ACE

AMSO CONSULTING ENGINEERS
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February 14, 2017
Project 3628

Ms. Kathy Robinson
Charities Housing Development, Inc.
1400 Parkmoor Avenue, Suite 190
San Hose, California 95126

Subject: Geotechnical Investigation Report for
Proposed Page Street Residential Building
329, 341 and 353 Page Street
San Jose, California

Dear Ms. Robinson:

This report presents the results of our geotechnical investigation for the residential building proposed for construction on the properties located at 329, 341, and 353 Page Street in San Jose, California.

We understand that the residential building will be between three and four stories high, will be constructed of wood frame and will have a concrete slab on grade floor.

Plans for the proposed development were not available at the time this geotechnical investigation was performed. A site plan that shows the location of our exploration holes that were drilled and sampled as part of this investigation was prepared based on Google Maps and as shown on Figure 2 attached to this report.

SCOPE OF WORK

We performed the following scope of work for this geotechnical investigation.

1. Reviewed geologic and geotechnical information in our files pertinent to the site and the surrounding area.

2. Explored, sampled and classified subsurface soils by means of five small diameter exploration borings. These exploration borings were drilled to a depth of between 25 and 50 feet below existing ground surface to aid in our liquefaction assessment. At the end of drilling all exploration holes were backfilled with soil cutting and cement.

3. Performed laboratory testing on soil samples to measure their pertinent index and engineering properties.

4. Reviewed and analyzed of the information collected from our literature review, subsurface exploration and laboratory test data.

5. Developed site seismic characteristics in accordance with the California Building Code.

6. Prepared this report summarizing our findings, conclusions, and geotechnical recommendations.

FINDINGS

Surface Conditions

The project site is located along the west side of Page Street about 230 feet south of its intersection with West San Carlos Street in San Jose, California. The site for the new residential development is almost level with an estimated average ground elevation of about 945 feet (Based on the USGS Topographic Maps).

The property is bordered by Page Street on the east and is surrounded by residential properties on the other sides. At the time of our subsurface exploration in January of 2017, the site for the proposed development was occupies by single family homes and multiple structures on the back side that are either used for secondary dwellings or storage.

Subsurface Conditions

Subsurface conditions at these properties were explored by means of five small diameter exploration borings that were drilled to between 25 and 50 feet below existing ground surface. Within the depths of our exploration, the native soils at the site consist of clay, silt and sand.

A surface layer of fill was encountered by almost all of our exploration holes. This layer of fill consists of Sandy Silty Clay (CL) with some debris and pieces of old bricks and concrete and was found to be about 2 to 3 feet thick.

Below this layer of fill, the surface soils at this site consist of very sandy silty clay (CL) of low plasticity and very low potential for expansion. This layer of clay was found to be of medium stiff consistence and extends to an average depth of about eight feet below existing ground surface. Below this layer of Clay, a layer of very silty clayey fine sand of medium dense consistency was encountered to an average depth of about 18 feet.

This layer of sand and silt is underlain by medium stiff silty clay to a depth of about 40 feet. Below this layer of silty clay, the site is underlain by very stiff gravelly sandy clay with interbedding of thin lenses of silty fine sand (about 6 inches thick). This layer of stiff clay extended to the maximum depth of our exploration of 50 feet below existing ground surface.

During our geotechnical exploration in January of 2017, ground water was encountered within three of our five exploration boring. The depth from the ground surface to the ground water was measured after drilling was completed and was found to be at an average depth of about 35 feet.

The descriptions given above pertain only to the subsurface conditions found at the site at the time of our subsurface exploration in January of 2017. Subsurface conditions, particularly ground water levels and the consistency of the near-surface soils, will vary with the seasons.

Detailed descriptions of the materials encountered in the borings are given on the appended boring logs together with the results of some of the laboratory tests performed on selected samples obtained from the drill holes.

Seismic Considerations

This site is located within the seismically active San Francisco Bay region but outside any of the Alquist-Priolo Earthquake Fault Zones. The following faults are closest to the site.

Fault	Distance to Fault		Maximum Moment Magnitude
	Miles	Kilometers	
MONTE VISTA - SHANNON	5.8	9.3	6.8
SAN ANDREAS (1906)	10	17	7.9
HAYWARD (Total Length)	10	17	7.1
HAYWARD (SE Extension)	7	12	6.4
CALAVERAS (No.of Calaveras	10	17	6.8
SARGENT	13	20	6.8
CALAVERAS (So.of Calaveras	10	16	6.2
ZAYANTE-VERGELES	16	26	6.8

Seismic hazards can be divided into two general categories, hazards due to ground rupture and hazards due to ground shaking. Since no active faults are known to cross this property, the risk of earthquake-induced ground rupture occurring across the project site appears to be remote. Based on historic records and on the known general seismicity of the San Francisco Bay region, we consider it probable that during the next 50 years the site will be shaken by at least one earthquake of Richter Magnitude 6.5 or greater, and by numerous earthquakes of lesser Magnitude, all having epicentral locations within about 20 miles of the site.

Should a major earthquake occur with an epicentral location close to the site, ground shaking at the site will undoubtedly be severe, as it will for other property in the general area. Even under the influence of severe ground shaking, some thin lenses of saturated sand will probably liquefy and result in some minor total and differential settlement.

Potential for Liquefaction

Liquefaction is the process by which saturated, non-cohesive soil (sand and silt) loses shear strength during seismic shaking and behaves like a liquid, rather than a solid. The effect on structures and buildings can be devastating, and is a major contributor to seismic failures.

Liquefaction occurs when a saturated sand formation is subject to cyclic shaking. The shaking causes increased pore water pressure which reduces the effective stress, and therefore reduces the shear strength of the sand. Soils most prone to liquefaction are loose sands between layers of lower permeability soil that prevent rapid dissipation of cyclic pore pressures.

The loose grains can support considerable weight, as they are in contact with each other in a statically stable formation. Once strong earthquake shaking begins, the grains are separated by high pore water pressure and are no longer resting on each other. Eventually, the grains will settle into a more compact arrangement. However, this transition is not immediate, and requires excess water to leave the formation. For a short period of time, depending how long it takes for the water to drain from the formation, the grains float in liquid slurry. The excess water is squeezed out which causes the quicksand condition at the surface. If there is a dry soil crust or impermeable cap, the excess water will sometimes come to the surface through cracks in the confining layer, bringing liquefied sand with it, creating sand boils.

Method of Analysis

The potential for liquefaction at this site was analyzed using procedures outlined in the Technical report NCEER-97-0022 “Proceedings of the NCEER Workshop on Evaluation of Liquefaction Resistance of Soils” dated December 31, 1997.

Ground Water Elevation

Based on the results of our subsurface exploration performed in January of 2017, ground water was encountered at an average depth of about 35 feet below existing ground surface.

The ground water table based on historically high ground water table stimated based on Plate 1.2 of the Seismic Hazard Zone Report 058 published by the Department of Conservation, Division of Mines and Geology dated 2000 is estimated to be about 35 feet. For this liquefaction analysis, a ground water table of 35 feet below existing ground surface was used.

Peak Ground Acceleration (pga)

For this liquefaction analysis, a two percent exceedance in 50 years peak ground acceleration (g) was used. Based on the USGS Web page http://geohazards.usgs.gov/deaggint/2008/ the peak ground acceleration (PGA) with 2 percent probability of exceedance in 50 years at the site can be as high as 0.68g. This higher PGA was used in the liquefaction analysis

Liquefaction Potential

Based on the results of our liquefaction analysis at this site (see attached), the soils that underlie the site will not liquefy under the influence of a maximum credible earthquake and a ground water table as high as 35 feet below existing ground surface.

Lateral Spreading

Lateral spreading is a phenomenon where lateral ground displacements occur as a result of soil liquefaction. Lateral spreading is typically observed on very gently sloping ground or on virtually level ground adjacent to slopes. Lateral spreading tends to break the upper soil layers into blocks that progressively move down-slope during an earthquake. Large fissures at the head of the lateral spread are common, as are compressed or buckled soil at the toe of the soil mass. Lateral spreading displacements can range from a few inches to several feet, depending on the magnitude and duration of the seismic event.

Since no potentially liquefiable soils are present at this site and since the site is not located near a slope the potential of lateral spreading is very low.

Surface Manifestation

The potential for liquefaction induced surface manifestations such as sand boils and ground cracking was evaluated using literature prepared by Ishihara, K. and presented in a paper entitled "Stability of Natural Deposits During Earthquakes," 1985.

Considering that there are no potentially liquefiable soils at this site, there would be no potential for surface manifestations such as sand boils and ground cracking.

Seismic Design Parameters

These seismic design parameters are based on the new figures 1613.3.1 (1 and 2) entitled "Risk-Targeted Maximum Considered Earthquake (MCE_R) Ground Motion Response Accelerations for the Conterminous United States of 0.2 and 1-Second Spectral Response Acceleration (5% of Critical Damping)" included in the 2013 CBC.

Site Class: **D** (Stiff Soil Profile)

Mapped Acceleration Parameters: $\mathbf{S_s}$ (for short periods) = 1.500g
$\mathbf{S_1}$ (for 1-second period) = 0.600g

Site Coefficient: $\mathbf{F_a}$ (for short periods) = 1.0
$\mathbf{F_v}$ (for 1-second period) = 1.5

Adjusted Maximum Considered EQ Spectral Response Acceleration Parameters:

$$\mathbf{S_{MS}} = \mathbf{F_a} * \mathbf{S_s} = 1.500g$$

$$\mathbf{S_{M1}} = \mathbf{F_v} * \mathbf{S_1} = 0.900g$$

Design Spectral Response Acceleration Parameters:

$$\mathbf{S_{DS}} = \mathbf{2/3} * \mathbf{S_{MS}} = 1.00g$$

$$\mathbf{S_{D1}} = \mathbf{2/3} * \mathbf{S_{M1}} = 0.60g$$

Seismic Design Category: **D**

We should point out that the structural seismic design is not intended to eliminate damage to a structure. The goal of the design system is to minimize the loss of human life. It is unlikely that any structure can be designed to withstand the forces of a great earthquake without any damage at all.

CONCLUSIONS AND RECOMMENDATIONS

This site is suitable for the proposed construction of the new buildings provided that the recommendations presented in this report are followed.

The following recommendations, which are presented as guidelines to be used by project planners and designers, have been prepared assuming **AMSO CONSULTING ENGINEERS** will be commissioned to observe and test during site grading and foundation construction. This additional opportunity to inspect the project site will allow us to compare subsurface conditions exposed during construction with those that were observed during this investigation.

Site Preparation Grading and Compaction

- Areas of the site to be built on or paved should be stripped to remove any surface vegetation and organic topsoil. Soils containing more than 2% by weight of organic matter should be considered organic. Stripping depths should be determined in the field by the Soils Engineer at the time of stripping but, for planning purposes, an average stripping depth of 3 inches may be assumed. Strippings should be wasted off-site or, if so required by the Project Architect, stockpiled for subsequent use in landscape areas.

- Existing structures, pavements, utility lines including electric, water, sanitary sewers and storm drains designated for abandonment on the Project Plans, should be dug out and removed. All debris and materials arising from demolition and removal operations should be wasted off-site.

- The existing medium stiff top soil within areas of the site to be built on or paved should be sub-excavated. The depth and horizontal limits of these excavations should be determined in the field by the Soils Engineer at the time of excavation. For planning purposes, however, it may be assumed that these excavations will extend to an average depth of between 2 and 3 feet below existing ground surface under proposed buildings and to a depth of about 18 inches under pavement areas. These excavations should extend 5 feet horizontally beyond proposed building lines (where possible) and should extend 3 feet horizontally beyond edges of pavement.

- Soil surfaces exposed by excavations should be scarified to a depth of 10 inches, conditioned with water (or allowed to dry, as necessary) to produce a soil water content of about 2 percent above the optimum value and then compacted to 90 percent relative compaction based on ASTM Test D1557-91.

- Structural fill may then be placed up to design grades in the proposed building and pavement areas. Structural fill using on-site inorganic soil, or approved import, should be placed in layers, each not exceeding 8 inches thick (before compaction), conditioned with water (or allowed to dry, as necessary) to produce a soil water content of about 2 percent above the optimum value, and then compacted to at least 90 percent relative compaction based of ASTM Test D1557-91. The upper 8 inches of pavement subgrades should be compacted to about 95 percent relative compaction based on ASTM Test D1557-91.

- On-site soils proposed for use as structural fill should be inorganic, free from deleterious materials, and should contain no more than 15% by weight of rocks larger than 3 inches (largest dimension) and no rocks larger than 6 inches. The suitability of existing soil for reuse as a structural fill should be determined by a member of our staff at the time of grading. We expect that most of the existing soil will be suitable for reuse as structural fill.

- If import is required for use as structural fill, it should be inorganic, should have a low expansion potential (with a plasticity index of 15 percent or less) and should be free from clods or rocks larger than 4 inches in largest dimension. Prior to delivery to the site, proposed import should be tested in our laboratory to verify its suitability for use as structural fills and, if found to be suitable, further tested to estimate the water content and density at which it should be placed.

Building Foundations

The proposed buildings may be supported on conventional shallow foundations bearing on competent in-place native soil or on compacted structural fill placed as described in the Site Preparation, Grading and Compaction section of the geotechnical investigation report.

Continuous, reinforced concrete foundations may be designed to impose pressures on foundation soils up to 2500 pounds per square foot from dead plus normal live loading. Continuous foundations should be at least 12 inches wide and should be embedded at least 18 inches below rough pad grade or adjacent finished grade, whichever is lower.

Interior isolated foundations, such as may support column loads, may be designed to impose pressures on foundation soils up to 3000 pounds per square foot from dead plus normal live loading. Interior foundations should be embedded at least 18 inches below rough pad grade.

The allowable foundation pressures given previously may be increased by one-third when considering additional short-term wind or seismic loading.

Based upon our experience with similar buildings constructed on similar foundation soils, we expect the total long-term static settlement of the building to be approximately 1(±) inch. Using the design values presented above, and assuming a minimum embeddment of both continuous and isolated footings, we would expect the post-construction differential settlement of a relatively uniformly loaded structure to be no more than about 3/4 of the total settlement.

During foundation construction, care should be taken to minimize evaporation of water from foundation and floor subgrades. Scheduling the construction sequence to minimize the time interval between foundation excavation and concrete placement is important. Concrete should be placed only in foundation excavations that have been kept moist, are free from drying cracks and contain no loose or soft soil or debris.

Concrete Slabs-On-Grade

Concrete floor slabs should be constructed on compacted soil subgrades prepared as described in the section on Site Preparation, Grading and Compaction.

If dampness of floors is not objectionable, concrete slabs may be constructed directly on the water-conditioned and compacted soil subgrade.

To minimize floor dampness, however, the following general guidelines may be used to minimize moisture-related problems in concrete floor slabs-on-grade that will be covered with moisture-sensitive floor coverings, adhesives, and coatings.

1. Install a section of capillary break material at least five inches thick. The capillary break should be a free-draining material, such as 3/8" pea gravel or a permeable aggregate complying with CALTRANS Standard Specifications, Section 68, Class 1, Type A or Type B.

2. Cover the capillary break material with a high quality membrane vapor barrier. The membrane should be at least 10-mil thick.

3. To minimize the potential of accidental damage to the membrane vapor barrier and the

potential of concrete slab curling, a protective cushion of sand or 3/8" pea gravel at least two inches thick should be placed between the membrane vapor barrier and the floor slab.

4. At the owner's option, the layer of protective sand mentioned above may be omitted provided that a 15 mil or thicker membrane vapor barrier is used and that additional attention be given to the design of reinforcement so that potential curling stresses within the slab are addressed.

5. Consider using concrete having a water/cement ratio not greater than 0.45 to accelerate slab drying time. Use of fly ash may help reduce soluble alkali content in the slab. Water should not be added to the concrete after initial batching.

6. Cover slabs for 7-days with sheet material rather than using membrane curing compounds in order to minimize drying time and surface preparation costs.

7. Water vapor emission levels and pH should be measured as required by the flooring material manufacturer prior to floor installation. Measurements and calculations should be performed in accordance with ASTM F1868-98 and F710-98.

The guidelines presented above are based on information obtained from various published sources including the American Concrete Institute (ACI) and Portland Cement Association (PCA). These guidelines are only intended to present information that can be utilized to minimize the potential of long term impact from slab moisture infiltration. The application of these procedures does not affect the geotechnical aspect of foundation performance.

Vehicle Pavements

Near-surface soils across the site have a moderate pavement-supporting capacity. Considering the clayey nature of the pavement subgrade soils, an R-value of 10 at 300 psi exudation pressure was assumed in pavement design calculations. The actual R-value of the pavement soil subgrade should be tested and verified prior to construction.

Recommended minimum sections for pavement areas are presented in Table 1. A pavement section based on a Traffic Index of at least 5 should be selected for areas where traffic includes occasional light trucks.

TABLE 1 - RECOMMENDED MINIMUM ASPHALT CONCRETE PAVEMENT SECTIONS			
Traffic Index (T.I.)	Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)	Total Thickness (inches)
4.5	3.0	8.0	11.0
5.0	3.0	9.0	12.0
5.5	3.5	10.0	13.5
6.0	4.0	11.0	15.0

Pavement subgrades should be compacted as described above in the section for Site Preparation Grading and Compaction.

Curbs and gutters should be constructed directly on the soil subgrade rather than on a layer of aggregate base. This will minimize the amount of surface water that seeps below the curb and into the pavement subgrade. The seepage of water into subgrade soils beneath vehicle pavements, can result in subgrade softening and premature pavement distress.

Pavement construction should comply with the requirements of the CALTRANS Standard Specifications, latest editions, except that compaction requirements for pavement soil subgrades and aggregate base should be based on ASTM Test D1557-91, as described in the part of this report dealing with "Site Preparation, Grading and Compaction."

Portland Cement Concrete Pavement

In areas where concrete pavements are required and where traffic includes occasional light trucks, the pavement section should consist of at least 5 inches of Portland cement concrete pavement on top of at least 6 inches of Class 2 aggregate base material placed and compacted as described in the "Site Preparation, Grading and Compaction" section of the report. Concrete pavements should be reinforced with at least No. 4 reinforcing bars placed at 12 inches on-center in both directions.

For design of Portland Cement concrete pavement section, a modulus of subgrade reaction of k=200 pounds per square inch per inch should be used for the on-site compacted soils. Concrete for vehicle pavements should have a modulus of rupture of at least 550 pounds per square foot.

Utility Trenches

The attention of contractors, particularly the underground contractor, should be drawn to the requirements of California Code of Regulations, Title 8, Construction Code Section 1540 regarding Safety Orders for "Excavations, Trenches, Earthwork".

For purposes of this section of the report, bedding is defined as material placed in a trench up to 1 foot above a utility pipe and backfill is all material placed in the trench above the bedding.

Unless concrete bedding is required around utility pipes, free-draining sand should be used as bedding. Sand proposed for use in bedding should be tested in our laboratory to verify its suitability and to measure its compaction characteristics. Sand bedding should be compacted by mechanical means to achieve at least 90 percent compaction density based on ASTM Tests D1557-91.

Approved, on-site, inorganic soil, or imported material may be used as utility trench backfill. Proper compaction of trench backfill will be necessary under and adjacent to structural fill, building foundations, concrete slabs and vehicle pavements. In these areas, backfill should be conditioned with water (or allowed to dry) to produce a soil-water content of about 5 percent above the optimum value and placed in horizontal layers not exceeding 6 inches in thickness (before compaction). Each layer should be compacted to 87-90 percent relative compaction based of ASTM Test D1557-91. The upper 8 inches of pavement subgrades should be compacted to about 90 percent relative compaction based on ASTM Test D1557-91.

Where any trench crosses the perimeter foundation line of any building, the trench should be completely plugged and sealed with compacted clay soil for a horizontal distance of at least 2 feet on either side of the foundation.

Surface Drainage

Surface drainage gradients should be planned to prevent ponding and to promote drainage of surface water away from building foundations, slabs, edges of pavements and sidewalks, and towards suitable collection and discharge facilities.

Water seepage or the spread of extensive root systems into the soil subgrades of foundations, slabs, or pavements, could cause differential movements and consequent distress in these structural elements. This potential risk should be given due consideration in the design and construction of landscaping.

Drainage ditches and bio-swales should be located at least 5 feet away from building foundations, slabs, edges of pavements and sidewalks, and towards suitable collection and discharge facilities. Unpaved drainage swales and ditches should have a gradient of about 2 percent. If drainage swales and ditches are located less than 5 feet from pavements, then the curbs should be embedded at least 6 inches below pavement subgrade elevation.

If detention system is used to collect and discharge surface water, they should be located at least 10 feet away from building foundations, slabs, edges of pavements and sidewalks. Furthermore, the bottom of the detention system should be located above an imaginary line extending at a slope of 1½ to 1 (horizontal to vertical) from the bottom of nearby building foundation.

Follow-up Geotechnical Services

Our recommendations are based on the assumption that **AMSO CONSULTING ENGINEERS** will be commissioned to perform the following services.

1. Review final grading and foundation plans prior to construction.

2. Observe and advise during clearing and stripping of the site.

3. Observe, test and advise during grading and placement of structural fill.

4. Test proposed capillary break material that will be used beneath concrete slabs-on-grade and advise on suitability.

5. Observe and advise during foundation and slab construction.

6. Observe, test and advise during utility trench backfilling.

7. Observe, test and advise during construction of pavements.

LIMITATIONS

The recommendations contained in this report are based on certain plans, information and data that have been provided to us. Any change in those plans, information and data will render our recommendations invalid unless we are commissioned to review the change and to make any necessary modifications and/or additions to our recommendations.

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Subsurface exploration of any site is necessarily confined to selected locations. Conditions may, and often do, vary between and around such locations. Should conditions different from those encountered in our explorations come to light during project development, additional exploration, testing and analysis may be necessary; changes in project design and construction may also be necessary.

Our recommendations have been made in accordance with the principles and practices generally employed by the geotechnical engineering profession. This is in lieu of all other warranties, express or implied.

All earthwork and associated construction should be observed by our field representative, and tested where necessary, to compare the generalized site conditions assumed in this report with those found at the site at the time of construction, and to verify that construction complies with the intent of our recommendations.

Report prepared by:

AMSO CONSULTING ENGINEERS

REGISTERED PROFESSIONAL ENGINEER
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No. 49998
Exp. 06/30/2017
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STATE OF CALIFORNIA

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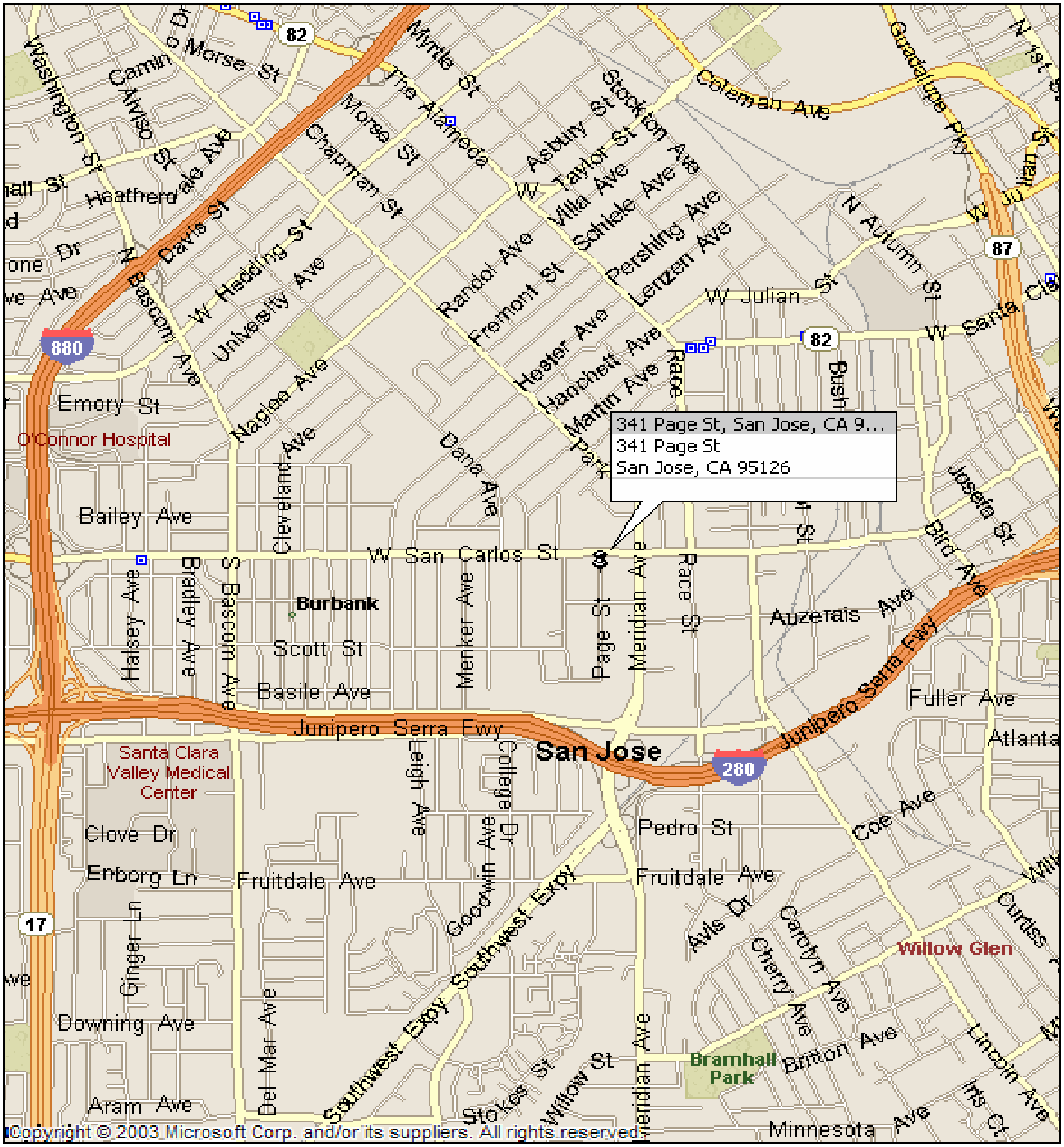
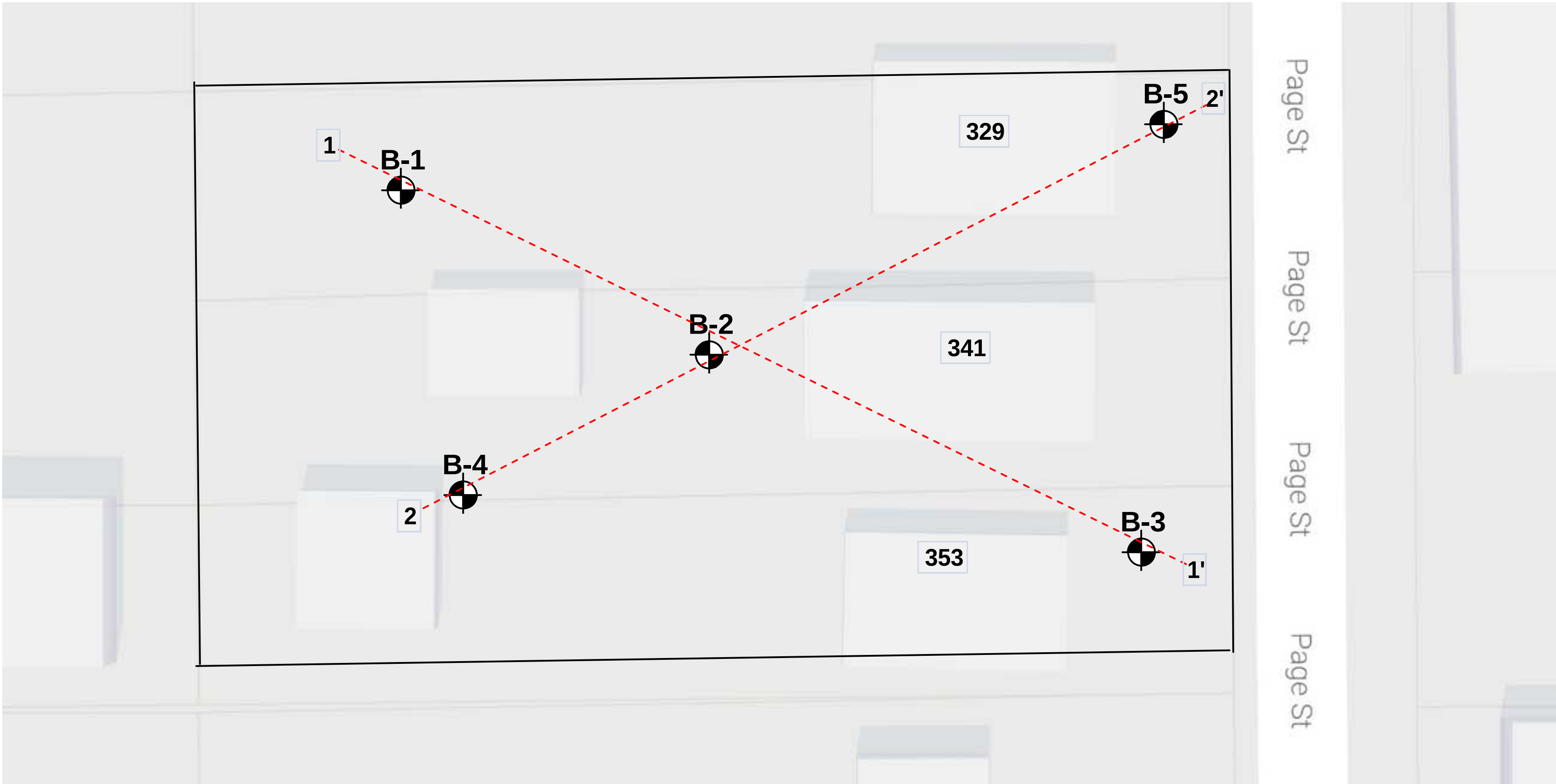
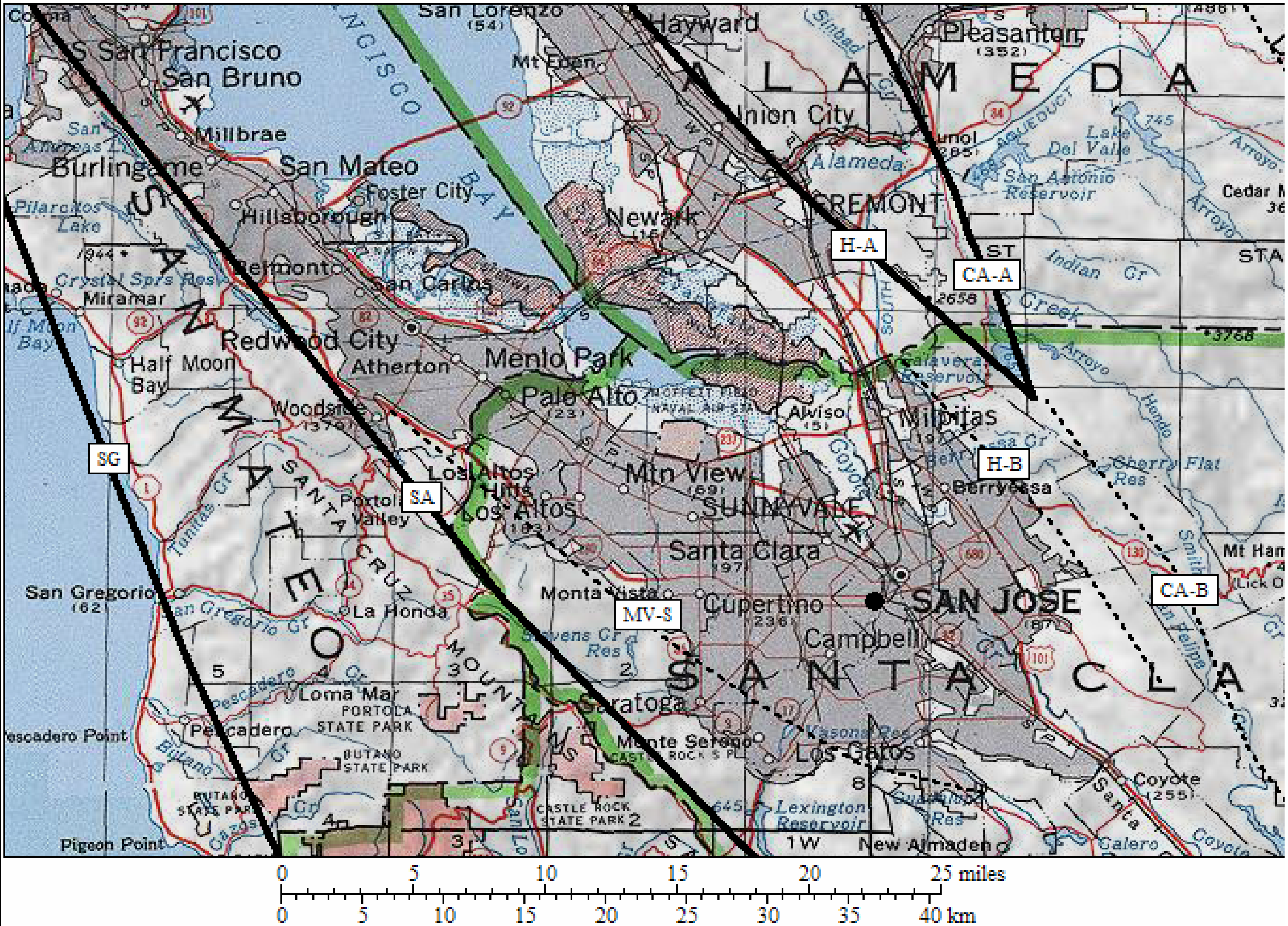


AMSO CONSULTING ENGINEERS	VICINITY MAP	FIGURE 1
FEBRUARY 2017	PAGE STREET DEVELOPMENT 329, 341 & 353 PAGE STREET SAN JOSE, CALIFORNIA	PROJECT 3628



Base Map: Map Data 2017 Google.

AMSO CONSULTING ENGINEERS	SITE PLAN AND LOCATION OF EXPLORATION HOLES	FIGURE 2
FEBRUARY 2017	PAGE STREET DEVELOPMENT 329, 341 & 353 PAGE STREET SAN JOSE, CALIFORNIA	PROJECT 3628



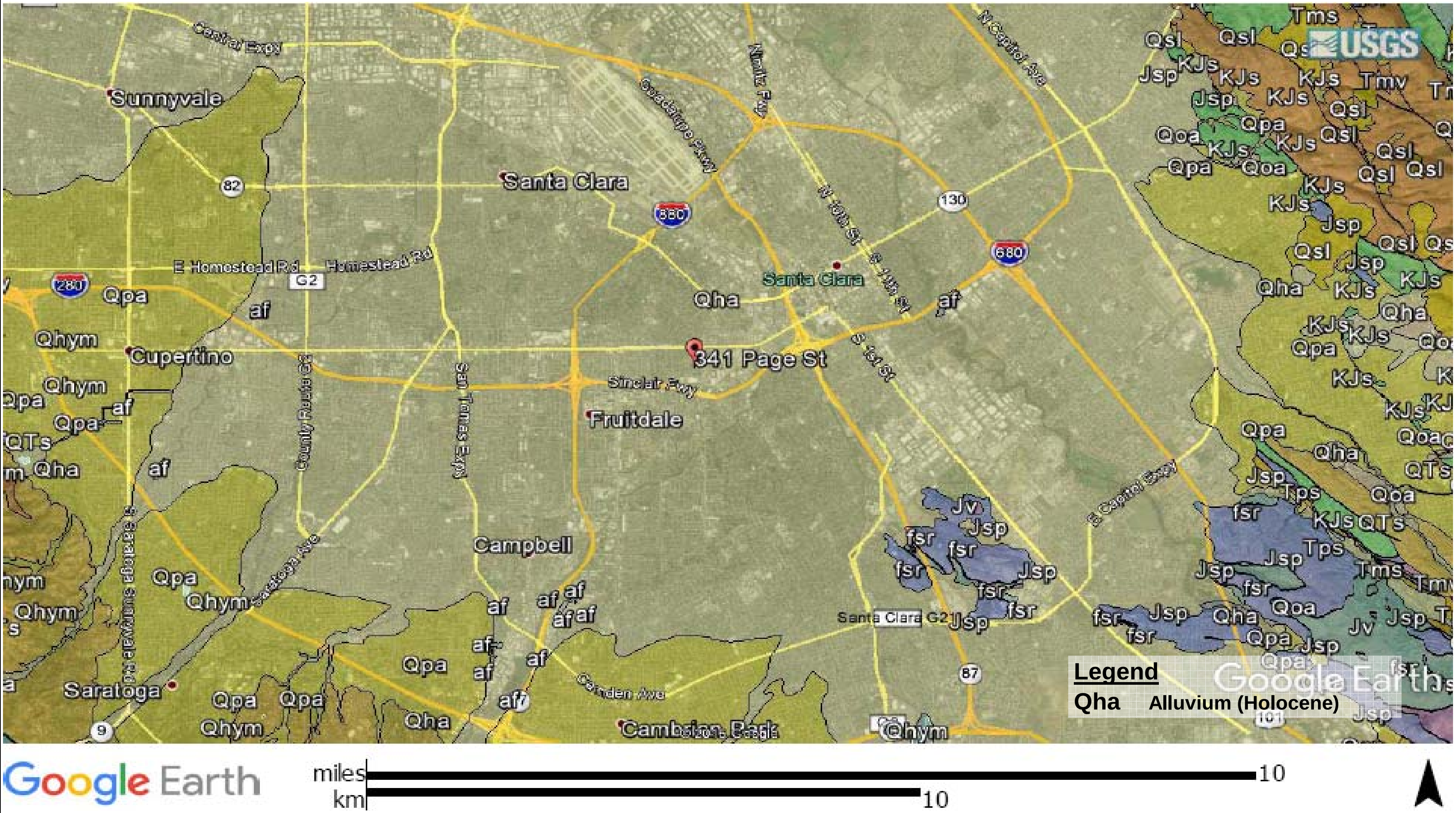
LEGEND

———	Type "A" Faults
SA	San Andreas
SG	San Gregorio
HA	Hayward
CA	Calaveras
·········	Type "B" Faults
CA-B	Calaveras (So. Of Reser)
H-B	Hayward - SE Ext.
MV-S	Monte Vista - Shannon
●	Site Location

This map should not be used to determine whether or not a given property lies on a fault line. Its only purpose is to give the reader of this report a feel of aprox. distances to Types A & B fault.

Faults other than Types A & B are not shown on this map.

AMSO CONSULTING ENGINEERS	**APPROXIMATE LOCATION OF FAULTS**	**FIGURE 3**
FEBRUARY 2017	**PAGE STREET DEVELOPMENT** **329, 341 & 353 PAGE STREET** **SAN JOSE, CALIFORNIA**	**PROJECT 3628**



AMSO CONSULTING ENGINEERS	GEOLOGIC MAP	FIGURE 4
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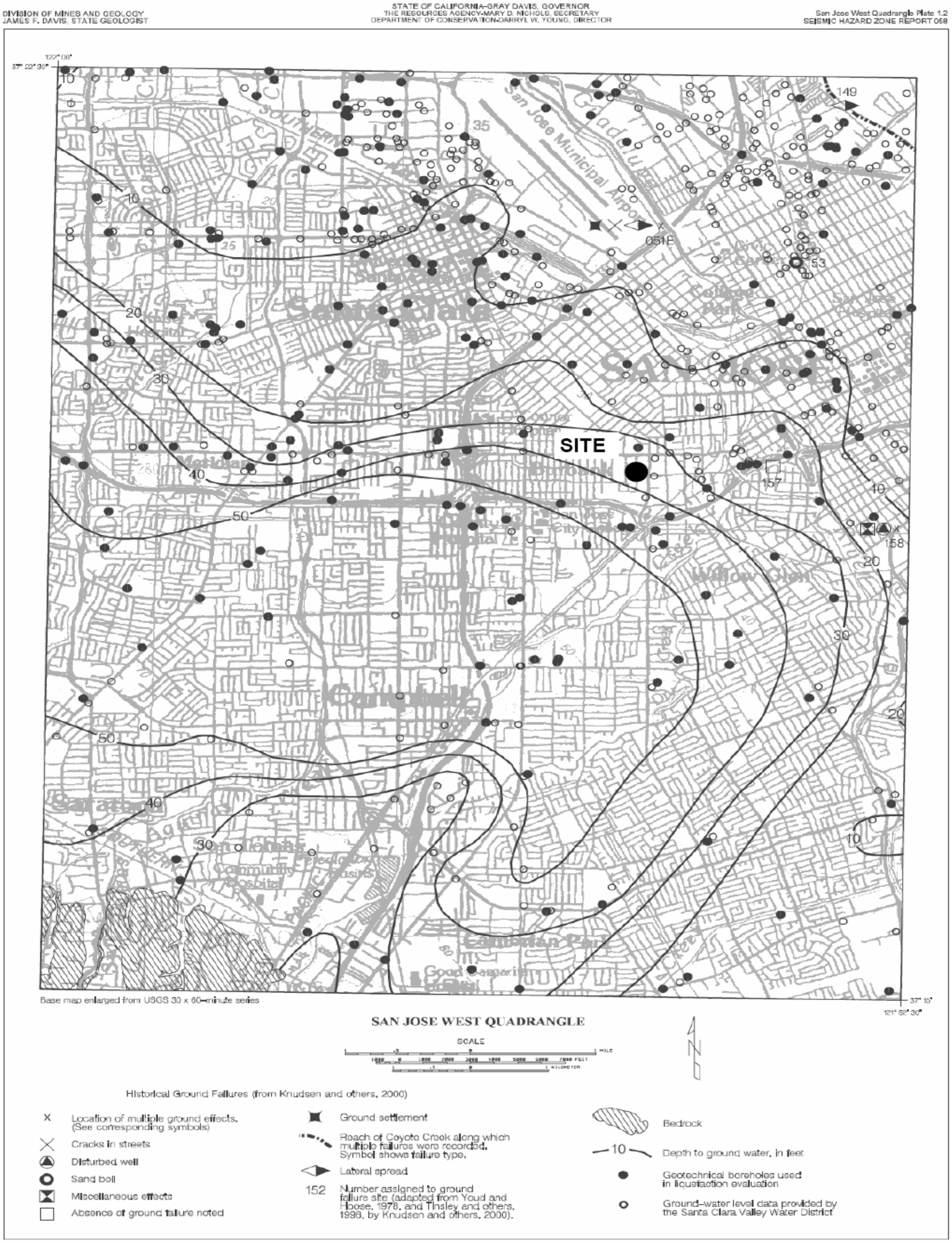

Plate 1.2 Depth to historically high ground water, historical liquefaction sites, and locations of boreholes, San Jose West 7.5-minute Quadrangle, California

AMSO CONSULTING ENGINEERS	**DEPTH TO HISTORICALLY HIGH GROUND WATER**	**FIGURE 5**
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APPENDIX A

Key to Exploration Logs and Boring Logs

KEY TO EXPLORATORY BORING LOGS

SOIL CLASSIFICATIONS

PRIMARY DIVISIONS			GROUP1 SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS More than half of material is larger than No. 200 sieve size	**GRAVELS** More than half coarse fraction is larger than No.4 sieve	Clean Gravels (less than5% fines*)	GW	Well graded gravels, gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels, gravel-sand mixtures, little or no fines
		Gravel with fines*	GM	Silty gravels, gravel-sand-silt mixtures, non-plastio fines
			GC	Clayey gravels, gravel-sand-clay mixtures, plastio fines
	SANDS More than half coarse fraction is smaller than No.4 sieve	Clean Sands (less than 5%fines*)	SW	Well graded sands, gravelly sands, little or no fines
			SP	Poorly graded sands or gravelly sands, little or no fines
		Sands with fines*	SM	Silty sands, silt-sand mixtures, non-plastio fines
			SC	Clayey sand, sand-clay mixtures, plastio fines
FINE GRAINED SOILS More than half of material is smaller than No. 200 sieve size	**SILTS AND CLAYS** Liquid limit is less than 35		ML	Inorganic silts, clayey silts, rock flour, silty very fine sands
			CL	Inorganic clays of low plasticity, gravelly clay of low plasticity
			OL	Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS Liquid limit is between35 and 50		MI	Inorganic silts, clayey silts and silty fine sand with intermediate plasticity
			CI	Inorganic clays, gravely clays, sandy clays and silty clays of intermediate plasticity
			OI	Inorganic clays and silty clays of intermediate plasticity
	SILTS AND CLAYS Liquid limit is greater than 50		MH	Inorganic silts, clayey silts, elastic silts, micaceous or diatomaceous silty or fine sandy soil
			CH	Inorganic clays of high plasticity
			OH	Organic clays and silts of high plasticity
HIGHLY ORGANIC SOILS			Pt	Peat, meadow mat, highly organic soils

GRAIN SIZES

U.S. STANDARD SERIES SIEVE				CLEAR SQUARE SIEVE OPENINGS			
	200	**40**	**10**	**4**	**¾"**	**3"**	**12"**
Silts and Clays	Fine	Medium	Coarse	Fine	Coarse	Cobbles	Boulders
	SAND			**GRAVEL**			

RELATIVE DENSITY

SANDS, GRAVELS AND NON-PLASTIC SILTS	BLOWS/FOOT*
VERY LOOSE	0 – 4
LOOSE	4 – 10
MEDIUM DENSE	10 – 30
DENSE	30 – 50
VERY DENSE	OVER 50

CONSISTENCY

CLAYS AND PLASTIC SILTS	UNCONFINED SHEAR STRENGTH (PSF)	BLOWS/FOOT*
VERY SOFT	0 – 250	0 – 2
SOFT	250-500	2 – 4
FIRM	500-1000	4 – 8
STIFF	1000-2000	8 – 16
VERY STIFF	2 000– 4000	16 – 32
HARD	>4000	OVER 32

SYMBOLS

▽	Initial Ground Water Level
▼	Final Ground Water Level
*	Standard Penetration Sampler
X	Modified California Sampler
D	Dames & Moore Sampler

NOTES

*BLOWS per FOOT – Resistance to advance the soil sampler in number of blows of a 140-pound hammer falling 30 inches to drive a split spoon sampler.

Stratification lines on the logs represent the approximate boundary between soil types, and the transition may be gradual.

Modified California Sampler – 2 ½ O.D. (1 7/8 Inch I.D.) sampler

Standard Penetration Sampler – 2 inch O.D. (1 3/8 Inch I.D.) split spoon sampler (ASTM D1586).

Dames & Moore Sampler – 3 inch O.D. (2.5 inch I.D.) sampler

AMSO CONSULTING ENGINEERS

BORING LOG

No. B-1

PROJECT Page Street Development DATE 01/27/2017 LOGGED BY BAA

DRILL RIG Truck Mounted Continuous Flight HOLE DIA. 4" SAMPLER X - Modified California; * - S.P.T

GROUND WATER DEPTH INITIAL 41 Feet FINAL 36 Feet HOLE ELEVATION

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Silty Clay; brown, damp, stiff; Fill	CL											
with pieces of bricks and debris		1										
							32		19			
		2	x	21				14		97		
		3										
Silty Clay; brown, damp, very stiff, slightly	CL											
sandy		4										
		5	x	42	3.5			15		101	7	4325
		6										
		7										
Silty Fine Sand; grayish brown, damp	SM	8										
medium dense.												
		9										
		10	x	22				12		101		
		11										
		12										
		13										
		14										
		15	*	22								
		16										
		17										
		18										
		19										
slightly clayey, very silty												
		20	*	13								

BORING LOG

No. B-1

PROJECT	Page Street Development	DATE	01/27/2017	LOGGED BY	BAA
DRILL RIG	Truck Mounted Continuous Flight	HOLE DIA.	4"	SAMPLER	X - Modified California; * - S.P.T
GROUND WATER DEPTH INITIAL	41 Feet	FINAL	36 Feet	HOLE ELEVATION	

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Clayey Silty Fine Sand; grey brown, damp medium dense.	SM	21										
		22										
Silty Clay; brown, damp, stiff	CL	23										
		24										
		25	x	15	2			18		98	8	2710
		26										
		27										
		28										
		29										
Very Clayey Silty Sand to Sandy Clay;	SC/ CL	30	x	26	1			14		102		1100
		31										
Silty Clay; brown, damp, stiff	CL	32										
		33										
		34										
		35	x	15	2.2			19		99	9	3300
		36										
		37										
		38										
		39										
		40	*	18	2							

BORING LOG

No. B-1

PROJECT Page Street Development DATE 01/27/2017 LOGGED BY BAA

DRILL RIG Truck Mounted Continuous Flight HOLE DIA. 4" SAMPLER X - Modified California; * - S.P.T

GROUND WATER DEPTH INITIAL 41 Feet FINAL 36 Feet HOLE ELEVATION

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Silty Clay; brown, damp, stiff	CL	41										
Interbeddings of Gravelly Silty Clay and Silty File Sand, gray, wet, stiff and medium dense	CL/ SM	42										
		43										
		44										
		45	*	39								
		46										
		47										
		48										
		49										
		50	*	37								
Bottom of hole at 50 feet		51										
		52										
		53										
		54										
		55										
		56										
		57										
		58										
		59										
		60										

BORING LOG

No. B-2

PROJECT Page Street Development | DATE 01/27/2017 | LOGGED BY BAA

DRILL RIG Truck Mounted Continuous Flight | HOLE DIA. 4" | SAMPLER X - Modified California; * - S.P.T

GROUND WATER DEPTH INITIAL 40 Feet | FINAL 35 1/2 Feet | HOLE ELEVATION

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Silty Clay, brown, damp, stiff; with debris	CL	1					36		19			
Silty Clay; brown,damp, stiff	CL	2	x	21	2.5			14		100	6	2645
		3										
		4										
		5	x	30	3.5			15		101	7	4315
		6										
		7										
		8										
Silty Fine Sand; brown, damp, medium dense	SM	9										
		10	*	14								
		11										
		12										
		13										
		14										
		15	*	11								
		16										
		17										
Very Silty Clay to Clayey Silt; brown damp; stiff	CL/ ML	18										
		19										
		20	x	8	0.8			14		101	6	1120

BORING LOG

No. B-2

PROJECT	Page Street Development	DATE 01/27/2017	LOGGED BY BAA
DRILL RIG	Truck Mounted Continuous Flight	HOLE DIA. 4"	SAMPLER X - Modified California; * - S.P.T
GROUND WATER DEPTH INITIAL 40 Feet	FINAL 35 1/2 Feet	HOLE ELEVATION	

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Very Silty Clay to Clayey Silt, brown, firm brown, damp, medium stiff to stiff		21										
		22										
		23										
		24										
firmer		25	*	11	1.5							
		26										
		27										
		28										
		29										
		30	*	21	1.5							
		31										
		32										
		33										
		34										
		35	*	15	1.5							
		36										
		37										
		38										
		39										
Bottom of hole at 40 feet		40	*	20	1.5							

BORING LOG

No. B-3

PROJECT	Page Street Development		DATE	01/27/2017	LOGGED BY BAA
DRILL RIG	Truck Mounted Continuous Flight	HOLE DIA. 4"	SAMPLER	X - Modified California; * - S.P.T	
GROUND WATER DEPTH INITIAL	40 Feet	FINAL 35 Feet		HOLE ELEVATION	

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Silty Clay; brown, damp, stiff; Fill with minor debris	CL											
		1										
							40		19			
Silty Clay; brown damp, stiff	CL	2	x	22	2.5			16		99	7	2785
		3										
		4										
		5	x	35	3.1			17		98	6	3875
		6										
		7										
		8										
		9										
Silty Fine Sand; grayish brown, damp, medium dense.	SM	10	*	22								
		11										
		12										
		13										
		14										
fine sand		15	*	13								
		16										
		17										
		18										
Sandy Silty Clay; brown, damp, medium stiff	CL	19										
		20	x	11	0.8			16		99	6	1050

BORING LOG

No. B-3

PROJECT Page Street Development DATE 01/27/2017 LOGGED BY BAA

DRILL RIG Truck Mounted Continuous Flight HOLE DIA. 4" SAMPLER X - Modified California; * - S.P.T

GROUND WATER DEPTH INITIAL 40 Feet FINAL 35 Feet HOLE ELEVATION

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Silty Clay; brown, damp, medium stiff	CL											
		21										
		22										
		23										
		24										
		25	x	10	1.5			18		99	8	1865
		26										
		27										
		28										
		29										
		30	x	13	1.7			18		98	9	1995
		31										
		32										
		33										
		34										
		35	x	28	2.7			17		101	8	2905
		36										
		37										
		38										
		39										
Gravelly Silty Clay; brown, moist, stiff	CL											
		40	*	50								

BORING LOG

No. B-3

PROJECT	Page Street Development		DATE	01/27/2017	LOGGED BY BAA
DRILL RIG	Truck Mounted Continuous Flight	HOLE DIA. 4"	SAMPLER	X - Modified California; * - S.P.T	
GROUND WATER DEPTH INITIAL	40 Feet	FINAL 35 Feet		HOLE ELEVATION	

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Gravelly Silty Clay; gray and brown, damp to wet; medium stiff	CL											
		41										
		42										
		43										
		44										
no gravel; slightly sandy		45	*	39	2							
		46										
		47										
		48										
		49										
		50	*	41	2							
Bottom of hole at 50 feet												
		51										
		52										
		53										
		54										
		55										
		56										
		57										
		58										
		59										
		60										

BORING LOG

No. B-4

PROJECT Page Street Development | DATE 01/27/2017 | LOGGED BY BAA

DRILL RIG Truck Mounted Continuous Flight | HOLE DIA. 4" | SAMPLER X - Modified California; * - S.P.T

GROUND WATER DEPTH INITIAL --- | FINAL --- | HOLE ELEVATION

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Silty Clay; brown, damp, medium stiff; with minor debris, Fill	CL											
		1										
		2	x	18	2.2			14		101	7	2740
Silty Clay; brown, damp, stiff	CL											
		3										
		4										
		5	x	20	2.6			16		99	8	3210
		6										
		7										
		8										
Very Silty Fine Sand; brown, damp, medium dense	SM	9										
		10	*	18								
		11										
		12										
		13										
		14										
		15	*	12								
		16										
		17										
		18										
Very Sandy Silty Clay; brown, damp, medium stiff.	CL											
		19										
		20	x	10	1.1							

BORING LOG

No. B-4

PROJECT	Page Street Development	DATE	01/27/2017	LOGGED BY	BAA
DRILL RIG	Truck Mounted Continuous Flight	HOLE DIA.	4"	SAMPLER	X - Modified California; * - S.P.T
GROUND WATER DEPTH INITIAL	---	FINAL	---	HOLE ELEVATION	

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Very Sandy Silty Clay; brwon, damp medium stiff	CL											
		21										
		22										
		23										
		24										
		25	x	14	1.2			16		100		
Bottom of hole at 25 feet No ground water encountered												
		26										
		27										
		28										
		29										
		30										
		31										
		32										
		33										
		34										
		35										
		36										
		37										
		38										
		39										
		40										

BORING LOG

No. B-5

PROJECT	Page Street Development	DATE	01/27/2017	LOGGED BY	BAA
DRILL RIG	Truck Mounted Continuous Flight	HOLE DIA.	4"	SAMPLER	X - Modified California; * - S.P.T
GROUND WATER DEPTH INITIAL	---	FINAL	---	HOLE ELEVATION	

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Silty Clay; brown, damp, stiff	CL											
		1										
		2	x	19	2.2			17		98	8	2635
		3										
		4										
		5	x	22	1.7			20		97	8	2345
		6										
		7										
		8										
Very Silty Fine Sand; gray brown, damp medium dense	SM											
		9										
		10	*	20								
		11										
		12										
		13										
		14										
		15	*	17								
		16										
		17										
Very Silty Sandy Clay; brown, damp, medium dense	CL											
		18										
		19										
		20	*	12	1.2							

BORING LOG

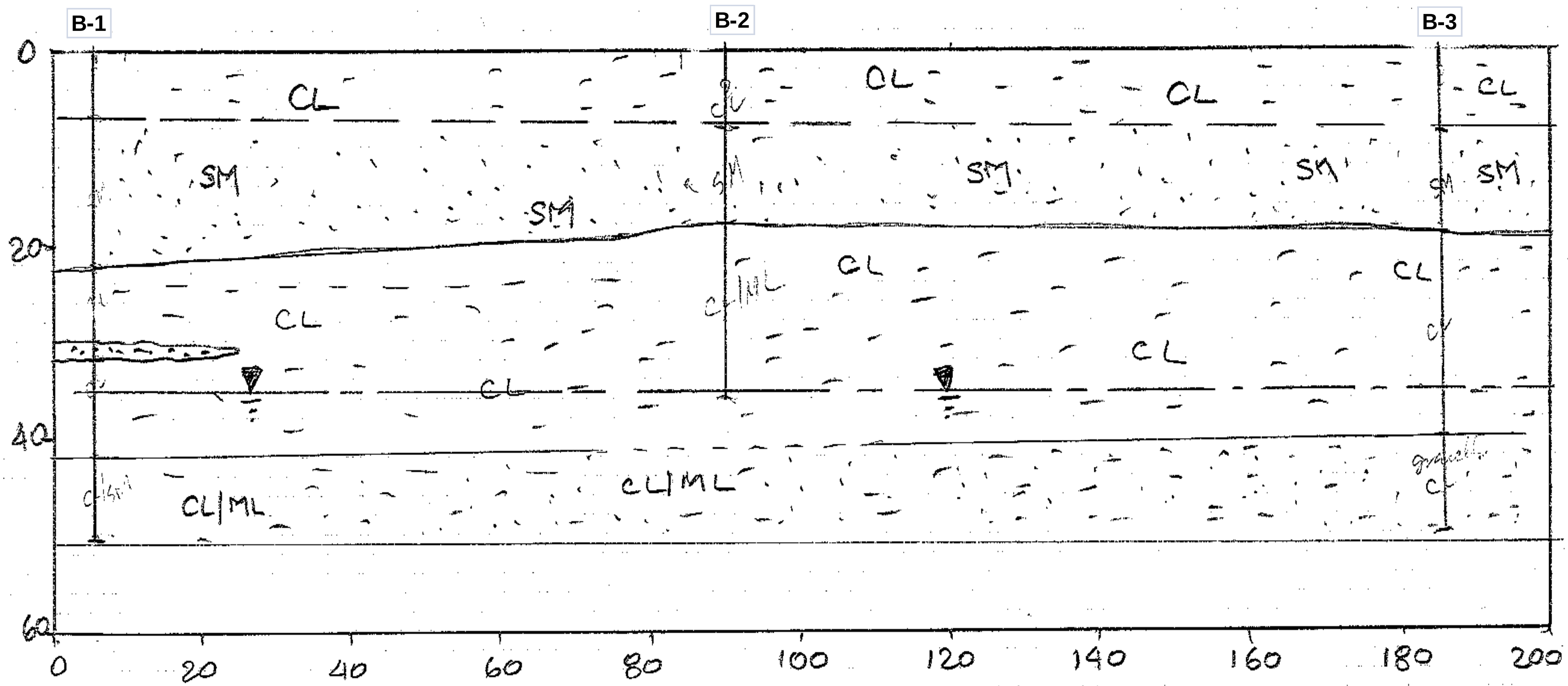
No. B-5

PROJECT Page Street Development | DATE 01/27/2017 | LOGGED BY BAA

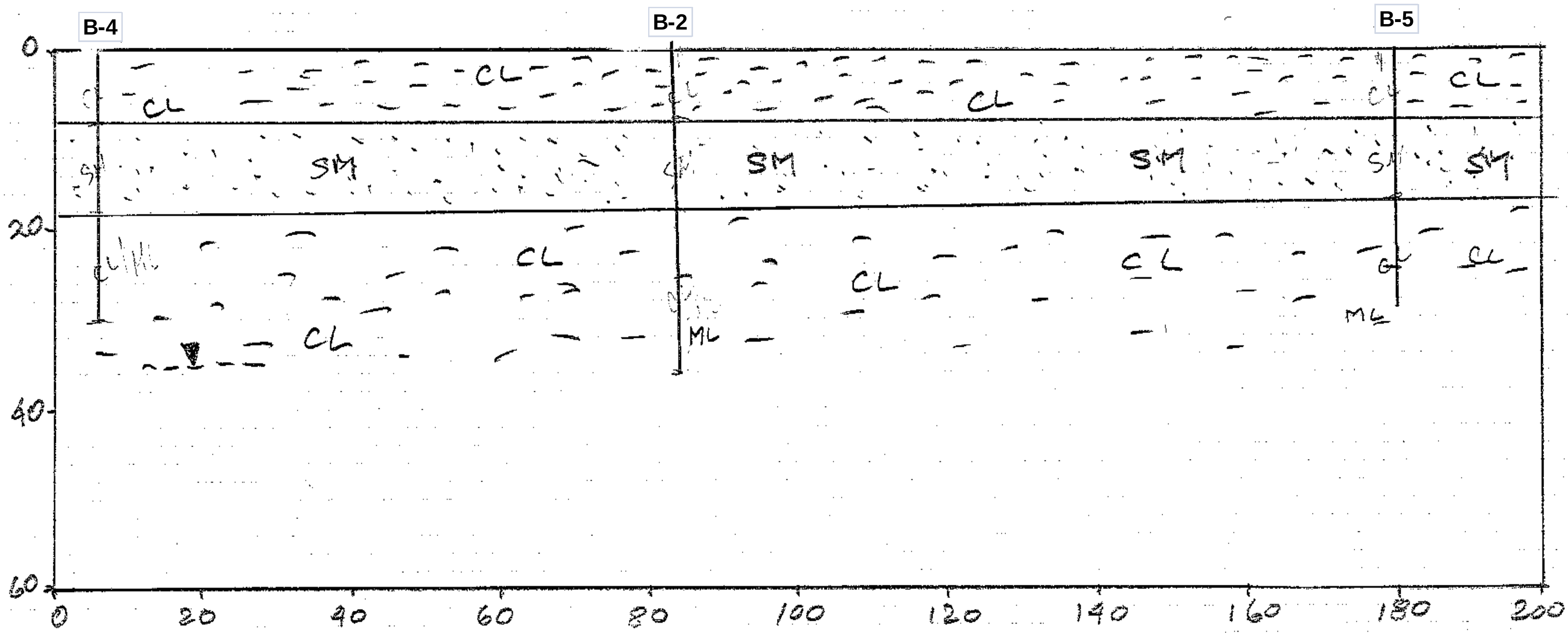
DRILL RIG Truck Mounted Continuous Flight | HOLE DIA. 4" | SAMPLER X - Modified California; * - S.P.T

GROUND WATER DEPTH INITIAL --- | FINAL --- | HOLE ELEVATION

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	POCKET PEN (tsf)	TORVANE (tsf)	LIQUID LIMIT (%)	WATER CONTENT (%)	PLASTIC LIMIT (%)	DRY DENSITY (pcf)	FAILURE STRAIN (%)	UNCONFINED COMPRESSIVE STRENGTH (psf)
Very Silty Sandy Clay; brown, damp, medium dense	CL	21										
		22										
		23										
		24										
		25	*	18	1.7							
Bottom of hole at 25 feet No ground water encountered		26										
		27										
		28										
		29										
		30										
		31										
		32										
		33										
		34										
		35										
		36										
		37										
		38										
		39										
		40										



AMSO CONSULTING ENGINEERS	CROSS SECTION 1-1'	FIGURE 6
FEBRUARY 2017	PAGE STREET DEVELOPMENT 329, 341 & 353 PAGE STREET SAN JOSE, CALIFORNIA	PROJECT 3628

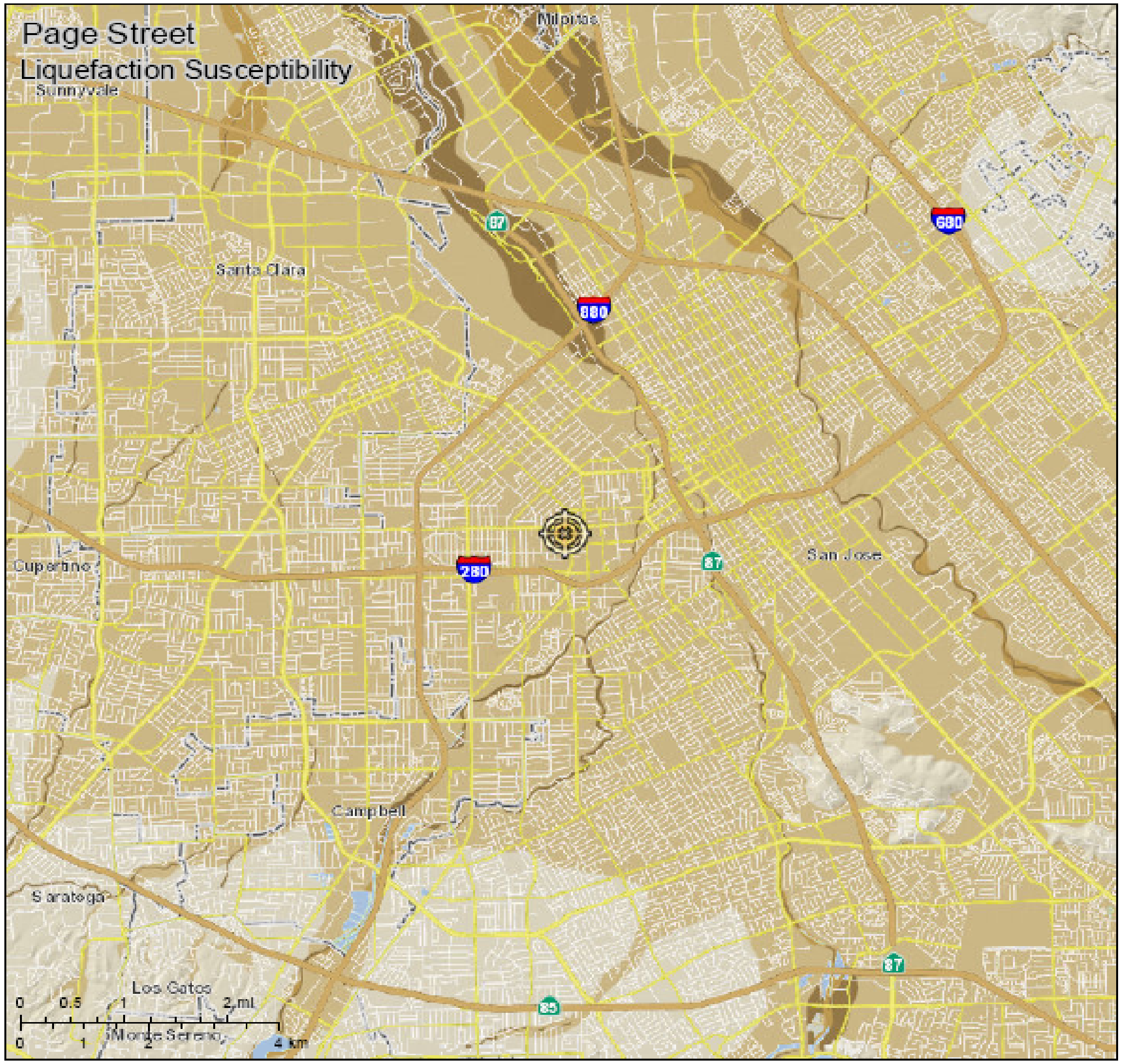


AMSO CONSULTING ENGINEERS	CROSS SECTION 2-2'	FIGURE 7
FEBRUARY 2017	PAGE STREET DEVELOPMENT 329, 341 & 353 PAGE STREET SAN JOSE, CALIFORNIA	PROJECT 3628

San Francisco Bay Area Hazards

Legend

- Very High Susceptibility
- High Susceptibility
- Moderate Susceptibility
- Low Susceptibility
- Very Low Susceptibility

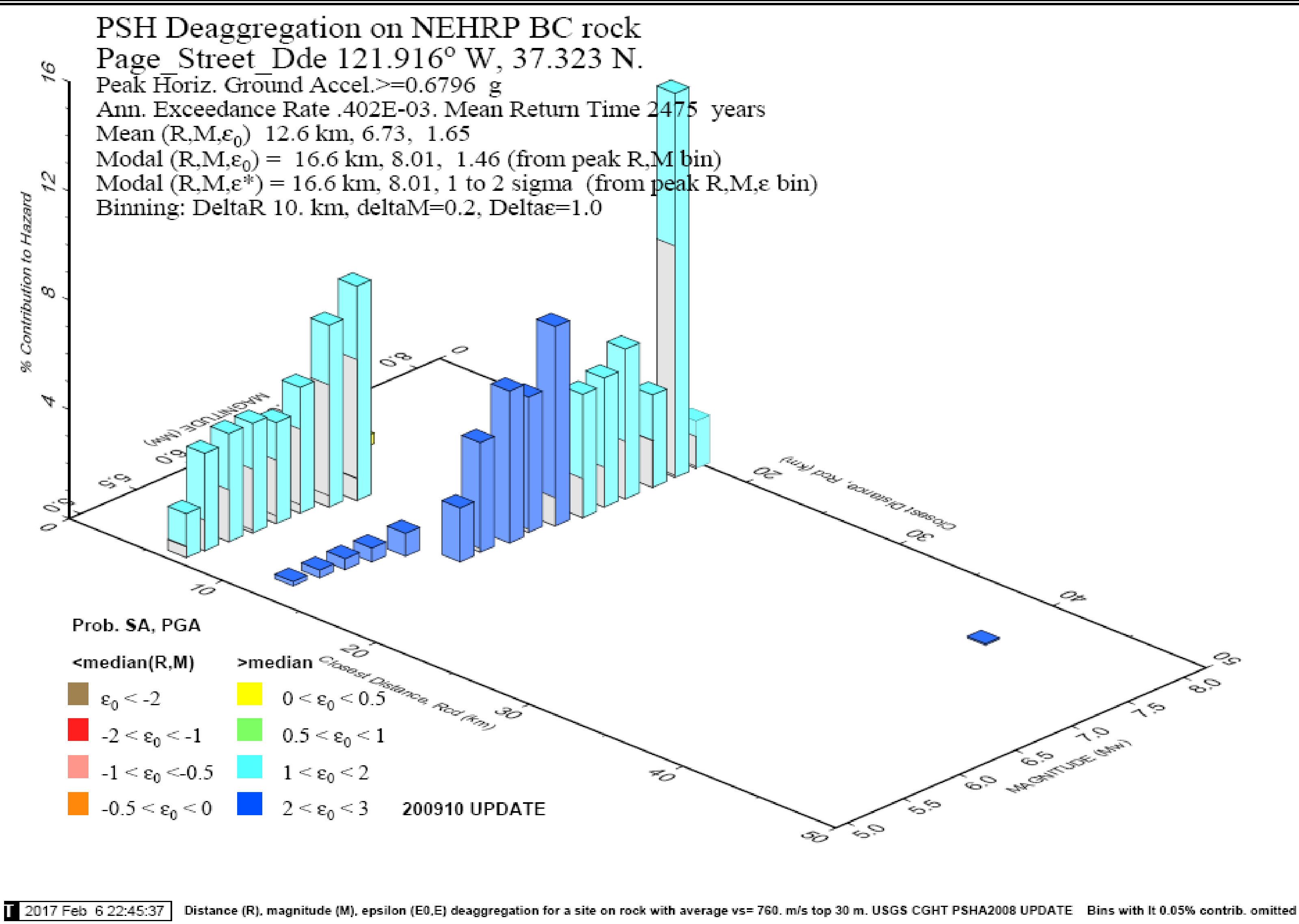


This map is intended for planning only and is not intended to be site specific. Rather, it depicts the general risk within neighborhoods and the relative risk from community to community.

ASSOCIATION OF BAY AREA GOVERNMENTS
RESILIENCE PROGRAM

January 31, 2017 ABAG GIS

AMSO CONSULTING ENGINEERS	LIQUEFACTION SUSCEPTIBILITY MAP	FIGURE 8
FEBRUARY 2017	PAGE STREET DEVELOPMENT 329, 341 & 353 PAGE STREET SAN JOSE, CALIFORNIA	PROJECT 3628



AMSO CONSULTING ENGINEERS	**PEAK HORIZONTAL GROUND ACCELERATION**	FIGURE 9
FEBRUARY 2017	PAGE STREET DEVELOPMENT 329, 341 & 353 PAGE STREET SAN JOSE, CALIFORNIA	PROJECT 3628

APPENDIX B

Laboratory Test Results

PLASTICITY INDEX

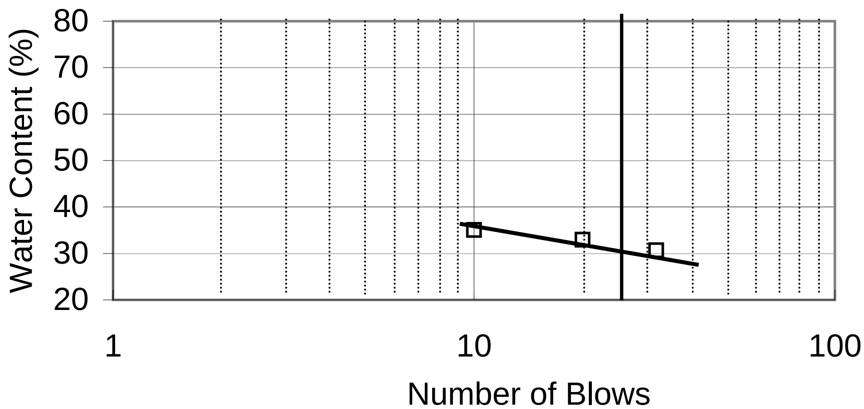
TEST DESIGNATION: ASTM D4318 OR CAL 204

Project Name:	Page Street Development	Project No.:	3628
Sample No.:	B1 @ 2 FT	Lab No.:	
Location		Test Date:	02/02/2017
Description:	Silty Clay	Tested By:	EAA

TEST DATA

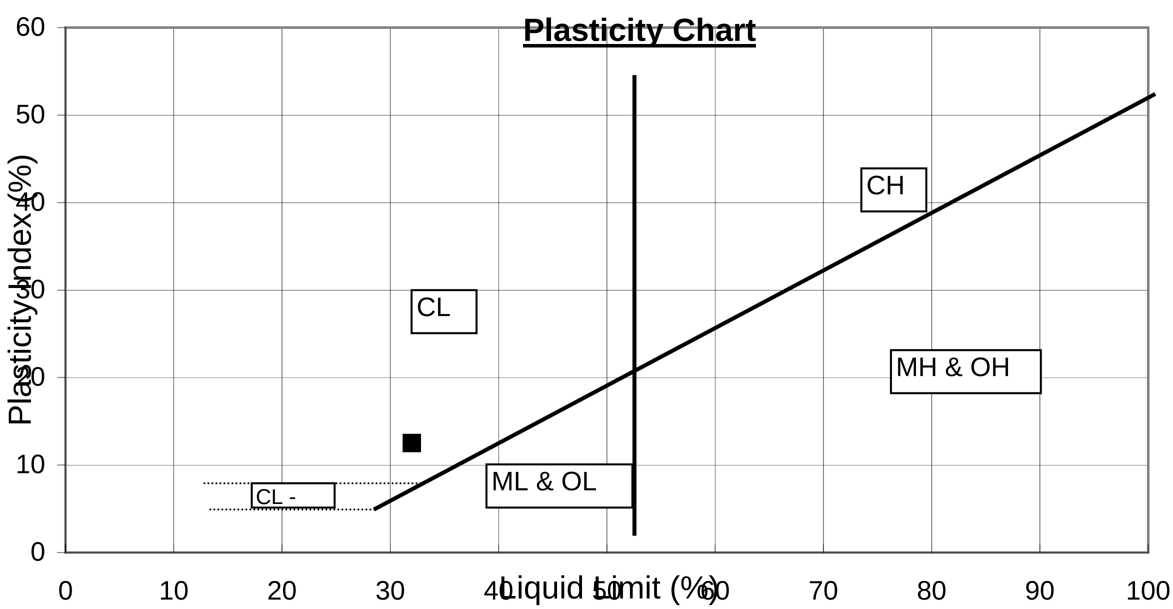
	Liquid Limit				**Plastic limit**			**Water Content**
Number of Blows	10	20	32					
Tare Number	M	H	A		5			
Tare + Wet Wt (gm)	46.05	45.70	45.56		154.50			
Tare + Dry Wt (gm)	38.14	38.22	38.53		134.53			
Tare Wt (gm)	15.57	15.52	15.62		32.05			
Wt of Water (gm)	7.91	7.48	7.03		19.97			
Soil Dry Wt (gm)	22.57	22.70	22.91		102.48			
Water Content (%)	35.05	32.95	30.69		19.49			
Average					19.49			

Liquid Limit Test



LL	PL	PI
32	19	13

Plasticity Chart



PLASTICITY INDEX

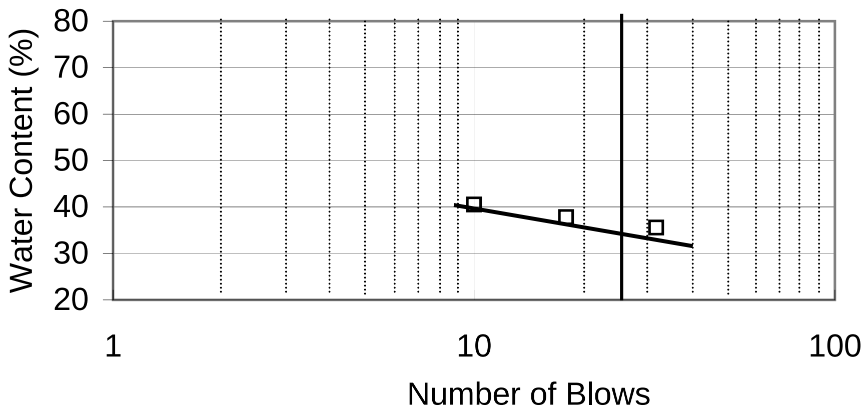
TEST DESIGNATION: ASTM D4318 OR CAL 204

Project Name:	Page Street Development	Project No.:	3628
Sample No.:	B2 @ 2 FT	Lab No.:	
Location		Test Date:	02/02/2017
Description:	Silty Clay	Tested By:	EAA

TEST DATA

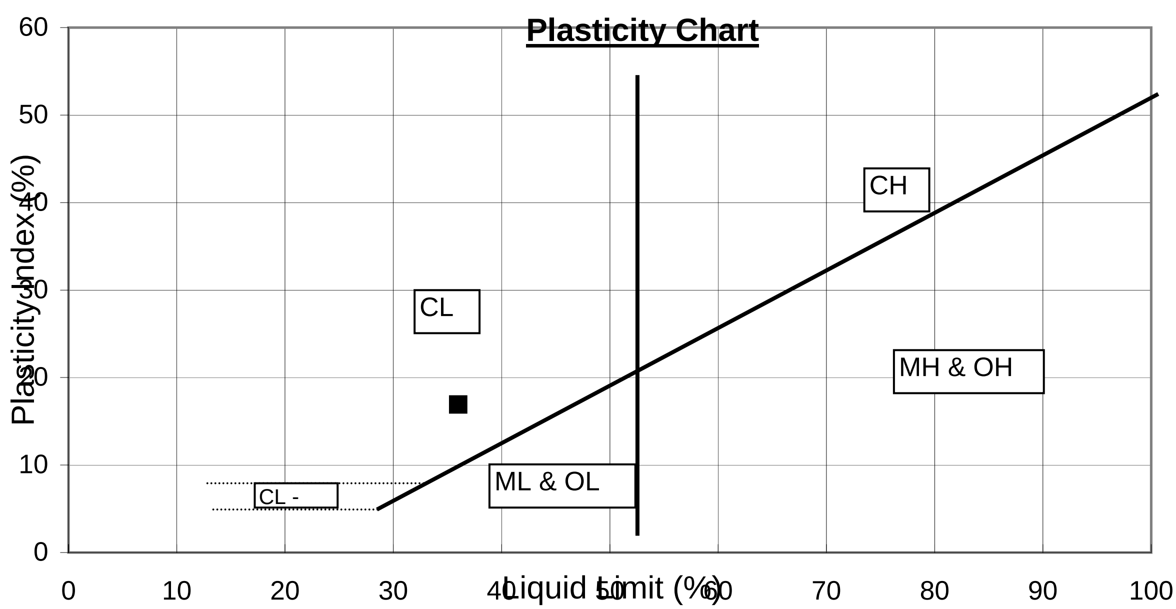
	Liquid Limit				Plastic limit			Water Content
Number of Blows	10	18	32					
Tare Number	5	I	25		32			
Tare + Wet Wt (gm)	46.50	46.24	46.12		150.78			
Tare + Dry Wt (gm)	37.65	37.87	38.07		131.76			
Tare Wt (gm)	15.82	15.74	15.44		32.05			
Wt of Water (gm)	8.85	8.37	8.05		19.02			
Soil Dry Wt (gm)	21.83	22.13	22.63		99.71			
Water Content (%)	40.54	37.82	35.57		19.08			
Average					19.08			

Liquid Limit Test



LL	PL	PI
36	19	17

Plasticity Chart



PLASTICITY INDEX

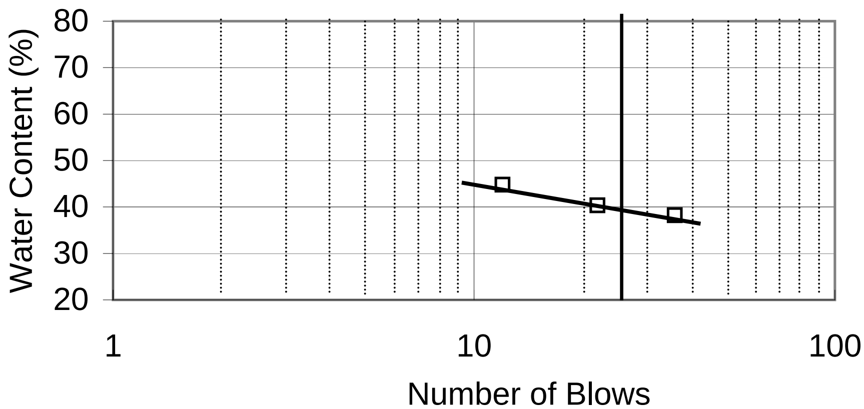
TEST DESIGNATION: ASTM D4318 OR CAL 204

Project Name:	Page Street Development	Project No.:	3628
Sample No.:	B3 @ 2 FT	Lab No.:	
Location		Test Date:	02/02/2017
Description:	Silty Clay	Tested By:	EAA

TEST DATA

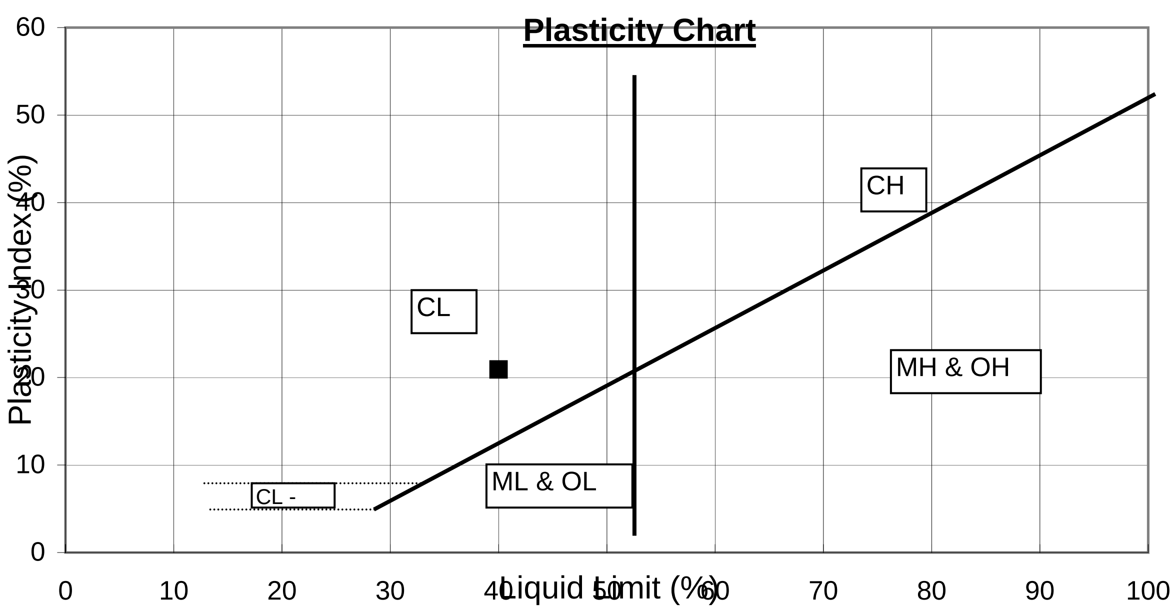
	Liquid Limit				Plastic limit			Water Content
Number of Blows	12	22	36					
Tare Number	12	M	20		27			
Tare + Wet Wt (gm)	47.62	47.34	46.76		150.78			
Tare + Dry Wt (gm)	37.55	38.10	38.10		131.76			
Tare Wt (gm)	15.08	15.21	15.44		32.05			
Wt of Water (gm)	10.07	9.24	8.66		19.02			
Soil Dry Wt (gm)	22.47	22.89	22.66		99.71			
Water Content (%)	44.82	40.37	38.22		19.08			
Average					19.08			

Liquid Limit Test



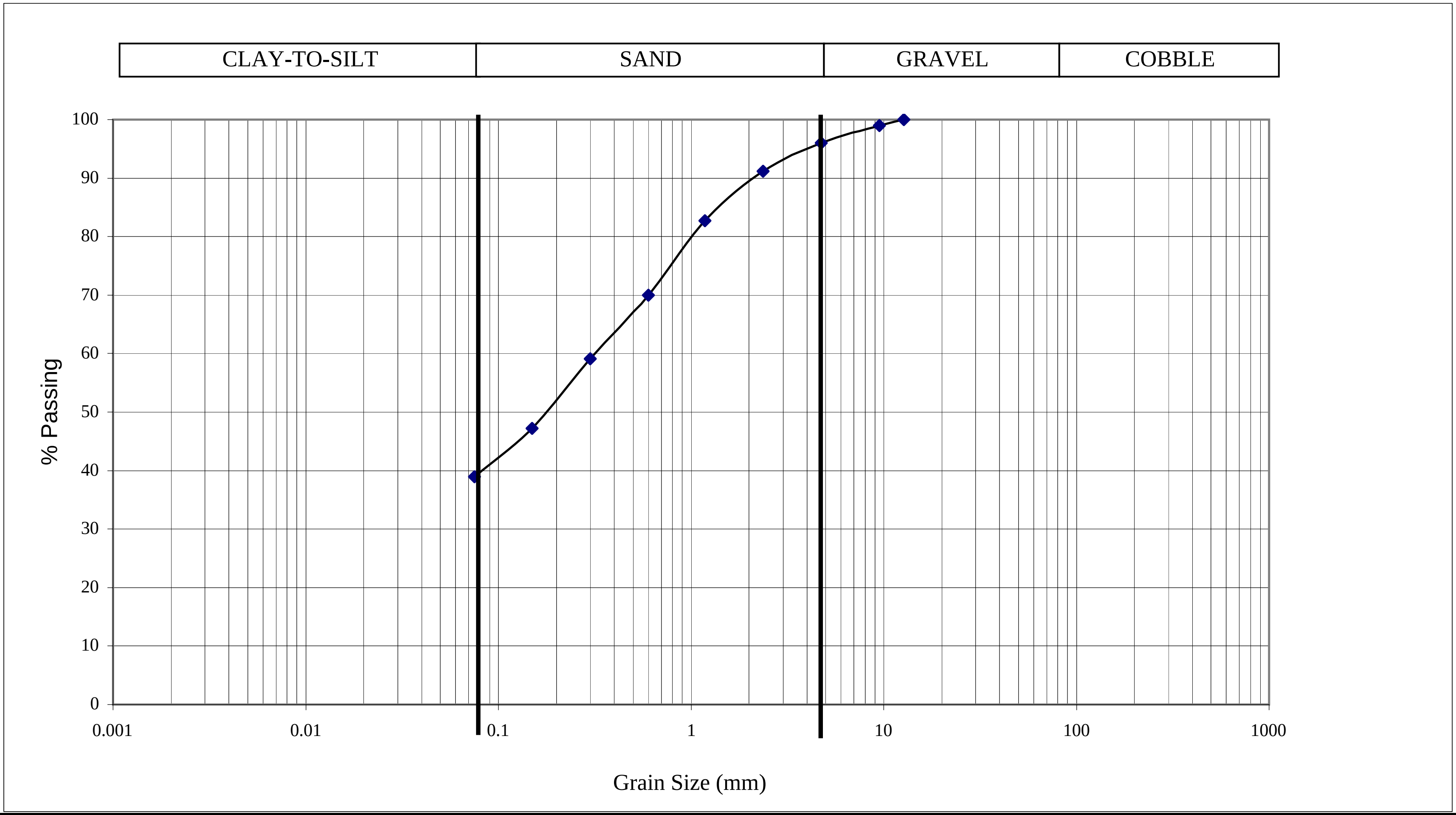
LL	PL	PI
40	19	21

Plasticity Chart



GRAIN SIZE DISTRIBUTION

Project:	Page Street	Date:	02/02/2017
Sample	B3 @ 45 FT	Project #:	3628
		Lab # :	
Material Description:	SLIGHTLY GRAVELLY SANDY SILTY CLAY	Date Tested:	



APPENDIX C

Liquefaction Analysis

LIQUEFACTION ANALYSIS
BASED ON "TECHNICAL REPORT NCEER-97-0022" DATED DECEMBER 31, 1997

PROJECT NAME: PAGE STREET DEVELOPMENT
PROJECT NUMBER: 3628
PROJECT LOCATION: PAGE STREET, SAN JOSE, CALIFORNIA

DATE: 02/10/2017
BY: BASIL AMSO, P.E.

SUBSURFACE DATA

	FEET	DENSITY(pcf)
DEPTH TO GROUND WATER	35.0	62.4
DEPTH TO BOTTOM OF 1ST LAYER	8.0	120.0
DEPTH TO BOTTOM OF 2ND LAYER	22.0	110.0
DEPTH TO BOTTOM OF 3RD LAYER	40.0	120.0
DEPTH TO BOTTOM OF 4TH LAYER	50.0	115.0

EARTHQUAKE DATA

EARTHQUAKE MAGNITUDE (Ml) = 7.9
PEAK GROUND ACCELERATION (g) = 0.68

MAGNITUDE SCALING FACTOR (MSF) = 0.88

POTENTIAL FOR LIQUEFACTION

Boring Number	DEPTH ft	MEASURED BLOW COUNTS Nm	CORRECTION FACTORS: OVERBURDEN PRESS. Cn	ENERGY RATIO Ce	BORING DIAM. Cb	ROD LENGTH Cr	SAMPLE METHOD Cs	FINE CONTENT Upto 35 %	CORRECTED BLOW COUNT (N1)60cs	TOTAL VERT. STRESS PSF	EFFECT. VERT. STRESS PSF	STRESS REDUC. COEFF. rd	CYCLIC STRESS RATIO csr	CYCLIC RESIST RATIO crr	SAFETY FACTOR	ETIMATED SETTLE MENT in
B1	45	39	0.66	1	1	1	1	35	36	5375	4751	0.82	0.41	0.63	1.35	0.00
B1	50	37	0.65	1	1	1	1	35	34	5950	5014	0.77	0.40	0.49	1.06	0.00
B3	45	39	0.66	1	1	1	1	35	36	5375	4751	0.82	0.41	0.63	1.35	0.00
B3	50	41	0.65	1	1	1	1	35	37	5950	5014	0.77	0.40	0.69	1.51	0.00
															total	0.00