October 29, 2021

LDC Industrial Realty, LLC
555 N. El Camino Real, Suite A456
San Clemente, California 92672

Attention: Mr. Matthew Snyder

Project No.: **21G231-2**

Subject: **Results of Infiltration Testing**
Proposed Warehouse
Patterson Avenue, South of Cajalco Road
Riverside County (Perris), California

Reference: Geotechnical Investigation, Proposed Warehouse, Patterson Avenue, South of Cajalco Road, Riverside County (Perris Area), California, prepared for LDC Industrial Realty, LLC, by Southern California Geotechnical, Inc. (SCG), SCG Project No. 21G231-1, dated October 27, 2021.

Mr. Snyder:

In accordance with your request, we have conducted infiltration testing at the subject site. We are pleased to present this report summarizing the results of the infiltration testing and our design recommendations.

Scope of Services

The scope of services performed for this project was in general accordance with our Proposal No. 21P415, dated September 16, 2021. The scope of services included site reconnaissance, subsurface exploration, field testing, and engineering analysis to determine the infiltration rates of the onsite soils. The infiltration testing was performed in general accordance with ASTM Test Method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double Ring Infiltrometer.

Site and Project Description

The site is located at the on the east side of Patterson Avenue, 610± feet south of Cajalco Road in an unincorporated portion of Riverside County near Perris, California. The site is bounded to the north by a vacant lot, to the west by Patterson Avenue, to the south by a vacant lot, and to the east by Harvill Avenue. The general location of the site is illustrated on the Site Location Map, included as Plate 1 of this report.

The site consists of a trapezoidal-shaped parcel, 4.79± acres in size. The site is presently vacant and undeveloped. The ground surface consists of exposed soils which appear to have been recently disced or tilled and stripped of any vegetation.

Detailed topographic information was not available at the time of this report. Based on our visual observations and topographic information obtained from Google Earth, the site

topography appears to slope gently downward to the east at a gradient of approximately 1 percent.

Proposed Development

Based on the conceptual site plan (Scheme 1, dated September 1, 2021) prepared by HPA Architecture, the site will be developed with a new warehouse. The building will be 112,520± ft^2 in size, located in the central region of the property. Dock-high doors will be constructed along a portion of the southern building wall. The building is expected to be surrounded by asphaltic concrete in the automobile parking and driving lanes, with Portland cement concrete pavements in the truck court area, with limited areas of concrete flatwork and landscape planters.

The proposed development will include on-site storm water infiltration. Based on conversations with the project civil engineer, we understand that the infiltration system will consist of three below-grade chamber systems. One of the below-grade chamber systems will be located in the southern area of the site, the second chamber will be located in the southeastern area of the site, and the third chamber will be located in the northeastern area of the site. The bottom of the infiltration systems will range from 10 to 12± feet below the existing site grades.

Concurrent Study

SCG concurrently conducted a geotechnical investigation at the subject site, which is referenced above. As part of this study, five (5) borings were advanced to depths of 20 to 25± feet below existing site grades. With the exception of Boring No. B-3, artificial fill soils were encountered at the ground surface at all of the boring locations, extending to depths of 2½ to 4½± feet below the existing site grades. The artificial fill soils consist of medium dense to very dense silty and clayey fine to coarse sands. These materials possess varying densities and a disturbed appearance (with some lamination), resulting in their classification as artificial fill. Native younger alluvium was encountered at the ground surface at Boring No. B-3, and beneath the artificial fill soils at Boring Nos. B-2 and B-4, extending to depths of 8 to 20± feet below the existing site grades. Boring No. B-2 was terminated within the younger alluvium at a depth of 20± feet. The younger alluvium generally consists of loose to dense silty sands and clayey sands. The younger alluvium possesses minor amounts of calcareous deposits. With the exception of Boring No. B-2, older native alluvial soils were encountered beneath the artificial fill or beneath the younger alluvium at all of the boring locations, extending to at least the maximum depth explored of 25± feet below ground surface. The older alluvium generally consists of medium dense to dense silty fine sands, clayey fine sands, and fine sandy silts with varying medium to coarse sand.

Groundwater

Free water was not encountered during any of our subsurface explorations. Based on the lack of any water within the borings and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth in excess of 25± feet at the time of the subsurface exploration.

As part of our research, we reviewed available groundwater data in order to determine the historic high groundwater level for the site. The primary reference used to determine the

groundwater depths in this area is the California Department of Water Resources website, http://www.water.ca.gov/waterdatalibrary/. One of the monitoring wells observed in the vicinity of the site is located 1.4 miles east of the subject site. Water level readings within this monitoring well indicates a high groundwater level of 79± feet below the ground surface in February 2015.

Subsurface Exploration

Scope of Exploration

The subsurface exploration for the infiltration testing consisted of four (4) backhoe-excavated trenches, extending to a depth of 10± feet below existing site grades. The trenches were logged during excavation by a member of our staff. The approximate locations of the infiltration trenches (identified as I-1 through I-4) are indicated on the Infiltration Test Location Plan, enclosed as Plate 2 of this report.

Geotechnical Conditions

Artificial fill soils were encountered at the ground surface of all the trench locations, extending 2½ to 3½± feet below existing site grades. The artificial fill soils consist of medium dense to very dense silty and clayey fine to coarse sands. These materials possess varying densities and a disturbed appearance (with some lamination), resulting in their classification as artificial fill. Native alluvium was encountered beneath the artificial fill at two out of the four infiltration testing locations, extending to at least the maximum explored depth of 10± feet below existing site grades. The younger alluvium generally consists of dense silty sands with varying amounts of clays. With the exception of Trench Nos. B-3 and B-4, older native alluvial soils were encountered beneath the artificial fill or beneath the younger alluvium at all of the boring locations, extending to at least the maximum depth explored of 10± feet below ground surface. The older alluvium generally consists of dense to very dense silty fine sands, with varying medium to coarse sand. The Trench Logs, which illustrate the conditions encountered at the infiltration test locations, are presented in this report.

Infiltration Testing

We understand that the results of the testing will be used to prepare a preliminary design for the storm water infiltration system that will be used at the subject site. As previously mentioned, the infiltration testing was performed in general accordance with ASTM Test Method D-3385-03, Standard Test Method for Infiltration Rate of Soils in Field Using Double Ring Infiltrometer.

Two stainless steel infiltration rings were used for the infiltration testing. The outer infiltration ring is 2 feet in diameter and 20 inches in height. The inner infiltration ring is 1 foot in diameter and 20 inches in height. At the test locations, the outer ring was driven 3± inches into the soil at the base of each trench. The inner ring was centered inside the outer ring and subsequently driven 3± inches into the soil at the base of the trench. The rings were driven into the soil using a ten-pound sledge hammer. The soil surrounding the wall of the infiltration rings was only slightly disturbed during the driving process.

Infiltration Testing Procedure

Infiltration testing was performed at both of the trench locations. The infiltration testing consisted of filling the inner ring and the annular space (the space between the inner and outer rings) with water, approximately 3 to 4 inches above the soil. To prevent the flow of water from one ring to the other, the water level in both the inner ring and the annular space between the rings was maintained using constant-head float valves. The volume of water that was added to maintain a constant head in the inner ring and the annular space during each time interval was determined and recorded. A cap was placed over the rings to minimize the evaporation of water during the tests.

The schedule for readings was determined based on the observed soil type at the base of each backhoe-excavated trench. Based on the existing soils at the trench locations, the volumetric measurements were made at 20 and 30-minute increments. The water volume measurements are presented on the spreadsheets enclosed with this report. The infiltration rates for each of the timed intervals are also tabulated on these spreadsheets.

The infiltration rates for the infiltration tests are calculated in centimeters per hour and then converted to inches per hour. The rates are summarized below:

Infiltration Test No.	Depth (feet)	Soil Description	Infiltration Rate (inches/hour)
I-1	10	Brown to Dark Brown Silty fine to coarse Sand, trace Clay	0.0
I-2	10	Brown fine to coarse Sand, trace Silt, little Clay	1.0
I-3	10	Brown Silty fine to coarse Sand, trace Clay	1.0
I-4	10	Brown Silty fine to coarse Sand, trace Clay	0.0

Design Recommendations

Four (4) infiltration tests were performed at the subject site. As note above, the calculated infiltration rates at the infiltration test locations range from 0 to 1.0 inch per hour. The major factors affecting the lack of infiltration at these locations is the presence of dense to very dense older alluvium. **Based on the lack of infiltration at the depths tested, infiltration is not considered feasible for this site. Although an infiltration rate of 1.0 inch per hour was calculated, these areas are very likely to be underlain by much less permeable, denser older alluvium, which was encountered at the other boring and trench locations.**

Although infiltration is not considered feasible at the site, the client may desire to use storm water disposal systems that do not rely on infiltration at this site. The design of storm water disposal systems should be performed by the project civil engineer, in accordance with the City of Perris and/or County of Riverside guidelines. It is recommended any such systems be designed and constructed to facilitate removal of silt and clay, or other deleterious materials from any water that may enter the system. The presence of such materials would decrease the flow rates through the system. It should be noted that the recommended infiltration rates are

based on infiltration testing at four (4) discrete locations and that the overall infiltration rates of the proposed infiltration systems could vary considerably.

Location of Infiltration Systems

The use of on-site storm water infiltration systems carries a risk of creating adverse geotechnical conditions. Increasing the moisture content of the soil can cause the soil to lose internal shear strength and increase its compressibility, resulting in a change in the designed engineering properties. Overlying structures and pavements in the infiltration area could potentially be damaged due to saturation of the subgrade soils. **The proposed infiltration systems for this site should be located at least 25 feet away from any structures, including retaining walls.** Even with this provision of locating the infiltration system at least 25 feet from the building(s), it is possible that infiltrating water into the subsurface soils could have an adverse effect on the proposed or existing structures. It should also be noted that utility trenches which happen to collect storm water can also serve as conduits to transmit storm water toward the structure, depending on the slope of the utility trench. Therefore, consideration should also be given to the proposed locations of underground utilities which may pass near the proposed infiltration system.

The infiltration system designer should also give special consideration to the effect that the proposed infiltration systems may have on nearby subterranean structures, open excavations, or descending slopes. In particular, infiltration systems should not be located near the crest of descending slopes, particularly where the slopes are comprised of granular soils. Such systems will require specialized design and analysis to evaluate the potential for slope instability, piping failures and other phenomena that typically apply to earthen dam design. This type of analysis is beyond the scope of this infiltration test report, but these factors should be considered by the infiltration system designer when locating the infiltration systems.

General Comments

This report has been prepared as an instrument of service for use by the client in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, structural engineer, and/or civil engineer. The design of the proposed storm water infiltration system is the responsibility of the civil engineer. The role of the geotechnical engineer is limited to determination of infiltration rate only. By using the design infiltration rate contained herein, the civil engineer agrees to indemnify, defend, and hold harmless the geotechnical engineer for all aspects of the design and performance of the proposed storm water infiltration system. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be

representative of the total area, some variations should be expected between boring locations and testing depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted. The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

Closure

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

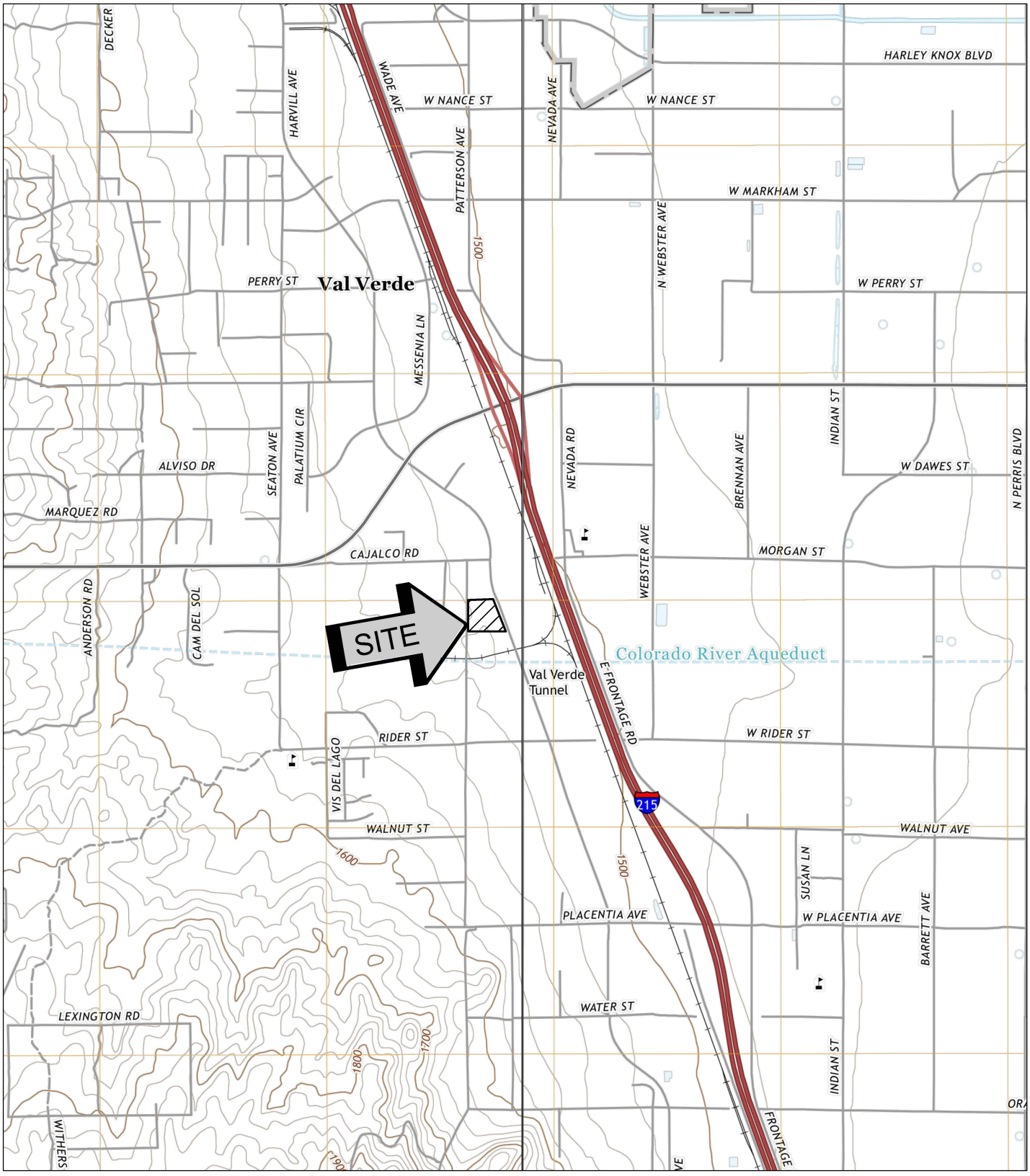
Oscar Sandoval
Staff Engineer

Robert G. Trazo, GE 2655
Principal Engineer



Distribution: (1) Addressee

Enclosures: Plate 1 - Site Location Map
Plate 2: Infiltration Test Location Plan
Trench Log Legend and Logs (6 pages)
Infiltration Test Results Spreadsheets (4 pages)
Grainsize Distribution Graphs (4 pages)



SOURCE: USGS TOPOGRAPHIC MAP OF STEELE PEAK AND PERRIS QUADRANGLES, RIVERSIDE COUNTY, CALIFORNIA, 2018.

SITE LOCATION MAP

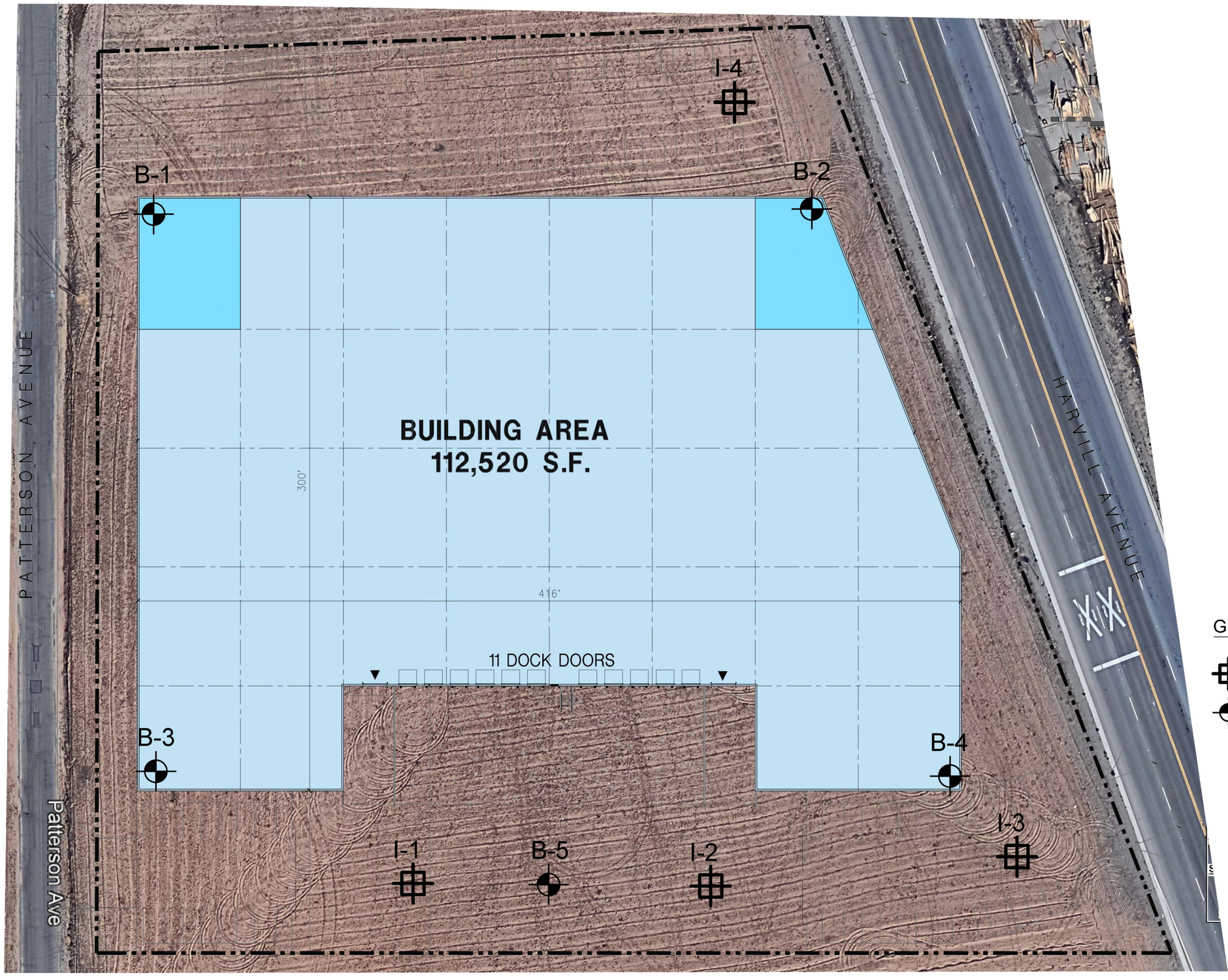
PROPOSED WAREHOUSE

RIVERSIDE COUNTY (PERRIS), CALIFORNIA

SCALE: 1" = 2000'	
DRAWN: PM CHKD: RGT	
SCG PROJECT 21G231-2	
PLATE 1	

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



GEOTECHNICAL LEGEND

- APPROXIMTE INFILTRATION LOCATION
- APPROXIMATE BORING LOCATION (SCG PROJECT NO 21G231-1)

NOTE: CONCEPTUAL SITE PLAN (SCHEME 1) PREPARED BY HPA.
AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH

INFILTRATION TEST LOCATION PLAN

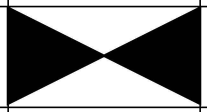
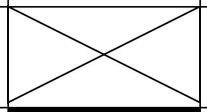
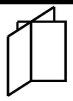
PROPOSED WAREHOUSE

RIVERSIDE COUNTY (PERRIS), CALIFORNIA

SCALE: 1" = 50'	
DRAWN: PM CHKD: RGT	
SCG PROJECT 21G231-1	
PLATE 2	

SOUTHERN CALIFORNIA GEOTECHNICAL

TRENCH LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

DEPTH: Distance in feet below the ground surface.

SAMPLE: Sample Type as depicted above.

BLOW COUNT: Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

POCKET PEN.: Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

GRAPHIC LOG: Graphic Soil Symbol as depicted on the following page.

DRY DENSITY: Dry density of an undisturbed or relatively undisturbed sample in lbs/ft^3.

MOISTURE CONTENT: Moisture content of a soil sample, expressed as a percentage of the dry weight.

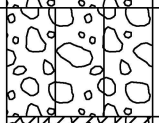
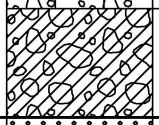
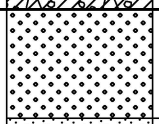
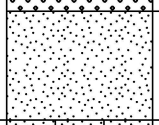
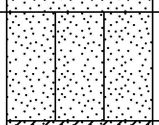
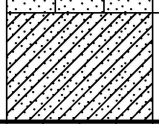
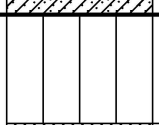
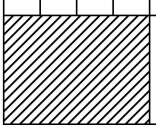
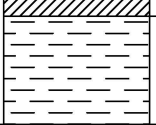
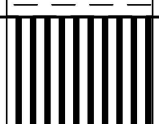
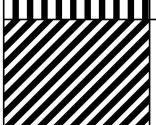
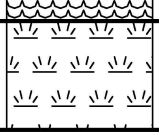
LIQUID LIMIT: The moisture content above which a soil behaves as a liquid.

PLASTIC LIMIT: The moisture content above which a soil behaves as a plastic.

PASSING #200 SIEVE: The percentage of the sample finer than the #200 standard sieve.

UNCONFINED SHEAR: The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

TRENCH NO. I-1

JOB NO.: 21G231-2
PROJECT: Proposed Warehouse
LOCATION: Riverside County (Perris), California
EXCAVATION DATE: 10/11/21
EXCAVATION METHOD: Backhoe
LOGGED BY: Oscar Sandoval
WATER DEPTH: Dry
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Brown Silty fine to medium Sand, trace fine root fibers, medium dense to dense-dry							
					OLDER ALLUVIUM: Brown to Dark Brown Silty fine to coarse Sand, trace Clay, dense to very dense-damp to moist							
5												
							9			37		
10					Trench Terminated at 10'							

TBL 21G231-2.GPJ SOCALGEO.GDT 10/29/21

TEST TRENCH LOG

PLATE B-1

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

TRENCH NO. I-2

JOB NO.: 21G231-2
PROJECT: Proposed Warehouse
LOCATION: Riverside County (Perris), California

EXCAVATION DATE: 10/6/21
EXCAVATION METHOD: Backhoe
LOGGED BY: Oscar Sandoval

WATER DEPTH: Dry
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Brown Silty fine Sand, trace Clay, trace medium to coarse Sand, trace fine Gravel, very dense-dry							
5					OLDER ALLUVIUM: Brown fine to coarse Sand, trace Silt, little Clay, dense to very dense-dry							
							3			9		
10					Trench Terminated at 10'							

TBL 21G231-2.GPJ SOCALGEO.GDT 10/29/21

TEST TRENCH LOG

PLATE B-2

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

TRENCH NO. I-3

JOB NO.: 21G231-2
PROJECT: Proposed Warehouse
LOCATION: Riverside County (Perris), California

EXCAVATION DATE: 10/6/21
EXCAVATION METHOD: Backhoe
LOGGED BY: Oscar Sandoval

WATER DEPTH: Dry
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL: Dark brown Clayey fine to coarse Sand, trace Silt, trace fine root fibers, porous, very dense-dry							
5					ALLUVIUM: Brown Silty fine Sand, trace medium to coarse Sand, dense-dry to damp							
					OLDER ALLUVIUM: Brown Silty fine to coarse Sand, trace Clay, dense to very dense-damp							
							6			26		
10					Boring Terminated at 10'							

TBL 21G231-2.GPJ SOCALGEO.GDT 10/29/21

TEST TRENCH LOG

PLATE B-3

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

TRENCH NO. I-4

JOB NO.: 21G231-2
PROJECT: Proposed Warehouse
LOCATION: Riverside County (Perris), California
EXCAVATION DATE: 10/11/21
EXCAVATION METHOD: Backhoe
LOGGED BY: Oscar Sandoval
WATER DEPTH: Dry
CAVE DEPTH: ---
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
					FILL Light Brown Clayey fine Sand, trace medium to coarse Sand, trace fine root fibers, dense-dry							
					ALLUVIUM: Brown Silty fine to coarse Sand, trace Clay, dense-moist							
5												
							11			43		
10					Boring Terminated at 10'							

TBL 21G231-2.GPJ SOCALGEO.GDT 10/29/21

TEST TRENCH LOG

PLATE B-4

INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Riverside County (Perris), California
Project Number	21G231-2
Engineer	Oscar Sandoval

Infiltration Test No: I-1

Constants	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval **Elapsed** (min)	Flow Readings: Inner Ring (ml)	Flow Readings: Ring Flow (cm^3)	Flow Readings: Annular Ring (ml)	Flow Readings: Space Flow (cm^3)	Infiltration Rates: Inner Ring* (cm/hr)	Infiltration Rates: Annular Space* (cm/hr)	Infiltration Rates: Inner Ring* (in/hr)	Infiltration Rates: Annular Space* (in/hr)
1	Initial	9:25 AM	30	0	200	0	3600	0.55	3.29	0.22	1.30
	Final	9:55 AM	**30**	200		3600					
2	Initial	9:55 AM	30	0	0	0	2800	0.00	2.56	0.00	1.01
	Final	10:25 AM	**60**	0		2800					
3	Initial	10:25 AM	30	0	0	0	2700	0.00	2.47	0.00	0.97
	Final	10:55 AM	**90**	0		2700					
4	Initial	10:55 AM	30	0	0	0	2600	0.00	2.38	0.00	0.94
	Final	11:25 AM	**120**	0		2600					

INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Riverside County (Perris), California
Project Number	21G231-2
Engineer	Oscar Sandoval

Infiltration Test No: I-2

Constants	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval **Elapsed** (min)	Flow Readings: Inner Ring (ml)	Flow Readings: Ring Flow (cm^3)	Flow Readings: Annular Ring (ml)	Flow Readings: Space Flow (cm^3)	Infiltration Rates: Inner Ring* (cm/hr)	Infiltration Rates: Annular Space* (cm/hr)	Infiltration Rates: Inner Ring* (in/hr)	Infiltration Rates: Annular Space* (in/hr)
1	Initial	11:55 AM	20	0	900	0	3500	3.70	4.80	1.46	1.89
	Final	12:15 PM	**20**	900		3500					
2	Initial	12:15 PM	20	0	950	0	4000	3.91	5.48	1.54	2.16
	Final	12:35 PM	**40**	950		4000					
3	Initial	12:35 PM	20	8	692	0	3900	2.85	5.35	1.12	2.10
	Final	12:55 PM	**60**	700		3900					
4	Initial	12:55 PM	20	0	600	0	3700	2.47	5.07	0.97	2.00
	Final	1:15 PM	**80**	600		3700					
5	Initial	1:15 PM	20	0	600	0	3400	2.47	4.66	0.97	1.83
	Final	1:35 PM	**100**	600		3400					

INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Riverside County (Perris), California
Project Number	21G231-2
Engineer	Oscar Sandoval

Infiltration Test No: I-3

Constants	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval **Elapsed** (min)	Flow Readings: Inner Ring (ml)	Flow Readings: Ring Flow (cm^3)	Flow Readings: Annular Ring (ml)	Flow Readings: Space Flow (cm^3)	Infiltration Rates: Inner Ring* (cm/hr)	Infiltration Rates: Annular Space* (cm/hr)	Infiltration Rates: Inner Ring* (in/hr)	Infiltration Rates: Annular Space* (in/hr)
1	Initial	9:15 AM	20	0	850	0	3900	3.49	5.35	1.38	2.10
	Final	9:35 AM	**20**	850		3900					
2	Initial	9:35 AM	20	0	700	0	3700	2.88	5.07	1.13	2.00
	Final	9:55 AM	**40**	700		3700					
3	Initial	9:55 AM	20	8	642	0	3600	2.64	4.93	1.04	1.94
	Final	10:15 AM	**60**	650		3600					
4	Initial	10:15 AM	20	0	650	0	3400	2.67	4.66	1.05	1.83
	Final	10:35 AM	**80**	650		3400					
5	Initial	10:35 AM	20	0	650	0	3300	2.67	4.52	1.05	1.78
	Final	10:55 AM	**100**	650		3300					

INFILTRATION CALCULATIONS

Project Name	Proposed Warehouse
Project Location	Riverside County (Perris), California
Project Number	21G231-2
Engineer	Oscar Sandoval

Infiltration Test No: I-4

Constants	Diameter (ft)	Area (ft^2)	Area (cm^2)
Inner	1	0.79	730
Anlr. Spac	2	2.36	2189

*Note: The infiltration rate was calculated based on current time interval

Test Interval		Time (hr)	Interval **Elapsed** (min)	Flow Readings: Inner Ring (ml)	Flow Readings: Ring Flow (cm^3)	Flow Readings: Annular Ring (ml)	Flow Readings: Space Flow (cm^3)	Infiltration Rates: Inner Ring* (cm/hr)	Infiltration Rates: Annular Space* (cm/hr)	Infiltration Rates: Inner Ring* (in/hr)	Infiltration Rates: Annular Space* (in/hr)
1	Initial	11:35 AM	20	0	0	0	4800	0.00	6.58	0.00	2.59
	Final	11:55 AM	**20**	0		4800					
2	Initial	11:55 AM	20	0	0	0	4600	0.00	6.30	0.00	2.48
	Final	12:15 PM	**40**	0		4600					
3	Initial	12:15 PM	20	0	0	0	4500	0.00	6.17	0.00	2.43
	Final	12:35 PM	**60**	0		4500					
4	Initial	12:35 PM	20	0	0	0	4100	0.00	5.62	0.00	2.21
	Final	12:55 PM	**80**	0		4100					

Grain Size Distribution

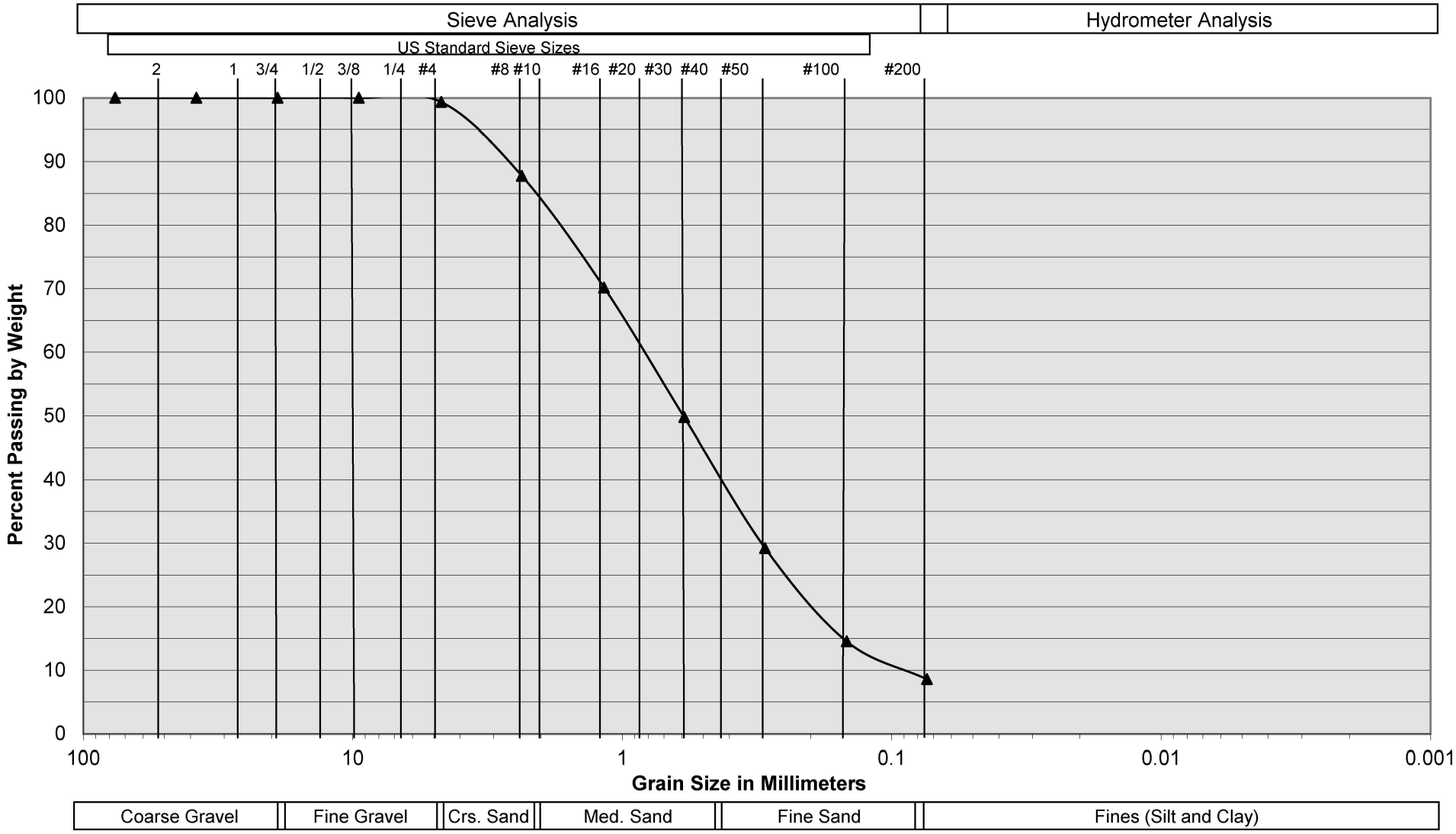


Sample Description	I-1 @ 9'
Soil Classification	Brown to Dark Brown Silty fine to coarse Sand, trace Clay

Proposed Warehouse
Riverside County (Perris), CA
Project No. 21G231-2
PLATE C- 1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Grain Size Distribution

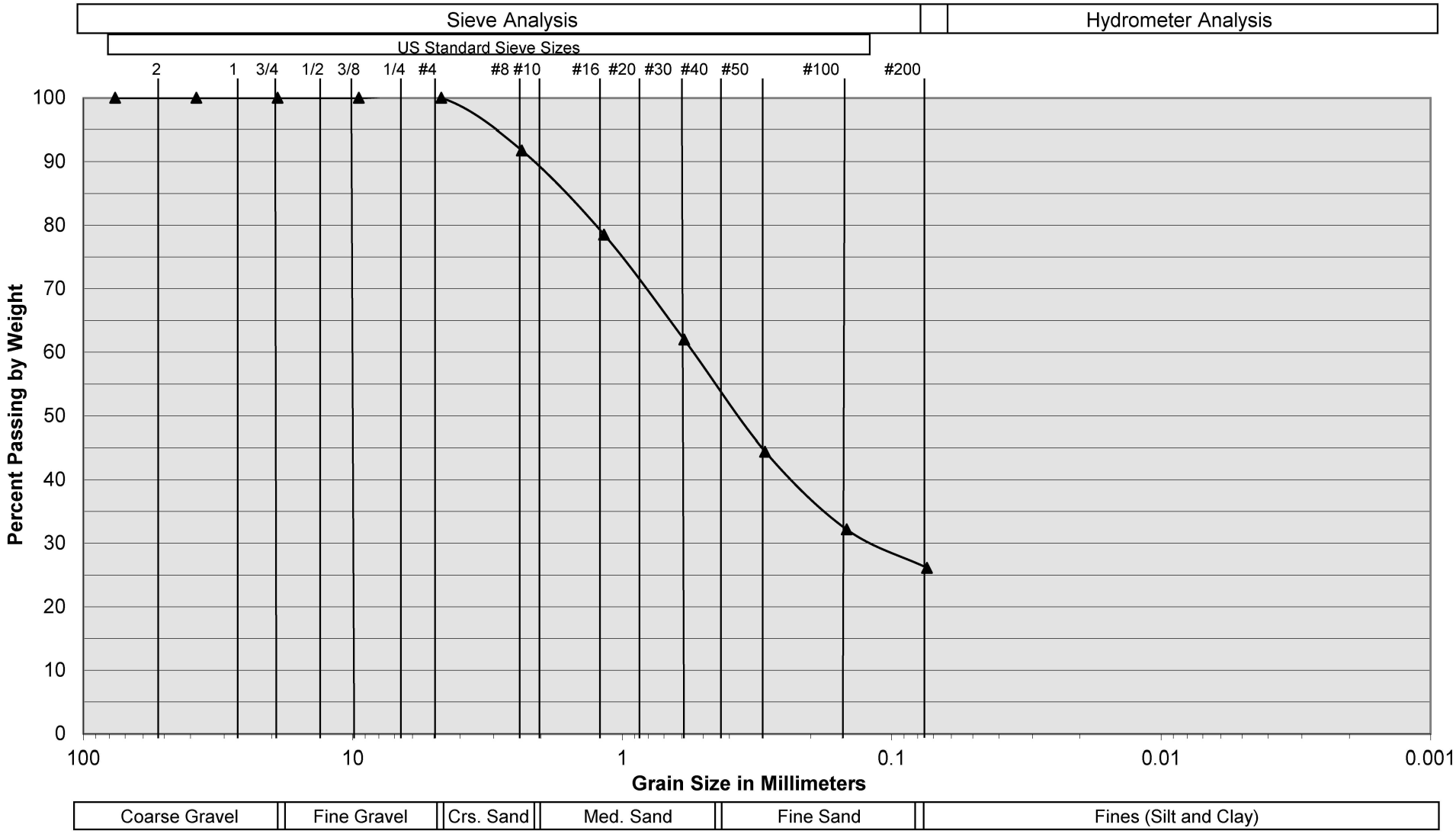


Sample Description	I-2 @ 9'
Soil Classification	Brown fine to coarse Sand, trace Silt, little Clay

Proposed Warehouse
Riverside County (Perris), CA
Project No. 21G231-2
PLATE C- 2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Grain Size Distribution



Sample Description	I-3 @ 9'
Soil Classification	Brown Silty fine to coarse Sand, trace Clay

Proposed Warehouse
Riverside County (Perris), CA
Project No. 21G231-2
PLATE C- 3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Grain Size Distribution



Sample Description	I-4 @ 9'
Soil Classification	Brown Silty fine to coarse Sand, trace Clay

Proposed Warehouse
Riverside County (Perris), CA
Project No. 21G231-2
PLATE C- 4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation