



COUNTY OF SANTA CRUZ

PLANNING DEPARTMENT

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123

KATHLEEN MOLLOY, PLANNING DIRECTOR

8 January 2019

Boos Development West, LLC
2020 L Street, Suite 245
Sacramento, CA 95811

Subject: Review of the Geotechnical Engineering Investigation – Proposed CVS Pharmacy at 1505/1515 Commercial Way dated 15 January 2018 by Moore Twining Associates – Project No. G10838.03

Project Site: 1505/1515 Commercial Way
APN 025-071-20
Application No. B-181177

Dear Applicant:

The purpose of this letter is to inform you the Planning Department has accepted the subject report. The following items shall be required:

1. All project design and construction shall comply with the recommendations of the report.
2. Final plans shall reference the subject report by title, author and date. Final Plans should also include a statement that the project shall conform to the report's recommendations.
3. After plans are prepared that are acceptable to all reviewing agencies, please submit a completed Soils (Geotechnical) Engineer Plan Review Form to Environmental Planning. The author of the soils report shall sign and stamp the completed form. Please note that the plan review form must reference the final plan set by last revision date.

Electronic copies of all forms required to be completed by the Geotechnical Engineer may be found on our website: www.sccoplanning.com, under "Environmental", "Geology & Soils", and "Assistance & Forms".

After building permit issuance the soils engineer *must remain involved with the project* during construction. Please review the Notice to Permits Holders (attached).

APN 025-071-20

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Please note that this determination may be appealed within 14 calendar days of the date of service. Additional information regarding the appeals process may be found online at: http://www.scco.planning.com/html/devrev/plnappeal_bldg.htm

Please contact the undersigned at (831) 454-3168 or rick.parks@santacruzcounty.us if we can be of any further assistance.

Sincerely,



Rick Parks, GE 2603
Civil Engineer – Environmental Planning

Cc: Environmental Planning, Attn: Leah MacCarter
Planning Department, Attn: Annette Olson
Owner, Plymouth-Grant LLC
MTA, Attn: Read Andersen, GE

Attachments: Notice to Permit Holders

**NOTICE TO PERMIT HOLDERS WHEN A SOILS REPORT HAS BEEN PREPARED,
REVIEWED AND ACCEPTED FOR THE PROJECT**

After issuance of the building permit, the County requires your soils engineer to be involved during construction. Several letters or reports are required to be submitted to the County at various times during construction. They are as follows:

1. **When a project has engineered fills and / or grading**, a letter from your soils engineer must be submitted to the Environmental Planning section of the Planning Department prior to foundations being excavated. This letter must state that the grading has been completed in conformance with the recommendations of the soils report. Compaction reports or a summary thereof must be submitted.
2. **Prior to placing concrete for foundations**, a letter from the soils engineer must be submitted to the building inspector and to Environmental Planning stating that the soils engineer has observed the foundation excavation and that it meets the recommendations of the soils report.
3. **At the completion of construction**, a *Soils (Geotechnical) Engineer Final Inspection Form* from your soils engineer is required to be submitted to Environmental Planning that includes copies of all observations and the tests the soils engineer has made during construction and is stamped and signed, certifying that the project was constructed in conformance with the recommendations of the soils report.

If the *Final Inspection Form* identifies any portions of the project that were not observed by the soils engineer, you may be required to perform destructive testing in order for your permit to obtain a final inspection. The soils engineer then must complete and initial an *Exceptions Addendum Form* that certifies that the features not observed will not pose a life safety risk to occupants.



GEOTECHNICAL ENGINEERING INVESTIGATION

PROPOSED CVS PHARMACY

1505 and 1515 COMMERCIAL WAY

SANTA CRUZ, CALIFORNIA

Project Number: G10838.03

For:

Boos Development West, LLC
701 Park Center Drive, Suite 200
Santa Ana, CA 92705

January 15, 2018

ATTACHMENT 5



January 15, 2018

G10825.01

Ms. Leanna Swenson
Boos Development West, LLC
2020 L Street, Suite 245
Sacramento, CA 95811

**Subject: Geotechnical Engineering Investigation
Proposed CVS Pharmacy
1505 and 1515 Commercial Way
Santa Cruz, California**

Dear Ms. Swenson:

We are pleased to submit this geotechnical engineering investigation report prepared for the proposed CVS Pharmacy to be located at the subject property.

The contents of this report include the purpose of the investigation, scope of services, background information, investigative procedures, our findings, evaluation, conclusions, and recommendations. It is recommended that those portions of the plans and specifications that pertain to earthwork, pavements, and foundations be reviewed by Moore Twining Associates, Inc. (Moore Twining) to determine if they are consistent with our recommendations. This service is not a part of this current contractual agreement; however, the client should provide these documents for our review prior to their issuance for construction bidding purposes.

In addition, it is recommended that Moore Twining be retained to provide inspection and testing services for the excavation, earthwork, pavement, and foundation phases of construction. These services are necessary to determine if the subsurface conditions are consistent with those used in the analyses and formulation of recommendations for this investigation, and if the construction complies with our recommendations. These services are not, however, part of this current contractual agreement. A representative with our firm will contact you in the near future regarding these services.

ATTACHMENT 5

**Geotechnical Engineering Investigation
Proposed CVS Pharmacy
1505 and 1515 Commercial Way
Santa Cruz, California**

**G10838.03
January 15, 2018**

Page No. 2

We appreciate the opportunity to be of service to Boos Development West, LLC. If you have any questions regarding this report, or if we can be of further assistance, please contact us at your convenience.

Sincerely,

MOORE TWINING ASSOCIATES, INC.
Geotechnical Engineering Division

A handwritten signature in cursive script that reads "Allen H. Harker".

Allen H. Harker
Professional Geologist

EXECUTIVE SUMMARY

This report presents the results of a geotechnical engineering investigation for a CVS Pharmacy building to be located at 1505 and 1515 Commercial Way in Santa Cruz, California.

The proposed CVS Pharmacy store will be approximately 13,111 square feet and have a second floor mezzanine that will occupy 1,712 square feet. Appurtenant construction is anticipated to include various underground utility service lines, an asphalt concrete paved parking lot, a concrete paved trash enclosure, retaining walls along the eastern and western property boundaries, a monument sign, a transformer and landscaped areas.

At the time of our field exploration, the site was occupied by a vacant lot, two commercial buildings with associated parking, and an alley. The eastern portion of the site was occupied by a Decor retail furniture building (1515 Commercial Way) and the southwestern portion of the site was occupied by a building used for storage of furniture (1505 Commercial Way).

On December 13 through 15, 2017, ten (10) borings were drilled at the subject site. The near surface soils encountered in the borings conducted for this investigation generally consisted of clayey sands extending to depths of about 2 to 10 feet BSG or lean clays, lean clays with sand or sandy lean clays that extended to depths of about 2½ to 8½ feet BSG. The near surface clayey sands were underlain by lean clays, clayey sands, silty sands extending to the maximum depth explored, about 26½ feet BSG. The near surface lean clays, lean clays with sand or sandy lean clays were underlain by silty sands and poorly graded sands extending to the maximum depth explored, about 50 feet BSG. The silty sands were generally dense to very dense below a depth of about 20 feet BSG. One of the near surface soil samples encountered exhibited weak cementation where silty sands were encountered at a depth of about 2½ feet.

Fil soils were encountered in boring B-2 drilled in the alle on the east side of the site (northeast corner of the proposed CVS Pharmacy). The fill soils consisted of loose clayey sands with brick debris and asphalt debris extending to a depth of 5 feet BSG. Fill soils are anticipated in other portions of the site due to prior site grading.

Groundwater was encountered in some of the borings during our December 2017 field exploration. Groundwater was generally encountered during drilling at depths ranging from about 14½ feet to 23¾ feet BSG. About ½ hour to 1 hour after completion of the borings that encountered groundwater, groundwater stabilized at depths ranging from about 16½ to 23¾ feet BSG. It should be noted that perched water was encountered at a depth of 4½ feet BSG in boring B-2 near the bottom of the clayey sand fill soils and top of the native clay soils encountered in this borehole.

Based on our field and laboratory investigation, the near surface soils tested possess a medium expansion potential and high compressibility characteristics.

In order to reduce the potential for excessive static settlement, over-excavation of the existing fill soils and near surface native soils is recommended to support new foundations on engineered fill. In addition, over-excavation will be required to remove soils disturbed from removal of surface and subsurface improvements and all fill soils that are encountered.

EXECUTIVE SUMMARY (Continued)

Seismic settlements of about $\frac{2}{3}$ inch total and $\frac{1}{2}$ inch differential in 40 feet were estimated.

The potential for surface fault rupture at the site is considered low.

Chemical testing of the near surface soil samples indicated the soils exhibit a "highly corrosive" corrosion potential. Chemical analyses also indicated a "negligible" potential for sulfate attack on concrete placed in contact with the near surface soils.

This Executive Summary should not be used for design or construction and should be reviewed in conjunction with the attached report.

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GEOTECHNICAL ENGINEERING INVESTIGATION

PROPOSED CVS PHARMACY

1505 and 1515 COMMERCIAL WAY

SANTA CRUZ, CALIFORNIA

Project Number: G10838.03

1.0 INTRODUCTION

This report presents the results of a geotechnical engineering investigation for the proposed CVS Pharmacy and associated site improvements to be located at 1505 and 1515 Commercial Way in Santa Cruz, California. Moore Twining Associates, Inc. (Moore Twining) was authorized by Boos Development West, LLC to perform this geotechnical engineering investigation.

The contents of this report include the purpose of the investigation and the scope of services provided. The site history, previous studies, site description, and anticipated construction are discussed. In addition, a description of the investigative procedures used and the subsequent findings obtained are presented. Finally, the report provides an evaluation of the findings, general conclusions, and related recommendations. The report appendices contain the drawings (Appendix A), the logs of borings (Appendix B), and the results of laboratory tests (Appendix C).

The Geotechnical Engineering Division of Moore Twining, headquartered in Fresno, California, performed the investigation.

2.0 PURPOSE AND SCOPE OF INVESTIGATION

2.1 Purpose: The intent of this investigation is to satisfy the requirements of the 2016 California Building Code (CBC), and the Boos Development West (BDW) Geotechnical Investigation Requirements, as related to geotechnical investigations. The purpose of the investigation was to conduct an exploration program, evaluate the data collected during the field investigation and laboratory testing, and provide geotechnical engineering recommendations for project design.

- 2.1.1 Evaluation of the near surface soils within the zone of influence of the proposed foundations with regard to the anticipated foundation loads;
- 2.1.2 Recommendations for 2016 California Building Code seismic coefficients and earthquake spectral response acceleration values;
- 2.1.3 Geotechnical parameters for use in design of foundations and slabs-on-grade, (e.g., soil bearing capacity, settlement, lateral resistance);

- 2.1.4 Recommendations for site preparation including placement, moisture conditioning, and compaction of engineered fill soils;
- 2.1.5 Recommendations for temporary excavations, trench excavation, and trench backfill;
- 2.1.6 Evaluation of the potential for liquefaction and seismic settlement;
- 2.1.7 Recommendations for slab-on-grade floors and exterior concrete flatwork;
- 2.1.8 Recommendations for asphalt concrete and Portland cement concrete pavements; and
- 2.1.9 Conclusions regarding soil corrosion potential.

This report is provided specifically for the proposed improvements described in the Anticipated Construction section of this report. This investigation did not include a geologic/seismic hazards evaluation, flood plain investigation, compaction tests, percolation tests, environmental investigation, or environmental audit.

2.2 Scope: Our proposal, reference MTP 4417-1266, dated December 7, 2017, outlined the scope of our services. The actions undertaken during the investigation are summarized as follows.

- 2.2.1 A Site Plan (SK-1), dated March 29, 2017, prepared by Kimley-Horn and Associates, Inc., was reviewed. The plan was used for preparation of the Test Boring Location Map (Drawing No. 2 in Appendix A) and is referred to herein as the site plan.
- 2.2.2 The BDW Geotechnical Investigation Requirements included in our Agreement for Geotech Consultant Services, dated January 9, 2013, was reviewed.
- 2.2.3 A visual site reconnaissance and subsurface exploration were conducted.
- 2.2.4 Various satellite images of the site from 1993 to 2016 from online sources, were reviewed. In addition, various aerial photographs from 1931 to 2012 were reviewed from Environmental Data Resources, Inc. (EDR).
- 2.2.5 A report entitled, "Draft Phase I Environmental Site Assessment, Proposed CVS Pharmacy CS No. 105634, 1505 & 1515 Commercial Way, Santa Cruz, California," dated December 18, 2017, prepared by Moore Twining's Environmental Division, was reviewed.

- 2.2.6 Laboratory tests were conducted to determine selected physical and engineering properties of the subsurface soils encountered.
- 2.2.7 Ms. Leanna Swenson (Boos Development West, LLC) and Ms. Melissa Mahar (Appenrodt Commercial) were consulted prior to the investigation.
- 2.2.8 The data obtained from the investigation were evaluated to develop an understanding of the subsurface soil conditions and the engineering properties of the soils encountered.
- 2.2.9 This report was prepared to present the purpose and scope, background information, field exploration procedures, findings, evaluation, conclusions, and recommendations.

3.0 BACKGROUND INFORMATION

The site description, site history, previous studies, and the anticipated construction are summarized in the following subsections.

3.1 Site Description: The subject site is addressed as 1505 and 1515 Commercial Way in Santa Cruz, California. According to the site plan, the site comprises approximately 1.23 acres. The site is bounded by Soquel Drive to the northwest, by an existing gas station to the west, by Commercial Way to the south, and by existing commercial development to the east.

At the time of our field exploration, the site was occupied by a vacant lot which had been partially excavated, two commercial buildings with associated parking, and an alley between Commercial Way and Soquel Drive. The eastern portion of the site was occupied by a Decor Furniture building (1515 Commercial Way) and the southwestern portion of the site was occupied by a building used for storage of furniture (1505 Commercial Way). A depressed loading dock was noted near the northeast corner of the Decor Furniture building. Some bushes and a tree were noted around the exterior of the Decor Furniture building and some bushes were noted near the driveway from Soquel Drive.

Based on our review of the "Draft Phase I Environmental Site Assessment, Proposed CVS Pharmacy CS No. 105634, 1505 & 1515 Commercial Way, Santa Cruz, California," dated December 18, 2017, prepared by Moore Twining's Environmental Division: "The building located in the southwestern portion of the site comprised approximately 2,480 square feet in plan dimension and was a slab-on-grade, corrugated metal constructed warehouse structure. The building included a second story, wood constructed loft in the southwest corner of the building's interior. The building located in the eastern portion of the site comprised approximately 13,150 square feet in plan dimension and was a slab-on-grade masonry constructed commercial building. A mezzanine and covered wooden deck area were located along the western interior wall and a wooden loft was located along the northern interior wall."