APPENDIX F

Geotechnical Investigation Report

LGC Valley, Inc.

Geotechnical Consulting

GEOTECHNICAL INVESTIGATION REPORT
PROPOSED RESIDENTIAL DEVELOPMENT
BELCARO AT SAND CANYON
VESTING TENTATIVE TRACT MAP 084497
CITY OF SANTA CLARITA, CALIFORNIA

Dated: October 18, 2024

Project No. 233012-01

Prepared For:

NUWI – Sand Canyon LLC
2001 Wilshire Blvd., Suite 401
Santa Monica, CA 90403

28532 Constellation Road • Valencia • CA 91355 • (661) 702-8474 • Fax (661) 702-8475

LGC Valley, Inc.

Geotechnical Consulting

October 18, 2024 Project No. 233012-01

Mr. Benny Sam
NUWI – Sand Canyon LLC
2001 Wilshire Blvd., Suite 401
Santa Monica, CA 90403

Subject: ***Geotechnical Investigation Report, Proposed Residential Development, Belcaro at Sand Canyon, Vesting Tentative Tract Map 084497, City of Santa Clarita, California***

In accordance with your request, LGC Valley, Inc. (LGC) has performed a geologic and geotechnical engineering investigation at the subject site. The purpose of the investigation was to review geologic and geotechnical engineering data and provide preliminary recommendations with respect to the proposed vesting tentative tract map for a residential development.

Prior work performed at the subject site by Leighton and Associates, Inc. (Leighton, 2006) and RT Frankian and Associates (RTF&A, 2017) who reviewed Leighton's work have been reviewed in addition to our field review, our supplemental investigation, and review of the readily available data in our project files and online sources. Pertinent field data derived from the referenced sources are shown on the attached Geotechnical Map, Plates 1A through 1D and the Geologic Cross Sections, Plate 2A and 2B, where applicable. Logs of excavations and laboratory testing results from this and previous investigations are included herein.

If you have any questions regarding our report, please contact this office. We appreciate this opportunity to be of service.

Respectfully submitted,

LGC VALLEY, INC.

Susan M. Berger, CEG 2069
Senior Project Geologist

PROFESSIONAL GEOLOGIST
SUSAN M. BERGER
NO. 2069
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

Basil Hattar, GE 2734
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
BASIL HATTAR
No. 2734
Exp. 6/30/26
GEOTECHNICAL
STATE OF CALIFORNIA

SMB/BIH

Distribution: (1) Addressee

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1.0 INTRODUCTION

1.1 Purpose and Scope of Services

The main purpose of this report is to provide preliminary geotechnical recommendations based on a review of the current conceptual site development plan and the current and previous field investigations.

Our scope of services for preparation of this document included:

- Review of geotechnical reports, geologic maps and other documents relevant to the site (Appendix A, References).
- Perform a site visit to evaluate the existing condition and notify underground service alert so that existing utilities could be located.
- Perform site reconnaissance mapping to observe and confirm geologic contacts, where possible.
- Perform a subsurface investigation including the excavation and logging of seven (7) hollow-stem auger borings, four (4) hand auger borings, and seven (7) CPT soundings. Logs of the excavations are presented in Appendix B, and their approximate locations are depicted on the Geotechnical Map, Plate 1. The excavations were logged under the supervision of an engineer/geologist from our firm.
- Review previous site investigations by Leighton that included fourteen (14) exploratory borings, thirteen (13) hollow-stem auger borings, and two (2) mud rotary wash borings.
- Perform geologic and engineering review of the collected data.
- Perform engineering analysis including slope stability, liquefaction and settlement analysis.
- Prepare this report presenting our geologic and geotechnical findings, conclusions, opinions and recommendations with respect to the proposed development.

1.2 Engineer-of-Record

LGC has reviewed the information presented in the geotechnical reports prepared by RT Frankian & Associates (RTFA, 2017) and Leighton and Associates, Inc. (Leighton, 2006) with respect to the subject site and accepts responsibility as geotechnical engineer-of-record, and concurs with the prior information, conclusions, and recommendations, except as modified herein.

1.3 Site Description

The subject site is irregularly shaped, occupying roughly 193-acres at the mouth of Oak Springs Canyon, located adjacent and south of the Santa Clara River. The site is east and north of Oak Springs Canyon Road and west of undeveloped property in the city of Santa Clarita, California (see Site Location Map, Figure 1). The site includes APN's: 2840-001-118, 2840-015-025, 2840-015-031, 2840-015-032, 2840-015-033, 2840-015-034, 2840-015-035, 2840-015-045 and 2840-015-047.

The topography of the site is gently sloping terrain toward the north with approximately 70 feet of elevation difference between the existing Oak Springs Canyon Road to the south and the north side of the active railroad line which roughly defines the northern boundary of the site. Local, steeper hilly terrain, some of it isolated low ridgelines, exists mainly along the perimeters of the site. Steeper hilly areas range in height from 30 to 100 feet above the valley floor.

The site is vacant except for the existing Los Angeles County Metropolitan Transit Authority (MTA) railroad right of way that crosses the northern portion of the property. An abandoned railroad line crosses the central portion of the site in an east-west direction. The artificial fill berm constructed to lift the line above the canyon bottom (approximately 5 to 10 feet above the surrounding terrain) remains as a remnant of the old railroad location. An existing high pressure gas line crosses the property diagonally from the northeast corner toward the southwest-central portion of the site with a 100-foot-wide easement limiting development in this area. Vegetation consists of sparse to very dense native brush, tall grasses, and several large trees (including Oak trees). Numerous end dump piles, some with oversized hard rocks and trash are located in irregular areas throughout the site.

1.4 Proposed Project

According to the Vesting Tentative Tract Map prepared by Alliance Land Planning & Engineering, Inc. (Alliance), dated September 27, 2024, the proposed development will consist of 400 total lots consisting of: Lots 1-341 single-family detached residential dwelling units, Lot 342 recreation center (3.1 acres), Lots 343-363 private streets, Lots 364-400 open space. Included in the open space areas are two drainage basins, two debris basins, one water quality basin, a drainage swale, bridges/undercrossing, and box culverts. Site development will extend Lost Canyon Road through the hillside north of the existing active railroad line. Where future Lost Canyon Road turns to the south, it will cross under the active railroad tracks, where a future rail undercrossing/bridge will be constructed. Proposed "J" Street will be developed to connect Robinson Ranch Road (to the south of the site, adjacent to the golf course) to Old Springs Canyon Road. Four proposed roads ("A", "B", "D" and "F") will cross the 100-foot-wide utility easement in addition to an access road that feeds the proposed debris basins along the eastern property boundary.

Grading of the site will entail design fills of up to 20 feet in thickness and design cuts of up to 70 feet in depth. The design cut and fill within the main residential lot areas of the site will entail design cuts and fills on the order of less than ten feet to achieve finished grades. Cut slopes are planned to heights of 72 feet. Fill slopes are planned to heights of approximately 35 feet. The design cut and fill slope gradients are indicated at 2:1 (horizontal to vertical; h:v).

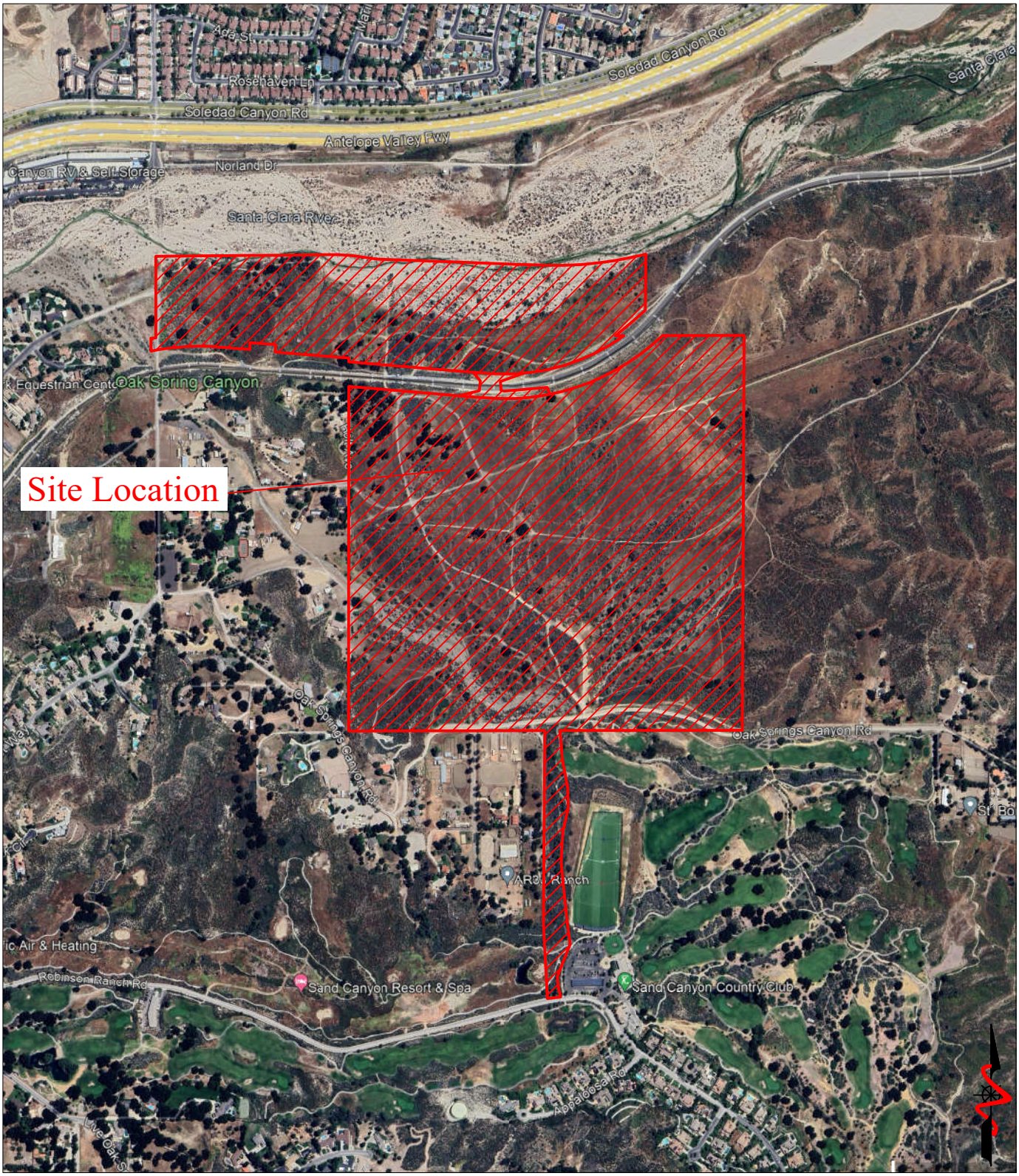
1.5 Site History

Based on the information in our possession, the site was originally geotechnically investigated by Leighton in 2006 for Tentative Tract Map 063022. The field investigation consisted of two mud rotary borings (LRW-1 and LRW-2), thirteen bucket-auger borings (B-1 through B-13), fourteen hollow-stem auger borings (BB-1 through BB-14), two trenches, ten test pits and three geologic traverses.

Logs for the trenches and test pits were not found; however, bedding attitudes likely derived from that work are located on the Leighton geologic map; this data has been incorporated into our Geotechnical Map, Plate 1.

The exploratory bucket auger borings were extended to depths ranging between five and 45 feet below existing grades. The hollow stem auger borings were extended to depths ranging between 30 and 51 feet below existing site grades. The mud rotary wash borings were extended to depths ranging between 51.5 and 61.5 feet below the existing site grades. The approximate location of the borings is shown on the Geotechnical Map, Plate 1.

RTFA provided a 100-scale grading plan review for Tentative Tract Map 063022 in 2017. No further field investigation was performed; however, additional mapping appears to have been done. Shear values for slope stability analyses performed by them were garnered from adjacent projects and appear reasonable.



Google Earth Image

LGC

Figure 1:
Site Location Map
VTTM 84497, Belcaro
City of Santa Clarita, California

Project Name	NUWI
Project No.	233012-01
Eng. / Geol.	BIH/SMB
Scale	not to scale
Date	October 2024

1.6 Subsurface Investigation and Laboratory Testing

Our recent subsurface investigation was performed between February 28, 2024, to March 5, 2024, and consisted of seven hollow-stem auger borings labeled as B-LGC-1/1A through B-LGC-7/7A, seven CPT soundings labeled CPT-1 to CPT-7, and four hand auger borings labeled HA-1 to HA-4. The geotechnical borings were extended to depths ranging from approximately 19 to 51.5 feet below the existing site grades, the CPT soundings were extended to the depths of approximately 50 feet below the existing site grades, and the hand augers were extended to depths ranging from seven to 16 feet below existing site grades. The approximate locations of the excavations are shown on the Geotechnical Map (Plate 1).

As indicated, previous subsurface investigations were also performed by Leighton (2006) and consisted of two mud rotary borings (LRW-1 and LRW-2), thirteen bucket-auger borings (B-1 through B-13), fourteen hollow-stem auger borings (BB-1 through BB-14), two trenches, ten test pits and three geologic traverses. The exploratory bucket auger borings were extended to depths ranging between five and 45 feet below existing grades. The hollow stem auger borings were extended to depths ranging between 30 and 51 feet below existing site grades. The mud rotary wash borings were extended to depths ranging between 51.5 and 61.5 feet below the existing site grades. The approximate locations of the excavations are shown on the Geotechnical Map (Plate 1). Logs of the borings are included in Appendix B of this report. Logs for the trenches and test pits were not located; however, bedding attitudes were placed on the geologic map which appear to have been derived from that work. This data has been incorporated into our Geotechnical Map, Plate 1.

During the current subsurface investigation, representative bulk and relatively undisturbed samples were collected for laboratory testing. Laboratory testing was performed by EGLAB, Inc. (EGL). Laboratory testing was performed on representative soil samples and included moisture and density tests, maximum density and optimum moisture content, expansion index, consolidation, direct shear, remolded shear, corrosivity, sieve analysis, and R-Value. A summary of the test procedures and printouts of the laboratory test results are presented in Appendix C. The moisture and density test results are presented on the boring logs included in Appendix B.

The previous subsurface investigation by Leighton consisted of collecting undisturbed samples and performing testing on the representative soil samples including moisture density tests, and sieve analysis. Printouts of the laboratory test results are presented in Appendix C.

2.0 GEOLOGIC CONDITIONS

2.1 Regional Geology

The site is located within the Mint Canyon (7½-minute) quadrangle in the City of Santa Clarita, California. The site is situated within the east-west trending Transverse Ranges Geomorphic Province of California that exhibits the east-west trend of mountains ranges and intervening valleys, reflecting a parallel series of anticlines, synclines, and normal and thrust faults which characterize this province. Bedrock within this province show significant deformation, such as folding and faulting. This structure and geomorphology are generally considered to be the result of south-directed compression caused by right lateral, strike-slip movement on the "Big Bend" segment of the San Andreas Fault (CGS, 1997; Revised 2001)

The site sits at the mouth of Oak Springs Canyon which drains a relatively large area of the western end of the San Gabrial Mountains. The geologic units anticipated at the site, from youngest to oldest, include artificial fill, flood plain deposits, recent alluvium, terrace deposits (elevated flood plain deposits), and bedrock assigned to the Mint Canyon Formation. Erosion from the nearby mountains results in the alluvium, flood plain and terrace deposits to be composed of particles derived from igneous rocks; much of the site is coarse-grained (sand, gravel and local boulder) and locally has the appearance of decomposed granite (grus). Weathering of many of the grains (feldspars) result in fine-grained silt and clay within the coarser-grained particles.

2.2 Site-Specific Geology

Based on regional geologic maps and the subsurface exploration, the subject site is underlain by artificial fill, flood plain deposits, recent alluvium, terrace deposits and bedrock assigned to the Mint Canyon Formation bedrock. A brief description of each geologic unit follows:

- **Artificial Fill (af)** – The artificial fill is associated with the existing active MTA railroad and underlying the old railroad line that was abandoned. This fill within the site associated with the abandoned railroad line is anticipated to be less than ten feet in thickness and is considered to be uncertified and must be entirely removed.
- **Flood Plain Deposits (Qfp)** – The flood plain deposits are confined to the active stream channel which is outside the limits of grading. Flood plain deposits are anticipated to be unconsolidated sands and gravels.
- **Recent Alluvium (Qal)** – Recent alluvium covers most of the site and consists of admixtures of brown sands, silts and gravels with clays being fairly minor. The alluvium was encountered to the maximum explored depths of 51.5 feet for the majority of the residential development area. The alluvium was generally found to be medium dense to dense below five to ten feet below the existing grade.
- **Terrace Deposits (Qt)** – Terrace deposits are typically elevated, nearly flat-lying older alluvial terraces. At the site terrace deposits cap the lower hilly areas. Most of the terrace deposits will be removed in the mass excavation of the site; however, some deposits will remain near the tops of cut slopes.
- **Mint Canyon Formation (Tmc)** – Mint Canyon Formation bedrock underlies the site at depth and is exposed in the hills near and within the site. The Mint Canyon Formation consists of light green silty to pebbly/cobbly sandstones interbedded with conglomerate and siltstone beds. The sandstones are generally massive, cemented, well indurated and damp, with few widely spaced joints that are tight with no separation.

2.3 Geologic Structure

The geologic structure of the site is defined mainly within the Mint Canyon formation. Within this formation bedding strikes north-northeast that dips to the west generally from 15-40 degrees. The bedrock is internally massive and cemented, with bedding planes that are commonly poorly defined and gradational, though distinct transitions between grain sizes were observed. Local pre-Holocene faults (non-active faults) were observed in local cuts where the faults do not penetrate through capping terrace deposits. Local small-scale folding (likely drag folding) was also observed near these faults.

2.4 Groundwater

Groundwater was encountered onsite at depths ranging from 25 to 38 feet below the existing grades. Groundwater is anticipated to fluctuate seasonally, likely by several tens of feet, which will be directly related to the recent and intensity of local storms. Historic high groundwater is greater than 25 feet (CGS, 1998) below the existing grades south of the active railroad tracks and approximately 10 feet below existing grades to the north of the active railroad tracks.

The groundwater encountered within the site area was confined in the alluvial areas across the site, no groundwater was observed within excavations performed within the site bedrock. Groundwater is not anticipated to be encountered in the bedrock cuts for the proposed railroad undercrossing.

2.5 Surface Water

Based on our review of local maps and site reconnaissance, surface water was observed in the Oak Springs stream channel in the southwestern corner of the site at Oak Springs Canyon Road. The water is seasonal and intermittent but overland flow should be expected during the rainy season. Due to the relatively flat nature of the site, overland flow could occur anywhere on site during periods of heavy rainfall.

2.6 Seismicity, Faulting and Related Effects

2.6.1 Seismicity

The main seismic parameters to be considered when discussing the potential for earthquake-induced damage onsite are the distances to the causative faults, earthquake magnitudes, and expected ground accelerations. We have performed site-specific analysis based on these seismic parameters for the site and the onsite geologic conditions. The results of our analysis are discussed in terms of the potential seismic events that could be produced by the maximum probable earthquakes. A maximum probable earthquake is the maximum earthquake likely to occur given the known tectonic framework. The San Gabriel Fault is located approximately 3.5 miles southwest of the site.

2.6.2 Seismic Design Criteria

The site seismic characteristics for the project were reevaluated per the guidelines set forth in Chapter 16, Section 1613 of the 2022 CBC. Representative site coordinates for the project site of Latitude 34.4206º and Longitude -118.4061º were utilized in our analyses. The maximum considered earthquake (MCE) spectral response accelerations (SMS and SM1) and adjusted design spectral response acceleration parameters (SDS and SD1) for Site Class D are provided in the following table.

Table 1 - Seismic Design Parameters	
Selected Parameters from 2022 CBC, Section 1613 - Earthquake Loads	**Seismic Design Values**
Site Class (per Chapter 20 of ASCE 7)	D
Risk-Targeted Spectral Acceleration for Short Periods (S_S)	2.106g
Risk-Targeted Spectral Accelerations for 1-Second Periods (S_1)	0.771g
Site Coefficient F_a [per CBC Table 1613.2.3(1)]	1.0
Site Coefficient F_v [per CBC Table 1613.2.3(2)]	1.7
Site Modified Spectral Acceleration for Short Periods (S_{MS}) [Note: $S_{MS} = F_aS_S$]	2.106g
Site Modified Spectral Acceleration for 1-Second Periods (S_{M1}) [Note: $S_{M1} = F_vS_1$]	1.311g
Design Spectral Acceleration for Short Periods (S_{DS}) [Note: $S_{DS} = (^2/_3)S_{MS}$]	1.404g
Design Spectral Acceleration for 1-Second Periods (S_{D1}) [Note: $S_{D1} = (^2/_3)S_{M1}$]	0.874g
Seismic Design Category (per CBC Section 1613.2.5)	E

Section 1803.5.12 of the 2022 CBC (per Section 11.8.3 of ASCE 7) states that the maximum considered earthquake ground motions, Peak Ground Acceleration (PGA) should be used for the geotechnical evaluations. The PGAm for the site is equal to 0.98g (USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2).

A deaggregation of the PGA based on a 2,475-year average return period indicates that an earthquake magnitude of 7.71 at a distance of approximately 8.2 km (5.1 mi) from the site would contribute the most to this ground motion (USGS, 2014).

2.6.3 Faulting

The subject site is not located within an Alquist-Priolo Earthquake Fault Zone (Hart and Bryant, 1997) and no active faults were observed by us during our site reconnaissance; therefore, there are no known active or potentially active faults onsite.

The possibility of damage due to ground rupture from earthquake fault rupture is considered nil since active faults are not known to cross the site. However, the site is in proximity of several active faults (Soledad, San Gabriel, and San Fernando) which are capable of producing significant ground shaking.

Faults were mapped by Saul (1983) in the north central portion of the site near the MTA crossing that were found to be confined within the Mint Canyon Formation (i.e. Miocene aged bedrock). Due to the age of the bedrock, these faults are considered inactive.

Secondary effects of seismic shaking resulting from large earthquakes on the major faults in the southern California region include shallow ground rupture, soil liquefaction, and seismically induced settlements, seiches and tsunamis.

In general, these secondary effects of seismic shaking are a possibility throughout the Southern California region and are dependent on the distance between the site and causative fault and the onsite geology. The major active fault that could produce these secondary effects is the San Gabriel Fault located approximately 3.5 miles southwest of the site. Other active faults that may result in shaking to the site include the San Andreas and San Fernando faults, among others. A discussion of these secondary seismic effects are provided in the following sections.

2.6.4 Shallow Ground Rupture

Shallow ground rupture due to active faulting is not likely to occur on site due to the distance from likely seismic events. Therefore, this phenomenon is not considered a significant hazard, although it is a possibility at any site.

2.6.5 Liquefaction and Dry Sand Settlement

Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subject to high-intensity ground shaking. Liquefaction occurs when three general conditions exist: 1) shallow groundwater; 2) low density non-cohesive (granular) soils; and 3) high-intensity ground motion. Liquefaction is typified by a buildup of pore-water pressure in the affected soil layer to a point where a total loss of shear strength occurs, causing the soil to behave as a liquid. Studies indicate that saturated, loose to medium dense, near surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential.

The subject site is located in a State of California Seismic Hazard Zone for liquefaction (CGS, 1999). Based on the depth to the historic high groundwater in the area of the proposed development; it is our opinion that the potential for liquefaction impacting the majority of the site is moderate to high.

Historic high groundwater in the vicinity of the site is greater than 25 feet below the existing ground surface south of the active railroad tracks and approximately 10 below grade to the north of the active railroad tracks. Additionally, groundwater was observed during the recent geotechnical site subsurface excavations at depths of 25 and 38 feet. Surface water was observed in the adjacent Oak Springs stream. A conservative historic high groundwater depth of 25 feet was utilized in the liquefaction analysis for the residential portion of the site.

Our evaluation utilized the information collected from the excavations and laboratory test results, along with utilizing the more recent studies as indicated in SP 117A by Bray and Sancio, 2006 as a screening tool to determine if the encountered fine-grained soils (silts and clays) are susceptible to liquefaction and analyzed as such. Our evaluation included performing grain size distribution, Atterberg limit, and moisture content testing on representative fine-grained layers (i.e. sandy clayey silts, silty clay, sandy clay layers and layers on the margin of Clayey Sand/Sandy Clay) encountered within the geotechnical borings excavated on-site. The laboratory test results indicated that the representative

encountered fine/finer grained soils were considered as being susceptible to liquefaction.

The liquefaction analysis was performed using the LiquefyPro program with a user provided factor of safety of 1.3. The liquefaction analysis was performed considering a 10 to 20-foot remedial removal and recompaction and with a conservative highest historic groundwater elevation at a depth of 25 feet below the ground surface. Liquefaction analysis was performed on the current LGC borings and CPTs excavated in February and March of 2024 and for the previous Leighton borings within the residential area of the site.

Cone Penetration Testing was performed to determine the soil type from tip resistance and the skin friction as the probe penetrates differing soil layers. The tip resistance and the skin friction characteristics of site soils are used to evaluate liquefaction potential below the historic high groundwater level. Borings were also excavated adjacent to CPT soundings in order to collect soil samples and further characterize those layers that may be susceptible to liquefaction.

The liquefaction analysis was performed using the following input data:

- Remedial removals of 10 to 20 feet were considered in the LiquefyPro analysis.
- A conservative historic groundwater at a depth of 25 feet below the ground surface was used during the seismic event.
- A Peak Horizontal Ground Acceleration (PGA_M) of 0.98g for a Design Earthquake Magnitude of 7.71.
- Fines content as determined from laboratory testing during this investigation.
- The hammer used for determining blow-counts for both the ring and SPT sampling was an auto-trip hammer with a 140 lb weight and a 30-inch drop. Therefore, based on the type of hammer used, an energy correction factor (CE) of 1.3 is considered acceptable for use in the analysis.

Based on our site evaluation, liquefaction analysis, and our professional opinion, the potential for specific layers to liquefy within the upper 50 feet of site soils is moderate to high. The graphical output of our liquefaction analysis which also shows the graphical output of seismically induced saturated and dry sand settlement is included in Appendix D. The factor of safety value used is shown on the bottom left of the graphical output plot and on Number 9 of the input data on the summary output sheet, page 1.

During a strong seismic event, seismically induced settlement can occur within loose to moderately dense, dry or saturated granular soil. Settlement caused by ground shaking is often non-uniformly distributed, which can result in differential settlement. Based on the encountered sandy soils on site that were found to be medium dense to dense in the upper 50 feet, there is a potential for dry sand settlement to occur in the dry, loose to moderately dense granular soils.

2.6.6 Seismically Induced Settlement

During a strong seismic event, seismically induced settlement can occur within loose to moderately dense, dry or saturated granular soil. Settlement caused by ground shaking is often non-uniformly distributed, which can result in differential settlement.

Based on the results of the liquefaction and dry sand settlement analysis, we estimate the amount of total seismically-induced settlement possible for the design site conditions is up to approximately four inches. We estimated the induced settlements based on the procedures proposed by Tokimatsu and Seed (1987). We estimated the liquefaction induced settlements based on the procedures proposed by Robertson and Wride Modified Method (1998) for CPTs.

The calculations estimated the total seismically-induced settlement. Differential settlements due to lateral heterogeneities in the soil profile would likely be only a fraction of the total, we conclude that the differential settlements would be buffered by the remedial recommendations provided herein. Based on the publication, *Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction in California,* from case studies and field measurements after seismic event including the 1994 Northridge Earthquake, it can be concluded that the differential settlement at level ground sites with natural soils are expected to be small even if total settlements are large. However, for design purposes differential settlement should be assumed to be approximately one-half of the total settlement. Based on the above, the estimated differential settlement that should be considered in site development is approximately 2 inches over a distance of 30 feet. The graphical output of our analysis and methodology are included in Appendix D of this report and the estimated settlements are provided in Table 2.

	Table 2 - Summary of Estimated Seismically Induced Settlements		
Boring/CPT Location	Remedial Removal Depths (ft)	Total Estimated Seismically Induced Settlement (in)	Differential Settlement (in)
CPT-1	10	3.22	1.61
CPT-2	15	3.18	1.59
CPT-3	20	3.97	1.99
CPT-4	20	3.71	1.85
CPT-5	20	3.96	1.98
CPT-6	10	2.17	1.09
CPT-7	10	2.37	1.19
B-LGC-1	10	3.70	1.85
B-LGC-2	10	3.98	1.99
B-LGC-3	20	3.93	1.97
B-LGC-4	15	2.90	1.45
B-LGC-5	18	3.55	1.78
B-LGC-6	18	3.96	1.98
B-LGC-7	20	3.96	1.98
LRW-1	17	3.84	1.92
LRW-2	13	3.65	1.83
BB-10	15	3.83	1.92
BB-11	20	3.96	1.98
BB-12	20	3.88	1.94

The above estimated liquefaction and dry sand settlements consider between 10 to 20 feet of removal and recompaction of the onsite alluvial soils. (Anticipated Removal Depths locations are shown on the Geotechnical Map (Plate 1).

2.6.7 Loss of Bearing Strength

Liquefaction on near surface soils can cause soils to lose strength and experience deformation. With the loss of bearing capacity, structures supported on such soils may literally settle and tip. For this project, we have recommended that the near surface soil be removed and replaced with an engineered fill. Therefore, the planned grading (remedial removals and mitigations) will make liquefaction-induced loss of bearing capacity near the surface unlikely.

2.6.8 Lateral Spread

Lateral spread involves the lateral displacement of large surface blocks of soil due to liquefaction of subsurface layers. Lateral spread generally develops on gentle slopes (commonly less than three degrees) that move toward a free face such as a stream or channel.

Based on our current recommended removal and re-compaction depth for the proposed structures of 10 to 20-feet below existing grades, and that the site is not located adjacent to free faces, such as slopes, it is our opinion that the potential for lateral spreading hazard is nil to low and not a concern for the site.

2.6.9 Seiches and Tsunamis

A seiche is a standing wave in an enclosed or partially enclosed body of water propagated by earthquake waves. Tsunamis are large ocean waves or series of waves generated by displacement of a large volume of water. The site is not in close proximity to a body of water or near the ocean; therefore, the hazard associated with seiche and tsunami is not considered an issue for the site.

2.7 Slope Stability

The proposed site design consists of design cut and fill slopes planned at gradients of 2:1 (horizontal to vertical; h:v) and flatter. Cut slopes are planned to heights of approximately 72 feet. Fill slopes are planned to heights of approximately 35 feet. Slope stability analyses have been performed on representative design and native slopes at the site.

Direct shear testing and site evaluations were previously performed for the site by Leighton and RTF&A and considered previous onsite testing (Leighton, 2006) and evaluation of testing on nearby sites (RTF&A, 2017).

We conclude that reasonable shear strength values were determined for the onsite soils during the previous site investigations and evaluations. Based on our review of the previous data, the latest shear strength values considered by RTF&A (2017) are considered reasonable and acceptable for the site Mint Canyon Formation bedrock for along bedding and cross bedding conditions. Based on a few additional direct shear strength testing performed during this evaluation for alluvium and compacted fill, the alluvium strength previously provided is considered conservative and acceptable. However, the

confirmatory remolded direct shear tests of the onsite soils for compacted fills was found to be lower than previous values and thus, a more conservative value of Cohesion of 200 psf, and a friction angle of 30 degrees was considered in the slope stability analysis. Also, conservative shear strength values were utilized in the analysis for Terrace Deposits and for a fault feature shown on Cross Section G-G'.

After a review of the latest vesting tentative tract map and based on our review of prior field investigations by Leighton and site evaluations by RTF&A, eight cross-sections (A-A' through E-E', G-G', J-J' and K-K') were considered representative and the most critical regarding slope stability analysis of the cut, fill, and natural slopes. Geologic cross-sections were developed based on the existing site subsurface data and evaluations for site from site excavations and mapping of site exposures. The geologic structure of the site is that of generally westerly dipping bedding that varies from 8-40 degrees. The bedrock is generally massive and cemented, with bedding planes that are poorly defined and commonly gradational.

Generally, slope stability analyses were conducted using the computer program Slope W. The Bishop's Method was used to analyze rotational failure modes, and the Janbu or Spencer Method was used to analyze translational failure modes. A coefficient of horizontal acceleration of 0.15g (FS of 1.1) was used to evaluate the pseudostatic stability analyses, where applicable.

Other natural, fill and cut slopes of various orientations and heights are proposed across the site. Based on our inspection of the orientation of these slopes relative to geologic structure, these slopes are considered stable.

Based on our review of the 60-scale plan and the recommended remedial removals, stability fills do not appear necessary at this time. However, slight variations that may occur during 40-scale grading plan revisions may result in a local need for stability fill installation. Should this need occur, stability fills will need to be constructed in accordance with Appendix F.

Based on the slope stability analysis of natural, cut, and fill slopes, the static and pseudostatic analysis resulted in a Factor of Safety greater than a 1.5 and 1.1, respectively. Slope stability analysis results/graphical printouts are included in Appendix E.

Geologic mapping of design cut slopes should be performed by a geologist during grading operations to evaluate slopes for variations in anticipated geologic units and geologic structure, especially in and around those areas of ancient faulting. Additionally, the potential for slope instabilities such as rockfall hazard should also be evaluated at that time. If unsuitable soils are present or if potential slope instabilities are found, in-grading recommendations will be provided to mitigate those hazards.

2.8 Laboratory Testing

Laboratory testing of the onsite soils was performed on representative samples obtained from the explorations and included moisture and density tests, maximum density and optimum moisture content, expansion index, consolidation, direct shear, remolded shear, corrosivity, sieve/hydrometer analysis, and R-Value testing. Laboratory testing for this investigation was performed by EGLAB, Inc. (EGL).

A discussion of the tests performed, and printout of the laboratory test results are presented in Appendix C. The moisture and density test results are presented on the boring logs in Appendix B. These results should be confirmed at the completion of site grading.

Based on the results of laboratory testing within the vicinity of the project site, the near-surface soils are anticipated to have a low expansion potential. Expansion index testing should be confirmed at the completion of rough grading.

Corrosivity testing indicates that the onsite soils have a negligible sulfate exposure to concrete and are mildly corrosive to steel. Corrosion suite (pH, chloride content, sulfate content and minimum resistivity) testing was performed on a representative sample of the onsite soils. The results indicate pH value of 7.45, chloride content of 145 parts-per-million (ppm), sulfate content of 0.001% by weight, and minimum resistivity of 1,500 ohm-centimeters. These results should be confirmed at the completion of site grading. Test results are provided in Appendix C.

LGC has reviewed the laboratory test data, procedures and results provided by EGL with respect to the subject site and concurs with and accepts responsibility as geotechnical engineer-of-record for their work (laboratory testing).

3.0 CONCLUSIONS

Based on the results of our geotechnical evaluation and review, it is our opinion that the proposed site development is feasible from a geotechnical standpoint, provided the following recommendations included in this report are incorporated into the project plans and specifications, and followed during site grading and construction. Our geotechnical conclusions are as follows:

- The site is within the City of Santa Clarita and thus is subject to the Specifications and Guidelines set by the City.
- The site is not located within an Alquist-Priolo Earthquake Fault Zone (Hart, 1997) and no active or potentially active faults were observed during our review. Therefore, no Holocene-active faults are known to exist on site.
- The site is located within an area deemed to have a potential for liquefaction; potential liquefaction settlements are estimated to range from 2 to 4 inches under a major seismic event.
- Groundwater was encountered in our geotechnical borings at depths ranging from 25 to 38 feet below existing site grade. Historic high groundwater is greater than 25 feet (CGS, 1998) below the existing grades south of the active railroad tracks and approximately 10 feet below existing grades to the north of the active railroad tracks. Groundwater is not anticipated to affect site grading operations, though it will fluctuate (rise) especially during the rainy season. The timing of grading events should take groundwater fluctuation into consideration.
- Groundwater is not anticipated to be encountered in the bedrock cuts for the proposed railroad undercrossing.
- Due to the relatively flat nature of much of the site, overland water flow can occur during times of intense rainfall or even from rainfall within the nearby San Gabriel Mountains.
- Based on the subsurface exploration and our review, the site is underlain predominantly by alluvium. Terrace deposits and Mint Canyon formation bedrock comprise the slopes within and around the site. The alluvial soil is considered potentially compressible/collapsible in the upper five to ten feet.
- Remedial removals for proposed site improvements and structures are anticipated to range from five to 20 feet, as shown on the attached Geotechnical Map (Plate 1). Based on future building locations adjacent to the property lines, the existing gas line easement, railroad right-of-way, and existing trees which will remain, slot cuts, shoring, and/or ground improvements along these perimeters will be needed to achieve the required remedial removals within a 1H:1V projection from the bottom of building foundations or to support the proposed improvements. Slot cut widths of approximately 8 feet should be considered in the schedule and budget should this method be employed.
- The site consists predominantly of silty fine to coarse sands and silts with gravel/cobble zones. Local boulders should also be anticipated.
- The magnitude weighted peak horizontal ground acceleration due to a maximum probable earthquake (San Gabriel fault) is estimated to be 0.98g.
- Laboratory test results of the onsite soils indicate a low expansion potential.
- Laboratory test results of the onsite soils indicate negligible soluble sulfates and are considered corrosive to metals.
- Laboratory test results of the onsite soils indicate a negligible potential of hydro-collapse underlying the recommended remedial removals.
- The onsite soils below recommended remedial grading/excavation depths have a low potential for static settlement (i.e., slightly compressible).

- Site bedrock and adjacent units are anticipated to be readily rippable with conventional earthwork machinery. Local areas of well-cemented sandstone bedrock or conglomerate are present and production rates may drop in these localized areas.
- From a geotechnical perspective, the existing onsite soils are suitable for use as fill, provided they are relatively free from rocks (larger than 12 inches in maximum dimension), construction debris, and organic material.
- Engineered fill shall meet the requirements of 90 percent relative compaction.
- No known landslides have been mapped within the subject site.
- Based on site design with debris basins, catchment areas, and drainage swales, debris flow is not considered a hazard for the proposed residential lots.
- Based on our slope stability analysis, proposed design cut, fill, and natural slopes are globally and surficially stable from a static and pseudostatic point-of-view.
- Design cut slopes should be evaluated during grading to determine if unsuitable soils, slope instabilities, or rockfall or other hazards exist. If observed, in-grade design changes, which may include stability fill, will be recommended to reduce these potential hazards.
- No known oil fields or oil wells (active or abandoned) were identified within the subject site during our review.
- A water well, LACDPW Wis in is located in the northwest portion of the site north of the future extension of Lost Canyon Road. It appears that the well is located off the proposed grading. If grading and removals are planned to encroach into the water well location it will likely impact the water well which will require abandonment. Any well abandonment, anticipated or not, should be performed in accordance with the requirements of the Los Angeles County Department of Public Health.

4.0 RECOMMENDATIONS

4.1 Site Earthwork

We anticipate that earthwork during the rough grading operations at the site will consist of site preparation, removals of unsuitable soil, excavation of cut material, fill placement, and grading of site slopes. We anticipate that earthwork at the site will consist of site preparation and grading followed by construction of the railroad undercrossing, mainline utility installation, construction of slab-on-grade type foundations for the proposed residential structures, installation of secondary utilities, subsequently followed by the paving and pouring of sidewalks and driveways.

We recommend that earthwork onsite be performed in accordance with the recommendations herein, the City of Santa Clarita, and the General Earthwork and Grading Specifications for Rough Grading included in Appendix F. In case of conflict, the recommendations in the following sections shall supersede those included as part of Appendix F.

4.1.1 Site Preparation

Prior to grading areas to receive structural fill or engineered structures, all ground surfaces should be cleared of obstructions, any existing debris and stripped of vegetation. Heavy vegetation and debris should be removed and properly disposed of offsite. All debris from any demolition activities at the site should also be removed and disposed off-site. Holes or depressions resulting from the removal of buried obstructions should be replaced with compacted fill.

Following remedial removals, areas to receive fill should be scarified to a minimum depth of 12 inches, brought to a near-optimum moisture condition, and re-compacted to at least 90 percent relative compaction (based on American Standard of Testing and Materials [ASTM] Test Method D1557).

4.1.2 Removal and Recompaction

As discussed in Section 2.2, the proposed site is underlain by unsuitable compressible or liquefiable soils, which may settle under the addition of water, surcharge of fill and/or foundation loads or during a seismic event. Therefore, compressible materials, within areas planned to support the proposed building structures, should be excavated to competent material and replaced with compacted fill soils. We anticipate removals/overexcavation for site structures to range from approximately 5 to 20 feet below existing grade (unless ground improvement is performed, then remedial removals of 5 feet with ground improvement could be performed). However, localized, deeper removals should be anticipated where deemed necessary by the geotechnical consultant based on observations during grading. Removal bottoms should be scarified to a minimum depth of 12 inches, brought to at least optimum-moisture content, and recompacted. The fill prism beneath the building footings should extend downward at a 1:1 (horizontal to vertical) slope from the outside edge of the footing bottoms. The removals should extend a minimum of 5 feet beyond the building perimeters. In general, the intent of the remedial removals is to remove all undocumented fills, and unsuitable alluvium. Remedial removal depths across the site are shown on the attached Geotechnical Map, Plate 1.

Removals along the perimeters of the site, the existing gas line easement, railroad right-of-way, and existing trees (which will remain in place) for proposed walls or building foundations will require slot cutting if sloped excavations are not possible, shoring, or ground improvements (such as vibro/rammed aggregate piers, jet grouting, or other suitable ground improvement options), or be supported on a deepened foundation system.

Based on our investigation the upper 10 feet were found to be very loose/soft soils; therefore, we would anticipate at least a 10-foot removal would be needed for non-building areas.

Based on the current site investigation, groundwater was encountered at depths ranging from 25 to 38 feet below the existing grade within the residential portion of the subject site. Based on the depth of encountered groundwater and the historic high groundwater level for the site, groundwater is not anticipated to be encountered during grading; however, groundwater may fluctuate over time depending on the time of year in response to rainfall. Therefore, groundwater should be verified before grading to determine if special measures during grading would be necessary.

4.1.3 Ground Improvement

The soils underlying the site consist predominantly of sandy soils that were found to be potentially susceptible to seismically induced liquefaction and dry sand settlements. Ground improvement may be considered to mitigate or minimize this potential settlement in lieu of deeper removals. The ground improvement method should be designed by a specialty contractor, and the final design should be reviewed and approved by the geotechnical consultant prior to construction. If ground improvement is performed, a minimum 5 feet of remedial removals should be performed to create a uniform fill blanket and working pad.

Based on the CPT's and liquefaction analysis, as a preliminary value we would anticipate that the ground improvements (Vibro/Geo piers) would need to be to approximately 20 to 30 feet in depth (however, this depth should be evaluated and determined by the specialty contractor based on the ground improvement method). This will enhance the upper soils, reduce the liquefaction/dry sand settlement potential of the upper soils, and provide support for those sections of the building. However, this will not reduce the liquefaction potential of the soil below 20 to 30 feet, therefore, seismically induced settlements of the deeper soils would need to be considered in the design. Based on the current site plan and 1:1 projections for removals, slot cuts with the deeper removals or Vibro/Geo piers would need to be performed for support of the buildings that are adjacent to existing trees (to remain in place), along the existing gas line easement, railroad right-of-way, and perimeters of the site.

4.1.4 Cut/Fill Transition Conditions

In order to reduce the potential for differential settlement in areas of cut/fill transitions, we recommend the entire cut portion of the transition building pads be overexcavated and replaced with properly compacted fill to mitigate the transition condition beneath the proposed structure. For transitions less steep than a 2:1 (horizontal to vertical), the overexcavation of the cut portion of the building pad should be a minimum of 5 feet below the planned finish grade elevation of the pad. Lot overexcavations will be reviewed on a lot-by-lot basis during grading to determine if deeper overexcavations area required based on the exposed graded conditions.

For cut/fill transitions steeper than a 2:1 (horizontal to vertical), we recommend that native slopes be laid back to nearly a 2:1 slope angle, and that fill below future home sites have no greater than a 3:1 ratio of fill thickness across the pad in any direction to help reduce future potential differential settlement damage to homes and other structures. All overexcavations should extend across the entire lot or laterally at least 5 feet beyond the building perimeter or footprint. Details regarding cut/fill transitions are provided in the attached General Earthwork and Grading Specifications (Appendix F).

4.1.5 Cut Slope Stability/Replacement Fills

Geologic mapping of design cut slopes and fill over cut slopes should be performed by a geologist during grading operation to evaluate the slopes for potential slope instabilities or rockfall hazards, or unsuitable alluvium in design cut slopes (including basin cut slopes in alluvium). If unsuitable soils are present or if potential slope instabilities are found, we recommend that the unsuitable cut slopes on the site be replaced with stability fills.

We recommend that the stability/replacement fill have a minimum horizontal width of 15 feet from the backcut to the slope face. We also recommend that the stability/replacement fill key be excavated a minimum of 20 feet wide with a minimum depth of at least 2 to 3 feet below the toe-of-slope. The key bottom should be tilted a minimum of 2 percent into the slope. Benching of the backcut as the fill is placed, as well as, overbuilding the slope and trimming it back may be required.

We also recommend that a subdrain be installed along the back bottom edge of the key and at minimum 30-foot vertical intervals if the replacement fill is greater than 30 feet in height. The outlet locations of the subdrains should be determined in the field during site grading. The subdrains should consist of a 4-inch diameter perforated PVC pipe surrounded by 3 cubic feet (per linear foot) of crushed rock wrapped in filter fabric (Marifi 140N or equivalent). The subdrain should have a minimum fall of 1-percent toward the outlet.

4.1.6 Fill Slope Keys

Prior to the placement of fill slopes that will be placed above natural and/or cut areas on the site; a fill slope key should be constructed. The fill slope key should be excavated at least 2 feet into competent soil along the toe-of-slope and constructed approximately 15 feet wide with the key bottom angled a minimum of 2 percent into-the-slope.

4.1.7 Shrinkage/Bulking and Subsidence

Based on our current evaluation and previous testing by others, both shrinkage and bulking is anticipated at the site. Our opinion regarding shrinkage and bulking onsite, based upon experience and the encountered soils in the site excavations, is as follows:

- Undocumented fills/Surficial Soils/Colluvium/Alluvium – Shrink 10-20%
- Mint Canyon Formation Bedrock - Bulking 2-6%

These are preliminary rough estimates which will vary with depth of removal, stripping losses, field conditions at the time of grading, etc. In addition, handling losses are not included in the estimates.

4.1.8 Temporary Stability of Removal Excavations

Temporary excavations maybe cut vertically up to five feet. Excavations over five feet should be slot-cut, shored, or cut to a 1:1 (h:v) slope gradient. Surface water should be diverted away from the exposed cut, and not be allowed to pond on top of the excavations. Temporary cuts should not be left open for an extended period of time. Planned temporary conditions should be reviewed by the geotechnical consultant of record in order to reduce the potential for sidewall failure. The geotechnical consultant may provide recommendations for controlling the length of sidewall exposed.

Where sufficient space is not available for sloped cuts directly adjacent to existing structures or improvements the cut shall be performed by the A-B-C slot method as outlined below.

1. The banks of the excavation shall be made at 1H:1V or a combination of vertical cut and a 1H :1V.
2. Vertical cuts (up to 20 feet in height), not exceeding 8 feet in width are made in the locations of the first slot "A".
3. Back-fill and compact the first slot.
4. The second adjacent slot, "B" is excavated.
5. Back-fill and compact the second slot.
6. Then the third slot "C" is excavated.
7. Back-fill and compact the third slot.
8. Repeat the above steps until all the required excavations are performed adjacent to the existing improvements.

4.1.9 Temporary Shoring

The following preliminary geotechnical parameters may be utilized by the shoring consultant for design of the temporary shoring system. Temporary shoring is generally considered to have a service life of two years or less. The recommendations provided herein with regard to shoring of the proposed excavation are based on assumed conditions, extrapolated from the data gathered from our and previous site investigations. The shoring designer should independently evaluate the parameters provided and conduct an additional investigation if they consider necessary.

Prior to construction, the contractor should verify underground clearance of any existing utility lines or structures that must be removed or protected in place during construction, or may conflict with any proposed shoring system. Any tieback anchors and/or soil nails that extend beyond the site property limits will require permission from the adjacent property owner. Special attention will be required to protect existing settlement sensitive improvement in close proximity to the proposed excavation, such as any adjacent structures or streets located along the boundary of the site.

Typical cantilever temporary shoring, where deflection of the shoring will not impact the performance of adjacent structures or streets, may be designed using the active equivalent fluid pressures of 40 pounds per square foot (psf) per foot of depth (or pcf) for a level condition. Braced (i.e. internal bracing -rakers) or tied-back shoring is recommended in areas where the shoring will be located close to existing structures or streets in order to limit shoring defections or required due to the proposed depth of excavation. Braced or tied-back shoring with a level

backfill may be designed using an active trapezoidal soil pressure of 24H in pounds per square foot (psf) perfoot of depth (or pcf) for level condition, where H is equal to the depth in feet of the excavation being shored (shape of the trapezoid should be 0.2H, 0.6H, 0.2H). Any building, equipment, or traffic loads located within a 1:1 (horizontal to vertical) projection from the base of the shoring should be added to the applicable lateral earth pressure. A minimum additional uniform lateral pressure of 100 psf for the upper 10 feet should be added to the appropriate lateral earth pressures to account for typical vehicle traffic loading. The proposed shoring should be designed for a maximum shoring deflection of up to 1-inch adjacent to the street (non-surcharged condition) and up to a maximum of 0.5-inches adjacent to existing buildings (surcharged condition). Surcharge loads on basement walls and shoring systems from existing structures located within the 1:1 (h:v) surcharge influence zone of the excavation should be considered in the shoring design.

In addition, the above noted lateral earth pressures for temporary shoring does not include hydrostatic pressures since the current groundwater level was encountered below the anticipated depth of the subterranean structure. Consideration should be given to increasing the provided lateral earth pressures and/or design factors of safety in order to further limit shoring deflections and subsequent potential impacts on adjacent structures and improvements, as necessary.

If temporary gravity grouted tie-backs are used anchors may be designed using a preliminary bond stress of 400 pounds per square foot (psf), and if pressure/post-grouted tieback anchors are used, anchors may be designed using a preliminary bond stress of up to 2,500 pounds per square foot (psf). However, the tieback designer should make an independent evaluation in order to verify the preliminary bond stress is adequate for site conditions. Tieback bond stress should be verified by field testing. Tieback anchors should minimally be designed, constructed, and tested in accordance with the requirements of the Post-Tensioning Institute (PTI). For design purposes, tieback should obtain their load-carrying capacity from the soil behind a plane taken to be 3 horizontal feet from the bottom of the shoring facing and inclined at an angle of 60 degrees measured from the horizontal extending to the top of the excavation. Passive resistance of soldier piles (drilled or driven) may be assumed to be an equivalent fluid pressure of 350 pcf to a maximum value of 3,500 psf. The passive earth pressure may be increased by 100 percent for isolated piles. Piles with spacing greater than 3 times of pile diameter can be considered as isolated piles. In order to develop the full lateral resistance, firm contact between the soldier pile and undisturbed soils must be assured. For vertical shoring capacity, an allowable skin friction of 500 psf may be used for the portion of pier below the proposed development excavation. End bearing should be neglected. Drilling of shafts for solider piles may require casing or drilling mud to prevent caving.

Due to the nature of the site soils, it is expected that continuous lagging between soldier piles will be required. The time between lagging excavation and lagging placement should be as short as possible. Soldier piles should be designed for the fully anticipated pressures.

Due to arching in the soils, the pressure on the lagging will be less. However, it is recommended that the lagging be designed for the full design active fluid pressure but be limited to a maximum of 400 psf. Therefore, the design lagging pressure should consider a parabolic earth pressure distribution with an active equivalent fluid pressures of 40 pounds per square foot (psf) per foot of depth (or pcf) up to a maximum of 400 psf. The maximum span for lagging for this project should be 10 feet.

The components of the shoring system should be designed by a California licensed structural and/or civil engineer specializing in the design of shoring systems. Field pullout testing should be performed during construction to verify the estimated pullout resistance used in the design and/or post grout tubes should be used to ensure adequate design capacities are obtained. Ultimately, it is the specialty contractor's responsibility to obtain the required pullout capacity, which may require design and/or field modifications. LGC should review the shoring plans prior to construction to verify that geotechnical recommendations are properly implemented into the project plans.

It is highly recommended that a program of documentation and monitoring be devised and put into practice before the onset of any groundwork. The contractor should establish survey points on the shoring, adjacent streets, and neighboring buildings within 100 feet of the excavation perimeter prior to any excavation. These survey points should be used to monitor the movement of the shoring and existing improvements during construction excavation.

The monitoring program should include, but not necessarily be limited to detailed documentation of the existing improvements, buildings and utilities around the excavation, with particular attention to any distress that is already present prior to the start of work. A licensed surveyor should be retained to establish monuments on the shoring and the surrounding ground prior to excavation. Such monuments should be monitored for horizontal and vertical movement during construction. Results of the monitoring program should be provided immediately to the project structural (shoring) engineer and LGC for review and evaluation.

I-Beam soldier piles may also be vibrated into place as a means of installation. When using the vibration method of installing the soldier beams, the minimum embedment depth shall be 5 feet (when designed with tiebacks and rakers) and 10 feet (for cantilever design) below the lowest excavated plane. Predrilling may be necessary by the shoring contractor to facilitate installation of soldier piles. The available passive resistance of the pile may be determined using the diagonal length from the outer edges of opposite flange sections. Passive resistance of soldier piles may be assumed to be an equivalent fluid pressure of 350 pcf to a maximum value of 3,500 psf. The passive earth pressure may be increased by 100 percent for isolated piles. Piles with spacing greater than 3 times of pile diameter can be considered as isolated piles. It is recommended that the diameter of the predrilled holes should not exceed two-thirds of the depth of the web of the I-beam. The depth of the predrilled holes should not exceed the planned excavation depth. In addition, when predrilling, the auger shall be backspun out of the pilot holes, leaving the soils in place. Installation with vibration should be limited to approximately ½ inch per second peak particle velocity. All shoring (predrilling, installation of shoring piles, and lagging) shall be performed under continuous inspections by a grading inspector of this firm.

4.1.10 Fill Placement and Compaction

From a geotechnical perspective, the onsite soils are suitable for use as compacted fill, provided they are screened of rocks greater than 8 inches in maximum dimension, organic material, and construction debris. Areas prepared to receive structural fill and/or other surface improvements should be scarified to a minimum depth of 12 inches, brought to at least optimum-moisture content, and recompacted to at least 90 percent relative compaction (based on ASTM Test Method D1557). The optimum lift thickness to produce a uniformly compacted fill will depend

on the type and size of compaction equipment used. In general, fill should be placed in uniform lifts generally not exceeding 8 inches in loose thickness. Placement and compaction of fill should be performed in accordance with local grading ordinances under the observation and testing of the geotechnical consultant.

If possible, import soils to be used as fill shall be essentially free from organic matter and other deleterious substances, and should contain no materials over 8 inches in maximum dimension, have a very low to low expansion potential (i.e Expansion Index ranging from 0 to 50), and negligible sulfate content. Representative samples of the desired import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing grading begins so that its suitability can be determined, and appropriate tests performed.

4.1.11 Trench Backfill and Compaction

The onsite soils may generally be suitable as trench backfill provided they are screened of rocks and other material over 6 inches in diameter and organic matter. Trench backfill should be compacted in uniform lifts (generally not exceeding 8 inches in compacted thickness) by mechanical means to at least 90 percent relative compaction (per ASTM Test Method D1557).

If trenches are shallow and the use of conventional equipment may result in damage to the utilities; clean sand, having sand equivalent (SE) of 30 or greater, should be used to bed and shade the utilities. Sand backfill should be densified. The densification may be accomplished by jetting or flooding and then tamping to ensure adequate compaction. A representative from LGC should observe, probe, and test the backfill to verify compliance with the project specifications.

4.2 Foundations

4.2.1 General

Preliminary recommendations for foundation design and foundation construction are presented herein. When the structural loads for the proposed structures are known they should be provided to our office to verify the recommendations presented herein.

The following foundation recommendations are provided. Foundations recommended for the proposed structures are: (1) Post-tension Foundations; or (2) Mat foundations. For preliminary design purposes a low expansion potential, for a mix of onsite soils, should be considered for design. The as-graded soil conditions should be verified. The foundation should also consider the anticipated combined static and seismic differential settlements of up to 2.5 inches in 30 feet. The following PT values do not include the anticipated differential settlements. Preliminary Recommendations for foundations are also included for support of the planned bridge.

The information and recommendations presented in this section are not meant to supersede design by the project structural engineer or civil engineer specializing in the structural design nor impede those recommendations by a corrosion consultant. Should conflict arise, modifications to the foundation design provided herein can be provided.

4.2.2 Bearing Capacity

Shallow foundations may be designed for a maximum allowable bearing capacity of 2,000 lb/ft^2 (gross), for continuous footings a minimum of 12 inches wide and 12 inches deep, and spread footings 24 inches wide and 12 inches deep, into certified compacted fill. A factor of safety greater than 3 was used in evaluating the above bearing capacity value. This value maybe increased by 300 psf for each additional foot in depth and 150 psf for each additional foot of width to a maximum value of 3,000 psf.

Lateral forces on footings may be resisted by passive earth resistance and friction at the bottom of the footing. Foundations may be designed for a coefficient of friction of 0.35, and a passive earth pressure of 375 lb/ft^2/ft (unfactored). The passive earth pressure should consider a factor of safety of at least 1.5 in the design.

All footing excavations should be cut square and level as much as possible, and should be free of sloughed materials including sand, rocks and gravel, and trash debris. Subgrade soils should be pre-moistened for the assumed low expansion potential (to be confirmed at the end of grading). These allowable bearing pressures are applicable for level (ground slope equal to or flatter than 5H:1V) conditions only.

Bearing values indicated above are for total dead loads and frequently applied live loads. The above vertical bearing may be increased by one-third for short durations of loading which will include the effect of wind or seismic forces.

4.2.3 Vibro/Geo Piers

The soils underlying the proposed structures consist of sandy/silty soils that were found to be susceptible to consolidation and static/seismically induced settlements. Based on our review and analysis, if minimal remedial removals are performed (removal and recompaction of upper 5 feet), foundation settlements for shallow footings for the residential structures due to static and seismically induced settlements are expected to range from 4 to 8 inches. The majority of the settlement occurs in the upper 10 to 20 feet of site soils underlying the proposed structures. To mitigate this settlement the structures can be supported on shallow foundations bearing on vibro, geo, or rammed aggregate piers to allow tolerable settlements. The piers should be extended into firm/denser soil layers below 20 to 30 feet. The piers should be designed to limit differential foundation settlement to less than 2 inches, and to achieve an allowable bearing capacity of up to 3,000 lb/ft^2 with the final bearing capacity determined by the ground improvement specialty contractor/designer. The piers should be designed by a specialty contractor, and the final design should be reviewed and approved by the geotechnical consultant prior to construction. If deepened foundations are to be considered instead of piers for support of the proposed structures, caisson recommendations can be provided.

4.2.4 Post-Tension Foundations

Based on the site geotechnical conditions after rough grading, the site is considered suitable for the support of the anticipated structures using a post-tensioned slab-on-grade foundation system for low expansion potential (21-50 Expansion Index). The following section summarizes our recommendations for the foundation system.

Table 3 contains the geotechnical recommendations for the construction of PT slab on grade foundations. The structural engineer should design the foundation system based on these parameters including the foundation settlement as indicated in the following section to the allowable deflection criteria determined by the structural engineer/architect.

Table 3 - Preliminary Geotechnical Parameters for Post-Tensioned Foundation Design	
Parameter	**Value**
Expansion Classification:	Low Expansion
Thornthwaite Moisture Index (From Figure 3.3):	-20
Constant Soil Suction (From Figure 3.4):	PF 3.6
Center Lift Edge moisture variation distance (from Figure 3.6), e_m: Center lift, y_m:	Low 9.0 feet 0.35 inches
Edge Lift Edge moisture variation distance (from Figure 3.6), e_m: Edge lift, y_m:	Low 5.2 feet 0.7 inches
Soluble Sulfate Content for Design of Concrete Mix in Contact with Site Soils in Accordance with American Concrete Institute standard 318, Section 4.3:	Negligible Exposure
Corrosivity of Earth Materials to Ferrous Metals:	Moderately Corrosive
Modulus of Subgrade Reaction, k (assuming presaturation as indicated below):	150 pci (very low to low)
Additional Recommendations: 1. Presaturate slab subgrade to at least 1.2 times optimum moisture, to minimum depths of 12 inches below ground surface. 2. Install a 15-mil moisture/vapor barrier in direct contact with the concrete (unless superseded by the Structural/Post-tension engineer*) with minimum 1 inches of sand below the barrier. 3. Minimum perimeter foundation embedment below finish grade for moisture cut off should be 12 inches. 4. Minimum slab thickness should be 5 inches.	

***** The above sand and Visqueen recommendations are traditionally included with geotechnical foundation recommendations although they are generally not a major factor influencing the geotechnical performance of the foundation. The sand and Visqueen requirements are the purview of the foundation engineer/corrosion engineer (in accordance with ACI Publication 302 "Guide for Concrete Floor and Slab Construction") and the homebuilder to ensure that the concrete cures more evenly than it would otherwise, is protected from corrosive environments, and moisture penetration of through the floor is acceptable to future homeowners. Therefore, the above recommendations may be superseded by the requirements of the previously mentioned parties.

4.2.5 Mat Foundations

Mat foundations can be used for support of proposed buildings. An allowable soil bearing pressure of 1,000 psf may be used for the design of the mat at the surface under the slab area. The allowable bearing value is for total dead loads and frequently applied live loads and may be

increased by one-third for short durations of loading which will include the effect of wind or seismic forces. A coefficient of vertical subgrade reaction, k, of 150 pounds per cubic inch (pci) may be used to evaluate the pressure distribution beneath the mat foundation. The magnitude of total and differential settlements of the mat foundation will be a function of the structural design and stiffness of the mat.

Resistance to lateral loads can be provided by friction acting at the base of foundations and by passive earth pressure. Foundations may be designed for a coefficient of friction of 0.35. Minimum perimeter footing embedment provided in the previous sections maybe reduced for the mat slab design.

Coordination with the structural engineer will be required in order to ensure structural loads are adequately distributed throughout the mat foundation to avoid localized stress concentrations resulting in potential settlement. The foundation plan should be reviewed by LGC to confirm preliminary estimated total and differential static settlements.

4.2.6 Foundation Settlement

Based on our current understanding of the project, the results of the site investigations and the recommended remedial grading with shallow foundations embedded into compacted fills with the recommended removals (removals and recompaction ranging from 10 to 20 feet), we estimate the post-construction settlement of the site to be less than 1-inch with a differential settlement of approximately ½ -inch in 30 feet for shallow foundations. Post-construction settlement should also include an estimated total seismic settlement of differential seismic settlement up to 4 inches and a differential seismic settlement of 2 inches in 30 feet. Foundations should be designed for the total combined static and seismic differential settlement of 2.5 inches in 30 feet.

The post-construction settlement for structures supported by ground improvement/deepened foundations is estimated to be less than 4-inch with a differential settlement of approximately less than 2 -inch in 30 feet.

The estimated settlements provided herein should be reevaluated once foundation loads/types are made available, as appropriate.

4.2.7 Building Clearance and Foundation Setbacks

All building foundation located close to slopes should have a minimum setback per Figure 1808.7.1 of the 2022 CBC. The setback distances should be measured from competent materials on the outer slope face, excluding any weathered and loose materials.

Per the 2022 CBC Section 1808.7.1 and Figure 1808.7.1, building clearance from the toe of an ascending slope should be equal one-half of the total slope height to a maximum setback of 15 feet. Retaining walls may be constructed at the base of the slope to achieve the required building clearances.

Per the 2022 CBC Section 1808.7.2 and Figure 1808.7.1, the building foundation constructed on or near a descending slope should be setback or deepened to provide a minimum footing setback equal to the total height of slope (H) divided by 3 (H/3). The footing setback should be

a minimum of 5 feet for slopes up to 15 feet in height and vary up to 40 feet for slopes up to 120 feet in height. The footing setbacks should be measured from the edge of the footing to the competent materials on the outer slope face.

4.2.8 Preliminary Railroad Undercrossing Recommendations

Based on site review, subsurface investigations, and site mapping, the proposed railroad undercrossing is located within a bedrock portion of the site. The proposed cuts and adjacent slopes surrounding the undercrossing will be excavated into Mint Canyon Formation Bedrock. Based on the competent native bedrock encountered, it is our opinion that the surrounding foundation materials will furnish adequate axial and lateral support for the anticipated bridge shallow or deep foundations, as necessary, with negligible settlement of the site bedrock. No groundwater is anticipated to be encountered during design cuts for the proposed undercrossing within the bedrock. Therefore, groundwater is not anticipated to be a concern for the undercrossing design. These recommendations should be reevaluated once the design for the undercrossing is available. Additional site investigations at the bridge location should be performed, and a site specific bridge design report should be completed in accordance with the specifications and design criteria of the American Railway Engineering and Maintenance-of-Way Association (AREMA).

4.3 Lateral Earth Pressures and Retaining Wall Design Considerations

The following lateral earth pressures may be used for the design of any future site retaining walls (if any). We recommend low expansive soils for retaining wall backfill if no onsite soils fit the required minimum parameters (SE >30). The recommended lateral pressures for approved soils (expansion index less than 30 per U.B.C. 18-I-B) for level or sloping backfill are presented on the table below. The recommended lateral pressures for clean sand or approved select soils for level or sloping backfill are presented on the following Table 4.

Table 4 - *Lateral Earth Pressures for Retaining Walls*

Conditions	Equivalent Fluid Weight (pcf)		
	Level Backfill	**2:1 Backfill Sloping Upwards**	**Seismic Earth Pressure (pcf) ***
	Approved Select Material	**Approved Select Material**	
Active	35	45	15(Level)/24(sloping)
At-Rest	50	75	23
Passive	375 (unfactored)	-	-

***** For walls with greater than 6-feet in backfill height, the above seismic earth pressure should be added to the static pressures given in the table above. This dynamic pressure should be added to the pressures given in Table 6 and considered as a triangular distribution with the resultant acting at 1/3H in relation to the base of the retaining wall footing (where H is the retained height). The aforementioned incremental seismic load was determined in general accordance with LA County Administrative Manual S004.0 for determining earth pressures as a result of seismic events.

Embedded structural walls should be designed for lateral earth pressures exerted on them. The magnitude of these pressures depends on the amount of deformation that the wall can yield under load. If the wall can yield enough to mobilize the full shear strength of the soil, it can be designed for "active" pressure. If the wall cannot yield under the applied load, the shear strength of the soil cannot be mobilized and the earth pressure will be higher. Such walls should be designed for "at-rest" conditions. If a structure moves toward the soils, the resulting resistance developed by the soil is the "passive" resistance.

For design purposes, the recommended equivalent fluid pressure for each case for walls founded above the static groundwater and backfilled with low expansive onsite or import soils is provided in the table above. The equivalent fluid pressure values assume free-draining conditions. The backfill soils should be compacted to at least 90 percent relative compaction. The walls should be constructed and backfilled as soon as possible after backcut excavation. Prolonged exposure of backcut slopes may result in some localized slope instability. If conditions other than those assumed above are anticipated, the equivalent fluid pressure values should be provided on an individual-case basis by the geotechnical engineer.

Surcharge loading effects from any adjacent structures should be evaluated by the geotechnical and structural engineers. Surcharge loading on retaining walls should be considered when any loads are located within a 1:1 (horizontal to vertical) projection from the base of the retaining wall and should be added to the applicable lateral earth pressures. Where applicable, a minimum uniform lateral pressure of 100 psf should be added to the appropriate lateral earth pressures to account for typical vehicle traffic loading.

All retaining wall structures should be provided with appropriate drainage and appropriately waterproofed. The outlet pipe should be sloped to drain to a suitable outlet. Typical wall drainage design is shown on the attached Figure 2. It should be noted that the recommended subdrain does not provide protection against seepage through the face of the wall and/or efflorescence. Efflorescence is generally a white crystalline powder (discoloration) that results when water, which contains soluble salts, migrates over a period of time through the face of a retaining wall and evaporates. If such seepage or efflorescence is undesirable, retaining walls should be waterproofed to reduce this potential.

For sliding resistance, the friction coefficient of 0.35 may be used at the concrete and soil interface. Wall footings should be designed in accordance with structural considerations. The passive resistance value may be increased by one-third when considering loads of short duration such as wind or seismic loads. For short term loading (i.e. seismic) the allowable bearing capacity may be increased by one-third for seismic loading.

Shallow foundations recommendations and bearing capacities should be designed per Section 4.2.2. All excavations should be made in accordance with Cal OSHA. Excavation safety is the sole responsibility of the contractor.

4.4 Pavement Recommendations

Based on an R-value of 18, and assumed Traffic Indices (TI's) of 5, 6, and 7, we recommend the following minimum pavement sections (Table 5). The R-value should be confirmed during the concluding stages of grading, and the final pavement section should be designed accordingly. TI's for the streets within the subject project site should be obtained from the appropriate regulatory agency or calculated by a traffic engineer. Final pavement sections should be confirmed by the project civil engineer based upon the project traffic index and the City of Santa Clarita minimum requirements, as necessary.

TABLE 5 - Recommended Minimum Pavement Sections			
Traffic Index	5	6	7
Asphalt Concrete (in.)	4	4	4.5
Aggregate Base (in.)	6	9	12

Portland Cement Concrete Pavement (PCCP) may be designed using a minimum of 8-inches of Portland cement concrete over 8-inches of compacted aggregate base. The modulus of rupture of the concrete should be a minimum of 500 pounds per square inch (psi) at 28 days. Contraction joints should be placed at maximum 10-foot spacing. Where the outer edge of a concrete pavement connects to an asphalt pavement, the concrete slab should be thickened by 50 percent at a taper not to exceed a slope of 1 in 10.

For Paver Pavement Section, it is our understanding the proposed vehicular pavers at the entryway are typically 3-1/8 inches in thickness and are underlain by 1-inch of sand. Based on ASCE 58-10 for interlocking pavers, considering a Traffic Index (TI) of 6 and an R-value of 18 for the subgrade soils, we recommend the following base section underlying the proposed pavers. The proposed pavers and sand should be underlain by a minimum of 16-inches of aggregate base. As an alternative interlocking pavers and sand bedding can also be placed directly on the design asphaltic concrete base course over aggregate base, considering a TI of 6, or can be placed on a minimum of 5-inches of concrete over 6 inches of aggregate base. The design pavement sections provided herein are considered suitable to support the imposed loads from a 80,000 pound fire apparatus.

The aggregate base material should conform to the specifications for Crushed Miscellaneous Base or Crushed Aggregate Base (Standard Specifications for Public Works Construction). The base material should be compacted to achieve a minimum relative compaction of 95 percent. The subgrade should achieve a minimum relative compaction of 90 percent through the upper 12 inches. Base and subgrade materials should be moisture-conditioned to relatively uniform moisture content at or slightly over optimum.

4.5 Corrosivity to Concrete and Metal

The National Association of Corrosion Engineers (NACE) defines corrosion as "a deterioration of a substance or its properties because of a reaction with its environment." From a geotechnical viewpoint, the "environment" is the prevailing foundation soils and the "substances" are the reinforced concrete foundations or various buried metallic elements such as rebar, piles, pipes, etc., which are in direct contact with or within close vicinity of the foundation soil.

In general, soil environments that are detrimental to concrete have high concentrations of soluble sulfates and/or pH values of less than 5.5. ACI Criteria (ACI 318R-14 Table 19.3.2.1), provides specific guidelines for the concrete mix design when the soluble sulfate content of the soils exceeds 0.1 percent by weight or 1,000 ppm. The minimum amount of chloride ions in the soil environment that are corrosive to steel, either in the form of reinforcement protected by concrete cover, or plain steel substructures such as steel pipes or piles, is 500 ppm per California Test 532.

Based on finish grade soil testing, the onsite soils are classified as having a negligible/S0 sulfate exposure condition in accordance with ACI 318R-14 Table 19.3.1.1. Concrete in contact with onsite soils should be designed in accordance with ACI 318R-14 Table 19.3.2.1 for the negligible category. It is also our opinion that onsite soils should be considered moderately corrosive to buried metals.

4.6 Nonstructural Concrete Flatwork

Concrete flatwork (such as trash enclosure, walkways, etc.) have a high potential for cracking due to changes in soil volume related to soil-moisture fluctuations because these slabs are typically much thinner than foundation slabs and are not reinforced with the same dynamic as foundation elements. To reduce the potential for excessive cracking and lifting, concrete should be designed in accordance with the minimum guidelines outlined in the following table. These guidelines will reduce the potential for irregular cracking and promote cracking along construction joints but will not eliminate all cracking or lifting. Thickening the concrete and/or adding additional reinforcement will further reduce cosmetic distress.

TABLE 6
Nonstructural Concrete Flatwork

	Homeowner Sidewalks	Private Drives	Patios/Entryways	City Sidewalk Curb and Gutters
Minimum Thickness (in.)	4	5	5	City/Agency Standard
Presaturation	Presoak to 12 inches	Presoak to 12 inches	Presoak to 12 inches	City/Agency Standard
Reinforcement	—	No. 3 at 24 inches on centers, or Welded Wire Mesh 6x6 6/6 (or equivalent)	No. 3 at 24 inches on centers, or Welded Wire Mesh 6x6 6/6 (or equivalent)	City/Agency Standard
Thickened Edge	—	8” x 8”	-	City/Agency Standard
Crack Control	Saw cut or deep tool joint to a minimum of 1/3 the concrete thickness	Saw cut or deep tool joint to a minimum of 1/3 the concrete thickness	Saw cut or deep tool joint to a minimum of 1/3 the concrete thickness	City/Agency Standard
Maximum Joint Spacing	5 feet	10 feet or quarter cut whichever is closer	6 feet	City/Agency Standard
Subgrade Compaction	90% Relative Compaction in Upper 12”	90% Relative Compaction in Upper 12”	90% Relative Compaction in Upper 12”	City/Agency Standard

4.7 Swimming Pool

Proposed pools, if any, and associated improvements should be constructed in accordance with the attached Figure 3, Geotechnical Guidelines for Swimming Pool Construction. Pool excavation will occur in newly placed compacted fills and is anticipated to be relatively uniform. Consideration should be given to the low expansive potential of onsite soils in design of the pool, and associated decking. Also concrete in contact with onsite soils should be designed in accordance with the So/negligible category of ACI 318R-14 Table 19.3.2.1. Differential settlements indicated in this report should be considered in the design of any pools.

Due to inherent differences in supporting capacity and expansive potential of different layers of the alluvium/fill, it is undesirable to have structures partially supported on soils having different geotechnical characteristics or materials having different engineering characteristics. If a cut/fill transition or expansive soil condition exists, the cut portion of the transition or expansive soil should be excavated (usually impractical for pool/spa construction), or the pool/spa can be designed with additional reinforcement and/or a thicker shell in order to cope with potential differences in supporting capacity and expansive potential.

Excavation and subsequent fill placement for pool including the placement of drains, outlets, water-proofing, etc. should be performed under the observation and testing of a geotechnical consultant. Observation and testing should be performed by the geotechnical consultant during pool excavation to verify that the exposed soil conditions are consistent with the design assumptions.

Concrete flatwork adjacent to the pool should be a minimum of 5 inches thick reinforced with No. 3 rebar at 24-inches on center each way with a 18-inch deep perimeter cut-off footing. Construction joints or weakened plane joints should be provided in all flatwork to a minimum depth of 1.5 inches at frequent internals (5 feet or less). The concrete slab should be underlain by a minimum of 4 inches of clean sand or base. Presoaking of the subgrade should be performed to a minimum depth of 12 inches. The subgrade should be inclined so that any moisture that seeps through cracks in the concrete due to irrigation, rain, or pool splash will be directed away from the pool.

4.8 Control of Surface Water and Drainage Control

Positive drainage of surface water away from structures is very important. No water should be allowed to pond adjacent to buildings. Positive drainage may be accomplished by providing drainage away from buildings at a gradient of at least 2 percent for a distance of at least 5 feet, and further maintained by a swale or drainage path at a gradient of at least 1 percent. Where necessary, drainage paths may be shortened by use of area drains and collector pipes.

Planters with open bottoms adjacent to buildings should be avoided. Planters should not be designed adjacent to buildings unless provisions for drainage, such as catch basins, liners, and/or area drains, are made. Overwatering must be avoided.

4.9 Construction Observation and Testing

The recommendations provided in this report are based on limited subsurface observations and geotechnical analysis. The interpolated subsurface conditions should be checked in the field during construction by a representative of LGC.

Construction observation and testing should also be performed by the geotechnical consultant during future grading, excavations, backfill of utility trenches, preparation of pavement subgrade and placement of aggregate base, foundation or retaining wall construction or when an unusual soil condition is encountered at the site. Grading plans, foundation plans, and final project drawings should be reviewed by this office prior to construction.

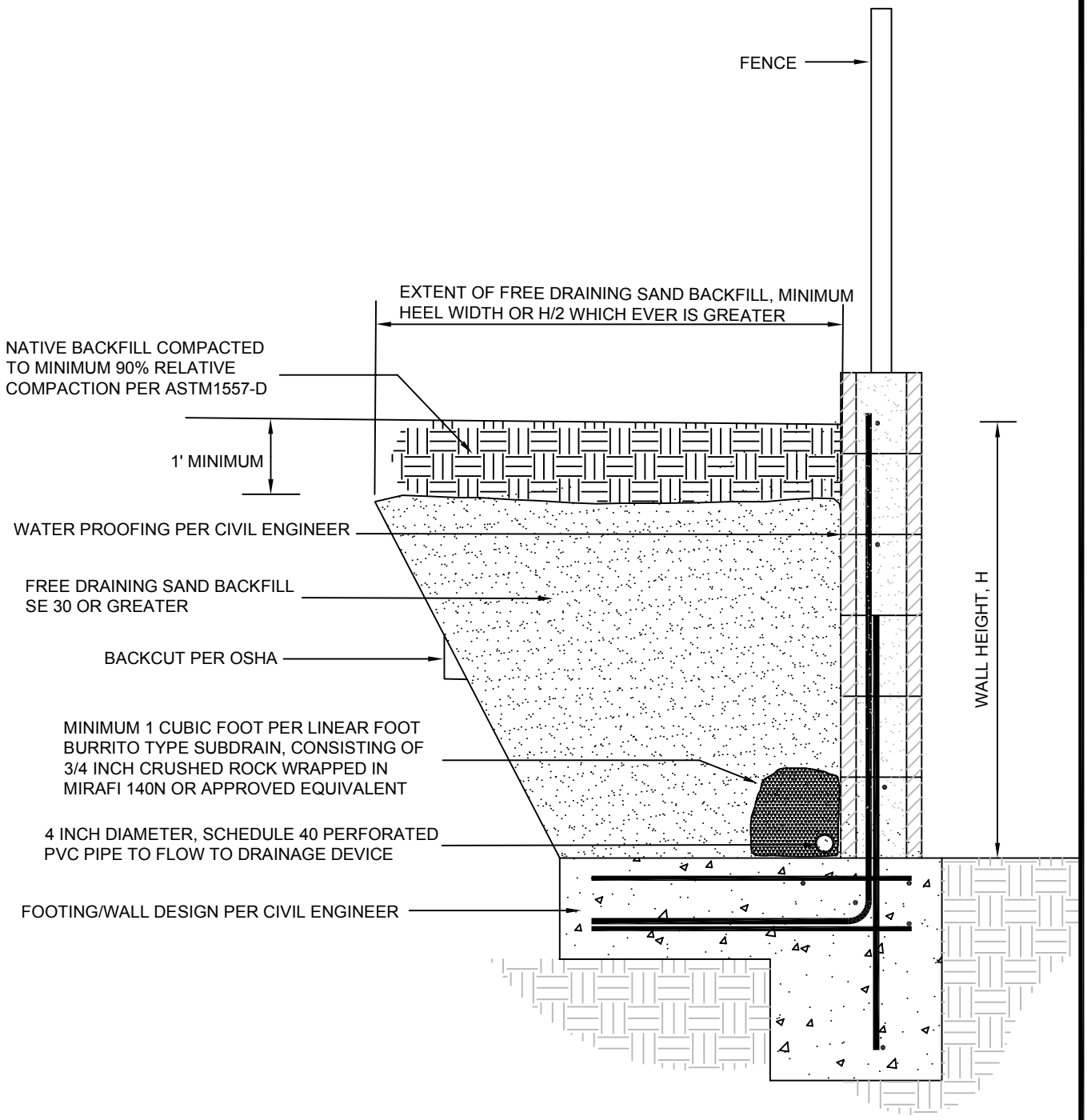
5.0 LIMITATIONS

Our services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable engineers and geologists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report. The samples taken and submitted for laboratory testing, the observations made and the in-situ field testing performed are believed representative of the entire project; however, soil and geologic conditions revealed by excavation may be different than our preliminary findings. If this occurs, the changed conditions must be evaluated by the project soils engineer and geologist and design(s) adjusted as required or alternate design(s) recommended.

This report is issued with the understanding that it is the responsibility of the owner, or of his/her representative, to ensure that the information and recommendations contained herein are brought to the attention of the architect and/or project engineer and incorporated into the plans, and the necessary steps are taken to see that the contractor and/or subcontractor properly implements the recommendations in the field. The contractor and/or subcontractor should notify the owner if they consider any of the recommendations presented herein to be unsafe.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can and do occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties.

In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control.



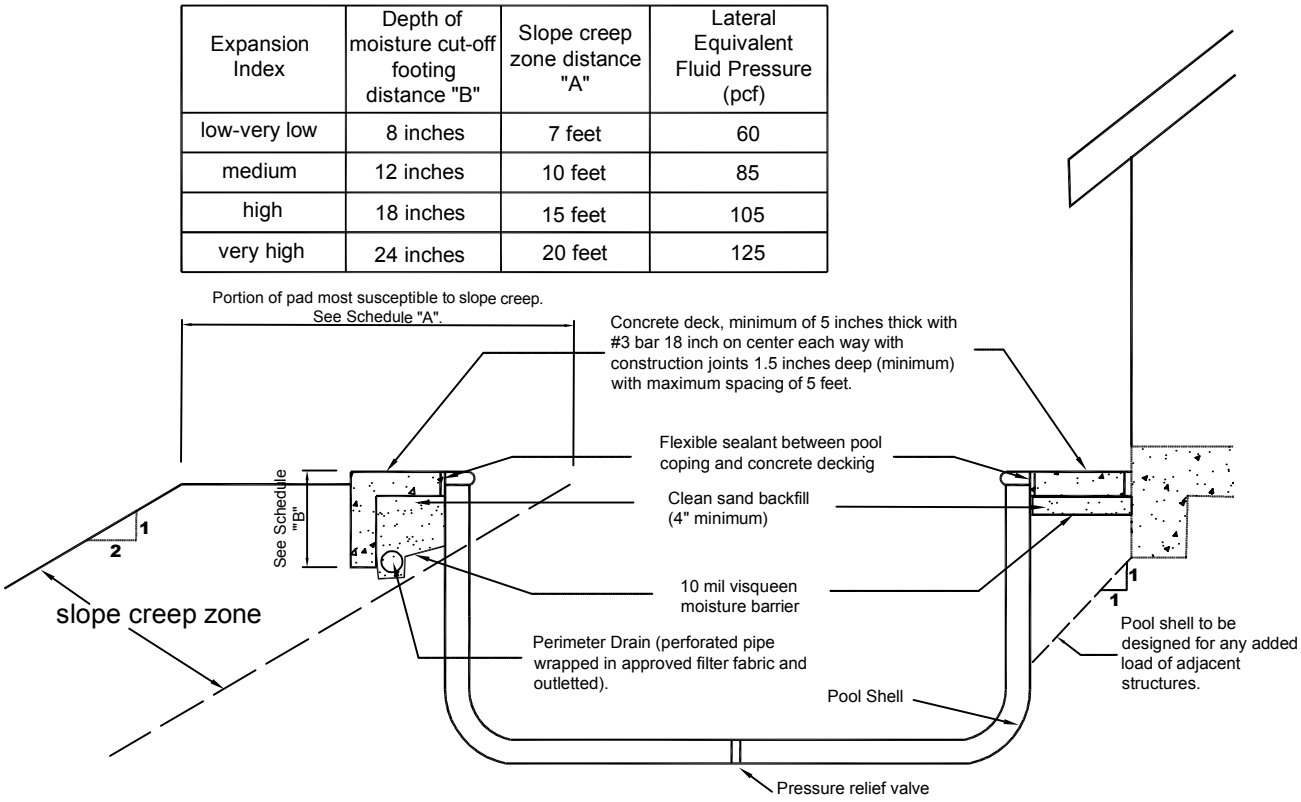
LGC

Figure 2 Retaining Wall Detail, Sand Backfill

Project Name	NUWI/Belcaro
Project No.	233012-01
Eng.	BIH/SMB
Scale	Not To Scale
Date	October 2024

SCHEDULE

Expansion Index	Depth of moisture cut-off footing distance "B"	Slope creep zone distance "A"	Lateral Equivalent Fluid Pressure (pcf)
low-very low	8 inches	7 feet	60
medium	12 inches	10 feet	85
high	18 inches	15 feet	105
very high	24 inches	20 feet	125



For pools adjacent to descending slopes, the pool shell should be designed assuming total loss of soil support for the portion of the pool located within the assumed "creep zone". For design purposes, the creep zone should be considered to extend a distance "A" from the top of slope (see schedule "A" above). The creep zone should be considered as parallel to the slope face.

Concrete flatwork adjacent to the pool should be a minimum of 5 inches thick reinforced with No. 3 rebar at 18-inches on center each way with a perimeter cut-off footing per the above schedule. Construction joints or weakened plane joints should be provided in all flatwork to a minimum depth of 1.5 inches at frequent internals (5 feet or less). The concrete slab should be underlain by a minimum of 4 inches of clean sand underlain inturn by a 10-mil Visqueen barrier. Presoaking of the subgrade prior to placing the Visqueen barrier should be performed in accordance with the recommendations included in the project geotechnical report. The presoaking should saturate the subgrade to a minimum depth of 12 inches. The subgrade below the Visqueen barrier should be inclined so that any moisture that seeps through cracks in the concrete due to irrigation, rain, or pool splash will be directed away from the pool. A perforated pipe wrapped in approved filter fabric should be installed to transport the collected moisture away from the pool area. The drain pipe is not considered necessary for soils of low to medium expansion potential. The contractor must ensure that the Visqueen is properly lapped, sealed and not punctured during construction.

All pool design should be performed by a qualified designer, using the equivalent fluid pressures shown in the schedule.

A geotechnical consultant should be contacted to review the final design which is based on the recommendations of this detail. This is not a design document and has been provided for INFORMATIONAL PURPOSES ONLY unless stamped and signed by LGC and pertaining to a specific pool.

To reduce the potential of lifting and cracking of the pool decking, landscape planters should not be located in islands within the decking unless they are lined with a waterproof membrane and provided with a subdrainage system to prevent moisture variations below the decking.

The pool shell should be designed to account for any additional loading due to improvements (building, raised planters, etc.)

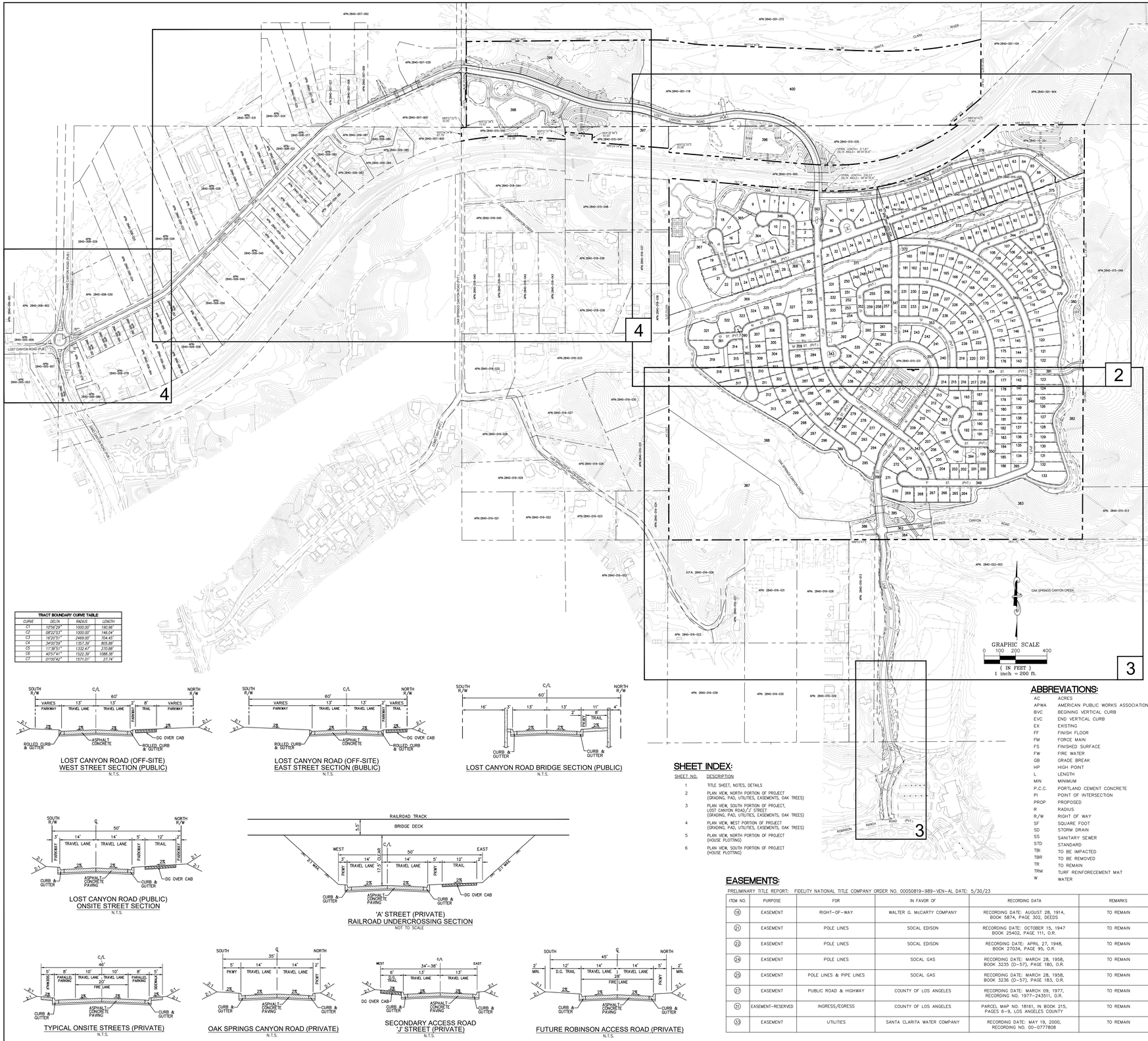
Raised planters should not be located at the top of slopes unless specially designed by the geotechnical consultant.

The recommendations above will not eliminate all movement of the pool and associated improvements, however they should reduce the degree of movement, and promote cracking along construction joints, not flatwork.

LGC

Figure 3
Geotechnical Guidelines for Swimming Pool Construction

Project Name	NUWI/Belcaro
Project No.	233012-01
Eng.	BIH/SMB
Scale	Not to Scale
Date	October 2024



PROJECT SUMMARY:

GROSS AREA: 193.8 AC
TOTAL UNITS: 341 RESIDENTIAL UNITS PROPOSED
TOTAL LOTS: 400 LOTS CONSISTING OF:
1-341 RESIDENTIAL (58.7 AC), 342 RECREATION CENTER (3.1 AC),
343-363 PRIVATE STREETS (21.6 AC) & 364-400 OPEN SPACE (107.6 AC)
ZONING: UR1, NUS

EARTHWORK SUMARY:

CUT: 800,000 cy
FILL: 300,000 cy
OVEREXCAVATION: 3,300,000 cy (15% SHRINK= 500,000 cy)
IMPORT/EXPORT: 0 cy

ASSESSOR'S PARCEL NUMBER:

2840-001-118
2840-015-025, 031, 032, 033, 034, 035, 045, 047

FLOOD ZONE:

FLOOD INSURANCE RATE MAPS COMMUNITY PANEL NUMBERS
06037C 0845F
ZONE A, ZONE AO (DEPTH 2) AND ZONE C

BENCHMARK:

L.A.C.D.P.W. B.M. VL4823 (NEWHALL QUAD 2018) ELEVATION 1489.7912

RDBM TAG IN S CB 3' W/O BCR @ SW COR SOLEDAD CYN RD & LOST CYN RD 43' S & 49' W/O C/L INT

TOPOGRAPHY:

CONTOURS ARE BASED ON AN AERIAL PHOTOGRAMETRIC SURVEY PERFORMED BY VERTEX (2024)

GENERAL NOTES:

1. LOT LINES CAN BE ADJUSTED PROVIDED NO ADDITIONAL LOTS ARE CREATED TO THE SATISFACTION OF THE CITY PLANNING DEPARTMENT.
2. ALIGNMENT AND GEOMETRICS OF STREETS AND TRAILS ARE APPROXIMATE. ADJUSTMENTS TO TRAILS CAN BE MADE WITH APPROVAL BY THE CITY OF SANTA CLARITA PLANNING DEPARTMENT AND THE PARKS AND RECREATION DEPARTMENT.
3. GRADES SHOWN ON THIS TENTATIVE MAP ARE APPROXIMATE. GRADES MAY DEVIATE UP TO FIVE FEET WITH APPROVAL OF CITY PLANNING AND ENGINEERING DEPARTMENTS.
4. PERMISSION IS REQUESTED FOR UNIT PHASING.
5. PERMISSION IS REQUESTED TO COMBINE LOTS.
6. PERMISSION IS REQUESTED TO FILE ADDITIONAL LARGE LOT PARCEL MAPS AS LONG AS EACH PARCEL IS LARGER THAN 20 ACRES.
7. PERMISSION IS REQUESTED TO CREATE ADDITIONAL LANDSCAPE/ OPEN SPACE LOTS TO THE SATISFACTION OF THE CITY PLANNING DEPARTMENT.
8. PERMISSION IS REQUESTED TO RECORD ADDITIONAL UTILITY LOTS AND PROVIDE MAINTENANCE EASEMENTS TO THE SATISFACTION OF THE CITY OF SANTA CLARITA PLANNING AND ENGINEERING DEPARTMENTS.
9. THE LOCATIONS OF APPURTENANT STRUCTURES (E.G., TRAILS, BRIDGES, WATER QUALITY BASINS, ETC.) MAY BE RELOCATED TO SATISFACTION OF THE CITY OF SANTA CLARITA PLANNING AND ENGINEERING DEPARTMENTS.
10. PERMISSION IS REQUESTED TO MASS GRADE.
11. THE PROJECT COMPLIES TO SAND CANYON SPECIAL DISTRICT STANDARD REQUIREMENTS.

TITLE REPORTS:

PRELIMINARY REPORT PREPARED BY FIDELITY NATIONAL TITLE COMPANY
EFFECTIVE DATE: MAY 30, 2023
ORDER NO.: 00050819-989-VEN-AL
EFFECTS: APNs 2840-001-118
2840-015-031, 032, 033, 034, 035, 045, 047

PUBLIC UTILITIES:

CABLE TV: CHARTER COMMUNICATIONS
14221 COVELLO STREET
VAN NUYS, CA 31405
(661) 483-3021

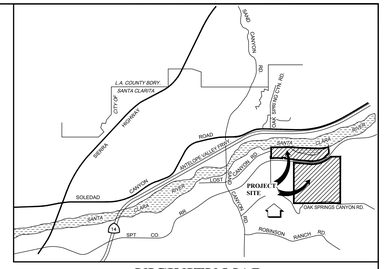
ELECTRIC: SOUTHERN CALIFORNIA EDISION CO.
3589 FOOTHILL DRIVE
THOUSAND OAKS, CA 91361
(818) 999-1800

GAS: SOUTHERN CA. GAS COMPANY
9400 OAKDALE AVENUE
CHATSWORTH, CA 91313
(818) 701-7516

SEWER: LOS ANGELES COUNTY
SEWER MAINTENANCE DEPARTMENT
45712 NORTH DIVISION
LANCASTER, CA. 93535
(626) 300-3370

TELEPHONE: AT&T
26971 N. FURNIVALL AVENUE
SANTA CLARITA, CA 91351
CARLOS CAZAN (661) 251-8799

WATER: SANTA CLARITA VALLEY WATER DISTRICT
26521 SUMMIT CIRCLE
SANTA CLARITA, CA. 91350
(661) 259-2737



VICINITY MAP
NOT TO SCALE

LOT AREA SUMMARY TABLE

LOT NO.	AREA (SF)	LOT NO.	AREA (SF)	LOT NO.	AREA (SF)	LOT NO.	AREA (SF)	LOT NO.	AREA (SF)
1	6,625	81	5,026	161	7,083	241	8,062	321	19,651
2	5,553	82	5,059	162	6,594	242	8,698	322	11,826
3	5,516	83	5,058	163	6,569	243	8,227	323	10,128
4	8,993	84	5,622	164	6,860	244	7,951	324	8,755
5	9,151	85	9,358	165	6,384	245	7,331	325	8,753
6	6,381	86	6,410	166	6,714	246	5,948	326	1,001
7	6,368	87	5,636	167	6,384	247	5,166	327	15,439
8	7,763	88	5,426	168	6,384	248	5,131	328	8,704
9	10,622	89	5,118	169	6,714	249	5,450	329	11,000
10	6,222	90	5,424	170	6,384	250	8,082	330	10,000
11	5,863	91	5,116	171	6,714	251	5,247	331	9,290
12	6,825	92	5,423	172	6,384	252	5,000	332	8,610
13	6,510	93	5,320	173	6,714	253	5,300	333	8,925
14	6,000	94	5,565	174	6,714	254	6,344	334	8,925
15	6,083	95	6,802	175	6,640	255	8,129	335	13,825
16	6,383	96	5,074	176	6,423	256	6,613	336	9,133
17	8,492	97	6,882	177	7,370	257	5,822	337	11,917
18	8,521	98	7,568	178	6,000	258	5,300	338	9,169
19	9,180	99	7,871	179	6,000	259	6,111	339	7,500
20	8,101	100	5,888	180	6,300	260	10,460	340	7,500
21	10,055	101	5,142	181	6,000	261	5,914	341	8,000
22	8,880	102	5,306	182	6,000	262	6,875	342	133,556
23	6,389	103	5,513	183	6,300	263	7,123	343	107,565
24	5,200	104	5,287	184	6,200	264	6,976	344	106,032
25	5,301	105	5,481	185	6,200	265	6,500	345	45,501
26	5,001	106	5,516	186	7,002	266	7,500	346	23,732
27	5,502	107	7,173	187	7,155	267	7,500	347	35,139
28	5,003	108	8,231	188	6,434	268	8,001	348	23,365
29	6,105	109	5,334	189	6,646	269	7,740	349	141,576
30	7,502	110	5,227	190	6,552	270	10,990	350	30,337
31	7,036	111	5,334	191	6,521	271	10,996	351	43,412
32	5,419	112	5,227	192	8,783	272	11,766	352	28,373
33	5,420	113	5,334	193	6,937	273	10,505	353	32,745
34	5,421	114	5,227	194	8,027	274	8,896	356	36,406
35	5,422	115	5,334	195	7,120	275	8,675	357	58,566
36	5,423	116	9,661	196	12,593	276	7,533	358	9,270
37	5,423	117	10,408	197	7,732	277	7,800	359	9,270
38	5,577	118	10,333	198	12,748	278	7,500	360	90,578
39	8,581	119	12,445	199	8,173	279	7,750	361	12,203
40	8,410	120	12,181	200	6,263	280	8,874	362	9,980
41	9,997	121	11,242	201	6,300	281	8,367	363	55,106
42	10,782	122	10,014	202	6,000	282	8,190	364	62,204
43	8,714	123	10,180	203	6,000	283	8,728	365	1,664
44	8,220	124	11,789	204	8,899	284	9,140	366	60,394
45	7,137	125	11,014	205	6,526	285	9,320	367	220,036
46	7,096	126	8,865	206	6,526	286	8,179	368	9,196
47	6,320	127	7,606	207	6,751	287	8,711	369	100,877
48	6,162	128	7,336	208	6,526	288	8,179	370	5,020
49	5,846	129	8,229	209	7,073	289	8,923	371	46,492
50	5,735	130	9,540	210	8,652	290	8,845	372	5,038
51	5,708	131	10,636	211	7,805	291	7,750	373	73,891
52	5,762	132	11,861	212	6,804	292	7,500	374	1,006
53	6,018	133	17,320	213	6,700	293	8,142	375	32,092
54	6,123	134	7,642	214	8,188	294	11,113	377	27,422
55	6,389	135	6,300	215	6,200	295	12,847	378	6,232
56	6,477	136	6,300	216	6,300	296	9,466	379	9,283
57	6,499	137	6,615	217	6,000	297	9,742	380	187,317
58	6,241	138	6,300	218	6,583	298	11,765	381	15,927
59	6,234	139	6,300	219	6,748	299	12,532	382	79,738
60	5,905	140	6,300	220	7,149	300	8,364	383	342,307
61	5,622	141	6,300	221	8,094	301	7,988	384	17,854
62	5,339	142	7,123	222	7,292	302	7,827	385	45,170
63	5,799	143	6,902	223	7,314	303	8,149	386	23,168
64	5,921	144	6,635	224	7,314	304	7,774	387	483,693
65	5,977	145	6,968	225	7,314	305	7,500	388	558,112
66	6,963	146	6,683	226	7,314	306	9,401	389	7,242
67	8,866	147	6,968	227	6,970	307	8,861	390	1,691
68	5,476	148	6,683	228	7,314	308	7,500	391	17,370
69	5,035	149	6,968	229	7,314	309	8,330	392	20,511
70	5,034	150	6,683	230	6,594	310	7,825	393	5,610
71	5,336	151	6,968	231	6,523	311	7,847	394	6,846
72	5,033	152	6,968	232	6,423	312	9,499	395	3,308
73	5,334	153	7,004	233	6,531	313	14,490	396	90,628
74	5,031	154	6,724	234	6,957	314	8,897	397	237,574
75	5,031	155	6,718	235	7,318	315	7,627	398	220,283
76	5,030	156	6,724	236	6,957	316	8,257	399	314,363
77	5,029	157	6,589	237	7,318	317	13,939	400	1,172,238
78	5,062	158	6,852	238	7,598	318	16,207		
79	5,061	159	5,898	239	7,380	319	15,808		
80	5,027	160	7,891	240	8,174	320	13,686		

TRACT BOUNDARY CURVE TABLE			
CURVE	DELTA	RADIUS	LENGTH
C1	10°56'29"	1000.00'	190.96'
C2	08°22'03"	1000.00'	146.04'
C3	16°20'51"	2469.00'	704.45'
C4	34°00'59"	1357.39'	805.88'
C5	11°38'51"	1332.47'	270.88'
C6	40°57'41"	1522.39'	1088.38'
C7	01°00'42"	1571.01'	27.74'

LOST CANYON ROAD (OFF-SITE)
WEST STREET SECTION (PUBLIC)
N.T.S.

LOST CANYON ROAD (OFF-SITE)
EAST STREET SECTION (BUBLIC)
N.T.S.

LOST CANYON ROAD BRIDGE SECTION (PUBLIC)
N.T.S.

LOST CANYON ROAD (PUBLIC)
ONSITE STREET SECTION
N.T.S.

'A' STREET (PRIVATE)
RAILROAD UNDERCROSSING SECTION
NOT TO SCALE

SHEET INDEX:

SHEET NO.	DESCRIPTION
1	TITLE SHEET, NOTES, DETAILS
2	PLAN VIEW, NORTH PORTION OF PROJECT (GRADING, PAD, UTILITIES, EASEMENTS, OAK TREES)
3	PLAN VIEW, SOUTH PORTION OF PROJECT, LOST CANYON ROAD/'C' STREET (GRADING, PAD, UTILITIES, EASEMENTS, OAK TREES)
4	PLAN VIEW, WEST PORTION OF PROJECT (GRADING, PAD, UTILITIES, EASEMENTS, OAK TREES)
5	PLAN VIEW, NORTH PORTION OF PROJECT (HOUSE PLOTTING)
6	PLAN VIEW, SOUTH PORTION OF PROJECT (HOUSE PLOTTING)

ABBREVIATIONS:

AC	ACRES
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
BVC	BEGINNING VERTICAL CURB
EVC	END VERTICAL CURB
EX	EXISTING
FF	FINISH FLOOR
FM	FORCE MAIN
FS	FINISHED SURFACE
FW	FIRE WATER
GB	GRADE BREAK
HP	HIGH POINT
L	LENGTH
MIN	MINIMUM
P.C.C.	PORTLAND CEMENT CONCRETE
PI	POINT OF INTERSECTION
PROP	PROPOSED
R	RADIUS
R/W	RIGHT OF WAY
SF	SQUARE FOOT
SD	STORM DRAIN
SS	SANITARY SEWER
STD	STANDARD
TBI	TO BE IMPACTED
TBR	TO BE REMOVED
TR	TO REMAIN
TRM	TURF REINFORECEMENT MAT
W	WATER

LEGEND:

TRACT BOUNDARY
EXISTING CONTOUR
1600 PROPOSED CONTOUR
VAC PROPOSED DAYLIGHT LINE
EXISTING PARCEL LINE
PROPOSED LOTLINE
PROPOSED RIGHT OF WAY
EXISTING RIGHT OF WAY
PROPOSED CURB
EXISTING CURB
SD PROPOSED STORM DRAIN (PRIVATE)
SD EXISTING STORM DRAIN
S PROPOSED SEWER (PRIVATE)
S EXISTING SEWER
W PROPOSED WATER
W EXISTING WATER
F PROPOSED FIRE
F PROPOSED FIRE HYDRANT
G PROPOSED GAS LINE
G EXISTING GAS LINE
JT PROPOSED JOINT TRENCH
JT EXISTING JOINT TRENCH

EASEMENTS:

PRELIMINARY TITLE REPORT: FIDELITY NATIONAL TITLE COMPANY ORDER NO. 00050819-989-VEN-AL DATE: 5/30/23

ITEM NO.	PURPOSE	FOR	IN FAVOR OF	RECORDING DATA	REMARKS
(18)	EASEMENT	RIGHT-OF-WAY	WALTER G. McCARTY COMPANY	RECORDING DATE: AUGUST 28, 1914, BOOK 5874, PAGE 302, DEEDS	TO REMAIN
(21)	EASEMENT	POLE LINES	SOCAL EDISON	RECORDING DATE: OCTOBER 15, 1947 BOOK 25402, PAGE 111, O.R.	TO REMAIN
(22)	EASEMENT	POLE LINES	SOCAL EDISON	RECORDING DATE: APRIL 27, 1948, BOOK 27034, PAGE 95, O.R.	TO REMAIN
(24)	EASEMENT	POLE LINES	SOCAL GAS	RECORDING DATE: MARCH 28, 1958, BOOK 3235 (O-57), PAGE 180, O.R.	TO REMAIN
(25)	EASEMENT	POLE LINES & PIPE LINES	SOCAL GAS	RECORDING DATE: MARCH 28, 1958, BOOK 3236 (O-57), PAGE 183, O.R.	TO REMAIN
(27)	EASEMENT	PUBLIC ROAD & HIGHWAY	COUNTY OF LOS ANGELES	RECORDING DATE: MARCH 09, 1972, RECORDING NO. 1977-243511, O.R.	TO REMAIN
(31)	EASEMENT-RESERVED	INGRESS/EGRESS	COUNTY OF LOS ANGELES	PARCEL MAP NO. 18161, IN BOOK 215, PAGES 6-9, LOS ANGELES COUNTY	TO REMAIN
(33)	EASEMENT	UTILITIES	SANTA CLARITA WATER COMPANY	RECORDING DATE: MAY 19, 2000, RECORDING NO. 00-0777808	TO REMAIN

PROJECT DATA:

AREAS	LOT NOS.	ACREAGE
SINGLE FAMILY	1-341	58.7
REC AREA/ CLUBHOUSE	342	3.1
PVT. STREET/ DRIVEWAYS	343-363	21.6
OPEN SPACE	364-400	107.6
PUB. STREETS (LOST CYN. RD.)		2.8
TOTAL		193.8

OAK TREE DATA:

STATUS	DESCRIPTION	# OF TREES
(TR)	TO REMAIN	297 (43 OFF-SITE)
(TBI)	MINOR IMPACT (ENCROACHMENT & TRIMMING)	40 (1 OFF-SITE)
(TBI)	MAJOR IMPACT (ENCROACHMENT & TRIMMING)	7 (2 OFF-SITE)
(TBR)	TO BE REMOVED	11 (3 OFF-SITE)
(D)(TR)	DEAD (TO REMAIN)	48 (5 OFF-SITE)
(D)(TBR)	DEAD (TO BE REMOVED)	12 (0 OFF-SITE)
TOTAL:		405 (54 OFF-SITE)

TYPICAL ONSITE STREETS (PRIVATE)
N.T.S.

OAK SPRINGS CANYON ROAD (PRIVATE)
N.T.S.

SECONDARY ACCESS ROAD
'J' STREET (PRIVATE)
N.T.S.

FUTURE ROBINSON ACCESS ROAD (PRIVATE)
N.T.S.

ALLIANCE
LAND PLANNING & ENGINEERING INC.
CIVIL ENGINEERING • LAND PLANNING • HILLSIDE DESIGN • SURVEYING
2248 FARADAY AVE.
CARLSBAD, CA 92008
TEL: (760) 431-9896
FAX: (760) 431-9802
27413 TOURNEY ROAD
SUITE 120
VALENCIA, CA 91355
TEL: (661) 799-2760

PLAN PREPARED FOR:
NUWI-SAND CANYON, LLC
2001 WILSHIRE BLVD. SUITE 401
SANTA MONICA, CA 90403
TEL: (916) 717-8599
ATTN: COREY HARPOLE

PLANS PREPARED BY:
ALLIANCE LAND PLANNING & ENGINEERING INC.
2248 FARADAY AVE.
CARLSBAD, CA 92008
(760) 431-9896
PLANS PREPARED UNDER THE DIRECTION OF:
CRAIG M. WHITTEKER R.C.E. 51929 — 9/27/24 DATE

REGISTERED PROFESSIONAL ENGINEER CRAIG M. WHITTEKER NO. 51929 EXP. 6-30-26 CIVIL STATE OF CALIFORNIA

NO.	DATE	REVISIONS	BY	APPR

Geotechnical Map
Belcaro, VTTM 084497
City of Santa Clarita, California

PLATE 1A

LGC — LGC Valley, Inc.
28532 Constellation Road
Valencia, CA 91355
TEL (661) 702-8474 FAX (661) 702-8475

PROJECT NAME	Belcaro-Mancara
PROJECT NO.	23-01-01
ENG. / GEOL.	SW / SMB
SCALE	1" = 200'
DATE	October 2024

SHEET 1 — CITY OF SANTA CLARITA — 6 SHEETS

BELCARO AT SAND CANYON
VESTING TENTATIVE TRACT MAP 084497

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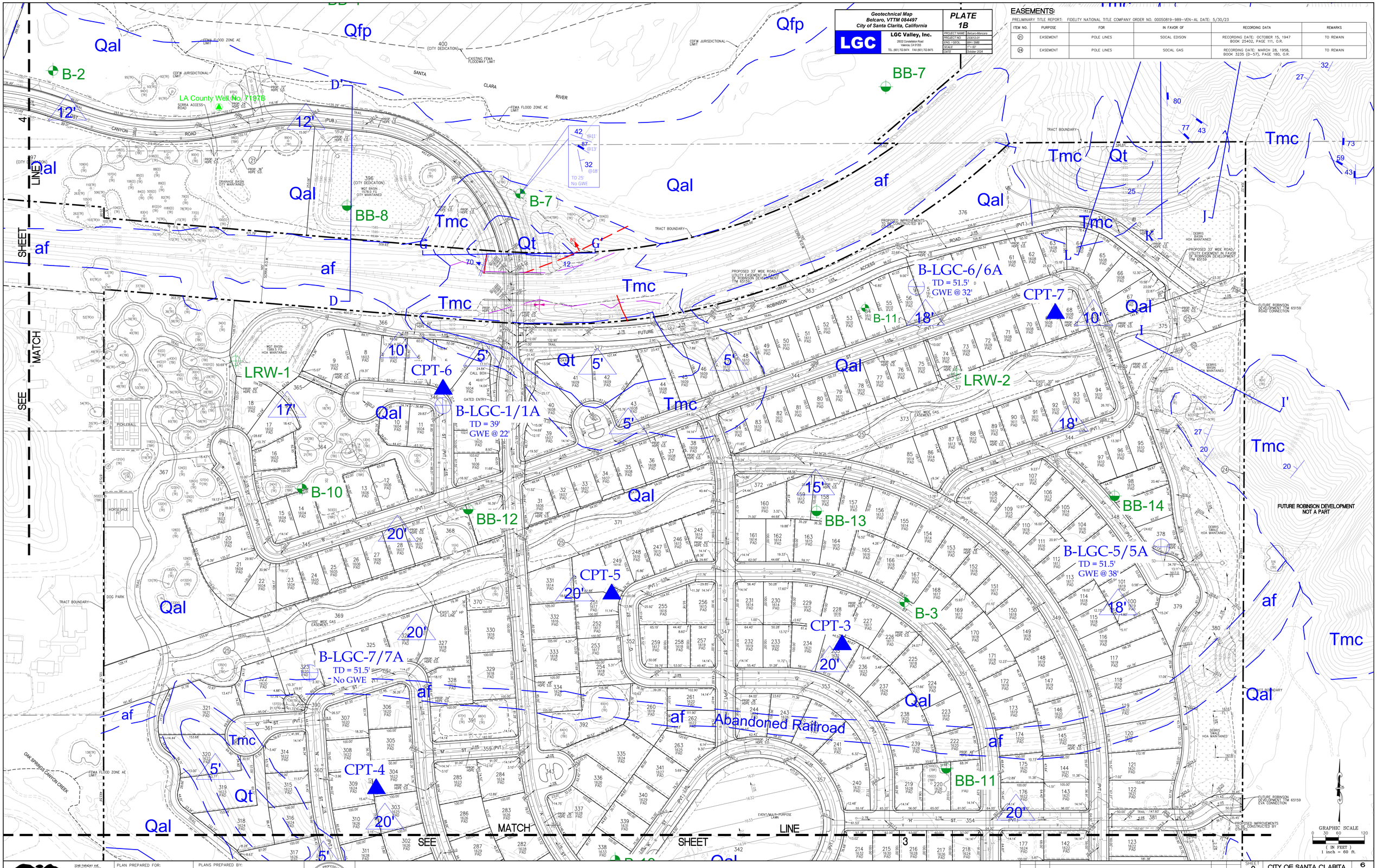

Geotechnical Map
Belcaro, VTTM 084497
City of Santa Clarita, California

PLATE 1B

LGC Valley, Inc.
28032 Constellation Road
Valencia, CA 91355
TEL: (661) 702-8474 FAX: (661) 702-8475

PROJECT NAME	Belcaro-Mancara
PROJECT NO.	233012-01
ENG / GEOL	BIH / SMB
SCALE	1" = 60'
DATE	October 2024

EASEMENTS:

PRELIMINARY TITLE REPORT: FIDELITY NATIONAL TITLE COMPANY ORDER NO. 00050819-989-VEN-AL DATE: 5/30/23

ITEM NO.	PURPOSE	FOR	IN FAVOR OF	RECORDING DATA	REMARKS
21	EASEMENT	POLE LINES	SOCAL EDISON	RECORDING DATE: OCTOBER 15, 1947 BOOK 25402, PAGE 111, O.R.	TO REMAIN
24	EASEMENT	POLE LINES	SOCAL GAS	RECORDING DATE: MARCH 28, 1958, BOOK 3235 (D-57), PAGE 180, O.R.	TO REMAIN

ALLIANCE LAND PLANNING & ENGINEERING INC.
2248 FARADAY AVE.
CARLSBAD, CA 92008
TEL: (760) 431-9896
FAX: (760) 431-8802
27413 TOURNEY ROAD
SUITE 320
VALENCIA, CA 91355
TEL: (661) 799-2760
CIVIL ENGINEERING • LAND PLANNING • HILLSIDE DESIGN • SURVEYING

PLAN PREPARED FOR:
NUWI-SAND CANYON, LLC
2001 WILSHIRE BLVD. SUITE 401
SANTA MONICA, CA 90403
TEL: (916) 717-8599
ATTN: COREY HARPOLE

PLANS PREPARED BY:
ALLIANCE LAND PLANNING & ENGINEERING INC.
2248 FARADAY AVE.
CARLSBAD, CA 92008
(760) 431-9896
PLANS PREPARED UNDER THE DIRECTION OF:
CRAIG M. WHITTEKER R.C.E. 51929 9/27/24 DATE

REGISTERED PROFESSIONAL ENGINEER
CRAIG M. WHITTEKER
NO. 51929
EXP. 6-30-26
CIVIL
STATE OF CALIFORNIA

NO.	DATE	REVISIONS	BY	APPR

SHEET 2 CITY OF SANTA CLARITA 6 SHEETS

BELCARO AT SAND CANYON
VESTING TENTATIVE TRACT MAP 084497

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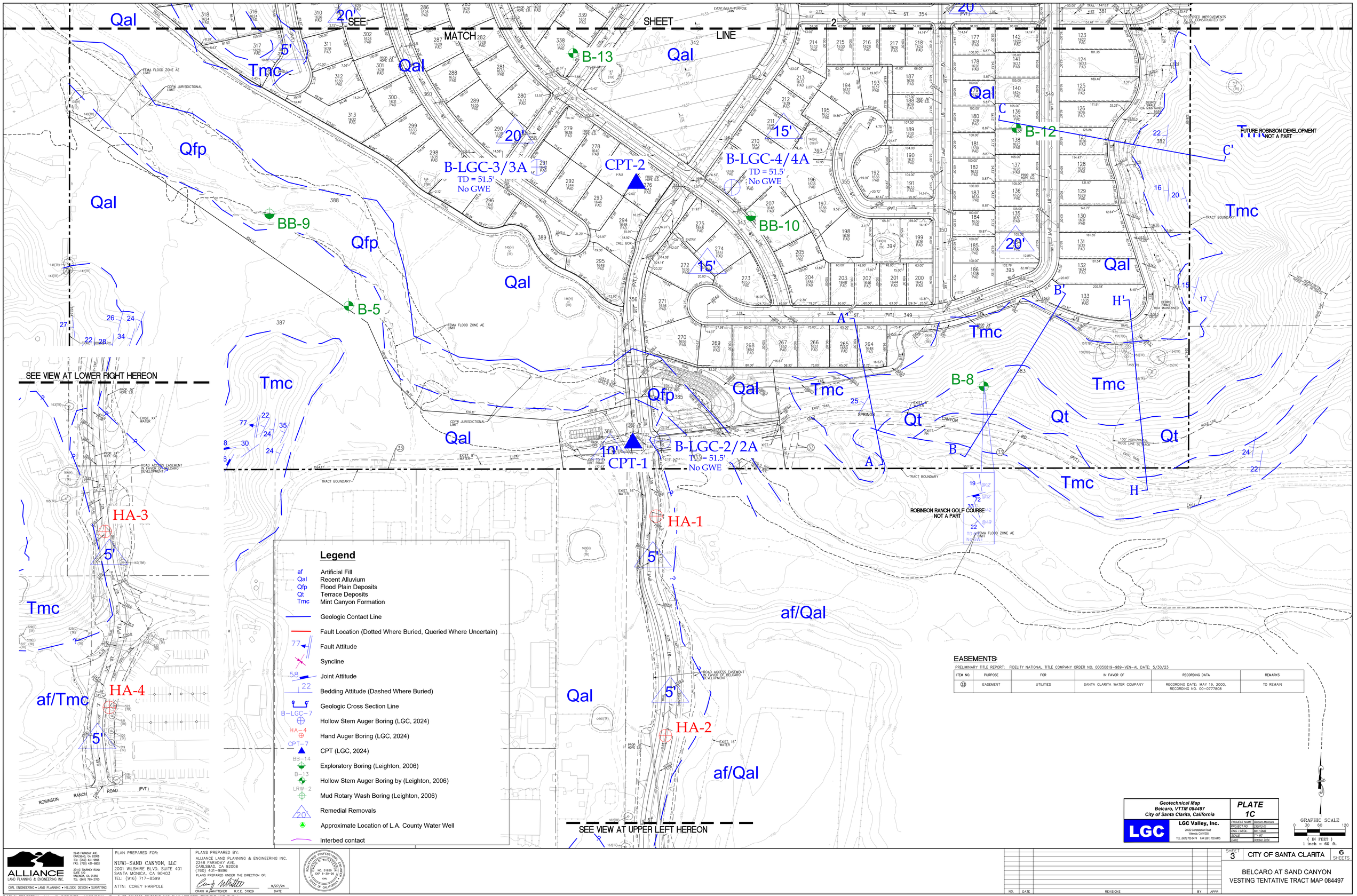

Legend

af	Artificial Fill
Qal	Recent Alluvium
Qfp	Flood Plain Deposits
Qt	Terrace Deposits
Tmc	Mint Canyon Formation
	Geologic Contact Line
	Fault Location (Dotted Where Buried, Queried Where Uncertain)
77	Fault Attitude
	Syncline
58	Joint Attitude
22	Bedding Attitude (Dashed Where Buried)
B-LGC-7	Geologic Cross Section Line
HA-4	Hollow Stem Auger Boring (LGC, 2024)
CPT-7	Hand Auger Boring (LGC, 2024)
BB-14	CPT (LGC, 2024)
B-13	Exploratory Boring (Leighton, 2006)
LRW-2	Hollow Stem Auger Boring by (Leighton, 2006)
20'	Mud Rotary Wash Boring (Leighton, 2006)
	Remedial Removals
	Approximate Location of L.A. County Water Well
	Interbed contact

EASEMENTS:

PRELIMINARY TITLE REPORT: FIDELITY NATIONAL TITLE COMPANY ORDER NO. 00050819-989-VEN-AL DATE: 5/30/23

ITEM NO.	PURPOSE	FOR	IN FAVOR OF	RECORDING DATA	REMARKS
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Geotechnical Map
Belcaro, VTTM 084497
City of Santa Clarita, California

PLATE 1C

LGC — LGC Valley, Inc.
28322 Constellation Road, Valencia, CA 91355
TEL. (661) 702-8474 FAX (661) 702-8475

PROJECT NAME	Belcaro-Mancara
PROJECT NO.	233012-01
ENG. / GEOL.	BW / SMB
SCALE	1" = 60'
DATE	October 2024

GRAPHIC SCALE
0 30 60 120
(IN FEET)
1 inch = 60 ft.

ALLIANCE LAND PLANNING & ENGINEERING INC.
2248 FARADAY AVE. CARLSBAD, CA 92008 TEL: (760) 431-9896 FAX: (760) 431-9882
27413 TOURNEY ROAD SUITE 120 VALENCIA, CA 91355 TEL: (661) 799-2760
CIVIL ENGINEERING • LAND PLANNING • HILLSIDE DESIGN • SURVEYING

PLAN PREPARED FOR:
NUWI-SAND CANYON, LLC
2001 WILSHIRE BLVD. SUITE 401
SANTA MONICA, CA 90403
TEL: (916) 717-8599
ATTN: COREY HARPOLE

PLANS PREPARED BY:
ALLIANCE LAND PLANNING & ENGINEERING INC.
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(760) 431-9896
PLANS PREPARED UNDER THE DIRECTION OF:
CRAIG M. WHITTEKER R.C.E. 51929 — 9/27/24 DATE

REGISTERED PROFESSIONAL ENGINEER — CRAIG M. WHITTEKER — NO. 51929 — EXP. 6-30-26 — CIVIL — STATE OF CALIFORNIA

NO.	DATE	REVISIONS	BY	APPR

SHEET 3 | CITY OF SANTA CLARITA | 6 SHEETS

BELCARO AT SAND CANYON
VESTING TENTATIVE TRACT MAP 084497

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EASEMENTS:

PRELIMINARY TITLE REPORT: FIDELITY NATIONAL TITLE COMPANY ORDER NO. 00050819-989-VEN-AL DATE: 5/30/23

ITEM NO.	PURPOSE	FOR	IN FAVOR OF	RECORDING DATA	REMARKS
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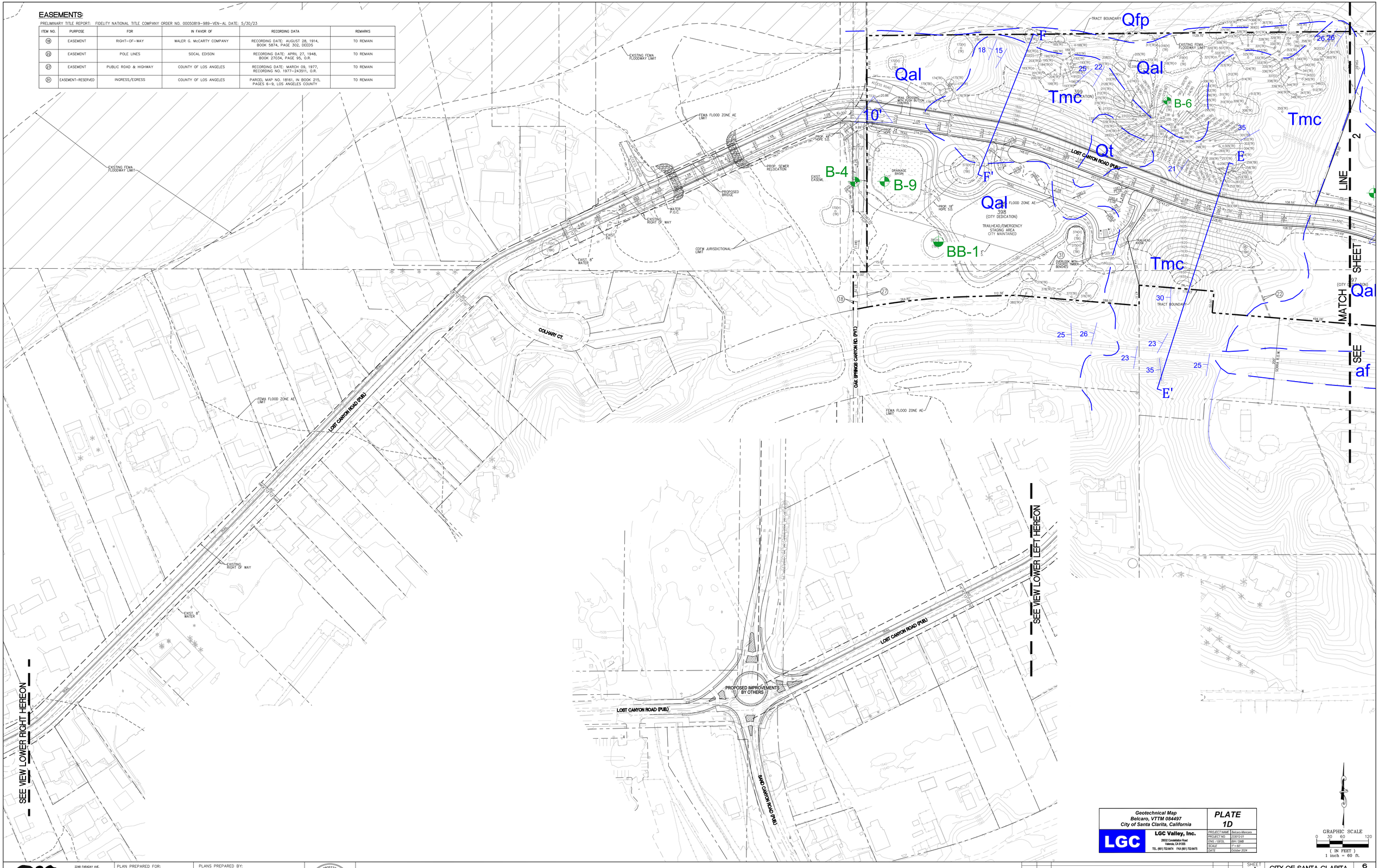
27	EASEMENT	PUBLIC ROAD & HIGHWAY	COUNTY OF LOS ANGELES	RECORDING DATE: MARCH 09, 1977, RECORDING NO. 1977-243511, O.R.	TO REMAIN
31	EASEMENT-RESERVED	INGRESS/EGRESS	COUNTY OF LOS ANGELES	PARCEL MAP NO. 18161, IN BOOK 215, PAGES 6-9, LOS ANGELES COUNTY	TO REMAIN



Geotechnical Map Belcaro, VTTM 084497 City of Santa Clarita, California	PLATE 1D
LGC Valley, Inc. 28532 Constellation Road Valencia, CA 91355 TEL. (661) 702-8474 FAX (661) 702-8475	PROJECT NAME: Belcaro-Mancara PROJECT NO.: 233012-01 ENG. / GEOL.: BH / SMB SCALE: 1" = 60' DATE: October 2024

ALLIANCE LAND PLANNING & ENGINEERING INC.
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(760) 431-9896
PLANS PREPARED UNDER THE DIRECTION OF:
CRAIG M. WHITTEKER R.C.E. 51929 9/27/24 DATE

REGISTERED PROFESSIONAL ENGINEER CRAIG M. WHITTEKER NO. 51929 EXP 6-30-24 CIVIL STATE OF CALIFORNIA

NO.	DATE	REVISIONS	BY	APPR

SHEET 4 CITY OF SANTA CLARITA 6 SHEETS

BELCARO AT SAND CANYON
VESTING TENTATIVE TRACT MAP 084497

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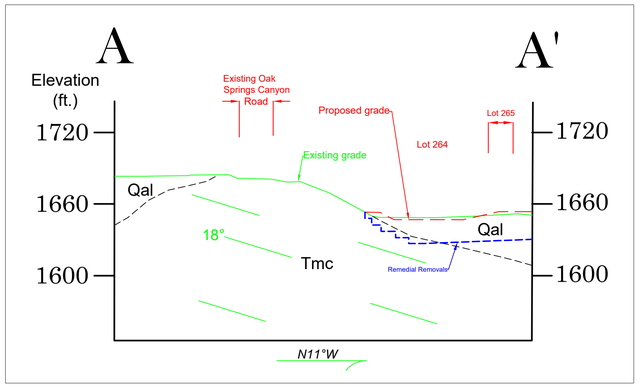
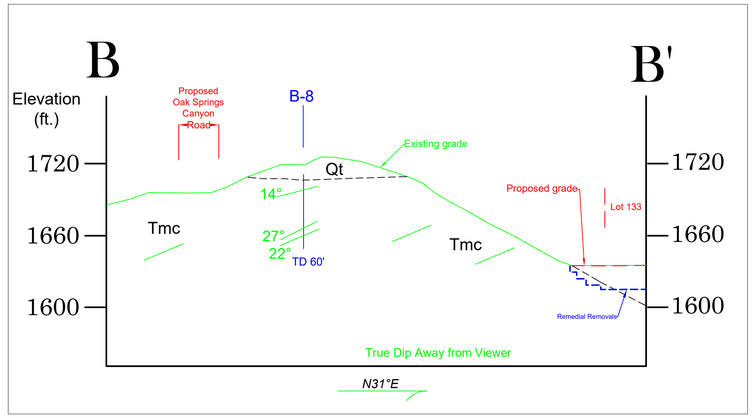
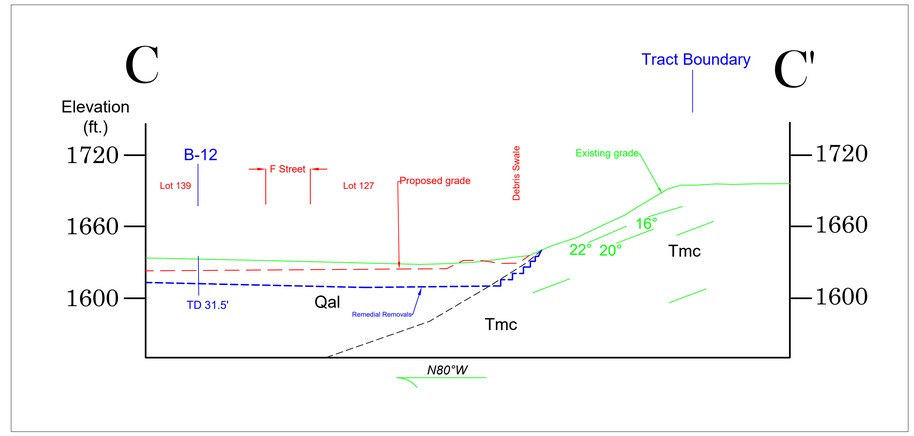
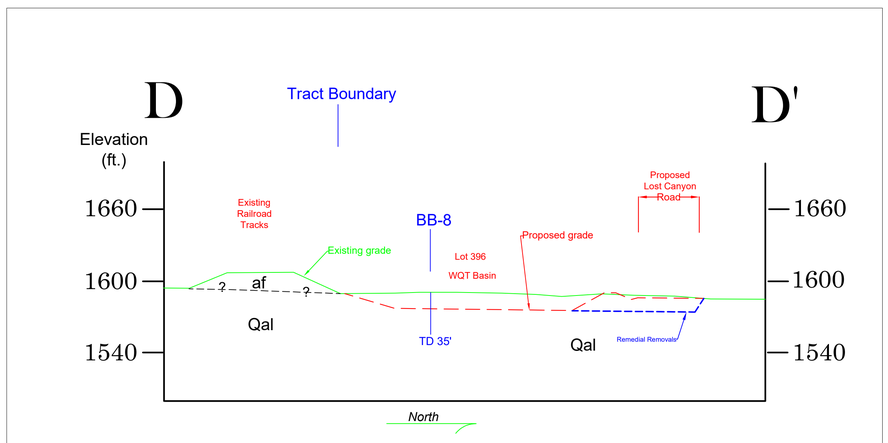
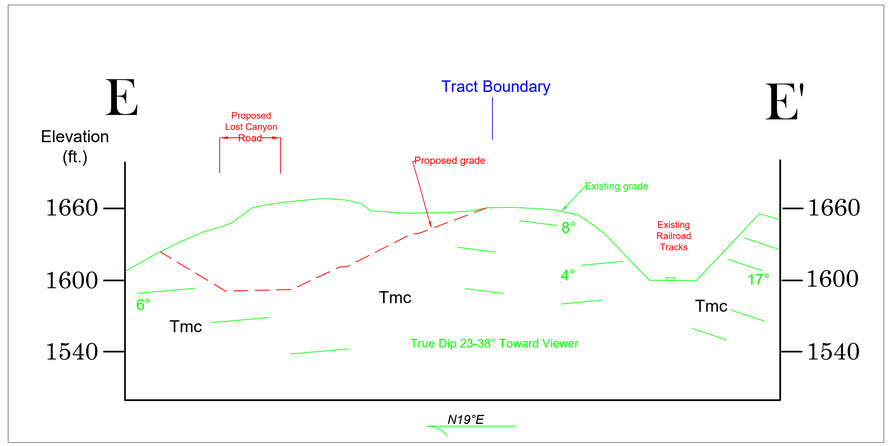
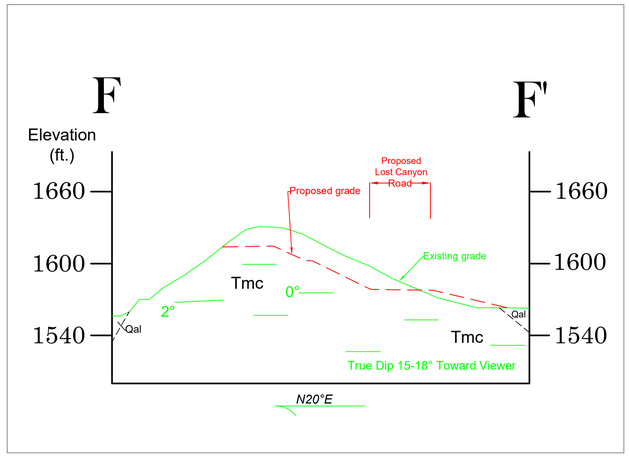


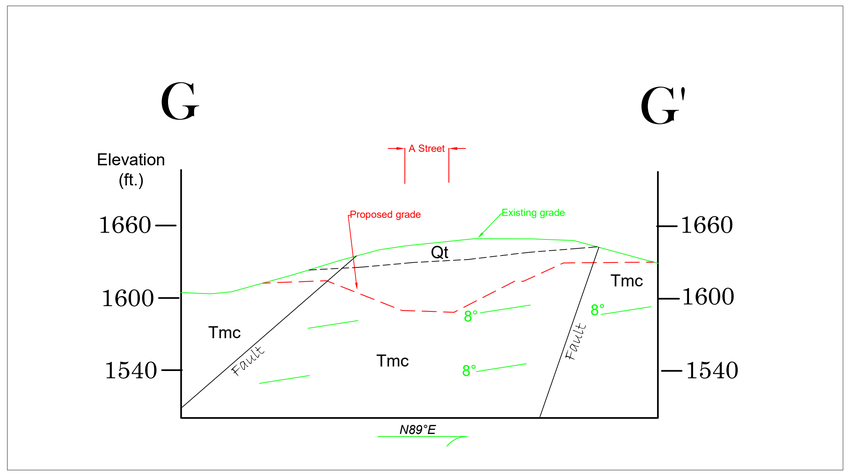


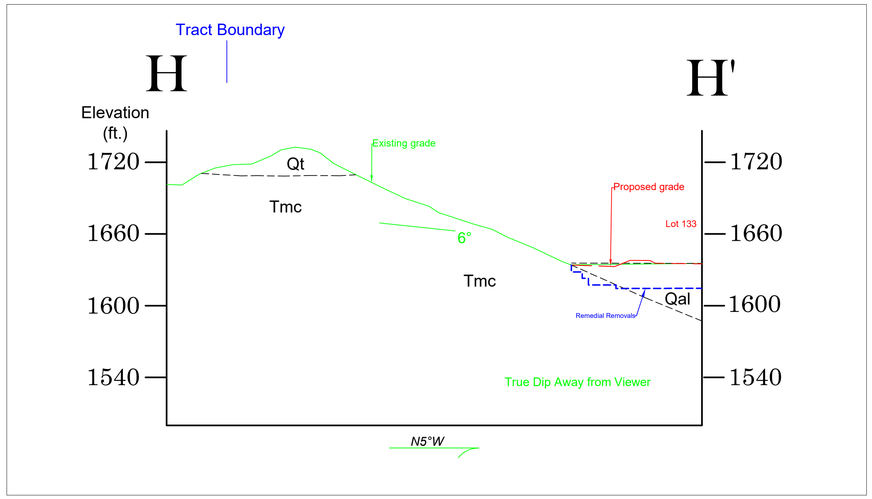


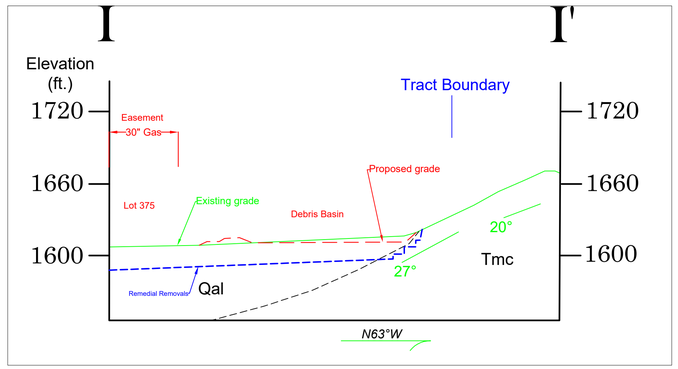




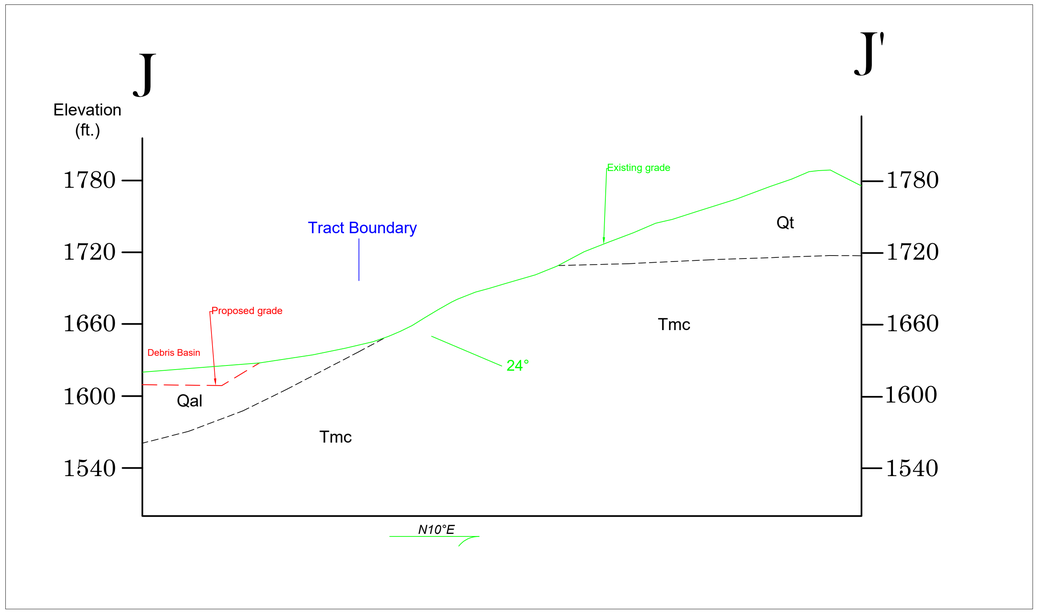


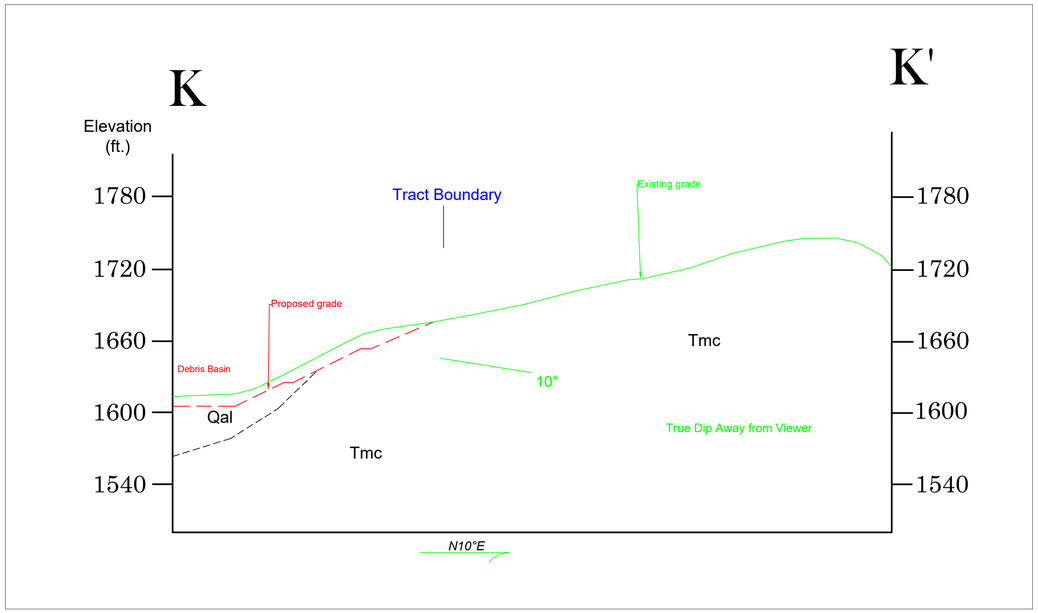


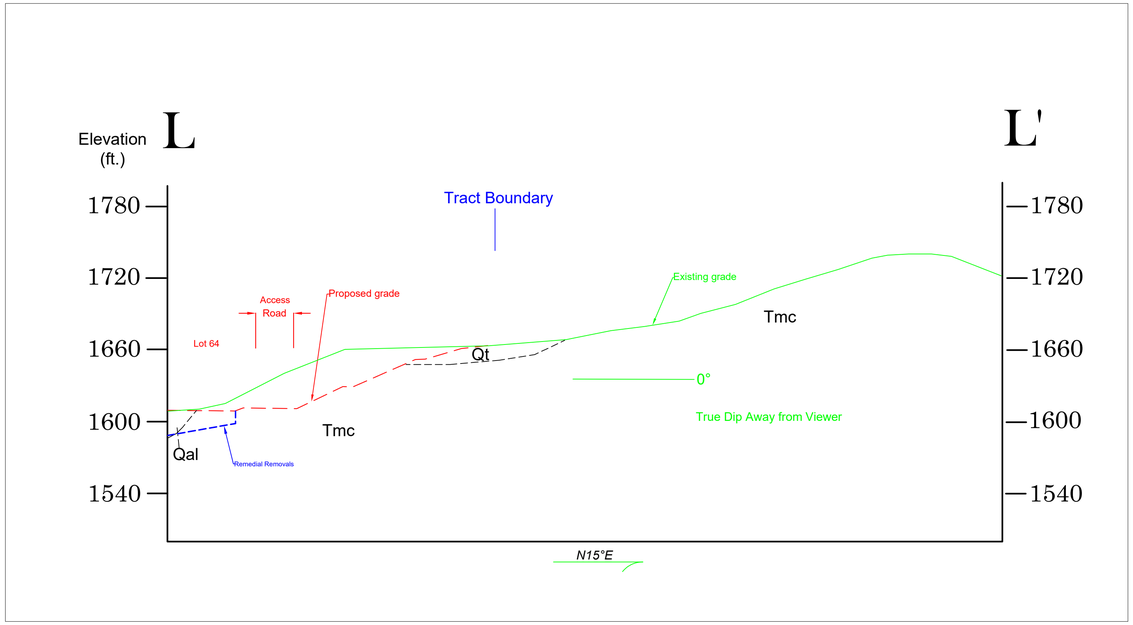




Geologic Cross Sections *Belcaro* *City of Santa Clarita, California*		***PLATE 2A***
LGC	**LGC Valley, Inc.** 28532 Constellation Road Valencia, CA 91355 TEL. (661) 702-8474 FAX (661) 702-8475	PROJECT NAME: Belcaro-Mancara PROJECT NO.: 233012-01 ENG. / GEOL.: BIH / SMB SCALE: 1" = 60' DATE: October 2024







Geologic Cross Sections
Belcaro
City of Santa Clarita, California

PLATE 2B

LGC

LGC Valley, Inc.
28532 Constellation Road
Valencia, CA 91355
TEL. (661) 702-8474 FAX (661) 702-8475

PROJECT NAME	Belcaro-Mancara
PROJECT NO.	23091Z-01
ENG. / GEOL.	BIH / SMB
SCALE	1" = 60'
DATE	October 2024

APPENDIX A

References

Alliance Land Planning and Engineering, Inc., September 27, 2024, Belcaro at Sand Canyon Site Development Plan. Scale 1" = 60'.

American Concrete Institute, 1985, Manual of Concrete Practice, Parts 1 and 2.

ASCE, 2021, https://asce7hazardtool.online/

California Building Standards Commission (CBSC), 2022, California Building Code, California Code of Regulations, Title 24, Part 2, Volume 1 and 2 of 2.

California Geologic Survey, Department of Conservation, 1999, State of California Seismic Hazard Zone Map, Mint Canyon Quadrangle.

___, 1998, Seismic Hazard Report for the Mint Canyon 7.5-Minute Quadrangle, Los Angeles County, California, SHZR 018.

___, 2008, Guidelines for evaluating and mitigating seismic hazards in California, Special Publication 117a.

County of Los Angeles, Department of Public Works Geotechnical and Materials Engineering Division, Guidelines for Geotechnical Investigation and Reporting Low Impact Development Stormwater Infiltration, GS200.2, Dated June 30, 2017.

Dibblee, T.W., Jr., 1996, Geologic Map of the Mint Canyon Quadrangle, Los Angeles County, California: Dibblee Geological Foundation Map # DF-57, Scale = 1:24,000.

Google Maps at http://www.googlemaps.com

Hart and Bryant, Interim Revision 2007, Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps: California Geological Survey, Department of Conservation Special Publication 42 (SP-42).

Ishihara, K., 1985, "Stability of Natural Deposits During Earthquakes". Proceedings of the Eleventh International Conference on Soil Mechanics and Foundation Engineering. A.A. Bakema Publishers, Rotterdam, Netherlands.

JMK Environmental Solutions, Inc., April 14, 2005, Phase I Environmental Site Assessment, 27734 Sand Canyon Road, Santa Clarita, Project JMK-SI-17611.

Leighton and Associates, December 5, 2006, Revised Geotechnical Assessment Report, Proposed Tentative Tract No. 063022, Robinson Ranch Development, Sulfur Springs, Santa Clarita, California, Project No. 061989-002.

APPENDIX A

References Con't

Pradel, D., 1998, "Procedure to Evaluate Earthquake Induced Settlements in Dry Sandy Soils", Journal of Geotechnical and Geoenvironmental Engineering, Vol. 124, No. 4, April 1998.

RT Frankian and Associates, February 24, 2017, 100-Scale Plan Review, Tentative Tract No. 063022, Mancara Development, Santa Clarita, California, Job No. 2014-024-021.

Sadigh, K., Chang, C.-Y., Egan, J.A., Makdisi, F., and Youngs, R.R. (1997), "Attenuation Relations for Shallow Crustal Earthquakes Based on California Strong Motion Data," Seismological Research Letters, Vol. 68, No. 1, pp. 180-189.

Saul, Richard B. and Tom M. Wootton, 1983, Geology of the South Half of the Mint Canyon Quadrangle, Los Angeles County, California: DMG OFR 83-24.

Tokimatsu, Kohji, and Seed, H.B., "Evaluation of Settlements in Sands Due to Earthquake Shaking," Journal of Geotechnical Engineering, Vol. 113, No. 8, August 1987.

United States Geological Survey (USGS), 2008a, "2008 National Seismic Hazard Maps – Fault Parameters" Retrieved August 1, 2017, from: https://earthquake.usgs.gov/hazards/interactive/

_____, 2008b, "Dynamic: Conterminous U.S. 2008 (v3.3.1)Retrieved August 1, 2017, from: https://earthquake.usgs.gov/hazards/interactive/

_____, 2013, U.S. Seismic Design Maps, Retrieved August 1, 2017, from: http://geohazards.usgs.gov/designmaps/us/batch.php#csv

APPENDIX B

EXCAVATION LOGS

LGC Hollow Steam Auger Boring Logs (2024)

B-LGC-1, through B-LGC-7

LGC CPT Logs (2024)

CPT-1 through CPT-7

LGC Hand Auger Boring Logs (2024)

HA-1 through HA-4

Bucket Auger Borings by Leighton (2006)

BB-1 through BB-14

Hollow Stem Auger Borngs by Leighton (2006)

B-1 through B-13

Mud Rotary Wash Borings by Leighton (2006)

LRW-1 and LRW-2

Geotechnical Boring Log B-LGC-1

Date: Feb 28, 2024 |

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 95 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1600 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: EES / BIH Sampled By: EES / BIH	Type of Test
	0							**Quaternary Alluvium (Qal)**	
			R-1	17 22 23				@ 0' - Brown Clayey Sandy SILT with Gravel; Slightly moist; Fine to coarse sand, fine gravel.	
								@ 2.5' - Same. Medium dense.	
								@ 0 to 5' - Bulk Bag B1	
	5		R-2	9 6 6			SM	@ 5' - Brown, Silty SAND with Gravel; Slightly moist, loose; Fine to coarse sand, fine gravel.	
			R-3	7 10 11				@ 7.5' - Same. Medium dense.	
	10		S-1	5 8 8		8.3	SM/ML	@ 10' - Brown Silty SAND; Slightly moist, medium stiff; Fine to coarse sand, rock fragments.	
			R-4	9 18 17				@ 12.5' - Same. Stiff, no rock fragments.	
	15		S-2	7 8 9				@ 15' - Same. Medium stiff.	
			R-5	15 18 18				@ 17.5 - Same. Stiff; Less sand.	
	20		S-3	4 6 7		23.8	ML	@ 20' - Brown Clayey SILT; Moist, medium stiff	
							SM/ML	@ 22.5' - Brown Clayey Sandy SILT; Moist, medium stiff; Fine to coarse sand. More sand in bottom 4".	
			S-4	7 9 9					
	25 ▽		S-5	8 9 11			SM	@ 25' - Silty SAND; Brown, moist, medium dense, fine to coarse sand.	
			S-6	8 9 12			SM	@ 27.5' - Dark brown to light gray Silty SAND with Gravel; Moist, medium dense; Fine to coarse sand, fine gravel.	
	30								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.
THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log B-LGC-1

Date: Feb 28, 2024 | **Page:** 2 of 2

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 95 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1600 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: EES / BIH Sampled By: EES / BIH	Type of Test
	30		S-7	7 9 13				@ 30' - Same.	
			S-8	6 8 12				@ 32.5' - Same. Fine to medium gravel.	
	35		S-9	5 50/6"				@ 35' - Same for top 10".	
			S-10	50/4"				**Mint Canyon Formation (Tmc)** Green Gray, SANDSTONE, damp, hard	
	40							**Total Depth = 39 Feet.** **Groundwater encountered at 25 Feet.** **Backfilled 2/28/2024 with native soil.**	
	45								
	50								
	55								
	60								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.

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Geotechnical Boring Log B-LGC-1A

Date: March 5, 2024 | **Page:** 1 of 1

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 75 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1600 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: EES Sampled By: EES	Type of Test
	0							**Quaternary Alluvium (Qal)**	
			R-1	6 12 15	121.9	7.6	SM	@ 2.5' - Brown Silty SAND with Gravel; Slightly moist, medium dense; Fine to coarse sand, fine to medium gravel, some rock fragments.	
	5		R-2	5 7 13	123.8	7.5	SM	@ 5' - Brown to dark brown Silty SAND with Gravel; Moist, medium dense; Fine to coarse sand, fine to coarse gravel.	
			R-3	8 15 16			SM	@ 7.5' - Brown Silty SAND with Gravel; Slightly moist to moist, medium dense, fine to coarse sand, fine to medium gravel, some rock fragments.	
	10								
			R-4	9 9 13	112.1	6.2	SM	@ 12.5' - Brown to light brown Silty SAND with Gravel; Slightly moist to moist, medium dense; Fine to coarse sand, fine gravel.	
	15								
			R-5	5 6 10	113.5	13.1	SM/ML	@ 17.5' - Brown Sandy SILT with Clay; Slightly moist to moist, loose; Fine to medium sand.	
	20							**Total Depth = 19 Feet.** **No GWE** **Backfilled 3/5/2024 with native soil.**	
	25								
	30								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log B-LGC-2

Date: Feb 28, 2024 |

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 95 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1655 | **Hole Location:** See Geotechnical Map

Logged By: BIH / EES

Sampled By: BIH / EES

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0						SM	**Quaternary Alluvium (Qal)** @ 0' - Dark brown Silty SAND; Dry; Fine sand.	
			R-1	11 10 11			SM	@ 2.5' - Dark brown Silty SAND with Gravel; Dry to slightly moist, dense; Fine to medium sand. Tip is fine to coarse sand.	
	5		B-1 R-2	19 19 30				@ 0 to 5' - Bulk Bag B1	
							SM	@ 5' - Rock in tip and lower rings (sample disturbed). Brown Silty SAND with Gravel; Dry to slightly moist, dense; Fine to coarse sand.	
			R-3	12 19 21					
	10		S-1	7 9 15				@ 10' - Brown SAND with Gravel; Dry to slightly moist, medium dense; Fine to coarse sand.	
			S-2	9 14 14				@ 12.5' - Same. Brown to gray; Medium dense, more rock fragments.	
	15		S-3	9 12 15				@ 15' - Same. Tan to brown.	
			S-4	8 11 16				@ 17.5 - Same. Less silty.	
	20		S-5	8 13 15					
			S-6	12 13 14				@ 22.5' - Same. Gray to brown.	
	25		S-7	14 14 16				@ 25' - Same. More fine to medium sand.	
			S-8	4 9 11		5.8	SM	@ 28' - Brown Silty SAND; Slightly moist; Fine sand, stiff, low plasticity.	
	30								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log B-LGC-2

Date: Feb 28, 2024 |

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 95 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1655 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: BIH / EES Sampled By: BIH / EES	Type of Test
	30		S-9	12 12 13			SM	@ 30' - Brown Silty SAND with gravel; Dry to slightly moist, medium dense; Fine to medium sand, some rock fragments.	
			S-10	7 14 16				@ 32.5' - Same. Dark brown to brown, slightly moist.	
	35		S-11	11 13 15				@ 35' - Same. Fine to coarse sand.	
			S-12	9 15 15				@ 37.5' - Same. Less coarse sand.	
	40		S-13	10 14 16				@ 40' - Same. More fine grained.	
			S-14	20 22 22				@ 42.5' - Same. Dense, more gravel.	
	45		S-15	20 18 18				@ 45' - Same. More fine gravel, black rock fragments.	
			S-16	50/5"				@ 47.5' - Same. Very dense.	
	50		S-17	11 11 16				@ 50' - Same. More moist, fine to coarse sand, more medium sand.	
								Total Depth = 51.5 Feet. **No groundwater encountered.** **Backfilled 2/28/2024 with native soil.**	
	55								
	60								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.
THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log B-LGC-2A

Date: March 5, 2024 | **Page:** 1 of 1

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 75 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1655 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: EES Sampled By: EES	Type of Test
	0							**Quaternary Alluvium (Qal)**	
			R-1	19 19 16	119.6	3.5	SM	@ 2.5' - Brown Silty SAND with Gravel; Slightly moist, medium dense; Fine to coarse sand, fine to medium gravel.	
	5		R-2	13 15 15	116.7	1.8	SM	@ 5' - Brown Silty SAND with Gravel; Dry to slightly moist, medium dense; Fine to coarse sand, fine to coarse gravel, coarser grained.	
			R-3	7 11 21	111.7	4.3	SM/ML	@ 7.5' - Brown Silty SAND with Gravel; Slightly moist, medium dense; fine to coarse sand, fine gravel, some clay, finer grained.	
	10							**Total Depth = 9 Feet.** **No GWE** **Backfilled 3/5/2024 with native soil.**	
	15								
	20								
	25								
	30								

LGC

■ = Ring Sample

⊠ = SPT

LGC VALLEY, INC.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log B-LGC-3

Date: Feb 28, 2024 |

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 95 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1637 | **Hole Location:** See Geotechnical Map

Logged By: EES / BIH

Sampled By: EES / BIH

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0							**Quaternary Alluvium (Qal)**	
							SM	@ 0' - Dark brown Silty SAND; Slightly moist; Fine to coarse sand.	
			R-1	11 8 13				@ 2.5' - Same. Medium dense.	
								@ 0 to 5' - Bulk Bag B1	
	5		B-1 R-2	7 8 11			SM	@ 5' - Dark brown Silty SAND with Gravel; Medium dense; Fine to coarse sand, fine gravel.	
			R-3	10 15 20				@ 7.5' - Same	
	10		S-1	6 8 12			SM	@ 10' - Brown Silty SAND with Gravel; Medium dense; Fine to coarse sand, fine to medium gravel.	
			R-4	9 15 17			SM	@ 12.5' - Light brown to brown Silty SAND with Gravel; Dense; Fine to coarse sand, fine to medium gravel.	
	15		S-2	5 6 7			GW	@ 15' - Brown to gray Gravelly SAND; Medium dense; Fine to coarse sand, rock fragments.	
			R-5	11 15 18			GW	@ 17.5 - Dark brown Gravelly SAND; Slightly moist, medium dense; Fine to coarse sand, fine to medium gravel.	
	20		S-3	8 9 11				@ 20' - Same	
			S-4	11 10 10			SM	@ 22.5' - Dark brown to light gray Silty SAND; Slightly moist, medium dense; Fine to coarse sand, some fine gravel.	
	25		S-5	5 8 8		8.1	SM	@ 25.7' -Light brown Silty SAND; Slightly moist, medium stiff; Fine to coarse sand.	
			S-6	6 9 11			SM	@ 27.5' - Brown Silty SAND with Gravel; Slightly moist, loose; Fine to medium sand, fine gravel.	
	30								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.

THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log B-LGC-3

Date: Feb 28, 2024 |

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME Hollow Stem Auger 95

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1637 | **Hole Location:** See Geotechnical Map

Logged By: EES / BIH

Sampled By: EES / BIH

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	30		S-7	8 10 11		6.4	SM	@ 30' - Brown Silty SAND; Medium dense; Fine to coarse sand.	
			S-8	7 9 12			SM	@ 32.5' - Brown Silty SAND; Loose; Fine to coarse sand.	
	35		S-9	7 9 17			SM	@ 35' - Brown Silty SAND; Medium dense; Fine to coarse sand, some fine gravel.	
			S-10	7 12 15			SM	@ 37.5' - Dark brown to tan Silty SAND; Medium dense; Fine to coarse sand.	
	40		S-11	12 13 17			SP	@ 40' - Dark brown to tan SAND; Medium dense; Fine to coarse sand, some fine gravel.	
			S-12	8 14 16					
	45		S-13	6 12 16			SM	@ 45' - Same, fine to medium gravel.	
			S-14	9 14 15			SM	@ 47.5' - Dark brown to tan Silty SAND; Medium dense; Fine to coarse sand.	
	50		S-15	9 12 16			SM	@ 50' - Dark brown to tan Silty SAND; Medium dense; Fine to coarse sand.	
								Total Depth = 51.5 Feet. **No groundwater encountered.** **Backfilled 2/28/2024 with native soil.**	
	55								
	60								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.
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Geotechnical Boring Log B-LGC-3A

Date: March 5, 2024 | **Page:** 1 of 1

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 75 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1637 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: EES Sampled By: EES	Type of Test
	0							**Quaternary Alluvium (Qal)**	
			R-1	7 6 7	116.3	3.7	SM	@ 2.5' - Brown to beige Silty SAND with Gravel; Moist to wet, loose; Fine to coarse sand, fine to medium gravel.	
	5		R-2	12 50/4"				@ 5' - Same. Medium dense; some rock fragments.	
			R-3	9 10 12	121.8	3.0		@ 7.5' - Same. No rock fragments.	
	10		R-4	10 12 15	118.7	3.7		@ 12.5' - Same. Less medium gravel.	
	15		R-5	19 16 19	110.5	2.9		@ 17.5' - Same. Coarser grained.	
	20							**Total Depth = 19 Feet.** **No GWE** **Backfilled 3/5/2024 with native soil.**	
	25								
	30								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.
THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log B-LGC-4

Date: Feb 29, 2024 |

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 75 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1643 | **Hole Location:** See Geotechnical Map

Logged By: EES

Sampled By: EES

Depth (ft)	Sample Number	Blow Count	USCS Symbol	DESCRIPTION	Type of Test
0				**Quaternary Alluvium (Qal)**	
			SM	@ 0' - Dark brown Sandy SILT with Gravel; Slightly moist; Fine to coarse sand, fine gravel, some organic material.	
	R-1	6 7 9			
			SM	@ 2.5' - Dark brown Silty SAND with Gravel; Slightly moist, loose; Fine to coarse sand, fine gravel. ~3.5 rings recovered.	
5	B-1 R-2	12 15 19		@ 0 to 5' - Bulk Bag B1	
			SM	@ 5' - Same. Brown, medium dense; Some organic material.	
	R-3	6 7 8		@ 7.5' - Same. Loose; Some medium gravel.	
10	S-1	3 5 5		@ 10' - Same. No organic material.	
	S-2	4 5 6	GW	@ 12.5' - Brown to dark gray Gravelly SAND with Silt; Slightly moist, medium dense; Fine to coarse sand, fine to medium gravel, some rock fragments.	
15	R-4	28 50/6"		@ 15' - Same. Brown. Only 6 rings recovered. Toe was chipped.	
	S-3	6 9 12		@ 17.5' - Same	
20	R-5	19 32 40		@ 20' - Same. Dense.	
	S-4	7 9 12	SM	@ 22.5' - Brown Silty SAND with Gravel; Slightly moist, medium dense; Fine to coarse sand, fine to coarse gravel, mainly finer grains.	
25	S-5	5 6 8		@ 25' - Same	
	S-6	7 10 15	SP	@ 27.5' - Brown to dark brown SAND; Slightly moist, medium dense; Fine to coarse sand, trace fine gravel, mainly fine grained.	
30					

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.
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Geotechnical Boring Log B-LGC-4

Date: Feb 29, 2024 |

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 75 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1643 | **Hole Location:** See Geotechnical Map

Logged By: EES / BIH

Sampled By: EES / BIH

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	30		S-7	8 13 16				@ 30' - Same. Some medium gravel.	
			S-8	14 18 18			SM	@ 32.5' - Brown to gray Silty SAND with Gravel; Slightly moist, dense; Fine to coarse sand, fine to medium gravel, some rock fragments.	
	35		S-9	10 14 19				@ 35' - Same. Finer grained.	
			S-10	15 19 22			GP	@ 38.5' - Gray to light gray Sandy GRAVEL; Slightly moist, dense; Fine to coarse sand, fine to medium gravel, prominent medium gravel.	
	40		S-11	12 15 20			SM	@ 40' - Light brown to tan Silty SAND with Gravel; Slightly moist, dense; Fine to coarse sand, fine to medium gravel, finer grained.	
			S-12	18 32 40				@ 42.5' - Same. Very dense; Some rock fragments near the toe.	
	45		S-13	18 30 39				@ 45' - Same	
			S-14	15 22 35				@ 47.5' - Same. No rock fragments, mainly finer grained.	
	50		S-15	20 32 45				@ 50' - Same. Some rock fragments.	
								Total Depth = 51.5 Feet. **No groundwater encountered.** **Backfilled 2/29/2024 with native soil.**	
	55								
	60								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.
THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log B-LGC-4A

Date: March 5, 2024 | **Page:** 1 of 1

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 75 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1643 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: EES Sampled By: EES	Type of Test
	0							**Quaternary Alluvium (Qal)**	
			R-1	3 3 6	114.1	8.5	SM/ML	@ 2.5' - Dark brown to brown Sandy SILT; Slightly moist to moist, medium stiff; Fine to medium sand, some vegetation, some rock fragments.	
	5		R-2	4 5 7	118.0	3.8	SM	@ 5' - Dark brown Silty SAND with Gravel; Moist, loose; Fine to coarse sand, fine to medium gravel, coarser grained.	
			R-3	4 5 8				@ 7.5' - Same. Slightly moist to moist; No medium gravel.	
	10								
	15		R-4	5 7 11	118.7	10.7	SM	@ 15' - Brown Silty SAND with Gravel; Moist, medium dense; Fine to coarse sand, Fine gravel, trace medium gravel / rock fragments.	
	20		R-5	13 15 19	111.5	2.4	SM	@ 20' - Brown Silty SAND with Gravel; Slightly moist to moist, medium dense; Fine to coarse sand, fine to medium gravel.	
	25							**Total Depth = 21.5 Feet.** **No GWE** **Backfilled 3/5/2024 with native soil.**	
	30								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.
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Geotechnical Boring Log B-LGC-5

Date: Feb 29, 2024 |

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 75 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1607 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: EES / MET Sampled By: EES / MET	Type of Test
	0						SM/ML	**Quaternary Alluvium (Qal)** @ 0' - Dark brown Sandy SILT; Slightly moist; Fine to coarse sand, some organic material.	
			R-1	4 5 5				@ 2.5' - Same. Medium stiff; Some fine gravel.	
						9.9		@ 0 to 5' - Bulk Bag B1	
	5		R-2	5 7 10			SM	@ 5' - Brown Silty SAND with Gravel; Slightly moist, loose; Fine to coarse sand, fine to medium gravel, rock fragments. 5 rings recovered.	
			R-3	5 7 8			SM/ML	@ 7.5' - Brown Sandy SILT; Slightly moist, stiff; Fine to coarse sand.	
	10		S-1	3 3 4		11.3	SM	@ 10' - Brown to light brown Clayey Silty Gravelly SAND; Slightly moist, loose; Fine to coarse sand, some fine gravel.	
			S-2	3 4 5			SM	@ 12.5' - Light brown Silty SAND with Gravel; Slightly moist, loose; Fine to coarse sand, fine gravel.	
	15		R-4	8 12 16				@ 15' - Same. Medium dense; Some medium gravel.	
			S-3	3 5 6				@ 17.5 - Same. More gravelly.	
	20		R-5	5 20 21				@ 20' - Same. Dense.	
			S-4	15 12 10			SM	@ 22.5' - Light brown to tan Silty Gravelly SAND; Slightly moist, medium dense; Fine to coarse sand, fine to medium gravel.	
	25		S-5	6 7 9				@ 25' - Same. Finer grained.	
			S-6	7 9 11				@ 27.5' - Same. More medium gravel, some rock fragments.	
	30								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.
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Geotechnical Boring Log B-LGC-5

Date: Feb 29, 2024 | **Page:** 2 of 2

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 75 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1607 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: EES / MET Sampled By: EES / MET	Type of Test
	30		S-7	8 13 15			SM	@ 30' - Light brown silty SAND with gravel; Slightly moist, medium dense; Fine to coarse sand, fine to medium gravel.	
			S-8	7 9 11				@ 32.5' - Same	
	35		S-9	4 5 6				@ 35' - Same. 2" recovery.	
	▽		S-10	6 8 12		13.6		@ 37.5' - Same. Finer grained, some clay.	
	40		S-11	13 16 24				@ 40' - Same. Dense.	
			S-12	12 18 26					
	45		S-13	13 12 15				@ 45' - Same. Medium dense; Coarser grained, more rock fragments.	
			S-14	15 18 28				@ 47.5' - Same. Dense; No rock fragments, fine grained.	
	50		S-15	13 16 22				@ 50' - Same. Some rock fragments.	
	55							**Total Depth = 51.5 Feet.** **Groundwater encountered at 38 Feet.** **Backfilled 2/29/2024 with native soil.**	
	60								

LGC

■ = Ring Sample

⊠ = SPT

LGC VALLEY, INC.
THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log B-LGC-5A

Date: March 5, 2024 | **Page:** 1 of 1

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 75 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1607 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: EES Sampled By: EES	Type of Test
	0							**Quaternary Alluvium (Qal)**	
			R-1	3 5 8	114.2	10.4	SM	@ 2.5' - Darkish brown Silty SAND with Gravel; Slightly moist to moist, loose; Fine to coarse sand, fine gravel.	
	5		R-2	9 12 17	106.8	4.8	SM	@ 5' - Light brown Silty SAND with Gravel; Dry to slightly moist, medium dense; Fine to coarse sand, fine to medium gravel.	
			R-3	7 13 13	112.8	2.9		@ 7.5' - Same. Lost the bottom 4 rings; sampled the next 6.	
	10								
	15		R-4	16 19 21	112.4	1.9	SM	@ 15' - Light brown to tan Silty SAND with Gravel; Dry to slightly moist medium dense; Fine to coarse sand, fine to medium gravel, coarser grained.	
	20		R-5	10 18 21				@ 20' - Same.	
	25							**Total Depth = 21.5 Feet.** **No GWE** **Backfilled 3/5/2024 with native soil.**	
	30								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.
THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log B-LGC-6

Date: Feb 29, 2024 |

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 75 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1599 | **Hole Location:** See Geotechnical Map

Logged By: EES / MET

Sampled By: EES / MET

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0							**Quaternary Alluvium (Qal)**	
							SM	@ 0' - Dark brown Silty SAND; Slightly moist; Fine to coarse sand, some fine gravel, some organic material.	
			R-1	3 4 5			ML	@ 2.5' - Dark brown Sandy SILT; Slightly moist, medium stiff; Fine to coarse sand.	
	5		R-2	5 5 6				@ 0 to 5' - Bulk Bag B1	
			R-3	7 8 10				@ 7.5' - Same. Stiff; Some fine gravel.	
	10		S-1	5 6 6			SM	@ 10' - Brown Silty Gravelly SAND; Slightly moist, medium dense; Fine to coarse sand, fine gravel, some Fe-oxide staining.	
			R-4	6 7 10			SM/ML	@ 12.5' - Brown Silty SAND to Sandy SILT; Slightly moist, medium dense, stiff; Fine to coarse sand, some fine gravel.	
	15		S-2	5 8 12		9.9	SM	@ 15' - Brown Clayey Silty Gravelly SAND; Slightly moist, stiff; Fine to coarse sand, some fine gravel. Well graded.	
			R-5	8 10 12			SM	@ 17.5 - Light brown Silty SAND with Gravel; Slightly moist, medium dense; Fine to coarse sand, fine to medium gravel.	
	20		R-6	5 7 11				@ 20' - Same. No medium gravel.	
			S-3	5 9 11			ML	@ 22.5' - Light brown Sandy SILT; Slightly moist, stiff; Fine to coarse sand.	
	25		S-4	8 10 11			SM	@ 25' - Brown Silty Gravelly SAND; Moist, medium dense; Fine to coarse sand, fine gravel, some rock fragments.	
			S-5	9 10 12			SM	@ 27.5' - Brown Silty SAND with Gravel; Moist to wet, loose; fine to coarse sand, fine to medium gravel, seepage in top 11".	
	30								

LGC

■ = Ring Sample

⊠ = SPT

LGC VALLEY, INC.
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Geotechnical Boring Log B-LGC-6

Date: Feb 29, 2024 | **Page:** 2 of 2

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 75 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1599 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: EES / MET Sampled By: EES / MET	Type of Test
	30 ▽		S-6	7 10 12			SM	@ 30' - Brown Silty SAND with Gravel; Moist to wet, medium dense; fine to coarse sand, fine to medium gravel	
				7 10 12				@ 32.5' - No recovery.	
	35		S-7	9 12 14			SP	@ 35' - Brown SAND; Wet, medium dense; fine to coarse sand, trace fine gravel	
				10 12 16				@ 37.5' - No recovery.	
	40		S-8	10 13 13				@ 40' - Same. Fine to medium gravel, rock fragments.	
			S-9	6 9 16			GW	@ 42.5' - Brown Sandy GRAVEL; Wet, medium dense; Fine to coarse sand.	
	45		S-10	28 50/6"				@ 45' - Same. Very dense.	
			S-11	17 22 28				@ 47.5' - Same. Dense; Some rock fragments.	
	50		S-12	8 12 16			ML	@ 50' - Same top 10"; Bottom 8" Brown Sandy SILT; Moist, very stiff; Fine to coarse sand.	
	55							**Total Depth = 51.5 Feet.** **Groundwater encountered at 32 Feet.** **Backfilled 2/29/2024 with native soil.**	
	60								

LGC

■ = Ring Sample

⊠ = SPT

LGC VALLEY, INC.
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Geotechnical Boring Log B-LGC-6A

Date: March 5, 2024 | **Page:** 1 of 1

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 75 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1599 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: EES Sampled By: EES	Type of Test
	0							**Quaternary Alluvium (Qal)**	
			R-1	3 3 2	104.4	16.6	MH	@ 2.5' - Grayish brown Clayey Sandy SILT; Moist, soft; Fine to coarse sand, high plasticity, some vegetation.	
	5		R-2	2 4 5	103.9	15.9	SM	@ 5' - Brown Silty SAND with Gravel; Moist, loose; Fine to coarse sand, fine gravel.	
			R-3	6 5 11	109.4	16.3		@ 7.5' - Same. Some medium gravel in the shoe.	
	10								
			R-4	5 6 7	110.0	10.9	SM	@ 12.5' - Light brown Silty SAND with Gravel; Slightly moist, loose; Fine to medium sand, fine to medium gravel.	
	15								
			R-5	5 6 8	112.1	9.7		@ 17.5' - Same.	
	20							**Total Depth = 19 Feet.** **No GWE** **Backfilled 3/5/2024 with native soil.**	
	25								
	30								

LGC

■ = Ring Sample

⊠ = SPT

LGC VALLEY, INC.
THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log B-LGC-7

Date: Feb 28, 2024 |

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 95 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1615 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: EES Sampled By: EES	Type of Test
	0						SM	**Quaternary Alluvium (Qal)** @ 0' - Brown Silty SAND; Moist; Some fine gravel.	
			R-1	4 3 4			SM	@ 2.5' - Brown to tan Silty SAND; Loose; Fine to medium sand. @ 0 to 5' - Bulk Bag B1	
	5		R-2	3 3 5			SM	@ 5' - Brown Silty SAND with Gravel; Slightly moist, loose; Fine to coarse sand, fine gravel.	
			R-3	4 6 7					
	10		R-4	6 7 9					
			S-1	4 5 5			SM	@ 12.5' - Brown Silty Gravelly SAND; Slightly moist, loose; Fine to coarse sand, fine to medium gravel.	
	15		R-5	10 11 11			SM	@ 15' - Dark brown to tan Silty SAND; Slightly moist, medium dense; Fine to coarse sand.	
			S-2	5 8 8		6.5	SM	@ 17.5 - Dark brown Silty SAND; Slightly moist, medium dense; Some fine gravel.	
	20		R-6	7 9 15				@ 20' - Same. No gravel.	
			S-3	8 10 10			SM	@ 22.5' - Brown Silty SAND; Slightly moist, medium dense; Fine to medium sand, rock fragments.	
	25		S-4	6 9 11			SM	@ 25' - Brown Silty SAND with Gravel; Slightly moist, medium dense; Fine to coarse sand, fine gravel.	
			S-5	2 9 15			SM	@ 27.5' - Brown Gravelly Silty SAND; Slightly moist, medium dense; Fine to coarse sand, fine gravel, some rock fragments.	
	30								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.
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Geotechnical Boring Log B-LGC-7

Date: Feb 28, 2024 |

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 95 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1615 | **Hole Location:** See Geotechnical Map

Logged By: EES

Sampled By: EES

Elevation (ft)	Depth (ft)	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	30	S-6	9 11 14			SM	@ 30' - Brown to light gray Silty Gravelly SAND; Medium dense; Fine to coarse sand, fine gravel.	
		S-7	4 9 12			SM	@ 32.5' - Brown Silty SAND; Moist, loose; Fine to coarse sand.	
	35	S-8	4 12 15			SM	@ 35' - Brown to light gray Silty Gravelly SAND; Moist, medium dense; Fine to coarse sand, fine to medium gravel.	
▽		S-9	10 15 17				@ 37.5' - Very moist	
	40	S-10	7 14 17				@ 40' - Same. Slightly moist.	
		S-11	8 9 11			ML	@ 42.5' - Same for top 8". Bottom 10" is: Brown Sandy SILT with Gravel; Wet, stiff; Fine to coarse sand.	
	45	S-12	9 8 13		23.5	SC	@ 45' - Brown Clayey Silty SAND; Wet, medium stiff; Fine to coarse sand.	
		S-13	7 10 11				@ 47.5' - Same	
	50	S-14	6 9 10				@ 50' - No recovery.	
	55						**Total Depth = 51.5 Feet.** **Groundwater encountered at 38 Feet.** **Backfilled 2/28/2024 with native soil.**	
	60							

■ = Ring Sample

⊠ = SPT

LGC VALLEY, INC.
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Geotechnical Boring Log B-LGC-7A

Date: March 5, 2024 | **Page:** 1 of 1

Project Name: Belcaro | **Project Number:** 233012-01

Drilling Company: Choice Drilling | **Type of Rig:** CME 75 Hollow Stem Auger

Drive Weight: 140 pounds | **Drop:** 30 inches | **Hole Dia:** 8 inches

Elevation of Top of Hole: 1615 | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: EES Sampled By: EES	Type of Test
	0							**Quaternary Alluvium (Qal)**	
			R-1	7 11 15	117.2	2.4	SM	@ 2.5' - Brown to dark brown Silty SAND with Gravel; Moist, medium dense; Fine to coarse sand, fine gravel.	
	5		R-2	7 10 15	115.6	2.0	SM	@ 5' - Light brown to brown Silty SAND with Gravel; Slightly moist to moist, medium dense; Fine to coarse sand, fine gravel, trace medium gravel.	
			R-3	7 8 12	109.1	5.4	SM	@ 7.5' - Brown Silty SAND with Gravel; Slightly moist, medium dense; Fine to coarse sand, fine gravel, roots (2" thick)	
	10		R-4	8 10 15	116.1	4.0	SM	@ 10' - Brown Silty SAND with Gravel; Slightly moist, medium dense; Fine to coarse sand, fine gravel, sparse roots	
	15		R-5	2 3 3	118.9	8.4	SM	@ 15' - Brown Silty SAND; Slightly moist, medium dense; Fine to coarse sand, trace medium gravel, no roots	
	20		R-6	2 3 3	115.8	6.8	SM	@ 20' - Same. No gravel.	
	25							**Total Depth = 21.5 Feet.** **No GWE** **Backfilled 3/5/2024 with native soil.**	
	30								

LGC

= Ring Sample

= SPT

LGC VALLEY, INC.
THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log HA-LGC-1

Date: March 20, 2024 | **Page:** 1 of 1

Project Name: NUWI/Belcaro | **Project Number:** 233012-01

Drilling Company: Mikes Excavating | **Type of Rig:** Hand Auger

Drive Weight: | **Drop:** | **Hole Dia:** 4 inches

Elevation of Top of Hole: | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: BIH Sampled By: BIH	Type of Test
	0						SM	**Alluvium (Qal):**	
								@ 0' Silty fine to medium SAND, few gravel; dark brown, moist	
			1 B1 @ 0-10'		105.9	10.3			RV
	5		2		118.3	8.0		@ 5' Increased gravel and cobbles	CN
			3		111.0	9.3		@ 7.5' Becomes dark brown to orange brown	CN
	10		4		122.3	8.2		@ 10' Driller refusal	
								Total Depth = 10.5 Feet **No Ground Water Encountered** **Backfilled 3/20/2024 With Native Soil Fill**	

LGC

■ = Ring Sample

⊠ = SPT

LGC VALLEY, INC.
THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log HA-LGC-2

Date: March 20, 2024 | **Page:** 1 of 1

Project Name: NUWI/Belcaro | **Project Number:** 233012-01

Drilling Company: Mikes Excavating | **Type of Rig:** Hand Auger

Drive Weight: | **Drop:** | **Hole Dia:** 4 inches

Elevation of Top of Hole: | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: BIH Sampled By: BIH	Type of Test
	0						SM	**Alluvium (Qal):** @ 0' Silty fine SAND, few gravel, trace clay; dark brown, moist; some roots to 8"	
			1	20	103.1	9.3			
	5		2	31	108.9	12.8		@ 5' Increase in silt; sand becomes very fine to fine	CN MAX, RDS
			B1 @ 0-10'						
			3	35	113.1	13.3		@ 7.5' Increase in gravel	
	10		4		119.8	6.6		@ 10' Becomes slightly moist	CN
	15		5		124.1	7.5		@ 16' Driller refusal; rock in hole	
								Total Depth = 16 Feet **No Ground Water Encountered** **Backfilled 3/20/2024 With Native Soil Fill**	

LGC

■ = Ring Sample

⊠ = SPT

LGC VALLEY, INC.
THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log HA-LGC-3

Date: March 20, 2024 | **Page:** 1 of 1

Project Name: NUWI/Belcaro | **Project Number:** 233012-01

Drilling Company: Mikes Excavating | **Type of Rig:** Hand Auger

Drive Weight: | **Drop:** | **Hole Dia:** 4 inches

Elevation of Top of Hole: | **Hole Location:** See Geotechnical Map

Logged By: BIH

Sampled By: BIH

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION	Type of Test
	0						SM	**Artificial Fill (Af):** @ 0' Silty fine SAND; dark brown, slightly moist	
							CL		
			1	55	109.7	15.3	SC	@ 2' Silty CLAY, some sand; dark brown, moist; low plasticity	CN
							ML	@ 2.5' Clayey to silty fine SAND; dark brown to dark gray, moist	
	5							**Mint Canyon Formation (Tmc):**	
			2	70	125.7	3.8		@ 4' Weathered sandy SILTSTONE, moist; greenish gray, slightly moist, stiff; some calcite stringers	
								@ 7.5' Weathered sandy SILTSTONE, moist; greenish gray, slightly moist, stiff; some calcite stringers; low to medium plasticity	
	10		3	100+	116.6	11.8		@ 10' Gains some greenish gray sandstone chunks, becomes moist; driller refusal	

Total Depth = 10.5 Feet
No Ground Water Encountered
Backfilled 3/20/2024 With Native Soil Fill

LGC

■ = Ring Sample

⊠ = SPT

LGC VALLEY, INC.
THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Geotechnical Boring Log HA-LGC-4

Date: March 20, 2024 | **Page:** 1 of 1

Project Name: NUWI/Belcaro | **Project Number:** 233012-01

Drilling Company: Mikes Excavating | **Type of Rig:** Hand Auger

Drive Weight: | **Drop:** | **Hole Dia:** 4 inches

Elevation of Top of Hole: | **Hole Location:** See Geotechnical Map

Elevation (ft)	Depth (ft)	Graphic Log	Sample Number	Blow Count	Dry Density (pcf)	Moisture (%)	USCS Symbol	DESCRIPTION Logged By: BIH Sampled By: BIH	Type of Test
	0		B1 @ 0-6'				SC	**Artificial Fill (Af):** @0' Clayey fine SAND, few gravel; dark brown to gray, moist; some roots @ 3.5' Clayey to silty SAND; gray	MAX
	5		1	72	105.4	8.3	SM	**Mint Canyon Formation (Tmc):** @ 5' Weathered silty fine SANDSTONE; gray, slightly moist, dense; no voids or pores	
			2	100	116.5	6.0	SW	@ 6' Weathered fine SANDSTONE; gray, slightly moist, dense; driller refusal	
	10							**Total Depth = 7 Feet** **No Ground Water Encountered** **Backfilled 3/20/2024 With Native Soil Fill**	

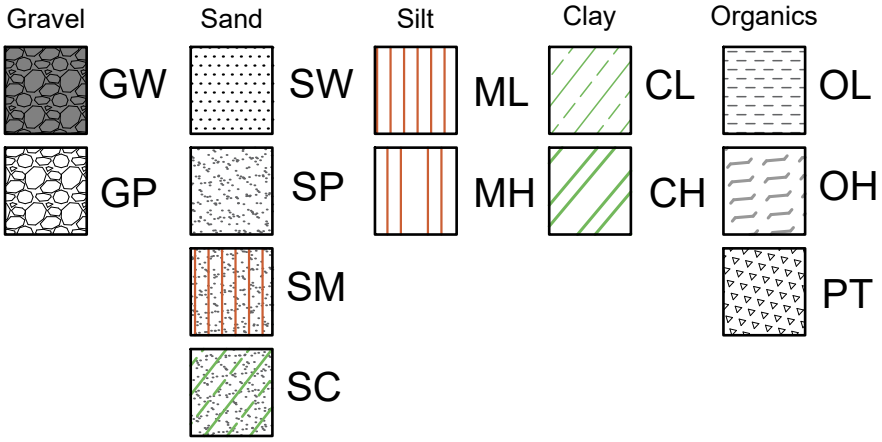
LGC

■ = Ring Sample

⊠ = SPT

LGC VALLEY, INC.
THIS SUMMARY APPLIES ONLY AT THE LOCATION OF THIS BORING AND AT THE TIME OF DRILLING. SUBSURFACE CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH THE PASSAGE OF TIME. THE DATA PRESENTED IS A SIMPLIFICATION OF THE ACTUAL CONDITIOND ENCOUNTERED.

Key to Boring Logs



Symbol	Laboratory Test
SA	Sieve Analysis
H	Hydrometer Anlysis
SHA	Sieve & Hydrometer Analysis
-200	Percent Passing #200 Sieve
AL	Atterburge Limits
MAX	Maximum Density
DS	Undisturbed Direct Shear
RDS	Remolded Direct Shear
TRI	Triaxial Shear
EI	Expansion Index
P	Permeability
CN	Consolidation
COL	Collapse
UC	Unconfined Compression
S	Sulfate Content
pHR	pH & Resistivity
COR	Corrosion Suite (pH, Resistivity, Chloride, Sulfate)
RV	R-Value

SUMMARY

OF

CONE PENETRATION TEST DATA

Project:

NUWI – Belcaro
Oak Spring Road & Graceton Drive
Santa Clarita, CA
March 11, 2024

Prepared for:

Mr. Basil Hattar
LGC (LGC Valley, Inc.)
28532 Constellation Road
Valencia, CA 91355
Office (661) 702-8474 / Fax (661) 702-8475

Prepared by:

KEHOE TESTING & ENGINEERING
5415 Industrial Drive
Huntington Beach, CA 92649-1518
Office (714) 901-7270 / Fax (714) 901-7289
www.kehoetesting.com

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3. **FIELD EQUIPMENT & PROCEDURES**
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- CPT Plots
- CPT Classification/Soil Behavior Chart
- Summary of Shear Wave Velocities
- CPT Data Files (sent via email)

SUMMARY
OF
CONE PENETRATION TEST DATA

1. INTRODUCTION

This report presents the results of a Cone Penetration Test (CPT) program carried out for the NUWI - Belcaro project located at Oak Spring Road & Graceton Drive in Santa Clarita, California. The work was performed by Kehoe Testing & Engineering (KTE) on March 11, 2024. The scope of work was performed as directed by LGC (LGC Valley, Inc.) personnel.

2. SUMMARY OF FIELD WORK

The fieldwork consisted of performing CPT soundings at seven locations to determine the soil lithology. A summary is provided in **TABLE 2.1**.

LOCATION	DEPTH OF CPT (ft)	COMMENTS/NOTES:
CPT-1	50	
CPT-2	50	
CPT-3	50	
CPT-4	50	
CPT-5	50	
CPT-6	22	Refusal
CPT-7	23	Refusal

TABLE 2.1 - Summary of CPT Soundings

3. FIELD EQUIPMENT & PROCEDURES

The CPT soundings were carried out by **KTE** using an integrated electronic cone system manufactured by Vertek. The CPT soundings were performed in accordance with ASTM standards (D5778). The cone penetrometers were pushed using a 30-ton CPT rig. The cone used during the program was a 15 cm^2 cone with a cone net area ratio of 0.83. The following parameters were recorded at approximately 2.5 cm depth intervals:

- Cone Resistance (qc)
- Sleeve Friction (fs)
- Dynamic Pore Pressure (u)
- Inclination
- Penetration Speed

At location CPT-3, shear wave measurements were obtained at approximately 5-foot intervals. The shear wave is generated using an air-actuated hammer, which is located inside the front jack of the CPT rig. The cone has a triaxial geophone, which recorded the shear wave signal generated by the air hammer.

The above parameters were recorded and viewed in real time using a laptop computer. Data is stored at the KTE office for up to 2 years for future analysis and reference. A complete set of baseline readings was taken prior to each sounding to determine temperature shifts and any zero load offsets. Monitoring base line readings ensures that the cone electronics are operating properly.

4. CONE PENETRATION TEST DATA & INTERPRETATION

The Cone Penetration Test data is presented in graphical form in the attached Appendix. These plots were generated using the CPeT-IT program. Penetration depths are referenced to ground surface. The soil behavior type on the CPT plots is derived from the attached CPT SBT plot (Robertson, "Interpretation of Cone Penetration Test…", 2009) and presents major soil lithologic changes. The stratigraphic interpretation is based on relationships between cone resistance (qc), sleeve friction (fs), and penetration pore pressure (u). The friction ratio (Rf), which is sleeve friction divided by cone resistance, is a calculated parameter that is used along with cone resistance to infer soil behavior type. Generally, cohesive soils (clays) have high friction ratios, low cone resistance and generate excess pore water pressures. Cohesionless soils (sands) have lower friction ratios, high cone bearing and generate little (or negative) excess pore water pressures.

The CPT data files have also been provided. These files can be imported in CPeT-IT (software by GeoLogismiki) and other programs to calculate various geotechnical parameters.

It should be noted that it is not always possible to clearly identify a soil type based on qc, fs and u. In these situations, experience, judgement and an assessment of the pore pressure data should be used to infer the soil behavior type.

If you have any questions regarding this information, please do not hesitate to call our office at (714) 901-7270.

Sincerely,

KEHOE TESTING & ENGINEERING

Steven P. Kehoe
President

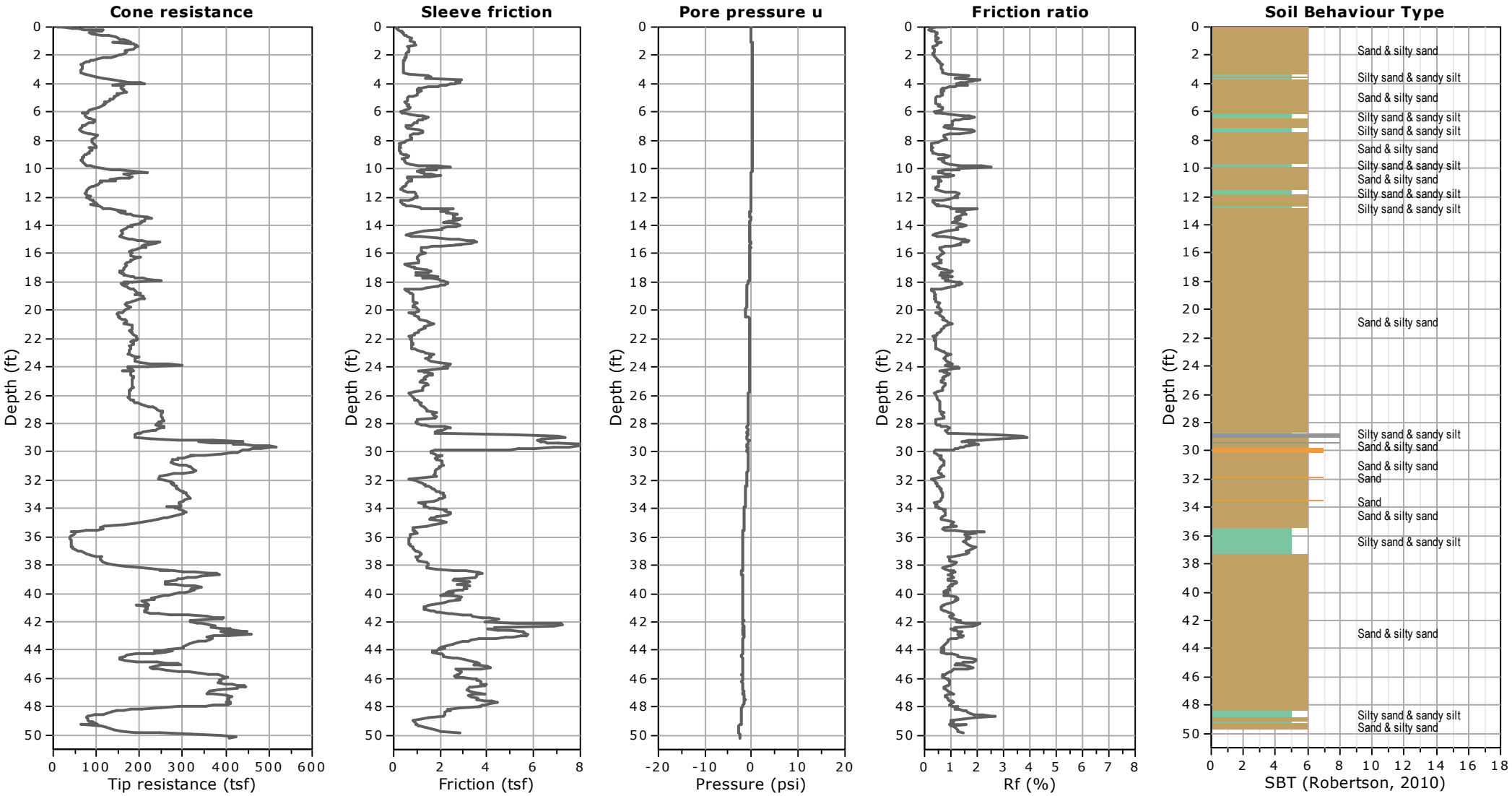
03/19/24-aga-6316

APPENDIX

Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **LGC** Valley **/ NUWI - Belcaro**
Location: **Oak Spring Rd & Graceton Dr, Santa Clarita, CA**

CPT-1
Total depth: 50.18 ft, Date: 3/11/2024



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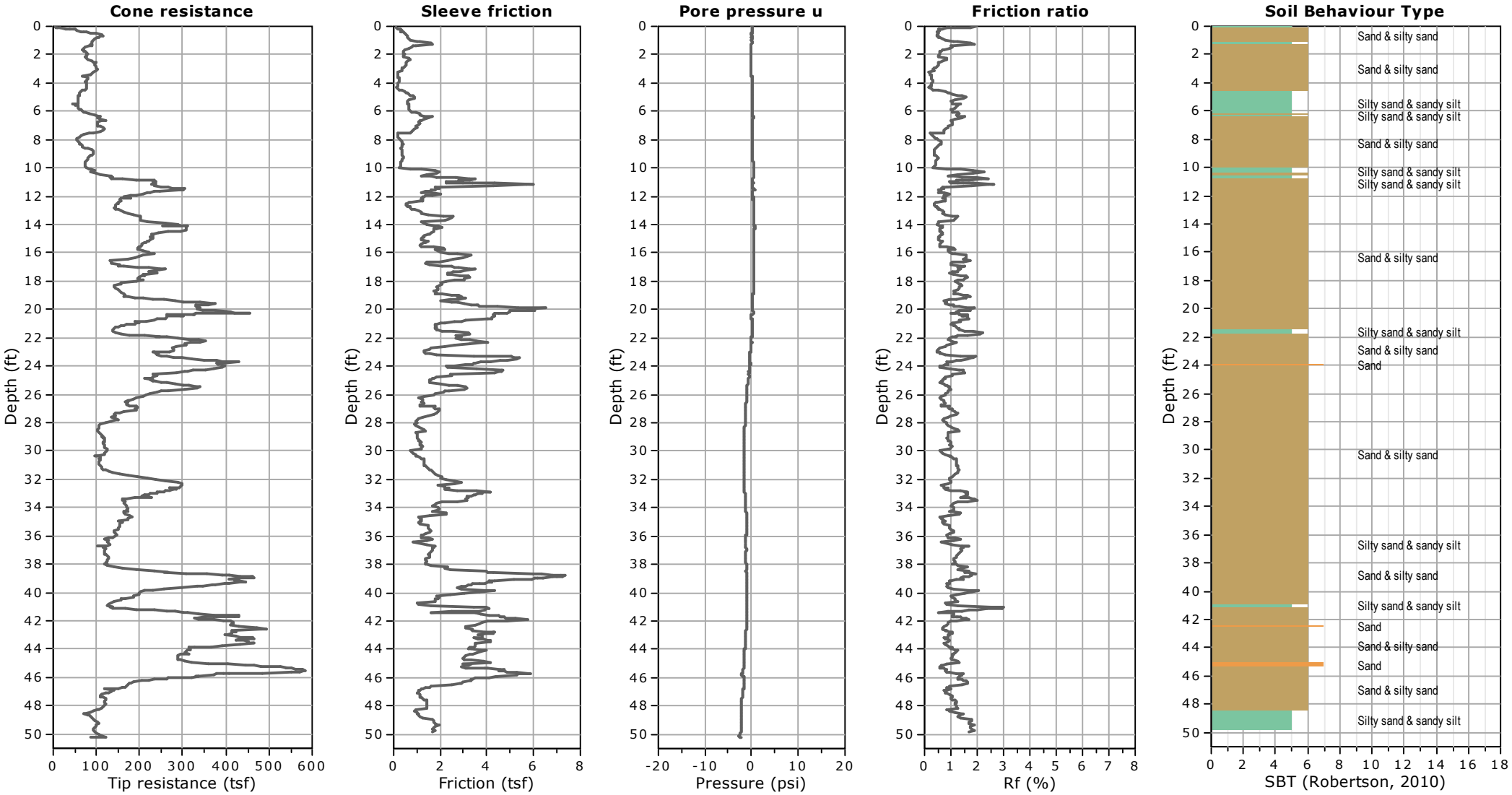
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **LGC Valley / NUWI - Belcaro**
Location: **Oak Spring Rd & Graceton Dr, Santa Clarita, CA**

CPT-2
Total depth: 50.21 ft, Date: 3/11/2024



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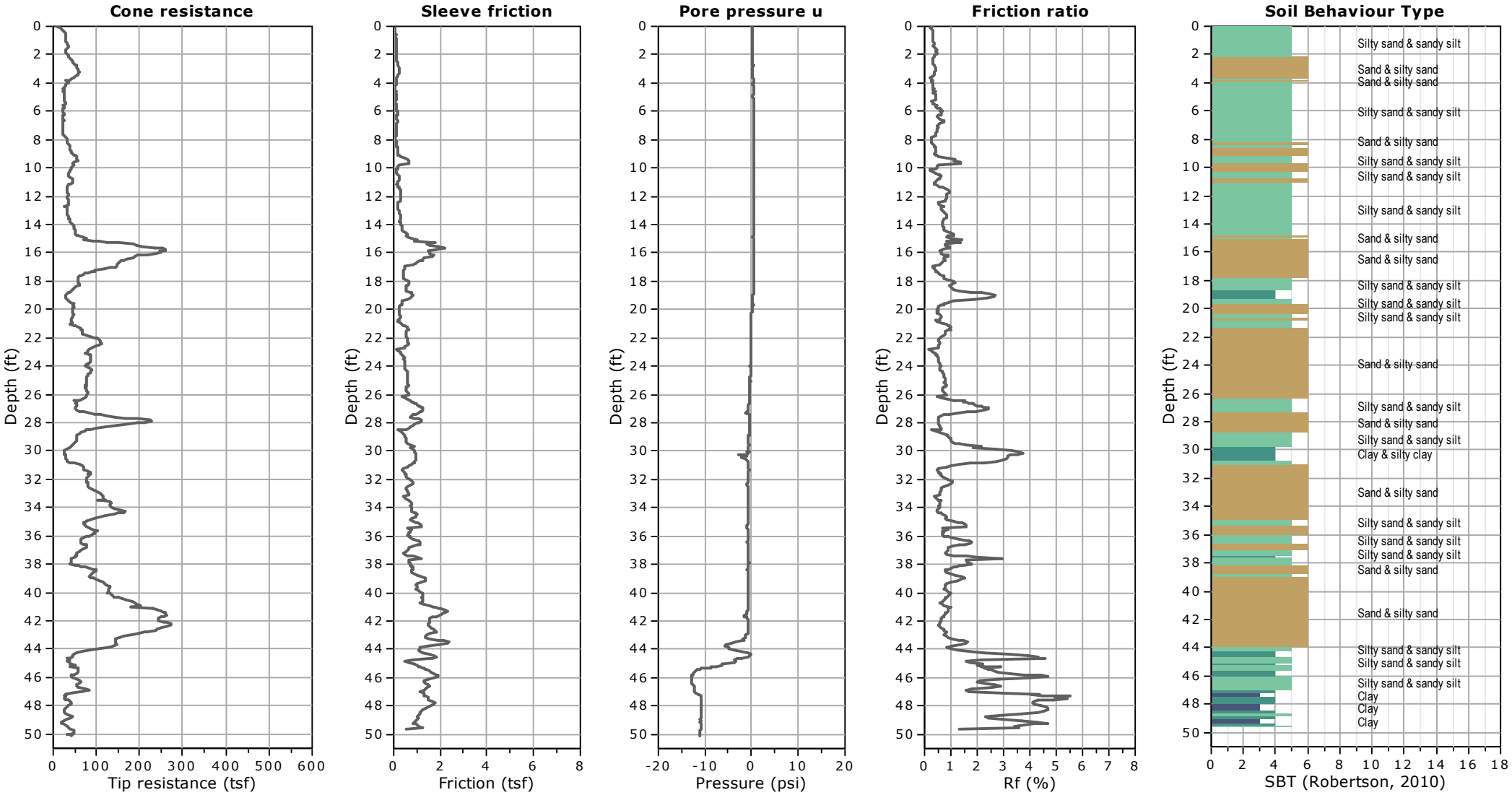
steve@kehoetesting.com
www.kehoetesting.com

Project: **LGC Valley / NUWI - Belcaro**
Location: **Oak Spring Rd & Graceton Dr, Santa Clarita, CA**

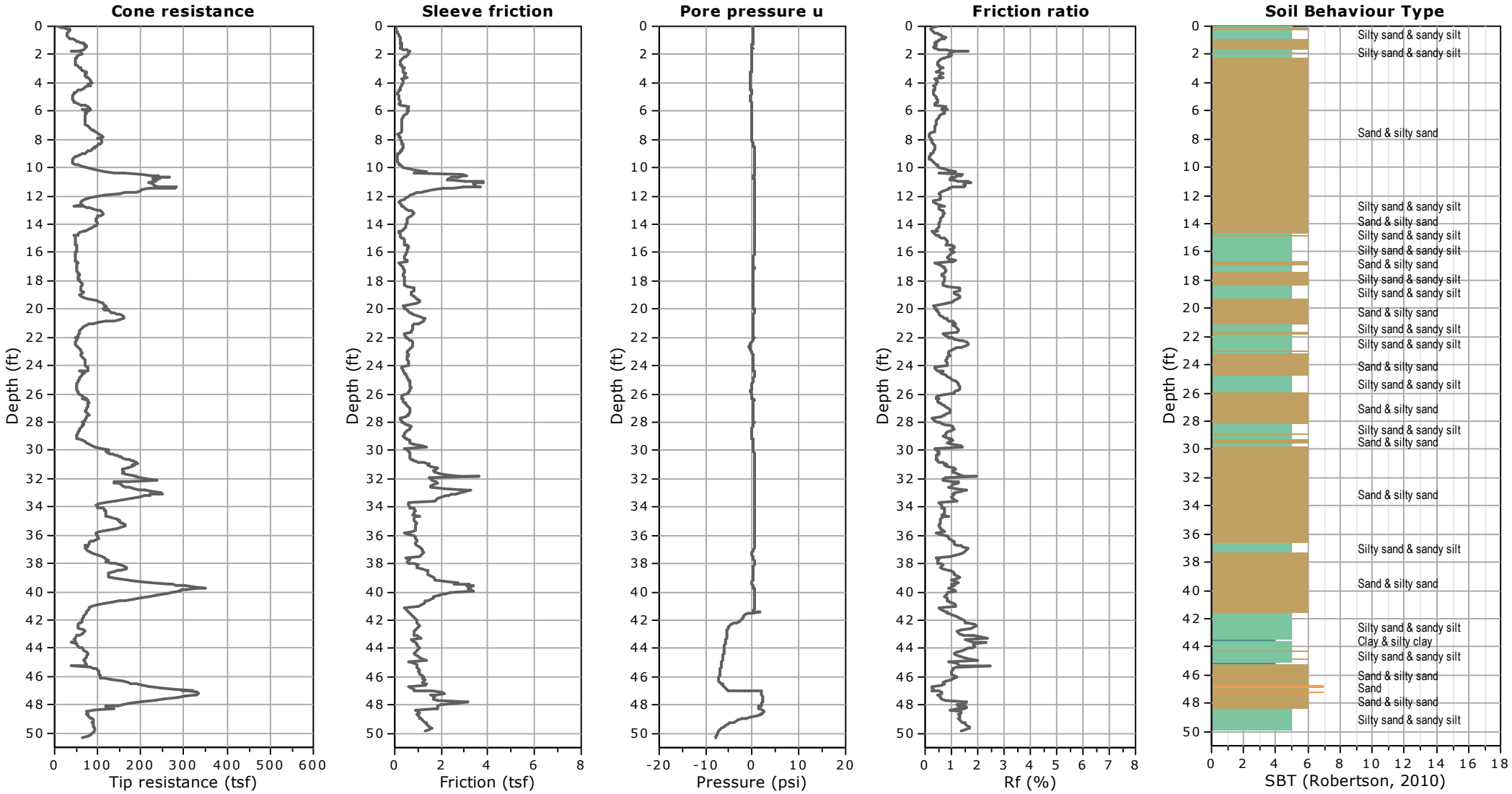
CPT-3
Total depth: 50.11 ft, Date: 3/11/2024



Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **LGC Valley / NUWI - Belcaro**
Location: **Oak Spring Rd & Graceton Dr, Santa Clarita, CA**

CPT-4
Total depth: 50.28 ft, Date: 3/11/2024



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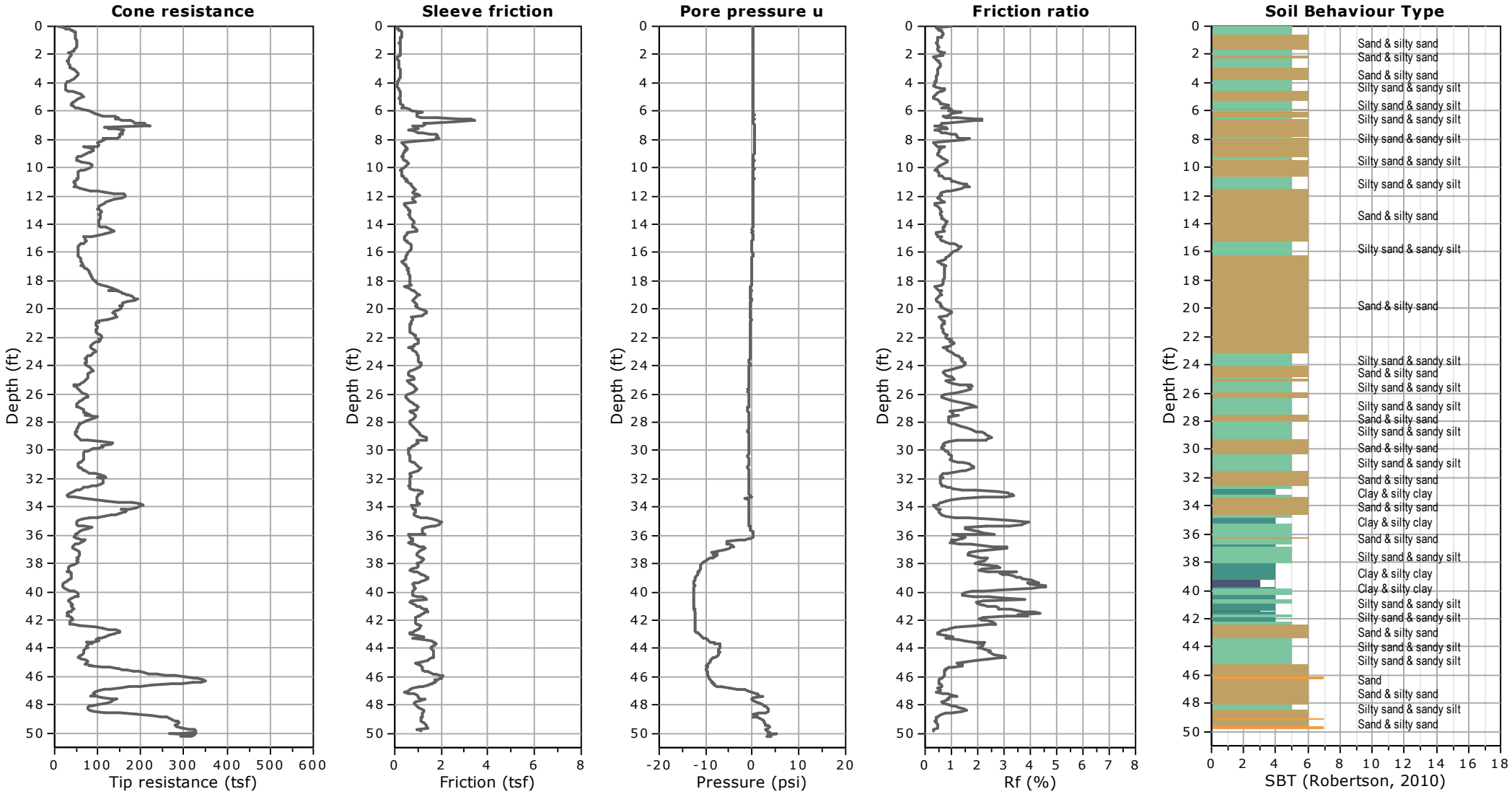
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **LGC Valley / NUWI - Belcaro**
Location: **Oak Spring Rd & Graceton Dr, Santa Clarita, CA**

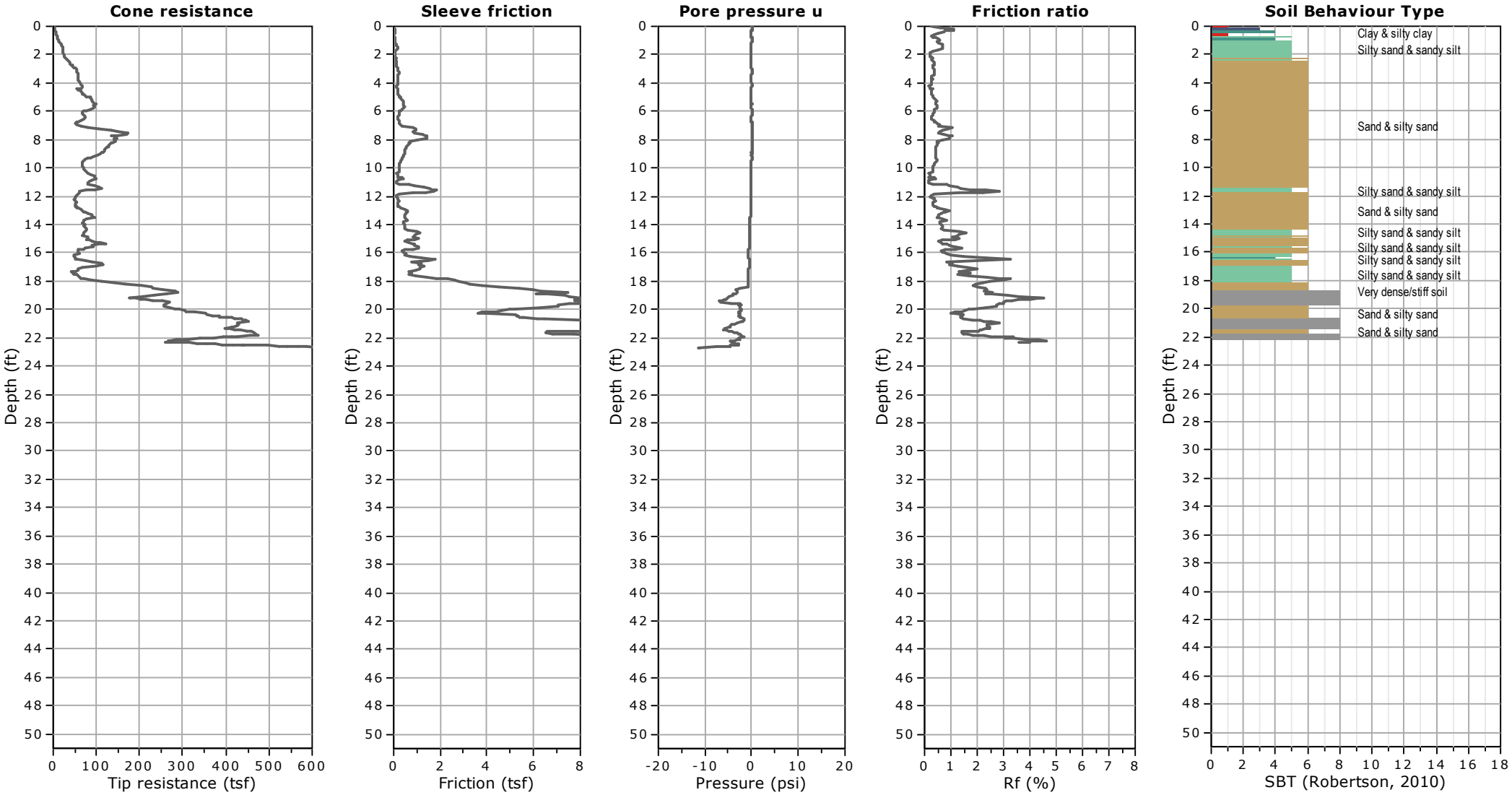
CPT-5
Total depth: 50.22 ft, Date: 3/11/2024



Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **LGC Valley / NUWI - Belcaro**
Location: **Oak Spring Rd & Graceton Dr, Santa Clarita, CA**

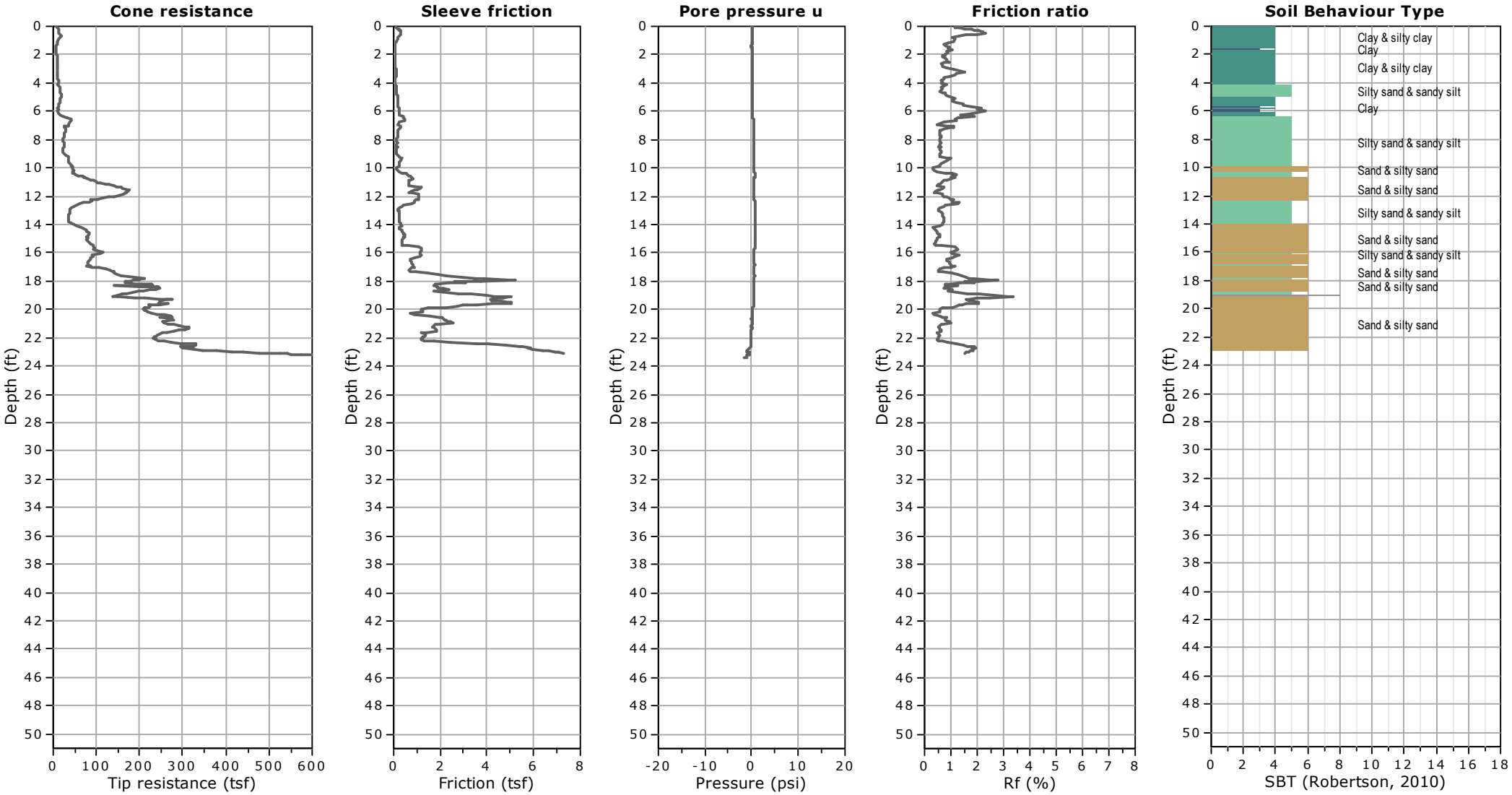
CPT-6
Total depth: 22.68 ft, Date: 3/11/2024



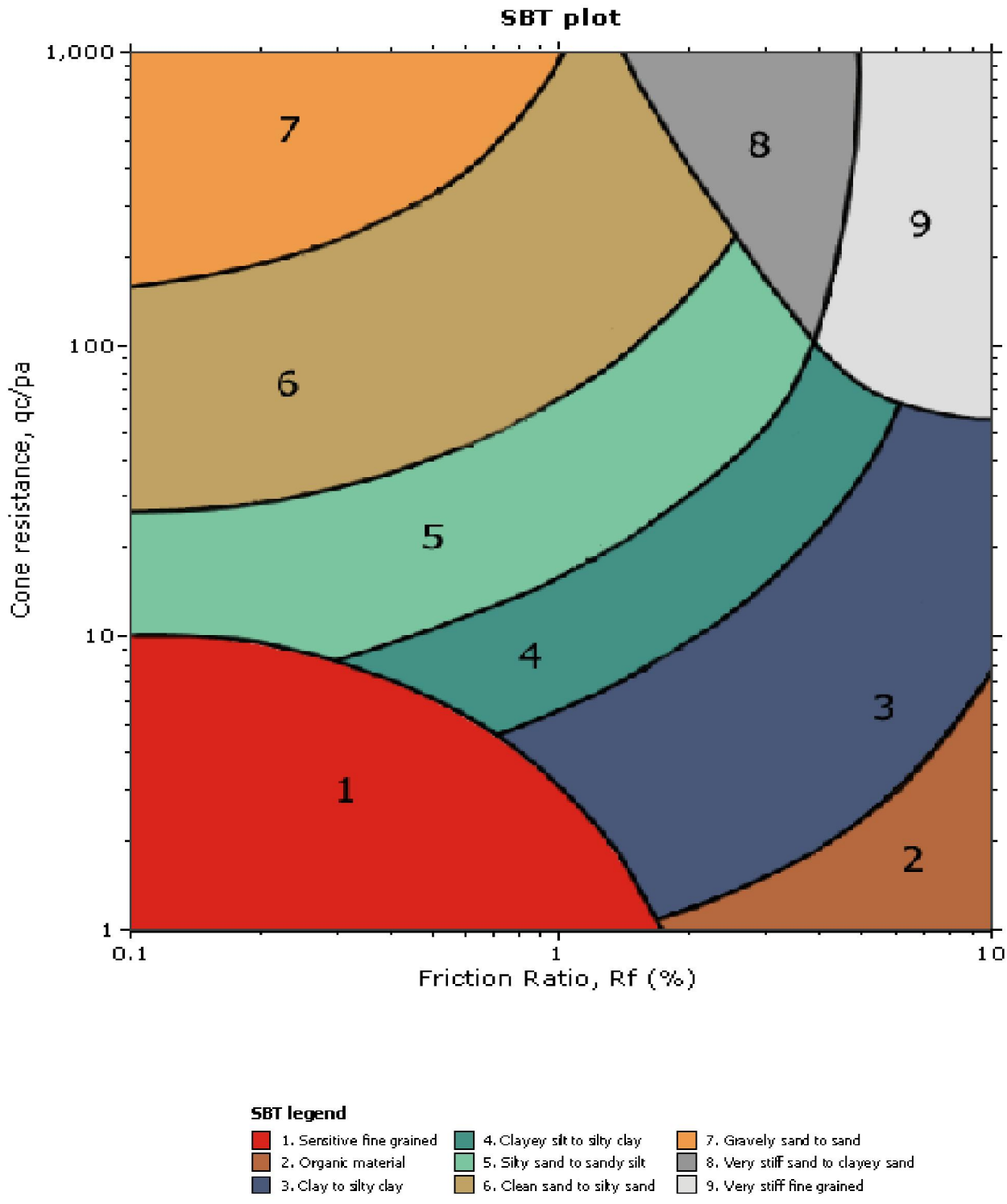
Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **LGC Valley / NUWI - Belcaro**
Location: **Oak Spring Rd & Graceton Dr, Santa Clarita, CA**

CPT-7
Total depth: 23.43 ft, Date: 3/11/2024



Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com



LGC Valley
NUWI - Belcaro
Santa Clarita, CA

CPT Shear Wave Measurements

Location	Tip Depth (ft)	Geophone Depth (ft)	Travel Distance (ft)	S-Wave Arrival (msec)	S-Wave Velocity from Surface (ft/sec)	Interval S-Wave Velocity (ft/sec)
CPT-3	4.99	3.99	4.46	9.54	468	
	10.10	9.10	9.32	17.66	528	598
	15.03	14.03	14.17	24.28	584	733
	20.05	19.05	19.15	29.96	639	877
	25.03	24.03	24.11	35.12	687	961
	30.05	29.05	29.12	40.68	716	900
	35.04	34.04	34.10	45.83	744	967
	40.06	39.06	39.11	50.80	770	1009
	45.08	44.08	44.13	55.56	794	1053
	50.10	49.10	49.14	60.04	818	1120

Shear Wave Source Offset - 2 ft

S-Wave Velocity from Surface = Travel Distance/S-Wave Arrival
Interval S-Wave Velocity = (Travel Dist2-Travel Dist1)/(Time2-Time1)

GEOTECHNICAL BORING

Date 10/25/84 Drill Hole No. 1 Sheet 1 of 1

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200# - 22' Drop 12 in.

Elevation Top of Hole 1587' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by TJ Sampled by ERR
0		OLDER ALLUVIUM	1	7-12'			SM	SILTY SAND: medium brown, dry, rooted, loose, pebbles to 1/4" ø @ 2' - no tube recovery @ 3' - 3" to 5" cobbles, boulders to 2'
5			2 SP3	3-6" 9-6"				@ 5' - 10% pebbles
10			4 5 SP6	9-9" 17-6" 16-6"	116.8	3	SP	SAND: medium to coarse grained, poorly graded, brownish-gray, 20% pebbles @ 7.5' - slightly moist @ 10' - coarse grained, dark brown, very moist, 20% pebbles
			7 8		105.7	22	ML	CLAYEY SILT: sandy, greenish-brown, moist, slightly plastic
15			SP9	4-6" 4-6"			SM	SILTY SAND: fine, dark brown, very moist
			10 SP11	3-6" 4-6"				@18' - saturated, medium brown
20			12					
								Total Depth = 21' Caving to 4', saturated zone at 18' No Free Water Boring backfilled
25								

10 + 15 + 4 + 05 = 54

GEOTECHNICAL BORING

Date 10/25/84 Drill Hole No. 2 Sheet 1 of 1

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200 # - 22' Drop 12 in.

Elevation Top of Hole 1576' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by TJ Sampled by ERR
0		OLDER ALLUVIUM	13				SM	SILTY SAND: medium brown, dry, slightly plastic, roots, 5% cobbles @ 1.5' - 50% cobbles @ 3.0' - slightly moist, 5% cobbles
			14	push	135.9	2		
			SP15	4-6" 3-6"				
5			16	push	93.1	18		@ 6' - moderately well sorted, moist, micaceous
			17					
			SP18	2-6" 3-6"			ML	CLAYEY SILT: greenish-brown, moist, micaceous, sandy
10			19	push 1 blow	103.2	21		
			20					
			SP21	3-6" 4-6"				
15			22	push				@ 15' - no tube sample recovery
			SP23	1.5-6" 2.5-6"			SM	SILTY SAND: fine, medium-brown, saturated
20			24	2-6"	123.1	17		
			25					Total Depth = 22' Caving from 15' to 22', standing water to 18' Boring backfilled
25								

GEOTECHNICAL BORING

Date 10/25/84 Drill Hole No. 3 Sheet 1 of 1

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 24" Drive Weight 2200#-23', 1400#-25' Drop 12 in.

Elevation Top of Hole 1617' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by TJ Sampled by ERR
0		OLDER ALLUVIUM					SM	SILTY SAND: light medium-brown, dry, loose, 5% subangular pebbles to 1/2" ø
			26	push 1-6"	109.0	2		
			27					
			SP28	3.5-6"				
5			29	2-6"	113.8	5		@ 5' - light brown, slightly moist, 10% pebbles to 3/4" ø
			30					
				5-6"				@ 8' - medium brown, 3% pebbles to 1/4" ø.
			SP31	6-6"				
10			32	1-12"	111.7	3		@ 10' - medium brown, slightly moist, 10% pebbles to 1/4" ø
			33					
			SP34	3-6"				
				3-6"				
								@ 14' - medium to coarse grained, light brown, moist, 10% pebbles to 1/2" ø
15			35	2-12"				@ 16' - medium brown, moist, 5% pebbles to 1/4" ø
			36					
			SP37	4.5-6"				@ 18' - fine to medium grained, medium brown, moist, 10" pebbles to 3/4" ø
				6-6"				
20			38	3-12"	111.6	7		
			39					
			SP40	5-6"				
				5-6"				
25			41	5-12"	124.1	4	SP	SAND: medium grained, grayish-brown, slightly moist, 15% pebbles
			42					

Total Depth = 26'
No caving, no free water
Boring backfilled

GEOTECHNICAL BORING

Date 10/26/84 Drill Hole No. 4 Sheet 1 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23', 1400#-50' Drop 12 in.

Elevation Top of Hole 1555' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by TJ Sampled by ERR
0		ALLUVIUM	43 SP44	9-6" 15-6"			SP	SAND: medium to coarse-grained, light brown, slightly moist, pebbles, cobbles, boulders sub-angular, cohesionless, poorly graded @ 2' - no tube recovery
5			45 SP46	7-6" 10-6"				@ 6'-coarse grained, med. brown, cobbles, No tube recovery
10			47 48 SP49	8-6" 11-6"	127.4	8		
							SM	SILTY SAND: fine grained, orangish brown, sub-angular
15		OLDER ALLUVIUM	50 51 SP52	12 14-6" 17-6"	121.3	13	SP	SAND: coarse grained, med. brown, sub-angular, pebbles, cobbles to 6"Ø, slightly dense
20			53 54 SP55	18-6" 19-6"	125.7	12		
							SW	SAND: well-graded, medium to coarse, reddish-brown
25			56 SP57	14-12" 35-6" X-6"				@ 25' - no recovery Stopped Standard Penetration Test because of large count @ 28' - very dense Thin, reddish-brown, silt lenses encountered every 1-2 ft., cobbly horizo
30								

GEOTECHNICAL BORING

Date 10/26/84 Drill Hole No. 4 continued Sheet 2 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23', 1400#-50' Drop 12 in.

Elevation Top of Hole 1555' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by TJ Sampled by ERR
30			58	30-12"	117.3	13		(continued)
			59					
			SP60	25-6" 20-6"			SP	SAND: medium-fine, poorly graded with gravels and silt, slight reddish-green color
35			61	20-12"	125.6	10		@ 35' - medium coarse-grained, medium brown, sub-angular
			62					
			SP63	38.6" X-6"				
40		OLDER ALLUVIUM	64	25-12"	139.8	12		@ 40' - very dense, med. to fine grained with silt lenses, med. brown 5% cobbles
			65					
			SP66	10-6" 19.6"				@ 43' - very few silts
45								@ 45' - no undisturbed sample recovery
			67	28-12"				
			SP68	15-6" 24-6"				
50			69	50-9"	135.6	11		@ 51' - coarse grained with gravel, medium dense
			70					
								Total Depth = 51' Drilling mud used Free water at approximately 15' Boring backfilled

GEOTECHNICAL BORING

Date 10/29/84 Drill Hole No. 5 Sheet 1 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23', 1400#-30' Drop 12 in.

Elevation Top of Hole 1633' Ref. or Datum Lind & Hillerud Plot Plan

Depth - Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by ERR Sampled by ERR
0		ALLUVIUM					SP	SAND: grayish brown, dry, loose, rooted, sub-angular grains, pebbles, poorly graded
				3-6"				
			SP71	3-6"				@ 2' - slightly moist
			72					
5								@ 5' - 3" to 10" cobbles
			73	3-12"	119.7	4		
			74					
			SP75	6-6"				@ 8' - slightly firm
				4-6"				
10		OLDER ALLUVIUM	76	3-12"	118.3	14	ML	SANDY SILT: reddish brown, slightly moist, slightly plastic, caliche stringers, soft
			77					
			78	6-6"				@ 13' - clayey, plastic
				7-6"				
15			79	7-12"	129.2	3	SP	SAND: med.-coarse sand w/gravel, slightly moist, silty, slightly dense
			80					
			SP81	8-6"				
				8-6"				
20			82	4-12"	138.7	4	SM	SILTY SAND: slightly clayey, dark brown, slightly moist, sub-angular, slightly plastic, slightly dense
			83					
				18-6"				
			SP84	16-6"				
							SP	SAND: fine-medium grained, 5% cobbles, med. brown, dry, sub-angular, dense
25			85	6-12"	116.1	18	SM	SANDY SILT: dark brown, moist, med. plasticity, some sand and gravel (5-10%)
			86					
				13-6"				
			SP87	18-6"				
30								(continued)

GEOTECHNICAL BORING

Date 10/29/84 Drill Hole No. 5 continued Sheet 2 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23', 1400#-30' Drop 12 in.

Elevation Top of Hole 1633' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by ERR Sampled by ERR
30			88 89	11-12"	126.9	4	SP	SAND: medium-coarse grained with gravel, moist, some silt

Total Depth = 31'

No free water
Boring backfilled

GEOTECHNICAL BORING

Date 10/29/84 Drill Hole No. 6 Sheet 1 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23', 1400#-30' Drop 12 in.

Elevation Top of Hole 1568' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by TJ Sampled by ERR
0		OLDER ALLUVIUM					ML	SANDY SILT: light brown, dry, soft, 5% sand
			90	push	97.8	6		
			91	1 blow				@ 3' - caliche stringers, slightly moist
			SP92	4-6"				@ 4' - tighter material
5				35-6"				
			93	11-12"	93.0	6		
			94					
			SP95	6-6"				
				7-6"				
10			96	15-12"	112.5	6		
			97					
			SP98	4-6"				
				5-6"				@ 14' - med. brown, moist, 5% sand, slightly plastic
15			99	11-12"	108.9	13		
			100					
			SP101	5-6"				
				9-6"				
20		BEDROCK	102				MH	CLAYEY SILTSTONE: greenish-brown, moist, highly fractured
			103		125.1	14		
							ML	SANDY SILTSTONE: greenish-brown, moist, firm
			SP104	35-4"			MH	CLAYEY SILTSTONE: greenish-brown, less fractured
							ML	SANDY SILTSTONE: greenish-brown, moist, less fractured, firm
25			105	25-10"	121.0	11		
			106					
30								(continued)

GEOTECHNICAL BORING

Date 10/29/84 Drill Hole No. 6 continued Sheet 2 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23', 1400#-30' Drop 12 in.

Elevation Top of Hole 1568' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by TJ Sampled by ERR
30			107 108	25- 10"	118.6	10		
								Total Depth = 31' No caving, no seeps No free water Boring backfilled

GEOTECHNICAL BORING

Date 10/29/84-10/30/84 Drill Hole No. 7 Sheet 1 of 1

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 24" Drive Weight 2400#-24', 1450# Drop 12 in.

Elevation Top of Hole 1595' Ref. or Datum Lind and Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by FK/ERR Sampled by FK, TJ, ERR
0		OLDER ALLUVIUM	109 110	1	106.3	4	SM	CLAYEY SAND: light brown, moist, massive, occasional gravel, roots and root hairs
5			111 112	1	102.8	6		@ 8'3" - gradational contact (color lighter
							ML	CLAYEY SILT: light brown, moist
10		B-Gen N70W, 42NE	113 114	6	124.4	10		SANDSTONE: medium to coarse sand, light brown, moist, massive @ 11'3" - fine silty sand, greenish-brown @ 13'-16' - joint, caliche coated inter-bedded fine silty sand to coarse grained sand, greenish-brown
15		J N60W, 87NE	115 116	17	127.9	12		@ 16'10" - contact SILTSTONE: dark brown, dry, massive, fractured
		BEDROCK						@ 19'- contact SANDSTONE: light brown
20		B N12W, 39SW	117 118	20-10"	130.5	10		@ 21'- gradational contact, light greenish-brown, massive
25								NOTE: Total Depth = 25', down hole logged to 22' No free water No caving Boring Backfilled

GEOTECHNICAL BORING

Date 10/30/84 Drill Hole No. 8 Sheet 1 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 24" Drive Weight 2400#-24', 1450# Drop 12 in.

Elevation Top of Hole 1712 ' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log W I E	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by FK, TJ Sampled by TJ
0							SM	SILTY SAND: light brown, slightly moist, massive, occasional gravel, rooted, slightly porous, loose
			A	8	122.5	7		
								@ 4'7" - 8' - gravelly horizon
5		TERRACE DEPOSITS	B C	6	107.1	6	SP	GRAVELLY SAND: medium to coarse, brown, slightly moist, massive, poorly sorted sub-rounded clasts, friable, dark minerals, slightly loose
								@ 9' - contact
10		B N10W, 19SW	D E	15-10"	124.2	8		SANDSTONE: fine sand, light greenish-brown, moist, massive, weathered, FeO_2 stained @ 9'6" - rooted @ 11'6" - 3/10" bed exhibiting coarse to fine gradation
								@ 14'-14'3" - pebbly coarse sand, brown
15			F	15-8"	127.9	10		SILTY SANDSTONE: light greenish-brown, moist, massive, weathered, rhythmically graded bedding, coarse to fine @ 16'3" - FeO_2 stained
								@ 19'3" - fine grained sand, light orangish green, damp, slightly better induration or cementation
20		BEDROCK	G					@ 21'-22' - medium to coarse sand, medium brown, some cementation @ 22'1" - fine grained sand @ 23'7" - MnO_2 stained joint, fairly throughgoing
		J N75E, 72SW						@ 25'6" - coarse grained sand
25			H	23-8"	133.2	8		@ 27'-28' - FeO_2 staining prevalent @ 28'3" - fine grained sand sequence
30								(continued)

GEOTECHNICAL BORING

Date 10/30/84 Drill Hole No. 8 continued Sheet 2 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 24" Drive Weight 2400#-24', 1450# Drop ____ in.

Elevation Top of Hole 1712' Ref. or Datum Lind and Hillerud Plot Plan

Depth Feet	Graphic Log W — E	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by FK, TJ Sampled by TJ
30								(Continued)
35		BEDROCK	I	37-9"	129.7	9		SILTY SANDSTONE: light green, damp. massive, cemented
			J	Bag				
40		B N56W, 34SW B N20W, 33SW Generalized						SANDSTONE: medium grained, light green, damp, less cementation, grading to fine in a 1.5' thick bed SILTY SANDSTONE: light green, damp, massive, cemented
45			K	40-7"	132.5	10		
50		B N35W, 22SW						@ 49' - clay bed, 15' thick, reddish-brown damp to moist, plastic, parallels bedding plane, continuous around hole, mineralized contact at base
55			L	36-6"				SANDSTONE: fine to medium sand, light green, damp, massive, cementation
60			M	Bag				NOTE: Total Depth = 60', downhole logged to 58' No Free Water No caving Boring backfilled

GEOTECHNICAL BORING

Date 10/31/84 Drill Hole No. 9 Sheet 1 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23' 1400#-48' Drop 12 in.

Elevation Top of Hole 1555' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by TJ Sampled by ERR
0							SP	SAND: poorly graded, gravelly, dry, sub-angular grey-brown, cohesionless
			SP119	10-6" 10-6"				@ 2' - slightly moist
5			120 121	6-5"	117.4	3		@ 5' - cobbles, moist, slightly dense
10			122 123	8-12"		12		
			SP124	19-6" 22-6"				@ 13' - fine to coarse grained, slightly moist, gravelly, dense
15			125 126	18-12"	129.1	9		
		ALLUVIUM						@ 18' - fine to coarse grained w/gravel and reddish-brown silt, greyish-brown, well-graded
20			127 128	8-12"	131.5	13		@ 19' - medium to coarse grained, gravelly, occasional cobbles to 5"Ø
			SP129	16-6" 17-6"				@ 23' - medium grained, saturated, pebbles
25			130 131	20-12"	129.5	12		
30								(continued)

GEOTECHNICAL BORING

Date 10/31/84 Drill Hole No. 9 Sheet 2 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23', 1400#-48' Drop 12 in.

Elevation Top of Hole 1555' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by TJ Sampled by ERR
								(continued)
30		ALLUVIUM	132 133	20-12"	131.2	17		@ 31' - med. to coarse gravelly sand, well-graded, greyish-brown material becoming more dense
			SP134	21-6" 22-6"				
35			135 136	30-12"	130.4	13		
							SM	SILTY SAND: greyish brown w/red hue in silt, dense
							SW	SAND: medium-grained, greyish-brown, dense, well-graded @ 39' - fine to medium grained
40			137 138	40-6"	121.8	10	ML	SANDY SILT: greenish brown, dense (lithified)
		OLDER ALLUVIUM	SP139	12-6" 13-6"				
45			140		133.6	12		
			141					
50								Total Depth = 50' Drilling mud used Free water at approximately 15' Boring backfilled

GEOTECHNICAL BORING

Date 11/1/84 Drill Hole No. 10 Sheet 1 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23', 1400#-30' Drop 12 in.

Elevation Top of Hole 1603' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by TJ Sampled by ERR
0		OLDER ALLUVIUM					SM	SILTY SAND: medium brown, dry, porous, rooted, occasional pebbles to 1"Ø, loose caved from 18" to 4-1/2', became tighter at 4-12'
			142 143	push	109.4	2		@ 4-1/2' - medium brown, moist, porous, pebble to 1"Ø, rooted
5								
			144 145	3-12"	121.3	3		
10								@ 10' - fine to medium grained, dark brown, moist, caliche stringers
			146 147	2-12"	107.6	8		@ 14' - fine grained, medium dark brown @ 15' - medium-dark brown, moist, slightly plastic, occasional pebbles to 1"Ø
15								
			148 149	2-12"	117.5	8		
20								@ 20' - medium dark brown
			150 151	1-12"	122.9	3	SW	SAND: fine to medium grained, medium brown, moist, loose
25								
			152					
30								(continued)

GEOTECHNICAL BORING

Date 11/1/84 Drill Hole No. 10 continued Sheet 2 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23', 1400#-30' Drop 12 in.

Elevation Top of Hole 1603' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by TJ Sampled by ERR (continued)
30			153	14-12"	111.2	16		@ 31' - medium grained
								Total Depth = 31' No water Boring backfilled

GEOTECHNICAL BORING

Date 11/1/84 Drill Hole No. 11 Sheet 1 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23', 1400#-30' Drop 12 in.

Elevation Top of Hole 1598' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by TJ Sampled by ERR
0		OLDER ALLUVIUM					SM	SILTY SAND: medium brown, dry, loose, rooted, pebbles to 1"Ø caving @ 2' - 6'
			154 155	1-6"	96.3	3		@ 4' - fine grained, medium brown, slightly moist, pebbles to 1"Ø @ 6' - fine grained, medium brown, moist, slightly plastic
5								
			156 157	1-12"	102.2	6		
10								
			158 159	2-12"	106.4	18		
15							ML	SILT: medium grown, moist, pebbles to
			160 161	1-12"	111.7	18		
20								
			162 163	1-12"	112.5	11	SM	SILTY SAND: medium brown, moist, loose @ 25' - more cohesion @ 26' - fine grained, medium brown, very moist
25								
			164					@ 30' - saturated (continued)
30								

GEOTECHNICAL BORING

Date 11/1/84 Drill Hole No. 11 continued Sheet 2 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23' 1400#-30' Drop 12 in.

Elevation Top of Hole 1598' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by TJ Sampled by ERR
30			165	push	106.0	25		(Continued)
								Total Depth = 31' Caved 2'-6', free water at 30' Boring backfilled

GEOTECHNICAL BORING

Date 11/1/84 Drill Hole No. 12 Sheet 1 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23', 1400#-30' Drop 12 in.

Elevation Top of Hole 1632' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by TJ Sampled by ERR
0		OLDER ALLUVIUM	166 167	push 6" 1-6"		2	SP	SAND: medium grained, med. brown, slightly moist, loose, pebbles to 1"Ø, rooted @ 1'-1'10" - gravelly horizon, gravel to 1"Ø, rooted @ 3'-3'6" - gravelly horizon, gravel to 2"Ø, rooted @ 5'-6' - cobbly horizon, cobbles to 4"Ø
5								
10			168 169	2-12"	116.9	3	SM	SILTY SAND: med. brown, fine grained, slightly moist, slightly plastic, tight, occasional pebbles to 1/4"Ø
			170 171	push 6" 1-6"	123.2	3		@ 13' - fine to medium grained, red brown, slightly moist, pebbles to 1/4"Ø
15							ML	SILT: medium brown, slightly moist, more cohesive
			172 173	3-12"		3	SP	SAND: medium to coarse grained, medium brown, slightly moist, pebbles to 1/2"Ø, loose
20								@ 22' - fine grained
			174 175	4-12"	129.1	2		@ 23.5' - fine grained, medium brown moist
25							ML	SANDY SILT: med. brown, moist, cohesive, firm
			176					(continued)
30								

GEOTECHNICAL BORING

Date 11/1/84 Drill Hole No. 12 continued Sheet 2 of 2

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23', 1400#-30' Drop 12 in.

Elevation Top of Hole 1632' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by TJ Sampled by ERR
30			177	5-12"	120.0	7		(Continued)
								Total Depth = 31' Caving throughout, no water Boring backfilled

GEOTECHNICAL BORING

Date 11/1/84 Drill Hole No. 13 Sheet 1 of 1

Project First Financial/Sand Canyon Job No. 3840787-01

Drilling Co. Contractors Drilling Service Type of Rig Bucket Auger

Hole Diameter 18" Drive Weight 2200#-23', 1400#-29' Drop 12 in.

Elevation Top of Hole 1632' Ref. or Datum Lind & Hillerud Plot Plan

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by TJ Sampled by ERR
0							SM	SILTY SAND: fine grained, med. brown, slightly moist, pebbles & cobbles to 5"Ø, rooted, loose
			178					
			179	1-12"		2		
5								@ 6' - medium grained, pebbles to 2"Ø
								@ 7-1/2' - medium to coarse grained
			180					
			181	1-12"	115.7	4		
10								@ 10' - medium brown, slightly moist
		OLDER ALLUVIUM						
			182					
			183	2-12"	121.4	3	SP	SAND: fine to medium grained, med. brown, moist, pebbles to 1-1/2"Ø, loose
15								@ 17' - medium to coarse grained, cobbles to 6"Ø
			184					
			185	2-12"	118.7	4		
20								
			186					
			187	4-12"		3		
25								@ 26' - fine grained, pebbles to 1/4"Ø
			188				ML	SILT: medium brown, very moist, slightly plastic
30			189	8-12"	130.0	5		Total Depth = 30' - caving to 28', no water, backfilled

GEOTECHNICAL BORING LOG

Date 4/27/89 Drill Hole No. BB-1 Sheet 1 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
0							ML	Alluvium : @ Surface : Brown, loose, fine sandy silt, dry
5		SPT	1	3 5 4 9			SM ML	@ 5" : Brown, loose, Silty fine sand; dry; trace medium sand and trace subangular gravel to 1/2"
10		Cal	1	7 14 17 31	105.4	5.7	SM ML	@ 10' : Brown, medium dense, Silty fine sand, moist; trace clay and subangular gravel To 1/2"
15		SPT	2	5 7 16 23			SM ML	@ 15 Same OS 10'
20		SPT	3	12 17 7 24			SW	@ 20' Brown, medium to coarse sand, medium dense, moist; trace gravel To 1"
25		SPT	4	2 4 4 8			SM ML	@ 25' Brown, loose, Silty fine sand; moist

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Date 4/27/89 Drill Hole No. BB-1 Sheet 2 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
30		SPT	5	8 8 13 21			SW	Logged by KWB Sampled by KWB Alluvium: @ 30': Brown, medium dense, medium to coarse sand, moist; trace fine sand and subangular gravel to 3/4"
35		SPT	6	5 6 6 12			SW SM	@ 35': Light brown, medium dense medium coarse sand; trace fine gravel, little silt
40		SPT	7	5 4 7 11				@ 40': Same as 35' except increasing fine gravel Total depth 40' No ground water encountered

Date 4/27/89 Drill Hole No. BB-2 Sheet 1 of 1

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
0							SW	Logged by KWB Sampled by KWB Alluvium: @ Surface: light grey, loose, gravelly fine to coarse sand, dry, cobbles to 4"
5		SPT	1	12 15 29 44			SW	@ 5', light grey, dense, gravelly fine to coarse sand, dry; gravel to 2"
								@ 6', boulder encountered Stopped drilling
								Total Depth 6' No water encountered
10								
15								
20								
25								
30								

SOOA (2/77)

Date 4/27/89 Drill Hole No. BB-3 Sheet 1 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
0								Alluvium: @ Surface; Light grey, loose, gravelly fine to coarse sand, gravel to 2"
5								
10		SPT	1	5 6 9 15			SW	@ 10': Light grey, medium dense, medium sand, moist; trace fine and coarse sand and trace subangular gravel to 1"
15		SPT	2	8 3 5 8				@ 15'; Light brown, loose, fine to coarse sand, moist; trace subangular gravel to 1" @ 17'; Boulder encountered, able to continue
20		SPT	3	4 7 10 17				@ 20'; Light brown, medium dense, fine to coarse sand, moist; trace subangular gravel to 1"
25		SPT	4	14 22 32 54				@ 25': Light brown, very dense, fine to coarse sand, moist; trace subangular gravel to 1" Sampler may have been driven into a boulder or cobble
30								

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Date 4/27/89 Drill Hole No. BB-3 Sheet 2 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
30		SPT	5	13 17 29 46			SW	@ 30': Light brown, dense, fine to coarse sand, moist, trace subangular gravel to 1"
35		SPT	6	16 16 18 34			SW	@ 35': Light brown, dense fine to coarse sand, moist, trace fine gravel
								Total Depth 35' No water encountered

Date 4/27/89 Drill Hole No. BB-4 Sheet 1 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Logged by KWB

Sampled by KWB

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
0							SW	Alluvium: @ Surface: Light grey, loose, fine to coarse sand, dry; trace gravel, cobbles and boulders
5		SPT	1	13, 7, 16 (23)			SW	@ 5': Light grey, medium dense, fine to coarse sand, slightly moist, trace subangular gravel to 1"
10		SPT	2	8, 15, 15 (30)			SW	@ 7': Boulder encountered while drilling; able to continue @ 10': Light grey, medium dense to dense, fine to coarse sand, moist; little subangular gravel to 1"
15		SPT	3	5, 6, 11 (17)			SW	@ 13': Boulder encountered while drilling; able to continue @ 15': Light brown, medium dense, fine to coarse sand, moist, trace subangular gravel to 1"
20		Col	1	23, 22, 33 (55)			SW	@ 20': Light brown, medium dense to dense; fine to coarse sand, moist some subangular gravel
25		SPT	4	10, 16, 18 (34)			SW	@ 25': Same as 20', except little subangular gravel to 1"
30								

5004 (2/77)

Date 4/27/89 Drill Hole No. BB-4 Sheet 2 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
30		SPT	5	8 12 19 31			SW	Logged by KWB Sampled by KWB @30': Light brown, medium dense to dense, fine to coarse sand, moist trace subangular gravel to 1" Total Depth 30' No water encountered

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Date 4/27/89 Drill Hole No. BB-5 Sheet 1 of 1

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
0							SW	Alluvium: @ Surface: Light grey, loose, fine coarse sand, dry, little subangular gravel, cobbles and boulders
5								@ 4': Boulder encountered @ 5': No Sampling performed due to boulder
10								@ 5': Stopped drilling due to boulder
								Total Depth 5' No ground water encountered
15								
20								
25								
30								

500A (2/77)

Date 4/27/89 Drill Hole No. BB-6 Sheet 1 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
0							SW	Alluvium : @ Surface : Light grey, loose, fine to medium sand, dry; little subangular gravel and cobbles
5		SPT	1	9 20 19 39			SW	@ 5' : Light grey, dense, fine to coarse sand, dry; little subangular gravel to 1"
10		SPT	2	5 16 15 31			SW	@ 7' : Boulder encountered, able to continue drilling @ 10' : Same as 5', except little subangular gravel to 1" and moist
15		Cal	1	15 20 20 40			SW	@ 15' : Light grey, dense fine to coarse sand, moist; trace subangular gravel to 1"
20		SPT	3	9 12 17 29		2.2	SW	@ 20' : Light grey, medium dense, fine to coarse sand; moist, trace subangular gravel to 1"
25		SPT	4	16 15 18 33			SW	@ 25' : Light grey, dense fine to coarse sand, moist, trace subangular gravel to 1"
30								

Date 4/27/89 Drill Hole No. BB-6 Sheet 2 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
30		SPT	[5]	15 16 26/46			SW	Logged by KWB Sampled by KWB @30': Alluvium, Light grey, dense, fine to coarse sand, moist, Trace subangular gravel To 1" Total Depth: 30' No ground water encountered

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Date 4/27/89 Drill Hole No. BB-7 Sheet 1 of 2

Project American Beauty Job No. 7B40787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
0							SM/ML	Alluvium: @ Light brown, loose, silty fine sand, dry;
5		SPT	1	3 3 3 6			SM/ML	@ 5': Light brown, loose, silty fine sand, dry; trace medium sand
10		SPT	2	3 4 5 9			SM/ML	@ 10': Same as 5', except moist
15		SPT	3	3 3 5 8			ML/SM	@ 15': Same as 10'
20		Cal	(1)	4 7 9 16	107.2	7.9		@ 20': Light brown, medium dense, Fine Sand, moist, trace silt and medium sand
25		SPT	4	2 2 4 6				@ 25': Light brown, loose, silty fine sand, moist.
30								

GEOTECHNICAL BORING LOG

Date 4/27/89 Drill Hole No. BB-7 Sheet 2 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
30		SPT	5	7 7 7 14			SW	@ 30': Light grey, medium dense, fine to coarse sand, moist; trace subangular gravel to 1"
35		SPT	6	4 2 3 5			SW SM	@ 35': Contact between same material @ 30' and Light brown, loose silty fine sand, moist
40		SPT	7	3 4 8 12			SM SW	@ 40': Brown, medium dense, fine sand, wet; trace silt and medium sand

Total Depth 40'

No water encountered, but sample @ 40' wet

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GEOTECHNICAL BORING LOG

Date 4/27/89 Drill Hole No. BB-8 Sheet 1 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Logged by KWB

Sampled by KWB

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
0							SM SW	Alluvium: @ Surface: Light brown, silty fine sand, dry, trace medium to coarse sand
5		Cal	(1)	14 11 13 24			SW	@ 5': Light brown, medium dense, fine to coarse sand, dry; trace silt
10		SPT	[1]	3 8 6 14			SM	@ 10': Light brown, loose silty fine to coarse sand, slightly moist, trace subangular gravel to 1".
15		SPT	[2]	5 3 3 6			SM	@ 15': Contact between material @ 10' and brown, loose silty fine sand, moist.
20		Cal	(2)	7 5 6 11	100.5	7.9	SM	@ 20': Brown, loose to medium dense, silty fine sand, moist.
25		SPT	[3]	3 3 6 9			ML SM	@ 25': Brown, loose, silty fine to medium sand, moist; little coarse sand
30								

Date 4/27/89 Drill Hole No. BB-8 Sheet 2 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
30		SPT	4	5 6 8 14			SM ML	@ 30': Brown, medium dense, silty fine to medium sand, moist, trace clay and coarse sand
35		SPT	5	11 12 13 25			SW	@ 35': Brown, medium dense, fine to coarse sand, moist, trace subangular gravel to 1"
								Total Depth 35' No ground water encountered.

5000A (2/77)

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Date 4/28/89 Drill Hole No. BB-9 Sheet 1 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
0							SW	Alluvium:
								@ Surface: Grey, loose, fine to coarse sand, dry, little subangular gravel to 2"
5		SPT	1	4 5 14 19			SW	@ 5': Light brown, medium dense fine to coarse sand, moist, few subangular gravel to 1"
10		SPT	2	6 13 12 25			SW	@ 10': Light brown, medium dense fine to coarse sand, moist, slight trace of fine gravel
		BULK	1					
15		Cal	1	11 11 15 26	111.6	2.9	SW	@ 15': Light brown, medium dense, medium to coarse sand, moist, trace fine sand and fine gravel.
20		SPT	3	6 11 14 25			SW	@ 20': Light brown, medium dense fine to coarse sand, moist, trace subangular gravel to 3/4"
25		SPT	4	8 11 9 20			SW	@ 25': Light brown, medium dense fine to coarse sand, moist, little subangular gravel to 1"
30								

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Date 4/28/89 Drill Hole No. BB-9 Sheet 2 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
30		SPT	5	6 8 7 15				@30': Light brown, medium dense fine to coarse sand, moist, trace fine subangular gravel.
35		SPT	6	12 24 32 56				@35': Greyish brown, very dense fine to coarse sand, moist, trace fine subangular gravel.
								Total Depth 35' No water encountered

Logged by KWB

Sampled by KWB

Date 4/28/89 Drill Hole No. BB-10 Sheet 1 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION Logged by KWB Sampled by KWB
0							SW SM	Alluvium: @ Surface: Light brown, loose; fine to coarse sand; moist; little subangular gravel to 2" trace silt.
5		SPT	1	4 2 3 5			SM	@ 5': Light brown; loose; Silty fine to coarse sand; moist; trace fine subangular gravel.
10		Cal	1	11 13 19 32		2.0	SW	@ 10': Light brown; dense; fine to medium gravelly fine to coarse sand; moist
		BULK 5-15'	1					
15		SPT	2	4 12 6 18			SW	@ 15': Light brown; medium dense; fine to coarse sand; moist; few subangular gravel to 1"
20		SPT	3	4 4 6 10			SW	@ 20': Light brown; loose to medium dense; fine to medium sand; moist; silty; trace coarse gravel.
25		SPT	4	6 12 14 26			SM	@ 25': Light brown; medium dense; silty fine sand; moist; trace medium to coarse sand
30								

Date 4/28/89 Drill Hole No. BB-10 Sheet 2 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
30		SPT	[5]	4 8 8 16			SM	@ 30': Light brown, medium dense, silty fine sand, moist; few medium to coarse sand
35		SPT	[6]	5 7 6 13			SM	@ 35': Light brown, medium dense, silty fine sand, moist, little medium to coarse sand, trace subangular gravel to 1"
40		SPT	[7]	3 5 8 13			SM	@ 40': Same as 35'
45		Cal	(2)	21 27 27 54			SW	@ 45': Light greyish brown, dense, fine to coarse sand, moist, few subangular gravel to 2"
								Total Depth 45' No ground water encountered

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Date 4/28/89 Drill Hole No. BB-11 Sheet 1 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
0							SM	Alluvium: @ Surface: Brown, loose, silty fine sand, dry, Trace medium To coarse sand
5		SPT	[1]	3 2 3 — 5			SM	@ 5': Same as surface, but slightly moist
10		SPT	[2]	5 6 6 — 12			SW	@ 10': Light brown, medium dense, silty fine To medium sand, moist, trace coarse sand and fine gravel
15		Cal	(1)	16 11 9 — 20			SW	@ 15': Light brown, medium dense, fine To coarse sand, moist, Trace silt, few subangular gravel To 1-1/2"
20		SPT	[3]	3 6 3 — 9			SM	@ 20': Light brown, loose, silty fine To medium sand, moist, little coarse sand,
		BULK 0-40'	△					
25		SPT	[4]	5 9 7 — 16			SW	@ 25': Light brown, medium dense, fine To medium sand, moist, Trace silt and fine gravel
30								

Date 4/28/89 Drill Hole No. BB-11 Sheet 2 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
30		SPT	5	3 7 6 13			SM SW	@ 30': Light brown, medium dense silty fine to medium sand, moist, little coarse sand
35		SPT	6	7 8 10 18			SW	@ 35': Light brown, medium dense, fine to medium sand, moist, trace silt and coarse sand
40		SPT	7	6 7 6 13			SW	@ 40': Light brown, medium dense, fine to coarse sand, moist, trace silt and fine subangular gravel.
								Total Depth 40' No ground water encountered

500A (2/77)

Date 4/28/89 Drill Hole No. BB-12 Sheet 1 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
0							SM	Logged by KWB Sampled by KWB Alluvium: @ Surface: Light brown, loose silty fine sand, Top soil, dry Trace fine gravel
5		SPT	1	3 4 6 10			SM SW	@ 5': Contact between material (a) Surface and light brown, loose to medium dense, fine to coarse sand, slightly moist, Trace fine subangular gravel
								@ 7': Boulder encountered, able to continue drilling.
10		Cal	1	18 10 14 24			SW	@ 10': Light brown, medium dense, Fine to coarse sand, slightly moist, little silt, No recovery first 3 rings
		BULK 0-25'	Δ					
15		SPT	2	3 5 3 8			SW SM	@ 15': Light brown, loose, silty fine sand, moist, Trace medium to coarse sand
20		SPT	3	5 9 8 17			SW	@ 20': Same as 15', except medium dense
25		SPT	4	5 6 7 13			SW	@ 25': Light brown, medium dense, fine to coarse sand, moist, slightly Trace silt.
30								

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Date 4/28/89 Drill Hole No. BB-12 Sheet 2 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
30		Cal	②	11 9 11 20	110.6	7.2	SM	@ 30': Light brown, medium dense silty fine sand, moist, little medium to coarse sand
35		SPT	5	4 4 4 8			SM	@ 35': Light brown, loose, silty fine sand, moist, Trace medium to coarse sand
40		SPT	6	4 5 7 12			SM	@ 40': Light brown, medium dense, silty fine sand, slight Trace medium to coarse Sand
								Total Depth 40' No ground water encountered

Date 4/2/89 Drill Hole No. BB-13 Sheet 1 of 1

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
0							SM	Alluvium: @ Surface: Light brown, loose silty fine sand Topsoil, slightly moist, Trace medium To coarse sand and fine gravel
5		SPT	1	3 4 4 8			SM SW	@ 5': Contact between material @ Surface and light brown, loose fine To medium sand, moist, slight Trace coarse sand
10		SPT	2	2 3 3 6			SM	@ 10': Light brown, loose, silty fine sand, moist @ 13': Boulder encountered able To continue drilling
15		SPT	3	13 11 9 20			SM	@ 15': Boulder, no soil recovered
20		Cal Bag Sample	1 4	21 29/3" 50+			Tmc	Bedrock: @ 20': Bedrock silt stone, very dense. (TMC - Mint Canyon Formation Bedrock)
25		SPT	5	40/4" 50+			Tmc	@ 25': Same as 20' Total Depth 25' No ground water encountered
30								

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Date 4/2/89 Drill Hole No. BB-14 Sheet 1 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
0							SM	Alluvium: @ Surface: Light brown, loose, silty fine sand topsoil: moist, trace medium to coarse sand and fine gravel
5		SPT	1	2 3 2 — 5			SM	@ 5': Light brown, loose, silty fine sand, moist, slight trace medium to coarse sand
10		Cal	1	11 6 8 — 14	91.2	10.2	SW SM	@ 10': Light brown, medium dense fine sandy silt, moist, little silt
15		SPT	2	3 2 2 — 4			SW SM	@ 15': Same as 10', except trace fine gravel
20		SPT	3	5 6 6 — 12			SW	@ 20': Light brown, medium dense fine to medium sand, moist, few coarse sand, trace subangular gravel to 3/4"
25		Cal	2	6 5 7 — 12			SW	@ 25': Same as 20'
30								

Date 4/28/89 Drill Hole No. BB-14 Sheet 2 of 2

Project American Beauty Job No. 7840787-05

Drilling Co. A & R Type of Rig CME 75

Hole Diameter 6" Drive Weight 140 lbs Drop 30 in.

Elevation Top of Hole Ref. or Datum See Geotechnical Map

Depth Feet	Graphic Log	Attitudes	Tube Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	GEOTECHNICAL DESCRIPTION
								Logged by KWB Sampled by KWB
30		SPT	4	3 4 12 16			SM	Alluvium:
							SW	@ 30': Contact between light brown silty fine sand, moist, slight Trace medium sand and light brown medium dense, fine to coarse clean sand; moist with slight Trace fine subangular gravel.
35		SPT	5	2 4 6 10			SM	@ 35': Light brown, loose to medium dense, silty fine to medium sand, moist, slight Trace coarse sand and fine gravel
40		SPT	6	5 4 6 10			SM	@ 40': Light brown, loose to medium dense; silty fine sand moist
45		SPT	7	4 5 7 12			SM	@ 45': Same as 40' but silt content increased to roughly 30%
								Total Depth 45' No ground water encountered

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GEOTECHNICAL BORING LOG RW-1

Date 6-6-06 **Sheet** 1 **of** 3

Project Robinson Ranch Development (TT 063022) **Project No.** 061989-001

Drilling Co. Valley Well Drilling **Type of Rig** Rotary Wash

Hole Diameter 8" **Drive Weight** 140 lbs **Drop** 30"

Elevation Top of Hole ~1598' **Location** See Geotechnical Map (Plate 1)

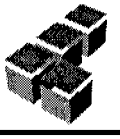
Elevation Feet	Depth Feet	Graphic Log (N–S)	Attitudes	Sample No.	Blows Per 6 inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION (Logged By MEK; Sampled By MEK)	Type of Tests
	0								**ALLUVIUM (Qal):** SANDY SILT, light grayish brown, dry, loose	
				SPT-1	9 9 9			SP	SAND, brown, slightly moist, medium dense, fine to medium grained, trace gravel	
	5			R-1	4 5 10	111	11.4	ML	SANDY SILT, dark brown, moist, stiff	
				SPT-2	7 8 12			SM	Interbedded SILTY SAND/ SANDY SILT, brown, moist, loose to medium dense, medium to coarse grained	
	10			R-2	4 10 20	117	11.5			
				SPT-3	2 4 4					
	15			R-3	8 8 9	114	14.8	SM	SANDY SILT, brown, moist, medium dense, fine to coarse grained	
	20			SPT-4	2 5 5			SM	SILTY GRAVELLY SAND, brown, moist, loose, fine to coarse grained	
	25			SPT-5	7 9 13			ML	SANDY SILT, brown, moist, stiff, contains minor gravel	
	30									

SAMPLE TYPES:

- S SPLIT SPOON
- R RING SAMPLE
- B BULK SAMPLE
- T TUBE SAMPLE
- G GRAB SAMPLE
- C CORE SAMPLE

TYPE OF TESTS:

- DS DIRECT SHEAR
- MD MAXIMUM DENSITY
- CN CONSOLIDATION
- CR CORROSION
- HCO HYDRO COLLAPSE
- SA SIEVE ANALYSIS
- AL ATTERBERG LIMITS
- EI EXPANSION INDEX
- RV R-VALUE
- PR PERCOLATION



LEIGHTON AND ASSOCIATES, INC.

GEOTECHNICAL BORING LOG RW-1

Date 6-6-06 **Sheet** 2 **of** 3

Project Robinson Ranch Development (TT 063022) **Project No.** 061989-001

Drilling Co. Valley Well Drilling **Type of Rig** Rotary Wash

Hole Diameter 8" **Drive Weight** 140 lbs **Drop** 30"

Elevation Top of Hole ~1598' **Location** See Geotechnical Map (Plate 1)

Logged By MEK

Sampled By MEK

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
	30			SPT-6	2 3 5			SM/ML	Interbedded GRAVELLY SILTY SAND/ SANDY SILT, brown, moist, loose to medium dense or medium stiff.	
	35			SPT-7	6 14 21			SP/SM	SILTY SAND, moist, brown, dense, fine to coarse grained	
	40			SPT-8	5 12 21			SM	SILTY SAND, moist, brown, dense, fine to coarse grained, increased silt content	
	45			SPT-9	21 50/2"			SM	SILTY SAND, dark brown, moist, very dense, fine to coarse grained	
	50			SPT-10	12 31 50/4"			SP-SM	SILTY GRAVELLY SAND, medium gray, moist, dense, medium to coarse grained SILTY SAND, dark brown, moist, very dense, fine to coarse grained, contains trace gravel	
	55			SPT-11	34 50/6"			SP	GRAVELLY SAND, gray to brown,very dense, coarse grained with fine gravel, well graded	
	60				9					

SAMPLE TYPES:

- S SPLIT SPOON
- R RING SAMPLE
- B BULK SAMPLE
- T TUBE SAMPLE
- G GRAB SAMPLE
- C CORE SAMPLE

TYPE OF TESTS:

- DS DIRECT SHEAR
- MD MAXIMUM DENSITY
- CN CONSOLIDATION
- CR CORROSION
- HCO HYDRO COLLAPSE
- SA SIEVE ANALYSIS
- AL ATTERBERG LIMITS
- EI EXPANSION INDEX
- RV R-VALUE
- PR PERCOLATION

GEOTECHNICAL BORING LOG RW-1

Date 6-6-06 **Sheet** 3 **of** 3

Project Robinson Ranch Development (TT 063022) **Project No.** 061989-001

Drilling Co. Valley Well Drilling **Type of Rig** Rotary Wash

Hole Diameter 8" **Drive Weight** 140 lbs **Drop** 30"

Elevation Top of Hole ~1598' **Location** See Geotechnical Map (Plate 1)

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
	60			SPT-12	28 46			SP	GRAVELLY SAND, gray to brown,very dense, coarse grained with fine gravel, well graded	
	65								**Drilled to 60'** **Sampled to 61.5'** **Boring backfilled with cuttings and bentonite chips**	
	70									
	75									
	80									
	85									
	90									

Logged By MEK

Sampled By MEK

SAMPLE TYPES:

- S SPLIT SPOON
- R RING SAMPLE
- B BULK SAMPLE
- T TUBE SAMPLE
- G GRAB SAMPLE
- C CORE SAMPLE

TYPE OF TESTS:

- DS DIRECT SHEAR
- MD MAXIMUM DENSITY
- CN CONSOLIDATION
- CR CORROSION
- HCO HYDRO COLLAPSE
- SA SIEVE ANALYSIS
- AL ATTERBERG LIMITS
- EI EXPANSION INDEX
- RV R-VALUE
- PR PERCOLATION

GEOTECHNICAL BORING LOG RW-2

Date 6-6-06 **Sheet** 1 **of** 2

Project Robinson Ranch Development (TT 063022) **Project No.** 061989-001

Drilling Co. Valley Well Drilling **Type of Rig** Rotary Wash

Hole Diameter 8" **Drive Weight** 140 lbs **Drop** 30"

Elevation Top of Hole ~1605' **Location** See Geotechnical Map (Plate 1)

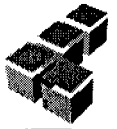
Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
	0								**Logged By** JBW **Sampled By** JBW	
				R-1	3 4 6	109	6.1	ML/SM	ALLUVIUM (Qal)Interbedded SANDY SILT/SANDY SAND, medium brown to dark brown, dry to moist, loose, contains minor gravels	
	5			SPT-1	1 1 2			ML/SM		
				R-2	3 4 8	112	15.9			
	10			SPT-2	3 4 6					
				R-3	7 10 13	118	14.4	SM	Interbedded SILTY SAND/ GRAVELLY SILTY SAND, medium gray to medium brown, moist, medium dense, coarse grained	
	15			SPT-3	6 6 7					
	20			SPT-4	8 8 9					
	25			SPT-5	3 4 7			SM	SILTY SAND, medium brown, moist, loose to medium dense, fine to medium grained contains minor gravel	
	30									

SAMPLE TYPES:

- S SPLIT SPOON
- R RING SAMPLE
- B BULK SAMPLE
- T TUBE SAMPLE
- G GRAB SAMPLE
- C CORE SAMPLE

TYPE OF TESTS:

- DS DIRECT SHEAR
- MD MAXIMUM DENSITY
- CN CONSOLIDATION
- CR CORROSION
- HCO HYDRO COLLAPSE
- SA SIEVE ANALYSIS
- AL ATTERBERG LIMITS
- EI EXPANSION INDEX
- RV R-VALUE
- PR PERCOLATION



GEOTECHNICAL BORING LOG RW-2

Date 6-6-06 **Sheet** 2 of 2

Project Robinson Ranch Development (TT 063022) **Project No.** 061989-001

Drilling Co. Valley Well Drilling **Type of Rig** Rotary Wash

Hole Diameter 8" **Drive Weight** 140 lbs **Drop** 30"

Elevation Top of Hole ~1605' **Location** See Geotechnical Map (Plate 1)

Logged By JBW

Sampled By JBW

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per 6 inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
	30			SPT-6	5 7 14			SM	SILTY SAND, medium brown, moist, medium dense, fine to medium grained with trace coarse sand	
	35			SPT-7	8 20 36				becomes dense	
	40			SPT-8	25 50/5"			SP	GRAVELLY SAND, medium gray, moist, very dense, fine to coarse grained with little fines	
	45			SPT-9	20 50/6"					
	50			SPT-10	26 50/6"			SPG		
	55								**Drilled to 50'** **Sampled to 51.5'** **Boring backfilled with cuttings and bentonite chips**	
	60									

SAMPLE TYPES:

- S SPLIT SPOON
- R RING SAMPLE
- B BULK SAMPLE
- T TUBE SAMPLE
- G GRAB SAMPLE
- C CORE SAMPLE

TYPE OF TESTS:

- DS DIRECT SHEAR
- MD MAXIMUM DENSITY
- CN CONSOLIDATION
- CR CORROSION
- HCO HYDRO COLLAPSE
- SA SIEVE ANALYSIS
- AL ATTERBERG LIMITS
- EI EXPANSION INDEX
- RV R-VALUE
- PR PERCOLATION

LEIGHTON AND ASSOCIATES, INC.

APPENDIX C
Laboratory Testing Procedures and Test Results

The laboratory testing program was directed towards providing quantitative data relating to the relevant engineering properties of the soils. Samples considered representative of site conditions were tested in general accordance with American Society for Testing and Materials (ASTM) procedure and/or California Test Methods (CTM), where applicable. The following summary is a brief outline of the test type and a table summarizing the test results.

Soil Classification: Soils were classified according the Unified Soil Classification System (USCS) in accordance with ASTM Test Methods D2487 and D2488. This system uses relies on the Atterberg Limits and grain size distribution of a soil. The soil classifications (or group symbol) are shown on the laboratory test data, and boring logs.

Grain Size Distribution: Representative samples were dried, weighed, and soaked in water until individual soil particles were separated (per ASTM D421) and then washed on a No. 200 sieve. The portion retained on the No. 200 sieve was dried and then sieved on a U.S. Standard brass sieve set in accordance with ASTM D422 (CTM 202). Grain size distribution curves are attached in this appendix as Figures C1 through C14.

Soluble Sulfates: The soluble sulfate content is used to determine the appropriate cement type and maximum water-cement ratios.

Chloride Content: Chloride content was tested in accordance with Caltrans Test Method (CTM) 422.

Consolidation: Consolidation tests were performed on selected, relatively undisturbed ring samples (Modified ASTM Test Method D2435). Samples (2.42 inches in diameter and 1 inch in height) were placed in a consolidometer and increasing loads were applied. The samples were allowed to consolidate under "double drainage" and total deformation for each loading step was recorded. The percent consolidation for each load step was recorded as the ratio of the amount of vertical compression to the original sample height. The consolidation pressure curves are presented in this appendix.

Direct Shear: Direct shear tests were performed on selected remolded and/or undisturbed samples, which were soaked for a minimum of 24 hours under a surcharge equal to the applied normal force during testing. After transfer of the sample to the shear box, and reloading the sample, pore pressures set up in the sample due to the transfer were allowed to dissipate for a period of approximately 1 hour prior to application of shearing force. The samples were tested under various normal loads, a motor-driven, strain-controlled, direct-shear testing apparatus at a strain rate of less than 0.001 to 0.5 inch per minute (depending upon the soil type). The test results are presented in this appendix.

Expansion Index: The expansion potential of selected samples were evaluated by the Expansion Index Test, U.B.C. Standard No. 18-2 and/or ASTM D4829. Specimens are molded under a given compactive energy to approximately the optimum moisture content and approximately 50 percent saturation or approximately 90 percent relative compaction. The prepared 1-inch-thick by 4-inch-diameter specimens are loaded to an equivalent 144 psf surcharge and are inundated with tap water until volumetric equilibrium is reached.

Moisture and Density Determination Tests: Moisture content (ASTM D2216) and dry density determinations (ASTM D2937) were performed on relatively undisturbed samples obtained from the test borings and/or trenches. The results of these tests are presented in the boring and/or trench logs. Where applicable, only moisture content was determined from undisturbed or disturbed samples.

Maximum Density Tests: The maximum dry density and optimum moisture content of typical materials were determined in accordance with ASTM D1557.

Minimum Resistivity and pH Tests: Minimum resistivity and pH tests were performed in general accordance with CTM 643 and standard geochemical methods. The electrical resistivity of a soil is a measure of its resistance to the flow of electrical current. As a results of soil's resistivity decreases corrosivity increases.

R-Value: The resistance R-value was determined by the ASTM D2844 for base, subbase, and basement soils. The samples were prepared and exudation pressure and R-value were determined. The graphically determined R-value at exudation pressure of 300 psi is reported in this appendix.

SUMMARY OF LABORATORY TEST RESULTS

PROJECT NAME: Belcaro

EGLAB JOB NO.: 24-059-004

PROJECT NO.: 233012-01

CLIENT: LGC Valley, Inc.

DATE: 3/22/2024

SUMMARIZED BY: JT

BORING NO.	SAMPLE NO.	DEPTH (in.)	MOISTURE CONTENT ASTM D2216 (%)	DRY DENSITY ASTM D2937 (PCF)	ATTERBERG LIMITS ASTM D4318 *(LL,PL,PI)
B-LGC-1	S-1	10.0	8.3		Non Plastic
B-LGC-1	S-3	20.0	23.8		30,20,10
B-LGC-1A	R-1	2.5	7.6	121.9	
B-LGC-1A	R-4	12.5	6.2	112.1	
B-LGC-1A	R-5	17.5	13.1	113.5	
B-LGC-2	S-8	27.5	5.8		27,19,8
B-LGC-2A	R-1	2.5	3.5	119.6	
B-LGC-2A	R-2	5.0	1.8	116.7	
B-LGC-2A	R-3	7.5	4.3	111.7	
B-LGC-3	S-5	25.0	8.1		Non Plastic
B-LGC-3	S-7	30.0	6.4		23,20,3
B-LGC-3A	R-1	2.5	3.7	116.3	
B-LGC-3A	R-3	7.5	3.0	121.8	
B-LGC-3A	R-5	17.5	2.9	110.5	
B-LGC-4A	R-1	2.5	8.5	114.1	
B-LGC-4A	R-2	5.0	3.8	118.0	
B-LGC-4A	R-5	20.0	2.4	111.5	

*LL,PL,PI = LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX

SUMMARY OF LABORATORY TEST RESULTS

PROJECT NAME: Belcaro

EGLAB JOB NO.: 24-059-004

PROJECT NO.: 233012-01

CLIENT: LGC Valley, Inc.

DATE: 3/22/2024

SUMMARIZED BY: JT

BORING NO.	SAMPLE NO.	DEPTH (in.)	MOISTURE CONTENT ASTM D2216 (%)	DRY DENSITY ASTM D2937 (PCF)	ATTERBERG LIMITS ASTM D4318 *(LL,PL,PI)
B-LGC-5	S-1	10.0	11.3		28,19,9
B-LGC-5	S-10	37.5	13.6		Non Plastic
B-LGC-5A	R-1	2.5	10.4	114.2	
B-LGC-5A	R-2	5.0	4.8	106.8	
B-LGC-5A	R-3	7.5	2.9	112.8	
B-LGC-5A	R-4	15.0	1.9	112.4	
B-LGC-6	S-2	15.0	9.9		26,18,8
B-LGC-6A	R-1	2.5	16.6	104.4	
B-LGC-6A	R-2	5.0	15.9	103.9	
B-LGC-6A	R-3	7.5	16.3	109.4	
B-LGC-6A	R-4	12.5	10.9	110.0	
B-LGC-7	S-2	17.5	6.5		Non Plastic
B-LGC-7	S-12	45.0	23.5		26,21,5
B-LGC-7A	R-1	2.5	2.4	117.2	
B-LGC-7A	R-2	5.0	2.0	115.6	
B-LGC-7A	R-3	7.5	5.4	109.1	
B-LGC-7A	R-4	10.0	4.0	116.1	
B-LGC-7A	R-6	20.0	6.8	115.8	

*LL,PL,PI = LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX

SUMMARY OF LABORATORY TEST RESULTS

PROJECT NAME: Belcaro

EGLAB JOB NO.: 24-059-004

PROJECT NO.: 233012-01

CLIENT: LGC Valley, Inc.

DATE: 4/5/2024

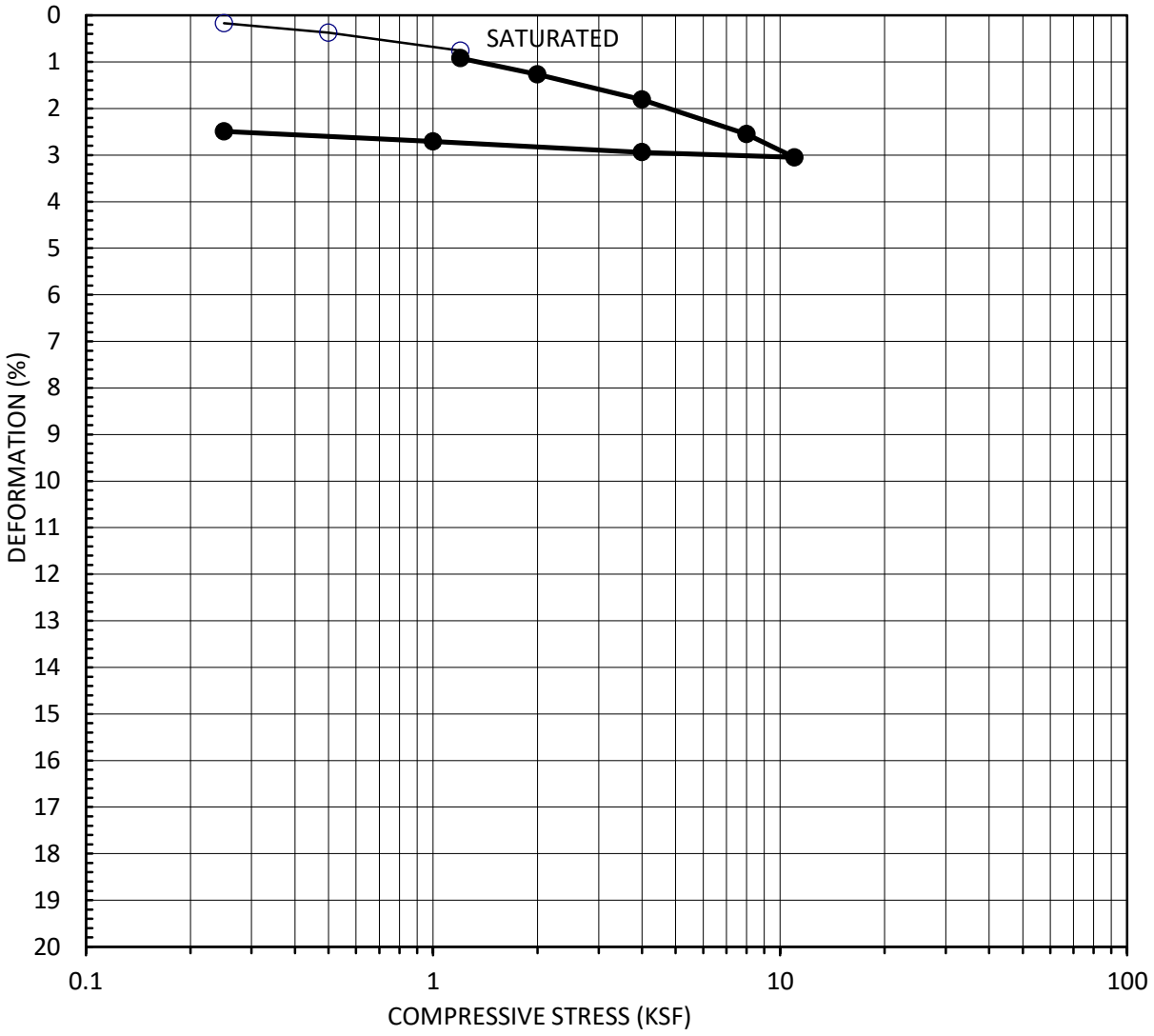
SUMMARIZED BY: JT

BORING NO.	SAMPLE NO.	DEPTH (ft)	MOISTURE CONTENT ASTM D2216 (%)	DRY DENSITY ASTM D2937 (PCF)
HA-1	R-1	2.5	10.3	105.9
HA-1	R-4	10.0	8.2	122.3
HA-2	R-1	2.5	9.3	103.1
HA-2	R-3	7.5	13.3	113.1
HA-2	R-5	15.0	7.5	124.1
HA-3	R-2	7.5	3.8	125.7
HA-3	R-3	10.0	11.8	116.6
HA-4	R-1	2.0	8.3	105.4
HA-4	R-2	6.0	6.0	116.5

SUMMARY OF TEST RESULTS

PROJECT NAME:	Belcaro	EGLAB JOB No.:	24-059-004
PROJECT No.:	233012-01	CLIENT:	LGC Valley, Inc.
DATE:	3/26/2024	SUMMARIZED BY:	JT

Boring No.	Sample No.	Depth (ft)	pH CalTrans 643	Chloride Content CalTrans 422 (ppm)	Sulfate Content CalTrans 417 (% by weight)	Minimum Resistivity CalTrans 643 (ohm-cm)	Expansion Index ASTM D 4829
B-LGC-4	B-1	0-5.0	7.45	145	0.001	1,500	48



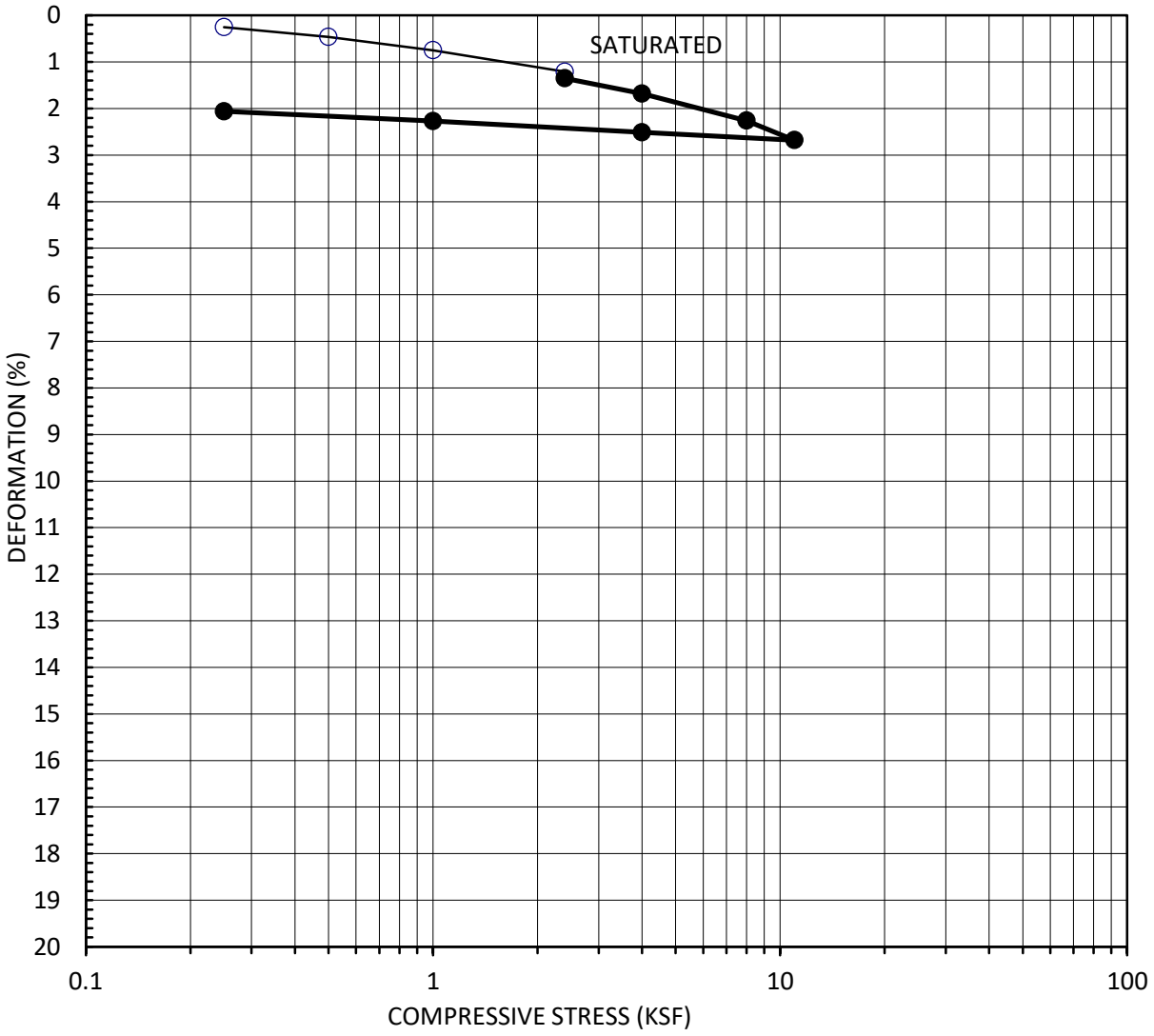
Symbol	Boring No.	Sample No.	Depth (Ft.)	Soil Type	Init. Moisture Content (%)	Init. Dry Density (PCF)	Init. Void Ratio
○	B-LGC-1A	R-2	5.0	SM	7.5	123.8	0.361

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

CONSOLIDATION

03/24 (ASTM D2435) Figure



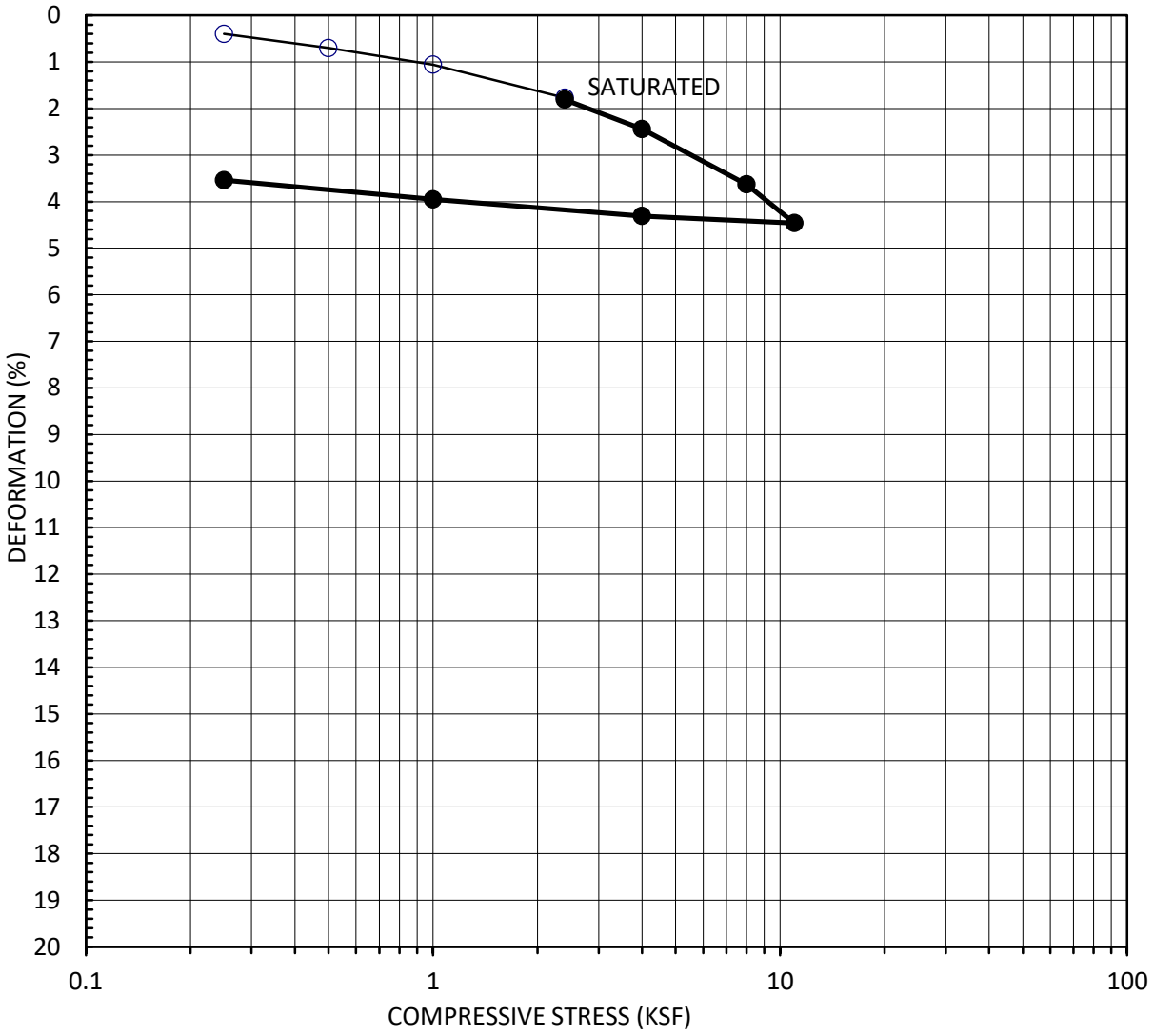
Symbol	Boring No.	Sample No.	Depth (Ft.)	Soil Type	Init. Moisture Content (%)	Init. Dry Density (PCF)	Init. Void Ratio
○	B-LGC-3A	R-4	12.5	SW-SM	3.7	118.7	0.419

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

CONSOLIDATION

03/24 (ASTM D2435) Figure



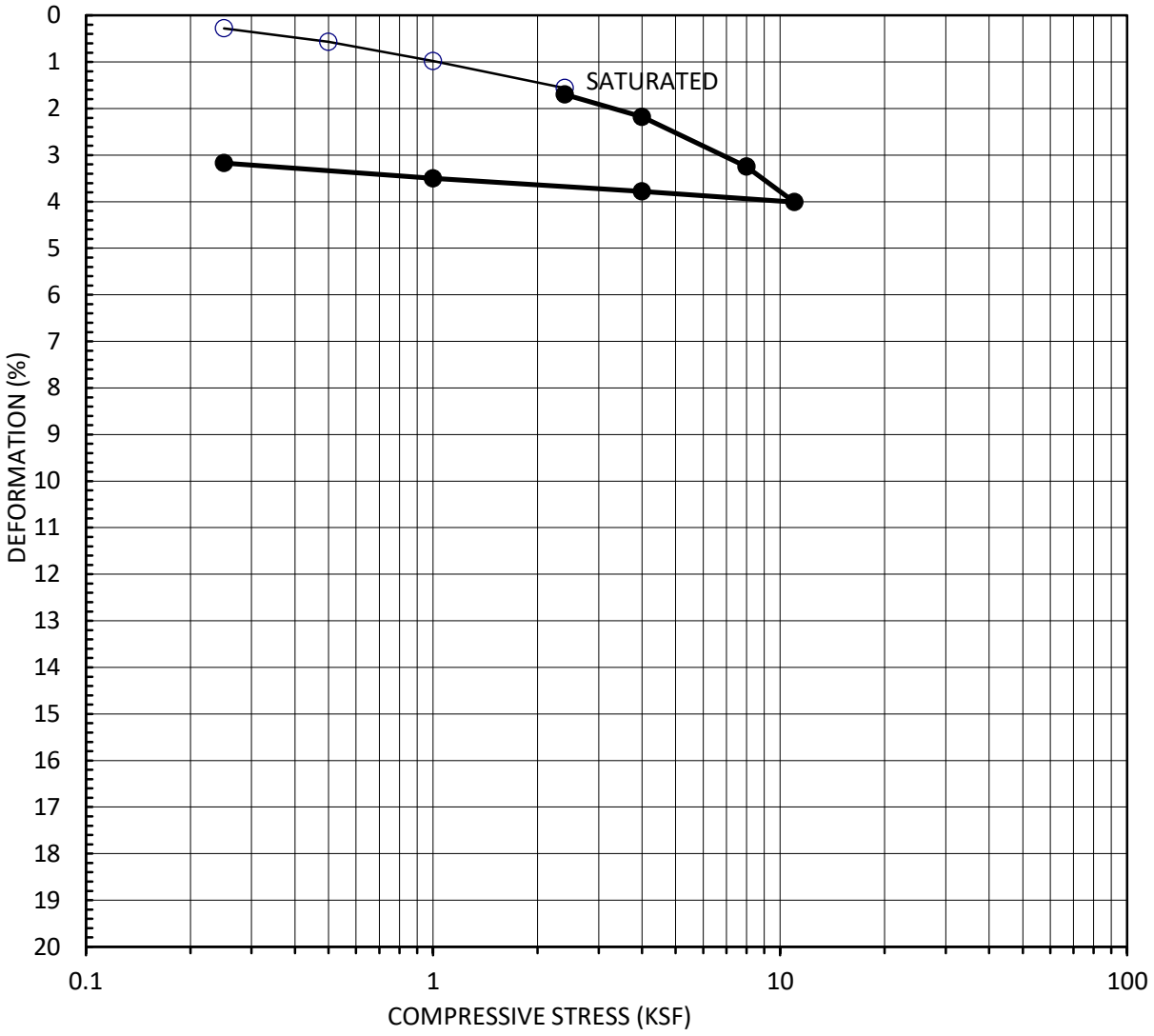
Symbol	Boring No.	Sample No.	Depth (Ft.)	Soil Type	Init. Moisture Content (%)	Init. Dry Density (PCF)	Init. Void Ratio
○	B-LGC-4A	R-4	15.0	SC-SM	10.7	118.7	0.419

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

CONSOLIDATION

03/24 (ASTM D2435) Figure



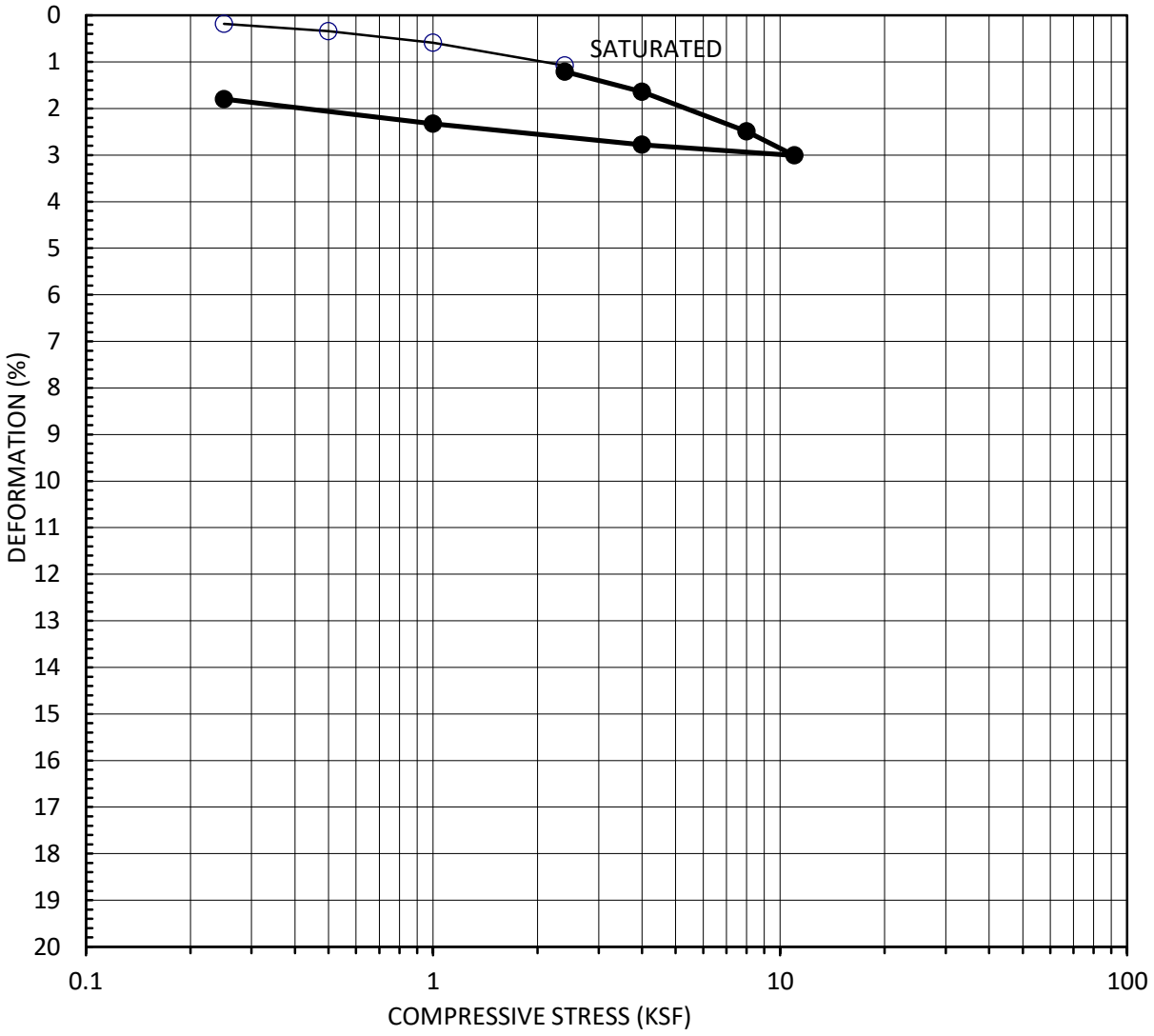
Symbol	Boring No.	Sample No.	Depth (Ft.)	Soil Type	Init. Moisture Content (%)	Init. Dry Density (PCF)	Init. Void Ratio
○	B-LGC-6A	R-5	17.5	SC	9.7	112.1	0.503

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

CONSOLIDATION

03/24 (ASTM D2435) Figure



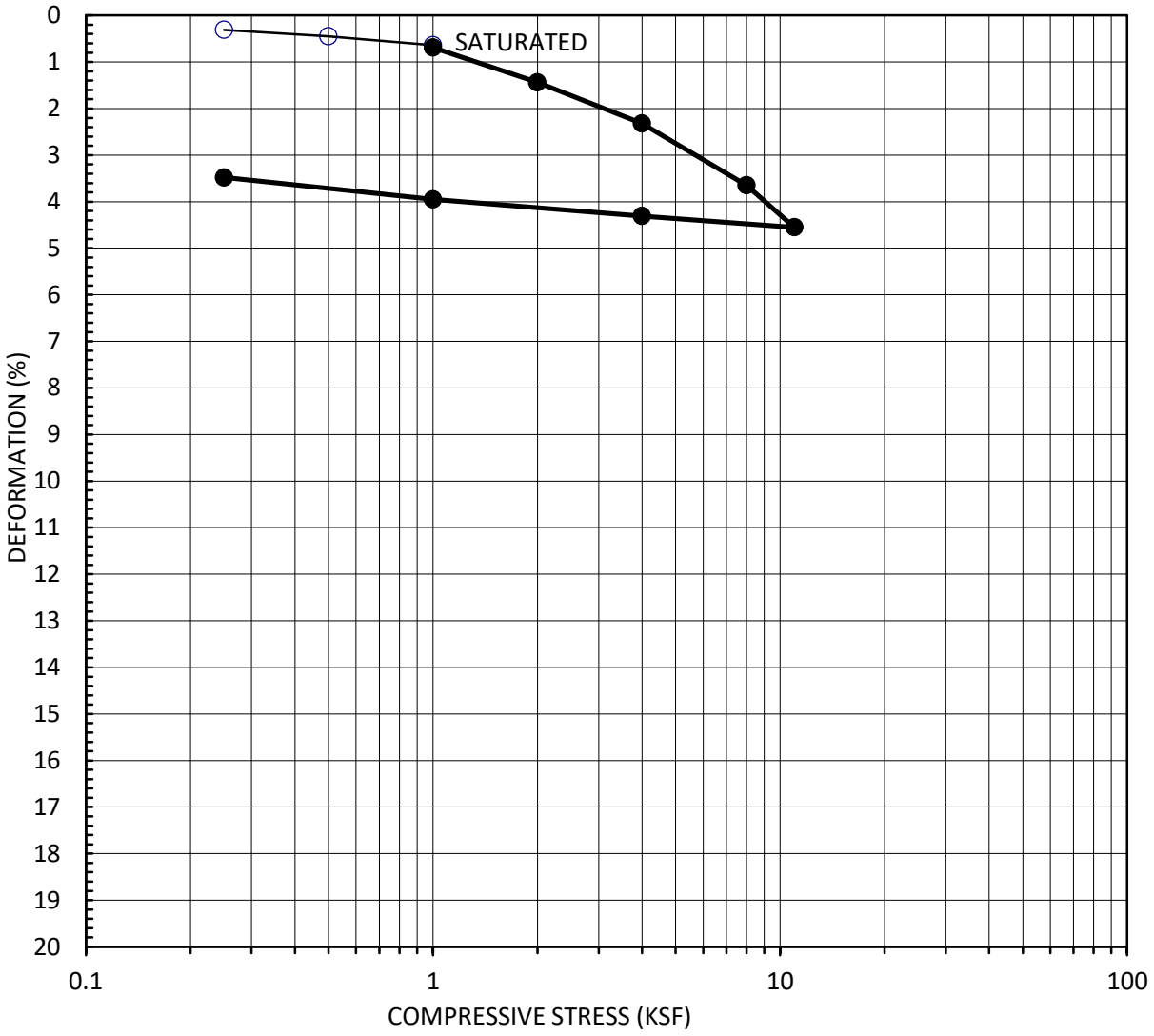
Symbol	Boring No.	Sample No.	Depth (Ft.)	Soil Type	Init. Moisture Content (%)	Init. Dry Density (PCF)	Init. Void Ratio
○	B-LGC-7A	R-5	15.0	SC	8.4	118.9	0.417

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

CONSOLIDATION

03/24 (ASTM D2435) Figure



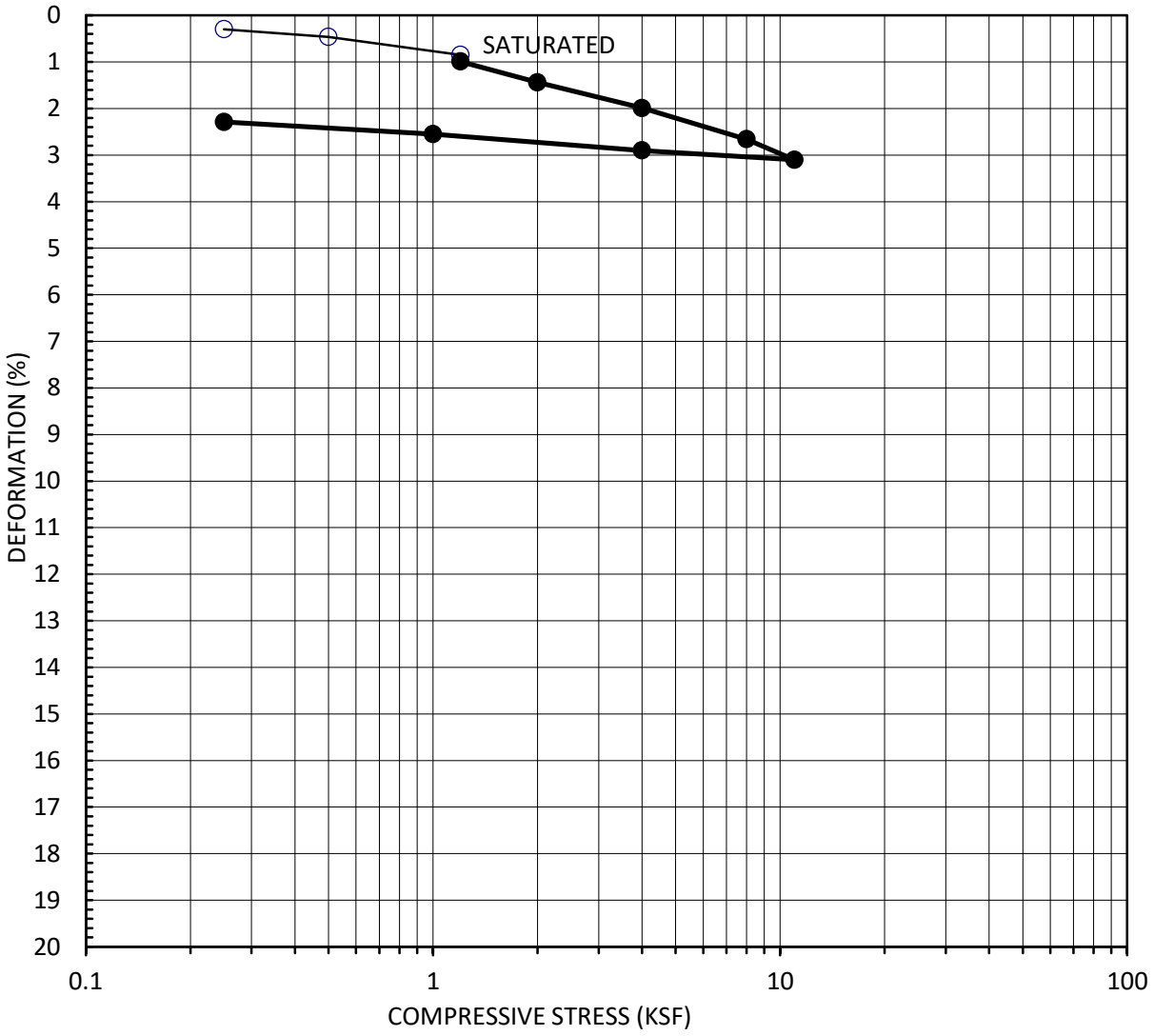
Symbol	Boring No.	Sample No.	Depth (Ft.)	Soil Type	Init. Moisture Content (%)	Init. Dry Density (PCF)	Init. Void Ratio
○	HA-1	R-2	5.0	SM	8.0	118.3	0.424

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

CONSOLIDATION

04/24 (ASTM D2435) Figure



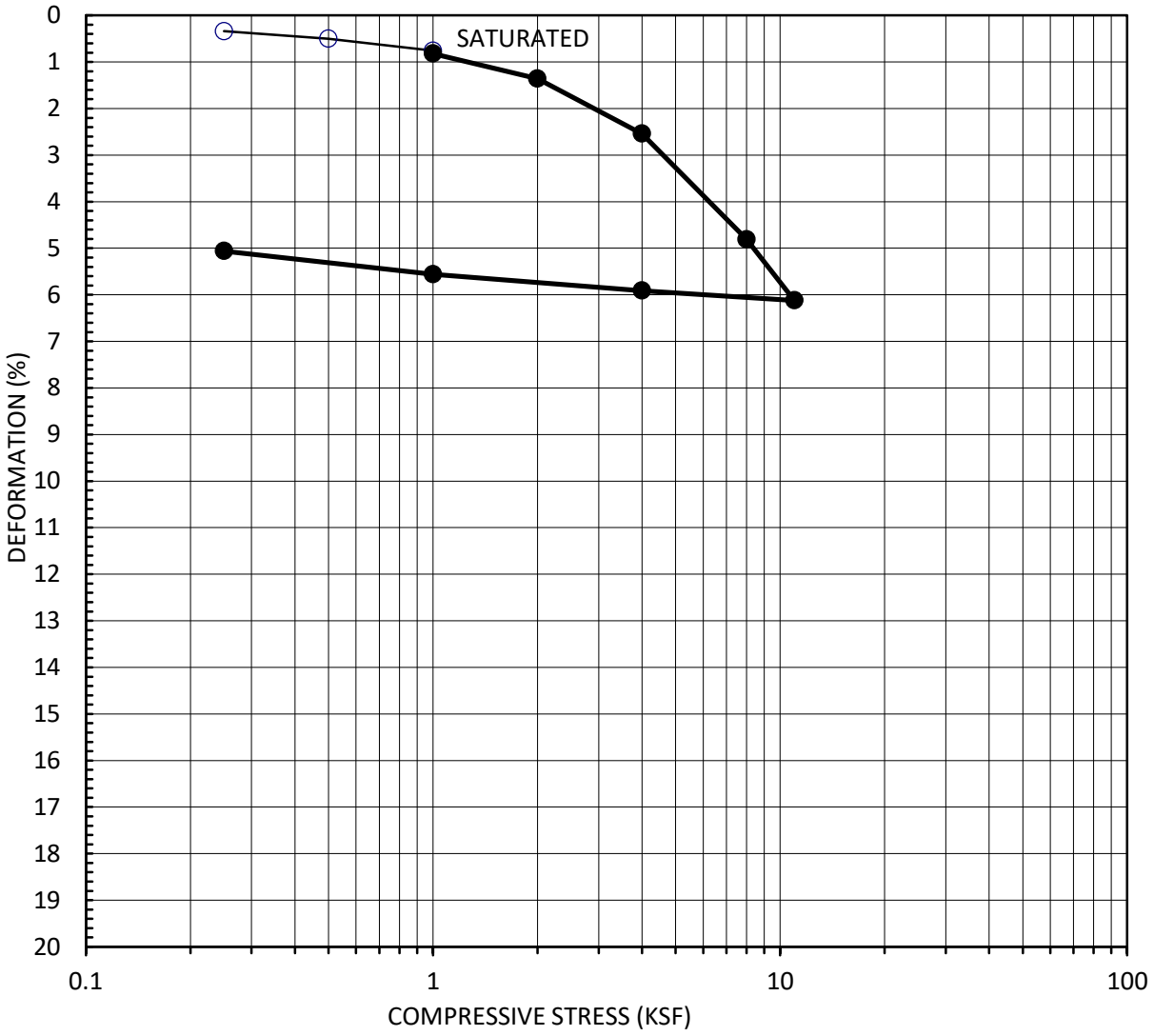
Symbol	Boring No.	Sample No.	Depth (Ft.)	Soil Type	Init. Moisture Content (%)	Init. Dry Density (PCF)	Init. Void Ratio
○	HA-1	R-	7.5	SM	9.3	111.0	0.518

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

CONSOLIDATION

04/24 (ASTM D2435) Figure



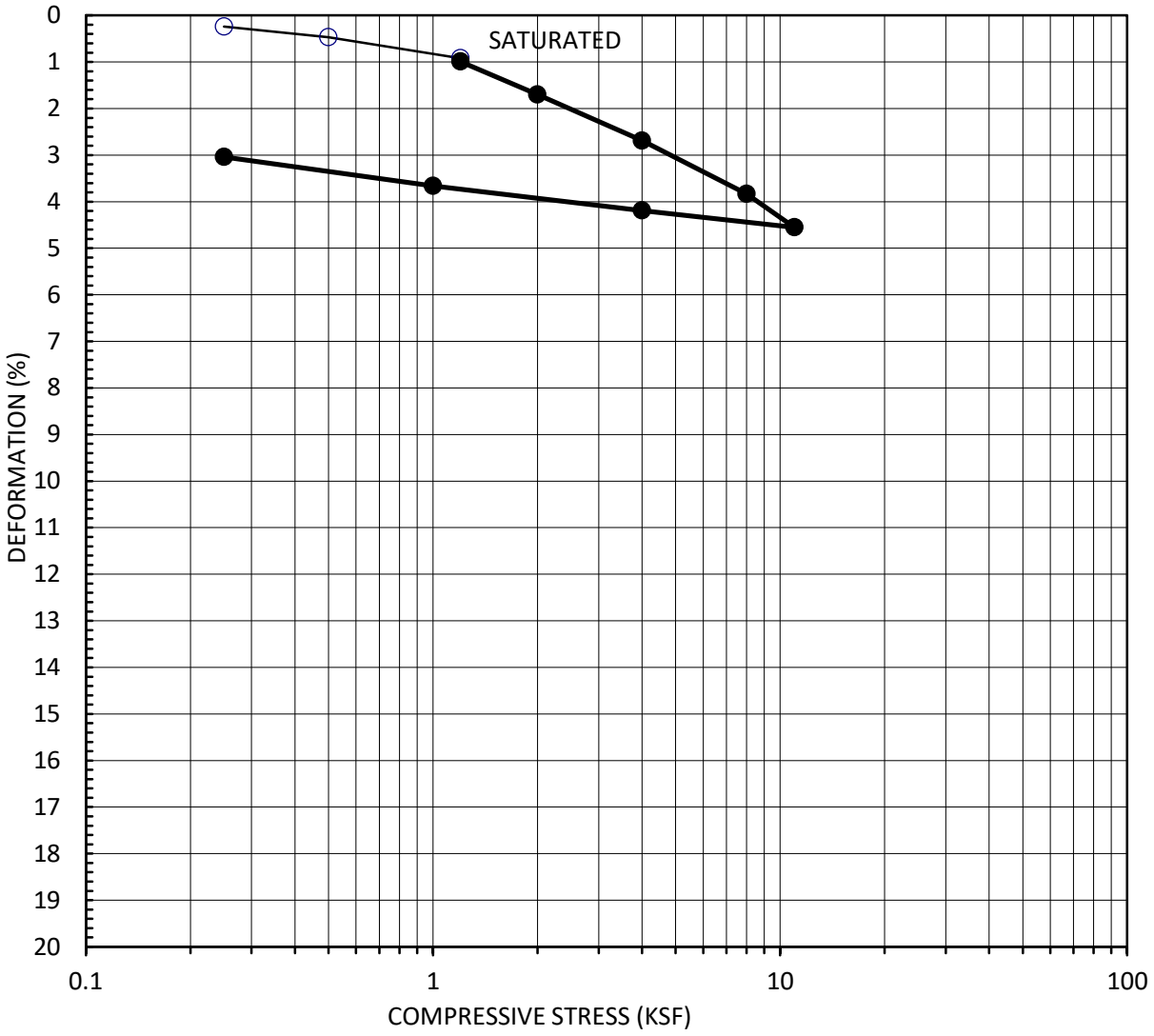
Symbol	Boring No.	Sample No.	Depth (Ft.)	Soil Type	Init. Moisture Content (%)	Init. Dry Density (PCF)	Init. Void Ratio
○	HA-2	R-2	5.0	SM	12.8	108.9	0.547

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

CONSOLIDATION

04/24 (ASTM D2435) Figure



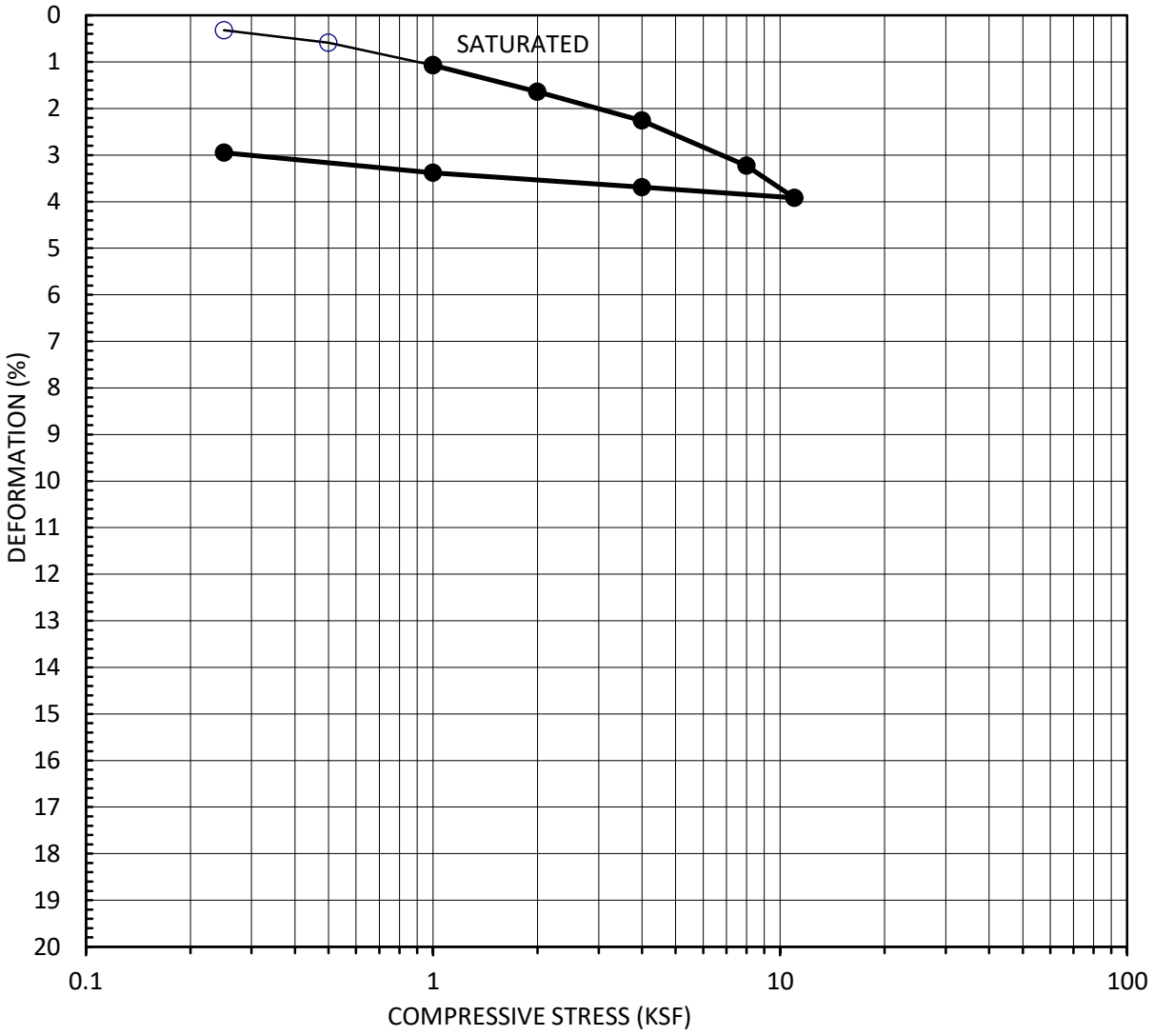
Symbol	Boring No.	Sample No.	Depth (Ft.)	Soil Type	Init. Moisture Content (%)	Init. Dry Density (PCF)	Init. Void Ratio
○	HA-2	R-4	10.0	SM	6.6	119.8	0.406

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

CONSOLIDATION

04/24 (ASTM D2435) Figure



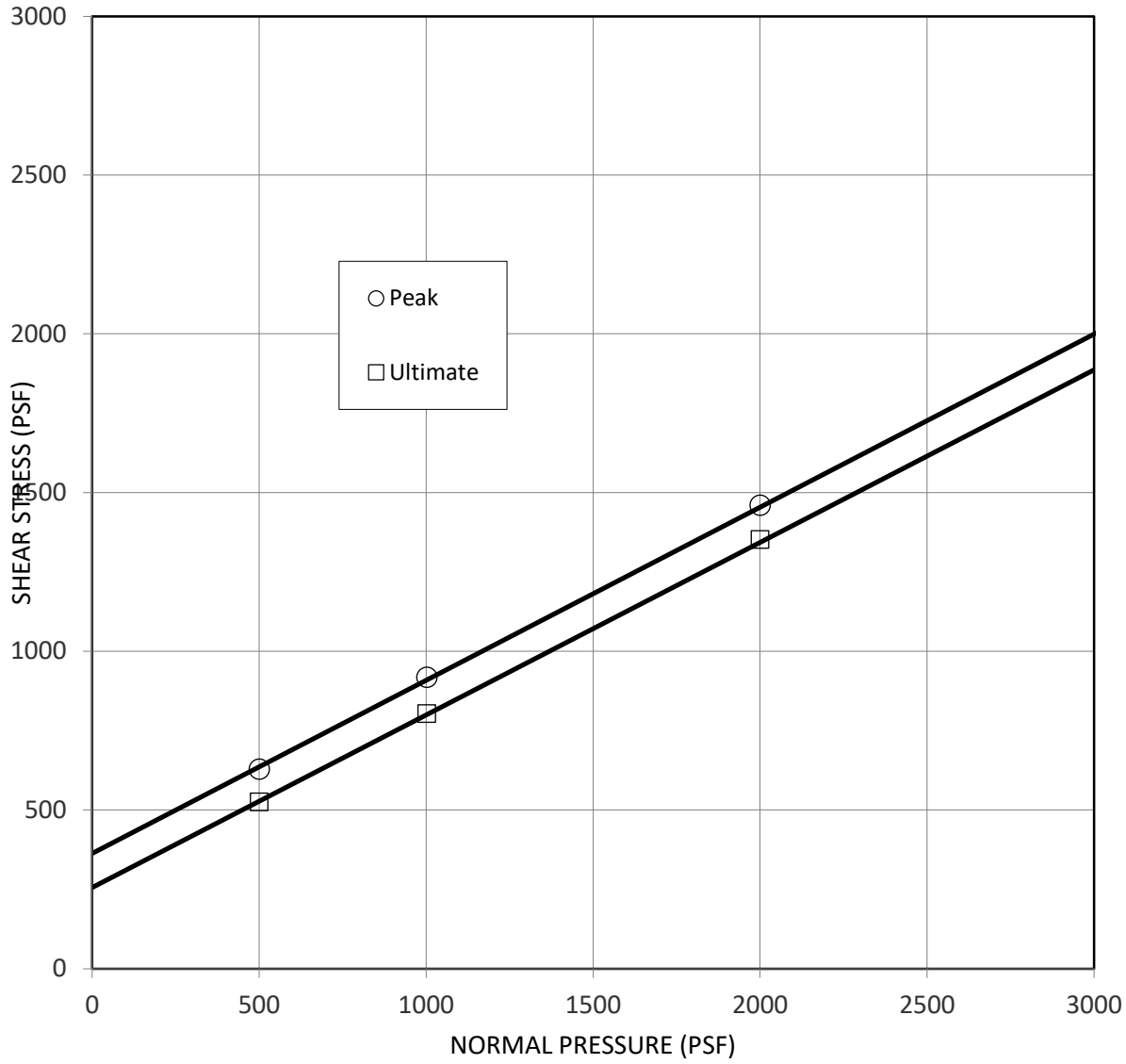
Symbol	Boring No.	Sample No.	Depth (Ft.)	Soil Type	Init. Moisture Content (%)	Init. Dry Density (PCF)	Init. Void Ratio
○	HA-3	R-1	2.5	SC	15.3	109.7	0.536

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

CONSOLIDATION

04/24 (ASTM D2435) Figure



Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Type	Symbol	Cohesion (PSF)	Friction Angle
B-LGC-5	B-1	0-5.0	Bulk	SC	○	350	29
					□	256	29

Note: Sample was remolded to **95 %** maximum relative density and optimum moisture

Maximum Dry Density: **129.0 pcf** Optimum Moisture: **9.9 %**

Normal Stress (psf)	Initial Moisture (%)	Final Moisture (%)
500	9.9	19.5
1000	9.9	19.0
2000	9.9	18.1

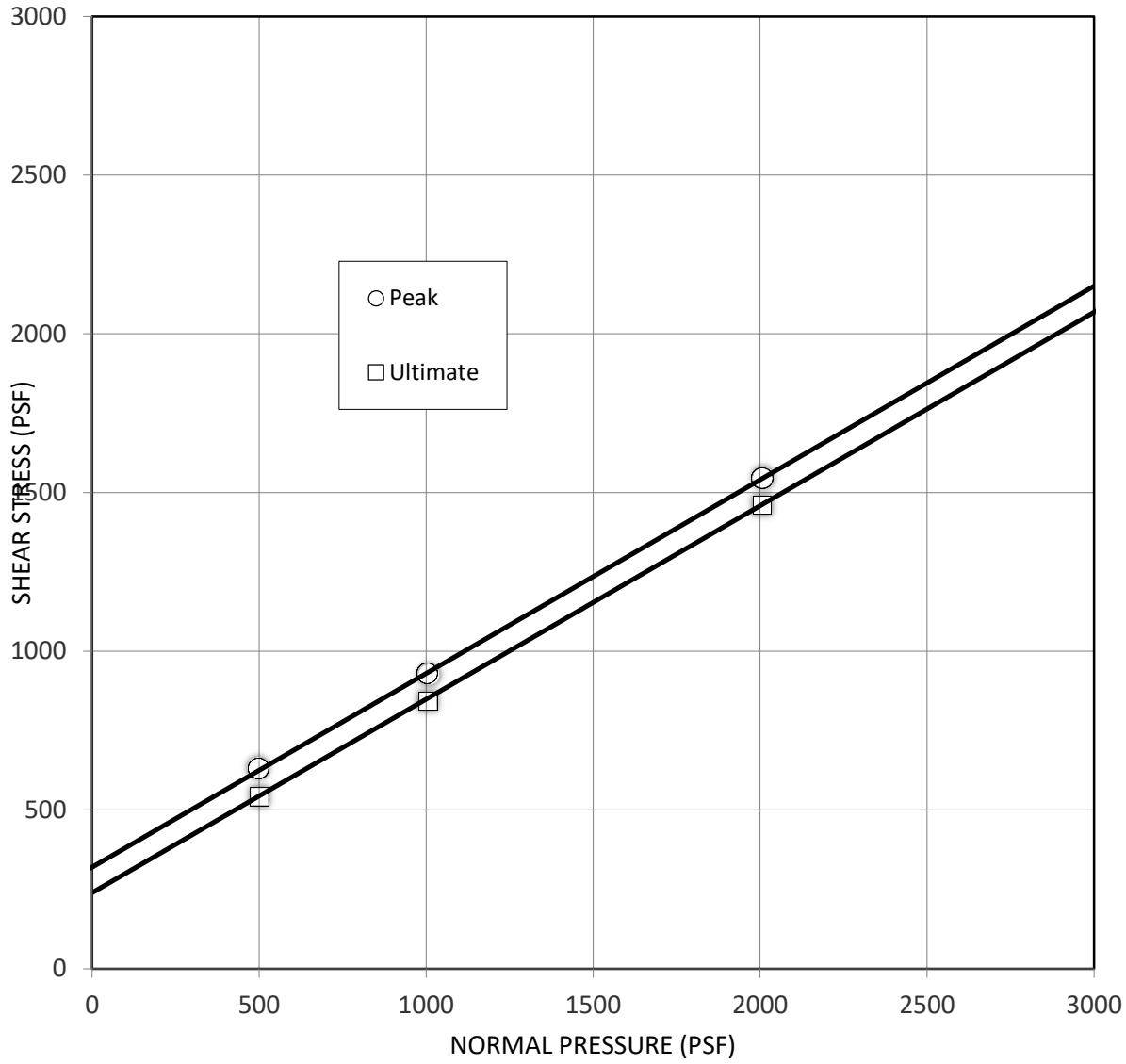
EGLAB, INC.

Project Address:
Belcaro

Client: LGC Valley, Inc.
Project No.: 233012-01
EGLAB Project No.: 24-059-004

DIRECT SHEAR

03/24 (ASTM D3080) Figure



Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Type	Symbol	Cohesion (PSF)	Friction Angle
HA-2	B-1	0-10.0	Bulk	SM	○	285	31
					□	204	31

Note: Sample was remolded to **95 %** maximum relative density and optimum moisture

Maximum Dry Density: **135.4 pcf** Optimum Moisture: **7.8 %**

Normal Stress (psf)	Initial Moisture (%)	Final Moisture (%)
500	7.8	16.7
1000	7.8	16.5
2000	7.8	16.1

EGLAB, INC.

Project Address:
Belcaro

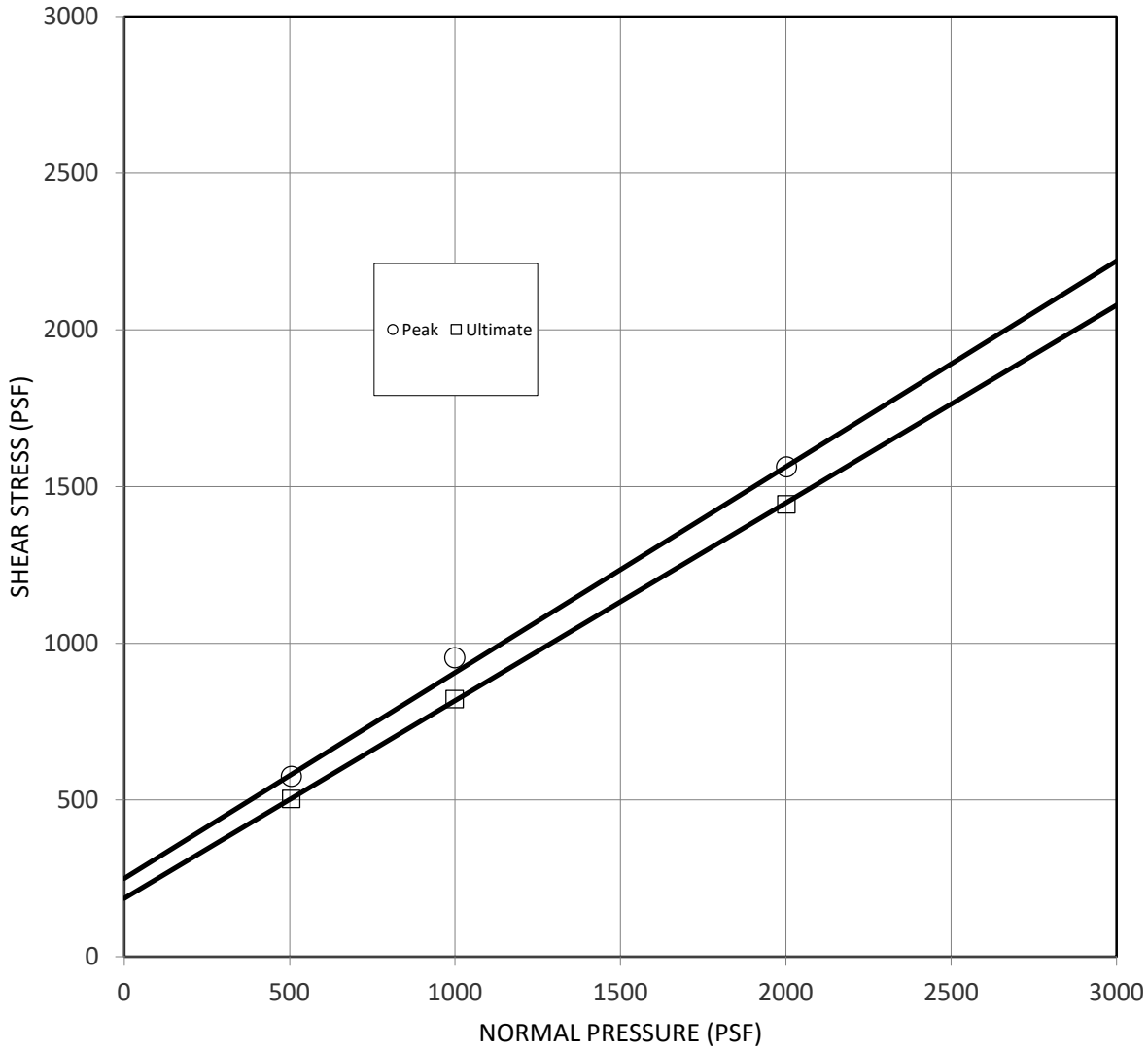
Client: LGC Valley, Inc.

Project No.: 233012-01

EGLAB Project No.: 24-059-004

DIRECT SHEAR

04/24 (ASTM D3080) Figure



Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Type	Symbol	Cohesion (PSF)	Friction Angle
B-LGC-1A	R-3	7.5	Ring	SM	○	250	33
					□	184	32

Normal Stress (psf)	Initial Moisture (%)	Final Moisture (%)	γ_d (pcf)	S (%)
500	5.1	19.3	114.2	100
1000	5.1	18.7	115.5	100
2000	5.1	17.2	116.1	100

EGLAB, INC.

Project Name: Belcaro

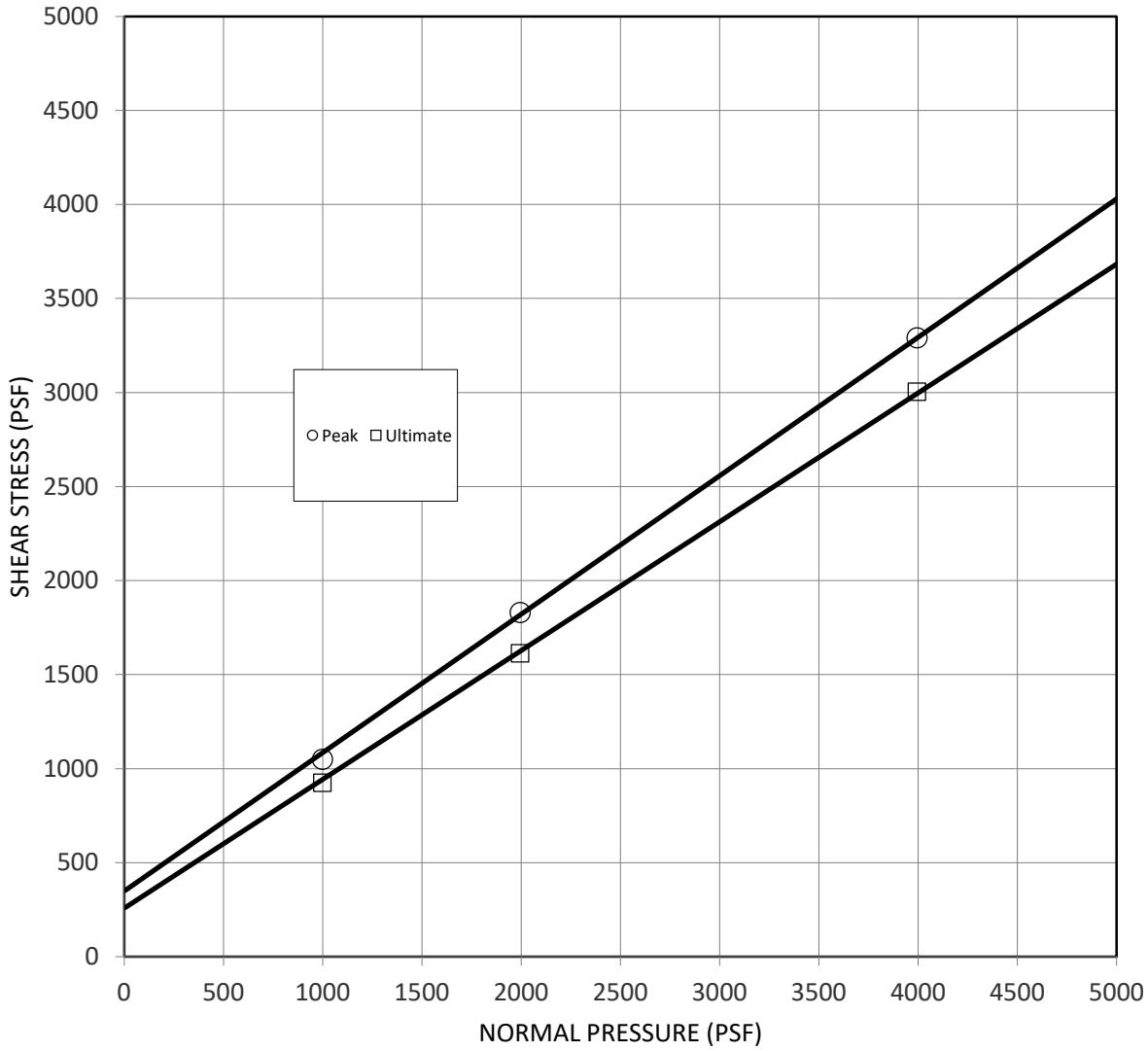
Client: LGC Valley, Inc.

Project No.: 233012-01

EGLAB Project No.: 24-059-004

DIRECT SHEAR

03/24 (ASTM D3080) Figure



Boring No.	Sample No.	Depth (ft)	Sample Type	Soil Type	Symbol	Cohesion (PSF)	Friction Angle
B-LGC-4A	R-3	7.5	Ring	SW	○	332	36
					□	241	34

Normal Stress (psf)	Initial Moisture (%)	Final Moisture (%)	γ_d (pcf)	S (%)
1000	2.8	22.9	105.2	100
2000	2.8	21.6	106.0	99
4000	2.8	19.2	108.2	93

EGLAB, INC.

Project Name: Belcaro

Client: LGC Valley, Inc.

Project No.: 233012-01

EGLAB Project No.: 24-059-004

DIRECT SHEAR

03/24 (ASTM D3080) Figure

Resistance R - Value Testing Results

(Cal Test 301)

Project Name:	Belcaro
Job No.:	233012-01
Client:	LGC Valley, Inc.
EGLAB Project No.:	24-059-004
Test Date:	3/22/2024
Boring No.:	B-LGC-1
Sample No.:	B-1
Depth: (ft)	0-5.0
Sample Type:	Bulk
Sample Description:	Silty sand (SM), dark brown, little gravel and trace of clay
Tested by:	JT
Checked by:	RJ

Test Specimen Number	1	2	3
Compaction Pressure (psi)	350	350	350
Wet Weight (gms)	1220	1230	1240
Dry Weight (gms)	1122	1122	1122
Tare Weight (gms)	0	0	0
Exudation Load (lbs.)	9235	5267	1480
Total Weight (gms)	2997	3108	3119
Mold Weight (gms)	1849	1954	1976
Sample Weight (gms)	1148	1155	1144
Sample Height (in)	2.41	2.43	2.42
Initial Expansion (in)	0.0000	0.0000	0.0000
Final Expansion (in)	0.0007	0.0000	0.0000
Expansion Pressure (psi)	0.2121	0.0000	0.0000
Ph @ 2000 lbs	25	56	92
D turns	3.47	3.88	4.24
R-Value from Exudation	80	54	30
Density (pcf)	132.7	131.3	129.5
Moisture (%)	8.7	9.6	10.5
Exudation Pressure (psi)	735	419	118
Corrected R-Value from Exudation:	78	53	29
Exudation Pressure (psi)	735	419	118

R-Value at 300 psi exudation pressure = **43**

Note:
0.80% Retained on 3/4-inch Sieve

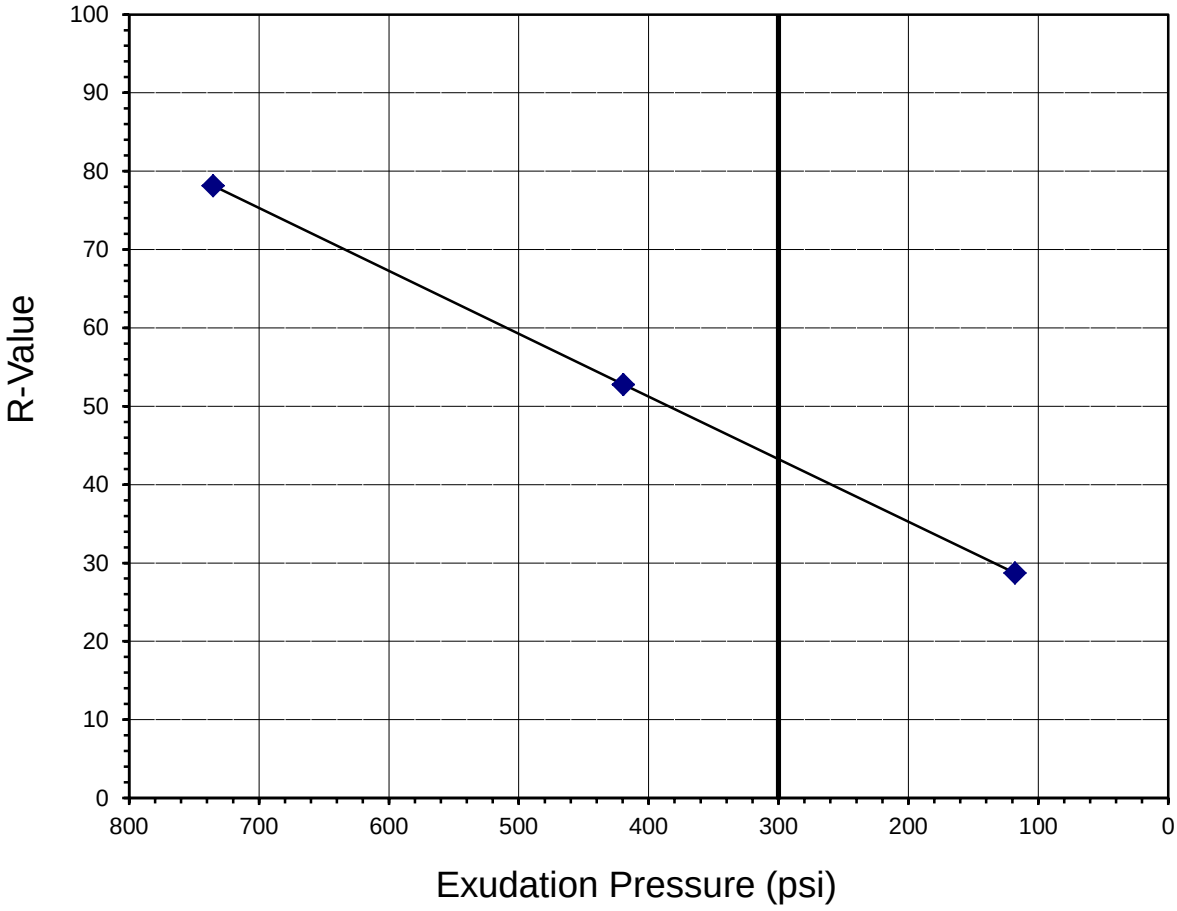
EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Project No.: 233012-01
EGLAB Job No.: 24-059-004

R-VALUE TEST RESULTS

03/26/24

FIGURE 2



Test No.	Compaction Pressure (psi)	Density (pcf)	Moisture (%)	Expansion Pressure (psi)	Horizontal Pressure (psi) @ 160 psi	Sample Height (in)	Exudation Pressure (psi)	R-Value	R-Value Correction
1	350	132.7	8.7	0.21	25	2.41	735	80	78
2	350	131.3	9.6	0.00	56	2.43	419	54	53
3	350	129.5	10.5	0.00	92	2.42	118	30	29

Test Name and Method:
Resistance R-Value and Expansion Pressure - Cal Test 301

Boring No.: B-LGC-1
Sample No.: B-1
Depth: (ft) 0-5.0
Sample Type: Bulk
Sample Description: SM
Test Date: 3/22/2024

EGLAB, INC.

Project Name:
Belcaro
Client: LGC Valley, Inc.
Project No.: 233012-01
EGLAB Job No.: 24-059-004

Test Results: R-Value at 300 psi
Exudation Pressure: **43**

R-VALUE TEST REPORT

03/26/24

FIGURE 1

Resistance R - Value Testing Results

(Cal Test 301)

Project Name:	Belcaro
Job No.:	233012-01
Client:	LGC Valley, Inc.
EGLAB Project No.:	24-059-004
Test Date:	4/2/2024
Boring No.:	HA-1
Sample No.:	B-1
Depth: (ft)	0-10.0
Sample Type:	Bulk
Sample Description:	Clayey sand (SC), dark brown, few gravel
Tested by:	JT
Checked by:	RJ

Test Specimen Number	1	2	3
Compaction Pressure (psi)	100	150	250
Wet Weight (gms)	1290	1280	1270
Dry Weight (gms)	1131	1131	1131
Tare Weight (gms)	0	0	0
Exudation Load (lbs.)	1423	4742	8556
Total Weight (gms)	2976	3093	3112
Mold Weight (gms)	1849	1954	1976
Sample Weight (gms)	1127	1139	1137
Sample Height (in)	2.55	2.53	2.49
Initial Expansion (in)	0.0000	0.0000	0.0000
Final Expansion (in)	0.0002	0.0013	0.0025
Expansion Pressure (psi)	0.0606	0.3939	0.7575
Ph @ 2000 lbs	125	113	104
D turns	4.65	4.23	3.74
R-Value from Exudation	13	20	26
Density (pcf)	117.4	120.6	123.2
Moisture (%)	14.1	13.2	12.3
Exudation Pressure (psi)	113	378	681
Corrected R-Value from Exudation:	13	20	26
Exudation Pressure (psi)	113	378	681

R-Value at 300 psi exudation pressure = **18**

Note:
0.49% Retained on 3/4-inch Sieve

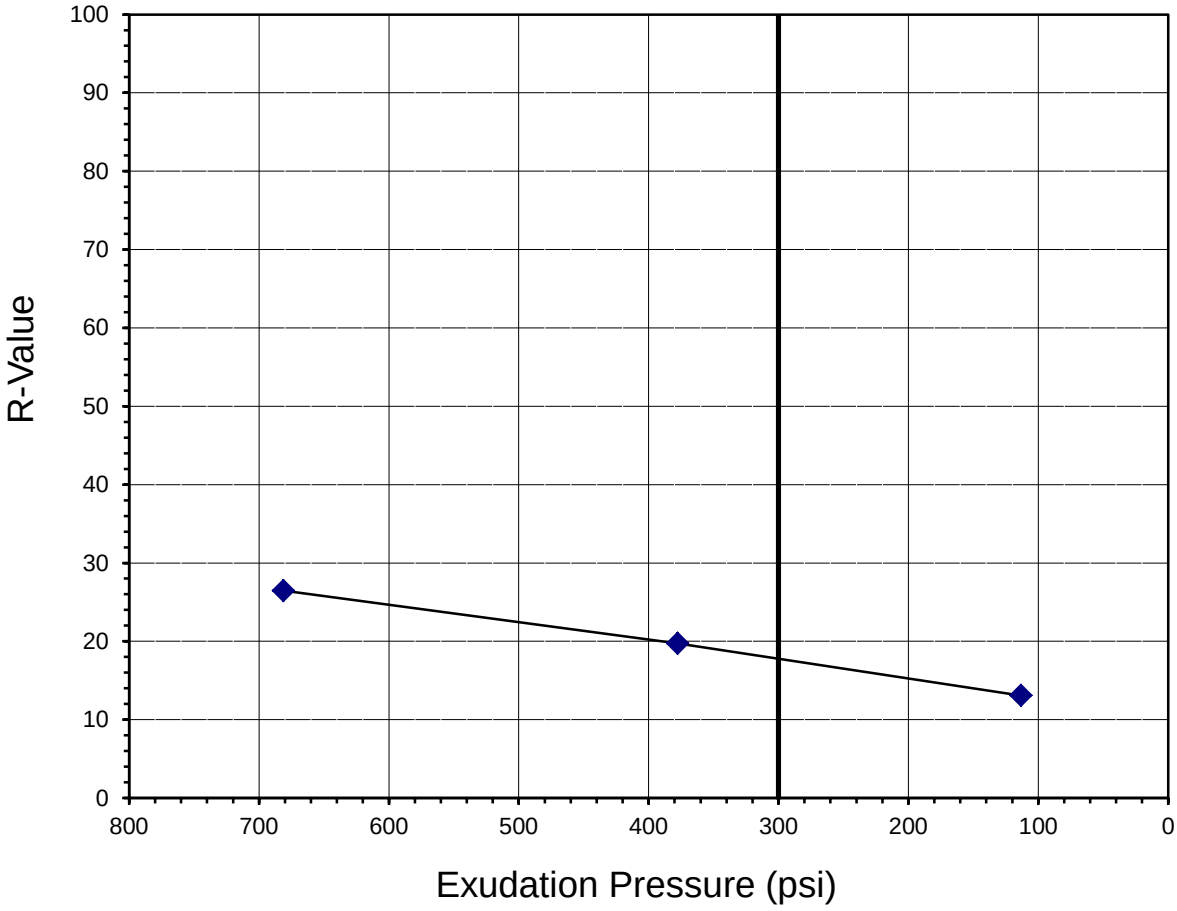
EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Project No.: 233012-01
EGLAB Job No.: 24-059-004

R-VALUE TEST RESULTS

04/05/24

FIGURE 2



Test No.	Compaction Pressure (psi)	Density (pcf)	Moisture (%)	Expansion Pressure (psi)	Horizontal Pressure (psi) @ 160 psi	Sample Height (in)	Exudation Pressure (psi)	R-Value	R-Value Correction
1	100	117.4	14.1	0.06	125	2.55	113	13	13
2	150	120.6	13.2	0.39	113	2.53	378	20	20
3	250	123.2	12.3	0.76	104	2.49	681	26	26

Test Name and Method:
Resistance R-Value and Expansion Pressure - Cal Test 301

Boring No.: HA-1
Sample No.: B-1
Depth: (ft) 0-10.0
Sample Type: Bulk
Sample Description: SC
Test Date: 4/2/2024

EGLAB, INC.

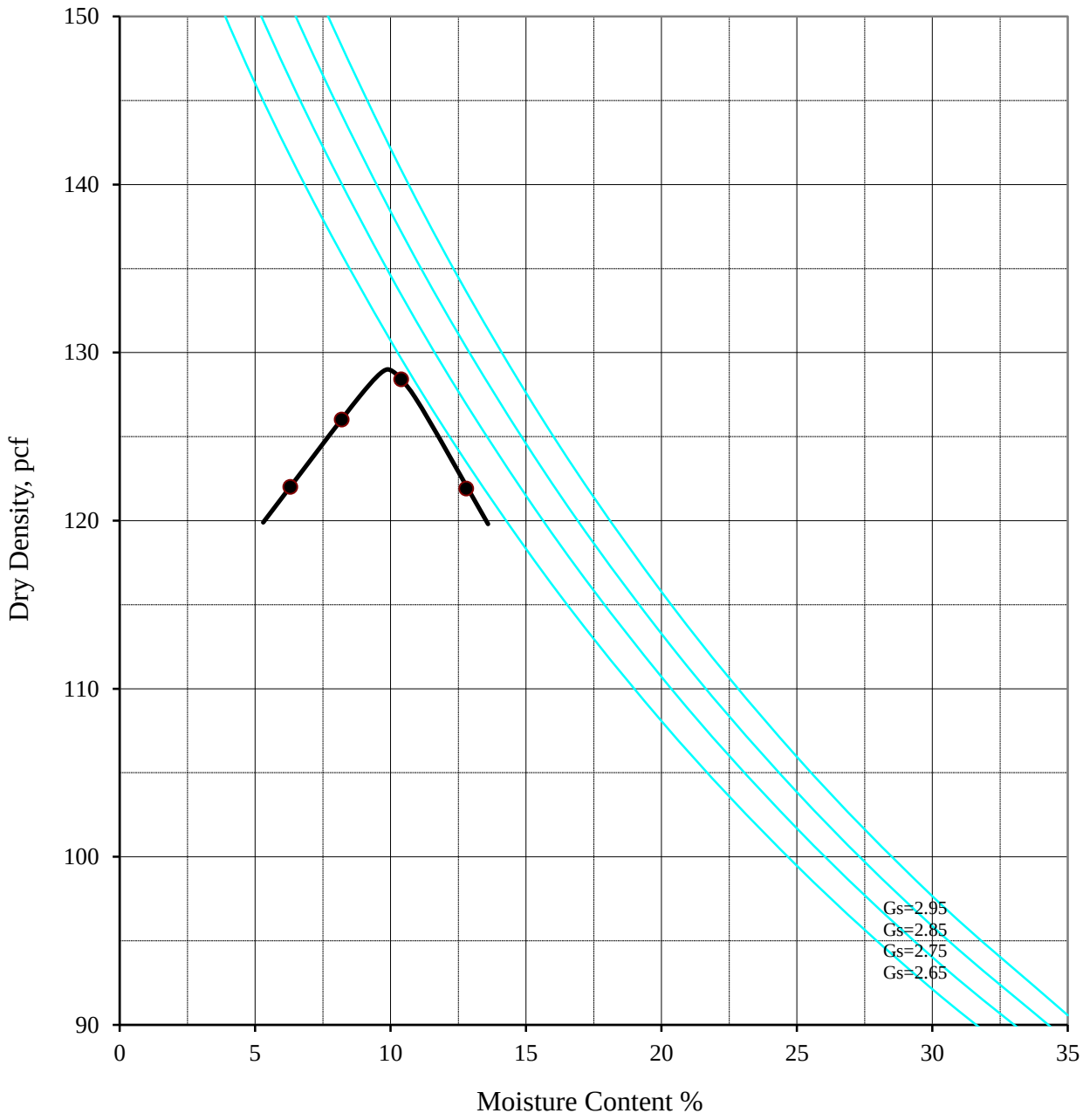
Project Name:
Belcaro
Client: LGC Valley, Inc.
Project No.: 233012-01
EGLAB Job No.: 24-059-004

Test Results: R-Value at 300 psi
Exudation Pressure: **18**

R-VALUE TEST REPORT

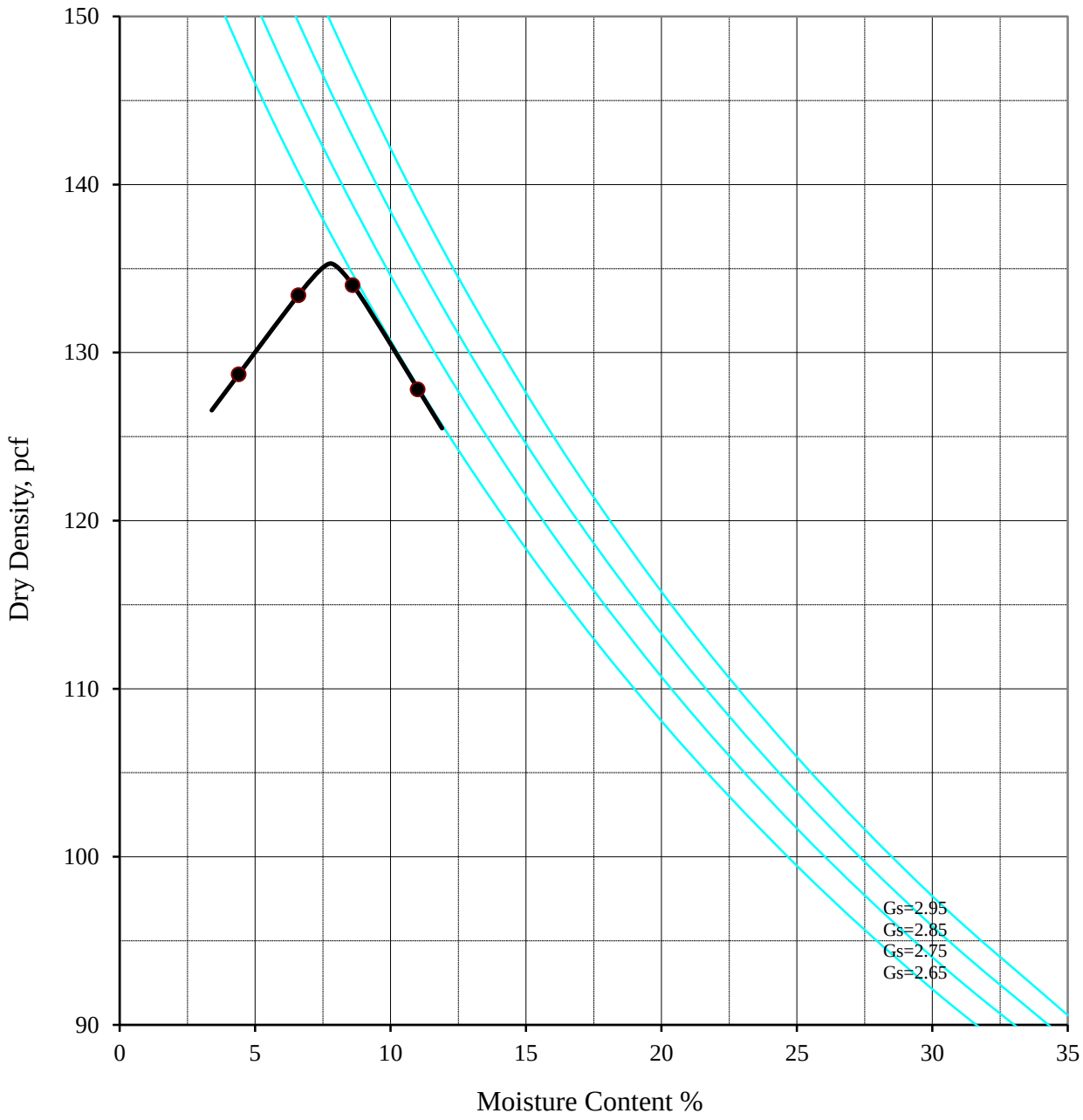
04/05/24

FIGURE 1



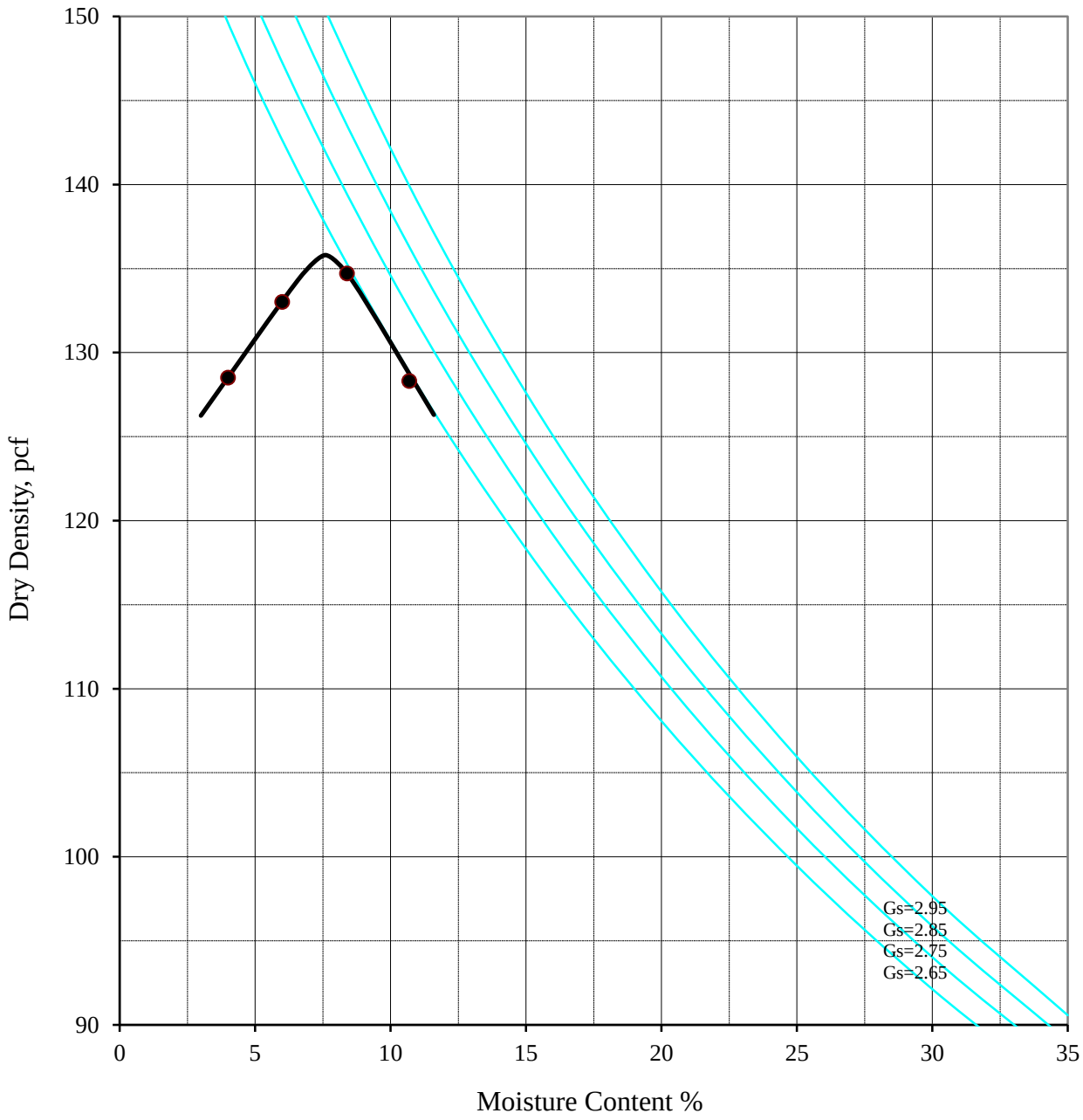
Method "A"

Maximum Dry Density = **129.0** pcf Optimum Moisture Content = **9.9** %	Boring No: B-LGC-5 Sample: B-1 Depth : 0-5.0 feet Description : Clayey sand (SC), dark brown, trace of gravel
EGLAB, INC.	Project Name: Belcaro Client Name: LGC Valley, Inc.
Modified Proctor **(ASTM D1557)**	Job No.: 233012-01 EGLAB Project No.: 24-059-004 Date : Mar-24 Figure



Method "A"

Maximum Dry Density = **135.3** pcf	Boring No: HA-2
	Sample: B-1
	Depth : 0-10.0 feet
Optimum Moisture Content = **7.8** %	Description : Silty sand (SM), dark brown, little gravel and trace of clay
EGLAB, INC.	Project Name: Belcaro
	Client Name: LGC Valley, Inc.
Modified Proctor	Job No.: 233012-01
	EGLAB Project No.: 24-059-004
(ASTM D1557)	Date : Apr-24 Figure



Method "A"

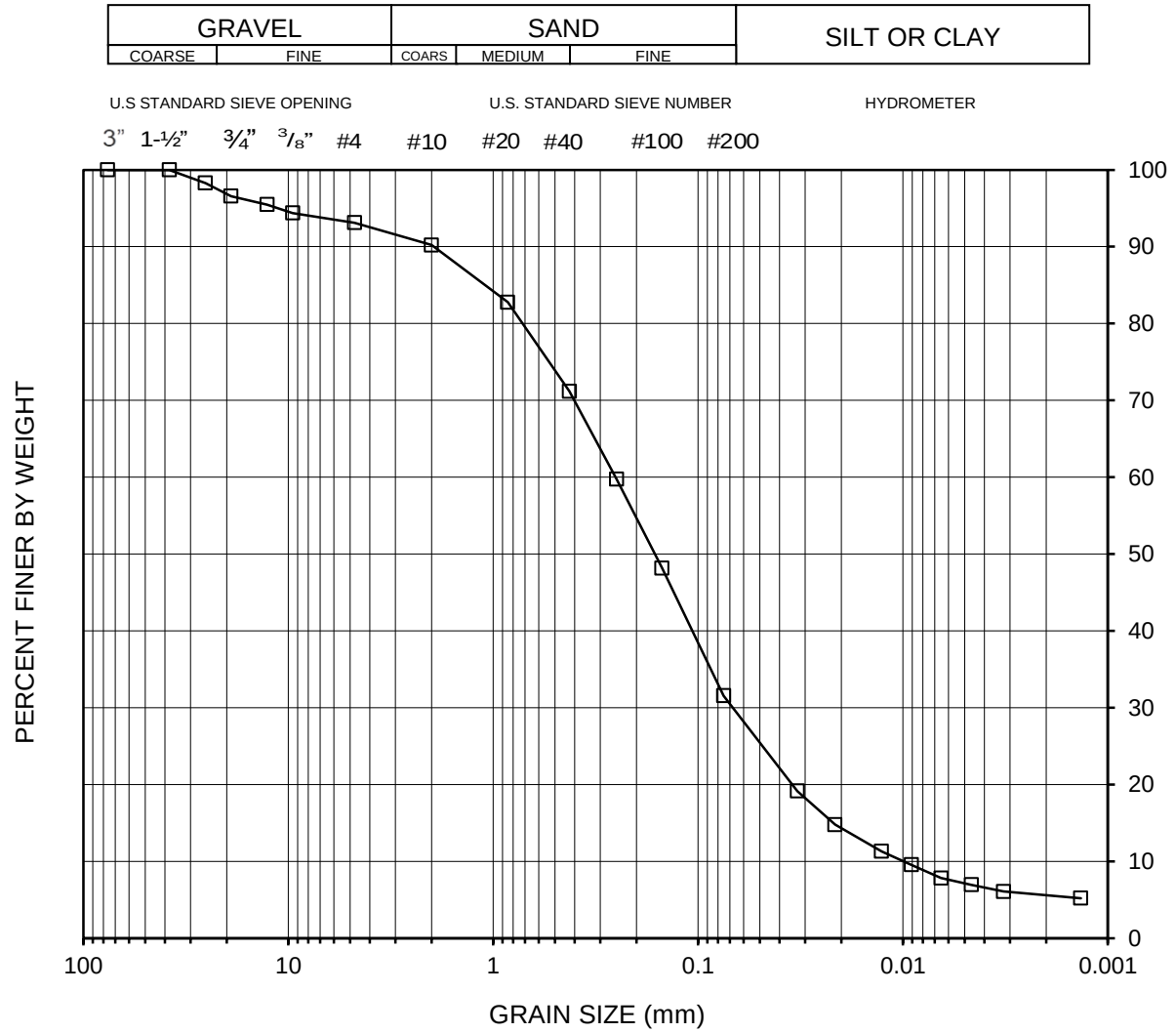
Maximum Dry Density = **135.8** pcf	Boring No: HA-4
	Sample: B-1
Optimum Moisture Content = **7.6** %	Depth : 0-6.0 feet
	Description : Clayey sand (SC), dark brown, little gravel

EGLAB, INC.

Modified Proctor

(ASTM D1557)

Project Name:	Belcaro
Client Name:	LGC Valley, Inc.
Job No.:	233012-01
EGLAB Project No.:	24-059-004
Date : Apr-24	Figure



SYMBOL	BORING No.	SAMPLE No.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
□	B-LGC-1	S-1	10.0	Bag	SM	N/A	N/A

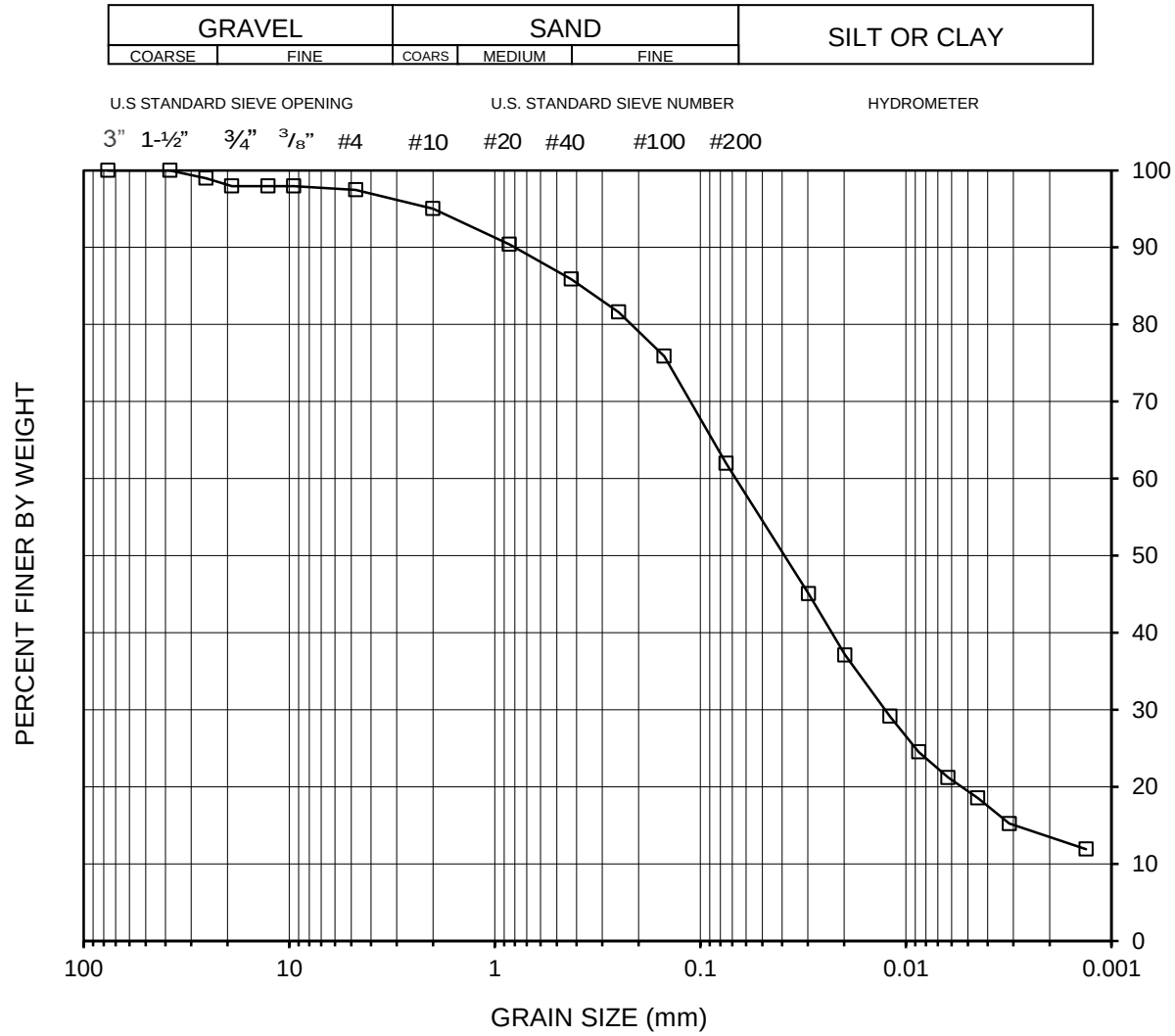
Clay	6.8%
Gravel / Sand	68.4%
Silt	24.8%

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

GRAINSIZE DISTRIBUTION CURVE

3/26/24 (ASTM D422) FIGURE



SYMBOL	BORING No.	SAMPLE No.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
□	B-LGC-1	S-3	20.0	Bag	CL	30	10

Clay	19.5%
Gravel / Sand	38.0%
Silt	42.5%

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

GRAINSIZE DISTRIBUTION CURVE

3/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-1	S-5	25.0	Bag	SM	N/A	N/A

Gravel:	3.3%
Sand:	79.2%
Fine:	17.5%

EGLAB, INC.

Project Name: Belcaro

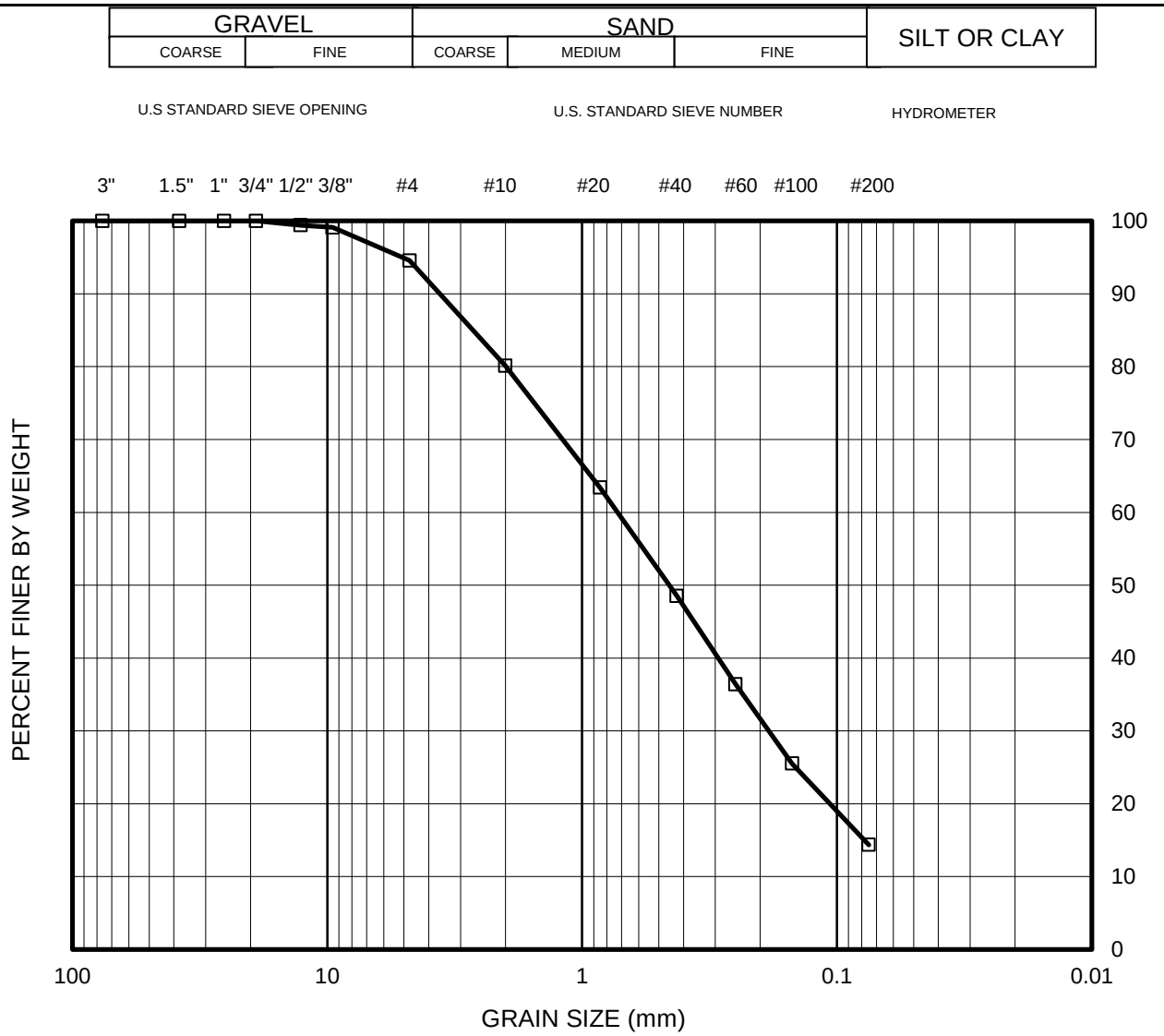
Client Job No.: 233012-01

Client Name: LGC Valley, Inc.

EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-1	S-7	30.0	Bag	SM	N/A	N/A

Gravel:	5.4%
Sand:	80.2%
Fine:	14.4%

EGLAB, INC.

Project Name: Belcaro

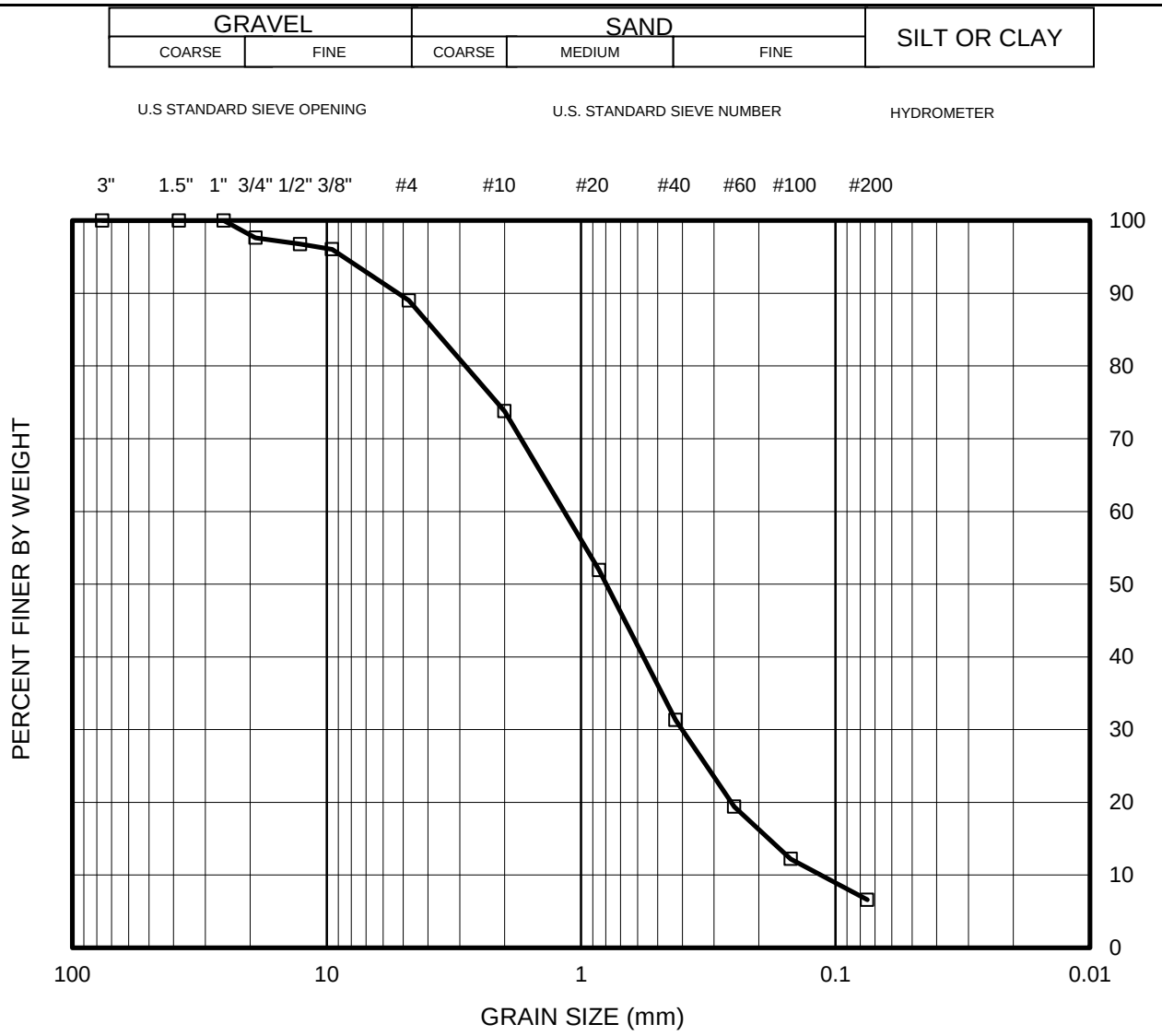
Client Job No.: 233012-01

Client Name: LGC Valley, Inc.

EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-2	S-1	10.0	Bag	SW-SM	N/A	N/A

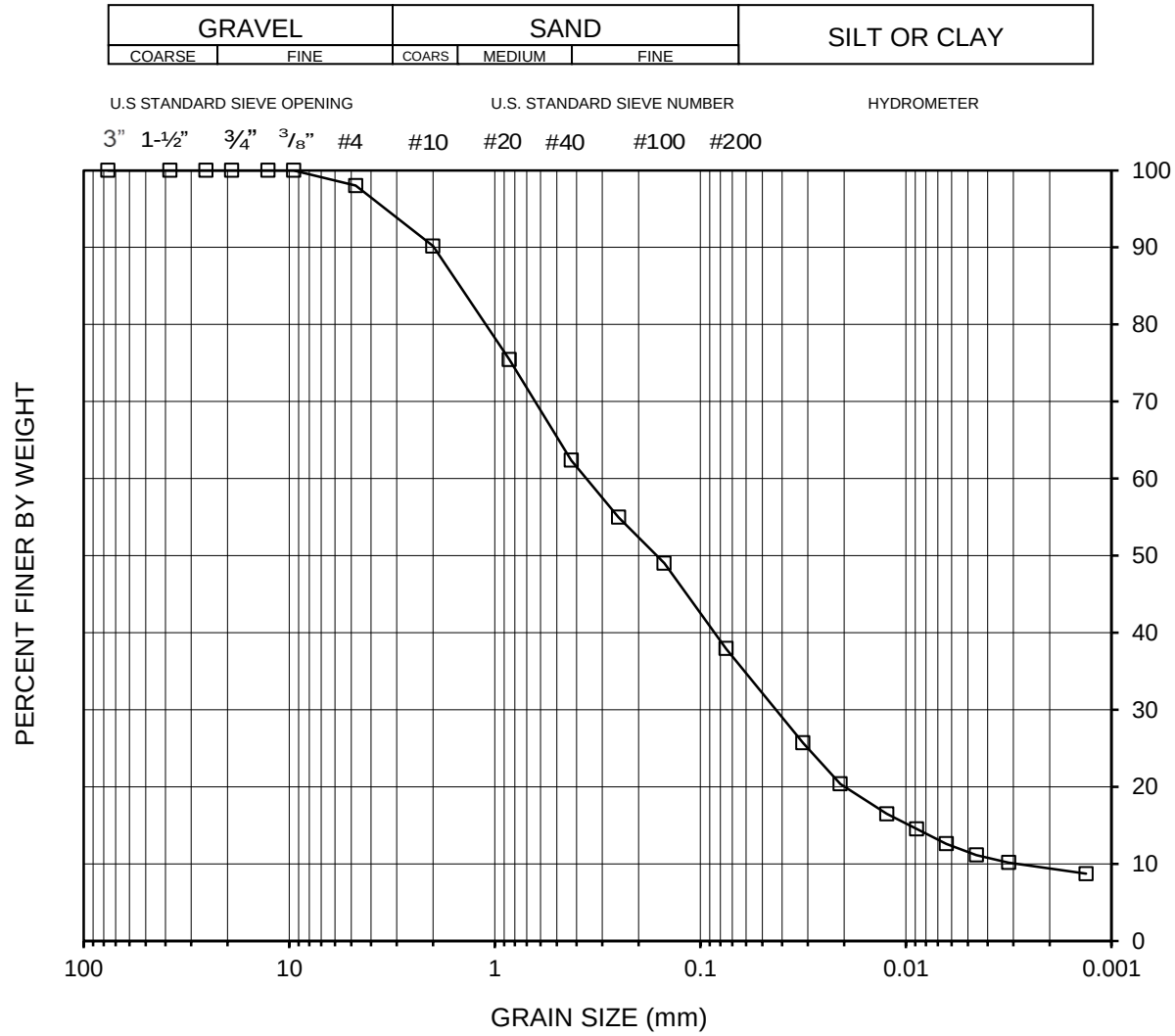
Gravel:	11.0%
Sand:	82.4%
Fine:	6.6%

EGLAB, INC.

Project Name: Belcaro
Client Job No.: 233012-01
Client Name: LGC Valley, Inc.
EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING No.	SAMPLE No.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
□	B-LGC-2	S-8	27.5	Bag	SC	27	8

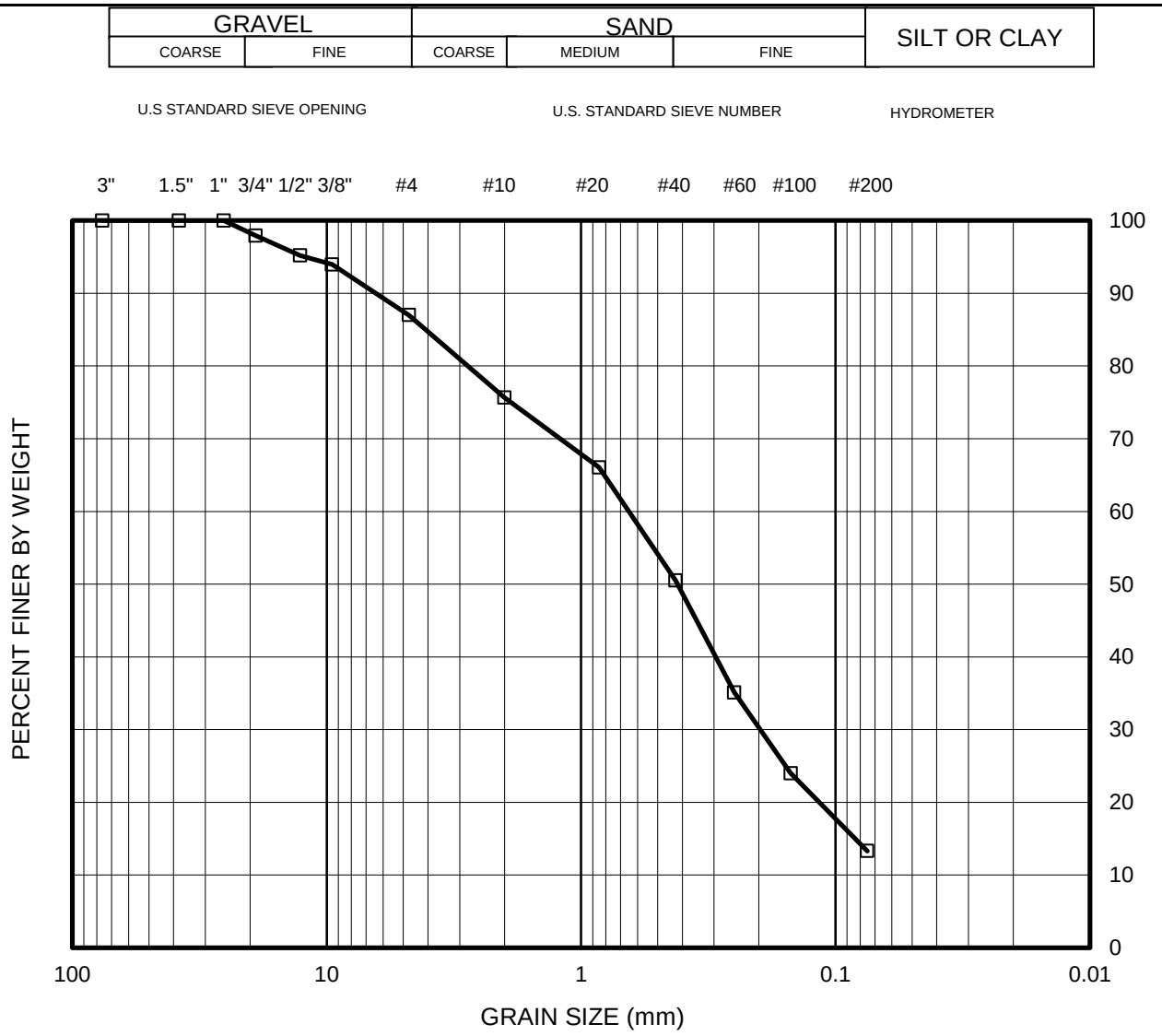
Clay	11.6%
Gravel / Sand	62.0%
Silt	26.4%

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

GRAINSIZE DISTRIBUTION CURVE

3/26/24 (ASTM D422) FIGURE



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-2	S-9	30.0	Bag	SM	N/A	N/A

Gravel:	13.0%
Sand:	73.7%
Fine:	13.3%

EGLAB, INC.

Project Name: Belcaro

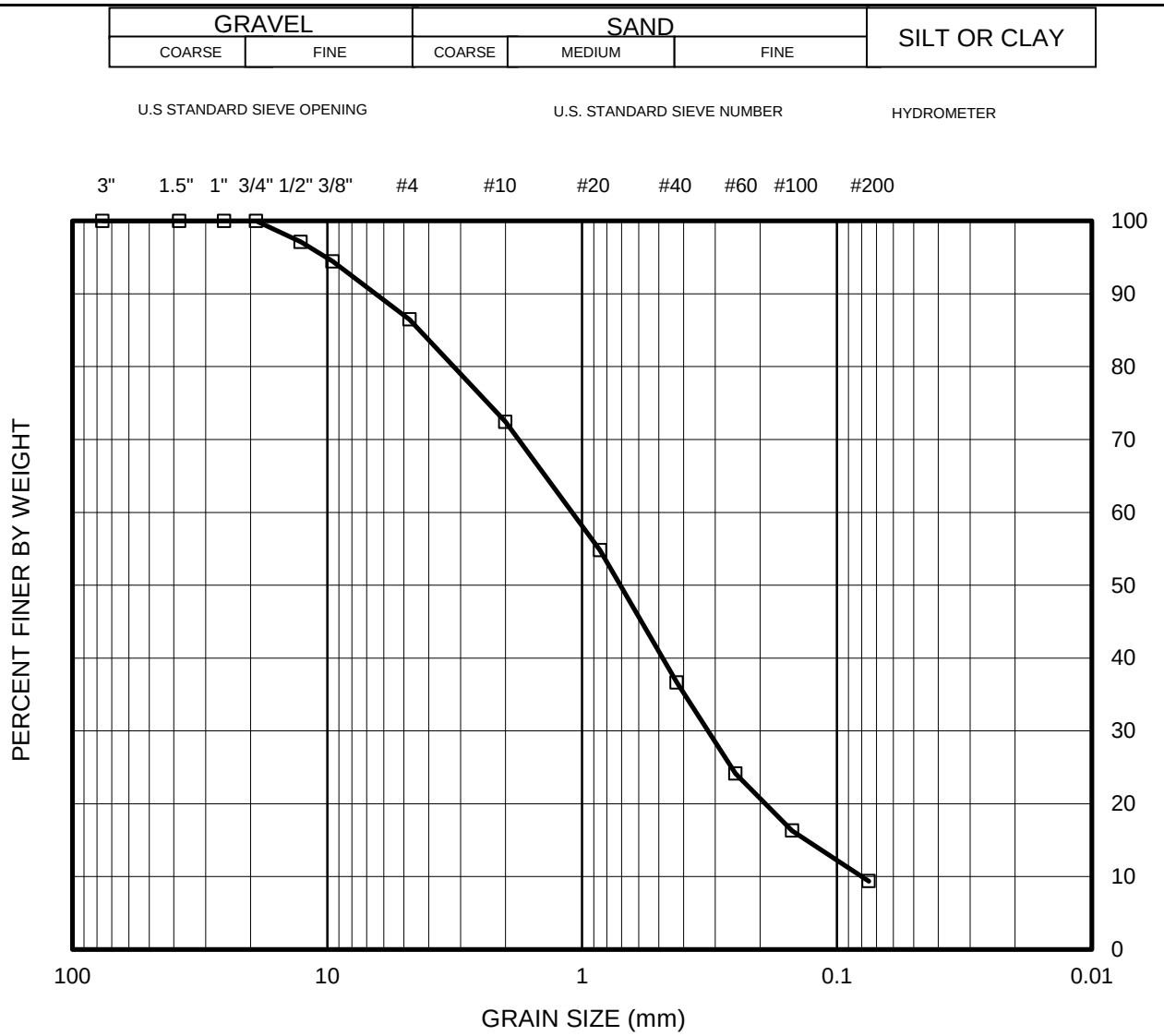
Client Job No.: 233012-01

Client Name: LGC Valley, Inc.

EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-3	S-2	15.0	Bag	SW-SM	N/A	N/A

Gravel:	13.5%
Sand:	77.1%
Fine:	9.4%

EGLAB, INC.

Project Name: Belcaro

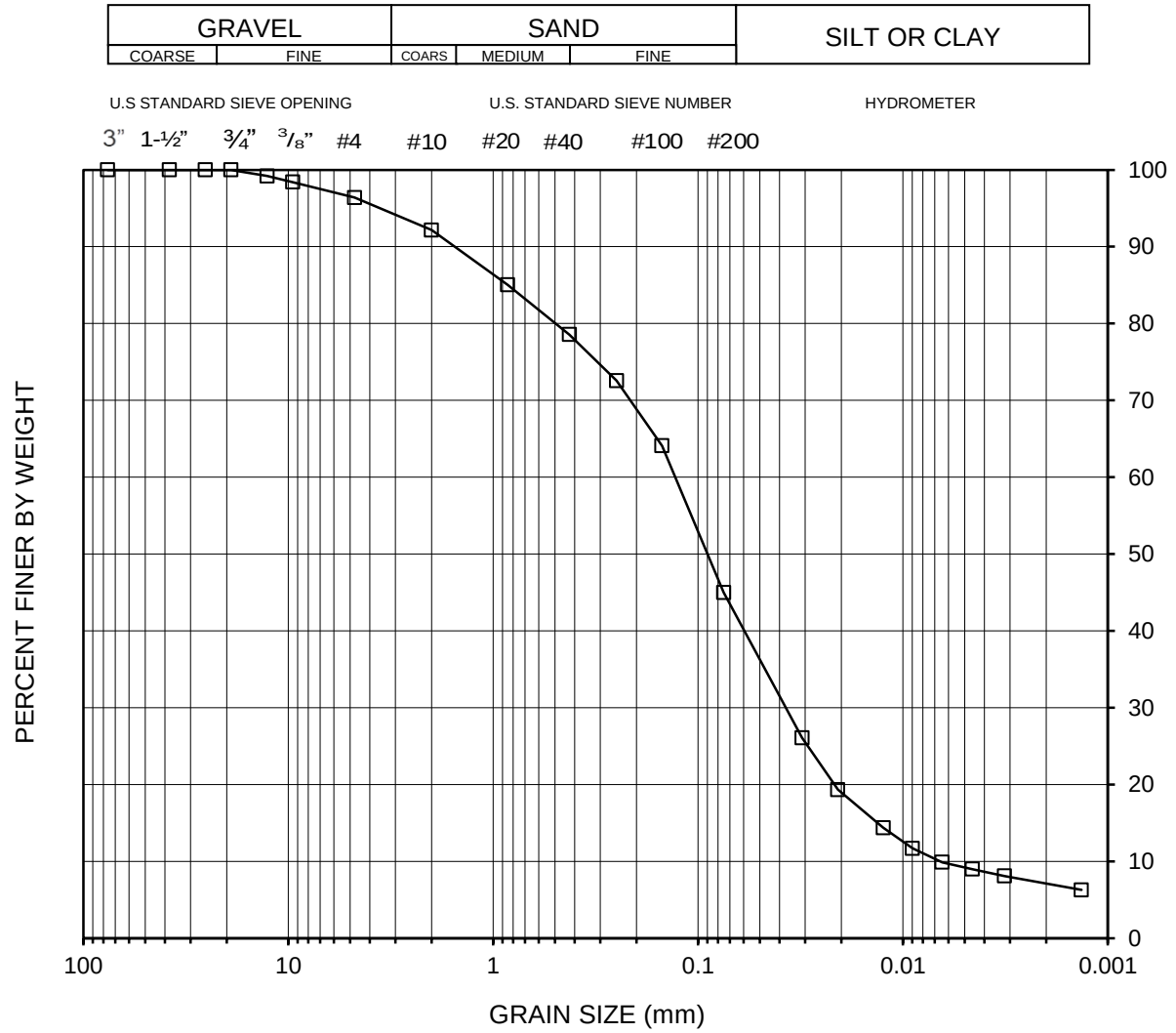
Client Job No.: 233012-01

Client Name: LGC Valley, Inc.

EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING No.	SAMPLE No.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
□	B-LGC-3	S-5	25.0	Bag	SM	N/A	N/A

Clay	8.9%
Gravel / Sand	55.0%
Silt	36.1%

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

GRAINSIZE DISTRIBUTION CURVE

3/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-3	S-6	27.5	Bag	SC	N/A	N/A

Gravel:	6.5%
Sand:	59.0%
Fine:	34.5%

EGLAB, INC.

Project Name: Belcaro

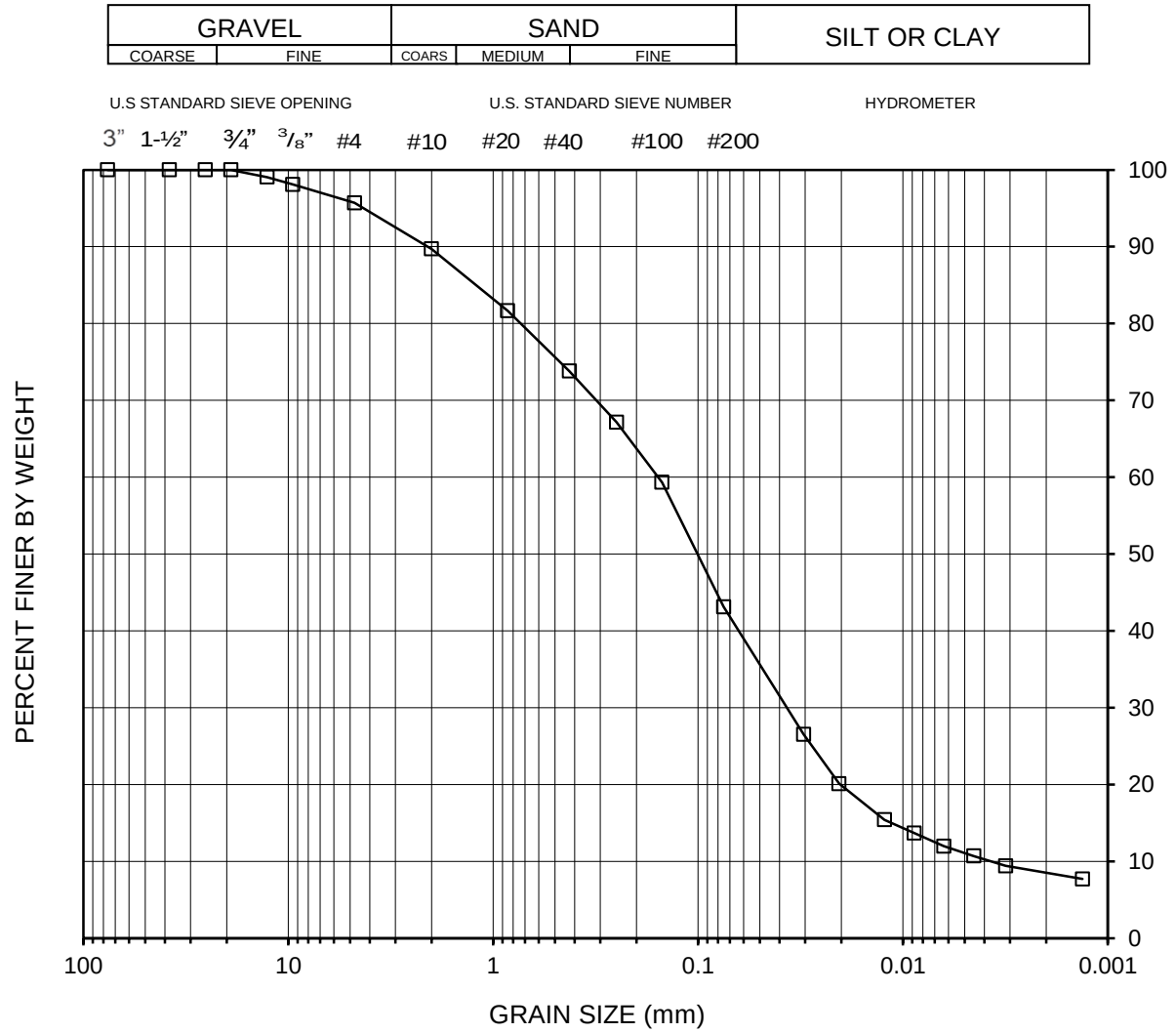
Client Job No.: 233012-01

Client Name: LGC Valley, Inc.

EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING No.	SAMPLE No.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
□	B-LGC-3	S-7	30.0	Bag	SM	23	3

Clay	11.1%
Gravel / Sand	56.9%
Silt	32.0%

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

GRAINSIZE DISTRIBUTION CURVE

3/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-3	S-9	35.0	Bag	SM	N/A	N/A

Gravel:	2.9%
Sand:	75.0%
Fine:	22.1%

EGLAB, INC.

Project Name: Belcaro

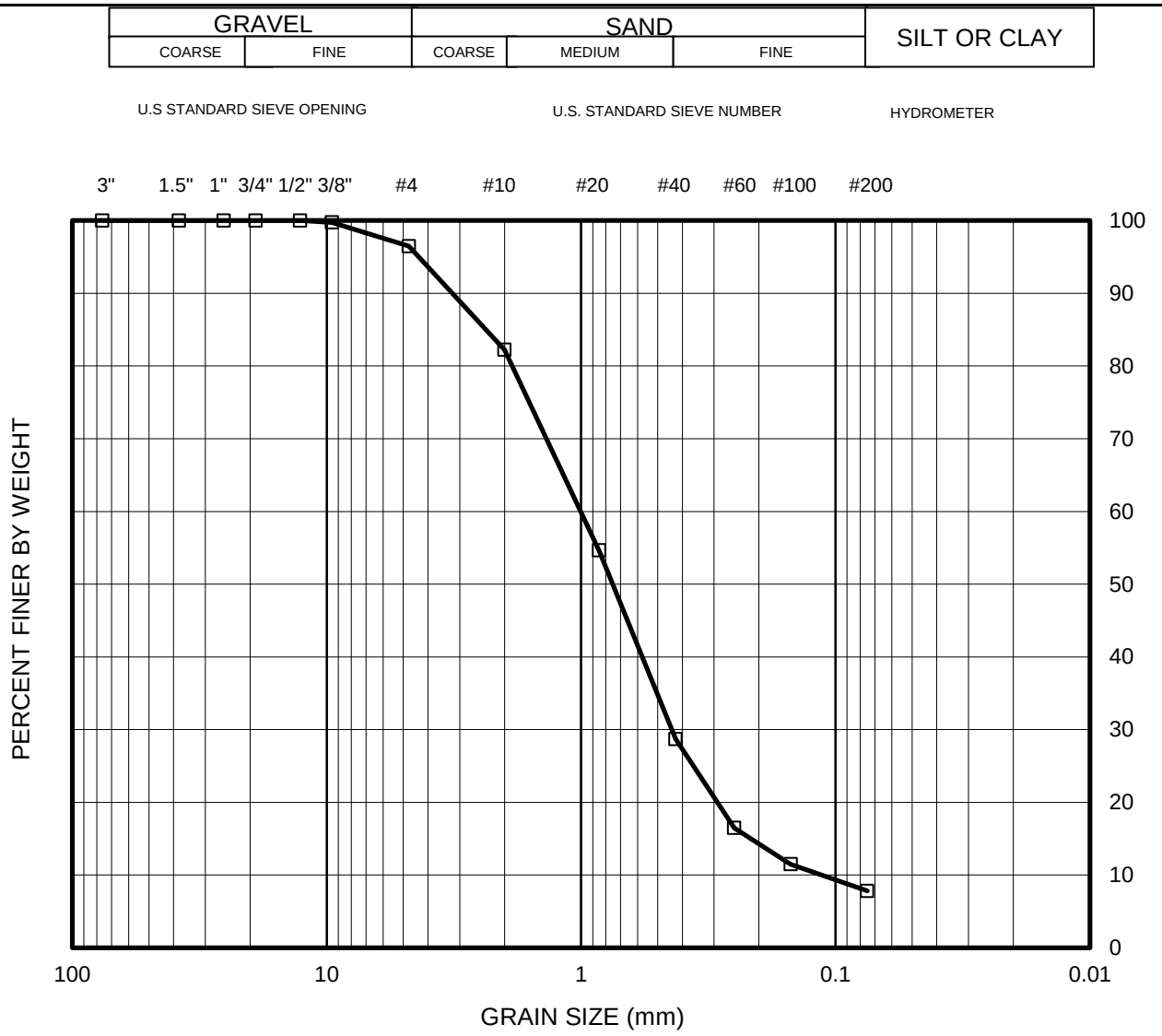
Client Job No.: 233012-01

Client Name: LGC Valley, Inc.

EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-3	S-12	42.5	Bag	SW-SM	N/A	N/A

Gravel:	3.5%
Sand:	88.7%
Fine:	7.8%

EGLAB, INC.

Project Name: Belcaro

Client Job No.: 233012-01

Client Name: LGC Valley, Inc.

EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-4	S-1	10.0	Bag	SM	N/A	N/A

Gravel:	11.6%
Sand:	66.0%
Fine:	22.4%

EGLAB, INC.

Project Name: Belcaro
Client Job No.: 233012-01
Client Name: LGC Valley, Inc.
EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-4	S-3	17.5	Bag	SW-SM	N/A	N/A

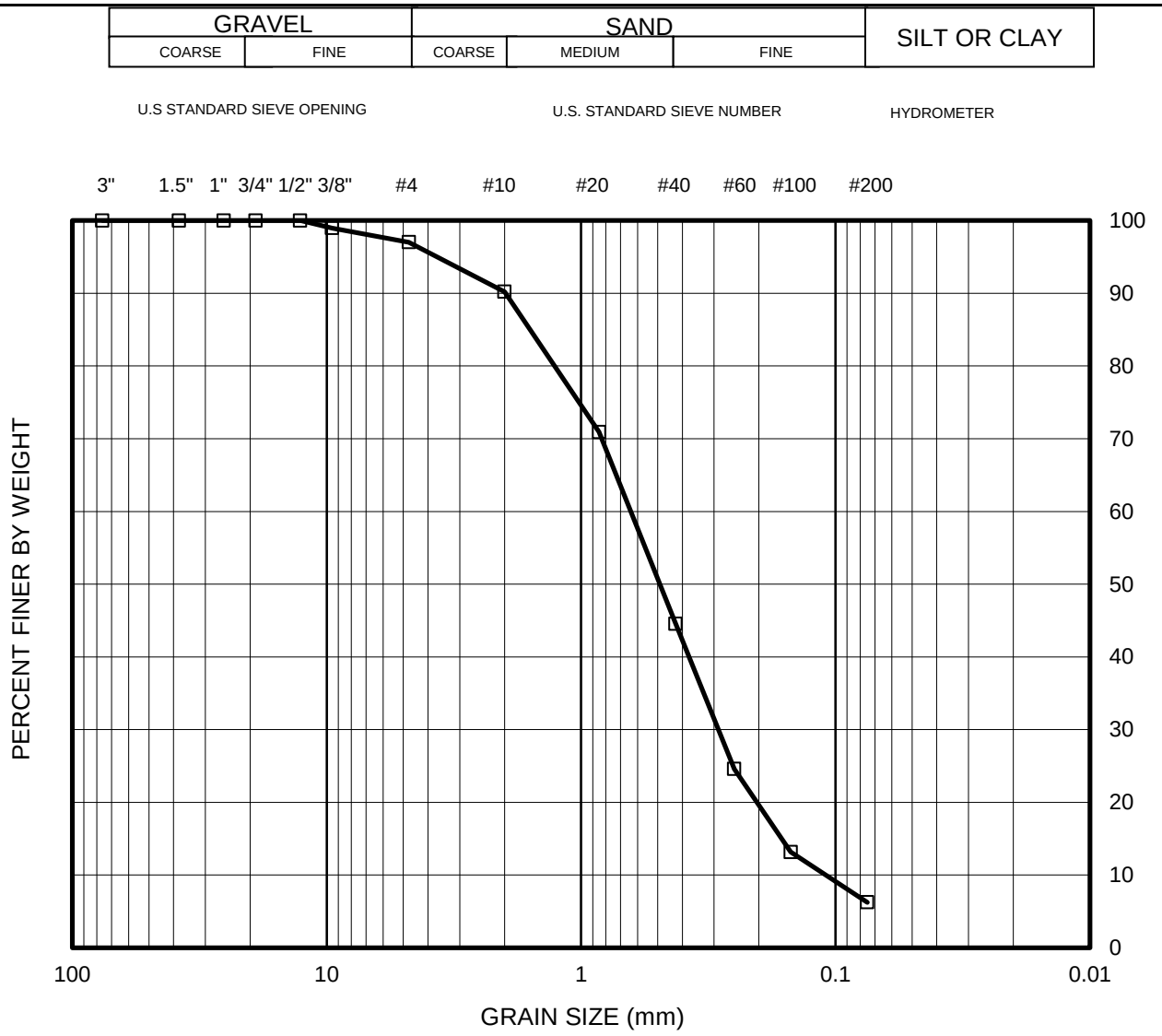
Gravel:	16.1%
Sand:	72.5%
Fine:	11.4%

EGLAB, INC.

Project Name: Belcaro
Client Job No.: 233012-01
Client Name: LGC Valley, Inc.
EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-4	S-6	27.5	Bag	SP-SM	N/A	N/A

Gravel:	3.0%
Sand:	90.8%
Fine:	6.2%

EGLAB, INC.

Project Name: Belcaro

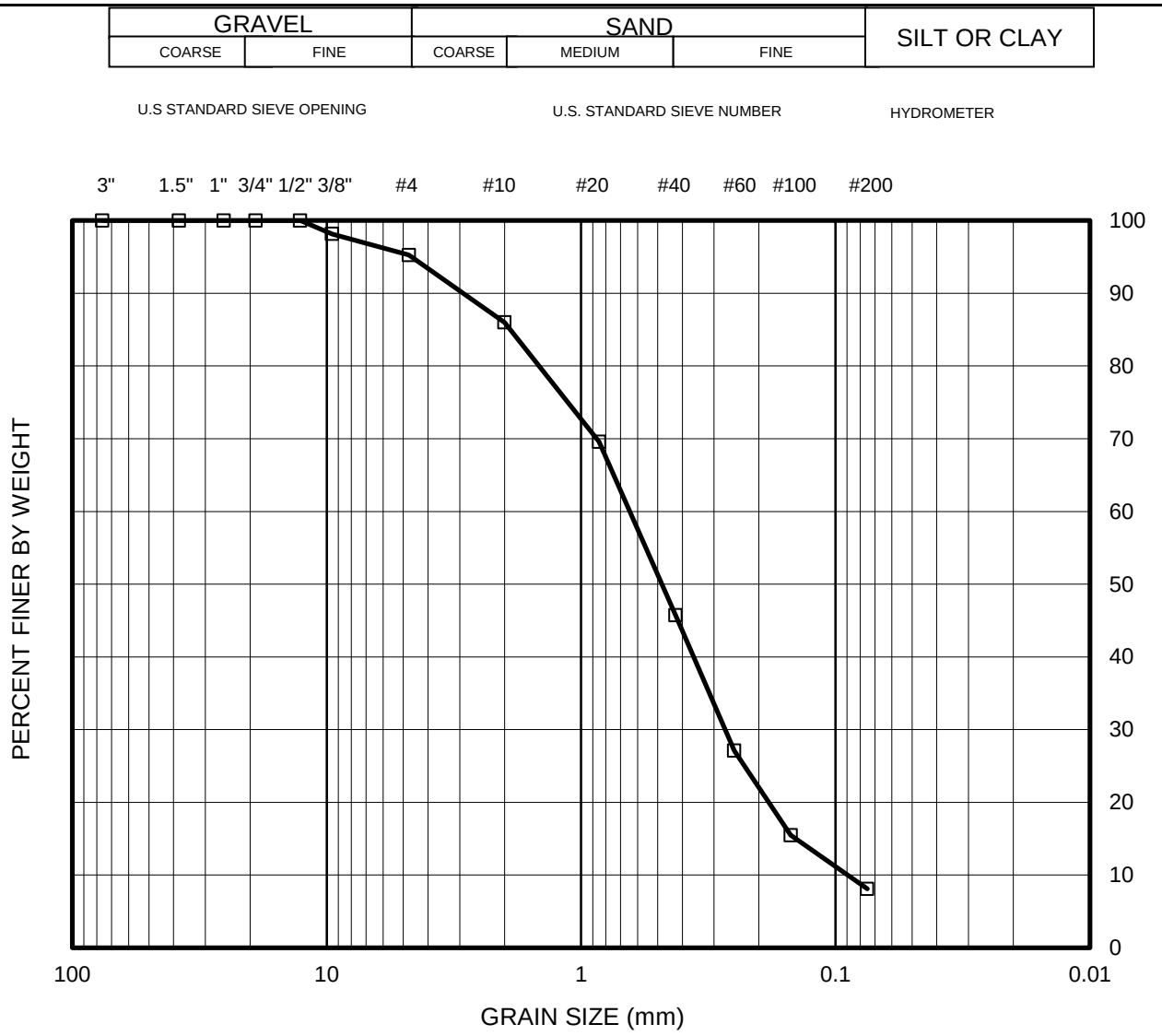
Client Job No.: 233012-01

Client Name: LGC Valley, Inc.

EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-4	S-7	30.0	Bag	SW-SM	N/A	N/A

Gravel:	4.7%
Sand:	87.2%
Fine:	8.1%

EGLAB, INC.

Project Name: Belcaro

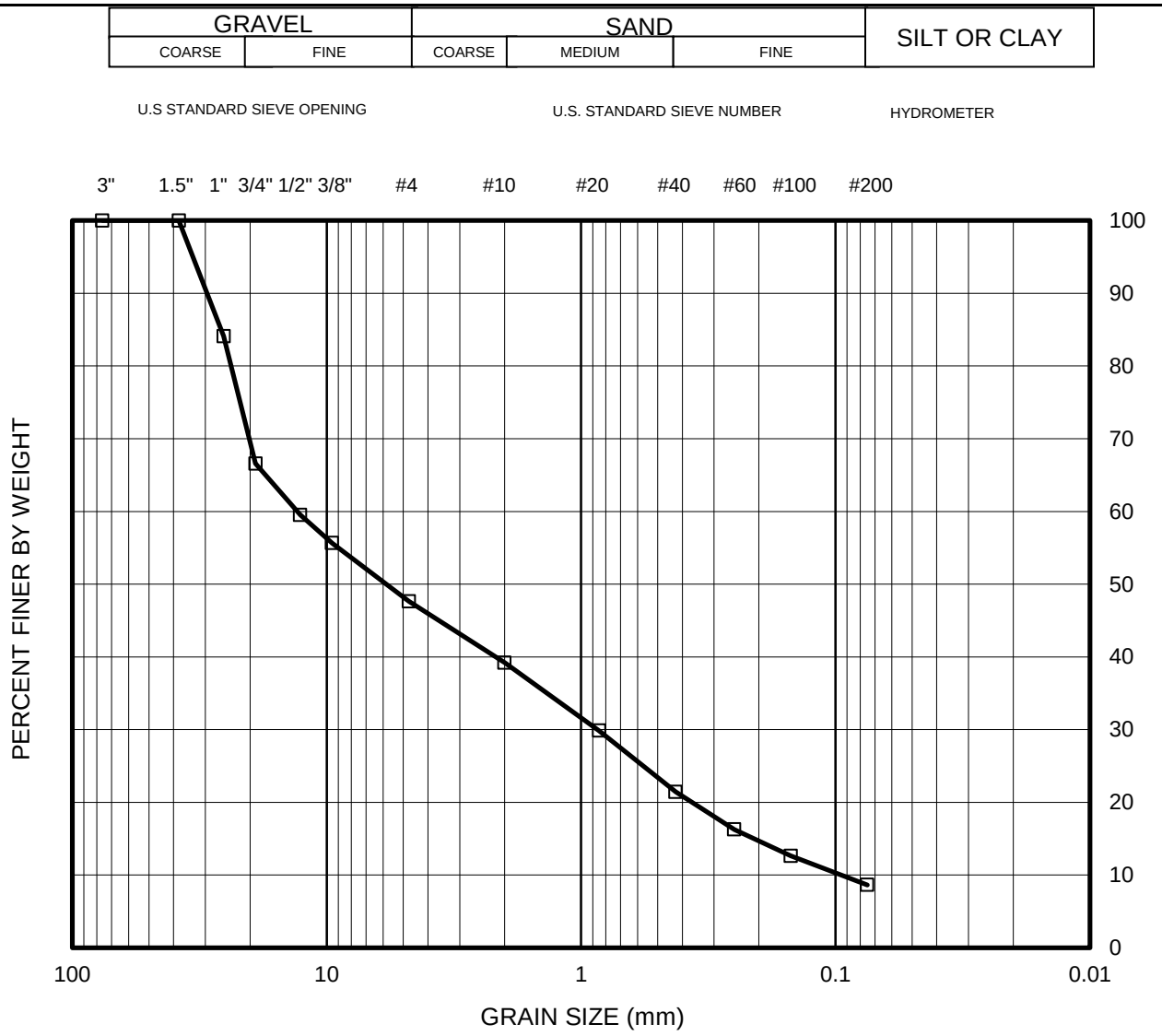
Client Job No.: 233012-01

Client Name: LGC Valley, Inc.

EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-4	S-10	37.5	Bag	GW-GM	N/A	N/A

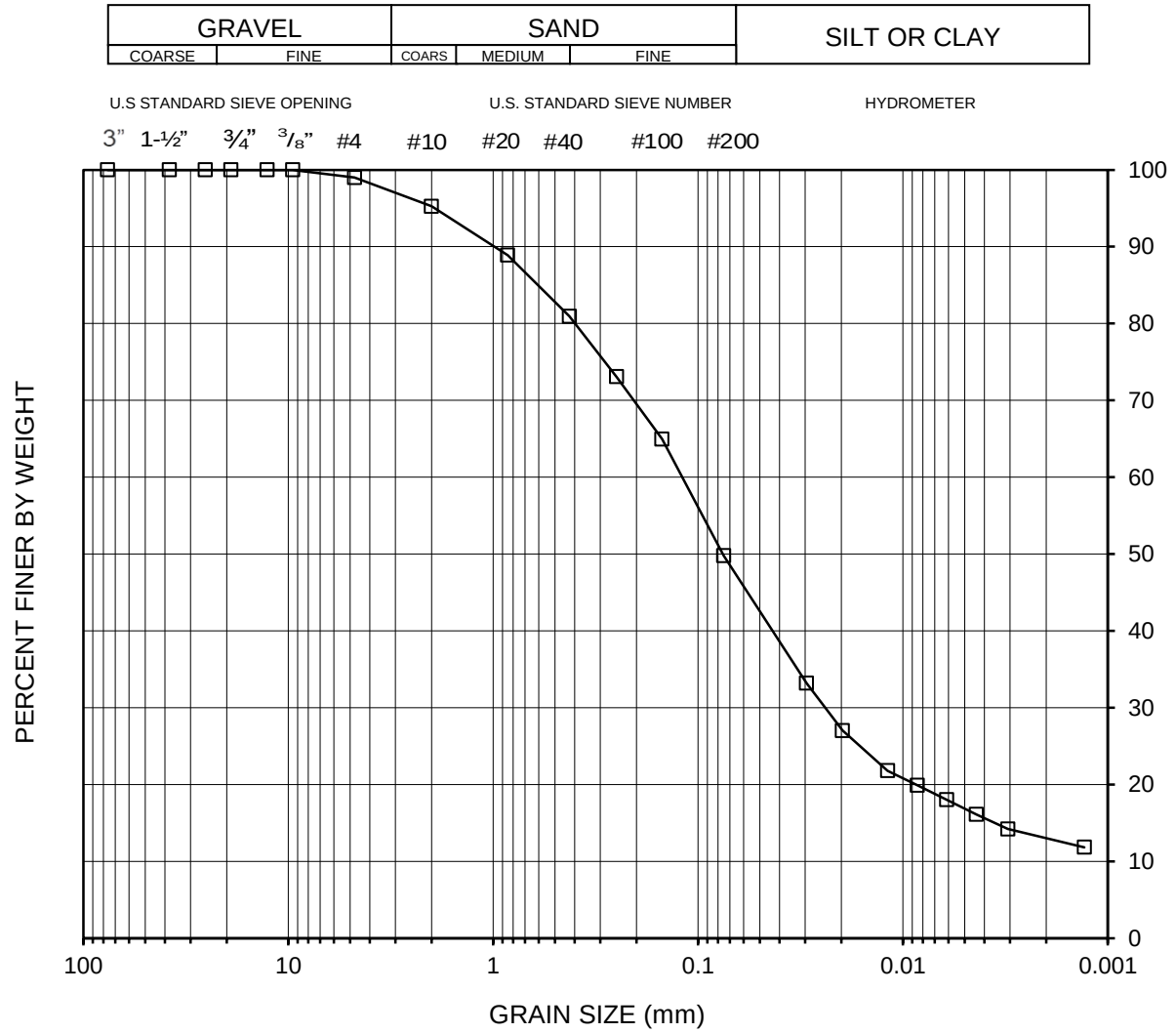
Gravel:	52.4%
Sand:	39.0%
Fine:	8.6%

EGLAB, INC.

Project Name: Belcaro
Client Job No.: 233012-01
Client Name: LGC Valley, Inc.
EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING No.	SAMPLE No.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
□	B-LGC-5	S-1	10.0	Bag	SC	28	9

Clay	17.1%
Gravel / Sand	50.2%
Silt	32.7%

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

GRAINSIZE DISTRIBUTION CURVE

3/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-5	S-2	12.5	Bag	SC	N/A	N/A

Gravel:	2.9%
Sand:	62.0%
Fine:	35.1%

EGLAB, INC.

Project Name: Belcaro
Client Job No.: 233012-01
Client Name: LGC Valley, Inc.
EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-5	S-4	22.5	Bag	SM	N/A	N/A

Gravel:	29.0%
Sand:	56.1%
Fine:	14.9%

EGLAB, INC.

Project Name: Belcaro

Client Job No.: 233012-01

Client Name: LGC Valley, Inc.

EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-5	S-8	32.5	Bag	SC	N/A	N/A

Gravel:	24.9%
Sand:	46.2%
Fine:	28.9%

EGLAB, INC.

Project Name: Belcaro

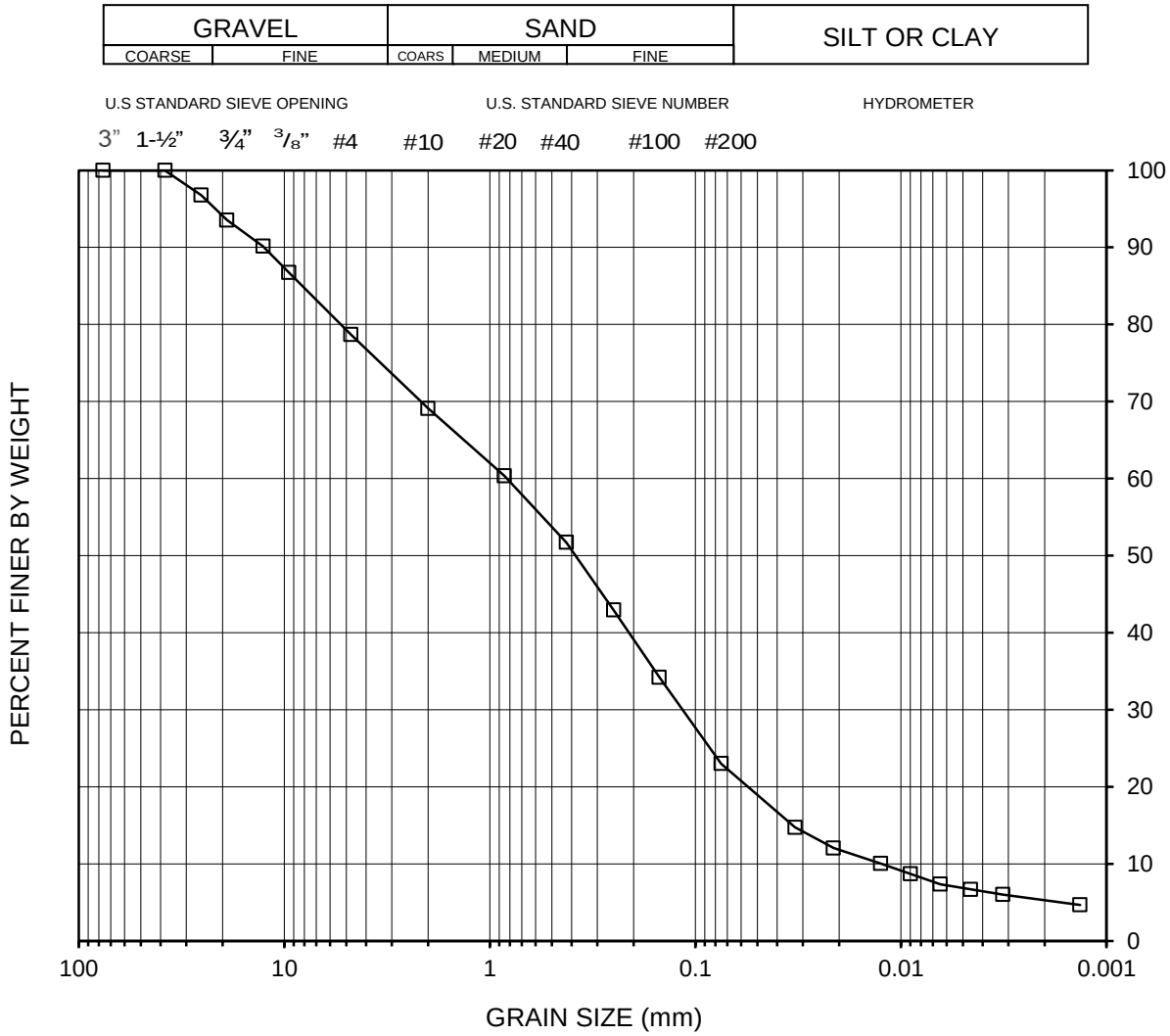
Client Job No.: 233012-01

Client Name: LGC Valley, Inc.

EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING No.	SAMPLE No.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
□	B-LGC-5	S-10	37.5	Bag	SM	N/A	N/A

Clay	6.6%
Gravel / Sand	77.0%
Silt	16.4%

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

GRAINSIZE DISTRIBUTION CURVE

3/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-5	S-13	45.0	Bag	SC-SM	N/A	N/A

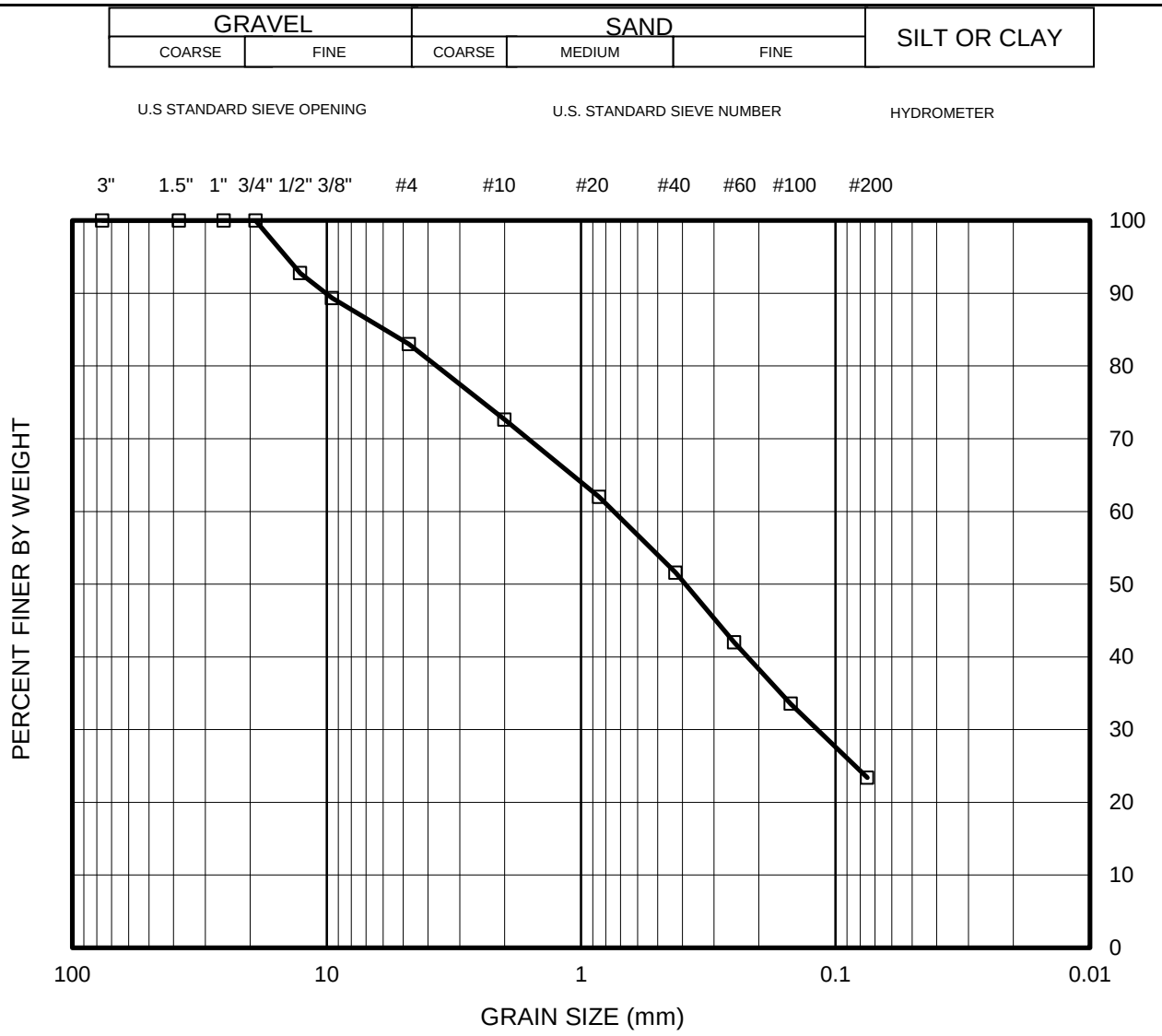
Gravel:	31.9%
Sand:	50.8%
Fine:	17.3%

EGLAB, INC.

Project Name: Belcaro
Client Job No.: 233012-01
Client Name: LGC Valley, Inc.
EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-6	S-1	10.0	Bag	SC	N/A	N/A

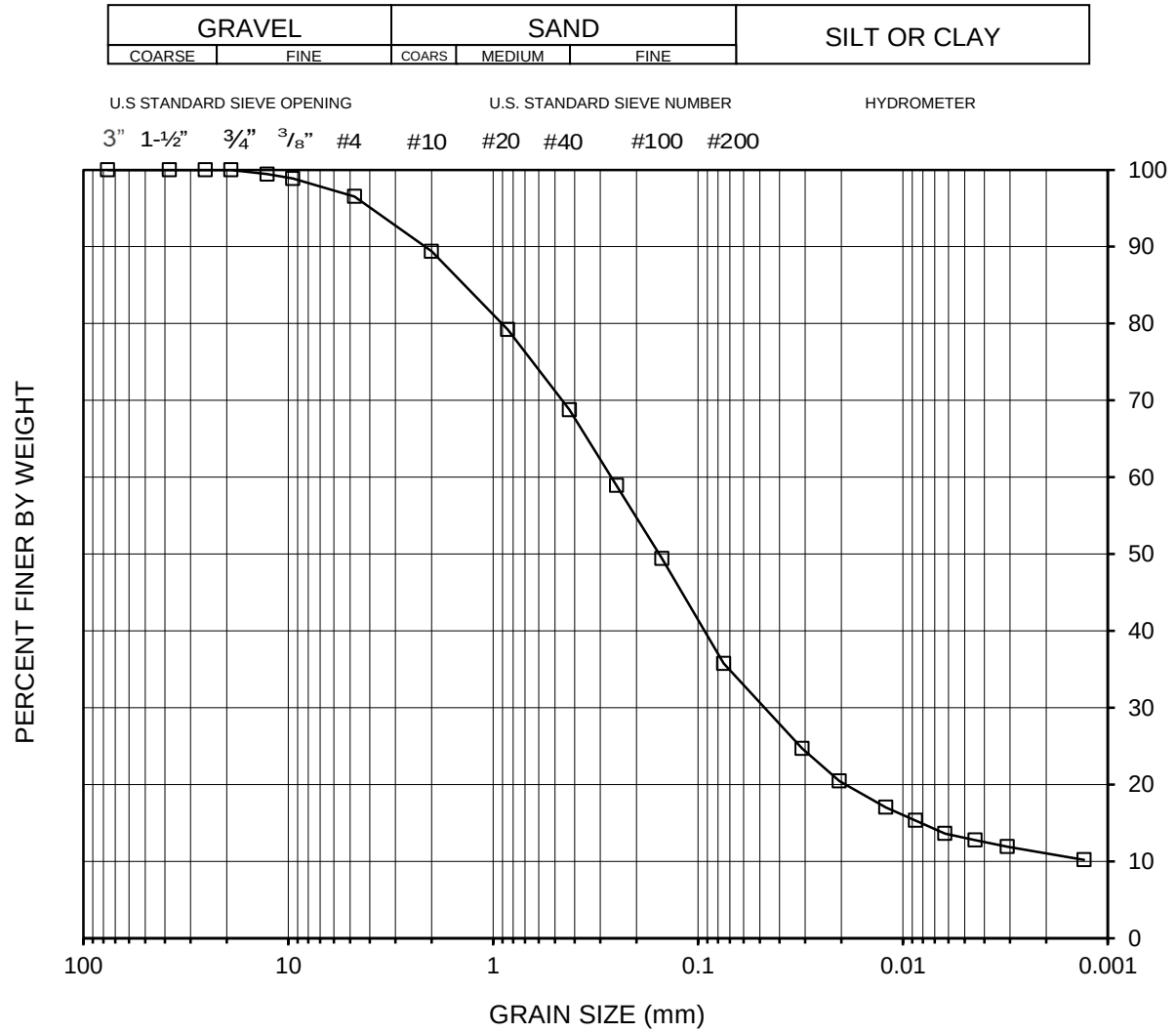
Gravel:	17.0%
Sand:	59.6%
Fine:	23.4%

EGLAB, INC.

Project Name: Belcaro
Client Job No.: 233012-01
Client Name: LGC Valley, Inc.
EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING No.	SAMPLE No.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
□	B-LGC-6	S-2	15.0	Bag	SC	26	8

Clay	12.8%
Gravel / Sand	64.2%
Silt	23.0%

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

GRAINSIZE DISTRIBUTION CURVE

3/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-6	S-4	25.0	Bag	SM	N/A	N/A

Gravel:	16.7%
Sand:	63.6%
Fine:	19.7%

EGLAB, INC.

Project Name: Belcaro
Client Job No.: 233012-01
Client Name: LGC Valley, Inc.
EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-6	S-7	35.0	Bag	SW-SM	N/A	N/A

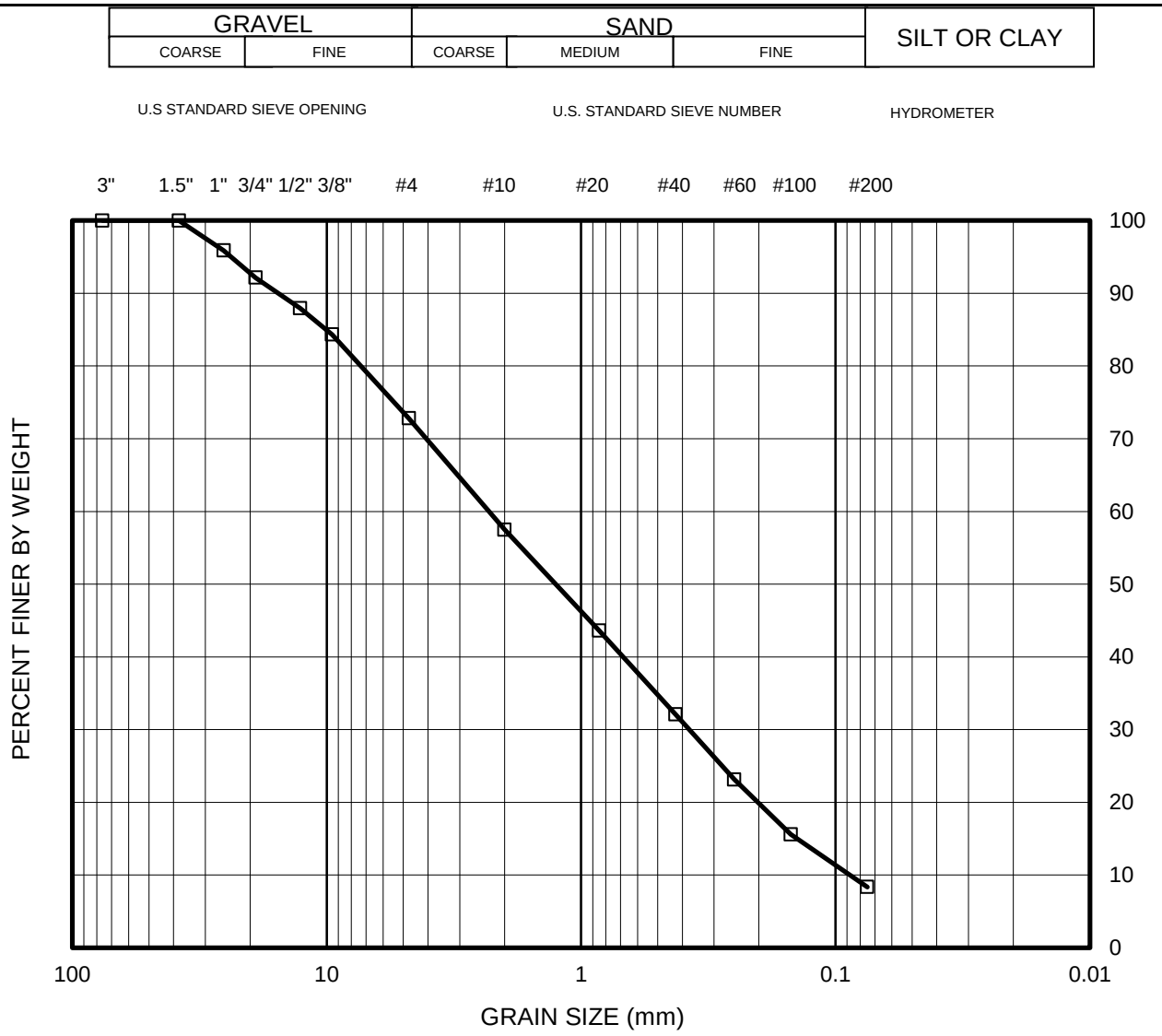
Gravel:	4.6%
Sand:	88.4%
Fine:	7.0%

EGLAB, INC.

Project Name: Belcaro
Client Job No.: 233012-01
Client Name: LGC Valley, Inc.
EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-6	S-9	42.5	Bag	SW-SM	N/A	N/A

Gravel:	27.2%
Sand:	64.5%
Fine:	8.3%

EGLAB, INC.

Project Name: Belcaro

Client Job No.: 233012-01

Client Name: LGC Valley, Inc.

EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-7	S-1	12.5	Bag	SW-SM	N/A	N/A

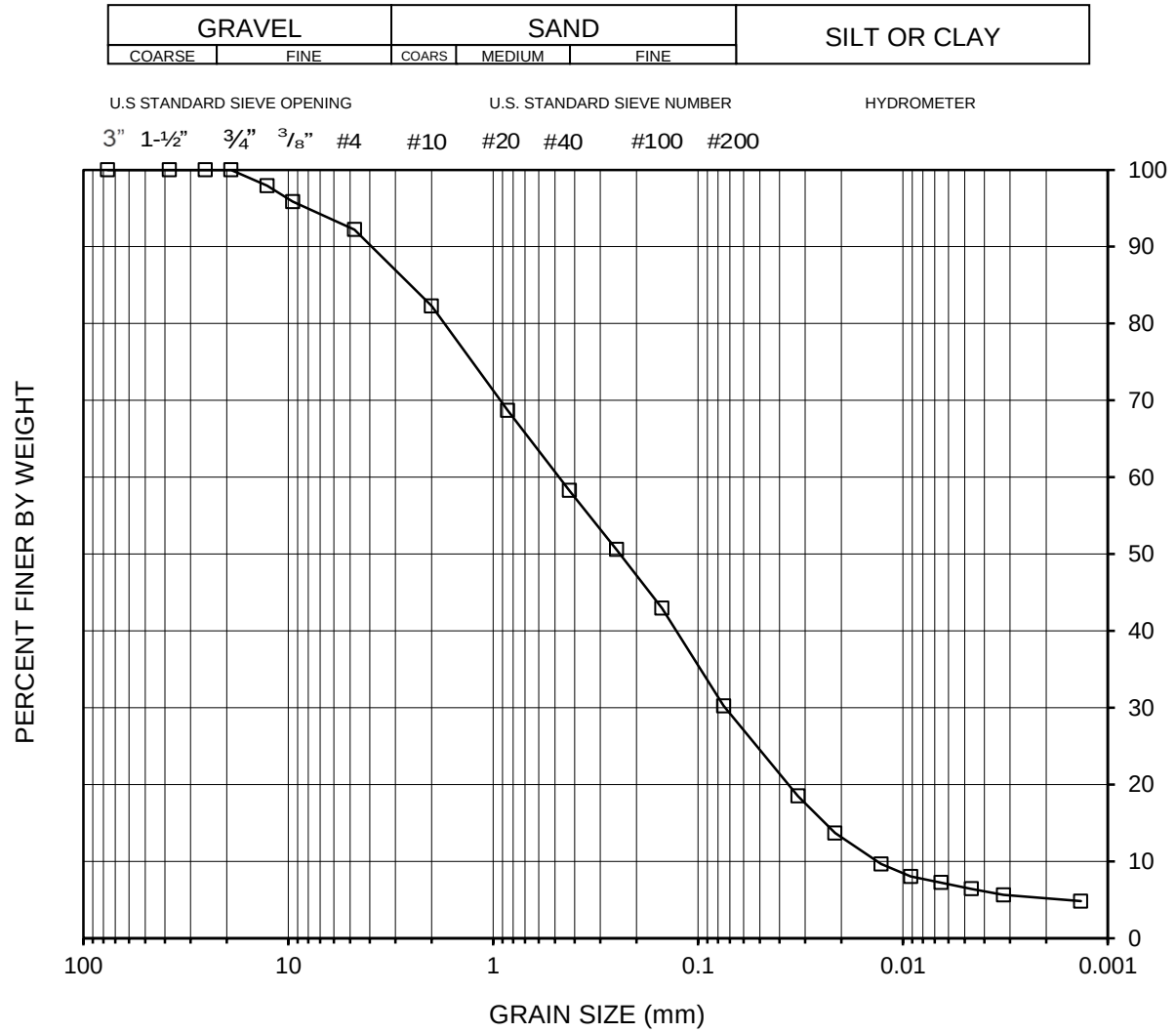
Gravel:	22.0%
Sand:	69.5%
Fine:	8.5%

EGLAB, INC.

Project Name: Belcaro
Client Job No.: 233012-01
Client Name: LGC Valley, Inc.
EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING No.	SAMPLE No.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
□	B-LGC-7	S-2	17.5	Bag	SM	N/A	N/A

Clay	6.8%
Gravel / Sand	69.8%
Silt	23.4%

EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

GRAINSIZE DISTRIBUTION CURVE

3/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-7	S-5	27.5	Bag	SM	N/A	N/A

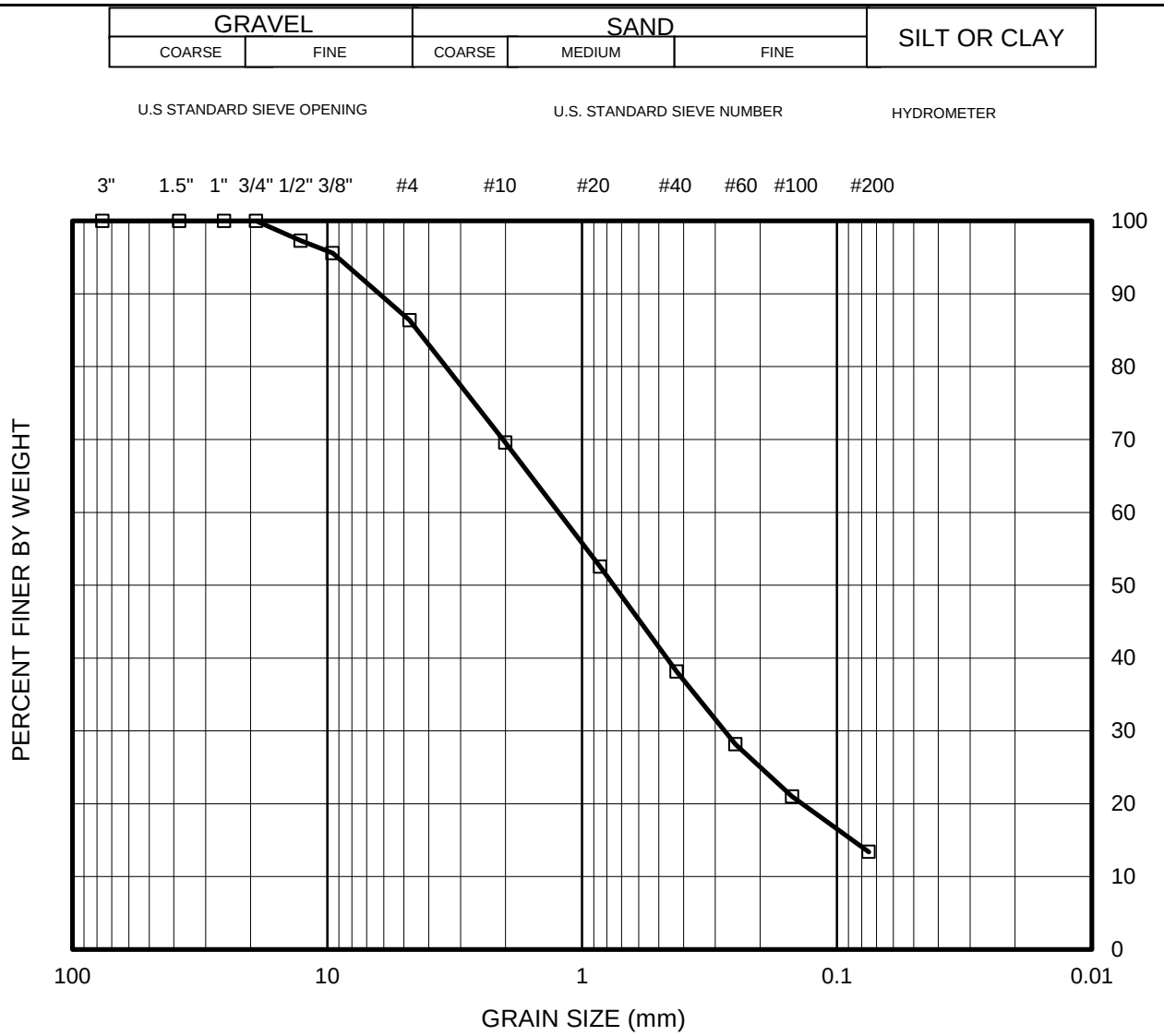
Gravel:	13.0%
Sand:	56.1%
Fine:	30.9%

EGLAB, INC.

Project Name: Belcaro
Client Job No.: 233012-01
Client Name: LGC Valley, Inc.
EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-7	S-6	30.0	Bag	SM	N/A	N/A

Gravel:	13.6%
Sand:	73.0%
Fine:	13.4%

EGLAB, INC.

Project Name: Belcaro
Client Job No.: 233012-01
Client Name: LGC Valley, Inc.
EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE

SYMBOL	BORING NO.	SAMPLE NO.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
☐	B-LGC-7	S-8	35.0	Bag	SM	N/A	N/A

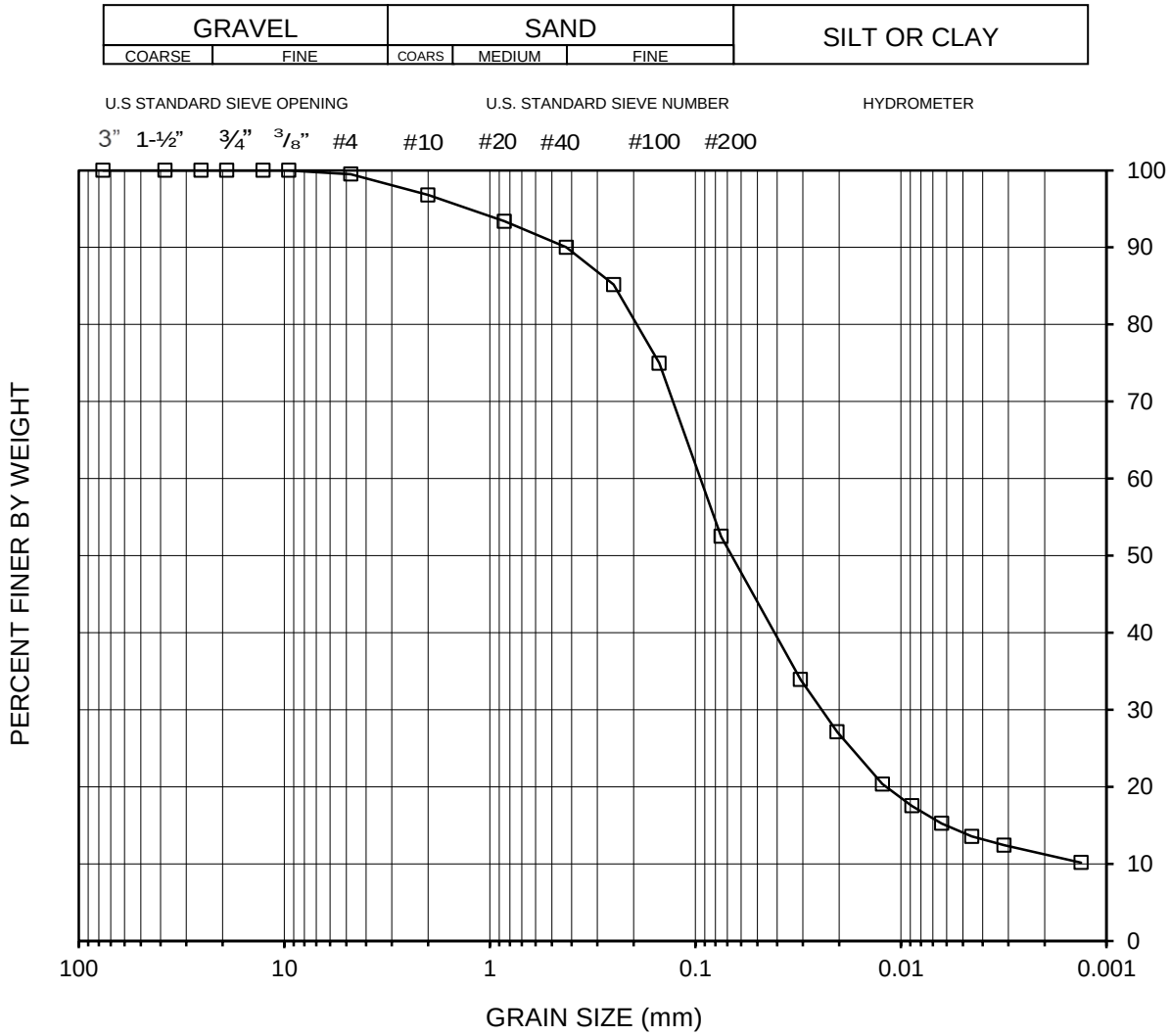
Gravel:	19.8%
Sand:	65.0%
Fine:	15.2%

EGLAB, INC.

Project Name: Belcaro
Client Job No.: 233012-01
Client Name: LGC Valley, Inc.
EGLAB Project No.: 24-059-004

GRAIN SIZE DISTRIBUTION CURVE

03/26/24 (ASTM D422) FIGURE



SYMBOL	BORING No.	SAMPLE No.	DEPTH (FT)	SAMPLE TYPE	SOIL TYPE	LIQUID LIMIT	PLASTICITY INDEX
□	B-LGC-7	S-12	45.0	Bag	CL-ML	26	5

Clay	14.1%
Gravel / Sand	47.5%
Silt	38.4%

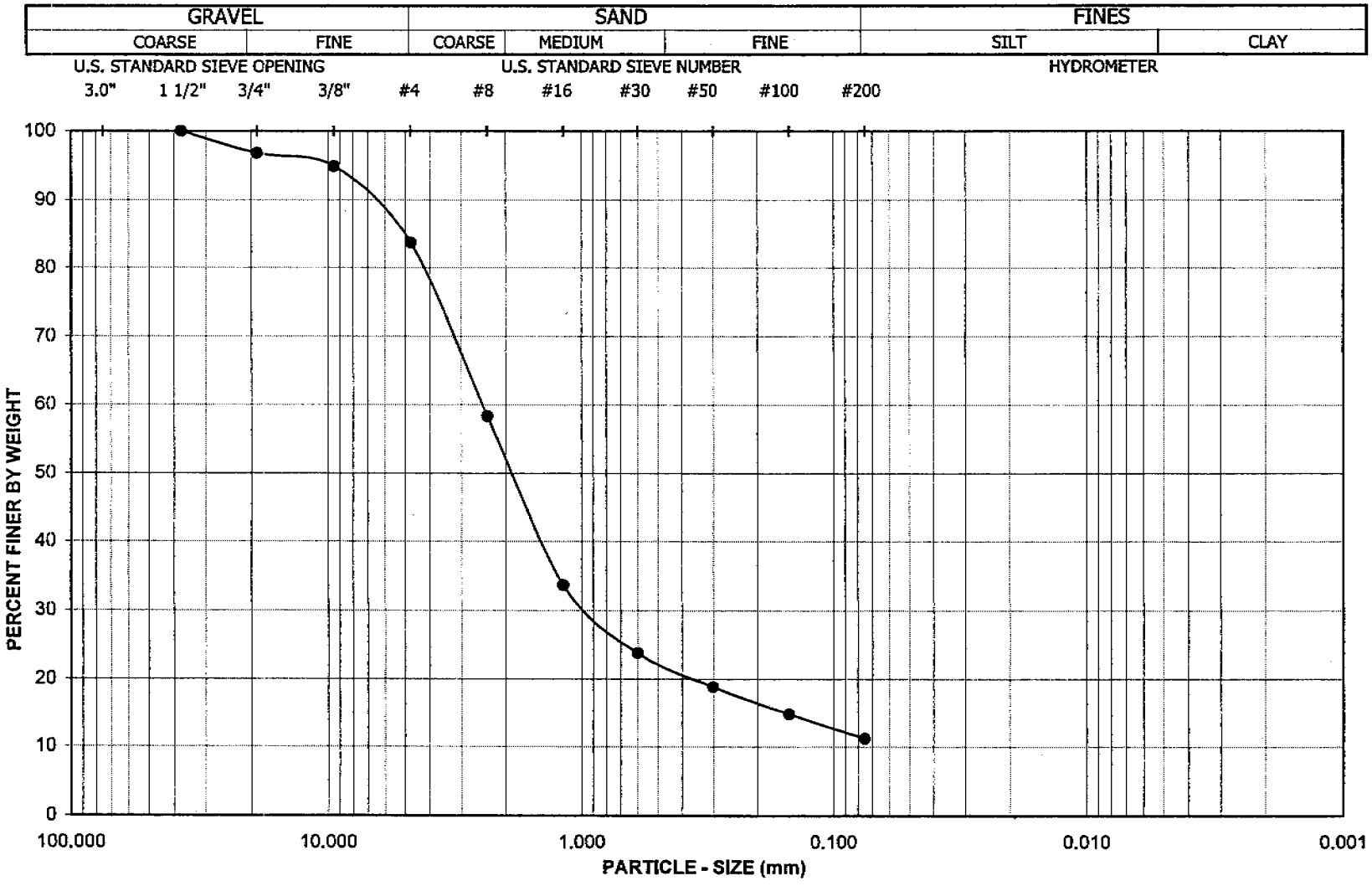
EGLAB, INC.

Project Name: Belcaro
Client: LGC Valley, Inc.
Job No.: 233012-01
EGLAB Project No.: 24-059-004

GRAINSIZE DISTRIBUTION CURVE

3/26/24 (ASTM D422) FIGURE

Laboratory Test Results by Leighton (2006)



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-1 Sample No.: SPT-4

Depth (feet): 20.0 Soil Type : (SP-SM)g

Soil Identification: Light brown poorly graded sand with silt and gravel (SP-SM)g

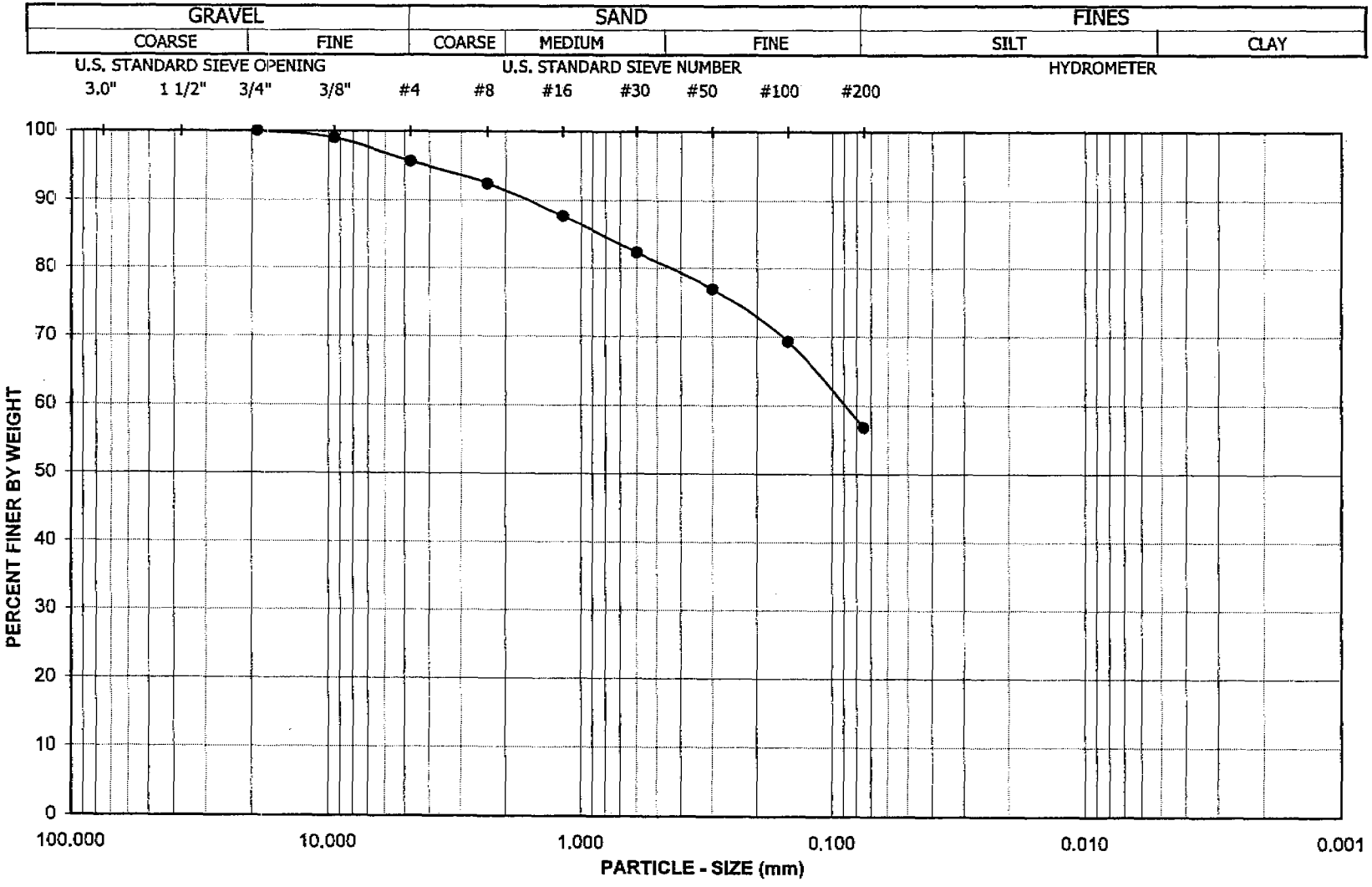
GR:SA:FI : (%) 16 : 73 : 11

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 422

Jun-06

SA LRW-1 SPT-4



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-1 Sample No.: SPT-5

Depth (feet): 25.0 Soil Type : s(ML)

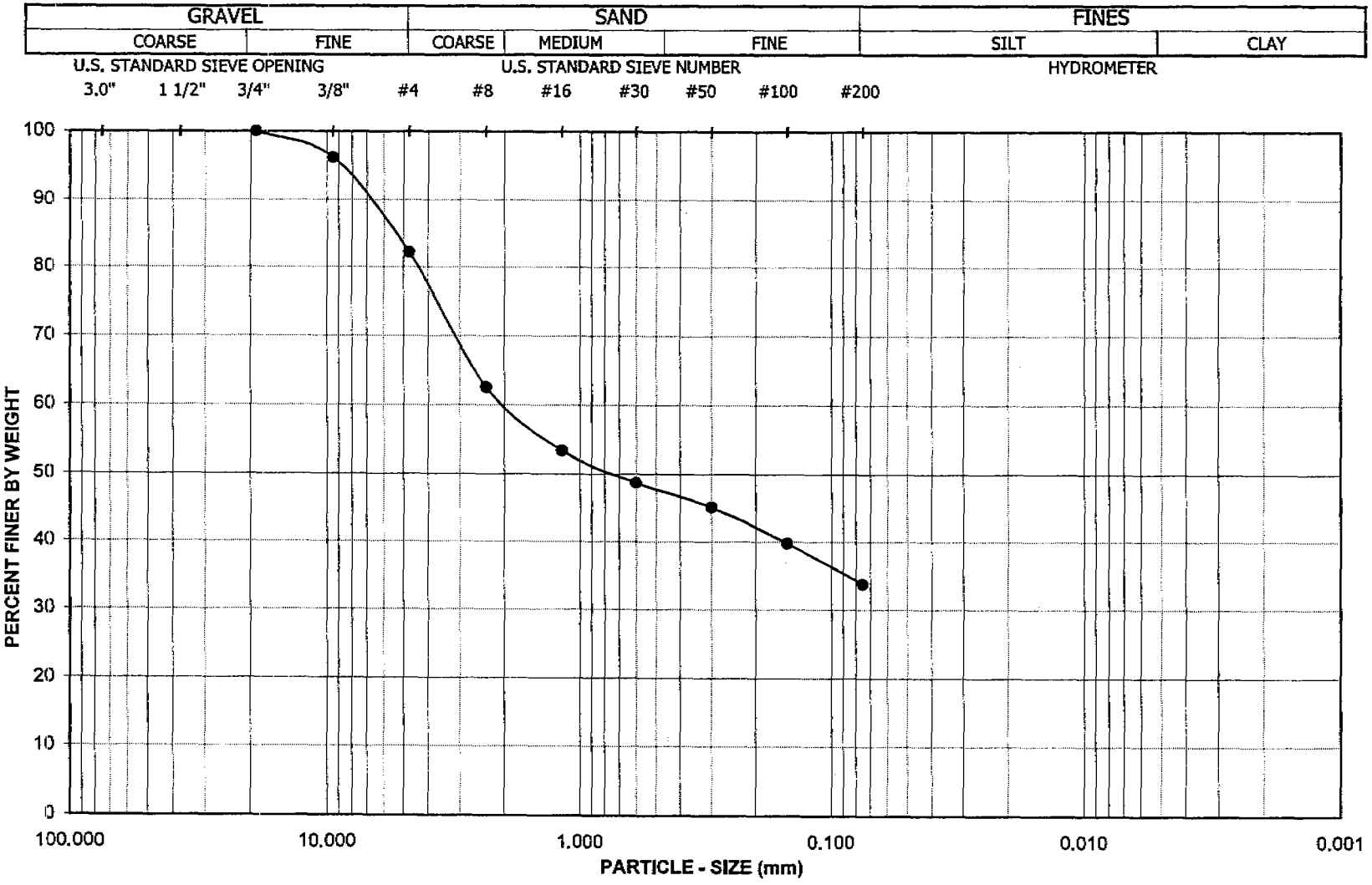
Soil Identification: Light brown sandy silt s(ML)

GR:SA:FI : (%) 4 : 39 : 57

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 422

Jun-06



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-1 Sample No.: SPT-6

Depth (feet): 30,0 Soil Type : (SM)g

Soil Identification: Light brown silty sand with gravel (SM)g

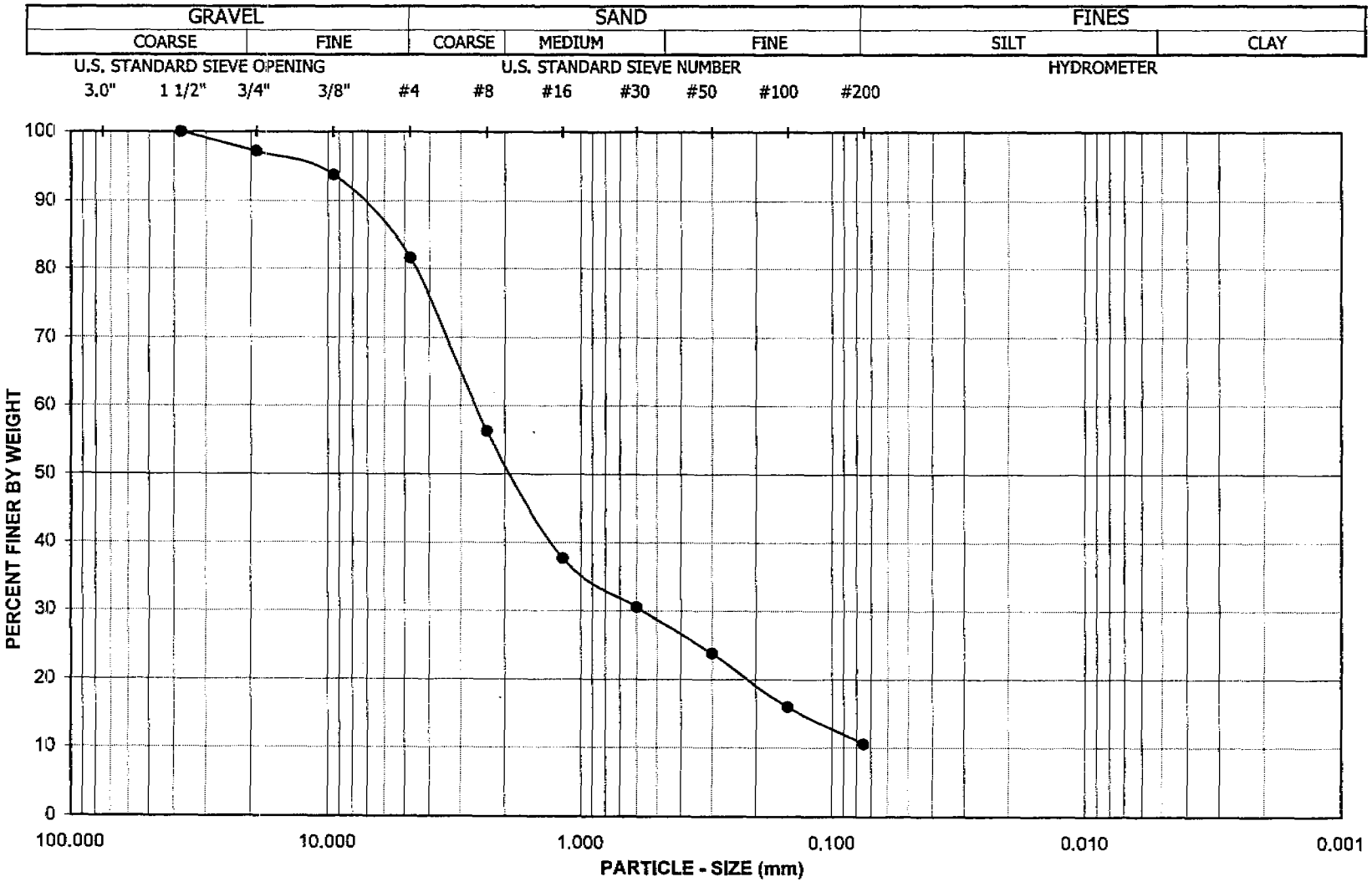
GR:SA:FI : (%) 18 : 48 : 34

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 422

Jun-06

SA LRW-1 SPT-6



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-1 Sample No.: SPT-7

Depth (feet): 36.0 Soil Type : (SW-SM)g

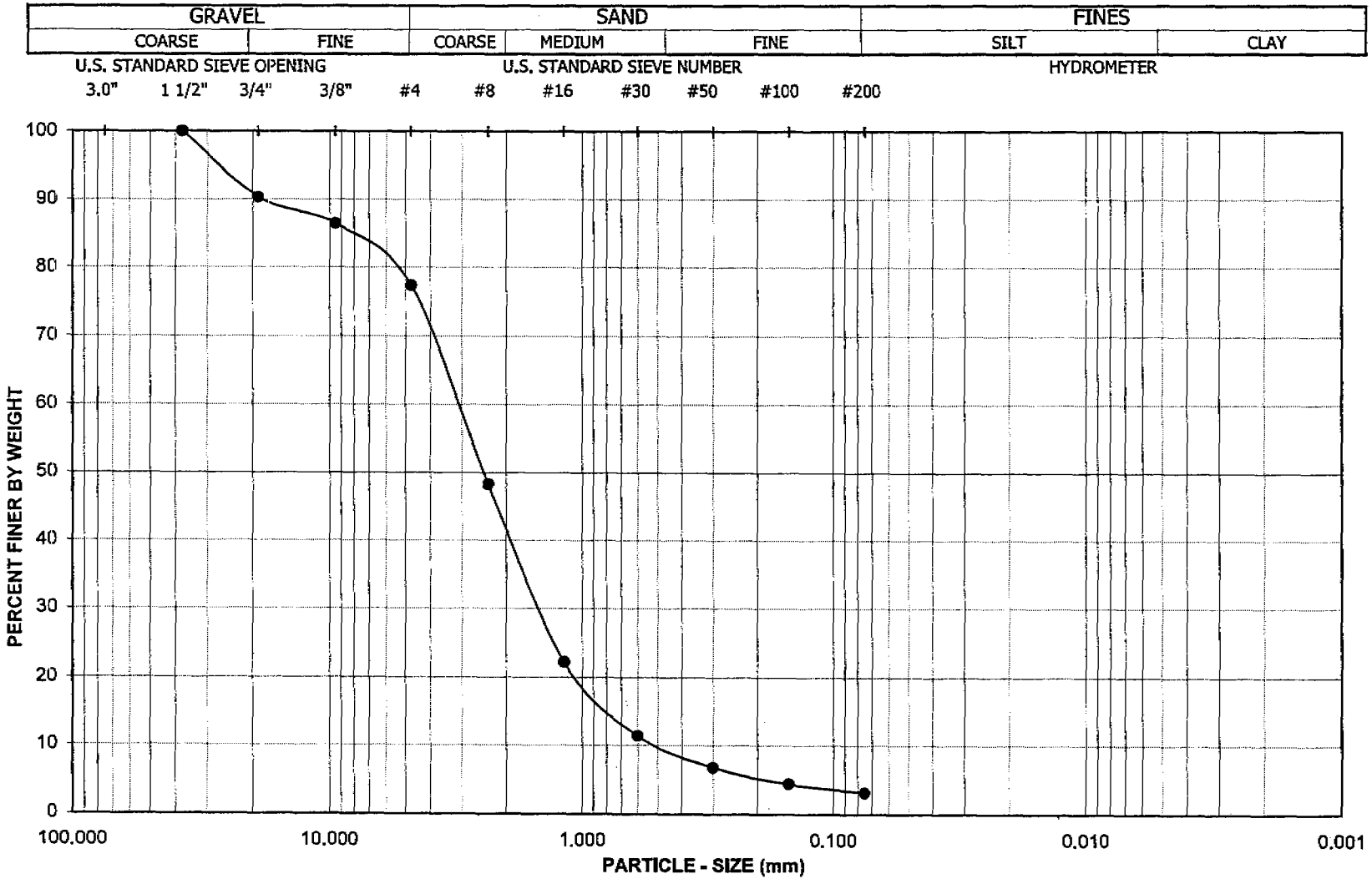
Soil Identification: Olive gray well-graded sand with silt and gravel (SW-SM)g

GR:SA:FI : (%) 18 : 71 : 11

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 422

Jun-06



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-1 Sample No.: R-2

Depth (feet): 10.0 Soil Type : (SP)g

Soil Identification: Dark grayish brown poorly graded sand with gravel (SP)g

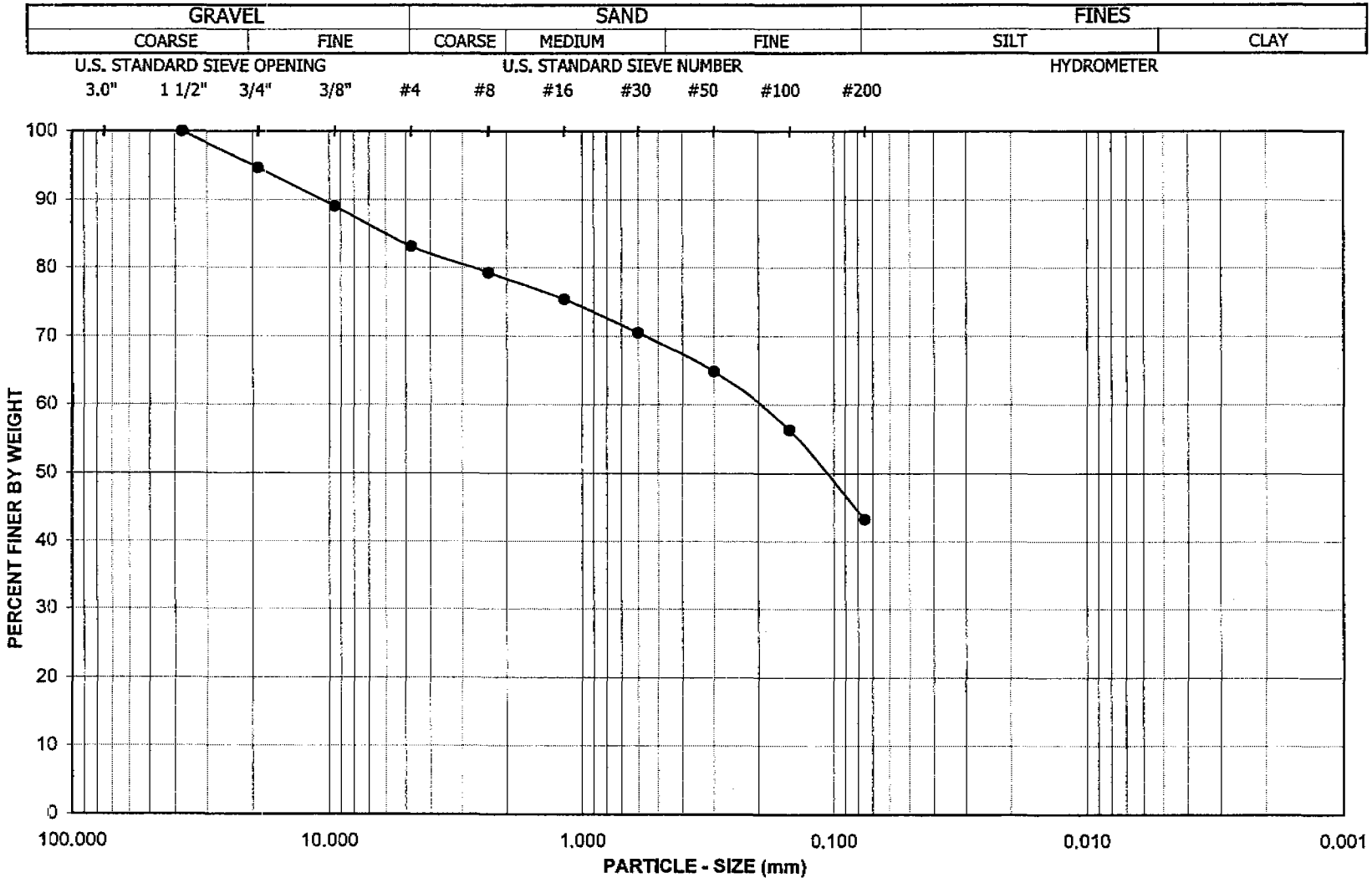
GR:SA:FI : (%) 23 : 74 : 3

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 422

Jun-06

SA LRW-1 R-2



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-1 Sample No.: R-3

Depth (feet): 15.0 Soil Type : (SM)g

Soil Identification: Brown silty sand with gravel (SM)g

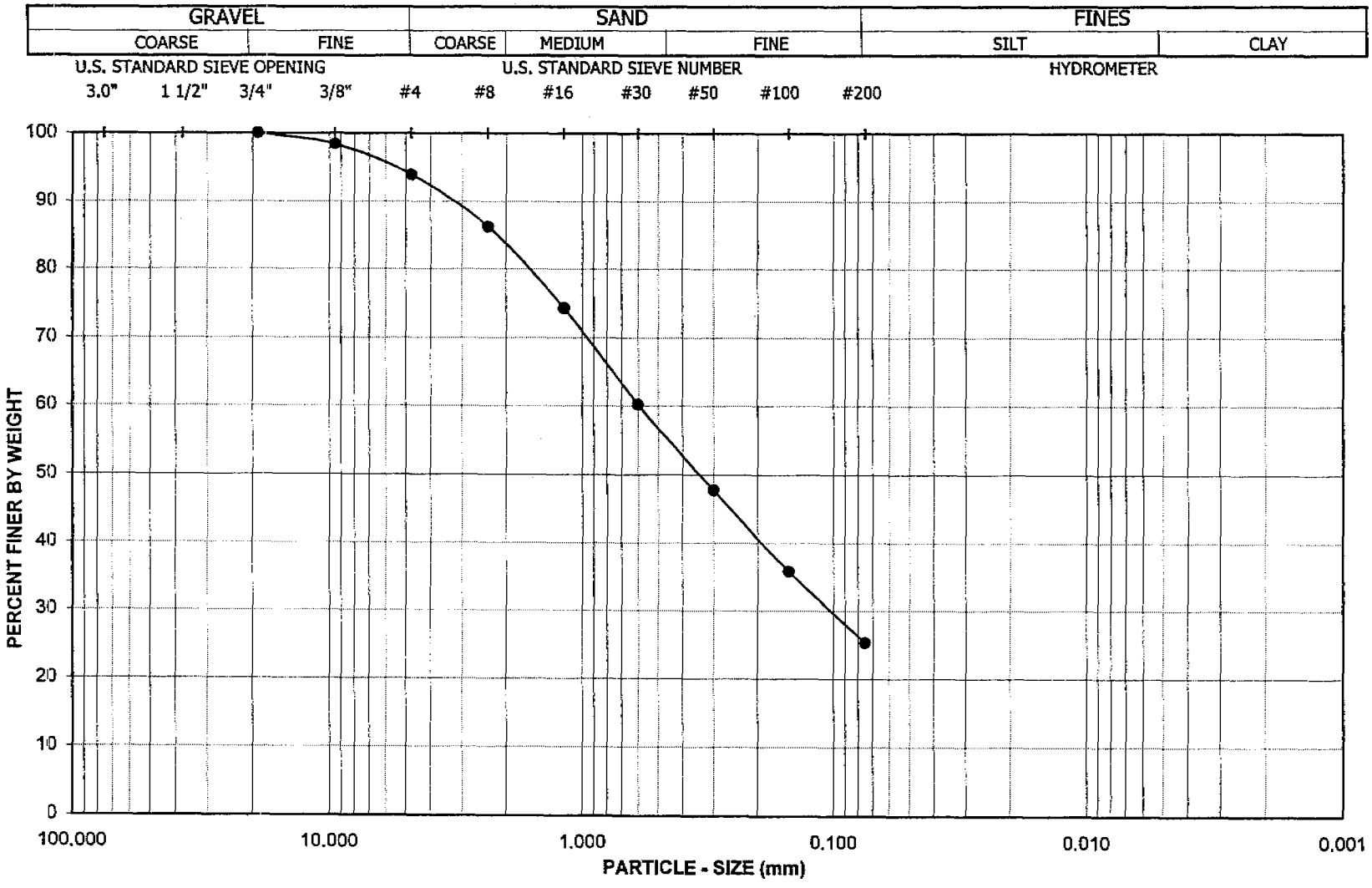
GR:SA:FI : (%) 17 : 40 : 43

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 422

Jun-06

SA LRW-1 R-3



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-1 Sample No.: SPT-2A

Depth (feet): 7.5 Soil Type : SM

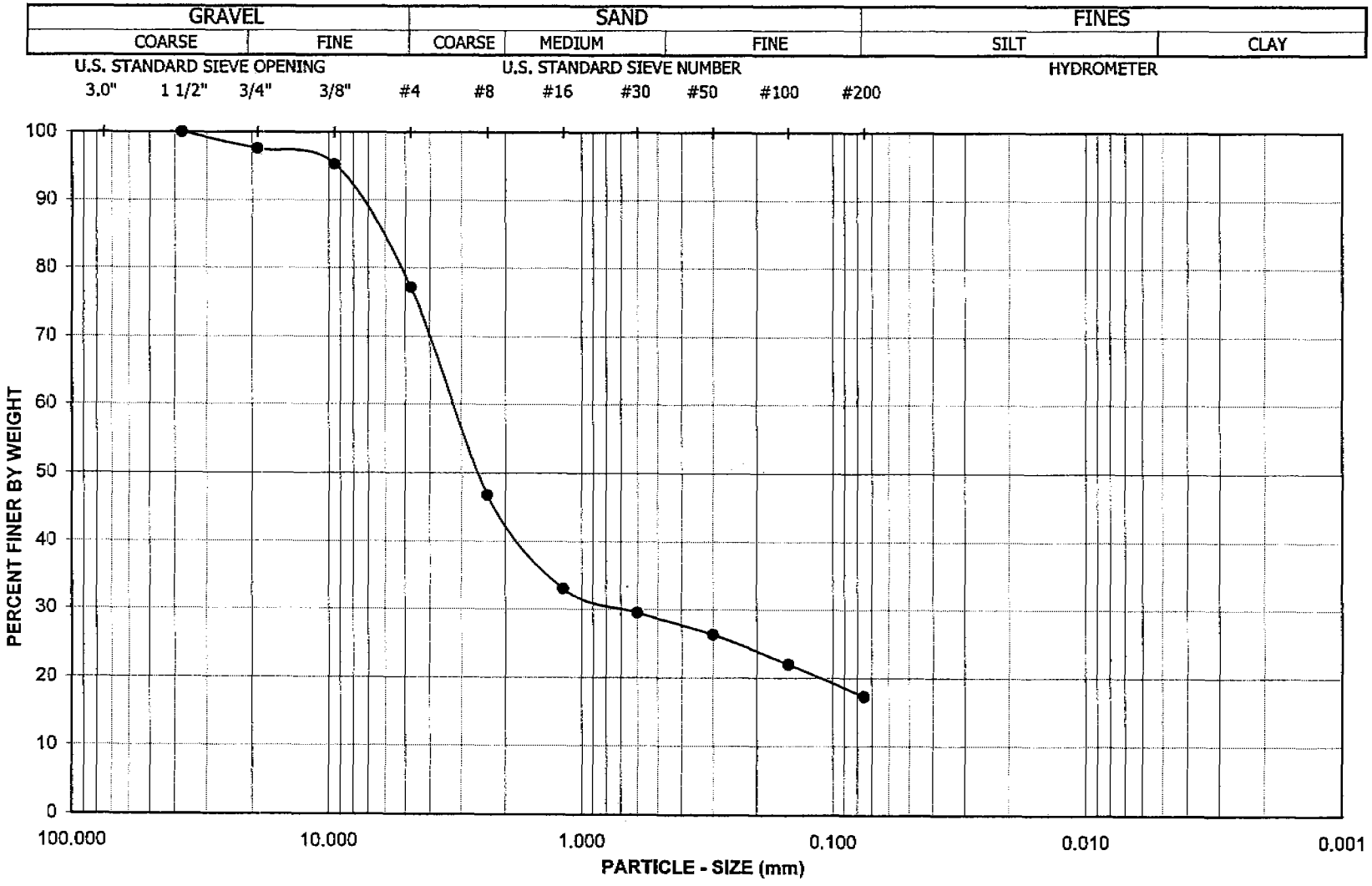
Soil Identification: Light brown silty sand (SM)

GR:SA:FI : (%) 6 : 69 : 25

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 422

Jun-06



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-1 Sample No.: SPT-8

Depth (feet): 40.0 Soil Type : (SM)g

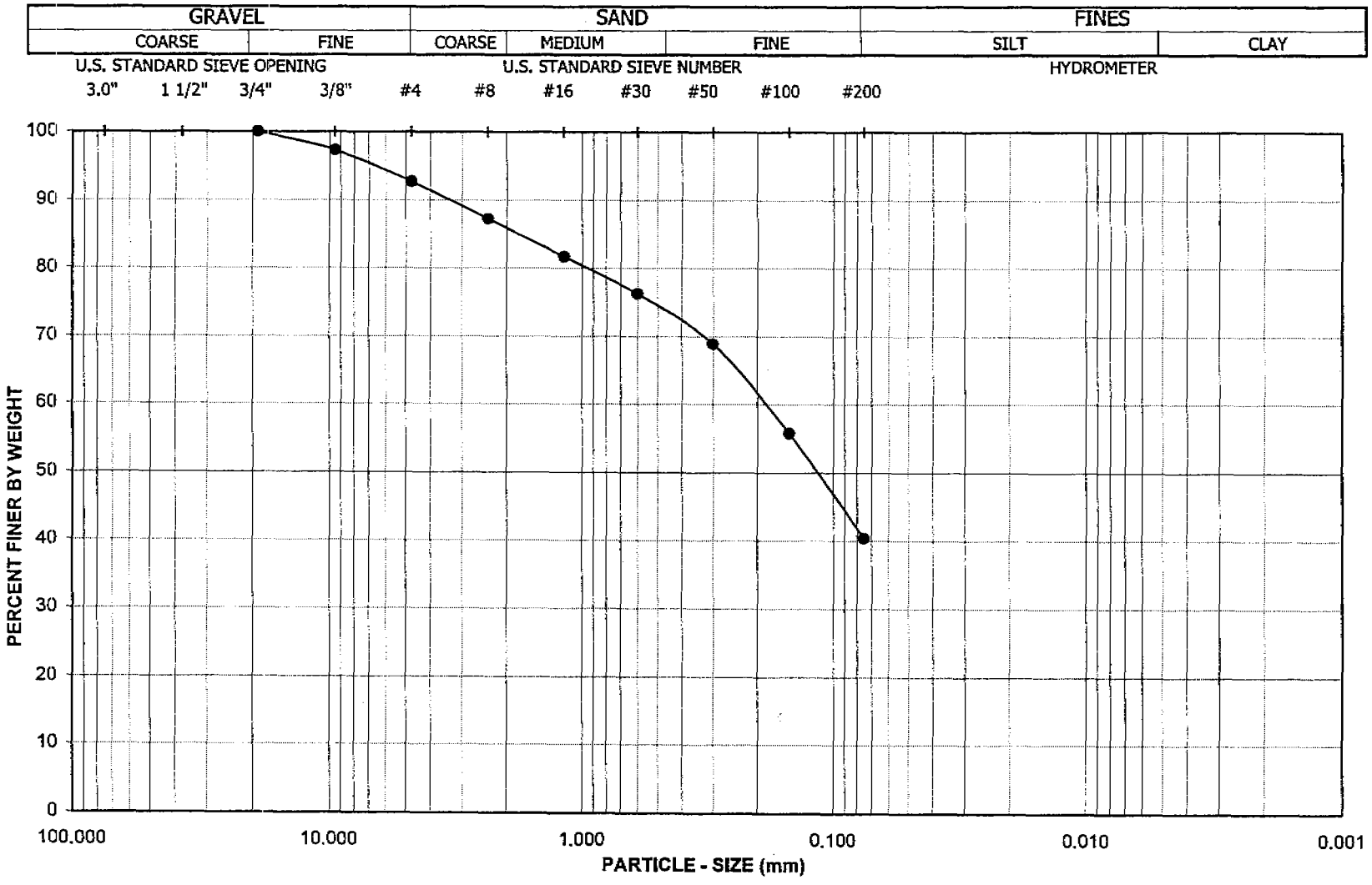
Soil Identification: Olive gray silty sand with gravel (SM)g

GR:SA:FI : (%) 23 : 60 : 17

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 422

Jun-06



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-1 Sample No.: SPT-9A

Depth (feet): 45.0 Soil Type : SM

Soil Identification: Olive gray silty sand (SM)

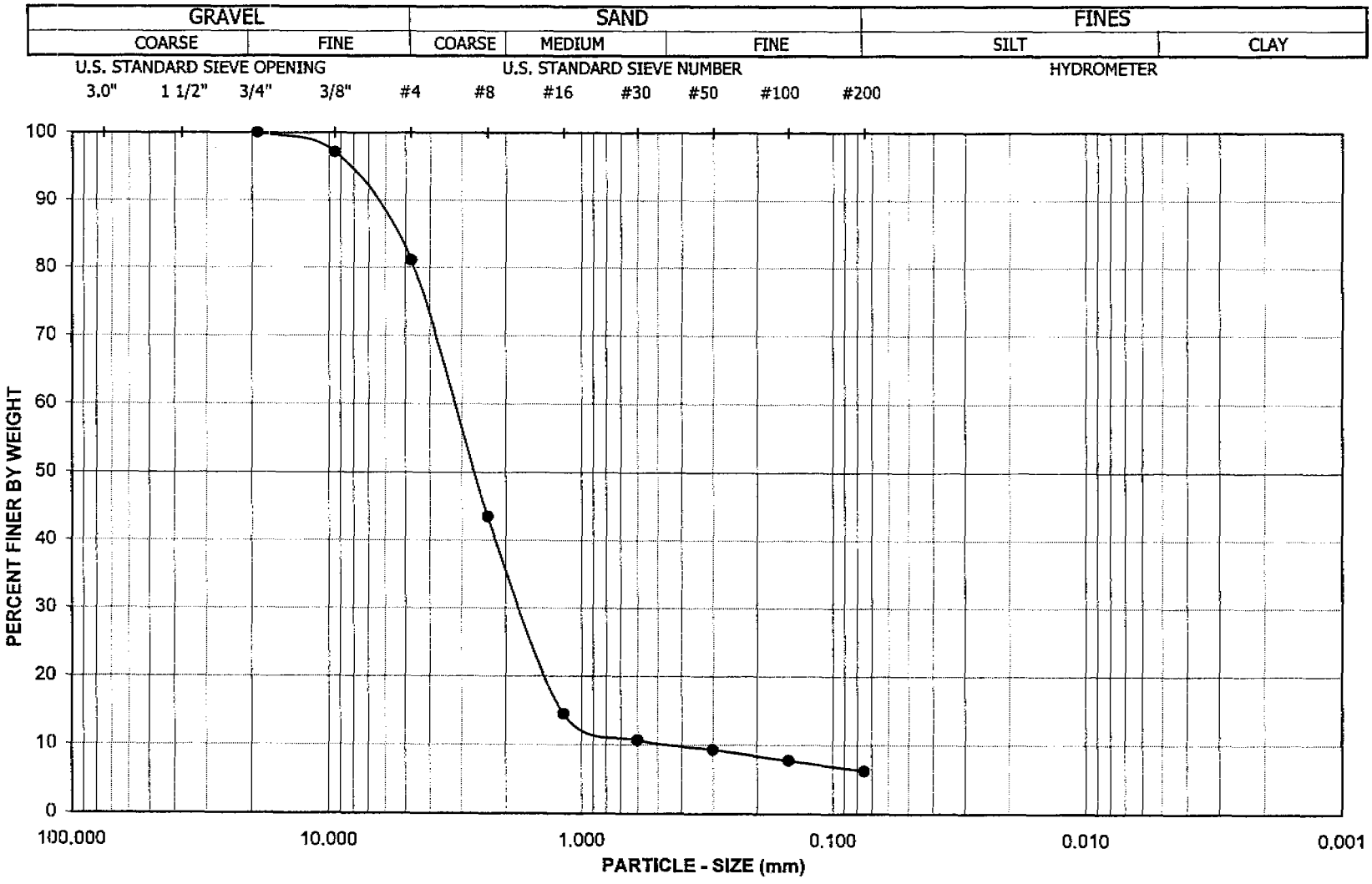
GR:SA:FI : (%) 7 : 53 : 40

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 422

Jun-06

SA LRW-1 SPT-9A



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-1 Sample No.: SPT-9B

Depth (feet): 46.0 Soil Type : (SW-SM)g

Soil Identification: Olive gray well-graded sand with silt and gravel (SW-SM)g

GR:SA:FI : (%) 19 : 75 : 6

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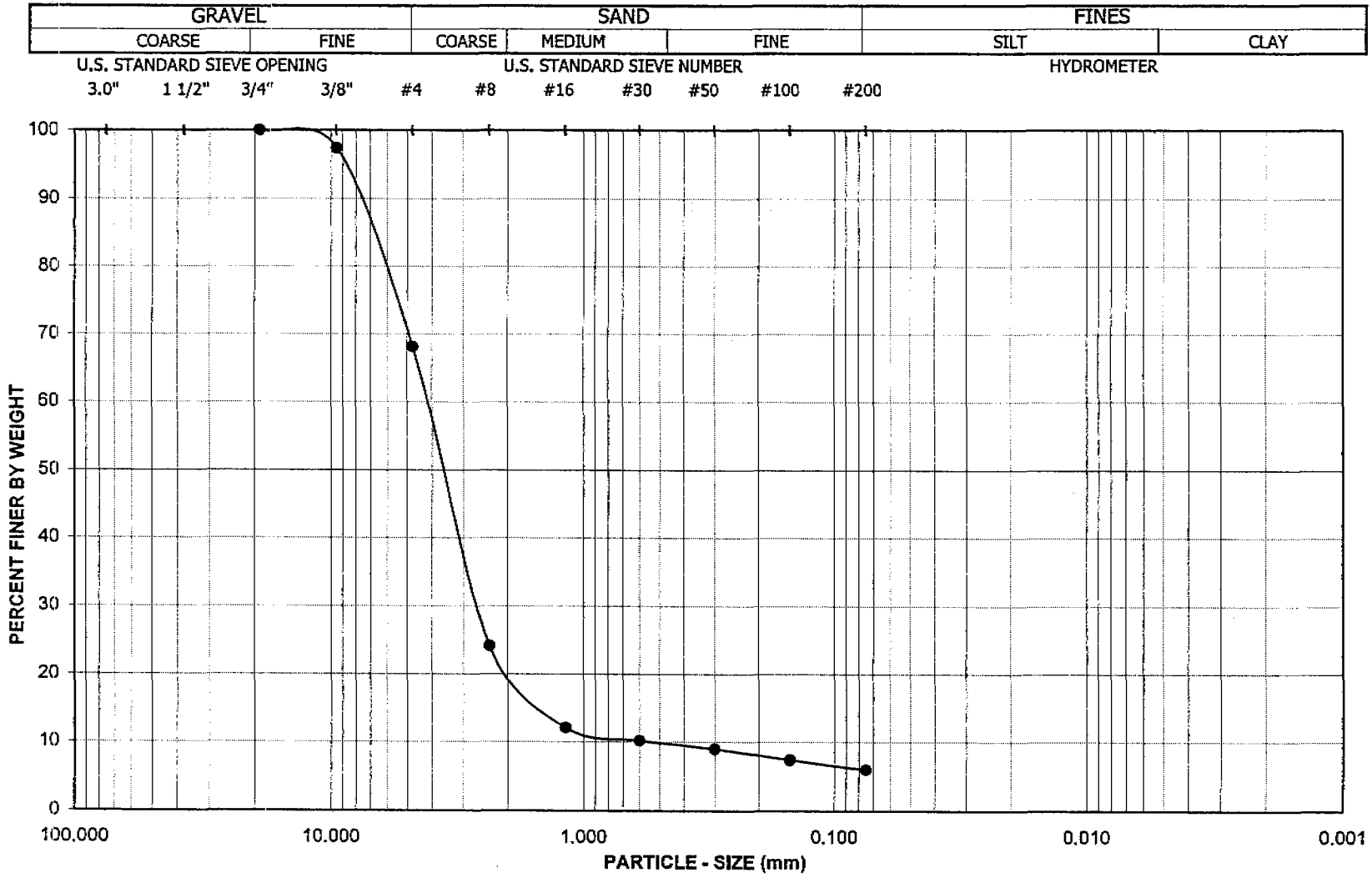
Jun-06



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-1 Sample No.: SPT-10A

Depth (feet): 50.0 Soil Type : (SW-SM)g

Soil Identification: Olive gray well-graded sand with silt and gravel (SW-SM)g

GR:SA:FI : (%) 32 : 62 : 6

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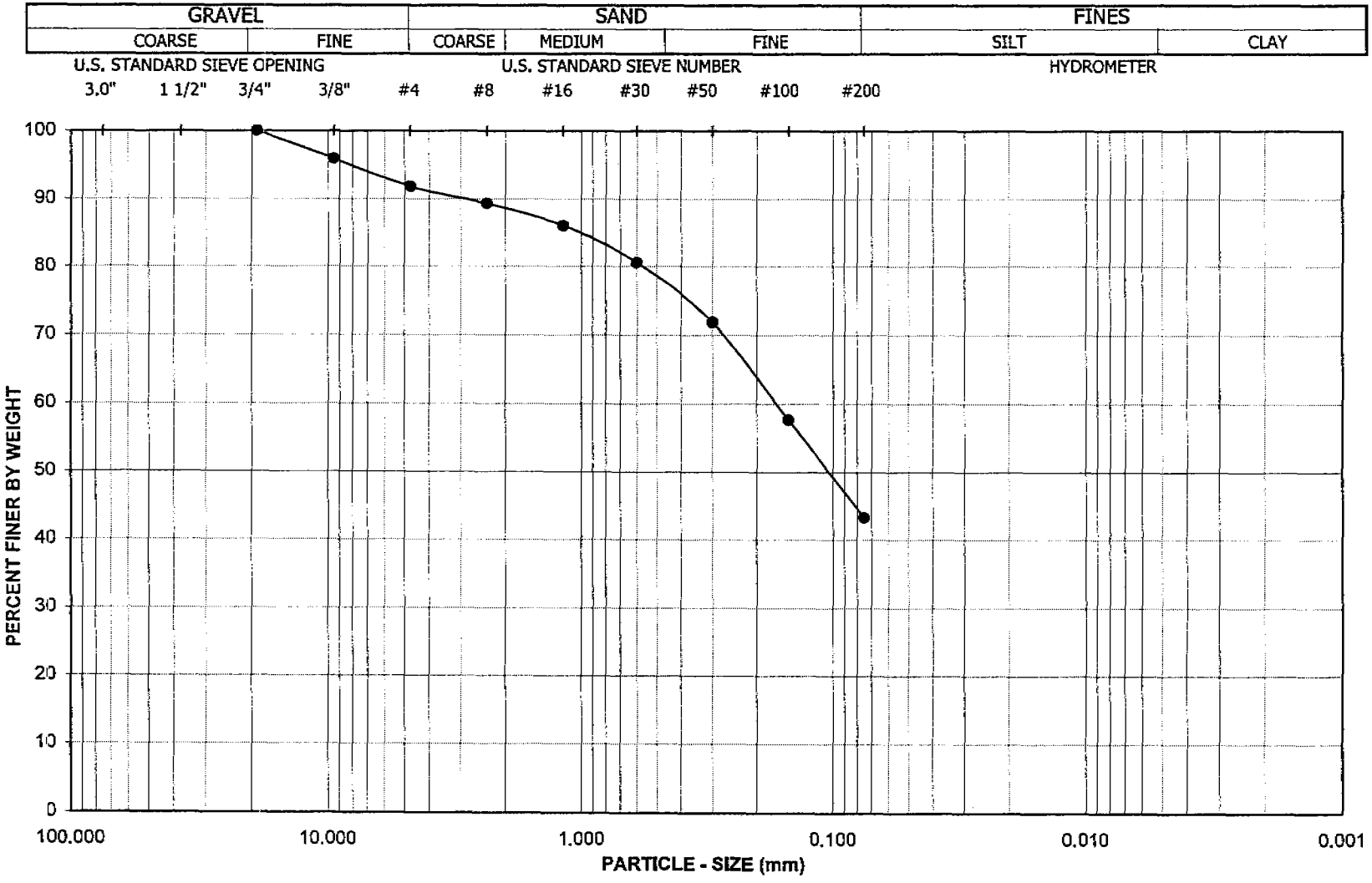
Jun-06

SA LRW-1 SPT-10A



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-1 Sample No.: SPT-10B

Depth (feet): 51.0 Soil Type : SM

Soil Identification: Olive gray silty sand (SM)

GR:SA:FI : (%) 8 : 49 : 43

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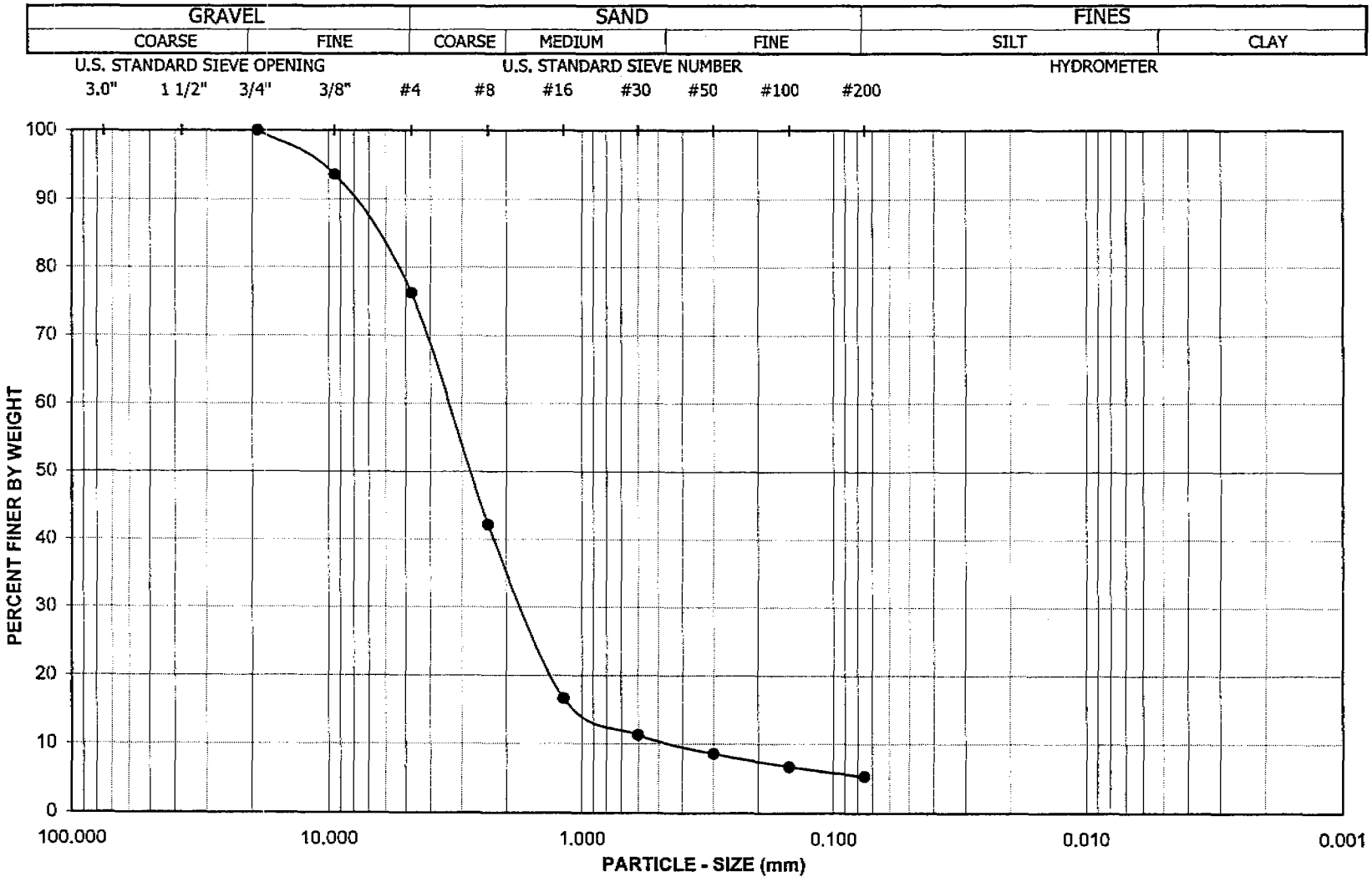

Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-1 Sample No.: SPT-11

Depth (feet): 55.0 Soil Type : (SW-SM)g

Soil Identification: Olive gray well-graded sand with silt and gravel (SW-SM)g

GR:SA:FI : (%) 24 : 71 : 5

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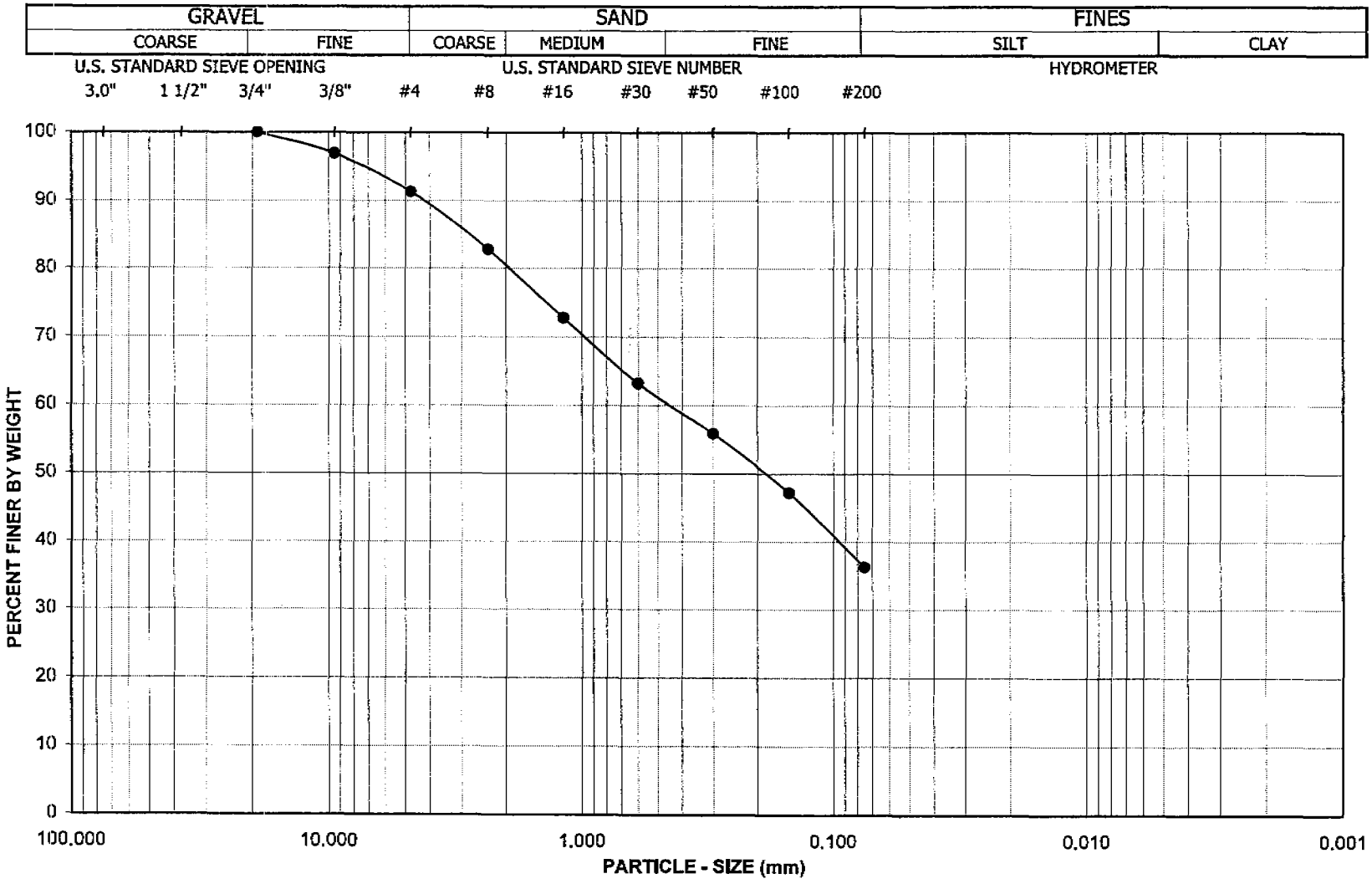
Jun-06



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-2 Sample No.: R-3

Depth (feet): 12.5 Soil Type : SM

Soil Identification: Brown silty sand (SM)

GR:SA:FI : (%) 9 : 55 : 36

Leighton

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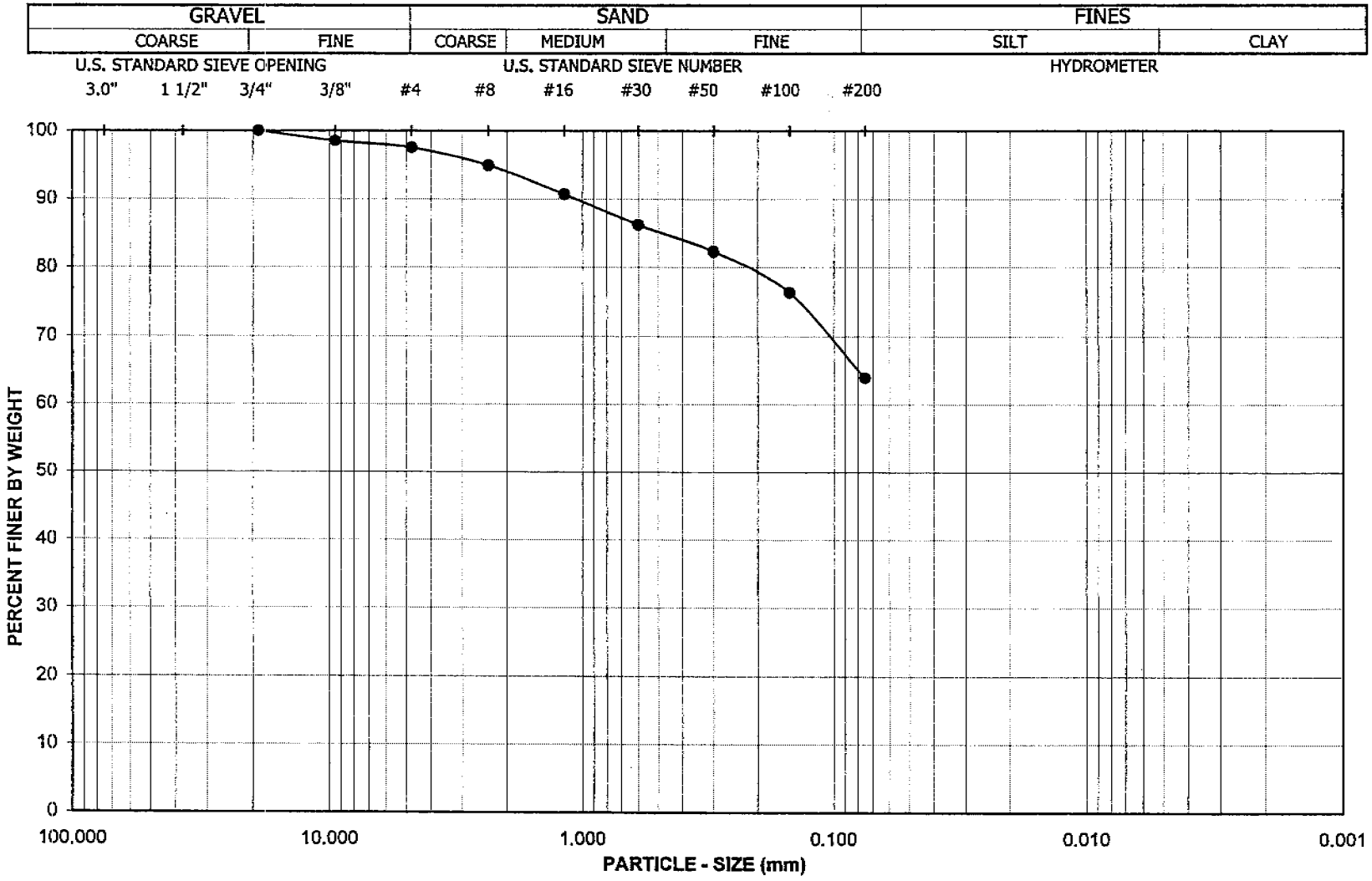
Jun-06

SA LRW-2 R-3



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-2 Sample No.: SPT-1

Depth (feet): 5.0 Soil Type : s(ML)

Soil Identification: Light brown sandy silt s(ML)

GR:SA:FI : (%) 3 : 33 : 64

Leighton

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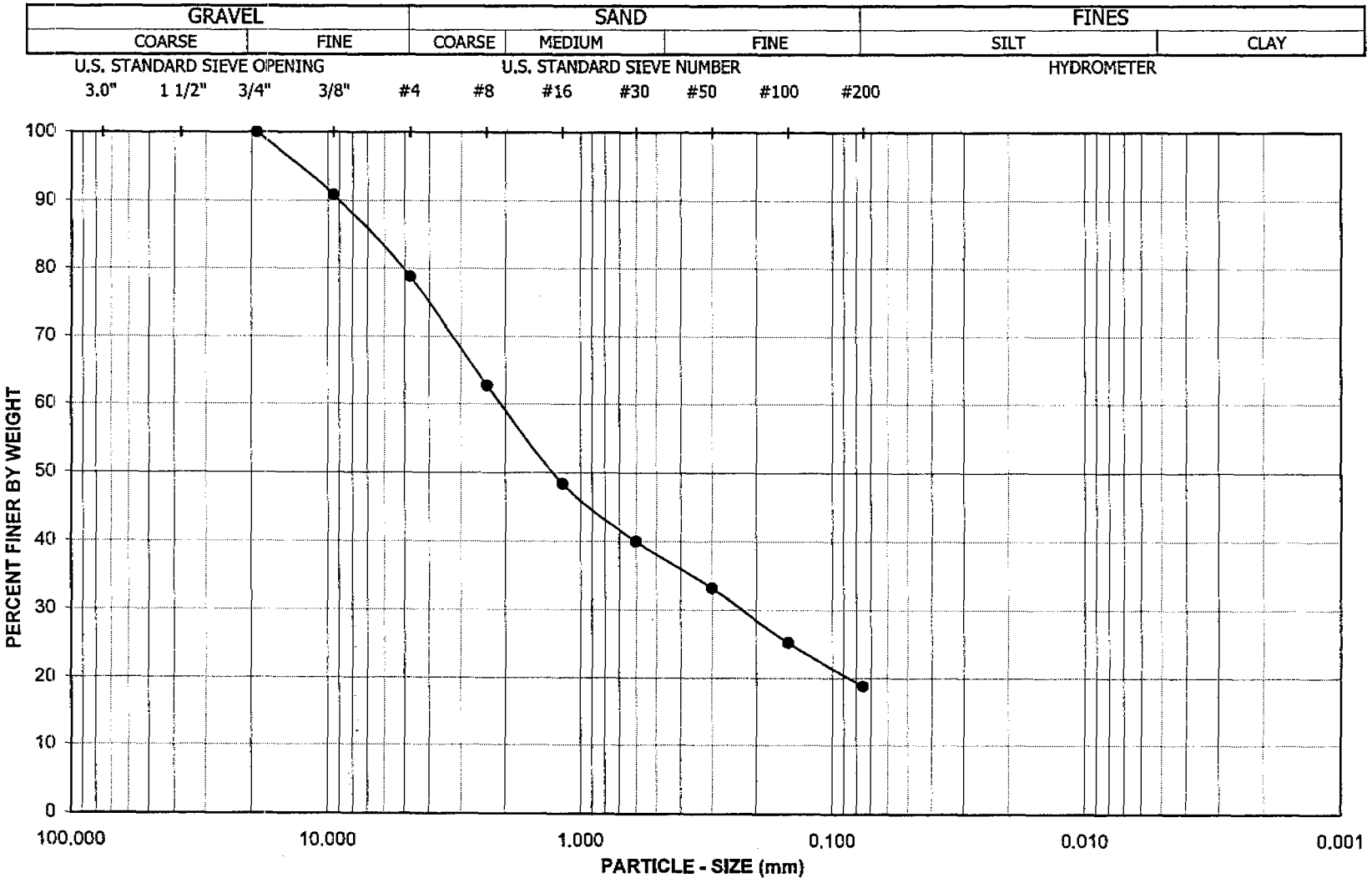
Jun-06



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-2 Sample No.: SPT-4

Depth (feet): 20.0 Soil Type : (SM)g

Soil Identification: Brown silty sand with gravel (SM)g

GR:SA:FI : (%) 21 : 60 : 19

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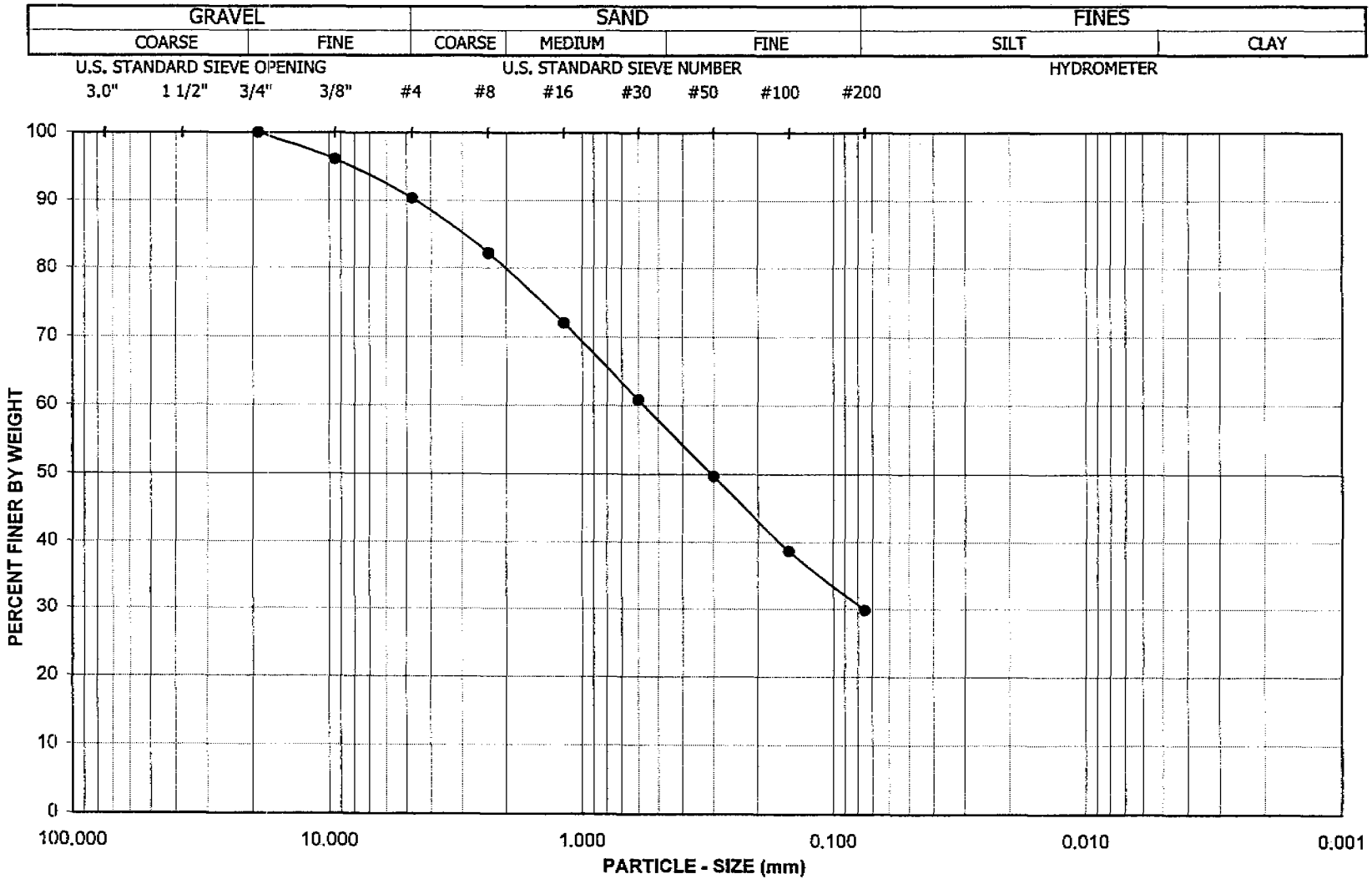
Jun-06



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-2 Sample No.: SPT-2

Depth (feet): 10.0 Soil Type : SM

Soil Identification: Olive gray silty sand (SM)

GR:SA:FI : (%) 10 : 60 : 30

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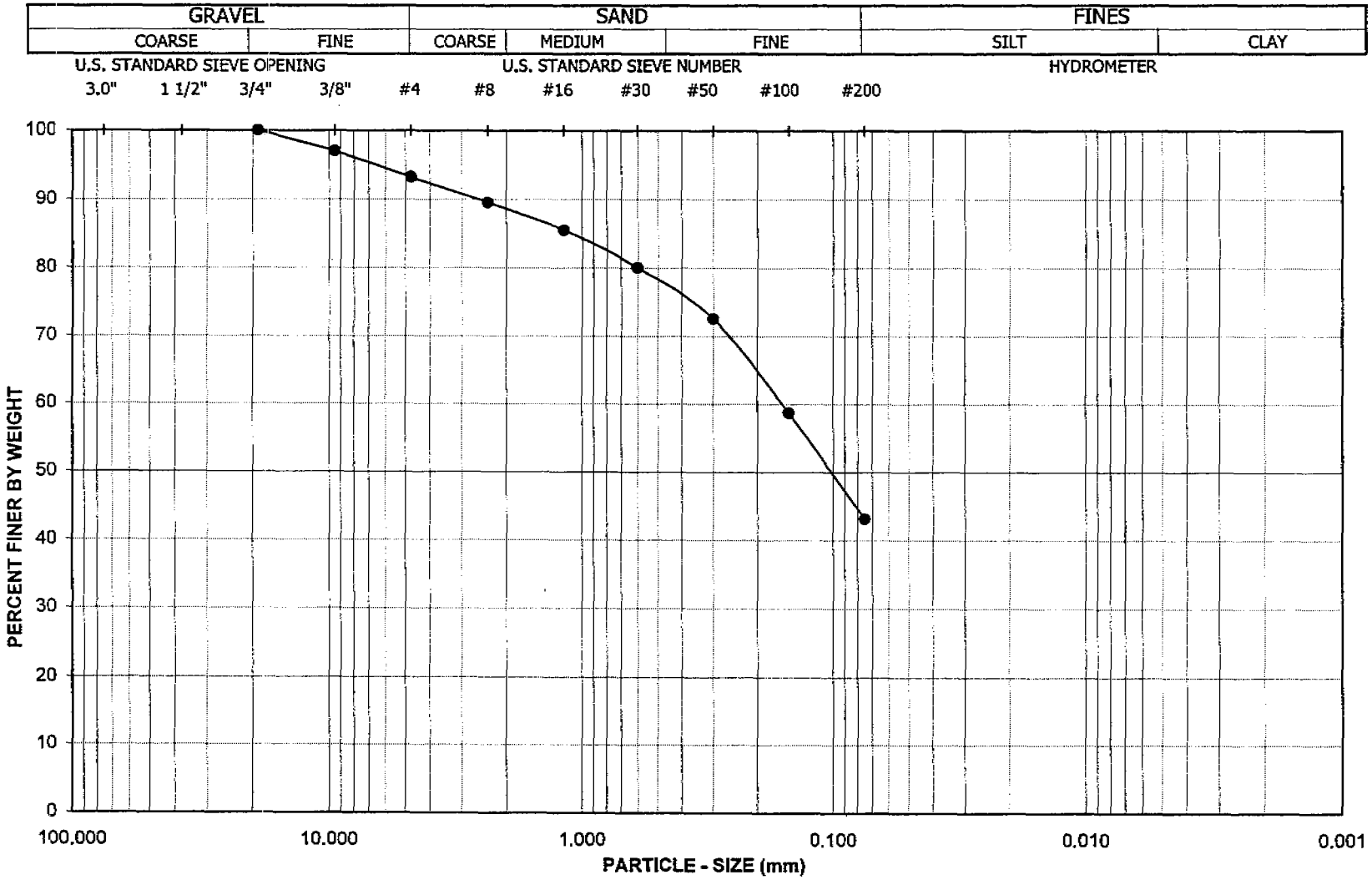
Jun-06

SA LRW-2 SPT-2



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-2 Sample No.: SPT-5

Depth (feet): 25.0 Soil Type : SM

Soil Identification: Light brown silty sand (SM)

GR:SA:FI : (%) 7 : 50 : 43

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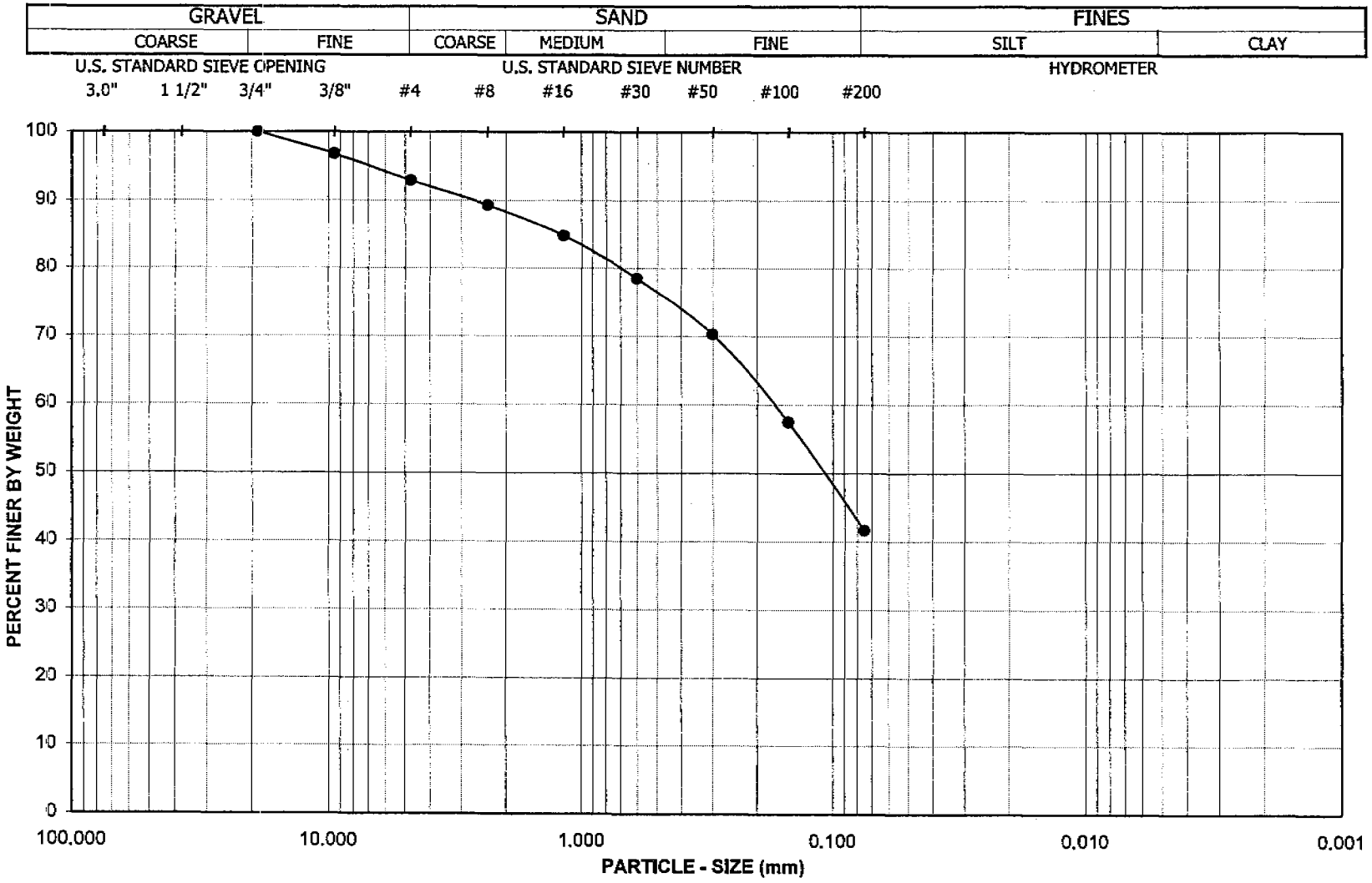
PARTICLE - SIZE DISTRIBUTION ASTM D 422

Jun-06



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-2 Sample No.: SPT-6

Depth (feet): 30.0 Soil Type : SM

Soil Identification: Olive silty sand (SM)

GR:SA:FI : (%) 7 : 51 : 42

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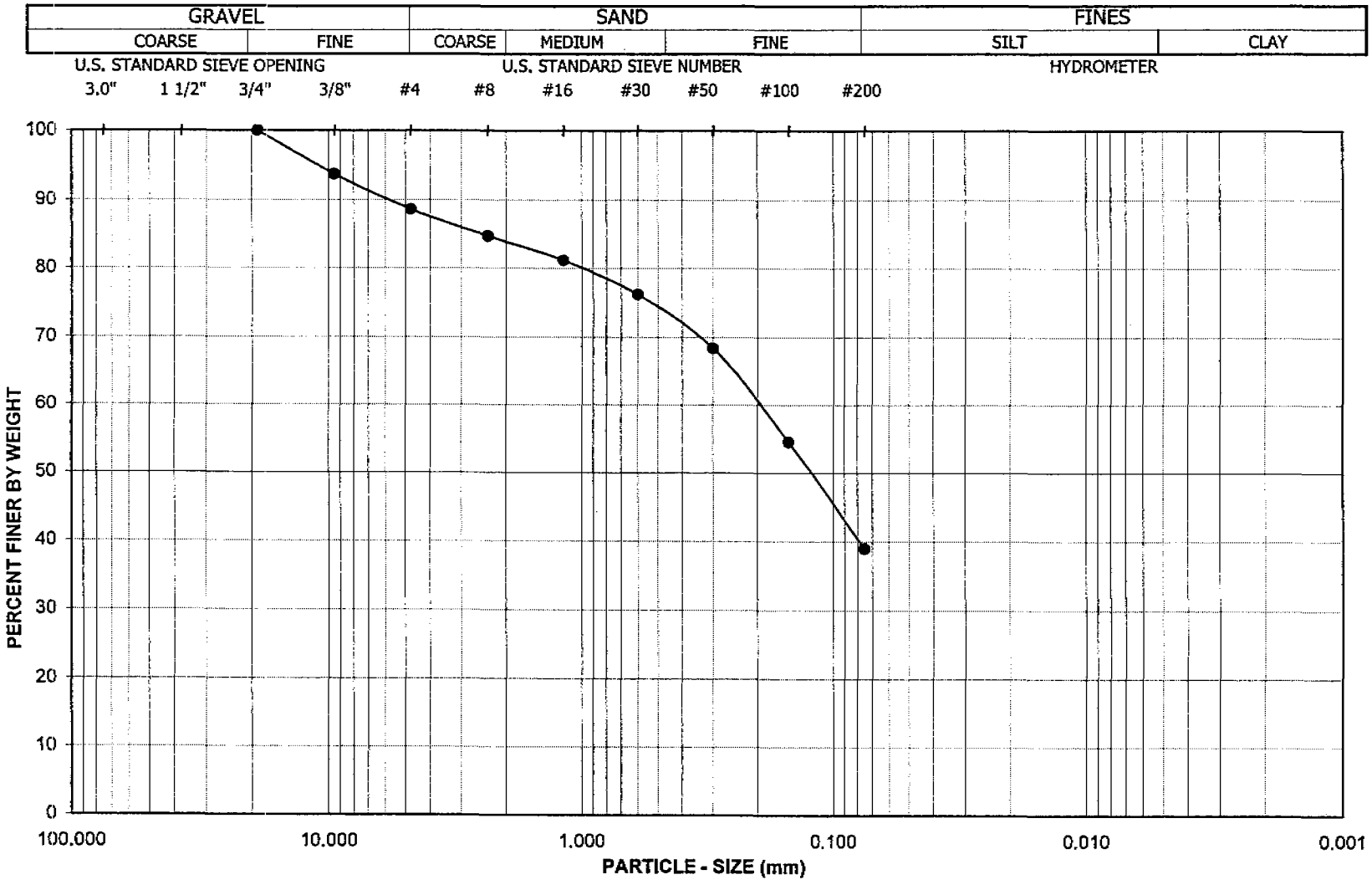
Jun-06



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-2 Sample No.: SPT-7

Depth (feet): 35.0 Soil Type : SM

Soil Identification: Olive gray silty sand (SM)

GR:SA:FI : (%) 11 : 50 : 39

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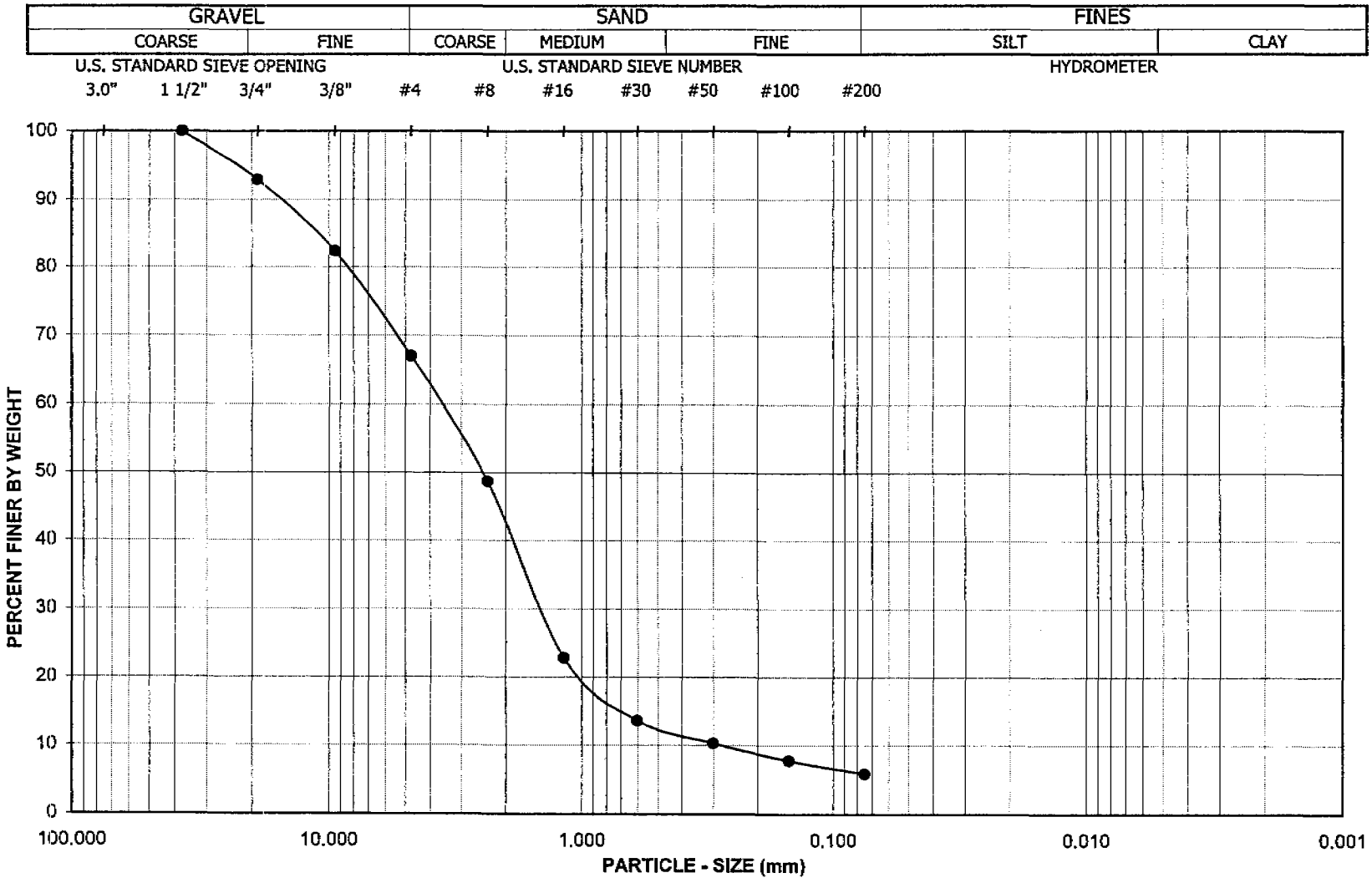
PARTICLE - SIZE DISTRIBUTION ASTM D 422

Jun-06

SA LRW-2 SPT-7



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-2 Sample No.: SPT-8

Depth (feet): 40.0 Soil Type : (SW-SM)g

Soil Identification: Olive gray well-graded sand with silt and gravel (SW-SM)g

GR:SA:FI : (%) 33 : 61 : 6

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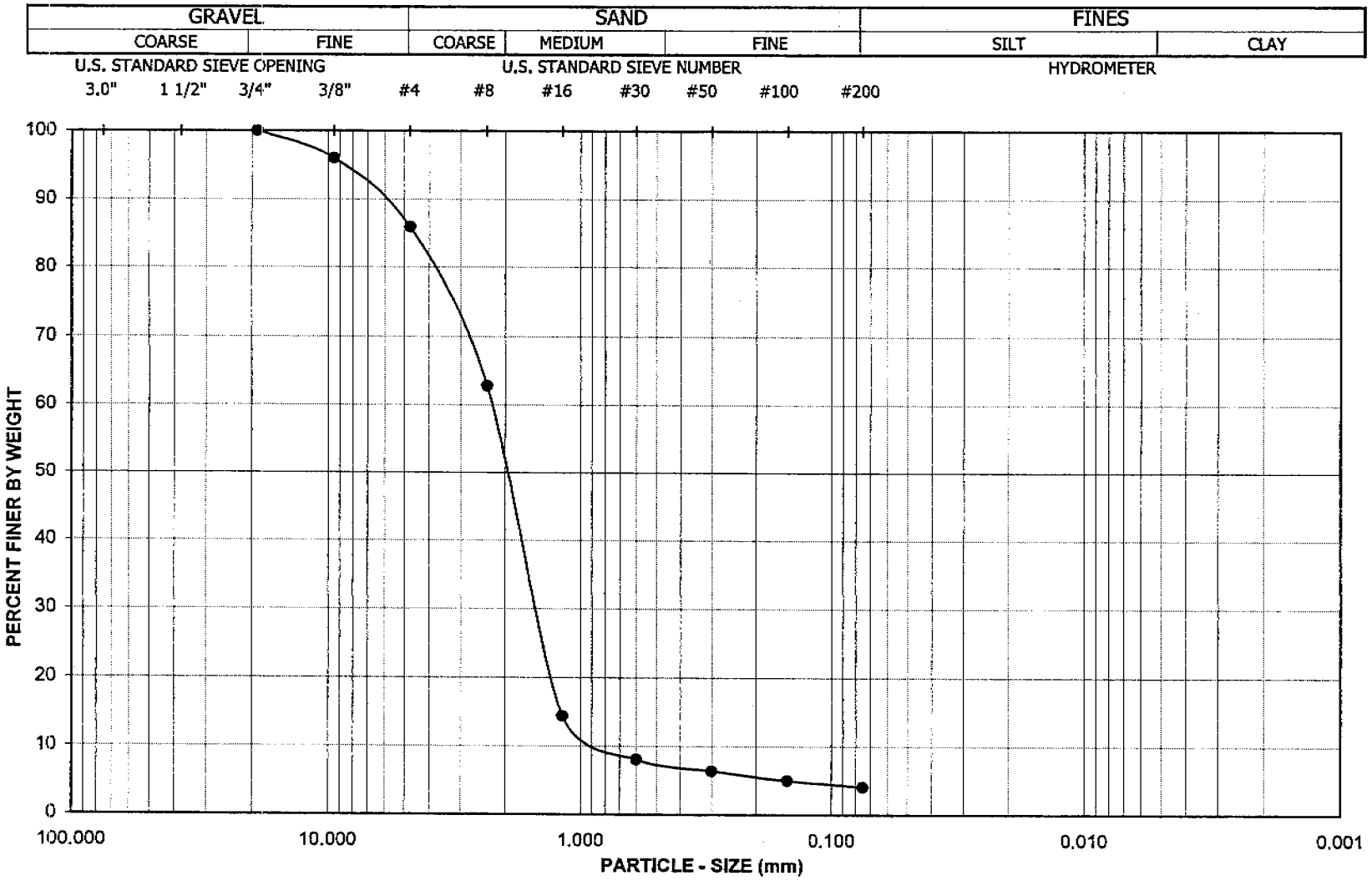

Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-2 Sample No.: SPT-9

Depth (feet): 45.0 Soil Type : SP

Soil Identification: Olive gray poorly graded sand (SP)

GR:SA:FI : (%) 14 : 82 : 4

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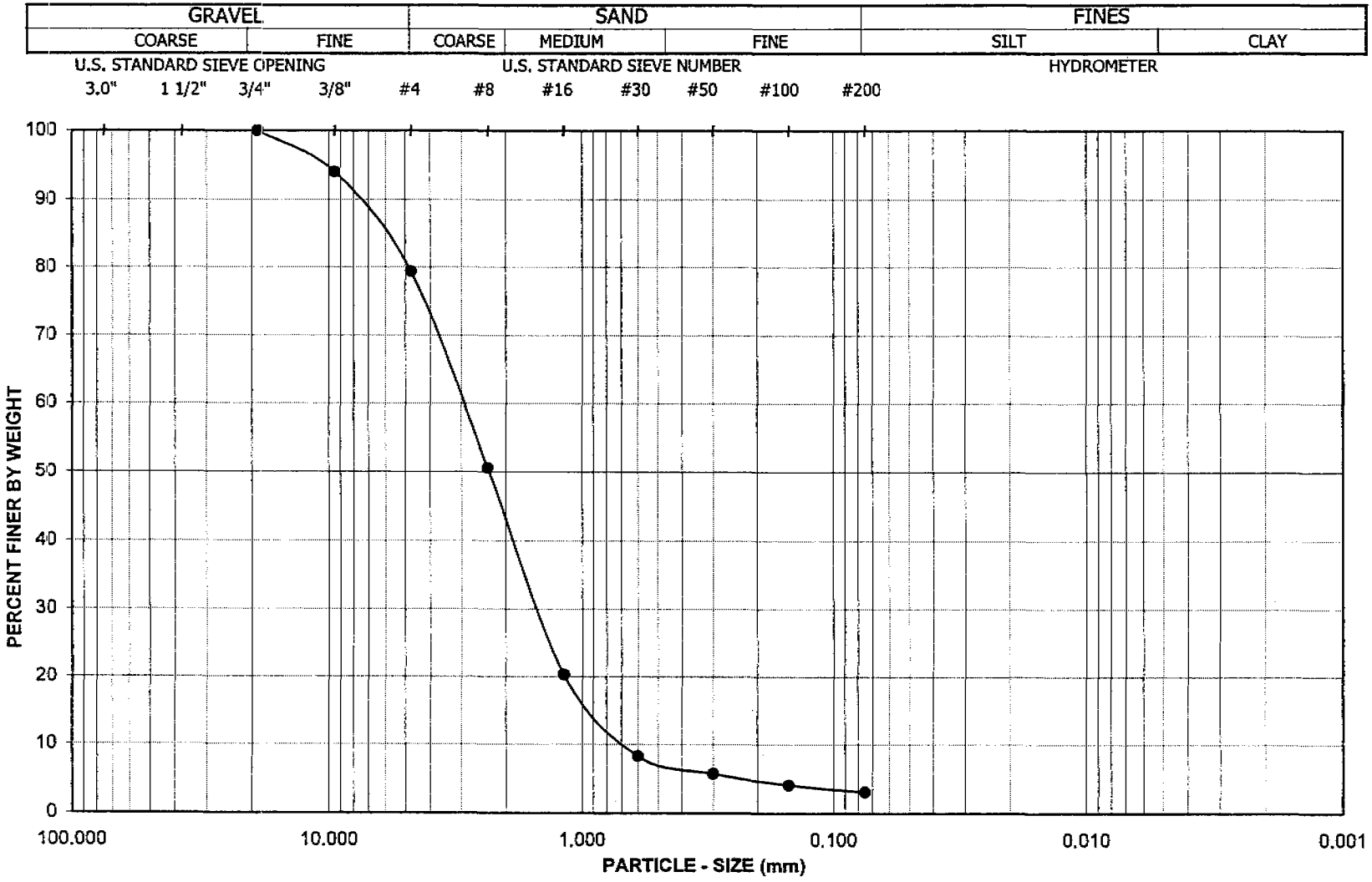
Jun-06



Project Name: Robinson Ranch

Project No.: 061989-001

Exploration No.: LRW-2 Sample No.: SPT-10

Depth (feet): 50.0 Soil Type : (SP)g

Soil Identification: Olive gray poorly graded sand with gravel (SP)g

GR:SA:FI : (%) 21 : 76 : 3

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PARTICLE - SIZE DISTRIBUTION ASTM D 422

Jun-06

APPENDIX D

LIQUEFACTION ANALYSIS

Liquefaction Analysis for the project site were performed based on the soil profiles, SPT and Ring blow counts, and laboratory data obtained from our investigation, utilizing the LiquefyPro (Version 5.2e) computer program developed by CivilTech Software.

The following parameters were considered in the analyses:

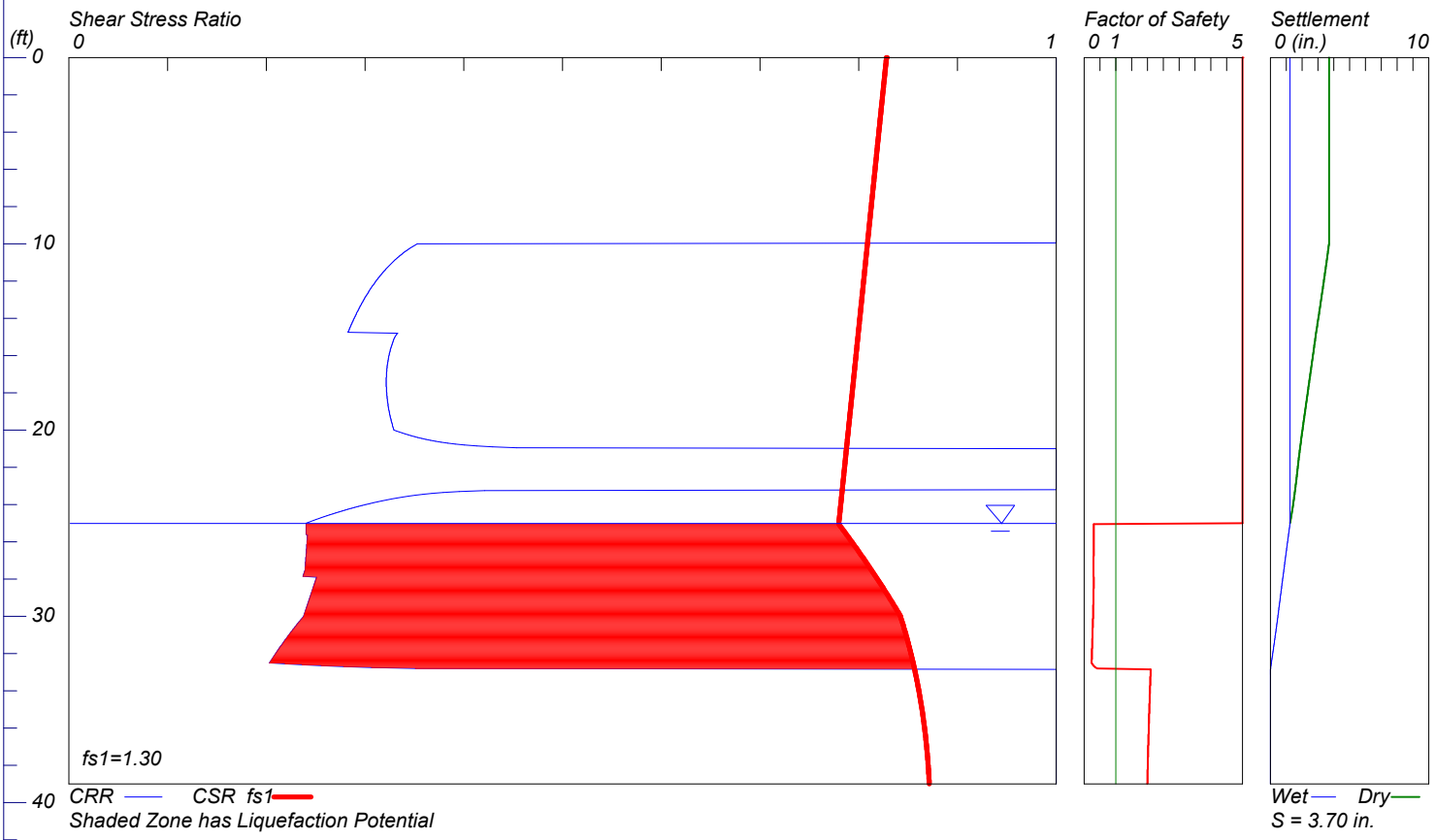
- Remedial removals of 10 to 20 feet were considered in the LiquefyPro analysis.
- A conservative historic groundwater at a depth of 25 feet below the ground surface was used during the seismic event.
- A Peak Horizontal Ground Acceleration (PGA_M) of 0.98g for a Design Earthquake Magnitude of 7.71.
- Fines content as determined from laboratory testing during this investigation.
- The hammer used for determining blow-counts for both the ring and SPT sampling was an auto-trip hammer with a 140 lb weight and a 30-inch drop. Therefore, based on the type of hammer used, an energy correction factor (CE) of 1.3 is considered acceptable for use in the analysis.

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=B-LGC-1 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



LiquefyPro CivilTech Software USA www.civiltech.com

****
LIQUEFACTION ANALYSIS CALCULATION SHEET

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(425) 453-6488 Fax (425) 453-5848

****
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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\BLGC1.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=B-LGC-1
Depth of Hole= 39.0 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 39.0 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=B-LGC-1
Depth of Hole=39.0 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 39.0 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

Earthquake Magnitude=7.7
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Modify Stark/Olson
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.3
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.0	30.0	120.0	NoLiq
5.0	8.0	120.0	NoLiq
10.0	16.0	120.0	31.0
15.0	17.0	120.0	31.0
20.0	13.0	120.0	62.0
22.5	18.0	120.0	62.0
25.0	20.0	120.0	18.0
27.5	21.0	120.0	18.0
30.0	22.0	120.0	14.0
32.5	20.0	120.0	14.0
35.0	100.0	120.0	5.0
37.5	100.0	120.0	5.0
39.0	100.0	120.0	5.0

Output Results:

Settlement of saturated sands=1.23 in.
Settlement of dry sands=2.47 in.
Total settlement of saturated and dry sands=3.70 in.
Differential Settlement=1.850 to 2.442 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	1.23	2.47	3.70
0.05	2.00	0.83	5.00	1.23	2.47	3.70
0.10	2.00	0.83	5.00	1.23	2.47	3.70
0.15	2.00	0.83	5.00	1.23	2.47	3.70
0.20	2.00	0.83	5.00	1.23	2.47	3.70
0.25	2.00	0.83	5.00	1.23	2.47	3.70
0.30	2.00	0.83	5.00	1.23	2.47	3.70
0.35	2.00	0.83	5.00	1.23	2.47	3.70
0.40	2.00	0.83	5.00	1.23	2.47	3.70
0.45	2.00	0.83	5.00	1.23	2.47	3.70
0.50	2.00	0.83	5.00	1.23	2.47	3.70
0.55	2.00	0.83	5.00	1.23	2.47	3.70
0.60	2.00	0.83	5.00	1.23	2.47	3.70
0.65	2.00	0.83	5.00	1.23	2.47	3.70
0.70	2.00	0.83	5.00	1.23	2.47	3.70
0.75	2.00	0.83	5.00	1.23	2.47	3.70
0.80	2.00	0.83	5.00	1.23	2.47	3.70
0.85	2.00	0.83	5.00	1.23	2.47	3.70
0.90	2.00	0.83	5.00	1.23	2.47	3.70
0.95	2.00	0.83	5.00	1.23	2.47	3.70
1.00	2.00	0.83	5.00	1.23	2.47	3.70
1.05	2.00	0.83	5.00	1.23	2.47	3.70
1.10	2.00	0.83	5.00	1.23	2.47	3.70

1.15	2.00	0.83	5.00	1.23	2.47	3.70
1.20	2.00	0.83	5.00	1.23	2.47	3.70
1.25	2.00	0.83	5.00	1.23	2.47	3.70
1.30	2.00	0.83	5.00	1.23	2.47	3.70
1.35	2.00	0.83	5.00	1.23	2.47	3.70
1.40	2.00	0.83	5.00	1.23	2.47	3.70
1.45	2.00	0.83	5.00	1.23	2.47	3.70
1.50	2.00	0.83	5.00	1.23	2.47	3.70
1.55	2.00	0.83	5.00	1.23	2.47	3.70
1.60	2.00	0.83	5.00	1.23	2.47	3.70
1.65	2.00	0.82	5.00	1.23	2.47	3.70
1.70	2.00	0.82	5.00	1.23	2.47	3.70
1.75	2.00	0.82	5.00	1.23	2.47	3.70
1.80	2.00	0.82	5.00	1.23	2.47	3.70
1.85	2.00	0.82	5.00	1.23	2.47	3.70
1.90	2.00	0.82	5.00	1.23	2.47	3.70
1.95	2.00	0.82	5.00	1.23	2.47	3.70
2.00	2.00	0.82	5.00	1.23	2.47	3.70
2.05	2.00	0.82	5.00	1.23	2.47	3.70
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3.05	2.00	0.82	5.00	1.23	2.47	3.70
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3.25	2.00	0.82	5.00	1.23	2.47	3.70
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3.40	2.00	0.82	5.00	1.23	2.47	3.70
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3.50	2.00	0.82	5.00	1.23	2.47	3.70
3.55	2.00	0.82	5.00	1.23	2.47	3.70
3.60	2.00	0.82	5.00	1.23	2.47	3.70

3.65	2.00	0.82	5.00	1.23	2.47	3.70
3.70	2.00	0.82	5.00	1.23	2.47	3.70
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3.80	2.00	0.82	5.00	1.23	2.47	3.70
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4.25	2.00	0.82	5.00	1.23	2.47	3.70
4.30	2.00	0.82	5.00	1.23	2.47	3.70
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5.55	2.00	0.82	5.00	1.23	2.47	3.70
5.60	2.00	0.82	5.00	1.23	2.47	3.70
5.65	2.00	0.82	5.00	1.23	2.47	3.70
5.70	2.00	0.82	5.00	1.23	2.47	3.70
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5.80	2.00	0.82	5.00	1.23	2.47	3.70
5.85	2.00	0.82	5.00	1.23	2.47	3.70
5.90	2.00	0.82	5.00	1.23	2.47	3.70
5.95	2.00	0.82	5.00	1.23	2.47	3.70
6.00	2.00	0.82	5.00	1.23	2.47	3.70
6.05	2.00	0.82	5.00	1.23	2.47	3.70
6.10	2.00	0.82	5.00	1.23	2.47	3.70

6.15	2.00	0.82	5.00	1.23	2.47	3.70
6.20	2.00	0.82	5.00	1.23	2.47	3.70
6.25	2.00	0.82	5.00	1.23	2.47	3.70
6.30	2.00	0.82	5.00	1.23	2.47	3.70
6.35	2.00	0.82	5.00	1.23	2.47	3.70
6.40	2.00	0.82	5.00	1.23	2.47	3.70
6.45	2.00	0.82	5.00	1.23	2.47	3.70
6.50	2.00	0.82	5.00	1.23	2.47	3.70
6.55	2.00	0.82	5.00	1.23	2.47	3.70
6.60	2.00	0.82	5.00	1.23	2.47	3.70
6.65	2.00	0.82	5.00	1.23	2.47	3.70
6.70	2.00	0.82	5.00	1.23	2.47	3.70
6.75	2.00	0.82	5.00	1.23	2.47	3.70
6.80	2.00	0.81	5.00	1.23	2.47	3.70
6.85	2.00	0.81	5.00	1.23	2.47	3.70
6.90	2.00	0.81	5.00	1.23	2.47	3.70
6.95	2.00	0.81	5.00	1.23	2.47	3.70
7.00	2.00	0.81	5.00	1.23	2.47	3.70
7.05	2.00	0.81	5.00	1.23	2.47	3.70
7.10	2.00	0.81	5.00	1.23	2.47	3.70
7.15	2.00	0.81	5.00	1.23	2.47	3.70
7.20	2.00	0.81	5.00	1.23	2.47	3.70
7.25	2.00	0.81	5.00	1.23	2.47	3.70
7.30	2.00	0.81	5.00	1.23	2.47	3.70
7.35	2.00	0.81	5.00	1.23	2.47	3.70
7.40	2.00	0.81	5.00	1.23	2.47	3.70
7.45	2.00	0.81	5.00	1.23	2.47	3.70
7.50	2.00	0.81	5.00	1.23	2.47	3.70
7.55	2.00	0.81	5.00	1.23	2.47	3.70
7.60	2.00	0.81	5.00	1.23	2.47	3.70
7.65	2.00	0.81	5.00	1.23	2.47	3.70
7.70	2.00	0.81	5.00	1.23	2.47	3.70
7.75	2.00	0.81	5.00	1.23	2.47	3.70
7.80	2.00	0.81	5.00	1.23	2.47	3.70
7.85	2.00	0.81	5.00	1.23	2.47	3.70
7.90	2.00	0.81	5.00	1.23	2.47	3.70
7.95	2.00	0.81	5.00	1.23	2.47	3.70
8.00	2.00	0.81	5.00	1.23	2.47	3.70
8.05	2.00	0.81	5.00	1.23	2.47	3.70
8.10	2.00	0.81	5.00	1.23	2.47	3.70
8.15	2.00	0.81	5.00	1.23	2.47	3.70
8.20	2.00	0.81	5.00	1.23	2.47	3.70
8.25	2.00	0.81	5.00	1.23	2.47	3.70
8.30	2.00	0.81	5.00	1.23	2.47	3.70
8.35	2.00	0.81	5.00	1.23	2.47	3.70
8.40	2.00	0.81	5.00	1.23	2.47	3.70
8.45	2.00	0.81	5.00	1.23	2.47	3.70
8.50	2.00	0.81	5.00	1.23	2.47	3.70
8.55	2.00	0.81	5.00	1.23	2.47	3.70
8.60	2.00	0.81	5.00	1.23	2.47	3.70

8.65	2.00	0.81	5.00	1.23	2.47	3.70
8.70	2.00	0.81	5.00	1.23	2.47	3.70
8.75	2.00	0.81	5.00	1.23	2.47	3.70
8.80	2.00	0.81	5.00	1.23	2.47	3.70
8.85	2.00	0.81	5.00	1.23	2.47	3.70
8.90	2.00	0.81	5.00	1.23	2.47	3.70
8.95	2.00	0.81	5.00	1.23	2.47	3.70
9.00	2.00	0.81	5.00	1.23	2.47	3.70
9.05	2.00	0.81	5.00	1.23	2.47	3.70
9.10	2.00	0.81	5.00	1.23	2.47	3.70
9.15	2.00	0.81	5.00	1.23	2.47	3.70
9.20	2.00	0.81	5.00	1.23	2.47	3.70
9.25	2.00	0.81	5.00	1.23	2.47	3.70
9.30	2.00	0.81	5.00	1.23	2.47	3.70
9.35	2.00	0.81	5.00	1.23	2.47	3.70
9.40	2.00	0.81	5.00	1.23	2.47	3.70
9.45	2.00	0.81	5.00	1.23	2.47	3.70
9.50	2.00	0.81	5.00	1.23	2.47	3.70
9.55	2.00	0.81	5.00	1.23	2.47	3.70
9.60	2.00	0.81	5.00	1.23	2.47	3.70
9.65	2.00	0.81	5.00	1.23	2.47	3.70
9.70	2.00	0.81	5.00	1.23	2.47	3.70
9.75	2.00	0.81	5.00	1.23	2.47	3.70
9.80	2.00	0.81	5.00	1.23	2.47	3.70
9.85	2.00	0.81	5.00	1.23	2.47	3.70
9.90	2.00	0.81	5.00	1.23	2.47	3.70
9.95	2.00	0.81	5.00	1.23	2.47	3.70
10.00	0.35	0.81	5.00	1.23	2.47	3.70
10.05	0.35	0.81	5.00	1.23	2.46	3.69
10.10	0.35	0.81	5.00	1.23	2.45	3.68
10.15	0.35	0.81	5.00	1.23	2.45	3.68
10.20	0.35	0.81	5.00	1.23	2.44	3.67
10.25	0.35	0.81	5.00	1.23	2.43	3.66
10.30	0.34	0.81	5.00	1.23	2.42	3.65
10.35	0.34	0.81	5.00	1.23	2.41	3.64
10.40	0.34	0.81	5.00	1.23	2.41	3.64
10.45	0.34	0.81	5.00	1.23	2.40	3.63
10.50	0.34	0.81	5.00	1.23	2.39	3.62
10.55	0.34	0.81	5.00	1.23	2.38	3.61
10.60	0.34	0.81	5.00	1.23	2.37	3.60
10.65	0.33	0.81	5.00	1.23	2.37	3.60
10.70	0.33	0.81	5.00	1.23	2.36	3.59
10.75	0.33	0.81	5.00	1.23	2.35	3.58
10.80	0.33	0.81	5.00	1.23	2.34	3.57
10.85	0.33	0.81	5.00	1.23	2.33	3.56
10.90	0.33	0.81	5.00	1.23	2.33	3.56
10.95	0.33	0.81	5.00	1.23	2.32	3.55
11.00	0.33	0.81	5.00	1.23	2.31	3.54
11.05	0.33	0.81	5.00	1.23	2.30	3.53
11.10	0.33	0.81	5.00	1.23	2.29	3.52

11.15	0.32	0.81	5.00	1.23	2.28	3.51
11.20	0.32	0.81	5.00	1.23	2.28	3.51
11.25	0.32	0.81	5.00	1.23	2.27	3.50
11.30	0.32	0.81	5.00	1.23	2.26	3.49
11.35	0.32	0.81	5.00	1.23	2.25	3.48
11.40	0.32	0.81	5.00	1.23	2.24	3.47
11.45	0.32	0.81	5.00	1.23	2.23	3.47
11.50	0.32	0.81	5.00	1.23	2.23	3.46
11.55	0.32	0.81	5.00	1.23	2.22	3.45
11.60	0.32	0.81	5.00	1.23	2.21	3.44
11.65	0.32	0.81	5.00	1.23	2.20	3.43
11.70	0.32	0.81	5.00	1.23	2.19	3.42
11.75	0.31	0.81	5.00	1.23	2.18	3.42
11.80	0.31	0.81	5.00	1.23	2.18	3.41
11.85	0.31	0.81	5.00	1.23	2.17	3.40
11.90	0.31	0.81	5.00	1.23	2.16	3.39
11.95	0.31	0.81	5.00	1.23	2.15	3.38
12.00	0.31	0.80	5.00	1.23	2.14	3.37
12.05	0.31	0.80	5.00	1.23	2.13	3.36
12.10	0.31	0.80	5.00	1.23	2.13	3.36
12.15	0.31	0.80	5.00	1.23	2.12	3.35
12.20	0.31	0.80	5.00	1.23	2.11	3.34
12.25	0.31	0.80	5.00	1.23	2.10	3.33
12.30	0.31	0.80	5.00	1.23	2.09	3.32
12.35	0.31	0.80	5.00	1.23	2.08	3.31
12.40	0.31	0.80	5.00	1.23	2.07	3.30
12.45	0.31	0.80	5.00	1.23	2.07	3.30
12.50	0.30	0.80	5.00	1.23	2.06	3.29
12.55	0.30	0.80	5.00	1.23	2.05	3.28
12.60	0.30	0.80	5.00	1.23	2.04	3.27
12.65	0.30	0.80	5.00	1.23	2.03	3.26
12.70	0.30	0.80	5.00	1.23	2.02	3.25
12.75	0.30	0.80	5.00	1.23	2.01	3.24
12.80	0.30	0.80	5.00	1.23	2.01	3.24
12.85	0.30	0.80	5.00	1.23	2.00	3.23
12.90	0.30	0.80	5.00	1.23	1.99	3.22
12.95	0.30	0.80	5.00	1.23	1.98	3.21
13.00	0.30	0.80	5.00	1.23	1.97	3.20
13.05	0.30	0.80	5.00	1.23	1.96	3.19
13.10	0.30	0.80	5.00	1.23	1.95	3.18
13.15	0.30	0.80	5.00	1.23	1.94	3.17
13.20	0.30	0.80	5.00	1.23	1.94	3.17
13.25	0.30	0.80	5.00	1.23	1.93	3.16
13.30	0.30	0.80	5.00	1.23	1.92	3.15
13.35	0.30	0.80	5.00	1.23	1.91	3.14
13.40	0.29	0.80	5.00	1.23	1.90	3.13
13.45	0.29	0.80	5.00	1.23	1.89	3.12
13.50	0.29	0.80	5.00	1.23	1.88	3.11
13.55	0.29	0.80	5.00	1.23	1.87	3.10
13.60	0.29	0.80	5.00	1.23	1.86	3.10

13.65	0.29	0.80	5.00	1.23	1.86	3.09
13.70	0.29	0.80	5.00	1.23	1.85	3.08
13.75	0.29	0.80	5.00	1.23	1.84	3.07
13.80	0.29	0.80	5.00	1.23	1.83	3.06
13.85	0.29	0.80	5.00	1.23	1.82	3.05
13.90	0.29	0.80	5.00	1.23	1.81	3.04
13.95	0.29	0.80	5.00	1.23	1.80	3.03
14.00	0.29	0.80	5.00	1.23	1.79	3.02
14.05	0.29	0.80	5.00	1.23	1.78	3.02
14.10	0.29	0.80	5.00	1.23	1.78	3.01
14.15	0.29	0.80	5.00	1.23	1.77	3.00
14.20	0.29	0.80	5.00	1.23	1.76	2.99
14.25	0.29	0.80	5.00	1.23	1.75	2.98
14.30	0.29	0.80	5.00	1.23	1.74	2.97
14.35	0.29	0.80	5.00	1.23	1.73	2.96
14.40	0.29	0.80	5.00	1.23	1.72	2.95
14.45	0.29	0.80	5.00	1.23	1.71	2.94
14.50	0.28	0.80	5.00	1.23	1.70	2.93
14.55	0.28	0.80	5.00	1.23	1.69	2.92
14.60	0.28	0.80	5.00	1.23	1.69	2.92
14.65	0.28	0.80	5.00	1.23	1.68	2.91
14.70	0.28	0.80	5.00	1.23	1.67	2.90
14.75	0.28	0.80	5.00	1.23	1.66	2.89
14.80	0.33	0.80	5.00	1.23	1.65	2.88
14.85	0.33	0.80	5.00	1.23	1.64	2.87
14.90	0.33	0.80	5.00	1.23	1.63	2.86
14.95	0.33	0.80	5.00	1.23	1.62	2.85
15.00	0.33	0.80	5.00	1.23	1.62	2.85
15.05	0.33	0.80	5.00	1.23	1.61	2.84
15.10	0.33	0.80	5.00	1.23	1.60	2.83
15.15	0.33	0.80	5.00	1.23	1.59	2.82
15.20	0.33	0.80	5.00	1.23	1.58	2.81
15.25	0.33	0.80	5.00	1.23	1.58	2.81
15.30	0.33	0.80	5.00	1.23	1.57	2.80
15.35	0.33	0.80	5.00	1.23	1.56	2.79
15.40	0.33	0.80	5.00	1.23	1.55	2.78
15.45	0.33	0.80	5.00	1.23	1.54	2.77
15.50	0.33	0.80	5.00	1.23	1.53	2.77
15.55	0.33	0.80	5.00	1.23	1.53	2.76
15.60	0.33	0.80	5.00	1.23	1.52	2.75
15.65	0.33	0.80	5.00	1.23	1.51	2.74
15.70	0.33	0.80	5.00	1.23	1.50	2.73
15.75	0.33	0.80	5.00	1.23	1.49	2.72
15.80	0.33	0.80	5.00	1.23	1.49	2.72
15.85	0.32	0.80	5.00	1.23	1.48	2.71
15.90	0.32	0.80	5.00	1.23	1.47	2.70
15.95	0.32	0.80	5.00	1.23	1.46	2.69
16.00	0.32	0.80	5.00	1.23	1.45	2.68
16.05	0.32	0.80	5.00	1.23	1.44	2.67
16.10	0.32	0.80	5.00	1.23	1.44	2.67

16.15	0.32	0.80	5.00	1.23	1.43	2.66
16.20	0.32	0.80	5.00	1.23	1.42	2.65
16.25	0.32	0.80	5.00	1.23	1.41	2.64
16.30	0.32	0.80	5.00	1.23	1.40	2.63
16.35	0.32	0.80	5.00	1.23	1.39	2.63
16.40	0.32	0.80	5.00	1.23	1.39	2.62
16.45	0.32	0.80	5.00	1.23	1.38	2.61
16.50	0.32	0.80	5.00	1.23	1.37	2.60
16.55	0.32	0.80	5.00	1.23	1.36	2.59
16.60	0.32	0.80	5.00	1.23	1.35	2.58
16.65	0.32	0.80	5.00	1.23	1.35	2.58
16.70	0.32	0.80	5.00	1.23	1.34	2.57
16.75	0.32	0.80	5.00	1.23	1.33	2.56
16.80	0.32	0.80	5.00	1.23	1.32	2.55
16.85	0.32	0.80	5.00	1.23	1.31	2.54
16.90	0.32	0.80	5.00	1.23	1.30	2.53
16.95	0.32	0.80	5.00	1.23	1.30	2.53
17.00	0.32	0.80	5.00	1.23	1.29	2.52
17.05	0.32	0.80	5.00	1.23	1.28	2.51
17.10	0.32	0.80	5.00	1.23	1.27	2.50
17.15	0.32	0.79	5.00	1.23	1.26	2.49
17.20	0.32	0.79	5.00	1.23	1.25	2.48
17.25	0.32	0.79	5.00	1.23	1.25	2.48
17.30	0.32	0.79	5.00	1.23	1.24	2.47
17.35	0.32	0.79	5.00	1.23	1.23	2.46
17.40	0.32	0.79	5.00	1.23	1.22	2.45
17.45	0.32	0.79	5.00	1.23	1.21	2.44
17.50	0.32	0.79	5.00	1.23	1.20	2.43
17.55	0.32	0.79	5.00	1.23	1.20	2.43
17.60	0.32	0.79	5.00	1.23	1.19	2.42
17.65	0.32	0.79	5.00	1.23	1.18	2.41
17.70	0.32	0.79	5.00	1.23	1.17	2.40
17.75	0.32	0.79	5.00	1.23	1.16	2.39
17.80	0.32	0.79	5.00	1.23	1.15	2.39
17.85	0.32	0.79	5.00	1.23	1.15	2.38
17.90	0.32	0.79	5.00	1.23	1.14	2.37
17.95	0.32	0.79	5.00	1.23	1.13	2.36
18.00	0.32	0.79	5.00	1.23	1.12	2.35
18.05	0.32	0.79	5.00	1.23	1.11	2.34
18.10	0.32	0.79	5.00	1.23	1.10	2.34
18.15	0.32	0.79	5.00	1.23	1.10	2.33
18.20	0.32	0.79	5.00	1.23	1.09	2.32
18.25	0.32	0.79	5.00	1.23	1.08	2.31
18.30	0.32	0.79	5.00	1.23	1.07	2.30
18.35	0.32	0.79	5.00	1.23	1.06	2.29
18.40	0.32	0.79	5.00	1.23	1.06	2.29
18.45	0.32	0.79	5.00	1.23	1.05	2.28
18.50	0.32	0.79	5.00	1.23	1.04	2.27
18.55	0.32	0.79	5.00	1.23	1.03	2.26
18.60	0.32	0.79	5.00	1.23	1.02	2.25

18.65	0.32	0.79	5.00	1.23	1.01	2.24
18.70	0.32	0.79	5.00	1.23	1.01	2.24
18.75	0.32	0.79	5.00	1.23	1.00	2.23
18.80	0.32	0.79	5.00	1.23	0.99	2.22
18.85	0.32	0.79	5.00	1.23	0.98	2.21
18.90	0.32	0.79	5.00	1.23	0.97	2.20
18.95	0.32	0.79	5.00	1.23	0.96	2.19
19.00	0.32	0.79	5.00	1.23	0.96	2.19
19.05	0.32	0.79	5.00	1.23	0.95	2.18
19.10	0.32	0.79	5.00	1.23	0.94	2.17
19.15	0.32	0.79	5.00	1.23	0.93	2.16
19.20	0.33	0.79	5.00	1.23	0.92	2.15
19.25	0.33	0.79	5.00	1.23	0.92	2.15
19.30	0.33	0.79	5.00	1.23	0.91	2.14
19.35	0.33	0.79	5.00	1.23	0.90	2.13
19.40	0.33	0.79	5.00	1.23	0.89	2.12
19.45	0.33	0.79	5.00	1.23	0.88	2.11
19.50	0.33	0.79	5.00	1.23	0.87	2.10
19.55	0.33	0.79	5.00	1.23	0.87	2.10
19.60	0.33	0.79	5.00	1.23	0.86	2.09
19.65	0.33	0.79	5.00	1.23	0.85	2.08
19.70	0.33	0.79	5.00	1.23	0.84	2.07
19.75	0.33	0.79	5.00	1.23	0.83	2.06
19.80	0.33	0.79	5.00	1.23	0.82	2.06
19.85	0.33	0.79	5.00	1.23	0.82	2.05
19.90	0.33	0.79	5.00	1.23	0.81	2.04
19.95	0.33	0.79	5.00	1.23	0.80	2.03
20.00	0.33	0.79	5.00	1.23	0.79	2.02
20.05	0.33	0.79	5.00	1.23	0.78	2.01
20.10	0.33	0.79	5.00	1.23	0.78	2.01
20.15	0.34	0.79	5.00	1.23	0.77	2.00
20.20	0.34	0.79	5.00	1.23	0.76	1.99
20.25	0.34	0.79	5.00	1.23	0.75	1.98
20.30	0.35	0.79	5.00	1.23	0.74	1.97
20.35	0.35	0.79	5.00	1.23	0.74	1.97
20.40	0.35	0.79	5.00	1.23	0.73	1.96
20.45	0.36	0.79	5.00	1.23	0.72	1.95
20.50	0.36	0.79	5.00	1.23	0.71	1.94
20.55	0.37	0.79	5.00	1.23	0.70	1.93
20.60	0.37	0.79	5.00	1.23	0.70	1.93
20.65	0.38	0.79	5.00	1.23	0.69	1.92
20.70	0.38	0.79	5.00	1.23	0.68	1.91
20.75	0.39	0.79	5.00	1.23	0.67	1.90
20.80	0.40	0.79	5.00	1.23	0.67	1.90
20.85	0.41	0.79	5.00	1.23	0.66	1.89
20.90	0.43	0.79	5.00	1.23	0.65	1.88
20.95	0.45	0.79	5.00	1.23	0.64	1.87
21.00	1.87	0.79	5.00	1.23	0.64	1.87
21.05	1.87	0.79	5.00	1.23	0.63	1.86
21.10	1.87	0.79	5.00	1.23	0.62	1.85

21.15	1.87	0.79	5.00	1.23	0.61	1.84
21.20	1.87	0.79	5.00	1.23	0.61	1.84
21.25	1.87	0.79	5.00	1.23	0.60	1.83
21.30	1.87	0.79	5.00	1.23	0.59	1.82
21.35	1.87	0.79	5.00	1.23	0.58	1.82
21.40	1.87	0.79	5.00	1.23	0.58	1.81
21.45	1.87	0.79	5.00	1.23	0.57	1.80
21.50	1.87	0.79	5.00	1.23	0.56	1.79
21.55	1.87	0.79	5.00	1.23	0.56	1.79
21.60	1.87	0.79	5.00	1.23	0.55	1.78
21.65	1.87	0.79	5.00	1.23	0.54	1.77
21.70	1.87	0.79	5.00	1.23	0.53	1.77
21.75	1.87	0.79	5.00	1.23	0.53	1.76
21.80	1.87	0.79	5.00	1.23	0.52	1.75
21.85	1.87	0.79	5.00	1.23	0.51	1.74
21.90	1.87	0.79	5.00	1.23	0.51	1.74
21.95	1.87	0.79	5.00	1.23	0.50	1.73
22.00	1.87	0.79	5.00	1.23	0.49	1.72
22.05	1.87	0.79	5.00	1.23	0.49	1.72
22.10	1.87	0.79	5.00	1.23	0.48	1.71
22.15	1.87	0.79	5.00	1.23	0.47	1.70
22.20	1.87	0.79	5.00	1.23	0.47	1.70
22.25	1.87	0.79	5.00	1.23	0.46	1.69
22.30	1.87	0.79	5.00	1.23	0.45	1.68
22.35	1.87	0.78	5.00	1.23	0.45	1.68
22.40	1.87	0.78	5.00	1.23	0.44	1.67
22.45	1.87	0.78	5.00	1.23	0.43	1.66
22.50	1.87	0.78	5.00	1.23	0.43	1.66
22.55	1.87	0.78	5.00	1.23	0.42	1.65
22.60	1.87	0.78	5.00	1.23	0.41	1.64
22.65	1.87	0.78	5.00	1.23	0.41	1.64
22.70	1.87	0.78	5.00	1.23	0.40	1.63
22.75	1.87	0.78	5.00	1.23	0.39	1.62
22.80	1.87	0.78	5.00	1.23	0.39	1.62
22.85	1.87	0.78	5.00	1.23	0.38	1.61
22.90	1.87	0.78	5.00	1.23	0.37	1.60
22.95	1.87	0.78	5.00	1.23	0.37	1.60
23.00	1.87	0.78	5.00	1.23	0.36	1.59
23.05	1.87	0.78	5.00	1.23	0.35	1.58
23.10	1.87	0.78	5.00	1.23	0.34	1.58
23.15	1.87	0.78	5.00	1.23	0.34	1.57
23.20	1.87	0.78	5.00	1.23	0.33	1.56
23.25	0.42	0.78	5.00	1.23	0.32	1.55
23.30	0.40	0.78	5.00	1.23	0.32	1.55
23.35	0.38	0.78	5.00	1.23	0.31	1.54
23.40	0.37	0.78	5.00	1.23	0.30	1.53
23.45	0.36	0.78	5.00	1.23	0.29	1.52
23.50	0.35	0.78	5.00	1.23	0.28	1.51
23.55	0.34	0.78	5.00	1.23	0.28	1.51
23.60	0.34	0.78	5.00	1.23	0.27	1.50

23.65	0.33	0.78	5.00	1.23	0.26	1.49
23.70	0.33	0.78	5.00	1.23	0.25	1.48
23.75	0.32	0.78	5.00	1.23	0.24	1.47
23.80	0.32	0.78	5.00	1.23	0.24	1.47
23.85	0.31	0.78	5.00	1.23	0.23	1.46
23.90	0.31	0.78	5.00	1.23	0.22	1.45
23.95	0.30	0.78	5.00	1.23	0.21	1.44
24.00	0.30	0.78	5.00	1.23	0.20	1.43
24.05	0.30	0.78	5.00	1.23	0.19	1.42
24.10	0.29	0.78	5.00	1.23	0.18	1.42
24.15	0.29	0.78	5.00	1.23	0.18	1.41
24.20	0.29	0.78	5.00	1.23	0.17	1.40
24.25	0.28	0.78	5.00	1.23	0.16	1.39
24.30	0.28	0.78	5.00	1.23	0.15	1.38
24.35	0.28	0.78	5.00	1.23	0.14	1.37
24.40	0.27	0.78	5.00	1.23	0.13	1.36
24.45	0.27	0.78	5.00	1.23	0.12	1.35
24.50	0.27	0.78	5.00	1.23	0.11	1.34
24.55	0.26	0.78	5.00	1.23	0.10	1.33
24.60	0.26	0.78	5.00	1.23	0.09	1.32
24.65	0.26	0.78	5.00	1.23	0.08	1.31
24.70	0.26	0.78	5.00	1.23	0.07	1.30
24.75	0.25	0.78	5.00	1.23	0.06	1.29
24.80	0.25	0.78	5.00	1.23	0.05	1.28
24.85	0.25	0.78	5.00	1.23	0.04	1.27
24.90	0.25	0.78	5.00	1.23	0.03	1.26
24.95	0.24	0.78	5.00	1.23	0.02	1.25
25.00	0.24	0.78	5.00	1.23	0.01	1.24
25.05	0.24	0.78	0.31*	1.23	0.00	1.23
25.10	0.24	0.78	0.31*	1.22	0.00	1.22
25.15	0.24	0.78	0.31*	1.21	0.00	1.21
25.20	0.24	0.78	0.31*	1.21	0.00	1.21
25.25	0.24	0.78	0.31*	1.20	0.00	1.20
25.30	0.24	0.78	0.31*	1.19	0.00	1.19
25.35	0.24	0.78	0.31*	1.18	0.00	1.18
25.40	0.24	0.78	0.31*	1.18	0.00	1.18
25.45	0.24	0.79	0.31*	1.17	0.00	1.17
25.50	0.24	0.79	0.31*	1.16	0.00	1.16
25.55	0.24	0.79	0.31*	1.15	0.00	1.15
25.60	0.24	0.79	0.31*	1.14	0.00	1.14
25.65	0.24	0.79	0.31*	1.14	0.00	1.14
25.70	0.24	0.79	0.31*	1.13	0.00	1.13
25.75	0.24	0.79	0.31*	1.12	0.00	1.12
25.80	0.24	0.79	0.31*	1.11	0.00	1.11
25.85	0.24	0.79	0.31*	1.11	0.00	1.11
25.90	0.24	0.79	0.30*	1.10	0.00	1.10
25.95	0.24	0.79	0.30*	1.09	0.00	1.09
26.00	0.24	0.79	0.30*	1.08	0.00	1.08
26.05	0.24	0.79	0.30*	1.07	0.00	1.07
26.10	0.24	0.79	0.30*	1.07	0.00	1.07

26.15	0.24	0.79	0.30*	1.06	0.00	1.06
26.20	0.24	0.80	0.30*	1.05	0.00	1.05
26.25	0.24	0.80	0.30*	1.04	0.00	1.04
26.30	0.24	0.80	0.30*	1.04	0.00	1.04
26.35	0.24	0.80	0.30*	1.03	0.00	1.03
26.40	0.24	0.80	0.30*	1.02	0.00	1.02
26.45	0.24	0.80	0.30*	1.01	0.00	1.01
26.50	0.24	0.80	0.30*	1.00	0.00	1.00
26.55	0.24	0.80	0.30*	1.00	0.00	1.00
26.60	0.24	0.80	0.30*	0.99	0.00	0.99
26.65	0.24	0.80	0.30*	0.98	0.00	0.98
26.70	0.24	0.80	0.30*	0.97	0.00	0.97
26.75	0.24	0.80	0.30*	0.97	0.00	0.97
26.80	0.24	0.80	0.30*	0.96	0.00	0.96
26.85	0.24	0.80	0.30*	0.95	0.00	0.95
26.90	0.24	0.80	0.30*	0.94	0.00	0.94
26.95	0.24	0.81	0.30*	0.93	0.00	0.93
27.00	0.24	0.81	0.30*	0.93	0.00	0.93
27.05	0.24	0.81	0.30*	0.92	0.00	0.92
27.10	0.24	0.81	0.30*	0.91	0.00	0.91
27.15	0.24	0.81	0.30*	0.90	0.00	0.90
27.20	0.24	0.81	0.30*	0.90	0.00	0.90
27.25	0.24	0.81	0.30*	0.89	0.00	0.89
27.30	0.24	0.81	0.30*	0.88	0.00	0.88
27.35	0.24	0.81	0.30*	0.87	0.00	0.87
27.40	0.24	0.81	0.30*	0.86	0.00	0.86
27.45	0.24	0.81	0.29*	0.86	0.00	0.86
27.50	0.24	0.81	0.29*	0.85	0.00	0.85
27.55	0.24	0.81	0.29*	0.84	0.00	0.84
27.60	0.24	0.81	0.29*	0.83	0.00	0.83
27.65	0.24	0.81	0.29*	0.83	0.00	0.83
27.70	0.24	0.82	0.29*	0.82	0.00	0.82
27.75	0.24	0.82	0.29*	0.81	0.00	0.81
27.80	0.24	0.82	0.29*	0.80	0.00	0.80
27.85	0.24	0.82	0.29*	0.79	0.00	0.79
27.90	0.25	0.82	0.31*	0.79	0.00	0.79
27.95	0.25	0.82	0.31*	0.78	0.00	0.78
28.00	0.25	0.82	0.31*	0.77	0.00	0.77
28.05	0.25	0.82	0.30*	0.76	0.00	0.76
28.10	0.25	0.82	0.30*	0.76	0.00	0.76
28.15	0.25	0.82	0.30*	0.75	0.00	0.75
28.20	0.25	0.82	0.30*	0.74	0.00	0.74
28.25	0.25	0.82	0.30*	0.73	0.00	0.73
28.30	0.25	0.82	0.30*	0.73	0.00	0.73
28.35	0.25	0.82	0.30*	0.72	0.00	0.72
28.40	0.25	0.82	0.30*	0.71	0.00	0.71
28.45	0.25	0.82	0.30*	0.70	0.00	0.70
28.50	0.25	0.83	0.30*	0.70	0.00	0.70
28.55	0.25	0.83	0.30*	0.69	0.00	0.69
28.60	0.25	0.83	0.30*	0.68	0.00	0.68

28.65	0.25	0.83	0.30*	0.67	0.00	0.67
28.70	0.25	0.83	0.30*	0.67	0.00	0.67
28.75	0.25	0.83	0.30*	0.66	0.00	0.66
28.80	0.25	0.83	0.30*	0.65	0.00	0.65
28.85	0.24	0.83	0.30*	0.64	0.00	0.64
28.90	0.24	0.83	0.29*	0.64	0.00	0.64
28.95	0.24	0.83	0.29*	0.63	0.00	0.63
29.00	0.24	0.83	0.29*	0.62	0.00	0.62
29.05	0.24	0.83	0.29*	0.61	0.00	0.61
29.10	0.24	0.83	0.29*	0.61	0.00	0.61
29.15	0.24	0.83	0.29*	0.60	0.00	0.60
29.20	0.24	0.83	0.29*	0.59	0.00	0.59
29.25	0.24	0.83	0.29*	0.58	0.00	0.58
29.30	0.24	0.83	0.29*	0.58	0.00	0.58
29.35	0.24	0.84	0.29*	0.57	0.00	0.57
29.40	0.24	0.84	0.29*	0.56	0.00	0.56
29.45	0.24	0.84	0.29*	0.55	0.00	0.55
29.50	0.24	0.84	0.29*	0.55	0.00	0.55
29.55	0.24	0.84	0.29*	0.54	0.00	0.54
29.60	0.24	0.84	0.29*	0.53	0.00	0.53
29.65	0.24	0.84	0.29*	0.52	0.00	0.52
29.70	0.24	0.84	0.29*	0.52	0.00	0.52
29.75	0.24	0.84	0.28*	0.51	0.00	0.51
29.80	0.24	0.84	0.28*	0.50	0.00	0.50
29.85	0.24	0.84	0.28*	0.49	0.00	0.49
29.90	0.24	0.84	0.28*	0.48	0.00	0.48
29.95	0.24	0.84	0.28*	0.48	0.00	0.48
30.00	0.24	0.84	0.28*	0.47	0.00	0.47
30.05	0.24	0.84	0.28*	0.46	0.00	0.46
30.10	0.24	0.84	0.28*	0.45	0.00	0.45
30.15	0.24	0.84	0.28*	0.45	0.00	0.45
30.20	0.23	0.84	0.28*	0.44	0.00	0.44
30.25	0.23	0.84	0.28*	0.43	0.00	0.43
30.30	0.23	0.84	0.28*	0.42	0.00	0.42
30.35	0.23	0.84	0.28*	0.41	0.00	0.41
30.40	0.23	0.84	0.27*	0.41	0.00	0.41
30.45	0.23	0.84	0.27*	0.40	0.00	0.40
30.50	0.23	0.85	0.27*	0.39	0.00	0.39
30.55	0.23	0.85	0.27*	0.38	0.00	0.38
30.60	0.23	0.85	0.27*	0.38	0.00	0.38
30.65	0.23	0.85	0.27*	0.37	0.00	0.37
30.70	0.23	0.85	0.27*	0.36	0.00	0.36
30.75	0.23	0.85	0.27*	0.35	0.00	0.35
30.80	0.23	0.85	0.27*	0.34	0.00	0.34
30.85	0.22	0.85	0.27*	0.34	0.00	0.34
30.90	0.22	0.85	0.26*	0.33	0.00	0.33
30.95	0.22	0.85	0.26*	0.32	0.00	0.32
31.00	0.22	0.85	0.26*	0.31	0.00	0.31
31.05	0.22	0.85	0.26*	0.30	0.00	0.30
31.10	0.22	0.85	0.26*	0.29	0.00	0.29

31.15	0.22	0.85	0.26*	0.29	0.00	0.29
31.20	0.22	0.85	0.26*	0.28	0.00	0.28
31.25	0.22	0.85	0.26*	0.27	0.00	0.27
31.30	0.22	0.85	0.26*	0.26	0.00	0.26
31.35	0.22	0.85	0.26*	0.25	0.00	0.25
31.40	0.22	0.85	0.26*	0.25	0.00	0.25
31.45	0.22	0.85	0.25*	0.24	0.00	0.24
31.50	0.22	0.85	0.25*	0.23	0.00	0.23
31.55	0.22	0.85	0.25*	0.22	0.00	0.22
31.60	0.21	0.85	0.25*	0.21	0.00	0.21
31.65	0.21	0.85	0.25*	0.20	0.00	0.20
31.70	0.21	0.85	0.25*	0.20	0.00	0.20
31.75	0.21	0.85	0.25*	0.19	0.00	0.19
31.80	0.21	0.85	0.25*	0.18	0.00	0.18
31.85	0.21	0.85	0.25*	0.17	0.00	0.17
31.90	0.21	0.85	0.25*	0.16	0.00	0.16
31.95	0.21	0.85	0.25*	0.15	0.00	0.15
32.00	0.21	0.85	0.25*	0.14	0.00	0.14
32.05	0.21	0.85	0.24*	0.14	0.00	0.14
32.10	0.21	0.85	0.24*	0.13	0.00	0.13
32.15	0.21	0.85	0.24*	0.12	0.00	0.12
32.20	0.21	0.85	0.24*	0.11	0.00	0.11
32.25	0.21	0.85	0.24*	0.10	0.00	0.10
32.30	0.21	0.85	0.24*	0.09	0.00	0.09
32.35	0.21	0.85	0.24*	0.08	0.00	0.08
32.40	0.20	0.85	0.24*	0.08	0.00	0.08
32.45	0.20	0.85	0.24*	0.07	0.00	0.07
32.50	0.20	0.86	0.24*	0.06	0.00	0.06
32.55	0.22	0.86	0.26*	0.05	0.00	0.05
32.60	0.24	0.86	0.28*	0.04	0.00	0.04
32.65	0.26	0.86	0.30*	0.03	0.00	0.03
32.70	0.28	0.86	0.33*	0.03	0.00	0.03
32.75	0.31	0.86	0.36*	0.02	0.00	0.02
32.80	0.35	0.86	0.41*	0.01	0.00	0.01
32.85	1.80	0.86	2.10	0.01	0.00	0.01
32.90	1.80	0.86	2.10	0.01	0.00	0.01
32.95	1.80	0.86	2.10	0.00	0.00	0.00
33.00	1.80	0.86	2.10	0.00	0.00	0.00
33.05	1.80	0.86	2.10	0.00	0.00	0.00
33.10	1.80	0.86	2.10	0.00	0.00	0.00
33.15	1.80	0.86	2.10	0.00	0.00	0.00
33.20	1.80	0.86	2.09	0.00	0.00	0.00
33.25	1.80	0.86	2.09	0.00	0.00	0.00
33.30	1.80	0.86	2.09	0.00	0.00	0.00
33.35	1.80	0.86	2.09	0.00	0.00	0.00
33.40	1.79	0.86	2.09	0.00	0.00	0.00
33.45	1.79	0.86	2.09	0.00	0.00	0.00
33.50	1.79	0.86	2.09	0.00	0.00	0.00
33.55	1.79	0.86	2.09	0.00	0.00	0.00
33.60	1.79	0.86	2.09	0.00	0.00	0.00

33.65	1.79	0.86	2.08	0.00	0.00	0.00
33.70	1.79	0.86	2.08	0.00	0.00	0.00
33.75	1.79	0.86	2.08	0.00	0.00	0.00
33.80	1.79	0.86	2.08	0.00	0.00	0.00
33.85	1.79	0.86	2.08	0.00	0.00	0.00
33.90	1.79	0.86	2.08	0.00	0.00	0.00
33.95	1.79	0.86	2.08	0.00	0.00	0.00
34.00	1.79	0.86	2.08	0.00	0.00	0.00
34.05	1.79	0.86	2.08	0.00	0.00	0.00
34.10	1.79	0.86	2.08	0.00	0.00	0.00
34.15	1.79	0.86	2.07	0.00	0.00	0.00
34.20	1.79	0.86	2.07	0.00	0.00	0.00
34.25	1.79	0.86	2.07	0.00	0.00	0.00
34.30	1.79	0.86	2.07	0.00	0.00	0.00
34.35	1.78	0.86	2.07	0.00	0.00	0.00
34.40	1.78	0.86	2.07	0.00	0.00	0.00
34.45	1.78	0.86	2.07	0.00	0.00	0.00
34.50	1.78	0.86	2.07	0.00	0.00	0.00
34.55	1.78	0.86	2.07	0.00	0.00	0.00
34.60	1.78	0.86	2.07	0.00	0.00	0.00
34.65	1.78	0.86	2.06	0.00	0.00	0.00
34.70	1.78	0.86	2.06	0.00	0.00	0.00
34.75	1.78	0.86	2.06	0.00	0.00	0.00
34.80	1.78	0.86	2.06	0.00	0.00	0.00
34.85	1.78	0.86	2.06	0.00	0.00	0.00
34.90	1.78	0.86	2.06	0.00	0.00	0.00
34.95	1.78	0.86	2.06	0.00	0.00	0.00
35.00	1.78	0.86	2.06	0.00	0.00	0.00
35.05	1.78	0.86	2.06	0.00	0.00	0.00
35.10	1.78	0.86	2.06	0.00	0.00	0.00
35.15	1.78	0.86	2.06	0.00	0.00	0.00
35.20	1.78	0.86	2.05	0.00	0.00	0.00
35.25	1.78	0.86	2.05	0.00	0.00	0.00
35.30	1.78	0.86	2.05	0.00	0.00	0.00
35.35	1.77	0.87	2.05	0.00	0.00	0.00
35.40	1.77	0.87	2.05	0.00	0.00	0.00
35.45	1.77	0.87	2.05	0.00	0.00	0.00
35.50	1.77	0.87	2.05	0.00	0.00	0.00
35.55	1.77	0.87	2.05	0.00	0.00	0.00
35.60	1.77	0.87	2.05	0.00	0.00	0.00
35.65	1.77	0.87	2.05	0.00	0.00	0.00
35.70	1.77	0.87	2.05	0.00	0.00	0.00
35.75	1.77	0.87	2.04	0.00	0.00	0.00
35.80	1.77	0.87	2.04	0.00	0.00	0.00
35.85	1.77	0.87	2.04	0.00	0.00	0.00
35.90	1.77	0.87	2.04	0.00	0.00	0.00
35.95	1.77	0.87	2.04	0.00	0.00	0.00
36.00	1.77	0.87	2.04	0.00	0.00	0.00
36.05	1.77	0.87	2.04	0.00	0.00	0.00
36.10	1.77	0.87	2.04	0.00	0.00	0.00

36.15	1.77	0.87	2.04	0.00	0.00	0.00
36.20	1.77	0.87	2.04	0.00	0.00	0.00
36.25	1.77	0.87	2.04	0.00	0.00	0.00
36.30	1.76	0.87	2.03	0.00	0.00	0.00
36.35	1.76	0.87	2.03	0.00	0.00	0.00
36.40	1.76	0.87	2.03	0.00	0.00	0.00
36.45	1.76	0.87	2.03	0.00	0.00	0.00
36.50	1.76	0.87	2.03	0.00	0.00	0.00
36.55	1.76	0.87	2.03	0.00	0.00	0.00
36.60	1.76	0.87	2.03	0.00	0.00	0.00
36.65	1.76	0.87	2.03	0.00	0.00	0.00
36.70	1.76	0.87	2.03	0.00	0.00	0.00
36.75	1.76	0.87	2.03	0.00	0.00	0.00
36.80	1.76	0.87	2.03	0.00	0.00	0.00
36.85	1.76	0.87	2.03	0.00	0.00	0.00
36.90	1.76	0.87	2.03	0.00	0.00	0.00
36.95	1.76	0.87	2.02	0.00	0.00	0.00
37.00	1.76	0.87	2.02	0.00	0.00	0.00
37.05	1.76	0.87	2.02	0.00	0.00	0.00
37.10	1.76	0.87	2.02	0.00	0.00	0.00
37.15	1.76	0.87	2.02	0.00	0.00	0.00
37.20	1.76	0.87	2.02	0.00	0.00	0.00
37.25	1.76	0.87	2.02	0.00	0.00	0.00
37.30	1.75	0.87	2.02	0.00	0.00	0.00
37.35	1.75	0.87	2.02	0.00	0.00	0.00
37.40	1.75	0.87	2.02	0.00	0.00	0.00
37.45	1.75	0.87	2.02	0.00	0.00	0.00
37.50	1.75	0.87	2.02	0.00	0.00	0.00
37.55	1.75	0.87	2.01	0.00	0.00	0.00
37.60	1.75	0.87	2.01	0.00	0.00	0.00
37.65	1.75	0.87	2.01	0.00	0.00	0.00
37.70	1.75	0.87	2.01	0.00	0.00	0.00
37.75	1.75	0.87	2.01	0.00	0.00	0.00
37.80	1.75	0.87	2.01	0.00	0.00	0.00
37.85	1.75	0.87	2.01	0.00	0.00	0.00
37.90	1.75	0.87	2.01	0.00	0.00	0.00
37.95	1.75	0.87	2.01	0.00	0.00	0.00
38.00	1.75	0.87	2.01	0.00	0.00	0.00
38.05	1.75	0.87	2.01	0.00	0.00	0.00
38.10	1.75	0.87	2.01	0.00	0.00	0.00
38.15	1.75	0.87	2.01	0.00	0.00	0.00
38.20	1.75	0.87	2.01	0.00	0.00	0.00
38.25	1.75	0.87	2.00	0.00	0.00	0.00
38.30	1.75	0.87	2.00	0.00	0.00	0.00
38.35	1.74	0.87	2.00	0.00	0.00	0.00
38.40	1.74	0.87	2.00	0.00	0.00	0.00
38.45	1.74	0.87	2.00	0.00	0.00	0.00
38.50	1.74	0.87	2.00	0.00	0.00	0.00
38.55	1.74	0.87	2.00	0.00	0.00	0.00
38.60	1.74	0.87	2.00	0.00	0.00	0.00

38.65	1.74	0.87	2.00	0.00	0.00	0.00
38.70	1.74	0.87	2.00	0.00	0.00	0.00
38.75	1.74	0.87	2.00	0.00	0.00	0.00
38.80	1.74	0.87	2.00	0.00	0.00	0.00
38.85	1.74	0.87	2.00	0.00	0.00	0.00
38.90	1.74	0.87	2.00	0.00	0.00	0.00
38.95	1.74	0.87	2.00	0.00	0.00	0.00
39.00	1.74	0.87	1.99	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

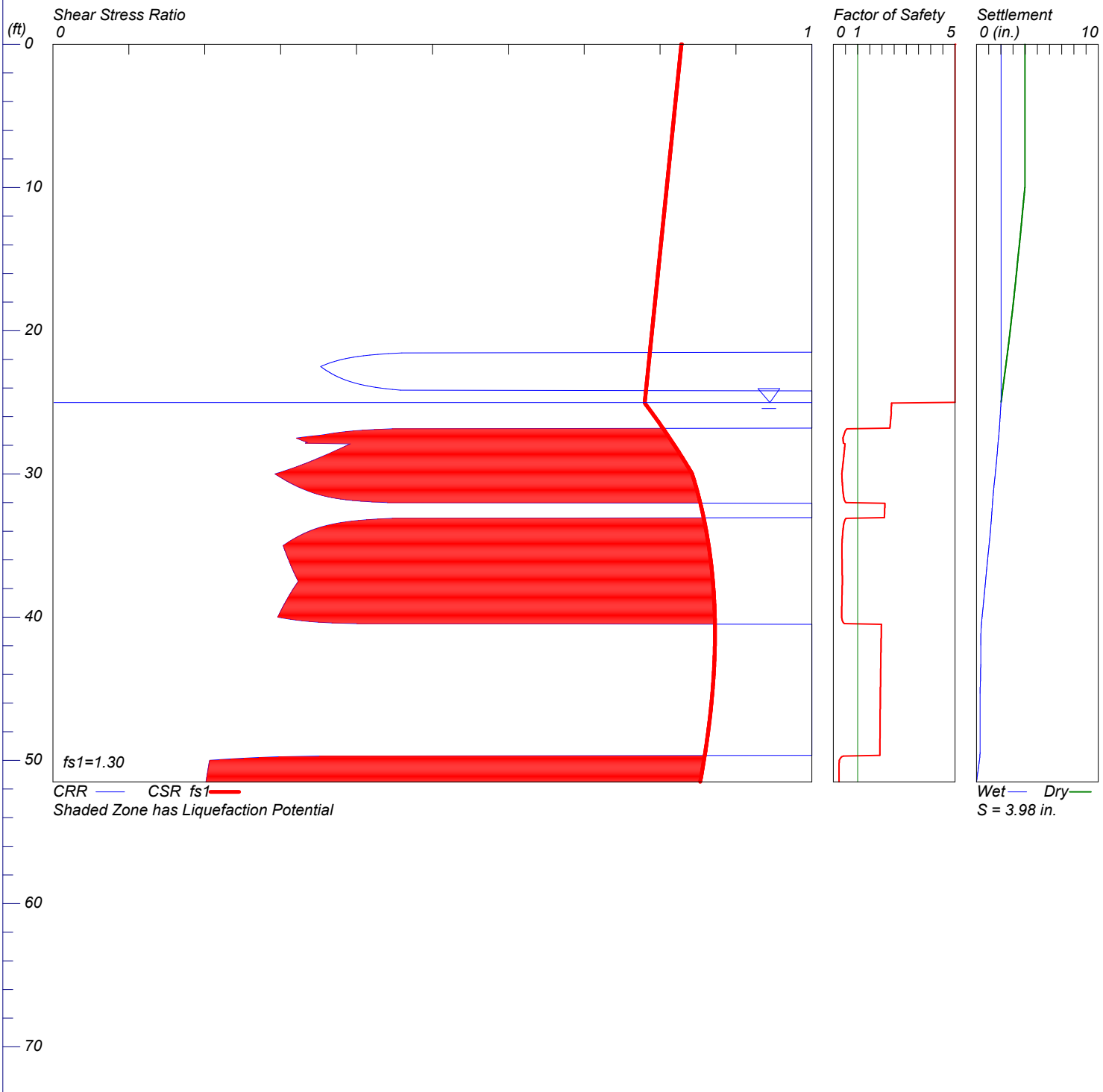
CRRm	Cyclic resistance ratio from soils
CSRfs	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat	Settlement from saturated sands
S_dry	Settlement from dry sands
S_all	Total settlement from saturated and dry sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=B-LGC-2 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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LIQUEFACTION ANALYSIS CALCULATION SHEET

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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\BLGC2.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=B-LGC-2
Depth of Hole= 51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 51.5 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=B-LGC-2
Depth of Hole=51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 51.5 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

Earthquake Magnitude=7.7
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.3
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.0	14.0	120.0	NoLiq
5.0	33.0	120.0	NoLiq
10.0	24.0	120.0	7.0
12.5	28.0	120.0	7.0
15.0	27.0	120.0	7.0
17.5	27.0	120.0	7.0
20.0	28.0	120.0	7.0
22.5	27.0	120.0	7.0
25.0	30.0	120.0	7.0
27.5	20.0	120.0	38.0
30.0	25.0	120.0	13.0
32.5	30.0	120.0	13.0
35.0	28.0	120.0	13.0
37.5	30.0	120.0	13.0
40.0	30.0	120.0	13.0
42.5	44.0	120.0	13.0
45.0	36.0	120.0	13.0
47.5	100.0	120.0	13.0
50.0	27.0	120.0	13.0
51.5	27.0	120.0	13.0

Output Results:

Settlement of saturated sands=2.01 in.
Settlement of dry sands=1.96 in.
Total settlement of saturated and dry sands=3.98 in.
Differential Settlement=1.988 to 2.624 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	2.01	1.96	3.98
0.05	2.00	0.83	5.00	2.01	1.96	3.98
0.10	2.00	0.83	5.00	2.01	1.96	3.98
0.15	2.00	0.83	5.00	2.01	1.96	3.98
0.20	2.00	0.83	5.00	2.01	1.96	3.98
0.25	2.00	0.83	5.00	2.01	1.96	3.98
0.30	2.00	0.83	5.00	2.01	1.96	3.98
0.35	2.00	0.83	5.00	2.01	1.96	3.98
0.40	2.00	0.83	5.00	2.01	1.96	3.98
0.45	2.00	0.83	5.00	2.01	1.96	3.98
0.50	2.00	0.83	5.00	2.01	1.96	3.98
0.55	2.00	0.83	5.00	2.01	1.96	3.98
0.60	2.00	0.83	5.00	2.01	1.96	3.98
0.65	2.00	0.83	5.00	2.01	1.96	3.98
0.70	2.00	0.83	5.00	2.01	1.96	3.98
0.75	2.00	0.83	5.00	2.01	1.96	3.98

0.80	2.00	0.83	5.00	2.01	1.96	3.98
0.85	2.00	0.83	5.00	2.01	1.96	3.98
0.90	2.00	0.83	5.00	2.01	1.96	3.98
0.95	2.00	0.83	5.00	2.01	1.96	3.98
1.00	2.00	0.83	5.00	2.01	1.96	3.98
1.05	2.00	0.83	5.00	2.01	1.96	3.98
1.10	2.00	0.83	5.00	2.01	1.96	3.98
1.15	2.00	0.83	5.00	2.01	1.96	3.98
1.20	2.00	0.83	5.00	2.01	1.96	3.98
1.25	2.00	0.83	5.00	2.01	1.96	3.98
1.30	2.00	0.83	5.00	2.01	1.96	3.98
1.35	2.00	0.83	5.00	2.01	1.96	3.98
1.40	2.00	0.83	5.00	2.01	1.96	3.98
1.45	2.00	0.83	5.00	2.01	1.96	3.98
1.50	2.00	0.83	5.00	2.01	1.96	3.98
1.55	2.00	0.83	5.00	2.01	1.96	3.98
1.60	2.00	0.83	5.00	2.01	1.96	3.98
1.65	2.00	0.82	5.00	2.01	1.96	3.98
1.70	2.00	0.82	5.00	2.01	1.96	3.98
1.75	2.00	0.82	5.00	2.01	1.96	3.98
1.80	2.00	0.82	5.00	2.01	1.96	3.98
1.85	2.00	0.82	5.00	2.01	1.96	3.98
1.90	2.00	0.82	5.00	2.01	1.96	3.98
1.95	2.00	0.82	5.00	2.01	1.96	3.98
2.00	2.00	0.82	5.00	2.01	1.96	3.98
2.05	2.00	0.82	5.00	2.01	1.96	3.98
2.10	2.00	0.82	5.00	2.01	1.96	3.98
2.15	2.00	0.82	5.00	2.01	1.96	3.98
2.20	2.00	0.82	5.00	2.01	1.96	3.98
2.25	2.00	0.82	5.00	2.01	1.96	3.98
2.30	2.00	0.82	5.00	2.01	1.96	3.98
2.35	2.00	0.82	5.00	2.01	1.96	3.98
2.40	2.00	0.82	5.00	2.01	1.96	3.98
2.45	2.00	0.82	5.00	2.01	1.96	3.98
2.50	2.00	0.82	5.00	2.01	1.96	3.98
2.55	2.00	0.82	5.00	2.01	1.96	3.98
2.60	2.00	0.82	5.00	2.01	1.96	3.98
2.65	2.00	0.82	5.00	2.01	1.96	3.98
2.70	2.00	0.82	5.00	2.01	1.96	3.98
2.75	2.00	0.82	5.00	2.01	1.96	3.98
2.80	2.00	0.82	5.00	2.01	1.96	3.98
2.85	2.00	0.82	5.00	2.01	1.96	3.98
2.90	2.00	0.82	5.00	2.01	1.96	3.98
2.95	2.00	0.82	5.00	2.01	1.96	3.98
3.00	2.00	0.82	5.00	2.01	1.96	3.98
3.05	2.00	0.82	5.00	2.01	1.96	3.98
3.10	2.00	0.82	5.00	2.01	1.96	3.98
3.15	2.00	0.82	5.00	2.01	1.96	3.98
3.20	2.00	0.82	5.00	2.01	1.96	3.98
3.25	2.00	0.82	5.00	2.01	1.96	3.98

3.30	2.00	0.82	5.00	2.01	1.96	3.98
3.35	2.00	0.82	5.00	2.01	1.96	3.98
3.40	2.00	0.82	5.00	2.01	1.96	3.98
3.45	2.00	0.82	5.00	2.01	1.96	3.98
3.50	2.00	0.82	5.00	2.01	1.96	3.98
3.55	2.00	0.82	5.00	2.01	1.96	3.98
3.60	2.00	0.82	5.00	2.01	1.96	3.98
3.65	2.00	0.82	5.00	2.01	1.96	3.98
3.70	2.00	0.82	5.00	2.01	1.96	3.98
3.75	2.00	0.82	5.00	2.01	1.96	3.98
3.80	2.00	0.82	5.00	2.01	1.96	3.98
3.85	2.00	0.82	5.00	2.01	1.96	3.98
3.90	2.00	0.82	5.00	2.01	1.96	3.98
3.95	2.00	0.82	5.00	2.01	1.96	3.98
4.00	2.00	0.82	5.00	2.01	1.96	3.98
4.05	2.00	0.82	5.00	2.01	1.96	3.98
4.10	2.00	0.82	5.00	2.01	1.96	3.98
4.15	2.00	0.82	5.00	2.01	1.96	3.98
4.20	2.00	0.82	5.00	2.01	1.96	3.98
4.25	2.00	0.82	5.00	2.01	1.96	3.98
4.30	2.00	0.82	5.00	2.01	1.96	3.98
4.35	2.00	0.82	5.00	2.01	1.96	3.98
4.40	2.00	0.82	5.00	2.01	1.96	3.98
4.45	2.00	0.82	5.00	2.01	1.96	3.98
4.50	2.00	0.82	5.00	2.01	1.96	3.98
4.55	2.00	0.82	5.00	2.01	1.96	3.98
4.60	2.00	0.82	5.00	2.01	1.96	3.98
4.65	2.00	0.82	5.00	2.01	1.96	3.98
4.70	2.00	0.82	5.00	2.01	1.96	3.98
4.75	2.00	0.82	5.00	2.01	1.96	3.98
4.80	2.00	0.82	5.00	2.01	1.96	3.98
4.85	2.00	0.82	5.00	2.01	1.96	3.98
4.90	2.00	0.82	5.00	2.01	1.96	3.98
4.95	2.00	0.82	5.00	2.01	1.96	3.98
5.00	2.00	0.82	5.00	2.01	1.96	3.98
5.05	2.00	0.82	5.00	2.01	1.96	3.98
5.10	2.00	0.82	5.00	2.01	1.96	3.98
5.15	2.00	0.82	5.00	2.01	1.96	3.98
5.20	2.00	0.82	5.00	2.01	1.96	3.98
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5.30	2.00	0.82	5.00	2.01	1.96	3.98
5.35	2.00	0.82	5.00	2.01	1.96	3.98
5.40	2.00	0.82	5.00	2.01	1.96	3.98
5.45	2.00	0.82	5.00	2.01	1.96	3.98
5.50	2.00	0.82	5.00	2.01	1.96	3.98
5.55	2.00	0.82	5.00	2.01	1.96	3.98
5.60	2.00	0.82	5.00	2.01	1.96	3.98
5.65	2.00	0.82	5.00	2.01	1.96	3.98
5.70	2.00	0.82	5.00	2.01	1.96	3.98
5.75	2.00	0.82	5.00	2.01	1.96	3.98

5.80	2.00	0.82	5.00	2.01	1.96	3.98
5.85	2.00	0.82	5.00	2.01	1.96	3.98
5.90	2.00	0.82	5.00	2.01	1.96	3.98
5.95	2.00	0.82	5.00	2.01	1.96	3.98
6.00	2.00	0.82	5.00	2.01	1.96	3.98
6.05	2.00	0.82	5.00	2.01	1.96	3.98
6.10	2.00	0.82	5.00	2.01	1.96	3.98
6.15	2.00	0.82	5.00	2.01	1.96	3.98
6.20	2.00	0.82	5.00	2.01	1.96	3.98
6.25	2.00	0.82	5.00	2.01	1.96	3.98
6.30	2.00	0.82	5.00	2.01	1.96	3.98
6.35	2.00	0.82	5.00	2.01	1.96	3.98
6.40	2.00	0.82	5.00	2.01	1.96	3.98
6.45	2.00	0.82	5.00	2.01	1.96	3.98
6.50	2.00	0.82	5.00	2.01	1.96	3.98
6.55	2.00	0.82	5.00	2.01	1.96	3.98
6.60	2.00	0.82	5.00	2.01	1.96	3.98
6.65	2.00	0.82	5.00	2.01	1.96	3.98
6.70	2.00	0.82	5.00	2.01	1.96	3.98
6.75	2.00	0.82	5.00	2.01	1.96	3.98
6.80	2.00	0.81	5.00	2.01	1.96	3.98
6.85	2.00	0.81	5.00	2.01	1.96	3.98
6.90	2.00	0.81	5.00	2.01	1.96	3.98
6.95	2.00	0.81	5.00	2.01	1.96	3.98
7.00	2.00	0.81	5.00	2.01	1.96	3.98
7.05	2.00	0.81	5.00	2.01	1.96	3.98
7.10	2.00	0.81	5.00	2.01	1.96	3.98
7.15	2.00	0.81	5.00	2.01	1.96	3.98
7.20	2.00	0.81	5.00	2.01	1.96	3.98
7.25	2.00	0.81	5.00	2.01	1.96	3.98
7.30	2.00	0.81	5.00	2.01	1.96	3.98
7.35	2.00	0.81	5.00	2.01	1.96	3.98
7.40	2.00	0.81	5.00	2.01	1.96	3.98
7.45	2.00	0.81	5.00	2.01	1.96	3.98
7.50	2.00	0.81	5.00	2.01	1.96	3.98
7.55	2.00	0.81	5.00	2.01	1.96	3.98
7.60	2.00	0.81	5.00	2.01	1.96	3.98
7.65	2.00	0.81	5.00	2.01	1.96	3.98
7.70	2.00	0.81	5.00	2.01	1.96	3.98
7.75	2.00	0.81	5.00	2.01	1.96	3.98
7.80	2.00	0.81	5.00	2.01	1.96	3.98
7.85	2.00	0.81	5.00	2.01	1.96	3.98
7.90	2.00	0.81	5.00	2.01	1.96	3.98
7.95	2.00	0.81	5.00	2.01	1.96	3.98
8.00	2.00	0.81	5.00	2.01	1.96	3.98
8.05	2.00	0.81	5.00	2.01	1.96	3.98
8.10	2.00	0.81	5.00	2.01	1.96	3.98
8.15	2.00	0.81	5.00	2.01	1.96	3.98
8.20	2.00	0.81	5.00	2.01	1.96	3.98
8.25	2.00	0.81	5.00	2.01	1.96	3.98

8.30	2.00	0.81	5.00	2.01	1.96	3.98
8.35	2.00	0.81	5.00	2.01	1.96	3.98
8.40	2.00	0.81	5.00	2.01	1.96	3.98
8.45	2.00	0.81	5.00	2.01	1.96	3.98
8.50	2.00	0.81	5.00	2.01	1.96	3.98
8.55	2.00	0.81	5.00	2.01	1.96	3.98
8.60	2.00	0.81	5.00	2.01	1.96	3.98
8.65	2.00	0.81	5.00	2.01	1.96	3.98
8.70	2.00	0.81	5.00	2.01	1.96	3.98
8.75	2.00	0.81	5.00	2.01	1.96	3.98
8.80	2.00	0.81	5.00	2.01	1.96	3.98
8.85	2.00	0.81	5.00	2.01	1.96	3.98
8.90	2.00	0.81	5.00	2.01	1.96	3.98
8.95	2.00	0.81	5.00	2.01	1.96	3.98
9.00	2.00	0.81	5.00	2.01	1.96	3.98
9.05	2.00	0.81	5.00	2.01	1.96	3.98
9.10	2.00	0.81	5.00	2.01	1.96	3.98
9.15	2.00	0.81	5.00	2.01	1.96	3.98
9.20	2.00	0.81	5.00	2.01	1.96	3.98
9.25	2.00	0.81	5.00	2.01	1.96	3.98
9.30	2.00	0.81	5.00	2.01	1.96	3.98
9.35	2.00	0.81	5.00	2.01	1.96	3.98
9.40	2.00	0.81	5.00	2.01	1.96	3.98
9.45	2.00	0.81	5.00	2.01	1.96	3.98
9.50	2.00	0.81	5.00	2.01	1.96	3.98
9.55	2.00	0.81	5.00	2.01	1.96	3.98
9.60	2.00	0.81	5.00	2.01	1.96	3.98
9.65	2.00	0.81	5.00	2.01	1.96	3.98
9.70	2.00	0.81	5.00	2.01	1.96	3.98
9.75	2.00	0.81	5.00	2.01	1.96	3.98
9.80	2.00	0.81	5.00	2.01	1.96	3.98
9.85	2.00	0.81	5.00	2.01	1.96	3.98
9.90	2.00	0.81	5.00	2.01	1.96	3.98
9.95	2.00	0.81	5.00	2.01	1.96	3.98
10.00	1.87	0.81	5.00	2.01	1.96	3.98
10.05	1.87	0.81	5.00	2.01	1.96	3.97
10.10	1.87	0.81	5.00	2.01	1.95	3.96
10.15	1.87	0.81	5.00	2.01	1.95	3.96
10.20	1.87	0.81	5.00	2.01	1.94	3.95
10.25	1.87	0.81	5.00	2.01	1.93	3.95
10.30	1.87	0.81	5.00	2.01	1.93	3.94
10.35	1.87	0.81	5.00	2.01	1.92	3.94
10.40	1.87	0.81	5.00	2.01	1.92	3.93
10.45	1.87	0.81	5.00	2.01	1.91	3.92
10.50	1.87	0.81	5.00	2.01	1.91	3.92
10.55	1.87	0.81	5.00	2.01	1.90	3.91
10.60	1.87	0.81	5.00	2.01	1.89	3.91
10.65	1.87	0.81	5.00	2.01	1.89	3.90
10.70	1.87	0.81	5.00	2.01	1.88	3.89
10.75	1.87	0.81	5.00	2.01	1.88	3.89

10.80	1.87	0.81	5.00	2.01	1.87	3.88
10.85	1.87	0.81	5.00	2.01	1.86	3.88
10.90	1.87	0.81	5.00	2.01	1.86	3.87
10.95	1.87	0.81	5.00	2.01	1.85	3.87
11.00	1.87	0.81	5.00	2.01	1.85	3.86
11.05	1.87	0.81	5.00	2.01	1.84	3.86
11.10	1.87	0.81	5.00	2.01	1.84	3.85
11.15	1.87	0.81	5.00	2.01	1.83	3.84
11.20	1.87	0.81	5.00	2.01	1.83	3.84
11.25	1.87	0.81	5.00	2.01	1.82	3.83
11.30	1.87	0.81	5.00	2.01	1.81	3.83
11.35	1.87	0.81	5.00	2.01	1.81	3.82
11.40	1.87	0.81	5.00	2.01	1.80	3.82
11.45	1.87	0.81	5.00	2.01	1.80	3.81
11.50	1.87	0.81	5.00	2.01	1.79	3.80
11.55	1.87	0.81	5.00	2.01	1.79	3.80
11.60	1.87	0.81	5.00	2.01	1.78	3.79
11.65	1.87	0.81	5.00	2.01	1.78	3.79
11.70	1.87	0.81	5.00	2.01	1.77	3.78
11.75	1.87	0.81	5.00	2.01	1.76	3.78
11.80	1.87	0.81	5.00	2.01	1.76	3.77
11.85	1.87	0.81	5.00	2.01	1.75	3.77
11.90	1.87	0.81	5.00	2.01	1.75	3.76
11.95	1.87	0.81	5.00	2.01	1.74	3.75
12.00	1.87	0.80	5.00	2.01	1.74	3.75
12.05	1.87	0.80	5.00	2.01	1.73	3.74
12.10	1.87	0.80	5.00	2.01	1.73	3.74
12.15	1.87	0.80	5.00	2.01	1.72	3.73
12.20	1.87	0.80	5.00	2.01	1.71	3.73
12.25	1.87	0.80	5.00	2.01	1.71	3.72
12.30	1.87	0.80	5.00	2.01	1.70	3.72
12.35	1.87	0.80	5.00	2.01	1.70	3.71
12.40	1.87	0.80	5.00	2.01	1.69	3.71
12.45	1.87	0.80	5.00	2.01	1.69	3.70
12.50	1.87	0.80	5.00	2.01	1.68	3.70
12.55	1.87	0.80	5.00	2.01	1.68	3.69
12.60	1.87	0.80	5.00	2.01	1.67	3.68
12.65	1.87	0.80	5.00	2.01	1.67	3.68
12.70	1.87	0.80	5.00	2.01	1.66	3.67
12.75	1.87	0.80	5.00	2.01	1.66	3.67
12.80	1.87	0.80	5.00	2.01	1.65	3.66
12.85	1.87	0.80	5.00	2.01	1.64	3.66
12.90	1.87	0.80	5.00	2.01	1.64	3.65
12.95	1.87	0.80	5.00	2.01	1.63	3.65
13.00	1.87	0.80	5.00	2.01	1.63	3.64
13.05	1.87	0.80	5.00	2.01	1.62	3.63
13.10	1.87	0.80	5.00	2.01	1.62	3.63
13.15	1.87	0.80	5.00	2.01	1.61	3.62
13.20	1.87	0.80	5.00	2.01	1.60	3.62
13.25	1.87	0.80	5.00	2.01	1.60	3.61

13.30	1.87	0.80	5.00	2.01	1.59	3.61
13.35	1.87	0.80	5.00	2.01	1.59	3.60
13.40	1.87	0.80	5.00	2.01	1.58	3.59
13.45	1.87	0.80	5.00	2.01	1.57	3.59
13.50	1.87	0.80	5.00	2.01	1.57	3.58
13.55	1.87	0.80	5.00	2.01	1.56	3.58
13.60	1.87	0.80	5.00	2.01	1.56	3.57
13.65	1.87	0.80	5.00	2.01	1.55	3.56
13.70	1.87	0.80	5.00	2.01	1.54	3.56
13.75	1.87	0.80	5.00	2.01	1.54	3.55
13.80	1.87	0.80	5.00	2.01	1.53	3.55
13.85	1.87	0.80	5.00	2.01	1.53	3.54
13.90	1.87	0.80	5.00	2.01	1.52	3.53
13.95	1.87	0.80	5.00	2.01	1.51	3.53
14.00	1.87	0.80	5.00	2.01	1.51	3.52
14.05	1.87	0.80	5.00	2.01	1.50	3.51
14.10	1.87	0.80	5.00	2.01	1.50	3.51
14.15	1.87	0.80	5.00	2.01	1.49	3.50
14.20	1.87	0.80	5.00	2.01	1.48	3.50
14.25	1.87	0.80	5.00	2.01	1.48	3.49
14.30	1.87	0.80	5.00	2.01	1.47	3.48
14.35	1.87	0.80	5.00	2.01	1.46	3.48
14.40	1.87	0.80	5.00	2.01	1.46	3.47
14.45	1.87	0.80	5.00	2.01	1.45	3.46
14.50	1.87	0.80	5.00	2.01	1.44	3.46
14.55	1.87	0.80	5.00	2.01	1.44	3.45
14.60	1.87	0.80	5.00	2.01	1.43	3.44
14.65	1.87	0.80	5.00	2.01	1.42	3.44
14.70	1.87	0.80	5.00	2.01	1.42	3.43
14.75	1.87	0.80	5.00	2.01	1.41	3.42
14.80	1.87	0.80	5.00	2.01	1.40	3.42
14.85	1.87	0.80	5.00	2.01	1.40	3.41
14.90	1.87	0.80	5.00	2.01	1.39	3.41
14.95	1.87	0.80	5.00	2.01	1.39	3.40
15.00	1.87	0.80	5.00	2.01	1.38	3.40
15.05	1.87	0.80	5.00	2.01	1.38	3.39
15.10	1.87	0.80	5.00	2.01	1.37	3.38
15.15	1.87	0.80	5.00	2.01	1.37	3.38
15.20	1.87	0.80	5.00	2.01	1.36	3.37
15.25	1.87	0.80	5.00	2.01	1.35	3.37
15.30	1.87	0.80	5.00	2.01	1.35	3.36
15.35	1.87	0.80	5.00	2.01	1.34	3.36
15.40	1.87	0.80	5.00	2.01	1.34	3.35
15.45	1.87	0.80	5.00	2.01	1.33	3.34
15.50	1.87	0.80	5.00	2.01	1.33	3.34
15.55	1.87	0.80	5.00	2.01	1.32	3.33
15.60	1.87	0.80	5.00	2.01	1.31	3.33
15.65	1.87	0.80	5.00	2.01	1.31	3.32
15.70	1.87	0.80	5.00	2.01	1.30	3.32
15.75	1.87	0.80	5.00	2.01	1.30	3.31

15.80	1.87	0.80	5.00	2.01	1.29	3.30
15.85	1.87	0.80	5.00	2.01	1.29	3.30
15.90	1.87	0.80	5.00	2.01	1.28	3.29
15.95	1.87	0.80	5.00	2.01	1.27	3.29
16.00	1.87	0.80	5.00	2.01	1.27	3.28
16.05	1.87	0.80	5.00	2.01	1.26	3.27
16.10	1.87	0.80	5.00	2.01	1.26	3.27
16.15	1.87	0.80	5.00	2.01	1.25	3.26
16.20	1.87	0.80	5.00	2.01	1.24	3.26
16.25	1.87	0.80	5.00	2.01	1.24	3.25
16.30	1.87	0.80	5.00	2.01	1.23	3.24
16.35	1.87	0.80	5.00	2.01	1.23	3.24
16.40	1.87	0.80	5.00	2.01	1.22	3.23
16.45	1.87	0.80	5.00	2.01	1.21	3.23
16.50	1.87	0.80	5.00	2.01	1.21	3.22
16.55	1.87	0.80	5.00	2.01	1.20	3.21
16.60	1.87	0.80	5.00	2.01	1.20	3.21
16.65	1.87	0.80	5.00	2.01	1.19	3.20
16.70	1.87	0.80	5.00	2.01	1.18	3.20
16.75	1.87	0.80	5.00	2.01	1.18	3.19
16.80	1.87	0.80	5.00	2.01	1.17	3.18
16.85	1.87	0.80	5.00	2.01	1.16	3.18
16.90	1.87	0.80	5.00	2.01	1.16	3.17
16.95	1.87	0.80	5.00	2.01	1.15	3.16
17.00	1.87	0.80	5.00	2.01	1.15	3.16
17.05	1.87	0.80	5.00	2.01	1.14	3.15
17.10	1.87	0.80	5.00	2.01	1.13	3.15
17.15	1.87	0.79	5.00	2.01	1.13	3.14
17.20	1.87	0.79	5.00	2.01	1.12	3.13
17.25	1.87	0.79	5.00	2.01	1.11	3.13
17.30	1.87	0.79	5.00	2.01	1.11	3.12
17.35	1.87	0.79	5.00	2.01	1.10	3.11
17.40	1.87	0.79	5.00	2.01	1.10	3.11
17.45	1.87	0.79	5.00	2.01	1.09	3.10
17.50	1.87	0.79	5.00	2.01	1.08	3.09
17.55	1.87	0.79	5.00	2.01	1.08	3.09
17.60	1.87	0.79	5.00	2.01	1.07	3.08
17.65	1.87	0.79	5.00	2.01	1.06	3.08
17.70	1.87	0.79	5.00	2.01	1.06	3.07
17.75	1.87	0.79	5.00	2.01	1.05	3.06
17.80	1.87	0.79	5.00	2.01	1.04	3.06
17.85	1.87	0.79	5.00	2.01	1.04	3.05
17.90	1.87	0.79	5.00	2.01	1.03	3.04
17.95	1.87	0.79	5.00	2.01	1.02	3.04
18.00	1.87	0.79	5.00	2.01	1.02	3.03
18.05	1.87	0.79	5.00	2.01	1.01	3.02
18.10	1.87	0.79	5.00	2.01	1.00	3.02
18.15	1.87	0.79	5.00	2.01	1.00	3.01
18.20	1.87	0.79	5.00	2.01	0.99	3.00
18.25	1.87	0.79	5.00	2.01	0.98	3.00

18.30	1.87	0.79	5.00	2.01	0.98	2.99
18.35	1.87	0.79	5.00	2.01	0.97	2.98
18.40	1.87	0.79	5.00	2.01	0.97	2.98
18.45	1.87	0.79	5.00	2.01	0.96	2.97
18.50	1.87	0.79	5.00	2.01	0.95	2.96
18.55	1.87	0.79	5.00	2.01	0.95	2.96
18.60	1.87	0.79	5.00	2.01	0.94	2.95
18.65	1.87	0.79	5.00	2.01	0.93	2.94
18.70	1.87	0.79	5.00	2.01	0.93	2.94
18.75	1.87	0.79	5.00	2.01	0.92	2.93
18.80	1.87	0.79	5.00	2.01	0.91	2.93
18.85	1.87	0.79	5.00	2.01	0.91	2.92
18.90	1.87	0.79	5.00	2.01	0.90	2.91
18.95	1.87	0.79	5.00	2.01	0.89	2.91
19.00	1.87	0.79	5.00	2.01	0.89	2.90
19.05	1.87	0.79	5.00	2.01	0.88	2.89
19.10	1.87	0.79	5.00	2.01	0.87	2.89
19.15	1.87	0.79	5.00	2.01	0.87	2.88
19.20	1.87	0.79	5.00	2.01	0.86	2.87
19.25	1.87	0.79	5.00	2.01	0.85	2.87
19.30	1.87	0.79	5.00	2.01	0.85	2.86
19.35	1.87	0.79	5.00	2.01	0.84	2.85
19.40	1.87	0.79	5.00	2.01	0.83	2.85
19.45	1.87	0.79	5.00	2.01	0.83	2.84
19.50	1.87	0.79	5.00	2.01	0.82	2.83
19.55	1.87	0.79	5.00	2.01	0.81	2.83
19.60	1.87	0.79	5.00	2.01	0.81	2.82
19.65	1.87	0.79	5.00	2.01	0.80	2.81
19.70	1.87	0.79	5.00	2.01	0.79	2.80
19.75	1.87	0.79	5.00	2.01	0.79	2.80
19.80	1.87	0.79	5.00	2.01	0.78	2.79
19.85	1.87	0.79	5.00	2.01	0.77	2.78
19.90	1.87	0.79	5.00	2.01	0.76	2.78
19.95	1.87	0.79	5.00	2.01	0.76	2.77
20.00	1.87	0.79	5.00	2.01	0.75	2.76
20.05	1.87	0.79	5.00	2.01	0.74	2.76
20.10	1.87	0.79	5.00	2.01	0.74	2.75
20.15	1.87	0.79	5.00	2.01	0.73	2.74
20.20	1.87	0.79	5.00	2.01	0.72	2.74
20.25	1.87	0.79	5.00	2.01	0.72	2.73
20.30	1.87	0.79	5.00	2.01	0.71	2.72
20.35	1.87	0.79	5.00	2.01	0.70	2.72
20.40	1.87	0.79	5.00	2.01	0.70	2.71
20.45	1.87	0.79	5.00	2.01	0.69	2.70
20.50	1.87	0.79	5.00	2.01	0.68	2.70
20.55	1.87	0.79	5.00	2.01	0.68	2.69
20.60	1.87	0.79	5.00	2.01	0.67	2.68
20.65	1.87	0.79	5.00	2.01	0.66	2.67
20.70	1.87	0.79	5.00	2.01	0.65	2.67
20.75	1.87	0.79	5.00	2.01	0.65	2.66

20.80	1.87	0.79	5.00	2.01	0.64	2.65
20.85	1.87	0.79	5.00	2.01	0.63	2.65
20.90	1.87	0.79	5.00	2.01	0.63	2.64
20.95	1.87	0.79	5.00	2.01	0.62	2.63
21.00	1.87	0.79	5.00	2.01	0.61	2.62
21.05	1.87	0.79	5.00	2.01	0.60	2.62
21.10	1.87	0.79	5.00	2.01	0.60	2.61
21.15	1.87	0.79	5.00	2.01	0.59	2.60
21.20	1.87	0.79	5.00	2.01	0.58	2.60
21.25	1.87	0.79	5.00	2.01	0.58	2.59
21.30	1.87	0.79	5.00	2.01	0.57	2.58
21.35	1.87	0.79	5.00	2.01	0.56	2.57
21.40	1.87	0.79	5.00	2.01	0.55	2.57
21.45	1.87	0.79	5.00	2.01	0.55	2.56
21.50	1.87	0.79	5.00	2.01	0.54	2.55
21.55	0.46	0.79	5.00	2.01	0.53	2.54
21.60	0.44	0.79	5.00	2.01	0.52	2.54
21.65	0.43	0.79	5.00	2.01	0.52	2.53
21.70	0.42	0.79	5.00	2.01	0.51	2.52
21.75	0.41	0.79	5.00	2.01	0.50	2.51
21.80	0.40	0.79	5.00	2.01	0.49	2.51
21.85	0.40	0.79	5.00	2.01	0.49	2.50
21.90	0.39	0.79	5.00	2.01	0.48	2.49
21.95	0.39	0.79	5.00	2.01	0.47	2.48
22.00	0.38	0.79	5.00	2.01	0.46	2.48
22.05	0.38	0.79	5.00	2.01	0.46	2.47
22.10	0.37	0.79	5.00	2.01	0.45	2.46
22.15	0.37	0.79	5.00	2.01	0.44	2.45
22.20	0.37	0.79	5.00	2.01	0.43	2.45
22.25	0.36	0.79	5.00	2.01	0.42	2.44
22.30	0.36	0.79	5.00	2.01	0.42	2.43
22.35	0.36	0.78	5.00	2.01	0.41	2.42
22.40	0.36	0.78	5.00	2.01	0.40	2.41
22.45	0.35	0.78	5.00	2.01	0.39	2.41
22.50	0.35	0.78	5.00	2.01	0.39	2.40
22.55	0.35	0.78	5.00	2.01	0.38	2.39
22.60	0.36	0.78	5.00	2.01	0.37	2.38
22.65	0.36	0.78	5.00	2.01	0.36	2.37
22.70	0.36	0.78	5.00	2.01	0.35	2.37
22.75	0.36	0.78	5.00	2.01	0.35	2.36
22.80	0.36	0.78	5.00	2.01	0.34	2.35
22.85	0.36	0.78	5.00	2.01	0.33	2.34
22.90	0.36	0.78	5.00	2.01	0.32	2.34
22.95	0.37	0.78	5.00	2.01	0.32	2.33
23.00	0.37	0.78	5.00	2.01	0.31	2.32
23.05	0.37	0.78	5.00	2.01	0.30	2.31
23.10	0.37	0.78	5.00	2.01	0.29	2.30
23.15	0.37	0.78	5.00	2.01	0.28	2.30
23.20	0.37	0.78	5.00	2.01	0.28	2.29
23.25	0.38	0.78	5.00	2.01	0.27	2.28

23.30	0.38	0.78	5.00	2.01	0.26	2.27
23.35	0.38	0.78	5.00	2.01	0.25	2.27
23.40	0.38	0.78	5.00	2.01	0.25	2.26
23.45	0.39	0.78	5.00	2.01	0.24	2.25
23.50	0.39	0.78	5.00	2.01	0.23	2.24
23.55	0.39	0.78	5.00	2.01	0.22	2.24
23.60	0.39	0.78	5.00	2.01	0.22	2.23
23.65	0.40	0.78	5.00	2.01	0.21	2.22
23.70	0.40	0.78	5.00	2.01	0.20	2.21
23.75	0.41	0.78	5.00	2.01	0.19	2.21
23.80	0.41	0.78	5.00	2.01	0.19	2.20
23.85	0.41	0.78	5.00	2.01	0.18	2.19
23.90	0.42	0.78	5.00	2.01	0.17	2.18
23.95	0.42	0.78	5.00	2.01	0.16	2.18
24.00	0.43	0.78	5.00	2.01	0.15	2.17
24.05	0.44	0.78	5.00	2.01	0.15	2.16
24.10	0.45	0.78	5.00	2.01	0.14	2.15
24.15	0.46	0.78	5.00	2.01	0.13	2.15
24.20	1.87	0.78	5.00	2.01	0.13	2.14
24.25	1.87	0.78	5.00	2.01	0.12	2.13
24.30	1.87	0.78	5.00	2.01	0.11	2.12
24.35	1.87	0.78	5.00	2.01	0.10	2.12
24.40	1.87	0.78	5.00	2.01	0.10	2.11
24.45	1.87	0.78	5.00	2.01	0.09	2.10
24.50	1.87	0.78	5.00	2.01	0.08	2.09
24.55	1.87	0.78	5.00	2.01	0.07	2.09
24.60	1.87	0.78	5.00	2.01	0.07	2.08
24.65	1.87	0.78	5.00	2.01	0.06	2.07
24.70	1.87	0.78	5.00	2.01	0.05	2.06
24.75	1.87	0.78	5.00	2.01	0.04	2.06
24.80	1.87	0.78	5.00	2.01	0.04	2.05
24.85	1.87	0.78	5.00	2.01	0.03	2.04
24.90	1.87	0.78	5.00	2.01	0.02	2.03
24.95	1.87	0.78	5.00	2.01	0.01	2.03
25.00	1.87	0.78	5.00	2.01	0.01	2.02
25.05	1.87	0.78	2.40	2.01	0.00	2.01
25.10	1.87	0.78	2.39	2.01	0.00	2.01
25.15	1.87	0.78	2.39	2.00	0.00	2.00
25.20	1.87	0.78	2.39	2.00	0.00	2.00
25.25	1.87	0.78	2.39	2.00	0.00	2.00
25.30	1.87	0.78	2.39	1.99	0.00	1.99
25.35	1.87	0.78	2.38	1.99	0.00	1.99
25.40	1.87	0.78	2.38	1.98	0.00	1.98
25.45	1.87	0.79	2.38	1.98	0.00	1.98
25.50	1.87	0.79	2.38	1.98	0.00	1.98
25.55	1.87	0.79	2.38	1.97	0.00	1.97
25.60	1.87	0.79	2.37	1.97	0.00	1.97
25.65	1.88	0.79	2.39	1.97	0.00	1.97
25.70	1.88	0.79	2.38	1.96	0.00	1.96
25.75	1.88	0.79	2.38	1.96	0.00	1.96

25.80	1.88	0.79	2.38	1.96	0.00	1.96
25.85	1.88	0.79	2.37	1.95	0.00	1.95
25.90	1.88	0.79	2.37	1.95	0.00	1.95
25.95	1.88	0.79	2.37	1.94	0.00	1.94
26.00	1.88	0.79	2.37	1.94	0.00	1.94
26.05	1.88	0.79	2.36	1.94	0.00	1.94
26.10	1.88	0.79	2.36	1.93	0.00	1.93
26.15	1.87	0.79	2.36	1.93	0.00	1.93
26.20	1.87	0.80	2.36	1.93	0.00	1.93
26.25	1.87	0.80	2.35	1.92	0.00	1.92
26.30	1.87	0.80	2.35	1.92	0.00	1.92
26.35	1.87	0.80	2.35	1.91	0.00	1.91
26.40	1.87	0.80	2.34	1.91	0.00	1.91
26.45	1.87	0.80	2.34	1.91	0.00	1.91
26.50	1.87	0.80	2.34	1.90	0.00	1.90
26.55	1.87	0.80	2.34	1.90	0.00	1.90
26.60	1.87	0.80	2.33	1.90	0.00	1.90
26.65	1.87	0.80	2.33	1.89	0.00	1.89
26.70	1.87	0.80	2.33	1.89	0.00	1.89
26.75	1.87	0.80	2.33	1.88	0.00	1.88
26.80	1.87	0.80	2.32	1.88	0.00	1.88
26.85	0.45	0.80	0.56*	1.87	0.00	1.87
26.90	0.42	0.80	0.53*	1.87	0.00	1.87
26.95	0.41	0.81	0.51*	1.86	0.00	1.86
27.00	0.40	0.81	0.49*	1.86	0.00	1.86
27.05	0.39	0.81	0.48*	1.86	0.00	1.86
27.10	0.38	0.81	0.47*	1.85	0.00	1.85
27.15	0.37	0.81	0.46*	1.85	0.00	1.85
27.20	0.36	0.81	0.45*	1.84	0.00	1.84
27.25	0.36	0.81	0.44*	1.84	0.00	1.84
27.30	0.35	0.81	0.43*	1.83	0.00	1.83
27.35	0.34	0.81	0.42*	1.83	0.00	1.83
27.40	0.33	0.81	0.41*	1.82	0.00	1.82
27.45	0.33	0.81	0.40*	1.82	0.00	1.82
27.50	0.32	0.81	0.39*	1.81	0.00	1.81
27.55	0.32	0.81	0.40*	1.80	0.00	1.80
27.60	0.33	0.81	0.40*	1.80	0.00	1.80
27.65	0.33	0.81	0.40*	1.79	0.00	1.79
27.70	0.33	0.82	0.41*	1.79	0.00	1.79
27.75	0.33	0.82	0.41*	1.78	0.00	1.78
27.80	0.34	0.82	0.41*	1.77	0.00	1.77
27.85	0.33	0.82	0.41*	1.77	0.00	1.77
27.90	0.39	0.82	0.48*	1.76	0.00	1.76
27.95	0.39	0.82	0.48*	1.76	0.00	1.76
28.00	0.39	0.82	0.47*	1.75	0.00	1.75
28.05	0.39	0.82	0.47*	1.75	0.00	1.75
28.10	0.38	0.82	0.47*	1.74	0.00	1.74
28.15	0.38	0.82	0.47*	1.74	0.00	1.74
28.20	0.38	0.82	0.46*	1.74	0.00	1.74
28.25	0.38	0.82	0.46*	1.73	0.00	1.73

28.30	0.38	0.82	0.46*	1.73	0.00	1.73
28.35	0.37	0.82	0.45*	1.72	0.00	1.72
28.40	0.37	0.82	0.45*	1.72	0.00	1.72
28.45	0.37	0.82	0.45*	1.71	0.00	1.71
28.50	0.37	0.83	0.44*	1.71	0.00	1.71
28.55	0.36	0.83	0.44*	1.70	0.00	1.70
28.60	0.36	0.83	0.44*	1.70	0.00	1.70
28.65	0.36	0.83	0.44*	1.69	0.00	1.69
28.70	0.36	0.83	0.43*	1.69	0.00	1.69
28.75	0.36	0.83	0.43*	1.68	0.00	1.68
28.80	0.35	0.83	0.43*	1.68	0.00	1.68
28.85	0.35	0.83	0.42*	1.67	0.00	1.67
28.90	0.35	0.83	0.42*	1.67	0.00	1.67
28.95	0.35	0.83	0.42*	1.66	0.00	1.66
29.00	0.35	0.83	0.42*	1.66	0.00	1.66
29.05	0.34	0.83	0.41*	1.65	0.00	1.65
29.10	0.34	0.83	0.41*	1.64	0.00	1.64
29.15	0.34	0.83	0.41*	1.64	0.00	1.64
29.20	0.34	0.83	0.40*	1.63	0.00	1.63
29.25	0.33	0.83	0.40*	1.63	0.00	1.63
29.30	0.33	0.83	0.40*	1.62	0.00	1.62
29.35	0.33	0.84	0.39*	1.62	0.00	1.62
29.40	0.33	0.84	0.39*	1.61	0.00	1.61
29.45	0.32	0.84	0.39*	1.61	0.00	1.61
29.50	0.32	0.84	0.38*	1.60	0.00	1.60
29.55	0.32	0.84	0.38*	1.59	0.00	1.59
29.60	0.32	0.84	0.38*	1.59	0.00	1.59
29.65	0.31	0.84	0.37*	1.58	0.00	1.58
29.70	0.31	0.84	0.37*	1.58	0.00	1.58
29.75	0.31	0.84	0.37*	1.57	0.00	1.57
29.80	0.30	0.84	0.36*	1.56	0.00	1.56
29.85	0.30	0.84	0.36*	1.56	0.00	1.56
29.90	0.30	0.84	0.35*	1.55	0.00	1.55
29.95	0.30	0.84	0.35*	1.55	0.00	1.55
30.00	0.29	0.84	0.35*	1.54	0.00	1.54
30.05	0.29	0.84	0.35*	1.53	0.00	1.53
30.10	0.30	0.84	0.35*	1.53	0.00	1.53
30.15	0.30	0.84	0.35*	1.52	0.00	1.52
30.20	0.30	0.84	0.35*	1.51	0.00	1.51
30.25	0.30	0.84	0.36*	1.51	0.00	1.51
30.30	0.30	0.84	0.36*	1.50	0.00	1.50
30.35	0.30	0.84	0.36*	1.50	0.00	1.50
30.40	0.30	0.84	0.36*	1.49	0.00	1.49
30.45	0.31	0.84	0.36*	1.48	0.00	1.48
30.50	0.31	0.85	0.36*	1.48	0.00	1.48
30.55	0.31	0.85	0.37*	1.47	0.00	1.47
30.60	0.31	0.85	0.37*	1.46	0.00	1.46
30.65	0.31	0.85	0.37*	1.46	0.00	1.46
30.70	0.32	0.85	0.37*	1.45	0.00	1.45
30.75	0.32	0.85	0.37*	1.45	0.00	1.45

30.80	0.32	0.85	0.38*	1.44	0.00	1.44
30.85	0.32	0.85	0.38*	1.44	0.00	1.44
30.90	0.32	0.85	0.38*	1.43	0.00	1.43
30.95	0.33	0.85	0.38*	1.42	0.00	1.42
31.00	0.33	0.85	0.39*	1.42	0.00	1.42
31.05	0.33	0.85	0.39*	1.41	0.00	1.41
31.10	0.33	0.85	0.39*	1.41	0.00	1.41
31.15	0.33	0.85	0.39*	1.40	0.00	1.40
31.20	0.34	0.85	0.40*	1.40	0.00	1.40
31.25	0.34	0.85	0.40*	1.39	0.00	1.39
31.30	0.34	0.85	0.40*	1.39	0.00	1.39
31.35	0.34	0.85	0.41*	1.38	0.00	1.38
31.40	0.35	0.85	0.41*	1.37	0.00	1.37
31.45	0.35	0.85	0.41*	1.37	0.00	1.37
31.50	0.35	0.85	0.42*	1.36	0.00	1.36
31.55	0.36	0.85	0.42*	1.36	0.00	1.36
31.60	0.36	0.85	0.43*	1.35	0.00	1.35
31.65	0.37	0.85	0.43*	1.35	0.00	1.35
31.70	0.37	0.85	0.44*	1.35	0.00	1.35
31.75	0.38	0.85	0.44*	1.34	0.00	1.34
31.80	0.39	0.85	0.45*	1.34	0.00	1.34
31.85	0.39	0.85	0.46*	1.33	0.00	1.33
31.90	0.41	0.85	0.48*	1.33	0.00	1.33
31.95	0.42	0.85	0.49*	1.32	0.00	1.32
32.00	0.44	0.85	0.52*	1.32	0.00	1.32
32.05	1.81	0.85	2.12	1.31	0.00	1.31
32.10	1.81	0.85	2.12	1.31	0.00	1.31
32.15	1.81	0.85	2.12	1.30	0.00	1.30
32.20	1.81	0.85	2.12	1.30	0.00	1.30
32.25	1.81	0.85	2.12	1.30	0.00	1.30
32.30	1.81	0.85	2.11	1.29	0.00	1.29
32.35	1.81	0.85	2.11	1.29	0.00	1.29
32.40	1.81	0.85	2.11	1.28	0.00	1.28
32.45	1.80	0.85	2.11	1.28	0.00	1.28
32.50	1.80	0.86	2.11	1.28	0.00	1.28
32.55	1.80	0.86	2.11	1.27	0.00	1.27
32.60	1.80	0.86	2.11	1.27	0.00	1.27
32.65	1.80	0.86	2.11	1.26	0.00	1.26
32.70	1.80	0.86	2.11	1.26	0.00	1.26
32.75	1.80	0.86	2.10	1.26	0.00	1.26
32.80	1.80	0.86	2.10	1.25	0.00	1.25
32.85	1.80	0.86	2.10	1.25	0.00	1.25
32.90	1.80	0.86	2.10	1.24	0.00	1.24
32.95	1.80	0.86	2.10	1.24	0.00	1.24
33.00	1.80	0.86	2.10	1.24	0.00	1.24
33.05	1.80	0.86	2.10	1.23	0.00	1.23
33.10	0.45	0.86	0.52*	1.23	0.00	1.23
33.15	0.43	0.86	0.50*	1.22	0.00	1.22
33.20	0.41	0.86	0.48*	1.22	0.00	1.22
33.25	0.40	0.86	0.47*	1.21	0.00	1.21

33.30	0.39	0.86	0.46*	1.21	0.00	1.21
33.35	0.39	0.86	0.45*	1.20	0.00	1.20
33.40	0.38	0.86	0.44*	1.20	0.00	1.20
33.45	0.37	0.86	0.44*	1.19	0.00	1.19
33.50	0.37	0.86	0.43*	1.19	0.00	1.19
33.55	0.36	0.86	0.42*	1.19	0.00	1.19
33.60	0.36	0.86	0.42*	1.18	0.00	1.18
33.65	0.36	0.86	0.42*	1.18	0.00	1.18
33.70	0.35	0.86	0.41*	1.17	0.00	1.17
33.75	0.35	0.86	0.41*	1.17	0.00	1.17
33.80	0.35	0.86	0.40*	1.16	0.00	1.16
33.85	0.35	0.86	0.40*	1.16	0.00	1.16
33.90	0.34	0.86	0.40*	1.15	0.00	1.15
33.95	0.34	0.86	0.40*	1.15	0.00	1.15
34.00	0.34	0.86	0.39*	1.14	0.00	1.14
34.05	0.34	0.86	0.39*	1.14	0.00	1.14
34.10	0.33	0.86	0.39*	1.13	0.00	1.13
34.15	0.33	0.86	0.38*	1.12	0.00	1.12
34.20	0.33	0.86	0.38*	1.12	0.00	1.12
34.25	0.33	0.86	0.38*	1.11	0.00	1.11
34.30	0.33	0.86	0.38*	1.11	0.00	1.11
34.35	0.32	0.86	0.38*	1.10	0.00	1.10
34.40	0.32	0.86	0.37*	1.10	0.00	1.10
34.45	0.32	0.86	0.37*	1.09	0.00	1.09
34.50	0.32	0.86	0.37*	1.09	0.00	1.09
34.55	0.32	0.86	0.37*	1.08	0.00	1.08
34.60	0.32	0.86	0.37*	1.07	0.00	1.07
34.65	0.31	0.86	0.36*	1.07	0.00	1.07
34.70	0.31	0.86	0.36*	1.06	0.00	1.06
34.75	0.31	0.86	0.36*	1.06	0.00	1.06
34.80	0.31	0.86	0.36*	1.05	0.00	1.05
34.85	0.31	0.86	0.36*	1.05	0.00	1.05
34.90	0.31	0.86	0.35*	1.04	0.00	1.04
34.95	0.30	0.86	0.35*	1.03	0.00	1.03
35.00	0.30	0.86	0.35*	1.03	0.00	1.03
35.05	0.30	0.86	0.35*	1.02	0.00	1.02
35.10	0.30	0.86	0.35*	1.02	0.00	1.02
35.15	0.30	0.86	0.35*	1.01	0.00	1.01
35.20	0.30	0.86	0.35*	1.00	0.00	1.00
35.25	0.31	0.86	0.35*	1.00	0.00	1.00
35.30	0.31	0.86	0.35*	0.99	0.00	0.99
35.35	0.31	0.87	0.35*	0.99	0.00	0.99
35.40	0.31	0.87	0.35*	0.98	0.00	0.98
35.45	0.31	0.87	0.35*	0.97	0.00	0.97
35.50	0.31	0.87	0.35*	0.97	0.00	0.97
35.55	0.31	0.87	0.35*	0.96	0.00	0.96
35.60	0.31	0.87	0.36*	0.96	0.00	0.96
35.65	0.31	0.87	0.36*	0.95	0.00	0.95
35.70	0.31	0.87	0.36*	0.94	0.00	0.94
35.75	0.31	0.87	0.36*	0.94	0.00	0.94

35.80	0.31	0.87	0.36*	0.93	0.00	0.93
35.85	0.31	0.87	0.36*	0.93	0.00	0.93
35.90	0.31	0.87	0.36*	0.92	0.00	0.92
35.95	0.31	0.87	0.36*	0.92	0.00	0.92
36.00	0.31	0.87	0.36*	0.91	0.00	0.91
36.05	0.31	0.87	0.36*	0.90	0.00	0.90
36.10	0.31	0.87	0.36*	0.90	0.00	0.90
36.15	0.31	0.87	0.36*	0.89	0.00	0.89
36.20	0.31	0.87	0.36*	0.89	0.00	0.89
36.25	0.31	0.87	0.36*	0.88	0.00	0.88
36.30	0.31	0.87	0.36*	0.87	0.00	0.87
36.35	0.31	0.87	0.36*	0.87	0.00	0.87
36.40	0.31	0.87	0.36*	0.86	0.00	0.86
36.45	0.31	0.87	0.36*	0.86	0.00	0.86
36.50	0.31	0.87	0.36*	0.85	0.00	0.85
36.55	0.31	0.87	0.36*	0.85	0.00	0.85
36.60	0.32	0.87	0.36*	0.84	0.00	0.84
36.65	0.32	0.87	0.36*	0.83	0.00	0.83
36.70	0.32	0.87	0.36*	0.83	0.00	0.83
36.75	0.32	0.87	0.36*	0.82	0.00	0.82
36.80	0.32	0.87	0.37*	0.82	0.00	0.82
36.85	0.32	0.87	0.37*	0.81	0.00	0.81
36.90	0.32	0.87	0.37*	0.81	0.00	0.81
36.95	0.32	0.87	0.37*	0.80	0.00	0.80
37.00	0.32	0.87	0.37*	0.80	0.00	0.80
37.05	0.32	0.87	0.37*	0.79	0.00	0.79
37.10	0.32	0.87	0.37*	0.78	0.00	0.78
37.15	0.32	0.87	0.37*	0.78	0.00	0.78
37.20	0.32	0.87	0.37*	0.77	0.00	0.77
37.25	0.32	0.87	0.37*	0.77	0.00	0.77
37.30	0.32	0.87	0.37*	0.76	0.00	0.76
37.35	0.32	0.87	0.37*	0.76	0.00	0.76
37.40	0.32	0.87	0.37*	0.75	0.00	0.75
37.45	0.32	0.87	0.37*	0.75	0.00	0.75
37.50	0.32	0.87	0.37*	0.74	0.00	0.74
37.55	0.32	0.87	0.37*	0.74	0.00	0.74
37.60	0.32	0.87	0.37*	0.73	0.00	0.73
37.65	0.32	0.87	0.37*	0.73	0.00	0.73
37.70	0.32	0.87	0.37*	0.72	0.00	0.72
37.75	0.32	0.87	0.37*	0.71	0.00	0.71
37.80	0.32	0.87	0.37*	0.71	0.00	0.71
37.85	0.32	0.87	0.37*	0.70	0.00	0.70
37.90	0.32	0.87	0.37*	0.70	0.00	0.70
37.95	0.32	0.87	0.36*	0.69	0.00	0.69
38.00	0.32	0.87	0.36*	0.69	0.00	0.69
38.05	0.32	0.87	0.36*	0.68	0.00	0.68
38.10	0.32	0.87	0.36*	0.68	0.00	0.68
38.15	0.32	0.87	0.36*	0.67	0.00	0.67
38.20	0.31	0.87	0.36*	0.66	0.00	0.66
38.25	0.31	0.87	0.36*	0.66	0.00	0.66

38.30	0.31	0.87	0.36*	0.65	0.00	0.65
38.35	0.31	0.87	0.36*	0.65	0.00	0.65
38.40	0.31	0.87	0.36*	0.64	0.00	0.64
38.45	0.31	0.87	0.36*	0.64	0.00	0.64
38.50	0.31	0.87	0.36*	0.63	0.00	0.63
38.55	0.31	0.87	0.36*	0.63	0.00	0.63
38.60	0.31	0.87	0.36*	0.62	0.00	0.62
38.65	0.31	0.87	0.36*	0.61	0.00	0.61
38.70	0.31	0.87	0.35*	0.61	0.00	0.61
38.75	0.31	0.87	0.35*	0.60	0.00	0.60
38.80	0.31	0.87	0.35*	0.60	0.00	0.60
38.85	0.31	0.87	0.35*	0.59	0.00	0.59
38.90	0.31	0.87	0.35*	0.59	0.00	0.59
38.95	0.31	0.87	0.35*	0.58	0.00	0.58
39.00	0.31	0.87	0.35*	0.57	0.00	0.57
39.05	0.31	0.87	0.35*	0.57	0.00	0.57
39.10	0.30	0.87	0.35*	0.56	0.00	0.56
39.15	0.30	0.87	0.35*	0.56	0.00	0.56
39.20	0.30	0.87	0.35*	0.55	0.00	0.55
39.25	0.30	0.87	0.35*	0.55	0.00	0.55
39.30	0.30	0.87	0.35*	0.54	0.00	0.54
39.35	0.30	0.87	0.35*	0.53	0.00	0.53
39.40	0.30	0.87	0.35*	0.53	0.00	0.53
39.45	0.30	0.87	0.35*	0.52	0.00	0.52
39.50	0.30	0.87	0.35*	0.52	0.00	0.52
39.55	0.30	0.87	0.34*	0.51	0.00	0.51
39.60	0.30	0.87	0.34*	0.50	0.00	0.50
39.65	0.30	0.87	0.34*	0.50	0.00	0.50
39.70	0.30	0.87	0.34*	0.49	0.00	0.49
39.75	0.30	0.87	0.34*	0.49	0.00	0.49
39.80	0.30	0.87	0.34*	0.48	0.00	0.48
39.85	0.30	0.87	0.34*	0.47	0.00	0.47
39.90	0.30	0.87	0.34*	0.47	0.00	0.47
39.95	0.30	0.87	0.34*	0.46	0.00	0.46
40.00	0.30	0.87	0.34*	0.46	0.00	0.46
40.05	0.30	0.87	0.35*	0.45	0.00	0.45
40.10	0.31	0.87	0.35*	0.44	0.00	0.44
40.15	0.31	0.87	0.36*	0.44	0.00	0.44
40.20	0.32	0.87	0.37*	0.43	0.00	0.43
40.25	0.33	0.87	0.38*	0.43	0.00	0.43
40.30	0.34	0.87	0.39*	0.42	0.00	0.42
40.35	0.35	0.87	0.40*	0.42	0.00	0.42
40.40	0.37	0.87	0.42*	0.41	0.00	0.41
40.45	0.40	0.87	0.46*	0.41	0.00	0.41
40.50	1.72	0.87	1.98	0.40	0.00	0.40
40.55	1.72	0.87	1.98	0.40	0.00	0.40
40.60	1.72	0.87	1.98	0.40	0.00	0.40
40.65	1.72	0.87	1.97	0.39	0.00	0.39
40.70	1.72	0.87	1.97	0.39	0.00	0.39
40.75	1.72	0.87	1.97	0.38	0.00	0.38

40.80	1.72	0.87	1.97	0.38	0.00	0.38
40.85	1.72	0.87	1.97	0.38	0.00	0.38
40.90	1.72	0.87	1.97	0.37	0.00	0.37
40.95	1.72	0.87	1.97	0.37	0.00	0.37
41.00	1.72	0.87	1.97	0.37	0.00	0.37
41.05	1.72	0.87	1.97	0.37	0.00	0.37
41.10	1.72	0.87	1.97	0.36	0.00	0.36
41.15	1.72	0.87	1.97	0.36	0.00	0.36
41.20	1.72	0.87	1.97	0.36	0.00	0.36
41.25	1.72	0.87	1.97	0.36	0.00	0.36
41.30	1.72	0.87	1.97	0.36	0.00	0.36
41.35	1.72	0.87	1.97	0.36	0.00	0.36
41.40	1.72	0.87	1.97	0.36	0.00	0.36
41.45	1.71	0.87	1.97	0.35	0.00	0.35
41.50	1.71	0.87	1.97	0.35	0.00	0.35
41.55	1.71	0.87	1.96	0.35	0.00	0.35
41.60	1.71	0.87	1.96	0.35	0.00	0.35
41.65	1.71	0.87	1.96	0.35	0.00	0.35
41.70	1.71	0.87	1.96	0.35	0.00	0.35
41.75	1.71	0.87	1.96	0.35	0.00	0.35
41.80	1.71	0.87	1.96	0.35	0.00	0.35
41.85	1.71	0.87	1.96	0.35	0.00	0.35
41.90	1.71	0.87	1.96	0.35	0.00	0.35
41.95	1.71	0.87	1.96	0.35	0.00	0.35
42.00	1.71	0.87	1.96	0.35	0.00	0.35
42.05	1.71	0.87	1.96	0.35	0.00	0.35
42.10	1.71	0.87	1.96	0.35	0.00	0.35
42.15	1.71	0.87	1.96	0.35	0.00	0.35
42.20	1.71	0.87	1.96	0.35	0.00	0.35
42.25	1.71	0.87	1.96	0.35	0.00	0.35
42.30	1.71	0.87	1.96	0.35	0.00	0.35
42.35	1.71	0.87	1.96	0.35	0.00	0.35
42.40	1.71	0.87	1.96	0.35	0.00	0.35
42.45	1.71	0.87	1.96	0.35	0.00	0.35
42.50	1.71	0.87	1.96	0.35	0.00	0.35
42.55	1.70	0.87	1.96	0.35	0.00	0.35
42.60	1.70	0.87	1.95	0.35	0.00	0.35
42.65	1.70	0.87	1.95	0.35	0.00	0.35
42.70	1.70	0.87	1.95	0.35	0.00	0.35
42.75	1.70	0.87	1.95	0.35	0.00	0.35
42.80	1.70	0.87	1.95	0.35	0.00	0.35
42.85	1.70	0.87	1.95	0.35	0.00	0.35
42.90	1.70	0.87	1.95	0.35	0.00	0.35
42.95	1.70	0.87	1.95	0.35	0.00	0.35
43.00	1.70	0.87	1.95	0.35	0.00	0.35
43.05	1.70	0.87	1.95	0.35	0.00	0.35
43.10	1.70	0.87	1.95	0.35	0.00	0.35
43.15	1.70	0.87	1.95	0.35	0.00	0.35
43.20	1.70	0.87	1.95	0.35	0.00	0.35
43.25	1.70	0.87	1.95	0.35	0.00	0.35

43.30	1.70	0.87	1.95	0.35	0.00	0.35
43.35	1.70	0.87	1.95	0.35	0.00	0.35
43.40	1.70	0.87	1.95	0.35	0.00	0.35
43.45	1.70	0.87	1.95	0.34	0.00	0.34
43.50	1.70	0.87	1.95	0.34	0.00	0.34
43.55	1.70	0.87	1.95	0.34	0.00	0.34
43.60	1.70	0.87	1.95	0.34	0.00	0.34
43.65	1.69	0.87	1.95	0.34	0.00	0.34
43.70	1.69	0.87	1.95	0.34	0.00	0.34
43.75	1.69	0.87	1.94	0.34	0.00	0.34
43.80	1.69	0.87	1.94	0.34	0.00	0.34
43.85	1.69	0.87	1.94	0.34	0.00	0.34
43.90	1.69	0.87	1.94	0.34	0.00	0.34
43.95	1.69	0.87	1.94	0.34	0.00	0.34
44.00	1.69	0.87	1.94	0.34	0.00	0.34
44.05	1.69	0.87	1.94	0.33	0.00	0.33
44.10	1.69	0.87	1.94	0.33	0.00	0.33
44.15	1.69	0.87	1.94	0.33	0.00	0.33
44.20	1.69	0.87	1.94	0.33	0.00	0.33
44.25	1.69	0.87	1.94	0.33	0.00	0.33
44.30	1.69	0.87	1.94	0.33	0.00	0.33
44.35	1.69	0.87	1.94	0.33	0.00	0.33
44.40	1.69	0.87	1.94	0.33	0.00	0.33
44.45	1.69	0.87	1.94	0.32	0.00	0.32
44.50	1.69	0.87	1.94	0.32	0.00	0.32
44.55	1.69	0.87	1.94	0.32	0.00	0.32
44.60	1.69	0.87	1.94	0.32	0.00	0.32
44.65	1.69	0.87	1.94	0.32	0.00	0.32
44.70	1.69	0.87	1.94	0.31	0.00	0.31
44.75	1.68	0.87	1.94	0.31	0.00	0.31
44.80	1.68	0.87	1.94	0.31	0.00	0.31
44.85	1.68	0.87	1.94	0.31	0.00	0.31
44.90	1.68	0.87	1.94	0.30	0.00	0.30
44.95	1.68	0.87	1.94	0.30	0.00	0.30
45.00	1.68	0.87	1.94	0.30	0.00	0.30
45.05	1.68	0.87	1.94	0.29	0.00	0.29
45.10	1.68	0.87	1.93	0.29	0.00	0.29
45.15	1.68	0.87	1.93	0.29	0.00	0.29
45.20	1.68	0.87	1.93	0.29	0.00	0.29
45.25	1.68	0.87	1.93	0.29	0.00	0.29
45.30	1.68	0.87	1.93	0.29	0.00	0.29
45.35	1.68	0.87	1.93	0.29	0.00	0.29
45.40	1.68	0.87	1.93	0.29	0.00	0.29
45.45	1.68	0.87	1.93	0.29	0.00	0.29
45.50	1.68	0.87	1.93	0.29	0.00	0.29
45.55	1.68	0.87	1.93	0.29	0.00	0.29
45.60	1.68	0.87	1.93	0.29	0.00	0.29
45.65	1.68	0.87	1.93	0.29	0.00	0.29
45.70	1.68	0.87	1.93	0.29	0.00	0.29
45.75	1.68	0.87	1.93	0.29	0.00	0.29

45.80	1.68	0.87	1.93	0.29	0.00	0.29
45.85	1.68	0.87	1.93	0.29	0.00	0.29
45.90	1.67	0.87	1.93	0.29	0.00	0.29
45.95	1.67	0.87	1.93	0.29	0.00	0.29
46.00	1.67	0.87	1.93	0.29	0.00	0.29
46.05	1.67	0.87	1.93	0.29	0.00	0.29
46.10	1.67	0.87	1.93	0.29	0.00	0.29
46.15	1.67	0.87	1.93	0.29	0.00	0.29
46.20	1.67	0.87	1.93	0.29	0.00	0.29
46.25	1.67	0.87	1.93	0.29	0.00	0.29
46.30	1.67	0.87	1.93	0.29	0.00	0.29
46.35	1.67	0.87	1.93	0.29	0.00	0.29
46.40	1.67	0.87	1.93	0.29	0.00	0.29
46.45	1.67	0.87	1.93	0.29	0.00	0.29
46.50	1.67	0.87	1.93	0.29	0.00	0.29
46.55	1.67	0.87	1.93	0.29	0.00	0.29
46.60	1.67	0.87	1.93	0.29	0.00	0.29
46.65	1.67	0.87	1.93	0.29	0.00	0.29
46.70	1.67	0.87	1.92	0.29	0.00	0.29
46.75	1.67	0.87	1.92	0.29	0.00	0.29
46.80	1.67	0.87	1.92	0.29	0.00	0.29
46.85	1.67	0.87	1.92	0.29	0.00	0.29
46.90	1.67	0.87	1.92	0.29	0.00	0.29
46.95	1.67	0.87	1.92	0.29	0.00	0.29
47.00	1.67	0.87	1.92	0.29	0.00	0.29
47.05	1.66	0.87	1.92	0.29	0.00	0.29
47.10	1.66	0.87	1.92	0.29	0.00	0.29
47.15	1.66	0.87	1.92	0.29	0.00	0.29
47.20	1.66	0.87	1.92	0.29	0.00	0.29
47.25	1.66	0.87	1.92	0.29	0.00	0.29
47.30	1.66	0.87	1.92	0.29	0.00	0.29
47.35	1.66	0.86	1.92	0.29	0.00	0.29
47.40	1.66	0.86	1.92	0.29	0.00	0.29
47.45	1.66	0.86	1.92	0.29	0.00	0.29
47.50	1.66	0.86	1.92	0.29	0.00	0.29
47.55	1.66	0.86	1.92	0.29	0.00	0.29
47.60	1.66	0.86	1.92	0.29	0.00	0.29
47.65	1.66	0.86	1.92	0.29	0.00	0.29
47.70	1.66	0.86	1.92	0.29	0.00	0.29
47.75	1.66	0.86	1.92	0.29	0.00	0.29
47.80	1.66	0.86	1.92	0.29	0.00	0.29
47.85	1.66	0.86	1.92	0.29	0.00	0.29
47.90	1.66	0.86	1.92	0.29	0.00	0.29
47.95	1.66	0.86	1.92	0.29	0.00	0.29
48.00	1.66	0.86	1.92	0.29	0.00	0.29
48.05	1.66	0.86	1.92	0.29	0.00	0.29
48.10	1.66	0.86	1.92	0.29	0.00	0.29
48.15	1.66	0.86	1.92	0.29	0.00	0.29
48.20	1.65	0.86	1.92	0.29	0.00	0.29
48.25	1.65	0.86	1.92	0.29	0.00	0.29

48.30	1.65	0.86	1.92	0.29	0.00	0.29
48.35	1.65	0.86	1.92	0.29	0.00	0.29
48.40	1.65	0.86	1.92	0.29	0.00	0.29
48.45	1.65	0.86	1.92	0.29	0.00	0.29
48.50	1.65	0.86	1.92	0.29	0.00	0.29
48.55	1.65	0.86	1.92	0.29	0.00	0.29
48.60	1.65	0.86	1.92	0.29	0.00	0.29
48.65	1.65	0.86	1.92	0.29	0.00	0.29
48.70	1.65	0.86	1.92	0.29	0.00	0.29
48.75	1.65	0.86	1.92	0.29	0.00	0.29
48.80	1.65	0.86	1.92	0.29	0.00	0.29
48.85	1.65	0.86	1.92	0.29	0.00	0.29
48.90	1.65	0.86	1.92	0.29	0.00	0.29
48.95	1.65	0.86	1.91	0.29	0.00	0.29
49.00	1.65	0.86	1.91	0.29	0.00	0.29
49.05	1.65	0.86	1.91	0.29	0.00	0.29
49.10	1.65	0.86	1.91	0.29	0.00	0.29
49.15	1.65	0.86	1.91	0.29	0.00	0.29
49.20	1.65	0.86	1.91	0.29	0.00	0.29
49.25	1.65	0.86	1.91	0.29	0.00	0.29
49.30	1.65	0.86	1.91	0.29	0.00	0.29
49.35	1.65	0.86	1.91	0.29	0.00	0.29
49.40	1.64	0.86	1.91	0.29	0.00	0.29
49.45	1.64	0.86	1.91	0.29	0.00	0.29
49.50	1.64	0.86	1.91	0.29	0.00	0.29
49.55	1.64	0.86	1.91	0.28	0.00	0.28
49.60	1.64	0.86	1.91	0.28	0.00	0.28
49.65	1.64	0.86	1.91	0.28	0.00	0.28
49.70	0.35	0.86	0.41*	0.28	0.00	0.28
49.75	0.30	0.86	0.35*	0.27	0.00	0.27
49.80	0.27	0.86	0.32*	0.27	0.00	0.27
49.85	0.25	0.86	0.29*	0.26	0.00	0.26
49.90	0.23	0.86	0.27*	0.25	0.00	0.25
49.95	0.22	0.86	0.26*	0.25	0.00	0.25
50.00	0.21	0.86	0.24*	0.24	0.00	0.24
50.05	0.21	0.86	0.24*	0.23	0.00	0.23
50.10	0.21	0.86	0.24*	0.22	0.00	0.22
50.15	0.21	0.86	0.24*	0.22	0.00	0.22
50.20	0.21	0.86	0.24*	0.21	0.00	0.21
50.25	0.21	0.86	0.24*	0.20	0.00	0.20
50.30	0.21	0.86	0.24*	0.19	0.00	0.19
50.35	0.21	0.86	0.24*	0.18	0.00	0.18
50.40	0.21	0.86	0.24*	0.18	0.00	0.18
50.45	0.20	0.86	0.24*	0.17	0.00	0.17
50.50	0.20	0.86	0.24*	0.16	0.00	0.16
50.55	0.20	0.86	0.24*	0.15	0.00	0.15
50.60	0.20	0.86	0.24*	0.14	0.00	0.14
50.65	0.20	0.86	0.24*	0.14	0.00	0.14
50.70	0.20	0.86	0.24*	0.13	0.00	0.13
50.75	0.20	0.86	0.24*	0.12	0.00	0.12

50.80	0.20	0.86	0.24*	0.11	0.00	0.11
50.85	0.20	0.86	0.24*	0.10	0.00	0.10
50.90	0.20	0.85	0.24*	0.10	0.00	0.10
50.95	0.20	0.85	0.24*	0.09	0.00	0.09
51.00	0.20	0.85	0.24*	0.08	0.00	0.08
51.05	0.20	0.85	0.24*	0.07	0.00	0.07
51.10	0.20	0.85	0.24*	0.06	0.00	0.06
51.15	0.20	0.85	0.24*	0.06	0.00	0.06
51.20	0.20	0.85	0.24*	0.05	0.00	0.05
51.25	0.20	0.85	0.24*	0.04	0.00	0.04
51.30	0.20	0.85	0.24*	0.03	0.00	0.03
51.35	0.20	0.85	0.24*	0.02	0.00	0.02
51.40	0.20	0.85	0.24*	0.02	0.00	0.02
51.45	0.20	0.85	0.24*	0.01	0.00	0.01
51.50	0.20	0.85	0.24*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

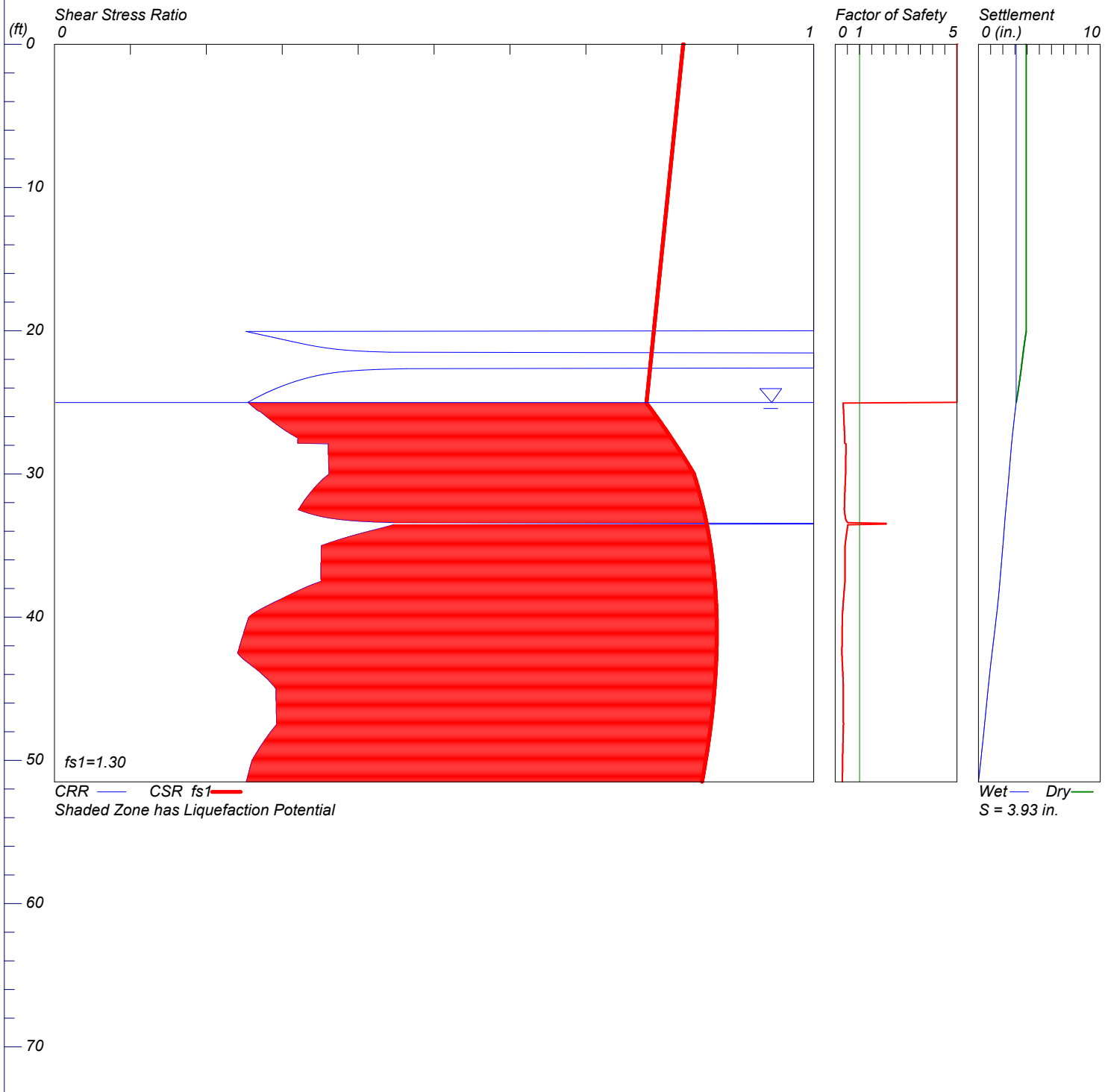
CRRm Cyclic resistance ratio from soils
CSRfs Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat Settlement from saturated sands
S_dry Settlement from dry sands
S_all Total settlement from saturated and dry sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=B-LGC-3 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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LIQUEFACTION ANALYSIS CALCULATION SHEET

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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\BLGC3.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=B-LGC-3
Depth of Hole= 51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 51.5 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=B-LGC-3
Depth of Hole=51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 51.5 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

Earthquake Magnitude=7.7
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.3
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.0	14.0	120.0	NoLiq
5.0	23.0	120.0	NoLiq
10.0	20.0	120.0	NoLiq
12.5	20.0	120.0	NoLiq
15.0	13.0	120.0	NoLiq
17.5	20.0	120.0	NoLiq
20.0	20.0	120.0	10.0
22.5	20.0	120.0	45.0
25.0	16.0	120.0	45.0
27.5	20.0	120.0	35.0
30.0	21.0	120.0	43.0
32.5	21.0	120.0	43.0
35.0	26.0	120.0	22.0
37.5	27.0	120.0	22.0
40.0	30.0	120.0	8.0
42.5	30.0	120.0	8.0
45.0	28.0	120.0	22.0
47.5	29.0	120.0	22.0
50.0	28.0	120.0	22.0
51.5	28.0	120.0	22.0

Output Results:

Settlement of saturated sands=3.10 in.
Settlement of dry sands=0.83 in.
Total settlement of saturated and dry sands=3.93 in.
Differential Settlement=1.964 to 2.593 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	3.10	0.83	3.93
0.05	2.00	0.83	5.00	3.10	0.83	3.93
0.10	2.00	0.83	5.00	3.10	0.83	3.93
0.15	2.00	0.83	5.00	3.10	0.83	3.93
0.20	2.00	0.83	5.00	3.10	0.83	3.93
0.25	2.00	0.83	5.00	3.10	0.83	3.93
0.30	2.00	0.83	5.00	3.10	0.83	3.93
0.35	2.00	0.83	5.00	3.10	0.83	3.93
0.40	2.00	0.83	5.00	3.10	0.83	3.93
0.45	2.00	0.83	5.00	3.10	0.83	3.93
0.50	2.00	0.83	5.00	3.10	0.83	3.93
0.55	2.00	0.83	5.00	3.10	0.83	3.93
0.60	2.00	0.83	5.00	3.10	0.83	3.93
0.65	2.00	0.83	5.00	3.10	0.83	3.93
0.70	2.00	0.83	5.00	3.10	0.83	3.93
0.75	2.00	0.83	5.00	3.10	0.83	3.93

0.80	2.00	0.83	5.00	3.10	0.83	3.93
0.85	2.00	0.83	5.00	3.10	0.83	3.93
0.90	2.00	0.83	5.00	3.10	0.83	3.93
0.95	2.00	0.83	5.00	3.10	0.83	3.93
1.00	2.00	0.83	5.00	3.10	0.83	3.93
1.05	2.00	0.83	5.00	3.10	0.83	3.93
1.10	2.00	0.83	5.00	3.10	0.83	3.93
1.15	2.00	0.83	5.00	3.10	0.83	3.93
1.20	2.00	0.83	5.00	3.10	0.83	3.93
1.25	2.00	0.83	5.00	3.10	0.83	3.93
1.30	2.00	0.83	5.00	3.10	0.83	3.93
1.35	2.00	0.83	5.00	3.10	0.83	3.93
1.40	2.00	0.83	5.00	3.10	0.83	3.93
1.45	2.00	0.83	5.00	3.10	0.83	3.93
1.50	2.00	0.83	5.00	3.10	0.83	3.93
1.55	2.00	0.83	5.00	3.10	0.83	3.93
1.60	2.00	0.83	5.00	3.10	0.83	3.93
1.65	2.00	0.82	5.00	3.10	0.83	3.93
1.70	2.00	0.82	5.00	3.10	0.83	3.93
1.75	2.00	0.82	5.00	3.10	0.83	3.93
1.80	2.00	0.82	5.00	3.10	0.83	3.93
1.85	2.00	0.82	5.00	3.10	0.83	3.93
1.90	2.00	0.82	5.00	3.10	0.83	3.93
1.95	2.00	0.82	5.00	3.10	0.83	3.93
2.00	2.00	0.82	5.00	3.10	0.83	3.93
2.05	2.00	0.82	5.00	3.10	0.83	3.93
2.10	2.00	0.82	5.00	3.10	0.83	3.93
2.15	2.00	0.82	5.00	3.10	0.83	3.93
2.20	2.00	0.82	5.00	3.10	0.83	3.93
2.25	2.00	0.82	5.00	3.10	0.83	3.93
2.30	2.00	0.82	5.00	3.10	0.83	3.93
2.35	2.00	0.82	5.00	3.10	0.83	3.93
2.40	2.00	0.82	5.00	3.10	0.83	3.93
2.45	2.00	0.82	5.00	3.10	0.83	3.93
2.50	2.00	0.82	5.00	3.10	0.83	3.93
2.55	2.00	0.82	5.00	3.10	0.83	3.93
2.60	2.00	0.82	5.00	3.10	0.83	3.93
2.65	2.00	0.82	5.00	3.10	0.83	3.93
2.70	2.00	0.82	5.00	3.10	0.83	3.93
2.75	2.00	0.82	5.00	3.10	0.83	3.93
2.80	2.00	0.82	5.00	3.10	0.83	3.93
2.85	2.00	0.82	5.00	3.10	0.83	3.93
2.90	2.00	0.82	5.00	3.10	0.83	3.93
2.95	2.00	0.82	5.00	3.10	0.83	3.93
3.00	2.00	0.82	5.00	3.10	0.83	3.93
3.05	2.00	0.82	5.00	3.10	0.83	3.93
3.10	2.00	0.82	5.00	3.10	0.83	3.93
3.15	2.00	0.82	5.00	3.10	0.83	3.93
3.20	2.00	0.82	5.00	3.10	0.83	3.93
3.25	2.00	0.82	5.00	3.10	0.83	3.93

3.30	2.00	0.82	5.00	3.10	0.83	3.93
3.35	2.00	0.82	5.00	3.10	0.83	3.93
3.40	2.00	0.82	5.00	3.10	0.83	3.93
3.45	2.00	0.82	5.00	3.10	0.83	3.93
3.50	2.00	0.82	5.00	3.10	0.83	3.93
3.55	2.00	0.82	5.00	3.10	0.83	3.93
3.60	2.00	0.82	5.00	3.10	0.83	3.93
3.65	2.00	0.82	5.00	3.10	0.83	3.93
3.70	2.00	0.82	5.00	3.10	0.83	3.93
3.75	2.00	0.82	5.00	3.10	0.83	3.93
3.80	2.00	0.82	5.00	3.10	0.83	3.93
3.85	2.00	0.82	5.00	3.10	0.83	3.93
3.90	2.00	0.82	5.00	3.10	0.83	3.93
3.95	2.00	0.82	5.00	3.10	0.83	3.93
4.00	2.00	0.82	5.00	3.10	0.83	3.93
4.05	2.00	0.82	5.00	3.10	0.83	3.93
4.10	2.00	0.82	5.00	3.10	0.83	3.93
4.15	2.00	0.82	5.00	3.10	0.83	3.93
4.20	2.00	0.82	5.00	3.10	0.83	3.93
4.25	2.00	0.82	5.00	3.10	0.83	3.93
4.30	2.00	0.82	5.00	3.10	0.83	3.93
4.35	2.00	0.82	5.00	3.10	0.83	3.93
4.40	2.00	0.82	5.00	3.10	0.83	3.93
4.45	2.00	0.82	5.00	3.10	0.83	3.93
4.50	2.00	0.82	5.00	3.10	0.83	3.93
4.55	2.00	0.82	5.00	3.10	0.83	3.93
4.60	2.00	0.82	5.00	3.10	0.83	3.93
4.65	2.00	0.82	5.00	3.10	0.83	3.93
4.70	2.00	0.82	5.00	3.10	0.83	3.93
4.75	2.00	0.82	5.00	3.10	0.83	3.93
4.80	2.00	0.82	5.00	3.10	0.83	3.93
4.85	2.00	0.82	5.00	3.10	0.83	3.93
4.90	2.00	0.82	5.00	3.10	0.83	3.93
4.95	2.00	0.82	5.00	3.10	0.83	3.93
5.00	2.00	0.82	5.00	3.10	0.83	3.93
5.05	2.00	0.82	5.00	3.10	0.83	3.93
5.10	2.00	0.82	5.00	3.10	0.83	3.93
5.15	2.00	0.82	5.00	3.10	0.83	3.93
5.20	2.00	0.82	5.00	3.10	0.83	3.93
5.25	2.00	0.82	5.00	3.10	0.83	3.93
5.30	2.00	0.82	5.00	3.10	0.83	3.93
5.35	2.00	0.82	5.00	3.10	0.83	3.93
5.40	2.00	0.82	5.00	3.10	0.83	3.93
5.45	2.00	0.82	5.00	3.10	0.83	3.93
5.50	2.00	0.82	5.00	3.10	0.83	3.93
5.55	2.00	0.82	5.00	3.10	0.83	3.93
5.60	2.00	0.82	5.00	3.10	0.83	3.93
5.65	2.00	0.82	5.00	3.10	0.83	3.93
5.70	2.00	0.82	5.00	3.10	0.83	3.93
5.75	2.00	0.82	5.00	3.10	0.83	3.93

5.80	2.00	0.82	5.00	3.10	0.83	3.93
5.85	2.00	0.82	5.00	3.10	0.83	3.93
5.90	2.00	0.82	5.00	3.10	0.83	3.93
5.95	2.00	0.82	5.00	3.10	0.83	3.93
6.00	2.00	0.82	5.00	3.10	0.83	3.93
6.05	2.00	0.82	5.00	3.10	0.83	3.93
6.10	2.00	0.82	5.00	3.10	0.83	3.93
6.15	2.00	0.82	5.00	3.10	0.83	3.93
6.20	2.00	0.82	5.00	3.10	0.83	3.93
6.25	2.00	0.82	5.00	3.10	0.83	3.93
6.30	2.00	0.82	5.00	3.10	0.83	3.93
6.35	2.00	0.82	5.00	3.10	0.83	3.93
6.40	2.00	0.82	5.00	3.10	0.83	3.93
6.45	2.00	0.82	5.00	3.10	0.83	3.93
6.50	2.00	0.82	5.00	3.10	0.83	3.93
6.55	2.00	0.82	5.00	3.10	0.83	3.93
6.60	2.00	0.82	5.00	3.10	0.83	3.93
6.65	2.00	0.82	5.00	3.10	0.83	3.93
6.70	2.00	0.82	5.00	3.10	0.83	3.93
6.75	2.00	0.82	5.00	3.10	0.83	3.93
6.80	2.00	0.81	5.00	3.10	0.83	3.93
6.85	2.00	0.81	5.00	3.10	0.83	3.93
6.90	2.00	0.81	5.00	3.10	0.83	3.93
6.95	2.00	0.81	5.00	3.10	0.83	3.93
7.00	2.00	0.81	5.00	3.10	0.83	3.93
7.05	2.00	0.81	5.00	3.10	0.83	3.93
7.10	2.00	0.81	5.00	3.10	0.83	3.93
7.15	2.00	0.81	5.00	3.10	0.83	3.93
7.20	2.00	0.81	5.00	3.10	0.83	3.93
7.25	2.00	0.81	5.00	3.10	0.83	3.93
7.30	2.00	0.81	5.00	3.10	0.83	3.93
7.35	2.00	0.81	5.00	3.10	0.83	3.93
7.40	2.00	0.81	5.00	3.10	0.83	3.93
7.45	2.00	0.81	5.00	3.10	0.83	3.93
7.50	2.00	0.81	5.00	3.10	0.83	3.93
7.55	2.00	0.81	5.00	3.10	0.83	3.93
7.60	2.00	0.81	5.00	3.10	0.83	3.93
7.65	2.00	0.81	5.00	3.10	0.83	3.93
7.70	2.00	0.81	5.00	3.10	0.83	3.93
7.75	2.00	0.81	5.00	3.10	0.83	3.93
7.80	2.00	0.81	5.00	3.10	0.83	3.93
7.85	2.00	0.81	5.00	3.10	0.83	3.93
7.90	2.00	0.81	5.00	3.10	0.83	3.93
7.95	2.00	0.81	5.00	3.10	0.83	3.93
8.00	2.00	0.81	5.00	3.10	0.83	3.93
8.05	2.00	0.81	5.00	3.10	0.83	3.93
8.10	2.00	0.81	5.00	3.10	0.83	3.93
8.15	2.00	0.81	5.00	3.10	0.83	3.93
8.20	2.00	0.81	5.00	3.10	0.83	3.93
8.25	2.00	0.81	5.00	3.10	0.83	3.93

8.30	2.00	0.81	5.00	3.10	0.83	3.93
8.35	2.00	0.81	5.00	3.10	0.83	3.93
8.40	2.00	0.81	5.00	3.10	0.83	3.93
8.45	2.00	0.81	5.00	3.10	0.83	3.93
8.50	2.00	0.81	5.00	3.10	0.83	3.93
8.55	2.00	0.81	5.00	3.10	0.83	3.93
8.60	2.00	0.81	5.00	3.10	0.83	3.93
8.65	2.00	0.81	5.00	3.10	0.83	3.93
8.70	2.00	0.81	5.00	3.10	0.83	3.93
8.75	2.00	0.81	5.00	3.10	0.83	3.93
8.80	2.00	0.81	5.00	3.10	0.83	3.93
8.85	2.00	0.81	5.00	3.10	0.83	3.93
8.90	2.00	0.81	5.00	3.10	0.83	3.93
8.95	2.00	0.81	5.00	3.10	0.83	3.93
9.00	2.00	0.81	5.00	3.10	0.83	3.93
9.05	2.00	0.81	5.00	3.10	0.83	3.93
9.10	2.00	0.81	5.00	3.10	0.83	3.93
9.15	2.00	0.81	5.00	3.10	0.83	3.93
9.20	2.00	0.81	5.00	3.10	0.83	3.93
9.25	2.00	0.81	5.00	3.10	0.83	3.93
9.30	2.00	0.81	5.00	3.10	0.83	3.93
9.35	2.00	0.81	5.00	3.10	0.83	3.93
9.40	2.00	0.81	5.00	3.10	0.83	3.93
9.45	2.00	0.81	5.00	3.10	0.83	3.93
9.50	2.00	0.81	5.00	3.10	0.83	3.93
9.55	2.00	0.81	5.00	3.10	0.83	3.93
9.60	2.00	0.81	5.00	3.10	0.83	3.93
9.65	2.00	0.81	5.00	3.10	0.83	3.93
9.70	2.00	0.81	5.00	3.10	0.83	3.93
9.75	2.00	0.81	5.00	3.10	0.83	3.93
9.80	2.00	0.81	5.00	3.10	0.83	3.93
9.85	2.00	0.81	5.00	3.10	0.83	3.93
9.90	2.00	0.81	5.00	3.10	0.83	3.93
9.95	2.00	0.81	5.00	3.10	0.83	3.93
10.00	2.00	0.81	5.00	3.10	0.83	3.93
10.05	2.00	0.81	5.00	3.10	0.83	3.93
10.10	2.00	0.81	5.00	3.10	0.83	3.93
10.15	2.00	0.81	5.00	3.10	0.83	3.93
10.20	2.00	0.81	5.00	3.10	0.83	3.93
10.25	2.00	0.81	5.00	3.10	0.83	3.93
10.30	2.00	0.81	5.00	3.10	0.83	3.93
10.35	2.00	0.81	5.00	3.10	0.83	3.93
10.40	2.00	0.81	5.00	3.10	0.83	3.93
10.45	2.00	0.81	5.00	3.10	0.83	3.93
10.50	2.00	0.81	5.00	3.10	0.83	3.93
10.55	2.00	0.81	5.00	3.10	0.83	3.93
10.60	2.00	0.81	5.00	3.10	0.83	3.93
10.65	2.00	0.81	5.00	3.10	0.83	3.93
10.70	2.00	0.81	5.00	3.10	0.83	3.93
10.75	2.00	0.81	5.00	3.10	0.83	3.93

10.80	2.00	0.81	5.00	3.10	0.83	3.93
10.85	2.00	0.81	5.00	3.10	0.83	3.93
10.90	2.00	0.81	5.00	3.10	0.83	3.93
10.95	2.00	0.81	5.00	3.10	0.83	3.93
11.00	2.00	0.81	5.00	3.10	0.83	3.93
11.05	2.00	0.81	5.00	3.10	0.83	3.93
11.10	2.00	0.81	5.00	3.10	0.83	3.93
11.15	2.00	0.81	5.00	3.10	0.83	3.93
11.20	2.00	0.81	5.00	3.10	0.83	3.93
11.25	2.00	0.81	5.00	3.10	0.83	3.93
11.30	2.00	0.81	5.00	3.10	0.83	3.93
11.35	2.00	0.81	5.00	3.10	0.83	3.93
11.40	2.00	0.81	5.00	3.10	0.83	3.93
11.45	2.00	0.81	5.00	3.10	0.83	3.93
11.50	2.00	0.81	5.00	3.10	0.83	3.93
11.55	2.00	0.81	5.00	3.10	0.83	3.93
11.60	2.00	0.81	5.00	3.10	0.83	3.93
11.65	2.00	0.81	5.00	3.10	0.83	3.93
11.70	2.00	0.81	5.00	3.10	0.83	3.93
11.75	2.00	0.81	5.00	3.10	0.83	3.93
11.80	2.00	0.81	5.00	3.10	0.83	3.93
11.85	2.00	0.81	5.00	3.10	0.83	3.93
11.90	2.00	0.81	5.00	3.10	0.83	3.93
11.95	2.00	0.81	5.00	3.10	0.83	3.93
12.00	2.00	0.80	5.00	3.10	0.83	3.93
12.05	2.00	0.80	5.00	3.10	0.83	3.93
12.10	2.00	0.80	5.00	3.10	0.83	3.93
12.15	2.00	0.80	5.00	3.10	0.83	3.93
12.20	2.00	0.80	5.00	3.10	0.83	3.93
12.25	2.00	0.80	5.00	3.10	0.83	3.93
12.30	2.00	0.80	5.00	3.10	0.83	3.93
12.35	2.00	0.80	5.00	3.10	0.83	3.93
12.40	2.00	0.80	5.00	3.10	0.83	3.93
12.45	2.00	0.80	5.00	3.10	0.83	3.93
12.50	2.00	0.80	5.00	3.10	0.83	3.93
12.55	2.00	0.80	5.00	3.10	0.83	3.93
12.60	2.00	0.80	5.00	3.10	0.83	3.93
12.65	2.00	0.80	5.00	3.10	0.83	3.93
12.70	2.00	0.80	5.00	3.10	0.83	3.93
12.75	2.00	0.80	5.00	3.10	0.83	3.93
12.80	2.00	0.80	5.00	3.10	0.83	3.93
12.85	2.00	0.80	5.00	3.10	0.83	3.93
12.90	2.00	0.80	5.00	3.10	0.83	3.93
12.95	2.00	0.80	5.00	3.10	0.83	3.93
13.00	2.00	0.80	5.00	3.10	0.83	3.93
13.05	2.00	0.80	5.00	3.10	0.83	3.93
13.10	2.00	0.80	5.00	3.10	0.83	3.93
13.15	2.00	0.80	5.00	3.10	0.83	3.93
13.20	2.00	0.80	5.00	3.10	0.83	3.93
13.25	2.00	0.80	5.00	3.10	0.83	3.93

13.30	2.00	0.80	5.00	3.10	0.83	3.93
13.35	2.00	0.80	5.00	3.10	0.83	3.93
13.40	2.00	0.80	5.00	3.10	0.83	3.93
13.45	2.00	0.80	5.00	3.10	0.83	3.93
13.50	2.00	0.80	5.00	3.10	0.83	3.93
13.55	2.00	0.80	5.00	3.10	0.83	3.93
13.60	2.00	0.80	5.00	3.10	0.83	3.93
13.65	2.00	0.80	5.00	3.10	0.83	3.93
13.70	2.00	0.80	5.00	3.10	0.83	3.93
13.75	2.00	0.80	5.00	3.10	0.83	3.93
13.80	2.00	0.80	5.00	3.10	0.83	3.93
13.85	2.00	0.80	5.00	3.10	0.83	3.93
13.90	2.00	0.80	5.00	3.10	0.83	3.93
13.95	2.00	0.80	5.00	3.10	0.83	3.93
14.00	2.00	0.80	5.00	3.10	0.83	3.93
14.05	2.00	0.80	5.00	3.10	0.83	3.93
14.10	2.00	0.80	5.00	3.10	0.83	3.93
14.15	2.00	0.80	5.00	3.10	0.83	3.93
14.20	2.00	0.80	5.00	3.10	0.83	3.93
14.25	2.00	0.80	5.00	3.10	0.83	3.93
14.30	2.00	0.80	5.00	3.10	0.83	3.93
14.35	2.00	0.80	5.00	3.10	0.83	3.93
14.40	2.00	0.80	5.00	3.10	0.83	3.93
14.45	2.00	0.80	5.00	3.10	0.83	3.93
14.50	2.00	0.80	5.00	3.10	0.83	3.93
14.55	2.00	0.80	5.00	3.10	0.83	3.93
14.60	2.00	0.80	5.00	3.10	0.83	3.93
14.65	2.00	0.80	5.00	3.10	0.83	3.93
14.70	2.00	0.80	5.00	3.10	0.83	3.93
14.75	2.00	0.80	5.00	3.10	0.83	3.93
14.80	2.00	0.80	5.00	3.10	0.83	3.93
14.85	2.00	0.80	5.00	3.10	0.83	3.93
14.90	2.00	0.80	5.00	3.10	0.83	3.93
14.95	2.00	0.80	5.00	3.10	0.83	3.93
15.00	2.00	0.80	5.00	3.10	0.83	3.93
15.05	2.00	0.80	5.00	3.10	0.83	3.93
15.10	2.00	0.80	5.00	3.10	0.83	3.93
15.15	2.00	0.80	5.00	3.10	0.83	3.93
15.20	2.00	0.80	5.00	3.10	0.83	3.93
15.25	2.00	0.80	5.00	3.10	0.83	3.93
15.30	2.00	0.80	5.00	3.10	0.83	3.93
15.35	2.00	0.80	5.00	3.10	0.83	3.93
15.40	2.00	0.80	5.00	3.10	0.83	3.93
15.45	2.00	0.80	5.00	3.10	0.83	3.93
15.50	2.00	0.80	5.00	3.10	0.83	3.93
15.55	2.00	0.80	5.00	3.10	0.83	3.93
15.60	2.00	0.80	5.00	3.10	0.83	3.93
15.65	2.00	0.80	5.00	3.10	0.83	3.93
15.70	2.00	0.80	5.00	3.10	0.83	3.93
15.75	2.00	0.80	5.00	3.10	0.83	3.93

15.80	2.00	0.80	5.00	3.10	0.83	3.93
15.85	2.00	0.80	5.00	3.10	0.83	3.93
15.90	2.00	0.80	5.00	3.10	0.83	3.93
15.95	2.00	0.80	5.00	3.10	0.83	3.93
16.00	2.00	0.80	5.00	3.10	0.83	3.93
16.05	2.00	0.80	5.00	3.10	0.83	3.93
16.10	2.00	0.80	5.00	3.10	0.83	3.93
16.15	2.00	0.80	5.00	3.10	0.83	3.93
16.20	2.00	0.80	5.00	3.10	0.83	3.93
16.25	2.00	0.80	5.00	3.10	0.83	3.93
16.30	2.00	0.80	5.00	3.10	0.83	3.93
16.35	2.00	0.80	5.00	3.10	0.83	3.93
16.40	2.00	0.80	5.00	3.10	0.83	3.93
16.45	2.00	0.80	5.00	3.10	0.83	3.93
16.50	2.00	0.80	5.00	3.10	0.83	3.93
16.55	2.00	0.80	5.00	3.10	0.83	3.93
16.60	2.00	0.80	5.00	3.10	0.83	3.93
16.65	2.00	0.80	5.00	3.10	0.83	3.93
16.70	2.00	0.80	5.00	3.10	0.83	3.93
16.75	2.00	0.80	5.00	3.10	0.83	3.93
16.80	2.00	0.80	5.00	3.10	0.83	3.93
16.85	2.00	0.80	5.00	3.10	0.83	3.93
16.90	2.00	0.80	5.00	3.10	0.83	3.93
16.95	2.00	0.80	5.00	3.10	0.83	3.93
17.00	2.00	0.80	5.00	3.10	0.83	3.93
17.05	2.00	0.80	5.00	3.10	0.83	3.93
17.10	2.00	0.80	5.00	3.10	0.83	3.93
17.15	2.00	0.79	5.00	3.10	0.83	3.93
17.20	2.00	0.79	5.00	3.10	0.83	3.93
17.25	2.00	0.79	5.00	3.10	0.83	3.93
17.30	2.00	0.79	5.00	3.10	0.83	3.93
17.35	2.00	0.79	5.00	3.10	0.83	3.93
17.40	2.00	0.79	5.00	3.10	0.83	3.93
17.45	2.00	0.79	5.00	3.10	0.83	3.93
17.50	2.00	0.79	5.00	3.10	0.83	3.93
17.55	2.00	0.79	5.00	3.10	0.83	3.93
17.60	2.00	0.79	5.00	3.10	0.83	3.93
17.65	2.00	0.79	5.00	3.10	0.83	3.93
17.70	2.00	0.79	5.00	3.10	0.83	3.93
17.75	2.00	0.79	5.00	3.10	0.83	3.93
17.80	2.00	0.79	5.00	3.10	0.83	3.93
17.85	2.00	0.79	5.00	3.10	0.83	3.93
17.90	2.00	0.79	5.00	3.10	0.83	3.93
17.95	2.00	0.79	5.00	3.10	0.83	3.93
18.00	2.00	0.79	5.00	3.10	0.83	3.93
18.05	2.00	0.79	5.00	3.10	0.83	3.93
18.10	2.00	0.79	5.00	3.10	0.83	3.93
18.15	2.00	0.79	5.00	3.10	0.83	3.93
18.20	2.00	0.79	5.00	3.10	0.83	3.93
18.25	2.00	0.79	5.00	3.10	0.83	3.93

18.30	2.00	0.79	5.00	3.10	0.83	3.93
18.35	2.00	0.79	5.00	3.10	0.83	3.93
18.40	2.00	0.79	5.00	3.10	0.83	3.93
18.45	2.00	0.79	5.00	3.10	0.83	3.93
18.50	2.00	0.79	5.00	3.10	0.83	3.93
18.55	2.00	0.79	5.00	3.10	0.83	3.93
18.60	2.00	0.79	5.00	3.10	0.83	3.93
18.65	2.00	0.79	5.00	3.10	0.83	3.93
18.70	2.00	0.79	5.00	3.10	0.83	3.93
18.75	2.00	0.79	5.00	3.10	0.83	3.93
18.80	2.00	0.79	5.00	3.10	0.83	3.93
18.85	2.00	0.79	5.00	3.10	0.83	3.93
18.90	2.00	0.79	5.00	3.10	0.83	3.93
18.95	2.00	0.79	5.00	3.10	0.83	3.93
19.00	2.00	0.79	5.00	3.10	0.83	3.93
19.05	2.00	0.79	5.00	3.10	0.83	3.93
19.10	2.00	0.79	5.00	3.10	0.83	3.93
19.15	2.00	0.79	5.00	3.10	0.83	3.93
19.20	2.00	0.79	5.00	3.10	0.83	3.93
19.25	2.00	0.79	5.00	3.10	0.83	3.93
19.30	2.00	0.79	5.00	3.10	0.83	3.93
19.35	2.00	0.79	5.00	3.10	0.83	3.93
19.40	2.00	0.79	5.00	3.10	0.83	3.93
19.45	2.00	0.79	5.00	3.10	0.83	3.93
19.50	2.00	0.79	5.00	3.10	0.83	3.93
19.55	2.00	0.79	5.00	3.10	0.83	3.93
19.60	2.00	0.79	5.00	3.10	0.83	3.93
19.65	2.00	0.79	5.00	3.10	0.83	3.93
19.70	2.00	0.79	5.00	3.10	0.83	3.93
19.75	2.00	0.79	5.00	3.10	0.83	3.93
19.80	2.00	0.79	5.00	3.10	0.83	3.93
19.85	2.00	0.79	5.00	3.10	0.83	3.93
19.90	2.00	0.79	5.00	3.10	0.83	3.93
19.95	2.00	0.79	5.00	3.10	0.83	3.93
20.00	2.00	0.79	5.00	3.10	0.83	3.93
20.05	0.25	0.79	5.00	3.10	0.83	3.93
20.10	0.26	0.79	5.00	3.10	0.82	3.92
20.15	0.26	0.79	5.00	3.10	0.81	3.91
20.20	0.27	0.79	5.00	3.10	0.80	3.90
20.25	0.27	0.79	5.00	3.10	0.79	3.89
20.30	0.27	0.79	5.00	3.10	0.78	3.88
20.35	0.28	0.79	5.00	3.10	0.77	3.87
20.40	0.28	0.79	5.00	3.10	0.77	3.86
20.45	0.29	0.79	5.00	3.10	0.76	3.85
20.50	0.29	0.79	5.00	3.10	0.75	3.84
20.55	0.30	0.79	5.00	3.10	0.74	3.83
20.60	0.30	0.79	5.00	3.10	0.73	3.83
20.65	0.30	0.79	5.00	3.10	0.72	3.82
20.70	0.31	0.79	5.00	3.10	0.71	3.81
20.75	0.31	0.79	5.00	3.10	0.70	3.80

20.80	0.32	0.79	5.00	3.10	0.70	3.79
20.85	0.32	0.79	5.00	3.10	0.69	3.78
20.90	0.33	0.79	5.00	3.10	0.68	3.77
20.95	0.33	0.79	5.00	3.10	0.67	3.77
21.00	0.34	0.79	5.00	3.10	0.66	3.76
21.05	0.34	0.79	5.00	3.10	0.65	3.75
21.10	0.35	0.79	5.00	3.10	0.65	3.74
21.15	0.35	0.79	5.00	3.10	0.64	3.73
21.20	0.36	0.79	5.00	3.10	0.63	3.73
21.25	0.36	0.79	5.00	3.10	0.62	3.72
21.30	0.37	0.79	5.00	3.10	0.62	3.71
21.35	0.38	0.79	5.00	3.10	0.61	3.70
21.40	0.40	0.79	5.00	3.10	0.60	3.69
21.45	0.41	0.79	5.00	3.10	0.59	3.69
21.50	0.44	0.79	5.00	3.10	0.58	3.68
21.55	1.87	0.79	5.00	3.10	0.58	3.67
21.60	1.87	0.79	5.00	3.10	0.57	3.66
21.65	1.87	0.79	5.00	3.10	0.56	3.66
21.70	1.87	0.79	5.00	3.10	0.55	3.65
21.75	1.87	0.79	5.00	3.10	0.55	3.64
21.80	1.87	0.79	5.00	3.10	0.54	3.64
21.85	1.87	0.79	5.00	3.10	0.53	3.63
21.90	1.87	0.79	5.00	3.10	0.53	3.62
21.95	1.87	0.79	5.00	3.10	0.52	3.61
22.00	1.87	0.79	5.00	3.10	0.51	3.61
22.05	1.87	0.79	5.00	3.10	0.50	3.60
22.10	1.87	0.79	5.00	3.10	0.50	3.59
22.15	1.87	0.79	5.00	3.10	0.49	3.59
22.20	1.87	0.79	5.00	3.10	0.48	3.58
22.25	1.87	0.79	5.00	3.10	0.48	3.57
22.30	1.87	0.79	5.00	3.10	0.47	3.56
22.35	1.87	0.78	5.00	3.10	0.46	3.56
22.40	1.87	0.78	5.00	3.10	0.45	3.55
22.45	1.87	0.78	5.00	3.10	0.45	3.54
22.50	1.87	0.78	5.00	3.10	0.44	3.53
22.55	1.87	0.78	5.00	3.10	0.43	3.53
22.60	1.87	0.78	5.00	3.10	0.42	3.52
22.65	0.46	0.78	5.00	3.10	0.42	3.51
22.70	0.43	0.78	5.00	3.10	0.41	3.50
22.75	0.41	0.78	5.00	3.10	0.40	3.50
22.80	0.39	0.78	5.00	3.10	0.39	3.49
22.85	0.38	0.78	5.00	3.10	0.39	3.48
22.90	0.37	0.78	5.00	3.10	0.38	3.47
22.95	0.37	0.78	5.00	3.10	0.37	3.47
23.00	0.36	0.78	5.00	3.10	0.36	3.46
23.05	0.35	0.78	5.00	3.10	0.36	3.45
23.10	0.35	0.78	5.00	3.10	0.35	3.44
23.15	0.34	0.78	5.00	3.10	0.34	3.44
23.20	0.34	0.78	5.00	3.10	0.33	3.43
23.25	0.34	0.78	5.00	3.10	0.32	3.42

23.30	0.33	0.78	5.00	3.10	0.32	3.41
23.35	0.33	0.78	5.00	3.10	0.31	3.40
23.40	0.33	0.78	5.00	3.10	0.30	3.40
23.45	0.32	0.78	5.00	3.10	0.29	3.39
23.50	0.32	0.78	5.00	3.10	0.28	3.38
23.55	0.32	0.78	5.00	3.10	0.28	3.37
23.60	0.31	0.78	5.00	3.10	0.27	3.36
23.65	0.31	0.78	5.00	3.10	0.26	3.35
23.70	0.31	0.78	5.00	3.10	0.25	3.35
23.75	0.31	0.78	5.00	3.10	0.24	3.34
23.80	0.30	0.78	5.00	3.10	0.23	3.33
23.85	0.30	0.78	5.00	3.10	0.22	3.32
23.90	0.30	0.78	5.00	3.10	0.22	3.31
23.95	0.30	0.78	5.00	3.10	0.21	3.30
24.00	0.29	0.78	5.00	3.10	0.20	3.29
24.05	0.29	0.78	5.00	3.10	0.19	3.28
24.10	0.29	0.78	5.00	3.10	0.18	3.28
24.15	0.29	0.78	5.00	3.10	0.17	3.27
24.20	0.28	0.78	5.00	3.10	0.16	3.26
24.25	0.28	0.78	5.00	3.10	0.15	3.25
24.30	0.28	0.78	5.00	3.10	0.14	3.24
24.35	0.28	0.78	5.00	3.10	0.13	3.23
24.40	0.28	0.78	5.00	3.10	0.13	3.22
24.45	0.27	0.78	5.00	3.10	0.12	3.21
24.50	0.27	0.78	5.00	3.10	0.11	3.20
24.55	0.27	0.78	5.00	3.10	0.10	3.19
24.60	0.27	0.78	5.00	3.10	0.09	3.18
24.65	0.27	0.78	5.00	3.10	0.08	3.17
24.70	0.27	0.78	5.00	3.10	0.07	3.16
24.75	0.26	0.78	5.00	3.10	0.06	3.15
24.80	0.26	0.78	5.00	3.10	0.05	3.14
24.85	0.26	0.78	5.00	3.10	0.04	3.13
24.90	0.26	0.78	5.00	3.10	0.03	3.13
24.95	0.26	0.78	5.00	3.10	0.02	3.12
25.00	0.25	0.78	5.00	3.10	0.01	3.11
25.05	0.26	0.78	0.33*	3.10	0.00	3.10
25.10	0.26	0.78	0.33*	3.09	0.00	3.09
25.15	0.26	0.78	0.33*	3.08	0.00	3.08
25.20	0.26	0.78	0.33*	3.07	0.00	3.07
25.25	0.26	0.78	0.33*	3.07	0.00	3.07
25.30	0.26	0.78	0.33*	3.06	0.00	3.06
25.35	0.26	0.78	0.33*	3.05	0.00	3.05
25.40	0.26	0.78	0.34*	3.04	0.00	3.04
25.45	0.26	0.79	0.34*	3.04	0.00	3.04
25.50	0.27	0.79	0.34*	3.03	0.00	3.03
25.55	0.27	0.79	0.34*	3.02	0.00	3.02
25.60	0.27	0.79	0.34*	3.02	0.00	3.02
25.65	0.27	0.79	0.34*	3.01	0.00	3.01
25.70	0.27	0.79	0.35*	3.00	0.00	3.00
25.75	0.27	0.79	0.35*	2.99	0.00	2.99

25.80	0.27	0.79	0.35*	2.99	0.00	2.99
25.85	0.28	0.79	0.35*	2.98	0.00	2.98
25.90	0.28	0.79	0.35*	2.97	0.00	2.97
25.95	0.28	0.79	0.35*	2.97	0.00	2.97
26.00	0.28	0.79	0.35*	2.96	0.00	2.96
26.05	0.28	0.79	0.35*	2.95	0.00	2.95
26.10	0.28	0.79	0.35*	2.95	0.00	2.95
26.15	0.28	0.79	0.36*	2.94	0.00	2.94
26.20	0.28	0.80	0.36*	2.93	0.00	2.93
26.25	0.29	0.80	0.36*	2.93	0.00	2.93
26.30	0.29	0.80	0.36*	2.92	0.00	2.92
26.35	0.29	0.80	0.36*	2.91	0.00	2.91
26.40	0.29	0.80	0.36*	2.91	0.00	2.91
26.45	0.29	0.80	0.36*	2.90	0.00	2.90
26.50	0.29	0.80	0.36*	2.89	0.00	2.89
26.55	0.29	0.80	0.37*	2.89	0.00	2.89
26.60	0.29	0.80	0.37*	2.88	0.00	2.88
26.65	0.30	0.80	0.37*	2.87	0.00	2.87
26.70	0.30	0.80	0.37*	2.87	0.00	2.87
26.75	0.30	0.80	0.37*	2.86	0.00	2.86
26.80	0.30	0.80	0.37*	2.85	0.00	2.85
26.85	0.30	0.80	0.37*	2.85	0.00	2.85
26.90	0.30	0.80	0.38*	2.84	0.00	2.84
26.95	0.30	0.81	0.38*	2.84	0.00	2.84
27.00	0.31	0.81	0.38*	2.83	0.00	2.83
27.05	0.31	0.81	0.38*	2.82	0.00	2.82
27.10	0.31	0.81	0.38*	2.82	0.00	2.82
27.15	0.31	0.81	0.38*	2.81	0.00	2.81
27.20	0.31	0.81	0.38*	2.80	0.00	2.80
27.25	0.31	0.81	0.39*	2.80	0.00	2.80
27.30	0.31	0.81	0.39*	2.79	0.00	2.79
27.35	0.32	0.81	0.39*	2.79	0.00	2.79
27.40	0.32	0.81	0.39*	2.78	0.00	2.78
27.45	0.32	0.81	0.39*	2.77	0.00	2.77
27.50	0.32	0.81	0.39*	2.77	0.00	2.77
27.55	0.32	0.81	0.39*	2.76	0.00	2.76
27.60	0.32	0.81	0.39*	2.76	0.00	2.76
27.65	0.32	0.81	0.39*	2.75	0.00	2.75
27.70	0.32	0.82	0.39*	2.74	0.00	2.74
27.75	0.32	0.82	0.39*	2.74	0.00	2.74
27.80	0.32	0.82	0.39*	2.73	0.00	2.73
27.85	0.32	0.82	0.39*	2.73	0.00	2.73
27.90	0.36	0.82	0.44*	2.72	0.00	2.72
27.95	0.36	0.82	0.44*	2.72	0.00	2.72
28.00	0.36	0.82	0.44*	2.71	0.00	2.71
28.05	0.36	0.82	0.44*	2.71	0.00	2.71
28.10	0.36	0.82	0.44*	2.70	0.00	2.70
28.15	0.36	0.82	0.44*	2.70	0.00	2.70
28.20	0.36	0.82	0.44*	2.69	0.00	2.69
28.25	0.36	0.82	0.44*	2.69	0.00	2.69

28.30	0.36	0.82	0.44*	2.68	0.00	2.68
28.35	0.36	0.82	0.44*	2.68	0.00	2.68
28.40	0.36	0.82	0.44*	2.67	0.00	2.67
28.45	0.36	0.82	0.44*	2.67	0.00	2.67
28.50	0.36	0.83	0.44*	2.66	0.00	2.66
28.55	0.36	0.83	0.44*	2.66	0.00	2.66
28.60	0.36	0.83	0.44*	2.65	0.00	2.65
28.65	0.36	0.83	0.44*	2.65	0.00	2.65
28.70	0.36	0.83	0.44*	2.64	0.00	2.64
28.75	0.36	0.83	0.44*	2.64	0.00	2.64
28.80	0.36	0.83	0.44*	2.63	0.00	2.63
28.85	0.36	0.83	0.44*	2.63	0.00	2.63
28.90	0.36	0.83	0.43*	2.62	0.00	2.62
28.95	0.36	0.83	0.43*	2.62	0.00	2.62
29.00	0.36	0.83	0.43*	2.61	0.00	2.61
29.05	0.36	0.83	0.43*	2.61	0.00	2.61
29.10	0.36	0.83	0.43*	2.60	0.00	2.60
29.15	0.36	0.83	0.43*	2.60	0.00	2.60
29.20	0.36	0.83	0.43*	2.59	0.00	2.59
29.25	0.36	0.83	0.43*	2.59	0.00	2.59
29.30	0.36	0.83	0.43*	2.58	0.00	2.58
29.35	0.36	0.84	0.43*	2.58	0.00	2.58
29.40	0.36	0.84	0.43*	2.57	0.00	2.57
29.45	0.36	0.84	0.43*	2.57	0.00	2.57
29.50	0.36	0.84	0.43*	2.56	0.00	2.56
29.55	0.36	0.84	0.43*	2.56	0.00	2.56
29.60	0.36	0.84	0.43*	2.55	0.00	2.55
29.65	0.36	0.84	0.43*	2.55	0.00	2.55
29.70	0.36	0.84	0.43*	2.54	0.00	2.54
29.75	0.36	0.84	0.43*	2.54	0.00	2.54
29.80	0.36	0.84	0.43*	2.53	0.00	2.53
29.85	0.36	0.84	0.43*	2.53	0.00	2.53
29.90	0.36	0.84	0.43*	2.52	0.00	2.52
29.95	0.36	0.84	0.43*	2.52	0.00	2.52
30.00	0.36	0.84	0.43*	2.51	0.00	2.51
30.05	0.36	0.84	0.43*	2.51	0.00	2.51
30.10	0.36	0.84	0.43*	2.50	0.00	2.50
30.15	0.36	0.84	0.42*	2.50	0.00	2.50
30.20	0.36	0.84	0.42*	2.49	0.00	2.49
30.25	0.36	0.84	0.42*	2.49	0.00	2.49
30.30	0.35	0.84	0.42*	2.48	0.00	2.48
30.35	0.35	0.84	0.42*	2.48	0.00	2.48
30.40	0.35	0.84	0.42*	2.47	0.00	2.47
30.45	0.35	0.84	0.42*	2.47	0.00	2.47
30.50	0.35	0.85	0.42*	2.46	0.00	2.46
30.55	0.35	0.85	0.41*	2.46	0.00	2.46
30.60	0.35	0.85	0.41*	2.45	0.00	2.45
30.65	0.35	0.85	0.41*	2.45	0.00	2.45
30.70	0.35	0.85	0.41*	2.44	0.00	2.44
30.75	0.35	0.85	0.41*	2.44	0.00	2.44

30.80	0.35	0.85	0.41*	2.43	0.00	2.43
30.85	0.34	0.85	0.41*	2.43	0.00	2.43
30.90	0.34	0.85	0.41*	2.42	0.00	2.42
30.95	0.34	0.85	0.40*	2.41	0.00	2.41
31.00	0.34	0.85	0.40*	2.41	0.00	2.41
31.05	0.34	0.85	0.40*	2.40	0.00	2.40
31.10	0.34	0.85	0.40*	2.40	0.00	2.40
31.15	0.34	0.85	0.40*	2.39	0.00	2.39
31.20	0.34	0.85	0.40*	2.39	0.00	2.39
31.25	0.34	0.85	0.40*	2.38	0.00	2.38
31.30	0.34	0.85	0.40*	2.38	0.00	2.38
31.35	0.34	0.85	0.40*	2.37	0.00	2.37
31.40	0.34	0.85	0.39*	2.37	0.00	2.37
31.45	0.33	0.85	0.39*	2.36	0.00	2.36
31.50	0.33	0.85	0.39*	2.36	0.00	2.36
31.55	0.33	0.85	0.39*	2.35	0.00	2.35
31.60	0.33	0.85	0.39*	2.35	0.00	2.35
31.65	0.33	0.85	0.39*	2.34	0.00	2.34
31.70	0.33	0.85	0.39*	2.33	0.00	2.33
31.75	0.33	0.85	0.39*	2.33	0.00	2.33
31.80	0.33	0.85	0.39*	2.32	0.00	2.32
31.85	0.33	0.85	0.39*	2.32	0.00	2.32
31.90	0.33	0.85	0.39*	2.31	0.00	2.31
31.95	0.33	0.85	0.38*	2.31	0.00	2.31
32.00	0.33	0.85	0.38*	2.30	0.00	2.30
32.05	0.33	0.85	0.38*	2.30	0.00	2.30
32.10	0.33	0.85	0.38*	2.29	0.00	2.29
32.15	0.33	0.85	0.38*	2.29	0.00	2.29
32.20	0.32	0.85	0.38*	2.28	0.00	2.28
32.25	0.32	0.85	0.38*	2.27	0.00	2.27
32.30	0.32	0.85	0.38*	2.27	0.00	2.27
32.35	0.32	0.85	0.38*	2.26	0.00	2.26
32.40	0.32	0.85	0.38*	2.26	0.00	2.26
32.45	0.32	0.85	0.38*	2.25	0.00	2.25
32.50	0.32	0.86	0.38*	2.25	0.00	2.25
32.55	0.32	0.86	0.38*	2.24	0.00	2.24
32.60	0.33	0.86	0.38*	2.23	0.00	2.23
32.65	0.33	0.86	0.38*	2.23	0.00	2.23
32.70	0.33	0.86	0.39*	2.22	0.00	2.22
32.75	0.34	0.86	0.39*	2.22	0.00	2.22
32.80	0.34	0.86	0.39*	2.21	0.00	2.21
32.85	0.34	0.86	0.40*	2.21	0.00	2.21
32.90	0.35	0.86	0.40*	2.20	0.00	2.20
32.95	0.35	0.86	0.41*	2.20	0.00	2.20
33.00	0.35	0.86	0.41*	2.19	0.00	2.19
33.05	0.36	0.86	0.42*	2.19	0.00	2.19
33.10	0.36	0.86	0.42*	2.18	0.00	2.18
33.15	0.37	0.86	0.43*	2.18	0.00	2.18
33.20	0.38	0.86	0.44*	2.17	0.00	2.17
33.25	0.39	0.86	0.45*	2.17	0.00	2.17

33.30	0.40	0.86	0.47*	2.16	0.00	2.16
33.35	0.42	0.86	0.49*	2.16	0.00	2.16
33.40	0.45	0.86	0.52*	2.15	0.00	2.15
33.45	1.79	0.86	2.09	2.15	0.00	2.15
33.50	1.79	0.86	2.09	2.15	0.00	2.15
33.55	0.45	0.86	0.52*	2.14	0.00	2.14
33.60	0.44	0.86	0.52*	2.14	0.00	2.14
33.65	0.44	0.86	0.51*	2.13	0.00	2.13
33.70	0.44	0.86	0.51*	2.13	0.00	2.13
33.75	0.43	0.86	0.50*	2.12	0.00	2.12
33.80	0.43	0.86	0.50*	2.12	0.00	2.12
33.85	0.43	0.86	0.49*	2.11	0.00	2.11
33.90	0.42	0.86	0.49*	2.11	0.00	2.11
33.95	0.42	0.86	0.49*	2.11	0.00	2.11
34.00	0.41	0.86	0.48*	2.10	0.00	2.10
34.05	0.41	0.86	0.48*	2.10	0.00	2.10
34.10	0.41	0.86	0.47*	2.09	0.00	2.09
34.15	0.40	0.86	0.47*	2.09	0.00	2.09
34.20	0.40	0.86	0.46*	2.08	0.00	2.08
34.25	0.40	0.86	0.46*	2.08	0.00	2.08
34.30	0.39	0.86	0.46*	2.07	0.00	2.07
34.35	0.39	0.86	0.45*	2.07	0.00	2.07
34.40	0.39	0.86	0.45*	2.07	0.00	2.07
34.45	0.38	0.86	0.44*	2.06	0.00	2.06
34.50	0.38	0.86	0.44*	2.06	0.00	2.06
34.55	0.38	0.86	0.44*	2.05	0.00	2.05
34.60	0.37	0.86	0.43*	2.05	0.00	2.05
34.65	0.37	0.86	0.43*	2.04	0.00	2.04
34.70	0.37	0.86	0.43*	2.04	0.00	2.04
34.75	0.37	0.86	0.42*	2.03	0.00	2.03
34.80	0.36	0.86	0.42*	2.03	0.00	2.03
34.85	0.36	0.86	0.42*	2.02	0.00	2.02
34.90	0.36	0.86	0.41*	2.02	0.00	2.02
34.95	0.35	0.86	0.41*	2.01	0.00	2.01
35.00	0.35	0.86	0.41*	2.01	0.00	2.01
35.05	0.35	0.86	0.41*	2.00	0.00	2.00
35.10	0.35	0.86	0.41*	2.00	0.00	2.00
35.15	0.35	0.86	0.41*	1.99	0.00	1.99
35.20	0.35	0.86	0.41*	1.99	0.00	1.99
35.25	0.35	0.86	0.41*	1.98	0.00	1.98
35.30	0.35	0.86	0.41*	1.98	0.00	1.98
35.35	0.35	0.87	0.41*	1.97	0.00	1.97
35.40	0.35	0.87	0.41*	1.97	0.00	1.97
35.45	0.35	0.87	0.41*	1.96	0.00	1.96
35.50	0.35	0.87	0.41*	1.96	0.00	1.96
35.55	0.35	0.87	0.41*	1.95	0.00	1.95
35.60	0.35	0.87	0.41*	1.95	0.00	1.95
35.65	0.35	0.87	0.41*	1.94	0.00	1.94
35.70	0.35	0.87	0.41*	1.94	0.00	1.94
35.75	0.35	0.87	0.41*	1.93	0.00	1.93

35.80	0.35	0.87	0.41*	1.93	0.00	1.93
35.85	0.35	0.87	0.41*	1.92	0.00	1.92
35.90	0.35	0.87	0.41*	1.92	0.00	1.92
35.95	0.35	0.87	0.41*	1.91	0.00	1.91
36.00	0.35	0.87	0.41*	1.91	0.00	1.91
36.05	0.35	0.87	0.41*	1.90	0.00	1.90
36.10	0.35	0.87	0.41*	1.90	0.00	1.90
36.15	0.35	0.87	0.40*	1.89	0.00	1.89
36.20	0.35	0.87	0.40*	1.89	0.00	1.89
36.25	0.35	0.87	0.40*	1.89	0.00	1.89
36.30	0.35	0.87	0.40*	1.88	0.00	1.88
36.35	0.35	0.87	0.40*	1.88	0.00	1.88
36.40	0.35	0.87	0.40*	1.87	0.00	1.87
36.45	0.35	0.87	0.40*	1.87	0.00	1.87
36.50	0.35	0.87	0.40*	1.86	0.00	1.86
36.55	0.35	0.87	0.40*	1.86	0.00	1.86
36.60	0.35	0.87	0.40*	1.85	0.00	1.85
36.65	0.35	0.87	0.40*	1.85	0.00	1.85
36.70	0.35	0.87	0.40*	1.84	0.00	1.84
36.75	0.35	0.87	0.40*	1.84	0.00	1.84
36.80	0.35	0.87	0.40*	1.83	0.00	1.83
36.85	0.35	0.87	0.40*	1.83	0.00	1.83
36.90	0.35	0.87	0.40*	1.82	0.00	1.82
36.95	0.35	0.87	0.40*	1.82	0.00	1.82
37.00	0.35	0.87	0.40*	1.81	0.00	1.81
37.05	0.35	0.87	0.40*	1.81	0.00	1.81
37.10	0.35	0.87	0.40*	1.80	0.00	1.80
37.15	0.35	0.87	0.40*	1.80	0.00	1.80
37.20	0.35	0.87	0.40*	1.79	0.00	1.79
37.25	0.35	0.87	0.40*	1.79	0.00	1.79
37.30	0.35	0.87	0.40*	1.78	0.00	1.78
37.35	0.35	0.87	0.40*	1.78	0.00	1.78
37.40	0.35	0.87	0.40*	1.77	0.00	1.77
37.45	0.35	0.87	0.40*	1.77	0.00	1.77
37.50	0.35	0.87	0.40*	1.76	0.00	1.76
37.55	0.35	0.87	0.40*	1.76	0.00	1.76
37.60	0.35	0.87	0.40*	1.75	0.00	1.75
37.65	0.34	0.87	0.39*	1.75	0.00	1.75
37.70	0.34	0.87	0.39*	1.74	0.00	1.74
37.75	0.34	0.87	0.39*	1.74	0.00	1.74
37.80	0.34	0.87	0.39*	1.73	0.00	1.73
37.85	0.33	0.87	0.38*	1.73	0.00	1.73
37.90	0.33	0.87	0.38*	1.72	0.00	1.72
37.95	0.33	0.87	0.38*	1.72	0.00	1.72
38.00	0.33	0.87	0.38*	1.71	0.00	1.71
38.05	0.33	0.87	0.37*	1.71	0.00	1.71
38.10	0.32	0.87	0.37*	1.70	0.00	1.70
38.15	0.32	0.87	0.37*	1.70	0.00	1.70
38.20	0.32	0.87	0.37*	1.69	0.00	1.69
38.25	0.32	0.87	0.36*	1.69	0.00	1.69

38.30	0.32	0.87	0.36*	1.68	0.00	1.68
38.35	0.31	0.87	0.36*	1.67	0.00	1.67
38.40	0.31	0.87	0.36*	1.67	0.00	1.67
38.45	0.31	0.87	0.36*	1.66	0.00	1.66
38.50	0.31	0.87	0.35*	1.66	0.00	1.66
38.55	0.31	0.87	0.35*	1.65	0.00	1.65
38.60	0.30	0.87	0.35*	1.65	0.00	1.65
38.65	0.30	0.87	0.35*	1.64	0.00	1.64
38.70	0.30	0.87	0.34*	1.63	0.00	1.63
38.75	0.30	0.87	0.34*	1.63	0.00	1.63
38.80	0.30	0.87	0.34*	1.62	0.00	1.62
38.85	0.29	0.87	0.34*	1.62	0.00	1.62
38.90	0.29	0.87	0.34*	1.61	0.00	1.61
38.95	0.29	0.87	0.33*	1.60	0.00	1.60
39.00	0.29	0.87	0.33*	1.60	0.00	1.60
39.05	0.29	0.87	0.33*	1.59	0.00	1.59
39.10	0.28	0.87	0.33*	1.59	0.00	1.59
39.15	0.28	0.87	0.32*	1.58	0.00	1.58
39.20	0.28	0.87	0.32*	1.57	0.00	1.57
39.25	0.28	0.87	0.32*	1.57	0.00	1.57
39.30	0.28	0.87	0.32*	1.56	0.00	1.56
39.35	0.28	0.87	0.32*	1.55	0.00	1.55
39.40	0.27	0.87	0.31*	1.55	0.00	1.55
39.45	0.27	0.87	0.31*	1.54	0.00	1.54
39.50	0.27	0.87	0.31*	1.53	0.00	1.53
39.55	0.27	0.87	0.31*	1.53	0.00	1.53
39.60	0.27	0.87	0.31*	1.52	0.00	1.52
39.65	0.26	0.87	0.30*	1.51	0.00	1.51
39.70	0.26	0.87	0.30*	1.51	0.00	1.51
39.75	0.26	0.87	0.30*	1.50	0.00	1.50
39.80	0.26	0.87	0.30*	1.49	0.00	1.49
39.85	0.26	0.87	0.30*	1.49	0.00	1.49
39.90	0.26	0.87	0.30*	1.48	0.00	1.48
39.95	0.26	0.87	0.29*	1.47	0.00	1.47
40.00	0.26	0.87	0.29*	1.47	0.00	1.47
40.05	0.26	0.87	0.29*	1.46	0.00	1.46
40.10	0.26	0.87	0.29*	1.45	0.00	1.45
40.15	0.25	0.87	0.29*	1.45	0.00	1.45
40.20	0.25	0.87	0.29*	1.44	0.00	1.44
40.25	0.25	0.87	0.29*	1.43	0.00	1.43
40.30	0.25	0.87	0.29*	1.43	0.00	1.43
40.35	0.25	0.87	0.29*	1.42	0.00	1.42
40.40	0.25	0.87	0.29*	1.41	0.00	1.41
40.45	0.25	0.87	0.29*	1.41	0.00	1.41
40.50	0.25	0.87	0.29*	1.40	0.00	1.40
40.55	0.25	0.87	0.29*	1.39	0.00	1.39
40.60	0.25	0.87	0.29*	1.39	0.00	1.39
40.65	0.25	0.87	0.29*	1.38	0.00	1.38
40.70	0.25	0.87	0.29*	1.37	0.00	1.37
40.75	0.25	0.87	0.29*	1.36	0.00	1.36

40.80	0.25	0.87	0.29*	1.36	0.00	1.36
40.85	0.25	0.87	0.29*	1.35	0.00	1.35
40.90	0.25	0.87	0.29*	1.34	0.00	1.34
40.95	0.25	0.87	0.29*	1.34	0.00	1.34
41.00	0.25	0.87	0.29*	1.33	0.00	1.33
41.05	0.25	0.87	0.29*	1.32	0.00	1.32
41.10	0.25	0.87	0.29*	1.32	0.00	1.32
41.15	0.25	0.87	0.29*	1.31	0.00	1.31
41.20	0.25	0.87	0.29*	1.30	0.00	1.30
41.25	0.25	0.87	0.28*	1.29	0.00	1.29
41.30	0.25	0.87	0.28*	1.29	0.00	1.29
41.35	0.25	0.87	0.28*	1.28	0.00	1.28
41.40	0.25	0.87	0.28*	1.27	0.00	1.27
41.45	0.25	0.87	0.28*	1.27	0.00	1.27
41.50	0.25	0.87	0.28*	1.26	0.00	1.26
41.55	0.25	0.87	0.28*	1.25	0.00	1.25
41.60	0.25	0.87	0.28*	1.25	0.00	1.25
41.65	0.25	0.87	0.28*	1.24	0.00	1.24
41.70	0.25	0.87	0.28*	1.23	0.00	1.23
41.75	0.25	0.87	0.28*	1.22	0.00	1.22
41.80	0.25	0.87	0.28*	1.22	0.00	1.22
41.85	0.24	0.87	0.28*	1.21	0.00	1.21
41.90	0.24	0.87	0.28*	1.20	0.00	1.20
41.95	0.24	0.87	0.28*	1.20	0.00	1.20
42.00	0.24	0.87	0.28*	1.19	0.00	1.19
42.05	0.24	0.87	0.28*	1.18	0.00	1.18
42.10	0.24	0.87	0.28*	1.18	0.00	1.18
42.15	0.24	0.87	0.28*	1.17	0.00	1.17
42.20	0.24	0.87	0.28*	1.16	0.00	1.16
42.25	0.24	0.87	0.28*	1.15	0.00	1.15
42.30	0.24	0.87	0.28*	1.15	0.00	1.15
42.35	0.24	0.87	0.28*	1.14	0.00	1.14
42.40	0.24	0.87	0.28*	1.13	0.00	1.13
42.45	0.24	0.87	0.28*	1.13	0.00	1.13
42.50	0.24	0.87	0.28*	1.12	0.00	1.12
42.55	0.24	0.87	0.28*	1.11	0.00	1.11
42.60	0.24	0.87	0.28*	1.10	0.00	1.10
42.65	0.24	0.87	0.28*	1.10	0.00	1.10
42.70	0.24	0.87	0.28*	1.09	0.00	1.09
42.75	0.25	0.87	0.28*	1.08	0.00	1.08
42.80	0.25	0.87	0.28*	1.08	0.00	1.08
42.85	0.25	0.87	0.28*	1.07	0.00	1.07
42.90	0.25	0.87	0.28*	1.06	0.00	1.06
42.95	0.25	0.87	0.29*	1.06	0.00	1.06
43.00	0.25	0.87	0.29*	1.05	0.00	1.05
43.05	0.25	0.87	0.29*	1.04	0.00	1.04
43.10	0.25	0.87	0.29*	1.03	0.00	1.03
43.15	0.25	0.87	0.29*	1.03	0.00	1.03
43.20	0.26	0.87	0.29*	1.02	0.00	1.02
43.25	0.26	0.87	0.29*	1.01	0.00	1.01

43.30	0.26	0.87	0.30*	1.01	0.00	1.01
43.35	0.26	0.87	0.30*	1.00	0.00	1.00
43.40	0.26	0.87	0.30*	0.99	0.00	0.99
43.45	0.26	0.87	0.30*	0.99	0.00	0.99
43.50	0.26	0.87	0.30*	0.98	0.00	0.98
43.55	0.26	0.87	0.30*	0.97	0.00	0.97
43.60	0.27	0.87	0.30*	0.97	0.00	0.97
43.65	0.27	0.87	0.31*	0.96	0.00	0.96
43.70	0.27	0.87	0.31*	0.95	0.00	0.95
43.75	0.27	0.87	0.31*	0.95	0.00	0.95
43.80	0.27	0.87	0.31*	0.94	0.00	0.94
43.85	0.27	0.87	0.31*	0.94	0.00	0.94
43.90	0.27	0.87	0.31*	0.93	0.00	0.93
43.95	0.27	0.87	0.31*	0.92	0.00	0.92
44.00	0.27	0.87	0.31*	0.92	0.00	0.92
44.05	0.28	0.87	0.32*	0.91	0.00	0.91
44.10	0.28	0.87	0.32*	0.90	0.00	0.90
44.15	0.28	0.87	0.32*	0.90	0.00	0.90
44.20	0.28	0.87	0.32*	0.89	0.00	0.89
44.25	0.28	0.87	0.32*	0.89	0.00	0.89
44.30	0.28	0.87	0.32*	0.88	0.00	0.88
44.35	0.28	0.87	0.32*	0.87	0.00	0.87
44.40	0.28	0.87	0.32*	0.87	0.00	0.87
44.45	0.28	0.87	0.33*	0.86	0.00	0.86
44.50	0.28	0.87	0.33*	0.85	0.00	0.85
44.55	0.28	0.87	0.33*	0.85	0.00	0.85
44.60	0.29	0.87	0.33*	0.84	0.00	0.84
44.65	0.29	0.87	0.33*	0.84	0.00	0.84
44.70	0.29	0.87	0.33*	0.83	0.00	0.83
44.75	0.29	0.87	0.33*	0.82	0.00	0.82
44.80	0.29	0.87	0.33*	0.82	0.00	0.82
44.85	0.29	0.87	0.33*	0.81	0.00	0.81
44.90	0.29	0.87	0.33*	0.81	0.00	0.81
44.95	0.29	0.87	0.33*	0.80	0.00	0.80
45.00	0.29	0.87	0.34*	0.79	0.00	0.79
45.05	0.29	0.87	0.34*	0.79	0.00	0.79
45.10	0.29	0.87	0.34*	0.78	0.00	0.78
45.15	0.29	0.87	0.34*	0.78	0.00	0.78
45.20	0.29	0.87	0.34*	0.77	0.00	0.77
45.25	0.29	0.87	0.34*	0.76	0.00	0.76
45.30	0.29	0.87	0.34*	0.76	0.00	0.76
45.35	0.29	0.87	0.34*	0.75	0.00	0.75
45.40	0.29	0.87	0.34*	0.75	0.00	0.75
45.45	0.29	0.87	0.34*	0.74	0.00	0.74
45.50	0.29	0.87	0.34*	0.73	0.00	0.73
45.55	0.29	0.87	0.34*	0.73	0.00	0.73
45.60	0.29	0.87	0.34*	0.72	0.00	0.72
45.65	0.29	0.87	0.34*	0.72	0.00	0.72
45.70	0.29	0.87	0.34*	0.71	0.00	0.71
45.75	0.29	0.87	0.34*	0.71	0.00	0.71

45.80	0.29	0.87	0.34*	0.70	0.00	0.70
45.85	0.29	0.87	0.34*	0.69	0.00	0.69
45.90	0.29	0.87	0.34*	0.69	0.00	0.69
45.95	0.29	0.87	0.34*	0.68	0.00	0.68
46.00	0.29	0.87	0.34*	0.68	0.00	0.68
46.05	0.29	0.87	0.34*	0.67	0.00	0.67
46.10	0.29	0.87	0.34*	0.66	0.00	0.66
46.15	0.29	0.87	0.34*	0.66	0.00	0.66
46.20	0.29	0.87	0.34*	0.65	0.00	0.65
46.25	0.29	0.87	0.34*	0.65	0.00	0.65
46.30	0.29	0.87	0.34*	0.64	0.00	0.64
46.35	0.29	0.87	0.34*	0.64	0.00	0.64
46.40	0.29	0.87	0.34*	0.63	0.00	0.63
46.45	0.29	0.87	0.34*	0.62	0.00	0.62
46.50	0.29	0.87	0.34*	0.62	0.00	0.62
46.55	0.29	0.87	0.34*	0.61	0.00	0.61
46.60	0.29	0.87	0.34*	0.61	0.00	0.61
46.65	0.29	0.87	0.34*	0.60	0.00	0.60
46.70	0.29	0.87	0.34*	0.59	0.00	0.59
46.75	0.29	0.87	0.34*	0.59	0.00	0.59
46.80	0.29	0.87	0.34*	0.58	0.00	0.58
46.85	0.29	0.87	0.34*	0.58	0.00	0.58
46.90	0.29	0.87	0.34*	0.57	0.00	0.57
46.95	0.29	0.87	0.34*	0.57	0.00	0.57
47.00	0.29	0.87	0.34*	0.56	0.00	0.56
47.05	0.29	0.87	0.34*	0.55	0.00	0.55
47.10	0.29	0.87	0.34*	0.55	0.00	0.55
47.15	0.29	0.87	0.34*	0.54	0.00	0.54
47.20	0.29	0.87	0.34*	0.54	0.00	0.54
47.25	0.29	0.87	0.34*	0.53	0.00	0.53
47.30	0.29	0.87	0.34*	0.52	0.00	0.52
47.35	0.29	0.86	0.34*	0.52	0.00	0.52
47.40	0.29	0.86	0.34*	0.51	0.00	0.51
47.45	0.29	0.86	0.34*	0.51	0.00	0.51
47.50	0.29	0.86	0.34*	0.50	0.00	0.50
47.55	0.29	0.86	0.34*	0.50	0.00	0.50
47.60	0.29	0.86	0.34*	0.49	0.00	0.49
47.65	0.29	0.86	0.34*	0.48	0.00	0.48
47.70	0.29	0.86	0.33*	0.48	0.00	0.48
47.75	0.29	0.86	0.33*	0.47	0.00	0.47
47.80	0.29	0.86	0.33*	0.47	0.00	0.47
47.85	0.29	0.86	0.33*	0.46	0.00	0.46
47.90	0.29	0.86	0.33*	0.45	0.00	0.45
47.95	0.29	0.86	0.33*	0.45	0.00	0.45
48.00	0.29	0.86	0.33*	0.44	0.00	0.44
48.05	0.28	0.86	0.33*	0.44	0.00	0.44
48.10	0.28	0.86	0.33*	0.43	0.00	0.43
48.15	0.28	0.86	0.33*	0.42	0.00	0.42
48.20	0.28	0.86	0.33*	0.42	0.00	0.42
48.25	0.28	0.86	0.33*	0.41	0.00	0.41

48.30	0.28	0.86	0.33*	0.41	0.00	0.41
48.35	0.28	0.86	0.32*	0.40	0.00	0.40
48.40	0.28	0.86	0.32*	0.39	0.00	0.39
48.45	0.28	0.86	0.32*	0.39	0.00	0.39
48.50	0.28	0.86	0.32*	0.38	0.00	0.38
48.55	0.28	0.86	0.32*	0.38	0.00	0.38
48.60	0.28	0.86	0.32*	0.37	0.00	0.37
48.65	0.28	0.86	0.32*	0.36	0.00	0.36
48.70	0.28	0.86	0.32*	0.36	0.00	0.36
48.75	0.27	0.86	0.32*	0.35	0.00	0.35
48.80	0.27	0.86	0.32*	0.35	0.00	0.35
48.85	0.27	0.86	0.32*	0.34	0.00	0.34
48.90	0.27	0.86	0.32*	0.33	0.00	0.33
48.95	0.27	0.86	0.32*	0.33	0.00	0.33
49.00	0.27	0.86	0.32*	0.32	0.00	0.32
49.05	0.27	0.86	0.32*	0.31	0.00	0.31
49.10	0.27	0.86	0.31*	0.31	0.00	0.31
49.15	0.27	0.86	0.31*	0.30	0.00	0.30
49.20	0.27	0.86	0.31*	0.30	0.00	0.30
49.25	0.27	0.86	0.31*	0.29	0.00	0.29
49.30	0.27	0.86	0.31*	0.28	0.00	0.28
49.35	0.27	0.86	0.31*	0.28	0.00	0.28
49.40	0.27	0.86	0.31*	0.27	0.00	0.27
49.45	0.27	0.86	0.31*	0.26	0.00	0.26
49.50	0.27	0.86	0.31*	0.26	0.00	0.26
49.55	0.27	0.86	0.31*	0.25	0.00	0.25
49.60	0.26	0.86	0.31*	0.25	0.00	0.25
49.65	0.26	0.86	0.31*	0.24	0.00	0.24
49.70	0.26	0.86	0.31*	0.23	0.00	0.23
49.75	0.26	0.86	0.31*	0.23	0.00	0.23
49.80	0.26	0.86	0.31*	0.22	0.00	0.22
49.85	0.26	0.86	0.31*	0.21	0.00	0.21
49.90	0.26	0.86	0.30*	0.21	0.00	0.21
49.95	0.26	0.86	0.30*	0.20	0.00	0.20
50.00	0.26	0.86	0.30*	0.19	0.00	0.19
50.05	0.26	0.86	0.30*	0.19	0.00	0.19
50.10	0.26	0.86	0.30*	0.18	0.00	0.18
50.15	0.26	0.86	0.30*	0.18	0.00	0.18
50.20	0.26	0.86	0.30*	0.17	0.00	0.17
50.25	0.26	0.86	0.30*	0.16	0.00	0.16
50.30	0.26	0.86	0.30*	0.16	0.00	0.16
50.35	0.26	0.86	0.30*	0.15	0.00	0.15
50.40	0.26	0.86	0.30*	0.14	0.00	0.14
50.45	0.26	0.86	0.30*	0.14	0.00	0.14
50.50	0.26	0.86	0.30*	0.13	0.00	0.13
50.55	0.26	0.86	0.30*	0.12	0.00	0.12
50.60	0.26	0.86	0.30*	0.12	0.00	0.12
50.65	0.26	0.86	0.30*	0.11	0.00	0.11
50.70	0.26	0.86	0.30*	0.10	0.00	0.10
50.75	0.26	0.86	0.30*	0.10	0.00	0.10

50.80	0.26	0.86	0.30*	0.09	0.00	0.09
50.85	0.26	0.86	0.30*	0.08	0.00	0.08
50.90	0.26	0.85	0.30*	0.08	0.00	0.08
50.95	0.26	0.85	0.30*	0.07	0.00	0.07
51.00	0.26	0.85	0.30*	0.07	0.00	0.07
51.05	0.25	0.85	0.30*	0.06	0.00	0.06
51.10	0.25	0.85	0.30*	0.05	0.00	0.05
51.15	0.25	0.85	0.30*	0.05	0.00	0.05
51.20	0.25	0.85	0.30*	0.04	0.00	0.04
51.25	0.25	0.85	0.30*	0.03	0.00	0.03
51.30	0.25	0.85	0.30*	0.03	0.00	0.03
51.35	0.25	0.85	0.30*	0.02	0.00	0.02
51.40	0.25	0.85	0.30*	0.01	0.00	0.01
51.45	0.25	0.85	0.30*	0.01	0.00	0.01
51.50	0.25	0.85	0.30*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

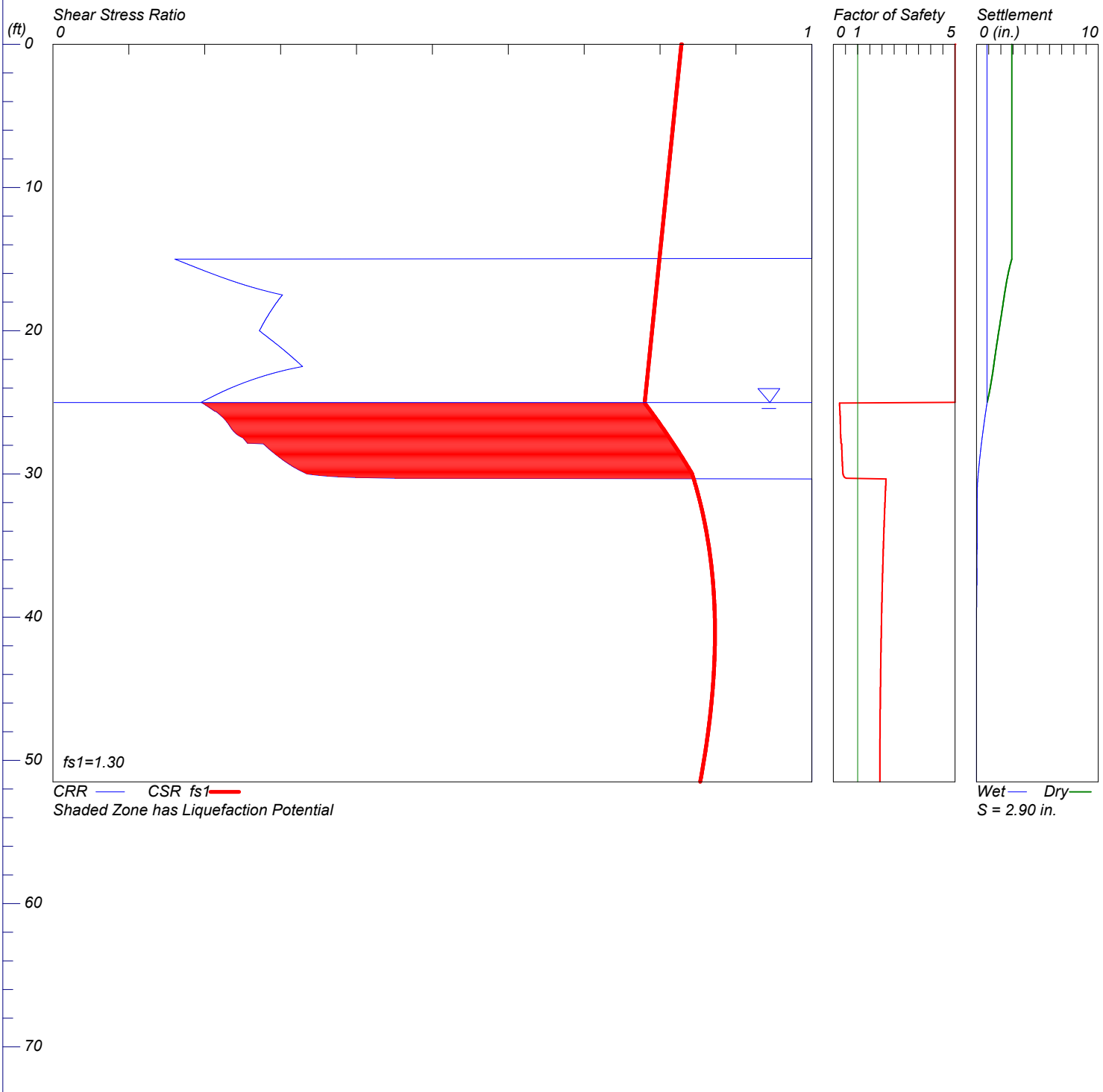
CRRm	Cyclic resistance ratio from soils
CSRfs	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat	Settlement from saturated sands
S_dry	Settlement from dry sands
S_all	Total settlement from saturated and dry sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=B-LGC-4 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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****
LIQUEFACTION ANALYSIS CALCULATION SHEET

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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\BLGC4.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=B-LGC-4
Depth of Hole= 51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 51.5 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=B-LGC-4
Depth of Hole=51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 51.5 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

Earthquake Magnitude=7.7
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.3
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.0	14.0	120.0	NoLiq
5.0	23.0	120.0	NoLiq
10.0	10.0	120.0	NoLiq
12.5	11.0	120.0	NoLiq
15.0	11.0	120.0	11.0
17.5	21.0	120.0	11.0
20.0	21.0	120.0	11.0
22.5	21.0	120.0	22.0
25.0	14.0	120.0	22.0
27.5	25.0	120.0	6.0
30.0	29.0	120.0	8.0
32.5	36.0	120.0	22.0
35.0	33.0	120.0	22.0
37.5	41.0	120.0	8.0
40.0	35.0	120.0	22.0
42.5	72.0	120.0	22.0
45.0	69.0	120.0	22.0
47.5	57.0	120.0	22.0
50.0	77.0	120.0	22.0
51.5	77.0	120.0	22.0

Output Results:

Settlement of saturated sands=0.86 in.
Settlement of dry sands=2.04 in.
Total settlement of saturated and dry sands=2.90 in.
Differential Settlement=1.450 to 1.914 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	0.86	2.04	2.90
0.05	2.00	0.83	5.00	0.86	2.04	2.90
0.10	2.00	0.83	5.00	0.86	2.04	2.90
0.15	2.00	0.83	5.00	0.86	2.04	2.90
0.20	2.00	0.83	5.00	0.86	2.04	2.90
0.25	2.00	0.83	5.00	0.86	2.04	2.90
0.30	2.00	0.83	5.00	0.86	2.04	2.90
0.35	2.00	0.83	5.00	0.86	2.04	2.90
0.40	2.00	0.83	5.00	0.86	2.04	2.90
0.45	2.00	0.83	5.00	0.86	2.04	2.90
0.50	2.00	0.83	5.00	0.86	2.04	2.90
0.55	2.00	0.83	5.00	0.86	2.04	2.90
0.60	2.00	0.83	5.00	0.86	2.04	2.90
0.65	2.00	0.83	5.00	0.86	2.04	2.90
0.70	2.00	0.83	5.00	0.86	2.04	2.90
0.75	2.00	0.83	5.00	0.86	2.04	2.90

0.80	2.00	0.83	5.00	0.86	2.04	2.90
0.85	2.00	0.83	5.00	0.86	2.04	2.90
0.90	2.00	0.83	5.00	0.86	2.04	2.90
0.95	2.00	0.83	5.00	0.86	2.04	2.90
1.00	2.00	0.83	5.00	0.86	2.04	2.90
1.05	2.00	0.83	5.00	0.86	2.04	2.90
1.10	2.00	0.83	5.00	0.86	2.04	2.90
1.15	2.00	0.83	5.00	0.86	2.04	2.90
1.20	2.00	0.83	5.00	0.86	2.04	2.90
1.25	2.00	0.83	5.00	0.86	2.04	2.90
1.30	2.00	0.83	5.00	0.86	2.04	2.90
1.35	2.00	0.83	5.00	0.86	2.04	2.90
1.40	2.00	0.83	5.00	0.86	2.04	2.90
1.45	2.00	0.83	5.00	0.86	2.04	2.90
1.50	2.00	0.83	5.00	0.86	2.04	2.90
1.55	2.00	0.83	5.00	0.86	2.04	2.90
1.60	2.00	0.83	5.00	0.86	2.04	2.90
1.65	2.00	0.82	5.00	0.86	2.04	2.90
1.70	2.00	0.82	5.00	0.86	2.04	2.90
1.75	2.00	0.82	5.00	0.86	2.04	2.90
1.80	2.00	0.82	5.00	0.86	2.04	2.90
1.85	2.00	0.82	5.00	0.86	2.04	2.90
1.90	2.00	0.82	5.00	0.86	2.04	2.90
1.95	2.00	0.82	5.00	0.86	2.04	2.90
2.00	2.00	0.82	5.00	0.86	2.04	2.90
2.05	2.00	0.82	5.00	0.86	2.04	2.90
2.10	2.00	0.82	5.00	0.86	2.04	2.90
2.15	2.00	0.82	5.00	0.86	2.04	2.90
2.20	2.00	0.82	5.00	0.86	2.04	2.90
2.25	2.00	0.82	5.00	0.86	2.04	2.90
2.30	2.00	0.82	5.00	0.86	2.04	2.90
2.35	2.00	0.82	5.00	0.86	2.04	2.90
2.40	2.00	0.82	5.00	0.86	2.04	2.90
2.45	2.00	0.82	5.00	0.86	2.04	2.90
2.50	2.00	0.82	5.00	0.86	2.04	2.90
2.55	2.00	0.82	5.00	0.86	2.04	2.90
2.60	2.00	0.82	5.00	0.86	2.04	2.90
2.65	2.00	0.82	5.00	0.86	2.04	2.90
2.70	2.00	0.82	5.00	0.86	2.04	2.90
2.75	2.00	0.82	5.00	0.86	2.04	2.90
2.80	2.00	0.82	5.00	0.86	2.04	2.90
2.85	2.00	0.82	5.00	0.86	2.04	2.90
2.90	2.00	0.82	5.00	0.86	2.04	2.90
2.95	2.00	0.82	5.00	0.86	2.04	2.90
3.00	2.00	0.82	5.00	0.86	2.04	2.90
3.05	2.00	0.82	5.00	0.86	2.04	2.90
3.10	2.00	0.82	5.00	0.86	2.04	2.90
3.15	2.00	0.82	5.00	0.86	2.04	2.90
3.20	2.00	0.82	5.00	0.86	2.04	2.90
3.25	2.00	0.82	5.00	0.86	2.04	2.90

3.30	2.00	0.82	5.00	0.86	2.04	2.90
3.35	2.00	0.82	5.00	0.86	2.04	2.90
3.40	2.00	0.82	5.00	0.86	2.04	2.90
3.45	2.00	0.82	5.00	0.86	2.04	2.90
3.50	2.00	0.82	5.00	0.86	2.04	2.90
3.55	2.00	0.82	5.00	0.86	2.04	2.90
3.60	2.00	0.82	5.00	0.86	2.04	2.90
3.65	2.00	0.82	5.00	0.86	2.04	2.90
3.70	2.00	0.82	5.00	0.86	2.04	2.90
3.75	2.00	0.82	5.00	0.86	2.04	2.90
3.80	2.00	0.82	5.00	0.86	2.04	2.90
3.85	2.00	0.82	5.00	0.86	2.04	2.90
3.90	2.00	0.82	5.00	0.86	2.04	2.90
3.95	2.00	0.82	5.00	0.86	2.04	2.90
4.00	2.00	0.82	5.00	0.86	2.04	2.90
4.05	2.00	0.82	5.00	0.86	2.04	2.90
4.10	2.00	0.82	5.00	0.86	2.04	2.90
4.15	2.00	0.82	5.00	0.86	2.04	2.90
4.20	2.00	0.82	5.00	0.86	2.04	2.90
4.25	2.00	0.82	5.00	0.86	2.04	2.90
4.30	2.00	0.82	5.00	0.86	2.04	2.90
4.35	2.00	0.82	5.00	0.86	2.04	2.90
4.40	2.00	0.82	5.00	0.86	2.04	2.90
4.45	2.00	0.82	5.00	0.86	2.04	2.90
4.50	2.00	0.82	5.00	0.86	2.04	2.90
4.55	2.00	0.82	5.00	0.86	2.04	2.90
4.60	2.00	0.82	5.00	0.86	2.04	2.90
4.65	2.00	0.82	5.00	0.86	2.04	2.90
4.70	2.00	0.82	5.00	0.86	2.04	2.90
4.75	2.00	0.82	5.00	0.86	2.04	2.90
4.80	2.00	0.82	5.00	0.86	2.04	2.90
4.85	2.00	0.82	5.00	0.86	2.04	2.90
4.90	2.00	0.82	5.00	0.86	2.04	2.90
4.95	2.00	0.82	5.00	0.86	2.04	2.90
5.00	2.00	0.82	5.00	0.86	2.04	2.90
5.05	2.00	0.82	5.00	0.86	2.04	2.90
5.10	2.00	0.82	5.00	0.86	2.04	2.90
5.15	2.00	0.82	5.00	0.86	2.04	2.90
5.20	2.00	0.82	5.00	0.86	2.04	2.90
5.25	2.00	0.82	5.00	0.86	2.04	2.90
5.30	2.00	0.82	5.00	0.86	2.04	2.90
5.35	2.00	0.82	5.00	0.86	2.04	2.90
5.40	2.00	0.82	5.00	0.86	2.04	2.90
5.45	2.00	0.82	5.00	0.86	2.04	2.90
5.50	2.00	0.82	5.00	0.86	2.04	2.90
5.55	2.00	0.82	5.00	0.86	2.04	2.90
5.60	2.00	0.82	5.00	0.86	2.04	2.90
5.65	2.00	0.82	5.00	0.86	2.04	2.90
5.70	2.00	0.82	5.00	0.86	2.04	2.90
5.75	2.00	0.82	5.00	0.86	2.04	2.90

5.80	2.00	0.82	5.00	0.86	2.04	2.90
5.85	2.00	0.82	5.00	0.86	2.04	2.90
5.90	2.00	0.82	5.00	0.86	2.04	2.90
5.95	2.00	0.82	5.00	0.86	2.04	2.90
6.00	2.00	0.82	5.00	0.86	2.04	2.90
6.05	2.00	0.82	5.00	0.86	2.04	2.90
6.10	2.00	0.82	5.00	0.86	2.04	2.90
6.15	2.00	0.82	5.00	0.86	2.04	2.90
6.20	2.00	0.82	5.00	0.86	2.04	2.90
6.25	2.00	0.82	5.00	0.86	2.04	2.90
6.30	2.00	0.82	5.00	0.86	2.04	2.90
6.35	2.00	0.82	5.00	0.86	2.04	2.90
6.40	2.00	0.82	5.00	0.86	2.04	2.90
6.45	2.00	0.82	5.00	0.86	2.04	2.90
6.50	2.00	0.82	5.00	0.86	2.04	2.90
6.55	2.00	0.82	5.00	0.86	2.04	2.90
6.60	2.00	0.82	5.00	0.86	2.04	2.90
6.65	2.00	0.82	5.00	0.86	2.04	2.90
6.70	2.00	0.82	5.00	0.86	2.04	2.90
6.75	2.00	0.82	5.00	0.86	2.04	2.90
6.80	2.00	0.81	5.00	0.86	2.04	2.90
6.85	2.00	0.81	5.00	0.86	2.04	2.90
6.90	2.00	0.81	5.00	0.86	2.04	2.90
6.95	2.00	0.81	5.00	0.86	2.04	2.90
7.00	2.00	0.81	5.00	0.86	2.04	2.90
7.05	2.00	0.81	5.00	0.86	2.04	2.90
7.10	2.00	0.81	5.00	0.86	2.04	2.90
7.15	2.00	0.81	5.00	0.86	2.04	2.90
7.20	2.00	0.81	5.00	0.86	2.04	2.90
7.25	2.00	0.81	5.00	0.86	2.04	2.90
7.30	2.00	0.81	5.00	0.86	2.04	2.90
7.35	2.00	0.81	5.00	0.86	2.04	2.90
7.40	2.00	0.81	5.00	0.86	2.04	2.90
7.45	2.00	0.81	5.00	0.86	2.04	2.90
7.50	2.00	0.81	5.00	0.86	2.04	2.90
7.55	2.00	0.81	5.00	0.86	2.04	2.90
7.60	2.00	0.81	5.00	0.86	2.04	2.90
7.65	2.00	0.81	5.00	0.86	2.04	2.90
7.70	2.00	0.81	5.00	0.86	2.04	2.90
7.75	2.00	0.81	5.00	0.86	2.04	2.90
7.80	2.00	0.81	5.00	0.86	2.04	2.90
7.85	2.00	0.81	5.00	0.86	2.04	2.90
7.90	2.00	0.81	5.00	0.86	2.04	2.90
7.95	2.00	0.81	5.00	0.86	2.04	2.90
8.00	2.00	0.81	5.00	0.86	2.04	2.90
8.05	2.00	0.81	5.00	0.86	2.04	2.90
8.10	2.00	0.81	5.00	0.86	2.04	2.90
8.15	2.00	0.81	5.00	0.86	2.04	2.90
8.20	2.00	0.81	5.00	0.86	2.04	2.90
8.25	2.00	0.81	5.00	0.86	2.04	2.90

8.30	2.00	0.81	5.00	0.86	2.04	2.90
8.35	2.00	0.81	5.00	0.86	2.04	2.90
8.40	2.00	0.81	5.00	0.86	2.04	2.90
8.45	2.00	0.81	5.00	0.86	2.04	2.90
8.50	2.00	0.81	5.00	0.86	2.04	2.90
8.55	2.00	0.81	5.00	0.86	2.04	2.90
8.60	2.00	0.81	5.00	0.86	2.04	2.90
8.65	2.00	0.81	5.00	0.86	2.04	2.90
8.70	2.00	0.81	5.00	0.86	2.04	2.90
8.75	2.00	0.81	5.00	0.86	2.04	2.90
8.80	2.00	0.81	5.00	0.86	2.04	2.90
8.85	2.00	0.81	5.00	0.86	2.04	2.90
8.90	2.00	0.81	5.00	0.86	2.04	2.90
8.95	2.00	0.81	5.00	0.86	2.04	2.90
9.00	2.00	0.81	5.00	0.86	2.04	2.90
9.05	2.00	0.81	5.00	0.86	2.04	2.90
9.10	2.00	0.81	5.00	0.86	2.04	2.90
9.15	2.00	0.81	5.00	0.86	2.04	2.90
9.20	2.00	0.81	5.00	0.86	2.04	2.90
9.25	2.00	0.81	5.00	0.86	2.04	2.90
9.30	2.00	0.81	5.00	0.86	2.04	2.90
9.35	2.00	0.81	5.00	0.86	2.04	2.90
9.40	2.00	0.81	5.00	0.86	2.04	2.90
9.45	2.00	0.81	5.00	0.86	2.04	2.90
9.50	2.00	0.81	5.00	0.86	2.04	2.90
9.55	2.00	0.81	5.00	0.86	2.04	2.90
9.60	2.00	0.81	5.00	0.86	2.04	2.90
9.65	2.00	0.81	5.00	0.86	2.04	2.90
9.70	2.00	0.81	5.00	0.86	2.04	2.90
9.75	2.00	0.81	5.00	0.86	2.04	2.90
9.80	2.00	0.81	5.00	0.86	2.04	2.90
9.85	2.00	0.81	5.00	0.86	2.04	2.90
9.90	2.00	0.81	5.00	0.86	2.04	2.90
9.95	2.00	0.81	5.00	0.86	2.04	2.90
10.00	2.00	0.81	5.00	0.86	2.04	2.90
10.05	2.00	0.81	5.00	0.86	2.04	2.90
10.10	2.00	0.81	5.00	0.86	2.04	2.90
10.15	2.00	0.81	5.00	0.86	2.04	2.90
10.20	2.00	0.81	5.00	0.86	2.04	2.90
10.25	2.00	0.81	5.00	0.86	2.04	2.90
10.30	2.00	0.81	5.00	0.86	2.04	2.90
10.35	2.00	0.81	5.00	0.86	2.04	2.90
10.40	2.00	0.81	5.00	0.86	2.04	2.90
10.45	2.00	0.81	5.00	0.86	2.04	2.90
10.50	2.00	0.81	5.00	0.86	2.04	2.90
10.55	2.00	0.81	5.00	0.86	2.04	2.90
10.60	2.00	0.81	5.00	0.86	2.04	2.90
10.65	2.00	0.81	5.00	0.86	2.04	2.90
10.70	2.00	0.81	5.00	0.86	2.04	2.90
10.75	2.00	0.81	5.00	0.86	2.04	2.90

10.80	2.00	0.81	5.00	0.86	2.04	2.90
10.85	2.00	0.81	5.00	0.86	2.04	2.90
10.90	2.00	0.81	5.00	0.86	2.04	2.90
10.95	2.00	0.81	5.00	0.86	2.04	2.90
11.00	2.00	0.81	5.00	0.86	2.04	2.90
11.05	2.00	0.81	5.00	0.86	2.04	2.90
11.10	2.00	0.81	5.00	0.86	2.04	2.90
11.15	2.00	0.81	5.00	0.86	2.04	2.90
11.20	2.00	0.81	5.00	0.86	2.04	2.90
11.25	2.00	0.81	5.00	0.86	2.04	2.90
11.30	2.00	0.81	5.00	0.86	2.04	2.90
11.35	2.00	0.81	5.00	0.86	2.04	2.90
11.40	2.00	0.81	5.00	0.86	2.04	2.90
11.45	2.00	0.81	5.00	0.86	2.04	2.90
11.50	2.00	0.81	5.00	0.86	2.04	2.90
11.55	2.00	0.81	5.00	0.86	2.04	2.90
11.60	2.00	0.81	5.00	0.86	2.04	2.90
11.65	2.00	0.81	5.00	0.86	2.04	2.90
11.70	2.00	0.81	5.00	0.86	2.04	2.90
11.75	2.00	0.81	5.00	0.86	2.04	2.90
11.80	2.00	0.81	5.00	0.86	2.04	2.90
11.85	2.00	0.81	5.00	0.86	2.04	2.90
11.90	2.00	0.81	5.00	0.86	2.04	2.90
11.95	2.00	0.81	5.00	0.86	2.04	2.90
12.00	2.00	0.80	5.00	0.86	2.04	2.90
12.05	2.00	0.80	5.00	0.86	2.04	2.90
12.10	2.00	0.80	5.00	0.86	2.04	2.90
12.15	2.00	0.80	5.00	0.86	2.04	2.90
12.20	2.00	0.80	5.00	0.86	2.04	2.90
12.25	2.00	0.80	5.00	0.86	2.04	2.90
12.30	2.00	0.80	5.00	0.86	2.04	2.90
12.35	2.00	0.80	5.00	0.86	2.04	2.90
12.40	2.00	0.80	5.00	0.86	2.04	2.90
12.45	2.00	0.80	5.00	0.86	2.04	2.90
12.50	2.00	0.80	5.00	0.86	2.04	2.90
12.55	2.00	0.80	5.00	0.86	2.04	2.90
12.60	2.00	0.80	5.00	0.86	2.04	2.90
12.65	2.00	0.80	5.00	0.86	2.04	2.90
12.70	2.00	0.80	5.00	0.86	2.04	2.90
12.75	2.00	0.80	5.00	0.86	2.04	2.90
12.80	2.00	0.80	5.00	0.86	2.04	2.90
12.85	2.00	0.80	5.00	0.86	2.04	2.90
12.90	2.00	0.80	5.00	0.86	2.04	2.90
12.95	2.00	0.80	5.00	0.86	2.04	2.90
13.00	2.00	0.80	5.00	0.86	2.04	2.90
13.05	2.00	0.80	5.00	0.86	2.04	2.90
13.10	2.00	0.80	5.00	0.86	2.04	2.90
13.15	2.00	0.80	5.00	0.86	2.04	2.90
13.20	2.00	0.80	5.00	0.86	2.04	2.90
13.25	2.00	0.80	5.00	0.86	2.04	2.90

13.30	2.00	0.80	5.00	0.86	2.04	2.90
13.35	2.00	0.80	5.00	0.86	2.04	2.90
13.40	2.00	0.80	5.00	0.86	2.04	2.90
13.45	2.00	0.80	5.00	0.86	2.04	2.90
13.50	2.00	0.80	5.00	0.86	2.04	2.90
13.55	2.00	0.80	5.00	0.86	2.04	2.90
13.60	2.00	0.80	5.00	0.86	2.04	2.90
13.65	2.00	0.80	5.00	0.86	2.04	2.90
13.70	2.00	0.80	5.00	0.86	2.04	2.90
13.75	2.00	0.80	5.00	0.86	2.04	2.90
13.80	2.00	0.80	5.00	0.86	2.04	2.90
13.85	2.00	0.80	5.00	0.86	2.04	2.90
13.90	2.00	0.80	5.00	0.86	2.04	2.90
13.95	2.00	0.80	5.00	0.86	2.04	2.90
14.00	2.00	0.80	5.00	0.86	2.04	2.90
14.05	2.00	0.80	5.00	0.86	2.04	2.90
14.10	2.00	0.80	5.00	0.86	2.04	2.90
14.15	2.00	0.80	5.00	0.86	2.04	2.90
14.20	2.00	0.80	5.00	0.86	2.04	2.90
14.25	2.00	0.80	5.00	0.86	2.04	2.90
14.30	2.00	0.80	5.00	0.86	2.04	2.90
14.35	2.00	0.80	5.00	0.86	2.04	2.90
14.40	2.00	0.80	5.00	0.86	2.04	2.90
14.45	2.00	0.80	5.00	0.86	2.04	2.90
14.50	2.00	0.80	5.00	0.86	2.04	2.90
14.55	2.00	0.80	5.00	0.86	2.04	2.90
14.60	2.00	0.80	5.00	0.86	2.04	2.90
14.65	2.00	0.80	5.00	0.86	2.04	2.90
14.70	2.00	0.80	5.00	0.86	2.04	2.90
14.75	2.00	0.80	5.00	0.86	2.04	2.90
14.80	2.00	0.80	5.00	0.86	2.04	2.90
14.85	2.00	0.80	5.00	0.86	2.04	2.90
14.90	2.00	0.80	5.00	0.86	2.04	2.90
14.95	2.00	0.80	5.00	0.86	2.04	2.90
15.00	0.16	0.80	5.00	0.86	2.04	2.90
15.05	0.16	0.80	5.00	0.86	2.02	2.88
15.10	0.17	0.80	5.00	0.86	2.00	2.87
15.15	0.17	0.80	5.00	0.86	1.98	2.85
15.20	0.17	0.80	5.00	0.86	1.97	2.83
15.25	0.17	0.80	5.00	0.86	1.95	2.82
15.30	0.17	0.80	5.00	0.86	1.94	2.80
15.35	0.18	0.80	5.00	0.86	1.92	2.78
15.40	0.18	0.80	5.00	0.86	1.90	2.77
15.45	0.18	0.80	5.00	0.86	1.89	2.75
15.50	0.18	0.80	5.00	0.86	1.87	2.74
15.55	0.19	0.80	5.00	0.86	1.86	2.72
15.60	0.19	0.80	5.00	0.86	1.85	2.71
15.65	0.19	0.80	5.00	0.86	1.83	2.70
15.70	0.19	0.80	5.00	0.86	1.82	2.68
15.75	0.20	0.80	5.00	0.86	1.80	2.67

15.80	0.20	0.80	5.00	0.86	1.79	2.66
15.85	0.20	0.80	5.00	0.86	1.78	2.64
15.90	0.20	0.80	5.00	0.86	1.76	2.63
15.95	0.21	0.80	5.00	0.86	1.75	2.62
16.00	0.21	0.80	5.00	0.86	1.74	2.60
16.05	0.21	0.80	5.00	0.86	1.73	2.59
16.10	0.21	0.80	5.00	0.86	1.71	2.58
16.15	0.22	0.80	5.00	0.86	1.70	2.57
16.20	0.22	0.80	5.00	0.86	1.69	2.55
16.25	0.22	0.80	5.00	0.86	1.68	2.54
16.30	0.22	0.80	5.00	0.86	1.67	2.53
16.35	0.23	0.80	5.00	0.86	1.66	2.52
16.40	0.23	0.80	5.00	0.86	1.64	2.51
16.45	0.23	0.80	5.00	0.86	1.63	2.50
16.50	0.23	0.80	5.00	0.86	1.62	2.49
16.55	0.24	0.80	5.00	0.86	1.61	2.48
16.60	0.24	0.80	5.00	0.86	1.60	2.46
16.65	0.24	0.80	5.00	0.86	1.59	2.45
16.70	0.25	0.80	5.00	0.86	1.58	2.44
16.75	0.25	0.80	5.00	0.86	1.57	2.43
16.80	0.25	0.80	5.00	0.86	1.56	2.42
16.85	0.26	0.80	5.00	0.86	1.55	2.41
16.90	0.26	0.80	5.00	0.86	1.54	2.40
16.95	0.26	0.80	5.00	0.86	1.53	2.39
17.00	0.27	0.80	5.00	0.86	1.52	2.38
17.05	0.27	0.80	5.00	0.86	1.51	2.37
17.10	0.27	0.80	5.00	0.86	1.50	2.36
17.15	0.28	0.79	5.00	0.86	1.49	2.35
17.20	0.28	0.79	5.00	0.86	1.48	2.34
17.25	0.28	0.79	5.00	0.86	1.47	2.34
17.30	0.29	0.79	5.00	0.86	1.46	2.33
17.35	0.29	0.79	5.00	0.86	1.45	2.32
17.40	0.29	0.79	5.00	0.86	1.44	2.31
17.45	0.30	0.79	5.00	0.86	1.44	2.30
17.50	0.30	0.79	5.00	0.86	1.43	2.29
17.55	0.30	0.79	5.00	0.86	1.42	2.28
17.60	0.30	0.79	5.00	0.86	1.41	2.27
17.65	0.30	0.79	5.00	0.86	1.40	2.26
17.70	0.30	0.79	5.00	0.86	1.39	2.26
17.75	0.30	0.79	5.00	0.86	1.38	2.25
17.80	0.30	0.79	5.00	0.86	1.37	2.24
17.85	0.30	0.79	5.00	0.86	1.37	2.23
17.90	0.30	0.79	5.00	0.86	1.36	2.22
17.95	0.30	0.79	5.00	0.86	1.35	2.21
18.00	0.30	0.79	5.00	0.86	1.34	2.20
18.05	0.29	0.79	5.00	0.86	1.33	2.19
18.10	0.29	0.79	5.00	0.86	1.32	2.19
18.15	0.29	0.79	5.00	0.86	1.31	2.18
18.20	0.29	0.79	5.00	0.86	1.30	2.17
18.25	0.29	0.79	5.00	0.86	1.29	2.16

18.30	0.29	0.79	5.00	0.86	1.29	2.15
18.35	0.29	0.79	5.00	0.86	1.28	2.14
18.40	0.29	0.79	5.00	0.86	1.27	2.13
18.45	0.29	0.79	5.00	0.86	1.26	2.12
18.50	0.29	0.79	5.00	0.86	1.25	2.11
18.55	0.29	0.79	5.00	0.86	1.24	2.11
18.60	0.29	0.79	5.00	0.86	1.23	2.10
18.65	0.29	0.79	5.00	0.86	1.22	2.09
18.70	0.29	0.79	5.00	0.86	1.21	2.08
18.75	0.29	0.79	5.00	0.86	1.21	2.07
18.80	0.28	0.79	5.00	0.86	1.20	2.06
18.85	0.28	0.79	5.00	0.86	1.19	2.05
18.90	0.28	0.79	5.00	0.86	1.18	2.04
18.95	0.28	0.79	5.00	0.86	1.17	2.03
19.00	0.28	0.79	5.00	0.86	1.16	2.02
19.05	0.28	0.79	5.00	0.86	1.15	2.02
19.10	0.28	0.79	5.00	0.86	1.14	2.01
19.15	0.28	0.79	5.00	0.86	1.13	2.00
19.20	0.28	0.79	5.00	0.86	1.12	1.99
19.25	0.28	0.79	5.00	0.86	1.11	1.98
19.30	0.28	0.79	5.00	0.86	1.10	1.97
19.35	0.28	0.79	5.00	0.86	1.10	1.96
19.40	0.28	0.79	5.00	0.86	1.09	1.95
19.45	0.28	0.79	5.00	0.86	1.08	1.94
19.50	0.28	0.79	5.00	0.86	1.07	1.93
19.55	0.28	0.79	5.00	0.86	1.06	1.92
19.60	0.28	0.79	5.00	0.86	1.05	1.91
19.65	0.28	0.79	5.00	0.86	1.04	1.90
19.70	0.28	0.79	5.00	0.86	1.03	1.90
19.75	0.27	0.79	5.00	0.86	1.02	1.89
19.80	0.27	0.79	5.00	0.86	1.01	1.88
19.85	0.27	0.79	5.00	0.86	1.00	1.87
19.90	0.27	0.79	5.00	0.86	0.99	1.86
19.95	0.27	0.79	5.00	0.86	0.98	1.85
20.00	0.27	0.79	5.00	0.86	0.97	1.84
20.05	0.27	0.79	5.00	0.86	0.96	1.83
20.10	0.27	0.79	5.00	0.86	0.96	1.82
20.15	0.28	0.79	5.00	0.86	0.95	1.81
20.20	0.28	0.79	5.00	0.86	0.94	1.80
20.25	0.28	0.79	5.00	0.86	0.93	1.79
20.30	0.28	0.79	5.00	0.86	0.92	1.78
20.35	0.28	0.79	5.00	0.86	0.91	1.77
20.40	0.28	0.79	5.00	0.86	0.90	1.76
20.45	0.28	0.79	5.00	0.86	0.89	1.76
20.50	0.28	0.79	5.00	0.86	0.88	1.75
20.55	0.29	0.79	5.00	0.86	0.87	1.74
20.60	0.29	0.79	5.00	0.86	0.86	1.73
20.65	0.29	0.79	5.00	0.86	0.85	1.72
20.70	0.29	0.79	5.00	0.86	0.85	1.71
20.75	0.29	0.79	5.00	0.86	0.84	1.70

20.80	0.29	0.79	5.00	0.86	0.83	1.69
20.85	0.29	0.79	5.00	0.86	0.82	1.68
20.90	0.29	0.79	5.00	0.86	0.81	1.67
20.95	0.29	0.79	5.00	0.86	0.80	1.67
21.00	0.30	0.79	5.00	0.86	0.79	1.66
21.05	0.30	0.79	5.00	0.86	0.78	1.65
21.10	0.30	0.79	5.00	0.86	0.77	1.64
21.15	0.30	0.79	5.00	0.86	0.77	1.63
21.20	0.30	0.79	5.00	0.86	0.76	1.62
21.25	0.30	0.79	5.00	0.86	0.75	1.61
21.30	0.30	0.79	5.00	0.86	0.74	1.60
21.35	0.30	0.79	5.00	0.86	0.73	1.60
21.40	0.31	0.79	5.00	0.86	0.72	1.59
21.45	0.31	0.79	5.00	0.86	0.71	1.58
21.50	0.31	0.79	5.00	0.86	0.71	1.57
21.55	0.31	0.79	5.00	0.86	0.70	1.56
21.60	0.31	0.79	5.00	0.86	0.69	1.55
21.65	0.31	0.79	5.00	0.86	0.68	1.54
21.70	0.31	0.79	5.00	0.86	0.67	1.54
21.75	0.31	0.79	5.00	0.86	0.66	1.53
21.80	0.31	0.79	5.00	0.86	0.65	1.52
21.85	0.32	0.79	5.00	0.86	0.65	1.51
21.90	0.32	0.79	5.00	0.86	0.64	1.50
21.95	0.32	0.79	5.00	0.86	0.63	1.49
22.00	0.32	0.79	5.00	0.86	0.62	1.49
22.05	0.32	0.79	5.00	0.86	0.61	1.48
22.10	0.32	0.79	5.00	0.86	0.60	1.47
22.15	0.32	0.79	5.00	0.86	0.60	1.46
22.20	0.32	0.79	5.00	0.86	0.59	1.45
22.25	0.32	0.79	5.00	0.86	0.58	1.44
22.30	0.32	0.79	5.00	0.86	0.57	1.44
22.35	0.33	0.78	5.00	0.86	0.56	1.43
22.40	0.33	0.78	5.00	0.86	0.55	1.42
22.45	0.33	0.78	5.00	0.86	0.55	1.41
22.50	0.33	0.78	5.00	0.86	0.54	1.40
22.55	0.32	0.78	5.00	0.86	0.53	1.39
22.60	0.32	0.78	5.00	0.86	0.52	1.39
22.65	0.31	0.78	5.00	0.86	0.51	1.38
22.70	0.31	0.78	5.00	0.86	0.51	1.37
22.75	0.31	0.78	5.00	0.86	0.50	1.36
22.80	0.30	0.78	5.00	0.86	0.49	1.35
22.85	0.30	0.78	5.00	0.86	0.48	1.34
22.90	0.30	0.78	5.00	0.86	0.47	1.34
22.95	0.29	0.78	5.00	0.86	0.46	1.33
23.00	0.29	0.78	5.00	0.86	0.45	1.32
23.05	0.28	0.78	5.00	0.86	0.44	1.31
23.10	0.28	0.78	5.00	0.86	0.43	1.30
23.15	0.28	0.78	5.00	0.86	0.43	1.29
23.20	0.28	0.78	5.00	0.86	0.42	1.28
23.25	0.27	0.78	5.00	0.86	0.41	1.27

23.30	0.27	0.78	5.00	0.86	0.40	1.26
23.35	0.27	0.78	5.00	0.86	0.39	1.25
23.40	0.26	0.78	5.00	0.86	0.38	1.24
23.45	0.26	0.78	5.00	0.86	0.37	1.23
23.50	0.26	0.78	5.00	0.86	0.36	1.22
23.55	0.26	0.78	5.00	0.86	0.35	1.21
23.60	0.25	0.78	5.00	0.86	0.34	1.20
23.65	0.25	0.78	5.00	0.86	0.33	1.19
23.70	0.25	0.78	5.00	0.86	0.32	1.18
23.75	0.25	0.78	5.00	0.86	0.31	1.17
23.80	0.24	0.78	5.00	0.86	0.30	1.16
23.85	0.24	0.78	5.00	0.86	0.29	1.15
23.90	0.24	0.78	5.00	0.86	0.28	1.14
23.95	0.24	0.78	5.00	0.86	0.27	1.13
24.00	0.23	0.78	5.00	0.86	0.26	1.12
24.05	0.23	0.78	5.00	0.86	0.24	1.11
24.10	0.23	0.78	5.00	0.86	0.23	1.10
24.15	0.23	0.78	5.00	0.86	0.22	1.09
24.20	0.23	0.78	5.00	0.86	0.21	1.08
24.25	0.22	0.78	5.00	0.86	0.20	1.06
24.30	0.22	0.78	5.00	0.86	0.19	1.05
24.35	0.22	0.78	5.00	0.86	0.18	1.04
24.40	0.22	0.78	5.00	0.86	0.16	1.03
24.45	0.22	0.78	5.00	0.86	0.15	1.02
24.50	0.21	0.78	5.00	0.86	0.14	1.01
24.55	0.21	0.78	5.00	0.86	0.13	0.99
24.60	0.21	0.78	5.00	0.86	0.12	0.98
24.65	0.21	0.78	5.00	0.86	0.10	0.97
24.70	0.21	0.78	5.00	0.86	0.09	0.96
24.75	0.20	0.78	5.00	0.86	0.08	0.94
24.80	0.20	0.78	5.00	0.86	0.07	0.93
24.85	0.20	0.78	5.00	0.86	0.05	0.92
24.90	0.20	0.78	5.00	0.86	0.04	0.90
24.95	0.20	0.78	5.00	0.86	0.03	0.89
25.00	0.20	0.78	5.00	0.86	0.01	0.88
25.05	0.20	0.78	0.25*	0.86	0.00	0.86
25.10	0.20	0.78	0.25*	0.86	0.00	0.86
25.15	0.20	0.78	0.26*	0.85	0.00	0.85
25.20	0.20	0.78	0.26*	0.84	0.00	0.84
25.25	0.20	0.78	0.26*	0.83	0.00	0.83
25.30	0.20	0.78	0.26*	0.82	0.00	0.82
25.35	0.21	0.78	0.26*	0.81	0.00	0.81
25.40	0.21	0.78	0.26*	0.80	0.00	0.80
25.45	0.21	0.79	0.27*	0.79	0.00	0.79
25.50	0.21	0.79	0.27*	0.78	0.00	0.78
25.55	0.21	0.79	0.27*	0.77	0.00	0.77
25.60	0.21	0.79	0.27*	0.77	0.00	0.77
25.65	0.22	0.79	0.27*	0.76	0.00	0.76
25.70	0.22	0.79	0.27*	0.75	0.00	0.75
25.75	0.22	0.79	0.28*	0.74	0.00	0.74

25.80	0.22	0.79	0.28*	0.73	0.00	0.73
25.85	0.22	0.79	0.28*	0.72	0.00	0.72
25.90	0.22	0.79	0.28*	0.71	0.00	0.71
25.95	0.22	0.79	0.28*	0.71	0.00	0.71
26.00	0.22	0.79	0.28*	0.70	0.00	0.70
26.05	0.22	0.79	0.28*	0.69	0.00	0.69
26.10	0.22	0.79	0.28*	0.68	0.00	0.68
26.15	0.23	0.79	0.28*	0.67	0.00	0.67
26.20	0.23	0.80	0.28*	0.66	0.00	0.66
26.25	0.23	0.80	0.29*	0.66	0.00	0.66
26.30	0.23	0.80	0.29*	0.65	0.00	0.65
26.35	0.23	0.80	0.29*	0.64	0.00	0.64
26.40	0.23	0.80	0.29*	0.63	0.00	0.63
26.45	0.23	0.80	0.29*	0.62	0.00	0.62
26.50	0.23	0.80	0.29*	0.62	0.00	0.62
26.55	0.23	0.80	0.29*	0.61	0.00	0.61
26.60	0.23	0.80	0.29*	0.60	0.00	0.60
26.65	0.23	0.80	0.29*	0.59	0.00	0.59
26.70	0.23	0.80	0.29*	0.58	0.00	0.58
26.75	0.23	0.80	0.29*	0.58	0.00	0.58
26.80	0.23	0.80	0.29*	0.57	0.00	0.57
26.85	0.24	0.80	0.29*	0.56	0.00	0.56
26.90	0.24	0.80	0.29*	0.55	0.00	0.55
26.95	0.24	0.81	0.29*	0.54	0.00	0.54
27.00	0.24	0.81	0.29*	0.54	0.00	0.54
27.05	0.24	0.81	0.30*	0.53	0.00	0.53
27.10	0.24	0.81	0.30*	0.52	0.00	0.52
27.15	0.24	0.81	0.30*	0.51	0.00	0.51
27.20	0.24	0.81	0.30*	0.51	0.00	0.51
27.25	0.24	0.81	0.30*	0.50	0.00	0.50
27.30	0.24	0.81	0.30*	0.49	0.00	0.49
27.35	0.25	0.81	0.30*	0.48	0.00	0.48
27.40	0.25	0.81	0.30*	0.47	0.00	0.47
27.45	0.25	0.81	0.31*	0.47	0.00	0.47
27.50	0.25	0.81	0.31*	0.46	0.00	0.46
27.55	0.25	0.81	0.31*	0.45	0.00	0.45
27.60	0.25	0.81	0.31*	0.44	0.00	0.44
27.65	0.25	0.81	0.31*	0.44	0.00	0.44
27.70	0.25	0.82	0.31*	0.43	0.00	0.43
27.75	0.25	0.82	0.31*	0.42	0.00	0.42
27.80	0.26	0.82	0.31*	0.42	0.00	0.42
27.85	0.26	0.82	0.31*	0.41	0.00	0.41
27.90	0.28	0.82	0.34*	0.40	0.00	0.40
27.95	0.28	0.82	0.34*	0.39	0.00	0.39
28.00	0.28	0.82	0.34*	0.39	0.00	0.39
28.05	0.28	0.82	0.34*	0.38	0.00	0.38
28.10	0.28	0.82	0.34*	0.37	0.00	0.37
28.15	0.28	0.82	0.34*	0.37	0.00	0.37
28.20	0.28	0.82	0.35*	0.36	0.00	0.36
28.25	0.28	0.82	0.35*	0.35	0.00	0.35

28.30	0.29	0.82	0.35*	0.35	0.00	0.35
28.35	0.29	0.82	0.35*	0.34	0.00	0.34
28.40	0.29	0.82	0.35*	0.33	0.00	0.33
28.45	0.29	0.82	0.35*	0.33	0.00	0.33
28.50	0.29	0.83	0.35*	0.32	0.00	0.32
28.55	0.29	0.83	0.35*	0.31	0.00	0.31
28.60	0.29	0.83	0.35*	0.31	0.00	0.31
28.65	0.29	0.83	0.36*	0.30	0.00	0.30
28.70	0.29	0.83	0.36*	0.30	0.00	0.30
28.75	0.30	0.83	0.36*	0.29	0.00	0.29
28.80	0.30	0.83	0.36*	0.28	0.00	0.28
28.85	0.30	0.83	0.36*	0.28	0.00	0.28
28.90	0.30	0.83	0.36*	0.27	0.00	0.27
28.95	0.30	0.83	0.36*	0.26	0.00	0.26
29.00	0.30	0.83	0.36*	0.26	0.00	0.26
29.05	0.30	0.83	0.37*	0.25	0.00	0.25
29.10	0.31	0.83	0.37*	0.24	0.00	0.24
29.15	0.31	0.83	0.37*	0.24	0.00	0.24
29.20	0.31	0.83	0.37*	0.23	0.00	0.23
29.25	0.31	0.83	0.37*	0.23	0.00	0.23
29.30	0.31	0.83	0.37*	0.22	0.00	0.22
29.35	0.31	0.84	0.37*	0.21	0.00	0.21
29.40	0.31	0.84	0.38*	0.21	0.00	0.21
29.45	0.32	0.84	0.38*	0.20	0.00	0.20
29.50	0.32	0.84	0.38*	0.20	0.00	0.20
29.55	0.32	0.84	0.38*	0.19	0.00	0.19
29.60	0.32	0.84	0.38*	0.18	0.00	0.18
29.65	0.32	0.84	0.38*	0.18	0.00	0.18
29.70	0.32	0.84	0.39*	0.17	0.00	0.17
29.75	0.33	0.84	0.39*	0.17	0.00	0.17
29.80	0.33	0.84	0.39*	0.16	0.00	0.16
29.85	0.33	0.84	0.39*	0.16	0.00	0.16
29.90	0.33	0.84	0.39*	0.15	0.00	0.15
29.95	0.33	0.84	0.40*	0.14	0.00	0.14
30.00	0.33	0.84	0.40*	0.14	0.00	0.14
30.05	0.34	0.84	0.41*	0.13	0.00	0.13
30.10	0.35	0.84	0.42*	0.13	0.00	0.13
30.15	0.36	0.84	0.43*	0.12	0.00	0.12
30.20	0.38	0.84	0.45*	0.12	0.00	0.12
30.25	0.40	0.84	0.47*	0.11	0.00	0.11
30.30	0.45	0.84	0.53*	0.11	0.00	0.11
30.35	1.83	0.84	2.16	0.10	0.00	0.10
30.40	1.83	0.84	2.16	0.10	0.00	0.10
30.45	1.83	0.84	2.16	0.10	0.00	0.10
30.50	1.83	0.85	2.16	0.09	0.00	0.09
30.55	1.83	0.85	2.16	0.09	0.00	0.09
30.60	1.82	0.85	2.16	0.08	0.00	0.08
30.65	1.82	0.85	2.16	0.08	0.00	0.08
30.70	1.82	0.85	2.15	0.08	0.00	0.08
30.75	1.82	0.85	2.15	0.08	0.00	0.08

30.80	1.82	0.85	2.15	0.07	0.00	0.07
30.85	1.82	0.85	2.15	0.07	0.00	0.07
30.90	1.82	0.85	2.15	0.07	0.00	0.07
30.95	1.82	0.85	2.15	0.07	0.00	0.07
31.00	1.82	0.85	2.15	0.07	0.00	0.07
31.05	1.82	0.85	2.15	0.06	0.00	0.06
31.10	1.82	0.85	2.14	0.06	0.00	0.06
31.15	1.82	0.85	2.14	0.06	0.00	0.06
31.20	1.82	0.85	2.14	0.06	0.00	0.06
31.25	1.82	0.85	2.14	0.06	0.00	0.06
31.30	1.82	0.85	2.14	0.06	0.00	0.06
31.35	1.82	0.85	2.14	0.06	0.00	0.06
31.40	1.82	0.85	2.14	0.06	0.00	0.06
31.45	1.82	0.85	2.14	0.06	0.00	0.06
31.50	1.81	0.85	2.13	0.06	0.00	0.06
31.55	1.81	0.85	2.13	0.06	0.00	0.06
31.60	1.81	0.85	2.13	0.05	0.00	0.05
31.65	1.81	0.85	2.13	0.05	0.00	0.05
31.70	1.81	0.85	2.13	0.05	0.00	0.05
31.75	1.81	0.85	2.13	0.05	0.00	0.05
31.80	1.81	0.85	2.13	0.05	0.00	0.05
31.85	1.81	0.85	2.13	0.05	0.00	0.05
31.90	1.81	0.85	2.12	0.05	0.00	0.05
31.95	1.81	0.85	2.12	0.05	0.00	0.05
32.00	1.81	0.85	2.12	0.05	0.00	0.05
32.05	1.81	0.85	2.12	0.05	0.00	0.05
32.10	1.81	0.85	2.12	0.05	0.00	0.05
32.15	1.81	0.85	2.12	0.05	0.00	0.05
32.20	1.81	0.85	2.12	0.05	0.00	0.05
32.25	1.81	0.85	2.12	0.05	0.00	0.05
32.30	1.81	0.85	2.11	0.05	0.00	0.05
32.35	1.81	0.85	2.11	0.05	0.00	0.05
32.40	1.81	0.85	2.11	0.05	0.00	0.05
32.45	1.80	0.85	2.11	0.05	0.00	0.05
32.50	1.80	0.86	2.11	0.05	0.00	0.05
32.55	1.80	0.86	2.11	0.05	0.00	0.05
32.60	1.80	0.86	2.11	0.05	0.00	0.05
32.65	1.80	0.86	2.11	0.05	0.00	0.05
32.70	1.80	0.86	2.11	0.05	0.00	0.05
32.75	1.80	0.86	2.10	0.05	0.00	0.05
32.80	1.80	0.86	2.10	0.05	0.00	0.05
32.85	1.80	0.86	2.10	0.05	0.00	0.05
32.90	1.80	0.86	2.10	0.05	0.00	0.05
32.95	1.80	0.86	2.10	0.05	0.00	0.05
33.00	1.80	0.86	2.10	0.05	0.00	0.05
33.05	1.80	0.86	2.10	0.05	0.00	0.05
33.10	1.80	0.86	2.10	0.05	0.00	0.05
33.15	1.80	0.86	2.10	0.05	0.00	0.05
33.20	1.80	0.86	2.09	0.05	0.00	0.05
33.25	1.80	0.86	2.09	0.05	0.00	0.05

33.30	1.80	0.86	2.09	0.05	0.00	0.05
33.35	1.80	0.86	2.09	0.05	0.00	0.05
33.40	1.79	0.86	2.09	0.05	0.00	0.05
33.45	1.79	0.86	2.09	0.05	0.00	0.05
33.50	1.79	0.86	2.09	0.05	0.00	0.05
33.55	1.79	0.86	2.09	0.05	0.00	0.05
33.60	1.79	0.86	2.09	0.05	0.00	0.05
33.65	1.79	0.86	2.08	0.05	0.00	0.05
33.70	1.79	0.86	2.08	0.05	0.00	0.05
33.75	1.79	0.86	2.08	0.05	0.00	0.05
33.80	1.79	0.86	2.08	0.05	0.00	0.05
33.85	1.79	0.86	2.08	0.05	0.00	0.05
33.90	1.79	0.86	2.08	0.05	0.00	0.05
33.95	1.79	0.86	2.08	0.05	0.00	0.05
34.00	1.79	0.86	2.08	0.05	0.00	0.05
34.05	1.79	0.86	2.08	0.05	0.00	0.05
34.10	1.79	0.86	2.08	0.05	0.00	0.05
34.15	1.79	0.86	2.07	0.05	0.00	0.05
34.20	1.79	0.86	2.07	0.05	0.00	0.05
34.25	1.79	0.86	2.07	0.05	0.00	0.05
34.30	1.79	0.86	2.07	0.05	0.00	0.05
34.35	1.78	0.86	2.07	0.05	0.00	0.05
34.40	1.78	0.86	2.07	0.05	0.00	0.05
34.45	1.78	0.86	2.07	0.05	0.00	0.05
34.50	1.78	0.86	2.07	0.05	0.00	0.05
34.55	1.78	0.86	2.07	0.05	0.00	0.05
34.60	1.78	0.86	2.07	0.05	0.00	0.05
34.65	1.78	0.86	2.06	0.05	0.00	0.05
34.70	1.78	0.86	2.06	0.05	0.00	0.05
34.75	1.78	0.86	2.06	0.05	0.00	0.05
34.80	1.78	0.86	2.06	0.05	0.00	0.05
34.85	1.78	0.86	2.06	0.05	0.00	0.05
34.90	1.78	0.86	2.06	0.05	0.00	0.05
34.95	1.78	0.86	2.06	0.05	0.00	0.05
35.00	1.78	0.86	2.06	0.05	0.00	0.05
35.05	1.78	0.86	2.06	0.05	0.00	0.05
35.10	1.78	0.86	2.06	0.05	0.00	0.05
35.15	1.78	0.86	2.06	0.05	0.00	0.05
35.20	1.78	0.86	2.05	0.05	0.00	0.05
35.25	1.78	0.86	2.05	0.05	0.00	0.05
35.30	1.78	0.86	2.05	0.05	0.00	0.05
35.35	1.77	0.87	2.05	0.05	0.00	0.05
35.40	1.77	0.87	2.05	0.05	0.00	0.05
35.45	1.77	0.87	2.05	0.05	0.00	0.05
35.50	1.77	0.87	2.05	0.05	0.00	0.05
35.55	1.77	0.87	2.05	0.05	0.00	0.05
35.60	1.77	0.87	2.05	0.04	0.00	0.04
35.65	1.77	0.87	2.05	0.04	0.00	0.04
35.70	1.77	0.87	2.05	0.04	0.00	0.04
35.75	1.77	0.87	2.04	0.04	0.00	0.04

35.80	1.77	0.87	2.04	0.04	0.00	0.04
35.85	1.77	0.87	2.04	0.04	0.00	0.04
35.90	1.77	0.87	2.04	0.04	0.00	0.04
35.95	1.77	0.87	2.04	0.04	0.00	0.04
36.00	1.77	0.87	2.04	0.04	0.00	0.04
36.05	1.77	0.87	2.04	0.04	0.00	0.04
36.10	1.77	0.87	2.04	0.04	0.00	0.04
36.15	1.77	0.87	2.04	0.04	0.00	0.04
36.20	1.77	0.87	2.04	0.04	0.00	0.04
36.25	1.77	0.87	2.04	0.04	0.00	0.04
36.30	1.76	0.87	2.03	0.04	0.00	0.04
36.35	1.76	0.87	2.03	0.04	0.00	0.04
36.40	1.76	0.87	2.03	0.04	0.00	0.04
36.45	1.76	0.87	2.03	0.04	0.00	0.04
36.50	1.76	0.87	2.03	0.04	0.00	0.04
36.55	1.76	0.87	2.03	0.04	0.00	0.04
36.60	1.76	0.87	2.03	0.04	0.00	0.04
36.65	1.76	0.87	2.03	0.04	0.00	0.04
36.70	1.76	0.87	2.03	0.04	0.00	0.04
36.75	1.76	0.87	2.03	0.04	0.00	0.04
36.80	1.76	0.87	2.03	0.04	0.00	0.04
36.85	1.76	0.87	2.03	0.04	0.00	0.04
36.90	1.76	0.87	2.03	0.04	0.00	0.04
36.95	1.76	0.87	2.02	0.04	0.00	0.04
37.00	1.76	0.87	2.02	0.04	0.00	0.04
37.05	1.76	0.87	2.02	0.04	0.00	0.04
37.10	1.76	0.87	2.02	0.04	0.00	0.04
37.15	1.76	0.87	2.02	0.04	0.00	0.04
37.20	1.76	0.87	2.02	0.04	0.00	0.04
37.25	1.76	0.87	2.02	0.04	0.00	0.04
37.30	1.75	0.87	2.02	0.04	0.00	0.04
37.35	1.75	0.87	2.02	0.04	0.00	0.04
37.40	1.75	0.87	2.02	0.03	0.00	0.03
37.45	1.75	0.87	2.02	0.03	0.00	0.03
37.50	1.75	0.87	2.02	0.03	0.00	0.03
37.55	1.75	0.87	2.01	0.03	0.00	0.03
37.60	1.75	0.87	2.01	0.03	0.00	0.03
37.65	1.75	0.87	2.01	0.03	0.00	0.03
37.70	1.75	0.87	2.01	0.03	0.00	0.03
37.75	1.75	0.87	2.01	0.03	0.00	0.03
37.80	1.75	0.87	2.01	0.03	0.00	0.03
37.85	1.75	0.87	2.01	0.03	0.00	0.03
37.90	1.75	0.87	2.01	0.03	0.00	0.03
37.95	1.75	0.87	2.01	0.03	0.00	0.03
38.00	1.75	0.87	2.01	0.03	0.00	0.03
38.05	1.75	0.87	2.01	0.03	0.00	0.03
38.10	1.75	0.87	2.01	0.03	0.00	0.03
38.15	1.75	0.87	2.01	0.02	0.00	0.02
38.20	1.75	0.87	2.01	0.02	0.00	0.02
38.25	1.75	0.87	2.00	0.02	0.00	0.02

38.30	1.75	0.87	2.00	0.02	0.00	0.02
38.35	1.74	0.87	2.00	0.02	0.00	0.02
38.40	1.74	0.87	2.00	0.02	0.00	0.02
38.45	1.74	0.87	2.00	0.02	0.00	0.02
38.50	1.74	0.87	2.00	0.02	0.00	0.02
38.55	1.74	0.87	2.00	0.02	0.00	0.02
38.60	1.74	0.87	2.00	0.02	0.00	0.02
38.65	1.74	0.87	2.00	0.02	0.00	0.02
38.70	1.74	0.87	2.00	0.02	0.00	0.02
38.75	1.74	0.87	2.00	0.02	0.00	0.02
38.80	1.74	0.87	2.00	0.02	0.00	0.02
38.85	1.74	0.87	2.00	0.02	0.00	0.02
38.90	1.74	0.87	2.00	0.02	0.00	0.02
38.95	1.74	0.87	2.00	0.01	0.00	0.01
39.00	1.74	0.87	1.99	0.01	0.00	0.01
39.05	1.74	0.87	1.99	0.01	0.00	0.01
39.10	1.74	0.87	1.99	0.01	0.00	0.01
39.15	1.74	0.87	1.99	0.01	0.00	0.01
39.20	1.74	0.87	1.99	0.01	0.00	0.01
39.25	1.74	0.87	1.99	0.01	0.00	0.01
39.30	1.74	0.87	1.99	0.01	0.00	0.01
39.35	1.73	0.87	1.99	0.01	0.00	0.01
39.40	1.73	0.87	1.99	0.01	0.00	0.01
39.45	1.73	0.87	1.99	0.01	0.00	0.01
39.50	1.73	0.87	1.99	0.01	0.00	0.01
39.55	1.73	0.87	1.99	0.01	0.00	0.01
39.60	1.73	0.87	1.99	0.01	0.00	0.01
39.65	1.73	0.87	1.99	0.01	0.00	0.01
39.70	1.73	0.87	1.99	0.00	0.00	0.00
39.75	1.73	0.87	1.99	0.00	0.00	0.00
39.80	1.73	0.87	1.98	0.00	0.00	0.00
39.85	1.73	0.87	1.98	0.00	0.00	0.00
39.90	1.73	0.87	1.98	0.00	0.00	0.00
39.95	1.73	0.87	1.98	0.00	0.00	0.00
40.00	1.73	0.87	1.98	0.00	0.00	0.00
40.05	1.73	0.87	1.98	0.00	0.00	0.00
40.10	1.73	0.87	1.98	0.00	0.00	0.00
40.15	1.73	0.87	1.98	0.00	0.00	0.00
40.20	1.73	0.87	1.98	0.00	0.00	0.00
40.25	1.73	0.87	1.98	0.00	0.00	0.00
40.30	1.73	0.87	1.98	0.00	0.00	0.00
40.35	1.73	0.87	1.98	0.00	0.00	0.00
40.40	1.72	0.87	1.98	0.00	0.00	0.00
40.45	1.72	0.87	1.98	0.00	0.00	0.00
40.50	1.72	0.87	1.98	0.00	0.00	0.00
40.55	1.72	0.87	1.98	0.00	0.00	0.00
40.60	1.72	0.87	1.98	0.00	0.00	0.00
40.65	1.72	0.87	1.97	0.00	0.00	0.00
40.70	1.72	0.87	1.97	0.00	0.00	0.00
40.75	1.72	0.87	1.97	0.00	0.00	0.00

40.80	1.72	0.87	1.97	0.00	0.00	0.00
40.85	1.72	0.87	1.97	0.00	0.00	0.00
40.90	1.72	0.87	1.97	0.00	0.00	0.00
40.95	1.72	0.87	1.97	0.00	0.00	0.00
41.00	1.72	0.87	1.97	0.00	0.00	0.00
41.05	1.72	0.87	1.97	0.00	0.00	0.00
41.10	1.72	0.87	1.97	0.00	0.00	0.00
41.15	1.72	0.87	1.97	0.00	0.00	0.00
41.20	1.72	0.87	1.97	0.00	0.00	0.00
41.25	1.72	0.87	1.97	0.00	0.00	0.00
41.30	1.72	0.87	1.97	0.00	0.00	0.00
41.35	1.72	0.87	1.97	0.00	0.00	0.00
41.40	1.72	0.87	1.97	0.00	0.00	0.00
41.45	1.71	0.87	1.97	0.00	0.00	0.00
41.50	1.71	0.87	1.97	0.00	0.00	0.00
41.55	1.71	0.87	1.96	0.00	0.00	0.00
41.60	1.71	0.87	1.96	0.00	0.00	0.00
41.65	1.71	0.87	1.96	0.00	0.00	0.00
41.70	1.71	0.87	1.96	0.00	0.00	0.00
41.75	1.71	0.87	1.96	0.00	0.00	0.00
41.80	1.71	0.87	1.96	0.00	0.00	0.00
41.85	1.71	0.87	1.96	0.00	0.00	0.00
41.90	1.71	0.87	1.96	0.00	0.00	0.00
41.95	1.71	0.87	1.96	0.00	0.00	0.00
42.00	1.71	0.87	1.96	0.00	0.00	0.00
42.05	1.71	0.87	1.96	0.00	0.00	0.00
42.10	1.71	0.87	1.96	0.00	0.00	0.00
42.15	1.71	0.87	1.96	0.00	0.00	0.00
42.20	1.71	0.87	1.96	0.00	0.00	0.00
42.25	1.71	0.87	1.96	0.00	0.00	0.00
42.30	1.71	0.87	1.96	0.00	0.00	0.00
42.35	1.71	0.87	1.96	0.00	0.00	0.00
42.40	1.71	0.87	1.96	0.00	0.00	0.00
42.45	1.71	0.87	1.96	0.00	0.00	0.00
42.50	1.71	0.87	1.96	0.00	0.00	0.00
42.55	1.70	0.87	1.96	0.00	0.00	0.00
42.60	1.70	0.87	1.95	0.00	0.00	0.00
42.65	1.70	0.87	1.95	0.00	0.00	0.00
42.70	1.70	0.87	1.95	0.00	0.00	0.00
42.75	1.70	0.87	1.95	0.00	0.00	0.00
42.80	1.70	0.87	1.95	0.00	0.00	0.00
42.85	1.70	0.87	1.95	0.00	0.00	0.00
42.90	1.70	0.87	1.95	0.00	0.00	0.00
42.95	1.70	0.87	1.95	0.00	0.00	0.00
43.00	1.70	0.87	1.95	0.00	0.00	0.00
43.05	1.70	0.87	1.95	0.00	0.00	0.00
43.10	1.70	0.87	1.95	0.00	0.00	0.00
43.15	1.70	0.87	1.95	0.00	0.00	0.00
43.20	1.70	0.87	1.95	0.00	0.00	0.00
43.25	1.70	0.87	1.95	0.00	0.00	0.00

43.30	1.70	0.87	1.95	0.00	0.00	0.00
43.35	1.70	0.87	1.95	0.00	0.00	0.00
43.40	1.70	0.87	1.95	0.00	0.00	0.00
43.45	1.70	0.87	1.95	0.00	0.00	0.00
43.50	1.70	0.87	1.95	0.00	0.00	0.00
43.55	1.70	0.87	1.95	0.00	0.00	0.00
43.60	1.70	0.87	1.95	0.00	0.00	0.00
43.65	1.69	0.87	1.95	0.00	0.00	0.00
43.70	1.69	0.87	1.95	0.00	0.00	0.00
43.75	1.69	0.87	1.94	0.00	0.00	0.00
43.80	1.69	0.87	1.94	0.00	0.00	0.00
43.85	1.69	0.87	1.94	0.00	0.00	0.00
43.90	1.69	0.87	1.94	0.00	0.00	0.00
43.95	1.69	0.87	1.94	0.00	0.00	0.00
44.00	1.69	0.87	1.94	0.00	0.00	0.00
44.05	1.69	0.87	1.94	0.00	0.00	0.00
44.10	1.69	0.87	1.94	0.00	0.00	0.00
44.15	1.69	0.87	1.94	0.00	0.00	0.00
44.20	1.69	0.87	1.94	0.00	0.00	0.00
44.25	1.69	0.87	1.94	0.00	0.00	0.00
44.30	1.69	0.87	1.94	0.00	0.00	0.00
44.35	1.69	0.87	1.94	0.00	0.00	0.00
44.40	1.69	0.87	1.94	0.00	0.00	0.00
44.45	1.69	0.87	1.94	0.00	0.00	0.00
44.50	1.69	0.87	1.94	0.00	0.00	0.00
44.55	1.69	0.87	1.94	0.00	0.00	0.00
44.60	1.69	0.87	1.94	0.00	0.00	0.00
44.65	1.69	0.87	1.94	0.00	0.00	0.00
44.70	1.69	0.87	1.94	0.00	0.00	0.00
44.75	1.68	0.87	1.94	0.00	0.00	0.00
44.80	1.68	0.87	1.94	0.00	0.00	0.00
44.85	1.68	0.87	1.94	0.00	0.00	0.00
44.90	1.68	0.87	1.94	0.00	0.00	0.00
44.95	1.68	0.87	1.94	0.00	0.00	0.00
45.00	1.68	0.87	1.94	0.00	0.00	0.00
45.05	1.68	0.87	1.94	0.00	0.00	0.00
45.10	1.68	0.87	1.93	0.00	0.00	0.00
45.15	1.68	0.87	1.93	0.00	0.00	0.00
45.20	1.68	0.87	1.93	0.00	0.00	0.00
45.25	1.68	0.87	1.93	0.00	0.00	0.00
45.30	1.68	0.87	1.93	0.00	0.00	0.00
45.35	1.68	0.87	1.93	0.00	0.00	0.00
45.40	1.68	0.87	1.93	0.00	0.00	0.00
45.45	1.68	0.87	1.93	0.00	0.00	0.00
45.50	1.68	0.87	1.93	0.00	0.00	0.00
45.55	1.68	0.87	1.93	0.00	0.00	0.00
45.60	1.68	0.87	1.93	0.00	0.00	0.00
45.65	1.68	0.87	1.93	0.00	0.00	0.00
45.70	1.68	0.87	1.93	0.00	0.00	0.00
45.75	1.68	0.87	1.93	0.00	0.00	0.00

45.80	1.68	0.87	1.93	0.00	0.00	0.00
45.85	1.68	0.87	1.93	0.00	0.00	0.00
45.90	1.67	0.87	1.93	0.00	0.00	0.00
45.95	1.67	0.87	1.93	0.00	0.00	0.00
46.00	1.67	0.87	1.93	0.00	0.00	0.00
46.05	1.67	0.87	1.93	0.00	0.00	0.00
46.10	1.67	0.87	1.93	0.00	0.00	0.00
46.15	1.67	0.87	1.93	0.00	0.00	0.00
46.20	1.67	0.87	1.93	0.00	0.00	0.00
46.25	1.67	0.87	1.93	0.00	0.00	0.00
46.30	1.67	0.87	1.93	0.00	0.00	0.00
46.35	1.67	0.87	1.93	0.00	0.00	0.00
46.40	1.67	0.87	1.93	0.00	0.00	0.00
46.45	1.67	0.87	1.93	0.00	0.00	0.00
46.50	1.67	0.87	1.93	0.00	0.00	0.00
46.55	1.67	0.87	1.93	0.00	0.00	0.00
46.60	1.67	0.87	1.93	0.00	0.00	0.00
46.65	1.67	0.87	1.93	0.00	0.00	0.00
46.70	1.67	0.87	1.92	0.00	0.00	0.00
46.75	1.67	0.87	1.92	0.00	0.00	0.00
46.80	1.67	0.87	1.92	0.00	0.00	0.00
46.85	1.67	0.87	1.92	0.00	0.00	0.00
46.90	1.67	0.87	1.92	0.00	0.00	0.00
46.95	1.67	0.87	1.92	0.00	0.00	0.00
47.00	1.67	0.87	1.92	0.00	0.00	0.00
47.05	1.66	0.87	1.92	0.00	0.00	0.00
47.10	1.66	0.87	1.92	0.00	0.00	0.00
47.15	1.66	0.87	1.92	0.00	0.00	0.00
47.20	1.66	0.87	1.92	0.00	0.00	0.00
47.25	1.66	0.87	1.92	0.00	0.00	0.00
47.30	1.66	0.87	1.92	0.00	0.00	0.00
47.35	1.66	0.86	1.92	0.00	0.00	0.00
47.40	1.66	0.86	1.92	0.00	0.00	0.00
47.45	1.66	0.86	1.92	0.00	0.00	0.00
47.50	1.66	0.86	1.92	0.00	0.00	0.00
47.55	1.66	0.86	1.92	0.00	0.00	0.00
47.60	1.66	0.86	1.92	0.00	0.00	0.00
47.65	1.66	0.86	1.92	0.00	0.00	0.00
47.70	1.66	0.86	1.92	0.00	0.00	0.00
47.75	1.66	0.86	1.92	0.00	0.00	0.00
47.80	1.66	0.86	1.92	0.00	0.00	0.00
47.85	1.66	0.86	1.92	0.00	0.00	0.00
47.90	1.66	0.86	1.92	0.00	0.00	0.00
47.95	1.66	0.86	1.92	0.00	0.00	0.00
48.00	1.66	0.86	1.92	0.00	0.00	0.00
48.05	1.66	0.86	1.92	0.00	0.00	0.00
48.10	1.66	0.86	1.92	0.00	0.00	0.00
48.15	1.66	0.86	1.92	0.00	0.00	0.00
48.20	1.65	0.86	1.92	0.00	0.00	0.00
48.25	1.65	0.86	1.92	0.00	0.00	0.00

48.30	1.65	0.86	1.92	0.00	0.00	0.00
48.35	1.65	0.86	1.92	0.00	0.00	0.00
48.40	1.65	0.86	1.92	0.00	0.00	0.00
48.45	1.65	0.86	1.92	0.00	0.00	0.00
48.50	1.65	0.86	1.92	0.00	0.00	0.00
48.55	1.65	0.86	1.92	0.00	0.00	0.00
48.60	1.65	0.86	1.92	0.00	0.00	0.00
48.65	1.65	0.86	1.92	0.00	0.00	0.00
48.70	1.65	0.86	1.92	0.00	0.00	0.00
48.75	1.65	0.86	1.92	0.00	0.00	0.00
48.80	1.65	0.86	1.92	0.00	0.00	0.00
48.85	1.65	0.86	1.92	0.00	0.00	0.00
48.90	1.65	0.86	1.92	0.00	0.00	0.00
48.95	1.65	0.86	1.91	0.00	0.00	0.00
49.00	1.65	0.86	1.91	0.00	0.00	0.00
49.05	1.65	0.86	1.91	0.00	0.00	0.00
49.10	1.65	0.86	1.91	0.00	0.00	0.00
49.15	1.65	0.86	1.91	0.00	0.00	0.00
49.20	1.65	0.86	1.91	0.00	0.00	0.00
49.25	1.65	0.86	1.91	0.00	0.00	0.00
49.30	1.65	0.86	1.91	0.00	0.00	0.00
49.35	1.65	0.86	1.91	0.00	0.00	0.00
49.40	1.64	0.86	1.91	0.00	0.00	0.00
49.45	1.64	0.86	1.91	0.00	0.00	0.00
49.50	1.64	0.86	1.91	0.00	0.00	0.00
49.55	1.64	0.86	1.91	0.00	0.00	0.00
49.60	1.64	0.86	1.91	0.00	0.00	0.00
49.65	1.64	0.86	1.91	0.00	0.00	0.00
49.70	1.64	0.86	1.91	0.00	0.00	0.00
49.75	1.64	0.86	1.91	0.00	0.00	0.00
49.80	1.64	0.86	1.91	0.00	0.00	0.00
49.85	1.64	0.86	1.91	0.00	0.00	0.00
49.90	1.64	0.86	1.91	0.00	0.00	0.00
49.95	1.64	0.86	1.91	0.00	0.00	0.00
50.00	1.64	0.86	1.91	0.00	0.00	0.00
50.05	1.64	0.86	1.91	0.00	0.00	0.00
50.10	1.64	0.86	1.91	0.00	0.00	0.00
50.15	1.64	0.86	1.91	0.00	0.00	0.00
50.20	1.64	0.86	1.91	0.00	0.00	0.00
50.25	1.64	0.86	1.91	0.00	0.00	0.00
50.30	1.64	0.86	1.91	0.00	0.00	0.00
50.35	1.64	0.86	1.91	0.00	0.00	0.00
50.40	1.64	0.86	1.91	0.00	0.00	0.00
50.45	1.64	0.86	1.91	0.00	0.00	0.00
50.50	1.64	0.86	1.91	0.00	0.00	0.00
50.55	1.64	0.86	1.91	0.00	0.00	0.00
50.60	1.63	0.86	1.91	0.00	0.00	0.00
50.65	1.63	0.86	1.91	0.00	0.00	0.00
50.70	1.63	0.86	1.91	0.00	0.00	0.00
50.75	1.63	0.86	1.91	0.00	0.00	0.00

50.80	1.63	0.86	1.91	0.00	0.00	0.00
50.85	1.63	0.86	1.91	0.00	0.00	0.00
50.90	1.63	0.85	1.91	0.00	0.00	0.00
50.95	1.63	0.85	1.91	0.00	0.00	0.00
51.00	1.63	0.85	1.91	0.00	0.00	0.00
51.05	1.63	0.85	1.91	0.00	0.00	0.00
51.10	1.63	0.85	1.91	0.00	0.00	0.00
51.15	1.63	0.85	1.91	0.00	0.00	0.00
51.20	1.63	0.85	1.91	0.00	0.00	0.00
51.25	1.63	0.85	1.91	0.00	0.00	0.00
51.30	1.63	0.85	1.91	0.00	0.00	0.00
51.35	1.63	0.85	1.91	0.00	0.00	0.00
51.40	1.63	0.85	1.91	0.00	0.00	0.00
51.45	1.63	0.85	1.91	0.00	0.00	0.00
51.50	1.63	0.85	1.91	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

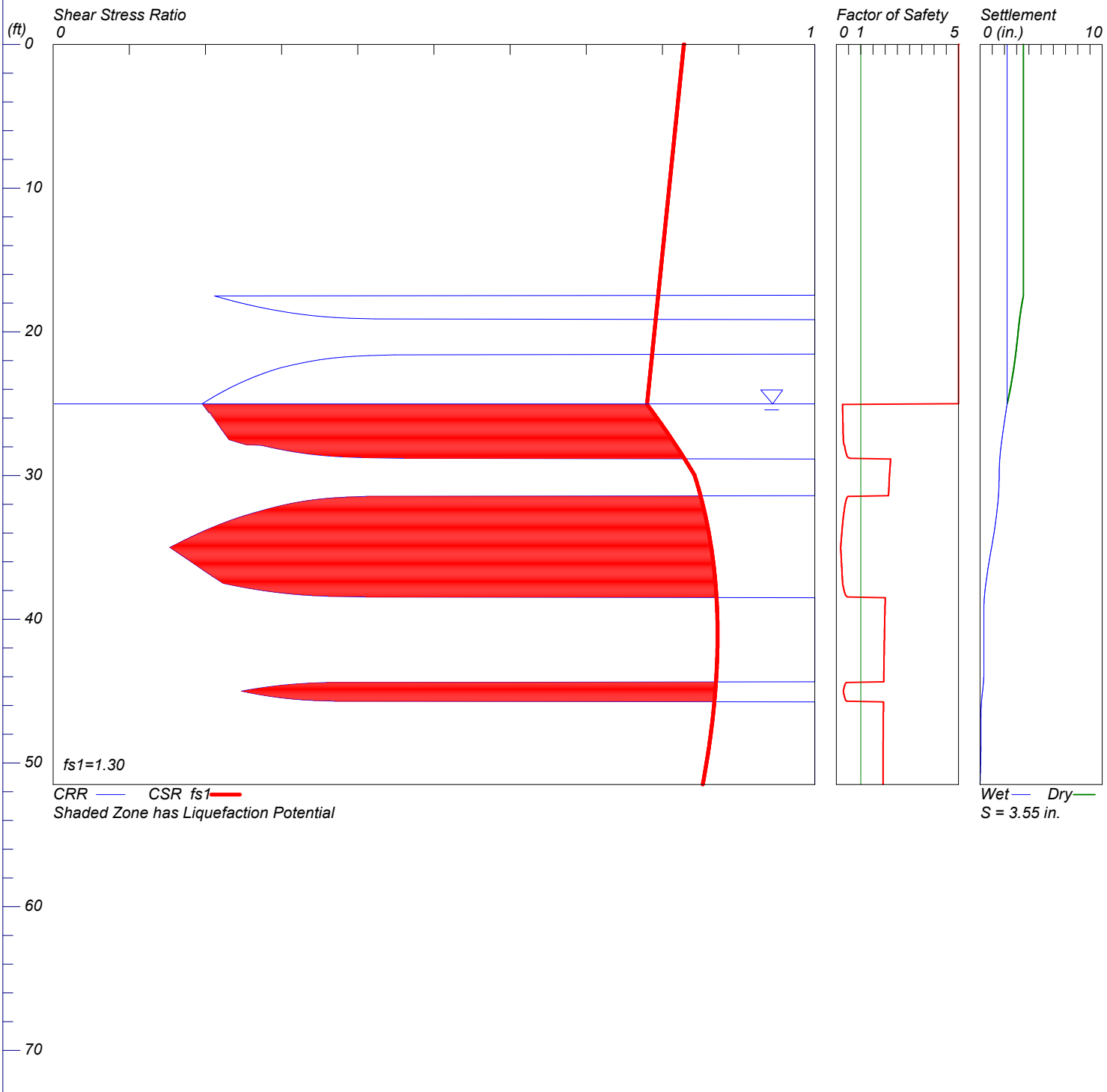
CRRm	Cyclic resistance ratio from soils
CSRfs	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat	Settlement from saturated sands
S_dry	Settlement from dry sands
S_all	Total settlement from saturated and dry sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=B-LGC-5 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



LiquefyPro CivilTech Software USA www.civiltech.com

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LIQUEFACTION ANALYSIS CALCULATION SHEET

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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\BLGC5.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=B-LGC-5
Depth of Hole= 51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 51.5 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=B-LGC-5
Depth of Hole=51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 51.5 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

Earthquake Magnitude=7.7
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.3
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.0	7.0	120.0	NoLiq
5.0	12.0	120.0	NoLiq
10.0	7.0	120.0	NoLiq
12.5	9.0	120.0	NoLiq
15.0	11.0	120.0	NoLiq
17.5	11.0	120.0	35.0
20.0	22.0	120.0	35.0
22.5	22.0	120.0	15.0
25.0	16.0	120.0	15.0
27.5	20.0	120.0	15.0
30.0	28.0	120.0	29.0
32.5	20.0	120.0	29.0
35.0	11.0	120.0	29.0
37.5	20.0	120.0	23.0
40.0	40.0	120.0	23.0
42.5	44.0	120.0	23.0
45.0	27.0	120.0	17.0
47.5	46.0	120.0	17.0
50.0	38.0	120.0	17.0
51.5	38.0	120.0	17.0

Output Results:

Settlement of saturated sands=2.21 in.
Settlement of dry sands=1.34 in.
Total settlement of saturated and dry sands=3.55 in.
Differential Settlement=1.775 to 2.343 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	2.21	1.34	3.55
0.05	2.00	0.83	5.00	2.21	1.34	3.55
0.10	2.00	0.83	5.00	2.21	1.34	3.55
0.15	2.00	0.83	5.00	2.21	1.34	3.55
0.20	2.00	0.83	5.00	2.21	1.34	3.55
0.25	2.00	0.83	5.00	2.21	1.34	3.55
0.30	2.00	0.83	5.00	2.21	1.34	3.55
0.35	2.00	0.83	5.00	2.21	1.34	3.55
0.40	2.00	0.83	5.00	2.21	1.34	3.55
0.45	2.00	0.83	5.00	2.21	1.34	3.55
0.50	2.00	0.83	5.00	2.21	1.34	3.55
0.55	2.00	0.83	5.00	2.21	1.34	3.55
0.60	2.00	0.83	5.00	2.21	1.34	3.55
0.65	2.00	0.83	5.00	2.21	1.34	3.55
0.70	2.00	0.83	5.00	2.21	1.34	3.55
0.75	2.00	0.83	5.00	2.21	1.34	3.55

0.80	2.00	0.83	5.00	2.21	1.34	3.55
0.85	2.00	0.83	5.00	2.21	1.34	3.55
0.90	2.00	0.83	5.00	2.21	1.34	3.55
0.95	2.00	0.83	5.00	2.21	1.34	3.55
1.00	2.00	0.83	5.00	2.21	1.34	3.55
1.05	2.00	0.83	5.00	2.21	1.34	3.55
1.10	2.00	0.83	5.00	2.21	1.34	3.55
1.15	2.00	0.83	5.00	2.21	1.34	3.55
1.20	2.00	0.83	5.00	2.21	1.34	3.55
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1.35	2.00	0.83	5.00	2.21	1.34	3.55
1.40	2.00	0.83	5.00	2.21	1.34	3.55
1.45	2.00	0.83	5.00	2.21	1.34	3.55
1.50	2.00	0.83	5.00	2.21	1.34	3.55
1.55	2.00	0.83	5.00	2.21	1.34	3.55
1.60	2.00	0.83	5.00	2.21	1.34	3.55
1.65	2.00	0.82	5.00	2.21	1.34	3.55
1.70	2.00	0.82	5.00	2.21	1.34	3.55
1.75	2.00	0.82	5.00	2.21	1.34	3.55
1.80	2.00	0.82	5.00	2.21	1.34	3.55
1.85	2.00	0.82	5.00	2.21	1.34	3.55
1.90	2.00	0.82	5.00	2.21	1.34	3.55
1.95	2.00	0.82	5.00	2.21	1.34	3.55
2.00	2.00	0.82	5.00	2.21	1.34	3.55
2.05	2.00	0.82	5.00	2.21	1.34	3.55
2.10	2.00	0.82	5.00	2.21	1.34	3.55
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2.40	2.00	0.82	5.00	2.21	1.34	3.55
2.45	2.00	0.82	5.00	2.21	1.34	3.55
2.50	2.00	0.82	5.00	2.21	1.34	3.55
2.55	2.00	0.82	5.00	2.21	1.34	3.55
2.60	2.00	0.82	5.00	2.21	1.34	3.55
2.65	2.00	0.82	5.00	2.21	1.34	3.55
2.70	2.00	0.82	5.00	2.21	1.34	3.55
2.75	2.00	0.82	5.00	2.21	1.34	3.55
2.80	2.00	0.82	5.00	2.21	1.34	3.55
2.85	2.00	0.82	5.00	2.21	1.34	3.55
2.90	2.00	0.82	5.00	2.21	1.34	3.55
2.95	2.00	0.82	5.00	2.21	1.34	3.55
3.00	2.00	0.82	5.00	2.21	1.34	3.55
3.05	2.00	0.82	5.00	2.21	1.34	3.55
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3.55	2.00	0.82	5.00	2.21	1.34	3.55
3.60	2.00	0.82	5.00	2.21	1.34	3.55
3.65	2.00	0.82	5.00	2.21	1.34	3.55
3.70	2.00	0.82	5.00	2.21	1.34	3.55
3.75	2.00	0.82	5.00	2.21	1.34	3.55
3.80	2.00	0.82	5.00	2.21	1.34	3.55
3.85	2.00	0.82	5.00	2.21	1.34	3.55
3.90	2.00	0.82	5.00	2.21	1.34	3.55
3.95	2.00	0.82	5.00	2.21	1.34	3.55
4.00	2.00	0.82	5.00	2.21	1.34	3.55
4.05	2.00	0.82	5.00	2.21	1.34	3.55
4.10	2.00	0.82	5.00	2.21	1.34	3.55
4.15	2.00	0.82	5.00	2.21	1.34	3.55
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4.60	2.00	0.82	5.00	2.21	1.34	3.55
4.65	2.00	0.82	5.00	2.21	1.34	3.55
4.70	2.00	0.82	5.00	2.21	1.34	3.55
4.75	2.00	0.82	5.00	2.21	1.34	3.55
4.80	2.00	0.82	5.00	2.21	1.34	3.55
4.85	2.00	0.82	5.00	2.21	1.34	3.55
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6.00	2.00	0.82	5.00	2.21	1.34	3.55
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7.55	2.00	0.81	5.00	2.21	1.34	3.55
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8.55	2.00	0.81	5.00	2.21	1.34	3.55
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9.75	2.00	0.81	5.00	2.21	1.34	3.55
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9.90	2.00	0.81	5.00	2.21	1.34	3.55
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10.00	2.00	0.81	5.00	2.21	1.34	3.55
10.05	2.00	0.81	5.00	2.21	1.34	3.55
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10.60	2.00	0.81	5.00	2.21	1.34	3.55
10.65	2.00	0.81	5.00	2.21	1.34	3.55
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10.90	2.00	0.81	5.00	2.21	1.34	3.55
10.95	2.00	0.81	5.00	2.21	1.34	3.55
11.00	2.00	0.81	5.00	2.21	1.34	3.55
11.05	2.00	0.81	5.00	2.21	1.34	3.55
11.10	2.00	0.81	5.00	2.21	1.34	3.55
11.15	2.00	0.81	5.00	2.21	1.34	3.55
11.20	2.00	0.81	5.00	2.21	1.34	3.55
11.25	2.00	0.81	5.00	2.21	1.34	3.55
11.30	2.00	0.81	5.00	2.21	1.34	3.55
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11.45	2.00	0.81	5.00	2.21	1.34	3.55
11.50	2.00	0.81	5.00	2.21	1.34	3.55
11.55	2.00	0.81	5.00	2.21	1.34	3.55
11.60	2.00	0.81	5.00	2.21	1.34	3.55
11.65	2.00	0.81	5.00	2.21	1.34	3.55
11.70	2.00	0.81	5.00	2.21	1.34	3.55
11.75	2.00	0.81	5.00	2.21	1.34	3.55
11.80	2.00	0.81	5.00	2.21	1.34	3.55
11.85	2.00	0.81	5.00	2.21	1.34	3.55
11.90	2.00	0.81	5.00	2.21	1.34	3.55
11.95	2.00	0.81	5.00	2.21	1.34	3.55
12.00	2.00	0.80	5.00	2.21	1.34	3.55
12.05	2.00	0.80	5.00	2.21	1.34	3.55
12.10	2.00	0.80	5.00	2.21	1.34	3.55
12.15	2.00	0.80	5.00	2.21	1.34	3.55
12.20	2.00	0.80	5.00	2.21	1.34	3.55
12.25	2.00	0.80	5.00	2.21	1.34	3.55
12.30	2.00	0.80	5.00	2.21	1.34	3.55
12.35	2.00	0.80	5.00	2.21	1.34	3.55
12.40	2.00	0.80	5.00	2.21	1.34	3.55
12.45	2.00	0.80	5.00	2.21	1.34	3.55
12.50	2.00	0.80	5.00	2.21	1.34	3.55
12.55	2.00	0.80	5.00	2.21	1.34	3.55
12.60	2.00	0.80	5.00	2.21	1.34	3.55
12.65	2.00	0.80	5.00	2.21	1.34	3.55
12.70	2.00	0.80	5.00	2.21	1.34	3.55
12.75	2.00	0.80	5.00	2.21	1.34	3.55
12.80	2.00	0.80	5.00	2.21	1.34	3.55
12.85	2.00	0.80	5.00	2.21	1.34	3.55
12.90	2.00	0.80	5.00	2.21	1.34	3.55
12.95	2.00	0.80	5.00	2.21	1.34	3.55
13.00	2.00	0.80	5.00	2.21	1.34	3.55
13.05	2.00	0.80	5.00	2.21	1.34	3.55
13.10	2.00	0.80	5.00	2.21	1.34	3.55
13.15	2.00	0.80	5.00	2.21	1.34	3.55
13.20	2.00	0.80	5.00	2.21	1.34	3.55
13.25	2.00	0.80	5.00	2.21	1.34	3.55

13.30	2.00	0.80	5.00	2.21	1.34	3.55
13.35	2.00	0.80	5.00	2.21	1.34	3.55
13.40	2.00	0.80	5.00	2.21	1.34	3.55
13.45	2.00	0.80	5.00	2.21	1.34	3.55
13.50	2.00	0.80	5.00	2.21	1.34	3.55
13.55	2.00	0.80	5.00	2.21	1.34	3.55
13.60	2.00	0.80	5.00	2.21	1.34	3.55
13.65	2.00	0.80	5.00	2.21	1.34	3.55
13.70	2.00	0.80	5.00	2.21	1.34	3.55
13.75	2.00	0.80	5.00	2.21	1.34	3.55
13.80	2.00	0.80	5.00	2.21	1.34	3.55
13.85	2.00	0.80	5.00	2.21	1.34	3.55
13.90	2.00	0.80	5.00	2.21	1.34	3.55
13.95	2.00	0.80	5.00	2.21	1.34	3.55
14.00	2.00	0.80	5.00	2.21	1.34	3.55
14.05	2.00	0.80	5.00	2.21	1.34	3.55
14.10	2.00	0.80	5.00	2.21	1.34	3.55
14.15	2.00	0.80	5.00	2.21	1.34	3.55
14.20	2.00	0.80	5.00	2.21	1.34	3.55
14.25	2.00	0.80	5.00	2.21	1.34	3.55
14.30	2.00	0.80	5.00	2.21	1.34	3.55
14.35	2.00	0.80	5.00	2.21	1.34	3.55
14.40	2.00	0.80	5.00	2.21	1.34	3.55
14.45	2.00	0.80	5.00	2.21	1.34	3.55
14.50	2.00	0.80	5.00	2.21	1.34	3.55
14.55	2.00	0.80	5.00	2.21	1.34	3.55
14.60	2.00	0.80	5.00	2.21	1.34	3.55
14.65	2.00	0.80	5.00	2.21	1.34	3.55
14.70	2.00	0.80	5.00	2.21	1.34	3.55
14.75	2.00	0.80	5.00	2.21	1.34	3.55
14.80	2.00	0.80	5.00	2.21	1.34	3.55
14.85	2.00	0.80	5.00	2.21	1.34	3.55
14.90	2.00	0.80	5.00	2.21	1.34	3.55
14.95	2.00	0.80	5.00	2.21	1.34	3.55
15.00	2.00	0.80	5.00	2.21	1.34	3.55
15.05	2.00	0.80	5.00	2.21	1.34	3.55
15.10	2.00	0.80	5.00	2.21	1.34	3.55
15.15	2.00	0.80	5.00	2.21	1.34	3.55
15.20	2.00	0.80	5.00	2.21	1.34	3.55
15.25	2.00	0.80	5.00	2.21	1.34	3.55
15.30	2.00	0.80	5.00	2.21	1.34	3.55
15.35	2.00	0.80	5.00	2.21	1.34	3.55
15.40	2.00	0.80	5.00	2.21	1.34	3.55
15.45	2.00	0.80	5.00	2.21	1.34	3.55
15.50	2.00	0.80	5.00	2.21	1.34	3.55
15.55	2.00	0.80	5.00	2.21	1.34	3.55
15.60	2.00	0.80	5.00	2.21	1.34	3.55
15.65	2.00	0.80	5.00	2.21	1.34	3.55
15.70	2.00	0.80	5.00	2.21	1.34	3.55
15.75	2.00	0.80	5.00	2.21	1.34	3.55

15.80	2.00	0.80	5.00	2.21	1.34	3.55
15.85	2.00	0.80	5.00	2.21	1.34	3.55
15.90	2.00	0.80	5.00	2.21	1.34	3.55
15.95	2.00	0.80	5.00	2.21	1.34	3.55
16.00	2.00	0.80	5.00	2.21	1.34	3.55
16.05	2.00	0.80	5.00	2.21	1.34	3.55
16.10	2.00	0.80	5.00	2.21	1.34	3.55
16.15	2.00	0.80	5.00	2.21	1.34	3.55
16.20	2.00	0.80	5.00	2.21	1.34	3.55
16.25	2.00	0.80	5.00	2.21	1.34	3.55
16.30	2.00	0.80	5.00	2.21	1.34	3.55
16.35	2.00	0.80	5.00	2.21	1.34	3.55
16.40	2.00	0.80	5.00	2.21	1.34	3.55
16.45	2.00	0.80	5.00	2.21	1.34	3.55
16.50	2.00	0.80	5.00	2.21	1.34	3.55
16.55	2.00	0.80	5.00	2.21	1.34	3.55
16.60	2.00	0.80	5.00	2.21	1.34	3.55
16.65	2.00	0.80	5.00	2.21	1.34	3.55
16.70	2.00	0.80	5.00	2.21	1.34	3.55
16.75	2.00	0.80	5.00	2.21	1.34	3.55
16.80	2.00	0.80	5.00	2.21	1.34	3.55
16.85	2.00	0.80	5.00	2.21	1.34	3.55
16.90	2.00	0.80	5.00	2.21	1.34	3.55
16.95	2.00	0.80	5.00	2.21	1.34	3.55
17.00	2.00	0.80	5.00	2.21	1.34	3.55
17.05	2.00	0.80	5.00	2.21	1.34	3.55
17.10	2.00	0.80	5.00	2.21	1.34	3.55
17.15	2.00	0.79	5.00	2.21	1.34	3.55
17.20	2.00	0.79	5.00	2.21	1.34	3.55
17.25	2.00	0.79	5.00	2.21	1.34	3.55
17.30	2.00	0.79	5.00	2.21	1.34	3.55
17.35	2.00	0.79	5.00	2.21	1.34	3.55
17.40	2.00	0.79	5.00	2.21	1.34	3.55
17.45	2.00	0.79	5.00	2.21	1.34	3.55
17.50	0.21	0.79	5.00	2.21	1.34	3.55
17.55	0.22	0.79	5.00	2.21	1.33	3.54
17.60	0.22	0.79	5.00	2.21	1.32	3.53
17.65	0.22	0.79	5.00	2.21	1.30	3.51
17.70	0.23	0.79	5.00	2.21	1.29	3.50
17.75	0.23	0.79	5.00	2.21	1.28	3.49
17.80	0.23	0.79	5.00	2.21	1.27	3.48
17.85	0.24	0.79	5.00	2.21	1.26	3.47
17.90	0.24	0.79	5.00	2.21	1.25	3.46
17.95	0.24	0.79	5.00	2.21	1.24	3.45
18.00	0.25	0.79	5.00	2.21	1.23	3.44
18.05	0.25	0.79	5.00	2.21	1.22	3.43
18.10	0.26	0.79	5.00	2.21	1.21	3.42
18.15	0.26	0.79	5.00	2.21	1.20	3.41
18.20	0.26	0.79	5.00	2.21	1.19	3.40
18.25	0.27	0.79	5.00	2.21	1.18	3.39

18.30	0.27	0.79	5.00	2.21	1.17	3.38
18.35	0.28	0.79	5.00	2.21	1.16	3.37
18.40	0.28	0.79	5.00	2.21	1.15	3.36
18.45	0.29	0.79	5.00	2.21	1.14	3.35
18.50	0.29	0.79	5.00	2.21	1.13	3.34
18.55	0.30	0.79	5.00	2.21	1.12	3.33
18.60	0.30	0.79	5.00	2.21	1.11	3.32
18.65	0.31	0.79	5.00	2.21	1.10	3.31
18.70	0.32	0.79	5.00	2.21	1.10	3.31
18.75	0.32	0.79	5.00	2.21	1.09	3.30
18.80	0.33	0.79	5.00	2.21	1.08	3.29
18.85	0.34	0.79	5.00	2.21	1.07	3.28
18.90	0.35	0.79	5.00	2.21	1.06	3.27
18.95	0.36	0.79	5.00	2.21	1.05	3.26
19.00	0.37	0.79	5.00	2.21	1.05	3.26
19.05	0.39	0.79	5.00	2.21	1.04	3.25
19.10	0.42	0.79	5.00	2.21	1.03	3.24
19.15	1.87	0.79	5.00	2.21	1.02	3.23
19.20	1.87	0.79	5.00	2.21	1.02	3.23
19.25	1.87	0.79	5.00	2.21	1.01	3.22
19.30	1.87	0.79	5.00	2.21	1.00	3.21
19.35	1.87	0.79	5.00	2.21	0.99	3.20
19.40	1.87	0.79	5.00	2.21	0.99	3.20
19.45	1.87	0.79	5.00	2.21	0.98	3.19
19.50	1.87	0.79	5.00	2.21	0.97	3.18
19.55	1.87	0.79	5.00	2.21	0.97	3.18
19.60	1.87	0.79	5.00	2.21	0.96	3.17
19.65	1.87	0.79	5.00	2.21	0.95	3.16
19.70	1.87	0.79	5.00	2.21	0.95	3.16
19.75	1.87	0.79	5.00	2.21	0.94	3.15
19.80	1.87	0.79	5.00	2.21	0.94	3.14
19.85	1.87	0.79	5.00	2.21	0.93	3.14
19.90	1.87	0.79	5.00	2.21	0.92	3.13
19.95	1.87	0.79	5.00	2.21	0.92	3.13
20.00	1.87	0.79	5.00	2.21	0.91	3.12
20.05	1.87	0.79	5.00	2.21	0.91	3.11
20.10	1.87	0.79	5.00	2.21	0.90	3.11
20.15	1.87	0.79	5.00	2.21	0.89	3.10
20.20	1.87	0.79	5.00	2.21	0.89	3.10
20.25	1.87	0.79	5.00	2.21	0.88	3.09
20.30	1.87	0.79	5.00	2.21	0.88	3.09
20.35	1.87	0.79	5.00	2.21	0.87	3.08
20.40	1.87	0.79	5.00	2.21	0.86	3.07
20.45	1.87	0.79	5.00	2.21	0.86	3.07
20.50	1.87	0.79	5.00	2.21	0.85	3.06
20.55	1.87	0.79	5.00	2.21	0.84	3.05
20.60	1.87	0.79	5.00	2.21	0.84	3.05
20.65	1.87	0.79	5.00	2.21	0.83	3.04
20.70	1.87	0.79	5.00	2.21	0.82	3.03
20.75	1.87	0.79	5.00	2.21	0.82	3.03

20.80	1.87	0.79	5.00	2.21	0.81	3.02
20.85	1.87	0.79	5.00	2.21	0.80	3.01
20.90	1.87	0.79	5.00	2.21	0.80	3.01
20.95	1.87	0.79	5.00	2.21	0.79	3.00
21.00	1.87	0.79	5.00	2.21	0.78	2.99
21.05	1.87	0.79	5.00	2.21	0.78	2.99
21.10	1.87	0.79	5.00	2.21	0.77	2.98
21.15	1.87	0.79	5.00	2.21	0.76	2.97
21.20	1.87	0.79	5.00	2.21	0.76	2.97
21.25	1.87	0.79	5.00	2.21	0.75	2.96
21.30	1.87	0.79	5.00	2.21	0.74	2.95
21.35	1.87	0.79	5.00	2.21	0.74	2.95
21.40	1.87	0.79	5.00	2.21	0.73	2.94
21.45	1.87	0.79	5.00	2.21	0.72	2.93
21.50	1.87	0.79	5.00	2.21	0.71	2.92
21.55	1.87	0.79	5.00	2.21	0.71	2.92
21.60	0.45	0.79	5.00	2.21	0.70	2.91
21.65	0.41	0.79	5.00	2.21	0.69	2.90
21.70	0.40	0.79	5.00	2.21	0.68	2.89
21.75	0.38	0.79	5.00	2.21	0.68	2.89
21.80	0.37	0.79	5.00	2.21	0.67	2.88
21.85	0.36	0.79	5.00	2.21	0.66	2.87
21.90	0.36	0.79	5.00	2.21	0.65	2.86
21.95	0.35	0.79	5.00	2.21	0.65	2.86
22.00	0.34	0.79	5.00	2.21	0.64	2.85
22.05	0.34	0.79	5.00	2.21	0.63	2.84
22.10	0.33	0.79	5.00	2.21	0.62	2.83
22.15	0.33	0.79	5.00	2.21	0.61	2.82
22.20	0.32	0.79	5.00	2.21	0.61	2.82
22.25	0.32	0.79	5.00	2.21	0.60	2.81
22.30	0.31	0.79	5.00	2.21	0.59	2.80
22.35	0.31	0.78	5.00	2.21	0.58	2.79
22.40	0.31	0.78	5.00	2.21	0.57	2.78
22.45	0.30	0.78	5.00	2.21	0.56	2.77
22.50	0.30	0.78	5.00	2.21	0.55	2.76
22.55	0.30	0.78	5.00	2.21	0.55	2.76
22.60	0.29	0.78	5.00	2.21	0.54	2.75
22.65	0.29	0.78	5.00	2.21	0.53	2.74
22.70	0.29	0.78	5.00	2.21	0.52	2.73
22.75	0.28	0.78	5.00	2.21	0.51	2.72
22.80	0.28	0.78	5.00	2.21	0.50	2.71
22.85	0.28	0.78	5.00	2.21	0.49	2.70
22.90	0.28	0.78	5.00	2.21	0.48	2.69
22.95	0.27	0.78	5.00	2.21	0.47	2.68
23.00	0.27	0.78	5.00	2.21	0.46	2.67
23.05	0.27	0.78	5.00	2.21	0.45	2.66
23.10	0.27	0.78	5.00	2.21	0.45	2.66
23.15	0.26	0.78	5.00	2.21	0.44	2.65
23.20	0.26	0.78	5.00	2.21	0.43	2.64
23.25	0.26	0.78	5.00	2.21	0.42	2.63

23.30	0.26	0.78	5.00	2.21	0.41	2.62
23.35	0.25	0.78	5.00	2.21	0.40	2.61
23.40	0.25	0.78	5.00	2.21	0.39	2.60
23.45	0.25	0.78	5.00	2.21	0.38	2.59
23.50	0.25	0.78	5.00	2.21	0.37	2.58
23.55	0.25	0.78	5.00	2.21	0.36	2.57
23.60	0.24	0.78	5.00	2.21	0.35	2.55
23.65	0.24	0.78	5.00	2.21	0.33	2.54
23.70	0.24	0.78	5.00	2.21	0.32	2.53
23.75	0.24	0.78	5.00	2.21	0.31	2.52
23.80	0.24	0.78	5.00	2.21	0.30	2.51
23.85	0.23	0.78	5.00	2.21	0.29	2.50
23.90	0.23	0.78	5.00	2.21	0.28	2.49
23.95	0.23	0.78	5.00	2.21	0.27	2.48
24.00	0.23	0.78	5.00	2.21	0.26	2.47
24.05	0.23	0.78	5.00	2.21	0.25	2.46
24.10	0.22	0.78	5.00	2.21	0.24	2.45
24.15	0.22	0.78	5.00	2.21	0.22	2.43
24.20	0.22	0.78	5.00	2.21	0.21	2.42
24.25	0.22	0.78	5.00	2.21	0.20	2.41
24.30	0.22	0.78	5.00	2.21	0.19	2.40
24.35	0.22	0.78	5.00	2.21	0.18	2.39
24.40	0.21	0.78	5.00	2.21	0.17	2.38
24.45	0.21	0.78	5.00	2.21	0.15	2.36
24.50	0.21	0.78	5.00	2.21	0.14	2.35
24.55	0.21	0.78	5.00	2.21	0.13	2.34
24.60	0.21	0.78	5.00	2.21	0.12	2.33
24.65	0.21	0.78	5.00	2.21	0.10	2.31
24.70	0.21	0.78	5.00	2.21	0.09	2.30
24.75	0.20	0.78	5.00	2.21	0.08	2.29
24.80	0.20	0.78	5.00	2.21	0.07	2.28
24.85	0.20	0.78	5.00	2.21	0.05	2.26
24.90	0.20	0.78	5.00	2.21	0.04	2.25
24.95	0.20	0.78	5.00	2.21	0.03	2.24
25.00	0.20	0.78	5.00	2.21	0.01	2.22
25.05	0.20	0.78	0.25*	2.21	0.00	2.21
25.10	0.20	0.78	0.25*	2.20	0.00	2.20
25.15	0.20	0.78	0.25*	2.19	0.00	2.19
25.20	0.20	0.78	0.25*	2.18	0.00	2.18
25.25	0.20	0.78	0.25*	2.17	0.00	2.17
25.30	0.20	0.78	0.26*	2.16	0.00	2.16
25.35	0.20	0.78	0.26*	2.15	0.00	2.15
25.40	0.20	0.78	0.26*	2.15	0.00	2.15
25.45	0.20	0.79	0.26*	2.14	0.00	2.14
25.50	0.20	0.79	0.26*	2.13	0.00	2.13
25.55	0.20	0.79	0.26*	2.12	0.00	2.12
25.60	0.20	0.79	0.26*	2.11	0.00	2.11
25.65	0.21	0.79	0.26*	2.10	0.00	2.10
25.70	0.21	0.79	0.26*	2.09	0.00	2.09
25.75	0.21	0.79	0.26*	2.08	0.00	2.08

25.80	0.21	0.79	0.26*	2.07	0.00	2.07
25.85	0.21	0.79	0.26*	2.07	0.00	2.07
25.90	0.21	0.79	0.26*	2.06	0.00	2.06
25.95	0.21	0.79	0.27*	2.05	0.00	2.05
26.00	0.21	0.79	0.27*	2.04	0.00	2.04
26.05	0.21	0.79	0.27*	2.03	0.00	2.03
26.10	0.21	0.79	0.27*	2.02	0.00	2.02
26.15	0.21	0.79	0.27*	2.01	0.00	2.01
26.20	0.21	0.80	0.27*	2.00	0.00	2.00
26.25	0.21	0.80	0.27*	2.00	0.00	2.00
26.30	0.21	0.80	0.27*	1.99	0.00	1.99
26.35	0.22	0.80	0.27*	1.98	0.00	1.98
26.40	0.22	0.80	0.27*	1.97	0.00	1.97
26.45	0.22	0.80	0.27*	1.96	0.00	1.96
26.50	0.22	0.80	0.27*	1.95	0.00	1.95
26.55	0.22	0.80	0.27*	1.94	0.00	1.94
26.60	0.22	0.80	0.27*	1.94	0.00	1.94
26.65	0.22	0.80	0.27*	1.93	0.00	1.93
26.70	0.22	0.80	0.27*	1.92	0.00	1.92
26.75	0.22	0.80	0.27*	1.91	0.00	1.91
26.80	0.22	0.80	0.28*	1.90	0.00	1.90
26.85	0.22	0.80	0.28*	1.89	0.00	1.89
26.90	0.22	0.80	0.28*	1.89	0.00	1.89
26.95	0.22	0.81	0.28*	1.88	0.00	1.88
27.00	0.22	0.81	0.28*	1.87	0.00	1.87
27.05	0.22	0.81	0.28*	1.86	0.00	1.86
27.10	0.23	0.81	0.28*	1.85	0.00	1.85
27.15	0.23	0.81	0.28*	1.84	0.00	1.84
27.20	0.23	0.81	0.28*	1.84	0.00	1.84
27.25	0.23	0.81	0.28*	1.83	0.00	1.83
27.30	0.23	0.81	0.28*	1.82	0.00	1.82
27.35	0.23	0.81	0.28*	1.81	0.00	1.81
27.40	0.23	0.81	0.28*	1.80	0.00	1.80
27.45	0.23	0.81	0.28*	1.80	0.00	1.80
27.50	0.23	0.81	0.28*	1.79	0.00	1.79
27.55	0.23	0.81	0.29*	1.78	0.00	1.78
27.60	0.24	0.81	0.29*	1.77	0.00	1.77
27.65	0.24	0.81	0.29*	1.76	0.00	1.76
27.70	0.24	0.82	0.30*	1.76	0.00	1.76
27.75	0.25	0.82	0.30*	1.75	0.00	1.75
27.80	0.25	0.82	0.31*	1.74	0.00	1.74
27.85	0.25	0.82	0.31*	1.73	0.00	1.73
27.90	0.27	0.82	0.34*	1.73	0.00	1.73
27.95	0.28	0.82	0.34*	1.72	0.00	1.72
28.00	0.28	0.82	0.34*	1.71	0.00	1.71
28.05	0.29	0.82	0.35*	1.71	0.00	1.71
28.10	0.29	0.82	0.36*	1.70	0.00	1.70
28.15	0.30	0.82	0.36*	1.69	0.00	1.69
28.20	0.30	0.82	0.37*	1.69	0.00	1.69
28.25	0.31	0.82	0.37*	1.68	0.00	1.68

28.30	0.31	0.82	0.38*	1.67	0.00	1.67
28.35	0.32	0.82	0.38*	1.67	0.00	1.67
28.40	0.32	0.82	0.39*	1.66	0.00	1.66
28.45	0.33	0.82	0.40*	1.66	0.00	1.66
28.50	0.34	0.83	0.41*	1.65	0.00	1.65
28.55	0.34	0.83	0.42*	1.64	0.00	1.64
28.60	0.35	0.83	0.43*	1.64	0.00	1.64
28.65	0.36	0.83	0.44*	1.63	0.00	1.63
28.70	0.38	0.83	0.46*	1.63	0.00	1.63
28.75	0.40	0.83	0.49*	1.62	0.00	1.62
28.80	0.46	0.83	0.56*	1.62	0.00	1.62
28.85	1.84	0.83	2.22	1.62	0.00	1.62
28.90	1.84	0.83	2.22	1.61	0.00	1.61
28.95	1.84	0.83	2.22	1.61	0.00	1.61
29.00	1.84	0.83	2.22	1.60	0.00	1.60
29.05	1.84	0.83	2.21	1.60	0.00	1.60
29.10	1.84	0.83	2.21	1.60	0.00	1.60
29.15	1.84	0.83	2.21	1.59	0.00	1.59
29.20	1.84	0.83	2.21	1.59	0.00	1.59
29.25	1.84	0.83	2.21	1.59	0.00	1.59
29.30	1.84	0.83	2.20	1.58	0.00	1.58
29.35	1.84	0.84	2.20	1.58	0.00	1.58
29.40	1.84	0.84	2.20	1.58	0.00	1.58
29.45	1.84	0.84	2.20	1.58	0.00	1.58
29.50	1.84	0.84	2.20	1.58	0.00	1.58
29.55	1.84	0.84	2.19	1.57	0.00	1.57
29.60	1.84	0.84	2.19	1.57	0.00	1.57
29.65	1.84	0.84	2.19	1.57	0.00	1.57
29.70	1.83	0.84	2.19	1.57	0.00	1.57
29.75	1.83	0.84	2.18	1.57	0.00	1.57
29.80	1.83	0.84	2.18	1.57	0.00	1.57
29.85	1.83	0.84	2.18	1.57	0.00	1.57
29.90	1.83	0.84	2.18	1.57	0.00	1.57
29.95	1.83	0.84	2.18	1.57	0.00	1.57
30.00	1.83	0.84	2.17	1.57	0.00	1.57
30.05	1.83	0.84	2.17	1.56	0.00	1.56
30.10	1.83	0.84	2.17	1.56	0.00	1.56
30.15	1.83	0.84	2.17	1.56	0.00	1.56
30.20	1.83	0.84	2.17	1.56	0.00	1.56
30.25	1.83	0.84	2.17	1.56	0.00	1.56
30.30	1.83	0.84	2.17	1.56	0.00	1.56
30.35	1.83	0.84	2.16	1.56	0.00	1.56
30.40	1.83	0.84	2.16	1.56	0.00	1.56
30.45	1.83	0.84	2.16	1.56	0.00	1.56
30.50	1.83	0.85	2.16	1.56	0.00	1.56
30.55	1.83	0.85	2.16	1.56	0.00	1.56
30.60	1.82	0.85	2.16	1.55	0.00	1.55
30.65	1.82	0.85	2.16	1.55	0.00	1.55
30.70	1.82	0.85	2.15	1.55	0.00	1.55
30.75	1.82	0.85	2.15	1.55	0.00	1.55

30.80	1.82	0.85	2.15	1.55	0.00	1.55
30.85	1.82	0.85	2.15	1.54	0.00	1.54
30.90	1.82	0.85	2.15	1.54	0.00	1.54
30.95	1.82	0.85	2.15	1.54	0.00	1.54
31.00	1.82	0.85	2.15	1.54	0.00	1.54
31.05	1.82	0.85	2.15	1.53	0.00	1.53
31.10	1.82	0.85	2.14	1.53	0.00	1.53
31.15	1.82	0.85	2.14	1.53	0.00	1.53
31.20	1.82	0.85	2.14	1.52	0.00	1.52
31.25	1.82	0.85	2.14	1.52	0.00	1.52
31.30	1.82	0.85	2.14	1.51	0.00	1.51
31.35	1.82	0.85	2.14	1.51	0.00	1.51
31.40	1.82	0.85	2.14	1.51	0.00	1.51
31.45	0.41	0.85	0.48*	1.50	0.00	1.50
31.50	0.39	0.85	0.45*	1.50	0.00	1.50
31.55	0.37	0.85	0.43*	1.49	0.00	1.49
31.60	0.36	0.85	0.42*	1.49	0.00	1.49
31.65	0.35	0.85	0.41*	1.48	0.00	1.48
31.70	0.34	0.85	0.40*	1.48	0.00	1.48
31.75	0.33	0.85	0.39*	1.47	0.00	1.47
31.80	0.33	0.85	0.38*	1.47	0.00	1.47
31.85	0.32	0.85	0.38*	1.46	0.00	1.46
31.90	0.32	0.85	0.37*	1.46	0.00	1.46
31.95	0.31	0.85	0.37*	1.45	0.00	1.45
32.00	0.31	0.85	0.36*	1.44	0.00	1.44
32.05	0.30	0.85	0.35*	1.44	0.00	1.44
32.10	0.30	0.85	0.35*	1.43	0.00	1.43
32.15	0.29	0.85	0.35*	1.43	0.00	1.43
32.20	0.29	0.85	0.34*	1.42	0.00	1.42
32.25	0.29	0.85	0.34*	1.41	0.00	1.41
32.30	0.28	0.85	0.33*	1.41	0.00	1.41
32.35	0.28	0.85	0.33*	1.40	0.00	1.40
32.40	0.28	0.85	0.32*	1.39	0.00	1.39
32.45	0.27	0.85	0.32*	1.39	0.00	1.39
32.50	0.27	0.86	0.32*	1.38	0.00	1.38
32.55	0.27	0.86	0.31*	1.37	0.00	1.37
32.60	0.26	0.86	0.31*	1.37	0.00	1.37
32.65	0.26	0.86	0.30*	1.36	0.00	1.36
32.70	0.26	0.86	0.30*	1.35	0.00	1.35
32.75	0.25	0.86	0.30*	1.35	0.00	1.35
32.80	0.25	0.86	0.29*	1.34	0.00	1.34
32.85	0.25	0.86	0.29*	1.33	0.00	1.33
32.90	0.24	0.86	0.29*	1.32	0.00	1.32
32.95	0.24	0.86	0.28*	1.32	0.00	1.32
33.00	0.24	0.86	0.28*	1.31	0.00	1.31
33.05	0.24	0.86	0.28*	1.30	0.00	1.30
33.10	0.23	0.86	0.27*	1.29	0.00	1.29
33.15	0.23	0.86	0.27*	1.29	0.00	1.29
33.20	0.23	0.86	0.27*	1.28	0.00	1.28
33.25	0.23	0.86	0.26*	1.27	0.00	1.27

33.30	0.22	0.86	0.26*	1.26	0.00	1.26
33.35	0.22	0.86	0.26*	1.25	0.00	1.25
33.40	0.22	0.86	0.25*	1.25	0.00	1.25
33.45	0.22	0.86	0.25*	1.24	0.00	1.24
33.50	0.21	0.86	0.25*	1.23	0.00	1.23
33.55	0.21	0.86	0.25*	1.22	0.00	1.22
33.60	0.21	0.86	0.24*	1.21	0.00	1.21
33.65	0.21	0.86	0.24*	1.21	0.00	1.21
33.70	0.20	0.86	0.24*	1.20	0.00	1.20
33.75	0.20	0.86	0.24*	1.19	0.00	1.19
33.80	0.20	0.86	0.23*	1.18	0.00	1.18
33.85	0.20	0.86	0.23*	1.17	0.00	1.17
33.90	0.20	0.86	0.23*	1.16	0.00	1.16
33.95	0.19	0.86	0.23*	1.15	0.00	1.15
34.00	0.19	0.86	0.22*	1.14	0.00	1.14
34.05	0.19	0.86	0.22*	1.13	0.00	1.13
34.10	0.19	0.86	0.22*	1.13	0.00	1.13
34.15	0.19	0.86	0.22*	1.12	0.00	1.12
34.20	0.18	0.86	0.21*	1.11	0.00	1.11
34.25	0.18	0.86	0.21*	1.10	0.00	1.10
34.30	0.18	0.86	0.21*	1.09	0.00	1.09
34.35	0.18	0.86	0.21*	1.08	0.00	1.08
34.40	0.18	0.86	0.20*	1.07	0.00	1.07
34.45	0.17	0.86	0.20*	1.06	0.00	1.06
34.50	0.17	0.86	0.20*	1.05	0.00	1.05
34.55	0.17	0.86	0.20*	1.04	0.00	1.04
34.60	0.17	0.86	0.20*	1.03	0.00	1.03
34.65	0.17	0.86	0.19*	1.02	0.00	1.02
34.70	0.16	0.86	0.19*	1.01	0.00	1.01
34.75	0.16	0.86	0.19*	1.00	0.00	1.00
34.80	0.16	0.86	0.19*	0.99	0.00	0.99
34.85	0.16	0.86	0.18*	0.98	0.00	0.98
34.90	0.16	0.86	0.18*	0.97	0.00	0.97
34.95	0.16	0.86	0.18*	0.95	0.00	0.95
35.00	0.15	0.86	0.18*	0.94	0.00	0.94
35.05	0.15	0.86	0.18*	0.93	0.00	0.93
35.10	0.16	0.86	0.18*	0.92	0.00	0.92
35.15	0.16	0.86	0.18*	0.91	0.00	0.91
35.20	0.16	0.86	0.18*	0.90	0.00	0.90
35.25	0.16	0.86	0.19*	0.89	0.00	0.89
35.30	0.16	0.86	0.19*	0.88	0.00	0.88
35.35	0.16	0.87	0.19*	0.87	0.00	0.87
35.40	0.16	0.87	0.19*	0.86	0.00	0.86
35.45	0.17	0.87	0.19*	0.85	0.00	0.85
35.50	0.17	0.87	0.19*	0.84	0.00	0.84
35.55	0.17	0.87	0.20*	0.83	0.00	0.83
35.60	0.17	0.87	0.20*	0.82	0.00	0.82
35.65	0.17	0.87	0.20*	0.81	0.00	0.81
35.70	0.17	0.87	0.20*	0.80	0.00	0.80
35.75	0.17	0.87	0.20*	0.79	0.00	0.79

35.80	0.18	0.87	0.20*	0.78	0.00	0.78
35.85	0.18	0.87	0.20*	0.77	0.00	0.77
35.90	0.18	0.87	0.21*	0.76	0.00	0.76
35.95	0.18	0.87	0.21*	0.75	0.00	0.75
36.00	0.18	0.87	0.21*	0.74	0.00	0.74
36.05	0.18	0.87	0.21*	0.73	0.00	0.73
36.10	0.18	0.87	0.21*	0.72	0.00	0.72
36.15	0.19	0.87	0.21*	0.71	0.00	0.71
36.20	0.19	0.87	0.22*	0.70	0.00	0.70
36.25	0.19	0.87	0.22*	0.69	0.00	0.69
36.30	0.19	0.87	0.22*	0.68	0.00	0.68
36.35	0.19	0.87	0.22*	0.67	0.00	0.67
36.40	0.19	0.87	0.22*	0.66	0.00	0.66
36.45	0.19	0.87	0.22*	0.65	0.00	0.65
36.50	0.19	0.87	0.22*	0.65	0.00	0.65
36.55	0.20	0.87	0.23*	0.64	0.00	0.64
36.60	0.20	0.87	0.23*	0.63	0.00	0.63
36.65	0.20	0.87	0.23*	0.62	0.00	0.62
36.70	0.20	0.87	0.23*	0.61	0.00	0.61
36.75	0.20	0.87	0.23*	0.60	0.00	0.60
36.80	0.20	0.87	0.23*	0.59	0.00	0.59
36.85	0.20	0.87	0.24*	0.58	0.00	0.58
36.90	0.21	0.87	0.24*	0.58	0.00	0.58
36.95	0.21	0.87	0.24*	0.57	0.00	0.57
37.00	0.21	0.87	0.24*	0.56	0.00	0.56
37.05	0.21	0.87	0.24*	0.55	0.00	0.55
37.10	0.21	0.87	0.24*	0.54	0.00	0.54
37.15	0.21	0.87	0.25*	0.53	0.00	0.53
37.20	0.21	0.87	0.25*	0.53	0.00	0.53
37.25	0.22	0.87	0.25*	0.52	0.00	0.52
37.30	0.22	0.87	0.25*	0.51	0.00	0.51
37.35	0.22	0.87	0.25*	0.50	0.00	0.50
37.40	0.22	0.87	0.25*	0.49	0.00	0.49
37.45	0.22	0.87	0.26*	0.49	0.00	0.49
37.50	0.22	0.87	0.26*	0.48	0.00	0.48
37.55	0.23	0.87	0.26*	0.47	0.00	0.47
37.60	0.23	0.87	0.27*	0.46	0.00	0.46
37.65	0.24	0.87	0.27*	0.46	0.00	0.46
37.70	0.24	0.87	0.28*	0.45	0.00	0.45
37.75	0.25	0.87	0.28*	0.44	0.00	0.44
37.80	0.25	0.87	0.29*	0.43	0.00	0.43
37.85	0.26	0.87	0.30*	0.43	0.00	0.43
37.90	0.26	0.87	0.30*	0.42	0.00	0.42
37.95	0.27	0.87	0.31*	0.41	0.00	0.41
38.00	0.28	0.87	0.32*	0.41	0.00	0.41
38.05	0.28	0.87	0.32*	0.40	0.00	0.40
38.10	0.29	0.87	0.33*	0.39	0.00	0.39
38.15	0.30	0.87	0.34*	0.39	0.00	0.39
38.20	0.31	0.87	0.35*	0.38	0.00	0.38
38.25	0.31	0.87	0.36*	0.38	0.00	0.38

38.30	0.33	0.87	0.37*	0.37	0.00	0.37
38.35	0.34	0.87	0.39*	0.36	0.00	0.36
38.40	0.36	0.87	0.42*	0.36	0.00	0.36
38.45	0.41	0.87	0.47*	0.35	0.00	0.35
38.50	1.74	0.87	2.00	0.35	0.00	0.35
38.55	1.74	0.87	2.00	0.35	0.00	0.35
38.60	1.74	0.87	2.00	0.34	0.00	0.34
38.65	1.74	0.87	2.00	0.34	0.00	0.34
38.70	1.74	0.87	2.00	0.33	0.00	0.33
38.75	1.74	0.87	2.00	0.33	0.00	0.33
38.80	1.74	0.87	2.00	0.33	0.00	0.33
38.85	1.74	0.87	2.00	0.33	0.00	0.33
38.90	1.74	0.87	2.00	0.32	0.00	0.32
38.95	1.74	0.87	2.00	0.32	0.00	0.32
39.00	1.74	0.87	1.99	0.32	0.00	0.32
39.05	1.74	0.87	1.99	0.32	0.00	0.32
39.10	1.74	0.87	1.99	0.32	0.00	0.32
39.15	1.74	0.87	1.99	0.32	0.00	0.32
39.20	1.74	0.87	1.99	0.32	0.00	0.32
39.25	1.74	0.87	1.99	0.32	0.00	0.32
39.30	1.74	0.87	1.99	0.32	0.00	0.32
39.35	1.73	0.87	1.99	0.32	0.00	0.32
39.40	1.73	0.87	1.99	0.32	0.00	0.32
39.45	1.73	0.87	1.99	0.32	0.00	0.32
39.50	1.73	0.87	1.99	0.32	0.00	0.32
39.55	1.73	0.87	1.99	0.32	0.00	0.32
39.60	1.73	0.87	1.99	0.32	0.00	0.32
39.65	1.73	0.87	1.99	0.32	0.00	0.32
39.70	1.73	0.87	1.99	0.32	0.00	0.32
39.75	1.73	0.87	1.99	0.32	0.00	0.32
39.80	1.73	0.87	1.98	0.32	0.00	0.32
39.85	1.73	0.87	1.98	0.32	0.00	0.32
39.90	1.73	0.87	1.98	0.32	0.00	0.32
39.95	1.73	0.87	1.98	0.32	0.00	0.32
40.00	1.73	0.87	1.98	0.32	0.00	0.32
40.05	1.73	0.87	1.98	0.32	0.00	0.32
40.10	1.73	0.87	1.98	0.32	0.00	0.32
40.15	1.73	0.87	1.98	0.32	0.00	0.32
40.20	1.73	0.87	1.98	0.32	0.00	0.32
40.25	1.73	0.87	1.98	0.32	0.00	0.32
40.30	1.73	0.87	1.98	0.32	0.00	0.32
40.35	1.73	0.87	1.98	0.32	0.00	0.32
40.40	1.72	0.87	1.98	0.32	0.00	0.32
40.45	1.72	0.87	1.98	0.32	0.00	0.32
40.50	1.72	0.87	1.98	0.32	0.00	0.32
40.55	1.72	0.87	1.98	0.32	0.00	0.32
40.60	1.72	0.87	1.98	0.32	0.00	0.32
40.65	1.72	0.87	1.97	0.32	0.00	0.32
40.70	1.72	0.87	1.97	0.32	0.00	0.32
40.75	1.72	0.87	1.97	0.32	0.00	0.32

40.80	1.72	0.87	1.97	0.32	0.00	0.32
40.85	1.72	0.87	1.97	0.32	0.00	0.32
40.90	1.72	0.87	1.97	0.32	0.00	0.32
40.95	1.72	0.87	1.97	0.32	0.00	0.32
41.00	1.72	0.87	1.97	0.32	0.00	0.32
41.05	1.72	0.87	1.97	0.32	0.00	0.32
41.10	1.72	0.87	1.97	0.32	0.00	0.32
41.15	1.72	0.87	1.97	0.32	0.00	0.32
41.20	1.72	0.87	1.97	0.32	0.00	0.32
41.25	1.72	0.87	1.97	0.32	0.00	0.32
41.30	1.72	0.87	1.97	0.32	0.00	0.32
41.35	1.72	0.87	1.97	0.32	0.00	0.32
41.40	1.72	0.87	1.97	0.32	0.00	0.32
41.45	1.71	0.87	1.97	0.32	0.00	0.32
41.50	1.71	0.87	1.97	0.32	0.00	0.32
41.55	1.71	0.87	1.96	0.32	0.00	0.32
41.60	1.71	0.87	1.96	0.32	0.00	0.32
41.65	1.71	0.87	1.96	0.32	0.00	0.32
41.70	1.71	0.87	1.96	0.32	0.00	0.32
41.75	1.71	0.87	1.96	0.32	0.00	0.32
41.80	1.71	0.87	1.96	0.32	0.00	0.32
41.85	1.71	0.87	1.96	0.32	0.00	0.32
41.90	1.71	0.87	1.96	0.32	0.00	0.32
41.95	1.71	0.87	1.96	0.32	0.00	0.32
42.00	1.71	0.87	1.96	0.32	0.00	0.32
42.05	1.71	0.87	1.96	0.32	0.00	0.32
42.10	1.71	0.87	1.96	0.32	0.00	0.32
42.15	1.71	0.87	1.96	0.32	0.00	0.32
42.20	1.71	0.87	1.96	0.32	0.00	0.32
42.25	1.71	0.87	1.96	0.32	0.00	0.32
42.30	1.71	0.87	1.96	0.32	0.00	0.32
42.35	1.71	0.87	1.96	0.32	0.00	0.32
42.40	1.71	0.87	1.96	0.32	0.00	0.32
42.45	1.71	0.87	1.96	0.32	0.00	0.32
42.50	1.71	0.87	1.96	0.32	0.00	0.32
42.55	1.70	0.87	1.96	0.32	0.00	0.32
42.60	1.70	0.87	1.95	0.32	0.00	0.32
42.65	1.70	0.87	1.95	0.32	0.00	0.32
42.70	1.70	0.87	1.95	0.32	0.00	0.32
42.75	1.70	0.87	1.95	0.32	0.00	0.32
42.80	1.70	0.87	1.95	0.32	0.00	0.32
42.85	1.70	0.87	1.95	0.32	0.00	0.32
42.90	1.70	0.87	1.95	0.32	0.00	0.32
42.95	1.70	0.87	1.95	0.32	0.00	0.32
43.00	1.70	0.87	1.95	0.32	0.00	0.32
43.05	1.70	0.87	1.95	0.32	0.00	0.32
43.10	1.70	0.87	1.95	0.32	0.00	0.32
43.15	1.70	0.87	1.95	0.32	0.00	0.32
43.20	1.70	0.87	1.95	0.32	0.00	0.32
43.25	1.70	0.87	1.95	0.32	0.00	0.32

43.30	1.70	0.87	1.95	0.32	0.00	0.32
43.35	1.70	0.87	1.95	0.32	0.00	0.32
43.40	1.70	0.87	1.95	0.32	0.00	0.32
43.45	1.70	0.87	1.95	0.32	0.00	0.32
43.50	1.70	0.87	1.95	0.31	0.00	0.31
43.55	1.70	0.87	1.95	0.31	0.00	0.31
43.60	1.70	0.87	1.95	0.31	0.00	0.31
43.65	1.69	0.87	1.95	0.31	0.00	0.31
43.70	1.69	0.87	1.95	0.31	0.00	0.31
43.75	1.69	0.87	1.94	0.31	0.00	0.31
43.80	1.69	0.87	1.94	0.31	0.00	0.31
43.85	1.69	0.87	1.94	0.31	0.00	0.31
43.90	1.69	0.87	1.94	0.31	0.00	0.31
43.95	1.69	0.87	1.94	0.31	0.00	0.31
44.00	1.69	0.87	1.94	0.30	0.00	0.30
44.05	1.69	0.87	1.94	0.30	0.00	0.30
44.10	1.69	0.87	1.94	0.30	0.00	0.30
44.15	1.69	0.87	1.94	0.30	0.00	0.30
44.20	1.69	0.87	1.94	0.29	0.00	0.29
44.25	1.69	0.87	1.94	0.29	0.00	0.29
44.30	1.69	0.87	1.94	0.29	0.00	0.29
44.35	1.69	0.87	1.94	0.28	0.00	0.28
44.40	0.36	0.87	0.41*	0.28	0.00	0.28
44.45	0.33	0.87	0.38*	0.27	0.00	0.27
44.50	0.32	0.87	0.37*	0.27	0.00	0.27
44.55	0.31	0.87	0.35*	0.26	0.00	0.26
44.60	0.30	0.87	0.34*	0.26	0.00	0.26
44.65	0.29	0.87	0.33*	0.25	0.00	0.25
44.70	0.28	0.87	0.33*	0.24	0.00	0.24
44.75	0.28	0.87	0.32*	0.24	0.00	0.24
44.80	0.27	0.87	0.31*	0.23	0.00	0.23
44.85	0.26	0.87	0.30*	0.23	0.00	0.23
44.90	0.26	0.87	0.30*	0.22	0.00	0.22
44.95	0.25	0.87	0.29*	0.21	0.00	0.21
45.00	0.25	0.87	0.28*	0.21	0.00	0.21
45.05	0.25	0.87	0.29*	0.20	0.00	0.20
45.10	0.26	0.87	0.29*	0.19	0.00	0.19
45.15	0.26	0.87	0.30*	0.19	0.00	0.19
45.20	0.27	0.87	0.31*	0.18	0.00	0.18
45.25	0.27	0.87	0.31*	0.17	0.00	0.17
45.30	0.28	0.87	0.32*	0.17	0.00	0.17
45.35	0.28	0.87	0.33*	0.16	0.00	0.16
45.40	0.29	0.87	0.33*	0.15	0.00	0.15
45.45	0.30	0.87	0.34*	0.15	0.00	0.15
45.50	0.31	0.87	0.35*	0.14	0.00	0.14
45.55	0.31	0.87	0.36*	0.14	0.00	0.14
45.60	0.33	0.87	0.38*	0.13	0.00	0.13
45.65	0.34	0.87	0.39*	0.13	0.00	0.13
45.70	0.37	0.87	0.43*	0.12	0.00	0.12
45.75	1.68	0.87	1.93	0.12	0.00	0.12

45.80	1.68	0.87	1.93	0.11	0.00	0.11
45.85	1.68	0.87	1.93	0.11	0.00	0.11
45.90	1.67	0.87	1.93	0.11	0.00	0.11
45.95	1.67	0.87	1.93	0.10	0.00	0.10
46.00	1.67	0.87	1.93	0.10	0.00	0.10
46.05	1.67	0.87	1.93	0.09	0.00	0.09
46.10	1.67	0.87	1.93	0.09	0.00	0.09
46.15	1.67	0.87	1.93	0.09	0.00	0.09
46.20	1.67	0.87	1.93	0.09	0.00	0.09
46.25	1.67	0.87	1.93	0.09	0.00	0.09
46.30	1.67	0.87	1.93	0.08	0.00	0.08
46.35	1.67	0.87	1.93	0.08	0.00	0.08
46.40	1.67	0.87	1.93	0.08	0.00	0.08
46.45	1.67	0.87	1.93	0.08	0.00	0.08
46.50	1.67	0.87	1.93	0.08	0.00	0.08
46.55	1.67	0.87	1.93	0.08	0.00	0.08
46.60	1.67	0.87	1.93	0.08	0.00	0.08
46.65	1.67	0.87	1.93	0.08	0.00	0.08
46.70	1.67	0.87	1.92	0.08	0.00	0.08
46.75	1.67	0.87	1.92	0.07	0.00	0.07
46.80	1.67	0.87	1.92	0.07	0.00	0.07
46.85	1.67	0.87	1.92	0.07	0.00	0.07
46.90	1.67	0.87	1.92	0.07	0.00	0.07
46.95	1.67	0.87	1.92	0.07	0.00	0.07
47.00	1.67	0.87	1.92	0.07	0.00	0.07
47.05	1.66	0.87	1.92	0.07	0.00	0.07
47.10	1.66	0.87	1.92	0.07	0.00	0.07
47.15	1.66	0.87	1.92	0.07	0.00	0.07
47.20	1.66	0.87	1.92	0.07	0.00	0.07
47.25	1.66	0.87	1.92	0.07	0.00	0.07
47.30	1.66	0.87	1.92	0.07	0.00	0.07
47.35	1.66	0.86	1.92	0.07	0.00	0.07
47.40	1.66	0.86	1.92	0.07	0.00	0.07
47.45	1.66	0.86	1.92	0.07	0.00	0.07
47.50	1.66	0.86	1.92	0.07	0.00	0.07
47.55	1.66	0.86	1.92	0.07	0.00	0.07
47.60	1.66	0.86	1.92	0.07	0.00	0.07
47.65	1.66	0.86	1.92	0.07	0.00	0.07
47.70	1.66	0.86	1.92	0.07	0.00	0.07
47.75	1.66	0.86	1.92	0.07	0.00	0.07
47.80	1.66	0.86	1.92	0.07	0.00	0.07
47.85	1.66	0.86	1.92	0.07	0.00	0.07
47.90	1.66	0.86	1.92	0.07	0.00	0.07
47.95	1.66	0.86	1.92	0.07	0.00	0.07
48.00	1.66	0.86	1.92	0.07	0.00	0.07
48.05	1.66	0.86	1.92	0.07	0.00	0.07
48.10	1.66	0.86	1.92	0.07	0.00	0.07
48.15	1.66	0.86	1.92	0.07	0.00	0.07
48.20	1.65	0.86	1.92	0.07	0.00	0.07
48.25	1.65	0.86	1.92	0.07	0.00	0.07

48.30	1.65	0.86	1.92	0.07	0.00	0.07
48.35	1.65	0.86	1.92	0.07	0.00	0.07
48.40	1.65	0.86	1.92	0.07	0.00	0.07
48.45	1.65	0.86	1.92	0.07	0.00	0.07
48.50	1.65	0.86	1.92	0.07	0.00	0.07
48.55	1.65	0.86	1.92	0.07	0.00	0.07
48.60	1.65	0.86	1.92	0.07	0.00	0.07
48.65	1.65	0.86	1.92	0.07	0.00	0.07
48.70	1.65	0.86	1.92	0.07	0.00	0.07
48.75	1.65	0.86	1.92	0.07	0.00	0.07
48.80	1.65	0.86	1.92	0.07	0.00	0.07
48.85	1.65	0.86	1.92	0.07	0.00	0.07
48.90	1.65	0.86	1.92	0.07	0.00	0.07
48.95	1.65	0.86	1.91	0.07	0.00	0.07
49.00	1.65	0.86	1.91	0.07	0.00	0.07
49.05	1.65	0.86	1.91	0.07	0.00	0.07
49.10	1.65	0.86	1.91	0.07	0.00	0.07
49.15	1.65	0.86	1.91	0.07	0.00	0.07
49.20	1.65	0.86	1.91	0.07	0.00	0.07
49.25	1.65	0.86	1.91	0.07	0.00	0.07
49.30	1.65	0.86	1.91	0.07	0.00	0.07
49.35	1.65	0.86	1.91	0.07	0.00	0.07
49.40	1.64	0.86	1.91	0.07	0.00	0.07
49.45	1.64	0.86	1.91	0.06	0.00	0.06
49.50	1.64	0.86	1.91	0.06	0.00	0.06
49.55	1.64	0.86	1.91	0.06	0.00	0.06
49.60	1.64	0.86	1.91	0.06	0.00	0.06
49.65	1.64	0.86	1.91	0.06	0.00	0.06
49.70	1.64	0.86	1.91	0.06	0.00	0.06
49.75	1.64	0.86	1.91	0.06	0.00	0.06
49.80	1.64	0.86	1.91	0.06	0.00	0.06
49.85	1.64	0.86	1.91	0.06	0.00	0.06
49.90	1.64	0.86	1.91	0.05	0.00	0.05
49.95	1.64	0.86	1.91	0.05	0.00	0.05
50.00	1.64	0.86	1.91	0.05	0.00	0.05
50.05	1.64	0.86	1.91	0.05	0.00	0.05
50.10	1.64	0.86	1.91	0.05	0.00	0.05
50.15	1.64	0.86	1.91	0.05	0.00	0.05
50.20	1.64	0.86	1.91	0.05	0.00	0.05
50.25	1.64	0.86	1.91	0.04	0.00	0.04
50.30	1.64	0.86	1.91	0.04	0.00	0.04
50.35	1.64	0.86	1.91	0.04	0.00	0.04
50.40	1.64	0.86	1.91	0.04	0.00	0.04
50.45	1.64	0.86	1.91	0.04	0.00	0.04
50.50	1.64	0.86	1.91	0.04	0.00	0.04
50.55	1.64	0.86	1.91	0.04	0.00	0.04
50.60	1.63	0.86	1.91	0.03	0.00	0.03
50.65	1.63	0.86	1.91	0.03	0.00	0.03
50.70	1.63	0.86	1.91	0.03	0.00	0.03
50.75	1.63	0.86	1.91	0.03	0.00	0.03

50.80	1.63	0.86	1.91	0.03	0.00	0.03
50.85	1.63	0.86	1.91	0.02	0.00	0.02
50.90	1.63	0.85	1.91	0.02	0.00	0.02
50.95	1.63	0.85	1.91	0.02	0.00	0.02
51.00	1.63	0.85	1.91	0.02	0.00	0.02
51.05	1.63	0.85	1.91	0.02	0.00	0.02
51.10	1.63	0.85	1.91	0.02	0.00	0.02
51.15	1.63	0.85	1.91	0.01	0.00	0.01
51.20	1.63	0.85	1.91	0.01	0.00	0.01
51.25	1.63	0.85	1.91	0.01	0.00	0.01
51.30	1.63	0.85	1.91	0.01	0.00	0.01
51.35	1.63	0.85	1.91	0.01	0.00	0.01
51.40	1.63	0.85	1.91	0.00	0.00	0.00
51.45	1.63	0.85	1.91	0.00	0.00	0.00
51.50	1.63	0.85	1.91	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

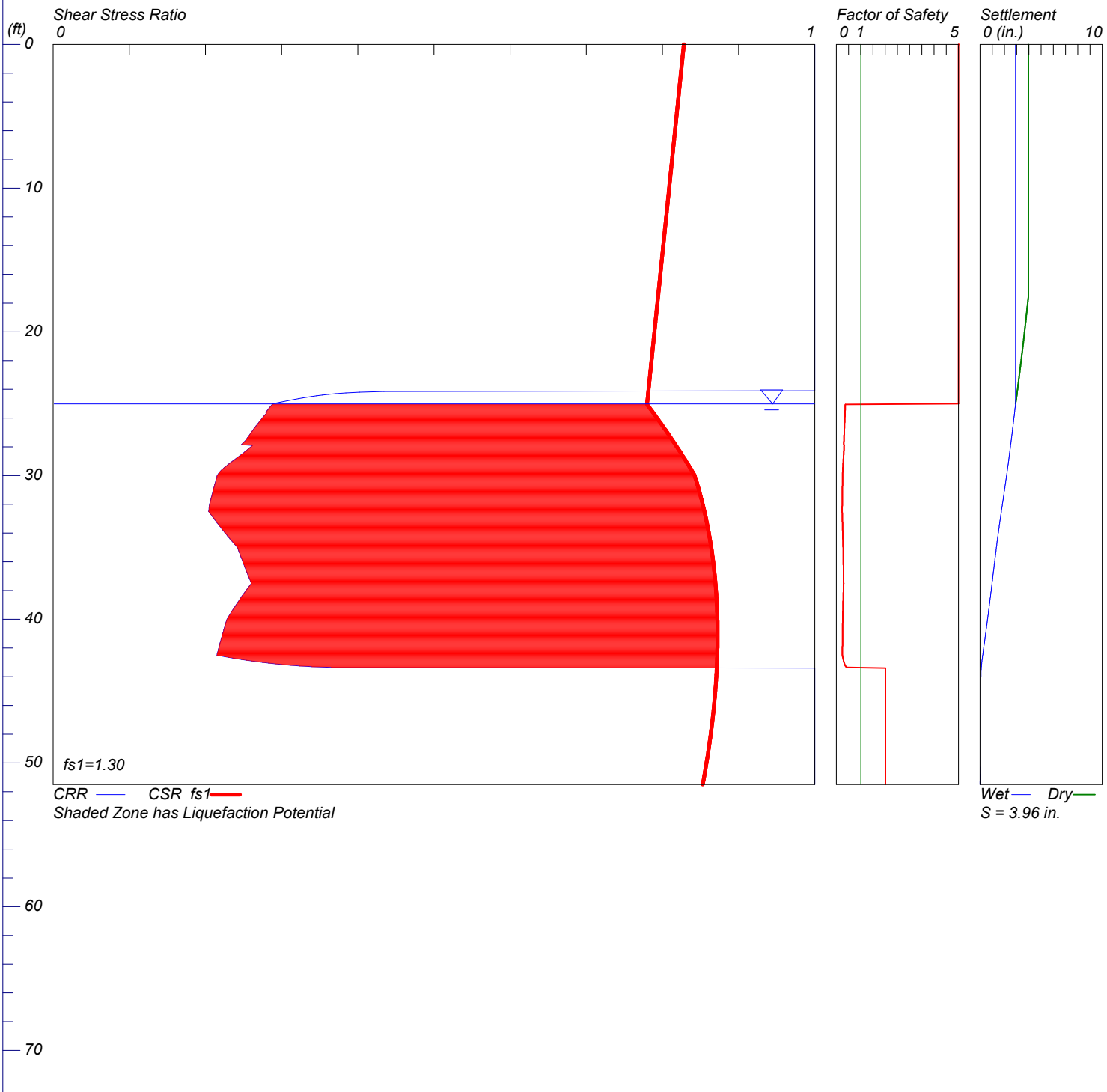
CRRm	Cyclic resistance ratio from soils
CSRfs	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat	Settlement from saturated sands
S_dry	Settlement from dry sands
S_all	Total settlement from saturated and dry sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=B-LGC-6 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\BLGC6.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=B-LGC-6
Depth of Hole= 51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 32.0 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=B-LGC-6
Depth of Hole=51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 32.0 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

Earthquake Magnitude=7.7
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.3
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.0	6.0	120.0	NoLiq
5.0	10.0	120.0	NoLiq
10.0	12.0	120.0	NoLiq
12.5	12.0	120.0	NoLiq
15.0	20.0	120.0	NoLiq
17.5	20.0	120.0	36.0
20.0	20.0	120.0	36.0
22.5	20.0	120.0	60.0
25.0	21.0	120.0	20.0
27.5	20.0	120.0	20.0
30.0	22.0	120.0	7.0
32.5	22.0	120.0	7.0
35.0	26.0	120.0	7.0
37.5	28.0	120.0	7.0
40.0	26.0	120.0	7.0
42.5	25.0	120.0	8.0
45.0	50.0	120.0	8.0
47.5	50.0	120.0	8.0
50.0	28.0	120.0	50.0
51.5	28.0	120.0	50.0

Output Results:

Settlement of saturated sands=2.90 in.
Settlement of dry sands=1.06 in.
Total settlement of saturated and dry sands=3.96 in.
Differential Settlement=1.982 to 2.616 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	2.90	1.06	3.96
0.05	2.00	0.83	5.00	2.90	1.06	3.96
0.10	2.00	0.83	5.00	2.90	1.06	3.96
0.15	2.00	0.83	5.00	2.90	1.06	3.96
0.20	2.00	0.83	5.00	2.90	1.06	3.96
0.25	2.00	0.83	5.00	2.90	1.06	3.96
0.30	2.00	0.83	5.00	2.90	1.06	3.96
0.35	2.00	0.83	5.00	2.90	1.06	3.96
0.40	2.00	0.83	5.00	2.90	1.06	3.96
0.45	2.00	0.83	5.00	2.90	1.06	3.96
0.50	2.00	0.83	5.00	2.90	1.06	3.96
0.55	2.00	0.83	5.00	2.90	1.06	3.96
0.60	2.00	0.83	5.00	2.90	1.06	3.96
0.65	2.00	0.83	5.00	2.90	1.06	3.96
0.70	2.00	0.83	5.00	2.90	1.06	3.96
0.75	2.00	0.83	5.00	2.90	1.06	3.96

0.80	2.00	0.83	5.00	2.90	1.06	3.96
0.85	2.00	0.83	5.00	2.90	1.06	3.96
0.90	2.00	0.83	5.00	2.90	1.06	3.96
0.95	2.00	0.83	5.00	2.90	1.06	3.96
1.00	2.00	0.83	5.00	2.90	1.06	3.96
1.05	2.00	0.83	5.00	2.90	1.06	3.96
1.10	2.00	0.83	5.00	2.90	1.06	3.96
1.15	2.00	0.83	5.00	2.90	1.06	3.96
1.20	2.00	0.83	5.00	2.90	1.06	3.96
1.25	2.00	0.83	5.00	2.90	1.06	3.96
1.30	2.00	0.83	5.00	2.90	1.06	3.96
1.35	2.00	0.83	5.00	2.90	1.06	3.96
1.40	2.00	0.83	5.00	2.90	1.06	3.96
1.45	2.00	0.83	5.00	2.90	1.06	3.96
1.50	2.00	0.83	5.00	2.90	1.06	3.96
1.55	2.00	0.83	5.00	2.90	1.06	3.96
1.60	2.00	0.83	5.00	2.90	1.06	3.96
1.65	2.00	0.82	5.00	2.90	1.06	3.96
1.70	2.00	0.82	5.00	2.90	1.06	3.96
1.75	2.00	0.82	5.00	2.90	1.06	3.96
1.80	2.00	0.82	5.00	2.90	1.06	3.96
1.85	2.00	0.82	5.00	2.90	1.06	3.96
1.90	2.00	0.82	5.00	2.90	1.06	3.96
1.95	2.00	0.82	5.00	2.90	1.06	3.96
2.00	2.00	0.82	5.00	2.90	1.06	3.96
2.05	2.00	0.82	5.00	2.90	1.06	3.96
2.10	2.00	0.82	5.00	2.90	1.06	3.96
2.15	2.00	0.82	5.00	2.90	1.06	3.96
2.20	2.00	0.82	5.00	2.90	1.06	3.96
2.25	2.00	0.82	5.00	2.90	1.06	3.96
2.30	2.00	0.82	5.00	2.90	1.06	3.96
2.35	2.00	0.82	5.00	2.90	1.06	3.96
2.40	2.00	0.82	5.00	2.90	1.06	3.96
2.45	2.00	0.82	5.00	2.90	1.06	3.96
2.50	2.00	0.82	5.00	2.90	1.06	3.96
2.55	2.00	0.82	5.00	2.90	1.06	3.96
2.60	2.00	0.82	5.00	2.90	1.06	3.96
2.65	2.00	0.82	5.00	2.90	1.06	3.96
2.70	2.00	0.82	5.00	2.90	1.06	3.96
2.75	2.00	0.82	5.00	2.90	1.06	3.96
2.80	2.00	0.82	5.00	2.90	1.06	3.96
2.85	2.00	0.82	5.00	2.90	1.06	3.96
2.90	2.00	0.82	5.00	2.90	1.06	3.96
2.95	2.00	0.82	5.00	2.90	1.06	3.96
3.00	2.00	0.82	5.00	2.90	1.06	3.96
3.05	2.00	0.82	5.00	2.90	1.06	3.96
3.10	2.00	0.82	5.00	2.90	1.06	3.96
3.15	2.00	0.82	5.00	2.90	1.06	3.96
3.20	2.00	0.82	5.00	2.90	1.06	3.96
3.25	2.00	0.82	5.00	2.90	1.06	3.96

3.30	2.00	0.82	5.00	2.90	1.06	3.96
3.35	2.00	0.82	5.00	2.90	1.06	3.96
3.40	2.00	0.82	5.00	2.90	1.06	3.96
3.45	2.00	0.82	5.00	2.90	1.06	3.96
3.50	2.00	0.82	5.00	2.90	1.06	3.96
3.55	2.00	0.82	5.00	2.90	1.06	3.96
3.60	2.00	0.82	5.00	2.90	1.06	3.96
3.65	2.00	0.82	5.00	2.90	1.06	3.96
3.70	2.00	0.82	5.00	2.90	1.06	3.96
3.75	2.00	0.82	5.00	2.90	1.06	3.96
3.80	2.00	0.82	5.00	2.90	1.06	3.96
3.85	2.00	0.82	5.00	2.90	1.06	3.96
3.90	2.00	0.82	5.00	2.90	1.06	3.96
3.95	2.00	0.82	5.00	2.90	1.06	3.96
4.00	2.00	0.82	5.00	2.90	1.06	3.96
4.05	2.00	0.82	5.00	2.90	1.06	3.96
4.10	2.00	0.82	5.00	2.90	1.06	3.96
4.15	2.00	0.82	5.00	2.90	1.06	3.96
4.20	2.00	0.82	5.00	2.90	1.06	3.96
4.25	2.00	0.82	5.00	2.90	1.06	3.96
4.30	2.00	0.82	5.00	2.90	1.06	3.96
4.35	2.00	0.82	5.00	2.90	1.06	3.96
4.40	2.00	0.82	5.00	2.90	1.06	3.96
4.45	2.00	0.82	5.00	2.90	1.06	3.96
4.50	2.00	0.82	5.00	2.90	1.06	3.96
4.55	2.00	0.82	5.00	2.90	1.06	3.96
4.60	2.00	0.82	5.00	2.90	1.06	3.96
4.65	2.00	0.82	5.00	2.90	1.06	3.96
4.70	2.00	0.82	5.00	2.90	1.06	3.96
4.75	2.00	0.82	5.00	2.90	1.06	3.96
4.80	2.00	0.82	5.00	2.90	1.06	3.96
4.85	2.00	0.82	5.00	2.90	1.06	3.96
4.90	2.00	0.82	5.00	2.90	1.06	3.96
4.95	2.00	0.82	5.00	2.90	1.06	3.96
5.00	2.00	0.82	5.00	2.90	1.06	3.96
5.05	2.00	0.82	5.00	2.90	1.06	3.96
5.10	2.00	0.82	5.00	2.90	1.06	3.96
5.15	2.00	0.82	5.00	2.90	1.06	3.96
5.20	2.00	0.82	5.00	2.90	1.06	3.96
5.25	2.00	0.82	5.00	2.90	1.06	3.96
5.30	2.00	0.82	5.00	2.90	1.06	3.96
5.35	2.00	0.82	5.00	2.90	1.06	3.96
5.40	2.00	0.82	5.00	2.90	1.06	3.96
5.45	2.00	0.82	5.00	2.90	1.06	3.96
5.50	2.00	0.82	5.00	2.90	1.06	3.96
5.55	2.00	0.82	5.00	2.90	1.06	3.96
5.60	2.00	0.82	5.00	2.90	1.06	3.96
5.65	2.00	0.82	5.00	2.90	1.06	3.96
5.70	2.00	0.82	5.00	2.90	1.06	3.96
5.75	2.00	0.82	5.00	2.90	1.06	3.96

5.80	2.00	0.82	5.00	2.90	1.06	3.96
5.85	2.00	0.82	5.00	2.90	1.06	3.96
5.90	2.00	0.82	5.00	2.90	1.06	3.96
5.95	2.00	0.82	5.00	2.90	1.06	3.96
6.00	2.00	0.82	5.00	2.90	1.06	3.96
6.05	2.00	0.82	5.00	2.90	1.06	3.96
6.10	2.00	0.82	5.00	2.90	1.06	3.96
6.15	2.00	0.82	5.00	2.90	1.06	3.96
6.20	2.00	0.82	5.00	2.90	1.06	3.96
6.25	2.00	0.82	5.00	2.90	1.06	3.96
6.30	2.00	0.82	5.00	2.90	1.06	3.96
6.35	2.00	0.82	5.00	2.90	1.06	3.96
6.40	2.00	0.82	5.00	2.90	1.06	3.96
6.45	2.00	0.82	5.00	2.90	1.06	3.96
6.50	2.00	0.82	5.00	2.90	1.06	3.96
6.55	2.00	0.82	5.00	2.90	1.06	3.96
6.60	2.00	0.82	5.00	2.90	1.06	3.96
6.65	2.00	0.82	5.00	2.90	1.06	3.96
6.70	2.00	0.82	5.00	2.90	1.06	3.96
6.75	2.00	0.82	5.00	2.90	1.06	3.96
6.80	2.00	0.81	5.00	2.90	1.06	3.96
6.85	2.00	0.81	5.00	2.90	1.06	3.96
6.90	2.00	0.81	5.00	2.90	1.06	3.96
6.95	2.00	0.81	5.00	2.90	1.06	3.96
7.00	2.00	0.81	5.00	2.90	1.06	3.96
7.05	2.00	0.81	5.00	2.90	1.06	3.96
7.10	2.00	0.81	5.00	2.90	1.06	3.96
7.15	2.00	0.81	5.00	2.90	1.06	3.96
7.20	2.00	0.81	5.00	2.90	1.06	3.96
7.25	2.00	0.81	5.00	2.90	1.06	3.96
7.30	2.00	0.81	5.00	2.90	1.06	3.96
7.35	2.00	0.81	5.00	2.90	1.06	3.96
7.40	2.00	0.81	5.00	2.90	1.06	3.96
7.45	2.00	0.81	5.00	2.90	1.06	3.96
7.50	2.00	0.81	5.00	2.90	1.06	3.96
7.55	2.00	0.81	5.00	2.90	1.06	3.96
7.60	2.00	0.81	5.00	2.90	1.06	3.96
7.65	2.00	0.81	5.00	2.90	1.06	3.96
7.70	2.00	0.81	5.00	2.90	1.06	3.96
7.75	2.00	0.81	5.00	2.90	1.06	3.96
7.80	2.00	0.81	5.00	2.90	1.06	3.96
7.85	2.00	0.81	5.00	2.90	1.06	3.96
7.90	2.00	0.81	5.00	2.90	1.06	3.96
7.95	2.00	0.81	5.00	2.90	1.06	3.96
8.00	2.00	0.81	5.00	2.90	1.06	3.96
8.05	2.00	0.81	5.00	2.90	1.06	3.96
8.10	2.00	0.81	5.00	2.90	1.06	3.96
8.15	2.00	0.81	5.00	2.90	1.06	3.96
8.20	2.00	0.81	5.00	2.90	1.06	3.96
8.25	2.00	0.81	5.00	2.90	1.06	3.96

8.30	2.00	0.81	5.00	2.90	1.06	3.96
8.35	2.00	0.81	5.00	2.90	1.06	3.96
8.40	2.00	0.81	5.00	2.90	1.06	3.96
8.45	2.00	0.81	5.00	2.90	1.06	3.96
8.50	2.00	0.81	5.00	2.90	1.06	3.96
8.55	2.00	0.81	5.00	2.90	1.06	3.96
8.60	2.00	0.81	5.00	2.90	1.06	3.96
8.65	2.00	0.81	5.00	2.90	1.06	3.96
8.70	2.00	0.81	5.00	2.90	1.06	3.96
8.75	2.00	0.81	5.00	2.90	1.06	3.96
8.80	2.00	0.81	5.00	2.90	1.06	3.96
8.85	2.00	0.81	5.00	2.90	1.06	3.96
8.90	2.00	0.81	5.00	2.90	1.06	3.96
8.95	2.00	0.81	5.00	2.90	1.06	3.96
9.00	2.00	0.81	5.00	2.90	1.06	3.96
9.05	2.00	0.81	5.00	2.90	1.06	3.96
9.10	2.00	0.81	5.00	2.90	1.06	3.96
9.15	2.00	0.81	5.00	2.90	1.06	3.96
9.20	2.00	0.81	5.00	2.90	1.06	3.96
9.25	2.00	0.81	5.00	2.90	1.06	3.96
9.30	2.00	0.81	5.00	2.90	1.06	3.96
9.35	2.00	0.81	5.00	2.90	1.06	3.96
9.40	2.00	0.81	5.00	2.90	1.06	3.96
9.45	2.00	0.81	5.00	2.90	1.06	3.96
9.50	2.00	0.81	5.00	2.90	1.06	3.96
9.55	2.00	0.81	5.00	2.90	1.06	3.96
9.60	2.00	0.81	5.00	2.90	1.06	3.96
9.65	2.00	0.81	5.00	2.90	1.06	3.96
9.70	2.00	0.81	5.00	2.90	1.06	3.96
9.75	2.00	0.81	5.00	2.90	1.06	3.96
9.80	2.00	0.81	5.00	2.90	1.06	3.96
9.85	2.00	0.81	5.00	2.90	1.06	3.96
9.90	2.00	0.81	5.00	2.90	1.06	3.96
9.95	2.00	0.81	5.00	2.90	1.06	3.96
10.00	2.00	0.81	5.00	2.90	1.06	3.96
10.05	2.00	0.81	5.00	2.90	1.06	3.96
10.10	2.00	0.81	5.00	2.90	1.06	3.96
10.15	2.00	0.81	5.00	2.90	1.06	3.96
10.20	2.00	0.81	5.00	2.90	1.06	3.96
10.25	2.00	0.81	5.00	2.90	1.06	3.96
10.30	2.00	0.81	5.00	2.90	1.06	3.96
10.35	2.00	0.81	5.00	2.90	1.06	3.96
10.40	2.00	0.81	5.00	2.90	1.06	3.96
10.45	2.00	0.81	5.00	2.90	1.06	3.96
10.50	2.00	0.81	5.00	2.90	1.06	3.96
10.55	2.00	0.81	5.00	2.90	1.06	3.96
10.60	2.00	0.81	5.00	2.90	1.06	3.96
10.65	2.00	0.81	5.00	2.90	1.06	3.96
10.70	2.00	0.81	5.00	2.90	1.06	3.96
10.75	2.00	0.81	5.00	2.90	1.06	3.96

10.80	2.00	0.81	5.00	2.90	1.06	3.96
10.85	2.00	0.81	5.00	2.90	1.06	3.96
10.90	2.00	0.81	5.00	2.90	1.06	3.96
10.95	2.00	0.81	5.00	2.90	1.06	3.96
11.00	2.00	0.81	5.00	2.90	1.06	3.96
11.05	2.00	0.81	5.00	2.90	1.06	3.96
11.10	2.00	0.81	5.00	2.90	1.06	3.96
11.15	2.00	0.81	5.00	2.90	1.06	3.96
11.20	2.00	0.81	5.00	2.90	1.06	3.96
11.25	2.00	0.81	5.00	2.90	1.06	3.96
11.30	2.00	0.81	5.00	2.90	1.06	3.96
11.35	2.00	0.81	5.00	2.90	1.06	3.96
11.40	2.00	0.81	5.00	2.90	1.06	3.96
11.45	2.00	0.81	5.00	2.90	1.06	3.96
11.50	2.00	0.81	5.00	2.90	1.06	3.96
11.55	2.00	0.81	5.00	2.90	1.06	3.96
11.60	2.00	0.81	5.00	2.90	1.06	3.96
11.65	2.00	0.81	5.00	2.90	1.06	3.96
11.70	2.00	0.81	5.00	2.90	1.06	3.96
11.75	2.00	0.81	5.00	2.90	1.06	3.96
11.80	2.00	0.81	5.00	2.90	1.06	3.96
11.85	2.00	0.81	5.00	2.90	1.06	3.96
11.90	2.00	0.81	5.00	2.90	1.06	3.96
11.95	2.00	0.81	5.00	2.90	1.06	3.96
12.00	2.00	0.80	5.00	2.90	1.06	3.96
12.05	2.00	0.80	5.00	2.90	1.06	3.96
12.10	2.00	0.80	5.00	2.90	1.06	3.96
12.15	2.00	0.80	5.00	2.90	1.06	3.96
12.20	2.00	0.80	5.00	2.90	1.06	3.96
12.25	2.00	0.80	5.00	2.90	1.06	3.96
12.30	2.00	0.80	5.00	2.90	1.06	3.96
12.35	2.00	0.80	5.00	2.90	1.06	3.96
12.40	2.00	0.80	5.00	2.90	1.06	3.96
12.45	2.00	0.80	5.00	2.90	1.06	3.96
12.50	2.00	0.80	5.00	2.90	1.06	3.96
12.55	2.00	0.80	5.00	2.90	1.06	3.96
12.60	2.00	0.80	5.00	2.90	1.06	3.96
12.65	2.00	0.80	5.00	2.90	1.06	3.96
12.70	2.00	0.80	5.00	2.90	1.06	3.96
12.75	2.00	0.80	5.00	2.90	1.06	3.96
12.80	2.00	0.80	5.00	2.90	1.06	3.96
12.85	2.00	0.80	5.00	2.90	1.06	3.96
12.90	2.00	0.80	5.00	2.90	1.06	3.96
12.95	2.00	0.80	5.00	2.90	1.06	3.96
13.00	2.00	0.80	5.00	2.90	1.06	3.96
13.05	2.00	0.80	5.00	2.90	1.06	3.96
13.10	2.00	0.80	5.00	2.90	1.06	3.96
13.15	2.00	0.80	5.00	2.90	1.06	3.96
13.20	2.00	0.80	5.00	2.90	1.06	3.96
13.25	2.00	0.80	5.00	2.90	1.06	3.96

13.30	2.00	0.80	5.00	2.90	1.06	3.96
13.35	2.00	0.80	5.00	2.90	1.06	3.96
13.40	2.00	0.80	5.00	2.90	1.06	3.96
13.45	2.00	0.80	5.00	2.90	1.06	3.96
13.50	2.00	0.80	5.00	2.90	1.06	3.96
13.55	2.00	0.80	5.00	2.90	1.06	3.96
13.60	2.00	0.80	5.00	2.90	1.06	3.96
13.65	2.00	0.80	5.00	2.90	1.06	3.96
13.70	2.00	0.80	5.00	2.90	1.06	3.96
13.75	2.00	0.80	5.00	2.90	1.06	3.96
13.80	2.00	0.80	5.00	2.90	1.06	3.96
13.85	2.00	0.80	5.00	2.90	1.06	3.96
13.90	2.00	0.80	5.00	2.90	1.06	3.96
13.95	2.00	0.80	5.00	2.90	1.06	3.96
14.00	2.00	0.80	5.00	2.90	1.06	3.96
14.05	2.00	0.80	5.00	2.90	1.06	3.96
14.10	2.00	0.80	5.00	2.90	1.06	3.96
14.15	2.00	0.80	5.00	2.90	1.06	3.96
14.20	2.00	0.80	5.00	2.90	1.06	3.96
14.25	2.00	0.80	5.00	2.90	1.06	3.96
14.30	2.00	0.80	5.00	2.90	1.06	3.96
14.35	2.00	0.80	5.00	2.90	1.06	3.96
14.40	2.00	0.80	5.00	2.90	1.06	3.96
14.45	2.00	0.80	5.00	2.90	1.06	3.96
14.50	2.00	0.80	5.00	2.90	1.06	3.96
14.55	2.00	0.80	5.00	2.90	1.06	3.96
14.60	2.00	0.80	5.00	2.90	1.06	3.96
14.65	2.00	0.80	5.00	2.90	1.06	3.96
14.70	2.00	0.80	5.00	2.90	1.06	3.96
14.75	2.00	0.80	5.00	2.90	1.06	3.96
14.80	2.00	0.80	5.00	2.90	1.06	3.96
14.85	2.00	0.80	5.00	2.90	1.06	3.96
14.90	2.00	0.80	5.00	2.90	1.06	3.96
14.95	2.00	0.80	5.00	2.90	1.06	3.96
15.00	2.00	0.80	5.00	2.90	1.06	3.96
15.05	2.00	0.80	5.00	2.90	1.06	3.96
15.10	2.00	0.80	5.00	2.90	1.06	3.96
15.15	2.00	0.80	5.00	2.90	1.06	3.96
15.20	2.00	0.80	5.00	2.90	1.06	3.96
15.25	2.00	0.80	5.00	2.90	1.06	3.96
15.30	2.00	0.80	5.00	2.90	1.06	3.96
15.35	2.00	0.80	5.00	2.90	1.06	3.96
15.40	2.00	0.80	5.00	2.90	1.06	3.96
15.45	2.00	0.80	5.00	2.90	1.06	3.96
15.50	2.00	0.80	5.00	2.90	1.06	3.96
15.55	2.00	0.80	5.00	2.90	1.06	3.96
15.60	2.00	0.80	5.00	2.90	1.06	3.96
15.65	2.00	0.80	5.00	2.90	1.06	3.96
15.70	2.00	0.80	5.00	2.90	1.06	3.96
15.75	2.00	0.80	5.00	2.90	1.06	3.96

15.80	2.00	0.80	5.00	2.90	1.06	3.96
15.85	2.00	0.80	5.00	2.90	1.06	3.96
15.90	2.00	0.80	5.00	2.90	1.06	3.96
15.95	2.00	0.80	5.00	2.90	1.06	3.96
16.00	2.00	0.80	5.00	2.90	1.06	3.96
16.05	2.00	0.80	5.00	2.90	1.06	3.96
16.10	2.00	0.80	5.00	2.90	1.06	3.96
16.15	2.00	0.80	5.00	2.90	1.06	3.96
16.20	2.00	0.80	5.00	2.90	1.06	3.96
16.25	2.00	0.80	5.00	2.90	1.06	3.96
16.30	2.00	0.80	5.00	2.90	1.06	3.96
16.35	2.00	0.80	5.00	2.90	1.06	3.96
16.40	2.00	0.80	5.00	2.90	1.06	3.96
16.45	2.00	0.80	5.00	2.90	1.06	3.96
16.50	2.00	0.80	5.00	2.90	1.06	3.96
16.55	2.00	0.80	5.00	2.90	1.06	3.96
16.60	2.00	0.80	5.00	2.90	1.06	3.96
16.65	2.00	0.80	5.00	2.90	1.06	3.96
16.70	2.00	0.80	5.00	2.90	1.06	3.96
16.75	2.00	0.80	5.00	2.90	1.06	3.96
16.80	2.00	0.80	5.00	2.90	1.06	3.96
16.85	2.00	0.80	5.00	2.90	1.06	3.96
16.90	2.00	0.80	5.00	2.90	1.06	3.96
16.95	2.00	0.80	5.00	2.90	1.06	3.96
17.00	2.00	0.80	5.00	2.90	1.06	3.96
17.05	2.00	0.80	5.00	2.90	1.06	3.96
17.10	2.00	0.80	5.00	2.90	1.06	3.96
17.15	2.00	0.79	5.00	2.90	1.06	3.96
17.20	2.00	0.79	5.00	2.90	1.06	3.96
17.25	2.00	0.79	5.00	2.90	1.06	3.96
17.30	2.00	0.79	5.00	2.90	1.06	3.96
17.35	2.00	0.79	5.00	2.90	1.06	3.96
17.40	2.00	0.79	5.00	2.90	1.06	3.96
17.45	2.00	0.79	5.00	2.90	1.06	3.96
17.50	1.87	0.79	5.00	2.90	1.06	3.96
17.55	1.87	0.79	5.00	2.90	1.06	3.96
17.60	1.87	0.79	5.00	2.90	1.05	3.95
17.65	1.87	0.79	5.00	2.90	1.04	3.95
17.70	1.87	0.79	5.00	2.90	1.04	3.94
17.75	1.87	0.79	5.00	2.90	1.03	3.93
17.80	1.87	0.79	5.00	2.90	1.02	3.93
17.85	1.87	0.79	5.00	2.90	1.02	3.92
17.90	1.87	0.79	5.00	2.90	1.01	3.91
17.95	1.87	0.79	5.00	2.90	1.01	3.91
18.00	1.87	0.79	5.00	2.90	1.00	3.90
18.05	1.87	0.79	5.00	2.90	0.99	3.90
18.10	1.87	0.79	5.00	2.90	0.99	3.89
18.15	1.87	0.79	5.00	2.90	0.98	3.88
18.20	1.87	0.79	5.00	2.90	0.98	3.88
18.25	1.87	0.79	5.00	2.90	0.97	3.87

18.30	1.87	0.79	5.00	2.90	0.96	3.86
18.35	1.87	0.79	5.00	2.90	0.96	3.86
18.40	1.87	0.79	5.00	2.90	0.95	3.85
18.45	1.87	0.79	5.00	2.90	0.94	3.85
18.50	1.87	0.79	5.00	2.90	0.94	3.84
18.55	1.87	0.79	5.00	2.90	0.93	3.83
18.60	1.87	0.79	5.00	2.90	0.92	3.83
18.65	1.87	0.79	5.00	2.90	0.92	3.82
18.70	1.87	0.79	5.00	2.90	0.91	3.81
18.75	1.87	0.79	5.00	2.90	0.91	3.81
18.80	1.87	0.79	5.00	2.90	0.90	3.80
18.85	1.87	0.79	5.00	2.90	0.89	3.79
18.90	1.87	0.79	5.00	2.90	0.89	3.79
18.95	1.87	0.79	5.00	2.90	0.88	3.78
19.00	1.87	0.79	5.00	2.90	0.87	3.77
19.05	1.87	0.79	5.00	2.90	0.87	3.77
19.10	1.87	0.79	5.00	2.90	0.86	3.76
19.15	1.87	0.79	5.00	2.90	0.85	3.75
19.20	1.87	0.79	5.00	2.90	0.85	3.75
19.25	1.87	0.79	5.00	2.90	0.84	3.74
19.30	1.87	0.79	5.00	2.90	0.83	3.74
19.35	1.87	0.79	5.00	2.90	0.83	3.73
19.40	1.87	0.79	5.00	2.90	0.82	3.72
19.45	1.87	0.79	5.00	2.90	0.81	3.72
19.50	1.87	0.79	5.00	2.90	0.81	3.71
19.55	1.87	0.79	5.00	2.90	0.80	3.70
19.60	1.87	0.79	5.00	2.90	0.79	3.70
19.65	1.87	0.79	5.00	2.90	0.79	3.69
19.70	1.87	0.79	5.00	2.90	0.78	3.68
19.75	1.87	0.79	5.00	2.90	0.77	3.68
19.80	1.87	0.79	5.00	2.90	0.77	3.67
19.85	1.87	0.79	5.00	2.90	0.76	3.66
19.90	1.87	0.79	5.00	2.90	0.75	3.66
19.95	1.87	0.79	5.00	2.90	0.75	3.65
20.00	1.87	0.79	5.00	2.90	0.74	3.64
20.05	1.87	0.79	5.00	2.90	0.73	3.64
20.10	1.87	0.79	5.00	2.90	0.73	3.63
20.15	1.87	0.79	5.00	2.90	0.72	3.62
20.20	1.87	0.79	5.00	2.90	0.71	3.62
20.25	1.87	0.79	5.00	2.90	0.71	3.61
20.30	1.87	0.79	5.00	2.90	0.70	3.60
20.35	1.87	0.79	5.00	2.90	0.69	3.59
20.40	1.87	0.79	5.00	2.90	0.69	3.59
20.45	1.87	0.79	5.00	2.90	0.68	3.58
20.50	1.87	0.79	5.00	2.90	0.67	3.57
20.55	1.87	0.79	5.00	2.90	0.67	3.57
20.60	1.87	0.79	5.00	2.90	0.66	3.56
20.65	1.87	0.79	5.00	2.90	0.65	3.55
20.70	1.87	0.79	5.00	2.90	0.64	3.55
20.75	1.87	0.79	5.00	2.90	0.64	3.54

20.80	1.87	0.79	5.00	2.90	0.63	3.53
20.85	1.87	0.79	5.00	2.90	0.62	3.53
20.90	1.87	0.79	5.00	2.90	0.62	3.52
20.95	1.87	0.79	5.00	2.90	0.61	3.51
21.00	1.87	0.79	5.00	2.90	0.60	3.50
21.05	1.87	0.79	5.00	2.90	0.60	3.50
21.10	1.87	0.79	5.00	2.90	0.59	3.49
21.15	1.87	0.79	5.00	2.90	0.58	3.48
21.20	1.87	0.79	5.00	2.90	0.58	3.48
21.25	1.87	0.79	5.00	2.90	0.57	3.47
21.30	1.87	0.79	5.00	2.90	0.56	3.46
21.35	1.87	0.79	5.00	2.90	0.55	3.46
21.40	1.87	0.79	5.00	2.90	0.55	3.45
21.45	1.87	0.79	5.00	2.90	0.54	3.44
21.50	1.87	0.79	5.00	2.90	0.53	3.43
21.55	1.87	0.79	5.00	2.90	0.53	3.43
21.60	1.87	0.79	5.00	2.90	0.52	3.42
21.65	1.87	0.79	5.00	2.90	0.51	3.41
21.70	1.87	0.79	5.00	2.90	0.50	3.41
21.75	1.87	0.79	5.00	2.90	0.50	3.40
21.80	1.87	0.79	5.00	2.90	0.49	3.39
21.85	1.87	0.79	5.00	2.90	0.48	3.38
21.90	1.87	0.79	5.00	2.90	0.48	3.38
21.95	1.87	0.79	5.00	2.90	0.47	3.37
22.00	1.87	0.79	5.00	2.90	0.46	3.36
22.05	1.87	0.79	5.00	2.90	0.45	3.36
22.10	1.87	0.79	5.00	2.90	0.45	3.35
22.15	1.87	0.79	5.00	2.90	0.44	3.34
22.20	1.87	0.79	5.00	2.90	0.43	3.33
22.25	1.87	0.79	5.00	2.90	0.43	3.33
22.30	1.87	0.79	5.00	2.90	0.42	3.32
22.35	1.87	0.78	5.00	2.90	0.41	3.31
22.40	1.87	0.78	5.00	2.90	0.40	3.31
22.45	1.87	0.78	5.00	2.90	0.40	3.30
22.50	1.87	0.78	5.00	2.90	0.39	3.29
22.55	1.87	0.78	5.00	2.90	0.38	3.28
22.60	1.87	0.78	5.00	2.90	0.37	3.28
22.65	1.87	0.78	5.00	2.90	0.37	3.27
22.70	1.87	0.78	5.00	2.90	0.36	3.26
22.75	1.87	0.78	5.00	2.90	0.35	3.25
22.80	1.87	0.78	5.00	2.90	0.35	3.25
22.85	1.87	0.78	5.00	2.90	0.34	3.24
22.90	1.87	0.78	5.00	2.90	0.33	3.23
22.95	1.87	0.78	5.00	2.90	0.32	3.22
23.00	1.87	0.78	5.00	2.90	0.32	3.22
23.05	1.87	0.78	5.00	2.90	0.31	3.21
23.10	1.87	0.78	5.00	2.90	0.30	3.20
23.15	1.87	0.78	5.00	2.90	0.29	3.20
23.20	1.87	0.78	5.00	2.90	0.29	3.19
23.25	1.87	0.78	5.00	2.90	0.28	3.18

23.30	1.87	0.78	5.00	2.90	0.27	3.17
23.35	1.87	0.78	5.00	2.90	0.26	3.17
23.40	1.87	0.78	5.00	2.90	0.26	3.16
23.45	1.87	0.78	5.00	2.90	0.25	3.15
23.50	1.87	0.78	5.00	2.90	0.24	3.14
23.55	1.87	0.78	5.00	2.90	0.24	3.14
23.60	1.87	0.78	5.00	2.90	0.23	3.13
23.65	1.87	0.78	5.00	2.90	0.22	3.12
23.70	1.87	0.78	5.00	2.90	0.21	3.12
23.75	1.87	0.78	5.00	2.90	0.21	3.11
23.80	1.87	0.78	5.00	2.90	0.20	3.10
23.85	1.87	0.78	5.00	2.90	0.19	3.09
23.90	1.87	0.78	5.00	2.90	0.18	3.09
23.95	1.87	0.78	5.00	2.90	0.18	3.08
24.00	1.87	0.78	5.00	2.90	0.17	3.07
24.05	1.87	0.78	5.00	2.90	0.16	3.06
24.10	1.87	0.78	5.00	2.90	0.15	3.06
24.15	0.43	0.78	5.00	2.90	0.15	3.05
24.20	0.40	0.78	5.00	2.90	0.14	3.04
24.25	0.38	0.78	5.00	2.90	0.13	3.03
24.30	0.37	0.78	5.00	2.90	0.12	3.03
24.35	0.36	0.78	5.00	2.90	0.12	3.02
24.40	0.35	0.78	5.00	2.90	0.11	3.01
24.45	0.35	0.78	5.00	2.90	0.10	3.00
24.50	0.34	0.78	5.00	2.90	0.09	2.99
24.55	0.33	0.78	5.00	2.90	0.09	2.99
24.60	0.33	0.78	5.00	2.90	0.08	2.98
24.65	0.32	0.78	5.00	2.90	0.07	2.97
24.70	0.32	0.78	5.00	2.90	0.06	2.96
24.75	0.31	0.78	5.00	2.90	0.05	2.95
24.80	0.31	0.78	5.00	2.90	0.04	2.95
24.85	0.30	0.78	5.00	2.90	0.04	2.94
24.90	0.30	0.78	5.00	2.90	0.03	2.93
24.95	0.29	0.78	5.00	2.90	0.02	2.92
25.00	0.29	0.78	5.00	2.90	0.01	2.91
25.05	0.29	0.78	0.37*	2.90	0.00	2.90
25.10	0.29	0.78	0.37*	2.90	0.00	2.90
25.15	0.29	0.78	0.37*	2.89	0.00	2.89
25.20	0.29	0.78	0.36*	2.88	0.00	2.88
25.25	0.28	0.78	0.36*	2.88	0.00	2.88
25.30	0.28	0.78	0.36*	2.87	0.00	2.87
25.35	0.28	0.78	0.36*	2.86	0.00	2.86
25.40	0.28	0.78	0.36*	2.86	0.00	2.86
25.45	0.28	0.79	0.36*	2.85	0.00	2.85
25.50	0.28	0.79	0.36*	2.84	0.00	2.84
25.55	0.28	0.79	0.36*	2.83	0.00	2.83
25.60	0.28	0.79	0.35*	2.83	0.00	2.83
25.65	0.28	0.79	0.36*	2.82	0.00	2.82
25.70	0.28	0.79	0.35*	2.81	0.00	2.81
25.75	0.28	0.79	0.35*	2.81	0.00	2.81

25.80	0.28	0.79	0.35*	2.80	0.00	2.80
25.85	0.28	0.79	0.35*	2.79	0.00	2.79
25.90	0.28	0.79	0.35*	2.79	0.00	2.79
25.95	0.28	0.79	0.35*	2.78	0.00	2.78
26.00	0.27	0.79	0.35*	2.77	0.00	2.77
26.05	0.27	0.79	0.35*	2.77	0.00	2.77
26.10	0.27	0.79	0.34*	2.76	0.00	2.76
26.15	0.27	0.79	0.34*	2.75	0.00	2.75
26.20	0.27	0.80	0.34*	2.75	0.00	2.75
26.25	0.27	0.80	0.34*	2.74	0.00	2.74
26.30	0.27	0.80	0.34*	2.73	0.00	2.73
26.35	0.27	0.80	0.34*	2.72	0.00	2.72
26.40	0.27	0.80	0.34*	2.72	0.00	2.72
26.45	0.27	0.80	0.34*	2.71	0.00	2.71
26.50	0.27	0.80	0.33*	2.70	0.00	2.70
26.55	0.27	0.80	0.33*	2.70	0.00	2.70
26.60	0.27	0.80	0.33*	2.69	0.00	2.69
26.65	0.27	0.80	0.33*	2.68	0.00	2.68
26.70	0.26	0.80	0.33*	2.68	0.00	2.68
26.75	0.26	0.80	0.33*	2.67	0.00	2.67
26.80	0.26	0.80	0.33*	2.66	0.00	2.66
26.85	0.26	0.80	0.33*	2.65	0.00	2.65
26.90	0.26	0.80	0.32*	2.65	0.00	2.65
26.95	0.26	0.81	0.32*	2.64	0.00	2.64
27.00	0.26	0.81	0.32*	2.63	0.00	2.63
27.05	0.26	0.81	0.32*	2.63	0.00	2.63
27.10	0.26	0.81	0.32*	2.62	0.00	2.62
27.15	0.26	0.81	0.32*	2.61	0.00	2.61
27.20	0.26	0.81	0.32*	2.60	0.00	2.60
27.25	0.26	0.81	0.32*	2.60	0.00	2.60
27.30	0.26	0.81	0.32*	2.59	0.00	2.59
27.35	0.26	0.81	0.32*	2.58	0.00	2.58
27.40	0.25	0.81	0.31*	2.57	0.00	2.57
27.45	0.25	0.81	0.31*	2.57	0.00	2.57
27.50	0.25	0.81	0.31*	2.56	0.00	2.56
27.55	0.25	0.81	0.31*	2.55	0.00	2.55
27.60	0.25	0.81	0.31*	2.54	0.00	2.54
27.65	0.25	0.81	0.31*	2.54	0.00	2.54
27.70	0.25	0.82	0.31*	2.53	0.00	2.53
27.75	0.25	0.82	0.31*	2.52	0.00	2.52
27.80	0.25	0.82	0.30*	2.51	0.00	2.51
27.85	0.25	0.82	0.30*	2.51	0.00	2.51
27.90	0.26	0.82	0.32*	2.50	0.00	2.50
27.95	0.26	0.82	0.32*	2.49	0.00	2.49
28.00	0.26	0.82	0.32*	2.49	0.00	2.49
28.05	0.26	0.82	0.32*	2.48	0.00	2.48
28.10	0.26	0.82	0.31*	2.47	0.00	2.47
28.15	0.26	0.82	0.31*	2.46	0.00	2.46
28.20	0.26	0.82	0.31*	2.46	0.00	2.46
28.25	0.25	0.82	0.31*	2.45	0.00	2.45

28.30	0.25	0.82	0.31*	2.44	0.00	2.44
28.35	0.25	0.82	0.31*	2.43	0.00	2.43
28.40	0.25	0.82	0.30*	2.43	0.00	2.43
28.45	0.25	0.82	0.30*	2.42	0.00	2.42
28.50	0.25	0.83	0.30*	2.41	0.00	2.41
28.55	0.25	0.83	0.30*	2.40	0.00	2.40
28.60	0.25	0.83	0.30*	2.40	0.00	2.40
28.65	0.24	0.83	0.30*	2.39	0.00	2.39
28.70	0.24	0.83	0.29*	2.38	0.00	2.38
28.75	0.24	0.83	0.29*	2.37	0.00	2.37
28.80	0.24	0.83	0.29*	2.37	0.00	2.37
28.85	0.24	0.83	0.29*	2.36	0.00	2.36
28.90	0.24	0.83	0.29*	2.35	0.00	2.35
28.95	0.24	0.83	0.29*	2.34	0.00	2.34
29.00	0.24	0.83	0.28*	2.34	0.00	2.34
29.05	0.23	0.83	0.28*	2.33	0.00	2.33
29.10	0.23	0.83	0.28*	2.32	0.00	2.32
29.15	0.23	0.83	0.28*	2.31	0.00	2.31
29.20	0.23	0.83	0.28*	2.30	0.00	2.30
29.25	0.23	0.83	0.28*	2.30	0.00	2.30
29.30	0.23	0.83	0.27*	2.29	0.00	2.29
29.35	0.23	0.84	0.27*	2.28	0.00	2.28
29.40	0.23	0.84	0.27*	2.27	0.00	2.27
29.45	0.22	0.84	0.27*	2.26	0.00	2.26
29.50	0.22	0.84	0.27*	2.26	0.00	2.26
29.55	0.22	0.84	0.27*	2.25	0.00	2.25
29.60	0.22	0.84	0.26*	2.24	0.00	2.24
29.65	0.22	0.84	0.26*	2.23	0.00	2.23
29.70	0.22	0.84	0.26*	2.22	0.00	2.22
29.75	0.22	0.84	0.26*	2.22	0.00	2.22
29.80	0.22	0.84	0.26*	2.21	0.00	2.21
29.85	0.22	0.84	0.26*	2.20	0.00	2.20
29.90	0.22	0.84	0.26*	2.19	0.00	2.19
29.95	0.22	0.84	0.26*	2.18	0.00	2.18
30.00	0.22	0.84	0.26*	2.17	0.00	2.17
30.05	0.22	0.84	0.26*	2.16	0.00	2.16
30.10	0.21	0.84	0.26*	2.16	0.00	2.16
30.15	0.21	0.84	0.25*	2.15	0.00	2.15
30.20	0.21	0.84	0.25*	2.14	0.00	2.14
30.25	0.21	0.84	0.25*	2.13	0.00	2.13
30.30	0.21	0.84	0.25*	2.12	0.00	2.12
30.35	0.21	0.84	0.25*	2.11	0.00	2.11
30.40	0.21	0.84	0.25*	2.11	0.00	2.11
30.45	0.21	0.84	0.25*	2.10	0.00	2.10
30.50	0.21	0.85	0.25*	2.09	0.00	2.09
30.55	0.21	0.85	0.25*	2.08	0.00	2.08
30.60	0.21	0.85	0.25*	2.07	0.00	2.07
30.65	0.21	0.85	0.25*	2.06	0.00	2.06
30.70	0.21	0.85	0.25*	2.06	0.00	2.06
30.75	0.21	0.85	0.25*	2.05	0.00	2.05

30.80	0.21	0.85	0.25*	2.04	0.00	2.04
30.85	0.21	0.85	0.25*	2.03	0.00	2.03
30.90	0.21	0.85	0.25*	2.02	0.00	2.02
30.95	0.21	0.85	0.25*	2.01	0.00	2.01
31.00	0.21	0.85	0.25*	2.00	0.00	2.00
31.05	0.21	0.85	0.25*	2.00	0.00	2.00
31.10	0.21	0.85	0.25*	1.99	0.00	1.99
31.15	0.21	0.85	0.25*	1.98	0.00	1.98
31.20	0.21	0.85	0.25*	1.97	0.00	1.97
31.25	0.21	0.85	0.25*	1.96	0.00	1.96
31.30	0.21	0.85	0.25*	1.95	0.00	1.95
31.35	0.21	0.85	0.25*	1.94	0.00	1.94
31.40	0.21	0.85	0.25*	1.94	0.00	1.94
31.45	0.21	0.85	0.24*	1.93	0.00	1.93
31.50	0.21	0.85	0.24*	1.92	0.00	1.92
31.55	0.21	0.85	0.24*	1.91	0.00	1.91
31.60	0.21	0.85	0.24*	1.90	0.00	1.90
31.65	0.21	0.85	0.24*	1.89	0.00	1.89
31.70	0.21	0.85	0.24*	1.88	0.00	1.88
31.75	0.21	0.85	0.24*	1.88	0.00	1.88
31.80	0.21	0.85	0.24*	1.87	0.00	1.87
31.85	0.21	0.85	0.24*	1.86	0.00	1.86
31.90	0.21	0.85	0.24*	1.85	0.00	1.85
31.95	0.21	0.85	0.24*	1.84	0.00	1.84
32.00	0.21	0.85	0.24*	1.83	0.00	1.83
32.05	0.21	0.85	0.24*	1.82	0.00	1.82
32.10	0.21	0.85	0.24*	1.81	0.00	1.81
32.15	0.21	0.85	0.24*	1.81	0.00	1.81
32.20	0.20	0.85	0.24*	1.80	0.00	1.80
32.25	0.20	0.85	0.24*	1.79	0.00	1.79
32.30	0.20	0.85	0.24*	1.78	0.00	1.78
32.35	0.20	0.85	0.24*	1.77	0.00	1.77
32.40	0.20	0.85	0.24*	1.76	0.00	1.76
32.45	0.20	0.85	0.24*	1.75	0.00	1.75
32.50	0.20	0.86	0.24*	1.75	0.00	1.75
32.55	0.20	0.86	0.24*	1.74	0.00	1.74
32.60	0.21	0.86	0.24*	1.73	0.00	1.73
32.65	0.21	0.86	0.24*	1.72	0.00	1.72
32.70	0.21	0.86	0.24*	1.71	0.00	1.71
32.75	0.21	0.86	0.24*	1.70	0.00	1.70
32.80	0.21	0.86	0.24*	1.69	0.00	1.69
32.85	0.21	0.86	0.24*	1.69	0.00	1.69
32.90	0.21	0.86	0.24*	1.68	0.00	1.68
32.95	0.21	0.86	0.25*	1.67	0.00	1.67
33.00	0.21	0.86	0.25*	1.66	0.00	1.66
33.05	0.21	0.86	0.25*	1.65	0.00	1.65
33.10	0.21	0.86	0.25*	1.64	0.00	1.64
33.15	0.21	0.86	0.25*	1.63	0.00	1.63
33.20	0.21	0.86	0.25*	1.63	0.00	1.63
33.25	0.21	0.86	0.25*	1.62	0.00	1.62

33.30	0.22	0.86	0.25*	1.61	0.00	1.61
33.35	0.22	0.86	0.25*	1.60	0.00	1.60
33.40	0.22	0.86	0.25*	1.59	0.00	1.59
33.45	0.22	0.86	0.25*	1.58	0.00	1.58
33.50	0.22	0.86	0.25*	1.58	0.00	1.58
33.55	0.22	0.86	0.26*	1.57	0.00	1.57
33.60	0.22	0.86	0.26*	1.56	0.00	1.56
33.65	0.22	0.86	0.26*	1.55	0.00	1.55
33.70	0.22	0.86	0.26*	1.54	0.00	1.54
33.75	0.22	0.86	0.26*	1.54	0.00	1.54
33.80	0.22	0.86	0.26*	1.53	0.00	1.53
33.85	0.22	0.86	0.26*	1.52	0.00	1.52
33.90	0.22	0.86	0.26*	1.51	0.00	1.51
33.95	0.23	0.86	0.26*	1.50	0.00	1.50
34.00	0.23	0.86	0.26*	1.50	0.00	1.50
34.05	0.23	0.86	0.26*	1.49	0.00	1.49
34.10	0.23	0.86	0.26*	1.48	0.00	1.48
34.15	0.23	0.86	0.27*	1.47	0.00	1.47
34.20	0.23	0.86	0.27*	1.46	0.00	1.46
34.25	0.23	0.86	0.27*	1.46	0.00	1.46
34.30	0.23	0.86	0.27*	1.45	0.00	1.45
34.35	0.23	0.86	0.27*	1.44	0.00	1.44
34.40	0.23	0.86	0.27*	1.43	0.00	1.43
34.45	0.23	0.86	0.27*	1.42	0.00	1.42
34.50	0.23	0.86	0.27*	1.42	0.00	1.42
34.55	0.23	0.86	0.27*	1.41	0.00	1.41
34.60	0.24	0.86	0.27*	1.40	0.00	1.40
34.65	0.24	0.86	0.27*	1.39	0.00	1.39
34.70	0.24	0.86	0.27*	1.39	0.00	1.39
34.75	0.24	0.86	0.28*	1.38	0.00	1.38
34.80	0.24	0.86	0.28*	1.37	0.00	1.37
34.85	0.24	0.86	0.28*	1.36	0.00	1.36
34.90	0.24	0.86	0.28*	1.36	0.00	1.36
34.95	0.24	0.86	0.28*	1.35	0.00	1.35
35.00	0.24	0.86	0.28*	1.34	0.00	1.34
35.05	0.24	0.86	0.28*	1.33	0.00	1.33
35.10	0.24	0.86	0.28*	1.33	0.00	1.33
35.15	0.24	0.86	0.28*	1.32	0.00	1.32
35.20	0.24	0.86	0.28*	1.31	0.00	1.31
35.25	0.24	0.86	0.28*	1.30	0.00	1.30
35.30	0.24	0.86	0.28*	1.30	0.00	1.30
35.35	0.24	0.87	0.28*	1.29	0.00	1.29
35.40	0.24	0.87	0.28*	1.28	0.00	1.28
35.45	0.25	0.87	0.28*	1.27	0.00	1.27
35.50	0.25	0.87	0.28*	1.27	0.00	1.27
35.55	0.25	0.87	0.28*	1.26	0.00	1.26
35.60	0.25	0.87	0.28*	1.25	0.00	1.25
35.65	0.25	0.87	0.28*	1.25	0.00	1.25
35.70	0.25	0.87	0.29*	1.24	0.00	1.24
35.75	0.25	0.87	0.29*	1.23	0.00	1.23

35.80	0.25	0.87	0.29*	1.22	0.00	1.22
35.85	0.25	0.87	0.29*	1.22	0.00	1.22
35.90	0.25	0.87	0.29*	1.21	0.00	1.21
35.95	0.25	0.87	0.29*	1.20	0.00	1.20
36.00	0.25	0.87	0.29*	1.19	0.00	1.19
36.05	0.25	0.87	0.29*	1.19	0.00	1.19
36.10	0.25	0.87	0.29*	1.18	0.00	1.18
36.15	0.25	0.87	0.29*	1.17	0.00	1.17
36.20	0.25	0.87	0.29*	1.17	0.00	1.17
36.25	0.25	0.87	0.29*	1.16	0.00	1.16
36.30	0.25	0.87	0.29*	1.15	0.00	1.15
36.35	0.25	0.87	0.29*	1.14	0.00	1.14
36.40	0.25	0.87	0.29*	1.14	0.00	1.14
36.45	0.25	0.87	0.29*	1.13	0.00	1.13
36.50	0.25	0.87	0.29*	1.12	0.00	1.12
36.55	0.25	0.87	0.29*	1.12	0.00	1.12
36.60	0.25	0.87	0.29*	1.11	0.00	1.11
36.65	0.25	0.87	0.29*	1.10	0.00	1.10
36.70	0.25	0.87	0.29*	1.09	0.00	1.09
36.75	0.25	0.87	0.29*	1.09	0.00	1.09
36.80	0.25	0.87	0.29*	1.08	0.00	1.08
36.85	0.26	0.87	0.29*	1.07	0.00	1.07
36.90	0.26	0.87	0.29*	1.07	0.00	1.07
36.95	0.26	0.87	0.29*	1.06	0.00	1.06
37.00	0.26	0.87	0.30*	1.05	0.00	1.05
37.05	0.26	0.87	0.30*	1.04	0.00	1.04
37.10	0.26	0.87	0.30*	1.04	0.00	1.04
37.15	0.26	0.87	0.30*	1.03	0.00	1.03
37.20	0.26	0.87	0.30*	1.02	0.00	1.02
37.25	0.26	0.87	0.30*	1.02	0.00	1.02
37.30	0.26	0.87	0.30*	1.01	0.00	1.01
37.35	0.26	0.87	0.30*	1.00	0.00	1.00
37.40	0.26	0.87	0.30*	1.00	0.00	1.00
37.45	0.26	0.87	0.30*	0.99	0.00	0.99
37.50	0.26	0.87	0.30*	0.98	0.00	0.98
37.55	0.26	0.87	0.30*	0.98	0.00	0.98
37.60	0.26	0.87	0.30*	0.97	0.00	0.97
37.65	0.26	0.87	0.30*	0.96	0.00	0.96
37.70	0.26	0.87	0.30*	0.95	0.00	0.95
37.75	0.26	0.87	0.30*	0.95	0.00	0.95
37.80	0.26	0.87	0.29*	0.94	0.00	0.94
37.85	0.26	0.87	0.29*	0.93	0.00	0.93
37.90	0.25	0.87	0.29*	0.93	0.00	0.93
37.95	0.25	0.87	0.29*	0.92	0.00	0.92
38.00	0.25	0.87	0.29*	0.91	0.00	0.91
38.05	0.25	0.87	0.29*	0.90	0.00	0.90
38.10	0.25	0.87	0.29*	0.90	0.00	0.90
38.15	0.25	0.87	0.29*	0.89	0.00	0.89
38.20	0.25	0.87	0.29*	0.88	0.00	0.88
38.25	0.25	0.87	0.29*	0.88	0.00	0.88

38.30	0.25	0.87	0.29*	0.87	0.00	0.87
38.35	0.25	0.87	0.29*	0.86	0.00	0.86
38.40	0.25	0.87	0.28*	0.85	0.00	0.85
38.45	0.25	0.87	0.28*	0.85	0.00	0.85
38.50	0.25	0.87	0.28*	0.84	0.00	0.84
38.55	0.25	0.87	0.28*	0.83	0.00	0.83
38.60	0.25	0.87	0.28*	0.83	0.00	0.83
38.65	0.24	0.87	0.28*	0.82	0.00	0.82
38.70	0.24	0.87	0.28*	0.81	0.00	0.81
38.75	0.24	0.87	0.28*	0.80	0.00	0.80
38.80	0.24	0.87	0.28*	0.80	0.00	0.80
38.85	0.24	0.87	0.28*	0.79	0.00	0.79
38.90	0.24	0.87	0.28*	0.78	0.00	0.78
38.95	0.24	0.87	0.28*	0.77	0.00	0.77
39.00	0.24	0.87	0.28*	0.77	0.00	0.77
39.05	0.24	0.87	0.27*	0.76	0.00	0.76
39.10	0.24	0.87	0.27*	0.75	0.00	0.75
39.15	0.24	0.87	0.27*	0.74	0.00	0.74
39.20	0.24	0.87	0.27*	0.74	0.00	0.74
39.25	0.24	0.87	0.27*	0.73	0.00	0.73
39.30	0.24	0.87	0.27*	0.72	0.00	0.72
39.35	0.24	0.87	0.27*	0.71	0.00	0.71
39.40	0.24	0.87	0.27*	0.71	0.00	0.71
39.45	0.23	0.87	0.27*	0.70	0.00	0.70
39.50	0.23	0.87	0.27*	0.69	0.00	0.69
39.55	0.23	0.87	0.27*	0.68	0.00	0.68
39.60	0.23	0.87	0.27*	0.68	0.00	0.68
39.65	0.23	0.87	0.27*	0.67	0.00	0.67
39.70	0.23	0.87	0.27*	0.66	0.00	0.66
39.75	0.23	0.87	0.27*	0.65	0.00	0.65
39.80	0.23	0.87	0.26*	0.65	0.00	0.65
39.85	0.23	0.87	0.26*	0.64	0.00	0.64
39.90	0.23	0.87	0.26*	0.63	0.00	0.63
39.95	0.23	0.87	0.26*	0.62	0.00	0.62
40.00	0.23	0.87	0.26*	0.62	0.00	0.62
40.05	0.23	0.87	0.26*	0.61	0.00	0.61
40.10	0.23	0.87	0.26*	0.60	0.00	0.60
40.15	0.23	0.87	0.26*	0.59	0.00	0.59
40.20	0.23	0.87	0.26*	0.58	0.00	0.58
40.25	0.23	0.87	0.26*	0.58	0.00	0.58
40.30	0.23	0.87	0.26*	0.57	0.00	0.57
40.35	0.23	0.87	0.26*	0.56	0.00	0.56
40.40	0.23	0.87	0.26*	0.55	0.00	0.55
40.45	0.23	0.87	0.26*	0.55	0.00	0.55
40.50	0.23	0.87	0.26*	0.54	0.00	0.54
40.55	0.23	0.87	0.26*	0.53	0.00	0.53
40.60	0.22	0.87	0.26*	0.52	0.00	0.52
40.65	0.22	0.87	0.26*	0.51	0.00	0.51
40.70	0.22	0.87	0.26*	0.51	0.00	0.51
40.75	0.22	0.87	0.26*	0.50	0.00	0.50

40.80	0.22	0.87	0.26*	0.49	0.00	0.49
40.85	0.22	0.87	0.26*	0.48	0.00	0.48
40.90	0.22	0.87	0.26*	0.47	0.00	0.47
40.95	0.22	0.87	0.26*	0.47	0.00	0.47
41.00	0.22	0.87	0.26*	0.46	0.00	0.46
41.05	0.22	0.87	0.25*	0.45	0.00	0.45
41.10	0.22	0.87	0.25*	0.44	0.00	0.44
41.15	0.22	0.87	0.25*	0.44	0.00	0.44
41.20	0.22	0.87	0.25*	0.43	0.00	0.43
41.25	0.22	0.87	0.25*	0.42	0.00	0.42
41.30	0.22	0.87	0.25*	0.41	0.00	0.41
41.35	0.22	0.87	0.25*	0.40	0.00	0.40
41.40	0.22	0.87	0.25*	0.40	0.00	0.40
41.45	0.22	0.87	0.25*	0.39	0.00	0.39
41.50	0.22	0.87	0.25*	0.38	0.00	0.38
41.55	0.22	0.87	0.25*	0.37	0.00	0.37
41.60	0.22	0.87	0.25*	0.36	0.00	0.36
41.65	0.22	0.87	0.25*	0.36	0.00	0.36
41.70	0.22	0.87	0.25*	0.35	0.00	0.35
41.75	0.22	0.87	0.25*	0.34	0.00	0.34
41.80	0.22	0.87	0.25*	0.33	0.00	0.33
41.85	0.22	0.87	0.25*	0.32	0.00	0.32
41.90	0.22	0.87	0.25*	0.32	0.00	0.32
41.95	0.22	0.87	0.25*	0.31	0.00	0.31
42.00	0.22	0.87	0.25*	0.30	0.00	0.30
42.05	0.22	0.87	0.25*	0.29	0.00	0.29
42.10	0.22	0.87	0.25*	0.28	0.00	0.28
42.15	0.22	0.87	0.25*	0.28	0.00	0.28
42.20	0.22	0.87	0.25*	0.27	0.00	0.27
42.25	0.22	0.87	0.25*	0.26	0.00	0.26
42.30	0.22	0.87	0.25*	0.25	0.00	0.25
42.35	0.22	0.87	0.25*	0.24	0.00	0.24
42.40	0.22	0.87	0.25*	0.23	0.00	0.23
42.45	0.22	0.87	0.25*	0.23	0.00	0.23
42.50	0.22	0.87	0.25*	0.22	0.00	0.22
42.55	0.22	0.87	0.25*	0.21	0.00	0.21
42.60	0.23	0.87	0.26*	0.20	0.00	0.20
42.65	0.23	0.87	0.26*	0.19	0.00	0.19
42.70	0.24	0.87	0.27*	0.19	0.00	0.19
42.75	0.24	0.87	0.28*	0.18	0.00	0.18
42.80	0.25	0.87	0.28*	0.17	0.00	0.17
42.85	0.25	0.87	0.29*	0.16	0.00	0.16
42.90	0.26	0.87	0.30*	0.16	0.00	0.16
42.95	0.27	0.87	0.31*	0.15	0.00	0.15
43.00	0.27	0.87	0.32*	0.14	0.00	0.14
43.05	0.28	0.87	0.32*	0.14	0.00	0.14
43.10	0.29	0.87	0.33*	0.13	0.00	0.13
43.15	0.30	0.87	0.34*	0.13	0.00	0.13
43.20	0.31	0.87	0.36*	0.12	0.00	0.12
43.25	0.32	0.87	0.37*	0.11	0.00	0.11

43.30	0.34	0.87	0.39*	0.11	0.00	0.11
43.35	0.36	0.87	0.42*	0.10	0.00	0.10
43.40	1.75	0.87	2.01	0.10	0.00	0.10
43.45	1.75	0.87	2.01	0.09	0.00	0.09
43.50	1.75	0.87	2.01	0.09	0.00	0.09
43.55	1.75	0.87	2.01	0.09	0.00	0.09
43.60	1.75	0.87	2.01	0.08	0.00	0.08
43.65	1.75	0.87	2.01	0.08	0.00	0.08
43.70	1.75	0.87	2.01	0.08	0.00	0.08
43.75	1.75	0.87	2.01	0.08	0.00	0.08
43.80	1.75	0.87	2.01	0.07	0.00	0.07
43.85	1.75	0.87	2.01	0.07	0.00	0.07
43.90	1.75	0.87	2.01	0.07	0.00	0.07
43.95	1.75	0.87	2.01	0.07	0.00	0.07
44.00	1.75	0.87	2.01	0.07	0.00	0.07
44.05	1.75	0.87	2.01	0.07	0.00	0.07
44.10	1.75	0.87	2.01	0.07	0.00	0.07
44.15	1.75	0.87	2.01	0.07	0.00	0.07
44.20	1.75	0.87	2.01	0.07	0.00	0.07
44.25	1.75	0.87	2.01	0.07	0.00	0.07
44.30	1.75	0.87	2.01	0.07	0.00	0.07
44.35	1.75	0.87	2.01	0.07	0.00	0.07
44.40	1.75	0.87	2.01	0.07	0.00	0.07
44.45	1.75	0.87	2.01	0.07	0.00	0.07
44.50	1.75	0.87	2.01	0.07	0.00	0.07
44.55	1.75	0.87	2.01	0.07	0.00	0.07
44.60	1.75	0.87	2.01	0.07	0.00	0.07
44.65	1.75	0.87	2.01	0.07	0.00	0.07
44.70	1.75	0.87	2.01	0.07	0.00	0.07
44.75	1.75	0.87	2.01	0.07	0.00	0.07
44.80	1.75	0.87	2.01	0.07	0.00	0.07
44.85	1.75	0.87	2.01	0.07	0.00	0.07
44.90	1.75	0.87	2.01	0.07	0.00	0.07
44.95	1.75	0.87	2.01	0.07	0.00	0.07
45.00	1.75	0.87	2.01	0.07	0.00	0.07
45.05	1.75	0.87	2.01	0.07	0.00	0.07
45.10	1.74	0.87	2.01	0.07	0.00	0.07
45.15	1.74	0.87	2.01	0.07	0.00	0.07
45.20	1.74	0.87	2.01	0.07	0.00	0.07
45.25	1.74	0.87	2.01	0.07	0.00	0.07
45.30	1.74	0.87	2.01	0.07	0.00	0.07
45.35	1.74	0.87	2.01	0.07	0.00	0.07
45.40	1.74	0.87	2.01	0.07	0.00	0.07
45.45	1.74	0.87	2.01	0.07	0.00	0.07
45.50	1.74	0.87	2.01	0.07	0.00	0.07
45.55	1.74	0.87	2.01	0.07	0.00	0.07
45.60	1.74	0.87	2.01	0.07	0.00	0.07
45.65	1.74	0.87	2.01	0.07	0.00	0.07
45.70	1.74	0.87	2.01	0.07	0.00	0.07
45.75	1.74	0.87	2.01	0.07	0.00	0.07

45.80	1.74	0.87	2.01	0.07	0.00	0.07
45.85	1.74	0.87	2.01	0.07	0.00	0.07
45.90	1.74	0.87	2.01	0.07	0.00	0.07
45.95	1.74	0.87	2.01	0.07	0.00	0.07
46.00	1.74	0.87	2.01	0.07	0.00	0.07
46.05	1.74	0.87	2.01	0.07	0.00	0.07
46.10	1.74	0.87	2.01	0.07	0.00	0.07
46.15	1.74	0.87	2.01	0.07	0.00	0.07
46.20	1.74	0.87	2.01	0.07	0.00	0.07
46.25	1.74	0.87	2.01	0.07	0.00	0.07
46.30	1.74	0.87	2.01	0.07	0.00	0.07
46.35	1.74	0.87	2.01	0.07	0.00	0.07
46.40	1.74	0.87	2.01	0.07	0.00	0.07
46.45	1.74	0.87	2.01	0.07	0.00	0.07
46.50	1.74	0.87	2.01	0.07	0.00	0.07
46.55	1.74	0.87	2.01	0.07	0.00	0.07
46.60	1.74	0.87	2.01	0.07	0.00	0.07
46.65	1.74	0.87	2.01	0.07	0.00	0.07
46.70	1.74	0.87	2.01	0.07	0.00	0.07
46.75	1.74	0.87	2.01	0.07	0.00	0.07
46.80	1.74	0.87	2.01	0.07	0.00	0.07
46.85	1.74	0.87	2.01	0.07	0.00	0.07
46.90	1.74	0.87	2.01	0.07	0.00	0.07
46.95	1.74	0.87	2.01	0.07	0.00	0.07
47.00	1.74	0.87	2.01	0.07	0.00	0.07
47.05	1.74	0.87	2.01	0.07	0.00	0.07
47.10	1.74	0.87	2.01	0.07	0.00	0.07
47.15	1.74	0.87	2.01	0.07	0.00	0.07
47.20	1.74	0.87	2.01	0.07	0.00	0.07
47.25	1.73	0.87	2.01	0.07	0.00	0.07
47.30	1.73	0.87	2.01	0.07	0.00	0.07
47.35	1.73	0.86	2.01	0.07	0.00	0.07
47.40	1.73	0.86	2.01	0.07	0.00	0.07
47.45	1.73	0.86	2.01	0.07	0.00	0.07
47.50	1.73	0.86	2.01	0.07	0.00	0.07
47.55	1.73	0.86	2.01	0.07	0.00	0.07
47.60	1.73	0.86	2.01	0.07	0.00	0.07
47.65	1.73	0.86	2.01	0.07	0.00	0.07
47.70	1.73	0.86	2.01	0.07	0.00	0.07
47.75	1.73	0.86	2.01	0.07	0.00	0.07
47.80	1.73	0.86	2.01	0.07	0.00	0.07
47.85	1.73	0.86	2.01	0.07	0.00	0.07
47.90	1.73	0.86	2.01	0.07	0.00	0.07
47.95	1.73	0.86	2.01	0.07	0.00	0.07
48.00	1.73	0.86	2.01	0.07	0.00	0.07
48.05	1.73	0.86	2.01	0.07	0.00	0.07
48.10	1.73	0.86	2.01	0.07	0.00	0.07
48.15	1.73	0.86	2.01	0.07	0.00	0.07
48.20	1.73	0.86	2.01	0.07	0.00	0.07
48.25	1.73	0.86	2.01	0.07	0.00	0.07

48.30	1.73	0.86	2.01	0.07	0.00	0.07
48.35	1.73	0.86	2.01	0.07	0.00	0.07
48.40	1.73	0.86	2.01	0.07	0.00	0.07
48.45	1.73	0.86	2.01	0.07	0.00	0.07
48.50	1.73	0.86	2.01	0.07	0.00	0.07
48.55	1.73	0.86	2.01	0.07	0.00	0.07
48.60	1.73	0.86	2.01	0.07	0.00	0.07
48.65	1.73	0.86	2.01	0.07	0.00	0.07
48.70	1.73	0.86	2.01	0.07	0.00	0.07
48.75	1.73	0.86	2.01	0.07	0.00	0.07
48.80	1.73	0.86	2.01	0.07	0.00	0.07
48.85	1.73	0.86	2.01	0.07	0.00	0.07
48.90	1.73	0.86	2.01	0.07	0.00	0.07
48.95	1.73	0.86	2.01	0.07	0.00	0.07
49.00	1.73	0.86	2.01	0.07	0.00	0.07
49.05	1.73	0.86	2.01	0.07	0.00	0.07
49.10	1.73	0.86	2.01	0.07	0.00	0.07
49.15	1.73	0.86	2.01	0.07	0.00	0.07
49.20	1.73	0.86	2.01	0.07	0.00	0.07
49.25	1.73	0.86	2.01	0.07	0.00	0.07
49.30	1.73	0.86	2.01	0.07	0.00	0.07
49.35	1.73	0.86	2.01	0.07	0.00	0.07
49.40	1.72	0.86	2.01	0.07	0.00	0.07
49.45	1.72	0.86	2.01	0.07	0.00	0.07
49.50	1.72	0.86	2.01	0.07	0.00	0.07
49.55	1.72	0.86	2.01	0.07	0.00	0.07
49.60	1.72	0.86	2.01	0.07	0.00	0.07
49.65	1.72	0.86	2.01	0.07	0.00	0.07
49.70	1.72	0.86	2.01	0.07	0.00	0.07
49.75	1.72	0.86	2.01	0.06	0.00	0.06
49.80	1.72	0.86	2.01	0.06	0.00	0.06
49.85	1.72	0.86	2.01	0.06	0.00	0.06
49.90	1.72	0.86	2.01	0.06	0.00	0.06
49.95	1.72	0.86	2.01	0.06	0.00	0.06
50.00	1.72	0.86	2.01	0.06	0.00	0.06
50.05	1.72	0.86	2.01	0.06	0.00	0.06
50.10	1.72	0.86	2.01	0.06	0.00	0.06
50.15	1.72	0.86	2.01	0.05	0.00	0.05
50.20	1.72	0.86	2.01	0.05	0.00	0.05
50.25	1.72	0.86	2.01	0.05	0.00	0.05
50.30	1.72	0.86	2.01	0.05	0.00	0.05
50.35	1.72	0.86	2.01	0.05	0.00	0.05
50.40	1.72	0.86	2.01	0.04	0.00	0.04
50.45	1.72	0.86	2.01	0.04	0.00	0.04
50.50	1.72	0.86	2.01	0.04	0.00	0.04
50.55	1.72	0.86	2.01	0.04	0.00	0.04
50.60	1.72	0.86	2.01	0.04	0.00	0.04
50.65	1.72	0.86	2.01	0.03	0.00	0.03
50.70	1.72	0.86	2.01	0.03	0.00	0.03
50.75	1.72	0.86	2.01	0.03	0.00	0.03

50.80	1.72	0.86	2.01	0.03	0.00	0.03
50.85	1.72	0.86	2.01	0.03	0.00	0.03
50.90	1.72	0.85	2.01	0.02	0.00	0.02
50.95	1.72	0.85	2.01	0.02	0.00	0.02
51.00	1.72	0.85	2.01	0.02	0.00	0.02
51.05	1.72	0.85	2.01	0.02	0.00	0.02
51.10	1.72	0.85	2.01	0.02	0.00	0.02
51.15	1.72	0.85	2.01	0.01	0.00	0.01
51.20	1.72	0.85	2.01	0.01	0.00	0.01
51.25	1.72	0.85	2.01	0.01	0.00	0.01
51.30	1.72	0.85	2.01	0.01	0.00	0.01
51.35	1.72	0.85	2.01	0.01	0.00	0.01
51.40	1.72	0.85	2.01	0.00	0.00	0.00
51.45	1.72	0.85	2.01	0.00	0.00	0.00
51.50	1.72	0.85	2.01	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

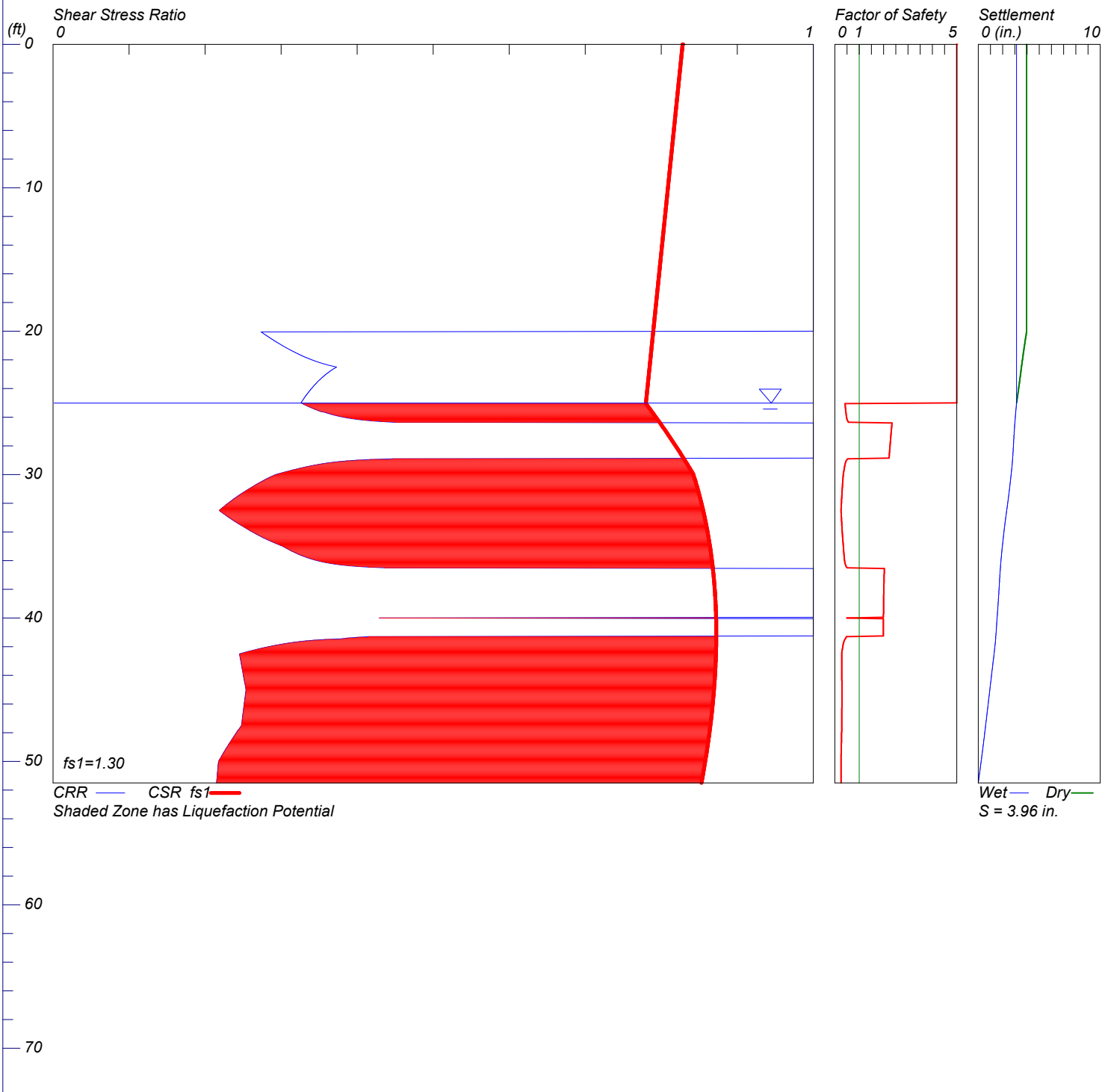
CRRm Cyclic resistance ratio from soils
CSRfs Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat Settlement from saturated sands
S_dry Settlement from dry sands
S_all Total settlement from saturated and dry sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=B-LGC-7 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\BLGC7.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=B-LGC-7
Depth of Hole= 51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 38.0 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=B-LGC-7
Depth of Hole=51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 38.0 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

Earthquake Magnitude=7.7
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.3
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.0	6.0	120.0	NoLiq
5.0	5.0	120.0	NoLiq
10.0	10.0	120.0	NoLiq
12.5	10.0	120.0	NoLiq
15.0	10.0	120.0	NoLiq
17.5	16.0	120.0	NoLiq
20.0	16.0	120.0	30.0
22.5	20.0	120.0	31.0
25.0	20.0	120.0	31.0
27.5	24.0	120.0	31.0
30.0	25.0	120.0	13.0
32.5	21.0	120.0	13.0
35.0	27.0	120.0	15.0
37.5	32.0	120.0	15.0
40.0	31.0	120.0	15.0
42.5	20.0	120.0	50.0
45.0	21.0	120.0	52.0
47.5	21.0	120.0	52.0
50.0	19.0	120.0	52.0
51.5	19.0	120.0	52.0

Output Results:

Settlement of saturated sands=3.14 in.
Settlement of dry sands=0.82 in.
Total settlement of saturated and dry sands=3.96 in.
Differential Settlement=1.980 to 2.614 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	3.14	0.82	3.96
0.05	2.00	0.83	5.00	3.14	0.82	3.96
0.10	2.00	0.83	5.00	3.14	0.82	3.96
0.15	2.00	0.83	5.00	3.14	0.82	3.96
0.20	2.00	0.83	5.00	3.14	0.82	3.96
0.25	2.00	0.83	5.00	3.14	0.82	3.96
0.30	2.00	0.83	5.00	3.14	0.82	3.96
0.35	2.00	0.83	5.00	3.14	0.82	3.96
0.40	2.00	0.83	5.00	3.14	0.82	3.96
0.45	2.00	0.83	5.00	3.14	0.82	3.96
0.50	2.00	0.83	5.00	3.14	0.82	3.96
0.55	2.00	0.83	5.00	3.14	0.82	3.96
0.60	2.00	0.83	5.00	3.14	0.82	3.96
0.65	2.00	0.83	5.00	3.14	0.82	3.96
0.70	2.00	0.83	5.00	3.14	0.82	3.96
0.75	2.00	0.83	5.00	3.14	0.82	3.96

0.80	2.00	0.83	5.00	3.14	0.82	3.96
0.85	2.00	0.83	5.00	3.14	0.82	3.96
0.90	2.00	0.83	5.00	3.14	0.82	3.96
0.95	2.00	0.83	5.00	3.14	0.82	3.96
1.00	2.00	0.83	5.00	3.14	0.82	3.96
1.05	2.00	0.83	5.00	3.14	0.82	3.96
1.10	2.00	0.83	5.00	3.14	0.82	3.96
1.15	2.00	0.83	5.00	3.14	0.82	3.96
1.20	2.00	0.83	5.00	3.14	0.82	3.96
1.25	2.00	0.83	5.00	3.14	0.82	3.96
1.30	2.00	0.83	5.00	3.14	0.82	3.96
1.35	2.00	0.83	5.00	3.14	0.82	3.96
1.40	2.00	0.83	5.00	3.14	0.82	3.96
1.45	2.00	0.83	5.00	3.14	0.82	3.96
1.50	2.00	0.83	5.00	3.14	0.82	3.96
1.55	2.00	0.83	5.00	3.14	0.82	3.96
1.60	2.00	0.83	5.00	3.14	0.82	3.96
1.65	2.00	0.82	5.00	3.14	0.82	3.96
1.70	2.00	0.82	5.00	3.14	0.82	3.96
1.75	2.00	0.82	5.00	3.14	0.82	3.96
1.80	2.00	0.82	5.00	3.14	0.82	3.96
1.85	2.00	0.82	5.00	3.14	0.82	3.96
1.90	2.00	0.82	5.00	3.14	0.82	3.96
1.95	2.00	0.82	5.00	3.14	0.82	3.96
2.00	2.00	0.82	5.00	3.14	0.82	3.96
2.05	2.00	0.82	5.00	3.14	0.82	3.96
2.10	2.00	0.82	5.00	3.14	0.82	3.96
2.15	2.00	0.82	5.00	3.14	0.82	3.96
2.20	2.00	0.82	5.00	3.14	0.82	3.96
2.25	2.00	0.82	5.00	3.14	0.82	3.96
2.30	2.00	0.82	5.00	3.14	0.82	3.96
2.35	2.00	0.82	5.00	3.14	0.82	3.96
2.40	2.00	0.82	5.00	3.14	0.82	3.96
2.45	2.00	0.82	5.00	3.14	0.82	3.96
2.50	2.00	0.82	5.00	3.14	0.82	3.96
2.55	2.00	0.82	5.00	3.14	0.82	3.96
2.60	2.00	0.82	5.00	3.14	0.82	3.96
2.65	2.00	0.82	5.00	3.14	0.82	3.96
2.70	2.00	0.82	5.00	3.14	0.82	3.96
2.75	2.00	0.82	5.00	3.14	0.82	3.96
2.80	2.00	0.82	5.00	3.14	0.82	3.96
2.85	2.00	0.82	5.00	3.14	0.82	3.96
2.90	2.00	0.82	5.00	3.14	0.82	3.96
2.95	2.00	0.82	5.00	3.14	0.82	3.96
3.00	2.00	0.82	5.00	3.14	0.82	3.96
3.05	2.00	0.82	5.00	3.14	0.82	3.96
3.10	2.00	0.82	5.00	3.14	0.82	3.96
3.15	2.00	0.82	5.00	3.14	0.82	3.96
3.20	2.00	0.82	5.00	3.14	0.82	3.96
3.25	2.00	0.82	5.00	3.14	0.82	3.96

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3.40	2.00	0.82	5.00	3.14	0.82	3.96
3.45	2.00	0.82	5.00	3.14	0.82	3.96
3.50	2.00	0.82	5.00	3.14	0.82	3.96
3.55	2.00	0.82	5.00	3.14	0.82	3.96
3.60	2.00	0.82	5.00	3.14	0.82	3.96
3.65	2.00	0.82	5.00	3.14	0.82	3.96
3.70	2.00	0.82	5.00	3.14	0.82	3.96
3.75	2.00	0.82	5.00	3.14	0.82	3.96
3.80	2.00	0.82	5.00	3.14	0.82	3.96
3.85	2.00	0.82	5.00	3.14	0.82	3.96
3.90	2.00	0.82	5.00	3.14	0.82	3.96
3.95	2.00	0.82	5.00	3.14	0.82	3.96
4.00	2.00	0.82	5.00	3.14	0.82	3.96
4.05	2.00	0.82	5.00	3.14	0.82	3.96
4.10	2.00	0.82	5.00	3.14	0.82	3.96
4.15	2.00	0.82	5.00	3.14	0.82	3.96
4.20	2.00	0.82	5.00	3.14	0.82	3.96
4.25	2.00	0.82	5.00	3.14	0.82	3.96
4.30	2.00	0.82	5.00	3.14	0.82	3.96
4.35	2.00	0.82	5.00	3.14	0.82	3.96
4.40	2.00	0.82	5.00	3.14	0.82	3.96
4.45	2.00	0.82	5.00	3.14	0.82	3.96
4.50	2.00	0.82	5.00	3.14	0.82	3.96
4.55	2.00	0.82	5.00	3.14	0.82	3.96
4.60	2.00	0.82	5.00	3.14	0.82	3.96
4.65	2.00	0.82	5.00	3.14	0.82	3.96
4.70	2.00	0.82	5.00	3.14	0.82	3.96
4.75	2.00	0.82	5.00	3.14	0.82	3.96
4.80	2.00	0.82	5.00	3.14	0.82	3.96
4.85	2.00	0.82	5.00	3.14	0.82	3.96
4.90	2.00	0.82	5.00	3.14	0.82	3.96
4.95	2.00	0.82	5.00	3.14	0.82	3.96
5.00	2.00	0.82	5.00	3.14	0.82	3.96
5.05	2.00	0.82	5.00	3.14	0.82	3.96
5.10	2.00	0.82	5.00	3.14	0.82	3.96
5.15	2.00	0.82	5.00	3.14	0.82	3.96
5.20	2.00	0.82	5.00	3.14	0.82	3.96
5.25	2.00	0.82	5.00	3.14	0.82	3.96
5.30	2.00	0.82	5.00	3.14	0.82	3.96
5.35	2.00	0.82	5.00	3.14	0.82	3.96
5.40	2.00	0.82	5.00	3.14	0.82	3.96
5.45	2.00	0.82	5.00	3.14	0.82	3.96
5.50	2.00	0.82	5.00	3.14	0.82	3.96
5.55	2.00	0.82	5.00	3.14	0.82	3.96
5.60	2.00	0.82	5.00	3.14	0.82	3.96
5.65	2.00	0.82	5.00	3.14	0.82	3.96
5.70	2.00	0.82	5.00	3.14	0.82	3.96
5.75	2.00	0.82	5.00	3.14	0.82	3.96

5.80	2.00	0.82	5.00	3.14	0.82	3.96
5.85	2.00	0.82	5.00	3.14	0.82	3.96
5.90	2.00	0.82	5.00	3.14	0.82	3.96
5.95	2.00	0.82	5.00	3.14	0.82	3.96
6.00	2.00	0.82	5.00	3.14	0.82	3.96
6.05	2.00	0.82	5.00	3.14	0.82	3.96
6.10	2.00	0.82	5.00	3.14	0.82	3.96
6.15	2.00	0.82	5.00	3.14	0.82	3.96
6.20	2.00	0.82	5.00	3.14	0.82	3.96
6.25	2.00	0.82	5.00	3.14	0.82	3.96
6.30	2.00	0.82	5.00	3.14	0.82	3.96
6.35	2.00	0.82	5.00	3.14	0.82	3.96
6.40	2.00	0.82	5.00	3.14	0.82	3.96
6.45	2.00	0.82	5.00	3.14	0.82	3.96
6.50	2.00	0.82	5.00	3.14	0.82	3.96
6.55	2.00	0.82	5.00	3.14	0.82	3.96
6.60	2.00	0.82	5.00	3.14	0.82	3.96
6.65	2.00	0.82	5.00	3.14	0.82	3.96
6.70	2.00	0.82	5.00	3.14	0.82	3.96
6.75	2.00	0.82	5.00	3.14	0.82	3.96
6.80	2.00	0.81	5.00	3.14	0.82	3.96
6.85	2.00	0.81	5.00	3.14	0.82	3.96
6.90	2.00	0.81	5.00	3.14	0.82	3.96
6.95	2.00	0.81	5.00	3.14	0.82	3.96
7.00	2.00	0.81	5.00	3.14	0.82	3.96
7.05	2.00	0.81	5.00	3.14	0.82	3.96
7.10	2.00	0.81	5.00	3.14	0.82	3.96
7.15	2.00	0.81	5.00	3.14	0.82	3.96
7.20	2.00	0.81	5.00	3.14	0.82	3.96
7.25	2.00	0.81	5.00	3.14	0.82	3.96
7.30	2.00	0.81	5.00	3.14	0.82	3.96
7.35	2.00	0.81	5.00	3.14	0.82	3.96
7.40	2.00	0.81	5.00	3.14	0.82	3.96
7.45	2.00	0.81	5.00	3.14	0.82	3.96
7.50	2.00	0.81	5.00	3.14	0.82	3.96
7.55	2.00	0.81	5.00	3.14	0.82	3.96
7.60	2.00	0.81	5.00	3.14	0.82	3.96
7.65	2.00	0.81	5.00	3.14	0.82	3.96
7.70	2.00	0.81	5.00	3.14	0.82	3.96
7.75	2.00	0.81	5.00	3.14	0.82	3.96
7.80	2.00	0.81	5.00	3.14	0.82	3.96
7.85	2.00	0.81	5.00	3.14	0.82	3.96
7.90	2.00	0.81	5.00	3.14	0.82	3.96
7.95	2.00	0.81	5.00	3.14	0.82	3.96
8.00	2.00	0.81	5.00	3.14	0.82	3.96
8.05	2.00	0.81	5.00	3.14	0.82	3.96
8.10	2.00	0.81	5.00	3.14	0.82	3.96
8.15	2.00	0.81	5.00	3.14	0.82	3.96
8.20	2.00	0.81	5.00	3.14	0.82	3.96
8.25	2.00	0.81	5.00	3.14	0.82	3.96

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8.45	2.00	0.81	5.00	3.14	0.82	3.96
8.50	2.00	0.81	5.00	3.14	0.82	3.96
8.55	2.00	0.81	5.00	3.14	0.82	3.96
8.60	2.00	0.81	5.00	3.14	0.82	3.96
8.65	2.00	0.81	5.00	3.14	0.82	3.96
8.70	2.00	0.81	5.00	3.14	0.82	3.96
8.75	2.00	0.81	5.00	3.14	0.82	3.96
8.80	2.00	0.81	5.00	3.14	0.82	3.96
8.85	2.00	0.81	5.00	3.14	0.82	3.96
8.90	2.00	0.81	5.00	3.14	0.82	3.96
8.95	2.00	0.81	5.00	3.14	0.82	3.96
9.00	2.00	0.81	5.00	3.14	0.82	3.96
9.05	2.00	0.81	5.00	3.14	0.82	3.96
9.10	2.00	0.81	5.00	3.14	0.82	3.96
9.15	2.00	0.81	5.00	3.14	0.82	3.96
9.20	2.00	0.81	5.00	3.14	0.82	3.96
9.25	2.00	0.81	5.00	3.14	0.82	3.96
9.30	2.00	0.81	5.00	3.14	0.82	3.96
9.35	2.00	0.81	5.00	3.14	0.82	3.96
9.40	2.00	0.81	5.00	3.14	0.82	3.96
9.45	2.00	0.81	5.00	3.14	0.82	3.96
9.50	2.00	0.81	5.00	3.14	0.82	3.96
9.55	2.00	0.81	5.00	3.14	0.82	3.96
9.60	2.00	0.81	5.00	3.14	0.82	3.96
9.65	2.00	0.81	5.00	3.14	0.82	3.96
9.70	2.00	0.81	5.00	3.14	0.82	3.96
9.75	2.00	0.81	5.00	3.14	0.82	3.96
9.80	2.00	0.81	5.00	3.14	0.82	3.96
9.85	2.00	0.81	5.00	3.14	0.82	3.96
9.90	2.00	0.81	5.00	3.14	0.82	3.96
9.95	2.00	0.81	5.00	3.14	0.82	3.96
10.00	2.00	0.81	5.00	3.14	0.82	3.96
10.05	2.00	0.81	5.00	3.14	0.82	3.96
10.10	2.00	0.81	5.00	3.14	0.82	3.96
10.15	2.00	0.81	5.00	3.14	0.82	3.96
10.20	2.00	0.81	5.00	3.14	0.82	3.96
10.25	2.00	0.81	5.00	3.14	0.82	3.96
10.30	2.00	0.81	5.00	3.14	0.82	3.96
10.35	2.00	0.81	5.00	3.14	0.82	3.96
10.40	2.00	0.81	5.00	3.14	0.82	3.96
10.45	2.00	0.81	5.00	3.14	0.82	3.96
10.50	2.00	0.81	5.00	3.14	0.82	3.96
10.55	2.00	0.81	5.00	3.14	0.82	3.96
10.60	2.00	0.81	5.00	3.14	0.82	3.96
10.65	2.00	0.81	5.00	3.14	0.82	3.96
10.70	2.00	0.81	5.00	3.14	0.82	3.96
10.75	2.00	0.81	5.00	3.14	0.82	3.96

10.80	2.00	0.81	5.00	3.14	0.82	3.96
10.85	2.00	0.81	5.00	3.14	0.82	3.96
10.90	2.00	0.81	5.00	3.14	0.82	3.96
10.95	2.00	0.81	5.00	3.14	0.82	3.96
11.00	2.00	0.81	5.00	3.14	0.82	3.96
11.05	2.00	0.81	5.00	3.14	0.82	3.96
11.10	2.00	0.81	5.00	3.14	0.82	3.96
11.15	2.00	0.81	5.00	3.14	0.82	3.96
11.20	2.00	0.81	5.00	3.14	0.82	3.96
11.25	2.00	0.81	5.00	3.14	0.82	3.96
11.30	2.00	0.81	5.00	3.14	0.82	3.96
11.35	2.00	0.81	5.00	3.14	0.82	3.96
11.40	2.00	0.81	5.00	3.14	0.82	3.96
11.45	2.00	0.81	5.00	3.14	0.82	3.96
11.50	2.00	0.81	5.00	3.14	0.82	3.96
11.55	2.00	0.81	5.00	3.14	0.82	3.96
11.60	2.00	0.81	5.00	3.14	0.82	3.96
11.65	2.00	0.81	5.00	3.14	0.82	3.96
11.70	2.00	0.81	5.00	3.14	0.82	3.96
11.75	2.00	0.81	5.00	3.14	0.82	3.96
11.80	2.00	0.81	5.00	3.14	0.82	3.96
11.85	2.00	0.81	5.00	3.14	0.82	3.96
11.90	2.00	0.81	5.00	3.14	0.82	3.96
11.95	2.00	0.81	5.00	3.14	0.82	3.96
12.00	2.00	0.80	5.00	3.14	0.82	3.96
12.05	2.00	0.80	5.00	3.14	0.82	3.96
12.10	2.00	0.80	5.00	3.14	0.82	3.96
12.15	2.00	0.80	5.00	3.14	0.82	3.96
12.20	2.00	0.80	5.00	3.14	0.82	3.96
12.25	2.00	0.80	5.00	3.14	0.82	3.96
12.30	2.00	0.80	5.00	3.14	0.82	3.96
12.35	2.00	0.80	5.00	3.14	0.82	3.96
12.40	2.00	0.80	5.00	3.14	0.82	3.96
12.45	2.00	0.80	5.00	3.14	0.82	3.96
12.50	2.00	0.80	5.00	3.14	0.82	3.96
12.55	2.00	0.80	5.00	3.14	0.82	3.96
12.60	2.00	0.80	5.00	3.14	0.82	3.96
12.65	2.00	0.80	5.00	3.14	0.82	3.96
12.70	2.00	0.80	5.00	3.14	0.82	3.96
12.75	2.00	0.80	5.00	3.14	0.82	3.96
12.80	2.00	0.80	5.00	3.14	0.82	3.96
12.85	2.00	0.80	5.00	3.14	0.82	3.96
12.90	2.00	0.80	5.00	3.14	0.82	3.96
12.95	2.00	0.80	5.00	3.14	0.82	3.96
13.00	2.00	0.80	5.00	3.14	0.82	3.96
13.05	2.00	0.80	5.00	3.14	0.82	3.96
13.10	2.00	0.80	5.00	3.14	0.82	3.96
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13.55	2.00	0.80	5.00	3.14	0.82	3.96
13.60	2.00	0.80	5.00	3.14	0.82	3.96
13.65	2.00	0.80	5.00	3.14	0.82	3.96
13.70	2.00	0.80	5.00	3.14	0.82	3.96
13.75	2.00	0.80	5.00	3.14	0.82	3.96
13.80	2.00	0.80	5.00	3.14	0.82	3.96
13.85	2.00	0.80	5.00	3.14	0.82	3.96
13.90	2.00	0.80	5.00	3.14	0.82	3.96
13.95	2.00	0.80	5.00	3.14	0.82	3.96
14.00	2.00	0.80	5.00	3.14	0.82	3.96
14.05	2.00	0.80	5.00	3.14	0.82	3.96
14.10	2.00	0.80	5.00	3.14	0.82	3.96
14.15	2.00	0.80	5.00	3.14	0.82	3.96
14.20	2.00	0.80	5.00	3.14	0.82	3.96
14.25	2.00	0.80	5.00	3.14	0.82	3.96
14.30	2.00	0.80	5.00	3.14	0.82	3.96
14.35	2.00	0.80	5.00	3.14	0.82	3.96
14.40	2.00	0.80	5.00	3.14	0.82	3.96
14.45	2.00	0.80	5.00	3.14	0.82	3.96
14.50	2.00	0.80	5.00	3.14	0.82	3.96
14.55	2.00	0.80	5.00	3.14	0.82	3.96
14.60	2.00	0.80	5.00	3.14	0.82	3.96
14.65	2.00	0.80	5.00	3.14	0.82	3.96
14.70	2.00	0.80	5.00	3.14	0.82	3.96
14.75	2.00	0.80	5.00	3.14	0.82	3.96
14.80	2.00	0.80	5.00	3.14	0.82	3.96
14.85	2.00	0.80	5.00	3.14	0.82	3.96
14.90	2.00	0.80	5.00	3.14	0.82	3.96
14.95	2.00	0.80	5.00	3.14	0.82	3.96
15.00	2.00	0.80	5.00	3.14	0.82	3.96
15.05	2.00	0.80	5.00	3.14	0.82	3.96
15.10	2.00	0.80	5.00	3.14	0.82	3.96
15.15	2.00	0.80	5.00	3.14	0.82	3.96
15.20	2.00	0.80	5.00	3.14	0.82	3.96
15.25	2.00	0.80	5.00	3.14	0.82	3.96
15.30	2.00	0.80	5.00	3.14	0.82	3.96
15.35	2.00	0.80	5.00	3.14	0.82	3.96
15.40	2.00	0.80	5.00	3.14	0.82	3.96
15.45	2.00	0.80	5.00	3.14	0.82	3.96
15.50	2.00	0.80	5.00	3.14	0.82	3.96
15.55	2.00	0.80	5.00	3.14	0.82	3.96
15.60	2.00	0.80	5.00	3.14	0.82	3.96
15.65	2.00	0.80	5.00	3.14	0.82	3.96
15.70	2.00	0.80	5.00	3.14	0.82	3.96
15.75	2.00	0.80	5.00	3.14	0.82	3.96

15.80	2.00	0.80	5.00	3.14	0.82	3.96
15.85	2.00	0.80	5.00	3.14	0.82	3.96
15.90	2.00	0.80	5.00	3.14	0.82	3.96
15.95	2.00	0.80	5.00	3.14	0.82	3.96
16.00	2.00	0.80	5.00	3.14	0.82	3.96
16.05	2.00	0.80	5.00	3.14	0.82	3.96
16.10	2.00	0.80	5.00	3.14	0.82	3.96
16.15	2.00	0.80	5.00	3.14	0.82	3.96
16.20	2.00	0.80	5.00	3.14	0.82	3.96
16.25	2.00	0.80	5.00	3.14	0.82	3.96
16.30	2.00	0.80	5.00	3.14	0.82	3.96
16.35	2.00	0.80	5.00	3.14	0.82	3.96
16.40	2.00	0.80	5.00	3.14	0.82	3.96
16.45	2.00	0.80	5.00	3.14	0.82	3.96
16.50	2.00	0.80	5.00	3.14	0.82	3.96
16.55	2.00	0.80	5.00	3.14	0.82	3.96
16.60	2.00	0.80	5.00	3.14	0.82	3.96
16.65	2.00	0.80	5.00	3.14	0.82	3.96
16.70	2.00	0.80	5.00	3.14	0.82	3.96
16.75	2.00	0.80	5.00	3.14	0.82	3.96
16.80	2.00	0.80	5.00	3.14	0.82	3.96
16.85	2.00	0.80	5.00	3.14	0.82	3.96
16.90	2.00	0.80	5.00	3.14	0.82	3.96
16.95	2.00	0.80	5.00	3.14	0.82	3.96
17.00	2.00	0.80	5.00	3.14	0.82	3.96
17.05	2.00	0.80	5.00	3.14	0.82	3.96
17.10	2.00	0.80	5.00	3.14	0.82	3.96
17.15	2.00	0.79	5.00	3.14	0.82	3.96
17.20	2.00	0.79	5.00	3.14	0.82	3.96
17.25	2.00	0.79	5.00	3.14	0.82	3.96
17.30	2.00	0.79	5.00	3.14	0.82	3.96
17.35	2.00	0.79	5.00	3.14	0.82	3.96
17.40	2.00	0.79	5.00	3.14	0.82	3.96
17.45	2.00	0.79	5.00	3.14	0.82	3.96
17.50	2.00	0.79	5.00	3.14	0.82	3.96
17.55	2.00	0.79	5.00	3.14	0.82	3.96
17.60	2.00	0.79	5.00	3.14	0.82	3.96
17.65	2.00	0.79	5.00	3.14	0.82	3.96
17.70	2.00	0.79	5.00	3.14	0.82	3.96
17.75	2.00	0.79	5.00	3.14	0.82	3.96
17.80	2.00	0.79	5.00	3.14	0.82	3.96
17.85	2.00	0.79	5.00	3.14	0.82	3.96
17.90	2.00	0.79	5.00	3.14	0.82	3.96
17.95	2.00	0.79	5.00	3.14	0.82	3.96
18.00	2.00	0.79	5.00	3.14	0.82	3.96
18.05	2.00	0.79	5.00	3.14	0.82	3.96
18.10	2.00	0.79	5.00	3.14	0.82	3.96
18.15	2.00	0.79	5.00	3.14	0.82	3.96
18.20	2.00	0.79	5.00	3.14	0.82	3.96
18.25	2.00	0.79	5.00	3.14	0.82	3.96

18.30	2.00	0.79	5.00	3.14	0.82	3.96
18.35	2.00	0.79	5.00	3.14	0.82	3.96
18.40	2.00	0.79	5.00	3.14	0.82	3.96
18.45	2.00	0.79	5.00	3.14	0.82	3.96
18.50	2.00	0.79	5.00	3.14	0.82	3.96
18.55	2.00	0.79	5.00	3.14	0.82	3.96
18.60	2.00	0.79	5.00	3.14	0.82	3.96
18.65	2.00	0.79	5.00	3.14	0.82	3.96
18.70	2.00	0.79	5.00	3.14	0.82	3.96
18.75	2.00	0.79	5.00	3.14	0.82	3.96
18.80	2.00	0.79	5.00	3.14	0.82	3.96
18.85	2.00	0.79	5.00	3.14	0.82	3.96
18.90	2.00	0.79	5.00	3.14	0.82	3.96
18.95	2.00	0.79	5.00	3.14	0.82	3.96
19.00	2.00	0.79	5.00	3.14	0.82	3.96
19.05	2.00	0.79	5.00	3.14	0.82	3.96
19.10	2.00	0.79	5.00	3.14	0.82	3.96
19.15	2.00	0.79	5.00	3.14	0.82	3.96
19.20	2.00	0.79	5.00	3.14	0.82	3.96
19.25	2.00	0.79	5.00	3.14	0.82	3.96
19.30	2.00	0.79	5.00	3.14	0.82	3.96
19.35	2.00	0.79	5.00	3.14	0.82	3.96
19.40	2.00	0.79	5.00	3.14	0.82	3.96
19.45	2.00	0.79	5.00	3.14	0.82	3.96
19.50	2.00	0.79	5.00	3.14	0.82	3.96
19.55	2.00	0.79	5.00	3.14	0.82	3.96
19.60	2.00	0.79	5.00	3.14	0.82	3.96
19.65	2.00	0.79	5.00	3.14	0.82	3.96
19.70	2.00	0.79	5.00	3.14	0.82	3.96
19.75	2.00	0.79	5.00	3.14	0.82	3.96
19.80	2.00	0.79	5.00	3.14	0.82	3.96
19.85	2.00	0.79	5.00	3.14	0.82	3.96
19.90	2.00	0.79	5.00	3.14	0.82	3.96
19.95	2.00	0.79	5.00	3.14	0.82	3.96
20.00	2.00	0.79	5.00	3.14	0.82	3.96
20.05	0.27	0.79	5.00	3.14	0.82	3.96
20.10	0.28	0.79	5.00	3.14	0.81	3.95
20.15	0.28	0.79	5.00	3.14	0.80	3.94
20.20	0.28	0.79	5.00	3.14	0.80	3.93
20.25	0.28	0.79	5.00	3.14	0.79	3.92
20.30	0.28	0.79	5.00	3.14	0.78	3.91
20.35	0.28	0.79	5.00	3.14	0.77	3.90
20.40	0.28	0.79	5.00	3.14	0.76	3.90
20.45	0.28	0.79	5.00	3.14	0.75	3.89
20.50	0.29	0.79	5.00	3.14	0.74	3.88
20.55	0.29	0.79	5.00	3.14	0.73	3.87
20.60	0.29	0.79	5.00	3.14	0.72	3.86
20.65	0.29	0.79	5.00	3.14	0.71	3.85
20.70	0.29	0.79	5.00	3.14	0.70	3.84
20.75	0.29	0.79	5.00	3.14	0.70	3.83

20.80	0.30	0.79	5.00	3.14	0.69	3.82
20.85	0.30	0.79	5.00	3.14	0.68	3.81
20.90	0.30	0.79	5.00	3.14	0.67	3.81
20.95	0.30	0.79	5.00	3.14	0.66	3.80
21.00	0.30	0.79	5.00	3.14	0.65	3.79
21.05	0.30	0.79	5.00	3.14	0.64	3.78
21.10	0.30	0.79	5.00	3.14	0.63	3.77
21.15	0.31	0.79	5.00	3.14	0.63	3.76
21.20	0.31	0.79	5.00	3.14	0.62	3.75
21.25	0.31	0.79	5.00	3.14	0.61	3.75
21.30	0.31	0.79	5.00	3.14	0.60	3.74
21.35	0.31	0.79	5.00	3.14	0.59	3.73
21.40	0.32	0.79	5.00	3.14	0.58	3.72
21.45	0.32	0.79	5.00	3.14	0.57	3.71
21.50	0.32	0.79	5.00	3.14	0.57	3.70
21.55	0.32	0.79	5.00	3.14	0.56	3.69
21.60	0.32	0.79	5.00	3.14	0.55	3.69
21.65	0.32	0.79	5.00	3.14	0.54	3.68
21.70	0.33	0.79	5.00	3.14	0.53	3.67
21.75	0.33	0.79	5.00	3.14	0.53	3.66
21.80	0.33	0.79	5.00	3.14	0.52	3.65
21.85	0.33	0.79	5.00	3.14	0.51	3.65
21.90	0.34	0.79	5.00	3.14	0.50	3.64
21.95	0.34	0.79	5.00	3.14	0.49	3.63
22.00	0.34	0.79	5.00	3.14	0.48	3.62
22.05	0.34	0.79	5.00	3.14	0.48	3.61
22.10	0.35	0.79	5.00	3.14	0.47	3.61
22.15	0.35	0.79	5.00	3.14	0.46	3.60
22.20	0.35	0.79	5.00	3.14	0.45	3.59
22.25	0.35	0.79	5.00	3.14	0.44	3.58
22.30	0.36	0.79	5.00	3.14	0.44	3.57
22.35	0.36	0.78	5.00	3.14	0.43	3.57
22.40	0.36	0.78	5.00	3.14	0.42	3.56
22.45	0.37	0.78	5.00	3.14	0.41	3.55
22.50	0.37	0.78	5.00	3.14	0.41	3.54
22.55	0.37	0.78	5.00	3.14	0.40	3.53
22.60	0.37	0.78	5.00	3.14	0.39	3.53
22.65	0.37	0.78	5.00	3.14	0.38	3.52
22.70	0.37	0.78	5.00	3.14	0.38	3.51
22.75	0.37	0.78	5.00	3.14	0.37	3.50
22.80	0.36	0.78	5.00	3.14	0.36	3.50
22.85	0.36	0.78	5.00	3.14	0.35	3.49
22.90	0.36	0.78	5.00	3.14	0.34	3.48
22.95	0.36	0.78	5.00	3.14	0.34	3.47
23.00	0.36	0.78	5.00	3.14	0.33	3.47
23.05	0.36	0.78	5.00	3.14	0.32	3.46
23.10	0.36	0.78	5.00	3.14	0.31	3.45
23.15	0.36	0.78	5.00	3.14	0.31	3.44
23.20	0.35	0.78	5.00	3.14	0.30	3.43
23.25	0.35	0.78	5.00	3.14	0.29	3.43

23.30	0.35	0.78	5.00	3.14	0.28	3.42
23.35	0.35	0.78	5.00	3.14	0.27	3.41
23.40	0.35	0.78	5.00	3.14	0.27	3.40
23.45	0.35	0.78	5.00	3.14	0.26	3.39
23.50	0.35	0.78	5.00	3.14	0.25	3.39
23.55	0.35	0.78	5.00	3.14	0.24	3.38
23.60	0.35	0.78	5.00	3.14	0.23	3.37
23.65	0.35	0.78	5.00	3.14	0.23	3.36
23.70	0.34	0.78	5.00	3.14	0.22	3.35
23.75	0.34	0.78	5.00	3.14	0.21	3.35
23.80	0.34	0.78	5.00	3.14	0.20	3.34
23.85	0.34	0.78	5.00	3.14	0.19	3.33
23.90	0.34	0.78	5.00	3.14	0.19	3.32
23.95	0.34	0.78	5.00	3.14	0.18	3.32
24.00	0.34	0.78	5.00	3.14	0.17	3.31
24.05	0.34	0.78	5.00	3.14	0.16	3.30
24.10	0.34	0.78	5.00	3.14	0.15	3.29
24.15	0.34	0.78	5.00	3.14	0.15	3.28
24.20	0.34	0.78	5.00	3.14	0.14	3.27
24.25	0.34	0.78	5.00	3.14	0.13	3.27
24.30	0.34	0.78	5.00	3.14	0.12	3.26
24.35	0.33	0.78	5.00	3.14	0.11	3.25
24.40	0.33	0.78	5.00	3.14	0.11	3.24
24.45	0.33	0.78	5.00	3.14	0.10	3.23
24.50	0.33	0.78	5.00	3.14	0.09	3.23
24.55	0.33	0.78	5.00	3.14	0.08	3.22
24.60	0.33	0.78	5.00	3.14	0.07	3.21
24.65	0.33	0.78	5.00	3.14	0.07	3.20
24.70	0.33	0.78	5.00	3.14	0.06	3.19
24.75	0.33	0.78	5.00	3.14	0.05	3.19
24.80	0.33	0.78	5.00	3.14	0.04	3.18
24.85	0.33	0.78	5.00	3.14	0.03	3.17
24.90	0.33	0.78	5.00	3.14	0.02	3.16
24.95	0.33	0.78	5.00	3.14	0.02	3.15
25.00	0.33	0.78	5.00	3.14	0.01	3.14
25.05	0.33	0.78	0.42*	3.14	0.00	3.14
25.10	0.33	0.78	0.42*	3.13	0.00	3.13
25.15	0.33	0.78	0.42*	3.13	0.00	3.13
25.20	0.33	0.78	0.43*	3.12	0.00	3.12
25.25	0.34	0.78	0.43*	3.11	0.00	3.11
25.30	0.34	0.78	0.43*	3.11	0.00	3.11
25.35	0.34	0.78	0.43*	3.10	0.00	3.10
25.40	0.34	0.78	0.44*	3.10	0.00	3.10
25.45	0.34	0.79	0.44*	3.09	0.00	3.09
25.50	0.35	0.79	0.44*	3.09	0.00	3.09
25.55	0.35	0.79	0.44*	3.08	0.00	3.08
25.60	0.35	0.79	0.45*	3.08	0.00	3.08
25.65	0.36	0.79	0.45*	3.07	0.00	3.07
25.70	0.36	0.79	0.46*	3.07	0.00	3.07
25.75	0.36	0.79	0.46*	3.06	0.00	3.06

25.80	0.37	0.79	0.46*	3.06	0.00	3.06
25.85	0.37	0.79	0.47*	3.05	0.00	3.05
25.90	0.37	0.79	0.47*	3.05	0.00	3.05
25.95	0.38	0.79	0.48*	3.04	0.00	3.04
26.00	0.38	0.79	0.48*	3.04	0.00	3.04
26.05	0.39	0.79	0.49*	3.03	0.00	3.03
26.10	0.39	0.79	0.50*	3.03	0.00	3.03
26.15	0.40	0.79	0.50*	3.02	0.00	3.02
26.20	0.41	0.80	0.51*	3.02	0.00	3.02
26.25	0.42	0.80	0.53*	3.01	0.00	3.01
26.30	0.43	0.80	0.54*	3.01	0.00	3.01
26.35	0.45	0.80	0.56*	3.00	0.00	3.00
26.40	1.87	0.80	2.34	3.00	0.00	3.00
26.45	1.87	0.80	2.34	2.99	0.00	2.99
26.50	1.87	0.80	2.34	2.99	0.00	2.99
26.55	1.87	0.80	2.34	2.99	0.00	2.99
26.60	1.87	0.80	2.33	2.98	0.00	2.98
26.65	1.87	0.80	2.33	2.98	0.00	2.98
26.70	1.87	0.80	2.33	2.97	0.00	2.97
26.75	1.87	0.80	2.33	2.97	0.00	2.97
26.80	1.87	0.80	2.32	2.96	0.00	2.96
26.85	1.87	0.80	2.32	2.96	0.00	2.96
26.90	1.87	0.80	2.32	2.96	0.00	2.96
26.95	1.87	0.81	2.32	2.95	0.00	2.95
27.00	1.86	0.81	2.31	2.95	0.00	2.95
27.05	1.86	0.81	2.31	2.95	0.00	2.95
27.10	1.86	0.81	2.31	2.94	0.00	2.94
27.15	1.86	0.81	2.31	2.94	0.00	2.94
27.20	1.86	0.81	2.30	2.93	0.00	2.93
27.25	1.86	0.81	2.30	2.93	0.00	2.93
27.30	1.86	0.81	2.30	2.93	0.00	2.93
27.35	1.86	0.81	2.30	2.92	0.00	2.92
27.40	1.86	0.81	2.29	2.92	0.00	2.92
27.45	1.86	0.81	2.29	2.92	0.00	2.92
27.50	1.86	0.81	2.29	2.91	0.00	2.91
27.55	1.86	0.81	2.29	2.91	0.00	2.91
27.60	1.86	0.81	2.28	2.91	0.00	2.91
27.65	1.86	0.81	2.28	2.90	0.00	2.90
27.70	1.86	0.82	2.28	2.90	0.00	2.90
27.75	1.86	0.82	2.28	2.90	0.00	2.90
27.80	1.86	0.82	2.27	2.89	0.00	2.89
27.85	1.86	0.82	2.27	2.89	0.00	2.89
27.90	1.85	0.82	2.27	2.89	0.00	2.89
27.95	1.85	0.82	2.27	2.88	0.00	2.88
28.00	1.85	0.82	2.26	2.88	0.00	2.88
28.05	1.85	0.82	2.26	2.88	0.00	2.88
28.10	1.85	0.82	2.26	2.87	0.00	2.87
28.15	1.85	0.82	2.26	2.87	0.00	2.87
28.20	1.85	0.82	2.25	2.87	0.00	2.87
28.25	1.85	0.82	2.25	2.86	0.00	2.86

28.30	1.85	0.82	2.25	2.86	0.00	2.86
28.35	1.85	0.82	2.25	2.86	0.00	2.86
28.40	1.85	0.82	2.24	2.85	0.00	2.85
28.45	1.85	0.82	2.24	2.85	0.00	2.85
28.50	1.85	0.83	2.24	2.85	0.00	2.85
28.55	1.85	0.83	2.24	2.84	0.00	2.84
28.60	1.85	0.83	2.24	2.84	0.00	2.84
28.65	1.85	0.83	2.23	2.84	0.00	2.84
28.70	1.85	0.83	2.23	2.83	0.00	2.83
28.75	1.85	0.83	2.23	2.83	0.00	2.83
28.80	1.84	0.83	2.23	2.82	0.00	2.82
28.85	1.84	0.83	2.22	2.82	0.00	2.82
28.90	0.45	0.83	0.54*	2.81	0.00	2.81
28.95	0.42	0.83	0.50*	2.81	0.00	2.81
29.00	0.40	0.83	0.48*	2.81	0.00	2.81
29.05	0.39	0.83	0.46*	2.80	0.00	2.80
29.10	0.38	0.83	0.45*	2.80	0.00	2.80
29.15	0.37	0.83	0.44*	2.79	0.00	2.79
29.20	0.36	0.83	0.43*	2.79	0.00	2.79
29.25	0.35	0.83	0.42*	2.78	0.00	2.78
29.30	0.35	0.83	0.42*	2.78	0.00	2.78
29.35	0.34	0.84	0.41*	2.77	0.00	2.77
29.40	0.34	0.84	0.40*	2.77	0.00	2.77
29.45	0.33	0.84	0.40*	2.76	0.00	2.76
29.50	0.33	0.84	0.39*	2.76	0.00	2.76
29.55	0.33	0.84	0.39*	2.75	0.00	2.75
29.60	0.32	0.84	0.38*	2.74	0.00	2.74
29.65	0.32	0.84	0.38*	2.74	0.00	2.74
29.70	0.31	0.84	0.37*	2.73	0.00	2.73
29.75	0.31	0.84	0.37*	2.73	0.00	2.73
29.80	0.31	0.84	0.36*	2.72	0.00	2.72
29.85	0.30	0.84	0.36*	2.71	0.00	2.71
29.90	0.30	0.84	0.36*	2.71	0.00	2.71
29.95	0.30	0.84	0.35*	2.70	0.00	2.70
30.00	0.29	0.84	0.35*	2.70	0.00	2.70
30.05	0.29	0.84	0.34*	2.69	0.00	2.69
30.10	0.29	0.84	0.34*	2.68	0.00	2.68
30.15	0.29	0.84	0.34*	2.68	0.00	2.68
30.20	0.28	0.84	0.34*	2.67	0.00	2.67
30.25	0.28	0.84	0.34*	2.66	0.00	2.66
30.30	0.28	0.84	0.33*	2.66	0.00	2.66
30.35	0.28	0.84	0.33*	2.65	0.00	2.65
30.40	0.28	0.84	0.33*	2.64	0.00	2.64
30.45	0.28	0.84	0.33*	2.64	0.00	2.64
30.50	0.27	0.85	0.32*	2.63	0.00	2.63
30.55	0.27	0.85	0.32*	2.62	0.00	2.62
30.60	0.27	0.85	0.32*	2.62	0.00	2.62
30.65	0.27	0.85	0.32*	2.61	0.00	2.61
30.70	0.27	0.85	0.32*	2.60	0.00	2.60
30.75	0.27	0.85	0.31*	2.60	0.00	2.60

30.80	0.26	0.85	0.31*	2.59	0.00	2.59
30.85	0.26	0.85	0.31*	2.58	0.00	2.58
30.90	0.26	0.85	0.31*	2.57	0.00	2.57
30.95	0.26	0.85	0.31*	2.57	0.00	2.57
31.00	0.26	0.85	0.30*	2.56	0.00	2.56
31.05	0.26	0.85	0.30*	2.55	0.00	2.55
31.10	0.25	0.85	0.30*	2.55	0.00	2.55
31.15	0.25	0.85	0.30*	2.54	0.00	2.54
31.20	0.25	0.85	0.30*	2.53	0.00	2.53
31.25	0.25	0.85	0.29*	2.52	0.00	2.52
31.30	0.25	0.85	0.29*	2.52	0.00	2.52
31.35	0.25	0.85	0.29*	2.51	0.00	2.51
31.40	0.25	0.85	0.29*	2.50	0.00	2.50
31.45	0.24	0.85	0.29*	2.49	0.00	2.49
31.50	0.24	0.85	0.29*	2.49	0.00	2.49
31.55	0.24	0.85	0.28*	2.48	0.00	2.48
31.60	0.24	0.85	0.28*	2.47	0.00	2.47
31.65	0.24	0.85	0.28*	2.46	0.00	2.46
31.70	0.24	0.85	0.28*	2.46	0.00	2.46
31.75	0.24	0.85	0.28*	2.45	0.00	2.45
31.80	0.24	0.85	0.28*	2.44	0.00	2.44
31.85	0.23	0.85	0.27*	2.43	0.00	2.43
31.90	0.23	0.85	0.27*	2.43	0.00	2.43
31.95	0.23	0.85	0.27*	2.42	0.00	2.42
32.00	0.23	0.85	0.27*	2.41	0.00	2.41
32.05	0.23	0.85	0.27*	2.40	0.00	2.40
32.10	0.23	0.85	0.27*	2.39	0.00	2.39
32.15	0.23	0.85	0.27*	2.39	0.00	2.39
32.20	0.23	0.85	0.26*	2.38	0.00	2.38
32.25	0.22	0.85	0.26*	2.37	0.00	2.37
32.30	0.22	0.85	0.26*	2.36	0.00	2.36
32.35	0.22	0.85	0.26*	2.36	0.00	2.36
32.40	0.22	0.85	0.26*	2.35	0.00	2.35
32.45	0.22	0.85	0.26*	2.34	0.00	2.34
32.50	0.22	0.86	0.26*	2.33	0.00	2.33
32.55	0.22	0.86	0.26*	2.32	0.00	2.32
32.60	0.22	0.86	0.26*	2.31	0.00	2.31
32.65	0.22	0.86	0.26*	2.31	0.00	2.31
32.70	0.22	0.86	0.26*	2.30	0.00	2.30
32.75	0.22	0.86	0.26*	2.29	0.00	2.29
32.80	0.23	0.86	0.26*	2.28	0.00	2.28
32.85	0.23	0.86	0.27*	2.27	0.00	2.27
32.90	0.23	0.86	0.27*	2.27	0.00	2.27
32.95	0.23	0.86	0.27*	2.26	0.00	2.26
33.00	0.23	0.86	0.27*	2.25	0.00	2.25
33.05	0.23	0.86	0.27*	2.24	0.00	2.24
33.10	0.23	0.86	0.27*	2.24	0.00	2.24
33.15	0.24	0.86	0.28*	2.23	0.00	2.23
33.20	0.24	0.86	0.28*	2.22	0.00	2.22
33.25	0.24	0.86	0.28*	2.21	0.00	2.21

33.30	0.24	0.86	0.28*	2.20	0.00	2.20
33.35	0.24	0.86	0.28*	2.20	0.00	2.20
33.40	0.24	0.86	0.28*	2.19	0.00	2.19
33.45	0.24	0.86	0.28*	2.18	0.00	2.18
33.50	0.25	0.86	0.29*	2.17	0.00	2.17
33.55	0.25	0.86	0.29*	2.17	0.00	2.17
33.60	0.25	0.86	0.29*	2.16	0.00	2.16
33.65	0.25	0.86	0.29*	2.15	0.00	2.15
33.70	0.25	0.86	0.29*	2.15	0.00	2.15
33.75	0.25	0.86	0.30*	2.14	0.00	2.14
33.80	0.26	0.86	0.30*	2.13	0.00	2.13
33.85	0.26	0.86	0.30*	2.12	0.00	2.12
33.90	0.26	0.86	0.30*	2.12	0.00	2.12
33.95	0.26	0.86	0.30*	2.11	0.00	2.11
34.00	0.26	0.86	0.30*	2.10	0.00	2.10
34.05	0.26	0.86	0.31*	2.10	0.00	2.10
34.10	0.27	0.86	0.31*	2.09	0.00	2.09
34.15	0.27	0.86	0.31*	2.08	0.00	2.08
34.20	0.27	0.86	0.31*	2.08	0.00	2.08
34.25	0.27	0.86	0.31*	2.07	0.00	2.07
34.30	0.27	0.86	0.32*	2.06	0.00	2.06
34.35	0.27	0.86	0.32*	2.06	0.00	2.06
34.40	0.28	0.86	0.32*	2.05	0.00	2.05
34.45	0.28	0.86	0.32*	2.04	0.00	2.04
34.50	0.28	0.86	0.33*	2.04	0.00	2.04
34.55	0.28	0.86	0.33*	2.03	0.00	2.03
34.60	0.28	0.86	0.33*	2.02	0.00	2.02
34.65	0.29	0.86	0.33*	2.02	0.00	2.02
34.70	0.29	0.86	0.33*	2.01	0.00	2.01
34.75	0.29	0.86	0.34*	2.00	0.00	2.00
34.80	0.29	0.86	0.34*	2.00	0.00	2.00
34.85	0.30	0.86	0.34*	1.99	0.00	1.99
34.90	0.30	0.86	0.34*	1.99	0.00	1.99
34.95	0.30	0.86	0.35*	1.98	0.00	1.98
35.00	0.30	0.86	0.35*	1.97	0.00	1.97
35.05	0.30	0.86	0.35*	1.97	0.00	1.97
35.10	0.31	0.86	0.35*	1.96	0.00	1.96
35.15	0.31	0.86	0.36*	1.96	0.00	1.96
35.20	0.31	0.86	0.36*	1.95	0.00	1.95
35.25	0.31	0.86	0.36*	1.94	0.00	1.94
35.30	0.31	0.86	0.36*	1.94	0.00	1.94
35.35	0.31	0.87	0.36*	1.93	0.00	1.93
35.40	0.32	0.87	0.37*	1.93	0.00	1.93
35.45	0.32	0.87	0.37*	1.92	0.00	1.92
35.50	0.32	0.87	0.37*	1.92	0.00	1.92
35.55	0.32	0.87	0.37*	1.91	0.00	1.91
35.60	0.32	0.87	0.38*	1.90	0.00	1.90
35.65	0.33	0.87	0.38*	1.90	0.00	1.90
35.70	0.33	0.87	0.38*	1.89	0.00	1.89
35.75	0.33	0.87	0.38*	1.89	0.00	1.89

35.80	0.33	0.87	0.39*	1.88	0.00	1.88
35.85	0.34	0.87	0.39*	1.88	0.00	1.88
35.90	0.34	0.87	0.39*	1.87	0.00	1.87
35.95	0.34	0.87	0.40*	1.87	0.00	1.87
36.00	0.35	0.87	0.40*	1.86	0.00	1.86
36.05	0.35	0.87	0.41*	1.86	0.00	1.86
36.10	0.36	0.87	0.41*	1.85	0.00	1.85
36.15	0.36	0.87	0.42*	1.85	0.00	1.85
36.20	0.37	0.87	0.42*	1.84	0.00	1.84
36.25	0.37	0.87	0.43*	1.84	0.00	1.84
36.30	0.38	0.87	0.44*	1.83	0.00	1.83
36.35	0.39	0.87	0.45*	1.83	0.00	1.83
36.40	0.40	0.87	0.46*	1.82	0.00	1.82
36.45	0.41	0.87	0.48*	1.82	0.00	1.82
36.50	0.44	0.87	0.50*	1.82	0.00	1.82
36.55	1.76	0.87	2.03	1.81	0.00	1.81
36.60	1.76	0.87	2.03	1.81	0.00	1.81
36.65	1.76	0.87	2.03	1.80	0.00	1.80
36.70	1.76	0.87	2.03	1.80	0.00	1.80
36.75	1.76	0.87	2.03	1.79	0.00	1.79
36.80	1.76	0.87	2.03	1.79	0.00	1.79
36.85	1.76	0.87	2.03	1.79	0.00	1.79
36.90	1.76	0.87	2.03	1.78	0.00	1.78
36.95	1.76	0.87	2.02	1.78	0.00	1.78
37.00	1.76	0.87	2.02	1.77	0.00	1.77
37.05	1.76	0.87	2.02	1.77	0.00	1.77
37.10	1.76	0.87	2.02	1.77	0.00	1.77
37.15	1.76	0.87	2.02	1.76	0.00	1.76
37.20	1.76	0.87	2.02	1.76	0.00	1.76
37.25	1.76	0.87	2.02	1.75	0.00	1.75
37.30	1.75	0.87	2.02	1.75	0.00	1.75
37.35	1.75	0.87	2.02	1.75	0.00	1.75
37.40	1.75	0.87	2.02	1.74	0.00	1.74
37.45	1.75	0.87	2.02	1.74	0.00	1.74
37.50	1.75	0.87	2.02	1.74	0.00	1.74
37.55	1.75	0.87	2.01	1.73	0.00	1.73
37.60	1.75	0.87	2.01	1.73	0.00	1.73
37.65	1.75	0.87	2.01	1.73	0.00	1.73
37.70	1.75	0.87	2.01	1.72	0.00	1.72
37.75	1.75	0.87	2.01	1.72	0.00	1.72
37.80	1.75	0.87	2.01	1.72	0.00	1.72
37.85	1.75	0.87	2.01	1.71	0.00	1.71
37.90	1.75	0.87	2.01	1.71	0.00	1.71
37.95	1.75	0.87	2.01	1.71	0.00	1.71
38.00	1.75	0.87	2.01	1.70	0.00	1.70
38.05	1.75	0.87	2.01	1.70	0.00	1.70
38.10	1.75	0.87	2.01	1.70	0.00	1.70
38.15	1.75	0.87	2.01	1.69	0.00	1.69
38.20	1.75	0.87	2.01	1.69	0.00	1.69
38.25	1.75	0.87	2.01	1.69	0.00	1.69

38.30	1.75	0.87	2.01	1.68	0.00	1.68
38.35	1.75	0.87	2.01	1.68	0.00	1.68
38.40	1.75	0.87	2.00	1.67	0.00	1.67
38.45	1.75	0.87	2.00	1.67	0.00	1.67
38.50	1.75	0.87	2.00	1.67	0.00	1.67
38.55	1.75	0.87	2.00	1.66	0.00	1.66
38.60	1.74	0.87	2.00	1.66	0.00	1.66
38.65	1.74	0.87	2.00	1.65	0.00	1.65
38.70	1.74	0.87	2.00	1.65	0.00	1.65
38.75	1.74	0.87	2.00	1.65	0.00	1.65
38.80	1.74	0.87	2.00	1.64	0.00	1.64
38.85	1.74	0.87	2.00	1.64	0.00	1.64
38.90	1.74	0.87	2.00	1.64	0.00	1.64
38.95	1.74	0.87	2.00	1.63	0.00	1.63
39.00	1.74	0.87	2.00	1.63	0.00	1.63
39.05	1.74	0.87	2.00	1.62	0.00	1.62
39.10	1.74	0.87	2.00	1.62	0.00	1.62
39.15	1.74	0.87	2.00	1.62	0.00	1.62
39.20	1.74	0.87	2.00	1.61	0.00	1.61
39.25	1.74	0.87	2.00	1.61	0.00	1.61
39.30	1.74	0.87	2.00	1.60	0.00	1.60
39.35	1.74	0.87	2.00	1.60	0.00	1.60
39.40	1.74	0.87	2.00	1.59	0.00	1.59
39.45	1.74	0.87	2.00	1.59	0.00	1.59
39.50	1.74	0.87	2.00	1.59	0.00	1.59
39.55	1.74	0.87	2.00	1.58	0.00	1.58
39.60	1.74	0.87	2.00	1.58	0.00	1.58
39.65	1.74	0.87	2.00	1.57	0.00	1.57
39.70	1.74	0.87	2.00	1.57	0.00	1.57
39.75	1.74	0.87	1.99	1.57	0.00	1.57
39.80	1.74	0.87	1.99	1.56	0.00	1.56
39.85	1.74	0.87	1.99	1.56	0.00	1.56
39.90	1.74	0.87	1.99	1.55	0.00	1.55
39.95	1.74	0.87	1.99	1.55	0.00	1.55
40.00	0.43	0.87	0.49*	1.54	0.00	1.54
40.05	1.74	0.87	1.99	1.54	0.00	1.54
40.10	1.74	0.87	1.99	1.53	0.00	1.53
40.15	1.74	0.87	1.99	1.53	0.00	1.53
40.20	1.74	0.87	1.99	1.53	0.00	1.53
40.25	1.74	0.87	1.99	1.52	0.00	1.52
40.30	1.74	0.87	1.99	1.52	0.00	1.52
40.35	1.74	0.87	1.99	1.51	0.00	1.51
40.40	1.74	0.87	1.99	1.51	0.00	1.51
40.45	1.74	0.87	1.99	1.51	0.00	1.51
40.50	1.74	0.87	1.99	1.50	0.00	1.50
40.55	1.74	0.87	1.99	1.50	0.00	1.50
40.60	1.74	0.87	1.99	1.49	0.00	1.49
40.65	1.74	0.87	1.99	1.49	0.00	1.49
40.70	1.74	0.87	1.99	1.49	0.00	1.49
40.75	1.73	0.87	1.99	1.48	0.00	1.48

40.80	1.73	0.87	1.99	1.48	0.00	1.48
40.85	1.73	0.87	1.99	1.47	0.00	1.47
40.90	1.73	0.87	1.99	1.47	0.00	1.47
40.95	1.73	0.87	1.99	1.47	0.00	1.47
41.00	1.73	0.87	1.99	1.46	0.00	1.46
41.05	1.73	0.87	1.99	1.46	0.00	1.46
41.10	1.73	0.87	1.99	1.45	0.00	1.45
41.15	1.73	0.87	1.99	1.45	0.00	1.45
41.20	1.73	0.87	1.99	1.44	0.00	1.44
41.25	1.73	0.87	1.99	1.44	0.00	1.44
41.30	0.42	0.87	0.48*	1.44	0.00	1.44
41.35	0.40	0.87	0.46*	1.43	0.00	1.43
41.40	0.39	0.87	0.44*	1.43	0.00	1.43
41.45	0.38	0.87	0.44*	1.42	0.00	1.42
41.50	0.36	0.87	0.41*	1.42	0.00	1.42
41.55	0.34	0.87	0.39*	1.41	0.00	1.41
41.60	0.33	0.87	0.38*	1.41	0.00	1.41
41.65	0.32	0.87	0.37*	1.40	0.00	1.40
41.70	0.32	0.87	0.36*	1.40	0.00	1.40
41.75	0.31	0.87	0.35*	1.39	0.00	1.39
41.80	0.30	0.87	0.35*	1.39	0.00	1.39
41.85	0.30	0.87	0.34*	1.38	0.00	1.38
41.90	0.29	0.87	0.34*	1.37	0.00	1.37
41.95	0.29	0.87	0.33*	1.37	0.00	1.37
42.00	0.28	0.87	0.32*	1.36	0.00	1.36
42.05	0.28	0.87	0.32*	1.36	0.00	1.36
42.10	0.27	0.87	0.31*	1.35	0.00	1.35
42.15	0.27	0.87	0.31*	1.34	0.00	1.34
42.20	0.27	0.87	0.31*	1.34	0.00	1.34
42.25	0.26	0.87	0.30*	1.33	0.00	1.33
42.30	0.26	0.87	0.30*	1.32	0.00	1.32
42.35	0.26	0.87	0.29*	1.32	0.00	1.32
42.40	0.25	0.87	0.29*	1.31	0.00	1.31
42.45	0.25	0.87	0.29*	1.30	0.00	1.30
42.50	0.25	0.87	0.28*	1.30	0.00	1.30
42.55	0.25	0.87	0.28*	1.29	0.00	1.29
42.60	0.25	0.87	0.28*	1.28	0.00	1.28
42.65	0.25	0.87	0.28*	1.27	0.00	1.27
42.70	0.25	0.87	0.28*	1.27	0.00	1.27
42.75	0.25	0.87	0.28*	1.26	0.00	1.26
42.80	0.25	0.87	0.28*	1.25	0.00	1.25
42.85	0.25	0.87	0.28*	1.25	0.00	1.25
42.90	0.25	0.87	0.28*	1.24	0.00	1.24
42.95	0.25	0.87	0.28*	1.23	0.00	1.23
43.00	0.25	0.87	0.28*	1.22	0.00	1.22
43.05	0.25	0.87	0.28*	1.22	0.00	1.22
43.10	0.25	0.87	0.28*	1.21	0.00	1.21
43.15	0.25	0.87	0.28*	1.20	0.00	1.20
43.20	0.25	0.87	0.28*	1.20	0.00	1.20
43.25	0.25	0.87	0.28*	1.19	0.00	1.19

43.30	0.25	0.87	0.28*	1.18	0.00	1.18
43.35	0.25	0.87	0.28*	1.18	0.00	1.18
43.40	0.25	0.87	0.29*	1.17	0.00	1.17
43.45	0.25	0.87	0.29*	1.16	0.00	1.16
43.50	0.25	0.87	0.29*	1.15	0.00	1.15
43.55	0.25	0.87	0.29*	1.15	0.00	1.15
43.60	0.25	0.87	0.29*	1.14	0.00	1.14
43.65	0.25	0.87	0.29*	1.13	0.00	1.13
43.70	0.25	0.87	0.29*	1.13	0.00	1.13
43.75	0.25	0.87	0.29*	1.12	0.00	1.12
43.80	0.25	0.87	0.29*	1.11	0.00	1.11
43.85	0.25	0.87	0.29*	1.11	0.00	1.11
43.90	0.25	0.87	0.29*	1.10	0.00	1.10
43.95	0.25	0.87	0.29*	1.09	0.00	1.09
44.00	0.25	0.87	0.29*	1.08	0.00	1.08
44.05	0.25	0.87	0.29*	1.08	0.00	1.08
44.10	0.25	0.87	0.29*	1.07	0.00	1.07
44.15	0.25	0.87	0.29*	1.06	0.00	1.06
44.20	0.25	0.87	0.29*	1.06	0.00	1.06
44.25	0.25	0.87	0.29*	1.05	0.00	1.05
44.30	0.25	0.87	0.29*	1.04	0.00	1.04
44.35	0.25	0.87	0.29*	1.04	0.00	1.04
44.40	0.25	0.87	0.29*	1.03	0.00	1.03
44.45	0.25	0.87	0.29*	1.02	0.00	1.02
44.50	0.25	0.87	0.29*	1.02	0.00	1.02
44.55	0.25	0.87	0.29*	1.01	0.00	1.01
44.60	0.25	0.87	0.29*	1.00	0.00	1.00
44.65	0.25	0.87	0.29*	1.00	0.00	1.00
44.70	0.25	0.87	0.29*	0.99	0.00	0.99
44.75	0.25	0.87	0.29*	0.98	0.00	0.98
44.80	0.25	0.87	0.29*	0.97	0.00	0.97
44.85	0.25	0.87	0.29*	0.97	0.00	0.97
44.90	0.25	0.87	0.29*	0.96	0.00	0.96
44.95	0.25	0.87	0.29*	0.95	0.00	0.95
45.00	0.25	0.87	0.29*	0.95	0.00	0.95
45.05	0.25	0.87	0.29*	0.94	0.00	0.94
45.10	0.25	0.87	0.29*	0.93	0.00	0.93
45.15	0.25	0.87	0.29*	0.93	0.00	0.93
45.20	0.25	0.87	0.29*	0.92	0.00	0.92
45.25	0.25	0.87	0.29*	0.91	0.00	0.91
45.30	0.25	0.87	0.29*	0.91	0.00	0.91
45.35	0.25	0.87	0.29*	0.90	0.00	0.90
45.40	0.25	0.87	0.29*	0.89	0.00	0.89
45.45	0.25	0.87	0.29*	0.89	0.00	0.89
45.50	0.25	0.87	0.29*	0.88	0.00	0.88
45.55	0.25	0.87	0.29*	0.87	0.00	0.87
45.60	0.25	0.87	0.29*	0.86	0.00	0.86
45.65	0.25	0.87	0.29*	0.86	0.00	0.86
45.70	0.25	0.87	0.29*	0.85	0.00	0.85
45.75	0.25	0.87	0.29*	0.84	0.00	0.84

45.80	0.25	0.87	0.29*	0.84	0.00	0.84
45.85	0.25	0.87	0.29*	0.83	0.00	0.83
45.90	0.25	0.87	0.29*	0.82	0.00	0.82
45.95	0.25	0.87	0.29*	0.82	0.00	0.82
46.00	0.25	0.87	0.29*	0.81	0.00	0.81
46.05	0.25	0.87	0.29*	0.80	0.00	0.80
46.10	0.25	0.87	0.29*	0.80	0.00	0.80
46.15	0.25	0.87	0.29*	0.79	0.00	0.79
46.20	0.25	0.87	0.29*	0.78	0.00	0.78
46.25	0.25	0.87	0.29*	0.78	0.00	0.78
46.30	0.25	0.87	0.29*	0.77	0.00	0.77
46.35	0.25	0.87	0.29*	0.76	0.00	0.76
46.40	0.25	0.87	0.29*	0.75	0.00	0.75
46.45	0.25	0.87	0.29*	0.75	0.00	0.75
46.50	0.25	0.87	0.29*	0.74	0.00	0.74
46.55	0.25	0.87	0.29*	0.73	0.00	0.73
46.60	0.25	0.87	0.29*	0.73	0.00	0.73
46.65	0.25	0.87	0.29*	0.72	0.00	0.72
46.70	0.25	0.87	0.29*	0.71	0.00	0.71
46.75	0.25	0.87	0.29*	0.71	0.00	0.71
46.80	0.25	0.87	0.29*	0.70	0.00	0.70
46.85	0.25	0.87	0.29*	0.69	0.00	0.69
46.90	0.25	0.87	0.29*	0.69	0.00	0.69
46.95	0.25	0.87	0.29*	0.68	0.00	0.68
47.00	0.25	0.87	0.29*	0.67	0.00	0.67
47.05	0.25	0.87	0.29*	0.66	0.00	0.66
47.10	0.25	0.87	0.29*	0.66	0.00	0.66
47.15	0.25	0.87	0.29*	0.65	0.00	0.65
47.20	0.25	0.87	0.29*	0.64	0.00	0.64
47.25	0.25	0.87	0.29*	0.64	0.00	0.64
47.30	0.25	0.87	0.29*	0.63	0.00	0.63
47.35	0.25	0.86	0.29*	0.62	0.00	0.62
47.40	0.25	0.86	0.29*	0.62	0.00	0.62
47.45	0.25	0.86	0.29*	0.61	0.00	0.61
47.50	0.25	0.86	0.29*	0.60	0.00	0.60
47.55	0.25	0.86	0.29*	0.60	0.00	0.60
47.60	0.25	0.86	0.29*	0.59	0.00	0.59
47.65	0.25	0.86	0.28*	0.58	0.00	0.58
47.70	0.25	0.86	0.28*	0.57	0.00	0.57
47.75	0.24	0.86	0.28*	0.57	0.00	0.57
47.80	0.24	0.86	0.28*	0.56	0.00	0.56
47.85	0.24	0.86	0.28*	0.55	0.00	0.55
47.90	0.24	0.86	0.28*	0.55	0.00	0.55
47.95	0.24	0.86	0.28*	0.54	0.00	0.54
48.00	0.24	0.86	0.28*	0.53	0.00	0.53
48.05	0.24	0.86	0.28*	0.52	0.00	0.52
48.10	0.24	0.86	0.28*	0.52	0.00	0.52
48.15	0.24	0.86	0.28*	0.51	0.00	0.51
48.20	0.24	0.86	0.28*	0.50	0.00	0.50
48.25	0.24	0.86	0.28*	0.50	0.00	0.50

48.30	0.24	0.86	0.28*	0.49	0.00	0.49
48.35	0.24	0.86	0.27*	0.48	0.00	0.48
48.40	0.24	0.86	0.27*	0.47	0.00	0.47
48.45	0.24	0.86	0.27*	0.47	0.00	0.47
48.50	0.23	0.86	0.27*	0.46	0.00	0.46
48.55	0.23	0.86	0.27*	0.45	0.00	0.45
48.60	0.23	0.86	0.27*	0.45	0.00	0.45
48.65	0.23	0.86	0.27*	0.44	0.00	0.44
48.70	0.23	0.86	0.27*	0.43	0.00	0.43
48.75	0.23	0.86	0.27*	0.42	0.00	0.42
48.80	0.23	0.86	0.27*	0.42	0.00	0.42
48.85	0.23	0.86	0.27*	0.41	0.00	0.41
48.90	0.23	0.86	0.27*	0.40	0.00	0.40
48.95	0.23	0.86	0.27*	0.39	0.00	0.39
49.00	0.23	0.86	0.27*	0.39	0.00	0.39
49.05	0.23	0.86	0.27*	0.38	0.00	0.38
49.10	0.23	0.86	0.26*	0.37	0.00	0.37
49.15	0.23	0.86	0.26*	0.36	0.00	0.36
49.20	0.23	0.86	0.26*	0.36	0.00	0.36
49.25	0.23	0.86	0.26*	0.35	0.00	0.35
49.30	0.23	0.86	0.26*	0.34	0.00	0.34
49.35	0.22	0.86	0.26*	0.33	0.00	0.33
49.40	0.22	0.86	0.26*	0.33	0.00	0.33
49.45	0.22	0.86	0.26*	0.32	0.00	0.32
49.50	0.22	0.86	0.26*	0.31	0.00	0.31
49.55	0.22	0.86	0.26*	0.30	0.00	0.30
49.60	0.22	0.86	0.26*	0.30	0.00	0.30
49.65	0.22	0.86	0.26*	0.29	0.00	0.29
49.70	0.22	0.86	0.26*	0.28	0.00	0.28
49.75	0.22	0.86	0.26*	0.27	0.00	0.27
49.80	0.22	0.86	0.26*	0.27	0.00	0.27
49.85	0.22	0.86	0.26*	0.26	0.00	0.26
49.90	0.22	0.86	0.25*	0.25	0.00	0.25
49.95	0.22	0.86	0.25*	0.24	0.00	0.24
50.00	0.22	0.86	0.25*	0.23	0.00	0.23
50.05	0.22	0.86	0.25*	0.23	0.00	0.23
50.10	0.22	0.86	0.25*	0.22	0.00	0.22
50.15	0.22	0.86	0.25*	0.21	0.00	0.21
50.20	0.22	0.86	0.25*	0.20	0.00	0.20
50.25	0.22	0.86	0.25*	0.20	0.00	0.20
50.30	0.22	0.86	0.25*	0.19	0.00	0.19
50.35	0.22	0.86	0.25*	0.18	0.00	0.18
50.40	0.22	0.86	0.25*	0.17	0.00	0.17
50.45	0.22	0.86	0.25*	0.16	0.00	0.16
50.50	0.22	0.86	0.25*	0.16	0.00	0.16
50.55	0.22	0.86	0.25*	0.15	0.00	0.15
50.60	0.22	0.86	0.25*	0.14	0.00	0.14
50.65	0.22	0.86	0.25*	0.13	0.00	0.13
50.70	0.22	0.86	0.25*	0.13	0.00	0.13
50.75	0.22	0.86	0.25*	0.12	0.00	0.12

50.80	0.22	0.86	0.25*	0.11	0.00	0.11
50.85	0.22	0.86	0.25*	0.10	0.00	0.10
50.90	0.22	0.85	0.25*	0.09	0.00	0.09
50.95	0.22	0.85	0.25*	0.09	0.00	0.09
51.00	0.22	0.85	0.25*	0.08	0.00	0.08
51.05	0.22	0.85	0.25*	0.07	0.00	0.07
51.10	0.22	0.85	0.25*	0.06	0.00	0.06
51.15	0.22	0.85	0.25*	0.05	0.00	0.05
51.20	0.22	0.85	0.25*	0.05	0.00	0.05
51.25	0.22	0.85	0.25*	0.04	0.00	0.04
51.30	0.22	0.85	0.25*	0.03	0.00	0.03
51.35	0.22	0.85	0.25*	0.02	0.00	0.02
51.40	0.22	0.85	0.25*	0.02	0.00	0.02
51.45	0.22	0.85	0.25*	0.01	0.00	0.01
51.50	0.22	0.85	0.25*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

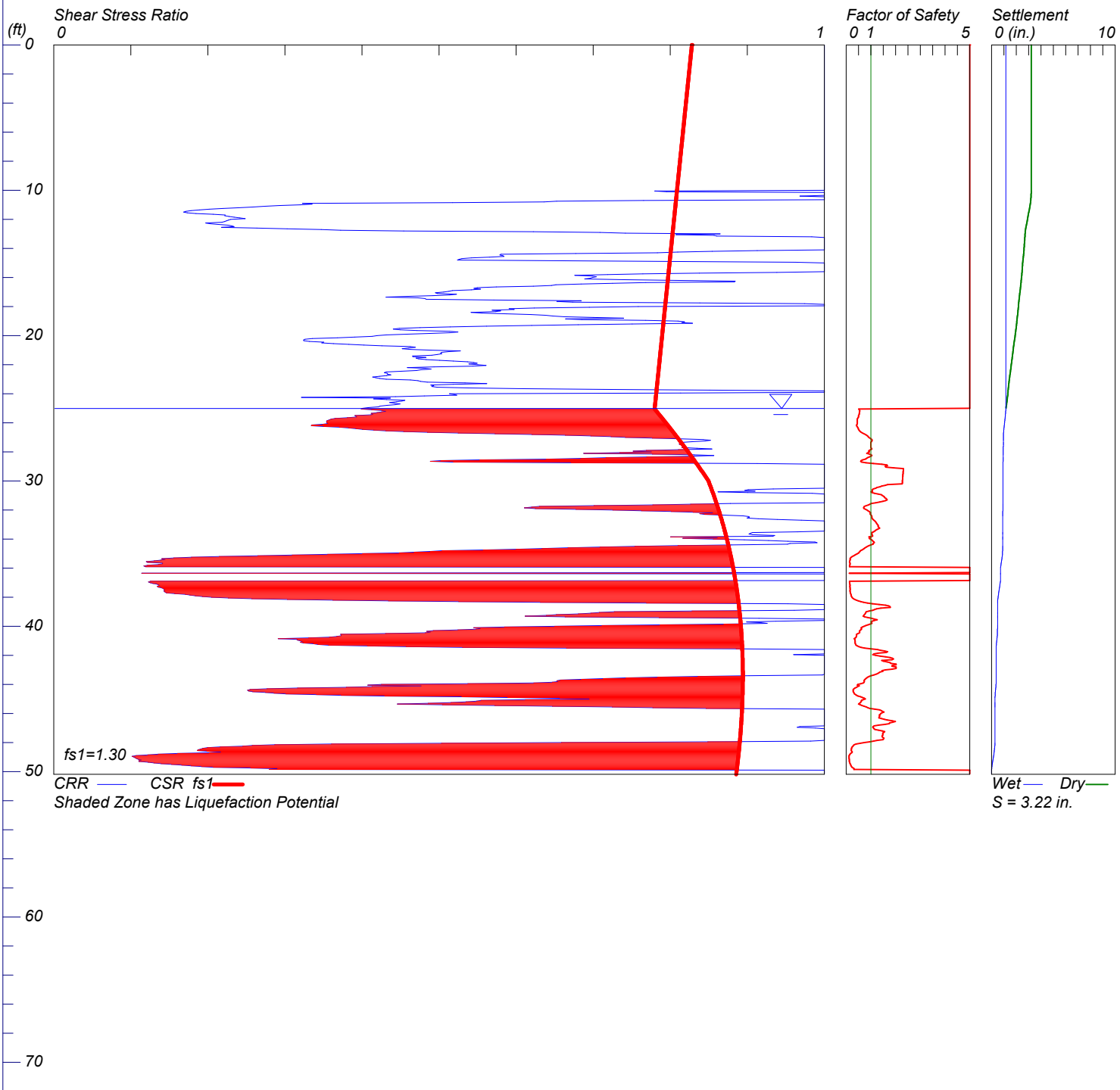
CRRm	Cyclic resistance ratio from soils
CSRfs	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat	Settlement from saturated sands
S_dry	Settlement from dry sands
S_all	Total settlement from saturated and dry sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=CPT-1 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\CPT1.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=CPT-1
Depth of Hole= 50.2 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 50.0 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=CPT-1
Depth of Hole=50.2 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 50.0 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

1. CPT Calulation Method: Modified Robertson*
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth	qc	fs	gamma	Fines	D50
ft	tsf	tsf	pcf	%	mm
0.0	2.1	0.1	110.0	NoLiq	0.5
0.0	10.6	0.1	110.0	NoLiq	0.5
0.0	22.6	0.1	110.0	NoLiq	0.5
0.1	44.3	0.1	110.0	NoLiq	0.5
0.1	59.0	0.1	110.0	NoLiq	0.5
0.1	59.1	0.2	110.0	NoLiq	0.5
0.2	69.7	0.2	110.0	NoLiq	0.5
0.2	87.2	0.2	110.0	NoLiq	0.5
0.2	115.5	0.2	110.0	NoLiq	0.5
0.3	113.4	0.3	110.0	NoLiq	0.5
0.3	98.9	0.3	110.0	NoLiq	0.5
0.4	88.9	0.4	110.0	NoLiq	0.5
0.4	84.0	0.4	110.0	NoLiq	0.5
0.4	84.0	0.4	110.0	NoLiq	0.5
0.5	90.5	0.4	110.0	NoLiq	0.5
0.6	111.0	0.5	110.0	NoLiq	0.5
0.6	128.8	0.5	110.0	NoLiq	0.5
0.7	143.0	0.6	110.0	NoLiq	0.5
0.8	149.7	0.8	110.0	NoLiq	0.5
0.9	154.2	0.7	110.0	NoLiq	0.5
0.9	162.5	0.7	110.0	NoLiq	0.5
1.0	172.5	0.7	110.0	NoLiq	0.5
1.1	179.9	0.9	110.0	NoLiq	0.5
1.1	154.1	0.9	110.0	NoLiq	0.5
1.1	146.2	0.9	110.0	NoLiq	0.5
1.1	141.7	0.9	110.0	NoLiq	0.5
1.1	139.3	0.9	110.0	NoLiq	0.5
1.1	179.9	0.9	110.0	NoLiq	0.5
1.2	186.1	0.9	110.0	NoLiq	0.5
1.2	190.3	0.9	110.0	NoLiq	0.5
1.3	192.9	1.0	110.0	NoLiq	0.5
1.4	195.9	0.6	110.0	NoLiq	0.5
1.4	192.1	0.6	110.0	NoLiq	0.5
1.5	190.0	0.6	110.0	NoLiq	0.5
1.6	185.8	0.7	110.0	NoLiq	0.5
1.7	167.1	0.6	110.0	NoLiq	0.5
1.7	166.5	0.6	110.0	NoLiq	0.5
1.7	166.5	0.6	110.0	NoLiq	0.5
1.7	165.9	0.6	110.0	NoLiq	0.5
1.7	167.3	0.6	110.0	NoLiq	0.5
1.8	168.4	0.6	110.0	NoLiq	0.5
1.8	166.9	0.5	110.0	NoLiq	0.5
1.9	165.2	0.5	110.0	NoLiq	0.5
2.0	158.3	0.5	110.0	NoLiq	0.5
2.0	154.4	0.5	110.0	NoLiq	0.5
2.1	143.7	0.5	110.0	NoLiq	0.5
2.1	134.4	0.5	110.0	NoLiq	0.5

2.2	125.0	0.5	110.0	NoLiq	0.5
2.2	114.6	0.5	110.0	NoLiq	0.5
2.3	103.7	0.5	110.0	NoLiq	0.5
2.3	94.4	0.4	110.0	NoLiq	0.5
2.4	86.9	0.4	110.0	NoLiq	0.5
2.4	83.9	0.4	110.0	NoLiq	0.5
2.5	76.1	0.4	110.0	NoLiq	0.5
2.5	71.7	0.4	110.0	NoLiq	0.5
2.6	65.8	0.4	110.0	NoLiq	0.5
2.7	65.2	0.4	110.0	NoLiq	0.5
2.8	66.4	0.4	110.0	NoLiq	0.5
2.9	68.9	0.4	110.0	NoLiq	0.5
3.0	67.9	0.4	110.0	NoLiq	0.5
3.1	65.5	0.4	110.0	NoLiq	0.5
3.2	63.0	0.4	110.0	NoLiq	0.5
3.3	64.8	0.4	110.0	NoLiq	0.5
3.4	72.9	0.7	110.0	NoLiq	0.5
3.4	86.7	1.5	110.0	NoLiq	0.5
3.5	100.0	1.6	110.0	NoLiq	0.5
3.6	116.7	1.3	110.0	NoLiq	0.5
3.7	137.5	2.9	110.0	NoLiq	0.5
3.8	155.6	2.7	110.0	NoLiq	0.5
3.8	155.8	2.9	110.0	NoLiq	0.5
3.8	156.0	2.7	110.0	NoLiq	0.5
3.9	177.3	2.8	110.0	NoLiq	0.5
3.9	203.6	2.8	110.0	NoLiq	0.5
4.0	210.1	2.6	110.0	NoLiq	0.5
4.0	175.1	2.5	110.0	NoLiq	0.5
4.0	175.0	2.4	110.0	NoLiq	0.5
4.0	156.5	2.4	110.0	NoLiq	0.5
4.1	138.7	2.3	110.0	NoLiq	0.5
4.1	142.7	2.2	110.0	NoLiq	0.5
4.1	152.2	2.1	110.0	NoLiq	0.5
4.1	160.3	2.0	110.0	NoLiq	0.5
4.2	163.3	2.0	110.0	NoLiq	0.5
4.2	159.5	1.9	110.0	NoLiq	0.5
4.2	156.9	1.5	110.0	NoLiq	0.5
4.3	155.8	1.2	110.0	NoLiq	0.5
4.3	156.4	1.1	110.0	NoLiq	0.5
4.3	158.0	1.1	110.0	NoLiq	0.5
4.4	161.2	1.1	110.0	NoLiq	0.5
4.4	162.2	1.0	110.0	NoLiq	0.5
4.5	165.1	1.0	110.0	NoLiq	0.5
4.5	164.3	1.2	110.0	NoLiq	0.5
4.6	169.6	1.1	110.0	NoLiq	0.5
4.6	165.6	1.0	110.0	NoLiq	0.5
4.7	153.5	1.0	110.0	NoLiq	0.5
4.7	147.4	1.0	110.0	NoLiq	0.5
4.8	149.4	1.0	110.0	NoLiq	0.5
4.8	148.5	1.0	110.0	NoLiq	0.5

4.9	145.7	0.8	110.0	NoLiq	0.5
4.9	141.3	0.7	110.0	NoLiq	0.5
5.0	141.3	0.6	110.0	NoLiq	0.5
5.1	137.2	0.6	110.0	NoLiq	0.5
5.1	132.9	0.6	110.0	NoLiq	0.5
5.2	131.1	0.6	110.0	NoLiq	0.5
5.2	124.2	0.5	110.0	NoLiq	0.5
5.3	120.0	0.5	110.0	NoLiq	0.5
5.4	120.4	0.5	110.0	NoLiq	0.5
5.4	116.4	0.6	110.0	NoLiq	0.5
5.5	118.2	0.7	110.0	NoLiq	0.5
5.6	111.6	0.6	110.0	NoLiq	0.5
5.7	106.9	0.7	110.0	NoLiq	0.5
5.8	94.2	0.6	110.0	NoLiq	0.5
5.8	82.8	0.5	110.0	NoLiq	0.5
5.9	81.8	0.3	110.0	NoLiq	0.5
6.0	80.6	0.3	110.0	NoLiq	0.5
6.1	67.6	0.5	110.0	NoLiq	0.5
6.1	76.8	0.5	110.0	NoLiq	0.5
6.1	72.9	0.7	110.0	NoLiq	0.5
6.2	73.0	1.1	110.0	NoLiq	0.5
6.3	75.4	1.3	110.0	NoLiq	0.5
6.3	78.6	1.5	110.0	NoLiq	0.5
6.4	82.6	1.4	110.0	NoLiq	0.5
6.5	86.0	1.3	110.0	NoLiq	0.5
6.5	91.7	1.2	110.0	NoLiq	0.5
6.6	95.7	1.1	110.0	NoLiq	0.5
6.7	96.7	1.0	110.0	NoLiq	0.5
6.7	93.8	1.0	110.0	NoLiq	0.5
6.8	82.9	0.9	110.0	NoLiq	0.5
6.9	78.2	0.8	110.0	NoLiq	0.5
6.9	72.8	0.8	110.0	NoLiq	0.5
6.9	70.9	0.7	110.0	NoLiq	0.5
7.0	68.4	0.5	110.0	NoLiq	0.5
7.1	67.5	0.5	110.0	NoLiq	0.5
7.1	64.0	0.6	110.0	NoLiq	0.5
7.2	62.4	1.0	110.0	NoLiq	0.5
7.3	61.4	1.1	110.0	NoLiq	0.5
7.3	64.9	1.2	110.0	NoLiq	0.5
7.4	71.2	1.2	110.0	NoLiq	0.5
7.5	83.0	1.1	110.0	NoLiq	0.5
7.6	87.8	0.8	110.0	NoLiq	0.5
7.6	103.5	0.7	110.0	NoLiq	0.5
7.7	100.7	0.7	110.0	NoLiq	0.5
7.8	96.1	0.7	110.0	NoLiq	0.5
7.9	89.3	0.7	110.0	NoLiq	0.5
7.9	89.8	0.7	110.0	NoLiq	0.5
8.1	88.9	0.5	110.0	NoLiq	0.5
8.1	90.9	0.5	110.0	NoLiq	0.5
8.2	93.0	0.2	110.0	NoLiq	0.5

8.3	96.9	0.3	110.0	NoLiq	0.5
8.4	99.3	0.3	110.0	NoLiq	0.5
8.5	98.2	0.3	110.0	NoLiq	0.5
8.5	82.2	0.3	110.0	NoLiq	0.5
8.5	84.8	0.3	110.0	NoLiq	0.5
8.6	87.5	0.3	110.0	NoLiq	0.5
8.6	89.7	0.2	110.0	NoLiq	0.5
8.7	89.4	0.2	110.0	NoLiq	0.5
8.7	89.0	0.2	110.0	NoLiq	0.5
8.8	86.9	0.2	110.0	NoLiq	0.5
8.8	84.9	0.3	110.0	NoLiq	0.5
8.9	82.9	0.3	110.0	NoLiq	0.5
8.9	80.4	0.3	110.0	NoLiq	0.5
9.0	76.9	0.4	110.0	NoLiq	0.5
9.0	73.7	0.5	110.0	NoLiq	0.5
9.1	71.7	0.7	110.0	NoLiq	0.5
9.2	69.7	0.6	110.0	NoLiq	0.5
9.2	67.8	0.5	110.0	NoLiq	0.5
9.3	68.8	0.4	110.0	NoLiq	0.5
9.4	68.6	0.5	110.0	NoLiq	0.5
9.4	64.6	0.5	110.0	NoLiq	0.5
9.5	67.5	0.5	110.0	NoLiq	0.5
9.6	71.1	0.6	110.0	NoLiq	0.5
9.7	74.8	0.7	110.0	NoLiq	0.5
9.7	78.6	1.1	110.0	NoLiq	0.5
9.8	85.2	1.9	110.0	NoLiq	0.5
9.9	95.8	2.4	110.0	NoLiq	0.5
10.0	114.9	1.4	110.0	NoLiq	0.5
10.1	136.0	1.8	110.0	8.4	0.5
10.1	153.9	1.2	110.0	5.7	0.5
10.2	186.3	1.0	110.0	2.0	0.5
10.2	217.1	1.2	110.0	2.0	0.5
10.3	189.7	1.3	110.0	1.6	0.5
10.3	203.1	1.3	110.0	2.4	0.5
10.4	163.0	1.3	110.0	3.6	0.5
10.4	162.7	1.6	110.0	5.2	0.5
10.4	177.9	1.8	110.0	5.2	0.5
10.5	177.7	2.0	110.0	5.3	0.5
10.5	177.5	1.6	110.0	5.5	0.5
10.6	183.7	0.6	110.0	3.4	0.5
10.6	174.9	0.6	110.0	0.7	0.5
10.7	153.1	0.8	110.0	1.1	0.5
10.7	130.3	0.8	110.0	2.8	0.5
10.7	144.8	0.8	110.0	2.8	0.5
10.8	142.9	0.8	110.0	3.3	0.5
10.9	123.0	0.7	110.0	3.8	0.5
10.9	108.5	0.7	110.0	5.2	0.5
10.9	111.9	0.6	110.0	4.8	0.5
11.0	109.9	0.6	110.0	4.7	0.5
11.1	105.9	0.6	110.0	4.9	0.5

11.1	102.1	0.5	110.0	5.1	0.5
11.2	98.6	0.5	110.0	5.3	0.5
11.2	91.9	0.5	110.0	5.6	0.5
11.3	88.8	0.4	110.0	5.8	0.5
11.4	83.3	0.3	110.0	5.7	0.5
11.4	80.9	0.3	110.0	5.7	0.5
11.5	78.8	0.3	110.0	6.3	0.5
11.6	77.9	0.4	110.0	7.2	0.5
11.6	76.2	0.6	110.0	9.1	0.5
11.7	77.9	0.9	110.0	10.9	0.5
11.8	74.9	1.0	110.0	13.0	0.5
11.8	77.9	1.0	110.0	12.7	0.5
11.9	82.6	1.0	110.0	12.1	0.5
11.9	86.1	1.0	110.0	11.5	0.5
12.0	78.5	1.0	110.0	12.4	0.5
12.1	80.9	0.9	110.0	12.0	0.5
12.1	84.3	0.8	110.0	11.1	0.5
12.2	89.6	0.6	110.0	7.9	0.5
12.3	92.5	0.3	110.0	5.3	0.5
12.3	94.0	0.3	110.0	4.1	0.5
12.4	100.0	0.4	110.0	4.3	0.5
12.5	102.1	0.4	110.0	4.5	0.5
12.6	87.3	0.5	110.0	4.8	0.5
12.6	104.2	0.5	110.0	4.8	0.5
12.6	106.3	0.8	110.0	5.7	0.5
12.7	111.9	1.1	110.0	8.3	0.5
12.8	115.8	1.2	110.0	8.5	0.5
12.8	121.4	1.8	110.0	9.6	0.5
12.9	129.9	2.6	110.0	11.8	0.5
12.9	146.2	2.1	110.0	11.1	0.5
13.0	165.4	2.0	110.0	7.4	0.5
13.1	151.8	2.3	110.0	8.9	0.5
13.1	157.5	2.4	110.0	9.1	0.5
13.1	160.8	2.3	110.0	8.5	0.5
13.2	171.5	2.7	110.0	8.8	0.5
13.2	180.7	2.7	110.0	8.8	0.5
13.3	187.5	2.6	110.0	7.6	0.5
13.4	215.2	2.6	110.0	6.6	0.5
13.4	218.5	2.6	110.0	5.8	0.5
13.5	226.2	2.6	110.0	5.6	0.5
13.5	214.0	2.9	110.0	5.6	0.5
13.6	213.2	2.8	110.0	6.7	0.5
13.6	212.6	2.5	110.0	5.9	0.5
13.7	206.3	2.4	110.0	5.9	0.5
13.8	201.8	2.2	110.0	5.6	0.5
13.8	204.0	2.4	110.0	5.8	0.5
13.9	198.0	2.7	110.0	7.1	0.5
14.0	181.1	2.9	110.0	8.2	0.5
14.1	184.3	2.6	110.0	8.0	0.5
14.1	174.7	2.3	110.0	7.9	0.5

14.2	169.5	2.1	110.0	7.5	0.5
14.3	164.5	2.1	110.0	7.7	0.5
14.4	158.7	1.3	110.0	6.7	0.5
14.5	160.6	1.0	110.0	4.5	0.5
14.6	161.4	0.7	110.0	2.9	0.5
14.7	156.8	0.5	110.0	2.1	0.5
14.7	156.1	0.6	110.0	2.4	0.5
14.7	156.1	0.8	110.0	2.4	0.5
14.8	155.4	1.1	110.0	5.1	0.5
14.9	163.7	1.8	110.0	6.8	0.5
14.9	175.4	2.4	110.0	7.8	0.5
15.0	184.3	2.8	110.0	8.4	0.5
15.0	195.6	3.1	110.0	8.6	0.5
15.1	204.5	3.4	110.0	8.7	0.5
15.1	218.2	3.5	110.0	8.5	0.5
15.2	233.4	3.5	110.0	7.7	0.5
15.2	247.8	3.5	110.0	6.8	0.5
15.3	238.9	3.3	110.0	6.5	0.5
15.3	221.0	2.6	110.0	6.3	0.5
15.4	212.3	2.9	110.0	6.4	0.5
15.4	203.7	2.0	110.0	6.6	0.5
15.5	214.3	1.7	110.0	4.0	0.5
15.5	215.2	1.4	110.0	4.0	0.5
15.6	206.0	1.2	110.0	2.8	0.5
15.7	196.2	1.2	110.0	2.9	0.5
15.7	187.2	1.2	110.0	3.2	0.5
15.8	183.3	1.2	110.0	3.6	0.5
15.9	177.9	1.2	110.0	4.2	0.5
15.9	181.4	1.4	110.0	4.5	0.5
16.0	181.0	1.4	110.0	4.6	0.5
16.1	181.0	1.2	110.0	4.0	0.5
16.1	180.5	1.1	110.0	3.7	0.5
16.2	192.1	1.0	110.0	2.9	0.5
16.3	203.0	1.0	110.0	2.5	0.5
16.4	189.5	1.0	110.0	2.8	0.5
16.4	184.3	1.1	110.0	3.2	0.5
16.5	179.1	1.1	110.0	3.5	0.5
16.6	178.5	1.1	110.0	3.7	0.5
16.6	171.4	1.1	110.0	4.1	0.5
16.7	167.8	0.5	110.0	2.6	0.5
16.8	170.3	0.6	110.0	2.0	0.5
16.9	165.3	0.7	110.0	2.9	0.5
17.0	165.7	0.9	110.0	3.4	0.5
17.0	164.4	1.0	110.0	3.9	0.5
17.1	163.6	0.9	110.0	3.8	0.5
17.1	162.3	1.4	110.0	5.2	0.5
17.2	159.4	1.6	110.0	6.5	0.5
17.2	154.2	1.6	110.0	7.2	0.5
17.3	153.6	1.5	110.0	7.4	0.5
17.3	155.0	0.9	110.0	6.7	0.5

17.4	161.7	1.1	110.0	4.7	0.5
17.4	164.7	1.1	110.0	5.0	0.5
17.5	162.7	0.9	110.0	4.6	0.5
17.5	167.6	1.5	110.0	4.8	0.5
17.6	178.8	1.9	110.0	6.9	0.5
17.6	185.3	1.3	110.0	4.6	0.5
17.7	188.2	1.3	110.0	4.2	0.5
17.8	207.8	1.6	110.0	4.2	0.5
17.8	217.6	2.0	110.0	4.7	0.5
17.9	251.3	2.0	110.0	3.7	0.5
17.9	234.7	2.1	110.0	3.7	0.5
18.0	246.4	2.1	110.0	4.3	0.5
18.0	184.2	2.2	110.0	7.5	0.5
18.0	163.9	2.2	110.0	7.5	0.5
18.0	172.4	2.3	110.0	7.5	0.5
18.1	174.6	2.3	110.0	8.6	0.5
18.1	164.6	2.3	110.0	8.6	0.5
18.1	156.8	2.2	110.0	9.3	0.5
18.2	164.9	2.2	110.0	9.6	0.5
18.2	161.6	2.0	110.0	8.8	0.5
18.3	165.2	1.9	110.0	8.3	0.5
18.3	170.6	1.8	110.0	7.7	0.5
18.4	172.8	1.4	110.0	6.8	0.5
18.5	179.7	1.2	110.0	4.7	0.5
18.5	185.7	0.5	110.0	3.1	0.5
18.6	188.6	0.5	110.0	1.2	0.5
18.7	190.9	0.7	110.0	1.5	0.5
18.8	196.1	0.7	110.0	1.8	0.5
18.8	202.9	0.8	110.0	1.8	0.5
18.8	193.4	0.8	110.0	1.8	0.5
18.9	190.7	0.8	110.0	2.3	0.5
18.9	199.8	0.8	110.0	2.3	0.5
19.0	205.4	0.8	110.0	1.9	0.5
19.0	208.3	0.8	110.0	1.8	0.5
19.0	209.6	0.8	110.0	1.8	0.5
19.1	208.7	0.8	110.0	1.8	0.5
19.2	211.2	0.8	110.0	1.7	0.5
19.2	201.7	0.8	110.0	1.9	0.5
19.3	191.4	0.8	110.0	2.2	0.5
19.4	183.2	0.8	110.0	2.8	0.5
19.4	173.8	1.0	110.0	3.5	0.5
19.5	168.9	1.0	110.0	4.1	0.5
19.5	166.8	0.9	110.0	4.2	0.5
19.6	170.0	0.9	110.0	3.8	0.5
19.7	181.0	0.8	110.0	3.3	0.5
19.8	178.8	0.9	110.0	3.5	0.5
19.9	174.0	1.0	110.0	4.0	0.5
20.0	167.0	1.1	110.0	4.8	0.5
20.0	164.8	1.1	110.0	5.1	0.5
20.1	159.1	0.9	110.0	4.8	0.5

20.2	152.0	0.7	110.0	4.0	0.5
20.3	149.0	0.9	110.0	4.6	0.5
20.4	149.2	0.9	110.0	5.3	0.5
20.5	155.3	1.0	110.0	5.5	0.5
20.5	150.9	1.0	110.0	5.5	0.5
20.5	152.5	1.1	110.0	6.0	0.5
20.6	159.7	1.1	110.0	5.8	0.5
20.7	168.0	1.1	110.0	5.5	0.5
20.8	171.0	1.4	110.0	6.1	0.5
20.8	168.9	1.5	110.0	6.6	0.5
20.9	166.0	1.5	110.0	6.8	0.5
21.0	165.0	1.7	110.0	7.4	0.5
21.0	182.8	1.5	110.0	7.3	0.5
21.1	183.1	1.3	110.0	5.4	0.5
21.2	182.7	1.3	110.0	5.1	0.5
21.3	183.4	1.3	110.0	5.2	0.5
21.4	182.6	1.2	110.0	4.7	0.5
21.4	177.7	1.1	110.0	4.6	0.5
21.5	182.7	1.1	110.0	4.3	0.5
21.6	179.8	1.1	110.0	4.3	0.5
21.6	182.8	0.9	110.0	3.6	0.5
21.7	185.6	0.9	110.0	3.3	0.5
21.8	191.1	0.6	110.0	2.0	0.5
21.9	193.5	0.7	110.0	2.2	0.5
22.0	191.8	0.8	110.0	2.6	0.5
22.0	195.9	0.7	110.0	2.4	0.5
22.1	192.2	0.7	110.0	2.4	0.5
22.1	186.4	0.7	110.0	2.4	0.5
22.2	186.4	0.7	110.0	2.7	0.5
22.2	180.5	0.8	110.0	2.7	0.5
22.2	184.7	0.8	110.0	3.0	0.5
22.3	186.9	0.8	110.0	2.9	0.5
22.3	184.7	0.8	110.0	2.9	0.5
22.4	184.5	0.8	110.0	3.1	0.5
22.4	182.0	0.8	110.0	3.1	0.5
22.5	178.6	0.8	110.0	3.1	0.5
22.5	177.3	0.8	110.0	3.2	0.5
22.6	178.7	0.8	110.0	3.2	0.5
22.7	179.0	0.8	110.0	3.2	0.5
22.7	180.0	0.8	110.0	3.2	0.5
22.8	179.2	0.9	110.0	3.7	0.5
22.8	177.5	1.0	110.0	4.3	0.5
22.9	176.0	1.2	110.0	4.9	0.5
22.9	175.1	1.3	110.0	5.4	0.5
23.0	175.7	1.3	110.0	5.9	0.5
23.0	174.6	1.7	110.0	7.0	0.5
23.1	176.2	1.7	110.0	7.3	0.5
23.2	181.6	1.5	110.0	7.0	0.5
23.3	193.8	1.5	110.0	5.7	0.5
23.3	200.3	1.6	110.0	5.5	0.5

23.4	188.3	1.4	110.0	5.4	0.5
23.4	188.1	1.5	110.0	5.5	0.5
23.5	188.1	1.5	110.0	5.7	0.5
23.6	187.8	1.6	110.0	5.9	0.5
23.7	202.6	2.0	110.0	6.4	0.5
23.7	224.0	2.4	110.0	6.5	0.5
23.8	267.2	2.4	110.0	5.1	0.5
23.9	299.6	2.4	110.0	3.5	0.5
24.0	216.6	2.1	110.0	5.3	0.5
24.0	174.5	2.2	110.0	5.3	0.5
24.0	173.4	2.3	110.0	9.3	0.5
24.1	180.7	2.2	110.0	9.5	0.5
24.1	183.2	1.7	110.0	7.0	0.5
24.2	185.2	1.1	110.0	5.6	0.5
24.3	159.0	1.1	110.0	5.6	0.5
24.3	183.9	1.2	110.0	5.5	0.5
24.3	177.7	1.5	110.0	5.5	0.5
24.3	182.5	1.4	110.0	6.1	0.5
24.4	178.2	1.3	110.0	5.9	0.5
24.4	180.0	1.4	110.0	6.1	0.5
24.5	179.1	1.7	110.0	6.9	0.5
24.5	178.9	1.6	110.0	7.1	0.5
24.6	179.6	1.5	110.0	6.8	0.5
24.6	183.6	1.4	110.0	6.4	0.5
24.7	187.6	1.4	110.0	5.8	0.5
24.8	186.3	1.3	110.0	5.4	0.5
24.8	182.4	1.3	110.0	5.5	0.5
24.9	182.3	1.3	110.0	5.7	0.5
25.0	181.6	1.2	110.0	5.4	0.5
25.1	182.1	1.1	110.0	5.0	0.5
25.1	181.8	1.4	110.0	5.5	0.5
25.2	181.7	1.5	110.0	6.3	0.5
25.3	181.7	1.4	110.0	6.2	0.5
25.4	181.6	1.3	110.0	5.8	0.5
25.4	185.3	1.2	110.0	5.5	0.5
25.5	179.6	1.2	110.0	5.5	0.5
25.6	179.6	1.3	110.0	5.7	0.5
25.7	176.8	1.2	110.0	5.7	0.5
25.8	176.8	0.9	110.0	4.5	0.5
25.9	176.0	0.7	110.0	3.3	0.5
26.0	176.4	0.7	110.0	3.4	0.5
26.1	177.3	0.8	110.0	3.8	0.5
26.1	174.1	0.8	110.0	4.1	0.5
26.2	171.7	0.9	110.0	4.3	0.5
26.2	175.3	0.9	110.0	4.4	0.5
26.3	179.9	0.9	110.0	4.3	0.5
26.4	185.1	1.0	110.0	4.3	0.5
26.4	186.2	1.1	110.0	4.4	0.5
26.5	190.3	1.1	110.0	4.7	0.5
26.6	194.6	1.2	110.0	4.6	0.5

26.6	201.8	1.1	110.0	4.3	0.5
26.7	211.0	1.2	110.0	3.9	0.5
26.8	221.6	1.3	110.0	3.8	0.5
26.9	230.0	1.3	110.0	3.4	0.5
26.9	237.1	1.4	110.0	3.4	0.5
27.0	239.5	1.4	110.0	3.4	0.5
27.1	246.5	1.4	110.0	3.2	0.5
27.1	252.4	1.5	110.0	3.1	0.5
27.2	254.4	1.9	110.0	3.8	0.5
27.3	250.3	1.6	110.0	3.8	0.5
27.4	250.5	1.7	110.0	3.9	0.5
27.5	250.6	1.8	110.0	4.1	0.5
27.6	251.9	1.8	110.0	4.1	0.5
27.7	252.1	1.0	110.0	1.8	0.5
27.8	256.9	1.0	110.0	1.8	0.5
27.9	244.8	1.0	110.0	1.9	0.5
28.0	249.3	1.0	110.0	2.0	0.5
28.0	241.4	1.1	110.0	2.0	0.5
28.0	243.6	1.2	110.0	2.5	0.5
28.1	237.9	1.4	110.0	3.4	0.5
28.1	247.9	1.5	110.0	3.4	0.5
28.2	255.7	2.2	110.0	4.9	0.5
28.2	255.7	2.4	110.0	4.9	0.5
28.3	250.5	2.3	110.0	5.5	0.5
28.4	240.2	2.2	110.0	5.6	0.5
28.4	237.3	2.1	110.0	5.6	0.5
28.5	230.3	1.9	110.0	5.3	0.5
28.6	209.4	1.8	110.0	5.7	0.5
28.6	201.8	1.8	110.0	6.2	0.5
28.7	197.0	2.3	110.0	8.0	0.5
28.8	189.5	5.2	110.0	15.4	0.5
28.9	189.3	7.1	110.0	18.2	0.5
28.9	189.0	7.3	110.0	19.6	0.5
29.0	223.1	6.3	110.0	17.2	0.5
29.1	288.2	6.2	110.0	11.9	0.5
29.2	367.9	6.2	110.0	9.4	0.5
29.3	440.7	6.3	110.0	5.8	0.5
29.3	367.1	6.3	110.0	5.8	0.5
29.3	336.4	6.4	110.0	8.1	0.5
29.3	366.4	6.6	110.0	8.1	0.5
29.4	418.3	7.1	110.0	7.4	0.5
29.5	416.5	8.5	110.0	8.1	0.5
29.5	443.3	8.7	110.0	8.1	0.5
29.5	464.6	7.9	110.0	7.5	0.5
29.6	499.9	7.9	110.0	6.2	0.5
29.6	515.7	7.6	110.0	5.0	0.5
29.7	507.2	6.9	110.0	4.6	0.5
29.8	480.1	6.1	110.0	4.3	0.5
29.8	461.7	5.4	110.0	4.3	0.5
29.8	451.6	5.0	110.0	4.0	0.5

29.9	441.0	1.8	110.0	0.3	0.5
30.0	432.4	1.6	110.0	0.0	0.5
30.0	425.7	1.6	110.0	0.0	0.5
30.1	414.3	1.6	110.0	0.0	0.5
30.2	390.6	1.7	110.0	0.4	0.5
30.2	350.1	1.8	110.0	1.1	0.5
30.2	319.1	1.9	110.0	1.1	0.5
30.3	327.1	2.1	110.0	2.4	0.5
30.3	310.2	1.9	110.0	2.5	0.5
30.4	300.5	1.8	110.0	2.6	0.5
30.5	289.0	1.8	110.0	2.9	0.5
30.5	287.3	1.8	110.0	3.1	0.5
30.6	276.9	1.9	110.0	3.5	0.5
30.6	274.8	2.1	110.0	3.9	0.5
30.7	277.2	2.1	110.0	4.1	0.5
30.8	272.0	2.1	110.0	4.3	0.5
30.8	277.6	2.1	110.0	4.1	0.5
30.9	292.3	2.1	110.0	3.9	0.5
30.9	309.2	2.1	110.0	3.5	0.5
31.0	313.0	2.0	110.0	2.9	0.5
31.1	318.5	2.0	110.0	2.7	0.5
31.1	320.6	1.9	110.0	2.5	0.5
31.2	325.0	1.8	110.0	2.3	0.5
31.3	329.0	1.8	110.0	2.0	0.5
31.4	322.9	1.8	110.0	2.0	0.5
31.5	301.0	1.8	110.0	2.5	0.5
31.5	277.8	1.8	110.0	3.3	0.5
31.6	266.2	1.7	110.0	3.7	0.5
31.8	246.6	1.8	110.0	4.6	0.5
31.9	243.4	0.7	110.0	2.2	0.5
32.0	259.1	0.9	110.0	1.5	0.5
32.1	272.4	1.1	110.0	1.8	0.5
32.2	279.1	1.2	110.0	2.0	0.5
32.2	272.0	1.3	110.0	2.0	0.5
32.3	278.2	1.3	110.0	2.2	0.5
32.3	277.4	1.4	110.0	2.3	0.5
32.4	282.5	1.4	110.0	2.4	0.5
32.4	284.9	1.5	110.0	2.4	0.5
32.5	285.4	1.6	110.0	2.8	0.5
32.5	285.3	1.7	110.0	3.0	0.5
32.6	287.6	1.7	110.0	3.1	0.5
32.7	291.6	1.8	110.0	3.1	0.5
32.7	297.1	1.8	110.0	3.1	0.5
32.8	300.6	2.0	110.0	3.1	0.5
32.9	302.8	2.0	110.0	3.3	0.5
32.9	306.4	2.1	110.0	3.4	0.5
33.0	308.0	2.1	110.0	3.4	0.5
33.0	311.5	2.1	110.0	3.4	0.5
33.1	311.9	2.2	110.0	3.3	0.5
33.2	313.3	2.2	110.0	3.4	0.5

33.2	318.4	2.1	110.0	3.3	0.5
33.3	313.4	2.0	110.0	2.9	0.5
33.4	303.9	1.9	110.0	3.0	0.5
33.5	300.0	1.7	110.0	2.9	0.5
33.5	291.0	1.1	110.0	1.5	0.5
33.6	291.0	1.3	110.0	1.7	0.5
33.7	291.1	1.4	110.0	2.0	0.5
33.8	296.1	1.3	110.0	1.9	0.5
33.8	294.8	1.3	110.0	1.9	0.5
33.9	263.9	1.4	110.0	2.3	0.5
33.9	288.4	1.4	110.0	2.3	0.5
34.0	282.0	1.5	110.0	2.8	0.5
34.0	287.2	1.7	110.0	3.1	0.5
34.0	292.3	2.1	110.0	3.9	0.5
34.1	296.2	2.3	110.0	4.1	0.5
34.2	300.6	2.2	110.0	3.9	0.5
34.2	306.4	2.4	110.0	3.9	0.5
34.3	300.4	2.4	110.0	4.1	0.5
34.4	300.2	2.4	110.0	4.3	0.5
34.4	287.8	2.3	110.0	4.5	0.5
34.5	275.0	1.8	110.0	4.0	0.5
34.6	263.4	1.7	110.0	3.9	0.5
34.7	256.0	1.6	110.0	4.0	0.5
34.8	245.0	1.5	110.0	4.2	0.5
34.8	227.3	2.0	110.0	6.2	0.5
35.0	208.8	2.3	110.0	8.2	0.5
35.0	188.8	2.0	110.0	8.5	0.5
35.1	164.3	1.7	110.0	9.2	0.5
35.2	118.2	1.4	110.0	11.5	0.5
35.3	108.9	0.8	110.0	12.1	0.5
35.4	114.8	0.8	110.0	10.3	0.5
35.5	101.6	0.8	110.0	10.9	0.5
35.6	76.4	0.9	110.0	16.5	0.5
35.6	58.0	0.9	110.0	23.2	0.5
35.6	40.8	0.9	110.0	23.2	0.5
35.7	52.2	0.9	110.0	28.6	0.5
35.7	51.0	1.0	110.0	27.7	0.5
35.8	46.5	0.7	110.0	27.4	0.5
35.9	43.0	0.7	110.0	28.4	0.5
36.0	39.5	0.7	110.0	NoLiq	0.5
36.1	38.8	0.7	110.0	NoLiq	0.5
36.2	39.6	0.6	110.0	NoLiq	0.5
36.3	41.5	0.6	110.0	NoLiq	0.5
36.3	42.2	0.6	110.0	28.7	0.5
36.4	41.8	0.7	110.0	NoLiq	0.5
36.5	41.5	0.7	110.0	NoLiq	0.5
36.5	41.4	0.7	110.0	NoLiq	0.5
36.6	41.7	0.7	110.0	NoLiq	0.5
36.7	42.5	0.8	110.0	NoLiq	0.5
36.7	43.3	0.8	110.0	NoLiq	0.5

36.8	45.3	0.8	110.0	NoLiq	0.5
36.9	51.0	0.9	110.0	28.3	0.5
37.0	58.4	0.9	110.0	24.6	0.5
37.0	63.0	1.0	110.0	23.9	0.5
37.1	69.2	1.2	110.0	22.8	0.5
37.2	76.7	1.2	110.0	21.7	0.5
37.3	85.1	1.1	110.0	18.8	0.5
37.3	100.9	1.1	110.0	14.6	0.5
37.4	110.7	1.0	110.0	13.1	0.5
37.5	108.1	1.0	110.0	12.8	0.5
37.6	108.6	1.0	110.0	12.8	0.5
37.7	111.5	1.0	110.0	12.6	0.5
37.8	117.0	1.4	110.0	13.9	0.5
37.9	124.3	1.5	110.0	13.5	0.5
38.0	139.7	1.5	110.0	12.1	0.5
38.1	166.8	1.4	110.0	9.4	0.5
38.2	204.4	1.4	110.0	6.6	0.5
38.3	236.4	1.8	110.0	5.8	0.5
38.4	270.4	2.6	110.0	6.1	0.5
38.4	245.5	2.7	110.0	6.1	0.5
38.4	276.1	3.1	110.0	6.1	0.5
38.4	300.7	3.5	110.0	6.9	0.5
38.5	327.4	3.6	110.0	6.6	0.5
38.5	363.4	3.8	110.0	5.7	0.5
38.6	378.7	3.7	110.0	4.9	0.5
38.7	385.7	3.6	110.0	4.2	0.5
38.7	384.8	3.5	110.0	4.1	0.5
38.8	341.9	3.6	110.0	4.9	0.5
38.8	329.1	3.5	110.0	5.6	0.5
38.9	312.8	3.5	110.0	6.2	0.5
39.0	298.8	2.8	110.0	5.7	0.5
39.0	289.3	2.6	110.0	5.4	0.5
39.1	284.4	2.6	110.0	5.5	0.5
39.1	266.9	3.3	110.0	6.4	0.5
39.2	259.5	3.2	110.0	7.8	0.5
39.2	258.8	3.1	110.0	8.0	0.5
39.3	260.8	2.7	110.0	7.2	0.5
39.4	282.1	2.8	110.0	6.6	0.5
39.4	303.8	3.3	110.0	6.2	0.5
39.5	326.3	3.1	110.0	5.8	0.5
39.5	344.5	3.0	110.0	4.5	0.5
39.6	330.6	3.1	110.0	4.9	0.5
39.7	321.0	3.0	110.0	5.1	0.5
39.7	317.3	2.9	110.0	5.2	0.5
39.8	325.7	2.8	110.0	4.9	0.5
39.8	318.4	2.3	110.0	4.4	0.5
39.9	305.1	2.3	110.0	4.2	0.5
40.0	290.3	2.6	110.0	5.1	0.5
40.0	278.9	2.2	110.0	5.2	0.5
40.1	266.1	2.0	110.0	4.9	0.5

40.2	257.6	2.5	110.0	6.3	0.5
40.2	243.9	2.9	110.0	7.5	0.5
40.3	227.5	2.8	110.0	8.8	0.5
40.4	235.2	2.7	110.0	8.7	0.5
40.5	227.4	2.9	110.0	8.9	0.5
40.5	204.5	2.4	110.0	9.3	0.5
40.6	210.9	2.2	110.0	8.8	0.5
40.7	217.8	1.8	110.0	7.4	0.5
40.8	221.0	1.5	110.0	6.6	0.5
40.8	192.5	1.5	110.0	5.6	0.5
40.9	217.4	1.4	110.0	6.7	0.5
40.9	212.3	1.3	110.0	5.5	0.5
41.0	213.9	1.3	110.0	5.5	0.5
41.0	215.8	1.3	110.0	5.4	0.5
41.0	217.0	1.3	110.0	5.4	0.5
41.1	217.8	1.3	110.0	5.3	0.5
41.1	214.7	1.4	110.0	5.3	0.5
41.2	213.1	1.6	110.0	5.9	0.5
41.2	214.9	1.7	110.0	6.6	0.5
41.3	211.5	1.8	110.0	7.1	0.5
41.3	215.1	2.0	110.0	7.4	0.5
41.4	225.9	2.3	110.0	7.8	0.5
41.4	243.6	2.5	110.0	7.7	0.5
41.5	271.0	2.9	110.0	7.3	0.5
41.5	310.5	3.3	110.0	7.0	0.5
41.6	356.1	3.4	110.0	4.9	0.5
41.7	373.2	3.8	110.0	4.9	0.5
41.7	394.8	4.1	110.0	4.9	0.5
41.8	393.0	4.5	110.0	5.0	0.5
41.8	374.3	4.3	110.0	5.5	0.5
41.9	323.3	4.3	110.0	6.4	0.5
41.9	317.4	4.4	110.0	7.6	0.5
42.0	318.5	3.9	110.0	7.3	0.5
42.0	335.1	5.3	110.0	8.3	0.5
42.1	341.7	7.2	110.0	9.6	0.5
42.2	357.8	7.2	110.0	10.0	0.5
42.3	374.2	6.9	110.0	9.5	0.5
42.3	365.0	4.4	110.0	6.4	0.5
42.4	366.8	4.3	110.0	6.4	0.5
42.4	390.7	4.3	110.0	5.8	0.5
42.5	409.1	4.0	110.0	5.1	0.5
42.5	396.6	4.4	110.0	4.5	0.5
42.6	414.8	4.9	110.0	5.3	0.5
42.6	417.5	4.9	110.0	5.3	0.5
42.6	438.7	5.5	110.0	5.4	0.5
42.7	448.3	5.6	110.0	5.4	0.5
42.7	407.7	5.6	110.0	5.4	0.5
42.7	402.1	5.6	110.0	5.4	0.5
42.7	388.6	5.6	110.0	6.7	0.5
42.8	397.9	5.5	110.0	6.8	0.5

42.8	426.3	5.6	110.0	6.1	0.5
42.8	456.1	5.7	110.0	5.3	0.5
42.9	458.9	5.7	110.0	5.3	0.5
42.9	408.3	5.7	110.0	5.3	0.5
43.0	371.2	5.5	110.0	6.7	0.5
43.0	355.2	5.1	110.0	7.4	0.5
43.1	370.5	4.8	110.0	7.4	0.5
43.1	362.6	4.4	110.0	6.6	0.5
43.2	369.8	3.7	110.0	5.0	0.5
43.3	363.1	3.3	110.0	4.7	0.5
43.3	353.6	3.2	110.0	4.6	0.5
43.4	336.6	2.9	110.0	4.8	0.5
43.5	324.1	2.7	110.0	4.7	0.5
43.5	315.1	2.5	110.0	4.7	0.5
43.6	308.0	2.3	110.0	4.5	0.5
43.7	300.1	2.1	110.0	4.2	0.5
43.8	300.9	2.0	110.0	4.0	0.5
43.9	298.9	2.2	110.0	4.2	0.5
44.0	267.1	1.9	110.0	4.7	0.5
44.0	251.4	1.9	110.0	5.4	0.5
44.0	233.8	1.8	110.0	5.4	0.5
44.1	275.0	1.7	110.0	5.5	0.5
44.1	260.3	1.7	110.0	4.3	0.5
44.2	231.3	2.0	110.0	6.5	0.5
44.3	192.6	2.1	110.0	8.4	0.5
44.3	170.0	2.1	110.0	11.6	0.5
44.4	166.8	2.1	110.0	11.9	0.5
44.5	154.9	2.5	110.0	14.4	0.5
44.6	161.2	2.7	110.0	14.6	0.5
44.6	155.1	3.0	110.0	15.2	0.5
44.7	168.0	3.3	110.0	16.1	0.5
44.8	191.6	3.5	110.0	14.5	0.5
44.8	240.0	3.5	110.0	12.9	0.5
44.9	261.6	3.7	110.0	9.5	0.5
45.0	289.0	3.5	110.0	8.3	0.5
45.0	293.6	3.5	110.0	7.5	0.5
45.1	250.6	3.6	110.0	8.6	0.5
45.2	236.4	4.0	110.0	11.3	0.5
45.2	226.1	4.2	110.0	12.3	0.5
45.3	230.0	3.8	110.0	12.0	0.5
45.3	242.8	2.7	110.0	8.3	0.5
45.4	263.3	2.8	110.0	7.6	0.5
45.5	292.3	2.9	110.0	6.9	0.5
45.5	315.0	2.9	110.0	5.6	0.5
45.6	335.8	2.8	110.0	5.1	0.5
45.7	338.9	2.8	110.0	4.7	0.5
45.7	359.2	2.8	110.0	4.7	0.5
45.7	382.4	2.7	110.0	4.0	0.5
45.8	391.0	2.6	110.0	3.2	0.5
45.9	397.4	2.7	110.0	2.8	0.5

45.9	405.0	3.0	110.0	3.0	0.5
46.0	393.6	3.3	110.0	3.8	0.5
46.0	391.2	3.5	110.0	4.2	0.5
46.1	388.9	3.6	110.0	4.4	0.5
46.1	384.8	3.6	110.0	4.6	0.5
46.2	387.5	3.7	110.0	4.7	0.5
46.2	388.0	3.7	110.0	4.7	0.5
46.3	382.3	3.7	110.0	4.7	0.5
46.3	396.5	3.7	110.0	4.5	0.5
46.4	413.0	3.9	110.0	4.4	0.5
46.5	427.8	3.9	110.0	4.3	0.5
46.5	441.7	3.8	110.0	3.8	0.5
46.6	447.5	3.4	110.0	3.2	0.5
46.6	427.1	3.3	110.0	3.0	0.5
46.7	426.0	3.2	110.0	3.1	0.5
46.8	386.0	3.2	110.0	3.9	0.5
46.9	363.5	3.3	110.0	4.5	0.5
47.0	358.5	3.5	110.0	5.2	0.5
47.0	357.6	3.9	110.0	5.6	0.5
47.1	372.0	3.4	110.0	4.8	0.5
47.2	400.7	3.2	110.0	4.2	0.5
47.3	414.0	3.3	110.0	3.6	0.5
47.3	405.1	3.6	110.0	3.9	0.5
47.4	405.5	3.6	110.0	4.2	0.5
47.4	405.7	3.6	110.0	4.2	0.5
47.5	406.0	3.6	110.0	4.1	0.5
47.5	403.6	3.9	110.0	4.1	0.5
47.6	403.6	4.2	110.0	4.8	0.5
47.6	401.2	4.4	110.0	5.2	0.5
47.7	409.1	4.4	110.0	5.2	0.5
47.8	410.5	4.1	110.0	4.9	0.5
47.8	404.6	3.9	110.0	4.7	0.5
47.9	373.2	3.8	110.0	4.8	0.5
47.9	354.2	3.7	110.0	5.5	0.5
48.0	290.9	3.7	110.0	8.0	0.5
48.1	250.2	2.8	110.0	8.3	0.5
48.1	204.9	2.4	110.0	9.1	0.5
48.2	179.2	2.3	110.0	10.6	0.5
48.3	163.3	2.4	110.0	13.3	0.5
48.3	146.0	2.3	110.0	15.0	0.5
48.4	134.1	2.2	110.0	16.1	0.5
48.5	125.7	2.2	110.0	17.5	0.5
48.5	115.9	2.2	110.0	18.7	0.5
48.6	97.5	2.2	110.0	21.5	0.5
48.6	83.2	2.2	110.0	24.8	0.5
48.7	79.2	2.1	110.0	27.2	0.5
48.8	78.4	1.5	110.0	25.7	0.5
48.9	79.4	1.2	110.0	22.2	0.5
48.9	79.7	0.8	110.0	19.9	0.5
49.0	83.1	0.9	110.0	18.2	0.5

49.1	88.9	0.9	110.0	17.4	0.5
49.2	95.2	0.9	110.0	15.9	0.5
49.2	102.8	1.0	110.0	15.1	0.5
49.3	91.2	1.0	110.0	16.8	0.5
49.3	97.8	1.0	110.0	16.8	0.5
49.3	63.7	1.0	110.0	16.8	0.5
49.3	104.3	1.1	110.0	19.8	0.5
49.4	110.2	1.1	110.0	14.9	0.5
49.5	120.6	1.4	110.0	14.6	0.5
49.5	132.3	1.6	110.0	14.3	0.5
49.6	142.6	1.8	110.0	13.9	0.5
49.7	158.3	2.0	110.0	13.0	0.5
49.8	190.3	2.8	110.0	12.8	0.5
49.9	245.4	0.0	110.0	3.1	0.5
49.9	318.0	0.0	110.0	NoLiq	0.5
50.0	388.3	0.0	110.0	NoLiq	0.5
50.1	422.1	0.0	110.0	NoLiq	0.5
50.2	406.3	0.0	110.0	NoLiq	0.5

Output Results:

Settlement of saturated sands=1.16 in.
Settlement of dry sands=2.06 in.
Total settlement of saturated and dry sands=3.22 in.
Differential Settlement=1.610 to 2.126 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	1.16	2.06	3.22
0.05	2.00	0.83	5.00	1.16	2.06	3.22
0.10	2.00	0.83	5.00	1.16	2.06	3.22
0.15	2.00	0.83	5.00	1.16	2.06	3.22
0.20	2.00	0.83	5.00	1.16	2.06	3.22
0.25	2.00	0.83	5.00	1.16	2.06	3.22
0.30	2.00	0.83	5.00	1.16	2.06	3.22
0.35	2.00	0.83	5.00	1.16	2.06	3.22
0.40	2.00	0.83	5.00	1.16	2.06	3.22
0.45	2.00	0.83	5.00	1.16	2.06	3.22
0.50	2.00	0.83	5.00	1.16	2.06	3.22
0.55	2.00	0.83	5.00	1.16	2.06	3.22
0.60	2.00	0.83	5.00	1.16	2.06	3.22
0.65	2.00	0.83	5.00	1.16	2.06	3.22
0.70	2.00	0.83	5.00	1.16	2.06	3.22
0.75	2.00	0.83	5.00	1.16	2.06	3.22
0.80	2.00	0.83	5.00	1.16	2.06	3.22
0.85	2.00	0.83	5.00	1.16	2.06	3.22
0.90	2.00	0.83	5.00	1.16	2.06	3.22
0.95	2.00	0.83	5.00	1.16	2.06	3.22
1.00	2.00	0.83	5.00	1.16	2.06	3.22

1.05	2.00	0.83	5.00	1.16	2.06	3.22
1.10	2.00	0.83	5.00	1.16	2.06	3.22
1.15	2.00	0.83	5.00	1.16	2.06	3.22
1.20	2.00	0.83	5.00	1.16	2.06	3.22
1.25	2.00	0.83	5.00	1.16	2.06	3.22
1.30	2.00	0.83	5.00	1.16	2.06	3.22
1.35	2.00	0.83	5.00	1.16	2.06	3.22
1.40	2.00	0.83	5.00	1.16	2.06	3.22
1.45	2.00	0.83	5.00	1.16	2.06	3.22
1.50	2.00	0.83	5.00	1.16	2.06	3.22
1.55	2.00	0.83	5.00	1.16	2.06	3.22
1.60	2.00	0.83	5.00	1.16	2.06	3.22
1.65	2.00	0.82	5.00	1.16	2.06	3.22
1.70	2.00	0.82	5.00	1.16	2.06	3.22
1.75	2.00	0.82	5.00	1.16	2.06	3.22
1.80	2.00	0.82	5.00	1.16	2.06	3.22
1.85	2.00	0.82	5.00	1.16	2.06	3.22
1.90	2.00	0.82	5.00	1.16	2.06	3.22
1.95	2.00	0.82	5.00	1.16	2.06	3.22
2.00	2.00	0.82	5.00	1.16	2.06	3.22
2.05	2.00	0.82	5.00	1.16	2.06	3.22
2.10	2.00	0.82	5.00	1.16	2.06	3.22
2.15	2.00	0.82	5.00	1.16	2.06	3.22
2.20	2.00	0.82	5.00	1.16	2.06	3.22
2.25	2.00	0.82	5.00	1.16	2.06	3.22
2.30	2.00	0.82	5.00	1.16	2.06	3.22
2.35	2.00	0.82	5.00	1.16	2.06	3.22
2.40	2.00	0.82	5.00	1.16	2.06	3.22
2.45	2.00	0.82	5.00	1.16	2.06	3.22
2.50	2.00	0.82	5.00	1.16	2.06	3.22
2.55	2.00	0.82	5.00	1.16	2.06	3.22
2.60	2.00	0.82	5.00	1.16	2.06	3.22
2.65	2.00	0.82	5.00	1.16	2.06	3.22
2.70	2.00	0.82	5.00	1.16	2.06	3.22
2.75	2.00	0.82	5.00	1.16	2.06	3.22
2.80	2.00	0.82	5.00	1.16	2.06	3.22
2.85	2.00	0.82	5.00	1.16	2.06	3.22
2.90	2.00	0.82	5.00	1.16	2.06	3.22
2.95	2.00	0.82	5.00	1.16	2.06	3.22
3.00	2.00	0.82	5.00	1.16	2.06	3.22
3.05	2.00	0.82	5.00	1.16	2.06	3.22
3.10	2.00	0.82	5.00	1.16	2.06	3.22
3.15	2.00	0.82	5.00	1.16	2.06	3.22
3.20	2.00	0.82	5.00	1.16	2.06	3.22
3.25	2.00	0.82	5.00	1.16	2.06	3.22
3.30	2.00	0.82	5.00	1.16	2.06	3.22
3.35	2.00	0.82	5.00	1.16	2.06	3.22
3.40	2.00	0.82	5.00	1.16	2.06	3.22
3.45	2.00	0.82	5.00	1.16	2.06	3.22
3.50	2.00	0.82	5.00	1.16	2.06	3.22

3.55	2.00	0.82	5.00	1.16	2.06	3.22
3.60	2.00	0.82	5.00	1.16	2.06	3.22
3.65	2.00	0.82	5.00	1.16	2.06	3.22
3.70	2.00	0.82	5.00	1.16	2.06	3.22
3.75	2.00	0.82	5.00	1.16	2.06	3.22
3.80	2.00	0.82	5.00	1.16	2.06	3.22
3.85	2.00	0.82	5.00	1.16	2.06	3.22
3.90	2.00	0.82	5.00	1.16	2.06	3.22
3.95	2.00	0.82	5.00	1.16	2.06	3.22
4.00	2.00	0.82	5.00	1.16	2.06	3.22
4.05	2.00	0.82	5.00	1.16	2.06	3.22
4.10	2.00	0.82	5.00	1.16	2.06	3.22
4.15	2.00	0.82	5.00	1.16	2.06	3.22
4.20	2.00	0.82	5.00	1.16	2.06	3.22
4.25	2.00	0.82	5.00	1.16	2.06	3.22
4.30	2.00	0.82	5.00	1.16	2.06	3.22
4.35	2.00	0.82	5.00	1.16	2.06	3.22
4.40	2.00	0.82	5.00	1.16	2.06	3.22
4.45	2.00	0.82	5.00	1.16	2.06	3.22
4.50	2.00	0.82	5.00	1.16	2.06	3.22
4.55	2.00	0.82	5.00	1.16	2.06	3.22
4.60	2.00	0.82	5.00	1.16	2.06	3.22
4.65	2.00	0.82	5.00	1.16	2.06	3.22
4.70	2.00	0.82	5.00	1.16	2.06	3.22
4.75	2.00	0.82	5.00	1.16	2.06	3.22
4.80	2.00	0.82	5.00	1.16	2.06	3.22
4.85	2.00	0.82	5.00	1.16	2.06	3.22
4.90	2.00	0.82	5.00	1.16	2.06	3.22
4.95	2.00	0.82	5.00	1.16	2.06	3.22
5.00	2.00	0.82	5.00	1.16	2.06	3.22
5.05	2.00	0.82	5.00	1.16	2.06	3.22
5.10	2.00	0.82	5.00	1.16	2.06	3.22
5.15	2.00	0.82	5.00	1.16	2.06	3.22
5.20	2.00	0.82	5.00	1.16	2.06	3.22
5.25	2.00	0.82	5.00	1.16	2.06	3.22
5.30	2.00	0.82	5.00	1.16	2.06	3.22
5.35	2.00	0.82	5.00	1.16	2.06	3.22
5.40	2.00	0.82	5.00	1.16	2.06	3.22
5.45	2.00	0.82	5.00	1.16	2.06	3.22
5.50	2.00	0.82	5.00	1.16	2.06	3.22
5.55	2.00	0.82	5.00	1.16	2.06	3.22
5.60	2.00	0.82	5.00	1.16	2.06	3.22
5.65	2.00	0.82	5.00	1.16	2.06	3.22
5.70	2.00	0.82	5.00	1.16	2.06	3.22
5.75	2.00	0.82	5.00	1.16	2.06	3.22
5.80	2.00	0.82	5.00	1.16	2.06	3.22
5.85	2.00	0.82	5.00	1.16	2.06	3.22
5.90	2.00	0.82	5.00	1.16	2.06	3.22
5.95	2.00	0.82	5.00	1.16	2.06	3.22
6.00	2.00	0.82	5.00	1.16	2.06	3.22

6.05	2.00	0.82	5.00	1.16	2.06	3.22
6.10	2.00	0.82	5.00	1.16	2.06	3.22
6.15	2.00	0.82	5.00	1.16	2.06	3.22
6.20	2.00	0.82	5.00	1.16	2.06	3.22
6.25	2.00	0.82	5.00	1.16	2.06	3.22
6.30	2.00	0.82	5.00	1.16	2.06	3.22
6.35	2.00	0.82	5.00	1.16	2.06	3.22
6.40	2.00	0.82	5.00	1.16	2.06	3.22
6.45	2.00	0.82	5.00	1.16	2.06	3.22
6.50	2.00	0.82	5.00	1.16	2.06	3.22
6.55	2.00	0.82	5.00	1.16	2.06	3.22
6.60	2.00	0.82	5.00	1.16	2.06	3.22
6.65	2.00	0.82	5.00	1.16	2.06	3.22
6.70	2.00	0.82	5.00	1.16	2.06	3.22
6.75	2.00	0.82	5.00	1.16	2.06	3.22
6.80	2.00	0.81	5.00	1.16	2.06	3.22
6.85	2.00	0.81	5.00	1.16	2.06	3.22
6.90	2.00	0.81	5.00	1.16	2.06	3.22
6.95	2.00	0.81	5.00	1.16	2.06	3.22
7.00	2.00	0.81	5.00	1.16	2.06	3.22
7.05	2.00	0.81	5.00	1.16	2.06	3.22
7.10	2.00	0.81	5.00	1.16	2.06	3.22
7.15	2.00	0.81	5.00	1.16	2.06	3.22
7.20	2.00	0.81	5.00	1.16	2.06	3.22
7.25	2.00	0.81	5.00	1.16	2.06	3.22
7.30	2.00	0.81	5.00	1.16	2.06	3.22
7.35	2.00	0.81	5.00	1.16	2.06	3.22
7.40	2.00	0.81	5.00	1.16	2.06	3.22
7.45	2.00	0.81	5.00	1.16	2.06	3.22
7.50	2.00	0.81	5.00	1.16	2.06	3.22
7.55	2.00	0.81	5.00	1.16	2.06	3.22
7.60	2.00	0.81	5.00	1.16	2.06	3.22
7.65	2.00	0.81	5.00	1.16	2.06	3.22
7.70	2.00	0.81	5.00	1.16	2.06	3.22
7.75	2.00	0.81	5.00	1.16	2.06	3.22
7.80	2.00	0.81	5.00	1.16	2.06	3.22
7.85	2.00	0.81	5.00	1.16	2.06	3.22
7.90	2.00	0.81	5.00	1.16	2.06	3.22
7.95	2.00	0.81	5.00	1.16	2.06	3.22
8.00	2.00	0.81	5.00	1.16	2.06	3.22
8.05	2.00	0.81	5.00	1.16	2.06	3.22
8.10	2.00	0.81	5.00	1.16	2.06	3.22
8.15	2.00	0.81	5.00	1.16	2.06	3.22
8.20	2.00	0.81	5.00	1.16	2.06	3.22
8.25	2.00	0.81	5.00	1.16	2.06	3.22
8.30	2.00	0.81	5.00	1.16	2.06	3.22
8.35	2.00	0.81	5.00	1.16	2.06	3.22
8.40	2.00	0.81	5.00	1.16	2.06	3.22
8.45	2.00	0.81	5.00	1.16	2.06	3.22
8.50	2.00	0.81	5.00	1.16	2.06	3.22

8.55	2.00	0.81	5.00	1.16	2.06	3.22
8.60	2.00	0.81	5.00	1.16	2.06	3.22
8.65	2.00	0.81	5.00	1.16	2.06	3.22
8.70	2.00	0.81	5.00	1.16	2.06	3.22
8.75	2.00	0.81	5.00	1.16	2.06	3.22
8.80	2.00	0.81	5.00	1.16	2.06	3.22
8.85	2.00	0.81	5.00	1.16	2.06	3.22
8.90	2.00	0.81	5.00	1.16	2.06	3.22
8.95	2.00	0.81	5.00	1.16	2.06	3.22
9.00	2.00	0.81	5.00	1.16	2.06	3.22
9.05	2.00	0.81	5.00	1.16	2.06	3.22
9.10	2.00	0.81	5.00	1.16	2.06	3.22
9.15	2.00	0.81	5.00	1.16	2.06	3.22
9.20	2.00	0.81	5.00	1.16	2.06	3.22
9.25	2.00	0.81	5.00	1.16	2.06	3.22
9.30	2.00	0.81	5.00	1.16	2.06	3.22
9.35	2.00	0.81	5.00	1.16	2.06	3.22
9.40	2.00	0.81	5.00	1.16	2.06	3.22
9.45	2.00	0.81	5.00	1.16	2.06	3.22
9.50	2.00	0.81	5.00	1.16	2.06	3.22
9.55	2.00	0.81	5.00	1.16	2.06	3.22
9.60	2.00	0.81	5.00	1.16	2.06	3.22
9.65	2.00	0.81	5.00	1.16	2.06	3.22
9.70	2.00	0.81	5.00	1.16	2.06	3.22
9.75	2.00	0.81	5.00	1.16	2.06	3.22
9.80	2.00	0.81	5.00	1.16	2.06	3.22
9.85	2.00	0.81	5.00	1.16	2.06	3.22
9.90	2.00	0.81	5.00	1.16	2.06	3.22
9.95	2.00	0.81	5.00	1.16	2.06	3.22
10.00	2.00	0.81	5.00	1.16	2.06	3.22
10.05	0.78	0.81	5.00	1.16	2.06	3.22
10.10	0.80	0.81	5.00	1.16	2.05	3.22
10.15	1.03	0.81	5.00	1.16	2.05	3.21
10.20	1.41	0.81	5.00	1.16	2.05	3.21
10.25	1.94	0.81	5.00	1.16	2.04	3.20
10.30	1.67	0.81	5.00	1.16	2.04	3.20
10.35	1.09	0.81	5.00	1.16	2.04	3.20
10.40	0.97	0.81	5.00	1.16	2.03	3.19
10.45	1.23	0.81	5.00	1.16	2.03	3.19
10.50	1.23	0.81	5.00	1.16	2.03	3.19
10.55	1.21	0.81	5.00	1.16	2.02	3.18
10.60	1.25	0.81	5.00	1.16	2.02	3.18
10.65	1.05	0.81	5.00	1.16	2.01	3.17
10.70	0.77	0.81	5.00	1.16	2.01	3.17
10.75	0.65	0.81	5.00	1.16	2.00	3.16
10.80	0.64	0.81	5.00	1.16	2.00	3.16
10.85	0.52	0.81	5.00	1.16	1.99	3.15
10.90	0.32	0.81	5.00	1.16	1.98	3.14
10.95	0.34	0.81	5.00	1.16	1.97	3.13
11.00	0.32	0.81	5.00	1.16	1.96	3.13

11.05	0.29	0.81	5.00	1.16	1.95	3.12
11.10	0.27	0.81	5.00	1.16	1.95	3.11
11.15	0.26	0.81	5.00	1.16	1.93	3.10
11.20	0.24	0.81	5.00	1.16	1.92	3.09
11.25	0.22	0.81	5.00	1.16	1.91	3.08
11.30	0.20	0.81	5.00	1.16	1.90	3.06
11.35	0.19	0.81	5.00	1.16	1.89	3.05
11.40	0.18	0.81	5.00	1.16	1.88	3.04
11.45	0.17	0.81	5.00	1.16	1.86	3.03
11.50	0.17	0.81	5.00	1.16	1.85	3.01
11.55	0.17	0.81	5.00	1.16	1.84	3.00
11.60	0.18	0.81	5.00	1.16	1.82	2.99
11.65	0.21	0.81	5.00	1.16	1.81	2.97
11.70	0.22	0.81	5.00	1.16	1.80	2.96
11.75	0.22	0.81	5.00	1.16	1.79	2.95
11.80	0.23	0.81	5.00	1.16	1.78	2.94
11.85	0.23	0.81	5.00	1.16	1.77	2.93
11.90	0.24	0.81	5.00	1.16	1.76	2.92
11.95	0.25	0.81	5.00	1.16	1.75	2.91
12.00	0.23	0.80	5.00	1.16	1.74	2.90
12.05	0.23	0.80	5.00	1.16	1.73	2.89
12.10	0.22	0.80	5.00	1.16	1.72	2.88
12.15	0.22	0.80	5.00	1.16	1.71	2.87
12.20	0.22	0.80	5.00	1.16	1.70	2.86
12.25	0.20	0.80	5.00	1.16	1.69	2.85
12.30	0.20	0.80	5.00	1.16	1.68	2.84
12.35	0.21	0.80	5.00	1.16	1.67	2.83
12.40	0.23	0.80	5.00	1.16	1.65	2.82
12.45	0.23	0.80	5.00	1.16	1.64	2.80
12.50	0.23	0.80	5.00	1.16	1.63	2.79
12.55	0.22	0.80	5.00	1.16	1.62	2.78
12.60	0.26	0.80	5.00	1.16	1.61	2.77
12.65	0.30	0.80	5.00	1.16	1.60	2.76
12.70	0.35	0.80	5.00	1.16	1.59	2.75
12.75	0.37	0.80	5.00	1.16	1.58	2.74
12.80	0.45	0.80	5.00	1.16	1.57	2.73
12.85	0.62	0.80	5.00	1.16	1.57	2.73
12.90	0.71	0.80	5.00	1.16	1.56	2.72
12.95	0.74	0.80	5.00	1.16	1.56	2.72
13.00	0.86	0.80	5.00	1.16	1.55	2.71
13.05	0.81	0.80	5.00	1.16	1.55	2.71
13.10	0.86	0.80	5.00	1.16	1.54	2.71
13.15	0.86	0.80	5.00	1.16	1.54	2.70
13.20	0.98	0.80	5.00	1.16	1.54	2.70
13.25	1.16	0.80	5.00	1.16	1.53	2.69
13.30	1.18	0.80	5.00	1.16	1.53	2.69
13.35	1.36	0.80	5.00	1.16	1.52	2.69
13.40	1.56	0.80	5.00	1.16	1.52	2.68
13.45	1.63	0.80	5.00	1.16	1.52	2.68
13.50	1.66	0.80	5.00	1.16	1.51	2.67

13.55	1.59	0.80	5.00	1.16	1.51	2.67
13.60	1.51	0.80	5.00	1.16	1.50	2.66
13.65	1.45	0.80	5.00	1.16	1.50	2.66
13.70	1.35	0.80	5.00	1.16	1.49	2.66
13.75	1.23	0.80	5.00	1.16	1.49	2.65
13.80	1.25	0.80	5.00	1.16	1.49	2.65
13.85	1.29	0.80	5.00	1.16	1.48	2.64
13.90	1.29	0.80	5.00	1.16	1.48	2.64
13.95	1.17	0.80	5.00	1.16	1.47	2.64
14.00	1.12	0.80	5.00	1.16	1.47	2.63
14.05	1.10	0.80	5.00	1.16	1.47	2.63
14.10	1.00	0.80	5.00	1.16	1.46	2.62
14.15	0.91	0.80	5.00	1.16	1.46	2.62
14.20	0.85	0.80	5.00	1.16	1.45	2.61
14.25	0.81	0.80	5.00	1.16	1.45	2.61
14.30	0.78	0.80	5.00	1.16	1.44	2.61
14.35	0.68	0.80	5.00	1.16	1.44	2.60
14.40	0.58	0.80	5.00	1.16	1.43	2.60
14.45	0.58	0.80	5.00	1.16	1.43	2.59
14.50	0.58	0.80	5.00	1.16	1.42	2.58
14.55	0.58	0.80	5.00	1.16	1.41	2.58
14.60	0.57	0.80	5.00	1.16	1.41	2.57
14.65	0.54	0.80	5.00	1.16	1.40	2.56
14.70	0.53	0.80	5.00	1.16	1.39	2.55
14.75	0.53	0.80	5.00	1.16	1.38	2.55
14.80	0.52	0.80	5.00	1.16	1.38	2.54
14.85	0.66	0.80	5.00	1.16	1.37	2.53
14.90	0.81	0.80	5.00	1.16	1.37	2.53
14.95	0.96	0.80	5.00	1.16	1.36	2.52
15.00	1.13	0.80	5.00	1.16	1.36	2.52
15.05	1.34	0.80	5.00	1.16	1.35	2.51
15.10	1.54	0.80	5.00	1.16	1.35	2.51
15.15	1.74	0.80	5.00	1.16	1.34	2.51
15.20	1.94	0.80	5.00	1.16	1.34	2.50
15.25	1.86	0.80	5.00	1.16	1.34	2.50
15.30	1.53	0.80	5.00	1.16	1.33	2.49
15.35	1.37	0.80	5.00	1.16	1.33	2.49
15.40	1.23	0.80	5.00	1.16	1.32	2.49
15.45	1.04	0.80	5.00	1.16	1.32	2.48
15.50	1.16	0.80	5.00	1.16	1.32	2.48
15.55	1.15	0.80	5.00	1.16	1.31	2.47
15.60	1.05	0.80	5.00	1.16	1.31	2.47
15.65	0.94	0.80	5.00	1.16	1.30	2.46
15.70	0.84	0.80	5.00	1.16	1.30	2.46
15.75	0.76	0.80	5.00	1.16	1.29	2.45
15.80	0.72	0.80	5.00	1.16	1.29	2.45
15.85	0.68	0.80	5.00	1.16	1.28	2.44
15.90	0.70	0.80	5.00	1.16	1.27	2.44
15.95	0.70	0.80	5.00	1.16	1.27	2.43
16.00	0.70	0.80	5.00	1.16	1.26	2.42

16.05	0.70	0.80	5.00	1.16	1.26	2.42
16.10	0.69	0.80	5.00	1.16	1.25	2.41
16.15	0.74	0.80	5.00	1.16	1.25	2.41
16.20	0.81	0.80	5.00	1.16	1.24	2.40
16.25	0.88	0.80	5.00	1.16	1.23	2.40
16.30	0.88	0.80	5.00	1.16	1.23	2.39
16.35	0.77	0.80	5.00	1.16	1.22	2.39
16.40	0.73	0.80	5.00	1.16	1.22	2.38
16.45	0.68	0.80	5.00	1.16	1.21	2.37
16.50	0.65	0.80	5.00	1.16	1.21	2.37
16.55	0.65	0.80	5.00	1.16	1.20	2.36
16.60	0.62	0.80	5.00	1.16	1.19	2.35
16.65	0.57	0.80	5.00	1.16	1.19	2.35
16.70	0.55	0.80	5.00	1.16	1.18	2.34
16.75	0.55	0.80	5.00	1.16	1.17	2.33
16.80	0.55	0.80	5.00	1.16	1.17	2.33
16.85	0.54	0.80	5.00	1.16	1.16	2.32
16.90	0.52	0.80	5.00	1.16	1.15	2.31
16.95	0.51	0.80	5.00	1.16	1.14	2.30
17.00	0.51	0.80	5.00	1.16	1.14	2.30
17.05	0.50	0.80	5.00	1.16	1.13	2.29
17.10	0.50	0.80	5.00	1.16	1.12	2.28
17.15	0.52	0.79	5.00	1.16	1.11	2.28
17.20	0.51	0.79	5.00	1.16	1.11	2.27
17.25	0.49	0.79	5.00	1.16	1.10	2.26
17.30	0.46	0.79	5.00	1.16	1.09	2.26
17.35	0.43	0.79	5.00	1.16	1.09	2.25
17.40	0.47	0.79	5.00	1.16	1.08	2.24
17.45	0.48	0.79	5.00	1.16	1.07	2.23
17.50	0.48	0.79	5.00	1.16	1.06	2.23
17.55	0.57	0.79	5.00	1.16	1.06	2.22
17.60	0.68	0.79	5.00	1.16	1.05	2.21
17.65	0.65	0.79	5.00	1.16	1.05	2.21
17.70	0.67	0.79	5.00	1.16	1.04	2.20
17.75	0.84	0.79	5.00	1.16	1.03	2.19
17.80	0.97	0.79	5.00	1.16	1.03	2.19
17.85	1.20	0.79	5.00	1.16	1.02	2.19
17.90	1.49	0.79	5.00	1.16	1.02	2.18
17.95	1.40	0.79	5.00	1.16	1.02	2.18
18.00	0.76	0.79	5.00	1.16	1.01	2.17
18.05	0.69	0.79	5.00	1.16	1.01	2.17
18.10	0.62	0.79	5.00	1.16	1.00	2.16
18.15	0.59	0.79	5.00	1.16	1.00	2.16
18.20	0.60	0.79	5.00	1.16	0.99	2.15
18.25	0.57	0.79	5.00	1.16	0.99	2.15
18.30	0.58	0.79	5.00	1.16	0.98	2.14
18.35	0.57	0.79	5.00	1.16	0.97	2.13
18.40	0.54	0.79	5.00	1.16	0.97	2.13
18.45	0.56	0.79	5.00	1.16	0.96	2.12
18.50	0.59	0.79	5.00	1.16	0.95	2.12

18.55	0.62	0.79	5.00	1.16	0.95	2.11
18.60	0.64	0.79	5.00	1.16	0.94	2.10
18.65	0.65	0.79	5.00	1.16	0.93	2.09
18.70	0.66	0.79	5.00	1.16	0.93	2.09
18.75	0.70	0.79	5.00	1.16	0.92	2.08
18.80	0.74	0.79	5.00	1.16	0.91	2.07
18.85	0.66	0.79	5.00	1.16	0.91	2.07
18.90	0.69	0.79	5.00	1.16	0.90	2.06
18.95	0.77	0.79	5.00	1.16	0.89	2.06
19.00	0.81	0.79	5.00	1.16	0.89	2.05
19.05	0.82	0.79	5.00	1.16	0.88	2.04
19.10	0.82	0.79	5.00	1.16	0.88	2.04
19.15	0.83	0.79	5.00	1.16	0.87	2.03
19.20	0.75	0.79	5.00	1.16	0.86	2.03
19.25	0.68	0.79	5.00	1.16	0.86	2.02
19.30	0.62	0.79	5.00	1.16	0.85	2.01
19.35	0.56	0.79	5.00	1.16	0.84	2.01
19.40	0.51	0.79	5.00	1.16	0.84	2.00
19.45	0.48	0.79	5.00	1.16	0.83	1.99
19.50	0.45	0.79	5.00	1.16	0.82	1.98
19.55	0.44	0.79	5.00	1.16	0.81	1.98
19.60	0.45	0.79	5.00	1.16	0.81	1.97
19.65	0.47	0.79	5.00	1.16	0.80	1.96
19.70	0.51	0.79	5.00	1.16	0.79	1.95
19.75	0.52	0.79	5.00	1.16	0.78	1.95
19.80	0.51	0.79	5.00	1.16	0.78	1.94
19.85	0.49	0.79	5.00	1.16	0.77	1.93
19.90	0.46	0.79	5.00	1.16	0.76	1.92
19.95	0.43	0.79	5.00	1.16	0.75	1.92
20.00	0.42	0.79	5.00	1.16	0.75	1.91
20.05	0.41	0.79	5.00	1.16	0.74	1.90
20.10	0.39	0.79	5.00	1.16	0.73	1.89
20.15	0.37	0.79	5.00	1.16	0.72	1.88
20.20	0.34	0.79	5.00	1.16	0.71	1.88
20.25	0.33	0.79	5.00	1.16	0.70	1.87
20.30	0.32	0.79	5.00	1.16	0.69	1.86
20.35	0.32	0.79	5.00	1.16	0.69	1.85
20.40	0.33	0.79	5.00	1.16	0.68	1.84
20.45	0.35	0.79	5.00	1.16	0.67	1.83
20.50	0.35	0.79	5.00	1.16	0.66	1.82
20.55	0.36	0.79	5.00	1.16	0.65	1.81
20.60	0.38	0.79	5.00	1.16	0.64	1.80
20.65	0.40	0.79	5.00	1.16	0.63	1.80
20.70	0.43	0.79	5.00	1.16	0.63	1.79
20.75	0.46	0.79	5.00	1.16	0.62	1.78
20.80	0.47	0.79	5.00	1.16	0.61	1.77
20.85	0.46	0.79	5.00	1.16	0.60	1.77
20.90	0.45	0.79	5.00	1.16	0.60	1.76
20.95	0.46	0.79	5.00	1.16	0.59	1.75
21.00	0.49	0.79	5.00	1.16	0.58	1.74

21.05	0.53	0.79	5.00	1.16	0.58	1.74
21.10	0.51	0.79	5.00	1.16	0.57	1.73
21.15	0.50	0.79	5.00	1.16	0.56	1.72
21.20	0.50	0.79	5.00	1.16	0.55	1.72
21.25	0.50	0.79	5.00	1.16	0.55	1.71
21.30	0.50	0.79	5.00	1.16	0.54	1.70
21.35	0.49	0.79	5.00	1.16	0.53	1.70
21.40	0.47	0.79	5.00	1.16	0.53	1.69
21.45	0.47	0.79	5.00	1.16	0.52	1.68
21.50	0.48	0.79	5.00	1.16	0.51	1.67
21.55	0.47	0.79	5.00	1.16	0.50	1.67
21.60	0.47	0.79	5.00	1.16	0.50	1.66
21.65	0.48	0.79	5.00	1.16	0.49	1.65
21.70	0.50	0.79	5.00	1.16	0.48	1.64
21.75	0.52	0.79	5.00	1.16	0.47	1.64
21.80	0.54	0.79	5.00	1.16	0.47	1.63
21.85	0.54	0.79	5.00	1.16	0.46	1.62
21.90	0.55	0.79	5.00	1.16	0.45	1.61
21.95	0.54	0.79	5.00	1.16	0.44	1.61
22.00	0.55	0.79	5.00	1.16	0.44	1.60
22.05	0.56	0.79	5.00	1.16	0.43	1.59
22.10	0.54	0.79	5.00	1.16	0.42	1.58
22.15	0.49	0.79	5.00	1.16	0.41	1.58
22.20	0.46	0.79	5.00	1.16	0.41	1.57
22.25	0.48	0.79	5.00	1.16	0.40	1.56
22.30	0.49	0.79	5.00	1.16	0.39	1.55
22.35	0.48	0.78	5.00	1.16	0.38	1.54
22.40	0.47	0.78	5.00	1.16	0.38	1.54
22.45	0.45	0.78	5.00	1.16	0.37	1.53
22.50	0.43	0.78	5.00	1.16	0.36	1.52
22.55	0.43	0.78	5.00	1.16	0.35	1.51
22.60	0.43	0.78	5.00	1.16	0.34	1.50
22.65	0.43	0.78	5.00	1.16	0.33	1.50
22.70	0.44	0.78	5.00	1.16	0.33	1.49
22.75	0.43	0.78	5.00	1.16	0.32	1.48
22.80	0.42	0.78	5.00	1.16	0.31	1.47
22.85	0.41	0.78	5.00	1.16	0.30	1.46
22.90	0.42	0.78	5.00	1.16	0.29	1.46
22.95	0.42	0.78	5.00	1.16	0.29	1.45
23.00	0.43	0.78	5.00	1.16	0.28	1.44
23.05	0.46	0.78	5.00	1.16	0.27	1.43
23.10	0.47	0.78	5.00	1.16	0.26	1.43
23.15	0.48	0.78	5.00	1.16	0.26	1.42
23.20	0.48	0.78	5.00	1.16	0.25	1.41
23.25	0.53	0.78	5.00	1.16	0.24	1.40
23.30	0.56	0.78	5.00	1.16	0.24	1.40
23.35	0.52	0.78	5.00	1.16	0.23	1.39
23.40	0.49	0.78	5.00	1.16	0.22	1.38
23.45	0.49	0.78	5.00	1.16	0.22	1.38
23.50	0.49	0.78	5.00	1.16	0.21	1.37

23.55	0.50	0.78	5.00	1.16	0.20	1.36
23.60	0.54	0.78	5.00	1.16	0.20	1.36
23.65	0.61	0.78	5.00	1.16	0.19	1.35
23.70	0.71	0.78	5.00	1.16	0.18	1.34
23.75	0.85	0.78	5.00	1.16	0.18	1.34
23.80	1.05	0.78	5.00	1.16	0.17	1.33
23.85	1.34	0.78	5.00	1.16	0.17	1.33
23.90	1.63	0.78	5.00	1.16	0.16	1.33
23.95	0.81	0.78	5.00	1.16	0.16	1.32
24.00	0.51	0.78	5.00	1.16	0.16	1.32
24.05	0.52	0.78	5.00	1.16	0.15	1.31
24.10	0.52	0.78	5.00	1.16	0.14	1.30
24.15	0.48	0.78	5.00	1.16	0.14	1.30
24.20	0.44	0.78	5.00	1.16	0.13	1.29
24.25	0.32	0.78	5.00	1.16	0.12	1.28
24.30	0.44	0.78	5.00	1.16	0.11	1.28
24.35	0.42	0.78	5.00	1.16	0.11	1.27
24.40	0.43	0.78	5.00	1.16	0.10	1.26
24.45	0.46	0.78	5.00	1.16	0.09	1.25
24.50	0.45	0.78	5.00	1.16	0.08	1.25
24.55	0.44	0.78	5.00	1.16	0.08	1.24
24.60	0.44	0.78	5.00	1.16	0.07	1.23
24.65	0.44	0.78	5.00	1.16	0.06	1.22
24.70	0.45	0.78	5.00	1.16	0.05	1.22
24.75	0.44	0.78	5.00	1.16	0.05	1.21
24.80	0.43	0.78	5.00	1.16	0.04	1.20
24.85	0.42	0.78	5.00	1.16	0.03	1.19
24.90	0.42	0.78	5.00	1.16	0.02	1.19
24.95	0.41	0.78	5.00	1.16	0.02	1.18
25.00	0.40	0.78	5.00	1.16	0.01	1.17
25.05	0.40	0.78	0.51*	1.16	0.00	1.16
25.10	0.41	0.78	0.53*	1.16	0.00	1.16
25.15	0.43	0.78	0.54*	1.15	0.00	1.15
25.20	0.43	0.78	0.55*	1.15	0.00	1.15
25.25	0.43	0.78	0.54*	1.14	0.00	1.14
25.30	0.42	0.78	0.54*	1.14	0.00	1.14
25.35	0.41	0.78	0.53*	1.13	0.00	1.13
25.40	0.41	0.79	0.53*	1.13	0.00	1.13
25.45	0.41	0.79	0.52*	1.12	0.00	1.12
25.50	0.39	0.79	0.50*	1.12	0.00	1.12
25.55	0.39	0.79	0.50*	1.11	0.00	1.11
25.60	0.39	0.79	0.50*	1.10	0.00	1.10
25.65	0.38	0.79	0.48*	1.10	0.00	1.10
25.70	0.36	0.79	0.46*	1.09	0.00	1.09
25.75	0.36	0.79	0.46*	1.09	0.00	1.09
25.80	0.36	0.79	0.45*	1.08	0.00	1.08
25.85	0.35	0.79	0.45*	1.07	0.00	1.07
25.90	0.35	0.79	0.45*	1.07	0.00	1.07
25.95	0.35	0.79	0.45*	1.06	0.00	1.06
26.00	0.35	0.79	0.45*	1.05	0.00	1.05

26.05	0.36	0.80	0.45*	1.05	0.00	1.05
26.10	0.35	0.80	0.44*	1.04	0.00	1.04
26.15	0.33	0.80	0.42*	1.03	0.00	1.03
26.20	0.33	0.80	0.42*	1.03	0.00	1.03
26.25	0.35	0.80	0.44*	1.02	0.00	1.02
26.30	0.37	0.80	0.46*	1.01	0.00	1.01
26.35	0.38	0.80	0.48*	1.01	0.00	1.01
26.40	0.39	0.80	0.49*	1.00	0.00	1.00
26.45	0.40	0.80	0.50*	0.99	0.00	0.99
26.50	0.42	0.80	0.52*	0.99	0.00	0.99
26.55	0.43	0.80	0.54*	0.98	0.00	0.98
26.60	0.45	0.80	0.57*	0.98	0.00	0.98
26.65	0.49	0.80	0.60*	0.97	0.00	0.97
26.70	0.52	0.80	0.65*	0.97	0.00	0.97
26.75	0.57	0.81	0.71*	0.97	0.00	0.97
26.80	0.62	0.81	0.77*	0.96	0.00	0.96
26.85	0.66	0.81	0.82*	0.96	0.00	0.96
26.90	0.70	0.81	0.86*	0.96	0.00	0.96
26.95	0.72	0.81	0.89*	0.96	0.00	0.96
27.00	0.74	0.81	0.92*	0.96	0.00	0.96
27.05	0.78	0.81	0.96*	0.96	0.00	0.96
27.10	0.81	0.81	1.00	0.95	0.00	0.95
27.15	0.84	0.81	1.04	0.95	0.00	0.95
27.20	0.85	0.81	1.05	0.95	0.00	0.95
27.25	0.85	0.81	1.04	0.95	0.00	0.95
27.30	0.83	0.81	1.02	0.95	0.00	0.95
27.35	0.81	0.81	1.00*	0.95	0.00	0.95
27.40	0.81	0.81	1.00*	0.95	0.00	0.95
27.45	0.81	0.82	1.00*	0.95	0.00	0.95
27.50	0.81	0.82	1.00*	0.95	0.00	0.95
27.55	0.82	0.82	1.00*	0.95	0.00	0.95
27.60	0.82	0.82	1.00	0.95	0.00	0.95
27.65	0.82	0.82	1.00*	0.95	0.00	0.95
27.70	0.82	0.82	1.00*	0.95	0.00	0.95
27.75	0.83	0.82	1.02	0.95	0.00	0.95
27.80	0.85	0.82	1.04	0.95	0.00	0.95
27.85	0.81	0.82	0.99*	0.95	0.00	0.95
27.90	0.77	0.82	0.94*	0.95	0.00	0.95
27.95	0.75	0.82	0.91*	0.95	0.00	0.95
28.00	0.78	0.82	0.94*	0.94	0.00	0.94
28.05	0.73	0.82	0.89*	0.94	0.00	0.94
28.10	0.69	0.82	0.83*	0.94	0.00	0.94
28.15	0.78	0.83	0.94*	0.94	0.00	0.94
28.20	0.83	0.83	1.01	0.94	0.00	0.94
28.25	0.86	0.83	1.04	0.94	0.00	0.94
28.30	0.82	0.83	1.00*	0.94	0.00	0.94
28.35	0.77	0.83	0.93*	0.94	0.00	0.94
28.40	0.72	0.83	0.86*	0.94	0.00	0.94
28.45	0.68	0.83	0.82*	0.94	0.00	0.94
28.50	0.64	0.83	0.77*	0.94	0.00	0.94

28.55	0.55	0.83	0.67*	0.94	0.00	0.94
28.60	0.50	0.83	0.60*	0.94	0.00	0.94
28.65	0.49	0.83	0.59*	0.93	0.00	0.93
28.70	0.52	0.83	0.62*	0.93	0.00	0.93
28.75	0.67	0.83	0.81*	0.93	0.00	0.93
28.80	0.91	0.83	1.09	0.93	0.00	0.93
28.85	1.20	0.83	1.44	0.93	0.00	0.93
28.90	1.38	0.84	1.65	0.93	0.00	0.93
28.95	1.40	0.84	1.67	0.93	0.00	0.93
29.00	1.32	0.84	1.58	0.93	0.00	0.93
29.05	1.34	0.84	1.60	0.93	0.00	0.93
29.10	1.62	0.84	1.93	0.93	0.00	0.93
29.15	1.94	0.84	2.32	0.93	0.00	0.93
29.20	1.94	0.84	2.31	0.93	0.00	0.93
29.25	1.94	0.84	2.31	0.93	0.00	0.93
29.30	1.94	0.84	2.31	0.93	0.00	0.93
29.35	1.94	0.84	2.31	0.93	0.00	0.93
29.40	1.94	0.84	2.30	0.93	0.00	0.93
29.45	1.94	0.84	2.30	0.93	0.00	0.93
29.50	1.94	0.84	2.30	0.93	0.00	0.93
29.55	1.94	0.84	2.30	0.93	0.00	0.93
29.60	1.94	0.84	2.29	0.93	0.00	0.93
29.65	1.94	0.85	2.29	0.93	0.00	0.93
29.70	1.94	0.85	2.29	0.93	0.00	0.93
29.75	1.94	0.85	2.29	0.93	0.00	0.93
29.80	1.94	0.85	2.28	0.93	0.00	0.93
29.85	1.94	0.85	2.28	0.93	0.00	0.93
29.90	1.93	0.85	2.28	0.93	0.00	0.93
29.95	1.93	0.85	2.28	0.93	0.00	0.93
30.00	1.93	0.85	2.28	0.93	0.00	0.93
30.05	1.93	0.85	2.27	0.93	0.00	0.93
30.10	1.93	0.85	2.27	0.93	0.00	0.93
30.15	1.93	0.85	2.27	0.93	0.00	0.93
30.20	1.93	0.85	2.27	0.93	0.00	0.93
30.25	1.43	0.85	1.68	0.93	0.00	0.93
30.30	1.35	0.85	1.59	0.93	0.00	0.93
30.35	1.23	0.85	1.45	0.93	0.00	0.93
30.40	1.17	0.85	1.37	0.93	0.00	0.93
30.45	1.06	0.85	1.24	0.93	0.00	0.93
30.50	1.02	0.85	1.19	0.93	0.00	0.93
30.55	0.93	0.85	1.09	0.93	0.00	0.93
30.60	0.90	0.85	1.06	0.93	0.00	0.93
30.65	0.90	0.85	1.05	0.93	0.00	0.93
30.70	0.91	0.85	1.06	0.93	0.00	0.93
30.75	0.86	0.85	1.01	0.93	0.00	0.93
30.80	0.90	0.86	1.05	0.93	0.00	0.93
30.85	0.98	0.86	1.15	0.93	0.00	0.93
30.90	1.11	0.86	1.30	0.93	0.00	0.93
30.95	1.23	0.86	1.44	0.93	0.00	0.93
31.00	1.25	0.86	1.46	0.93	0.00	0.93

31.05	1.30	0.86	1.51	0.93	0.00	0.93
31.10	1.32	0.86	1.54	0.93	0.00	0.93
31.15	1.34	0.86	1.56	0.93	0.00	0.93
31.20	1.38	0.86	1.60	0.93	0.00	0.93
31.25	1.40	0.86	1.63	0.93	0.00	0.93
31.30	1.42	0.86	1.66	0.93	0.00	0.93
31.35	1.37	0.86	1.60	0.93	0.00	0.93
31.40	1.28	0.86	1.49	0.93	0.00	0.93
31.45	1.16	0.86	1.35	0.93	0.00	0.93
31.50	1.03	0.86	1.20	0.93	0.00	0.93
31.55	0.88	0.86	1.02	0.93	0.00	0.93
31.60	0.83	0.86	0.96*	0.93	0.00	0.93
31.65	0.78	0.86	0.90*	0.93	0.00	0.93
31.70	0.70	0.86	0.81*	0.93	0.00	0.93
31.75	0.63	0.86	0.73*	0.93	0.00	0.93
31.80	0.62	0.86	0.72*	0.92	0.00	0.92
31.85	0.61	0.86	0.71*	0.92	0.00	0.92
31.90	0.62	0.86	0.72*	0.92	0.00	0.92
31.95	0.68	0.86	0.79*	0.92	0.00	0.92
32.00	0.73	0.86	0.84*	0.91	0.00	0.91
32.05	0.76	0.86	0.88*	0.91	0.00	0.91
32.10	0.80	0.86	0.93*	0.91	0.00	0.91
32.15	0.83	0.86	0.96*	0.91	0.00	0.91
32.20	0.86	0.86	0.99*	0.91	0.00	0.91
32.25	0.84	0.86	0.97*	0.91	0.00	0.91
32.30	0.84	0.86	0.98*	0.91	0.00	0.91
32.35	0.87	0.86	1.01	0.91	0.00	0.91
32.40	0.89	0.87	1.03	0.91	0.00	0.91
32.45	0.90	0.87	1.04	0.91	0.00	0.91
32.50	0.90	0.87	1.04	0.91	0.00	0.91
32.55	0.90	0.87	1.04	0.91	0.00	0.91
32.60	0.91	0.87	1.06	0.91	0.00	0.91
32.65	0.94	0.87	1.08	0.91	0.00	0.91
32.70	0.97	0.87	1.12	0.91	0.00	0.91
32.75	1.00	0.87	1.16	0.91	0.00	0.91
32.80	1.03	0.87	1.19	0.91	0.00	0.91
32.85	1.04	0.87	1.20	0.91	0.00	0.91
32.90	1.06	0.87	1.23	0.91	0.00	0.91
32.95	1.08	0.87	1.25	0.91	0.00	0.91
33.00	1.10	0.87	1.27	0.91	0.00	0.91
33.05	1.12	0.87	1.29	0.91	0.00	0.91
33.10	1.12	0.87	1.29	0.91	0.00	0.91
33.15	1.13	0.87	1.30	0.91	0.00	0.91
33.20	1.15	0.87	1.33	0.91	0.00	0.91
33.25	1.17	0.87	1.35	0.91	0.00	0.91
33.30	1.13	0.87	1.30	0.91	0.00	0.91
33.35	1.08	0.87	1.24	0.91	0.00	0.91
33.40	1.03	0.87	1.18	0.91	0.00	0.91
33.45	1.00	0.87	1.15	0.91	0.00	0.91
33.50	0.97	0.87	1.11	0.91	0.00	0.91

33.55	0.91	0.87	1.04	0.91	0.00	0.91
33.60	0.90	0.87	1.04	0.91	0.00	0.91
33.65	0.90	0.87	1.03	0.90	0.00	0.90
33.70	0.91	0.87	1.04	0.90	0.00	0.90
33.75	0.94	0.87	1.07	0.90	0.00	0.90
33.80	0.93	0.87	1.07	0.90	0.00	0.90
33.85	0.80	0.87	0.92*	0.90	0.00	0.90
33.90	0.86	0.87	0.99*	0.90	0.00	0.90
33.95	0.82	0.87	0.93*	0.90	0.00	0.90
34.00	0.86	0.87	0.98*	0.90	0.00	0.90
34.05	0.90	0.87	1.03	0.90	0.00	0.90
34.10	0.93	0.87	1.06	0.90	0.00	0.90
34.15	0.95	0.87	1.09	0.90	0.00	0.90
34.20	0.99	0.87	1.13	0.90	0.00	0.90
34.25	0.99	0.87	1.13	0.90	0.00	0.90
34.30	0.96	0.87	1.09	0.90	0.00	0.90
34.35	0.95	0.88	1.09	0.90	0.00	0.90
34.40	0.88	0.88	1.00	0.90	0.00	0.90
34.45	0.81	0.88	0.93*	0.90	0.00	0.90
34.50	0.75	0.88	0.86*	0.90	0.00	0.90
34.55	0.71	0.88	0.81*	0.90	0.00	0.90
34.60	0.67	0.88	0.76*	0.90	0.00	0.90
34.65	0.63	0.88	0.72*	0.90	0.00	0.90
34.70	0.60	0.88	0.68*	0.90	0.00	0.90
34.75	0.56	0.88	0.64*	0.90	0.00	0.90
34.80	0.50	0.88	0.57*	0.89	0.00	0.89
34.85	0.49	0.88	0.56*	0.89	0.00	0.89
34.90	0.47	0.88	0.53*	0.89	0.00	0.89
34.95	0.45	0.88	0.51*	0.88	0.00	0.88
35.00	0.40	0.88	0.46*	0.88	0.00	0.88
35.05	0.36	0.88	0.40*	0.88	0.00	0.88
35.10	0.31	0.88	0.35*	0.87	0.00	0.87
35.15	0.26	0.88	0.30*	0.87	0.00	0.87
35.20	0.21	0.88	0.24*	0.86	0.00	0.86
35.25	0.18	0.88	0.20*	0.85	0.00	0.85
35.30	0.16	0.88	0.18*	0.84	0.00	0.84
35.35	0.14	0.88	0.16*	0.84	0.00	0.84
35.40	0.14	0.88	0.16*	0.83	0.00	0.83
35.45	0.14	0.88	0.16*	0.82	0.00	0.82
35.50	0.13	0.88	0.15*	0.81	0.00	0.81
35.55	0.12	0.88	0.14*	0.80	0.00	0.80
35.60	0.12	0.88	0.14*	0.79	0.00	0.79
35.65	0.14	0.88	0.16*	0.78	0.00	0.78
35.70	0.14	0.88	0.16*	0.77	0.00	0.77
35.75	0.14	0.88	0.15*	0.76	0.00	0.76
35.80	0.12	0.88	0.14*	0.76	0.00	0.76
35.85	0.12	0.88	0.13*	0.75	0.00	0.75
35.90	0.12	0.88	0.14*	0.74	0.00	0.74
35.95	2.00	0.88	5.00	0.73	0.00	0.73
36.00	2.00	0.88	5.00	0.73	0.00	0.73

36.05	2.00	0.88	5.00	0.73	0.00	0.73
36.10	2.00	0.88	5.00	0.73	0.00	0.73
36.15	2.00	0.88	5.00	0.73	0.00	0.73
36.20	2.00	0.88	5.00	0.73	0.00	0.73
36.25	2.00	0.88	5.00	0.73	0.00	0.73
36.30	2.00	0.88	5.00	0.73	0.00	0.73
36.35	0.11	0.88	0.13*	0.73	0.00	0.73
36.40	2.00	0.88	5.00	0.72	0.00	0.72
36.45	2.00	0.88	5.00	0.72	0.00	0.72
36.50	2.00	0.88	5.00	0.72	0.00	0.72
36.55	2.00	0.88	5.00	0.72	0.00	0.72
36.60	2.00	0.88	5.00	0.72	0.00	0.72
36.65	2.00	0.88	5.00	0.72	0.00	0.72
36.70	2.00	0.88	5.00	0.72	0.00	0.72
36.75	2.00	0.88	5.00	0.72	0.00	0.72
36.80	2.00	0.88	5.00	0.72	0.00	0.72
36.85	2.00	0.88	5.00	0.72	0.00	0.72
36.90	0.13	0.88	0.14*	0.72	0.00	0.72
36.95	0.12	0.88	0.14*	0.71	0.00	0.71
37.00	0.13	0.89	0.14*	0.70	0.00	0.70
37.05	0.13	0.89	0.15*	0.69	0.00	0.69
37.10	0.13	0.89	0.15*	0.68	0.00	0.68
37.15	0.14	0.89	0.15*	0.68	0.00	0.68
37.20	0.14	0.89	0.15*	0.67	0.00	0.67
37.25	0.13	0.89	0.15*	0.66	0.00	0.66
37.30	0.14	0.89	0.15*	0.65	0.00	0.65
37.35	0.14	0.89	0.16*	0.64	0.00	0.64
37.40	0.14	0.89	0.16*	0.63	0.00	0.63
37.45	0.14	0.89	0.16*	0.62	0.00	0.62
37.50	0.14	0.89	0.16*	0.61	0.00	0.61
37.55	0.14	0.89	0.16*	0.60	0.00	0.60
37.60	0.14	0.89	0.16*	0.60	0.00	0.60
37.65	0.14	0.89	0.16*	0.59	0.00	0.59
37.70	0.15	0.89	0.16*	0.58	0.00	0.58
37.75	0.16	0.89	0.18*	0.57	0.00	0.57
37.80	0.17	0.89	0.19*	0.56	0.00	0.56
37.85	0.18	0.89	0.20*	0.55	0.00	0.55
37.90	0.18	0.89	0.21*	0.54	0.00	0.54
37.95	0.19	0.89	0.22*	0.54	0.00	0.54
38.00	0.20	0.89	0.23*	0.53	0.00	0.53
38.05	0.23	0.89	0.25*	0.52	0.00	0.52
38.10	0.26	0.89	0.29*	0.51	0.00	0.51
38.15	0.30	0.89	0.34*	0.51	0.00	0.51
38.20	0.36	0.89	0.41*	0.50	0.00	0.50
38.25	0.43	0.89	0.49*	0.49	0.00	0.49
38.30	0.53	0.89	0.59*	0.49	0.00	0.49
38.35	0.63	0.89	0.71*	0.49	0.00	0.49
38.40	0.77	0.89	0.87*	0.49	0.00	0.49
38.45	0.95	0.89	1.07	0.49	0.00	0.49
38.50	1.19	0.89	1.34	0.49	0.00	0.49

38.55	1.42	0.89	1.60	0.49	0.00	0.49
38.60	1.54	0.89	1.73	0.49	0.00	0.49
38.65	1.58	0.89	1.78	0.49	0.00	0.49
38.70	1.58	0.89	1.78	0.49	0.00	0.49
38.75	1.25	0.89	1.40	0.49	0.00	0.49
38.80	1.09	0.89	1.23	0.49	0.00	0.49
38.85	1.02	0.89	1.15	0.49	0.00	0.49
38.90	0.96	0.89	1.08	0.49	0.00	0.49
38.95	0.83	0.89	0.93*	0.49	0.00	0.49
39.00	0.73	0.89	0.82*	0.49	0.00	0.49
39.05	0.71	0.89	0.80*	0.49	0.00	0.49
39.10	0.70	0.89	0.78*	0.49	0.00	0.49
39.15	0.68	0.89	0.76*	0.49	0.00	0.49
39.20	0.65	0.89	0.73*	0.49	0.00	0.49
39.25	0.64	0.89	0.72*	0.49	0.00	0.49
39.30	0.61	0.89	0.69*	0.49	0.00	0.49
39.35	0.66	0.89	0.75*	0.49	0.00	0.49
39.40	0.79	0.89	0.88*	0.48	0.00	0.48
39.45	0.92	0.89	1.03	0.48	0.00	0.48
39.50	1.00	0.89	1.13	0.48	0.00	0.48
39.55	1.12	0.89	1.25	0.48	0.00	0.48
39.60	1.01	0.89	1.14	0.48	0.00	0.48
39.65	0.94	0.89	1.05	0.48	0.00	0.48
39.70	0.90	0.89	1.01	0.48	0.00	0.48
39.75	0.92	0.89	1.03	0.48	0.00	0.48
39.80	0.93	0.89	1.04	0.48	0.00	0.48
39.85	0.87	0.89	0.98*	0.48	0.00	0.48
39.90	0.79	0.89	0.88*	0.48	0.00	0.48
39.95	0.71	0.89	0.80*	0.48	0.00	0.48
40.00	0.65	0.89	0.73*	0.48	0.00	0.48
40.05	0.58	0.89	0.66*	0.48	0.00	0.48
40.10	0.54	0.89	0.61*	0.48	0.00	0.48
40.15	0.55	0.89	0.62*	0.48	0.00	0.48
40.20	0.55	0.89	0.61*	0.48	0.00	0.48
40.25	0.52	0.89	0.59*	0.48	0.00	0.48
40.30	0.49	0.89	0.55*	0.48	0.00	0.48
40.35	0.48	0.89	0.54*	0.48	0.00	0.48
40.40	0.49	0.89	0.55*	0.47	0.00	0.47
40.45	0.48	0.89	0.54*	0.47	0.00	0.47
40.50	0.43	0.89	0.48*	0.47	0.00	0.47
40.55	0.37	0.89	0.42*	0.47	0.00	0.47
40.60	0.37	0.89	0.42*	0.47	0.00	0.47
40.65	0.37	0.89	0.42*	0.46	0.00	0.46
40.70	0.37	0.89	0.41*	0.46	0.00	0.46
40.75	0.36	0.89	0.40*	0.45	0.00	0.45
40.80	0.33	0.89	0.37*	0.45	0.00	0.45
40.85	0.29	0.89	0.33*	0.44	0.00	0.44
40.90	0.32	0.89	0.35*	0.43	0.00	0.43
40.95	0.32	0.89	0.35*	0.43	0.00	0.43
41.00	0.32	0.89	0.36*	0.42	0.00	0.42

41.05	0.32	0.89	0.36*	0.41	0.00	0.41
41.10	0.32	0.89	0.36*	0.41	0.00	0.41
41.15	0.32	0.89	0.36*	0.40	0.00	0.40
41.20	0.34	0.89	0.38*	0.39	0.00	0.39
41.25	0.34	0.89	0.38*	0.39	0.00	0.39
41.30	0.36	0.89	0.40*	0.38	0.00	0.38
41.35	0.41	0.89	0.46*	0.38	0.00	0.38
41.40	0.46	0.89	0.51*	0.37	0.00	0.37
41.45	0.53	0.89	0.59*	0.37	0.00	0.37
41.50	0.67	0.89	0.74*	0.37	0.00	0.37
41.55	0.89	0.89	0.99*	0.37	0.00	0.37
41.60	1.13	0.89	1.26	0.37	0.00	0.37
41.65	1.24	0.89	1.39	0.37	0.00	0.37
41.70	1.39	0.89	1.56	0.37	0.00	0.37
41.75	1.50	0.89	1.68	0.37	0.00	0.37
41.80	1.44	0.89	1.61	0.37	0.00	0.37
41.85	1.15	0.89	1.29	0.37	0.00	0.37
41.90	1.01	0.89	1.13	0.37	0.00	0.37
41.95	0.96	0.89	1.07	0.37	0.00	0.37
42.00	1.06	0.89	1.19	0.37	0.00	0.37
42.05	1.22	0.89	1.37	0.37	0.00	0.37
42.10	1.42	0.89	1.59	0.37	0.00	0.37
42.15	1.59	0.89	1.77	0.37	0.00	0.37
42.20	1.67	0.89	1.87	0.37	0.00	0.37
42.25	1.71	0.89	1.91	0.37	0.00	0.37
42.30	1.66	0.89	1.86	0.37	0.00	0.37
42.35	1.28	0.89	1.44	0.37	0.00	0.37
42.40	1.35	0.89	1.51	0.37	0.00	0.37
42.45	1.48	0.89	1.66	0.37	0.00	0.37
42.50	1.58	0.89	1.77	0.37	0.00	0.37
42.55	1.61	0.89	1.80	0.37	0.00	0.37
42.60	1.81	0.89	2.02	0.37	0.00	0.37
42.65	1.81	0.89	2.02	0.37	0.00	0.37
42.70	1.67	0.89	1.87	0.37	0.00	0.37
42.75	1.65	0.89	1.85	0.37	0.00	0.37
42.80	1.81	0.89	2.02	0.37	0.00	0.37
42.85	1.80	0.89	2.02	0.37	0.00	0.37
42.90	1.80	0.89	2.02	0.37	0.00	0.37
42.95	1.67	0.89	1.87	0.37	0.00	0.37
43.00	1.42	0.89	1.59	0.37	0.00	0.37
43.05	1.30	0.89	1.45	0.37	0.00	0.37
43.10	1.32	0.89	1.48	0.37	0.00	0.37
43.15	1.22	0.89	1.37	0.37	0.00	0.37
43.20	1.18	0.89	1.32	0.37	0.00	0.37
43.25	1.14	0.89	1.27	0.37	0.00	0.37
43.30	1.08	0.89	1.21	0.37	0.00	0.37
43.35	1.00	0.89	1.12	0.37	0.00	0.37
43.40	0.90	0.89	1.01	0.37	0.00	0.37
43.45	0.84	0.89	0.93*	0.37	0.00	0.37
43.50	0.78	0.89	0.88*	0.37	0.00	0.37

43.55	0.74	0.89	0.83*	0.37	0.00	0.37
43.60	0.71	0.89	0.80*	0.37	0.00	0.37
43.65	0.68	0.89	0.77*	0.37	0.00	0.37
43.70	0.66	0.89	0.74*	0.37	0.00	0.37
43.75	0.65	0.89	0.73*	0.37	0.00	0.37
43.80	0.65	0.89	0.73*	0.37	0.00	0.37
43.85	0.65	0.89	0.72*	0.37	0.00	0.37
43.90	0.62	0.89	0.70*	0.36	0.00	0.36
43.95	0.54	0.89	0.60*	0.36	0.00	0.36
44.00	0.43	0.89	0.48*	0.36	0.00	0.36
44.05	0.41	0.89	0.46*	0.36	0.00	0.36
44.10	0.48	0.89	0.53*	0.35	0.00	0.35
44.15	0.41	0.89	0.46*	0.35	0.00	0.35
44.20	0.38	0.89	0.42*	0.34	0.00	0.34
44.25	0.32	0.89	0.35*	0.34	0.00	0.34
44.30	0.28	0.89	0.31*	0.33	0.00	0.33
44.35	0.25	0.89	0.28*	0.33	0.00	0.33
44.40	0.25	0.89	0.28*	0.32	0.00	0.32
44.45	0.25	0.89	0.28*	0.31	0.00	0.31
44.50	0.26	0.89	0.29*	0.31	0.00	0.31
44.55	0.27	0.89	0.31*	0.30	0.00	0.30
44.60	0.29	0.89	0.32*	0.30	0.00	0.30
44.65	0.30	0.89	0.34*	0.29	0.00	0.29
44.70	0.34	0.89	0.38*	0.29	0.00	0.29
44.75	0.37	0.89	0.42*	0.29	0.00	0.29
44.80	0.43	0.89	0.48*	0.29	0.00	0.29
44.85	0.53	0.89	0.59*	0.28	0.00	0.28
44.90	0.59	0.89	0.66*	0.28	0.00	0.28
44.95	0.66	0.89	0.74*	0.28	0.00	0.28
45.00	0.70	0.89	0.78*	0.28	0.00	0.28
45.05	0.61	0.89	0.68*	0.28	0.00	0.28
45.10	0.55	0.89	0.62*	0.28	0.00	0.28
45.15	0.55	0.89	0.61*	0.28	0.00	0.28
45.20	0.53	0.89	0.60*	0.28	0.00	0.28
45.25	0.52	0.89	0.58*	0.28	0.00	0.28
45.30	0.49	0.89	0.54*	0.28	0.00	0.28
45.35	0.45	0.89	0.50*	0.28	0.00	0.28
45.40	0.50	0.89	0.56*	0.28	0.00	0.28
45.45	0.57	0.89	0.64*	0.28	0.00	0.28
45.50	0.65	0.89	0.72*	0.28	0.00	0.28
45.55	0.72	0.89	0.81*	0.28	0.00	0.28
45.60	0.78	0.89	0.87*	0.28	0.00	0.28
45.65	0.85	0.89	0.95*	0.28	0.00	0.28
45.70	1.04	0.89	1.16	0.28	0.00	0.28
45.75	1.21	0.89	1.35	0.28	0.00	0.28
45.80	1.27	0.89	1.42	0.28	0.00	0.28
45.85	1.31	0.89	1.46	0.28	0.00	0.28
45.90	1.37	0.89	1.53	0.28	0.00	0.28
45.95	1.30	0.89	1.45	0.28	0.00	0.28
46.00	1.25	0.89	1.41	0.28	0.00	0.28

46.05	1.23	0.89	1.38	0.28	0.00	0.28
46.10	1.20	0.89	1.34	0.28	0.00	0.28
46.15	1.21	0.89	1.35	0.28	0.00	0.28
46.20	1.21	0.89	1.36	0.28	0.00	0.28
46.25	1.19	0.89	1.34	0.28	0.00	0.28
46.30	1.18	0.89	1.32	0.28	0.00	0.28
46.35	1.28	0.89	1.44	0.28	0.00	0.28
46.40	1.38	0.89	1.54	0.28	0.00	0.28
46.45	1.48	0.89	1.66	0.28	0.00	0.28
46.50	1.66	0.89	1.86	0.28	0.00	0.28
46.55	1.77	0.89	1.99	0.28	0.00	0.28
46.60	1.68	0.89	1.89	0.28	0.00	0.28
46.65	1.57	0.89	1.76	0.28	0.00	0.28
46.70	1.56	0.89	1.75	0.28	0.00	0.28
46.75	1.40	0.89	1.57	0.28	0.00	0.28
46.80	1.17	0.89	1.31	0.28	0.00	0.28
46.85	1.02	0.89	1.14	0.28	0.00	0.28
46.90	0.97	0.89	1.09	0.28	0.00	0.28
46.95	0.96	0.89	1.08	0.28	0.00	0.28
47.00	0.99	0.89	1.11	0.28	0.00	0.28
47.05	1.01	0.89	1.13	0.28	0.00	0.28
47.10	1.04	0.89	1.17	0.28	0.00	0.28
47.15	1.17	0.89	1.31	0.28	0.00	0.28
47.20	1.30	0.89	1.46	0.28	0.00	0.28
47.25	1.39	0.89	1.55	0.28	0.00	0.28
47.30	1.35	0.89	1.52	0.28	0.00	0.28
47.35	1.32	0.89	1.48	0.28	0.00	0.28
47.40	1.32	0.89	1.48	0.28	0.00	0.28
47.45	1.32	0.89	1.48	0.28	0.00	0.28
47.50	1.32	0.89	1.48	0.28	0.00	0.28
47.55	1.29	0.89	1.45	0.28	0.00	0.28
47.60	1.30	0.89	1.46	0.28	0.00	0.28
47.65	1.32	0.89	1.48	0.28	0.00	0.28
47.70	1.36	0.89	1.53	0.28	0.00	0.28
47.75	1.34	0.89	1.51	0.28	0.00	0.28
47.80	1.32	0.89	1.49	0.28	0.00	0.28
47.85	1.11	0.89	1.25	0.28	0.00	0.28
47.90	0.98	0.89	1.10	0.28	0.00	0.28
47.95	0.85	0.89	0.95*	0.28	0.00	0.28
48.00	0.66	0.89	0.74*	0.28	0.00	0.28
48.05	0.50	0.89	0.57*	0.28	0.00	0.28
48.10	0.36	0.89	0.40*	0.28	0.00	0.28
48.15	0.29	0.89	0.32*	0.27	0.00	0.27
48.20	0.26	0.89	0.29*	0.27	0.00	0.27
48.25	0.25	0.89	0.28*	0.26	0.00	0.26
48.30	0.22	0.89	0.24*	0.25	0.00	0.25
48.35	0.20	0.89	0.22*	0.25	0.00	0.25
48.40	0.19	0.89	0.22*	0.24	0.00	0.24
48.45	0.19	0.89	0.21*	0.23	0.00	0.23
48.50	0.19	0.89	0.21*	0.23	0.00	0.23

48.55	0.19	0.89	0.21*	0.22	0.00	0.22
48.60	0.20	0.89	0.22*	0.21	0.00	0.21
48.65	0.22	0.89	0.24*	0.21	0.00	0.21
48.70	0.20	0.89	0.23*	0.20	0.00	0.20
48.75	0.16	0.89	0.18*	0.20	0.00	0.20
48.80	0.14	0.89	0.15*	0.19	0.00	0.19
48.85	0.12	0.89	0.14*	0.18	0.00	0.18
48.90	0.11	0.89	0.12*	0.18	0.00	0.18
48.95	0.10	0.89	0.11*	0.17	0.00	0.17
49.00	0.10	0.89	0.12*	0.16	0.00	0.16
49.05	0.11	0.89	0.12*	0.14	0.00	0.14
49.10	0.11	0.89	0.12*	0.13	0.00	0.13
49.15	0.11	0.89	0.12*	0.12	0.00	0.12
49.20	0.11	0.89	0.13*	0.11	0.00	0.11
49.25	0.11	0.89	0.12*	0.10	0.00	0.10
49.30	0.11	0.89	0.12*	0.09	0.00	0.09
49.35	0.12	0.89	0.14*	0.08	0.00	0.08
49.40	0.13	0.89	0.15*	0.07	0.00	0.07
49.45	0.14	0.89	0.16*	0.07	0.00	0.07
49.50	0.15	0.89	0.17*	0.06	0.00	0.06
49.55	0.17	0.89	0.19*	0.05	0.00	0.05
49.60	0.18	0.89	0.20*	0.04	0.00	0.04
49.65	0.19	0.89	0.22*	0.03	0.00	0.03
49.70	0.21	0.89	0.23*	0.03	0.00	0.03
49.75	0.26	0.89	0.29*	0.02	0.00	0.02
49.80	0.29	0.89	0.33*	0.01	0.00	0.01
49.85	0.28	0.89	0.32*	0.01	0.00	0.01
49.90	2.00	0.89	5.00	0.00	0.00	0.00
49.95	2.00	0.89	5.00	0.00	0.00	0.00
50.00	2.00	0.89	5.00	0.00	0.00	0.00
50.05	2.00	0.89	5.00	0.00	0.00	0.00
50.10	2.00	0.89	5.00	0.00	0.00	0.00
50.15	2.00	0.89	5.00	0.00	0.00	0.00
50.20	2.00	0.89	5.00	0.00	0.00	0.00

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* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

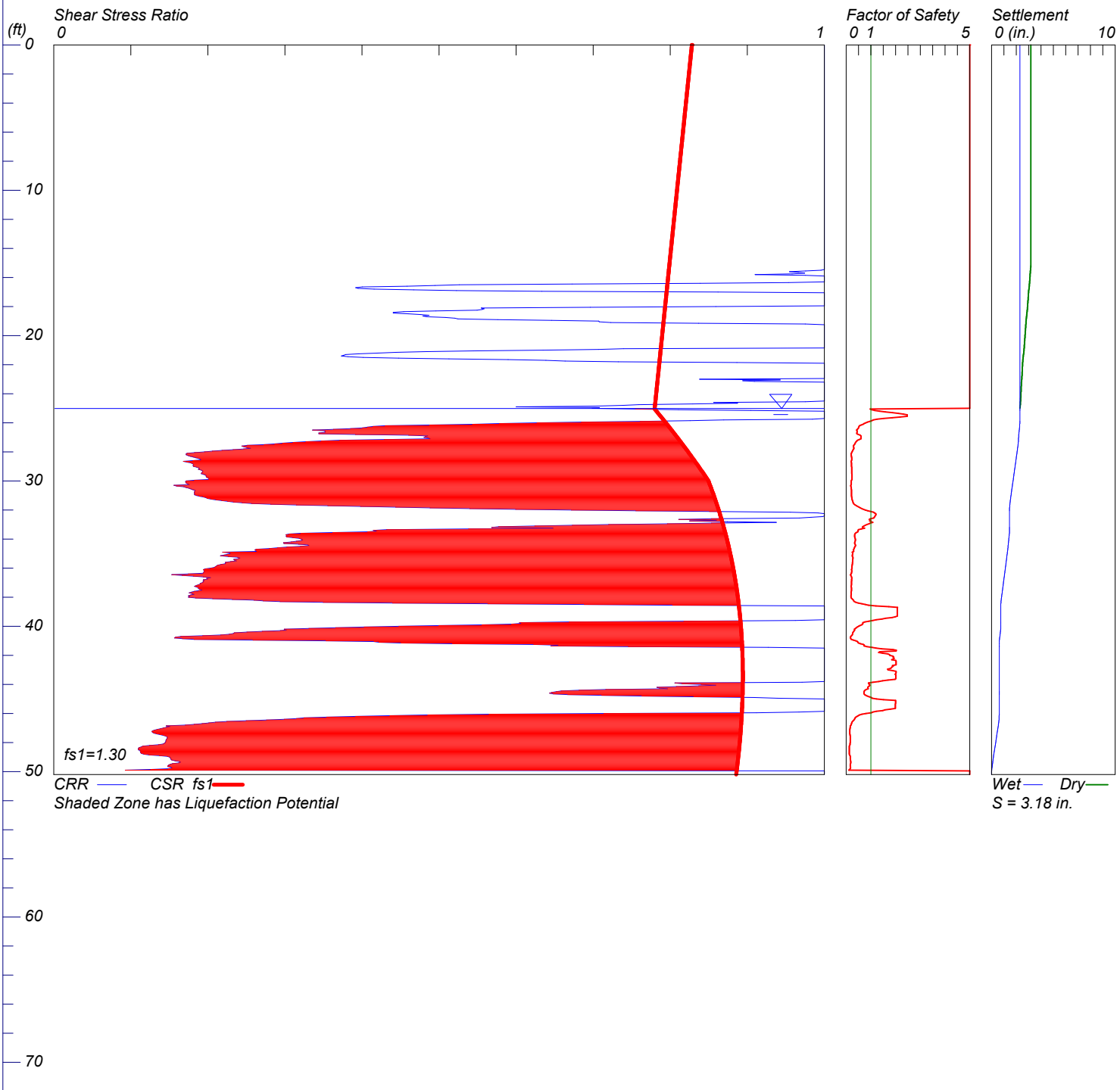
CRRm Cyclic resistance ratio from soils
CSRfs Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat Settlement from saturated sands
S_dry Settlement from dry sands
S_all Total settlement from saturated and dry sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=CPT-2 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\CPT2.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=CPT-2
Depth of Hole= 50.2 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 50.0 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=CPT-2
Depth of Hole=50.2 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 50.0 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

1. CPT Calulation Method: Modified Robertson*
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc tsf	fs tsf	gamma pcf	Fines %	D50 mm
0.0	0.2	0.1	110.0	NoLiq	0.5
0.0	3.7	0.1	110.0	NoLiq	0.5
0.1	5.5	0.1	110.0	NoLiq	0.5
0.1	9.6	0.1	110.0	NoLiq	0.5
0.1	17.0	0.1	110.0	NoLiq	0.5
0.1	27.6	0.2	110.0	NoLiq	0.5
0.2	38.9	0.2	110.0	NoLiq	0.5
0.2	46.8	0.2	110.0	NoLiq	0.5
0.2	52.4	0.3	110.0	NoLiq	0.5
0.3	55.4	0.3	110.0	NoLiq	0.5
0.3	55.8	0.3	110.0	NoLiq	0.5
0.4	64.0	0.3	110.0	NoLiq	0.5
0.4	70.2	0.3	110.0	NoLiq	0.5
0.4	77.6	0.4	110.0	NoLiq	0.5
0.5	87.0	0.5	110.0	NoLiq	0.5
0.5	99.7	0.5	110.0	NoLiq	0.5
0.6	111.7	0.5	110.0	NoLiq	0.5
0.6	115.5	0.6	110.0	NoLiq	0.5
0.7	108.5	0.6	110.0	NoLiq	0.5
0.8	106.4	0.6	110.0	NoLiq	0.5
0.8	102.1	0.6	110.0	NoLiq	0.5
0.9	96.0	0.7	110.0	NoLiq	0.5
1.0	91.7	0.7	110.0	NoLiq	0.5
1.0	89.6	1.0	110.0	NoLiq	0.5
1.1	89.8	1.1	110.0	NoLiq	0.5
1.2	89.9	1.6	110.0	NoLiq	0.5
1.2	88.2	1.7	110.0	NoLiq	0.5
1.3	90.4	1.6	110.0	NoLiq	0.5
1.3	90.9	1.0	110.0	NoLiq	0.5
1.4	84.6	0.8	110.0	NoLiq	0.5
1.5	73.3	0.8	110.0	NoLiq	0.5
1.6	70.8	0.7	110.0	NoLiq	0.5
1.7	67.5	0.5	110.0	NoLiq	0.5
1.7	70.3	0.5	110.0	NoLiq	0.5
1.7	69.8	0.4	110.0	NoLiq	0.5
1.8	73.2	0.4	110.0	NoLiq	0.5
1.8	76.7	0.4	110.0	NoLiq	0.5
1.9	78.8	0.4	110.0	NoLiq	0.5
2.0	78.4	0.4	110.0	NoLiq	0.5
2.1	77.0	0.4	110.0	NoLiq	0.5
2.1	76.0	0.4	110.0	NoLiq	0.5
2.2	75.0	0.4	110.0	NoLiq	0.5
2.3	76.5	0.6	110.0	NoLiq	0.5
2.3	81.7	0.7	110.0	NoLiq	0.5
2.4	88.6	0.6	110.0	NoLiq	0.5
2.5	94.2	0.5	110.0	NoLiq	0.5
2.6	100.1	0.5	110.0	NoLiq	0.5

2.7	95.3	0.5	110.0	NoLiq	0.5
2.7	96.3	0.5	110.0	NoLiq	0.5
2.8	98.1	0.5	110.0	NoLiq	0.5
2.9	98.7	0.4	110.0	NoLiq	0.5
3.0	100.0	0.3	110.0	NoLiq	0.5
3.0	101.5	0.3	110.0	NoLiq	0.5
3.1	99.6	0.3	110.0	NoLiq	0.5
3.2	94.3	0.2	110.0	NoLiq	0.5
3.3	89.4	0.2	110.0	NoLiq	0.5
3.4	85.4	0.2	110.0	NoLiq	0.5
3.5	82.8	0.2	110.0	NoLiq	0.5
3.5	68.8	0.2	110.0	NoLiq	0.5
3.5	71.7	0.2	110.0	NoLiq	0.5
3.6	78.9	0.2	110.0	NoLiq	0.5
3.7	79.3	0.2	110.0	NoLiq	0.5
3.8	79.0	0.2	110.0	NoLiq	0.5
3.8	77.4	0.2	110.0	NoLiq	0.5
3.9	76.7	0.3	110.0	NoLiq	0.5
4.0	74.2	0.3	110.0	NoLiq	0.5
4.0	76.8	0.2	110.0	NoLiq	0.5
4.1	75.9	0.2	110.0	NoLiq	0.5
4.2	77.0	0.2	110.0	NoLiq	0.5
4.2	77.2	0.2	110.0	NoLiq	0.5
4.3	76.6	0.1	110.0	NoLiq	0.5
4.4	77.3	0.2	110.0	NoLiq	0.5
4.5	73.1	0.2	110.0	NoLiq	0.5
4.5	68.6	0.4	110.0	NoLiq	0.5
4.6	62.6	0.5	110.0	NoLiq	0.5
4.7	61.9	0.5	110.0	NoLiq	0.5
4.7	62.4	0.6	110.0	NoLiq	0.5
4.8	62.2	0.7	110.0	NoLiq	0.5
4.9	59.5	0.7	110.0	NoLiq	0.5
4.9	57.8	0.8	110.0	NoLiq	0.5
5.0	57.7	0.9	110.0	NoLiq	0.5
5.1	58.1	0.9	110.0	NoLiq	0.5
5.2	57.9	0.7	110.0	NoLiq	0.5
5.3	57.9	0.6	110.0	NoLiq	0.5
5.3	57.5	0.6	110.0	NoLiq	0.5
5.4	58.0	0.6	110.0	NoLiq	0.5
5.5	58.2	0.6	110.0	NoLiq	0.5
5.5	46.4	0.6	110.0	NoLiq	0.5
5.5	48.5	0.6	110.0	NoLiq	0.5
5.5	50.6	0.6	110.0	NoLiq	0.5
5.6	56.4	0.7	110.0	NoLiq	0.5
5.7	56.8	0.7	110.0	NoLiq	0.5
5.7	57.8	0.7	110.0	NoLiq	0.5
5.8	60.2	0.6	110.0	NoLiq	0.5
5.9	63.5	0.6	110.0	NoLiq	0.5
6.0	66.1	0.7	110.0	NoLiq	0.5
6.0	71.1	0.8	110.0	NoLiq	0.5

6.1	74.9	1.0	110.0	NoLiq	0.5
6.2	83.7	1.1	110.0	NoLiq	0.5
6.3	95.5	1.1	110.0	NoLiq	0.5
6.3	105.4	1.3	110.0	NoLiq	0.5
6.4	109.2	1.7	110.0	NoLiq	0.5
6.5	103.8	1.5	110.0	NoLiq	0.5
6.5	110.4	1.3	110.0	NoLiq	0.5
6.6	121.5	1.2	110.0	NoLiq	0.5
6.7	112.3	1.1	110.0	NoLiq	0.5
6.8	103.8	1.1	110.0	NoLiq	0.5
6.9	103.7	1.1	110.0	NoLiq	0.5
6.9	103.7	1.1	110.0	NoLiq	0.5
7.0	103.7	0.9	110.0	NoLiq	0.5
7.1	108.6	1.0	110.0	NoLiq	0.5
7.2	114.4	1.0	110.0	NoLiq	0.5
7.3	119.4	0.9	110.0	NoLiq	0.5
7.3	115.8	0.9	110.0	NoLiq	0.5
7.4	107.8	0.8	110.0	NoLiq	0.5
7.5	94.6	0.7	110.0	NoLiq	0.5
7.6	83.1	0.2	110.0	NoLiq	0.5
7.7	71.9	0.2	110.0	NoLiq	0.5
7.8	64.1	0.2	110.0	NoLiq	0.5
7.8	59.4	0.2	110.0	NoLiq	0.5
7.9	55.2	0.2	110.0	NoLiq	0.5
7.9	54.8	0.2	110.0	NoLiq	0.5
7.9	54.8	0.3	110.0	NoLiq	0.5
8.0	54.5	0.3	110.0	NoLiq	0.5
8.0	55.7	0.3	110.0	NoLiq	0.5
8.1	56.7	0.3	110.0	NoLiq	0.5
8.1	57.9	0.4	110.0	NoLiq	0.5
8.2	60.5	0.4	110.0	NoLiq	0.5
8.3	62.1	0.4	110.0	NoLiq	0.5
8.4	63.5	0.4	110.0	NoLiq	0.5
8.4	66.2	0.3	110.0	NoLiq	0.5
8.5	68.2	0.3	110.0	NoLiq	0.5
8.6	72.7	0.3	110.0	NoLiq	0.5
8.6	80.2	0.3	110.0	NoLiq	0.5
8.7	88.3	0.3	110.0	NoLiq	0.5
8.8	94.1	0.3	110.0	NoLiq	0.5
8.9	94.1	0.3	110.0	NoLiq	0.5
9.0	92.4	0.4	110.0	NoLiq	0.5
9.1	90.2	0.4	110.0	NoLiq	0.5
9.1	87.2	0.4	110.0	NoLiq	0.5
9.2	83.6	0.4	110.0	NoLiq	0.5
9.3	81.1	0.4	110.0	NoLiq	0.5
9.4	79.0	0.4	110.0	NoLiq	0.5
9.5	76.8	0.3	110.0	NoLiq	0.5
9.6	75.0	0.3	110.0	NoLiq	0.5
9.6	73.7	0.3	110.0	NoLiq	0.5
9.7	74.9	0.3	110.0	NoLiq	0.5

9.8	74.2	0.3	110.0	NoLiq	0.5
9.9	74.8	0.3	110.0	NoLiq	0.5
10.0	77.9	0.3	110.0	NoLiq	0.5
10.1	82.0	0.7	110.0	NoLiq	0.5
10.1	88.1	1.2	110.0	NoLiq	0.5
10.2	95.6	1.8	110.0	NoLiq	0.5
10.3	85.1	1.9	110.0	NoLiq	0.5
10.3	85.4	1.9	110.0	NoLiq	0.5
10.3	85.7	1.9	110.0	NoLiq	0.5
10.4	100.6	1.9	110.0	NoLiq	0.5
10.4	110.0	1.4	110.0	NoLiq	0.5
10.5	132.9	1.2	110.0	NoLiq	0.5
10.6	135.2	1.6	110.0	NoLiq	0.5
10.6	133.0	1.9	110.0	NoLiq	0.5
10.7	137.5	2.7	110.0	NoLiq	0.5
10.8	133.1	3.3	110.0	NoLiq	0.5
10.8	161.4	3.5	110.0	NoLiq	0.5
10.8	193.4	3.2	110.0	NoLiq	0.5
10.9	200.4	2.9	110.0	NoLiq	0.5
10.9	232.7	2.8	110.0	NoLiq	0.5
10.9	230.2	2.8	110.0	NoLiq	0.5
10.9	238.3	3.0	110.0	NoLiq	0.5
11.0	230.5	2.7	110.0	NoLiq	0.5
11.0	238.1	2.2	110.0	NoLiq	0.5
11.0	230.8	2.3	110.0	NoLiq	0.5
11.1	237.8	3.0	110.0	NoLiq	0.5
11.1	230.8	3.4	110.0	NoLiq	0.5
11.1	230.7	4.3	110.0	NoLiq	0.5
11.1	231.2	6.0	110.0	NoLiq	0.5
11.2	227.1	6.0	110.0	NoLiq	0.5
11.2	236.0	5.7	110.0	NoLiq	0.5
11.3	234.7	4.2	110.0	NoLiq	0.5
11.3	250.9	2.1	110.0	NoLiq	0.5
11.4	267.2	1.8	110.0	NoLiq	0.5
11.4	275.7	2.0	110.0	NoLiq	0.5
11.5	303.3	1.9	110.0	NoLiq	0.5
11.5	290.7	1.8	110.0	NoLiq	0.5
11.5	301.1	1.6	110.0	NoLiq	0.5
11.6	294.1	1.6	110.0	NoLiq	0.5
11.6	247.2	1.6	110.0	NoLiq	0.5
11.7	234.7	1.4	110.0	NoLiq	0.5
11.7	225.9	1.2	110.0	NoLiq	0.5
11.8	216.7	1.6	110.0	NoLiq	0.5
11.8	208.9	2.0	110.0	NoLiq	0.5
11.9	193.5	1.7	110.0	NoLiq	0.5
12.0	180.4	1.3	110.0	NoLiq	0.5
12.0	162.1	1.3	110.0	NoLiq	0.5
12.0	168.3	1.3	110.0	NoLiq	0.5
12.1	168.3	1.3	110.0	NoLiq	0.5
12.1	174.5	1.3	110.0	NoLiq	0.5

12.1	179.6	1.3	110.0	NoLiq	0.5
12.2	156.7	1.2	110.0	NoLiq	0.5
12.2	155.4	1.2	110.0	NoLiq	0.5
12.2	155.4	1.2	110.0	NoLiq	0.5
12.3	155.3	1.3	110.0	NoLiq	0.5
12.3	155.7	1.3	110.0	NoLiq	0.5
12.4	155.7	1.1	110.0	NoLiq	0.5
12.4	151.5	0.7	110.0	NoLiq	0.5
12.4	151.2	0.6	110.0	NoLiq	0.5
12.5	149.5	0.6	110.0	NoLiq	0.5
12.5	149.0	0.6	110.0	NoLiq	0.5
12.5	147.2	0.5	110.0	NoLiq	0.5
12.6	147.8	0.5	110.0	NoLiq	0.5
12.6	144.5	0.5	110.0	NoLiq	0.5
12.6	144.2	0.6	110.0	NoLiq	0.5
12.7	144.3	0.6	110.0	NoLiq	0.5
12.7	143.9	0.7	110.0	NoLiq	0.5
12.8	142.8	0.7	110.0	NoLiq	0.5
12.8	144.0	0.7	110.0	NoLiq	0.5
12.8	141.7	0.7	110.0	NoLiq	0.5
12.9	144.0	0.8	110.0	NoLiq	0.5
13.0	149.9	0.9	110.0	NoLiq	0.5
13.0	155.8	1.1	110.0	NoLiq	0.5
13.1	163.1	1.2	110.0	NoLiq	0.5
13.2	173.9	1.2	110.0	NoLiq	0.5
13.3	184.7	1.5	110.0	NoLiq	0.5
13.4	197.7	2.1	110.0	NoLiq	0.5
13.4	203.0	2.6	110.0	NoLiq	0.5
13.5	202.2	2.5	110.0	NoLiq	0.5
13.6	202.2	2.4	110.0	NoLiq	0.5
13.7	201.8	2.2	110.0	NoLiq	0.5
13.8	219.7	1.2	110.0	NoLiq	0.5
13.9	258.4	1.3	110.0	NoLiq	0.5
14.0	288.7	1.4	110.0	NoLiq	0.5
14.1	294.5	1.8	110.0	NoLiq	0.5
14.1	265.4	1.7	110.0	NoLiq	0.5
14.1	254.0	1.7	110.0	NoLiq	0.5
14.1	312.2	1.9	110.0	NoLiq	0.5
14.2	308.6	2.1	110.0	NoLiq	0.5
14.3	308.0	1.8	110.0	NoLiq	0.5
14.3	307.8	1.7	110.0	NoLiq	0.5
14.4	309.5	1.7	110.0	NoLiq	0.5
14.5	296.7	1.7	110.0	NoLiq	0.5
14.5	265.0	1.7	110.0	NoLiq	0.5
14.6	243.5	1.6	110.0	NoLiq	0.5
14.7	230.8	1.5	110.0	NoLiq	0.5
14.7	226.4	1.5	110.0	NoLiq	0.5
14.8	230.3	1.3	110.0	NoLiq	0.5
14.9	225.2	1.2	110.0	NoLiq	0.5
14.9	229.7	1.3	110.0	NoLiq	0.5

15.0	231.0	1.2	110.0	NoLiq	0.5
15.1	225.1	1.2	110.0	NoLiq	0.5
15.1	222.3	1.4	110.0	NoLiq	0.5
15.2	219.5	1.5	110.0	2.8	0.5
15.3	214.3	1.4	110.0	2.9	0.5
15.3	212.7	1.3	110.0	2.8	0.5
15.4	206.3	1.2	110.0	2.7	0.5
15.5	203.7	1.1	110.0	2.6	0.5
15.5	201.9	1.2	110.0	2.7	0.5
15.6	200.4	1.7	110.0	4.5	0.5
15.7	196.3	2.2	110.0	5.7	0.5
15.7	194.1	2.2	110.0	6.3	0.5
15.8	198.2	1.8	110.0	5.1	0.5
15.9	207.8	1.9	110.0	4.9	0.5
15.9	220.4	2.0	110.0	4.8	0.5
16.0	223.5	2.4	110.0	5.1	0.5
16.1	234.4	2.7	110.0	5.5	0.5
16.2	208.2	3.3	110.0	7.8	0.5
16.2	198.2	3.2	110.0	8.6	0.5
16.3	190.3	3.0	110.0	8.8	0.5
16.4	173.6	2.5	110.0	9.0	0.5
16.5	132.9	2.3	110.0	12.1	0.5
16.6	133.8	2.0	110.0	11.6	0.5
16.7	133.2	1.4	110.0	9.0	0.5
16.8	135.7	1.4	110.0	8.3	0.5
16.9	153.5	1.5	110.0	7.6	0.5
16.9	149.5	2.1	110.0	8.1	0.5
17.0	164.0	2.5	110.0	9.7	0.5
17.0	195.6	2.6	110.0	8.7	0.5
17.1	222.5	2.8	110.0	7.1	0.5
17.1	245.9	3.2	110.0	6.4	0.5
17.2	259.4	3.5	110.0	6.3	0.5
17.3	239.4	3.1	110.0	6.4	0.5
17.3	222.6	2.8	110.0	6.6	0.5
17.4	239.0	2.5	110.0	5.4	0.5
17.4	234.8	2.4	110.0	5.4	0.5
17.4	238.6	2.4	110.0	5.0	0.5
17.4	241.8	2.3	110.0	5.0	0.5
17.5	214.5	2.3	110.0	4.8	0.5
17.5	208.2	2.5	110.0	6.0	0.5
17.6	210.2	2.8	110.0	6.8	0.5
17.6	204.9	3.2	110.0	7.8	0.5
17.7	198.6	3.2	110.0	8.8	0.5
17.8	194.2	3.0	110.0	9.0	0.5
17.8	199.4	3.0	110.0	8.8	0.5
17.9	200.6	3.0	110.0	8.6	0.5
18.0	207.5	2.6	110.0	7.3	0.5
18.0	192.9	2.3	110.0	7.1	0.5
18.1	158.3	2.0	110.0	8.7	0.5
18.2	158.2	2.0	110.0	9.0	0.5

18.3	155.0	2.1	110.0	9.5	0.5
18.3	139.8	2.0	110.0	10.1	0.5
18.4	140.0	1.8	110.0	10.2	0.5
18.5	144.0	1.9	110.0	9.9	0.5
18.6	150.3	1.9	110.0	9.6	0.5
18.7	153.9	1.7	110.0	8.7	0.5
18.8	158.8	1.9	110.0	8.4	0.5
18.9	163.0	1.8	110.0	7.9	0.5
18.9	163.9	1.8	110.0	7.9	0.5
18.9	164.8	2.1	110.0	8.5	0.5
19.0	166.3	2.5	110.0	9.9	0.5
19.0	168.2	2.8	110.0	10.6	0.5
19.0	165.0	2.9	110.0	11.3	0.5
19.1	173.3	2.7	110.0	10.4	0.5
19.2	187.7	3.0	110.0	9.8	0.5
19.2	208.1	3.1	110.0	9.0	0.5
19.3	229.5	2.8	110.0	7.5	0.5
19.3	257.7	2.4	110.0	5.2	0.5
19.4	282.0	2.0	110.0	3.7	0.5
19.5	300.4	2.5	110.0	3.0	0.5
19.5	341.5	2.8	110.0	2.6	0.5
19.5	369.7	3.0	110.0	2.3	0.5
19.6	374.4	3.0	110.0	2.2	0.5
19.6	359.2	3.3	110.0	3.0	0.5
19.7	344.5	3.5	110.0	3.0	0.5
19.7	331.2	3.6	110.0	3.8	0.5
19.7	331.9	3.7	110.0	3.8	0.5
19.8	337.5	4.5	110.0	4.5	0.5
19.8	334.6	5.3	110.0	5.4	0.5
19.9	340.7	6.5	110.0	7.8	0.5
20.0	332.5	5.8	110.0	7.2	0.5
20.0	346.3	6.1	110.0	7.1	0.5
20.1	374.6	5.0	110.0	6.4	0.5
20.2	410.4	5.0	110.0	4.2	0.5
20.2	418.7	4.9	110.0	3.7	0.5
20.3	456.2	4.5	110.0	2.8	0.5
20.3	331.3	4.3	110.0	4.8	0.5
20.3	325.4	4.3	110.0	4.8	0.5
20.4	328.6	4.3	110.0	5.4	0.5
20.4	262.7	4.3	110.0	7.5	0.5
20.4	302.9	4.3	110.0	7.5	0.5
20.5	293.9	4.3	110.0	6.5	0.5
20.5	262.5	4.3	110.0	8.0	0.5
20.6	262.3	4.2	110.0	7.9	0.5
20.6	260.6	4.2	110.0	7.9	0.5
20.7	241.6	4.0	110.0	8.1	0.5
20.8	235.1	3.1	110.0	7.7	0.5
20.9	216.4	2.9	110.0	7.6	0.5
20.9	190.8	2.6	110.0	7.6	0.5
20.9	200.3	2.2	110.0	8.2	0.5

21.0	193.2	2.0	110.0	6.9	0.5
21.0	187.7	1.9	110.0	6.8	0.5
21.1	171.3	1.8	110.0	7.1	0.5
21.1	163.1	1.8	110.0	7.9	0.5
21.2	155.7	1.8	110.0	8.6	0.5
21.2	149.9	1.8	110.0	9.3	0.5
21.3	144.3	1.8	110.0	9.9	0.5
21.3	141.6	1.8	110.0	10.1	0.5
21.4	139.6	1.8	110.0	10.5	0.5
21.4	139.0	1.8	110.0	10.6	0.5
21.5	139.1	1.9	110.0	10.9	0.5
21.5	137.9	2.1	110.0	11.8	0.5
21.6	139.2	2.6	110.0	12.9	0.5
21.6	144.3	3.2	110.0	14.0	0.5
21.7	155.7	3.3	110.0	14.7	0.5
21.8	177.2	2.9	110.0	11.8	0.5
21.8	211.1	2.7	110.0	9.7	0.5
21.9	247.5	2.9	110.0	6.5	0.5
21.9	237.3	2.9	110.0	6.5	0.5
22.0	264.2	2.8	110.0	6.2	0.5
22.0	287.4	2.7	110.0	4.6	0.5
22.1	314.5	2.9	110.0	4.0	0.5
22.2	338.0	3.3	110.0	3.7	0.5
22.2	354.2	3.6	110.0	3.7	0.5
22.3	340.1	4.0	110.0	4.8	0.5
22.4	319.1	3.8	110.0	5.1	0.5
22.4	305.6	3.3	110.0	5.0	0.5
22.5	307.3	2.6	110.0	3.9	0.5
22.6	286.0	2.2	110.0	3.3	0.5
22.7	276.7	1.6	110.0	2.4	0.5
22.8	280.0	1.5	110.0	2.1	0.5
22.9	278.8	1.3	110.0	1.7	0.5
23.0	268.0	1.3	110.0	1.7	0.5
23.0	232.0	1.3	110.0	2.7	0.5
23.0	235.1	1.3	110.0	2.7	0.5
23.0	242.5	1.4	110.0	2.9	0.5
23.1	238.1	1.6	110.0	3.4	0.5
23.2	240.5	1.8	110.0	3.9	0.5
23.2	249.3	3.5	110.0	5.5	0.5
23.3	262.1	5.1	110.0	9.1	0.5
23.4	279.8	5.1	110.0	9.3	0.5
23.4	299.4	5.4	110.0	8.8	0.5
23.5	320.0	5.3	110.0	7.6	0.5
23.6	349.0	4.9	110.0	6.5	0.5
23.6	379.5	4.6	110.0	5.2	0.5
23.7	392.7	4.2	110.0	4.1	0.5
23.7	408.0	4.0	110.0	4.1	0.5
23.7	431.5	3.7	110.0	2.9	0.5
23.8	398.2	3.5	110.0	2.5	0.5
23.8	379.3	3.5	110.0	3.0	0.5

23.8	380.5	3.4	110.0	3.0	0.5
23.9	392.6	3.1	110.0	2.3	0.5
24.0	391.8	2.6	110.0	1.7	0.5
24.0	396.3	2.2	110.0	1.0	0.5
24.1	392.9	2.3	110.0	1.0	0.5
24.2	371.9	3.6	110.0	2.7	0.5
24.2	352.0	4.6	110.0	4.4	0.5
24.3	323.3	4.7	110.0	5.8	0.5
24.4	310.0	4.6	110.0	6.8	0.5
24.4	305.6	4.5	110.0	6.9	0.5
24.5	284.5	4.3	110.0	7.3	0.5
24.6	232.1	2.4	110.0	6.7	0.5
24.7	239.5	2.5	110.0	6.0	0.5
24.8	231.3	1.8	110.0	4.9	0.5
24.8	228.6	1.7	110.0	4.7	0.5
24.9	212.4	1.7	110.0	5.1	0.5
24.9	229.7	1.6	110.0	5.1	0.5
25.0	223.2	1.5	110.0	4.2	0.5
25.0	230.8	1.5	110.0	4.1	0.5
25.1	237.5	1.5	110.0	3.8	0.5
25.1	249.5	1.5	110.0	3.2	0.5
25.2	264.3	1.5	110.0	2.7	0.5
25.3	283.4	2.0	110.0	3.2	0.5
25.3	300.9	2.4	110.0	3.4	0.5
25.4	314.9	2.7	110.0	3.7	0.5
25.4	329.1	3.1	110.0	3.8	0.5
25.5	340.3	3.1	110.0	3.9	0.5
25.5	332.6	3.1	110.0	3.9	0.5
25.6	303.6	3.0	110.0	4.3	0.5
25.7	266.3	2.4	110.0	4.7	0.5
25.8	251.3	2.2	110.0	4.7	0.5
25.9	241.3	2.2	110.0	5.2	0.5
26.0	224.8	1.8	110.0	5.1	0.5
26.0	214.4	1.7	110.0	5.2	0.5
26.1	209.4	1.3	110.0	4.5	0.5
26.2	191.9	1.1	110.0	4.3	0.5
26.3	187.6	1.2	110.0	4.8	0.5
26.4	185.9	1.2	110.0	5.2	0.5
26.4	177.6	1.3	110.0	5.5	0.5
26.5	174.8	1.3	110.0	5.9	0.5
26.5	167.3	1.2	110.0	5.9	0.5
26.5	172.0	1.3	110.0	6.3	0.5
26.6	170.1	1.3	110.0	6.3	0.5
26.7	172.6	1.3	110.0	6.3	0.5
26.7	171.6	1.1	110.0	6.0	0.5
26.8	177.2	1.1	110.0	5.6	0.5
26.9	191.3	1.8	110.0	6.8	0.5
26.9	196.5	1.7	110.0	6.7	0.5
27.0	192.9	1.8	110.0	6.7	0.5
27.0	190.3	2.0	110.0	7.6	0.5

27.1	191.0	2.0	110.0	7.6	0.5
27.2	162.6	1.9	110.0	8.4	0.5
27.3	153.0	1.8	110.0	10.1	0.5
27.3	144.7	1.8	110.0	10.6	0.5
27.4	139.9	1.7	110.0	11.0	0.5
27.5	144.5	1.5	110.0	10.3	0.5
27.6	136.2	1.2	110.0	9.3	0.5
27.7	144.3	1.1	110.0	8.0	0.5
27.8	149.5	1.0	110.0	7.1	0.5
27.8	144.3	1.0	110.0	7.2	0.5
27.9	134.4	1.0	110.0	8.0	0.5
28.0	120.8	1.0	110.0	9.6	0.5
28.1	110.5	0.9	110.0	10.0	0.5
28.2	106.5	1.0	110.0	11.0	0.5
28.3	104.9	1.1	110.0	12.1	0.5
28.4	105.2	1.2	110.0	12.8	0.5
28.5	104.1	1.3	110.0	13.8	0.5
28.6	103.2	1.3	110.0	14.4	0.5
28.6	105.9	1.0	110.0	11.9	0.5
28.8	110.6	1.0	110.0	11.3	0.5
28.8	113.7	1.0	110.0	11.1	0.5
28.9	114.2	1.0	110.0	10.8	0.5
29.0	113.1	1.0	110.0	10.8	0.5
29.0	116.6	1.0	110.0	10.8	0.5
29.1	118.5	1.0	110.0	10.4	0.5
29.2	118.8	1.0	110.0	10.4	0.5
29.2	117.7	1.0	110.0	10.5	0.5
29.3	119.1	1.1	110.0	10.7	0.5
29.3	117.5	1.2	110.0	11.0	0.5
29.4	117.1	1.2	110.0	11.3	0.5
29.4	117.1	1.2	110.0	11.3	0.5
29.5	116.5	1.1	110.0	11.4	0.5
29.5	118.4	1.1	110.0	11.3	0.5
29.6	119.5	1.2	110.0	11.1	0.5
29.6	118.4	1.2	110.0	11.3	0.5
29.7	119.8	1.2	110.0	11.5	0.5
29.7	120.3	1.2	110.0	11.2	0.5
29.8	124.1	1.2	110.0	10.7	0.5
29.9	125.1	1.1	110.0	10.3	0.5
30.0	124.0	0.7	110.0	8.9	0.5
30.1	121.7	0.8	110.0	8.2	0.5
30.1	119.0	0.8	110.0	9.2	0.5
30.3	117.7	0.9	110.0	10.1	0.5
30.3	101.1	1.0	110.0	12.5	0.5
30.3	98.8	1.0	110.0	12.5	0.5
30.3	96.6	1.0	110.0	12.5	0.5
30.4	108.6	1.0	110.0	12.8	0.5
30.5	107.8	1.1	110.0	12.5	0.5
30.5	107.7	1.2	110.0	12.9	0.5
30.6	104.7	1.3	110.0	13.6	0.5

30.6	107.5	1.3	110.0	13.9	0.5
30.7	106.7	1.3	110.0	13.9	0.5
30.8	107.3	1.3	110.0	14.0	0.5
30.9	107.3	1.3	110.0	13.9	0.5
30.9	107.3	1.3	110.0	13.9	0.5
31.0	108.6	1.3	110.0	13.9	0.5
31.1	110.4	1.4	110.0	13.8	0.5
31.1	112.6	1.4	110.0	13.8	0.5
31.2	113.8	1.5	110.0	13.8	0.5
31.3	116.4	1.5	110.0	13.8	0.5
31.4	122.2	1.6	110.0	13.3	0.5
31.5	128.8	1.7	110.0	12.8	0.5
31.5	138.2	1.7	110.0	11.9	0.5
31.6	153.0	1.8	110.0	11.1	0.5
31.7	172.0	1.9	110.0	10.2	0.5
31.8	195.9	2.1	110.0	8.7	0.5
31.9	219.0	2.0	110.0	7.2	0.5
32.0	238.8	2.2	110.0	6.3	0.5
32.1	259.7	2.6	110.0	6.1	0.5
32.2	287.9	2.9	110.0	5.6	0.5
32.3	299.7	2.6	110.0	4.7	0.5
32.4	298.7	1.9	110.0	3.4	0.5
32.5	295.7	2.2	110.0	3.8	0.5
32.5	292.9	2.2	110.0	4.0	0.5
32.6	269.8	2.3	110.0	4.6	0.5
32.7	286.3	2.3	110.0	4.9	0.5
32.7	279.7	2.2	110.0	4.4	0.5
32.8	270.1	2.8	110.0	5.6	0.5
32.8	259.4	3.6	110.0	8.0	0.5
32.8	255.9	4.2	110.0	9.5	0.5
32.9	247.3	3.8	110.0	9.4	0.5
32.9	241.5	3.8	110.0	9.4	0.5
33.0	240.0	3.8	110.0	9.7	0.5
33.0	225.0	3.6	110.0	10.1	0.5
33.1	220.2	3.5	110.0	10.4	0.5
33.1	212.4	3.5	110.0	10.8	0.5
33.2	205.6	3.3	110.0	10.9	0.5
33.2	207.3	3.2	110.0	10.6	0.5
33.3	227.4	3.2	110.0	9.4	0.5
33.3	188.1	3.2	110.0	10.9	0.5
33.3	169.2	3.1	110.0	10.9	0.5
33.4	161.5	3.1	110.0	13.7	0.5
33.4	159.4	3.2	110.0	14.5	0.5
33.5	162.2	3.1	110.0	14.7	0.5
33.5	165.9	2.7	110.0	14.0	0.5
33.6	166.1	2.1	110.0	12.2	0.5
33.7	163.7	1.8	110.0	10.2	0.5
33.7	167.7	1.8	110.0	9.7	0.5
33.8	167.6	1.8	110.0	9.4	0.5
33.9	170.3	1.7	110.0	9.1	0.5

33.9	170.2	1.9	110.0	9.3	0.5
34.0	171.4	1.9	110.0	9.7	0.5
34.1	171.8	1.9	110.0	9.7	0.5
34.1	170.6	1.9	110.0	9.8	0.5
34.2	173.5	1.7	110.0	8.9	0.5
34.3	164.4	1.8	110.0	9.1	0.5
34.4	164.3	2.3	110.0	11.0	0.5
34.5	166.5	2.2	110.0	11.4	0.5
34.6	175.7	1.6	110.0	8.6	0.5
34.7	182.8	1.1	110.0	5.9	0.5
34.7	172.6	1.1	110.0	6.3	0.5
34.8	173.2	1.2	110.0	6.6	0.5
34.8	172.7	1.2	110.0	6.9	0.5
34.9	150.5	1.2	110.0	8.5	0.5
34.9	158.9	1.1	110.0	8.5	0.5
35.0	160.7	1.1	110.0	7.2	0.5
35.1	157.0	1.1	110.0	7.4	0.5
35.2	153.0	1.1	110.0	7.9	0.5
35.2	152.6	1.5	110.0	8.8	0.5
35.3	154.8	1.5	110.0	9.6	0.5
35.4	150.6	1.5	110.0	9.8	0.5
35.5	150.8	1.5	110.0	10.2	0.5
35.6	140.7	1.6	110.0	11.4	0.5
35.7	141.9	1.6	110.0	11.4	0.5
35.8	144.5	1.4	110.0	10.6	0.5
35.9	147.5	1.2	110.0	9.5	0.5
36.0	147.1	1.2	110.0	9.1	0.5
36.1	138.4	1.2	110.0	9.8	0.5
36.2	128.3	1.5	110.0	12.1	0.5
36.3	119.1	1.6	110.0	14.4	0.5
36.4	129.1	1.4	110.0	12.5	0.5
36.5	125.2	0.8	110.0	9.4	0.5
36.6	130.0	1.4	110.0	11.3	0.5
36.7	126.1	1.8	110.0	13.5	0.5
36.7	103.3	1.7	110.0	15.2	0.5
36.7	121.3	1.7	110.0	15.2	0.5
36.8	116.5	1.7	110.0	15.5	0.5
36.8	119.9	1.7	110.0	14.8	0.5
36.9	121.0	1.6	110.0	14.5	0.5
37.0	119.7	1.7	110.0	14.7	0.5
37.0	117.4	1.6	110.0	14.9	0.5
37.1	119.8	1.6	110.0	14.6	0.5
37.2	118.2	1.6	110.0	14.6	0.5
37.3	119.8	1.5	110.0	14.1	0.5
37.3	121.7	1.6	110.0	14.0	0.5
37.4	123.7	1.5	110.0	13.7	0.5
37.5	127.2	1.6	110.0	13.3	0.5
37.6	126.9	1.4	110.0	12.5	0.5
37.7	123.7	1.4	110.0	12.7	0.5
37.8	126.0	1.4	110.0	12.7	0.5

37.9	120.9	1.4	110.0	13.1	0.5
38.0	126.2	1.3	110.0	12.7	0.5
38.0	117.4	1.4	110.0	13.0	0.5
38.1	126.4	1.6	110.0	13.9	0.5
38.2	139.9	2.3	110.0	14.9	0.5
38.3	161.2	2.2	110.0	13.4	0.5
38.4	193.6	2.4	110.0	10.7	0.5
38.5	232.9	4.0	110.0	10.9	0.5
38.5	267.3	4.1	110.0	9.3	0.5
38.6	256.5	4.3	110.0	9.3	0.5
38.6	309.1	6.0	110.0	10.3	0.5
38.7	354.9	6.3	110.0	9.4	0.5
38.7	392.8	6.8	110.0	8.4	0.5
38.7	401.1	7.2	110.0	8.4	0.5
38.8	408.3	7.3	110.0	8.1	0.5
38.8	432.4	7.2	110.0	7.7	0.5
38.9	459.0	7.0	110.0	6.5	0.5
38.9	462.3	6.8	110.0	6.5	0.5
38.9	464.3	6.4	110.0	5.8	0.5
39.0	438.9	6.1	110.0	5.9	0.5
39.0	429.1	6.1	110.0	5.9	0.5
39.0	407.1	5.9	110.0	6.3	0.5
39.1	428.9	5.2	110.0	5.6	0.5
39.1	420.9	4.3	110.0	4.5	0.5
39.2	428.8	4.1	110.0	4.0	0.5
39.2	447.5	4.2	110.0	3.6	0.5
39.3	432.1	4.0	110.0	3.6	0.5
39.3	407.1	3.9	110.0	3.9	0.5
39.3	404.4	3.7	110.0	3.9	0.5
39.4	399.1	3.4	110.0	3.8	0.5
39.4	375.8	3.3	110.0	3.6	0.5
39.5	368.2	3.2	110.0	4.0	0.5
39.5	345.4	3.1	110.0	4.2	0.5
39.6	334.6	2.9	110.0	4.5	0.5
39.7	299.3	2.7	110.0	5.1	0.5
39.7	258.1	2.9	110.0	6.3	0.5
39.8	230.8	3.9	110.0	10.8	0.5
39.9	212.0	4.3	110.0	12.7	0.5
40.0	201.7	3.7	110.0	12.9	0.5
40.0	198.3	3.0	110.0	12.1	0.5
40.1	198.3	2.4	110.0	10.0	0.5
40.2	187.6	1.9	110.0	8.9	0.5
40.3	187.1	2.0	110.0	9.1	0.5
40.4	165.8	1.9	110.0	10.3	0.5
40.5	156.9	1.8	110.0	11.2	0.5
40.5	156.2	1.8	110.0	11.3	0.5
40.6	142.5	1.8	110.0	12.4	0.5
40.7	133.5	1.0	110.0	10.6	0.5
40.8	128.2	1.1	110.0	10.9	0.5
40.9	126.4	1.6	110.0	13.9	0.5

41.0	136.5	3.4	110.0	17.1	0.5
41.0	131.2	3.9	110.0	19.7	0.5
41.1	137.9	4.1	110.0	22.1	0.5
41.1	166.3	4.0	110.0	19.0	0.5
41.2	193.6	3.9	110.0	16.0	0.5
41.2	233.6	3.9	110.0	13.3	0.5
41.3	262.7	3.7	110.0	10.6	0.5
41.3	281.4	2.5	110.0	8.2	0.5
41.4	301.9	1.6	110.0	4.8	0.5
41.4	311.4	3.5	110.0	4.2	0.5
41.5	337.0	3.7	110.0	6.3	0.5
41.6	372.1	4.1	110.0	5.5	0.5
41.6	429.7	4.5	110.0	4.8	0.5
41.7	430.4	4.6	110.0	4.5	0.5
41.7	431.2	4.6	110.0	4.5	0.5
41.7	419.9	4.6	110.0	4.8	0.5
41.7	378.7	4.7	110.0	4.8	0.5
41.7	371.9	4.7	110.0	4.8	0.5
41.7	352.6	4.8	110.0	4.8	0.5
41.8	332.8	4.8	110.0	7.0	0.5
41.8	327.5	5.2	110.0	8.4	0.5
41.8	337.8	5.7	110.0	8.9	0.5
41.9	372.9	5.7	110.0	7.9	0.5
42.0	393.5	4.9	110.0	6.7	0.5
42.0	411.1	4.0	110.0	5.4	0.5
42.1	415.9	3.8	110.0	4.2	0.5
42.1	413.9	3.7	110.0	3.9	0.5
42.2	418.4	3.7	110.0	3.7	0.5
42.3	410.8	3.5	110.0	3.6	0.5
42.4	430.6	3.1	110.0	3.0	0.5
42.5	470.2	3.1	110.0	2.1	0.5
42.6	492.7	3.4	110.0	1.9	0.5
42.6	481.0	3.3	110.0	2.0	0.5
42.7	413.1	3.4	110.0	2.8	0.5
42.7	414.2	3.4	110.0	2.8	0.5
42.7	415.3	3.4	110.0	2.8	0.5
42.7	414.8	3.9	110.0	3.4	0.5
42.8	422.6	4.3	110.0	4.2	0.5
42.8	414.8	4.3	110.0	4.2	0.5
42.8	412.8	4.3	110.0	4.6	0.5
42.9	413.6	4.0	110.0	4.5	0.5
42.9	403.7	3.6	110.0	4.2	0.5
43.0	396.6	3.8	110.0	4.1	0.5
43.1	423.7	3.8	110.0	3.9	0.5
43.1	433.5	3.8	110.0	3.6	0.5
43.2	460.8	3.4	110.0	3.1	0.5
43.3	465.6	3.6	110.0	2.7	0.5
43.3	432.1	3.9	110.0	2.7	0.5
43.3	424.0	4.0	110.0	3.9	0.5
43.4	443.0	4.2	110.0	3.9	0.5

43.4	452.6	4.1	110.0	3.7	0.5
43.5	453.7	4.1	110.0	3.5	0.5
43.5	449.4	3.6	110.0	3.3	0.5
43.6	464.3	3.5	110.0	2.9	0.5
43.6	433.0	3.5	110.0	2.7	0.5
43.7	392.4	3.5	110.0	3.7	0.5
43.8	364.7	3.4	110.0	4.5	0.5
43.9	326.0	3.3	110.0	5.1	0.5
43.9	314.8	3.3	110.0	5.1	0.5
43.9	318.6	3.2	110.0	6.1	0.5
44.0	317.6	3.3	110.0	6.0	0.5
44.0	317.8	3.7	110.0	6.5	0.5
44.1	311.1	4.0	110.0	7.1	0.5
44.2	307.1	3.7	110.0	7.3	0.5
44.2	305.5	3.5	110.0	7.0	0.5
44.3	314.1	3.4	110.0	6.4	0.5
44.4	295.2	3.3	110.0	6.8	0.5
44.5	289.6	3.1	110.0	6.8	0.5
44.5	289.7	3.0	110.0	6.7	0.5
44.6	289.7	3.0	110.0	6.6	0.5
44.7	289.9	3.0	110.0	6.6	0.5
44.7	295.4	3.3	110.0	6.8	0.5
44.8	305.7	3.8	110.0	7.4	0.5
44.9	320.7	4.2	110.0	7.5	0.5
45.0	358.1	3.0	110.0	5.5	0.5
45.1	403.0	3.3	110.0	3.8	0.5
45.1	447.5	3.2	110.0	2.8	0.5
45.2	466.5	3.0	110.0	2.1	0.5
45.2	481.4	3.0	110.0	1.7	0.5
45.2	526.5	2.9	110.0	1.7	0.5
45.3	541.5	3.1	110.0	1.0	0.5
45.3	539.6	3.2	110.0	1.0	0.5
45.3	537.7	3.9	110.0	1.0	0.5
45.4	550.4	4.0	110.0	2.0	0.5
45.4	562.2	4.6	110.0	2.0	0.5
45.4	578.7	4.8	110.0	2.2	0.5
45.5	583.3	4.5	110.0	2.2	0.5
45.5	581.4	4.7	110.0	2.0	0.5
45.6	570.2	4.9	110.0	2.2	0.5
45.6	551.7	5.3	110.0	2.6	0.5
45.7	484.3	5.8	110.0	3.6	0.5
45.7	407.6	5.8	110.0	3.6	0.5
45.7	394.0	5.7	110.0	6.9	0.5
45.8	378.5	5.3	110.0	7.2	0.5
45.8	372.4	5.3	110.0	7.3	0.5
45.9	336.1	4.4	110.0	7.3	0.5
45.9	336.9	4.4	110.0	7.3	0.5
45.9	331.6	4.4	110.0	7.4	0.5
45.9	337.8	4.4	110.0	7.4	0.5
46.0	320.6	4.1	110.0	7.3	0.5

46.0	266.4	3.5	110.0	8.0	0.5
46.1	262.6	3.4	110.0	8.8	0.5
46.1	235.0	3.3	110.0	9.6	0.5
46.2	220.6	3.3	110.0	10.8	0.5
46.2	205.7	3.3	110.0	12.0	0.5
46.3	185.1	3.0	110.0	12.6	0.5
46.3	180.9	2.9	110.0	13.4	0.5
46.4	177.6	2.9	110.0	13.4	0.5
46.5	173.6	2.5	110.0	12.9	0.5
46.6	170.9	1.6	110.0	10.7	0.5
46.6	166.3	1.5	110.0	9.9	0.5
46.7	161.4	1.4	110.0	9.8	0.5
46.8	152.2	1.2	110.0	9.9	0.5
46.8	118.4	1.2	110.0	9.9	0.5
46.9	137.8	1.1	110.0	11.7	0.5
46.9	141.3	1.1	110.0	11.7	0.5
46.9	139.3	1.1	110.0	10.1	0.5
47.0	135.0	1.0	110.0	10.3	0.5
47.0	129.2	1.0	110.0	11.2	0.5
47.1	123.1	1.0	110.0	12.0	0.5
47.2	113.0	1.1	110.0	12.9	0.5
47.2	108.6	1.1	110.0	13.9	0.5
47.3	110.1	1.2	110.0	14.6	0.5
47.4	115.7	1.2	110.0	13.9	0.5
47.5	121.0	1.2	110.0	13.6	0.5
47.5	122.7	1.3	110.0	13.6	0.5
47.6	122.2	1.4	110.0	14.2	0.5
47.7	119.7	1.4	110.0	14.7	0.5
47.8	119.8	1.4	110.0	14.8	0.5
47.8	119.8	1.4	110.0	14.7	0.5
47.9	120.8	1.4	110.0	14.5	0.5
48.0	119.1	1.4	110.0	14.7	0.5
48.0	116.9	1.4	110.0	15.2	0.5
48.1	113.1	1.4	110.0	15.5	0.5
48.2	106.4	0.9	110.0	14.6	0.5
48.3	102.2	0.9	110.0	14.3	0.5
48.4	94.5	0.9	110.0	15.2	0.5
48.5	87.3	1.0	110.0	17.2	0.5
48.5	72.8	1.0	110.0	18.9	0.5
48.5	71.6	1.0	110.0	22.6	0.5
48.6	80.6	1.1	110.0	20.7	0.5
48.7	82.3	1.1	110.0	20.1	0.5
48.8	86.0	1.1	110.0	19.3	0.5
48.8	88.6	1.2	110.0	19.3	0.5
48.9	91.8	1.6	110.0	20.8	0.5
49.0	95.1	1.7	110.0	21.4	0.5
49.1	102.2	1.7	110.0	20.1	0.5
49.2	104.5	1.7	110.0	19.5	0.5
49.3	100.8	1.9	110.0	20.9	0.5
49.4	100.6	1.9	110.0	21.2	0.5

49.5	99.4	1.7	110.0	20.6	0.5
49.5	96.8	1.7	110.0	20.9	0.5
49.6	93.8	1.7	110.0	21.1	0.5
49.7	94.1	1.8	110.0	21.8	0.5
49.8	97.4	1.7	110.0	21.0	0.5
49.9	100.6	0.0	110.0	10.6	0.5
50.0	106.4	0.0	110.0	NoLiq	0.5
50.1	112.7	0.0	110.0	NoLiq	0.5
50.2	122.2	0.0	110.0	NoLiq	0.5
50.2	87.3	0.0	110.0	NoLiq	0.5

Output Results:

Settlement of saturated sands=2.29 in.
Settlement of dry sands=0.89 in.
Total settlement of saturated and dry sands=3.18 in.
Differential Settlement=1.588 to 2.096 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	2.29	0.89	3.18
0.05	2.00	0.83	5.00	2.29	0.89	3.18
0.10	2.00	0.83	5.00	2.29	0.89	3.18
0.15	2.00	0.83	5.00	2.29	0.89	3.18
0.20	2.00	0.83	5.00	2.29	0.89	3.18
0.25	2.00	0.83	5.00	2.29	0.89	3.18
0.30	2.00	0.83	5.00	2.29	0.89	3.18
0.35	2.00	0.83	5.00	2.29	0.89	3.18
0.40	2.00	0.83	5.00	2.29	0.89	3.18
0.45	2.00	0.83	5.00	2.29	0.89	3.18
0.50	2.00	0.83	5.00	2.29	0.89	3.18
0.55	2.00	0.83	5.00	2.29	0.89	3.18
0.60	2.00	0.83	5.00	2.29	0.89	3.18
0.65	2.00	0.83	5.00	2.29	0.89	3.18
0.70	2.00	0.83	5.00	2.29	0.89	3.18
0.75	2.00	0.83	5.00	2.29	0.89	3.18
0.80	2.00	0.83	5.00	2.29	0.89	3.18
0.85	2.00	0.83	5.00	2.29	0.89	3.18
0.90	2.00	0.83	5.00	2.29	0.89	3.18
0.95	2.00	0.83	5.00	2.29	0.89	3.18
1.00	2.00	0.83	5.00	2.29	0.89	3.18
1.05	2.00	0.83	5.00	2.29	0.89	3.18
1.10	2.00	0.83	5.00	2.29	0.89	3.18
1.15	2.00	0.83	5.00	2.29	0.89	3.18
1.20	2.00	0.83	5.00	2.29	0.89	3.18
1.25	2.00	0.83	5.00	2.29	0.89	3.18
1.30	2.00	0.83	5.00	2.29	0.89	3.18
1.35	2.00	0.83	5.00	2.29	0.89	3.18
1.40	2.00	0.83	5.00	2.29	0.89	3.18

1.45	2.00	0.83	5.00	2.29	0.89	3.18
1.50	2.00	0.83	5.00	2.29	0.89	3.18
1.55	2.00	0.83	5.00	2.29	0.89	3.18
1.60	2.00	0.83	5.00	2.29	0.89	3.18
1.65	2.00	0.82	5.00	2.29	0.89	3.18
1.70	2.00	0.82	5.00	2.29	0.89	3.18
1.75	2.00	0.82	5.00	2.29	0.89	3.18
1.80	2.00	0.82	5.00	2.29	0.89	3.18
1.85	2.00	0.82	5.00	2.29	0.89	3.18
1.90	2.00	0.82	5.00	2.29	0.89	3.18
1.95	2.00	0.82	5.00	2.29	0.89	3.18
2.00	2.00	0.82	5.00	2.29	0.89	3.18
2.05	2.00	0.82	5.00	2.29	0.89	3.18
2.10	2.00	0.82	5.00	2.29	0.89	3.18
2.15	2.00	0.82	5.00	2.29	0.89	3.18
2.20	2.00	0.82	5.00	2.29	0.89	3.18
2.25	2.00	0.82	5.00	2.29	0.89	3.18
2.30	2.00	0.82	5.00	2.29	0.89	3.18
2.35	2.00	0.82	5.00	2.29	0.89	3.18
2.40	2.00	0.82	5.00	2.29	0.89	3.18
2.45	2.00	0.82	5.00	2.29	0.89	3.18
2.50	2.00	0.82	5.00	2.29	0.89	3.18
2.55	2.00	0.82	5.00	2.29	0.89	3.18
2.60	2.00	0.82	5.00	2.29	0.89	3.18
2.65	2.00	0.82	5.00	2.29	0.89	3.18
2.70	2.00	0.82	5.00	2.29	0.89	3.18
2.75	2.00	0.82	5.00	2.29	0.89	3.18
2.80	2.00	0.82	5.00	2.29	0.89	3.18
2.85	2.00	0.82	5.00	2.29	0.89	3.18
2.90	2.00	0.82	5.00	2.29	0.89	3.18
2.95	2.00	0.82	5.00	2.29	0.89	3.18
3.00	2.00	0.82	5.00	2.29	0.89	3.18
3.05	2.00	0.82	5.00	2.29	0.89	3.18
3.10	2.00	0.82	5.00	2.29	0.89	3.18
3.15	2.00	0.82	5.00	2.29	0.89	3.18
3.20	2.00	0.82	5.00	2.29	0.89	3.18
3.25	2.00	0.82	5.00	2.29	0.89	3.18
3.30	2.00	0.82	5.00	2.29	0.89	3.18
3.35	2.00	0.82	5.00	2.29	0.89	3.18
3.40	2.00	0.82	5.00	2.29	0.89	3.18
3.45	2.00	0.82	5.00	2.29	0.89	3.18
3.50	2.00	0.82	5.00	2.29	0.89	3.18
3.55	2.00	0.82	5.00	2.29	0.89	3.18
3.60	2.00	0.82	5.00	2.29	0.89	3.18
3.65	2.00	0.82	5.00	2.29	0.89	3.18
3.70	2.00	0.82	5.00	2.29	0.89	3.18
3.75	2.00	0.82	5.00	2.29	0.89	3.18
3.80	2.00	0.82	5.00	2.29	0.89	3.18
3.85	2.00	0.82	5.00	2.29	0.89	3.18
3.90	2.00	0.82	5.00	2.29	0.89	3.18

3.95	2.00	0.82	5.00	2.29	0.89	3.18
4.00	2.00	0.82	5.00	2.29	0.89	3.18
4.05	2.00	0.82	5.00	2.29	0.89	3.18
4.10	2.00	0.82	5.00	2.29	0.89	3.18
4.15	2.00	0.82	5.00	2.29	0.89	3.18
4.20	2.00	0.82	5.00	2.29	0.89	3.18
4.25	2.00	0.82	5.00	2.29	0.89	3.18
4.30	2.00	0.82	5.00	2.29	0.89	3.18
4.35	2.00	0.82	5.00	2.29	0.89	3.18
4.40	2.00	0.82	5.00	2.29	0.89	3.18
4.45	2.00	0.82	5.00	2.29	0.89	3.18
4.50	2.00	0.82	5.00	2.29	0.89	3.18
4.55	2.00	0.82	5.00	2.29	0.89	3.18
4.60	2.00	0.82	5.00	2.29	0.89	3.18
4.65	2.00	0.82	5.00	2.29	0.89	3.18
4.70	2.00	0.82	5.00	2.29	0.89	3.18
4.75	2.00	0.82	5.00	2.29	0.89	3.18
4.80	2.00	0.82	5.00	2.29	0.89	3.18
4.85	2.00	0.82	5.00	2.29	0.89	3.18
4.90	2.00	0.82	5.00	2.29	0.89	3.18
4.95	2.00	0.82	5.00	2.29	0.89	3.18
5.00	2.00	0.82	5.00	2.29	0.89	3.18
5.05	2.00	0.82	5.00	2.29	0.89	3.18
5.10	2.00	0.82	5.00	2.29	0.89	3.18
5.15	2.00	0.82	5.00	2.29	0.89	3.18
5.20	2.00	0.82	5.00	2.29	0.89	3.18
5.25	2.00	0.82	5.00	2.29	0.89	3.18
5.30	2.00	0.82	5.00	2.29	0.89	3.18
5.35	2.00	0.82	5.00	2.29	0.89	3.18
5.40	2.00	0.82	5.00	2.29	0.89	3.18
5.45	2.00	0.82	5.00	2.29	0.89	3.18
5.50	2.00	0.82	5.00	2.29	0.89	3.18
5.55	2.00	0.82	5.00	2.29	0.89	3.18
5.60	2.00	0.82	5.00	2.29	0.89	3.18
5.65	2.00	0.82	5.00	2.29	0.89	3.18
5.70	2.00	0.82	5.00	2.29	0.89	3.18
5.75	2.00	0.82	5.00	2.29	0.89	3.18
5.80	2.00	0.82	5.00	2.29	0.89	3.18
5.85	2.00	0.82	5.00	2.29	0.89	3.18
5.90	2.00	0.82	5.00	2.29	0.89	3.18
5.95	2.00	0.82	5.00	2.29	0.89	3.18
6.00	2.00	0.82	5.00	2.29	0.89	3.18
6.05	2.00	0.82	5.00	2.29	0.89	3.18
6.10	2.00	0.82	5.00	2.29	0.89	3.18
6.15	2.00	0.82	5.00	2.29	0.89	3.18
6.20	2.00	0.82	5.00	2.29	0.89	3.18
6.25	2.00	0.82	5.00	2.29	0.89	3.18
6.30	2.00	0.82	5.00	2.29	0.89	3.18
6.35	2.00	0.82	5.00	2.29	0.89	3.18
6.40	2.00	0.82	5.00	2.29	0.89	3.18

6.45	2.00	0.82	5.00	2.29	0.89	3.18
6.50	2.00	0.82	5.00	2.29	0.89	3.18
6.55	2.00	0.82	5.00	2.29	0.89	3.18
6.60	2.00	0.82	5.00	2.29	0.89	3.18
6.65	2.00	0.82	5.00	2.29	0.89	3.18
6.70	2.00	0.82	5.00	2.29	0.89	3.18
6.75	2.00	0.82	5.00	2.29	0.89	3.18
6.80	2.00	0.81	5.00	2.29	0.89	3.18
6.85	2.00	0.81	5.00	2.29	0.89	3.18
6.90	2.00	0.81	5.00	2.29	0.89	3.18
6.95	2.00	0.81	5.00	2.29	0.89	3.18
7.00	2.00	0.81	5.00	2.29	0.89	3.18
7.05	2.00	0.81	5.00	2.29	0.89	3.18
7.10	2.00	0.81	5.00	2.29	0.89	3.18
7.15	2.00	0.81	5.00	2.29	0.89	3.18
7.20	2.00	0.81	5.00	2.29	0.89	3.18
7.25	2.00	0.81	5.00	2.29	0.89	3.18
7.30	2.00	0.81	5.00	2.29	0.89	3.18
7.35	2.00	0.81	5.00	2.29	0.89	3.18
7.40	2.00	0.81	5.00	2.29	0.89	3.18
7.45	2.00	0.81	5.00	2.29	0.89	3.18
7.50	2.00	0.81	5.00	2.29	0.89	3.18
7.55	2.00	0.81	5.00	2.29	0.89	3.18
7.60	2.00	0.81	5.00	2.29	0.89	3.18
7.65	2.00	0.81	5.00	2.29	0.89	3.18
7.70	2.00	0.81	5.00	2.29	0.89	3.18
7.75	2.00	0.81	5.00	2.29	0.89	3.18
7.80	2.00	0.81	5.00	2.29	0.89	3.18
7.85	2.00	0.81	5.00	2.29	0.89	3.18
7.90	2.00	0.81	5.00	2.29	0.89	3.18
7.95	2.00	0.81	5.00	2.29	0.89	3.18
8.00	2.00	0.81	5.00	2.29	0.89	3.18
8.05	2.00	0.81	5.00	2.29	0.89	3.18
8.10	2.00	0.81	5.00	2.29	0.89	3.18
8.15	2.00	0.81	5.00	2.29	0.89	3.18
8.20	2.00	0.81	5.00	2.29	0.89	3.18
8.25	2.00	0.81	5.00	2.29	0.89	3.18
8.30	2.00	0.81	5.00	2.29	0.89	3.18
8.35	2.00	0.81	5.00	2.29	0.89	3.18
8.40	2.00	0.81	5.00	2.29	0.89	3.18
8.45	2.00	0.81	5.00	2.29	0.89	3.18
8.50	2.00	0.81	5.00	2.29	0.89	3.18
8.55	2.00	0.81	5.00	2.29	0.89	3.18
8.60	2.00	0.81	5.00	2.29	0.89	3.18
8.65	2.00	0.81	5.00	2.29	0.89	3.18
8.70	2.00	0.81	5.00	2.29	0.89	3.18
8.75	2.00	0.81	5.00	2.29	0.89	3.18
8.80	2.00	0.81	5.00	2.29	0.89	3.18
8.85	2.00	0.81	5.00	2.29	0.89	3.18
8.90	2.00	0.81	5.00	2.29	0.89	3.18

8.95	2.00	0.81	5.00	2.29	0.89	3.18
9.00	2.00	0.81	5.00	2.29	0.89	3.18
9.05	2.00	0.81	5.00	2.29	0.89	3.18
9.10	2.00	0.81	5.00	2.29	0.89	3.18
9.15	2.00	0.81	5.00	2.29	0.89	3.18
9.20	2.00	0.81	5.00	2.29	0.89	3.18
9.25	2.00	0.81	5.00	2.29	0.89	3.18
9.30	2.00	0.81	5.00	2.29	0.89	3.18
9.35	2.00	0.81	5.00	2.29	0.89	3.18
9.40	2.00	0.81	5.00	2.29	0.89	3.18
9.45	2.00	0.81	5.00	2.29	0.89	3.18
9.50	2.00	0.81	5.00	2.29	0.89	3.18
9.55	2.00	0.81	5.00	2.29	0.89	3.18
9.60	2.00	0.81	5.00	2.29	0.89	3.18
9.65	2.00	0.81	5.00	2.29	0.89	3.18
9.70	2.00	0.81	5.00	2.29	0.89	3.18
9.75	2.00	0.81	5.00	2.29	0.89	3.18
9.80	2.00	0.81	5.00	2.29	0.89	3.18
9.85	2.00	0.81	5.00	2.29	0.89	3.18
9.90	2.00	0.81	5.00	2.29	0.89	3.18
9.95	2.00	0.81	5.00	2.29	0.89	3.18
10.00	2.00	0.81	5.00	2.29	0.89	3.18
10.05	2.00	0.81	5.00	2.29	0.89	3.18
10.10	2.00	0.81	5.00	2.29	0.89	3.18
10.15	2.00	0.81	5.00	2.29	0.89	3.18
10.20	2.00	0.81	5.00	2.29	0.89	3.18
10.25	2.00	0.81	5.00	2.29	0.89	3.18
10.30	2.00	0.81	5.00	2.29	0.89	3.18
10.35	2.00	0.81	5.00	2.29	0.89	3.18
10.40	2.00	0.81	5.00	2.29	0.89	3.18
10.45	2.00	0.81	5.00	2.29	0.89	3.18
10.50	2.00	0.81	5.00	2.29	0.89	3.18
10.55	2.00	0.81	5.00	2.29	0.89	3.18
10.60	2.00	0.81	5.00	2.29	0.89	3.18
10.65	2.00	0.81	5.00	2.29	0.89	3.18
10.70	2.00	0.81	5.00	2.29	0.89	3.18
10.75	2.00	0.81	5.00	2.29	0.89	3.18
10.80	2.00	0.81	5.00	2.29	0.89	3.18
10.85	2.00	0.81	5.00	2.29	0.89	3.18
10.90	2.00	0.81	5.00	2.29	0.89	3.18
10.95	2.00	0.81	5.00	2.29	0.89	3.18
11.00	2.00	0.81	5.00	2.29	0.89	3.18
11.05	2.00	0.81	5.00	2.29	0.89	3.18
11.10	2.00	0.81	5.00	2.29	0.89	3.18
11.15	2.00	0.81	5.00	2.29	0.89	3.18
11.20	2.00	0.81	5.00	2.29	0.89	3.18
11.25	2.00	0.81	5.00	2.29	0.89	3.18
11.30	2.00	0.81	5.00	2.29	0.89	3.18
11.35	2.00	0.81	5.00	2.29	0.89	3.18
11.40	2.00	0.81	5.00	2.29	0.89	3.18

11.45	2.00	0.81	5.00	2.29	0.89	3.18
11.50	2.00	0.81	5.00	2.29	0.89	3.18
11.55	2.00	0.81	5.00	2.29	0.89	3.18
11.60	2.00	0.81	5.00	2.29	0.89	3.18
11.65	2.00	0.81	5.00	2.29	0.89	3.18
11.70	2.00	0.81	5.00	2.29	0.89	3.18
11.75	2.00	0.81	5.00	2.29	0.89	3.18
11.80	2.00	0.81	5.00	2.29	0.89	3.18
11.85	2.00	0.81	5.00	2.29	0.89	3.18
11.90	2.00	0.81	5.00	2.29	0.89	3.18
11.95	2.00	0.81	5.00	2.29	0.89	3.18
12.00	2.00	0.80	5.00	2.29	0.89	3.18
12.05	2.00	0.80	5.00	2.29	0.89	3.18
12.10	2.00	0.80	5.00	2.29	0.89	3.18
12.15	2.00	0.80	5.00	2.29	0.89	3.18
12.20	2.00	0.80	5.00	2.29	0.89	3.18
12.25	2.00	0.80	5.00	2.29	0.89	3.18
12.30	2.00	0.80	5.00	2.29	0.89	3.18
12.35	2.00	0.80	5.00	2.29	0.89	3.18
12.40	2.00	0.80	5.00	2.29	0.89	3.18
12.45	2.00	0.80	5.00	2.29	0.89	3.18
12.50	2.00	0.80	5.00	2.29	0.89	3.18
12.55	2.00	0.80	5.00	2.29	0.89	3.18
12.60	2.00	0.80	5.00	2.29	0.89	3.18
12.65	2.00	0.80	5.00	2.29	0.89	3.18
12.70	2.00	0.80	5.00	2.29	0.89	3.18
12.75	2.00	0.80	5.00	2.29	0.89	3.18
12.80	2.00	0.80	5.00	2.29	0.89	3.18
12.85	2.00	0.80	5.00	2.29	0.89	3.18
12.90	2.00	0.80	5.00	2.29	0.89	3.18
12.95	2.00	0.80	5.00	2.29	0.89	3.18
13.00	2.00	0.80	5.00	2.29	0.89	3.18
13.05	2.00	0.80	5.00	2.29	0.89	3.18
13.10	2.00	0.80	5.00	2.29	0.89	3.18
13.15	2.00	0.80	5.00	2.29	0.89	3.18
13.20	2.00	0.80	5.00	2.29	0.89	3.18
13.25	2.00	0.80	5.00	2.29	0.89	3.18
13.30	2.00	0.80	5.00	2.29	0.89	3.18
13.35	2.00	0.80	5.00	2.29	0.89	3.18
13.40	2.00	0.80	5.00	2.29	0.89	3.18
13.45	2.00	0.80	5.00	2.29	0.89	3.18
13.50	2.00	0.80	5.00	2.29	0.89	3.18
13.55	2.00	0.80	5.00	2.29	0.89	3.18
13.60	2.00	0.80	5.00	2.29	0.89	3.18
13.65	2.00	0.80	5.00	2.29	0.89	3.18
13.70	2.00	0.80	5.00	2.29	0.89	3.18
13.75	2.00	0.80	5.00	2.29	0.89	3.18
13.80	2.00	0.80	5.00	2.29	0.89	3.18
13.85	2.00	0.80	5.00	2.29	0.89	3.18
13.90	2.00	0.80	5.00	2.29	0.89	3.18

13.95	2.00	0.80	5.00	2.29	0.89	3.18
14.00	2.00	0.80	5.00	2.29	0.89	3.18
14.05	2.00	0.80	5.00	2.29	0.89	3.18
14.10	2.00	0.80	5.00	2.29	0.89	3.18
14.15	2.00	0.80	5.00	2.29	0.89	3.18
14.20	2.00	0.80	5.00	2.29	0.89	3.18
14.25	2.00	0.80	5.00	2.29	0.89	3.18
14.30	2.00	0.80	5.00	2.29	0.89	3.18
14.35	2.00	0.80	5.00	2.29	0.89	3.18
14.40	2.00	0.80	5.00	2.29	0.89	3.18
14.45	2.00	0.80	5.00	2.29	0.89	3.18
14.50	2.00	0.80	5.00	2.29	0.89	3.18
14.55	2.00	0.80	5.00	2.29	0.89	3.18
14.60	2.00	0.80	5.00	2.29	0.89	3.18
14.65	2.00	0.80	5.00	2.29	0.89	3.18
14.70	2.00	0.80	5.00	2.29	0.89	3.18
14.75	2.00	0.80	5.00	2.29	0.89	3.18
14.80	2.00	0.80	5.00	2.29	0.89	3.18
14.85	2.00	0.80	5.00	2.29	0.89	3.18
14.90	2.00	0.80	5.00	2.29	0.89	3.18
14.95	2.00	0.80	5.00	2.29	0.89	3.18
15.00	2.00	0.80	5.00	2.29	0.89	3.18
15.05	2.00	0.80	5.00	2.29	0.89	3.18
15.10	2.00	0.80	5.00	2.29	0.89	3.18
15.15	2.00	0.80	5.00	2.29	0.89	3.18
15.20	1.25	0.80	5.00	2.29	0.89	3.18
15.25	1.20	0.80	5.00	2.29	0.88	3.17
15.30	1.16	0.80	5.00	2.29	0.88	3.17
15.35	1.11	0.80	5.00	2.29	0.87	3.16
15.40	1.05	0.80	5.00	2.29	0.87	3.16
15.45	1.02	0.80	5.00	2.29	0.86	3.15
15.50	1.00	0.80	5.00	2.29	0.86	3.15
15.55	0.98	0.80	5.00	2.29	0.85	3.14
15.60	0.95	0.80	5.00	2.29	0.85	3.14
15.65	0.97	0.80	5.00	2.29	0.85	3.14
15.70	0.97	0.80	5.00	2.29	0.84	3.13
15.75	0.96	0.80	5.00	2.29	0.84	3.13
15.80	0.91	0.80	5.00	2.29	0.83	3.12
15.85	0.98	0.80	5.00	2.29	0.83	3.12
15.90	1.06	0.80	5.00	2.29	0.82	3.11
15.95	1.21	0.80	5.00	2.29	0.82	3.11
16.00	1.25	0.80	5.00	2.29	0.82	3.11
16.05	1.37	0.80	5.00	2.29	0.81	3.10
16.10	1.44	0.80	5.00	2.29	0.81	3.10
16.15	1.34	0.80	5.00	2.29	0.80	3.09
16.20	1.24	0.80	5.00	2.29	0.80	3.09
16.25	1.15	0.80	5.00	2.29	0.80	3.09
16.30	1.07	0.80	5.00	2.29	0.79	3.08
16.35	0.95	0.80	5.00	2.29	0.79	3.08
16.40	0.84	0.80	5.00	2.29	0.78	3.07

16.45	0.67	0.80	5.00	2.29	0.78	3.07
16.50	0.53	0.80	5.00	2.29	0.77	3.06
16.55	0.49	0.80	5.00	2.29	0.77	3.06
16.60	0.46	0.80	5.00	2.29	0.76	3.05
16.65	0.40	0.80	5.00	2.29	0.76	3.05
16.70	0.39	0.80	5.00	2.29	0.75	3.04
16.75	0.39	0.80	5.00	2.29	0.74	3.03
16.80	0.42	0.80	5.00	2.29	0.73	3.02
16.85	0.47	0.80	5.00	2.29	0.73	3.02
16.90	0.52	0.80	5.00	2.29	0.72	3.01
16.95	0.63	0.80	5.00	2.29	0.71	3.00
17.00	0.86	0.80	5.00	2.29	0.71	3.00
17.05	1.15	0.80	5.00	2.29	0.70	2.99
17.10	1.56	0.80	5.00	2.29	0.70	2.99
17.15	1.82	0.79	5.00	2.29	0.70	2.99
17.20	1.75	0.79	5.00	2.29	0.69	2.98
17.25	1.52	0.79	5.00	2.29	0.69	2.98
17.30	1.26	0.79	5.00	2.29	0.68	2.97
17.35	1.37	0.79	5.00	2.29	0.68	2.97
17.40	1.34	0.79	5.00	2.29	0.67	2.96
17.45	1.29	0.79	5.00	2.29	0.67	2.96
17.50	1.05	0.79	5.00	2.29	0.67	2.96
17.55	1.05	0.79	5.00	2.29	0.66	2.95
17.60	1.13	0.79	5.00	2.29	0.66	2.95
17.65	1.13	0.79	5.00	2.29	0.65	2.94
17.70	1.07	0.79	5.00	2.29	0.65	2.94
17.75	1.01	0.79	5.00	2.29	0.65	2.94
17.80	1.02	0.79	5.00	2.29	0.64	2.93
17.85	1.04	0.79	5.00	2.29	0.64	2.93
17.90	1.04	0.79	5.00	2.29	0.63	2.92
17.95	1.02	0.79	5.00	2.29	0.63	2.92
18.00	0.86	0.79	5.00	2.29	0.62	2.91
18.05	0.70	0.79	5.00	2.29	0.62	2.91
18.10	0.55	0.79	5.00	2.29	0.62	2.91
18.15	0.56	0.79	5.00	2.29	0.61	2.90
18.20	0.56	0.79	5.00	2.29	0.60	2.89
18.25	0.55	0.79	5.00	2.29	0.60	2.89
18.30	0.50	0.79	5.00	2.29	0.59	2.88
18.35	0.45	0.79	5.00	2.29	0.59	2.88
18.40	0.44	0.79	5.00	2.29	0.58	2.87
18.45	0.44	0.79	5.00	2.29	0.57	2.86
18.50	0.46	0.79	5.00	2.29	0.57	2.86
18.55	0.48	0.79	5.00	2.29	0.56	2.85
18.60	0.49	0.79	5.00	2.29	0.55	2.84
18.65	0.48	0.79	5.00	2.29	0.55	2.84
18.70	0.48	0.79	5.00	2.29	0.54	2.83
18.75	0.51	0.79	5.00	2.29	0.53	2.82
18.80	0.52	0.79	5.00	2.29	0.53	2.82
18.85	0.52	0.79	5.00	2.29	0.52	2.81
18.90	0.58	0.79	5.00	2.29	0.51	2.80

18.95	0.65	0.79	5.00	2.29	0.51	2.80
19.00	0.71	0.79	5.00	2.29	0.50	2.79
19.05	0.71	0.79	5.00	2.29	0.50	2.79
19.10	0.72	0.79	5.00	2.29	0.49	2.78
19.15	0.84	0.79	5.00	2.29	0.49	2.78
19.20	0.98	0.79	5.00	2.29	0.49	2.78
19.25	1.11	0.79	5.00	2.29	0.48	2.77
19.30	1.33	0.79	5.00	2.29	0.48	2.77
19.35	1.63	0.79	5.00	2.29	0.47	2.76
19.40	1.89	0.79	5.00	2.29	0.47	2.76
19.45	1.94	0.79	5.00	2.29	0.47	2.76
19.50	1.94	0.79	5.00	2.29	0.46	2.75
19.55	1.94	0.79	5.00	2.29	0.46	2.75
19.60	1.94	0.79	5.00	2.29	0.45	2.74
19.65	1.94	0.79	5.00	2.29	0.45	2.74
19.70	1.94	0.79	5.00	2.29	0.44	2.73
19.75	1.94	0.79	5.00	2.29	0.44	2.73
19.80	1.94	0.79	5.00	2.29	0.44	2.73
19.85	1.94	0.79	5.00	2.29	0.43	2.72
19.90	1.94	0.79	5.00	2.29	0.43	2.72
19.95	1.94	0.79	5.00	2.29	0.42	2.71
20.00	1.94	0.79	5.00	2.29	0.42	2.71
20.05	1.94	0.79	5.00	2.29	0.42	2.71
20.10	1.94	0.79	5.00	2.29	0.41	2.70
20.15	1.94	0.79	5.00	2.29	0.41	2.70
20.20	1.94	0.79	5.00	2.29	0.40	2.69
20.25	1.94	0.79	5.00	2.29	0.40	2.69
20.30	1.94	0.79	5.00	2.29	0.39	2.68
20.35	1.94	0.79	5.00	2.29	0.39	2.68
20.40	1.79	0.79	5.00	2.29	0.39	2.68
20.45	1.94	0.79	5.00	2.29	0.38	2.67
20.50	1.77	0.79	5.00	2.29	0.38	2.67
20.55	1.74	0.79	5.00	2.29	0.37	2.66
20.60	1.72	0.79	5.00	2.29	0.37	2.66
20.65	1.65	0.79	5.00	2.29	0.37	2.66
20.70	1.41	0.79	5.00	2.29	0.36	2.65
20.75	1.26	0.79	5.00	2.29	0.36	2.65
20.80	1.13	0.79	5.00	2.29	0.35	2.64
20.85	1.02	0.79	5.00	2.29	0.35	2.64
20.90	0.74	0.79	5.00	2.29	0.34	2.63
20.95	0.71	0.79	5.00	2.29	0.34	2.63
21.00	0.63	0.79	5.00	2.29	0.33	2.62
21.05	0.54	0.79	5.00	2.29	0.33	2.62
21.10	0.48	0.79	5.00	2.29	0.32	2.61
21.15	0.44	0.79	5.00	2.29	0.32	2.61
21.20	0.42	0.79	5.00	2.29	0.31	2.60
21.25	0.40	0.79	5.00	2.29	0.30	2.59
21.30	0.38	0.79	5.00	2.29	0.29	2.58
21.35	0.38	0.79	5.00	2.29	0.29	2.58
21.40	0.37	0.79	5.00	2.29	0.28	2.57

21.45	0.38	0.79	5.00	2.29	0.27	2.56
21.50	0.40	0.79	5.00	2.29	0.27	2.56
21.55	0.45	0.79	5.00	2.29	0.26	2.55
21.60	0.51	0.79	5.00	2.29	0.25	2.54
21.65	0.59	0.79	5.00	2.29	0.25	2.54
21.70	0.64	0.79	5.00	2.29	0.24	2.53
21.75	0.66	0.79	5.00	2.29	0.24	2.53
21.80	0.73	0.79	5.00	2.29	0.23	2.52
21.85	0.89	0.79	5.00	2.29	0.23	2.52
21.90	1.08	0.79	5.00	2.29	0.22	2.51
21.95	1.20	0.79	5.00	2.29	0.22	2.51
22.00	1.53	0.79	5.00	2.29	0.22	2.51
22.05	1.88	0.79	5.00	2.29	0.21	2.50
22.10	1.94	0.79	5.00	2.29	0.21	2.50
22.15	1.94	0.79	5.00	2.29	0.21	2.50
22.20	1.94	0.79	5.00	2.29	0.21	2.50
22.25	1.94	0.79	5.00	2.29	0.20	2.49
22.30	1.94	0.79	5.00	2.29	0.20	2.49
22.35	1.94	0.78	5.00	2.29	0.20	2.49
22.40	1.94	0.78	5.00	2.29	0.20	2.49
22.45	1.89	0.78	5.00	2.29	0.19	2.48
22.50	1.90	0.78	5.00	2.29	0.19	2.48
22.55	1.78	0.78	5.00	2.29	0.19	2.48
22.60	1.58	0.78	5.00	2.29	0.18	2.47
22.65	1.47	0.78	5.00	2.29	0.18	2.47
22.70	1.39	0.78	5.00	2.29	0.18	2.47
22.75	1.42	0.78	5.00	2.29	0.17	2.46
22.80	1.43	0.78	5.00	2.29	0.17	2.46
22.85	1.42	0.78	5.00	2.29	0.16	2.45
22.90	1.39	0.78	5.00	2.29	0.16	2.45
22.95	1.28	0.78	5.00	2.29	0.16	2.45
23.00	0.84	0.78	5.00	2.29	0.15	2.44
23.05	0.94	0.78	5.00	2.29	0.15	2.44
23.10	0.89	0.78	5.00	2.29	0.14	2.43
23.15	0.91	0.78	5.00	2.29	0.14	2.43
23.20	1.01	0.78	5.00	2.29	0.13	2.42
23.25	1.27	0.78	5.00	2.29	0.13	2.42
23.30	1.56	0.78	5.00	2.29	0.12	2.41
23.35	1.77	0.78	5.00	2.29	0.12	2.41
23.40	1.94	0.78	5.00	2.29	0.12	2.41
23.45	1.94	0.78	5.00	2.29	0.11	2.40
23.50	1.94	0.78	5.00	2.29	0.11	2.40
23.55	1.94	0.78	5.00	2.29	0.11	2.40
23.60	1.94	0.78	5.00	2.29	0.11	2.40
23.65	1.94	0.78	5.00	2.29	0.10	2.39
23.70	1.94	0.78	5.00	2.29	0.10	2.39
23.75	1.94	0.78	5.00	2.29	0.10	2.39
23.80	1.94	0.78	5.00	2.29	0.10	2.39
23.85	1.94	0.78	5.00	2.29	0.09	2.38
23.90	1.94	0.78	5.00	2.29	0.09	2.38

23.95	1.94	0.78	5.00	2.29	0.09	2.38
24.00	1.94	0.78	5.00	2.29	0.09	2.38
24.05	1.94	0.78	5.00	2.29	0.08	2.37
24.10	1.94	0.78	5.00	2.29	0.08	2.37
24.15	1.94	0.78	5.00	2.29	0.08	2.37
24.20	1.94	0.78	5.00	2.29	0.08	2.37
24.25	1.94	0.78	5.00	2.29	0.07	2.36
24.30	1.94	0.78	5.00	2.29	0.07	2.36
24.35	1.94	0.78	5.00	2.29	0.07	2.36
24.40	1.94	0.78	5.00	2.29	0.06	2.35
24.45	1.73	0.78	5.00	2.29	0.06	2.35
24.50	1.37	0.78	5.00	2.29	0.06	2.35
24.55	0.98	0.78	5.00	2.29	0.05	2.34
24.60	0.86	0.78	5.00	2.29	0.05	2.34
24.65	0.89	0.78	5.00	2.29	0.04	2.33
24.70	0.83	0.78	5.00	2.29	0.04	2.33
24.75	0.76	0.78	5.00	2.29	0.03	2.32
24.80	0.74	0.78	5.00	2.29	0.03	2.32
24.85	0.70	0.78	5.00	2.29	0.02	2.31
24.90	0.60	0.78	5.00	2.29	0.02	2.31
24.95	0.71	0.78	5.00	2.29	0.01	2.30
25.00	0.70	0.78	5.00	2.29	0.01	2.30
25.05	0.75	0.78	0.97*	2.29	0.00	2.29
25.10	0.81	0.78	1.04	2.29	0.00	2.29
25.15	0.90	0.78	1.16	2.29	0.00	2.29
25.20	1.06	0.78	1.35	2.29	0.00	2.29
25.25	1.24	0.78	1.59	2.29	0.00	2.29
25.30	1.47	0.78	1.87	2.29	0.00	2.29
25.35	1.65	0.78	2.10	2.29	0.00	2.29
25.40	1.82	0.79	2.31	2.29	0.00	2.29
25.45	1.94	0.79	2.47	2.29	0.00	2.29
25.50	1.94	0.79	2.47	2.29	0.00	2.29
25.55	1.94	0.79	2.47	2.29	0.00	2.29
25.60	1.72	0.79	2.19	2.29	0.00	2.29
25.65	1.47	0.79	1.86	2.29	0.00	2.29
25.70	1.20	0.79	1.51	2.29	0.00	2.29
25.75	0.98	0.79	1.25	2.29	0.00	2.29
25.80	0.87	0.79	1.10	2.29	0.00	2.29
25.85	0.83	0.79	1.04	2.29	0.00	2.29
25.90	0.76	0.79	0.96*	2.29	0.00	2.29
25.95	0.68	0.79	0.86*	2.29	0.00	2.29
26.00	0.63	0.79	0.79*	2.29	0.00	2.29
26.05	0.58	0.80	0.73*	2.29	0.00	2.29
26.10	0.54	0.80	0.68*	2.28	0.00	2.28
26.15	0.49	0.80	0.61*	2.28	0.00	2.28
26.20	0.43	0.80	0.54*	2.28	0.00	2.28
26.25	0.41	0.80	0.52*	2.27	0.00	2.27
26.30	0.41	0.80	0.51*	2.27	0.00	2.27
26.35	0.40	0.80	0.50*	2.26	0.00	2.26
26.40	0.39	0.80	0.48*	2.25	0.00	2.25

26.45	0.36	0.80	0.45*	2.25	0.00	2.25
26.50	0.34	0.80	0.42*	2.24	0.00	2.24
26.55	0.35	0.80	0.44*	2.24	0.00	2.24
26.60	0.35	0.80	0.44*	2.23	0.00	2.23
26.65	0.35	0.80	0.44*	2.22	0.00	2.22
26.70	0.34	0.80	0.43*	2.22	0.00	2.22
26.75	0.34	0.81	0.43*	2.21	0.00	2.21
26.80	0.39	0.81	0.49*	2.20	0.00	2.20
26.85	0.46	0.81	0.57*	2.20	0.00	2.20
26.90	0.49	0.81	0.60*	2.20	0.00	2.20
26.95	0.48	0.81	0.60*	2.19	0.00	2.19
27.00	0.48	0.81	0.59*	2.19	0.00	2.19
27.05	0.49	0.81	0.60*	2.19	0.00	2.19
27.10	0.49	0.81	0.60*	2.18	0.00	2.18
27.15	0.43	0.81	0.53*	2.18	0.00	2.18
27.20	0.37	0.81	0.46*	2.18	0.00	2.18
27.25	0.35	0.81	0.43*	2.17	0.00	2.17
27.30	0.33	0.81	0.40*	2.17	0.00	2.17
27.35	0.31	0.81	0.38*	2.16	0.00	2.16
27.40	0.30	0.81	0.36*	2.16	0.00	2.16
27.45	0.29	0.82	0.35*	2.15	0.00	2.15
27.50	0.27	0.82	0.33*	2.14	0.00	2.14
27.55	0.25	0.82	0.31*	2.14	0.00	2.14
27.60	0.24	0.82	0.30*	2.13	0.00	2.13
27.65	0.25	0.82	0.30*	2.12	0.00	2.12
27.70	0.25	0.82	0.31*	2.11	0.00	2.11
27.75	0.26	0.82	0.31*	2.11	0.00	2.11
27.80	0.25	0.82	0.30*	2.10	0.00	2.10
27.85	0.23	0.82	0.28*	2.09	0.00	2.09
27.90	0.22	0.82	0.27*	2.08	0.00	2.08
27.95	0.21	0.82	0.25*	2.08	0.00	2.08
28.00	0.20	0.82	0.24*	2.07	0.00	2.07
28.05	0.18	0.82	0.22*	2.06	0.00	2.06
28.10	0.17	0.82	0.21*	2.05	0.00	2.05
28.15	0.17	0.83	0.21*	2.04	0.00	2.04
28.20	0.17	0.83	0.21*	2.03	0.00	2.03
28.25	0.17	0.83	0.21*	2.03	0.00	2.03
28.30	0.18	0.83	0.21*	2.02	0.00	2.02
28.35	0.18	0.83	0.22*	2.01	0.00	2.01
28.40	0.18	0.83	0.22*	2.00	0.00	2.00
28.45	0.19	0.83	0.23*	1.99	0.00	1.99
28.50	0.19	0.83	0.23*	1.98	0.00	1.98
28.55	0.19	0.83	0.23*	1.98	0.00	1.98
28.60	0.18	0.83	0.22*	1.97	0.00	1.97
28.65	0.17	0.83	0.20*	1.96	0.00	1.96
28.70	0.17	0.83	0.21*	1.95	0.00	1.95
28.75	0.18	0.83	0.21*	1.94	0.00	1.94
28.80	0.18	0.83	0.22*	1.94	0.00	1.94
28.85	0.18	0.83	0.22*	1.93	0.00	1.93
28.90	0.18	0.84	0.22*	1.92	0.00	1.92

28.95	0.18	0.84	0.22*	1.91	0.00	1.91
29.00	0.18	0.84	0.22*	1.90	0.00	1.90
29.05	0.19	0.84	0.22*	1.89	0.00	1.89
29.10	0.19	0.84	0.22*	1.88	0.00	1.88
29.15	0.19	0.84	0.23*	1.88	0.00	1.88
29.20	0.19	0.84	0.22*	1.87	0.00	1.87
29.25	0.19	0.84	0.23*	1.86	0.00	1.86
29.30	0.19	0.84	0.23*	1.85	0.00	1.85
29.35	0.19	0.84	0.23*	1.84	0.00	1.84
29.40	0.19	0.84	0.23*	1.84	0.00	1.84
29.45	0.19	0.84	0.23*	1.83	0.00	1.83
29.50	0.19	0.84	0.23*	1.82	0.00	1.82
29.55	0.19	0.84	0.23*	1.81	0.00	1.81
29.60	0.20	0.84	0.23*	1.80	0.00	1.80
29.65	0.20	0.85	0.23*	1.80	0.00	1.80
29.70	0.20	0.85	0.23*	1.79	0.00	1.79
29.75	0.20	0.85	0.23*	1.78	0.00	1.78
29.80	0.20	0.85	0.24*	1.77	0.00	1.77
29.85	0.20	0.85	0.24*	1.76	0.00	1.76
29.90	0.20	0.85	0.24*	1.76	0.00	1.76
29.95	0.18	0.85	0.21*	1.75	0.00	1.75
30.00	0.17	0.85	0.20*	1.74	0.00	1.74
30.05	0.17	0.85	0.20*	1.73	0.00	1.73
30.10	0.17	0.85	0.20*	1.72	0.00	1.72
30.15	0.17	0.85	0.20*	1.71	0.00	1.71
30.20	0.17	0.85	0.20*	1.70	0.00	1.70
30.25	0.18	0.85	0.21*	1.69	0.00	1.69
30.30	0.16	0.85	0.18*	1.69	0.00	1.69
30.35	0.16	0.85	0.19*	1.68	0.00	1.68
30.40	0.17	0.85	0.20*	1.67	0.00	1.67
30.45	0.17	0.85	0.20*	1.66	0.00	1.66
30.50	0.18	0.85	0.21*	1.65	0.00	1.65
30.55	0.18	0.85	0.21*	1.64	0.00	1.64
30.60	0.18	0.85	0.21*	1.63	0.00	1.63
30.65	0.18	0.85	0.21*	1.63	0.00	1.63
30.70	0.18	0.85	0.21*	1.62	0.00	1.62
30.75	0.18	0.85	0.21*	1.61	0.00	1.61
30.80	0.18	0.86	0.21*	1.60	0.00	1.60
30.85	0.18	0.86	0.21*	1.60	0.00	1.60
30.90	0.18	0.86	0.21*	1.59	0.00	1.59
30.95	0.18	0.86	0.21*	1.58	0.00	1.58
31.00	0.19	0.86	0.22*	1.57	0.00	1.57
31.05	0.19	0.86	0.22*	1.56	0.00	1.56
31.10	0.19	0.86	0.23*	1.56	0.00	1.56
31.15	0.20	0.86	0.23*	1.55	0.00	1.55
31.20	0.20	0.86	0.23*	1.54	0.00	1.54
31.25	0.20	0.86	0.24*	1.53	0.00	1.53
31.30	0.21	0.86	0.25*	1.53	0.00	1.53
31.35	0.22	0.86	0.25*	1.52	0.00	1.52
31.40	0.23	0.86	0.26*	1.51	0.00	1.51

31.45	0.23	0.86	0.27*	1.50	0.00	1.50
31.50	0.24	0.86	0.28*	1.50	0.00	1.50
31.55	0.26	0.86	0.30*	1.49	0.00	1.49
31.60	0.28	0.86	0.33*	1.48	0.00	1.48
31.65	0.31	0.86	0.37*	1.48	0.00	1.48
31.70	0.36	0.86	0.41*	1.47	0.00	1.47
31.75	0.40	0.86	0.46*	1.47	0.00	1.47
31.80	0.44	0.86	0.51*	1.46	0.00	1.46
31.85	0.49	0.86	0.57*	1.46	0.00	1.46
31.90	0.54	0.86	0.63*	1.46	0.00	1.46
31.95	0.60	0.86	0.69*	1.45	0.00	1.45
32.00	0.67	0.86	0.78*	1.45	0.00	1.45
32.05	0.76	0.86	0.88*	1.45	0.00	1.45
32.10	0.85	0.86	0.99*	1.45	0.00	1.45
32.15	0.96	0.86	1.11	1.45	0.00	1.45
32.20	0.99	0.86	1.15	1.45	0.00	1.45
32.25	1.03	0.86	1.20	1.45	0.00	1.45
32.30	1.04	0.86	1.20	1.45	0.00	1.45
32.35	1.03	0.86	1.19	1.45	0.00	1.45
32.40	1.02	0.87	1.17	1.45	0.00	1.45
32.45	1.00	0.87	1.15	1.45	0.00	1.45
32.50	0.98	0.87	1.14	1.45	0.00	1.45
32.55	0.97	0.87	1.12	1.45	0.00	1.45
32.60	0.85	0.87	0.99*	1.45	0.00	1.45
32.65	0.81	0.87	0.94*	1.45	0.00	1.45
32.70	0.86	0.87	0.99*	1.45	0.00	1.45
32.75	0.83	0.87	0.95*	1.45	0.00	1.45
32.80	0.87	0.87	1.01	1.45	0.00	1.45
32.85	0.94	0.87	1.08	1.45	0.00	1.45
32.90	0.85	0.87	0.98*	1.45	0.00	1.45
32.95	0.80	0.87	0.92*	1.45	0.00	1.45
33.00	0.72	0.87	0.83*	1.45	0.00	1.45
33.05	0.67	0.87	0.77*	1.45	0.00	1.45
33.10	0.62	0.87	0.72*	1.45	0.00	1.45
33.15	0.58	0.87	0.66*	1.45	0.00	1.45
33.20	0.57	0.87	0.65*	1.45	0.00	1.45
33.25	0.65	0.87	0.75*	1.45	0.00	1.45
33.30	0.54	0.87	0.62*	1.45	0.00	1.45
33.35	0.43	0.87	0.50*	1.45	0.00	1.45
33.40	0.41	0.87	0.48*	1.45	0.00	1.45
33.45	0.42	0.87	0.48*	1.45	0.00	1.45
33.50	0.41	0.87	0.47*	1.45	0.00	1.45
33.55	0.36	0.87	0.42*	1.45	0.00	1.45
33.60	0.32	0.87	0.37*	1.44	0.00	1.44
33.65	0.31	0.87	0.35*	1.44	0.00	1.44
33.70	0.30	0.87	0.35*	1.43	0.00	1.43
33.75	0.30	0.87	0.35*	1.42	0.00	1.42
33.80	0.30	0.87	0.35*	1.42	0.00	1.42
33.85	0.30	0.87	0.35*	1.41	0.00	1.41
33.90	0.31	0.87	0.36*	1.41	0.00	1.41

33.95	0.32	0.87	0.36*	1.40	0.00	1.40
34.00	0.32	0.87	0.37*	1.39	0.00	1.39
34.05	0.32	0.87	0.37*	1.39	0.00	1.39
34.10	0.32	0.87	0.37*	1.38	0.00	1.38
34.15	0.31	0.87	0.36*	1.38	0.00	1.38
34.20	0.31	0.87	0.35*	1.37	0.00	1.37
34.25	0.30	0.87	0.34*	1.36	0.00	1.36
34.30	0.30	0.87	0.34*	1.36	0.00	1.36
34.35	0.32	0.88	0.36*	1.35	0.00	1.35
34.40	0.33	0.88	0.38*	1.35	0.00	1.35
34.45	0.33	0.88	0.38*	1.34	0.00	1.34
34.50	0.32	0.88	0.37*	1.34	0.00	1.34
34.55	0.30	0.88	0.35*	1.33	0.00	1.33
34.60	0.29	0.88	0.33*	1.33	0.00	1.33
34.65	0.28	0.88	0.32*	1.32	0.00	1.32
34.70	0.26	0.88	0.30*	1.31	0.00	1.31
34.75	0.26	0.88	0.30*	1.30	0.00	1.30
34.80	0.26	0.88	0.30*	1.30	0.00	1.30
34.85	0.26	0.88	0.30*	1.29	0.00	1.29
34.90	0.22	0.88	0.25*	1.28	0.00	1.28
34.95	0.23	0.88	0.26*	1.27	0.00	1.27
35.00	0.23	0.88	0.26*	1.27	0.00	1.27
35.05	0.23	0.88	0.26*	1.26	0.00	1.26
35.10	0.22	0.88	0.25*	1.25	0.00	1.25
35.15	0.22	0.88	0.25*	1.24	0.00	1.24
35.20	0.23	0.88	0.26*	1.24	0.00	1.24
35.25	0.24	0.88	0.27*	1.23	0.00	1.23
35.30	0.24	0.88	0.27*	1.22	0.00	1.22
35.35	0.24	0.88	0.27*	1.21	0.00	1.21
35.40	0.23	0.88	0.27*	1.21	0.00	1.21
35.45	0.23	0.88	0.27*	1.20	0.00	1.20
35.50	0.24	0.88	0.27*	1.19	0.00	1.19
35.55	0.23	0.88	0.26*	1.19	0.00	1.19
35.60	0.22	0.88	0.25*	1.18	0.00	1.18
35.65	0.22	0.88	0.25*	1.17	0.00	1.17
35.70	0.22	0.88	0.25*	1.16	0.00	1.16
35.75	0.22	0.88	0.25*	1.16	0.00	1.16
35.80	0.21	0.88	0.24*	1.15	0.00	1.15
35.85	0.21	0.88	0.24*	1.14	0.00	1.14
35.90	0.21	0.88	0.24*	1.13	0.00	1.13
35.95	0.21	0.88	0.24*	1.13	0.00	1.13
36.00	0.20	0.88	0.23*	1.12	0.00	1.12
36.05	0.20	0.88	0.22*	1.11	0.00	1.11
36.10	0.19	0.88	0.22*	1.10	0.00	1.10
36.15	0.20	0.88	0.22*	1.09	0.00	1.09
36.20	0.20	0.88	0.22*	1.09	0.00	1.09
36.25	0.20	0.88	0.22*	1.08	0.00	1.08
36.30	0.19	0.88	0.22*	1.07	0.00	1.07
36.35	0.19	0.88	0.22*	1.06	0.00	1.06
36.40	0.17	0.88	0.20*	1.06	0.00	1.06

36.45	0.15	0.88	0.17*	1.05	0.00	1.05
36.50	0.17	0.88	0.19*	1.04	0.00	1.04
36.55	0.18	0.88	0.21*	1.03	0.00	1.03
36.60	0.19	0.88	0.22*	1.02	0.00	1.02
36.65	0.20	0.88	0.23*	1.01	0.00	1.01
36.70	0.20	0.88	0.22*	1.01	0.00	1.01
36.75	0.20	0.88	0.23*	1.00	0.00	1.00
36.80	0.19	0.88	0.22*	0.99	0.00	0.99
36.85	0.20	0.88	0.22*	0.98	0.00	0.98
36.90	0.19	0.88	0.22*	0.98	0.00	0.98
36.95	0.19	0.88	0.22*	0.97	0.00	0.97
37.00	0.19	0.89	0.22*	0.96	0.00	0.96
37.05	0.19	0.89	0.21*	0.96	0.00	0.96
37.10	0.19	0.89	0.22*	0.95	0.00	0.95
37.15	0.19	0.89	0.21*	0.94	0.00	0.94
37.20	0.18	0.89	0.21*	0.93	0.00	0.93
37.25	0.18	0.89	0.21*	0.93	0.00	0.93
37.30	0.19	0.89	0.21*	0.92	0.00	0.92
37.35	0.19	0.89	0.21*	0.91	0.00	0.91
37.40	0.19	0.89	0.21*	0.90	0.00	0.90
37.45	0.19	0.89	0.21*	0.89	0.00	0.89
37.50	0.19	0.89	0.22*	0.89	0.00	0.89
37.55	0.19	0.89	0.21*	0.88	0.00	0.88
37.60	0.18	0.89	0.21*	0.87	0.00	0.87
37.65	0.18	0.89	0.20*	0.86	0.00	0.86
37.70	0.18	0.89	0.20*	0.86	0.00	0.86
37.75	0.18	0.89	0.20*	0.85	0.00	0.85
37.80	0.18	0.89	0.21*	0.84	0.00	0.84
37.85	0.18	0.89	0.20*	0.83	0.00	0.83
37.90	0.17	0.89	0.20*	0.82	0.00	0.82
37.95	0.18	0.89	0.20*	0.82	0.00	0.82
38.00	0.17	0.89	0.20*	0.81	0.00	0.81
38.05	0.18	0.89	0.21*	0.80	0.00	0.80
38.10	0.21	0.89	0.23*	0.79	0.00	0.79
38.15	0.23	0.89	0.26*	0.78	0.00	0.78
38.20	0.26	0.89	0.29*	0.78	0.00	0.78
38.25	0.27	0.89	0.31*	0.77	0.00	0.77
38.30	0.29	0.89	0.33*	0.77	0.00	0.77
38.35	0.35	0.89	0.39*	0.76	0.00	0.76
38.40	0.44	0.89	0.49*	0.76	0.00	0.76
38.45	0.56	0.89	0.63*	0.75	0.00	0.75
38.50	0.69	0.89	0.77*	0.75	0.00	0.75
38.55	0.80	0.89	0.90*	0.75	0.00	0.75
38.60	1.07	0.89	1.21	0.75	0.00	0.75
38.65	1.53	0.89	1.72	0.75	0.00	0.75
38.70	1.84	0.89	2.07	0.75	0.00	0.75
38.75	1.84	0.89	2.07	0.75	0.00	0.75
38.80	1.84	0.89	2.07	0.75	0.00	0.75
38.85	1.84	0.89	2.07	0.75	0.00	0.75
38.90	1.84	0.89	2.07	0.75	0.00	0.75

38.95	1.84	0.89	2.07	0.75	0.00	0.75
39.00	1.84	0.89	2.07	0.75	0.00	0.75
39.05	1.84	0.89	2.07	0.75	0.00	0.75
39.10	1.84	0.89	2.07	0.75	0.00	0.75
39.15	1.84	0.89	2.07	0.75	0.00	0.75
39.20	1.84	0.89	2.07	0.75	0.00	0.75
39.25	1.84	0.89	2.07	0.75	0.00	0.75
39.30	1.84	0.89	2.06	0.75	0.00	0.75
39.35	1.76	0.89	1.98	0.75	0.00	0.75
39.40	1.65	0.89	1.86	0.75	0.00	0.75
39.45	1.42	0.89	1.59	0.75	0.00	0.75
39.50	1.29	0.89	1.45	0.75	0.00	0.75
39.55	1.09	0.89	1.22	0.75	0.00	0.75
39.60	0.96	0.89	1.08	0.75	0.00	0.75
39.65	0.82	0.89	0.92*	0.75	0.00	0.75
39.70	0.67	0.89	0.75*	0.75	0.00	0.75
39.75	0.60	0.89	0.68*	0.75	0.00	0.75
39.80	0.61	0.89	0.68*	0.75	0.00	0.75
39.85	0.59	0.89	0.67*	0.75	0.00	0.75
39.90	0.56	0.89	0.62*	0.75	0.00	0.75
39.95	0.50	0.89	0.56*	0.75	0.00	0.75
40.00	0.45	0.89	0.50*	0.75	0.00	0.75
40.05	0.40	0.89	0.45*	0.75	0.00	0.75
40.10	0.37	0.89	0.41*	0.75	0.00	0.75
40.15	0.33	0.89	0.37*	0.74	0.00	0.74
40.20	0.30	0.89	0.34*	0.74	0.00	0.74
40.25	0.30	0.89	0.34*	0.73	0.00	0.73
40.30	0.29	0.89	0.33*	0.73	0.00	0.73
40.35	0.27	0.89	0.30*	0.72	0.00	0.72
40.40	0.25	0.89	0.28*	0.71	0.00	0.71
40.45	0.23	0.89	0.26*	0.71	0.00	0.71
40.50	0.23	0.89	0.26*	0.70	0.00	0.70
40.55	0.23	0.89	0.26*	0.69	0.00	0.69
40.60	0.22	0.89	0.24*	0.69	0.00	0.69
40.65	0.19	0.89	0.22*	0.68	0.00	0.68
40.70	0.16	0.89	0.18*	0.67	0.00	0.67
40.75	0.16	0.89	0.18*	0.66	0.00	0.66
40.80	0.16	0.89	0.18*	0.65	0.00	0.65
40.85	0.17	0.89	0.19*	0.65	0.00	0.65
40.90	0.18	0.89	0.20*	0.64	0.00	0.64
40.95	0.26	0.89	0.29*	0.63	0.00	0.63
41.00	0.35	0.89	0.40*	0.62	0.00	0.62
41.05	0.42	0.89	0.47*	0.62	0.00	0.62
41.10	0.42	0.89	0.47*	0.62	0.00	0.62
41.15	0.45	0.89	0.50*	0.62	0.00	0.62
41.20	0.52	0.89	0.58*	0.62	0.00	0.62
41.25	0.62	0.89	0.70*	0.62	0.00	0.62
41.30	0.65	0.89	0.73*	0.62	0.00	0.62
41.35	0.65	0.89	0.72*	0.62	0.00	0.62
41.40	0.75	0.89	0.83*	0.62	0.00	0.62

41.45	0.93	0.89	1.04	0.62	0.00	0.62
41.50	1.08	0.89	1.21	0.62	0.00	0.62
41.55	1.28	0.89	1.43	0.62	0.00	0.62
41.60	1.69	0.89	1.89	0.62	0.00	0.62
41.65	1.82	0.89	2.03	0.62	0.00	0.62
41.70	1.80	0.89	2.02	0.62	0.00	0.62
41.75	1.22	0.89	1.36	0.62	0.00	0.62
41.80	1.17	0.89	1.31	0.62	0.00	0.62
41.85	1.31	0.89	1.47	0.62	0.00	0.62
41.90	1.51	0.89	1.69	0.62	0.00	0.62
41.95	1.57	0.89	1.75	0.62	0.00	0.62
42.00	1.58	0.89	1.77	0.62	0.00	0.62
42.05	1.68	0.89	1.88	0.62	0.00	0.62
42.10	1.72	0.89	1.92	0.62	0.00	0.62
42.15	1.70	0.89	1.91	0.62	0.00	0.62
42.20	1.73	0.89	1.94	0.62	0.00	0.62
42.25	1.71	0.89	1.91	0.62	0.00	0.62
42.30	1.65	0.89	1.85	0.62	0.00	0.62
42.35	1.79	0.89	2.01	0.62	0.00	0.62
42.40	1.81	0.89	2.02	0.62	0.00	0.62
42.45	1.81	0.89	2.02	0.62	0.00	0.62
42.50	1.81	0.89	2.02	0.62	0.00	0.62
42.55	1.81	0.89	2.02	0.62	0.00	0.62
42.60	1.81	0.89	2.02	0.62	0.00	0.62
42.65	1.81	0.89	2.02	0.62	0.00	0.62
42.70	1.68	0.89	1.87	0.62	0.00	0.62
42.75	1.70	0.89	1.90	0.62	0.00	0.62
42.80	1.66	0.89	1.86	0.62	0.00	0.62
42.85	1.64	0.89	1.84	0.62	0.00	0.62
42.90	1.60	0.89	1.79	0.62	0.00	0.62
42.95	1.50	0.89	1.68	0.62	0.00	0.62
43.00	1.52	0.89	1.69	0.62	0.00	0.62
43.05	1.68	0.89	1.88	0.62	0.00	0.62
43.10	1.80	0.89	2.02	0.62	0.00	0.62
43.15	1.80	0.89	2.02	0.62	0.00	0.62
43.20	1.80	0.89	2.01	0.62	0.00	0.62
43.25	1.80	0.89	2.01	0.62	0.00	0.62
43.30	1.77	0.89	1.98	0.62	0.00	0.62
43.35	1.80	0.89	2.01	0.62	0.00	0.62
43.40	1.80	0.89	2.01	0.62	0.00	0.62
43.45	1.80	0.89	2.01	0.62	0.00	0.62
43.50	1.80	0.89	2.01	0.62	0.00	0.62
43.55	1.80	0.89	2.01	0.62	0.00	0.62
43.60	1.80	0.89	2.01	0.62	0.00	0.62
43.65	1.77	0.89	1.98	0.62	0.00	0.62
43.70	1.51	0.89	1.69	0.62	0.00	0.62
43.75	1.32	0.89	1.47	0.62	0.00	0.62
43.80	1.18	0.89	1.33	0.62	0.00	0.62
43.85	0.97	0.89	1.09	0.62	0.00	0.62
43.90	0.81	0.89	0.90*	0.62	0.00	0.62

43.95	0.82	0.89	0.91*	0.62	0.00	0.62
44.00	0.84	0.89	0.94*	0.62	0.00	0.62
44.05	0.86	0.89	0.96*	0.62	0.00	0.62
44.10	0.84	0.89	0.94*	0.62	0.00	0.62
44.15	0.81	0.89	0.90*	0.62	0.00	0.62
44.20	0.78	0.89	0.88*	0.62	0.00	0.62
44.25	0.79	0.89	0.88*	0.62	0.00	0.62
44.30	0.80	0.89	0.89*	0.62	0.00	0.62
44.35	0.72	0.89	0.80*	0.62	0.00	0.62
44.40	0.68	0.89	0.76*	0.62	0.00	0.62
44.45	0.66	0.89	0.74*	0.62	0.00	0.62
44.50	0.65	0.89	0.73*	0.62	0.00	0.62
44.55	0.65	0.89	0.72*	0.62	0.00	0.62
44.60	0.64	0.89	0.72*	0.62	0.00	0.62
44.65	0.65	0.89	0.72*	0.62	0.00	0.62
44.70	0.67	0.89	0.75*	0.62	0.00	0.62
44.75	0.71	0.89	0.80*	0.62	0.00	0.62
44.80	0.76	0.89	0.85*	0.62	0.00	0.62
44.85	0.83	0.89	0.93*	0.62	0.00	0.62
44.90	0.91	0.89	1.02	0.62	0.00	0.62
44.95	0.94	0.89	1.05	0.62	0.00	0.62
45.00	1.10	0.89	1.23	0.62	0.00	0.62
45.05	1.35	0.89	1.51	0.62	0.00	0.62
45.10	1.78	0.89	2.00	0.62	0.00	0.62
45.15	1.78	0.89	2.00	0.62	0.00	0.62
45.20	1.78	0.89	2.00	0.62	0.00	0.62
45.25	1.78	0.89	2.00	0.62	0.00	0.62
45.30	1.78	0.89	2.00	0.62	0.00	0.62
45.35	1.78	0.89	1.99	0.62	0.00	0.62
45.40	1.78	0.89	1.99	0.62	0.00	0.62
45.45	1.78	0.89	1.99	0.62	0.00	0.62
45.50	1.78	0.89	1.99	0.62	0.00	0.62
45.55	1.78	0.89	1.99	0.62	0.00	0.62
45.60	1.78	0.89	1.99	0.62	0.00	0.62
45.65	1.78	0.89	1.99	0.62	0.00	0.62
45.70	1.61	0.89	1.80	0.62	0.00	0.62
45.75	1.40	0.89	1.57	0.62	0.00	0.62
45.80	1.32	0.89	1.48	0.62	0.00	0.62
45.85	1.09	0.89	1.22	0.62	0.00	0.62
45.90	0.97	0.89	1.08	0.62	0.00	0.62
45.95	0.91	0.89	1.02	0.62	0.00	0.62
46.00	0.71	0.89	0.80*	0.62	0.00	0.62
46.05	0.56	0.89	0.63*	0.62	0.00	0.62
46.10	0.49	0.89	0.54*	0.62	0.00	0.62
46.15	0.44	0.89	0.49*	0.62	0.00	0.62
46.20	0.39	0.89	0.44*	0.62	0.00	0.62
46.25	0.35	0.89	0.40*	0.61	0.00	0.61
46.30	0.32	0.89	0.36*	0.61	0.00	0.61
46.35	0.32	0.89	0.35*	0.61	0.00	0.61
46.40	0.30	0.89	0.34*	0.60	0.00	0.60

46.45	0.28	0.89	0.31*	0.60	0.00	0.60
46.50	0.25	0.89	0.28*	0.59	0.00	0.59
46.55	0.22	0.89	0.25*	0.59	0.00	0.59
46.60	0.21	0.89	0.24*	0.58	0.00	0.58
46.65	0.20	0.89	0.23*	0.57	0.00	0.57
46.70	0.19	0.89	0.22*	0.56	0.00	0.56
46.75	0.18	0.89	0.20*	0.56	0.00	0.56
46.80	0.17	0.89	0.19*	0.55	0.00	0.55
46.85	0.15	0.89	0.16*	0.54	0.00	0.54
46.90	0.15	0.89	0.17*	0.53	0.00	0.53
46.95	0.15	0.89	0.16*	0.52	0.00	0.52
47.00	0.14	0.89	0.16*	0.51	0.00	0.51
47.05	0.14	0.89	0.16*	0.50	0.00	0.50
47.10	0.13	0.89	0.15*	0.50	0.00	0.50
47.15	0.13	0.89	0.15*	0.49	0.00	0.49
47.20	0.13	0.89	0.14*	0.48	0.00	0.48
47.25	0.13	0.89	0.14*	0.47	0.00	0.47
47.30	0.13	0.89	0.14*	0.46	0.00	0.46
47.35	0.13	0.89	0.15*	0.45	0.00	0.45
47.40	0.13	0.89	0.15*	0.44	0.00	0.44
47.45	0.14	0.89	0.15*	0.43	0.00	0.43
47.50	0.14	0.89	0.16*	0.42	0.00	0.42
47.55	0.15	0.89	0.16*	0.41	0.00	0.41
47.60	0.15	0.89	0.17*	0.40	0.00	0.40
47.65	0.15	0.89	0.17*	0.40	0.00	0.40
47.70	0.15	0.89	0.17*	0.39	0.00	0.39
47.75	0.15	0.89	0.16*	0.38	0.00	0.38
47.80	0.15	0.89	0.16*	0.37	0.00	0.37
47.85	0.15	0.89	0.16*	0.36	0.00	0.36
47.90	0.15	0.89	0.16*	0.35	0.00	0.35
47.95	0.15	0.89	0.16*	0.34	0.00	0.34
48.00	0.14	0.89	0.16*	0.34	0.00	0.34
48.05	0.14	0.89	0.16*	0.33	0.00	0.33
48.10	0.14	0.89	0.16*	0.32	0.00	0.32
48.15	0.14	0.89	0.15*	0.31	0.00	0.31
48.20	0.12	0.89	0.14*	0.30	0.00	0.30
48.25	0.12	0.89	0.13*	0.29	0.00	0.29
48.30	0.11	0.89	0.13*	0.28	0.00	0.28
48.35	0.11	0.89	0.12*	0.27	0.00	0.27
48.40	0.11	0.89	0.12*	0.26	0.00	0.26
48.45	0.11	0.89	0.12*	0.25	0.00	0.25
48.50	0.11	0.89	0.12*	0.24	0.00	0.24
48.55	0.11	0.89	0.13*	0.23	0.00	0.23
48.60	0.11	0.89	0.13*	0.22	0.00	0.22
48.65	0.11	0.89	0.13*	0.21	0.00	0.21
48.70	0.11	0.89	0.13*	0.20	0.00	0.20
48.75	0.11	0.89	0.13*	0.19	0.00	0.19
48.80	0.12	0.89	0.13*	0.18	0.00	0.18
48.85	0.12	0.89	0.14*	0.17	0.00	0.17
48.90	0.14	0.89	0.15*	0.17	0.00	0.17

48.95	0.15	0.89	0.17*	0.16	0.00	0.16
49.00	0.15	0.89	0.17*	0.15	0.00	0.15
49.05	0.15	0.89	0.17*	0.14	0.00	0.14
49.10	0.15	0.89	0.17*	0.13	0.00	0.13
49.15	0.15	0.89	0.17*	0.13	0.00	0.13
49.20	0.15	0.89	0.17*	0.12	0.00	0.12
49.25	0.16	0.89	0.18*	0.11	0.00	0.11
49.30	0.16	0.89	0.18*	0.10	0.00	0.10
49.35	0.16	0.89	0.19*	0.10	0.00	0.10
49.40	0.16	0.89	0.18*	0.09	0.00	0.09
49.45	0.15	0.89	0.17*	0.08	0.00	0.08
49.50	0.15	0.89	0.17*	0.07	0.00	0.07
49.55	0.15	0.89	0.17*	0.07	0.00	0.07
49.60	0.15	0.89	0.17*	0.06	0.00	0.06
49.65	0.15	0.89	0.17*	0.05	0.00	0.05
49.70	0.15	0.89	0.17*	0.04	0.00	0.04
49.75	0.15	0.89	0.17*	0.04	0.00	0.04
49.80	0.15	0.89	0.17*	0.03	0.00	0.03
49.85	0.13	0.89	0.14*	0.02	0.00	0.02
49.90	0.09	0.89	0.10*	0.01	0.00	0.01
49.95	2.00	0.89	5.00	0.00	0.00	0.00
50.00	2.00	0.89	5.00	0.00	0.00	0.00
50.05	2.00	0.89	5.00	0.00	0.00	0.00
50.10	2.00	0.89	5.00	0.00	0.00	0.00
50.15	2.00	0.89	5.00	0.00	0.00	0.00
50.20	2.00	0.89	5.00	0.00	0.00	0.00

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* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

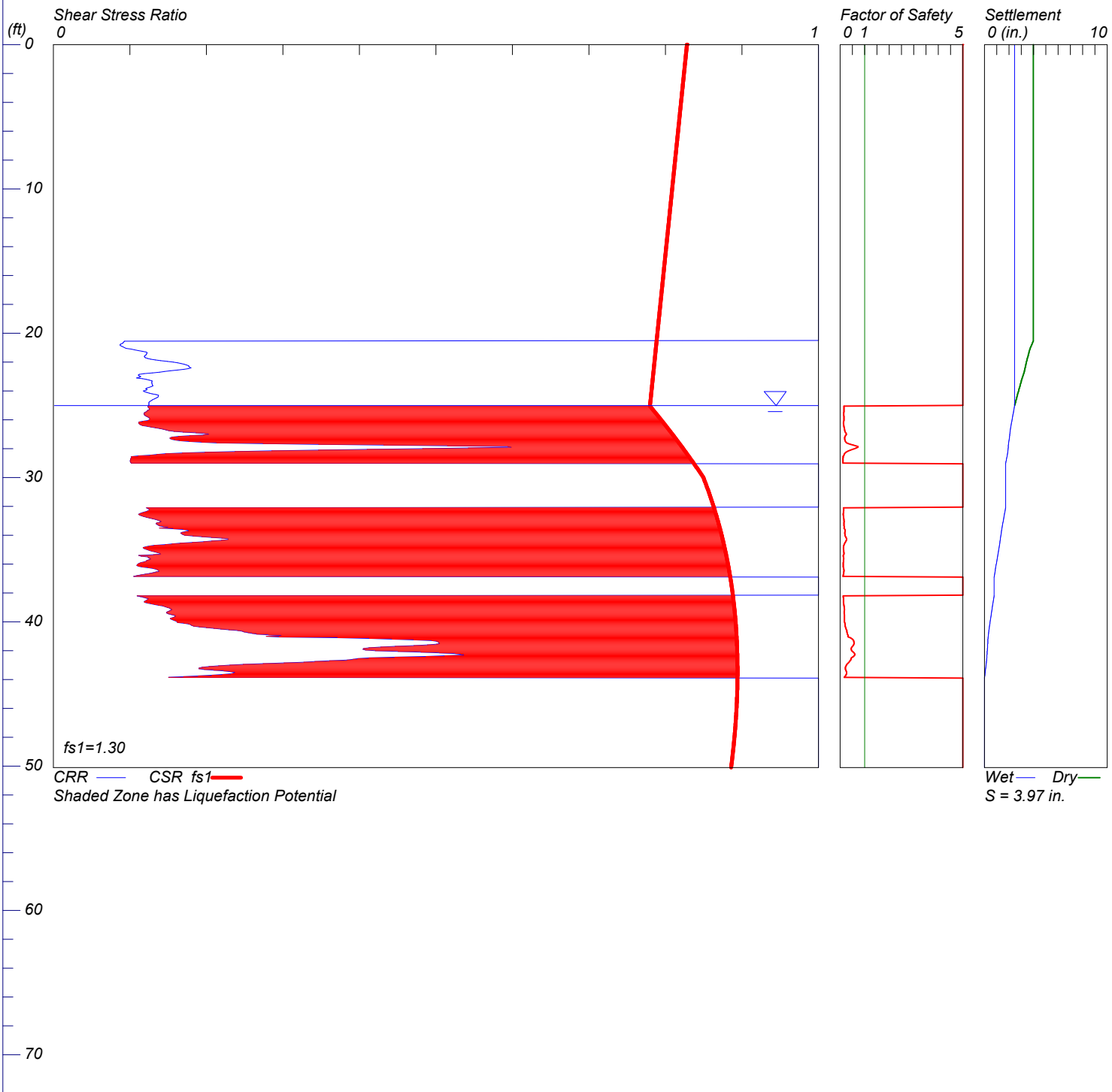
CRRm Cyclic resistance ratio from soils
CSRfs Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat Settlement from saturated sands
S_dry Settlement from dry sands
S_all Total settlement from saturated and dry sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=CPT-3 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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LIQUEFACTION ANALYSIS CALCULATION SHEET

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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\CPT3.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=CPT-3
Depth of Hole= 50.1 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 50.0 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=CPT-3
Depth of Hole=50.1 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 50.0 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

1. CPT Calulation Method: Modified Robertson*
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth	qc	fs	gamma	Fines	D50
ft	tsf	tsf	pcf	%	mm
0.0	2.3	0.0	110.0	NoLiq	0.5
0.0	6.8	0.0	110.0	NoLiq	0.5
0.1	16.6	0.0	110.0	NoLiq	0.5
0.2	20.3	0.1	110.0	NoLiq	0.5
0.3	23.9	0.1	110.0	NoLiq	0.5
0.4	26.2	0.1	110.0	NoLiq	0.5
0.5	27.3	0.1	110.0	NoLiq	0.5
0.6	27.7	0.1	110.0	NoLiq	0.5
0.7	27.8	0.1	110.0	NoLiq	0.5
0.8	27.9	0.1	110.0	NoLiq	0.5
0.9	28.1	0.1	110.0	NoLiq	0.5
1.0	28.5	0.1	110.0	NoLiq	0.5
1.1	29.5	0.1	110.0	NoLiq	0.5
1.2	31.1	0.1	110.0	NoLiq	0.5
1.3	33.0	0.1	110.0	NoLiq	0.5
1.4	34.6	0.1	110.0	NoLiq	0.5
1.5	34.2	0.1	110.0	NoLiq	0.5
1.5	32.2	0.1	110.0	NoLiq	0.5
1.6	30.0	0.1	110.0	NoLiq	0.5
1.7	29.9	0.1	110.0	NoLiq	0.5
1.8	30.1	0.1	110.0	NoLiq	0.5
1.9	30.9	0.1	110.0	NoLiq	0.5
2.0	32.4	0.1	110.0	NoLiq	0.5
2.1	34.5	0.1	110.0	NoLiq	0.5
2.2	35.5	0.1	110.0	NoLiq	0.5
2.3	37.7	0.1	110.0	NoLiq	0.5
2.4	40.5	0.1	110.0	NoLiq	0.5
2.5	43.5	0.1	110.0	NoLiq	0.5
2.5	45.4	0.1	110.0	NoLiq	0.5
2.6	48.9	0.2	110.0	NoLiq	0.5
2.7	52.2	0.2	110.0	NoLiq	0.5
2.8	54.4	0.2	110.0	NoLiq	0.5
2.9	55.7	0.2	110.0	NoLiq	0.5
3.0	56.3	0.2	110.0	NoLiq	0.5
3.1	57.0	0.2	110.0	NoLiq	0.5
3.2	59.4	0.2	110.0	NoLiq	0.5
3.3	59.1	0.2	110.0	NoLiq	0.5
3.4	56.8	0.2	110.0	NoLiq	0.5
3.5	52.1	0.2	110.0	NoLiq	0.5
3.6	47.2	0.1	110.0	NoLiq	0.5
3.7	42.5	0.1	110.0	NoLiq	0.5
3.8	38.0	0.1	110.0	NoLiq	0.5
3.8	30.2	0.1	110.0	NoLiq	0.5
3.8	29.0	0.1	110.0	NoLiq	0.5
3.9	34.2	0.1	110.0	NoLiq	0.5
3.9	35.0	0.1	110.0	NoLiq	0.5
4.0	34.0	0.1	110.0	NoLiq	0.5

4.1	32.4	0.1	110.0	NoLiq	0.5
4.1	30.3	0.1	110.0	NoLiq	0.5
4.2	27.7	0.1	110.0	NoLiq	0.5
4.3	25.9	0.1	110.0	NoLiq	0.5
4.4	24.7	0.1	110.0	NoLiq	0.5
4.4	23.9	0.1	110.0	NoLiq	0.5
4.5	24.7	0.1	110.0	NoLiq	0.5
4.6	24.0	0.1	110.0	NoLiq	0.5
4.6	24.7	0.1	110.0	NoLiq	0.5
4.7	24.4	0.1	110.0	NoLiq	0.5
4.8	24.4	0.1	110.0	NoLiq	0.5
4.9	25.5	0.1	110.0	NoLiq	0.5
5.0	26.4	0.1	110.0	NoLiq	0.5
5.0	25.5	0.1	110.0	NoLiq	0.5
5.0	26.4	0.1	110.0	NoLiq	0.5
5.1	26.5	0.1	110.0	NoLiq	0.5
5.2	26.9	0.1	110.0	NoLiq	0.5
5.3	27.2	0.1	110.0	NoLiq	0.5
5.4	28.5	0.1	110.0	NoLiq	0.5
5.4	28.8	0.1	110.0	NoLiq	0.5
5.5	28.7	0.1	110.0	NoLiq	0.5
5.6	23.3	0.1	110.0	NoLiq	0.5
5.6	21.5	0.1	110.0	NoLiq	0.5
5.6	26.2	0.1	110.0	NoLiq	0.5
5.7	25.8	0.1	110.0	NoLiq	0.5
5.7	25.5	0.1	110.0	NoLiq	0.5
5.8	24.7	0.1	110.0	NoLiq	0.5
5.8	23.6	0.1	110.0	NoLiq	0.5
5.9	22.8	0.1	110.0	NoLiq	0.5
5.9	23.6	0.1	110.0	NoLiq	0.5
6.0	22.3	0.1	110.0	NoLiq	0.5
6.0	23.6	0.2	110.0	NoLiq	0.5
6.2	24.4	0.2	110.0	NoLiq	0.5
6.2	24.1	0.2	110.0	NoLiq	0.5
6.3	23.1	0.1	110.0	NoLiq	0.5
6.4	22.9	0.1	110.0	NoLiq	0.5
6.5	23.6	0.1	110.0	NoLiq	0.5
6.5	23.6	0.1	110.0	NoLiq	0.5
6.6	24.4	0.2	110.0	NoLiq	0.5
6.7	23.6	0.2	110.0	NoLiq	0.5
6.8	21.3	0.2	110.0	NoLiq	0.5
6.9	21.4	0.1	110.0	NoLiq	0.5
7.0	21.3	0.1	110.0	NoLiq	0.5
7.0	21.3	0.1	110.0	NoLiq	0.5
7.1	21.2	0.1	110.0	NoLiq	0.5
7.3	21.2	0.1	110.0	NoLiq	0.5
7.3	21.1	0.1	110.0	NoLiq	0.5
7.4	21.1	0.1	110.0	NoLiq	0.5
7.5	22.2	0.1	110.0	NoLiq	0.5
7.6	23.9	0.1	110.0	NoLiq	0.5

7.7	25.9	0.1	110.0	NoLiq	0.5
7.8	28.4	0.1	110.0	NoLiq	0.5
7.9	30.7	0.1	110.0	NoLiq	0.5
8.1	32.8	0.1	110.0	NoLiq	0.5
8.1	33.1	0.1	110.0	NoLiq	0.5
8.1	33.1	0.1	110.0	NoLiq	0.5
8.2	33.5	0.1	110.0	NoLiq	0.5
8.3	35.5	0.1	110.0	NoLiq	0.5
8.4	37.4	0.1	110.0	NoLiq	0.5
8.5	38.5	0.1	110.0	NoLiq	0.5
8.5	38.5	0.2	110.0	NoLiq	0.5
8.7	39.5	0.2	110.0	NoLiq	0.5
8.8	39.8	0.2	110.0	NoLiq	0.5
8.8	41.3	0.2	110.0	NoLiq	0.5
8.9	43.3	0.2	110.0	NoLiq	0.5
9.0	45.6	0.2	110.0	NoLiq	0.5
9.1	48.1	0.2	110.0	NoLiq	0.5
9.1	50.7	0.2	110.0	NoLiq	0.5
9.2	53.0	0.3	110.0	NoLiq	0.5
9.3	55.1	0.5	110.0	NoLiq	0.5
9.4	54.0	0.6	110.0	NoLiq	0.5
9.5	56.7	0.6	110.0	NoLiq	0.5
9.6	48.1	0.7	110.0	NoLiq	0.5
9.7	46.3	0.6	110.0	NoLiq	0.5
9.8	48.3	0.2	110.0	NoLiq	0.5
9.9	45.0	0.2	110.0	NoLiq	0.5
10.0	42.7	0.2	110.0	NoLiq	0.5
10.1	41.6	0.2	110.0	NoLiq	0.5
10.1	40.2	0.1	110.0	NoLiq	0.5
10.1	37.6	0.1	110.0	NoLiq	0.5
10.2	37.7	0.1	110.0	NoLiq	0.5
10.3	35.2	0.1	110.0	NoLiq	0.5
10.4	34.3	0.2	110.0	NoLiq	0.5
10.4	34.7	0.2	110.0	NoLiq	0.5
10.4	34.7	0.2	110.0	NoLiq	0.5
10.5	35.1	0.2	110.0	NoLiq	0.5
10.5	36.4	0.2	110.0	NoLiq	0.5
10.6	38.8	0.2	110.0	NoLiq	0.5
10.7	43.8	0.2	110.0	NoLiq	0.5
10.8	44.6	0.2	110.0	NoLiq	0.5
10.9	46.2	0.2	110.0	NoLiq	0.5
10.9	46.0	0.2	110.0	NoLiq	0.5
11.0	44.1	0.2	110.0	NoLiq	0.5
11.1	39.8	0.1	110.0	NoLiq	0.5
11.2	35.4	0.2	110.0	NoLiq	0.5
11.3	33.0	0.2	110.0	NoLiq	0.5
11.4	32.2	0.2	110.0	NoLiq	0.5
11.5	32.1	0.3	110.0	NoLiq	0.5
11.6	32.3	0.3	110.0	NoLiq	0.5
11.6	32.2	0.3	110.0	NoLiq	0.5

11.7	32.3	0.3	110.0	NoLiq	0.5
11.8	34.0	0.3	110.0	NoLiq	0.5
11.9	34.6	0.3	110.0	NoLiq	0.5
12.0	33.7	0.3	110.0	NoLiq	0.5
12.1	33.5	0.3	110.0	NoLiq	0.5
12.2	34.9	0.3	110.0	NoLiq	0.5
12.3	35.9	0.3	110.0	NoLiq	0.5
12.4	36.8	0.2	110.0	NoLiq	0.5
12.5	36.5	0.2	110.0	NoLiq	0.5
12.6	34.7	0.2	110.0	NoLiq	0.5
12.7	27.2	0.2	110.0	NoLiq	0.5
12.7	29.0	0.2	110.0	NoLiq	0.5
12.8	32.1	0.2	110.0	NoLiq	0.5
12.8	32.5	0.2	110.0	NoLiq	0.5
12.9	32.7	0.2	110.0	NoLiq	0.5
13.0	32.5	0.2	110.0	NoLiq	0.5
13.1	31.9	0.2	110.0	NoLiq	0.5
13.2	32.0	0.2	110.0	NoLiq	0.5
13.3	32.9	0.3	110.0	NoLiq	0.5
13.3	33.7	0.3	110.0	NoLiq	0.5
13.4	34.5	0.3	110.0	NoLiq	0.5
13.5	35.2	0.3	110.0	NoLiq	0.5
13.6	36.5	0.3	110.0	NoLiq	0.5
13.6	37.4	0.3	110.0	NoLiq	0.5
13.8	39.1	0.3	110.0	NoLiq	0.5
13.8	40.0	0.3	110.0	NoLiq	0.5
13.9	41.4	0.3	110.0	NoLiq	0.5
14.0	44.6	0.3	110.0	NoLiq	0.5
14.1	46.8	0.3	110.0	NoLiq	0.5
14.2	47.9	0.4	110.0	NoLiq	0.5
14.3	48.7	0.3	110.0	NoLiq	0.5
14.4	51.3	0.4	110.0	NoLiq	0.5
14.5	51.6	0.4	110.0	NoLiq	0.5
14.6	51.1	0.5	110.0	NoLiq	0.5
14.6	51.9	0.6	110.0	NoLiq	0.5
14.7	54.1	0.6	110.0	NoLiq	0.5
14.8	59.2	0.5	110.0	NoLiq	0.5
14.9	67.2	0.6	110.0	NoLiq	0.5
15.0	75.6	0.8	110.0	NoLiq	0.5
15.1	69.0	1.0	110.0	NoLiq	0.5
15.1	92.1	0.9	110.0	NoLiq	0.5
15.2	104.4	0.9	110.0	NoLiq	0.5
15.3	124.9	1.7	110.0	NoLiq	0.5
15.3	150.6	1.8	110.0	NoLiq	0.5
15.4	185.7	1.4	110.0	NoLiq	0.5
15.5	192.4	1.5	110.0	NoLiq	0.5
15.5	205.7	2.0	110.0	NoLiq	0.5
15.6	236.3	2.2	110.0	NoLiq	0.5
15.7	252.7	2.1	110.0	NoLiq	0.5
15.8	258.7	1.8	110.0	NoLiq	0.5

15.8	259.2	1.5	110.0	NoLiq	0.5
15.9	247.3	1.5	110.0	NoLiq	0.5
16.0	250.6	1.5	110.0	NoLiq	0.5
16.0	238.9	1.5	110.0	NoLiq	0.5
16.1	218.7	1.6	110.0	NoLiq	0.5
16.2	194.6	1.7	110.0	NoLiq	0.5
16.3	189.0	1.7	110.0	NoLiq	0.5
16.4	184.5	1.3	110.0	NoLiq	0.5
16.4	170.9	1.3	110.0	NoLiq	0.5
16.5	164.4	1.3	110.0	NoLiq	0.5
16.6	157.0	1.1	110.0	NoLiq	0.5
16.6	153.7	1.0	110.0	NoLiq	0.5
16.7	149.2	0.9	110.0	NoLiq	0.5
16.8	148.5	0.8	110.0	NoLiq	0.5
16.9	147.9	0.5	110.0	NoLiq	0.5
17.0	143.1	0.5	110.0	NoLiq	0.5
17.1	130.0	0.5	110.0	NoLiq	0.5
17.1	119.7	0.5	110.0	NoLiq	0.5
17.2	97.2	0.4	110.0	NoLiq	0.5
17.3	94.7	0.4	110.0	NoLiq	0.5
17.3	88.7	0.4	110.0	NoLiq	0.5
17.4	81.6	0.4	110.0	NoLiq	0.5
17.4	75.3	0.4	110.0	NoLiq	0.5
17.5	70.6	0.4	110.0	NoLiq	0.5
17.6	63.9	0.4	110.0	NoLiq	0.5
17.6	60.1	0.4	110.0	NoLiq	0.5
17.7	57.3	0.4	110.0	NoLiq	0.5
17.8	56.6	0.4	110.0	NoLiq	0.5
17.9	56.5	0.5	110.0	NoLiq	0.5
17.9	56.6	0.5	110.0	NoLiq	0.5
18.0	57.0	0.6	110.0	NoLiq	0.5
18.1	56.6	0.6	110.0	NoLiq	0.5
18.1	58.3	0.6	110.0	NoLiq	0.5
18.2	60.0	0.6	110.0	NoLiq	0.5
18.3	60.1	0.6	110.0	NoLiq	0.5
18.3	57.4	0.5	110.0	NoLiq	0.5
18.5	51.2	0.5	110.0	NoLiq	0.5
18.5	48.2	0.5	110.0	NoLiq	0.5
18.6	46.2	0.5	110.0	NoLiq	0.5
18.7	42.7	0.6	110.0	NoLiq	0.5
18.8	38.4	0.7	110.0	NoLiq	0.5
18.8	34.6	0.7	110.0	NoLiq	0.5
18.9	32.1	0.8	110.0	NoLiq	0.5
19.0	30.3	0.8	110.0	NoLiq	0.5
19.1	29.3	0.8	110.0	NoLiq	0.5
19.2	29.3	0.7	110.0	NoLiq	0.5
19.3	30.9	0.6	110.0	NoLiq	0.5
19.4	34.0	0.4	110.0	NoLiq	0.5
19.5	39.0	0.4	110.0	NoLiq	0.5
19.5	43.7	0.4	110.0	NoLiq	0.5

19.6	46.6	0.4	110.0	NoLiq	0.5
19.7	46.4	0.3	110.0	NoLiq	0.5
19.7	46.2	0.3	110.0	NoLiq	0.5
19.8	47.4	0.3	110.0	NoLiq	0.5
19.8	47.4	0.2	110.0	NoLiq	0.5
19.9	46.2	0.2	110.0	NoLiq	0.5
20.0	45.1	0.2	110.0	NoLiq	0.5
20.0	44.7	0.2	110.0	NoLiq	0.5
20.1	43.3	0.2	110.0	NoLiq	0.5
20.1	44.5	0.2	110.0	NoLiq	0.5
20.1	44.4	0.2	110.0	NoLiq	0.5
20.2	45.6	0.2	110.0	NoLiq	0.5
20.3	46.4	0.2	110.0	NoLiq	0.5
20.4	46.6	0.3	110.0	NoLiq	0.5
20.5	45.1	0.3	110.0	NoLiq	0.5
20.5	44.0	0.3	110.0	16.3	0.5
20.6	43.0	0.3	110.0	16.5	0.5
20.7	42.0	0.2	110.0	16.4	0.5
20.8	40.7	0.2	110.0	15.6	0.5
20.9	40.8	0.2	110.0	15.3	0.5
21.0	43.7	0.3	110.0	16.3	0.5
21.1	39.8	0.3	110.0	19.6	0.5
21.1	47.4	0.4	110.0	18.6	0.5
21.2	52.8	0.5	110.0	17.7	0.5
21.3	57.7	0.6	110.0	16.9	0.5
21.3	64.8	0.6	110.0	15.8	0.5
21.4	63.2	0.6	110.0	15.4	0.5
21.5	65.8	0.6	110.0	15.1	0.5
21.6	67.6	0.5	110.0	13.7	0.5
21.6	66.5	0.5	110.0	13.6	0.5
21.7	68.9	0.5	110.0	13.4	0.5
21.8	75.6	0.5	110.0	12.0	0.5
21.9	86.8	0.6	110.0	10.0	0.5
22.0	96.0	0.6	110.0	9.3	0.5
22.0	102.0	0.6	110.0	8.0	0.5
22.1	106.4	0.6	110.0	7.7	0.5
22.2	109.9	0.6	110.0	7.3	0.5
22.3	109.5	0.6	110.0	7.3	0.5
22.4	111.0	0.6	110.0	7.4	0.5
22.5	106.1	0.6	110.0	7.6	0.5
22.6	96.7	0.5	110.0	7.9	0.5
22.7	89.5	0.5	110.0	8.6	0.5
22.8	84.6	0.1	110.0	6.5	0.5
22.9	80.1	0.2	110.0	6.2	0.5
23.0	80.7	0.3	110.0	7.4	0.5
23.1	72.3	0.3	110.0	9.6	0.5
23.1	78.4	0.3	110.0	9.6	0.5
23.2	83.0	0.3	110.0	8.6	0.5
23.2	85.3	0.4	110.0	8.5	0.5
23.3	87.2	0.4	110.0	8.8	0.5

23.4	85.9	0.4	110.0	9.0	0.5
23.5	86.7	0.4	110.0	9.1	0.5
23.5	86.7	0.4	110.0	9.1	0.5
23.7	86.7	0.5	110.0	9.4	0.5
23.8	81.8	0.5	110.0	10.1	0.5
23.8	77.2	0.5	110.0	10.6	0.5
23.9	81.0	0.5	110.0	10.5	0.5
24.0	74.6	0.5	110.0	11.4	0.5
24.1	80.2	0.5	110.0	10.5	0.5
24.2	85.7	0.5	110.0	10.1	0.5
24.3	91.3	0.5	110.0	9.5	0.5
24.4	87.5	0.6	110.0	10.6	0.5
24.5	86.6	0.6	110.0	10.7	0.5
24.6	81.2	0.6	110.0	11.8	0.5
24.7	79.5	0.6	110.0	12.2	0.5
24.7	78.6	0.6	110.0	12.2	0.5
24.7	78.6	0.6	110.0	12.2	0.5
24.8	77.6	0.6	110.0	12.4	0.5
24.9	76.8	0.6	110.0	12.8	0.5
24.9	76.4	0.6	110.0	13.0	0.5
25.0	76.9	0.6	110.0	12.9	0.5
25.0	76.5	0.6	110.0	12.9	0.5
25.1	76.1	0.6	110.0	13.0	0.5
25.1	78.1	0.6	110.0	13.0	0.5
25.2	77.9	0.6	110.0	12.4	0.5
25.2	77.9	0.6	110.0	12.7	0.5
25.3	75.7	0.6	110.0	13.5	0.5
25.4	73.9	0.6	110.0	13.9	0.5
25.4	75.5	0.6	110.0	13.4	0.5
25.5	75.0	0.6	110.0	13.1	0.5
25.6	75.3	0.5	110.0	12.7	0.5
25.7	76.5	0.5	110.0	12.3	0.5
25.7	78.3	0.5	110.0	12.1	0.5
25.8	80.3	0.6	110.0	12.1	0.5
25.9	78.8	0.6	110.0	12.7	0.5
26.0	77.6	0.6	110.0	13.2	0.5
26.1	77.9	0.4	110.0	11.6	0.5
26.2	72.8	0.5	110.0	11.4	0.5
26.3	66.2	0.6	110.0	14.3	0.5
26.4	61.3	0.7	110.0	17.6	0.5
26.4	48.3	0.7	110.0	17.6	0.5
26.5	54.3	0.8	110.0	23.9	0.5
26.5	53.7	0.9	110.0	22.5	0.5
26.6	53.0	0.9	110.0	23.5	0.5
26.6	52.5	0.9	110.0	24.3	0.5
26.7	52.5	1.0	110.0	24.9	0.5
26.8	54.0	1.0	110.0	25.1	0.5
26.8	54.4	1.1	110.0	25.4	0.5
26.9	53.7	1.2	110.0	26.2	0.5
26.9	52.1	1.2	110.0	27.5	0.5

27.0	51.4	1.2	110.0	28.3	0.5
27.0	52.3	1.3	110.0	28.5	0.5
27.1	54.8	1.2	110.0	28.1	0.5
27.2	59.5	1.2	110.0	24.9	0.5
27.2	70.7	1.1	110.0	22.2	0.5
27.3	83.5	1.1	110.0	17.1	0.5
27.4	96.0	0.9	110.0	14.5	0.5
27.5	107.8	0.8	110.0	10.3	0.5
27.5	121.8	0.8	110.0	8.7	0.5
27.6	140.6	0.7	110.0	6.0	0.5
27.7	166.3	0.9	110.0	5.2	0.5
27.7	195.0	1.0	110.0	4.7	0.5
27.8	224.0	1.2	110.0	3.7	0.5
27.9	227.0	1.2	110.0	3.4	0.5
28.0	212.4	1.1	110.0	3.4	0.5
28.0	196.9	1.0	110.0	3.6	0.5
28.1	173.6	0.9	110.0	4.3	0.5
28.2	148.7	0.8	110.0	6.0	0.5
28.3	121.5	0.7	110.0	7.1	0.5
28.4	100.4	0.6	110.0	9.4	0.5
28.5	87.0	0.6	110.0	11.0	0.5
28.5	78.1	0.2	110.0	9.6	0.5
28.6	72.7	0.3	110.0	10.2	0.5
28.7	64.6	0.4	110.0	13.5	0.5
28.8	59.8	0.4	110.0	15.0	0.5
28.8	53.6	0.5	110.0	16.6	0.5
28.9	54.3	0.5	110.0	18.4	0.5
28.9	54.3	0.5	110.0	18.4	0.5
28.9	55.0	0.5	110.0	18.1	0.5
29.0	55.1	0.5	110.0	18.1	0.5
29.0	54.7	0.5	110.0	NoLiq	0.5
29.1	54.4	0.5	110.0	NoLiq	0.5
29.2	54.0	0.5	110.0	NoLiq	0.5
29.3	53.2	0.5	110.0	NoLiq	0.5
29.4	50.9	0.5	110.0	NoLiq	0.5
29.4	48.9	0.6	110.0	NoLiq	0.5
29.5	47.0	0.6	110.0	NoLiq	0.5
29.6	44.1	0.7	110.0	NoLiq	0.5
29.7	40.8	0.9	110.0	NoLiq	0.5
29.8	37.7	0.7	110.0	NoLiq	0.5
29.8	30.6	0.8	110.0	NoLiq	0.5
30.0	26.2	0.9	110.0	NoLiq	0.5
30.0	24.5	0.9	110.0	NoLiq	0.5
30.0	24.7	0.9	110.0	NoLiq	0.5
30.1	24.7	0.9	110.0	NoLiq	0.5
30.1	25.0	0.9	110.0	NoLiq	0.5
30.2	27.0	0.9	110.0	NoLiq	0.5
30.3	28.8	0.9	110.0	NoLiq	0.5
30.4	29.3	0.9	110.0	NoLiq	0.5
30.4	29.4	0.9	110.0	NoLiq	0.5

30.5	30.3	0.9	110.0	NoLiq	0.5
30.6	31.7	0.9	110.0	NoLiq	0.5
30.7	33.5	0.9	110.0	NoLiq	0.5
30.8	38.5	0.9	110.0	NoLiq	0.5
30.9	47.4	0.8	110.0	NoLiq	0.5
31.0	59.6	0.8	110.0	NoLiq	0.5
31.1	67.0	0.7	110.0	NoLiq	0.5
31.1	71.0	0.6	110.0	NoLiq	0.5
31.2	71.1	0.4	110.0	NoLiq	0.5
31.3	71.1	0.3	110.0	NoLiq	0.5
31.4	78.9	0.4	110.0	NoLiq	0.5
31.5	86.3	0.5	110.0	NoLiq	0.5
31.5	86.9	0.5	110.0	NoLiq	0.5
31.6	81.6	0.5	110.0	NoLiq	0.5
31.6	87.6	0.5	110.0	NoLiq	0.5
31.7	84.7	0.5	110.0	NoLiq	0.5
31.8	80.5	0.6	110.0	NoLiq	0.5
31.9	76.9	0.6	110.0	NoLiq	0.5
32.0	76.4	0.7	110.0	NoLiq	0.5
32.1	76.3	0.8	110.0	15.9	0.5
32.2	78.5	0.8	110.0	16.3	0.5
32.3	78.9	0.8	110.0	16.3	0.5
32.3	79.1	0.8	110.0	16.0	0.5
32.4	79.1	0.7	110.0	15.0	0.5
32.5	79.1	0.6	110.0	13.8	0.5
32.6	83.7	0.5	110.0	12.5	0.5
32.7	89.9	0.6	110.0	11.3	0.5
32.8	96.9	0.6	110.0	10.9	0.5
32.9	103.7	0.6	110.0	10.1	0.5
33.0	109.7	0.6	110.0	9.4	0.5
33.1	112.6	0.6	110.0	8.9	0.5
33.2	115.2	0.4	110.0	7.3	0.5
33.3	114.1	0.5	110.0	7.4	0.5
33.4	114.7	0.6	110.0	7.9	0.5
33.5	121.6	0.6	110.0	7.8	0.5
33.5	103.4	0.6	110.0	7.8	0.5
33.5	112.4	0.7	110.0	9.5	0.5
33.6	130.0	0.7	110.0	8.3	0.5
33.7	135.5	0.8	110.0	7.6	0.5
33.7	136.1	0.8	110.0	7.6	0.5
33.8	131.9	0.8	110.0	7.6	0.5
33.8	131.0	0.7	110.0	7.7	0.5
33.9	132.7	0.7	110.0	7.5	0.5
34.0	133.7	0.7	110.0	7.5	0.5
34.0	141.4	0.8	110.0	7.0	0.5
34.1	154.2	0.7	110.0	6.3	0.5
34.2	167.9	0.8	110.0	5.3	0.5
34.3	164.0	0.9	110.0	5.8	0.5
34.4	150.2	1.0	110.0	7.3	0.5
34.5	141.2	1.0	110.0	8.0	0.5

34.6	120.3	1.0	110.0	10.1	0.5
34.7	108.2	0.9	110.0	11.7	0.5
34.7	97.1	0.8	110.0	12.2	0.5
34.8	85.1	0.7	110.0	13.4	0.5
34.9	77.0	0.8	110.0	16.1	0.5
35.0	73.4	0.9	110.0	18.8	0.5
35.0	72.3	1.0	110.0	18.8	0.5
35.1	69.7	1.0	110.0	19.8	0.5
35.2	71.3	1.1	110.0	21.1	0.5
35.3	74.3	1.2	110.0	20.9	0.5
35.3	77.4	1.2	110.0	20.5	0.5
35.4	82.4	0.6	110.0	14.3	0.5
35.5	90.7	0.8	110.0	13.8	0.5
35.6	99.1	0.7	110.0	11.7	0.5
35.7	102.9	0.7	110.0	11.2	0.5
35.7	96.1	0.7	110.0	11.3	0.5
35.8	96.7	0.7	110.0	11.8	0.5
35.8	96.7	0.7	110.0	11.8	0.5
35.8	97.2	0.7	110.0	11.5	0.5
35.8	94.5	0.6	110.0	11.7	0.5
35.9	90.6	0.6	110.0	12.0	0.5
36.0	84.4	0.6	110.0	12.9	0.5
36.0	78.0	0.7	110.0	14.1	0.5
36.1	70.2	0.7	110.0	17.7	0.5
36.2	63.8	0.8	110.0	19.7	0.5
36.3	63.4	1.0	110.0	22.6	0.5
36.3	63.4	1.1	110.0	23.5	0.5
36.4	63.0	1.1	110.0	24.2	0.5
36.5	65.7	1.2	110.0	23.8	0.5
36.6	72.1	1.1	110.0	22.5	0.5
36.7	77.8	1.0	110.0	18.9	0.5
36.8	77.6	0.8	110.0	16.9	0.5
36.8	76.2	0.7	110.0	16.2	0.5
36.9	70.5	0.6	110.0	NoLiq	0.5
37.0	64.9	0.6	110.0	NoLiq	0.5
37.1	60.3	0.5	110.0	NoLiq	0.5
37.2	55.6	0.4	110.0	NoLiq	0.5
37.3	54.0	0.5	110.0	NoLiq	0.5
37.3	53.0	0.6	110.0	NoLiq	0.5
37.4	52.0	0.8	110.0	NoLiq	0.5
37.5	51.0	1.0	110.0	NoLiq	0.5
37.6	41.2	1.2	110.0	NoLiq	0.5
37.7	40.8	0.7	110.0	NoLiq	0.5
37.8	40.8	0.7	110.0	NoLiq	0.5
37.9	40.4	0.7	110.0	NoLiq	0.5
38.0	39.7	0.7	110.0	NoLiq	0.5
38.0	50.6	0.7	110.0	NoLiq	0.5
38.1	56.4	0.7	110.0	NoLiq	0.5
38.2	63.3	0.8	110.0	21.3	0.5
38.2	72.4	0.8	110.0	19.1	0.5

38.3	81.8	0.8	110.0	16.9	0.5
38.3	92.1	0.8	110.0	15.1	0.5
38.4	100.7	0.8	110.0	12.5	0.5
38.5	98.1	0.8	110.0	12.6	0.5
38.6	92.5	0.8	110.0	13.4	0.5
38.7	88.4	0.9	110.0	15.0	0.5
38.7	87.7	1.0	110.0	15.9	0.5
38.8	84.5	1.2	110.0	18.2	0.5
38.9	86.2	1.3	110.0	19.4	0.5
39.0	93.3	1.4	110.0	18.8	0.5
39.1	99.5	1.4	110.0	17.2	0.5
39.2	106.2	1.4	110.0	15.8	0.5
39.3	114.6	1.2	110.0	13.2	0.5
39.3	119.3	1.0	110.0	12.3	0.5
39.4	122.4	1.0	110.0	11.0	0.5
39.5	128.1	1.0	110.0	10.4	0.5
39.6	131.1	1.0	110.0	10.2	0.5
39.7	130.7	1.0	110.0	10.1	0.5
39.8	127.1	1.0	110.0	10.2	0.5
39.9	127.1	1.1	110.0	10.6	0.5
40.0	127.2	1.2	110.0	11.3	0.5
40.0	125.3	1.2	110.0	12.0	0.5
40.1	131.5	1.2	110.0	12.0	0.5
40.1	135.9	1.3	110.0	11.1	0.5
40.2	138.9	1.3	110.0	10.7	0.5
40.3	142.6	1.2	110.0	10.4	0.5
40.4	151.3	1.2	110.0	19.3	0.5
40.4	161.2	1.2	110.0	18.8	0.5
40.5	171.3	1.2	110.0	18.0	0.5
40.6	183.3	1.2	110.0	17.1	0.5
40.7	189.8	1.1	110.0	16.1	0.5
40.8	192.7	1.3	110.0	16.5	0.5
41.0	200.7	1.5	110.0	16.9	0.5
41.0	184.2	1.7	110.0	18.2	0.5
41.0	181.9	1.7	110.0	18.2	0.5
41.0	179.6	1.8	110.0	18.2	0.5
41.1	224.9	2.0	110.0	17.4	0.5
41.1	230.3	2.0	110.0	17.4	0.5
41.2	241.2	2.2	110.0	16.7	0.5
41.3	250.3	2.3	110.0	16.7	0.5
41.4	256.6	2.2	110.0	16.1	0.5
41.4	258.7	2.1	110.0	15.8	0.5
41.5	260.6	2.1	110.0	15.5	0.5
41.6	261.6	2.0	110.0	15.5	0.5
41.7	256.9	1.9	110.0	15.1	0.5
41.7	249.2	1.6	110.0	15.0	0.5
41.8	243.7	1.5	110.0	14.8	0.5
41.9	243.6	1.5	110.0	14.8	0.5
42.0	245.0	1.5	110.0	14.8	0.5
42.1	256.2	1.5	110.0	14.4	0.5

42.1	264.1	1.5	110.0	14.1	0.5
42.2	271.9	1.5	110.0	13.7	0.5
42.3	273.6	1.5	110.0	13.6	0.5
42.4	263.9	1.5	110.0	14.0	0.5
42.5	249.9	1.6	110.0	14.4	0.5
42.6	239.0	1.7	110.0	15.5	0.5
42.6	235.9	1.8	110.0	15.8	0.5
42.7	219.7	1.8	110.0	16.5	0.5
42.8	211.7	1.8	110.0	17.2	0.5
42.9	198.4	1.6	110.0	17.3	0.5
43.0	184.4	1.4	110.0	17.6	0.5
43.1	162.8	1.4	110.0	18.6	0.5
43.2	152.4	1.4	110.0	19.8	0.5
43.3	145.4	1.5	110.0	21.3	0.5
43.3	144.8	1.9	110.0	23.3	0.5
43.4	145.0	2.1	110.0	24.0	0.5
43.5	144.2	2.3	110.0	24.6	0.5
43.6	144.7	2.3	110.0	25.0	0.5
43.7	146.3	2.0	110.0	24.1	0.5
43.8	142.3	1.5	110.0	22.3	0.5
43.8	130.4	1.1	110.0	NoLiq	0.5
44.0	109.4	1.1	110.0	NoLiq	0.5
44.0	85.7	1.1	110.0	NoLiq	0.5
44.1	66.9	1.1	110.0	NoLiq	0.5
44.2	55.7	1.3	110.0	NoLiq	0.5
44.3	46.9	1.5	110.0	NoLiq	0.5
44.4	43.5	1.7	110.0	NoLiq	0.5
44.5	43.3	1.9	110.0	NoLiq	0.5
44.6	38.9	1.7	110.0	NoLiq	0.5
44.7	33.5	1.5	110.0	NoLiq	0.5
44.8	38.9	0.8	110.0	NoLiq	0.5
44.9	31.1	0.5	110.0	NoLiq	0.5
45.0	38.9	0.7	110.0	NoLiq	0.5
45.1	40.0	0.9	110.0	NoLiq	0.5
45.1	51.1	1.0	110.0	NoLiq	0.5
45.2	48.3	1.1	110.0	NoLiq	0.5
45.2	51.6	1.1	110.0	NoLiq	0.5
45.2	39.1	1.1	110.0	NoLiq	0.5
45.3	54.9	1.2	110.0	NoLiq	0.5
45.3	56.5	1.3	110.0	NoLiq	0.5
45.4	57.4	1.4	110.0	NoLiq	0.5
45.5	57.7	1.4	110.0	NoLiq	0.5
45.5	57.4	1.5	110.0	NoLiq	0.5
45.6	56.5	1.6	110.0	NoLiq	0.5
45.7	53.0	1.7	110.0	NoLiq	0.5
45.8	47.9	1.8	110.0	NoLiq	0.5
45.8	43.0	1.9	110.0	NoLiq	0.5
45.9	40.4	1.9	110.0	NoLiq	0.5
46.0	43.5	1.7	110.0	NoLiq	0.5
46.1	54.1	1.5	110.0	NoLiq	0.5

46.2	62.3	1.3	110.0	NoLiq	0.5
46.3	65.2	1.3	110.0	NoLiq	0.5
46.4	60.8	1.4	110.0	NoLiq	0.5
46.5	56.1	1.5	110.0	NoLiq	0.5
46.6	53.7	1.5	110.0	NoLiq	0.5
46.7	57.7	1.4	110.0	NoLiq	0.5
46.8	75.3	1.4	110.0	NoLiq	0.5
46.8	83.9	1.3	110.0	NoLiq	0.5
46.9	68.1	1.1	110.0	NoLiq	0.5
47.1	44.8	1.3	110.0	NoLiq	0.5
47.1	30.1	1.3	110.0	NoLiq	0.5
47.2	31.2	1.3	110.0	NoLiq	0.5
47.2	32.2	1.3	110.0	NoLiq	0.5
47.3	29.6	1.3	110.0	NoLiq	0.5
47.3	25.1	1.4	110.0	NoLiq	0.5
47.4	29.9	1.5	110.0	NoLiq	0.5
47.5	27.2	1.5	110.0	NoLiq	0.5
47.5	30.1	1.5	110.0	NoLiq	0.5
47.6	34.4	1.5	110.0	NoLiq	0.5
47.7	39.7	1.6	110.0	NoLiq	0.5
47.8	43.2	1.8	110.0	NoLiq	0.5
47.8	41.6	1.7	110.0	NoLiq	0.5
48.0	36.0	1.6	110.0	NoLiq	0.5
48.1	31.8	1.5	110.0	NoLiq	0.5
48.1	29.0	1.4	110.0	NoLiq	0.5
48.2	26.7	1.2	110.0	NoLiq	0.5
48.3	26.0	1.2	110.0	NoLiq	0.5
48.4	26.1	1.1	110.0	NoLiq	0.5
48.5	30.2	1.1	110.0	NoLiq	0.5
48.6	36.2	1.1	110.0	NoLiq	0.5
48.7	43.3	1.0	110.0	NoLiq	0.5
48.8	42.7	1.0	110.0	NoLiq	0.5
48.9	32.8	1.0	110.0	NoLiq	0.5
49.0	25.0	0.9	110.0	NoLiq	0.5
49.1	20.7	0.9	110.0	NoLiq	0.5
49.2	18.4	0.9	110.0	NoLiq	0.5
49.3	22.6	0.9	110.0	NoLiq	0.5
49.4	31.9	1.1	110.0	NoLiq	0.5
49.5	34.5	1.2	110.0	NoLiq	0.5
49.6	40.0	0.5	110.0	NoLiq	0.5
49.8	49.6	0.0	110.0	NoLiq	0.5
49.9	49.4	0.0	110.0	NoLiq	0.5
50.0	39.5	0.0	110.0	NoLiq	0.5
50.0	32.5	0.0	110.0	NoLiq	0.5
50.0	36.6	0.0	110.0	NoLiq	0.5
50.1	46.1	0.0	110.0	NoLiq	0.5
50.1	40.9	0.0	110.0	NoLiq	0.5

Output Results:

Settlement of saturated sands=2.45 in.
Settlement of dry sands=1.52 in.
Total settlement of saturated and dry sands=3.97 in.
Differential Settlement=1.986 to 2.621 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	2.45	1.52	3.97
0.05	2.00	0.83	5.00	2.45	1.52	3.97
0.10	2.00	0.83	5.00	2.45	1.52	3.97
0.15	2.00	0.83	5.00	2.45	1.52	3.97
0.20	2.00	0.83	5.00	2.45	1.52	3.97
0.25	2.00	0.83	5.00	2.45	1.52	3.97
0.30	2.00	0.83	5.00	2.45	1.52	3.97
0.35	2.00	0.83	5.00	2.45	1.52	3.97
0.40	2.00	0.83	5.00	2.45	1.52	3.97
0.45	2.00	0.83	5.00	2.45	1.52	3.97
0.50	2.00	0.83	5.00	2.45	1.52	3.97
0.55	2.00	0.83	5.00	2.45	1.52	3.97
0.60	2.00	0.83	5.00	2.45	1.52	3.97
0.65	2.00	0.83	5.00	2.45	1.52	3.97
0.70	2.00	0.83	5.00	2.45	1.52	3.97
0.75	2.00	0.83	5.00	2.45	1.52	3.97
0.80	2.00	0.83	5.00	2.45	1.52	3.97
0.85	2.00	0.83	5.00	2.45	1.52	3.97
0.90	2.00	0.83	5.00	2.45	1.52	3.97
0.95	2.00	0.83	5.00	2.45	1.52	3.97
1.00	2.00	0.83	5.00	2.45	1.52	3.97
1.05	2.00	0.83	5.00	2.45	1.52	3.97
1.10	2.00	0.83	5.00	2.45	1.52	3.97
1.15	2.00	0.83	5.00	2.45	1.52	3.97
1.20	2.00	0.83	5.00	2.45	1.52	3.97
1.25	2.00	0.83	5.00	2.45	1.52	3.97
1.30	2.00	0.83	5.00	2.45	1.52	3.97
1.35	2.00	0.83	5.00	2.45	1.52	3.97
1.40	2.00	0.83	5.00	2.45	1.52	3.97
1.45	2.00	0.83	5.00	2.45	1.52	3.97
1.50	2.00	0.83	5.00	2.45	1.52	3.97
1.55	2.00	0.83	5.00	2.45	1.52	3.97
1.60	2.00	0.83	5.00	2.45	1.52	3.97
1.65	2.00	0.82	5.00	2.45	1.52	3.97
1.70	2.00	0.82	5.00	2.45	1.52	3.97
1.75	2.00	0.82	5.00	2.45	1.52	3.97
1.80	2.00	0.82	5.00	2.45	1.52	3.97
1.85	2.00	0.82	5.00	2.45	1.52	3.97
1.90	2.00	0.82	5.00	2.45	1.52	3.97
1.95	2.00	0.82	5.00	2.45	1.52	3.97
2.00	2.00	0.82	5.00	2.45	1.52	3.97
2.05	2.00	0.82	5.00	2.45	1.52	3.97

2.10	2.00	0.82	5.00	2.45	1.52	3.97
2.15	2.00	0.82	5.00	2.45	1.52	3.97
2.20	2.00	0.82	5.00	2.45	1.52	3.97
2.25	2.00	0.82	5.00	2.45	1.52	3.97
2.30	2.00	0.82	5.00	2.45	1.52	3.97
2.35	2.00	0.82	5.00	2.45	1.52	3.97
2.40	2.00	0.82	5.00	2.45	1.52	3.97
2.45	2.00	0.82	5.00	2.45	1.52	3.97
2.50	2.00	0.82	5.00	2.45	1.52	3.97
2.55	2.00	0.82	5.00	2.45	1.52	3.97
2.60	2.00	0.82	5.00	2.45	1.52	3.97
2.65	2.00	0.82	5.00	2.45	1.52	3.97
2.70	2.00	0.82	5.00	2.45	1.52	3.97
2.75	2.00	0.82	5.00	2.45	1.52	3.97
2.80	2.00	0.82	5.00	2.45	1.52	3.97
2.85	2.00	0.82	5.00	2.45	1.52	3.97
2.90	2.00	0.82	5.00	2.45	1.52	3.97
2.95	2.00	0.82	5.00	2.45	1.52	3.97
3.00	2.00	0.82	5.00	2.45	1.52	3.97
3.05	2.00	0.82	5.00	2.45	1.52	3.97
3.10	2.00	0.82	5.00	2.45	1.52	3.97
3.15	2.00	0.82	5.00	2.45	1.52	3.97
3.20	2.00	0.82	5.00	2.45	1.52	3.97
3.25	2.00	0.82	5.00	2.45	1.52	3.97
3.30	2.00	0.82	5.00	2.45	1.52	3.97
3.35	2.00	0.82	5.00	2.45	1.52	3.97
3.40	2.00	0.82	5.00	2.45	1.52	3.97
3.45	2.00	0.82	5.00	2.45	1.52	3.97
3.50	2.00	0.82	5.00	2.45	1.52	3.97
3.55	2.00	0.82	5.00	2.45	1.52	3.97
3.60	2.00	0.82	5.00	2.45	1.52	3.97
3.65	2.00	0.82	5.00	2.45	1.52	3.97
3.70	2.00	0.82	5.00	2.45	1.52	3.97
3.75	2.00	0.82	5.00	2.45	1.52	3.97
3.80	2.00	0.82	5.00	2.45	1.52	3.97
3.85	2.00	0.82	5.00	2.45	1.52	3.97
3.90	2.00	0.82	5.00	2.45	1.52	3.97
3.95	2.00	0.82	5.00	2.45	1.52	3.97
4.00	2.00	0.82	5.00	2.45	1.52	3.97
4.05	2.00	0.82	5.00	2.45	1.52	3.97
4.10	2.00	0.82	5.00	2.45	1.52	3.97
4.15	2.00	0.82	5.00	2.45	1.52	3.97
4.20	2.00	0.82	5.00	2.45	1.52	3.97
4.25	2.00	0.82	5.00	2.45	1.52	3.97
4.30	2.00	0.82	5.00	2.45	1.52	3.97
4.35	2.00	0.82	5.00	2.45	1.52	3.97
4.40	2.00	0.82	5.00	2.45	1.52	3.97
4.45	2.00	0.82	5.00	2.45	1.52	3.97
4.50	2.00	0.82	5.00	2.45	1.52	3.97
4.55	2.00	0.82	5.00	2.45	1.52	3.97

4.60	2.00	0.82	5.00	2.45	1.52	3.97
4.65	2.00	0.82	5.00	2.45	1.52	3.97
4.70	2.00	0.82	5.00	2.45	1.52	3.97
4.75	2.00	0.82	5.00	2.45	1.52	3.97
4.80	2.00	0.82	5.00	2.45	1.52	3.97
4.85	2.00	0.82	5.00	2.45	1.52	3.97
4.90	2.00	0.82	5.00	2.45	1.52	3.97
4.95	2.00	0.82	5.00	2.45	1.52	3.97
5.00	2.00	0.82	5.00	2.45	1.52	3.97
5.05	2.00	0.82	5.00	2.45	1.52	3.97
5.10	2.00	0.82	5.00	2.45	1.52	3.97
5.15	2.00	0.82	5.00	2.45	1.52	3.97
5.20	2.00	0.82	5.00	2.45	1.52	3.97
5.25	2.00	0.82	5.00	2.45	1.52	3.97
5.30	2.00	0.82	5.00	2.45	1.52	3.97
5.35	2.00	0.82	5.00	2.45	1.52	3.97
5.40	2.00	0.82	5.00	2.45	1.52	3.97
5.45	2.00	0.82	5.00	2.45	1.52	3.97
5.50	2.00	0.82	5.00	2.45	1.52	3.97
5.55	2.00	0.82	5.00	2.45	1.52	3.97
5.60	2.00	0.82	5.00	2.45	1.52	3.97
5.65	2.00	0.82	5.00	2.45	1.52	3.97
5.70	2.00	0.82	5.00	2.45	1.52	3.97
5.75	2.00	0.82	5.00	2.45	1.52	3.97
5.80	2.00	0.82	5.00	2.45	1.52	3.97
5.85	2.00	0.82	5.00	2.45	1.52	3.97
5.90	2.00	0.82	5.00	2.45	1.52	3.97
5.95	2.00	0.82	5.00	2.45	1.52	3.97
6.00	2.00	0.82	5.00	2.45	1.52	3.97
6.05	2.00	0.82	5.00	2.45	1.52	3.97
6.10	2.00	0.82	5.00	2.45	1.52	3.97
6.15	2.00	0.82	5.00	2.45	1.52	3.97
6.20	2.00	0.82	5.00	2.45	1.52	3.97
6.25	2.00	0.82	5.00	2.45	1.52	3.97
6.30	2.00	0.82	5.00	2.45	1.52	3.97
6.35	2.00	0.82	5.00	2.45	1.52	3.97
6.40	2.00	0.82	5.00	2.45	1.52	3.97
6.45	2.00	0.82	5.00	2.45	1.52	3.97
6.50	2.00	0.82	5.00	2.45	1.52	3.97
6.55	2.00	0.82	5.00	2.45	1.52	3.97
6.60	2.00	0.82	5.00	2.45	1.52	3.97
6.65	2.00	0.82	5.00	2.45	1.52	3.97
6.70	2.00	0.82	5.00	2.45	1.52	3.97
6.75	2.00	0.82	5.00	2.45	1.52	3.97
6.80	2.00	0.81	5.00	2.45	1.52	3.97
6.85	2.00	0.81	5.00	2.45	1.52	3.97
6.90	2.00	0.81	5.00	2.45	1.52	3.97
6.95	2.00	0.81	5.00	2.45	1.52	3.97
7.00	2.00	0.81	5.00	2.45	1.52	3.97
7.05	2.00	0.81	5.00	2.45	1.52	3.97

7.10	2.00	0.81	5.00	2.45	1.52	3.97
7.15	2.00	0.81	5.00	2.45	1.52	3.97
7.20	2.00	0.81	5.00	2.45	1.52	3.97
7.25	2.00	0.81	5.00	2.45	1.52	3.97
7.30	2.00	0.81	5.00	2.45	1.52	3.97
7.35	2.00	0.81	5.00	2.45	1.52	3.97
7.40	2.00	0.81	5.00	2.45	1.52	3.97
7.45	2.00	0.81	5.00	2.45	1.52	3.97
7.50	2.00	0.81	5.00	2.45	1.52	3.97
7.55	2.00	0.81	5.00	2.45	1.52	3.97
7.60	2.00	0.81	5.00	2.45	1.52	3.97
7.65	2.00	0.81	5.00	2.45	1.52	3.97
7.70	2.00	0.81	5.00	2.45	1.52	3.97
7.75	2.00	0.81	5.00	2.45	1.52	3.97
7.80	2.00	0.81	5.00	2.45	1.52	3.97
7.85	2.00	0.81	5.00	2.45	1.52	3.97
7.90	2.00	0.81	5.00	2.45	1.52	3.97
7.95	2.00	0.81	5.00	2.45	1.52	3.97
8.00	2.00	0.81	5.00	2.45	1.52	3.97
8.05	2.00	0.81	5.00	2.45	1.52	3.97
8.10	2.00	0.81	5.00	2.45	1.52	3.97
8.15	2.00	0.81	5.00	2.45	1.52	3.97
8.20	2.00	0.81	5.00	2.45	1.52	3.97
8.25	2.00	0.81	5.00	2.45	1.52	3.97
8.30	2.00	0.81	5.00	2.45	1.52	3.97
8.35	2.00	0.81	5.00	2.45	1.52	3.97
8.40	2.00	0.81	5.00	2.45	1.52	3.97
8.45	2.00	0.81	5.00	2.45	1.52	3.97
8.50	2.00	0.81	5.00	2.45	1.52	3.97
8.55	2.00	0.81	5.00	2.45	1.52	3.97
8.60	2.00	0.81	5.00	2.45	1.52	3.97
8.65	2.00	0.81	5.00	2.45	1.52	3.97
8.70	2.00	0.81	5.00	2.45	1.52	3.97
8.75	2.00	0.81	5.00	2.45	1.52	3.97
8.80	2.00	0.81	5.00	2.45	1.52	3.97
8.85	2.00	0.81	5.00	2.45	1.52	3.97
8.90	2.00	0.81	5.00	2.45	1.52	3.97
8.95	2.00	0.81	5.00	2.45	1.52	3.97
9.00	2.00	0.81	5.00	2.45	1.52	3.97
9.05	2.00	0.81	5.00	2.45	1.52	3.97
9.10	2.00	0.81	5.00	2.45	1.52	3.97
9.15	2.00	0.81	5.00	2.45	1.52	3.97
9.20	2.00	0.81	5.00	2.45	1.52	3.97
9.25	2.00	0.81	5.00	2.45	1.52	3.97
9.30	2.00	0.81	5.00	2.45	1.52	3.97
9.35	2.00	0.81	5.00	2.45	1.52	3.97
9.40	2.00	0.81	5.00	2.45	1.52	3.97
9.45	2.00	0.81	5.00	2.45	1.52	3.97
9.50	2.00	0.81	5.00	2.45	1.52	3.97
9.55	2.00	0.81	5.00	2.45	1.52	3.97

9.60	2.00	0.81	5.00	2.45	1.52	3.97
9.65	2.00	0.81	5.00	2.45	1.52	3.97
9.70	2.00	0.81	5.00	2.45	1.52	3.97
9.75	2.00	0.81	5.00	2.45	1.52	3.97
9.80	2.00	0.81	5.00	2.45	1.52	3.97
9.85	2.00	0.81	5.00	2.45	1.52	3.97
9.90	2.00	0.81	5.00	2.45	1.52	3.97
9.95	2.00	0.81	5.00	2.45	1.52	3.97
10.00	2.00	0.81	5.00	2.45	1.52	3.97
10.05	2.00	0.81	5.00	2.45	1.52	3.97
10.10	2.00	0.81	5.00	2.45	1.52	3.97
10.15	2.00	0.81	5.00	2.45	1.52	3.97
10.20	2.00	0.81	5.00	2.45	1.52	3.97
10.25	2.00	0.81	5.00	2.45	1.52	3.97
10.30	2.00	0.81	5.00	2.45	1.52	3.97
10.35	2.00	0.81	5.00	2.45	1.52	3.97
10.40	2.00	0.81	5.00	2.45	1.52	3.97
10.45	2.00	0.81	5.00	2.45	1.52	3.97
10.50	2.00	0.81	5.00	2.45	1.52	3.97
10.55	2.00	0.81	5.00	2.45	1.52	3.97
10.60	2.00	0.81	5.00	2.45	1.52	3.97
10.65	2.00	0.81	5.00	2.45	1.52	3.97
10.70	2.00	0.81	5.00	2.45	1.52	3.97
10.75	2.00	0.81	5.00	2.45	1.52	3.97
10.80	2.00	0.81	5.00	2.45	1.52	3.97
10.85	2.00	0.81	5.00	2.45	1.52	3.97
10.90	2.00	0.81	5.00	2.45	1.52	3.97
10.95	2.00	0.81	5.00	2.45	1.52	3.97
11.00	2.00	0.81	5.00	2.45	1.52	3.97
11.05	2.00	0.81	5.00	2.45	1.52	3.97
11.10	2.00	0.81	5.00	2.45	1.52	3.97
11.15	2.00	0.81	5.00	2.45	1.52	3.97
11.20	2.00	0.81	5.00	2.45	1.52	3.97
11.25	2.00	0.81	5.00	2.45	1.52	3.97
11.30	2.00	0.81	5.00	2.45	1.52	3.97
11.35	2.00	0.81	5.00	2.45	1.52	3.97
11.40	2.00	0.81	5.00	2.45	1.52	3.97
11.45	2.00	0.81	5.00	2.45	1.52	3.97
11.50	2.00	0.81	5.00	2.45	1.52	3.97
11.55	2.00	0.81	5.00	2.45	1.52	3.97
11.60	2.00	0.81	5.00	2.45	1.52	3.97
11.65	2.00	0.81	5.00	2.45	1.52	3.97
11.70	2.00	0.81	5.00	2.45	1.52	3.97
11.75	2.00	0.81	5.00	2.45	1.52	3.97
11.80	2.00	0.81	5.00	2.45	1.52	3.97
11.85	2.00	0.81	5.00	2.45	1.52	3.97
11.90	2.00	0.81	5.00	2.45	1.52	3.97
11.95	2.00	0.81	5.00	2.45	1.52	3.97
12.00	2.00	0.80	5.00	2.45	1.52	3.97
12.05	2.00	0.80	5.00	2.45	1.52	3.97

12.10	2.00	0.80	5.00	2.45	1.52	3.97
12.15	2.00	0.80	5.00	2.45	1.52	3.97
12.20	2.00	0.80	5.00	2.45	1.52	3.97
12.25	2.00	0.80	5.00	2.45	1.52	3.97
12.30	2.00	0.80	5.00	2.45	1.52	3.97
12.35	2.00	0.80	5.00	2.45	1.52	3.97
12.40	2.00	0.80	5.00	2.45	1.52	3.97
12.45	2.00	0.80	5.00	2.45	1.52	3.97
12.50	2.00	0.80	5.00	2.45	1.52	3.97
12.55	2.00	0.80	5.00	2.45	1.52	3.97
12.60	2.00	0.80	5.00	2.45	1.52	3.97
12.65	2.00	0.80	5.00	2.45	1.52	3.97
12.70	2.00	0.80	5.00	2.45	1.52	3.97
12.75	2.00	0.80	5.00	2.45	1.52	3.97
12.80	2.00	0.80	5.00	2.45	1.52	3.97
12.85	2.00	0.80	5.00	2.45	1.52	3.97
12.90	2.00	0.80	5.00	2.45	1.52	3.97
12.95	2.00	0.80	5.00	2.45	1.52	3.97
13.00	2.00	0.80	5.00	2.45	1.52	3.97
13.05	2.00	0.80	5.00	2.45	1.52	3.97
13.10	2.00	0.80	5.00	2.45	1.52	3.97
13.15	2.00	0.80	5.00	2.45	1.52	3.97
13.20	2.00	0.80	5.00	2.45	1.52	3.97
13.25	2.00	0.80	5.00	2.45	1.52	3.97
13.30	2.00	0.80	5.00	2.45	1.52	3.97
13.35	2.00	0.80	5.00	2.45	1.52	3.97
13.40	2.00	0.80	5.00	2.45	1.52	3.97
13.45	2.00	0.80	5.00	2.45	1.52	3.97
13.50	2.00	0.80	5.00	2.45	1.52	3.97
13.55	2.00	0.80	5.00	2.45	1.52	3.97
13.60	2.00	0.80	5.00	2.45	1.52	3.97
13.65	2.00	0.80	5.00	2.45	1.52	3.97
13.70	2.00	0.80	5.00	2.45	1.52	3.97
13.75	2.00	0.80	5.00	2.45	1.52	3.97
13.80	2.00	0.80	5.00	2.45	1.52	3.97
13.85	2.00	0.80	5.00	2.45	1.52	3.97
13.90	2.00	0.80	5.00	2.45	1.52	3.97
13.95	2.00	0.80	5.00	2.45	1.52	3.97
14.00	2.00	0.80	5.00	2.45	1.52	3.97
14.05	2.00	0.80	5.00	2.45	1.52	3.97
14.10	2.00	0.80	5.00	2.45	1.52	3.97
14.15	2.00	0.80	5.00	2.45	1.52	3.97
14.20	2.00	0.80	5.00	2.45	1.52	3.97
14.25	2.00	0.80	5.00	2.45	1.52	3.97
14.30	2.00	0.80	5.00	2.45	1.52	3.97
14.35	2.00	0.80	5.00	2.45	1.52	3.97
14.40	2.00	0.80	5.00	2.45	1.52	3.97
14.45	2.00	0.80	5.00	2.45	1.52	3.97
14.50	2.00	0.80	5.00	2.45	1.52	3.97
14.55	2.00	0.80	5.00	2.45	1.52	3.97

14.60	2.00	0.80	5.00	2.45	1.52	3.97
14.65	2.00	0.80	5.00	2.45	1.52	3.97
14.70	2.00	0.80	5.00	2.45	1.52	3.97
14.75	2.00	0.80	5.00	2.45	1.52	3.97
14.80	2.00	0.80	5.00	2.45	1.52	3.97
14.85	2.00	0.80	5.00	2.45	1.52	3.97
14.90	2.00	0.80	5.00	2.45	1.52	3.97
14.95	2.00	0.80	5.00	2.45	1.52	3.97
15.00	2.00	0.80	5.00	2.45	1.52	3.97
15.05	2.00	0.80	5.00	2.45	1.52	3.97
15.10	2.00	0.80	5.00	2.45	1.52	3.97
15.15	2.00	0.80	5.00	2.45	1.52	3.97
15.20	2.00	0.80	5.00	2.45	1.52	3.97
15.25	2.00	0.80	5.00	2.45	1.52	3.97
15.30	2.00	0.80	5.00	2.45	1.52	3.97
15.35	2.00	0.80	5.00	2.45	1.52	3.97
15.40	2.00	0.80	5.00	2.45	1.52	3.97
15.45	2.00	0.80	5.00	2.45	1.52	3.97
15.50	2.00	0.80	5.00	2.45	1.52	3.97
15.55	2.00	0.80	5.00	2.45	1.52	3.97
15.60	2.00	0.80	5.00	2.45	1.52	3.97
15.65	2.00	0.80	5.00	2.45	1.52	3.97
15.70	2.00	0.80	5.00	2.45	1.52	3.97
15.75	2.00	0.80	5.00	2.45	1.52	3.97
15.80	2.00	0.80	5.00	2.45	1.52	3.97
15.85	2.00	0.80	5.00	2.45	1.52	3.97
15.90	2.00	0.80	5.00	2.45	1.52	3.97
15.95	2.00	0.80	5.00	2.45	1.52	3.97
16.00	2.00	0.80	5.00	2.45	1.52	3.97
16.05	2.00	0.80	5.00	2.45	1.52	3.97
16.10	2.00	0.80	5.00	2.45	1.52	3.97
16.15	2.00	0.80	5.00	2.45	1.52	3.97
16.20	2.00	0.80	5.00	2.45	1.52	3.97
16.25	2.00	0.80	5.00	2.45	1.52	3.97
16.30	2.00	0.80	5.00	2.45	1.52	3.97
16.35	2.00	0.80	5.00	2.45	1.52	3.97
16.40	2.00	0.80	5.00	2.45	1.52	3.97
16.45	2.00	0.80	5.00	2.45	1.52	3.97
16.50	2.00	0.80	5.00	2.45	1.52	3.97
16.55	2.00	0.80	5.00	2.45	1.52	3.97
16.60	2.00	0.80	5.00	2.45	1.52	3.97
16.65	2.00	0.80	5.00	2.45	1.52	3.97
16.70	2.00	0.80	5.00	2.45	1.52	3.97
16.75	2.00	0.80	5.00	2.45	1.52	3.97
16.80	2.00	0.80	5.00	2.45	1.52	3.97
16.85	2.00	0.80	5.00	2.45	1.52	3.97
16.90	2.00	0.80	5.00	2.45	1.52	3.97
16.95	2.00	0.80	5.00	2.45	1.52	3.97
17.00	2.00	0.80	5.00	2.45	1.52	3.97
17.05	2.00	0.80	5.00	2.45	1.52	3.97

17.10	2.00	0.80	5.00	2.45	1.52	3.97
17.15	2.00	0.79	5.00	2.45	1.52	3.97
17.20	2.00	0.79	5.00	2.45	1.52	3.97
17.25	2.00	0.79	5.00	2.45	1.52	3.97
17.30	2.00	0.79	5.00	2.45	1.52	3.97
17.35	2.00	0.79	5.00	2.45	1.52	3.97
17.40	2.00	0.79	5.00	2.45	1.52	3.97
17.45	2.00	0.79	5.00	2.45	1.52	3.97
17.50	2.00	0.79	5.00	2.45	1.52	3.97
17.55	2.00	0.79	5.00	2.45	1.52	3.97
17.60	2.00	0.79	5.00	2.45	1.52	3.97
17.65	2.00	0.79	5.00	2.45	1.52	3.97
17.70	2.00	0.79	5.00	2.45	1.52	3.97
17.75	2.00	0.79	5.00	2.45	1.52	3.97
17.80	2.00	0.79	5.00	2.45	1.52	3.97
17.85	2.00	0.79	5.00	2.45	1.52	3.97
17.90	2.00	0.79	5.00	2.45	1.52	3.97
17.95	2.00	0.79	5.00	2.45	1.52	3.97
18.00	2.00	0.79	5.00	2.45	1.52	3.97
18.05	2.00	0.79	5.00	2.45	1.52	3.97
18.10	2.00	0.79	5.00	2.45	1.52	3.97
18.15	2.00	0.79	5.00	2.45	1.52	3.97
18.20	2.00	0.79	5.00	2.45	1.52	3.97
18.25	2.00	0.79	5.00	2.45	1.52	3.97
18.30	2.00	0.79	5.00	2.45	1.52	3.97
18.35	2.00	0.79	5.00	2.45	1.52	3.97
18.40	2.00	0.79	5.00	2.45	1.52	3.97
18.45	2.00	0.79	5.00	2.45	1.52	3.97
18.50	2.00	0.79	5.00	2.45	1.52	3.97
18.55	2.00	0.79	5.00	2.45	1.52	3.97
18.60	2.00	0.79	5.00	2.45	1.52	3.97
18.65	2.00	0.79	5.00	2.45	1.52	3.97
18.70	2.00	0.79	5.00	2.45	1.52	3.97
18.75	2.00	0.79	5.00	2.45	1.52	3.97
18.80	2.00	0.79	5.00	2.45	1.52	3.97
18.85	2.00	0.79	5.00	2.45	1.52	3.97
18.90	2.00	0.79	5.00	2.45	1.52	3.97
18.95	2.00	0.79	5.00	2.45	1.52	3.97
19.00	2.00	0.79	5.00	2.45	1.52	3.97
19.05	2.00	0.79	5.00	2.45	1.52	3.97
19.10	2.00	0.79	5.00	2.45	1.52	3.97
19.15	2.00	0.79	5.00	2.45	1.52	3.97
19.20	2.00	0.79	5.00	2.45	1.52	3.97
19.25	2.00	0.79	5.00	2.45	1.52	3.97
19.30	2.00	0.79	5.00	2.45	1.52	3.97
19.35	2.00	0.79	5.00	2.45	1.52	3.97
19.40	2.00	0.79	5.00	2.45	1.52	3.97
19.45	2.00	0.79	5.00	2.45	1.52	3.97
19.50	2.00	0.79	5.00	2.45	1.52	3.97
19.55	2.00	0.79	5.00	2.45	1.52	3.97

19.60	2.00	0.79	5.00	2.45	1.52	3.97
19.65	2.00	0.79	5.00	2.45	1.52	3.97
19.70	2.00	0.79	5.00	2.45	1.52	3.97
19.75	2.00	0.79	5.00	2.45	1.52	3.97
19.80	2.00	0.79	5.00	2.45	1.52	3.97
19.85	2.00	0.79	5.00	2.45	1.52	3.97
19.90	2.00	0.79	5.00	2.45	1.52	3.97
19.95	2.00	0.79	5.00	2.45	1.52	3.97
20.00	2.00	0.79	5.00	2.45	1.52	3.97
20.05	2.00	0.79	5.00	2.45	1.52	3.97
20.10	2.00	0.79	5.00	2.45	1.52	3.97
20.15	2.00	0.79	5.00	2.45	1.52	3.97
20.20	2.00	0.79	5.00	2.45	1.52	3.97
20.25	2.00	0.79	5.00	2.45	1.52	3.97
20.30	2.00	0.79	5.00	2.45	1.52	3.97
20.35	2.00	0.79	5.00	2.45	1.52	3.97
20.40	2.00	0.79	5.00	2.45	1.52	3.97
20.45	2.00	0.79	5.00	2.45	1.52	3.97
20.50	2.00	0.79	5.00	2.45	1.52	3.97
20.55	0.09	0.79	5.00	2.45	1.52	3.97
20.60	0.09	0.79	5.00	2.45	1.50	3.95
20.65	0.09	0.79	5.00	2.45	1.48	3.93
20.70	0.09	0.79	5.00	2.45	1.45	3.90
20.75	0.09	0.79	5.00	2.45	1.43	3.88
20.80	0.09	0.79	5.00	2.45	1.40	3.85
20.85	0.09	0.79	5.00	2.45	1.38	3.82
20.90	0.09	0.79	5.00	2.45	1.35	3.80
20.95	0.09	0.79	5.00	2.45	1.32	3.77
21.00	0.09	0.79	5.00	2.45	1.30	3.75
21.05	0.10	0.79	5.00	2.45	1.28	3.73
21.10	0.10	0.79	5.00	2.45	1.26	3.71
21.15	0.11	0.79	5.00	2.45	1.24	3.69
21.20	0.11	0.79	5.00	2.45	1.22	3.67
21.25	0.12	0.79	5.00	2.45	1.20	3.65
21.30	0.12	0.79	5.00	2.45	1.19	3.64
21.35	0.12	0.79	5.00	2.45	1.17	3.62
21.40	0.12	0.79	5.00	2.45	1.16	3.61
21.45	0.12	0.79	5.00	2.45	1.14	3.59
21.50	0.12	0.79	5.00	2.45	1.13	3.58
21.55	0.12	0.79	5.00	2.45	1.11	3.56
21.60	0.12	0.79	5.00	2.45	1.10	3.54
21.65	0.12	0.79	5.00	2.45	1.08	3.53
21.70	0.12	0.79	5.00	2.45	1.06	3.51
21.75	0.12	0.79	5.00	2.45	1.05	3.49
21.80	0.13	0.79	5.00	2.45	1.03	3.48
21.85	0.13	0.79	5.00	2.45	1.02	3.46
21.90	0.14	0.79	5.00	2.45	1.00	3.45
21.95	0.15	0.79	5.00	2.45	0.99	3.43
22.00	0.16	0.79	5.00	2.45	0.97	3.42
22.05	0.16	0.79	5.00	2.45	0.96	3.41

22.10	0.17	0.79	5.00	2.45	0.94	3.39
22.15	0.17	0.79	5.00	2.45	0.93	3.38
22.20	0.17	0.79	5.00	2.45	0.92	3.37
22.25	0.18	0.79	5.00	2.45	0.90	3.35
22.30	0.18	0.79	5.00	2.45	0.89	3.34
22.35	0.18	0.78	5.00	2.45	0.88	3.33
22.40	0.18	0.78	5.00	2.45	0.87	3.31
22.45	0.18	0.78	5.00	2.45	0.85	3.30
22.50	0.17	0.78	5.00	2.45	0.84	3.29
22.55	0.16	0.78	5.00	2.45	0.83	3.27
22.60	0.15	0.78	5.00	2.45	0.81	3.26
22.65	0.15	0.78	5.00	2.45	0.80	3.25
22.70	0.14	0.78	5.00	2.45	0.78	3.23
22.75	0.13	0.78	5.00	2.45	0.77	3.22
22.80	0.12	0.78	5.00	2.45	0.75	3.20
22.85	0.11	0.78	5.00	2.45	0.73	3.18
22.90	0.11	0.78	5.00	2.45	0.71	3.16
22.95	0.11	0.78	5.00	2.45	0.69	3.14
23.00	0.11	0.78	5.00	2.45	0.67	3.12
23.05	0.11	0.78	5.00	2.45	0.65	3.10
23.10	0.11	0.78	5.00	2.45	0.63	3.08
23.15	0.12	0.78	5.00	2.45	0.61	3.06
23.20	0.12	0.78	5.00	2.45	0.60	3.04
23.25	0.13	0.78	5.00	2.45	0.58	3.03
23.30	0.13	0.78	5.00	2.45	0.56	3.01
23.35	0.13	0.78	5.00	2.45	0.54	2.99
23.40	0.13	0.78	5.00	2.45	0.53	2.98
23.45	0.13	0.78	5.00	2.45	0.51	2.96
23.50	0.13	0.78	5.00	2.45	0.50	2.94
23.55	0.13	0.78	5.00	2.45	0.48	2.93
23.60	0.13	0.78	5.00	2.45	0.46	2.91
23.65	0.13	0.78	5.00	2.45	0.45	2.89
23.70	0.13	0.78	5.00	2.45	0.43	2.88
23.75	0.13	0.78	5.00	2.45	0.41	2.86
23.80	0.12	0.78	5.00	2.45	0.40	2.85
23.85	0.12	0.78	5.00	2.45	0.38	2.83
23.90	0.12	0.78	5.00	2.45	0.36	2.81
23.95	0.12	0.78	5.00	2.45	0.35	2.80
24.00	0.12	0.78	5.00	2.45	0.33	2.78
24.05	0.12	0.78	5.00	2.45	0.31	2.76
24.10	0.12	0.78	5.00	2.45	0.30	2.74
24.15	0.13	0.78	5.00	2.45	0.28	2.73
24.20	0.13	0.78	5.00	2.45	0.26	2.71
24.25	0.13	0.78	5.00	2.45	0.25	2.69
24.30	0.14	0.78	5.00	2.45	0.23	2.68
24.35	0.14	0.78	5.00	2.45	0.22	2.66
24.40	0.14	0.78	5.00	2.45	0.20	2.65
24.45	0.14	0.78	5.00	2.45	0.19	2.63
24.50	0.13	0.78	5.00	2.45	0.17	2.62
24.55	0.13	0.78	5.00	2.45	0.16	2.60

24.60	0.13	0.78	5.00	2.45	0.14	2.59
24.65	0.13	0.78	5.00	2.45	0.13	2.57
24.70	0.13	0.78	5.00	2.45	0.11	2.56
24.75	0.13	0.78	5.00	2.45	0.09	2.54
24.80	0.12	0.78	5.00	2.45	0.08	2.53
24.85	0.12	0.78	5.00	2.45	0.06	2.51
24.90	0.12	0.78	5.00	2.45	0.05	2.50
24.95	0.12	0.78	5.00	2.45	0.03	2.48
25.00	0.12	0.78	5.00	2.45	0.02	2.46
25.05	0.12	0.78	0.16*	2.45	0.00	2.45
25.10	0.12	0.78	0.16*	2.44	0.00	2.44
25.15	0.12	0.78	0.16*	2.43	0.00	2.43
25.20	0.13	0.78	0.16*	2.42	0.00	2.42
25.25	0.13	0.78	0.16*	2.41	0.00	2.41
25.30	0.13	0.78	0.16*	2.40	0.00	2.40
25.35	0.12	0.78	0.16*	2.39	0.00	2.39
25.40	0.12	0.79	0.16*	2.38	0.00	2.38
25.45	0.12	0.79	0.15*	2.36	0.00	2.36
25.50	0.12	0.79	0.15*	2.35	0.00	2.35
25.55	0.12	0.79	0.15*	2.34	0.00	2.34
25.60	0.12	0.79	0.15*	2.33	0.00	2.33
25.65	0.12	0.79	0.15*	2.32	0.00	2.32
25.70	0.12	0.79	0.15*	2.31	0.00	2.31
25.75	0.12	0.79	0.15*	2.30	0.00	2.30
25.80	0.12	0.79	0.16*	2.29	0.00	2.29
25.85	0.12	0.79	0.16*	2.28	0.00	2.28
25.90	0.13	0.79	0.16*	2.27	0.00	2.27
25.95	0.13	0.79	0.16*	2.26	0.00	2.26
26.00	0.13	0.79	0.16*	2.25	0.00	2.25
26.05	0.12	0.80	0.16*	2.24	0.00	2.24
26.10	0.12	0.80	0.15*	2.23	0.00	2.23
26.15	0.11	0.80	0.14*	2.22	0.00	2.22
26.20	0.11	0.80	0.14*	2.21	0.00	2.21
26.25	0.11	0.80	0.14*	2.19	0.00	2.19
26.30	0.11	0.80	0.14*	2.18	0.00	2.18
26.35	0.11	0.80	0.14*	2.17	0.00	2.17
26.40	0.12	0.80	0.15*	2.16	0.00	2.16
26.45	0.12	0.80	0.15*	2.15	0.00	2.15
26.50	0.13	0.80	0.16*	2.14	0.00	2.14
26.55	0.13	0.80	0.17*	2.13	0.00	2.13
26.60	0.14	0.80	0.17*	2.12	0.00	2.12
26.65	0.14	0.80	0.18*	2.12	0.00	2.12
26.70	0.15	0.80	0.18*	2.11	0.00	2.11
26.75	0.15	0.81	0.19*	2.10	0.00	2.10
26.80	0.16	0.81	0.20*	2.09	0.00	2.09
26.85	0.17	0.81	0.21*	2.08	0.00	2.08
26.90	0.19	0.81	0.23*	2.08	0.00	2.08
26.95	0.20	0.81	0.25*	2.07	0.00	2.07
27.00	0.20	0.81	0.25*	2.06	0.00	2.06
27.05	0.20	0.81	0.24*	2.06	0.00	2.06

27.10	0.18	0.81	0.22*	2.05	0.00	2.05
27.15	0.16	0.81	0.20*	2.05	0.00	2.05
27.20	0.16	0.81	0.19*	2.04	0.00	2.04
27.25	0.15	0.81	0.19*	2.03	0.00	2.03
27.30	0.15	0.81	0.19*	2.02	0.00	2.02
27.35	0.15	0.81	0.19*	2.01	0.00	2.01
27.40	0.16	0.81	0.20*	2.01	0.00	2.01
27.45	0.17	0.82	0.20*	2.00	0.00	2.00
27.50	0.18	0.82	0.22*	1.99	0.00	1.99
27.55	0.19	0.82	0.24*	1.98	0.00	1.98
27.60	0.21	0.82	0.26*	1.97	0.00	1.97
27.65	0.27	0.82	0.34*	1.96	0.00	1.96
27.70	0.35	0.82	0.42*	1.95	0.00	1.95
27.75	0.43	0.82	0.53*	1.95	0.00	1.95
27.80	0.51	0.82	0.63*	1.94	0.00	1.94
27.85	0.59	0.82	0.72*	1.94	0.00	1.94
27.90	0.60	0.82	0.73*	1.94	0.00	1.94
27.95	0.54	0.82	0.66*	1.93	0.00	1.93
28.00	0.48	0.82	0.59*	1.93	0.00	1.93
28.05	0.41	0.82	0.50*	1.92	0.00	1.92
28.10	0.35	0.82	0.42*	1.92	0.00	1.92
28.15	0.29	0.83	0.35*	1.91	0.00	1.91
28.20	0.24	0.83	0.29*	1.90	0.00	1.90
28.25	0.20	0.83	0.24*	1.90	0.00	1.90
28.30	0.17	0.83	0.20*	1.89	0.00	1.89
28.35	0.15	0.83	0.18*	1.88	0.00	1.88
28.40	0.14	0.83	0.16*	1.87	0.00	1.87
28.45	0.13	0.83	0.15*	1.86	0.00	1.86
28.50	0.11	0.83	0.13*	1.85	0.00	1.85
28.55	0.10	0.83	0.12*	1.84	0.00	1.84
28.60	0.10	0.83	0.12*	1.82	0.00	1.82
28.65	0.10	0.83	0.12*	1.81	0.00	1.81
28.70	0.10	0.83	0.12*	1.80	0.00	1.80
28.75	0.10	0.83	0.12*	1.79	0.00	1.79
28.80	0.10	0.83	0.12*	1.77	0.00	1.77
28.85	0.10	0.83	0.12*	1.76	0.00	1.76
28.90	0.10	0.84	0.12*	1.75	0.00	1.75
28.95	0.10	0.84	0.12*	1.74	0.00	1.74
29.00	0.10	0.84	0.12*	1.73	0.00	1.73
29.05	2.00	0.84	5.00	1.72	0.00	1.72
29.10	2.00	0.84	5.00	1.72	0.00	1.72
29.15	2.00	0.84	5.00	1.72	0.00	1.72
29.20	2.00	0.84	5.00	1.72	0.00	1.72
29.25	2.00	0.84	5.00	1.72	0.00	1.72
29.30	2.00	0.84	5.00	1.72	0.00	1.72
29.35	2.00	0.84	5.00	1.72	0.00	1.72
29.40	2.00	0.84	5.00	1.72	0.00	1.72
29.45	2.00	0.84	5.00	1.72	0.00	1.72
29.50	2.00	0.84	5.00	1.72	0.00	1.72
29.55	2.00	0.84	5.00	1.72	0.00	1.72

29.60	2.00	0.84	5.00	1.72	0.00	1.72
29.65	2.00	0.85	5.00	1.72	0.00	1.72
29.70	2.00	0.85	5.00	1.72	0.00	1.72
29.75	2.00	0.85	5.00	1.72	0.00	1.72
29.80	2.00	0.85	5.00	1.72	0.00	1.72
29.85	2.00	0.85	5.00	1.72	0.00	1.72
29.90	2.00	0.85	5.00	1.72	0.00	1.72
29.95	2.00	0.85	5.00	1.72	0.00	1.72
30.00	2.00	0.85	5.00	1.72	0.00	1.72
30.05	2.00	0.85	5.00	1.72	0.00	1.72
30.10	2.00	0.85	5.00	1.72	0.00	1.72
30.15	2.00	0.85	5.00	1.72	0.00	1.72
30.20	2.00	0.85	5.00	1.72	0.00	1.72
30.25	2.00	0.85	5.00	1.72	0.00	1.72
30.30	2.00	0.85	5.00	1.72	0.00	1.72
30.35	2.00	0.85	5.00	1.72	0.00	1.72
30.40	2.00	0.85	5.00	1.72	0.00	1.72
30.45	2.00	0.85	5.00	1.72	0.00	1.72
30.50	2.00	0.85	5.00	1.72	0.00	1.72
30.55	2.00	0.85	5.00	1.72	0.00	1.72
30.60	2.00	0.85	5.00	1.72	0.00	1.72
30.65	2.00	0.85	5.00	1.72	0.00	1.72
30.70	2.00	0.85	5.00	1.72	0.00	1.72
30.75	2.00	0.85	5.00	1.72	0.00	1.72
30.80	2.00	0.86	5.00	1.72	0.00	1.72
30.85	2.00	0.86	5.00	1.72	0.00	1.72
30.90	2.00	0.86	5.00	1.72	0.00	1.72
30.95	2.00	0.86	5.00	1.72	0.00	1.72
31.00	2.00	0.86	5.00	1.72	0.00	1.72
31.05	2.00	0.86	5.00	1.72	0.00	1.72
31.10	2.00	0.86	5.00	1.72	0.00	1.72
31.15	2.00	0.86	5.00	1.72	0.00	1.72
31.20	2.00	0.86	5.00	1.72	0.00	1.72
31.25	2.00	0.86	5.00	1.72	0.00	1.72
31.30	2.00	0.86	5.00	1.72	0.00	1.72
31.35	2.00	0.86	5.00	1.72	0.00	1.72
31.40	2.00	0.86	5.00	1.72	0.00	1.72
31.45	2.00	0.86	5.00	1.72	0.00	1.72
31.50	2.00	0.86	5.00	1.72	0.00	1.72
31.55	2.00	0.86	5.00	1.72	0.00	1.72
31.60	2.00	0.86	5.00	1.72	0.00	1.72
31.65	2.00	0.86	5.00	1.72	0.00	1.72
31.70	2.00	0.86	5.00	1.72	0.00	1.72
31.75	2.00	0.86	5.00	1.72	0.00	1.72
31.80	2.00	0.86	5.00	1.72	0.00	1.72
31.85	2.00	0.86	5.00	1.72	0.00	1.72
31.90	2.00	0.86	5.00	1.72	0.00	1.72
31.95	2.00	0.86	5.00	1.72	0.00	1.72
32.00	2.00	0.86	5.00	1.72	0.00	1.72
32.05	2.00	0.86	5.00	1.72	0.00	1.72

32.10	0.12	0.86	0.14*	1.72	0.00	1.72
32.15	0.12	0.86	0.14*	1.71	0.00	1.71
32.20	0.13	0.86	0.14*	1.70	0.00	1.70
32.25	0.13	0.86	0.14*	1.69	0.00	1.69
32.30	0.12	0.86	0.14*	1.68	0.00	1.68
32.35	0.12	0.86	0.14*	1.67	0.00	1.67
32.40	0.12	0.87	0.14*	1.66	0.00	1.66
32.45	0.12	0.87	0.13*	1.65	0.00	1.65
32.50	0.11	0.87	0.13*	1.64	0.00	1.64
32.55	0.11	0.87	0.13*	1.63	0.00	1.63
32.60	0.11	0.87	0.13*	1.61	0.00	1.61
32.65	0.12	0.87	0.13*	1.60	0.00	1.60
32.70	0.12	0.87	0.14*	1.59	0.00	1.59
32.75	0.12	0.87	0.14*	1.58	0.00	1.58
32.80	0.13	0.87	0.14*	1.57	0.00	1.57
32.85	0.13	0.87	0.15*	1.56	0.00	1.56
32.90	0.13	0.87	0.15*	1.55	0.00	1.55
32.95	0.14	0.87	0.16*	1.54	0.00	1.54
33.00	0.14	0.87	0.16*	1.53	0.00	1.53
33.05	0.14	0.87	0.16*	1.52	0.00	1.52
33.10	0.14	0.87	0.16*	1.51	0.00	1.51
33.15	0.13	0.87	0.16*	1.50	0.00	1.50
33.20	0.13	0.87	0.15*	1.49	0.00	1.49
33.25	0.14	0.87	0.16*	1.48	0.00	1.48
33.30	0.14	0.87	0.16*	1.47	0.00	1.47
33.35	0.14	0.87	0.16*	1.46	0.00	1.46
33.40	0.14	0.87	0.17*	1.45	0.00	1.45
33.45	0.15	0.87	0.17*	1.44	0.00	1.44
33.50	0.14	0.87	0.16*	1.43	0.00	1.43
33.55	0.16	0.87	0.18*	1.42	0.00	1.42
33.60	0.17	0.87	0.19*	1.41	0.00	1.41
33.65	0.18	0.87	0.20*	1.40	0.00	1.40
33.70	0.18	0.87	0.20*	1.39	0.00	1.39
33.75	0.17	0.87	0.20*	1.38	0.00	1.38
33.80	0.17	0.87	0.19*	1.37	0.00	1.37
33.85	0.17	0.87	0.19*	1.36	0.00	1.36
33.90	0.17	0.87	0.19*	1.36	0.00	1.36
33.95	0.17	0.87	0.19*	1.35	0.00	1.35
34.00	0.17	0.87	0.20*	1.34	0.00	1.34
34.05	0.18	0.87	0.21*	1.33	0.00	1.33
34.10	0.19	0.87	0.22*	1.32	0.00	1.32
34.15	0.21	0.87	0.24*	1.31	0.00	1.31
34.20	0.22	0.87	0.25*	1.30	0.00	1.30
34.25	0.23	0.87	0.26*	1.29	0.00	1.29
34.30	0.23	0.87	0.26*	1.29	0.00	1.29
34.35	0.22	0.88	0.25*	1.28	0.00	1.28
34.40	0.21	0.88	0.24*	1.27	0.00	1.27
34.45	0.20	0.88	0.22*	1.26	0.00	1.26
34.50	0.18	0.88	0.21*	1.25	0.00	1.25
34.55	0.17	0.88	0.19*	1.25	0.00	1.25

34.60	0.16	0.88	0.18*	1.24	0.00	1.24
34.65	0.15	0.88	0.17*	1.23	0.00	1.23
34.70	0.13	0.88	0.15*	1.22	0.00	1.22
34.75	0.13	0.88	0.14*	1.21	0.00	1.21
34.80	0.12	0.88	0.14*	1.20	0.00	1.20
34.85	0.12	0.88	0.13*	1.19	0.00	1.19
34.90	0.12	0.88	0.13*	1.18	0.00	1.18
34.95	0.12	0.88	0.14*	1.17	0.00	1.17
35.00	0.12	0.88	0.14*	1.16	0.00	1.16
35.05	0.13	0.88	0.14*	1.15	0.00	1.15
35.10	0.13	0.88	0.15*	1.14	0.00	1.14
35.15	0.13	0.88	0.15*	1.13	0.00	1.13
35.20	0.14	0.88	0.15*	1.12	0.00	1.12
35.25	0.14	0.88	0.16*	1.11	0.00	1.11
35.30	0.14	0.88	0.16*	1.10	0.00	1.10
35.35	0.13	0.88	0.15*	1.10	0.00	1.10
35.40	0.11	0.88	0.13*	1.09	0.00	1.09
35.45	0.11	0.88	0.13*	1.08	0.00	1.08
35.50	0.12	0.88	0.14*	1.06	0.00	1.06
35.55	0.12	0.88	0.14*	1.05	0.00	1.05
35.60	0.13	0.88	0.14*	1.04	0.00	1.04
35.65	0.13	0.88	0.14*	1.03	0.00	1.03
35.70	0.12	0.88	0.14*	1.02	0.00	1.02
35.75	0.12	0.88	0.14*	1.01	0.00	1.01
35.80	0.12	0.88	0.14*	1.00	0.00	1.00
35.85	0.12	0.88	0.13*	0.99	0.00	0.99
35.90	0.11	0.88	0.13*	0.98	0.00	0.98
35.95	0.11	0.88	0.13*	0.97	0.00	0.97
36.00	0.11	0.88	0.13*	0.96	0.00	0.96
36.05	0.11	0.88	0.12*	0.95	0.00	0.95
36.10	0.11	0.88	0.12*	0.94	0.00	0.94
36.15	0.11	0.88	0.13*	0.93	0.00	0.93
36.20	0.12	0.88	0.13*	0.92	0.00	0.92
36.25	0.12	0.88	0.14*	0.91	0.00	0.91
36.30	0.13	0.88	0.15*	0.90	0.00	0.90
36.35	0.13	0.88	0.15*	0.89	0.00	0.89
36.40	0.14	0.88	0.15*	0.88	0.00	0.88
36.45	0.14	0.88	0.16*	0.87	0.00	0.87
36.50	0.14	0.88	0.16*	0.87	0.00	0.87
36.55	0.13	0.88	0.15*	0.86	0.00	0.86
36.60	0.13	0.88	0.15*	0.85	0.00	0.85
36.65	0.13	0.88	0.14*	0.84	0.00	0.84
36.70	0.12	0.88	0.14*	0.83	0.00	0.83
36.75	0.11	0.88	0.13*	0.82	0.00	0.82
36.80	0.11	0.88	0.12*	0.81	0.00	0.81
36.85	0.11	0.88	0.12*	0.80	0.00	0.80
36.90	2.00	0.88	5.00	0.79	0.00	0.79
36.95	2.00	0.88	5.00	0.79	0.00	0.79
37.00	2.00	0.89	5.00	0.79	0.00	0.79
37.05	2.00	0.89	5.00	0.79	0.00	0.79

37.10	2.00	0.89	5.00	0.79	0.00	0.79
37.15	2.00	0.89	5.00	0.79	0.00	0.79
37.20	2.00	0.89	5.00	0.79	0.00	0.79
37.25	2.00	0.89	5.00	0.79	0.00	0.79
37.30	2.00	0.89	5.00	0.79	0.00	0.79
37.35	2.00	0.89	5.00	0.79	0.00	0.79
37.40	2.00	0.89	5.00	0.79	0.00	0.79
37.45	2.00	0.89	5.00	0.79	0.00	0.79
37.50	2.00	0.89	5.00	0.79	0.00	0.79
37.55	2.00	0.89	5.00	0.79	0.00	0.79
37.60	2.00	0.89	5.00	0.79	0.00	0.79
37.65	2.00	0.89	5.00	0.79	0.00	0.79
37.70	2.00	0.89	5.00	0.79	0.00	0.79
37.75	2.00	0.89	5.00	0.79	0.00	0.79
37.80	2.00	0.89	5.00	0.79	0.00	0.79
37.85	2.00	0.89	5.00	0.79	0.00	0.79
37.90	2.00	0.89	5.00	0.79	0.00	0.79
37.95	2.00	0.89	5.00	0.79	0.00	0.79
38.00	2.00	0.89	5.00	0.79	0.00	0.79
38.05	2.00	0.89	5.00	0.79	0.00	0.79
38.10	2.00	0.89	5.00	0.79	0.00	0.79
38.15	2.00	0.89	5.00	0.79	0.00	0.79
38.20	0.11	0.89	0.12*	0.79	0.00	0.79
38.25	0.11	0.89	0.13*	0.78	0.00	0.78
38.30	0.12	0.89	0.13*	0.77	0.00	0.77
38.35	0.12	0.89	0.14*	0.76	0.00	0.76
38.40	0.12	0.89	0.14*	0.75	0.00	0.75
38.45	0.12	0.89	0.14*	0.74	0.00	0.74
38.50	0.12	0.89	0.14*	0.73	0.00	0.73
38.55	0.12	0.89	0.14*	0.72	0.00	0.72
38.60	0.12	0.89	0.13*	0.71	0.00	0.71
38.65	0.12	0.89	0.13*	0.70	0.00	0.70
38.70	0.12	0.89	0.14*	0.69	0.00	0.69
38.75	0.13	0.89	0.14*	0.68	0.00	0.68
38.80	0.13	0.89	0.15*	0.67	0.00	0.67
38.85	0.14	0.89	0.15*	0.66	0.00	0.66
38.90	0.14	0.89	0.16*	0.65	0.00	0.65
38.95	0.15	0.89	0.16*	0.64	0.00	0.64
39.00	0.15	0.89	0.17*	0.63	0.00	0.63
39.05	0.15	0.89	0.17*	0.63	0.00	0.63
39.10	0.15	0.89	0.17*	0.62	0.00	0.62
39.15	0.16	0.89	0.17*	0.61	0.00	0.61
39.20	0.15	0.89	0.17*	0.60	0.00	0.60
39.25	0.15	0.89	0.17*	0.59	0.00	0.59
39.30	0.15	0.89	0.17*	0.58	0.00	0.58
39.35	0.15	0.89	0.17*	0.58	0.00	0.58
39.40	0.15	0.89	0.17*	0.57	0.00	0.57
39.45	0.15	0.89	0.17*	0.56	0.00	0.56
39.50	0.15	0.89	0.17*	0.55	0.00	0.55
39.55	0.16	0.89	0.18*	0.54	0.00	0.54

39.60	0.16	0.89	0.18*	0.53	0.00	0.53
39.65	0.16	0.89	0.18*	0.52	0.00	0.52
39.70	0.16	0.89	0.18*	0.51	0.00	0.51
39.75	0.15	0.89	0.17*	0.50	0.00	0.50
39.80	0.15	0.89	0.17*	0.49	0.00	0.49
39.85	0.16	0.89	0.17*	0.49	0.00	0.49
39.90	0.16	0.89	0.18*	0.48	0.00	0.48
39.95	0.16	0.89	0.18*	0.47	0.00	0.47
40.00	0.16	0.89	0.18*	0.46	0.00	0.46
40.05	0.16	0.89	0.18*	0.45	0.00	0.45
40.10	0.17	0.89	0.19*	0.44	0.00	0.44
40.15	0.18	0.89	0.20*	0.43	0.00	0.43
40.20	0.18	0.89	0.20*	0.43	0.00	0.43
40.25	0.18	0.89	0.20*	0.42	0.00	0.42
40.30	0.18	0.89	0.21*	0.41	0.00	0.41
40.35	0.19	0.89	0.21*	0.40	0.00	0.40
40.40	0.20	0.89	0.22*	0.39	0.00	0.39
40.45	0.21	0.89	0.24*	0.39	0.00	0.39
40.50	0.22	0.89	0.25*	0.38	0.00	0.38
40.55	0.23	0.89	0.26*	0.37	0.00	0.37
40.60	0.24	0.89	0.27*	0.36	0.00	0.36
40.65	0.25	0.89	0.28*	0.35	0.00	0.35
40.70	0.25	0.89	0.28*	0.35	0.00	0.35
40.75	0.25	0.89	0.28*	0.34	0.00	0.34
40.80	0.26	0.89	0.29*	0.33	0.00	0.33
40.85	0.27	0.89	0.30*	0.33	0.00	0.33
40.90	0.28	0.89	0.32*	0.32	0.00	0.32
40.95	0.30	0.89	0.33*	0.31	0.00	0.31
41.00	0.28	0.89	0.31*	0.31	0.00	0.31
41.05	0.30	0.89	0.33*	0.30	0.00	0.30
41.10	0.37	0.89	0.42*	0.29	0.00	0.29
41.15	0.41	0.89	0.46*	0.29	0.00	0.29
41.20	0.44	0.89	0.50*	0.28	0.00	0.28
41.25	0.47	0.89	0.53*	0.28	0.00	0.28
41.30	0.49	0.89	0.55*	0.28	0.00	0.28
41.35	0.50	0.89	0.56*	0.27	0.00	0.27
41.40	0.50	0.89	0.56*	0.27	0.00	0.27
41.45	0.50	0.89	0.56*	0.27	0.00	0.27
41.50	0.50	0.89	0.56*	0.27	0.00	0.27
41.55	0.50	0.89	0.56*	0.26	0.00	0.26
41.60	0.49	0.89	0.55*	0.26	0.00	0.26
41.65	0.47	0.89	0.53*	0.26	0.00	0.26
41.70	0.45	0.89	0.50*	0.25	0.00	0.25
41.75	0.43	0.89	0.48*	0.25	0.00	0.25
41.80	0.41	0.89	0.46*	0.25	0.00	0.25
41.85	0.41	0.89	0.45*	0.24	0.00	0.24
41.90	0.40	0.89	0.45*	0.24	0.00	0.24
41.95	0.41	0.89	0.46*	0.23	0.00	0.23
42.00	0.42	0.89	0.47*	0.23	0.00	0.23
42.05	0.45	0.89	0.50*	0.22	0.00	0.22

42.10	0.48	0.89	0.54*	0.22	0.00	0.22
42.15	0.50	0.89	0.56*	0.21	0.00	0.21
42.20	0.53	0.89	0.59*	0.21	0.00	0.21
42.25	0.53	0.89	0.60*	0.21	0.00	0.21
42.30	0.54	0.89	0.60*	0.20	0.00	0.20
42.35	0.51	0.89	0.57*	0.20	0.00	0.20
42.40	0.49	0.89	0.54*	0.20	0.00	0.20
42.45	0.45	0.89	0.50*	0.19	0.00	0.19
42.50	0.41	0.89	0.46*	0.19	0.00	0.19
42.55	0.40	0.89	0.44*	0.18	0.00	0.18
42.60	0.39	0.89	0.44*	0.18	0.00	0.18
42.65	0.38	0.89	0.43*	0.17	0.00	0.17
42.70	0.36	0.89	0.40*	0.17	0.00	0.17
42.75	0.34	0.89	0.38*	0.16	0.00	0.16
42.80	0.33	0.89	0.37*	0.16	0.00	0.16
42.85	0.30	0.89	0.34*	0.15	0.00	0.15
42.90	0.27	0.89	0.31*	0.15	0.00	0.15
42.95	0.25	0.89	0.28*	0.14	0.00	0.14
43.00	0.23	0.89	0.26*	0.13	0.00	0.13
43.05	0.22	0.89	0.24*	0.12	0.00	0.12
43.10	0.20	0.89	0.23*	0.12	0.00	0.12
43.15	0.19	0.89	0.22*	0.11	0.00	0.11
43.20	0.19	0.89	0.21*	0.10	0.00	0.10
43.25	0.19	0.89	0.21*	0.09	0.00	0.09
43.30	0.20	0.89	0.22*	0.09	0.00	0.09
43.35	0.21	0.89	0.23*	0.08	0.00	0.08
43.40	0.22	0.89	0.25*	0.07	0.00	0.07
43.45	0.23	0.89	0.26*	0.06	0.00	0.06
43.50	0.24	0.89	0.27*	0.06	0.00	0.06
43.55	0.24	0.89	0.26*	0.05	0.00	0.05
43.60	0.23	0.89	0.26*	0.05	0.00	0.05
43.65	0.22	0.89	0.25*	0.04	0.00	0.04
43.70	0.21	0.89	0.23*	0.03	0.00	0.03
43.75	0.19	0.89	0.21*	0.02	0.00	0.02
43.80	0.17	0.89	0.19*	0.02	0.00	0.02
43.85	0.15	0.89	0.17*	0.01	0.00	0.01
43.90	2.00	0.89	5.00	0.00	0.00	0.00
43.95	2.00	0.89	5.00	0.00	0.00	0.00
44.00	2.00	0.89	5.00	0.00	0.00	0.00
44.05	2.00	0.89	5.00	0.00	0.00	0.00
44.10	2.00	0.89	5.00	0.00	0.00	0.00
44.15	2.00	0.89	5.00	0.00	0.00	0.00
44.20	2.00	0.89	5.00	0.00	0.00	0.00
44.25	2.00	0.89	5.00	0.00	0.00	0.00
44.30	2.00	0.89	5.00	0.00	0.00	0.00
44.35	2.00	0.89	5.00	0.00	0.00	0.00
44.40	2.00	0.89	5.00	0.00	0.00	0.00
44.45	2.00	0.89	5.00	0.00	0.00	0.00
44.50	2.00	0.89	5.00	0.00	0.00	0.00
44.55	2.00	0.89	5.00	0.00	0.00	0.00

44.60	2.00	0.89	5.00	0.00	0.00	0.00
44.65	2.00	0.89	5.00	0.00	0.00	0.00
44.70	2.00	0.89	5.00	0.00	0.00	0.00
44.75	2.00	0.89	5.00	0.00	0.00	0.00
44.80	2.00	0.89	5.00	0.00	0.00	0.00
44.85	2.00	0.89	5.00	0.00	0.00	0.00
44.90	2.00	0.89	5.00	0.00	0.00	0.00
44.95	2.00	0.89	5.00	0.00	0.00	0.00
45.00	2.00	0.89	5.00	0.00	0.00	0.00
45.05	2.00	0.89	5.00	0.00	0.00	0.00
45.10	2.00	0.89	5.00	0.00	0.00	0.00
45.15	2.00	0.89	5.00	0.00	0.00	0.00
45.20	2.00	0.89	5.00	0.00	0.00	0.00
45.25	2.00	0.89	5.00	0.00	0.00	0.00
45.30	2.00	0.89	5.00	0.00	0.00	0.00
45.35	2.00	0.89	5.00	0.00	0.00	0.00
45.40	2.00	0.89	5.00	0.00	0.00	0.00
45.45	2.00	0.89	5.00	0.00	0.00	0.00
45.50	2.00	0.89	5.00	0.00	0.00	0.00
45.55	2.00	0.89	5.00	0.00	0.00	0.00
45.60	2.00	0.89	5.00	0.00	0.00	0.00
45.65	2.00	0.89	5.00	0.00	0.00	0.00
45.70	2.00	0.89	5.00	0.00	0.00	0.00
45.75	2.00	0.89	5.00	0.00	0.00	0.00
45.80	2.00	0.89	5.00	0.00	0.00	0.00
45.85	2.00	0.89	5.00	0.00	0.00	0.00
45.90	2.00	0.89	5.00	0.00	0.00	0.00
45.95	2.00	0.89	5.00	0.00	0.00	0.00
46.00	2.00	0.89	5.00	0.00	0.00	0.00
46.05	2.00	0.89	5.00	0.00	0.00	0.00
46.10	2.00	0.89	5.00	0.00	0.00	0.00
46.15	2.00	0.89	5.00	0.00	0.00	0.00
46.20	2.00	0.89	5.00	0.00	0.00	0.00
46.25	2.00	0.89	5.00	0.00	0.00	0.00
46.30	2.00	0.89	5.00	0.00	0.00	0.00
46.35	2.00	0.89	5.00	0.00	0.00	0.00
46.40	2.00	0.89	5.00	0.00	0.00	0.00
46.45	2.00	0.89	5.00	0.00	0.00	0.00
46.50	2.00	0.89	5.00	0.00	0.00	0.00
46.55	2.00	0.89	5.00	0.00	0.00	0.00
46.60	2.00	0.89	5.00	0.00	0.00	0.00
46.65	2.00	0.89	5.00	0.00	0.00	0.00
46.70	2.00	0.89	5.00	0.00	0.00	0.00
46.75	2.00	0.89	5.00	0.00	0.00	0.00
46.80	2.00	0.89	5.00	0.00	0.00	0.00
46.85	2.00	0.89	5.00	0.00	0.00	0.00
46.90	2.00	0.89	5.00	0.00	0.00	0.00
46.95	2.00	0.89	5.00	0.00	0.00	0.00
47.00	2.00	0.89	5.00	0.00	0.00	0.00
47.05	2.00	0.89	5.00	0.00	0.00	0.00

47.10	2.00	0.89	5.00	0.00	0.00	0.00
47.15	2.00	0.89	5.00	0.00	0.00	0.00
47.20	2.00	0.89	5.00	0.00	0.00	0.00
47.25	2.00	0.89	5.00	0.00	0.00	0.00
47.30	2.00	0.89	5.00	0.00	0.00	0.00
47.35	2.00	0.89	5.00	0.00	0.00	0.00
47.40	2.00	0.89	5.00	0.00	0.00	0.00
47.45	2.00	0.89	5.00	0.00	0.00	0.00
47.50	2.00	0.89	5.00	0.00	0.00	0.00
47.55	2.00	0.89	5.00	0.00	0.00	0.00
47.60	2.00	0.89	5.00	0.00	0.00	0.00
47.65	2.00	0.89	5.00	0.00	0.00	0.00
47.70	2.00	0.89	5.00	0.00	0.00	0.00
47.75	2.00	0.89	5.00	0.00	0.00	0.00
47.80	2.00	0.89	5.00	0.00	0.00	0.00
47.85	2.00	0.89	5.00	0.00	0.00	0.00
47.90	2.00	0.89	5.00	0.00	0.00	0.00
47.95	2.00	0.89	5.00	0.00	0.00	0.00
48.00	2.00	0.89	5.00	0.00	0.00	0.00
48.05	2.00	0.89	5.00	0.00	0.00	0.00
48.10	2.00	0.89	5.00	0.00	0.00	0.00
48.15	2.00	0.89	5.00	0.00	0.00	0.00
48.20	2.00	0.89	5.00	0.00	0.00	0.00
48.25	2.00	0.89	5.00	0.00	0.00	0.00
48.30	2.00	0.89	5.00	0.00	0.00	0.00
48.35	2.00	0.89	5.00	0.00	0.00	0.00
48.40	2.00	0.89	5.00	0.00	0.00	0.00
48.45	2.00	0.89	5.00	0.00	0.00	0.00
48.50	2.00	0.89	5.00	0.00	0.00	0.00
48.55	2.00	0.89	5.00	0.00	0.00	0.00
48.60	2.00	0.89	5.00	0.00	0.00	0.00
48.65	2.00	0.89	5.00	0.00	0.00	0.00
48.70	2.00	0.89	5.00	0.00	0.00	0.00
48.75	2.00	0.89	5.00	0.00	0.00	0.00
48.80	2.00	0.89	5.00	0.00	0.00	0.00
48.85	2.00	0.89	5.00	0.00	0.00	0.00
48.90	2.00	0.89	5.00	0.00	0.00	0.00
48.95	2.00	0.89	5.00	0.00	0.00	0.00
49.00	2.00	0.89	5.00	0.00	0.00	0.00
49.05	2.00	0.89	5.00	0.00	0.00	0.00
49.10	2.00	0.89	5.00	0.00	0.00	0.00
49.15	2.00	0.89	5.00	0.00	0.00	0.00
49.20	2.00	0.89	5.00	0.00	0.00	0.00
49.25	2.00	0.89	5.00	0.00	0.00	0.00
49.30	2.00	0.89	5.00	0.00	0.00	0.00
49.35	2.00	0.89	5.00	0.00	0.00	0.00
49.40	2.00	0.89	5.00	0.00	0.00	0.00
49.45	2.00	0.89	5.00	0.00	0.00	0.00
49.50	2.00	0.89	5.00	0.00	0.00	0.00
49.55	2.00	0.89	5.00	0.00	0.00	0.00

49.60	2.00	0.89	5.00	0.00	0.00	0.00
49.65	2.00	0.89	5.00	0.00	0.00	0.00
49.70	2.00	0.89	5.00	0.00	0.00	0.00
49.75	2.00	0.89	5.00	0.00	0.00	0.00
49.80	2.00	0.89	5.00	0.00	0.00	0.00
49.85	2.00	0.89	5.00	0.00	0.00	0.00
49.90	2.00	0.89	5.00	0.00	0.00	0.00
49.95	2.00	0.89	5.00	0.00	0.00	0.00
50.00	2.00	0.89	5.00	0.00	0.00	0.00
50.05	2.00	0.89	5.00	0.00	0.00	0.00
50.10	2.00	0.89	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

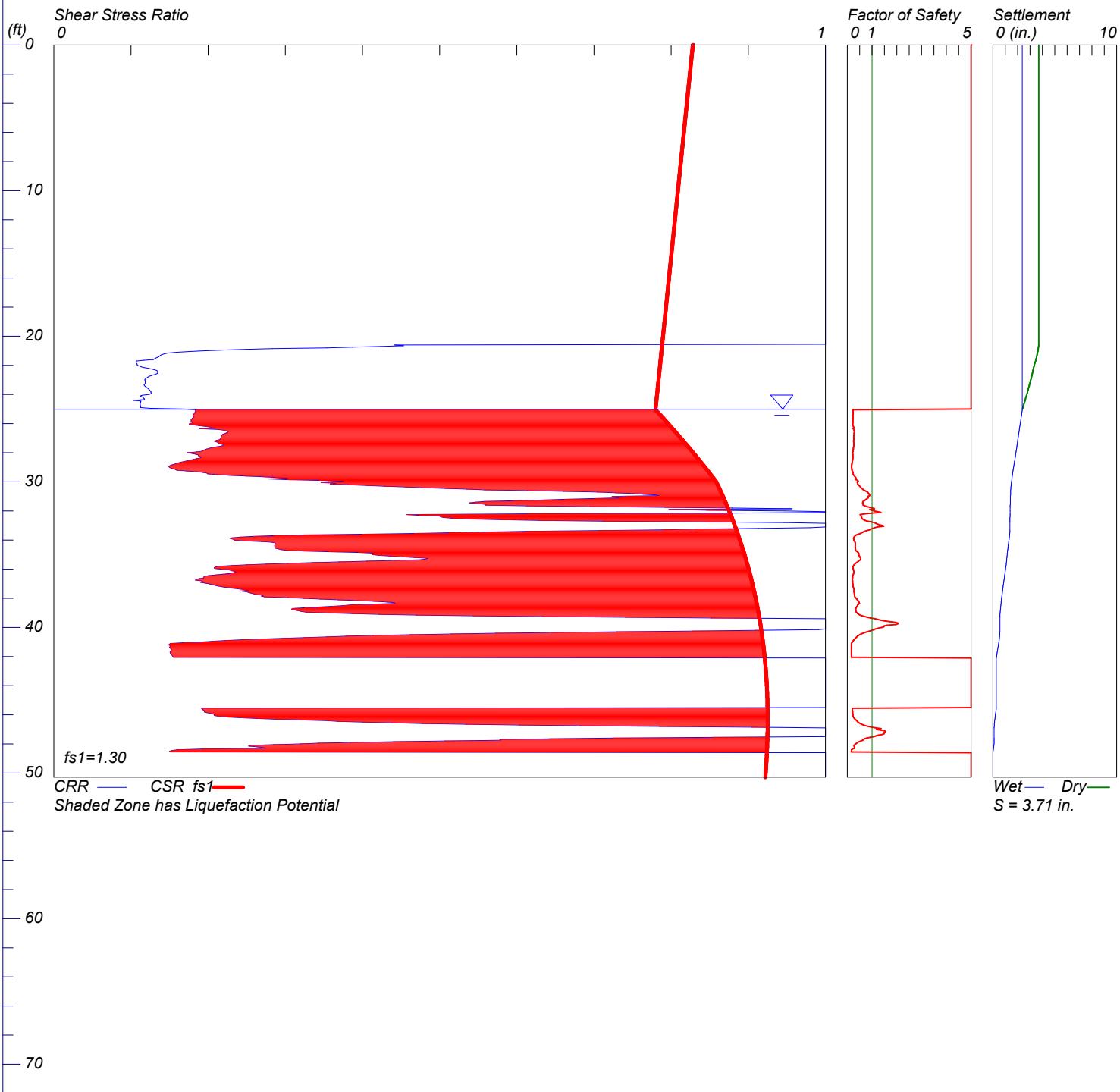
CRRm	Cyclic resistance ratio from soils
CSRfs	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat	Settlement from saturated sands
S_dry	Settlement from dry sands
S_all	Total settlement from saturated and dry sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=CPT-4 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\CPT4.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=CPT-4
Depth of Hole= 50.3 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 50.0 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=CPT-4
Depth of Hole=50.3 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 50.0 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

1. CPT Calulation Method: Modified Robertson*
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc tsf	fs tsf	gamma pcf	Fines %	D50 mm
0.0	0.3	0.0	100.0	NoLiq	0.5
0.0	6.0	0.0	100.0	NoLiq	0.5
0.1	17.5	0.0	100.0	NoLiq	0.5
0.1	21.8	0.1	100.0	NoLiq	0.5
0.2	28.9	0.1	100.0	NoLiq	0.5
0.2	30.9	0.1	100.0	NoLiq	0.5
0.2	34.8	0.1	100.0	NoLiq	0.5
0.3	35.8	0.1	100.0	NoLiq	0.5
0.3	31.8	0.1	100.0	NoLiq	0.5
0.4	30.6	0.1	100.0	NoLiq	0.5
0.5	30.3	0.1	100.0	NoLiq	0.5
0.5	28.9	0.1	100.0	NoLiq	0.5
0.6	30.3	0.2	100.0	NoLiq	0.5
0.6	28.8	0.2	100.0	NoLiq	0.5
0.7	30.3	0.2	100.0	NoLiq	0.5
0.7	30.9	0.2	100.0	NoLiq	0.5
0.8	33.2	0.2	100.0	NoLiq	0.5
0.9	35.7	0.3	100.0	NoLiq	0.5
0.9	42.6	0.3	100.0	NoLiq	0.5
1.0	47.8	0.3	100.0	NoLiq	0.5
1.0	52.3	0.2	100.0	NoLiq	0.5
1.1	54.7	0.2	100.0	NoLiq	0.5
1.1	61.5	0.2	100.0	NoLiq	0.5
1.2	66.0	0.3	100.0	NoLiq	0.5
1.2	68.8	0.3	100.0	NoLiq	0.5
1.3	70.7	0.3	100.0	NoLiq	0.5
1.4	71.3	0.3	100.0	NoLiq	0.5
1.4	72.3	0.3	100.0	NoLiq	0.5
1.4	72.5	0.3	100.0	NoLiq	0.5
1.5	72.1	0.2	100.0	NoLiq	0.5
1.5	71.1	0.3	100.0	NoLiq	0.5
1.6	70.0	0.3	100.0	NoLiq	0.5
1.6	68.5	0.4	100.0	NoLiq	0.5
1.7	67.4	0.5	100.0	NoLiq	0.5
1.8	54.8	0.6	100.0	NoLiq	0.5
1.8	37.4	0.6	100.0	NoLiq	0.5
1.8	59.5	0.7	100.0	NoLiq	0.5
1.9	61.2	0.6	100.0	NoLiq	0.5
1.9	64.4	0.6	100.0	NoLiq	0.5
2.0	64.3	0.6	100.0	NoLiq	0.5
2.1	53.7	0.5	100.0	NoLiq	0.5
2.1	52.8	0.5	100.0	NoLiq	0.5
2.2	50.3	0.4	100.0	NoLiq	0.5
2.2	50.2	0.4	100.0	NoLiq	0.5
2.3	49.3	0.3	100.0	NoLiq	0.5
2.4	48.4	0.3	100.0	NoLiq	0.5
2.4	47.5	0.3	100.0	NoLiq	0.5

2.5	47.6	0.3	100.0	NoLiq	0.5
2.5	47.9	0.2	100.0	NoLiq	0.5
2.6	49.1	0.2	100.0	NoLiq	0.5
2.7	48.9	0.2	100.0	NoLiq	0.5
2.7	49.7	0.2	100.0	NoLiq	0.5
2.8	51.5	0.3	100.0	NoLiq	0.5
2.8	53.6	0.3	100.0	NoLiq	0.5
2.9	56.6	0.4	100.0	NoLiq	0.5
3.0	59.4	0.3	100.0	NoLiq	0.5
3.0	60.7	0.3	100.0	NoLiq	0.5
3.1	64.6	0.3	100.0	NoLiq	0.5
3.2	75.3	0.3	100.0	NoLiq	0.5
3.3	72.6	0.3	100.0	NoLiq	0.5
3.3	72.6	0.5	100.0	NoLiq	0.5
3.4	70.9	0.5	100.0	NoLiq	0.5
3.4	72.1	0.4	100.0	NoLiq	0.5
3.4	72.1	0.4	100.0	NoLiq	0.5
3.5	72.1	0.4	100.0	NoLiq	0.5
3.6	75.3	0.4	100.0	NoLiq	0.5
3.6	75.2	0.5	100.0	NoLiq	0.5
3.7	76.4	0.5	100.0	NoLiq	0.5
3.8	79.3	0.3	100.0	NoLiq	0.5
3.8	82.0	0.4	100.0	NoLiq	0.5
3.9	83.3	0.4	100.0	NoLiq	0.5
4.0	86.1	0.4	100.0	NoLiq	0.5
4.0	82.8	0.3	100.0	NoLiq	0.5
4.1	77.7	0.3	100.0	NoLiq	0.5
4.2	82.2	0.3	100.0	NoLiq	0.5
4.2	76.8	0.3	100.0	NoLiq	0.5
4.3	72.0	0.3	100.0	NoLiq	0.5
4.4	66.7	0.3	100.0	NoLiq	0.5
4.5	61.8	0.2	100.0	NoLiq	0.5
4.5	55.6	0.2	100.0	NoLiq	0.5
4.6	50.8	0.2	100.0	NoLiq	0.5
4.7	48.1	0.1	100.0	NoLiq	0.5
4.7	45.8	0.1	100.0	NoLiq	0.5
4.8	43.7	0.1	100.0	NoLiq	0.5
4.9	42.3	0.1	100.0	NoLiq	0.5
4.9	41.5	0.2	100.0	NoLiq	0.5
5.0	41.3	0.2	100.0	NoLiq	0.5
5.1	41.5	0.2	100.0	NoLiq	0.5
5.1	42.0	0.2	100.0	NoLiq	0.5
5.2	42.9	0.2	100.0	NoLiq	0.5
5.3	44.6	0.2	100.0	NoLiq	0.5
5.3	46.3	0.2	100.0	NoLiq	0.5
5.4	49.5	0.2	100.0	NoLiq	0.5
5.5	53.9	0.2	100.0	NoLiq	0.5
5.6	61.3	0.2	100.0	NoLiq	0.5
5.6	69.4	0.2	100.0	NoLiq	0.5
5.7	76.1	0.6	100.0	NoLiq	0.5

5.8	80.9	0.6	100.0	NoLiq	0.5
5.9	84.4	0.5	100.0	NoLiq	0.5
5.9	69.5	0.5	100.0	NoLiq	0.5
5.9	63.4	0.5	100.0	NoLiq	0.5
6.0	78.4	0.5	100.0	NoLiq	0.5
6.0	79.1	0.6	100.0	NoLiq	0.5
6.1	72.1	0.5	100.0	NoLiq	0.5
6.1	74.7	0.5	100.0	NoLiq	0.5
6.2	73.5	0.5	100.0	NoLiq	0.5
6.3	72.0	0.4	100.0	NoLiq	0.5
6.4	69.4	0.4	100.0	NoLiq	0.5
6.4	69.3	0.4	100.0	NoLiq	0.5
6.5	70.1	0.3	100.0	NoLiq	0.5
6.6	69.8	0.3	100.0	NoLiq	0.5
6.7	70.2	0.3	100.0	NoLiq	0.5
6.8	70.2	0.3	100.0	NoLiq	0.5
6.9	70.2	0.3	100.0	NoLiq	0.5
6.9	72.1	0.3	100.0	NoLiq	0.5
7.0	75.6	0.3	100.0	NoLiq	0.5
7.1	80.2	0.3	100.0	NoLiq	0.5
7.2	84.5	0.3	100.0	NoLiq	0.5
7.3	86.8	0.3	100.0	NoLiq	0.5
7.4	89.7	0.3	100.0	NoLiq	0.5
7.4	92.3	0.3	100.0	NoLiq	0.5
7.6	99.0	0.2	100.0	NoLiq	0.5
7.6	103.9	0.1	100.0	NoLiq	0.5
7.7	108.1	0.2	100.0	NoLiq	0.5
7.8	112.0	0.2	100.0	NoLiq	0.5
7.9	113.6	0.2	100.0	NoLiq	0.5
7.9	97.9	0.2	100.0	NoLiq	0.5
7.9	102.2	0.2	100.0	NoLiq	0.5
8.0	106.5	0.2	100.0	NoLiq	0.5
8.0	107.9	0.2	100.0	NoLiq	0.5
8.1	108.7	0.3	100.0	NoLiq	0.5
8.1	109.1	0.3	100.0	NoLiq	0.5
8.2	108.5	0.3	100.0	NoLiq	0.5
8.2	107.9	0.3	100.0	NoLiq	0.5
8.3	105.7	0.3	100.0	NoLiq	0.5
8.4	102.6	0.3	100.0	NoLiq	0.5
8.4	99.9	0.3	100.0	NoLiq	0.5
8.5	96.9	0.4	100.0	NoLiq	0.5
8.6	94.3	0.4	100.0	NoLiq	0.5
8.6	92.4	0.3	100.0	NoLiq	0.5
8.7	89.7	0.3	100.0	NoLiq	0.5
8.7	86.1	0.3	100.0	NoLiq	0.5
8.8	82.5	0.3	100.0	NoLiq	0.5
8.8	78.4	0.3	100.0	NoLiq	0.5
8.9	74.2	0.2	100.0	NoLiq	0.5
9.0	69.0	0.2	100.0	NoLiq	0.5
9.0	63.5	0.1	100.0	NoLiq	0.5

9.1	58.2	0.1	100.0	NoLiq	0.5
9.2	52.2	0.1	100.0	NoLiq	0.5
9.2	48.4	0.1	100.0	NoLiq	0.5
9.3	45.0	0.1	100.0	NoLiq	0.5
9.4	42.8	0.1	100.0	NoLiq	0.5
9.4	41.2	0.1	100.0	NoLiq	0.5
9.5	42.8	0.1	100.0	NoLiq	0.5
9.6	40.9	0.1	100.0	NoLiq	0.5
9.7	42.8	0.2	100.0	NoLiq	0.5
9.7	46.7	0.2	100.0	NoLiq	0.5
9.8	53.6	0.2	100.0	NoLiq	0.5
9.9	62.4	0.3	100.0	NoLiq	0.5
10.0	73.9	0.4	100.0	NoLiq	0.5
10.1	85.4	0.6	100.0	NoLiq	0.5
10.2	98.4	0.9	100.0	NoLiq	0.5
10.3	115.8	1.4	100.0	NoLiq	0.5
10.3	137.2	1.3	100.0	NoLiq	0.5
10.4	159.7	0.8	100.0	NoLiq	0.5
10.5	203.4	2.9	100.0	NoLiq	0.5
10.5	225.5	3.1	100.0	NoLiq	0.5
10.6	240.0	2.9	100.0	NoLiq	0.5
10.6	236.7	2.7	100.0	NoLiq	0.5
10.6	266.4	2.7	100.0	NoLiq	0.5
10.7	230.8	2.4	100.0	NoLiq	0.5
10.7	228.7	2.4	100.0	NoLiq	0.5
10.8	244.2	2.3	100.0	NoLiq	0.5
10.8	240.2	2.3	100.0	NoLiq	0.5
10.8	238.1	2.2	100.0	NoLiq	0.5
10.9	234.4	2.5	100.0	NoLiq	0.5
10.9	235.1	3.0	100.0	NoLiq	0.5
11.0	230.0	3.5	100.0	NoLiq	0.5
11.0	228.9	3.8	100.0	NoLiq	0.5
11.0	219.0	3.8	100.0	NoLiq	0.5
11.1	228.3	3.6	100.0	NoLiq	0.5
11.1	222.3	3.4	100.0	NoLiq	0.5
11.2	227.7	3.4	100.0	NoLiq	0.5
11.2	226.4	3.4	100.0	NoLiq	0.5
11.2	230.2	3.5	100.0	NoLiq	0.5
11.3	239.4	3.6	100.0	NoLiq	0.5
11.4	259.3	3.7	100.0	NoLiq	0.5
11.4	281.0	3.0	100.0	NoLiq	0.5
11.4	278.7	2.5	100.0	NoLiq	0.5
11.5	217.0	2.1	100.0	NoLiq	0.5
11.6	202.4	1.7	100.0	NoLiq	0.5
11.6	199.4	1.4	100.0	NoLiq	0.5
11.7	188.5	1.1	100.0	NoLiq	0.5
11.8	164.2	0.9	100.0	NoLiq	0.5
11.9	150.8	0.8	100.0	NoLiq	0.5
12.0	114.6	0.7	100.0	NoLiq	0.5
12.0	96.8	0.6	100.0	NoLiq	0.5

12.1	80.7	0.5	100.0	NoLiq	0.5
12.2	70.3	0.4	100.0	NoLiq	0.5
12.3	64.5	0.2	100.0	NoLiq	0.5
12.4	62.0	0.2	100.0	NoLiq	0.5
12.5	61.4	0.3	100.0	NoLiq	0.5
12.6	62.8	0.3	100.0	NoLiq	0.5
12.7	59.6	0.3	100.0	NoLiq	0.5
12.7	43.5	0.3	100.0	NoLiq	0.5
12.7	67.1	0.4	100.0	NoLiq	0.5
12.8	73.2	0.4	100.0	NoLiq	0.5
12.8	80.7	0.4	100.0	NoLiq	0.5
12.9	89.7	0.4	100.0	NoLiq	0.5
13.0	98.2	0.6	100.0	NoLiq	0.5
13.0	104.9	0.7	100.0	NoLiq	0.5
13.1	109.2	0.7	100.0	NoLiq	0.5
13.2	109.8	0.8	100.0	NoLiq	0.5
13.3	112.1	0.8	100.0	NoLiq	0.5
13.3	111.9	0.8	100.0	NoLiq	0.5
13.4	105.2	0.7	100.0	NoLiq	0.5
13.5	100.9	0.7	100.0	NoLiq	0.5
13.5	98.6	0.6	100.0	NoLiq	0.5
13.6	95.3	0.6	100.0	NoLiq	0.5
13.7	95.4	0.5	100.0	NoLiq	0.5
13.7	95.4	0.6	100.0	NoLiq	0.5
13.8	95.5	0.5	100.0	NoLiq	0.5
13.9	98.0	0.5	100.0	NoLiq	0.5
14.0	99.5	0.5	100.0	NoLiq	0.5
14.1	95.9	0.5	100.0	NoLiq	0.5
14.1	93.4	0.5	100.0	NoLiq	0.5
14.2	89.3	0.5	100.0	NoLiq	0.5
14.3	84.5	0.4	100.0	NoLiq	0.5
14.4	77.3	0.3	100.0	NoLiq	0.5
14.4	70.7	0.3	100.0	NoLiq	0.5
14.5	65.8	0.2	100.0	NoLiq	0.5
14.6	58.5	0.2	100.0	NoLiq	0.5
14.7	55.4	0.2	100.0	NoLiq	0.5
14.8	53.1	0.2	100.0	NoLiq	0.5
14.8	43.8	0.2	100.0	NoLiq	0.5
14.9	49.1	0.3	100.0	NoLiq	0.5
15.0	48.8	0.3	100.0	NoLiq	0.5
15.0	48.2	0.3	100.0	NoLiq	0.5
15.1	47.7	0.4	100.0	NoLiq	0.5
15.1	47.5	0.4	100.0	NoLiq	0.5
15.2	47.4	0.4	100.0	NoLiq	0.5
15.3	47.6	0.4	100.0	NoLiq	0.5
15.4	48.2	0.4	100.0	NoLiq	0.5
15.4	49.4	0.4	100.0	NoLiq	0.5
15.5	50.5	0.5	100.0	NoLiq	0.5
15.5	51.6	0.6	100.0	NoLiq	0.5
15.6	51.9	0.5	100.0	NoLiq	0.5

15.7	51.6	0.6	100.0	NoLiq	0.5
15.7	51.5	0.5	100.0	NoLiq	0.5
15.8	52.5	0.5	100.0	NoLiq	0.5
15.9	50.6	0.5	100.0	NoLiq	0.5
15.9	50.3	0.5	100.0	NoLiq	0.5
16.0	48.8	0.5	100.0	NoLiq	0.5
16.1	48.8	0.5	100.0	NoLiq	0.5
16.1	49.1	0.5	100.0	NoLiq	0.5
16.2	48.8	0.4	100.0	NoLiq	0.5
16.3	47.9	0.4	100.0	NoLiq	0.5
16.4	46.9	0.4	100.0	NoLiq	0.5
16.5	47.6	0.5	100.0	NoLiq	0.5
16.6	47.4	0.5	100.0	NoLiq	0.5
16.7	51.2	0.5	100.0	NoLiq	0.5
16.8	54.9	0.2	100.0	NoLiq	0.5
16.9	51.2	0.3	100.0	NoLiq	0.5
16.9	51.8	0.3	100.0	NoLiq	0.5
17.0	51.2	0.4	100.0	NoLiq	0.5
17.0	50.5	0.4	100.0	NoLiq	0.5
17.1	50.5	0.4	100.0	NoLiq	0.5
17.1	49.8	0.4	100.0	NoLiq	0.5
17.1	50.3	0.4	100.0	NoLiq	0.5
17.2	51.1	0.4	100.0	NoLiq	0.5
17.3	50.9	0.4	100.0	NoLiq	0.5
17.3	51.5	0.4	100.0	NoLiq	0.5
17.4	53.5	0.4	100.0	NoLiq	0.5
17.5	55.8	0.4	100.0	NoLiq	0.5
17.5	58.1	0.4	100.0	NoLiq	0.5
17.6	59.0	0.4	100.0	NoLiq	0.5
17.7	58.1	0.4	100.0	NoLiq	0.5
17.7	55.5	0.4	100.0	NoLiq	0.5
17.8	55.3	0.4	100.0	NoLiq	0.5
17.9	55.0	0.4	100.0	NoLiq	0.5
18.0	56.5	0.4	100.0	NoLiq	0.5
18.0	59.1	0.4	100.0	NoLiq	0.5
18.1	61.9	0.4	100.0	NoLiq	0.5
18.2	63.8	0.4	100.0	NoLiq	0.5
18.3	64.4	0.4	100.0	NoLiq	0.5
18.3	63.2	0.4	100.0	NoLiq	0.5
18.4	61.7	0.5	100.0	NoLiq	0.5
18.5	60.7	0.8	100.0	NoLiq	0.5
18.6	61.1	0.8	100.0	NoLiq	0.5
18.7	62.4	0.8	100.0	NoLiq	0.5
18.8	66.4	0.7	100.0	NoLiq	0.5
18.8	63.0	0.7	100.0	NoLiq	0.5
18.9	58.6	0.7	100.0	NoLiq	0.5
19.0	58.5	0.7	100.0	NoLiq	0.5
19.1	60.8	0.8	100.0	NoLiq	0.5
19.2	66.6	0.9	100.0	NoLiq	0.5
19.3	77.4	1.0	100.0	NoLiq	0.5

19.4	96.3	1.1	100.0	NoLiq	0.5
19.5	103.3	1.1	100.0	NoLiq	0.5
19.6	111.1	1.0	100.0	NoLiq	0.5
19.7	116.1	0.3	100.0	NoLiq	0.5
19.8	118.6	0.4	100.0	NoLiq	0.5
19.9	122.2	0.4	100.0	NoLiq	0.5
20.0	111.0	0.5	100.0	NoLiq	0.5
20.0	121.8	0.5	100.0	NoLiq	0.5
20.0	116.6	0.5	100.0	NoLiq	0.5
20.1	121.3	0.5	100.0	NoLiq	0.5
20.1	125.2	0.5	100.0	NoLiq	0.5
20.2	127.5	0.6	100.0	NoLiq	0.5
20.2	132.4	0.7	100.0	NoLiq	0.5
20.3	138.4	0.7	100.0	NoLiq	0.5
20.3	145.4	0.7	100.0	NoLiq	0.5
20.4	151.8	0.8	100.0	NoLiq	0.5
20.5	157.3	0.9	100.0	NoLiq	0.5
20.6	159.4	1.1	100.0	5.3	0.5
20.6	161.9	1.2	100.0	5.6	0.5
20.7	160.6	1.3	100.0	6.1	0.5
20.7	151.8	1.2	100.0	6.4	0.5
20.8	138.7	1.3	100.0	7.7	0.5
20.9	118.4	1.2	100.0	9.6	0.5
20.9	99.8	1.1	100.0	10.7	0.5
21.0	88.5	1.0	100.0	12.7	0.5
21.1	80.5	0.8	100.0	13.0	0.5
21.1	74.0	0.8	100.0	13.3	0.5
21.2	67.9	0.8	100.0	15.1	0.5
21.3	63.7	0.8	100.0	16.6	0.5
21.4	62.8	0.8	100.0	17.0	0.5
21.4	60.1	0.8	100.0	17.3	0.5
21.5	59.1	0.7	100.0	17.9	0.5
21.6	58.7	0.7	100.0	17.7	0.5
21.7	57.7	0.4	100.0	15.8	0.5
21.8	56.9	0.4	100.0	13.9	0.5
21.8	56.1	0.4	100.0	14.2	0.5
21.9	54.9	0.5	100.0	15.1	0.5
22.0	47.5	0.5	100.0	16.2	0.5
22.0	53.3	0.5	100.0	17.5	0.5
22.1	51.6	0.5	100.0	17.7	0.5
22.1	51.2	0.6	100.0	18.4	0.5
22.2	50.7	0.7	100.0	19.4	0.5
22.2	50.1	0.7	100.0	20.5	0.5
22.3	49.2	0.8	100.0	22.0	0.5
22.4	49.2	0.8	100.0	22.5	0.5
22.5	49.2	0.8	100.0	22.8	0.5
22.5	49.3	0.8	100.0	22.8	0.5
22.6	51.8	0.8	100.0	21.8	0.5
22.7	54.1	0.7	100.0	20.8	0.5
22.8	56.0	0.7	100.0	18.7	0.5

22.9	57.4	0.6	100.0	17.6	0.5
22.9	59.4	0.6	100.0	16.8	0.5
23.0	61.9	0.6	100.0	15.2	0.5
23.1	62.9	0.6	100.0	15.0	0.5
23.2	62.1	0.6	100.0	15.2	0.5
23.3	62.0	0.6	100.0	15.4	0.5
23.3	62.2	0.5	100.0	15.1	0.5
23.4	64.8	0.5	100.0	14.3	0.5
23.5	66.8	0.5	100.0	13.8	0.5
23.6	69.0	0.6	100.0	13.5	0.5
23.7	70.2	0.6	100.0	13.3	0.5
23.8	70.6	0.6	100.0	13.4	0.5
23.9	70.8	0.6	100.0	13.5	0.5
24.0	71.4	0.6	100.0	13.4	0.5
24.1	72.7	0.3	100.0	10.5	0.5
24.1	75.5	0.3	100.0	8.8	0.5
24.2	77.3	0.3	100.0	8.6	0.5
24.3	77.8	0.3	100.0	8.7	0.5
24.4	76.4	0.4	100.0	9.5	0.5
24.4	63.2	0.4	100.0	9.5	0.5
24.4	56.8	0.4	100.0	14.1	0.5
24.4	70.5	0.4	100.0	14.1	0.5
24.5	69.2	0.4	100.0	11.2	0.5
24.5	67.3	0.4	100.0	12.4	0.5
24.6	65.1	0.5	100.0	12.4	0.5
24.7	63.0	0.5	100.0	13.9	0.5
24.7	60.6	0.5	100.0	14.7	0.5
24.8	58.8	0.5	100.0	16.0	0.5
24.9	56.3	0.6	100.0	17.2	0.5
25.0	115.0	0.6	100.0	7.7	0.5
25.1	114.1	0.6	100.0	7.0	0.5
25.2	113.2	0.6	100.0	7.3	0.5
25.2	112.7	0.7	100.0	7.4	0.5
25.3	112.3	0.7	100.0	7.6	0.5
25.4	112.1	0.7	100.0	7.6	0.5
25.5	111.0	0.7	100.0	7.8	0.5
25.5	112.0	0.7	100.0	7.9	0.5
25.6	111.1	0.7	100.0	7.9	0.5
25.7	111.9	0.6	100.0	7.7	0.5
25.8	112.6	0.6	100.0	7.5	0.5
25.9	113.7	0.6	100.0	7.1	0.5
26.0	115.5	0.6	100.0	6.9	0.5
26.0	118.5	0.4	100.0	5.8	0.5
26.1	123.1	0.3	100.0	3.8	0.5
26.2	128.4	0.3	100.0	3.4	0.5
26.3	133.0	0.3	100.0	3.3	0.5
26.3	125.3	0.3	100.0	3.3	0.5
26.4	134.9	0.3	100.0	3.4	0.5
26.5	137.2	0.4	100.0	3.3	0.5
26.5	138.5	0.4	100.0	3.3	0.5

26.6	138.6	0.4	100.0	3.6	0.5
26.7	137.7	0.4	100.0	3.9	0.5
26.7	136.7	0.5	100.0	4.1	0.5
26.8	136.7	0.6	100.0	4.8	0.5
26.9	136.6	0.6	100.0	4.9	0.5
27.0	136.1	0.6	100.0	5.1	0.5
27.0	134.1	0.7	100.0	5.4	0.5
27.1	133.1	0.7	100.0	5.7	0.5
27.2	130.3	0.7	100.0	6.0	0.5
27.3	132.7	0.7	100.0	6.1	0.5
27.4	135.9	0.6	100.0	5.5	0.5
27.5	139.6	0.6	100.0	4.9	0.5
27.6	138.1	0.5	100.0	4.6	0.5
27.6	134.9	0.5	100.0	4.6	0.5
27.7	132.7	0.2	100.0	3.3	0.5
27.8	131.2	0.2	100.0	2.7	0.5
27.9	130.1	0.3	100.0	3.1	0.5
28.0	122.9	0.3	100.0	3.5	0.5
28.0	125.4	0.4	100.0	4.1	0.5
28.1	127.8	0.4	100.0	4.4	0.5
28.1	127.6	0.5	100.0	4.9	0.5
28.2	125.5	0.6	100.0	5.9	0.5
28.3	124.8	0.7	100.0	6.7	0.5
28.4	121.8	0.7	100.0	7.1	0.5
28.5	119.2	0.7	100.0	7.2	0.5
28.6	116.6	0.6	100.0	6.8	0.5
28.7	115.8	0.5	100.0	6.5	0.5
28.8	114.8	0.4	100.0	6.1	0.5
28.9	112.4	0.4	100.0	6.0	0.5
28.9	112.3	0.4	100.0	5.8	0.5
29.0	112.3	0.4	100.0	5.8	0.5
29.1	112.2	0.5	100.0	6.6	0.5
29.2	115.4	0.5	100.0	6.5	0.5
29.3	122.8	0.7	100.0	6.8	0.5
29.4	131.4	0.7	100.0	6.5	0.5
29.5	134.1	0.6	100.0	5.9	0.5
29.6	140.7	0.9	100.0	6.6	0.5
29.7	147.4	1.2	100.0	7.9	0.5
29.8	154.6	1.4	100.0	8.0	0.5
29.8	167.4	0.4	100.0	5.2	0.5
29.9	185.9	0.5	100.0	2.3	0.5
30.0	177.7	0.6	100.0	2.7	0.5
30.1	183.8	0.6	100.0	2.9	0.5
30.2	181.7	0.6	100.0	2.9	0.5
30.2	189.1	0.7	100.0	2.8	0.5
30.3	195.1	0.7	100.0	2.6	0.5
30.3	201.2	0.6	100.0	2.4	0.5
30.4	204.7	0.7	100.0	2.1	0.5
30.4	209.8	0.7	100.0	2.1	0.5
30.5	214.5	0.7	100.0	1.9	0.5

30.5	218.7	0.6	100.0	1.7	0.5
30.6	225.9	0.7	100.0	1.6	0.5
30.6	232.3	0.8	100.0	1.6	0.5
30.7	239.2	0.9	100.0	1.7	0.5
30.8	242.9	0.9	100.0	1.7	0.5
30.8	246.4	1.0	100.0	1.9	0.5
30.9	247.8	1.2	100.0	2.4	0.5
30.9	250.9	1.4	100.0	2.9	0.5
31.0	249.4	1.5	100.0	3.3	0.5
31.0	239.2	1.5	100.0	3.6	0.5
31.1	247.5	1.4	100.0	3.4	0.5
31.2	240.3	1.5	100.0	3.9	0.5
31.3	230.7	1.9	100.0	5.2	0.5
31.3	217.3	1.8	100.0	5.5	0.5
31.4	216.8	1.7	100.0	5.5	0.5
31.5	221.1	1.7	100.0	5.3	0.5
31.6	216.3	1.9	100.0	6.0	0.5
31.7	228.8	2.2	100.0	6.2	0.5
31.8	248.0	2.8	100.0	6.6	0.5
31.9	247.6	3.6	100.0	8.5	0.5
31.9	256.5	1.5	100.0	5.4	0.5
32.0	274.8	1.5	100.0	2.7	0.5
32.1	297.1	1.6	100.0	2.3	0.5
32.2	231.7	1.8	100.0	4.9	0.5
32.2	198.2	1.8	100.0	4.9	0.5
32.3	198.5	1.8	100.0	6.8	0.5
32.3	207.8	1.8	100.0	6.7	0.5
32.4	213.4	1.6	100.0	5.8	0.5
32.5	218.1	1.6	100.0	5.3	0.5
32.6	223.5	1.5	100.0	4.8	0.5
32.6	233.5	1.6	100.0	4.5	0.5
32.7	244.3	2.2	100.0	4.9	0.5
32.8	256.6	3.1	100.0	6.7	0.5
32.8	269.8	3.2	100.0	6.9	0.5
32.9	284.2	3.0	100.0	6.0	0.5
33.0	306.6	2.8	100.0	5.1	0.5
33.1	311.7	2.6	100.0	4.1	0.5
33.1	281.6	2.4	100.0	4.5	0.5
33.2	282.0	2.3	100.0	4.5	0.5
33.2	268.2	2.2	100.0	4.5	0.5
33.3	259.5	2.0	100.0	4.6	0.5
33.4	238.6	1.8	100.0	4.8	0.5
33.5	220.7	1.8	100.0	5.4	0.5
33.6	201.5	1.7	100.0	6.3	0.5
33.7	178.6	0.6	100.0	4.5	0.5
33.8	163.9	0.6	100.0	3.9	0.5
33.9	157.4	0.6	100.0	4.4	0.5
34.0	160.7	0.6	100.0	4.5	0.5
34.0	160.3	0.6	100.0	4.5	0.5
34.0	159.9	0.6	100.0	4.5	0.5

34.1	171.9	0.8	100.0	4.8	0.5
34.2	177.1	0.8	100.0	4.6	0.5
34.2	177.0	0.9	100.0	4.6	0.5
34.3	177.2	0.9	100.0	4.7	0.5
34.4	177.3	0.8	100.0	4.6	0.5
34.5	177.6	0.9	100.0	4.6	0.5
34.5	177.9	0.8	100.0	4.4	0.5
34.6	177.9	1.1	100.0	5.3	0.5
34.7	180.7	0.9	100.0	5.2	0.5
34.8	191.2	0.8	100.0	4.1	0.5
34.8	203.7	0.8	100.0	3.6	0.5
34.9	210.4	0.8	100.0	3.1	0.5
35.0	208.5	0.8	100.0	3.1	0.5
35.0	209.9	0.9	100.0	3.2	0.5
35.1	214.7	0.9	100.0	3.2	0.5
35.2	218.4	0.9	100.0	3.1	0.5
35.3	224.3	0.9	100.0	2.7	0.5
35.3	223.6	0.9	100.0	2.7	0.5
35.4	215.1	0.9	100.0	2.9	0.5
35.5	202.8	0.9	100.0	3.2	0.5
35.6	185.9	0.9	100.0	3.9	0.5
35.7	166.6	0.8	100.0	4.9	0.5
35.8	156.6	0.4	100.0	3.7	0.5
35.9	155.8	0.6	100.0	4.2	0.5
36.0	160.8	0.8	100.0	5.2	0.5
36.1	160.5	0.8	100.0	5.7	0.5
36.1	160.1	0.9	100.0	6.0	0.5
36.2	163.3	0.9	100.0	6.0	0.5
36.2	162.1	0.9	100.0	6.0	0.5
36.3	157.1	1.0	100.0	6.7	0.5
36.4	150.3	1.0	100.0	7.1	0.5
36.4	143.4	0.9	100.0	7.4	0.5
36.5	141.0	0.9	100.0	7.7	0.5
36.6	141.0	0.9	100.0	7.8	0.5
36.7	135.8	0.9	100.0	8.3	0.5
36.7	131.6	1.0	100.0	8.7	0.5
36.8	135.6	1.1	100.0	9.3	0.5
36.9	130.4	1.1	100.0	10.1	0.5
37.0	135.4	1.2	100.0	10.0	0.5
37.1	138.4	1.2	100.0	9.8	0.5
37.2	142.6	1.2	100.0	9.5	0.5
37.3	149.6	1.2	100.0	8.8	0.5
37.4	159.9	1.1	100.0	7.5	0.5
37.5	169.9	1.0	100.0	6.3	0.5
37.5	175.1	0.5	100.0	4.7	0.5
37.6	177.2	0.6	100.0	3.3	0.5
37.7	179.9	0.6	100.0	3.6	0.5
37.8	184.3	0.6	100.0	3.3	0.5
37.9	180.0	0.6	100.0	3.2	0.5
38.0	193.1	0.6	100.0	2.9	0.5

38.0	201.4	0.8	100.0	3.3	0.5
38.1	209.3	1.0	100.0	3.7	0.5
38.2	219.1	1.0	100.0	3.7	0.5
38.3	226.4	1.0	100.0	3.2	0.5
38.4	227.0	1.2	100.0	3.7	0.5
38.4	215.1	1.4	100.0	4.4	0.5
38.5	208.4	1.4	100.0	5.5	0.5
38.6	196.5	1.4	100.0	6.2	0.5
38.7	186.5	1.4	100.0	6.6	0.5
38.8	186.3	1.4	100.0	6.9	0.5
38.8	186.3	1.5	100.0	7.1	0.5
38.9	186.1	1.7	100.0	7.6	0.5
39.0	203.4	1.7	100.0	7.3	0.5
39.1	227.0	1.7	100.0	6.0	0.5
39.2	249.5	2.2	100.0	5.8	0.5
39.3	281.5	2.7	100.0	5.8	0.5
39.4	322.9	2.6	100.0	4.3	0.5
39.5	331.4	3.2	100.0	4.4	0.5
39.5	343.0	3.1	100.0	4.6	0.5
39.6	360.5	3.4	100.0	4.3	0.5
39.6	381.3	3.3	100.0	4.1	0.5
39.7	410.4	3.2	100.0	3.0	0.5
39.8	400.1	3.1	100.0	2.9	0.5
39.8	394.5	3.1	100.0	2.9	0.5
39.8	363.8	3.2	100.0	3.3	0.5
39.9	354.9	3.3	100.0	4.1	0.5
39.9	349.8	3.4	100.0	4.6	0.5
40.0	352.1	3.4	100.0	4.6	0.5
40.0	333.9	2.4	100.0	4.1	0.5
40.1	320.4	2.2	100.0	3.4	0.5
40.2	315.2	2.1	100.0	3.3	0.5
40.2	297.3	1.9	100.0	3.4	0.5
40.3	280.1	1.7	100.0	3.4	0.5
40.4	260.2	1.6	100.0	3.7	0.5
40.5	241.8	1.5	100.0	4.4	0.5
40.6	222.9	1.4	100.0	4.9	0.5
40.7	211.0	1.3	100.0	5.2	0.5
40.7	193.4	1.3	100.0	5.6	0.5
40.8	176.2	1.3	100.0	6.9	0.5
40.9	160.7	1.1	100.0	7.7	0.5
41.0	148.1	1.0	100.0	8.2	0.5
41.1	141.8	0.4	100.0	6.5	0.5
41.2	138.7	0.5	100.0	5.2	0.5
41.3	138.4	0.5	100.0	5.8	0.5
41.4	134.1	0.6	100.0	6.6	0.5
41.4	134.5	0.6	100.0	6.6	0.5
41.4	134.5	0.6	100.0	6.9	0.5
41.5	134.9	0.6	100.0	7.0	0.5
41.5	134.0	0.7	100.0	7.2	0.5
41.6	131.1	0.7	100.0	7.9	0.5

41.7	128.1	0.8	100.0	8.4	0.5
41.8	126.4	0.8	100.0	9.1	0.5
41.9	125.6	0.9	100.0	9.7	0.5
42.0	125.1	0.9	100.0	10.1	0.5
42.0	124.8	1.0	100.0	NoLiq	0.5
42.1	122.3	0.9	100.0	NoLiq	0.5
42.2	118.8	1.0	100.0	NoLiq	0.5
42.3	115.0	1.0	100.0	NoLiq	0.5
42.4	114.8	1.1	100.0	NoLiq	0.5
42.5	114.8	1.0	100.0	NoLiq	0.5
42.6	114.5	0.9	100.0	NoLiq	0.5
42.7	126.1	0.9	100.0	NoLiq	0.5
42.8	129.8	0.8	100.0	NoLiq	0.5
42.8	129.9	0.8	100.0	NoLiq	0.5
42.9	123.8	0.8	100.0	NoLiq	0.5
43.0	117.5	0.8	100.0	NoLiq	0.5
43.1	111.9	1.0	100.0	NoLiq	0.5
43.2	107.7	1.1	100.0	NoLiq	0.5
43.3	106.2	0.7	100.0	NoLiq	0.5
43.4	107.5	0.8	100.0	NoLiq	0.5
43.5	107.3	0.9	100.0	NoLiq	0.5
43.6	102.2	0.9	100.0	NoLiq	0.5
43.6	99.0	0.9	100.0	NoLiq	0.5
43.7	110.3	0.9	100.0	NoLiq	0.5
43.7	112.1	1.0	100.0	NoLiq	0.5
43.8	114.6	1.0	100.0	NoLiq	0.5
43.9	118.3	1.0	100.0	NoLiq	0.5
44.0	123.2	1.0	100.0	NoLiq	0.5
44.1	128.5	1.0	100.0	NoLiq	0.5
44.2	133.1	0.9	100.0	NoLiq	0.5
44.3	135.8	0.8	100.0	NoLiq	0.5
44.4	136.1	0.9	100.0	NoLiq	0.5
44.5	134.8	1.0	100.0	NoLiq	0.5
44.6	132.3	1.1	100.0	NoLiq	0.5
44.7	129.5	1.2	100.0	NoLiq	0.5
44.8	128.6	1.4	100.0	NoLiq	0.5
44.9	130.1	0.6	100.0	NoLiq	0.5
45.0	131.1	0.9	100.0	NoLiq	0.5
45.1	134.9	0.9	100.0	NoLiq	0.5
45.2	132.9	1.0	100.0	NoLiq	0.5
45.2	98.7	1.0	100.0	NoLiq	0.5
45.3	143.8	1.0	100.0	NoLiq	0.5
45.4	151.0	1.0	100.0	NoLiq	0.5
45.4	156.3	1.0	100.0	NoLiq	0.5
45.5	159.5	1.0	100.0	7.8	0.5
45.6	162.4	1.0	100.0	7.4	0.5
45.7	163.2	1.0	100.0	7.5	0.5
45.8	162.9	1.1	100.0	7.6	0.5
45.9	164.6	1.2	100.0	8.0	0.5
46.0	164.5	1.3	100.0	8.3	0.5

46.1	167.1	1.2	100.0	8.1	0.5
46.2	176.6	1.2	100.0	7.4	0.5
46.2	192.4	1.3	100.0	7.0	0.5
46.3	218.7	1.2	100.0	5.6	0.5
46.4	230.1	1.2	100.0	4.8	0.5
46.5	235.8	1.3	100.0	4.4	0.5
46.5	248.9	1.4	100.0	4.2	0.5
46.6	262.2	1.3	100.0	3.4	0.5
46.7	278.3	0.6	100.0	1.6	0.5
46.8	303.4	0.7	100.0	0.5	0.5
46.9	335.3	0.8	100.0	0.2	0.5
47.0	379.3	0.8	100.0	0.0	0.5
47.0	355.9	1.2	100.0	0.0	0.5
47.0	365.9	1.6	100.0	0.8	0.5
47.1	389.1	2.0	100.0	1.5	0.5
47.2	394.1	2.2	100.0	1.9	0.5
47.2	385.8	1.8	100.0	1.7	0.5
47.3	390.6	1.6	100.0	1.0	0.5
47.4	362.5	1.7	100.0	1.5	0.5
47.5	346.5	1.7	100.0	2.0	0.5
47.6	313.9	1.6	100.0	2.4	0.5
47.7	294.2	1.9	100.0	3.7	0.5
47.8	262.0	3.2	100.0	8.1	0.5
47.8	237.3	2.7	100.0	8.3	0.5
47.9	220.7	1.9	100.0	7.7	0.5
48.0	206.8	1.8	100.0	7.6	0.5
48.1	179.8	1.8	100.0	8.5	0.5
48.2	177.2	1.8	100.0	9.9	0.5
48.2	187.1	1.9	100.0	9.5	0.5
48.3	196.7	1.6	100.0	7.8	0.5
48.4	153.3	0.9	100.0	7.8	0.5
48.5	134.1	1.0	100.0	9.4	0.5
48.6	136.3	1.0	100.0	NoLiq	0.5
48.6	134.0	1.0	100.0	NoLiq	0.5
48.7	136.5	1.0	100.0	NoLiq	0.5
48.7	136.7	1.0	100.0	NoLiq	0.5
48.8	139.9	1.1	100.0	NoLiq	0.5
48.9	144.0	1.1	100.0	NoLiq	0.5
49.0	147.2	1.1	100.0	NoLiq	0.5
49.1	149.4	1.2	100.0	NoLiq	0.5
49.2	149.6	1.3	100.0	NoLiq	0.5
49.3	148.1	1.3	100.0	NoLiq	0.5
49.3	149.6	1.4	100.0	NoLiq	0.5
49.4	149.2	1.4	100.0	NoLiq	0.5
49.5	149.6	1.5	100.0	NoLiq	0.5
49.6	152.7	1.6	100.0	NoLiq	0.5
49.8	154.4	1.5	100.0	NoLiq	0.5
49.9	153.2	1.3	100.0	NoLiq	0.5
50.0	148.0	1.3	100.0	NoLiq	0.5
50.1	142.0	1.3	100.0	NoLiq	0.5

50.2	138.6	1.3	100.0	NoLiq	0.5

Output Results:

Settlement of saturated sands=2.38 in.
Settlement of dry sands=1.33 in.
Total settlement of saturated and dry sands=3.71 in.
Differential Settlement=1.853 to 2.446 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	2.38	1.33	3.71
0.05	2.00	0.83	5.00	2.38	1.33	3.71
0.10	2.00	0.83	5.00	2.38	1.33	3.71
0.15	2.00	0.83	5.00	2.38	1.33	3.71
0.20	2.00	0.83	5.00	2.38	1.33	3.71
0.25	2.00	0.83	5.00	2.38	1.33	3.71
0.30	2.00	0.83	5.00	2.38	1.33	3.71
0.35	2.00	0.83	5.00	2.38	1.33	3.71
0.40	2.00	0.83	5.00	2.38	1.33	3.71
0.45	2.00	0.83	5.00	2.38	1.33	3.71
0.50	2.00	0.83	5.00	2.38	1.33	3.71
0.55	2.00	0.83	5.00	2.38	1.33	3.71
0.60	2.00	0.83	5.00	2.38	1.33	3.71
0.65	2.00	0.83	5.00	2.38	1.33	3.71
0.70	2.00	0.83	5.00	2.38	1.33	3.71
0.75	2.00	0.83	5.00	2.38	1.33	3.71
0.80	2.00	0.83	5.00	2.38	1.33	3.71
0.85	2.00	0.83	5.00	2.38	1.33	3.71
0.90	2.00	0.83	5.00	2.38	1.33	3.71
0.95	2.00	0.83	5.00	2.38	1.33	3.71
1.00	2.00	0.83	5.00	2.38	1.33	3.71
1.05	2.00	0.83	5.00	2.38	1.33	3.71
1.10	2.00	0.83	5.00	2.38	1.33	3.71
1.15	2.00	0.83	5.00	2.38	1.33	3.71
1.20	2.00	0.83	5.00	2.38	1.33	3.71
1.25	2.00	0.83	5.00	2.38	1.33	3.71
1.30	2.00	0.83	5.00	2.38	1.33	3.71
1.35	2.00	0.83	5.00	2.38	1.33	3.71
1.40	2.00	0.83	5.00	2.38	1.33	3.71
1.45	2.00	0.83	5.00	2.38	1.33	3.71
1.50	2.00	0.83	5.00	2.38	1.33	3.71
1.55	2.00	0.83	5.00	2.38	1.33	3.71
1.60	2.00	0.83	5.00	2.38	1.33	3.71
1.65	2.00	0.82	5.00	2.38	1.33	3.71
1.70	2.00	0.82	5.00	2.38	1.33	3.71
1.75	2.00	0.82	5.00	2.38	1.33	3.71
1.80	2.00	0.82	5.00	2.38	1.33	3.71
1.85	2.00	0.82	5.00	2.38	1.33	3.71

1.90	2.00	0.82	5.00	2.38	1.33	3.71
1.95	2.00	0.82	5.00	2.38	1.33	3.71
2.00	2.00	0.82	5.00	2.38	1.33	3.71
2.05	2.00	0.82	5.00	2.38	1.33	3.71
2.10	2.00	0.82	5.00	2.38	1.33	3.71
2.15	2.00	0.82	5.00	2.38	1.33	3.71
2.20	2.00	0.82	5.00	2.38	1.33	3.71
2.25	2.00	0.82	5.00	2.38	1.33	3.71
2.30	2.00	0.82	5.00	2.38	1.33	3.71
2.35	2.00	0.82	5.00	2.38	1.33	3.71
2.40	2.00	0.82	5.00	2.38	1.33	3.71
2.45	2.00	0.82	5.00	2.38	1.33	3.71
2.50	2.00	0.82	5.00	2.38	1.33	3.71
2.55	2.00	0.82	5.00	2.38	1.33	3.71
2.60	2.00	0.82	5.00	2.38	1.33	3.71
2.65	2.00	0.82	5.00	2.38	1.33	3.71
2.70	2.00	0.82	5.00	2.38	1.33	3.71
2.75	2.00	0.82	5.00	2.38	1.33	3.71
2.80	2.00	0.82	5.00	2.38	1.33	3.71
2.85	2.00	0.82	5.00	2.38	1.33	3.71
2.90	2.00	0.82	5.00	2.38	1.33	3.71
2.95	2.00	0.82	5.00	2.38	1.33	3.71
3.00	2.00	0.82	5.00	2.38	1.33	3.71
3.05	2.00	0.82	5.00	2.38	1.33	3.71
3.10	2.00	0.82	5.00	2.38	1.33	3.71
3.15	2.00	0.82	5.00	2.38	1.33	3.71
3.20	2.00	0.82	5.00	2.38	1.33	3.71
3.25	2.00	0.82	5.00	2.38	1.33	3.71
3.30	2.00	0.82	5.00	2.38	1.33	3.71
3.35	2.00	0.82	5.00	2.38	1.33	3.71
3.40	2.00	0.82	5.00	2.38	1.33	3.71
3.45	2.00	0.82	5.00	2.38	1.33	3.71
3.50	2.00	0.82	5.00	2.38	1.33	3.71
3.55	2.00	0.82	5.00	2.38	1.33	3.71
3.60	2.00	0.82	5.00	2.38	1.33	3.71
3.65	2.00	0.82	5.00	2.38	1.33	3.71
3.70	2.00	0.82	5.00	2.38	1.33	3.71
3.75	2.00	0.82	5.00	2.38	1.33	3.71
3.80	2.00	0.82	5.00	2.38	1.33	3.71
3.85	2.00	0.82	5.00	2.38	1.33	3.71
3.90	2.00	0.82	5.00	2.38	1.33	3.71
3.95	2.00	0.82	5.00	2.38	1.33	3.71
4.00	2.00	0.82	5.00	2.38	1.33	3.71
4.05	2.00	0.82	5.00	2.38	1.33	3.71
4.10	2.00	0.82	5.00	2.38	1.33	3.71
4.15	2.00	0.82	5.00	2.38	1.33	3.71
4.20	2.00	0.82	5.00	2.38	1.33	3.71
4.25	2.00	0.82	5.00	2.38	1.33	3.71
4.30	2.00	0.82	5.00	2.38	1.33	3.71
4.35	2.00	0.82	5.00	2.38	1.33	3.71

4.40	2.00	0.82	5.00	2.38	1.33	3.71
4.45	2.00	0.82	5.00	2.38	1.33	3.71
4.50	2.00	0.82	5.00	2.38	1.33	3.71
4.55	2.00	0.82	5.00	2.38	1.33	3.71
4.60	2.00	0.82	5.00	2.38	1.33	3.71
4.65	2.00	0.82	5.00	2.38	1.33	3.71
4.70	2.00	0.82	5.00	2.38	1.33	3.71
4.75	2.00	0.82	5.00	2.38	1.33	3.71
4.80	2.00	0.82	5.00	2.38	1.33	3.71
4.85	2.00	0.82	5.00	2.38	1.33	3.71
4.90	2.00	0.82	5.00	2.38	1.33	3.71
4.95	2.00	0.82	5.00	2.38	1.33	3.71
5.00	2.00	0.82	5.00	2.38	1.33	3.71
5.05	2.00	0.82	5.00	2.38	1.33	3.71
5.10	2.00	0.82	5.00	2.38	1.33	3.71
5.15	2.00	0.82	5.00	2.38	1.33	3.71
5.20	2.00	0.82	5.00	2.38	1.33	3.71
5.25	2.00	0.82	5.00	2.38	1.33	3.71
5.30	2.00	0.82	5.00	2.38	1.33	3.71
5.35	2.00	0.82	5.00	2.38	1.33	3.71
5.40	2.00	0.82	5.00	2.38	1.33	3.71
5.45	2.00	0.82	5.00	2.38	1.33	3.71
5.50	2.00	0.82	5.00	2.38	1.33	3.71
5.55	2.00	0.82	5.00	2.38	1.33	3.71
5.60	2.00	0.82	5.00	2.38	1.33	3.71
5.65	2.00	0.82	5.00	2.38	1.33	3.71
5.70	2.00	0.82	5.00	2.38	1.33	3.71
5.75	2.00	0.82	5.00	2.38	1.33	3.71
5.80	2.00	0.82	5.00	2.38	1.33	3.71
5.85	2.00	0.82	5.00	2.38	1.33	3.71
5.90	2.00	0.82	5.00	2.38	1.33	3.71
5.95	2.00	0.82	5.00	2.38	1.33	3.71
6.00	2.00	0.82	5.00	2.38	1.33	3.71
6.05	2.00	0.82	5.00	2.38	1.33	3.71
6.10	2.00	0.82	5.00	2.38	1.33	3.71
6.15	2.00	0.82	5.00	2.38	1.33	3.71
6.20	2.00	0.82	5.00	2.38	1.33	3.71
6.25	2.00	0.82	5.00	2.38	1.33	3.71
6.30	2.00	0.82	5.00	2.38	1.33	3.71
6.35	2.00	0.82	5.00	2.38	1.33	3.71
6.40	2.00	0.82	5.00	2.38	1.33	3.71
6.45	2.00	0.82	5.00	2.38	1.33	3.71
6.50	2.00	0.82	5.00	2.38	1.33	3.71
6.55	2.00	0.82	5.00	2.38	1.33	3.71
6.60	2.00	0.82	5.00	2.38	1.33	3.71
6.65	2.00	0.82	5.00	2.38	1.33	3.71
6.70	2.00	0.82	5.00	2.38	1.33	3.71
6.75	2.00	0.82	5.00	2.38	1.33	3.71
6.80	2.00	0.81	5.00	2.38	1.33	3.71
6.85	2.00	0.81	5.00	2.38	1.33	3.71

6.90	2.00	0.81	5.00	2.38	1.33	3.71
6.95	2.00	0.81	5.00	2.38	1.33	3.71
7.00	2.00	0.81	5.00	2.38	1.33	3.71
7.05	2.00	0.81	5.00	2.38	1.33	3.71
7.10	2.00	0.81	5.00	2.38	1.33	3.71
7.15	2.00	0.81	5.00	2.38	1.33	3.71
7.20	2.00	0.81	5.00	2.38	1.33	3.71
7.25	2.00	0.81	5.00	2.38	1.33	3.71
7.30	2.00	0.81	5.00	2.38	1.33	3.71
7.35	2.00	0.81	5.00	2.38	1.33	3.71
7.40	2.00	0.81	5.00	2.38	1.33	3.71
7.45	2.00	0.81	5.00	2.38	1.33	3.71
7.50	2.00	0.81	5.00	2.38	1.33	3.71
7.55	2.00	0.81	5.00	2.38	1.33	3.71
7.60	2.00	0.81	5.00	2.38	1.33	3.71
7.65	2.00	0.81	5.00	2.38	1.33	3.71
7.70	2.00	0.81	5.00	2.38	1.33	3.71
7.75	2.00	0.81	5.00	2.38	1.33	3.71
7.80	2.00	0.81	5.00	2.38	1.33	3.71
7.85	2.00	0.81	5.00	2.38	1.33	3.71
7.90	2.00	0.81	5.00	2.38	1.33	3.71
7.95	2.00	0.81	5.00	2.38	1.33	3.71
8.00	2.00	0.81	5.00	2.38	1.33	3.71
8.05	2.00	0.81	5.00	2.38	1.33	3.71
8.10	2.00	0.81	5.00	2.38	1.33	3.71
8.15	2.00	0.81	5.00	2.38	1.33	3.71
8.20	2.00	0.81	5.00	2.38	1.33	3.71
8.25	2.00	0.81	5.00	2.38	1.33	3.71
8.30	2.00	0.81	5.00	2.38	1.33	3.71
8.35	2.00	0.81	5.00	2.38	1.33	3.71
8.40	2.00	0.81	5.00	2.38	1.33	3.71
8.45	2.00	0.81	5.00	2.38	1.33	3.71
8.50	2.00	0.81	5.00	2.38	1.33	3.71
8.55	2.00	0.81	5.00	2.38	1.33	3.71
8.60	2.00	0.81	5.00	2.38	1.33	3.71
8.65	2.00	0.81	5.00	2.38	1.33	3.71
8.70	2.00	0.81	5.00	2.38	1.33	3.71
8.75	2.00	0.81	5.00	2.38	1.33	3.71
8.80	2.00	0.81	5.00	2.38	1.33	3.71
8.85	2.00	0.81	5.00	2.38	1.33	3.71
8.90	2.00	0.81	5.00	2.38	1.33	3.71
8.95	2.00	0.81	5.00	2.38	1.33	3.71
9.00	2.00	0.81	5.00	2.38	1.33	3.71
9.05	2.00	0.81	5.00	2.38	1.33	3.71
9.10	2.00	0.81	5.00	2.38	1.33	3.71
9.15	2.00	0.81	5.00	2.38	1.33	3.71
9.20	2.00	0.81	5.00	2.38	1.33	3.71
9.25	2.00	0.81	5.00	2.38	1.33	3.71
9.30	2.00	0.81	5.00	2.38	1.33	3.71
9.35	2.00	0.81	5.00	2.38	1.33	3.71

9.40	2.00	0.81	5.00	2.38	1.33	3.71
9.45	2.00	0.81	5.00	2.38	1.33	3.71
9.50	2.00	0.81	5.00	2.38	1.33	3.71
9.55	2.00	0.81	5.00	2.38	1.33	3.71
9.60	2.00	0.81	5.00	2.38	1.33	3.71
9.65	2.00	0.81	5.00	2.38	1.33	3.71
9.70	2.00	0.81	5.00	2.38	1.33	3.71
9.75	2.00	0.81	5.00	2.38	1.33	3.71
9.80	2.00	0.81	5.00	2.38	1.33	3.71
9.85	2.00	0.81	5.00	2.38	1.33	3.71
9.90	2.00	0.81	5.00	2.38	1.33	3.71
9.95	2.00	0.81	5.00	2.38	1.33	3.71
10.00	2.00	0.81	5.00	2.38	1.33	3.71
10.05	2.00	0.81	5.00	2.38	1.33	3.71
10.10	2.00	0.81	5.00	2.38	1.33	3.71
10.15	2.00	0.81	5.00	2.38	1.33	3.71
10.20	2.00	0.81	5.00	2.38	1.33	3.71
10.25	2.00	0.81	5.00	2.38	1.33	3.71
10.30	2.00	0.81	5.00	2.38	1.33	3.71
10.35	2.00	0.81	5.00	2.38	1.33	3.71
10.40	2.00	0.81	5.00	2.38	1.33	3.71
10.45	2.00	0.81	5.00	2.38	1.33	3.71
10.50	2.00	0.81	5.00	2.38	1.33	3.71
10.55	2.00	0.81	5.00	2.38	1.33	3.71
10.60	2.00	0.81	5.00	2.38	1.33	3.71
10.65	2.00	0.81	5.00	2.38	1.33	3.71
10.70	2.00	0.81	5.00	2.38	1.33	3.71
10.75	2.00	0.81	5.00	2.38	1.33	3.71
10.80	2.00	0.81	5.00	2.38	1.33	3.71
10.85	2.00	0.81	5.00	2.38	1.33	3.71
10.90	2.00	0.81	5.00	2.38	1.33	3.71
10.95	2.00	0.81	5.00	2.38	1.33	3.71
11.00	2.00	0.81	5.00	2.38	1.33	3.71
11.05	2.00	0.81	5.00	2.38	1.33	3.71
11.10	2.00	0.81	5.00	2.38	1.33	3.71
11.15	2.00	0.81	5.00	2.38	1.33	3.71
11.20	2.00	0.81	5.00	2.38	1.33	3.71
11.25	2.00	0.81	5.00	2.38	1.33	3.71
11.30	2.00	0.81	5.00	2.38	1.33	3.71
11.35	2.00	0.81	5.00	2.38	1.33	3.71
11.40	2.00	0.81	5.00	2.38	1.33	3.71
11.45	2.00	0.81	5.00	2.38	1.33	3.71
11.50	2.00	0.81	5.00	2.38	1.33	3.71
11.55	2.00	0.81	5.00	2.38	1.33	3.71
11.60	2.00	0.81	5.00	2.38	1.33	3.71
11.65	2.00	0.81	5.00	2.38	1.33	3.71
11.70	2.00	0.81	5.00	2.38	1.33	3.71
11.75	2.00	0.81	5.00	2.38	1.33	3.71
11.80	2.00	0.81	5.00	2.38	1.33	3.71
11.85	2.00	0.81	5.00	2.38	1.33	3.71

11.90	2.00	0.81	5.00	2.38	1.33	3.71
11.95	2.00	0.81	5.00	2.38	1.33	3.71
12.00	2.00	0.80	5.00	2.38	1.33	3.71
12.05	2.00	0.80	5.00	2.38	1.33	3.71
12.10	2.00	0.80	5.00	2.38	1.33	3.71
12.15	2.00	0.80	5.00	2.38	1.33	3.71
12.20	2.00	0.80	5.00	2.38	1.33	3.71
12.25	2.00	0.80	5.00	2.38	1.33	3.71
12.30	2.00	0.80	5.00	2.38	1.33	3.71
12.35	2.00	0.80	5.00	2.38	1.33	3.71
12.40	2.00	0.80	5.00	2.38	1.33	3.71
12.45	2.00	0.80	5.00	2.38	1.33	3.71
12.50	2.00	0.80	5.00	2.38	1.33	3.71
12.55	2.00	0.80	5.00	2.38	1.33	3.71
12.60	2.00	0.80	5.00	2.38	1.33	3.71
12.65	2.00	0.80	5.00	2.38	1.33	3.71
12.70	2.00	0.80	5.00	2.38	1.33	3.71
12.75	2.00	0.80	5.00	2.38	1.33	3.71
12.80	2.00	0.80	5.00	2.38	1.33	3.71
12.85	2.00	0.80	5.00	2.38	1.33	3.71
12.90	2.00	0.80	5.00	2.38	1.33	3.71
12.95	2.00	0.80	5.00	2.38	1.33	3.71
13.00	2.00	0.80	5.00	2.38	1.33	3.71
13.05	2.00	0.80	5.00	2.38	1.33	3.71
13.10	2.00	0.80	5.00	2.38	1.33	3.71
13.15	2.00	0.80	5.00	2.38	1.33	3.71
13.20	2.00	0.80	5.00	2.38	1.33	3.71
13.25	2.00	0.80	5.00	2.38	1.33	3.71
13.30	2.00	0.80	5.00	2.38	1.33	3.71
13.35	2.00	0.80	5.00	2.38	1.33	3.71
13.40	2.00	0.80	5.00	2.38	1.33	3.71
13.45	2.00	0.80	5.00	2.38	1.33	3.71
13.50	2.00	0.80	5.00	2.38	1.33	3.71
13.55	2.00	0.80	5.00	2.38	1.33	3.71
13.60	2.00	0.80	5.00	2.38	1.33	3.71
13.65	2.00	0.80	5.00	2.38	1.33	3.71
13.70	2.00	0.80	5.00	2.38	1.33	3.71
13.75	2.00	0.80	5.00	2.38	1.33	3.71
13.80	2.00	0.80	5.00	2.38	1.33	3.71
13.85	2.00	0.80	5.00	2.38	1.33	3.71
13.90	2.00	0.80	5.00	2.38	1.33	3.71
13.95	2.00	0.80	5.00	2.38	1.33	3.71
14.00	2.00	0.80	5.00	2.38	1.33	3.71
14.05	2.00	0.80	5.00	2.38	1.33	3.71
14.10	2.00	0.80	5.00	2.38	1.33	3.71
14.15	2.00	0.80	5.00	2.38	1.33	3.71
14.20	2.00	0.80	5.00	2.38	1.33	3.71
14.25	2.00	0.80	5.00	2.38	1.33	3.71
14.30	2.00	0.80	5.00	2.38	1.33	3.71
14.35	2.00	0.80	5.00	2.38	1.33	3.71

14.40	2.00	0.80	5.00	2.38	1.33	3.71
14.45	2.00	0.80	5.00	2.38	1.33	3.71
14.50	2.00	0.80	5.00	2.38	1.33	3.71
14.55	2.00	0.80	5.00	2.38	1.33	3.71
14.60	2.00	0.80	5.00	2.38	1.33	3.71
14.65	2.00	0.80	5.00	2.38	1.33	3.71
14.70	2.00	0.80	5.00	2.38	1.33	3.71
14.75	2.00	0.80	5.00	2.38	1.33	3.71
14.80	2.00	0.80	5.00	2.38	1.33	3.71
14.85	2.00	0.80	5.00	2.38	1.33	3.71
14.90	2.00	0.80	5.00	2.38	1.33	3.71
14.95	2.00	0.80	5.00	2.38	1.33	3.71
15.00	2.00	0.80	5.00	2.38	1.33	3.71
15.05	2.00	0.80	5.00	2.38	1.33	3.71
15.10	2.00	0.80	5.00	2.38	1.33	3.71
15.15	2.00	0.80	5.00	2.38	1.33	3.71
15.20	2.00	0.80	5.00	2.38	1.33	3.71
15.25	2.00	0.80	5.00	2.38	1.33	3.71
15.30	2.00	0.80	5.00	2.38	1.33	3.71
15.35	2.00	0.80	5.00	2.38	1.33	3.71
15.40	2.00	0.80	5.00	2.38	1.33	3.71
15.45	2.00	0.80	5.00	2.38	1.33	3.71
15.50	2.00	0.80	5.00	2.38	1.33	3.71
15.55	2.00	0.80	5.00	2.38	1.33	3.71
15.60	2.00	0.80	5.00	2.38	1.33	3.71
15.65	2.00	0.80	5.00	2.38	1.33	3.71
15.70	2.00	0.80	5.00	2.38	1.33	3.71
15.75	2.00	0.80	5.00	2.38	1.33	3.71
15.80	2.00	0.80	5.00	2.38	1.33	3.71
15.85	2.00	0.80	5.00	2.38	1.33	3.71
15.90	2.00	0.80	5.00	2.38	1.33	3.71
15.95	2.00	0.80	5.00	2.38	1.33	3.71
16.00	2.00	0.80	5.00	2.38	1.33	3.71
16.05	2.00	0.80	5.00	2.38	1.33	3.71
16.10	2.00	0.80	5.00	2.38	1.33	3.71
16.15	2.00	0.80	5.00	2.38	1.33	3.71
16.20	2.00	0.80	5.00	2.38	1.33	3.71
16.25	2.00	0.80	5.00	2.38	1.33	3.71
16.30	2.00	0.80	5.00	2.38	1.33	3.71
16.35	2.00	0.80	5.00	2.38	1.33	3.71
16.40	2.00	0.80	5.00	2.38	1.33	3.71
16.45	2.00	0.80	5.00	2.38	1.33	3.71
16.50	2.00	0.80	5.00	2.38	1.33	3.71
16.55	2.00	0.80	5.00	2.38	1.33	3.71
16.60	2.00	0.80	5.00	2.38	1.33	3.71
16.65	2.00	0.80	5.00	2.38	1.33	3.71
16.70	2.00	0.80	5.00	2.38	1.33	3.71
16.75	2.00	0.80	5.00	2.38	1.33	3.71
16.80	2.00	0.80	5.00	2.38	1.33	3.71
16.85	2.00	0.80	5.00	2.38	1.33	3.71

16.90	2.00	0.80	5.00	2.38	1.33	3.71
16.95	2.00	0.80	5.00	2.38	1.33	3.71
17.00	2.00	0.80	5.00	2.38	1.33	3.71
17.05	2.00	0.80	5.00	2.38	1.33	3.71
17.10	2.00	0.80	5.00	2.38	1.33	3.71
17.15	2.00	0.79	5.00	2.38	1.33	3.71
17.20	2.00	0.79	5.00	2.38	1.33	3.71
17.25	2.00	0.79	5.00	2.38	1.33	3.71
17.30	2.00	0.79	5.00	2.38	1.33	3.71
17.35	2.00	0.79	5.00	2.38	1.33	3.71
17.40	2.00	0.79	5.00	2.38	1.33	3.71
17.45	2.00	0.79	5.00	2.38	1.33	3.71
17.50	2.00	0.79	5.00	2.38	1.33	3.71
17.55	2.00	0.79	5.00	2.38	1.33	3.71
17.60	2.00	0.79	5.00	2.38	1.33	3.71
17.65	2.00	0.79	5.00	2.38	1.33	3.71
17.70	2.00	0.79	5.00	2.38	1.33	3.71
17.75	2.00	0.79	5.00	2.38	1.33	3.71
17.80	2.00	0.79	5.00	2.38	1.33	3.71
17.85	2.00	0.79	5.00	2.38	1.33	3.71
17.90	2.00	0.79	5.00	2.38	1.33	3.71
17.95	2.00	0.79	5.00	2.38	1.33	3.71
18.00	2.00	0.79	5.00	2.38	1.33	3.71
18.05	2.00	0.79	5.00	2.38	1.33	3.71
18.10	2.00	0.79	5.00	2.38	1.33	3.71
18.15	2.00	0.79	5.00	2.38	1.33	3.71
18.20	2.00	0.79	5.00	2.38	1.33	3.71
18.25	2.00	0.79	5.00	2.38	1.33	3.71
18.30	2.00	0.79	5.00	2.38	1.33	3.71
18.35	2.00	0.79	5.00	2.38	1.33	3.71
18.40	2.00	0.79	5.00	2.38	1.33	3.71
18.45	2.00	0.79	5.00	2.38	1.33	3.71
18.50	2.00	0.79	5.00	2.38	1.33	3.71
18.55	2.00	0.79	5.00	2.38	1.33	3.71
18.60	2.00	0.79	5.00	2.38	1.33	3.71
18.65	2.00	0.79	5.00	2.38	1.33	3.71
18.70	2.00	0.79	5.00	2.38	1.33	3.71
18.75	2.00	0.79	5.00	2.38	1.33	3.71
18.80	2.00	0.79	5.00	2.38	1.33	3.71
18.85	2.00	0.79	5.00	2.38	1.33	3.71
18.90	2.00	0.79	5.00	2.38	1.33	3.71
18.95	2.00	0.79	5.00	2.38	1.33	3.71
19.00	2.00	0.79	5.00	2.38	1.33	3.71
19.05	2.00	0.79	5.00	2.38	1.33	3.71
19.10	2.00	0.79	5.00	2.38	1.33	3.71
19.15	2.00	0.79	5.00	2.38	1.33	3.71
19.20	2.00	0.79	5.00	2.38	1.33	3.71
19.25	2.00	0.79	5.00	2.38	1.33	3.71
19.30	2.00	0.79	5.00	2.38	1.33	3.71
19.35	2.00	0.79	5.00	2.38	1.33	3.71

19.40	2.00	0.79	5.00	2.38	1.33	3.71
19.45	2.00	0.79	5.00	2.38	1.33	3.71
19.50	2.00	0.79	5.00	2.38	1.33	3.71
19.55	2.00	0.79	5.00	2.38	1.33	3.71
19.60	2.00	0.79	5.00	2.38	1.33	3.71
19.65	2.00	0.79	5.00	2.38	1.33	3.71
19.70	2.00	0.79	5.00	2.38	1.33	3.71
19.75	2.00	0.79	5.00	2.38	1.33	3.71
19.80	2.00	0.79	5.00	2.38	1.33	3.71
19.85	2.00	0.79	5.00	2.38	1.33	3.71
19.90	2.00	0.79	5.00	2.38	1.33	3.71
19.95	2.00	0.79	5.00	2.38	1.33	3.71
20.00	2.00	0.79	5.00	2.38	1.33	3.71
20.05	2.00	0.79	5.00	2.38	1.33	3.71
20.10	2.00	0.79	5.00	2.38	1.33	3.71
20.15	2.00	0.79	5.00	2.38	1.33	3.71
20.20	2.00	0.79	5.00	2.38	1.33	3.71
20.25	2.00	0.79	5.00	2.38	1.33	3.71
20.30	2.00	0.79	5.00	2.38	1.33	3.71
20.35	2.00	0.79	5.00	2.38	1.33	3.71
20.40	2.00	0.79	5.00	2.38	1.33	3.71
20.45	2.00	0.79	5.00	2.38	1.33	3.71
20.50	2.00	0.79	5.00	2.38	1.33	3.71
20.55	2.00	0.79	5.00	2.38	1.33	3.71
20.60	0.44	0.79	5.00	2.38	1.33	3.71
20.65	0.45	0.79	5.00	2.38	1.32	3.70
20.70	0.42	0.79	5.00	2.38	1.31	3.69
20.75	0.39	0.79	5.00	2.38	1.30	3.68
20.80	0.35	0.79	5.00	2.38	1.30	3.68
20.85	0.28	0.79	5.00	2.38	1.29	3.67
20.90	0.25	0.79	5.00	2.38	1.28	3.66
20.95	0.22	0.79	5.00	2.38	1.27	3.65
21.00	0.19	0.79	5.00	2.38	1.26	3.64
21.05	0.18	0.79	5.00	2.38	1.25	3.63
21.10	0.16	0.79	5.00	2.38	1.24	3.62
21.15	0.15	0.79	5.00	2.38	1.23	3.60
21.20	0.14	0.79	5.00	2.38	1.21	3.59
21.25	0.14	0.79	5.00	2.38	1.20	3.58
21.30	0.14	0.79	5.00	2.38	1.19	3.56
21.35	0.14	0.79	5.00	2.38	1.17	3.55
21.40	0.14	0.79	5.00	2.38	1.16	3.54
21.45	0.13	0.79	5.00	2.38	1.15	3.52
21.50	0.13	0.79	5.00	2.38	1.13	3.51
21.55	0.13	0.79	5.00	2.38	1.12	3.50
21.60	0.13	0.79	5.00	2.38	1.11	3.48
21.65	0.12	0.79	5.00	2.38	1.09	3.47
21.70	0.11	0.79	5.00	2.38	1.08	3.45
21.75	0.11	0.79	5.00	2.38	1.06	3.44
21.80	0.11	0.79	5.00	2.38	1.04	3.42
21.85	0.11	0.79	5.00	2.38	1.02	3.40

21.90	0.11	0.79	5.00	2.38	1.00	3.38
21.95	0.11	0.79	5.00	2.38	0.98	3.36
22.00	0.11	0.79	5.00	2.38	0.97	3.34
22.05	0.11	0.79	5.00	2.38	0.95	3.33
22.10	0.11	0.79	5.00	2.38	0.93	3.31
22.15	0.12	0.79	5.00	2.38	0.92	3.29
22.20	0.12	0.79	5.00	2.38	0.90	3.28
22.25	0.13	0.79	5.00	2.38	0.89	3.27
22.30	0.13	0.79	5.00	2.38	0.87	3.25
22.35	0.13	0.78	5.00	2.38	0.86	3.24
22.40	0.13	0.78	5.00	2.38	0.85	3.23
22.45	0.13	0.78	5.00	2.38	0.84	3.21
22.50	0.13	0.78	5.00	2.38	0.82	3.20
22.55	0.13	0.78	5.00	2.38	0.81	3.19
22.60	0.13	0.78	5.00	2.38	0.80	3.18
22.65	0.13	0.78	5.00	2.38	0.79	3.16
22.70	0.13	0.78	5.00	2.38	0.77	3.15
22.75	0.12	0.78	5.00	2.38	0.76	3.14
22.80	0.12	0.78	5.00	2.38	0.75	3.12
22.85	0.12	0.78	5.00	2.38	0.73	3.11
22.90	0.12	0.78	5.00	2.38	0.72	3.09
22.95	0.12	0.78	5.00	2.38	0.70	3.08
23.00	0.12	0.78	5.00	2.38	0.68	3.06
23.05	0.12	0.78	5.00	2.38	0.67	3.05
23.10	0.12	0.78	5.00	2.38	0.65	3.03
23.15	0.12	0.78	5.00	2.38	0.64	3.01
23.20	0.12	0.78	5.00	2.38	0.62	3.00
23.25	0.12	0.78	5.00	2.38	0.60	2.98
23.30	0.12	0.78	5.00	2.38	0.59	2.97
23.35	0.12	0.78	5.00	2.38	0.57	2.95
23.40	0.12	0.78	5.00	2.38	0.56	2.93
23.45	0.12	0.78	5.00	2.38	0.54	2.92
23.50	0.12	0.78	5.00	2.38	0.52	2.90
23.55	0.12	0.78	5.00	2.38	0.51	2.89
23.60	0.12	0.78	5.00	2.38	0.49	2.87
23.65	0.12	0.78	5.00	2.38	0.48	2.85
23.70	0.12	0.78	5.00	2.38	0.46	2.84
23.75	0.12	0.78	5.00	2.38	0.44	2.82
23.80	0.13	0.78	5.00	2.38	0.43	2.81
23.85	0.13	0.78	5.00	2.38	0.41	2.79
23.90	0.13	0.78	5.00	2.38	0.40	2.78
23.95	0.13	0.78	5.00	2.38	0.38	2.76
24.00	0.12	0.78	5.00	2.38	0.37	2.75
24.05	0.11	0.78	5.00	2.38	0.35	2.73
24.10	0.11	0.78	5.00	2.38	0.33	2.71
24.15	0.11	0.78	5.00	2.38	0.31	2.69
24.20	0.12	0.78	5.00	2.38	0.29	2.67
24.25	0.12	0.78	5.00	2.38	0.28	2.65
24.30	0.12	0.78	5.00	2.38	0.26	2.64
24.35	0.12	0.78	5.00	2.38	0.24	2.62

24.40	0.10	0.78	5.00	2.38	0.22	2.60
24.45	0.11	0.78	5.00	2.38	0.20	2.58
24.50	0.11	0.78	5.00	2.38	0.18	2.56
24.55	0.11	0.78	5.00	2.38	0.17	2.54
24.60	0.11	0.78	5.00	2.38	0.15	2.53
24.65	0.11	0.78	5.00	2.38	0.13	2.51
24.70	0.11	0.78	5.00	2.38	0.11	2.49
24.75	0.11	0.78	5.00	2.38	0.10	2.47
24.80	0.11	0.78	5.00	2.38	0.08	2.46
24.85	0.11	0.78	5.00	2.38	0.06	2.44
24.90	0.11	0.78	5.00	2.38	0.05	2.42
24.95	0.12	0.78	5.00	2.38	0.03	2.41
25.00	0.17	0.78	5.00	2.38	0.01	2.39
25.05	0.18	0.78	0.24*	2.38	0.00	2.38
25.10	0.18	0.78	0.24*	2.37	0.00	2.37
25.15	0.18	0.78	0.23*	2.36	0.00	2.36
25.20	0.18	0.78	0.23*	2.35	0.00	2.35
25.25	0.18	0.78	0.23*	2.34	0.00	2.34
25.30	0.18	0.78	0.23*	2.33	0.00	2.33
25.35	0.18	0.78	0.23*	2.33	0.00	2.33
25.40	0.18	0.79	0.23*	2.32	0.00	2.32
25.45	0.18	0.79	0.23*	2.31	0.00	2.31
25.50	0.18	0.79	0.23*	2.30	0.00	2.30
25.55	0.18	0.79	0.23*	2.29	0.00	2.29
25.60	0.18	0.79	0.23*	2.28	0.00	2.28
25.65	0.18	0.79	0.23*	2.27	0.00	2.27
25.70	0.18	0.79	0.23*	2.26	0.00	2.26
25.75	0.18	0.79	0.22*	2.25	0.00	2.25
25.80	0.18	0.79	0.22*	2.25	0.00	2.25
25.85	0.18	0.79	0.22*	2.24	0.00	2.24
25.90	0.18	0.79	0.23*	2.23	0.00	2.23
25.95	0.18	0.80	0.23*	2.22	0.00	2.22
26.00	0.18	0.80	0.22*	2.21	0.00	2.21
26.05	0.18	0.80	0.22*	2.20	0.00	2.20
26.10	0.18	0.80	0.23*	2.19	0.00	2.19
26.15	0.19	0.80	0.24*	2.18	0.00	2.18
26.20	0.20	0.80	0.25*	2.17	0.00	2.17
26.25	0.20	0.80	0.25*	2.16	0.00	2.16
26.30	0.21	0.80	0.26*	2.15	0.00	2.15
26.35	0.19	0.80	0.24*	2.15	0.00	2.15
26.40	0.21	0.80	0.26*	2.14	0.00	2.14
26.45	0.22	0.80	0.27*	2.13	0.00	2.13
26.50	0.22	0.80	0.28*	2.12	0.00	2.12
26.55	0.23	0.81	0.28*	2.11	0.00	2.11
26.60	0.23	0.81	0.28*	2.10	0.00	2.10
26.65	0.22	0.81	0.28*	2.09	0.00	2.09
26.70	0.22	0.81	0.27*	2.08	0.00	2.08
26.75	0.22	0.81	0.27*	2.08	0.00	2.08
26.80	0.22	0.81	0.27*	2.07	0.00	2.07
26.85	0.22	0.81	0.27*	2.06	0.00	2.06

26.90	0.22	0.81	0.27*	2.05	0.00	2.05
26.95	0.22	0.81	0.27*	2.04	0.00	2.04
27.00	0.22	0.81	0.27*	2.03	0.00	2.03
27.05	0.22	0.81	0.27*	2.03	0.00	2.03
27.10	0.21	0.81	0.26*	2.02	0.00	2.02
27.15	0.21	0.82	0.26*	2.01	0.00	2.01
27.20	0.21	0.82	0.25*	2.00	0.00	2.00
27.25	0.21	0.82	0.26*	1.99	0.00	1.99
27.30	0.21	0.82	0.26*	1.98	0.00	1.98
27.35	0.21	0.82	0.26*	1.98	0.00	1.98
27.40	0.22	0.82	0.26*	1.97	0.00	1.97
27.45	0.22	0.82	0.27*	1.96	0.00	1.96
27.50	0.22	0.82	0.27*	1.95	0.00	1.95
27.55	0.22	0.82	0.26*	1.94	0.00	1.94
27.60	0.21	0.82	0.26*	1.93	0.00	1.93
27.65	0.21	0.82	0.25*	1.92	0.00	1.92
27.70	0.20	0.82	0.24*	1.92	0.00	1.92
27.75	0.20	0.82	0.24*	1.91	0.00	1.91
27.80	0.20	0.83	0.24*	1.90	0.00	1.90
27.85	0.19	0.83	0.23*	1.89	0.00	1.89
27.90	0.19	0.83	0.23*	1.88	0.00	1.88
27.95	0.18	0.83	0.22*	1.87	0.00	1.87
28.00	0.17	0.83	0.21*	1.86	0.00	1.86
28.05	0.18	0.83	0.22*	1.85	0.00	1.85
28.10	0.18	0.83	0.22*	1.84	0.00	1.84
28.15	0.19	0.83	0.23*	1.83	0.00	1.83
28.20	0.19	0.83	0.23*	1.82	0.00	1.82
28.25	0.19	0.83	0.23*	1.81	0.00	1.81
28.30	0.19	0.83	0.23*	1.81	0.00	1.81
28.35	0.19	0.83	0.23*	1.80	0.00	1.80
28.40	0.19	0.83	0.22*	1.79	0.00	1.79
28.45	0.18	0.84	0.22*	1.78	0.00	1.78
28.50	0.18	0.84	0.21*	1.77	0.00	1.77
28.55	0.17	0.84	0.21*	1.76	0.00	1.76
28.60	0.17	0.84	0.20*	1.75	0.00	1.75
28.65	0.16	0.84	0.20*	1.74	0.00	1.74
28.70	0.16	0.84	0.19*	1.73	0.00	1.73
28.75	0.16	0.84	0.19*	1.72	0.00	1.72
28.80	0.16	0.84	0.18*	1.71	0.00	1.71
28.85	0.15	0.84	0.18*	1.70	0.00	1.70
28.90	0.15	0.84	0.18*	1.69	0.00	1.69
28.95	0.15	0.84	0.18*	1.68	0.00	1.68
29.00	0.15	0.84	0.18*	1.67	0.00	1.67
29.05	0.15	0.84	0.18*	1.66	0.00	1.66
29.10	0.15	0.85	0.18*	1.65	0.00	1.65
29.15	0.16	0.85	0.19*	1.64	0.00	1.64
29.20	0.16	0.85	0.19*	1.63	0.00	1.63
29.25	0.17	0.85	0.20*	1.62	0.00	1.62
29.30	0.18	0.85	0.22*	1.61	0.00	1.61
29.35	0.19	0.85	0.23*	1.61	0.00	1.61

29.40	0.20	0.85	0.23*	1.60	0.00	1.60
29.45	0.20	0.85	0.23*	1.59	0.00	1.59
29.50	0.21	0.85	0.25*	1.58	0.00	1.58
29.55	0.23	0.85	0.27*	1.57	0.00	1.57
29.60	0.25	0.85	0.29*	1.56	0.00	1.56
29.65	0.27	0.85	0.32*	1.56	0.00	1.56
29.70	0.29	0.85	0.34*	1.55	0.00	1.55
29.75	0.30	0.85	0.35*	1.54	0.00	1.54
29.80	0.28	0.86	0.33*	1.54	0.00	1.54
29.85	0.30	0.86	0.35*	1.53	0.00	1.53
29.90	0.34	0.86	0.40*	1.52	0.00	1.52
29.95	0.38	0.86	0.44*	1.51	0.00	1.51
30.00	0.35	0.86	0.41*	1.51	0.00	1.51
30.05	0.35	0.86	0.40*	1.50	0.00	1.50
30.10	0.37	0.86	0.43*	1.49	0.00	1.49
30.15	0.36	0.86	0.42*	1.49	0.00	1.49
30.20	0.38	0.86	0.44*	1.48	0.00	1.48
30.25	0.41	0.86	0.47*	1.47	0.00	1.47
30.30	0.43	0.86	0.50*	1.47	0.00	1.47
30.35	0.46	0.86	0.53*	1.46	0.00	1.46
30.40	0.48	0.86	0.55*	1.45	0.00	1.45
30.45	0.51	0.86	0.59*	1.45	0.00	1.45
30.50	0.53	0.86	0.62*	1.44	0.00	1.44
30.55	0.56	0.86	0.65*	1.44	0.00	1.44
30.60	0.61	0.86	0.71*	1.43	0.00	1.43
30.65	0.66	0.86	0.76*	1.43	0.00	1.43
30.70	0.70	0.86	0.81*	1.43	0.00	1.43
30.75	0.73	0.87	0.84*	1.43	0.00	1.43
30.80	0.75	0.87	0.87*	1.42	0.00	1.42
30.85	0.76	0.87	0.88*	1.42	0.00	1.42
30.90	0.78	0.87	0.90*	1.42	0.00	1.42
30.95	0.78	0.87	0.90*	1.42	0.00	1.42
31.00	0.72	0.87	0.83*	1.42	0.00	1.42
31.05	0.74	0.87	0.85*	1.42	0.00	1.42
31.10	0.73	0.87	0.84*	1.42	0.00	1.42
31.15	0.70	0.87	0.81*	1.42	0.00	1.42
31.20	0.66	0.87	0.76*	1.42	0.00	1.42
31.25	0.63	0.87	0.73*	1.42	0.00	1.42
31.30	0.60	0.87	0.68*	1.41	0.00	1.41
31.35	0.56	0.87	0.64*	1.41	0.00	1.41
31.40	0.55	0.87	0.63*	1.41	0.00	1.41
31.45	0.54	0.87	0.62*	1.41	0.00	1.41
31.50	0.55	0.87	0.63*	1.41	0.00	1.41
31.55	0.56	0.87	0.64*	1.40	0.00	1.40
31.60	0.56	0.87	0.64*	1.40	0.00	1.40
31.65	0.61	0.87	0.70*	1.40	0.00	1.40
31.70	0.69	0.87	0.80*	1.40	0.00	1.40
31.75	0.79	0.87	0.91*	1.40	0.00	1.40
31.80	0.88	0.87	1.01	1.40	0.00	1.40
31.85	0.96	0.87	1.09	1.40	0.00	1.40

31.90	0.80	0.87	0.91*	1.40	0.00	1.40
31.95	0.85	0.87	0.97*	1.40	0.00	1.40
32.00	0.95	0.88	1.08	1.40	0.00	1.40
32.05	1.06	0.88	1.21	1.40	0.00	1.40
32.10	1.19	0.88	1.35	1.40	0.00	1.40
32.15	0.88	0.88	1.00	1.40	0.00	1.40
32.20	0.61	0.88	0.70*	1.40	0.00	1.40
32.25	0.46	0.88	0.52*	1.40	0.00	1.40
32.30	0.47	0.88	0.54*	1.39	0.00	1.39
32.35	0.50	0.88	0.57*	1.39	0.00	1.39
32.40	0.50	0.88	0.57*	1.39	0.00	1.39
32.45	0.51	0.88	0.58*	1.38	0.00	1.38
32.50	0.52	0.88	0.59*	1.38	0.00	1.38
32.55	0.54	0.88	0.61*	1.38	0.00	1.38
32.60	0.58	0.88	0.66*	1.37	0.00	1.37
32.65	0.63	0.88	0.71*	1.37	0.00	1.37
32.70	0.71	0.88	0.81*	1.37	0.00	1.37
32.75	0.84	0.88	0.96*	1.37	0.00	1.37
32.80	0.95	0.88	1.07	1.37	0.00	1.37
32.85	1.02	0.88	1.16	1.37	0.00	1.37
32.90	1.06	0.88	1.20	1.37	0.00	1.37
32.95	1.14	0.88	1.29	1.37	0.00	1.37
33.00	1.26	0.88	1.43	1.37	0.00	1.37
33.05	1.30	0.88	1.47	1.37	0.00	1.37
33.10	1.07	0.88	1.22	1.37	0.00	1.37
33.15	0.98	0.88	1.11	1.37	0.00	1.37
33.20	0.91	0.88	1.03	1.37	0.00	1.37
33.25	0.83	0.88	0.94*	1.37	0.00	1.37
33.30	0.79	0.88	0.89*	1.37	0.00	1.37
33.35	0.71	0.88	0.80*	1.37	0.00	1.37
33.40	0.61	0.89	0.69*	1.37	0.00	1.37
33.45	0.56	0.89	0.63*	1.37	0.00	1.37
33.50	0.51	0.89	0.58*	1.36	0.00	1.36
33.55	0.47	0.89	0.53*	1.36	0.00	1.36
33.60	0.40	0.89	0.45*	1.36	0.00	1.36
33.65	0.32	0.89	0.36*	1.35	0.00	1.35
33.70	0.29	0.89	0.32*	1.34	0.00	1.34
33.75	0.26	0.89	0.29*	1.34	0.00	1.34
33.80	0.24	0.89	0.27*	1.33	0.00	1.33
33.85	0.23	0.89	0.26*	1.32	0.00	1.32
33.90	0.23	0.89	0.26*	1.31	0.00	1.31
33.95	0.23	0.89	0.26*	1.30	0.00	1.30
34.00	0.23	0.89	0.26*	1.30	0.00	1.30
34.05	0.24	0.89	0.28*	1.29	0.00	1.29
34.10	0.27	0.89	0.30*	1.28	0.00	1.28
34.15	0.28	0.89	0.32*	1.27	0.00	1.27
34.20	0.29	0.89	0.32*	1.27	0.00	1.27
34.25	0.29	0.89	0.32*	1.26	0.00	1.26
34.30	0.29	0.89	0.32*	1.25	0.00	1.25
34.35	0.29	0.89	0.32*	1.24	0.00	1.24

34.40	0.29	0.89	0.32*	1.24	0.00	1.24
34.45	0.29	0.89	0.32*	1.23	0.00	1.23
34.50	0.29	0.89	0.32*	1.22	0.00	1.22
34.55	0.29	0.89	0.32*	1.21	0.00	1.21
34.60	0.29	0.89	0.33*	1.21	0.00	1.21
34.65	0.29	0.89	0.33*	1.20	0.00	1.20
34.70	0.30	0.89	0.34*	1.19	0.00	1.19
34.75	0.32	0.89	0.36*	1.19	0.00	1.19
34.80	0.36	0.89	0.40*	1.18	0.00	1.18
34.85	0.39	0.89	0.44*	1.17	0.00	1.17
34.90	0.41	0.89	0.46*	1.17	0.00	1.17
34.95	0.41	0.89	0.46*	1.16	0.00	1.16
35.00	0.41	0.90	0.46*	1.15	0.00	1.15
35.05	0.42	0.90	0.47*	1.15	0.00	1.15
35.10	0.44	0.90	0.49*	1.14	0.00	1.14
35.15	0.45	0.90	0.50*	1.14	0.00	1.14
35.20	0.47	0.90	0.52*	1.13	0.00	1.13
35.25	0.49	0.90	0.54*	1.13	0.00	1.13
35.30	0.48	0.90	0.54*	1.12	0.00	1.12
35.35	0.48	0.90	0.53*	1.12	0.00	1.12
35.40	0.44	0.90	0.49*	1.11	0.00	1.11
35.45	0.41	0.90	0.45*	1.10	0.00	1.10
35.50	0.37	0.90	0.41*	1.10	0.00	1.10
35.55	0.33	0.90	0.37*	1.09	0.00	1.09
35.60	0.30	0.90	0.34*	1.09	0.00	1.09
35.65	0.27	0.90	0.31*	1.08	0.00	1.08
35.70	0.25	0.90	0.28*	1.07	0.00	1.07
35.75	0.23	0.90	0.26*	1.06	0.00	1.06
35.80	0.22	0.90	0.24*	1.05	0.00	1.05
35.85	0.21	0.90	0.23*	1.05	0.00	1.05
35.90	0.21	0.90	0.23*	1.04	0.00	1.04
35.95	0.21	0.90	0.23*	1.03	0.00	1.03
36.00	0.22	0.90	0.24*	1.02	0.00	1.02
36.05	0.23	0.90	0.25*	1.01	0.00	1.01
36.10	0.23	0.90	0.25*	1.00	0.00	1.00
36.15	0.23	0.90	0.26*	1.00	0.00	1.00
36.20	0.24	0.90	0.26*	0.99	0.00	0.99
36.25	0.23	0.90	0.26*	0.98	0.00	0.98
36.30	0.23	0.90	0.25*	0.97	0.00	0.97
36.35	0.22	0.90	0.24*	0.96	0.00	0.96
36.40	0.21	0.90	0.23*	0.96	0.00	0.96
36.45	0.20	0.90	0.22*	0.95	0.00	0.95
36.50	0.20	0.90	0.22*	0.94	0.00	0.94
36.55	0.19	0.90	0.22*	0.93	0.00	0.93
36.60	0.19	0.90	0.22*	0.92	0.00	0.92
36.65	0.19	0.90	0.21*	0.91	0.00	0.91
36.70	0.18	0.90	0.20*	0.91	0.00	0.91
36.75	0.18	0.90	0.20*	0.90	0.00	0.90
36.80	0.19	0.90	0.21*	0.89	0.00	0.89
36.85	0.19	0.90	0.21*	0.88	0.00	0.88

36.90	0.19	0.90	0.21*	0.87	0.00	0.87
36.95	0.20	0.91	0.22*	0.86	0.00	0.86
37.00	0.20	0.91	0.22*	0.86	0.00	0.86
37.05	0.20	0.91	0.23*	0.85	0.00	0.85
37.10	0.21	0.91	0.23*	0.84	0.00	0.84
37.15	0.21	0.91	0.23*	0.83	0.00	0.83
37.20	0.22	0.91	0.24*	0.83	0.00	0.83
37.25	0.22	0.91	0.25*	0.82	0.00	0.82
37.30	0.23	0.91	0.25*	0.81	0.00	0.81
37.35	0.24	0.91	0.26*	0.80	0.00	0.80
37.40	0.25	0.91	0.27*	0.79	0.00	0.79
37.45	0.25	0.91	0.28*	0.79	0.00	0.79
37.50	0.24	0.91	0.27*	0.78	0.00	0.78
37.55	0.25	0.91	0.27*	0.77	0.00	0.77
37.60	0.25	0.91	0.28*	0.76	0.00	0.76
37.65	0.26	0.91	0.28*	0.76	0.00	0.76
37.70	0.26	0.91	0.29*	0.75	0.00	0.75
37.75	0.26	0.91	0.29*	0.74	0.00	0.74
37.80	0.27	0.91	0.30*	0.73	0.00	0.73
37.85	0.27	0.91	0.30*	0.72	0.00	0.72
37.90	0.27	0.91	0.30*	0.72	0.00	0.72
37.95	0.30	0.91	0.33*	0.71	0.00	0.71
38.00	0.32	0.91	0.36*	0.70	0.00	0.70
38.05	0.35	0.91	0.38*	0.69	0.00	0.69
38.10	0.37	0.91	0.41*	0.69	0.00	0.69
38.15	0.39	0.91	0.43*	0.68	0.00	0.68
38.20	0.41	0.91	0.45*	0.68	0.00	0.68
38.25	0.43	0.91	0.47*	0.67	0.00	0.67
38.30	0.44	0.91	0.48*	0.66	0.00	0.66
38.35	0.44	0.91	0.49*	0.66	0.00	0.66
38.40	0.42	0.91	0.46*	0.65	0.00	0.65
38.45	0.38	0.91	0.42*	0.65	0.00	0.65
38.50	0.38	0.91	0.41*	0.64	0.00	0.64
38.55	0.36	0.91	0.40*	0.64	0.00	0.64
38.60	0.34	0.91	0.38*	0.63	0.00	0.63
38.65	0.32	0.91	0.36*	0.62	0.00	0.62
38.70	0.31	0.91	0.34*	0.62	0.00	0.62
38.75	0.31	0.91	0.34*	0.61	0.00	0.61
38.80	0.31	0.91	0.34*	0.61	0.00	0.61
38.85	0.32	0.91	0.35*	0.60	0.00	0.60
38.90	0.32	0.91	0.35*	0.59	0.00	0.59
38.95	0.33	0.91	0.36*	0.59	0.00	0.59
39.00	0.36	0.91	0.39*	0.58	0.00	0.58
39.05	0.39	0.91	0.42*	0.57	0.00	0.57
39.10	0.42	0.91	0.46*	0.57	0.00	0.57
39.15	0.47	0.91	0.51*	0.57	0.00	0.57
39.20	0.54	0.91	0.59*	0.56	0.00	0.56
39.25	0.63	0.91	0.69*	0.56	0.00	0.56
39.30	0.74	0.91	0.81*	0.56	0.00	0.56
39.35	0.85	0.91	0.93*	0.56	0.00	0.56

39.40	1.02	0.91	1.11	0.56	0.00	0.56
39.45	1.13	0.91	1.24	0.56	0.00	0.56
39.50	1.22	0.91	1.33	0.56	0.00	0.56
39.55	1.37	0.92	1.50	0.56	0.00	0.56
39.60	1.56	0.92	1.71	0.56	0.00	0.56
39.65	1.78	0.92	1.94	0.56	0.00	0.56
39.70	1.87	0.92	2.04	0.56	0.00	0.56
39.75	1.87	0.92	2.04	0.56	0.00	0.56
39.80	1.80	0.92	1.97	0.56	0.00	0.56
39.85	1.46	0.92	1.59	0.56	0.00	0.56
39.90	1.36	0.92	1.48	0.56	0.00	0.56
39.95	1.35	0.92	1.48	0.56	0.00	0.56
40.00	1.27	0.92	1.39	0.56	0.00	0.56
40.05	1.15	0.92	1.25	0.56	0.00	0.56
40.10	1.04	0.92	1.14	0.56	0.00	0.56
40.15	0.99	0.92	1.08	0.56	0.00	0.56
40.20	0.91	0.92	0.99*	0.56	0.00	0.56
40.25	0.83	0.92	0.90*	0.56	0.00	0.56
40.30	0.73	0.92	0.80*	0.56	0.00	0.56
40.35	0.65	0.92	0.70*	0.56	0.00	0.56
40.40	0.57	0.92	0.62*	0.56	0.00	0.56
40.45	0.51	0.92	0.56*	0.55	0.00	0.55
40.50	0.46	0.92	0.50*	0.55	0.00	0.55
40.55	0.41	0.92	0.45*	0.55	0.00	0.55
40.60	0.38	0.92	0.41*	0.54	0.00	0.54
40.65	0.35	0.92	0.38*	0.54	0.00	0.54
40.70	0.32	0.92	0.35*	0.53	0.00	0.53
40.75	0.30	0.92	0.32*	0.52	0.00	0.52
40.80	0.27	0.92	0.29*	0.52	0.00	0.52
40.85	0.24	0.92	0.26*	0.51	0.00	0.51
40.90	0.22	0.92	0.24*	0.50	0.00	0.50
40.95	0.21	0.92	0.22*	0.49	0.00	0.49
41.00	0.19	0.92	0.21*	0.49	0.00	0.49
41.05	0.17	0.92	0.18*	0.48	0.00	0.48
41.10	0.15	0.92	0.16*	0.47	0.00	0.47
41.15	0.15	0.92	0.16*	0.46	0.00	0.46
41.20	0.15	0.92	0.16*	0.45	0.00	0.45
41.25	0.15	0.92	0.16*	0.44	0.00	0.44
41.30	0.15	0.92	0.16*	0.43	0.00	0.43
41.35	0.15	0.92	0.16*	0.42	0.00	0.42
41.40	0.15	0.92	0.16*	0.41	0.00	0.41
41.45	0.15	0.92	0.16*	0.40	0.00	0.40
41.50	0.15	0.92	0.17*	0.39	0.00	0.39
41.55	0.15	0.92	0.17*	0.38	0.00	0.38
41.60	0.15	0.92	0.16*	0.37	0.00	0.37
41.65	0.15	0.92	0.16*	0.36	0.00	0.36
41.70	0.15	0.92	0.16*	0.35	0.00	0.35
41.75	0.15	0.92	0.16*	0.34	0.00	0.34
41.80	0.15	0.92	0.16*	0.33	0.00	0.33
41.85	0.15	0.92	0.17*	0.32	0.00	0.32

41.90	0.15	0.92	0.17*	0.31	0.00	0.31
41.95	0.15	0.92	0.17*	0.31	0.00	0.31
42.00	0.15	0.92	0.17*	0.30	0.00	0.30
42.05	0.16	0.92	0.17*	0.29	0.00	0.29
42.10	2.00	0.92	5.00	0.28	0.00	0.28
42.15	2.00	0.92	5.00	0.28	0.00	0.28
42.20	2.00	0.92	5.00	0.28	0.00	0.28
42.25	2.00	0.92	5.00	0.28	0.00	0.28
42.30	2.00	0.92	5.00	0.28	0.00	0.28
42.35	2.00	0.92	5.00	0.28	0.00	0.28
42.40	2.00	0.92	5.00	0.28	0.00	0.28
42.45	2.00	0.92	5.00	0.28	0.00	0.28
42.50	2.00	0.92	5.00	0.28	0.00	0.28
42.55	2.00	0.92	5.00	0.28	0.00	0.28
42.60	2.00	0.92	5.00	0.28	0.00	0.28
42.65	2.00	0.92	5.00	0.28	0.00	0.28
42.70	2.00	0.92	5.00	0.28	0.00	0.28
42.75	2.00	0.92	5.00	0.28	0.00	0.28
42.80	2.00	0.92	5.00	0.28	0.00	0.28
42.85	2.00	0.92	5.00	0.28	0.00	0.28
42.90	2.00	0.92	5.00	0.28	0.00	0.28
42.95	2.00	0.92	5.00	0.28	0.00	0.28
43.00	2.00	0.92	5.00	0.28	0.00	0.28
43.05	2.00	0.92	5.00	0.28	0.00	0.28
43.10	2.00	0.92	5.00	0.28	0.00	0.28
43.15	2.00	0.92	5.00	0.28	0.00	0.28
43.20	2.00	0.92	5.00	0.28	0.00	0.28
43.25	2.00	0.92	5.00	0.28	0.00	0.28
43.30	2.00	0.92	5.00	0.28	0.00	0.28
43.35	2.00	0.92	5.00	0.28	0.00	0.28
43.40	2.00	0.92	5.00	0.28	0.00	0.28
43.45	2.00	0.92	5.00	0.28	0.00	0.28
43.50	2.00	0.92	5.00	0.28	0.00	0.28
43.55	2.00	0.92	5.00	0.28	0.00	0.28
43.60	2.00	0.92	5.00	0.28	0.00	0.28
43.65	2.00	0.92	5.00	0.28	0.00	0.28
43.70	2.00	0.92	5.00	0.28	0.00	0.28
43.75	2.00	0.92	5.00	0.28	0.00	0.28
43.80	2.00	0.92	5.00	0.28	0.00	0.28
43.85	2.00	0.92	5.00	0.28	0.00	0.28
43.90	2.00	0.92	5.00	0.28	0.00	0.28
43.95	2.00	0.92	5.00	0.28	0.00	0.28
44.00	2.00	0.92	5.00	0.28	0.00	0.28
44.05	2.00	0.92	5.00	0.28	0.00	0.28
44.10	2.00	0.92	5.00	0.28	0.00	0.28
44.15	2.00	0.92	5.00	0.28	0.00	0.28
44.20	2.00	0.92	5.00	0.28	0.00	0.28
44.25	2.00	0.92	5.00	0.28	0.00	0.28
44.30	2.00	0.92	5.00	0.28	0.00	0.28
44.35	2.00	0.92	5.00	0.28	0.00	0.28

44.40	2.00	0.92	5.00	0.28	0.00	0.28
44.45	2.00	0.92	5.00	0.28	0.00	0.28
44.50	2.00	0.92	5.00	0.28	0.00	0.28
44.55	2.00	0.92	5.00	0.28	0.00	0.28
44.60	2.00	0.92	5.00	0.28	0.00	0.28
44.65	2.00	0.92	5.00	0.28	0.00	0.28
44.70	2.00	0.92	5.00	0.28	0.00	0.28
44.75	2.00	0.92	5.00	0.28	0.00	0.28
44.80	2.00	0.92	5.00	0.28	0.00	0.28
44.85	2.00	0.92	5.00	0.28	0.00	0.28
44.90	2.00	0.92	5.00	0.28	0.00	0.28
44.95	2.00	0.92	5.00	0.28	0.00	0.28
45.00	2.00	0.92	5.00	0.28	0.00	0.28
45.05	2.00	0.92	5.00	0.28	0.00	0.28
45.10	2.00	0.92	5.00	0.28	0.00	0.28
45.15	2.00	0.92	5.00	0.28	0.00	0.28
45.20	2.00	0.92	5.00	0.28	0.00	0.28
45.25	2.00	0.92	5.00	0.28	0.00	0.28
45.30	2.00	0.92	5.00	0.28	0.00	0.28
45.35	2.00	0.92	5.00	0.28	0.00	0.28
45.40	2.00	0.92	5.00	0.28	0.00	0.28
45.45	2.00	0.92	5.00	0.28	0.00	0.28
45.50	2.00	0.93	5.00	0.28	0.00	0.28
45.55	0.19	0.93	0.21*	0.28	0.00	0.28
45.60	0.19	0.93	0.21*	0.27	0.00	0.27
45.65	0.19	0.93	0.21*	0.26	0.00	0.26
45.70	0.19	0.93	0.21*	0.25	0.00	0.25
45.75	0.20	0.93	0.21*	0.25	0.00	0.25
45.80	0.20	0.93	0.21*	0.24	0.00	0.24
45.85	0.20	0.93	0.21*	0.23	0.00	0.23
45.90	0.20	0.93	0.22*	0.22	0.00	0.22
45.95	0.21	0.93	0.22*	0.21	0.00	0.21
46.00	0.21	0.93	0.23*	0.21	0.00	0.21
46.05	0.21	0.93	0.23*	0.20	0.00	0.20
46.10	0.21	0.93	0.23*	0.19	0.00	0.19
46.15	0.22	0.93	0.24*	0.18	0.00	0.18
46.20	0.24	0.93	0.26*	0.17	0.00	0.17
46.25	0.26	0.93	0.28*	0.17	0.00	0.17
46.30	0.29	0.93	0.31*	0.16	0.00	0.16
46.35	0.32	0.93	0.34*	0.15	0.00	0.15
46.40	0.35	0.93	0.38*	0.15	0.00	0.15
46.45	0.37	0.93	0.40*	0.14	0.00	0.14
46.50	0.40	0.93	0.43*	0.13	0.00	0.13
46.55	0.44	0.93	0.47*	0.13	0.00	0.13
46.60	0.48	0.93	0.52*	0.12	0.00	0.12
46.65	0.53	0.93	0.58*	0.12	0.00	0.12
46.70	0.60	0.93	0.65*	0.12	0.00	0.12
46.75	0.68	0.93	0.74*	0.11	0.00	0.11
46.80	0.79	0.93	0.85*	0.11	0.00	0.11
46.85	0.90	0.93	0.98*	0.11	0.00	0.11

46.90	1.07	0.93	1.16	0.11	0.00	0.11
46.95	1.26	0.93	1.37	0.11	0.00	0.11
47.00	1.09	0.93	1.18	0.11	0.00	0.11
47.05	1.24	0.93	1.34	0.11	0.00	0.11
47.10	1.39	0.93	1.51	0.11	0.00	0.11
47.15	1.43	0.93	1.54	0.11	0.00	0.11
47.20	1.39	0.92	1.50	0.11	0.00	0.11
47.25	1.35	0.92	1.46	0.11	0.00	0.11
47.30	1.38	0.92	1.49	0.11	0.00	0.11
47.35	1.31	0.92	1.42	0.11	0.00	0.11
47.40	1.17	0.92	1.26	0.11	0.00	0.11
47.45	1.07	0.92	1.16	0.11	0.00	0.11
47.50	1.00	0.92	1.08	0.11	0.00	0.11
47.55	0.85	0.92	0.92*	0.11	0.00	0.11
47.60	0.72	0.92	0.78*	0.11	0.00	0.11
47.65	0.64	0.92	0.70*	0.11	0.00	0.11
47.70	0.58	0.92	0.63*	0.11	0.00	0.11
47.75	0.58	0.92	0.63*	0.10	0.00	0.10
47.80	0.51	0.92	0.55*	0.10	0.00	0.10
47.85	0.44	0.92	0.48*	0.10	0.00	0.10
47.90	0.38	0.92	0.42*	0.10	0.00	0.10
47.95	0.34	0.92	0.37*	0.10	0.00	0.10
48.00	0.32	0.92	0.35*	0.09	0.00	0.09
48.05	0.28	0.92	0.31*	0.08	0.00	0.08
48.10	0.25	0.92	0.28*	0.08	0.00	0.08
48.15	0.25	0.92	0.27*	0.07	0.00	0.07
48.20	0.26	0.92	0.28*	0.06	0.00	0.06
48.25	0.27	0.92	0.29*	0.06	0.00	0.06
48.30	0.27	0.92	0.30*	0.05	0.00	0.05
48.35	0.19	0.92	0.21*	0.04	0.00	0.04
48.40	0.16	0.92	0.17*	0.04	0.00	0.04
48.45	0.15	0.92	0.17*	0.03	0.00	0.03
48.50	0.15	0.92	0.16*	0.02	0.00	0.02
48.55	0.15	0.92	0.16*	0.01	0.00	0.01
48.60	2.00	0.92	5.00	0.00	0.00	0.00
48.65	2.00	0.92	5.00	0.00	0.00	0.00
48.70	2.00	0.92	5.00	0.00	0.00	0.00
48.75	2.00	0.92	5.00	0.00	0.00	0.00
48.80	2.00	0.92	5.00	0.00	0.00	0.00
48.85	2.00	0.92	5.00	0.00	0.00	0.00
48.90	2.00	0.92	5.00	0.00	0.00	0.00
48.95	2.00	0.92	5.00	0.00	0.00	0.00
49.00	2.00	0.92	5.00	0.00	0.00	0.00
49.05	2.00	0.92	5.00	0.00	0.00	0.00
49.10	2.00	0.92	5.00	0.00	0.00	0.00
49.15	2.00	0.92	5.00	0.00	0.00	0.00
49.20	2.00	0.92	5.00	0.00	0.00	0.00
49.25	2.00	0.92	5.00	0.00	0.00	0.00
49.30	2.00	0.92	5.00	0.00	0.00	0.00
49.35	2.00	0.92	5.00	0.00	0.00	0.00

49.40	2.00	0.92	5.00	0.00	0.00	0.00
49.45	2.00	0.92	5.00	0.00	0.00	0.00
49.50	2.00	0.92	5.00	0.00	0.00	0.00
49.55	2.00	0.92	5.00	0.00	0.00	0.00
49.60	2.00	0.92	5.00	0.00	0.00	0.00
49.65	2.00	0.92	5.00	0.00	0.00	0.00
49.70	2.00	0.92	5.00	0.00	0.00	0.00
49.75	2.00	0.92	5.00	0.00	0.00	0.00
49.80	2.00	0.92	5.00	0.00	0.00	0.00
49.85	2.00	0.92	5.00	0.00	0.00	0.00
49.90	2.00	0.92	5.00	0.00	0.00	0.00
49.95	2.00	0.92	5.00	0.00	0.00	0.00
50.00	2.00	0.92	5.00	0.00	0.00	0.00
50.05	2.00	0.92	5.00	0.00	0.00	0.00
50.10	2.00	0.92	5.00	0.00	0.00	0.00
50.15	2.00	0.92	5.00	0.00	0.00	0.00
50.20	2.00	0.92	5.00	0.00	0.00	0.00
50.25	2.00	0.92	5.00	0.00	0.00	0.00
50.30	2.00	0.92	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

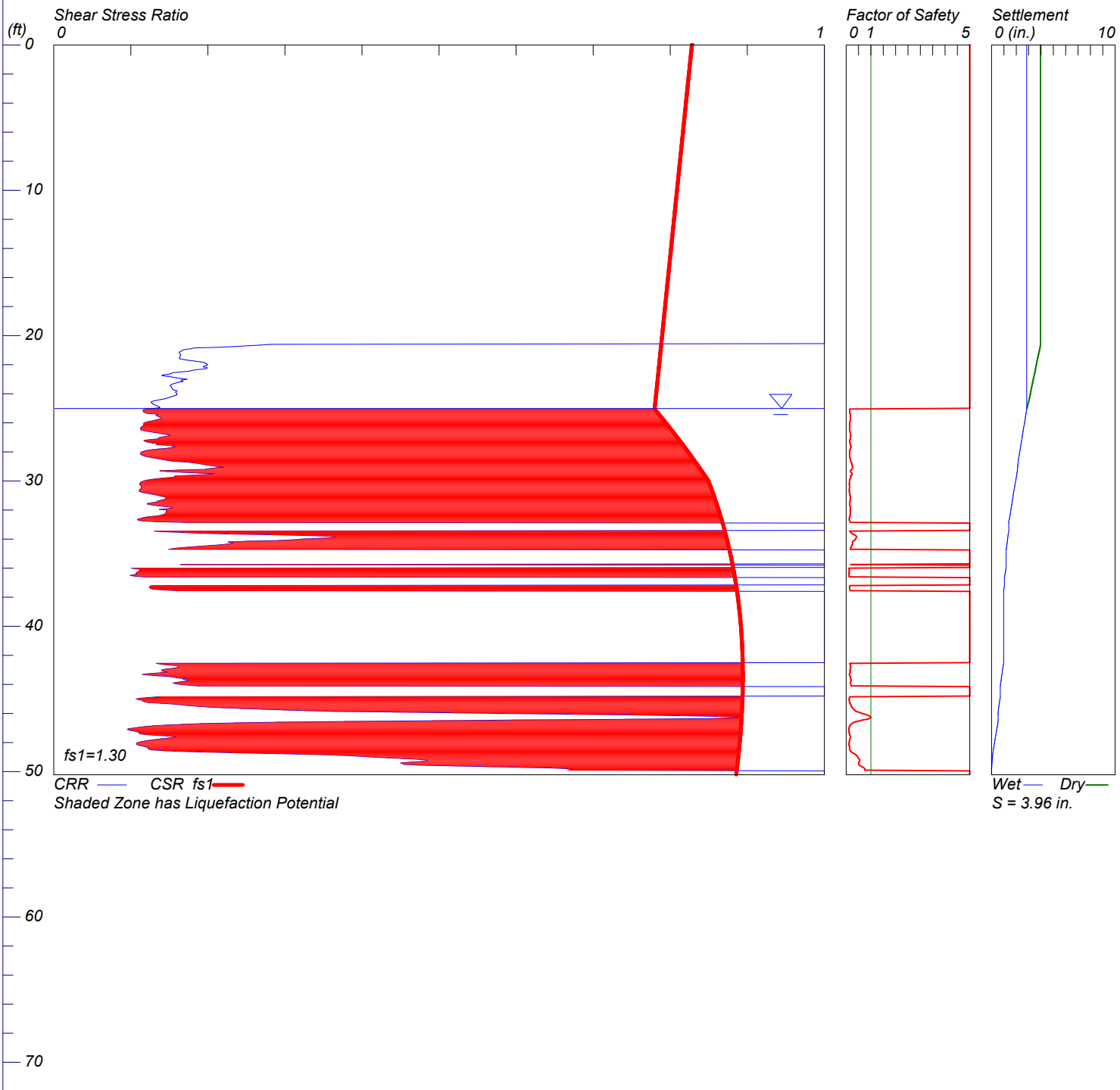
CRRm Cyclic resistance ratio from soils
CSRfs Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat Settlement from saturated sands
S_dry Settlement from dry sands
S_all Total settlement from saturated and dry sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=CPT-5 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\CPT5.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=CPT-5
Depth of Hole= 50.2 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 50.0 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=CPT-5
Depth of Hole=50.2 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 50.0 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

1. CPT Calulation Method: Modified Robertson*
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth	qc	fs	gamma	Fines	D50
ft	tsf	tsf	pcf	%	mm
0.0	1.7	0.0	110.0	NoLiq	0.5
0.0	6.9	0.1	110.0	NoLiq	0.5
0.1	21.7	0.1	110.0	NoLiq	0.5
0.1	24.7	0.1	110.0	NoLiq	0.5
0.2	26.9	0.1	110.0	NoLiq	0.5
0.2	31.1	0.2	110.0	NoLiq	0.5
0.2	34.5	0.2	110.0	NoLiq	0.5
0.3	37.3	0.2	110.0	NoLiq	0.5
0.3	40.7	0.2	110.0	NoLiq	0.5
0.4	43.3	0.3	110.0	NoLiq	0.5
0.4	45.4	0.3	110.0	NoLiq	0.5
0.4	46.7	0.3	110.0	NoLiq	0.5
0.5	47.3	0.3	110.0	NoLiq	0.5
0.5	47.2	0.3	110.0	NoLiq	0.5
0.6	47.7	0.3	110.0	NoLiq	0.5
0.6	47.7	0.3	110.0	NoLiq	0.5
0.7	48.9	0.3	110.0	NoLiq	0.5
0.7	48.9	0.3	110.0	NoLiq	0.5
0.8	49.0	0.3	110.0	NoLiq	0.5
0.8	48.9	0.2	110.0	NoLiq	0.5
0.9	48.4	0.2	110.0	NoLiq	0.5
0.9	48.8	0.2	110.0	NoLiq	0.5
1.0	49.9	0.2	110.0	NoLiq	0.5
1.0	50.3	0.2	110.0	NoLiq	0.5
1.1	51.2	0.2	110.0	NoLiq	0.5
1.2	51.2	0.2	110.0	NoLiq	0.5
1.2	51.2	0.2	110.0	NoLiq	0.5
1.2	51.2	0.2	110.0	NoLiq	0.5
1.3	52.0	0.2	110.0	NoLiq	0.5
1.4	51.4	0.2	110.0	NoLiq	0.5
1.5	50.6	0.3	110.0	NoLiq	0.5
1.6	47.9	0.2	110.0	NoLiq	0.5
1.6	44.9	0.2	110.0	NoLiq	0.5
1.7	44.5	0.2	110.0	NoLiq	0.5
1.8	43.3	0.2	110.0	NoLiq	0.5
1.9	35.2	0.2	110.0	NoLiq	0.5
1.9	31.7	0.2	110.0	NoLiq	0.5
2.0	39.2	0.2	110.0	NoLiq	0.5
2.1	37.3	0.3	110.0	NoLiq	0.5
2.2	35.2	0.1	110.0	NoLiq	0.5
2.3	33.5	0.1	110.0	NoLiq	0.5
2.4	31.8	0.2	110.0	NoLiq	0.5
2.5	31.5	0.2	110.0	NoLiq	0.5
2.5	29.8	0.2	110.0	NoLiq	0.5
2.6	31.2	0.2	110.0	NoLiq	0.5
2.7	32.6	0.2	110.0	NoLiq	0.5
2.8	34.5	0.2	110.0	NoLiq	0.5

2.8	35.5	0.2	110.0	NoLiq	0.5
2.9	36.9	0.2	110.0	NoLiq	0.5
2.9	39.3	0.2	110.0	NoLiq	0.5
3.0	42.1	0.2	110.0	NoLiq	0.5
3.1	45.1	0.2	110.0	NoLiq	0.5
3.1	48.1	0.2	110.0	NoLiq	0.5
3.2	50.7	0.2	110.0	NoLiq	0.5
3.3	52.8	0.3	110.0	NoLiq	0.5
3.4	54.1	0.3	110.0	NoLiq	0.5
3.5	54.2	0.2	110.0	NoLiq	0.5
3.5	52.8	0.2	110.0	NoLiq	0.5
3.6	49.6	0.2	110.0	NoLiq	0.5
3.7	44.8	0.2	110.0	NoLiq	0.5
3.8	39.1	0.2	110.0	NoLiq	0.5
3.9	32.6	0.1	110.0	NoLiq	0.5
3.9	30.2	0.1	110.0	NoLiq	0.5
4.1	27.0	0.1	110.0	NoLiq	0.5
4.2	25.5	0.1	110.0	NoLiq	0.5
4.3	25.5	0.1	110.0	NoLiq	0.5
4.4	25.5	0.2	110.0	NoLiq	0.5
4.4	25.6	0.2	110.0	NoLiq	0.5
4.5	27.0	0.2	110.0	NoLiq	0.5
4.6	33.0	0.2	110.0	NoLiq	0.5
4.6	41.0	0.2	110.0	NoLiq	0.5
4.7	51.4	0.3	110.0	NoLiq	0.5
4.8	60.8	0.3	110.0	NoLiq	0.5
4.9	65.1	0.3	110.0	NoLiq	0.5
4.9	67.4	0.2	110.0	NoLiq	0.5
5.0	65.3	0.2	110.0	NoLiq	0.5
5.1	58.6	0.2	110.0	NoLiq	0.5
5.2	51.2	0.2	110.0	NoLiq	0.5
5.3	46.9	0.2	110.0	NoLiq	0.5
5.4	42.8	0.3	110.0	NoLiq	0.5
5.4	42.3	0.3	110.0	NoLiq	0.5
5.5	38.8	0.3	110.0	NoLiq	0.5
5.6	38.7	0.4	110.0	NoLiq	0.5
5.7	44.0	0.3	110.0	NoLiq	0.5
5.7	49.3	0.3	110.0	NoLiq	0.5
5.8	55.9	0.5	110.0	NoLiq	0.5
5.9	65.3	0.6	110.0	NoLiq	0.5
6.0	80.8	0.7	110.0	NoLiq	0.5
6.1	85.9	1.2	110.0	NoLiq	0.5
6.1	92.7	0.9	110.0	NoLiq	0.5
6.2	102.5	0.9	110.0	NoLiq	0.5
6.3	113.3	1.0	110.0	NoLiq	0.5
6.4	140.5	1.0	110.0	NoLiq	0.5
6.5	140.7	1.1	110.0	NoLiq	0.5
6.5	147.2	1.8	110.0	NoLiq	0.5
6.5	140.8	2.8	110.0	NoLiq	0.5
6.6	148.0	3.2	110.0	NoLiq	0.5

6.6	158.6	3.5	110.0	NoLiq	0.5
6.7	175.9	3.3	110.0	NoLiq	0.5
6.8	183.0	2.5	110.0	NoLiq	0.5
6.8	187.2	1.5	110.0	NoLiq	0.5
6.9	208.5	1.3	110.0	NoLiq	0.5
6.9	207.2	1.3	110.0	NoLiq	0.5
7.0	220.7	1.2	110.0	NoLiq	0.5
7.1	203.0	0.8	110.0	NoLiq	0.5
7.1	114.2	0.9	110.0	NoLiq	0.5
7.1	123.4	1.0	110.0	NoLiq	0.5
7.2	123.5	1.0	110.0	NoLiq	0.5
7.2	130.7	1.0	110.0	NoLiq	0.5
7.3	141.4	0.9	110.0	NoLiq	0.5
7.3	159.2	0.6	110.0	NoLiq	0.5
7.3	158.2	0.7	110.0	NoLiq	0.5
7.4	158.2	0.7	110.0	NoLiq	0.5
7.4	157.2	0.9	110.0	NoLiq	0.5
7.5	155.5	1.0	110.0	NoLiq	0.5
7.6	157.6	1.2	110.0	NoLiq	0.5
7.6	156.6	1.5	110.0	NoLiq	0.5
7.7	150.3	1.8	110.0	NoLiq	0.5
7.7	150.4	1.8	110.0	NoLiq	0.5
7.8	150.4	1.8	110.0	NoLiq	0.5
7.9	149.9	1.8	110.0	NoLiq	0.5
7.9	145.2	1.9	110.0	NoLiq	0.5
8.0	110.8	1.9	110.0	NoLiq	0.5
8.0	114.7	1.7	110.0	NoLiq	0.5
8.1	108.3	0.9	110.0	NoLiq	0.5
8.3	100.1	0.3	110.0	NoLiq	0.5
8.4	101.5	0.4	110.0	NoLiq	0.5
8.5	99.6	0.5	110.0	NoLiq	0.5
8.5	79.1	0.5	110.0	NoLiq	0.5
8.6	67.9	0.5	110.0	NoLiq	0.5
8.6	84.9	0.5	110.0	NoLiq	0.5
8.6	86.7	0.5	110.0	NoLiq	0.5
8.7	87.7	0.5	110.0	NoLiq	0.5
8.7	88.3	0.5	110.0	NoLiq	0.5
8.8	88.8	0.5	110.0	NoLiq	0.5
8.8	86.8	0.4	110.0	NoLiq	0.5
8.9	83.8	0.4	110.0	NoLiq	0.5
9.0	79.1	0.4	110.0	NoLiq	0.5
9.0	74.9	0.4	110.0	NoLiq	0.5
9.1	66.1	0.3	110.0	NoLiq	0.5
9.2	60.0	0.4	110.0	NoLiq	0.5
9.2	55.6	0.3	110.0	NoLiq	0.5
9.3	52.5	0.3	110.0	NoLiq	0.5
9.4	50.6	0.4	110.0	NoLiq	0.5
9.5	50.5	0.4	110.0	NoLiq	0.5
9.5	53.6	0.5	110.0	NoLiq	0.5
9.6	61.8	0.5	110.0	NoLiq	0.5

9.7	79.3	0.6	110.0	NoLiq	0.5
9.8	87.6	0.6	110.0	NoLiq	0.5
9.9	87.7	0.5	110.0	NoLiq	0.5
10.0	82.8	0.4	110.0	NoLiq	0.5
10.0	75.9	0.3	110.0	NoLiq	0.5
10.1	67.4	0.3	110.0	NoLiq	0.5
10.2	60.1	0.3	110.0	NoLiq	0.5
10.3	55.3	0.3	110.0	NoLiq	0.5
10.4	54.3	0.3	110.0	NoLiq	0.5
10.5	54.4	0.3	110.0	NoLiq	0.5
10.6	53.8	0.3	110.0	NoLiq	0.5
10.7	54.1	0.4	110.0	NoLiq	0.5
10.8	50.0	0.5	110.0	NoLiq	0.5
10.8	51.1	0.5	110.0	NoLiq	0.5
10.9	52.1	0.5	110.0	NoLiq	0.5
10.9	48.3	0.5	110.0	NoLiq	0.5
11.0	45.3	0.5	110.0	NoLiq	0.5
11.0	46.0	0.6	110.0	NoLiq	0.5
11.1	46.8	0.7	110.0	NoLiq	0.5
11.2	46.6	0.7	110.0	NoLiq	0.5
11.2	47.0	0.7	110.0	NoLiq	0.5
11.3	45.3	0.8	110.0	NoLiq	0.5
11.4	50.5	0.8	110.0	NoLiq	0.5
11.4	58.0	0.8	110.0	NoLiq	0.5
11.5	71.2	0.9	110.0	NoLiq	0.5
11.6	84.6	0.8	110.0	NoLiq	0.5
11.7	99.7	0.8	110.0	NoLiq	0.5
11.7	119.9	0.8	110.0	NoLiq	0.5
11.8	139.0	0.8	110.0	NoLiq	0.5
11.9	158.8	0.9	110.0	NoLiq	0.5
12.0	163.6	1.1	110.0	NoLiq	0.5
12.1	165.0	0.9	110.0	NoLiq	0.5
12.1	156.7	0.8	110.0	NoLiq	0.5
12.2	138.7	0.8	110.0	NoLiq	0.5
12.3	127.9	0.8	110.0	NoLiq	0.5
12.4	119.7	0.9	110.0	NoLiq	0.5
12.5	114.6	0.4	110.0	NoLiq	0.5
12.6	110.3	0.4	110.0	NoLiq	0.5
12.7	103.6	0.5	110.0	NoLiq	0.5
12.8	102.1	0.6	110.0	NoLiq	0.5
12.9	104.0	0.6	110.0	NoLiq	0.5
12.9	100.5	0.6	110.0	NoLiq	0.5
13.0	104.3	0.6	110.0	NoLiq	0.5
13.1	107.1	0.6	110.0	NoLiq	0.5
13.1	107.9	0.7	110.0	NoLiq	0.5
13.2	106.3	0.6	110.0	NoLiq	0.5
13.3	104.3	0.6	110.0	NoLiq	0.5
13.3	104.0	0.6	110.0	NoLiq	0.5
13.4	104.5	0.6	110.0	NoLiq	0.5
13.5	104.6	0.7	110.0	NoLiq	0.5

13.6	105.0	0.7	110.0	NoLiq	0.5
13.6	105.5	0.7	110.0	NoLiq	0.5
13.7	103.5	0.8	110.0	NoLiq	0.5
13.8	101.5	0.8	110.0	NoLiq	0.5
13.9	101.4	0.8	110.0	NoLiq	0.5
13.9	101.3	0.8	110.0	NoLiq	0.5
14.1	102.2	0.8	110.0	NoLiq	0.5
14.1	107.4	0.8	110.0	NoLiq	0.5
14.2	118.2	0.8	110.0	NoLiq	0.5
14.3	132.9	0.9	110.0	NoLiq	0.5
14.5	136.9	1.0	110.0	NoLiq	0.5
14.6	129.3	0.5	110.0	NoLiq	0.5
14.7	115.9	0.5	110.0	NoLiq	0.5
14.8	101.5	0.5	110.0	NoLiq	0.5
14.8	87.5	0.4	110.0	NoLiq	0.5
14.9	65.9	0.4	110.0	NoLiq	0.5
14.9	67.2	0.4	110.0	NoLiq	0.5
15.0	71.4	0.4	110.0	NoLiq	0.5
15.1	71.4	0.4	110.0	NoLiq	0.5
15.1	72.3	0.5	110.0	NoLiq	0.5
15.2	72.8	0.5	110.0	NoLiq	0.5
15.2	70.5	0.6	110.0	NoLiq	0.5
15.3	65.9	0.6	110.0	NoLiq	0.5
15.4	61.4	0.7	110.0	NoLiq	0.5
15.5	57.4	0.7	110.0	NoLiq	0.5
15.5	55.7	0.7	110.0	NoLiq	0.5
15.6	54.5	0.7	110.0	NoLiq	0.5
15.7	55.7	0.7	110.0	NoLiq	0.5
15.8	55.2	0.7	110.0	NoLiq	0.5
15.8	55.8	0.7	110.0	NoLiq	0.5
15.9	55.9	0.6	110.0	NoLiq	0.5
16.0	54.9	0.6	110.0	NoLiq	0.5
16.1	54.5	0.5	110.0	NoLiq	0.5
16.2	54.6	0.5	110.0	NoLiq	0.5
16.3	55.3	0.5	110.0	NoLiq	0.5
16.3	57.7	0.5	110.0	NoLiq	0.5
16.4	60.1	0.5	110.0	NoLiq	0.5
16.5	61.5	0.4	110.0	NoLiq	0.5
16.6	62.0	0.3	110.0	NoLiq	0.5
16.7	63.1	0.4	110.0	NoLiq	0.5
16.8	64.9	0.4	110.0	NoLiq	0.5
16.9	65.6	0.4	110.0	NoLiq	0.5
16.9	60.0	0.5	110.0	NoLiq	0.5
16.9	66.4	0.5	110.0	NoLiq	0.5
17.0	68.3	0.5	110.0	NoLiq	0.5
17.1	71.4	0.5	110.0	NoLiq	0.5
17.1	74.8	0.6	110.0	NoLiq	0.5
17.2	76.9	0.6	110.0	NoLiq	0.5
17.3	78.8	0.6	110.0	NoLiq	0.5
17.4	80.9	0.6	110.0	NoLiq	0.5

17.4	81.7	0.6	110.0	NoLiq	0.5
17.5	83.3	0.6	110.0	NoLiq	0.5
17.6	84.3	0.6	110.0	NoLiq	0.5
17.7	85.2	0.6	110.0	NoLiq	0.5
17.8	87.7	0.6	110.0	NoLiq	0.5
17.9	90.2	0.6	110.0	NoLiq	0.5
18.0	92.6	0.6	110.0	NoLiq	0.5
18.0	94.9	0.7	110.0	NoLiq	0.5
18.1	96.8	0.7	110.0	NoLiq	0.5
18.2	100.2	0.7	110.0	NoLiq	0.5
18.3	108.4	0.7	110.0	NoLiq	0.5
18.4	120.5	0.4	110.0	NoLiq	0.5
18.5	132.4	0.6	110.0	NoLiq	0.5
18.7	147.3	0.7	110.0	NoLiq	0.5
18.7	126.7	0.8	110.0	NoLiq	0.5
18.7	141.9	0.8	110.0	NoLiq	0.5
18.8	152.8	0.9	110.0	NoLiq	0.5
18.8	158.6	0.9	110.0	NoLiq	0.5
18.9	161.9	0.9	110.0	NoLiq	0.5
19.0	167.7	1.0	110.0	NoLiq	0.5
19.0	171.2	1.0	110.0	NoLiq	0.5
19.1	178.9	0.9	110.0	NoLiq	0.5
19.2	183.3	0.9	110.0	NoLiq	0.5
19.2	187.3	0.8	110.0	NoLiq	0.5
19.3	191.4	0.8	110.0	NoLiq	0.5
19.4	185.2	0.8	110.0	NoLiq	0.5
19.5	167.8	0.8	110.0	NoLiq	0.5
19.6	158.3	0.9	110.0	NoLiq	0.5
19.6	156.7	0.9	110.0	NoLiq	0.5
19.7	156.0	1.0	110.0	NoLiq	0.5
19.8	151.4	0.9	110.0	NoLiq	0.5
19.9	155.1	1.0	110.0	NoLiq	0.5
20.0	152.4	1.1	110.0	NoLiq	0.5
20.0	147.5	1.2	110.0	NoLiq	0.5
20.2	139.2	1.4	110.0	NoLiq	0.5
20.3	135.9	1.3	110.0	NoLiq	0.5
20.4	139.6	1.2	110.0	NoLiq	0.5
20.5	140.0	1.2	110.0	NoLiq	0.5
20.6	145.1	0.7	110.0	10.0	0.5
20.7	134.3	0.8	110.0	10.0	0.5
20.8	120.6	0.8	110.0	10.0	0.5
20.9	99.8	0.7	110.0	8.9	0.5
20.9	102.6	0.7	110.0	8.8	0.5
21.0	96.7	0.7	110.0	9.1	0.5
21.0	96.8	0.7	110.0	9.5	0.5
21.1	96.8	0.6	110.0	9.4	0.5
21.2	96.8	0.6	110.0	9.0	0.5
21.3	98.3	0.6	110.0	8.8	0.5
21.3	98.6	0.6	110.0	8.7	0.5
21.4	97.4	0.7	110.0	9.1	0.5

21.5	97.3	0.7	110.0	9.2	0.5
21.5	97.3	0.6	110.0	9.1	0.5
21.6	97.2	0.7	110.0	9.3	0.5
21.7	99.6	0.8	110.0	9.6	0.5
21.8	104.5	0.9	110.0	9.8	0.5
21.9	107.2	0.9	110.0	9.6	0.5
21.9	108.8	0.9	110.0	9.5	0.5
22.0	109.7	0.9	110.0	9.4	0.5
22.1	104.7	1.0	110.0	9.8	0.5
22.2	102.1	1.0	110.0	11.1	0.5
22.2	106.7	1.0	110.0	10.9	0.5
22.3	103.9	1.0	110.0	10.9	0.5
22.4	95.2	1.0	110.0	12.1	0.5
22.5	90.4	1.0	110.0	13.3	0.5
22.5	85.2	0.8	110.0	13.3	0.5
22.6	84.6	0.8	110.0	12.9	0.5
22.7	84.7	0.6	110.0	11.6	0.5
22.8	87.8	0.7	110.0	11.5	0.5
22.9	93.2	0.8	110.0	11.2	0.5
23.0	97.1	0.9	110.0	11.4	0.5
23.1	89.2	0.9	110.0	12.7	0.5
23.1	88.3	1.0	110.0	12.7	0.5
23.1	90.2	1.0	110.0	13.2	0.5
23.2	86.0	1.0	110.0	13.8	0.5
23.3	82.1	1.0	110.0	14.7	0.5
23.3	78.0	1.0	110.0	15.6	0.5
23.4	75.2	1.0	110.0	16.2	0.5
23.5	72.3	1.0	110.0	17.5	0.5
23.5	71.8	1.0	110.0	17.8	0.5
23.6	72.9	1.0	110.0	17.7	0.5
23.6	74.0	1.0	110.0	17.4	0.5
23.7	74.0	1.0	110.0	17.4	0.5
23.8	71.5	1.1	110.0	18.3	0.5
23.8	74.0	1.1	110.0	18.2	0.5
23.9	71.0	1.1	110.0	18.6	0.5
24.0	74.1	1.1	110.0	18.2	0.5
24.0	74.7	1.1	110.0	18.0	0.5
24.1	78.6	1.1	110.0	17.3	0.5
24.2	81.9	1.0	110.0	15.4	0.5
24.2	86.4	0.8	110.0	14.3	0.5
24.4	89.5	0.7	110.0	11.2	0.5
24.4	87.6	0.6	110.0	11.0	0.5
24.5	82.8	0.6	110.0	11.2	0.5
24.6	78.2	0.6	110.0	12.1	0.5
24.6	77.9	0.6	110.0	12.6	0.5
24.7	75.8	0.7	110.0	13.6	0.5
24.8	75.8	0.8	110.0	14.6	0.5
24.9	76.2	0.8	110.0	14.9	0.5
25.0	75.4	0.8	110.0	15.6	0.5
25.1	70.5	0.5	110.0	14.4	0.5

25.2	66.7	0.6	110.0	14.8	0.5
25.3	61.9	0.6	110.0	17.1	0.5
25.4	57.1	0.7	110.0	19.9	0.5
25.4	45.2	0.8	110.0	19.9	0.5
25.4	44.7	0.8	110.0	19.9	0.5
25.4	44.3	0.8	110.0	26.5	0.5
25.5	52.3	0.8	110.0	24.6	0.5
25.5	52.7	0.9	110.0	23.5	0.5
25.6	53.8	0.9	110.0	23.5	0.5
25.7	54.7	0.9	110.0	23.5	0.5
25.8	57.4	0.9	110.0	22.5	0.5
25.8	61.1	0.9	110.0	21.2	0.5
25.9	65.5	0.7	110.0	18.2	0.5
26.0	72.3	0.5	110.0	14.7	0.5
26.1	77.1	0.5	110.0	12.2	0.5
26.2	78.2	0.5	110.0	11.4	0.5
26.3	74.2	0.5	110.0	12.1	0.5
26.4	68.7	0.5	110.0	14.2	0.5
26.4	63.3	0.6	110.0	15.5	0.5
26.5	57.3	0.7	110.0	18.9	0.5
26.6	53.2	0.8	110.0	20.8	0.5
26.7	50.8	0.9	110.0	23.8	0.5
26.8	51.2	0.9	110.0	25.2	0.5
26.9	50.9	1.0	110.0	26.0	0.5
26.9	55.2	1.0	110.0	25.5	0.5
27.0	62.2	0.9	110.0	22.1	0.5
27.1	66.4	0.9	110.0	19.7	0.5
27.2	67.2	0.7	110.0	16.4	0.5
27.3	67.1	0.7	110.0	16.8	0.5
27.4	69.5	0.7	110.0	16.7	0.5
27.5	83.7	0.9	110.0	15.1	0.5
27.5	73.2	0.9	110.0	15.1	0.5
27.5	70.0	0.9	110.0	17.4	0.5
27.6	95.2	0.9	110.0	13.7	0.5
27.6	100.1	0.9	110.0	12.2	0.5
27.8	94.4	0.8	110.0	12.1	0.5
27.8	84.9	0.8	110.0	13.0	0.5
27.9	75.1	0.7	110.0	13.8	0.5
28.0	68.0	0.6	110.0	15.3	0.5
28.1	62.5	0.6	110.0	17.1	0.5
28.1	59.2	0.6	110.0	18.1	0.5
28.2	56.6	0.7	110.0	19.9	0.5
28.3	54.9	0.7	110.0	21.6	0.5
28.4	53.6	0.9	110.0	23.4	0.5
28.5	52.7	0.9	110.0	24.2	0.5
28.5	51.3	0.9	110.0	25.8	0.5
28.6	49.8	1.0	110.0	26.5	0.5
28.7	47.0	1.0	110.0	28.9	0.5
28.8	47.0	1.1	110.0	29.3	0.5
28.9	47.1	1.1	110.0	29.8	0.5

29.0	50.1	1.2	110.0	29.6	0.5
29.0	53.6	1.4	110.0	29.1	0.5
29.2	57.3	1.4	110.0	27.6	0.5
29.2	59.6	1.4	110.0	27.0	0.5
29.3	76.5	0.9	110.0	18.4	0.5
29.4	108.1	1.0	110.0	11.4	0.5
29.5	133.5	1.0	110.0	8.6	0.5
29.6	132.0	0.9	110.0	8.3	0.5
29.6	109.8	0.8	110.0	8.7	0.5
29.7	108.9	0.8	110.0	9.9	0.5
29.7	113.4	0.7	110.0	9.4	0.5
29.8	101.0	0.7	110.0	9.8	0.5
29.9	90.3	0.6	110.0	10.6	0.5
30.0	82.2	0.6	110.0	12.6	0.5
30.0	76.2	0.6	110.0	13.6	0.5
30.1	71.6	0.6	110.0	14.4	0.5
30.2	68.9	0.6	110.0	15.7	0.5
30.2	68.1	0.6	110.0	16.0	0.5
30.3	68.2	0.7	110.0	16.6	0.5
30.4	68.4	0.7	110.0	16.8	0.5
30.5	68.2	0.7	110.0	16.9	0.5
30.6	67.5	0.7	110.0	16.9	0.5
30.6	66.6	0.6	110.0	17.0	0.5
30.7	63.3	0.7	110.0	18.1	0.5
30.8	59.8	0.8	110.0	19.3	0.5
30.9	57.9	0.8	110.0	22.1	0.5
30.9	55.4	0.9	110.0	23.3	0.5
31.0	55.4	1.0	110.0	24.6	0.5
31.1	55.5	1.0	110.0	25.5	0.5
31.2	58.6	1.1	110.0	25.0	0.5
31.3	61.4	1.1	110.0	23.8	0.5
31.3	64.5	1.1	110.0	22.9	0.5
31.4	67.3	1.0	110.0	21.0	0.5
31.5	71.8	1.0	110.0	19.8	0.5
31.6	81.1	0.7	110.0	15.2	0.5
31.6	93.4	0.7	110.0	11.6	0.5
31.7	106.4	0.7	110.0	10.5	0.5
31.8	116.0	0.7	110.0	8.7	0.5
31.9	119.4	0.7	110.0	8.4	0.5
31.9	114.8	0.7	110.0	8.5	0.5
31.9	98.0	0.7	110.0	8.5	0.5
32.0	113.7	0.7	110.0	10.1	0.5
32.0	112.7	0.7	110.0	8.8	0.5
32.1	112.7	0.7	110.0	8.9	0.5
32.2	112.7	0.7	110.0	8.9	0.5
32.2	112.6	0.7	110.0	8.9	0.5
32.3	112.4	0.6	110.0	8.9	0.5
32.3	110.8	0.6	110.0	9.0	0.5
32.4	104.2	0.7	110.0	9.9	0.5
32.5	95.3	0.6	110.0	10.9	0.5

32.5	85.2	0.6	110.0	12.3	0.5
32.6	76.9	0.6	110.0	13.7	0.5
32.6	68.0	0.6	110.0	15.2	0.5
32.7	62.8	0.7	110.0	17.2	0.5
32.8	57.4	0.8	110.0	21.7	0.5
32.8	52.5	1.0	110.0	24.8	0.5
32.9	43.5	1.2	110.0	NoLiq	0.5
33.0	38.1	1.2	110.0	NoLiq	0.5
33.0	33.5	1.1	110.0	NoLiq	0.5
33.1	30.8	1.0	110.0	NoLiq	0.5
33.2	29.4	1.0	110.0	NoLiq	0.5
33.3	31.6	1.0	110.0	NoLiq	0.5
33.3	43.5	1.0	110.0	NoLiq	0.5
33.4	67.4	0.9	110.0	20.7	0.5
33.5	92.9	0.9	110.0	16.7	0.5
33.5	118.6	0.9	110.0	13.2	0.5
33.6	147.8	1.0	110.0	8.3	0.5
33.7	180.1	1.0	110.0	6.8	0.5
33.8	198.1	1.1	110.0	4.9	0.5
33.8	206.6	0.9	110.0	4.2	0.5
33.9	205.6	0.7	110.0	2.9	0.5
34.0	196.1	0.8	110.0	3.4	0.5
34.1	190.8	0.8	110.0	3.6	0.5
34.2	172.5	0.8	110.0	4.9	0.5
34.2	154.4	0.9	110.0	4.9	0.5
34.2	162.2	0.9	110.0	4.9	0.5
34.2	166.1	0.9	110.0	6.0	0.5
34.3	164.5	0.9	110.0	5.9	0.5
34.4	160.9	0.9	110.0	6.0	0.5
34.5	149.9	0.9	110.0	6.7	0.5
34.5	139.8	0.9	110.0	7.3	0.5
34.6	130.0	0.8	110.0	8.0	0.5
34.7	115.6	0.9	110.0	10.6	0.5
34.7	99.2	1.1	110.0	NoLiq	0.5
34.8	84.0	1.4	110.0	NoLiq	0.5
34.9	64.3	1.6	110.0	NoLiq	0.5
35.0	54.7	1.8	110.0	NoLiq	0.5
35.0	51.5	2.0	110.0	NoLiq	0.5
35.1	51.8	2.0	110.0	NoLiq	0.5
35.2	51.6	2.0	110.0	NoLiq	0.5
35.2	50.9	1.9	110.0	NoLiq	0.5
35.3	53.9	1.7	110.0	NoLiq	0.5
35.4	68.4	1.6	110.0	NoLiq	0.5
35.5	85.7	1.3	110.0	NoLiq	0.5
35.6	76.3	1.2	110.0	NoLiq	0.5
35.6	65.0	1.2	110.0	NoLiq	0.5
35.7	57.7	1.2	110.0	26.7	0.5
35.8	53.0	1.2	110.0	28.1	0.5
35.9	48.4	1.3	110.0	NoLiq	0.5
36.0	52.2	0.6	110.0	24.9	0.5

36.1	44.3	0.7	110.0	26.0	0.5
36.2	51.4	0.7	110.0	25.5	0.5
36.2	54.9	0.8	110.0	24.4	0.5
36.3	62.3	0.8	110.0	22.9	0.5
36.3	69.7	0.7	110.0	17.9	0.5
36.4	67.6	0.8	110.0	18.6	0.5
36.5	60.5	0.6	110.0	19.1	0.5
36.6	53.0	0.7	110.0	22.8	0.5
36.6	48.1	0.8	110.0	25.9	0.5
36.7	44.0	1.0	110.0	NoLiq	0.5
36.8	42.3	1.1	110.0	NoLiq	0.5
36.8	41.3	1.3	110.0	NoLiq	0.5
36.9	42.7	1.3	110.0	NoLiq	0.5
37.0	47.5	1.2	110.0	NoLiq	0.5
37.1	53.8	1.1	110.0	NoLiq	0.5
37.2	58.3	1.0	110.0	26.6	0.5
37.3	58.8	1.0	110.0	24.7	0.5
37.3	58.7	1.0	110.0	24.6	0.5
37.4	57.1	1.0	110.0	25.0	0.5
37.5	53.9	1.1	110.0	28.7	0.5
37.6	51.6	1.2	110.0	NoLiq	0.5
37.7	53.8	1.3	110.0	NoLiq	0.5
37.8	52.7	1.2	110.0	NoLiq	0.5
37.9	53.7	1.1	110.0	NoLiq	0.5
38.0	51.6	1.0	110.0	28.3	0.5
38.1	45.2	1.0	110.0	NoLiq	0.5
38.2	36.5	1.0	110.0	NoLiq	0.5
38.3	32.5	0.9	110.0	NoLiq	0.5
38.3	32.5	0.7	110.0	NoLiq	0.5
38.4	32.4	0.7	110.0	NoLiq	0.5
38.5	35.5	0.8	110.0	NoLiq	0.5
38.6	32.2	0.9	110.0	NoLiq	0.5
38.6	27.7	1.0	110.0	NoLiq	0.5
38.7	37.6	1.1	110.0	NoLiq	0.5
38.7	37.9	1.1	110.0	NoLiq	0.5
38.8	37.8	1.2	110.0	NoLiq	0.5
38.8	38.0	1.3	110.0	NoLiq	0.5
38.9	39.0	1.4	110.0	NoLiq	0.5
39.0	40.0	1.4	110.0	NoLiq	0.5
39.1	39.2	1.4	110.0	NoLiq	0.5
39.1	32.9	1.3	110.0	NoLiq	0.5
39.2	27.6	1.1	110.0	NoLiq	0.5
39.3	24.0	1.0	110.0	NoLiq	0.5
39.4	21.8	0.8	110.0	NoLiq	0.5
39.5	19.9	0.8	110.0	NoLiq	0.5
39.5	18.4	0.8	110.0	NoLiq	0.5
39.6	18.3	0.8	110.0	NoLiq	0.5
39.7	19.5	0.9	110.0	NoLiq	0.5
39.7	21.7	0.9	110.0	NoLiq	0.5
39.8	28.1	0.8	110.0	NoLiq	0.5

39.9	36.0	0.8	110.0	NoLiq	0.5
40.0	44.6	0.8	110.0	NoLiq	0.5
40.0	51.2	0.8	110.0	NoLiq	0.5
40.1	55.5	0.8	110.0	NoLiq	0.5
40.2	55.9	0.8	110.0	NoLiq	0.5
40.3	53.3	1.0	110.0	NoLiq	0.5
40.4	48.4	1.2	110.0	NoLiq	0.5
40.5	42.5	1.3	110.0	NoLiq	0.5
40.6	35.5	1.3	110.0	NoLiq	0.5
40.7	33.3	0.7	110.0	NoLiq	0.5
40.8	34.9	0.7	110.0	NoLiq	0.5
40.8	39.1	0.8	110.0	NoLiq	0.5
40.9	40.5	0.9	110.0	NoLiq	0.5
41.0	39.9	0.9	110.0	NoLiq	0.5
41.0	39.9	0.9	110.0	NoLiq	0.5
41.0	39.2	1.0	110.0	NoLiq	0.5
41.1	40.6	1.1	110.0	NoLiq	0.5
41.2	44.8	1.2	110.0	NoLiq	0.5
41.3	41.0	1.3	110.0	NoLiq	0.5
41.4	37.3	1.4	110.0	NoLiq	0.5
41.4	32.0	1.3	110.0	NoLiq	0.5
41.5	28.4	1.2	110.0	NoLiq	0.5
41.6	32.0	1.1	110.0	NoLiq	0.5
41.7	27.9	1.1	110.0	NoLiq	0.5
41.7	32.0	1.0	110.0	NoLiq	0.5
41.8	39.6	0.9	110.0	NoLiq	0.5
41.9	42.4	0.9	110.0	NoLiq	0.5
42.0	41.0	0.9	110.0	NoLiq	0.5
42.0	38.3	0.9	110.0	NoLiq	0.5
42.1	35.6	0.9	110.0	NoLiq	0.5
42.2	34.2	0.9	110.0	NoLiq	0.5
42.3	35.1	0.9	110.0	NoLiq	0.5
42.3	42.8	1.0	110.0	NoLiq	0.5
42.4	58.6	1.1	110.0	NoLiq	0.5
42.5	94.8	1.1	110.0	16.9	0.5
42.6	111.1	1.1	110.0	14.1	0.5
42.6	125.7	1.0	110.0	12.2	0.5
42.7	141.1	0.9	110.0	10.6	0.5
42.8	149.8	0.9	110.0	8.1	0.5
42.8	152.0	0.8	110.0	7.4	0.5
42.9	147.6	0.7	110.0	6.8	0.5
43.0	138.4	0.6	110.0	7.0	0.5
43.1	124.0	1.0	110.0	9.8	0.5
43.2	118.8	1.2	110.0	12.9	0.5
43.2	110.4	1.0	110.0	13.3	0.5
43.3	101.3	0.8	110.0	12.8	0.5
43.4	97.2	1.2	110.0	17.1	0.5
43.5	103.5	1.6	110.0	17.8	0.5
43.5	88.3	1.7	110.0	19.4	0.5
43.5	86.9	1.7	110.0	22.1	0.5

43.6	74.6	1.7	110.0	22.1	0.5
43.6	85.5	1.7	110.0	25.0	0.5
43.7	79.4	1.8	110.0	24.8	0.5
43.8	77.6	1.7	110.0	25.2	0.5
43.8	75.0	1.6	110.0	25.4	0.5
43.9	76.3	1.5	110.0	24.5	0.5
44.0	74.6	1.5	110.0	24.9	0.5
44.0	69.4	1.6	110.0	25.8	0.5
44.1	67.9	1.6	110.0	28.0	0.5
44.2	67.2	1.6	110.0	NoLiq	0.5
44.2	67.8	1.6	110.0	NoLiq	0.5
44.3	66.9	1.6	110.0	NoLiq	0.5
44.4	65.9	1.6	110.0	NoLiq	0.5
44.4	63.6	1.7	110.0	NoLiq	0.5
44.5	56.5	1.7	110.0	NoLiq	0.5
44.6	54.7	1.7	110.0	NoLiq	0.5
44.7	56.1	1.6	110.0	NoLiq	0.5
44.8	61.0	1.5	110.0	NoLiq	0.5
44.8	72.3	1.4	110.0	26.3	0.5
44.9	75.5	1.2	110.0	23.9	0.5
45.0	72.7	0.9	110.0	21.0	0.5
45.1	70.8	1.0	110.0	21.4	0.5
45.1	73.1	1.0	110.0	22.0	0.5
45.2	86.0	1.1	110.0	19.4	0.5
45.2	78.6	1.1	110.0	19.4	0.5
45.3	111.9	1.2	110.0	18.4	0.5
45.3	128.5	1.2	110.0	13.4	0.5
45.4	143.5	1.2	110.0	11.2	0.5
45.4	147.9	1.2	110.0	10.1	0.5
45.5	156.0	1.2	110.0	9.6	0.5
45.5	167.6	1.2	110.0	8.8	0.5
45.6	181.9	1.3	110.0	7.7	0.5
45.7	195.6	1.4	110.0	7.2	0.5
45.7	207.4	1.5	110.0	6.9	0.5
45.8	216.9	1.6	110.0	6.8	0.5
45.8	238.2	1.8	110.0	6.0	0.5
45.9	258.2	1.9	110.0	6.0	0.5
45.9	280.4	2.1	110.0	5.6	0.5
46.0	303.1	2.0	110.0	4.4	0.5
46.1	323.0	2.0	110.0	3.9	0.5
46.1	331.8	2.0	110.0	3.4	0.5
46.2	342.3	1.8	110.0	3.0	0.5
46.2	344.6	1.7	110.0	2.5	0.5
46.3	349.4	1.8	110.0	2.3	0.5
46.4	341.0	1.7	110.0	2.4	0.5
46.4	320.7	1.7	110.0	2.7	0.5
46.5	295.1	1.6	110.0	3.3	0.5
46.5	271.2	1.5	110.0	3.8	0.5
46.6	225.6	1.4	110.0	4.5	0.5
46.7	197.9	1.2	110.0	6.2	0.5

46.7	173.7	1.1	110.0	7.1	0.5
46.8	152.4	0.7	110.0	7.2	0.5
46.9	128.4	0.6	110.0	8.1	0.5
46.9	115.1	0.7	110.0	9.3	0.5
47.0	102.8	0.6	110.0	10.5	0.5
47.1	94.1	0.4	110.0	11.1	0.5
47.2	89.4	0.6	110.0	13.7	0.5
47.2	93.5	0.8	110.0	14.5	0.5
47.3	93.0	0.9	110.0	15.9	0.5
47.4	82.7	1.0	110.0	17.7	0.5
47.4	96.6	1.0	110.0	17.0	0.5
47.5	109.2	1.0	110.0	14.4	0.5
47.5	132.8	1.1	110.0	12.7	0.5
47.6	144.6	1.3	110.0	11.0	0.5
47.7	136.3	1.1	110.0	10.8	0.5
47.8	133.0	0.9	110.0	10.3	0.5
47.9	120.8	0.8	110.0	10.7	0.5
47.9	103.3	0.9	110.0	12.3	0.5
48.0	88.1	0.9	110.0	15.9	0.5
48.1	81.6	0.9	110.0	18.8	0.5
48.2	78.3	1.0	110.0	19.8	0.5
48.3	77.4	1.1	110.0	21.5	0.5
48.4	80.1	1.3	110.0	21.9	0.5
48.4	90.7	1.2	110.0	20.6	0.5
48.5	115.3	1.2	110.0	15.4	0.5
48.6	150.7	1.2	110.0	9.8	0.5
48.7	189.4	1.2	110.0	7.7	0.5
48.7	225.0	1.2	110.0	6.1	0.5
48.8	248.1	1.2	110.0	4.1	0.5
48.9	259.2	1.1	110.0	3.7	0.5
49.0	267.5	1.1	110.0	3.2	0.5
49.0	273.4	1.1	110.0	3.0	0.5
49.1	279.9	1.1	110.0	2.7	0.5
49.2	285.4	1.1	110.0	2.6	0.5
49.2	288.4	1.2	110.0	2.7	0.5
49.3	286.1	1.3	110.0	3.0	0.5
49.4	279.9	1.3	110.0	3.2	0.5
49.4	280.8	1.4	110.0	3.4	0.5
49.5	281.8	1.4	110.0	3.4	0.5
49.6	294.0	1.4	110.0	3.3	0.5
49.7	311.0	0.9	110.0	2.0	0.5
49.8	322.9	1.1	110.0	1.5	0.5
49.8	328.5	1.1	110.0	1.5	0.5
49.9	327.0	0.0	110.0	0.0	0.5
50.0	296.7	0.0	110.0	NoLiq	0.5
50.0	326.2	0.0	110.0	NoLiq	0.5
50.0	264.7	0.0	110.0	NoLiq	0.5
50.1	325.5	0.0	110.0	NoLiq	0.5
50.2	319.2	0.0	110.0	NoLiq	0.5
50.2	293.5	0.0	110.0	NoLiq	0.5

Output Results:

Settlement of saturated sands=2.85 in.
Settlement of dry sands=1.12 in.
Total settlement of saturated and dry sands=3.96 in.
Differential Settlement=1.982 to 2.617 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	2.85	1.12	3.96
0.05	2.00	0.83	5.00	2.85	1.12	3.96
0.10	2.00	0.83	5.00	2.85	1.12	3.96
0.15	2.00	0.83	5.00	2.85	1.12	3.96
0.20	2.00	0.83	5.00	2.85	1.12	3.96
0.25	2.00	0.83	5.00	2.85	1.12	3.96
0.30	2.00	0.83	5.00	2.85	1.12	3.96
0.35	2.00	0.83	5.00	2.85	1.12	3.96
0.40	2.00	0.83	5.00	2.85	1.12	3.96
0.45	2.00	0.83	5.00	2.85	1.12	3.96
0.50	2.00	0.83	5.00	2.85	1.12	3.96
0.55	2.00	0.83	5.00	2.85	1.12	3.96
0.60	2.00	0.83	5.00	2.85	1.12	3.96
0.65	2.00	0.83	5.00	2.85	1.12	3.96
0.70	2.00	0.83	5.00	2.85	1.12	3.96
0.75	2.00	0.83	5.00	2.85	1.12	3.96
0.80	2.00	0.83	5.00	2.85	1.12	3.96
0.85	2.00	0.83	5.00	2.85	1.12	3.96
0.90	2.00	0.83	5.00	2.85	1.12	3.96
0.95	2.00	0.83	5.00	2.85	1.12	3.96
1.00	2.00	0.83	5.00	2.85	1.12	3.96
1.05	2.00	0.83	5.00	2.85	1.12	3.96
1.10	2.00	0.83	5.00	2.85	1.12	3.96
1.15	2.00	0.83	5.00	2.85	1.12	3.96
1.20	2.00	0.83	5.00	2.85	1.12	3.96
1.25	2.00	0.83	5.00	2.85	1.12	3.96
1.30	2.00	0.83	5.00	2.85	1.12	3.96
1.35	2.00	0.83	5.00	2.85	1.12	3.96
1.40	2.00	0.83	5.00	2.85	1.12	3.96
1.45	2.00	0.83	5.00	2.85	1.12	3.96
1.50	2.00	0.83	5.00	2.85	1.12	3.96
1.55	2.00	0.83	5.00	2.85	1.12	3.96
1.60	2.00	0.83	5.00	2.85	1.12	3.96
1.65	2.00	0.82	5.00	2.85	1.12	3.96
1.70	2.00	0.82	5.00	2.85	1.12	3.96
1.75	2.00	0.82	5.00	2.85	1.12	3.96
1.80	2.00	0.82	5.00	2.85	1.12	3.96
1.85	2.00	0.82	5.00	2.85	1.12	3.96
1.90	2.00	0.82	5.00	2.85	1.12	3.96

1.95	2.00	0.82	5.00	2.85	1.12	3.96
2.00	2.00	0.82	5.00	2.85	1.12	3.96
2.05	2.00	0.82	5.00	2.85	1.12	3.96
2.10	2.00	0.82	5.00	2.85	1.12	3.96
2.15	2.00	0.82	5.00	2.85	1.12	3.96
2.20	2.00	0.82	5.00	2.85	1.12	3.96
2.25	2.00	0.82	5.00	2.85	1.12	3.96
2.30	2.00	0.82	5.00	2.85	1.12	3.96
2.35	2.00	0.82	5.00	2.85	1.12	3.96
2.40	2.00	0.82	5.00	2.85	1.12	3.96
2.45	2.00	0.82	5.00	2.85	1.12	3.96
2.50	2.00	0.82	5.00	2.85	1.12	3.96
2.55	2.00	0.82	5.00	2.85	1.12	3.96
2.60	2.00	0.82	5.00	2.85	1.12	3.96
2.65	2.00	0.82	5.00	2.85	1.12	3.96
2.70	2.00	0.82	5.00	2.85	1.12	3.96
2.75	2.00	0.82	5.00	2.85	1.12	3.96
2.80	2.00	0.82	5.00	2.85	1.12	3.96
2.85	2.00	0.82	5.00	2.85	1.12	3.96
2.90	2.00	0.82	5.00	2.85	1.12	3.96
2.95	2.00	0.82	5.00	2.85	1.12	3.96
3.00	2.00	0.82	5.00	2.85	1.12	3.96
3.05	2.00	0.82	5.00	2.85	1.12	3.96
3.10	2.00	0.82	5.00	2.85	1.12	3.96
3.15	2.00	0.82	5.00	2.85	1.12	3.96
3.20	2.00	0.82	5.00	2.85	1.12	3.96
3.25	2.00	0.82	5.00	2.85	1.12	3.96
3.30	2.00	0.82	5.00	2.85	1.12	3.96
3.35	2.00	0.82	5.00	2.85	1.12	3.96
3.40	2.00	0.82	5.00	2.85	1.12	3.96
3.45	2.00	0.82	5.00	2.85	1.12	3.96
3.50	2.00	0.82	5.00	2.85	1.12	3.96
3.55	2.00	0.82	5.00	2.85	1.12	3.96
3.60	2.00	0.82	5.00	2.85	1.12	3.96
3.65	2.00	0.82	5.00	2.85	1.12	3.96
3.70	2.00	0.82	5.00	2.85	1.12	3.96
3.75	2.00	0.82	5.00	2.85	1.12	3.96
3.80	2.00	0.82	5.00	2.85	1.12	3.96
3.85	2.00	0.82	5.00	2.85	1.12	3.96
3.90	2.00	0.82	5.00	2.85	1.12	3.96
3.95	2.00	0.82	5.00	2.85	1.12	3.96
4.00	2.00	0.82	5.00	2.85	1.12	3.96
4.05	2.00	0.82	5.00	2.85	1.12	3.96
4.10	2.00	0.82	5.00	2.85	1.12	3.96
4.15	2.00	0.82	5.00	2.85	1.12	3.96
4.20	2.00	0.82	5.00	2.85	1.12	3.96
4.25	2.00	0.82	5.00	2.85	1.12	3.96
4.30	2.00	0.82	5.00	2.85	1.12	3.96
4.35	2.00	0.82	5.00	2.85	1.12	3.96
4.40	2.00	0.82	5.00	2.85	1.12	3.96

4.45	2.00	0.82	5.00	2.85	1.12	3.96
4.50	2.00	0.82	5.00	2.85	1.12	3.96
4.55	2.00	0.82	5.00	2.85	1.12	3.96
4.60	2.00	0.82	5.00	2.85	1.12	3.96
4.65	2.00	0.82	5.00	2.85	1.12	3.96
4.70	2.00	0.82	5.00	2.85	1.12	3.96
4.75	2.00	0.82	5.00	2.85	1.12	3.96
4.80	2.00	0.82	5.00	2.85	1.12	3.96
4.85	2.00	0.82	5.00	2.85	1.12	3.96
4.90	2.00	0.82	5.00	2.85	1.12	3.96
4.95	2.00	0.82	5.00	2.85	1.12	3.96
5.00	2.00	0.82	5.00	2.85	1.12	3.96
5.05	2.00	0.82	5.00	2.85	1.12	3.96
5.10	2.00	0.82	5.00	2.85	1.12	3.96
5.15	2.00	0.82	5.00	2.85	1.12	3.96
5.20	2.00	0.82	5.00	2.85	1.12	3.96
5.25	2.00	0.82	5.00	2.85	1.12	3.96
5.30	2.00	0.82	5.00	2.85	1.12	3.96
5.35	2.00	0.82	5.00	2.85	1.12	3.96
5.40	2.00	0.82	5.00	2.85	1.12	3.96
5.45	2.00	0.82	5.00	2.85	1.12	3.96
5.50	2.00	0.82	5.00	2.85	1.12	3.96
5.55	2.00	0.82	5.00	2.85	1.12	3.96
5.60	2.00	0.82	5.00	2.85	1.12	3.96
5.65	2.00	0.82	5.00	2.85	1.12	3.96
5.70	2.00	0.82	5.00	2.85	1.12	3.96
5.75	2.00	0.82	5.00	2.85	1.12	3.96
5.80	2.00	0.82	5.00	2.85	1.12	3.96
5.85	2.00	0.82	5.00	2.85	1.12	3.96
5.90	2.00	0.82	5.00	2.85	1.12	3.96
5.95	2.00	0.82	5.00	2.85	1.12	3.96
6.00	2.00	0.82	5.00	2.85	1.12	3.96
6.05	2.00	0.82	5.00	2.85	1.12	3.96
6.10	2.00	0.82	5.00	2.85	1.12	3.96
6.15	2.00	0.82	5.00	2.85	1.12	3.96
6.20	2.00	0.82	5.00	2.85	1.12	3.96
6.25	2.00	0.82	5.00	2.85	1.12	3.96
6.30	2.00	0.82	5.00	2.85	1.12	3.96
6.35	2.00	0.82	5.00	2.85	1.12	3.96
6.40	2.00	0.82	5.00	2.85	1.12	3.96
6.45	2.00	0.82	5.00	2.85	1.12	3.96
6.50	2.00	0.82	5.00	2.85	1.12	3.96
6.55	2.00	0.82	5.00	2.85	1.12	3.96
6.60	2.00	0.82	5.00	2.85	1.12	3.96
6.65	2.00	0.82	5.00	2.85	1.12	3.96
6.70	2.00	0.82	5.00	2.85	1.12	3.96
6.75	2.00	0.82	5.00	2.85	1.12	3.96
6.80	2.00	0.81	5.00	2.85	1.12	3.96
6.85	2.00	0.81	5.00	2.85	1.12	3.96
6.90	2.00	0.81	5.00	2.85	1.12	3.96

6.95	2.00	0.81	5.00	2.85	1.12	3.96
7.00	2.00	0.81	5.00	2.85	1.12	3.96
7.05	2.00	0.81	5.00	2.85	1.12	3.96
7.10	2.00	0.81	5.00	2.85	1.12	3.96
7.15	2.00	0.81	5.00	2.85	1.12	3.96
7.20	2.00	0.81	5.00	2.85	1.12	3.96
7.25	2.00	0.81	5.00	2.85	1.12	3.96
7.30	2.00	0.81	5.00	2.85	1.12	3.96
7.35	2.00	0.81	5.00	2.85	1.12	3.96
7.40	2.00	0.81	5.00	2.85	1.12	3.96
7.45	2.00	0.81	5.00	2.85	1.12	3.96
7.50	2.00	0.81	5.00	2.85	1.12	3.96
7.55	2.00	0.81	5.00	2.85	1.12	3.96
7.60	2.00	0.81	5.00	2.85	1.12	3.96
7.65	2.00	0.81	5.00	2.85	1.12	3.96
7.70	2.00	0.81	5.00	2.85	1.12	3.96
7.75	2.00	0.81	5.00	2.85	1.12	3.96
7.80	2.00	0.81	5.00	2.85	1.12	3.96
7.85	2.00	0.81	5.00	2.85	1.12	3.96
7.90	2.00	0.81	5.00	2.85	1.12	3.96
7.95	2.00	0.81	5.00	2.85	1.12	3.96
8.00	2.00	0.81	5.00	2.85	1.12	3.96
8.05	2.00	0.81	5.00	2.85	1.12	3.96
8.10	2.00	0.81	5.00	2.85	1.12	3.96
8.15	2.00	0.81	5.00	2.85	1.12	3.96
8.20	2.00	0.81	5.00	2.85	1.12	3.96
8.25	2.00	0.81	5.00	2.85	1.12	3.96
8.30	2.00	0.81	5.00	2.85	1.12	3.96
8.35	2.00	0.81	5.00	2.85	1.12	3.96
8.40	2.00	0.81	5.00	2.85	1.12	3.96
8.45	2.00	0.81	5.00	2.85	1.12	3.96
8.50	2.00	0.81	5.00	2.85	1.12	3.96
8.55	2.00	0.81	5.00	2.85	1.12	3.96
8.60	2.00	0.81	5.00	2.85	1.12	3.96
8.65	2.00	0.81	5.00	2.85	1.12	3.96
8.70	2.00	0.81	5.00	2.85	1.12	3.96
8.75	2.00	0.81	5.00	2.85	1.12	3.96
8.80	2.00	0.81	5.00	2.85	1.12	3.96
8.85	2.00	0.81	5.00	2.85	1.12	3.96
8.90	2.00	0.81	5.00	2.85	1.12	3.96
8.95	2.00	0.81	5.00	2.85	1.12	3.96
9.00	2.00	0.81	5.00	2.85	1.12	3.96
9.05	2.00	0.81	5.00	2.85	1.12	3.96
9.10	2.00	0.81	5.00	2.85	1.12	3.96
9.15	2.00	0.81	5.00	2.85	1.12	3.96
9.20	2.00	0.81	5.00	2.85	1.12	3.96
9.25	2.00	0.81	5.00	2.85	1.12	3.96
9.30	2.00	0.81	5.00	2.85	1.12	3.96
9.35	2.00	0.81	5.00	2.85	1.12	3.96
9.40	2.00	0.81	5.00	2.85	1.12	3.96

9.45	2.00	0.81	5.00	2.85	1.12	3.96
9.50	2.00	0.81	5.00	2.85	1.12	3.96
9.55	2.00	0.81	5.00	2.85	1.12	3.96
9.60	2.00	0.81	5.00	2.85	1.12	3.96
9.65	2.00	0.81	5.00	2.85	1.12	3.96
9.70	2.00	0.81	5.00	2.85	1.12	3.96
9.75	2.00	0.81	5.00	2.85	1.12	3.96
9.80	2.00	0.81	5.00	2.85	1.12	3.96
9.85	2.00	0.81	5.00	2.85	1.12	3.96
9.90	2.00	0.81	5.00	2.85	1.12	3.96
9.95	2.00	0.81	5.00	2.85	1.12	3.96
10.00	2.00	0.81	5.00	2.85	1.12	3.96
10.05	2.00	0.81	5.00	2.85	1.12	3.96
10.10	2.00	0.81	5.00	2.85	1.12	3.96
10.15	2.00	0.81	5.00	2.85	1.12	3.96
10.20	2.00	0.81	5.00	2.85	1.12	3.96
10.25	2.00	0.81	5.00	2.85	1.12	3.96
10.30	2.00	0.81	5.00	2.85	1.12	3.96
10.35	2.00	0.81	5.00	2.85	1.12	3.96
10.40	2.00	0.81	5.00	2.85	1.12	3.96
10.45	2.00	0.81	5.00	2.85	1.12	3.96
10.50	2.00	0.81	5.00	2.85	1.12	3.96
10.55	2.00	0.81	5.00	2.85	1.12	3.96
10.60	2.00	0.81	5.00	2.85	1.12	3.96
10.65	2.00	0.81	5.00	2.85	1.12	3.96
10.70	2.00	0.81	5.00	2.85	1.12	3.96
10.75	2.00	0.81	5.00	2.85	1.12	3.96
10.80	2.00	0.81	5.00	2.85	1.12	3.96
10.85	2.00	0.81	5.00	2.85	1.12	3.96
10.90	2.00	0.81	5.00	2.85	1.12	3.96
10.95	2.00	0.81	5.00	2.85	1.12	3.96
11.00	2.00	0.81	5.00	2.85	1.12	3.96
11.05	2.00	0.81	5.00	2.85	1.12	3.96
11.10	2.00	0.81	5.00	2.85	1.12	3.96
11.15	2.00	0.81	5.00	2.85	1.12	3.96
11.20	2.00	0.81	5.00	2.85	1.12	3.96
11.25	2.00	0.81	5.00	2.85	1.12	3.96
11.30	2.00	0.81	5.00	2.85	1.12	3.96
11.35	2.00	0.81	5.00	2.85	1.12	3.96
11.40	2.00	0.81	5.00	2.85	1.12	3.96
11.45	2.00	0.81	5.00	2.85	1.12	3.96
11.50	2.00	0.81	5.00	2.85	1.12	3.96
11.55	2.00	0.81	5.00	2.85	1.12	3.96
11.60	2.00	0.81	5.00	2.85	1.12	3.96
11.65	2.00	0.81	5.00	2.85	1.12	3.96
11.70	2.00	0.81	5.00	2.85	1.12	3.96
11.75	2.00	0.81	5.00	2.85	1.12	3.96
11.80	2.00	0.81	5.00	2.85	1.12	3.96
11.85	2.00	0.81	5.00	2.85	1.12	3.96
11.90	2.00	0.81	5.00	2.85	1.12	3.96

11.95	2.00	0.81	5.00	2.85	1.12	3.96
12.00	2.00	0.80	5.00	2.85	1.12	3.96
12.05	2.00	0.80	5.00	2.85	1.12	3.96
12.10	2.00	0.80	5.00	2.85	1.12	3.96
12.15	2.00	0.80	5.00	2.85	1.12	3.96
12.20	2.00	0.80	5.00	2.85	1.12	3.96
12.25	2.00	0.80	5.00	2.85	1.12	3.96
12.30	2.00	0.80	5.00	2.85	1.12	3.96
12.35	2.00	0.80	5.00	2.85	1.12	3.96
12.40	2.00	0.80	5.00	2.85	1.12	3.96
12.45	2.00	0.80	5.00	2.85	1.12	3.96
12.50	2.00	0.80	5.00	2.85	1.12	3.96
12.55	2.00	0.80	5.00	2.85	1.12	3.96
12.60	2.00	0.80	5.00	2.85	1.12	3.96
12.65	2.00	0.80	5.00	2.85	1.12	3.96
12.70	2.00	0.80	5.00	2.85	1.12	3.96
12.75	2.00	0.80	5.00	2.85	1.12	3.96
12.80	2.00	0.80	5.00	2.85	1.12	3.96
12.85	2.00	0.80	5.00	2.85	1.12	3.96
12.90	2.00	0.80	5.00	2.85	1.12	3.96
12.95	2.00	0.80	5.00	2.85	1.12	3.96
13.00	2.00	0.80	5.00	2.85	1.12	3.96
13.05	2.00	0.80	5.00	2.85	1.12	3.96
13.10	2.00	0.80	5.00	2.85	1.12	3.96
13.15	2.00	0.80	5.00	2.85	1.12	3.96
13.20	2.00	0.80	5.00	2.85	1.12	3.96
13.25	2.00	0.80	5.00	2.85	1.12	3.96
13.30	2.00	0.80	5.00	2.85	1.12	3.96
13.35	2.00	0.80	5.00	2.85	1.12	3.96
13.40	2.00	0.80	5.00	2.85	1.12	3.96
13.45	2.00	0.80	5.00	2.85	1.12	3.96
13.50	2.00	0.80	5.00	2.85	1.12	3.96
13.55	2.00	0.80	5.00	2.85	1.12	3.96
13.60	2.00	0.80	5.00	2.85	1.12	3.96
13.65	2.00	0.80	5.00	2.85	1.12	3.96
13.70	2.00	0.80	5.00	2.85	1.12	3.96
13.75	2.00	0.80	5.00	2.85	1.12	3.96
13.80	2.00	0.80	5.00	2.85	1.12	3.96
13.85	2.00	0.80	5.00	2.85	1.12	3.96
13.90	2.00	0.80	5.00	2.85	1.12	3.96
13.95	2.00	0.80	5.00	2.85	1.12	3.96
14.00	2.00	0.80	5.00	2.85	1.12	3.96
14.05	2.00	0.80	5.00	2.85	1.12	3.96
14.10	2.00	0.80	5.00	2.85	1.12	3.96
14.15	2.00	0.80	5.00	2.85	1.12	3.96
14.20	2.00	0.80	5.00	2.85	1.12	3.96
14.25	2.00	0.80	5.00	2.85	1.12	3.96
14.30	2.00	0.80	5.00	2.85	1.12	3.96
14.35	2.00	0.80	5.00	2.85	1.12	3.96
14.40	2.00	0.80	5.00	2.85	1.12	3.96

14.45	2.00	0.80	5.00	2.85	1.12	3.96
14.50	2.00	0.80	5.00	2.85	1.12	3.96
14.55	2.00	0.80	5.00	2.85	1.12	3.96
14.60	2.00	0.80	5.00	2.85	1.12	3.96
14.65	2.00	0.80	5.00	2.85	1.12	3.96
14.70	2.00	0.80	5.00	2.85	1.12	3.96
14.75	2.00	0.80	5.00	2.85	1.12	3.96
14.80	2.00	0.80	5.00	2.85	1.12	3.96
14.85	2.00	0.80	5.00	2.85	1.12	3.96
14.90	2.00	0.80	5.00	2.85	1.12	3.96
14.95	2.00	0.80	5.00	2.85	1.12	3.96
15.00	2.00	0.80	5.00	2.85	1.12	3.96
15.05	2.00	0.80	5.00	2.85	1.12	3.96
15.10	2.00	0.80	5.00	2.85	1.12	3.96
15.15	2.00	0.80	5.00	2.85	1.12	3.96
15.20	2.00	0.80	5.00	2.85	1.12	3.96
15.25	2.00	0.80	5.00	2.85	1.12	3.96
15.30	2.00	0.80	5.00	2.85	1.12	3.96
15.35	2.00	0.80	5.00	2.85	1.12	3.96
15.40	2.00	0.80	5.00	2.85	1.12	3.96
15.45	2.00	0.80	5.00	2.85	1.12	3.96
15.50	2.00	0.80	5.00	2.85	1.12	3.96
15.55	2.00	0.80	5.00	2.85	1.12	3.96
15.60	2.00	0.80	5.00	2.85	1.12	3.96
15.65	2.00	0.80	5.00	2.85	1.12	3.96
15.70	2.00	0.80	5.00	2.85	1.12	3.96
15.75	2.00	0.80	5.00	2.85	1.12	3.96
15.80	2.00	0.80	5.00	2.85	1.12	3.96
15.85	2.00	0.80	5.00	2.85	1.12	3.96
15.90	2.00	0.80	5.00	2.85	1.12	3.96
15.95	2.00	0.80	5.00	2.85	1.12	3.96
16.00	2.00	0.80	5.00	2.85	1.12	3.96
16.05	2.00	0.80	5.00	2.85	1.12	3.96
16.10	2.00	0.80	5.00	2.85	1.12	3.96
16.15	2.00	0.80	5.00	2.85	1.12	3.96
16.20	2.00	0.80	5.00	2.85	1.12	3.96
16.25	2.00	0.80	5.00	2.85	1.12	3.96
16.30	2.00	0.80	5.00	2.85	1.12	3.96
16.35	2.00	0.80	5.00	2.85	1.12	3.96
16.40	2.00	0.80	5.00	2.85	1.12	3.96
16.45	2.00	0.80	5.00	2.85	1.12	3.96
16.50	2.00	0.80	5.00	2.85	1.12	3.96
16.55	2.00	0.80	5.00	2.85	1.12	3.96
16.60	2.00	0.80	5.00	2.85	1.12	3.96
16.65	2.00	0.80	5.00	2.85	1.12	3.96
16.70	2.00	0.80	5.00	2.85	1.12	3.96
16.75	2.00	0.80	5.00	2.85	1.12	3.96
16.80	2.00	0.80	5.00	2.85	1.12	3.96
16.85	2.00	0.80	5.00	2.85	1.12	3.96
16.90	2.00	0.80	5.00	2.85	1.12	3.96

16.95	2.00	0.80	5.00	2.85	1.12	3.96
17.00	2.00	0.80	5.00	2.85	1.12	3.96
17.05	2.00	0.80	5.00	2.85	1.12	3.96
17.10	2.00	0.80	5.00	2.85	1.12	3.96
17.15	2.00	0.79	5.00	2.85	1.12	3.96
17.20	2.00	0.79	5.00	2.85	1.12	3.96
17.25	2.00	0.79	5.00	2.85	1.12	3.96
17.30	2.00	0.79	5.00	2.85	1.12	3.96
17.35	2.00	0.79	5.00	2.85	1.12	3.96
17.40	2.00	0.79	5.00	2.85	1.12	3.96
17.45	2.00	0.79	5.00	2.85	1.12	3.96
17.50	2.00	0.79	5.00	2.85	1.12	3.96
17.55	2.00	0.79	5.00	2.85	1.12	3.96
17.60	2.00	0.79	5.00	2.85	1.12	3.96
17.65	2.00	0.79	5.00	2.85	1.12	3.96
17.70	2.00	0.79	5.00	2.85	1.12	3.96
17.75	2.00	0.79	5.00	2.85	1.12	3.96
17.80	2.00	0.79	5.00	2.85	1.12	3.96
17.85	2.00	0.79	5.00	2.85	1.12	3.96
17.90	2.00	0.79	5.00	2.85	1.12	3.96
17.95	2.00	0.79	5.00	2.85	1.12	3.96
18.00	2.00	0.79	5.00	2.85	1.12	3.96
18.05	2.00	0.79	5.00	2.85	1.12	3.96
18.10	2.00	0.79	5.00	2.85	1.12	3.96
18.15	2.00	0.79	5.00	2.85	1.12	3.96
18.20	2.00	0.79	5.00	2.85	1.12	3.96
18.25	2.00	0.79	5.00	2.85	1.12	3.96
18.30	2.00	0.79	5.00	2.85	1.12	3.96
18.35	2.00	0.79	5.00	2.85	1.12	3.96
18.40	2.00	0.79	5.00	2.85	1.12	3.96
18.45	2.00	0.79	5.00	2.85	1.12	3.96
18.50	2.00	0.79	5.00	2.85	1.12	3.96
18.55	2.00	0.79	5.00	2.85	1.12	3.96
18.60	2.00	0.79	5.00	2.85	1.12	3.96
18.65	2.00	0.79	5.00	2.85	1.12	3.96
18.70	2.00	0.79	5.00	2.85	1.12	3.96
18.75	2.00	0.79	5.00	2.85	1.12	3.96
18.80	2.00	0.79	5.00	2.85	1.12	3.96
18.85	2.00	0.79	5.00	2.85	1.12	3.96
18.90	2.00	0.79	5.00	2.85	1.12	3.96
18.95	2.00	0.79	5.00	2.85	1.12	3.96
19.00	2.00	0.79	5.00	2.85	1.12	3.96
19.05	2.00	0.79	5.00	2.85	1.12	3.96
19.10	2.00	0.79	5.00	2.85	1.12	3.96
19.15	2.00	0.79	5.00	2.85	1.12	3.96
19.20	2.00	0.79	5.00	2.85	1.12	3.96
19.25	2.00	0.79	5.00	2.85	1.12	3.96
19.30	2.00	0.79	5.00	2.85	1.12	3.96
19.35	2.00	0.79	5.00	2.85	1.12	3.96
19.40	2.00	0.79	5.00	2.85	1.12	3.96

19.45	2.00	0.79	5.00	2.85	1.12	3.96
19.50	2.00	0.79	5.00	2.85	1.12	3.96
19.55	2.00	0.79	5.00	2.85	1.12	3.96
19.60	2.00	0.79	5.00	2.85	1.12	3.96
19.65	2.00	0.79	5.00	2.85	1.12	3.96
19.70	2.00	0.79	5.00	2.85	1.12	3.96
19.75	2.00	0.79	5.00	2.85	1.12	3.96
19.80	2.00	0.79	5.00	2.85	1.12	3.96
19.85	2.00	0.79	5.00	2.85	1.12	3.96
19.90	2.00	0.79	5.00	2.85	1.12	3.96
19.95	2.00	0.79	5.00	2.85	1.12	3.96
20.00	2.00	0.79	5.00	2.85	1.12	3.96
20.05	2.00	0.79	5.00	2.85	1.12	3.96
20.10	2.00	0.79	5.00	2.85	1.12	3.96
20.15	2.00	0.79	5.00	2.85	1.12	3.96
20.20	2.00	0.79	5.00	2.85	1.12	3.96
20.25	2.00	0.79	5.00	2.85	1.12	3.96
20.30	2.00	0.79	5.00	2.85	1.12	3.96
20.35	2.00	0.79	5.00	2.85	1.12	3.96
20.40	2.00	0.79	5.00	2.85	1.12	3.96
20.45	2.00	0.79	5.00	2.85	1.12	3.96
20.50	2.00	0.79	5.00	2.85	1.12	3.96
20.55	2.00	0.79	5.00	2.85	1.12	3.96
20.60	0.28	0.79	5.00	2.85	1.12	3.96
20.65	0.27	0.79	5.00	2.85	1.11	3.95
20.70	0.25	0.79	5.00	2.85	1.10	3.94
20.75	0.23	0.79	5.00	2.85	1.09	3.93
20.80	0.21	0.79	5.00	2.85	1.07	3.92
20.85	0.18	0.79	5.00	2.85	1.06	3.91
20.90	0.18	0.79	5.00	2.85	1.05	3.90
20.95	0.17	0.79	5.00	2.85	1.04	3.89
21.00	0.17	0.79	5.00	2.85	1.03	3.87
21.05	0.17	0.79	5.00	2.85	1.01	3.86
21.10	0.16	0.79	5.00	2.85	1.00	3.85
21.15	0.16	0.79	5.00	2.85	0.99	3.84
21.20	0.16	0.79	5.00	2.85	0.97	3.82
21.25	0.16	0.79	5.00	2.85	0.96	3.81
21.30	0.16	0.79	5.00	2.85	0.95	3.80
21.35	0.16	0.79	5.00	2.85	0.93	3.78
21.40	0.16	0.79	5.00	2.85	0.92	3.77
21.45	0.16	0.79	5.00	2.85	0.91	3.76
21.50	0.16	0.79	5.00	2.85	0.89	3.74
21.55	0.16	0.79	5.00	2.85	0.88	3.73
21.60	0.16	0.79	5.00	2.85	0.87	3.72
21.65	0.17	0.79	5.00	2.85	0.86	3.70
21.70	0.17	0.79	5.00	2.85	0.84	3.69
21.75	0.18	0.79	5.00	2.85	0.83	3.68
21.80	0.19	0.79	5.00	2.85	0.82	3.67
21.85	0.20	0.79	5.00	2.85	0.81	3.66
21.90	0.20	0.79	5.00	2.85	0.80	3.64

21.95	0.20	0.79	5.00	2.85	0.78	3.63
22.00	0.20	0.79	5.00	2.85	0.77	3.62
22.05	0.20	0.79	5.00	2.85	0.76	3.61
22.10	0.20	0.79	5.00	2.85	0.75	3.60
22.15	0.19	0.79	5.00	2.85	0.74	3.59
22.20	0.20	0.79	5.00	2.85	0.73	3.58
22.25	0.20	0.79	5.00	2.85	0.72	3.57
22.30	0.19	0.79	5.00	2.85	0.71	3.55
22.35	0.18	0.78	5.00	2.85	0.69	3.54
22.40	0.18	0.78	5.00	2.85	0.68	3.53
22.45	0.18	0.78	5.00	2.85	0.67	3.52
22.50	0.16	0.78	5.00	2.85	0.66	3.51
22.55	0.15	0.78	5.00	2.85	0.65	3.50
22.60	0.15	0.78	5.00	2.85	0.64	3.48
22.65	0.15	0.78	5.00	2.85	0.62	3.47
22.70	0.14	0.78	5.00	2.85	0.61	3.46
22.75	0.14	0.78	5.00	2.85	0.60	3.44
22.80	0.15	0.78	5.00	2.85	0.58	3.43
22.85	0.15	0.78	5.00	2.85	0.57	3.42
22.90	0.16	0.78	5.00	2.85	0.55	3.40
22.95	0.17	0.78	5.00	2.85	0.54	3.39
23.00	0.17	0.78	5.00	2.85	0.53	3.38
23.05	0.17	0.78	5.00	2.85	0.52	3.37
23.10	0.16	0.78	5.00	2.85	0.50	3.35
23.15	0.17	0.78	5.00	2.85	0.49	3.34
23.20	0.16	0.78	5.00	2.85	0.48	3.33
23.25	0.16	0.78	5.00	2.85	0.47	3.32
23.30	0.16	0.78	5.00	2.85	0.46	3.31
23.35	0.15	0.78	5.00	2.85	0.44	3.29
23.40	0.15	0.78	5.00	2.85	0.43	3.28
23.45	0.15	0.78	5.00	2.85	0.42	3.27
23.50	0.15	0.78	5.00	2.85	0.41	3.26
23.55	0.15	0.78	5.00	2.85	0.40	3.24
23.60	0.15	0.78	5.00	2.85	0.38	3.23
23.65	0.15	0.78	5.00	2.85	0.37	3.22
23.70	0.15	0.78	5.00	2.85	0.36	3.21
23.75	0.16	0.78	5.00	2.85	0.35	3.20
23.80	0.16	0.78	5.00	2.85	0.34	3.19
23.85	0.16	0.78	5.00	2.85	0.33	3.17
23.90	0.16	0.78	5.00	2.85	0.31	3.16
23.95	0.16	0.78	5.00	2.85	0.30	3.15
24.00	0.16	0.78	5.00	2.85	0.29	3.14
24.05	0.16	0.78	5.00	2.85	0.28	3.13
24.10	0.16	0.78	5.00	2.85	0.27	3.12
24.15	0.16	0.78	5.00	2.85	0.26	3.11
24.20	0.15	0.78	5.00	2.85	0.24	3.09
24.25	0.15	0.78	5.00	2.85	0.23	3.08
24.30	0.15	0.78	5.00	2.85	0.22	3.07
24.35	0.14	0.78	5.00	2.85	0.21	3.05
24.40	0.14	0.78	5.00	2.85	0.19	3.04

24.45	0.13	0.78	5.00	2.85	0.18	3.03
24.50	0.13	0.78	5.00	2.85	0.16	3.01
24.55	0.13	0.78	5.00	2.85	0.15	2.99
24.60	0.13	0.78	5.00	2.85	0.13	2.98
24.65	0.13	0.78	5.00	2.85	0.11	2.96
24.70	0.13	0.78	5.00	2.85	0.10	2.95
24.75	0.13	0.78	5.00	2.85	0.08	2.93
24.80	0.13	0.78	5.00	2.85	0.07	2.92
24.85	0.14	0.78	5.00	2.85	0.06	2.90
24.90	0.14	0.78	5.00	2.85	0.04	2.89
24.95	0.14	0.78	5.00	2.85	0.03	2.88
25.00	0.13	0.78	5.00	2.85	0.01	2.86
25.05	0.12	0.78	0.16*	2.85	0.00	2.85
25.10	0.12	0.78	0.15*	2.84	0.00	2.84
25.15	0.12	0.78	0.15*	2.83	0.00	2.83
25.20	0.12	0.78	0.15*	2.82	0.00	2.82
25.25	0.12	0.78	0.15*	2.81	0.00	2.81
25.30	0.12	0.78	0.15*	2.80	0.00	2.80
25.35	0.12	0.78	0.15*	2.79	0.00	2.79
25.40	0.14	0.79	0.17*	2.78	0.00	2.78
25.45	0.13	0.79	0.17*	2.77	0.00	2.77
25.50	0.13	0.79	0.17*	2.76	0.00	2.76
25.55	0.14	0.79	0.17*	2.75	0.00	2.75
25.60	0.14	0.79	0.17*	2.74	0.00	2.74
25.65	0.14	0.79	0.18*	2.73	0.00	2.73
25.70	0.14	0.79	0.18*	2.73	0.00	2.73
25.75	0.14	0.79	0.17*	2.72	0.00	2.72
25.80	0.13	0.79	0.17*	2.71	0.00	2.71
25.85	0.13	0.79	0.16*	2.70	0.00	2.70
25.90	0.12	0.79	0.16*	2.69	0.00	2.69
25.95	0.12	0.79	0.15*	2.68	0.00	2.68
26.00	0.12	0.79	0.15*	2.67	0.00	2.67
26.05	0.12	0.80	0.15*	2.66	0.00	2.66
26.10	0.12	0.80	0.15*	2.65	0.00	2.65
26.15	0.12	0.80	0.15*	2.64	0.00	2.64
26.20	0.12	0.80	0.15*	2.63	0.00	2.63
26.25	0.11	0.80	0.14*	2.62	0.00	2.62
26.30	0.11	0.80	0.14*	2.60	0.00	2.60
26.35	0.11	0.80	0.14*	2.59	0.00	2.59
26.40	0.11	0.80	0.14*	2.58	0.00	2.58
26.45	0.11	0.80	0.14*	2.57	0.00	2.57
26.50	0.11	0.80	0.14*	2.56	0.00	2.56
26.55	0.12	0.80	0.15*	2.55	0.00	2.55
26.60	0.12	0.80	0.15*	2.54	0.00	2.54
26.65	0.13	0.80	0.16*	2.53	0.00	2.53
26.70	0.14	0.80	0.17*	2.52	0.00	2.52
26.75	0.14	0.81	0.17*	2.51	0.00	2.51
26.80	0.15	0.81	0.18*	2.51	0.00	2.51
26.85	0.15	0.81	0.19*	2.50	0.00	2.50
26.90	0.15	0.81	0.18*	2.49	0.00	2.49

26.95	0.14	0.81	0.18*	2.48	0.00	2.48
27.00	0.14	0.81	0.17*	2.47	0.00	2.47
27.05	0.14	0.81	0.17*	2.47	0.00	2.47
27.10	0.14	0.81	0.17*	2.46	0.00	2.46
27.15	0.13	0.81	0.15*	2.45	0.00	2.45
27.20	0.12	0.81	0.14*	2.44	0.00	2.44
27.25	0.12	0.81	0.15*	2.43	0.00	2.43
27.30	0.12	0.81	0.15*	2.42	0.00	2.42
27.35	0.12	0.81	0.15*	2.41	0.00	2.41
27.40	0.13	0.81	0.16*	2.40	0.00	2.40
27.45	0.14	0.82	0.17*	2.39	0.00	2.39
27.50	0.13	0.82	0.16*	2.38	0.00	2.38
27.55	0.15	0.82	0.18*	2.37	0.00	2.37
27.60	0.16	0.82	0.19*	2.36	0.00	2.36
27.65	0.16	0.82	0.19*	2.35	0.00	2.35
27.70	0.15	0.82	0.19*	2.34	0.00	2.34
27.75	0.15	0.82	0.18*	2.33	0.00	2.33
27.80	0.14	0.82	0.17*	2.32	0.00	2.32
27.85	0.13	0.82	0.16*	2.31	0.00	2.31
27.90	0.12	0.82	0.15*	2.30	0.00	2.30
27.95	0.12	0.82	0.14*	2.29	0.00	2.29
28.00	0.11	0.82	0.14*	2.28	0.00	2.28
28.05	0.11	0.82	0.14*	2.27	0.00	2.27
28.10	0.11	0.82	0.14*	2.26	0.00	2.26
28.15	0.11	0.83	0.14*	2.25	0.00	2.25
28.20	0.11	0.83	0.14*	2.24	0.00	2.24
28.25	0.12	0.83	0.14*	2.23	0.00	2.23
28.30	0.12	0.83	0.14*	2.22	0.00	2.22
28.35	0.12	0.83	0.15*	2.21	0.00	2.21
28.40	0.13	0.83	0.15*	2.20	0.00	2.20
28.45	0.13	0.83	0.16*	2.19	0.00	2.19
28.50	0.14	0.83	0.17*	2.18	0.00	2.18
28.55	0.14	0.83	0.17*	2.17	0.00	2.17
28.60	0.15	0.83	0.18*	2.17	0.00	2.17
28.65	0.16	0.83	0.19*	2.16	0.00	2.16
28.70	0.17	0.83	0.21*	2.15	0.00	2.15
28.75	0.18	0.83	0.22*	2.14	0.00	2.14
28.80	0.19	0.83	0.23*	2.14	0.00	2.14
28.85	0.19	0.83	0.23*	2.13	0.00	2.13
28.90	0.20	0.84	0.24*	2.13	0.00	2.13
28.95	0.20	0.84	0.24*	2.12	0.00	2.12
29.00	0.21	0.84	0.25*	2.12	0.00	2.12
29.05	0.22	0.84	0.26*	2.11	0.00	2.11
29.10	0.21	0.84	0.25*	2.11	0.00	2.11
29.15	0.20	0.84	0.24*	2.10	0.00	2.10
29.20	0.20	0.84	0.23*	2.09	0.00	2.09
29.25	0.16	0.84	0.19*	2.09	0.00	2.09
29.30	0.14	0.84	0.16*	2.08	0.00	2.08
29.35	0.15	0.84	0.17*	2.07	0.00	2.07
29.40	0.17	0.84	0.20*	2.06	0.00	2.06

29.45	0.19	0.84	0.22*	2.05	0.00	2.05
29.50	0.21	0.84	0.25*	2.05	0.00	2.05
29.55	0.20	0.84	0.24*	2.04	0.00	2.04
29.60	0.18	0.84	0.21*	2.03	0.00	2.03
29.65	0.16	0.85	0.19*	2.02	0.00	2.02
29.70	0.16	0.85	0.19*	2.01	0.00	2.01
29.75	0.15	0.85	0.18*	2.00	0.00	2.00
29.80	0.14	0.85	0.17*	1.99	0.00	1.99
29.85	0.13	0.85	0.16*	1.98	0.00	1.98
29.90	0.13	0.85	0.15*	1.97	0.00	1.97
29.95	0.12	0.85	0.14*	1.96	0.00	1.96
30.00	0.12	0.85	0.14*	1.95	0.00	1.95
30.05	0.11	0.85	0.13*	1.94	0.00	1.94
30.10	0.11	0.85	0.13*	1.93	0.00	1.93
30.15	0.11	0.85	0.13*	1.92	0.00	1.92
30.20	0.11	0.85	0.13*	1.91	0.00	1.91
30.25	0.11	0.85	0.13*	1.90	0.00	1.90
30.30	0.11	0.85	0.13*	1.89	0.00	1.89
30.35	0.11	0.85	0.13*	1.88	0.00	1.88
30.40	0.11	0.85	0.13*	1.87	0.00	1.87
30.45	0.11	0.85	0.13*	1.86	0.00	1.86
30.50	0.11	0.85	0.13*	1.84	0.00	1.84
30.55	0.11	0.85	0.13*	1.83	0.00	1.83
30.60	0.11	0.85	0.13*	1.82	0.00	1.82
30.65	0.11	0.85	0.13*	1.81	0.00	1.81
30.70	0.11	0.85	0.13*	1.80	0.00	1.80
30.75	0.11	0.85	0.13*	1.79	0.00	1.79
30.80	0.12	0.86	0.14*	1.78	0.00	1.78
30.85	0.12	0.86	0.14*	1.77	0.00	1.77
30.90	0.13	0.86	0.15*	1.76	0.00	1.76
30.95	0.13	0.86	0.15*	1.75	0.00	1.75
31.00	0.14	0.86	0.16*	1.74	0.00	1.74
31.05	0.14	0.86	0.16*	1.74	0.00	1.74
31.10	0.14	0.86	0.17*	1.73	0.00	1.73
31.15	0.15	0.86	0.17*	1.72	0.00	1.72
31.20	0.15	0.86	0.17*	1.71	0.00	1.71
31.25	0.15	0.86	0.17*	1.70	0.00	1.70
31.30	0.14	0.86	0.16*	1.70	0.00	1.70
31.35	0.14	0.86	0.16*	1.69	0.00	1.69
31.40	0.13	0.86	0.16*	1.68	0.00	1.68
31.45	0.13	0.86	0.16*	1.67	0.00	1.67
31.50	0.13	0.86	0.15*	1.66	0.00	1.66
31.55	0.12	0.86	0.14*	1.65	0.00	1.65
31.60	0.12	0.86	0.14*	1.64	0.00	1.64
31.65	0.13	0.86	0.15*	1.63	0.00	1.63
31.70	0.13	0.86	0.16*	1.62	0.00	1.62
31.75	0.14	0.86	0.17*	1.61	0.00	1.61
31.80	0.15	0.86	0.18*	1.60	0.00	1.60
31.85	0.15	0.86	0.18*	1.59	0.00	1.59
31.90	0.15	0.86	0.17*	1.58	0.00	1.58

31.95	0.14	0.86	0.16*	1.57	0.00	1.57
32.00	0.15	0.86	0.17*	1.56	0.00	1.56
32.05	0.15	0.86	0.17*	1.55	0.00	1.55
32.10	0.15	0.86	0.17*	1.54	0.00	1.54
32.15	0.15	0.86	0.17*	1.53	0.00	1.53
32.20	0.15	0.86	0.17*	1.52	0.00	1.52
32.25	0.14	0.86	0.17*	1.51	0.00	1.51
32.30	0.14	0.86	0.17*	1.50	0.00	1.50
32.35	0.14	0.86	0.16*	1.49	0.00	1.49
32.40	0.14	0.87	0.16*	1.48	0.00	1.48
32.45	0.13	0.87	0.15*	1.47	0.00	1.47
32.50	0.12	0.87	0.14*	1.46	0.00	1.46
32.55	0.11	0.87	0.13*	1.45	0.00	1.45
32.60	0.11	0.87	0.13*	1.44	0.00	1.44
32.65	0.11	0.87	0.13*	1.43	0.00	1.43
32.70	0.11	0.87	0.13*	1.42	0.00	1.42
32.75	0.12	0.87	0.13*	1.41	0.00	1.41
32.80	0.13	0.87	0.15*	1.40	0.00	1.40
32.85	0.17	0.87	0.19*	1.39	0.00	1.39
32.90	2.00	0.87	5.00	1.38	0.00	1.38
32.95	2.00	0.87	5.00	1.38	0.00	1.38
33.00	2.00	0.87	5.00	1.38	0.00	1.38
33.05	2.00	0.87	5.00	1.38	0.00	1.38
33.10	2.00	0.87	5.00	1.38	0.00	1.38
33.15	2.00	0.87	5.00	1.38	0.00	1.38
33.20	2.00	0.87	5.00	1.38	0.00	1.38
33.25	2.00	0.87	5.00	1.38	0.00	1.38
33.30	2.00	0.87	5.00	1.38	0.00	1.38
33.35	2.00	0.87	5.00	1.38	0.00	1.38
33.40	2.00	0.87	5.00	1.38	0.00	1.38
33.45	0.13	0.87	0.15*	1.38	0.00	1.38
33.50	0.15	0.87	0.17*	1.38	0.00	1.38
33.55	0.17	0.87	0.20*	1.37	0.00	1.37
33.60	0.19	0.87	0.22*	1.36	0.00	1.36
33.65	0.23	0.87	0.26*	1.35	0.00	1.35
33.70	0.28	0.87	0.32*	1.34	0.00	1.34
33.75	0.32	0.87	0.37*	1.33	0.00	1.33
33.80	0.36	0.87	0.41*	1.33	0.00	1.33
33.85	0.37	0.87	0.42*	1.32	0.00	1.32
33.90	0.36	0.87	0.41*	1.31	0.00	1.31
33.95	0.34	0.87	0.39*	1.31	0.00	1.31
34.00	0.32	0.87	0.37*	1.30	0.00	1.30
34.05	0.31	0.87	0.36*	1.29	0.00	1.29
34.10	0.29	0.87	0.33*	1.29	0.00	1.29
34.15	0.25	0.87	0.28*	1.28	0.00	1.28
34.20	0.23	0.87	0.26*	1.27	0.00	1.27
34.25	0.23	0.87	0.27*	1.26	0.00	1.26
34.30	0.23	0.87	0.26*	1.26	0.00	1.26
34.35	0.22	0.88	0.26*	1.25	0.00	1.25
34.40	0.21	0.88	0.24*	1.24	0.00	1.24

34.45	0.20	0.88	0.23*	1.23	0.00	1.23
34.50	0.19	0.88	0.21*	1.22	0.00	1.22
34.55	0.17	0.88	0.20*	1.21	0.00	1.21
34.60	0.16	0.88	0.19*	1.21	0.00	1.21
34.65	0.15	0.88	0.18*	1.20	0.00	1.20
34.70	0.15	0.88	0.17*	1.19	0.00	1.19
34.75	2.00	0.88	5.00	1.18	0.00	1.18
34.80	2.00	0.88	5.00	1.18	0.00	1.18
34.85	2.00	0.88	5.00	1.18	0.00	1.18
34.90	2.00	0.88	5.00	1.18	0.00	1.18
34.95	2.00	0.88	5.00	1.18	0.00	1.18
35.00	2.00	0.88	5.00	1.18	0.00	1.18
35.05	2.00	0.88	5.00	1.18	0.00	1.18
35.10	2.00	0.88	5.00	1.18	0.00	1.18
35.15	2.00	0.88	5.00	1.18	0.00	1.18
35.20	2.00	0.88	5.00	1.18	0.00	1.18
35.25	2.00	0.88	5.00	1.18	0.00	1.18
35.30	2.00	0.88	5.00	1.18	0.00	1.18
35.35	2.00	0.88	5.00	1.18	0.00	1.18
35.40	2.00	0.88	5.00	1.18	0.00	1.18
35.45	2.00	0.88	5.00	1.18	0.00	1.18
35.50	2.00	0.88	5.00	1.18	0.00	1.18
35.55	2.00	0.88	5.00	1.18	0.00	1.18
35.60	2.00	0.88	5.00	1.18	0.00	1.18
35.65	2.00	0.88	5.00	1.18	0.00	1.18
35.70	2.00	0.88	5.00	1.18	0.00	1.18
35.75	0.16	0.88	0.19*	1.18	0.00	1.18
35.80	2.00	0.88	5.00	1.17	0.00	1.17
35.85	2.00	0.88	5.00	1.17	0.00	1.17
35.90	2.00	0.88	5.00	1.17	0.00	1.17
35.95	2.00	0.88	5.00	1.17	0.00	1.17
36.00	0.10	0.88	0.11*	1.17	0.00	1.17
36.05	0.11	0.88	0.12*	1.16	0.00	1.16
36.10	0.11	0.88	0.13*	1.15	0.00	1.15
36.15	0.11	0.88	0.13*	1.14	0.00	1.14
36.20	0.11	0.88	0.13*	1.13	0.00	1.13
36.25	0.11	0.88	0.12*	1.12	0.00	1.12
36.30	0.11	0.88	0.12*	1.11	0.00	1.11
36.35	0.11	0.88	0.12*	1.10	0.00	1.10
36.40	0.11	0.88	0.12*	1.09	0.00	1.09
36.45	0.10	0.88	0.12*	1.08	0.00	1.08
36.50	0.10	0.88	0.11*	1.07	0.00	1.07
36.55	0.11	0.88	0.12*	1.06	0.00	1.06
36.60	0.12	0.88	0.13*	1.05	0.00	1.05
36.65	2.00	0.88	5.00	1.04	0.00	1.04
36.70	2.00	0.88	5.00	1.04	0.00	1.04
36.75	2.00	0.88	5.00	1.04	0.00	1.04
36.80	2.00	0.88	5.00	1.04	0.00	1.04
36.85	2.00	0.88	5.00	1.04	0.00	1.04
36.90	2.00	0.88	5.00	1.04	0.00	1.04

36.95	2.00	0.88	5.00	1.04	0.00	1.04
37.00	2.00	0.89	5.00	1.04	0.00	1.04
37.05	2.00	0.89	5.00	1.04	0.00	1.04
37.10	2.00	0.89	5.00	1.04	0.00	1.04
37.15	2.00	0.89	5.00	1.04	0.00	1.04
37.20	0.13	0.89	0.14*	1.04	0.00	1.04
37.25	0.12	0.89	0.14*	1.03	0.00	1.03
37.30	0.12	0.89	0.14*	1.02	0.00	1.02
37.35	0.12	0.89	0.14*	1.01	0.00	1.01
37.40	0.13	0.89	0.14*	1.01	0.00	1.01
37.45	0.13	0.89	0.15*	1.00	0.00	1.00
37.50	0.14	0.89	0.16*	0.99	0.00	0.99
37.55	0.16	0.89	0.18*	0.98	0.00	0.98
37.60	2.00	0.89	5.00	0.97	0.00	0.97
37.65	2.00	0.89	5.00	0.97	0.00	0.97
37.70	2.00	0.89	5.00	0.97	0.00	0.97
37.75	2.00	0.89	5.00	0.97	0.00	0.97
37.80	2.00	0.89	5.00	0.97	0.00	0.97
37.85	2.00	0.89	5.00	0.97	0.00	0.97
37.90	2.00	0.89	5.00	0.97	0.00	0.97
37.95	2.00	0.89	5.00	0.97	0.00	0.97
38.00	2.00	0.89	5.00	0.97	0.00	0.97
38.05	2.00	0.89	5.00	0.97	0.00	0.97
38.10	2.00	0.89	5.00	0.97	0.00	0.97
38.15	2.00	0.89	5.00	0.97	0.00	0.97
38.20	2.00	0.89	5.00	0.97	0.00	0.97
38.25	2.00	0.89	5.00	0.97	0.00	0.97
38.30	2.00	0.89	5.00	0.97	0.00	0.97
38.35	2.00	0.89	5.00	0.97	0.00	0.97
38.40	2.00	0.89	5.00	0.97	0.00	0.97
38.45	2.00	0.89	5.00	0.97	0.00	0.97
38.50	2.00	0.89	5.00	0.97	0.00	0.97
38.55	2.00	0.89	5.00	0.97	0.00	0.97
38.60	2.00	0.89	5.00	0.97	0.00	0.97
38.65	2.00	0.89	5.00	0.97	0.00	0.97
38.70	2.00	0.89	5.00	0.97	0.00	0.97
38.75	2.00	0.89	5.00	0.97	0.00	0.97
38.80	2.00	0.89	5.00	0.97	0.00	0.97
38.85	2.00	0.89	5.00	0.97	0.00	0.97
38.90	2.00	0.89	5.00	0.97	0.00	0.97
38.95	2.00	0.89	5.00	0.97	0.00	0.97
39.00	2.00	0.89	5.00	0.97	0.00	0.97
39.05	2.00	0.89	5.00	0.97	0.00	0.97
39.10	2.00	0.89	5.00	0.97	0.00	0.97
39.15	2.00	0.89	5.00	0.97	0.00	0.97
39.20	2.00	0.89	5.00	0.97	0.00	0.97
39.25	2.00	0.89	5.00	0.97	0.00	0.97
39.30	2.00	0.89	5.00	0.97	0.00	0.97
39.35	2.00	0.89	5.00	0.97	0.00	0.97
39.40	2.00	0.89	5.00	0.97	0.00	0.97

39.45	2.00	0.89	5.00	0.97	0.00	0.97
39.50	2.00	0.89	5.00	0.97	0.00	0.97
39.55	2.00	0.89	5.00	0.97	0.00	0.97
39.60	2.00	0.89	5.00	0.97	0.00	0.97
39.65	2.00	0.89	5.00	0.97	0.00	0.97
39.70	2.00	0.89	5.00	0.97	0.00	0.97
39.75	2.00	0.89	5.00	0.97	0.00	0.97
39.80	2.00	0.89	5.00	0.97	0.00	0.97
39.85	2.00	0.89	5.00	0.97	0.00	0.97
39.90	2.00	0.89	5.00	0.97	0.00	0.97
39.95	2.00	0.89	5.00	0.97	0.00	0.97
40.00	2.00	0.89	5.00	0.97	0.00	0.97
40.05	2.00	0.89	5.00	0.97	0.00	0.97
40.10	2.00	0.89	5.00	0.97	0.00	0.97
40.15	2.00	0.89	5.00	0.97	0.00	0.97
40.20	2.00	0.89	5.00	0.97	0.00	0.97
40.25	2.00	0.89	5.00	0.97	0.00	0.97
40.30	2.00	0.89	5.00	0.97	0.00	0.97
40.35	2.00	0.89	5.00	0.97	0.00	0.97
40.40	2.00	0.89	5.00	0.97	0.00	0.97
40.45	2.00	0.89	5.00	0.97	0.00	0.97
40.50	2.00	0.89	5.00	0.97	0.00	0.97
40.55	2.00	0.89	5.00	0.97	0.00	0.97
40.60	2.00	0.89	5.00	0.97	0.00	0.97
40.65	2.00	0.89	5.00	0.97	0.00	0.97
40.70	2.00	0.89	5.00	0.97	0.00	0.97
40.75	2.00	0.89	5.00	0.97	0.00	0.97
40.80	2.00	0.89	5.00	0.97	0.00	0.97
40.85	2.00	0.89	5.00	0.97	0.00	0.97
40.90	2.00	0.89	5.00	0.97	0.00	0.97
40.95	2.00	0.89	5.00	0.97	0.00	0.97
41.00	2.00	0.89	5.00	0.97	0.00	0.97
41.05	2.00	0.89	5.00	0.97	0.00	0.97
41.10	2.00	0.89	5.00	0.97	0.00	0.97
41.15	2.00	0.89	5.00	0.97	0.00	0.97
41.20	2.00	0.89	5.00	0.97	0.00	0.97
41.25	2.00	0.89	5.00	0.97	0.00	0.97
41.30	2.00	0.89	5.00	0.97	0.00	0.97
41.35	2.00	0.89	5.00	0.97	0.00	0.97
41.40	2.00	0.89	5.00	0.97	0.00	0.97
41.45	2.00	0.89	5.00	0.97	0.00	0.97
41.50	2.00	0.89	5.00	0.97	0.00	0.97
41.55	2.00	0.89	5.00	0.97	0.00	0.97
41.60	2.00	0.89	5.00	0.97	0.00	0.97
41.65	2.00	0.89	5.00	0.97	0.00	0.97
41.70	2.00	0.89	5.00	0.97	0.00	0.97
41.75	2.00	0.89	5.00	0.97	0.00	0.97
41.80	2.00	0.89	5.00	0.97	0.00	0.97
41.85	2.00	0.89	5.00	0.97	0.00	0.97
41.90	2.00	0.89	5.00	0.97	0.00	0.97

41.95	2.00	0.89	5.00	0.97	0.00	0.97
42.00	2.00	0.89	5.00	0.97	0.00	0.97
42.05	2.00	0.89	5.00	0.97	0.00	0.97
42.10	2.00	0.89	5.00	0.97	0.00	0.97
42.15	2.00	0.89	5.00	0.97	0.00	0.97
42.20	2.00	0.89	5.00	0.97	0.00	0.97
42.25	2.00	0.89	5.00	0.97	0.00	0.97
42.30	2.00	0.89	5.00	0.97	0.00	0.97
42.35	2.00	0.89	5.00	0.97	0.00	0.97
42.40	2.00	0.89	5.00	0.97	0.00	0.97
42.45	2.00	0.89	5.00	0.97	0.00	0.97
42.50	2.00	0.89	5.00	0.97	0.00	0.97
42.55	0.13	0.89	0.15*	0.97	0.00	0.97
42.60	0.14	0.89	0.15*	0.96	0.00	0.96
42.65	0.15	0.89	0.16*	0.96	0.00	0.96
42.70	0.16	0.89	0.18*	0.95	0.00	0.95
42.75	0.16	0.89	0.18*	0.94	0.00	0.94
42.80	0.16	0.89	0.18*	0.93	0.00	0.93
42.85	0.16	0.89	0.18*	0.92	0.00	0.92
42.90	0.15	0.89	0.17*	0.91	0.00	0.91
42.95	0.15	0.89	0.16*	0.90	0.00	0.90
43.00	0.14	0.89	0.16*	0.89	0.00	0.89
43.05	0.14	0.89	0.16*	0.88	0.00	0.88
43.10	0.14	0.89	0.16*	0.87	0.00	0.87
43.15	0.15	0.89	0.16*	0.86	0.00	0.86
43.20	0.14	0.89	0.15*	0.85	0.00	0.85
43.25	0.13	0.89	0.14*	0.84	0.00	0.84
43.30	0.12	0.89	0.13*	0.84	0.00	0.84
43.35	0.12	0.89	0.14*	0.82	0.00	0.82
43.40	0.13	0.89	0.15*	0.82	0.00	0.82
43.45	0.15	0.89	0.17*	0.81	0.00	0.81
43.50	0.16	0.89	0.17*	0.80	0.00	0.80
43.55	0.16	0.89	0.18*	0.79	0.00	0.79
43.60	0.17	0.89	0.19*	0.78	0.00	0.78
43.65	0.17	0.89	0.19*	0.78	0.00	0.78
43.70	0.18	0.89	0.20*	0.77	0.00	0.77
43.75	0.17	0.89	0.19*	0.76	0.00	0.76
43.80	0.17	0.89	0.19*	0.76	0.00	0.76
43.85	0.16	0.89	0.18*	0.75	0.00	0.75
43.90	0.16	0.89	0.17*	0.74	0.00	0.74
43.95	0.16	0.89	0.18*	0.74	0.00	0.74
44.00	0.16	0.89	0.18*	0.73	0.00	0.73
44.05	0.18	0.89	0.20*	0.72	0.00	0.72
44.10	0.19	0.89	0.21*	0.71	0.00	0.71
44.15	2.00	0.89	5.00	0.71	0.00	0.71
44.20	2.00	0.89	5.00	0.71	0.00	0.71
44.25	2.00	0.89	5.00	0.71	0.00	0.71
44.30	2.00	0.89	5.00	0.71	0.00	0.71
44.35	2.00	0.89	5.00	0.71	0.00	0.71
44.40	2.00	0.89	5.00	0.71	0.00	0.71

44.45	2.00	0.89	5.00	0.71	0.00	0.71
44.50	2.00	0.89	5.00	0.71	0.00	0.71
44.55	2.00	0.89	5.00	0.71	0.00	0.71
44.60	2.00	0.89	5.00	0.71	0.00	0.71
44.65	2.00	0.89	5.00	0.71	0.00	0.71
44.70	2.00	0.89	5.00	0.71	0.00	0.71
44.75	2.00	0.89	5.00	0.71	0.00	0.71
44.80	2.00	0.89	5.00	0.71	0.00	0.71
44.85	0.14	0.89	0.15*	0.71	0.00	0.71
44.90	0.12	0.89	0.14*	0.70	0.00	0.70
44.95	0.11	0.89	0.12*	0.69	0.00	0.69
45.00	0.11	0.89	0.12*	0.68	0.00	0.68
45.05	0.11	0.89	0.12*	0.67	0.00	0.67
45.10	0.11	0.89	0.13*	0.66	0.00	0.66
45.15	0.12	0.89	0.13*	0.65	0.00	0.65
45.20	0.12	0.89	0.13*	0.64	0.00	0.64
45.25	0.12	0.89	0.14*	0.64	0.00	0.64
45.30	0.14	0.89	0.16*	0.63	0.00	0.63
45.35	0.15	0.89	0.17*	0.62	0.00	0.62
45.40	0.17	0.89	0.19*	0.61	0.00	0.61
45.45	0.17	0.89	0.19*	0.60	0.00	0.60
45.50	0.19	0.89	0.21*	0.59	0.00	0.59
45.55	0.20	0.89	0.22*	0.58	0.00	0.58
45.60	0.22	0.89	0.24*	0.58	0.00	0.58
45.65	0.24	0.89	0.27*	0.57	0.00	0.57
45.70	0.27	0.89	0.30*	0.56	0.00	0.56
45.75	0.30	0.89	0.33*	0.55	0.00	0.55
45.80	0.33	0.89	0.37*	0.55	0.00	0.55
45.85	0.36	0.89	0.40*	0.54	0.00	0.54
45.90	0.44	0.89	0.49*	0.54	0.00	0.54
45.95	0.52	0.89	0.58*	0.53	0.00	0.53
46.00	0.59	0.89	0.66*	0.53	0.00	0.53
46.05	0.67	0.89	0.75*	0.53	0.00	0.53
46.10	0.75	0.89	0.84*	0.53	0.00	0.53
46.15	0.81	0.89	0.91*	0.53	0.00	0.53
46.20	0.86	0.89	0.97*	0.53	0.00	0.53
46.25	0.89	0.89	1.00*	0.53	0.00	0.53
46.30	0.88	0.89	0.99*	0.53	0.00	0.53
46.35	0.85	0.89	0.96*	0.53	0.00	0.53
46.40	0.74	0.89	0.83*	0.53	0.00	0.53
46.45	0.59	0.89	0.67*	0.53	0.00	0.53
46.50	0.49	0.89	0.55*	0.52	0.00	0.52
46.55	0.38	0.89	0.42*	0.52	0.00	0.52
46.60	0.29	0.89	0.32*	0.51	0.00	0.51
46.65	0.23	0.89	0.26*	0.51	0.00	0.51
46.70	0.19	0.89	0.21*	0.50	0.00	0.50
46.75	0.17	0.89	0.19*	0.49	0.00	0.49
46.80	0.15	0.89	0.16*	0.48	0.00	0.48
46.85	0.13	0.89	0.14*	0.47	0.00	0.47
46.90	0.12	0.89	0.13*	0.46	0.00	0.46

46.95	0.11	0.89	0.12*	0.45	0.00	0.45
47.00	0.10	0.89	0.12*	0.44	0.00	0.44
47.05	0.10	0.89	0.11*	0.43	0.00	0.43
47.10	0.10	0.89	0.11*	0.42	0.00	0.42
47.15	0.10	0.89	0.11*	0.41	0.00	0.41
47.20	0.10	0.89	0.12*	0.40	0.00	0.40
47.25	0.11	0.89	0.12*	0.39	0.00	0.39
47.30	0.11	0.89	0.12*	0.37	0.00	0.37
47.35	0.11	0.89	0.12*	0.36	0.00	0.36
47.40	0.11	0.89	0.13*	0.35	0.00	0.35
47.45	0.12	0.89	0.13*	0.34	0.00	0.34
47.50	0.13	0.89	0.15*	0.33	0.00	0.33
47.55	0.15	0.89	0.17*	0.33	0.00	0.33
47.60	0.16	0.89	0.18*	0.32	0.00	0.32
47.65	0.15	0.89	0.17*	0.31	0.00	0.31
47.70	0.15	0.89	0.17*	0.30	0.00	0.30
47.75	0.14	0.89	0.16*	0.29	0.00	0.29
47.80	0.13	0.89	0.15*	0.28	0.00	0.28
47.85	0.12	0.89	0.14*	0.27	0.00	0.27
47.90	0.12	0.89	0.13*	0.26	0.00	0.26
47.95	0.11	0.89	0.13*	0.25	0.00	0.25
48.00	0.11	0.89	0.12*	0.24	0.00	0.24
48.05	0.11	0.89	0.12*	0.23	0.00	0.23
48.10	0.11	0.89	0.12*	0.22	0.00	0.22
48.15	0.11	0.89	0.12*	0.21	0.00	0.21
48.20	0.11	0.89	0.13*	0.20	0.00	0.20
48.25	0.12	0.89	0.13*	0.19	0.00	0.19
48.30	0.12	0.89	0.13*	0.18	0.00	0.18
48.35	0.12	0.89	0.14*	0.17	0.00	0.17
48.40	0.12	0.89	0.14*	0.16	0.00	0.16
48.45	0.12	0.89	0.14*	0.16	0.00	0.16
48.50	0.13	0.89	0.14*	0.15	0.00	0.15
48.55	0.14	0.89	0.16*	0.14	0.00	0.14
48.60	0.16	0.89	0.18*	0.13	0.00	0.13
48.65	0.19	0.89	0.22*	0.12	0.00	0.12
48.70	0.23	0.89	0.26*	0.11	0.00	0.11
48.75	0.28	0.89	0.31*	0.10	0.00	0.10
48.80	0.32	0.89	0.36*	0.10	0.00	0.10
48.85	0.36	0.89	0.40*	0.09	0.00	0.09
48.90	0.38	0.89	0.43*	0.08	0.00	0.08
48.95	0.40	0.89	0.45*	0.08	0.00	0.08
49.00	0.42	0.89	0.47*	0.07	0.00	0.07
49.05	0.43	0.89	0.49*	0.07	0.00	0.07
49.10	0.45	0.89	0.51*	0.06	0.00	0.06
49.15	0.47	0.89	0.53*	0.06	0.00	0.06
49.20	0.48	0.89	0.55*	0.05	0.00	0.05
49.25	0.48	0.89	0.55*	0.05	0.00	0.05
49.30	0.48	0.89	0.54*	0.04	0.00	0.04
49.35	0.46	0.89	0.52*	0.04	0.00	0.04
49.40	0.45	0.89	0.51*	0.04	0.00	0.04

49.45	0.45	0.89	0.51*	0.03	0.00	0.03
49.50	0.45	0.89	0.51*	0.03	0.00	0.03
49.55	0.47	0.89	0.53*	0.02	0.00	0.02
49.60	0.52	0.89	0.58*	0.02	0.00	0.02
49.65	0.56	0.89	0.63*	0.02	0.00	0.02
49.70	0.60	0.89	0.68*	0.01	0.00	0.01
49.75	0.65	0.89	0.73*	0.01	0.00	0.01
49.80	0.67	0.89	0.75*	0.01	0.00	0.01
49.85	0.67	0.89	0.76*	0.01	0.00	0.01
49.90	0.67	0.89	0.75*	0.00	0.00	0.00
49.95	2.00	0.89	5.00	0.00	0.00	0.00
50.00	2.00	0.89	5.00	0.00	0.00	0.00
50.05	2.00	0.89	5.00	0.00	0.00	0.00
50.10	2.00	0.89	5.00	0.00	0.00	0.00
50.15	2.00	0.89	5.00	0.00	0.00	0.00
50.20	2.00	0.89	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

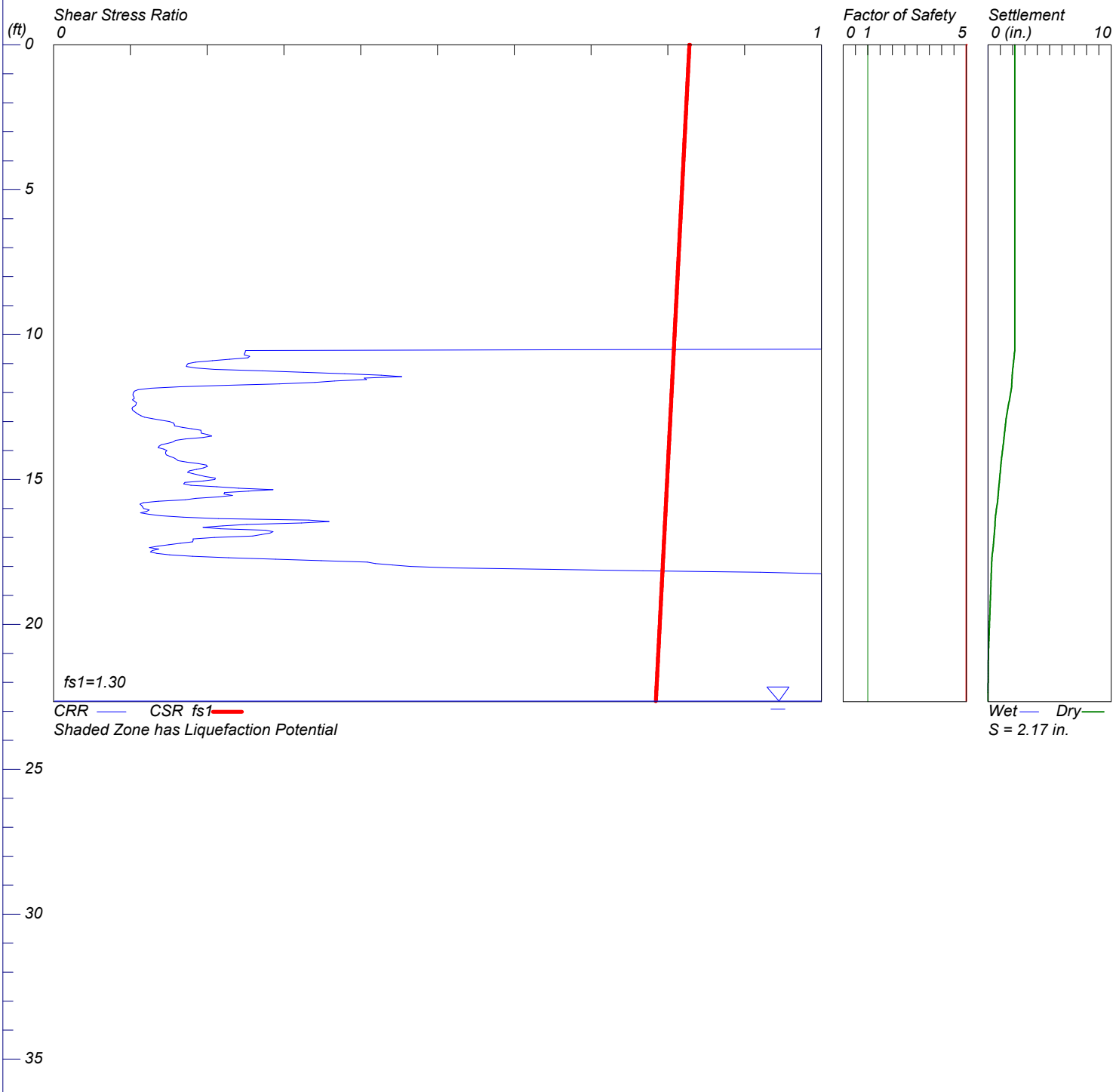
CRRm Cyclic resistance ratio from soils
CSRfs Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat Settlement from saturated sands
S_dry Settlement from dry sands
S_all Total settlement from saturated and dry sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=CPT-6 Water Depth=22.67 ft

Magnitude=7.7
Acceleration=0.98g



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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\CPT6.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=CPT-6
Depth of Hole= 22.7 ft
Water Table during Earthquake= 22.7 ft
Water Table during In-Situ Testing= 22.7 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=CPT-6
Depth of Hole=22.7 ft
Water Table during Earthquake= 22.7 ft
Water Table during In-Situ Testing= 22.7 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

1. CPT Calulation Method: Modified Robertson*
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth	qc	fs	gamma	Fines	D50
ft	tsf	tsf	pcf	%	mm
0.0	0.3	0.0	110.0	NoLiq	0.5
0.0	2.7	0.0	110.0	NoLiq	0.5
0.1	3.2	0.0	110.0	NoLiq	0.5
0.2	3.6	0.0	110.0	NoLiq	0.5
0.3	4.0	0.0	110.0	NoLiq	0.5
0.3	4.7	0.0	110.0	NoLiq	0.5
0.4	5.7	0.0	110.0	NoLiq	0.5
0.5	6.8	0.0	110.0	NoLiq	0.5
0.6	7.8	0.0	110.0	NoLiq	0.5
0.7	8.3	0.0	110.0	NoLiq	0.5
0.7	9.4	0.0	110.0	NoLiq	0.5
0.8	10.3	0.0	110.0	NoLiq	0.5
0.9	11.1	0.1	110.0	NoLiq	0.5
1.0	11.6	0.1	110.0	NoLiq	0.5
1.0	12.4	0.1	110.0	NoLiq	0.5
1.1	13.1	0.1	110.0	NoLiq	0.5
1.2	15.3	0.1	110.0	NoLiq	0.5
1.3	18.5	0.1	110.0	NoLiq	0.5
1.4	20.7	0.1	110.0	NoLiq	0.5
1.5	22.9	0.2	110.0	NoLiq	0.5
1.6	23.6	0.2	110.0	NoLiq	0.5
1.7	23.4	0.1	110.0	NoLiq	0.5
1.8	23.4	0.1	110.0	NoLiq	0.5
1.9	23.5	0.0	110.0	NoLiq	0.5
2.0	25.2	0.1	110.0	NoLiq	0.5
2.1	26.6	0.1	110.0	NoLiq	0.5
2.1	26.3	0.1	110.0	NoLiq	0.5
2.2	26.0	0.1	110.0	NoLiq	0.5
2.3	29.2	0.1	110.0	NoLiq	0.5
2.3	31.0	0.1	110.0	NoLiq	0.5
2.4	32.2	0.1	110.0	NoLiq	0.5
2.5	33.8	0.1	110.0	NoLiq	0.5
2.6	38.0	0.1	110.0	NoLiq	0.5
2.6	39.8	0.1	110.0	NoLiq	0.5
2.7	40.4	0.1	110.0	NoLiq	0.5
2.7	43.9	0.1	110.0	NoLiq	0.5
2.8	45.7	0.1	110.0	NoLiq	0.5
2.9	48.6	0.2	110.0	NoLiq	0.5
3.0	50.8	0.2	110.0	NoLiq	0.5
3.0	53.6	0.2	110.0	NoLiq	0.5
3.1	53.2	0.2	110.0	NoLiq	0.5
3.2	54.6	0.2	110.0	NoLiq	0.5
3.3	55.5	0.2	110.0	NoLiq	0.5
3.3	56.3	0.2	110.0	NoLiq	0.5
3.4	58.0	0.2	110.0	NoLiq	0.5
3.5	59.3	0.2	110.0	NoLiq	0.5
3.6	57.9	0.2	110.0	NoLiq	0.5

3.7	59.2	0.2	110.0	NoLiq	0.5
3.7	58.2	0.2	110.0	NoLiq	0.5
3.8	59.0	0.2	110.0	NoLiq	0.5
3.9	60.5	0.2	110.0	NoLiq	0.5
4.1	64.0	0.2	110.0	NoLiq	0.5
4.2	67.6	0.1	110.0	NoLiq	0.5
4.3	67.6	0.1	110.0	NoLiq	0.5
4.4	65.7	0.1	110.0	NoLiq	0.5
4.5	55.2	0.2	110.0	NoLiq	0.5
4.5	64.6	0.2	110.0	NoLiq	0.5
4.5	58.3	0.2	110.0	NoLiq	0.5
4.5	63.5	0.2	110.0	NoLiq	0.5
4.6	65.2	0.2	110.0	NoLiq	0.5
4.7	66.1	0.2	110.0	NoLiq	0.5
4.8	67.6	0.2	110.0	NoLiq	0.5
4.8	69.4	0.2	110.0	NoLiq	0.5
4.9	73.0	0.2	110.0	NoLiq	0.5
5.0	77.9	0.3	110.0	NoLiq	0.5
5.0	85.1	0.3	110.0	NoLiq	0.5
5.1	87.7	0.3	110.0	NoLiq	0.5
5.2	90.9	0.4	110.0	NoLiq	0.5
5.3	91.3	0.4	110.0	NoLiq	0.5
5.4	91.5	0.4	110.0	NoLiq	0.5
5.4	96.8	0.4	110.0	NoLiq	0.5
5.5	98.3	0.4	110.0	NoLiq	0.5
5.6	93.6	0.4	110.0	NoLiq	0.5
5.7	95.5	0.5	110.0	NoLiq	0.5
5.8	91.9	0.4	110.0	NoLiq	0.5
5.8	85.3	0.3	110.0	NoLiq	0.5
5.9	77.7	0.3	110.0	NoLiq	0.5
6.0	71.2	0.3	110.0	NoLiq	0.5
6.1	67.6	0.2	110.0	NoLiq	0.5
6.2	67.1	0.2	110.0	NoLiq	0.5
6.3	69.1	0.2	110.0	NoLiq	0.5
6.4	72.2	0.2	110.0	NoLiq	0.5
6.5	72.9	0.2	110.0	NoLiq	0.5
6.5	69.4	0.2	110.0	NoLiq	0.5
6.6	63.0	0.2	110.0	NoLiq	0.5
6.7	57.3	0.2	110.0	NoLiq	0.5
6.8	53.2	0.2	110.0	NoLiq	0.5
6.9	51.3	0.3	110.0	NoLiq	0.5
7.0	55.2	0.3	110.0	NoLiq	0.5
7.1	64.0	0.4	110.0	NoLiq	0.5
7.2	80.3	0.8	110.0	NoLiq	0.5
7.3	106.2	0.9	110.0	NoLiq	0.5
7.3	133.9	0.9	110.0	NoLiq	0.5
7.4	150.8	0.9	110.0	NoLiq	0.5
7.5	173.5	0.9	110.0	NoLiq	0.5
7.6	168.8	1.2	110.0	NoLiq	0.5
7.7	148.2	1.4	110.0	NoLiq	0.5

7.7	134.9	1.4	110.0	NoLiq	0.5
7.7	137.5	1.4	110.0	NoLiq	0.5
7.8	144.4	1.4	110.0	NoLiq	0.5
7.9	145.4	1.4	110.0	NoLiq	0.5
7.9	148.1	1.4	110.0	NoLiq	0.5
8.0	141.8	1.3	110.0	NoLiq	0.5
8.1	142.3	1.0	110.0	NoLiq	0.5
8.1	143.8	0.7	110.0	NoLiq	0.5
8.2	138.3	0.7	110.0	NoLiq	0.5
8.3	134.6	0.7	110.0	NoLiq	0.5
8.3	132.5	0.7	110.0	NoLiq	0.5
8.4	129.5	0.6	110.0	NoLiq	0.5
8.5	127.5	0.6	110.0	NoLiq	0.5
8.6	123.8	0.5	110.0	NoLiq	0.5
8.6	120.4	0.5	110.0	NoLiq	0.5
8.7	119.4	0.5	110.0	NoLiq	0.5
8.8	119.3	0.5	110.0	NoLiq	0.5
8.9	116.7	0.5	110.0	NoLiq	0.5
9.0	113.8	0.5	110.0	NoLiq	0.5
9.0	109.9	0.4	110.0	NoLiq	0.5
9.1	102.3	0.4	110.0	NoLiq	0.5
9.2	92.6	0.4	110.0	NoLiq	0.5
9.3	85.4	0.4	110.0	NoLiq	0.5
9.3	80.2	0.4	110.0	NoLiq	0.5
9.4	74.5	0.3	110.0	NoLiq	0.5
9.5	70.1	0.3	110.0	NoLiq	0.5
9.6	68.2	0.3	110.0	NoLiq	0.5
9.7	66.7	0.2	110.0	NoLiq	0.5
9.8	66.9	0.2	110.0	NoLiq	0.5
9.9	68.7	0.2	110.0	NoLiq	0.5
10.0	69.3	0.2	110.0	NoLiq	0.5
10.1	71.2	0.2	110.0	NoLiq	0.5
10.2	73.9	0.2	110.0	NoLiq	0.5
10.3	76.8	0.2	110.0	NoLiq	0.5
10.4	79.8	0.1	110.0	NoLiq	0.5
10.5	86.4	0.2	110.0	NoLiq	0.5
10.6	96.3	0.2	110.0	2.4	0.5
10.6	96.4	0.2	110.0	2.2	0.5
10.6	96.4	0.2	110.0	2.7	0.5
10.7	96.7	0.3	110.0	3.7	0.5
10.7	98.2	0.4	110.0	3.7	0.5
10.8	98.0	0.3	110.0	3.8	0.5
10.9	90.1	0.2	110.0	3.2	0.5
11.0	81.9	0.1	110.0	2.8	0.5
11.0	81.4	0.1	110.0	2.9	0.5
11.1	81.4	0.3	110.0	4.3	0.5
11.2	80.8	0.7	110.0	9.1	0.5
11.3	95.0	0.9	110.0	8.9	0.5
11.4	105.2	1.3	110.0	9.9	0.5
11.4	112.8	1.5	110.0	10.1	0.5

11.5	96.7	1.7	110.0	13.0	0.5
11.5	96.6	1.8	110.0	13.0	0.5
11.6	78.5	1.8	110.0	14.2	0.5
11.7	59.4	1.7	110.0	21.5	0.5
11.7	61.1	1.4	110.0	22.0	0.5
11.8	60.4	0.8	110.0	19.2	0.5
11.9	57.0	0.2	110.0	10.9	0.5
11.9	53.6	0.1	110.0	8.0	0.5
12.0	52.9	0.1	110.0	7.4	0.5
12.1	51.3	0.2	110.0	8.3	0.5
12.2	51.0	0.2	110.0	9.0	0.5
12.3	49.5	0.2	110.0	9.5	0.5
12.4	52.4	0.2	110.0	9.6	0.5
12.4	54.4	0.2	110.0	8.9	0.5
12.5	50.7	0.2	110.0	8.6	0.5
12.6	50.9	0.2	110.0	8.7	0.5
12.6	51.2	0.2	110.0	8.7	0.5
12.7	52.5	0.2	110.0	9.1	0.5
12.7	54.2	0.2	110.0	9.3	0.5
12.8	55.3	0.3	110.0	10.2	0.5
12.9	59.2	0.3	110.0	9.5	0.5
12.9	63.0	0.5	110.0	10.3	0.5
13.0	66.4	0.6	110.0	12.0	0.5
13.1	70.4	0.6	110.0	11.8	0.5
13.2	72.8	0.5	110.0	10.1	0.5
13.2	80.5	0.5	110.0	9.0	0.5
13.3	90.4	0.5	110.0	6.8	0.5
13.4	91.1	0.5	110.0	6.6	0.5
13.5	96.7	0.5	110.0	6.2	0.5
13.5	94.1	0.5	110.0	6.0	0.5
13.6	75.6	0.5	110.0	8.1	0.5
13.7	69.7	0.6	110.0	10.9	0.5
13.8	69.4	0.4	110.0	9.8	0.5
13.9	68.9	0.4	110.0	9.3	0.5
14.0	73.3	0.5	110.0	9.3	0.5
14.1	71.0	0.5	110.0	9.9	0.5
14.2	72.2	0.5	110.0	9.9	0.5
14.3	77.8	0.5	110.0	9.1	0.5
14.4	77.8	0.6	110.0	9.8	0.5
14.5	75.2	1.0	110.0	13.1	0.5
14.6	70.3	1.1	110.0	15.8	0.5
14.7	71.4	0.9	110.0	15.2	0.5
14.7	68.4	0.9	110.0	14.9	0.5
14.9	79.6	0.9	110.0	13.5	0.5
14.9	80.5	0.9	110.0	12.4	0.5
14.9	80.5	0.9	110.0	12.4	0.5
14.9	81.4	1.0	110.0	12.4	0.5
15.0	81.0	1.1	110.0	13.6	0.5
15.1	78.5	0.9	110.0	13.3	0.5
15.1	82.0	0.6	110.0	10.7	0.5

15.2	90.0	0.5	110.0	8.3	0.5
15.3	100.6	0.6	110.0	7.2	0.5
15.3	109.0	0.7	110.0	6.7	0.5
15.3	120.5	0.8	110.0	6.7	0.5
15.4	105.3	0.9	110.0	7.9	0.5
15.5	91.2	0.9	110.0	9.7	0.5
15.5	93.7	1.0	110.0	10.9	0.5
15.6	92.4	1.1	110.0	11.5	0.5
15.6	73.8	1.0	110.0	12.7	0.5
15.7	71.4	0.8	110.0	14.5	0.5
15.8	57.6	0.5	110.0	14.1	0.5
15.9	57.8	0.3	110.0	13.1	0.5
15.9	57.8	0.4	110.0	12.4	0.5
16.0	58.0	0.4	110.0	13.1	0.5
16.1	61.5	0.5	110.0	13.4	0.5
16.1	47.8	0.5	110.0	17.2	0.5
16.2	48.6	0.7	110.0	19.2	0.5
16.3	50.8	1.2	110.0	23.2	0.5
16.4	50.5	1.7	110.0	28.2	0.5
16.5	55.6	1.8	110.0	28.5	0.5
16.6	73.8	1.5	110.0	21.9	0.5
16.7	90.1	0.8	110.0	12.3	0.5
16.8	113.1	1.2	110.0	9.9	0.5
16.9	115.6	1.1	110.0	8.9	0.5
17.0	100.7	1.3	110.0	11.9	0.5
17.0	67.8	1.1	110.0	14.5	0.5
17.1	58.1	1.2	110.0	20.0	0.5
17.2	56.8	0.9	110.0	20.8	0.5
17.3	51.0	0.7	110.0	19.7	0.5
17.3	41.7	0.6	110.0	19.7	0.5
17.4	48.5	0.6	110.0	22.9	0.5
17.4	45.9	0.8	110.0	22.4	0.5
17.5	49.2	0.6	110.0	21.2	0.5
17.5	54.0	0.7	110.0	19.2	0.5
17.6	57.3	1.0	110.0	19.9	0.5
17.7	60.6	1.4	110.0	23.1	0.5
17.8	63.7	1.8	110.0	24.6	0.5
17.9	70.3	2.3	110.0	25.5	0.5
17.9	87.7	2.6	110.0	23.5	0.5
18.0	112.6	2.8	110.0	19.2	0.5
18.1	140.5	3.1	110.0	14.7	0.5
18.2	166.7	3.3	110.0	12.8	0.5
18.3	205.7	3.8	110.0	10.6	0.5
18.4	227.1	4.5	110.0	10.1	0.5
18.5	231.1	5.4	110.0	11.1	0.5
18.6	252.2	6.0	110.0	11.1	0.5
18.6	280.7	6.3	110.0	10.0	0.5
18.8	287.9	7.5	110.0	11.0	0.5
18.8	263.3	6.1	110.0	10.8	0.5
18.9	263.1	6.6	110.0	10.6	0.5

19.0	234.9	7.4	110.0	13.4	0.5
19.1	209.7	7.5	110.0	14.9	0.5
19.1	177.0	8.0	110.0	20.6	0.5
19.2	206.3	8.3	110.0	20.6	0.5
19.2	193.2	8.4	110.0	18.9	0.5
19.3	202.9	8.1	110.0	18.5	0.5
19.3	214.9	7.7	110.0	16.9	0.5
19.4	232.2	7.7	110.0	15.3	0.5
19.4	252.5	7.9	110.0	13.9	0.5
19.5	270.1	8.1	110.0	13.2	0.5
19.5	264.3	8.0	110.0	13.0	0.5
19.6	264.0	7.5	110.0	13.0	0.5
19.6	256.5	7.1	110.0	12.5	0.5
19.7	256.8	7.0	110.0	12.4	0.5
19.7	256.8	7.0	110.0	12.4	0.5
19.8	257.1	7.0	110.0	12.3	0.5
19.9	270.0	6.3	110.0	11.4	0.5
19.9	282.6	5.2	110.0	9.9	0.5
20.0	291.1	5.0	110.0	8.3	0.5
20.1	304.5	4.6	110.0	6.8	0.5
20.1	308.9	4.4	110.0	6.3	0.5
20.2	327.9	3.8	110.0	5.3	0.5
20.2	353.6	3.6	110.0	4.2	0.5
20.3	353.5	3.9	110.0	3.7	0.5
20.4	356.0	5.2	110.0	5.7	0.5
20.4	369.0	5.3	110.0	5.5	0.5
20.5	386.1	5.3	110.0	5.3	0.5
20.5	385.8	5.3	110.0	5.0	0.5
20.5	385.5	5.4	110.0	5.0	0.5
20.6	403.3	5.5	110.0	5.1	0.5
20.6	413.5	5.6	110.0	4.6	0.5
20.7	420.7	6.1	110.0	4.9	0.5
20.7	436.3	6.4	110.0	4.9	0.5
20.7	439.0	8.2	110.0	5.1	0.5
20.8	445.2	9.3	110.0	6.5	0.5
20.8	452.9	10.2	110.0	7.4	0.5
20.9	447.7	11.4	110.0	8.2	0.5
21.0	426.2	12.1	110.0	10.0	0.5
21.0	427.1	10.1	110.0	8.9	0.5
21.0	430.4	10.1	110.0	8.4	0.5
21.1	427.9	10.1	110.0	8.5	0.5
21.2	418.0	10.3	110.0	8.9	0.5
21.2	414.0	10.1	110.0	8.9	0.5
21.3	402.0	9.9	110.0	9.1	0.5
21.3	411.0	9.7	110.0	9.1	0.5
21.4	398.0	9.6	110.0	8.8	0.5
21.4	408.0	9.4	110.0	8.8	0.5
21.4	420.3	9.1	110.0	8.4	0.5
21.5	434.6	9.2	110.0	7.7	0.5
21.5	449.8	9.2	110.0	7.1	0.5

21.6	457.8	6.6	110.0	5.2	0.5
21.6	464.6	6.5	110.0	5.2	0.5
21.6	464.9	6.5	110.0	4.4	0.5
21.7	467.0	6.8	110.0	4.5	0.5
21.7	469.1	7.7	110.0	4.9	0.5
21.8	475.2	8.7	110.0	5.5	0.5
21.8	475.4	9.7	110.0	6.2	0.5
21.9	456.7	10.3	110.0	7.2	0.5
21.9	425.6	10.7	110.0	7.2	0.5
21.9	425.1	11.4	110.0	9.6	0.5
21.9	414.9	12.6	110.0	9.6	0.5
22.0	393.0	13.3	110.0	11.2	0.5
22.0	370.7	11.4	110.0	11.8	0.5
22.0	340.0	11.7	110.0	11.8	0.5
22.1	312.1	12.0	110.0	13.4	0.5
22.1	285.1	12.4	110.0	15.2	0.5
22.2	270.0	12.5	110.0	17.2	0.5
22.2	267.4	10.5	110.0	17.6	0.5
22.3	268.7	10.7	110.0	16.4	0.5
22.3	268.7	10.8	110.0	16.4	0.5
22.3	270.0	9.6	110.0	16.4	0.5
22.3	261.2	0.0	110.0	14.0	0.5
22.3	314.7	0.0	110.0	14.0	0.5
22.4	333.5	0.0	110.0	NoLiq	0.5
22.4	356.3	0.0	110.0	NoLiq	0.5
22.5	376.3	0.0	110.0	NoLiq	0.5
22.5	390.1	0.0	110.0	NoLiq	0.5
22.5	415.5	0.0	110.0	NoLiq	0.5
22.5	444.0	0.0	110.0	NoLiq	0.5
22.5	437.8	0.0	110.0	NoLiq	0.5
22.6	498.5	0.0	110.0	NoLiq	0.5
22.6	522.6	0.0	110.0	NoLiq	0.5
22.6	540.7	0.0	110.0	NoLiq	0.5
22.6	567.9	0.0	110.0	NoLiq	0.5
22.6	587.6	0.0	110.0	NoLiq	0.5
22.7	617.2	0.0	110.0	NoLiq	0.5
22.7	617.6	0.0	110.0	NoLiq	0.5

Output Results:

Settlement of saturated sands=0.00 in.
Settlement of dry sands=2.17 in.
Total settlement of saturated and dry sands=2.17 in.
Differential Settlement=1.084 to 1.431 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	0.00	2.17	2.17
0.05	2.00	0.83	5.00	0.00	2.17	2.17

0.10	2.00	0.83	5.00	0.00	2.17	2.17
0.15	2.00	0.83	5.00	0.00	2.17	2.17
0.20	2.00	0.83	5.00	0.00	2.17	2.17
0.25	2.00	0.83	5.00	0.00	2.17	2.17
0.30	2.00	0.83	5.00	0.00	2.17	2.17
0.35	2.00	0.83	5.00	0.00	2.17	2.17
0.40	2.00	0.83	5.00	0.00	2.17	2.17
0.45	2.00	0.83	5.00	0.00	2.17	2.17
0.50	2.00	0.83	5.00	0.00	2.17	2.17
0.55	2.00	0.83	5.00	0.00	2.17	2.17
0.60	2.00	0.83	5.00	0.00	2.17	2.17
0.65	2.00	0.83	5.00	0.00	2.17	2.17
0.70	2.00	0.83	5.00	0.00	2.17	2.17
0.75	2.00	0.83	5.00	0.00	2.17	2.17
0.80	2.00	0.83	5.00	0.00	2.17	2.17
0.85	2.00	0.83	5.00	0.00	2.17	2.17
0.90	2.00	0.83	5.00	0.00	2.17	2.17
0.95	2.00	0.83	5.00	0.00	2.17	2.17
1.00	2.00	0.83	5.00	0.00	2.17	2.17
1.05	2.00	0.83	5.00	0.00	2.17	2.17
1.10	2.00	0.83	5.00	0.00	2.17	2.17
1.15	2.00	0.83	5.00	0.00	2.17	2.17
1.20	2.00	0.83	5.00	0.00	2.17	2.17
1.25	2.00	0.83	5.00	0.00	2.17	2.17
1.30	2.00	0.83	5.00	0.00	2.17	2.17
1.35	2.00	0.83	5.00	0.00	2.17	2.17
1.40	2.00	0.83	5.00	0.00	2.17	2.17
1.45	2.00	0.83	5.00	0.00	2.17	2.17
1.50	2.00	0.83	5.00	0.00	2.17	2.17
1.55	2.00	0.83	5.00	0.00	2.17	2.17
1.60	2.00	0.83	5.00	0.00	2.17	2.17
1.65	2.00	0.82	5.00	0.00	2.17	2.17
1.70	2.00	0.82	5.00	0.00	2.17	2.17
1.75	2.00	0.82	5.00	0.00	2.17	2.17
1.80	2.00	0.82	5.00	0.00	2.17	2.17
1.85	2.00	0.82	5.00	0.00	2.17	2.17
1.90	2.00	0.82	5.00	0.00	2.17	2.17
1.95	2.00	0.82	5.00	0.00	2.17	2.17
2.00	2.00	0.82	5.00	0.00	2.17	2.17
2.05	2.00	0.82	5.00	0.00	2.17	2.17
2.10	2.00	0.82	5.00	0.00	2.17	2.17
2.15	2.00	0.82	5.00	0.00	2.17	2.17
2.20	2.00	0.82	5.00	0.00	2.17	2.17
2.25	2.00	0.82	5.00	0.00	2.17	2.17
2.30	2.00	0.82	5.00	0.00	2.17	2.17
2.35	2.00	0.82	5.00	0.00	2.17	2.17
2.40	2.00	0.82	5.00	0.00	2.17	2.17
2.45	2.00	0.82	5.00	0.00	2.17	2.17
2.50	2.00	0.82	5.00	0.00	2.17	2.17
2.55	2.00	0.82	5.00	0.00	2.17	2.17

2.60	2.00	0.82	5.00	0.00	2.17	2.17
2.65	2.00	0.82	5.00	0.00	2.17	2.17
2.70	2.00	0.82	5.00	0.00	2.17	2.17
2.75	2.00	0.82	5.00	0.00	2.17	2.17
2.80	2.00	0.82	5.00	0.00	2.17	2.17
2.85	2.00	0.82	5.00	0.00	2.17	2.17
2.90	2.00	0.82	5.00	0.00	2.17	2.17
2.95	2.00	0.82	5.00	0.00	2.17	2.17
3.00	2.00	0.82	5.00	0.00	2.17	2.17
3.05	2.00	0.82	5.00	0.00	2.17	2.17
3.10	2.00	0.82	5.00	0.00	2.17	2.17
3.15	2.00	0.82	5.00	0.00	2.17	2.17
3.20	2.00	0.82	5.00	0.00	2.17	2.17
3.25	2.00	0.82	5.00	0.00	2.17	2.17
3.30	2.00	0.82	5.00	0.00	2.17	2.17
3.35	2.00	0.82	5.00	0.00	2.17	2.17
3.40	2.00	0.82	5.00	0.00	2.17	2.17
3.45	2.00	0.82	5.00	0.00	2.17	2.17
3.50	2.00	0.82	5.00	0.00	2.17	2.17
3.55	2.00	0.82	5.00	0.00	2.17	2.17
3.60	2.00	0.82	5.00	0.00	2.17	2.17
3.65	2.00	0.82	5.00	0.00	2.17	2.17
3.70	2.00	0.82	5.00	0.00	2.17	2.17
3.75	2.00	0.82	5.00	0.00	2.17	2.17
3.80	2.00	0.82	5.00	0.00	2.17	2.17
3.85	2.00	0.82	5.00	0.00	2.17	2.17
3.90	2.00	0.82	5.00	0.00	2.17	2.17
3.95	2.00	0.82	5.00	0.00	2.17	2.17
4.00	2.00	0.82	5.00	0.00	2.17	2.17
4.05	2.00	0.82	5.00	0.00	2.17	2.17
4.10	2.00	0.82	5.00	0.00	2.17	2.17
4.15	2.00	0.82	5.00	0.00	2.17	2.17
4.20	2.00	0.82	5.00	0.00	2.17	2.17
4.25	2.00	0.82	5.00	0.00	2.17	2.17
4.30	2.00	0.82	5.00	0.00	2.17	2.17
4.35	2.00	0.82	5.00	0.00	2.17	2.17
4.40	2.00	0.82	5.00	0.00	2.17	2.17
4.45	2.00	0.82	5.00	0.00	2.17	2.17
4.50	2.00	0.82	5.00	0.00	2.17	2.17
4.55	2.00	0.82	5.00	0.00	2.17	2.17
4.60	2.00	0.82	5.00	0.00	2.17	2.17
4.65	2.00	0.82	5.00	0.00	2.17	2.17
4.70	2.00	0.82	5.00	0.00	2.17	2.17
4.75	2.00	0.82	5.00	0.00	2.17	2.17
4.80	2.00	0.82	5.00	0.00	2.17	2.17
4.85	2.00	0.82	5.00	0.00	2.17	2.17
4.90	2.00	0.82	5.00	0.00	2.17	2.17
4.95	2.00	0.82	5.00	0.00	2.17	2.17
5.00	2.00	0.82	5.00	0.00	2.17	2.17
5.05	2.00	0.82	5.00	0.00	2.17	2.17

5.10	2.00	0.82	5.00	0.00	2.17	2.17
5.15	2.00	0.82	5.00	0.00	2.17	2.17
5.20	2.00	0.82	5.00	0.00	2.17	2.17
5.25	2.00	0.82	5.00	0.00	2.17	2.17
5.30	2.00	0.82	5.00	0.00	2.17	2.17
5.35	2.00	0.82	5.00	0.00	2.17	2.17
5.40	2.00	0.82	5.00	0.00	2.17	2.17
5.45	2.00	0.82	5.00	0.00	2.17	2.17
5.50	2.00	0.82	5.00	0.00	2.17	2.17
5.55	2.00	0.82	5.00	0.00	2.17	2.17
5.60	2.00	0.82	5.00	0.00	2.17	2.17
5.65	2.00	0.82	5.00	0.00	2.17	2.17
5.70	2.00	0.82	5.00	0.00	2.17	2.17
5.75	2.00	0.82	5.00	0.00	2.17	2.17
5.80	2.00	0.82	5.00	0.00	2.17	2.17
5.85	2.00	0.82	5.00	0.00	2.17	2.17
5.90	2.00	0.82	5.00	0.00	2.17	2.17
5.95	2.00	0.82	5.00	0.00	2.17	2.17
6.00	2.00	0.82	5.00	0.00	2.17	2.17
6.05	2.00	0.82	5.00	0.00	2.17	2.17
6.10	2.00	0.82	5.00	0.00	2.17	2.17
6.15	2.00	0.82	5.00	0.00	2.17	2.17
6.20	2.00	0.82	5.00	0.00	2.17	2.17
6.25	2.00	0.82	5.00	0.00	2.17	2.17
6.30	2.00	0.82	5.00	0.00	2.17	2.17
6.35	2.00	0.82	5.00	0.00	2.17	2.17
6.40	2.00	0.82	5.00	0.00	2.17	2.17
6.45	2.00	0.82	5.00	0.00	2.17	2.17
6.50	2.00	0.82	5.00	0.00	2.17	2.17
6.55	2.00	0.82	5.00	0.00	2.17	2.17
6.60	2.00	0.82	5.00	0.00	2.17	2.17
6.65	2.00	0.82	5.00	0.00	2.17	2.17
6.70	2.00	0.82	5.00	0.00	2.17	2.17
6.75	2.00	0.82	5.00	0.00	2.17	2.17
6.80	2.00	0.81	5.00	0.00	2.17	2.17
6.85	2.00	0.81	5.00	0.00	2.17	2.17
6.90	2.00	0.81	5.00	0.00	2.17	2.17
6.95	2.00	0.81	5.00	0.00	2.17	2.17
7.00	2.00	0.81	5.00	0.00	2.17	2.17
7.05	2.00	0.81	5.00	0.00	2.17	2.17
7.10	2.00	0.81	5.00	0.00	2.17	2.17
7.15	2.00	0.81	5.00	0.00	2.17	2.17
7.20	2.00	0.81	5.00	0.00	2.17	2.17
7.25	2.00	0.81	5.00	0.00	2.17	2.17
7.30	2.00	0.81	5.00	0.00	2.17	2.17
7.35	2.00	0.81	5.00	0.00	2.17	2.17
7.40	2.00	0.81	5.00	0.00	2.17	2.17
7.45	2.00	0.81	5.00	0.00	2.17	2.17
7.50	2.00	0.81	5.00	0.00	2.17	2.17
7.55	2.00	0.81	5.00	0.00	2.17	2.17

7.60	2.00	0.81	5.00	0.00	2.17	2.17
7.65	2.00	0.81	5.00	0.00	2.17	2.17
7.70	2.00	0.81	5.00	0.00	2.17	2.17
7.75	2.00	0.81	5.00	0.00	2.17	2.17
7.80	2.00	0.81	5.00	0.00	2.17	2.17
7.85	2.00	0.81	5.00	0.00	2.17	2.17
7.90	2.00	0.81	5.00	0.00	2.17	2.17
7.95	2.00	0.81	5.00	0.00	2.17	2.17
8.00	2.00	0.81	5.00	0.00	2.17	2.17
8.05	2.00	0.81	5.00	0.00	2.17	2.17
8.10	2.00	0.81	5.00	0.00	2.17	2.17
8.15	2.00	0.81	5.00	0.00	2.17	2.17
8.20	2.00	0.81	5.00	0.00	2.17	2.17
8.25	2.00	0.81	5.00	0.00	2.17	2.17
8.30	2.00	0.81	5.00	0.00	2.17	2.17
8.35	2.00	0.81	5.00	0.00	2.17	2.17
8.40	2.00	0.81	5.00	0.00	2.17	2.17
8.45	2.00	0.81	5.00	0.00	2.17	2.17
8.50	2.00	0.81	5.00	0.00	2.17	2.17
8.55	2.00	0.81	5.00	0.00	2.17	2.17
8.60	2.00	0.81	5.00	0.00	2.17	2.17
8.65	2.00	0.81	5.00	0.00	2.17	2.17
8.70	2.00	0.81	5.00	0.00	2.17	2.17
8.75	2.00	0.81	5.00	0.00	2.17	2.17
8.80	2.00	0.81	5.00	0.00	2.17	2.17
8.85	2.00	0.81	5.00	0.00	2.17	2.17
8.90	2.00	0.81	5.00	0.00	2.17	2.17
8.95	2.00	0.81	5.00	0.00	2.17	2.17
9.00	2.00	0.81	5.00	0.00	2.17	2.17
9.05	2.00	0.81	5.00	0.00	2.17	2.17
9.10	2.00	0.81	5.00	0.00	2.17	2.17
9.15	2.00	0.81	5.00	0.00	2.17	2.17
9.20	2.00	0.81	5.00	0.00	2.17	2.17
9.25	2.00	0.81	5.00	0.00	2.17	2.17
9.30	2.00	0.81	5.00	0.00	2.17	2.17
9.35	2.00	0.81	5.00	0.00	2.17	2.17
9.40	2.00	0.81	5.00	0.00	2.17	2.17
9.45	2.00	0.81	5.00	0.00	2.17	2.17
9.50	2.00	0.81	5.00	0.00	2.17	2.17
9.55	2.00	0.81	5.00	0.00	2.17	2.17
9.60	2.00	0.81	5.00	0.00	2.17	2.17
9.65	2.00	0.81	5.00	0.00	2.17	2.17
9.70	2.00	0.81	5.00	0.00	2.17	2.17
9.75	2.00	0.81	5.00	0.00	2.17	2.17
9.80	2.00	0.81	5.00	0.00	2.17	2.17
9.85	2.00	0.81	5.00	0.00	2.17	2.17
9.90	2.00	0.81	5.00	0.00	2.17	2.17
9.95	2.00	0.81	5.00	0.00	2.17	2.17
10.00	2.00	0.81	5.00	0.00	2.17	2.17
10.05	2.00	0.81	5.00	0.00	2.17	2.17

10.10	2.00	0.81	5.00	0.00	2.17	2.17
10.15	2.00	0.81	5.00	0.00	2.17	2.17
10.20	2.00	0.81	5.00	0.00	2.17	2.17
10.25	2.00	0.81	5.00	0.00	2.17	2.17
10.30	2.00	0.81	5.00	0.00	2.17	2.17
10.35	2.00	0.81	5.00	0.00	2.17	2.17
10.40	2.00	0.81	5.00	0.00	2.17	2.17
10.45	2.00	0.81	5.00	0.00	2.17	2.17
10.50	2.00	0.81	5.00	0.00	2.17	2.17
10.55	0.25	0.81	5.00	0.00	2.17	2.17
10.60	0.25	0.81	5.00	0.00	2.16	2.16
10.65	0.25	0.81	5.00	0.00	2.14	2.14
10.70	0.25	0.81	5.00	0.00	2.13	2.13
10.75	0.26	0.81	5.00	0.00	2.12	2.12
10.80	0.25	0.81	5.00	0.00	2.11	2.11
10.85	0.23	0.81	5.00	0.00	2.10	2.10
10.90	0.21	0.81	5.00	0.00	2.09	2.09
10.95	0.18	0.81	5.00	0.00	2.07	2.07
11.00	0.18	0.81	5.00	0.00	2.06	2.06
11.05	0.17	0.81	5.00	0.00	2.05	2.05
11.10	0.17	0.81	5.00	0.00	2.03	2.03
11.15	0.18	0.81	5.00	0.00	2.02	2.02
11.20	0.21	0.81	5.00	0.00	2.01	2.01
11.25	0.27	0.81	5.00	0.00	1.99	1.99
11.30	0.33	0.81	5.00	0.00	1.98	1.98
11.35	0.38	0.81	5.00	0.00	1.98	1.98
11.40	0.43	0.81	5.00	0.00	1.97	1.97
11.45	0.45	0.81	5.00	0.00	1.96	1.96
11.50	0.40	0.81	5.00	0.00	1.96	1.96
11.55	0.41	0.81	5.00	0.00	1.95	1.95
11.60	0.37	0.81	5.00	0.00	1.94	1.94
11.65	0.34	0.81	5.00	0.00	1.94	1.94
11.70	0.29	0.81	5.00	0.00	1.93	1.93
11.75	0.22	0.81	5.00	0.00	1.92	1.92
11.80	0.16	0.81	5.00	0.00	1.92	1.92
11.85	0.13	0.81	5.00	0.00	1.90	1.90
11.90	0.11	0.81	5.00	0.00	1.89	1.89
11.95	0.11	0.81	5.00	0.00	1.87	1.87
12.00	0.10	0.80	5.00	0.00	1.85	1.85
12.05	0.10	0.80	5.00	0.00	1.82	1.82
12.10	0.10	0.80	5.00	0.00	1.80	1.80
12.15	0.10	0.80	5.00	0.00	1.78	1.78
12.20	0.10	0.80	5.00	0.00	1.76	1.76
12.25	0.10	0.80	5.00	0.00	1.74	1.74
12.30	0.11	0.80	5.00	0.00	1.72	1.72
12.35	0.11	0.80	5.00	0.00	1.70	1.70
12.40	0.11	0.80	5.00	0.00	1.68	1.68
12.45	0.11	0.80	5.00	0.00	1.66	1.66
12.50	0.10	0.80	5.00	0.00	1.63	1.63
12.55	0.10	0.80	5.00	0.00	1.61	1.61

12.60	0.10	0.80	5.00	0.00	1.59	1.59
12.65	0.11	0.80	5.00	0.00	1.57	1.57
12.70	0.11	0.80	5.00	0.00	1.55	1.55
12.75	0.11	0.80	5.00	0.00	1.53	1.53
12.80	0.11	0.80	5.00	0.00	1.51	1.51
12.85	0.12	0.80	5.00	0.00	1.49	1.49
12.90	0.13	0.80	5.00	0.00	1.47	1.47
12.95	0.14	0.80	5.00	0.00	1.46	1.46
13.00	0.15	0.80	5.00	0.00	1.44	1.44
13.05	0.16	0.80	5.00	0.00	1.43	1.43
13.10	0.16	0.80	5.00	0.00	1.42	1.42
13.15	0.16	0.80	5.00	0.00	1.40	1.40
13.20	0.17	0.80	5.00	0.00	1.39	1.39
13.25	0.18	0.80	5.00	0.00	1.38	1.38
13.30	0.19	0.80	5.00	0.00	1.36	1.36
13.35	0.19	0.80	5.00	0.00	1.35	1.35
13.40	0.19	0.80	5.00	0.00	1.34	1.34
13.45	0.20	0.80	5.00	0.00	1.33	1.33
13.50	0.21	0.80	5.00	0.00	1.32	1.32
13.55	0.19	0.80	5.00	0.00	1.30	1.30
13.60	0.17	0.80	5.00	0.00	1.29	1.29
13.65	0.16	0.80	5.00	0.00	1.28	1.28
13.70	0.16	0.80	5.00	0.00	1.26	1.26
13.75	0.15	0.80	5.00	0.00	1.25	1.25
13.80	0.14	0.80	5.00	0.00	1.24	1.24
13.85	0.14	0.80	5.00	0.00	1.22	1.22
13.90	0.14	0.80	5.00	0.00	1.21	1.21
13.95	0.14	0.80	5.00	0.00	1.19	1.19
14.00	0.15	0.80	5.00	0.00	1.18	1.18
14.05	0.15	0.80	5.00	0.00	1.16	1.16
14.10	0.15	0.80	5.00	0.00	1.15	1.15
14.15	0.15	0.80	5.00	0.00	1.14	1.14
14.20	0.15	0.80	5.00	0.00	1.12	1.12
14.25	0.16	0.80	5.00	0.00	1.11	1.11
14.30	0.16	0.80	5.00	0.00	1.09	1.09
14.35	0.16	0.80	5.00	0.00	1.08	1.08
14.40	0.17	0.80	5.00	0.00	1.07	1.07
14.45	0.19	0.80	5.00	0.00	1.05	1.05
14.50	0.20	0.80	5.00	0.00	1.04	1.04
14.55	0.20	0.80	5.00	0.00	1.03	1.03
14.60	0.20	0.80	5.00	0.00	1.02	1.02
14.65	0.19	0.80	5.00	0.00	1.01	1.01
14.70	0.18	0.80	5.00	0.00	1.00	1.00
14.75	0.17	0.80	5.00	0.00	0.99	0.99
14.80	0.18	0.80	5.00	0.00	0.98	0.98
14.85	0.19	0.80	5.00	0.00	0.97	0.97
14.90	0.20	0.80	5.00	0.00	0.96	0.96
14.95	0.21	0.80	5.00	0.00	0.95	0.95
15.00	0.21	0.80	5.00	0.00	0.94	0.94
15.05	0.20	0.80	5.00	0.00	0.93	0.93

15.10	0.17	0.80	5.00	0.00	0.92	0.92
15.15	0.17	0.80	5.00	0.00	0.90	0.90
15.20	0.18	0.80	5.00	0.00	0.89	0.89
15.25	0.21	0.80	5.00	0.00	0.88	0.88
15.30	0.24	0.80	5.00	0.00	0.87	0.87
15.35	0.29	0.80	5.00	0.00	0.86	0.86
15.40	0.25	0.80	5.00	0.00	0.85	0.85
15.45	0.22	0.80	5.00	0.00	0.84	0.84
15.50	0.22	0.80	5.00	0.00	0.83	0.83
15.55	0.23	0.80	5.00	0.00	0.82	0.82
15.60	0.21	0.80	5.00	0.00	0.81	0.81
15.65	0.19	0.80	5.00	0.00	0.80	0.80
15.70	0.17	0.80	5.00	0.00	0.79	0.79
15.75	0.14	0.80	5.00	0.00	0.78	0.78
15.80	0.12	0.80	5.00	0.00	0.76	0.76
15.85	0.11	0.80	5.00	0.00	0.74	0.74
15.90	0.11	0.80	5.00	0.00	0.73	0.73
15.95	0.12	0.80	5.00	0.00	0.71	0.71
16.00	0.12	0.80	5.00	0.00	0.69	0.69
16.05	0.12	0.80	5.00	0.00	0.68	0.68
16.10	0.12	0.80	5.00	0.00	0.66	0.66
16.15	0.11	0.80	5.00	0.00	0.64	0.64
16.20	0.12	0.80	5.00	0.00	0.63	0.63
16.25	0.14	0.80	5.00	0.00	0.61	0.61
16.30	0.17	0.80	5.00	0.00	0.60	0.60
16.35	0.21	0.80	5.00	0.00	0.59	0.59
16.40	0.33	0.80	5.00	0.00	0.58	0.58
16.45	0.36	0.80	5.00	0.00	0.58	0.58
16.50	0.32	0.80	5.00	0.00	0.57	0.57
16.55	0.25	0.80	5.00	0.00	0.57	0.57
16.60	0.22	0.80	5.00	0.00	0.56	0.56
16.65	0.19	0.80	5.00	0.00	0.55	0.55
16.70	0.22	0.80	5.00	0.00	0.54	0.54
16.75	0.28	0.80	5.00	0.00	0.53	0.53
16.80	0.29	0.80	5.00	0.00	0.52	0.52
16.85	0.28	0.80	5.00	0.00	0.51	0.51
16.90	0.27	0.80	5.00	0.00	0.50	0.50
16.95	0.26	0.80	5.00	0.00	0.49	0.49
17.00	0.21	0.80	5.00	0.00	0.48	0.48
17.05	0.18	0.80	5.00	0.00	0.47	0.47
17.10	0.18	0.80	5.00	0.00	0.46	0.46
17.15	0.18	0.79	5.00	0.00	0.45	0.45
17.20	0.17	0.79	5.00	0.00	0.44	0.44
17.25	0.15	0.79	5.00	0.00	0.43	0.43
17.30	0.14	0.79	5.00	0.00	0.42	0.42
17.35	0.12	0.79	5.00	0.00	0.41	0.41
17.40	0.14	0.79	5.00	0.00	0.40	0.40
17.45	0.13	0.79	5.00	0.00	0.38	0.38
17.50	0.13	0.79	5.00	0.00	0.37	0.37
17.55	0.13	0.79	5.00	0.00	0.36	0.36

17.60	0.15	0.79	5.00	0.00	0.34	0.34
17.65	0.18	0.79	5.00	0.00	0.33	0.33
17.70	0.23	0.79	5.00	0.00	0.32	0.32
17.75	0.29	0.79	5.00	0.00	0.31	0.31
17.80	0.35	0.79	5.00	0.00	0.31	0.31
17.85	0.41	0.79	5.00	0.00	0.30	0.30
17.90	0.42	0.79	5.00	0.00	0.30	0.30
17.95	0.44	0.79	5.00	0.00	0.29	0.29
18.00	0.47	0.79	5.00	0.00	0.29	0.29
18.05	0.52	0.79	5.00	0.00	0.28	0.28
18.10	0.65	0.79	5.00	0.00	0.28	0.28
18.15	0.77	0.79	5.00	0.00	0.27	0.27
18.20	0.92	0.79	5.00	0.00	0.27	0.27
18.25	1.10	0.79	5.00	0.00	0.26	0.26
18.30	1.31	0.79	5.00	0.00	0.26	0.26
18.35	1.53	0.79	5.00	0.00	0.26	0.26
18.40	1.71	0.79	5.00	0.00	0.25	0.25
18.45	1.84	0.79	5.00	0.00	0.25	0.25
18.50	1.94	0.79	5.00	0.00	0.24	0.24
18.55	1.94	0.79	5.00	0.00	0.24	0.24
18.60	1.94	0.79	5.00	0.00	0.24	0.24
18.65	1.94	0.79	5.00	0.00	0.23	0.23
18.70	1.94	0.79	5.00	0.00	0.23	0.23
18.75	1.94	0.79	5.00	0.00	0.22	0.22
18.80	1.94	0.79	5.00	0.00	0.22	0.22
18.85	1.94	0.79	5.00	0.00	0.21	0.21
18.90	1.94	0.79	5.00	0.00	0.21	0.21
18.95	1.94	0.79	5.00	0.00	0.21	0.21
19.00	1.94	0.79	5.00	0.00	0.20	0.20
19.05	1.94	0.79	5.00	0.00	0.20	0.20
19.10	1.94	0.79	5.00	0.00	0.19	0.19
19.15	1.94	0.79	5.00	0.00	0.19	0.19
19.20	1.94	0.79	5.00	0.00	0.19	0.19
19.25	1.94	0.79	5.00	0.00	0.18	0.18
19.30	1.94	0.79	5.00	0.00	0.18	0.18
19.35	1.94	0.79	5.00	0.00	0.17	0.17
19.40	1.94	0.79	5.00	0.00	0.17	0.17
19.45	1.94	0.79	5.00	0.00	0.16	0.16
19.50	1.94	0.79	5.00	0.00	0.16	0.16
19.55	1.94	0.79	5.00	0.00	0.16	0.16
19.60	1.94	0.79	5.00	0.00	0.15	0.15
19.65	1.94	0.79	5.00	0.00	0.15	0.15
19.70	1.94	0.79	5.00	0.00	0.14	0.14
19.75	1.94	0.79	5.00	0.00	0.14	0.14
19.80	1.94	0.79	5.00	0.00	0.14	0.14
19.85	1.94	0.79	5.00	0.00	0.13	0.13
19.90	1.94	0.79	5.00	0.00	0.13	0.13
19.95	1.94	0.79	5.00	0.00	0.12	0.12
20.00	1.94	0.79	5.00	0.00	0.12	0.12
20.05	1.94	0.79	5.00	0.00	0.11	0.11

20.10	1.94	0.79	5.00	0.00	0.11	0.11
20.15	1.94	0.79	5.00	0.00	0.11	0.11
20.20	1.94	0.79	5.00	0.00	0.10	0.10
20.25	1.94	0.79	5.00	0.00	0.10	0.10
20.30	1.94	0.79	5.00	0.00	0.09	0.09
20.35	1.94	0.79	5.00	0.00	0.09	0.09
20.40	1.94	0.79	5.00	0.00	0.09	0.09
20.45	1.94	0.79	5.00	0.00	0.08	0.08
20.50	1.94	0.79	5.00	0.00	0.08	0.08
20.55	1.94	0.79	5.00	0.00	0.07	0.07
20.60	1.94	0.79	5.00	0.00	0.07	0.07
20.65	1.94	0.79	5.00	0.00	0.06	0.06
20.70	1.94	0.79	5.00	0.00	0.06	0.06
20.75	1.94	0.79	5.00	0.00	0.06	0.06
20.80	1.94	0.79	5.00	0.00	0.05	0.05
20.85	1.94	0.79	5.00	0.00	0.05	0.05
20.90	1.94	0.79	5.00	0.00	0.04	0.04
20.95	1.94	0.79	5.00	0.00	0.04	0.04
21.00	1.94	0.79	5.00	0.00	0.04	0.04
21.05	1.94	0.79	5.00	0.00	0.03	0.03
21.10	1.94	0.79	5.00	0.00	0.03	0.03
21.15	1.94	0.79	5.00	0.00	0.03	0.03
21.20	1.94	0.79	5.00	0.00	0.03	0.03
21.25	1.94	0.79	5.00	0.00	0.03	0.03
21.30	1.94	0.79	5.00	0.00	0.03	0.03
21.35	1.94	0.79	5.00	0.00	0.03	0.03
21.40	1.94	0.79	5.00	0.00	0.03	0.03
21.45	1.94	0.79	5.00	0.00	0.02	0.02
21.50	1.94	0.79	5.00	0.00	0.02	0.02
21.55	1.94	0.79	5.00	0.00	0.02	0.02
21.60	1.94	0.79	5.00	0.00	0.02	0.02
21.65	1.94	0.79	5.00	0.00	0.02	0.02
21.70	1.94	0.79	5.00	0.00	0.02	0.02
21.75	1.94	0.79	5.00	0.00	0.02	0.02
21.80	1.94	0.79	5.00	0.00	0.01	0.01
21.85	1.94	0.79	5.00	0.00	0.01	0.01
21.90	1.94	0.79	5.00	0.00	0.01	0.01
21.95	1.94	0.79	5.00	0.00	0.01	0.01
22.00	1.94	0.79	5.00	0.00	0.01	0.01
22.05	1.94	0.79	5.00	0.00	0.01	0.01
22.10	1.94	0.79	5.00	0.00	0.01	0.01
22.15	1.94	0.79	5.00	0.00	0.01	0.01
22.20	1.94	0.79	5.00	0.00	0.00	0.00
22.25	1.94	0.79	5.00	0.00	0.00	0.00
22.30	1.94	0.79	5.00	0.00	0.00	0.00
22.35	2.00	0.78	5.00	0.00	0.00	0.00
22.40	2.00	0.78	5.00	0.00	0.00	0.00
22.45	2.00	0.78	5.00	0.00	0.00	0.00
22.50	2.00	0.78	5.00	0.00	0.00	0.00
22.55	2.00	0.78	5.00	0.00	0.00	0.00

22.60	2.00	0.78	5.00	0.00	0.00	0.00
22.65	2.00	0.78	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

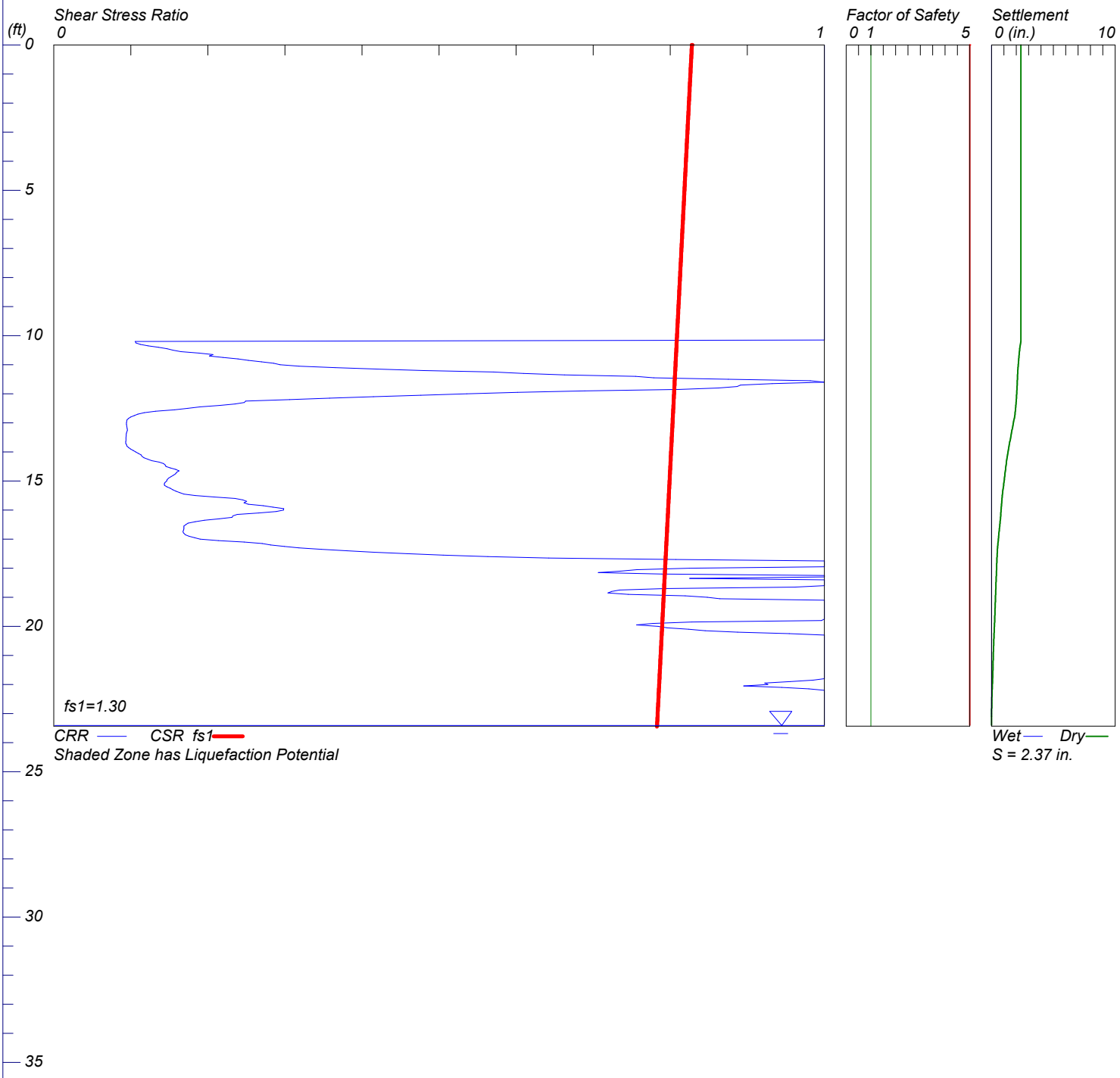
CRRm Cyclic resistance ratio from soils
CSRfs Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat Settlement from saturated sands
S_dry Settlement from dry sands
S_all Total settlement from saturated and dry sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=CPT-7 Water Depth=23.43 ft

Magnitude=7.7
Acceleration=0.98g



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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\CPT7.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=CPT-7
Depth of Hole= 23.4 ft
Water Table during Earthquake= 23.4 ft
Water Table during In-Situ Testing= 23.4 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=CPT-7
Depth of Hole=23.4 ft
Water Table during Earthquake= 23.4 ft
Water Table during In-Situ Testing= 23.4 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

1. CPT Calulation Method: Modified Robertson*
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth	qc	fs	gamma	Fines	D50
ft	tsf	tsf	pcf	%	mm
0.0	2.1	0.1	110.0	NoLiq	0.5
0.0	5.6	0.1	110.0	NoLiq	0.5
0.0	7.5	0.1	110.0	NoLiq	0.5
0.1	9.3	0.1	110.0	NoLiq	0.5
0.1	10.2	0.1	110.0	NoLiq	0.5
0.2	11.7	0.2	110.0	NoLiq	0.5
0.2	12.5	0.2	110.0	NoLiq	0.5
0.3	13.1	0.2	110.0	NoLiq	0.5
0.3	13.3	0.3	110.0	NoLiq	0.5
0.4	13.3	0.3	110.0	NoLiq	0.5
0.4	13.4	0.3	110.0	NoLiq	0.5
0.5	13.3	0.3	110.0	NoLiq	0.5
0.5	15.3	0.3	110.0	NoLiq	0.5
0.6	17.3	0.3	110.0	NoLiq	0.5
0.7	18.1	0.2	110.0	NoLiq	0.5
0.8	16.7	0.2	110.0	NoLiq	0.5
0.9	13.4	0.2	110.0	NoLiq	0.5
1.0	11.0	0.1	110.0	NoLiq	0.5
1.2	9.5	0.1	110.0	NoLiq	0.5
1.3	8.3	0.1	110.0	NoLiq	0.5
1.4	7.4	0.1	110.0	NoLiq	0.5
1.5	6.2	0.1	110.0	NoLiq	0.5
1.5	6.2	0.1	110.0	NoLiq	0.5
1.5	6.4	0.1	110.0	NoLiq	0.5
1.6	6.2	0.1	110.0	NoLiq	0.5
1.7	5.9	0.1	110.0	NoLiq	0.5
1.8	6.9	0.1	110.0	NoLiq	0.5
1.8	6.9	0.1	110.0	NoLiq	0.5
1.9	8.0	0.1	110.0	NoLiq	0.5
2.0	8.1	0.1	110.0	NoLiq	0.5
2.1	9.2	0.1	110.0	NoLiq	0.5
2.2	9.3	0.1	110.0	NoLiq	0.5
2.3	9.2	0.1	110.0	NoLiq	0.5
2.3	9.4	0.1	110.0	NoLiq	0.5
2.4	9.6	0.1	110.0	NoLiq	0.5
2.5	9.0	0.1	110.0	NoLiq	0.5
2.6	10.0	0.1	110.0	NoLiq	0.5
2.7	11.2	0.1	110.0	NoLiq	0.5
2.8	10.6	0.1	110.0	NoLiq	0.5
2.9	10.6	0.1	110.0	NoLiq	0.5
3.0	10.1	0.1	110.0	NoLiq	0.5
3.1	9.7	0.1	110.0	NoLiq	0.5
3.2	8.3	0.1	110.0	NoLiq	0.5
3.3	8.7	0.1	110.0	NoLiq	0.5
3.4	8.6	0.1	110.0	NoLiq	0.5
3.5	9.2	0.1	110.0	NoLiq	0.5
3.6	10.2	0.1	110.0	NoLiq	0.5

3.7	10.8	0.1	110.0	NoLiq	0.5
3.8	11.4	0.1	110.0	NoLiq	0.5
3.9	11.6	0.1	110.0	NoLiq	0.5
4.1	12.0	0.1	110.0	NoLiq	0.5
4.1	10.2	0.1	110.0	NoLiq	0.5
4.2	12.8	0.1	110.0	NoLiq	0.5
4.2	13.5	0.1	110.0	NoLiq	0.5
4.3	14.9	0.1	110.0	NoLiq	0.5
4.3	16.1	0.1	110.0	NoLiq	0.5
4.4	16.0	0.1	110.0	NoLiq	0.5
4.4	15.4	0.1	110.0	NoLiq	0.5
4.5	15.9	0.1	110.0	NoLiq	0.5
4.6	16.6	0.1	110.0	NoLiq	0.5
4.7	16.6	0.1	110.0	NoLiq	0.5
4.7	16.6	0.1	110.0	NoLiq	0.5
4.8	18.3	0.1	110.0	NoLiq	0.5
4.9	19.0	0.2	110.0	NoLiq	0.5
5.0	18.5	0.2	110.0	NoLiq	0.5
5.1	17.2	0.2	110.0	NoLiq	0.5
5.2	17.3	0.2	110.0	NoLiq	0.5
5.2	17.3	0.2	110.0	NoLiq	0.5
5.3	17.3	0.2	110.0	NoLiq	0.5
5.4	15.4	0.2	110.0	NoLiq	0.5
5.5	13.5	0.2	110.0	NoLiq	0.5
5.6	12.9	0.2	110.0	NoLiq	0.5
5.7	11.6	0.2	110.0	NoLiq	0.5
5.8	10.9	0.2	110.0	NoLiq	0.5
5.9	11.8	0.2	110.0	NoLiq	0.5
6.0	10.1	0.2	110.0	NoLiq	0.5
6.1	11.9	0.2	110.0	NoLiq	0.5
6.2	16.2	0.2	110.0	NoLiq	0.5
6.4	21.5	0.4	110.0	NoLiq	0.5
6.5	32.8	0.4	110.0	NoLiq	0.5
6.5	40.6	0.5	110.0	NoLiq	0.5
6.7	40.3	0.5	110.0	NoLiq	0.5
6.8	37.0	0.3	110.0	NoLiq	0.5
6.9	35.0	0.2	110.0	NoLiq	0.5
7.0	35.0	0.3	110.0	NoLiq	0.5
7.1	27.1	0.3	110.0	NoLiq	0.5
7.1	27.2	0.3	110.0	NoLiq	0.5
7.2	29.6	0.3	110.0	NoLiq	0.5
7.3	28.3	0.2	110.0	NoLiq	0.5
7.3	28.4	0.2	110.0	NoLiq	0.5
7.4	27.9	0.2	110.0	NoLiq	0.5
7.5	27.5	0.2	110.0	NoLiq	0.5
7.5	27.1	0.2	110.0	NoLiq	0.5
7.6	26.4	0.2	110.0	NoLiq	0.5
7.7	26.0	0.2	110.0	NoLiq	0.5
7.8	24.5	0.2	110.0	NoLiq	0.5
7.9	24.3	0.2	110.0	NoLiq	0.5

7.9	23.9	0.1	110.0	NoLiq	0.5
8.0	23.9	0.1	110.0	NoLiq	0.5
8.1	23.9	0.1	110.0	NoLiq	0.5
8.2	24.3	0.2	110.0	NoLiq	0.5
8.3	25.0	0.1	110.0	NoLiq	0.5
8.4	25.5	0.1	110.0	NoLiq	0.5
8.5	25.3	0.1	110.0	NoLiq	0.5
8.6	25.0	0.2	110.0	NoLiq	0.5
8.7	23.6	0.1	110.0	NoLiq	0.5
8.7	23.8	0.1	110.0	NoLiq	0.5
8.8	22.0	0.1	110.0	NoLiq	0.5
8.9	22.5	0.1	110.0	NoLiq	0.5
9.0	24.6	0.1	110.0	NoLiq	0.5
9.1	29.2	0.2	110.0	NoLiq	0.5
9.2	35.0	0.2	110.0	NoLiq	0.5
9.3	36.3	0.3	110.0	NoLiq	0.5
9.3	34.4	0.3	110.0	NoLiq	0.5
9.5	36.0	0.3	110.0	NoLiq	0.5
9.6	35.5	0.3	110.0	NoLiq	0.5
9.7	38.5	0.2	110.0	NoLiq	0.5
9.7	41.0	0.2	110.0	NoLiq	0.5
9.8	42.8	0.2	110.0	NoLiq	0.5
9.9	43.3	0.2	110.0	NoLiq	0.5
10.0	45.7	0.1	110.0	NoLiq	0.5
10.1	45.3	0.1	110.0	NoLiq	0.5
10.2	47.0	0.2	110.0	9.2	0.5
10.3	45.4	0.2	110.0	10.5	0.5
10.3	45.5	0.4	110.0	12.3	0.5
10.4	48.0	0.5	110.0	14.1	0.5
10.5	51.8	0.6	110.0	15.5	0.5
10.5	57.4	0.6	110.0	14.9	0.5
10.6	67.3	0.7	110.0	12.3	0.5
10.6	74.4	0.7	110.0	12.3	0.5
10.7	69.8	0.8	110.0	12.3	0.5
10.8	79.0	0.8	110.0	11.3	0.5
10.8	88.1	0.7	110.0	9.5	0.5
10.9	93.6	0.7	110.0	7.9	0.5
10.9	98.5	0.7	110.0	7.1	0.5
11.0	103.0	0.7	110.0	6.2	0.5
11.1	109.6	0.7	110.0	5.6	0.5
11.1	120.4	0.7	110.0	4.8	0.5
11.2	128.9	0.7	110.0	4.2	0.5
11.2	139.8	0.6	110.0	3.7	0.5
11.3	147.6	1.1	110.0	3.9	0.5
11.4	156.8	1.2	110.0	4.6	0.5
11.5	159.8	1.1	110.0	4.2	0.5
11.5	171.9	1.0	110.0	3.5	0.5
11.6	177.6	0.9	110.0	2.7	0.5
11.6	171.7	0.7	110.0	1.9	0.5
11.7	168.3	0.6	110.0	1.6	0.5

11.8	170.0	0.8	110.0	1.9	0.5
11.9	164.6	1.1	110.0	3.6	0.5
11.9	153.4	1.1	110.0	4.2	0.5
12.0	142.3	1.1	110.0	4.7	0.5
12.1	128.7	1.1	110.0	5.9	0.5
12.1	113.2	1.1	110.0	6.8	0.5
12.2	104.0	1.0	110.0	7.9	0.5
12.2	86.8	1.0	110.0	9.1	0.5
12.3	87.8	0.9	110.0	10.9	0.5
12.3	88.8	0.9	110.0	10.4	0.5
12.4	83.7	0.9	110.0	10.7	0.5
12.4	69.1	0.9	110.0	11.6	0.5
12.5	60.3	0.8	110.0	14.8	0.5
12.6	53.6	0.4	110.0	13.9	0.5
12.7	47.1	0.3	110.0	13.5	0.5
12.8	42.3	0.2	110.0	13.6	0.5
12.9	40.1	0.2	110.0	13.6	0.5
13.0	39.0	0.2	110.0	13.8	0.5
13.1	38.6	0.2	110.0	14.4	0.5
13.1	37.6	0.2	110.0	15.4	0.5
13.3	37.3	0.2	110.0	15.8	0.5
13.3	35.8	0.2	110.0	16.5	0.5
13.4	34.7	0.2	110.0	17.2	0.5
13.5	34.2	0.2	110.0	17.7	0.5
13.6	34.2	0.2	110.0	17.8	0.5
13.7	34.2	0.2	110.0	17.8	0.5
13.8	36.2	0.3	110.0	17.5	0.5
13.9	41.0	0.3	110.0	16.3	0.5
14.0	47.0	0.3	110.0	14.5	0.5
14.1	54.9	0.3	110.0	12.5	0.5
14.2	64.0	0.2	110.0	9.3	0.5
14.3	70.7	0.3	110.0	7.1	0.5
14.4	76.3	0.3	110.0	7.2	0.5
14.5	77.9	0.4	110.0	7.4	0.5
14.5	77.7	0.4	110.0	7.4	0.5
14.5	77.6	0.4	110.0	7.6	0.5
14.6	82.9	0.4	110.0	7.3	0.5
14.6	84.3	0.4	110.0	7.4	0.5
14.7	82.1	0.5	110.0	7.4	0.5
14.8	80.7	0.5	110.0	8.4	0.5
14.8	78.9	0.5	110.0	8.5	0.5
14.9	78.6	0.4	110.0	8.2	0.5
15.0	78.7	0.4	110.0	8.0	0.5
15.1	78.4	0.4	110.0	7.7	0.5
15.2	80.3	0.3	110.0	7.1	0.5
15.2	84.2	0.3	110.0	6.7	0.5
15.3	87.5	0.3	110.0	6.2	0.5
15.4	92.0	0.4	110.0	6.0	0.5
15.5	92.1	0.6	110.0	7.8	0.5
15.6	93.4	1.1	110.0	11.5	0.5

15.7	96.3	1.2	110.0	11.8	0.5
15.8	93.9	1.2	110.0	12.1	0.5
15.8	103.2	1.2	110.0	11.9	0.5
16.0	115.8	1.1	110.0	9.3	0.5
16.1	110.4	1.1	110.0	9.5	0.5
16.2	89.9	1.2	110.0	12.7	0.5
16.3	93.6	1.1	110.0	12.2	0.5
16.4	87.1	0.9	110.0	11.7	0.5
16.4	85.4	0.7	110.0	11.0	0.5
16.5	83.3	0.7	110.0	10.5	0.5
16.6	80.6	0.8	110.0	11.7	0.5
16.8	80.4	0.8	110.0	11.8	0.5
16.9	79.8	0.8	110.0	12.4	0.5
17.0	86.5	0.9	110.0	11.8	0.5
17.0	75.4	0.9	110.0	11.8	0.5
17.0	88.4	0.9	110.0	11.9	0.5
17.1	106.5	0.8	110.0	9.2	0.5
17.1	122.1	0.7	110.0	7.2	0.5
17.2	130.5	0.7	110.0	5.2	0.5
17.3	137.5	0.7	110.0	4.7	0.5
17.4	141.9	0.9	110.0	5.4	0.5
17.5	140.7	1.5	110.0	8.2	0.5
17.5	148.3	1.9	110.0	9.3	0.5
17.6	158.0	2.3	110.0	9.5	0.5
17.7	186.3	2.9	110.0	9.5	0.5
17.8	211.9	3.5	110.0	9.0	0.5
17.8	193.5	3.4	110.0	9.0	0.5
17.9	204.6	3.8	110.0	10.1	0.5
17.9	197.7	4.9	110.0	10.1	0.5
17.9	187.2	5.2	110.0	13.1	0.5
18.0	180.3	3.7	110.0	13.1	0.5
18.0	167.3	2.6	110.0	10.8	0.5
18.1	166.0	3.1	110.0	10.9	0.5
18.1	173.2	2.4	110.0	9.9	0.5
18.2	188.1	1.9	110.0	7.7	0.5
18.2	205.8	1.8	110.0	5.6	0.5
18.3	226.9	1.8	110.0	4.1	0.5
18.3	230.4	1.8	110.0	3.9	0.5
18.3	217.8	1.7	110.0	3.9	0.5
18.3	139.5	1.8	110.0	3.9	0.5
18.4	205.1	1.8	110.0	7.8	0.5
18.4	205.6	1.8	110.0	7.8	0.5
18.4	223.7	1.9	110.0	7.8	0.5
18.4	240.8	1.9	110.0	3.9	0.5
18.4	236.1	1.9	110.0	3.9	0.5
18.4	243.3	1.9	110.0	3.9	0.5
18.5	245.7	1.9	110.0	3.6	0.5
18.5	247.5	2.1	110.0	3.6	0.5
18.6	238.4	2.4	110.0	4.3	0.5
18.6	223.0	2.3	110.0	5.2	0.5

18.7	209.5	2.0	110.0	5.6	0.5
18.7	198.4	1.7	110.0	5.4	0.5
18.9	169.9	2.8	110.0	10.3	0.5
18.9	160.4	3.3	110.0	12.1	0.5
19.0	151.2	4.0	110.0	14.7	0.5
19.0	137.0	4.3	110.0	18.2	0.5
19.1	149.5	5.1	110.0	18.5	0.5
19.1	147.9	5.0	110.0	18.5	0.5
19.1	188.9	4.7	110.0	14.6	0.5
19.2	210.6	4.2	110.0	11.2	0.5
19.2	246.9	4.2	110.0	11.2	0.5
19.3	276.5	4.4	110.0	8.2	0.5
19.3	263.0	4.2	110.0	7.5	0.5
19.4	248.7	4.2	110.0	8.4	0.5
19.4	247.6	4.6	110.0	8.4	0.5
19.4	246.2	4.9	110.0	9.2	0.5
19.5	246.2	5.1	110.0	9.7	0.5
19.5	244.8	5.0	110.0	10.0	0.5
19.6	264.9	4.2	110.0	9.2	0.5
19.6	247.4	3.5	110.0	7.5	0.5
19.7	221.1	3.1	110.0	7.5	0.5
19.7	223.8	2.9	110.0	7.6	0.5
19.8	224.5	2.7	110.0	7.0	0.5
19.8	219.9	2.3	110.0	6.3	0.5
19.9	211.1	1.5	110.0	5.1	0.5
20.0	208.1	1.3	110.0	3.5	0.5
20.0	211.8	1.2	110.0	3.1	0.5
20.1	213.0	1.2	110.0	3.1	0.5
20.1	215.6	1.3	110.0	3.1	0.5
20.2	218.8	1.2	110.0	3.0	0.5
20.2	226.4	0.7	110.0	2.3	0.5
20.3	239.7	0.9	110.0	1.0	0.5
20.4	258.0	0.9	110.0	0.9	0.5
20.5	271.2	1.6	110.0	2.0	0.5
20.5	275.3	1.9	110.0	2.6	0.5
20.5	247.9	2.0	110.0	2.6	0.5
20.6	254.5	2.1	110.0	4.0	0.5
20.6	264.9	2.1	110.0	3.8	0.5
20.6	269.0	2.1	110.0	3.6	0.5
20.7	280.5	2.2	110.0	3.3	0.5
20.8	274.3	2.2	110.0	3.5	0.5
20.8	255.7	2.3	110.0	4.2	0.5
20.9	253.5	2.4	110.0	4.7	0.5
20.9	256.9	2.5	110.0	4.9	0.5
21.0	267.5	1.9	110.0	3.2	0.5
21.0	279.7	1.7	110.0	2.5	0.5
21.1	292.4	1.7	110.0	2.1	0.5
21.2	303.6	1.7	110.0	1.8	0.5
21.3	313.3	1.7	110.0	1.5	0.5
21.3	313.1	1.8	110.0	1.5	0.5

21.4	304.8	1.8	110.0	1.8	0.5
21.5	290.8	1.8	110.0	2.1	0.5
21.5	279.0	1.8	110.0	2.6	0.5
21.6	263.7	1.4	110.0	2.3	0.5
21.7	254.9	1.2	110.0	1.9	0.5
21.8	246.4	1.3	110.0	2.4	0.5
21.9	239.9	1.3	110.0	2.7	0.5
21.9	236.1	1.3	110.0	2.7	0.5
22.0	234.1	1.3	110.0	2.7	0.5
22.0	236.5	1.2	110.0	2.7	0.5
22.1	232.2	1.2	110.0	2.5	0.5
22.1	236.9	1.2	110.0	2.5	0.5
22.2	243.1	1.3	110.0	2.4	0.5
22.3	256.1	1.7	110.0	3.1	0.5
22.3	272.2	2.5	110.0	4.0	0.5
22.4	296.7	3.6	110.0	4.9	0.5
22.5	329.7	4.0	110.0	5.2	0.5
22.5	330.3	4.8	110.0	6.0	0.5
22.6	324.7	5.4	110.0	6.8	0.5
22.6	296.1	5.5	110.0	7.7	0.5
22.7	323.6	5.9	110.0	8.4	0.5
22.7	297.5	5.8	110.0	8.2	0.5
22.8	322.6	5.9	110.0	8.2	0.5
22.9	347.5	6.4	110.0	7.8	0.5
22.9	378.7	6.6	110.0	7.3	0.5
23.0	412.3	7.0	110.0	6.4	0.5
23.0	440.0	7.0	110.0	6.4	0.5
23.0	477.7	7.3	110.0	5.1	0.5
23.1	525.5	0.0	110.0	5.1	0.5
23.1	541.9	0.0	110.0	NoLiq	0.5
23.1	552.6	0.0	110.0	NoLiq	0.5
23.2	575.8	0.0	110.0	NoLiq	0.5
23.2	600.4	0.0	110.0	NoLiq	0.5
23.2	622.7	0.0	110.0	NoLiq	0.5
23.3	652.3	0.0	110.0	NoLiq	0.5
23.3	683.2	0.0	110.0	NoLiq	0.5
23.3	692.9	0.0	110.0	NoLiq	0.5
23.3	720.8	0.0	110.0	NoLiq	0.5
23.4	729.7	0.0	110.0	NoLiq	0.5
23.4	762.6	0.0	110.0	NoLiq	0.5
23.4	806.4	0.0	110.0	NoLiq	0.5
23.4	795.9	0.0	110.0	NoLiq	0.5

Output Results:

Settlement of saturated sands=0.00 in.
Settlement of dry sands=2.37 in.
Total settlement of saturated and dry sands=2.37 in.
Differential Settlement=1.185 to 1.564 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	0.00	2.37	2.37
0.05	2.00	0.83	5.00	0.00	2.37	2.37
0.10	2.00	0.83	5.00	0.00	2.37	2.37
0.15	2.00	0.83	5.00	0.00	2.37	2.37
0.20	2.00	0.83	5.00	0.00	2.37	2.37
0.25	2.00	0.83	5.00	0.00	2.37	2.37
0.30	2.00	0.83	5.00	0.00	2.37	2.37
0.35	2.00	0.83	5.00	0.00	2.37	2.37
0.40	2.00	0.83	5.00	0.00	2.37	2.37
0.45	2.00	0.83	5.00	0.00	2.37	2.37
0.50	2.00	0.83	5.00	0.00	2.37	2.37
0.55	2.00	0.83	5.00	0.00	2.37	2.37
0.60	2.00	0.83	5.00	0.00	2.37	2.37
0.65	2.00	0.83	5.00	0.00	2.37	2.37
0.70	2.00	0.83	5.00	0.00	2.37	2.37
0.75	2.00	0.83	5.00	0.00	2.37	2.37
0.80	2.00	0.83	5.00	0.00	2.37	2.37
0.85	2.00	0.83	5.00	0.00	2.37	2.37
0.90	2.00	0.83	5.00	0.00	2.37	2.37
0.95	2.00	0.83	5.00	0.00	2.37	2.37
1.00	2.00	0.83	5.00	0.00	2.37	2.37
1.05	2.00	0.83	5.00	0.00	2.37	2.37
1.10	2.00	0.83	5.00	0.00	2.37	2.37
1.15	2.00	0.83	5.00	0.00	2.37	2.37
1.20	2.00	0.83	5.00	0.00	2.37	2.37
1.25	2.00	0.83	5.00	0.00	2.37	2.37
1.30	2.00	0.83	5.00	0.00	2.37	2.37
1.35	2.00	0.83	5.00	0.00	2.37	2.37
1.40	2.00	0.83	5.00	0.00	2.37	2.37
1.45	2.00	0.83	5.00	0.00	2.37	2.37
1.50	2.00	0.83	5.00	0.00	2.37	2.37
1.55	2.00	0.83	5.00	0.00	2.37	2.37
1.60	2.00	0.83	5.00	0.00	2.37	2.37
1.65	2.00	0.82	5.00	0.00	2.37	2.37
1.70	2.00	0.82	5.00	0.00	2.37	2.37
1.75	2.00	0.82	5.00	0.00	2.37	2.37
1.80	2.00	0.82	5.00	0.00	2.37	2.37
1.85	2.00	0.82	5.00	0.00	2.37	2.37
1.90	2.00	0.82	5.00	0.00	2.37	2.37
1.95	2.00	0.82	5.00	0.00	2.37	2.37
2.00	2.00	0.82	5.00	0.00	2.37	2.37
2.05	2.00	0.82	5.00	0.00	2.37	2.37
2.10	2.00	0.82	5.00	0.00	2.37	2.37
2.15	2.00	0.82	5.00	0.00	2.37	2.37
2.20	2.00	0.82	5.00	0.00	2.37	2.37
2.25	2.00	0.82	5.00	0.00	2.37	2.37
2.30	2.00	0.82	5.00	0.00	2.37	2.37

2.35	2.00	0.82	5.00	0.00	2.37	2.37
2.40	2.00	0.82	5.00	0.00	2.37	2.37
2.45	2.00	0.82	5.00	0.00	2.37	2.37
2.50	2.00	0.82	5.00	0.00	2.37	2.37
2.55	2.00	0.82	5.00	0.00	2.37	2.37
2.60	2.00	0.82	5.00	0.00	2.37	2.37
2.65	2.00	0.82	5.00	0.00	2.37	2.37
2.70	2.00	0.82	5.00	0.00	2.37	2.37
2.75	2.00	0.82	5.00	0.00	2.37	2.37
2.80	2.00	0.82	5.00	0.00	2.37	2.37
2.85	2.00	0.82	5.00	0.00	2.37	2.37
2.90	2.00	0.82	5.00	0.00	2.37	2.37
2.95	2.00	0.82	5.00	0.00	2.37	2.37
3.00	2.00	0.82	5.00	0.00	2.37	2.37
3.05	2.00	0.82	5.00	0.00	2.37	2.37
3.10	2.00	0.82	5.00	0.00	2.37	2.37
3.15	2.00	0.82	5.00	0.00	2.37	2.37
3.20	2.00	0.82	5.00	0.00	2.37	2.37
3.25	2.00	0.82	5.00	0.00	2.37	2.37
3.30	2.00	0.82	5.00	0.00	2.37	2.37
3.35	2.00	0.82	5.00	0.00	2.37	2.37
3.40	2.00	0.82	5.00	0.00	2.37	2.37
3.45	2.00	0.82	5.00	0.00	2.37	2.37
3.50	2.00	0.82	5.00	0.00	2.37	2.37
3.55	2.00	0.82	5.00	0.00	2.37	2.37
3.60	2.00	0.82	5.00	0.00	2.37	2.37
3.65	2.00	0.82	5.00	0.00	2.37	2.37
3.70	2.00	0.82	5.00	0.00	2.37	2.37
3.75	2.00	0.82	5.00	0.00	2.37	2.37
3.80	2.00	0.82	5.00	0.00	2.37	2.37
3.85	2.00	0.82	5.00	0.00	2.37	2.37
3.90	2.00	0.82	5.00	0.00	2.37	2.37
3.95	2.00	0.82	5.00	0.00	2.37	2.37
4.00	2.00	0.82	5.00	0.00	2.37	2.37
4.05	2.00	0.82	5.00	0.00	2.37	2.37
4.10	2.00	0.82	5.00	0.00	2.37	2.37
4.15	2.00	0.82	5.00	0.00	2.37	2.37
4.20	2.00	0.82	5.00	0.00	2.37	2.37
4.25	2.00	0.82	5.00	0.00	2.37	2.37
4.30	2.00	0.82	5.00	0.00	2.37	2.37
4.35	2.00	0.82	5.00	0.00	2.37	2.37
4.40	2.00	0.82	5.00	0.00	2.37	2.37
4.45	2.00	0.82	5.00	0.00	2.37	2.37
4.50	2.00	0.82	5.00	0.00	2.37	2.37
4.55	2.00	0.82	5.00	0.00	2.37	2.37
4.60	2.00	0.82	5.00	0.00	2.37	2.37
4.65	2.00	0.82	5.00	0.00	2.37	2.37
4.70	2.00	0.82	5.00	0.00	2.37	2.37
4.75	2.00	0.82	5.00	0.00	2.37	2.37
4.80	2.00	0.82	5.00	0.00	2.37	2.37

4.85	2.00	0.82	5.00	0.00	2.37	2.37
4.90	2.00	0.82	5.00	0.00	2.37	2.37
4.95	2.00	0.82	5.00	0.00	2.37	2.37
5.00	2.00	0.82	5.00	0.00	2.37	2.37
5.05	2.00	0.82	5.00	0.00	2.37	2.37
5.10	2.00	0.82	5.00	0.00	2.37	2.37
5.15	2.00	0.82	5.00	0.00	2.37	2.37
5.20	2.00	0.82	5.00	0.00	2.37	2.37
5.25	2.00	0.82	5.00	0.00	2.37	2.37
5.30	2.00	0.82	5.00	0.00	2.37	2.37
5.35	2.00	0.82	5.00	0.00	2.37	2.37
5.40	2.00	0.82	5.00	0.00	2.37	2.37
5.45	2.00	0.82	5.00	0.00	2.37	2.37
5.50	2.00	0.82	5.00	0.00	2.37	2.37
5.55	2.00	0.82	5.00	0.00	2.37	2.37
5.60	2.00	0.82	5.00	0.00	2.37	2.37
5.65	2.00	0.82	5.00	0.00	2.37	2.37
5.70	2.00	0.82	5.00	0.00	2.37	2.37
5.75	2.00	0.82	5.00	0.00	2.37	2.37
5.80	2.00	0.82	5.00	0.00	2.37	2.37
5.85	2.00	0.82	5.00	0.00	2.37	2.37
5.90	2.00	0.82	5.00	0.00	2.37	2.37
5.95	2.00	0.82	5.00	0.00	2.37	2.37
6.00	2.00	0.82	5.00	0.00	2.37	2.37
6.05	2.00	0.82	5.00	0.00	2.37	2.37
6.10	2.00	0.82	5.00	0.00	2.37	2.37
6.15	2.00	0.82	5.00	0.00	2.37	2.37
6.20	2.00	0.82	5.00	0.00	2.37	2.37
6.25	2.00	0.82	5.00	0.00	2.37	2.37
6.30	2.00	0.82	5.00	0.00	2.37	2.37
6.35	2.00	0.82	5.00	0.00	2.37	2.37
6.40	2.00	0.82	5.00	0.00	2.37	2.37
6.45	2.00	0.82	5.00	0.00	2.37	2.37
6.50	2.00	0.82	5.00	0.00	2.37	2.37
6.55	2.00	0.82	5.00	0.00	2.37	2.37
6.60	2.00	0.82	5.00	0.00	2.37	2.37
6.65	2.00	0.82	5.00	0.00	2.37	2.37
6.70	2.00	0.82	5.00	0.00	2.37	2.37
6.75	2.00	0.82	5.00	0.00	2.37	2.37
6.80	2.00	0.81	5.00	0.00	2.37	2.37
6.85	2.00	0.81	5.00	0.00	2.37	2.37
6.90	2.00	0.81	5.00	0.00	2.37	2.37
6.95	2.00	0.81	5.00	0.00	2.37	2.37
7.00	2.00	0.81	5.00	0.00	2.37	2.37
7.05	2.00	0.81	5.00	0.00	2.37	2.37
7.10	2.00	0.81	5.00	0.00	2.37	2.37
7.15	2.00	0.81	5.00	0.00	2.37	2.37
7.20	2.00	0.81	5.00	0.00	2.37	2.37
7.25	2.00	0.81	5.00	0.00	2.37	2.37
7.30	2.00	0.81	5.00	0.00	2.37	2.37

7.35	2.00	0.81	5.00	0.00	2.37	2.37
7.40	2.00	0.81	5.00	0.00	2.37	2.37
7.45	2.00	0.81	5.00	0.00	2.37	2.37
7.50	2.00	0.81	5.00	0.00	2.37	2.37
7.55	2.00	0.81	5.00	0.00	2.37	2.37
7.60	2.00	0.81	5.00	0.00	2.37	2.37
7.65	2.00	0.81	5.00	0.00	2.37	2.37
7.70	2.00	0.81	5.00	0.00	2.37	2.37
7.75	2.00	0.81	5.00	0.00	2.37	2.37
7.80	2.00	0.81	5.00	0.00	2.37	2.37
7.85	2.00	0.81	5.00	0.00	2.37	2.37
7.90	2.00	0.81	5.00	0.00	2.37	2.37
7.95	2.00	0.81	5.00	0.00	2.37	2.37
8.00	2.00	0.81	5.00	0.00	2.37	2.37
8.05	2.00	0.81	5.00	0.00	2.37	2.37
8.10	2.00	0.81	5.00	0.00	2.37	2.37
8.15	2.00	0.81	5.00	0.00	2.37	2.37
8.20	2.00	0.81	5.00	0.00	2.37	2.37
8.25	2.00	0.81	5.00	0.00	2.37	2.37
8.30	2.00	0.81	5.00	0.00	2.37	2.37
8.35	2.00	0.81	5.00	0.00	2.37	2.37
8.40	2.00	0.81	5.00	0.00	2.37	2.37
8.45	2.00	0.81	5.00	0.00	2.37	2.37
8.50	2.00	0.81	5.00	0.00	2.37	2.37
8.55	2.00	0.81	5.00	0.00	2.37	2.37
8.60	2.00	0.81	5.00	0.00	2.37	2.37
8.65	2.00	0.81	5.00	0.00	2.37	2.37
8.70	2.00	0.81	5.00	0.00	2.37	2.37
8.75	2.00	0.81	5.00	0.00	2.37	2.37
8.80	2.00	0.81	5.00	0.00	2.37	2.37
8.85	2.00	0.81	5.00	0.00	2.37	2.37
8.90	2.00	0.81	5.00	0.00	2.37	2.37
8.95	2.00	0.81	5.00	0.00	2.37	2.37
9.00	2.00	0.81	5.00	0.00	2.37	2.37
9.05	2.00	0.81	5.00	0.00	2.37	2.37
9.10	2.00	0.81	5.00	0.00	2.37	2.37
9.15	2.00	0.81	5.00	0.00	2.37	2.37
9.20	2.00	0.81	5.00	0.00	2.37	2.37
9.25	2.00	0.81	5.00	0.00	2.37	2.37
9.30	2.00	0.81	5.00	0.00	2.37	2.37
9.35	2.00	0.81	5.00	0.00	2.37	2.37
9.40	2.00	0.81	5.00	0.00	2.37	2.37
9.45	2.00	0.81	5.00	0.00	2.37	2.37
9.50	2.00	0.81	5.00	0.00	2.37	2.37
9.55	2.00	0.81	5.00	0.00	2.37	2.37
9.60	2.00	0.81	5.00	0.00	2.37	2.37
9.65	2.00	0.81	5.00	0.00	2.37	2.37
9.70	2.00	0.81	5.00	0.00	2.37	2.37
9.75	2.00	0.81	5.00	0.00	2.37	2.37
9.80	2.00	0.81	5.00	0.00	2.37	2.37

9.85	2.00	0.81	5.00	0.00	2.37	2.37
9.90	2.00	0.81	5.00	0.00	2.37	2.37
9.95	2.00	0.81	5.00	0.00	2.37	2.37
10.00	2.00	0.81	5.00	0.00	2.37	2.37
10.05	2.00	0.81	5.00	0.00	2.37	2.37
10.10	2.00	0.81	5.00	0.00	2.37	2.37
10.15	2.00	0.81	5.00	0.00	2.37	2.37
10.20	0.11	0.81	5.00	0.00	2.37	2.37
10.25	0.11	0.81	5.00	0.00	2.35	2.35
10.30	0.11	0.81	5.00	0.00	2.33	2.33
10.35	0.12	0.81	5.00	0.00	2.31	2.31
10.40	0.14	0.81	5.00	0.00	2.29	2.29
10.45	0.15	0.81	5.00	0.00	2.28	2.28
10.50	0.15	0.81	5.00	0.00	2.27	2.27
10.55	0.16	0.81	5.00	0.00	2.26	2.26
10.60	0.19	0.81	5.00	0.00	2.24	2.24
10.65	0.21	0.81	5.00	0.00	2.23	2.23
10.70	0.20	0.81	5.00	0.00	2.22	2.22
10.75	0.22	0.81	5.00	0.00	2.21	2.21
10.80	0.24	0.81	5.00	0.00	2.20	2.20
10.85	0.25	0.81	5.00	0.00	2.19	2.19
10.90	0.27	0.81	5.00	0.00	2.18	2.18
10.95	0.29	0.81	5.00	0.00	2.17	2.17
11.00	0.29	0.81	5.00	0.00	2.16	2.16
11.05	0.32	0.81	5.00	0.00	2.15	2.15
11.10	0.37	0.81	5.00	0.00	2.14	2.14
11.15	0.42	0.81	5.00	0.00	2.14	2.14
11.20	0.48	0.81	5.00	0.00	2.13	2.13
11.25	0.57	0.81	5.00	0.00	2.12	2.12
11.30	0.61	0.81	5.00	0.00	2.11	2.11
11.35	0.66	0.81	5.00	0.00	2.11	2.11
11.40	0.76	0.81	5.00	0.00	2.10	2.10
11.45	0.78	0.81	5.00	0.00	2.09	2.09
11.50	0.88	0.81	5.00	0.00	2.09	2.09
11.55	0.98	0.81	5.00	0.00	2.08	2.08
11.60	1.00	0.81	5.00	0.00	2.08	2.08
11.65	0.93	0.81	5.00	0.00	2.07	2.07
11.70	0.89	0.81	5.00	0.00	2.07	2.07
11.75	0.89	0.81	5.00	0.00	2.06	2.06
11.80	0.86	0.81	5.00	0.00	2.06	2.06
11.85	0.81	0.81	5.00	0.00	2.05	2.05
11.90	0.69	0.81	5.00	0.00	2.05	2.05
11.95	0.60	0.81	5.00	0.00	2.04	2.04
12.00	0.54	0.80	5.00	0.00	2.04	2.04
12.05	0.48	0.80	5.00	0.00	2.03	2.03
12.10	0.41	0.80	5.00	0.00	2.02	2.02
12.15	0.36	0.80	5.00	0.00	2.01	2.01
12.20	0.31	0.80	5.00	0.00	2.01	2.01
12.25	0.25	0.80	5.00	0.00	2.00	2.00
12.30	0.25	0.80	5.00	0.00	1.99	1.99

12.35	0.24	0.80	5.00	0.00	1.98	1.98
12.40	0.22	0.80	5.00	0.00	1.97	1.97
12.45	0.19	0.80	5.00	0.00	1.96	1.96
12.50	0.17	0.80	5.00	0.00	1.95	1.95
12.55	0.16	0.80	5.00	0.00	1.94	1.94
12.60	0.13	0.80	5.00	0.00	1.92	1.92
12.65	0.12	0.80	5.00	0.00	1.91	1.91
12.70	0.11	0.80	5.00	0.00	1.89	1.89
12.75	0.10	0.80	5.00	0.00	1.87	1.87
12.80	0.10	0.80	5.00	0.00	1.86	1.86
12.85	0.10	0.80	5.00	0.00	1.83	1.83
12.90	0.10	0.80	5.00	0.00	1.81	1.81
12.95	0.09	0.80	5.00	0.00	1.79	1.79
13.00	0.09	0.80	5.00	0.00	1.77	1.77
13.05	0.09	0.80	5.00	0.00	1.74	1.74
13.10	0.09	0.80	5.00	0.00	1.72	1.72
13.15	0.09	0.80	5.00	0.00	1.70	1.70
13.20	0.10	0.80	5.00	0.00	1.68	1.68
13.25	0.10	0.80	5.00	0.00	1.65	1.65
13.30	0.09	0.80	5.00	0.00	1.63	1.63
13.35	0.09	0.80	5.00	0.00	1.61	1.61
13.40	0.09	0.80	5.00	0.00	1.59	1.59
13.45	0.09	0.80	5.00	0.00	1.57	1.57
13.50	0.09	0.80	5.00	0.00	1.55	1.55
13.55	0.09	0.80	5.00	0.00	1.52	1.52
13.60	0.09	0.80	5.00	0.00	1.50	1.50
13.65	0.09	0.80	5.00	0.00	1.48	1.48
13.70	0.09	0.80	5.00	0.00	1.46	1.46
13.75	0.09	0.80	5.00	0.00	1.44	1.44
13.80	0.10	0.80	5.00	0.00	1.41	1.41
13.85	0.10	0.80	5.00	0.00	1.39	1.39
13.90	0.10	0.80	5.00	0.00	1.37	1.37
13.95	0.10	0.80	5.00	0.00	1.35	1.35
14.00	0.11	0.80	5.00	0.00	1.33	1.33
14.05	0.11	0.80	5.00	0.00	1.31	1.31
14.10	0.11	0.80	5.00	0.00	1.30	1.30
14.15	0.11	0.80	5.00	0.00	1.28	1.28
14.20	0.12	0.80	5.00	0.00	1.26	1.26
14.25	0.12	0.80	5.00	0.00	1.24	1.24
14.30	0.13	0.80	5.00	0.00	1.22	1.22
14.35	0.14	0.80	5.00	0.00	1.20	1.20
14.40	0.14	0.80	5.00	0.00	1.19	1.19
14.45	0.14	0.80	5.00	0.00	1.17	1.17
14.50	0.15	0.80	5.00	0.00	1.16	1.16
14.55	0.15	0.80	5.00	0.00	1.14	1.14
14.60	0.16	0.80	5.00	0.00	1.13	1.13
14.65	0.16	0.80	5.00	0.00	1.11	1.11
14.70	0.16	0.80	5.00	0.00	1.10	1.10
14.75	0.16	0.80	5.00	0.00	1.09	1.09
14.80	0.16	0.80	5.00	0.00	1.07	1.07

14.85	0.15	0.80	5.00	0.00	1.06	1.06
14.90	0.15	0.80	5.00	0.00	1.05	1.05
14.95	0.15	0.80	5.00	0.00	1.03	1.03
15.00	0.15	0.80	5.00	0.00	1.02	1.02
15.05	0.14	0.80	5.00	0.00	1.00	1.00
15.10	0.14	0.80	5.00	0.00	0.99	0.99
15.15	0.14	0.80	5.00	0.00	0.97	0.97
15.20	0.15	0.80	5.00	0.00	0.96	0.96
15.25	0.15	0.80	5.00	0.00	0.94	0.94
15.30	0.15	0.80	5.00	0.00	0.93	0.93
15.35	0.16	0.80	5.00	0.00	0.91	0.91
15.40	0.16	0.80	5.00	0.00	0.90	0.90
15.45	0.17	0.80	5.00	0.00	0.88	0.88
15.50	0.18	0.80	5.00	0.00	0.87	0.87
15.55	0.21	0.80	5.00	0.00	0.86	0.86
15.60	0.24	0.80	5.00	0.00	0.85	0.85
15.65	0.25	0.80	5.00	0.00	0.84	0.84
15.70	0.25	0.80	5.00	0.00	0.83	0.83
15.75	0.25	0.80	5.00	0.00	0.82	0.82
15.80	0.25	0.80	5.00	0.00	0.81	0.81
15.85	0.27	0.80	5.00	0.00	0.80	0.80
15.90	0.28	0.80	5.00	0.00	0.79	0.79
15.95	0.30	0.80	5.00	0.00	0.78	0.78
16.00	0.30	0.80	5.00	0.00	0.77	0.77
16.05	0.29	0.80	5.00	0.00	0.76	0.76
16.10	0.27	0.80	5.00	0.00	0.75	0.75
16.15	0.24	0.80	5.00	0.00	0.75	0.75
16.20	0.23	0.80	5.00	0.00	0.74	0.74
16.25	0.23	0.80	5.00	0.00	0.73	0.73
16.30	0.21	0.80	5.00	0.00	0.72	0.72
16.35	0.20	0.80	5.00	0.00	0.71	0.71
16.40	0.18	0.80	5.00	0.00	0.70	0.70
16.45	0.17	0.80	5.00	0.00	0.68	0.68
16.50	0.17	0.80	5.00	0.00	0.67	0.67
16.55	0.17	0.80	5.00	0.00	0.66	0.66
16.60	0.17	0.80	5.00	0.00	0.65	0.65
16.65	0.17	0.80	5.00	0.00	0.63	0.63
16.70	0.17	0.80	5.00	0.00	0.62	0.62
16.75	0.17	0.80	5.00	0.00	0.61	0.61
16.80	0.17	0.80	5.00	0.00	0.60	0.60
16.85	0.17	0.80	5.00	0.00	0.59	0.59
16.90	0.18	0.80	5.00	0.00	0.57	0.57
16.95	0.18	0.80	5.00	0.00	0.56	0.56
17.00	0.19	0.80	5.00	0.00	0.55	0.55
17.05	0.21	0.80	5.00	0.00	0.54	0.54
17.10	0.25	0.80	5.00	0.00	0.53	0.53
17.15	0.27	0.79	5.00	0.00	0.52	0.52
17.20	0.28	0.79	5.00	0.00	0.51	0.51
17.25	0.30	0.79	5.00	0.00	0.50	0.50
17.30	0.32	0.79	5.00	0.00	0.49	0.49

17.35	0.35	0.79	5.00	0.00	0.48	0.48
17.40	0.38	0.79	5.00	0.00	0.47	0.47
17.45	0.42	0.79	5.00	0.00	0.46	0.46
17.50	0.46	0.79	5.00	0.00	0.45	0.45
17.55	0.51	0.79	5.00	0.00	0.45	0.45
17.60	0.56	0.79	5.00	0.00	0.44	0.44
17.65	0.64	0.79	5.00	0.00	0.44	0.44
17.70	0.81	0.79	5.00	0.00	0.43	0.43
17.75	1.01	0.79	5.00	0.00	0.43	0.43
17.80	1.27	0.79	5.00	0.00	0.42	0.42
17.85	1.26	0.79	5.00	0.00	0.42	0.42
17.90	1.46	0.79	5.00	0.00	0.41	0.41
17.95	1.18	0.79	5.00	0.00	0.41	0.41
18.00	0.82	0.79	5.00	0.00	0.41	0.41
18.05	0.76	0.79	5.00	0.00	0.40	0.40
18.10	0.74	0.79	5.00	0.00	0.40	0.40
18.15	0.71	0.79	5.00	0.00	0.39	0.39
18.20	0.79	0.79	5.00	0.00	0.39	0.39
18.25	1.08	0.79	5.00	0.00	0.38	0.38
18.30	1.13	0.79	5.00	0.00	0.38	0.38
18.35	0.83	0.79	5.00	0.00	0.38	0.38
18.40	1.27	0.79	5.00	0.00	0.37	0.37
18.45	1.31	0.79	5.00	0.00	0.37	0.37
18.50	1.34	0.79	5.00	0.00	0.36	0.36
18.55	1.30	0.79	5.00	0.00	0.36	0.36
18.60	1.15	0.79	5.00	0.00	0.35	0.35
18.65	0.96	0.79	5.00	0.00	0.35	0.35
18.70	0.79	0.79	5.00	0.00	0.35	0.35
18.75	0.73	0.79	5.00	0.00	0.34	0.34
18.80	0.72	0.79	5.00	0.00	0.33	0.33
18.85	0.72	0.79	5.00	0.00	0.33	0.33
18.90	0.75	0.79	5.00	0.00	0.33	0.33
18.95	0.82	0.79	5.00	0.00	0.32	0.32
19.00	0.85	0.79	5.00	0.00	0.32	0.32
19.05	0.86	0.79	5.00	0.00	0.31	0.31
19.10	1.06	0.79	5.00	0.00	0.31	0.31
19.15	1.23	0.79	5.00	0.00	0.30	0.30
19.20	1.31	0.79	5.00	0.00	0.30	0.30
19.25	1.78	0.79	5.00	0.00	0.30	0.30
19.30	1.87	0.79	5.00	0.00	0.29	0.29
19.35	1.69	0.79	5.00	0.00	0.29	0.29
19.40	1.78	0.79	5.00	0.00	0.28	0.28
19.45	1.84	0.79	5.00	0.00	0.28	0.28
19.50	1.86	0.79	5.00	0.00	0.28	0.28
19.55	1.85	0.79	5.00	0.00	0.27	0.27
19.60	1.71	0.79	5.00	0.00	0.27	0.27
19.65	1.34	0.79	5.00	0.00	0.26	0.26
19.70	1.12	0.79	5.00	0.00	0.26	0.26
19.75	1.09	0.79	5.00	0.00	0.25	0.25
19.80	1.00	0.79	5.00	0.00	0.25	0.25

19.85	0.83	0.79	5.00	0.00	0.25	0.25
19.90	0.78	0.79	5.00	0.00	0.24	0.24
19.95	0.76	0.79	5.00	0.00	0.24	0.24
20.00	0.78	0.79	5.00	0.00	0.23	0.23
20.05	0.80	0.79	5.00	0.00	0.22	0.22
20.10	0.82	0.79	5.00	0.00	0.22	0.22
20.15	0.85	0.79	5.00	0.00	0.21	0.21
20.20	0.89	0.79	5.00	0.00	0.21	0.21
20.25	0.95	0.79	5.00	0.00	0.20	0.20
20.30	1.07	0.79	5.00	0.00	0.20	0.20
20.35	1.22	0.79	5.00	0.00	0.19	0.19
20.40	1.39	0.79	5.00	0.00	0.19	0.19
20.45	1.53	0.79	5.00	0.00	0.18	0.18
20.50	1.57	0.79	5.00	0.00	0.18	0.18
20.55	1.21	0.79	5.00	0.00	0.18	0.18
20.60	1.36	0.79	5.00	0.00	0.17	0.17
20.65	1.47	0.79	5.00	0.00	0.17	0.17
20.70	1.65	0.79	5.00	0.00	0.16	0.16
20.75	1.55	0.79	5.00	0.00	0.16	0.16
20.80	1.31	0.79	5.00	0.00	0.16	0.16
20.85	1.23	0.79	5.00	0.00	0.15	0.15
20.90	1.26	0.79	5.00	0.00	0.15	0.15
20.95	1.33	0.79	5.00	0.00	0.14	0.14
21.00	1.41	0.79	5.00	0.00	0.14	0.14
21.05	1.60	0.79	5.00	0.00	0.14	0.14
21.10	1.73	0.79	5.00	0.00	0.13	0.13
21.15	1.87	0.79	5.00	0.00	0.13	0.13
21.20	1.94	0.79	5.00	0.00	0.13	0.13
21.25	1.94	0.79	5.00	0.00	0.12	0.12
21.30	1.94	0.79	5.00	0.00	0.12	0.12
21.35	1.94	0.79	5.00	0.00	0.12	0.12
21.40	1.94	0.79	5.00	0.00	0.12	0.12
21.45	1.87	0.79	5.00	0.00	0.11	0.11
21.50	1.68	0.79	5.00	0.00	0.11	0.11
21.55	1.54	0.79	5.00	0.00	0.11	0.11
21.60	1.37	0.79	5.00	0.00	0.10	0.10
21.65	1.23	0.79	5.00	0.00	0.10	0.10
21.70	1.14	0.79	5.00	0.00	0.09	0.09
21.75	1.07	0.79	5.00	0.00	0.09	0.09
21.80	1.03	0.79	5.00	0.00	0.09	0.09
21.85	0.99	0.79	5.00	0.00	0.08	0.08
21.90	0.96	0.79	5.00	0.00	0.08	0.08
21.95	0.92	0.79	5.00	0.00	0.07	0.07
22.00	0.93	0.79	5.00	0.00	0.07	0.07
22.05	0.90	0.79	5.00	0.00	0.06	0.06
22.10	0.94	0.79	5.00	0.00	0.06	0.06
22.15	0.98	0.79	5.00	0.00	0.05	0.05
22.20	1.04	0.79	5.00	0.00	0.05	0.05
22.25	1.15	0.79	5.00	0.00	0.04	0.04
22.30	1.33	0.79	5.00	0.00	0.04	0.04

22.35	1.54	0.78	5.00	0.00	0.03	0.03
22.40	1.90	0.78	5.00	0.00	0.03	0.03
22.45	1.94	0.78	5.00	0.00	0.03	0.03
22.50	1.94	0.78	5.00	0.00	0.03	0.03
22.55	1.94	0.78	5.00	0.00	0.02	0.02
22.60	1.94	0.78	5.00	0.00	0.02	0.02
22.65	1.94	0.78	5.00	0.00	0.02	0.02
22.70	1.94	0.78	5.00	0.00	0.02	0.02
22.75	1.94	0.78	5.00	0.00	0.01	0.01
22.80	1.94	0.78	5.00	0.00	0.01	0.01
22.85	1.94	0.78	5.00	0.00	0.01	0.01
22.90	1.94	0.78	5.00	0.00	0.01	0.01
22.95	1.94	0.78	5.00	0.00	0.01	0.01
23.00	1.94	0.78	5.00	0.00	0.00	0.00
23.05	1.94	0.78	5.00	0.00	0.00	0.00
23.10	2.00	0.78	5.00	0.00	0.00	0.00
23.15	2.00	0.78	5.00	0.00	0.00	0.00
23.20	2.00	0.78	5.00	0.00	0.00	0.00
23.25	2.00	0.78	5.00	0.00	0.00	0.00
23.30	2.00	0.78	5.00	0.00	0.00	0.00
23.35	2.00	0.78	5.00	0.00	0.00	0.00
23.40	2.00	0.78	5.00	0.00	0.00	0.00
23.45	2.00	0.78	5.00	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

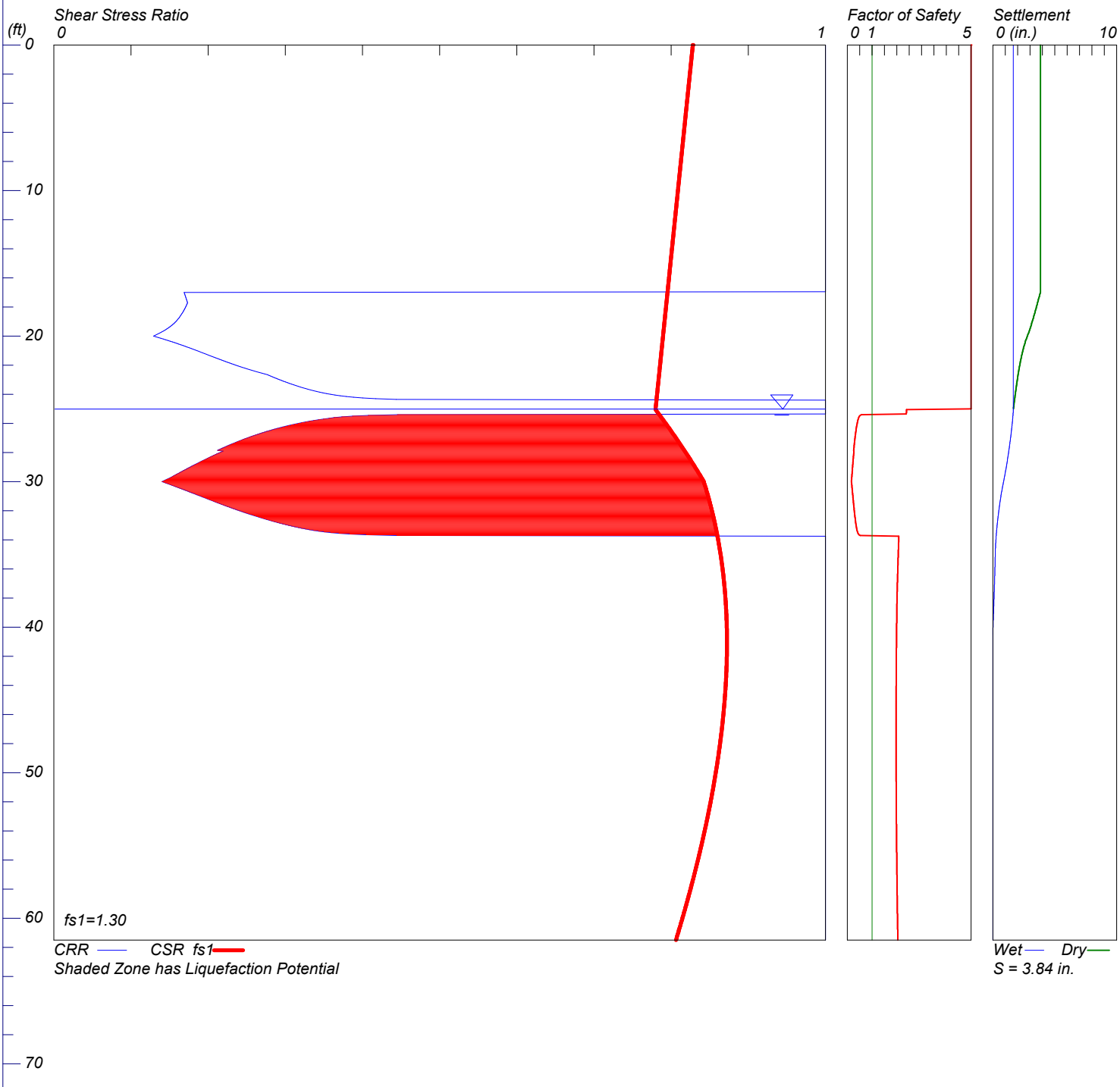
CRRm Cyclic resistance ratio from soils
CSRfs Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat Settlement from saturated sands
S_dry Settlement from dry sands
S_all Total settlement from saturated and dry sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=LRW-1 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\LRW1.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=LRW-1
Depth of Hole= 61.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 38.0 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=LRW-1
Depth of Hole=61.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 38.0 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

Earthquake Magnitude=7.7
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.3
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.0	18.0	120.0	NoLiq
5.0	20.0	120.0	NoLiq
10.0	20.0	120.0	NoLiq
12.5	8.0	120.0	NoLiq
17.0	8.0	120.0	43.0
20.0	10.0	120.0	11.0
25.0	22.0	120.0	57.0
30.0	8.0	120.0	34.0
35.0	35.0	120.0	11.0
40.0	33.0	120.0	17.0
45.0	71.0	120.0	40.0
50.0	81.0	120.0	6.0
55.0	64.0	120.0	5.0
60.0	74.0	120.0	5.0
61.5	74.0	120.0	5.0

Output Results:

Settlement of saturated sands=1.65 in.
Settlement of dry sands=2.19 in.
Total settlement of saturated and dry sands=3.84 in.
Differential Settlement=1.919 to 2.533 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	1.65	2.19	3.84
0.05	2.00	0.83	5.00	1.65	2.19	3.84
0.10	2.00	0.83	5.00	1.65	2.19	3.84
0.15	2.00	0.83	5.00	1.65	2.19	3.84
0.20	2.00	0.83	5.00	1.65	2.19	3.84
0.25	2.00	0.83	5.00	1.65	2.19	3.84
0.30	2.00	0.83	5.00	1.65	2.19	3.84
0.35	2.00	0.83	5.00	1.65	2.19	3.84
0.40	2.00	0.83	5.00	1.65	2.19	3.84
0.45	2.00	0.83	5.00	1.65	2.19	3.84
0.50	2.00	0.83	5.00	1.65	2.19	3.84
0.55	2.00	0.83	5.00	1.65	2.19	3.84
0.60	2.00	0.83	5.00	1.65	2.19	3.84
0.65	2.00	0.83	5.00	1.65	2.19	3.84
0.70	2.00	0.83	5.00	1.65	2.19	3.84
0.75	2.00	0.83	5.00	1.65	2.19	3.84
0.80	2.00	0.83	5.00	1.65	2.19	3.84
0.85	2.00	0.83	5.00	1.65	2.19	3.84
0.90	2.00	0.83	5.00	1.65	2.19	3.84
0.95	2.00	0.83	5.00	1.65	2.19	3.84
1.00	2.00	0.83	5.00	1.65	2.19	3.84

1.05	2.00	0.83	5.00	1.65	2.19	3.84
1.10	2.00	0.83	5.00	1.65	2.19	3.84
1.15	2.00	0.83	5.00	1.65	2.19	3.84
1.20	2.00	0.83	5.00	1.65	2.19	3.84
1.25	2.00	0.83	5.00	1.65	2.19	3.84
1.30	2.00	0.83	5.00	1.65	2.19	3.84
1.35	2.00	0.83	5.00	1.65	2.19	3.84
1.40	2.00	0.83	5.00	1.65	2.19	3.84
1.45	2.00	0.83	5.00	1.65	2.19	3.84
1.50	2.00	0.83	5.00	1.65	2.19	3.84
1.55	2.00	0.83	5.00	1.65	2.19	3.84
1.60	2.00	0.83	5.00	1.65	2.19	3.84
1.65	2.00	0.82	5.00	1.65	2.19	3.84
1.70	2.00	0.82	5.00	1.65	2.19	3.84
1.75	2.00	0.82	5.00	1.65	2.19	3.84
1.80	2.00	0.82	5.00	1.65	2.19	3.84
1.85	2.00	0.82	5.00	1.65	2.19	3.84
1.90	2.00	0.82	5.00	1.65	2.19	3.84
1.95	2.00	0.82	5.00	1.65	2.19	3.84
2.00	2.00	0.82	5.00	1.65	2.19	3.84
2.05	2.00	0.82	5.00	1.65	2.19	3.84
2.10	2.00	0.82	5.00	1.65	2.19	3.84
2.15	2.00	0.82	5.00	1.65	2.19	3.84
2.20	2.00	0.82	5.00	1.65	2.19	3.84
2.25	2.00	0.82	5.00	1.65	2.19	3.84
2.30	2.00	0.82	5.00	1.65	2.19	3.84
2.35	2.00	0.82	5.00	1.65	2.19	3.84
2.40	2.00	0.82	5.00	1.65	2.19	3.84
2.45	2.00	0.82	5.00	1.65	2.19	3.84
2.50	2.00	0.82	5.00	1.65	2.19	3.84
2.55	2.00	0.82	5.00	1.65	2.19	3.84
2.60	2.00	0.82	5.00	1.65	2.19	3.84
2.65	2.00	0.82	5.00	1.65	2.19	3.84
2.70	2.00	0.82	5.00	1.65	2.19	3.84
2.75	2.00	0.82	5.00	1.65	2.19	3.84
2.80	2.00	0.82	5.00	1.65	2.19	3.84
2.85	2.00	0.82	5.00	1.65	2.19	3.84
2.90	2.00	0.82	5.00	1.65	2.19	3.84
2.95	2.00	0.82	5.00	1.65	2.19	3.84
3.00	2.00	0.82	5.00	1.65	2.19	3.84
3.05	2.00	0.82	5.00	1.65	2.19	3.84
3.10	2.00	0.82	5.00	1.65	2.19	3.84
3.15	2.00	0.82	5.00	1.65	2.19	3.84
3.20	2.00	0.82	5.00	1.65	2.19	3.84
3.25	2.00	0.82	5.00	1.65	2.19	3.84
3.30	2.00	0.82	5.00	1.65	2.19	3.84
3.35	2.00	0.82	5.00	1.65	2.19	3.84
3.40	2.00	0.82	5.00	1.65	2.19	3.84
3.45	2.00	0.82	5.00	1.65	2.19	3.84
3.50	2.00	0.82	5.00	1.65	2.19	3.84

3.55	2.00	0.82	5.00	1.65	2.19	3.84
3.60	2.00	0.82	5.00	1.65	2.19	3.84
3.65	2.00	0.82	5.00	1.65	2.19	3.84
3.70	2.00	0.82	5.00	1.65	2.19	3.84
3.75	2.00	0.82	5.00	1.65	2.19	3.84
3.80	2.00	0.82	5.00	1.65	2.19	3.84
3.85	2.00	0.82	5.00	1.65	2.19	3.84
3.90	2.00	0.82	5.00	1.65	2.19	3.84
3.95	2.00	0.82	5.00	1.65	2.19	3.84
4.00	2.00	0.82	5.00	1.65	2.19	3.84
4.05	2.00	0.82	5.00	1.65	2.19	3.84
4.10	2.00	0.82	5.00	1.65	2.19	3.84
4.15	2.00	0.82	5.00	1.65	2.19	3.84
4.20	2.00	0.82	5.00	1.65	2.19	3.84
4.25	2.00	0.82	5.00	1.65	2.19	3.84
4.30	2.00	0.82	5.00	1.65	2.19	3.84
4.35	2.00	0.82	5.00	1.65	2.19	3.84
4.40	2.00	0.82	5.00	1.65	2.19	3.84
4.45	2.00	0.82	5.00	1.65	2.19	3.84
4.50	2.00	0.82	5.00	1.65	2.19	3.84
4.55	2.00	0.82	5.00	1.65	2.19	3.84
4.60	2.00	0.82	5.00	1.65	2.19	3.84
4.65	2.00	0.82	5.00	1.65	2.19	3.84
4.70	2.00	0.82	5.00	1.65	2.19	3.84
4.75	2.00	0.82	5.00	1.65	2.19	3.84
4.80	2.00	0.82	5.00	1.65	2.19	3.84
4.85	2.00	0.82	5.00	1.65	2.19	3.84
4.90	2.00	0.82	5.00	1.65	2.19	3.84
4.95	2.00	0.82	5.00	1.65	2.19	3.84
5.00	2.00	0.82	5.00	1.65	2.19	3.84
5.05	2.00	0.82	5.00	1.65	2.19	3.84
5.10	2.00	0.82	5.00	1.65	2.19	3.84
5.15	2.00	0.82	5.00	1.65	2.19	3.84
5.20	2.00	0.82	5.00	1.65	2.19	3.84
5.25	2.00	0.82	5.00	1.65	2.19	3.84
5.30	2.00	0.82	5.00	1.65	2.19	3.84
5.35	2.00	0.82	5.00	1.65	2.19	3.84
5.40	2.00	0.82	5.00	1.65	2.19	3.84
5.45	2.00	0.82	5.00	1.65	2.19	3.84
5.50	2.00	0.82	5.00	1.65	2.19	3.84
5.55	2.00	0.82	5.00	1.65	2.19	3.84
5.60	2.00	0.82	5.00	1.65	2.19	3.84
5.65	2.00	0.82	5.00	1.65	2.19	3.84
5.70	2.00	0.82	5.00	1.65	2.19	3.84
5.75	2.00	0.82	5.00	1.65	2.19	3.84
5.80	2.00	0.82	5.00	1.65	2.19	3.84
5.85	2.00	0.82	5.00	1.65	2.19	3.84
5.90	2.00	0.82	5.00	1.65	2.19	3.84
5.95	2.00	0.82	5.00	1.65	2.19	3.84
6.00	2.00	0.82	5.00	1.65	2.19	3.84

6.05	2.00	0.82	5.00	1.65	2.19	3.84
6.10	2.00	0.82	5.00	1.65	2.19	3.84
6.15	2.00	0.82	5.00	1.65	2.19	3.84
6.20	2.00	0.82	5.00	1.65	2.19	3.84
6.25	2.00	0.82	5.00	1.65	2.19	3.84
6.30	2.00	0.82	5.00	1.65	2.19	3.84
6.35	2.00	0.82	5.00	1.65	2.19	3.84
6.40	2.00	0.82	5.00	1.65	2.19	3.84
6.45	2.00	0.82	5.00	1.65	2.19	3.84
6.50	2.00	0.82	5.00	1.65	2.19	3.84
6.55	2.00	0.82	5.00	1.65	2.19	3.84
6.60	2.00	0.82	5.00	1.65	2.19	3.84
6.65	2.00	0.82	5.00	1.65	2.19	3.84
6.70	2.00	0.82	5.00	1.65	2.19	3.84
6.75	2.00	0.82	5.00	1.65	2.19	3.84
6.80	2.00	0.81	5.00	1.65	2.19	3.84
6.85	2.00	0.81	5.00	1.65	2.19	3.84
6.90	2.00	0.81	5.00	1.65	2.19	3.84
6.95	2.00	0.81	5.00	1.65	2.19	3.84
7.00	2.00	0.81	5.00	1.65	2.19	3.84
7.05	2.00	0.81	5.00	1.65	2.19	3.84
7.10	2.00	0.81	5.00	1.65	2.19	3.84
7.15	2.00	0.81	5.00	1.65	2.19	3.84
7.20	2.00	0.81	5.00	1.65	2.19	3.84
7.25	2.00	0.81	5.00	1.65	2.19	3.84
7.30	2.00	0.81	5.00	1.65	2.19	3.84
7.35	2.00	0.81	5.00	1.65	2.19	3.84
7.40	2.00	0.81	5.00	1.65	2.19	3.84
7.45	2.00	0.81	5.00	1.65	2.19	3.84
7.50	2.00	0.81	5.00	1.65	2.19	3.84
7.55	2.00	0.81	5.00	1.65	2.19	3.84
7.60	2.00	0.81	5.00	1.65	2.19	3.84
7.65	2.00	0.81	5.00	1.65	2.19	3.84
7.70	2.00	0.81	5.00	1.65	2.19	3.84
7.75	2.00	0.81	5.00	1.65	2.19	3.84
7.80	2.00	0.81	5.00	1.65	2.19	3.84
7.85	2.00	0.81	5.00	1.65	2.19	3.84
7.90	2.00	0.81	5.00	1.65	2.19	3.84
7.95	2.00	0.81	5.00	1.65	2.19	3.84
8.00	2.00	0.81	5.00	1.65	2.19	3.84
8.05	2.00	0.81	5.00	1.65	2.19	3.84
8.10	2.00	0.81	5.00	1.65	2.19	3.84
8.15	2.00	0.81	5.00	1.65	2.19	3.84
8.20	2.00	0.81	5.00	1.65	2.19	3.84
8.25	2.00	0.81	5.00	1.65	2.19	3.84
8.30	2.00	0.81	5.00	1.65	2.19	3.84
8.35	2.00	0.81	5.00	1.65	2.19	3.84
8.40	2.00	0.81	5.00	1.65	2.19	3.84
8.45	2.00	0.81	5.00	1.65	2.19	3.84
8.50	2.00	0.81	5.00	1.65	2.19	3.84

8.55	2.00	0.81	5.00	1.65	2.19	3.84
8.60	2.00	0.81	5.00	1.65	2.19	3.84
8.65	2.00	0.81	5.00	1.65	2.19	3.84
8.70	2.00	0.81	5.00	1.65	2.19	3.84
8.75	2.00	0.81	5.00	1.65	2.19	3.84
8.80	2.00	0.81	5.00	1.65	2.19	3.84
8.85	2.00	0.81	5.00	1.65	2.19	3.84
8.90	2.00	0.81	5.00	1.65	2.19	3.84
8.95	2.00	0.81	5.00	1.65	2.19	3.84
9.00	2.00	0.81	5.00	1.65	2.19	3.84
9.05	2.00	0.81	5.00	1.65	2.19	3.84
9.10	2.00	0.81	5.00	1.65	2.19	3.84
9.15	2.00	0.81	5.00	1.65	2.19	3.84
9.20	2.00	0.81	5.00	1.65	2.19	3.84
9.25	2.00	0.81	5.00	1.65	2.19	3.84
9.30	2.00	0.81	5.00	1.65	2.19	3.84
9.35	2.00	0.81	5.00	1.65	2.19	3.84
9.40	2.00	0.81	5.00	1.65	2.19	3.84
9.45	2.00	0.81	5.00	1.65	2.19	3.84
9.50	2.00	0.81	5.00	1.65	2.19	3.84
9.55	2.00	0.81	5.00	1.65	2.19	3.84
9.60	2.00	0.81	5.00	1.65	2.19	3.84
9.65	2.00	0.81	5.00	1.65	2.19	3.84
9.70	2.00	0.81	5.00	1.65	2.19	3.84
9.75	2.00	0.81	5.00	1.65	2.19	3.84
9.80	2.00	0.81	5.00	1.65	2.19	3.84
9.85	2.00	0.81	5.00	1.65	2.19	3.84
9.90	2.00	0.81	5.00	1.65	2.19	3.84
9.95	2.00	0.81	5.00	1.65	2.19	3.84
10.00	2.00	0.81	5.00	1.65	2.19	3.84
10.05	2.00	0.81	5.00	1.65	2.19	3.84
10.10	2.00	0.81	5.00	1.65	2.19	3.84
10.15	2.00	0.81	5.00	1.65	2.19	3.84
10.20	2.00	0.81	5.00	1.65	2.19	3.84
10.25	2.00	0.81	5.00	1.65	2.19	3.84
10.30	2.00	0.81	5.00	1.65	2.19	3.84
10.35	2.00	0.81	5.00	1.65	2.19	3.84
10.40	2.00	0.81	5.00	1.65	2.19	3.84
10.45	2.00	0.81	5.00	1.65	2.19	3.84
10.50	2.00	0.81	5.00	1.65	2.19	3.84
10.55	2.00	0.81	5.00	1.65	2.19	3.84
10.60	2.00	0.81	5.00	1.65	2.19	3.84
10.65	2.00	0.81	5.00	1.65	2.19	3.84
10.70	2.00	0.81	5.00	1.65	2.19	3.84
10.75	2.00	0.81	5.00	1.65	2.19	3.84
10.80	2.00	0.81	5.00	1.65	2.19	3.84
10.85	2.00	0.81	5.00	1.65	2.19	3.84
10.90	2.00	0.81	5.00	1.65	2.19	3.84
10.95	2.00	0.81	5.00	1.65	2.19	3.84
11.00	2.00	0.81	5.00	1.65	2.19	3.84

11.05	2.00	0.81	5.00	1.65	2.19	3.84
11.10	2.00	0.81	5.00	1.65	2.19	3.84
11.15	2.00	0.81	5.00	1.65	2.19	3.84
11.20	2.00	0.81	5.00	1.65	2.19	3.84
11.25	2.00	0.81	5.00	1.65	2.19	3.84
11.30	2.00	0.81	5.00	1.65	2.19	3.84
11.35	2.00	0.81	5.00	1.65	2.19	3.84
11.40	2.00	0.81	5.00	1.65	2.19	3.84
11.45	2.00	0.81	5.00	1.65	2.19	3.84
11.50	2.00	0.81	5.00	1.65	2.19	3.84
11.55	2.00	0.81	5.00	1.65	2.19	3.84
11.60	2.00	0.81	5.00	1.65	2.19	3.84
11.65	2.00	0.81	5.00	1.65	2.19	3.84
11.70	2.00	0.81	5.00	1.65	2.19	3.84
11.75	2.00	0.81	5.00	1.65	2.19	3.84
11.80	2.00	0.81	5.00	1.65	2.19	3.84
11.85	2.00	0.81	5.00	1.65	2.19	3.84
11.90	2.00	0.81	5.00	1.65	2.19	3.84
11.95	2.00	0.81	5.00	1.65	2.19	3.84
12.00	2.00	0.80	5.00	1.65	2.19	3.84
12.05	2.00	0.80	5.00	1.65	2.19	3.84
12.10	2.00	0.80	5.00	1.65	2.19	3.84
12.15	2.00	0.80	5.00	1.65	2.19	3.84
12.20	2.00	0.80	5.00	1.65	2.19	3.84
12.25	2.00	0.80	5.00	1.65	2.19	3.84
12.30	2.00	0.80	5.00	1.65	2.19	3.84
12.35	2.00	0.80	5.00	1.65	2.19	3.84
12.40	2.00	0.80	5.00	1.65	2.19	3.84
12.45	2.00	0.80	5.00	1.65	2.19	3.84
12.50	2.00	0.80	5.00	1.65	2.19	3.84
12.55	2.00	0.80	5.00	1.65	2.19	3.84
12.60	2.00	0.80	5.00	1.65	2.19	3.84
12.65	2.00	0.80	5.00	1.65	2.19	3.84
12.70	2.00	0.80	5.00	1.65	2.19	3.84
12.75	2.00	0.80	5.00	1.65	2.19	3.84
12.80	2.00	0.80	5.00	1.65	2.19	3.84
12.85	2.00	0.80	5.00	1.65	2.19	3.84
12.90	2.00	0.80	5.00	1.65	2.19	3.84
12.95	2.00	0.80	5.00	1.65	2.19	3.84
13.00	2.00	0.80	5.00	1.65	2.19	3.84
13.05	2.00	0.80	5.00	1.65	2.19	3.84
13.10	2.00	0.80	5.00	1.65	2.19	3.84
13.15	2.00	0.80	5.00	1.65	2.19	3.84
13.20	2.00	0.80	5.00	1.65	2.19	3.84
13.25	2.00	0.80	5.00	1.65	2.19	3.84
13.30	2.00	0.80	5.00	1.65	2.19	3.84
13.35	2.00	0.80	5.00	1.65	2.19	3.84
13.40	2.00	0.80	5.00	1.65	2.19	3.84
13.45	2.00	0.80	5.00	1.65	2.19	3.84
13.50	2.00	0.80	5.00	1.65	2.19	3.84

13.55	2.00	0.80	5.00	1.65	2.19	3.84
13.60	2.00	0.80	5.00	1.65	2.19	3.84
13.65	2.00	0.80	5.00	1.65	2.19	3.84
13.70	2.00	0.80	5.00	1.65	2.19	3.84
13.75	2.00	0.80	5.00	1.65	2.19	3.84
13.80	2.00	0.80	5.00	1.65	2.19	3.84
13.85	2.00	0.80	5.00	1.65	2.19	3.84
13.90	2.00	0.80	5.00	1.65	2.19	3.84
13.95	2.00	0.80	5.00	1.65	2.19	3.84
14.00	2.00	0.80	5.00	1.65	2.19	3.84
14.05	2.00	0.80	5.00	1.65	2.19	3.84
14.10	2.00	0.80	5.00	1.65	2.19	3.84
14.15	2.00	0.80	5.00	1.65	2.19	3.84
14.20	2.00	0.80	5.00	1.65	2.19	3.84
14.25	2.00	0.80	5.00	1.65	2.19	3.84
14.30	2.00	0.80	5.00	1.65	2.19	3.84
14.35	2.00	0.80	5.00	1.65	2.19	3.84
14.40	2.00	0.80	5.00	1.65	2.19	3.84
14.45	2.00	0.80	5.00	1.65	2.19	3.84
14.50	2.00	0.80	5.00	1.65	2.19	3.84
14.55	2.00	0.80	5.00	1.65	2.19	3.84
14.60	2.00	0.80	5.00	1.65	2.19	3.84
14.65	2.00	0.80	5.00	1.65	2.19	3.84
14.70	2.00	0.80	5.00	1.65	2.19	3.84
14.75	2.00	0.80	5.00	1.65	2.19	3.84
14.80	2.00	0.80	5.00	1.65	2.19	3.84
14.85	2.00	0.80	5.00	1.65	2.19	3.84
14.90	2.00	0.80	5.00	1.65	2.19	3.84
14.95	2.00	0.80	5.00	1.65	2.19	3.84
15.00	2.00	0.80	5.00	1.65	2.19	3.84
15.05	2.00	0.80	5.00	1.65	2.19	3.84
15.10	2.00	0.80	5.00	1.65	2.19	3.84
15.15	2.00	0.80	5.00	1.65	2.19	3.84
15.20	2.00	0.80	5.00	1.65	2.19	3.84
15.25	2.00	0.80	5.00	1.65	2.19	3.84
15.30	2.00	0.80	5.00	1.65	2.19	3.84
15.35	2.00	0.80	5.00	1.65	2.19	3.84
15.40	2.00	0.80	5.00	1.65	2.19	3.84
15.45	2.00	0.80	5.00	1.65	2.19	3.84
15.50	2.00	0.80	5.00	1.65	2.19	3.84
15.55	2.00	0.80	5.00	1.65	2.19	3.84
15.60	2.00	0.80	5.00	1.65	2.19	3.84
15.65	2.00	0.80	5.00	1.65	2.19	3.84
15.70	2.00	0.80	5.00	1.65	2.19	3.84
15.75	2.00	0.80	5.00	1.65	2.19	3.84
15.80	2.00	0.80	5.00	1.65	2.19	3.84
15.85	2.00	0.80	5.00	1.65	2.19	3.84
15.90	2.00	0.80	5.00	1.65	2.19	3.84
15.95	2.00	0.80	5.00	1.65	2.19	3.84
16.00	2.00	0.80	5.00	1.65	2.19	3.84

16.05	2.00	0.80	5.00	1.65	2.19	3.84
16.10	2.00	0.80	5.00	1.65	2.19	3.84
16.15	2.00	0.80	5.00	1.65	2.19	3.84
16.20	2.00	0.80	5.00	1.65	2.19	3.84
16.25	2.00	0.80	5.00	1.65	2.19	3.84
16.30	2.00	0.80	5.00	1.65	2.19	3.84
16.35	2.00	0.80	5.00	1.65	2.19	3.84
16.40	2.00	0.80	5.00	1.65	2.19	3.84
16.45	2.00	0.80	5.00	1.65	2.19	3.84
16.50	2.00	0.80	5.00	1.65	2.19	3.84
16.55	2.00	0.80	5.00	1.65	2.19	3.84
16.60	2.00	0.80	5.00	1.65	2.19	3.84
16.65	2.00	0.80	5.00	1.65	2.19	3.84
16.70	2.00	0.80	5.00	1.65	2.19	3.84
16.75	2.00	0.80	5.00	1.65	2.19	3.84
16.80	2.00	0.80	5.00	1.65	2.19	3.84
16.85	2.00	0.80	5.00	1.65	2.19	3.84
16.90	2.00	0.80	5.00	1.65	2.19	3.84
16.95	2.00	0.80	5.00	1.65	2.19	3.84
17.00	0.17	0.80	5.00	1.65	2.19	3.84
17.05	0.17	0.80	5.00	1.65	2.17	3.82
17.10	0.17	0.80	5.00	1.65	2.15	3.81
17.15	0.17	0.79	5.00	1.65	2.14	3.79
17.20	0.17	0.79	5.00	1.65	2.12	3.77
17.25	0.17	0.79	5.00	1.65	2.10	3.76
17.30	0.17	0.79	5.00	1.65	2.09	3.74
17.35	0.17	0.79	5.00	1.65	2.07	3.72
17.40	0.17	0.79	5.00	1.65	2.06	3.71
17.45	0.17	0.79	5.00	1.65	2.04	3.69
17.50	0.17	0.79	5.00	1.65	2.02	3.68
17.55	0.17	0.79	5.00	1.65	2.01	3.66
17.60	0.17	0.79	5.00	1.65	1.99	3.64
17.65	0.17	0.79	5.00	1.65	1.98	3.63
17.70	0.17	0.79	5.00	1.65	1.96	3.61
17.75	0.17	0.79	5.00	1.65	1.95	3.60
17.80	0.17	0.79	5.00	1.65	1.93	3.58
17.85	0.17	0.79	5.00	1.65	1.91	3.57
17.90	0.17	0.79	5.00	1.65	1.90	3.55
17.95	0.17	0.79	5.00	1.65	1.88	3.53
18.00	0.17	0.79	5.00	1.65	1.87	3.52
18.05	0.17	0.79	5.00	1.65	1.85	3.50
18.10	0.17	0.79	5.00	1.65	1.83	3.48
18.15	0.17	0.79	5.00	1.65	1.82	3.47
18.20	0.17	0.79	5.00	1.65	1.80	3.45
18.25	0.17	0.79	5.00	1.65	1.78	3.44
18.30	0.17	0.79	5.00	1.65	1.77	3.42
18.35	0.17	0.79	5.00	1.65	1.75	3.40
18.40	0.17	0.79	5.00	1.65	1.73	3.39
18.45	0.17	0.79	5.00	1.65	1.72	3.37
18.50	0.17	0.79	5.00	1.65	1.70	3.35

18.55	0.16	0.79	5.00	1.65	1.68	3.34
18.60	0.16	0.79	5.00	1.65	1.67	3.32
18.65	0.16	0.79	5.00	1.65	1.65	3.30
18.70	0.16	0.79	5.00	1.65	1.63	3.29
18.75	0.16	0.79	5.00	1.65	1.62	3.27
18.80	0.16	0.79	5.00	1.65	1.60	3.25
18.85	0.16	0.79	5.00	1.65	1.58	3.23
18.90	0.16	0.79	5.00	1.65	1.56	3.22
18.95	0.16	0.79	5.00	1.65	1.55	3.20
19.00	0.16	0.79	5.00	1.65	1.53	3.18
19.05	0.16	0.79	5.00	1.65	1.51	3.16
19.10	0.16	0.79	5.00	1.65	1.49	3.15
19.15	0.16	0.79	5.00	1.65	1.48	3.13
19.20	0.15	0.79	5.00	1.65	1.46	3.11
19.25	0.15	0.79	5.00	1.65	1.44	3.09
19.30	0.15	0.79	5.00	1.65	1.42	3.07
19.35	0.15	0.79	5.00	1.65	1.40	3.05
19.40	0.15	0.79	5.00	1.65	1.38	3.03
19.45	0.15	0.79	5.00	1.65	1.36	3.01
19.50	0.15	0.79	5.00	1.65	1.34	3.00
19.55	0.15	0.79	5.00	1.65	1.32	2.98
19.60	0.14	0.79	5.00	1.65	1.30	2.96
19.65	0.14	0.79	5.00	1.65	1.28	2.94
19.70	0.14	0.79	5.00	1.65	1.26	2.91
19.75	0.14	0.79	5.00	1.65	1.24	2.89
19.80	0.14	0.79	5.00	1.65	1.22	2.87
19.85	0.14	0.79	5.00	1.65	1.20	2.85
19.90	0.13	0.79	5.00	1.65	1.18	2.83
19.95	0.13	0.79	5.00	1.65	1.16	2.81
20.00	0.13	0.79	5.00	1.65	1.13	2.78
20.05	0.13	0.79	5.00	1.65	1.11	2.76
20.10	0.14	0.79	5.00	1.65	1.09	2.74
20.15	0.14	0.79	5.00	1.65	1.07	2.72
20.20	0.14	0.79	5.00	1.65	1.04	2.70
20.25	0.14	0.79	5.00	1.65	1.02	2.68
20.30	0.15	0.79	5.00	1.65	1.00	2.66
20.35	0.15	0.79	5.00	1.65	0.98	2.64
20.40	0.15	0.79	5.00	1.65	0.97	2.62
20.45	0.16	0.79	5.00	1.65	0.95	2.60
20.50	0.16	0.79	5.00	1.65	0.93	2.58
20.55	0.16	0.79	5.00	1.65	0.91	2.56
20.60	0.16	0.79	5.00	1.65	0.89	2.55
20.65	0.17	0.79	5.00	1.65	0.88	2.53
20.70	0.17	0.79	5.00	1.65	0.86	2.51
20.75	0.17	0.79	5.00	1.65	0.84	2.50
20.80	0.18	0.79	5.00	1.65	0.83	2.48
20.85	0.18	0.79	5.00	1.65	0.81	2.46
20.90	0.18	0.79	5.00	1.65	0.80	2.45
20.95	0.18	0.79	5.00	1.65	0.78	2.43
21.00	0.19	0.79	5.00	1.65	0.77	2.42

21.05	0.19	0.79	5.00	1.65	0.75	2.41
21.10	0.19	0.79	5.00	1.65	0.74	2.39
21.15	0.19	0.79	5.00	1.65	0.73	2.38
21.20	0.20	0.79	5.00	1.65	0.71	2.36
21.25	0.20	0.79	5.00	1.65	0.70	2.35
21.30	0.20	0.79	5.00	1.65	0.68	2.34
21.35	0.20	0.79	5.00	1.65	0.67	2.32
21.40	0.21	0.79	5.00	1.65	0.66	2.31
21.45	0.21	0.79	5.00	1.65	0.65	2.30
21.50	0.21	0.79	5.00	1.65	0.63	2.28
21.55	0.21	0.79	5.00	1.65	0.62	2.27
21.60	0.21	0.79	5.00	1.65	0.61	2.26
21.65	0.22	0.79	5.00	1.65	0.60	2.25
21.70	0.22	0.79	5.00	1.65	0.58	2.24
21.75	0.22	0.79	5.00	1.65	0.57	2.22
21.80	0.23	0.79	5.00	1.65	0.56	2.21
21.85	0.23	0.79	5.00	1.65	0.55	2.20
21.90	0.23	0.79	5.00	1.65	0.54	2.19
21.95	0.23	0.79	5.00	1.65	0.53	2.18
22.00	0.24	0.79	5.00	1.65	0.52	2.17
22.05	0.24	0.79	5.00	1.65	0.51	2.16
22.10	0.24	0.79	5.00	1.65	0.49	2.15
22.15	0.24	0.79	5.00	1.65	0.48	2.14
22.20	0.25	0.79	5.00	1.65	0.47	2.13
22.25	0.25	0.79	5.00	1.65	0.46	2.12
22.30	0.25	0.79	5.00	1.65	0.45	2.11
22.35	0.26	0.78	5.00	1.65	0.44	2.09
22.40	0.26	0.78	5.00	1.65	0.43	2.09
22.45	0.26	0.78	5.00	1.65	0.42	2.08
22.50	0.27	0.78	5.00	1.65	0.41	2.07
22.55	0.27	0.78	5.00	1.65	0.40	2.06
22.60	0.27	0.78	5.00	1.65	0.39	2.05
22.65	0.28	0.78	5.00	1.65	0.39	2.04
22.70	0.28	0.78	5.00	1.65	0.38	2.03
22.75	0.28	0.78	5.00	1.65	0.37	2.02
22.80	0.28	0.78	5.00	1.65	0.36	2.01
22.85	0.29	0.78	5.00	1.65	0.35	2.00
22.90	0.29	0.78	5.00	1.65	0.34	1.99
22.95	0.29	0.78	5.00	1.65	0.33	1.98
23.00	0.29	0.78	5.00	1.65	0.32	1.97
23.05	0.30	0.78	5.00	1.65	0.31	1.96
23.10	0.30	0.78	5.00	1.65	0.30	1.96
23.15	0.30	0.78	5.00	1.65	0.29	1.95
23.20	0.30	0.78	5.00	1.65	0.29	1.94
23.25	0.31	0.78	5.00	1.65	0.28	1.93
23.30	0.31	0.78	5.00	1.65	0.27	1.92
23.35	0.31	0.78	5.00	1.65	0.26	1.91
23.40	0.31	0.78	5.00	1.65	0.25	1.90
23.45	0.32	0.78	5.00	1.65	0.24	1.90
23.50	0.32	0.78	5.00	1.65	0.24	1.89

23.55	0.32	0.78	5.00	1.65	0.23	1.88
23.60	0.33	0.78	5.00	1.65	0.22	1.87
23.65	0.33	0.78	5.00	1.65	0.21	1.86
23.70	0.33	0.78	5.00	1.65	0.20	1.85
23.75	0.34	0.78	5.00	1.65	0.19	1.85
23.80	0.34	0.78	5.00	1.65	0.19	1.84
23.85	0.34	0.78	5.00	1.65	0.18	1.83
23.90	0.35	0.78	5.00	1.65	0.17	1.82
23.95	0.35	0.78	5.00	1.65	0.16	1.81
24.00	0.36	0.78	5.00	1.65	0.15	1.81
24.05	0.36	0.78	5.00	1.65	0.15	1.80
24.10	0.37	0.78	5.00	1.65	0.14	1.79
24.15	0.38	0.78	5.00	1.65	0.13	1.78
24.20	0.39	0.78	5.00	1.65	0.12	1.78
24.25	0.40	0.78	5.00	1.65	0.12	1.77
24.30	0.42	0.78	5.00	1.65	0.11	1.76
24.35	0.44	0.78	5.00	1.65	0.10	1.75
24.40	1.87	0.78	5.00	1.65	0.09	1.74
24.45	1.87	0.78	5.00	1.65	0.09	1.74
24.50	1.87	0.78	5.00	1.65	0.08	1.73
24.55	1.87	0.78	5.00	1.65	0.07	1.72
24.60	1.87	0.78	5.00	1.65	0.06	1.72
24.65	1.87	0.78	5.00	1.65	0.06	1.71
24.70	1.87	0.78	5.00	1.65	0.05	1.70
24.75	1.87	0.78	5.00	1.65	0.04	1.69
24.80	1.87	0.78	5.00	1.65	0.03	1.69
24.85	1.87	0.78	5.00	1.65	0.03	1.68
24.90	1.87	0.78	5.00	1.65	0.02	1.67
24.95	1.87	0.78	5.00	1.65	0.01	1.67
25.00	1.87	0.78	5.00	1.65	0.01	1.66
25.05	1.87	0.78	2.40	1.65	0.00	1.65
25.10	1.87	0.78	2.39	1.65	0.00	1.65
25.15	1.87	0.78	2.39	1.64	0.00	1.64
25.20	1.87	0.78	2.39	1.64	0.00	1.64
25.25	1.87	0.78	2.39	1.64	0.00	1.64
25.30	1.87	0.78	2.39	1.63	0.00	1.63
25.35	1.87	0.78	2.38	1.63	0.00	1.63
25.40	0.45	0.78	0.57*	1.62	0.00	1.62
25.45	0.41	0.79	0.52*	1.62	0.00	1.62
25.50	0.39	0.79	0.49*	1.62	0.00	1.62
25.55	0.37	0.79	0.47*	1.61	0.00	1.61
25.60	0.36	0.79	0.46*	1.61	0.00	1.61
25.65	0.36	0.79	0.45*	1.60	0.00	1.60
25.70	0.35	0.79	0.44*	1.60	0.00	1.60
25.75	0.34	0.79	0.43*	1.59	0.00	1.59
25.80	0.34	0.79	0.43*	1.59	0.00	1.59
25.85	0.33	0.79	0.42*	1.58	0.00	1.58
25.90	0.33	0.79	0.41*	1.57	0.00	1.57
25.95	0.32	0.79	0.41*	1.57	0.00	1.57
26.00	0.32	0.79	0.40*	1.56	0.00	1.56

26.05	0.31	0.79	0.39*	1.56	0.00	1.56
26.10	0.31	0.79	0.39*	1.55	0.00	1.55
26.15	0.30	0.79	0.38*	1.54	0.00	1.54
26.20	0.30	0.80	0.38*	1.54	0.00	1.54
26.25	0.30	0.80	0.37*	1.53	0.00	1.53
26.30	0.29	0.80	0.37*	1.52	0.00	1.52
26.35	0.29	0.80	0.36*	1.52	0.00	1.52
26.40	0.29	0.80	0.36*	1.51	0.00	1.51
26.45	0.28	0.80	0.35*	1.50	0.00	1.50
26.50	0.28	0.80	0.35*	1.50	0.00	1.50
26.55	0.28	0.80	0.34*	1.49	0.00	1.49
26.60	0.27	0.80	0.34*	1.48	0.00	1.48
26.65	0.27	0.80	0.34*	1.48	0.00	1.48
26.70	0.27	0.80	0.33*	1.47	0.00	1.47
26.75	0.26	0.80	0.33*	1.46	0.00	1.46
26.80	0.26	0.80	0.33*	1.46	0.00	1.46
26.85	0.26	0.80	0.32*	1.45	0.00	1.45
26.90	0.26	0.80	0.32*	1.44	0.00	1.44
26.95	0.25	0.81	0.31*	1.43	0.00	1.43
27.00	0.25	0.81	0.31*	1.43	0.00	1.43
27.05	0.25	0.81	0.31*	1.42	0.00	1.42
27.10	0.25	0.81	0.30*	1.41	0.00	1.41
27.15	0.24	0.81	0.30*	1.40	0.00	1.40
27.20	0.24	0.81	0.30*	1.40	0.00	1.40
27.25	0.24	0.81	0.29*	1.39	0.00	1.39
27.30	0.24	0.81	0.29*	1.38	0.00	1.38
27.35	0.23	0.81	0.29*	1.37	0.00	1.37
27.40	0.23	0.81	0.29*	1.37	0.00	1.37
27.45	0.23	0.81	0.28*	1.36	0.00	1.36
27.50	0.23	0.81	0.28*	1.35	0.00	1.35
27.55	0.22	0.81	0.28*	1.34	0.00	1.34
27.60	0.22	0.81	0.27*	1.33	0.00	1.33
27.65	0.22	0.81	0.27*	1.32	0.00	1.32
27.70	0.22	0.82	0.27*	1.32	0.00	1.32
27.75	0.22	0.82	0.27*	1.31	0.00	1.31
27.80	0.21	0.82	0.26*	1.30	0.00	1.30
27.85	0.21	0.82	0.26*	1.29	0.00	1.29
27.90	0.22	0.82	0.27*	1.28	0.00	1.28
27.95	0.22	0.82	0.27*	1.27	0.00	1.27
28.00	0.22	0.82	0.26*	1.27	0.00	1.27
28.05	0.21	0.82	0.26*	1.26	0.00	1.26
28.10	0.21	0.82	0.26*	1.25	0.00	1.25
28.15	0.21	0.82	0.25*	1.24	0.00	1.24
28.20	0.21	0.82	0.25*	1.23	0.00	1.23
28.25	0.20	0.82	0.25*	1.22	0.00	1.22
28.30	0.20	0.82	0.25*	1.21	0.00	1.21
28.35	0.20	0.82	0.24*	1.20	0.00	1.20
28.40	0.20	0.82	0.24*	1.20	0.00	1.20
28.45	0.20	0.82	0.24*	1.19	0.00	1.19
28.50	0.20	0.83	0.24*	1.18	0.00	1.18

28.55	0.19	0.83	0.23*	1.17	0.00	1.17
28.60	0.19	0.83	0.23*	1.16	0.00	1.16
28.65	0.19	0.83	0.23*	1.15	0.00	1.15
28.70	0.19	0.83	0.23*	1.14	0.00	1.14
28.75	0.19	0.83	0.22*	1.13	0.00	1.13
28.80	0.18	0.83	0.22*	1.12	0.00	1.12
28.85	0.18	0.83	0.22*	1.11	0.00	1.11
28.90	0.18	0.83	0.22*	1.10	0.00	1.10
28.95	0.18	0.83	0.21*	1.09	0.00	1.09
29.00	0.18	0.83	0.21*	1.08	0.00	1.08
29.05	0.17	0.83	0.21*	1.07	0.00	1.07
29.10	0.17	0.83	0.21*	1.06	0.00	1.06
29.15	0.17	0.83	0.21*	1.05	0.00	1.05
29.20	0.17	0.83	0.20*	1.04	0.00	1.04
29.25	0.17	0.83	0.20*	1.03	0.00	1.03
29.30	0.17	0.83	0.20*	1.02	0.00	1.02
29.35	0.16	0.84	0.20*	1.01	0.00	1.01
29.40	0.16	0.84	0.19*	1.00	0.00	1.00
29.45	0.16	0.84	0.19*	0.99	0.00	0.99
29.50	0.16	0.84	0.19*	0.98	0.00	0.98
29.55	0.16	0.84	0.19*	0.96	0.00	0.96
29.60	0.16	0.84	0.19*	0.95	0.00	0.95
29.65	0.15	0.84	0.18*	0.94	0.00	0.94
29.70	0.15	0.84	0.18*	0.93	0.00	0.93
29.75	0.15	0.84	0.18*	0.92	0.00	0.92
29.80	0.15	0.84	0.18*	0.91	0.00	0.91
29.85	0.15	0.84	0.17*	0.90	0.00	0.90
29.90	0.14	0.84	0.17*	0.88	0.00	0.88
29.95	0.14	0.84	0.17*	0.87	0.00	0.87
30.00	0.14	0.84	0.17*	0.86	0.00	0.86
30.05	0.14	0.84	0.17*	0.85	0.00	0.85
30.10	0.15	0.84	0.17*	0.84	0.00	0.84
30.15	0.15	0.84	0.18*	0.83	0.00	0.83
30.20	0.15	0.84	0.18*	0.81	0.00	0.81
30.25	0.15	0.84	0.18*	0.80	0.00	0.80
30.30	0.16	0.84	0.18*	0.79	0.00	0.79
30.35	0.16	0.84	0.19*	0.78	0.00	0.78
30.40	0.16	0.84	0.19*	0.77	0.00	0.77
30.45	0.16	0.84	0.19*	0.76	0.00	0.76
30.50	0.17	0.85	0.20*	0.75	0.00	0.75
30.55	0.17	0.85	0.20*	0.74	0.00	0.74
30.60	0.17	0.85	0.20*	0.73	0.00	0.73
30.65	0.17	0.85	0.20*	0.72	0.00	0.72
30.70	0.18	0.85	0.21*	0.71	0.00	0.71
30.75	0.18	0.85	0.21*	0.70	0.00	0.70
30.80	0.18	0.85	0.21*	0.69	0.00	0.69
30.85	0.18	0.85	0.22*	0.68	0.00	0.68
30.90	0.19	0.85	0.22*	0.67	0.00	0.67
30.95	0.19	0.85	0.22*	0.66	0.00	0.66
31.00	0.19	0.85	0.22*	0.65	0.00	0.65

31.05	0.19	0.85	0.23*	0.64	0.00	0.64
31.10	0.19	0.85	0.23*	0.63	0.00	0.63
31.15	0.20	0.85	0.23*	0.62	0.00	0.62
31.20	0.20	0.85	0.24*	0.61	0.00	0.61
31.25	0.20	0.85	0.24*	0.60	0.00	0.60
31.30	0.20	0.85	0.24*	0.59	0.00	0.59
31.35	0.21	0.85	0.24*	0.58	0.00	0.58
31.40	0.21	0.85	0.25*	0.58	0.00	0.58
31.45	0.21	0.85	0.25*	0.57	0.00	0.57
31.50	0.21	0.85	0.25*	0.56	0.00	0.56
31.55	0.22	0.85	0.26*	0.55	0.00	0.55
31.60	0.22	0.85	0.26*	0.54	0.00	0.54
31.65	0.22	0.85	0.26*	0.53	0.00	0.53
31.70	0.22	0.85	0.26*	0.53	0.00	0.53
31.75	0.23	0.85	0.27*	0.52	0.00	0.52
31.80	0.23	0.85	0.27*	0.51	0.00	0.51
31.85	0.23	0.85	0.27*	0.50	0.00	0.50
31.90	0.24	0.85	0.28*	0.49	0.00	0.49
31.95	0.24	0.85	0.28*	0.49	0.00	0.49
32.00	0.24	0.85	0.28*	0.48	0.00	0.48
32.05	0.24	0.85	0.29*	0.47	0.00	0.47
32.10	0.25	0.85	0.29*	0.46	0.00	0.46
32.15	0.25	0.85	0.29*	0.46	0.00	0.46
32.20	0.25	0.85	0.29*	0.45	0.00	0.45
32.25	0.25	0.85	0.30*	0.44	0.00	0.44
32.30	0.26	0.85	0.30*	0.43	0.00	0.43
32.35	0.26	0.85	0.30*	0.43	0.00	0.43
32.40	0.26	0.85	0.31*	0.42	0.00	0.42
32.45	0.27	0.85	0.31*	0.41	0.00	0.41
32.50	0.27	0.86	0.32*	0.41	0.00	0.41
32.55	0.27	0.86	0.32*	0.40	0.00	0.40
32.60	0.28	0.86	0.32*	0.39	0.00	0.39
32.65	0.28	0.86	0.33*	0.39	0.00	0.39
32.70	0.28	0.86	0.33*	0.38	0.00	0.38
32.75	0.29	0.86	0.33*	0.37	0.00	0.37
32.80	0.29	0.86	0.34*	0.37	0.00	0.37
32.85	0.29	0.86	0.34*	0.36	0.00	0.36
32.90	0.30	0.86	0.35*	0.35	0.00	0.35
32.95	0.30	0.86	0.35*	0.35	0.00	0.35
33.00	0.30	0.86	0.35*	0.34	0.00	0.34
33.05	0.31	0.86	0.36*	0.34	0.00	0.34
33.10	0.31	0.86	0.36*	0.33	0.00	0.33
33.15	0.32	0.86	0.37*	0.32	0.00	0.32
33.20	0.32	0.86	0.37*	0.32	0.00	0.32
33.25	0.33	0.86	0.38*	0.31	0.00	0.31
33.30	0.33	0.86	0.39*	0.31	0.00	0.31
33.35	0.34	0.86	0.39*	0.30	0.00	0.30
33.40	0.34	0.86	0.40*	0.30	0.00	0.30
33.45	0.35	0.86	0.41*	0.29	0.00	0.29
33.50	0.36	0.86	0.42*	0.29	0.00	0.29

33.55	0.37	0.86	0.43*	0.28	0.00	0.28
33.60	0.38	0.86	0.45*	0.28	0.00	0.28
33.65	0.40	0.86	0.47*	0.27	0.00	0.27
33.70	0.44	0.86	0.52*	0.27	0.00	0.27
33.75	1.79	0.86	2.08	0.26	0.00	0.26
33.80	1.79	0.86	2.08	0.26	0.00	0.26
33.85	1.79	0.86	2.08	0.25	0.00	0.25
33.90	1.79	0.86	2.08	0.25	0.00	0.25
33.95	1.79	0.86	2.08	0.25	0.00	0.25
34.00	1.79	0.86	2.08	0.24	0.00	0.24
34.05	1.79	0.86	2.08	0.24	0.00	0.24
34.10	1.79	0.86	2.08	0.24	0.00	0.24
34.15	1.79	0.86	2.07	0.23	0.00	0.23
34.20	1.79	0.86	2.07	0.23	0.00	0.23
34.25	1.79	0.86	2.07	0.23	0.00	0.23
34.30	1.79	0.86	2.07	0.22	0.00	0.22
34.35	1.78	0.86	2.07	0.22	0.00	0.22
34.40	1.78	0.86	2.07	0.22	0.00	0.22
34.45	1.78	0.86	2.07	0.21	0.00	0.21
34.50	1.78	0.86	2.07	0.21	0.00	0.21
34.55	1.78	0.86	2.07	0.21	0.00	0.21
34.60	1.78	0.86	2.07	0.21	0.00	0.21
34.65	1.78	0.86	2.06	0.20	0.00	0.20
34.70	1.78	0.86	2.06	0.20	0.00	0.20
34.75	1.78	0.86	2.06	0.20	0.00	0.20
34.80	1.78	0.86	2.06	0.20	0.00	0.20
34.85	1.78	0.86	2.06	0.19	0.00	0.19
34.90	1.78	0.86	2.06	0.19	0.00	0.19
34.95	1.78	0.86	2.06	0.19	0.00	0.19
35.00	1.78	0.86	2.06	0.19	0.00	0.19
35.05	1.78	0.86	2.06	0.19	0.00	0.19
35.10	1.78	0.86	2.06	0.19	0.00	0.19
35.15	1.78	0.86	2.06	0.19	0.00	0.19
35.20	1.78	0.86	2.05	0.18	0.00	0.18
35.25	1.78	0.86	2.05	0.18	0.00	0.18
35.30	1.78	0.86	2.05	0.18	0.00	0.18
35.35	1.77	0.87	2.05	0.18	0.00	0.18
35.40	1.77	0.87	2.05	0.18	0.00	0.18
35.45	1.77	0.87	2.05	0.18	0.00	0.18
35.50	1.77	0.87	2.05	0.18	0.00	0.18
35.55	1.77	0.87	2.05	0.18	0.00	0.18
35.60	1.77	0.87	2.05	0.17	0.00	0.17
35.65	1.77	0.87	2.05	0.17	0.00	0.17
35.70	1.77	0.87	2.05	0.17	0.00	0.17
35.75	1.77	0.87	2.04	0.17	0.00	0.17
35.80	1.77	0.87	2.04	0.17	0.00	0.17
35.85	1.77	0.87	2.04	0.17	0.00	0.17
35.90	1.77	0.87	2.04	0.17	0.00	0.17
35.95	1.77	0.87	2.04	0.16	0.00	0.16
36.00	1.77	0.87	2.04	0.16	0.00	0.16

36.05	1.77	0.87	2.04	0.16	0.00	0.16
36.10	1.77	0.87	2.04	0.16	0.00	0.16
36.15	1.77	0.87	2.04	0.16	0.00	0.16
36.20	1.77	0.87	2.04	0.16	0.00	0.16
36.25	1.77	0.87	2.04	0.15	0.00	0.15
36.30	1.76	0.87	2.03	0.15	0.00	0.15
36.35	1.76	0.87	2.03	0.15	0.00	0.15
36.40	1.76	0.87	2.03	0.15	0.00	0.15
36.45	1.76	0.87	2.03	0.15	0.00	0.15
36.50	1.76	0.87	2.03	0.15	0.00	0.15
36.55	1.76	0.87	2.03	0.14	0.00	0.14
36.60	1.76	0.87	2.03	0.14	0.00	0.14
36.65	1.76	0.87	2.03	0.14	0.00	0.14
36.70	1.76	0.87	2.03	0.14	0.00	0.14
36.75	1.76	0.87	2.03	0.14	0.00	0.14
36.80	1.76	0.87	2.03	0.14	0.00	0.14
36.85	1.76	0.87	2.03	0.13	0.00	0.13
36.90	1.76	0.87	2.03	0.13	0.00	0.13
36.95	1.76	0.87	2.02	0.13	0.00	0.13
37.00	1.76	0.87	2.02	0.13	0.00	0.13
37.05	1.76	0.87	2.02	0.13	0.00	0.13
37.10	1.76	0.87	2.02	0.13	0.00	0.13
37.15	1.76	0.87	2.02	0.12	0.00	0.12
37.20	1.76	0.87	2.02	0.12	0.00	0.12
37.25	1.76	0.87	2.02	0.12	0.00	0.12
37.30	1.75	0.87	2.02	0.12	0.00	0.12
37.35	1.75	0.87	2.02	0.12	0.00	0.12
37.40	1.75	0.87	2.02	0.12	0.00	0.12
37.45	1.75	0.87	2.02	0.11	0.00	0.11
37.50	1.75	0.87	2.02	0.11	0.00	0.11
37.55	1.75	0.87	2.01	0.11	0.00	0.11
37.60	1.75	0.87	2.01	0.11	0.00	0.11
37.65	1.75	0.87	2.01	0.11	0.00	0.11
37.70	1.75	0.87	2.01	0.10	0.00	0.10
37.75	1.75	0.87	2.01	0.10	0.00	0.10
37.80	1.75	0.87	2.01	0.10	0.00	0.10
37.85	1.75	0.87	2.01	0.10	0.00	0.10
37.90	1.75	0.87	2.01	0.10	0.00	0.10
37.95	1.75	0.87	2.01	0.09	0.00	0.09
38.00	1.75	0.87	2.01	0.09	0.00	0.09
38.05	1.75	0.87	2.01	0.09	0.00	0.09
38.10	1.75	0.87	2.01	0.09	0.00	0.09
38.15	1.75	0.87	2.01	0.09	0.00	0.09
38.20	1.75	0.87	2.01	0.08	0.00	0.08
38.25	1.75	0.87	2.01	0.08	0.00	0.08
38.30	1.75	0.87	2.01	0.08	0.00	0.08
38.35	1.75	0.87	2.01	0.08	0.00	0.08
38.40	1.75	0.87	2.00	0.08	0.00	0.08
38.45	1.75	0.87	2.00	0.07	0.00	0.07
38.50	1.75	0.87	2.00	0.07	0.00	0.07

38.55	1.75	0.87	2.00	0.07	0.00	0.07
38.60	1.74	0.87	2.00	0.07	0.00	0.07
38.65	1.74	0.87	2.00	0.07	0.00	0.07
38.70	1.74	0.87	2.00	0.06	0.00	0.06
38.75	1.74	0.87	2.00	0.06	0.00	0.06
38.80	1.74	0.87	2.00	0.06	0.00	0.06
38.85	1.74	0.87	2.00	0.06	0.00	0.06
38.90	1.74	0.87	2.00	0.06	0.00	0.06
38.95	1.74	0.87	2.00	0.05	0.00	0.05
39.00	1.74	0.87	2.00	0.05	0.00	0.05
39.05	1.74	0.87	2.00	0.05	0.00	0.05
39.10	1.74	0.87	2.00	0.05	0.00	0.05
39.15	1.74	0.87	2.00	0.05	0.00	0.05
39.20	1.74	0.87	2.00	0.04	0.00	0.04
39.25	1.74	0.87	2.00	0.04	0.00	0.04
39.30	1.74	0.87	2.00	0.04	0.00	0.04
39.35	1.74	0.87	2.00	0.04	0.00	0.04
39.40	1.74	0.87	2.00	0.04	0.00	0.04
39.45	1.74	0.87	2.00	0.03	0.00	0.03
39.50	1.74	0.87	2.00	0.03	0.00	0.03
39.55	1.74	0.87	2.00	0.03	0.00	0.03
39.60	1.74	0.87	2.00	0.03	0.00	0.03
39.65	1.74	0.87	2.00	0.03	0.00	0.03
39.70	1.74	0.87	2.00	0.02	0.00	0.02
39.75	1.74	0.87	1.99	0.02	0.00	0.02
39.80	1.74	0.87	1.99	0.02	0.00	0.02
39.85	1.74	0.87	1.99	0.02	0.00	0.02
39.90	1.74	0.87	1.99	0.01	0.00	0.01
39.95	1.74	0.87	1.99	0.01	0.00	0.01
40.00	1.74	0.87	1.99	0.01	0.00	0.01
40.05	1.74	0.87	1.99	0.01	0.00	0.01
40.10	1.74	0.87	1.99	0.01	0.00	0.01
40.15	1.74	0.87	1.99	0.01	0.00	0.01
40.20	1.74	0.87	1.99	0.00	0.00	0.00
40.25	1.74	0.87	1.99	0.00	0.00	0.00
40.30	1.74	0.87	1.99	0.00	0.00	0.00
40.35	1.74	0.87	1.99	0.00	0.00	0.00
40.40	1.74	0.87	1.99	0.00	0.00	0.00
40.45	1.74	0.87	1.99	0.00	0.00	0.00
40.50	1.74	0.87	1.99	0.00	0.00	0.00
40.55	1.74	0.87	1.99	0.00	0.00	0.00
40.60	1.74	0.87	1.99	0.00	0.00	0.00
40.65	1.74	0.87	1.99	0.00	0.00	0.00
40.70	1.74	0.87	1.99	0.00	0.00	0.00
40.75	1.73	0.87	1.99	0.00	0.00	0.00
40.80	1.73	0.87	1.99	0.00	0.00	0.00
40.85	1.73	0.87	1.99	0.00	0.00	0.00
40.90	1.73	0.87	1.99	0.00	0.00	0.00
40.95	1.73	0.87	1.99	0.00	0.00	0.00
41.00	1.73	0.87	1.99	0.00	0.00	0.00

41.05	1.73	0.87	1.99	0.00	0.00	0.00
41.10	1.73	0.87	1.99	0.00	0.00	0.00
41.15	1.73	0.87	1.99	0.00	0.00	0.00
41.20	1.73	0.87	1.99	0.00	0.00	0.00
41.25	1.73	0.87	1.99	0.00	0.00	0.00
41.30	1.73	0.87	1.99	0.00	0.00	0.00
41.35	1.73	0.87	1.99	0.00	0.00	0.00
41.40	1.73	0.87	1.99	0.00	0.00	0.00
41.45	1.73	0.87	1.99	0.00	0.00	0.00
41.50	1.73	0.87	1.98	0.00	0.00	0.00
41.55	1.73	0.87	1.98	0.00	0.00	0.00
41.60	1.73	0.87	1.98	0.00	0.00	0.00
41.65	1.73	0.87	1.98	0.00	0.00	0.00
41.70	1.73	0.87	1.98	0.00	0.00	0.00
41.75	1.73	0.87	1.98	0.00	0.00	0.00
41.80	1.73	0.87	1.98	0.00	0.00	0.00
41.85	1.73	0.87	1.98	0.00	0.00	0.00
41.90	1.73	0.87	1.98	0.00	0.00	0.00
41.95	1.73	0.87	1.98	0.00	0.00	0.00
42.00	1.73	0.87	1.98	0.00	0.00	0.00
42.05	1.73	0.87	1.98	0.00	0.00	0.00
42.10	1.73	0.87	1.98	0.00	0.00	0.00
42.15	1.73	0.87	1.98	0.00	0.00	0.00
42.20	1.73	0.87	1.98	0.00	0.00	0.00
42.25	1.73	0.87	1.98	0.00	0.00	0.00
42.30	1.73	0.87	1.98	0.00	0.00	0.00
42.35	1.73	0.87	1.98	0.00	0.00	0.00
42.40	1.73	0.87	1.98	0.00	0.00	0.00
42.45	1.73	0.87	1.98	0.00	0.00	0.00
42.50	1.73	0.87	1.98	0.00	0.00	0.00
42.55	1.73	0.87	1.98	0.00	0.00	0.00
42.60	1.73	0.87	1.98	0.00	0.00	0.00
42.65	1.73	0.87	1.98	0.00	0.00	0.00
42.70	1.73	0.87	1.98	0.00	0.00	0.00
42.75	1.73	0.87	1.98	0.00	0.00	0.00
42.80	1.73	0.87	1.98	0.00	0.00	0.00
42.85	1.73	0.87	1.98	0.00	0.00	0.00
42.90	1.72	0.87	1.98	0.00	0.00	0.00
42.95	1.72	0.87	1.98	0.00	0.00	0.00
43.00	1.72	0.87	1.98	0.00	0.00	0.00
43.05	1.72	0.87	1.98	0.00	0.00	0.00
43.10	1.72	0.87	1.98	0.00	0.00	0.00
43.15	1.72	0.87	1.98	0.00	0.00	0.00
43.20	1.72	0.87	1.98	0.00	0.00	0.00
43.25	1.72	0.87	1.98	0.00	0.00	0.00
43.30	1.72	0.87	1.98	0.00	0.00	0.00
43.35	1.72	0.87	1.98	0.00	0.00	0.00
43.40	1.72	0.87	1.98	0.00	0.00	0.00
43.45	1.72	0.87	1.98	0.00	0.00	0.00
43.50	1.72	0.87	1.98	0.00	0.00	0.00

43.55	1.72	0.87	1.98	0.00	0.00	0.00
43.60	1.72	0.87	1.98	0.00	0.00	0.00
43.65	1.72	0.87	1.98	0.00	0.00	0.00
43.70	1.72	0.87	1.98	0.00	0.00	0.00
43.75	1.72	0.87	1.98	0.00	0.00	0.00
43.80	1.72	0.87	1.98	0.00	0.00	0.00
43.85	1.72	0.87	1.98	0.00	0.00	0.00
43.90	1.72	0.87	1.98	0.00	0.00	0.00
43.95	1.72	0.87	1.98	0.00	0.00	0.00
44.00	1.72	0.87	1.98	0.00	0.00	0.00
44.05	1.72	0.87	1.98	0.00	0.00	0.00
44.10	1.72	0.87	1.98	0.00	0.00	0.00
44.15	1.72	0.87	1.98	0.00	0.00	0.00
44.20	1.72	0.87	1.97	0.00	0.00	0.00
44.25	1.72	0.87	1.97	0.00	0.00	0.00
44.30	1.72	0.87	1.97	0.00	0.00	0.00
44.35	1.72	0.87	1.97	0.00	0.00	0.00
44.40	1.72	0.87	1.97	0.00	0.00	0.00
44.45	1.72	0.87	1.97	0.00	0.00	0.00
44.50	1.72	0.87	1.97	0.00	0.00	0.00
44.55	1.72	0.87	1.97	0.00	0.00	0.00
44.60	1.72	0.87	1.97	0.00	0.00	0.00
44.65	1.72	0.87	1.97	0.00	0.00	0.00
44.70	1.72	0.87	1.97	0.00	0.00	0.00
44.75	1.72	0.87	1.97	0.00	0.00	0.00
44.80	1.72	0.87	1.97	0.00	0.00	0.00
44.85	1.72	0.87	1.97	0.00	0.00	0.00
44.90	1.72	0.87	1.97	0.00	0.00	0.00
44.95	1.72	0.87	1.97	0.00	0.00	0.00
45.00	1.72	0.87	1.97	0.00	0.00	0.00
45.05	1.72	0.87	1.97	0.00	0.00	0.00
45.10	1.72	0.87	1.97	0.00	0.00	0.00
45.15	1.71	0.87	1.97	0.00	0.00	0.00
45.20	1.71	0.87	1.97	0.00	0.00	0.00
45.25	1.71	0.87	1.97	0.00	0.00	0.00
45.30	1.71	0.87	1.97	0.00	0.00	0.00
45.35	1.71	0.87	1.97	0.00	0.00	0.00
45.40	1.71	0.87	1.97	0.00	0.00	0.00
45.45	1.71	0.87	1.97	0.00	0.00	0.00
45.50	1.71	0.87	1.97	0.00	0.00	0.00
45.55	1.71	0.87	1.97	0.00	0.00	0.00
45.60	1.71	0.87	1.97	0.00	0.00	0.00
45.65	1.71	0.87	1.97	0.00	0.00	0.00
45.70	1.71	0.87	1.97	0.00	0.00	0.00
45.75	1.71	0.87	1.97	0.00	0.00	0.00
45.80	1.71	0.87	1.97	0.00	0.00	0.00
45.85	1.71	0.87	1.97	0.00	0.00	0.00
45.90	1.71	0.87	1.97	0.00	0.00	0.00
45.95	1.71	0.87	1.97	0.00	0.00	0.00
46.00	1.71	0.87	1.97	0.00	0.00	0.00

46.05	1.71	0.87	1.97	0.00	0.00	0.00
46.10	1.71	0.87	1.97	0.00	0.00	0.00
46.15	1.71	0.87	1.97	0.00	0.00	0.00
46.20	1.71	0.87	1.97	0.00	0.00	0.00
46.25	1.71	0.87	1.97	0.00	0.00	0.00
46.30	1.71	0.87	1.97	0.00	0.00	0.00
46.35	1.71	0.87	1.97	0.00	0.00	0.00
46.40	1.71	0.87	1.97	0.00	0.00	0.00
46.45	1.71	0.87	1.97	0.00	0.00	0.00
46.50	1.71	0.87	1.97	0.00	0.00	0.00
46.55	1.71	0.87	1.97	0.00	0.00	0.00
46.60	1.71	0.87	1.97	0.00	0.00	0.00
46.65	1.71	0.87	1.97	0.00	0.00	0.00
46.70	1.71	0.87	1.97	0.00	0.00	0.00
46.75	1.71	0.87	1.97	0.00	0.00	0.00
46.80	1.71	0.87	1.97	0.00	0.00	0.00
46.85	1.71	0.87	1.97	0.00	0.00	0.00
46.90	1.71	0.87	1.97	0.00	0.00	0.00
46.95	1.71	0.87	1.97	0.00	0.00	0.00
47.00	1.71	0.87	1.97	0.00	0.00	0.00
47.05	1.71	0.87	1.97	0.00	0.00	0.00
47.10	1.71	0.87	1.97	0.00	0.00	0.00
47.15	1.71	0.87	1.97	0.00	0.00	0.00
47.20	1.71	0.87	1.97	0.00	0.00	0.00
47.25	1.71	0.87	1.97	0.00	0.00	0.00
47.30	1.71	0.87	1.97	0.00	0.00	0.00
47.35	1.71	0.86	1.97	0.00	0.00	0.00
47.40	1.70	0.86	1.97	0.00	0.00	0.00
47.45	1.70	0.86	1.97	0.00	0.00	0.00
47.50	1.70	0.86	1.97	0.00	0.00	0.00
47.55	1.70	0.86	1.97	0.00	0.00	0.00
47.60	1.70	0.86	1.97	0.00	0.00	0.00
47.65	1.70	0.86	1.97	0.00	0.00	0.00
47.70	1.70	0.86	1.97	0.00	0.00	0.00
47.75	1.70	0.86	1.97	0.00	0.00	0.00
47.80	1.70	0.86	1.97	0.00	0.00	0.00
47.85	1.70	0.86	1.97	0.00	0.00	0.00
47.90	1.70	0.86	1.97	0.00	0.00	0.00
47.95	1.70	0.86	1.97	0.00	0.00	0.00
48.00	1.70	0.86	1.97	0.00	0.00	0.00
48.05	1.70	0.86	1.97	0.00	0.00	0.00
48.10	1.70	0.86	1.97	0.00	0.00	0.00
48.15	1.70	0.86	1.97	0.00	0.00	0.00
48.20	1.70	0.86	1.97	0.00	0.00	0.00
48.25	1.70	0.86	1.97	0.00	0.00	0.00
48.30	1.70	0.86	1.97	0.00	0.00	0.00
48.35	1.70	0.86	1.97	0.00	0.00	0.00
48.40	1.70	0.86	1.97	0.00	0.00	0.00
48.45	1.70	0.86	1.97	0.00	0.00	0.00
48.50	1.70	0.86	1.97	0.00	0.00	0.00

48.55	1.70	0.86	1.97	0.00	0.00	0.00
48.60	1.70	0.86	1.97	0.00	0.00	0.00
48.65	1.70	0.86	1.97	0.00	0.00	0.00
48.70	1.70	0.86	1.97	0.00	0.00	0.00
48.75	1.70	0.86	1.97	0.00	0.00	0.00
48.80	1.70	0.86	1.97	0.00	0.00	0.00
48.85	1.70	0.86	1.97	0.00	0.00	0.00
48.90	1.70	0.86	1.97	0.00	0.00	0.00
48.95	1.70	0.86	1.97	0.00	0.00	0.00
49.00	1.70	0.86	1.97	0.00	0.00	0.00
49.05	1.70	0.86	1.97	0.00	0.00	0.00
49.10	1.70	0.86	1.97	0.00	0.00	0.00
49.15	1.70	0.86	1.97	0.00	0.00	0.00
49.20	1.70	0.86	1.97	0.00	0.00	0.00
49.25	1.70	0.86	1.97	0.00	0.00	0.00
49.30	1.70	0.86	1.97	0.00	0.00	0.00
49.35	1.70	0.86	1.97	0.00	0.00	0.00
49.40	1.70	0.86	1.97	0.00	0.00	0.00
49.45	1.70	0.86	1.97	0.00	0.00	0.00
49.50	1.70	0.86	1.97	0.00	0.00	0.00
49.55	1.70	0.86	1.97	0.00	0.00	0.00
49.60	1.70	0.86	1.97	0.00	0.00	0.00
49.65	1.69	0.86	1.97	0.00	0.00	0.00
49.70	1.69	0.86	1.97	0.00	0.00	0.00
49.75	1.69	0.86	1.97	0.00	0.00	0.00
49.80	1.69	0.86	1.97	0.00	0.00	0.00
49.85	1.69	0.86	1.97	0.00	0.00	0.00
49.90	1.69	0.86	1.97	0.00	0.00	0.00
49.95	1.69	0.86	1.97	0.00	0.00	0.00
50.00	1.69	0.86	1.97	0.00	0.00	0.00
50.05	1.69	0.86	1.97	0.00	0.00	0.00
50.10	1.69	0.86	1.97	0.00	0.00	0.00
50.15	1.69	0.86	1.97	0.00	0.00	0.00
50.20	1.69	0.86	1.97	0.00	0.00	0.00
50.25	1.69	0.86	1.97	0.00	0.00	0.00
50.30	1.69	0.86	1.97	0.00	0.00	0.00
50.35	1.69	0.86	1.97	0.00	0.00	0.00
50.40	1.69	0.86	1.97	0.00	0.00	0.00
50.45	1.69	0.86	1.98	0.00	0.00	0.00
50.50	1.69	0.86	1.98	0.00	0.00	0.00
50.55	1.69	0.86	1.98	0.00	0.00	0.00
50.60	1.69	0.86	1.98	0.00	0.00	0.00
50.65	1.69	0.86	1.98	0.00	0.00	0.00
50.70	1.69	0.86	1.98	0.00	0.00	0.00
50.75	1.69	0.86	1.98	0.00	0.00	0.00
50.80	1.69	0.86	1.98	0.00	0.00	0.00
50.85	1.69	0.86	1.98	0.00	0.00	0.00
50.90	1.69	0.85	1.98	0.00	0.00	0.00
50.95	1.69	0.85	1.98	0.00	0.00	0.00
51.00	1.69	0.85	1.98	0.00	0.00	0.00

51.05	1.69	0.85	1.98	0.00	0.00	0.00
51.10	1.69	0.85	1.98	0.00	0.00	0.00
51.15	1.69	0.85	1.98	0.00	0.00	0.00
51.20	1.69	0.85	1.98	0.00	0.00	0.00
51.25	1.69	0.85	1.98	0.00	0.00	0.00
51.30	1.69	0.85	1.98	0.00	0.00	0.00
51.35	1.69	0.85	1.98	0.00	0.00	0.00
51.40	1.69	0.85	1.98	0.00	0.00	0.00
51.45	1.69	0.85	1.98	0.00	0.00	0.00
51.50	1.69	0.85	1.98	0.00	0.00	0.00
51.55	1.69	0.85	1.98	0.00	0.00	0.00
51.60	1.69	0.85	1.98	0.00	0.00	0.00
51.65	1.69	0.85	1.98	0.00	0.00	0.00
51.70	1.69	0.85	1.98	0.00	0.00	0.00
51.75	1.69	0.85	1.98	0.00	0.00	0.00
51.80	1.69	0.85	1.98	0.00	0.00	0.00
51.85	1.69	0.85	1.98	0.00	0.00	0.00
51.90	1.69	0.85	1.98	0.00	0.00	0.00
51.95	1.69	0.85	1.98	0.00	0.00	0.00
52.00	1.68	0.85	1.98	0.00	0.00	0.00
52.05	1.68	0.85	1.98	0.00	0.00	0.00
52.10	1.68	0.85	1.98	0.00	0.00	0.00
52.15	1.68	0.85	1.98	0.00	0.00	0.00
52.20	1.68	0.85	1.98	0.00	0.00	0.00
52.25	1.68	0.85	1.98	0.00	0.00	0.00
52.30	1.68	0.85	1.98	0.00	0.00	0.00
52.35	1.68	0.85	1.98	0.00	0.00	0.00
52.40	1.68	0.85	1.98	0.00	0.00	0.00
52.45	1.68	0.85	1.98	0.00	0.00	0.00
52.50	1.68	0.85	1.98	0.00	0.00	0.00
52.55	1.68	0.85	1.98	0.00	0.00	0.00
52.60	1.68	0.85	1.98	0.00	0.00	0.00
52.65	1.68	0.85	1.98	0.00	0.00	0.00
52.70	1.68	0.85	1.98	0.00	0.00	0.00
52.75	1.68	0.85	1.98	0.00	0.00	0.00
52.80	1.68	0.85	1.98	0.00	0.00	0.00
52.85	1.68	0.85	1.98	0.00	0.00	0.00
52.90	1.68	0.85	1.98	0.00	0.00	0.00
52.95	1.68	0.85	1.98	0.00	0.00	0.00
53.00	1.68	0.85	1.98	0.00	0.00	0.00
53.05	1.68	0.85	1.98	0.00	0.00	0.00
53.10	1.68	0.85	1.98	0.00	0.00	0.00
53.15	1.68	0.85	1.98	0.00	0.00	0.00
53.20	1.68	0.85	1.98	0.00	0.00	0.00
53.25	1.68	0.85	1.98	0.00	0.00	0.00
53.30	1.68	0.85	1.98	0.00	0.00	0.00
53.35	1.68	0.85	1.98	0.00	0.00	0.00
53.40	1.68	0.85	1.98	0.00	0.00	0.00
53.45	1.68	0.85	1.99	0.00	0.00	0.00
53.50	1.68	0.85	1.99	0.00	0.00	0.00

53.55	1.68	0.85	1.99	0.00	0.00	0.00
53.60	1.68	0.85	1.99	0.00	0.00	0.00
53.65	1.68	0.84	1.99	0.00	0.00	0.00
53.70	1.68	0.84	1.99	0.00	0.00	0.00
53.75	1.68	0.84	1.99	0.00	0.00	0.00
53.80	1.68	0.84	1.99	0.00	0.00	0.00
53.85	1.68	0.84	1.99	0.00	0.00	0.00
53.90	1.68	0.84	1.99	0.00	0.00	0.00
53.95	1.68	0.84	1.99	0.00	0.00	0.00
54.00	1.68	0.84	1.99	0.00	0.00	0.00
54.05	1.68	0.84	1.99	0.00	0.00	0.00
54.10	1.68	0.84	1.99	0.00	0.00	0.00
54.15	1.68	0.84	1.99	0.00	0.00	0.00
54.20	1.68	0.84	1.99	0.00	0.00	0.00
54.25	1.68	0.84	1.99	0.00	0.00	0.00
54.30	1.68	0.84	1.99	0.00	0.00	0.00
54.35	1.67	0.84	1.99	0.00	0.00	0.00
54.40	1.67	0.84	1.99	0.00	0.00	0.00
54.45	1.67	0.84	1.99	0.00	0.00	0.00
54.50	1.67	0.84	1.99	0.00	0.00	0.00
54.55	1.67	0.84	1.99	0.00	0.00	0.00
54.60	1.67	0.84	1.99	0.00	0.00	0.00
54.65	1.67	0.84	1.99	0.00	0.00	0.00
54.70	1.67	0.84	1.99	0.00	0.00	0.00
54.75	1.67	0.84	1.99	0.00	0.00	0.00
54.80	1.67	0.84	1.99	0.00	0.00	0.00
54.85	1.67	0.84	1.99	0.00	0.00	0.00
54.90	1.67	0.84	1.99	0.00	0.00	0.00
54.95	1.67	0.84	1.99	0.00	0.00	0.00
55.00	1.67	0.84	1.99	0.00	0.00	0.00
55.05	1.67	0.84	1.99	0.00	0.00	0.00
55.10	1.67	0.84	1.99	0.00	0.00	0.00
55.15	1.67	0.84	1.99	0.00	0.00	0.00
55.20	1.67	0.84	1.99	0.00	0.00	0.00
55.25	1.67	0.84	1.99	0.00	0.00	0.00
55.30	1.67	0.84	1.99	0.00	0.00	0.00
55.35	1.67	0.84	1.99	0.00	0.00	0.00
55.40	1.67	0.84	1.99	0.00	0.00	0.00
55.45	1.67	0.84	2.00	0.00	0.00	0.00
55.50	1.67	0.84	2.00	0.00	0.00	0.00
55.55	1.67	0.84	2.00	0.00	0.00	0.00
55.60	1.67	0.84	2.00	0.00	0.00	0.00
55.65	1.67	0.84	2.00	0.00	0.00	0.00
55.70	1.67	0.84	2.00	0.00	0.00	0.00
55.75	1.67	0.84	2.00	0.00	0.00	0.00
55.80	1.67	0.84	2.00	0.00	0.00	0.00
55.85	1.67	0.84	2.00	0.00	0.00	0.00
55.90	1.67	0.84	2.00	0.00	0.00	0.00
55.95	1.67	0.83	2.00	0.00	0.00	0.00
56.00	1.67	0.83	2.00	0.00	0.00	0.00

56.05	1.67	0.83	2.00	0.00	0.00	0.00
56.10	1.67	0.83	2.00	0.00	0.00	0.00
56.15	1.67	0.83	2.00	0.00	0.00	0.00
56.20	1.67	0.83	2.00	0.00	0.00	0.00
56.25	1.67	0.83	2.00	0.00	0.00	0.00
56.30	1.67	0.83	2.00	0.00	0.00	0.00
56.35	1.67	0.83	2.00	0.00	0.00	0.00
56.40	1.67	0.83	2.00	0.00	0.00	0.00
56.45	1.67	0.83	2.00	0.00	0.00	0.00
56.50	1.67	0.83	2.00	0.00	0.00	0.00
56.55	1.67	0.83	2.00	0.00	0.00	0.00
56.60	1.67	0.83	2.00	0.00	0.00	0.00
56.65	1.67	0.83	2.00	0.00	0.00	0.00
56.70	1.67	0.83	2.00	0.00	0.00	0.00
56.75	1.66	0.83	2.00	0.00	0.00	0.00
56.80	1.66	0.83	2.00	0.00	0.00	0.00
56.85	1.66	0.83	2.00	0.00	0.00	0.00
56.90	1.66	0.83	2.00	0.00	0.00	0.00
56.95	1.66	0.83	2.00	0.00	0.00	0.00
57.00	1.66	0.83	2.00	0.00	0.00	0.00
57.05	1.66	0.83	2.00	0.00	0.00	0.00
57.10	1.66	0.83	2.01	0.00	0.00	0.00
57.15	1.66	0.83	2.01	0.00	0.00	0.00
57.20	1.66	0.83	2.01	0.00	0.00	0.00
57.25	1.66	0.83	2.01	0.00	0.00	0.00
57.30	1.66	0.83	2.01	0.00	0.00	0.00
57.35	1.66	0.83	2.01	0.00	0.00	0.00
57.40	1.66	0.83	2.01	0.00	0.00	0.00
57.45	1.66	0.83	2.01	0.00	0.00	0.00
57.50	1.66	0.83	2.01	0.00	0.00	0.00
57.55	1.66	0.83	2.01	0.00	0.00	0.00
57.60	1.66	0.83	2.01	0.00	0.00	0.00
57.65	1.66	0.83	2.01	0.00	0.00	0.00
57.70	1.66	0.83	2.01	0.00	0.00	0.00
57.75	1.66	0.83	2.01	0.00	0.00	0.00
57.80	1.66	0.83	2.01	0.00	0.00	0.00
57.85	1.66	0.83	2.01	0.00	0.00	0.00
57.90	1.66	0.83	2.01	0.00	0.00	0.00
57.95	1.66	0.83	2.01	0.00	0.00	0.00
58.00	1.66	0.83	2.01	0.00	0.00	0.00
58.05	1.66	0.82	2.01	0.00	0.00	0.00
58.10	1.66	0.82	2.01	0.00	0.00	0.00
58.15	1.66	0.82	2.01	0.00	0.00	0.00
58.20	1.66	0.82	2.01	0.00	0.00	0.00
58.25	1.66	0.82	2.01	0.00	0.00	0.00
58.30	1.66	0.82	2.01	0.00	0.00	0.00
58.35	1.66	0.82	2.01	0.00	0.00	0.00
58.40	1.66	0.82	2.01	0.00	0.00	0.00
58.45	1.66	0.82	2.01	0.00	0.00	0.00
58.50	1.66	0.82	2.02	0.00	0.00	0.00

58.55	1.66	0.82	2.02	0.00	0.00	0.00
58.60	1.66	0.82	2.02	0.00	0.00	0.00
58.65	1.66	0.82	2.02	0.00	0.00	0.00
58.70	1.66	0.82	2.02	0.00	0.00	0.00
58.75	1.66	0.82	2.02	0.00	0.00	0.00
58.80	1.66	0.82	2.02	0.00	0.00	0.00
58.85	1.66	0.82	2.02	0.00	0.00	0.00
58.90	1.66	0.82	2.02	0.00	0.00	0.00
58.95	1.66	0.82	2.02	0.00	0.00	0.00
59.00	1.66	0.82	2.02	0.00	0.00	0.00
59.05	1.66	0.82	2.02	0.00	0.00	0.00
59.10	1.66	0.82	2.02	0.00	0.00	0.00
59.15	1.65	0.82	2.02	0.00	0.00	0.00
59.20	1.65	0.82	2.02	0.00	0.00	0.00
59.25	1.65	0.82	2.02	0.00	0.00	0.00
59.30	1.65	0.82	2.02	0.00	0.00	0.00
59.35	1.65	0.82	2.02	0.00	0.00	0.00
59.40	1.65	0.82	2.02	0.00	0.00	0.00
59.45	1.65	0.82	2.02	0.00	0.00	0.00
59.50	1.65	0.82	2.02	0.00	0.00	0.00
59.55	1.65	0.82	2.02	0.00	0.00	0.00
59.60	1.65	0.82	2.02	0.00	0.00	0.00
59.65	1.65	0.82	2.02	0.00	0.00	0.00
59.70	1.65	0.82	2.02	0.00	0.00	0.00
59.75	1.65	0.82	2.03	0.00	0.00	0.00
59.80	1.65	0.82	2.03	0.00	0.00	0.00
59.85	1.65	0.82	2.03	0.00	0.00	0.00
59.90	1.65	0.82	2.03	0.00	0.00	0.00
59.95	1.65	0.81	2.03	0.00	0.00	0.00
60.00	1.65	0.81	2.03	0.00	0.00	0.00
60.05	1.65	0.81	2.03	0.00	0.00	0.00
60.10	1.65	0.81	2.03	0.00	0.00	0.00
60.15	1.65	0.81	2.03	0.00	0.00	0.00
60.20	1.65	0.81	2.03	0.00	0.00	0.00
60.25	1.65	0.81	2.03	0.00	0.00	0.00
60.30	1.65	0.81	2.03	0.00	0.00	0.00
60.35	1.65	0.81	2.03	0.00	0.00	0.00
60.40	1.65	0.81	2.03	0.00	0.00	0.00
60.45	1.65	0.81	2.03	0.00	0.00	0.00
60.50	1.65	0.81	2.03	0.00	0.00	0.00
60.55	1.65	0.81	2.03	0.00	0.00	0.00
60.60	1.65	0.81	2.03	0.00	0.00	0.00
60.65	1.65	0.81	2.03	0.00	0.00	0.00
60.70	1.65	0.81	2.03	0.00	0.00	0.00
60.75	1.65	0.81	2.03	0.00	0.00	0.00
60.80	1.65	0.81	2.03	0.00	0.00	0.00
60.85	1.65	0.81	2.03	0.00	0.00	0.00
60.90	1.65	0.81	2.04	0.00	0.00	0.00
60.95	1.65	0.81	2.04	0.00	0.00	0.00
61.00	1.65	0.81	2.04	0.00	0.00	0.00

61.05	1.65	0.81	2.04	0.00	0.00	0.00
61.10	1.65	0.81	2.04	0.00	0.00	0.00
61.15	1.65	0.81	2.04	0.00	0.00	0.00
61.20	1.65	0.81	2.04	0.00	0.00	0.00
61.25	1.65	0.81	2.04	0.00	0.00	0.00
61.30	1.65	0.81	2.04	0.00	0.00	0.00
61.35	1.65	0.81	2.04	0.00	0.00	0.00
61.40	1.65	0.81	2.04	0.00	0.00	0.00
61.45	1.65	0.81	2.04	0.00	0.00	0.00
61.50	1.65	0.81	2.04	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

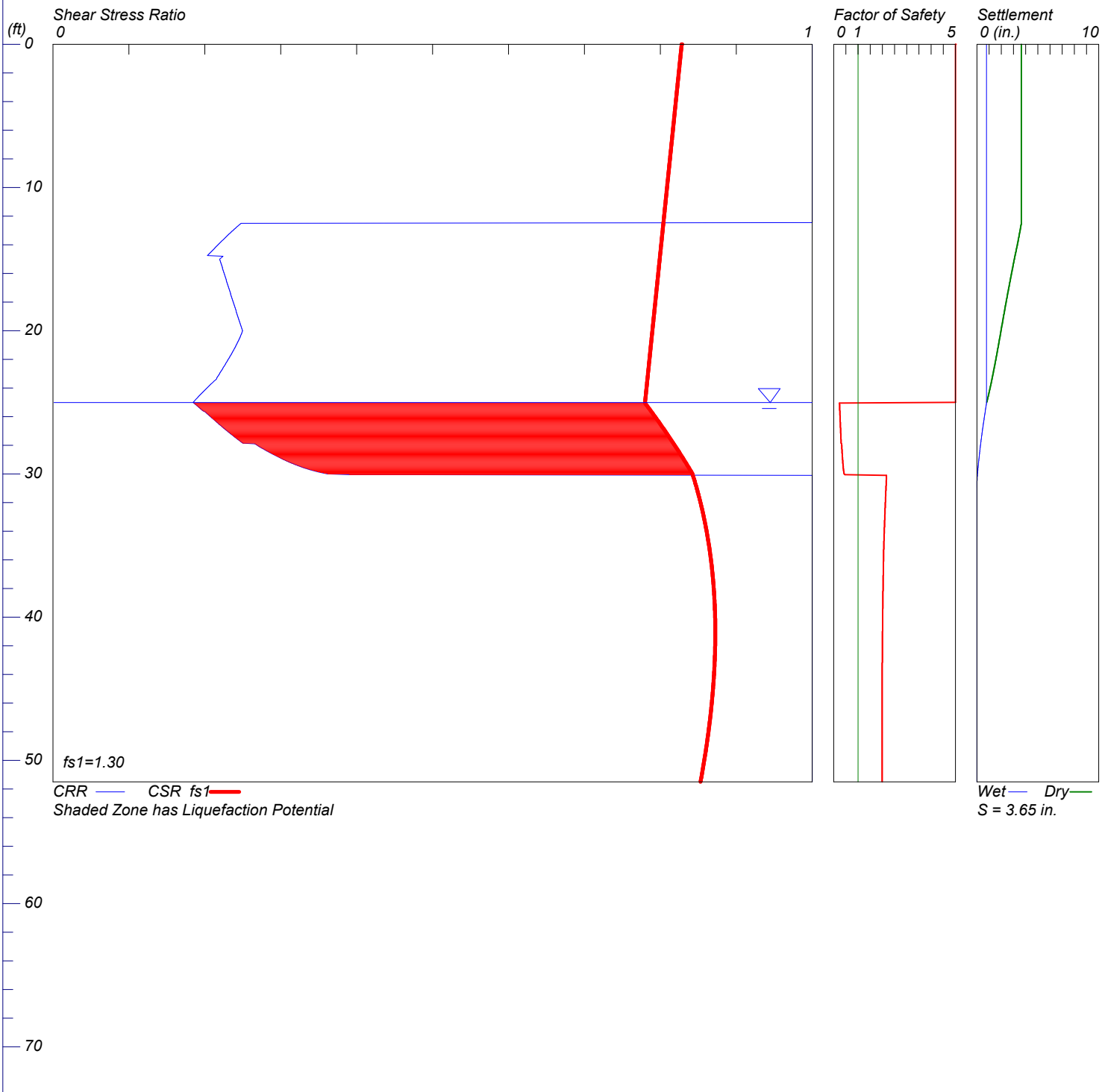
CRRm Cyclic resistance ratio from soils
CSRfs Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat Settlement from saturated sands
S_dry Settlement from dry sands
S_all Total settlement from saturated and dry sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=LRW-2 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\LRW2.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=LRW-2
Depth of Hole= 51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 35.0 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=LRW-2
Depth of Hole=51.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 35.0 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

Earthquake Magnitude=7.7
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.3
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.0	6.0	120.0	NoLiq
5.0	3.0	120.0	NoLiq
10.0	10.0	120.0	NoLiq
12.5	13.0	120.0	30.0
15.0	13.0	120.0	19.0
20.0	17.0	120.0	19.0
25.0	11.0	120.0	43.0
30.0	21.0	120.0	42.0
35.0	56.0	120.0	6.0
40.0	75.0	120.0	6.0
45.0	70.0	120.0	4.0
50.0	76.0	120.0	3.0
51.5	76.0	120.0	3.0

Output Results:

Settlement of saturated sands=0.79 in.
Settlement of dry sands=2.86 in.
Total settlement of saturated and dry sands=3.65 in.
Differential Settlement=1.824 to 2.407 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	0.79	2.86	3.65
0.05	2.00	0.83	5.00	0.79	2.86	3.65
0.10	2.00	0.83	5.00	0.79	2.86	3.65
0.15	2.00	0.83	5.00	0.79	2.86	3.65
0.20	2.00	0.83	5.00	0.79	2.86	3.65
0.25	2.00	0.83	5.00	0.79	2.86	3.65
0.30	2.00	0.83	5.00	0.79	2.86	3.65
0.35	2.00	0.83	5.00	0.79	2.86	3.65
0.40	2.00	0.83	5.00	0.79	2.86	3.65
0.45	2.00	0.83	5.00	0.79	2.86	3.65
0.50	2.00	0.83	5.00	0.79	2.86	3.65
0.55	2.00	0.83	5.00	0.79	2.86	3.65
0.60	2.00	0.83	5.00	0.79	2.86	3.65
0.65	2.00	0.83	5.00	0.79	2.86	3.65
0.70	2.00	0.83	5.00	0.79	2.86	3.65
0.75	2.00	0.83	5.00	0.79	2.86	3.65
0.80	2.00	0.83	5.00	0.79	2.86	3.65
0.85	2.00	0.83	5.00	0.79	2.86	3.65
0.90	2.00	0.83	5.00	0.79	2.86	3.65
0.95	2.00	0.83	5.00	0.79	2.86	3.65
1.00	2.00	0.83	5.00	0.79	2.86	3.65
1.05	2.00	0.83	5.00	0.79	2.86	3.65
1.10	2.00	0.83	5.00	0.79	2.86	3.65

1.15	2.00	0.83	5.00	0.79	2.86	3.65
1.20	2.00	0.83	5.00	0.79	2.86	3.65
1.25	2.00	0.83	5.00	0.79	2.86	3.65
1.30	2.00	0.83	5.00	0.79	2.86	3.65
1.35	2.00	0.83	5.00	0.79	2.86	3.65
1.40	2.00	0.83	5.00	0.79	2.86	3.65
1.45	2.00	0.83	5.00	0.79	2.86	3.65
1.50	2.00	0.83	5.00	0.79	2.86	3.65
1.55	2.00	0.83	5.00	0.79	2.86	3.65
1.60	2.00	0.83	5.00	0.79	2.86	3.65
1.65	2.00	0.82	5.00	0.79	2.86	3.65
1.70	2.00	0.82	5.00	0.79	2.86	3.65
1.75	2.00	0.82	5.00	0.79	2.86	3.65
1.80	2.00	0.82	5.00	0.79	2.86	3.65
1.85	2.00	0.82	5.00	0.79	2.86	3.65
1.90	2.00	0.82	5.00	0.79	2.86	3.65
1.95	2.00	0.82	5.00	0.79	2.86	3.65
2.00	2.00	0.82	5.00	0.79	2.86	3.65
2.05	2.00	0.82	5.00	0.79	2.86	3.65
2.10	2.00	0.82	5.00	0.79	2.86	3.65
2.15	2.00	0.82	5.00	0.79	2.86	3.65
2.20	2.00	0.82	5.00	0.79	2.86	3.65
2.25	2.00	0.82	5.00	0.79	2.86	3.65
2.30	2.00	0.82	5.00	0.79	2.86	3.65
2.35	2.00	0.82	5.00	0.79	2.86	3.65
2.40	2.00	0.82	5.00	0.79	2.86	3.65
2.45	2.00	0.82	5.00	0.79	2.86	3.65
2.50	2.00	0.82	5.00	0.79	2.86	3.65
2.55	2.00	0.82	5.00	0.79	2.86	3.65
2.60	2.00	0.82	5.00	0.79	2.86	3.65
2.65	2.00	0.82	5.00	0.79	2.86	3.65
2.70	2.00	0.82	5.00	0.79	2.86	3.65
2.75	2.00	0.82	5.00	0.79	2.86	3.65
2.80	2.00	0.82	5.00	0.79	2.86	3.65
2.85	2.00	0.82	5.00	0.79	2.86	3.65
2.90	2.00	0.82	5.00	0.79	2.86	3.65
2.95	2.00	0.82	5.00	0.79	2.86	3.65
3.00	2.00	0.82	5.00	0.79	2.86	3.65
3.05	2.00	0.82	5.00	0.79	2.86	3.65
3.10	2.00	0.82	5.00	0.79	2.86	3.65
3.15	2.00	0.82	5.00	0.79	2.86	3.65
3.20	2.00	0.82	5.00	0.79	2.86	3.65
3.25	2.00	0.82	5.00	0.79	2.86	3.65
3.30	2.00	0.82	5.00	0.79	2.86	3.65
3.35	2.00	0.82	5.00	0.79	2.86	3.65
3.40	2.00	0.82	5.00	0.79	2.86	3.65
3.45	2.00	0.82	5.00	0.79	2.86	3.65
3.50	2.00	0.82	5.00	0.79	2.86	3.65
3.55	2.00	0.82	5.00	0.79	2.86	3.65
3.60	2.00	0.82	5.00	0.79	2.86	3.65

3.65	2.00	0.82	5.00	0.79	2.86	3.65
3.70	2.00	0.82	5.00	0.79	2.86	3.65
3.75	2.00	0.82	5.00	0.79	2.86	3.65
3.80	2.00	0.82	5.00	0.79	2.86	3.65
3.85	2.00	0.82	5.00	0.79	2.86	3.65
3.90	2.00	0.82	5.00	0.79	2.86	3.65
3.95	2.00	0.82	5.00	0.79	2.86	3.65
4.00	2.00	0.82	5.00	0.79	2.86	3.65
4.05	2.00	0.82	5.00	0.79	2.86	3.65
4.10	2.00	0.82	5.00	0.79	2.86	3.65
4.15	2.00	0.82	5.00	0.79	2.86	3.65
4.20	2.00	0.82	5.00	0.79	2.86	3.65
4.25	2.00	0.82	5.00	0.79	2.86	3.65
4.30	2.00	0.82	5.00	0.79	2.86	3.65
4.35	2.00	0.82	5.00	0.79	2.86	3.65
4.40	2.00	0.82	5.00	0.79	2.86	3.65
4.45	2.00	0.82	5.00	0.79	2.86	3.65
4.50	2.00	0.82	5.00	0.79	2.86	3.65
4.55	2.00	0.82	5.00	0.79	2.86	3.65
4.60	2.00	0.82	5.00	0.79	2.86	3.65
4.65	2.00	0.82	5.00	0.79	2.86	3.65
4.70	2.00	0.82	5.00	0.79	2.86	3.65
4.75	2.00	0.82	5.00	0.79	2.86	3.65
4.80	2.00	0.82	5.00	0.79	2.86	3.65
4.85	2.00	0.82	5.00	0.79	2.86	3.65
4.90	2.00	0.82	5.00	0.79	2.86	3.65
4.95	2.00	0.82	5.00	0.79	2.86	3.65
5.00	2.00	0.82	5.00	0.79	2.86	3.65
5.05	2.00	0.82	5.00	0.79	2.86	3.65
5.10	2.00	0.82	5.00	0.79	2.86	3.65
5.15	2.00	0.82	5.00	0.79	2.86	3.65
5.20	2.00	0.82	5.00	0.79	2.86	3.65
5.25	2.00	0.82	5.00	0.79	2.86	3.65
5.30	2.00	0.82	5.00	0.79	2.86	3.65
5.35	2.00	0.82	5.00	0.79	2.86	3.65
5.40	2.00	0.82	5.00	0.79	2.86	3.65
5.45	2.00	0.82	5.00	0.79	2.86	3.65
5.50	2.00	0.82	5.00	0.79	2.86	3.65
5.55	2.00	0.82	5.00	0.79	2.86	3.65
5.60	2.00	0.82	5.00	0.79	2.86	3.65
5.65	2.00	0.82	5.00	0.79	2.86	3.65
5.70	2.00	0.82	5.00	0.79	2.86	3.65
5.75	2.00	0.82	5.00	0.79	2.86	3.65
5.80	2.00	0.82	5.00	0.79	2.86	3.65
5.85	2.00	0.82	5.00	0.79	2.86	3.65
5.90	2.00	0.82	5.00	0.79	2.86	3.65
5.95	2.00	0.82	5.00	0.79	2.86	3.65
6.00	2.00	0.82	5.00	0.79	2.86	3.65
6.05	2.00	0.82	5.00	0.79	2.86	3.65
6.10	2.00	0.82	5.00	0.79	2.86	3.65

6.15	2.00	0.82	5.00	0.79	2.86	3.65
6.20	2.00	0.82	5.00	0.79	2.86	3.65
6.25	2.00	0.82	5.00	0.79	2.86	3.65
6.30	2.00	0.82	5.00	0.79	2.86	3.65
6.35	2.00	0.82	5.00	0.79	2.86	3.65
6.40	2.00	0.82	5.00	0.79	2.86	3.65
6.45	2.00	0.82	5.00	0.79	2.86	3.65
6.50	2.00	0.82	5.00	0.79	2.86	3.65
6.55	2.00	0.82	5.00	0.79	2.86	3.65
6.60	2.00	0.82	5.00	0.79	2.86	3.65
6.65	2.00	0.82	5.00	0.79	2.86	3.65
6.70	2.00	0.82	5.00	0.79	2.86	3.65
6.75	2.00	0.82	5.00	0.79	2.86	3.65
6.80	2.00	0.81	5.00	0.79	2.86	3.65
6.85	2.00	0.81	5.00	0.79	2.86	3.65
6.90	2.00	0.81	5.00	0.79	2.86	3.65
6.95	2.00	0.81	5.00	0.79	2.86	3.65
7.00	2.00	0.81	5.00	0.79	2.86	3.65
7.05	2.00	0.81	5.00	0.79	2.86	3.65
7.10	2.00	0.81	5.00	0.79	2.86	3.65
7.15	2.00	0.81	5.00	0.79	2.86	3.65
7.20	2.00	0.81	5.00	0.79	2.86	3.65
7.25	2.00	0.81	5.00	0.79	2.86	3.65
7.30	2.00	0.81	5.00	0.79	2.86	3.65
7.35	2.00	0.81	5.00	0.79	2.86	3.65
7.40	2.00	0.81	5.00	0.79	2.86	3.65
7.45	2.00	0.81	5.00	0.79	2.86	3.65
7.50	2.00	0.81	5.00	0.79	2.86	3.65
7.55	2.00	0.81	5.00	0.79	2.86	3.65
7.60	2.00	0.81	5.00	0.79	2.86	3.65
7.65	2.00	0.81	5.00	0.79	2.86	3.65
7.70	2.00	0.81	5.00	0.79	2.86	3.65
7.75	2.00	0.81	5.00	0.79	2.86	3.65
7.80	2.00	0.81	5.00	0.79	2.86	3.65
7.85	2.00	0.81	5.00	0.79	2.86	3.65
7.90	2.00	0.81	5.00	0.79	2.86	3.65
7.95	2.00	0.81	5.00	0.79	2.86	3.65
8.00	2.00	0.81	5.00	0.79	2.86	3.65
8.05	2.00	0.81	5.00	0.79	2.86	3.65
8.10	2.00	0.81	5.00	0.79	2.86	3.65
8.15	2.00	0.81	5.00	0.79	2.86	3.65
8.20	2.00	0.81	5.00	0.79	2.86	3.65
8.25	2.00	0.81	5.00	0.79	2.86	3.65
8.30	2.00	0.81	5.00	0.79	2.86	3.65
8.35	2.00	0.81	5.00	0.79	2.86	3.65
8.40	2.00	0.81	5.00	0.79	2.86	3.65
8.45	2.00	0.81	5.00	0.79	2.86	3.65
8.50	2.00	0.81	5.00	0.79	2.86	3.65
8.55	2.00	0.81	5.00	0.79	2.86	3.65
8.60	2.00	0.81	5.00	0.79	2.86	3.65

8.65	2.00	0.81	5.00	0.79	2.86	3.65
8.70	2.00	0.81	5.00	0.79	2.86	3.65
8.75	2.00	0.81	5.00	0.79	2.86	3.65
8.80	2.00	0.81	5.00	0.79	2.86	3.65
8.85	2.00	0.81	5.00	0.79	2.86	3.65
8.90	2.00	0.81	5.00	0.79	2.86	3.65
8.95	2.00	0.81	5.00	0.79	2.86	3.65
9.00	2.00	0.81	5.00	0.79	2.86	3.65
9.05	2.00	0.81	5.00	0.79	2.86	3.65
9.10	2.00	0.81	5.00	0.79	2.86	3.65
9.15	2.00	0.81	5.00	0.79	2.86	3.65
9.20	2.00	0.81	5.00	0.79	2.86	3.65
9.25	2.00	0.81	5.00	0.79	2.86	3.65
9.30	2.00	0.81	5.00	0.79	2.86	3.65
9.35	2.00	0.81	5.00	0.79	2.86	3.65
9.40	2.00	0.81	5.00	0.79	2.86	3.65
9.45	2.00	0.81	5.00	0.79	2.86	3.65
9.50	2.00	0.81	5.00	0.79	2.86	3.65
9.55	2.00	0.81	5.00	0.79	2.86	3.65
9.60	2.00	0.81	5.00	0.79	2.86	3.65
9.65	2.00	0.81	5.00	0.79	2.86	3.65
9.70	2.00	0.81	5.00	0.79	2.86	3.65
9.75	2.00	0.81	5.00	0.79	2.86	3.65
9.80	2.00	0.81	5.00	0.79	2.86	3.65
9.85	2.00	0.81	5.00	0.79	2.86	3.65
9.90	2.00	0.81	5.00	0.79	2.86	3.65
9.95	2.00	0.81	5.00	0.79	2.86	3.65
10.00	2.00	0.81	5.00	0.79	2.86	3.65
10.05	2.00	0.81	5.00	0.79	2.86	3.65
10.10	2.00	0.81	5.00	0.79	2.86	3.65
10.15	2.00	0.81	5.00	0.79	2.86	3.65
10.20	2.00	0.81	5.00	0.79	2.86	3.65
10.25	2.00	0.81	5.00	0.79	2.86	3.65
10.30	2.00	0.81	5.00	0.79	2.86	3.65
10.35	2.00	0.81	5.00	0.79	2.86	3.65
10.40	2.00	0.81	5.00	0.79	2.86	3.65
10.45	2.00	0.81	5.00	0.79	2.86	3.65
10.50	2.00	0.81	5.00	0.79	2.86	3.65
10.55	2.00	0.81	5.00	0.79	2.86	3.65
10.60	2.00	0.81	5.00	0.79	2.86	3.65
10.65	2.00	0.81	5.00	0.79	2.86	3.65
10.70	2.00	0.81	5.00	0.79	2.86	3.65
10.75	2.00	0.81	5.00	0.79	2.86	3.65
10.80	2.00	0.81	5.00	0.79	2.86	3.65
10.85	2.00	0.81	5.00	0.79	2.86	3.65
10.90	2.00	0.81	5.00	0.79	2.86	3.65
10.95	2.00	0.81	5.00	0.79	2.86	3.65
11.00	2.00	0.81	5.00	0.79	2.86	3.65
11.05	2.00	0.81	5.00	0.79	2.86	3.65
11.10	2.00	0.81	5.00	0.79	2.86	3.65

11.15	2.00	0.81	5.00	0.79	2.86	3.65
11.20	2.00	0.81	5.00	0.79	2.86	3.65
11.25	2.00	0.81	5.00	0.79	2.86	3.65
11.30	2.00	0.81	5.00	0.79	2.86	3.65
11.35	2.00	0.81	5.00	0.79	2.86	3.65
11.40	2.00	0.81	5.00	0.79	2.86	3.65
11.45	2.00	0.81	5.00	0.79	2.86	3.65
11.50	2.00	0.81	5.00	0.79	2.86	3.65
11.55	2.00	0.81	5.00	0.79	2.86	3.65
11.60	2.00	0.81	5.00	0.79	2.86	3.65
11.65	2.00	0.81	5.00	0.79	2.86	3.65
11.70	2.00	0.81	5.00	0.79	2.86	3.65
11.75	2.00	0.81	5.00	0.79	2.86	3.65
11.80	2.00	0.81	5.00	0.79	2.86	3.65
11.85	2.00	0.81	5.00	0.79	2.86	3.65
11.90	2.00	0.81	5.00	0.79	2.86	3.65
11.95	2.00	0.81	5.00	0.79	2.86	3.65
12.00	2.00	0.80	5.00	0.79	2.86	3.65
12.05	2.00	0.80	5.00	0.79	2.86	3.65
12.10	2.00	0.80	5.00	0.79	2.86	3.65
12.15	2.00	0.80	5.00	0.79	2.86	3.65
12.20	2.00	0.80	5.00	0.79	2.86	3.65
12.25	2.00	0.80	5.00	0.79	2.86	3.65
12.30	2.00	0.80	5.00	0.79	2.86	3.65
12.35	2.00	0.80	5.00	0.79	2.86	3.65
12.40	2.00	0.80	5.00	0.79	2.86	3.65
12.45	2.00	0.80	5.00	0.79	2.86	3.65
12.50	0.25	0.80	5.00	0.79	2.86	3.65
12.55	0.25	0.80	5.00	0.79	2.85	3.64
12.60	0.25	0.80	5.00	0.79	2.84	3.63
12.65	0.24	0.80	5.00	0.79	2.83	3.62
12.70	0.24	0.80	5.00	0.79	2.81	3.61
12.75	0.24	0.80	5.00	0.79	2.80	3.60
12.80	0.24	0.80	5.00	0.79	2.79	3.58
12.85	0.24	0.80	5.00	0.79	2.78	3.57
12.90	0.24	0.80	5.00	0.79	2.77	3.56
12.95	0.24	0.80	5.00	0.79	2.76	3.55
13.00	0.24	0.80	5.00	0.79	2.75	3.54
13.05	0.24	0.80	5.00	0.79	2.74	3.53
13.10	0.23	0.80	5.00	0.79	2.73	3.52
13.15	0.23	0.80	5.00	0.79	2.72	3.51
13.20	0.23	0.80	5.00	0.79	2.71	3.50
13.25	0.23	0.80	5.00	0.79	2.70	3.49
13.30	0.23	0.80	5.00	0.79	2.69	3.48
13.35	0.23	0.80	5.00	0.79	2.67	3.47
13.40	0.23	0.80	5.00	0.79	2.66	3.45
13.45	0.23	0.80	5.00	0.79	2.65	3.44
13.50	0.23	0.80	5.00	0.79	2.64	3.43
13.55	0.23	0.80	5.00	0.79	2.63	3.42
13.60	0.23	0.80	5.00	0.79	2.62	3.41

13.65	0.22	0.80	5.00	0.79	2.61	3.40
13.70	0.22	0.80	5.00	0.79	2.60	3.39
13.75	0.22	0.80	5.00	0.79	2.58	3.37
13.80	0.22	0.80	5.00	0.79	2.57	3.36
13.85	0.22	0.80	5.00	0.79	2.56	3.35
13.90	0.22	0.80	5.00	0.79	2.55	3.34
13.95	0.22	0.80	5.00	0.79	2.54	3.33
14.00	0.22	0.80	5.00	0.79	2.53	3.32
14.05	0.22	0.80	5.00	0.79	2.51	3.30
14.10	0.22	0.80	5.00	0.79	2.50	3.29
14.15	0.21	0.80	5.00	0.79	2.49	3.28
14.20	0.21	0.80	5.00	0.79	2.48	3.27
14.25	0.21	0.80	5.00	0.79	2.47	3.26
14.30	0.21	0.80	5.00	0.79	2.45	3.24
14.35	0.21	0.80	5.00	0.79	2.44	3.23
14.40	0.21	0.80	5.00	0.79	2.43	3.22
14.45	0.21	0.80	5.00	0.79	2.42	3.21
14.50	0.21	0.80	5.00	0.79	2.40	3.19
14.55	0.21	0.80	5.00	0.79	2.39	3.18
14.60	0.21	0.80	5.00	0.79	2.38	3.17
14.65	0.21	0.80	5.00	0.79	2.37	3.16
14.70	0.20	0.80	5.00	0.79	2.35	3.14
14.75	0.20	0.80	5.00	0.79	2.34	3.13
14.80	0.22	0.80	5.00	0.79	2.33	3.12
14.85	0.22	0.80	5.00	0.79	2.32	3.11
14.90	0.22	0.80	5.00	0.79	2.30	3.10
14.95	0.22	0.80	5.00	0.79	2.29	3.08
15.00	0.22	0.80	5.00	0.79	2.28	3.07
15.05	0.22	0.80	5.00	0.79	2.27	3.06
15.10	0.22	0.80	5.00	0.79	2.26	3.05
15.15	0.22	0.80	5.00	0.79	2.25	3.04
15.20	0.22	0.80	5.00	0.79	2.23	3.03
15.25	0.22	0.80	5.00	0.79	2.22	3.01
15.30	0.22	0.80	5.00	0.79	2.21	3.00
15.35	0.22	0.80	5.00	0.79	2.20	2.99
15.40	0.22	0.80	5.00	0.79	2.19	2.98
15.45	0.22	0.80	5.00	0.79	2.18	2.97
15.50	0.22	0.80	5.00	0.79	2.16	2.96
15.55	0.22	0.80	5.00	0.79	2.15	2.94
15.60	0.22	0.80	5.00	0.79	2.14	2.93
15.65	0.22	0.80	5.00	0.79	2.13	2.92
15.70	0.22	0.80	5.00	0.79	2.12	2.91
15.75	0.22	0.80	5.00	0.79	2.11	2.90
15.80	0.22	0.80	5.00	0.79	2.09	2.89
15.85	0.22	0.80	5.00	0.79	2.08	2.87
15.90	0.22	0.80	5.00	0.79	2.07	2.86
15.95	0.23	0.80	5.00	0.79	2.06	2.85
16.00	0.23	0.80	5.00	0.79	2.05	2.84
16.05	0.23	0.80	5.00	0.79	2.04	2.83
16.10	0.23	0.80	5.00	0.79	2.03	2.82

16.15	0.23	0.80	5.00	0.79	2.01	2.81
16.20	0.23	0.80	5.00	0.79	2.00	2.79
16.25	0.23	0.80	5.00	0.79	1.99	2.78
16.30	0.23	0.80	5.00	0.79	1.98	2.77
16.35	0.23	0.80	5.00	0.79	1.97	2.76
16.40	0.23	0.80	5.00	0.79	1.96	2.75
16.45	0.23	0.80	5.00	0.79	1.95	2.74
16.50	0.23	0.80	5.00	0.79	1.94	2.73
16.55	0.23	0.80	5.00	0.79	1.92	2.72
16.60	0.23	0.80	5.00	0.79	1.91	2.70
16.65	0.23	0.80	5.00	0.79	1.90	2.69
16.70	0.23	0.80	5.00	0.79	1.89	2.68
16.75	0.23	0.80	5.00	0.79	1.88	2.67
16.80	0.23	0.80	5.00	0.79	1.87	2.66
16.85	0.23	0.80	5.00	0.79	1.86	2.65
16.90	0.23	0.80	5.00	0.79	1.85	2.64
16.95	0.23	0.80	5.00	0.79	1.84	2.63
17.00	0.23	0.80	5.00	0.79	1.82	2.62
17.05	0.23	0.80	5.00	0.79	1.81	2.60
17.10	0.23	0.80	5.00	0.79	1.80	2.59
17.15	0.23	0.79	5.00	0.79	1.79	2.58
17.20	0.23	0.79	5.00	0.79	1.78	2.57
17.25	0.23	0.79	5.00	0.79	1.77	2.56
17.30	0.23	0.79	5.00	0.79	1.76	2.55
17.35	0.23	0.79	5.00	0.79	1.75	2.54
17.40	0.23	0.79	5.00	0.79	1.74	2.53
17.45	0.23	0.79	5.00	0.79	1.73	2.52
17.50	0.23	0.79	5.00	0.79	1.71	2.51
17.55	0.23	0.79	5.00	0.79	1.70	2.49
17.60	0.24	0.79	5.00	0.79	1.69	2.48
17.65	0.24	0.79	5.00	0.79	1.68	2.47
17.70	0.24	0.79	5.00	0.79	1.67	2.46
17.75	0.24	0.79	5.00	0.79	1.66	2.45
17.80	0.24	0.79	5.00	0.79	1.65	2.44
17.85	0.24	0.79	5.00	0.79	1.64	2.43
17.90	0.24	0.79	5.00	0.79	1.63	2.42
17.95	0.24	0.79	5.00	0.79	1.62	2.41
18.00	0.24	0.79	5.00	0.79	1.61	2.40
18.05	0.24	0.79	5.00	0.79	1.59	2.39
18.10	0.24	0.79	5.00	0.79	1.58	2.38
18.15	0.24	0.79	5.00	0.79	1.57	2.36
18.20	0.24	0.79	5.00	0.79	1.56	2.35
18.25	0.24	0.79	5.00	0.79	1.55	2.34
18.30	0.24	0.79	5.00	0.79	1.54	2.33
18.35	0.24	0.79	5.00	0.79	1.53	2.32
18.40	0.24	0.79	5.00	0.79	1.52	2.31
18.45	0.24	0.79	5.00	0.79	1.51	2.30
18.50	0.24	0.79	5.00	0.79	1.50	2.29
18.55	0.24	0.79	5.00	0.79	1.49	2.28
18.60	0.24	0.79	5.00	0.79	1.48	2.27

18.65	0.24	0.79	5.00	0.79	1.47	2.26
18.70	0.24	0.79	5.00	0.79	1.46	2.25
18.75	0.24	0.79	5.00	0.79	1.45	2.24
18.80	0.24	0.79	5.00	0.79	1.43	2.23
18.85	0.24	0.79	5.00	0.79	1.42	2.22
18.90	0.24	0.79	5.00	0.79	1.41	2.20
18.95	0.24	0.79	5.00	0.79	1.40	2.19
19.00	0.24	0.79	5.00	0.79	1.39	2.18
19.05	0.24	0.79	5.00	0.79	1.38	2.17
19.10	0.24	0.79	5.00	0.79	1.37	2.16
19.15	0.24	0.79	5.00	0.79	1.36	2.15
19.20	0.24	0.79	5.00	0.79	1.35	2.14
19.25	0.25	0.79	5.00	0.79	1.34	2.13
19.30	0.25	0.79	5.00	0.79	1.33	2.12
19.35	0.25	0.79	5.00	0.79	1.32	2.11
19.40	0.25	0.79	5.00	0.79	1.31	2.10
19.45	0.25	0.79	5.00	0.79	1.30	2.09
19.50	0.25	0.79	5.00	0.79	1.29	2.08
19.55	0.25	0.79	5.00	0.79	1.28	2.07
19.60	0.25	0.79	5.00	0.79	1.27	2.06
19.65	0.25	0.79	5.00	0.79	1.26	2.05
19.70	0.25	0.79	5.00	0.79	1.25	2.04
19.75	0.25	0.79	5.00	0.79	1.24	2.03
19.80	0.25	0.79	5.00	0.79	1.23	2.02
19.85	0.25	0.79	5.00	0.79	1.22	2.01
19.90	0.25	0.79	5.00	0.79	1.21	2.00
19.95	0.25	0.79	5.00	0.79	1.20	1.99
20.00	0.25	0.79	5.00	0.79	1.19	1.98
20.05	0.25	0.79	5.00	0.79	1.17	1.97
20.10	0.25	0.79	5.00	0.79	1.16	1.96
20.15	0.25	0.79	5.00	0.79	1.15	1.95
20.20	0.25	0.79	5.00	0.79	1.14	1.94
20.25	0.25	0.79	5.00	0.79	1.13	1.92
20.30	0.25	0.79	5.00	0.79	1.12	1.91
20.35	0.25	0.79	5.00	0.79	1.11	1.90
20.40	0.25	0.79	5.00	0.79	1.10	1.89
20.45	0.25	0.79	5.00	0.79	1.09	1.88
20.50	0.25	0.79	5.00	0.79	1.08	1.87
20.55	0.25	0.79	5.00	0.79	1.07	1.86
20.60	0.25	0.79	5.00	0.79	1.06	1.85
20.65	0.24	0.79	5.00	0.79	1.05	1.84
20.70	0.24	0.79	5.00	0.79	1.04	1.83
20.75	0.24	0.79	5.00	0.79	1.03	1.82
20.80	0.24	0.79	5.00	0.79	1.02	1.81
20.85	0.24	0.79	5.00	0.79	1.01	1.80
20.90	0.24	0.79	5.00	0.79	1.00	1.79
20.95	0.24	0.79	5.00	0.79	0.99	1.78
21.00	0.24	0.79	5.00	0.79	0.98	1.77
21.05	0.24	0.79	5.00	0.79	0.97	1.76
21.10	0.24	0.79	5.00	0.79	0.96	1.75

21.15	0.24	0.79	5.00	0.79	0.95	1.74
21.20	0.24	0.79	5.00	0.79	0.93	1.73
21.25	0.24	0.79	5.00	0.79	0.92	1.72
21.30	0.24	0.79	5.00	0.79	0.91	1.70
21.35	0.24	0.79	5.00	0.79	0.90	1.69
21.40	0.24	0.79	5.00	0.79	0.89	1.68
21.45	0.24	0.79	5.00	0.79	0.88	1.67
21.50	0.24	0.79	5.00	0.79	0.87	1.66
21.55	0.24	0.79	5.00	0.79	0.86	1.65
21.60	0.24	0.79	5.00	0.79	0.85	1.64
21.65	0.23	0.79	5.00	0.79	0.84	1.63
21.70	0.23	0.79	5.00	0.79	0.83	1.62
21.75	0.23	0.79	5.00	0.79	0.82	1.61
21.80	0.23	0.79	5.00	0.79	0.81	1.60
21.85	0.23	0.79	5.00	0.79	0.79	1.59
21.90	0.23	0.79	5.00	0.79	0.78	1.57
21.95	0.23	0.79	5.00	0.79	0.77	1.56
22.00	0.23	0.79	5.00	0.79	0.76	1.55
22.05	0.23	0.79	5.00	0.79	0.75	1.54
22.10	0.23	0.79	5.00	0.79	0.74	1.53
22.15	0.23	0.79	5.00	0.79	0.73	1.52
22.20	0.23	0.79	5.00	0.79	0.72	1.51
22.25	0.23	0.79	5.00	0.79	0.71	1.50
22.30	0.23	0.79	5.00	0.79	0.69	1.48
22.35	0.23	0.78	5.00	0.79	0.68	1.47
22.40	0.23	0.78	5.00	0.79	0.67	1.46
22.45	0.23	0.78	5.00	0.79	0.66	1.45
22.50	0.23	0.78	5.00	0.79	0.65	1.44
22.55	0.22	0.78	5.00	0.79	0.64	1.43
22.60	0.22	0.78	5.00	0.79	0.63	1.42
22.65	0.22	0.78	5.00	0.79	0.61	1.41
22.70	0.22	0.78	5.00	0.79	0.60	1.39
22.75	0.22	0.78	5.00	0.79	0.59	1.38
22.80	0.22	0.78	5.00	0.79	0.58	1.37
22.85	0.22	0.78	5.00	0.79	0.57	1.36
22.90	0.22	0.78	5.00	0.79	0.56	1.35
22.95	0.22	0.78	5.00	0.79	0.54	1.34
23.00	0.22	0.78	5.00	0.79	0.53	1.32
23.05	0.22	0.78	5.00	0.79	0.52	1.31
23.10	0.22	0.78	5.00	0.79	0.51	1.30
23.15	0.22	0.78	5.00	0.79	0.50	1.29
23.20	0.22	0.78	5.00	0.79	0.49	1.28
23.25	0.22	0.78	5.00	0.79	0.47	1.26
23.30	0.22	0.78	5.00	0.79	0.46	1.25
23.35	0.22	0.78	5.00	0.79	0.45	1.24
23.40	0.21	0.78	5.00	0.79	0.44	1.23
23.45	0.21	0.78	5.00	0.79	0.43	1.22
23.50	0.21	0.78	5.00	0.79	0.41	1.20
23.55	0.21	0.78	5.00	0.79	0.40	1.19
23.60	0.21	0.78	5.00	0.79	0.39	1.18

23.65	0.21	0.78	5.00	0.79	0.38	1.17
23.70	0.21	0.78	5.00	0.79	0.36	1.16
23.75	0.21	0.78	5.00	0.79	0.35	1.14
23.80	0.21	0.78	5.00	0.79	0.34	1.13
23.85	0.21	0.78	5.00	0.79	0.33	1.12
23.90	0.20	0.78	5.00	0.79	0.31	1.10
23.95	0.20	0.78	5.00	0.79	0.30	1.09
24.00	0.20	0.78	5.00	0.79	0.29	1.08
24.05	0.20	0.78	5.00	0.79	0.28	1.07
24.10	0.20	0.78	5.00	0.79	0.26	1.05
24.15	0.20	0.78	5.00	0.79	0.25	1.04
24.20	0.20	0.78	5.00	0.79	0.24	1.03
24.25	0.20	0.78	5.00	0.79	0.22	1.01
24.30	0.20	0.78	5.00	0.79	0.21	1.00
24.35	0.20	0.78	5.00	0.79	0.20	0.99
24.40	0.20	0.78	5.00	0.79	0.18	0.97
24.45	0.19	0.78	5.00	0.79	0.17	0.96
24.50	0.19	0.78	5.00	0.79	0.16	0.95
24.55	0.19	0.78	5.00	0.79	0.14	0.93
24.60	0.19	0.78	5.00	0.79	0.13	0.92
24.65	0.19	0.78	5.00	0.79	0.11	0.91
24.70	0.19	0.78	5.00	0.79	0.10	0.89
24.75	0.19	0.78	5.00	0.79	0.09	0.88
24.80	0.19	0.78	5.00	0.79	0.07	0.86
24.85	0.19	0.78	5.00	0.79	0.06	0.85
24.90	0.19	0.78	5.00	0.79	0.04	0.83
24.95	0.19	0.78	5.00	0.79	0.03	0.82
25.00	0.18	0.78	5.00	0.79	0.01	0.81
25.05	0.19	0.78	0.24*	0.79	0.00	0.79
25.10	0.19	0.78	0.24*	0.78	0.00	0.78
25.15	0.19	0.78	0.24*	0.77	0.00	0.77
25.20	0.19	0.78	0.24*	0.76	0.00	0.76
25.25	0.19	0.78	0.24*	0.75	0.00	0.75
25.30	0.19	0.78	0.24*	0.74	0.00	0.74
25.35	0.19	0.78	0.25*	0.73	0.00	0.73
25.40	0.19	0.78	0.25*	0.72	0.00	0.72
25.45	0.19	0.79	0.25*	0.71	0.00	0.71
25.50	0.20	0.79	0.25*	0.70	0.00	0.70
25.55	0.20	0.79	0.25*	0.70	0.00	0.70
25.60	0.20	0.79	0.25*	0.69	0.00	0.69
25.65	0.20	0.79	0.25*	0.68	0.00	0.68
25.70	0.20	0.79	0.25*	0.67	0.00	0.67
25.75	0.20	0.79	0.26*	0.66	0.00	0.66
25.80	0.20	0.79	0.26*	0.65	0.00	0.65
25.85	0.20	0.79	0.26*	0.64	0.00	0.64
25.90	0.21	0.79	0.26*	0.63	0.00	0.63
25.95	0.21	0.79	0.26*	0.62	0.00	0.62
26.00	0.21	0.79	0.26*	0.61	0.00	0.61
26.05	0.21	0.79	0.26*	0.60	0.00	0.60
26.10	0.21	0.79	0.26*	0.60	0.00	0.60

26.15	0.21	0.79	0.26*	0.59	0.00	0.59
26.20	0.21	0.80	0.27*	0.58	0.00	0.58
26.25	0.21	0.80	0.27*	0.57	0.00	0.57
26.30	0.21	0.80	0.27*	0.56	0.00	0.56
26.35	0.21	0.80	0.27*	0.55	0.00	0.55
26.40	0.22	0.80	0.27*	0.54	0.00	0.54
26.45	0.22	0.80	0.27*	0.54	0.00	0.54
26.50	0.22	0.80	0.27*	0.53	0.00	0.53
26.55	0.22	0.80	0.27*	0.52	0.00	0.52
26.60	0.22	0.80	0.28*	0.51	0.00	0.51
26.65	0.22	0.80	0.28*	0.50	0.00	0.50
26.70	0.22	0.80	0.28*	0.49	0.00	0.49
26.75	0.22	0.80	0.28*	0.49	0.00	0.49
26.80	0.22	0.80	0.28*	0.48	0.00	0.48
26.85	0.23	0.80	0.28*	0.47	0.00	0.47
26.90	0.23	0.80	0.28*	0.46	0.00	0.46
26.95	0.23	0.81	0.28*	0.45	0.00	0.45
27.00	0.23	0.81	0.28*	0.44	0.00	0.44
27.05	0.23	0.81	0.29*	0.44	0.00	0.44
27.10	0.23	0.81	0.29*	0.43	0.00	0.43
27.15	0.23	0.81	0.29*	0.42	0.00	0.42
27.20	0.23	0.81	0.29*	0.41	0.00	0.41
27.25	0.24	0.81	0.29*	0.40	0.00	0.40
27.30	0.24	0.81	0.29*	0.40	0.00	0.40
27.35	0.24	0.81	0.29*	0.39	0.00	0.39
27.40	0.24	0.81	0.29*	0.38	0.00	0.38
27.45	0.24	0.81	0.30*	0.37	0.00	0.37
27.50	0.24	0.81	0.30*	0.36	0.00	0.36
27.55	0.24	0.81	0.30*	0.36	0.00	0.36
27.60	0.24	0.81	0.30*	0.35	0.00	0.35
27.65	0.24	0.81	0.30*	0.34	0.00	0.34
27.70	0.25	0.82	0.30*	0.33	0.00	0.33
27.75	0.25	0.82	0.30*	0.33	0.00	0.33
27.80	0.25	0.82	0.30*	0.32	0.00	0.32
27.85	0.25	0.82	0.31*	0.31	0.00	0.31
27.90	0.27	0.82	0.33*	0.30	0.00	0.30
27.95	0.27	0.82	0.33*	0.30	0.00	0.30
28.00	0.27	0.82	0.33*	0.29	0.00	0.29
28.05	0.27	0.82	0.33*	0.28	0.00	0.28
28.10	0.27	0.82	0.33*	0.28	0.00	0.28
28.15	0.27	0.82	0.33*	0.27	0.00	0.27
28.20	0.28	0.82	0.34*	0.26	0.00	0.26
28.25	0.28	0.82	0.34*	0.26	0.00	0.26
28.30	0.28	0.82	0.34*	0.25	0.00	0.25
28.35	0.28	0.82	0.34*	0.24	0.00	0.24
28.40	0.28	0.82	0.34*	0.24	0.00	0.24
28.45	0.28	0.82	0.34*	0.23	0.00	0.23
28.50	0.29	0.83	0.35*	0.22	0.00	0.22
28.55	0.29	0.83	0.35*	0.22	0.00	0.22
28.60	0.29	0.83	0.35*	0.21	0.00	0.21

28.65	0.29	0.83	0.35*	0.20	0.00	0.20
28.70	0.29	0.83	0.35*	0.20	0.00	0.20
28.75	0.29	0.83	0.36*	0.19	0.00	0.19
28.80	0.30	0.83	0.36*	0.18	0.00	0.18
28.85	0.30	0.83	0.36*	0.18	0.00	0.18
28.90	0.30	0.83	0.36*	0.17	0.00	0.17
28.95	0.30	0.83	0.36*	0.16	0.00	0.16
29.00	0.30	0.83	0.37*	0.16	0.00	0.16
29.05	0.31	0.83	0.37*	0.15	0.00	0.15
29.10	0.31	0.83	0.37*	0.15	0.00	0.15
29.15	0.31	0.83	0.37*	0.14	0.00	0.14
29.20	0.31	0.83	0.37*	0.13	0.00	0.13
29.25	0.31	0.83	0.38*	0.13	0.00	0.13
29.30	0.32	0.83	0.38*	0.12	0.00	0.12
29.35	0.32	0.84	0.38*	0.12	0.00	0.12
29.40	0.32	0.84	0.38*	0.11	0.00	0.11
29.45	0.32	0.84	0.39*	0.10	0.00	0.10
29.50	0.33	0.84	0.39*	0.10	0.00	0.10
29.55	0.33	0.84	0.39*	0.09	0.00	0.09
29.60	0.33	0.84	0.40*	0.09	0.00	0.09
29.65	0.34	0.84	0.40*	0.08	0.00	0.08
29.70	0.34	0.84	0.40*	0.08	0.00	0.08
29.75	0.34	0.84	0.41*	0.07	0.00	0.07
29.80	0.34	0.84	0.41*	0.06	0.00	0.06
29.85	0.35	0.84	0.41*	0.06	0.00	0.06
29.90	0.35	0.84	0.42*	0.05	0.00	0.05
29.95	0.36	0.84	0.42*	0.05	0.00	0.05
30.00	0.36	0.84	0.43*	0.04	0.00	0.04
30.05	0.39	0.84	0.46*	0.04	0.00	0.04
30.10	1.83	0.84	2.17	0.03	0.00	0.03
30.15	1.83	0.84	2.17	0.03	0.00	0.03
30.20	1.83	0.84	2.17	0.03	0.00	0.03
30.25	1.83	0.84	2.17	0.02	0.00	0.02
30.30	1.83	0.84	2.17	0.02	0.00	0.02
30.35	1.83	0.84	2.16	0.02	0.00	0.02
30.40	1.83	0.84	2.16	0.01	0.00	0.01
30.45	1.83	0.84	2.16	0.01	0.00	0.01
30.50	1.83	0.85	2.16	0.01	0.00	0.01
30.55	1.83	0.85	2.16	0.01	0.00	0.01
30.60	1.82	0.85	2.16	0.01	0.00	0.01
30.65	1.82	0.85	2.16	0.01	0.00	0.01
30.70	1.82	0.85	2.15	0.00	0.00	0.00
30.75	1.82	0.85	2.15	0.00	0.00	0.00
30.80	1.82	0.85	2.15	0.00	0.00	0.00
30.85	1.82	0.85	2.15	0.00	0.00	0.00
30.90	1.82	0.85	2.15	0.00	0.00	0.00
30.95	1.82	0.85	2.15	0.00	0.00	0.00
31.00	1.82	0.85	2.15	0.00	0.00	0.00
31.05	1.82	0.85	2.15	0.00	0.00	0.00
31.10	1.82	0.85	2.14	0.00	0.00	0.00

31.15	1.82	0.85	2.14	0.00	0.00	0.00
31.20	1.82	0.85	2.14	0.00	0.00	0.00
31.25	1.82	0.85	2.14	0.00	0.00	0.00
31.30	1.82	0.85	2.14	0.00	0.00	0.00
31.35	1.82	0.85	2.14	0.00	0.00	0.00
31.40	1.82	0.85	2.14	0.00	0.00	0.00
31.45	1.82	0.85	2.14	0.00	0.00	0.00
31.50	1.81	0.85	2.13	0.00	0.00	0.00
31.55	1.81	0.85	2.13	0.00	0.00	0.00
31.60	1.81	0.85	2.13	0.00	0.00	0.00
31.65	1.81	0.85	2.13	0.00	0.00	0.00
31.70	1.81	0.85	2.13	0.00	0.00	0.00
31.75	1.81	0.85	2.13	0.00	0.00	0.00
31.80	1.81	0.85	2.13	0.00	0.00	0.00
31.85	1.81	0.85	2.13	0.00	0.00	0.00
31.90	1.81	0.85	2.12	0.00	0.00	0.00
31.95	1.81	0.85	2.12	0.00	0.00	0.00
32.00	1.81	0.85	2.12	0.00	0.00	0.00
32.05	1.81	0.85	2.12	0.00	0.00	0.00
32.10	1.81	0.85	2.12	0.00	0.00	0.00
32.15	1.81	0.85	2.12	0.00	0.00	0.00
32.20	1.81	0.85	2.12	0.00	0.00	0.00
32.25	1.81	0.85	2.12	0.00	0.00	0.00
32.30	1.81	0.85	2.11	0.00	0.00	0.00
32.35	1.81	0.85	2.11	0.00	0.00	0.00
32.40	1.81	0.85	2.11	0.00	0.00	0.00
32.45	1.80	0.85	2.11	0.00	0.00	0.00
32.50	1.80	0.86	2.11	0.00	0.00	0.00
32.55	1.80	0.86	2.11	0.00	0.00	0.00
32.60	1.80	0.86	2.11	0.00	0.00	0.00
32.65	1.80	0.86	2.11	0.00	0.00	0.00
32.70	1.80	0.86	2.11	0.00	0.00	0.00
32.75	1.80	0.86	2.10	0.00	0.00	0.00
32.80	1.80	0.86	2.10	0.00	0.00	0.00
32.85	1.80	0.86	2.10	0.00	0.00	0.00
32.90	1.80	0.86	2.10	0.00	0.00	0.00
32.95	1.80	0.86	2.10	0.00	0.00	0.00
33.00	1.80	0.86	2.10	0.00	0.00	0.00
33.05	1.80	0.86	2.10	0.00	0.00	0.00
33.10	1.80	0.86	2.10	0.00	0.00	0.00
33.15	1.80	0.86	2.10	0.00	0.00	0.00
33.20	1.80	0.86	2.09	0.00	0.00	0.00
33.25	1.80	0.86	2.09	0.00	0.00	0.00
33.30	1.80	0.86	2.09	0.00	0.00	0.00
33.35	1.80	0.86	2.09	0.00	0.00	0.00
33.40	1.79	0.86	2.09	0.00	0.00	0.00
33.45	1.79	0.86	2.09	0.00	0.00	0.00
33.50	1.79	0.86	2.09	0.00	0.00	0.00
33.55	1.79	0.86	2.09	0.00	0.00	0.00
33.60	1.79	0.86	2.09	0.00	0.00	0.00

33.65	1.79	0.86	2.08	0.00	0.00	0.00
33.70	1.79	0.86	2.08	0.00	0.00	0.00
33.75	1.79	0.86	2.08	0.00	0.00	0.00
33.80	1.79	0.86	2.08	0.00	0.00	0.00
33.85	1.79	0.86	2.08	0.00	0.00	0.00
33.90	1.79	0.86	2.08	0.00	0.00	0.00
33.95	1.79	0.86	2.08	0.00	0.00	0.00
34.00	1.79	0.86	2.08	0.00	0.00	0.00
34.05	1.79	0.86	2.08	0.00	0.00	0.00
34.10	1.79	0.86	2.08	0.00	0.00	0.00
34.15	1.79	0.86	2.07	0.00	0.00	0.00
34.20	1.79	0.86	2.07	0.00	0.00	0.00
34.25	1.79	0.86	2.07	0.00	0.00	0.00
34.30	1.79	0.86	2.07	0.00	0.00	0.00
34.35	1.78	0.86	2.07	0.00	0.00	0.00
34.40	1.78	0.86	2.07	0.00	0.00	0.00
34.45	1.78	0.86	2.07	0.00	0.00	0.00
34.50	1.78	0.86	2.07	0.00	0.00	0.00
34.55	1.78	0.86	2.07	0.00	0.00	0.00
34.60	1.78	0.86	2.07	0.00	0.00	0.00
34.65	1.78	0.86	2.06	0.00	0.00	0.00
34.70	1.78	0.86	2.06	0.00	0.00	0.00
34.75	1.78	0.86	2.06	0.00	0.00	0.00
34.80	1.78	0.86	2.06	0.00	0.00	0.00
34.85	1.78	0.86	2.06	0.00	0.00	0.00
34.90	1.78	0.86	2.06	0.00	0.00	0.00
34.95	1.78	0.86	2.06	0.00	0.00	0.00
35.00	1.78	0.86	2.06	0.00	0.00	0.00
35.05	1.78	0.86	2.06	0.00	0.00	0.00
35.10	1.78	0.86	2.06	0.00	0.00	0.00
35.15	1.78	0.86	2.06	0.00	0.00	0.00
35.20	1.78	0.86	2.06	0.00	0.00	0.00
35.25	1.78	0.86	2.05	0.00	0.00	0.00
35.30	1.78	0.86	2.05	0.00	0.00	0.00
35.35	1.78	0.87	2.05	0.00	0.00	0.00
35.40	1.78	0.87	2.05	0.00	0.00	0.00
35.45	1.78	0.87	2.05	0.00	0.00	0.00
35.50	1.78	0.87	2.05	0.00	0.00	0.00
35.55	1.78	0.87	2.05	0.00	0.00	0.00
35.60	1.77	0.87	2.05	0.00	0.00	0.00
35.65	1.77	0.87	2.05	0.00	0.00	0.00
35.70	1.77	0.87	2.05	0.00	0.00	0.00
35.75	1.77	0.87	2.05	0.00	0.00	0.00
35.80	1.77	0.87	2.05	0.00	0.00	0.00
35.85	1.77	0.87	2.05	0.00	0.00	0.00
35.90	1.77	0.87	2.05	0.00	0.00	0.00
35.95	1.77	0.87	2.05	0.00	0.00	0.00
36.00	1.77	0.87	2.05	0.00	0.00	0.00
36.05	1.77	0.87	2.05	0.00	0.00	0.00
36.10	1.77	0.87	2.04	0.00	0.00	0.00

36.15	1.77	0.87	2.04	0.00	0.00	0.00
36.20	1.77	0.87	2.04	0.00	0.00	0.00
36.25	1.77	0.87	2.04	0.00	0.00	0.00
36.30	1.77	0.87	2.04	0.00	0.00	0.00
36.35	1.77	0.87	2.04	0.00	0.00	0.00
36.40	1.77	0.87	2.04	0.00	0.00	0.00
36.45	1.77	0.87	2.04	0.00	0.00	0.00
36.50	1.77	0.87	2.04	0.00	0.00	0.00
36.55	1.77	0.87	2.04	0.00	0.00	0.00
36.60	1.77	0.87	2.04	0.00	0.00	0.00
36.65	1.77	0.87	2.04	0.00	0.00	0.00
36.70	1.77	0.87	2.04	0.00	0.00	0.00
36.75	1.77	0.87	2.04	0.00	0.00	0.00
36.80	1.77	0.87	2.04	0.00	0.00	0.00
36.85	1.77	0.87	2.04	0.00	0.00	0.00
36.90	1.77	0.87	2.04	0.00	0.00	0.00
36.95	1.77	0.87	2.04	0.00	0.00	0.00
37.00	1.77	0.87	2.04	0.00	0.00	0.00
37.05	1.77	0.87	2.03	0.00	0.00	0.00
37.10	1.77	0.87	2.03	0.00	0.00	0.00
37.15	1.77	0.87	2.03	0.00	0.00	0.00
37.20	1.77	0.87	2.03	0.00	0.00	0.00
37.25	1.77	0.87	2.03	0.00	0.00	0.00
37.30	1.77	0.87	2.03	0.00	0.00	0.00
37.35	1.77	0.87	2.03	0.00	0.00	0.00
37.40	1.77	0.87	2.03	0.00	0.00	0.00
37.45	1.77	0.87	2.03	0.00	0.00	0.00
37.50	1.77	0.87	2.03	0.00	0.00	0.00
37.55	1.77	0.87	2.03	0.00	0.00	0.00
37.60	1.77	0.87	2.03	0.00	0.00	0.00
37.65	1.76	0.87	2.03	0.00	0.00	0.00
37.70	1.76	0.87	2.03	0.00	0.00	0.00
37.75	1.76	0.87	2.03	0.00	0.00	0.00
37.80	1.76	0.87	2.03	0.00	0.00	0.00
37.85	1.76	0.87	2.03	0.00	0.00	0.00
37.90	1.76	0.87	2.03	0.00	0.00	0.00
37.95	1.76	0.87	2.03	0.00	0.00	0.00
38.00	1.76	0.87	2.03	0.00	0.00	0.00
38.05	1.76	0.87	2.03	0.00	0.00	0.00
38.10	1.76	0.87	2.02	0.00	0.00	0.00
38.15	1.76	0.87	2.02	0.00	0.00	0.00
38.20	1.76	0.87	2.02	0.00	0.00	0.00
38.25	1.76	0.87	2.02	0.00	0.00	0.00
38.30	1.76	0.87	2.02	0.00	0.00	0.00
38.35	1.76	0.87	2.02	0.00	0.00	0.00
38.40	1.76	0.87	2.02	0.00	0.00	0.00
38.45	1.76	0.87	2.02	0.00	0.00	0.00
38.50	1.76	0.87	2.02	0.00	0.00	0.00
38.55	1.76	0.87	2.02	0.00	0.00	0.00
38.60	1.76	0.87	2.02	0.00	0.00	0.00

38.65	1.76	0.87	2.02	0.00	0.00	0.00
38.70	1.76	0.87	2.02	0.00	0.00	0.00
38.75	1.76	0.87	2.02	0.00	0.00	0.00
38.80	1.76	0.87	2.02	0.00	0.00	0.00
38.85	1.76	0.87	2.02	0.00	0.00	0.00
38.90	1.76	0.87	2.02	0.00	0.00	0.00
38.95	1.76	0.87	2.02	0.00	0.00	0.00
39.00	1.76	0.87	2.02	0.00	0.00	0.00
39.05	1.76	0.87	2.02	0.00	0.00	0.00
39.10	1.76	0.87	2.02	0.00	0.00	0.00
39.15	1.76	0.87	2.02	0.00	0.00	0.00
39.20	1.76	0.87	2.02	0.00	0.00	0.00
39.25	1.76	0.87	2.02	0.00	0.00	0.00
39.30	1.76	0.87	2.02	0.00	0.00	0.00
39.35	1.76	0.87	2.02	0.00	0.00	0.00
39.40	1.76	0.87	2.01	0.00	0.00	0.00
39.45	1.76	0.87	2.01	0.00	0.00	0.00
39.50	1.76	0.87	2.01	0.00	0.00	0.00
39.55	1.76	0.87	2.01	0.00	0.00	0.00
39.60	1.76	0.87	2.01	0.00	0.00	0.00
39.65	1.76	0.87	2.01	0.00	0.00	0.00
39.70	1.76	0.87	2.01	0.00	0.00	0.00
39.75	1.75	0.87	2.01	0.00	0.00	0.00
39.80	1.75	0.87	2.01	0.00	0.00	0.00
39.85	1.75	0.87	2.01	0.00	0.00	0.00
39.90	1.75	0.87	2.01	0.00	0.00	0.00
39.95	1.75	0.87	2.01	0.00	0.00	0.00
40.00	1.75	0.87	2.01	0.00	0.00	0.00
40.05	1.75	0.87	2.01	0.00	0.00	0.00
40.10	1.75	0.87	2.01	0.00	0.00	0.00
40.15	1.75	0.87	2.01	0.00	0.00	0.00
40.20	1.75	0.87	2.01	0.00	0.00	0.00
40.25	1.75	0.87	2.01	0.00	0.00	0.00
40.30	1.75	0.87	2.01	0.00	0.00	0.00
40.35	1.75	0.87	2.01	0.00	0.00	0.00
40.40	1.75	0.87	2.01	0.00	0.00	0.00
40.45	1.75	0.87	2.01	0.00	0.00	0.00
40.50	1.75	0.87	2.01	0.00	0.00	0.00
40.55	1.75	0.87	2.01	0.00	0.00	0.00
40.60	1.75	0.87	2.01	0.00	0.00	0.00
40.65	1.75	0.87	2.01	0.00	0.00	0.00
40.70	1.75	0.87	2.01	0.00	0.00	0.00
40.75	1.75	0.87	2.01	0.00	0.00	0.00
40.80	1.75	0.87	2.01	0.00	0.00	0.00
40.85	1.75	0.87	2.01	0.00	0.00	0.00
40.90	1.75	0.87	2.01	0.00	0.00	0.00
40.95	1.75	0.87	2.01	0.00	0.00	0.00
41.00	1.75	0.87	2.00	0.00	0.00	0.00
41.05	1.75	0.87	2.00	0.00	0.00	0.00
41.10	1.75	0.87	2.00	0.00	0.00	0.00

41.15	1.75	0.87	2.00	0.00	0.00	0.00
41.20	1.75	0.87	2.00	0.00	0.00	0.00
41.25	1.75	0.87	2.00	0.00	0.00	0.00
41.30	1.75	0.87	2.00	0.00	0.00	0.00
41.35	1.75	0.87	2.00	0.00	0.00	0.00
41.40	1.75	0.87	2.00	0.00	0.00	0.00
41.45	1.75	0.87	2.00	0.00	0.00	0.00
41.50	1.75	0.87	2.00	0.00	0.00	0.00
41.55	1.75	0.87	2.00	0.00	0.00	0.00
41.60	1.75	0.87	2.00	0.00	0.00	0.00
41.65	1.75	0.87	2.00	0.00	0.00	0.00
41.70	1.75	0.87	2.00	0.00	0.00	0.00
41.75	1.75	0.87	2.00	0.00	0.00	0.00
41.80	1.75	0.87	2.00	0.00	0.00	0.00
41.85	1.74	0.87	2.00	0.00	0.00	0.00
41.90	1.74	0.87	2.00	0.00	0.00	0.00
41.95	1.74	0.87	2.00	0.00	0.00	0.00
42.00	1.74	0.87	2.00	0.00	0.00	0.00
42.05	1.74	0.87	2.00	0.00	0.00	0.00
42.10	1.74	0.87	2.00	0.00	0.00	0.00
42.15	1.74	0.87	2.00	0.00	0.00	0.00
42.20	1.74	0.87	2.00	0.00	0.00	0.00
42.25	1.74	0.87	2.00	0.00	0.00	0.00
42.30	1.74	0.87	2.00	0.00	0.00	0.00
42.35	1.74	0.87	2.00	0.00	0.00	0.00
42.40	1.74	0.87	2.00	0.00	0.00	0.00
42.45	1.74	0.87	2.00	0.00	0.00	0.00
42.50	1.74	0.87	2.00	0.00	0.00	0.00
42.55	1.74	0.87	2.00	0.00	0.00	0.00
42.60	1.74	0.87	2.00	0.00	0.00	0.00
42.65	1.74	0.87	2.00	0.00	0.00	0.00
42.70	1.74	0.87	2.00	0.00	0.00	0.00
42.75	1.74	0.87	2.00	0.00	0.00	0.00
42.80	1.74	0.87	2.00	0.00	0.00	0.00
42.85	1.74	0.87	2.00	0.00	0.00	0.00
42.90	1.74	0.87	2.00	0.00	0.00	0.00
42.95	1.74	0.87	2.00	0.00	0.00	0.00
43.00	1.74	0.87	2.00	0.00	0.00	0.00
43.05	1.74	0.87	2.00	0.00	0.00	0.00
43.10	1.74	0.87	2.00	0.00	0.00	0.00
43.15	1.74	0.87	2.00	0.00	0.00	0.00
43.20	1.74	0.87	2.00	0.00	0.00	0.00
43.25	1.74	0.87	1.99	0.00	0.00	0.00
43.30	1.74	0.87	1.99	0.00	0.00	0.00
43.35	1.74	0.87	1.99	0.00	0.00	0.00
43.40	1.74	0.87	1.99	0.00	0.00	0.00
43.45	1.74	0.87	1.99	0.00	0.00	0.00
43.50	1.74	0.87	1.99	0.00	0.00	0.00
43.55	1.74	0.87	1.99	0.00	0.00	0.00
43.60	1.74	0.87	1.99	0.00	0.00	0.00

43.65	1.74	0.87	1.99	0.00	0.00	0.00
43.70	1.74	0.87	1.99	0.00	0.00	0.00
43.75	1.74	0.87	1.99	0.00	0.00	0.00
43.80	1.74	0.87	1.99	0.00	0.00	0.00
43.85	1.74	0.87	1.99	0.00	0.00	0.00
43.90	1.74	0.87	1.99	0.00	0.00	0.00
43.95	1.74	0.87	1.99	0.00	0.00	0.00
44.00	1.73	0.87	1.99	0.00	0.00	0.00
44.05	1.73	0.87	1.99	0.00	0.00	0.00
44.10	1.73	0.87	1.99	0.00	0.00	0.00
44.15	1.73	0.87	1.99	0.00	0.00	0.00
44.20	1.73	0.87	1.99	0.00	0.00	0.00
44.25	1.73	0.87	1.99	0.00	0.00	0.00
44.30	1.73	0.87	1.99	0.00	0.00	0.00
44.35	1.73	0.87	1.99	0.00	0.00	0.00
44.40	1.73	0.87	1.99	0.00	0.00	0.00
44.45	1.73	0.87	1.99	0.00	0.00	0.00
44.50	1.73	0.87	1.99	0.00	0.00	0.00
44.55	1.73	0.87	1.99	0.00	0.00	0.00
44.60	1.73	0.87	1.99	0.00	0.00	0.00
44.65	1.73	0.87	1.99	0.00	0.00	0.00
44.70	1.73	0.87	1.99	0.00	0.00	0.00
44.75	1.73	0.87	1.99	0.00	0.00	0.00
44.80	1.73	0.87	1.99	0.00	0.00	0.00
44.85	1.73	0.87	1.99	0.00	0.00	0.00
44.90	1.73	0.87	1.99	0.00	0.00	0.00
44.95	1.73	0.87	1.99	0.00	0.00	0.00
45.00	1.73	0.87	1.99	0.00	0.00	0.00
45.05	1.73	0.87	1.99	0.00	0.00	0.00
45.10	1.73	0.87	1.99	0.00	0.00	0.00
45.15	1.73	0.87	1.99	0.00	0.00	0.00
45.20	1.73	0.87	1.99	0.00	0.00	0.00
45.25	1.73	0.87	1.99	0.00	0.00	0.00
45.30	1.73	0.87	1.99	0.00	0.00	0.00
45.35	1.73	0.87	1.99	0.00	0.00	0.00
45.40	1.73	0.87	1.99	0.00	0.00	0.00
45.45	1.73	0.87	1.99	0.00	0.00	0.00
45.50	1.73	0.87	1.99	0.00	0.00	0.00
45.55	1.73	0.87	1.99	0.00	0.00	0.00
45.60	1.73	0.87	1.99	0.00	0.00	0.00
45.65	1.73	0.87	1.99	0.00	0.00	0.00
45.70	1.73	0.87	1.99	0.00	0.00	0.00
45.75	1.73	0.87	1.99	0.00	0.00	0.00
45.80	1.73	0.87	1.99	0.00	0.00	0.00
45.85	1.73	0.87	1.99	0.00	0.00	0.00
45.90	1.73	0.87	1.99	0.00	0.00	0.00
45.95	1.73	0.87	1.99	0.00	0.00	0.00
46.00	1.73	0.87	1.99	0.00	0.00	0.00
46.05	1.73	0.87	1.99	0.00	0.00	0.00
46.10	1.73	0.87	1.99	0.00	0.00	0.00

46.15	1.72	0.87	1.99	0.00	0.00	0.00
46.20	1.72	0.87	1.99	0.00	0.00	0.00
46.25	1.72	0.87	1.99	0.00	0.00	0.00
46.30	1.72	0.87	1.99	0.00	0.00	0.00
46.35	1.72	0.87	1.99	0.00	0.00	0.00
46.40	1.72	0.87	1.99	0.00	0.00	0.00
46.45	1.72	0.87	1.99	0.00	0.00	0.00
46.50	1.72	0.87	1.99	0.00	0.00	0.00
46.55	1.72	0.87	1.99	0.00	0.00	0.00
46.60	1.72	0.87	1.99	0.00	0.00	0.00
46.65	1.72	0.87	1.99	0.00	0.00	0.00
46.70	1.72	0.87	1.99	0.00	0.00	0.00
46.75	1.72	0.87	1.99	0.00	0.00	0.00
46.80	1.72	0.87	1.99	0.00	0.00	0.00
46.85	1.72	0.87	1.99	0.00	0.00	0.00
46.90	1.72	0.87	1.99	0.00	0.00	0.00
46.95	1.72	0.87	1.99	0.00	0.00	0.00
47.00	1.72	0.87	1.99	0.00	0.00	0.00
47.05	1.72	0.87	1.99	0.00	0.00	0.00
47.10	1.72	0.87	1.99	0.00	0.00	0.00
47.15	1.72	0.87	1.99	0.00	0.00	0.00
47.20	1.72	0.87	1.99	0.00	0.00	0.00
47.25	1.72	0.87	1.99	0.00	0.00	0.00
47.30	1.72	0.87	1.99	0.00	0.00	0.00
47.35	1.72	0.86	1.99	0.00	0.00	0.00
47.40	1.72	0.86	1.99	0.00	0.00	0.00
47.45	1.72	0.86	1.99	0.00	0.00	0.00
47.50	1.72	0.86	1.99	0.00	0.00	0.00
47.55	1.72	0.86	1.99	0.00	0.00	0.00
47.60	1.72	0.86	1.99	0.00	0.00	0.00
47.65	1.72	0.86	1.99	0.00	0.00	0.00
47.70	1.72	0.86	1.99	0.00	0.00	0.00
47.75	1.72	0.86	1.99	0.00	0.00	0.00
47.80	1.72	0.86	1.99	0.00	0.00	0.00
47.85	1.72	0.86	1.99	0.00	0.00	0.00
47.90	1.72	0.86	1.99	0.00	0.00	0.00
47.95	1.72	0.86	1.99	0.00	0.00	0.00
48.00	1.72	0.86	1.99	0.00	0.00	0.00
48.05	1.72	0.86	1.99	0.00	0.00	0.00
48.10	1.72	0.86	1.99	0.00	0.00	0.00
48.15	1.72	0.86	1.99	0.00	0.00	0.00
48.20	1.72	0.86	1.99	0.00	0.00	0.00
48.25	1.72	0.86	1.99	0.00	0.00	0.00
48.30	1.72	0.86	1.99	0.00	0.00	0.00
48.35	1.72	0.86	1.99	0.00	0.00	0.00
48.40	1.71	0.86	1.99	0.00	0.00	0.00
48.45	1.71	0.86	1.99	0.00	0.00	0.00
48.50	1.71	0.86	1.99	0.00	0.00	0.00
48.55	1.71	0.86	1.99	0.00	0.00	0.00
48.60	1.71	0.86	1.99	0.00	0.00	0.00

48.65	1.71	0.86	1.99	0.00	0.00	0.00
48.70	1.71	0.86	1.99	0.00	0.00	0.00
48.75	1.71	0.86	1.99	0.00	0.00	0.00
48.80	1.71	0.86	1.99	0.00	0.00	0.00
48.85	1.71	0.86	1.99	0.00	0.00	0.00
48.90	1.71	0.86	1.99	0.00	0.00	0.00
48.95	1.71	0.86	1.99	0.00	0.00	0.00
49.00	1.71	0.86	1.99	0.00	0.00	0.00
49.05	1.71	0.86	1.99	0.00	0.00	0.00
49.10	1.71	0.86	1.99	0.00	0.00	0.00
49.15	1.71	0.86	1.99	0.00	0.00	0.00
49.20	1.71	0.86	1.99	0.00	0.00	0.00
49.25	1.71	0.86	1.99	0.00	0.00	0.00
49.30	1.71	0.86	1.99	0.00	0.00	0.00
49.35	1.71	0.86	1.99	0.00	0.00	0.00
49.40	1.71	0.86	1.99	0.00	0.00	0.00
49.45	1.71	0.86	1.99	0.00	0.00	0.00
49.50	1.71	0.86	1.99	0.00	0.00	0.00
49.55	1.71	0.86	1.99	0.00	0.00	0.00
49.60	1.71	0.86	1.99	0.00	0.00	0.00
49.65	1.71	0.86	1.99	0.00	0.00	0.00
49.70	1.71	0.86	1.99	0.00	0.00	0.00
49.75	1.71	0.86	1.99	0.00	0.00	0.00
49.80	1.71	0.86	1.99	0.00	0.00	0.00
49.85	1.71	0.86	1.99	0.00	0.00	0.00
49.90	1.71	0.86	1.99	0.00	0.00	0.00
49.95	1.71	0.86	1.99	0.00	0.00	0.00
50.00	1.71	0.86	1.99	0.00	0.00	0.00
50.05	1.71	0.86	1.99	0.00	0.00	0.00
50.10	1.71	0.86	1.99	0.00	0.00	0.00
50.15	1.71	0.86	1.99	0.00	0.00	0.00
50.20	1.71	0.86	1.99	0.00	0.00	0.00
50.25	1.71	0.86	1.99	0.00	0.00	0.00
50.30	1.71	0.86	1.99	0.00	0.00	0.00
50.35	1.71	0.86	1.99	0.00	0.00	0.00
50.40	1.71	0.86	1.99	0.00	0.00	0.00
50.45	1.71	0.86	1.99	0.00	0.00	0.00
50.50	1.71	0.86	1.99	0.00	0.00	0.00
50.55	1.71	0.86	1.99	0.00	0.00	0.00
50.60	1.71	0.86	1.99	0.00	0.00	0.00
50.65	1.70	0.86	1.99	0.00	0.00	0.00
50.70	1.70	0.86	1.99	0.00	0.00	0.00
50.75	1.70	0.86	1.99	0.00	0.00	0.00
50.80	1.70	0.86	1.99	0.00	0.00	0.00
50.85	1.70	0.86	1.99	0.00	0.00	0.00
50.90	1.70	0.85	1.99	0.00	0.00	0.00
50.95	1.70	0.85	1.99	0.00	0.00	0.00
51.00	1.70	0.85	1.99	0.00	0.00	0.00
51.05	1.70	0.85	1.99	0.00	0.00	0.00
51.10	1.70	0.85	1.99	0.00	0.00	0.00

51.15	1.70	0.85	1.99	0.00	0.00	0.00
51.20	1.70	0.85	1.99	0.00	0.00	0.00
51.25	1.70	0.85	1.99	0.00	0.00	0.00
51.30	1.70	0.85	1.99	0.00	0.00	0.00
51.35	1.70	0.85	1.99	0.00	0.00	0.00
51.40	1.70	0.85	1.99	0.00	0.00	0.00
51.45	1.70	0.85	1.99	0.00	0.00	0.00
51.50	1.70	0.85	1.99	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

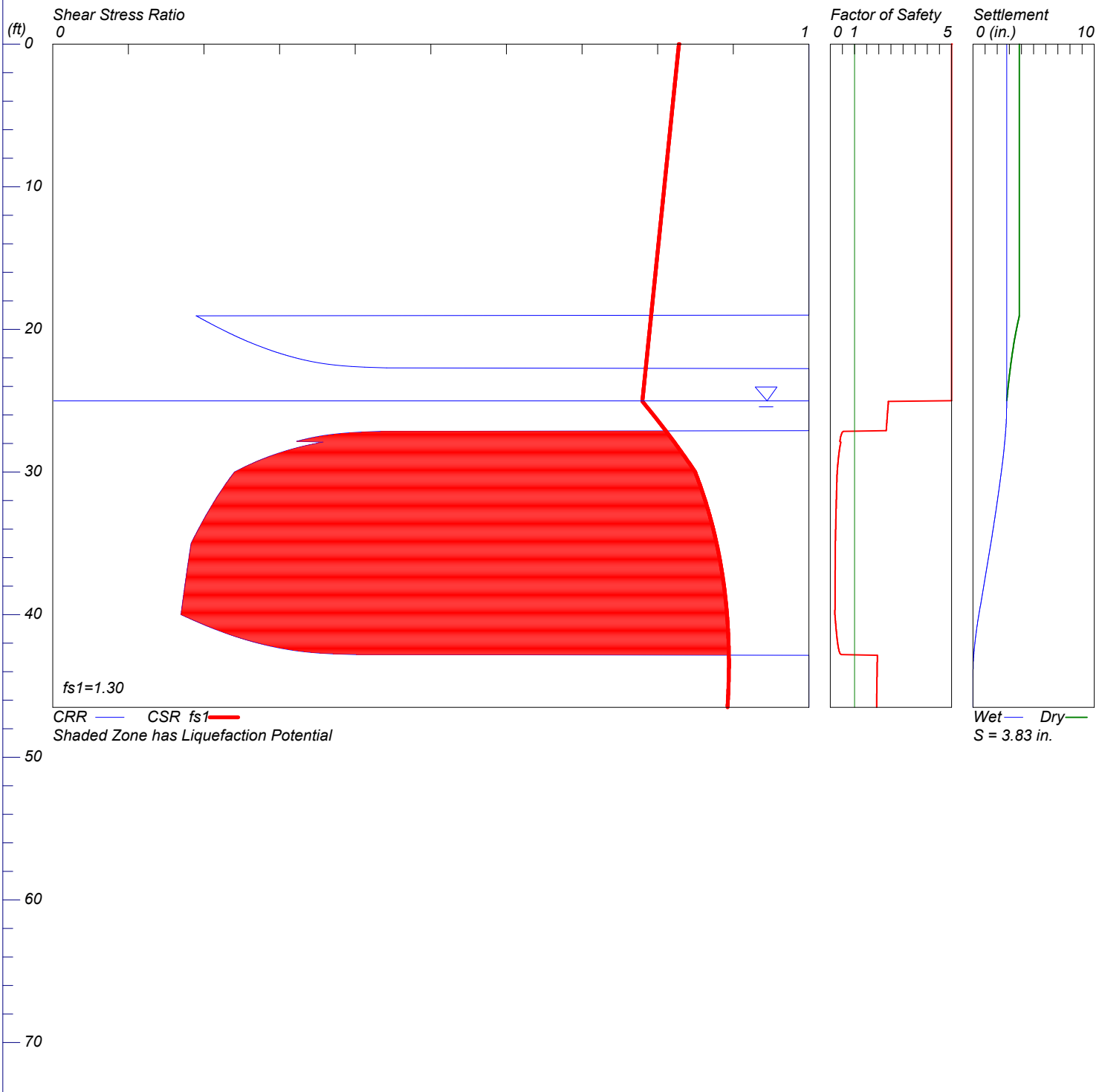
CRRm Cyclic resistance ratio from soils
CSRfs Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat Settlement from saturated sands
S_dry Settlement from dry sands
S_all Total settlement from saturated and dry sands
NoLiq No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=BB-10 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\BB10.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=BB-10
Depth of Hole= 46.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 46.5 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=BB-10
Depth of Hole=46.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 46.5 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

Earthquake Magnitude=7.7
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.3
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.0	5.0	110.0	NoLiq
5.0	5.0	110.0	NoLiq
10.0	18.0	110.0	NoLiq
15.0	18.0	110.0	NoLiq
19.0	10.0	110.0	30.0
25.0	26.0	110.0	30.0
30.0	16.0	110.0	30.0
35.0	13.0	110.0	30.0
40.0	13.0	110.0	30.0
45.0	36.0	110.0	30.0
46.5	36.0	110.0	30.0

Output Results:

Settlement of saturated sands=2.78 in.
Settlement of dry sands=1.04 in.
Total settlement of saturated and dry sands=3.83 in.
Differential Settlement=1.913 to 2.525 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	2.78	1.04	3.83
0.05	2.00	0.83	5.00	2.78	1.04	3.83
0.10	2.00	0.83	5.00	2.78	1.04	3.83
0.15	2.00	0.83	5.00	2.78	1.04	3.83
0.20	2.00	0.83	5.00	2.78	1.04	3.83
0.25	2.00	0.83	5.00	2.78	1.04	3.83
0.30	2.00	0.83	5.00	2.78	1.04	3.83
0.35	2.00	0.83	5.00	2.78	1.04	3.83
0.40	2.00	0.83	5.00	2.78	1.04	3.83
0.45	2.00	0.83	5.00	2.78	1.04	3.83
0.50	2.00	0.83	5.00	2.78	1.04	3.83
0.55	2.00	0.83	5.00	2.78	1.04	3.83
0.60	2.00	0.83	5.00	2.78	1.04	3.83
0.65	2.00	0.83	5.00	2.78	1.04	3.83
0.70	2.00	0.83	5.00	2.78	1.04	3.83
0.75	2.00	0.83	5.00	2.78	1.04	3.83
0.80	2.00	0.83	5.00	2.78	1.04	3.83
0.85	2.00	0.83	5.00	2.78	1.04	3.83
0.90	2.00	0.83	5.00	2.78	1.04	3.83
0.95	2.00	0.83	5.00	2.78	1.04	3.83
1.00	2.00	0.83	5.00	2.78	1.04	3.83
1.05	2.00	0.83	5.00	2.78	1.04	3.83
1.10	2.00	0.83	5.00	2.78	1.04	3.83
1.15	2.00	0.83	5.00	2.78	1.04	3.83
1.20	2.00	0.83	5.00	2.78	1.04	3.83

1.25	2.00	0.83	5.00	2.78	1.04	3.83
1.30	2.00	0.83	5.00	2.78	1.04	3.83
1.35	2.00	0.83	5.00	2.78	1.04	3.83
1.40	2.00	0.83	5.00	2.78	1.04	3.83
1.45	2.00	0.83	5.00	2.78	1.04	3.83
1.50	2.00	0.83	5.00	2.78	1.04	3.83
1.55	2.00	0.83	5.00	2.78	1.04	3.83
1.60	2.00	0.83	5.00	2.78	1.04	3.83
1.65	2.00	0.82	5.00	2.78	1.04	3.83
1.70	2.00	0.82	5.00	2.78	1.04	3.83
1.75	2.00	0.82	5.00	2.78	1.04	3.83
1.80	2.00	0.82	5.00	2.78	1.04	3.83
1.85	2.00	0.82	5.00	2.78	1.04	3.83
1.90	2.00	0.82	5.00	2.78	1.04	3.83
1.95	2.00	0.82	5.00	2.78	1.04	3.83
2.00	2.00	0.82	5.00	2.78	1.04	3.83
2.05	2.00	0.82	5.00	2.78	1.04	3.83
2.10	2.00	0.82	5.00	2.78	1.04	3.83
2.15	2.00	0.82	5.00	2.78	1.04	3.83
2.20	2.00	0.82	5.00	2.78	1.04	3.83
2.25	2.00	0.82	5.00	2.78	1.04	3.83
2.30	2.00	0.82	5.00	2.78	1.04	3.83
2.35	2.00	0.82	5.00	2.78	1.04	3.83
2.40	2.00	0.82	5.00	2.78	1.04	3.83
2.45	2.00	0.82	5.00	2.78	1.04	3.83
2.50	2.00	0.82	5.00	2.78	1.04	3.83
2.55	2.00	0.82	5.00	2.78	1.04	3.83
2.60	2.00	0.82	5.00	2.78	1.04	3.83
2.65	2.00	0.82	5.00	2.78	1.04	3.83
2.70	2.00	0.82	5.00	2.78	1.04	3.83
2.75	2.00	0.82	5.00	2.78	1.04	3.83
2.80	2.00	0.82	5.00	2.78	1.04	3.83
2.85	2.00	0.82	5.00	2.78	1.04	3.83
2.90	2.00	0.82	5.00	2.78	1.04	3.83
2.95	2.00	0.82	5.00	2.78	1.04	3.83
3.00	2.00	0.82	5.00	2.78	1.04	3.83
3.05	2.00	0.82	5.00	2.78	1.04	3.83
3.10	2.00	0.82	5.00	2.78	1.04	3.83
3.15	2.00	0.82	5.00	2.78	1.04	3.83
3.20	2.00	0.82	5.00	2.78	1.04	3.83
3.25	2.00	0.82	5.00	2.78	1.04	3.83
3.30	2.00	0.82	5.00	2.78	1.04	3.83
3.35	2.00	0.82	5.00	2.78	1.04	3.83
3.40	2.00	0.82	5.00	2.78	1.04	3.83
3.45	2.00	0.82	5.00	2.78	1.04	3.83
3.50	2.00	0.82	5.00	2.78	1.04	3.83
3.55	2.00	0.82	5.00	2.78	1.04	3.83
3.60	2.00	0.82	5.00	2.78	1.04	3.83
3.65	2.00	0.82	5.00	2.78	1.04	3.83
3.70	2.00	0.82	5.00	2.78	1.04	3.83

3.75	2.00	0.82	5.00	2.78	1.04	3.83
3.80	2.00	0.82	5.00	2.78	1.04	3.83
3.85	2.00	0.82	5.00	2.78	1.04	3.83
3.90	2.00	0.82	5.00	2.78	1.04	3.83
3.95	2.00	0.82	5.00	2.78	1.04	3.83
4.00	2.00	0.82	5.00	2.78	1.04	3.83
4.05	2.00	0.82	5.00	2.78	1.04	3.83
4.10	2.00	0.82	5.00	2.78	1.04	3.83
4.15	2.00	0.82	5.00	2.78	1.04	3.83
4.20	2.00	0.82	5.00	2.78	1.04	3.83
4.25	2.00	0.82	5.00	2.78	1.04	3.83
4.30	2.00	0.82	5.00	2.78	1.04	3.83
4.35	2.00	0.82	5.00	2.78	1.04	3.83
4.40	2.00	0.82	5.00	2.78	1.04	3.83
4.45	2.00	0.82	5.00	2.78	1.04	3.83
4.50	2.00	0.82	5.00	2.78	1.04	3.83
4.55	2.00	0.82	5.00	2.78	1.04	3.83
4.60	2.00	0.82	5.00	2.78	1.04	3.83
4.65	2.00	0.82	5.00	2.78	1.04	3.83
4.70	2.00	0.82	5.00	2.78	1.04	3.83
4.75	2.00	0.82	5.00	2.78	1.04	3.83
4.80	2.00	0.82	5.00	2.78	1.04	3.83
4.85	2.00	0.82	5.00	2.78	1.04	3.83
4.90	2.00	0.82	5.00	2.78	1.04	3.83
4.95	2.00	0.82	5.00	2.78	1.04	3.83
5.00	2.00	0.82	5.00	2.78	1.04	3.83
5.05	2.00	0.82	5.00	2.78	1.04	3.83
5.10	2.00	0.82	5.00	2.78	1.04	3.83
5.15	2.00	0.82	5.00	2.78	1.04	3.83
5.20	2.00	0.82	5.00	2.78	1.04	3.83
5.25	2.00	0.82	5.00	2.78	1.04	3.83
5.30	2.00	0.82	5.00	2.78	1.04	3.83
5.35	2.00	0.82	5.00	2.78	1.04	3.83
5.40	2.00	0.82	5.00	2.78	1.04	3.83
5.45	2.00	0.82	5.00	2.78	1.04	3.83
5.50	2.00	0.82	5.00	2.78	1.04	3.83
5.55	2.00	0.82	5.00	2.78	1.04	3.83
5.60	2.00	0.82	5.00	2.78	1.04	3.83
5.65	2.00	0.82	5.00	2.78	1.04	3.83
5.70	2.00	0.82	5.00	2.78	1.04	3.83
5.75	2.00	0.82	5.00	2.78	1.04	3.83
5.80	2.00	0.82	5.00	2.78	1.04	3.83
5.85	2.00	0.82	5.00	2.78	1.04	3.83
5.90	2.00	0.82	5.00	2.78	1.04	3.83
5.95	2.00	0.82	5.00	2.78	1.04	3.83
6.00	2.00	0.82	5.00	2.78	1.04	3.83
6.05	2.00	0.82	5.00	2.78	1.04	3.83
6.10	2.00	0.82	5.00	2.78	1.04	3.83
6.15	2.00	0.82	5.00	2.78	1.04	3.83
6.20	2.00	0.82	5.00	2.78	1.04	3.83

6.25	2.00	0.82	5.00	2.78	1.04	3.83
6.30	2.00	0.82	5.00	2.78	1.04	3.83
6.35	2.00	0.82	5.00	2.78	1.04	3.83
6.40	2.00	0.82	5.00	2.78	1.04	3.83
6.45	2.00	0.82	5.00	2.78	1.04	3.83
6.50	2.00	0.82	5.00	2.78	1.04	3.83
6.55	2.00	0.82	5.00	2.78	1.04	3.83
6.60	2.00	0.82	5.00	2.78	1.04	3.83
6.65	2.00	0.82	5.00	2.78	1.04	3.83
6.70	2.00	0.82	5.00	2.78	1.04	3.83
6.75	2.00	0.82	5.00	2.78	1.04	3.83
6.80	2.00	0.81	5.00	2.78	1.04	3.83
6.85	2.00	0.81	5.00	2.78	1.04	3.83
6.90	2.00	0.81	5.00	2.78	1.04	3.83
6.95	2.00	0.81	5.00	2.78	1.04	3.83
7.00	2.00	0.81	5.00	2.78	1.04	3.83
7.05	2.00	0.81	5.00	2.78	1.04	3.83
7.10	2.00	0.81	5.00	2.78	1.04	3.83
7.15	2.00	0.81	5.00	2.78	1.04	3.83
7.20	2.00	0.81	5.00	2.78	1.04	3.83
7.25	2.00	0.81	5.00	2.78	1.04	3.83
7.30	2.00	0.81	5.00	2.78	1.04	3.83
7.35	2.00	0.81	5.00	2.78	1.04	3.83
7.40	2.00	0.81	5.00	2.78	1.04	3.83
7.45	2.00	0.81	5.00	2.78	1.04	3.83
7.50	2.00	0.81	5.00	2.78	1.04	3.83
7.55	2.00	0.81	5.00	2.78	1.04	3.83
7.60	2.00	0.81	5.00	2.78	1.04	3.83
7.65	2.00	0.81	5.00	2.78	1.04	3.83
7.70	2.00	0.81	5.00	2.78	1.04	3.83
7.75	2.00	0.81	5.00	2.78	1.04	3.83
7.80	2.00	0.81	5.00	2.78	1.04	3.83
7.85	2.00	0.81	5.00	2.78	1.04	3.83
7.90	2.00	0.81	5.00	2.78	1.04	3.83
7.95	2.00	0.81	5.00	2.78	1.04	3.83
8.00	2.00	0.81	5.00	2.78	1.04	3.83
8.05	2.00	0.81	5.00	2.78	1.04	3.83
8.10	2.00	0.81	5.00	2.78	1.04	3.83
8.15	2.00	0.81	5.00	2.78	1.04	3.83
8.20	2.00	0.81	5.00	2.78	1.04	3.83
8.25	2.00	0.81	5.00	2.78	1.04	3.83
8.30	2.00	0.81	5.00	2.78	1.04	3.83
8.35	2.00	0.81	5.00	2.78	1.04	3.83
8.40	2.00	0.81	5.00	2.78	1.04	3.83
8.45	2.00	0.81	5.00	2.78	1.04	3.83
8.50	2.00	0.81	5.00	2.78	1.04	3.83
8.55	2.00	0.81	5.00	2.78	1.04	3.83
8.60	2.00	0.81	5.00	2.78	1.04	3.83
8.65	2.00	0.81	5.00	2.78	1.04	3.83
8.70	2.00	0.81	5.00	2.78	1.04	3.83

8.75	2.00	0.81	5.00	2.78	1.04	3.83
8.80	2.00	0.81	5.00	2.78	1.04	3.83
8.85	2.00	0.81	5.00	2.78	1.04	3.83
8.90	2.00	0.81	5.00	2.78	1.04	3.83
8.95	2.00	0.81	5.00	2.78	1.04	3.83
9.00	2.00	0.81	5.00	2.78	1.04	3.83
9.05	2.00	0.81	5.00	2.78	1.04	3.83
9.10	2.00	0.81	5.00	2.78	1.04	3.83
9.15	2.00	0.81	5.00	2.78	1.04	3.83
9.20	2.00	0.81	5.00	2.78	1.04	3.83
9.25	2.00	0.81	5.00	2.78	1.04	3.83
9.30	2.00	0.81	5.00	2.78	1.04	3.83
9.35	2.00	0.81	5.00	2.78	1.04	3.83
9.40	2.00	0.81	5.00	2.78	1.04	3.83
9.45	2.00	0.81	5.00	2.78	1.04	3.83
9.50	2.00	0.81	5.00	2.78	1.04	3.83
9.55	2.00	0.81	5.00	2.78	1.04	3.83
9.60	2.00	0.81	5.00	2.78	1.04	3.83
9.65	2.00	0.81	5.00	2.78	1.04	3.83
9.70	2.00	0.81	5.00	2.78	1.04	3.83
9.75	2.00	0.81	5.00	2.78	1.04	3.83
9.80	2.00	0.81	5.00	2.78	1.04	3.83
9.85	2.00	0.81	5.00	2.78	1.04	3.83
9.90	2.00	0.81	5.00	2.78	1.04	3.83
9.95	2.00	0.81	5.00	2.78	1.04	3.83
10.00	2.00	0.81	5.00	2.78	1.04	3.83
10.05	2.00	0.81	5.00	2.78	1.04	3.83
10.10	2.00	0.81	5.00	2.78	1.04	3.83
10.15	2.00	0.81	5.00	2.78	1.04	3.83
10.20	2.00	0.81	5.00	2.78	1.04	3.83
10.25	2.00	0.81	5.00	2.78	1.04	3.83
10.30	2.00	0.81	5.00	2.78	1.04	3.83
10.35	2.00	0.81	5.00	2.78	1.04	3.83
10.40	2.00	0.81	5.00	2.78	1.04	3.83
10.45	2.00	0.81	5.00	2.78	1.04	3.83
10.50	2.00	0.81	5.00	2.78	1.04	3.83
10.55	2.00	0.81	5.00	2.78	1.04	3.83
10.60	2.00	0.81	5.00	2.78	1.04	3.83
10.65	2.00	0.81	5.00	2.78	1.04	3.83
10.70	2.00	0.81	5.00	2.78	1.04	3.83
10.75	2.00	0.81	5.00	2.78	1.04	3.83
10.80	2.00	0.81	5.00	2.78	1.04	3.83
10.85	2.00	0.81	5.00	2.78	1.04	3.83
10.90	2.00	0.81	5.00	2.78	1.04	3.83
10.95	2.00	0.81	5.00	2.78	1.04	3.83
11.00	2.00	0.81	5.00	2.78	1.04	3.83
11.05	2.00	0.81	5.00	2.78	1.04	3.83
11.10	2.00	0.81	5.00	2.78	1.04	3.83
11.15	2.00	0.81	5.00	2.78	1.04	3.83
11.20	2.00	0.81	5.00	2.78	1.04	3.83

11.25	2.00	0.81	5.00	2.78	1.04	3.83
11.30	2.00	0.81	5.00	2.78	1.04	3.83
11.35	2.00	0.81	5.00	2.78	1.04	3.83
11.40	2.00	0.81	5.00	2.78	1.04	3.83
11.45	2.00	0.81	5.00	2.78	1.04	3.83
11.50	2.00	0.81	5.00	2.78	1.04	3.83
11.55	2.00	0.81	5.00	2.78	1.04	3.83
11.60	2.00	0.81	5.00	2.78	1.04	3.83
11.65	2.00	0.81	5.00	2.78	1.04	3.83
11.70	2.00	0.81	5.00	2.78	1.04	3.83
11.75	2.00	0.81	5.00	2.78	1.04	3.83
11.80	2.00	0.81	5.00	2.78	1.04	3.83
11.85	2.00	0.81	5.00	2.78	1.04	3.83
11.90	2.00	0.81	5.00	2.78	1.04	3.83
11.95	2.00	0.81	5.00	2.78	1.04	3.83
12.00	2.00	0.80	5.00	2.78	1.04	3.83
12.05	2.00	0.80	5.00	2.78	1.04	3.83
12.10	2.00	0.80	5.00	2.78	1.04	3.83
12.15	2.00	0.80	5.00	2.78	1.04	3.83
12.20	2.00	0.80	5.00	2.78	1.04	3.83
12.25	2.00	0.80	5.00	2.78	1.04	3.83
12.30	2.00	0.80	5.00	2.78	1.04	3.83
12.35	2.00	0.80	5.00	2.78	1.04	3.83
12.40	2.00	0.80	5.00	2.78	1.04	3.83
12.45	2.00	0.80	5.00	2.78	1.04	3.83
12.50	2.00	0.80	5.00	2.78	1.04	3.83
12.55	2.00	0.80	5.00	2.78	1.04	3.83
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12.75	2.00	0.80	5.00	2.78	1.04	3.83
12.80	2.00	0.80	5.00	2.78	1.04	3.83
12.85	2.00	0.80	5.00	2.78	1.04	3.83
12.90	2.00	0.80	5.00	2.78	1.04	3.83
12.95	2.00	0.80	5.00	2.78	1.04	3.83
13.00	2.00	0.80	5.00	2.78	1.04	3.83
13.05	2.00	0.80	5.00	2.78	1.04	3.83
13.10	2.00	0.80	5.00	2.78	1.04	3.83
13.15	2.00	0.80	5.00	2.78	1.04	3.83
13.20	2.00	0.80	5.00	2.78	1.04	3.83
13.25	2.00	0.80	5.00	2.78	1.04	3.83
13.30	2.00	0.80	5.00	2.78	1.04	3.83
13.35	2.00	0.80	5.00	2.78	1.04	3.83
13.40	2.00	0.80	5.00	2.78	1.04	3.83
13.45	2.00	0.80	5.00	2.78	1.04	3.83
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13.55	2.00	0.80	5.00	2.78	1.04	3.83
13.60	2.00	0.80	5.00	2.78	1.04	3.83
13.65	2.00	0.80	5.00	2.78	1.04	3.83
13.70	2.00	0.80	5.00	2.78	1.04	3.83

13.75	2.00	0.80	5.00	2.78	1.04	3.83
13.80	2.00	0.80	5.00	2.78	1.04	3.83
13.85	2.00	0.80	5.00	2.78	1.04	3.83
13.90	2.00	0.80	5.00	2.78	1.04	3.83
13.95	2.00	0.80	5.00	2.78	1.04	3.83
14.00	2.00	0.80	5.00	2.78	1.04	3.83
14.05	2.00	0.80	5.00	2.78	1.04	3.83
14.10	2.00	0.80	5.00	2.78	1.04	3.83
14.15	2.00	0.80	5.00	2.78	1.04	3.83
14.20	2.00	0.80	5.00	2.78	1.04	3.83
14.25	2.00	0.80	5.00	2.78	1.04	3.83
14.30	2.00	0.80	5.00	2.78	1.04	3.83
14.35	2.00	0.80	5.00	2.78	1.04	3.83
14.40	2.00	0.80	5.00	2.78	1.04	3.83
14.45	2.00	0.80	5.00	2.78	1.04	3.83
14.50	2.00	0.80	5.00	2.78	1.04	3.83
14.55	2.00	0.80	5.00	2.78	1.04	3.83
14.60	2.00	0.80	5.00	2.78	1.04	3.83
14.65	2.00	0.80	5.00	2.78	1.04	3.83
14.70	2.00	0.80	5.00	2.78	1.04	3.83
14.75	2.00	0.80	5.00	2.78	1.04	3.83
14.80	2.00	0.80	5.00	2.78	1.04	3.83
14.85	2.00	0.80	5.00	2.78	1.04	3.83
14.90	2.00	0.80	5.00	2.78	1.04	3.83
14.95	2.00	0.80	5.00	2.78	1.04	3.83
15.00	2.00	0.80	5.00	2.78	1.04	3.83
15.05	2.00	0.80	5.00	2.78	1.04	3.83
15.10	2.00	0.80	5.00	2.78	1.04	3.83
15.15	2.00	0.80	5.00	2.78	1.04	3.83
15.20	2.00	0.80	5.00	2.78	1.04	3.83
15.25	2.00	0.80	5.00	2.78	1.04	3.83
15.30	2.00	0.80	5.00	2.78	1.04	3.83
15.35	2.00	0.80	5.00	2.78	1.04	3.83
15.40	2.00	0.80	5.00	2.78	1.04	3.83
15.45	2.00	0.80	5.00	2.78	1.04	3.83
15.50	2.00	0.80	5.00	2.78	1.04	3.83
15.55	2.00	0.80	5.00	2.78	1.04	3.83
15.60	2.00	0.80	5.00	2.78	1.04	3.83
15.65	2.00	0.80	5.00	2.78	1.04	3.83
15.70	2.00	0.80	5.00	2.78	1.04	3.83
15.75	2.00	0.80	5.00	2.78	1.04	3.83
15.80	2.00	0.80	5.00	2.78	1.04	3.83
15.85	2.00	0.80	5.00	2.78	1.04	3.83
15.90	2.00	0.80	5.00	2.78	1.04	3.83
15.95	2.00	0.80	5.00	2.78	1.04	3.83
16.00	2.00	0.80	5.00	2.78	1.04	3.83
16.05	2.00	0.80	5.00	2.78	1.04	3.83
16.10	2.00	0.80	5.00	2.78	1.04	3.83
16.15	2.00	0.80	5.00	2.78	1.04	3.83
16.20	2.00	0.80	5.00	2.78	1.04	3.83

16.25	2.00	0.80	5.00	2.78	1.04	3.83
16.30	2.00	0.80	5.00	2.78	1.04	3.83
16.35	2.00	0.80	5.00	2.78	1.04	3.83
16.40	2.00	0.80	5.00	2.78	1.04	3.83
16.45	2.00	0.80	5.00	2.78	1.04	3.83
16.50	2.00	0.80	5.00	2.78	1.04	3.83
16.55	2.00	0.80	5.00	2.78	1.04	3.83
16.60	2.00	0.80	5.00	2.78	1.04	3.83
16.65	2.00	0.80	5.00	2.78	1.04	3.83
16.70	2.00	0.80	5.00	2.78	1.04	3.83
16.75	2.00	0.80	5.00	2.78	1.04	3.83
16.80	2.00	0.80	5.00	2.78	1.04	3.83
16.85	2.00	0.80	5.00	2.78	1.04	3.83
16.90	2.00	0.80	5.00	2.78	1.04	3.83
16.95	2.00	0.80	5.00	2.78	1.04	3.83
17.00	2.00	0.80	5.00	2.78	1.04	3.83
17.05	2.00	0.80	5.00	2.78	1.04	3.83
17.10	2.00	0.80	5.00	2.78	1.04	3.83
17.15	2.00	0.79	5.00	2.78	1.04	3.83
17.20	2.00	0.79	5.00	2.78	1.04	3.83
17.25	2.00	0.79	5.00	2.78	1.04	3.83
17.30	2.00	0.79	5.00	2.78	1.04	3.83
17.35	2.00	0.79	5.00	2.78	1.04	3.83
17.40	2.00	0.79	5.00	2.78	1.04	3.83
17.45	2.00	0.79	5.00	2.78	1.04	3.83
17.50	2.00	0.79	5.00	2.78	1.04	3.83
17.55	2.00	0.79	5.00	2.78	1.04	3.83
17.60	2.00	0.79	5.00	2.78	1.04	3.83
17.65	2.00	0.79	5.00	2.78	1.04	3.83
17.70	2.00	0.79	5.00	2.78	1.04	3.83
17.75	2.00	0.79	5.00	2.78	1.04	3.83
17.80	2.00	0.79	5.00	2.78	1.04	3.83
17.85	2.00	0.79	5.00	2.78	1.04	3.83
17.90	2.00	0.79	5.00	2.78	1.04	3.83
17.95	2.00	0.79	5.00	2.78	1.04	3.83
18.00	2.00	0.79	5.00	2.78	1.04	3.83
18.05	2.00	0.79	5.00	2.78	1.04	3.83
18.10	2.00	0.79	5.00	2.78	1.04	3.83
18.15	2.00	0.79	5.00	2.78	1.04	3.83
18.20	2.00	0.79	5.00	2.78	1.04	3.83
18.25	2.00	0.79	5.00	2.78	1.04	3.83
18.30	2.00	0.79	5.00	2.78	1.04	3.83
18.35	2.00	0.79	5.00	2.78	1.04	3.83
18.40	2.00	0.79	5.00	2.78	1.04	3.83
18.45	2.00	0.79	5.00	2.78	1.04	3.83
18.50	2.00	0.79	5.00	2.78	1.04	3.83
18.55	2.00	0.79	5.00	2.78	1.04	3.83
18.60	2.00	0.79	5.00	2.78	1.04	3.83
18.65	2.00	0.79	5.00	2.78	1.04	3.83
18.70	2.00	0.79	5.00	2.78	1.04	3.83

18.75	2.00	0.79	5.00	2.78	1.04	3.83
18.80	2.00	0.79	5.00	2.78	1.04	3.83
18.85	2.00	0.79	5.00	2.78	1.04	3.83
18.90	2.00	0.79	5.00	2.78	1.04	3.83
18.95	2.00	0.79	5.00	2.78	1.04	3.83
19.00	2.00	0.79	5.00	2.78	1.04	3.83
19.05	0.19	0.79	5.00	2.78	1.04	3.83
19.10	0.19	0.79	5.00	2.78	1.03	3.81
19.15	0.19	0.79	5.00	2.78	1.02	3.80
19.20	0.19	0.79	5.00	2.78	1.00	3.78
19.25	0.20	0.79	5.00	2.78	0.99	3.77
19.30	0.20	0.79	5.00	2.78	0.97	3.76
19.35	0.20	0.79	5.00	2.78	0.96	3.74
19.40	0.20	0.79	5.00	2.78	0.95	3.73
19.45	0.20	0.79	5.00	2.78	0.94	3.72
19.50	0.21	0.79	5.00	2.78	0.92	3.70
19.55	0.21	0.79	5.00	2.78	0.91	3.69
19.60	0.21	0.79	5.00	2.78	0.90	3.68
19.65	0.21	0.79	5.00	2.78	0.88	3.67
19.70	0.21	0.79	5.00	2.78	0.87	3.65
19.75	0.21	0.79	5.00	2.78	0.86	3.64
19.80	0.22	0.79	5.00	2.78	0.85	3.63
19.85	0.22	0.79	5.00	2.78	0.84	3.62
19.90	0.22	0.79	5.00	2.78	0.82	3.61
19.95	0.22	0.79	5.00	2.78	0.81	3.59
20.00	0.22	0.79	5.00	2.78	0.80	3.58
20.05	0.23	0.79	5.00	2.78	0.79	3.57
20.10	0.23	0.79	5.00	2.78	0.78	3.56
20.15	0.23	0.79	5.00	2.78	0.77	3.55
20.20	0.23	0.79	5.00	2.78	0.76	3.54
20.25	0.23	0.79	5.00	2.78	0.74	3.53
20.30	0.23	0.79	5.00	2.78	0.73	3.52
20.35	0.24	0.79	5.00	2.78	0.72	3.50
20.40	0.24	0.79	5.00	2.78	0.71	3.49
20.45	0.24	0.79	5.00	2.78	0.70	3.48
20.50	0.24	0.79	5.00	2.78	0.69	3.47
20.55	0.25	0.79	5.00	2.78	0.68	3.46
20.60	0.25	0.79	5.00	2.78	0.67	3.45
20.65	0.25	0.79	5.00	2.78	0.66	3.44
20.70	0.25	0.79	5.00	2.78	0.65	3.43
20.75	0.25	0.79	5.00	2.78	0.64	3.42
20.80	0.26	0.79	5.00	2.78	0.63	3.41
20.85	0.26	0.79	5.00	2.78	0.62	3.40
20.90	0.26	0.79	5.00	2.78	0.61	3.39
20.95	0.26	0.79	5.00	2.78	0.60	3.38
21.00	0.26	0.79	5.00	2.78	0.59	3.37
21.05	0.27	0.79	5.00	2.78	0.58	3.36
21.10	0.27	0.79	5.00	2.78	0.57	3.35
21.15	0.27	0.79	5.00	2.78	0.56	3.34
21.20	0.27	0.79	5.00	2.78	0.55	3.33

21.25	0.28	0.79	5.00	2.78	0.54	3.32
21.30	0.28	0.79	5.00	2.78	0.53	3.31
21.35	0.28	0.79	5.00	2.78	0.52	3.31
21.40	0.28	0.79	5.00	2.78	0.51	3.30
21.45	0.29	0.79	5.00	2.78	0.50	3.29
21.50	0.29	0.79	5.00	2.78	0.50	3.28
21.55	0.29	0.79	5.00	2.78	0.49	3.27
21.60	0.30	0.79	5.00	2.78	0.48	3.26
21.65	0.30	0.79	5.00	2.78	0.47	3.25
21.70	0.30	0.79	5.00	2.78	0.46	3.24
21.75	0.30	0.79	5.00	2.78	0.45	3.23
21.80	0.31	0.79	5.00	2.78	0.44	3.23
21.85	0.31	0.79	5.00	2.78	0.43	3.22
21.90	0.31	0.79	5.00	2.78	0.43	3.21
21.95	0.32	0.79	5.00	2.78	0.42	3.20
22.00	0.32	0.79	5.00	2.78	0.41	3.19
22.05	0.33	0.79	5.00	2.78	0.40	3.18
22.10	0.33	0.79	5.00	2.78	0.39	3.17
22.15	0.33	0.79	5.00	2.78	0.38	3.17
22.20	0.34	0.79	5.00	2.78	0.38	3.16
22.25	0.34	0.79	5.00	2.78	0.37	3.15
22.30	0.35	0.79	5.00	2.78	0.36	3.14
22.35	0.35	0.78	5.00	2.78	0.35	3.13
22.40	0.36	0.78	5.00	2.78	0.34	3.13
22.45	0.37	0.78	5.00	2.78	0.34	3.12
22.50	0.37	0.78	5.00	2.78	0.33	3.11
22.55	0.38	0.78	5.00	2.78	0.32	3.10
22.60	0.40	0.78	5.00	2.78	0.31	3.10
22.65	0.41	0.78	5.00	2.78	0.31	3.09
22.70	0.44	0.78	5.00	2.78	0.30	3.08
22.75	1.87	0.78	5.00	2.78	0.29	3.07
22.80	1.87	0.78	5.00	2.78	0.28	3.07
22.85	1.87	0.78	5.00	2.78	0.28	3.06
22.90	1.87	0.78	5.00	2.78	0.27	3.05
22.95	1.87	0.78	5.00	2.78	0.26	3.04
23.00	1.87	0.78	5.00	2.78	0.25	3.04
23.05	1.87	0.78	5.00	2.78	0.25	3.03
23.10	1.87	0.78	5.00	2.78	0.24	3.02
23.15	1.87	0.78	5.00	2.78	0.23	3.02
23.20	1.87	0.78	5.00	2.78	0.23	3.01
23.25	1.87	0.78	5.00	2.78	0.22	3.00
23.30	1.87	0.78	5.00	2.78	0.21	2.99
23.35	1.87	0.78	5.00	2.78	0.21	2.99
23.40	1.87	0.78	5.00	2.78	0.20	2.98
23.45	1.87	0.78	5.00	2.78	0.19	2.97
23.50	1.87	0.78	5.00	2.78	0.19	2.97
23.55	1.87	0.78	5.00	2.78	0.18	2.96
23.60	1.87	0.78	5.00	2.78	0.17	2.95
23.65	1.87	0.78	5.00	2.78	0.17	2.95
23.70	1.87	0.78	5.00	2.78	0.16	2.94

23.75	1.87	0.78	5.00	2.78	0.15	2.93
23.80	1.87	0.78	5.00	2.78	0.15	2.93
23.85	1.87	0.78	5.00	2.78	0.14	2.92
23.90	1.87	0.78	5.00	2.78	0.13	2.92
23.95	1.87	0.78	5.00	2.78	0.13	2.91
24.00	1.87	0.78	5.00	2.78	0.12	2.90
24.05	1.87	0.78	5.00	2.78	0.11	2.90
24.10	1.87	0.78	5.00	2.78	0.11	2.89
24.15	1.87	0.78	5.00	2.78	0.10	2.88
24.20	1.87	0.78	5.00	2.78	0.10	2.88
24.25	1.87	0.78	5.00	2.78	0.09	2.87
24.30	1.87	0.78	5.00	2.78	0.08	2.87
24.35	1.87	0.78	5.00	2.78	0.08	2.86
24.40	1.87	0.78	5.00	2.78	0.07	2.85
24.45	1.87	0.78	5.00	2.78	0.07	2.85
24.50	1.87	0.78	5.00	2.78	0.06	2.84
24.55	1.87	0.78	5.00	2.78	0.06	2.84
24.60	1.87	0.78	5.00	2.78	0.05	2.83
24.65	1.87	0.78	5.00	2.78	0.04	2.83
24.70	1.87	0.78	5.00	2.78	0.04	2.82
24.75	1.87	0.78	5.00	2.78	0.03	2.81
24.80	1.87	0.78	5.00	2.78	0.03	2.81
24.85	1.87	0.78	5.00	2.78	0.02	2.80
24.90	1.87	0.78	5.00	2.78	0.02	2.80
24.95	1.87	0.78	5.00	2.78	0.01	2.79
25.00	1.87	0.78	5.00	2.78	0.01	2.79
25.05	1.87	0.78	2.40	2.78	0.00	2.78
25.10	1.87	0.78	2.39	2.78	0.00	2.78
25.15	1.87	0.78	2.39	2.78	0.00	2.78
25.20	1.87	0.78	2.39	2.78	0.00	2.78
25.25	1.87	0.78	2.39	2.78	0.00	2.78
25.30	1.87	0.78	2.39	2.78	0.00	2.78
25.35	1.87	0.78	2.38	2.78	0.00	2.78
25.40	1.87	0.79	2.38	2.78	0.00	2.78
25.45	1.87	0.79	2.38	2.78	0.00	2.78
25.50	1.87	0.79	2.38	2.77	0.00	2.77
25.55	1.87	0.79	2.37	2.77	0.00	2.77
25.60	1.87	0.79	2.37	2.77	0.00	2.77
25.65	1.87	0.79	2.37	2.77	0.00	2.77
25.70	1.87	0.79	2.37	2.77	0.00	2.77
25.75	1.87	0.79	2.36	2.77	0.00	2.77
25.80	1.87	0.79	2.36	2.77	0.00	2.77
25.85	1.87	0.79	2.36	2.77	0.00	2.77
25.90	1.87	0.79	2.36	2.77	0.00	2.77
25.95	1.87	0.79	2.36	2.77	0.00	2.77
26.00	1.87	0.79	2.35	2.76	0.00	2.76
26.05	1.87	0.80	2.35	2.76	0.00	2.76
26.10	1.87	0.80	2.35	2.76	0.00	2.76
26.15	1.87	0.80	2.35	2.76	0.00	2.76
26.20	1.87	0.80	2.34	2.76	0.00	2.76

26.25	1.87	0.80	2.34	2.76	0.00	2.76
26.30	1.87	0.80	2.34	2.75	0.00	2.75
26.35	1.87	0.80	2.34	2.75	0.00	2.75
26.40	1.87	0.80	2.34	2.75	0.00	2.75
26.45	1.87	0.80	2.33	2.75	0.00	2.75
26.50	1.87	0.80	2.33	2.74	0.00	2.74
26.55	1.87	0.80	2.33	2.74	0.00	2.74
26.60	1.87	0.80	2.33	2.74	0.00	2.74
26.65	1.87	0.80	2.32	2.73	0.00	2.73
26.70	1.87	0.80	2.32	2.73	0.00	2.73
26.75	1.87	0.81	2.32	2.73	0.00	2.73
26.80	1.87	0.81	2.32	2.72	0.00	2.72
26.85	1.87	0.81	2.32	2.72	0.00	2.72
26.90	1.87	0.81	2.31	2.71	0.00	2.71
26.95	1.87	0.81	2.31	2.71	0.00	2.71
27.00	1.87	0.81	2.31	2.71	0.00	2.71
27.05	1.87	0.81	2.31	2.70	0.00	2.70
27.10	1.87	0.81	2.31	2.70	0.00	2.70
27.15	0.43	0.81	0.53*	2.69	0.00	2.69
27.20	0.41	0.81	0.50*	2.69	0.00	2.69
27.25	0.39	0.81	0.48*	2.68	0.00	2.68
27.30	0.38	0.81	0.47*	2.68	0.00	2.68
27.35	0.37	0.81	0.46*	2.68	0.00	2.68
27.40	0.36	0.81	0.45*	2.67	0.00	2.67
27.45	0.36	0.82	0.44*	2.67	0.00	2.67
27.50	0.35	0.82	0.43*	2.66	0.00	2.66
27.55	0.35	0.82	0.42*	2.66	0.00	2.66
27.60	0.34	0.82	0.42*	2.65	0.00	2.65
27.65	0.34	0.82	0.41*	2.64	0.00	2.64
27.70	0.33	0.82	0.41*	2.64	0.00	2.64
27.75	0.33	0.82	0.40*	2.63	0.00	2.63
27.80	0.33	0.82	0.40*	2.63	0.00	2.63
27.85	0.32	0.82	0.39*	2.62	0.00	2.62
27.90	0.36	0.82	0.43*	2.62	0.00	2.62
27.95	0.35	0.82	0.43*	2.61	0.00	2.61
28.00	0.35	0.82	0.42*	2.61	0.00	2.61
28.05	0.34	0.82	0.42*	2.60	0.00	2.60
28.10	0.34	0.82	0.41*	2.59	0.00	2.59
28.15	0.33	0.83	0.41*	2.59	0.00	2.59
28.20	0.33	0.83	0.40*	2.58	0.00	2.58
28.25	0.33	0.83	0.40*	2.58	0.00	2.58
28.30	0.32	0.83	0.39*	2.57	0.00	2.57
28.35	0.32	0.83	0.39*	2.57	0.00	2.57
28.40	0.32	0.83	0.38*	2.56	0.00	2.56
28.45	0.31	0.83	0.38*	2.55	0.00	2.55
28.50	0.31	0.83	0.37*	2.55	0.00	2.55
28.55	0.31	0.83	0.37*	2.54	0.00	2.54
28.60	0.30	0.83	0.36*	2.53	0.00	2.53
28.65	0.30	0.83	0.36*	2.53	0.00	2.53
28.70	0.30	0.83	0.36*	2.52	0.00	2.52

28.75	0.29	0.83	0.35*	2.52	0.00	2.52
28.80	0.29	0.83	0.35*	2.51	0.00	2.51
28.85	0.29	0.83	0.35*	2.50	0.00	2.50
28.90	0.29	0.84	0.34*	2.50	0.00	2.50
28.95	0.28	0.84	0.34*	2.49	0.00	2.49
29.00	0.28	0.84	0.34*	2.48	0.00	2.48
29.05	0.28	0.84	0.33*	2.48	0.00	2.48
29.10	0.28	0.84	0.33*	2.47	0.00	2.47
29.15	0.27	0.84	0.33*	2.46	0.00	2.46
29.20	0.27	0.84	0.32*	2.46	0.00	2.46
29.25	0.27	0.84	0.32*	2.45	0.00	2.45
29.30	0.27	0.84	0.32*	2.44	0.00	2.44
29.35	0.27	0.84	0.32*	2.43	0.00	2.43
29.40	0.26	0.84	0.31*	2.43	0.00	2.43
29.45	0.26	0.84	0.31*	2.42	0.00	2.42
29.50	0.26	0.84	0.31*	2.41	0.00	2.41
29.55	0.26	0.84	0.31*	2.41	0.00	2.41
29.60	0.26	0.84	0.30*	2.40	0.00	2.40
29.65	0.25	0.85	0.30*	2.39	0.00	2.39
29.70	0.25	0.85	0.30*	2.38	0.00	2.38
29.75	0.25	0.85	0.29*	2.38	0.00	2.38
29.80	0.25	0.85	0.29*	2.37	0.00	2.37
29.85	0.25	0.85	0.29*	2.36	0.00	2.36
29.90	0.24	0.85	0.29*	2.35	0.00	2.35
29.95	0.24	0.85	0.29*	2.35	0.00	2.35
30.00	0.24	0.85	0.28*	2.34	0.00	2.34
30.05	0.24	0.85	0.28*	2.33	0.00	2.33
30.10	0.24	0.85	0.28*	2.32	0.00	2.32
30.15	0.24	0.85	0.28*	2.32	0.00	2.32
30.20	0.24	0.85	0.28*	2.31	0.00	2.31
30.25	0.24	0.85	0.28*	2.30	0.00	2.30
30.30	0.24	0.85	0.28*	2.29	0.00	2.29
30.35	0.24	0.85	0.28*	2.28	0.00	2.28
30.40	0.23	0.85	0.28*	2.28	0.00	2.28
30.45	0.23	0.85	0.27*	2.27	0.00	2.27
30.50	0.23	0.85	0.27*	2.26	0.00	2.26
30.55	0.23	0.85	0.27*	2.25	0.00	2.25
30.60	0.23	0.85	0.27*	2.24	0.00	2.24
30.65	0.23	0.85	0.27*	2.24	0.00	2.24
30.70	0.23	0.85	0.27*	2.23	0.00	2.23
30.75	0.23	0.85	0.27*	2.22	0.00	2.22
30.80	0.23	0.86	0.27*	2.21	0.00	2.21
30.85	0.23	0.86	0.27*	2.20	0.00	2.20
30.90	0.23	0.86	0.27*	2.20	0.00	2.20
30.95	0.23	0.86	0.27*	2.19	0.00	2.19
31.00	0.23	0.86	0.26*	2.18	0.00	2.18
31.05	0.23	0.86	0.26*	2.17	0.00	2.17
31.10	0.23	0.86	0.26*	2.16	0.00	2.16
31.15	0.22	0.86	0.26*	2.16	0.00	2.16
31.20	0.22	0.86	0.26*	2.15	0.00	2.15

31.25	0.22	0.86	0.26*	2.14	0.00	2.14
31.30	0.22	0.86	0.26*	2.13	0.00	2.13
31.35	0.22	0.86	0.26*	2.12	0.00	2.12
31.40	0.22	0.86	0.26*	2.11	0.00	2.11
31.45	0.22	0.86	0.26*	2.11	0.00	2.11
31.50	0.22	0.86	0.26*	2.10	0.00	2.10
31.55	0.22	0.86	0.26*	2.09	0.00	2.09
31.60	0.22	0.86	0.25*	2.08	0.00	2.08
31.65	0.22	0.86	0.25*	2.07	0.00	2.07
31.70	0.22	0.86	0.25*	2.07	0.00	2.07
31.75	0.22	0.86	0.25*	2.06	0.00	2.06
31.80	0.22	0.86	0.25*	2.05	0.00	2.05
31.85	0.22	0.86	0.25*	2.04	0.00	2.04
31.90	0.22	0.86	0.25*	2.03	0.00	2.03
31.95	0.22	0.86	0.25*	2.02	0.00	2.02
32.00	0.21	0.86	0.25*	2.01	0.00	2.01
32.05	0.21	0.86	0.25*	2.01	0.00	2.01
32.10	0.21	0.86	0.25*	2.00	0.00	2.00
32.15	0.21	0.86	0.25*	1.99	0.00	1.99
32.20	0.21	0.86	0.25*	1.98	0.00	1.98
32.25	0.21	0.86	0.24*	1.97	0.00	1.97
32.30	0.21	0.86	0.24*	1.96	0.00	1.96
32.35	0.21	0.86	0.24*	1.95	0.00	1.95
32.40	0.21	0.87	0.24*	1.95	0.00	1.95
32.45	0.21	0.87	0.24*	1.94	0.00	1.94
32.50	0.21	0.87	0.24*	1.93	0.00	1.93
32.55	0.21	0.87	0.24*	1.92	0.00	1.92
32.60	0.21	0.87	0.24*	1.91	0.00	1.91
32.65	0.21	0.87	0.24*	1.90	0.00	1.90
32.70	0.21	0.87	0.24*	1.89	0.00	1.89
32.75	0.21	0.87	0.24*	1.89	0.00	1.89
32.80	0.21	0.87	0.24*	1.88	0.00	1.88
32.85	0.20	0.87	0.24*	1.87	0.00	1.87
32.90	0.20	0.87	0.24*	1.86	0.00	1.86
32.95	0.20	0.87	0.23*	1.85	0.00	1.85
33.00	0.20	0.87	0.23*	1.84	0.00	1.84
33.05	0.20	0.87	0.23*	1.83	0.00	1.83
33.10	0.20	0.87	0.23*	1.82	0.00	1.82
33.15	0.20	0.87	0.23*	1.82	0.00	1.82
33.20	0.20	0.87	0.23*	1.81	0.00	1.81
33.25	0.20	0.87	0.23*	1.80	0.00	1.80
33.30	0.20	0.87	0.23*	1.79	0.00	1.79
33.35	0.20	0.87	0.23*	1.78	0.00	1.78
33.40	0.20	0.87	0.23*	1.77	0.00	1.77
33.45	0.20	0.87	0.23*	1.76	0.00	1.76
33.50	0.20	0.87	0.23*	1.75	0.00	1.75
33.55	0.20	0.87	0.23*	1.74	0.00	1.74
33.60	0.20	0.87	0.23*	1.73	0.00	1.73
33.65	0.20	0.87	0.23*	1.73	0.00	1.73
33.70	0.20	0.87	0.22*	1.72	0.00	1.72

33.75	0.20	0.87	0.22*	1.71	0.00	1.71
33.80	0.19	0.87	0.22*	1.70	0.00	1.70
33.85	0.19	0.87	0.22*	1.69	0.00	1.69
33.90	0.19	0.87	0.22*	1.68	0.00	1.68
33.95	0.19	0.87	0.22*	1.67	0.00	1.67
34.00	0.19	0.87	0.22*	1.66	0.00	1.66
34.05	0.19	0.87	0.22*	1.65	0.00	1.65
34.10	0.19	0.87	0.22*	1.64	0.00	1.64
34.15	0.19	0.87	0.22*	1.63	0.00	1.63
34.20	0.19	0.87	0.22*	1.63	0.00	1.63
34.25	0.19	0.87	0.22*	1.62	0.00	1.62
34.30	0.19	0.87	0.22*	1.61	0.00	1.61
34.35	0.19	0.88	0.22*	1.60	0.00	1.60
34.40	0.19	0.88	0.22*	1.59	0.00	1.59
34.45	0.19	0.88	0.22*	1.58	0.00	1.58
34.50	0.19	0.88	0.21*	1.57	0.00	1.57
34.55	0.19	0.88	0.21*	1.56	0.00	1.56
34.60	0.19	0.88	0.21*	1.55	0.00	1.55
34.65	0.19	0.88	0.21*	1.54	0.00	1.54
34.70	0.19	0.88	0.21*	1.53	0.00	1.53
34.75	0.19	0.88	0.21*	1.52	0.00	1.52
34.80	0.19	0.88	0.21*	1.51	0.00	1.51
34.85	0.18	0.88	0.21*	1.50	0.00	1.50
34.90	0.18	0.88	0.21*	1.49	0.00	1.49
34.95	0.18	0.88	0.21*	1.48	0.00	1.48
35.00	0.18	0.88	0.21*	1.47	0.00	1.47
35.05	0.18	0.88	0.21*	1.46	0.00	1.46
35.10	0.18	0.88	0.21*	1.45	0.00	1.45
35.15	0.18	0.88	0.21*	1.45	0.00	1.45
35.20	0.18	0.88	0.21*	1.44	0.00	1.44
35.25	0.18	0.88	0.21*	1.43	0.00	1.43
35.30	0.18	0.88	0.21*	1.42	0.00	1.42
35.35	0.18	0.88	0.21*	1.41	0.00	1.41
35.40	0.18	0.88	0.21*	1.40	0.00	1.40
35.45	0.18	0.88	0.21*	1.39	0.00	1.39
35.50	0.18	0.88	0.21*	1.38	0.00	1.38
35.55	0.18	0.88	0.21*	1.37	0.00	1.37
35.60	0.18	0.88	0.21*	1.36	0.00	1.36
35.65	0.18	0.88	0.21*	1.35	0.00	1.35
35.70	0.18	0.88	0.21*	1.34	0.00	1.34
35.75	0.18	0.88	0.21*	1.33	0.00	1.33
35.80	0.18	0.88	0.21*	1.32	0.00	1.32
35.85	0.18	0.88	0.20*	1.31	0.00	1.31
35.90	0.18	0.88	0.20*	1.30	0.00	1.30
35.95	0.18	0.88	0.20*	1.29	0.00	1.29
36.00	0.18	0.88	0.20*	1.28	0.00	1.28
36.05	0.18	0.88	0.20*	1.27	0.00	1.27
36.10	0.18	0.88	0.20*	1.26	0.00	1.26
36.15	0.18	0.88	0.20*	1.25	0.00	1.25
36.20	0.18	0.88	0.20*	1.24	0.00	1.24

36.25	0.18	0.88	0.20*	1.23	0.00	1.23
36.30	0.18	0.88	0.20*	1.22	0.00	1.22
36.35	0.18	0.88	0.20*	1.21	0.00	1.21
36.40	0.18	0.88	0.20*	1.20	0.00	1.20
36.45	0.18	0.88	0.20*	1.19	0.00	1.19
36.50	0.18	0.88	0.20*	1.18	0.00	1.18
36.55	0.18	0.88	0.20*	1.17	0.00	1.17
36.60	0.18	0.88	0.20*	1.16	0.00	1.16
36.65	0.18	0.88	0.20*	1.15	0.00	1.15
36.70	0.18	0.88	0.20*	1.14	0.00	1.14
36.75	0.18	0.88	0.20*	1.13	0.00	1.13
36.80	0.18	0.88	0.20*	1.12	0.00	1.12
36.85	0.18	0.88	0.20*	1.11	0.00	1.11
36.90	0.18	0.88	0.20*	1.10	0.00	1.10
36.95	0.18	0.88	0.20*	1.09	0.00	1.09
37.00	0.18	0.89	0.20*	1.08	0.00	1.08
37.05	0.18	0.89	0.20*	1.07	0.00	1.07
37.10	0.18	0.89	0.20*	1.07	0.00	1.07
37.15	0.18	0.89	0.20*	1.06	0.00	1.06
37.20	0.18	0.89	0.20*	1.05	0.00	1.05
37.25	0.18	0.89	0.20*	1.04	0.00	1.04
37.30	0.18	0.89	0.20*	1.03	0.00	1.03
37.35	0.18	0.89	0.20*	1.02	0.00	1.02
37.40	0.18	0.89	0.20*	1.01	0.00	1.01
37.45	0.18	0.89	0.20*	1.00	0.00	1.00
37.50	0.18	0.89	0.20*	0.99	0.00	0.99
37.55	0.18	0.89	0.20*	0.98	0.00	0.98
37.60	0.18	0.89	0.20*	0.97	0.00	0.97
37.65	0.18	0.89	0.20*	0.96	0.00	0.96
37.70	0.18	0.89	0.20*	0.95	0.00	0.95
37.75	0.18	0.89	0.20*	0.94	0.00	0.94
37.80	0.18	0.89	0.20*	0.93	0.00	0.93
37.85	0.18	0.89	0.20*	0.92	0.00	0.92
37.90	0.17	0.89	0.20*	0.91	0.00	0.91
37.95	0.17	0.89	0.20*	0.90	0.00	0.90
38.00	0.17	0.89	0.20*	0.89	0.00	0.89
38.05	0.17	0.89	0.20*	0.88	0.00	0.88
38.10	0.17	0.89	0.20*	0.87	0.00	0.87
38.15	0.17	0.89	0.20*	0.86	0.00	0.86
38.20	0.17	0.89	0.20*	0.85	0.00	0.85
38.25	0.17	0.89	0.20*	0.84	0.00	0.84
38.30	0.17	0.89	0.20*	0.83	0.00	0.83
38.35	0.17	0.89	0.20*	0.82	0.00	0.82
38.40	0.17	0.89	0.20*	0.81	0.00	0.81
38.45	0.17	0.89	0.20*	0.80	0.00	0.80
38.50	0.17	0.89	0.20*	0.79	0.00	0.79
38.55	0.17	0.89	0.19*	0.78	0.00	0.78
38.60	0.17	0.89	0.19*	0.77	0.00	0.77
38.65	0.17	0.89	0.19*	0.76	0.00	0.76
38.70	0.17	0.89	0.19*	0.75	0.00	0.75

38.75	0.17	0.89	0.19*	0.74	0.00	0.74
38.80	0.17	0.89	0.19*	0.73	0.00	0.73
38.85	0.17	0.89	0.19*	0.72	0.00	0.72
38.90	0.17	0.89	0.19*	0.71	0.00	0.71
38.95	0.17	0.89	0.19*	0.70	0.00	0.70
39.00	0.17	0.89	0.19*	0.69	0.00	0.69
39.05	0.17	0.89	0.19*	0.68	0.00	0.68
39.10	0.17	0.89	0.19*	0.67	0.00	0.67
39.15	0.17	0.89	0.19*	0.66	0.00	0.66
39.20	0.17	0.89	0.19*	0.65	0.00	0.65
39.25	0.17	0.89	0.19*	0.64	0.00	0.64
39.30	0.17	0.89	0.19*	0.63	0.00	0.63
39.35	0.17	0.89	0.19*	0.62	0.00	0.62
39.40	0.17	0.89	0.19*	0.61	0.00	0.61
39.45	0.17	0.89	0.19*	0.60	0.00	0.60
39.50	0.17	0.89	0.19*	0.59	0.00	0.59
39.55	0.17	0.89	0.19*	0.58	0.00	0.58
39.60	0.17	0.89	0.19*	0.57	0.00	0.57
39.65	0.17	0.89	0.19*	0.56	0.00	0.56
39.70	0.17	0.89	0.19*	0.55	0.00	0.55
39.75	0.17	0.89	0.19*	0.54	0.00	0.54
39.80	0.17	0.89	0.19*	0.53	0.00	0.53
39.85	0.17	0.89	0.19*	0.52	0.00	0.52
39.90	0.17	0.89	0.19*	0.51	0.00	0.51
39.95	0.17	0.89	0.19*	0.50	0.00	0.50
40.00	0.17	0.89	0.19*	0.49	0.00	0.49
40.05	0.17	0.89	0.19*	0.48	0.00	0.48
40.10	0.17	0.89	0.19*	0.47	0.00	0.47
40.15	0.18	0.89	0.20*	0.46	0.00	0.46
40.20	0.18	0.89	0.20*	0.45	0.00	0.45
40.25	0.18	0.89	0.20*	0.44	0.00	0.44
40.30	0.18	0.89	0.20*	0.43	0.00	0.43
40.35	0.18	0.89	0.21*	0.42	0.00	0.42
40.40	0.19	0.89	0.21*	0.41	0.00	0.41
40.45	0.19	0.89	0.21*	0.40	0.00	0.40
40.50	0.19	0.89	0.21*	0.39	0.00	0.39
40.55	0.19	0.89	0.22*	0.38	0.00	0.38
40.60	0.20	0.89	0.22*	0.37	0.00	0.37
40.65	0.20	0.89	0.22*	0.36	0.00	0.36
40.70	0.20	0.89	0.22*	0.36	0.00	0.36
40.75	0.20	0.89	0.23*	0.35	0.00	0.35
40.80	0.20	0.89	0.23*	0.34	0.00	0.34
40.85	0.21	0.89	0.23*	0.33	0.00	0.33
40.90	0.21	0.89	0.23*	0.32	0.00	0.32
40.95	0.21	0.89	0.24*	0.31	0.00	0.31
41.00	0.21	0.89	0.24*	0.31	0.00	0.31
41.05	0.22	0.89	0.24*	0.30	0.00	0.30
41.10	0.22	0.89	0.24*	0.29	0.00	0.29
41.15	0.22	0.89	0.25*	0.28	0.00	0.28
41.20	0.22	0.89	0.25*	0.27	0.00	0.27

41.25	0.23	0.89	0.25*	0.27	0.00	0.27
41.30	0.23	0.89	0.26*	0.26	0.00	0.26
41.35	0.23	0.89	0.26*	0.25	0.00	0.25
41.40	0.23	0.89	0.26*	0.24	0.00	0.24
41.45	0.24	0.89	0.27*	0.23	0.00	0.23
41.50	0.24	0.89	0.27*	0.23	0.00	0.23
41.55	0.24	0.89	0.27*	0.22	0.00	0.22
41.60	0.25	0.89	0.27*	0.21	0.00	0.21
41.65	0.25	0.89	0.28*	0.21	0.00	0.21
41.70	0.25	0.89	0.28*	0.20	0.00	0.20
41.75	0.25	0.89	0.28*	0.19	0.00	0.19
41.80	0.26	0.89	0.29*	0.18	0.00	0.18
41.85	0.26	0.89	0.29*	0.18	0.00	0.18
41.90	0.26	0.89	0.30*	0.17	0.00	0.17
41.95	0.27	0.89	0.30*	0.16	0.00	0.16
42.00	0.27	0.89	0.30*	0.16	0.00	0.16
42.05	0.28	0.89	0.31*	0.15	0.00	0.15
42.10	0.28	0.89	0.31*	0.14	0.00	0.14
42.15	0.28	0.89	0.32*	0.14	0.00	0.14
42.20	0.29	0.89	0.32*	0.13	0.00	0.13
42.25	0.29	0.89	0.33*	0.13	0.00	0.13
42.30	0.30	0.89	0.33*	0.12	0.00	0.12
42.35	0.30	0.89	0.34*	0.11	0.00	0.11
42.40	0.31	0.89	0.34*	0.11	0.00	0.11
42.45	0.31	0.89	0.35*	0.10	0.00	0.10
42.50	0.32	0.89	0.36*	0.10	0.00	0.10
42.55	0.32	0.89	0.36*	0.09	0.00	0.09
42.60	0.33	0.89	0.37*	0.09	0.00	0.09
42.65	0.34	0.89	0.38*	0.08	0.00	0.08
42.70	0.35	0.89	0.40*	0.08	0.00	0.08
42.75	0.37	0.89	0.41*	0.07	0.00	0.07
42.80	0.40	0.89	0.45*	0.07	0.00	0.07
42.85	1.74	0.89	1.94	0.06	0.00	0.06
42.90	1.74	0.89	1.94	0.06	0.00	0.06
42.95	1.73	0.89	1.94	0.05	0.00	0.05
43.00	1.73	0.89	1.94	0.05	0.00	0.05
43.05	1.73	0.89	1.94	0.05	0.00	0.05
43.10	1.73	0.89	1.94	0.04	0.00	0.04
43.15	1.73	0.89	1.94	0.04	0.00	0.04
43.20	1.73	0.89	1.94	0.03	0.00	0.03
43.25	1.73	0.89	1.94	0.03	0.00	0.03
43.30	1.73	0.89	1.94	0.03	0.00	0.03
43.35	1.73	0.89	1.94	0.03	0.00	0.03
43.40	1.73	0.89	1.94	0.02	0.00	0.02
43.45	1.73	0.89	1.93	0.02	0.00	0.02
43.50	1.73	0.89	1.93	0.02	0.00	0.02
43.55	1.73	0.89	1.93	0.02	0.00	0.02
43.60	1.73	0.89	1.93	0.02	0.00	0.02
43.65	1.73	0.89	1.93	0.01	0.00	0.01
43.70	1.73	0.89	1.93	0.01	0.00	0.01

43.75	1.73	0.89	1.93	0.01	0.00	0.01
43.80	1.73	0.89	1.93	0.01	0.00	0.01
43.85	1.73	0.89	1.93	0.01	0.00	0.01
43.90	1.73	0.89	1.93	0.01	0.00	0.01
43.95	1.73	0.89	1.93	0.01	0.00	0.01
44.00	1.73	0.89	1.93	0.01	0.00	0.01
44.05	1.72	0.89	1.93	0.01	0.00	0.01
44.10	1.72	0.89	1.93	0.00	0.00	0.00
44.15	1.72	0.89	1.93	0.00	0.00	0.00
44.20	1.72	0.89	1.93	0.00	0.00	0.00
44.25	1.72	0.89	1.93	0.00	0.00	0.00
44.30	1.72	0.89	1.93	0.00	0.00	0.00
44.35	1.72	0.89	1.93	0.00	0.00	0.00
44.40	1.72	0.89	1.93	0.00	0.00	0.00
44.45	1.72	0.89	1.93	0.00	0.00	0.00
44.50	1.72	0.89	1.93	0.00	0.00	0.00
44.55	1.72	0.89	1.92	0.00	0.00	0.00
44.60	1.72	0.89	1.92	0.00	0.00	0.00
44.65	1.72	0.89	1.92	0.00	0.00	0.00
44.70	1.72	0.89	1.92	0.00	0.00	0.00
44.75	1.72	0.89	1.92	0.00	0.00	0.00
44.80	1.72	0.89	1.92	0.00	0.00	0.00
44.85	1.72	0.89	1.92	0.00	0.00	0.00
44.90	1.72	0.89	1.92	0.00	0.00	0.00
44.95	1.72	0.89	1.92	0.00	0.00	0.00
45.00	1.72	0.89	1.92	0.00	0.00	0.00
45.05	1.72	0.89	1.92	0.00	0.00	0.00
45.10	1.72	0.89	1.92	0.00	0.00	0.00
45.15	1.72	0.89	1.92	0.00	0.00	0.00
45.20	1.72	0.89	1.92	0.00	0.00	0.00
45.25	1.71	0.89	1.92	0.00	0.00	0.00
45.30	1.71	0.89	1.92	0.00	0.00	0.00
45.35	1.71	0.89	1.92	0.00	0.00	0.00
45.40	1.71	0.89	1.92	0.00	0.00	0.00
45.45	1.71	0.89	1.92	0.00	0.00	0.00
45.50	1.71	0.89	1.92	0.00	0.00	0.00
45.55	1.71	0.89	1.92	0.00	0.00	0.00
45.60	1.71	0.89	1.92	0.00	0.00	0.00
45.65	1.71	0.89	1.92	0.00	0.00	0.00
45.70	1.71	0.89	1.92	0.00	0.00	0.00
45.75	1.71	0.89	1.92	0.00	0.00	0.00
45.80	1.71	0.89	1.91	0.00	0.00	0.00
45.85	1.71	0.89	1.91	0.00	0.00	0.00
45.90	1.71	0.89	1.91	0.00	0.00	0.00
45.95	1.71	0.89	1.91	0.00	0.00	0.00
46.00	1.71	0.89	1.91	0.00	0.00	0.00
46.05	1.71	0.89	1.91	0.00	0.00	0.00
46.10	1.71	0.89	1.91	0.00	0.00	0.00
46.15	1.71	0.89	1.91	0.00	0.00	0.00
46.20	1.71	0.89	1.91	0.00	0.00	0.00

46.25	1.71	0.89	1.91	0.00	0.00	0.00
46.30	1.71	0.89	1.91	0.00	0.00	0.00
46.35	1.71	0.89	1.91	0.00	0.00	0.00
46.40	1.70	0.89	1.91	0.00	0.00	0.00
46.45	1.70	0.89	1.91	0.00	0.00	0.00
46.50	1.70	0.89	1.91	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

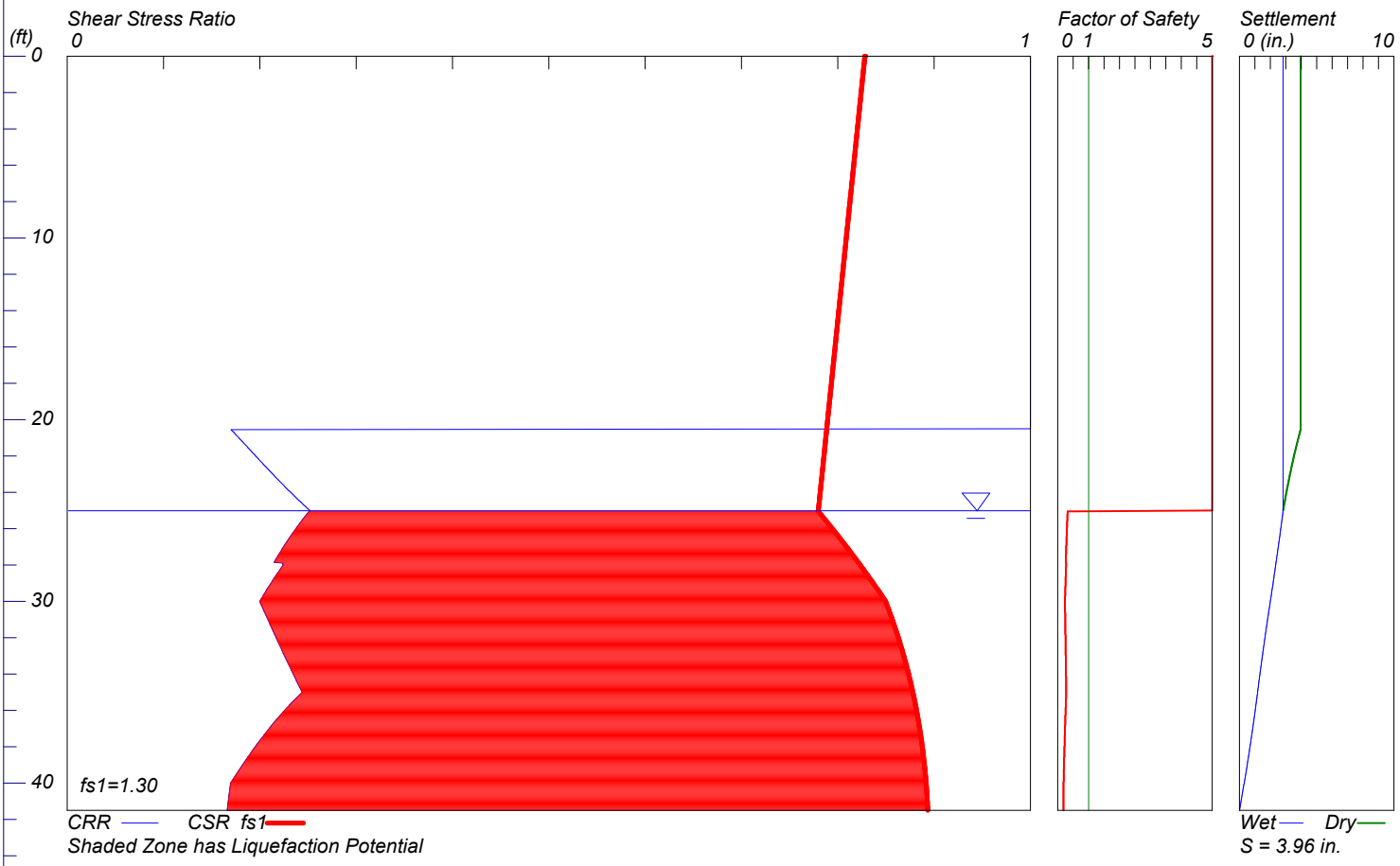
CRRm	Cyclic resistance ratio from soils
CSRfs	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat	Settlement from saturated sands
S_dry	Settlement from dry sands
S_all	Total settlement from saturated and dry sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=BB-11 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



LiquefyPro CivilTech Software USA www.civiltech.com

****
LIQUEFACTION ANALYSIS CALCULATION SHEET

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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\BB11.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=BB-11
Depth of Hole= 41.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 41.5 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=BB-11
Depth of Hole=41.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 41.5 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

Earthquake Magnitude=7.7
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.3
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.0	5.0	110.0	NoLiq
5.0	5.0	110.0	NoLiq
10.0	12.0	110.0	NoLiq
15.0	15.0	110.0	NoLiq
20.5	9.0	110.0	30.0
25.0	16.0	110.0	30.0
30.0	13.0	110.0	30.0
35.0	18.0	110.0	30.0
40.0	13.0	110.0	30.0
41.5	13.0	110.0	30.0

Output Results:

Settlement of saturated sands=2.82 in.
Settlement of dry sands=1.14 in.
Total settlement of saturated and dry sands=3.96 in.
Differential Settlement=1.980 to 2.614 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	2.82	1.14	3.96
0.05	2.00	0.83	5.00	2.82	1.14	3.96
0.10	2.00	0.83	5.00	2.82	1.14	3.96
0.15	2.00	0.83	5.00	2.82	1.14	3.96
0.20	2.00	0.83	5.00	2.82	1.14	3.96
0.25	2.00	0.83	5.00	2.82	1.14	3.96
0.30	2.00	0.83	5.00	2.82	1.14	3.96
0.35	2.00	0.83	5.00	2.82	1.14	3.96
0.40	2.00	0.83	5.00	2.82	1.14	3.96
0.45	2.00	0.83	5.00	2.82	1.14	3.96
0.50	2.00	0.83	5.00	2.82	1.14	3.96
0.55	2.00	0.83	5.00	2.82	1.14	3.96
0.60	2.00	0.83	5.00	2.82	1.14	3.96
0.65	2.00	0.83	5.00	2.82	1.14	3.96
0.70	2.00	0.83	5.00	2.82	1.14	3.96
0.75	2.00	0.83	5.00	2.82	1.14	3.96
0.80	2.00	0.83	5.00	2.82	1.14	3.96
0.85	2.00	0.83	5.00	2.82	1.14	3.96
0.90	2.00	0.83	5.00	2.82	1.14	3.96
0.95	2.00	0.83	5.00	2.82	1.14	3.96
1.00	2.00	0.83	5.00	2.82	1.14	3.96
1.05	2.00	0.83	5.00	2.82	1.14	3.96
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1.75	2.00	0.82	5.00	2.82	1.14	3.96
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9.20	2.00	0.81	5.00	2.82	1.14	3.96
9.25	2.00	0.81	5.00	2.82	1.14	3.96
9.30	2.00	0.81	5.00	2.82	1.14	3.96
9.35	2.00	0.81	5.00	2.82	1.14	3.96
9.40	2.00	0.81	5.00	2.82	1.14	3.96
9.45	2.00	0.81	5.00	2.82	1.14	3.96
9.50	2.00	0.81	5.00	2.82	1.14	3.96
9.55	2.00	0.81	5.00	2.82	1.14	3.96
9.60	2.00	0.81	5.00	2.82	1.14	3.96
9.65	2.00	0.81	5.00	2.82	1.14	3.96
9.70	2.00	0.81	5.00	2.82	1.14	3.96
9.75	2.00	0.81	5.00	2.82	1.14	3.96
9.80	2.00	0.81	5.00	2.82	1.14	3.96
9.85	2.00	0.81	5.00	2.82	1.14	3.96
9.90	2.00	0.81	5.00	2.82	1.14	3.96
9.95	2.00	0.81	5.00	2.82	1.14	3.96
10.00	2.00	0.81	5.00	2.82	1.14	3.96
10.05	2.00	0.81	5.00	2.82	1.14	3.96
10.10	2.00	0.81	5.00	2.82	1.14	3.96
10.15	2.00	0.81	5.00	2.82	1.14	3.96
10.20	2.00	0.81	5.00	2.82	1.14	3.96
10.25	2.00	0.81	5.00	2.82	1.14	3.96
10.30	2.00	0.81	5.00	2.82	1.14	3.96
10.35	2.00	0.81	5.00	2.82	1.14	3.96
10.40	2.00	0.81	5.00	2.82	1.14	3.96
10.45	2.00	0.81	5.00	2.82	1.14	3.96
10.50	2.00	0.81	5.00	2.82	1.14	3.96
10.55	2.00	0.81	5.00	2.82	1.14	3.96
10.60	2.00	0.81	5.00	2.82	1.14	3.96
10.65	2.00	0.81	5.00	2.82	1.14	3.96
10.70	2.00	0.81	5.00	2.82	1.14	3.96
10.75	2.00	0.81	5.00	2.82	1.14	3.96
10.80	2.00	0.81	5.00	2.82	1.14	3.96
10.85	2.00	0.81	5.00	2.82	1.14	3.96
10.90	2.00	0.81	5.00	2.82	1.14	3.96
10.95	2.00	0.81	5.00	2.82	1.14	3.96
11.00	2.00	0.81	5.00	2.82	1.14	3.96
11.05	2.00	0.81	5.00	2.82	1.14	3.96
11.10	2.00	0.81	5.00	2.82	1.14	3.96
11.15	2.00	0.81	5.00	2.82	1.14	3.96
11.20	2.00	0.81	5.00	2.82	1.14	3.96
11.25	2.00	0.81	5.00	2.82	1.14	3.96

11.30	2.00	0.81	5.00	2.82	1.14	3.96
11.35	2.00	0.81	5.00	2.82	1.14	3.96
11.40	2.00	0.81	5.00	2.82	1.14	3.96
11.45	2.00	0.81	5.00	2.82	1.14	3.96
11.50	2.00	0.81	5.00	2.82	1.14	3.96
11.55	2.00	0.81	5.00	2.82	1.14	3.96
11.60	2.00	0.81	5.00	2.82	1.14	3.96
11.65	2.00	0.81	5.00	2.82	1.14	3.96
11.70	2.00	0.81	5.00	2.82	1.14	3.96
11.75	2.00	0.81	5.00	2.82	1.14	3.96
11.80	2.00	0.81	5.00	2.82	1.14	3.96
11.85	2.00	0.81	5.00	2.82	1.14	3.96
11.90	2.00	0.81	5.00	2.82	1.14	3.96
11.95	2.00	0.81	5.00	2.82	1.14	3.96
12.00	2.00	0.80	5.00	2.82	1.14	3.96
12.05	2.00	0.80	5.00	2.82	1.14	3.96
12.10	2.00	0.80	5.00	2.82	1.14	3.96
12.15	2.00	0.80	5.00	2.82	1.14	3.96
12.20	2.00	0.80	5.00	2.82	1.14	3.96
12.25	2.00	0.80	5.00	2.82	1.14	3.96
12.30	2.00	0.80	5.00	2.82	1.14	3.96
12.35	2.00	0.80	5.00	2.82	1.14	3.96
12.40	2.00	0.80	5.00	2.82	1.14	3.96
12.45	2.00	0.80	5.00	2.82	1.14	3.96
12.50	2.00	0.80	5.00	2.82	1.14	3.96
12.55	2.00	0.80	5.00	2.82	1.14	3.96
12.60	2.00	0.80	5.00	2.82	1.14	3.96
12.65	2.00	0.80	5.00	2.82	1.14	3.96
12.70	2.00	0.80	5.00	2.82	1.14	3.96
12.75	2.00	0.80	5.00	2.82	1.14	3.96
12.80	2.00	0.80	5.00	2.82	1.14	3.96
12.85	2.00	0.80	5.00	2.82	1.14	3.96
12.90	2.00	0.80	5.00	2.82	1.14	3.96
12.95	2.00	0.80	5.00	2.82	1.14	3.96
13.00	2.00	0.80	5.00	2.82	1.14	3.96
13.05	2.00	0.80	5.00	2.82	1.14	3.96
13.10	2.00	0.80	5.00	2.82	1.14	3.96
13.15	2.00	0.80	5.00	2.82	1.14	3.96
13.20	2.00	0.80	5.00	2.82	1.14	3.96
13.25	2.00	0.80	5.00	2.82	1.14	3.96
13.30	2.00	0.80	5.00	2.82	1.14	3.96
13.35	2.00	0.80	5.00	2.82	1.14	3.96
13.40	2.00	0.80	5.00	2.82	1.14	3.96
13.45	2.00	0.80	5.00	2.82	1.14	3.96
13.50	2.00	0.80	5.00	2.82	1.14	3.96
13.55	2.00	0.80	5.00	2.82	1.14	3.96
13.60	2.00	0.80	5.00	2.82	1.14	3.96
13.65	2.00	0.80	5.00	2.82	1.14	3.96
13.70	2.00	0.80	5.00	2.82	1.14	3.96
13.75	2.00	0.80	5.00	2.82	1.14	3.96

13.80	2.00	0.80	5.00	2.82	1.14	3.96
13.85	2.00	0.80	5.00	2.82	1.14	3.96
13.90	2.00	0.80	5.00	2.82	1.14	3.96
13.95	2.00	0.80	5.00	2.82	1.14	3.96
14.00	2.00	0.80	5.00	2.82	1.14	3.96
14.05	2.00	0.80	5.00	2.82	1.14	3.96
14.10	2.00	0.80	5.00	2.82	1.14	3.96
14.15	2.00	0.80	5.00	2.82	1.14	3.96
14.20	2.00	0.80	5.00	2.82	1.14	3.96
14.25	2.00	0.80	5.00	2.82	1.14	3.96
14.30	2.00	0.80	5.00	2.82	1.14	3.96
14.35	2.00	0.80	5.00	2.82	1.14	3.96
14.40	2.00	0.80	5.00	2.82	1.14	3.96
14.45	2.00	0.80	5.00	2.82	1.14	3.96
14.50	2.00	0.80	5.00	2.82	1.14	3.96
14.55	2.00	0.80	5.00	2.82	1.14	3.96
14.60	2.00	0.80	5.00	2.82	1.14	3.96
14.65	2.00	0.80	5.00	2.82	1.14	3.96
14.70	2.00	0.80	5.00	2.82	1.14	3.96
14.75	2.00	0.80	5.00	2.82	1.14	3.96
14.80	2.00	0.80	5.00	2.82	1.14	3.96
14.85	2.00	0.80	5.00	2.82	1.14	3.96
14.90	2.00	0.80	5.00	2.82	1.14	3.96
14.95	2.00	0.80	5.00	2.82	1.14	3.96
15.00	2.00	0.80	5.00	2.82	1.14	3.96
15.05	2.00	0.80	5.00	2.82	1.14	3.96
15.10	2.00	0.80	5.00	2.82	1.14	3.96
15.15	2.00	0.80	5.00	2.82	1.14	3.96
15.20	2.00	0.80	5.00	2.82	1.14	3.96
15.25	2.00	0.80	5.00	2.82	1.14	3.96
15.30	2.00	0.80	5.00	2.82	1.14	3.96
15.35	2.00	0.80	5.00	2.82	1.14	3.96
15.40	2.00	0.80	5.00	2.82	1.14	3.96
15.45	2.00	0.80	5.00	2.82	1.14	3.96
15.50	2.00	0.80	5.00	2.82	1.14	3.96
15.55	2.00	0.80	5.00	2.82	1.14	3.96
15.60	2.00	0.80	5.00	2.82	1.14	3.96
15.65	2.00	0.80	5.00	2.82	1.14	3.96
15.70	2.00	0.80	5.00	2.82	1.14	3.96
15.75	2.00	0.80	5.00	2.82	1.14	3.96
15.80	2.00	0.80	5.00	2.82	1.14	3.96
15.85	2.00	0.80	5.00	2.82	1.14	3.96
15.90	2.00	0.80	5.00	2.82	1.14	3.96
15.95	2.00	0.80	5.00	2.82	1.14	3.96
16.00	2.00	0.80	5.00	2.82	1.14	3.96
16.05	2.00	0.80	5.00	2.82	1.14	3.96
16.10	2.00	0.80	5.00	2.82	1.14	3.96
16.15	2.00	0.80	5.00	2.82	1.14	3.96
16.20	2.00	0.80	5.00	2.82	1.14	3.96
16.25	2.00	0.80	5.00	2.82	1.14	3.96

16.30	2.00	0.80	5.00	2.82	1.14	3.96
16.35	2.00	0.80	5.00	2.82	1.14	3.96
16.40	2.00	0.80	5.00	2.82	1.14	3.96
16.45	2.00	0.80	5.00	2.82	1.14	3.96
16.50	2.00	0.80	5.00	2.82	1.14	3.96
16.55	2.00	0.80	5.00	2.82	1.14	3.96
16.60	2.00	0.80	5.00	2.82	1.14	3.96
16.65	2.00	0.80	5.00	2.82	1.14	3.96
16.70	2.00	0.80	5.00	2.82	1.14	3.96
16.75	2.00	0.80	5.00	2.82	1.14	3.96
16.80	2.00	0.80	5.00	2.82	1.14	3.96
16.85	2.00	0.80	5.00	2.82	1.14	3.96
16.90	2.00	0.80	5.00	2.82	1.14	3.96
16.95	2.00	0.80	5.00	2.82	1.14	3.96
17.00	2.00	0.80	5.00	2.82	1.14	3.96
17.05	2.00	0.80	5.00	2.82	1.14	3.96
17.10	2.00	0.80	5.00	2.82	1.14	3.96
17.15	2.00	0.79	5.00	2.82	1.14	3.96
17.20	2.00	0.79	5.00	2.82	1.14	3.96
17.25	2.00	0.79	5.00	2.82	1.14	3.96
17.30	2.00	0.79	5.00	2.82	1.14	3.96
17.35	2.00	0.79	5.00	2.82	1.14	3.96
17.40	2.00	0.79	5.00	2.82	1.14	3.96
17.45	2.00	0.79	5.00	2.82	1.14	3.96
17.50	2.00	0.79	5.00	2.82	1.14	3.96
17.55	2.00	0.79	5.00	2.82	1.14	3.96
17.60	2.00	0.79	5.00	2.82	1.14	3.96
17.65	2.00	0.79	5.00	2.82	1.14	3.96
17.70	2.00	0.79	5.00	2.82	1.14	3.96
17.75	2.00	0.79	5.00	2.82	1.14	3.96
17.80	2.00	0.79	5.00	2.82	1.14	3.96
17.85	2.00	0.79	5.00	2.82	1.14	3.96
17.90	2.00	0.79	5.00	2.82	1.14	3.96
17.95	2.00	0.79	5.00	2.82	1.14	3.96
18.00	2.00	0.79	5.00	2.82	1.14	3.96
18.05	2.00	0.79	5.00	2.82	1.14	3.96
18.10	2.00	0.79	5.00	2.82	1.14	3.96
18.15	2.00	0.79	5.00	2.82	1.14	3.96
18.20	2.00	0.79	5.00	2.82	1.14	3.96
18.25	2.00	0.79	5.00	2.82	1.14	3.96
18.30	2.00	0.79	5.00	2.82	1.14	3.96
18.35	2.00	0.79	5.00	2.82	1.14	3.96
18.40	2.00	0.79	5.00	2.82	1.14	3.96
18.45	2.00	0.79	5.00	2.82	1.14	3.96
18.50	2.00	0.79	5.00	2.82	1.14	3.96
18.55	2.00	0.79	5.00	2.82	1.14	3.96
18.60	2.00	0.79	5.00	2.82	1.14	3.96
18.65	2.00	0.79	5.00	2.82	1.14	3.96
18.70	2.00	0.79	5.00	2.82	1.14	3.96
18.75	2.00	0.79	5.00	2.82	1.14	3.96

18.80	2.00	0.79	5.00	2.82	1.14	3.96
18.85	2.00	0.79	5.00	2.82	1.14	3.96
18.90	2.00	0.79	5.00	2.82	1.14	3.96
18.95	2.00	0.79	5.00	2.82	1.14	3.96
19.00	2.00	0.79	5.00	2.82	1.14	3.96
19.05	2.00	0.79	5.00	2.82	1.14	3.96
19.10	2.00	0.79	5.00	2.82	1.14	3.96
19.15	2.00	0.79	5.00	2.82	1.14	3.96
19.20	2.00	0.79	5.00	2.82	1.14	3.96
19.25	2.00	0.79	5.00	2.82	1.14	3.96
19.30	2.00	0.79	5.00	2.82	1.14	3.96
19.35	2.00	0.79	5.00	2.82	1.14	3.96
19.40	2.00	0.79	5.00	2.82	1.14	3.96
19.45	2.00	0.79	5.00	2.82	1.14	3.96
19.50	2.00	0.79	5.00	2.82	1.14	3.96
19.55	2.00	0.79	5.00	2.82	1.14	3.96
19.60	2.00	0.79	5.00	2.82	1.14	3.96
19.65	2.00	0.79	5.00	2.82	1.14	3.96
19.70	2.00	0.79	5.00	2.82	1.14	3.96
19.75	2.00	0.79	5.00	2.82	1.14	3.96
19.80	2.00	0.79	5.00	2.82	1.14	3.96
19.85	2.00	0.79	5.00	2.82	1.14	3.96
19.90	2.00	0.79	5.00	2.82	1.14	3.96
19.95	2.00	0.79	5.00	2.82	1.14	3.96
20.00	2.00	0.79	5.00	2.82	1.14	3.96
20.05	2.00	0.79	5.00	2.82	1.14	3.96
20.10	2.00	0.79	5.00	2.82	1.14	3.96
20.15	2.00	0.79	5.00	2.82	1.14	3.96
20.20	2.00	0.79	5.00	2.82	1.14	3.96
20.25	2.00	0.79	5.00	2.82	1.14	3.96
20.30	2.00	0.79	5.00	2.82	1.14	3.96
20.35	2.00	0.79	5.00	2.82	1.14	3.96
20.40	2.00	0.79	5.00	2.82	1.14	3.96
20.45	2.00	0.79	5.00	2.82	1.14	3.96
20.50	2.00	0.79	5.00	2.82	1.14	3.96
20.55	0.17	0.79	5.00	2.82	1.14	3.96
20.60	0.17	0.79	5.00	2.82	1.12	3.94
20.65	0.17	0.79	5.00	2.82	1.11	3.93
20.70	0.17	0.79	5.00	2.82	1.09	3.91
20.75	0.17	0.79	5.00	2.82	1.08	3.90
20.80	0.17	0.79	5.00	2.82	1.06	3.88
20.85	0.18	0.79	5.00	2.82	1.05	3.87
20.90	0.18	0.79	5.00	2.82	1.03	3.85
20.95	0.18	0.79	5.00	2.82	1.01	3.83
21.00	0.18	0.79	5.00	2.82	1.00	3.82
21.05	0.18	0.79	5.00	2.82	0.98	3.80
21.10	0.18	0.79	5.00	2.82	0.97	3.79
21.15	0.18	0.79	5.00	2.82	0.95	3.77
21.20	0.18	0.79	5.00	2.82	0.94	3.76
21.25	0.18	0.79	5.00	2.82	0.92	3.74

21.30	0.18	0.79	5.00	2.82	0.91	3.73
21.35	0.18	0.79	5.00	2.82	0.89	3.71
21.40	0.19	0.79	5.00	2.82	0.88	3.70
21.45	0.19	0.79	5.00	2.82	0.87	3.69
21.50	0.19	0.79	5.00	2.82	0.85	3.67
21.55	0.19	0.79	5.00	2.82	0.84	3.66
21.60	0.19	0.79	5.00	2.82	0.82	3.64
21.65	0.19	0.79	5.00	2.82	0.81	3.63
21.70	0.19	0.79	5.00	2.82	0.79	3.61
21.75	0.19	0.79	5.00	2.82	0.78	3.60
21.80	0.19	0.79	5.00	2.82	0.77	3.59
21.85	0.19	0.79	5.00	2.82	0.75	3.57
21.90	0.19	0.79	5.00	2.82	0.74	3.56
21.95	0.19	0.79	5.00	2.82	0.72	3.54
22.00	0.20	0.79	5.00	2.82	0.71	3.53
22.05	0.20	0.79	5.00	2.82	0.70	3.52
22.10	0.20	0.79	5.00	2.82	0.68	3.50
22.15	0.20	0.79	5.00	2.82	0.67	3.49
22.20	0.20	0.79	5.00	2.82	0.66	3.48
22.25	0.20	0.79	5.00	2.82	0.64	3.46
22.30	0.20	0.79	5.00	2.82	0.63	3.45
22.35	0.20	0.78	5.00	2.82	0.62	3.44
22.40	0.20	0.78	5.00	2.82	0.61	3.43
22.45	0.20	0.78	5.00	2.82	0.59	3.41
22.50	0.20	0.78	5.00	2.82	0.58	3.40
22.55	0.21	0.78	5.00	2.82	0.57	3.39
22.60	0.21	0.78	5.00	2.82	0.55	3.37
22.65	0.21	0.78	5.00	2.82	0.54	3.36
22.70	0.21	0.78	5.00	2.82	0.53	3.35
22.75	0.21	0.78	5.00	2.82	0.52	3.34
22.80	0.21	0.78	5.00	2.82	0.50	3.32
22.85	0.21	0.78	5.00	2.82	0.49	3.31
22.90	0.21	0.78	5.00	2.82	0.48	3.30
22.95	0.21	0.78	5.00	2.82	0.47	3.29
23.00	0.21	0.78	5.00	2.82	0.45	3.27
23.05	0.21	0.78	5.00	2.82	0.44	3.26
23.10	0.22	0.78	5.00	2.82	0.43	3.25
23.15	0.22	0.78	5.00	2.82	0.42	3.24
23.20	0.22	0.78	5.00	2.82	0.41	3.23
23.25	0.22	0.78	5.00	2.82	0.39	3.21
23.30	0.22	0.78	5.00	2.82	0.38	3.20
23.35	0.22	0.78	5.00	2.82	0.37	3.19
23.40	0.22	0.78	5.00	2.82	0.36	3.18
23.45	0.22	0.78	5.00	2.82	0.35	3.17
23.50	0.22	0.78	5.00	2.82	0.34	3.16
23.55	0.22	0.78	5.00	2.82	0.32	3.14
23.60	0.22	0.78	5.00	2.82	0.31	3.13
23.65	0.23	0.78	5.00	2.82	0.30	3.12
23.70	0.23	0.78	5.00	2.82	0.29	3.11
23.75	0.23	0.78	5.00	2.82	0.28	3.10

23.80	0.23	0.78	5.00	2.82	0.27	3.09
23.85	0.23	0.78	5.00	2.82	0.26	3.08
23.90	0.23	0.78	5.00	2.82	0.24	3.06
23.95	0.23	0.78	5.00	2.82	0.23	3.05
24.00	0.23	0.78	5.00	2.82	0.22	3.04
24.05	0.23	0.78	5.00	2.82	0.21	3.03
24.10	0.23	0.78	5.00	2.82	0.20	3.02
24.15	0.23	0.78	5.00	2.82	0.19	3.01
24.20	0.24	0.78	5.00	2.82	0.18	3.00
24.25	0.24	0.78	5.00	2.82	0.17	2.99
24.30	0.24	0.78	5.00	2.82	0.16	2.98
24.35	0.24	0.78	5.00	2.82	0.15	2.97
24.40	0.24	0.78	5.00	2.82	0.14	2.96
24.45	0.24	0.78	5.00	2.82	0.12	2.94
24.50	0.24	0.78	5.00	2.82	0.11	2.93
24.55	0.24	0.78	5.00	2.82	0.10	2.92
24.60	0.24	0.78	5.00	2.82	0.09	2.91
24.65	0.24	0.78	5.00	2.82	0.08	2.90
24.70	0.25	0.78	5.00	2.82	0.07	2.89
24.75	0.25	0.78	5.00	2.82	0.06	2.88
24.80	0.25	0.78	5.00	2.82	0.05	2.87
24.85	0.25	0.78	5.00	2.82	0.04	2.86
24.90	0.25	0.78	5.00	2.82	0.03	2.85
24.95	0.25	0.78	5.00	2.82	0.02	2.84
25.00	0.25	0.78	5.00	2.82	0.01	2.83
25.05	0.25	0.78	0.32*	2.82	0.00	2.82
25.10	0.25	0.78	0.32*	2.81	0.00	2.81
25.15	0.25	0.78	0.32*	2.80	0.00	2.80
25.20	0.25	0.78	0.32*	2.80	0.00	2.80
25.25	0.25	0.78	0.32*	2.79	0.00	2.79
25.30	0.25	0.78	0.32*	2.78	0.00	2.78
25.35	0.25	0.78	0.31*	2.77	0.00	2.77
25.40	0.25	0.79	0.31*	2.77	0.00	2.77
25.45	0.25	0.79	0.31*	2.76	0.00	2.76
25.50	0.24	0.79	0.31*	2.75	0.00	2.75
25.55	0.24	0.79	0.31*	2.74	0.00	2.74
25.60	0.24	0.79	0.31*	2.74	0.00	2.74
25.65	0.24	0.79	0.31*	2.73	0.00	2.73
25.70	0.24	0.79	0.31*	2.72	0.00	2.72
25.75	0.24	0.79	0.30*	2.71	0.00	2.71
25.80	0.24	0.79	0.30*	2.71	0.00	2.71
25.85	0.24	0.79	0.30*	2.70	0.00	2.70
25.90	0.24	0.79	0.30*	2.69	0.00	2.69
25.95	0.24	0.79	0.30*	2.68	0.00	2.68
26.00	0.24	0.79	0.30*	2.67	0.00	2.67
26.05	0.24	0.80	0.30*	2.67	0.00	2.67
26.10	0.24	0.80	0.30*	2.66	0.00	2.66
26.15	0.24	0.80	0.30*	2.65	0.00	2.65
26.20	0.23	0.80	0.29*	2.64	0.00	2.64
26.25	0.23	0.80	0.29*	2.63	0.00	2.63

26.30	0.23	0.80	0.29*	2.63	0.00	2.63
26.35	0.23	0.80	0.29*	2.62	0.00	2.62
26.40	0.23	0.80	0.29*	2.61	0.00	2.61
26.45	0.23	0.80	0.29*	2.60	0.00	2.60
26.50	0.23	0.80	0.29*	2.59	0.00	2.59
26.55	0.23	0.80	0.29*	2.59	0.00	2.59
26.60	0.23	0.80	0.29*	2.58	0.00	2.58
26.65	0.23	0.80	0.28*	2.57	0.00	2.57
26.70	0.23	0.80	0.28*	2.56	0.00	2.56
26.75	0.23	0.81	0.28*	2.55	0.00	2.55
26.80	0.23	0.81	0.28*	2.55	0.00	2.55
26.85	0.23	0.81	0.28*	2.54	0.00	2.54
26.90	0.23	0.81	0.28*	2.53	0.00	2.53
26.95	0.23	0.81	0.28*	2.52	0.00	2.52
27.00	0.22	0.81	0.28*	2.51	0.00	2.51
27.05	0.22	0.81	0.28*	2.50	0.00	2.50
27.10	0.22	0.81	0.28*	2.50	0.00	2.50
27.15	0.22	0.81	0.27*	2.49	0.00	2.49
27.20	0.22	0.81	0.27*	2.48	0.00	2.48
27.25	0.22	0.81	0.27*	2.47	0.00	2.47
27.30	0.22	0.81	0.27*	2.46	0.00	2.46
27.35	0.22	0.81	0.27*	2.46	0.00	2.46
27.40	0.22	0.81	0.27*	2.45	0.00	2.45
27.45	0.22	0.82	0.27*	2.44	0.00	2.44
27.50	0.22	0.82	0.27*	2.43	0.00	2.43
27.55	0.22	0.82	0.27*	2.42	0.00	2.42
27.60	0.22	0.82	0.27*	2.41	0.00	2.41
27.65	0.22	0.82	0.27*	2.40	0.00	2.40
27.70	0.22	0.82	0.26*	2.40	0.00	2.40
27.75	0.22	0.82	0.26*	2.39	0.00	2.39
27.80	0.22	0.82	0.26*	2.38	0.00	2.38
27.85	0.21	0.82	0.26*	2.37	0.00	2.37
27.90	0.22	0.82	0.27*	2.36	0.00	2.36
27.95	0.22	0.82	0.27*	2.35	0.00	2.35
28.00	0.22	0.82	0.27*	2.35	0.00	2.35
28.05	0.22	0.82	0.27*	2.34	0.00	2.34
28.10	0.22	0.82	0.27*	2.33	0.00	2.33
28.15	0.22	0.83	0.27*	2.32	0.00	2.32
28.20	0.22	0.83	0.27*	2.31	0.00	2.31
28.25	0.22	0.83	0.27*	2.30	0.00	2.30
28.30	0.22	0.83	0.27*	2.30	0.00	2.30
28.35	0.22	0.83	0.27*	2.29	0.00	2.29
28.40	0.22	0.83	0.26*	2.28	0.00	2.28
28.45	0.22	0.83	0.26*	2.27	0.00	2.27
28.50	0.22	0.83	0.26*	2.26	0.00	2.26
28.55	0.22	0.83	0.26*	2.25	0.00	2.25
28.60	0.22	0.83	0.26*	2.24	0.00	2.24
28.65	0.22	0.83	0.26*	2.24	0.00	2.24
28.70	0.22	0.83	0.26*	2.23	0.00	2.23
28.75	0.21	0.83	0.26*	2.22	0.00	2.22

28.80	0.21	0.83	0.26*	2.21	0.00	2.21
28.85	0.21	0.83	0.26*	2.20	0.00	2.20
28.90	0.21	0.84	0.25*	2.19	0.00	2.19
28.95	0.21	0.84	0.25*	2.18	0.00	2.18
29.00	0.21	0.84	0.25*	2.18	0.00	2.18
29.05	0.21	0.84	0.25*	2.17	0.00	2.17
29.10	0.21	0.84	0.25*	2.16	0.00	2.16
29.15	0.21	0.84	0.25*	2.15	0.00	2.15
29.20	0.21	0.84	0.25*	2.14	0.00	2.14
29.25	0.21	0.84	0.25*	2.13	0.00	2.13
29.30	0.21	0.84	0.25*	2.12	0.00	2.12
29.35	0.21	0.84	0.25*	2.11	0.00	2.11
29.40	0.21	0.84	0.25*	2.11	0.00	2.11
29.45	0.21	0.84	0.24*	2.10	0.00	2.10
29.50	0.21	0.84	0.24*	2.09	0.00	2.09
29.55	0.20	0.84	0.24*	2.08	0.00	2.08
29.60	0.20	0.84	0.24*	2.07	0.00	2.07
29.65	0.20	0.85	0.24*	2.06	0.00	2.06
29.70	0.20	0.85	0.24*	2.05	0.00	2.05
29.75	0.20	0.85	0.24*	2.04	0.00	2.04
29.80	0.20	0.85	0.24*	2.03	0.00	2.03
29.85	0.20	0.85	0.24*	2.03	0.00	2.03
29.90	0.20	0.85	0.24*	2.02	0.00	2.02
29.95	0.20	0.85	0.24*	2.01	0.00	2.01
30.00	0.20	0.85	0.24*	2.00	0.00	2.00
30.05	0.20	0.85	0.24*	1.99	0.00	1.99
30.10	0.20	0.85	0.24*	1.98	0.00	1.98
30.15	0.20	0.85	0.24*	1.97	0.00	1.97
30.20	0.20	0.85	0.24*	1.96	0.00	1.96
30.25	0.20	0.85	0.24*	1.95	0.00	1.95
30.30	0.20	0.85	0.24*	1.94	0.00	1.94
30.35	0.20	0.85	0.24*	1.94	0.00	1.94
30.40	0.20	0.85	0.24*	1.93	0.00	1.93
30.45	0.20	0.85	0.24*	1.92	0.00	1.92
30.50	0.20	0.85	0.24*	1.91	0.00	1.91
30.55	0.20	0.85	0.24*	1.90	0.00	1.90
30.60	0.20	0.85	0.24*	1.89	0.00	1.89
30.65	0.21	0.85	0.24*	1.88	0.00	1.88
30.70	0.21	0.85	0.24*	1.87	0.00	1.87
30.75	0.21	0.85	0.24*	1.86	0.00	1.86
30.80	0.21	0.86	0.24*	1.86	0.00	1.86
30.85	0.21	0.86	0.24*	1.85	0.00	1.85
30.90	0.21	0.86	0.24*	1.84	0.00	1.84
30.95	0.21	0.86	0.24*	1.83	0.00	1.83
31.00	0.21	0.86	0.24*	1.82	0.00	1.82
31.05	0.21	0.86	0.24*	1.81	0.00	1.81
31.10	0.21	0.86	0.24*	1.80	0.00	1.80
31.15	0.21	0.86	0.24*	1.79	0.00	1.79
31.20	0.21	0.86	0.24*	1.79	0.00	1.79
31.25	0.21	0.86	0.25*	1.78	0.00	1.78

31.30	0.21	0.86	0.25*	1.77	0.00	1.77
31.35	0.21	0.86	0.25*	1.76	0.00	1.76
31.40	0.21	0.86	0.25*	1.75	0.00	1.75
31.45	0.21	0.86	0.25*	1.74	0.00	1.74
31.50	0.21	0.86	0.25*	1.73	0.00	1.73
31.55	0.21	0.86	0.25*	1.73	0.00	1.73
31.60	0.21	0.86	0.25*	1.72	0.00	1.72
31.65	0.21	0.86	0.25*	1.71	0.00	1.71
31.70	0.21	0.86	0.25*	1.70	0.00	1.70
31.75	0.21	0.86	0.25*	1.69	0.00	1.69
31.80	0.22	0.86	0.25*	1.68	0.00	1.68
31.85	0.22	0.86	0.25*	1.67	0.00	1.67
31.90	0.22	0.86	0.25*	1.67	0.00	1.67
31.95	0.22	0.86	0.25*	1.66	0.00	1.66
32.00	0.22	0.86	0.25*	1.65	0.00	1.65
32.05	0.22	0.86	0.25*	1.64	0.00	1.64
32.10	0.22	0.86	0.25*	1.63	0.00	1.63
32.15	0.22	0.86	0.25*	1.62	0.00	1.62
32.20	0.22	0.86	0.25*	1.62	0.00	1.62
32.25	0.22	0.86	0.25*	1.61	0.00	1.61
32.30	0.22	0.86	0.25*	1.60	0.00	1.60
32.35	0.22	0.86	0.25*	1.59	0.00	1.59
32.40	0.22	0.87	0.25*	1.58	0.00	1.58
32.45	0.22	0.87	0.26*	1.57	0.00	1.57
32.50	0.22	0.87	0.26*	1.57	0.00	1.57
32.55	0.22	0.87	0.26*	1.56	0.00	1.56
32.60	0.22	0.87	0.26*	1.55	0.00	1.55
32.65	0.22	0.87	0.26*	1.54	0.00	1.54
32.70	0.22	0.87	0.26*	1.53	0.00	1.53
32.75	0.22	0.87	0.26*	1.53	0.00	1.53
32.80	0.22	0.87	0.26*	1.52	0.00	1.52
32.85	0.22	0.87	0.26*	1.51	0.00	1.51
32.90	0.22	0.87	0.26*	1.50	0.00	1.50
32.95	0.23	0.87	0.26*	1.49	0.00	1.49
33.00	0.23	0.87	0.26*	1.48	0.00	1.48
33.05	0.23	0.87	0.26*	1.48	0.00	1.48
33.10	0.23	0.87	0.26*	1.47	0.00	1.47
33.15	0.23	0.87	0.26*	1.46	0.00	1.46
33.20	0.23	0.87	0.26*	1.45	0.00	1.45
33.25	0.23	0.87	0.26*	1.44	0.00	1.44
33.30	0.23	0.87	0.26*	1.44	0.00	1.44
33.35	0.23	0.87	0.26*	1.43	0.00	1.43
33.40	0.23	0.87	0.26*	1.42	0.00	1.42
33.45	0.23	0.87	0.26*	1.41	0.00	1.41
33.50	0.23	0.87	0.26*	1.40	0.00	1.40
33.55	0.23	0.87	0.26*	1.40	0.00	1.40
33.60	0.23	0.87	0.27*	1.39	0.00	1.39
33.65	0.23	0.87	0.27*	1.38	0.00	1.38
33.70	0.23	0.87	0.27*	1.37	0.00	1.37
33.75	0.23	0.87	0.27*	1.37	0.00	1.37

33.80	0.23	0.87	0.27*	1.36	0.00	1.36
33.85	0.23	0.87	0.27*	1.35	0.00	1.35
33.90	0.23	0.87	0.27*	1.34	0.00	1.34
33.95	0.23	0.87	0.27*	1.33	0.00	1.33
34.00	0.23	0.87	0.27*	1.33	0.00	1.33
34.05	0.24	0.87	0.27*	1.32	0.00	1.32
34.10	0.24	0.87	0.27*	1.31	0.00	1.31
34.15	0.24	0.87	0.27*	1.30	0.00	1.30
34.20	0.24	0.87	0.27*	1.30	0.00	1.30
34.25	0.24	0.87	0.27*	1.29	0.00	1.29
34.30	0.24	0.87	0.27*	1.28	0.00	1.28
34.35	0.24	0.88	0.27*	1.27	0.00	1.27
34.40	0.24	0.88	0.27*	1.26	0.00	1.26
34.45	0.24	0.88	0.27*	1.26	0.00	1.26
34.50	0.24	0.88	0.27*	1.25	0.00	1.25
34.55	0.24	0.88	0.27*	1.24	0.00	1.24
34.60	0.24	0.88	0.27*	1.23	0.00	1.23
34.65	0.24	0.88	0.27*	1.23	0.00	1.23
34.70	0.24	0.88	0.28*	1.22	0.00	1.22
34.75	0.24	0.88	0.28*	1.21	0.00	1.21
34.80	0.24	0.88	0.28*	1.20	0.00	1.20
34.85	0.24	0.88	0.28*	1.20	0.00	1.20
34.90	0.24	0.88	0.28*	1.19	0.00	1.19
34.95	0.24	0.88	0.28*	1.18	0.00	1.18
35.00	0.24	0.88	0.28*	1.17	0.00	1.17
35.05	0.24	0.88	0.28*	1.17	0.00	1.17
35.10	0.24	0.88	0.28*	1.16	0.00	1.16
35.15	0.24	0.88	0.27*	1.15	0.00	1.15
35.20	0.24	0.88	0.27*	1.14	0.00	1.14
35.25	0.24	0.88	0.27*	1.14	0.00	1.14
35.30	0.24	0.88	0.27*	1.13	0.00	1.13
35.35	0.24	0.88	0.27*	1.12	0.00	1.12
35.40	0.24	0.88	0.27*	1.11	0.00	1.11
35.45	0.24	0.88	0.27*	1.11	0.00	1.11
35.50	0.23	0.88	0.27*	1.10	0.00	1.10
35.55	0.23	0.88	0.27*	1.09	0.00	1.09
35.60	0.23	0.88	0.26*	1.08	0.00	1.08
35.65	0.23	0.88	0.26*	1.08	0.00	1.08
35.70	0.23	0.88	0.26*	1.07	0.00	1.07
35.75	0.23	0.88	0.26*	1.06	0.00	1.06
35.80	0.23	0.88	0.26*	1.05	0.00	1.05
35.85	0.23	0.88	0.26*	1.04	0.00	1.04
35.90	0.23	0.88	0.26*	1.04	0.00	1.04
35.95	0.23	0.88	0.26*	1.03	0.00	1.03
36.00	0.23	0.88	0.26*	1.02	0.00	1.02
36.05	0.22	0.88	0.25*	1.01	0.00	1.01
36.10	0.22	0.88	0.25*	1.00	0.00	1.00
36.15	0.22	0.88	0.25*	1.00	0.00	1.00
36.20	0.22	0.88	0.25*	0.99	0.00	0.99
36.25	0.22	0.88	0.25*	0.98	0.00	0.98

36.30	0.22	0.88	0.25*	0.97	0.00	0.97
36.35	0.22	0.88	0.25*	0.96	0.00	0.96
36.40	0.22	0.88	0.25*	0.96	0.00	0.96
36.45	0.22	0.88	0.25*	0.95	0.00	0.95
36.50	0.22	0.88	0.25*	0.94	0.00	0.94
36.55	0.22	0.88	0.25*	0.93	0.00	0.93
36.60	0.22	0.88	0.24*	0.92	0.00	0.92
36.65	0.22	0.88	0.24*	0.92	0.00	0.92
36.70	0.21	0.88	0.24*	0.91	0.00	0.91
36.75	0.21	0.88	0.24*	0.90	0.00	0.90
36.80	0.21	0.88	0.24*	0.89	0.00	0.89
36.85	0.21	0.88	0.24*	0.88	0.00	0.88
36.90	0.21	0.88	0.24*	0.87	0.00	0.87
36.95	0.21	0.88	0.24*	0.87	0.00	0.87
37.00	0.21	0.89	0.24*	0.86	0.00	0.86
37.05	0.21	0.89	0.24*	0.85	0.00	0.85
37.10	0.21	0.89	0.24*	0.84	0.00	0.84
37.15	0.21	0.89	0.23*	0.83	0.00	0.83
37.20	0.21	0.89	0.23*	0.82	0.00	0.82
37.25	0.21	0.89	0.23*	0.81	0.00	0.81
37.30	0.21	0.89	0.23*	0.81	0.00	0.81
37.35	0.20	0.89	0.23*	0.80	0.00	0.80
37.40	0.20	0.89	0.23*	0.79	0.00	0.79
37.45	0.20	0.89	0.23*	0.78	0.00	0.78
37.50	0.20	0.89	0.23*	0.77	0.00	0.77
37.55	0.20	0.89	0.23*	0.76	0.00	0.76
37.60	0.20	0.89	0.23*	0.75	0.00	0.75
37.65	0.20	0.89	0.23*	0.75	0.00	0.75
37.70	0.20	0.89	0.22*	0.74	0.00	0.74
37.75	0.20	0.89	0.22*	0.73	0.00	0.73
37.80	0.20	0.89	0.22*	0.72	0.00	0.72
37.85	0.20	0.89	0.22*	0.71	0.00	0.71
37.90	0.20	0.89	0.22*	0.70	0.00	0.70
37.95	0.20	0.89	0.22*	0.69	0.00	0.69
38.00	0.20	0.89	0.22*	0.68	0.00	0.68
38.05	0.19	0.89	0.22*	0.67	0.00	0.67
38.10	0.19	0.89	0.22*	0.67	0.00	0.67
38.15	0.19	0.89	0.22*	0.66	0.00	0.66
38.20	0.19	0.89	0.22*	0.65	0.00	0.65
38.25	0.19	0.89	0.22*	0.64	0.00	0.64
38.30	0.19	0.89	0.22*	0.63	0.00	0.63
38.35	0.19	0.89	0.21*	0.62	0.00	0.62
38.40	0.19	0.89	0.21*	0.61	0.00	0.61
38.45	0.19	0.89	0.21*	0.60	0.00	0.60
38.50	0.19	0.89	0.21*	0.59	0.00	0.59
38.55	0.19	0.89	0.21*	0.58	0.00	0.58
38.60	0.19	0.89	0.21*	0.57	0.00	0.57
38.65	0.19	0.89	0.21*	0.57	0.00	0.57
38.70	0.19	0.89	0.21*	0.56	0.00	0.56
38.75	0.19	0.89	0.21*	0.55	0.00	0.55

38.80	0.18	0.89	0.21*	0.54	0.00	0.54
38.85	0.18	0.89	0.21*	0.53	0.00	0.53
38.90	0.18	0.89	0.21*	0.52	0.00	0.52
38.95	0.18	0.89	0.21*	0.51	0.00	0.51
39.00	0.18	0.89	0.20*	0.50	0.00	0.50
39.05	0.18	0.89	0.20*	0.49	0.00	0.49
39.10	0.18	0.89	0.20*	0.48	0.00	0.48
39.15	0.18	0.89	0.20*	0.47	0.00	0.47
39.20	0.18	0.89	0.20*	0.46	0.00	0.46
39.25	0.18	0.89	0.20*	0.45	0.00	0.45
39.30	0.18	0.89	0.20*	0.44	0.00	0.44
39.35	0.18	0.89	0.20*	0.43	0.00	0.43
39.40	0.18	0.89	0.20*	0.42	0.00	0.42
39.45	0.18	0.89	0.20*	0.41	0.00	0.41
39.50	0.18	0.89	0.20*	0.40	0.00	0.40
39.55	0.18	0.89	0.20*	0.39	0.00	0.39
39.60	0.17	0.89	0.20*	0.38	0.00	0.38
39.65	0.17	0.89	0.20*	0.37	0.00	0.37
39.70	0.17	0.89	0.19*	0.36	0.00	0.36
39.75	0.17	0.89	0.19*	0.35	0.00	0.35
39.80	0.17	0.89	0.19*	0.34	0.00	0.34
39.85	0.17	0.89	0.19*	0.33	0.00	0.33
39.90	0.17	0.89	0.19*	0.32	0.00	0.32
39.95	0.17	0.89	0.19*	0.31	0.00	0.31
40.00	0.17	0.89	0.19*	0.30	0.00	0.30
40.05	0.17	0.89	0.19*	0.29	0.00	0.29
40.10	0.17	0.89	0.19*	0.28	0.00	0.28
40.15	0.17	0.89	0.19*	0.27	0.00	0.27
40.20	0.17	0.89	0.19*	0.26	0.00	0.26
40.25	0.17	0.89	0.19*	0.25	0.00	0.25
40.30	0.17	0.89	0.19*	0.24	0.00	0.24
40.35	0.17	0.89	0.19*	0.23	0.00	0.23
40.40	0.17	0.89	0.19*	0.22	0.00	0.22
40.45	0.17	0.89	0.19*	0.21	0.00	0.21
40.50	0.17	0.89	0.19*	0.20	0.00	0.20
40.55	0.17	0.89	0.19*	0.19	0.00	0.19
40.60	0.17	0.89	0.19*	0.18	0.00	0.18
40.65	0.17	0.89	0.19*	0.17	0.00	0.17
40.70	0.17	0.89	0.19*	0.16	0.00	0.16
40.75	0.17	0.89	0.19*	0.15	0.00	0.15
40.80	0.17	0.89	0.19*	0.14	0.00	0.14
40.85	0.17	0.89	0.19*	0.13	0.00	0.13
40.90	0.17	0.89	0.19*	0.12	0.00	0.12
40.95	0.17	0.89	0.19*	0.11	0.00	0.11
41.00	0.17	0.89	0.19*	0.10	0.00	0.10
41.05	0.17	0.89	0.19*	0.09	0.00	0.09
41.10	0.17	0.89	0.19*	0.08	0.00	0.08
41.15	0.17	0.89	0.19*	0.07	0.00	0.07
41.20	0.17	0.89	0.19*	0.06	0.00	0.06
41.25	0.17	0.89	0.19*	0.05	0.00	0.05

41.30	0.17	0.89	0.19*	0.04	0.00	0.04
41.35	0.17	0.89	0.19*	0.03	0.00	0.03
41.40	0.17	0.89	0.19*	0.02	0.00	0.02
41.45	0.17	0.89	0.19*	0.01	0.00	0.01
41.50	0.17	0.89	0.19*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

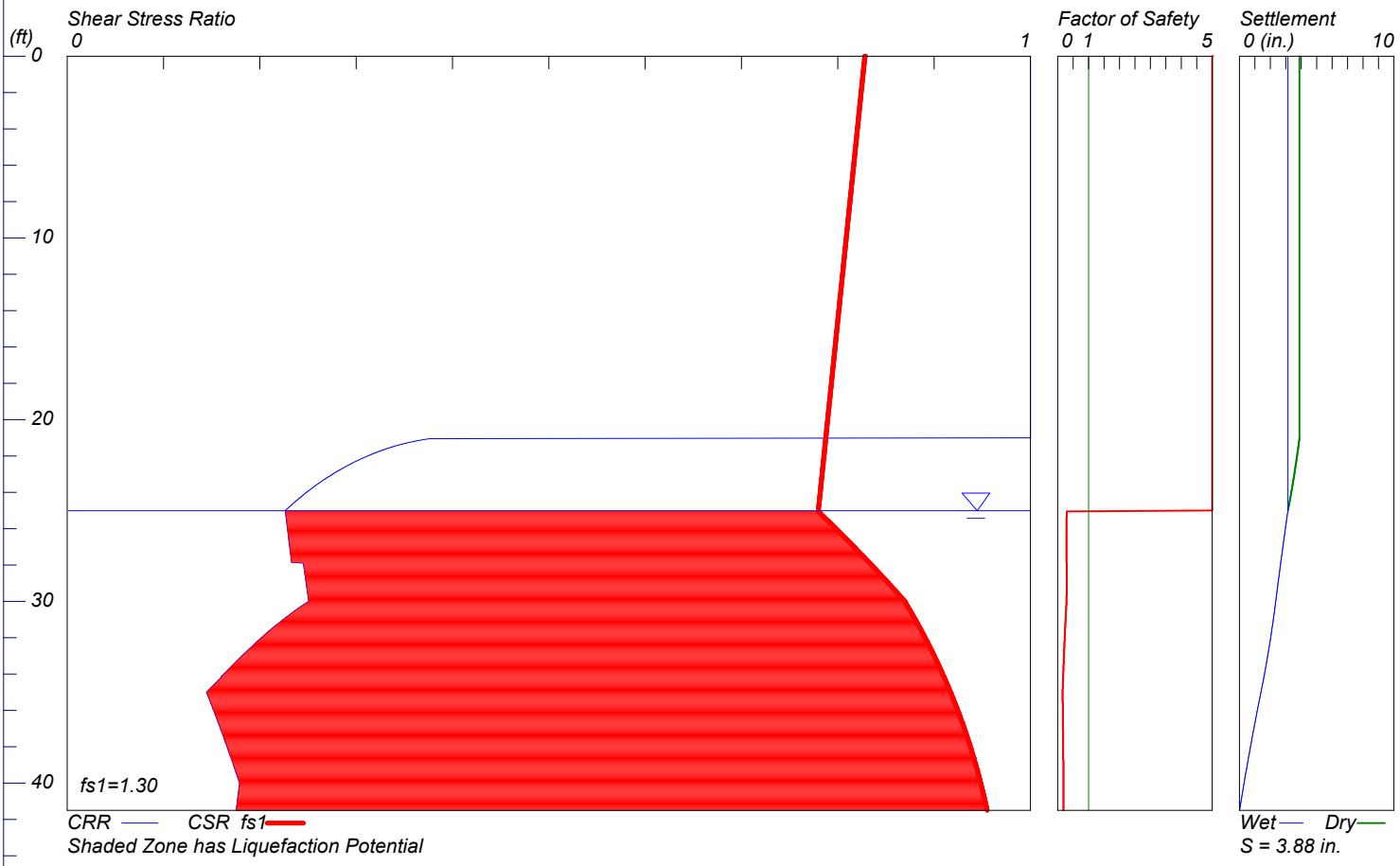
CRRm	Cyclic resistance ratio from soils
CSRfs	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat	Settlement from saturated sands
S_dry	Settlement from dry sands
S_all	Total settlement from saturated and dry sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

Belcaro

Hole No.=BB-12 Water Depth=25 ft

Magnitude=7.7
Acceleration=0.98g



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Input File Name: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\CPT DATA\BB12.liq
Title: Belcaro
Subtitle: 233012-01

Surface Elev.=
Hole No.=BB-12
Depth of Hole= 41.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 41.5 ft
Max. Acceleration= 0.98 g
Earthquake Magnitude= 7.7

Input Data:
Surface Elev.=
Hole No.=BB-12
Depth of Hole=41.5 ft
Water Table during Earthquake= 25.0 ft
Water Table during In-Situ Testing= 41.5 ft
Max. Acceleration=0.98 g
Earthquake Magnitude=7.7

Earthquake Magnitude=7.7
2. Settlement Analysis Method: Tokimatsu / Seed
3. Fines Correction for Liquefaction: Idriss/Seed (SPT only)
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.3
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.0	10.0	110.0	NoLiq
5.0	10.0	110.0	NoLiq
10.0	16.0	110.0	NoLiq
15.0	8.0	110.0	NoLiq
21.0	17.0	110.0	30.0
25.0	13.0	110.0	30.0
30.0	15.0	110.0	30.0
35.0	8.0	110.0	30.0
40.0	12.0	110.0	30.0
41.5	12.0	110.0	30.0

Output Results:

Settlement of saturated sands=3.13 in.
Settlement of dry sands=0.75 in.
Total settlement of saturated and dry sands=3.88 in.
Differential Settlement=1.940 to 2.561 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.83	5.00	3.13	0.75	3.88
0.05	2.00	0.83	5.00	3.13	0.75	3.88
0.10	2.00	0.83	5.00	3.13	0.75	3.88
0.15	2.00	0.83	5.00	3.13	0.75	3.88
0.20	2.00	0.83	5.00	3.13	0.75	3.88
0.25	2.00	0.83	5.00	3.13	0.75	3.88
0.30	2.00	0.83	5.00	3.13	0.75	3.88
0.35	2.00	0.83	5.00	3.13	0.75	3.88
0.40	2.00	0.83	5.00	3.13	0.75	3.88
0.45	2.00	0.83	5.00	3.13	0.75	3.88
0.50	2.00	0.83	5.00	3.13	0.75	3.88
0.55	2.00	0.83	5.00	3.13	0.75	3.88
0.60	2.00	0.83	5.00	3.13	0.75	3.88
0.65	2.00	0.83	5.00	3.13	0.75	3.88
0.70	2.00	0.83	5.00	3.13	0.75	3.88
0.75	2.00	0.83	5.00	3.13	0.75	3.88
0.80	2.00	0.83	5.00	3.13	0.75	3.88
0.85	2.00	0.83	5.00	3.13	0.75	3.88
0.90	2.00	0.83	5.00	3.13	0.75	3.88
0.95	2.00	0.83	5.00	3.13	0.75	3.88
1.00	2.00	0.83	5.00	3.13	0.75	3.88
1.05	2.00	0.83	5.00	3.13	0.75	3.88
1.10	2.00	0.83	5.00	3.13	0.75	3.88
1.15	2.00	0.83	5.00	3.13	0.75	3.88
1.20	2.00	0.83	5.00	3.13	0.75	3.88
1.25	2.00	0.83	5.00	3.13	0.75	3.88

1.30	2.00	0.83	5.00	3.13	0.75	3.88
1.35	2.00	0.83	5.00	3.13	0.75	3.88
1.40	2.00	0.83	5.00	3.13	0.75	3.88
1.45	2.00	0.83	5.00	3.13	0.75	3.88
1.50	2.00	0.83	5.00	3.13	0.75	3.88
1.55	2.00	0.83	5.00	3.13	0.75	3.88
1.60	2.00	0.83	5.00	3.13	0.75	3.88
1.65	2.00	0.82	5.00	3.13	0.75	3.88
1.70	2.00	0.82	5.00	3.13	0.75	3.88
1.75	2.00	0.82	5.00	3.13	0.75	3.88
1.80	2.00	0.82	5.00	3.13	0.75	3.88
1.85	2.00	0.82	5.00	3.13	0.75	3.88
1.90	2.00	0.82	5.00	3.13	0.75	3.88
1.95	2.00	0.82	5.00	3.13	0.75	3.88
2.00	2.00	0.82	5.00	3.13	0.75	3.88
2.05	2.00	0.82	5.00	3.13	0.75	3.88
2.10	2.00	0.82	5.00	3.13	0.75	3.88
2.15	2.00	0.82	5.00	3.13	0.75	3.88
2.20	2.00	0.82	5.00	3.13	0.75	3.88
2.25	2.00	0.82	5.00	3.13	0.75	3.88
2.30	2.00	0.82	5.00	3.13	0.75	3.88
2.35	2.00	0.82	5.00	3.13	0.75	3.88
2.40	2.00	0.82	5.00	3.13	0.75	3.88
2.45	2.00	0.82	5.00	3.13	0.75	3.88
2.50	2.00	0.82	5.00	3.13	0.75	3.88
2.55	2.00	0.82	5.00	3.13	0.75	3.88
2.60	2.00	0.82	5.00	3.13	0.75	3.88
2.65	2.00	0.82	5.00	3.13	0.75	3.88
2.70	2.00	0.82	5.00	3.13	0.75	3.88
2.75	2.00	0.82	5.00	3.13	0.75	3.88
2.80	2.00	0.82	5.00	3.13	0.75	3.88
2.85	2.00	0.82	5.00	3.13	0.75	3.88
2.90	2.00	0.82	5.00	3.13	0.75	3.88
2.95	2.00	0.82	5.00	3.13	0.75	3.88
3.00	2.00	0.82	5.00	3.13	0.75	3.88
3.05	2.00	0.82	5.00	3.13	0.75	3.88
3.10	2.00	0.82	5.00	3.13	0.75	3.88
3.15	2.00	0.82	5.00	3.13	0.75	3.88
3.20	2.00	0.82	5.00	3.13	0.75	3.88
3.25	2.00	0.82	5.00	3.13	0.75	3.88
3.30	2.00	0.82	5.00	3.13	0.75	3.88
3.35	2.00	0.82	5.00	3.13	0.75	3.88
3.40	2.00	0.82	5.00	3.13	0.75	3.88
3.45	2.00	0.82	5.00	3.13	0.75	3.88
3.50	2.00	0.82	5.00	3.13	0.75	3.88
3.55	2.00	0.82	5.00	3.13	0.75	3.88
3.60	2.00	0.82	5.00	3.13	0.75	3.88
3.65	2.00	0.82	5.00	3.13	0.75	3.88
3.70	2.00	0.82	5.00	3.13	0.75	3.88
3.75	2.00	0.82	5.00	3.13	0.75	3.88

3.80	2.00	0.82	5.00	3.13	0.75	3.88
3.85	2.00	0.82	5.00	3.13	0.75	3.88
3.90	2.00	0.82	5.00	3.13	0.75	3.88
3.95	2.00	0.82	5.00	3.13	0.75	3.88
4.00	2.00	0.82	5.00	3.13	0.75	3.88
4.05	2.00	0.82	5.00	3.13	0.75	3.88
4.10	2.00	0.82	5.00	3.13	0.75	3.88
4.15	2.00	0.82	5.00	3.13	0.75	3.88
4.20	2.00	0.82	5.00	3.13	0.75	3.88
4.25	2.00	0.82	5.00	3.13	0.75	3.88
4.30	2.00	0.82	5.00	3.13	0.75	3.88
4.35	2.00	0.82	5.00	3.13	0.75	3.88
4.40	2.00	0.82	5.00	3.13	0.75	3.88
4.45	2.00	0.82	5.00	3.13	0.75	3.88
4.50	2.00	0.82	5.00	3.13	0.75	3.88
4.55	2.00	0.82	5.00	3.13	0.75	3.88
4.60	2.00	0.82	5.00	3.13	0.75	3.88
4.65	2.00	0.82	5.00	3.13	0.75	3.88
4.70	2.00	0.82	5.00	3.13	0.75	3.88
4.75	2.00	0.82	5.00	3.13	0.75	3.88
4.80	2.00	0.82	5.00	3.13	0.75	3.88
4.85	2.00	0.82	5.00	3.13	0.75	3.88
4.90	2.00	0.82	5.00	3.13	0.75	3.88
4.95	2.00	0.82	5.00	3.13	0.75	3.88
5.00	2.00	0.82	5.00	3.13	0.75	3.88
5.05	2.00	0.82	5.00	3.13	0.75	3.88
5.10	2.00	0.82	5.00	3.13	0.75	3.88
5.15	2.00	0.82	5.00	3.13	0.75	3.88
5.20	2.00	0.82	5.00	3.13	0.75	3.88
5.25	2.00	0.82	5.00	3.13	0.75	3.88
5.30	2.00	0.82	5.00	3.13	0.75	3.88
5.35	2.00	0.82	5.00	3.13	0.75	3.88
5.40	2.00	0.82	5.00	3.13	0.75	3.88
5.45	2.00	0.82	5.00	3.13	0.75	3.88
5.50	2.00	0.82	5.00	3.13	0.75	3.88
5.55	2.00	0.82	5.00	3.13	0.75	3.88
5.60	2.00	0.82	5.00	3.13	0.75	3.88
5.65	2.00	0.82	5.00	3.13	0.75	3.88
5.70	2.00	0.82	5.00	3.13	0.75	3.88
5.75	2.00	0.82	5.00	3.13	0.75	3.88
5.80	2.00	0.82	5.00	3.13	0.75	3.88
5.85	2.00	0.82	5.00	3.13	0.75	3.88
5.90	2.00	0.82	5.00	3.13	0.75	3.88
5.95	2.00	0.82	5.00	3.13	0.75	3.88
6.00	2.00	0.82	5.00	3.13	0.75	3.88
6.05	2.00	0.82	5.00	3.13	0.75	3.88
6.10	2.00	0.82	5.00	3.13	0.75	3.88
6.15	2.00	0.82	5.00	3.13	0.75	3.88
6.20	2.00	0.82	5.00	3.13	0.75	3.88
6.25	2.00	0.82	5.00	3.13	0.75	3.88

6.30	2.00	0.82	5.00	3.13	0.75	3.88
6.35	2.00	0.82	5.00	3.13	0.75	3.88
6.40	2.00	0.82	5.00	3.13	0.75	3.88
6.45	2.00	0.82	5.00	3.13	0.75	3.88
6.50	2.00	0.82	5.00	3.13	0.75	3.88
6.55	2.00	0.82	5.00	3.13	0.75	3.88
6.60	2.00	0.82	5.00	3.13	0.75	3.88
6.65	2.00	0.82	5.00	3.13	0.75	3.88
6.70	2.00	0.82	5.00	3.13	0.75	3.88
6.75	2.00	0.82	5.00	3.13	0.75	3.88
6.80	2.00	0.81	5.00	3.13	0.75	3.88
6.85	2.00	0.81	5.00	3.13	0.75	3.88
6.90	2.00	0.81	5.00	3.13	0.75	3.88
6.95	2.00	0.81	5.00	3.13	0.75	3.88
7.00	2.00	0.81	5.00	3.13	0.75	3.88
7.05	2.00	0.81	5.00	3.13	0.75	3.88
7.10	2.00	0.81	5.00	3.13	0.75	3.88
7.15	2.00	0.81	5.00	3.13	0.75	3.88
7.20	2.00	0.81	5.00	3.13	0.75	3.88
7.25	2.00	0.81	5.00	3.13	0.75	3.88
7.30	2.00	0.81	5.00	3.13	0.75	3.88
7.35	2.00	0.81	5.00	3.13	0.75	3.88
7.40	2.00	0.81	5.00	3.13	0.75	3.88
7.45	2.00	0.81	5.00	3.13	0.75	3.88
7.50	2.00	0.81	5.00	3.13	0.75	3.88
7.55	2.00	0.81	5.00	3.13	0.75	3.88
7.60	2.00	0.81	5.00	3.13	0.75	3.88
7.65	2.00	0.81	5.00	3.13	0.75	3.88
7.70	2.00	0.81	5.00	3.13	0.75	3.88
7.75	2.00	0.81	5.00	3.13	0.75	3.88
7.80	2.00	0.81	5.00	3.13	0.75	3.88
7.85	2.00	0.81	5.00	3.13	0.75	3.88
7.90	2.00	0.81	5.00	3.13	0.75	3.88
7.95	2.00	0.81	5.00	3.13	0.75	3.88
8.00	2.00	0.81	5.00	3.13	0.75	3.88
8.05	2.00	0.81	5.00	3.13	0.75	3.88
8.10	2.00	0.81	5.00	3.13	0.75	3.88
8.15	2.00	0.81	5.00	3.13	0.75	3.88
8.20	2.00	0.81	5.00	3.13	0.75	3.88
8.25	2.00	0.81	5.00	3.13	0.75	3.88
8.30	2.00	0.81	5.00	3.13	0.75	3.88
8.35	2.00	0.81	5.00	3.13	0.75	3.88
8.40	2.00	0.81	5.00	3.13	0.75	3.88
8.45	2.00	0.81	5.00	3.13	0.75	3.88
8.50	2.00	0.81	5.00	3.13	0.75	3.88
8.55	2.00	0.81	5.00	3.13	0.75	3.88
8.60	2.00	0.81	5.00	3.13	0.75	3.88
8.65	2.00	0.81	5.00	3.13	0.75	3.88
8.70	2.00	0.81	5.00	3.13	0.75	3.88
8.75	2.00	0.81	5.00	3.13	0.75	3.88

8.80	2.00	0.81	5.00	3.13	0.75	3.88
8.85	2.00	0.81	5.00	3.13	0.75	3.88
8.90	2.00	0.81	5.00	3.13	0.75	3.88
8.95	2.00	0.81	5.00	3.13	0.75	3.88
9.00	2.00	0.81	5.00	3.13	0.75	3.88
9.05	2.00	0.81	5.00	3.13	0.75	3.88
9.10	2.00	0.81	5.00	3.13	0.75	3.88
9.15	2.00	0.81	5.00	3.13	0.75	3.88
9.20	2.00	0.81	5.00	3.13	0.75	3.88
9.25	2.00	0.81	5.00	3.13	0.75	3.88
9.30	2.00	0.81	5.00	3.13	0.75	3.88
9.35	2.00	0.81	5.00	3.13	0.75	3.88
9.40	2.00	0.81	5.00	3.13	0.75	3.88
9.45	2.00	0.81	5.00	3.13	0.75	3.88
9.50	2.00	0.81	5.00	3.13	0.75	3.88
9.55	2.00	0.81	5.00	3.13	0.75	3.88
9.60	2.00	0.81	5.00	3.13	0.75	3.88
9.65	2.00	0.81	5.00	3.13	0.75	3.88
9.70	2.00	0.81	5.00	3.13	0.75	3.88
9.75	2.00	0.81	5.00	3.13	0.75	3.88
9.80	2.00	0.81	5.00	3.13	0.75	3.88
9.85	2.00	0.81	5.00	3.13	0.75	3.88
9.90	2.00	0.81	5.00	3.13	0.75	3.88
9.95	2.00	0.81	5.00	3.13	0.75	3.88
10.00	2.00	0.81	5.00	3.13	0.75	3.88
10.05	2.00	0.81	5.00	3.13	0.75	3.88
10.10	2.00	0.81	5.00	3.13	0.75	3.88
10.15	2.00	0.81	5.00	3.13	0.75	3.88
10.20	2.00	0.81	5.00	3.13	0.75	3.88
10.25	2.00	0.81	5.00	3.13	0.75	3.88
10.30	2.00	0.81	5.00	3.13	0.75	3.88
10.35	2.00	0.81	5.00	3.13	0.75	3.88
10.40	2.00	0.81	5.00	3.13	0.75	3.88
10.45	2.00	0.81	5.00	3.13	0.75	3.88
10.50	2.00	0.81	5.00	3.13	0.75	3.88
10.55	2.00	0.81	5.00	3.13	0.75	3.88
10.60	2.00	0.81	5.00	3.13	0.75	3.88
10.65	2.00	0.81	5.00	3.13	0.75	3.88
10.70	2.00	0.81	5.00	3.13	0.75	3.88
10.75	2.00	0.81	5.00	3.13	0.75	3.88
10.80	2.00	0.81	5.00	3.13	0.75	3.88
10.85	2.00	0.81	5.00	3.13	0.75	3.88
10.90	2.00	0.81	5.00	3.13	0.75	3.88
10.95	2.00	0.81	5.00	3.13	0.75	3.88
11.00	2.00	0.81	5.00	3.13	0.75	3.88
11.05	2.00	0.81	5.00	3.13	0.75	3.88
11.10	2.00	0.81	5.00	3.13	0.75	3.88
11.15	2.00	0.81	5.00	3.13	0.75	3.88
11.20	2.00	0.81	5.00	3.13	0.75	3.88
11.25	2.00	0.81	5.00	3.13	0.75	3.88

11.30	2.00	0.81	5.00	3.13	0.75	3.88
11.35	2.00	0.81	5.00	3.13	0.75	3.88
11.40	2.00	0.81	5.00	3.13	0.75	3.88
11.45	2.00	0.81	5.00	3.13	0.75	3.88
11.50	2.00	0.81	5.00	3.13	0.75	3.88
11.55	2.00	0.81	5.00	3.13	0.75	3.88
11.60	2.00	0.81	5.00	3.13	0.75	3.88
11.65	2.00	0.81	5.00	3.13	0.75	3.88
11.70	2.00	0.81	5.00	3.13	0.75	3.88
11.75	2.00	0.81	5.00	3.13	0.75	3.88
11.80	2.00	0.81	5.00	3.13	0.75	3.88
11.85	2.00	0.81	5.00	3.13	0.75	3.88
11.90	2.00	0.81	5.00	3.13	0.75	3.88
11.95	2.00	0.81	5.00	3.13	0.75	3.88
12.00	2.00	0.80	5.00	3.13	0.75	3.88
12.05	2.00	0.80	5.00	3.13	0.75	3.88
12.10	2.00	0.80	5.00	3.13	0.75	3.88
12.15	2.00	0.80	5.00	3.13	0.75	3.88
12.20	2.00	0.80	5.00	3.13	0.75	3.88
12.25	2.00	0.80	5.00	3.13	0.75	3.88
12.30	2.00	0.80	5.00	3.13	0.75	3.88
12.35	2.00	0.80	5.00	3.13	0.75	3.88
12.40	2.00	0.80	5.00	3.13	0.75	3.88
12.45	2.00	0.80	5.00	3.13	0.75	3.88
12.50	2.00	0.80	5.00	3.13	0.75	3.88
12.55	2.00	0.80	5.00	3.13	0.75	3.88
12.60	2.00	0.80	5.00	3.13	0.75	3.88
12.65	2.00	0.80	5.00	3.13	0.75	3.88
12.70	2.00	0.80	5.00	3.13	0.75	3.88
12.75	2.00	0.80	5.00	3.13	0.75	3.88
12.80	2.00	0.80	5.00	3.13	0.75	3.88
12.85	2.00	0.80	5.00	3.13	0.75	3.88
12.90	2.00	0.80	5.00	3.13	0.75	3.88
12.95	2.00	0.80	5.00	3.13	0.75	3.88
13.00	2.00	0.80	5.00	3.13	0.75	3.88
13.05	2.00	0.80	5.00	3.13	0.75	3.88
13.10	2.00	0.80	5.00	3.13	0.75	3.88
13.15	2.00	0.80	5.00	3.13	0.75	3.88
13.20	2.00	0.80	5.00	3.13	0.75	3.88
13.25	2.00	0.80	5.00	3.13	0.75	3.88
13.30	2.00	0.80	5.00	3.13	0.75	3.88
13.35	2.00	0.80	5.00	3.13	0.75	3.88
13.40	2.00	0.80	5.00	3.13	0.75	3.88
13.45	2.00	0.80	5.00	3.13	0.75	3.88
13.50	2.00	0.80	5.00	3.13	0.75	3.88
13.55	2.00	0.80	5.00	3.13	0.75	3.88
13.60	2.00	0.80	5.00	3.13	0.75	3.88
13.65	2.00	0.80	5.00	3.13	0.75	3.88
13.70	2.00	0.80	5.00	3.13	0.75	3.88
13.75	2.00	0.80	5.00	3.13	0.75	3.88

13.80	2.00	0.80	5.00	3.13	0.75	3.88
13.85	2.00	0.80	5.00	3.13	0.75	3.88
13.90	2.00	0.80	5.00	3.13	0.75	3.88
13.95	2.00	0.80	5.00	3.13	0.75	3.88
14.00	2.00	0.80	5.00	3.13	0.75	3.88
14.05	2.00	0.80	5.00	3.13	0.75	3.88
14.10	2.00	0.80	5.00	3.13	0.75	3.88
14.15	2.00	0.80	5.00	3.13	0.75	3.88
14.20	2.00	0.80	5.00	3.13	0.75	3.88
14.25	2.00	0.80	5.00	3.13	0.75	3.88
14.30	2.00	0.80	5.00	3.13	0.75	3.88
14.35	2.00	0.80	5.00	3.13	0.75	3.88
14.40	2.00	0.80	5.00	3.13	0.75	3.88
14.45	2.00	0.80	5.00	3.13	0.75	3.88
14.50	2.00	0.80	5.00	3.13	0.75	3.88
14.55	2.00	0.80	5.00	3.13	0.75	3.88
14.60	2.00	0.80	5.00	3.13	0.75	3.88
14.65	2.00	0.80	5.00	3.13	0.75	3.88
14.70	2.00	0.80	5.00	3.13	0.75	3.88
14.75	2.00	0.80	5.00	3.13	0.75	3.88
14.80	2.00	0.80	5.00	3.13	0.75	3.88
14.85	2.00	0.80	5.00	3.13	0.75	3.88
14.90	2.00	0.80	5.00	3.13	0.75	3.88
14.95	2.00	0.80	5.00	3.13	0.75	3.88
15.00	2.00	0.80	5.00	3.13	0.75	3.88
15.05	2.00	0.80	5.00	3.13	0.75	3.88
15.10	2.00	0.80	5.00	3.13	0.75	3.88
15.15	2.00	0.80	5.00	3.13	0.75	3.88
15.20	2.00	0.80	5.00	3.13	0.75	3.88
15.25	2.00	0.80	5.00	3.13	0.75	3.88
15.30	2.00	0.80	5.00	3.13	0.75	3.88
15.35	2.00	0.80	5.00	3.13	0.75	3.88
15.40	2.00	0.80	5.00	3.13	0.75	3.88
15.45	2.00	0.80	5.00	3.13	0.75	3.88
15.50	2.00	0.80	5.00	3.13	0.75	3.88
15.55	2.00	0.80	5.00	3.13	0.75	3.88
15.60	2.00	0.80	5.00	3.13	0.75	3.88
15.65	2.00	0.80	5.00	3.13	0.75	3.88
15.70	2.00	0.80	5.00	3.13	0.75	3.88
15.75	2.00	0.80	5.00	3.13	0.75	3.88
15.80	2.00	0.80	5.00	3.13	0.75	3.88
15.85	2.00	0.80	5.00	3.13	0.75	3.88
15.90	2.00	0.80	5.00	3.13	0.75	3.88
15.95	2.00	0.80	5.00	3.13	0.75	3.88
16.00	2.00	0.80	5.00	3.13	0.75	3.88
16.05	2.00	0.80	5.00	3.13	0.75	3.88
16.10	2.00	0.80	5.00	3.13	0.75	3.88
16.15	2.00	0.80	5.00	3.13	0.75	3.88
16.20	2.00	0.80	5.00	3.13	0.75	3.88
16.25	2.00	0.80	5.00	3.13	0.75	3.88

16.30	2.00	0.80	5.00	3.13	0.75	3.88
16.35	2.00	0.80	5.00	3.13	0.75	3.88
16.40	2.00	0.80	5.00	3.13	0.75	3.88
16.45	2.00	0.80	5.00	3.13	0.75	3.88
16.50	2.00	0.80	5.00	3.13	0.75	3.88
16.55	2.00	0.80	5.00	3.13	0.75	3.88
16.60	2.00	0.80	5.00	3.13	0.75	3.88
16.65	2.00	0.80	5.00	3.13	0.75	3.88
16.70	2.00	0.80	5.00	3.13	0.75	3.88
16.75	2.00	0.80	5.00	3.13	0.75	3.88
16.80	2.00	0.80	5.00	3.13	0.75	3.88
16.85	2.00	0.80	5.00	3.13	0.75	3.88
16.90	2.00	0.80	5.00	3.13	0.75	3.88
16.95	2.00	0.80	5.00	3.13	0.75	3.88
17.00	2.00	0.80	5.00	3.13	0.75	3.88
17.05	2.00	0.80	5.00	3.13	0.75	3.88
17.10	2.00	0.80	5.00	3.13	0.75	3.88
17.15	2.00	0.79	5.00	3.13	0.75	3.88
17.20	2.00	0.79	5.00	3.13	0.75	3.88
17.25	2.00	0.79	5.00	3.13	0.75	3.88
17.30	2.00	0.79	5.00	3.13	0.75	3.88
17.35	2.00	0.79	5.00	3.13	0.75	3.88
17.40	2.00	0.79	5.00	3.13	0.75	3.88
17.45	2.00	0.79	5.00	3.13	0.75	3.88
17.50	2.00	0.79	5.00	3.13	0.75	3.88
17.55	2.00	0.79	5.00	3.13	0.75	3.88
17.60	2.00	0.79	5.00	3.13	0.75	3.88
17.65	2.00	0.79	5.00	3.13	0.75	3.88
17.70	2.00	0.79	5.00	3.13	0.75	3.88
17.75	2.00	0.79	5.00	3.13	0.75	3.88
17.80	2.00	0.79	5.00	3.13	0.75	3.88
17.85	2.00	0.79	5.00	3.13	0.75	3.88
17.90	2.00	0.79	5.00	3.13	0.75	3.88
17.95	2.00	0.79	5.00	3.13	0.75	3.88
18.00	2.00	0.79	5.00	3.13	0.75	3.88
18.05	2.00	0.79	5.00	3.13	0.75	3.88
18.10	2.00	0.79	5.00	3.13	0.75	3.88
18.15	2.00	0.79	5.00	3.13	0.75	3.88
18.20	2.00	0.79	5.00	3.13	0.75	3.88
18.25	2.00	0.79	5.00	3.13	0.75	3.88
18.30	2.00	0.79	5.00	3.13	0.75	3.88
18.35	2.00	0.79	5.00	3.13	0.75	3.88
18.40	2.00	0.79	5.00	3.13	0.75	3.88
18.45	2.00	0.79	5.00	3.13	0.75	3.88
18.50	2.00	0.79	5.00	3.13	0.75	3.88
18.55	2.00	0.79	5.00	3.13	0.75	3.88
18.60	2.00	0.79	5.00	3.13	0.75	3.88
18.65	2.00	0.79	5.00	3.13	0.75	3.88
18.70	2.00	0.79	5.00	3.13	0.75	3.88
18.75	2.00	0.79	5.00	3.13	0.75	3.88

18.80	2.00	0.79	5.00	3.13	0.75	3.88
18.85	2.00	0.79	5.00	3.13	0.75	3.88
18.90	2.00	0.79	5.00	3.13	0.75	3.88
18.95	2.00	0.79	5.00	3.13	0.75	3.88
19.00	2.00	0.79	5.00	3.13	0.75	3.88
19.05	2.00	0.79	5.00	3.13	0.75	3.88
19.10	2.00	0.79	5.00	3.13	0.75	3.88
19.15	2.00	0.79	5.00	3.13	0.75	3.88
19.20	2.00	0.79	5.00	3.13	0.75	3.88
19.25	2.00	0.79	5.00	3.13	0.75	3.88
19.30	2.00	0.79	5.00	3.13	0.75	3.88
19.35	2.00	0.79	5.00	3.13	0.75	3.88
19.40	2.00	0.79	5.00	3.13	0.75	3.88
19.45	2.00	0.79	5.00	3.13	0.75	3.88
19.50	2.00	0.79	5.00	3.13	0.75	3.88
19.55	2.00	0.79	5.00	3.13	0.75	3.88
19.60	2.00	0.79	5.00	3.13	0.75	3.88
19.65	2.00	0.79	5.00	3.13	0.75	3.88
19.70	2.00	0.79	5.00	3.13	0.75	3.88
19.75	2.00	0.79	5.00	3.13	0.75	3.88
19.80	2.00	0.79	5.00	3.13	0.75	3.88
19.85	2.00	0.79	5.00	3.13	0.75	3.88
19.90	2.00	0.79	5.00	3.13	0.75	3.88
19.95	2.00	0.79	5.00	3.13	0.75	3.88
20.00	2.00	0.79	5.00	3.13	0.75	3.88
20.05	2.00	0.79	5.00	3.13	0.75	3.88
20.10	2.00	0.79	5.00	3.13	0.75	3.88
20.15	2.00	0.79	5.00	3.13	0.75	3.88
20.20	2.00	0.79	5.00	3.13	0.75	3.88
20.25	2.00	0.79	5.00	3.13	0.75	3.88
20.30	2.00	0.79	5.00	3.13	0.75	3.88
20.35	2.00	0.79	5.00	3.13	0.75	3.88
20.40	2.00	0.79	5.00	3.13	0.75	3.88
20.45	2.00	0.79	5.00	3.13	0.75	3.88
20.50	2.00	0.79	5.00	3.13	0.75	3.88
20.55	2.00	0.79	5.00	3.13	0.75	3.88
20.60	2.00	0.79	5.00	3.13	0.75	3.88
20.65	2.00	0.79	5.00	3.13	0.75	3.88
20.70	2.00	0.79	5.00	3.13	0.75	3.88
20.75	2.00	0.79	5.00	3.13	0.75	3.88
20.80	2.00	0.79	5.00	3.13	0.75	3.88
20.85	2.00	0.79	5.00	3.13	0.75	3.88
20.90	2.00	0.79	5.00	3.13	0.75	3.88
20.95	2.00	0.79	5.00	3.13	0.75	3.88
21.00	2.00	0.79	5.00	3.13	0.75	3.88
21.05	0.38	0.79	5.00	3.13	0.75	3.88
21.10	0.37	0.79	5.00	3.13	0.74	3.87
21.15	0.36	0.79	5.00	3.13	0.74	3.87
21.20	0.36	0.79	5.00	3.13	0.73	3.86
21.25	0.36	0.79	5.00	3.13	0.72	3.85

21.30	0.35	0.79	5.00	3.13	0.71	3.84
21.35	0.35	0.79	5.00	3.13	0.71	3.83
21.40	0.34	0.79	5.00	3.13	0.70	3.83
21.45	0.34	0.79	5.00	3.13	0.69	3.82
21.50	0.34	0.79	5.00	3.13	0.68	3.81
21.55	0.33	0.79	5.00	3.13	0.67	3.80
21.60	0.33	0.79	5.00	3.13	0.67	3.79
21.65	0.33	0.79	5.00	3.13	0.66	3.79
21.70	0.33	0.79	5.00	3.13	0.65	3.78
21.75	0.32	0.79	5.00	3.13	0.64	3.77
21.80	0.32	0.79	5.00	3.13	0.63	3.76
21.85	0.32	0.79	5.00	3.13	0.62	3.75
21.90	0.32	0.79	5.00	3.13	0.62	3.74
21.95	0.31	0.79	5.00	3.13	0.61	3.74
22.00	0.31	0.79	5.00	3.13	0.60	3.73
22.05	0.31	0.79	5.00	3.13	0.59	3.72
22.10	0.31	0.79	5.00	3.13	0.58	3.71
22.15	0.31	0.79	5.00	3.13	0.57	3.70
22.20	0.30	0.79	5.00	3.13	0.57	3.69
22.25	0.30	0.79	5.00	3.13	0.56	3.69
22.30	0.30	0.79	5.00	3.13	0.55	3.68
22.35	0.30	0.78	5.00	3.13	0.54	3.67
22.40	0.30	0.78	5.00	3.13	0.53	3.66
22.45	0.29	0.78	5.00	3.13	0.52	3.65
22.50	0.29	0.78	5.00	3.13	0.51	3.64
22.55	0.29	0.78	5.00	3.13	0.50	3.63
22.60	0.29	0.78	5.00	3.13	0.50	3.62
22.65	0.29	0.78	5.00	3.13	0.49	3.61
22.70	0.29	0.78	5.00	3.13	0.48	3.61
22.75	0.28	0.78	5.00	3.13	0.47	3.60
22.80	0.28	0.78	5.00	3.13	0.46	3.59
22.85	0.28	0.78	5.00	3.13	0.45	3.58
22.90	0.28	0.78	5.00	3.13	0.44	3.57
22.95	0.28	0.78	5.00	3.13	0.43	3.56
23.00	0.28	0.78	5.00	3.13	0.42	3.55
23.05	0.27	0.78	5.00	3.13	0.41	3.54
23.10	0.27	0.78	5.00	3.13	0.40	3.53
23.15	0.27	0.78	5.00	3.13	0.39	3.52
23.20	0.27	0.78	5.00	3.13	0.38	3.51
23.25	0.27	0.78	5.00	3.13	0.38	3.50
23.30	0.27	0.78	5.00	3.13	0.37	3.49
23.35	0.27	0.78	5.00	3.13	0.36	3.48
23.40	0.26	0.78	5.00	3.13	0.35	3.47
23.45	0.26	0.78	5.00	3.13	0.34	3.47
23.50	0.26	0.78	5.00	3.13	0.33	3.46
23.55	0.26	0.78	5.00	3.13	0.32	3.45
23.60	0.26	0.78	5.00	3.13	0.31	3.44
23.65	0.26	0.78	5.00	3.13	0.30	3.43
23.70	0.26	0.78	5.00	3.13	0.29	3.42
23.75	0.25	0.78	5.00	3.13	0.28	3.41

23.80	0.25	0.78	5.00	3.13	0.27	3.40
23.85	0.25	0.78	5.00	3.13	0.26	3.39
23.90	0.25	0.78	5.00	3.13	0.25	3.38
23.95	0.25	0.78	5.00	3.13	0.24	3.37
24.00	0.25	0.78	5.00	3.13	0.23	3.36
24.05	0.25	0.78	5.00	3.13	0.22	3.34
24.10	0.25	0.78	5.00	3.13	0.21	3.33
24.15	0.24	0.78	5.00	3.13	0.20	3.32
24.20	0.24	0.78	5.00	3.13	0.19	3.31
24.25	0.24	0.78	5.00	3.13	0.17	3.30
24.30	0.24	0.78	5.00	3.13	0.16	3.29
24.35	0.24	0.78	5.00	3.13	0.15	3.28
24.40	0.24	0.78	5.00	3.13	0.14	3.27
24.45	0.24	0.78	5.00	3.13	0.13	3.26
24.50	0.24	0.78	5.00	3.13	0.12	3.25
24.55	0.24	0.78	5.00	3.13	0.11	3.24
24.60	0.23	0.78	5.00	3.13	0.10	3.23
24.65	0.23	0.78	5.00	3.13	0.09	3.22
24.70	0.23	0.78	5.00	3.13	0.08	3.21
24.75	0.23	0.78	5.00	3.13	0.07	3.20
24.80	0.23	0.78	5.00	3.13	0.06	3.18
24.85	0.23	0.78	5.00	3.13	0.05	3.17
24.90	0.23	0.78	5.00	3.13	0.03	3.16
24.95	0.23	0.78	5.00	3.13	0.02	3.15
25.00	0.23	0.78	5.00	3.13	0.01	3.14
25.05	0.23	0.78	0.29*	3.13	0.00	3.13
25.10	0.23	0.78	0.29*	3.12	0.00	3.12
25.15	0.23	0.78	0.29*	3.11	0.00	3.11
25.20	0.23	0.78	0.29*	3.10	0.00	3.10
25.25	0.23	0.78	0.29*	3.10	0.00	3.10
25.30	0.23	0.78	0.29*	3.09	0.00	3.09
25.35	0.23	0.79	0.29*	3.08	0.00	3.08
25.40	0.23	0.79	0.29*	3.07	0.00	3.07
25.45	0.23	0.79	0.29*	3.06	0.00	3.06
25.50	0.23	0.79	0.29*	3.05	0.00	3.05
25.55	0.23	0.79	0.29*	3.05	0.00	3.05
25.60	0.23	0.79	0.29*	3.04	0.00	3.04
25.65	0.23	0.79	0.29*	3.03	0.00	3.03
25.70	0.23	0.79	0.29*	3.02	0.00	3.02
25.75	0.23	0.79	0.29*	3.01	0.00	3.01
25.80	0.23	0.79	0.29*	3.01	0.00	3.01
25.85	0.23	0.80	0.29*	3.00	0.00	3.00
25.90	0.23	0.80	0.29*	2.99	0.00	2.99
25.95	0.23	0.80	0.29*	2.98	0.00	2.98
26.00	0.23	0.80	0.29*	2.97	0.00	2.97
26.05	0.23	0.80	0.29*	2.97	0.00	2.97
26.10	0.23	0.80	0.29*	2.96	0.00	2.96
26.15	0.23	0.80	0.29*	2.95	0.00	2.95
26.20	0.23	0.80	0.29*	2.94	0.00	2.94
26.25	0.23	0.80	0.29*	2.93	0.00	2.93

26.30	0.23	0.80	0.29*	2.92	0.00	2.92
26.35	0.23	0.80	0.29*	2.92	0.00	2.92
26.40	0.23	0.81	0.29*	2.91	0.00	2.91
26.45	0.23	0.81	0.28*	2.90	0.00	2.90
26.50	0.23	0.81	0.28*	2.89	0.00	2.89
26.55	0.23	0.81	0.28*	2.88	0.00	2.88
26.60	0.23	0.81	0.28*	2.88	0.00	2.88
26.65	0.23	0.81	0.28*	2.87	0.00	2.87
26.70	0.23	0.81	0.28*	2.86	0.00	2.86
26.75	0.23	0.81	0.28*	2.85	0.00	2.85
26.80	0.23	0.81	0.28*	2.84	0.00	2.84
26.85	0.23	0.81	0.28*	2.84	0.00	2.84
26.90	0.23	0.82	0.28*	2.83	0.00	2.83
26.95	0.23	0.82	0.28*	2.82	0.00	2.82
27.00	0.23	0.82	0.28*	2.81	0.00	2.81
27.05	0.23	0.82	0.28*	2.80	0.00	2.80
27.10	0.23	0.82	0.28*	2.80	0.00	2.80
27.15	0.23	0.82	0.28*	2.79	0.00	2.79
27.20	0.23	0.82	0.28*	2.78	0.00	2.78
27.25	0.23	0.82	0.28*	2.77	0.00	2.77
27.30	0.23	0.82	0.28*	2.76	0.00	2.76
27.35	0.23	0.82	0.28*	2.76	0.00	2.76
27.40	0.23	0.82	0.28*	2.75	0.00	2.75
27.45	0.23	0.83	0.28*	2.74	0.00	2.74
27.50	0.23	0.83	0.28*	2.73	0.00	2.73
27.55	0.23	0.83	0.28*	2.72	0.00	2.72
27.60	0.23	0.83	0.28*	2.71	0.00	2.71
27.65	0.23	0.83	0.28*	2.71	0.00	2.71
27.70	0.23	0.83	0.28*	2.70	0.00	2.70
27.75	0.23	0.83	0.28*	2.69	0.00	2.69
27.80	0.23	0.83	0.28*	2.68	0.00	2.68
27.85	0.23	0.83	0.28*	2.67	0.00	2.67
27.90	0.25	0.83	0.29*	2.67	0.00	2.67
27.95	0.25	0.83	0.29*	2.66	0.00	2.66
28.00	0.25	0.84	0.29*	2.65	0.00	2.65
28.05	0.25	0.84	0.29*	2.64	0.00	2.64
28.10	0.25	0.84	0.29*	2.64	0.00	2.64
28.15	0.25	0.84	0.29*	2.63	0.00	2.63
28.20	0.25	0.84	0.29*	2.62	0.00	2.62
28.25	0.25	0.84	0.29*	2.61	0.00	2.61
28.30	0.25	0.84	0.29*	2.61	0.00	2.61
28.35	0.25	0.84	0.29*	2.60	0.00	2.60
28.40	0.25	0.84	0.29*	2.59	0.00	2.59
28.45	0.25	0.84	0.29*	2.58	0.00	2.58
28.50	0.25	0.84	0.29*	2.58	0.00	2.58
28.55	0.25	0.84	0.29*	2.57	0.00	2.57
28.60	0.25	0.85	0.29*	2.56	0.00	2.56
28.65	0.25	0.85	0.29*	2.55	0.00	2.55
28.70	0.25	0.85	0.29*	2.55	0.00	2.55
28.75	0.25	0.85	0.29*	2.54	0.00	2.54

28.80	0.25	0.85	0.29*	2.53	0.00	2.53
28.85	0.25	0.85	0.29*	2.52	0.00	2.52
28.90	0.25	0.85	0.29*	2.51	0.00	2.51
28.95	0.25	0.85	0.29*	2.51	0.00	2.51
29.00	0.25	0.85	0.29*	2.50	0.00	2.50
29.05	0.25	0.85	0.29*	2.49	0.00	2.49
29.10	0.25	0.85	0.29*	2.48	0.00	2.48
29.15	0.25	0.86	0.29*	2.48	0.00	2.48
29.20	0.25	0.86	0.29*	2.47	0.00	2.47
29.25	0.25	0.86	0.29*	2.46	0.00	2.46
29.30	0.25	0.86	0.29*	2.45	0.00	2.45
29.35	0.25	0.86	0.29*	2.45	0.00	2.45
29.40	0.25	0.86	0.29*	2.44	0.00	2.44
29.45	0.25	0.86	0.29*	2.43	0.00	2.43
29.50	0.25	0.86	0.29*	2.42	0.00	2.42
29.55	0.25	0.86	0.29*	2.42	0.00	2.42
29.60	0.25	0.86	0.29*	2.41	0.00	2.41
29.65	0.25	0.86	0.29*	2.40	0.00	2.40
29.70	0.25	0.86	0.29*	2.39	0.00	2.39
29.75	0.25	0.87	0.29*	2.39	0.00	2.39
29.80	0.25	0.87	0.29*	2.38	0.00	2.38
29.85	0.25	0.87	0.29*	2.37	0.00	2.37
29.90	0.25	0.87	0.29*	2.36	0.00	2.36
29.95	0.25	0.87	0.29*	2.36	0.00	2.36
30.00	0.25	0.87	0.29*	2.35	0.00	2.35
30.05	0.25	0.87	0.29*	2.34	0.00	2.34
30.10	0.25	0.87	0.28*	2.33	0.00	2.33
30.15	0.25	0.87	0.28*	2.33	0.00	2.33
30.20	0.25	0.87	0.28*	2.32	0.00	2.32
30.25	0.24	0.87	0.28*	2.31	0.00	2.31
30.30	0.24	0.87	0.28*	2.30	0.00	2.30
30.35	0.24	0.87	0.28*	2.30	0.00	2.30
30.40	0.24	0.87	0.27*	2.29	0.00	2.29
30.45	0.24	0.87	0.27*	2.28	0.00	2.28
30.50	0.24	0.88	0.27*	2.27	0.00	2.27
30.55	0.24	0.88	0.27*	2.26	0.00	2.26
30.60	0.23	0.88	0.27*	2.26	0.00	2.26
30.65	0.23	0.88	0.27*	2.25	0.00	2.25
30.70	0.23	0.88	0.26*	2.24	0.00	2.24
30.75	0.23	0.88	0.26*	2.23	0.00	2.23
30.80	0.23	0.88	0.26*	2.22	0.00	2.22
30.85	0.23	0.88	0.26*	2.22	0.00	2.22
30.90	0.23	0.88	0.26*	2.21	0.00	2.21
30.95	0.23	0.88	0.26*	2.20	0.00	2.20
31.00	0.22	0.88	0.25*	2.19	0.00	2.19
31.05	0.22	0.88	0.25*	2.18	0.00	2.18
31.10	0.22	0.88	0.25*	2.18	0.00	2.18
31.15	0.22	0.88	0.25*	2.17	0.00	2.17
31.20	0.22	0.88	0.25*	2.16	0.00	2.16
31.25	0.22	0.88	0.25*	2.15	0.00	2.15

31.30	0.22	0.88	0.25*	2.14	0.00	2.14
31.35	0.22	0.88	0.24*	2.13	0.00	2.13
31.40	0.21	0.88	0.24*	2.13	0.00	2.13
31.45	0.21	0.89	0.24*	2.12	0.00	2.12
31.50	0.21	0.89	0.24*	2.11	0.00	2.11
31.55	0.21	0.89	0.24*	2.10	0.00	2.10
31.60	0.21	0.89	0.24*	2.09	0.00	2.09
31.65	0.21	0.89	0.24*	2.08	0.00	2.08
31.70	0.21	0.89	0.23*	2.07	0.00	2.07
31.75	0.21	0.89	0.23*	2.06	0.00	2.06
31.80	0.21	0.89	0.23*	2.06	0.00	2.06
31.85	0.20	0.89	0.23*	2.05	0.00	2.05
31.90	0.20	0.89	0.23*	2.04	0.00	2.04
31.95	0.20	0.89	0.23*	2.03	0.00	2.03
32.00	0.20	0.89	0.23*	2.02	0.00	2.02
32.05	0.20	0.89	0.23*	2.01	0.00	2.01
32.10	0.20	0.89	0.22*	2.00	0.00	2.00
32.15	0.20	0.89	0.22*	1.99	0.00	1.99
32.20	0.20	0.89	0.22*	1.98	0.00	1.98
32.25	0.20	0.89	0.22*	1.97	0.00	1.97
32.30	0.20	0.89	0.22*	1.96	0.00	1.96
32.35	0.19	0.89	0.22*	1.96	0.00	1.96
32.40	0.19	0.89	0.22*	1.95	0.00	1.95
32.45	0.19	0.90	0.21*	1.94	0.00	1.94
32.50	0.19	0.90	0.21*	1.93	0.00	1.93
32.55	0.19	0.90	0.21*	1.92	0.00	1.92
32.60	0.19	0.90	0.21*	1.91	0.00	1.91
32.65	0.19	0.90	0.21*	1.90	0.00	1.90
32.70	0.19	0.90	0.21*	1.89	0.00	1.89
32.75	0.19	0.90	0.21*	1.88	0.00	1.88
32.80	0.19	0.90	0.21*	1.87	0.00	1.87
32.85	0.18	0.90	0.21*	1.86	0.00	1.86
32.90	0.18	0.90	0.20*	1.85	0.00	1.85
32.95	0.18	0.90	0.20*	1.84	0.00	1.84
33.00	0.18	0.90	0.20*	1.83	0.00	1.83
33.05	0.18	0.90	0.20*	1.82	0.00	1.82
33.10	0.18	0.90	0.20*	1.81	0.00	1.81
33.15	0.18	0.90	0.20*	1.80	0.00	1.80
33.20	0.18	0.90	0.20*	1.79	0.00	1.79
33.25	0.18	0.90	0.20*	1.78	0.00	1.78
33.30	0.18	0.90	0.19*	1.77	0.00	1.77
33.35	0.17	0.90	0.19*	1.76	0.00	1.76
33.40	0.17	0.90	0.19*	1.75	0.00	1.75
33.45	0.17	0.90	0.19*	1.74	0.00	1.74
33.50	0.17	0.90	0.19*	1.73	0.00	1.73
33.55	0.17	0.91	0.19*	1.72	0.00	1.72
33.60	0.17	0.91	0.19*	1.71	0.00	1.71
33.65	0.17	0.91	0.19*	1.70	0.00	1.70
33.70	0.17	0.91	0.19*	1.68	0.00	1.68
33.75	0.17	0.91	0.18*	1.67	0.00	1.67

33.80	0.17	0.91	0.18*	1.66	0.00	1.66
33.85	0.17	0.91	0.18*	1.65	0.00	1.65
33.90	0.16	0.91	0.18*	1.64	0.00	1.64
33.95	0.16	0.91	0.18*	1.63	0.00	1.63
34.00	0.16	0.91	0.18*	1.62	0.00	1.62
34.05	0.16	0.91	0.18*	1.61	0.00	1.61
34.10	0.16	0.91	0.18*	1.60	0.00	1.60
34.15	0.16	0.91	0.18*	1.59	0.00	1.59
34.20	0.16	0.91	0.18*	1.58	0.00	1.58
34.25	0.16	0.91	0.17*	1.56	0.00	1.56
34.30	0.16	0.91	0.17*	1.55	0.00	1.55
34.35	0.16	0.91	0.17*	1.54	0.00	1.54
34.40	0.16	0.91	0.17*	1.53	0.00	1.53
34.45	0.16	0.91	0.17*	1.52	0.00	1.52
34.50	0.15	0.91	0.17*	1.51	0.00	1.51
34.55	0.15	0.91	0.17*	1.50	0.00	1.50
34.60	0.15	0.91	0.17*	1.49	0.00	1.49
34.65	0.15	0.91	0.17*	1.47	0.00	1.47
34.70	0.15	0.91	0.16*	1.46	0.00	1.46
34.75	0.15	0.92	0.16*	1.45	0.00	1.45
34.80	0.15	0.92	0.16*	1.44	0.00	1.44
34.85	0.15	0.92	0.16*	1.43	0.00	1.43
34.90	0.15	0.92	0.16*	1.42	0.00	1.42
34.95	0.15	0.92	0.16*	1.40	0.00	1.40
35.00	0.14	0.92	0.16*	1.39	0.00	1.39
35.05	0.15	0.92	0.16*	1.38	0.00	1.38
35.10	0.15	0.92	0.16*	1.37	0.00	1.37
35.15	0.15	0.92	0.16*	1.36	0.00	1.36
35.20	0.15	0.92	0.16*	1.34	0.00	1.34
35.25	0.15	0.92	0.16*	1.33	0.00	1.33
35.30	0.15	0.92	0.16*	1.32	0.00	1.32
35.35	0.15	0.92	0.16*	1.31	0.00	1.31
35.40	0.15	0.92	0.16*	1.30	0.00	1.30
35.45	0.15	0.92	0.16*	1.29	0.00	1.29
35.50	0.15	0.92	0.16*	1.27	0.00	1.27
35.55	0.15	0.92	0.16*	1.26	0.00	1.26
35.60	0.15	0.92	0.16*	1.25	0.00	1.25
35.65	0.15	0.92	0.16*	1.24	0.00	1.24
35.70	0.15	0.92	0.16*	1.23	0.00	1.23
35.75	0.15	0.92	0.16*	1.22	0.00	1.22
35.80	0.15	0.92	0.16*	1.20	0.00	1.20
35.85	0.15	0.92	0.16*	1.19	0.00	1.19
35.90	0.15	0.92	0.16*	1.18	0.00	1.18
35.95	0.15	0.92	0.16*	1.17	0.00	1.17
36.00	0.15	0.92	0.16*	1.16	0.00	1.16
36.05	0.15	0.92	0.16*	1.15	0.00	1.15
36.10	0.15	0.93	0.17*	1.13	0.00	1.13
36.15	0.15	0.93	0.17*	1.12	0.00	1.12
36.20	0.15	0.93	0.17*	1.11	0.00	1.11
36.25	0.15	0.93	0.17*	1.10	0.00	1.10

36.30	0.15	0.93	0.17*	1.09	0.00	1.09
36.35	0.15	0.93	0.17*	1.08	0.00	1.08
36.40	0.15	0.93	0.17*	1.07	0.00	1.07
36.45	0.16	0.93	0.17*	1.06	0.00	1.06
36.50	0.16	0.93	0.17*	1.04	0.00	1.04
36.55	0.16	0.93	0.17*	1.03	0.00	1.03
36.60	0.16	0.93	0.17*	1.02	0.00	1.02
36.65	0.16	0.93	0.17*	1.01	0.00	1.01
36.70	0.16	0.93	0.17*	1.00	0.00	1.00
36.75	0.16	0.93	0.17*	0.99	0.00	0.99
36.80	0.16	0.93	0.17*	0.98	0.00	0.98
36.85	0.16	0.93	0.17*	0.97	0.00	0.97
36.90	0.16	0.93	0.17*	0.95	0.00	0.95
36.95	0.16	0.93	0.17*	0.94	0.00	0.94
37.00	0.16	0.93	0.17*	0.93	0.00	0.93
37.05	0.16	0.93	0.17*	0.92	0.00	0.92
37.10	0.16	0.93	0.17*	0.91	0.00	0.91
37.15	0.16	0.93	0.17*	0.90	0.00	0.90
37.20	0.16	0.93	0.17*	0.89	0.00	0.89
37.25	0.16	0.93	0.17*	0.88	0.00	0.88
37.30	0.16	0.93	0.17*	0.87	0.00	0.87
37.35	0.16	0.93	0.17*	0.85	0.00	0.85
37.40	0.16	0.93	0.17*	0.84	0.00	0.84
37.45	0.16	0.93	0.17*	0.83	0.00	0.83
37.50	0.16	0.93	0.17*	0.82	0.00	0.82
37.55	0.16	0.93	0.17*	0.81	0.00	0.81
37.60	0.16	0.94	0.17*	0.80	0.00	0.80
37.65	0.16	0.94	0.17*	0.79	0.00	0.79
37.70	0.16	0.94	0.18*	0.78	0.00	0.78
37.75	0.16	0.94	0.18*	0.77	0.00	0.77
37.80	0.16	0.94	0.18*	0.76	0.00	0.76
37.85	0.16	0.94	0.18*	0.75	0.00	0.75
37.90	0.17	0.94	0.18*	0.74	0.00	0.74
37.95	0.17	0.94	0.18*	0.72	0.00	0.72
38.00	0.17	0.94	0.18*	0.71	0.00	0.71
38.05	0.17	0.94	0.18*	0.70	0.00	0.70
38.10	0.17	0.94	0.18*	0.69	0.00	0.69
38.15	0.17	0.94	0.18*	0.68	0.00	0.68
38.20	0.17	0.94	0.18*	0.67	0.00	0.67
38.25	0.17	0.94	0.18*	0.66	0.00	0.66
38.30	0.17	0.94	0.18*	0.65	0.00	0.65
38.35	0.17	0.94	0.18*	0.64	0.00	0.64
38.40	0.17	0.94	0.18*	0.63	0.00	0.63
38.45	0.17	0.94	0.18*	0.62	0.00	0.62
38.50	0.17	0.94	0.18*	0.61	0.00	0.61
38.55	0.17	0.94	0.18*	0.60	0.00	0.60
38.60	0.17	0.94	0.18*	0.59	0.00	0.59
38.65	0.17	0.94	0.18*	0.58	0.00	0.58
38.70	0.17	0.94	0.18*	0.57	0.00	0.57
38.75	0.17	0.94	0.18*	0.56	0.00	0.56

38.80	0.17	0.94	0.18*	0.54	0.00	0.54
38.85	0.17	0.94	0.18*	0.53	0.00	0.53
38.90	0.17	0.94	0.18*	0.52	0.00	0.52
38.95	0.17	0.94	0.18*	0.51	0.00	0.51
39.00	0.17	0.94	0.18*	0.50	0.00	0.50
39.05	0.17	0.94	0.18*	0.49	0.00	0.49
39.10	0.17	0.94	0.18*	0.48	0.00	0.48
39.15	0.17	0.94	0.18*	0.47	0.00	0.47
39.20	0.17	0.94	0.18*	0.46	0.00	0.46
39.25	0.17	0.94	0.18*	0.45	0.00	0.45
39.30	0.17	0.94	0.18*	0.44	0.00	0.44
39.35	0.17	0.95	0.19*	0.43	0.00	0.43
39.40	0.18	0.95	0.19*	0.42	0.00	0.42
39.45	0.18	0.95	0.19*	0.41	0.00	0.41
39.50	0.18	0.95	0.19*	0.40	0.00	0.40
39.55	0.18	0.95	0.19*	0.39	0.00	0.39
39.60	0.18	0.95	0.19*	0.38	0.00	0.38
39.65	0.18	0.95	0.19*	0.37	0.00	0.37
39.70	0.18	0.95	0.19*	0.36	0.00	0.36
39.75	0.18	0.95	0.19*	0.35	0.00	0.35
39.80	0.18	0.95	0.19*	0.34	0.00	0.34
39.85	0.18	0.95	0.19*	0.33	0.00	0.33
39.90	0.18	0.95	0.19*	0.32	0.00	0.32
39.95	0.18	0.95	0.19*	0.31	0.00	0.31
40.00	0.18	0.95	0.19*	0.30	0.00	0.30
40.05	0.18	0.95	0.19*	0.29	0.00	0.29
40.10	0.18	0.95	0.19*	0.28	0.00	0.28
40.15	0.18	0.95	0.19*	0.27	0.00	0.27
40.20	0.18	0.95	0.19*	0.26	0.00	0.26
40.25	0.18	0.95	0.19*	0.25	0.00	0.25
40.30	0.18	0.95	0.19*	0.24	0.00	0.24
40.35	0.18	0.95	0.19*	0.23	0.00	0.23
40.40	0.18	0.95	0.19*	0.22	0.00	0.22
40.45	0.18	0.95	0.19*	0.21	0.00	0.21
40.50	0.18	0.95	0.19*	0.20	0.00	0.20
40.55	0.18	0.95	0.19*	0.19	0.00	0.19
40.60	0.18	0.95	0.19*	0.18	0.00	0.18
40.65	0.18	0.95	0.19*	0.17	0.00	0.17
40.70	0.18	0.95	0.19*	0.16	0.00	0.16
40.75	0.18	0.95	0.19*	0.15	0.00	0.15
40.80	0.18	0.95	0.19*	0.14	0.00	0.14
40.85	0.18	0.95	0.19*	0.13	0.00	0.13
40.90	0.18	0.95	0.19*	0.12	0.00	0.12
40.95	0.18	0.95	0.19*	0.11	0.00	0.11
41.00	0.18	0.95	0.19*	0.10	0.00	0.10
41.05	0.18	0.95	0.19*	0.09	0.00	0.09
41.10	0.18	0.95	0.19*	0.08	0.00	0.08
41.15	0.18	0.95	0.18*	0.07	0.00	0.07
41.20	0.18	0.95	0.18*	0.06	0.00	0.06
41.25	0.18	0.95	0.18*	0.05	0.00	0.05

41.30	0.18	0.95	0.18*	0.04	0.00	0.04
41.35	0.18	0.95	0.18*	0.03	0.00	0.03
41.40	0.18	0.95	0.18*	0.02	0.00	0.02
41.45	0.18	0.95	0.18*	0.01	0.00	0.01
41.50	0.18	0.95	0.18*	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units Depth = ft, Stress or Pressure = tsf (atm), Unit Weight = pcf, Settlement = in.

CRRm	Cyclic resistance ratio from soils
CSRfs	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRfs
S_sat	Settlement from saturated sands
S_dry	Settlement from dry sands
S_all	Total settlement from saturated and dry sands
NoLiq	No-Liquefy Soils

APPENDIX E

Slope Stability Analysis

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Stability Analyses; gross; static and pseudostatic
Surficial Stability Calculations

APPENDIX E

Slope Stability Analyses

1.0 Approach

- Slope stability analyses were conducted using the computer program Slope W. The Modified Bishop's Method was used to analyze rotational failure modes, and the Janbu and Spencer Method was used to analyze translational failure modes. A coefficient of horizontal acceleration of 0.15g (FS of 1.1) was used to evaluate the pseudostatic stability analyses.

- After a review of the latest vesting tentative tract plan and based on our current and previous site investigations and review, eight cross-sections (A-A' through E-E', G-G', J-J', and K-K') were considered representative and critical with regards slope stability analysis, as discussed within the text of the report.

2.0 Design Shear Strength

As discussed within the text of this report, direct shear testing was previously performed and shear strength values for the onsite soils were previously determined during previous site investigations and reviews for the subject site by Leighton and RTF&A.

Direct shear testing and site evaluations were previously performed for the site by Leighton and RTF&A and considered previous onsite testing and evaluation of testing on nearby sites (Leighton, 2006, RTF&A 2015a, 2015b, and 2017, and Geolabs, 2003, and Southwest, 2008). Reasonable shear strength values were determined for the onsite soils during the previous site investigations and evaluations. Based on our review of the previous data and evaluation by Leighton and RTF&A, the latest shear strength values considered by RTF&A (2017) are considered reasonable and acceptable for the site Mint Canyon Formation bedrock for along bedding and cross bedding conditions. Based on a few additional direct shear strength testing performed during this evaluation for alluvium and compacted fills, the alluvium strength previously provided is considered conservative and acceptable; however, the confirmatory remolded direct shear tests of the onsite soils for compacted fills was found to be lower, and a more conservative value of Cohesion of 200 psf, and a friction angle of 30 degrees was considered in the slope stability analysis. Also, conservative shear strength values were utilized in the analysis for Terrace Deposits and for a fault feature shown on Cross Section G-G'. The parameters used in the slope stability analysis are presented in Table E-1.

TABLE E-1

Design Shear Strength Parameters for Slope Stability Analyses

Material Type	Cohesion (psf)	Angle of Internal Friction (degrees)
Engineering Fill (Af)	200	30
Alluvium (Qal)	250	25
Terrace Deposits (Qt)	175	29
Along Fault Feature	100	8
Mint Canyon Formation Across-Bedding Strength	600	29
Mint Canyon Formation Along-Bedding Strength	250	22
Mint Canyon Formation Along Bedding, Pseudostatic	400	29

TABLE E-2

Summary of Slope Stability Analyses

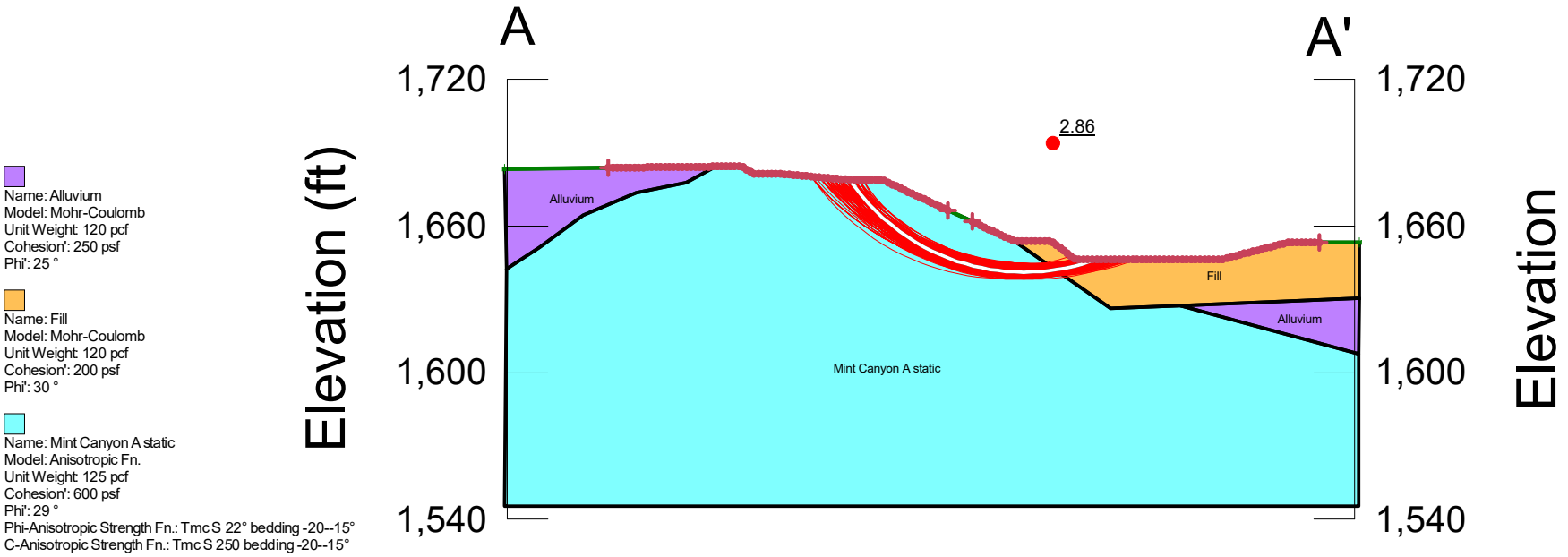
Cross-Section	Condition	Factor of Safety	Remarks
A-A'	Global Stability, Static, native slope	2.86	Bishop Method
A-A'	Pseudostatic	2.06	Bishop Method
A-A'	Global Stability, Static, Along Bedding Tmc	2.21	Simplified Janbu Method
A-A'	Pseudostatic	1.93	Simplified Janbu Method
B-B'	Global Stability, Static, native slope	1.77	Bishop Method
B-B'	Pseudostatic	1.31	Bishop Method
C-C'	Global Stability, Static, native slope	1.72	Bishop Method
C-C'	Pseudostatic	1.70	Bishop Method
C-C'	Global Stability, Static, Along Bedding Tmc	1.59	Simplified Janbu Method
C-C'	Pseudostatic	1.45	Simplified Janbu Method
D-D'	Global Stability Fill/Alluvium slope, Static	2.19	Bishop Method
D-D'	Pseudostatic	1.50	Bishop Method
D-D'	Global Stability, Static, Rapid drawdown Af/Qal Slope	1.59	Bishop Method
D-D'	Global Stability, Static, Rapid drawdown Af Slope	1.58	Bishop Method
E-E'	Global Stability, Static, Rotational Cut slope	2.21	Bishop Method
E-E'	Pseudostatic	1.57	Bishop Method
G-G'	Global Stability, Static, Cut slope w/along beding and fault feature	2.51	Bishop Method
G-G'	Pseudostatic	1.79	Bishop Method
G-G'	Global Stability, Static, Along Bedding Tmc w/fault feature	1.78	Simplified Janbu Method
G-G'	Pseudostatic	1.18	Simplified Janbu Method
J-J'	Global Stability, Static, native slope	1.89	Bishop Method
J-J'	Pseudostatic	1.31	Bishop Method
J-J'	Global Stability, Static, Cut Basin Slope	1.93	Bishop Method
J-J'	Pseudostatic	1.46	Bishop Method
K-K'	Global Stability, Static, Rotational Cut slope	2.07	Bishop Method
K-K'	Pseudostatic	1.54	Bishop Method
	Surficial Stability Fill Slope	1.58	
	Surficial Stability Alluvium	1.72	
	Surficial Stability Bedrock cut slope	3.55	

Section A-A' SSA for Belcaro 10-17-24.gsz 10/18/2024 04:48:24 PM

Section A-A' SSA for Belcaro 10-17-24.gsz

1 - Rotational Static Global
Horz Seismic Coef.: 0

Method: Bishop



Name: Alluvium
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °

Name: Fill
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °

Name: Mint Canyon A static
Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding -20--15°
C-Anisotropic Strength Fn.: Tmc S 250 bedding -20--15°

LGC

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section A-A
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Static Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section A-A'
Last Edited By: Basil Hattar
Revision Number: 877
Date: 10/18/2024
Time: 03:23:00 PM
Tool Version: 10.1.1.18972
File Name: Section A-A' SSA for Belcaro 10-17-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/18/2024
Last Solved Time: 03:23:13 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Static Global

Kind: SLOPE/W
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Left to Right
- Use Passive Mode: No
- Slip Surface Option: Entry and Exit
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Mint Canyon A static

Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding -20--15°
C-Anisotropic Strength Fn.: Tmc S 250 bedding -20--15°
Phi-B: 0 °

Slip Surface Entry and Exit

Left Type: Range
Left-Zone Left Coordinate: (41.46743, 1,683.9039) ft
Left-Zone Right Coordinate: (180.82589, 1,666.5312) ft
Left-Zone Increment: 80
Right Type: Range
Right-Zone Left Coordinate: (190.99157, 1,661.829) ft
Right-Zone Right Coordinate: (333.46764, 1,653.1985) ft
Right-Zone Increment: 80
Radius Increments: 15

Slip Surface Limits

Left Coordinate: (-1.05045, 1,683.4379) ft
Right Coordinate: (349.96959, 1,653.1985) ft

Seismic Coefficients

Horz Seismic Coef.: 0
Vert Seismic Coef.: 0

Anisotropic Strength Functions

Tmc S 22° bedding -20--15°

Model: Spline Data Point Function

Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (-90, 1)
Data Point: (-20.1, 1)
Data Point: (-20, 0.7586)
Data Point: (-15, 0.7586)
Data Point: (-14.9, 1)
Data Point: (90, 1)

Tmc S 250 bedding -20--15°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (-90, 1)
Data Point: (-20.1, 1)
Data Point: (-20, 0.4167)
Data Point: (-15, 0.4167)
Data Point: (-14.9, 1)
Data Point: (90, 1)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	-0.45616 ft	1,642.432 ft
Point 2	13.4502 ft	1,651.2274 ft
Point 3	31.16001 ft	1,664.5395 ft
Point 4	52.91098 ft	1,673.6916 ft
Point 5	73.47338 ft	1,677.8516 ft
Point 6	85.71573 ft	1,684.3888 ft
Point 7	96.53179 ft	1,684.3888 ft
Point 8	101.2861 ft	1,681.2985 ft
Point 9	112.93416 ft	1,681.2985 ft
Point 10	142.29203 ft	1,678.8024 ft
Point 11	154.29667 ft	1,678.8024 ft
Point 12	208.2581 ft	1,653.8423 ft
Point 13	247.71889 ft	1,626.2673 ft
Point 14	276.32176 ft	1,627.4744 ft
Point 15	349.69886 ft	1,607.7255 ft
Point 16	349.69886 ft	1,545.2063 ft
Point 17	166.53902 ft	1,545.2063 ft
Point 18	-1.05045 ft	1,545.2063 ft
Point 19	-1.05045 ft	1,683.4379 ft
Point 20	223.43558 ft	1,653.8423 ft
Point 21	233.09278 ft	1,646.4302 ft
Point 22	293.59469 ft	1,646.4302 ft
Point 23	320.33769 ft	1,653.1985 ft
Point 24	349.96959 ft	1,653.1985 ft
Point 25	349.96959 ft	1,630.5825 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon A static	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18	37,715 ft²
Region 2	Alluvium	19,1,2,3,4,5,6	1,512.6 ft²
Region 3	Fill	12,20,21,22,23,24,25,14,13	2,532 ft²
Region 4	Alluvium	25,14,15	841.26 ft²

Slip Results

Slip Surfaces Analysed: 98735 of 104976 converged

Current Slip Surface

Slip Surface: 73,064
Factor of Safety: 2.86
Volume: 1,341.3872 ft³
Weight: 166,852.48 lbf
Resisting Moment: 12,704,196 lbf·ft
Activating Moment: 4,437,072.8 lbf·ft
Slip Rank: 1 of 104,976 slip surfaces
Exit: (242.06489, 1,646.4302) ft
Entry: (140.60744, 1,678.9456) ft
Radius: 86.805271 ft
Center: (212.25346, 1,727.9559) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	141.44974 ft	1,677.7576 ft	0 psf	-122.48491 psf	-67.894494 psf	600 psf	0 psf	Mint Canyon A static
Slice 2	143.79261 ft	1,674.6426 ft	0 psf	201.01371 psf	111.42372 psf	600 psf	0 psf	Mint Canyon A static
Slice 3	146.79377 ft	1,670.9913 ft	0 psf	601.8198 psf	333.59416 psf	600 psf	0 psf	Mint Canyon A static
Slice 4	149.79493 ft	1,667.7112 ft	0 psf	973.82226 psf	539.79849 psf	600 psf	0 psf	Mint Canyon A static
Slice 5	152.79609 ft	1,664.7441 ft	0 psf	1,319.9683 psf	731.67038 psf	600 psf	0 psf	Mint Canyon A

								static
Slice 6	155.98296 ft	1,661.8962 ft	0 psf	1,577.3102 psf	874.31732 psf	600 psf	0 psf	Mint Canyon A static
Slice 7	159.35555 ft	1,659.1631 ft	0 psf	1,742.0793 psf	965.65031 psf	600 psf	0 psf	Mint Canyon A static
Slice 8	162.72814 ft	1,656.6945 ft	0 psf	1,877.8282 psf	1,040.8971 psf	600 psf	0 psf	Mint Canyon A static
Slice 9	166.10073 ft	1,654.4636 ft	0 psf	1,986.8234 psf	1,101.3142 psf	600 psf	0 psf	Mint Canyon A static
Slice 10	169.47332 ft	1,652.4492 ft	0 psf	2,070.8876 psf	1,147.9117 psf	600 psf	0 psf	Mint Canyon A static
Slice 11	172.84591 ft	1,650.6343 ft	0 psf	2,131.498 psf	1,181.5086 psf	600 psf	0 psf	Mint Canyon A static
Slice 12	176.2185 ft	1,649.0052 ft	0 psf	2,169.8576 psf	1,202.7717 psf	600 psf	0 psf	Mint Canyon A static
Slice 13	179.59109 ft	1,647.5506 ft	0 psf	2,186.9461 psf	1,212.244 psf	600 psf	0 psf	Mint Canyon A static
Slice 14	182.96368 ft	1,646.261 ft	0 psf	2,264.3598 psf	914.83316 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 15	186.33627 ft	1,645.1287 ft	0 psf	2,230.9177 psf	901.32208 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 16	189.70886 ft	1,644.1475 ft	0 psf	2,178.2241 psf	880.03313 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 17	193.08145 ft	1,643.3119 ft	0 psf	2,056.2194 psf	1,139.781 psf	600 psf	0 psf	Mint Canyon A static
Slice 18	196.45404 ft	1,642.6178 ft	0 psf	1,975.9867 psf	1,095.3073 psf	600 psf	0 psf	Mint Canyon A static
Slice 19	199.82663 ft	1,642.0616 ft	0 psf	1,877.222 psf	1,040.5612 psf	600 psf	0 psf	Mint Canyon A static
Slice 20	203.19922 ft	1,641.6407 ft	0 psf	1,759.9924 psf	975.57971 psf	600 psf	0 psf	Mint Canyon A static
Slice 21	206.57181 ft	1,641.3532 ft	0 psf	1,624.2689 psf	900.34697 psf	600 psf	0 psf	Mint Canyon A static
Slice 22	210.15528 ft	1,641.1967 ft	0 psf	1,561.6949 psf	865.66163 psf	600 psf	0 psf	Mint Canyon A static
Slice 23	213.94966 ft	1,641.1879 ft	0 psf	1,571.9544 psf	871.34855 psf	600 psf	0 psf	Mint Canyon A

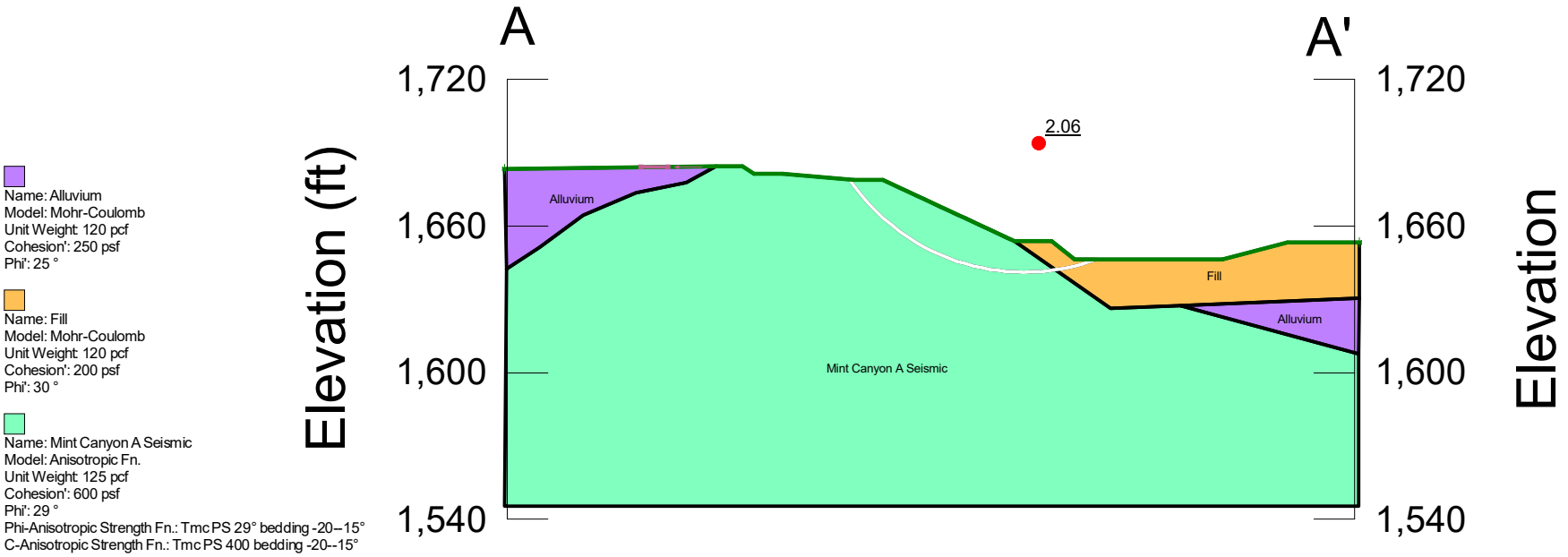
								static
Slice 24	217.74402 ft	1,641.3453 ft	0 psf	1,561.4216 psf	865.51013 psf	600 psf	0 psf	Mint Canyon A static
Slice 25	221.5384 ft	1,641.6697 ft	0 psf	1,529.5707 psf	847.85489 psf	600 psf	0 psf	Mint Canyon A static
Slice 26	224.24823 ft	1,641.9872 ft	0 psf	1,418.7055 psf	786.4013 psf	600 psf	0 psf	Mint Canyon A static
Slice 27	227.06885 ft	1,642.4485 ft	0 psf	1,082.5277 psf	624.99764 psf	200 psf	0 psf	Fill
Slice 28	231.0848 ft	1,643.2428 ft	0 psf	610.29794 psf	352.35568 psf	200 psf	0 psf	Fill
Slice 29	234.58813 ft	1,644.0874 ft	0 psf	316.73687 psf	182.86811 psf	200 psf	0 psf	Fill
Slice 30	237.57883 ft	1,644.9418 ft	0 psf	213.01091 psf	122.98191 psf	200 psf	0 psf	Fill
Slice 31	240.56954 ft	1,645.9141 ft	0 psf	92.466733 psf	53.385693 psf	200 psf	0 psf	Fill

Section A-A' SSA for Belcaro 10-17-24.gsz 10/18/2024 04:48:24 PM

Section A-A' SSA for Belcaro 10-17-24.gsz

1 - Rotational Pseudostatic Global
Horz Seismic Coef.: 0.15

Method: Bishop



LGC

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section A-A
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Pseudostatic Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section A-A'
Last Edited By: Basil Hattar
Revision Number: 880
Date: 10/18/2024
Time: 04:48:24 PM
Tool Version: 10.1.1.18972
File Name: Section A-A' SSA for Belcaro 10-17-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/18/2024
Last Solved Time: 04:49:27 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Pseudostatic Global

Kind: SLOPE/W
Parent: 1 - Rotational Static Global
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Left to Right
- Use Passive Mode: No
- Slip Surface Option: Critical Slip Surfaces from Other
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Mint Canyon A Seismic

Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc PS 29° bedding -20--15°
C-Anisotropic Strength Fn.: Tmc PS 400 bedding -20--15°
Phi-B: 0 °

Reinforcements

8XT

Type: Geosynthetic
Interface Adhesion: 0 psf
Interface Shear Angle: 26.14 °
Surface Area Factor: 1
Pullout Resistance Reduction Factor: 1
Tensile Capacity: 4,055 lbf
Tensile Capacity Reduction Factor: 1
Force Orientation: 1
F of S Dependent: Yes
Force Distribution: Concentrated
Face Anchorage: Yes
Factored Tensile Capacity: 4,055 lbf/ft / F of S

Slip Surface Limits

Left Coordinate: (-1.05045, 1,683.4379) ft
Right Coordinate: (349.96959, 1,653.1985) ft

Seismic Coefficients

Horz Seismic Coef.: 0.15
Vert Seismic Coef.: 0

Reinforcement Lines

Reinforcement Line 1

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.7445, 395.6027) ft
Inside Point: (69.91565, 395.6027) ft
Length: 10.82885 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 2

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.33907, 397.659) ft
Inside Point: (69.36242, 397.659) ft
Length: 10.97665 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 3

Reinforcement: 8XT
Lock to Ground Surface: Yes
Outside Point: (65.79923, 1,684.1705) ft
Inside Point: (54.78504, 1,684.1705) ft
Length: 11.01419 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 4

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (79.59083, 400.8835) ft
Inside Point: (68.54036, 400.8835) ft
Length: 11.05047 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Anisotropic Strength Functions

Tmc PS 29° bedding -20--15°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (-90, 1)
Data Point: (-20.1, 1)
Data Point: (-20, 1)
Data Point: (-15, 1)
Data Point: (-14.9, 1)
Data Point: (90, 1)

Tmc PS 400 bedding -20--15°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (-90, 1)
Data Point: (-20.1, 1)
Data Point: (-20, 0.667)
Data Point: (-15, 0.667)
Data Point: (-14.9, 1)
Data Point: (90, 1)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	-0.45616 ft	1,642.432 ft
Point 2	13.4502 ft	1,651.2274 ft
Point 3	31.16001 ft	1,664.5395 ft
Point 4	52.91098 ft	1,673.6916 ft
Point 5	73.47338 ft	1,677.8516 ft
Point 6	85.71573 ft	1,684.3888 ft

Point 7	96.53179 ft	1,684.3888 ft
Point 8	101.2861 ft	1,681.2985 ft
Point 9	112.93416 ft	1,681.2985 ft
Point 10	142.29203 ft	1,678.8024 ft
Point 11	154.29667 ft	1,678.8024 ft
Point 12	208.2581 ft	1,653.8423 ft
Point 13	247.71889 ft	1,626.2673 ft
Point 14	276.32176 ft	1,627.4744 ft
Point 15	349.69886 ft	1,607.7255 ft
Point 16	349.69886 ft	1,545.2063 ft
Point 17	166.53902 ft	1,545.2063 ft
Point 18	-1.05045 ft	1,545.2063 ft
Point 19	-1.05045 ft	1,683.4379 ft
Point 20	223.43558 ft	1,653.8423 ft
Point 21	233.09278 ft	1,646.4302 ft
Point 22	293.59469 ft	1,646.4302 ft
Point 23	320.33769 ft	1,653.1985 ft
Point 24	349.96959 ft	1,653.1985 ft
Point 25	349.96959 ft	1,630.5825 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon A Seismic	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18	37,715 ft²
Region 2	Alluvium	19,1,2,3,4,5,6	1,512.6 ft²
Region 3	Fill	12,20,21,22,23,24,25,14,13	2,532 ft²
Region 4	Alluvium	25,14,15	841.26 ft²

Slip Results

Slip Surfaces Analysed: 1 of 1 converged

Current Slip Surface

Slip Surface: 1
Factor of Safety: 2.06
Volume: 1,341.3872 ft³
Weight: 166,852.48 lbf
Resisting Moment: 12,797,630 lbf·ft
Activating Moment: 6,212,615.3 lbf·ft
Slip Rank: 1 of 1 slip surfaces
Exit: (242.06489, 1,646.4302) ft
Entry: (140.60744, 1,678.9456) ft
Radius: 86.805271 ft
Center: (212.25346, 1,727.9559) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	141.44974 ft	1,677.7576 ft	0 psf	-196.50485 psf	-108.92442 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 2	143.79261 ft	1,674.6426 ft	0 psf	108.63908 psf	60.219625 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 3	146.79377 ft	1,670.9913 ft	0 psf	490.33251 psf	271.79575 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 4	149.79493 ft	1,667.7112 ft	0 psf	848.1197 psf	470.12042 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 5	152.79609 ft	1,664.7441 ft	0 psf	1,183.9749 psf	656.28801 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 6	155.98296 ft	1,661.8962 ft	0 psf	1,438.3131 psf	797.26996 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 7	159.35555 ft	1,659.1631 ft	0 psf	1,606.3705 psf	890.42569 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 8	162.72814 ft	1,656.6945 ft	0 psf	1,747.1238 psf	968.44652 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 9	166.10073 ft	1,654.4636 ft	0 psf	1,862.4813 psf	1,032.3903 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 10	169.47332 ft	1,652.4492 ft	0 psf	1,953.9819 psf	1,083.1099 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 11	172.84591 ft	1,650.6343 ft	0 psf	2,022.8721 psf	1,121.2963 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 12	176.2185 ft	1,649.0052 ft	0 psf	2,070.1615 psf	1,147.5092 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 13	179.59109 ft	1,647.5506 ft	0 psf	2,096.6637 psf	1,162.1997 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 14	182.96368 ft	1,646.261 ft	0 psf	2,134.7249 psf	1,183.2973 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 15	186.33627 ft	1,645.1287 ft	0 psf	2,117.7317 psf	1,173.8778 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 16	189.70886 ft	1,644.1475 ft	0 psf	2,081.5386 psf	1,153.8157 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 17	193.08145 ft	1,643.3119 ft	0 psf	2,005.6907 psf	1,111.7725 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 18	196.45404 ft	1,642.6178 ft	0 psf	1,935.3146 psf	1,072.7624 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 19	199.82663 ft	1,642.0616 ft	0 psf	1,846.1433 psf	1,023.3339 psf	600 psf	0 psf	Mint Canyon A Seismic

Slice 20	203.19922 ft	1,641.6407 ft	0 psf	1,738.1261 psf	963.45902 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 21	206.57181 ft	1,641.3532 ft	0 psf	1,611.1109 psf	893.05335 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 22	210.15528 ft	1,641.1967 ft	0 psf	1,556.9043 psf	863.00612 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 23	213.94966 ft	1,641.1879 ft	0 psf	1,575.8878 psf	873.5289 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 24	217.74402 ft	1,641.3453 ft	0 psf	1,574.2791 psf	872.63713 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 25	221.5384 ft	1,641.6697 ft	0 psf	1,551.3964 psf	859.95308 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 26	224.24823 ft	1,641.9872 ft	0 psf	1,446.0458 psf	801.55625 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 27	227.06885 ft	1,642.4485 ft	0 psf	1,102.9648 psf	636.79705 psf	200 psf	0 psf	Fill
Slice 28	231.0848 ft	1,643.2428 ft	0 psf	628.11037 psf	362.63969 psf	200 psf	0 psf	Fill
Slice 29	234.58813 ft	1,644.0874 ft	0 psf	331.72511 psf	191.52158 psf	200 psf	0 psf	Fill
Slice 30	237.57883 ft	1,644.9418 ft	0 psf	227.66739 psf	131.44383 psf	200 psf	0 psf	Fill
Slice 31	240.56954 ft	1,645.9141 ft	0 psf	105.63687 psf	60.989477 psf	200 psf	0 psf	Fill

Section A-A' SSA for Belcaro 10-17-24.gsz 10/18/2024 04:48:24 PM

Section A-A' SSA for Belcaro 10-17-24.gsz

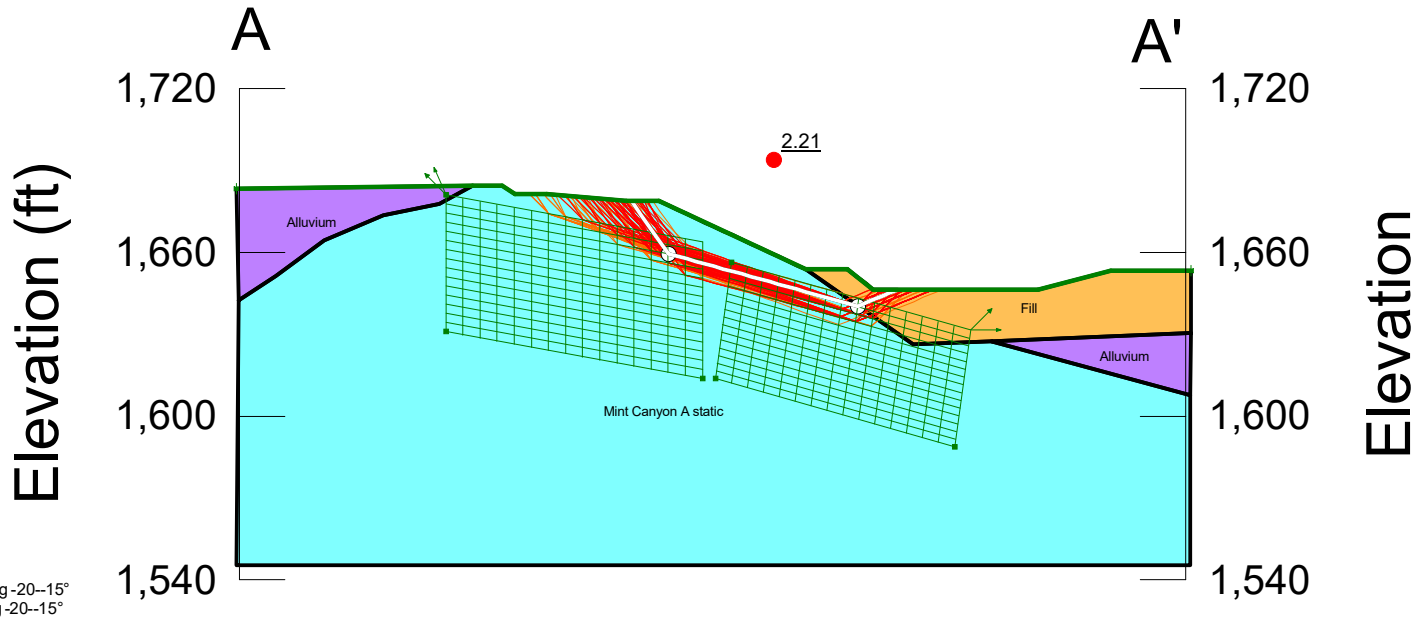
2 - Translational Static Global
Horz Seismic Coef.: 0

Method: Janbu

Name: Alluvium
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °

Name: Fill
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °

Name: Mint Canyon A static
Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding -20--15°
C-Anisotropic Strength Fn.: Tmc S 250 bedding -20--15°



LGC

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section A-A
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

2 - Translational Static Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section A-A'
Last Edited By: Basil Hattar
Revision Number: 877
Date: 10/18/2024
Time: 03:23:00 PM
Tool Version: 10.1.1.18972
File Name: Section A-A' SSA for Belcaro 10-17-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/18/2024
Last Solved Time: 03:24:06 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

2 - Translational Static Global

Kind: SLOPE/W
Method: Janbu
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Left to Right
- Use Passive Mode: No
- Slip Surface Option: Block
- Critical slip surfaces saved: 1
- Restrict Block Crossing: No
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Mint Canyon A static

Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding -20--15°
C-Anisotropic Strength Fn.: Tmc S 250 bedding -20--15°
Phi-B: 0 °

Slip Surface Limits

Left Coordinate: (-1.05045, 1,683.4379) ft
Right Coordinate: (349.96959, 1,653.1985) ft

Slip Surface Block

Left Grid
- Upper Left: (75.87906, 1,681.1608) ft
- Lower Left: (75.87906, 1,631.1755) ft
- Lower Right: (170.35673, 1,613.8966) ft
- X Increments: 15
- Y Increments: 15
- Starting Angle: 115 °
- Ending Angle: 135 °
- Angle Increments: 2

Right Grid
- Upper Left: (180.7972, 1,656.5142) ft
- Lower Left: (174.97792, 1,613.78) ft
- Lower Right: (263.12285, 1,588.7367) ft
- X Increments: 15
- Y Increments: 15
- Angle Increments: 2

Seismic Coefficients

Horz Seismic Coef.: 0

Vert Seismic Coef.: 0

Anisotropic Strength Functions

Tmc S 22° bedding -20--15°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (-90, 1)
Data Point: (-20.1, 1)
Data Point: (-20, 0.7586)
Data Point: (-15, 0.7586)
Data Point: (-14.9, 1)
Data Point: (90, 1)

Tmc S 250 bedding -20--15°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (-90, 1)
Data Point: (-20.1, 1)
Data Point: (-20, 0.4167)
Data Point: (-15, 0.4167)
Data Point: (-14.9, 1)
Data Point: (90, 1)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	-0.45616 ft	1,642.432 ft
Point 2	13.4502 ft	1,651.2274 ft
Point 3	31.16001 ft	1,664.5395 ft
Point 4	52.91098 ft	1,673.6916 ft
Point 5	73.47338 ft	1,677.8516 ft
Point 6	85.71573 ft	1,684.3888 ft
Point 7	96.53179 ft	1,684.3888 ft
Point 8	101.2861 ft	1,681.2985 ft
Point 9	112.93416 ft	1,681.2985 ft
Point 10	142.29203 ft	1,678.8024 ft
Point 11	154.29667 ft	1,678.8024 ft
Point 12	208.2581 ft	1,653.8423 ft
Point 13	247.71889 ft	1,626.2673 ft
Point 14	276.32176 ft	1,627.4744 ft
Point 15	349.69886 ft	1,607.7255 ft
Point 16	349.69886 ft	1,545.2063 ft
Point 17	166.53902 ft	1,545.2063 ft
Point 18	-1.05045 ft	1,545.2063 ft
Point 19	-1.05045 ft	1,683.4379 ft
Point 20	223.43558 ft	1,653.8423 ft
Point 21	233.09278 ft	1,646.4302 ft
Point 22	293.59469 ft	1,646.4302 ft
Point 23	320.33769 ft	1,653.1985 ft
Point 24	349.96959 ft	1,653.1985 ft
Point 25	349.96959 ft	1,630.5825 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon A static	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18	37,715 ft²
Region 2	Alluvium	19,1,2,3,4,5,6	1,512.6 ft²
Region 3	Fill	12,20,21,22,23,24,25,14,13	2,532 ft²
Region 4	Alluvium	25,14,15	841.26 ft²

Slip Results

Slip Surfaces Analysed: 354009 of 589824 converged

Current Slip Surface

Slip Surface: 510,650
Factor of Safety: 2.21
Volume: 1,042.2325 ft³
Weight: 129,380.16 lbf
Resisting Force: 77,803.555 lbf
Activating Force: 35,159.756 lbf
Slip Rank: 1 of 589,824 slip surfaces
Exit: (242.19818, 1,646.4302) ft
Entry: (144.25876, 1,678.8024) ft
Radius: 51.048797 ft
Center: (201.25353, 1,686.8954) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	145.93174 ft	1,676.4131 ft	0 psf	-65.988081 psf	-36.57779 psf	600 psf	0 psf	Mint Canyon A static
Slice 2	149.27771 ft	1,671.6346 ft	0 psf	373.62049 psf	207.10122 psf	600 psf	0 psf	Mint Canyon A static

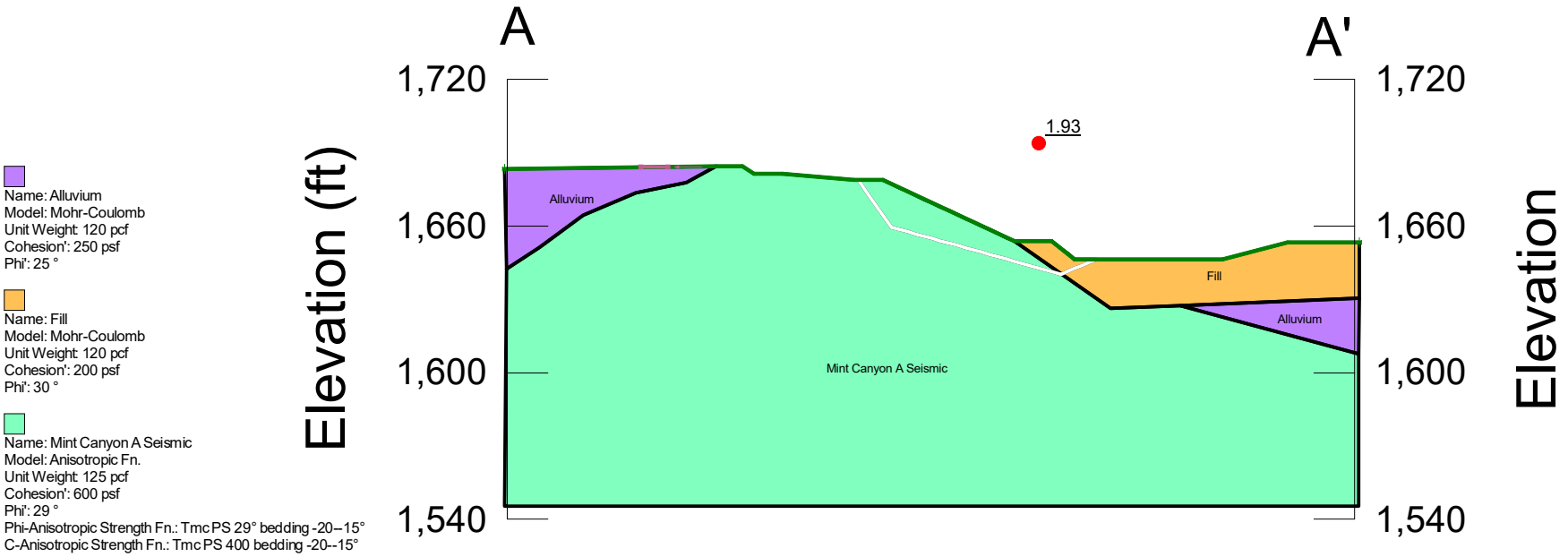
Slice 3	152.62368 ft	1,666.856 ft	0 psf	813.22906 psf	450.78023 psf	600 psf	0 psf	Mint Canyon A static
Slice 4	156.02819 ft	1,661.9939 ft	0 psf	1,186.8461 psf	657.87953 psf	600 psf	0 psf	Mint Canyon A static
Slice 5	159.44299 ft	1,659.0568 ft	0 psf	2,036.5573 psf	822.79775 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 6	162.80955 ft	1,658.1283 ft	0 psf	1,961.7447 psf	792.57241 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 7	166.17611 ft	1,657.1998 ft	0 psf	1,886.9321 psf	762.34706 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 8	169.54267 ft	1,656.2713 ft	0 psf	1,812.1195 psf	732.12172 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 9	172.90923 ft	1,655.3428 ft	0 psf	1,737.3069 psf	701.89637 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 10	176.27578 ft	1,654.4143 ft	0 psf	1,662.4942 psf	671.67102 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 11	179.64234 ft	1,653.4858 ft	0 psf	1,587.6816 psf	641.44568 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 12	183.0089 ft	1,652.5573 ft	0 psf	1,512.869 psf	611.22033 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 13	186.37546 ft	1,651.6288 ft	0 psf	1,438.0564 psf	580.99499 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 14	189.74202 ft	1,650.7003 ft	0 psf	1,363.2438 psf	550.76964 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 15	193.10858 ft	1,649.7719 ft	0 psf	1,288.4312 psf	520.54429 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 16	196.47514 ft	1,648.8434 ft	0 psf	1,213.6186 psf	490.31895 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 17	199.8417 ft	1,647.9149 ft	0 psf	1,138.806 psf	460.0936 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 18	203.20826 ft	1,646.9864 ft	0 psf	1,063.9934 psf	429.86826 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 19	206.57482 ft	1,646.0579 ft	0 psf	989.18074 psf	399.64291 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 20	209.77585 ft	1,645.175 ft	0 psf	996.53543 psf	402.61431 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 21	212.81134 ft	1,644.3378 ft	0 psf	1,086.0574 psf	438.78246 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 22	215.84684 ft	1,643.5007 ft	0 psf	1,175.5794 psf	474.9506 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 23	218.88234 ft	1,642.6635 ft	0 psf	1,265.1014 psf	511.11874 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 24	221.91783 ft	1,641.8263 ft	0 psf	1,354.6234 psf	547.28689 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 25	225.42773 ft	1,640.8583 ft	0 psf	1,283.4742 psf	518.5416 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 26	228.8703 ft	1,640.9096 ft	0 psf	1,221.2694 psf	705.10023 psf	200 psf	0 psf	Fill
Slice 27	231.70675 ft	1,642.0845 ft	0 psf	770.14729 psf	444.64474 psf	200 psf	0 psf	Fill
Slice 28	234.61035 ft	1,643.2872 ft	0 psf	465.10607 psf	268.52911 psf	200 psf	0 psf	Fill
Slice 29	237.64548 ft	1,644.5444 ft	0 psf	295.90579 psf	170.84128 psf	200 psf	0 psf	Fill
Slice 30	240.68061 ft	1,645.8016 ft	0 psf	126.7055 psf	73.153457 psf	200 psf	0 psf	Fill

Section A-A' SSA for Belcaro 10-17-24.gsz 10/18/2024 04:48:24 PM

Section A-A' SSA for Belcaro 10-17-24.gsz

1 - Translational Pseudostatic Global
Horz Seismic Coef.: 0.15

Method: Janbu



Name: Alluvium
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °

Name: Fill
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °

Name: Mint Canyon A Seismic
Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc PS 29° bedding -20--15°
C-Anisotropic Strength Fn.: Tmc PS 400 bedding -20--15°

LGC

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section A-A
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Translational Pseudostatic Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section A-A'
Last Edited By: Basil Hattar
Revision Number: 880
Date: 10/18/2024
Time: 04:48:24 PM
Tool Version: 10.1.1.18972
File Name: Section A-A' SSA for Belcaro 10-17-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/18/2024
Last Solved Time: 04:49:30 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Translational Pseudostatic Global

Kind: SLOPE/W
Parent: 2 - Translational Static Global
Method: Janbu
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Left to Right
- Use Passive Mode: No
- Slip Surface Option: Critical Slip Surfaces from Other
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Mint Canyon A Seismic

Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc PS 29° bedding -20--15°
C-Anisotropic Strength Fn.: Tmc PS 400 bedding -20--15°
Phi-B: 0 °

Reinforcements

8XT

Type: Geosynthetic
Interface Adhesion: 0 psf
Interface Shear Angle: 26.14 °
Surface Area Factor: 1
Pullout Resistance Reduction Factor: 1
Tensile Capacity: 4,055 lbf
Tensile Capacity Reduction Factor: 1
Force Orientation: 1
F of S Dependent: Yes
Force Distribution: Concentrated
Face Anchorage: Yes
Factored Tensile Capacity: 4,055 lbf/ft / F of S

Slip Surface Limits

Left Coordinate: (-1.05045, 1,683.4379) ft
Right Coordinate: (349.96959, 1,653.1985) ft

Seismic Coefficients

Horz Seismic Coef.: 0.15
Vert Seismic Coef.: 0

Reinforcement Lines

Reinforcement Line 1

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.7445, 395.6027) ft
Inside Point: (69.91565, 395.6027) ft
Length: 10.82885 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 2

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.33907, 397.659) ft
Inside Point: (69.36242, 397.659) ft
Length: 10.97665 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 3

Reinforcement: 8XT
Lock to Ground Surface: Yes
Outside Point: (65.79923, 1,684.1705) ft
Inside Point: (54.78504, 1,684.1705) ft
Length: 11.01419 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 4

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (79.59083, 400.8835) ft
Inside Point: (68.54036, 400.8835) ft
Length: 11.05047 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Anisotropic Strength Functions

Tmc PS 29° bedding -20--15°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (-90, 1)
Data Point: (-20.1, 1)
Data Point: (-20, 1)
Data Point: (-15, 1)
Data Point: (-14.9, 1)
Data Point: (90, 1)

Tmc PS 400 bedding -20--15°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (-90, 1)
Data Point: (-20.1, 1)
Data Point: (-20, 0.667)
Data Point: (-15, 0.667)
Data Point: (-14.9, 1)
Data Point: (90, 1)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	-0.45616 ft	1,642.432 ft
Point 2	13.4502 ft	1,651.2274 ft
Point 3	31.16001 ft	1,664.5395 ft
Point 4	52.91098 ft	1,673.6916 ft
Point 5	73.47338 ft	1,677.8516 ft
Point 6	85.71573 ft	1,684.3888 ft

Point 7	96.53179 ft	1,684.3888 ft
Point 8	101.2861 ft	1,681.2985 ft
Point 9	112.93416 ft	1,681.2985 ft
Point 10	142.29203 ft	1,678.8024 ft
Point 11	154.29667 ft	1,678.8024 ft
Point 12	208.2581 ft	1,653.8423 ft
Point 13	247.71889 ft	1,626.2673 ft
Point 14	276.32176 ft	1,627.4744 ft
Point 15	349.69886 ft	1,607.7255 ft
Point 16	349.69886 ft	1,545.2063 ft
Point 17	166.53902 ft	1,545.2063 ft
Point 18	-1.05045 ft	1,545.2063 ft
Point 19	-1.05045 ft	1,683.4379 ft
Point 20	223.43558 ft	1,653.8423 ft
Point 21	233.09278 ft	1,646.4302 ft
Point 22	293.59469 ft	1,646.4302 ft
Point 23	320.33769 ft	1,653.1985 ft
Point 24	349.96959 ft	1,653.1985 ft
Point 25	349.96959 ft	1,630.5825 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon A Seismic	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18	37,715 ft²
Region 2	Alluvium	19,1,2,3,4,5,6	1,512.6 ft²
Region 3	Fill	12,20,21,22,23,24,25,14,13	2,532 ft²
Region 4	Alluvium	25,14,15	841.26 ft²

Slip Results

Slip Surfaces Analysed: 1 of 1 converged

Current Slip Surface

Slip Surface: 1
Factor of Safety: 1.93
Volume: 1,042.2325 ft³
Weight: 129,380.16 lbf
Resisting Force: 100,475.81 lbf
Activating Force: 52,087.895 lbf
Slip Rank: 1 of 1 slip surfaces
Exit: (242.19818, 1,646.4302) ft
Entry: (144.25876, 1,678.8024) ft
Radius: 51.048797 ft
Center: (201.25353, 1,686.8954) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	145.93174 ft	1,676.4131 ft	0 psf	-103.46672 psf	-57.352541 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 2	149.27771 ft	1,671.6346 ft	0 psf	319.93241 psf	177.34143 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 3	152.62368 ft	1,666.856 ft	0 psf	743.33154 psf	412.0354 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 4	156.02819 ft	1,661.9939 ft	0 psf	1,103.1724 psf	611.49845 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 5	159.44299 ft	1,659.0568 ft	0 psf	1,958.0477 psf	1,085.3635 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 6	162.80955 ft	1,658.1283 ft	0 psf	1,885.2334 psf	1,045.0019 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 7	166.17611 ft	1,657.1998 ft	0 psf	1,812.4191 psf	1,004.6403 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 8	169.54267 ft	1,656.2713 ft	0 psf	1,739.6049 psf	964.27872 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 9	172.90923 ft	1,655.3428 ft	0 psf	1,666.7906 psf	923.91712 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 10	176.27578 ft	1,654.4143 ft	0 psf	1,593.9763 psf	883.55551 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 11	179.64234 ft	1,653.4858 ft	0 psf	1,521.1621 psf	843.1939 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 12	183.0089 ft	1,652.5573 ft	0 psf	1,448.3478 psf	802.8323 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 13	186.37546 ft	1,651.6288 ft	0 psf	1,375.5335 psf	762.47069 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 14	189.74202 ft	1,650.7003 ft	0 psf	1,302.7193 psf	722.10909 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 15	193.10858 ft	1,649.7719 ft	0 psf	1,229.905 psf	681.74748 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 16	196.47514 ft	1,648.8434 ft	0 psf	1,157.0907 psf	641.38587 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 17	199.8417 ft	1,647.9149 ft	0 psf	1,084.2765 psf	601.02427 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 18	203.20826 ft	1,646.9864 ft	0 psf	1,011.4622 psf	560.66266 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 19	206.57482 ft	1,646.0579 ft	0 psf	938.64795 psf	520.30105 psf	400.2 psf	0 psf	Mint Canyon A Seismic

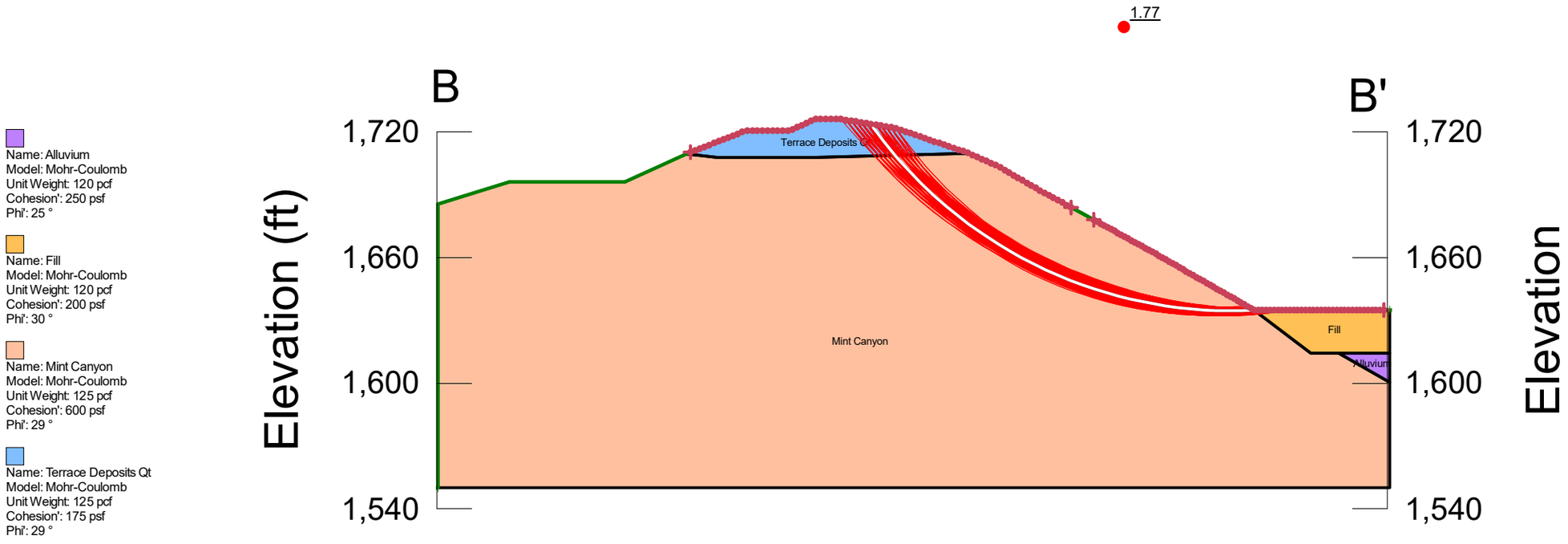
Slice 20	209.77585 ft	1,645.175 ft	0 psf	945.80619 psf	524.26893 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 21	212.81134 ft	1,644.3378 ft	0 psf	1,032.9369 psf	572.56629 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 22	215.84684 ft	1,643.5007 ft	0 psf	1,120.0677 psf	620.86365 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 23	218.88234 ft	1,642.6635 ft	0 psf	1,207.1984 psf	669.16101 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 24	221.91783 ft	1,641.8263 ft	0 psf	1,294.3292 psf	717.45837 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 25	225.42773 ft	1,640.8583 ft	0 psf	1,225.0804 psf	679.07317 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 26	228.8703 ft	1,640.9096 ft	0 psf	1,249.3945 psf	721.33823 psf	200 psf	0 psf	Fill
Slice 27	231.70675 ft	1,642.0845 ft	0 psf	790.17895 psf	456.21003 psf	200 psf	0 psf	Fill
Slice 28	234.61035 ft	1,643.2872 ft	0 psf	479.66512 psf	276.93479 psf	200 psf	0 psf	Fill
Slice 29	237.64548 ft	1,644.5444 ft	0 psf	307.42929 psf	177.49438 psf	200 psf	0 psf	Fill
Slice 30	240.68061 ft	1,645.8016 ft	0 psf	135.19346 psf	78.053982 psf	200 psf	0 psf	Fill

Section B-B' SSA for Belcaro 10-18-24.gsz 10/18/2024 04:42:16 PM

Section B-B' SSA for Belcaro 10-18-24.gsz

1 - Rotational Static Global
Horz Seismic Coef.: 0

Method: Bishop



LGC

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section B-B
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Static Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section B-B'
Last Edited By: Basil Hattar
Revision Number: 896
Date: 10/18/2024
Time: 04:42:16 PM
Tool Version: 10.1.1.18972
File Name: Section B-B' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/18/2024
Last Solved Time: 04:42:27 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Static Global

Kind: SLOPE/W
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Left to Right
- Use Passive Mode: No
- Slip Surface Option: Entry and Exit
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °

Mint Canyon

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Terrace Deposits Qt

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 175 psf
Phi': 29 °
Phi-B: 0 °

Slip Surface Entry and Exit

Left Type: Range
Left-Zone Left Coordinate: (121.53973, 1,710.323) ft
Left-Zone Right Coordinate: (304.27862, 1,683.9789) ft
Left-Zone Increment: 80
Right Type: Range
Right-Zone Left Coordinate: (315.07335, 1,678.0854) ft
Right-Zone Right Coordinate: (454.25863, 1,634.8517) ft
Right-Zone Increment: 80
Radius Increments: 15

Slip Surface Limits

Left Coordinate: (0.49652, 1,550.1059) ft
Right Coordinate: (456.98928, 1,634.8471) ft

Seismic Coefficients

Horz Seismic Coef.: 0
Vert Seismic Coef.: 0

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	0.58365 ft	1,685.6368 ft
Point 2	34.75526 ft	1,696.2019 ft
Point 3	90.22222 ft	1,696.2019 ft
Point 4	119.60651 ft	1,709.5734 ft
Point 5	147.91777 ft	1,720.5512 ft
Point 6	169.13059 ft	1,720.5512 ft
Point 7	180.89255 ft	1,726.1227 ft
Point 8	194.37411 ft	1,726.1227 ft
Point 9	219.96155 ft	1,721.9269 ft
Point 10	244.44845 ft	1,713.5353 ft
Point 11	255.24745 ft	1,709.8898 ft
Point 12	269.3343 ft	1,703.6305 ft
Point 13	285.97246 ft	1,693.9733 ft
Point 14	315.60436 ft	1,677.7955 ft
Point 15	343.668 ft	1,662.443 ft
Point 16	391.98893 ft	1,634.9571 ft
Point 17	419.22717 ft	1,614.3221 ft
Point 18	432.59867 ft	1,614.3221 ft
Point 19	456.94801 ft	1,600.2903 ft
Point 20	456.94801 ft	1,550.1059 ft
Point 21	0.49652 ft	1,550.1059 ft
Point 22	456.98928 ft	1,614.3221 ft
Point 23	456.98928 ft	1,634.8471 ft
Point 24	134.46373 ft	1,707.9639 ft
Point 25	181.78674 ft	1,707.9639 ft

Regions

	Material	Points	Area
Region 1	Fill	16,17,18,22,23	1,056.7 ft²
Region 2	Alluvium	18,22,19	171.12 ft²
Region 3	Terrace Deposits Qt	10,9,8,7,6,5,4,24,25,11	1,501.5 ft²
Region 4	Mint Canyon	3,2,1,21,20,19,18,17,16,15,14,13,12,11,25,24,4	60,023 ft²

Slip Results

Slip Surfaces Analysed: 103666 of 104976 converged

Current Slip Surface

Slip Surface: 48,711

Factor of Safety: 1.77
Volume: 4,565.3067 ft³
Weight: 570,663.33 lbf
Resisting Moment: 88,374,864 lbf·ft
Activating Moment: 49,805,703 lbf·ft
Slip Rank: 1 of 104,976 slip surfaces
Exit: (392.19621, 1,634.9567) ft
Entry: (208.2469, 1,723.8479) ft
Radius: 211.69362 ft
Center: (380.89615, 1,846.3486) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	211.14524 ft	1,719.9553 ft	0 psf	207.80815 psf	115.18994 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 2	217.00257 ft	1,712.4411 ft	0 psf	814.72466 psf	451.60925 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 3	223.02241 ft	1,705.3913 ft	0 psf	1,154.2709 psf	639.82283 psf	600 psf	0 psf	Mint Canyon
Slice 4	229.14414 ft	1,698.8147 ft	0 psf	1,626.3938 psf	901.5248 psf	600 psf	0 psf	Mint Canyon
Slice 5	235.26586 ft	1,692.764 ft	0 psf	2,060.1197 psf	1,141.943 psf	600 psf	0 psf	Mint Canyon
Slice 6	241.38759 ft	1,687.1789 ft	0 psf	2,457.6469 psf	1,362.2959 psf	600 psf	0 psf	Mint Canyon
Slice 7	247.1482 ft	1,682.2951 ft	0 psf	2,802.8724 psf	1,553.6575 psf	600 psf	0 psf	Mint Canyon
Slice 8	252.5477 ft	1,678.0354 ft	0 psf	3,100.569 psf	1,718.6735 psf	600 psf	0 psf	Mint Canyon
Slice 9	258.76916 ft	1,673.4885 ft	0 psf	3,372.5861 psf	1,869.455 psf	600 psf	0 psf	Mint Canyon
Slice 10	265.81259 ft	1,668.7187 ft	0 psf	3,610.9106 psf	2,001.5604 psf	600 psf	0 psf	Mint Canyon
Slice 11	272.10733 ft	1,664.7756 ft	0 psf	3,751.9962 psf	2,079.7655 psf	600 psf	0 psf	Mint Canyon
Slice 12	277.65338 ft	1,661.5648 ft	0 psf	3,803.0369 psf	2,108.0578 psf	600 psf	0 psf	Mint Canyon
Slice 13	283.19943 ft	1,658.5727 ft	0 psf	3,829.035 psf	2,122.4688 psf	600 psf	0 psf	Mint Canyon
Slice 14	288.93565 ft	1,655.7006 ft	0 psf	3,840.9513 psf	2,129.0741 psf	600 psf	0 psf	Mint Canyon
Slice 15	294.86203 ft	1,652.9531 ft	0 psf	3,837.9578 psf	2,127.4148 psf	600 psf	0 psf	Mint Canyon
Slice 16	300.78841 ft	1,650.4233 ft	0 psf	3,808.7146 psf	2,111.205 psf	600 psf	0 psf	Mint Canyon
Slice 17	306.71479 ft	1,648.103 ft	0 psf	3,753.6604 psf	2,080.6879 psf	600 psf	0 psf	Mint Canyon
Slice 18	312.64117 ft	1,645.9848 ft	0 psf	3,673.1454 psf	2,036.0578 psf	600 psf	0 psf	Mint Canyon

Slice 19	318.41072 ft	1,644.1083 ft	0 psf	3,570.49 psf	1,979.1549 psf	600 psf	0 psf	Mint Canyon
Slice 20	324.02345 ft	1,642.4584 ft	0 psf	3,447.2286 psf	1,910.83 psf	600 psf	0 psf	Mint Canyon
Slice 21	329.63618 ft	1,640.9751 ft	0 psf	3,301.6288 psf	1,830.1227 psf	600 psf	0 psf	Mint Canyon
Slice 22	335.24891 ft	1,639.6549 ft	0 psf	3,133.7338 psf	1,737.057 psf	600 psf	0 psf	Mint Canyon
Slice 23	340.86164 ft	1,638.4946 ft	0 psf	2,943.5296 psf	1,631.6251 psf	600 psf	0 psf	Mint Canyon
Slice 24	346.68806 ft	1,637.4595 ft	0 psf	2,714.2256 psf	1,504.5198 psf	600 psf	0 psf	Mint Canyon
Slice 25	352.72817 ft	1,636.5595 ft	0 psf	2,443.5412 psf	1,354.477 psf	600 psf	0 psf	Mint Canyon
Slice 26	358.76829 ft	1,635.8365 ft	0 psf	2,146.262 psf	1,189.6924 psf	600 psf	0 psf	Mint Canyon
Slice 27	364.80841 ft	1,635.2889 ft	0 psf	1,822.0626 psf	1,009.9858 psf	600 psf	0 psf	Mint Canyon
Slice 28	370.84852 ft	1,634.9151 ft	0 psf	1,470.5306 psf	815.1284 psf	600 psf	0 psf	Mint Canyon
Slice 29	376.88864 ft	1,634.7144 ft	0 psf	1,091.1606 psf	604.8402 psf	600 psf	0 psf	Mint Canyon
Slice 30	382.92876 ft	1,634.6862 ft	0 psf	683.34797 psf	378.78596 psf	600 psf	0 psf	Mint Canyon
Slice 31	388.96887 ft	1,634.8305 ft	0 psf	246.37971 psf	136.57051 psf	600 psf	0 psf	Mint Canyon
Slice 32	391.99592 ft	1,634.9461 ft	0 psf	19.391055 psf	10.748637 psf	600 psf	0 psf	Mint Canyon
Slice 33	392.09956 ft	1,634.9516 ft	0 psf	6.7156169 psf	3.8772632 psf	200 psf	0 psf	Fill

Section B-B' SSA for Belcaro 10-18-24.gsz 10/18/2024 04:42:16 PM

Section B-B' SSA for Belcaro 10-18-24.gsz

1 - Rotational Pseudostatic Global
Horz Seismic Coef.: 0.15

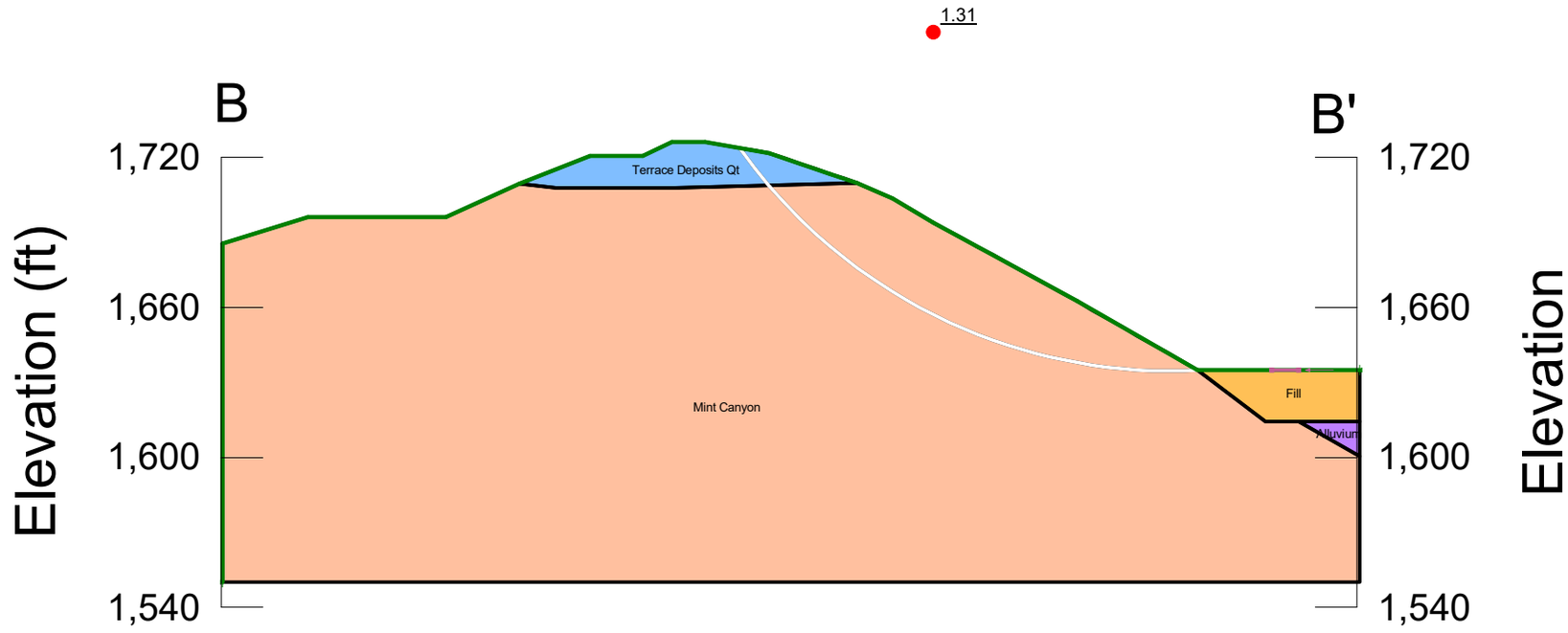
Method: Bishop

Name: Alluvium
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °

Name: Fill
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °

Name: Mint Canyon
Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °

Name: Terrace Deposits Qt
Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 175 psf
Phi': 29 °



LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section B-B
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Pseudostatic Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section B-B'
Last Edited By: Basil Hattar
Revision Number: 896
Date: 10/18/2024
Time: 04:42:16 PM
Tool Version: 10.1.1.18972
File Name: Section B-B' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/18/2024
Last Solved Time: 04:42:27 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Pseudostatic Global

Kind: SLOPE/W
Parent: 1 - Rotational Static Global
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Left to Right
- Use Passive Mode: No
- Slip Surface Option: Critical Slip Surfaces from Other
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °

Mint Canyon

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Terrace Deposits Qt

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 175 psf
Phi': 29 °
Phi-B: 0 °

Reinforcements

8XT

Type: Geosynthetic
Interface Adhesion: 0 psf
Interface Shear Angle: 26.14 °
Surface Area Factor: 1
Pullout Resistance Reduction Factor: 1
Tensile Capacity: 4,055 lbf
Tensile Capacity Reduction Factor: 1
Force Orientation: 1
F of S Dependent: Yes
Force Distribution: Concentrated
Face Anchorage: Yes
Factored Tensile Capacity: 4,055 lbf/ft / F of S

Slip Surface Limits

Left Coordinate: (0.49652, 1,550.1059) ft
Right Coordinate: (456.98928, 1,634.8471) ft

Seismic Coefficients

Horz Seismic Coef.: 0.15
Vert Seismic Coef.: 0

Reinforcement Lines

Reinforcement Line 1

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.7445, 395.6027) ft
Inside Point: (69.91565, 395.6027) ft
Length: 10.82885 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 2

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.33907, 397.659) ft
Inside Point: (69.36242, 397.659) ft
Length: 10.97665 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 3

Reinforcement: 8XT
Lock to Ground Surface: Yes
Outside Point: (432.63347, 1,634.8883) ft
Inside Point: (421.61928, 1,634.8883) ft
Length: 11.01419 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 4

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (79.59083, 400.8835) ft
Inside Point: (68.54036, 400.8835) ft
Length: 11.05047 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	0.58365 ft	1,685.6368 ft
Point 2	34.75526 ft	1,696.2019 ft
Point 3	90.22222 ft	1,696.2019 ft
Point 4	119.60651 ft	1,709.5734 ft
Point 5	147.91777 ft	1,720.5512 ft
Point 6	169.13059 ft	1,720.5512 ft
Point 7	180.89255 ft	1,726.1227 ft
Point 8	194.37411 ft	1,726.1227 ft
Point 9	219.96155 ft	1,721.9269 ft
Point 10	244.44845 ft	1,713.5353 ft
Point 11	255.24745 ft	1,709.8898 ft
Point 12	269.3343 ft	1,703.6305 ft
Point 13	285.97246 ft	1,693.9733 ft
Point 14	315.60436 ft	1,677.7955 ft
Point 15	343.668 ft	1,662.443 ft
Point 16	391.98893 ft	1,634.9571 ft
Point 17	419.22717 ft	1,614.3221 ft
Point 18	432.59867 ft	1,614.3221 ft
Point 19	456.94801 ft	1,600.2903 ft
Point 20	456.94801 ft	1,550.1059 ft
Point 21	0.49652 ft	1,550.1059 ft
Point 22	456.98928 ft	1,614.3221 ft
Point 23	456.98928 ft	1,634.8471 ft
Point 24	134.46373 ft	1,707.9639 ft
Point 25	181.78674 ft	1,707.9639 ft

Regions

	Material	Points	Area
Region 1	Fill	16,17,18,22,23	1,056.7 ft²
Region 2	Alluvium	18,22,19	171.12 ft²

Region 3	Terrace Deposits Qt	10,9,8,7,6,5,4,24,25,11	1,501.5 ft²
Region 4	Mint Canyon	3,2,1,21,20,19,18,17,16,15,14,13,12,11,25,24,4	60,023 ft²

Slip Results

Slip Surfaces Analysed: 1 of 1 converged

Current Slip Surface

Slip Surface: 1
Factor of Safety: 1.31
Volume: 4,565.3067 ft³
Weight: 570,663.33 lbf
Resisting Moment: 84,609,046 lbf·ft
Activating Moment: 64,561,256 lbf·ft
Slip Rank: 1 of 1 slip surfaces
Exit: (392.19621, 1,634.9567) ft
Entry: (208.2469, 1,723.8479) ft
Radius: 211.69362 ft
Center: (380.89615, 1,846.3486) ft

Slip Slices

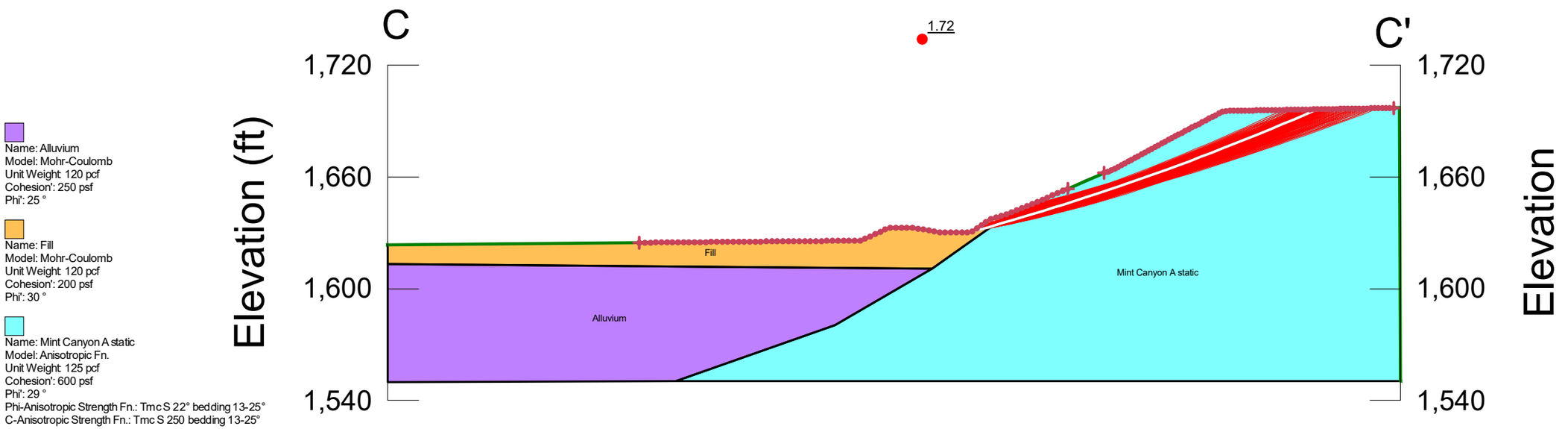
	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	211.14524 ft	1,719.9553 ft	0 psf	158.367 psf	87.784261 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 2	217.00257 ft	1,712.4411 ft	0 psf	714.20832 psf	395.89214 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 3	223.02241 ft	1,705.3913 ft	0 psf	966.85246 psf	535.93507 psf	600 psf	0 psf	Mint Canyon
Slice 4	229.14414 ft	1,698.8147 ft	0 psf	1,412.3326 psf	782.86874 psf	600 psf	0 psf	Mint Canyon
Slice 5	235.26586 ft	1,692.764 ft	0 psf	1,825.6429 psf	1,011.9704 psf	600 psf	0 psf	Mint Canyon
Slice 6	241.38759 ft	1,687.1789 ft	0 psf	2,208.0943 psf	1,223.9667 psf	600 psf	0 psf	Mint Canyon
Slice 7	247.1482 ft	1,682.2951 ft	0 psf	2,543.2126 psf	1,409.7258 psf	600 psf	0 psf	Mint Canyon
Slice 8	252.5477 ft	1,678.0354 ft	0 psf	2,834.6871 psf	1,571.2927 psf	600 psf	0 psf	Mint Canyon
Slice 9	258.76916 ft	1,673.4885 ft	0 psf	3,105.446 psf	1,721.3768 psf	600 psf	0 psf	Mint Canyon
Slice 10	265.81259 ft	1,668.7187 ft	0 psf	3,347.8164 psf	1,855.7249 psf	600 psf	0 psf	Mint Canyon
Slice 11	272.10733 ft	1,664.7756 ft	0 psf	3,497.264 psf	1,938.5651 psf	600 psf	0 psf	Mint Canyon
Slice 12	277.65338 ft	1,661.5648 ft	0 psf	3,559.6687 psf	1,973.1566 psf	600 psf	0 psf	Mint Canyon
Slice 13	283.19943 ft	1,658.5727 ft	0 psf	3,598.1724 psf	1,994.4995 psf	600 psf	0 psf	Mint Canyon
Slice 14	288.93565 ft	1,655.7006 ft	0 psf	3,623.5441 psf	2,008.5633 psf	600 psf	0 psf	Mint Canyon
Slice 15	294.86203 ft	1,652.9531 ft	0 psf	3,634.9023 psf	2,014.8593 psf	600 psf	0 psf	Mint Canyon
Slice 16	300.78841 ft	1,650.4233 ft	0 psf	3,620.7929 psf	2,007.0383 psf	600 psf	0 psf	Mint Canyon
Slice 17	306.71479 ft	1,648.103 ft	0 psf	3,581.4637 psf	1,985.2377 psf	600 psf	0 psf	Mint Canyon
Slice 18	312.64117 ft	1,645.9848 ft	0 psf	3,517.0826 psf	1,949.5507 psf	600 psf	0 psf	Mint Canyon
Slice 19	318.41072 ft	1,644.1083 ft	0 psf	3,430.3611 psf	1,901.4802 psf	600 psf	0 psf	Mint Canyon
Slice 20	324.02345 ft	1,642.4584 ft	0 psf	3,322.6734 psf	1,841.788 psf	600 psf	0 psf	Mint Canyon
Slice 21	329.63618 ft	1,640.9751 ft	0 psf	3,192.5502 psf	1,769.6595 psf	600 psf	0 psf	Mint Canyon
Slice 22	335.24891 ft	1,639.6549 ft	0 psf	3,039.885 psf	1,685.0358 psf	600 psf	0 psf	Mint Canyon
Slice 23	340.86164 ft	1,638.4946 ft	0 psf	2,864.5107 psf	1,587.8242 psf	600 psf	0 psf	Mint Canyon
Slice 24	346.68806 ft	1,637.4595 ft	0 psf	2,650.1461 psf	1,469 psf	600 psf	0 psf	Mint Canyon
Slice 25	352.72817 ft	1,636.5595 ft	0 psf	2,394.1735 psf	1,327.112 psf	600 psf	0 psf	Mint Canyon
Slice 26	358.76829 ft	1,635.8365 ft	0 psf	2,110.4549 psf	1,169.8442 psf	600 psf	0 psf	Mint Canyon
Slice 27	364.80841 ft	1,635.2889 ft	0 psf	1,798.4283 psf	996.88511 psf	600 psf	0 psf	Mint Canyon
Slice 28	370.84852 ft	1,634.9151 ft	0 psf	1,457.4253 psf	807.86405 psf	600 psf	0 psf	Mint Canyon
Slice 29	376.88864 ft	1,634.7144 ft	0 psf	1,086.6613 psf	602.34619 psf	600 psf	0 psf	Mint Canyon
Slice 30	382.92876 ft	1,634.6862 ft	0 psf	685.22402 psf	379.82588 psf	600 psf	0 psf	Mint Canyon
Slice 31	388.96887 ft	1,634.8305 ft	0 psf	252.05943 psf	139.71882 psf	600 psf	0 psf	Mint Canyon
Slice 32	391.99592 ft	1,634.9461 ft	0 psf	25.910144 psf	14.362227 psf	600 psf	0 psf	Mint Canyon
Slice 33	392.09956 ft	1,634.9516 ft	0 psf	8.914723 psf	5.1469177 psf	200 psf	0 psf	Fill

Section C-C' SSA for Belcaro 10-18-24.gsz 10/19/2024 01:39:07 PM

Section C-C' SSA for Belcaro 10-18-24.gsz

1 - Rotational Static Global
Horz Seismic Coef.: 0

Method: Bishop



LGC

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section C-C'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Static Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section C-C'
Last Edited By: Basil Hattar
Revision Number: 888
Date: 10/19/2024
Time: 01:39:07 PM
Tool Version: 10.1.1.18972
File Name: Section C-C' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 01:39:19 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Static Global

Kind: SLOPE/W
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Entry and Exit
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Mint Canyon A static

Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding 13-25°
C-Anisotropic Strength Fn.: Tmc S 250 bedding 13-25°
Phi-B: 0 °

Slip Surface Entry and Exit

Left Type: Range
Left-Zone Left Coordinate: (135.62568, 1,624.6991) ft
Left-Zone Right Coordinate: (366.48768, 1,653.6353) ft
Left-Zone Increment: 80
Right Type: Range
Right-Zone Left Coordinate: (386.17882, 1,662.0886) ft
Right-Zone Right Coordinate: (542.18381, 1,697.1333) ft
Right-Zone Increment: 80
Radius Increments: 15

Slip Surface Limits

Left Coordinate: (0.08941, 1,623.4345) ft
Right Coordinate: (545.89902, 1,550.1983) ft

Seismic Coefficients

Horz Seismic Coef.: 0
Vert Seismic Coef.: 0

Anisotropic Strength Functions

Tmc S 22° bedding 13-25°

Model: Spline Data Point Function

Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (12.9, 1)
Data Point: (13, 0.7586)
Data Point: (25, 0.7586)
Data Point: (25.1, 1)
Data Point: (90, 1)

Tmc S 250 bedding 13-25°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (12.9, 1)
Data Point: (13, 0.4167)
Data Point: (25, 0.4167)
Data Point: (25.1, 1)
Data Point: (90, 1)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	545.42212 ft	1,697.1924 ft
Point 2	450.50098 ft	1,695.459 ft
Point 3	419.65738 ft	1,679.3967 ft
Point 4	394.10296 ft	1,665.4904 ft
Point 5	347.03528 ft	1,645.2845 ft
Point 6	335.92484 ft	1,640.8712 ft
Point 7	293.50966 ft	1,610.7729 ft
Point 8	241.01414 ft	1,580.2693 ft
Point 9	155.19882 ft	1,550.1983 ft
Point 10	545.89902 ft	1,550.1983 ft
Point 11	0.08941 ft	1,613.3118 ft
Point 12	0.08941 ft	1,549.8417 ft
Point 13	0.08941 ft	1,623.4345 ft
Point 14	254.88088 ft	1,625.8117 ft
Point 15	270.13429 ft	1,632.646 ft
Point 16	283.50579 ft	1,632.646 ft
Point 17	297.76873 ft	1,630.2688 ft
Point 18	314.60691 ft	1,630.2688 ft
Point 19	323.88442 ft	1,636.9381 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon A static	1,2,3,4,5,6,7,8,9,10	34,122 ft²
Region 2	Alluvium	7,11,12,9,8	14,504 ft²
Region 3	Fill	11,13,14,15,16,17,18,19,6,7	4,265.9 ft²

Slip Results

Slip Surfaces Analysed: 96148 of 104976 converged

Current Slip Surface

Slip Surface: 80,017
Factor of Safety: 1.72
Volume: 1,896.6891 ft³
Weight: 236,867.97 lbf
Resisting Moment: 1.9449061e+08 lbf·ft
Activating Moment: 1.1277848e+08 lbf·ft
Slip Rank: 1 of 104,976 slip surfaces
Exit: (315.19521, 1,630.6917) ft
Entry: (501.14312, 1,696.3838) ft
Radius: 1,395.8776 ft
Center: (-55.644501, 2,976.4079) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	319.53982 ft	1,631.9041 ft	0 psf	180.14401 psf	104.00619 psf	200 psf	0 psf	Fill
Slice 2	324.81006 ft	1,633.3787 ft	0 psf	393.31474 psf	227.08037 psf	200 psf	0 psf	Fill
Slice 3	328.28299 ft	1,634.3696 ft	0 psf	416.6839 psf	168.34615 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 4	333.37756 ft	1,635.8375 ft	0 psf	447.85642 psf	180.94028 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 5	338.70245 ft	1,637.3947 ft	0 psf	495.63661 psf	200.24415 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 6	344.25767 ft	1,639.0433 ft	0 psf	559.72908 psf	226.13841 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 7	349.97701 ft	1,640.7673 ft	0 psf	633.47915 psf	255.93447 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 8	355.86047 ft	1,642.5682 ft	0 psf	716.65879 psf	289.54022 psf	250.02 psf	0 psf	Mint Canyon A

								static
Slice 9	361.74393 ft	1,644.3976 ft	0 psf	796.34747 psf	321.73556 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 10	367.62739 ft	1,646.2555 ft	0 psf	872.54143 psf	352.51899 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 11	373.51085 ft	1,648.142 ft	0 psf	945.2367 psf	381.8889 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 12	379.39431 ft	1,650.0573 ft	0 psf	1,014.4291 psf	409.8436 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 13	385.27777 ft	1,652.0016 ft	0 psf	1,080.1142 psf	436.3813 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 14	391.16123 ft	1,653.9749 ft	0 psf	1,142.2874 psf	461.50015 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 15	397.29726 ft	1,656.0646 ft	0 psf	1,245.7708 psf	503.30891 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 16	403.68587 ft	1,658.2735 ft	0 psf	1,390.0882 psf	561.61514 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 17	410.07447 ft	1,660.5171 ft	0 psf	1,530.0459 psf	618.16005 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 18	416.46308 ft	1,662.7957 ft	0 psf	1,665.6362 psf	672.94043 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 19	422.74174 ft	1,665.0689 ft	0 psf	1,786.3459 psf	721.70884 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 20	428.91046 ft	1,667.3358 ft	0 psf	1,892.3492 psf	764.53565 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 21	435.07918 ft	1,669.6357 ft	0 psf	1,994.2952 psf	805.72326 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 22	441.2479 ft	1,671.9689 ft	0 psf	2,092.1757 psf	845.26838 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 23	447.41662 ft	1,674.3354 ft	0 psf	2,185.9823 psf	883.16754 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 24	453.66611 ft	1,676.7675 ft	0 psf	2,094.7229 psf	846.29746 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 25	459.99638 ft	1,679.266 ft	0 psf	1,818.9359 psf	734.87564 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 26	466.32665 ft	1,681.8004 ft	0 psf	1,539.7123 psf	622.0654 psf	250.02 psf	0 psf	Mint Canyon A

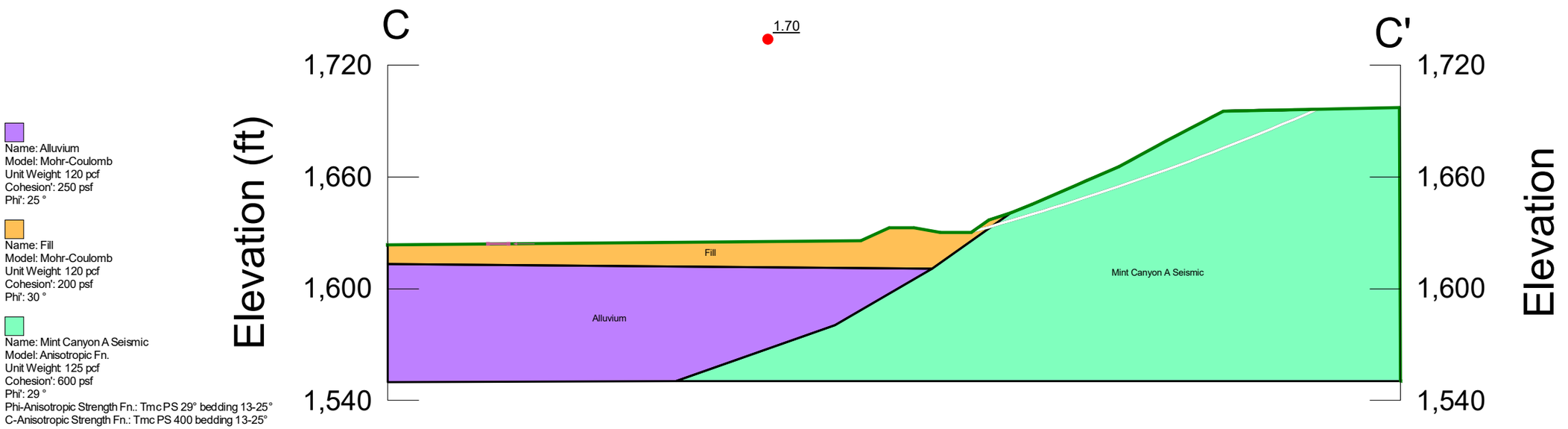
								static
Slice 27	472.65692 ft	1,684.3707 ft	0 psf	1,257.0462 psf	507.86434 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 28	478.98718 ft	1,686.9773 ft	0 psf	970.93154 psf	392.26998 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 29	485.31745 ft	1,689.6202 ft	0 psf	681.36188 psf	275.27977 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 30	491.64772 ft	1,692.2998 ft	0 psf	388.33078 psf	156.89109 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 31	497.97799 ft	1,695.0163 ft	0 psf	91.831535 psf	37.10123 psf	250.02 psf	0 psf	Mint Canyon A static

Section C-C' SSA for Belcaro 10-18-24.gsz 10/19/2024 01:39:07 PM

Section C-C' SSA for Belcaro 10-18-24.gsz

1 - Rotational Pseudostatic Global
Horz Seismic Coef.: 0.15

Method: Bishop



Name: Alluvium
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °

Name: Fill
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °

Name: Mint Canyon A Seismic
Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc PS 29° bedding 13-25°
C-Anisotropic Strength Fn.: Tmc PS 400 bedding 13-25°

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section C-C'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Pseudostatic Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section C-C'
Last Edited By: Basil Hattar
Revision Number: 888
Date: 10/19/2024
Time: 01:39:07 PM
Tool Version: 10.1.1.18972
File Name: Section C-C' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 01:40:08 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Pseudostatic Global

Kind: SLOPE/W
Parent: 1 - Rotational Static Global
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Critical Slip Surfaces from Other
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Mint Canyon A Seismic

Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc PS 29° bedding 13-25°
C-Anisotropic Strength Fn.: Tmc PS 400 bedding 13-25°
Phi-B: 0 °

Reinforcements

8XT

Type: Geosynthetic
Interface Adhesion: 0 psf
Interface Shear Angle: 26.14 °
Surface Area Factor: 1
Pullout Resistance Reduction Factor: 1
Tensile Capacity: 4,055 lbf
Tensile Capacity Reduction Factor: 1
Force Orientation: 1
F of S Dependent: Yes
Force Distribution: Concentrated
Face Anchorage: Yes
Factored Tensile Capacity: 4,055 lbf/ft / F of S

Slip Surface Limits

Left Coordinate: (0.08941, 1,623.4345) ft
Right Coordinate: (545.89902, 1,550.1983) ft

Seismic Coefficients

Horz Seismic Coef.: 0.15
Vert Seismic Coef.: 0

Reinforcement Lines

Reinforcement Line 1

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.7445, 395.6027) ft
Inside Point: (69.91565, 395.6027) ft
Length: 10.82885 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 2

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.33907, 397.659) ft
Inside Point: (69.36242, 397.659) ft
Length: 10.97665 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 3

Reinforcement: 8XT
Lock to Ground Surface: Yes
Outside Point: (65.07587, 1,624.0408) ft
Inside Point: (54.06168, 1,624.0408) ft
Length: 11.01419 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 4

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (79.59083, 400.8835) ft
Inside Point: (68.54036, 400.8835) ft
Length: 11.05047 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Anisotropic Strength Functions

Tmc PS 29° bedding 13-25°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (12.9, 1)
Data Point: (13, 1)
Data Point: (25, 1)
Data Point: (25.1, 1)
Data Point: (90, 1)

Tmc PS 400 bedding 13-25°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (12.9, 1)
Data Point: (13, 0.667)
Data Point: (25, 0.667)
Data Point: (25.1, 1)
Data Point: (90, 1)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	545.42212 ft	1,697.1924 ft
Point 2	450.50098 ft	1,695.459 ft
Point 3	419.65738 ft	1,679.3967 ft
Point 4	394.10296 ft	1,665.4904 ft
Point 5	347.03528 ft	1,645.2845 ft
Point 6	335.92484 ft	1,640.8712 ft

Point 7	293.50966 ft	1,610.7729 ft
Point 8	241.01414 ft	1,580.2693 ft
Point 9	155.19882 ft	1,550.1983 ft
Point 10	545.89902 ft	1,550.1983 ft
Point 11	0.08941 ft	1,613.3118 ft
Point 12	0.08941 ft	1,549.8417 ft
Point 13	0.08941 ft	1,623.4345 ft
Point 14	254.88088 ft	1,625.8117 ft
Point 15	270.13429 ft	1,632.646 ft
Point 16	283.50579 ft	1,632.646 ft
Point 17	297.76873 ft	1,630.2688 ft
Point 18	314.60691 ft	1,630.2688 ft
Point 19	323.88442 ft	1,636.9381 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon A Seismic	1,2,3,4,5,6,7,8,9,10	34,122 ft²
Region 2	Alluvium	7,11,12,9,8	14,504 ft²
Region 3	Fill	11,13,14,15,16,17,18,19,6,7	4,265.9 ft²

Slip Results

Slip Surfaces Analysed: 1 of 1 converged

Current Slip Surface

Slip Surface: 1
Factor of Safety: 1.70
Volume: 1,896.6891 ft³
Weight: 236,867.97 lbf
Resisting Moment: 2.7060863e+08 lbf·ft
Activating Moment: 1.5914163e+08 lbf·ft
Slip Rank: 1 of 1 slip surfaces
Exit: (315.19521, 1,630.6917) ft
Entry: (501.14312, 1,696.3838) ft
Radius: 1,395.8776 ft
Center: (-55.644501, 2,976.4079) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	319.53982 ft	1,631.9041 ft	0 psf	179.53197 psf	103.65283 psf	200 psf	0 psf	Fill
Slice 2	324.81006 ft	1,633.3787 ft	0 psf	392.44303 psf	226.57709 psf	200 psf	0 psf	Fill
Slice 3	328.28299 ft	1,634.3696 ft	0 psf	383.10926 psf	212.36093 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 4	333.37756 ft	1,635.8375 ft	0 psf	413.08471 psf	228.9766 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 5	338.70245 ft	1,637.3947 ft	0 psf	459.21875 psf	254.54911 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 6	344.25767 ft	1,639.0433 ft	0 psf	521.2048 psf	288.90854 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 7	349.97701 ft	1,640.7673 ft	0 psf	592.54335 psf	328.45214 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 8	355.86047 ft	1,642.5682 ft	0 psf	672.99955 psf	373.04974 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 9	361.74393 ft	1,644.3976 ft	0 psf	749.99412 psf	415.72853 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 10	367.62739 ft	1,646.2555 ft	0 psf	823.52707 psf	456.48851 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 11	373.51085 ft	1,648.142 ft	0 psf	893.59822 psf	495.32958 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 12	379.39431 ft	1,650.0573 ft	0 psf	960.20717 psf	532.25153 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 13	385.27777 ft	1,652.0016 ft	0 psf	1,023.3533 psf	567.25402 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 14	391.16123 ft	1,653.9749 ft	0 psf	1,083.036 psf	600.33664 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 15	397.29726 ft	1,656.0646 ft	0 psf	1,182.7812 psf	655.6263 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 16	403.68587 ft	1,658.2735 ft	0 psf	1,322.0733 psf	732.83721 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 17	410.07447 ft	1,660.5171 ft	0 psf	1,457.0149 psf	807.63657 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 18	416.46308 ft	1,662.7957 ft	0 psf	1,587.6032 psf	880.0228 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 19	422.74174 ft	1,665.0689 ft	0 psf	1,703.6626 psf	944.3556 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 20	428.91046 ft	1,667.3358 ft	0 psf	1,805.3821 psf	1,000.7396 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 21	435.07918 ft	1,669.6357 ft	0 psf	1,903.0833 psf	1,054.8963 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 22	441.2479 ft	1,671.9689 ft	0 psf	1,996.7628 psf	1,106.8237 psf	400.2 psf	0 psf	Mint Canyon A Seismic

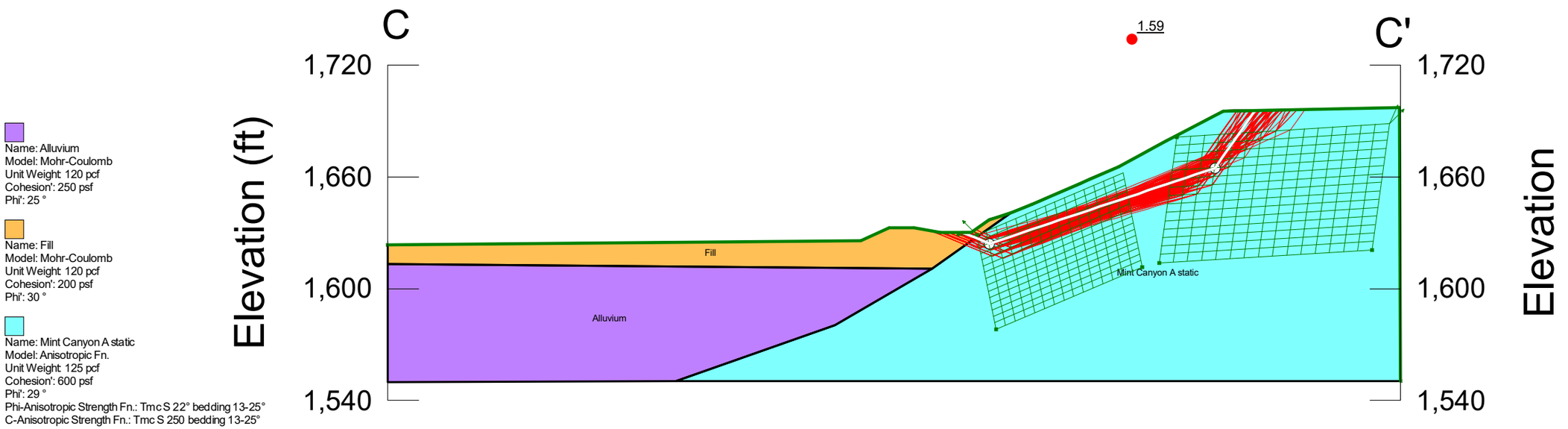
Slice 23	447.41662 ft	1,674.3354 ft	0 psf	2,086.4167 psf	1,156.5197 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 24	453.66611 ft	1,676.7675 ft	0 psf	1,996.794 psf	1,106.841 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 25	459.99638 ft	1,679.266 ft	0 psf	1,728.6385 psf	958.19999 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 26	466.32665 ft	1,681.8004 ft	0 psf	1,457.3792 psf	807.83846 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 27	472.65692 ft	1,684.3707 ft	0 psf	1,183.0151 psf	655.75595 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 28	478.98718 ft	1,686.9773 ft	0 psf	905.54536 psf	501.95199 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 29	485.31745 ft	1,689.6202 ft	0 psf	624.96909 psf	346.42602 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 30	491.64772 ft	1,692.2998 ft	0 psf	341.28514 psf	189.17744 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 31	497.97799 ft	1,695.0163 ft	0 psf	54.492325 psf	30.205589 psf	400.2 psf	0 psf	Mint Canyon A Seismic

Section C-C' SSA for Belcaro 10-18-24.gsz 10/19/2024 01:39:07 PM

Section C-C' SSA for Belcaro 10-18-24.gsz

2 - Translational Static Global
Horz Seismic Coef.: 0

Method: Janbu



LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section C-C'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

2 - Translational Static Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section C-C'
Last Edited By: Basil Hattar
Revision Number: 888
Date: 10/19/2024
Time: 01:39:07 PM
Tool Version: 10.1.1.18972
File Name: Section C-C' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 01:40:12 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

2 - Translational Static Global

Kind: SLOPE/W
Method: Janbu
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Block
- Critical slip surfaces saved: 1
- Restrict Block Crossing: No
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Mint Canyon A static

Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding 13-25°
C-Anisotropic Strength Fn.: Tmc S 250 bedding 13-25°
Phi-B: 0 °

Slip Surface Limits

Left Coordinate: (0.08941, 1,623.4345) ft
Right Coordinate: (545.89902, 1,550.1983) ft

Slip Surface Block

Left Grid
- Upper Left: (317.65192, 1,628.6844) ft
- Lower Left: (328.00339, 1,578.217) ft
- Lower Right: (406.62524, 1,611.6784) ft
- X Increments: 15
- Y Increments: 15
- Starting Angle: 135 °
- Ending Angle: 180 °
- Angle Increments: 2

Right Grid
- Upper Left: (425.36255, 1,681.4173) ft
- Lower Left: (415.99086, 1,613.6501) ft
- Lower Right: (530.70097, 1,620.8432) ft
- X Increments: 15
- Y Increments: 15
- Angle Increments: 2

Seismic Coefficients

Horz Seismic Coef.: 0

Vert Seismic Coef.: 0

Anisotropic Strength Functions

Tmc S 22° bedding 13-25°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (12.9, 1)
Data Point: (13, 0.7586)
Data Point: (25, 0.7586)
Data Point: (25.1, 1)
Data Point: (90, 1)

Tmc S 250 bedding 13-25°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (12.9, 1)
Data Point: (13, 0.4167)
Data Point: (25, 0.4167)
Data Point: (25.1, 1)
Data Point: (90, 1)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	545.42212 ft	1,697.1924 ft
Point 2	450.50098 ft	1,695.459 ft
Point 3	419.65738 ft	1,679.3967 ft
Point 4	394.10296 ft	1,665.4904 ft
Point 5	347.03528 ft	1,645.2845 ft
Point 6	335.92484 ft	1,640.8712 ft
Point 7	293.50966 ft	1,610.7729 ft
Point 8	241.01414 ft	1,580.2693 ft
Point 9	155.19882 ft	1,550.1983 ft
Point 10	545.89902 ft	1,550.1983 ft
Point 11	0.08941 ft	1,613.3118 ft
Point 12	0.08941 ft	1,549.8417 ft
Point 13	0.08941 ft	1,623.4345 ft
Point 14	254.88088 ft	1,625.8117 ft
Point 15	270.13429 ft	1,632.646 ft
Point 16	283.50579 ft	1,632.646 ft
Point 17	297.76873 ft	1,630.2688 ft
Point 18	314.60691 ft	1,630.2688 ft
Point 19	323.88442 ft	1,636.9381 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon A static	1,2,3,4,5,6,7,8,9,10	34,122 ft²
Region 2	Alluvium	7,11,12,9,8	14,504 ft²
Region 3	Fill	11,13,14,15,16,17,18,19,6,7	4,265.9 ft²

Slip Results

Slip Surfaces Analysed: 461521 of 589824 converged

Current Slip Surface

Slip Surface: 482,843
Factor of Safety: 1.59
Volume: 2,643.0585 ft³
Weight: 330,018.86 lbf
Resisting Force: 169,185.06 lbf
Activating Force: 106,633.5 lbf
Slip Rank: 1 of 589,824 slip surfaces
Exit: (309.58881, 1,630.2688) ft
Entry: (467.50123, 1,695.7694) ft
Radius: 90.295989 ft
Center: (368.16821, 1,712.1446) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	312.09786 ft	1,629.2295 ft	0 psf	207.75341 psf	119.94649 psf	200 psf	0 psf	Fill
Slice 2	315.69537 ft	1,627.7394 ft	0 psf	528.53306 psf	305.14871 psf	200 psf	0 psf	Fill
Slice 3	320.33413 ft	1,625.8179 ft	0 psf	1,406.1251 psf	779.42785 psf	600 psf	0 psf	Mint Canyon A static
Slice 4	324.079 ft	1,624.2668 ft	0 psf	2,014.7612 psf	1,116.8004 psf	600 psf	0 psf	Mint Canyon A static
Slice 5	327.18639 ft	1,625.1592 ft	0 psf	1,418.19 psf	572.96868 psf	250.02 psf	0 psf	Mint Canyon A static

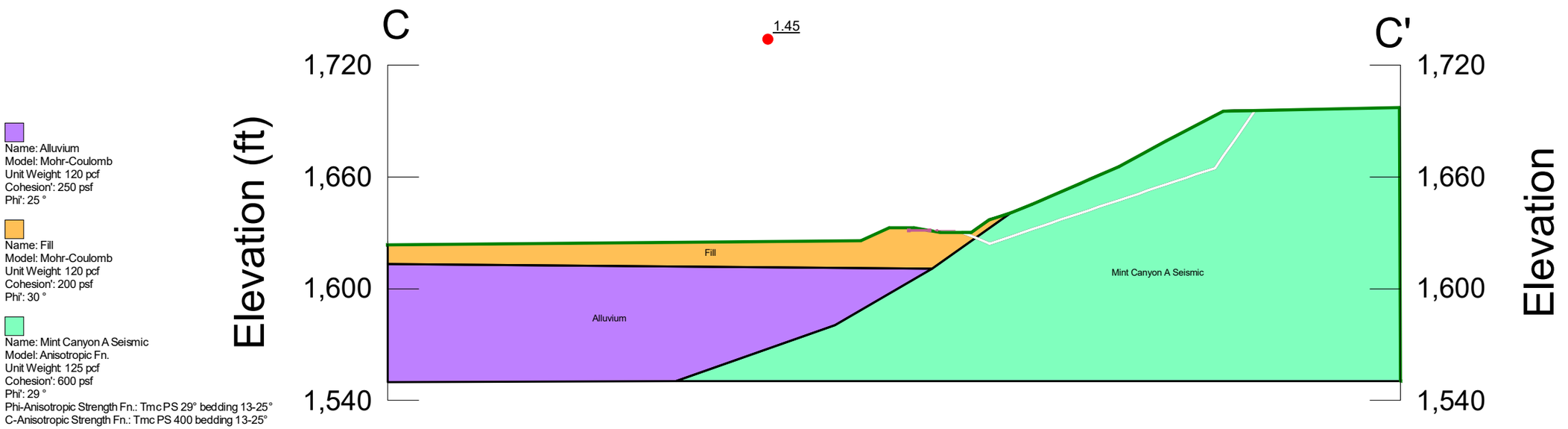
Slice 6	333.01202 ft	1,627.1053 ft	0 psf	1,423.5076 psf	575.11705 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 7	338.70245 ft	1,629.0062 ft	0 psf	1,446.3872 psf	584.36075 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 8	344.25767 ft	1,630.862 ft	0 psf	1,486.8289 psf	600.69976 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 9	349.65015 ft	1,632.6634 ft	0 psf	1,535.752 psf	620.46536 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 10	354.87989 ft	1,634.4104 ft	0 psf	1,593.1564 psf	643.65756 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 11	360.10964 ft	1,636.1574 ft	0 psf	1,650.5608 psf	666.84976 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 12	365.33938 ft	1,637.9045 ft	0 psf	1,707.9653 psf	690.04196 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 13	370.56912 ft	1,639.6515 ft	0 psf	1,765.3697 psf	713.23416 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 14	375.79886 ft	1,641.3985 ft	0 psf	1,822.7741 psf	736.42636 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 15	381.0286 ft	1,643.1456 ft	0 psf	1,880.1786 psf	759.61855 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 16	386.25835 ft	1,644.8926 ft	0 psf	1,937.583 psf	782.81075 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 17	391.48809 ft	1,646.6396 ft	0 psf	1,994.9875 psf	806.00295 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 18	396.6584 ft	1,648.3668 ft	0 psf	2,085.5771 psf	842.60245 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 19	401.76929 ft	1,650.0741 ft	0 psf	2,209.352 psf	892.60923 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 20	406.88017 ft	1,651.7814 ft	0 psf	2,333.1269 psf	942.61602 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 21	411.99105 ft	1,653.4888 ft	0 psf	2,456.9017 psf	992.62281 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 22	417.10194 ft	1,655.1961 ft	0 psf	2,580.6766 psf	1,042.6296 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 23	422.27219 ft	1,656.9232 ft	0 psf	2,698.8319 psf	1,090.366 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 24	427.5018 ft	1,658.6702 ft	0 psf	2,811.3676 psf	1,135.832 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 25	432.73142 ft	1,660.4172 ft	0 psf	2,923.9034 psf	1,181.298 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 26	437.96103 ft	1,662.1642 ft	0 psf	3,036.4391 psf	1,226.764 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 27	443.19065 ft	1,663.9112 ft	0 psf	3,148.9748 psf	1,272.23 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 28	448.15322 ft	1,668.1376 ft	0 psf	1,821.7708 psf	1,009.824 psf	600 psf	0 psf	Mint Canyon A static
Slice 29	453.33436 ft	1,675.5371 ft	0 psf	1,309.9953 psf	726.14224 psf	600 psf	0 psf	Mint Canyon A static
Slice 30	459.00111 ft	1,683.63 ft	0 psf	642.43917 psf	356.10985 psf	600 psf	0 psf	Mint Canyon A static
Slice 31	464.66786 ft	1,691.723 ft	0 psf	-25.11694 psf	-13.922547 psf	600 psf	0 psf	Mint Canyon A static

Section C-C' SSA for Belcaro 10-18-24.gsz 10/19/2024 01:39:07 PM

Section C-C' SSA for Belcaro 10-18-24.gsz

1 - Translational Pseudostatic Global
Horz Seismic Coef.: 0.15

Method: Janbu



Name: Alluvium
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °

Name: Fill
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °

Name: Mint Canyon A Seismic
Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc PS 29° bedding 13-25°
C-Anisotropic Strength Fn.: Tmc PS 400 bedding 13-25°

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section C-C'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Translational Pseudostatic Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section C-C'
Last Edited By: Basil Hattar
Revision Number: 888
Date: 10/19/2024
Time: 01:39:07 PM
Tool Version: 10.1.1.18972
File Name: Section C-C' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 01:40:12 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Translational Pseudostatic Global

Kind: SLOPE/W
Parent: 2 - Translational Static Global
Method: Janbu
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Critical Slip Surfaces from Other
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Mint Canyon A Seismic

Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc PS 29° bedding 13-25°
C-Anisotropic Strength Fn.: Tmc PS 400 bedding 13-25°
Phi-B: 0 °

Reinforcements

8XT

Type: Geosynthetic
Interface Adhesion: 0 psf
Interface Shear Angle: 26.14 °
Surface Area Factor: 1
Pullout Resistance Reduction Factor: 1
Tensile Capacity: 4,055 lbf
Tensile Capacity Reduction Factor: 1
Force Orientation: 1
F of S Dependent: Yes
Force Distribution: Concentrated
Face Anchorage: Yes
Factored Tensile Capacity: 4,055 lbf/ft / F of S

Slip Surface Limits

Left Coordinate: (0.08941, 1,623.4345) ft
Right Coordinate: (545.89902, 1,550.1983) ft

Seismic Coefficients

Horz Seismic Coef.: 0.15
Vert Seismic Coef.: 0

Reinforcement Lines

Reinforcement Line 1

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.7445, 395.6027) ft
Inside Point: (69.91565, 395.6027) ft
Length: 10.82885 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 2

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.33907, 397.659) ft
Inside Point: (69.36242, 397.659) ft
Length: 10.97665 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 3

Reinforcement: 8XT
Lock to Ground Surface: Yes
Outside Point: (291.87039, 1,631.2519) ft
Inside Point: (280.8562, 1,631.2519) ft
Length: 11.01419 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 4

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (79.59083, 400.8835) ft
Inside Point: (68.54036, 400.8835) ft
Length: 11.05047 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Anisotropic Strength Functions

Tmc PS 29° bedding 13-25°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (12.9, 1)
Data Point: (13, 1)
Data Point: (25, 1)
Data Point: (25.1, 1)
Data Point: (90, 1)

Tmc PS 400 bedding 13-25°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (12.9, 1)
Data Point: (13, 0.667)
Data Point: (25, 0.667)
Data Point: (25.1, 1)
Data Point: (90, 1)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	545.42212 ft	1,697.1924 ft
Point 2	450.50098 ft	1,695.459 ft
Point 3	419.65738 ft	1,679.3967 ft
Point 4	394.10296 ft	1,665.4904 ft
Point 5	347.03528 ft	1,645.2845 ft
Point 6	335.92484 ft	1,640.8712 ft

Point 7	293.50966 ft	1,610.7729 ft
Point 8	241.01414 ft	1,580.2693 ft
Point 9	155.19882 ft	1,550.1983 ft
Point 10	545.89902 ft	1,550.1983 ft
Point 11	0.08941 ft	1,613.3118 ft
Point 12	0.08941 ft	1,549.8417 ft
Point 13	0.08941 ft	1,623.4345 ft
Point 14	254.88088 ft	1,625.8117 ft
Point 15	270.13429 ft	1,632.646 ft
Point 16	283.50579 ft	1,632.646 ft
Point 17	297.76873 ft	1,630.2688 ft
Point 18	314.60691 ft	1,630.2688 ft
Point 19	323.88442 ft	1,636.9381 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon A Seismic	1,2,3,4,5,6,7,8,9,10	34,122 ft²
Region 2	Alluvium	7,11,12,9,8	14,504 ft²
Region 3	Fill	11,13,14,15,16,17,18,19,6,7	4,265.9 ft²

Slip Results

Slip Surfaces Analysed: 1 of 1 converged

Current Slip Surface

Slip Surface: 1
Factor of Safety: 1.45
Volume: 2,643.0585 ft³
Weight: 330,018.86 lbf
Resisting Force: 217,160.92 lbf
Activating Force: 149,481.9 lbf
Slip Rank: 1 of 1 slip surfaces
Exit: (309.58881, 1,630.2688) ft
Entry: (467.50123, 1,695.7694) ft
Radius: 90.295989 ft
Center: (368.16821, 1,712.1446) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	312.09786 ft	1,629.2295 ft	0 psf	217.28122 psf	125.44737 psf	200 psf	0 psf	Fill
Slice 2	315.69537 ft	1,627.7394 ft	0 psf	543.57607 psf	313.83379 psf	200 psf	0 psf	Fill
Slice 3	320.33413 ft	1,625.8179 ft	0 psf	1,446.8839 psf	802.02087 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 4	324.079 ft	1,624.2668 ft	0 psf	2,065.4887 psf	1,144.9191 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 5	327.18639 ft	1,625.1592 ft	0 psf	1,329.5926 psf	737.00522 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 6	333.01202 ft	1,627.1053 ft	0 psf	1,334.7093 psf	739.84144 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 7	338.70245 ft	1,629.0062 ft	0 psf	1,356.7245 psf	752.04467 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 8	344.25767 ft	1,630.862 ft	0 psf	1,395.6382 psf	773.6149 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 9	349.65015 ft	1,632.6634 ft	0 psf	1,442.7129 psf	799.70881 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 10	354.87989 ft	1,634.4104 ft	0 psf	1,497.9485 psf	830.32641 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 11	360.10964 ft	1,636.1574 ft	0 psf	1,553.1841 psf	860.944 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 12	365.33938 ft	1,637.9045 ft	0 psf	1,608.4197 psf	891.5616 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 13	370.56912 ft	1,639.6515 ft	0 psf	1,663.6553 psf	922.1792 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 14	375.79886 ft	1,641.3985 ft	0 psf	1,718.8909 psf	952.79679 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 15	381.0286 ft	1,643.1456 ft	0 psf	1,774.1265 psf	983.41439 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 16	386.25835 ft	1,644.8926 ft	0 psf	1,829.3621 psf	1,014.032 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 17	391.48809 ft	1,646.6396 ft	0 psf	1,884.5977 psf	1,044.6496 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 18	396.6584 ft	1,648.3668 ft	0 psf	1,971.7648 psf	1,092.9671 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 19	401.76929 ft	1,650.0741 ft	0 psf	2,090.8632 psf	1,158.9844 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 20	406.88017 ft	1,651.7814 ft	0 psf	2,209.9617 psf	1,225.0018 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 21	411.99105 ft	1,653.4888 ft	0 psf	2,329.0601 psf	1,291.0191 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 22	417.10194 ft	1,655.1961 ft	0 psf	2,448.1586 psf	1,357.0365 psf	400.2 psf	0 psf	Mint Canyon A Seismic

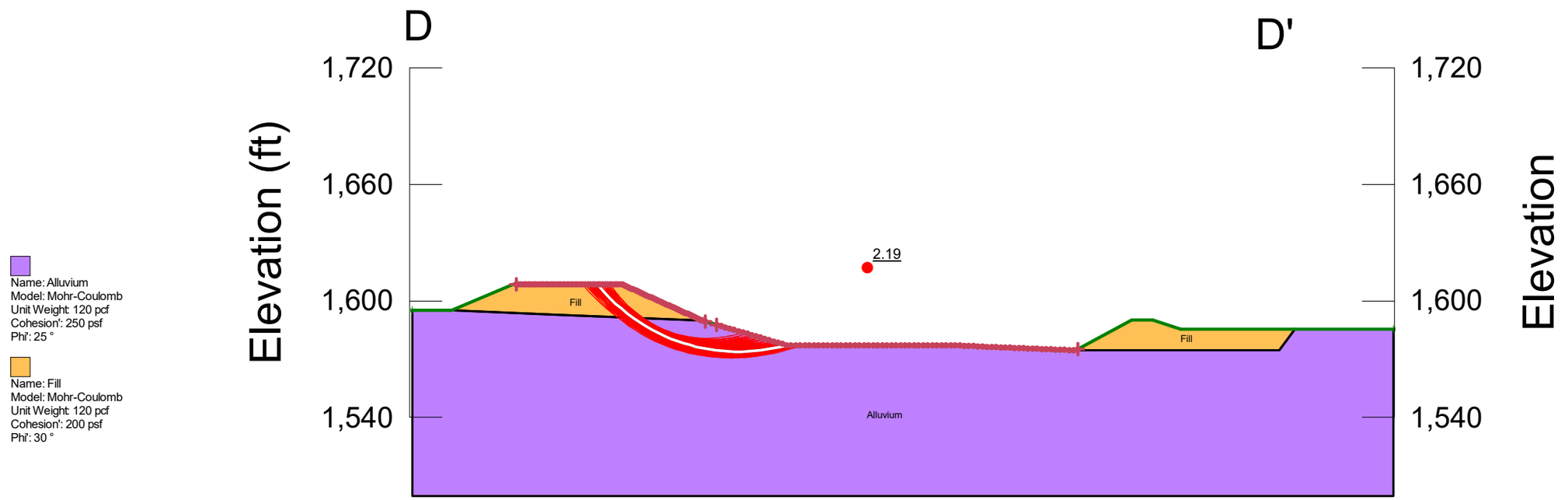
Slice 23	422.27219 ft	1,656.9232 ft	0 psf	2,561.8498 psf	1,420.0565 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 24	427.5018 ft	1,658.6702 ft	0 psf	2,670.1337 psf	1,480.0793 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 25	432.73142 ft	1,660.4172 ft	0 psf	2,778.4177 psf	1,540.1021 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 26	437.96103 ft	1,662.1642 ft	0 psf	2,886.7016 psf	1,600.1248 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 27	443.19065 ft	1,663.9112 ft	0 psf	2,994.9855 psf	1,660.1476 psf	400.2 psf	0 psf	Mint Canyon A Seismic
Slice 28	448.15322 ft	1,668.1376 ft	0 psf	1,732.275 psf	960.21574 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 29	453.33436 ft	1,675.5371 ft	0 psf	1,236.2704 psf	685.27587 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 30	459.00111 ft	1,683.63 ft	0 psf	589.28568 psf	326.64639 psf	600 psf	0 psf	Mint Canyon A Seismic
Slice 31	464.66786 ft	1,691.723 ft	0 psf	-57.699033 psf	-31.983096 psf	600 psf	0 psf	Mint Canyon A Seismic

Section D-D' SSA for Belcaro 10-18-24.gsz 10/19/2024 02:41:45 PM

Section D-D' SSA for Belcaro 10-18-24.gsz

1 - Rotational Static Global
Horz Seismic Coef.: 0

Method: Bishop



LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section D-D'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Static Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section D-D'
Last Edited By: Basil Hattar
Revision Number: 902
Date: 10/19/2024
Time: 02:41:45 PM
Tool Version: 10.1.1.18972
File Name: Section D-D' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 02:41:55 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Static Global

Kind: SLOPE/W
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Left to Right
- Use Passive Mode: No
- Slip Surface Option: Entry and Exit
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Slip Surface Entry and Exit

Left Type: Range
Left-Zone Left Coordinate: (55.02299, 1,608.5908) ft
Left-Zone Right Coordinate: (152.85857, 1,589.3535) ft
Left-Zone Increment: 80
Right Type: Range
Right-Zone Left Coordinate: (158.61775, 1,587.6769) ft
Right-Zone Right Coordinate: (345.42981, 1,574.9931) ft
Right-Zone Increment: 80
Radius Increments: 15

Slip Surface Limits

Left Coordinate: (1.30622, 1,595.0011) ft
Right Coordinate: (508.5569, 1,585.301) ft

Seismic Coefficients

Horz Seismic Coef.: 0
Vert Seismic Coef.: 0

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	1.30622 ft	1,595.0011 ft
Point 2	21.52855 ft	1,595.0011 ft
Point 3	151.40049 ft	1,589.778 ft

Point 4	195.35805 ft	1,576.9809 ft
Point 5	282.61948 ft	1,576.9809 ft
Point 6	344.42552 ft	1,574.4453 ft
Point 7	449.61466 ft	1,574.4453 ft
Point 8	457.63756 ft	1,585.301 ft
Point 9	508.5569 ft	1,585.301 ft
Point 10	508.5569 ft	1,499.2911 ft
Point 11	1.38295 ft	1,499.2911 ft
Point 12	53.41413 ft	1,608.5908 ft
Point 13	109.55304 ft	1,608.5908 ft
Point 14	73.7307 ft	1,592.9017 ft
Point 15	398.50581 ft	1,585.301 ft
Point 16	384.12402 ft	1,590.1345 ft
Point 17	373.18911 ft	1,590.1345 ft

Regions

	Material	Points	Area
Region 1	Alluvium	1,2,14,3,4,5,6,7,8,9,10,11	42,153 ft²
Region 2	Fill	2,12,13,3,14	1,493.8 ft²
Region 3	Fill	6,7,8,15,16,17	1,186.4 ft²

Slip Results

Slip Surfaces Analysed: 94212 of 104976 converged

Current Slip Surface

Slip Surface: 43,031
Factor of Safety: 2.19
Volume: 1,119.7561 ft³
Weight: 134,370.74 lbf
Resisting Moment: 8,432,325.8 lbf·ft
Activating Moment: 3,851,052.1 lbf·ft
Slip Rank: 1 of 104,976 slip surfaces
Exit: (194.82059, 1,577.1374) ft
Entry: (97.069267, 1,608.5908) ft
Radius: 93.593117 ft
Center: (169.91407, 1,667.3556) ft

Slip Slices

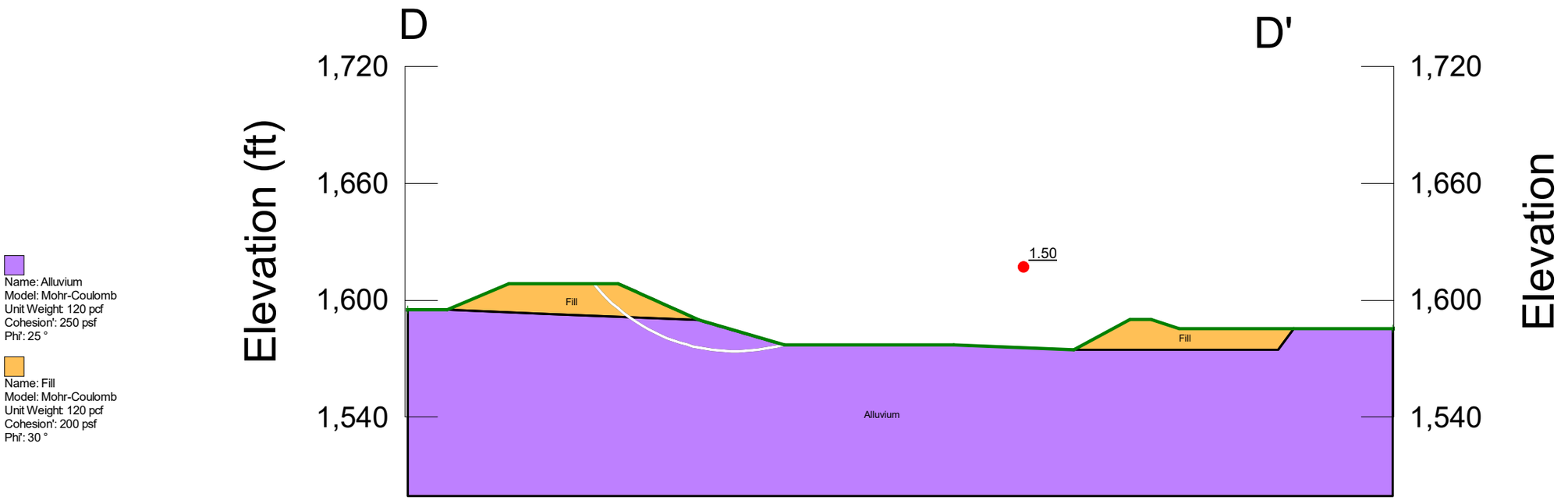
	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	98.629739 ft	1,606.7552 ft	0 psf	86.156809 psf	49.742657 psf	200 psf	0 psf	Fill
Slice 2	101.75068 ft	1,603.2601 ft	0 psf	423.793 psf	244.677 psf	200 psf	0 psf	Fill
Slice 3	104.87163 ft	1,600.0917 ft	0 psf	742.39357 psf	428.62113 psf	200 psf	0 psf	Fill
Slice 4	107.99257 ft	1,597.2053 ft	0 psf	1,043.0036 psf	602.17841 psf	200 psf	0 psf	Fill
Slice 5	111.03388 ft	1,594.629 ft	0 psf	1,254.0141 psf	724.00536 psf	200 psf	0 psf	Fill
Slice 6	113.99556 ft	1,592.3264 ft	0 psf	1,374.0918 psf	793.33226 psf	200 psf	0 psf	Fill
Slice 7	117.10931 ft	1,590.1066 ft	0 psf	1,512.3777 psf	705.23331 psf	250 psf	0 psf	Alluvium
Slice 8	120.37514 ft	1,587.9714 ft	0 psf	1,605.949 psf	748.86632 psf	250 psf	0 psf	Alluvium
Slice 9	123.64097 ft	1,586.0233 ft	0 psf	1,679.7228 psf	783.26761 psf	250 psf	0 psf	Alluvium
Slice 10	126.90679 ft	1,584.2493 ft	0 psf	1,734.6438 psf	808.8777 psf	250 psf	0 psf	Alluvium
Slice 11	130.17262 ft	1,582.6383 ft	0 psf	1,771.499 psf	826.06355 psf	250 psf	0 psf	Alluvium
Slice 12	133.43844 ft	1,581.1811 ft	0 psf	1,790.942 psf	835.12996 psf	250 psf	0 psf	Alluvium
Slice 13	136.70427 ft	1,579.87 ft	0 psf	1,793.5121 psf	836.32844 psf	250 psf	0 psf	Alluvium
Slice 14	139.9701 ft	1,578.6987 ft	0 psf	1,779.649 psf	829.86396 psf	250 psf	0 psf	Alluvium
Slice 15	143.23592 ft	1,577.6615 ft	0 psf	1,749.7037 psf	815.90022 psf	250 psf	0 psf	Alluvium
Slice 16	146.50175 ft	1,576.7538 ft	0 psf	1,703.9472 psf	794.56364 psf	250 psf	0 psf	Alluvium
Slice 17	149.76758 ft	1,575.9719 ft	0 psf	1,642.5771 psf	765.94629 psf	250 psf	0 psf	Alluvium
Slice 18	153.07049 ft	1,575.3063 ft	0 psf	1,595.2399 psf	743.87258 psf	250 psf	0 psf	Alluvium
Slice 19	156.4105 ft	1,574.7572 ft	0 psf	1,562.3312 psf	728.527 psf	250 psf	0 psf	Alluvium
Slice 20	159.75051 ft	1,574.3312 ft	0 psf	1,514.2243 psf	706.09437 psf	250 psf	0 psf	Alluvium
Slice 21	163.09052 ft	1,574.0266 ft	0 psf	1,450.8508 psf	676.54286 psf	250 psf	0 psf	Alluvium
Slice 22	166.43053 ft	1,573.8423 ft	0 psf	1,372.0786 psf	639.81076 psf	250 psf	0 psf	Alluvium
Slice 23	169.77053 ft	1,573.7775 ft	0 psf	1,277.7086 psf	595.80529 psf	250 psf	0 psf	Alluvium
Slice 24	173.11054 ft	1,573.832 ft	0 psf	1,167.4712 psf	544.40078 psf	250 psf	0 psf	Alluvium
Slice 25	176.45055 ft	1,574.0061 ft	0 psf	1,041.0208 psf	485.43599 psf	250 psf	0 psf	Alluvium
Slice 26	179.79056 ft	1,574.3002 ft	0 psf	897.92806 psf	418.71073 psf	250 psf	0 psf	Alluvium
Slice 27	183.13056 ft	1,574.7157 ft	0 psf	737.67019 psf	343.98126 psf	250 psf	0 psf	Alluvium
Slice 28	186.47057 ft	1,575.2542 ft	0 psf	559.61863 psf	260.95445 psf	250 psf	0 psf	Alluvium
Slice 29	189.81058 ft	1,575.9178 ft	0 psf	363.02293 psf	169.28037 psf	250 psf	0 psf	Alluvium
Slice 30	193.15059 ft	1,576.7093 ft	0 psf	146.99023 psf	68.542671 psf	250 psf	0 psf	Alluvium

Section D-D' SSA for Belcaro 10-18-24.gsz 10/19/2024 02:41:45 PM

Section D-D' SSA for Belcaro 10-18-24.gsz

1 - Rotational Pseudostatic Global
Horz Seismic Coef.: 0.15

Method: Bishop



LGC

LGC Valley, Inc

GEOTECHNICAL CONSULTING

28532 Constellation Road, Valencia, CA 91355

Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section D-D'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Pseudostatic Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section D-D'
Last Edited By: Basil Hattar
Revision Number: 902
Date: 10/19/2024
Time: 02:41:45 PM
Tool Version: 10.1.1.18972
File Name: Section D-D' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 02:42:05 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Pseudostatic Global

Kind: SLOPE/W
Parent: 1 - Rotational Static Global
Method: Bishop
Settings
PWP Conditions from: (none)
Unit Weight of Water: 62.4 pcf
Slip Surface
Direction of movement: Left to Right
Use Passive Mode: No
Slip Surface Option: Critical Slip Surfaces from Other
Critical slip surfaces saved: 1
Optimize Critical Slip Surface Location: No
Tension Crack Option: (none)
Distribution
F of S Calculation Option: Constant
Advanced
Geometry Settings
Minimum Slip Surface Depth: 0.1 ft
Number of Slices: 30
Factor of Safety Convergence Settings
Maximum Number of Iterations: 100
Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Reinforcements

8XT

Type: Geosynthetic
Interface Adhesion: 0 psf
Interface Shear Angle: 26.14 °
Surface Area Factor: 1
Pullout Resistance Reduction Factor: 1
Tensile Capacity: 4,055 lbf
Tensile Capacity Reduction Factor: 1
Force Orientation: 1
F of S Dependent: Yes
Force Distribution: Concentrated
Face Anchorage: Yes
Factored Tensile Capacity: 4,055 lbf/ft / F of S

Slip Surface Limits

Left Coordinate: (1.30622, 1,595.0011) ft
Right Coordinate: (508.5569, 1,585.301) ft

Seismic Coefficients

Horz Seismic Coef.: 0.15
Vert Seismic Coef.: 0

Reinforcement Lines

Reinforcement Line 1

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.7445, 395.6027) ft
Inside Point: (69.91565, 395.6027) ft
Length: 10.82885 ft

Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 2

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.33907, 397.659) ft
Inside Point: (69.36242, 397.659) ft
Length: 10.97665 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 3

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (79.59083, 400.8835) ft
Inside Point: (68.54036, 400.8835) ft
Length: 11.05047 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	1.30622 ft	1,595.0011 ft
Point 2	21.52855 ft	1,595.0011 ft
Point 3	151.40049 ft	1,589.778 ft
Point 4	195.35805 ft	1,576.9809 ft
Point 5	282.61948 ft	1,576.9809 ft
Point 6	344.42552 ft	1,574.4453 ft
Point 7	449.61466 ft	1,574.4453 ft
Point 8	457.63756 ft	1,585.301 ft
Point 9	508.5569 ft	1,585.301 ft
Point 10	508.5569 ft	1,499.2911 ft
Point 11	1.38295 ft	1,499.2911 ft
Point 12	53.41413 ft	1,608.5908 ft
Point 13	109.55304 ft	1,608.5908 ft
Point 14	73.7307 ft	1,592.9017 ft
Point 15	398.50581 ft	1,585.301 ft
Point 16	384.12402 ft	1,590.1345 ft
Point 17	373.18911 ft	1,590.1345 ft

Regions

	Material	Points	Area
Region 1	Alluvium	1,2,14,3,4,5,6,7,8,9,10,11	42,153 ft²
Region 2	Fill	2,12,13,3,14	1,493.8 ft²
Region 3	Fill	6,7,8,15,16,17	1,186.4 ft²

Slip Results

Slip Surfaces Analysed: 1 of 1 converged

Current Slip Surface

Slip Surface: 1
Factor of Safety: 1.50
Volume: 1,119.7561 ft³
Weight: 134,370.74 lbf
Resisting Moment: 8,170,163.7 lbf·ft
Activating Moment: 5,444,211.1 lbf·ft
Slip Rank: 1 of 1 slip surfaces
Exit: (194.82059, 1,577.1374) ft
Entry: (97.069267, 1,608.5908) ft
Radius: 93.593117 ft
Center: (169.91407, 1,667.3556) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	98.629739 ft	1,606.7552 ft	0 psf	44.517415 psf	25.702142 psf	200 psf	0 psf	Fill
Slice 2	101.75068 ft	1,603.2601 ft	0 psf	354.70894 psf	204.7913 psf	200 psf	0 psf	Fill
Slice 3	104.87163 ft	1,600.0917 ft	0 psf	651.20239 psf	375.97187 psf	200 psf	0 psf	Fill
Slice 4	107.99257 ft	1,597.2053 ft	0 psf	934.21883 psf	539.37149 psf	200 psf	0 psf	Fill
Slice 5	111.03388 ft	1,594.629 ft	0 psf	1,136.6317 psf	656.23463 psf	200 psf	0 psf	Fill
Slice 6	113.99556 ft	1,592.3264 ft	0 psf	1,255.705 psf	724.98162 psf	200 psf	0 psf	Fill

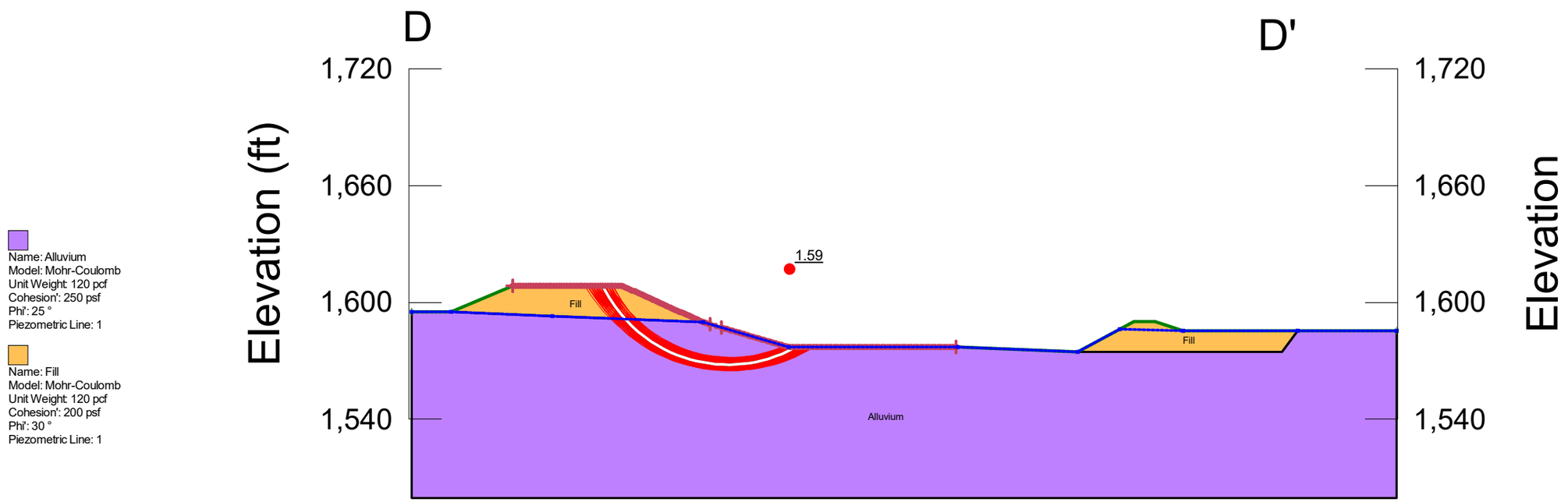
Slice 7	117.10931 ft	1,590.1066 ft	0 psf	1,401.5937 psf	653.57388 psf	250 psf	0 psf	Alluvium
Slice 8	120.37514 ft	1,587.9714 ft	0 psf	1,498.5631 psf	698.79143 psf	250 psf	0 psf	Alluvium
Slice 9	123.64097 ft	1,586.0233 ft	0 psf	1,576.9816 psf	735.35859 psf	250 psf	0 psf	Alluvium
Slice 10	126.90679 ft	1,584.2493 ft	0 psf	1,637.5647 psf	763.60896 psf	250 psf	0 psf	Alluvium
Slice 11	130.17262 ft	1,582.6383 ft	0 psf	1,680.9025 psf	783.8177 psf	250 psf	0 psf	Alluvium
Slice 12	133.43844 ft	1,581.1811 ft	0 psf	1,707.4763 psf	796.20925 psf	250 psf	0 psf	Alluvium
Slice 13	136.70427 ft	1,579.87 ft	0 psf	1,717.6713 psf	800.96328 psf	250 psf	0 psf	Alluvium
Slice 14	139.9701 ft	1,578.6987 ft	0 psf	1,711.7866 psf	798.2192 psf	250 psf	0 psf	Alluvium
Slice 15	143.23592 ft	1,577.6615 ft	0 psf	1,690.0422 psf	788.07962 psf	250 psf	0 psf	Alluvium
Slice 16	146.50175 ft	1,576.7538 ft	0 psf	1,652.5846 psf	770.61286 psf	250 psf	0 psf	Alluvium
Slice 17	149.76758 ft	1,575.9719 ft	0 psf	1,599.4904 psf	745.85464 psf	250 psf	0 psf	Alluvium
Slice 18	153.07049 ft	1,575.3063 ft	0 psf	1,559.8715 psf	727.38001 psf	250 psf	0 psf	Alluvium
Slice 19	156.4105 ft	1,574.7572 ft	0 psf	1,534.2749 psf	715.44415 psf	250 psf	0 psf	Alluvium
Slice 20	159.75051 ft	1,574.3312 ft	0 psf	1,493.4618 psf	696.41267 psf	250 psf	0 psf	Alluvium
Slice 21	163.09052 ft	1,574.0266 ft	0 psf	1,437.2395 psf	670.19577 psf	250 psf	0 psf	Alluvium
Slice 22	166.43053 ft	1,573.8423 ft	0 psf	1,365.3455 psf	636.67106 psf	250 psf	0 psf	Alluvium
Slice 23	169.77053 ft	1,573.7775 ft	0 psf	1,277.4421 psf	595.68106 psf	250 psf	0 psf	Alluvium
Slice 24	173.11054 ft	1,573.832 ft	0 psf	1,173.1093 psf	547.02985 psf	250 psf	0 psf	Alluvium
Slice 25	176.45055 ft	1,574.0061 ft	0 psf	1,051.8352 psf	490.47882 psf	250 psf	0 psf	Alluvium
Slice 26	179.79056 ft	1,574.3002 ft	0 psf	913.00459 psf	425.74103 psf	250 psf	0 psf	Alluvium
Slice 27	183.13056 ft	1,574.7157 ft	0 psf	755.88337 psf	352.4742 psf	250 psf	0 psf	Alluvium
Slice 28	186.47057 ft	1,575.2542 ft	0 psf	579.59945 psf	270.27166 psf	250 psf	0 psf	Alluvium
Slice 29	189.81058 ft	1,575.9178 ft	0 psf	383.11792 psf	178.65082 psf	250 psf	0 psf	Alluvium
Slice 30	193.15059 ft	1,576.7093 ft	0 psf	165.20925 psf	77.038339 psf	250 psf	0 psf	Alluvium

Section D-D' SSA for Belcaro 10-18-24.gsz 10/19/2024 02:41:45 PM

Section D-D' SSA for Belcaro 10-18-24.gsz

2 - Rotational Static Global Rapid Drawdown
Horz Seismic Coef.: 0

Method: Bishop



LGC

LGC Valley, Inc

GEOTECHNICAL CONSULTING

28532 Constellation Road, Valencia, CA 91355

Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section D-D'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

2 - Rotational Static Global Rapid Drawdown

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section D-D'
Last Edited By: Basil Hattar
Revision Number: 902
Date: 10/19/2024
Time: 02:41:45 PM
Tool Version: 10.1.1.18972
File Name: Section D-D' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 02:42:06 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

2 - Rotational Static Global Rapid Drawdown

Kind: SLOPE/W
Method: Bishop
Settings
PWP Conditions from: Piezometric Line
Apply Phreatic Correction: No
Use Staged Rapid Drawdown: No
Unit Weight of Water: 62.4 pcf
Slip Surface
Direction of movement: Left to Right
Use Passive Mode: No
Slip Surface Option: Entry and Exit
Critical slip surfaces saved: 1
Optimize Critical Slip Surface Location: No
Tension Crack Option: (none)
Distribution
F of S Calculation Option: Constant
Advanced
Geometry Settings
Minimum Slip Surface Depth: 0.1 ft
Number of Slices: 30
Factor of Safety Convergence Settings
Maximum Number of Iterations: 100
Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °
Pore Water Pressure
Piezometric Line: 1

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °
Pore Water Pressure
Piezometric Line: 1

Slip Surface Entry and Exit

Left Type: Range
Left-Zone Left Coordinate: (53.41413, 1,608.5908) ft
Left-Zone Right Coordinate: (155.06109, 1,588.7123) ft
Left-Zone Increment: 80
Right Type: Range
Right-Zone Left Coordinate: (160.97609, 1,586.9903) ft
Right-Zone Right Coordinate: (281.56402, 1,576.9809) ft
Right-Zone Increment: 80
Radius Increments: 15

Slip Surface Limits

Left Coordinate: (1.30622, 1,595.0011) ft
Right Coordinate: (508.5569, 1,585.301) ft

Piezometric Lines

Piezometric Line 1

Coordinates

	X	Y
Coordinate 1	1.30622 ft	1,595.0011 ft
Coordinate 2	21.52855 ft	1,595.0011 ft
Coordinate 3	73.7307 ft	1,592.9017 ft
Coordinate 4	151.40049 ft	1,589.778 ft
Coordinate 5	195.35805 ft	1,576.9809 ft
Coordinate 6	282.61948 ft	1,576.9809 ft
Coordinate 7	344.42552 ft	1,574.4453 ft

Coordinate 8	365.99407 ft	1,586.2099 ft
Coordinate 9	398.50581 ft	1,585.301 ft
Coordinate 10	457.63756 ft	1,585.301 ft
Coordinate 11	508.5569 ft	1,585.301 ft

Seismic Coefficients

Horz Seismic Coef.: 0
Vert Seismic Coef.: 0

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	1.30622 ft	1,595.0011 ft
Point 2	21.52855 ft	1,595.0011 ft
Point 3	151.40049 ft	1,589.778 ft
Point 4	195.35805 ft	1,576.9809 ft
Point 5	282.61948 ft	1,576.9809 ft
Point 6	344.42552 ft	1,574.4453 ft
Point 7	449.61466 ft	1,574.4453 ft
Point 8	457.63756 ft	1,585.301 ft
Point 9	508.5569 ft	1,585.301 ft
Point 10	508.5569 ft	1,499.2911 ft
Point 11	1.38295 ft	1,499.2911 ft
Point 12	53.41413 ft	1,608.5908 ft
Point 13	109.55304 ft	1,608.5908 ft
Point 14	73.7307 ft	1,592.9017 ft
Point 15	398.50581 ft	1,585.301 ft
Point 16	384.12402 ft	1,590.1345 ft
Point 17	373.18911 ft	1,590.1345 ft

Regions

	Material	Points	Area
Region 1	Alluvium	1,2,14,3,4,5,6,7,8,9,10,11	42,153 ft²
Region 2	Fill	2,12,13,3,14	1,493.8 ft²
Region 3	Fill	6,7,8,15,16,17	1,186.4 ft²

Slip Results

Slip Surfaces Analysed: 96131 of 104976 converged

Current Slip Surface

Slip Surface: 45,786
Factor of Safety: 1.59
Volume: 1,571.2487 ft³
Weight: 188,549.84 lbf
Resisting Moment: 6,014,774 lbf·ft
Activating Moment: 3,774,356.7 lbf·ft
Slip Rank: 1 of 104,976 slip surfaces
Exit: (199.2037, 1,576.9809) ft
Entry: (99.716148, 1,608.5908) ft
Radius: 71.728892 ft
Center: (164.35866, 1,639.6774) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	101.35563 ft	1,605.563 ft	-859.39118 psf	79.601875 psf	45.958164 psf	200 psf	0 psf	Fill
Slice 2	104.63459 ft	1,600.0634 ft	-524.44625 psf	540.86444 psf	312.26823 psf	200 psf	0 psf	Fill
Slice 3	107.91356 ft	1,595.497 ft	-247.73343 psf	966.38197 psf	557.94089 psf	200 psf	0 psf	Fill
Slice 4	110.43529 ft	1,592.3962 ft	-60.572098 psf	1,242.3126 psf	717.24952 psf	200 psf	0 psf	Fill
Slice 5	112.98766 ft	1,589.6742 ft	102.87508 psf	1,504.7643 psf	653.71168 psf	250 psf	0 psf	Alluvium
Slice 6	116.32791 ft	1,586.4513 ft	295.60209 psf	1,764.2992 psf	684.86473 psf	250 psf	0 psf	Alluvium
Slice 7	119.66815 ft	1,583.6129 ft	464.33577 psf	1,976.1666 psf	704.97831 psf	250 psf	0 psf	Alluvium
Slice 8	123.0084 ft	1,581.1026 ft	612.59612 psf	2,146.9676 psf	715.48915 psf	250 psf	0 psf	Alluvium
Slice 9	126.34864 ft	1,578.8795 ft	742.93755 psf	2,281.489 psf	717.43832 psf	250 psf	0 psf	Alluvium
Slice 10	129.68889 ft	1,576.9128 ft	857.27544 psf	2,383.3069 psf	711.60016 psf	250 psf	0 psf	Alluvium
Slice 11	133.02914 ft	1,575.179 ft	957.081 psf	2,455.1477 psf	698.55995 psf	250 psf	0 psf	Alluvium
Slice 12	136.36938 ft	1,573.6597 ft	1,043.5041 psf	2,499.1158 psf	678.76288 psf	250 psf	0 psf	Alluvium
Slice 13	139.70963 ft	1,572.3403 ft	1,117.4539 psf	2,516.8436 psf	652.54616 psf	250 psf	0 psf	Alluvium
Slice 14	143.04987 ft	1,571.2091 ft	1,179.6539 psf	2,509.5926 psf	620.1606 psf	250 psf	0 psf	Alluvium
Slice 15	146.39012 ft	1,570.2571 ft	1,230.6802 psf	2,478.3225 psf	581.78514 psf	250 psf	0 psf	Alluvium
Slice 16	149.73037 ft	1,569.4768 ft	1,270.9887 psf	2,423.7397 psf	537.53659 psf	250 psf	0 psf	Alluvium
Slice 17	153.09117 ft	1,568.8597 ft	1,274.586 psf	2,375.2714 psf	513.25802 psf	250 psf	0 psf	Alluvium
Slice 18	156.47252 ft	1,568.4037 ft	1,241.6182 psf	2,335.2043 psf	509.9476 psf	250 psf	0 psf	Alluvium

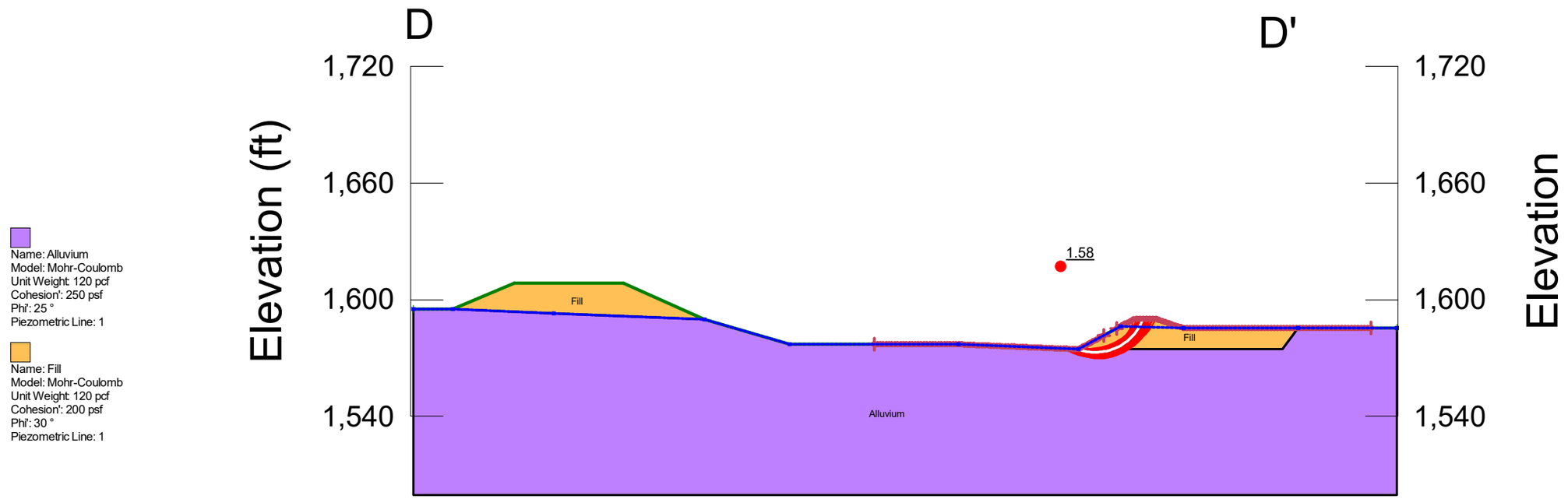
Slice 19	159.85387 ft	1,568.1102 ft	1,198.5056 psf	2,275.2477 psf	502.09309 psf	250 psf	0 psf	Alluvium
Slice 20	163.23522 ft	1,567.9773 ft	1,145.3731 psf	2,195.4016 psf	489.63632 psf	250 psf	0 psf	Alluvium
Slice 21	166.61657 ft	1,568.0041 ft	1,082.2765 psf	2,095.518 psf	472.48225 psf	250 psf	0 psf	Alluvium
Slice 22	169.99792 ft	1,568.1907 ft	1,009.2047 psf	1,975.2953 psf	450.49541 psf	250 psf	0 psf	Alluvium
Slice 23	173.37927 ft	1,568.5384 ft	926.07895 psf	1,834.2659 psf	423.49454 psf	250 psf	0 psf	Alluvium
Slice 24	176.76062 ft	1,569.0497 ft	832.75036 psf	1,671.7777 psf	391.24485 psf	250 psf	0 psf	Alluvium
Slice 25	180.14197 ft	1,569.7281 ft	728.99471 psf	1,486.9648 psf	353.44726 psf	250 psf	0 psf	Alluvium
Slice 26	183.52332 ft	1,570.5785 ft	614.50414 psf	1,278.7078 psf	309.72325 psf	250 psf	0 psf	Alluvium
Slice 27	186.90467 ft	1,571.6073 ft	488.87522 psf	1,045.5755 psf	259.59362 psf	250 psf	0 psf	Alluvium
Slice 28	190.28602 ft	1,572.823 ft	351.59222 psf	785.74304 psf	202.44785 psf	250 psf	0 psf	Alluvium
Slice 29	193.66737 ft	1,574.2359 ft	202.00358 psf	496.87223 psf	137.49951 psf	250 psf	0 psf	Alluvium
Slice 30	197.28088 ft	1,575.987 ft	62.021032 psf	224.44729 psf	75.740606 psf	250 psf	0 psf	Alluvium

Section D-D' SSA for Belcaro 10-18-24.gsz 10/19/2024 02:59:19 PM

Section D-D' SSA for Belcaro 10-18-24.gsz

3 - Rotational Static Global Rapid Drawdown (2)
Horz Seismic Coef.: 0

Method: Bishop



LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section D-D'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

3 - Rotational Static Global Rapid Drawdown (2)

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section D-D'
Last Edited By: Basil Hattar
Revision Number: 903
Date: 10/19/2024
Time: 02:59:19 PM
Tool Version: 10.1.1.18972
File Name: Section D-D' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 02:59:32 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

3 - Rotational Static Global Rapid Drawdown (2)

Kind: SLOPE/W
Method: Bishop
Settings
PWP Conditions from: Piezometric Line
Apply Phreatic Correction: No
Use Staged Rapid Drawdown: No
Unit Weight of Water: 62.4 pcf
Slip Surface
Direction of movement: Right to Left
Use Passive Mode: No
Slip Surface Option: Entry and Exit
Critical slip surfaces saved: 1
Optimize Critical Slip Surface Location: No
Tension Crack Option: (none)
Distribution
F of S Calculation Option: Constant
Advanced
Geometry Settings
Minimum Slip Surface Depth: 0.1 ft
Number of Slices: 30
Factor of Safety Convergence Settings
Maximum Number of Iterations: 100
Tolerable difference in F of S: 0.01

Materials

Fill

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 200 psf
Phi': 30 °
Phi-B: 0 °
Pore Water Pressure
Piezometric Line: 1

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °
Pore Water Pressure
Piezometric Line: 1

Slip Surface Entry and Exit

Left Type: Range
Left-Zone Left Coordinate: (239.123, 1,576.9809) ft
Left-Zone Right Coordinate: (357.43577, 1,581.5418) ft
Left-Zone Increment: 80
Right Type: Range
Right-Zone Left Coordinate: (363.98378, 1,585.1134) ft
Right-Zone Right Coordinate: (495.24787, 1,585.301) ft
Right-Zone Increment: 80
Radius Increments: 15

Slip Surface Limits

Left Coordinate: (1.30622, 1,595.0011) ft
Right Coordinate: (508.5569, 1,585.301) ft

Piezometric Lines

Piezometric Line 1

Coordinates

	X	Y
Coordinate 1	1.30622 ft	1,595.0011 ft
Coordinate 2	21.52855 ft	1,595.0011 ft
Coordinate 3	73.7307 ft	1,592.9017 ft
Coordinate 4	151.40049 ft	1,589.778 ft
Coordinate 5	195.35805 ft	1,576.9809 ft
Coordinate 6	282.61948 ft	1,576.9809 ft
Coordinate 7	344.42552 ft	1,574.4453 ft

Coordinate 8	365.99407 ft	1,586.2099 ft
Coordinate 9	398.50581 ft	1,585.301 ft
Coordinate 10	457.63756 ft	1,585.301 ft
Coordinate 11	508.5569 ft	1,585.301 ft

Seismic Coefficients

Horz Seismic Coef.: 0
Vert Seismic Coef.: 0

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	1.30622 ft	1,595.0011 ft
Point 2	21.52855 ft	1,595.0011 ft
Point 3	151.40049 ft	1,589.778 ft
Point 4	195.35805 ft	1,576.9809 ft
Point 5	282.61948 ft	1,576.9809 ft
Point 6	344.42552 ft	1,574.4453 ft
Point 7	449.61466 ft	1,574.4453 ft
Point 8	457.63756 ft	1,585.301 ft
Point 9	508.5569 ft	1,585.301 ft
Point 10	508.5569 ft	1,499.2911 ft
Point 11	1.38295 ft	1,499.2911 ft
Point 12	53.41413 ft	1,608.5908 ft
Point 13	109.55304 ft	1,608.5908 ft
Point 14	73.7307 ft	1,592.9017 ft
Point 15	398.50581 ft	1,585.301 ft
Point 16	384.12402 ft	1,590.1345 ft
Point 17	373.18911 ft	1,590.1345 ft

Regions

	Material	Points	Area
Region 1	Alluvium	1,2,14,3,4,5,6,7,8,9,10,11	42,153 ft²
Region 2	Fill	2,12,13,3,14	1,493.8 ft²
Region 3	Fill	6,7,8,15,16,17	1,186.4 ft²

Slip Results

Slip Surfaces Analysed: 84656 of 104976 converged

Current Slip Surface

Slip Surface: 90,875
Factor of Safety: 1.58
Volume: 227.97182 ft³
Weight: 27,356.619 lbf
Resisting Moment: 418,437.95 lbf·ft
Activating Moment: 264,284.37 lbf·ft
Slip Rank: 1 of 104,976 slip surfaces
Exit: (344.22371, 1,574.4536) ft
Entry: (377.70362, 1,590.1345) ft
Radius: 26.181706 ft
Center: (353.09933, 1,599.085) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	344.32461 ft	1,574.4177 ft	1.9815203 psf	66.622853 psf	30.142748 psf	250 psf	0 psf	Alluvium
Slice 2	344.97322 ft	1,574.2029 ft	33.766229 psf	125.17144 psf	42.622948 psf	250 psf	0 psf	Alluvium
Slice 3	346.06862 ft	1,573.8713 ft	91.741023 psf	231.84788 psf	65.332898 psf	250 psf	0 psf	Alluvium
Slice 4	347.16402 ft	1,573.5911 ft	146.51101 psf	331.06734 psf	86.060032 psf	250 psf	0 psf	Alluvium
Slice 5	348.25942 ft	1,573.3605 ft	198.18114 psf	423.20949 psf	104.93244 psf	250 psf	0 psf	Alluvium
Slice 6	349.35483 ft	1,573.1783 ft	246.83436 psf	508.57798 psf	122.05306 psf	250 psf	0 psf	Alluvium
Slice 7	350.45023 ft	1,573.0434 ft	292.5341 psf	587.41324 psf	137.5044 psf	250 psf	0 psf	Alluvium
Slice 8	351.54563 ft	1,572.9552 ft	335.32619 psf	659.90179 psf	151.35209 psf	250 psf	0 psf	Alluvium
Slice 9	352.64103 ft	1,572.913 ft	375.2401 psf	726.183 psf	163.64736 psf	250 psf	0 psf	Alluvium
Slice 10	353.73643 ft	1,572.9167 ft	412.28977 psf	786.35386 psf	174.42895 psf	250 psf	0 psf	Alluvium
Slice 11	354.83183 ft	1,572.9664 ft	446.47396 psf	840.47219 psf	183.72439 psf	250 psf	0 psf	Alluvium
Slice 12	355.92723 ft	1,573.0623 ft	477.77625 psf	888.55858 psf	191.55095 psf	250 psf	0 psf	Alluvium
Slice 13	357.02264 ft	1,573.2048 ft	506.16455 psf	930.59705 psf	197.91613 psf	250 psf	0 psf	Alluvium
Slice 14	358.11804 ft	1,573.3948 ft	531.59026 psf	966.53468 psf	202.81792 psf	250 psf	0 psf	Alluvium
Slice 15	359.21344 ft	1,573.6334 ft	553.9869 psf	996.28002 psf	206.24467 psf	250 psf	0 psf	Alluvium
Slice 16	360.30884 ft	1,573.9219 ft	573.26814 psf	1,019.7003 psf	208.17472 psf	250 psf	0 psf	Alluvium
Slice 17	361.40424 ft	1,574.2621 ft	589.32513 psf	1,036.617 psf	208.5756 psf	250 psf	0 psf	Alluvium
Slice 18	362.45721 ft	1,574.6387 ft	601.66082 psf	1,046.7821 psf	256.99091 psf	200 psf	0 psf	Fill

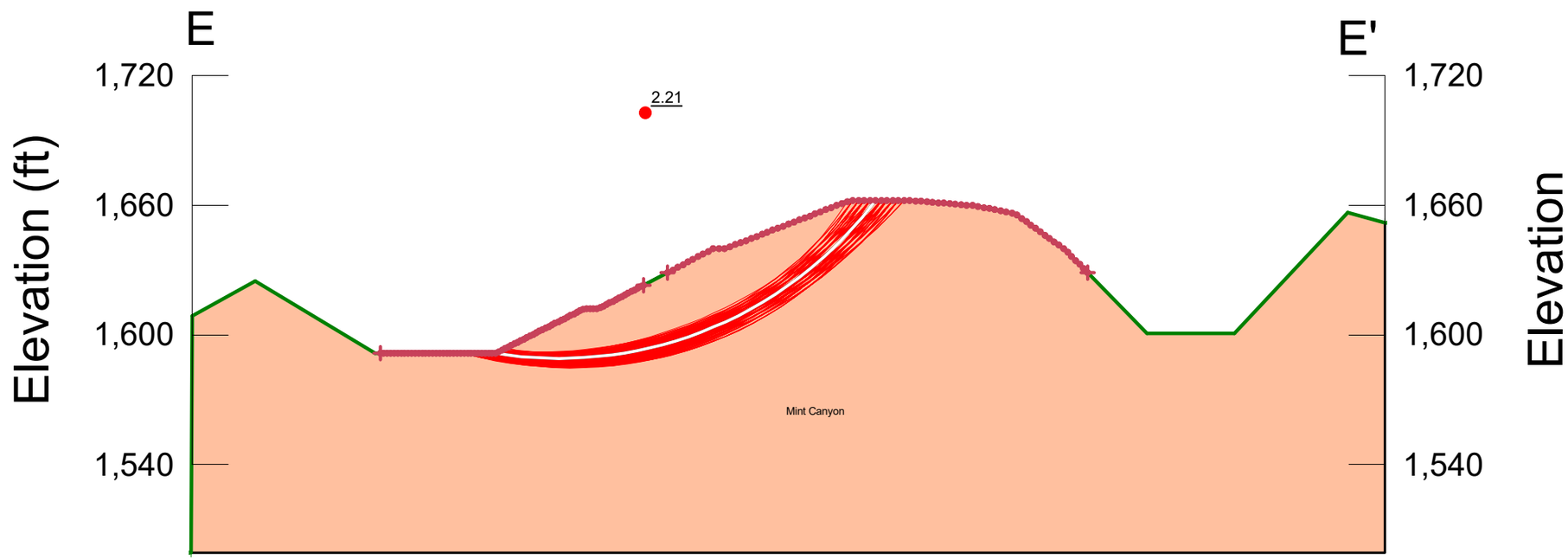
Slice 19	363.46774 ft	1,575.0501 ft	610.38538 psf	1,050.369 psf	254.02465 psf	200 psf	0 psf	Fill
Slice 20	364.47827 ft	1,575.512 ft	615.9597 psf	1,047.828 psf	249.33927 psf	200 psf	0 psf	Fill
Slice 21	365.4888 ft	1,576.0273 ft	618.194 psf	1,038.8491 psf	242.86531 psf	200 psf	0 psf	Fill
Slice 22	366.59366 ft	1,576.6596 ft	594.89039 psf	1,016.9928 psf	243.70096 psf	200 psf	0 psf	Fill
Slice 23	367.79283 ft	1,577.4272 ft	544.90134 psf	978.97027 psf	250.60981 psf	200 psf	0 psf	Fill
Slice 24	368.992 ft	1,578.2923 ft	488.82892 psf	927.87189 psf	253.48158 psf	200 psf	0 psf	Fill
Slice 25	370.19118 ft	1,579.2677 ft	425.87108 psf	862.13564 psf	251.87746 psf	200 psf	0 psf	Fill
Slice 26	371.39035 ft	1,580.3709 ft	354.94206 psf	779.63271 psf	245.19526 psf	200 psf	0 psf	Fill
Slice 27	372.58952 ft	1,581.6263 ft	274.51407 psf	677.3576 psf	232.58182 psf	200 psf	0 psf	Fill
Slice 28	373.82697 ft	1,583.124 ft	178.89892 psf	517.52593 psf	195.50639 psf	200 psf	0 psf	Fill
Slice 29	375.10268 ft	1,584.9449 ft	63.048715 psf	295.15567 psf	134.00701 psf	200 psf	0 psf	Fill
Slice 30	376.2313 ft	1,586.8666 ft	-58.83395 psf	90.879904 psf	52.469537 psf	200 psf	0 psf	Fill
Slice 31	377.21285 ft	1,588.9651 ft	-191.49487 psf	-85.720285 psf	-49.49063 psf	200 psf	0 psf	Fill

Section E-E' SSA for Belcaro 10-18-24.gsz 10/19/2024 03:26:52 PM

Section E-E' SSA for Belcaro 10-18-24.gsz

1 - Rotational Static Global
Horz Seismic Coef.: 0

Method: Bishop



Name: Mint Canyon
Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °

LGC	**LGC Valley, Inc** *GEOTECHNICAL CONSULTING* 28532 Constellation Road, Valencia, CA 91355 Phone: 661-702-8474 / Fax: 661-702-8475	**Cross Section E-E'** **VTTM 084497 NUWI / Belcaro**

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Static Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section E-E'
Last Edited By: Basil Hattar
Revision Number: 893
Date: 10/19/2024
Time: 03:26:52 PM
Tool Version: 10.1.1.18972
File Name: Section E-E' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 03:27:27 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Static Global

Kind: SLOPE/W
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Entry and Exit
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Mint Canyon

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-B: 0 °

Slip Surface Entry and Exit

Left Type: Range
Left-Zone Left Coordinate: (87.2616, 1,591.4753) ft
Left-Zone Right Coordinate: (209.66549, 1,623.0583) ft
Left-Zone Increment: 80
Right Type: Range
Right-Zone Left Coordinate: (220.75597, 1,628.8372) ft
Right-Zone Right Coordinate: (415.90326, 1,628.7885) ft
Right-Zone Increment: 80
Radius Increments: 15

Slip Surface Limits

Left Coordinate: (-0.55433, 1,499.0514) ft
Right Coordinate: (553.98071, 1,651.9604) ft

Seismic Coefficients

Horz Seismic Coef.: 0
Vert Seismic Coef.: 0

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	0.01391 ft	1,608.7619 ft
Point 2	29.28145 ft	1,625.0217 ft
Point 3	84.90689 ft	1,591.4753 ft
Point 4	140.87464 ft	1,591.4753 ft
Point 5	182.12305 ft	1,612.185 ft
Point 6	188.7981 ft	1,612.185 ft
Point 7	242.2841 ft	1,640.0548 ft
Point 8	247.70402 ft	1,640.0548 ft
Point 9	305.18364 ft	1,662.1624 ft
Point 10	334.70791 ft	1,662.1624 ft

Point 11	363.70921 ft	1,659.7852 ft
Point 12	382.25103 ft	1,656.1006 ft
Point 13	405.42829 ft	1,639.4605 ft
Point 14	443.34393 ft	1,600.8317 ft
Point 15	484.00205 ft	1,600.8317 ft
Point 16	536.65004 ft	1,656.789 ft
Point 17	553.98071 ft	1,651.9604 ft
Point 18	553.98071 ft	1,499.0514 ft
Point 19	-0.55433 ft	1,499.0514 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19	70,180 ft²

Slip Results

Slip Surfaces Analysed: 103701 of 104976 converged

Current Slip Surface

Slip Surface: 43,399
Factor of Safety: 2.21
Volume: 4,124.4735 ft³
Weight: 515,559.19 lbf
Resisting Moment: 73,141,230 lbf·ft
Activating Moment: 33,128,453 lbf·ft
Slip Rank: 1 of 104,976 slip surfaces
Exit: (140.87569, 1,591.4758) ft
Entry: (317.3966, 1,662.1624) ft
Radius: 184.51339 ft
Center: (170.35086, 1,773.6197) ft

Slip Slices

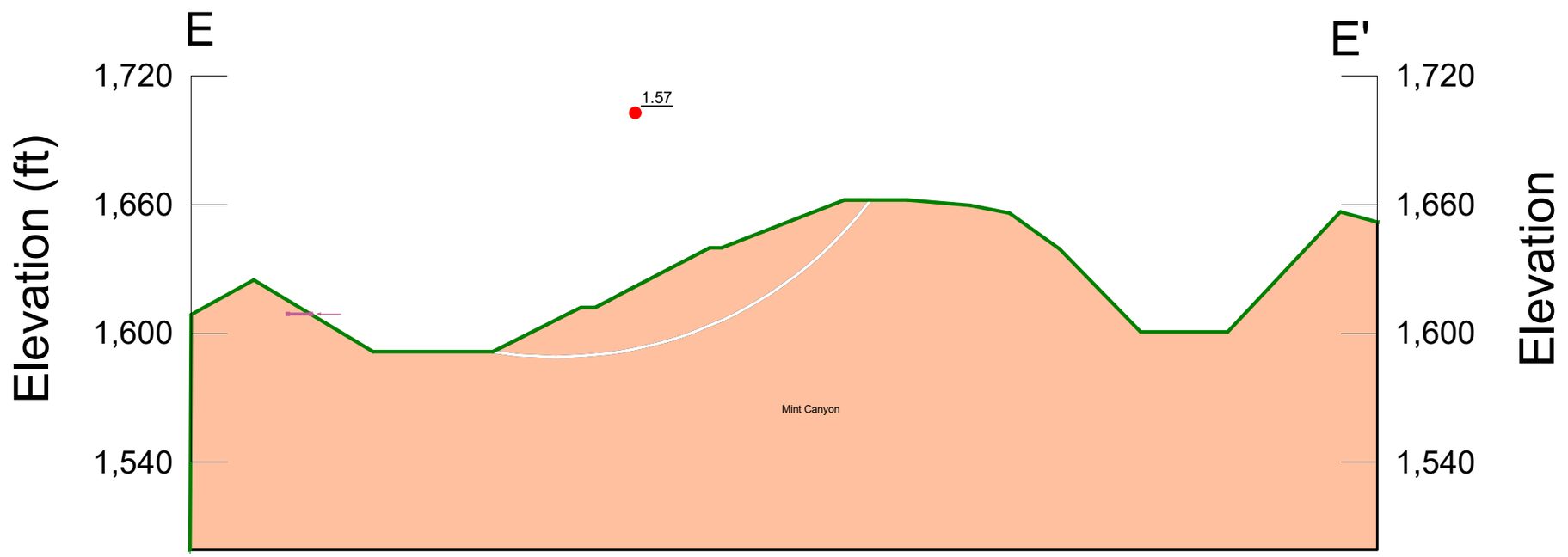
	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	143.82193 ft	1,591.0477 ft	0 psf	288.39275 psf	159.85871 psf	600 psf	0 psf	Mint Canyon
Slice 2	149.71441 ft	1,590.288 ft	0 psf	755.08651 psf	418.55129 psf	600 psf	0 psf	Mint Canyon
Slice 3	155.60689 ft	1,589.7201 ft	0 psf	1,189.6842 psf	659.45274 psf	600 psf	0 psf	Mint Canyon
Slice 4	161.49937 ft	1,589.3424 ft	0 psf	1,593.2485 psf	883.15207 psf	600 psf	0 psf	Mint Canyon
Slice 5	167.39185 ft	1,589.1536 ft	0 psf	1,966.6782 psf	1,090.1475 psf	600 psf	0 psf	Mint Canyon
Slice 6	173.28433 ft	1,589.1532 ft	0 psf	2,310.7261 psf	1,280.8564 psf	600 psf	0 psf	Mint Canyon
Slice 7	179.17681 ft	1,589.3412 ft	0 psf	2,626.0131 psf	1,455.6228 psf	600 psf	0 psf	Mint Canyon
Slice 8	185.46058 ft	1,589.7566 ft	0 psf	2,725.0519 psf	1,510.5209 psf	600 psf	0 psf	Mint Canyon
Slice 9	191.76954 ft	1,590.3782 ft	0 psf	2,805.3799 psf	1,555.0475 psf	600 psf	0 psf	Mint Canyon
Slice 10	197.71243 ft	1,591.1711 ft	0 psf	3,051.8014 psf	1,691.6412 psf	600 psf	0 psf	Mint Canyon
Slice 11	203.65532 ft	1,592.1621 ft	0 psf	3,270.1325 psf	1,812.6641 psf	600 psf	0 psf	Mint Canyon
Slice 12	209.59821 ft	1,593.3544 ft	0 psf	3,460.4498 psf	1,918.1586 psf	600 psf	0 psf	Mint Canyon
Slice 13	215.5411 ft	1,594.7521 ft	0 psf	3,622.7268 psf	2,008.1103 psf	600 psf	0 psf	Mint Canyon
Slice 14	221.48399 ft	1,596.36 ft	0 psf	3,756.833 psf	2,082.4465 psf	600 psf	0 psf	Mint Canyon
Slice 15	227.42688 ft	1,598.1838 ft	0 psf	3,862.5302 psf	2,141.0354 psf	600 psf	0 psf	Mint Canyon
Slice 16	233.36977 ft	1,600.2305 ft	0 psf	3,939.468 psf	2,183.6828 psf	600 psf	0 psf	Mint Canyon
Slice 17	239.31266 ft	1,602.5081 ft	0 psf	3,987.1764 psf	2,210.1279 psf	600 psf	0 psf	Mint Canyon
Slice 18	244.99406 ft	1,604.9046 ft	0 psf	3,846.6399 psf	2,132.2273 psf	600 psf	0 psf	Mint Canyon
Slice 19	250.578 ft	1,607.4914 ft	0 psf	3,636.7938 psf	2,015.9077 psf	600 psf	0 psf	Mint Canyon
Slice 20	256.32596 ft	1,610.3931 ft	0 psf	3,514.7008 psf	1,948.2304 psf	600 psf	0 psf	Mint Canyon
Slice 21	262.07392 ft	1,613.5538 ft	0 psf	3,364.1861 psf	1,864.7988 psf	600 psf	0 psf	Mint Canyon
Slice 22	267.82189 ft	1,616.9892 ft	0 psf	3,184.2429 psf	1,765.0547 psf	600 psf	0 psf	Mint Canyon
Slice 23	273.56985 ft	1,620.7178 ft	0 psf	2,973.6873 psf	1,648.3418 psf	600 psf	0 psf	Mint Canyon
Slice 24	279.31781 ft	1,624.7617 ft	0 psf	2,731.1295 psf	1,513.8898 psf	600 psf	0 psf	Mint Canyon
Slice 25	285.06577 ft	1,629.1476 ft	0 psf	2,454.9381 psf	1,360.7944 psf	600 psf	0 psf	Mint Canyon
Slice 26	290.81374 ft	1,633.9076 ft	0 psf	2,143.195 psf	1,187.9924 psf	600 psf	0 psf	Mint Canyon
Slice 27	296.5617 ft	1,639.0817 ft	0 psf	1,793.6387 psf	994.23017 psf	600 psf	0 psf	Mint Canyon
Slice 28	302.30966 ft	1,644.72 ft	0 psf	1,403.5938 psf	778.02476 psf	600 psf	0 psf	Mint Canyon
Slice 29	308.23688 ft	1,651.0983 ft	0 psf	840.15401 psf	465.70497 psf	600 psf	0 psf	Mint Canyon
Slice 30	314.34336 ft	1,658.3484 ft	0 psf	104.69302 psf	58.032291 psf	600 psf	0 psf	Mint Canyon

Section E-E' SSA for Belcaro 10-18-24.gsz 10/19/2024 03:26:52 PM

Section E-E' SSA for Belcaro 10-18-24.gsz

1 - Rotational Pseudostatic Global
Horz Seismic Coef.: 0.15

Method: Bishop



Name: Mint Canyon
Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section E-E'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Pseudostatic Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section E-E'
Last Edited By: Basil Hattar
Revision Number: 893
Date: 10/19/2024
Time: 03:26:52 PM
Tool Version: 10.1.1.18972
File Name: Section E-E' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 03:27:27 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Pseudostatic Global

Kind: SLOPE/W
Parent: 1 - Rotational Static Global
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Critical Slip Surfaces from Other
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Mint Canyon

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-B: 0 °

Reinforcements

8XT

Type: Geosynthetic
Interface Adhesion: 0 psf
Interface Shear Angle: 26.14 °
Surface Area Factor: 1
Pullout Resistance Reduction Factor: 1
Tensile Capacity: 4,055 lbf
Tensile Capacity Reduction Factor: 1
Force Orientation: 1
F of S Dependent: Yes
Force Distribution: Concentrated
Face Anchorage: Yes
Factored Tensile Capacity: 4,055 lbf/ft / F of S

Slip Surface Limits

Left Coordinate: (-0.55433, 1,499.0514) ft
Right Coordinate: (553.98071, 1,651.9604) ft

Seismic Coefficients

Horz Seismic Coef.: 0.15
Vert Seismic Coef.: 0

Reinforcement Lines

Reinforcement Line 1

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.7445, 395.6027) ft
Inside Point: (69.91565, 395.6027) ft
Length: 10.82885 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 2

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.33907, 397.659) ft
Inside Point: (69.36242, 397.659) ft
Length: 10.97665 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 3

Reinforcement: 8XT
Lock to Ground Surface: Yes
Outside Point: (55.963183, 1,608.9306) ft
Inside Point: (44.948993, 1,608.9306) ft
Length: 11.01419 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 4

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (79.59083, 400.8835) ft
Inside Point: (68.54036, 400.8835) ft
Length: 11.05047 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	0.01391 ft	1,608.7619 ft
Point 2	29.28145 ft	1,625.0217 ft
Point 3	84.90689 ft	1,591.4753 ft
Point 4	140.87464 ft	1,591.4753 ft
Point 5	182.12305 ft	1,612.185 ft
Point 6	188.7981 ft	1,612.185 ft
Point 7	242.2841 ft	1,640.0548 ft
Point 8	247.70402 ft	1,640.0548 ft
Point 9	305.18364 ft	1,662.1624 ft
Point 10	334.70791 ft	1,662.1624 ft
Point 11	363.70921 ft	1,659.7852 ft
Point 12	382.25103 ft	1,656.1006 ft
Point 13	405.42829 ft	1,639.4605 ft
Point 14	443.34393 ft	1,600.8317 ft
Point 15	484.00205 ft	1,600.8317 ft
Point 16	536.65004 ft	1,656.789 ft
Point 17	553.98071 ft	1,651.9604 ft
Point 18	553.98071 ft	1,499.0514 ft
Point 19	-0.55433 ft	1,499.0514 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19	70,180 ft²

Slip Results

Slip Surfaces Analysed: 1 of 1 converged

Current Slip Surface

Slip Surface: 1
Factor of Safety: 1.57
Volume: 4,124.4735 ft³
Weight: 515,559.19 lbf
Resisting Moment: 70,583,219 lbf·ft
Activating Moment: 45,003,263 lbf·ft
Slip Rank: 1 of 1 slip surfaces
Exit: (140.87569, 1,591.4758) ft
Entry: (317.3966, 1,662.1624) ft
Radius: 184.51339 ft
Center: (170.35086, 1,773.6197) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	143.82193 ft	1,591.0477 ft	0 psf	309.83905 psf	171.74659 psf	600 psf	0 psf	Mint Canyon
Slice 2	149.71441 ft	1,590.288 ft	0 psf	777.08811 psf	430.74698 psf	600 psf	0 psf	Mint Canyon
Slice 3	155.60689 ft	1,589.7201 ft	0 psf	1,208.8333 psf	670.06726 psf	600 psf	0 psf	Mint Canyon

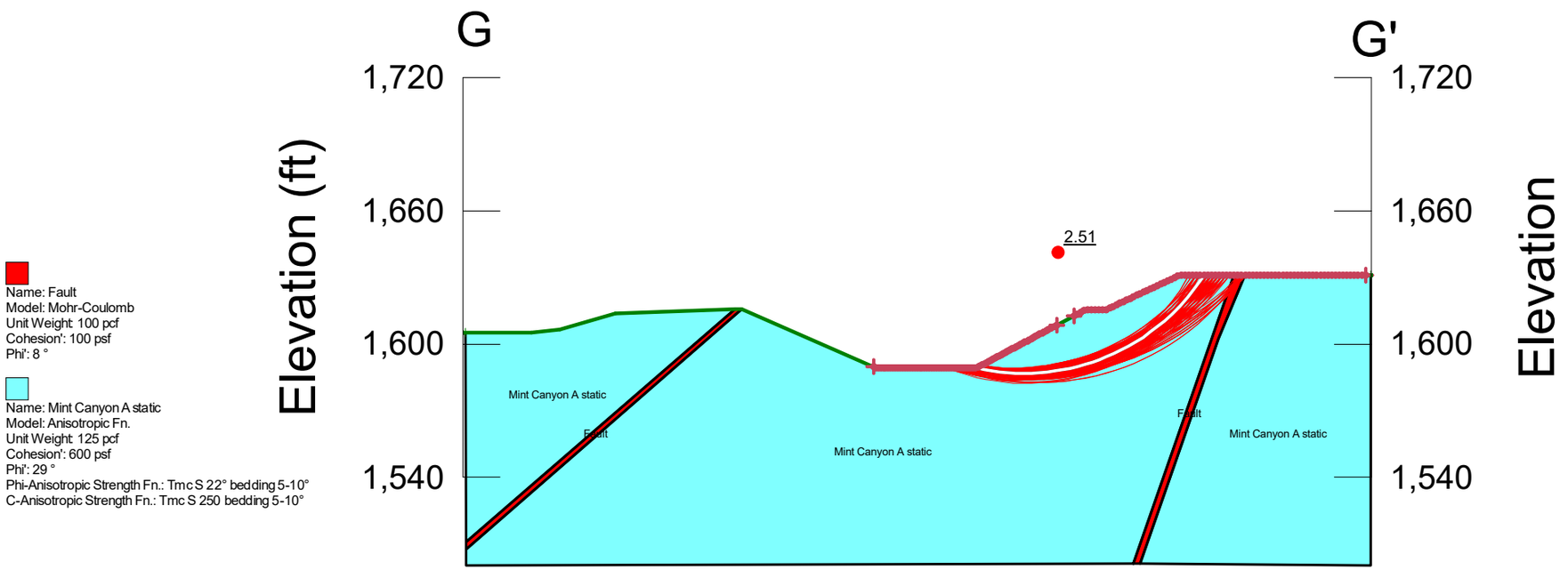
Slice 4	161.49937 ft	1,589.3424 ft	0 psf	1,606.6028 psf	890.55448 psf	600 psf	0 psf	Mint Canyon
Slice 5	167.39185 ft	1,589.1536 ft	0 psf	1,971.7026 psf	1,092.9326 psf	600 psf	0 psf	Mint Canyon
Slice 6	173.28433 ft	1,589.1532 ft	0 psf	2,305.2452 psf	1,277.8183 psf	600 psf	0 psf	Mint Canyon
Slice 7	179.17681 ft	1,589.3412 ft	0 psf	2,608.1724 psf	1,445.7336 psf	600 psf	0 psf	Mint Canyon
Slice 8	185.46058 ft	1,589.7566 ft	0 psf	2,693.9924 psf	1,493.3044 psf	600 psf	0 psf	Mint Canyon
Slice 9	191.76954 ft	1,590.3782 ft	0 psf	2,760.8012 psf	1,530.3371 psf	600 psf	0 psf	Mint Canyon
Slice 10	197.71243 ft	1,591.1711 ft	0 psf	2,991.6557 psf	1,658.3018 psf	600 psf	0 psf	Mint Canyon
Slice 11	203.65532 ft	1,592.1621 ft	0 psf	3,193.4986 psf	1,770.1852 psf	600 psf	0 psf	Mint Canyon
Slice 12	209.59821 ft	1,593.3544 ft	0 psf	3,366.6323 psf	1,866.1548 psf	600 psf	0 psf	Mint Canyon
Slice 13	215.5411 ft	1,594.7521 ft	0 psf	3,511.2469 psf	1,946.3159 psf	600 psf	0 psf	Mint Canyon
Slice 14	221.48399 ft	1,596.36 ft	0 psf	3,627.4228 psf	2,010.7133 psf	600 psf	0 psf	Mint Canyon
Slice 15	227.42688 ft	1,598.1838 ft	0 psf	3,715.1314 psf	2,059.331 psf	600 psf	0 psf	Mint Canyon
Slice 16	233.36977 ft	1,600.2305 ft	0 psf	3,774.233 psf	2,092.0915 psf	600 psf	0 psf	Mint Canyon
Slice 17	239.31266 ft	1,602.5081 ft	0 psf	3,804.4738 psf	2,108.8543 psf	600 psf	0 psf	Mint Canyon
Slice 18	244.99406 ft	1,604.9046 ft	0 psf	3,653.9824 psf	2,025.4355 psf	600 psf	0 psf	Mint Canyon
Slice 19	250.578 ft	1,607.4914 ft	0 psf	3,437.9119 psf	1,905.6657 psf	600 psf	0 psf	Mint Canyon
Slice 20	256.32596 ft	1,610.3931 ft	0 psf	3,306.148 psf	1,832.6278 psf	600 psf	0 psf	Mint Canyon
Slice 21	262.07392 ft	1,613.5538 ft	0 psf	3,147.7099 psf	1,744.8041 psf	600 psf	0 psf	Mint Canyon
Slice 22	267.82189 ft	1,616.9892 ft	0 psf	2,961.8855 psf	1,641.7999 psf	600 psf	0 psf	Mint Canyon
Slice 23	273.56985 ft	1,620.7178 ft	0 psf	2,747.8284 psf	1,523.1461 psf	600 psf	0 psf	Mint Canyon
Slice 24	279.31781 ft	1,624.7617 ft	0 psf	2,504.5408 psf	1,388.2896 psf	600 psf	0 psf	Mint Canyon
Slice 25	285.06577 ft	1,629.1476 ft	0 psf	2,230.854 psf	1,236.5826 psf	600 psf	0 psf	Mint Canyon
Slice 26	290.81374 ft	1,633.9076 ft	0 psf	1,925.4053 psf	1,067.2696 psf	600 psf	0 psf	Mint Canyon
Slice 27	296.5617 ft	1,639.0817 ft	0 psf	1,586.6122 psf	879.47348 psf	600 psf	0 psf	Mint Canyon
Slice 28	302.30966 ft	1,644.72 ft	0 psf	1,212.646 psf	672.18064 psf	600 psf	0 psf	Mint Canyon
Slice 29	308.23688 ft	1,651.0983 ft	0 psf	681.98744 psf	378.03181 psf	600 psf	0 psf	Mint Canyon
Slice 30	314.34336 ft	1,658.3484 ft	0 psf	-0.42172326 psf	-0.23376502 psf	600 psf	0 psf	Mint Canyon

Section G-G' SSA for Belcaro 10-18-24.gsz 10/19/2024 05:35:38 PM

Section G-G' SSA for Belcaro 10-18-24.gsz

1 - Rotational Static Global
Horz Seismic Coef.: 0

Method: Bishop



Name: Fault
Model: Mohr-Coulomb
Unit Weight: 100 pcf
Cohesion': 100 psf
Phi': 8 °

Name: Mint Canyon A static
Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding 5-10°
C-Anisotropic Strength Fn.: Tmc S 250 bedding 5-10°

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section G-G'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Static Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section G-G'
Last Edited By: Basil Hattar
Revision Number: 898
Date: 10/19/2024
Time: 05:35:38 PM
Tool Version: 10.1.1.18972
File Name: Section G-G' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 05:35:50 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Static Global

Kind: SLOPE/W
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Entry and Exit
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Mint Canyon A static

Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding 5-10°
C-Anisotropic Strength Fn.: Tmc S 250 bedding 5-10°
Phi-B: 0 °

Fault

Model: Mohr-Coulomb
Unit Weight: 100 pcf
Cohesion': 100 psf
Phi': 8 °
Phi-B: 0 °

Slip Surface Entry and Exit

Left Type: Range
Left-Zone Left Coordinate: (185.3973, 1,589.7165) ft
Left-Zone Right Coordinate: (268.08837, 1,608.5811) ft
Left-Zone Increment: 80
Right Type: Range
Right-Zone Left Coordinate: (275.81242, 1,612.693) ft
Right-Zone Right Coordinate: (407.42008, 1,630.9952) ft
Right-Zone Increment: 80
Radius Increments: 15

Slip Surface Limits

Left Coordinate: (0.93665, 1,605.2014) ft
Right Coordinate: (409.84022, 1,630.9952) ft

Seismic Coefficients

Horz Seismic Coef.: 0
Vert Seismic Coef.: 0

Anisotropic Strength Functions

Tmc S 22° bedding 5-10°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
- Curve Fit to Data: 100 %
- Segment Curvature: 0 %

Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
- Data Point: (0, 1)
- Data Point: (4.9, 1)

Data Point: (5, 0.7586)
Data Point: (10, 0.7586)
Data Point: (10.1, 1)
Data Point: (90, 1)

Tmc S 250 bedding 5-10°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (4.9, 1)
Data Point: (5, 0.4167)
Data Point: (10, 0.4167)
Data Point: (10.1, 1)
Data Point: (90, 1)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	302.44033 ft	1,500.9912 ft
Point 2	305.65493 ft	1,500.9912 ft
Point 3	352.85591 ft	1,630.9952 ft
Point 4	347.9491 ft	1,630.9952 ft
Point 5	122.84383 ft	1,615.7711 ft
Point 6	125.82445 ft	1,615.7711 ft
Point 7	1.21179 ft	1,507.4326 ft
Point 8	1.21179 ft	1,510.8993 ft
Point 9	409.84022 ft	1,630.9952 ft
Point 10	409.84022 ft	1,500.318 ft
Point 11	323.34756 ft	1,630.9952 ft
Point 12	290.41588 ft	1,615.5107 ft
Point 13	281.10536 ft	1,615.5107 ft
Point 14	231.9038 ft	1,589.3182 ft
Point 15	186.30802 ft	1,589.3182 ft
Point 16	1.21179 ft	1,500.1691 ft
Point 17	68.75712 ft	1,613.6618 ft
Point 18	43.78874 ft	1,606.5771 ft
Point 19	30.78867 ft	1,605.2014 ft
Point 20	0.93665 ft	1,605.2014 ft
Point 21	340.90231 ft	1,602.4075 ft

Regions

	Material	Points	Area
Region 1	Fault	1,2,21,3,4	425.58 ft²
Region 2	Fault	5,6,7,8	372.29 ft²
Region 3	Mint Canyon A static	3,9,10,2,21	10,614 ft²
Region 4	Mint Canyon A static	4,11,12,13,14,15,6,7,16,1	28,169 ft²
Region 5	Mint Canyon A static	5,17,18,19,20,8	5,751.6 ft²

Slip Results

Slip Surfaces Analysed: 103016 of 104976 converged

Current Slip Surface

Slip Surface: 55,032
Factor of Safety: 2.51
Volume: 1,650.7427 ft³
Weight: 206,342.84 lbf
Resisting Moment: 16,896,136 lbf·ft
Activating Moment: 6,736,971.9 lbf·ft
Slip Rank: 1 of 104,976 slip surfaces
Exit: (231.2947, 1,589.3182) ft
Entry: (334.44386, 1,630.9952) ft
Radius: 96.550489 ft
Center: (253.30539, 1,683.3263) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	231.59925 ft	1,589.2479 ft	0 psf	67.384567 psf	37.351875 psf	600 psf	0 psf	Mint Canyon A static
Slice 2	233.661 ft	1,588.8124 ft	0 psf	240.90858 psf	133.53781 psf	600 psf	0 psf	Mint Canyon A static
Slice 3	237.1754 ft	1,588.1494 ft	0 psf	558.31383 psf	309.47841 psf	600 psf	0 psf	Mint Canyon A static
Slice 4	240.68979 ft	1,587.62 ft	0 psf	853.29419 psf	472.98869 psf	600 psf	0 psf	Mint Canyon A static
Slice 5	244.20419 ft	1,587.2219 ft	0 psf	1,126.761 psf	624.57383 psf	600 psf	0 psf	Mint Canyon A static
Slice 6	247.71859 ft	1,586.9537 ft	0 psf	1,379.4687 psf	764.65197 psf	600 psf	0 psf	Mint Canyon A static
Slice 7	251.23298 ft	1,586.8141 ft	0 psf	1,612.0349 psf	893.56555 psf	600 psf	0 psf	Mint Canyon A static
Slice 8	254.74738 ft	1,586.8026 ft	0 psf	1,824.9567 psf	1,011.59 psf	600 psf	0 psf	Mint Canyon A

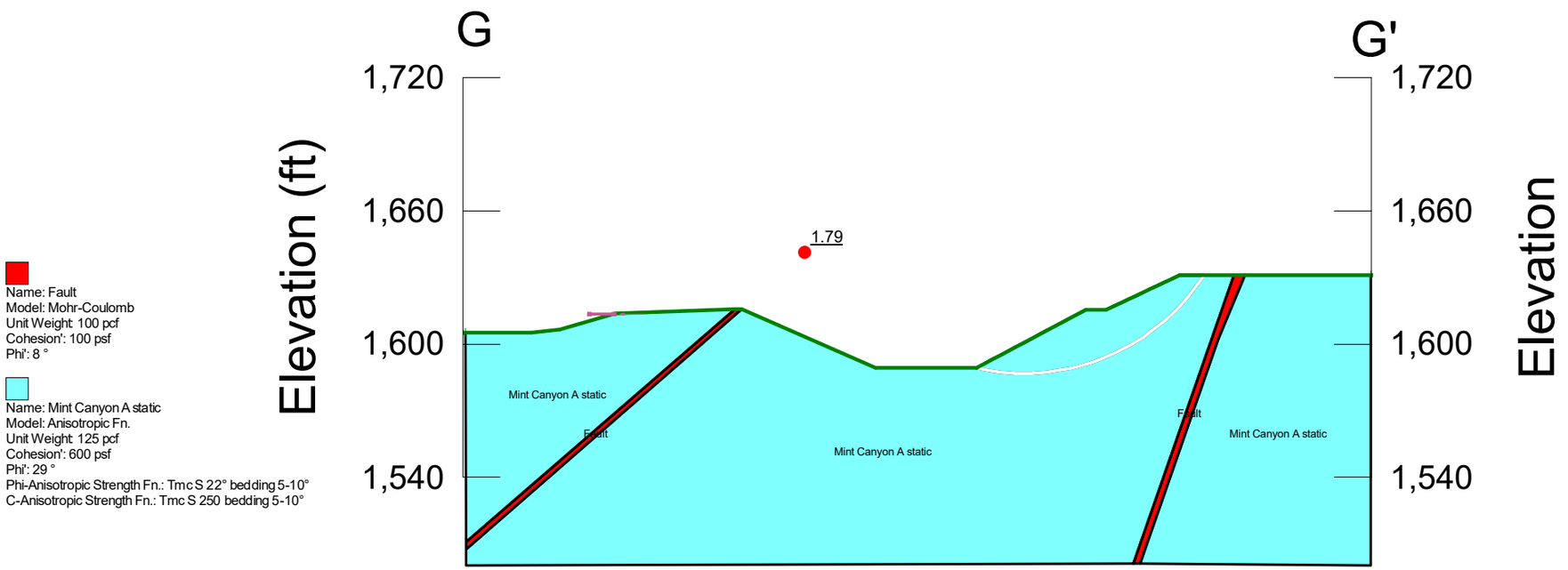
								static
Slice 9	258.26178 ft	1,586.9192 ft	0 psf	2,018.622 psf	1,118.9404 psf	600 psf	0 psf	Mint Canyon A static
Slice 10	261.77618 ft	1,587.1643 ft	0 psf	2,216.8425 psf	895.63551 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 11	265.29057 ft	1,587.539 ft	0 psf	2,383.6049 psf	963.00986 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 12	268.80497 ft	1,588.0447 ft	0 psf	2,532.2098 psf	1,023.0483 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 13	272.31937 ft	1,588.6836 ft	0 psf	2,605.0932 psf	1,444.0268 psf	600 psf	0 psf	Mint Canyon A static
Slice 14	275.83376 ft	1,589.4583 ft	0 psf	2,704.9682 psf	1,499.3884 psf	600 psf	0 psf	Mint Canyon A static
Slice 15	279.34816 ft	1,590.3723 ft	0 psf	2,785.9574 psf	1,544.2814 psf	600 psf	0 psf	Mint Canyon A static
Slice 16	282.65711 ft	1,591.3599 ft	0 psf	2,748.7498 psf	1,523.6569 psf	600 psf	0 psf	Mint Canyon A static
Slice 17	285.76062 ft	1,592.4091 ft	0 psf	2,597.5205 psf	1,439.8291 psf	600 psf	0 psf	Mint Canyon A static
Slice 18	288.86413 ft	1,593.5779 ft	0 psf	2,433.8618 psf	1,349.1116 psf	600 psf	0 psf	Mint Canyon A static
Slice 19	292.06246 ft	1,594.9145 ft	0 psf	2,339.9086 psf	1,297.0325 psf	600 psf	0 psf	Mint Canyon A static
Slice 20	295.35563 ft	1,596.4331 ft	0 psf	2,312.1581 psf	1,281.6502 psf	600 psf	0 psf	Mint Canyon A static
Slice 21	298.6488 ft	1,598.1061 ft	0 psf	2,265.9309 psf	1,256.026 psf	600 psf	0 psf	Mint Canyon A static
Slice 22	301.94197 ft	1,599.9426 ft	0 psf	2,200.4751 psf	1,219.7433 psf	600 psf	0 psf	Mint Canyon A static
Slice 23	305.23514 ft	1,601.9538 ft	0 psf	2,114.8891 psf	1,172.3022 psf	600 psf	0 psf	Mint Canyon A static
Slice 24	308.5283 ft	1,604.1531 ft	0 psf	2,008.0915 psf	1,113.1033 psf	600 psf	0 psf	Mint Canyon A static
Slice 25	311.82147 ft	1,606.5567 ft	0 psf	1,878.7821 psf	1,041.4259 psf	600 psf	0 psf	Mint Canyon A static
Slice 26	315.11464 ft	1,609.1844 ft	0 psf	1,725.3897 psf	956.3991 psf	600 psf	0 psf	Mint Canyon A
								static
Slice 27	318.40781 ft	1,612.0613 ft	0 psf	1,545.9997 psf	856.96165 psf	600 psf	0 psf	Mint Canyon A static
Slice 28	321.70098 ft	1,615.2191 ft	0 psf	1,338.2553 psf	741.80705 psf	600 psf	0 psf	Mint Canyon A static
Slice 29	325.19694 ft	1,618.9375 ft	0 psf	994.87574 psf	551.46863 psf	600 psf	0 psf	Mint Canyon A static
Slice 30	328.89571 ft	1,623.3326 ft	0 psf	513.61665 psf	284.70236 psf	600 psf	0 psf	Mint Canyon A static
Slice 31	332.59447 ft	1,628.329 ft	0 psf	-8.6714121 psf	-4.8066422 psf	600 psf	0 psf	Mint Canyon A static

Section G-G' SSA for Belcaro 10-18-24.gsz 10/19/2024 05:35:38 PM

Section G-G' SSA for Belcaro 10-18-24.gsz

1 - Rotational Pseudostatic Global
Horz Seismic Coef.: 0.15

Method: Bishop



Name: Fault
Model: Mohr-Coulomb
Unit Weight: 100 pcf
Cohesion': 100 psf
Phi': 8 °

Name: Mint Canyon A static
Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding 5-10°
C-Anisotropic Strength Fn.: Tmc S 250 bedding 5-10°

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section G-G'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Pseudostatic Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section G-G'
Last Edited By: Basil Hattar
Revision Number: 898
Date: 10/19/2024
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Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 05:35:50 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Pseudostatic Global

Kind: SLOPE/W
Parent: 1 - Rotational Static Global
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Critical Slip Surfaces from Other
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Mint Canyon A static

Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding 5-10°
C-Anisotropic Strength Fn.: Tmc S 250 bedding 5-10°
Phi-B: 0 °

Fault

Model: Mohr-Coulomb
Unit Weight: 100 pcf
Cohesion': 100 psf
Phi': 8 °
Phi-B: 0 °

Reinforcements

8XT

Type: Geosynthetic
Interface Adhesion: 0 psf
Interface Shear Angle: 26.14 °
Surface Area Factor: 1
Pullout Resistance Reduction Factor: 1
Tensile Capacity: 4,055 lbf
Tensile Capacity Reduction Factor: 1
Force Orientation: 1
F of S Dependent: Yes
Force Distribution: Concentrated
Face Anchorage: Yes
Factored Tensile Capacity: 4,055 lbf/ft / F of S

Slip Surface Limits

Left Coordinate: (0.93665, 1,605.2014) ft
Right Coordinate: (409.84022, 1,630.9952) ft

Seismic Coefficients

Horz Seismic Coef.: 0.15
Vert Seismic Coef.: 0

Reinforcement Lines

Reinforcement Line 1

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.7445, 395.6027) ft

Inside Point: (69.91565, 395.6027) ft
Length: 10.82885 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 2

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.33907, 397.659) ft
Inside Point: (69.36242, 397.659) ft
Length: 10.97665 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 3

Reinforcement: 8XT
Lock to Ground Surface: Yes
Outside Point: (68.075806, 1,613.4685) ft
Inside Point: (57.061616, 1,613.4685) ft
Length: 11.01419 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 4

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (79.59083, 400.8835) ft
Inside Point: (68.54036, 400.8835) ft
Length: 11.05047 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Anisotropic Strength Functions

Tmc S 22° bedding 5-10°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (4.9, 1)
Data Point: (5, 0.7586)
Data Point: (10, 0.7586)
Data Point: (10.1, 1)
Data Point: (90, 1)

Tmc S 250 bedding 5-10°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (4.9, 1)
Data Point: (5, 0.4167)
Data Point: (10, 0.4167)
Data Point: (10.1, 1)
Data Point: (90, 1)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	302.44033 ft	1,500.9912 ft
Point 2	305.65493 ft	1,500.9912 ft
Point 3	352.85591 ft	1,630.9952 ft
Point 4	347.9491 ft	1,630.9952 ft
Point 5	122.84383 ft	1,615.7711 ft
Point 6	125.82445 ft	1,615.7711 ft
Point 7	1.21179 ft	1,507.4326 ft
Point 8	1.21179 ft	1,510.8993 ft
Point 9	409.84022 ft	1,630.9952 ft
Point 10	409.84022 ft	1,500.318 ft
Point 11	323.34756 ft	1,630.9952 ft
Point 12	290.41588 ft	1,615.5107 ft

Point 13	281.10536 ft	1,615.5107 ft
Point 14	231.9038 ft	1,589.3182 ft
Point 15	186.30802 ft	1,589.3182 ft
Point 16	1.21179 ft	1,500.1691 ft
Point 17	68.75712 ft	1,613.6618 ft
Point 18	43.78874 ft	1,606.5771 ft
Point 19	30.78867 ft	1,605.2014 ft
Point 20	0.93665 ft	1,605.2014 ft
Point 21	340.90231 ft	1,602.4075 ft

Regions

	Material	Points	Area
Region 1	Fault	1,2,21,3,4	425.58 ft²
Region 2	Fault	5,6,7,8	372.29 ft²
Region 3	Mint Canyon A static	3,9,10,2,21	10,614 ft²
Region 4	Mint Canyon A static	4,11,12,13,14,15,6,7,16,1	28,169 ft²
Region 5	Mint Canyon A static	5,17,18,19,20,8	5,751.6 ft²

Slip Results

Slip Surfaces Analysed: 1 of 1 converged

Current Slip Surface

Slip Surface: 1
Factor of Safety: 1.79
Volume: 1,650.7427 ft³
Weight: 206,342.84 lbf
Resisting Moment: 16,364,436 lbf·ft
Activating Moment: 9,142,942.3 lbf·ft
Slip Rank: 1 of 1 slip surfaces
Exit: (231.2947, 1,589.3182) ft
Entry: (334.44386, 1,630.9952) ft
Radius: 96.550489 ft
Center: (253.30539, 1,683.3263) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	231.59925 ft	1,589.2479 ft	0 psf	92.675624 psf	51.370937 psf	600 psf	0 psf	Mint Canyon A static
Slice 2	233.661 ft	1,588.8124 ft	0 psf	266.93188 psf	147.96276 psf	600 psf	0 psf	Mint Canyon A static
Slice 3	237.1754 ft	1,588.1494 ft	0 psf	584.29242 psf	323.87858 psf	600 psf	0 psf	Mint Canyon A static
Slice 4	240.68979 ft	1,587.62 ft	0 psf	876.84332 psf	486.04219 psf	600 psf	0 psf	Mint Canyon A static
Slice 5	244.20419 ft	1,587.2219 ft	0 psf	1,145.8413 psf	635.15019 psf	600 psf	0 psf	Mint Canyon A static
Slice 6	247.71859 ft	1,586.9537 ft	0 psf	1,392.334 psf	771.78332 psf	600 psf	0 psf	Mint Canyon A static
Slice 7	251.23298 ft	1,586.8141 ft	0 psf	1,617.1912 psf	896.42374 psf	600 psf	0 psf	Mint Canyon A static
Slice 8	254.74738 ft	1,586.8026 ft	0 psf	1,821.1293 psf	1,009.4684 psf	600 psf	0 psf	Mint Canyon A static
Slice 9	258.26178 ft	1,586.9192 ft	0 psf	2,004.7292 psf	1,111.2395 psf	600 psf	0 psf	Mint Canyon A static
Slice 10	261.77618 ft	1,587.1643 ft	0 psf	2,201.0388 psf	889.2506 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 11	265.29057 ft	1,587.539 ft	0 psf	2,360.03 psf	953.48526 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 12	268.80497 ft	1,588.0447 ft	0 psf	2,500.3059 psf	1,010.1587 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 13	272.31937 ft	1,588.6836 ft	0 psf	2,543.3473 psf	1,409.8004 psf	600 psf	0 psf	Mint Canyon A static
Slice 14	275.83376 ft	1,589.4583 ft	0 psf	2,630.0612 psf	1,457.8667 psf	600 psf	0 psf	Mint Canyon A static
Slice 15	279.34816 ft	1,590.3723 ft	0 psf	2,697.6651 psf	1,495.3402 psf	600 psf	0 psf	Mint Canyon A static
Slice 16	282.65711 ft	1,591.3599 ft	0 psf	2,650.2317 psf	1,469.0474 psf	600 psf	0 psf	Mint Canyon A static
Slice 17	285.76062 ft	1,592.4091 ft	0 psf	2,492.7935 psf	1,381.778 psf	600 psf	0 psf	Mint Canyon A static
Slice 18	288.86413 ft	1,593.5779 ft	0 psf	2,323.9964 psf	1,288.2123 psf	600 psf	0 psf	Mint Canyon A static
Slice 19	292.06246 ft	1,594.9145 ft	0 psf	2,222.9582 psf	1,232.2059 psf	600 psf	0 psf	Mint Canyon A static
Slice 20	295.35563 ft	1,596.4331 ft	0 psf	2,185.6699 psf	1,211.5366 psf	600 psf	0 psf	Mint Canyon A static
Slice 21	298.6488 ft	1,598.1061 ft	0 psf	2,130.5077 psf	1,180.9597 psf	600 psf	0 psf	Mint Canyon A static
Slice 22	301.94197 ft	1,599.9426 ft	0 psf	2,056.8733 psf	1,140.1435 psf	600 psf	0 psf	Mint Canyon A static

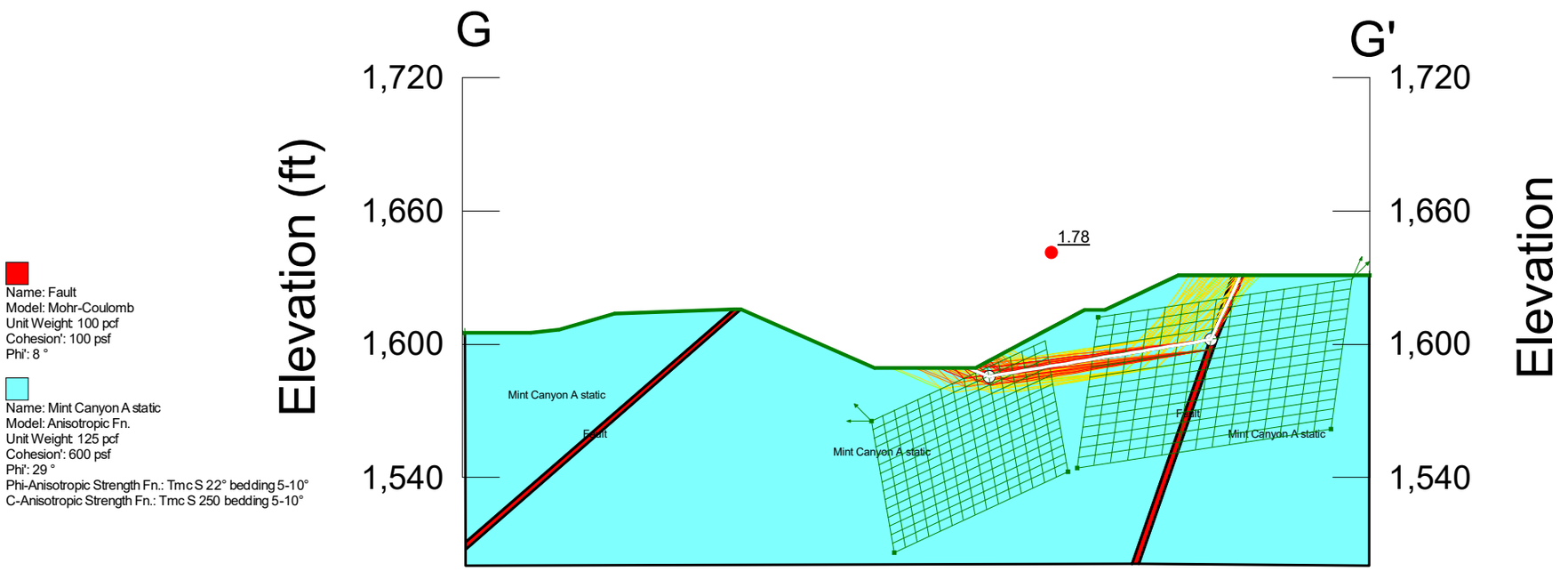
Slice 23	305.23514 ft	1,601.9538 ft	0 psf	1,964.0406 psf	1,088.6855 psf	600 psf	0 psf	Mint Canyon A static
Slice 24	308.5283 ft	1,604.1531 ft	0 psf	1,851.1338 psf	1,026.1002 psf	600 psf	0 psf	Mint Canyon A static
Slice 25	311.82147 ft	1,606.5567 ft	0 psf	1,717.0976 psf	951.80274 psf	600 psf	0 psf	Mint Canyon A static
Slice 26	315.11464 ft	1,609.1844 ft	0 psf	1,560.6592 psf	865.08754 psf	600 psf	0 psf	Mint Canyon A static
Slice 27	318.40781 ft	1,612.0613 ft	0 psf	1,380.2766 psf	765.0998 psf	600 psf	0 psf	Mint Canyon A static
Slice 28	321.70098 ft	1,615.2191 ft	0 psf	1,174.0685 psf	650.79678 psf	600 psf	0 psf	Mint Canyon A static
Slice 29	325.19694 ft	1,618.9375 ft	0 psf	842.27 psf	466.87788 psf	600 psf	0 psf	Mint Canyon A static
Slice 30	328.89571 ft	1,623.3326 ft	0 psf	385.52734 psf	213.70129 psf	600 psf	0 psf	Mint Canyon A static
Slice 31	332.59447 ft	1,628.329 ft	0 psf	-103.43939 psf	-57.337389 psf	600 psf	0 psf	Mint Canyon A static

Section G-G' SSA for Belcaro 10-18-24.gsz 10/19/2024 05:33:48 PM

Section G-G' SSA for Belcaro 10-18-24.gsz

2 - Translational Static Global
Horz Seismic Coef.: 0

Method: Janbu



Name: Fault
Model: Mohr-Coulomb
Unit Weight: 100 pcf
Cohesion': 100 psf
Phi': 8 °

Name: Mint Canyon A static
Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding 5-10°
C-Anisotropic Strength Fn.: Tmc S 250 bedding 5-10°

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section G-G'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

2 - Translational Static Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section G-G'
Last Edited By: Basil Hattar
Revision Number: 897
Date: 10/19/2024
Time: 05:33:48 PM
Tool Version: 10.1.1.18972
File Name: Section G-G' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 05:34:53 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

2 - Translational Static Global

Kind: SLOPE/W
Method: Janbu
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Block
- Critical slip surfaces saved: 1
- Restrict Block Crossing: No
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Mint Canyon A static

Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding 5-10°
C-Anisotropic Strength Fn.: Tmc S 250 bedding 5-10°
Phi-B: 0 °

Fault

Model: Mohr-Coulomb
Unit Weight: 100 pcf
Cohesion': 100 psf
Phi': 8 °
Phi-B: 0 °

Slip Surface Limits

Left Coordinate: (0.93665, 1,605.2014) ft
Right Coordinate: (409.84022, 1,630.9952) ft

Slip Surface Block

Left Grid
- Upper Left: (184.76702, 1,565.22) ft
- Lower Left: (195.11849, 1,506.0688) ft
- Lower Right: (273.74034, 1,542.4222) ft
- X Increments: 15
- Y Increments: 15
- Starting Angle: 135 °
- Ending Angle: 180 °
- Angle Increments: 2

Right Grid
- Upper Left: (287.13761, 1,611.9967) ft
- Lower Left: (277.76592, 1,544.2295) ft
- Lower Right: (392.47603, 1,561.6919) ft
- X Increments: 15
- Y Increments: 15
- Angle Increments: 2

Seismic Coefficients

Horz Seismic Coef.: 0
Vert Seismic Coef.: 0

Anisotropic Strength Functions

Tmc S 22° bedding 5-10°

Model: Spline Data Point Function

Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (4.9, 1)
Data Point: (5, 0.7586)
Data Point: (10, 0.7586)
Data Point: (10.1, 1)
Data Point: (90, 1)

Tmc S 250 bedding 5-10°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (4.9, 1)
Data Point: (5, 0.4167)
Data Point: (10, 0.4167)
Data Point: (10.1, 1)
Data Point: (90, 1)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	302.44033 ft	1,500.9912 ft
Point 2	305.65493 ft	1,500.9912 ft
Point 3	352.85591 ft	1,630.9952 ft
Point 4	347.9491 ft	1,630.9952 ft
Point 5	122.84383 ft	1,615.7711 ft
Point 6	125.82445 ft	1,615.7711 ft
Point 7	1.21179 ft	1,507.4326 ft
Point 8	1.21179 ft	1,510.8993 ft
Point 9	409.84022 ft	1,630.9952 ft
Point 10	409.84022 ft	1,500.318 ft
Point 11	323.34756 ft	1,630.9952 ft
Point 12	290.41588 ft	1,615.5107 ft
Point 13	281.10536 ft	1,615.5107 ft
Point 14	231.9038 ft	1,589.3182 ft
Point 15	186.30802 ft	1,589.3182 ft
Point 16	1.21179 ft	1,500.1691 ft
Point 17	68.75712 ft	1,613.6618 ft
Point 18	43.78874 ft	1,606.5771 ft
Point 19	30.78867 ft	1,605.2014 ft
Point 20	0.93665 ft	1,605.2014 ft
Point 21	340.90231 ft	1,602.4075 ft

Regions

	Material	Points	Area
Region 1	Fault	1,2,21,3,4	425.58 ft²
Region 2	Fault	5,6,7,8	372.29 ft²
Region 3	Mint Canyon A static	3,9,10,2,21	10,614 ft²
Region 4	Mint Canyon A static	4,11,12,13,14,15,6,7,16,1	28,169 ft²
Region 5	Mint Canyon A static	5,17,18,19,20,8	5,751.6 ft²

Slip Results

Slip Surfaces Analysed: 298416 of 589824 converged

Current Slip Surface

Slip Surface: 540,456
Factor of Safety: 1.78
Volume: 2,387.144 ft³
Weight: 296,928.16 lbf
Resisting Force: 141,576.14 lbf
Activating Force: 79,585.163 lbf
Slip Rank: 1 of 589,824 slip surfaces
Exit: (228.68316, 1,589.3182) ft
Entry: (351.65579, 1,630.9952) ft
Radius: 64.699047 ft
Center: (279.57582, 1,641.4144) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	230.29348 ft	1,588.6512 ft	0 psf	255.3654 psf	141.55136 psf	600 psf	0 psf	Mint Canyon A static
Slice 2	234.88774 ft	1,586.7482 ft	0 psf	756.191 psf	419.16352 psf	600 psf	0 psf	Mint Canyon A static
Slice 3	239.83685 ft	1,585.8367 ft	0 psf	906.11765 psf	366.08426 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 4	243.76719 ft	1,586.4857 ft	0 psf	1,080.0329 psf	436.34845 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 5	247.69752 ft	1,587.1347 ft	0 psf	1,253.9481 psf	506.61264 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 6	251.62785 ft	1,587.7838 ft	0 psf	1,427.8633 psf	576.87682 psf	250.02 psf	0 psf	Mint Canyon A

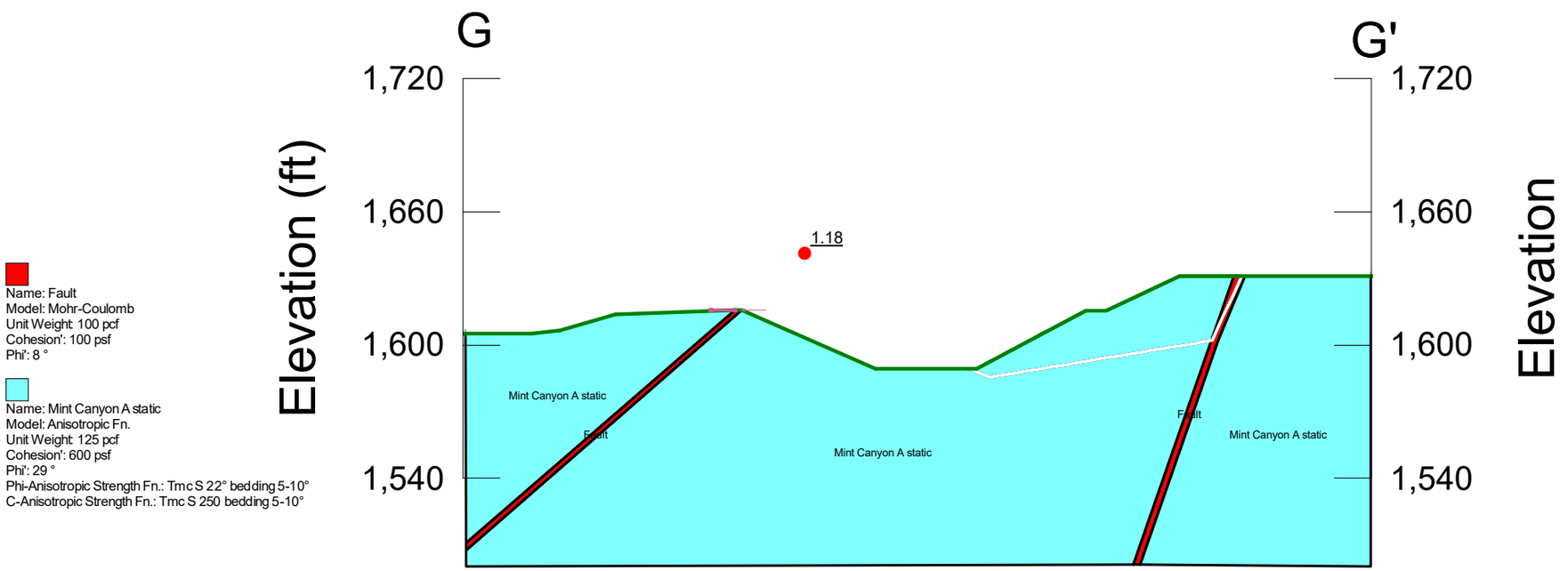
								static
Slice 7	255.55819 ft	1,588.4328 ft	0 psf	1,601.7785 psf	647.14101 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 8	259.48852 ft	1,589.0818 ft	0 psf	1,775.6937 psf	717.4052 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 9	263.41886 ft	1,589.7308 ft	0 psf	1,949.6089 psf	787.66939 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 10	267.34919 ft	1,590.3798 ft	0 psf	2,123.5241 psf	857.93358 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 11	271.27952 ft	1,591.0289 ft	0 psf	2,297.4394 psf	928.19777 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 12	275.20986 ft	1,591.6779 ft	0 psf	2,471.3546 psf	998.46195 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 13	279.14019 ft	1,592.3269 ft	0 psf	2,645.2698 psf	1,068.7261 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 14	283.43299 ft	1,593.0358 ft	0 psf	2,685.9119 psf	1,085.1461 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 15	288.08825 ft	1,593.8045 ft	0 psf	2,593.2811 psf	1,047.722 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 16	292.47411 ft	1,594.5288 ft	0 psf	2,622.6271 psf	1,059.5782 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 17	296.59057 ft	1,595.2085 ft	0 psf	2,773.95 psf	1,120.7148 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 18	300.70703 ft	1,595.8883 ft	0 psf	2,925.2729 psf	1,181.8513 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 19	304.82349 ft	1,596.568 ft	0 psf	3,076.5958 psf	1,242.9879 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 20	308.93995 ft	1,597.2478 ft	0 psf	3,227.9187 psf	1,304.1245 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 21	313.05641 ft	1,597.9275 ft	0 psf	3,379.2416 psf	1,365.2611 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 22	317.17287 ft	1,598.6073 ft	0 psf	3,530.5645 psf	1,426.3977 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 23	321.28933 ft	1,599.2871 ft	0 psf	3,681.8875 psf	1,487.5342 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 24	325.15463 ft	1,599.9253 ft	0 psf	3,721.5917 psf	1,503.5753 psf	250.02 psf	0 psf	Mint Canyon A
								static
Slice 25	328.76876 ft	1,600.5221 ft	0 psf	3,649.6773 psf	1,474.5209 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 26	332.38289 ft	1,601.119 ft	0 psf	3,577.7628 psf	1,445.4664 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 27	335.99703 ft	1,601.7158 ft	0 psf	3,505.8484 psf	1,416.412 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 28	337.98699 ft	1,602.0444 ft	0 psf	3,551.1555 psf	499.08236 psf	100 psf	0 psf	Fault
Slice 29	340.61468 ft	1,607.3175 ft	0 psf	2,371.3198 psf	333.26727 psf	100 psf	0 psf	Fault
Slice 30	345.50429 ft	1,617.8033 ft	0 psf	1,175.3644 psf	165.18669 psf	100 psf	0 psf	Fault
Slice 31	349.80245 ft	1,627.0207 ft	0 psf	237.32373 psf	33.353675 psf	100 psf	0 psf	Fault

Section G-G' SSA for Belcaro 10-18-24.gsz 10/19/2024 05:33:48 PM

Section G-G' SSA for Belcaro 10-18-24.gsz

2 - Translational Pseudostatic Global
Horz Seismic Coef.: 0.15

Method: Janbu



Name: Fault
Model: Mohr-Coulomb
Unit Weight: 100 pcf
Cohesion': 100 psf
Phi': 8 °

Name: Mint Canyon A static
Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding 5-10°
C-Anisotropic Strength Fn.: Tmc S 250 bedding 5-10°

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section G-G'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

2 - Translational Pseudostatic Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section G-G'
Last Edited By: Basil Hattar
Revision Number: 897
Date: 10/19/2024
Time: 05:33:48 PM
Tool Version: 10.1.1.18972
File Name: Section G-G' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 05:34:53 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

2 - Translational Pseudostatic Global

Kind: SLOPE/W
Parent: 2 - Translational Static Global
Method: Janbu
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Critical Slip Surfaces from Other
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Mint Canyon A static

Model: Anisotropic Fn.
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-Anisotropic Strength Fn.: Tmc S 22° bedding 5-10°
C-Anisotropic Strength Fn.: Tmc S 250 bedding 5-10°
Phi-B: 0 °

Fault

Model: Mohr-Coulomb
Unit Weight: 100 pcf
Cohesion': 100 psf
Phi': 8 °
Phi-B: 0 °

Reinforcements

8XT

Type: Geosynthetic
Interface Adhesion: 0 psf
Interface Shear Angle: 26.14 °
Surface Area Factor: 1
Pullout Resistance Reduction Factor: 1
Tensile Capacity: 4,055 lbf
Tensile Capacity Reduction Factor: 1
Force Orientation: 1
F of S Dependent: Yes
Force Distribution: Concentrated
Face Anchorage: Yes
Factored Tensile Capacity: 4,055 lbf/ft / F of S

Slip Surface Limits

Left Coordinate: (0.93665, 1,605.2014) ft
Right Coordinate: (409.84022, 1,630.9952) ft

Seismic Coefficients

Horz Seismic Coef.: 0.15
Vert Seismic Coef.: 0

Reinforcement Lines

Reinforcement Line 1

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.7445, 395.6027) ft

Inside Point: (69.91565, 395.6027) ft
Length: 10.82885 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 2

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.33907, 397.659) ft
Inside Point: (69.36242, 397.659) ft
Length: 10.97665 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 3

Reinforcement: 8XT
Lock to Ground Surface: Yes
Outside Point: (122.84383, 1,615.7711) ft
Inside Point: (111.82964, 1,615.7711) ft
Length: 11.01419 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 4

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (79.59083, 400.8835) ft
Inside Point: (68.54036, 400.8835) ft
Length: 11.05047 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Anisotropic Strength Functions

Tmc S 22° bedding 5-10°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (4.9, 1)
Data Point: (5, 0.7586)
Data Point: (10, 0.7586)
Data Point: (10.1, 1)
Data Point: (90, 1)

Tmc S 250 bedding 5-10°

Model: Spline Data Point Function
Function: Modifier Factor vs. Inclination
Curve Fit to Data: 100 %
Segment Curvature: 0 %
Y-Intercept: 1
Data Points: Inclination (°), Modifier Factor
Data Point: (0, 1)
Data Point: (4.9, 1)
Data Point: (5, 0.4167)
Data Point: (10, 0.4167)
Data Point: (10.1, 1)
Data Point: (90, 1)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	302.44033 ft	1,500.9912 ft
Point 2	305.65493 ft	1,500.9912 ft
Point 3	352.85591 ft	1,630.9952 ft
Point 4	347.9491 ft	1,630.9952 ft
Point 5	122.84383 ft	1,615.7711 ft
Point 6	125.82445 ft	1,615.7711 ft
Point 7	1.21179 ft	1,507.4326 ft
Point 8	1.21179 ft	1,510.8993 ft
Point 9	409.84022 ft	1,630.9952 ft
Point 10	409.84022 ft	1,500.318 ft
Point 11	323.34756 ft	1,630.9952 ft
Point 12	290.41588 ft	1,615.5107 ft

Point 13	281.10536 ft	1,615.5107 ft
Point 14	231.9038 ft	1,589.3182 ft
Point 15	186.30802 ft	1,589.3182 ft
Point 16	1.21179 ft	1,500.1691 ft
Point 17	68.75712 ft	1,613.6618 ft
Point 18	43.78874 ft	1,606.5771 ft
Point 19	30.78867 ft	1,605.2014 ft
Point 20	0.93665 ft	1,605.2014 ft
Point 21	340.90231 ft	1,602.4075 ft

Regions

	Material	Points	Area
Region 1	Fault	1,2,21,3,4	425.58 ft²
Region 2	Fault	5,6,7,8	372.29 ft²
Region 3	Mint Canyon A static	3,9,10,2,21	10,614 ft²
Region 4	Mint Canyon A static	4,11,12,13,14,15,6,7,16,1	28,169 ft²
Region 5	Mint Canyon A static	5,17,18,19,20,8	5,751.6 ft²

Slip Results

Slip Surfaces Analysed: 1 of 1 converged

Current Slip Surface

Slip Surface: 1
Factor of Safety: 1.18
Volume: 2,387.144 ft³
Weight: 296,928.16 lbf
Resisting Force: 139,663.56 lbf
Activating Force: 118,547.13 lbf
Slip Rank: 1 of 1 slip surfaces
Exit: (228.68316, 1,589.3182) ft
Entry: (351.65579, 1,630.9952) ft
Radius: 64.699047 ft
Center: (279.57582, 1,641.4144) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	230.29348 ft	1,588.6512 ft	0 psf	364.61517 psf	202.10949 psf	600 psf	0 psf	Mint Canyon A static
Slice 2	234.88774 ft	1,586.7482 ft	0 psf	906.34025 psf	502.3926 psf	600 psf	0 psf	Mint Canyon A static
Slice 3	239.83685 ft	1,585.8367 ft	0 psf	878.52301 psf	354.93563 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 4	243.76719 ft	1,586.4857 ft	0 psf	1,049.2912 psf	423.92837 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 5	247.69752 ft	1,587.1347 ft	0 psf	1,220.0593 psf	492.9211 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 6	251.62785 ft	1,587.7838 ft	0 psf	1,390.8275 psf	561.91383 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 7	255.55819 ft	1,588.4328 ft	0 psf	1,561.5956 psf	630.90656 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 8	259.48852 ft	1,589.0818 ft	0 psf	1,732.3638 psf	699.8993 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 9	263.41886 ft	1,589.7308 ft	0 psf	1,903.1319 psf	768.89203 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 10	267.34919 ft	1,590.3798 ft	0 psf	2,073.9001 psf	837.88476 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 11	271.27952 ft	1,591.0289 ft	0 psf	2,244.6682 psf	906.8775 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 12	275.20986 ft	1,591.6779 ft	0 psf	2,415.4364 psf	975.87023 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 13	279.14019 ft	1,592.3269 ft	0 psf	2,586.2046 psf	1,044.863 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 14	283.43299 ft	1,593.0358 ft	0 psf	2,626.1113 psf	1,060.9858 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 15	288.08825 ft	1,593.8045 ft	0 psf	2,535.1566 psf	1,024.2389 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 16	292.47411 ft	1,594.5288 ft	0 psf	2,563.9716 psf	1,035.8805 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 17	296.59057 ft	1,595.2085 ft	0 psf	2,712.5562 psf	1,095.9108 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 18	300.70703 ft	1,595.8883 ft	0 psf	2,861.1409 psf	1,155.9411 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 19	304.82349 ft	1,596.568 ft	0 psf	3,009.7256 psf	1,215.9714 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 20	308.93995 ft	1,597.2478 ft	0 psf	3,158.3103 psf	1,276.0017 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 21	313.05641 ft	1,597.9275 ft	0 psf	3,306.8949 psf	1,336.032 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 22	317.17287 ft	1,598.6073 ft	0 psf	3,455.4796 psf	1,396.0623 psf	250.02 psf	0 psf	Mint Canyon A static

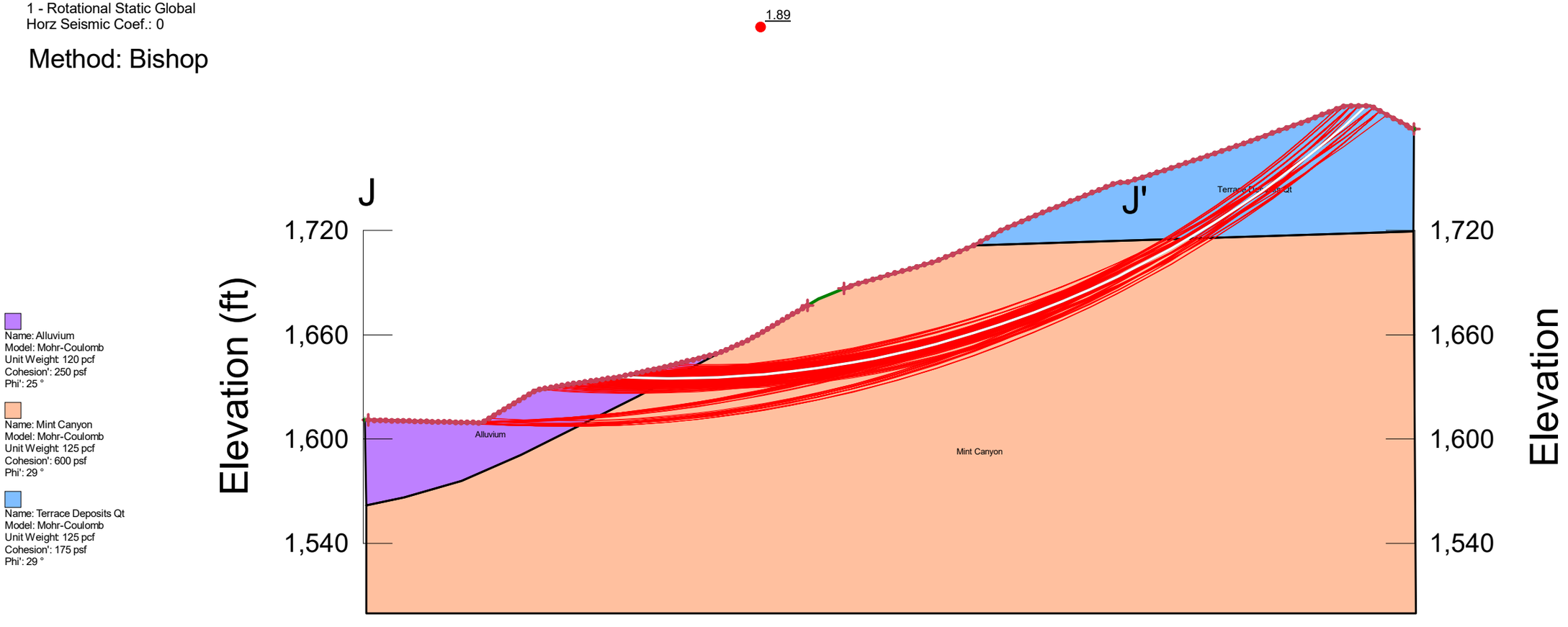
Slice 23	321.28933 ft	1,599.2871 ft	0 psf	3,604.0643 psf	1,456.0926 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 24	325.15463 ft	1,599.9253 ft	0 psf	3,643.05 psf	1,471.8434 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 25	328.76876 ft	1,600.5221 ft	0 psf	3,572.4369 psf	1,443.3147 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 26	332.38289 ft	1,601.119 ft	0 psf	3,501.8238 psf	1,414.786 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 27	335.99703 ft	1,601.7158 ft	0 psf	3,431.2107 psf	1,386.2573 psf	250.02 psf	0 psf	Mint Canyon A static
Slice 28	337.98699 ft	1,602.0444 ft	0 psf	3,523.3541 psf	495.17512 psf	100 psf	0 psf	Fault
Slice 29	340.61468 ft	1,607.3175 ft	0 psf	2,159.1922 psf	303.45467 psf	100 psf	0 psf	Fault
Slice 30	345.50429 ft	1,617.8033 ft	0 psf	1,045.529 psf	146.93952 psf	100 psf	0 psf	Fault
Slice 31	349.80245 ft	1,627.0207 ft	0 psf	172.03377 psf	24.17777 psf	100 psf	0 psf	Fault

Section J-J' SSA for Belcaro 10-18-24.gsz 10/19/2024 03:58:39 PM

Section J-J' SSA for Belcaro 10-18-24.gsz

1 - Rotational Static Global
Horz Seismic Coef.: 0

Method: Bishop



LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section J-J'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Static Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section J-J'
Last Edited By: Basil Hattar
Revision Number: 902
Date: 10/19/2024
Time: 03:58:39 PM
Tool Version: 10.1.1.18972
File Name: Section J-J' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 03:58:51 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Static Global

Kind: SLOPE/W
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Entry and Exit
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Mint Canyon

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Terrace Deposits Qt

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 175 psf
Phi': 29 °
Phi-B: 0 °

Slip Surface Entry and Exit

Left Type: Range
Left-Zone Left Coordinate: (3.07745, 1,610.842) ft
Left-Zone Right Coordinate: (256.18714, 1,676.9416) ft
Left-Zone Increment: 80
Right Type: Range
Right-Zone Left Coordinate: (277.11473, 1,686.536) ft
Right-Zone Right Coordinate: (605.49397, 1,778.3771) ft
Right-Zone Increment: 80
Radius Increments: 15

Slip Surface Limits

Left Coordinate: (1.08876, 1,610.8897) ft
Right Coordinate: (605.49397, 1,778.3771) ft

Seismic Coefficients

Horz Seismic Coef.: 0
Vert Seismic Coef.: 0

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	1.85773 ft	1,561.7351 ft
Point 2	1.85773 ft	1,499.6262 ft
Point 3	606.79745 ft	1,499.6262 ft
Point 4	605.32466 ft	1,719.4993 ft
Point 5	351.85652 ft	1,711.3695 ft
Point 6	330.46212 ft	1,702.3838 ft
Point 7	308.21194 ft	1,695.9655 ft
Point 8	282.11078 ft	1,688.5488 ft
Point 9	262.2853 ft	1,680.5615 ft
Point 10	231.04947 ft	1,662.0197 ft
Point 11	221.63594 ft	1,656.7424 ft
Point 12	204.66304 ft	1,649.3257 ft
Point 13	158.1353 ft	1,624.4945 ft
Point 14	90.99864 ft	1,590.7783 ft
Point 15	56.69093 ft	1,575.9905 ft
Point 16	23.7634 ft	1,566.4524 ft
Point 17	1.08876 ft	1,610.8897 ft
Point 18	68.07559 ft	1,609.2845 ft
Point 19	99.38161 ft	1,628.0375 ft
Point 20	119.15685 ft	1,631.534 ft
Point 21	147.4727 ft	1,635.7183 ft
Point 22	174.8829 ft	1,641.6566 ft
Point 23	192.83537 ft	1,646.3339 ft
Point 24	605.49397 ft	1,778.3771 ft
Point 25	580.52635 ft	1,791.5357 ft
Point 26	565.17388 ft	1,791.5357 ft
Point 27	543.21821 ft	1,782.869 ft
Point 28	504.91959 ft	1,769.1674 ft
Point 29	465.647 ft	1,755.8619 ft
Point 30	439.99353 ft	1,747.74 ft
Point 31	434.84302 ft	1,747.74 ft
Point 32	386.71513 ft	1,728.3994 ft
Point 33	368.05921 ft	1,720.3551 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16	1.0218e+05 ft²
Region 2	Alluvium	17,18,19,20,21,22,23,12,13,14,15,16,1	5,301.7 ft²
Region 3	Terrace Deposits Qt	5,4,24,25,26,27,28,29,30,31,32,33	11,006 ft²

Slip Results

Slip Surfaces Analysed: 102293 of 104976 converged

Current Slip Surface

Slip Surface: 59,493

Factor of Safety: 1.89
Volume: 15,260.222 ft³
Weight: 1,906,455.8 lbf
Resisting Moment: 7.2077773e+08 lbf·ft
Activating Moment: 3.8044528e+08 lbf·ft
Slip Rank: 1 of 104,976 slip surfaces
Exit: (147.75387, 1,635.7792) ft
Entry: (578.03891, 1,791.5357) ft
Radius: 585.61314 ft
Center: (179.41429, 2,220.5359) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	154.53613 ft	1,635.4908 ft	0 psf	218.82501 psf	102.03978 psf	250 psf	0 psf	Alluvium
Slice 2	168.10064 ft	1,635.0713 ft	0 psf	619.40065 psf	288.83126 psf	250 psf	0 psf	Alluvium
Slice 3	176.28153 ft	1,634.9328 ft	0 psf	852.41043 psf	397.48551 psf	250 psf	0 psf	Alluvium
Slice 4	185.25776 ft	1,635.0009 ft	0 psf	1,136.4138 psf	629.92448 psf	600 psf	0 psf	Mint Canyon
Slice 5	198.7492 ft	1,635.2719 ft	0 psf	1,536.1434 psf	851.49821 psf	600 psf	0 psf	Mint Canyon
Slice 6	213.14949 ft	1,635.957 ft	0 psf	2,081.2545 psf	1,153.6582 psf	600 psf	0 psf	Mint Canyon
Slice 7	226.3427 ft	1,636.8252 ft	0 psf	2,729.8836 psf	1,513.1992 psf	600 psf	0 psf	Mint Canyon
Slice 8	238.85843 ft	1,638.0005 ft	0 psf	3,446.7294 psf	1,910.5533 psf	600 psf	0 psf	Mint Canyon
Slice 9	254.47634 ft	1,639.8067 ft	0 psf	4,311.1276 psf	2,389.6971 psf	600 psf	0 psf	Mint Canyon
Slice 10	272.19804 ft	1,642.4069 ft	0 psf	4,983.9224 psf	2,762.6333 psf	600 psf	0 psf	Mint Canyon
Slice 11	288.63607 ft	1,645.2366 ft	0 psf	5,292.0143 psf	2,933.4114 psf	600 psf	0 psf	Mint Canyon
Slice 12	301.68665 ft	1,647.8687 ft	0 psf	5,377.1423 psf	2,980.5987 psf	600 psf	0 psf	Mint Canyon
Slice 13	313.77449 ft	1,650.5732 ft	0 psf	5,426.0863 psf	3,007.7288 psf	600 psf	0 psf	Mint Canyon
Slice 14	324.89958 ft	1,653.3112 ft	0 psf	5,444.1439 psf	3,017.7383 psf	600 psf	0 psf	Mint Canyon
Slice 15	341.15932 ft	1,657.8127 ft	0 psf	5,573.7117 psf	3,089.5588 psf	600 psf	0 psf	Mint Canyon
Slice 16	359.95787 ft	1,663.5132 ft	0 psf	5,883.5962 psf	3,261.3306 psf	600 psf	0 psf	Mint Canyon
Slice 17	377.38717 ft	1,669.4903 ft	0 psf	6,105.9141 psf	3,384.5634 psf	600 psf	0 psf	Mint Canyon
Slice 18	394.73645 ft	1,676.0134 ft	0 psf	6,118.7415 psf	3,391.6738 psf	600 psf	0 psf	Mint Canyon
Slice 19	410.77907 ft	1,682.6355 ft	0 psf	6,034.4125 psf	3,344.9295 psf	600 psf	0 psf	Mint Canyon

Slice 20	426.82171 ft	1,689.8251 ft	0 psf	5,886.6944 psf	3,263.048 psf	600 psf	0 psf	Mint Canyon
Slice 21	437.41827 ft	1,694.8283 ft	0 psf	5,648.3127 psf	3,130.9109 psf	600 psf	0 psf	Mint Canyon
Slice 22	446.4069 ft	1,699.3778 ft	0 psf	5,337.6041 psf	2,958.6823 psf	600 psf	0 psf	Mint Canyon
Slice 23	459.23363 ft	1,706.1522 ft	0 psf	4,993.6554 psf	2,768.0284 psf	600 psf	0 psf	Mint Canyon
Slice 24	470.61667 ft	1,712.4895 ft	0 psf	4,668.4112 psf	2,587.7426 psf	600 psf	0 psf	Mint Canyon
Slice 25	482.91965 ft	1,719.7827 ft	0 psf	4,404.9735 psf	2,441.7167 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 26	497.58628 ft	1,728.9741 ft	0 psf	3,913.3891 psf	2,169.227 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 27	511.30269 ft	1,738.112 ft	0 psf	3,416.7363 psf	1,893.9279 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 28	524.0689 ft	1,747.1506 ft	0 psf	2,919.8134 psf	1,618.479 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 29	536.83511 ft	1,756.7168 ft	0 psf	2,376.9906 psf	1,317.5874 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 30	548.70713 ft	1,766.0961 ft	0 psf	1,852.3973 psf	1,026.8006 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 31	559.68496 ft	1,775.244 ft	0 psf	1,349.8339 psf	748.22514 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 32	571.60639 ft	1,785.7336 ft	0 psf	508.05477 psf	281.61936 psf	175 psf	0 psf	Terrace Deposits Qt

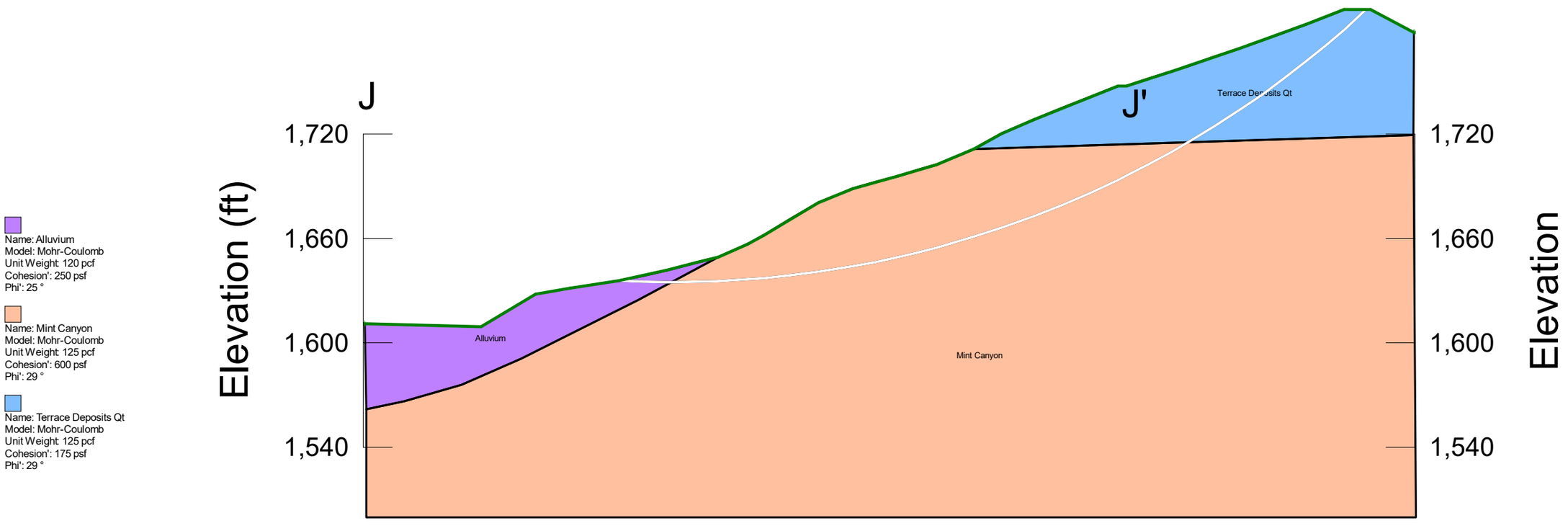
Section J-J' SSA for Belcaro 10-18-24.gsz 10/19/2024 03:58:39 PM

Section J-J' SSA for Belcaro 10-18-24.gsz

1 - Rotational Pseudostatic Global
Horz Seismic Coef.: 0.15

1.31

Method: Bishop



LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section J-J'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Pseudostatic Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section J-J'
Last Edited By: Basil Hattar
Revision Number: 902
Date: 10/19/2024
Time: 03:58:39 PM
Tool Version: 10.1.1.18972
File Name: Section J-J' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 03:58:51 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Pseudostatic Global

Kind: SLOPE/W
Parent: 1 - Rotational Static Global
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Critical Slip Surfaces from Other
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Mint Canyon

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Terrace Deposits Qt

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 175 psf
Phi': 29 °
Phi-B: 0 °

Reinforcements

8XT

Type: Geosynthetic
Interface Adhesion: 0 psf
Interface Shear Angle: 26.14 °
Surface Area Factor: 1
Pullout Resistance Reduction Factor: 1
Tensile Capacity: 4,055 lbf
Tensile Capacity Reduction Factor: 1
Force Orientation: 1
F of S Dependent: Yes
Force Distribution: Concentrated
Face Anchorage: Yes
Factored Tensile Capacity: 4,055 lbf/ft / F of S

Slip Surface Limits

Left Coordinate: (1.08876, 1,610.8897) ft
Right Coordinate: (605.49397, 1,778.3771) ft

Seismic Coefficients

Horz Seismic Coef.: 0.15
Vert Seismic Coef.: 0

Reinforcement Lines

Reinforcement Line 1

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.7445, 395.6027) ft
Inside Point: (69.91565, 395.6027) ft
Length: 10.82885 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 2

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.33907, 397.659) ft
Inside Point: (69.36242, 397.659) ft
Length: 10.97665 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 3

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (79.59083, 400.8835) ft
Inside Point: (68.54036, 400.8835) ft
Length: 11.05047 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	1.85773 ft	1,561.7351 ft
Point 2	1.85773 ft	1,499.6262 ft
Point 3	606.79745 ft	1,499.6262 ft
Point 4	605.32466 ft	1,719.4993 ft
Point 5	351.85652 ft	1,711.3695 ft
Point 6	330.46212 ft	1,702.3838 ft
Point 7	308.21194 ft	1,695.9655 ft
Point 8	282.11078 ft	1,688.5488 ft
Point 9	262.2853 ft	1,680.5615 ft
Point 10	231.04947 ft	1,662.0197 ft
Point 11	221.63594 ft	1,656.7424 ft
Point 12	204.66304 ft	1,649.3257 ft
Point 13	158.1353 ft	1,624.4945 ft
Point 14	90.99864 ft	1,590.7783 ft
Point 15	56.69093 ft	1,575.9905 ft
Point 16	23.7634 ft	1,566.4524 ft
Point 17	1.08876 ft	1,610.8897 ft
Point 18	68.07559 ft	1,609.2845 ft
Point 19	99.38161 ft	1,628.0375 ft
Point 20	119.15685 ft	1,631.534 ft
Point 21	147.4727 ft	1,635.7183 ft
Point 22	174.8829 ft	1,641.6566 ft
Point 23	192.83537 ft	1,646.3339 ft
Point 24	605.49397 ft	1,778.3771 ft
Point 25	580.52635 ft	1,791.5357 ft
Point 26	565.17388 ft	1,791.5357 ft
Point 27	543.21821 ft	1,782.869 ft
Point 28	504.91959 ft	1,769.1674 ft
Point 29	465.647 ft	1,755.8619 ft
Point 30	439.99353 ft	1,747.74 ft
Point 31	434.84302 ft	1,747.74 ft
Point 32	386.71513 ft	1,728.3994 ft
Point 33	368.05921 ft	1,720.3551 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16	1.0218e+05 ft²
Region 2	Alluvium	17,18,19,20,21,22,23,12,13,14,15,16,1	5,301.7 ft²
Region 3	Terrace Deposits Qt	5,4,24,25,26,27,28,29,30,31,32,33	11,006 ft²

Slip Results

Slip Surfaces Analysed: 1 of 1 converged

Current Slip Surface

Slip Surface: 1

Factor of Safety: 1.31
Volume: 15,260.222 ft³
Weight: 1,906,455.8 lbf
Resisting Moment: 6.9154966e+08 lbf·ft
Activating Moment: 5.2896751e+08 lbf·ft
Slip Rank: 1 of 1 slip surfaces
Exit: (147.75387, 1,635.7792) ft
Entry: (578.03891, 1,791.5357) ft
Radius: 585.61314 ft
Center: (179.41429, 2,220.5359) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	154.53613 ft	1,635.4908 ft	0 psf	222.41858 psf	103.71549 psf	250 psf	0 psf	Alluvium
Slice 2	168.10064 ft	1,635.0713 ft	0 psf	621.87939 psf	289.98712 psf	250 psf	0 psf	Alluvium
Slice 3	176.28153 ft	1,634.9328 ft	0 psf	853.23089 psf	397.8681 psf	250 psf	0 psf	Alluvium
Slice 4	185.25776 ft	1,635.0009 ft	0 psf	1,133.5242 psf	628.32273 psf	600 psf	0 psf	Mint Canyon
Slice 5	198.7492 ft	1,635.2719 ft	0 psf	1,524.9632 psf	845.30089 psf	600 psf	0 psf	Mint Canyon
Slice 6	213.14949 ft	1,635.957 ft	0 psf	2,057.8995 psf	1,140.7123 psf	600 psf	0 psf	Mint Canyon
Slice 7	226.3427 ft	1,636.8252 ft	0 psf	2,691.0399 psf	1,491.6678 psf	600 psf	0 psf	Mint Canyon
Slice 8	238.85843 ft	1,638.0005 ft	0 psf	3,388.671 psf	1,878.371 psf	600 psf	0 psf	Mint Canyon
Slice 9	254.47634 ft	1,639.8067 ft	0 psf	4,224.5087 psf	2,341.6834 psf	600 psf	0 psf	Mint Canyon
Slice 10	272.19804 ft	1,642.4069 ft	0 psf	4,864.4537 psf	2,696.4107 psf	600 psf	0 psf	Mint Canyon
Slice 11	288.63607 ft	1,645.2366 ft	0 psf	5,145.2193 psf	2,852.0416 psf	600 psf	0 psf	Mint Canyon
Slice 12	301.68665 ft	1,647.8687 ft	0 psf	5,211.3843 psf	2,888.7175 psf	600 psf	0 psf	Mint Canyon
Slice 13	313.77449 ft	1,650.5732 ft	0 psf	5,243.2679 psf	2,906.3908 psf	600 psf	0 psf	Mint Canyon
Slice 14	324.89958 ft	1,653.3112 ft	0 psf	5,246.2613 psf	2,908.0502 psf	600 psf	0 psf	Mint Canyon
Slice 15	341.15932 ft	1,657.8127 ft	0 psf	5,350.1928 psf	2,965.6603 psf	600 psf	0 psf	Mint Canyon
Slice 16	359.95787 ft	1,663.5132 ft	0 psf	5,623.4144 psf	3,117.1095 psf	600 psf	0 psf	Mint Canyon
Slice 17	377.38717 ft	1,669.4903 ft	0 psf	5,812.1599 psf	3,221.7328 psf	600 psf	0 psf	Mint Canyon
Slice 18	394.73645 ft	1,676.0134 ft	0 psf	5,799.0881 psf	3,214.487 psf	600 psf	0 psf	Mint Canyon
Slice 19	410.77907 ft	1,682.6355 ft	0 psf	5,695.0562 psf	3,156.8212 psf	600 psf	0 psf	Mint Canyon
Slice 20	426.82171 ft	1,689.8251 ft	0 psf	5,531.1173 psf	3,065.9484 psf	600 psf	0 psf	Mint Canyon
Slice 21	437.41827 ft	1,694.8283 ft	0 psf	5,289.8981 psf	2,932.2384 psf	600 psf	0 psf	Mint Canyon
Slice 22	446.4069 ft	1,699.3778 ft	0 psf	4,983.4095 psf	2,762.349 psf	600 psf	0 psf	Mint Canyon
Slice 23	459.23363 ft	1,706.1522 ft	0 psf	4,641.586 psf	2,572.8732 psf	600 psf	0 psf	Mint Canyon
Slice 24	470.61667 ft	1,712.4895 ft	0 psf	4,320.7983 psf	2,395.0576 psf	600 psf	0 psf	Mint Canyon
Slice 25	482.91965 ft	1,719.7827 ft	0 psf	4,106.5885 psf	2,276.3192 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 26	497.58628 ft	1,728.9741 ft	0 psf	3,631.8243 psf	2,013.1531 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 27	511.30269 ft	1,738.112 ft	0 psf	3,156.1389 psf	1,749.4763 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 28	524.0689 ft	1,747.1506 ft	0 psf	2,683.8451 psf	1,487.6796 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 29	536.83511 ft	1,756.7168 ft	0 psf	2,171.9589 psf	1,203.9365 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 30	548.70713 ft	1,766.0961 ft	0 psf	1,680.6109 psf	931.57784 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 31	559.68496 ft	1,775.244 ft	0 psf	1,212.9357 psf	672.34126 psf	175 psf	0 psf	Terrace Deposits Qt
Slice 32	571.60639 ft	1,785.7336 ft	0 psf	437.59094 psf	242.56062 psf	175 psf	0 psf	Terrace Deposits Qt

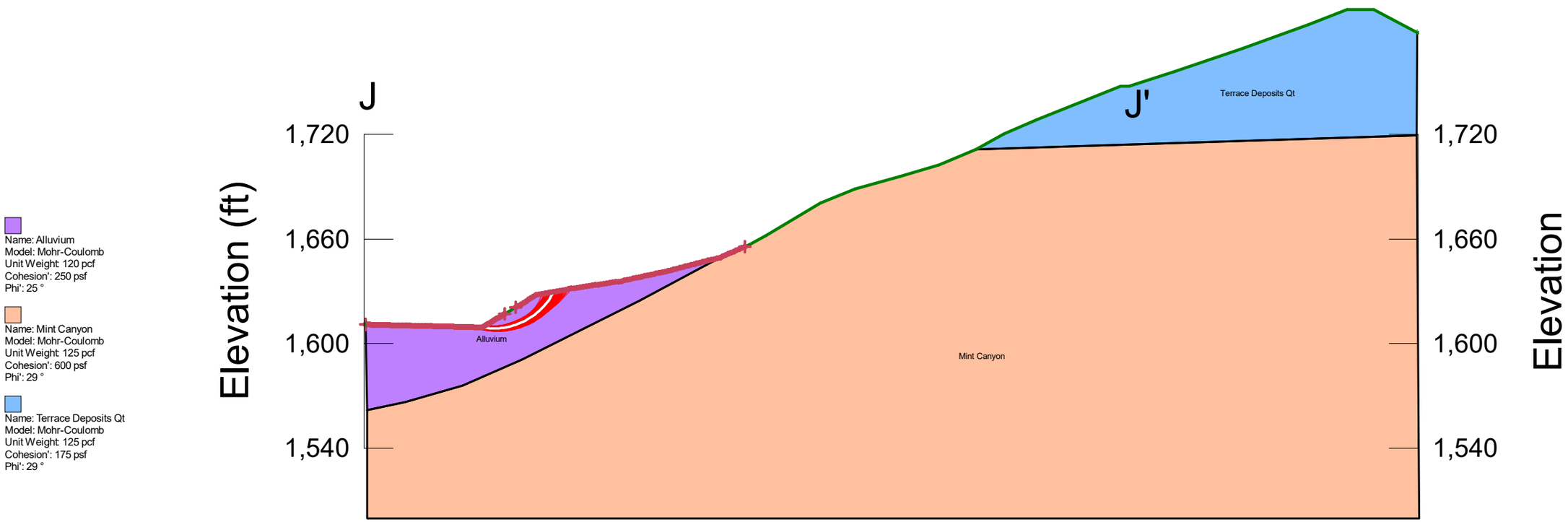
Section J-J' SSA for Belcaro 10-18-24.gsz 10/19/2024 04:04:01 PM

Section J-J' SSA for Belcaro 10-18-24.gsz

2 - Rotational Static Global DB Slope
Horz Seismic Coef.: 0

1.93

Method: Bishop



Name: Alluvium
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °

Name: Mint Canyon
Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °

Name: Terrace Deposits Qt
Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 175 psf
Phi': 29 °

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section J-J'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

2 - Rotational Static Global DB Slope

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section J-J'
Last Edited By: Basil Hattar
Revision Number: 903
Date: 10/19/2024
Time: 04:04:01 PM
Tool Version: 10.1.1.18972
File Name: Section J-J' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 04:04:12 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

2 - Rotational Static Global DB Slope

Kind: SLOPE/W
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Entry and Exit
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Mint Canyon

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Terrace Deposits Qt

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 175 psf
Phi': 29 °
Phi-B: 0 °

Slip Surface Entry and Exit

Left Type: Range
Left-Zone Left Coordinate: (1.08876, 1,610.8897) ft
Left-Zone Right Coordinate: (80.81718, 1,616.917) ft
Left-Zone Increment: 80
Right Type: Range
Right-Zone Left Coordinate: (87.34468, 1,620.8271) ft
Right-Zone Right Coordinate: (218.86486, 1,655.5315) ft
Right-Zone Increment: 80
Radius Increments: 15

Slip Surface Limits

Left Coordinate: (1.08876, 1,610.8897) ft
Right Coordinate: (605.49397, 1,778.3771) ft

Seismic Coefficients

Horz Seismic Coef.: 0
Vert Seismic Coef.: 0

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	1.85773 ft	1,561.7351 ft
Point 2	1.85773 ft	1,499.6262 ft
Point 3	606.79745 ft	1,499.6262 ft
Point 4	605.32466 ft	1,719.4993 ft
Point 5	351.85652 ft	1,711.3695 ft
Point 6	330.46212 ft	1,702.3838 ft
Point 7	308.21194 ft	1,695.9655 ft
Point 8	282.11078 ft	1,688.5488 ft
Point 9	262.2853 ft	1,680.5615 ft
Point 10	231.04947 ft	1,662.0197 ft
Point 11	221.63594 ft	1,656.7424 ft
Point 12	204.66304 ft	1,649.3257 ft
Point 13	158.1353 ft	1,624.4945 ft
Point 14	90.99864 ft	1,590.7783 ft
Point 15	56.69093 ft	1,575.9905 ft
Point 16	23.7634 ft	1,566.4524 ft
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Point 20	119.15685 ft	1,631.534 ft
Point 21	147.4727 ft	1,635.7183 ft
Point 22	174.8829 ft	1,641.6566 ft
Point 23	192.83537 ft	1,646.3339 ft
Point 24	605.49397 ft	1,778.3771 ft
Point 25	580.52635 ft	1,791.5357 ft
Point 26	565.17388 ft	1,791.5357 ft
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Point 28	504.91959 ft	1,769.1674 ft
Point 29	465.647 ft	1,755.8619 ft
Point 30	439.99353 ft	1,747.74 ft
Point 31	434.84302 ft	1,747.74 ft
Point 32	386.71513 ft	1,728.3994 ft
Point 33	368.05921 ft	1,720.3551 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16	1.0218e+05 ft²
Region 2	Alluvium	17,18,19,20,21,22,23,12,13,14,15,16,1	5,301.7 ft²
Region 3	Terrace Deposits Qt	5,4,24,25,26,27,28,29,30,31,32,33	11,006 ft²

Slip Results

Slip Surfaces Analysed: 95851 of 104976 converged

Current Slip Surface

Slip Surface: 84,473

Factor of Safety: 1.93
Volume: 300.52809 ft³
Weight: 36,063.371 lbf
Resisting Moment: 1,105,885 lbf·ft
Activating Moment: 571,960.76 lbf·ft
Slip Rank: 1 of 104,976 slip surfaces
Exit: (67.579928, 1,609.2964) ft
Entry: (109.17915, 1,629.7698) ft
Radius: 38.962239 ft
Center: (74.551469, 1,647.6298) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	67.827759 ft	1,609.253 ft	0 psf	28.326094 psf	13.208674 psf	250 psf	0 psf	Alluvium
Slice 2	68.756156 ft	1,609.1072 ft	0 psf	93.007495 psf	43.370107 psf	250 psf	0 psf	Alluvium
Slice 3	70.117287 ft	1,608.9268 ft	0 psf	210.29214 psf	98.060833 psf	250 psf	0 psf	Alluvium
Slice 4	71.478418 ft	1,608.795 ft	0 psf	319.66484 psf	149.06216 psf	250 psf	0 psf	Alluvium
Slice 5	72.83955 ft	1,608.7112 ft	0 psf	421.39278 psf	196.49868 psf	250 psf	0 psf	Alluvium
Slice 6	74.200681 ft	1,608.6751 ft	0 psf	515.69604 psf	240.47301 psf	250 psf	0 psf	Alluvium
Slice 7	75.561812 ft	1,608.6866 ft	0 psf	602.75284 psf	281.06827 psf	250 psf	0 psf	Alluvium
Slice 8	76.922943 ft	1,608.7458 ft	0 psf	682.7035 psf	318.34987 psf	250 psf	0 psf	Alluvium
Slice 9	78.284075 ft	1,608.8528 ft	0 psf	755.65338 psf	352.36696 psf	250 psf	0 psf	Alluvium
Slice 10	79.645206 ft	1,609.0081 ft	0 psf	821.67502 psf	383.15336 psf	250 psf	0 psf	Alluvium
Slice 11	81.006337 ft	1,609.2122 ft	0 psf	880.80954 psf	410.72823 psf	250 psf	0 psf	Alluvium
Slice 12	82.367469 ft	1,609.4659 ft	0 psf	933.06728 psf	435.09642 psf	250 psf	0 psf	Alluvium
Slice 13	83.7286 ft	1,609.7703 ft	0 psf	978.42789 psf	456.24842 psf	250 psf	0 psf	Alluvium
Slice 14	85.089731 ft	1,610.1265 ft	0 psf	1,016.8396 psf	474.16009 psf	250 psf	0 psf	Alluvium
Slice 15	86.450863 ft	1,610.536 ft	0 psf	1,048.2179 psf	488.79201 psf	250 psf	0 psf	Alluvium
Slice 16	87.811994 ft	1,611.0007 ft	0 psf	1,072.4432 psf	500.08849 psf	250 psf	0 psf	Alluvium
Slice 17	89.173125 ft	1,611.5227 ft	0 psf	1,089.3582 psf	507.97608 psf	250 psf	0 psf	Alluvium
Slice 18	90.534257 ft	1,612.1045 ft	0 psf	1,098.7631 psf	512.36163 psf	250 psf	0 psf	Alluvium
Slice 19	91.895388 ft	1,612.7491 ft	0 psf	1,100.4101 psf	513.12966 psf	250 psf	0 psf	Alluvium

Slice 20	93.256519 ft	1,613.46 ft	0 psf	1,093.9964 psf	510.1389 psf	250 psf	0 psf	Alluvium
Slice 21	94.61765 ft	1,614.2416 ft	0 psf	1,079.1539 psf	503.21772 psf	250 psf	0 psf	Alluvium
Slice 22	95.978782 ft	1,615.0989 ft	0 psf	1,055.4364 psf	492.15806 psf	250 psf	0 psf	Alluvium
Slice 23	97.339913 ft	1,616.0381 ft	0 psf	1,022.3022 psf	476.70734 psf	250 psf	0 psf	Alluvium
Slice 24	98.701044 ft	1,617.0668 ft	0 psf	979.09049 psf	456.55739 psf	250 psf	0 psf	Alluvium
Slice 25	100.08143 ft	1,618.2118 ft	0 psf	894.72974 psf	417.21933 psf	250 psf	0 psf	Alluvium
Slice 26	101.48108 ft	1,619.4889 ft	0 psf	769.36426 psf	358.76045 psf	250 psf	0 psf	Alluvium
Slice 27	102.88073 ft	1,620.9003 ft	0 psf	632.32273 psf	294.85693 psf	250 psf	0 psf	Alluvium
Slice 28	104.28038 ft	1,622.4689 ft	0 psf	482.25088 psf	224.87728 psf	250 psf	0 psf	Alluvium
Slice 29	105.68003 ft	1,624.2266 ft	0 psf	317.40396 psf	148.0079 psf	250 psf	0 psf	Alluvium
Slice 30	107.07968 ft	1,626.2207 ft	0 psf	135.48238 psf	63.17647 psf	250 psf	0 psf	Alluvium
Slice 31	108.47932 ft	1,628.5269 ft	0 psf	-66.618374 psf	-31.064658 psf	250 psf	0 psf	Alluvium

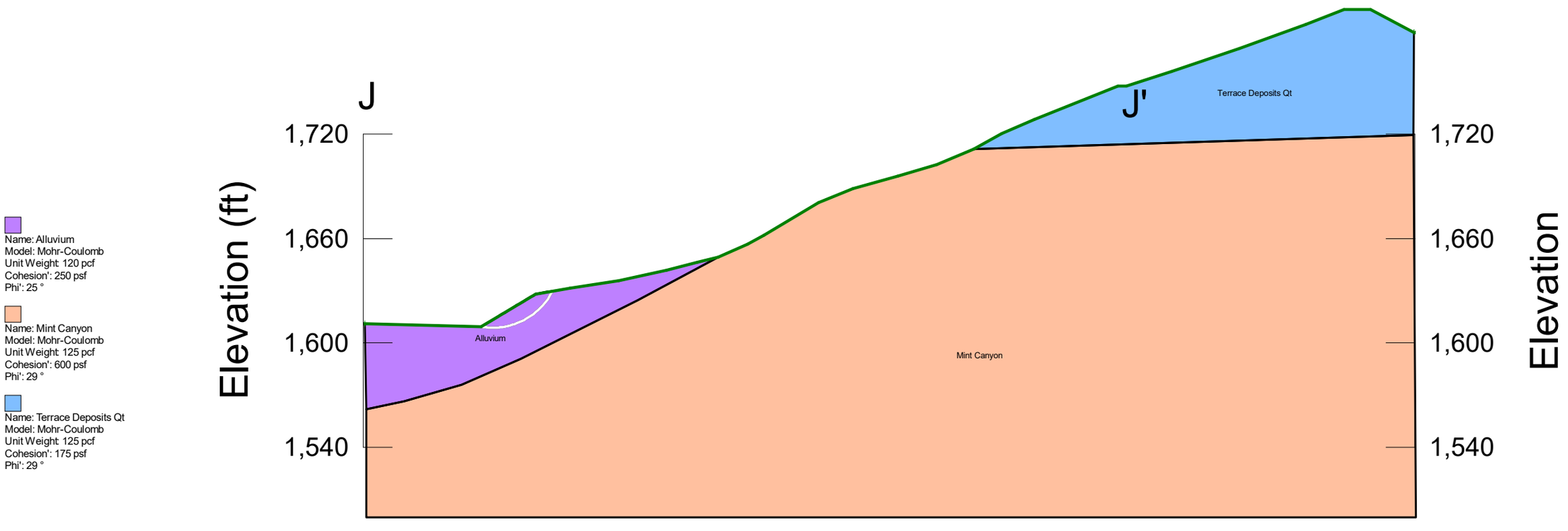
Section J-J' SSA for Belcaro 10-18-24.gsz 10/19/2024 04:04:01 PM

Section J-J' SSA for Belcaro 10-18-24.gsz

1 - Rotational Pseudostatic Global DB Slope
Horz Seismic Coef.: 0.15

1.46

Method: Bishop



Name: Alluvium
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °

Name: Mint Canyon
Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °

Name: Terrace Deposits Qt
Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 175 psf
Phi': 29 °

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section J-J'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Pseudostatic Global DB Slope

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section J-J'
Last Edited By: Basil Hattar
Revision Number: 903
Date: 10/19/2024
Time: 04:04:01 PM
Tool Version: 10.1.1.18972
File Name: Section J-J' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 04:04:13 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Pseudostatic Global DB Slope

Kind: SLOPE/W
Parent: 2 - Rotational Static Global DB Slope
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Critical Slip Surfaces from Other
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Mint Canyon

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Terrace Deposits Qt

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 175 psf
Phi': 29 °
Phi-B: 0 °

Reinforcements

8XT

Type: Geosynthetic
Interface Adhesion: 0 psf
Interface Shear Angle: 26.14 °
Surface Area Factor: 1
Pullout Resistance Reduction Factor: 1
Tensile Capacity: 4,055 lbf
Tensile Capacity Reduction Factor: 1
Force Orientation: 1
F of S Dependent: Yes
Force Distribution: Concentrated
Face Anchorage: Yes
Factored Tensile Capacity: 4,055 lbf/ft / F of S

Slip Surface Limits

Left Coordinate: (1.08876, 1,610.8897) ft
Right Coordinate: (605.49397, 1,778.3771) ft

Seismic Coefficients

Horz Seismic Coef.: 0.15
Vert Seismic Coef.: 0

Reinforcement Lines

Reinforcement Line 1

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.7445, 395.6027) ft
Inside Point: (69.91565, 395.6027) ft
Length: 10.82885 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 2

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.33907, 397.659) ft
Inside Point: (69.36242, 397.659) ft
Length: 10.97665 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 3

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (79.59083, 400.8835) ft
Inside Point: (68.54036, 400.8835) ft
Length: 11.05047 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	1.85773 ft	1,561.7351 ft
Point 2	1.85773 ft	1,499.6262 ft
Point 3	606.79745 ft	1,499.6262 ft
Point 4	605.32466 ft	1,719.4993 ft
Point 5	351.85652 ft	1,711.3695 ft
Point 6	330.46212 ft	1,702.3838 ft
Point 7	308.21194 ft	1,695.9655 ft
Point 8	282.11078 ft	1,688.5488 ft
Point 9	262.2853 ft	1,680.5615 ft
Point 10	231.04947 ft	1,662.0197 ft
Point 11	221.63594 ft	1,656.7424 ft
Point 12	204.66304 ft	1,649.3257 ft
Point 13	158.1353 ft	1,624.4945 ft
Point 14	90.99864 ft	1,590.7783 ft
Point 15	56.69093 ft	1,575.9905 ft
Point 16	23.7634 ft	1,566.4524 ft
Point 17	1.08876 ft	1,610.8897 ft
Point 18	68.07559 ft	1,609.2845 ft
Point 19	99.38161 ft	1,628.0375 ft
Point 20	119.15685 ft	1,631.534 ft
Point 21	147.4727 ft	1,635.7183 ft
Point 22	174.8829 ft	1,641.6566 ft
Point 23	192.83537 ft	1,646.3339 ft
Point 24	605.49397 ft	1,778.3771 ft
Point 25	580.52635 ft	1,791.5357 ft
Point 26	565.17388 ft	1,791.5357 ft
Point 27	543.21821 ft	1,782.869 ft
Point 28	504.91959 ft	1,769.1674 ft
Point 29	465.647 ft	1,755.8619 ft
Point 30	439.99353 ft	1,747.74 ft
Point 31	434.84302 ft	1,747.74 ft
Point 32	386.71513 ft	1,728.3994 ft
Point 33	368.05921 ft	1,720.3551 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16	1.0218e+05 ft²
Region 2	Alluvium	17,18,19,20,21,22,23,12,13,14,15,16,1	5,301.7 ft²
Region 3	Terrace Deposits Qt	5,4,24,25,26,27,28,29,30,31,32,33	11,006 ft²

Slip Results

Slip Surfaces Analysed: 1 of 1 converged

Current Slip Surface

Slip Surface: 1

Factor of Safety: 1.46
Volume: 300.52809 ft³
Weight: 36,063.371 lbf
Resisting Moment: 1,069,423.2 lbf·ft
Activating Moment: 732,336.74 lbf·ft
Slip Rank: 1 of 1 slip surfaces
Exit: (67.579928, 1,609.2964) ft
Entry: (109.17915, 1,629.7698) ft
Radius: 38.962239 ft
Center: (74.551469, 1,647.6298) ft

Slip Slices

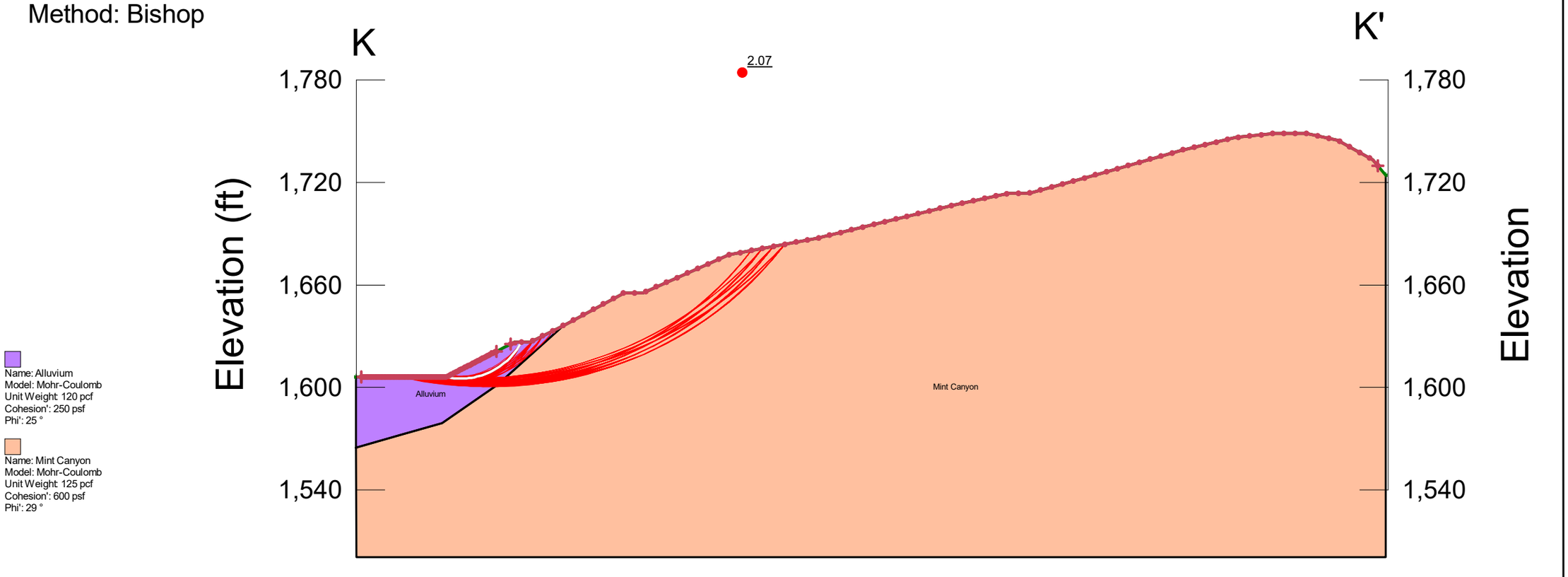
	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	67.827759 ft	1,609.253 ft	0 psf	36.492211 psf	17.016598 psf	250 psf	0 psf	Alluvium
Slice 2	68.756156 ft	1,609.1072 ft	0 psf	100.75809 psf	46.984267 psf	250 psf	0 psf	Alluvium
Slice 3	70.117287 ft	1,608.9268 ft	0 psf	217.21196 psf	101.2876 psf	250 psf	0 psf	Alluvium
Slice 4	71.478418 ft	1,608.795 ft	0 psf	325.08105 psf	151.58778 psf	250 psf	0 psf	Alluvium
Slice 5	72.83955 ft	1,608.7112 ft	0 psf	424.7231 psf	198.05164 psf	250 psf	0 psf	Alluvium
Slice 6	74.200681 ft	1,608.6751 ft	0 psf	516.43659 psf	240.81833 psf	250 psf	0 psf	Alluvium
Slice 7	75.561812 ft	1,608.6866 ft	0 psf	600.46822 psf	280.00293 psf	250 psf	0 psf	Alluvium
Slice 8	76.922943 ft	1,608.7458 ft	0 psf	677.01886 psf	315.69908 psf	250 psf	0 psf	Alluvium
Slice 9	78.284075 ft	1,608.8528 ft	0 psf	746.24806 psf	347.98118 psf	250 psf	0 psf	Alluvium
Slice 10	79.645206 ft	1,609.0081 ft	0 psf	808.27743 psf	376.90595 psf	250 psf	0 psf	Alluvium
Slice 11	81.006337 ft	1,609.2122 ft	0 psf	863.19314 psf	402.51357 psf	250 psf	0 psf	Alluvium
Slice 12	82.367469 ft	1,609.4659 ft	0 psf	911.04754 psf	424.82844 psf	250 psf	0 psf	Alluvium
Slice 13	83.7286 ft	1,609.7703 ft	0 psf	951.86001 psf	443.85961 psf	250 psf	0 psf	Alluvium
Slice 14	85.089731 ft	1,610.1265 ft	0 psf	985.61709 psf	459.6008 psf	250 psf	0 psf	Alluvium
Slice 15	86.450863 ft	1,610.536 ft	0 psf	1,012.2719 psf	472.03012 psf	250 psf	0 psf	Alluvium
Slice 16	87.811994 ft	1,611.0007 ft	0 psf	1,031.7425 psf	481.10943 psf	250 psf	0 psf	Alluvium
Slice 17	89.173125 ft	1,611.5227 ft	0 psf	1,043.9101 psf	486.78326 psf	250 psf	0 psf	Alluvium
Slice 18	90.534257 ft	1,612.1045 ft	0 psf	1,048.615 psf	488.97722 psf	250 psf	0 psf	Alluvium
Slice 19	91.895388 ft	1,612.7491 ft	0 psf	1,045.6528 psf	487.5959 psf	250 psf	0 psf	Alluvium
Slice 20	93.256519 ft	1,613.46 ft	0 psf	1,034.7674 psf	482.51997 psf	250 psf	0 psf	Alluvium
Slice 21	94.61765 ft	1,614.2416 ft	0 psf	1,015.6436 psf	473.60238 psf	250 psf	0 psf	Alluvium
Slice 22	95.978782 ft	1,615.0989 ft	0 psf	987.8954 psf	460.66319 psf	250 psf	0 psf	Alluvium
Slice 23	97.339913 ft	1,616.0381 ft	0 psf	951.05198 psf	443.48282 psf	250 psf	0 psf	Alluvium
Slice 24	98.701044 ft	1,617.0668 ft	0 psf	904.53742 psf	421.79272 psf	250 psf	0 psf	Alluvium
Slice 25	100.08143 ft	1,618.2118 ft	0 psf	818.90654 psf	381.86239 psf	250 psf	0 psf	Alluvium
Slice 26	101.48108 ft	1,619.4889 ft	0 psf	694.74131 psf	323.9632 psf	250 psf	0 psf	Alluvium
Slice 27	102.88073 ft	1,620.9003 ft	0 psf	560.16596 psf	261.20967 psf	250 psf	0 psf	Alluvium
Slice 28	104.28038 ft	1,622.4689 ft	0 psf	414.11661 psf	193.10575 psf	250 psf	0 psf	Alluvium
Slice 29	105.68003 ft	1,624.2266 ft	0 psf	255.25768 psf	119.02861 psf	250 psf	0 psf	Alluvium
Slice 30	107.07968 ft	1,626.2207 ft	0 psf	81.894799 psf	38.188172 psf	250 psf	0 psf	Alluvium
Slice 31	108.47932 ft	1,628.5269 ft	0 psf	-108.12094 psf	-50.417622 psf	250 psf	0 psf	Alluvium

Section K-K' SSA for Belcaro 10-18-24.gsz 10/19/2024 04:28:57 PM

Section K-K' SSA for Belcaro 10-18-24.gsz

1 - Rotational Static Global
Horz Seismic Coef.: 0

Method: Bishop



Name: Alluvium
Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °

Name: Mint Canyon
Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °

LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section K-K'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Static Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section K-K'
Last Edited By: Basil Hattar
Revision Number: 907
Date: 10/19/2024
Time: 04:28:57 PM
Tool Version: 10.1.1.18972
File Name: Section K-K' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 04:29:07 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Static Global

Kind: SLOPE/W
Method: Bishop
Settings
- PWP Conditions from: (none)
- Unit Weight of Water: 62.4 pcf

Slip Surface
- Direction of movement: Right to Left
- Use Passive Mode: No
- Slip Surface Option: Entry and Exit
- Critical slip surfaces saved: 1
- Optimize Critical Slip Surface Location: No
- Tension Crack Option: (none)

Distribution
- F of S Calculation Option: Constant

Advanced
- Geometry Settings
  - Minimum Slip Surface Depth: 0.1 ft
  - Number of Slices: 30
- Factor of Safety Convergence Settings
  - Maximum Number of Iterations: 100
  - Tolerable difference in F of S: 0.01

Materials

Mint Canyon

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Slip Surface Entry and Exit

Left Type: Range
Left-Zone Left Coordinate: (2.90968, 1,606.1011) ft
Left-Zone Right Coordinate: (82.38989, 1,621.1738) ft
Left-Zone Increment: 80
Right Type: Range
Right-Zone Left Coordinate: (90.59034, 1,625.3755) ft
Right-Zone Right Coordinate: (600.00136, 1,729.8594) ft
Right-Zone Increment: 80
Radius Increments: 15

Slip Surface Limits

Left Coordinate: (-0.21219, 1,606.1011) ft
Right Coordinate: (604.75015, 1,724.2061) ft

Seismic Coefficients

Horz Seismic Coef.: 0
Vert Seismic Coef.: 0

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	-0.21219 ft	1,564.6039 ft
Point 2	26.07725 ft	1,572.2032 ft
Point 3	50.31283 ft	1,579.1863 ft

Point 4	82.96924 ft	1,601.368 ft
Point 5	121.37647 ft	1,636.0783 ft
Point 6	157.31906 ft	1,655.3846 ft
Point 7	168.20454 ft	1,655.3846 ft
Point 8	218.93494 ft	1,677.7717 ft
Point 9	269.87073 ft	1,687.2195 ft
Point 10	352.02523 ft	1,707.1419 ft
Point 11	383.24394 ft	1,713.7143 ft
Point 12	395.15634 ft	1,713.7143 ft
Point 13	436.84975 ft	1,725.2159 ft
Point 14	484.08858 ft	1,738.7714 ft
Point 15	516.53961 ft	1,746.3707 ft
Point 16	539.29913 ft	1,748.7304 ft
Point 17	558.01923 ft	1,748.7304 ft
Point 18	576.58086 ft	1,744.7685 ft
Point 19	597.26211 ft	1,733.1204 ft
Point 20	604.75015 ft	1,724.2061 ft
Point 21	604.75015 ft	1,500.5234 ft
Point 22	0.05551 ft	1,500.5234 ft
Point 23	-0.21219 ft	1,606.1011 ft
Point 24	52.97271 ft	1,606.1011 ft
Point 25	92.98816 ft	1,626.6041 ft
Point 26	102.10059 ft	1,626.6041 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22	1.1031e+05 ft²
Region 2	Alluvium	5,4,3,2,1,23,24,25,26	2,843.5 ft²

Slip Results

Slip Surfaces Analysed: 101945 of 104976 converged

Current Slip Surface

Slip Surface: 62,233
Factor of Safety: 2.07
Volume: 312.39989 ft³
Weight: 37,487.986 lbf
Resisting Moment: 1,201,390 lbf·ft
Activating Moment: 580,189.94 lbf·ft
Slip Rank: 1 of 104,976 slip surfaces
Exit: (52.779806, 1,606.1011) ft
Entry: (96.979872, 1,626.6041) ft
Radius: 40.11831 ft
Center: (61.467126, 1,645.2675) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	52.876258 ft	1,606.08 ft	0 psf	30.490079 psf	14.217757 psf	250 psf	0 psf	Alluvium
Slice 2	53.713737 ft	1,605.9128 ft	0 psf	96.189317 psf	44.853815 psf	250 psf	0 psf	Alluvium
Slice 3	55.195791 ft	1,605.6495 ft	0 psf	217.7291 psf	101.52875 psf	250 psf	0 psf	Alluvium
Slice 4	56.677844 ft	1,605.4431 ft	0 psf	330.21533 psf	153.98194 psf	250 psf	0 psf	Alluvium
Slice 5	58.159898 ft	1,605.2927 ft	0 psf	434.00675 psf	202.38067 psf	250 psf	0 psf	Alluvium
Slice 6	59.641952 ft	1,605.1976 ft	0 psf	529.39878 psf	246.86271 psf	250 psf	0 psf	Alluvium
Slice 7	61.124005 ft	1,605.1575 ft	0 psf	616.63161 psf	287.54004 psf	250 psf	0 psf	Alluvium
Slice 8	62.606059 ft	1,605.1722 ft	0 psf	695.89637 psf	324.50181 psf	250 psf	0 psf	Alluvium
Slice 9	64.088113 ft	1,605.2418 ft	0 psf	767.33978 psf	357.81642 psf	250 psf	0 psf	Alluvium
Slice 10	65.570166 ft	1,605.3665 ft	0 psf	831.06759 psf	387.53318 psf	250 psf	0 psf	Alluvium
Slice 11	67.05222 ft	1,605.5469 ft	0 psf	887.14689 psf	413.68339 psf	250 psf	0 psf	Alluvium
Slice 12	68.534274 ft	1,605.7838 ft	0 psf	935.6075 psf	436.28094 psf	250 psf	0 psf	Alluvium
Slice 13	70.016328 ft	1,606.0781 ft	0 psf	976.44249 psf	455.32261 psf	250 psf	0 psf	Alluvium
Slice 14	71.498381 ft	1,606.4311 ft	0 psf	1,009.6078 psf	470.78784 psf	250 psf	0 psf	Alluvium
Slice 15	72.980435 ft	1,606.8446 ft	0 psf	1,035.0209 psf	482.63817 psf	250 psf	0 psf	Alluvium
Slice 16	74.462489 ft	1,607.3204 ft	0 psf	1,052.5587 psf	490.81618 psf	250 psf	0 psf	Alluvium
Slice 17	75.944542 ft	1,607.861 ft	0 psf	1,062.054 psf	495.2439 psf	250 psf	0 psf	Alluvium
Slice 18	77.426596 ft	1,608.4691 ft	0 psf	1,063.2908 psf	495.82062 psf	250 psf	0 psf	Alluvium
Slice 19	78.90865 ft	1,609.1484 ft	0 psf	1,055.9979 psf	492.41989 psf	250 psf	0 psf	Alluvium
Slice 20	80.390704 ft	1,609.9027 ft	0 psf	1,039.8404 psf	484.88554 psf	250 psf	0 psf	Alluvium
Slice 21	81.872757 ft	1,610.7371 ft	0 psf	1,014.4083 psf	473.02635 psf	250 psf	0 psf	Alluvium
Slice 22	83.354811 ft	1,611.6576 ft	0 psf	979.2011 psf	456.60897 psf	250 psf	0 psf	Alluvium
Slice 23	84.836865 ft	1,612.6715 ft	0 psf	933.60741 psf	435.34828 psf	250 psf	0 psf	Alluvium
Slice 24	86.318918 ft	1,613.7878 ft	0 psf	876.87656 psf	408.89426 psf	250 psf	0 psf	Alluvium
Slice 25	87.800972 ft	1,615.0179 ft	0 psf	808.07911 psf	376.81348 psf	250 psf	0 psf	Alluvium
Slice 26	89.283026 ft	1,616.3764 ft	0 psf	726.04998 psf	338.56266 psf	250 psf	0 psf	Alluvium

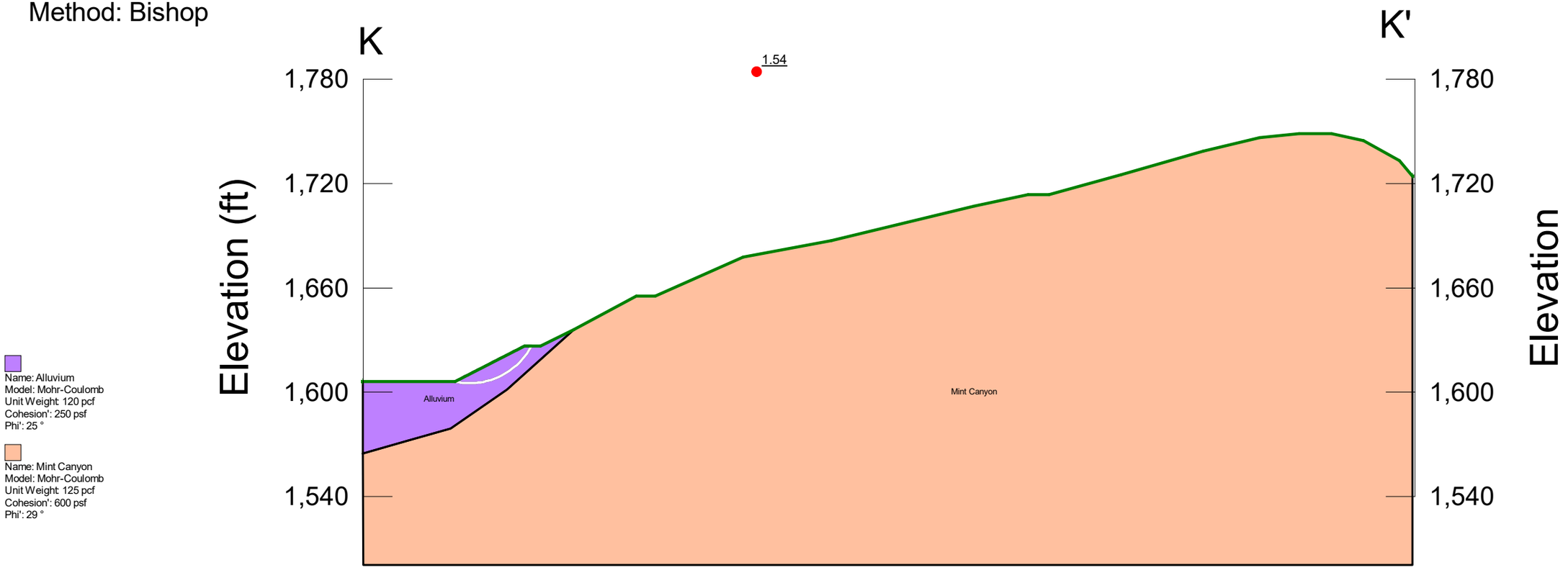
Slice 27	90.765079 ft	1,617.8827 ft	0 psf	629.30438 psf	293.44945 psf	250 psf	0 psf	Alluvium
Slice 28	92.247133 ft	1,619.5628 ft	0 psf	515.90834 psf	240.57201 psf	250 psf	0 psf	Alluvium
Slice 29	93.653445 ft	1,621.3452 ft	0 psf	359.80147 psf	167.77818 psf	250 psf	0 psf	Alluvium
Slice 30	94.984016 ft	1,623.2533 ft	0 psf	162.68015 psf	75.859 psf	250 psf	0 psf	Alluvium
Slice 31	96.314587 ft	1,625.4351 ft	0 psf	-51.39046 psf	-23.963765 psf	250 psf	0 psf	Alluvium

Section K-K' SSA for Belcaro 10-18-24.gsz 10/19/2024 04:28:57 PM

Section K-K' SSA for Belcaro 10-18-24.gsz

1 - Rotational Pseudostatic Global
Horz Seismic Coef.: 0.15

Method: Bishop



LGC Valley, Inc
GEOTECHNICAL CONSULTING
28532 Constellation Road, Valencia, CA 91355
Phone: 661-702-8474 / Fax: 661-702-8475

Cross Section K-K'
VTTM 084497 NUWI / Belcaro

Project No: **233012-01**
Eng/Geol: **BIH/SMB**
Date: **October 2024**

1 - Rotational Pseudostatic Global

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File Information

File Version: 10.01
Title: Static Slope Stability Analysis Cross-Section K-K'
Last Edited By: Basil Hattar
Revision Number: 907
Date: 10/19/2024
Time: 04:28:57 PM
Tool Version: 10.1.1.18972
File Name: Section K-K' SSA for Belcaro 10-18-24.gsz
Directory: P:\FINAL PROJECTS\New Urban West\BELCARO - MANCARA\SLOPE STABILITY\
Last Solved Date: 10/19/2024
Last Solved Time: 04:29:08 PM

Project Settings

Unit System: U.S. Customary Units

Analysis Settings

1 - Rotational Pseudostatic Global

Kind: SLOPE/W
Parent: 1 - Rotational Static Global
Method: Bishop
Settings
PWP Conditions from: (none)
Unit Weight of Water: 62.4 pcf
Slip Surface
Direction of movement: Right to Left
Use Passive Mode: No
Slip Surface Option: Critical Slip Surfaces from Other
Critical slip surfaces saved: 1
Optimize Critical Slip Surface Location: No
Tension Crack Option: (none)
Distribution
F of S Calculation Option: Constant
Advanced
Geometry Settings
Minimum Slip Surface Depth: 0.1 ft
Number of Slices: 30
Factor of Safety Convergence Settings
Maximum Number of Iterations: 100
Tolerable difference in F of S: 0.01

Materials

Mint Canyon

Model: Mohr-Coulomb
Unit Weight: 125 pcf
Cohesion': 600 psf
Phi': 29 °
Phi-B: 0 °

Alluvium

Model: Mohr-Coulomb
Unit Weight: 120 pcf
Cohesion': 250 psf
Phi': 25 °
Phi-B: 0 °

Reinforcements

8XT

Type: Geosynthetic
Interface Adhesion: 0 psf
Interface Shear Angle: 26.14 °
Surface Area Factor: 1
Pullout Resistance Reduction Factor: 1
Tensile Capacity: 4,055 lbf
Tensile Capacity Reduction Factor: 1
Force Orientation: 1
F of S Dependent: Yes
Force Distribution: Concentrated
Face Anchorage: Yes
Factored Tensile Capacity: 4,055 lbf/ft / F of S

Slip Surface Limits

Left Coordinate: (-0.21219, 1,606.1011) ft
Right Coordinate: (604.75015, 1,724.2061) ft

Seismic Coefficients

Horz Seismic Coef.: 0.15
Vert Seismic Coef.: 0

Reinforcement Lines

Reinforcement Line 1

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.7445, 395.6027) ft
Inside Point: (69.91565, 395.6027) ft
Length: 10.82885 ft

Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 2

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (80.33907, 397.659) ft
Inside Point: (69.36242, 397.659) ft
Length: 10.97665 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Reinforcement Line 3

Reinforcement: 8XT
Lock to Ground Surface: No
Outside Point: (79.59083, 400.8835) ft
Inside Point: (68.54036, 400.8835) ft
Length: 11.05047 ft
Orientation: 180 °
Max. Pullout Force: 4,055 lbf
Available Length: 0 ft
Required Length: 0 ft
Pullout Force: 0 lbf
Pullout Force per Length: 0 lbf/ft
Governing Component: (none)

Geometry

Name: Default Geometry

Settings

View: 2D
Element Thickness: 1 ft

Points

	X	Y
Point 1	-0.21219 ft	1,564.6039 ft
Point 2	26.07725 ft	1,572.2032 ft
Point 3	50.31283 ft	1,579.1863 ft
Point 4	82.96924 ft	1,601.368 ft
Point 5	121.37647 ft	1,636.0783 ft
Point 6	157.31906 ft	1,655.3846 ft
Point 7	168.20454 ft	1,655.3846 ft
Point 8	218.93494 ft	1,677.7717 ft
Point 9	269.87073 ft	1,687.2195 ft
Point 10	352.02523 ft	1,707.1419 ft
Point 11	383.24394 ft	1,713.7143 ft
Point 12	395.15634 ft	1,713.7143 ft
Point 13	436.84975 ft	1,725.2159 ft
Point 14	484.08858 ft	1,738.7714 ft
Point 15	516.53961 ft	1,746.3707 ft
Point 16	539.29913 ft	1,748.7304 ft
Point 17	558.01923 ft	1,748.7304 ft
Point 18	576.58086 ft	1,744.7685 ft
Point 19	597.26211 ft	1,733.1204 ft
Point 20	604.75015 ft	1,724.2061 ft
Point 21	604.75015 ft	1,500.5234 ft
Point 22	0.05551 ft	1,500.5234 ft
Point 23	-0.21219 ft	1,606.1011 ft
Point 24	52.97271 ft	1,606.1011 ft
Point 25	92.98816 ft	1,626.6041 ft
Point 26	102.10059 ft	1,626.6041 ft

Regions

	Material	Points	Area
Region 1	Mint Canyon	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22	1.1031e+05 ft²
Region 2	Alluvium	5,4,3,2,1,23,24,25,26	2,843.5 ft²

Slip Results

Slip Surfaces Analysed: 1 of 1 converged

Current Slip Surface

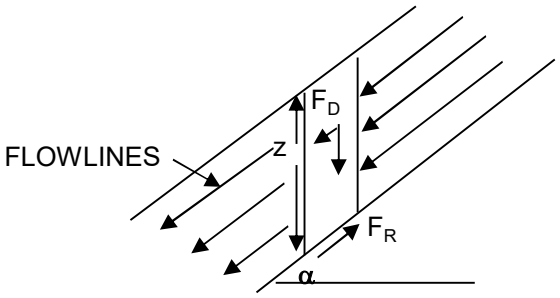
Slip Surface: 1
Factor of Safety: 1.54
Volume: 312.39989 ft³
Weight: 37,487.986 lbf
Resisting Moment: 1,163,682 lbf·ft
Activating Moment: 754,999.46 lbf·ft
Slip Rank: 1 of 1 slip surfaces
Exit: (52.779806, 1,606.1011) ft
Entry: (96.979872, 1,626.6041) ft
Radius: 40.11831 ft
Center: (61.467126, 1,645.2675) ft

Slip Slices

	X	Y	PWP	Base Normal Stress	Frictional Strength	Cohesive Strength	Suction Strength	Base Material
Slice 1	52.876258 ft	1,606.08 ft	0 psf	40.759274 psf	19.006361 psf	250 psf	0 psf	Alluvium
Slice 2	53.713737 ft	1,605.9128 ft	0 psf	106.41462 psf	49.621953 psf	250 psf	0 psf	Alluvium

Slice 3	55.195791 ft	1,605.6495 ft	0 psf	227.40369 psf	106.04008 psf	250 psf	0 psf	Alluvium
Slice 4	56.677844 ft	1,605.4431 ft	0 psf	338.56127 psf	157.87371 psf	250 psf	0 psf	Alluvium
Slice 5	58.159898 ft	1,605.2927 ft	0 psf	440.36141 psf	205.3439 psf	250 psf	0 psf	Alluvium
Slice 6	59.641952 ft	1,605.1976 ft	0 psf	533.19767 psf	248.63416 psf	250 psf	0 psf	Alluvium
Slice 7	61.124005 ft	1,605.1575 ft	0 psf	617.39482 psf	287.89593 psf	250 psf	0 psf	Alluvium
Slice 8	62.606059 ft	1,605.1722 ft	0 psf	693.21783 psf	323.25278 psf	250 psf	0 psf	Alluvium
Slice 9	64.088113 ft	1,605.2418 ft	0 psf	760.87876 psf	354.8036 psf	250 psf	0 psf	Alluvium
Slice 10	65.570166 ft	1,605.3665 ft	0 psf	820.54198 psf	382.62501 psf	250 psf	0 psf	Alluvium
Slice 11	67.05222 ft	1,605.5469 ft	0 psf	872.32802 psf	406.77323 psf	250 psf	0 psf	Alluvium
Slice 12	68.534274 ft	1,605.7838 ft	0 psf	916.3162 psf	427.28526 psf	250 psf	0 psf	Alluvium
Slice 13	70.016328 ft	1,606.0781 ft	0 psf	952.5463 psf	444.17963 psf	250 psf	0 psf	Alluvium
Slice 14	71.498381 ft	1,606.4311 ft	0 psf	981.01918 psf	457.45676 psf	250 psf	0 psf	Alluvium
Slice 15	72.980435 ft	1,606.8446 ft	0 psf	1,001.6965 psf	467.09874 psf	250 psf	0 psf	Alluvium
Slice 16	74.462489 ft	1,607.3204 ft	0 psf	1,014.4994 psf	473.06883 psf	250 psf	0 psf	Alluvium
Slice 17	75.944542 ft	1,607.861 ft	0 psf	1,019.3062 psf	475.31028 psf	250 psf	0 psf	Alluvium
Slice 18	77.426596 ft	1,608.4691 ft	0 psf	1,015.9488 psf	473.74472 psf	250 psf	0 psf	Alluvium
Slice 19	78.90865 ft	1,609.1484 ft	0 psf	1,004.2077 psf	468.26974 psf	250 psf	0 psf	Alluvium
Slice 20	80.390704 ft	1,609.9027 ft	0 psf	983.80487 psf	458.75574 psf	250 psf	0 psf	Alluvium
Slice 21	81.872757 ft	1,610.7371 ft	0 psf	954.39467 psf	445.04154 psf	250 psf	0 psf	Alluvium
Slice 22	83.354811 ft	1,611.6576 ft	0 psf	915.5513 psf	426.92858 psf	250 psf	0 psf	Alluvium
Slice 23	84.836865 ft	1,612.6715 ft	0 psf	866.75195 psf	404.17307 psf	250 psf	0 psf	Alluvium
Slice 24	86.318918 ft	1,613.7878 ft	0 psf	807.35387 psf	376.47529 psf	250 psf	0 psf	Alluvium
Slice 25	87.800972 ft	1,615.0179 ft	0 psf	736.56253 psf	343.46475 psf	250 psf	0 psf	Alluvium
Slice 26	89.283026 ft	1,616.3764 ft	0 psf	653.38655 psf	304.67915 psf	250 psf	0 psf	Alluvium
Slice 27	90.765079 ft	1,617.8827 ft	0 psf	556.57199 psf	259.53378 psf	250 psf	0 psf	Alluvium
Slice 28	92.247133 ft	1,619.5628 ft	0 psf	444.50367 psf	207.27546 psf	250 psf	0 psf	Alluvium
Slice 29	93.653445 ft	1,621.3452 ft	0 psf	293.6488 psf	136.93068 psf	250 psf	0 psf	Alluvium
Slice 30	94.984016 ft	1,623.2533 ft	0 psf	106.43212 psf	49.630113 psf	250 psf	0 psf	Alluvium
Slice 31	96.314587 ft	1,625.4351 ft	0 psf	-94.33424 psf	-43.988779 psf	250 psf	0 psf	Alluvium

SURFICIAL SLOPE STABILITY ANALYSIS



Project No.:

Case: 2H:1V Slope / Compacted Fill

Depth of Saturation (ft), Z	=	**4**
Buoyant Unit Weight of Soil (pcf), γ_b	=	**62.6**
Total Unit Weight of Soil (pcf), γ_t	=	**125**
Slope Angle, α	=	**26.6**
Angle of Internal Friction, ϕ	=	**30**
Cohesion (psf), c	=	**200**

Force Tending To Cause Movement:

$$F_D = Z\gamma_t \sin 2\alpha / 2$$ = **200.18** lb/ft

Force Tending To Resist Movement:

$$F_R = Z\gamma_b \cos^2 \alpha \tan \phi + (c)$$

= **315.58** lb/ft

F.S. :

$$\frac{2Z\gamma_b \cos^2 \alpha \tan \phi + 2c}{Z\gamma_t \sin 2\alpha}$$

F.S. = 1.58

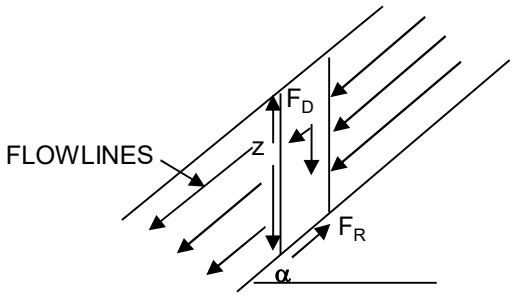
SURFICIAL STABILITY

Project Name : NUWI/Belcaro

Project Number :233012-01

LGC

SURFICIAL SLOPE STABILITY ANALYSIS



Project No.:

Case: 2H:1V Slope / Alluvium Qal

Depth of Saturation (ft), Z	=	**4**
Buoyant Unit Weight of Soil (pcf), γ_b	=	**62.6**
Total Unit Weight of Soil (pcf), γ_t	=	**125**
Slope Angle, α	=	**26.6**
Angle of Internal Friction, ϕ	=	**25**
Cohesion (psf), c	=	**250**

Force Tending To Cause Movement:

$F_D = Z\gamma_t \sin 2\alpha / 2$ = **200.18** lb/ft

Force Tending To Resist Movement:

$F_R = Z\gamma_b \cos^2 \alpha \tan \phi + (c)$

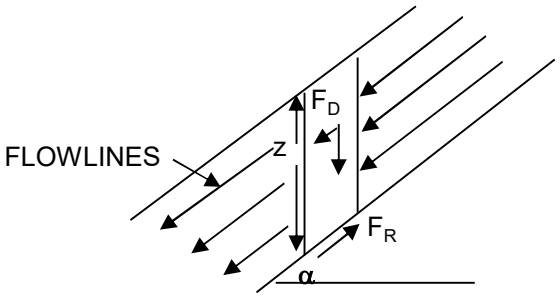
= **343.35** lb/ft

F.S.: $$\frac{2Z\gamma_b \cos^2 \alpha \tan \phi + 2c}{Z\gamma_t \sin 2\alpha}$$

F.S. = 1.72

SURFICIAL STABILITY	Project Name : NUWI/Belcaro Project Number :233012-01 LGC

SURFICIAL SLOPE STABILITY ANALYSIS



Project No.:

Case: 2H:1V Slope /Bedrock Slope

Depth of Saturation (ft), Z	=	**4**
Buoyant Unit Weight of Soil (pcf), γ_b	=	**62.6**
Total Unit Weight of Soil (pcf), γ_t	=	**125**
Slope Angle, α	=	**26.6**
Angle of Internal Friction, ϕ	=	**29**
Cohesion (psf), c	=	**600**

Force Tending To Cause Movement:

$$F_D = Z\gamma_t \sin 2\alpha / 2$$ = **200.18** lb/ft

Force Tending To Resist Movement:

$$F_R = Z\gamma_b \cos^2 \alpha \tan \phi + (c)$$

= **710.97** lb/ft

F.S. :

$$\frac{2Z\gamma_b \cos^2 \alpha \tan \phi + 2c}{Z\gamma_t \sin 2\alpha}$$

F.S. = 3.55

SURFICIAL STABILITY	Project Name : NUWI/Belcaro Project Number :233012-01 LGC

APPENDIX F

LGC VALLEY, INC.

General Earthwork and Grading Specifications For Rough Grading

1.0 General

1.1 Intent: These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

1.2 The Geotechnical Consultant of Record: Prior to commencement of work, the owner shall employ a qualified Geotechnical Consultant of Record (Geotechnical Consultant). The Geotechnical Consultant shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observation, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to confirm that the attained level of compaction is being accomplished as specified. The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

1.3 ***<u>The Earthwork Contractor</u>:*** The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Specifications prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the project plans and specifications. The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of "equipment" of work and the estimated quantities of daily earthwork contemplated for the site prior to commencement of grading. The Contractor shall inform the owner and the Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate personnel will be available for observation and testing. . The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultant, unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in these specifications, the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified. It is the contractor's sole responsibility to provide proper fill compaction.

2.0 <u>Preparation of Areas to be Filled</u>

2.1 ***<u>Clearing and Grubbing</u>:*** Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). No fill lift shall contain more than 10 percent of organic matter. Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed. The contractor is responsible for all hazardous waste relating to his work. The Geotechnical Consultant does not have expertise in this area. If hazardous waste is a concern, then the Client should acquire the services of a qualified environmental assessor.

2.2 ***Processing:*** Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be overexcavated as specified in the following section. Scarification shall continue until soils are broken down and free from oversize material and the working surface is reasonably uniform, flat, and free from uneven features that would inhibit uniform compaction.

2.3 ***Overexcavation:*** In addition to removals and overexcavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be overexcavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 ***Benching:*** Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. Please see the Standard Details for a graphic illustration. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical Consultant. Fill placed on ground sloping flatter than 5:1 shall also be benched or otherwise overexcavated to provide a flat subgrade for the fill.

2.5 ***Evaluation/Acceptance of Fill Areas:*** All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

3.0 Fill Material

3.1 ***General:*** Material to be used as fill shall be essentially free from organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

3.2 ***Oversize:*** Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 8 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

3.3 ***Import:*** If importing of fill material is required for grading, proposed import material shall meet the requirements of Section 3.1. The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so that its suitability can be determined and appropriate tests performed.

4.0 Fill Placement and Compaction

4.1 ***Fill Layers:*** Approved fill material shall be placed in areas prepared to receive fill (per Section 3.0) in near-horizontal layers not exceeding 8 inches in loose thickness. The Geotechnical Consultant may accept thicker layers if testing indicates the grading procedures can adequately compact the thicker layers. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 ***Fill Moisture Conditioning:*** Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557-12).

4.3 ***Compaction of Fill:*** After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 90 percent of maximum dry density (ASTM Test Method D1557-12). Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

4.4 ***Compaction of Fill Slopes:*** In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by backrolling of slopes with sheepsfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of maximum density per ASTM Test Method D1557-12.

4.5 ***Compaction Testing:*** Field tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

4.6 ***Frequency of Compaction Testing:*** Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

4.7 ***Compaction Test Locations:*** The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less than 5 feet apart from potential test locations shall be provided.

5.0 Subdrain Installation

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the grading plan, and the Standard Details. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land surveyor/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

6.0 Excavation

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

7.0 Trench Backfills

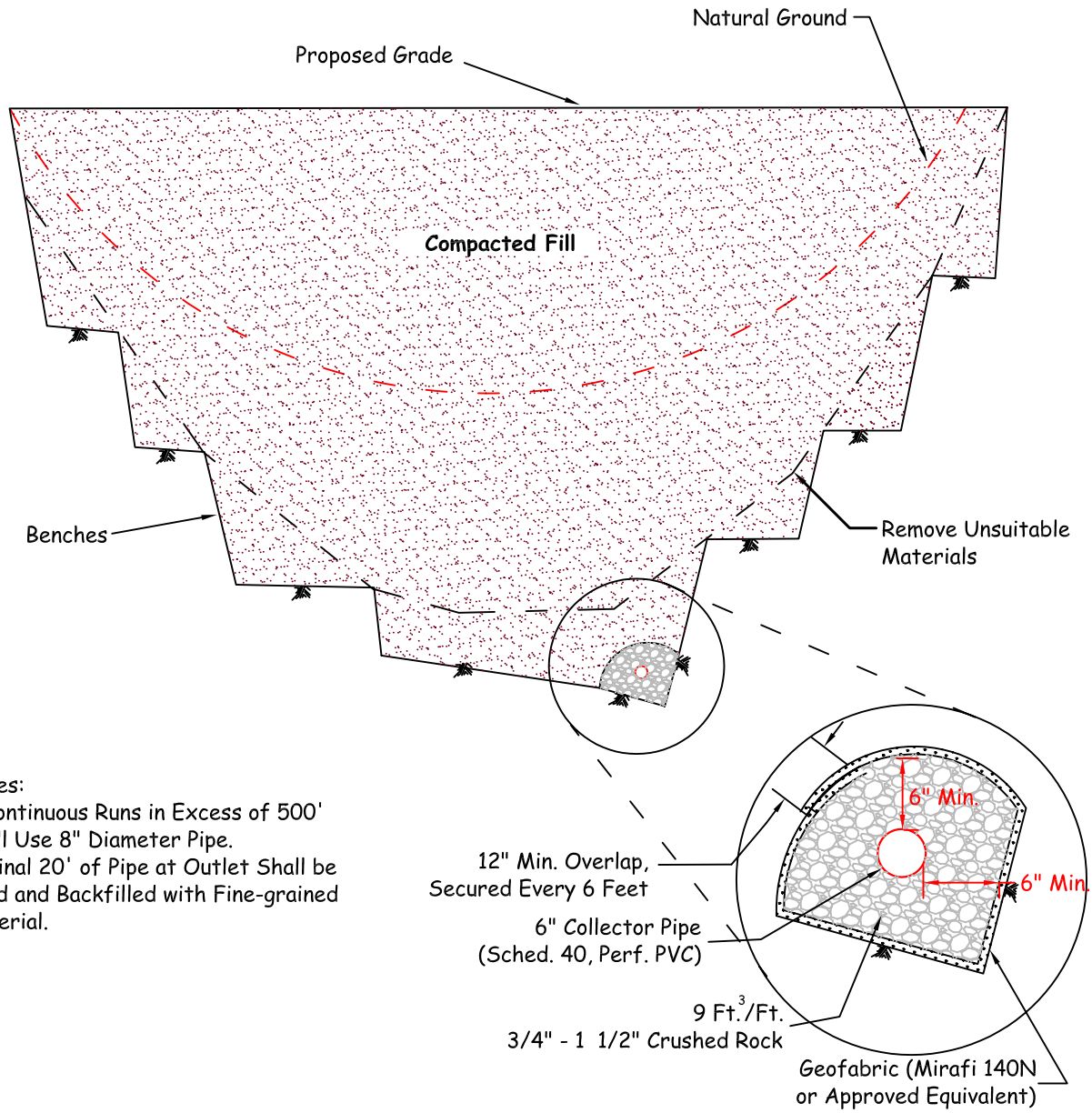
7.1 The Contractor shall follow all OHSA and Cal/OSHA requirements for safety of trench excavations.

7.2 All bedding and backfill of utility trenches shall be done in accordance with the applicable provisions of Standard Specifications of Public Works Construction. Bedding material shall have a Sand Equivalent greater than 30 (SE>30). The bedding shall be placed to 1 foot over the top of the conduit and densified by jetting. Backfill shall be placed and densified to a minimum of 90 percent of maximum from 1 foot above the top of the conduit to the surface.

7.3 The jetting of the bedding around the conduits shall be observed by the Geotechnical Consultant.

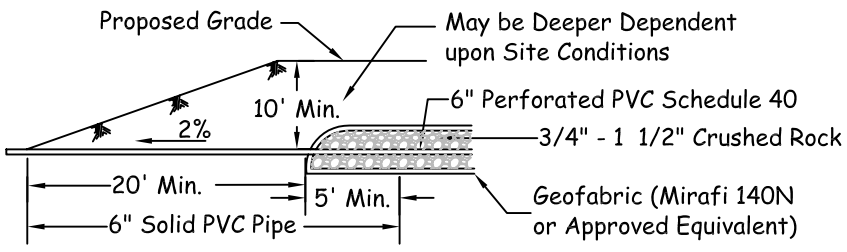
7.4 The Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

7.5 Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.



Notes:
1) Continuous Runs in Excess of 500' Shall Use 8" Diameter Pipe.
2) Final 20' of Pipe at Outlet Shall be Solid and Backfilled with Fine-grained Material.

Proposed Outlet Detail

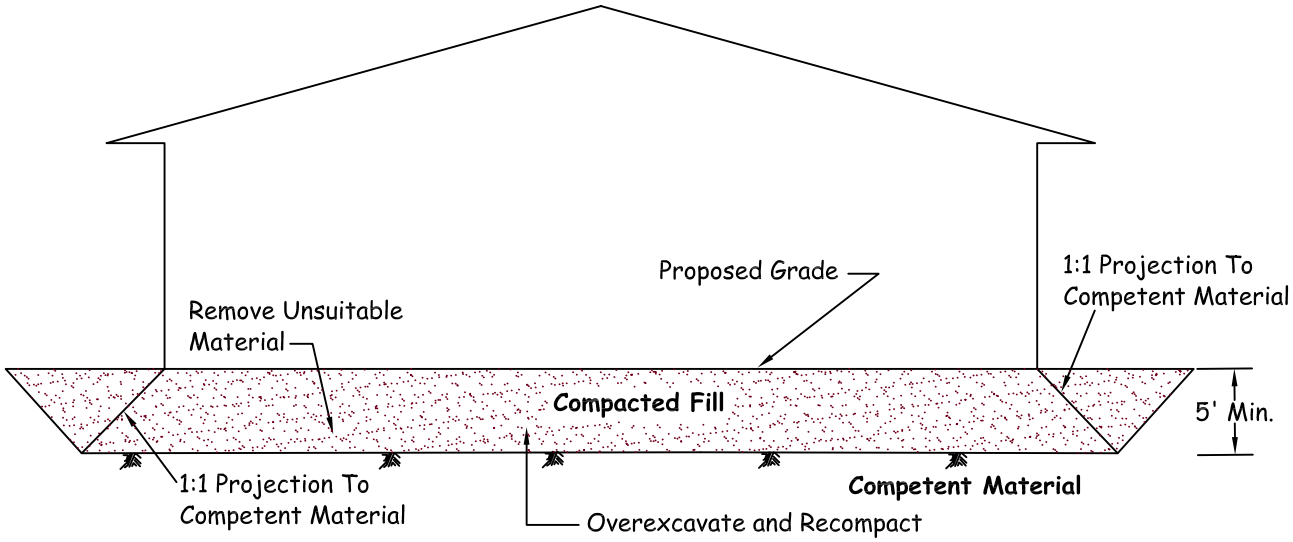


LGC

CANYON SUBDRAINS

11/26/02

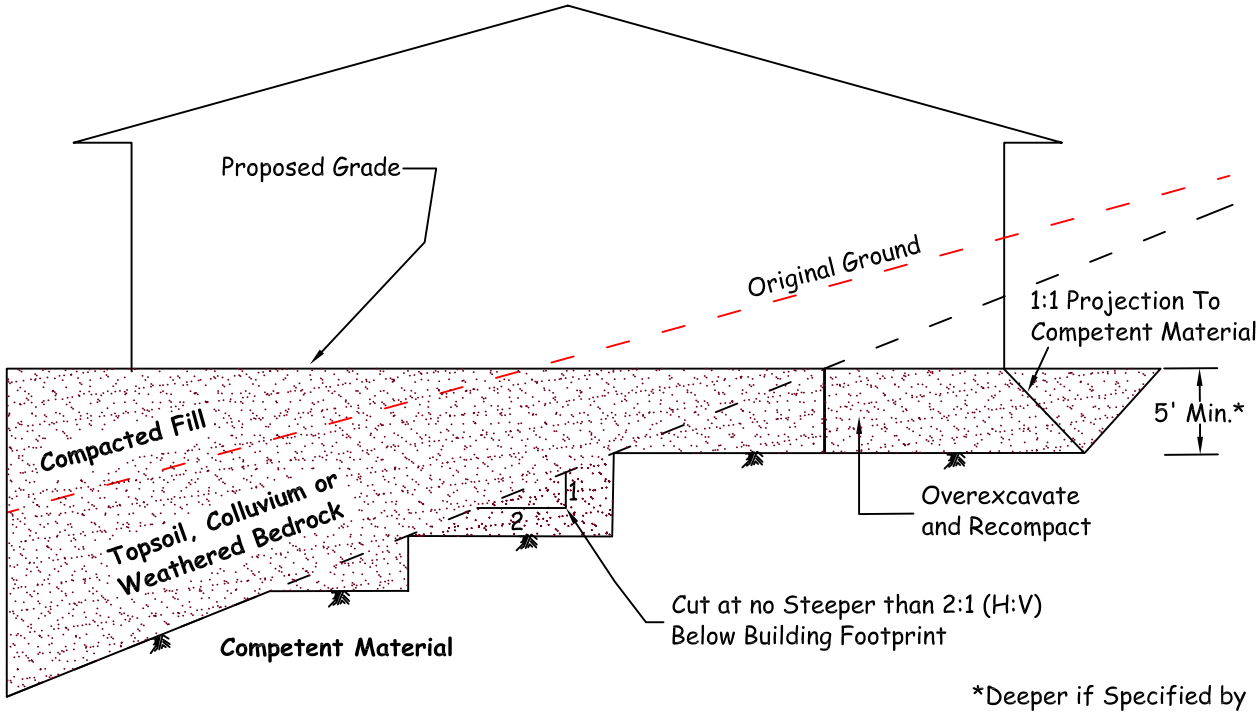
Cut Lot
(Exposing Unsuitable Soils at Design Grade)



Note 1: Removal Bottom Should be Graded With Minimum 2% Fall Towards Street or Other Suitable Area (as Determined by Soils Engineer) to Avoid Ponding Below Building

Note 2: Where Design Cut Lots are Excavated Entirely Into Competent Material, Overexcavation May Still be Required for Hard-Rock Conditions or for Materials With Variable Expansion Characteristics.

Cut/Fill Transition Lot



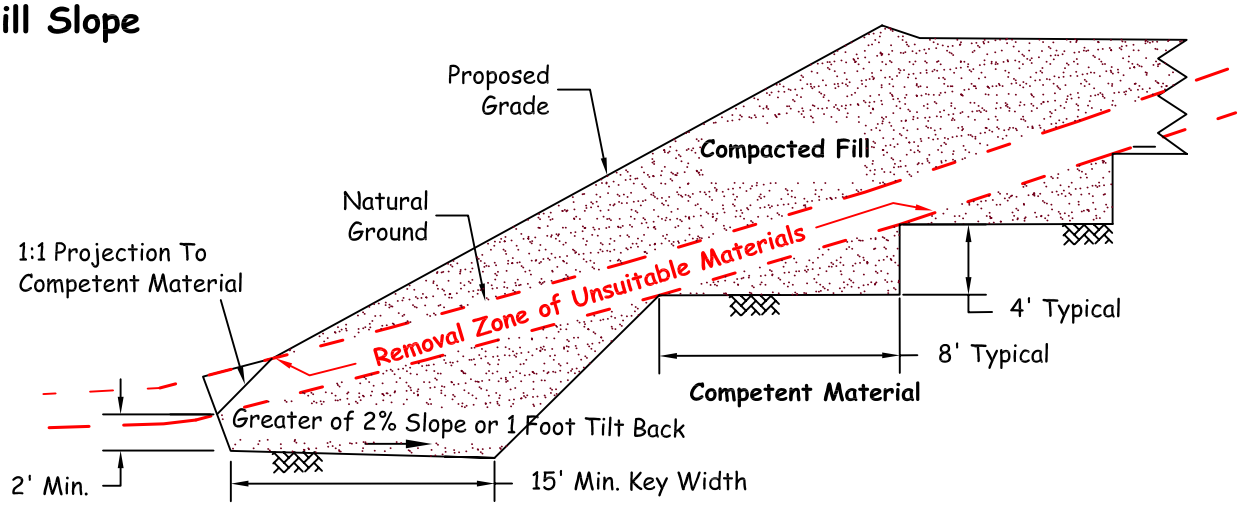
*Deeper if Specified by Soils Engineer

LGC

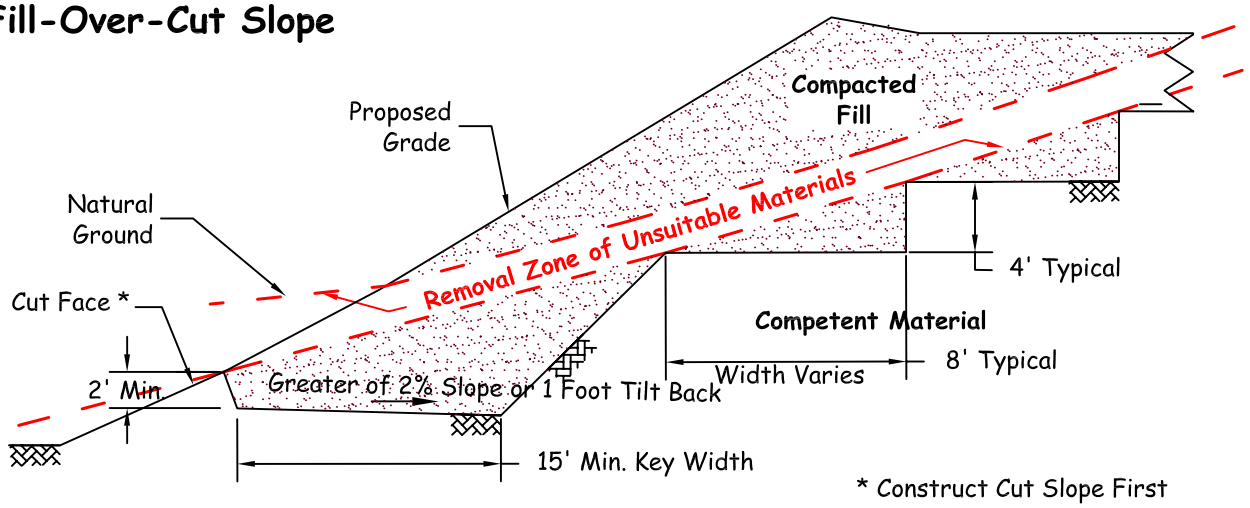
CUT AND TRANSITION LOT OVEREXCAVATION DETAIL

11/26/02

Fill Slope

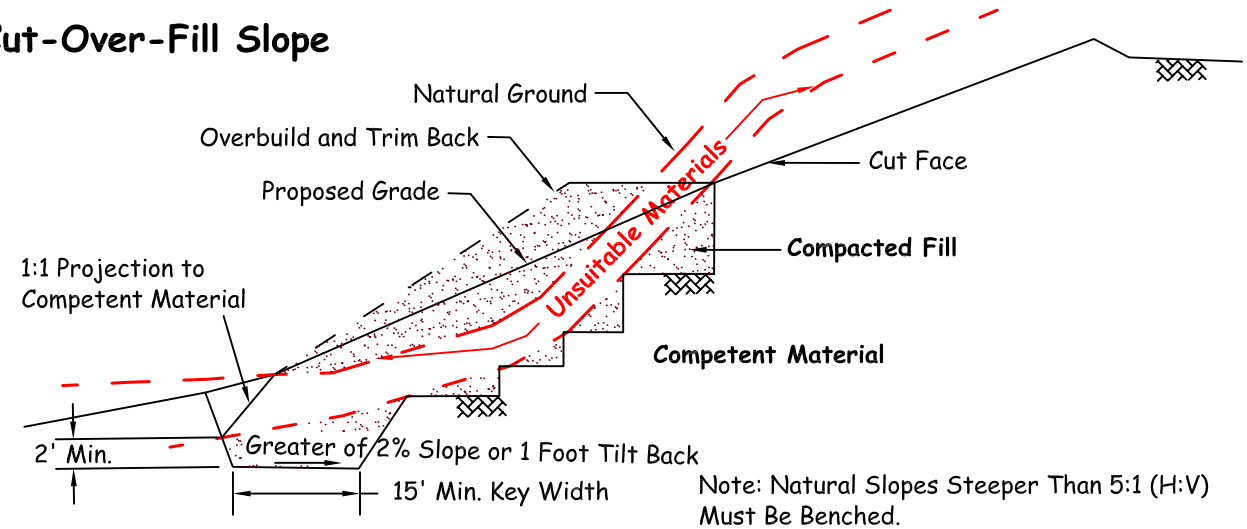


Fill-Over-Cut Slope



* Construct Cut Slope First

Cut-Over-Fill Slope



Note: Natural Slopes Steeper Than 5:1 (H:V) Must Be Benched.

LGC

KEYING AND BENCHING

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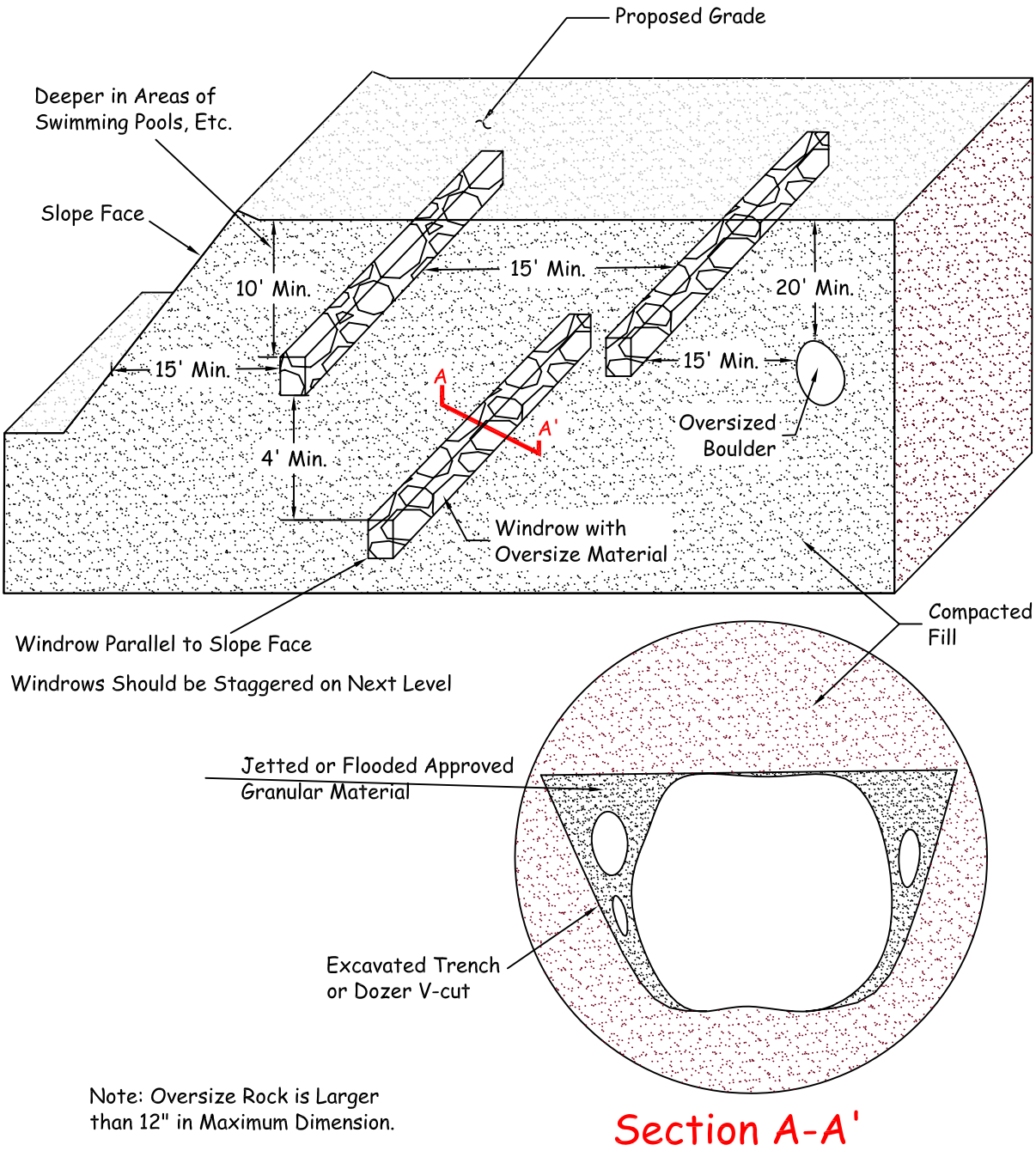

LGC

OVERSIZE ROCK DISPOSAL DETAIL

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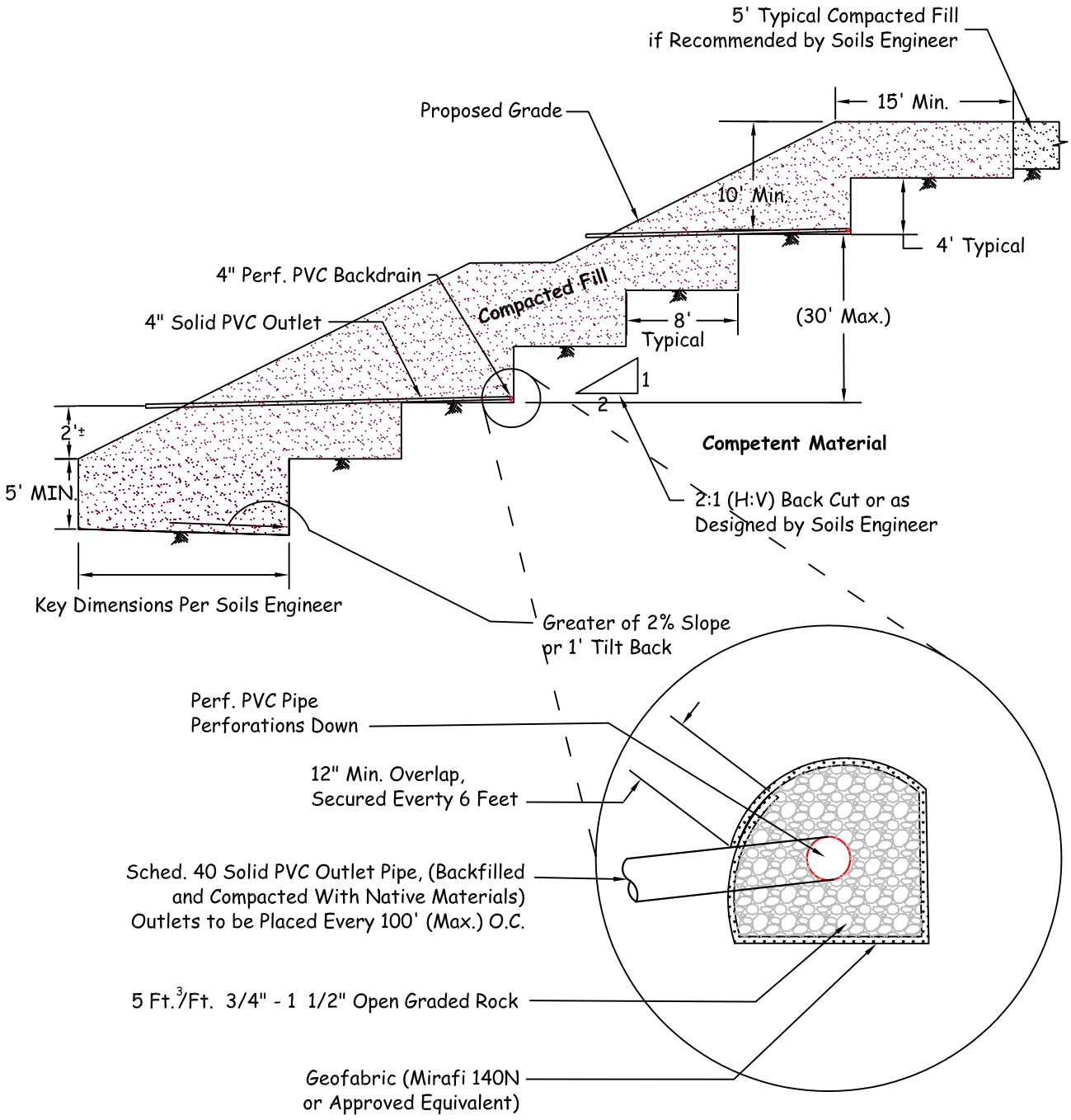

LGC

TYPICAL BUTTRESS DETAIL

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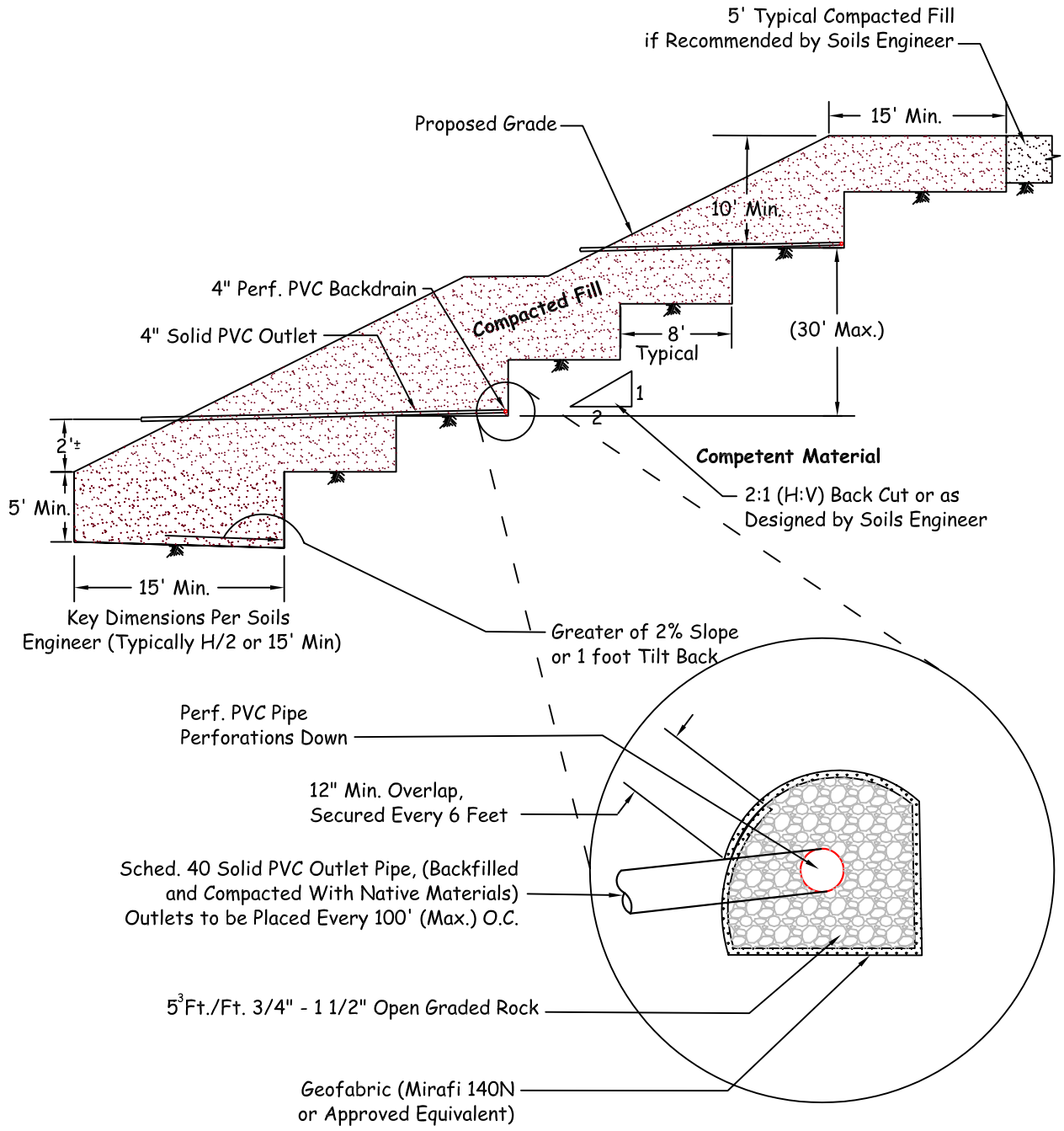

LGC

TYPICAL STABILIZATION FILL DETAIL

11/26/02