Appendix G

Geotechnical and Infiltration Investigation

SOIL SURVEYS GROUP INC.

103 CHURCH ST • SALINAS, CALIFORNIA 93901 • TELEPHONE (831) 757-2172

December 7, 2020
Job #7714

Lakshmi Hotel Partners, Inc.
c/o Arris Studio Architects
Attn: Adriana Cook
1221 SW Yamhill Street, Suite 300
Portland, OR 97205

Dear Ms. Cook,

Submitted herewith is the report of our Geotechnical and Infiltration Investigation for the proposed three story hotel building with onsite stormwater dispersion systems to replace the existing hotel located at 2101 North Fremont Street, APN 013-112-045, in Monterey, California. Four borings were drilled on October 20, 2020. Laboratory tests were subsequently made on driven soil core samples taken from the geotechnical borings to determine the near surface and subsurface soil conditions and suitability for the proposed new hotel building. We find that the project site is suitable for the proposed use with the recommendations made herein.

It is a pleasure working with you on this project. If you have any questions regarding our geotechnical investigation or this report, please contact us.

Very truly yours,

SOIL SURVEYS GROUP, INC.

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SOIL SURVEYS GROUP INC.
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GEOTECHNICAL AND INFILTRATION INVESTIGATION

FOR THE PROPOSED HOTEL BUILDING

2101 NORTH FREMONT STREET

APN 013-112-045

MONTEREY, CALIFORNIA

FOR LAKSHMI HOTEL PARTNERS, INC.

DECEMBER 7, 2020; JOB #7714

I. INTRODUCTION:

This Geotechnical and Infiltration Investigation was made to determine the suitability of the project site for the proposed three story hotel building with onsite stormwater infiltration system to replace the existing hotel building (which is to be demolished) located at 2101 North Fremont Street, APN 013-112-045, in Monterey, California. Four geotechnical borings were drilled on October 20, 2020 within the proposed building location to depths of 25 feet, 20 feet, 10 feet, and 6.55 feet, respectively, for geotechnical investigative purposes and core samples were taken from these borings for laboratory testing. The two shallow borings were piped and the annulus packed with gravel for infiltration testing to determine design infiltration rates for storm water retention and control measures. The boring logs, our field observations, and field and laboratory test data were analyzed to determine the following:

1. **Suitability of the project site for the proposed building.**
2. **Expansive, unsuitable or unstable soil conditions, if any.**
3. **Foundation and retaining wall design criteria for the proposed building.**
4. **Subsurface groundwater and soil moisture considerations.**
5. **Surface drainage considerations and storm water infiltration design criteria.**
6. **Analysis of seismic hazards and seismic design factors per the 2019 California Building Code.**

II. LABORATORY TEST DATA[1]:

Twenty-three moisture density tests and one moisture test were made on the driven core samples. Standard Penetration Tests (SPT) were performed with a Terzaghi Split Spoon sampler. Core samples were also taken

[1]Boring Logs are located in Appendix A

with a 2½-inch diameter(i.d.) Modified California Sampler. The samplers were driven into the soil by a 140 lb. hammer dropped a vertical distance of 30 inches at each of the sample locations. Results of these tests are shown as follows:

MOISTURE DENSITY TESTS

Boring No.	Depth/ Ft.	Water Content (%)	Dry Density (p.c.f.)	Standard penetration Tests (Blows /foot)	Pocket Penetrometer (t.s.f.)
B-1	1.5-2	7.5	92.3	6(4)*	---
B-1	2-2.5	7.2	93.5	6(4)*	---
B-1	3.5-4	6.9	97.1	5(3)*	---
B-1	4-4.5	9.0	98.9	9(5)*	---
B-1	5.5-6	10.0	87.1	7	---
B-1	8.5-9	13.1	101.3	25(15)*	---
B-1	9-9.5	17.9+	97.8+	36(22)*	3.0
B-1	10.5-11	13.7	96.3	17	---
B-1	14.5-15	18.9	105.0	27	---
B-1	19.5-20	15.8	128.0	20	---
B-1	24.5-25	10.8	129.5	51	---
B-2	2-2.5	5.7	84.2	6	---
B-2	4.5-5	5.9	Bulk	6	---
B-2	6-6.5	8.3	99.3	13	---
B-2	9.5-10	6.8	104.9	29	---
B-2	14.5-15	18.4	78.1	19	1.0
B-2	19.5-20	34.4	94.1	65	---
B-3	2-2.5	6.9	94.2	6	---
B-3	4-4.5	6.8	86.1	3	---
B-3	6-6.5	6.3	93.6	4	---
B-3	9.5-10	7.8	91.5	8	---
B-4	2-2.5	7.1	94.8	3	---

Boring No.	Depth/ Ft.	Water Content (%)	Dry Density (p.c.f.)	Standard penetration Tests (Blows /foot)	Pocket Penetrometer (t.s.f.)
B-4	4-4.5	3.9	104.2	2	---
B-4	6-6.5	6.0	95.1	4	---

* = 2 ½ -inch mod. Cal, not SPT () = Blow counts adjusted to approximate SPT values
+ = Values from Shear test

Six sieve analysis tests were made on driven core samples. Results of these tests are shown as follows:

A.S.T.M. D 422 SIEVE ANALYSIS TEST-Percent Passing

Boring No.	Depth/ Ft.	Sieve No. 4	Sieve No. 10	Sieve No. 20	Sieve No. 30	Sieve No. 40	Sieve No. 100	Sieve No. 200
B-1	2-2.5	100	100	99	98	96	19	13
B-1	5.5-6	100	100	98	95	91	16	10
B-1	8.5-9	100	100	100	99	99	14	11
B-2	2-2.5	100	100	100	99	97	24	16
B-3	4-4.5	100	100	100	99	98	20	12
B-4	2-2.5	95	90	84	80	73	18	11

Six plasticity index tests were performed on driven core samples. Results of these tests are as follows:

PLASTICITY INDEX TEST

Boring No.	Depth/ Feet	% Passing Sieve No. 40	% Passing Sieve No. 200	Liquid Limit	Plastic Limit	Plasticity Index
B-1	2-2.5	96	13	n/p	non-plastic	n/p
B-1	5.5-6	91	10	n/p	non-plastic	n/p
B-1	8.5-9	99	11	n/p	non-plastic	n/p
B-2	2-2.5	97	16	n/p	non-plastic	n/p
B-3	4-4.5	98	12	n/p	non-plastic	n/p
B-4	2-2.5	73	11	n/p	non-plastic	n/p

These tests indicate that the fine fraction of the near surface, silty sandy soils found in the borings non plastic and non-expansive.

One Direct Shear test was made from a soil sample taken from Boring B-1 at 9-9.5 feet below surface. Results of this test are summarized as follows (see Appendix B for full report sheet):

Boring No.	Depth/ Ft.	Internal Frict. Angle, φ°	Cohesion, C p.s.f.	Soil Weight p.c.f.	Description of soil
B-1	9-9.5	38.9	450	115.4	Brown to yellow silty SAND

Boring B-1 was located near the southeasterly corner of the existing restaurant and within the westerly portion of the proposed hotel, as shown on Figure II. The near surface soil beneath 2.5-inches of asphaltic concrete, consists of very loose, silty, fine to medium grained sandy fill to a depth of one foot overlying very loose to loose, slightly clayey, silty, fine to medium grained sand to a depth of five feet underlain by loose, slightly silt, fine to medium grained sand to a depth of eight feet. Below this depth, the soil consists of medium dense, silty, fine to medium grained sand to a depth of 13.5 feet overlying medium dense, slightly silty, fine to coarse grained sand to the bottom of the boring at 26.5 feet in depth.

Boring B-2 was located near the southwesterly corner of the easterly wing of the existing motel and within the easterly half of the proposed hotel, as shown on Figure II. The near surface soil beneath two inches of asphaltic concrete and six-inches of silty, fine to coarse grained sand with gravels consists of loose, silty, fine to medium grained sand to a depth of five feet underlain by medium dense, slightly silty, fine to medium grained sand to a depth of 13.5 feet. Below this depth, the soil consists of medium dense, silty, fine to medium grained sand with thin veins of clay to a depth of 18.5 feet overlying very dense, silty, fine to medium grained sand with scattered rounded and fractured shale gravels to the bottom of the boring at 20.0 feet in depth.

Boring B-3/I-1 was located near the northeasterly corner of the parking area, within a potential stormwater dispersion system location, as shown on Figure II. The near surface soil beneath 1.75-inches of asphaltic concrete and five inches of silty, fine to coarse grained sand consists of loose, silty, fine to medium grained sand to the bottom of the boring at 10 feet in depth.

Boring B-4/I-2was located near the northwesterly corner of the parking area, within a potential stormwater dispersion system location, as shown in Figure II. The near surface soil beneath two inches of asphaltic concrete consists of very loose to loose, silty, fine to medium grained sand to the bottom of the boring at five feet in depth.

Groundwater was encountered in Boring B-1 at an initial depth of 12.25 feet below ground surface and in Boring B-2 at an initial depth of 13.20 feet below ground surface, prior to backfilling with soil cuttings. The actual depth to groundwater during rainy months is unknown, but it should be noted that groundwater fluctuations can occur due to variations in rainfall, temperature and other factors not evident during the time of our investigation.

III. SUITABILITY OF SITE FOR PROPOSED USE:

No unsuitable or unstable soil conditions were found at the boring locations except for loose soils encountered in the upper five to six feet within the building pad and to at least ten feet in the parking areas.

In our opinion, the site is suitable for the proposed new hotel with the recommendations made herein, specifically the recommendations for recompaction of all loose soil.

IV. RECOMMENDED FOUNDATION DESIGN CRITERIA:

Spread footings may be used for the building foundations after the site is cleared, grubbed and the proposed building pads are graded, compacted and properly prepared. Spread footings shall be installed to a minimum depth of 24 inches for the three story proposed building. The minimum depth shall be measured from the **inside building pad soil subgrade.** Mitigation for recompaction of loose soil conditions must be followed. Temporary shoring may be needed during excavation of basement.

Allowable foundation pressures after compaction of the building pad areas are:
Continuous footings = 1800 p.s.f.
Isolated rectangular footings = 2100 p.s.f.

Continuous footings shall be reinforced with two #4 steel reinforcement bars placed near the bottom of the footing. Spread footings shall also meet the minimum requirements of the 2019 California Building Code and the City of Monterey Building ordinances for width, thickness, embedment and reinforcement steel. The new building and any future building additions shall be designed in strict accordance with the requirements specified in the 2019 California Building Code, or latest approved edition, to resist seismic forces.

All concrete floor and garage slabs-on-grade shall be a minimum of five inches thick and shall be reinforced with a minimum of #3 steel reinforcement bars at 16 inches on center or #4 steel reinforcement bars placed 30 inches on center, each way and shall extend into perimeter foundation. *The reinforcement steel must be firmly held in the vertical center of the slabs during placement and finishing of concrete with pre-cast concrete dobies.* All new concrete floor slabs-on-grade shall be underlain by an approved 15 mil. vapor barrier installed over a minimum four inch thick open graded gravel capillary break with two inches of clean sand placed over the vapor barrier as recommended in Section VIII-C herein. ***Concrete slabs shall have weakened plane joints a maximum of fifteen feet on center, each way. All concrete shall be properly cured with an approved curing compound or wetted burlap for a minimum of 14 days.***

Soil Surveys Group, Inc. shall inspect and approve the foundation footing excavations and the subgrade beneath concrete floor slabs for suitable soil bearing and proper penetration into competent soil. We also recommend that Soil Surveys Group, Inc. review and approve the grading, drainage and foundation plans prior to building construction.

A. Concrete Sidewalks and Outside Flatwork:
We recommend that any new on-site concrete sidewalks and outside flatwork be at least five inches thick and be placed over a compacted subgrade. All concrete flatwork should be divided into as nearly square panels as possible. Frequent joints should be installed to provide articulation to the concrete panels. Landscaping and planters adjacent to concrete flatwork should be designed in such a manner that positive drainage away from the new project buildings is achieved. It is assumed that the outside concrete flatwork will be subjected only to pedestrian traffic.

V. LOOSE SOIL MITIGATION:

To mitigate the effects of the loose near surface soil conditions, the following measures are recommended:

1. All loose soil within the proposed new building pad and extending a minimum of five feet in all directions outside of the proposed building foundations shall be recompacted **as necessary** to 90 percent relative compaction at the direction of Soil Surveys Group, Inc. prior to placing additional building pad fill or finishing the building pad subgrade. Soil Surveys Group, Inc. shall determine the depth of recompaction within the building perimeter after clearing, grubbing, pad grading, and basement excavation are completed as five to six of loose materials were encountered in our borings. The bottom of the subexcavation shall be scarified a minimum of 12 inches, moisture conditioned and recompacted to 90 percent relative compaction. Backfill materials shall be placed in eight inch loose lifts and compacted to 90 percent relative compaction. All subexcavation and recompaction should be extended under any proposed patios or other permanent flatwork. If no subexcavation required, a minimum of 12 inches of soil shall be scarified, moisture conditioned and recompacted to 90 percent relative compaction.

2. Spread footings shall be constructed a minimum of 24 inches deep for the three story new building as measured from the lowest adjacent grade, and continuous non-retaining footings shall be reinforced with two #4 reinforcement bars placed near the bottom of the footing.

3. All new concrete floor slabs-on-grade shall be a minimum of five inches thick and shall be reinforced with a minimum of #3 steel reinforcement bars at 16 inches on center or #4 steel reinforcement bars at 30 inches on center, each way and shall be bent to extend a minimum of eight inches into the perimeter footing.

4. Roof and site rain water should be directed away from the proposed building foundations. Rainfall runoff must not be allowed to collect or flow in a downslope direction against any building foundation.

5. Soil Surveys Group, Inc. shall be retained to inspect and test the recompaction of all loose native soil and new engineered fill within the building pad perimeter and shall inspect and approve foundation footing excavations for soil bearing conditions. Soil Surveys Group, Inc. shall also inspect and approve the subgrade below concrete floor slabs prior to placement of reinforcing steel and shall inspect and approve the installation of all roof and site drainage facilities.

VI. SURFACE AND SUBSURFACE DRAINAGE AND EROSION CONSIDERATIONS:

The near surface soil at the project site has the potential to erode, especially if protective vegetation is removed. Therefore, all cut and fill slopes, as well as disturbed soil areas, must be seeded with grass or landscape plants for erosion control and to prevent sloughing soil from blocking drainage patterns at the project site. Such erosion control measures shall be taken during and at completion of grading and during construction operations.

Concentrated storm water runoff from the project site should not be allowed to discharge uncontrolled onto sloping ground. Concrete splash blocks or collector pipes shall be installed at the downspout outlets. Suitable energy dissipation systems shall be designed where rainfall runoff is concentrated, or the drainage water should be collected and piped to an on-site storm water infiltration system, thence directed to a nearby

storm drain or the street gutter. Rock energy dissipaters consisting of four inch to six inch diameter rock or rubble rip rap should be installed where rain gutter downspout pipes discharge onto soil to reduce soil erosion. The building site, new paved areas, and ground adjacent to the building shall be graded so that rainfall runoff does not become trapped or flow against any building foundations.

The boring logs do not indicate the need for a shallow subsurface drain system other than the required drain around the basement wall. However, the Geotechnical engineer may recommend a system of subsurface drains should wet subsurface soil conditions be encountered during site preparation or excavations.

VII. RETAINING WALL DESIGN CRITERIA:

The following design criteria are recommended for the retaining wall:

Friction Angle	*φ = 38.9 °*
Cohesion	*c = 450 p.s.f.*
Soil Weight,	*w =115.3 p.c.f.*
Equivalent fluid pressure, active	*= 30 pounds per square foot per foot of depth for* ***Level Grade***
Equivalent fluid pressure, active	*= 38 p.c.f. with* ***2:1 slope behind wall***
Equivalent fluid pressure, at rest,	*= 43 p.c.f., restrained condition, level grade behind wall*
Equivalent fluid pressure, passive	*= 505 p.c.f.*
Sliding friction	*f = 0.35*
Allowable Footing Toe Pressure	*= 2700 p.s.f. plus ⅓ additional for seismic force (if added)*

Retaining walls that are more than six feet high, or are part of or within ten feet of a building should include the seismic force of the soil against the retaining wall. The estimated seismically generated ground acceleration to be used for this site is:
PGA = 0.574g

Cantilever Retaining Walls:
Dynamic Load Coefficient = 0.24g = k_h
w = 115.3 p.c.f.
The resultant seismic force is calculated by the formula: 1/2 w H^2 k_h per linear foot of retaining wall, or for this case **13.5 H^2**, ***where H is the height of the retaining wall. These forces, where needed, should be applied at a height of 0.33H above the base of the retaining wall and must be combined with the force produced by active soil pressure.***

Basement Walls:
Dynamic Load Coefficient = 0.32g = k_h
w = 115.3 p.c.f.
The resultant seismic force is calculated by the formula: 1/2 w H^2 k_h per linear foot of retaining wall, or for this case **18.6 H^2**, ***where H is the height of the retaining wall. These forces, where needed, should be applied at a height of 0.40H above the base of the retaining wall and must be combined with the force produced by active soil pressure.***

Cantilever Walls with Sloped Backfill:
Dynamic Load Coefficient =0.39 g = k_h
w =115.3 p.c.f.
The resultant seismic force is calculated by the formula: 1/2 w H^2 k_h per linear foot of retaining wall, or for this case **22.8 H^2**, ***where H is the height of the retaining wall. These forces, where needed, should be***

applied at a height of 0.40H above the base of the retaining wall and must be combined with the force produced by active soil pressure.

These retaining wall design criteria are based on a fully drained condition. Therefore we recommend that a four-inch diameter perforated NDS or PVC pipe be installed behind or along the top of the footing, holes placed down, behind all walls that retain earth. The pipe shall be covered with a 12-inch wide envelope of ¾-inch drain rock or Class 2 Permeable Material (per Caltrans Standard Specifications Section 68-1.025) which shall extend to at least one foot above the top of pipe, and a filter fabric shall be installed over the top of the drain rock. However, no gravel shall be placed below the pipe. The remainder of the trench can be backfilled with clean native sand. As an alternative to installing drain rock or permeable material, a composite filter material, eg. Miradrain, can be installed with a perforated pipe at the bottom of the material. Clean-out risers must be installed on the perforated pipe at the up-stream ends, every 100-feet, and at 90° angle points. The capped end of the cleanout riser shall be located at the ground surface outside of or behind the retaining walls.

VIII. RECOMMENDED SPECIFICATIONS:

A. GRADING:

The building pad, extending a minimum of five feet in each direction past new foundation footings shall be cleared and grubbed of all surface vegetation, demolition debris, and organic topsoil before recompacting the original ground, placing engineered fill or finishing the subgrade for the new building pad. On site surface or subsurface grass, roots, deleterious material, or brush (if any) within the new building pad area shall be removed. Soil Surveys Group, Inc. should determine the exact depth of subexcavation necessary, if any, after clearing, grubbing and pad grading are. The bottom of the subexcavation shall be scarified a minimum of 12 inches, moisture conditioned, and recompacted to 90 percent relative compaction. Any subexcavated soil shall then be backfilled in eight inch loose lifts and recompacted to 90 percent relative compaction, prior to placing engineered fill or finishing subgrade of the new building pads. If no subexcavation is required, a minimum of 12 inches of soil shall be scarified, moisture conditioned and recompacted to 90 percent relative compaction.

The parking areas encountered very loose to loose sandy soils to a depth of at least ten feet. We recommend that the upper three feet of the subgrade be subexcavated after clearing, grubbing, and grading are complete. The bottom of the subexcavation shall be scarified a minimum of 12 inches, moisture conditioned, and recompacted to 90 percent relative compaction. The subexcavated soil shall then be backfilled in eight inch loose lifts and recompacted to 90 percent relative compaction, prior to placing engineered fill or finishing subgrade.

Any new cut and fill slopes shall be 2:1 or flatter unless retained. The native soil is suitable to be used as engineered fill provided any organics or debris are first removed from the soil to be used as fill. Any native soil used for fill, or any imported fill soil for the new building pad shall be compacted to at least 90 percent relative compaction, and any cut portions of the new building pad, if located within both cut and fill, shall be subexcavated a minimum of two feet, backfilled in eight inch loose lifts and recompacted to a minimum of 90 percent relative compaction.

B. COMPACTION:

Laboratory soils compaction test method shall be *A.S.T.M. D 1557-12.* Subgrade beneath the new building pad shall be compacted to 90 percent relative compaction. Subgrade soil below any new

pavement shall be compacted to 95 percent relative compaction, and aggregate base beneath new pavement shall be compacted to 95 percent relative compaction.

C. CONCRETE FLOOR SLABS-ON-GRADE:

Subgrade in recompacted soil under any new concrete floor slabs-on-grade shall be brought to at least 2% over optimum moisture prior to placing native or imported sandy soil fill, prior to placing the capillary break rock and moisture proof barrier or prior to pouring concrete. We recommend that a capillary break consisting of:

- a mat of clean, open graded rock, four inches thick, shall be placed over the finished soil subgrade,
- a minimum 15 mil. water-proof membrane (such as Stego, Moistop or equal) shall be placed over the open graded rock,
- two inches of clean, moistened sand shall be placed between the water-proof membrane and the bottom of the concrete floor slab. The moistened sand will help protect the membrane and will assist in equalizing the concrete curing rate to minimize shrinkage cracking.

Class 2 Aggregate Base or sand should not be used as the capillary break material. Capillary break material shall comply with and be installed according to the following:

1. MATERIAL:

   The mineral aggregate for use under the floor slabs shall consist of broken stone, crushed or uncrushed gravel, quarry waste, or a combination of the above. The aggregate shall be free of adobe, vegetable matter, loam, volcanic tuff and other deleterious materials. It shall be of such quality that the absorption of water in a saturated, surface dry condition does not exceed 3% of the oven dry weight of the sample.

2. GRADING:

   The mineral aggregate shall be of such size that the percentage composition by dry weight as determined by laboratory sieves (U.S. Sieves) will conform to the following grading:

Sieve Size	Percentage Passing Sieve
⅜" to ½"	100
No. 4	0-10
No. 200	0-2

3. PLACING:

   Subgrade, upon which aggregate base, gravel or crushed rock is to be placed, shall be prepared by removing grass and roots. Where loose topsoil is present, it shall be removed and cleaned of debris and recompacted to 90 percent of maximum density.

4. THICKNESS AND STRENGTH:

   Concrete slabs should be at least five inches thick. Concrete shall be five sack minimum (5.5 sack if pumped) and shall achieve a 28 day compressive strength of at least 2500 p.s.i., or as specified by the project engineer.

5. REINFORCEMENT:
   Concrete slabs-on-grade shall be reinforced with a minimum of #3 steel reinforcement bars placed 16 inches on center, each way or #4 reinforcement bars placed 30 inches on center, each way and shall be bent to extend a minimum of eight inches into the perimeter footings.

D. UTILITY TRENCH BACKFILL:

All new on-site utility trenches shall be backfilled with a clean sand having a sand equivalent of 30 or higher. A two feet thick plug of compacted, **clayey soil backfill** or lean concrete shall be required around the pipe or conduit at places where utility trenches intersect the building perimeter. All trench backfill of imported clean sand or clean native sand shall be compacted to 95 percent relative compaction at all locations. Clean native sand shall be approved by Soil Surveys Group, Inc. prior to using for trench backfill.

E. PAVEMENT DESIGN CRITERIA:

A representative composite sample of the native subgrade was taken and an R-value test was run. The R-Value was 69. Based on the Traffic Indices given in the table below, asphalt pavement should consist of the relevant thickness of Hot Mix Asphalt (HMA) over the relevant thickness of Class 2 Aggregate Base (AB), compacted to 95 percent relative compaction. The underlying soil subgrade shall be scarified a minimum of 12 inches, moisture conditioned and recompacted to 95 percent relative compaction. Soil Surveys Group, Inc. shall test and approve the finished soil subgrade and finished subgrade of Class 2 Aggregate Base.

Traffic Index (T.I.)	Thickness of H.M.A. (inches)	Thickness of A.B. (inches)
5	3.0	4.0
6	3.5	4.0
7	4.0	4.0

As an alternative to new asphalt pavement, concrete pavement can be installed. If concrete pavement is selected, we recommend that the concrete paving be a minimum of six inches thick over six inches of Class II Aggregate baserock compacted to 90 percent relative compaction over soil subgrade compacted to a minimum of 95 percent relative compaction. Concrete shall be reinforced with a minimum of #4 steel bars placed no more than 24 inches on center, each way.

IX. GEOLOGIC AND SEISMIC CONSIDERATIONS:

Monterey County is in a seismically active area of the state of California. The following table provides a list of faults that could potentially produce an earthquake that could impact the project site:

Fault Name	Approximate Distance to Site	Orientation from Site	Data Source
Unnamed (Inferred, Queried)	0.15 km	South	Clark et al, 1997
Navy (Concealed)	0.63 km	Southwest	Clark et al, 1997

Fault Name	Approximate Distance to Site	Orientation from Site	Data Source
Monterey Bay Tularcitos	0.64 km	West	Uniform Building Code, 1997
Chupines (Concealed)	1.2 km	Northeast	Clark et al, 1997
Sylvan Thrust (Concealed)	2.1 km	Southwest	Clark et al, 1997
Seaside (Concealed)	2.3 km	Northeast	Clark et al, 1997
Ord Terrace (Concealed)	3.6 km	Northeast	Clark et al, 1997
Hatton Canyon (Inferred)	3.9 km	Southwest	Clark et al, 1997
Reliz	10.7 km	Northeast	Tinsley, 1975
Rinconada	12.9 lm	Northeast	Uniform Building Code, 1997
San Gregorio (Sur Region)	14.6 km	Southwest	Uniform Building Code, 1997
Zayante-Vergeles	32.8 km	Northeast	Uniform Building Code, 1997
San Andreas (Pajaro Section)	39.6 km	Northeast	Uniform Building Code, 1997
Sargent	46.3 km	Northeast	Uniform Building Code, 1997

The new hotel and any future building additions must be designed in strict compliance with the 2019 California Building Code to help withstand such seismically generated ground accelerations for a reasonably expected duration without suffering major damage.

The following are the project site coordinates and the seismic design criteria/coefficients per the requirements of the 2019 California Building Code (CBC):

Site Class	Latitude	Longitude	S_S	S_1	F_a	F_v
D	36.6851°	-121.6669°	1.136	0.496	1.0	1.8*

* The seismic response coefficient Cs shall be determined by Eq. (12.8-2) for values of $T \leq 1.5T_S$ and taken equal to 1.5 times the value computed in accordance with either Eq. (12.8-3) for $T_L \geq T > 1.5T_S$ or Eq. (12.8-4) for $T > T_L$.

Frame and semi-rigid structures with proper strengthening connections and hold-down fasteners (where needed) are recommended for the proposed building and any future building additions. With proper design parameters, seismic damage to the building can be mitigated for major earthquakes centered near the project area.

Surface rupture, liquefaction, lurch cracking, lateral spreading, and differential settlement are seismic hazards that must be considered at the project site. Surface rupture usually occurs along fault lines, and no known faults have been mapped through the project site. Therefore, the potential for surface rupture or lurch cracking is considered to be low.

Liquefaction and lateral spreading tend to occur in loose, fine saturated sands and in places where the liquefied soils can move toward a free face (e.g. a cliff or ravine). The deeper soil underlying the project site

are typically dense to very, silty, fine to coarse grained sands. Groundwater was encountered between 12 and 13 feet. Considering the dense, silty, fine to coarse grained sands and the presence of shallow groundwater in the borings, the potential risk for occurrence of damaging liquefaction or lateral spreading is considered to be low to moderate during a strong seismic event. However, the potential can be reduced by following our recommendations for subexcavation and recompaction of the loose upper soils.

Differential compaction and settlement occur generally in loose, granular or unconsolidated semi-cohesive soils during severe ground vibration. In our opinion, the risk for differential compaction and settlement during a major seismic event is considered to be low.

X. INFILTRATION TEST RESULTS:

In preparation for infiltration testing, Borings I-1 and I-2 were prepared by placing 3-inch i.d. perforated pipe and filling the space between the pipe and the boring sidewall with ½ -inch drain rock up to ground surface. Following the procedures outlined in *"Native Soil Assessment for Small Infiltration-Based Stormwater Control Measures" (Shallenberger et al, 2013)*, the borings were kept filled to constant level from the reading point (R.P.) for a period of 30 minutes. Water levels were then recorded using a Solinst water level meter at 1 to 10 minute intervals for a period of two hours. The infiltration test logs are available in Appendix C and the results are summarized below:

Boring	Depth (Feet)	Design Infiltration Rate (inch/hour)
I-1	9.71	1.38
I-2	4.95	7.34

XI. UNFORESEEN OR UNUSUAL CONDITIONS:

If any unforeseen or unsuitable soil conditions are found during site grading or construction of the new hotel, the Geotechnical engineer shall be notified immediately so that remedial action can be taken. Such unsuitable conditions could be:

1. Wet, soft or unsuitable pockets of sandy or clayey soil within the proposed building location.
2. Expansive clayey soil within the building pad area.
3. Soil with a high organic content at the finished subgrade of the building pad.
4. Any other unforeseen conditions that would require remedial action by the Geotechnical engineer, project engineer, architect or contractor.

XII. CONCLUSIONS AND RECOMMENDATIONS:

From our field observations, analysis of the test data, and knowledge of the general area soils, the following are concluded:

1. The project soil conditions are suitable for the proposed new building provided any loose near surface soil is recompacted prior to excavating for the new building foundations or finishing the subgrade of the building pad as recommended in Sections IV, V and VIII herein.

2. Design criteria for a spread footing foundation system for the project building are provided in Section IV and V. Retaining wall design criteria is provided in Section VII. Design criteria for concrete slabs-on-grade are provided in Sections IV, V and VIII herein.

3. Surface storm water runoff should be carefully controlled around the new building to provide **positive drainage away** from any building foundations as discussed in Section VI herein.

4. Infiltration test results are provided in Section X herein. The results are based on two hour infiltration tests conducted in two test borings, at approximate depths of ten and five feet, respectively.

5. The Geotechnical engineer should review the site grading plans for compliance with the recommendations herein and may provide additional specific recommendations for surface or subsurface drainage. The Geotechnical engineer shall inspect and approve all new excavations.

6. Grading and compaction specifications and specifications for a new concrete floor slab-on-grade are provided in Section VIII herein.

7. Seismic considerations are discussed and provided in Section IX herein per the 2019 CBC. The potential for damaging earthquake related liquefaction and lateral spreading is considered to be low to moderate at the project site.

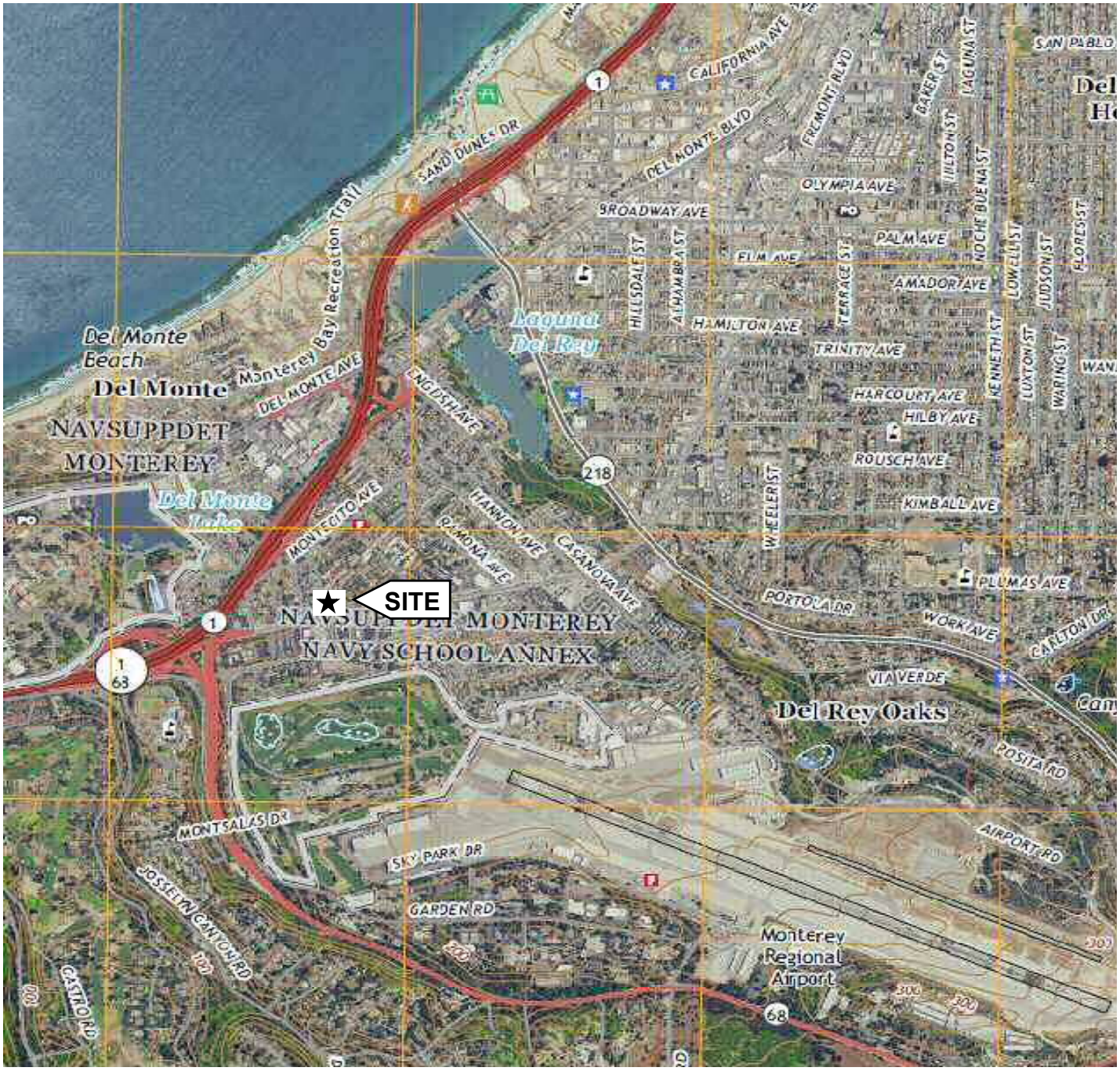
XIII. LIMITATIONS:

This report necessarily assumes that the subsurface conditions are as found in the test borings. It should be recognized that the soil conditions described in this report are based on four spaced borings. It must be understood that subsurface soil conditions can vary between borings and from site to site. If any unusual soil conditions are found during grading, installation of underground utilities, or building construction, Soil Surveys Group, Inc. should be notified immediately so that remedial action can be taken (see Section XI).

This report is issued with the understanding that it is the responsibility of the Lakshmi Hotel Partners, Inc. or their representative to ensure that the applicable provisions of the recommendations contained herein are incorporated into the plans and specifications and that the necessary steps are taken to see that contractors and subcontractors carry out such provisions in the field. The use of this report, its contents or any part thereof, by a party or its agents, other than Lakshmi Hotel Partners, Inc., their engineer, architect, contractor, or designated agents, is hereby disallowed unless specific permission is given to do so by Soil Surveys Group, Inc. This investigation and report were prepared with the understanding that a new three story hotel with onsite stormwater infiltration system will be constructed to replace the existing hotel at the project site as shown on the Figure II map enclosed herein. The use of this report, boring logs, infiltration logs, and laboratory test data shall be restricted to the original use for which they were prepared, and publication by any method, in whole or in part, is prohibited without the written consent of Soil Surveys Group, Inc. Title to the designs remains with Soil Surveys Group, Inc. without prejudice. Visual contact with these drawings constitutes prima facie evidence of the acceptance of these restrictions.

Soil Surveys Group, Inc. will not take responsibility for or assume any liability for the recommendations made in this report unless Soil Surveys Group, Inc. performs the field inspections and testing mentioned herein.

The findings and recommendations of this report are considered valid at the present date. However changes in the property conditions can occur with the passage of time on this or adjacent properties, whether due to natural processes or the works of man. Therefore the findings of this report shall be considered valid for a period of not more than three years without being reviewed and updated by Soil Surveys Group, Inc.



BASE: U.S. Geological Survey, Seaside 7.5' Quadrangle

Monterey, California

FIGURE I: VICINITY MAP

NO SCALE

By: **Soil Surveys Group, Inc.**
103 Church Street
Salinas, CA 93901
831-757-2172

Job #7714

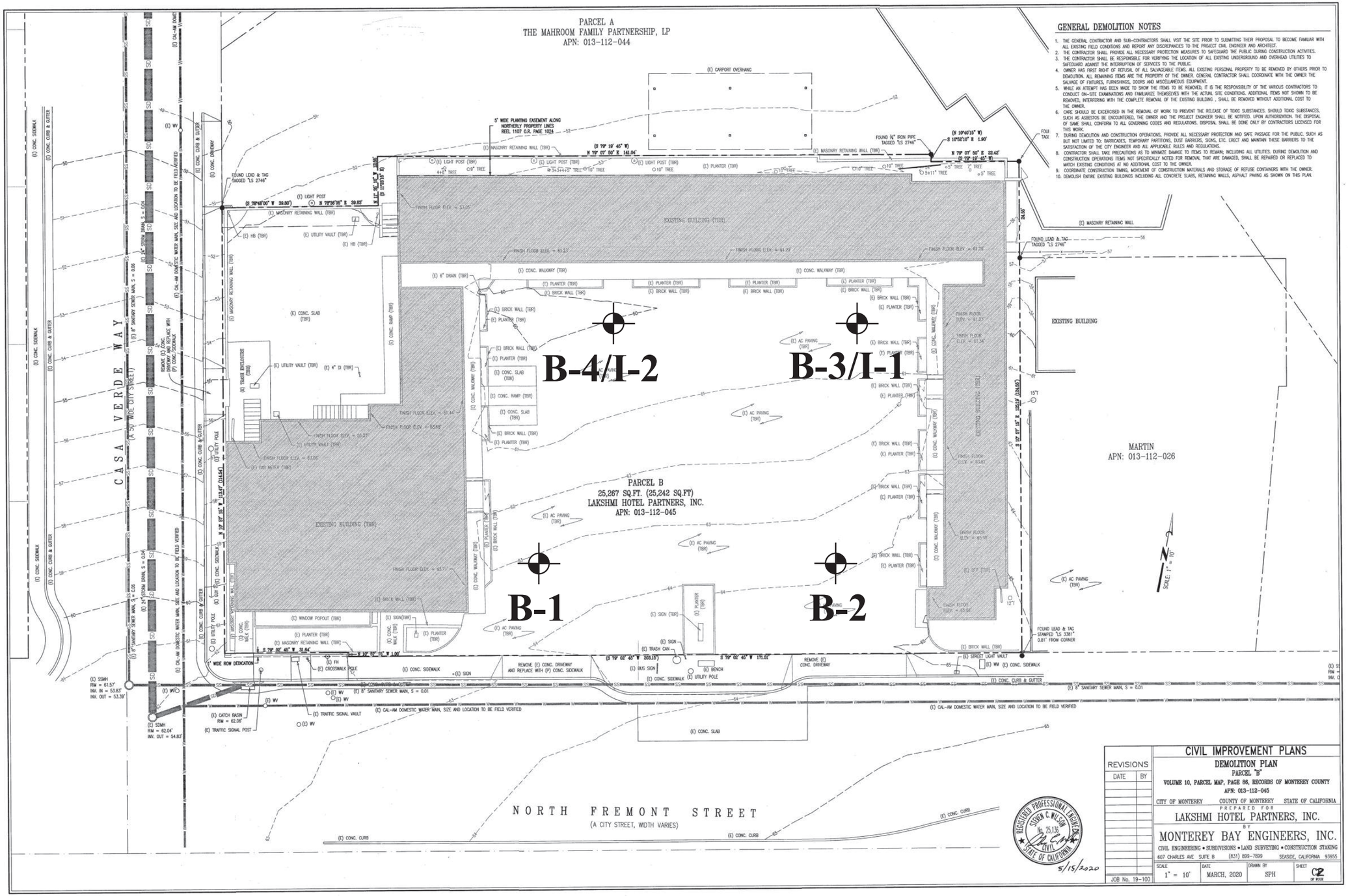


FIGURE II

Boring Locations (approx.)

N

NO SCALE

BASE: **2101 North Fremont Street, in Monterey, California**
APN: 013-112-045
Demolition Plan by Monterey Bay Engineers, Inc., March 2020 - Job #7714

By: **Soil Surveys Group, Inc.**
103 Church Street
Salinas, CA 93901
ph. 831-757-025
email: info@soilsurveys.net

APPENDIX A
BORING LOGS

PRIMARY DIVISIONS			GROUP SYMBOL	SECONDARY DIVISIONS
COARSE GRAINED SOILS (MORE THAN HALF OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE)	GRAVELS (MORE THAN HALF OF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE)	CLEAN GRAVELS (LESS THAN 5% FINES)	GW	Well graded gravels, gravel-sand mixtures, little or no fines.
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GRAVEL WITH FINES	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	SANDS (MORE THAN HALF OF 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, sand-silt mixtures, non-plastic fines.
			SC	Clayey sands, sand-clay mixtures, plastic fines.
FINE GRAINED SOILS (MORE THAN HALF OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE)	SILTS AND CLAYS LIQUID LIMIT IS 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 IS GREATER THAN 50%		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH	Inorganic clays of high plasticity, fat clays.
			OH	Organic clays of medium to high plasticity, organic silts.
HIGHLY ORGANIC SOILS			Pt	Peat and other highly organic soils.

GRAIN SIZES

U.S STANDARD SERIES SIEVE				CLEAR SQUARE SIEVE OPENINGS			
200	40	10	4	3/4"	3"	12"	
SILTS AND CLAYS	SAND			GRAVEL		COBBLES	BOULDERS
	FINE	MEDIUM	COARSE	FINE	COARSE		

RELATIVE DENSITY

SANDS AND GRAVELS	BLOWS/FT*
VERY LOOSE	0 - 4
LOOSE	4-10
MEDIUM DENSE	10 - 30
DENSE	30 - 50
VERY DENSE	OVER 50

CONSISTENCY

SILTS AND CLAYS	STRENGTH**	BLOWS/FT*
VERY SOFT	0 - 1/4	0 - 2
SOFT	1/4 - 1/2	2 - 4
FIRM	1/2 - 1	4 - 8
STIFF	1 - 2	8 - 16
VERY STIFF	2 - 4	16 - 32
HARD	OVER 4	OVER 32

*Number of blows of 140 pound hammer falling 30 inches to drive a 2 inch O.D. (1 3/8 inch I.D) split spoon (ASTM D-1586)

** Unconfined compressive strength in tons/ft^2 as determined by laboratory testing or approximated by the standard penetration test (ASTM D-1586), pocket penetrometer, torvane, or visual observation

FIGURE NO. KEY TO LOGS

EXPLORATION DRILL LOG

BORING NO. B-1

PROJECT Lakshmi Hotel Partners, 2101 N. Fremont, Monterey Job #7714 DATE 10.20.20 LOGGED BY JG

DRILL RIG Cenozoic 2400SK-1 HOLE DIA. 6" SAMPLER Terzaghi Split Spoon (SPT) & 2.5"Cal

GROUNDWATER DEPTH: INITIAL 12.25' FINAL caved in HOLE ELEV. ---

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (pcf)	WATER CONTENT %	LIQUID LIMIT	PLASTIC LIMIT	POCKET PEN. (tsf)
2.5"AC/Light yellowish-tan, SAND	AC/SP								
Dark reddish-brown, silty, fine to medium grained	SM	1							
SAND with scattered gravels; moist, loose (fill)			2.5"Cal						
Reddish-brown, silty, fine to medium grained SAND	SM	2	XXX	6(4)	92.3	7.5			---
moist, very loose			XXX	6(4)	93.5	7.2			
		3							
Light reddish-yellow, tan, slightly clayey, silty, fine	SM		2.5"Cal						
to medium grained SAND; moist, loose		4	XXX	5(3)	97.1	6.9			---
			XXX	9(5)					---
Grades to:		5	SPT						
Light yellowish-reddish-tan, slightly silty, fine to	SM								
medium grained SAND; moist, loose		6	XXX	7	87.1	10.0			---
		7							
		8							
Reddish-tan, light tan, silty, fine grained SAND	SM		2.5"Cal						
with trace clay; moist, medium dense		9	XXX	25(15)	101.3	13.1			---
			XXX	36(22)	97.8	17.9	Shear	Test	3.0
Reddish-yellow, tan, silty, fine to medium grained	SM	10	SPT						
SAND; moist, medium dense									
		11	XXX	17	96.3	13.7			---
Water encountered @ 12.25'	▼	12							
		13							
Light yellowish-reddish-tan, silty, fine to coarse	SM	14	SPT						
grained SAND; wet, medium dense									
		15	XXX	27	105.0	18.9			---
		16							
		17							
		18							
Light tan, slightly silty, fine to coarse grained	SM/SP	19	SPT						
SAND; wet, medium dense									
		20	XXX	20	128.0	15.8			---

DEPTH 25'

SOIL SURVEYS GROUP, INC.

EXPLORATION DRILL LOG

BORING NO. B-1 CONTINUED

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (pcf)	WATER CONTENT %	LIQUID LIMIT	PLASTIC LIMIT	POCKET PEN. (tsf)
Light tan, slightly silty, fine to coarse grained SAND	SM/SP								
SAND; wet, medium dense		21							
		22							
		23							
Light tan, slightly silty, fine to coarse grained SAND	SM/SP	24	SPT						
with scattered fractured gravels; wet, very dense									
Bottom of boring at 25'	SM/SP	25	XXX	51	129.5	10.8			---
		26							
		27							
		28							
		29							
		30							
		31							
		32							
		33							
		34							
		35							
		36							
		37							
		38							
		39							
		40							
		41							
		42							

DEPTH 25' Job #7714

SOIL SURVEYS GROUP, INC.

EXPLORATION DRILL LOG

BORING NO. B-2

PROJECT Lakshmi Hotel Partners, 2101 N. Fremont, Monterey Job #7714 DATE 10.20.20 LOGGED BY JG

DRILL RIG Cenozoic 2400SK-1 HOLE DIA. 6" SAMPLER Terzaghi Split Spoon (SPT)

GROUNDWATER DEPTH: INITIAL 13.2' FINAL --- HOLE ELEV. ---

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (pcf)	WATER CONTENT %	LIQUID LIMIT	PLASTIC LIMIT	POCKET PEN. (tsf)
2" Asphaltic concrete/6" Light yellowish-tan,	SM								
silty, fine to coarse grained SAND with gravel;		1							
moist, loose. Dark reddish-brown, silty, fine to	SM		SPT						
medium grained SAND with gravels; moist, loose		2							
			XXX	6	84.2	5.7			---
		3							
Reddish-tan, silty, fine grained SAND; moist, loose	SM		SPT						
		4							
			----	6	no	sample			
		5	XXX	---	Bulk	5.9			---
Light tan, slightly silty, fine to medium grained	SM/SP		SPT						
SAND; moist, medium dense		6							
			XXX	13	99.3	8.3			---
		7							
		8							
Light tan with iron staining, slightly silty, fine to	SM/SP	9	SPT						
coarse grained SAND; moist, medium dense									
		10	XXX	29	104.9	6.8			---
		11							
		12							
		13							
Water encountered @ 13.20'	▼								
Light greyish-tan, silty, fine to medium grained	SM/SC	14	SPT						
SAND with thin veins of silty clay; moist to wet,									
medium dense		15	XXX	19	78.1	18.4			1.0
		16							
		17							
		18							
Light greyish-tan, silty, fine to medium grained	SM	19	SPT						
SAND with scattered rounded and fractured shale									
gravels; wet, very dense. Bottom of boring at 20'	SM	20	XXX	65	94.1	34.4			---

DEPTH 20'

SOIL SURVEYS GROUP, INC.

EXPLORATION DRILL LOG

BORING NO. B-3/I-1

PROJECT Lakshmi Hotel Partners, 2101 N. Fremont, Monterey Job #7714 DATE 10.20.20 LOGGED BY JG

DRILL RIG Cenozoic 2400SK-1 HOLE DIA. 6" SAMPLER Terzaghi Split Spoon (SPT) & Infiltration

GROUNDWATER DEPTH: INITIAL --- FINAL --- HOLE ELEV. ---

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (pcf)	WATER CONTENT %	LIQUID LIMIT	PLASTIC LIMIT	POCKET PEN. (tsf)
1.75"Asphaltic concrete/5" Light yellowish-tan, silty	AC/SM								
fine to coarse grained SAND; moist, loose		1							
Dark brown, silty, fine to medium grained SAND	SM		SPT						
with scattered gravels; moist, loose		2							
			XXX	6	94.2	6.9			---
		3							
Dark reddish-brown, silty, fine grained SAND;	SM		SPT						
moist, very loose		4							
			XXX	3	86.1	6.8			---
		5							
Light reddish-yellow, tan, silty, fine to medium	SM		SPT						
grained SAND; moist, loose		6							
			XXX	4	93.6	6.3			---
		7							
		8							
Light yellowish-tan, silty, fine grained SAND;	SM	9	SPT						
loose									
Bottom of the boring @ 10'	SM	10	XXX	8	91.5	7.8			---
		11							
		12							
		13							
		14							
		15							
		16							
		17							
		18							
		19							
		20							

DEPTH 10'

SOIL SURVEYS GROUP, INC.

EXPLORATION DRILL LOG

BORING NO. B-4/I-2

PROJECT Lakshmi Hotel Partners, 2101 N. Fremont, Monterey Job #7714 DATE 10.20.20 LOGGED BY JG

DRILL RIG Cenozoic 2400SK-1 HOLE DIA. 6" SAMPLER Terzaghi Split Spoon (SPT) & Infiltration

GROUNDWATER DEPTH: INITIAL --- FINAL --- HOLE ELEV. ---

DESCRIPTION	SOIL TYPE	DEPTH	SAMPLE	BLOWS PER FOOT	DRY DENSITY (pcf)	WATER CONTENT %	LIQUID LIMIT	PLASTIC LIMIT	POCKET PEN. (tsf)
2" Asphaltic concrete/Dark brown, silty SAND;	AC/SM								
moist, loose		1							
Brown, light yellowish-tan, silty, fine to medium	SM		SPT						
grained SAND; moist, very loose		2							
			XXX	3	94.8	7.1			---
		3							
Dark reddish-brown, silty, fine grained SAND;	SM		SPT						
moist, very loose		4							
			XXX	2	104.2	3.9			---
		5							
Light reddish-yellow, brown, silty, fine grained	SM		SPT						
SAND; moist, very loose to loose		6							
Bottom of boring at 6.5'	SM		XXX	4	95.1	6.0			---
		7							
		8							
		9							
		10							
		11							
		12							
		13							
		14							
		15							
		16							
		17							
		18							
		19							
		20							

DEPTH 6.5'

SOIL SURVEYS GROUP, INC.

APPENDIX B

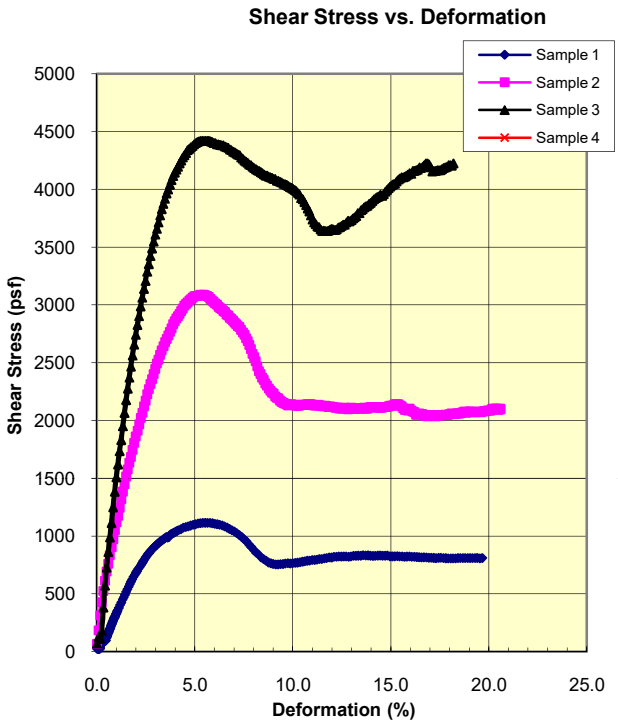
DIRECT SHEAR TEST

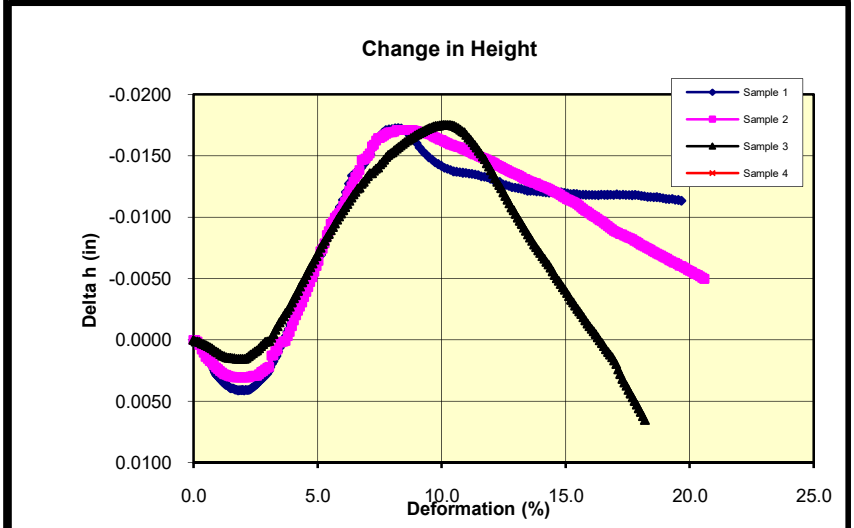
Consolidated Drained Direct Shear (ASTM D3080)

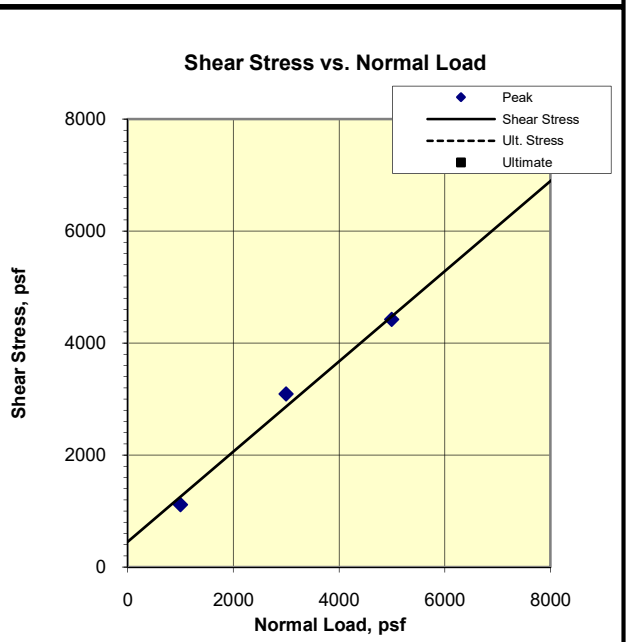
CTL Job #:	699-255	Project #:	7714	By:	MD
Client:	Soil Surveys Inc.	Date:	11/19/2020	Checked:	PJ
Project Name:	211 North Fremont Street	Remolding Info:			

Specimen Data				
	1	2	3	4
Boring:	B-1	B-1	B-1	
Sample:				
Depth (ft):	9-9.5	9-9.5	9-9.5	
Visual Description:	Strong Brown grading Yellow Silty SAND	Strong Brown grading Yellow Silty SAND	Strong Brown grading Yellow Silty SAND	
Normal Load (psf)	1000	3000	5000	
Dry Mass of Specimen (g)	119.1	118.5	119.2	
Initial Height (in)	1.01	1.00	1.01	
Initial Diameter (in)	2.42	2.42	2.42	
Initial Void Ratio	0.723	0.717	0.730	
Initial Moisture (%)	15.5	17.4	20.9	
Initial Wet Density (pcf)	113.0	115.3	117.8	
Initial Dry Density (pcf)	97.8	98.2	97.4	
Initial Saturation (%)	57.9	65.7	77.4	
ΔHeight Consol (in)	0.0076	0.0241	0.0222	
At Test Void Ratio	0.710	0.676	0.692	
At Test Moisture (%)	23.5	23.1	24.4	
At Test Wet Density (pcf)	121.7	123.8	123.9	
At Test Dry Density (pcf)	98.6	100.6	99.6	
At Test Saturation (%)	89.3	92.3	95.0	
Strain Rate (%/min)	0.02	0.02	0.02	
Strengths Picked at	Peak	Peak	Peak	
Shear Stress (psf)	1113	3088	4422	
ΔHeight (in) at Peak	-0.0099	-0.0079	-0.0081	
Ultimate Stress (psf)				

Phi (deg)	38.9	Ult. Phi (deg)	
Cohesion (psf)	450	Ult. Cohesion (psf)	







Remarks:

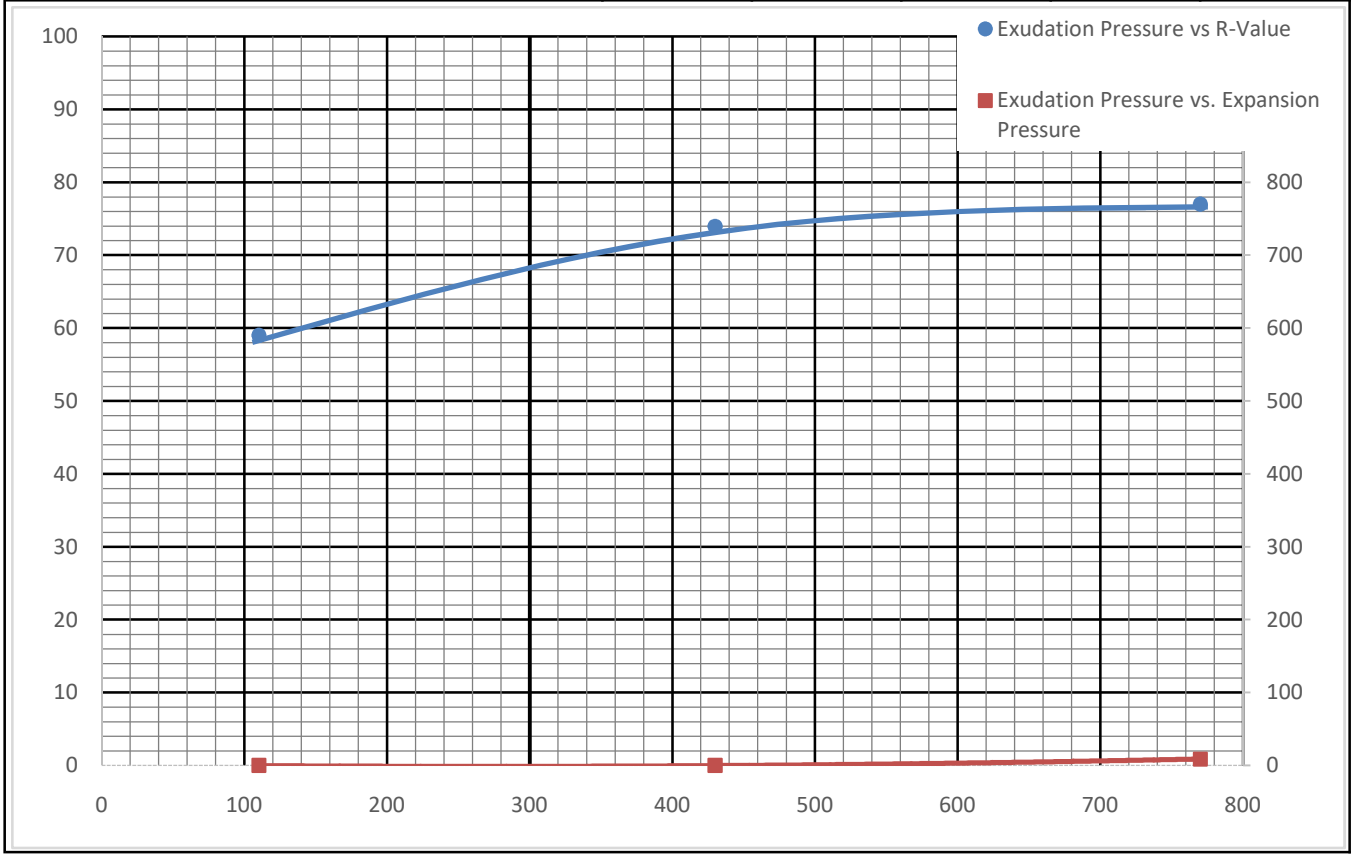
APPENDIX C

R-VALUE TEST

R-Value
CTM 301

CTL Job No.:	699-255	Boring:		Reduced By:	RU
Client:	Soil Surveys Inc	Sample:	R-1	Checked By:	PJ
Project Number:	7714	Depth:	1.0-2.0	Date:	11/5/2020
Project Name:	211 North Fremont Street		**R-Value**		**69**
Soil Description:	Olive Brown SAND w/ Silt				
Remarks:			**Expansion Pressure**		**0**

Specimen Designation	A	B	C	D	E
Compactor Foot Pressure (psi)	350	350	350		
Exudation Pressure (psi)	770	110	430		
Exudation Load (lbf)	9676	1382	5404		
Height After Compaction (in)	2.36	2.32	2.43		
Expansion Pressure (psf)	9	0	0		
Stabilometer @ 2000	22	42	26		
Turns Displacement	4.12	4.08	4.30		
R-value	79	63	75		
Corrected R-Value	77	59	74		
Moisture Content (%)	7.8	10.4	9.0		
Wet Density (pcf)	132.7	136.7	134.5		
Dry Density (pcf)	123.1	123.8	123.4		



APPENDIX D

INFILTRATION TEST LOGS

INFILTRATION TEST LOG

HOLE NO. I-1

PROJECT Lakshmi Hotel Partners, 2101 N. Fremont, Monterey Job #7714 | DATE 10.20.20 | LOGGED BY JG

HOLE DEPTH INITIAL: 9.71' FINAL: 9.70' | R.P.= 0

TIME	STATUS	ELAPSED TIME MIN.	R.P. TO WATER IN.	DROP INCHES	PERCOLATION RATE IN./HR.
1233	Pre-Sat		18.00		
1303	Refill	0	18.00	--	---
1304	Falling	1	46.20	28.20	1,692.00
1305	Falling	2	61.80	15.60	936.00
1306	Falling	3	68.04	6.24	374.40
1307	Falling	4	74.40	6.36	381.60
1308	Falling	5	78.60	4.20	252.00
1313	Falling	10	90.96	12.36	148.32
1318	Falling	15	96.60	5.64	67.68
1323	Falling	20	100.44	3.84	46.08
1328	Falling	25	103.20	2.76	33.12
1333	Falling	30	104.52	1.32	15.84
1338	Falling	35	105.96	1.44	17.28
1343	Falling	40	107.16	1.20	14.40
1348	Falling	45	108.36	1.20	14.40
1353	Falling	50	109.32	0.96	11.52
1358	Falling	55	110.04	0.72	8.64
1403	Falling	60	110.76	0.72	8.64
1413	Falling	70	111.72	0.96	5.76
1423	Falling	80	111.96	0.24	1.44
1433	Dry	90	112.56	0.60	3.60
1433	Refill	90	106.80	---	---
1443	Falling	100	108.00	1.20	7.20
1453	Falling	110	108.96	0.96	5.76
1503	Falling	120	109.80	0.84	5.04

SOIL SURVEYS GROUP, INC.

INFILTRATION TEST LOG

HOLE NO. I-2

PROJECT Lakshmi Hotel Partners, 2101 N. Fremont, Monterey Job #7714 | DATE 10.20.20 | LOGGED BY JG

HOLE DEPTH — INITIAL: 4.95' / FINAL: 5.15' | R.P.= 0

TIME	STATUS	ELAPSED TIME MIN.	R.P. TO WATER IN.	DROP INCHES	INFILTRATION RATE IN./HR.
1246	Presat		18.00		
1316	Refill	0	18.00	---	---
1321	Falling	5	40.56	22.56	270.72
1326	Falling	10	47.04	6.48	77.76
1331	Falling	15	50.76	3.72	44.64
1336	Falling	20	53.28	2.52	30.24
1341	Falling	25	55.20	1.92	23.04
1346	Falling	30	56.52	1.32	15.84
1351	Falling	35	57.60	1.08	12.96
1356	Falling	40	59.76	2.16	25.92
1401	Falling	45	60.60	0.84	10.08
1405	Dry	49	61.80	1.20	18.00
1406	Refill	50	18.00	---	---
1416	Falling	60	44.16	26.16	156.96
1426	Falling	70	50.16	6.00	36.00
1436	Falling	80	53.64	3.48	20.88
1446	Falling	90	56.04	2.40	14.40
1456	Falling	100	57.96	1.92	11.52
1506	Falling	110	59.28	1.32	7.92
1516	Falling	120	60.48	1.20	7.20

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