



Project No. A8487-06-03

October 9, 2015

Ms. Patricia Santini
Agoura hills HHG Hotel Development LP
105 Decker Court, Suite 500
Irving, Texas 75062

Subject: RESPONSE TO CITY OF AGOURA HILLS – GEOTECHNICAL REVIEW SHEET
 29508 ROADSIDE DRIVE
 AGOURA HILLS, CALIFORNIA

Reference: *Geotechnical Investigation, Proposed Commercial Development, Venture Professional Center, Agoura Hills, California*, by Geocon Inland Empire, Inc., Project No. A8487-06-01A, December 19, 2006;

Updated Geotechnical Investigation, Proposed Hotel Development, 29508 Roadside Drive, Agoura Hills, California, by Geocon West, Inc., Project No. A8487-06-03, May 20, 2015;

 City of Agoura Hills – Geotechnical Review Sheet, GDI # 15.00103.0203, June 22, 2015.

Dear Ms. Santini:

This letter has been prepared to provide our response to the City of Agoura Hills review comments pertaining to the Updated Geotechnical Investigation report. This letter has been prepared as a narrative to the revisions specific to the comments.

Planning/Feasibility Comments

Response to Comment 1: Acknowledged, please see Site Plan attached herein as Figure 1.

Response to Comment 2: Acknowledged.

Response to Comment 3: The existing artificial fill is generally less than 4 feet below existing grade. As a minimum, Geocon recommends excavating and properly compacting a minimum of 5 feet of site soils within the footprint area of the proposed structure. If deeper artificial fill or unsuitable soils (topsoil, colluvium, alluvial deposits, soft terrace deposits) are encountered within the building pad area, then additional grading will be required to mitigate these unsuitable soils as well, and recommendations are provided in the referenced geotechnical investigation report. This is a complex site and not all of the alluvial and terrace deposits require complete removal to bedrock. It is our intent to provide oversight during over-excavation as well as provide direction to the grading contractor on the required soft soil removals.

Response to Comment 4: According to the latest grading plans, it appears that approximately 10 feet of fill will be placed within the southwestern corner of the proposed building footprint area to achieve finished floor elevation. Prior to placing any fill, a competent bottom will be established and all existing fill and soft soils will be removed as indicated in Response 3 above. Prior to placing fill the existing exposed soils will be scarified and compacted to a minimum of 90 percent of the maximum density in accordance with ASTM test method D1557 (Laboratory Compaction Test). Placing 10 feet of soil will add approximately 1,000 psf of surcharge pressure onto the underlying soils. In addition, the building will add additional surcharge; however, a large portion of that load will be dissipated through the engineered fill and soil with depth. Based on our analyses of the laboratory test results, the induced surcharge of the earth and proposed structure is not anticipated to induce settlement in excess of ¾ inch and the resulting differential settlements are within the tolerances presented in the Updated Geotechnical Investigation Report.

Report Review Comments

Response to Comment 1: Acknowledged.

Response to Comment 2: The expansion index test result for soils within the upper 3 feet is 39. The expansion indices of 74 and 89 are for underlying soils at depths between 9 and 12 feet, and 18 and 21 feet, respectively. Proposed foundation design parameters are based on an expansion index of 39, which is representative of the soils that foundations are anticipated to derive support in. Verification testing will be performed on the completed building pad subsequent to grading and additional recommendations will be provided as necessary at that time.

Response to Comment 3: See response to Comment 2 above. It is well within the standard of care for a foundation to have an 18 inch embedment depth when supported in engineered fill with a “Low” expansion potential. If the expansion index of the completed pad exceeds 50 then Geocon will provide recommendations for greater embedment; however, this may be mute if the structural engineer utilizes depth increases for higher bearing capacities.

If you have any questions regarding this letter, or if we may be of further service, please contact the undersigned.

Sincerely,

GEOCON WEST, INC.



Harry Derkalousdian
PE 79694

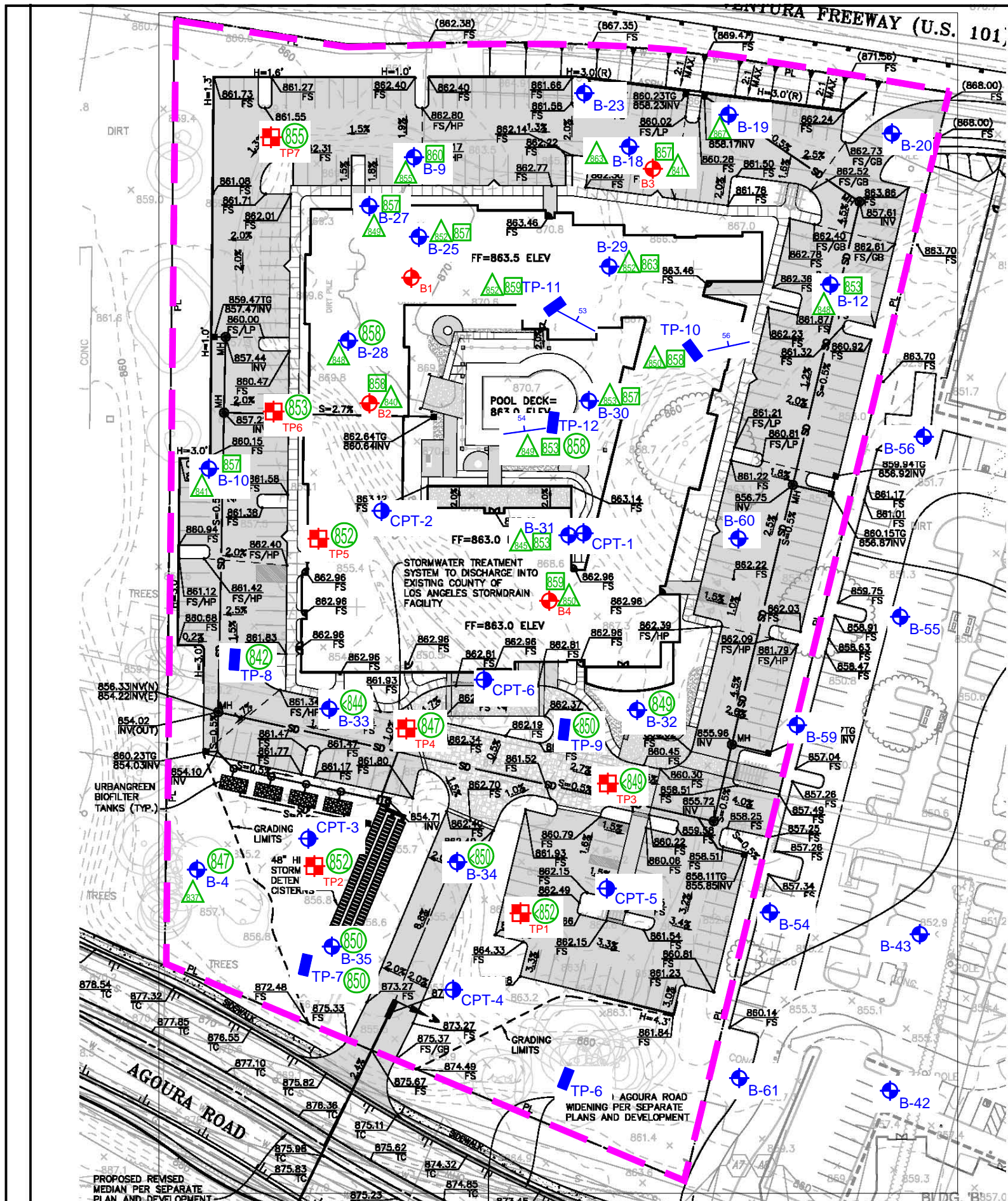


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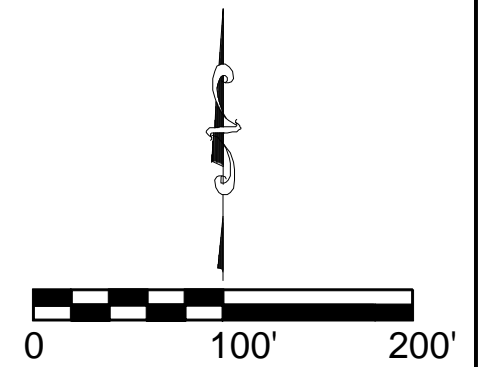
Enclosures: Figure 1, Site Plan

(Email) Addressee



LEGEND

- B4 Approximate Location of Borings (Geocon Inland Empire, Inc.)
- TP7 Approximate Location of Test Pits (Geocon Inland Empire, Inc.)
- B-61 Approximate Location of Borings (AGS)
- CPT-6 Approximate Location of CPT (AGS)
- TP-11 Approximate Location of Borings (AGS)
- 54 Strike & Dip of Bedding
- 5 Approximate Elevation of Alluvium (Feet)
- 5 Approximate Elevation of Terrace Deposit (Feet)
- 5 Approximate Elevation of Bedrock (Feet)
- Approximate Location of Proposed Development



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ENVIRONMENTAL GEOTECHNICAL MATERIALS 3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504 PHONE (818) 841-8388 - FAX (818) 841-1704	
DRAFTED BY: TL	CHECKED BY: HHD

SITE PLAN AGOURA HILLS HHG HOTEL DEVELOPMENT LP 29508 ROADSIDE DRIVE AGOURA HILLS, CALIFORNIA		
OCT 2015	PROJECT NO. A8487-06-03	FIG. 1



Project No. A8487-06-04

February 4, 2016

Ms. Patricia Santini
Agoura hills HHG Hotel Development LP
105 Decker Court, Suite 500
Irving, Texas 75062

Subject: RESPONSE TO CITY OF AGOURA HILLS – GEOTECHNICAL REVIEW SHEET
29505 AND 29515 AGOURA ROAD
AGOURA HILLS, CALIFORNIA

Reference: *Geotechnical Investigation, Proposed Commercial Development, Venture Professional Center, Agoura Hills, California*, by Geocon Inland Empire, Inc., Project No. A8487-06-01A, dated December 19, 2006;

Updated Geotechnical Investigation, Proposed Hotel Development, 29508 Roadside Drive, Agoura Hills, California, by Geocon West, Inc., Project No. A8487-06-03, dated May 20, 2015;

City of Agoura Hills – Geotechnical Review Sheet, GDI # 15.00103.0203, dated June 22, 2015;

Response to City of Agoura Hills – Geotechnical Review Sheet, by Geocon West, Inc., Project No. A8487-06-03, dated October 9, 2015;

City of Agoura Hills – Geotechnical Review Sheet, GDI # 15.00103.0203, dated October 28, 2015

Dear Ms. Santini:

This letter has been prepared to provide our response to the City of Agoura Hills review comments pertaining to the Updated Geotechnical Investigation report and Response to City of Agoura Hills letter previously submitted. This letter has been prepared as a narrative to the revisions specific to the comments. Where applicable, the recommendations provided herein supersede those presented in the referenced May 20, 2015 Updated Geotechnical Investigation report, and may be utilized for design and construction.

Planning/Feasibility Comments

Response to Comment 1: Geocon attempted to acquire and review copies of previous reports; however, our client does not have copies of the previous reports. The previous geotechnical investigation reports available to Geocon are referenced in the *Updated Geotechnical Investigation* and, where applicable, test results from previous reports are incorporated in our geotechnical recommendations and design.

Response to Comment 2: Geocon acknowledges the site may have environmentally impacted soils. If any environmentally impacted soils are encountered during grading/construction, the Geocon field representative will notify the project contractor/subcontractor and Client to ensure proper handling of environmentally impacted soils in accordance with regulatory requirements.

Response to Comment 3: On January 11, 2016, Geocon conducted a field exploration by excavating seven 8-inch diameter borings to depths between 9 and 25½ feet below the existing ground surface utilizing a truck-mounted hollow-stem auger drilling machine. Groundwater was not encountered in our borings drilled to a maximum depth of 25½ feet beneath the existing ground surface. In addition, as stated in the referenced Updated Geotechnical Investigation report, groundwater seepage was not encountered during the field investigation performed previously by Geocon. However, several borings excavated as part of the previous Advanced Geotechnical Services Inc. (AGS) investigation encountered minor groundwater seepage. AGS indicated that these groundwater occurrences were highly variable and subject to local subsurface conditions. AGS encountered groundwater in borings B-10 and B-13 at depths of 8 and 9 feet below the ground surface, respectively. It is our opinion that the groundwater encountered previously at the site does not represent the static groundwater table but exists in the near surface sediments as discontinuous perched zones of groundwater within the sandy alluvial soils. The amount of seepage in these granular zones may fluctuate seasonally or groundwater seepage conditions may develop where none previously existed, especially after seasonal rainfall or in areas where impermeable fine-grained soils are heavily irrigated.

Furthermore, the State of California Seismic Hazard Zone Map for the Thousand Oaks Quadrangle (2000) indicates that the site is not located in an area designated as “liquefiable.” In addition, the site is not identified as being within a potential liquefaction area by the City of Agoura Hills General Plan (2010) and the County of Los Angeles Safety Element (Leighton, 1990). The site is underlain by shallow bedrock of the Tertiary age Topanga Formation and Conejo Volcanics. Bedrock by its nature is not subject to liquefaction. Also, relatively loose alluvial soils encountered during grading will be removed and compacted to at least 90 percent of the maximum dry density.

Based on these considerations, it is our opinion that the potential for liquefaction and associated ground deformations beneath the site is considered to be low. Furthermore, no surface manifestations of liquefaction are expected at the subject site.

Response to Comment 4: January 11, 2016, Geocon conducted a field exploration throughout the site by excavating seven 8-inch diameter borings to depths between 9 and 25½ feet below the existing ground surface utilizing a truck-mounted hollow-stem auger drilling machine. According to the proposed finish grade elevation, grading for the building pad area will consist of cut and fill to meet finished grade elevation (see Figure 2, Geologic Cross Section). All foundations will be underlain by at least three feet of newly placed engineered fill. As a minimum, Geocon recommends excavating and properly compacting a minimum of 5 feet of site soils below the finished pad elevation within the footprint of the proposed structure. If deeper artificial fill or unsuitable soils (topsoil, colluvium, alluvial deposits, soft

terrace deposits) are encountered within the building pad area, then additional grading will be required to mitigate these unsuitable soils as well, and recommendations are provided in the referenced geotechnical investigation report. Prior to placing any fill, a competent bottom will be established and all existing fill and soft soils will be removed as necessary in order to achieve a competent bottom. This is a complex site with various grade changes and not all of the alluvial and terrace deposits require complete removal to bedrock. It is our intent to provide oversight during over-excavation as well as provide direction to the grading contractor on the required soft soil removals.

Furthemore, borings B1 and B3 by Geocon Inland Empire, Inc. (2006) was performed with a bucket auger and the blow counts were representative of a 2150-pound hammer. The consolidation tests performed as well as the blow count data do not indicate soft clay material. Borings B6 and B7 by Geocon West, Inc. (2016) was performed with a truck-mounted drilling machine and the blow counts were representative of a 140-pound hammer falling 30 inches. The consolidation tests performed on samples from boring B1, B3, B6, and B7, as well as the blow count data do not indicate soft clay material.

An attached site plan (see Figure 1) was revised to define contact between uncertified fill, top soil and colluvium, alluvial deposits, terrace deposits, and bedrock. Also, see Figure 2, Geologic Cross Sections A and B.

Response to Comment 5: Acknowledged. Please see Figure 2, Geologic Cross Sections A and B, attached herein.

According to the latest grading plans, it appears that approximately 10 feet of fill will be placed within the southwestern corner of the proposed building footprint area to achieve finished floor elevation. Prior to placing any fill, a competent bottom will be established and all existing fill and soft soils will be removed as indicated in Response to Comment 4 above. Prior to placing fill the existing exposed soils will be scarified and compacted to a minimum of 90 percent of the maximum density in accordance with ASTM test method D1557 (Laboratory Compaction Test). Placing 10 feet of soil will add approximately 1,200 psf of surcharge pressure onto the underlying soils, and the building will add additional surcharge. Based on our analyses of the laboratory test results, a new maximum allowable bearing pressure of 3,000 psf is recommended for foundations.

The induced surcharge of the earth and proposed structure supported on a conventional foundation system designed with the maximum allowable bearing value of 3,000 psf and deriving support in the recommended bearing material is not anticipated to induce settlement in excess of 1¼-inch. Differential settlement is not expected to exceed ¾-inch over a distance of twenty feet. Static settlement calculations for column, wall, and engineered fill are presented in Figures 4 through 6. The column and wall loads include an additional overburden load of 2 kips.

Report Review Comments

Response to Comment 1: Acknowledged.

Response to Comment 2: Please see Figure B8 presenting the Expansion Index (EI = 52) of the upper ten feet of soil to be utilized as engineered fill material. The expansion index test result for soils within the upper 3 feet is 39. The expansion indices of 74 and 89 are for underlying soils at depths between 9 and 12 feet, and 18 and 21 feet, respectively. Verification testing will be performed on the completed building pad subsequent to grading and additional recommendations will be provided as necessary at that time.


Response to Comment 3: See Response to Comment 2 above. The upper 10 feet of soils encountered during this investigation are considered to have a “moderate” (EI = 52) expansive potential and are classified as “expansive” in accordance with the 2013 California Building Code (CBC) Section 1803.5.3. The recommendations presented herein assume that the building foundations and slabs will derive support in these materials. Due to the “moderate” expansive potential, conventional foundations should be a minimum of 12 inches in width and 24 inches in depth below the lowest adjacent grade, and 12 inches into the recommended bearing material.

Response to Comment 4: Acknowledged. The project structural engineer will provide a verification letter, and Geocon can assist the project structural engineer with load dissipation on the culvert, as necessary.


If you have any questions regarding this letter, or if we may be of further service, please contact the undersigned.

Sincerely,

GEOCON WEST, INC.


Harry Derkalousdian
PE 79694

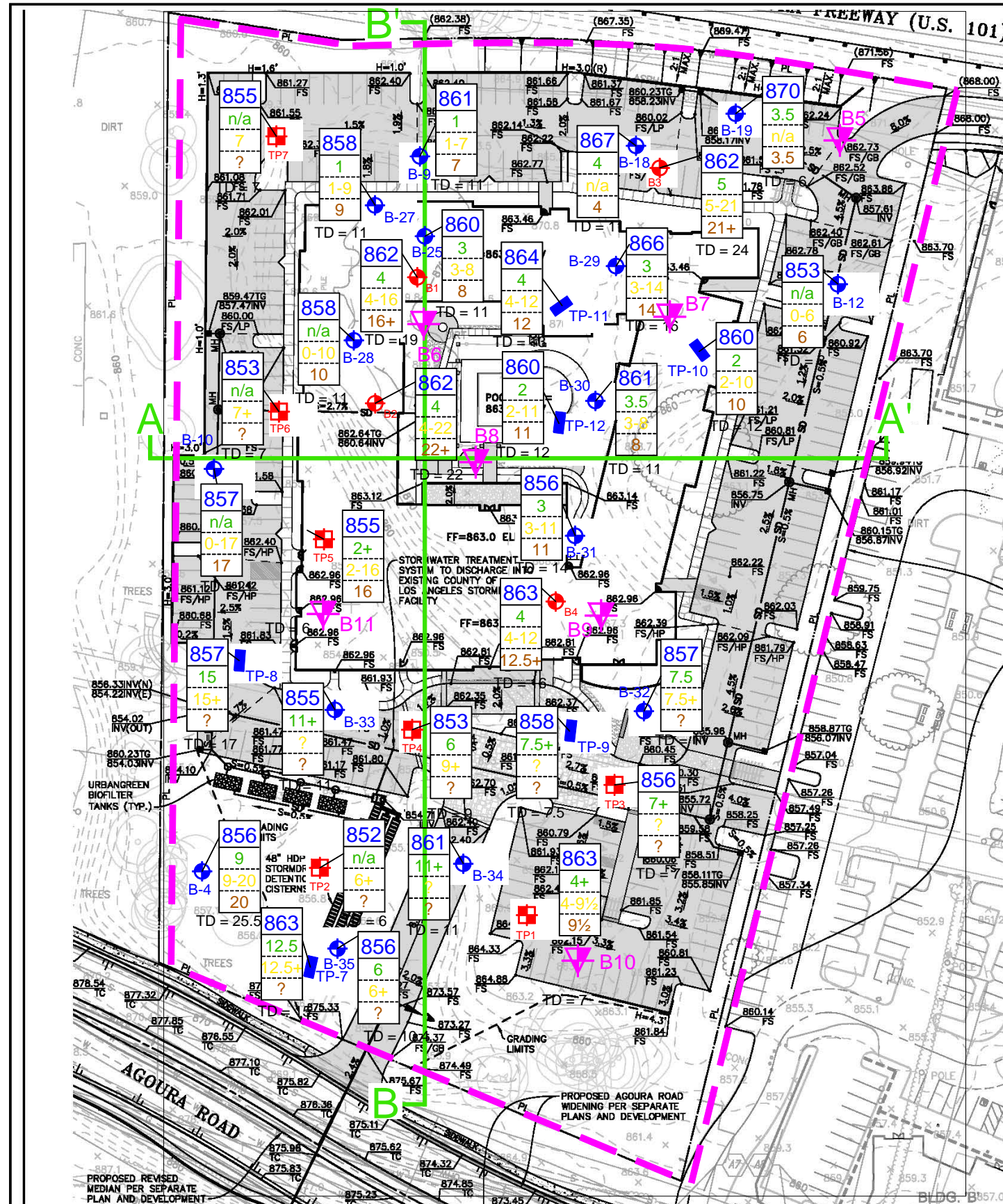



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- Enclosures:
- Figure 1, Site Plan
 - Figure 2, Geological Cross Sections
 - Figures 3 through 5, Settlement Calculations
 - Figures A-1 through A-7, Logs of Borings
 - Figure B1, Direct Shear Test Results
 - Figures B2 through B7, Consolidation Test Results
 - Figure B8, Laboratory Test Results

(Email) Addressee



LEGEND

-  B4 Approximate Location of Borings (Geocon Inland Empire, Inc.)
-  TP7 Approximate Location of Test Pits (Geocon Inland Empire, Inc.)
-  B11 Approximate Location of Boring (Geocon West, Inc. - 2016)
-  B-61 Approximate Location of Borings (AGS)
-  CPT-6 Approximate Location of CPT (AGS)
-  TP-11 Approximate Location of Borings (AGS)
-  54 Strike & Dip of Bedding
- | |
|-----|
| 862 |
| 5 |
| 5 |
| 5 |

 Ground Surface Elevation, feet MSL
Depth of Artificial Fill and/or Topsoil (feet)
Depth of Alluvium and/or Terrace Deposits (feet)
Depth of Bedrock Contact (feet)
-  A A' Approximate Location of Geologic Cross Section
-  Approximate Location of Proposed Development

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SITE PLAN

AGOURA HILLS HHG HOTEL DEVELOPMENT LP
29508 ROADSIDE DRIVE
AGOURA HILLS, CALIFORNIA

FEB. 2016

PROJECT NO. A8487-06-04

FIG. 1