.2	6.918	3.011	3.13		Clay	100.0			23.03	0.77	n.a.	n.a.	0.65	0.669	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.920	22.440	0.520	9678.7	5658.9	6.221	2.956	3.17		Clay	100.0			21.21	0.77	n.a.	n.a.	0.64	0.669	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.080	21.820	0.499	9698.3	5668.5	5.988	2.939	3.18		Clay	100.0			20.62	0.77	n.a.	n.a.	0.64	0.668	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.250	21.860	0.492	9719.3	5678.9	5.987	2.894	3.17		Clay	100.0			20.66	0.77	n.a.	n.a.	0.64	0.668	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.410	20.940	0.488	9738.9	5688.5	5.650	3.039	3.21		Clay	100.0			19.79	0.77	n.a.	n.a.	0.64	0.667	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.580	20.570	0.457	9759.8	5698.8	5.506	2.911	3.21		Clay	100.0			19.44	0.77	n.a.	n.a.	0.64	0.667	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.740	20.380	0.421	9779.5	5708.5	5.427	2.718	3.20		Clay	100.0			19.26	0.77	n.a.	n.a.	0.64	0.666	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.900	20.420	0.372	9799.2	5718.2	5.428	2.397	3.17		Clay	100.0			19.30	0.77	n.a.	n.a.	0.64	0.666	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.070	20.370	0.331	9820.1	5728.5	5.398	2.143	3.15		Clay	100.0			19.25	0.77	n.a.	n.a.	0.64	0.665	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.230	19.200	0.284	9839.8	5738.2	4.977	1.986	3.16		Clay	100.0			18.15	0.77	n.a.	n.a.	0.64	0.665	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.400	18.190	0.331	9860.7	5748.5	4.613	2.497	3.24		Clay	100.0			17.19	0.77	n.a.	n.a.	0.64	0.664	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.560	18.710	0.341	9880.4	5758.2	4.783	2.476	3.22		Clay	100.0			17.68	0.77	n.a.	n.a.	0.64	0.664	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.720	19.770	0.393	9900.1	5767.9	5.139	2.650	3.21		Clay	100.0			18.69	0.77	n.a.	n.a.	0.64	0.663	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.890	21.960	0.417	9921.0	5778.2	5.884	2.452	3.14		Clay	100.0			20.76	0.77	n.a.	n.a.	0.64	0.663	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.050	20.570	0.404	9940.7	5787.9	5.390	2.588	3.19		Clay	100.0			19.44	0.77	n.a.	n.a.	0.64	0.662	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.220	21.120	0.682	9961.6	5798.2	5.567	4.223	3.29		Clay	100.0			19.96	0.77	n.a.	n.a.	0.64	0.662	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.380	22.810	1.916	9981.2	5807.9	6.136	10.754	3.50		Clay	100.0			21.56	0.77	n.a.	n.a.	0.64	0.662	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.540	30.420	2.530	10000.9	5817.6	8.739	9.955	3.36		Clay	100.0			28.75	0.77	n.a.	n.a.	0.63	0.661	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.710	165.820	3.489	10021.8	5827.9	91.585	2.169	2.17		Sand	36.4			156.73	0.69	107.96	172.66	0.63	0.661	0.801	0.551	0.871	1.32	0.00	0.00
80.870	193.680	3.825	10041.5	5837.6	107.357	2.028	2.10		Sand	30.9			183.06	0.71	129.70	192.55	0.63	0.660	0.755	1.273	2.115	3.20	0.00	0.00
81.040	219.830	2.678	10062.4	5847.9	122.125	1.247	1.91		Sand	15.7			207.78	0.69	142.81	172.03	0.63	0.660	0.801	0.540	0.848	1.29	0.00	0.00
81.200	212.370	2.959	10082.1	5857.6	117.780	1.427	1.96		Sand	19.9			200.73	0.70	139.94	182.03	0.63	0.659	0.780	0.789	1.307	1.98	0.00	0.00
81.360	422.540	2.643	10101.8	5867.3	236.972	0.633	1.50		Sand	0.0			399.38	0.76	305.16	305.16	0.63	0.659	0.694	########	########	3594870.38	0.00	0.00
81.530	467.940	2.161	10122.7	5877.6	262.506	0.467	1.38		Sand	0.0			442.29	0.76	337.79	337.79	0.63	0.658	0.694	########	########	########	0.00	0.00
81.690	480.300	1.990	10142.4	5887.3	269.288	0.419	1.34		Sand	0.0			453.97	0.76	346.56	346.56	0.63	0.658	0.693	########	########	########	0.00	0.00
81.860	461.020	2.017	10163.3	5897.6	258.131	0.442	1.37		Sand	0.0			435.75	0.76	332.50	332.50	0.63	0.657	0.692	########	########	########	0.00	0.00
82.020	413.480	2.156	10183.0	5907.3	231.021	0.528	1.45		Sand	0.0			390.81	0.76	298.08	298.08	0.63	0.657	0.692	########	########	748991.50	0.00	0.00
82.190	388.900	1.636	10203.9	5917.6	216.921	0.426	1.42		Sand	0.0			367.58	0.76	280.23	280.23	0.63	0.656	0.691	10351.795	15747.690	23996.95	0.00	0.00
82.350	382.860	2.202	10223.6	5927.3	213.327	0.583	1.51		Sand	0.0			361.87	0.76	275.76	275.76	0.63	0.656	0.691	4864.843	7395.397	11277.26	0.00	0.00
82.510	334.560	1.766	10243.2	5937.0	185.893	0.536	1.53		Sand	0.0			316.22	0.75	235.71	235.71	0.63	0.655	0.690	27.982	42.507	64.86	0.00	0.00
82.680	314.150	1.593	10264.1	5947.3	174.219	0.516	1.54		Sand	0.0			296.93	0.73	215.72	215.72	0.63	0.655	0.690	5.180	7.863	12.01	0.00	0.00
82.840	284.170	1.851	10283.8	5957.0	157.183	0.663	1.65		Sand	0.0			268.59	0.70	187.69	187.69	0.63	0.654	0.763	1.009	1.694	2.59	0.00	0.00
83.010	257.560	1.675	10304.7	5967.3	142.064	0.663	1.68		Sand	0.0			243.44	0.67	164.00	164.00	0.63	0.654	0.812	0.417	0.625	0.96	0.01	0.00
83.170	273.680	1.436	10324.4	5977.0	151.009	0.535	1.60		Sand	0.0			258.68	0.69	177.98	177.98	0.63	0.653	0.785	0.671	1.082	1.66	0.00	0.00
83.330	300.410	1.549	10344.1	5986.7	165.902	0.525	1.56		Sand	0.0			283.94	0.71	202.16	202.16	0.63	0.653	0.720	2.139	3.386	5.19	0.00	0.00
83.500	283.040	2.381	10365.0	5997.0	156.001	0.857	1.72		Sand	0.6			267.52	0.70	186.07	186.07	0.62	0.653	0.765	0.938	1.575	2.41	0.00	0.00
83.660	216.760	3.029	10384.7	6006.7	118.687	1.432	1.96		Sand	19.8			204.88	0.69	141.99	184.03	0.62	0.652	0.770	0.858	1.426	2.19	0.00	0.00
83.830	100.310	2.993	10405.6	6017.0	31.613	3.147	2.61		Clay	72.1			94.81	0.76	n.a.	n.a.	0.62	0.652	n.a.	n.a.	n.a.	n.a.	0.00	0.00
83.990	46.760	1.826	10425.3	6026.7	13.788	4.395	2.98		Clay	100.0			44.20	0.76	n.a.	n.a.	0.62	0.651	n.a.	n.a.	n.a.	n.a.	0.00	0.00
84.150	30.150	0.809	10445.0	6036.4	8.259	3.245	3.08		Clay	100.0			28.50	0.76	n.a.	n.a.	0.62	0.651	n.a.	n.a.	n.a.	n.a.	0.00	0.00
84.320	23.840	0.559	10465.9	6046.7	6.154	3.006	3.17		Clay	100.0			22.53	0.76	n.a.	n.a.	0.62	0.650	n.a.	n.a.	n.a.	n.a.	0.00	0.00
84.480	21.350	0.472	10485.5	6056.4	5.319	2.930	3.22		Clay	100.0			20.18	0.76	n.a.	n.a.	0.62	0.650	n.a.	n.a.	n.a.	n.a.	0.00	0.00
84.650	21.430	0.426	10506.5	6066.7	5.333	2.634	3.20		Clay	100.0			20.26	0.76	n.a.	n.a.	0.62	0.649	n.a.	n.a.	n.a.	n.a.	0.00	0.00
84.810	21.260	0.481	10526.1	6076.4	5.265	3.004	3.23		Clay	100.0			20.09	0.76	n.a.	n.a.	0.62	0.649	n.a.	n.a.	n.a.	n.a.	0.00	0.00
84.970	20.770	0.448	10545.8	6086.1	5.093	2.892	3.23		Clay	100.0			19.63	0.76	n.a.	n.a.	0.62	0.649	n.a.	n.a.	n.a.	n.a.	0.00	0.00
85.140	20.700	0.422	10566.7	6096.4	5.058	2.740	3.22		Clay	100.0			19.57	0.76	n.a.	n.a.	0.62	0.648	n.a.	n.a.	n.a.	n.a.	0.00	0.00
85.300	20.920	0.383	10586.4	6106.1	5.118	2.451	3.20		Clay	100.0			19.77	0.76	n.a.	n.a.	0.62	0.648	n.a.	n.a.	n.a.	n.a.	0.00	0.00
85.470	20.190	0.370	10607.3	6116.4	4.868	2.482	3.22		Clay	100.0			19.08	0.76	n.a.	n.a.	0.62	0.647	n.a.	n.a.	n.a.	n.a.	0.00	0.00
85.630	19.840	0.355	10627.0	6126.1	4.743	2.440	3.22		Clay	100.0			18.75	0.76	n.a.	n.a.	0.62	0.647	n.a.	n.a.	n.a.	n.a.	0.00	0.00
85.790	20.620	0.352	10646.7	6135.8	4.986	2.302	3.19		Clay	100.0			19.49	0.76	n.a.	n.a.	0.62	0.646	n.a.	n.a.	n.a.	n.a.	0.00	0.00
85.960	21.760	0.355	10667.6	6146.1	5.345	2.158	3.15		Clay	100.0			20.57	0.75	n.a.	n.a.	0.62	0.646	n.a.	n.a.	n.a.	n.a.	0.00	0.00
86.120	22.460	0.455	10687.3	6155.8	5.561	2.656	3.18		Clay	100.0			21.23	0.75	n.a.	n.a.	0.62	0.645	n.a.	n.a.	n.a.	n.a.	0.00	0.00
86.290	22.890	0.464	10708.2	6166.1	5.688	2.647	3.17		Clay	100.0			21.64	0.75	n.a.	n.a.	0.62	0.645	n.a.	n.a.	n.a.	n.a.	0.00	0.00
86.450	24.070	0.465	10727.9	6175.8	6.058	2.483	3.14		Clay	100.0			22.75	0.75	n.a.	n.a.	0.62	0.645	n.a.	n.a.	n.a.	n.a.	0.00	0.00
86.610	24.360	0.492	10747.5	6185.5	6.139	2.589	3.14		Clay	100.0			23.02	0.75	n.a.	n.a.	0.61	0.644	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	4

PGA (A_{max})	0.87

Total Settlement:	0.39	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
86.780	26.010	0.533	10768.4	6195.8	6.658	2.584	3.11		Clay	100.0			24.58	0.75	n.a.	n.a.	0.61	0.644	n.a.	n.a.	n.a.	n.a.	0.00	0.00
86.940	26.150	0.588	10788.1	6205.5	6.690	2.833	3.13		Clay	100.0			24.72	0.75	n.a.	n.a.	0.61	0.643	n.a.	n.a.	n.a.	n.a.	0.00	0.00
87.110	25.790	0.620	10809.0	6215.8	6.559	3.039	3.15		Clay	100.0			24.38	0.75	n.a.	n.a.	0.61	0.643	n.a.	n.a.	n.a.	n.a.	0.00	0.00
87.270	25.330	0.616	10828.7	6225.5	6.398	3.091	3.17		Clay	100.0			23.94	0.75	n.a.	n.a.	0.61	0.642	n.a.	n.a.	n.a.	n.a.	0.00	0.00
87.430	24.590	0.612	10848.4	6235.2	6.148	3.195	3.19		Clay	100.0			23.24	0.75	n.a.	n.a.	0.61	0.642	n.a.	n.a.	n.a.	n.a.	0.00	0.00
87.600	23.460	0.603	10869.3	6245.5	5.772	3.347	3.22		Clay	100.0			22.17	0.75	n.a.	n.a.	0.61	0.642	n.a.	n.a.	n.a.	n.a.	0.00	0.00
87.760	24.470	0.597	10889.0	6255.2	6.083	3.138	3.19		Clay	100.0			23.13	0.75	n.a.	n.a.	0.61	0.641	n.a.	n.a.	n.a.	n.a.	0.00	0.00
87.930	24.870	0.621	10909.9	6265.5	6.197	3.198	3.19		Clay	100.0			23.51	0.75	n.a.	n.a.	0.61	0.641	n.a.	n.a.	n.a.	n.a.	0.00	0.00
88.090	25.120	0.638	10929.6	6275.2	6.264	3.245	3.18		Clay	100.0			23.74	0.75	n.a.	n.a.	0.61	0.640	n.a.	n.a.	n.a.	n.a.	0.00	0.00
88.250	26.110	0.653	10949.3	6284.9	6.567	3.165	3.16		Clay	100.0			24.68	0.75	n.a.	n.a.	0.61	0.640	n.a.	n.a.	n.a.	n.a.	0.00	0.00
88.420	26.340	0.641	10970.2	6295.2	6.626	3.071	3.15		Clay	100.0			24.90	0.75	n.a.	n.a.	0.61	0.640	n.a.	n.a.	n.a.	n.a.	0.00	0.00
88.580	25.600	0.654	10989.8	6304.8	6.378	3.253	3.18		Clay	100.0			24.20	0.75	n.a.	n.a.	0.61	0.639	n.a.	n.a.	n.a.	n.a.	0.00	0.00
88.750	24.910	0.676	11010.8	6315.2	6.145	3.482	3.21		Clay	100.0			23.54	0.75	n.a.	n.a.	0.61	0.639	n.a.	n.a.	n.a.	n.a.	0.00	0.00
88.910	26.030	0.721	11030.4	6324.8	6.487	3.513	3.19		Clay	100.0			24.60	0.75	n.a.	n.a.	0.61	0.638	n.a.	n.a.	n.a.	n.a.	0.00	0.00
89.070	27.190	0.725	11050.1	6334.5	6.840	3.347	3.16		Clay	100.0			25.70	0.75	n.a.	n.a.	0.61	0.638	n.a.	n.a.	n.a.	n.a.	0.00	0.00
89.240	26.370	0.680	11071.0	6344.8	6.567	3.262	3.17		Clay	100.0			24.92	0.75	n.a.	n.a.	0.61	0.638	n.a.	n.a.	n.a.	n.a.	0.00	0.00
89.400	26.710	0.567	11090.7	6354.5	6.661	2.677	3.12		Clay	100.0			25.25	0.75	n.a.	n.a.	0.61	0.637	n.a.	n.a.	n.a.	n.a.	0.00	0.00
89.570	25.380	0.472	11111.6	6364.8	6.229	2.379	3.12		Clay	100.0			23.99	0.75	n.a.	n.a.	0.61	0.637	n.a.	n.a.	n.a.	n.a.	0.00	0.00
89.730	23.570	0.501	11131.3	6374.5	5.649	2.783	3.19		Clay	100.0			22.28	0.75	n.a.	n.a.	0.61	0.636	n.a.	n.a.	n.a.	n.a.	0.00	0.00
89.900	23.450	0.637	11152.2	6384.8	5.599	3.565	3.25		Clay	100.0			22.16	0.75	n.a.	n.a.	0.60	0.636	n.a.	n.a.	n.a.	n.a.	0.00	0.00
90.060	25.600	0.742	11171.9	6394.5	6.260	3.708	3.22		Clay	100.0			24.20	0.75	n.a.	n.a.	0.60	0.636	n.a.	n.a.	n.a.	n.a.	0.00	0.00
90.220	27.310	0.846	11191.6	6404.2	6.781	3.897	3.20		Clay	100.0			25.81	0.75	n.a.	n.a.	0.60	0.635	n.a.	n.a.	n.a.	n.a.	0.00	0.00
90.390	27.770	0.900	11212.5	6414.5	6.910	4.061	3.20		Clay	100.0			26.25	0.75	n.a.	n.a.	0.60	0.635	n.a.	n.a.	n.a.	n.a.	0.00	0.00
90.550	28.890	0.814	11232.2	6424.2	7.246	3.499	3.15		Clay	100.0			27.31	0.75	n.a.	n.a.	0.60	0.635	n.a.	n.a.	n.a.	n.a.	0.00	0.00
90.720	28.080	0.783	11253.1	6434.5	6.979	3.489	3.16		Clay	100.0			26.54	0.75	n.a.	n.a.	0.60	0.634	n.a.	n.a.	n.a.	n.a.	0.00	0.00
90.880	27.780	0.799	11272.7	6444.2	6.872	3.608	3.18		Clay	100.0			26.26	0.75	n.a.	n.a.	0.60	0.634	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.040	28.770	0.854	11292.4	6453.9	7.166	3.692	3.17		Clay	100.0			27.19	0.75	n.a.	n.a.	0.60	0.633	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.210	28.930	0.901	11313.3	6464.2	7.201	3.873	3.18		Clay	100.0			27.34	0.74	n.a.	n.a.	0.60	0.633	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.370	28.830	0.891	11333.0	6473.9	7.156	3.846	3.18		Clay	100.0			27.25	0.74	n.a.	n.a.	0.60	0.633	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.540	28.350	0.824	11353.9	6484.2	6.993	3.634	3.17		Clay	100.0			26.80	0.74	n.a.	n.a.	0.60	0.632	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.700	27.470	0.792	11373.6	6493.9	6.709	3.638	3.19		Clay	100.0			25.96	0.74	n.a.	n.a.	0.60	0.632	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.860	28.280	0.795	11393.3	6503.6	6.945	3.521	3.17		Clay	100.0			26.73	0.74	n.a.	n.a.	0.60	0.632	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.030	28.760	0.818	11414.2	6513.9	7.078	3.550	3.16		Clay	100.0			27.18	0.74	n.a.	n.a.	0.60	0.631	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.190	28.130	0.841	11433.9	6523.6	6.871	3.752	3.19		Clay	100.0			26.59	0.74	n.a.	n.a.	0.60	0.631	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.360	27.290	0.787	11454.8	6533.9	6.600	3.651	3.19		Clay	100.0			25.79	0.74	n.a.	n.a.	0.60	0.630	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.520	26.660	0.737	11474.5	6543.6	6.395	3.523	3.20		Clay	100.0			25.20	0.74	n.a.	n.a.	0.60	0.630	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.680	26.170	0.707	11494.1	6553.3	6.233	3.460	3.20		Clay	100.0			24.74	0.74	n.a.	n.a.	0.60	0.630	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.850	25.850	0.679	11515.1	6563.6	6.122	3.379	3.20		Clay	100.0			24.43	0.74	n.a.	n.a.	0.60	0.629	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.010	25.510	0.631	11534.7	6573.3	6.007	3.198	3.20		Clay	100.0			24.11	0.74	n.a.	n.a.	0.60	0.629	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.180	25.090	0.585	11555.6	6583.6	5.867	3.029	3.19		Clay	100.0			23.71	0.74	n.a.	n.a.	0.60	0.629	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.340	23.630	0.536	11575.3	6593.3	5.412	3.004	3.22		Clay	100.0			22.33	0.74	n.a.	n.a.	0.60	0.628	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.500	23.310	0.411	11595.0	6603.0	5.304	2.347	3.17		Clay	100.0			22.03	0.74	n.a.	n.a.	0.60	0.628	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.670	23.210	0.492	11615.9	6613.3	5.263	2.824	3.22		Clay	100.0			21.94	0.74	n.a.	n.a.	0.59	0.628	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.830	22.550	0.504	11635.6	6623.0	5.053	3.010	3.25		Clay	100.0			21.31	0.74	n.a.	n.a.	0.59	0.627	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.000	24.100	0.458	11656.5	6633.3	5.509	2.505	3.17		Clay	100.0			22.78	0.74	n.a.	n.a.	0.59	0.627	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.160	23.070	0.447	11676.2	6643.0	5.188	2.596	3.20		Clay	100.0			21.81	0.74	n.a.	n.a.	0.59	0.627	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.320	22.900	0.482	11695.9	6652.7	5.126	2.825	3.23		Clay	100.0			21.64	0.74	n.a.	n.a.	0.59	0.626	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.490	23.120	0.558	11716.8	6663.0	5.181	3.234	3.25		Clay	100.0			21.85	0.74	n.a.	n.a.	0.59	0.626	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.650	25.080	0.671	11736.5	6672.7	5.758	3.493	3.23		Clay	100.0			23.71	0.74	n.a.	n.a.	0.59	0.626	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.820	26.710	0.702	11757.4	6683.0	6.234	3.372	3.20		Clay	100.0			25.25	0.74	n.a.	n.a.	0.59	0.625	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.980	25.650	0.717	11777.0	6692.7	5.905	3.629	3.23		Clay	100.0			24.24	0.74	n.a.	n.a.	0.59	0.625	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.140	29.470	0.635	11796.7	6702.4	7.034	2.694	3.10		Clay	100.0			27.85	0.74	n.a.	n.a.	0.59	0.625	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.310	29.510	0.615	11817.6	6712.7	7.032	2.607	3.09		Clay	100.0			27.89	0.74	n.a.	n.a.	0.59	0.624	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.470	25.030	0.640	11837.3	6722.4	5.686	3.349	3.23		Clay	100.0			23.66	0.74	n.a.	n.a.	0.59	0.624	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.640	24.030	0.604	11858.2	6732.7	5.377	3.337	3.25		Clay	100.0			22.71	0.74	n.a.	n.a.	0.59	0.624	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.800	24.790	0.647	11877.9	6742.4	5.592	3.432	3.24		Clay	100.0			23.43	0.74	n.a.	n.a.	0.59	0.623	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.960	25.020	0.633	11897.6	6752.1	5.649	3.318	3.23		Clay	100.0			23.65	0.74	n.a.	n.a.	0.59	0.623	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.130	24.850	0.625	11918.5	6762.4	5.587	3.306	3.23		Clay	100.0			23.49	0.74	n.a.	n.a.	0.59	0.623	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.290	23.880	0.567	11938.2	6772.1	5.290	3.166	3.24		Clay	100.0			22.57	0.74	n.a.	n.a.	0.59	0.622	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.460	23.610	0.515	11959.1	6782.4	5.199	2.921	3.23		Clay	100.0			22.32	0.74	n.a.	n.a.	0.59	0.622	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.620	23.870	0.454	11978.8	6792.1	5.265	2.541	3.19		Clay	100.0			22.56	0.74	n.a.	n.a.	0.59	0.622	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.780	23.690	0.504	11998.4	6801.8	5.202	2.847	3.22		Clay	100.0			22.39	0.73	n.a.	n.a.	0.59	0.622	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.950	24.300	0.533	12019.4	6812.1	5.370	2.916	3.22		Clay	100.0			22.97	0.73	n.a.	n.a.	0.59	0.621	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.110	26.980	0.556	12039.0	6821.8	6.145	2.654	3.15		Clay	100.0			25.50	0.73	n.a.	n.a.	0.59	0.621	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.280	27.580	0.562	12059.9	6832.1	6.308	2.607	3.13		Clay	100.0			26.07	0.73	n.a.	n.a.	0.59	0.621	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.440	28.010	0.526	12079.6	6841.8	6.422	2.393	3.11		Clay	100.0			26.47	0.73	n.a.	n.a.	0.59	0.620	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	4

PGA (A_{max})	0.87

Total Settlement:	0.39	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
97.600	26.640	0.485	12099.3	6851.5	6.010	2.356	3.13		Clay	100.0			25.18	0.73	n.a.	n.a.	0.59	0.620	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.770	25.720	0.558	12120.2	6861.8	5.730	2.840	3.19		Clay	100.0			24.31	0.73	n.a.	n.a.	0.59	0.620	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.930	26.630	0.845	12139.9	6871.5	5.984	4.109	3.26		Clay	100.0			25.17	0.73	n.a.	n.a.	0.58	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.100	31.590	1.107	12160.8	6881.8	7.414	4.341	3.20		Clay	100.0			29.86	0.73	n.a.	n.a.	0.58	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.260	37.570	1.021	12180.5	6891.5	9.136	3.243	3.05		Clay	100.0			35.51	0.73	n.a.	n.a.	0.58	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.430	42.470	1.856	12201.4	6901.8	10.539	5.103	3.12		Clay	100.0			40.14	0.73	n.a.	n.a.	0.58	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.590	46.430	3.374	12221.1	6911.5	11.667	8.368	3.22		Clay	100.0			43.88	0.73	n.a.	n.a.	0.58	0.618	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.750	78.860	5.014	12240.8	6921.2	21.020	6.893	2.97		Clay	100.0			74.54	0.73	n.a.	n.a.	0.58	0.618	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.920	110.430	5.641	12261.7	6931.5	30.094	5.409	2.79		Clay	86.2			104.38	0.73	n.a.	n.a.	0.58	0.618	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.080	111.970	4.865	12281.3	6941.1	30.493	4.597	2.74		Clay	81.9			105.83	0.73	n.a.	n.a.	0.58	0.618	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.250	100.210	3.097	12302.3	6951.5	27.062	3.292	2.68		Clay	77.2			94.72	0.73	n.a.	n.a.	0.58	0.617	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.410	68.630	1.638	12321.9	6961.1	17.948	2.622	2.76		Clay	83.5			64.87	0.73	n.a.	n.a.	0.58	0.617	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.570	42.950	1.207	12341.6	6970.8	10.552	3.283	3.00		Clay	100.0			40.60	0.73	n.a.	n.a.	0.58	0.617	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.740	31.340	0.985	12362.5	6981.1	7.208	3.914	3.18		Clay	100.0			29.62	0.73	n.a.	n.a.	0.58	0.616	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.900	27.130	0.808	12382.2	6990.8	5.990	3.860	3.24		Clay	100.0			25.64	0.73	n.a.	n.a.	0.58	0.616	n.a.	n.a.	n.a.	n.a.	0.00	0.00
100.070	25.170	0.732	12403.1	7001.1	5.419	3.858	3.28		Clay	100.0			23.79	0.73	n.a.	n.a.	0.58	0.616	n.a.	n.a.	n.a.	n.a.	0.00	0.00
100.230	26.270	0.738	12422.8	7010.8	5.722	3.678	3.25		Clay	100.0			24.83	0.73	n.a.	n.a.	0.58	0.616	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	5

PGA (A_{max})	0.87

Total Settlement:	0.09	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
0.160	256.350	2.508	20.0	20.0	2492.146	0.979	1.21		Unsaturated	0.0			242.30	1.70	411.90	411.90	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.330	503.600	3.324	41.3	41.3	3409.009	0.660	1.04		Unsaturated	0.0			475.99	1.70	809.19	809.19	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.490	390.140	4.329	61.3	61.3	2167.232	1.110	1.27		Unsaturated	0.0			368.75	1.70	626.88	626.88	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.660	285.030	5.060	82.5	82.5	1364.184	1.775	1.51		Unsaturated	0.0			269.40	1.70	457.99	457.99	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.820	224.200	5.400	102.5	102.5	962.602	2.409	1.67		Unsaturated	0.0			211.91	1.70	360.25	360.25	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.980	167.980	5.977	122.5	122.5	659.634	3.560	1.89		Unsaturated	14.0			158.77	1.70	269.91	302.05	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.150	131.030	6.060	143.8	143.8	474.898	4.628	2.05		Unsaturated	26.6			123.85	1.70	210.54	281.43	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.310	110.380	5.434	163.8	163.8	374.757	4.926	2.11		Unsaturated	32.0			104.33	1.70	177.36	251.87	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.480	101.800	4.891	185.0	185.0	325.117	4.808	2.13		Unsaturated	33.4			96.22	1.70	163.57	237.18	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.640	93.000	4.440	205.0	205.0	282.098	4.780	2.16		Unsaturated	35.5			87.90	1.70	149.43	222.59	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.800	81.070	3.182	225.0	225.0	234.659	3.930	2.12		Unsaturated	32.7			76.63	1.70	130.26	195.78	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.970	70.580	2.938	246.3	246.3	195.212	4.169	2.19		Unsaturated	37.9			66.71	1.70	113.41	180.79	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.130	61.040	2.726	266.3	266.3	162.291	4.475	2.26		Unsaturated	43.4			57.69	1.70	98.08	166.19	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.300	54.430	2.471	287.5	287.5	139.201	4.551	2.30		Unsaturated	46.9			51.45	1.70	87.46	155.03	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.460	52.840	2.236	307.5	307.5	130.631	4.245	2.29		Unsaturated	46.3			49.94	1.70	84.90	151.43	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.620	51.200	2.247	327.5	327.5	122.615	4.402	2.32		Unsaturated	48.6			48.39	1.70	82.27	149.36	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.790	51.310	2.266	348.8	348.8	119.053	4.432	2.33		Unsaturated	49.4			48.50	1.70	82.45	149.99	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.950	50.160	2.245	368.8	368.8	113.153	4.492	2.35		Unsaturated	50.8			47.41	1.70	80.60	148.34	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.120	48.540	2.213	390.0	390.0	106.437	4.578	2.37		Unsaturated	52.6			45.88	1.70	77.99	145.84	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.280	48.840	2.277	410.0	410.0	104.431	4.682	2.38		Unsaturated	53.7			46.16	1.70	78.48	146.88	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.440	50.380	2.299	430.0	430.0	105.181	4.583	2.37		Unsaturated	52.9			47.62	1.70	80.95	149.71	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.610	50.880	2.314	451.3	451.3	103.677	4.568	2.38		Unsaturated	53.1			48.09	1.70	81.75	150.83	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.770	52.590	2.264	471.3	471.3	104.857	4.324	2.35		Unsaturated	51.4			49.71	1.70	84.50	153.54	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.940	51.040	2.156	492.5	492.5	99.513	4.244	2.36		Unsaturated	52.0			48.24	1.70	82.01	150.66	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.100	46.970	2.118	512.5	512.5	89.716	4.534	2.41		Unsaturated	56.0			44.40	1.70	75.47	143.98	1.00	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.270	44.420	2.178	533.8	533.8	83.093	4.933	2.46		Unsaturated	60.0			41.98	1.70	71.37	140.10	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.430	45.590	2.273	553.8	553.8	83.722	5.017	2.47		Unsaturated	60.3			43.09	1.70	73.25	142.60	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.590	45.010	2.344	573.8	573.8	81.179	5.241	2.49		Unsaturated	62.1			42.54	1.70	72.32	141.97	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.760	44.450	2.336	595.0	595.0	78.699	5.292	2.50		Unsaturated	63.1			42.01	1.70	71.42	141.09	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.920	42.520	2.347	615.0	615.0	74.007	5.560	2.53		Unsaturated	65.8			40.19	1.69	67.93	137.32	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.090	41.820	2.331	636.3	636.3	71.536	5.617	2.55		Unsaturated	66.8			39.53	1.67	66.14	135.27	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.250	42.390	2.137	656.3	656.3	71.388	5.081	2.51		Unsaturated	64.1			40.07	1.65	66.24	134.72	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.410	41.130	2.078	676.3	676.3	68.201	5.093	2.53		Unsaturated	65.2			38.88	1.64	63.81	131.89	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.580	42.310	2.053	697.5	697.5	69.079	4.892	2.51		Unsaturated	63.9			39.99	1.62	64.67	132.63	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.740	43.280	2.013	717.5	717.5	69.668	4.691	2.49		Unsaturated	62.6			40.91	1.60	65.29	133.07	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.910	39.450	1.897	738.8	738.8	62.515	4.855	2.54		Unsaturated	66.0			37.29	1.60	59.51	126.53	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.070	34.750	1.736	758.8	758.8	54.251	5.050	2.59		Unsaturated	70.3			32.84	1.60	52.62	118.61	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.230	30.950	1.522	778.8	778.8	58.151	4.981	2.57		Unsaturated	68.3			29.25	1.61	47.02	110.97	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.400	26.880	1.260	800.0	800.0	49.446	4.758	2.60		Unsaturated	70.9			25.41	1.61	40.93	103.64	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.560	23.300	1.059	820.0	816.3	42.145	4.626	2.64		Unsaturated	74.0			22.02	1.62	35.60	97.33	0.99	0.561	1.099	n.a.	n.a.	n.a.	0.00	0.00
6.730	20.340	0.915	841.3	826.9	36.344	4.593	2.68		Unsaturated	77.5			19.22	1.62	31.22	92.21	0.99	0.561	1.094	n.a.	n.a.	n.a.	0.00	0.00
6.890	19.150	0.794	861.3	836.9	33.868	4.243	2.68		Unsaturated	77.3			18.10	1.62	29.37	89.78	0.99	0.560	1.091	n.a.	n.a.	n.a.	0.00	0.00
7.050	17.040	0.641	881.3	846.9	39.199	3.859	2.60		Unsaturated	71.4			16.11	1.63	26.26	84.78	0.99	0.560	1.086	n.a.	n.a.	n.a.	0.00	0.00
7.220	14.020	0.524	902.5	857.6	31.645	3.863	2.67		Unsaturated	76.8			13.25	1.64	21.71	79.78	0.99	0.560	1.082	n.a.	n.a.	n.a.	0.00	0.00
7.380	12.120	0.392	922.5	867.6	26.876	3.360	2.69		Unsaturated	77.9			11.46	1.64	18.81	76.17	0.98	0.559	1.079	n.a.	n.a.	n.a.	0.00	0.00
7.550	11.450	0.370	943.8	878.2	25.001	3.373	2.71		Unsaturated	79.9			10.82	1.64	17.70	75.00	0.98	0.559	1.077	n.a.	n.a.	n.a.	0.00	0.00
7.710	10.380	0.344	963.8	888.2	22.287	3.475	2.76		Unsaturated	83.6			9.81	1.63	16.01	73.28	0.98	0.559	1.075	n.a.	n.a.	n.a.	0.00	0.00
7.870	10.200	0.329	983.8	898.3	21.615	3.390	2.76		Unsaturated	83.9			9.64	1.62	15.65	72.84	0.98	0.558	1.074	n.a.	n.a.	n.a.	0.00	0.00
8.040	10.350	0.318	1005.0	908.9	21.669	3.226	2.75		Clay	82.7			9.78	1.25	n.a.	n.a.	0.98	0.559	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.200	9.980	0.317	1025.0	918.9	20.606	3.344	2.77		Clay	84.9			9.43	1.25	n.a.	n.a.	0.98	0.564	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.370	10.500	0.303	1046.3	929.6	21.466	3.033	2.73		Clay	81.6			9.92	1.24	n.a.	n.a.	0.98	0.570	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.530	12.150	0.378	1066.3	939.6	24.728	3.250	2.70		Clay	79.3			11.48	1.24	n.a.	n.a.	0.98	0.575	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.690	12.880	0.399	1086.3	949.6	25.983	3.232	2.69		Clay	77.9			12.17	1.24	n.a.	n.a.	0.98	0.580	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.860	13.480	0.417	1107.5	960.2	26.923	3.228	2.67		Clay	76.9			12.74	1.23	n.a.	n.a.	0.98	0.585	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.020	13.570	0.439	1127.5	970.3	26.810	3.371	2.69		Clay	78.0			12.83	1.23	n.a.	n.a.	0.98	0.589	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.190	15.190	0.486	1148.8	980.9	29.801	3.325	2.65		Clay	74.9			14.36	1.22	n.a.	n.a.	0.98	0.594	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.350	15.450	0.502	1168.8	990.9	30.004	3.378	2.65		Clay	75.1			14.60	1.22	n.a.	n.a.	0.98	0.598	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.510	14.570	0.472	1188.8	1000.9	27.925	3.375	2.67		Clay	77.0			13.77	1.22	n.a.	n.a.	0.98	0.603	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.680	13.840	0.451	1210.0	1011.6	26.167	3.408	2.70		Clay	78.9			13.08	1.21	n.a.	n.a.	0.98	0.607	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.840	12.820	0.433	1230.0	1021.6	23.894	3.549	2.74		Clay	82.2			12.12	1.21	n.a.	n.a.	0.98	0.611	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.010	13.000	0.437	1251.3	1032.2	23.976	3.533	2.74		Clay	82.0			12.29	1.21	n.a.	n.a.	0.97	0.616	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.170	12.540	0.405	1271.3	1042.2	22.844	3.404	2.74		Clay	82.5			11.85	1.21	n.a.	n.a.	0.97	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.330	11.800	0.399	1291.3	1052.3	21.201	3.574	2.78		Clay	85.6			11.15	1.20	n.a.	n.a.	0.97	0.623	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.500	12.050	0.401	1312.5	1062.9	21.439	3.515	2.77		Clay	84.9			11.39	1.20	n.a.	n.a.	0.97	0.627	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.660	12.310	0.415	1332.5	1072.9	21.705	3.567	2.77		Clay	84.9			11.64	1.20	n.a.	n.a.	0.97	0.631	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.830	11.450	0.404	1353.8	1083.6	19.885	3.754	2.82		Clay	88.4			10.82	1.19	n.a.	n.a.	0.97	0.635	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	5

PGA (A_{max})	0.87

Total Settlement:	0.09	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
10.990	10.770	0.363	1373.8	1093.6	18.441	3.604	2.83		Clay	89.5			10.18	1.19	n.a.	n.a.	0.97	0.638	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.150	10.040	0.330	1393.8	1103.6	16.932	3.529	2.85		Clay	91.4			9.49	1.19	n.a.	n.a.	0.97	0.642	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.320	9.640	0.307	1415.0	1114.2	16.033	3.439	2.87		Clay	92.3			9.11	1.18	n.a.	n.a.	0.97	0.645	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.480	9.020	0.289	1435.0	1124.2	14.770	3.486	2.90		Clay	94.8			8.53	1.18	n.a.	n.a.	0.97	0.649	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.650	8.760	0.285	1456.3	1134.9	14.154	3.545	2.92		Clay	96.4			8.28	1.18	n.a.	n.a.	0.97	0.652	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.810	8.690	0.267	1476.3	1144.9	13.891	3.360	2.91		Clay	95.8			8.21	1.18	n.a.	n.a.	0.97	0.655	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.980	9.300	0.261	1497.5	1155.5	14.800	3.050	2.86		Clay	92.0			8.79	1.17	n.a.	n.a.	0.97	0.659	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.140	9.620	0.269	1517.5	1165.6	15.205	3.040	2.85		Clay	91.2			9.09	1.17	n.a.	n.a.	0.97	0.662	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.300	9.880	0.292	1537.5	1175.6	15.501	3.200	2.86		Clay	91.7			9.34	1.17	n.a.	n.a.	0.97	0.665	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.470	9.720	0.263	1558.8	1186.2	15.074	2.944	2.85		Clay	90.7			9.19	1.16	n.a.	n.a.	0.97	0.668	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.630	8.110	0.209	1578.8	1196.2	12.239	2.855	2.91		Clay	96.0			7.67	1.16	n.a.	n.a.	0.96	0.671	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.800	7.130	0.172	1600.0	1206.9	10.490	2.714	2.96		Clay	99.4			6.74	1.16	n.a.	n.a.	0.96	0.674	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.960	6.610	0.165	1620.0	1216.9	9.532	2.836	3.00		Clay	100.0			6.25	1.16	n.a.	n.a.	0.96	0.677	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.120	7.070	0.187	1640.0	1226.9	10.188	2.989	2.99		Clay	100.0			6.68	1.15	n.a.	n.a.	0.96	0.679	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.290	7.710	0.198	1661.3	1237.6	11.118	2.877	2.95		Clay	98.9			7.29	1.15	n.a.	n.a.	0.96	0.682	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.450	7.800	0.220	1681.3	1247.6	11.157	3.166	2.97		Clay	100.0			7.37	1.15	n.a.	n.a.	0.96	0.685	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.620	8.530	0.290	1702.5	1258.2	12.206	3.781	2.99		Clay	100.0			8.06	1.15	n.a.	n.a.	0.96	0.687	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.780	12.350	0.354	1722.5	1268.2	18.118	3.084	2.80		Clay	86.6			11.67	1.14	n.a.	n.a.	0.96	0.690	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.940	14.790	0.348	1742.5	1278.2	21.778	2.500	2.68		Clay	77.1			13.98	1.14	n.a.	n.a.	0.96	0.692	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.110	13.130	0.359	1763.8	1288.9	19.006	2.934	2.77		Clay	84.2			12.41	1.14	n.a.	n.a.	0.96	0.695	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.270	12.160	0.386	1783.8	1298.9	17.350	3.424	2.84		Clay	90.0			11.49	1.14	n.a.	n.a.	0.96	0.697	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.440	13.110	0.362	1805.0	1309.5	18.644	2.964	2.77		Clay	85.0			12.39	1.13	n.a.	n.a.	0.96	0.700	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.600	12.920	0.447	1825.0	1319.6	18.199	3.719	2.84		Clay	90.5			12.21	1.13	n.a.	n.a.	0.96	0.702	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.760	10.930	0.560	1845.0	1329.6	15.054	5.600	3.02		Clay	100.0			10.33	1.13	n.a.	n.a.	0.96	0.704	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.930	22.520	0.678	1866.3	1340.2	32.214	3.141	2.61		Clay	71.6	42.47	1.78	75.60	1.13	n.a.	n.a.	0.96	0.706	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.090	42.210	0.501	1886.3	1350.2	48.828	1.213	2.21		Sand	39.6	42.47	1.78	75.60	1.20	90.36	153.78	0.95	0.708	1.074	0.316	0.581	0.82	0.01	0.03
15.260	44.930	0.635	1907.5	1360.9	51.830	1.443	2.23		Sand	41.6		1.78	75.59	1.19	90.01	154.84	0.95	0.711	1.074	0.324	0.601	0.85	0.01	0.02
15.420	26.760	0.304	1927.5	1370.9	30.292	1.179	2.37		Sand	52.7	42.47	1.78	75.60	1.18	89.41	160.36	0.95	0.713	1.076	0.375	0.725	1.02	0.01	0.02
15.580	12.280	0.232	1947.5	1380.9	16.375	2.048	2.73		Clay	81.1			11.61	1.12	n.a.	n.a.	0.95	0.715	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.750	6.470	0.142	1968.8	1391.6	7.884	2.583	3.05		Clay	100.0			6.12	1.12	n.a.	n.a.	0.95	0.717	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.910	5.400	0.120	1988.8	1401.6	6.287	2.717	3.14		Clay	100.0			5.10	1.11	n.a.	n.a.	0.95	0.719	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.080	5.310	0.108	2010.0	1412.2	6.097	2.509	3.14		Clay	100.0			5.02	1.11	n.a.	n.a.	0.95	0.721	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.240	5.300	0.104	2030.0	1422.2	6.026	2.434	3.13		Clay	100.0			5.01	1.11	n.a.	n.a.	0.95	0.722	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.400	5.130	0.098	2050.0	1432.2	5.732	2.382	3.15		Clay	100.0			4.85	1.11	n.a.	n.a.	0.95	0.724	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.570	5.080	0.089	2071.3	1442.9	5.606	2.191	3.14		Clay	100.0			4.80	1.11	n.a.	n.a.	0.95	0.726	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.730	5.080	0.087	2091.3	1452.9	5.554	2.149	3.14		Clay	100.0			4.80	1.10	n.a.	n.a.	0.95	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.900	5.220	0.094	2112.5	1463.5	5.690	2.246	3.14		Clay	100.0			4.93	1.10	n.a.	n.a.	0.95	0.730	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.060	5.400	0.221	2132.5	1473.6	5.882	5.093	3.32		Clay	100.0			5.10	1.10	n.a.	n.a.	0.95	0.731	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.220	6.050	0.251	2152.5	1483.6	6.705	5.053	3.27		Clay	100.0			5.72	1.10	n.a.	n.a.	0.95	0.733	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.390	10.890	0.288	2173.8	1494.2	13.121	2.942	2.90		Clay	94.6			10.29	1.10	n.a.	n.a.	0.94	0.734	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.550	11.260	0.479	2193.8	1504.2	13.513	4.717	3.01		Clay	100.0			10.64	1.09	n.a.	n.a.	0.94	0.736	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.720	12.840	0.602	2215.0	1514.9	15.490	5.128	2.99		Clay	100.0			12.14	1.09	n.a.	n.a.	0.94	0.738	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.880	17.540	0.894	2235.0	1524.9	21.539	5.442	2.90		Clay	94.7			16.58	1.09	n.a.	n.a.	0.94	0.739	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.040	26.990	0.695	2255.0	1534.9	30.605	2.688	2.58		Mixed	69.4	58.95	1.8	106.11	1.11	117.82	202.60	0.94	0.741	1.087	2.195	5.250	7.09	0.00	0.00
18.210	34.760	0.845	2276.3	1545.5	37.184	2.514	2.50		Sand	62.7	58.95	1.8	106.11	1.11	117.67	200.35	0.94	0.742	1.083	1.928	4.592	6.19	0.00	0.00
18.370	62.370	0.817	2296.3	1555.6	67.489	1.334	2.12		Sand	32.7		1.8	106.11	1.12	118.37	181.33	0.94	0.744	1.066	0.766	1.726	2.32	0.00	0.00
18.540	45.660	1.085	2317.5	1566.2	48.890	2.438	2.40		Sand	54.9	58.95	1.8	106.11	1.11	117.32	196.83	0.94	0.745	1.076	1.587	3.759	5.05	0.00	0.00
18.700	23.710	1.225	2337.5	1576.2	28.602	5.435	2.81		Clay	87.5			22.41	1.08	n.a.	n.a.	0.94	0.746	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.860	32.640	1.341	2357.5	1586.2	39.668	4.263	2.63		Clay	73.5	98.81	1.45	143.27	1.08	n.a.	n.a.	0.94	0.748	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.030	69.180	1.527	2378.8	1596.9	73.975	2.245	2.24		Sand	42.5	98.81	1.45	143.27	1.08	155.18	236.78	0.94	0.749	1.084	31.078	74.146	99.00	0.00	0.00
19.190	94.890	1.422	2398.8	1606.9	101.619	1.518	2.03		Sand	25.1	98.81	1.45	143.27	1.09	156.11	213.66	0.94	0.750	1.083	4.471	10.649	14.19	0.00	0.00
19.360	104.540	1.287	2420.0	1617.5	111.705	1.246	1.94		Sand	18.0		1.45	143.27	1.09	156.81	195.12	0.94	0.752	1.067	1.451	3.404	4.53	0.00	0.00
19.520	100.240	1.210	2440.0	1627.6	106.716	1.222	1.95		Sand	18.7	98.81	1.45	143.27	1.09	156.38	196.99	0.93	0.753	1.067	1.601	3.758	4.99	0.00	0.00
19.690	88.770	1.277	2461.3	1638.2	94.036	1.459	2.04		Sand	26.1	98.81	1.45	143.27	1.08	155.12	214.66	0.93	0.754	1.077	4.797	11.364	15.07	0.00	0.00
19.850	70.830	1.370	2481.3	1648.2	74.526	1.969	2.20		Sand	39.1	98.81	1.45	143.27	1.07	154.00	232.20	0.93	0.755	1.075	20.060	47.440	62.82	0.00	0.00
20.010	50.080	1.195	2501.3	1658.2	52.135	2.448	2.38		Sand	53.3	98.81	1.45	143.27	1.07	153.31	241.84	0.93	0.756	1.073	52.131	123.075	162.74	0.00	0.00
20.180	30.890	0.581	2522.5	1668.9	31.534	1.960	2.48		Sand	61.8	98.81	1.45	143.27	1.07	152.90	245.20	0.93	0.757	1.071	75.059	176.888	233.53	0.00	0.00
20.340	19.320	0.379	2542.5	1678.9	21.501	2.102	2.64		Clay	73.9	98.81	1.45	143.27	1.06	n.a.	n.a.	0.93	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.510	11.940	0.415	2563.8	1689.5	12.617	3.893	2.98		Clay	100.0			11.29	1.06	n.a.	n.a.	0.93	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.670	10.120	0.378	2583.8	1699.5	10.389	4.276	3.07		Clay	100.0			9.57	1.06	n.a.	n.a.	0.93	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.830	10.530	0.435	2603.8	1709.6	10.796	4.708	3.09		Clay	100.0			9.95	1.06	n.a.	n.a.	0.93	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.000	10.510	0.381	2625.0	1720.2	10.694	4.141	3.05		Clay	100.0			9.93	1.06	n.a.	n.a.	0.93	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.160	8.350	0.318	2645.0	1730.2	8.123	4.529	3.17		Clay	100.0			7.89	1.05	n.a.	n.a.	0.93	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.330	7.350	0.231	2666.3	1740.9	6.913	3.838	3.19		Clay	100.0			6.95	1.05	n.a.	n.a.	0.93	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.490	7.030	0.199	2686.3	1750.9	6.496	3.506	3.19		Clay	100.0			6.64	1.05	n.a.	n.a.	0.93	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.650	6.960	0.190	2706.3	1760.9	6.368	3.382	3.19		Clay	100.0			6.58	1.05	n.a.	n.a.	0.92	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	5

PGA (A_{max})	0.87

Total Settlement:	0.09	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, s'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
21.820	7.430	0.194	2727.5	1771.5	6.849	3.201	3.15		Clay	100.0			7.02	1.05	n.a.	n.a.	0.92	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.980	7.760	0.232	2747.5	1781.5	7.169	3.628	3.16		Clay	100.0			7.33	1.05	n.a.	n.a.	0.92	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.150	7.890	0.239	2768.8	1792.2	7.260	3.668	3.16		Clay	100.0			7.46	1.04	n.a.	n.a.	0.92	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.310	7.830	0.243	2788.8	1802.2	7.142	3.779	3.17		Clay	100.0			7.40	1.04	n.a.	n.a.	0.92	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.470	7.910	0.228	2808.8	1812.2	7.180	3.497	3.15		Clay	100.0			7.48	1.04	n.a.	n.a.	0.92	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.640	8.110	0.228	2830.0	1822.9	7.346	3.401	3.14		Clay	100.0			7.67	1.04	n.a.	n.a.	0.92	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.800	8.330	0.253	2850.0	1832.9	7.535	3.657	3.15		Clay	100.0			7.87	1.04	n.a.	n.a.	0.92	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.970	8.890	0.296	2871.3	1843.5	8.087	3.964	3.14		Clay	100.0			8.40	1.04	n.a.	n.a.	0.92	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.130	9.720	0.346	2891.3	1853.5	8.928	4.185	3.12		Clay	100.0			9.19	1.04	n.a.	n.a.	0.92	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.290	9.760	0.351	2911.3	1863.6	8.912	4.227	3.12		Clay	100.0			9.22	1.03	n.a.	n.a.	0.92	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.460	9.640	0.316	2932.5	1874.2	8.722	3.862	3.11		Clay	100.0			9.11	1.03	n.a.	n.a.	0.92	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.620	9.600	0.272	2952.5	1884.2	8.623	3.342	3.08		Clay	100.0			9.07	1.03	n.a.	n.a.	0.92	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.790	9.260	0.266	2973.8	1894.9	8.204	3.426	3.10		Clay	100.0			8.75	1.03	n.a.	n.a.	0.91	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.950	9.070	0.264	2993.8	1904.9	7.951	3.490	3.12		Clay	100.0			8.57	1.03	n.a.	n.a.	0.91	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.110	9.030	0.300	3013.8	1914.9	7.858	3.992	3.15		Clay	100.0			8.53	1.03	n.a.	n.a.	0.91	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.280	9.020	0.301	3035.0	1925.5	7.793	4.012	3.16		Clay	100.0			8.53	1.03	n.a.	n.a.	0.91	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.440	8.600	0.292	3055.0	1935.5	7.308	4.122	3.19		Clay	100.0			8.13	1.02	n.a.	n.a.	0.91	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.610	8.430	0.297	3076.3	1946.2	7.082	4.309	3.21		Clay	100.0			7.97	1.02	n.a.	n.a.	0.91	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.770	8.810	0.275	3096.3	1956.2	7.424	3.780	3.16		Clay	100.0			8.33	1.02	n.a.	n.a.	0.91	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.930	9.810	0.371	3116.3	1966.2	8.394	4.501	3.16		Clay	100.0			9.27	1.02	n.a.	n.a.	0.91	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.100	10.470	0.433	3137.5	1976.9	9.005	4.864	3.16		Clay	100.0			9.90	1.02	n.a.	n.a.	0.91	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.260	10.030	0.445	3157.5	1986.9	8.507	5.261	3.20		Clay	100.0			9.48	1.02	n.a.	n.a.	0.91	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.430	9.420	0.441	3178.8	1997.5	7.840	5.625	3.24		Clay	100.0			8.90	1.02	n.a.	n.a.	0.91	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.590	9.160	0.417	3198.8	2007.5	7.532	5.511	3.25		Clay	100.0			8.66	1.01	n.a.	n.a.	0.91	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.750	9.150	0.415	3218.8	2017.6	7.475	5.504	3.25		Clay	100.0			8.65	1.01	n.a.	n.a.	0.90	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.920	9.280	0.407	3240.0	2028.2	7.554	5.309	3.24		Clay	100.0			8.77	1.01	n.a.	n.a.	0.90	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.080	9.100	0.401	3260.0	2038.2	7.330	5.363	3.25		Clay	100.0			8.60	1.01	n.a.	n.a.	0.90	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.250	8.990	0.393	3281.3	2048.9	7.174	5.353	3.26		Clay	100.0			8.50	1.01	n.a.	n.a.	0.90	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.410	8.700	0.389	3301.3	2058.9	6.848	5.515	3.28		Clay	100.0			8.22	1.01	n.a.	n.a.	0.90	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.570	8.440	0.404	3321.3	2068.9	6.554	5.962	3.32		Clay	100.0			7.98	1.01	n.a.	n.a.	0.90	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.740	8.830	0.403	3342.5	2079.5	6.885	5.627	3.29		Clay	100.0			8.35	1.00	n.a.	n.a.	0.90	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.900	9.080	0.402	3362.5	2089.5	7.082	5.436	3.27		Clay	100.0			8.58	1.00	n.a.	n.a.	0.90	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.070	8.970	0.417	3383.8	2100.2	6.931	5.723	3.29		Clay	100.0			8.48	1.00	n.a.	n.a.	0.90	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.230	9.120	0.425	3403.8	2110.2	7.031	5.733	3.29		Clay	100.0			8.62	1.00	n.a.	n.a.	0.90	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.400	9.490	0.439	3425.0	2120.8	7.334	5.650	3.27		Clay	100.0			8.97	1.00	n.a.	n.a.	0.90	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.560	10.200	0.442	3445.0	2130.9	7.957	5.216	3.22		Clay	100.0			9.64	1.00	n.a.	n.a.	0.90	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.720	10.730	0.458	3465.0	2140.9	8.405	5.094	3.19		Clay	100.0			10.14	1.00	n.a.	n.a.	0.89	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.890	10.550	0.449	3486.3	2151.5	8.187	5.099	3.20		Clay	100.0			9.97	1.00	n.a.	n.a.	0.89	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.050	10.890	0.373	3506.3	2161.5	8.454	4.078	3.13		Clay	100.0			10.29	0.99	n.a.	n.a.	0.89	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.220	12.330	0.460	3527.5	2172.2	9.729	4.351	3.10		Clay	100.0			11.65	0.99	n.a.	n.a.	0.89	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.380	13.960	0.496	3547.5	2182.2	11.169	4.067	3.04		Clay	100.0			13.19	0.99	n.a.	n.a.	0.89	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.540	15.740	0.486	3567.5	2192.2	12.733	3.480	2.95		Clay	98.9			14.88	0.99	n.a.	n.a.	0.89	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.710	15.120	0.473	3588.8	2202.8	12.099	3.549	2.97		Clay	100.0			14.29	0.99	n.a.	n.a.	0.89	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.870	15.110	0.477	3608.8	2212.9	12.026	3.586	2.98		Clay	100.0			14.28	0.99	n.a.	n.a.	0.89	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.040	15.790	0.526	3630.0	2223.5	12.570	3.766	2.97		Clay	100.0			14.92	0.99	n.a.	n.a.	0.89	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.200	15.800	0.556	3650.0	2233.5	12.514	3.975	2.99		Clay	100.0			14.93	0.99	n.a.	n.a.	0.89	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.360	15.200	0.483	3670.0	2243.5	11.914	3.616	2.98		Clay	100.0			14.37	0.98	n.a.	n.a.	0.89	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.530	15.460	0.469	3691.3	2254.2	12.079	3.441	2.96		Clay	100.0			14.61	0.98	n.a.	n.a.	0.89	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.690	14.970	0.440	3711.3	2264.2	11.584	3.358	2.97		Clay	100.0			14.15	0.98	n.a.	n.a.	0.88	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.860	13.320	0.435	3732.5	2274.8	10.070	3.795	3.05		Clay	100.0			12.59	0.98	n.a.	n.a.	0.88	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.020	11.740	0.408	3752.5	2284.9	8.634	4.133	3.13		Clay	100.0			11.10	0.98	n.a.	n.a.	0.88	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.180	12.250	0.388	3772.5	2294.9	9.032	3.741	3.09		Clay	100.0			11.58	0.98	n.a.	n.a.	0.88	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.350	13.590	0.422	3793.8	2305.5	10.144	3.605	3.04		Clay	100.0			12.84	0.98	n.a.	n.a.	0.88	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.510	15.910	0.445	3813.8	2315.5	12.095	3.177	2.94		Clay	98.5			15.04	0.98	n.a.	n.a.	0.88	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.680	17.350	0.484	3835.0	2326.2	13.269	3.136	2.91		Clay	95.6			16.40	0.98	n.a.	n.a.	0.88	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.840	17.920	0.479	3855.0	2336.2	13.691	2.993	2.88		Clay	93.8			16.94	0.97	n.a.	n.a.	0.88	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.000	18.150	0.483	3875.0	2346.2	13.820	2.979	2.88		Clay	93.4			17.16	0.97	n.a.	n.a.	0.88	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.170	18.690	0.483	3896.3	2356.8	14.207	2.887	2.86		Clay	92.0			17.67	0.97	n.a.	n.a.	0.88	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.330	18.980	0.472	3916.3	2366.9	14.384	2.772	2.85		Clay	90.8			17.94	0.97	n.a.	n.a.	0.88	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.500	18.210	0.465	3937.5	2377.5	13.662	2.861	2.87		Clay	92.9			17.21	0.97	n.a.	n.a.	0.87	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.660	17.480	0.447	3957.5	2387.5	12.985	2.880	2.89		Clay	94.5			16.52	0.97	n.a.	n.a.	0.87	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.820	18.030	0.421	3977.5	2397.5	13.381	2.626	2.86		Clay	91.8			17.04	0.97	n.a.	n.a.	0.87	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.990	17.720	0.400	3998.8	2408.2	13.056	2.545	2.86		Clay	91.9			16.75	0.97	n.a.	n.a.	0.87	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.150	17.950	0.394	4018.8	2418.2	13.184	2.472	2.85		Clay	91.0			16.97	0.97	n.a.	n.a.	0.87	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.320	18.740	0.391	4040.0	2428.8	13.768	2.337	2.82		Clay	88.7			17.71	0.96	n.a.	n.a.	0.87	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.480	18.400	0.378	4060.0	2438.8	13.424	2.307	2.83		Clay	89.2			17.39	0.96	n.a.	n.a.	0.87	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	5

PGA (A_{max})	0.87

Total Settlement:	0.09	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, s'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
32.640	17.640	0.382	4080.0	2448.9	12.741	2.447	2.86		Clay	91.8			16.67	0.96	n.a.	n.a.	0.87	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.810	17.540	0.404	4101.3	2459.5	12.596	2.609	2.88		Clay	93.4			16.58	0.96	n.a.	n.a.	0.87	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.970	17.450	0.409	4121.3	2469.5	12.463	2.656	2.89		Clay	94.1			16.49	0.96	n.a.	n.a.	0.87	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.140	17.150	0.444	4142.5	2480.2	12.159	2.943	2.92		Clay	96.8			16.21	0.96	n.a.	n.a.	0.87	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.300	17.020	0.464	4162.5	2490.2	11.998	3.105	2.94		Clay	98.3			16.09	0.96	n.a.	n.a.	0.87	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.460	16.950	0.467	4182.5	2500.2	11.886	3.145	2.95		Clay	98.8			16.02	0.96	n.a.	n.a.	0.86	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.630	14.910	0.423	4203.8	2510.8	10.202	3.304	3.01		Clay	100.0			14.09	0.96	n.a.	n.a.	0.86	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.790	12.480	0.408	4223.8	2520.9	8.226	3.933	3.13		Clay	100.0			11.80	0.95	n.a.	n.a.	0.86	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.960	10.340	0.377	4245.0	2531.5	6.492	4.591	3.26		Clay	100.0			9.77	0.95	n.a.	n.a.	0.86	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.120	9.230	0.361	4265.0	2541.5	5.585	5.085	3.34		Clay	100.0			8.72	0.95	n.a.	n.a.	0.86	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.280	8.770	0.349	4285.0	2551.5	5.195	5.258	3.37		Clay	100.0			8.29	0.95	n.a.	n.a.	0.86	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.450	9.780	0.328	4306.3	2562.2	5.953	4.295	3.27		Clay	100.0			9.24	0.95	n.a.	n.a.	0.86	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.610	11.240	0.244	4326.3	2572.2	7.058	2.690	3.10		Clay	100.0			10.62	0.95	n.a.	n.a.	0.86	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.780	12.450	0.217	4347.5	2582.8	7.957	2.113	3.00		Clay	100.0			11.77	0.95	n.a.	n.a.	0.86	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.940	11.830	0.201	4367.5	2592.8	7.441	2.079	3.02		Clay	100.0			11.18	0.95	n.a.	n.a.	0.86	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.100	11.350	0.207	4387.5	2602.9	7.036	2.255	3.06		Clay	100.0			10.73	0.95	n.a.	n.a.	0.86	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.270	10.470	0.218	4408.8	2613.5	6.325	2.639	3.13		Clay	100.0			9.90	0.95	n.a.	n.a.	0.85	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.430	10.810	0.214	4428.8	2623.5	6.553	2.493	3.11		Clay	100.0			10.22	0.94	n.a.	n.a.	0.85	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.600	11.210	0.240	4450.0	2634.2	6.822	2.668	3.11		Clay	100.0			10.60	0.94	n.a.	n.a.	0.85	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.760	11.360	0.334	4470.0	2644.2	6.902	3.662	3.18		Clay	100.0			10.74	0.94	n.a.	n.a.	0.85	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.930	11.850	0.440	4491.3	2654.8	7.235	4.580	3.22		Clay	100.0			11.20	0.94	n.a.	n.a.	0.85	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.090	15.880	0.380	4511.3	2664.8	10.225	2.786	2.97		Clay	100.0			15.01	0.94	n.a.	n.a.	0.85	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.250	20.340	0.352	4531.3	2674.9	13.514	1.947	2.78		Clay	85.7			19.22	0.94	n.a.	n.a.	0.85	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.420	16.480	0.384	4552.5	2685.5	10.578	2.701	2.95		Clay	99.1			15.58	0.94	n.a.	n.a.	0.85	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.580	13.460	0.362	4572.5	2695.5	8.291	3.236	3.08		Clay	100.0			12.72	0.94	n.a.	n.a.	0.85	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.750	14.910	0.321	4593.8	2706.2	9.322	2.547	2.98		Clay	100.0			14.09	0.94	n.a.	n.a.	0.85	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.910	14.500	0.283	4613.8	2716.2	8.978	2.323	2.97		Clay	100.0			13.71	0.94	n.a.	n.a.	0.85	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.070	12.520	0.255	4633.8	2726.2	7.485	2.494	3.06		Clay	100.0			11.83	0.94	n.a.	n.a.	0.84	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.240	11.420	0.245	4655.0	2736.8	6.645	2.692	3.12		Clay	100.0			10.79	0.93	n.a.	n.a.	0.84	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.400	11.170	0.235	4675.0	2746.8	6.431	2.655	3.13		Clay	100.0			10.56	0.93	n.a.	n.a.	0.84	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.570	10.900	0.229	4696.3	2757.5	6.203	2.678	3.14		Clay	100.0			10.30	0.93	n.a.	n.a.	0.84	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.730	10.980	0.165	4716.3	2767.5	6.231	1.915	3.07		Clay	100.0			10.38	0.93	n.a.	n.a.	0.84	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.890	11.280	0.163	4736.3	2777.5	6.417	1.823	3.05		Clay	100.0			10.66	0.93	n.a.	n.a.	0.84	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.060	11.300	0.170	4757.5	2788.2	6.399	1.907	3.06		Clay	100.0			10.68	0.93	n.a.	n.a.	0.84	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.220	10.640	0.221	4777.5	2798.2	5.898	2.674	3.16		Clay	100.0			10.06	0.93	n.a.	n.a.	0.84	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.390	10.370	0.311	4798.8	2808.8	5.675	3.904	3.26		Clay	100.0			9.80	0.93	n.a.	n.a.	0.84	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.550	11.840	0.228	4818.8	2818.8	6.691	2.417	3.09		Clay	100.0			11.19	0.93	n.a.	n.a.	0.84	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.710	17.430	0.208	4838.8	2828.8	10.613	1.384	2.80		Clay	86.8			16.47	0.93	n.a.	n.a.	0.84	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.880	14.060	0.204	4860.0	2839.5	8.192	1.752	2.95		Clay	98.7			13.29	0.93	n.a.	n.a.	0.84	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.040	11.500	0.184	4880.0	2849.5	6.359	2.035	3.07		Clay	100.0			10.87	0.92	n.a.	n.a.	0.83	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.210	11.620	0.185	4901.3	2860.1	6.412	2.016	3.07		Clay	100.0			10.98	0.92	n.a.	n.a.	0.83	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.370	11.860	0.205	4921.3	2870.2	6.550	2.184	3.08		Clay	100.0			11.21	0.92	n.a.	n.a.	0.83	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.530	12.390	0.223	4941.3	2880.2	6.888	2.250	3.07		Clay	100.0			11.71	0.92	n.a.	n.a.	0.83	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.700	13.170	0.247	4962.5	2890.8	7.395	2.311	3.05		Clay	100.0			12.45	0.92	n.a.	n.a.	0.83	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.860	14.090	0.258	4982.5	2900.8	7.997	2.224	3.01		Clay	100.0			13.32	0.92	n.a.	n.a.	0.83	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.030	15.370	0.265	5003.8	2911.5	8.840	2.062	2.95		Clay	99.3			14.53	0.92	n.a.	n.a.	0.83	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.190	16.470	0.277	5023.8	2921.5	9.555	1.982	2.92		Clay	96.2			15.57	0.92	n.a.	n.a.	0.83	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.350	17.210	0.283	5043.8	2931.5	10.021	1.924	2.89		Clay	94.3			16.27	0.92	n.a.	n.a.	0.83	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.520	17.510	0.281	5065.0	2942.2	10.181	1.877	2.88		Clay	93.4			16.55	0.92	n.a.	n.a.	0.83	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.680	16.620	0.222	5085.0	2952.2	9.537	1.580	2.87		Clay	92.3			15.71	0.92	n.a.	n.a.	0.83	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.850	15.600	0.262	5106.3	2962.8	8.807	2.011	2.95		Clay	98.9			14.74	0.92	n.a.	n.a.	0.82	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.010	17.470	0.354	5126.3	2972.8	10.029	2.373	2.94		Clay	98.1			16.51	0.91	n.a.	n.a.	0.82	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.170	22.260	0.414	5146.3	2982.8	13.200	2.103	2.81		Clay	87.9			21.04	0.91	n.a.	n.a.	0.82	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.340	21.230	0.546	5167.5	2993.5	12.458	2.926	2.91		Clay	96.0			20.07	0.91	n.a.	n.a.	0.82	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.500	24.440	1.132	5187.5	3003.5	14.547	5.181	3.01		Clay	100.0			23.10	0.91	n.a.	n.a.	0.82	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.670	33.200	1.294	5208.8	3014.1	20.301	4.228	2.84		Clay	90.5			31.38	0.91	n.a.	n.a.	0.82	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.830	35.020	1.016	5228.8	3024.2	21.431	3.134	2.74		Clay	82.4			33.10	0.91	n.a.	n.a.	0.82	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.990	23.950	0.745	5248.8	3034.2	14.057	3.493	2.92		Clay	96.3			22.64	0.91	n.a.	n.a.	0.82	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.160	16.650	0.566	5270.0	3044.8	9.206	4.039	3.10		Clay	100.0			15.74	0.91	n.a.	n.a.	0.82	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.320	15.320	0.506	5290.0	3054.8	8.298	3.994	3.13		Clay	100.0			14.48	0.91	n.a.	n.a.	0.82	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.490	15.760	0.477	5311.3	3065.5	8.550	3.639	3.10		Clay	100.0			14.90	0.91	n.a.	n.a.	0.82	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.650	15.550	0.482	5331.3	3075.5	8.379	3.739	3.11		Clay	100.0			14.70	0.91	n.a.	n.a.	0.81	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.810	15.890	0.485	5351.3	3085.5	8.565	3.669	3.10		Clay	100.0			15.02	0.91	n.a.	n.a.	0.81	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.980	17.460	0.431	5372.5	3096.1	9.543	2.917	3.01		Clay	100.0			16.50	0.90	n.a.	n.a.	0.81	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.140	17.130	0.414	5392.5	3106.2	9.294	2.865	3.01		Clay	100.0			16.19	0.90	n.a.	n.a.	0.81	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.310	14.570	0.367	5413.8	3116.8	7.612	3.094	3.10		Clay	100.0			13.77	0.90	n.a.	n.a.	0.81	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	5

PGA (A_{max})	0.87

Total Settlement:	0.09	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'Vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
43.470	13.590	0.323	5433.8	3126.8	6.955	2.970	3.13		Clay	100.0			12.84	0.90	n.a.	n.a.	0.81	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.640	13.040	0.299	5455.0	3137.5	6.574	2.902	3.14		Clay	100.0			12.33	0.90	n.a.	n.a.	0.81	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.800	12.390	0.283	5475.0	3147.5	6.133	2.936	3.17		Clay	100.0			11.71	0.90	n.a.	n.a.	0.81	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.960	13.030	0.465	5495.0	3157.5	6.513	4.519	3.25		Clay	100.0			12.32	0.90	n.a.	n.a.	0.81	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.130	13.340	0.628	5516.3	3168.1	6.680	5.937	3.31		Clay	100.0			12.61	0.90	n.a.	n.a.	0.81	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.290	18.250	0.872	5536.3	3178.2	9.743	5.635	3.17		Clay	100.0			17.25	0.90	n.a.	n.a.	0.81	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.460	21.950	1.058	5557.5	3188.8	12.024	5.517	3.09		Clay	100.0			20.75	0.90	n.a.	n.a.	0.80	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.620	22.490	1.350	5577.5	3198.8	12.318	6.853	3.14		Clay	100.0			21.26	0.90	n.a.	n.a.	0.80	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.780	31.200	1.742	5597.5	3208.8	17.702	6.132	2.99		Clay	100.0			29.49	0.90	n.a.	n.a.	0.80	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.950	30.400	1.233	5618.8	3219.5	17.140	4.469	2.92		Clay	96.2			28.73	0.90	n.a.	n.a.	0.80	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.110	67.260	1.282	5638.8	3229.5	49.302	1.989	2.34		Sand	50.0		1.8	114.43	0.85	97.76	169.67	0.80	0.772	0.919	0.498	0.882	1.14	0.01	0.01
45.280	54.670	0.883	5660.0	3240.1	39.596	1.704	2.37		Sand	52.5	63.57	1.8	114.43	0.85	97.71	170.82	0.80	0.772	0.918	0.517	0.923	1.20	0.01	0.01
45.440	24.770	0.799	5680.0	3250.1	13.495	3.644	2.94		Clay	98.3			23.41	0.89	n.a.	n.a.	0.80	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.600	16.010	0.466	5700.0	3260.2	8.073	3.543	3.11		Clay	100.0			15.13	0.89	n.a.	n.a.	0.80	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.770	15.960	0.469	5721.3	3270.8	8.010	3.580	3.12		Clay	100.0			15.09	0.89	n.a.	n.a.	0.80	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.930	18.280	0.523	5741.3	3280.8	9.394	3.397	3.05		Clay	100.0			17.28	0.89	n.a.	n.a.	0.80	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.100	19.660	0.580	5762.5	3291.5	10.195	3.459	3.03		Clay	100.0			18.58	0.89	n.a.	n.a.	0.80	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.260	19.560	0.577	5782.5	3301.5	10.098	3.460	3.03		Clay	100.0			18.49	0.89	n.a.	n.a.	0.80	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.420	18.730	0.515	5802.5	3311.5	9.560	3.255	3.03		Clay	100.0			17.70	0.89	n.a.	n.a.	0.79	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.590	17.600	0.518	5823.8	3322.1	8.843	3.527	3.08		Clay	100.0			16.64	0.89	n.a.	n.a.	0.79	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.750	18.230	0.521	5843.8	3332.2	9.188	3.400	3.06		Clay	100.0			17.23	0.89	n.a.	n.a.	0.79	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.920	19.530	0.536	5865.0	3342.8	9.930	3.228	3.02		Clay	100.0			18.46	0.89	n.a.	n.a.	0.79	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.080	19.610	0.559	5885.0	3352.8	9.942	3.354	3.03		Clay	100.0			18.53	0.89	n.a.	n.a.	0.79	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.240	19.770	0.560	5905.0	3362.8	10.002	3.331	3.02		Clay	100.0			18.69	0.88	n.a.	n.a.	0.79	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.410	20.320	0.561	5926.3	3373.5	10.290	3.231	3.01		Clay	100.0			19.21	0.88	n.a.	n.a.	0.79	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.570	20.690	0.640	5946.3	3383.5	10.473	3.611	3.03		Clay	100.0			19.56	0.88	n.a.	n.a.	0.79	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.740	20.650	0.706	5967.5	3394.1	10.410	3.998	3.06		Clay	100.0			19.52	0.88	n.a.	n.a.	0.79	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.900	22.740	0.765	5987.5	3404.1	11.601	3.875	3.01		Clay	100.0			21.49	0.88	n.a.	n.a.	0.79	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.060	23.880	0.783	6007.5	3414.2	12.229	3.749	2.98		Clay	100.0			22.57	0.88	n.a.	n.a.	0.79	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.230	24.710	0.851	6028.8	3424.8	12.670	3.924	2.98		Clay	100.0			23.36	0.88	n.a.	n.a.	0.78	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.390	27.130	0.972	6048.8	3434.8	14.036	4.032	2.95		Clay	99.3			25.64	0.88	n.a.	n.a.	0.78	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.560	32.490	1.039	6070.0	3445.5	17.098	3.528	2.85		Clay	91.1			30.71	0.88	n.a.	n.a.	0.78	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.720	26.940	1.306	6090.0	3455.5	13.830	5.463	3.04		Clay	100.0			25.46	0.88	n.a.	n.a.	0.78	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.880	31.870	0.958	6110.0	3465.5	16.630	3.325	2.84		Clay	90.6			30.12	0.88	n.a.	n.a.	0.78	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.050	30.640	0.775	6131.3	3476.1	15.865	2.811	2.82		Clay	88.4			28.96	0.88	n.a.	n.a.	0.78	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.210	21.570	0.660	6151.3	3486.1	10.610	3.566	3.02		Clay	100.0			20.39	0.88	n.a.	n.a.	0.78	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.380	18.660	0.578	6172.5	3496.8	8.907	3.708	3.09		Clay	100.0			17.64	0.88	n.a.	n.a.	0.78	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.540	17.980	0.537	6192.5	3506.8	8.488	3.609	3.10		Clay	100.0			16.99	0.88	n.a.	n.a.	0.78	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.700	16.830	0.519	6212.5	3516.8	7.805	3.778	3.14		Clay	100.0			15.91	0.87	n.a.	n.a.	0.78	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.870	15.760	0.502	6233.8	3527.5	7.168	3.968	3.18		Clay	100.0			14.90	0.87	n.a.	n.a.	0.78	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.030	15.360	0.492	6253.8	3537.5	6.916	4.023	3.20		Clay	100.0			14.52	0.87	n.a.	n.a.	0.77	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.200	14.430	0.469	6275.0	3548.1	6.365	4.154	3.24		Clay	100.0			13.64	0.87	n.a.	n.a.	0.77	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	6

PGA (A_{max})	0.87

Total Settlement:	0.08	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
0.160	408.140	1.081	18.9	18.9	4083.855	0.265	0.66		Unsaturated	0.0			385.77	1.70	655.80	655.80	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.330	282.240	1.353	38.9	38.9	1966.359	0.479	0.92		Unsaturated	0.0			266.77	1.70	453.50	453.50	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.490	165.600	1.672	57.8	57.8	946.711	1.010	1.32		Unsaturated	0.0			156.52	1.70	266.09	266.09	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.660	104.730	1.999	77.9	77.9	515.785	1.909	1.68		Unsaturated	0.0			98.99	1.70	168.28	168.28	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.820	66.980	1.088	96.8	96.8	295.839	1.625	1.75		Unsaturated	2.6			63.31	1.70	107.62	107.62	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.980	58.500	1.473	115.6	115.6	236.290	2.521	1.96		Unsaturated	19.6			55.29	1.70	94.00	129.23	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.150	96.490	1.125	135.7	135.7	359.881	1.167	1.58		Unsaturated	0.0			91.20	1.70	155.04	155.04	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.310	105.930	2.230	154.6	154.6	370.167	2.106	1.79		Unsaturated	6.0			100.12	1.70	170.21	170.97	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.480	92.900	2.595	174.6	174.6	305.357	2.796	1.94		Unsaturated	17.9			87.81	1.70	149.27	186.42	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.640	117.780	2.638	193.5	193.5	367.810	2.242	1.81		Unsaturated	8.0			111.32	1.70	189.25	193.32	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.800	69.930	1.788	212.4	212.4	208.304	2.561	1.99		Unsaturated	22.5			66.10	1.70	112.36	157.10	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.970	90.550	1.605	232.5	232.5	257.887	1.775	1.81		Unsaturated	7.9			85.59	1.70	145.50	148.81	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.130	107.500	1.280	251.3	251.3	294.471	1.192	1.64		Unsaturated	0.0			101.61	1.70	172.73	172.73	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.300	146.760	0.963	271.4	271.4	386.966	0.657	1.36		Unsaturated	0.0			138.71	1.70	235.81	235.81	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.460	166.780	1.434	290.3	290.3	425.235	0.861	1.43		Unsaturated	0.0			157.64	1.69	266.23	266.23	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.620	155.370	1.481	309.2	309.2	383.809	0.954	1.49		Unsaturated	0.0			146.85	1.68	247.43	247.43	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.790	132.860	1.584	329.2	329.2	317.969	1.194	1.62		Unsaturated	0.0			125.58	1.70	213.48	213.48	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.950	108.100	1.017	348.1	348.1	251.505	0.942	1.60		Unsaturated	0.0			102.17	1.70	173.70	173.70	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.120	91.830	0.856	368.2	368.2	207.667	0.934	1.66		Unsaturated	0.0			86.80	1.70	147.55	147.55	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.280	88.320	1.069	387.0	387.0	194.760	1.213	1.76		Unsaturated	3.7			83.48	1.70	141.91	141.92	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.440	72.240	1.032	405.9	405.9	155.456	1.432	1.88		Unsaturated	13.3			68.28	1.70	116.08	134.67	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.610	72.700	1.068	426.0	426.0	152.700	1.474	1.89		Unsaturated	14.4			68.71	1.70	116.81	139.34	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.770	74.860	0.822	444.9	444.9	153.857	1.101	1.80		Unsaturated	7.0			70.76	1.70	120.29	121.91	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.940	73.620	0.823	464.9	464.9	147.981	1.122	1.82		Unsaturated	8.4			69.58	1.70	118.29	122.36	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.100	77.150	1.652	483.8	483.8	152.024	2.148	2.02		Unsaturated	24.4			72.92	1.70	123.97	174.48	1.00	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.270	92.650	2.019	503.9	503.9	178.970	2.185	1.98		Unsaturated	21.3			87.57	1.64	143.36	189.68	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.430	92.250	1.810	522.7	522.7	174.930	1.968	1.95		Unsaturated	18.9			87.19	1.64	142.94	182.54	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.590	58.440	1.047	541.6	541.6	108.672	1.799	2.06		Unsaturated	27.6			55.24	1.70	93.90	144.74	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.760	50.150	0.757	561.7	561.7	91.487	1.518	2.06		Unsaturated	27.7			47.40	1.70	80.58	129.11	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.920	47.330	0.878	580.6	580.6	84.882	1.867	2.14		Unsaturated	34.6			44.74	1.70	76.05	131.74	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.090	42.770	0.831	600.6	600.6	75.344	1.957	2.20		Unsaturated	38.7			40.43	1.70	68.72	126.26	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.250	41.100	1.046	619.5	619.5	71.254	2.563	2.30		Unsaturated	46.6			38.85	1.70	66.04	127.90	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.410	38.170	1.117	638.4	638.4	65.134	2.950	2.37		Unsaturated	52.3			36.08	1.70	61.33	124.55	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.580	32.130	1.074	658.4	658.4	53.883	3.379	2.47		Unsaturated	60.3			30.37	1.70	51.63	114.89	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.740	22.880	0.964	677.3	677.3	47.293	4.278	2.58		Unsaturated	69.3			21.63	1.70	36.76	97.95	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.910	18.960	0.833	697.4	697.4	38.258	4.475	2.66		Unsaturated	75.6			17.92	1.70	30.47	90.94	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.070	18.460	0.803	716.3	716.3	36.522	4.437	2.67		Unsaturated	76.5			17.45	1.70	29.66	90.04	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.230	17.980	0.818	735.1	735.1	47.916	4.642	2.60		Unsaturated	71.0			16.99	1.70	28.89	88.11	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.400	19.750	0.890	755.2	755.2	37.663	4.596	2.67		Unsaturated	76.6			18.67	1.70	31.72	92.73	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.560	19.310	0.829	774.1	774.1	36.159	4.379	2.67		Unsaturated	76.5			18.25	1.68	30.72	91.41	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.730	19.920	0.760	794.1	794.1	36.643	3.892	2.63		Unsaturated	73.3			18.83	1.66	31.26	91.58	0.99	0.561	1.098	n.a.	n.a.	n.a.	0.00	0.00
6.890	23.840	0.767	813.0	813.0	35.732	3.274	2.59		Unsaturated	69.8			22.53	1.62	36.47	97.68	0.99	0.560	1.100	n.a.	n.a.	n.a.	0.00	0.00
7.050	25.940	0.738	831.9	831.9	38.476	2.890	2.53		Unsaturated	65.0			24.52	1.59	39.04	99.97	0.99	0.560	1.099	n.a.	n.a.	n.a.	0.00	0.00
7.220	26.720	0.747	852.0	852.0	39.167	2.842	2.51		Unsaturated	64.2			25.26	1.57	39.69	100.60	0.99	0.560	1.097	n.a.	n.a.	n.a.	0.00	0.00
7.380	23.780	0.716	870.8	870.8	34.395	3.065	2.58		Unsaturated	69.3			22.48	1.57	35.26	96.01	0.98	0.559	1.091	n.a.	n.a.	n.a.	0.00	0.00
7.550	23.850	0.674	890.9	890.9	34.092	2.878	2.56		Unsaturated	68.1			22.54	1.55	35.00	95.43	0.98	0.559	1.089	n.a.	n.a.	n.a.	0.00	0.00
7.710	25.020	0.696	909.8	909.8	35.410	2.832	2.55		Unsaturated	66.7			23.65	1.53	36.23	96.73	0.98	0.559	1.087	n.a.	n.a.	n.a.	0.00	0.00
7.870	25.340	0.740	928.7	928.7	35.491	2.973	2.56		Unsaturated	67.8			23.95	1.52	36.30	97.04	0.98	0.558	1.086	n.a.	n.a.	n.a.	0.00	0.00
8.040	20.500	0.802	948.7	948.7	33.187	4.007	2.67	plastic	Clay	76.5			19.38	1.24	n.a.	n.a.	0.98	0.559	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.200	17.310	0.726	967.6	967.6	34.779	4.314	2.68		Clay	77.1			16.36	1.23	n.a.	n.a.	0.98	0.565	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.370	16.260	0.643	987.7	987.7	31.926	4.078	2.69		Clay	77.9			15.37	1.22	n.a.	n.a.	0.98	0.571	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.530	15.340	0.585	1006.5	1006.5	29.481	3.940	2.70		Clay	79.1			14.50	1.22	n.a.	n.a.	0.98	0.576	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.690	12.660	0.546	1025.4	1025.4	23.692	4.497	2.81		Clay	87.8			11.97	1.21	n.a.	n.a.	0.98	0.581	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.860	12.820	0.535	1045.5	1045.5	23.525	4.351	2.80		Clay	87.3			12.12	1.20	n.a.	n.a.	0.98	0.586	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.020	12.830	0.571	1064.4	1064.4	23.108	4.645	2.83		Clay	89.2			12.13	1.20	n.a.	n.a.	0.98	0.591	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.190	12.690	0.553	1084.4	1084.4	22.404	4.550	2.83		Clay	89.6			11.99	1.19	n.a.	n.a.	0.98	0.596	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.350	12.660	0.550	1103.3	1103.3	21.949	4.540	2.84		Clay	90.0			11.97	1.19	n.a.	n.a.	0.98	0.601	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.510	12.570	0.529	1122.2	1122.2	21.403	4.404	2.84		Clay	90.0			11.88	1.18	n.a.	n.a.	0.98	0.605	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.680	12.400	0.512	1142.2	1142.2	20.712	4.331	2.84		Clay	90.5			11.72	1.18	n.a.	n.a.	0.98	0.610	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.840	11.890	0.490	1161.1	1161.1	19.480	4.333	2.86		Clay	92.1			11.24	1.17	n.a.	n.a.	0.98	0.614	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.010	11.430	0.483	1181.2	1181.2	18.354	4.457	2.89		Clay	94.3			10.80	1.17	n.a.	n.a.	0.97	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.170	10.650	0.487	1200.1	1200.1	16.749	4.841	2.95		Clay	98.6			10.07	1.16	n.a.	n.a.	0.97	0.623	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.330	11.140	0.531	1218.9	1218.9	17.278	5.038	2.95		Clay	98.7			10.53	1.16	n.a.	n.a.	0.97	0.627	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.500	11.250	0.558	1239.0	1239.0	17.160	5.253	2.96		Clay	99.8			10.63	1.15	n.a.	n.a.	0.97	0.631	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.660	12.340	0.540	1259.0	1249.0	18.752	4.610	2.89		Clay	94.5			11.66	1.15	n.a.	n.a.	0.97	0.635	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.830	10.930	0.501	1280.3	1259.7	16.338	4.873	2.96		Clay	99.4			10.33	1.15	n.a.	n.a.	0.97	0.639	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	6

PGA (A_{max})	0.87

Total Settlement:	0.08	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
10.990	10.510	0.466	1300.3	1269.7	15.531	4.726	2.96		Clay	100.0			9.93	1.14	n.a.	n.a.	0.97	0.643	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.150	9.910	0.448	1320.3	1279.7	14.456	4.838	2.99		Clay	100.0			9.37	1.14	n.a.	n.a.	0.97	0.646	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.320	10.560	0.415	1341.5	1290.3	15.328	4.200	2.94		Clay	97.8			9.98	1.14	n.a.	n.a.	0.97	0.650	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.480	10.030	0.402	1361.5	1300.3	14.380	4.301	2.96		Clay	100.0			9.48	1.14	n.a.	n.a.	0.97	0.654	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.650	9.860	0.376	1382.8	1311.0	13.987	4.102	2.96		Clay	99.8			9.32	1.13	n.a.	n.a.	0.97	0.657	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.810	10.610	0.400	1402.8	1321.0	15.002	4.037	2.93		Clay	97.6			10.03	1.13	n.a.	n.a.	0.97	0.660	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.980	10.580	0.442	1424.0	1331.6	14.821	4.481	2.96		Clay	100.0			10.00	1.13	n.a.	n.a.	0.97	0.664	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.140	13.610	0.543	1444.0	1341.7	19.212	4.214	2.86		Clay	91.9			12.86	1.13	n.a.	n.a.	0.97	0.667	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.300	12.980	0.595	1464.0	1351.7	18.123	4.860	2.92		Clay	96.6			12.27	1.13	n.a.	n.a.	0.97	0.670	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.470	14.090	0.678	1485.3	1362.3	19.595	5.076	2.91		Clay	95.6			13.32	1.12	n.a.	n.a.	0.97	0.673	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.630	14.050	0.697	1505.3	1372.3	19.379	5.239	2.92		Clay	96.6			13.28	1.12	n.a.	n.a.	0.96	0.676	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.800	14.120	0.611	1526.5	1383.0	19.316	4.577	2.88		Clay	93.6			13.35	1.12	n.a.	n.a.	0.96	0.679	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.960	12.220	0.567	1546.5	1393.0	16.435	4.952	2.96		Clay	99.6			11.55	1.12	n.a.	n.a.	0.96	0.682	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.120	10.670	0.461	1566.5	1403.0	14.094	4.666	2.99		Clay	100.0			10.09	1.11	n.a.	n.a.	0.96	0.685	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.290	8.560	0.315	1587.8	1413.7	10.987	4.057	3.04		Clay	100.0			8.09	1.11	n.a.	n.a.	0.96	0.688	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.450	6.970	0.235	1607.8	1423.7	8.662	3.806	3.11		Clay	100.0			6.59	1.11	n.a.	n.a.	0.96	0.691	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.620	6.390	0.220	1629.0	1434.3	7.774	3.948	3.15		Clay	100.0			6.04	1.11	n.a.	n.a.	0.96	0.693	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.780	6.210	0.234	1649.0	1444.3	7.457	4.351	3.19		Clay	100.0			5.87	1.11	n.a.	n.a.	0.96	0.696	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.940	6.340	0.268	1669.0	1454.3	7.571	4.862	3.22		Clay	100.0			5.99	1.10	n.a.	n.a.	0.96	0.698	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.110	7.040	0.281	1690.3	1465.0	8.457	4.542	3.16		Clay	100.0			6.65	1.10	n.a.	n.a.	0.96	0.701	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.270	7.130	0.299	1710.3	1475.0	8.508	4.757	3.17		Clay	100.0			6.74	1.10	n.a.	n.a.	0.96	0.703	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.440	7.390	0.299	1731.5	1485.6	8.783	4.588	3.15		Clay	100.0			6.98	1.10	n.a.	n.a.	0.96	0.706	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.600	7.650	0.309	1751.5	1495.7	9.059	4.564	3.14		Clay	100.0			7.23	1.10	n.a.	n.a.	0.96	0.708	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.760	7.430	0.293	1771.5	1505.7	8.693	4.483	3.15		Clay	100.0			7.02	1.09	n.a.	n.a.	0.96	0.711	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.930	7.600	0.338	1792.8	1516.3	8.842	5.044	3.17		Clay	100.0			7.18	1.09	n.a.	n.a.	0.96	0.713	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.090	8.310	0.407	1812.8	1526.3	9.701	5.495	3.16		Clay	100.0			7.85	1.09	n.a.	n.a.	0.95	0.715	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.260	9.690	0.443	1834.0	1537.0	11.416	5.050	3.09		Clay	100.0			9.16	1.09	n.a.	n.a.	0.95	0.717	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.420	9.000	0.437	1854.0	1547.0	10.437	5.409	3.13		Clay	100.0			8.51	1.09	n.a.	n.a.	0.95	0.719	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.580	8.380	0.381	1874.0	1557.0	9.561	5.118	3.15		Clay	100.0			7.92	1.08	n.a.	n.a.	0.95	0.721	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.750	7.630	0.364	1895.3	1567.7	8.525	5.444	3.21		Clay	100.0			7.21	1.08	n.a.	n.a.	0.95	0.724	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.910	7.450	0.385	1915.3	1577.7	8.230	5.935	3.24		Clay	100.0			7.04	1.08	n.a.	n.a.	0.95	0.725	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.080	8.380	0.415	1936.5	1588.3	9.333	5.603	3.18		Clay	100.0			7.92	1.08	n.a.	n.a.	0.95	0.727	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.240	8.600	0.422	1956.5	1598.3	9.537	5.542	3.17		Clay	100.0			8.13	1.08	n.a.	n.a.	0.95	0.729	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.400	8.360	0.411	1976.5	1608.3	9.167	5.575	3.19		Clay	100.0			7.90	1.08	n.a.	n.a.	0.95	0.731	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.570	8.580	0.399	1997.8	1619.0	9.365	5.258	3.16		Clay	100.0			8.11	1.07	n.a.	n.a.	0.95	0.733	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.730	8.350	0.355	2017.8	1629.0	9.013	4.841	3.16		Clay	100.0			7.89	1.07	n.a.	n.a.	0.95	0.735	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.900	7.550	0.292	2039.0	1639.6	7.966	4.476	3.18		Clay	100.0			7.14	1.07	n.a.	n.a.	0.95	0.737	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.060	6.570	0.239	2059.0	1649.7	6.717	4.319	3.23		Clay	100.0			6.21	1.07	n.a.	n.a.	0.95	0.738	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.220	6.120	0.207	2079.0	1659.7	6.122	4.065	3.25		Clay	100.0			5.78	1.07	n.a.	n.a.	0.95	0.740	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.390	6.000	0.192	2100.3	1670.3	5.927	3.883	3.25		Clay	100.0			5.67	1.06	n.a.	n.a.	0.94	0.742	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.550	5.490	0.182	2120.3	1680.3	5.273	4.108	3.30		Clay	100.0			5.19	1.06	n.a.	n.a.	0.94	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.720	5.260	0.170	2141.5	1691.0	4.955	4.056	3.32		Clay	100.0			4.97	1.06	n.a.	n.a.	0.94	0.745	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.880	5.150	0.153	2161.5	1701.0	4.785	3.755	3.32		Clay	100.0			4.87	1.06	n.a.	n.a.	0.94	0.746	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.040	5.000	0.140	2181.5	1711.0	4.570	3.568	3.32		Clay	100.0			4.73	1.06	n.a.	n.a.	0.94	0.748	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.210	4.690	0.132	2202.8	1721.6	4.169	3.667	3.36		Clay	100.0			4.43	1.06	n.a.	n.a.	0.94	0.749	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.370	4.720	0.134	2222.8	1731.7	4.168	3.719	3.37		Clay	100.0			4.46	1.05	n.a.	n.a.	0.94	0.751	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.540	5.090	0.140	2244.0	1742.3	4.555	3.516	3.32		Clay	100.0			4.81	1.05	n.a.	n.a.	0.94	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.700	5.200	0.154	2264.0	1752.3	4.643	3.795	3.33		Clay	100.0			4.91	1.05	n.a.	n.a.	0.94	0.754	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.860	5.240	0.213	2284.0	1762.3	4.651	5.185	3.41		Clay	100.0			4.95	1.05	n.a.	n.a.	0.94	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.030	5.840	0.243	2305.3	1773.0	5.288	5.180	3.36		Clay	100.0			5.52	1.05	n.a.	n.a.	0.94	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.190	7.790	0.258	2325.3	1783.0	7.434	3.894	3.17		Clay	100.0			7.36	1.05	n.a.	n.a.	0.94	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.360	6.900	0.265	2346.5	1793.6	6.386	4.624	3.26		Clay	100.0			6.52	1.04	n.a.	n.a.	0.94	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.520	6.870	0.252	2366.5	1803.7	6.306	4.438	3.26		Clay	100.0			6.49	1.04	n.a.	n.a.	0.93	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.690	7.080	0.249	2387.8	1814.3	6.489	4.222	3.24		Clay	100.0			6.69	1.04	n.a.	n.a.	0.93	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.850	6.860	0.260	2407.8	1824.3	6.201	4.604	3.27		Clay	100.0			6.48	1.04	n.a.	n.a.	0.93	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.010	7.150	0.262	2427.8	1834.3	6.472	4.417	3.25		Clay	100.0			6.76	1.04	n.a.	n.a.	0.93	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.180	7.130	0.252	2449.0	1845.0	6.402	4.269	3.24		Clay	100.0			6.74	1.04	n.a.	n.a.	0.93	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.340	6.840	0.239	2469.0	1855.0	6.044	4.257	3.26		Clay	100.0			6.47	1.04	n.a.	n.a.	0.93	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.510	6.700	0.196	2490.3	1865.6	5.848	3.591	3.23		Clay	100.0			6.33	1.03	n.a.	n.a.	0.93	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.670	7.460	0.194	2510.3	1875.6	6.616	3.123	3.16		Clay	100.0			7.05	1.03	n.a.	n.a.	0.93	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.830	6.390	0.195	2530.3	1885.7	5.436	3.809	3.27		Clay	100.0			6.04	1.03	n.a.	n.a.	0.93	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.000	6.840	0.180	2551.5	1896.3	5.869	3.230	3.21		Clay	100.0			6.47	1.03	n.a.	n.a.	0.93	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.160	7.300	0.199	2571.5	1906.3	6.310	3.304	3.19		Clay	100.0			6.90	1.03	n.a.	n.a.	0.93	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.330	7.840	0.223	2592.8	1917.0	6.827	3.405	3.16		Clay	100.0			7.41	1.03	n.a.	n.a.	0.93	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.490	8.120	0.212	2612.8	1927.0	7.072	3.107	3.13		Clay	100.0			7.67	1.02	n.a.	n.a.	0.93	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.650	7.950	0.217	2632.8	1937.0	6.849	3.265	3.15		Clay	100.0			7.51	1.02	n.a.	n.a.	0.92	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	6

PGA (A_{max})	0.87

Total Settlement:	0.08	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
21.820	7.380	0.222	2654.0	1947.6	6.216	3.674	3.22		Clay	100.0			6.98	1.02	n.a.	n.a.	0.92	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.980	7.400	0.213	2674.0	1957.6	6.194	3.513	3.21		Clay	100.0			6.99	1.02	n.a.	n.a.	0.92	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.150	8.200	0.215	2695.3	1968.3	6.963	3.135	3.14		Clay	100.0			7.75	1.02	n.a.	n.a.	0.92	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.310	8.190	0.204	2715.3	1978.3	6.907	2.986	3.13		Clay	100.0			7.74	1.02	n.a.	n.a.	0.92	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.470	7.680	0.221	2735.3	1988.3	6.349	3.507	3.20		Clay	100.0			7.26	1.02	n.a.	n.a.	0.92	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.640	7.680	0.230	2756.5	1999.0	6.305	3.642	3.21		Clay	100.0			7.26	1.02	n.a.	n.a.	0.92	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.800	8.190	0.261	2776.5	2009.0	6.771	3.830	3.20		Clay	100.0			7.74	1.01	n.a.	n.a.	0.92	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.970	9.740	0.290	2797.8	2019.6	8.260	3.474	3.10		Clay	100.0			9.21	1.01	n.a.	n.a.	0.92	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.130	11.350	0.275	2817.8	2029.6	9.796	2.768	2.98		Clay	100.0			10.73	1.01	n.a.	n.a.	0.92	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.290	11.640	0.281	2837.8	2039.7	10.022	2.748	2.97		Clay	100.0			11.00	1.01	n.a.	n.a.	0.92	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.460	10.400	0.259	2859.0	2050.3	8.750	2.883	3.04		Clay	100.0			9.83	1.01	n.a.	n.a.	0.92	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.620	10.310	0.217	2879.0	2060.3	8.611	2.444	3.00		Clay	100.0			9.74	1.01	n.a.	n.a.	0.92	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.790	10.790	0.222	2900.3	2071.0	9.020	2.381	2.98		Clay	100.0			10.20	1.01	n.a.	n.a.	0.91	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.950	11.180	0.384	2920.3	2081.0	9.342	3.946	3.09		Clay	100.0			10.57	1.00	n.a.	n.a.	0.91	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.110	11.750	0.347	2940.3	2091.0	9.833	3.373	3.03		Clay	100.0			11.11	1.00	n.a.	n.a.	0.91	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.280	30.420	0.307	2961.5	2101.6	27.446	1.062	2.38		Sand	53.7	53.39	1.78	95.03	1.00	95.28	168.24	0.91	0.786	1.001	0.475	0.907	1.15	0.01	0.01
24.440	56.490	0.462	2981.5	2111.6	52.038	0.840	2.09		Sand	30.5		1.78	95.04	1.00	95.12	150.36	0.91	0.787	1.000	0.291	0.487	0.62	0.02	0.04
24.610	44.360	0.391	3002.8	2122.3	40.449	0.912	2.21		Sand	39.4	53.39	1.78	95.03	1.00	94.92	159.30	0.91	0.787	0.999	0.364	0.649	0.82	0.01	0.02
24.770	24.460	0.355	3022.8	2132.3	21.607	1.548	2.56		Sand	67.7	53.39	1.78	95.03	1.00	94.77	172.40	0.91	0.788	0.998	0.546	1.074	1.36	0.00	0.00
24.930	14.850	0.298	3042.8	2142.3	12.443	2.239	2.85		Clay	90.8			14.04	1.00	n.a.	n.a.	0.91	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.100	10.430	0.266	3064.0	2153.0	8.266	2.993	3.06		Clay	100.0			9.86	1.00	n.a.	n.a.	0.91	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.260	9.550	0.237	3084.0	2163.0	7.405	2.956	3.10		Clay	100.0			9.03	0.99	n.a.	n.a.	0.91	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.430	8.900	0.219	3105.3	2173.6	6.761	2.977	3.14		Clay	100.0			8.41	0.99	n.a.	n.a.	0.91	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.590	8.280	0.201	3125.3	2183.6	6.152	2.986	3.17		Clay	100.0			7.83	0.99	n.a.	n.a.	0.91	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.750	7.590	0.189	3145.3	2193.7	5.486	3.143	3.23		Clay	100.0			7.17	0.99	n.a.	n.a.	0.90	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.920	7.630	0.173	3166.5	2204.3	5.486	2.868	3.20		Clay	100.0			7.21	0.99	n.a.	n.a.	0.90	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.080	7.790	0.176	3186.5	2214.3	5.597	2.847	3.20		Clay	100.0			7.36	0.99	n.a.	n.a.	0.90	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.250	7.750	0.169	3207.8	2225.0	5.525	2.748	3.19		Clay	100.0			7.33	0.99	n.a.	n.a.	0.90	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.410	7.740	0.190	3227.8	2235.0	5.482	3.098	3.22		Clay	100.0			7.32	0.99	n.a.	n.a.	0.90	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.570	8.120	0.254	3247.8	2245.0	5.787	3.908	3.26		Clay	100.0			7.67	0.98	n.a.	n.a.	0.90	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.740	9.040	0.238	3269.0	2255.6	6.566	3.219	3.17		Clay	100.0			8.54	0.98	n.a.	n.a.	0.90	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.900	8.970	0.214	3289.0	2265.6	6.467	2.925	3.15		Clay	100.0			8.48	0.98	n.a.	n.a.	0.90	0.794	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.070	8.960	0.204	3310.3	2276.3	6.418	2.797	3.14		Clay	100.0			8.47	0.98	n.a.	n.a.	0.90	0.794	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.230	8.860	0.211	3330.3	2286.3	6.294	2.937	3.16		Clay	100.0			8.37	0.98	n.a.	n.a.	0.90	0.794	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.400	9.280	0.206	3351.5	2296.9	6.621	2.708	3.12		Clay	100.0			8.77	0.98	n.a.	n.a.	0.90	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.560	10.180	0.186	3371.5	2307.0	7.364	2.185	3.03		Clay	100.0			9.62	0.98	n.a.	n.a.	0.90	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.720	10.280	0.341	3391.5	2317.0	7.410	3.968	3.17		Clay	100.0			9.72	0.98	n.a.	n.a.	0.89	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.890	10.490	0.751	3412.8	2327.6	7.547	8.549	3.37		Clay	100.0			9.91	0.98	n.a.	n.a.	0.89	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.050	11.080	1.076	3432.8	2337.6	8.011	11.490	3.43		Clay	100.0			10.47	0.97	n.a.	n.a.	0.89	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.220	40.370	1.306	3454.0	2348.3	32.912	3.379	2.62		Clay	72.7		1.8	68.68	0.97	n.a.	n.a.	0.89	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.380	32.520	1.444	3474.0	2358.3	26.106	4.691	2.79		Clay	86.3			30.74	0.97	n.a.	n.a.	0.89	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.540	32.400	1.182	3494.0	2368.3	25.886	3.855	2.74		Clay	82.0			30.62	0.97	n.a.	n.a.	0.89	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.710	32.990	1.089	3515.3	2378.9	26.257	3.486	2.70		Clay	79.3			31.18	0.97	n.a.	n.a.	0.89	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.870	28.490	1.017	3535.3	2389.0	22.372	3.805	2.78		Clay	85.5			26.93	0.97	n.a.	n.a.	0.89	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.040	18.610	0.802	3556.5	2399.6	14.029	4.762	3.00		Clay	100.0			17.59	0.97	n.a.	n.a.	0.89	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.200	13.690	0.571	3576.5	2409.6	9.879	4.794	3.12		Clay	100.0			12.94	0.97	n.a.	n.a.	0.89	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.360	13.480	0.394	3596.5	2419.6	9.656	3.374	3.04		Clay	100.0			12.74	0.97	n.a.	n.a.	0.89	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.530	13.050	0.322	3617.8	2430.3	9.251	2.863	3.01		Clay	100.0			12.33	0.96	n.a.	n.a.	0.89	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.690	9.730	0.310	3637.8	2440.3	6.484	3.912	3.22		Clay	100.0			9.20	0.96	n.a.	n.a.	0.88	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.860	8.930	0.297	3659.0	2450.9	5.794	4.184	3.27		Clay	100.0			8.44	0.96	n.a.	n.a.	0.88	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.020	9.200	0.286	3679.0	2461.0	5.982	3.882	3.24		Clay	100.0			8.70	0.96	n.a.	n.a.	0.88	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.180	9.290	0.293	3699.0	2471.0	6.022	3.941	3.25		Clay	100.0			8.78	0.96	n.a.	n.a.	0.88	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.350	9.670	0.258	3720.3	2481.6	6.294	3.298	3.19		Clay	100.0			9.14	0.96	n.a.	n.a.	0.88	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.510	10.660	0.274	3740.3	2491.6	7.056	3.119	3.13		Clay	100.0			10.08	0.96	n.a.	n.a.	0.88	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.680	11.880	0.259	3761.5	2502.3	7.992	2.586	3.04		Clay	100.0			11.23	0.96	n.a.	n.a.	0.88	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.840	11.290	0.331	3781.5	2512.3	7.483	3.523	3.14		Clay	100.0			10.67	0.96	n.a.	n.a.	0.88	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.000	10.280	0.372	3801.5	2522.3	6.644	4.434	3.24		Clay	100.0			9.72	0.95	n.a.	n.a.	0.88	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.170	10.730	0.421	3822.8	2532.9	6.963	4.774	3.24		Clay	100.0			10.14	0.95	n.a.	n.a.	0.88	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.330	10.920	0.438	3842.8	2543.0	7.077	4.866	3.24		Clay	100.0			10.32	0.95	n.a.	n.a.	0.88	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.500	11.390	0.455	3864.0	2553.6	7.408	4.808	3.22		Clay	100.0			10.77	0.95	n.a.	n.a.	0.87	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.660	11.750	0.482	3884.0	2563.6	7.652	4.917	3.22		Clay	100.0			11.11	0.95	n.a.	n.a.	0.87	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.820	11.820	0.502	3904.0	2573.6	7.669	5.085	3.22		Clay	100.0			11.17	0.95	n.a.	n.a.	0.87	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.990	11.980	0.518	3925.3	2584.3	7.753	5.166	3.22		Clay	100.0			11.32	0.95	n.a.	n.a.	0.87	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.150	11.980	0.548	3945.3	2594.3	7.715	5.475	3.24		Clay	100.0			11.32	0.95	n.a.	n.a.	0.87	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.320	11.480	0.539	3966.5	2604.9	7.291	5.670	3.27		Clay	100.0			10.85	0.95	n.a.	n.a.	0.87	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.480	10.620	0.477	3986.5	2614.9	6.598	5.534	3.30		Clay	100.0			10.04	0.95	n.a.	n.a.	0.87	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	6

PGA (A_{max})	0.87

Total Settlement:	0.08	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
32.640	10.130	0.454	4006.5	2625.0	6.192	5.580	3.32		Clay	100.0			9.57	0.94	n.a.	n.a.	0.87	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.810	11.000	0.459	4027.8	2635.6	6.819	5.110	3.27		Clay	100.0			10.40	0.94	n.a.	n.a.	0.87	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.970	11.650	0.503	4047.8	2645.6	7.277	5.222	3.25		Clay	100.0			11.01	0.94	n.a.	n.a.	0.87	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.140	11.430	0.492	4069.0	2656.3	7.074	5.235	3.26		Clay	100.0			10.80	0.94	n.a.	n.a.	0.87	0.799	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.300	11.440	0.470	4089.0	2666.3	7.048	4.998	3.25		Clay	100.0			10.81	0.94	n.a.	n.a.	0.87	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.460	11.110	0.460	4109.0	2676.3	6.767	5.080	3.27		Clay	100.0			10.50	0.94	n.a.	n.a.	0.86	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.630	11.300	0.456	4130.3	2686.9	6.874	4.940	3.25		Clay	100.0			10.68	0.94	n.a.	n.a.	0.86	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.790	10.950	0.475	4150.3	2697.0	6.581	5.352	3.29		Clay	100.0			10.35	0.94	n.a.	n.a.	0.86	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.960	10.830	0.472	4171.5	2707.6	6.459	5.393	3.30		Clay	100.0			10.24	0.94	n.a.	n.a.	0.86	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.120	11.290	0.470	4191.5	2717.6	6.766	5.112	3.27		Clay	100.0			10.67	0.94	n.a.	n.a.	0.86	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.280	12.030	0.487	4211.5	2727.6	7.277	4.911	3.23		Clay	100.0			11.37	0.94	n.a.	n.a.	0.86	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.450	12.270	0.478	4232.8	2738.3	7.416	4.710	3.22		Clay	100.0			11.60	0.93	n.a.	n.a.	0.86	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.610	11.970	0.473	4252.8	2748.3	7.163	4.801	3.23		Clay	100.0			11.31	0.93	n.a.	n.a.	0.86	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.780	12.110	0.459	4274.0	2758.9	7.230	4.599	3.22		Clay	100.0			11.45	0.93	n.a.	n.a.	0.86	0.798	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.940	11.830	0.449	4294.0	2768.9	6.994	4.640	3.23		Clay	100.0			11.18	0.93	n.a.	n.a.	0.86	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.100	11.580	0.462	4314.0	2779.0	6.782	4.901	3.26		Clay	100.0			10.95	0.93	n.a.	n.a.	0.86	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.270	11.500	0.445	4335.3	2789.6	6.691	4.764	3.26		Clay	100.0			10.87	0.93	n.a.	n.a.	0.85	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.430	11.300	0.468	4355.3	2799.6	6.517	5.127	3.28		Clay	100.0			10.68	0.93	n.a.	n.a.	0.85	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.600	12.270	0.491	4376.5	2810.3	7.175	4.869	3.24		Clay	100.0			11.60	0.93	n.a.	n.a.	0.85	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.760	13.700	0.545	4396.5	2820.3	8.156	4.734	3.18		Clay	100.0			12.95	0.93	n.a.	n.a.	0.85	0.797	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.930	14.510	0.581	4417.8	2830.9	8.691	4.719	3.16		Clay	100.0			13.71	0.93	n.a.	n.a.	0.85	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.090	15.190	0.580	4437.8	2840.9	9.132	4.475	3.13		Clay	100.0			14.36	0.93	n.a.	n.a.	0.85	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.250	15.920	0.554	4457.8	2851.0	9.605	4.043	3.09		Clay	100.0			15.05	0.92	n.a.	n.a.	0.85	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.420	15.870	0.500	4479.0	2861.6	9.527	3.665	3.06		Clay	100.0			15.00	0.92	n.a.	n.a.	0.85	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.580	15.090	0.450	4499.0	2871.6	8.943	3.503	3.08		Clay	100.0			14.26	0.92	n.a.	n.a.	0.85	0.796	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.750	14.130	0.386	4520.3	2882.3	8.237	3.250	3.09		Clay	100.0			13.36	0.92	n.a.	n.a.	0.85	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.910	12.940	0.354	4540.3	2892.3	7.378	3.315	3.13		Clay	100.0			12.23	0.92	n.a.	n.a.	0.85	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.070	11.790	0.315	4560.3	2902.3	6.553	3.310	3.17		Clay	100.0			11.14	0.92	n.a.	n.a.	0.84	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.240	12.550	0.267	4581.5	2912.9	7.044	2.604	3.09		Clay	100.0			11.86	0.92	n.a.	n.a.	0.84	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.400	11.410	0.200	4601.5	2922.9	6.233	2.192	3.10		Clay	100.0			10.78	0.92	n.a.	n.a.	0.84	0.795	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.570	11.320	0.226	4622.8	2933.6	6.142	2.503	3.13		Clay	100.0			10.70	0.92	n.a.	n.a.	0.84	0.794	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.730	11.210	0.264	4642.8	2943.6	6.039	2.972	3.18		Clay	100.0			10.60	0.92	n.a.	n.a.	0.84	0.794	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.890	12.270	0.264	4662.8	2953.6	6.730	2.657	3.11		Clay	100.0			11.60	0.92	n.a.	n.a.	0.84	0.794	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.060	13.270	0.280	4684.0	2964.3	7.373	2.559	3.07		Clay	100.0			12.54	0.91	n.a.	n.a.	0.84	0.794	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.220	13.240	0.309	4704.0	2974.3	7.321	2.833	3.10		Clay	100.0			12.51	0.91	n.a.	n.a.	0.84	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.390	12.700	0.368	4725.3	2984.9	6.926	3.560	3.17		Clay	100.0			12.00	0.91	n.a.	n.a.	0.84	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.550	14.870	0.451	4745.3	2994.9	8.346	3.606	3.11		Clay	100.0			14.05	0.91	n.a.	n.a.	0.84	0.793	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.710	16.250	0.528	4765.3	3004.9	9.230	3.810	3.09		Clay	100.0			15.36	0.91	n.a.	n.a.	0.84	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.880	17.200	0.511	4786.5	3015.6	9.820	3.453	3.04		Clay	100.0			16.26	0.91	n.a.	n.a.	0.84	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.040	17.220	0.526	4806.5	3025.6	9.794	3.548	3.05		Clay	100.0			16.28	0.91	n.a.	n.a.	0.83	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.210	17.140	0.532	4827.8	3036.2	9.700	3.615	3.05		Clay	100.0			16.20	0.91	n.a.	n.a.	0.83	0.792	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.370	17.220	0.576	4847.8	3046.3	9.714	3.894	3.07		Clay	100.0			16.28	0.91	n.a.	n.a.	0.83	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.530	16.270	0.531	4867.8	3056.3	9.054	3.839	3.09		Clay	100.0			15.38	0.91	n.a.	n.a.	0.83	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.700	15.140	0.510	4889.0	3066.9	8.279	4.016	3.14		Clay	100.0			14.31	0.91	n.a.	n.a.	0.83	0.791	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.860	14.870	0.477	4909.0	3076.9	8.070	3.840	3.13		Clay	100.0			14.05	0.91	n.a.	n.a.	0.83	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.030	15.660	0.469	4930.3	3087.6	8.547	3.554	3.09		Clay	100.0			14.80	0.91	n.a.	n.a.	0.83	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.190	16.810	0.455	4950.3	3097.6	9.255	3.175	3.04		Clay	100.0			15.89	0.90	n.a.	n.a.	0.83	0.790	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.350	17.120	0.474	4970.3	3107.6	9.419	3.237	3.04		Clay	100.0			16.18	0.90	n.a.	n.a.	0.83	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.520	15.990	0.446	4991.5	3118.3	8.655	3.307	3.07		Clay	100.0			15.11	0.90	n.a.	n.a.	0.83	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.680	15.250	0.452	5011.5	3128.3	8.148	3.544	3.11		Clay	100.0			14.41	0.90	n.a.	n.a.	0.83	0.789	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.850	14.620	0.495	5032.8	3138.9	7.712	4.086	3.17		Clay	100.0			13.82	0.90	n.a.	n.a.	0.82	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.010	14.320	0.580	5052.8	3148.9	7.491	4.915	3.22		Clay	100.0			13.53	0.90	n.a.	n.a.	0.82	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.170	17.330	0.564	5072.8	3158.9	9.366	3.809	3.08		Clay	100.0			16.38	0.90	n.a.	n.a.	0.82	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.340	18.270	0.546	5094.0	3169.6	9.921	3.471	3.04		Clay	100.0			17.27	0.90	n.a.	n.a.	0.82	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.500	16.100	0.515	5114.0	3179.6	8.519	3.799	3.11		Clay	100.0			15.22	0.90	n.a.	n.a.	0.82	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.670	16.270	0.513	5135.3	3190.2	8.590	3.744	3.11		Clay	100.0			15.38	0.90	n.a.	n.a.	0.82	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.830	15.400	0.451	5155.3	3200.3	8.013	3.515	3.12		Clay	100.0			14.56	0.90	n.a.	n.a.	0.82	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.990	17.620	0.441	5175.3	3210.3	9.365	2.933	3.01		Clay	100.0			16.65	0.90	n.a.	n.a.	0.82	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.160	16.790	0.449	5196.5	3220.9	8.812	3.163	3.06		Clay	100.0			15.87	0.90	n.a.	n.a.	0.82	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.320	12.940	0.409	5216.5	3230.9	6.396	3.961	3.23		Clay	100.0			12.23	0.89	n.a.	n.a.	0.82	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.490	12.400	0.404	5237.8	3241.6	6.035	4.126	3.26		Clay	100.0			11.72	0.89	n.a.	n.a.	0.82	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.650	12.890	0.419	5257.8	3251.6	6.311	4.082	3.24		Clay	100.0			12.18	0.89	n.a.	n.a.	0.81	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.810	13.850	0.402	5277.8	3261.6	6.875	3.582	3.17		Clay	100.0			13.09	0.89	n.a.	n.a.	0.81	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.980	14.420	0.365	5299.0	3272.2	7.194	3.099	3.12		Clay	100.0			13.63	0.89	n.a.	n.a.	0.81	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.140	13.920	0.321	5319.0	3282.3	6.861	2.852	3.12		Clay	100.0			13.16	0.89	n.a.	n.a.	0.81	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.310	13.300	0.314	5340.3	3292.9	6.456	2.957	3.15		Clay	100.0			12.57	0.89	n.a.	n.a.	0.81	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	6

PGA (A_{max})	0.87

Total Settlement:	0.08	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
43.470	12.460	0.320	5360.3	3302.9	5.922	3.271	3.21		Clay	100.0			11.78	0.89	n.a.	n.a.	0.81	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.640	12.020	0.332	5381.5	3313.6	5.631	3.559	3.25		Clay	100.0			11.36	0.89	n.a.	n.a.	0.81	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.800	12.680	0.380	5401.5	3323.6	6.005	3.810	3.24		Clay	100.0			11.98	0.89	n.a.	n.a.	0.81	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.960	13.270	0.370	5421.5	3333.6	6.335	3.499	3.20		Clay	100.0			12.54	0.89	n.a.	n.a.	0.81	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.130	13.500	0.343	5442.8	3344.2	6.446	3.185	3.17		Clay	100.0			12.76	0.89	n.a.	n.a.	0.81	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.290	13.090	0.299	5462.8	3354.3	6.176	2.882	3.16		Clay	100.0			12.37	0.89	n.a.	n.a.	0.81	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.460	13.380	0.288	5484.0	3364.9	6.323	2.711	3.14		Clay	100.0			12.65	0.88	n.a.	n.a.	0.80	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.620	14.920	0.320	5504.0	3374.9	7.211	2.633	3.08		Clay	100.0			14.10	0.88	n.a.	n.a.	0.80	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.780	17.130	0.408	5524.0	3384.9	8.489	2.837	3.04		Clay	100.0			16.19	0.88	n.a.	n.a.	0.80	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.950	18.270	0.479	5545.3	3395.6	9.128	3.088	3.04		Clay	100.0			17.27	0.88	n.a.	n.a.	0.80	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.110	18.550	0.508	5565.3	3405.6	9.260	3.222	3.04		Clay	100.0			17.53	0.88	n.a.	n.a.	0.80	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.280	17.860	0.478	5586.5	3416.2	8.821	3.175	3.06		Clay	100.0			16.88	0.88	n.a.	n.a.	0.80	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.440	17.020	0.457	5606.5	3426.2	8.299	3.217	3.08		Clay	100.0			16.09	0.88	n.a.	n.a.	0.80	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.600	17.140	0.443	5626.5	3436.3	8.339	3.092	3.07		Clay	100.0			16.20	0.88	n.a.	n.a.	0.80	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.770	17.450	0.441	5647.8	3446.9	8.487	3.017	3.06		Clay	100.0			16.49	0.88	n.a.	n.a.	0.80	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.930	17.020	0.423	5667.8	3456.9	8.207	2.985	3.07		Clay	100.0			16.09	0.88	n.a.	n.a.	0.80	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.100	16.470	0.364	5689.0	3467.6	7.859	2.674	3.06		Clay	100.0			15.57	0.88	n.a.	n.a.	0.80	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.260	16.550	0.356	5709.0	3477.6	7.876	2.598	3.05		Clay	100.0			15.64	0.88	n.a.	n.a.	0.80	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.420	15.160	0.349	5729.0	3487.6	7.051	2.839	3.11		Clay	100.0			14.33	0.88	n.a.	n.a.	0.79	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.590	15.940	0.398	5750.3	3498.2	7.469	3.043	3.11		Clay	100.0			15.07	0.88	n.a.	n.a.	0.79	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.750	16.860	0.435	5770.3	3508.3	7.967	3.114	3.09		Clay	100.0			15.94	0.88	n.a.	n.a.	0.79	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.920	16.050	0.439	5791.5	3518.9	7.476	3.337	3.13		Clay	100.0			15.17	0.87	n.a.	n.a.	0.79	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.080	15.600	0.378	5811.5	3528.9	7.194	2.979	3.11		Clay	100.0			14.74	0.87	n.a.	n.a.	0.79	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.240	17.260	0.391	5831.5	3538.9	8.107	2.724	3.05		Clay	100.0			16.31	0.87	n.a.	n.a.	0.79	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.410	19.390	0.397	5852.8	3549.6	9.276	2.411	2.97		Clay	100.0			18.33	0.87	n.a.	n.a.	0.79	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.570	21.830	0.411	5872.8	3559.6	10.616	2.175	2.90		Clay	94.9			20.63	0.87	n.a.	n.a.	0.79	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.740	21.860	0.422	5894.0	3570.2	10.595	2.231	2.90		Clay	95.4			20.66	0.87	n.a.	n.a.	0.79	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.900	22.740	0.436	5914.0	3580.2	11.051	2.202	2.89		Clay	93.9			21.49	0.87	n.a.	n.a.	0.79	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.060	23.680	0.460	5934.0	3590.3	11.538	2.221	2.87		Clay	92.8			22.38	0.87	n.a.	n.a.	0.79	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.230	24.600	0.463	5955.3	3600.9	12.009	2.142	2.85		Clay	91.0			23.25	0.87	n.a.	n.a.	0.78	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.390	24.910	0.494	5975.3	3610.9	12.142	2.254	2.86		Clay	91.6			23.54	0.87	n.a.	n.a.	0.78	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.560	25.390	0.506	5996.5	3621.6	12.366	2.259	2.85		Clay	91.1			24.00	0.87	n.a.	n.a.	0.78	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.720	25.860	0.500	6016.5	3631.6	12.585	2.189	2.84		Clay	90.0			24.44	0.87	n.a.	n.a.	0.78	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.880	24.790	0.542	6036.5	3641.6	11.957	2.491	2.89		Clay	94.0			23.43	0.87	n.a.	n.a.	0.78	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.050	24.980	0.600	6057.8	3652.2	12.021	2.732	2.91		Clay	95.6			23.61	0.87	n.a.	n.a.	0.78	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.210	28.340	0.661	6077.8	3662.2	13.817	2.612	2.85		Clay	90.8			26.79	0.87	n.a.	n.a.	0.78	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.380	34.180	0.667	6099.0	3672.9	16.952	2.143	2.73		Clay	81.0			32.31	0.86	n.a.	n.a.	0.78	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.540	32.070	0.708	6119.0	3682.9	15.754	2.440	2.78		Clay	85.7			30.31	0.86	n.a.	n.a.	0.78	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.700	28.980	0.714	6139.0	3692.9	14.033	2.754	2.86		Clay	91.4			27.39	0.86	n.a.	n.a.	0.78	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.870	28.690	0.671	6160.3	3703.6	13.830	2.620	2.85		Clay	90.8			27.12	0.86	n.a.	n.a.	0.78	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.030	28.530	0.648	6180.3	3713.6	13.701	2.548	2.84		Clay	90.5			26.97	0.86	n.a.	n.a.	0.77	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	7

PGA (A_{max})	0.87

Total Settlement:	0.19	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
0.160	404.160	2.039	20.2	20.2	3913.537	0.505	0.93		Unsaturated	0.0			382.00	1.70	649.41	649.41	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.330	495.300	2.253	41.6	41.6	3339.489	0.455	0.88		Unsaturated	0.0			468.15	1.70	795.85	795.85	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.490	354.250	2.432	61.7	61.7	1960.022	0.686	1.07		Unsaturated	0.0			334.83	1.70	569.21	569.21	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.660	256.590	2.230	83.2	83.2	1223.163	0.869	1.22		Unsaturated	0.0			242.52	1.70	412.29	412.29	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.820	184.920	2.207	103.3	103.3	790.756	1.194	1.42		Unsaturated	0.0			174.78	1.70	297.13	297.13	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.980	114.220	2.440	123.5	123.5	446.664	2.137	1.75		Unsaturated	3.3			107.96	1.70	183.53	183.53	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.150	74.840	2.679	144.9	144.9	270.054	3.583	2.06		Unsaturated	27.5			70.74	1.70	120.25	175.93	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.310	55.880	2.886	165.1	165.1	188.828	5.171	2.27		Unsaturated	44.8			52.82	1.70	89.79	156.70	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.480	64.710	2.854	186.5	186.5	205.732	4.416	2.19		Unsaturated	38.6			61.16	1.70	103.98	169.78	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.640	70.780	3.257	206.6	206.6	213.767	4.608	2.20		Unsaturated	39.1			66.90	1.70	113.73	182.35	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.800	64.060	3.201	226.8	226.8	184.615	5.006	2.27		Unsaturated	44.3			60.55	1.70	102.93	172.82	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.970	58.760	3.164	248.2	248.2	161.814	5.395	2.32		Unsaturated	48.9			55.54	1.70	94.42	164.87	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.130	59.450	2.832	268.4	268.4	157.423	4.775	2.29		Unsaturated	45.9			56.19	1.70	95.52	164.56	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.300	61.650	2.547	289.8	289.8	157.085	4.140	2.24		Unsaturated	41.8			58.27	1.70	99.06	166.30	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.460	58.060	2.325	310.0	310.0	143.000	4.014	2.25		Unsaturated	42.8			54.88	1.70	93.29	159.81	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.620	50.870	2.210	330.1	330.1	121.335	4.359	2.32		Unsaturated	48.5			48.08	1.70	81.74	148.67	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.790	44.300	2.045	351.5	351.5	102.320	4.634	2.39		Unsaturated	53.8			41.87	1.70	71.18	137.66	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.950	41.200	1.846	371.7	371.7	92.493	4.500	2.40		Unsaturated	55.2			38.94	1.70	66.20	131.85	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.120	38.820	1.702	393.1	393.1	84.696	4.408	2.42		Unsaturated	56.6			36.69	1.70	62.38	127.46	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.280	38.760	1.614	413.3	413.3	82.454	4.186	2.41		Unsaturated	55.8			36.64	1.70	62.28	127.07	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.440	36.590	1.537	433.4	433.4	75.961	4.225	2.44		Unsaturated	57.9			34.58	1.70	58.79	123.33	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.610	34.230	1.461	454.9	454.9	69.318	4.298	2.47		Unsaturated	60.4			32.35	1.70	55.00	119.25	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.770	31.770	1.397	475.0	475.0	62.903	4.431	2.51		Unsaturated	63.4			30.03	1.70	51.05	115.01	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.940	29.120	1.304	496.4	496.4	56.339	4.517	2.54		Unsaturated	66.5			27.52	1.70	46.79	110.28	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.100	27.530	1.220	516.6	516.6	52.168	4.475	2.56		Unsaturated	68.1			26.02	1.70	44.24	107.34	1.00	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.270	26.240	1.174	538.0	538.0	48.681	4.520	2.59		Unsaturated	70.0			24.80	1.70	42.16	105.06	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.430	24.700	1.130	558.2	558.2	58.667	4.626	2.54		Unsaturated	66.2			23.35	1.70	39.69	101.06	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.590	24.420	1.145	578.3	578.3	56.548	4.743	2.56		Unsaturated	67.7			23.08	1.70	39.24	100.81	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.760	25.290	1.164	599.8	599.8	57.090	4.658	2.55		Unsaturated	67.0			23.90	1.70	40.64	102.46	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.920	27.690	1.132	619.9	619.9	47.812	4.133	2.56		Unsaturated	68.2			26.17	1.70	44.49	107.69	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.090	29.650	1.260	641.3	641.3	50.354	4.297	2.56		Unsaturated	67.9			28.02	1.70	47.64	111.69	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.250	29.960	1.329	661.5	661.5	50.087	4.485	2.58		Unsaturated	69.1			28.32	1.70	48.14	112.59	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.410	31.820	1.384	681.7	681.7	52.422	4.395	2.56		Unsaturated	67.5			30.08	1.69	50.93	115.84	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.580	30.930	1.329	703.1	703.1	50.140	4.348	2.57		Unsaturated	68.3			29.23	1.68	49.04	113.58	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.740	29.810	1.305	723.2	723.2	47.609	4.432	2.59		Unsaturated	70.0			28.18	1.66	46.89	111.17	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.910	28.230	1.301	744.7	744.7	54.695	4.669	2.56		Unsaturated	68.0			26.68	1.66	44.16	107.24	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.070	26.940	1.379	764.8	764.8	51.177	5.192	2.62		Unsaturated	72.3			25.46	1.64	41.80	105.05	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.230	27.320	1.430	785.0	785.0	50.953	5.310	2.63		Unsaturated	73.0			25.82	1.62	41.84	105.23	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.400	28.700	1.402	806.4	806.4	52.544	4.953	2.59		Unsaturated	70.5			27.13	1.59	43.26	106.58	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.560	27.440	1.383	826.6	826.6	49.326	5.118	2.62		Unsaturated	72.8			25.94	1.58	41.07	104.19	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.730	25.490	1.329	848.0	848.0	44.936	5.300	2.66		Unsaturated	75.9			24.09	1.57	37.94	100.68	0.99	0.561	1.098	n.a.	n.a.	n.a.	0.00	0.00
6.890	24.210	1.275	868.1	868.1	54.774	5.363	2.61		Unsaturated	71.6			22.88	1.57	35.86	97.23	0.99	0.560	1.093	n.a.	n.a.	n.a.	0.00	0.00
7.050	22.940	1.253	888.3	888.3	50.649	5.571	2.64		Unsaturated	74.4			21.68	1.56	33.74	94.98	0.99	0.560	1.089	n.a.	n.a.	n.a.	0.00	0.00
7.220	22.030	1.233	909.7	909.7	47.432	5.717	2.67		Unsaturated	76.6			20.82	1.54	32.12	93.24	0.99	0.560	1.085	n.a.	n.a.	n.a.	0.00	0.00
7.380	21.270	1.191	929.9	929.9	44.748	5.724	2.69		Unsaturated	78.0			20.10	1.53	30.76	91.69	0.98	0.559	1.082	n.a.	n.a.	n.a.	0.00	0.00
7.550	21.280	1.138	951.3	951.3	43.739	5.470	2.68		Unsaturated	77.4			20.11	1.51	30.44	91.18	0.98	0.559	1.079	n.a.	n.a.	n.a.	0.00	0.00
7.710	20.020	1.116	971.5	971.5	40.216	5.714	2.72		Unsaturated	80.5			18.92	1.50	28.44	89.04	0.98	0.559	1.076	n.a.	n.a.	n.a.	0.00	0.00
7.870	19.700	1.109	991.6	991.6	38.733	5.777	2.73		Unsaturated	81.6			18.62	1.49	27.73	88.27	0.98	0.558	1.074	n.a.	n.a.	n.a.	0.00	0.00
8.040	21.260	1.102	1013.0	1013.0	40.973	5.310	2.69		Clay	78.2			20.09	1.21	n.a.	n.a.	0.98	0.559	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.200	20.570	1.031	1033.2	1033.2	38.818	5.139	2.70		Clay	78.6			19.44	1.21	n.a.	n.a.	0.98	0.564	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.370	20.690	0.931	1054.6	1054.6	38.237	4.617	2.67		Clay	76.4			19.56	1.20	n.a.	n.a.	0.98	0.570	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.530	19.200	0.929	1074.8	1074.8	34.728	4.979	2.72		Clay	80.6			18.15	1.20	n.a.	n.a.	0.98	0.575	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.690	18.000	0.920	1094.9	1094.9	31.879	5.273	2.76		Clay	84.1			17.01	1.19	n.a.	n.a.	0.98	0.579	n.a.	n.a.	n.a.	n.a.	0.00	0.00
8.860	18.200	0.886	1116.4	1116.4	31.606	5.023	2.75		Clay	83.1			17.20	1.18	n.a.	n.a.	0.98	0.584	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.020	16.760	0.819	1136.5	1136.5	28.494	5.057	2.79		Clay	85.9			15.84	1.18	n.a.	n.a.	0.98	0.589	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.190	15.720	0.752	1157.9	1157.9	26.152	4.969	2.81		Clay	87.6			14.86	1.17	n.a.	n.a.	0.98	0.594	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.350	14.730	0.685	1178.1	1178.1	24.006	4.847	2.83		Clay	89.2			13.92	1.17	n.a.	n.a.	0.98	0.598	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.510	14.770	0.670	1198.3	1198.3	23.652	4.724	2.83		Clay	89.0			13.96	1.16	n.a.	n.a.	0.98	0.602	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.680	14.300	0.663	1219.7	1219.7	22.449	4.843	2.85		Clay	90.9			13.52	1.16	n.a.	n.a.	0.98	0.607	n.a.	n.a.	n.a.	n.a.	0.00	0.00
9.840	13.300	0.644	1239.8	1239.8	20.454	5.076	2.89		Clay	94.4			12.57	1.15	n.a.	n.a.	0.98	0.611	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.010	12.030	0.604	1261.3	1261.3	18.076	5.299	2.95		Clay	98.6			11.37	1.15	n.a.	n.a.	0.97	0.615	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.170	11.170	0.520	1281.4	1281.4	16.434	4.934	2.96		Clay	99.5			10.56	1.14	n.a.	n.a.	0.97	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.330	10.710	0.482	1301.6	1301.6	15.457	4.794	2.97		Clay	100.0			10.12	1.14	n.a.	n.a.	0.97	0.623	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.500	10.190	0.454	1323.0	1323.0	14.404	4.762	2.99		Clay	100.0			9.63	1.13	n.a.	n.a.	0.97	0.627	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.660	9.830	0.432	1343.2	1343.2	13.637	4.717	3.01		Clay	100.0			9.29	1.13	n.a.	n.a.	0.97	0.630	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.830	8.950	0.415	1364.6	1364.6	12.118	5.022	3.06		Clay	100.0			8.46	1.12	n.a.	n.a.	0.97	0.634	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	7

PGA (A_{max})	0.87

Total Settlement:	0.19	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
10.990	8.060	0.406	1384.7	1384.7	10.641	5.504	3.13		Clay	100.0			7.62	1.12	n.a.	n.a.	0.97	0.638	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.150	7.200	0.353	1404.9	1404.9	9.250	5.430	3.18		Clay	100.0			6.81	1.11	n.a.	n.a.	0.97	0.641	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.320	6.930	0.339	1426.3	1426.3	8.717	5.446	3.20		Clay	100.0			6.55	1.11	n.a.	n.a.	0.97	0.645	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.480	7.810	0.349	1446.5	1446.5	9.799	4.926	3.13		Clay	100.0			7.38	1.11	n.a.	n.a.	0.97	0.648	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.650	8.780	0.349	1467.9	1467.9	10.963	4.334	3.06		Clay	100.0			8.30	1.10	n.a.	n.a.	0.97	0.651	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.810	8.960	0.346	1488.1	1488.1	11.043	4.211	3.05		Clay	100.0			8.47	1.10	n.a.	n.a.	0.97	0.654	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.980	8.980	0.363	1509.5	1509.5	10.898	4.410	3.06		Clay	100.0			8.49	1.09	n.a.	n.a.	0.97	0.658	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.140	9.650	0.356	1529.6	1529.6	11.617	4.009	3.02		Clay	100.0			9.12	1.09	n.a.	n.a.	0.97	0.661	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.300	9.880	0.356	1549.8	1549.8	11.750	3.908	3.01		Clay	100.0			9.34	1.09	n.a.	n.a.	0.97	0.664	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.470	9.760	0.327	1571.2	1571.2	11.423	3.648	3.00		Clay	100.0			9.22	1.08	n.a.	n.a.	0.97	0.667	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.630	9.420	0.314	1591.4	1591.4	10.839	3.640	3.02		Clay	100.0			8.90	1.08	n.a.	n.a.	0.96	0.670	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.800	9.130	0.307	1612.8	1612.8	10.322	3.684	3.04		Clay	100.0			8.63	1.07	n.a.	n.a.	0.96	0.673	n.a.	n.a.	n.a.	n.a.	0.00	0.00
12.960	9.420	0.326	1633.0	1633.0	10.537	3.789	3.04		Clay	100.0			8.90	1.07	n.a.	n.a.	0.96	0.675	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.120	9.170	0.318	1653.1	1653.1	10.094	3.815	3.05		Clay	100.0			8.67	1.07	n.a.	n.a.	0.96	0.678	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.290	8.800	0.303	1674.5	1674.5	9.510	3.806	3.07		Clay	100.0			8.32	1.06	n.a.	n.a.	0.96	0.681	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.450	8.040	0.284	1694.7	1694.7	8.488	3.951	3.12		Clay	100.0			7.60	1.06	n.a.	n.a.	0.96	0.683	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.620	7.500	0.273	1716.1	1716.1	7.741	4.115	3.17		Clay	100.0			7.09	1.06	n.a.	n.a.	0.96	0.686	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.780	7.230	0.264	1736.3	1736.3	7.328	4.156	3.19		Clay	100.0			6.83	1.05	n.a.	n.a.	0.96	0.688	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.940	6.850	0.268	1756.4	1756.4	6.800	4.486	3.23		Clay	100.0			6.47	1.05	n.a.	n.a.	0.96	0.691	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.110	6.560	0.266	1777.9	1771.0	6.404	4.683	3.27		Clay	100.0			6.20	1.05	n.a.	n.a.	0.96	0.693	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.270	6.370	0.258	1798.0	1781.2	6.143	4.716	3.28		Clay	100.0			6.02	1.05	n.a.	n.a.	0.96	0.696	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.440	6.270	0.249	1819.4	1792.0	5.983	4.645	3.29		Clay	100.0			5.93	1.04	n.a.	n.a.	0.96	0.698	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.600	6.320	0.225	1839.6	1802.2	5.993	4.165	3.26		Clay	100.0			5.97	1.04	n.a.	n.a.	0.96	0.700	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.760	5.800	0.156	1859.8	1812.3	5.374	3.193	3.24		Clay	100.0			5.48	1.04	n.a.	n.a.	0.96	0.702	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.930	5.370	0.384	1881.2	1823.1	4.859	8.663	3.52		Clay	100.0			5.08	1.04	n.a.	n.a.	0.96	0.705	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.090	5.670	0.835	1901.3	1833.3	5.148	17.689	3.70		Clay	100.0			5.36	1.04	n.a.	n.a.	0.95	0.707	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.260	10.680	2.297	1922.8	1844.1	10.540	23.635	3.57		Clay	100.0			10.09	1.04	n.a.	n.a.	0.95	0.709	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.420	98.550	2.633	1942.9	1854.3	98.522	2.699	2.21		Sand	40.2	163.07		163.07	1.04	168.90	251.78	0.95	0.711	1.040	161.288	368.886	518.98	0.00	0.00
15.580	141.970	2.461	1963.1	1864.5	141.963	1.746	1.97		Sand	20.5	163.07		163.07	1.04	169.53	217.34	0.95	0.713	1.038	5.829	13.312	18.68	0.00	0.00
15.750	151.160	2.087	1984.5	1875.3	150.769	1.390	1.88		Sand	13.2	163.07		163.07	1.04	169.92	191.85	0.95	0.715	1.029	1.230	2.784	3.89	0.00	0.00
15.910	170.660	0.430	2004.7	1885.5	169.877	0.253	1.39		Sand	0.0	163.07		163.07	1.04	170.21	170.21	0.95	0.717	1.022	0.507	1.003	1.40	0.00	0.00
16.080	172.530	0.364	2026.1	1896.3	171.249	0.212	1.35		Sand	0.0			163.07	1.04	169.86	169.86	0.95	0.719	1.021	0.501	0.988	1.37	0.00	0.00
16.240	155.300	0.428	2046.2	1906.5	153.624	0.277	1.44		Sand	0.0	163.07		163.07	1.04	169.53	169.53	0.95	0.720	1.020	0.496	0.973	1.35	0.00	0.00
16.400	97.800	0.696	2066.4	1916.6	96.101	0.719	1.84		Sand	9.9	163.07		163.07	1.04	168.98	178.24	0.95	0.722	1.021	0.677	1.425	1.97	0.00	0.00
16.570	69.040	0.928	2087.8	1927.5	67.339	1.364	2.13		Sand	33.3	163.07		163.07	1.03	167.35	241.68	0.95	0.724	1.028	51.261	115.932	160.13	0.00	0.00
16.730	46.510	0.749	2108.0	1937.6	44.898	1.648	2.32		Sand	48.4	163.07		163.07	1.02	166.90	256.03	0.95	0.726	1.026	274.001	618.728	852.60	0.00	0.00
16.900	18.850	0.295	2129.4	1948.4	18.256	1.658	2.64		Clay	73.9	163.07		163.07	1.02	n.a.	n.a.	0.95	0.727	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.060	9.110	0.186	2149.6	1958.6	8.205	2.319	3.01		Clay	100.0			8.61	1.02	n.a.	n.a.	0.95	0.729	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.220	5.020	0.098	2169.7	1968.8	3.998	2.501	3.29		Clay	100.0			4.74	1.02	n.a.	n.a.	0.95	0.731	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.390	4.940	0.084	2191.1	1979.6	3.884	2.182	3.28		Clay	100.0			4.67	1.02	n.a.	n.a.	0.94	0.732	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.550	4.700	0.086	2211.3	1989.8	3.613	2.379	3.32		Clay	100.0			4.44	1.02	n.a.	n.a.	0.94	0.734	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.720	7.100	0.091	2232.7	2000.6	5.982	1.517	3.04		Clay	100.0			6.71	1.01	n.a.	n.a.	0.94	0.735	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.880	5.540	0.128	2252.9	2010.8	4.390	2.896	3.29		Clay	100.0			5.24	1.01	n.a.	n.a.	0.94	0.737	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.040	6.640	0.423	2273.0	2020.9	5.446	7.688	3.45		Clay	100.0			6.28	1.01	n.a.	n.a.	0.94	0.738	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.210	9.920	0.653	2294.5	2031.8	8.636	7.441	3.29		Clay	100.0			9.38	1.01	n.a.	n.a.	0.94	0.740	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.370	15.920	0.762	2314.6	2041.9	14.460	5.159	3.01		Clay	100.0			15.05	1.01	n.a.	n.a.	0.94	0.741	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.540	23.090	0.566	2336.0	2052.7	21.359	2.583	2.69		Clay	78.3			21.82	1.01	n.a.	n.a.	0.94	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.700	21.190	0.551	2356.2	2062.9	19.402	2.751	2.74		Clay	82.3			20.03	1.01	n.a.	n.a.	0.94	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.860	17.990	0.872	2376.4	2073.1	16.209	5.189	2.98		Clay	100.0			17.00	1.01	n.a.	n.a.	0.94	0.745	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.030	17.300	1.217	2397.8	2083.9	15.453	7.556	3.10		Clay	100.0			16.35	1.00	n.a.	n.a.	0.94	0.747	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.190	20.840	1.558	2417.9	2094.1	18.749	7.937	3.05		Clay	100.0			19.70	1.00	n.a.	n.a.	0.94	0.748	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.360	49.580	1.939	2439.4	2104.9	45.830	4.010	2.57		Sand	68.5	149.77	1.4	209.68	1.00	209.97	321.19	0.94	0.749	1.002	########	########	#########	0.00	0.00
19.520	104.720	2.616	2459.5	2115.1	97.838	2.527	2.20		Sand	38.7	149.77	1.4	209.68	1.00	209.70	300.68	0.93	0.750	1.000	########	########	1662799.66	0.00	0.00
19.690	158.460	2.783	2480.9	2125.9	148.255	1.770	1.96		Sand	19.8		1.4	209.68	1.00	209.42	260.57	0.93	0.751	0.999	499.147	1096.589	1459.23	0.00	0.00
19.850	152.380	1.986	2501.1	2136.1	142.172	1.314	1.88		Sand	13.2		1.4	201.64	1.00	201.07	225.07	0.93	0.753	0.997	10.716	23.508	31.23	0.00	0.00
20.010	190.370	1.780	2521.3	2146.2	177.479	0.941	1.71		Sand	0.0		1.4	251.91	1.00	250.95	250.95	0.93	0.754	0.996	145.910	319.636	424.08	0.00	0.00
20.180	217.850	1.170	2542.7	2157.0	202.749	0.540	1.50		Sand	0.0		1.4	288.27	0.99	286.81	286.81	0.93	0.755	0.994	33910.019	74172.040	98258.32	0.00	0.00
20.340	189.120	1.142	2562.8	2167.2	175.430	0.608	1.58		Sand	0.0	205.91	1.4	288.27	0.99	286.46	286.46	0.93	0.756	0.993	31748.253	69344.949	91735.29	0.00	0.00
20.510	150.660	1.410	2584.3	2178.0	139.154	0.944	1.79		Sand	5.8	205.91	1.4	288.27	0.99	286.08	286.92	0.93	0.757	0.991	34577.294	75410.609	99614.82	0.00	0.00
20.670	111.950	1.635	2604.4	2188.2	102.842	1.478	2.01		Sand	24.1	205.91	1.4	288.27	0.99	285.73	362.93	0.93	0.758	0.990	########	########	#########	0.00	0.00
20.830	83.000	1.733	2624.6	2198.4	75.749	2.121	2.22		Sand	40.5	205.91	1.4	288.27	0.99	285.38	396.81	0.93	0.759	0.989	########	########	#########	0.00	0.00
21.000	54.300	1.064	2646.0	2209.2	49.005	2.008	2.34		Sand	50.4	205.91	1.4	288.27	0.99	285.01	406.83	0.93	0.760	0.987	########	########	#########	0.00	0.00
21.160	30.440	1.124	2666.2	2219.4	26.230	3.863	2.73		Clay	81.7			28.77	0.99	n.a.	n.a.	0.93	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.330	18.730	1.166	2687.6	2230.2	15.592	6.704	3.06		Clay	100.0			17.70	0.99	n.a.	n.a.	0.93	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.490	29.610	1.911	2707.7	2240.4	25.225	6.763	2.91		Clay	96.0			27.99	0.99	n.a.	n.a.	0.93	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.650	45.750	1.702	2727.9	2250.5	39.445	3.835	2.60		Clay	71.1	81.96	1.45	118.84	0.98	n.a.	n.a.	0.92	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	7

PGA (A_{max})	0.87

Total Settlement:	0.19	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, s'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
21.820	60.030	1.663	2749.3	2261.4	53.628	2.836	2.41		Sand	56.1	81.96	1.45	118.84	0.98	116.23	195.98	0.92	0.765	0.983	1.517	3.282	4.29	0.00	0.00
21.980	86.710	1.440	2769.5	2271.5	77.838	1.688	2.14		Sand	34.3		1.45	118.84	0.98	115.87	180.20	0.92	0.765	0.985	0.732	1.509	1.97	0.00	0.00
22.150	82.300	1.248	2790.9	2282.3	73.630	1.542	2.13		Sand	33.7	81.96	1.45	118.84	0.97	115.66	179.19	0.92	0.766	0.984	0.703	1.437	1.87	0.00	0.00
22.310	72.160	1.377	2811.1	2292.5	64.250	1.946	2.25		Sand	42.6	81.96	1.45	118.84	0.97	115.59	187.48	0.92	0.767	0.982	1.000	2.159	2.81	0.00	0.00
22.470	59.830	1.553	2831.2	2302.7	52.927	2.658	2.40		Sand	54.9	81.96	1.45	118.84	0.97	115.50	194.52	0.92	0.768	0.979	1.407	3.030	3.95	0.00	0.00
22.640	51.240	1.572	2852.6	2313.5	45.028	3.156	2.50		Sand	63.1	81.96	1.45	118.84	0.97	115.36	197.51	0.92	0.769	0.977	1.647	3.541	4.61	0.00	0.00
22.800	43.760	1.384	2872.8	2323.7	38.174	3.269	2.56		Sand	68.1	81.96	1.45	118.84	0.97	115.22	198.88	0.92	0.769	0.976	1.775	3.809	4.95	0.00	0.00
22.970	41.730	1.208	2894.2	2334.5	36.249	2.998	2.56		Sand	67.4	81.96	1.45	118.84	0.97	115.03	198.44	0.92	0.770	0.975	1.733	3.715	4.82	0.00	0.00
23.130	40.170	0.756	2914.4	2344.7	34.761	1.953	2.45		Sand	59.0	81.96	1.45	118.84	0.97	114.82	195.35	0.92	0.771	0.974	1.468	3.148	4.08	0.00	0.00
23.290	24.170	0.854	2934.5	2354.8	19.282	3.763	2.83		Clay	89.2			22.84	0.97	n.a.	n.a.	0.92	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.460	14.260	0.845	2956.0	2365.7	10.806	6.608	3.18		Clay	100.0			13.48	0.97	n.a.	n.a.	0.92	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.620	31.740	0.688	2976.1	2375.8	26.985	2.274	2.58		Sand	69.2	87.71	1.6	140.34	0.97	135.59	225.47	0.92	0.773	0.965	11.082	23.534	30.45	0.00	0.00
23.790	67.500	0.562	2997.5	2386.6	58.740	0.852	2.05		Sand	27.3	87.71	1.6	140.34	0.96	134.72	192.79	0.91	0.774	0.971	1.289	2.753	3.56	0.00	0.00
23.950	80.760	0.328	3017.7	2396.8	70.382	0.413	1.83		Sand	9.0	87.71	1.6	140.34	0.95	133.15	139.01	0.91	0.774	0.982	0.230	0.350	0.45	0.02	0.04
24.110	92.800	0.354	3037.9	2407.0	80.894	0.388	1.76		Sand	3.7		1.6	140.34	0.95	132.73	132.74	0.91	0.775	0.982	0.206	0.302	0.39	0.02	0.05
24.280	87.970	0.727	3059.3	2417.8	76.432	0.841	1.96		Sand	19.5	87.71	1.6	140.34	0.95	133.65	173.88	0.91	0.776	0.973	0.576	1.116	1.44	0.00	0.00
24.440	60.280	0.959	3079.4	2428.0	51.830	1.633	2.27		Sand	44.3	87.71	1.6	140.34	0.96	134.41	212.27	0.91	0.776	0.959	4.061	8.566	11.04	0.00	0.00
24.610	29.610	0.400	3100.9	2438.8	24.704	1.426	2.49		Sand	62.2	87.71	1.6	140.34	0.96	134.45	221.72	0.91	0.777	0.957	8.162	17.191	22.13	0.00	0.00
24.770	14.800	0.284	3121.0	2449.0	10.812	2.143	2.89		Clay	94.0			13.99	0.96	n.a.	n.a.	0.91	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.930	9.210	0.204	3141.2	2459.1	6.213	2.670	3.14		Clay	100.0			8.71	0.96	n.a.	n.a.	0.91	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.100	11.020	0.211	3162.6	2470.0	7.643	2.232	3.03		Clay	100.0			10.42	0.96	n.a.	n.a.	0.91	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.260	9.700	0.220	3182.8	2480.1	6.539	2.712	3.13		Clay	100.0			9.17	0.96	n.a.	n.a.	0.91	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.430	8.770	0.223	3204.2	2490.9	5.755	3.117	3.21		Clay	100.0			8.29	0.96	n.a.	n.a.	0.91	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.590	8.870	0.224	3224.3	2501.1	5.804	3.085	3.20		Clay	100.0			8.38	0.96	n.a.	n.a.	0.91	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.750	8.700	0.215	3244.5	2511.3	5.637	3.031	3.21		Clay	100.0			8.22	0.96	n.a.	n.a.	0.90	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.920	8.370	0.205	3265.9	2522.1	5.342	3.041	3.23		Clay	100.0			7.91	0.95	n.a.	n.a.	0.90	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.080	8.530	0.230	3286.1	2532.3	5.439	3.332	3.24		Clay	100.0			8.06	0.95	n.a.	n.a.	0.90	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.250	9.230	0.236	3307.5	2543.1	5.958	3.118	3.19		Clay	100.0			8.72	0.95	n.a.	n.a.	0.90	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.410	12.760	0.429	3327.7	2553.3	8.692	3.863	3.11		Clay	100.0			12.06	0.95	n.a.	n.a.	0.90	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.570	11.940	0.834	3347.8	2563.5	8.010	8.120	3.33		Clay	100.0			11.29	0.95	n.a.	n.a.	0.90	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.740	29.240	1.128	3369.2	2574.3	21.408	4.095	2.82		Clay	88.3			27.64	0.95	n.a.	n.a.	0.90	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.900	29.330	0.756	3389.4	2584.4	21.386	2.735	2.71		Clay	79.5			27.72	0.95	n.a.	n.a.	0.90	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.070	19.230	0.470	3410.8	2595.3	13.505	2.682	2.86		Clay	92.0			18.18	0.95	n.a.	n.a.	0.90	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.230	13.140	0.443	3431.0	2605.4	8.770	3.874	3.11		Clay	100.0			12.42	0.95	n.a.	n.a.	0.90	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.400	11.420	0.427	3452.4	2616.2	7.410	4.404	3.20		Clay	100.0			10.79	0.95	n.a.	n.a.	0.90	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.560	10.220	0.414	3472.6	2626.4	6.460	4.874	3.27		Clay	100.0			9.66	0.94	n.a.	n.a.	0.90	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.720	9.820	0.409	3492.7	2636.6	6.124	5.071	3.30		Clay	100.0			9.28	0.94	n.a.	n.a.	0.89	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.890	9.270	0.271	3514.1	2647.4	5.676	3.606	3.25		Clay	100.0			8.76	0.94	n.a.	n.a.	0.89	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.050	8.960	0.298	3534.3	2657.6	5.413	4.140	3.30		Clay	100.0			8.47	0.94	n.a.	n.a.	0.89	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.220	9.060	0.295	3555.7	2668.4	5.458	4.046	3.29		Clay	100.0			8.56	0.94	n.a.	n.a.	0.89	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.380	10.250	0.284	3575.9	2678.6	6.318	3.350	3.19		Clay	100.0			9.69	0.94	n.a.	n.a.	0.89	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.540	10.110	0.269	3596.0	2688.7	6.183	3.234	3.19		Clay	100.0			9.56	0.94	n.a.	n.a.	0.89	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.710	9.880	0.272	3617.5	2699.6	5.980	3.370	3.21		Clay	100.0			9.34	0.94	n.a.	n.a.	0.89	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.870	10.170	0.290	3637.6	2709.7	6.164	3.470	3.21		Clay	100.0			9.61	0.94	n.a.	n.a.	0.89	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.040	10.280	0.294	3659.0	2720.5	6.212	3.476	3.20		Clay	100.0			9.72	0.94	n.a.	n.a.	0.89	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.200	10.320	0.290	3679.2	2730.7	6.211	3.422	3.20		Clay	100.0			9.75	0.93	n.a.	n.a.	0.89	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.360	10.410	0.280	3699.4	2740.9	6.246	3.270	3.19		Clay	100.0			9.84	0.93	n.a.	n.a.	0.89	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.530	10.290	0.280	3720.8	2751.7	6.127	3.325	3.20		Clay	100.0			9.73	0.93	n.a.	n.a.	0.89	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.690	10.300	0.285	3740.9	2761.9	6.104	3.382	3.20		Clay	100.0			9.74	0.93	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.860	10.530	0.281	3762.4	2772.7	6.239	3.254	3.19		Clay	100.0			9.95	0.93	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.020	10.230	0.278	3782.5	2782.9	5.993	3.331	3.21		Clay	100.0			9.67	0.93	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.180	10.010	0.264	3802.7	2793.0	5.806	3.256	3.21		Clay	100.0			9.46	0.93	n.a.	n.a.	0.88	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.350	9.890	0.261	3824.1	2803.9	5.691	3.267	3.22		Clay	100.0			9.35	0.93	n.a.	n.a.	0.88	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.510	9.850	0.271	3844.3	2814.0	5.635	3.417	3.24		Clay	100.0			9.31	0.93	n.a.	n.a.	0.88	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.680	10.180	0.295	3865.7	2824.8	5.839	3.582	3.23		Clay	100.0			9.62	0.93	n.a.	n.a.	0.88	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.840	10.980	0.353	3885.8	2835.0	6.375	3.909	3.22		Clay	100.0			10.38	0.93	n.a.	n.a.	0.88	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.000	11.930	0.399	3906.0	2845.2	7.013	3.994	3.19		Clay	100.0			11.28	0.92	n.a.	n.a.	0.88	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.170	12.710	0.460	3927.4	2856.0	7.525	4.277	3.19		Clay	100.0			12.01	0.92	n.a.	n.a.	0.88	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.330	12.740	0.509	3947.6	2866.2	7.513	4.731	3.21		Clay	100.0			12.04	0.92	n.a.	n.a.	0.88	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.500	13.770	0.556	3969.0	2877.0	8.193	4.716	3.18		Clay	100.0			13.02	0.92	n.a.	n.a.	0.87	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.660	14.060	0.552	3989.2	2887.2	8.358	4.573	3.17		Clay	100.0			13.29	0.92	n.a.	n.a.	0.87	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.820	13.820	0.519	4009.3	2897.4	8.156	4.393	3.16		Clay	100.0			13.06	0.92	n.a.	n.a.	0.87	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.990	13.350	0.499	4030.7	2908.2	7.795	4.402	3.18		Clay	100.0			12.62	0.92	n.a.	n.a.	0.87	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.150	13.450	0.475	4050.9	2918.3	7.829	4.154	3.16		Clay	100.0			12.71	0.92	n.a.	n.a.	0.87	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.320	13.740	0.511	4072.3	2929.2	7.991	4.370	3.17		Clay	100.0			12.99	0.92	n.a.	n.a.	0.87	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.480	13.720	0.543	4092.5	2939.3	7.943	4.649	3.19		Clay	100.0			12.97	0.92	n.a.	n.a.	0.87	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	7

PGA (A_{max})	0.87

Total Settlement:	0.19	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, s'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
32.640	13.990	0.566	4112.6	2949.5	8.092	4.739	3.19		Clay	100.0			13.22	0.92	n.a.	n.a.	0.87	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.810	14.690	0.545	4134.1	2960.3	8.528	4.319	3.14		Clay	100.0			13.88	0.92	n.a.	n.a.	0.87	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.970	15.120	0.522	4154.2	2970.5	8.782	4.004	3.12		Clay	100.0			14.29	0.91	n.a.	n.a.	0.87	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.140	15.190	0.505	4175.6	2981.3	8.790	3.853	3.11		Clay	100.0			14.36	0.91	n.a.	n.a.	0.87	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.300	14.470	0.491	4195.8	2991.5	8.272	3.972	3.13		Clay	100.0			13.68	0.91	n.a.	n.a.	0.87	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.460	13.110	0.450	4216.0	3001.7	7.331	4.087	3.18		Clay	100.0			12.39	0.91	n.a.	n.a.	0.86	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.630	12.050	0.408	4237.4	3012.5	6.593	4.103	3.22		Clay	100.0			11.39	0.91	n.a.	n.a.	0.86	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.790	11.520	0.361	4257.5	3022.6	6.214	3.840	3.23		Clay	100.0			10.89	0.91	n.a.	n.a.	0.86	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.960	11.240	0.344	4279.0	3033.5	6.000	3.779	3.24		Clay	100.0			10.62	0.91	n.a.	n.a.	0.86	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.120	11.500	0.313	4299.1	3043.6	6.144	3.346	3.20		Clay	100.0			10.87	0.91	n.a.	n.a.	0.86	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.280	11.290	0.282	4319.3	3053.8	5.980	3.093	3.19		Clay	100.0			10.67	0.91	n.a.	n.a.	0.86	0.788	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.450	10.620	0.157	4340.7	3064.6	5.514	1.863	3.11		Clay	100.0			10.04	0.91	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.610	9.760	0.192	4360.9	3074.8	4.930	2.536	3.22		Clay	100.0			9.22	0.91	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.780	9.120	0.239	4382.3	3085.6	4.491	3.445	3.32		Clay	100.0			8.62	0.91	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.940	10.830	0.314	4402.4	3095.8	5.575	3.642	3.25		Clay	100.0			10.24	0.90	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.100	15.510	0.402	4422.6	3106.0	8.563	3.019	3.05		Clay	100.0			14.66	0.90	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.270	17.820	0.511	4444.0	3116.8	10.009	3.274	3.02		Clay	100.0			16.84	0.90	n.a.	n.a.	0.85	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.430	19.530	0.522	4464.2	3126.9	11.064	3.016	2.96		Clay	100.0			18.46	0.90	n.a.	n.a.	0.85	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.600	18.960	0.484	4485.6	3137.8	10.655	2.892	2.97		Clay	100.0			17.92	0.90	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.760	14.940	0.417	4505.8	3147.9	8.061	3.290	3.10		Clay	100.0			14.12	0.90	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.930	11.510	0.373	4527.2	3158.7	5.854	4.038	3.26		Clay	100.0			10.88	0.90	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.090	10.940	0.352	4547.3	3168.9	5.470	4.059	3.29		Clay	100.0			10.34	0.90	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.250	12.140	0.397	4567.5	3179.1	6.201	4.026	3.24		Clay	100.0			11.47	0.90	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.420	14.570	0.456	4588.9	3189.9	7.696	3.715	3.14		Clay	100.0			13.77	0.90	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.580	17.410	0.498	4609.1	3200.1	9.441	3.299	3.04		Clay	100.0			16.46	0.90	n.a.	n.a.	0.85	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.750	17.870	0.512	4630.5	3210.9	9.689	3.294	3.03		Clay	100.0			16.89	0.90	n.a.	n.a.	0.85	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.910	16.800	0.484	4650.7	3221.1	8.987	3.345	3.06		Clay	100.0			15.88	0.90	n.a.	n.a.	0.85	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.070	16.020	0.487	4670.8	3231.3	8.470	3.558	3.10		Clay	100.0			15.14	0.89	n.a.	n.a.	0.84	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.240	16.350	0.507	4692.2	3242.1	8.639	3.623	3.10		Clay	100.0			15.45	0.89	n.a.	n.a.	0.84	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.400	17.520	0.495	4712.4	3252.2	9.325	3.264	3.04		Clay	100.0			16.56	0.89	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.570	16.940	0.414	4733.8	3263.1	8.932	2.839	3.02		Clay	100.0			16.01	0.89	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.730	15.680	0.371	4754.0	3273.2	8.128	2.785	3.05		Clay	100.0			14.82	0.89	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.890	14.810	0.307	4774.1	3283.4	7.567	2.467	3.05		Clay	100.0			14.00	0.89	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.060	14.270	0.254	4795.6	3294.2	7.208	2.139	3.04		Clay	100.0			13.49	0.89	n.a.	n.a.	0.84	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.220	11.760	0.213	4815.7	3304.4	5.660	2.274	3.14		Clay	100.0			11.12	0.89	n.a.	n.a.	0.84	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.390	10.520	0.285	4837.1	3315.2	4.887	3.522	3.29		Clay	100.0			9.94	0.89	n.a.	n.a.	0.84	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.550	10.320	0.795	4857.3	3325.4	4.746	10.079	3.57		Clay	100.0			9.75	0.89	n.a.	n.a.	0.84	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.710	14.570	1.237	4877.5	3335.6	7.274	10.198	3.43		Clay	100.0			13.77	0.89	n.a.	n.a.	0.84	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
38.880	47.060	1.767	4898.9	3346.4	26.662	3.961	2.74		Clay	81.8			44.48	0.89	n.a.	n.a.	0.84	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.040	92.210	2.373	4919.0	3356.5	67.354	2.644	2.32		Sand	48.8	179.79	1.1	197.77	0.89	175.10	266.65	0.83	0.782	0.862	1179.680	2236.068	2860.22	0.00	0.00
39.210	135.490	3.089	4940.5	3367.4	99.665	2.322	2.16		Sand	36.1	179.79	1.1	197.77	0.88	174.95	254.66	0.83	0.781	0.861	230.058	435.584	557.38	0.00	0.00
39.370	179.520	3.966	4960.6	3377.5	132.447	2.240	2.07		Sand	28.6	179.79	1.1	197.77	0.88	173.66	241.57	0.83	0.781	0.860	50.705	95.901	122.76	0.00	0.00
39.530	190.220	4.866	4980.8	3387.7	140.234	2.592	2.10		Sand	31.2		1.1	197.77	0.88	173.99	246.53	0.83	0.781	0.859	87.184	164.724	210.94	0.00	0.00
39.700	179.060	4.152	5002.2	3398.5	131.679	2.352	2.09		Sand	30.0		1.1	186.17	0.87	162.17	230.30	0.83	0.781	0.858	16.856	31.811	40.75	0.00	0.00
39.860	200.090	3.320	5022.4	3408.7	147.136	1.680	1.95		Sand	18.6		1.1	208.03	0.87	180.38	223.76	0.83	0.780	0.857	9.614	18.125	23.23	0.00	0.00
40.030	188.930	2.542	5043.8	3419.5	138.597	1.364	1.90		Sand	14.8		1.1	196.43	0.85	167.16	195.02	0.83	0.780	0.881	1.443	2.796	3.59	0.00	0.00
40.190	190.450	1.676	5063.9	3429.7	139.513	0.892	1.77		Sand	4.5		1.1	198.01	0.83	164.84	164.92	0.83	0.780	0.912	0.428	0.726	0.93	0.01	0.02
40.350	192.270	1.627	5084.1	3439.9	140.648	0.858	1.75		Sand	3.3		1.1	199.90	0.83	166.42	166.42	0.83	0.779	0.910	0.449	0.767	0.98	0.01	0.02
40.520	195.530	1.744	5105.5	3450.7	142.832	0.904	1.76		Sand	4.1		1.1	203.29	0.83	169.42	169.46	0.83	0.779	0.907	0.494	0.863	1.11	0.01	0.01
40.680	193.960	2.023	5125.7	3460.8	141.454	1.057	1.81		Sand	8.1		1.1	201.66	0.83	168.22	172.25	0.83	0.779	0.904	0.544	0.966	1.24	0.00	0.01
40.850	188.410	1.618	5147.1	3471.7	137.131	0.871	1.77		Sand	4.4		1.1	195.89	0.83	161.97	162.03	0.82	0.778	0.912	0.393	0.652	0.84	0.01	0.02
41.010	181.610	1.857	5167.3	3481.8	131.912	1.037	1.83		Sand	9.4		1.1	188.82	0.83	156.13	163.53	0.82	0.778	0.910	0.411	0.688	0.88	0.01	0.02
41.170	214.610	1.607	5187.4	3492.0	155.992	0.758	1.69		Sand	0.0		1.1	223.13	0.84	187.58	187.58	0.82	0.778	0.885	1.004	1.956	2.52	0.00	0.00
41.340	296.470	1.147	5208.8	3502.8	215.880	0.390	1.40		Sand	0.0		1.1	308.24	0.88	269.86	269.86	0.82	0.777	0.849	1907.337	3561.633	4581.94	0.00	0.00
41.500	341.520	2.051	5229.0	3513.0	248.606	0.605	1.47		Sand	0.0		1.1	355.08	0.87	310.63	310.63	0.82	0.777	0.848	########	########	########	0.00	0.00
41.670	306.790	1.068	5250.4	3523.8	222.779	0.351	1.36		Sand	0.0	322.8	1.1	355.08	0.87	310.38	310.38	0.82	0.777	0.847	########	########	########	0.00	0.00
41.830	273.360	1.362	5270.6	3534.0	198.001	0.503	1.49		Sand	0.0	322.8	1.1	355.08	0.87	310.14	310.14	0.82	0.776	0.846	########	########	########	0.00	0.00
41.990	179.200	2.212	5290.7	3544.2	128.942	1.253	1.89		Sand	14.5	322.8	1.1	355.08	0.87	309.91	347.80	0.82	0.776	0.845	########	########	########	0.00	0.00
42.160	99.320	1.539	5312.2	3555.0	70.488	1.592	2.16		Sand	35.6	322.8	1.1	355.08	0.87	309.66	419.24	0.82	0.776	0.844	########	########	########	0.00	0.00
42.320	47.420	1.202	5332.3	3565.2	25.106	2.686	2.65		Clay	74.7			44.82	0.87	n.a.	n.a.	0.82	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.490	26.490	0.733	5353.7	3576.0	13.318	3.078	2.90		Clay	95.1			25.04	0.87	n.a.	n.a.	0.82	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.650	16.820	0.600	5373.9	3586.1	7.882	4.243	3.17		Clay	100.0			15.90	0.87	n.a.	n.a.	0.81	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.810	15.490	0.561	5394.1	3596.3	7.114	4.387	3.21		Clay	100.0			14.64	0.87	n.a.	n.a.	0.81	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.980	14.010	0.531	5415.5	3607.1	6.267	4.700	3.27		Clay	100.0			13.24	0.87	n.a.	n.a.	0.81	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.140	14.140	0.513	5435.6	3617.3	6.315	4.495	3.26		Clay	100.0			13.36	0.87	n.a.	n.a.	0.81	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.310	14.470	0.508	5457.1	3628.1	6.472	4.325	3.24		Clay	100.0			13.68	0.87	n.a.	n.a.	0.81	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	7

PGA (A_{max})	0.87

Total Settlement:	0.19	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, s'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
43.470	14.720	0.500	5477.2	3638.3	6.586	4.176	3.23		Clay	100.0			13.91	0.87	n.a.	n.a.	0.81	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.640	14.640	0.497	5498.6	3649.1	6.517	4.183	3.23		Clay	100.0			13.84	0.87	n.a.	n.a.	0.81	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.800	14.790	0.490	5518.8	3659.3	6.575	4.075	3.22		Clay	100.0			13.98	0.87	n.a.	n.a.	0.81	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.960	15.010	0.491	5539.0	3669.5	6.672	4.011	3.21		Clay	100.0			14.19	0.86	n.a.	n.a.	0.81	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.130	15.460	0.384	5560.4	3680.3	6.891	3.028	3.13		Clay	100.0			14.61	0.86	n.a.	n.a.	0.81	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.290	15.910	0.449	5580.5	3690.4	7.110	3.424	3.15		Clay	100.0			15.04	0.86	n.a.	n.a.	0.81	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.460	16.280	0.497	5602.0	3701.3	7.283	3.688	3.16		Clay	100.0			15.39	0.86	n.a.	n.a.	0.80	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.620	17.710	0.540	5622.1	3711.4	8.029	3.621	3.12		Clay	100.0			16.74	0.86	n.a.	n.a.	0.80	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.780	18.600	0.619	5642.3	3721.6	8.480	3.924	3.12		Clay	100.0			17.58	0.86	n.a.	n.a.	0.80	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.950	21.180	0.704	5663.7	3732.4	9.832	3.836	3.06		Clay	100.0			20.02	0.86	n.a.	n.a.	0.80	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.110	25.220	0.808	5683.9	3742.6	11.959	3.611	2.98		Clay	100.0			23.84	0.86	n.a.	n.a.	0.80	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.280	33.170	0.884	5705.3	3753.4	16.155	2.915	2.82		Clay	88.6			31.35	0.86	n.a.	n.a.	0.80	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.440	37.590	0.865	5725.4	3763.6	18.454	2.491	2.73		Clay	81.6			35.53	0.86	n.a.	n.a.	0.80	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.600	32.750	0.734	5745.6	3773.8	15.834	2.456	2.78		Clay	85.7			30.95	0.86	n.a.	n.a.	0.80	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.770	27.510	0.686	5767.0	3784.6	13.014	2.784	2.88		Clay	93.8			26.00	0.86	n.a.	n.a.	0.80	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.930	26.270	0.685	5787.2	3794.7	12.320	2.930	2.92		Clay	96.3			24.83	0.86	n.a.	n.a.	0.80	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.100	25.200	0.677	5808.6	3805.6	11.717	3.035	2.94		Clay	98.5			23.82	0.86	n.a.	n.a.	0.80	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.260	23.330	0.623	5828.8	3815.7	10.701	3.053	2.98		Clay	100.0			22.05	0.86	n.a.	n.a.	0.80	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.420	21.050	0.572	5848.9	3825.9	9.475	3.158	3.03		Clay	100.0			19.90	0.86	n.a.	n.a.	0.79	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.590	19.120	0.523	5870.3	3836.7	8.437	3.234	3.08		Clay	100.0			18.07	0.85	n.a.	n.a.	0.79	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.750	18.150	0.499	5890.5	3846.9	7.905	3.279	3.10		Clay	100.0			17.16	0.85	n.a.	n.a.	0.79	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.920	17.040	0.454	5911.9	3857.7	7.302	3.224	3.13		Clay	100.0			16.11	0.85	n.a.	n.a.	0.79	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.080	16.050	0.413	5932.1	3867.9	6.765	3.156	3.15		Clay	100.0			15.17	0.85	n.a.	n.a.	0.79	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.240	15.660	0.400	5952.2	3878.1	6.541	3.154	3.16		Clay	100.0			14.80	0.85	n.a.	n.a.	0.79	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.410	15.540	0.385	5973.7	3888.9	6.456	3.069	3.16		Clay	100.0			14.69	0.85	n.a.	n.a.	0.79	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.570	15.550	0.286	5993.8	3899.1	6.439	2.282	3.09		Clay	100.0			14.70	0.85	n.a.	n.a.	0.79	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.740	15.420	0.271	6015.2	3909.9	6.349	2.182	3.09		Clay	100.0			14.57	0.85	n.a.	n.a.	0.79	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.900	14.800	0.269	6035.4	3920.0	6.011	2.286	3.12		Clay	100.0			13.99	0.85	n.a.	n.a.	0.79	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.060	15.050	0.325	6055.6	3930.2	6.118	2.702	3.15		Clay	100.0			14.22	0.85	n.a.	n.a.	0.79	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.230	14.870	0.360	6077.0	3941.0	6.004	3.044	3.19		Clay	100.0			14.05	0.85	n.a.	n.a.	0.78	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.390	16.650	0.368	6097.1	3951.2	6.885	2.706	3.11		Clay	100.0			15.74	0.85	n.a.	n.a.	0.78	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.560	19.650	0.426	6118.6	3962.0	8.375	2.566	3.02		Clay	100.0			18.57	0.85	n.a.	n.a.	0.78	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.720	19.730	0.484	6138.7	3972.2	8.389	2.907	3.05		Clay	100.0			18.65	0.85	n.a.	n.a.	0.78	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.880	20.860	0.555	6158.9	3982.4	8.930	3.119	3.05		Clay	100.0			19.72	0.85	n.a.	n.a.	0.78	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.050	19.980	0.669	6180.3	3993.2	8.459	3.960	3.13		Clay	100.0			18.88	0.85	n.a.	n.a.	0.78	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.210	20.410	0.523	6200.5	4003.4	8.648	3.022	3.05		Clay	100.0			19.29	0.85	n.a.	n.a.	0.78	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.380	24.030	0.452	6221.9	4014.2	10.423	2.161	2.90		Clay	95.3			22.71	0.84	n.a.	n.a.	0.78	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.540	20.990	0.441	6242.0	4024.3	8.880	2.470	2.99		Clay	100.0			19.84	0.84	n.a.	n.a.	0.78	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.700	17.780	0.450	6262.2	4034.5	7.262	3.073	3.12		Clay	100.0			16.81	0.84	n.a.	n.a.	0.78	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.870	17.170	0.470	6283.6	4045.3	6.935	3.351	3.16		Clay	100.0			16.23	0.84	n.a.	n.a.	0.78	0.754	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.030	17.810	0.459	6303.8	4055.5	7.229	3.133	3.12		Clay	100.0			16.83	0.84	n.a.	n.a.	0.77	0.754	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.200	18.410	0.438	6325.2	4066.3	7.499	2.875	3.09		Clay	100.0			17.40	0.84	n.a.	n.a.	0.77	0.753	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	8

PGA (A_{max})	0.87

Total Settlement:	0.64	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
0.160	427.330	3.152	19.2	19.2	4240.091	0.738	1.10		Unsaturated	0.0			403.90	1.70	686.64	686.64	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.330	677.070	4.535	39.6	39.6	4677.841	0.670	1.06		Unsaturated	0.0			639.95	1.70	1087.92	1087.92	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.490	568.600	5.187	58.8	58.8	3223.799	0.912	1.18		Unsaturated	0.0			537.43	1.70	913.63	913.63	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.660	427.430	5.619	79.2	79.2	2088.018	1.315	1.35		Unsaturated	0.0			404.00	1.70	686.80	686.80	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.820	311.880	6.452	98.4	98.4	1366.764	2.069	1.57		Unsaturated	0.0			294.78	1.70	501.13	501.13	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.980	221.290	6.856	117.6	117.6	886.982	3.099	1.79		Unsaturated	6.1			209.16	1.70	355.57	356.92	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.150	166.140	6.825	138.0	138.0	614.648	4.109	1.96		Unsaturated	19.5			157.03	1.70	266.95	324.53	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.310	122.050	6.270	157.2	157.2	422.964	5.140	2.11		Unsaturated	31.6			115.36	1.70	196.11	273.95	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.480	102.650	4.557	177.6	177.6	334.606	4.443	2.09		Unsaturated	30.5			97.02	1.70	164.94	234.45	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.640	101.720	4.292	196.8	196.8	314.953	4.224	2.09		Unsaturated	29.9			96.14	1.70	163.44	231.65	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.800	100.550	4.117	216.0	216.0	297.140	4.099	2.09		Unsaturated	29.9			95.04	1.70	161.56	229.45	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.970	101.210	3.738	236.4	236.4	285.867	3.697	2.06		Unsaturated	27.4			95.66	1.70	162.62	226.24	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.130	95.340	3.300	255.6	255.6	258.931	3.466	2.05		Unsaturated	27.2			90.11	1.70	153.19	214.63	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.300	89.290	2.769	276.0	276.0	233.318	3.106	2.04		Unsaturated	25.9			84.40	1.70	143.47	200.54	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.460	86.830	2.420	295.2	295.2	219.354	2.792	2.01		Unsaturated	24.0			82.07	1.70	139.52	191.87	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.620	84.950	2.143	314.4	314.4	207.917	2.527	1.99		Unsaturated	22.2			80.29	1.70	136.50	184.20	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.790	82.850	2.018	334.8	334.8	196.469	2.440	1.99		Unsaturated	22.4			78.31	1.70	133.12	180.69	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.950	79.300	1.872	354.0	354.0	182.841	2.365	2.00		Unsaturated	23.0			74.95	1.70	127.42	175.55	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.120	80.810	1.831	374.4	374.4	181.160	2.271	1.99		Unsaturated	22.1			76.38	1.70	129.85	176.17	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.280	81.230	1.871	393.6	393.6	177.586	2.308	2.00		Unsaturated	22.9			76.78	1.70	130.52	179.01	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.440	83.460	1.760	412.8	412.8	178.158	2.113	1.97		Unsaturated	20.4			78.88	1.70	134.10	176.94	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.610	83.210	1.754	433.2	433.2	173.369	2.113	1.98		Unsaturated	21.0			78.65	1.70	133.70	178.02	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.770	78.580	1.691	452.4	452.4	160.166	2.159	2.00		Unsaturated	23.3			74.27	1.70	126.26	174.97	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.940	71.220	1.653	472.8	472.8	141.936	2.328	2.06		Unsaturated	28.0			67.32	1.70	114.44	169.93	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.100	64.430	1.633	492.0	492.0	125.810	2.545	2.13		Unsaturated	33.1			60.90	1.70	103.53	163.71	1.00	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.270	63.100	1.641	512.4	512.4	120.706	2.611	2.15		Unsaturated	34.7			59.64	1.70	101.39	162.88	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.430	69.500	1.637	531.6	531.6	130.557	2.365	2.09		Unsaturated	30.3			65.69	1.68	110.20	168.26	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.590	72.560	1.535	550.8	550.8	133.912	2.123	2.05		Unsaturated	26.9			68.58	1.66	113.76	167.25	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.760	67.950	1.223	571.2	571.2	123.094	1.807	2.02		Unsaturated	24.7			64.22	1.67	107.54	155.93	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.920	60.810	1.230	590.4	590.4	108.283	2.032	2.10		Unsaturated	30.7			57.48	1.67	95.87	151.52	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.090	54.570	1.266	610.8	610.8	95.464	2.333	2.18		Unsaturated	37.2			51.58	1.66	85.81	146.16	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.250	51.310	1.235	630.0	630.0	88.334	2.422	2.21		Unsaturated	40.0			48.50	1.66	80.39	141.72	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.410	54.030	1.056	649.2	649.2	91.643	1.966	2.14		Unsaturated	33.9			51.07	1.64	83.80	140.57	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.580	50.760	0.895	669.6	669.6	84.725	1.775	2.13		Unsaturated	33.4			47.98	1.64	78.77	133.89	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.740	49.980	0.773	688.8	688.8	82.228	1.557	2.10		Unsaturated	31.1			47.24	1.64	77.30	129.52	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.910	49.170	0.730	709.2	709.2	79.697	1.496	2.10		Unsaturated	30.9			46.47	1.62	75.44	127.14	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.070	50.200	0.627	728.4	728.4	80.284	1.258	2.05		Unsaturated	26.8			47.45	1.62	76.72	123.17	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.230	51.560	0.605	747.6	747.6	81.394	1.183	2.03		Unsaturated	25.0			48.73	1.60	78.07	121.98	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.400	56.190	0.686	768.0	768.0	87.553	1.230	2.01		Unsaturated	24.0			53.11	1.57	83.35	126.32	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.560	60.590	0.518	787.2	787.2	93.282	0.860	1.89		Unsaturated	14.4			57.27	1.60	91.38	112.03	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.730	67.390	0.767	807.6	807.6	102.485	1.145	1.94		Unsaturated	18.2			63.70	1.53	97.23	129.33	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.890	72.900	1.027	826.8	826.8	109.605	1.417	1.98		Unsaturated	21.5			68.90	1.48	101.82	142.65	0.99	0.560	1.100	n.a.	n.a.	n.a.	0.00	0.00
7.050	90.440	1.391	846.0	846.0	134.559	1.545	1.95		Unsaturated	18.6			85.48	1.43	122.19	158.39	0.99	0.560	1.100	n.a.	n.a.	n.a.	0.00	0.00
7.220	141.050	2.183	866.4	866.4	207.707	1.552	1.82		Unsaturated	8.8			133.32	1.36	181.64	187.62	0.99	0.560	1.100	n.a.	n.a.	n.a.	0.00	0.00
7.380	221.680	2.917	885.6	885.6	323.230	1.318	1.65		Unsaturated	0.0			209.53	1.26	263.66	263.66	0.98	0.559	1.100	n.a.	n.a.	n.a.	0.00	0.00
7.550	285.810	3.847	906.0	906.0	412.189	1.348	1.60		Unsaturated	0.0			270.14	1.25	337.89	337.89	0.98	0.559	1.100	n.a.	n.a.	n.a.	0.00	0.00
7.710	350.950	4.252	925.2	925.2	500.987	1.213	1.51		Unsaturated	0.0			331.71	1.24	412.62	412.62	0.98	0.559	1.100	n.a.	n.a.	n.a.	0.00	0.00
7.870	309.630	3.500	944.4	944.4	437.396	1.132	1.52		Unsaturated	0.0			292.66	1.24	362.07	362.07	0.98	0.558	1.100	n.a.	n.a.	n.a.	0.00	0.00
8.040	268.080	2.129	964.8	964.8	374.572	0.796	1.44		Sand	0.0			253.38	1.23	311.72	311.72	0.98	0.559	1.100	########	########	#########	0.00	0.00
8.200	246.550	1.683	984.0	984.0	341.045	0.684	1.41		Sand	0.0			233.03	1.22	285.20	285.20	0.98	0.565	1.100	25126.252	60805.530	107665.96	0.00	0.00
8.370	201.450	2.213	1004.4	1004.4	275.678	1.101	1.63		Sand	0.0			190.41	1.24	235.47	235.47	0.98	0.570	1.100	27.340	66.164	116.01	0.00	0.00
8.530	158.840	2.912	1023.6	1023.6	215.162	1.839	1.87		Sand	12.6			150.13	1.26	188.99	209.58	0.98	0.575	1.100	3.389	8.202	14.26	0.00	0.00
8.690	151.310	3.623	1042.8	1042.8	203.021	2.403	1.98		Sand	21.3			143.02	1.23	176.19	227.32	0.98	0.580	1.100	12.965	31.376	54.06	0.00	0.00
8.860	145.620	2.745	1063.2	1063.2	193.463	1.892	1.91		Sand	15.7			137.64	1.25	172.09	203.75	0.98	0.585	1.100	2.350	5.686	9.71	0.00	0.00
9.020	126.530	2.770	1082.4	1082.4	166.498	2.199	2.00		Sand	23.0			119.59	1.25	149.07	200.65	0.98	0.590	1.100	1.960	4.743	8.04	0.00	0.00
9.190	129.260	2.238	1102.8	1102.8	168.512	1.739	1.92		Sand	16.4			122.17	1.26	153.34	186.02	0.98	0.595	1.100	0.936	2.260	3.80	0.00	0.00
9.350	156.850	2.407	1122.0	1122.0	202.864	1.540	1.83		Sand	9.1			148.25	1.24	184.13	191.07	0.98	0.599	1.100	1.184	2.865	4.78	0.00	0.00
9.510	174.290	2.927	1141.2	1141.2	223.583	1.685	1.83		Sand	9.4			164.74	1.22	200.47	208.82	0.98	0.604	1.100	3.224	7.802	12.92	0.00	0.00
9.680	175.430	2.268	1161.6	1161.6	223.053	1.297	1.74		Sand	2.4			165.81	1.22	201.76	201.76	0.98	0.608	1.100	2.090	5.057	8.31	0.00	0.00
9.840	176.810	2.103	1180.8	1180.8	222.966	1.194	1.71		Sand	0.2			167.12	1.21	202.19	202.19	0.98	0.612	1.100	2.143	5.186	8.47	0.00	0.00
10.010	167.060	1.509	1201.2	1201.2	208.820	0.906	1.65		Sand	0.0			157.90	1.21	191.53	191.53	0.97	0.617	1.100	1.210	2.929	4.75	0.00	0.00
10.170	150.570	1.046	1220.4	1220.4	186.636	0.697	1.60		Sand	0.0			142.32	1.22	174.06	174.06	0.97	0.621	1.100	0.579	1.271	2.05	0.00	0.00
10.330	128.270	1.011	1239.6	1239.6	157.635	0.792	1.69		Sand	0.0			121.24	1.24	150.37	150.37	0.97	0.624	1.086	0.291	0.529	0.85	0.01	0.03
10.500	124.040	0.997	1260.0	1260.0	151.160	0.808	1.71		Sand	0.1			117.24	1.24	145.11	145.11	0.97	0.628	1.079	0.259	0.452	0.72	0.02	0.04
10.660	122.590	1.163	1279.2	1279.2	148.247	0.954	1.77		Sand	4.5			115.87	1.23	142.80	142.87	0.97	0.632	1.076	0.248	0.424	0.67	0.02	0.04
10.830	126.580	1.066	1299.6	1299.6	151.879	0.846	1.73		Sand	1.0			119.64	1.22	146.09	146.09	0.97	0.636	1.075	0.265	0.463	0.73	0.02	0.04

CORNERSTONE EARTH GROUP

CPT No.	8

PGA (A_{max})	0.87

Total Settlement:	0.64	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5,\ S'Vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
10.990	139.500	1.251	1318.8	1318.8	166.226	0.901	1.71		Sand	0.2			131.85	1.20	158.52	158.52	0.97	0.639	1.082	0.357	0.684	1.07	0.01	0.01
11.150	152.610	1.227	1338.0	1338.0	180.601	0.808	1.66		Sand	0.0			144.24	1.19	170.94	170.94	0.97	0.643	1.089	0.520	1.101	1.71	0.00	0.00
11.320	165.710	1.133	1358.4	1358.4	194.681	0.686	1.58		Sand	0.0			156.63	1.17	183.13	183.13	0.97	0.646	1.097	0.826	1.941	3.00	0.00	0.00
11.480	167.070	1.254	1377.6	1377.6	194.901	0.754	1.61		Sand	0.0			157.91	1.16	183.66	183.66	0.97	0.649	1.094	0.845	1.989	3.06	0.00	0.00
11.650	176.620	1.504	1398.0	1398.0	204.567	0.855	1.63		Sand	0.0			166.94	1.15	192.20	192.20	0.97	0.653	1.100	1.251	3.028	4.64	0.00	0.00
11.810	198.890	1.656	1417.2	1417.2	228.886	0.835	1.59		Sand	0.0			187.99	1.13	213.07	213.07	0.97	0.656	1.100	4.292	10.387	15.84	0.00	0.00
11.980	185.670	1.516	1437.6	1437.6	212.085	0.820	1.61		Sand	0.0	187.99		187.99	1.13	212.22	212.22	0.97	0.659	1.100	4.046	9.790	14.86	0.00	0.00
12.140	179.790	1.465	1456.8	1456.8	203.974	0.818	1.62		Sand	0.0	187.99		187.99	1.12	211.42	211.42	0.97	0.662	1.100	3.831	9.271	14.01	0.00	0.00
12.300	163.670	1.051	1476.0	1476.0	184.389	0.645	1.58		Sand	0.0	187.99		187.99	1.12	210.62	210.62	0.97	0.665	1.100	3.632	8.789	13.23	0.00	0.00
12.470	154.670	0.717	1496.4	1496.4	173.001	0.466	1.52		Sand	0.0	187.99		187.99	1.12	209.79	209.79	0.97	0.667	1.100	3.437	8.316	12.46	0.00	0.00
12.630	137.960	0.579	1515.6	1515.6	153.229	0.422	1.54		Sand	0.0	187.99		187.99	1.11	209.02	209.02	0.96	0.670	1.098	3.266	7.888	11.77	0.00	0.00
12.800	111.770	0.592	1536.0	1536.0	123.142	0.534	1.67		Sand	0.0	187.99		187.99	1.11	208.20	208.20	0.96	0.673	1.093	3.098	7.449	11.07	0.00	0.00
12.960	75.810	0.745	1555.2	1555.2	82.723	0.993	1.97		Sand	20.8	187.99		187.99	1.08	203.90	257.56	0.96	0.676	1.092	334.127	802.983	1188.60	0.00	0.00
13.120	48.290	0.636	1576.2	1568.7	52.145	1.338	2.21		Sand	39.8	187.99		187.99	1.08	203.43	294.25	0.96	0.678	1.090	########	########	513542.45	0.00	0.00
13.290	25.600	0.527	1599.2	1581.1	27.118	2.124	2.56		Sand	67.6	187.99		187.99	1.08	203.01	311.91	0.96	0.681	1.087	########	########	#########	0.00	0.00
13.450	9.320	0.274	1620.8	1592.7	10.686	3.221	2.99		Clay	100.0			8.81	1.08	n.a.	n.a.	0.96	0.683	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.620	7.430	0.236	1643.7	1605.0	8.234	3.565	3.11		Clay	100.0			7.02	1.08	n.a.	n.a.	0.96	0.686	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.780	6.820	0.254	1665.3	1616.6	7.407	4.237	3.19		Clay	100.0			6.45	1.07	n.a.	n.a.	0.96	0.688	n.a.	n.a.	n.a.	n.a.	0.00	0.00
13.940	7.400	0.301	1686.9	1628.2	8.054	4.585	3.18		Clay	100.0			6.99	1.07	n.a.	n.a.	0.96	0.690	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.110	13.020	0.377	1709.9	1640.6	14.830	3.095	2.87		Clay	92.2			12.31	1.07	n.a.	n.a.	0.96	0.692	n.a.	n.a.	n.a.	n.a.	0.00	0.00
14.270	23.480	0.529	1731.5	1652.2	25.416	2.340	2.61		Mixed	71.4	24.32	1.78	43.29	1.12	48.62	113.69	0.96	0.695	1.029	0.158	0.219	0.32	0.03	0.06
14.440	25.730	0.576	1754.4	1664.5	26.485	2.318	2.59		Sand	70.1		1.78	43.29	1.12	48.46	113.22	0.96	0.697	1.028	0.158	0.217	0.31	0.03	0.05
14.600	23.940	0.539	1776.0	1676.2	25.649	2.336	2.60		Mixed	71.2	24.32	1.78	43.29	1.12	48.30	113.23	0.96	0.699	1.027	0.158	0.217	0.31	0.03	0.05
14.760	21.240	0.350	1797.6	1687.8	21.527	1.720	2.59		Sand	69.9	24.32	1.78	43.29	1.11	48.16	112.77	0.96	0.701	1.027	0.157	0.215	0.31	0.03	0.06
14.930	13.180	0.288	1820.6	1700.1	14.434	2.350	2.81		Clay	87.4			12.46	1.06	n.a.	n.a.	0.96	0.703	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.090	10.690	0.266	1842.2	1711.7	11.414	2.726	2.93		Clay	97.1			10.10	1.06	n.a.	n.a.	0.95	0.705	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.260	9.740	0.252	1865.1	1724.1	10.217	2.865	2.98		Clay	100.0			9.21	1.06	n.a.	n.a.	0.95	0.707	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.420	9.000	0.233	1886.7	1735.7	9.284	2.893	3.01		Clay	100.0			8.51	1.05	n.a.	n.a.	0.95	0.709	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.580	8.360	0.217	1908.3	1747.3	8.477	2.934	3.05		Clay	100.0			7.90	1.05	n.a.	n.a.	0.95	0.710	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.750	8.350	0.216	1931.3	1759.7	8.393	2.928	3.05		Clay	100.0			7.89	1.05	n.a.	n.a.	0.95	0.712	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.910	8.450	0.222	1952.9	1771.3	8.439	2.976	3.06		Clay	100.0			7.99	1.05	n.a.	n.a.	0.95	0.714	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.080	8.570	0.231	1975.8	1783.6	8.502	3.040	3.06		Clay	100.0			8.10	1.05	n.a.	n.a.	0.95	0.716	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.240	8.890	0.249	1997.4	1795.2	8.791	3.159	3.06		Clay	100.0			8.40	1.04	n.a.	n.a.	0.95	0.717	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.400	9.400	0.286	2019.0	1806.8	9.287	3.413	3.06		Clay	100.0			8.88	1.04	n.a.	n.a.	0.95	0.719	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.570	10.340	0.318	2042.0	1819.2	10.245	3.407	3.02		Clay	100.0			9.77	1.04	n.a.	n.a.	0.95	0.721	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.730	10.930	0.317	2063.6	1830.8	10.813	3.199	2.98		Clay	100.0			10.33	1.04	n.a.	n.a.	0.95	0.722	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.900	11.150	0.288	2086.5	1843.1	10.967	2.847	2.95		Clay	99.1			10.54	1.04	n.a.	n.a.	0.95	0.724	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.060	10.280	0.250	2108.1	1854.8	9.948	2.712	2.97		Clay	100.0			9.72	1.04	n.a.	n.a.	0.95	0.725	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.220	10.000	0.234	2129.7	1866.4	9.575	2.616	2.98		Clay	100.0			9.45	1.03	n.a.	n.a.	0.95	0.727	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.390	9.780	0.221	2152.7	1878.7	9.266	2.544	2.98		Clay	100.0			9.24	1.03	n.a.	n.a.	0.94	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.550	10.100	0.223	2174.3	1890.3	9.536	2.473	2.97		Clay	100.0			9.55	1.03	n.a.	n.a.	0.94	0.729	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.720	9.900	0.179	2197.2	1902.7	9.252	2.033	2.93		Clay	97.7			9.36	1.03	n.a.	n.a.	0.94	0.731	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.880	9.890	0.191	2218.8	1914.3	9.174	2.171	2.95		Clay	99.1			9.35	1.03	n.a.	n.a.	0.94	0.732	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.040	10.460	0.190	2240.4	1925.9	9.699	2.036	2.92		Clay	96.3			9.89	1.03	n.a.	n.a.	0.94	0.733	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.210	11.170	0.188	2263.4	1938.2	10.358	1.876	2.87		Clay	92.9			10.56	1.02	n.a.	n.a.	0.94	0.735	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.370	11.290	0.208	2285.0	1949.9	10.408	2.051	2.89		Clay	94.3			10.67	1.02	n.a.	n.a.	0.94	0.736	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.540	11.780	0.178	2307.9	1962.2	10.831	1.672	2.83		Clay	89.5			11.13	1.02	n.a.	n.a.	0.94	0.737	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.700	12.900	0.435	2329.5	1973.8	11.891	3.707	2.99		Clay	100.0			12.19	1.02	n.a.	n.a.	0.94	0.738	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.860	11.430	0.461	2351.1	1985.4	10.330	4.492	3.09		Clay	100.0			10.80	1.02	n.a.	n.a.	0.94	0.739	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.030	13.420	0.566	2374.1	1997.8	12.247	4.630	3.04		Clay	100.0			12.68	1.02	n.a.	n.a.	0.94	0.740	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.190	18.660	0.648	2395.7	2009.4	17.381	3.710	2.86		Clay	91.7			17.64	1.01	n.a.	n.a.	0.94	0.741	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.360	19.610	0.698	2418.6	2021.7	18.203	3.794	2.85		Clay	91.0			18.53	1.01	n.a.	n.a.	0.94	0.742	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.520	22.370	0.732	2440.2	2033.4	20.803	3.461	2.78		Clay	85.4			21.14	1.01	n.a.	n.a.	0.93	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.690	24.270	0.589	2463.2	2045.7	22.524	2.557	2.67		Clay	76.7			22.94	1.01	n.a.	n.a.	0.93	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.850	25.290	0.415	2484.8	2057.3	23.051	1.727	2.56	plastic	Clay	68.0			23.90	1.01	n.a.	n.a.	0.93	0.745	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.010	17.380	0.278	2506.4	2068.9	15.590	1.724	2.70		Clay	79.3			16.43	1.01	n.a.	n.a.	0.93	0.746	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.180	10.620	0.228	2529.3	2081.3	8.990	2.432	2.99		Clay	100.0			10.04	1.00	n.a.	n.a.	0.93	0.747	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.340	9.260	0.290	2550.9	2092.9	7.630	3.632	3.14		Clay	100.0			8.75	1.00	n.a.	n.a.	0.93	0.748	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.510	9.160	0.340	2573.9	2105.2	7.480	4.315	3.19		Clay	100.0			8.66	1.00	n.a.	n.a.	0.93	0.749	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.670	9.140	0.573	2595.5	2116.8	7.409	7.301	3.33		Clay	100.0			8.64	1.00	n.a.	n.a.	0.93	0.750	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.830	27.330	0.663	2617.1	2128.5	24.451	2.546	2.64		Clay	74.3			25.83	1.00	n.a.	n.a.	0.93	0.751	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.000	75.950	0.804	2640.0	2140.8	70.129	1.078	2.05		Sand	27.1		1.8	129.22	1.00	128.69	185.28	0.93	0.752	0.997	0.906	1.970	2.62	0.00	0.00
21.160	69.400	0.898	2661.6	2152.4	63.791	1.319	2.14		Sand	34.0	71.79	1.8	129.22	0.99	128.48	195.22	0.93	0.752	0.996	1.458	3.194	4.25	0.00	0.00
21.330	55.300	0.551	2684.6	2164.8	50.422	1.022	2.15		Sand	35.2	71.79	1.8	129.22	0.99	128.24	196.34	0.93	0.753	0.994	1.547	3.383	4.49	0.00	0.00
21.490	20.500	0.451	2706.2	2176.4	17.595	2.355	2.74		Clay	81.8			19.38	0.99	n.a.	n.a.	0.93	0.754	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.650	9.280	0.348	2727.8	2188.0	7.236	4.396	3.21		Clay	100.0			8.77	0.99	n.a.	n.a.	0.92	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	8

PGA (A_{max})	0.87

Total Settlement:	0.64	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'Vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
21.820	9.290	0.493	2750.7	2200.3	7.194	6.229	3.30		Clay	100.0			8.78	0.99	n.a.	n.a.	0.92	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.980	31.640	0.759	2772.3	2211.9	27.968	2.509	2.59		Sand	70.3			29.91	0.98	29.22	88.41	0.92	0.756	0.996	0.124	0.149	0.20	0.04	0.07
22.150	57.910	1.247	2795.3	2224.3	52.098	2.206	2.35		Sand	50.9		1.55	84.84	0.98	83.16	151.63	0.92	0.757	0.992	0.300	0.502	0.66	0.02	0.04
22.310	53.320	1.035	2816.9	2235.9	47.732	1.994	2.35		Sand	50.9		1.55	78.12	0.98	76.35	143.00	0.92	0.757	0.992	0.248	0.392	0.52	0.02	0.04
22.470	43.920	0.869	2838.5	2247.5	38.978	2.045	2.42		Sand	56.9		1.55	64.34	0.97	62.65	127.94	0.92	0.758	0.992	0.191	0.275	0.36	0.02	0.05
22.640	159.450	0.684	2861.4	2259.9	144.524	0.433	1.57		Sand	0.0		1.55	233.60	0.98	229.15	229.15	0.92	0.759	0.980	15.210	32.801	43.24	0.00	0.00
22.800	178.810	0.612	2883.0	2271.5	161.806	0.345	1.47		Sand	0.0		1.55	261.96	0.98	257.11	257.11	0.92	0.759	0.979	314.790	677.808	892.88	0.00	0.00
22.970	140.620	1.269	2906.0	2283.8	126.613	0.912	1.81		Sand	7.5	169.01	1.55	261.97	0.98	256.74	260.26	0.92	0.760	0.977	478.703	1029.033	1354.49	0.00	0.00
23.130	79.070	1.515	2927.6	2295.4	70.426	1.953	2.22		Sand	40.3	169.01	1.55	261.97	0.98	256.40	360.61	0.92	0.760	0.976	########	########	########	0.00	0.00
23.290	45.870	1.300	2949.2	2307.1	40.187	2.927	2.52		Sand	64.2	169.01	1.55	261.97	0.98	256.06	378.74	0.92	0.761	0.974	########	########	########	0.00	0.00
23.460	19.820	0.742	2972.1	2319.4	15.809	4.044	2.91		Clay	96.2			18.73	0.98	n.a.	n.a.	0.92	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.620	11.460	0.352	2993.7	2331.0	8.548	3.529	3.09		Clay	100.0			10.83	0.97	n.a.	n.a.	0.92	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.790	9.780	0.287	3016.7	2343.4	7.060	3.473	3.16		Clay	100.0			9.24	0.97	n.a.	n.a.	0.91	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.950	9.470	0.305	3038.3	2355.0	6.752	3.830	3.20		Clay	100.0			8.95	0.97	n.a.	n.a.	0.91	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.110	9.630	0.317	3059.9	2366.6	6.845	3.918	3.20		Clay	100.0			9.10	0.97	n.a.	n.a.	0.91	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.280	9.800	0.303	3082.8	2378.9	6.943	3.673	3.18		Clay	100.0			9.26	0.97	n.a.	n.a.	0.91	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.440	9.650	0.305	3104.4	2390.5	6.775	3.769	3.19		Clay	100.0			9.12	0.97	n.a.	n.a.	0.91	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.610	9.800	0.310	3127.4	2402.9	6.855	3.764	3.19		Clay	100.0			9.26	0.97	n.a.	n.a.	0.91	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.770	10.460	0.318	3149.0	2414.5	7.360	3.574	3.15		Clay	100.0			9.89	0.97	n.a.	n.a.	0.91	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.930	10.690	0.328	3170.6	2426.1	7.506	3.598	3.14		Clay	100.0			10.10	0.96	n.a.	n.a.	0.91	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.100	10.810	0.349	3193.5	2438.5	7.557	3.786	3.15		Clay	100.0			10.22	0.96	n.a.	n.a.	0.91	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.260	10.760	0.368	3215.1	2450.1	7.471	4.020	3.17		Clay	100.0			10.17	0.96	n.a.	n.a.	0.91	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.430	10.350	0.384	3238.1	2462.4	7.091	4.396	3.21		Clay	100.0			9.78	0.96	n.a.	n.a.	0.91	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.590	10.150	0.380	3259.7	2474.0	6.888	4.465	3.23		Clay	100.0			9.59	0.96	n.a.	n.a.	0.91	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.750	9.960	0.391	3281.3	2485.7	6.694	4.703	3.25		Clay	100.0			9.41	0.96	n.a.	n.a.	0.90	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.920	9.960	0.364	3304.2	2498.0	6.652	4.385	3.24		Clay	100.0			9.41	0.96	n.a.	n.a.	0.90	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.080	10.140	0.443	3325.8	2509.6	6.756	5.222	3.28		Clay	100.0			9.58	0.96	n.a.	n.a.	0.90	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.250	11.560	0.582	3348.8	2522.0	7.840	5.887	3.25		Clay	100.0			10.93	0.95	n.a.	n.a.	0.90	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.410	16.440	0.951	3370.4	2533.6	11.647	6.445	3.15		Clay	100.0			15.54	0.95	n.a.	n.a.	0.90	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.570	43.110	0.942	3392.0	2545.2	35.691	2.274	2.48		Sand	61.6		1.8	73.34	0.92	67.78	135.98	0.90	0.768	0.974	0.218	0.323	0.42	0.02	0.05
26.740	25.950	0.691	3414.9	2557.5	18.958	2.850	2.76		Clay	83.7			24.53	0.95	n.a.	n.a.	0.90	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.900	16.750	0.517	3436.5	2569.1	11.702	3.439	2.98		Clay	100.0			15.83	0.95	n.a.	n.a.	0.90	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.070	15.040	0.728	3459.5	2581.5	10.312	5.472	3.14		Clay	100.0			14.22	0.95	n.a.	n.a.	0.90	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.230	28.730	0.630	3481.1	2593.1	20.816	2.335	2.67		Clay	76.9			27.16	0.95	n.a.	n.a.	0.90	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.400	17.020	0.523	3504.0	2605.4	11.720	3.428	2.97		Clay	100.0			16.09	0.95	n.a.	n.a.	0.90	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.560	11.490	0.414	3525.6	2617.1	7.434	4.251	3.19		Clay	100.0			10.86	0.95	n.a.	n.a.	0.90	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.720	9.950	0.378	3547.2	2628.7	6.221	4.627	3.27		Clay	100.0			9.40	0.94	n.a.	n.a.	0.89	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.890	9.600	0.351	3570.2	2641.0	5.918	4.495	3.28		Clay	100.0			9.07	0.94	n.a.	n.a.	0.89	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.050	9.300	0.323	3591.8	2652.6	5.658	4.303	3.29		Clay	100.0			8.79	0.94	n.a.	n.a.	0.89	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.220	8.780	0.299	3614.7	2665.0	5.233	4.291	3.32		Clay	100.0			8.30	0.94	n.a.	n.a.	0.89	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.380	8.480	0.286	3636.3	2676.6	4.978	4.296	3.34		Clay	100.0			8.02	0.94	n.a.	n.a.	0.89	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.540	8.470	0.283	3657.9	2688.2	4.941	4.267	3.34		Clay	100.0			8.01	0.94	n.a.	n.a.	0.89	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.710	8.520	0.291	3680.9	2700.5	4.947	4.357	3.34		Clay	100.0			8.05	0.94	n.a.	n.a.	0.89	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.870	8.600	0.292	3702.5	2712.2	4.977	4.319	3.34		Clay	100.0			8.13	0.94	n.a.	n.a.	0.89	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.040	8.780	0.295	3725.4	2724.5	5.078	4.265	3.33		Clay	100.0			8.30	0.94	n.a.	n.a.	0.89	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.200	8.870	0.304	3747.0	2736.1	5.114	4.338	3.33		Clay	100.0			8.38	0.93	n.a.	n.a.	0.89	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.360	9.110	0.315	3768.6	2747.7	5.259	4.353	3.32		Clay	100.0			8.61	0.93	n.a.	n.a.	0.89	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.530	9.280	0.302	3791.6	2760.1	5.351	4.095	3.30		Clay	100.0			8.77	0.93	n.a.	n.a.	0.89	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.690	8.870	0.299	3813.2	2771.7	5.025	4.287	3.33		Clay	100.0			8.38	0.93	n.a.	n.a.	0.88	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.860	8.790	0.301	3836.1	2784.0	4.937	4.380	3.34		Clay	100.0			8.31	0.93	n.a.	n.a.	0.88	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.020	9.100	0.321	3857.7	2795.7	5.130	4.480	3.33		Clay	100.0			8.60	0.93	n.a.	n.a.	0.88	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.180	9.160	0.354	3879.3	2807.3	5.144	4.904	3.36		Clay	100.0			8.66	0.93	n.a.	n.a.	0.88	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.350	9.420	0.343	3902.3	2819.6	5.298	4.590	3.33		Clay	100.0			8.90	0.93	n.a.	n.a.	0.88	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.510	9.170	0.348	3923.9	2831.2	5.092	4.825	3.36		Clay	100.0			8.67	0.93	n.a.	n.a.	0.88	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.680	8.740	0.359	3946.8	2843.6	4.759	5.301	3.40		Clay	100.0			8.26	0.92	n.a.	n.a.	0.88	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.840	10.010	0.361	3968.4	2855.2	5.622	4.498	3.30		Clay	100.0			9.46	0.92	n.a.	n.a.	0.88	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.000	10.110	0.396	3990.0	2866.8	5.661	4.877	3.32		Clay	100.0			9.56	0.92	n.a.	n.a.	0.88	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.170	10.010	0.401	4013.0	2879.1	5.560	5.013	3.33		Clay	100.0			9.46	0.92	n.a.	n.a.	0.88	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.330	10.520	0.452	4034.6	2890.8	5.883	5.315	3.33		Clay	100.0			9.94	0.92	n.a.	n.a.	0.88	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.500	11.670	0.468	4057.5	2903.1	6.642	4.855	3.26		Clay	100.0			11.03	0.92	n.a.	n.a.	0.87	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.660	12.800	0.512	4079.1	2914.7	7.384	4.754	3.22		Clay	100.0			12.10	0.92	n.a.	n.a.	0.87	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.820	12.760	0.485	4100.7	2926.3	7.320	4.530	3.21		Clay	100.0			12.06	0.92	n.a.	n.a.	0.87	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.990	11.900	0.447	4123.7	2938.7	6.696	4.546	3.24		Clay	100.0			11.25	0.92	n.a.	n.a.	0.87	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.150	10.820	0.420	4145.3	2950.3	5.930	4.797	3.30		Clay	100.0			10.23	0.92	n.a.	n.a.	0.87	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.320	10.360	0.357	4168.2	2962.6	5.587	4.310	3.29		Clay	100.0			9.79	0.92	n.a.	n.a.	0.87	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.480	9.530	0.322	4189.8	2974.2	5.000	4.332	3.34		Clay	100.0			9.01	0.91	n.a.	n.a.	0.87	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	8

PGA (A_{max})	0.87

Total Settlement:	0.64	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'Vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
32.640	8.240	0.302	4211.4	2985.9	4.109	4.922	3.44		Clay	100.0			7.79	0.91	n.a.	n.a.	0.87	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.810	7.750	0.320	4234.4	2998.2	3.757	5.683	3.50		Clay	100.0			7.33	0.91	n.a.	n.a.	0.87	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.970	7.860	0.372	4256.0	3009.8	3.809	6.483	3.53		Clay	100.0			7.43	0.91	n.a.	n.a.	0.87	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.140	9.030	0.418	4278.9	3022.2	4.560	6.068	3.45		Clay	100.0			8.53	0.91	n.a.	n.a.	0.87	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.300	10.910	0.536	4300.5	3033.8	5.775	6.113	3.37		Clay	100.0			10.31	0.91	n.a.	n.a.	0.87	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.460	11.680	0.577	4322.1	3045.4	6.251	6.062	3.34		Clay	100.0			11.04	0.91	n.a.	n.a.	0.86	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.630	11.480	0.558	4345.1	3057.7	6.088	5.992	3.35		Clay	100.0			10.85	0.91	n.a.	n.a.	0.86	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.790	11.460	0.472	4366.7	3069.4	6.045	5.087	3.31		Clay	100.0			10.83	0.91	n.a.	n.a.	0.86	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.960	11.160	0.520	4389.6	3081.7	5.818	5.796	3.35		Clay	100.0			10.55	0.91	n.a.	n.a.	0.86	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.120	11.570	0.557	4411.2	3093.3	6.055	5.943	3.35		Clay	100.0			10.94	0.90	n.a.	n.a.	0.86	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.280	13.500	0.639	4432.8	3104.9	7.268	5.667	3.27		Clay	100.0			12.76	0.90	n.a.	n.a.	0.86	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.450	14.350	0.697	4455.8	3117.3	7.777	5.747	3.25		Clay	100.0			13.56	0.90	n.a.	n.a.	0.86	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.610	14.520	0.725	4477.4	3128.9	7.850	5.906	3.26		Clay	100.0			13.72	0.90	n.a.	n.a.	0.86	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.780	14.830	0.739	4500.3	3141.2	8.010	5.876	3.25		Clay	100.0			14.02	0.90	n.a.	n.a.	0.86	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.940	14.740	0.744	4521.9	3152.8	7.916	5.959	3.25		Clay	100.0			13.93	0.90	n.a.	n.a.	0.86	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.100	14.580	0.737	4543.5	3164.5	7.779	5.987	3.26		Clay	100.0			13.78	0.90	n.a.	n.a.	0.86	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.270	14.230	0.722	4566.5	3176.8	7.521	6.042	3.28		Clay	100.0			13.45	0.90	n.a.	n.a.	0.85	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.430	14.080	0.704	4588.1	3188.4	7.393	5.969	3.28		Clay	100.0			13.31	0.90	n.a.	n.a.	0.85	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.600	14.280	0.679	4611.0	3200.8	7.482	5.670	3.26		Clay	100.0			13.50	0.90	n.a.	n.a.	0.85	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.760	14.090	0.656	4632.6	3212.4	7.330	5.570	3.26		Clay	100.0			13.32	0.90	n.a.	n.a.	0.85	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.930	13.460	0.671	4655.6	3224.7	6.904	6.029	3.30		Clay	100.0			12.72	0.89	n.a.	n.a.	0.85	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.090	13.250	0.684	4677.2	3236.3	6.743	6.270	3.32		Clay	100.0			12.52	0.89	n.a.	n.a.	0.85	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.250	14.280	0.678	4698.8	3248.0	7.347	5.685	3.27		Clay	100.0			13.50	0.89	n.a.	n.a.	0.85	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.420	14.880	0.625	4721.7	3260.3	7.680	4.989	3.22		Clay	100.0			14.06	0.89	n.a.	n.a.	0.85	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.580	15.580	0.562	4743.3	3271.9	8.074	4.258	3.16		Clay	100.0			14.73	0.89	n.a.	n.a.	0.85	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.750	15.280	0.524	4766.3	3284.3	7.854	4.062	3.16		Clay	100.0			14.44	0.89	n.a.	n.a.	0.85	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.910	15.410	0.494	4787.9	3295.9	7.898	3.791	3.14		Clay	100.0			14.57	0.89	n.a.	n.a.	0.85	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.070	16.960	0.504	4809.5	3307.5	8.801	3.460	3.08		Clay	100.0			16.03	0.89	n.a.	n.a.	0.84	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.240	18.030	0.548	4832.4	3319.8	9.406	3.509	3.06		Clay	100.0			17.04	0.89	n.a.	n.a.	0.84	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.400	18.210	0.740	4854.0	3331.4	9.475	4.687	3.13		Clay	100.0			17.21	0.89	n.a.	n.a.	0.84	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.570	19.420	1.306	4877.0	3343.8	10.157	7.692	3.24		Clay	100.0			18.36	0.89	n.a.	n.a.	0.84	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.730	25.150	1.378	4898.6	3355.4	13.531	6.070	3.08		Clay	100.0			23.77	0.89	n.a.	n.a.	0.84	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.890	59.610	1.426	4920.2	3367.0	42.822	2.496	2.45		Sand	58.9	100.92	1.66	167.53	0.88	146.81	236.21	0.84	0.762	0.861	29.381	55.631	73.00	0.00	0.00
38.060	106.770	1.639	4943.1	3379.4	78.007	1.572	2.12		Sand	32.6		1.66	167.52	0.86	144.74	213.24	0.84	0.762	0.860	4.340	8.208	10.78	0.00	0.00
38.220	99.890	1.528	4964.7	3391.0	72.728	1.569	2.14		Sand	34.4	100.92	1.66	167.53	0.86	144.79	215.61	0.84	0.761	0.859	5.137	9.703	12.74	0.00	0.00
38.390	86.330	1.501	4987.7	3403.3	62.482	1.791	2.23		Sand	41.4	100.92	1.66	167.53	0.87	145.31	223.56	0.84	0.761	0.857	9.465	17.853	23.46	0.00	0.00
38.550	78.070	1.232	5009.3	3414.9	56.222	1.630	2.24		Sand	42.1	100.92	1.66	167.53	0.87	145.20	223.99	0.84	0.761	0.856	9.801	18.466	24.28	0.00	0.00
38.710	68.100	1.026	5030.9	3426.5	48.713	1.565	2.28		Sand	45.0	100.92	1.66	167.53	0.87	145.26	226.42	0.84	0.760	0.855	12.007	22.596	29.72	0.00	0.00
38.880	39.500	0.812	5053.8	3438.9	21.503	2.196	2.65		Clay	74.8			37.33	0.88	n.a.	n.a.	0.84	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.040	22.830	0.652	5075.4	3450.5	11.762	3.215	2.96		Clay	99.5			21.58	0.88	n.a.	n.a.	0.83	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.210	15.800	0.499	5098.4	3462.8	7.653	3.767	3.15		Clay	100.0			14.93	0.88	n.a.	n.a.	0.83	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.370	16.620	0.454	5120.0	3474.5	8.093	3.228	3.09		Clay	100.0			15.71	0.88	n.a.	n.a.	0.83	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.530	14.280	0.521	5141.6	3486.1	6.718	4.447	3.24		Clay	100.0			13.50	0.88	n.a.	n.a.	0.83	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.700	16.400	0.574	5164.5	3498.4	7.899	4.155	3.16		Clay	100.0			15.50	0.88	n.a.	n.a.	0.83	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.860	19.470	0.630	5186.1	3510.0	9.616	3.731	3.07		Clay	100.0			18.40	0.88	n.a.	n.a.	0.83	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.030	19.740	0.660	5209.1	3522.4	9.729	3.853	3.07		Clay	100.0			18.66	0.87	n.a.	n.a.	0.83	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.190	20.700	0.668	5230.7	3534.0	10.235	3.694	3.04		Clay	100.0			19.57	0.87	n.a.	n.a.	0.83	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.350	21.810	0.694	5252.3	3545.6	10.821	3.619	3.02		Clay	100.0			20.61	0.87	n.a.	n.a.	0.83	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.520	22.260	0.717	5275.2	3558.0	11.030	3.652	3.01		Clay	100.0			21.04	0.87	n.a.	n.a.	0.83	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.680	23.820	0.753	5296.8	3569.6	11.862	3.556	2.98		Clay	100.0			22.51	0.87	n.a.	n.a.	0.83	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.850	24.050	0.787	5319.8	3581.9	11.943	3.681	2.99		Clay	100.0			22.73	0.87	n.a.	n.a.	0.82	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.010	23.110	0.815	5341.4	3593.5	11.376	3.986	3.02		Clay	100.0			21.84	0.87	n.a.	n.a.	0.82	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.170	21.960	0.759	5363.0	3605.1	10.695	3.938	3.04		Clay	100.0			20.76	0.87	n.a.	n.a.	0.82	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.340	22.120	0.751	5385.9	3617.5	10.741	3.864	3.04		Clay	100.0			20.91	0.87	n.a.	n.a.	0.82	0.754	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.500	19.180	0.823	5407.5	3629.1	9.080	4.994	3.16		Clay	100.0			18.13	0.87	n.a.	n.a.	0.82	0.754	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.670	18.250	1.030	5430.5	3641.4	8.532	6.632	3.26		Clay	100.0			17.25	0.87	n.a.	n.a.	0.82	0.753	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.830	29.960	1.078	5452.1	3653.1	14.910	3.959	2.93		Clay	97.3			28.32	0.87	n.a.	n.a.	0.82	0.753	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.990	35.090	1.130	5473.7	3664.7	17.657	3.493	2.84		Clay	90.0			33.17	0.87	n.a.	n.a.	0.82	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.160	39.390	0.844	5496.6	3677.0	19.930	2.304	2.69		Clay	77.9			37.23	0.86	n.a.	n.a.	0.82	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.320	28.820	0.738	5518.2	3688.6	14.130	2.831	2.86		Clay	91.8			27.24	0.86	n.a.	n.a.	0.82	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.490	15.650	0.699	5541.2	3701.0	6.960	5.429	3.27		Clay	100.0			14.79	0.86	n.a.	n.a.	0.82	0.751	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.650	13.940	0.926	5562.8	3712.6	6.011	8.298	3.44		Clay	100.0			13.18	0.86	n.a.	n.a.	0.81	0.751	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.810	15.320	1.409	5584.4	3724.2	6.728	11.244	3.48		Clay	100.0			14.48	0.86	n.a.	n.a.	0.81	0.750	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.980	29.270	1.586	5607.3	3736.5	14.166	5.991	3.06		Clay	100.0			27.67	0.86	n.a.	n.a.	0.81	0.750	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.140	91.580	1.798	5628.9	3748.2	63.039	2.026	2.26		Sand	44.0	147.54	1.55	228.69	0.86	196.67	290.04	0.81	0.749	0.828	62737.139	########	152587.17	0.00	0.00
43.310	125.350	1.166	5651.9	3760.5	86.870	0.951	1.94		Sand	18.5	147.54	1.55	228.69	0.85	194.63	239.41	0.81	0.749	0.827	40.473	73.681	98.38	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	8

PGA (A_{max})	0.87

Total Settlement:	0.64	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5,\ s'vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
43.470	127.700	1.937	5673.5	3772.1	88.392	1.551	2.08		Sand	29.1	147.54	1.55	228.69	0.86	196.34	269.76	0.81	0.748	0.827	1878.888	3416.658	4564.82	0.00	0.00
43.640	138.240	3.066	5696.4	3784.5	95.689	2.265	2.17		Sand	36.4	147.54	1.55	228.69	0.86	196.17	281.15	0.81	0.748	0.826	12155.402	22077.752	29515.80	0.00	0.00
43.800	149.170	2.608	5718.0	3796.1	103.248	1.782	2.07		Sand	28.6	147.54	1.55	228.69	0.86	196.01	268.33	0.81	0.748	0.825	1513.471	2745.842	3673.15	0.00	0.00
43.960	156.100	2.379	5739.6	3807.7	107.966	1.552	2.01		Sand	24.1		1.55	228.69	0.86	195.86	257.89	0.81	0.747	0.824	348.864	632.230	846.26	0.00	0.00
44.130	155.360	2.203	5762.6	3820.0	107.262	1.445	1.99		Sand	22.5	147.54	1.55	228.69	0.86	195.59	253.30	0.81	0.747	0.823	194.274	351.659	471.01	0.00	0.00
44.290	98.780	2.110	5784.2	3831.7	67.351	2.200	2.27		Sand	44.3	147.54	1.55	228.69	0.86	195.53	288.85	0.81	0.746	0.822	49934.104	90286.474	121004.69	0.00	0.00
44.460	52.740	1.718	5807.1	3844.0	25.930	3.446	2.70		Clay	79.4			49.85	0.85	n.a.	n.a.	0.80	0.746	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.620	22.650	0.893	5828.7	3855.6	10.237	4.525	3.09		Clay	100.0			21.41	0.85	n.a.	n.a.	0.80	0.745	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.780	14.950	0.444	5850.3	3867.2	6.219	3.692	3.22		Clay	100.0			14.13	0.85	n.a.	n.a.	0.80	0.745	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.950	12.840	0.414	5873.3	3879.6	5.105	4.176	3.32		Clay	100.0			12.14	0.85	n.a.	n.a.	0.80	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.110	12.510	0.410	5894.9	3891.2	4.915	4.282	3.34		Clay	100.0			11.82	0.85	n.a.	n.a.	0.80	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.280	14.100	0.409	5917.8	3903.5	5.708	3.671	3.25		Clay	100.0			13.33	0.85	n.a.	n.a.	0.80	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.440	14.480	0.503	5939.4	3915.1	5.880	4.373	3.28		Clay	100.0			13.69	0.85	n.a.	n.a.	0.80	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.600	16.410	0.618	5961.0	3926.8	6.840	4.603	3.24		Clay	100.0			15.51	0.85	n.a.	n.a.	0.80	0.742	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.770	21.280	0.642	5984.0	3939.1	9.285	3.508	3.06		Clay	100.0			20.11	0.85	n.a.	n.a.	0.80	0.742	n.a.	n.a.	n.a.	n.a.	0.00	0.00
45.930	20.670	0.602	6005.6	3950.7	8.944	3.410	3.07		Clay	100.0			19.54	0.85	n.a.	n.a.	0.80	0.741	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.100	17.030	0.499	6028.5	3963.1	7.073	3.561	3.16		Clay	100.0			16.10	0.85	n.a.	n.a.	0.80	0.741	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.260	14.610	0.444	6050.1	3974.7	5.829	3.831	3.25		Clay	100.0			13.81	0.85	n.a.	n.a.	0.80	0.740	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.420	13.650	0.412	6071.7	3986.3	5.325	3.885	3.29		Clay	100.0			12.90	0.85	n.a.	n.a.	0.79	0.740	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.590	13.050	0.346	6094.7	3998.6	5.003	3.462	3.28		Clay	100.0			12.33	0.85	n.a.	n.a.	0.79	0.739	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.750	13.040	0.418	6116.3	4010.3	4.978	4.190	3.33		Clay	100.0			12.33	0.84	n.a.	n.a.	0.79	0.739	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.920	13.470	0.551	6139.2	4022.6	5.171	5.293	3.37		Clay	100.0			12.73	0.84	n.a.	n.a.	0.79	0.738	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.080	17.130	0.722	6160.8	4034.2	6.965	5.141	3.26		Clay	100.0			16.19	0.84	n.a.	n.a.	0.79	0.738	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.240	18.410	0.760	6182.4	4045.8	7.573	4.964	3.22		Clay	100.0			17.40	0.84	n.a.	n.a.	0.79	0.737	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.410	17.840	0.706	6205.4	4058.2	7.263	4.790	3.23		Clay	100.0			16.86	0.84	n.a.	n.a.	0.79	0.737	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.570	16.610	0.590	6227.0	4069.8	6.633	4.369	3.24		Clay	100.0			15.70	0.84	n.a.	n.a.	0.79	0.736	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.740	17.540	0.492	6249.9	4082.1	7.063	3.413	3.15		Clay	100.0			16.58	0.84	n.a.	n.a.	0.79	0.736	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.900	19.780	0.533	6271.5	4093.7	8.132	3.199	3.09		Clay	100.0			18.70	0.84	n.a.	n.a.	0.79	0.735	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.060	22.030	0.625	6293.1	4105.4	9.199	3.307	3.05		Clay	100.0			20.82	0.84	n.a.	n.a.	0.79	0.735	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.230	23.870	0.723	6316.1	4117.7	10.060	3.489	3.03		Clay	100.0			22.56	0.84	n.a.	n.a.	0.78	0.734	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.390	26.040	0.848	6337.7	4129.3	11.077	3.706	3.01		Clay	100.0			24.61	0.84	n.a.	n.a.	0.78	0.733	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.560	27.640	0.909	6360.6	4141.7	11.812	3.717	2.99		Clay	100.0			26.12	0.84	n.a.	n.a.	0.78	0.733	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.720	28.990	0.978	6382.2	4153.3	12.423	3.791	2.98		Clay	100.0			27.40	0.84	n.a.	n.a.	0.78	0.732	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.880	28.710	1.041	6403.8	4164.9	12.249	4.080	3.00		Clay	100.0			27.14	0.84	n.a.	n.a.	0.78	0.732	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.050	28.640	0.989	6426.8	4177.2	12.174	3.890	2.99		Clay	100.0			27.07	0.84	n.a.	n.a.	0.78	0.731	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.210	26.650	0.935	6448.4	4188.8	11.185	3.993	3.03		Clay	100.0			25.19	0.84	n.a.	n.a.	0.78	0.731	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.380	23.250	0.847	6471.3	4201.2	9.528	4.230	3.10		Clay	100.0			21.98	0.83	n.a.	n.a.	0.78	0.730	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.540	20.750	0.751	6492.9	4212.8	8.310	4.289	3.15		Clay	100.0			19.61	0.83	n.a.	n.a.	0.78	0.730	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.700	19.580	0.656	6514.5	4224.4	7.728	4.021	3.16		Clay	100.0			18.51	0.83	n.a.	n.a.	0.78	0.729	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.870	18.430	0.642	6537.5	4236.8	7.157	4.232	3.20		Clay	100.0			17.42	0.83	n.a.	n.a.	0.78	0.729	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.030	18.670	0.641	6559.1	4248.4	7.245	4.166	3.19		Clay	100.0			17.65	0.83	n.a.	n.a.	0.77	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.200	21.450	0.636	6582.0	4260.7	8.524	3.503	3.09		Clay	100.0			20.27	0.83	n.a.	n.a.	0.77	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	9

PGA (A_{max})	0.87

Total Settlement:	1.22	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'Vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
0.160	461.450	4.733	20.8	20.8	4399.014	1.026	1.24		Unsaturated	0.0			436.15	1.70	741.46	741.46	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.330	713.370	7.669	42.9	42.9	4735.276	1.075	1.27		Unsaturated	0.0			674.26	1.70	1146.25	1146.25	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.490	667.840	9.468	63.7	63.7	3637.929	1.418	1.37		Unsaturated	0.0			631.23	1.70	1073.09	1073.09	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.660	567.840	10.624	85.8	85.8	2665.150	1.871	1.49		Unsaturated	0.0			536.71	1.70	912.41	912.41	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.820	458.300	10.745	106.6	106.6	1929.714	2.345	1.60		Unsaturated	0.0			433.18	1.70	736.40	736.40	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
0.980	404.460	8.224	127.4	127.4	1557.739	2.034	1.55		Unsaturated	0.0			382.29	1.70	649.89	649.89	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.150	316.630	5.445	149.5	149.5	1125.644	1.720	1.51		Unsaturated	0.0			299.27	1.70	508.76	508.76	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.310	199.490	4.080	170.3	170.3	664.356	2.046	1.66		Unsaturated	0.0			188.55	1.70	320.54	320.54	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.480	108.100	3.612	192.4	192.4	338.539	3.344	1.98		Unsaturated	21.5			102.17	1.70	173.70	225.22	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.640	73.610	3.733	213.2	213.2	218.870	5.078	2.23		Unsaturated	41.6			69.57	1.70	118.28	190.07	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.800	52.810	3.290	234.0	234.0	149.767	6.244	2.40		Unsaturated	54.6			49.91	1.70	84.86	155.39	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
1.970	55.290	2.467	256.1	256.1	149.867	4.471	2.27		Unsaturated	45.0			52.26	1.70	88.84	155.61	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.130	45.900	2.671	276.9	276.9	119.567	5.837	2.43		Unsaturated	57.1			43.38	1.70	73.75	142.16	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.300	49.500	3.181	299.0	299.0	124.088	6.447	2.45		Unsaturated	59.2			46.79	1.70	79.54	150.27	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.460	59.150	3.736	319.8	319.8	143.421	6.334	2.41		Unsaturated	55.9			55.91	1.70	95.04	168.86	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.620	78.370	4.757	340.6	340.6	184.228	6.083	2.34		Unsaturated	50.1			74.07	1.70	125.93	205.32	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.790	91.710	5.059	362.7	362.7	208.956	5.528	2.27		Unsaturated	45.0			86.68	1.68	145.86	227.13	1.00	0.568	1.100	n.a.	n.a.	n.a.	0.00	0.00
2.950	97.220	4.850	383.5	383.5	215.421	4.998	2.23		Unsaturated	41.4			91.89	1.64	151.00	230.67	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.120	87.500	4.603	405.6	405.6	188.462	5.273	2.28		Unsaturated	45.4			82.70	1.66	137.48	216.93	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.280	68.890	4.073	426.4	426.4	144.602	5.931	2.39		Unsaturated	53.8			65.11	1.70	110.69	187.90	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.440	64.110	3.718	447.2	447.2	131.350	5.819	2.40		Unsaturated	55.1			60.60	1.70	103.01	178.70	1.00	0.567	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.610	54.870	3.423	469.3	469.3	109.653	6.265	2.47		Unsaturated	60.8			51.86	1.70	88.17	161.86	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.770	61.370	3.502	490.1	490.1	120.046	5.729	2.42		Unsaturated	56.4			58.01	1.70	98.61	173.64	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
3.940	74.510	3.801	512.2	512.2	142.650	5.119	2.34		Unsaturated	49.8			70.43	1.62	114.43	190.64	1.00	0.566	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.100	75.110	3.764	533.0	533.0	140.949	5.030	2.33		Unsaturated	49.5			70.99	1.61	113.95	189.89	1.00	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.270	80.310	4.168	555.1	555.1	147.691	5.208	2.33		Unsaturated	49.6			75.91	1.57	118.81	196.07	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.430	79.180	4.098	575.9	575.9	142.933	5.195	2.34		Unsaturated	50.2			74.84	1.55	116.29	193.20	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.590	136.300	4.018	596.7	596.7	242.069	2.955	2.01		Unsaturated	23.7			128.83	1.42	183.03	242.03	0.99	0.565	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.760	158.190	3.585	618.8	618.8	275.947	2.271	1.88		Unsaturated	13.6			149.52	1.42	211.57	237.80	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
4.920	152.810	3.610	639.6	639.6	262.156	2.368	1.91		Unsaturated	15.8			144.43	1.40	202.55	237.53	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.090	127.890	3.352	661.7	661.7	215.602	2.628	1.99		Unsaturated	22.6			120.88	1.41	170.88	224.89	0.99	0.564	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.250	108.300	3.069	682.5	682.5	179.671	2.843	2.07		Unsaturated	28.5			102.36	1.43	146.62	209.11	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.410	96.900	2.674	703.3	703.3	158.288	2.770	2.09		Unsaturated	30.4			91.59	1.45	132.58	195.33	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.580	83.980	2.419	725.4	725.4	134.983	2.893	2.15		Unsaturated	35.0			79.38	1.46	116.13	181.23	0.99	0.563	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.740	75.380	2.061	746.2	746.2	119.384	2.747	2.17		Unsaturated	36.3			71.25	1.48	105.13	169.10	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
5.910	69.120	1.770	768.3	768.3	107.818	2.575	2.17		Unsaturated	36.9			65.33	1.48	96.80	159.43	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.070	61.900	1.309	789.1	789.1	95.196	2.127	2.15		Unsaturated	35.0			58.51	1.50	87.62	146.29	0.99	0.562	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.230	53.570	1.126	809.9	809.9	81.224	2.117	2.20		Unsaturated	38.7			50.63	1.51	76.35	135.72	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.400	45.120	0.995	832.0	832.0	67.384	2.225	2.27		Unsaturated	44.6			42.65	1.52	64.72	125.14	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.560	39.130	0.948	852.8	852.8	57.624	2.449	2.35		Unsaturated	50.8			36.98	1.52	56.26	117.51	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.730	32.640	0.953	874.9	874.9	47.335	2.961	2.47		Unsaturated	60.3			30.85	1.53	47.08	109.08	0.99	0.561	1.100	n.a.	n.a.	n.a.	0.00	0.00
6.890	30.410	0.925	895.7	895.7	43.528	3.087	2.51		Unsaturated	63.4			28.74	1.52	43.66	105.51	0.99	0.560	1.095	n.a.	n.a.	n.a.	0.00	0.00
7.050	28.410	0.964	916.5	916.5	40.143	3.450	2.56		Unsaturated	68.1			26.85	1.51	40.55	102.59	0.99	0.560	1.091	n.a.	n.a.	n.a.	0.00	0.00
7.220	27.400	0.846	938.6	938.6	38.219	3.141	2.55		Unsaturated	67.1			25.90	1.50	38.82	100.15	0.99	0.560	1.087	n.a.	n.a.	n.a.	0.00	0.00
7.380	26.750	0.749	959.4	959.4	36.875	2.850	2.54		Unsaturated	65.8			25.28	1.49	37.61	98.30	0.98	0.559	1.083	n.a.	n.a.	n.a.	0.00	0.00
7.550	25.740	0.831	981.5	981.5	35.041	3.289	2.59		Unsaturated	70.5			24.33	1.47	35.86	97.01	0.98	0.559	1.080	n.a.	n.a.	n.a.	0.00	0.00
7.710	27.340	0.844	1002.3	1002.3	36.858	3.146	2.56		Unsaturated	68.1			25.84	1.45	37.57	98.75	0.98	0.559	1.079	n.a.	n.a.	n.a.	0.00	0.00
7.870	29.480	0.907	1023.1	1023.1	39.377	3.130	2.54		Unsaturated	66.3			27.86	1.43	39.93	101.40	0.98	0.558	1.078	n.a.	n.a.	n.a.	0.00	0.00
8.040	28.300	0.826	1045.2	1045.2	37.356	2.975	2.54		Sand	66.5			26.75	1.42	38.07	99.04	0.98	0.559	1.074	0.136	0.184	0.33	0.03	0.06
8.200	30.080	0.949	1066.0	1066.0	39.347	3.211	2.55		Sand	66.9			28.43	1.40	39.91	101.52	0.98	0.564	1.074	0.139	0.190	0.34	0.03	0.06
8.370	31.800	0.844	1088.1	1088.1	41.197	2.700	2.48		Sand	61.7			30.06	1.39	41.71	102.57	0.98	0.569	1.072	0.141	0.192	0.34	0.03	0.06
8.530	33.900	0.843	1108.9	1108.9	43.538	2.527	2.45		Sand	58.7			32.04	1.37	43.92	104.59	0.98	0.574	1.071	0.144	0.198	0.34	0.03	0.06
8.690	34.160	0.909	1129.7	1129.7	43.458	2.706	2.47		Sand	60.4			32.29	1.36	43.84	104.95	0.98	0.579	1.069	0.144	0.199	0.34	0.03	0.06
8.860	34.020	1.008	1151.8	1151.8	42.845	3.014	2.50		Sand	63.3			32.16	1.35	43.25	104.95	0.98	0.584	1.067	0.144	0.198	0.34	0.03	0.06
9.020	30.950	0.925	1172.6	1172.6	38.552	3.047	2.54		Sand	66.2			29.25	1.34	39.23	100.48	0.98	0.588	1.063	0.138	0.185	0.32	0.03	0.07
9.190	31.410	1.049	1194.7	1194.7	38.759	3.406	2.57		Sand	68.7			29.69	1.33	39.41	101.24	0.98	0.593	1.061	0.139	0.187	0.32	0.03	0.06
9.350	34.030	1.073	1215.5	1215.5	41.680	3.211	2.53		Sand	65.4			32.16	1.31	42.18	104.11	0.98	0.597	1.061	0.143	0.195	0.33	0.03	0.06
9.510	40.120	1.178	1236.3	1236.3	48.846	2.981	2.46		Sand	59.7			37.92	1.29	48.93	111.26	0.98	0.601	1.062	0.154	0.217	0.36	0.03	0.06
9.680	28.560	0.855	1258.4	1258.4	34.233	3.060	2.58		Sand	69.4			26.99	1.30	35.14	95.87	0.98	0.605	1.053	0.132	0.173	0.29	0.03	0.06
9.840	31.210	0.869	1279.2	1279.2	37.162	2.841	2.53		Sand	65.5			29.50	1.29	37.96	98.69	0.98	0.609	1.053	0.136	0.179	0.29	0.03	0.07
10.010	29.310	0.838	1301.3	1301.3	34.542	2.923	2.56		Sand	68.1			27.70	1.28	35.45	96.01	0.97	0.613	1.050	0.132	0.173	0.28	0.03	0.06
10.170	29.650	1.016	1322.1	1322.1	38.082	3.504	2.59		Mixed	69.8			28.02	1.27	35.55	96.49	0.97	0.617	1.049	0.133	0.173	0.28	0.03	0.06
10.330	29.280	1.023	1342.9	1342.9	37.174	3.575	2.60		Mixed	70.9			27.67	1.26	34.86	95.80	0.97	0.621	1.047	0.132	0.172	0.28	0.03	0.07
10.500	29.760	1.120	1365.0	1365.0	37.354	3.852	2.62		Mixed	72.6			28.13	1.25	35.12	96.44	0.97	0.625	1.045	0.133	0.173	0.28	0.03	0.06
10.660	25.700	1.081	1385.8	1385.8	36.090	4.322	2.66		Clay	76.2			24.29	1.12	n.a.	n.a.	0.97	0.628	n.a.	n.a.	n.a.	n.a.	0.00	0.00
10.830	26.390	1.091	1407.9	1407.9	36.488	4.247	2.66		Clay	75.5			24.94	1.11	n.a.	n.a.	0.97	0.632	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	9

PGA (A_{max})	0.87

Total Settlement:	1.22	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
10.990	23.210	0.920	1428.7	1428.7	31.491	4.088	2.69		Clay	78.3			21.94	1.11	n.a.	n.a.	0.97	0.636	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.150	24.210	0.963	1449.5	1449.5	32.405	4.099	2.68		Clay	77.6			22.88	1.10	n.a.	n.a.	0.97	0.639	n.a.	n.a.	n.a.	n.a.	0.00	0.00
11.320	36.350	1.312	1471.6	1471.6	40.365	3.683	2.58		Sand	69.5	199.42		199.42	1.10	219.47	333.86	0.97	0.642	1.100	########	########	#########	0.00	0.00
11.480	54.490	1.249	1492.4	1492.4	60.486	2.325	2.32		Sand	48.3	199.42		199.42	1.10	218.66	321.31	0.97	0.646	1.100	########	########	#########	0.00	0.00
11.650	43.310	1.240	1514.5	1514.5	47.541	2.914	2.46		Sand	59.8	199.42		199.42	1.09	217.82	327.50	0.97	0.649	1.100	########	########	#########	0.00	0.00
11.810	59.820	0.928	1535.3	1535.3	65.526	1.572	2.18		Sand	37.2	199.42		199.42	1.09	217.03	307.87	0.97	0.652	1.096	########	########	#########	0.00	0.00
11.980	82.980	1.025	1557.4	1557.4	90.563	1.247	2.01		Sand	23.4	199.42		199.42	1.08	216.22	279.77	0.97	0.655	1.092	9547.659	22936.308	34997.88	0.00	0.00
12.140	95.770	1.008	1577.5	1568.8	104.263	1.062	1.91		Sand	16.1	199.42		199.42	1.08	215.86	253.23	0.97	0.658	1.090	192.590	461.733	701.36	0.00	0.00
12.300	135.280	1.418	1597.5	1578.8	147.154	1.055	1.80		Sand	7.0	199.42		199.42	1.09	217.96	220.23	0.97	0.661	1.088	7.258	17.371	26.27	0.00	0.00
12.470	172.070	1.609	1618.8	1589.4	186.771	0.940	1.69		Sand	0.0	199.42		199.42	1.09	217.71	217.71	0.97	0.664	1.086	5.994	14.319	21.56	0.00	0.00
12.630	204.900	2.158	1638.8	1599.4	221.866	1.057	1.68		Sand	0.0	199.42		199.42	1.09	217.32	217.32	0.96	0.667	1.084	5.823	13.886	20.82	0.00	0.00
12.800	210.990	2.011	1660.0	1610.1	227.719	0.957	1.64		Sand	0.0			199.42	1.09	216.91	216.91	0.96	0.670	1.082	5.650	13.448	20.07	0.00	0.00
12.960	213.630	2.045	1680.0	1620.1	229.854	0.961	1.64		Sand	0.0			201.92	1.08	219.05	219.05	0.96	0.673	1.080	6.632	15.760	23.43	0.00	0.00
13.120	223.480	1.949	1700.0	1630.1	239.744	0.876	1.59		Sand	0.0			211.23	1.08	228.06	228.06	0.96	0.675	1.078	13.831	32.810	48.59	0.00	0.00
13.290	239.870	1.875	1721.3	1640.8	256.546	0.784	1.54		Sand	0.0			226.72	1.07	243.21	243.21	0.96	0.678	1.076	60.412	143.050	210.97	0.00	0.00
13.450	229.400	1.370	1741.3	1650.8	244.552	0.600	1.47		Sand	0.0			216.82	1.07	232.90	232.90	0.96	0.681	1.074	21.411	50.612	74.37	0.00	0.00
13.620	206.610	1.219	1762.5	1661.4	219.446	0.592	1.50		Sand	0.0			195.28	1.08	210.77	210.77	0.96	0.683	1.072	3.667	8.651	12.66	0.00	0.00
13.780	198.550	1.130	1782.5	1671.4	210.206	0.572	1.51		Sand	0.0			187.67	1.08	202.66	202.66	0.96	0.686	1.064	2.203	5.156	7.52	0.00	0.00
13.940	194.500	1.243	1802.5	1681.4	205.274	0.642	1.55		Sand	0.0	187.67		187.67	1.08	202.30	202.30	0.96	0.688	1.062	2.156	5.037	7.32	0.00	0.00
14.110	170.370	0.974	1823.8	1692.1	179.111	0.575	1.56		Sand	0.0	187.67		187.67	1.08	201.90	201.90	0.96	0.691	1.060	2.107	4.914	7.12	0.00	0.00
14.270	124.990	0.754	1843.8	1702.1	130.749	0.607	1.68		Sand	0.0	187.67		187.67	1.07	201.54	201.54	0.96	0.693	1.058	2.063	4.802	6.93	0.00	0.00
14.440	100.850	0.432	1865.0	1712.7	104.971	0.432	1.68		Sand	0.0	187.67		187.67	1.07	201.15	201.15	0.96	0.695	1.056	2.017	4.687	6.74	0.00	0.00
14.600	74.400	0.583	1885.0	1722.8	76.948	0.794	1.94		Sand	18.2	187.67		187.67	1.06	198.66	242.59	0.96	0.697	1.062	56.466	131.887	189.11	0.00	0.00
14.760	57.260	0.766	1905.0	1732.8	58.812	1.361	2.17		Sand	36.9	187.67		187.67	1.05	197.83	283.83	0.96	0.700	1.060	19574.926	45646.180	65250.58	0.00	0.00
14.930	48.430	0.801	1926.3	1743.4	49.427	1.688	2.29		Sand	46.3	187.67		187.67	1.05	197.51	293.03	0.96	0.702	1.058	########	########	376057.24	0.00	0.00
15.090	36.200	0.842	1946.3	1753.4	36.576	2.391	2.49		Sand	62.1	187.67		187.67	1.05	197.21	302.17	0.95	0.704	1.056	########	########	2599091.60	0.00	0.00
15.260	25.650	0.517	1967.5	1764.1	25.534	2.096	2.58		Sand	69.0	187.67		187.67	1.05	196.90	304.53	0.95	0.706	1.055	########	########	4408521.43	0.00	0.00
15.420	18.940	0.462	1987.5	1774.1	20.231	2.574	2.71		Clay	79.8			17.90	1.05	n.a.	n.a.	0.95	0.708	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.580	12.020	0.372	2007.5	1784.1	12.349	3.377	2.95		Clay	99.2			11.36	1.05	n.a.	n.a.	0.95	0.710	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.750	9.250	0.257	2028.8	1794.8	9.177	3.116	3.04		Clay	100.0			8.74	1.04	n.a.	n.a.	0.95	0.712	n.a.	n.a.	n.a.	n.a.	0.00	0.00
15.910	8.960	0.217	2048.8	1804.8	8.794	2.732	3.02		Clay	100.0			8.47	1.04	n.a.	n.a.	0.95	0.714	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.080	9.000	0.237	2070.0	1815.4	8.775	2.977	3.04		Clay	100.0			8.51	1.04	n.a.	n.a.	0.95	0.716	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.240	8.870	0.248	2090.0	1825.4	8.573	3.172	3.07		Clay	100.0			8.38	1.04	n.a.	n.a.	0.95	0.718	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.400	10.480	0.401	2110.0	1835.4	10.270	4.249	3.08		Clay	100.0			9.91	1.04	n.a.	n.a.	0.95	0.719	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.570	11.740	0.409	2131.3	1846.1	11.564	3.827	3.01		Clay	100.0			11.10	1.04	n.a.	n.a.	0.95	0.721	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.730	11.810	0.662	2151.3	1856.1	11.567	6.167	3.14		Clay	100.0			11.16	1.04	n.a.	n.a.	0.95	0.723	n.a.	n.a.	n.a.	n.a.	0.00	0.00
16.900	14.780	0.645	2172.5	1866.7	14.671	4.713	2.98		Clay	100.0			13.97	1.03	n.a.	n.a.	0.95	0.725	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.060	17.110	0.554	2192.5	1876.8	17.065	3.456	2.85		Clay	90.7			16.17	1.03	n.a.	n.a.	0.95	0.726	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.220	15.850	0.439	2212.5	1886.8	15.629	2.979	2.84		Clay	90.0			14.98	1.03	n.a.	n.a.	0.95	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.390	12.810	0.389	2233.8	1897.4	12.325	3.323	2.95		Clay	98.9			12.11	1.03	n.a.	n.a.	0.94	0.730	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.550	11.650	0.437	2253.8	1907.4	11.034	4.152	3.04		Clay	100.0			11.01	1.03	n.a.	n.a.	0.94	0.731	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.720	12.430	0.460	2275.0	1918.1	11.775	4.075	3.02		Clay	100.0			11.75	1.03	n.a.	n.a.	0.94	0.733	n.a.	n.a.	n.a.	n.a.	0.00	0.00
17.880	13.520	0.487	2295.0	1928.1	12.834	3.939	2.98		Clay	100.0			12.78	1.02	n.a.	n.a.	0.94	0.734	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.040	14.630	0.503	2315.0	1938.1	13.903	3.734	2.94		Clay	98.0			13.83	1.02	n.a.	n.a.	0.94	0.736	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.210	12.560	0.381	2336.3	1948.7	11.691	3.346	2.97		Clay	100.0			11.87	1.02	n.a.	n.a.	0.94	0.737	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.370	11.610	0.267	2356.3	1958.8	10.651	2.558	2.94		Clay	97.8			10.97	1.02	n.a.	n.a.	0.94	0.739	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.540	10.320	0.324	2377.5	1969.4	9.273	3.543	3.07		Clay	100.0			9.75	1.02	n.a.	n.a.	0.94	0.740	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.700	10.700	0.282	2397.5	1979.4	9.600	2.967	3.01		Clay	100.0			10.11	1.02	n.a.	n.a.	0.94	0.741	n.a.	n.a.	n.a.	n.a.	0.00	0.00
18.860	13.070	0.323	2417.5	1989.4	11.924	2.719	2.91		Clay	95.8			12.35	1.02	n.a.	n.a.	0.94	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.030	12.040	0.446	2438.8	2000.1	10.820	4.117	3.05		Clay	100.0			11.38	1.01	n.a.	n.a.	0.94	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.190	12.470	0.554	2458.8	2010.1	11.184	4.931	3.09		Clay	100.0			11.79	1.01	n.a.	n.a.	0.94	0.745	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.360	13.630	0.700	2480.0	2020.7	12.263	5.650	3.09		Clay	100.0			12.88	1.01	n.a.	n.a.	0.94	0.747	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.520	15.130	0.579	2500.0	2030.8	13.670	4.171	2.97		Clay	100.0			14.30	1.01	n.a.	n.a.	0.93	0.748	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.690	24.820	0.493	2521.3	2041.4	23.082	2.094	2.61		Clay	71.8			23.46	1.01	n.a.	n.a.	0.93	0.749	n.a.	n.a.	n.a.	n.a.	0.00	0.00
19.850	14.800	0.742	2541.3	2051.4	13.190	5.485	3.06		Clay	100.0			13.99	1.01	n.a.	n.a.	0.93	0.750	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.010	15.520	1.159	2561.3	2061.4	13.815	8.137	3.16		Clay	100.0			14.67	1.01	n.a.	n.a.	0.93	0.751	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.180	19.820	1.153	2582.5	2072.1	17.884	6.223	3.00		Clay	100.0			18.73	1.01	n.a.	n.a.	0.93	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
20.340	36.760	0.885	2602.5	2082.1	33.787	2.496	2.53		Sand	65.1		1.8	62.54	1.01	62.98	130.79	0.93	0.753	1.002	0.200	0.295	0.39	0.02	0.05
20.510	27.880	0.530	2623.8	2092.7	25.251	1.995	2.57		Sand	68.3		1.8	47.43	1.01	47.68	111.83	0.93	0.755	1.001	0.155	0.207	0.27	0.03	0.05
20.670	29.660	0.537	2643.8	2102.7	26.869	1.895	2.53		Sand	65.5		1.8	50.46	1.00	50.61	114.96	0.93	0.756	1.001	0.161	0.217	0.29	0.03	0.05
20.830	25.580	0.628	2663.8	2112.8	22.954	2.592	2.67		Clay	76.4			24.18	1.00	n.a.	n.a.	0.93	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.000	14.630	0.623	2685.0	2123.4	12.515	4.685	3.03		Clay	100.0			13.83	1.00	n.a.	n.a.	0.93	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.160	17.170	0.459	2705.0	2133.4	14.828	2.904	2.85		Clay	90.9			16.23	1.00	n.a.	n.a.	0.93	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.330	14.130	0.486	2726.3	2144.1	11.909	3.803	3.00		Clay	100.0			13.36	1.00	n.a.	n.a.	0.93	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.490	13.700	0.746	2746.3	2154.1	11.445	6.055	3.13		Clay	100.0			12.95	1.00	n.a.	n.a.	0.93	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.650	18.330	0.649	2766.3	2164.1	15.662	3.827	2.90		Clay	95.2			17.33	0.99	n.a.	n.a.	0.92	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	9

PGA (A_{max})	0.87

Total Settlement:	1.22	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
21.820	21.550	0.456	2787.5	2174.7	18.537	2.263	2.71		Clay	79.6			20.37	0.99	n.a.	n.a.	0.92	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
21.980	12.020	0.277	2807.5	2184.7	9.719	2.605	2.97		Clay	100.0			11.36	0.99	n.a.	n.a.	0.92	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.150	9.120	0.176	2828.8	2195.4	7.020	2.279	3.06		Clay	100.0			8.62	0.99	n.a.	n.a.	0.92	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.310	8.710	0.219	2848.8	2205.4	6.607	3.010	3.15		Clay	100.0			8.23	0.99	n.a.	n.a.	0.92	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.470	9.370	0.301	2868.8	2215.4	7.164	3.789	3.17		Clay	100.0			8.86	0.99	n.a.	n.a.	0.92	0.766	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.640	10.250	0.296	2890.0	2226.1	7.911	3.359	3.11		Clay	100.0			9.69	0.99	n.a.	n.a.	0.92	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.800	11.100	0.478	2910.0	2236.1	8.627	4.953	3.18		Clay	100.0			10.49	0.99	n.a.	n.a.	0.92	0.767	n.a.	n.a.	n.a.	n.a.	0.00	0.00
22.970	10.840	0.517	2931.3	2246.7	8.345	5.517	3.22		Clay	100.0			10.25	0.98	n.a.	n.a.	0.92	0.768	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.130	15.660	0.356	2951.3	2256.7	12.571	2.511	2.87		Clay	92.7			14.80	0.98	n.a.	n.a.	0.92	0.769	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.290	27.440	0.277	2971.3	2266.8	23.702	1.066	2.44		Sand	58.1		1.8	46.68	0.97	45.15	105.97	0.92	0.770	0.992	0.146	0.187	0.24	0.03	0.06
23.460	18.170	0.463	2992.5	2277.4	14.643	2.779	2.84		Clay	90.4			17.17	0.98	n.a.	n.a.	0.92	0.770	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.620	12.880	0.584	3012.5	2287.4	9.945	5.138	3.14		Clay	100.0			12.17	0.98	n.a.	n.a.	0.92	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.790	13.870	0.425	3033.8	2298.1	10.751	3.439	3.01		Clay	100.0			13.11	0.98	n.a.	n.a.	0.91	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
23.950	17.380	0.411	3053.8	2308.1	13.737	2.590	2.85		Clay	90.8			16.43	0.98	n.a.	n.a.	0.91	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.110	12.970	0.479	3073.8	2318.1	9.864	4.193	3.09		Clay	100.0			12.26	0.98	n.a.	n.a.	0.91	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.280	12.310	0.488	3095.0	2328.7	9.243	4.530	3.13		Clay	100.0			11.64	0.98	n.a.	n.a.	0.91	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.440	12.340	0.481	3115.0	2338.7	9.221	4.461	3.13		Clay	100.0			11.66	0.97	n.a.	n.a.	0.91	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.610	12.150	0.410	3136.3	2349.4	9.008	3.878	3.10		Clay	100.0			11.48	0.97	n.a.	n.a.	0.91	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.770	11.270	0.390	3156.3	2359.4	8.216	4.021	3.14		Clay	100.0			10.65	0.97	n.a.	n.a.	0.91	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
24.930	10.970	0.362	3176.3	2369.4	7.919	3.854	3.14		Clay	100.0			10.37	0.97	n.a.	n.a.	0.91	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.100	10.910	0.342	3197.5	2380.1	7.824	3.672	3.13		Clay	100.0			10.31	0.97	n.a.	n.a.	0.91	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.260	10.560	0.322	3217.5	2390.1	7.490	3.596	3.14		Clay	100.0			9.98	0.97	n.a.	n.a.	0.91	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.430	10.450	0.300	3238.8	2400.7	7.357	3.400	3.14		Clay	100.0			9.88	0.97	n.a.	n.a.	0.91	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.590	9.900	0.309	3258.8	2410.7	6.861	3.732	3.19		Clay	100.0			9.36	0.97	n.a.	n.a.	0.91	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.750	10.120	0.334	3278.8	2420.8	7.007	3.942	3.19		Clay	100.0			9.57	0.97	n.a.	n.a.	0.90	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
25.920	10.680	0.388	3300.0	2431.4	7.428	4.300	3.19		Clay	100.0			10.09	0.96	n.a.	n.a.	0.90	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.080	11.550	0.435	3320.0	2441.4	8.102	4.395	3.17		Clay	100.0			10.92	0.96	n.a.	n.a.	0.90	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.250	12.610	0.450	3341.3	2452.1	8.923	4.110	3.12		Clay	100.0			11.92	0.96	n.a.	n.a.	0.90	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.410	12.100	0.452	3361.3	2462.1	8.464	4.342	3.15		Clay	100.0			11.44	0.96	n.a.	n.a.	0.90	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.570	12.250	0.446	3381.3	2472.1	8.543	4.219	3.14		Clay	100.0			11.58	0.96	n.a.	n.a.	0.90	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.740	12.020	0.416	3402.5	2482.7	8.312	4.028	3.14		Clay	100.0			11.36	0.96	n.a.	n.a.	0.90	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
26.900	11.590	0.372	3422.5	2492.7	7.926	3.766	3.14		Clay	100.0			10.95	0.96	n.a.	n.a.	0.90	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.070	10.580	0.339	3443.8	2503.4	7.077	3.822	3.18		Clay	100.0			10.00	0.96	n.a.	n.a.	0.90	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.230	9.920	0.332	3463.8	2513.4	6.516	4.050	3.22		Clay	100.0			9.38	0.96	n.a.	n.a.	0.90	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.400	9.120	0.340	3485.0	2524.0	5.846	4.606	3.29		Clay	100.0			8.62	0.95	n.a.	n.a.	0.90	0.782	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.560	9.590	0.390	3505.0	2534.1	6.186	4.974	3.29		Clay	100.0			9.06	0.95	n.a.	n.a.	0.90	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.720	9.920	0.371	3525.0	2544.1	6.413	4.548	3.26		Clay	100.0			9.38	0.95	n.a.	n.a.	0.89	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
27.890	9.270	0.387	3546.3	2554.7	5.869	5.166	3.32		Clay	100.0			8.76	0.95	n.a.	n.a.	0.89	0.783	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.050	8.960	0.396	3566.3	2564.7	5.597	5.522	3.36		Clay	100.0			8.47	0.95	n.a.	n.a.	0.89	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.220	10.280	0.455	3587.5	2575.4	6.590	5.362	3.29		Clay	100.0			9.72	0.95	n.a.	n.a.	0.89	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.380	10.250	0.443	3607.5	2585.4	6.534	5.248	3.29		Clay	100.0			9.69	0.95	n.a.	n.a.	0.89	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.540	9.690	0.379	3627.5	2595.4	6.069	4.817	3.29		Clay	100.0			9.16	0.95	n.a.	n.a.	0.89	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.710	8.960	0.294	3648.8	2606.0	5.476	4.122	3.29		Clay	100.0			8.47	0.95	n.a.	n.a.	0.89	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
28.870	8.110	0.265	3668.8	2616.1	4.798	4.220	3.34		Clay	100.0			7.67	0.95	n.a.	n.a.	0.89	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.040	7.610	0.269	3690.0	2626.7	4.390	4.663	3.40		Clay	100.0			7.19	0.94	n.a.	n.a.	0.89	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.200	7.590	0.277	3710.0	2636.7	4.350	4.828	3.41		Clay	100.0			7.17	0.94	n.a.	n.a.	0.89	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.360	7.730	0.316	3730.0	2646.7	4.432	5.381	3.43		Clay	100.0			7.31	0.94	n.a.	n.a.	0.89	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.530	8.610	0.326	3751.3	2657.4	5.068	4.833	3.36		Clay	100.0			8.14	0.94	n.a.	n.a.	0.89	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.690	8.850	0.329	3771.3	2667.4	5.222	4.718	3.34		Clay	100.0			8.36	0.94	n.a.	n.a.	0.88	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
29.860	8.090	0.304	3792.5	2678.0	4.626	4.902	3.39		Clay	100.0			7.65	0.94	n.a.	n.a.	0.88	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.020	8.150	0.338	3812.5	2688.1	4.646	5.412	3.42		Clay	100.0			7.70	0.94	n.a.	n.a.	0.88	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.180	10.650	0.364	3832.5	2698.1	6.474	4.170	3.23		Clay	100.0			10.07	0.94	n.a.	n.a.	0.88	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.350	9.970	0.391	3853.8	2708.7	5.939	4.860	3.30		Clay	100.0			9.42	0.94	n.a.	n.a.	0.88	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.510	9.500	0.348	3873.8	2718.7	5.564	4.607	3.31		Clay	100.0			8.98	0.94	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.680	9.110	0.285	3895.0	2729.4	5.248	3.973	3.30		Clay	100.0			8.61	0.94	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
30.840	8.410	0.240	3915.0	2739.4	4.711	3.724	3.32		Clay	100.0			7.95	0.93	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.000	7.560	0.186	3935.0	2749.4	4.068	3.319	3.35		Clay	100.0			7.15	0.93	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.170	7.900	0.162	3956.3	2760.0	4.291	2.737	3.29		Clay	100.0			7.47	0.93	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.330	7.810	0.153	3976.3	2770.1	4.203	2.635	3.29		Clay	100.0			7.38	0.93	n.a.	n.a.	0.88	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.500	7.680	0.180	3997.5	2780.7	4.086	3.163	3.34		Clay	100.0			7.26	0.93	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.660	7.560	0.241	4017.5	2790.7	3.978	4.338	3.42		Clay	100.0			7.15	0.93	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.820	8.340	0.302	4037.5	2800.7	4.514	4.774	3.40		Clay	100.0			7.88	0.93	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
31.990	8.770	0.407	4058.8	2811.4	4.795	6.044	3.43		Clay	100.0			8.29	0.93	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.150	10.040	0.466	4078.8	2821.4	5.671	5.827	3.36		Clay	100.0			9.49	0.93	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.320	11.050	0.558	4100.0	2832.0	6.356	6.199	3.34		Clay	100.0			10.44	0.93	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.480	11.600	0.584	4120.0	2842.0	6.713	6.125	3.32		Clay	100.0			10.96	0.93	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	9

PGA (A_{max})	0.87

Total Settlement:	1.22	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, s'vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
32.640	12.120	0.627	4140.0	2852.1	7.048	6.234	3.31		Clay	100.0			11.46	0.92	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.810	12.600	0.648	4161.3	2862.7	7.349	6.164	3.29		Clay	100.0			11.91	0.92	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
32.970	13.820	0.673	4181.3	2872.7	8.166	5.740	3.23		Clay	100.0			13.06	0.92	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.140	14.200	0.698	4202.5	2883.4	8.392	5.768	3.23		Clay	100.0			13.42	0.92	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.300	13.650	0.686	4222.5	2893.4	7.976	5.949	3.25		Clay	100.0			12.90	0.92	n.a.	n.a.	0.87	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.460	13.490	0.676	4242.5	2903.4	7.831	5.942	3.26		Clay	100.0			12.75	0.92	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.630	13.810	0.642	4263.8	2914.0	8.015	5.498	3.23		Clay	100.0			13.05	0.92	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.790	14.300	0.649	4283.8	2924.1	8.316	5.336	3.21		Clay	100.0			13.52	0.92	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
33.960	14.860	0.654	4305.0	2934.7	8.660	5.143	3.18		Clay	100.0			14.05	0.92	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.120	15.840	0.658	4325.0	2944.7	9.290	4.810	3.14		Clay	100.0			14.97	0.92	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.280	15.180	0.654	4345.0	2954.7	8.805	5.027	3.17		Clay	100.0			14.35	0.92	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.450	15.430	0.668	4366.3	2965.4	8.934	5.040	3.17		Clay	100.0			14.58	0.91	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.610	17.150	0.708	4386.3	2975.4	10.054	4.736	3.11		Clay	100.0			16.21	0.91	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.780	17.860	0.733	4407.5	2986.0	10.486	4.684	3.09		Clay	100.0			16.88	0.91	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
34.940	17.210	0.682	4427.5	2996.0	10.011	4.549	3.10		Clay	100.0			16.27	0.91	n.a.	n.a.	0.86	0.787	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.100	16.820	0.647	4447.5	3006.1	9.711	4.434	3.11		Clay	100.0			15.90	0.91	n.a.	n.a.	0.86	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.270	16.080	0.593	4468.8	3016.7	9.179	4.280	3.12		Clay	100.0			15.20	0.91	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.430	16.040	0.590	4488.8	3026.7	9.116	4.278	3.12		Clay	100.0			15.16	0.91	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.600	15.760	0.567	4510.0	3037.4	8.893	4.199	3.12		Clay	100.0			14.90	0.91	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.760	16.190	0.553	4530.0	3047.4	9.139	3.969	3.10		Clay	100.0			15.30	0.91	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
35.930	15.840	0.530	4551.3	3058.0	8.871	3.906	3.11		Clay	100.0			14.97	0.91	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.090	15.570	0.517	4571.3	3068.0	8.660	3.895	3.11		Clay	100.0			14.72	0.91	n.a.	n.a.	0.85	0.786	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.250	14.790	0.478	4591.3	3078.1	8.118	3.825	3.13		Clay	100.0			13.98	0.91	n.a.	n.a.	0.85	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.420	14.610	0.468	4612.5	3088.7	7.967	3.804	3.14		Clay	100.0			13.81	0.91	n.a.	n.a.	0.85	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.580	14.230	0.494	4632.5	3098.7	7.689	4.146	3.17		Clay	100.0			13.45	0.90	n.a.	n.a.	0.85	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.750	15.470	0.494	4653.8	3109.4	8.454	3.755	3.11		Clay	100.0			14.62	0.90	n.a.	n.a.	0.85	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
36.910	13.580	0.470	4673.8	3119.4	7.209	4.181	3.20		Clay	100.0			12.84	0.90	n.a.	n.a.	0.85	0.785	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.070	12.980	0.426	4693.8	3129.4	6.796	4.003	3.21		Clay	100.0			12.27	0.90	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.240	10.570	0.911	4715.0	3140.0	5.231	11.089	3.56		Clay	100.0			9.99	0.90	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.400	14.080	1.502	4735.0	3150.0	7.436	12.823	3.49		Clay	100.0			13.31	0.90	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.570	24.810	1.835	4756.3	3160.7	14.194	8.182	3.15		Clay	100.0			23.45	0.90	n.a.	n.a.	0.84	0.784	n.a.	n.a.	n.a.	n.a.	0.00	0.00
37.730	64.820	1.987	4776.3	3170.7	48.206	3.183	2.48		Sand	61.6	161.59	1.45	234.31	0.90	210.59	319.11	0.84	0.784	0.879	########	########	#########	0.00	0.00
37.890	92.550	2.131	4796.3	3180.7	69.500	2.364	2.28		Sand	45.3	161.59	1.45	234.31	0.90	210.42	308.36	0.84	0.783	0.878	########	########	8095981.77	0.00	0.00
38.060	116.590	2.933	4817.5	3191.4	87.878	2.569	2.23		Sand	41.6	161.59	1.45	234.31	0.90	210.23	304.64	0.84	0.783	0.877	########	########	3388059.36	0.00	0.00
38.220	133.800	3.854	4837.5	3201.4	100.957	2.933	2.24		Sand	41.8	161.59	1.45	234.31	0.90	210.06	304.62	0.84	0.783	0.876	########	########	3373298.53	0.00	0.00
38.390	134.410	3.653	4858.8	3212.0	101.250	2.768	2.22		Sand	40.2	161.59	1.45	234.31	0.90	209.88	302.70	0.84	0.783	0.875	########	########	2180098.38	0.00	0.00
38.550	137.400	2.704	4878.8	3222.0	103.375	2.003	2.11		Sand	31.5	161.59	1.45	234.31	0.89	209.70	290.20	0.84	0.782	0.874	64822.522	########	159268.09	0.00	0.00
38.710	169.600	1.193	4898.8	3232.0	127.833	0.713	1.74		Sand	1.8	161.59	1.45	234.31	0.87	204.27	204.27	0.84	0.782	0.883	2.424	4.709	6.02	0.00	0.00
38.880	170.960	1.075	4920.0	3242.7	128.653	0.638	1.70		Sand	0.0		1.45	234.30	0.87	204.02	204.02	0.84	0.782	0.882	2.388	4.636	5.93	0.00	0.00
39.040	112.430	1.257	4940.0	3252.7	83.827	1.143	2.01		Sand	23.5	161.59	1.45	234.31	0.89	209.18	271.85	0.83	0.782	0.871	2597.911	4978.187	6368.56	0.00	0.00
39.210	55.850	1.173	4961.3	3263.3	40.619	2.198	2.43		Sand	57.4	161.59	1.45	234.31	0.89	209.00	314.97	0.83	0.781	0.870	########	########	#########	0.00	0.00
39.370	30.580	1.044	4981.3	3273.4	17.162	3.718	2.86		Clay	92.1			28.90	0.89	n.a.	n.a.	0.83	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.530	15.530	0.651	5001.3	3283.4	7.937	4.996	3.21		Clay	100.0			14.68	0.89	n.a.	n.a.	0.83	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.700	15.310	0.509	5022.5	3294.0	7.771	3.977	3.16		Clay	100.0			14.47	0.89	n.a.	n.a.	0.83	0.781	n.a.	n.a.	n.a.	n.a.	0.00	0.00
39.860	15.170	0.620	5042.5	3304.0	7.657	4.902	3.22		Clay	100.0			14.34	0.89	n.a.	n.a.	0.83	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.030	15.780	0.661	5063.8	3314.7	7.994	4.986	3.20		Clay	100.0			14.91	0.89	n.a.	n.a.	0.83	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.190	18.640	0.675	5083.8	3324.7	9.684	4.195	3.09		Clay	100.0			17.62	0.89	n.a.	n.a.	0.83	0.780	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.350	17.540	0.628	5103.8	3334.7	8.989	4.192	3.12		Clay	100.0			16.58	0.89	n.a.	n.a.	0.83	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.520	16.580	0.588	5125.0	3345.4	8.380	4.191	3.14		Clay	100.0			15.67	0.89	n.a.	n.a.	0.83	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.680	15.700	0.546	5145.0	3355.4	7.825	4.160	3.17		Clay	100.0			14.84	0.89	n.a.	n.a.	0.83	0.779	n.a.	n.a.	n.a.	n.a.	0.00	0.00
40.850	15.090	0.527	5166.3	3366.0	7.431	4.215	3.19		Clay	100.0			14.26	0.88	n.a.	n.a.	0.82	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.010	15.350	0.550	5186.3	3376.0	7.557	4.311	3.19		Clay	100.0			14.51	0.88	n.a.	n.a.	0.82	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.170	17.390	0.489	5206.3	3386.0	8.734	3.308	3.07		Clay	100.0			16.44	0.88	n.a.	n.a.	0.82	0.778	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.340	18.640	0.931	5227.5	3396.7	9.436	5.810	3.19		Clay	100.0			17.62	0.88	n.a.	n.a.	0.82	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.500	21.910	1.820	5247.5	3406.7	11.323	9.437	3.26		Clay	100.0			20.71	0.88	n.a.	n.a.	0.82	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.670	31.350	2.715	5268.8	3417.3	16.806	9.455	3.14		Clay	100.0			29.63	0.88	n.a.	n.a.	0.82	0.777	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.830	62.560	2.951	5288.8	3427.4	34.963	4.926	2.71		Clay	80.2			59.13	0.88	n.a.	n.a.	0.82	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
41.990	55.980	2.316	5308.8	3437.4	31.027	4.344	2.71		Clay	80.1			52.91	0.88	n.a.	n.a.	0.82	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.160	35.040	1.724	5330.0	3448.0	18.779	5.324	2.93		Clay	97.8			33.12	0.88	n.a.	n.a.	0.82	0.776	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.320	27.180	1.306	5350.0	3458.0	14.173	5.329	3.03		Clay	100.0			25.69	0.88	n.a.	n.a.	0.82	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.490	23.050	1.027	5371.3	3468.7	11.742	5.042	3.08		Clay	100.0			21.79	0.88	n.a.	n.a.	0.82	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.650	16.550	1.025	5391.3	3478.7	7.965	7.400	3.31		Clay	100.0			15.64	0.88	n.a.	n.a.	0.81	0.775	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.810	13.700	1.179	5411.3	3488.7	6.303	10.726	3.49		Clay	100.0			12.95	0.88	n.a.	n.a.	0.81	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
42.980	21.660	1.223	5432.5	3499.3	10.827	6.454	3.17		Clay	100.0			20.47	0.88	n.a.	n.a.	0.81	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.140	35.440	1.198	5452.5	3509.4	18.644	3.661	2.83		Clay	89.5			33.50	0.88	n.a.	n.a.	0.81	0.774	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.310	30.100	1.126	5473.8	3520.0	15.547	4.115	2.93		Clay	97.0			28.45	0.87	n.a.	n.a.	0.81	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	9

PGA (A_{max})	0.87

Total Settlement:	1.22	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'Vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
43.470	18.730	0.915	5493.8	3530.0	9.056	5.723	3.20		Clay	100.0			17.70	0.87	n.a.	n.a.	0.81	0.773	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.640	16.450	1.470	5515.0	3540.7	7.734	10.738	3.43		Clay	100.0			15.55	0.87	n.a.	n.a.	0.81	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.800	24.310	1.567	5535.0	3550.7	12.134	7.273	3.17		Clay	100.0			22.98	0.87	n.a.	n.a.	0.81	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
43.960	31.830	1.654	5555.0	3560.7	16.318	5.692	3.00		Clay	100.0			30.09	0.87	n.a.	n.a.	0.81	0.772	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.130	39.030	2.355	5576.3	3571.3	20.296	6.499	2.97		Clay	100.0			36.89	0.87	n.a.	n.a.	0.81	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.290	36.670	2.476	5596.3	3581.4	18.916	7.310	3.03		Clay	100.0			34.66	0.87	n.a.	n.a.	0.81	0.771	n.a.	n.a.	n.a.	n.a.	0.00	0.00
44.460	128.530	4.498	5617.5	3592.0	91.204	3.578	2.33		Sand	49.3	297.03	1.32	392.08	0.87	340.99	476.66	0.80	0.770	0.841	########	########	########	0.00	0.00
44.620	200.030	3.447	5637.5	3602.0	142.867	1.748	1.97		Sand	20.3	297.03	1.32	392.08	0.87	340.74	411.84	0.80	0.770	0.840	########	########	########	0.00	0.00
44.780	233.970	4.424	5657.5	3612.0	167.215	1.914	1.95		Sand	19.2	297.03	1.32	392.08	0.87	340.49	406.03	0.80	0.770	0.840	########	########	########	0.00	0.00
44.950	260.010	4.078	5678.8	3622.7	185.772	1.586	1.86		Sand	11.8	297.03	1.32	392.08	0.87	340.23	364.60	0.80	0.769	0.839	########	########	########	0.00	0.00
45.110	281.620	3.970	5698.8	3632.7	201.097	1.424	1.80		Sand	7.2	297.03	1.32	392.08	0.87	339.98	343.30	0.80	0.769	0.838	########	########	########	0.00	0.00
45.280	310.730	4.947	5720.0	3643.3	221.764	1.607	1.82		Sand	8.3	297.03	1.32	392.08	0.87	339.72	346.42	0.80	0.768	0.837	########	########	########	0.00	0.00
45.440	314.260	5.637	5740.0	3653.3	223.992	1.810	1.85		Sand	11.3		1.32	392.08	0.87	339.47	361.10	0.80	0.768	0.836	########	########	########	0.00	0.00
45.600	269.100	5.728	5760.0	3663.4	191.237	2.151	1.96		Sand	19.4		1.32	335.74	0.87	290.48	350.80	0.80	0.767	0.835	########	########	########	0.00	0.00
45.770	312.680	4.937	5781.3	3674.0	222.213	1.594	1.81		Sand	8.0		1.32	390.11	0.86	337.26	343.01	0.80	0.767	0.834	########	########	########	0.00	0.00
45.930	344.340	3.160	5801.3	3684.0	244.582	0.926	1.61		Sand	0.0		1.32	429.61	0.86	371.15	371.15	0.80	0.767	0.834	########	########	########	0.00	0.00
46.100	278.460	2.307	5822.5	3694.7	197.099	0.837	1.64		Sand	0.0	325.46	1.32	429.61	0.86	370.86	370.86	0.80	0.766	0.833	########	########	########	0.00	0.00
46.260	165.890	1.876	5842.5	3704.7	116.413	1.151	1.90		Sand	15.1	325.46	1.32	429.61	0.86	370.60	416.74	0.80	0.766	0.832	########	########	########	0.00	0.00
46.420	75.690	1.439	5862.5	3714.7	51.903	1.978	2.32		Sand	48.5	325.46	1.32	429.61	0.86	370.33	512.86	0.79	0.765	0.831	########	########	########	0.00	0.00
46.590	41.590	1.149	5883.8	3725.3	20.749	2.972	2.74		Clay	82.1			39.31	0.86	n.a.	n.a.	0.79	0.765	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.750	27.300	0.632	5903.8	3735.4	13.037	2.597	2.87		Clay	92.3			25.80	0.86	n.a.	n.a.	0.79	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
46.920	24.170	0.707	5925.0	3746.0	11.323	3.331	2.98		Clay	100.0			22.84	0.86	n.a.	n.a.	0.79	0.764	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.080	23.870	0.821	5945.0	3756.0	11.128	3.928	3.03		Clay	100.0			22.56	0.86	n.a.	n.a.	0.79	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.240	23.980	0.864	5965.0	3766.0	11.151	4.112	3.04		Clay	100.0			22.67	0.86	n.a.	n.a.	0.79	0.763	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.410	23.770	1.084	5986.3	3776.7	11.003	5.215	3.11		Clay	100.0			22.47	0.86	n.a.	n.a.	0.79	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.570	23.720	1.312	6006.3	3786.7	10.942	6.332	3.16		Clay	100.0			22.42	0.86	n.a.	n.a.	0.79	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.740	26.740	1.514	6027.5	3797.3	12.496	6.383	3.12		Clay	100.0			25.27	0.86	n.a.	n.a.	0.79	0.762	n.a.	n.a.	n.a.	n.a.	0.00	0.00
47.900	38.330	1.705	6047.5	3807.3	18.546	4.828	2.91		Clay	95.9			36.23	0.86	n.a.	n.a.	0.79	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.060	33.630	1.371	6067.5	3817.4	16.030	4.480	2.94		Clay	98.0			31.79	0.86	n.a.	n.a.	0.79	0.761	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.230	30.810	1.247	6088.8	3828.0	14.507	4.492	2.97		Clay	100.0			29.12	0.86	n.a.	n.a.	0.78	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.390	22.700	1.119	6108.8	3838.0	10.237	5.698	3.16		Clay	100.0			21.46	0.85	n.a.	n.a.	0.78	0.760	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.560	19.670	1.290	6130.0	3848.7	8.629	7.767	3.30		Clay	100.0			18.59	0.85	n.a.	n.a.	0.78	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.720	24.560	1.048	6150.0	3858.7	11.136	4.878	3.08		Clay	100.0			23.21	0.85	n.a.	n.a.	0.78	0.759	n.a.	n.a.	n.a.	n.a.	0.00	0.00
48.880	40.620	0.905	6170.0	3868.7	19.405	2.411	2.71		Clay	79.6			38.39	0.85	n.a.	n.a.	0.78	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.050	36.460	0.971	6191.3	3879.3	17.201	2.909	2.80		Clay	86.8			34.46	0.85	n.a.	n.a.	0.78	0.758	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.210	24.760	0.941	6211.3	3889.3	11.135	4.345	3.05		Clay	100.0			23.40	0.85	n.a.	n.a.	0.78	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.380	24.710	0.963	6232.5	3900.0	11.074	4.459	3.06		Clay	100.0			23.36	0.85	n.a.	n.a.	0.78	0.757	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.540	26.070	0.982	6252.5	3910.0	11.736	4.278	3.03		Clay	100.0			24.64	0.85	n.a.	n.a.	0.78	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.700	26.780	0.884	6272.5	3920.0	12.063	3.737	2.99		Clay	100.0			25.31	0.85	n.a.	n.a.	0.78	0.756	n.a.	n.a.	n.a.	n.a.	0.00	0.00
49.870	25.460	0.830	6293.8	3930.7	11.353	3.719	3.01		Clay	100.0			24.06	0.85	n.a.	n.a.	0.78	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.030	23.470	0.813	6313.8	3940.7	10.309	4.000	3.06		Clay	100.0			22.18	0.85	n.a.	n.a.	0.77	0.755	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.200	22.980	0.812	6335.0	3951.3	10.028	4.098	3.07		Clay	100.0			21.72	0.85	n.a.	n.a.	0.77	0.754	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.360	23.420	0.847	6355.0	3961.3	10.220	4.182	3.07		Clay	100.0			22.14	0.85	n.a.	n.a.	0.77	0.754	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.520	23.410	0.850	6375.0	3971.4	10.184	4.205	3.08		Clay	100.0			22.13	0.85	n.a.	n.a.	0.77	0.753	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.690	22.260	0.829	6396.3	3982.0	9.574	4.351	3.11		Clay	100.0			21.04	0.85	n.a.	n.a.	0.77	0.753	n.a.	n.a.	n.a.	n.a.	0.00	0.00
50.850	22.210	0.818	6416.3	3992.0	9.520	4.307	3.11		Clay	100.0			20.99	0.85	n.a.	n.a.	0.77	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
51.020	22.250	0.837	6437.5	4002.7	9.509	4.400	3.11		Clay	100.0			21.03	0.85	n.a.	n.a.	0.77	0.752	n.a.	n.a.	n.a.	n.a.	0.00	0.00
51.180	20.460	0.727	6457.5	4012.7	8.588	4.221	3.14		Clay	100.0			19.34	0.84	n.a.	n.a.	0.77	0.751	n.a.	n.a.	n.a.	n.a.	0.00	0.00
51.350	18.830	0.637	6478.8	4023.3	7.750	4.083	3.16		Clay	100.0			17.80	0.84	n.a.	n.a.	0.77	0.751	n.a.	n.a.	n.a.	n.a.	0.00	0.00
51.510	19.470	0.572	6498.8	4033.3	8.043	3.525	3.11		Clay	100.0			18.40	0.84	n.a.	n.a.	0.77	0.750	n.a.	n.a.	n.a.	n.a.	0.00	0.00
51.670	20.370	0.570	6518.8	4043.3	8.464	3.330	3.08		Clay	100.0			19.25	0.84	n.a.	n.a.	0.77	0.750	n.a.	n.a.	n.a.	n.a.	0.00	0.00
51.840	20.140	0.572	6540.0	4054.0	8.323	3.388	3.09		Clay	100.0			19.04	0.84	n.a.	n.a.	0.77	0.749	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.000	18.770	0.548	6560.0	4064.0	7.623	3.536	3.13		Clay	100.0			17.74	0.84	n.a.	n.a.	0.76	0.749	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.170	17.920	0.509	6581.3	4074.6	7.181	3.478	3.15		Clay	100.0			16.94	0.84	n.a.	n.a.	0.76	0.748	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.330	17.840	0.474	6601.3	4084.7	7.119	3.261	3.14		Clay	100.0			16.86	0.84	n.a.	n.a.	0.76	0.748	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.490	18.760	0.506	6621.3	4094.7	7.546	3.272	3.12		Clay	100.0			17.73	0.84	n.a.	n.a.	0.76	0.747	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.660	20.300	0.520	6642.5	4105.3	8.272	3.060	3.07		Clay	100.0			19.19	0.84	n.a.	n.a.	0.76	0.746	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.820	21.160	0.537	6662.5	4115.3	8.665	3.012	3.05		Clay	100.0			20.00	0.84	n.a.	n.a.	0.76	0.746	n.a.	n.a.	n.a.	n.a.	0.00	0.00
52.990	19.980	0.527	6683.8	4126.0	8.065	3.170	3.09		Clay	100.0			18.88	0.84	n.a.	n.a.	0.76	0.745	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.150	19.310	0.488	6703.8	4136.0	7.717	3.057	3.09		Clay	100.0			18.25	0.84	n.a.	n.a.	0.76	0.745	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.310	18.680	0.452	6723.8	4146.0	7.389	2.951	3.10		Clay	100.0			17.66	0.84	n.a.	n.a.	0.76	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.480	17.500	0.441	6745.0	4156.6	6.798	3.122	3.15		Clay	100.0			16.54	0.84	n.a.	n.a.	0.76	0.744	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.640	16.970	0.431	6765.0	4166.7	6.522	3.168	3.16		Clay	100.0			16.04	0.84	n.a.	n.a.	0.76	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.810	16.420	0.408	6786.3	4177.3	6.237	3.135	3.18		Clay	100.0			15.52	0.84	n.a.	n.a.	0.76	0.743	n.a.	n.a.	n.a.	n.a.	0.00	0.00
53.970	16.050	0.376	6806.3	4187.3	6.041	2.972	3.18		Clay	100.0			15.17	0.84	n.a.	n.a.	0.75	0.742	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.130	15.570	0.344	6826.3	4197.3	5.793	2.830	3.18		Clay	100.0			14.72	0.83	n.a.	n.a.	0.75	0.742	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	9

PGA (A_{max})	0.87

Total Settlement:	1.22	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'Vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
54.300	14.920	0.323	6847.5	4208.0	5.464	2.808	3.20		Clay	100.0			14.10	0.83	n.a.	n.a.	0.75	0.741	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.460	13.360	0.300	6867.5	4218.0	4.707	3.021	3.27		Clay	100.0			12.63	0.83	n.a.	n.a.	0.75	0.741	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.630	13.810	0.320	6888.8	4228.6	4.903	3.091	3.26		Clay	100.0			13.05	0.83	n.a.	n.a.	0.75	0.740	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.790	13.190	0.337	6908.8	4238.7	4.594	3.464	3.31		Clay	100.0			12.47	0.83	n.a.	n.a.	0.75	0.739	n.a.	n.a.	n.a.	n.a.	0.00	0.00
54.950	13.930	0.377	6928.8	4248.7	4.927	3.598	3.30		Clay	100.0			13.17	0.83	n.a.	n.a.	0.75	0.739	n.a.	n.a.	n.a.	n.a.	0.00	0.00
55.120	14.490	0.401	6950.0	4259.3	5.172	3.637	3.28		Clay	100.0			13.70	0.83	n.a.	n.a.	0.75	0.738	n.a.	n.a.	n.a.	n.a.	0.00	0.00
55.280	16.230	0.445	6970.0	4269.3	5.970	3.492	3.22		Clay	100.0			15.34	0.83	n.a.	n.a.	0.75	0.738	n.a.	n.a.	n.a.	n.a.	0.00	0.00
55.450	16.120	0.463	6991.3	4280.0	5.899	3.671	3.24		Clay	100.0			15.24	0.83	n.a.	n.a.	0.75	0.737	n.a.	n.a.	n.a.	n.a.	0.00	0.00
55.610	17.510	0.519	7011.3	4290.0	6.529	3.707	3.20		Clay	100.0			16.55	0.83	n.a.	n.a.	0.75	0.737	n.a.	n.a.	n.a.	n.a.	0.00	0.00
55.770	17.170	0.505	7031.3	4300.0	6.351	3.701	3.21		Clay	100.0			16.23	0.83	n.a.	n.a.	0.74	0.736	n.a.	n.a.	n.a.	n.a.	0.00	0.00
55.940	18.470	0.424	7052.5	4310.6	6.933	2.837	3.12		Clay	100.0			17.46	0.83	n.a.	n.a.	0.74	0.736	n.a.	n.a.	n.a.	n.a.	0.00	0.00
56.100	18.660	0.434	7072.5	4320.7	7.001	2.870	3.12		Clay	100.0			17.64	0.83	n.a.	n.a.	0.74	0.735	n.a.	n.a.	n.a.	n.a.	0.00	0.00
56.270	17.960	0.465	7093.8	4331.3	6.655	3.223	3.16		Clay	100.0			16.98	0.83	n.a.	n.a.	0.74	0.735	n.a.	n.a.	n.a.	n.a.	0.00	0.00
56.430	18.420	0.523	7113.8	4341.3	6.847	3.519	3.17		Clay	100.0			17.41	0.83	n.a.	n.a.	0.74	0.734	n.a.	n.a.	n.a.	n.a.	0.00	0.00
56.590	19.410	0.589	7133.8	4351.3	7.282	3.715	3.16		Clay	100.0			18.35	0.83	n.a.	n.a.	0.74	0.733	n.a.	n.a.	n.a.	n.a.	0.00	0.00
56.760	22.050	1.201	7155.0	4362.0	8.470	6.502	3.26		Clay	100.0			20.84	0.83	n.a.	n.a.	0.74	0.733	n.a.	n.a.	n.a.	n.a.	0.00	0.00
56.920	26.730	1.503	7175.0	4372.0	10.587	6.493	3.18		Clay	100.0			25.26	0.83	n.a.	n.a.	0.74	0.732	n.a.	n.a.	n.a.	n.a.	0.00	0.00
57.090	50.080	1.478	7196.3	4382.6	21.212	3.179	2.75		Clay	83.0			47.33	0.83	n.a.	n.a.	0.74	0.732	n.a.	n.a.	n.a.	n.a.	0.00	0.00
57.250	79.670	1.801	7216.3	4392.7	49.897	2.368	2.38		Sand	53.7			75.30	0.71	53.57	115.24	0.74	0.731	0.912	0.161	0.199	0.27	0.03	0.00
57.410	76.410	1.682	7236.3	4402.7	47.698	2.311	2.39		Sand	54.3			72.22	0.71	51.11	112.32	0.74	0.731	0.914	0.156	0.190	0.26	0.03	0.00
57.580	47.060	1.254	7257.5	4413.3	19.682	2.888	2.75		Clay	82.9			44.48	0.82	n.a.	n.a.	0.74	0.730	n.a.	n.a.	n.a.	n.a.	0.00	0.00
57.740	27.740	1.013	7277.5	4423.3	10.897	4.203	3.05		Clay	100.0			26.22	0.82	n.a.	n.a.	0.73	0.729	n.a.	n.a.	n.a.	n.a.	0.00	0.00
57.910	24.100	0.867	7298.8	4434.0	9.225	4.241	3.11		Clay	100.0			22.78	0.82	n.a.	n.a.	0.73	0.729	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.070	25.430	0.933	7318.8	4444.0	9.798	4.284	3.09		Clay	100.0			24.04	0.82	n.a.	n.a.	0.73	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.230	26.130	0.929	7338.8	4454.0	10.086	4.134	3.07		Clay	100.0			24.70	0.82	n.a.	n.a.	0.73	0.728	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.400	25.870	0.816	7360.0	4464.6	9.940	3.679	3.05		Clay	100.0			24.45	0.82	n.a.	n.a.	0.73	0.727	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.560	24.960	0.855	7380.0	4474.7	9.507	4.020	3.09		Clay	100.0			23.59	0.82	n.a.	n.a.	0.73	0.727	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.730	25.260	0.926	7401.3	4485.3	9.613	4.293	3.10		Clay	100.0			23.88	0.82	n.a.	n.a.	0.73	0.726	n.a.	n.a.	n.a.	n.a.	0.00	0.00
58.890	24.970	0.928	7421.3	4495.3	9.458	4.364	3.11		Clay	100.0			23.60	0.82	n.a.	n.a.	0.73	0.726	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.060	22.510	0.773	7442.5	4506.0	8.340	4.114	3.14		Clay	100.0			21.28	0.82	n.a.	n.a.	0.73	0.725	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.220	21.160	0.696	7462.5	4516.0	7.719	3.992	3.16		Clay	100.0			20.00	0.82	n.a.	n.a.	0.73	0.724	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.380	23.090	0.676	7482.5	4526.0	8.550	3.495	3.09		Clay	100.0			21.82	0.82	n.a.	n.a.	0.73	0.724	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.550	27.690	0.826	7503.8	4536.6	10.553	3.451	3.01		Clay	100.0			26.17	0.82	n.a.	n.a.	0.73	0.723	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.710	31.640	1.013	7523.8	4546.6	12.263	3.632	2.97		Clay	100.0			29.91	0.82	n.a.	n.a.	0.73	0.723	n.a.	n.a.	n.a.	n.a.	0.00	0.00
59.880	33.740	1.017	7545.0	4557.3	13.151	3.394	2.93		Clay	97.5			31.89	0.82	n.a.	n.a.	0.72	0.722	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.040	33.650	0.995	7565.0	4567.3	13.079	3.332	2.93		Clay	97.3			31.81	0.82	n.a.	n.a.	0.72	0.722	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.200	33.350	0.969	7585.0	4577.3	12.915	3.278	2.93		Clay	97.3			31.52	0.82	n.a.	n.a.	0.72	0.721	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.370	34.320	1.000	7606.3	4588.0	13.303	3.275	2.92		Clay	96.4			32.44	0.82	n.a.	n.a.	0.72	0.720	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.530	34.100	1.085	7626.3	4598.0	13.174	3.582	2.94		Clay	98.6			32.23	0.81	n.a.	n.a.	0.72	0.720	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.700	34.640	1.178	7647.5	4608.6	13.373	3.823	2.96		Clay	99.5			32.74	0.81	n.a.	n.a.	0.72	0.719	n.a.	n.a.	n.a.	n.a.	0.00	0.00
60.860	33.240	1.975	7667.5	4618.6	12.734	6.718	3.13		Clay	100.0			31.42	0.81	n.a.	n.a.	0.72	0.719	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.020	42.170	2.550	7687.5	4628.7	16.560	6.653	3.04		Clay	100.0			39.86	0.81	n.a.	n.a.	0.72	0.718	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.190	65.660	2.715	7708.8	4639.3	26.644	4.392	2.77		Clay	84.3			62.06	0.81	n.a.	n.a.	0.72	0.718	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.350	52.740	2.529	7728.8	4649.3	21.025	5.174	2.89		Clay	94.2			49.85	0.81	n.a.	n.a.	0.72	0.717	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.520	50.210	2.783	7750.0	4660.0	19.886	6.006	2.95		Clay	99.1			47.46	0.81	n.a.	n.a.	0.72	0.716	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.680	65.090	2.634	7770.0	4670.0	26.212	4.304	2.77		Clay	84.2			61.52	0.81	n.a.	n.a.	0.72	0.716	n.a.	n.a.	n.a.	n.a.	0.00	0.00
61.840	63.500	3.430	7790.0	4680.0	25.472	5.755	2.86		Clay	91.8			60.02	0.81	n.a.	n.a.	0.71	0.715	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.010	108.390	3.885	7811.3	4690.6	66.330	3.718	2.43		Sand	57.7			102.45	0.72	73.54	142.10	0.71	0.715	0.881	0.244	0.340	0.48	0.02	0.00
62.170	103.760	4.641	7831.3	4700.6	42.481	4.648	2.64		Clay	74.0			98.07	0.81	n.a.	n.a.	0.71	0.714	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.340	94.440	4.518	7852.5	4711.3	38.424	4.991	2.69		Clay	78.2			89.26	0.81	n.a.	n.a.	0.71	0.713	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.500	92.140	3.428	7872.5	4721.3	37.364	3.886	2.62		Clay	72.8			87.09	0.81	n.a.	n.a.	0.71	0.713	n.a.	n.a.	n.a.	n.a.	0.00	0.00
62.660	115.800	2.510	7892.5	4731.3	70.702	2.244	2.26		Sand	43.6			109.45	0.71	78.21	141.43	0.71	0.712	0.880	0.241	0.334	0.47	0.02	0.00
62.830	193.690	1.479	7913.8	4742.0	119.794	0.779	1.78		Sand	5.5			183.07	0.70	128.32	128.68	0.71	0.712	0.892	0.193	0.251	0.35	0.02	0.00
62.990	221.410	2.957	7933.8	4752.0	137.145	1.360	1.90		Sand	15.0			209.27	0.75	157.76	185.55	0.71	0.711	0.819	0.917	1.641	2.31	0.00	0.00
63.160	172.250	3.057	7955.0	4762.6	106.014	1.817	2.07		Sand	28.4			162.81	0.75	121.75	179.28	0.71	0.711	0.830	0.705	1.216	1.71	0.00	0.00
63.320	110.620	3.840	7975.0	4772.6	67.109	3.601	2.42		Sand	56.6			104.56	0.71	74.61	143.09	0.71	0.710	0.877	0.249	0.348	0.49	0.02	0.00
63.480	86.160	4.228	7995.0	4782.6	34.359	5.146	2.73		Clay	81.7			81.44	0.81	n.a.	n.a.	0.71	0.710	n.a.	n.a.	n.a.	n.a.	0.00	0.00
63.650	108.290	3.810	8016.3	4793.3	65.488	3.654	2.43		Sand	57.5			102.35	0.71	72.69	140.97	0.71	0.709	0.879	0.239	0.330	0.46	0.02	0.00
63.810	88.470	2.424	8036.3	4803.3	52.980	2.870	2.42		Sand	56.7			83.62	0.69	57.64	121.47	0.71	0.708	0.897	0.175	0.219	0.31	0.03	0.00
63.980	62.050	1.896	8057.5	4813.9	24.105	3.268	2.71		Clay	80.1			58.65	0.81	n.a.	n.a.	0.70	0.708	n.a.	n.a.	n.a.	n.a.	0.00	0.00
64.140	38.310	1.573	8077.5	4824.0	14.209	4.591	2.99		Clay	100.0			36.21	0.80	n.a.	n.a.	0.70	0.707	n.a.	n.a.	n.a.	n.a.	0.00	0.00
64.300	25.860	1.005	8097.5	4834.0	9.024	4.605	3.14		Clay	100.0			24.44	0.80	n.a.	n.a.	0.70	0.707	n.a.	n.a.	n.a.	n.a.	0.00	0.00
64.470	25.680	0.792	8118.8	4844.6	8.926	3.664	3.09		Clay	100.0			24.27	0.80	n.a.	n.a.	0.70	0.706	n.a.	n.a.	n.a.	n.a.	0.00	0.00
64.630	25.800	0.660	8138.8	4854.6	8.953	3.036	3.04		Clay	100.0			24.39	0.80	n.a.	n.a.	0.70	0.705	n.a.	n.a.	n.a.	n.a.	0.00	0.00
64.800	24.150	1.040	8160.0	4865.3	8.250	5.180	3.20		Clay	100.0			22.83	0.80	n.a.	n.a.	0.70	0.705	n.a.	n.a.	n.a.	n.a.	0.00	0.00
64.960	23.380	1.912	8180.0	4875.3	7.913	9.909	3.39		Clay	100.0			22.10	0.80	n.a.	n.a.	0.70	0.704	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	9

PGA (A_{max})	0.87

Total Settlement:	1.22	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, s'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
65.120	37.380	3.283	8200.0	4885.3	13.625	9.865	3.22		Clay	100.0			35.33	0.80	n.a.	n.a.	0.70	0.704	n.a.	n.a.	n.a.	n.a.	0.00	0.00
65.290	55.320	5.261	8221.3	4896.0	20.919	10.274	3.10		Clay	100.0			52.29	0.80	n.a.	n.a.	0.70	0.703	n.a.	n.a.	n.a.	n.a.	0.00	0.00
65.450	128.850	4.580	8241.3	4906.0	77.425	3.672	2.38		Sand	53.8			121.79	0.72	87.80	158.77	0.70	0.703	0.855	0.359	0.545	0.78	0.01	0.00
65.620	273.370	4.223	8262.5	4916.6	166.946	1.569	1.89		Sand	13.9			258.38	0.78	201.84	228.92	0.70	0.702	0.747	14.907	24.501	34.90	0.00	0.00
65.780	305.260	3.520	8282.5	4926.6	186.524	1.169	1.76		Sand	3.8			288.53	0.78	224.16	224.18	0.70	0.701	0.746	9.954	16.347	23.30	0.00	0.00
65.940	350.380	3.646	8302.5	4936.6	214.249	1.053	1.69		Sand	0.0			331.17	0.80	264.84	264.84	0.70	0.701	0.746	906.863	1488.050	2122.98	0.00	0.00
66.110	354.280	2.502	8323.8	4947.3	216.423	0.715	1.56		Sand	0.0			334.86	0.80	267.64	267.64	0.69	0.700	0.745	1364.692	2237.350	3194.69	0.00	0.00
66.270	351.300	2.541	8343.8	4957.3	214.358	0.732	1.57		Sand	0.0			332.04	0.80	265.25	265.25	0.69	0.700	0.745	961.047	1574.310	2249.73	0.00	0.00
66.440	345.970	1.715	8365.0	4967.9	210.834	0.502	1.47		Sand	0.0			327.00	0.80	261.07	261.07	0.69	0.699	0.744	534.528	874.863	1251.26	0.00	0.00
66.600	328.120	1.969	8385.0	4978.0	199.616	0.608	1.54		Sand	0.0			310.13	0.79	245.43	245.43	0.69	0.699	0.743	77.037	125.984	180.33	0.00	0.00
66.770	308.250	2.004	8406.3	4988.6	187.164	0.659	1.59		Sand	0.0			291.35	0.78	225.93	225.93	0.69	0.698	0.743	11.517	18.818	26.96	0.00	0.00
66.930	305.660	1.647	8426.3	4998.6	185.378	0.546	1.54		Sand	0.0			288.90	0.77	223.27	223.27	0.69	0.697	0.742	9.244	15.092	21.64	0.00	0.00
67.090	268.670	1.405	8446.3	5008.6	162.462	0.531	1.57		Sand	0.0			253.94	0.74	188.65	188.65	0.69	0.697	0.800	1.055	1.858	2.67	0.00	0.00
67.260	178.740	1.693	8467.5	5019.3	107.093	0.970	1.88		Sand	13.3			168.94	0.69	116.75	135.63	0.69	0.696	0.878	0.217	0.288	0.41	0.02	0.00
67.420	90.100	1.388	8487.5	5029.3	52.637	1.616	2.26		Sand	43.6			85.16	0.67	56.83	114.73	0.69	0.696	0.897	0.160	0.194	0.28	0.03	0.00
67.590	43.820	1.260	8508.8	5039.9	15.701	3.184	2.85		Clay	91.2			41.42	0.80	n.a.	n.a.	0.69	0.695	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.750	19.880	0.513	8528.8	5050.0	6.184	3.288	3.19		Clay	100.0			18.79	0.79	n.a.	n.a.	0.69	0.695	n.a.	n.a.	n.a.	n.a.	0.00	0.00
67.910	18.750	0.399	8548.8	5060.0	5.722	2.756	3.18		Clay	100.0			17.72	0.79	n.a.	n.a.	0.69	0.694	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.080	18.940	0.446	8570.0	5070.6	5.780	3.044	3.20		Clay	100.0			17.90	0.79	n.a.	n.a.	0.69	0.694	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.240	18.870	0.466	8590.0	5080.6	5.737	3.194	3.21		Clay	100.0			17.84	0.79	n.a.	n.a.	0.68	0.693	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.410	19.460	0.488	8611.3	5091.3	5.953	3.219	3.20		Clay	100.0			18.39	0.79	n.a.	n.a.	0.68	0.692	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.570	19.810	0.532	8631.3	5101.3	6.075	3.431	3.21		Clay	100.0			18.72	0.79	n.a.	n.a.	0.68	0.692	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.730	20.420	0.588	8651.3	5111.3	6.298	3.653	3.21		Clay	100.0			19.30	0.79	n.a.	n.a.	0.68	0.691	n.a.	n.a.	n.a.	n.a.	0.00	0.00
68.900	22.690	0.565	8672.5	5121.9	7.167	3.079	3.12		Clay	100.0			21.45	0.79	n.a.	n.a.	0.68	0.691	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.060	22.710	0.500	8692.5	5132.0	7.157	2.724	3.10		Clay	100.0			21.47	0.79	n.a.	n.a.	0.68	0.690	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.230	19.640	0.431	8713.8	5142.6	5.944	2.817	3.17		Clay	100.0			18.56	0.79	n.a.	n.a.	0.68	0.690	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.390	17.640	0.371	8733.8	5152.6	5.152	2.796	3.22		Clay	100.0			16.67	0.79	n.a.	n.a.	0.68	0.689	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.550	18.000	0.346	8753.8	5162.6	5.278	2.542	3.19		Clay	100.0			17.01	0.79	n.a.	n.a.	0.68	0.688	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.720	17.910	0.337	8775.0	5173.3	5.228	2.491	3.19		Clay	100.0			16.93	0.79	n.a.	n.a.	0.68	0.688	n.a.	n.a.	n.a.	n.a.	0.00	0.00
69.880	17.390	0.321	8795.0	5183.3	5.013	2.474	3.21		Clay	100.0			16.44	0.79	n.a.	n.a.	0.68	0.687	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.050	16.970	0.316	8816.3	5193.9	4.837	2.512	3.22		Clay	100.0			16.04	0.79	n.a.	n.a.	0.68	0.687	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.210	17.930	0.327	8836.3	5203.9	5.193	2.423	3.19		Clay	100.0			16.95	0.79	n.a.	n.a.	0.68	0.686	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.370	17.780	0.362	8856.3	5214.0	5.122	2.707	3.22		Clay	100.0			16.81	0.79	n.a.	n.a.	0.68	0.686	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.540	18.490	0.404	8877.5	5224.6	5.379	2.877	3.21		Clay	100.0			17.48	0.79	n.a.	n.a.	0.67	0.685	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.700	20.240	0.423	8897.5	5234.6	6.033	2.679	3.15		Clay	100.0			19.13	0.79	n.a.	n.a.	0.67	0.685	n.a.	n.a.	n.a.	n.a.	0.00	0.00
70.870	20.750	0.545	8918.8	5245.3	6.212	3.347	3.20		Clay	100.0			19.61	0.79	n.a.	n.a.	0.67	0.684	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.030	21.410	0.661	8938.8	5255.3	6.447	3.899	3.22		Clay	100.0			20.24	0.79	n.a.	n.a.	0.67	0.683	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.190	23.830	0.814	8958.8	5265.3	7.350	4.205	3.19		Clay	100.0			22.52	0.79	n.a.	n.a.	0.67	0.683	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.360	26.570	0.745	8980.0	5275.9	8.370	3.373	3.09		Clay	100.0			25.11	0.79	n.a.	n.a.	0.67	0.682	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.520	25.190	0.733	9000.0	5286.0	7.828	3.543	3.13		Clay	100.0			23.81	0.79	n.a.	n.a.	0.67	0.682	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.690	23.170	0.717	9021.3	5296.6	7.046	3.842	3.18		Clay	100.0			21.90	0.79	n.a.	n.a.	0.67	0.681	n.a.	n.a.	n.a.	n.a.	0.00	0.00
71.850	23.570	0.676	9041.3	5306.6	7.179	3.548	3.16		Clay	100.0			22.28	0.78	n.a.	n.a.	0.67	0.681	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.010	23.470	0.645	9061.3	5316.6	7.125	3.407	3.15		Clay	100.0			22.18	0.78	n.a.	n.a.	0.67	0.680	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.180	21.990	0.684	9082.5	5327.3	6.551	3.919	3.21		Clay	100.0			20.78	0.78	n.a.	n.a.	0.67	0.680	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.340	22.720	0.756	9102.5	5337.3	6.808	4.161	3.22		Clay	100.0			21.47	0.78	n.a.	n.a.	0.67	0.679	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.510	25.960	1.485	9123.8	5347.9	8.002	6.938	3.29		Clay	100.0			24.54	0.78	n.a.	n.a.	0.67	0.679	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.670	30.240	1.734	9143.8	5357.9	9.581	6.754	3.22		Clay	100.0			28.58	0.78	n.a.	n.a.	0.67	0.678	n.a.	n.a.	n.a.	n.a.	0.00	0.00
72.830	70.600	1.745	9163.8	5368.0	24.597	2.642	2.65		Clay	74.9			66.73	0.78	n.a.	n.a.	0.66	0.677	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.000	111.020	2.691	9185.0	5378.6	63.094	2.529	2.33		Sand	49.3			104.93	0.67	70.28	134.57	0.66	0.677	0.869	0.213	0.279	0.41	0.02	0.00
73.160	100.290	2.662	9205.0	5388.6	56.675	2.782	2.39		Sand	54.3			94.79	0.66	62.62	126.96	0.66	0.676	0.877	0.189	0.238	0.35	0.02	0.00
73.330	65.880	2.316	9226.3	5399.3	22.695	3.780	2.77		Clay	85.0			62.27	0.78	n.a.	n.a.	0.66	0.676	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.490	50.650	1.560	9246.3	5409.3	17.018	3.390	2.84		Clay	90.4			47.87	0.78	n.a.	n.a.	0.66	0.675	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.650	42.550	2.175	9266.3	5419.3	13.993	5.735	3.05		Clay	100.0			40.22	0.78	n.a.	n.a.	0.66	0.675	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.820	35.350	2.988	9287.5	5429.9	11.310	9.732	3.27		Clay	100.0			33.41	0.78	n.a.	n.a.	0.66	0.674	n.a.	n.a.	n.a.	n.a.	0.00	0.00
73.980	60.070	3.775	9307.5	5439.9	20.374	6.811	2.98		Clay	100.0			56.78	0.78	n.a.	n.a.	0.66	0.674	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.150	141.750	4.757	9328.8	5450.6	80.731	3.470	2.35		Sand	51.3			133.98	0.70	93.56	165.00	0.66	0.673	0.827	0.429	0.660	0.98	0.01	0.00
74.310	178.610	3.639	9348.8	5460.6	102.339	2.092	2.12		Sand	32.8			168.82	0.72	121.10	184.73	0.66	0.673	0.789	0.885	1.516	2.25	0.00	0.00
74.480	158.190	2.855	9370.0	5471.2	90.230	1.860	2.12		Sand	32.9			149.52	0.70	104.16	164.31	0.66	0.672	0.827	0.420	0.644	0.96	0.01	0.00
74.640	102.490	2.025	9390.0	5481.3	57.431	2.071	2.30		Sand	46.9			96.87	0.65	63.24	124.54	0.66	0.672	0.877	0.182	0.227	0.34	0.03	0.00
74.800	52.360	1.646	9410.0	5491.3	17.357	3.455	2.84		Clay	90.2			49.49	0.78	n.a.	n.a.	0.66	0.671	n.a.	n.a.	n.a.	n.a.	0.00	0.00
74.970	26.130	1.061	9431.3	5501.9	7.784	4.956	3.21		Clay	100.0			24.70	0.78	n.a.	n.a.	0.66	0.670	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.130	22.120	0.638	9451.3	5511.9	6.312	3.670	3.21		Clay	100.0			20.91	0.78	n.a.	n.a.	0.66	0.670	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.300	20.470	0.598	9472.5	5522.6	5.698	3.798	3.26		Clay	100.0			19.35	0.78	n.a.	n.a.	0.65	0.669	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.460	18.610	0.572	9492.5	5532.6	5.012	4.126	3.32		Clay	100.0			17.59	0.78	n.a.	n.a.	0.65	0.669	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.620	18.390	0.515	9512.5	5542.6	4.920	3.774	3.31		Clay	100.0			17.38	0.78	n.a.	n.a.	0.65	0.668	n.a.	n.a.	n.a.	n.a.	0.00	0.00
75.790	20.100	0.520	9533.8	5553.3	5.522	3.393	3.24		Clay	100.0			19.00	0.78	n.a.	n.a.	0.65	0.668	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	9

PGA (A_{max})	0.87

Total Settlement:	1.22	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
75.950	19.560	0.550	9553.8	5563.3	5.315	3.720	3.28		Clay	100.0			18.49	0.77	n.a.	n.a.	0.65	0.667	n.a.	n.a.	n.a.	n.a.	0.00	0.00
76.120	18.570	0.538	9575.0	5573.9	4.945	3.905	3.31		Clay	100.0			17.55	0.77	n.a.	n.a.	0.65	0.667	n.a.	n.a.	n.a.	n.a.	0.00	0.00
76.280	19.470	0.561	9595.0	5583.9	5.255	3.826	3.29		Clay	100.0			18.40	0.77	n.a.	n.a.	0.65	0.666	n.a.	n.a.	n.a.	n.a.	0.00	0.00
76.440	18.510	0.496	9615.0	5593.9	4.899	3.622	3.30		Clay	100.0			17.50	0.77	n.a.	n.a.	0.65	0.666	n.a.	n.a.	n.a.	n.a.	0.00	0.00
76.610	19.620	0.510	9636.3	5604.6	5.282	3.447	3.26		Clay	100.0			18.54	0.77	n.a.	n.a.	0.65	0.665	n.a.	n.a.	n.a.	n.a.	0.00	0.00
76.770	19.710	0.626	9656.3	5614.6	5.301	4.203	3.31		Clay	100.0			18.63	0.77	n.a.	n.a.	0.65	0.665	n.a.	n.a.	n.a.	n.a.	0.00	0.00
76.940	22.150	0.750	9677.5	5625.2	6.155	4.332	3.26		Clay	100.0			20.94	0.77	n.a.	n.a.	0.65	0.664	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.100	24.950	0.803	9697.5	5635.3	7.134	3.995	3.19		Clay	100.0			23.58	0.77	n.a.	n.a.	0.65	0.664	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.260	31.910	0.794	9717.5	5645.3	9.584	2.934	3.01		Clay	100.0			30.16	0.77	n.a.	n.a.	0.65	0.663	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.430	29.710	0.722	9738.8	5655.9	8.784	2.907	3.04		Clay	100.0			28.08	0.77	n.a.	n.a.	0.65	0.663	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.590	28.380	0.654	9758.8	5665.9	8.295	2.782	3.05		Clay	100.0			26.82	0.77	n.a.	n.a.	0.65	0.662	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.760	28.690	0.631	9780.0	5676.6	8.385	2.653	3.03		Clay	100.0			27.12	0.77	n.a.	n.a.	0.65	0.662	n.a.	n.a.	n.a.	n.a.	0.00	0.00
77.920	29.230	0.628	9800.0	5686.6	8.557	2.579	3.02		Clay	100.0			27.63	0.77	n.a.	n.a.	0.64	0.661	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.080	29.350	0.620	9820.0	5696.6	8.581	2.535	3.01		Clay	100.0			27.74	0.77	n.a.	n.a.	0.64	0.661	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.250	27.610	0.585	9841.3	5707.3	7.951	2.578	3.04		Clay	100.0			26.10	0.77	n.a.	n.a.	0.64	0.660	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.410	25.000	0.533	9861.3	5717.3	7.021	2.655	3.10		Clay	100.0			23.63	0.77	n.a.	n.a.	0.64	0.660	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.580	23.130	0.491	9882.5	5727.9	6.351	2.702	3.14		Clay	100.0			21.86	0.77	n.a.	n.a.	0.64	0.659	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.740	21.210	0.524	9902.5	5737.9	5.667	3.220	3.22		Clay	100.0			20.05	0.77	n.a.	n.a.	0.64	0.659	n.a.	n.a.	n.a.	n.a.	0.00	0.00
78.900	21.110	0.517	9922.5	5747.9	5.619	3.203	3.22		Clay	100.0			19.95	0.77	n.a.	n.a.	0.64	0.658	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.070	21.810	0.497	9943.8	5758.6	5.848	2.952	3.19		Clay	100.0			20.61	0.77	n.a.	n.a.	0.64	0.658	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.230	21.010	0.468	9963.8	5768.6	5.557	2.920	3.20		Clay	100.0			19.86	0.77	n.a.	n.a.	0.64	0.657	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.400	19.440	0.488	9985.0	5779.2	5.000	3.381	3.28		Clay	100.0			18.37	0.77	n.a.	n.a.	0.64	0.657	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.560	19.580	0.547	10005.0	5789.3	5.036	3.751	3.30		Clay	100.0			18.51	0.77	n.a.	n.a.	0.64	0.656	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.720	20.030	0.498	10025.0	5799.3	5.179	3.317	3.26		Clay	100.0			18.93	0.77	n.a.	n.a.	0.64	0.656	n.a.	n.a.	n.a.	n.a.	0.00	0.00
79.890	20.120	0.498	10046.3	5809.9	5.197	3.299	3.26		Clay	100.0			19.02	0.77	n.a.	n.a.	0.64	0.655	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.050	24.740	0.589	10066.3	5819.9	6.772	2.988	3.14		Clay	100.0			23.38	0.77	n.a.	n.a.	0.64	0.655	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.220	18.140	0.615	10087.5	5830.6	4.492	4.697	3.39		Clay	100.0			17.15	0.77	n.a.	n.a.	0.64	0.654	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.380	25.930	0.742	10107.5	5840.6	7.149	3.555	3.16		Clay	100.0			24.51	0.77	n.a.	n.a.	0.64	0.654	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.540	28.930	0.913	10127.5	5850.6	8.159	3.825	3.13		Clay	100.0			27.34	0.76	n.a.	n.a.	0.63	0.653	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.710	28.120	1.023	10148.8	5861.2	7.864	4.439	3.18		Clay	100.0			26.58	0.76	n.a.	n.a.	0.63	0.653	n.a.	n.a.	n.a.	n.a.	0.00	0.00
80.870	29.840	1.088	10168.8	5871.3	8.433	4.397	3.15		Clay	100.0			28.20	0.76	n.a.	n.a.	0.63	0.652	n.a.	n.a.	n.a.	n.a.	0.00	0.00
81.040	29.120	0.973	10190.0	5881.9	8.169	4.048	3.14		Clay	100.0			27.52	0.76	n.a.	n.a.	0.63	0.652	n.a.	n.a.	n.a.	n.a.	0.00	0.00
81.200	27.600	0.807	10210.0	5891.9	7.636	3.587	3.14		Clay	100.0			26.09	0.76	n.a.	n.a.	0.63	0.651	n.a.	n.a.	n.a.	n.a.	0.00	0.00
81.360	25.450	0.686	10230.0	5901.9	6.891	3.372	3.16		Clay	100.0			24.05	0.76	n.a.	n.a.	0.63	0.651	n.a.	n.a.	n.a.	n.a.	0.00	0.00
81.530	23.580	0.603	10251.3	5912.6	6.242	3.266	3.19		Clay	100.0			22.29	0.76	n.a.	n.a.	0.63	0.650	n.a.	n.a.	n.a.	n.a.	0.00	0.00
81.690	22.450	0.565	10271.3	5922.6	5.847	3.263	3.21		Clay	100.0			21.22	0.76	n.a.	n.a.	0.63	0.650	n.a.	n.a.	n.a.	n.a.	0.00	0.00
81.860	21.550	0.517	10292.5	5933.2	5.529	3.154	3.22		Clay	100.0			20.37	0.76	n.a.	n.a.	0.63	0.649	n.a.	n.a.	n.a.	n.a.	0.00	0.00
82.020	21.810	0.507	10312.5	5943.3	5.604	3.043	3.21		Clay	100.0			20.61	0.76	n.a.	n.a.	0.63	0.649	n.a.	n.a.	n.a.	n.a.	0.00	0.00
82.190	21.240	0.519	10333.8	5953.9	5.399	3.229	3.24		Clay	100.0			20.08	0.76	n.a.	n.a.	0.63	0.648	n.a.	n.a.	n.a.	n.a.	0.00	0.00
82.350	21.250	0.617	10353.8	5963.9	5.390	3.839	3.28		Clay	100.0			20.09	0.76	n.a.	n.a.	0.63	0.648	n.a.	n.a.	n.a.	n.a.	0.00	0.00
82.510	23.610	0.702	10373.8	5973.9	6.168	3.813	3.23		Clay	100.0			22.32	0.76	n.a.	n.a.	0.63	0.648	n.a.	n.a.	n.a.	n.a.	0.00	0.00
82.680	25.140	0.732	10395.0	5984.6	6.665	3.669	3.19		Clay	100.0			23.76	0.76	n.a.	n.a.	0.63	0.647	n.a.	n.a.	n.a.	n.a.	0.00	0.00
82.840	24.940	0.695	10415.0	5994.6	6.583	3.523	3.19		Clay	100.0			23.57	0.76	n.a.	n.a.	0.63	0.647	n.a.	n.a.	n.a.	n.a.	0.00	0.00
83.010	24.680	0.702	10436.3	6005.2	6.482	3.609	3.20		Clay	100.0			23.33	0.76	n.a.	n.a.	0.63	0.646	n.a.	n.a.	n.a.	n.a.	0.00	0.00
83.170	24.790	0.647	10456.3	6015.2	6.504	3.308	3.18		Clay	100.0			23.43	0.76	n.a.	n.a.	0.63	0.646	n.a.	n.a.	n.a.	n.a.	0.00	0.00
83.330	24.790	0.535	10476.3	6025.3	6.490	2.737	3.13		Clay	100.0			23.43	0.76	n.a.	n.a.	0.63	0.645	n.a.	n.a.	n.a.	n.a.	0.00	0.00
83.500	23.960	0.546	10497.5	6035.9	6.200	2.919	3.16		Clay	100.0			22.65	0.76	n.a.	n.a.	0.62	0.645	n.a.	n.a.	n.a.	n.a.	0.00	0.00
83.660	23.210	0.603	10517.5	6045.9	5.938	3.360	3.21		Clay	100.0			21.94	0.76	n.a.	n.a.	0.62	0.644	n.a.	n.a.	n.a.	n.a.	0.00	0.00
83.830	23.710	0.741	10538.8	6056.6	6.089	4.017	3.25		Clay	100.0			22.41	0.76	n.a.	n.a.	0.62	0.644	n.a.	n.a.	n.a.	n.a.	0.00	0.00
83.990	26.280	0.857	10558.8	6066.6	6.923	4.078	3.20		Clay	100.0			24.84	0.76	n.a.	n.a.	0.62	0.643	n.a.	n.a.	n.a.	n.a.	0.00	0.00
84.150	30.530	0.729	10578.8	6076.6	8.307	2.889	3.05		Clay	100.0			28.86	0.76	n.a.	n.a.	0.62	0.643	n.a.	n.a.	n.a.	n.a.	0.00	0.00
84.320	31.760	0.655	10600.0	6087.2	8.694	2.474	3.00		Clay	100.0			30.02	0.76	n.a.	n.a.	0.62	0.642	n.a.	n.a.	n.a.	n.a.	0.00	0.00
84.480	26.150	0.602	10620.0	6097.2	6.836	2.888	3.13		Clay	100.0			24.72	0.76	n.a.	n.a.	0.62	0.642	n.a.	n.a.	n.a.	n.a.	0.00	0.00
84.650	23.630	0.508	10641.3	6107.9	5.995	2.776	3.16		Clay	100.0			22.33	0.76	n.a.	n.a.	0.62	0.642	n.a.	n.a.	n.a.	n.a.	0.00	0.00
84.810	23.090	0.540	10661.3	6117.9	5.806	3.041	3.20		Clay	100.0			21.82	0.76	n.a.	n.a.	0.62	0.641	n.a.	n.a.	n.a.	n.a.	0.00	0.00
84.970	22.750	0.565	10681.3	6127.9	5.682	3.244	3.22		Clay	100.0			21.50	0.76	n.a.	n.a.	0.62	0.641	n.a.	n.a.	n.a.	n.a.	0.00	0.00
85.140	24.820	0.606	10702.5	6138.6	6.343	3.112	3.17		Clay	100.0			23.46	0.76	n.a.	n.a.	0.62	0.640	n.a.	n.a.	n.a.	n.a.	0.00	0.00
85.300	25.060	0.565	10722.5	6148.6	6.408	2.868	3.15		Clay	100.0			23.69	0.75	n.a.	n.a.	0.62	0.640	n.a.	n.a.	n.a.	n.a.	0.00	0.00
85.470	25.740	0.568	10743.8	6159.2	6.614	2.787	3.13		Clay	100.0			24.33	0.75	n.a.	n.a.	0.62	0.639	n.a.	n.a.	n.a.	n.a.	0.00	0.00
85.630	24.820	0.547	10763.8	6169.2	6.302	2.813	3.15		Clay	100.0			23.46	0.75	n.a.	n.a.	0.62	0.639	n.a.	n.a.	n.a.	n.a.	0.00	0.00
85.790	25.360	0.532	10783.8	6179.3	6.463	2.666	3.13		Clay	100.0			23.97	0.75	n.a.	n.a.	0.62	0.639	n.a.	n.a.	n.a.	n.a.	0.00	0.00
85.960	25.170	0.524	10805.0	6189.9	6.387	2.652	3.13		Clay	100.0			23.79	0.75	n.a.	n.a.	0.62	0.638	n.a.	n.a.	n.a.	n.a.	0.00	0.00
86.120	24.760	0.532	10825.0	6199.9	6.241	2.747	3.15		Clay	100.0			23.40	0.75	n.a.	n.a.	0.62	0.638	n.a.	n.a.	n.a.	n.a.	0.00	0.00
86.290	24.810	0.571	10846.3	6210.6	6.243	2.946	3.16		Clay	100.0			23.45	0.75	n.a.	n.a.	0.62	0.637	n.a.	n.a.	n.a.	n.a.	0.00	0.00
86.450	24.630	0.568	10866.3	6220.6	6.172	2.957	3.17		Clay	100.0			23.28	0.75	n.a.	n.a.	0.62	0.637	n.a.	n.a.	n.a.	n.a.	0.00	0.00
86.610	25.420	0.547	10886.3	6230.6	6.413	2.740	3.14		Clay	100.0			24.03	0.75	n.a.	n.a.	0.61	0.636	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No. 9

PGA (A_{max}) 0.87

Total Settlement: 1.22 (Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	$CRR_{M=7.5, S'Vc = 1 atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
86.780	24.960	0.564	10907.5	6241.2	6.251	2.893	3.16		Clay	100.0			23.59	0.75	n.a.	n.a.	0.61	0.636	n.a.	n.a.	n.a.	n.a.	0.00	0.00
86.940	24.770	0.611	10927.5	6251.2	6.177	3.163	3.18		Clay	100.0			23.41	0.75	n.a.	n.a.	0.61	0.636	n.a.	n.a.	n.a.	n.a.	0.00	0.00
87.110	25.500	0.669	10948.8	6261.9	6.396	3.338	3.18		Clay	100.0			24.10	0.75	n.a.	n.a.	0.61	0.635	n.a.	n.a.	n.a.	n.a.	0.00	0.00
87.270	25.590	0.708	10968.8	6271.9	6.411	3.521	3.20		Clay	100.0			24.19	0.75	n.a.	n.a.	0.61	0.635	n.a.	n.a.	n.a.	n.a.	0.00	0.00
87.430	26.450	0.773	10988.8	6281.9	6.672	3.689	3.19		Clay	100.0			25.00	0.75	n.a.	n.a.	0.61	0.634	n.a.	n.a.	n.a.	n.a.	0.00	0.00
87.600	26.320	0.848	11010.0	6292.6	6.616	4.074	3.22		Clay	100.0			24.88	0.75	n.a.	n.a.	0.61	0.634	n.a.	n.a.	n.a.	n.a.	0.00	0.00
87.760	25.630	0.793	11030.0	6302.6	6.383	3.944	3.22		Clay	100.0			24.22	0.75	n.a.	n.a.	0.61	0.633	n.a.	n.a.	n.a.	n.a.	0.00	0.00
87.930	24.940	0.767	11051.3	6313.2	6.150	3.953	3.24		Clay	100.0			23.57	0.75	n.a.	n.a.	0.61	0.633	n.a.	n.a.	n.a.	n.a.	0.00	0.00
88.090	24.210	0.893	11071.3	6323.2	5.907	4.782	3.30		Clay	100.0			22.88	0.75	n.a.	n.a.	0.61	0.633	n.a.	n.a.	n.a.	n.a.	0.00	0.00
88.250	27.400	1.130	11091.3	6333.3	6.901	5.172	3.27		Clay	100.0			25.90	0.75	n.a.	n.a.	0.61	0.632	n.a.	n.a.	n.a.	n.a.	0.00	0.00
88.420	29.660	1.358	11112.5	6343.9	7.599	5.634	3.25		Clay	100.0			28.03	0.75	n.a.	n.a.	0.61	0.632	n.a.	n.a.	n.a.	n.a.	0.00	0.00
88.580	35.380	1.334	11132.5	6353.9	9.384	4.473	3.12		Clay	100.0			33.44	0.75	n.a.	n.a.	0.61	0.631	n.a.	n.a.	n.a.	n.a.	0.00	0.00
88.750	33.710	1.268	11153.8	6364.6	8.841	4.506	3.14		Clay	100.0			31.86	0.75	n.a.	n.a.	0.61	0.631	n.a.	n.a.	n.a.	n.a.	0.00	0.00
88.910	28.630	1.092	11173.8	6374.6	7.230	4.739	3.23		Clay	100.0			27.06	0.75	n.a.	n.a.	0.61	0.631	n.a.	n.a.	n.a.	n.a.	0.00	0.00
89.070	24.510	0.911	11193.8	6384.6	5.925	4.815	3.30		Clay	100.0			23.17	0.75	n.a.	n.a.	0.61	0.630	n.a.	n.a.	n.a.	n.a.	0.00	0.00
89.240	22.280	0.756	11215.0	6395.2	5.214	4.531	3.33		Clay	100.0			21.06	0.75	n.a.	n.a.	0.61	0.630	n.a.	n.a.	n.a.	n.a.	0.00	0.00
89.400	20.480	0.648	11235.0	6405.2	4.641	4.363	3.36		Clay	100.0			19.36	0.75	n.a.	n.a.	0.61	0.629	n.a.	n.a.	n.a.	n.a.	0.00	0.00
89.570	19.340	0.588	11256.3	6415.9	4.274	4.285	3.39		Clay	100.0			18.28	0.75	n.a.	n.a.	0.61	0.629	n.a.	n.a.	n.a.	n.a.	0.00	0.00
89.730	18.980	0.538	11276.3	6425.9	4.153	4.031	3.39		Clay	100.0			17.94	0.75	n.a.	n.a.	0.61	0.629	n.a.	n.a.	n.a.	n.a.	0.00	0.00
89.900	19.660	0.542	11297.5	6436.5	4.354	3.865	3.36		Clay	100.0			18.58	0.75	n.a.	n.a.	0.60	0.628	n.a.	n.a.	n.a.	n.a.	0.00	0.00
90.060	19.700	0.592	11317.5	6446.6	4.356	4.219	3.38		Clay	100.0			18.62	0.75	n.a.	n.a.	0.60	0.628	n.a.	n.a.	n.a.	n.a.	0.00	0.00
90.220	21.410	0.654	11337.5	6456.6	4.876	4.153	3.33		Clay	100.0			20.24	0.75	n.a.	n.a.	0.60	0.628	n.a.	n.a.	n.a.	n.a.	0.00	0.00
90.390	21.200	0.701	11358.8	6467.2	4.800	4.519	3.36		Clay	100.0			20.04	0.74	n.a.	n.a.	0.60	0.627	n.a.	n.a.	n.a.	n.a.	0.00	0.00
90.550	21.390	0.700	11378.8	6477.2	4.848	4.457	3.35		Clay	100.0			20.22	0.74	n.a.	n.a.	0.60	0.627	n.a.	n.a.	n.a.	n.a.	0.00	0.00
90.720	21.450	0.657	11400.0	6487.9	4.855	4.174	3.34		Clay	100.0			20.27	0.74	n.a.	n.a.	0.60	0.626	n.a.	n.a.	n.a.	n.a.	0.00	0.00
90.880	21.680	0.625	11420.0	6497.9	4.915	3.916	3.32		Clay	100.0			20.49	0.74	n.a.	n.a.	0.60	0.626	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.040	21.710	0.635	11440.0	6507.9	4.914	3.969	3.32		Clay	100.0			20.52	0.74	n.a.	n.a.	0.60	0.626	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.210	22.450	0.662	11461.3	6518.5	5.130	3.956	3.30		Clay	100.0			21.22	0.74	n.a.	n.a.	0.60	0.625	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.370	22.340	0.699	11481.3	6528.6	5.085	4.213	3.32		Clay	100.0			21.12	0.74	n.a.	n.a.	0.60	0.625	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.540	22.420	0.717	11502.5	6539.2	5.098	4.300	3.33		Clay	100.0			21.19	0.74	n.a.	n.a.	0.60	0.624	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.700	22.610	0.714	11522.5	6549.2	5.145	4.237	3.32		Clay	100.0			21.37	0.74	n.a.	n.a.	0.60	0.624	n.a.	n.a.	n.a.	n.a.	0.00	0.00
91.860	22.640	0.694	11542.5	6559.2	5.144	4.111	3.31		Clay	100.0			21.40	0.74	n.a.	n.a.	0.60	0.624	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.030	22.310	0.646	11563.8	6569.9	5.031	3.907	3.31		Clay	100.0			21.09	0.74	n.a.	n.a.	0.60	0.623	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.190	21.910	0.590	11583.8	6579.9	4.899	3.659	3.30		Clay	100.0			20.71	0.74	n.a.	n.a.	0.60	0.623	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.360	21.550	0.578	11605.0	6590.5	4.779	3.671	3.31		Clay	100.0			20.37	0.74	n.a.	n.a.	0.60	0.623	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.520	21.720	0.561	11625.0	6600.6	4.820	3.527	3.30		Clay	100.0			20.53	0.74	n.a.	n.a.	0.60	0.622	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.680	23.150	0.610	11645.0	6610.6	5.242	3.520	3.27		Clay	100.0			21.88	0.74	n.a.	n.a.	0.60	0.622	n.a.	n.a.	n.a.	n.a.	0.00	0.00
92.850	22.180	0.663	11666.3	6621.2	4.938	4.055	3.32		Clay	100.0			20.96	0.74	n.a.	n.a.	0.60	0.622	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.010	22.540	0.740	11686.3	6631.2	5.036	4.430	3.34		Clay	100.0			21.30	0.74	n.a.	n.a.	0.60	0.621	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.180	23.140	0.773	11707.5	6641.9	5.205	4.472	3.33		Clay	100.0			21.87	0.74	n.a.	n.a.	0.60	0.621	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.340	23.600	0.773	11727.5	6651.9	5.333	4.358	3.31		Clay	100.0			22.31	0.74	n.a.	n.a.	0.60	0.621	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.500	23.850	0.754	11747.5	6661.9	5.397	4.194	3.30		Clay	100.0			22.54	0.74	n.a.	n.a.	0.60	0.620	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.670	23.950	0.754	11768.8	6672.5	5.415	4.173	3.30		Clay	100.0			22.64	0.74	n.a.	n.a.	0.59	0.620	n.a.	n.a.	n.a.	n.a.	0.00	0.00
93.830	24.120	0.766	11788.8	6682.6	5.455	4.203	3.30		Clay	100.0			22.80	0.74	n.a.	n.a.	0.59	0.620	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.000	24.350	0.745	11810.0	6693.2	5.512	4.038	3.28		Clay	100.0			23.02	0.74	n.a.	n.a.	0.59	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.160	24.150	0.683	11830.0	6703.2	5.441	3.747	3.27		Clay	100.0			22.83	0.74	n.a.	n.a.	0.59	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.320	23.990	0.654	11850.0	6713.2	5.382	3.620	3.27		Clay	100.0			22.67	0.74	n.a.	n.a.	0.59	0.619	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.490	24.580	0.673	11871.3	6723.9	5.546	3.611	3.25		Clay	100.0			23.23	0.74	n.a.	n.a.	0.59	0.618	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.650	25.240	0.735	11891.3	6733.9	5.731	3.809	3.26		Clay	100.0			23.86	0.74	n.a.	n.a.	0.59	0.618	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.820	25.450	0.737	11912.5	6744.5	5.781	3.779	3.25		Clay	100.0			24.05	0.74	n.a.	n.a.	0.59	0.618	n.a.	n.a.	n.a.	n.a.	0.00	0.00
94.980	26.320	0.792	11932.5	6754.5	6.027	3.892	3.24		Clay	100.0			24.88	0.74	n.a.	n.a.	0.59	0.617	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.140	26.910	0.866	11952.5	6764.6	6.189	4.136	3.25		Clay	100.0			25.43	0.74	n.a.	n.a.	0.59	0.617	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.310	27.370	0.945	11973.8	6775.2	6.312	4.417	3.26		Clay	100.0			25.87	0.74	n.a.	n.a.	0.59	0.617	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.470	28.550	0.928	11993.8	6785.2	6.648	4.116	3.22		Clay	100.0			26.98	0.74	n.a.	n.a.	0.59	0.616	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.640	28.620	0.927	12015.0	6795.9	6.655	4.100	3.22		Clay	100.0			27.05	0.74	n.a.	n.a.	0.59	0.616	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.800	28.360	0.906	12035.0	6805.9	6.566	4.054	3.22		Clay	100.0			26.81	0.73	n.a.	n.a.	0.59	0.616	n.a.	n.a.	n.a.	n.a.	0.00	0.00
95.960	29.000	0.936	12055.0	6815.9	6.741	4.074	3.21		Clay	100.0			27.41	0.73	n.a.	n.a.	0.59	0.615	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.130	29.700	0.870	12076.3	6826.5	6.932	3.676	3.18		Clay	100.0			28.07	0.73	n.a.	n.a.	0.59	0.615	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.290	28.730	0.860	12096.3	6836.6	6.635	3.793	3.20		Clay	100.0			27.16	0.73	n.a.	n.a.	0.59	0.615	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.460	27.740	0.880	12117.5	6847.2	6.333	4.057	3.23		Clay	100.0			26.22	0.73	n.a.	n.a.	0.59	0.614	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.620	28.990	0.981	12137.5	6857.2	6.685	4.278	3.23		Clay	100.0			27.40	0.73	n.a.	n.a.	0.59	0.614	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.780	29.680	1.109	12157.5	6867.2	6.874	4.697	3.24		Clay	100.0			28.05	0.73	n.a.	n.a.	0.59	0.614	n.a.	n.a.	n.a.	n.a.	0.00	0.00
96.950	29.950	1.107	12178.8	6877.9	6.938	4.638	3.24		Clay	100.0			28.31	0.73	n.a.	n.a.	0.59	0.613	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.110	29.930	1.164	12198.8	6887.9	6.920	4.882	3.25		Clay	100.0			28.29	0.73	n.a.	n.a.	0.59	0.613	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.280	29.400	1.119	12220.0	6898.5	6.752	4.804	3.25		Clay	100.0			27.79	0.73	n.a.	n.a.	0.59	0.613	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.440	29.200	1.032	12240.0	6908.5	6.682	4.473	3.24		Clay	100.0			27.60	0.73	n.a.	n.a.	0.59	0.613	n.a.	n.a.	n.a.	n.a.	0.00	0.00

CORNERSTONE EARTH GROUP

CPT No.	9

PGA (A_{max})	0.87

Total Settlement:	1.22	(Inches)

Depth (ft)	q_c (tsf)	f_s (tsf)	S_{vc} (psf)	Insitu S'_{vc} (psf)	Q	F (%)	I_c	Layer "Plastic" PI > 7	Flag Soil Type	Fines (%)	q_{cN} near interfaces (soft layer)	Thin Layer Factor (K_H)	Interpreted q_{cN}	C_N	q_{c1N}	q_{c1N-CS}	Stress Reduction Coeff, r_d	CSR	K_s for Sand	CRR$_{M=7.5,\ s'Vc\ =\ 1\ atm}$	CRR	Factor of Safety (CRR/CSR)	Vertical Strain ε_v	Settlement (Inches)
97.600	28.610	0.953	12260.0	6918.6	6.498	4.240	3.24		Clay	100.0			27.04	0.73	n.a.	n.a.	0.59	0.612	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.770	28.420	0.974	12281.3	6929.2	6.431	4.374	3.25		Clay	100.0			26.86	0.73	n.a.	n.a.	0.59	0.612	n.a.	n.a.	n.a.	n.a.	0.00	0.00
97.930	28.750	1.012	12301.3	6939.2	6.514	4.477	3.25		Clay	100.0			27.17	0.73	n.a.	n.a.	0.58	0.612	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.100	28.420	1.015	12322.5	6949.9	6.406	4.561	3.26		Clay	100.0			26.86	0.73	n.a.	n.a.	0.58	0.611	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.260	28.150	0.899	12342.5	6959.9	6.316	4.090	3.24		Clay	100.0			26.61	0.73	n.a.	n.a.	0.58	0.611	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.430	27.600	0.884	12363.8	6970.5	6.145	4.125	3.25		Clay	100.0			26.09	0.73	n.a.	n.a.	0.58	0.611	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.590	27.420	0.873	12383.8	6980.5	6.082	4.114	3.25		Clay	100.0			25.92	0.73	n.a.	n.a.	0.58	0.611	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.750	27.250	0.854	12403.8	6990.6	6.022	4.057	3.25		Clay	100.0			25.76	0.73	n.a.	n.a.	0.58	0.610	n.a.	n.a.	n.a.	n.a.	0.00	0.00
98.920	27.250	0.837	12425.0	7001.2	6.010	3.977	3.25		Clay	100.0			25.76	0.73	n.a.	n.a.	0.58	0.610	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.080	27.550	0.767	12445.0	7011.2	6.084	3.595	3.22		Clay	100.0			26.04	0.73	n.a.	n.a.	0.58	0.610	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.250	27.080	0.723	12466.3	7021.9	5.938	3.466	3.22		Clay	100.0			25.60	0.73	n.a.	n.a.	0.58	0.609	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.410	27.360	0.690	12486.3	7031.9	6.006	3.268	3.20		Clay	100.0			25.86	0.73	n.a.	n.a.	0.58	0.609	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.570	27.040	0.667	12506.3	7041.9	5.904	3.208	3.20		Clay	100.0			25.56	0.73	n.a.	n.a.	0.58	0.609	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.740	26.480	0.636	12527.5	7052.5	5.733	3.144	3.21		Clay	100.0			25.03	0.73	n.a.	n.a.	0.58	0.609	n.a.	n.a.	n.a.	n.a.	0.00	0.00
99.900	27.130	0.662	12547.5	7062.5	5.906	3.172	3.20		Clay	100.0			25.64	0.73	n.a.	n.a.	0.58	0.608	n.a.	n.a.	n.a.	n.a.	0.00	0.00
100.070	27.320	0.637	12568.8	7073.2	5.948	3.026	3.19		Clay	100.0			25.82	0.73	n.a.	n.a.	0.58	0.608	n.a.	n.a.	n.a.	n.a.	0.00	0.00
100.230	27.260	0.624	12588.8	7083.2	5.920	2.978	3.19		Clay	100.0			25.77	0.73	n.a.	n.a.	0.58	0.608	n.a.	n.a.	n.a.	n.a.	0.00	0.00