

## THIS IS A NEW PROJECT REFERRAL / SUMMARY \*

**DATE**: 7/21/2021

TO: ASSESSOR, BUILDING, CAL FIRE/COUNTY FIRE, ENVIRONMENTAL HEALTH, 3<sup>RD</sup> DISTRICT LEGISLATIVE ASSISTANT, PUBLIC WORKS, AVILA VALLEY ADVISORY COUNCIL, AT&T, CHARTER CABLE TV, PG&E, SOUTHERN CAL GAS CO., AVILA CSD, SAN LUIS COASTAL, COASTAL COMMISSION

## FROM: TERRY WAHLER, 805-781-5621, <u>TWAHLER@CO.SLO.CA.US</u>

## PROJECT NUMBER & NAME: SUB2021-00041/CO 21-0018 -356 FIRST STREET LLC (HODGE & SALUCCI)

**PROJECT DESCRIPTION\*:** The application is a vesting tentative parcel map/development plan/coastal development permit requesting the re-subdivision of 2 existing lots into a 3-lot planned development. The two existing lots include three houses and an ADU. The front lot is zoned CR, with two existing houses. It would be subdivided into two lots of 2,150 and 2,850 square feet each. The RMF lot would remain the same size and configuration. The proposed common area is an access driveway, parking spaces, and landscaping.

## <u>APN(s)</u>: 076-217-028, 076-217-027

<u>Please submit comments within 14 days from receipt of this referral. CACs please respond within 60 days. Thank</u> you. In your response, please consider and/or indicate the following:

**PART I:** IS THE ATTACHED INFORMATION ADEQUATE TO COMPLETE YOUR REVIEW?

- □ YES (Please go on to PART II.)
- □ NO (Call me ASAP to discuss what else you need. We have only 10 days in which we must obtain comments from outside agencies.)

## **PART II:** ARE THERE SIGNIFICANT CONCERNS, PROBLEMS OR IMPACTS IN YOUR AREA OF REVIEW?

- □ YES (Please describe impacts, along with recommended mitigation measures to reduce the impacts to less-than-significant levels, and attach to this letter.)
- □ NO (Please go on to PART III.)

## **PART III**: INDICATE YOUR RECOMMENDATION FOR FINAL ACTION.

Please attach any conditions of approval you recommend to be incorporated into the project's approval, or state reasons for recommending denial.

IF YOU HAVE "NO COMMENT," PLEASE INDICATE (VIA E-MAIL OR PHONE).



## COUNTY OF SAN LUIS OBISPO DEPARTMENT OF PLANNING & BUILDING TREVOR KEITH, DIRECTOR

Date

Name

Phone

\*All information and/or material provided in the following Referral Package is valid for 90 days after this correspondence. After that time please contact the Project Manager for the most updated information.



Land Division Application Package



## COUNTY OF SAN LUIS OBISPO DEPARTMENT OF PLANNING & BUILDING

GEN-3000 04/01/2020

**General Application Contact Information** 

| POSE & MICHAEL SA-Ubci<br>RST STREET, LLC.<br>Email Address:<br>hodgecompany@gmail.com<br>iue<br>93405 Ch. Zip Code:<br>93405 Ch. 334-5  |  |  |  |
|--|--|--|--|
| RST STREET, LLC.<br>Email Address:<br>hodgecompany@gmail.com   |  |  |  |
| Email Addréss:<br>hodgecompany@gmail.com   |  |  |  |
| 93405 State: Zip Code:   |  |  |  |
| State: Zip Code:   |  |  |  |
| 1401   |  |  |  |
| NT Primary Billing Contact   |  |  |  |
| HODGE  |  |  |  |
|  |  |  |  |
| Email address:<br>hodgecompany@gmail.com   |  |  |  |
| iue  |  |  |  |
| State: Zip Code:<br>. 93405 CA 93405   |  |  |  |
| PROPERTY INFORMATION   |  |  |  |
| Total size, in acres:<br>0.22  |  |  |  |
| Directions to the property (include landmarks and any gate codes):<br>101 to Avila Drive, left on San Miguel Street and right on First Street  |  |  |  |
| - 1 S  |  |  |  |
| Describe current uses on the property (include structures, improvements, and vegetation):  |  |  |  |
|  |  |  |  |
| PROJECT INFORMATION  |  |  |  |
| Briefly describe the proposed project (include all uses and building heights and areas, in square-feet) and attach supplemental info as necessary:<br>See project description on MAP SHEET |  |  |  |
|  |  |  |  |
|  |  |  |  |
| ttach supplemental info as necessary:  |  |  |  |

## **Legal Declaration**

I, the owner of record of this property, have completed this form accurately and declare that all statements here are true. I do hereby grant official representatives of the county authorization to inspect the subject property.

SIGNATURE:

DATE: 5.28.21

**NOTE:** Your application is public record and information regarding your application is available both in person and online via the Department of Planning & Building. All references to names, addresses, telephone numbers, email addresses and project details are part of this public record. All applications must be filed under the subject property's owner of record; however, you may use an alternate contact address and telephone number.

PAGE 1 OF 1

Land Division Application Package



## COUNTY OF SAN LUIS OBISPO DEPARTMENT OF PLANNING & BUILDING

PLN-1122 04/01/2020

Hazardous Waste and Substances Statement Disclosure

PROJECT TITLE: 356 and 358 First Street Lot Split

PROJECT APN(s): 076-217-015 and 027

Per Government Code section 65962,5, known as the 'Cortese List' (AB3750), I have consulted the following website resources and lists to determine if the subject property contains hazardous wastes or substances:

- List of Hazardous Waste and Substances sites from Department of Toxic Substances Control (DTSC) EnviroStor database (<u>http://www.envirostor.dtsc.ca.gov/public/</u>)
- List of Leaking Underground Storage Tank Sites by County and Fiscal Year from Water Board GeoTracker database (<u>http://geotracker.waterboards.ca.gov/</u>)
- List of solid waste disposal sites identified by Water Board with waste constituents above hazardous waste levels outside the waste management unit (PDF). (<u>http://www.calepa.ca.gov/SiteCleanup/CorteseList/CurrentList.pdf</u>)
- List of "active" CDO and CAO from Water Board PLEASE NOTE: This list contains many Cease and Desist Orders and Cleanup and Abatement Orders that do NOT concern the discharge of wastes that are hazardous materials. (http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm)
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC (<u>https://calepa.ca.gov/sitecleanup/corteselist/section-65962-5a</u>)

# After consultation with each of the lists provided on the above websites, I verify that the subject parcel(s) and proposed development (and any alternative development sites, if applicable):

**Is not** included on any of lists found on the above-referenced websites.

**Is** included on one or more of the lists found on the above-referenced websites. Pursuant to Section 65962.5 of the Government Code. the following information is provided related to this site/application:

Name of Applicant: 356 FIRST STREET, LLC

Address of site (street name & number if available, City, State and ZIP Code):

356,358 = 360 FIRST ST. AVILA BEACH CA. 93424

 Local agency (city/county):
 GAN LUIS OB SPO
 Partion of Lots 11, 12, 16 4 17 of Bloot 13

 Assessor's book, page, and parcel number:
 COC Doc No. 2015-0304633 + O30464
 Body of MAP

 Specify any list pursuant to Section 65962.5 of the Government Code:
 PAGE 5, 2403

 Regulatory identification number:
 Oate of list:
 O. F. 281

| Applicant Signature:               | Applicant Name (Print):<br>Michael Hodge for 356 First Street, LLC |
|------------------------------------|--|
| Date of Signature:<br>May 20, 2021 | Phone:   |
| Email:<br>hodageompanyagmall.com   |  |
|                                    |  |

Land Use Application Package



www.sloplanning.org planning@co.slo.ca.us

## COUNTY OF SAN LUIS OBISPO DEPARTMENT OF PLANNING & BUILDING

PLN-1004 04/01/2020

Land Use -- Project Information Form

| APPLICATION TYPE – CHECK ALL THAT APPLY   | 4   |
|---|---|
| <ul> <li>Emergency Permit</li> <li>Tree Removal Permit</li> <li>Minor Use Permit</li> <li>Conditional Use Permit/Development Plan</li> <li>Plot Plan</li> <li>Curb, Gutter &amp; Sidewalk Waiver</li> </ul> | <ul> <li>Site Plan</li> <li>Surface Mining/Reclamation Plan</li> <li>Zoning Clearance</li> <li>Amendment to approved Land Use Permit</li> <li>Variance</li> <li>Other <u>Planned Development</u></li> </ul> |
| TYPE OF PROJECT:         Commercial         Industrial         Residential         Recreational   | r:  |
| Describe any modifications/adjustments from ordinar<br>applicable):<br>NA   | nce needed and the reason for the request (if   |
| Describe existing and future access to the proposed p<br>Existing and future access are the samean existing driveway  | roject site:  |
| <b>SURROUNDING PARCEL OWNERSHIP</b> Do you own ad<br>If YES, what is the acreage of all property you own that   | djacent property?   |
| <b>SURROUNDING LAND USE</b> What are the uses of the please specify all agricultural uses):   | land surrounding your property (when applicable,  |
| North: <u>Residential</u><br>Residential  | South:  |
| East: <u>Residential</u><br>Residential and commercial  | West:   |
| FOR ALL PROJECTS, ANSWER THE FOLLOWING - Squ(approximately) that will be used:Buildings: 1,645sq. feet 53%Paving: 2,875sq. feet 30%   | Landscaping: <u>5,100</u> sq. feet <u>53</u> %<br>Other: sq. feet%  |
| Total area of all paving structures: <u>4,520</u> $\square$ sq. feet $\square$<br>Total area of grading or removal of ground cover: <u>0</u><br><u>0</u>  | acres   |
| 976 OSOS STREET, ROOM 300   SAN LUIS OBISPO, CA 93408   80  | 5-781-5600   TTY/TRS 7-1-1 PAGE 1 OF 2  |

Combined Package Page Count: 4 of 14

Land Use Application Package

PLN-1004

| Land U | Jse – | Project | Informatio | on Form |
|--------|-------|---------|------------|---------|
|--------|-------|---------|------------|---------|

| Land Use – Project Information Form  | 04/01/2020  |
|--|---|
| Trees:<br>Number of trees to be removed: <u>o</u><br>Type(s) of tree(s):   | 2   |
| Setbacks:<br>Front <u>41.</u> Back <u>&amp; 14.4</u> Left <u>22</u>  | Right <u>3.5</u>  |
| PROPOSED WATER SOURCE:         On-Site Well       Shared Well         Other:         Community System (agency / company responsible for the provision of water):         Avila Beach CSD   | WILL-SERVE LETTER? NA<br>☑ Yes (If yes, please submit copy)<br>□ No |
| <ul> <li>PROPOSED SEWAGE DISPOSAL</li> <li>Individual On-Site System</li> <li>Other: <u>Planned Development</u></li> <li>Community System (list the agency or company responsible provision):</li> <li><u>Avila Beach CSD</u></li> </ul> | WILL-SERVE LETTER? NA<br>✓ Yes (If yes, please submit copy)<br>□ No |
| RESPONSIBLE FIRE PROTECTION AGENCY:<br>Cal Fire  |   |
| FOR COMMERCIAL/INDUSTRIAL PROJECTS ANSWER THE F  | OLLOWING:   |
| Total outdoor use area: 51 sq. feet  | acres   |
| Total floor area of all structures including upper stories:  | sq. feet  |
| FOR RESIDENTIAL PROJECTS, ANSWER THE FOLLOWING:  | 356- STUDIO   |
| Number of residential units: <u>3 Exis</u> Ting-Number of bedroo   | ms per unit:  |
| Total floor area of all structures including upper stories, but  | not garages and carports: <u>1,600</u> sq. feet                     |
| Total of area of the lot(s) minus building footprint and parkir  | ng spaces: $\frac{2-14625}{6000000000000000000000000000000000000$   |

976 OSOS STREET, ROOM 300 | SAN LUIS OBISPO, CA 93408 | 805-781-5600 | TTY/TRS 7-1-1 www.sloplanning.org | planning@co.slo.ca.us

•

PAGE 2 OF 2

Land Division Application Package



## COUNTY OF SAN LUIS OBISPO DEPARTMENT OF PLANNING & BUILDING

PLN-2050 04/01/2020

Land Division – Project Information Form

| APPLICATION TYPE - CHECK ALL THAT APPLY   | 2   |  |
|---|---|--|
| Public Lot Condominium (new or conversion) Road Abandonment Tract Map What is the proposed density or parcel size: a sec  | <ul> <li>Sending Site</li> <li>Reversion to Acreage</li> <li>Amendment to approved land division</li> <li>Lot Line Adjustment</li> </ul>  |  |
| what is the proposed density of parcel size. 2.850 g  | S.T. and 2, 150 S.T.  |  |
| Number of existing lots/parcels/certificates: <u>2</u>  | Existing lot/parcel size(s): <u>5,000 s.f. and 4,620 s.f.</u>   |  |
| What will the property be used for after division?  | Residential   |  |
| <b>PROPERTY, PARCEL, AND PERMIT HISTORY:</b><br>Is the property part of a previous subdivision that<br>If Yes, please provide map number<br>Tract No.: Parcel Map No.:  | you filed? Yes 🗹No<br>Lot Line Adjustment No.:  |  |
| Have you reviewed county records to determine if the subject property has ever been the subject of a recorded certificate of compliance or a recorded map?<br>Building permits or other approval?<br>If you answered Yes to either question, please provide copies of all applicable materials. |   |  |
| <b>OFF-SITE IMPROVEMENTS:</b><br>Will off-site road or drainage improvements be read  | quired? 🙀Yes 🔽No  |  |
| <b>SURROUNDING PARCEL OWNERSHIP:</b> Do you ov<br>If Yes, what is the acreage of all property you own   | wn adjacent property? WWYes 🛛 🔽 No<br>that surrounds the project site?  |  |
| DESCRIBE EXISTING AND FUTURE ACCESS TO THE PROPOSED PROJECT SITE:<br>a driveway provides access to the existing homes.  |   |  |
| SURROUNDING LAND USE: what are the uses of applicable, please specify all agricultural uses):   | the land surrounding your property (when  |  |
| East: RESIDENTIAL   | West: RESIDENTIAL & COMMERCIAL  |  |
| PROPOSED WATER SOURCE:<br>On-Site Well Shared Well Other<br>Community System Agency: <u>Avila Beach CSD</u>   | : Will-serve letter? NA<br>WYes Mo Kisting<br>(if yes, please submit a copy)  |  |
| PROPOSED SEWAGE DISPOSAL:   | Will-serve letter? NA<br>Will-serve letter? NA |  |
| RESPONSIBLE FIRE FROTECTION AGENCE. Cal Fil   | e   |  |

.

Land Division Application Package

## Land Division – Project Information Form

3

.

PLN-2050 04/01/2020

| AVAILABLE OR PROPO   |   |                             |                                       |
|--|---|-----------------------------|---------------------------------------|
| Cable TV   | Electricity                                   | Gas                         | Telephone                             |
| ADJUSTMENTS: Are yo  | ou requesting any adjust                      | ments? 🔤 Yes 🔽 No           |                                       |
| If Yes, please complete  | the following:                                |                             |                                       |
| Parcel & site design   | (21.03.010(c))                                | Access & circula            | ition design (21.03.010(d))           |
| Flood hazard & drain   | nage (21.03.010(e))                           | Water supply (2             | (1.03.010(f))                         |
| Sewage Disposal (21  | .03.010(g))                                   | Public Utilities (          | 21.03.010(h))                         |
| Briefly describe the rea   | sons for the request                          |                             |                                       |
| brieffy describe the rea   | sons for the request.                         |                             |                                       |
|  |   |                             |                                       |
|  |   | had                         |                                       |
| QUIMBY ORDINANCE<br>MEET THE REQUIREME   | (SECTION 21.09.010, ET<br>NTS OF THE QUIMBY C | SEQ., OF TITLE 21): H       | OW ARE YOU PROPOSING TO               |
| Dedicate property for  | or park & recreation pur                      | poses                       |                                       |
| Pay the in-lieu fee  |   |                             |                                       |
| Request credit for co  | ommon open space (if ye                       | ou are choosing this op     | otion, please complete below)         |
| Acreage of open spa  | Ce: AV  | erage slope of open sp      | ace:                                  |
| Describe the on-site rec   |   | ng proposed and then        | location on the open space.           |
|  | 5   |                             |                                       |
|  | is a second                                   | с                           |                                       |
| Specify the proposed o   | whership and method o                         | of maintenance of the o     | pen space:                            |
|  |   |                             |                                       |
| AFFORDABLE HOUSIN  | G – COASTAL ZONE ON                           | LY (GOVERNMENT CO           | DE SECTION 65590 – SECTION            |
| ls vour project:   |   |                             |                                       |
| A new housing proje  | ct containing 11 or more                      | e dwelling units or parc    | els; OR                               |
| A demolition or conv   | ersion of one or more d                       | wellings (includes mob      | ile homes), where the proposed        |
| demolition or conversion   | on involves three or mor                      | re dwelling units in one    | structure, or 11 or more              |
| dwellings units in two c   | or more structures AND                        | any such units were oc      | cupied by persons or families of      |
| low or moderate incom  | e in the 12 months prio                       | r to filing the land use of | or division application.              |
| Demolition or conversion of conversion of the provide the provided | rsion of one or more dw<br>al dependent".     | ellings (includes mobile    | e homes) to a non-residential         |
|  | · · · · · · · · · · · · · · · · · · ·         |                             | · · · · · · · · · · · · · · · · · · · |
|  |   |                             |                                       |

•

# Fidelity National Title Company

## PRELIMINARY REPORT

In response to the application for a policy of title insurance referenced herein, **Fidelity National Title Company** hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a policy or policies of title insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an exception herein or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations or Conditions of said policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said policy or policies are set forth in Attachment One. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Attachment One. Copies of the policy forms should be read. They are available from the office which issued this report.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

The policy(ies) of title insurance to be issued hereunder will be policy(ies) of Fidelity National Title Insurance Company, a Florida corporation.

Please read the exceptions shown or referred to herein and the exceptions and exclusions set forth in Attachment One of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects and encumbrances affecting title to the land.

Fidelity National Title Insurance Company

By:

Attest:

Countersigned By:

Christie Trong Clemons

Authorized Officer or Agent



President

Mayou Ken

Secretary

Visit Us on our Website: www.fntic.com

## **Fidelity National Title Company**

ISSUING OFFICE: 1212 Marsh Street, Suite 2, San Luis Obispo, CA 93401

FOR SETTLEMENT INQUIRIES, CONTACT: Fidelity National Title Company 130 West Branch Street, Suite C • Arroyo Grande, CA 93420 (805)474-1800 • FAX (805)474-5609

## Another Prompt Delivery From Fidelity National Title Company Title Department Where Local Experience And Expertise Make A Difference

## PRELIMINARY REPORT

#### Amendment A

Title Officer: Reece Benson Email: rbenson@fnf.com Title No.: FSLC-0022001117-RB Escrow Officer: Kim MacDonald and Stephanie Schaefer Email: TeamArroyo@fnf.com Escrow No.: FSLC-0022001117 KS Send Loan Docs To: <u>arroyoloandocs@fnf.com</u>

TO: Pacific Trust Mortgage 735 Tank Farm Road, Suite 210 San Luis Obispo, CA 93401 Attn:

PROPERTY ADDRESS(ES): 356 First Street, Avila Beach, CA

#### EFFECTIVE DATE: May 26, 2021 at 07:30 AM

The form of policy or policies of title insurance contemplated by this report is:

ALTA Loan Policy 2006

1. THE ESTATE OR INTEREST IN THE LAND HEREINAFTER DESCRIBED OR REFERRED TO COVERED BY THIS REPORT IS:

A FEE

2. TITLE TO SAID ESTATE OR INTEREST AT THE DATE HEREOF IS VESTED IN:

#### 356 First Street, LLC

3. THE LAND REFERRED TO IN THIS REPORT IS DESCRIBED AS FOLLOWS:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

# EXHIBIT "A"

## Legal Description

#### For APN/Parcel ID(s): 076-217-015

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE UNINCORPORATED AREA, COUNTY OF SAN LUIS OBISPO, STATE OF CALIFORNIA AND IS DESCRIBED AS FOLLOWS:

PARCEL 1:

THE EAST 77 FEET OF THE SOUTH 10 FEET OF LOT 11 AND THE EAST 77 FEET OF LOT 12 IN BLOCK 13 OF THE TOWN OF AVILA, IN THE COUNTY OF SAN LUIS OBISPO, STATE OF CALIFORNIA, AS PER MAP RECORDED AUGUST 20, 1875 IN BOOK A AT PAGE 5 OF MAPS IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 2:

LOTS 16 AND 17 IN BLOCK 13 OF THE TOWN OF AVILA, IN THE COUNTY OF SAN LUIS OBISPO, STATE OF CALIFORNIA, AS PER MAP RECORDED AUGUST 20, 1875 IN BOOK A AT PAGE 5 OF MAPS IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THE EAST 10 FEET OF SAID LOT 16 AND EXCEPT THE WEST 40 FEET OF SAID LOT 17.

# AT THE DATE HEREOF, EXCEPTIONS TO COVERAGE IN ADDITION TO THE PRINTED EXCEPTIONS AND EXCLUSIONS IN SAID POLICY FORM WOULD BE AS FOLLOWS:

- 1. Property taxes, which are a lien not yet due and payable, including any assessments collected with taxes to be levied for the fiscal year 2021-2022.
- 2. The lien of supplemental or escaped assessments of property taxes, if any, made pursuant to the provisions of Chapter 3.5 (commencing with Section 75) or Part 2, Chapter 3, Articles 3 and 4, respectively, of the Revenue and Taxation Code of the State of California as a result of the transfer of title to the vestee named in Schedule A or as a result of changes in ownership or new construction occurring prior to Date of Policy.
- 3. Any liens or other assessments, bonds, or special district liens including without limitation, Community Facility Districts, that arise by reason of any local, City, Municipal or County Project or Special District.
- 4. Matters contained in that certain document

| Entitled:       | Notice of Actual and/or Potential Contamination Proximate to Real property |
|-----------------|--|
| Dated:          | February 9, 2000   |
| Executed by:    | Katherine W. Guernsey  |
| Recording Date: | February 17, 2000  |
| Recording No.:  | 2000-008489, of Official Records   |

Reference is hereby made to said document for full particulars.

5. A deed of trust to secure an indebtedness in the amount shown below,

| \$359,800.00                                |
|---|
| January 18, 2015                            |
| 356 First St. LLC                           |
| SLO Capital, Inc., a California Corporation |
| SLO Capital, Inc., a California Corporation |
| P1752015                                    |
| March 7, 2017                               |
| 2017010366, of Official Records             |
|   |

## EXCEPTIONS

(continued)

6. The Company will require the following documents for review prior to the issuance of any title assurance predicated upon a conveyance or encumbrance from the entity named below:

Limited Liability Company: 356 First Street, LLC

a) A copy of its operating agreement, if any, and any and all amendments, supplements and/or modifications thereto, certified by the appropriate manager or member

b) If a domestic Limited Liability Company, a copy of its Articles of Organization and all amendments thereto with the appropriate filing stamps

c) If the Limited Liability Company is member-managed, a full and complete current list of members certified by the appropriate manager or member

d) A current dated certificate of good standing from the proper governmental authority of the state in which the entity was created

e) If less than all members, or managers, as appropriate, will be executing the closing documents, furnish evidence of the authority of those signing

The Company reserves the right to add additional items or make further requirements after review of the requested documentation.

## END OF EXCEPTIONS

#### NOTES

- **Note 1.** Notice: Please be aware that due to the conflict between federal and state laws concerning the cultivation, distribution, manufacture or sale of marijuana, the Company is not able to close or insure any transaction involving Land that is associated with these activities.
- **Note 2.** Pursuant to Government Code Section 27388.1, as amended and effective as of 1-1-2018, a Documentary Transfer Tax (DTT) Affidavit may be required to be completed and submitted with each document when DTT is being paid or when an exemption is being claimed from paying the tax. If a governmental agency is a party to the document, the form will not be required. DTT Affidavits may be available at a Tax Assessor-County Clerk-Recorder.
- **Note 3.** Note: Property taxes for the fiscal year shown below are PAID. For proration purposes the amounts were:

| 076-217-015    |
|----------------|
| 2020-2021      |
| \$8,502.26     |
| \$8,502.26     |
| \$0.00         |
| \$1,538,751.00 |
| \$53,060.00    |
| \$0.00         |
| 112-018        |
|                |

Prior to close of escrow, please contact the Tax Collector's Office to confirm all amounts owing, including current fiscal year taxes, supplemental taxes, escaped assessments and any delinquencies.

- **Note 4.** Note: The Company is not aware of any matters which would cause it to decline to attach CLTA Endorsement Form 116 indicating that there is located on said Land a Single Family Residence, known as 356 First Street, Avila Beach, California, to an Extended Coverage Loan Policy.
- **Note 5.** Note: There are NO conveyances affecting said Land recorded within 24 months of the date of this report.
- **Note 6.** If a county recorder, title insurance company, escrow company, real estate agent or association provides a copy of the declaration, governing document or deed to any person, California law requires that the document provided shall include a statement regarding any unlawful restrictions. Said statement is to be in at least 14-point bold faced typed and may be stamped on the first page of any document provided or included as a cover page attached to the requested document. Should a party to this transaction request a copy of any document reported herein that fits this category, the statement is to be included in the manner described.

#### NOTES

#### (continued)

- **Note 7.** The application for title insurance was placed by reference to only a street address or tax identification number. The proposed Insured must confirm that the legal description in this report covers the parcel(s) of Land requested to be insured. If the legal description is incorrect, the proposed Insured must notify the Company and/or the settlement company in order to prevent errors and to be certain that the legal description for the intended parcel(s) of Land will appear on any documents to be recorded in connection with this transaction and on the policy of title insurance.
- **Note 8.** Any documents being executed in conjunction with this transaction must be signed in the presence of an authorized Company employee, an authorized employee of an agent, an authorized employee of the insured lender, or by using Bancserv or other approved third-party service. If the above requirements cannot be met, please call the company at the number provided in this report.

## END OF NOTES



## WIRE FRAUD ALERT

This Notice is not intended to provide legal or professional advice. If you have any questions, please consult with a lawyer.

All parties to a real estate transaction are targets for wire fraud and many have lost hundreds of thousands of dollars because they simply relied on the wire instructions received via email, without further verification. If funds are to be wired in conjunction with this real estate transaction, we strongly recommend verbal verification of wire instructions through a known, trusted phone number prior to sending funds.

In addition, the following non-exclusive self-protection strategies are recommended to minimize exposure to possible wire fraud.

- **NEVER RELY** on emails purporting to change wire instructions. Parties to a transaction rarely change wire instructions in the course of a transaction.
- ALWAYS VERIFY wire instructions, specifically the ABA routing number and account number, by calling the party who sent the instructions to you. DO NOT use the phone number provided in the email containing the instructions, use phone numbers you have called before or can otherwise verify. Obtain the number of relevant parties to the transaction as soon as an escrow account is opened. DO NOT send an email to verify as the email address may be incorrect or the email may be intercepted by the fraudster.
- **USE COMPLEX EMAIL PASSWORDS** that employ a combination of mixed case, numbers, and symbols. Make your passwords greater than eight (8) characters. Also, change your password often and do NOT reuse the same password for other online accounts.
- USE MULTI-FACTOR AUTHENTICATION for email accounts. Your email provider or IT staff may have specific instructions on how to implement this feature.

For more information on wire-fraud scams or to report an incident, please refer to the following links:

Federal Bureau of Investigation: http://www.fbi.gov

Internet Crime Complaint Center: http://www.ic3.gov

#### FIDELITY NATIONAL FINANCIAL PRIVACY NOTICE

Effective April 9, 2020

Fidelity National Financial, Inc. and its majority-owned subsidiary companies (collectively, "FNF," "our," or "we") respect and are committed to protecting your privacy. This Privacy Notice explains how we collect, use, and protect personal information, when and to whom we disclose such information, and the choices you have about the use and disclosure of that information.

A limited number of FNF subsidiaries have their own privacy notices. If a subsidiary has its own privacy notice, the privacy notice will be available on the subsidiary's website and this Privacy Notice does not apply.

#### Collection of Personal Information

FNF may collect the following categories of Personal Information:

- contact information (e.g., name, address, phone number, email address);
- demographic information (e.g., date of birth, gender, marital status);
- identity information (e.g. Social Security Number, driver's license, passport, or other government ID number);
- financial account information (e.g. loan or bank account information); and
- other personal information necessary to provide products or services to you.

We may collect Personal Information about you from:

- information we receive from you or your agent;
- information about your transactions with FNF, our affiliates, or others; and
- information we receive from consumer reporting agencies and/or governmental entities, either directly from these entities or through others.

#### **Collection of Browsing Information**

FNF automatically collects the following types of Browsing Information when you access an FNF website, online service, or application (each an "FNF Website") from your Internet browser, computer, and/or device:

- Internet Protocol (IP) address and operating system;
- browser version, language, and type;
- domain name system requests; and
- browsing history on the FNF Website, such as date and time of your visit to the FNF Website and visits to the pages within the FNF Website.

Like most websites, our servers automatically log each visitor to the FNF Website and may collect the Browsing Information described above. We use Browsing Information for system administration, troubleshooting, fraud investigation, and to improve our websites. Browsing Information generally does not reveal anything personal about you, though if you have created a user account for an FNF Website and are logged into that account, the FNF Website may be able to link certain browsing activity to your user account.

#### **Other Online Specifics**

<u>Cookies</u>. When you visit an FNF Website, a "cookie" may be sent to your computer. A cookie is a small piece of data that is sent to your Internet browser from a web server and stored on your computer's hard drive. Information gathered using cookies helps us improve your user experience. For example, a cookie can help the website load properly or can customize the display page based on your browser type and user preferences. You can choose whether or not to accept cookies by changing your Internet browser settings. Be aware that doing so may impair or limit some functionality of the FNF Website.

<u>Web Beacons</u>. We use web beacons to determine when and how many times a page has been viewed. This information is used to improve our websites.

<u>Do Not Track</u>. Currently our FNF Websites do not respond to "Do Not Track" features enabled through your browser.

<u>Links to Other Sites</u>. FNF Websites may contain links to unaffiliated third-party websites. FNF is not responsible for the privacy practices or content of those websites. We recommend that you read the privacy policy of every website you visit.

#### **Use of Personal Information**

FNF uses Personal Information for three main purposes:

- To provide products and services to you or in connection with a transaction involving you.
- To improve our products and services.
- To communicate with you about our, our affiliates', and others' products and services, jointly or independently.

#### When Information Is Disclosed

We may disclose your Personal Information and Browsing Information in the following circumstances:

- to enable us to detect or prevent criminal activity, fraud, material misrepresentation, or nondisclosure;
- to nonaffiliated service providers who provide or perform services or functions on our behalf and who agree to use the information only to provide such services or functions;
- to nonaffiliated third party service providers with whom we perform joint marketing, pursuant to an agreement with them to jointly market financial products or services to you;
- to law enforcement or authorities in connection with an investigation, or in response to a subpoena or court order; or
- in the good-faith belief that such disclosure is necessary to comply with legal process or applicable laws, or to protect the rights, property, or safety of FNF, its customers, or the public.

The law does not require your prior authorization and does not allow you to restrict the disclosures described above. Additionally, we may disclose your information to third parties for whom you have given us authorization or consent to make such disclosure. We do not otherwise share your Personal Information or Browsing Information with nonaffiliated third parties, except as required or permitted by law. We may share your Personal Information with affiliates (other companies owned by FNF) to directly market to you. Please see "Choices with Your Information" to learn how to restrict that sharing.

We reserve the right to transfer your Personal Information, Browsing Information, and any other information, in connection with the sale or other disposition of all or part of the FNF business and/or assets, or in the event of bankruptcy, reorganization, insolvency, receivership, or an assignment for the benefit of creditors. By submitting Personal Information and/or Browsing Information to FNF, you expressly agree and consent to the use and/or transfer of the foregoing information in connection with any of the above described proceedings.

#### Security of Your Information

We maintain physical, electronic, and procedural safeguards to protect your Personal Information.

#### **Choices With Your Information**

If you do not want FNF to share your information among our affiliates to directly market to you, you may send an "opt out" request by email, phone, or physical mail as directed at the end of this Privacy Notice. We do not share your Personal Information with nonaffiliates for their use to direct market to you without your consent.

Whether you submit Personal Information or Browsing Information to FNF is entirely up to you. If you decide not to submit Personal Information or Browsing Information, FNF may not be able to provide certain services or products to you.

<u>For California Residents</u>: We will not share your Personal Information or Browsing Information with nonaffiliated third parties, except as permitted by California law. For additional information about your California privacy rights, please visit the "California Privacy" link on our website (<u>https://fnf.com/pages/californiaprivacy.aspx</u>) or call (888) 413-1748.

<u>For Nevada Residents</u>: You may be placed on our internal Do Not Call List by calling (888) 934-3354 or by contacting us via the information set forth at the end of this Privacy Notice. Nevada law requires that we also provide you with the following contact information: Bureau of Consumer Protection, Office of the Nevada Attorney General, 555 E. Washington St., Suite 3900, Las Vegas, NV 89101; Phone number: (702) 486-3132; email: BCPINFO@ag.state.nv.us.

<u>For Oregon Residents</u>: We will not share your Personal Information or Browsing Information with nonaffiliated third parties for marketing purposes, except after you have been informed by us of such sharing and had an opportunity to indicate that you do not want a disclosure made for marketing purposes.

<u>For Vermont Residents</u>: We will not disclose information about your creditworthiness to our affiliates and will not disclose your personal information, financial information, credit report, or health information to nonaffiliated third parties to market to you, other than as permitted by Vermont law, unless you authorize us to make those disclosures.

#### Information From Children

The FNF Websites are not intended or designed to attract persons under the age of eighteen (18). We do not collect Personal Information from any person that we know to be under the age of thirteen (13) without permission from a parent or guardian.

#### International Users

FNF's headquarters is located within the United States. If you reside outside the United States and choose to provide Personal Information or Browsing Information to us, please note that we may transfer that information outside of your country of residence. By providing FNF with your Personal Information and/or Browsing Information, you consent to our collection, transfer, and use of such information in accordance with this Privacy Notice.

#### FNF Website Services for Mortgage Loans

Certain FNF companies provide services to mortgage loan servicers, including hosting websites that collect customer information on behalf of mortgage loan servicers (the "Service Websites"). The Service Websites may contain links to both this Privacy Notice and the mortgage loan servicer or lender's privacy notice. The sections of this Privacy Notice titled When Information is Disclosed, Choices with Your Information, and Accessing and Correcting Information do not apply to the Service Websites. The mortgage loan servicer or lender's privacy notice governs use, disclosure, and access to your Personal Information. FNF does not share Personal Information collected through the Service Websites, except as required or authorized by contract with the mortgage loan servicer or lender, or as required by law or in the good-faith belief that such disclosure is necessary: to comply with a legal process or applicable law, to enforce this Privacy Notice, or to protect the rights, property, or safety of FNF or the public.

#### Your Consent To This Privacy Notice; Notice Changes; Use of Comments or Feedback

By submitting Personal Information and/or Browsing Information to FNF, you consent to the collection and use of the information in accordance with this Privacy Notice. We may change this Privacy Notice at any time. The Privacy Notice's effective date will show the last date changes were made. If you provide information to us following any change of the Privacy Notice, that signifies your assent to and acceptance of the changes to the Privacy Notice. We may use comments or feedback that you submit to us in any manner without notice or compensation to you.

#### Accessing and Correcting Information; Contact Us

If you have questions, would like to correct your Personal Information, or want to opt-out of information sharing for affiliate marketing, send your requests to privacy@fnf.com, by phone to (888) 934-3354, or by mail to:

Fidelity National Financial, Inc. 601 Riverside Avenue, Jacksonville, Florida 32204 Attn: Chief Privacy Officer

## ATTACHMENT ONE

#### CALIFORNIA LAND TITLE ASSOCIATION STANDARD COVERAGE POLICY - 1990

#### **EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

- (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
  - (b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
- Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not
  excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for
  value without knowledge.
- 3. Defects, liens, encumbrances, adverse claims or other matters:
  - (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
  - (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
  - (c) resulting in no loss or damage to the insured claimant;
  - (d) attaching or created subsequent to Date of Policy; or
  - (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
- 4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.
- 5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
- Any claim, which arises out of the transaction vesting in the insured the estate or interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

#### **EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I**

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.

Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.

- 2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
- 3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
- 4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
- 5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
- 6. Any lien or right to a lien for services, labor or material not shown by the public records.

#### CLTA HOMEOWNER'S POLICY OF TITLE INSURANCE (12-02-13) ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE

#### **EXCLUSIONS**

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

- 1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning:
  - a. building;
  - b. zoning;
  - c. land use;
  - d. improvements on the Land;
  - e. land division; and
  - f. environmental protection.
  - This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
- 2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
- 3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
- 4. Risks:
  - a. that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records;
  - b. that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date;
  - c. that result in no loss to You; or
  - d. that first occur after the Policy Date this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
- 5. Failure to pay value for Your Title.
- 6. Lack of a right:
  - a. to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and
  - b. in streets, alleys, or waterways that touch the Land.
  - This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
- 7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.
- 8. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake or subsidence.
- 9. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

#### LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

For Covered Risk 16, 18, 19 and 21, Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

|                  | Your Deductible Amount  | Our Maximum Dollar Limit of Liability |
|------------------|---|---------------------------------------|
| Covered Risk 16: | 1.00% of Policy Amount Shown in Schedule A<br>or<br>\$2,500.00<br>(whichever is less) | \$ 10,000.00                          |
| Covered Risk 18: | 1.00% of Policy Amount Shown in Schedule A<br>or<br>\$5,000.00<br>(whichever is less) | \$ 25,000.00                          |
| Covered Risk 19: | 1.00% of Policy Amount Shown in Schedule A<br>or<br>\$5,000.00<br>(whichever is less) | \$ 25,000.00                          |
| Covered Risk 21: | 1.00% of Policy Amount Shown in Schedule A<br>or<br>\$2,500.00<br>(whichever is less) | \$ 5,000.00                           |

#### 2006 ALTA LOAN POLICY (06-17-06)

#### **EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

- 1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
  - (i) the occupancy, use, or enjoyment of the Land;
  - (ii) the character, dimensions, or location of any improvement erected on the Land;
  - (iii) the subdivision of land; or
  - (iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
- 2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
- 3. Defects, liens, encumbrances, adverse claims, or other matters
  - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
  - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
  - (c) resulting in no loss or damage to the Insured Claimant;
  - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
  - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
- 4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
- 5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
- 6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
  - (a) a fraudulent conveyance or fraudulent transfer, or
  - (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.
- Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

#### **EXCEPTIONS FROM COVERAGE**

[Except as provided in Schedule B - Part II,[ t[or T]his policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees, or expenses that arise by reason of:

#### [PART I

[The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

- 1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
- 2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
- 3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
- 4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
- 5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
- 6. Any lien or right to a lien for services, labor or material not shown by the Public Records.]

#### PART II

In addition to the matters set forth in Part I of this Schedule, the Title is subject to the following matters, and the Company insures against loss or damage sustained in the event that they are not subordinate to the lien of the Insured Mortgage:]

#### 2006 ALTA OWNER'S POLICY (06-17-06)

#### **EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

- 1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
  - (i) the occupancy, use, or enjoyment of the Land;
  - (ii) the character, dimensions, or location of any improvement erected on the Land;
  - (iii) the subdivision of land; or
  - (iv) environmental protection;

2.

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.

- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
- Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
- 3. Defects, liens, encumbrances, adverse claims, or other matters
  - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
  - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
  - (c) resulting in no loss or damage to the Insured Claimant;
  - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
  - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
- 4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
  - (a) a fraudulent conveyance or fraudulent transfer; or
  - (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
- 5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

#### EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees, or expenses that arise by reason of: [The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

- 1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
- 2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
- 3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
- 4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
- 5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
- 6. Any lien or right to a lien for services, labor or material not shown by the Public Records.]
- 7. [Variable exceptions such as taxes, easements, CC&R's, etc., shown here.]

#### ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY - ASSESSMENTS PRIORITY (04-02-15)

#### **EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

- 1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
  - (i) the occupancy, use, or enjoyment of the Land;
  - (ii) the character, dimensions, or location of any improvement erected on the Land;
  - (iii) the subdivision of land; or
  - (iv) environmental protection;

or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.

- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
- 2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
- 3. Defects, liens, encumbrances, adverse claims, or other matters
  - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
  - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
  - (c) resulting in no loss or damage to the Insured Claimant;
  - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
  - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
- 4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
- 5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
- 6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
- 7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
- 8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
- 9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
  - (a) a fraudulent conveyance or fraudulent transfer, or
  - (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.
- 10. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
- 11. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

## **Notice of Available Discounts**

Pursuant to Section 2355.3 in Title 10 of the California Code of Regulations Fidelity National Financial, Inc. and its subsidiaries ("FNF") must deliver a notice of each discount available under our current rate filing along with the delivery of escrow instructions, a preliminary report or commitment. Please be aware that the provision of this notice does not constitute a waiver of the consumer's right to be charged the filed rate. As such, your transaction may not qualify for the below discounts.

You are encouraged to discuss the applicability of one or more of the below discounts with a Company representative. These discounts are generally described below; consult the rate manual for a full description of the terms, conditions and requirements for such discount. These discounts only apply to transactions involving services rendered by the FNF Family of Companies. This notice only applies to transactions involving property improved with a one-to-four family residential dwelling.

Not all discounts are offered by every FNF Company. The discount will only be applicable to the FNF Company as indicated by the named discount.

#### **FNF Underwritten Title Companies**

CTC - Chicago Title Company CLTC - Commonwealth Land Title Company FNTC - Fidelity National Title Company of California FNTCCA - Fidelity National Title Company of California TICOR - Ticor Title Company of California LTC - Lawyer's Title Company SLTC - ServiceLink Title Company

#### Underwritten by FNF Underwriters

CTIC - Chicago Title Insurance Company CLTIC - Commonwealth Land Title Insurance Company FNTIC - Fidelity National Title Insurance Company FNTIC - Fidelity National Title Insurance Company CTIC - Chicago Title Insurance Company CLTIC - Commonwealth Land Title Insurance Company CTIC - Chicago Title Insurance Company

#### **Available Discounts**

#### **DISASTER LOANS (CTIC, CLTIC, FNTIC)**

The charge for a Lender's Policy (Standard or Extended coverage) covering the financing or refinancing by an owner of record, within twenty-four (24) months of the date of a declaration of a disaster area by the government of the United States or the State of California on any land located in said area, which was partially or totally destroyed in the disaster, will be fifty percent (50%) of the appropriate title insurance rate.

#### CHURCHES OR CHARITABLE NON-PROFIT ORGANIZATIONS (CTIC, FNTIC)

On properties used as a church or for charitable purposes within the scope of the normal activities of such entities, provided said charge is normally the church's obligation the charge for an owner's policy shall be fifty percent (50%) to seventy percent (70%) of the appropriate title insurance rate, depending on the type of coverage selected. The charge for a lender's policy shall be forty percent (40%) to fifty percent (50%) of the appropriate title insurance rate, depending on the type of coverage selected.

## SOILS ENGINEERING REPORT 356 FIRST STREET APN: 076-217-015, AVILA BEACH AREA, SAN LUIS OBISPO COUNTY CALIFORNIA

## **PROJECT SL09186-1**

## Prepared for

Michael Salucci and Michael Hodge c/o Hodge Company 351 San Miguel Ave San Luis Obispo, California 93405

Prepared by

GEOSOLUTIONS, INC. 220 HIGH STREET SAN LUIS OBISPO, CALIFORNIA 93401 (805) 543-8539

©

March 18, 2015





1021 West Tama Lane, Suite 105, Santa Maria, CA 93454 (805)614-6333, (805)614-6322 fax SBinfo@geosolutions.net

220 High Street, San Luis Obispo, CA 93401 (805)543-8539, (805)543-2171 fax info@geosolutions.net

> March 18, 2014 Project No. SL09186-1

Michael Salucci and Michael Hodge c/o Hodge Co 351 San Miguel Ave San Luis Obispo, California 93405

Subject: Soils Engineering Report 356 First Street, APN: 076-217-015 Avila Beach area, San Luis Obispo County, California

Dear Mr. Salucci and Mr. Hodge:

This Soils Engineering Report has been prepared for two (2) new residential buildings and an addition to an existing residence located at 356 First Street, APN: 076-217-015, in the Avila Beach area, San Luis Obispo County, California. Geotechnically, the site is suitable for the proposed development provided the recommendations in this report for site preparation, earthwork, foundations, slabs, retaining walls, and pavement sections are incorporated into the design.

It is anticipated that all foundations will be excavated into engineered fill. All foundations are to be excavated into uniform material to limit the potential for distress of the foundation systems due to differential settlement. If cuts steeper than allowed by State of California Construction Safety Orders for "Excavations, Trenches, Earthwork" are proposed, a numerical slope stability analysis may be necessary for temporary construction slopes.

Thank you for the opportunity to have been of service in preparing this report. If you have any questions or require additional assistance, please feel free to contact the undersigned at (805) 614-6333.



## **TABLE OF CONTENTS**

| 1.0 | INTRODUCTION1                   |   |  |  |
|-----|---------------------------------|---|--|--|
|     | 1.1                             | Site Description                                  |  |  |
|     | 1.2                             | Project Description                               |  |  |
| 2.0 | PURP                            | OSE AND SCOPE                                     |  |  |
| 3.0 | FIELD                           | AND LABORATORY INVESTIGATION                      |  |  |
| 4.0 | SEISM                           | IIC DESIGN CONSIDERATIONS                         |  |  |
|     | 4.1 Se                          | ismic Hazard Analysis                             |  |  |
|     | 4.2 St                          | ructural Building Design Parameters5              |  |  |
|     | 4.3 Li                          | quefaction Potential                              |  |  |
| 5.0 | GENE                            | RAL SOIL-FOUNDATION DISCUSSION                    |  |  |
| 6.0 | CONCLUSIONS AND RECOMMENDATIONS |   |  |  |
|     | 6.1                             | Preparation of Building Pad Addition6             |  |  |
|     | 6.2                             | Preparation of Building Pad6                      |  |  |
|     | 6.3                             | Preparation of Paved Areas and Concrete Flatwork7 |  |  |
|     | 6.4                             | Pavement Design Standard                          |  |  |
|     | 6.5                             | Conventional Foundations                          |  |  |
|     | 6.6                             | Post-Tensioned Slabs                              |  |  |
|     | 6.7                             | Slab-On-Grade Construction                        |  |  |
|     | 6.8                             | Retaining Walls                                   |  |  |
| 7.0 | ADDI                            | TIONAL GEOTECHNICAL SERVICES                      |  |  |
| 8.0 | LIMIT                           | ATIONS AND UNIFORMITY OF CONDITIONS               |  |  |
| DEE | EDENCEO                         |   |  |  |

#### REFERENCES

#### APPENDIX A

Field Investigation Soil Classification Chart Boring Logs

#### APPENDIX B

Laboratory Testing Soil Test Reports

#### APPENDIX C

USGS Design Map Summary Report USGS Design Map Detailed Report

#### APPENDIX D

Preliminary Grading Specifications Key and Bench with Backdrain

#### APPENDIX E

Volflo 1.5

## **LIST OF FIGURES**

| Figure 1: Site Location Map  | 1  |
|--|----|
| Figure 2: Site Plan  | 2  |
| Figure 3: Google Earth Image   | 3  |
| Figure 4: Regional Geologic Map  | 3  |
| Figure 5: Sub-Slab Detail  | 7  |
| Figure 6: Setback Dimensions – Slope Gradients Between 3-to-1 and 1-to-1 | 9  |
| Figure 7: Retaining Wall Detail  | 12 |
| Figure 8: Retaining Wall Active and Passive Wedges                       | 13 |

## **LIST OF TABLES**

| Table 1: Engineering Properties                         | 4  |
|---|----|
| Table 2: Minimum Footing and Grade Beam Dimensions      | 8  |
| Table 3: Post-Tension Foundation Criteria.              | 10 |
| Table 4: Retaining Wall Design Parameters               | 12 |
| Table 5: Recommended Equivalent Fluid Pressures         | 12 |
| Table 6: Required Verification and Inspections of Soils | 15 |

#### SOILS ENGINEERING REPORT 356 FIRST STREET APN: 076-217-015, AVILA BEACH AREA, SAN LUIS OBISPO COUNTY CALIFORNIA

#### PROJECT SL09186-1

## 1.0 **INTRODUCTION**

This report presents the results of the geotechnical investigation for two (2) new residential buildings and addition to an existing residence located at 356 First Street, APN: 076-217-015, in the Avila Beach area, San Luis Obispo County, California. See Figure 1: Site Location Map for the general location of the project area. Figure 1: Site Location Map was obtained from the computer program *Topo USA 8.0* (DeLorme, 2009).

#### 1.1 <u>Site Description</u>

356 First Street is located at 35.179 degrees north latitude and 120.732 degrees west longitude at a general elevation of 35 feet above mean sea level. The property is approximately 0.22 acres in size. The nearest intersection is where 1<sup>st</sup> Street intersects San Miguel Way to the east of the property.

The Site is ascends upward from first street. Three single family residences currently occupy the site. It is our understanding they will remain on the property, with one addition as well as the two new residential buildings.

## 1.2 **Project Description**

The proposed new buildings are to be located at both the front and rear of the property; the proposed addition will be located on the east side of the rear existing residence. The structures are anticipated to be one or two stories in height and approximately 2,000 square feet in size. At the time of the preparation of this report, the proposed single-family residences are to be constructed using light wood framing. Retaining walls are expected to be constructed as part of this project. The project property will hereafter be referred to as the "Site." See Figure 2: Site Plan for the general layout of the Site.

It is anticipated that the proposed structures will utilize a slab-on-grade lower floor system. Dead and sustained live loads are currently unknown, but they are anticipated to be relatively light with maximum



Figure 1: Site Location Map

continuous footing and column loads estimated to be approximately 1.5 kips per linear foot and 15 kips, respectively.

## 2.0 PURPOSE AND SCOPE

The purpose of this study was to explore and evaluate the surface and sub-surface soil conditions at the Site and to develop geotechnical information and design criteria. The scope of this study includes the following items:

1. A literature review of available published and unpublished geotechnical data pertinent to the project site including geologic maps, and avai



Figure 2: Site Plan

geologic maps, and available on-line or in-house aerial photographs.

- 2. A field study consisting of site reconnaissance and subsurface exploration including exploratory borings in order to formulate a description of the sub-surface conditions at the Site.
- 3. Laboratory testing performed on representative soil samples that were collected during our field study.
- 4. Engineering analysis of the data gathered during our literature review, field study, and laboratory testing.
- 5. Development of recommendations for site preparation and grading as well as geotechnical design criteria for building foundations, retaining walls, pavement sections, underground utilities, and drainage facilities.

## 3.0 FIELD AND LABORATORY INVESTIGATION

The field investigation was conducted on February 17, 2015 using a track-mounted CME 55 drill rig. Two eight-inch diameter exploratory borings were advanced to a maximum depth of 10 feet below ground surface (bgs) at the approximate locations indicated on Figure 3: Google Earth Image. Sampling methods included the Standard Penetration Test utilizing a standard split-spoon sampler (SPT) without liners and a Modified California sampler (CA) with liners. The CME 55 drill rig was equipped with an automatic hammer, which has an efficiency of approximately 80 percent and was used to obtain test blow counts in the form of N-values.

Data gathered during the field investigation suggest that the soil materials at the Site consist of colluvial soil overlying competent formational material. The surface material at the Site generally consisted of dark olive brown sandy CLAY (CL) encountered in a dry and soft condition to approximately 3.0 feet bgs. The sub-surface materials consisted of dark olive brown silty SAND with gravel (SM) encountered in a moist and very dense condition.

Regional site geology was obtained by using the Geologic Map of the Pismo Beach Quadrangle (Dibblee, 2006) and the MapView internet application (USGS, 2013); the later application is available from the United States Geological Survey website (USGS, 2013) and compiles existing geologic maps. The SAND and the majority of all underlying material at the Site was interpreted as Pismo Formation and will hereafter be referred to as competent formational material. Groundwater was not encountered in either of the borings, although it should be expected that groundwater elevations may vary seasonally and with irrigation practices. See Figure 4: Regional Geologic Map.

During the boring operations the soils encountered were continuously examined, visually classified, and



Figure 3: Google Earth Image

sampled for general laboratory testing. A project engineer has reviewed a continuous log of the soils encountered at the time of field investigation. See **Appendix A** for the Boring Logs from the field investigation.

Laboratory tests were performed on soil samples that were obtained from the Site during the field investigation. The results of these tests are listed below in Table 1: Engineering Properties. Laboratory data reports and detailed explanations of the laboratory tests performed during this investigation are provided in **Appendix B**.



Figure 4: Regional Geologic Map

#### Table 1: Engineering Properties

| Sample Name | Sample Description                      | USCS<br>Specification | Expansion Index | Expansion<br>Potential | Maximum Dry<br>Density, <sub>Yd</sub> (pcf) | Optimum<br>Moisture (%) | Plasticity Index |
|-------------|---|-----------------------|-----------------|------------------------|---|-------------------------|------------------|
| Α           | Dark Olive Brown Sandy CLAY             | CL                    | 89              | Medium                 | -   | -                       | 33               |
| В           | Dark Olive Brown Silty SAND with Gravel | SM                    | 59              | Medium                 | -   | -                       | 33               |

## 4.0 SEISMIC DESIGN CONSIDERATIONS

## 4.1 Seismic Hazard Analysis

- According to section 1613 of the 2013 CBC (CBSC, 2013), all structures and portions of structures should be designed to resist the effects of seismic loadings caused by earthquake ground motions in accordance with the *Minimum Design Loads for Buildings and Other Structures* (ASCE7) (ASCE, 2010). ASCE7 considers the most severe earthquake ground motion to be the ground motion caused by the Maximum Considered Earthquake (MCE) (ASCE, 2010), which is defined in Section 1613 of the 2013 CBC to be short period S<sub>MS</sub> and 1-second period S<sub>M1</sub>, spectral response accelerations.
- 2. The  $a_{max}$  of the Site depends on several factors, which include the distance of the Site from known active faults, the expected magnitude of the MCE, and the Site soil profile characteristics.
- 3. As per section 1613.3.2 of the 2013 CBC (CBSC, 2013), the Site soil profile classification is determined by the average soil properties in the upper 100 feet of the Site profile (ASCE 7). Based on the  $(N_1)_{60}$  values calculated for the in-situ tests performed during the field investigation, the Site was defined as Site Class C, Very Dense Soil & Soft Rock profile per ASCE 7 Chapter 20.
- 4. According to section 11.2 of ASCE7 and section 1613 of the 2013 CBC (CBSC, 2013), buildings and structures should be specifically proportioned to resist Design Earthquake Ground Motions (Design  $a_{max}$ ). ASCE7 defines the Design  $a_{max}$  as "the earthquake ground motions that are two-thirds of the corresponding MCE ground motions" (ASCE, 2006, p. 109). Therefore, the **Design a\_{max} for the Site is equal to S**<sub>D1</sub>=0.424 and S<sub>DS</sub>=0.890, which are 1-second period and short period design spectral response accelerations that are equal to two-thirds of the  $a_{max}$  or MCE for the Site.
- 5. Site coordinates of 35.179 degrees north latitude and 120.732 degrees west longitude and a search radius of 100 miles were used in the probabilistic seismic hazard analysis.

## 4.2 Structural Building Design Parameters

- 1. Structural building design parameters within chapter 16 of the 2013 CBC (CBSC, 2013) and sections 11.4.3 and 11.4.4 of ASCE7 are dependent upon several factors, which include site soil profile characteristics and the locations and characteristics of faults near the Site. As described in section 4.1 of this report, the Site soil profile classification was determined to be Site Class C. This Site soil profile classification and the latitude and longitude coordinates for the Site were used to determine the structural building design parameters.
- 2. Spectral Response Accelerations and Site Coefficients were obtained from the Seismic Hazard Curves and Uniform Hazard Response Spectra, U.S. Seismic Design Map computer application (USGS, 2013); this program is available from the United States Geological Survey website (USGS, 2013). This computer program utilizes the methods developed in the 1997, 2000, 2003, 2008 and 2013 errata editions of the NEHRP Recommended Provisions for Seismic Regulations for New Buildings and Other Structures and user-inputted Site latitude and longitude coordinates to calculate seismic design parameters and response spectra (both for period and displacement), for Site Classifications A through E. Analysis of the Design Spectral Response Acceleration Parameters for the Site and of the Occupancy Category for the proposed structure assign to this project a **Seismic Design Category of D** per Tables 1613.3.5(1) and 1613.3.5(2) of the 2013 CBC (CBSC, 2013).
- 3. The site specific MCE peak ground acceleration ( $PGA_M$ ) as determined by the USGS computer program (web based)  $PGA_M = 0.568$  which is present on Sheet 5 of 6 of the USGS Design Maps Detailed Report (ASCE 7-10 Standard). See Appendix C: USGS Design Maps Summary and Detailed Report. This  $PGA_M$  was utilized in our liquefaction analysis.

## 4.3 Liquefaction Potential

- 1. In the context of soil mechanics, liquefaction is the process that occurs when the dynamic loading of a soil mass causes the shear strength of the soil mass to rapidly decrease. Liquefaction can occur in saturated cohesionless soils
- 2. The most typical liquefaction-induced failures include consolidation of liquefied soils, surface sand boils, lateral spreading of the ground surface, bearing capacity failures of structural foundations, flotation of buried structures, and differential settlement of above-ground structures.
- 3. Liquefiable soils must undergo dynamic loading before liquefaction occurs. Ground motion from an earthquake may induce large-amplitude cyclic reversals of shear stresses within a soil mass. Repetitive lateral and vertical loading and unloading usually results from this process. This process is considered to be dynamic loading. In a liquefiable soil mass, liquefaction may occur as a result of the dynamic loading caused by ground motion produced by an earthquake.
- 4. The presence of loose, poorly graded, fine sand material that is saturated by groundwater within an area that is known to be subjected to high intensity earthquakes and long-duration ground motion are the key factors that indicate potentially liquefiable areas and conditions that lead to liquefaction.
5. Because material found at the Site is rock rather than soil, there is no potential for liquefaction, seismically induced settlement or differential settlement. Rock material differs from soil in that it cannot be saturated, cohesion is considered infinite and relative density is not applicable. Assuming the rock material encountered at the Site accurately represents these conditions, liquefaction potential does not apply.

# 5.0 GENERAL SOIL-FOUNDATION DISCUSSION

It is anticipated that a graded engineered fill pad will be constructed for the proposed structures with all foundations excavated into engineered fill. All foundations are to be excavated into uniform material to limit the potential for distress of the foundation systems due to differential settlement. If cuts steeper than allowed by State of California Construction Safety Orders for "Excavations, Trenches, Earthwork" are proposed, a numerical slope stability analysis may be necessary for temporary construction slopes.

# 6.0 <u>CONCLUSIONS AND RECOMMENDATIONS</u>

The Site is suitable for the proposed development provided the recommendations presented in this report are incorporated into the project plans and specifications.

The primary geotechnical concerns at the Site are:

- 1. The potential of groundwater seepage.
- 2. The presence of soft surface soils.
- 3. The presence of expansive material could cause expansive soil problems.
- 4. The potential for differential settlement occurring between foundations supported on two soil materials having different settlement characteristics, such as soil and engineered fill.

## 6.1 <u>Preparation of Building Pad Addition</u>

- 1. It is anticipated that a grading will be limited to the bottom of any new foundations or slab-on-grades.
- 2. All new foundations, concrete slabs and flatwork should be excavated to design depth, the exposed surface should be scarified to a depth of 6 inches, and moisture conditioned to near optimum moisture content, and compacted to a minimum relative density of 90 percent (ASTM D1557-07). During compaction of the bottom of new foundations. Shallow groundwater may cause the sub-grade to become unstable. If this occurs it may be necessary to remove the pumping soils and replace with aggregate base. Refer to Figure 5: Sub-Slab Detail for under-slab drainage material and **Appendix D** for more details on fill placement.

## 6.2 Preparation of Building Pad

- 1. It is anticipated that a graded engineered fill pad will be developed for the proposed residences with footings founded in engineered fill.
- 2. For the development of an engineered fill pad, the native material should be overexcavated at least 36 inches below existing grade or to two thirds the depth of the deepest

fill (measured from the bottom of the deepest footing); whichever is greatest. The limits of over-excavation should extend a minimum of 5 feet beyond the perimeter foundation. The exposed surface should be scarified to a depth of 12 inches, moisture conditioned to 3-5 % above optimum moisture content, and compacted to a minimum relative density of 90 percent (ASTM D1557-07). The over-excavated material may then be processed as engineered fill. Onsite soil and rock material is suitable as fill material provided it is processed to remove concentrations of organic material, debris, and other particles. Imported fill should meet the requirements of the grading plan. GeoSolutions, Inc. should be notified at least 72 hours prior to delivery to the site to sample and test proposed imported fill materials. Refer to Figure 5: Sub-Slab Detail for under-slab drainage material and **Appendix D** for more details on fill placement.

3. If fill areas are constructed on slopes greater than 10-to-1 (horizontal-to-vertical), we recommend that benches be cut every four feet as fill is placed. Each bench shall be a minimum of 10 feet wide with a minimum of two percent gradient into the slope. If fill areas are constructed on slopes greater than 5-to-1, we recommend that the toe of all areas to receive fill be keyed a minimum of 24 inches into underlying dense material. Sub-drains shall be placed in the keyway and benches as required. See **Appendix D**, Detail A, Key and Bench with Backdrain for details on key and bench construction.





## 6.3 Preparation of Paved Areas and Concrete Flatwork

1. Pavement areas should be over-excavated 24 inches below existing grade or finished subgrade; whichever is deeper. The exposed surface should be scarified an additional depth of eight inches, moisture conditioned to near optimum moisture content, and compacted to a minimum relative density of 90 percent (ASTM D1557-07 test method). The overexcavated soil should then be replaced with non-expansive material and then compacted to a minimum relative density of 90 percent. The top 12 inches of sub-grade soil under all pavement sections should be compacted to a minimum relative density of 95 percent based on the ASTM D1557-07 test method at slightly above optimum. 2. Sub-grade soils should not be allowed to dry out or have excessive construction traffic between moisture conditioning and compaction, and placement of the pavement structural section.

#### 6.4 <u>Pavement Design Standard</u>

- 1. All pavement construction and materials used should conform to Sections 25, 26 and 39 of the latest edition of the State of California Department of Transportation Standard Specifications (State of California, 1999).
- 2. As indicated previously in Section 6.2, the top 12 inches of sub-grade soil under pavement sections should be compacted to a minimum relative density of 95 percent based on the ASTM D1557-07 test method at slightly above optimum moisture content. Aggregate bases and sub-bases should also be compacted to a minimum relative density of 95 percent based on the aforementioned test method.
- 3. A minimum of six inches of Class II Aggregate Base is recommended for all pavement sections. All pavement sections should be crowned for good drainage.

#### 6.5 <u>Conventional Foundations</u>

- 1. Conventional continuous and spread footings with grade beams may be used for support of the proposed structure. Pad footings should be a minimum of two feet square in size. Isolated pad footings are not allowed. Foundations must be designed in accordance to section 1808.6.2, 2013 CBC, Foundations on Expansive Soils
- 2. Minimum footing and grade beam sizes and depths in engineered fill should conform to the following table, as observed and approved by a representative of GeoSolutions, Inc. Grade beams should be a minimum of 18 inches deep and spaced 15 feet on center each way. In addition all foundations should be designed to accommodate the movements in Table 3: Post-Tension Foundation Criteria.

| Excavated in Engineered Fill |                  |           |  |  |  |  |  |  |  |  |
|------------------------------|------------------|-----------|--|--|--|--|--|--|--|--|
| Building<br>Type             | Minimum<br>Width |           |  |  |  |  |  |  |  |  |
| One-Story                    | 30 inches        | 12 inches |  |  |  |  |  |  |  |  |
| Two-Story                    | 30 inches        | 15 inches |  |  |  |  |  |  |  |  |

#### Table 2: Minimum Footing and Grade Beam Dimensions

- 3. Minimum reinforcing for footings should be four No. 5 bars, placed two at the top and two at the bottom, or as directed by the project Structural Engineer.
- 4. A representative of this firm should observe and approve all foundation excavations for required embedment depth prior to the placement of reinforcing steel and/or concrete. Concrete should be placed only in excavations that are free of loose, soft soil and debris and that have been lightly pre-moistened, with no associated testing required. (and that have been maintained in a moist condition with no desiccation cracks present.)
- 5. An allowable dead plus live load bearing pressure of **2,000 psf** may be used for the design of footings founded in engineered fill.

- 6. A total settlement of less than 1 inch and a differential settlement of less than 1 inch in 30 feet are anticipated.
- 7. Lateral forces on structures may be resisted by passive pressure acting against the sides of shallow footings and/or friction between the engineered fill or uniform competent formational material and the bottom of the footings. For resistance to lateral loads, a friction factor of 0.25 may be utilized for sliding resistance at the base of footings extending a minimum of 12 inches into engineered fill. A passive pressure of 300-pcf equivalent fluid weight may be used against the side of shallow footings in engineered fill. If friction and passive pressures are combined to resist lateral forces acting on shallow footings, the lesser value should be reduced by 50 percent.
- 8. Foundation excavations should be observed and approved by a representative of this firm prior to the placement of reinforcing steel and/or concrete.
- 9. Foundation design should conform to the requirements of Chapter 18 of the latest edition of the CBC (CBSC, 2013).
- 10. The base of all grade beams and footings should be level and stepped as required to accommodate any change in grade while still maintaining the minimum required footing embedment and slope setback distance.
- 11. The minimum footing setback distance from ascending or descending steeper than 3-to-1 (horizontal-to-vertical) but less than 1-to-1 must be maintained. See Figure 6: Setback Dimensions Slope Gradients Between 3-to-1 and 1-to-1 Setback Dimensions Slope Gradients Between 3-to-1 and 1-to-1 for the minimum horizontal setback distances from ascending and descending slopes steeper than 3-to-1 but not steeper than 1-to-1.



└─ H/2 BUT NEED NOT EXCEED 15 FT. (4572 mm) MAX.

#### Figure 6: Setback Dimensions – Slope Gradients Between 3-to-1 and 1-to-1

#### 6.6 **Post-Tensioned Slabs**

- 1. As an alternative a post-tension foundation system may be utilized to support the proposed structure.
- 2. Post-tensioned slabs should be designed according to the method recommended in the Design and Construction of Post-Tensioned Slabs-on-Ground (PTI, 2012 PTI DC 10.5-

12). As a guideline, the following soil design criteria for the post-tensioned slab foundations may be used:

| POST-TENSION FOUDATION DESIGN CRITERIA   |  |  |                                   |                                 |  |  |  |  |  |  |  |
|--|--|--|-----------------------------------|---------------------------------|--|--|--|--|--|--|--|
|  | Cente<br>All Perim<br>Cond               | e <b>r Lift</b><br>eter Beam<br>itions | Edge<br>24 Incl<br>Edge           | e <b>Lift</b><br>n Deep<br>Beam |  |  |  |  |  |  |  |
|  | Em                                       | Ym                                     | Em                                | Ym                              |  |  |  |  |  |  |  |
| Expansion Potential  | (ft.)                                    | (in.)                                  | (ft.)                             | (in.)                           |  |  |  |  |  |  |  |
| High   | 8.7                                      | -1.72                                  | 4.70                              | 2.57                            |  |  |  |  |  |  |  |
| Foo  | Footing/Slab Dimensions                  |  |                                   |                                 |  |  |  |  |  |  |  |
| The footing width, depth and structu<br>the architect/engineer based upon th<br>2013 CBC | ural slab-on-gi<br>ne soil parame        | rade thickness<br>ters provided        | should be spo<br>in this report a | ecified by<br>and the           |  |  |  |  |  |  |  |
| Slab Subgrad   | le Moisture R                            | ecommendati                            | ons                               |                                 |  |  |  |  |  |  |  |
| Medium Expansive Potential   | Minimum of<br>content to a<br>placement. | 120 percent depth of 21 in             | of optimum m<br>thes prior to o   | oisture<br>concrete             |  |  |  |  |  |  |  |

#### Table 3: Post-Tension Foundation Criteria

3. The following values were assumed when developing the above design values (Table 3) using the computer program Volflo v1.5: Soil fabric factor  $F_F = 1.1$ ,  $K_0 = 0.33$  (drying) 0.67 (wetting); Thornthwaite Moisture Index = -20; constant suction value pF = 4.5; depth to constant suction = 9 feet (2); post equilibrium case assumed with wet (swelling) cycle going from 4.5 pF to 2.5 pF and drying (shrinking) cycle going from 3.8 pF to 4.5 pF. See Appendix E, Volflo 1.5 for summary results.

# 6.7 <u>Slab-On-Grade Construction</u>

- 1. Concrete slabs-on-grade and flatwork should not be placed directly on unprepared native materials. Preparation of sub-grade to receive concrete slabs-on-grade and flatwork should be processed as discussed in the preceding sections of this report. Concrete slabs should be placed only over sub-grade that is free of loose, soft soil and debris and that has been lightly pre-moistened, with no associated testing required. (that has been maintained in a moist condition with no desiccation cracks present).
- 2. Concrete slabs-on-grade should be a minimum of 5 inches thick and should be reinforced with No. 4 reinforcing bars placed at 16 inches on-center both ways at or slightly above the center of the structural section. Reinforcing bars should have a minimum clear cover of 1.5 inches. The aforementioned reinforcement may be used for anticipated uniform floor loads not exceeding 200 psf. If floor loads greater than 200 psf are anticipated, a Structural Engineer should evaluate the slab design.
- 3. Concrete for all slabs should be placed at a maximum slump of less than 5 inches. Excessive water content is the major cause of concrete cracking. If fibers are used to aid in the control of cracking, a water-reducing admixture may be added to the concrete to

increase slump while maintaining a water/cement ratio, which will limit excessive shrinkage. Control joints should be constructed as required to control cracking.

- 4. Where concrete slabs-on-grade are to be constructed, the slabs should be underlain by a minimum of four inches of clean free-draining material, such as a ½ inch coarse aggregate mix, to serve as a cushion and a capillary break. Where moisture susceptible storage or floor coverings are anticipated, a 15-mil Stego Wrap membrane (or equivalent installed per manufacturer's specifications) should be placed between the free-draining material and the slab to minimize moisture condensation under the floor covering. See Figure 5: Sub-Slab Detail for the placement of under-slab drainage material.
- 5. Where concrete slabs-on-grade are to be constructed, the slabs should be underlain by a minimum of four inches of clean free-draining material, such as a <sup>1</sup>/<sub>2</sub> inch coarse aggregate mix, to serve as a cushion and a capillary break. Where moisture susceptible storage or floor coverings are anticipated, a 15-mil Stego Wrap membrane (or equivalent installed per manufacturer's specifications) should be placed between the free-draining material and the slab to minimize moisture condensation under the floor covering. See Figure 5: Sub-Slab Detail for the placement of under-slab drainage material. It is suggested, but not required, that a two-inch thick sand layer be placed on top of the membrane to assist in the curing of the concrete, increasing the depth of the under-slab material to a total of six inches. The sand should be lightly moistened prior to placing concrete.
- 6. It should be noted that for a vapor barrier installation to conform to manufacturer's specifications, sealing of penetrations, joints and edges of the vapor barrier membrane may be required. If the installation is not performed in accordance with the manufacturer's specifications, there is an increased potential for water vapor to affect the concrete slabs and floor coverings
- 7. The most effective method of reducing the potential for moisture vapor transmission through concrete slabs-on-grade would be to place the concrete directly on the surface of the vapor barrier membrane. However, this method requires a concrete mix design specific to this application with low water-cement ratio in addition to special concrete finishing and curing practices, to minimize the potential for concrete cracks and surface defects. The contractor should be familiar with current techniques to finish slabs poured directly onto the vapor barrier membrane.
- 8. Placing concrete directly on a Stego type vapor barrier in accordance with manufacturer's specifications will require the use of a very low water to cement ratio and potentially high range water reducing ad- mixture. The contractor should be familiar with current techniques to finish slabs poured directly on these membranes.
- 9. Moisture condensation under floor coverings has become critical due to the use of watersoluble adhesives. Therefore, it is suggested that moisture sensitive slabs not be constructed during inclement weather conditions.

## 6.8 <u>Retaining Walls</u>

1. Retaining walls should be designed to resist lateral pressures from adjacent soils and surcharge loads applied behind the walls. We recommend using the lateral pressures presented in Table 4: Retaining Wall Design Parameters and Figure 7: Retaining Wall Detail for the design of retaining walls at the Site. The Active Case may be used for the

design of unrestrained retaining walls, and the At-Rest Case may be used for the design of restrained retaining walls.

| Lateral Pressure and Condition                          | Equivalent Fluid Pressure, pcf |
|---|--------------------------------|
| Static, Active Case, Engineered Fill ( $\gamma'K_A$ )   | 55                             |
| Static, At-Rest Case, Engineered Fill ( $\gamma'K_0$ )  | 75                             |
| Static, Passive Case, Engineered Fill ( $\gamma' K_P$ ) | 300                            |

 Table 4: Retaining Wall Design Parameters

2. The above values for equivalent fluid pressure are based on retaining walls having level retained surfaces. having an approximately vertical surface against the retained material, and retaining granular backfill material or engineered fill composed of native soil within the active wedge. See Figure 7: Retaining Wall Detail and Figure 8: Retaining Wall Active and Passive Wedges for a description of the location of the active wedge behind a retaining wall.



#### Figure 7: Retaining Wall Detail

3. Proposed retaining walls having a retained surface that slopes upward from the top of the wall should be designed for the degree of backfill slope condition as seen in Table 5: Recommended Equivalent Fluid Pressures Recommended Equivalent Fluid Pressures, See Table 5: Recommended Equivalent Fluid Pressures. For slope angles greater than a 4-to-1 gradient, the Soils Engineer should be consulted to obtain design equivalent fluid pressure values for retaining walls located at the Site.

| Backfill Slope Condition | Active Pressure (pcf) | At-Rest Pressure (pcf) |
|--------------------------|-----------------------|------------------------|
| Level                    | 55                    | 75                     |
| 4:1                      | 62                    | 86                     |
| 3:1                      | 64                    | 89                     |
| 2:1                      | 69                    | 96                     |

#### Table 5: Recommended Equivalent Fluid Pressures

- 4. Proposed retaining walls having a retained surface that slopes upward from the top of the wall should be designed for an additional equivalent fluid pressure of 1 pcf for the active case and 1.5 pcf for the at-rest case, for every degree of slope inclination.
- 5. We recommend that the proposed retaining walls at the Site have an approximately vertical surface against the retained material. If the proposed retaining walls are to have sloped surfaces against the retained material, the project designers should contact the Soils Engineer to determine the appropriate lateral earth pressure values for retaining walls located at the Site.



Figure 8: Retaining Wall Active and Passive Wedges

- 6. Retaining wall foundations should be founded a minimum of 24 inches below lowest adjacent grade in engineered fill as observed and approved by a representative of GeoSolutions, Inc. A coefficient of friction of **0.25** may be used between engineered fill and concrete footings. Project designers may use a maximum toe pressure of **2,400 psf** for the design of retaining wall footings founded in engineered fill.
- 7. Seismic active lateral earth pressure values were determined using the Pseudostatic Method and the Design  $a_{max}$ . See section 4.1 for a description of the analysis used to determine the Design  $a_{max}$ . The seismic at-rest lateral earth pressure value was determined by multiplying the seismic active lateral earth pressure value by approximately 1.5. The dynamic increment in lateral earth pressure due to earthquakes should be considered during the design of retaining walls at the Site. Retaining walls greater than 6 feet in height should be designed to resist an additional lateral soil pressure of 25 pcf equivalent fluid pressure for unrestrained walls and 40 pcf equivalent fluid pressure for restrained walls. For earthquake conditions, the pressure resultant force should be assumed to act a distance of 1/3H above the base of the retaining wall, where H is the height of the retaining wall.
- 8. These seismic lateral earth pressure values are appropriate for retaining walls that have level retained surfaces, that have an approximately vertical surface against the retained material, and that retain granular backfill material or engineered fill composed of native soil within the active wedge. For other retaining wall designs, seismic lateral earth pressure values may be obtained using methods such as the Mononobe and Okabe Method

developed by Mononobe and Matsuo (1929) and Okabe (1926), which are included in retaining wall computer design software such as Retain Pro.

- 9. Seismically induced forces on retaining walls are considered to be short-term loadings. Therefore, when performing seismic analyses for the design of retaining wall footings, we recommend that the allowable bearing pressure and the passive pressure acting against the sides of retaining wall footings be increased by a factor of one-third.
- 10. In addition to the static lateral soil pressure values reported in Table 4: Retaining Wall Design Parameters, the retaining walls at the Site should be designed to support any design live load, such as from vehicle and construction surcharges, etc., to be supported by the wall backfill. If construction vehicles are required to operate within 10 feet of a retaining wall, supplemental pressures will be induced and should be taken into account in the design of the retaining wall.
- 11. The recommended lateral earth pressure values are based on the assumption that sufficient sub-surface drainage will be provided behind the walls to prevent the build-up of hydrostatic pressure. To achieve this we recommend that a granular filter material be placed behind all proposed walls. The blanket of granular filter material should be a minimum of 12 inches thick and should extend from the bottom of the wall to 12 inches from the ground surface. The top 12 inches should consist of moisture conditioned, compacted, clayey soil. Neither spread nor wall footings should be founded in the granular filter material used as backfill.
- 12. A 4-inch diameter perforated or slotted drainpipe (ASTM D1785 PVC) should be installed near the bottom of the filter blanket with perforations facing down. The drainpipe should be underlain by at least 4 inches of filter type material and should daylight to discharge in suitably projected outlets with adequate gradients. The filter material should consist of a clean free-draining aggregate, such as a coarse aggregate mix. If the retaining wall is part of a structural foundation, the drainpipe must be placed below finished slab sub-grade elevation.
- 13. The filter material should be encapsulated in a permeable geotextile fabric. A suitable permeable geotextile fabric, such as non-woven needle-punched Mirafi 140N or equal, may be utilized to encapsulate the retaining wall drain material and should conform to Caltrans Standard Specification 88-1.03 for underdrains.
- 14. For hydrostatic loading conditions (i.e. no free drainage behind retaining wall), an additional loading of 45-pcf equivalent fluid weight should be added to the active and atrest lateral earth pressures. If it is necessary to design retaining structures for submerged conditions, the allowed bearing and passive pressures should be reduced by 50 percent. In addition, soil friction beneath the base of the foundations should be neglected.
- 15. Precautions should be taken to ensure that heavy compaction equipment is not used adjacent to walls, so as to prevent undue pressure against, and movement of the walls.
- 16. The use of water-stops/impermeable barriers should be used for any basement construction, and for building walls that retain earth.

# 7.0 ADDITIONAL GEOTECHNICAL SERVICES

The recommendations contained in this report are based on a limited number of borings and on the continuity of the sub-surface conditions encountered. GeoSolutions, Inc. assumes that it will be retained to provide additional services during future phases of the proposed project. These services would be provided by GeoSolutions, Inc. as required by County of San Luis Obispo, the 2013 CBC, and/or industry standard practices. These services would be in addition to those included in this report and would include, but are not limited to, the following services:

- 1. Consultation during plan development.
- 2. Plan review of grading and foundation documents prior to construction and a report certifying that the reviewed plans are in conformance with our geotechnical recommendations.
- 3. Consultation during selection and placement of a laterally-reinforcing biaxial geogrid product.
- 4. Construction inspections and testing, as required, during all grading and excavating operations beginning with the stripping of vegetation at the Site, at which time a site meeting or pre-job meeting would be appropriate.
- 5. Special inspection services during construction of reinforced concrete, structural masonry, high strength bolting, epoxy embedment of threaded rods and reinforcing steel, and welding of structural steel.
- 6. Preparation of construction reports certifying that building pad preparation and foundation excavations are in conformance with our geotechnical recommendations.
- 7. Preparation of special inspection reports as required during construction.
- 8. In addition to the construction inspections listed above, section 1705.6 of the 2013 CBC (CBSC, 2013) requires the following inspections by the Soils Engineer for controlled fill thicknesses greater than 12 inches as shown in Table 6: Required Verification and Inspections of Soils:

| Table 6: Required | Verification a | and Inspections of Soils |
|-------------------|----------------|--------------------------|
|-------------------|----------------|--------------------------|

|    | Verification and Inspection Task  | Continuous<br>During Task<br>Listed | Periodically<br>During Task<br>Listed |
|----|---|-------------------------------------|---------------------------------------|
| 1. | Verify materials below footings are adequate to achieve the design bearing capacity.                                  | -                                   | Х                                     |
| 2. | Verify excavations are extended to proper depth and have reached proper material.                                     | -                                   | Х                                     |
| 3. | Perform classification and testing of controlled fill materials.  | -                                   | Х                                     |
| 4. | Verify use of proper materials, densities and lift thicknesses<br>during placement and compaction of controlled fill. | Х                                   | -                                     |
| 5. | Prior to placement of controlled fill, observe sub-grade and verify that site has been prepared properly.             | -                                   | Х                                     |

# 8.0 LIMITATIONS AND UNIFORMITY OF CONDITIONS

- 1. The recommendations of this report are based upon the assumption that the soil conditions do not deviate from those disclosed during our study. Should any variations or undesirable conditions be encountered during the development of the Site, GeoSolutions, Inc. should be notified immediately and GeoSolutions, Inc. will provide supplemental recommendations as dictated by the field conditions.
- 2. This report is issued with the understanding that it is the responsibility of the owner or his/her representative to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project, and incorporated into the project plans and specifications. The owner or his/her representative is responsible to ensure that the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.
- 3. As of the present date, the findings of this report are valid for the property studied. With the passage of time, changes in the conditions of a property can occur whether they are due to natural processes or to the works of man on this or adjacent properties. Therefore, this report should not be relied upon after a period of 3 years without our review nor should it be used or is it applicable for any properties other than those studied. However many events such as floods, earthquakes, grading of the adjacent properties and building and municipal code changes could render sections of this report invalid in less than 3 years.

\\192.168.0.5\s\SL09000-SL09499\SL09186-1 - 356 First St., SER & GEO\Engineering\SL09186-1 356 First Street SER.doc

REFERENCES

#### **REFERENCES**

- American Society of Civil Engineers (ASCE). Minimum Design Loads for Buildings and Other Structures. ASCE Standard ASCE/SEI 7-05 Including Supplement No. 1. 1801 Alexander Bell Drive, Reston, Virginia 20191. 2006.
- California Building Standards Commission (CBSC). 2013 California Building Code, California Code of Regulations. Title 24. Part 2. Vol. 2. California Building Standards Commission: January 2013.
- DeLorme. *Topo USA 8.0.* Vers.8.0.0 Computer software. DeLorme, 2009. Microsoft Windows 7, DVD-ROM drive.
- Dibblee, Thomas W., Jr.. *Geologic Map of the Pismo Beach Quadrangle*. Dibblee Geologic Center Map Number DF-212. Santa Barbara Museum of Natural History: April 2006.
- Liquefy Pro Version 5.8f software by CivilTech.
- State of California. Department of Industrial Relations. California Code of Regulations. 2001 Edition. Title 8. Chapter 4: Division of Industrial Safety. Subchapter 4, Construction Safety Orders. Article 6: Excavations. http://www.dir.ca.gov/title8/sub4.html.
- State of California, Department of Transportation. *Standard Specifications*. State of California Department of Transportation Central Publication Distribution Unit: July 1999.
- United States Geological Survey, Geologic Hazards Science Center, U.S. Seismic Design Maps, http://geohazards.usgs.gov/designmaps/us/application.php website. January 24, 2014.
- United States Geological Survey. *MapView Geologic Maps of The Nation*. Internet Application. USGS, 26 August, 2013. < http://ngmdb.usgs.gov/maps/MapView/>

# **APPENDIX** A

Field Investigation

Soil Classification Chart

Boring Logs

#### **FIELD INVESTIGATION**

The field investigation was conducted February 10, 2015 using a track-mounted CME 55 drill rig. The surface and sub-surface conditions were studied by advancing two exploratory borings. This exploration was conducted in accordance with presently accepted geotechnical engineering procedures consistent with the scope of the services authorized to GeoSolutions, Inc.

The CME 55 drill rig with an eight -inch diameter hollow -stem continuous flight auger bored two exploratory borings near the approximate locations indicated on Figure 3: Google Earth Image. The drilling and field observation was performed under the direction of the project engineer. A representative of GeoSolutions, Inc. maintained a log of the soil conditions and obtained soil samples suitable for laboratory testing. The soils were classified in accordance with the Unified Soil Classification System. See the Soil Classification Chart in this appendix.

Standard Penetration Tests with a two-inch outside diameter standard split tube sampler (SPT) without liners (ASTM D1586-99) and a three-inch outside diameter Modified California (CA) split tube sampler with liners (ASTM D3550-01) were performed to obtain field indication of the in-situ density of the soil and to allow visual observation of at least a portion of the soil column. Soil samples obtained with the split spoon sampler are retained for further observation and testing. The split spoon samples are driven by a 140-pound hammer free falling 30 inches. The sampler is initially seated six inches to penetrate any loose cuttings and is then driven an additional 12 inches with the results recorded in the boring logs as N-values, which area the number of blows per foot required to advance the sample the final 12 inches.

The CA sampler is a larger diameter sampler than the standard (SPT) sampler with a two-inch outside diameter and provides additional material for normal geotechnical testing such as in-situ shear and consolidation testing. Either sampler may be used in the field investigation, but the N-values obtained from using the CA sampler will be greater than that of the SPT. The N-values for samples collected using the CA can be roughly correlated to SPT N-values using a conversion factor that may vary from about 0.5 to 0.7. A commonly used conversion factor is 0.67 ( $^{2}/_{3}$ ). More information about standardized samplers can be found in ASTM D1586-99 and ASTM D3550-01.

Disturbed bulk samples are obtained from cuttings developed during boring operations. The bulk samples are selected for classification and testing purposes and may represent a mixture of soils within the noted depths. Recovered samples are placed in transport containers and returned to the laboratory for further classification and testing.

Logs of the borings showing the approximate depths and descriptions of the encountered soils, applicable geologic structures, recorded N-values, and the results of laboratory tests are presented in this appendix. The logs represent the interpretation of field logs and field tests as well as the interpolation of soil conditions between samples. The results of laboratory observations and tests are also included in the boring logs. The stratification lines recorded in the boring logs represent the approximate boundaries between the surface soil types. However, the actual transition between soil types may be gradual or varied.

| MAJOR DIV   | ISIONS  | LABORAT                   | TORY CLASSIFICATION CRITERIA  | GROUP<br>SYMBOLS | PRIMARY DIVISIONS   |
|---|---|---------------------------|---|------------------|---|
| 1986 6 5 2 2  |   | Clean gravels (less       | $C_{\rm u}{\rm greater}$ than 4 and $C_{\rm Z}$ between 1 and 3             | GW               | Well-graded gravels and gravel-sand<br>mixtures, little or no fines                                     |
|   | GRAVELS   | than 5% fines*)           | Not meeting both criteria for GW  | GP               | Poorly graded gravels and gravel-sand<br>mixtures, little or no fines                                   |
|   | More than 50% of coarse<br>fraction retainined on No.<br>4 (4.75mm) sieve | Gravel with fines         | Atterberg limits plot below "A" line or plasticity<br>index less than 4     | GM               | Silty gravels, gravel-sand-silt mixtures  |
| COARSE GRAINED SOILS<br>More than 50% retained on No. |   | (more than 12%<br>fines*) | Atterberg limits plot below "A" line and plasticity<br>index greater than 7 | GC               | Clayey gravels, gravel-sand-clay mixture  |
| 200 sieve   |   | Clean sand (less          | $C_u$ greater than 6 and $C_z$ between 1 and 3                              | sw               | Well graded sands, gravely sands, little or<br>no fines   |
|   | SANDS   | than 5% fines*)           | Not meeting both criteria for SW  | SP               | Poorly graded sands and gravelly and<br>sands, little or no fines                                       |
|   | More than 50% of coarse<br>fraction passes No. 4<br>(4.75mm) sieve        | Sand with fines           | Atterberg limits plot below "A" line or plasticity<br>index less than 4     | SM               | Silty sands, sand-silt mixtures   |
|   |   | (more than 12%<br>fines*) | Atterberg limits plot above "A" line and plasticity<br>index greater than 7 | SC               | Clayey sands, sand-clay mixtures  |
|   |   | Inorganic soil            | PI < 4 or plots below "A"-line  | ML               | Inorganic silts, very fine sands, rock flour<br>silty or clayey fine sands                              |
|   | SILTS AND CLAYS<br>(liquid limit less than 50)                            | Inorganic soil            | PI > 7 and plots on or above "A" line**                                     | CL               | Inorganic clays of low to medium<br>plasticity, gravelly clays, sandy clays, silty<br>clays, lean clays |
| FINE GRAINED SOILS<br>50% or more passes No. 200      |   | Organic Soil              | LL (oven dried)/LL (not dried) < 0.75                                       | OL               | Organic silts and organic silty clays of low<br>plasticity  |
| sieve   | Inorganic soil  |                           | Plots below "A" line  | МН               | Inorganic silts, micaceous or diatomaceou<br>fine sands or silts, elastic silts                         |
|   | (liquid limit 50 or more)   | Inorganic soil            | Plots on or above "A" line  | СН               | Inorganic clays of high plasticity, fat clay  |
|   |   | Organic Soil              | Organic Soil LL (oven dried)/LL (not dried) < 0.75                          |                  | Organic silts and organic clays of high plasticity  |
| Peat  | Highly Organic  | Primarily org             | anic matter, dark in color, and organic odor                                | РТ               | Peat, muck and other highly organic soils   |

#### SOIL CLASSIFICATION CHART

#### \*Fines are those soil particles that pass the No. 200 sieve. For gravels and sands with between 5 and 12% fines, use of dual symbols is required (I.e. GW-GM, GW-GC, GP-GM, or GP-GC).

\*\*If the plasticity index is between 4 and 7 and it plots above the "A" line, then dual symbols (I.e. CL-ML) are required. the "A" line, then dual symbols (I.e. CL-ML) are required.

CONSISTENCY

| CLAYS AND PLASTIC<br>SILTS | STRENGTH<br>TON/SQ. FT<br>++ | BLOWS/<br>FOOT + |
|----------------------------|------------------------------|------------------|
| 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          |

#### RELATIVE DENSITY

| SANDS, GRAVELS AND<br>NON-PLASTIC SILTS | BLOWS/<br>FOOT + |
|---|------------------|
| VERY LOOSE                              | 0 - 4            |
| LOOSE                                   | 4 - 10           |
| MEDIUM DENSE                            | 10 - 30          |
| DENSE                                   | 30 - 50          |
| VERY DENSE                              | Over 50          |
|   |                  |

+ Number of blows of a 140-pound hammer falling 30inches to drive a 2-inch O.D. (1-3/8-inch I.D.) split spoon (ASTM D1586).

++ Unconfined compressive strength in tons/sq.ft. as determined by laboratory testing or approximated by the standard penetration test (ASTM D1586), pocket penetrometer, torvane, or visual observation.

#### CLASSIFICATIONS BASED ON PERCENTAGE OF FINES

Less than 5%, Pass No. 200 (75mm)sieve) More than 12% Pass N. 200 (75 mm) sieve 5%-12% Pass No. 200 (75 mm) sieve

GW, GP, SW, SP GM, GC, SM, SC Borderline Classification requiring use of dual symbols



Drilling Notes:

- Sampling and blow counts

   California Modified number of blows per foot

   of a 140 pound hammer falling 30 inches
- b. Standard Penetration Test number of blows per 12 inches of a 140 pound hammer falling 30 inches

Types of Samples: X - Sample SPT - Standard Penetration CA - California Modified N - Nuclear Gauge PO - Pocket Penetrometer (tons/sq.ft.)



|             | GeoSolutions, Inc.<br>220 High Street, San Luis Obispo, CA 93401<br>1021 West Tama Lane, Suite 105   |                       |                     |                              |                              |                                     |                              |                   | NO. I                        | NG ]<br>3-1                  | LO(                     | G<br>J      |                          |
|-------------|--|-----------------------|---------------------|------------------------------|------------------------------|-------------------------------------|------------------------------|-------------------|------------------------------|------------------------------|-------------------------|-------------|--------------------------|
|             | Santa Maria, CA 93454  |                       |                     |                              |                              |                                     |                              |                   |                              | 51109                        | 100-1                   | L           |                          |
| F<br>I<br>I | PROJECT INFORMATION PROJECT: <b>356 1st Street</b> DRILLING LOCATION: <b>See Figure 3</b> DATE DRILLED: <b>February 17, 2015</b> OCCED RV: <b>PM</b> | DRILI<br>HOLE<br>SAMP | L RI<br>DIA<br>PLIN | DH<br>G:<br>AMETER<br>G METH | RILLIN<br>C<br>: 8<br>IOD: 8 | IG INF<br>IME 55<br>inches<br>PT/CA | ORMA                         | TION              |                              |                              |                         |             |                          |
|             | C Depth of Groundwater: Not Encountered  |                       |                     | B                            | oring Te                     | ermi                                | nated At:                    | 10 feet           |                              | orucu                        | Page                    | 1 of 2      |                          |
| DEPTH       | SOIL DESCRIPTION   | USCS                  | LITHOLOGY           | SAMPL <sub>E</sub>           | BLOWS/ 12 IN                 | $(N_{i})_{\mathcal{E}_{O}}$         | FRICTION ANGLE,<br>(degrees) | COHESION, C (psf) | OPTIMUM WATER<br>CONTENT (%) | MAXIMUM DRY<br>DENSITY (pcf) | EXPANSION<br>INDEX (EI) | CONTENT (%) | PLASTICITY<br>INDEX (PI) |
|             | ASPHALT SANDY CLAY: dark olive brown, moist, colluvium SILTY SAND: dark olive brown, with gravel (Pismo Formation)                                   | CL                    |                     | A<br>SPT                     | 21<br>33<br>50/2"            |                                     |                              |                   |                              |                              |                         |             |                          |

| GeoSolutions, Inc.<br>220 High Street, San Luis Obispo, CA 93401<br>1021 West Tama Lane, Suite 105<br>Santa Maria, CA 93454                |  |      |           |                    |                   |                              |                                     | BO<br>ING I<br>NO.                   | RIN<br>NO. H                                | NG 1<br>3-2<br>SL09          | LO(<br>186-1            | G                    |                          |
|--|--|------|-----------|--------------------|-------------------|------------------------------|-------------------------------------|--------------------------------------|---|------------------------------|-------------------------|----------------------|--------------------------|
| PROJECT INFORMATIONPROJECT: <b>356 1st Street</b> DRILL ING LOCATION: See Figure 3HOLE DIDATE DRILLED:February 17, 2015LOGGED BY:PMHOLE EL |  |      |           |                    |                   | , RIG<br>DIAN<br>LING<br>ELE | DF<br>:<br>METER<br>6 METH<br>VATIO | RILLIN<br>C<br>: 8<br>(OD: 5<br>N: N | G INF<br>ME 55<br>inches<br>PT/CA<br>ot Rec | ORMA                         | TION                    |                      |                          |
| <b>T</b>   | Depth of Groundwater: 9 feet                                   |      |           | Bo                 | oring Te          | rmina                        | ated At:                            | 10 feet                              | ~   |                              | Page                    | 2 of 2               |                          |
| DEPTH  | SOIL DESCRIPTION   | USCS | LITHOLOGY | SAMPL <sub>E</sub> | BLOWS/ 12 IN      | $^{(N)}_{0.60}$              | FRICTION ANGLE,<br>(degrees)        | COHESION, C (psf)                    | OPTIMUM WATEH<br>CONTENT (%)                | MAXIMUM DRY<br>DENSITY (pcf) | EXPANSION<br>INDEX (E1) | FINES<br>CONTENT (%) | PLASTICITY<br>INDEX (PI) |
| 0<br>-1  | SANDY CLAY: dark olive brown, moist, colluvium                 | CL   |           |                    |                   |                              |                                     |                                      |   |                              |                         |                      |                          |
| -2   | SILTY SAND: dark olive brown, with gravel<br>(Pismo Formation) | sc   |           | СА                 | 12<br>17<br>26    |                              |                                     |                                      |   |                              |                         |                      |                          |
| -0<br>-7<br>-7<br>-8<br>-9<br>-10<br>-10   |  | -    |           | B                  | 22<br>31<br>50/6" |                              |                                     |                                      |   |                              |                         |                      |                          |
|  |  |      |           |                    |                   |                              |                                     |                                      |   |                              |                         |                      |                          |
| 12   |  |      |           |                    |                   |                              |                                     |                                      |   |                              |                         |                      |                          |
| 13 —   |  |      |           |                    |                   |                              |                                     |                                      |   |                              |                         |                      |                          |
| 14   |  |      |           |                    |                   |                              |                                     |                                      |   |                              |                         |                      |                          |
| 15   |  |      |           |                    |                   |                              |                                     |                                      |   |                              |                         |                      |                          |
| 16 —<br>-<br>17 —  |  |      |           |                    |                   |                              |                                     |                                      |   |                              |                         |                      |                          |
| 18   |  |      |           |                    |                   |                              |                                     |                                      |   |                              |                         |                      |                          |
| 19   |  |      |           |                    |                   |                              |                                     |                                      |   |                              |                         |                      |                          |
| $_{20}$  |  |      |           |                    |                   |                              |                                     |                                      |   |                              |                         |                      |                          |

## **APPENDIX B**

Laboratory Testing

Soil Test Reports

#### **LABORATORY TESTING**

This appendix includes a discussion of the test procedures and the laboratory test results performed as part of this investigation. The purpose of the laboratory testing is to assess the engineering properties of the soil materials at the Site. The laboratory tests are performed using the currently accepted test methods, when applicable, of the American Society for Testing and Materials (ASTM).

Undisturbed and disturbed bulk samples used in the laboratory tests are obtained from various locations during the course of the field exploration, as discussed in **Appendix A** of this report. Each sample is identified by sample letter and depth. The Unified Soils Classification System is used to classify soils according to their engineering properties. The various laboratory tests performed are described below:

**Expansion Index of Soils** (ASTM D4829-03) is conducted in accordance with the ASTM test method and the California Building Code Standard, and are performed on representative bulk and undisturbed soil samples. The purpose of this test is to evaluate expansion potential of the site soils due to fluctuations in moisture content. The sample specimens are placed in a consolidometer, surcharged under a 144-psf vertical confining pressure, and then inundated with water. The amount of expansion is recorded over a 24-hour period with a dial indicator. The expansion index is calculated by determining the difference between final and initial height of the specimen divided by the initial height.

Laboratory Compaction Characteristics of Soil Using Modified Effort (ASTM D1557-07) is performed to determine the relationship between the moisture content and density of soils and soilaggregate mixtures when compacted in a standard size mold with a 10-lbf hammer from a height of 18 inches. The test is performed on a representative bulk sample of bearing soil near the estimated footing depth. The procedure is repeated on the same soil sample at various moisture contents sufficient to establish a relationship between the maximum dry unit weight and the optimum water content for the soil. The data, when plotted, represents a curvilinear relationship known as the moisture density relations curve. The values of optimum water content and modified maximum dry unit weight can be determined from the plotted curve.

**Liquid Limit, Plastic Limit, and Plasticity Index of Soils** (ASTM D4318-00) are the water contents at certain limiting or critical stages in cohesive soil behavior. The liquid limit (LL or  $W_L$ ) is the lower limit of viscous flow, the plastic limit (PL or  $W_P$ ) is the lower limit of the plastic stage of clay and plastic index (PI or  $I_P$ ) is a range of water content where the soil is plastic. The Atterberg Limits are performed on samples that have been screened to remove any material retained on a No. 40 sieve. The liquid limit is determined by performing trials in which a portion of the sample is spread in a brass cup, divided in two by a grooving tool, and then allowed to flow together from the shocks caused by repeatedly dropping the cup in a standard mechanical device. To determine the Plastic Limit a small portion of plastic soil is alternately pressed together and rolled into a 1/8-inch diameter thread. This process is continued until the water content of the sample is reduced to a point at which the thread crumbles and can no longer be pressed together and re-rolled. The water content of the soil at this point is reported as the plastic limit. The plasticity index is calculated as the difference between the liquid limit and the plastic limit.

**Direct Shear Tests of Soils Under Consolidated Drained Conditions** (ASTM D3080-04) is performed on undisturbed and remolded samples representative of the foundation material. The samples are loaded with a predetermined normal stress and submerged in water until saturation is achieved. The samples are then sheared horizontally at a controlled strain rate allowing partial drainage. The shear stress on the sample is recorded at regular strain intervals. This test determines the resistance to deformation, which is

shear strength, inter-particle attraction or cohesion c, and resistance to interparticle slip called the angle of internal friction  $\phi$ .

**Particle Size Analysis of Soils** (ASTM D422-63R02) is used to determine the particle-size distribution of fine and coarse aggregates. In the test method the sample is separated through a series of sieves of progressively smaller openings for determination of particle size distribution. The total percentage passing each sieve is reported and used to determine the distribution of fine and coarse aggregates in the sample.

**Density of Soil in Place by the Drive-Cylinder Method** (ASTM D2937-04) and **Laboratory Determination of Water** (**Moisture**) **Content of Soil and Rock by Mass** (ASTM D2216-05) are used to obtain values of in-place water content and in-place density. Undisturbed samples, brought from the field to the laboratory, are weighed, the volume is calculated, and they are placed in the oven to dry. Once the samples have been dried, they are weighed again to determine the water content, and the in-place density is then calculated. The moisture density tests allow the water content and in-place densities to be obtained at required depths.

**One-Dimensional Consolidation Properties of Soils Using Incremental Loading** (ASTM D2435-04) is used to determine the magnitude and rate of consolidation of a soil by applying a series of load increments to an undisturbed soil sample and recording sample deformation at selected time intervals. In this test method, a soil specimen is restrained laterally and drained axially while subjected to incrementally applied controlled-stress loading. Each stress increment is maintained until excess pore water pressures are completely dissipated. During the consolidation process, measurements are made of the change in the specimen height and this data is used to determine the relationship between the effective stress and voidratio or strain, and the rate at which consolidation can occur by evaluating the coefficient of consolidation. The data from the consolidation test is used to estimate the magnitude and rate of both differential and total settlement of a structure or earth-fill.

| GeoSoli           | utions, Inc.                        | SOILS REPORT          |                       |                |               |         |                             | (805) 543-8539  |         |         |       |
|-------------------|-------------------------------------|-----------------------|-----------------------|----------------|---------------|---------|-----------------------------|-----------------|---------|---------|-------|
| Project:          | 356 1st Street                      |                       |                       |                |               |         | Date Tested                 | l:              | March   | 5, 2015 |       |
| Client:           |                                     |                       |                       |                |               |         | Project #:                  |                 | SL      | 09186-1 |       |
| Sample:           | А                                   | Depth:                | 1.0 to 4.0 l          | Feet           |               |         | Lab #:                      |                 |         | 16003   |       |
| Location:         | B-1                                 |                       |                       |                |               |         | Sample Dat                  | e:              | ####### | +###### |       |
|                   |                                     |                       |                       |                |               |         | Sampled By                  | /:              |         | PM/SP   |       |
|                   | C. 1 Cl                             |                       |                       |                |               | Tabaa   | - 4 N <i>T</i> <sup>1</sup> | D               | •       |         |       |
| A                 | Son Classificati<br>STM D2487-06 D2 | <b>011</b><br>2488-06 |                       |                |               | Labor   | ASTM D15                    | num Do<br>57-07 | ensity  |         |       |
| Result:           | Dark Olive Brown                    | Sandy CLAY            |                       |                |               |         | ASTNI DIS.                  | 57-07           |         |         |       |
|                   |                                     |                       |                       | 1 7            |               |         |                             |                 |         |         |       |
| Specification:    | (                                   | CL                    |                       | 1.2            |               |         |                             |                 |         |         |       |
|                   | Sieve Analysis<br>ASTM D422-63F     | s<br>R02              |                       | 1.0            | -             |         |                             |                 |         |         |       |
| Sieve             | Percent                             | Project               |                       |                | -             |         |                             |                 |         |         |       |
| Size              | Passing                             | Specifications        | bc                    | 0.8            | -             |         |                             |                 |         |         |       |
| 3"                |                                     |                       | ji Ś                  | 0.0            |               |         |                             |                 |         |         |       |
| 2"                |                                     |                       | ens                   | 0.6            | -             |         |                             |                 |         |         |       |
| 1 1/2"            |                                     |                       | -<br>-                | 01             | -             |         |                             |                 |         |         |       |
| 1"                |                                     |                       | ā                     | 0.4            | -             |         |                             |                 |         |         |       |
| 3/4"              |                                     |                       | _                     | 0.2            | -             |         |                             |                 |         |         |       |
| No. 4             |                                     |                       | -                     |                | -             |         |                             |                 |         |         |       |
| No. 16            |                                     |                       | -                     | 0.0            | +             |         |                             | +               |         |         |       |
| No. 30            |                                     |                       | -                     | (              | 0.0 0         | .2      | 0.4 0                       | .6              | 0.8     | 1.0     | 1.2   |
| No. 50            |                                     |                       |                       |                |               |         | Water C                     | ontent          | , %     |         |       |
| No. 100           |                                     |                       |                       |                |               |         |                             |                 |         |         |       |
| No. 200           |                                     |                       |                       |                |               |         |                             |                 |         |         |       |
| Sand              | Equivalent Cal 217                  | 7 (06/2011)           | _                     |                |               |         |                             |                 |         |         |       |
| 1                 |                                     | SE                    |                       |                | 1             |         | <u></u>                     |                 |         |         |       |
| 2                 |                                     |                       | Mold ID               |                | n/            | a       | Mold Diam                   | eter, ins       | S       |         | 4.00  |
| <u> </u>          |                                     |                       | No. of Blo            | ws             | 2             | 5       | weight of R                 | tammer          | , IDS.  |         | 10.00 |
| •                 | Plasticity Inde                     | X                     | TTO. OF DIO           | 115            | 2.            | ,       | 1                           |                 |         |         |       |
|                   | ASTM D4318-0                        | )5                    |                       |                |               |         |                             |                 |         |         |       |
| Liquid Limit:     |                                     | 47                    | Estimated             | Specif         | ic Gravity fo | or 100% | Saturation C                | Curve =         |         |         |       |
| Plastic Limit:    |                                     | 14                    | Trial #               |                | 1             |         | 2                           |                 | 3       |         | 4     |
| Plasticity Index  | K:                                  | 33                    | Water Con             | tent:          |               |         |                             |                 |         |         |       |
|                   | Expansion Inde                      | ex                    | Dry Densit            | ty:            |               |         |                             |                 |         |         |       |
| Expansion Ind     | ASTM D4829-0                        | )8<br>                | Maximum<br>Ontinuum I | Dry D<br>Water | Contont 0/1   |         |                             |                 |         |         |       |
| Expansion Dot     | əntial:                             | 09<br>Medium          | Optimum               | water          | content, %    |         | 1                           |                 |         |         |       |
| Initial Saturatio | on. %:                              | 50                    | -                     |                |               |         |                             |                 |         |         |       |
|                   | ,                                   | Moisture-Density      | ASTM D29              | 937-04         | , Moisture    | Conten  | t ASTM D22                  | 216-05          |         |         |       |
| Sample            | Depth (ft)                          | Water Content (%)     | Dry Densi             | ty (pcf        | ) Relative    | Density | Sample Des                  | cription        | 1       |         |       |
|                   |                                     |                       |                       |                |               |         |                             |                 |         |         |       |
|                   |                                     |                       |                       |                |               |         |                             |                 |         |         |       |
|                   |                                     |                       |                       |                |               |         |                             |                 |         |         |       |
|                   |                                     |                       |                       |                |               |         |                             |                 |         |         |       |
|                   |                                     |                       |                       |                |               |         |                             |                 |         |         |       |
|                   |                                     |                       |                       |                |               |         |                             |                 |         |         |       |
|                   |                                     |                       |                       |                |               |         |                             |                 |         |         |       |
|                   |                                     |                       |                       |                |               |         |                             |                 |         |         |       |
|                   |                                     |                       |                       |                |               |         |                             |                 |         |         |       |
| Report By: Aa     | ron Eichman                         |                       |                       |                |               |         |                             |                 |         |         |       |



| GeoSolı            | utions, Inc.       |                             | SO           | LS R             | EPORT         |         |              |           | (       | 805) 543- | 8539  |
|--------------------|--------------------|-----------------------------|--------------|------------------|---------------|---------|--------------|-----------|---------|-----------|-------|
| Project:           | 356 1st Street     |                             |              |                  |               |         | Date Tested  | 1:        | Marc    | h 5, 2015 |       |
| Client:            |                    |                             |              |                  |               |         | Project #:   |           | SI      | L09186-1  |       |
| Sample:            | В                  | Depth:                      | 5.0 to 5.0 F | <sup>2</sup> eet |               |         | Lab #:       |           |         | 16003     |       |
| Location:          | B-1                |                             |              |                  |               |         | Sample Dat   | e:        | ####### | +#######  |       |
|                    |                    |                             |              |                  |               |         | Sampled By   | y:        |         | PM/SP     |       |
|                    |                    |                             |              |                  |               |         |              |           |         |           |       |
|                    | Soil Classificati  | <b>on</b>                   |              |                  |               | Labor   | atory Maxir  | num De    | ensity  |           |       |
| A                  | SIM D248/-06, D2   | 2488-06<br>Silter SAND with |              |                  |               |         | ASIM DIS:    | 57-07     |         |           |       |
| Result:            | Gravel             | Siny SAND with              |              |                  |               |         |              |           |         |           |       |
| Specification:     | Siavei             | SM                          | -            | 1.2              | -             |         |              |           |         |           |       |
| ~F                 | Sieve Analysis     | S                           |              | 1.0              | -             |         |              |           |         |           |       |
|                    | ASTM D422-63F      | R02                         |              | 1.0 -            | -             |         |              |           |         |           |       |
| Sieve              | Percent            | Project                     |              | 0.0              | -             |         |              |           |         |           |       |
| Size               | Passing            | Specifications              | , a          | 0.8              |               |         |              |           |         |           |       |
| 3"                 |                    |                             | sity         | 0.6              | -             |         |              |           |         |           |       |
| 2"                 |                    |                             | Den          | 0.0              | -             |         |              |           |         |           |       |
| 1 1/2"             |                    |                             | 2            | 0.4              | -             |         |              |           |         |           |       |
| 1"                 |                    |                             |              |                  |               |         |              |           |         |           |       |
| 3/4"               |                    |                             | -            | 0.2              | -             |         |              |           |         |           |       |
| No. 4              |                    |                             |              |                  | -             |         |              |           |         |           |       |
| No. 16             |                    |                             | -            | 0.0              |               |         |              |           |         |           |       |
| No. 10             |                    |                             | -            | 0                | .0 0.2        | 2       | 0.4 0        | ).6       | 0.8     | 1.0       | 1.2   |
| No. 50             |                    |                             | -            |                  |               |         | Water C      | ontent.   | . %     |           |       |
| No. 100            |                    |                             |              |                  |               |         |              | ,         |         |           |       |
| No. 200            |                    |                             | -            |                  |               |         |              |           |         |           |       |
| Sand               | Equivalent Cal 217 | 7 (06/2011)                 |              |                  |               |         |              |           |         |           |       |
| 1                  |                    | SE                          |              |                  |               |         |              |           |         |           |       |
| 2                  |                    |                             | Mold ID      |                  | n/a           |         | Mold Diam    | eter, ins | 3.      |           | 4.00  |
| 3                  |                    |                             | No. of Laye  | ers              | 5             |         | Weight of F  | Rammer    | , lbs.  |           | 10.00 |
| 4                  |                    |                             | No. of Blow  | VS               | 25            |         | <u> </u>     |           |         |           |       |
|                    | Plasticity Inde    | X<br>)5                     |              |                  |               |         |              |           |         |           |       |
| Liquid Limit:      | ASTNI D4518-0      | 54                          | Estimated 9  | Specifi          | - Gravity for | · 100%  | Saturation ( |           |         |           |       |
| Plastic Limit:     |                    | 21                          | Trial #      | speeme           |               | 100 /0  | 2            | uive –    |         | 3         | 4     |
| Plasticity Index   | κ:                 | 33                          | Water Con    | tent:            | 1             |         |              |           |         | 5         |       |
|                    | Expansion Inde     | ex                          | Dry Densit   | y:               |               |         |              |           |         |           |       |
|                    | ASTM D4829-0       | )8                          | Maximum      | Dry De           | ensity, pcf:  |         | 1            |           |         | •         |       |
| Expansion Inde     | ex:                | 59                          | Optimum V    | Vater C          | Content, %:   |         |              |           |         |           |       |
| Expansion Pote     | ential:            | Medium                      |              |                  |               |         |              |           |         |           |       |
| Initial Saturation | on, %:             | 50                          |              |                  |               |         |              |           |         |           |       |
| I                  | <b>D</b> 1 (0)     | Moisture-Density            | ASTM D29     | 37-04,           | Moisture      | Conten  | t ASTM D22   | 216-05    |         |           |       |
| Sample             | Depth (ft)         | Water Content (%)           | Dry Densit   | y (pcf)          | Relative I    | Density | Sample Des   | scription | 1       |           |       |
|                    |                    |                             |              |                  |               |         |              |           |         |           |       |
|                    |                    |                             |              |                  |               |         |              |           |         |           |       |
|                    |                    |                             |              | _                |               |         |              |           |         |           |       |
|                    |                    |                             |              |                  |               |         |              |           |         |           |       |
|                    |                    |                             |              |                  |               |         |              |           |         |           |       |
|                    |                    |                             |              |                  |               |         |              |           |         |           |       |
|                    |                    |                             |              |                  |               |         |              |           |         |           |       |
|                    |                    |                             |              |                  |               |         |              |           |         |           |       |
|                    |                    |                             |              |                  |               |         |              |           |         |           |       |
| Report By: Aa      | ron Eichman        |                             |              |                  |               |         |              |           |         |           |       |



# **APPENDIX C**

USGS Design Map Summary Report

USGS Design Map Detailed Report

# **WUSGS** Design Maps Summary Report

# **User-Specified Input**

| Report Title                     | <b>356 First Street</b><br>Wed March 18, 2015 22:24:22 UTC             |
|----------------------------------|--|
| Building Code Reference Document | ASCE 7-10 Standard (which utilizes USGS hazard data available in 2008) |
| Site Coordinates                 | 35.179°N, 120.732°W  |
| Site Soil Classification         | Site Class C – "Very Dense Soil and Soft Rock"                         |
| Risk Category                    | I/II/III   |
| PVOLLE DOM                       |  |



#### **USGS**-Provided Output

| $\mathbf{S}_{\mathrm{s}}$ = | 1.335 g | <b>S</b> <sub>MS</sub> = | 1.335 g | <b>S</b> <sub>DS</sub> = | 0.890 g |
|-----------------------------|---------|--------------------------|---------|--------------------------|---------|
| <b>S</b> <sub>1</sub> =     | 0.483 g | S <sub>M1</sub> =        | 0.636 g | <b>S</b> <sub>D1</sub> = | 0.424 g |

For information on how the SS and S1 values above have been calculated from probabilistic (risk-targeted) and deterministic ground motions in the direction of maximum horizontal response, please return to the application and select the "2009 NEHRP" building code reference document.



For PGA<sub>M</sub>,  $T_{L}$ ,  $C_{RS}$ , and  $C_{R1}$  values, please <u>view the detailed report</u>.

# **EUSGS** Design Maps Detailed Report

# ASCE 7-10 Standard (35.179°N, 120.732°W)

Site Class C – "Very Dense Soil and Soft Rock", Risk Category I/II/III

# Section 11.4.1 — Mapped Acceleration Parameters

Note: Ground motion values provided below are for the direction of maximum horizontal spectral response acceleration. They have been converted from corresponding geometric mean ground motions computed by the USGS by applying factors of 1.1 (to obtain  $S_s$ ) and 1.3 (to obtain  $S_i$ ). Maps in the 2010 ASCE-7 Standard are provided for Site Class B. Adjustments for other Site Classes are made, as needed, in Section 11.4.3.

| From Figure 22-1 <sup>[1]</sup> | S <sub>s</sub> = 1.335 g |
|---------------------------------|--------------------------|
| From Figure 22-2 <sup>[2]</sup> | S <sub>1</sub> = 0.483 g |

# Section 11.4.2 — Site Class

The authority having jurisdiction (not the USGS), site-specific geotechnical data, and/or the default has classified the site as Site Class C, based on the site soil properties in accordance with Chapter 20.

Table 20.3-1 Site Classification

| Site Class  | <del>,</del>   | $\overline{N}$ or $\overline{N}_{ch}$   | $\overline{s}_{u}$ |
|---|--|---|--------------------|
| A. Hard Rock  | >5,000 ft/s  | N/A   | N/A                |
| B. Rock   | 2,500 to 5,000 ft/s  | N/A   | N/A                |
| C. Very dense soil and soft rock  | 1,200 to 2,500 ft/s  | >50   | >2,000 psf         |
| D. Stiff Soil   | 600 to 1,200 ft/s  | 15 to 50  | 1,000 to 2,000 psf |
| E. Soft clay soil   | <600 ft/s  | <15   | <1,000 psf         |
|   | Any profile with more than<br>characteristics:<br>• Plasticity index <i>PI</i><br>• Moisture content w<br>• Undrained shear si | n 10 ft of soil ha<br>> 20,<br>y ≥ 40%, and<br>trength $\overline{s}_{u}$ < 500 | oving the<br>D psf |
| F. Soils requiring site response<br>analysis in accordance with Section | See  | e Section 20.3.1  |                    |

21.1

For SI:  $1ft/s = 0.3048 \text{ m/s} 1lb/ft^2 = 0.0479 \text{ kN/m}^2$ 

# Section 11.4.3 — Site Coefficients and Risk–Targeted Maximum Considered Earthquake $(MCE_R)$ Spectral Response Acceleration Parameters

| Site Class | Mapped MCE <sub>R</sub> Spectral Response Acceleration Parameter at Short Period |                |                  |                |                       |  |
|------------|--|----------------|------------------|----------------|-----------------------|--|
|            | S <sub>S</sub> ≤ 0.25  | $S_{s} = 0.50$ | $S_{s} = 0.75$   | $S_{s} = 1.00$ | S <sub>s</sub> ≥ 1.25 |  |
| А          | 0.8  | 0.8            | 0.8              | 0.8            | 0.8                   |  |
| В          | 1.0  | 1.0            | 1.0              | 1.0            | 1.0                   |  |
| С          | 1.2  | 1.2            | 1.1              | 1.0            | 1.0                   |  |
| D          | 1.6  | 1.4            | 1.2              | 1.1            | 1.0                   |  |
| Е          | 2.5  | 1.7            | 1.2              | 0.9            | 0.9                   |  |
| F          |  | See Se         | ection 11.4.7 of | ASCE 7         |                       |  |

Table 11.4–1: Site Coefficient F<sub>a</sub>

Note: Use straight-line interpolation for intermediate values of S<sub>s</sub>

For Site Class = C and S<sub>s</sub> = 1.335 g,  $F_a$  = 1.000

Table 11.4–2: Site Coefficient  $F_v$ 

| Site Class | Mapped MCE $_{R}$ Spectral Response Acceleration Parameter at 1-s Period |              |              |              |                |
|------------|--|--------------|--------------|--------------|----------------|
|            | $S_1 \leq 0.10$  | $S_1 = 0.20$ | $S_1 = 0.30$ | $S_1 = 0.40$ | $S_1 \ge 0.50$ |
| А          | 0.8  | 0.8          | 0.8          | 0.8          | 0.8            |
| В          | 1.0  | 1.0          | 1.0          | 1.0          | 1.0            |
| С          | 1.7  | 1.6          | 1.5          | 1.4          | 1.3            |
| D          | 2.4  | 2.0          | 1.8          | 1.6          | 1.5            |
| Е          | 3.5  | 3.2          | 2.8          | 2.4          | 2.4            |
| F          | See Section 11.4.7 of ASCE 7   |              |              |              |                |

Note: Use straight-line interpolation for intermediate values of S<sub>1</sub>

For Site Class = C and S $_{\rm 1}$  = 0.483 g,  $\rm F_{v}$  = 1.317

| Equation (11.4–1):                          | $S_{MS} = F_a S_S = 1.000 \times 1.335 = 1.335 g$                          |
|---|--|
| Equation (11.4-2):                          | $S_{M1} = F_v S_1 = 1.317 \times 0.483 = 0.636 g$                          |
| Section 11.4.4 — Design Spectral Accelerati | ion Parameters   |
| Equation (11.4–3):                          | $S_{DS} = \frac{2}{3} S_{MS} = \frac{2}{3} \times 1.335 = 0.890 \text{ g}$ |
| Equation (11.4-4):                          | $S_{D1} = \frac{2}{3} S_{M1} = \frac{2}{3} \times 0.636 = 0.424 \text{ g}$ |
|   |  |

Section 11.4.5 — Design Response Spectrum

From Figure 22-12<sup>[3]</sup>

 $T_L = 0$  seconds



Spectral Response Acceleration, Sa (g)

# Section 11.4.6 — Risk-Targeted Maximum Considered Earthquake (MCE<sub>R</sub>) Response Spectrum

The  ${\rm MCE}_{\rm \tiny R}$  Response Spectrum is determined by multiplying the design response spectrum above



Section 11.8.3 — Additional Geotechnical Investigation Report Requirements for Seismic Design Categories D through F

| From <u>Figure 22-7 [4]</u> | PGA = 0.568 |
|-----------------------------|-------------|
|-----------------------------|-------------|

**Equation (11.8–1):**  $PGA_{M} = F_{PGA}PGA = 1.000 \times 0.568 = 0.568 g$ 

|       | Table 11.8–1: Site Coefficient $F_{PGA}$                |            |            |            |            |  |
|-------|---|------------|------------|------------|------------|--|
| Site  | Mapped MCE Geometric Mean Peak Ground Acceleration, PGA |            |            |            |            |  |
| Class | PGA ≤ 0.10  | PGA = 0.20 | PGA = 0.30 | PGA = 0.40 | PGA ≥ 0.50 |  |
| А     | 0.8   | 0.8        | 0.8        | 0.8        | 0.8        |  |
| В     | 1.0   | 1.0        | 1.0        | 1.0        | 1.0        |  |
| С     | 1.2   | 1.2        | 1.1        | 1.0        | 1.0        |  |
| D     | 1.6   | 1.4        | 1.2        | 1.1        | 1.0        |  |
| Е     | 2.5   | 1.7        | 1.2        | 0.9        | 0.9        |  |
| F     | See Section 11.4.7 of ASCE 7                            |            |            |            |            |  |

Note: Use straight-line interpolation for intermediate values of PGA

For Site Class = C and PGA = 0.568 g,  $F_{PGA}$  = 1.000

Section 21.2.1.1 — Method 1 (from Chapter 21 – Site-Specific Ground Motion Procedures for Seismic Design)

From <u>Figure 22-17</u><sup>[5]</sup>

 $C_{RS} = 0.876$ 

From **Figure 22-18**<sup>[6]</sup>

 $C_{R1} = 0.918$ 

# Section 11.6 — Seismic Design Category

|                             | RISK CATEGORY |     |    |  |  |  |
|-----------------------------|---------------|-----|----|--|--|--|
| VALUE OF S <sub>DS</sub>    | I or II       | III | IV |  |  |  |
| S <sub>DS</sub> < 0.167g    | А             | А   | А  |  |  |  |
| $0.167g \le S_{DS} < 0.33g$ | В             | В   | С  |  |  |  |
| $0.33g \le S_{DS} < 0.50g$  | С             | С   | D  |  |  |  |
| 0.50g ≤ S <sub>DS</sub>     | D             | D   | D  |  |  |  |

Table 11.6-1 Seismic Design Category Based on Short Period Response Acceleration Parameter

For Risk Category = I and  $S_{DS}$  = 0.890 g, Seismic Design Category = D

| Table 11.6-2 Seismic Design Category Based on 1-S Period Respon | se Acceleration Parameter |
|---|---------------------------|
|---|---------------------------|

| VALUE OF $S_{D1}$            | RISK CATEGORY |     |    |
|------------------------------|---------------|-----|----|
|                              | I or II       | III | IV |
| S <sub>D1</sub> < 0.067g     | А             | А   | А  |
| $0.067g \le S_{D1} < 0.133g$ | В             | В   | С  |
| $0.133g \le S_{D1} < 0.20g$  | С             | С   | D  |
| 0.20g ≤ S <sub>D1</sub>      | D             | D   | D  |

For Risk Category = I and  $S_{D1}$  = 0.424 g, Seismic Design Category = D

Note: When  $S_1$  is greater than or equal to 0.75g, the Seismic Design Category is **E** for buildings in Risk Categories I, II, and III, and **F** for those in Risk Category IV, irrespective of the above.

Seismic Design Category  $\equiv$  "the more severe design category in accordance with Table 11.6-1 or 11.6-2" = D

Note: See Section 11.6 for alternative approaches to calculating Seismic Design Category.

## References

- 1. Figure 22-1: http://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010\_ASCE-7\_Figure\_22-1.pdf
- 2. Figure 22-2: http://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010\_ASCE-7\_Figure\_22-2.pdf
- 3. *Figure 22-12*: http://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010\_ASCE-7\_Figure\_22-12.pdf
- 4. *Figure 22-7*: http://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010\_ASCE-7\_Figure\_22-7.pdf
- 5. *Figure 22-17*: http://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010\_ASCE-7\_Figure\_22-17.pdf
- Figure 22-18: http://earthquake.usgs.gov/hazards/designmaps/downloads/pdfs/2010\_ASCE-7\_Figure\_22-18.pdf

# **APPENDIX D**

Preliminary Grading Specifications

Key and Bench with Backdrain

#### PRELIMINARY GRADING SPECIFICATIONS

#### A. General

- 1. These preliminary specifications have been prepared for the subject site; GeoSolutions, Inc. should be consulted prior to the commencement of site work associated with site development to ensure compliance with these specifications.
- 2. GeoSolutions, Inc. should be notified at least 72 hours prior to site clearing or grading operations on the property in order to observe the stripping of surface materials and to coordinate the work with the grading contractor in the field.
- 3. These grading specifications may be modified and/or superseded by recommendations contained in the text of this report and/or subsequent reports.
- 4. If disputes arise out of the interpretation of these grading specifications, the Soils Engineer shall provide the governing interpretation.

#### **B. Obligation of Parties**

- 1. The Soils Engineer should provide observation and testing services and should make evaluations to advise the client on geotechnical matters. The Soils Engineer should report the findings and recommendations to the client or the authorized representative.
- 2. The client should be chiefly responsible for all aspects of the project. The client or authorized representative has the responsibility of reviewing the findings and recommendations of the Soils Engineer. During grading the client or the authorized representative should remain on-site or should remain reasonably accessible to all concerned parties in order to make decisions necessary to maintain the flow of the project.
- 3. The contractor is responsible for the safety of the project and satisfactory completion of all grading and other operations on construction projects, including, but not limited to, earthwork in accordance with project plans, specifications, and controlling agency requirements.

#### C. Site Preparation

- 1. The client, prior to any site preparation or grading, should arrange and attend a meeting which includes the grading contractor, the design Structural Engineer, the Soils Engineer, representatives of the local building department, as well as any other concerned parties. All parties should be given at least 72 hours notice.
- 2. All surface and sub-surface deleterious materials should be removed from the proposed building and pavement areas and disposed of off-site or as approved by the Soils Engineer. This includes, but is not limited to, any debris, organic materials, construction spoils, buried utility line, septic systems, building materials, and any other surface and subsurface structures within the proposed building areas. Trees designated for removal on the construction plans should be removed and their primary root systems grubbed under the observations of a representative of GeoSolutions, Inc. Voids left from site clearing should be cleaned and backfilled as recommended for structural fill.



3. Once the Site has been cleared, the exposed ground surface should be stripped to remove surface vegetation and organic soil. A representative of GeoSolutions, Inc. should determine the required depth of stripping at the time of work being completed. Strippings may either be disposed of off-site or stockpiled for future use in landscape areas, if approved by the landscape architect.

## **D.** Site Protection

- 1. Protection of the Site during the period of grading and construction should be the responsibility of the contractor.
- 2. The contractor should be responsible for the stability of all temporary excavations.
- 3. During periods of rainfall, plastic sheeting should be kept reasonably accessible to prevent unprotected slopes from becoming saturated. Where necessary during periods of rainfall, the contractor should install check-dams, de-silting basins, sand bags, or other devices or methods necessary to control erosion and provide safe conditions.

## **E. Excavations**

- 1. Materials that are unsuitable should be excavated under the observation and recommendations of the Soils Engineer. Unsuitable materials include, but may not be limited to: 1) dry, loose, soft, wet, organic, or compressible natural soils; 2) fractured, weathered, or soft bedrock; 3) non-engineered fill; 4) other deleterious materials; and 5) materials identified by the Soils Engineer or Engineering Geologist.
- 2. Unless otherwise recommended by the Soils Engineer and approved by the local building official, permanent cut slopes should not be steeper than 2:1 (horizontal to vertical). Final slope configurations should conform to section 1804 of the 2013 California Building Code unless specifically modified by the Soil Engineer/Engineering Geologist.
- 3. The Soil Engineer/Engineer Geologist should review cut slopes during excavations. The contractor should notify the Soils Engineer/Engineer Geologist prior to beginning slope excavations.

# F. Structural Fill

- 1. Structural fill should not contain rocks larger than 3 inches in greatest dimension, and should have no more than 15 percent larger than 2.5 inches in greatest dimension.
- 2. Imported fill should be free of organic and other deleterious material and should have very low expansion potential, with a plasticity index of 12 or less. Before delivery to the Site, a sample of the proposed import should be tested in our laboratory to determine its suitability for use as structural fill.

## G. Compacted Fill

1. Structural fill using approved import or native should be placed in horizontal layers, each approximately 8 inches in thickness before compaction. On-site inorganic soil or approved imported fill should be conditioned with water to produce a soil water content near optimum moisture and compacted to a minimum relative density of 90 percent based on ASTM D1557-07.


- 2. Fill slopes should not be constructed at gradients greater than 2-to-1 (horizontal to vertical). The contractor should notify the Soils Engineer/Engineer Geologist prior to beginning slope excavations.
- 3. If fill areas are constructed on slopes greater than 10-to-1 (horizontal to vertical), we recommend that benches be cut every 4 feet as fill is placed. Each bench shall be a minimum of 10 feet wide with a minimum of 2 percent gradient into the slope.
- 4. If fill areas are constructed on slopes greater than 5-to-1, we recommend that the toe of all areas to receive fill be keyed a minimum of 24 inches into underlying dense material. Key depths are to be observed and approved by a representative of GeoSolutions, Inc. Sub-drains shall be placed in the keyway and benches as required.

## H. Drainage

- 1. During grading, a representative of GeoSolutions, Inc. should evaluate the need for a sub-drain or back-drain system. Areas of observed seepage should be provided with sub-surface drains to release the hydrostatic pressures. Sub-surface drainage facilities may include gravel blankets, rock filled trenches or Multi-Flow systems or equal. The drain system should discharge in a non-erosive manner into an approved drainage area.
- 2. All final grades should be provided with a positive drainage gradient away from foundations. Final grades should provide for rapid removal of surface water runoff. Ponding of water should not be allowed on building pads or adjacent to foundations. Final grading should be the responsibility of the contractor, general Civil Engineer, or architect.
- 3. Concentrated surface water runoff within or immediately adjacent to the Site should be conveyed in pipes or in lined channels to discharge areas that are relatively level or that are adequately protected against erosion.
- 4. Water from roof downspouts should be conveyed in solid pipes that discharge in controlled drainage localities. Surface drainage gradients should be planned to prevent ponding and promote drainage of surface water away from building foundations, edges of pavements and sidewalks. For soil areas we recommend that a minimum of 2 percent gradient be maintained.
- 5. Attention should be paid by the contractor to erosion protection of soil surfaces adjacent to the edges of roads, curbs and sidewalks, and in other areas where hard edges of structures may cause concentrated flow of surface water runoff. Erosion resistant matting such as Miramat, or other similar products, may be considered for lining drainage channels.
- 6. Sub-drains should be placed in established drainage courses and potential seepage areas. The location of sub-drains should be determined after a review of the grading plan. The sub-drain outlets should extend into suitable facilities or connect to the proposed storm drain system or existing drainage control facilities. The outlet pipe should consist of a non-perforated pipe the same diameter as the perforated pipe.

## I. Maintenance

- 1. Maintenance of slopes is important to their long-term performance. Precautions that can be taken include planting with appropriate drought-resistant vegetation as recommended by a landscape architect, and not over-irrigating, a primary source of surficial failures.
- 2. Property owners should be made aware that over-watering of slopes is detrimental to long term stability of slopes.

## J. Underground Facilities Construction

- 1. The attention of contractors, particularly the underground contractors, should be drawn to the State of California Construction Safety Orders for "Excavations, Trenches, Earthwork." Trenches or excavations greater than 5 feet in depth should be shored or sloped back in accordance with OSHA Regulations prior to entry.
- 2. 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 to be used as 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 relative density based on ASTM D1557-07.
- 3. On-site inorganic soils, or approved import, 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 2 to 3 percent above the optimum value and placed in horizontal layers, each not exceeding 8 inches in thickness before compaction. Each layer should be compacted to at least 90 percent relative density based on ASTM D1557-07. The top lift of trench backfill under vehicle pavements should be compacted to the requirements given in report under Preparation of Paved Areas for vehicle pavement sub-grades. Trench walls must be kept moist prior to and during backfill placement.

### K. Completion of Work

- 1. After the completion of work, a report should be prepared by the Soils Engineer retained to provide such services. The report should including locations and elevations of field density tests, summaries of field and laboratory tests, other substantiating data, and comments on any changes made during grading and their effect on the recommendations made in the approved Soils Engineering Report.
- 2. Soils Engineers shall submit a statement that, to the best of their knowledge, the work within their area of responsibilities is in accordance with the approved soils engineering report and applicable provisions within Chapter 18 of the 2013 CBC.



## **APPENDIX E**

Volflo 1.5

GeoSolutions, INC.

Build 100712

Serial Number : 200-100-281

## VOLFLO 1.5

Geostructural Tool Kit, Inc.

Registered To : GeoSolutions, Inc

Project Title : 356 First Street Project Engineer :

Geotechnical Report : Geo

Project Number : 9186-1 Project Date : March 18, 2015 Report Date : Report Number :

## SWELL CALCULATION

| Ym | Edge | (Swell) = |
|----|------|-----------|
| Em | Edge | =         |

2.57 inches 4.70 feet (6.53 centimeters) (143.26 centimeters)



| Swell at Slab |            | Swell at distance X from edge of slab |                                 |              |          |        |        |        | Swell at |        |        |
|---------------|------------|---------------------------------------|---------------------------------|--------------|----------|--------|--------|--------|----------|--------|--------|
|               | Edge       |                                       |                                 |              |          |        |        |        |          |        | Em     |
|               | 0.0 ft     | 0.5 ft                                | 0.9 ft                          | 1.4 ft       | 1.9 ft   | 2.4 ft | 2.8 ft | 3.3 ft | 3.8 ft   | 4.2 ft | 4.7 ft |
|               | 0 cm 14 cn | 14 cm                                 | 14 cm 29 cm 43 cm 57 cm 72 cm 8 | 86 cm 100 cm | 115 cm 1 | 129 cm | 143 cm |        |          |        |        |
| inches        | 2.57       | 2.20                                  | 1.86                            | 1.53         | 1.22     | 0.94   | 0.68   | 0.46   | 0.28     | 0.12   | 0.00   |
| cm            | 6.53       | 5.60                                  | 4.71                            | 3.87         | 3.09     | 2.38   | 1.73   | 1.18   | 0.71     | 0.32   | 0.00   |

| D    | 1 | -10  |  |
|------|---|------|--|
| Pade | 1 | OT Z |  |

Build 100712

Serial Number : 200-100-281

## VOLFLO 1.5

Geostructural Tool Kit, Inc.

Registered To : GeoSolutions, Inc

Project Title : 356 First Street Project Engineer :

Geotechnical Report : Geo

Project Number : 9186-1 Project Date : March 18, 2015 Report Date : Report Number :



\\192.168.0.5\s\SL09000-SL09499\SL09186-1 - 356 First St., SER & GEO\Graphs\9186-1 Swell.vol



# AVILA BEACH COMMUNITY SERVICES DISTRICT

Post Office Box 309, Avila Beach, CA 93424 Office and Meeting Room - 100 San Luis Street, Avila Beach Telephone (805) 595-2664 FAX (805) 595-7623 E-Mail: avilacsd@gmail.com

March 25th, 2021

## Preliminary Will Serve Extension Expires May 20<sup>th</sup>, 2023

Mr. Michael Hodge Hodge Company 351 San Miguel Street San Luis Obispo, CA 93401

RE: Re-Development Project at 356, 358, 360 First Street, Avila Beach

Dear Mr. Hodge:

On March 24<sup>th</sup>, 2021 you sent an email requesting another extension to the Preliminary Will Serve for the subject project.

The District has no objection to extending the Preliminary Will Serve for two years, with an expiration date of May 20, 2023.

Please submit to the District a copy of your final plans as submitted to County Planning for review to confirm the estimated capacity fees for this project. Additionally, the District Engineer will need to review the project prior to a Final Will Serve to determine applicable conditions of approval. A Final Will Serve will be issued upon receipt of connection fees and meeting the District's conditions of approval for this project.

All connections to the District's water and sewer system must also be approved and inspected by District staff. Our staff will need to be contacted prior to connecting to our system for coordination of the hookup and inspection and to verify that you have met the District's conditions of approval.

Sincerely,

Brad Hageman



COMMON FACILITIES EXIST ON THE CR AND RMF ZONED PARCELS THAT INCLUDE PARKING. LANDSCAPING, A DRIVEWAY AND UTILITIES. EASEMENTS WILL BE RECORDED AS NEEDED AND A MAINTENANCE AGREEMENT WILL REQUIRE THE THREE PARCELS TOGETHER TO MAINTAIN, REPAIR OR REPLACE THEIR PRORATED SHARE OF THE EXISTING FACILITIES.



GARING, TAYLOR & ASSOCIATES, INC. CIVIL ENGINEERS SURVEYORS PLANNERS 141 SOUTH ELM STREET · ARROYO GRANDE, CA 93420 · (805) 489-1321







COUNTY OF SAN LUIS OBISPO DEPARTMENT OF PLANNING & BUILDING PARCEL SUMMARY REPORT FOR APN 076-217-027 PRINTED ON 07/21/2021

#### OVERVIEW

| PARCEL STATUS           | Active   |  |  |  |
|-------------------------|--|--|--|--|
| TAX CODE                |  |  |  |  |
| PRIMARY OWNER           | 356 FIRST STREET LLC<br>579 BLUEROCK DR SLO, CA 93401-5627 |  |  |  |
| SECONDARY OWNERS        | 2017-03-07 2021-I-000181 356 FIRST STREET LLC              |  |  |  |
| PARCEL ADDRESS(ES)      | 360 1ST ST AVILA BEACH, CA 93424                           |  |  |  |
| COMMUNITY               | Avila Beach  |  |  |  |
| ADVISORY COUNCIL        | Avila Valley Advisory Council                              |  |  |  |
| LEGAL DESCRIPTION       | TN AVILA BL 13 PTN LTS 11 & 12                             |  |  |  |
| PLANNING AREA(S)        | San Luis Bay Coastal Planning Area                         |  |  |  |
| LAND USE                | Residential Multi-Family                                   |  |  |  |
| COMBINING DESIGNATIONS  | Archaeologically Sensitive Area, Local Coastal Program     |  |  |  |
| PLANNING AREA STANDARDS | 22.106.010, 22.14.060, T23 SL Bay, T23 SLBay               |  |  |  |

### PARCEL HISTORY

| Submitted | Case Number | Case Type | Statu |
|-----------|-------------|-----------|-------|
|           |             |           |       |

06/02/2021 SUB2021-00041 Subdivision (PRE 7/1/2021) Submitted The application is a planned development with a lot split. The site area includes two contiguous lots (9,620 s.f.) under same ownership. The two lots include three houses. The front parcel is zoned CR, with two existing houses and the rear parcel is zoned RMF with one existing house. A lot split is proposed on the CR zoned lot, via a planned development, placing a lot line between the two existing houses (356 & 358 First Street). A maintenance agreement will bind all three lots to maintain common facilities that include driveway access, drainage, landscaping, fencing, utilities and parking.

IS

06/01/2021 P-APP-2021-00231 Application (PRE 7/1/2021) Completed The application is a planned development with a lot split. The site area includes two contiguous lots (9,620 s.f.) under same ownership. The two lots include three houses. The front parcel is zoned CR, with two existing houses and the rear parcel is zoned RMF with one existing house. A lot split is proposed on the CR zoned lot, via a planned development, placing a lot line between the two existing houses (356 & 358 First Street). A maintenance agreement will bind all three lots to maintain common facilities that include driveway access, drainage, landscaping, fencing, utilities and parking.