



AMERICA'S BUILDER OF THE YEAR

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4:27 pm, Oct 15, 2010

Alameda County  
Environmental Health

October 14, 2010

Alameda County Environmental Health  
Hazardous Materials Division  
1131 Harbor Bay Parkway  
Alameda, California 94502

**RE: WORKPLAN FOR DOWN GRADIENT SOIL AND GROUNDWATER  
INVESTIGATION DATED SEPTEMBER 14, 2010**

**Case #2737**

Former Impulse Motors  
1210 Bockman Road  
San Lorenzo, California

To Whom It May Concern:

In Town Communities, LLC, a California limited liability company and subsidiary of Olson Urban Housing, LLC, a Delaware corporation doing business as The Olson Company, hereby submits the enclosed Workplan for Down-Gradient Soil and Groundwater Investigation dated September 14, 2010 ("Workplan") prepared by Stantec Consulting Corporation ("Stantec"). The Workplan is for additional down-gradient soil and groundwater investigation at the former Impulse Motors site located at 1210 Bockman Road, in the City of San Lorenzo, California.

I certify under penalty of perjury that the referenced Workplan and all attachments and supplemental information and recommendations contained in the attached Workplan is true and correct to the best of my knowledge.

Very truly yours,

Dale Hines  
Vice President, Operations  
Northern California Division

Enclosures as stated





**Stantec**

**Stantec Consulting Corporation**  
25864-F Business Center Drive  
Redlands, CA 92374  
Tel: (909) 335-6116  
Fax: (909) 335-6120

September 14, 2010

Mark Detterman  
Department of Environmental Health  
Hazardous Materials Division  
1131 Harbor Bay Parkway  
Alameda, California 94502

**RE: WORKPLAN FOR DOWN-GRADIENT SOIL AND GROUNDWATER  
INVESTIGATION**

Former Impulse Motors  
1210 Bockman Road  
San Lorenzo, California

Dear Mr. Detterman:

Stantec Consulting Corporation (Stantec) is pleased to submit this work plan for an additional down-gradient soil and groundwater investigation at the Former Impulse Motors site located at 1210 Bockman Road, in the City of San Lorenzo, California (the "Site").

This work plan has been prepared in response to discussions conducted during a meeting with the Alameda County Department of Environmental Health (ACDEH) on July 27, 2010. During that meeting, the ACDEH staff directed the Olson Company to conduct additional down-gradient assessment of the groundwater plume. The intent of this additional assessment was to further define the limits of groundwater impact associated with the subject site to evaluate closure conditions. The staff stated that regulatory closure would not be granted until the further assessment was completed.

The following work plan presents the scope of work proposed to address this request.

### **1.0 SITE BACKGROUND**

The Site is located on the southwest corner of Bockman Road and Via Chiquita Road within a residential area of the City of San Lorenzo. The Site was developed with a gasoline fuel station from the 1950s until 2004. Based on records provided by Alameda County two 4,000-gallon and one 6,000-gallon unleaded fuel tanks as well as one waste oil tank were removed from the Site in 1987. New double-wall steel fuel tanks were installed in their place in accordance with State regulations. In April 2004, one 8,000-gallon and two 6,000-gallon double-wall steel gasoline fuel tanks were removed from the Site. Removal activities are provided in the Underground Storage Tank (UST) Closure Report dated June 11, 2004.

According to the report, upon removal, the three USTs were observed to be in good condition and no field indications of hydrocarbon release were observed. A total of three confirmation soil samples were collected from the northern and southern sidewalls of the UST excavation at depths of 8.5 to 9.0 feet below ground surface (bgs). According to the report, analytical results





of soil samples collected from the UST excavation exhibited non-detectable concentrations; however, specific data is not presented in this version of the report. According to the report, the tanks were removed from the Site by Ecology Control Industries. No information pertaining to the disposal of tank rinseate, piping, or dispensers is presented in the report. The soil overburden generated during tank excavation activities was approved for use as backfill by the Alameda County Health Care Services Agency (ACHCSA).

During the removal activities, four soil samples were collected from beneath the former fuel dispensers and three soil samples were collected from beneath the former piping runs at depths of 1.0 to 2.0 feet bgs. The soil samples collected from beneath the fuel dispensers and piping run contained concentrations of total petroleum hydrocarbons as gasoline (TPHg) ranging from 690 to 5,900 milligrams per kilogram (mg/kg). Minimal to non-detectable concentrations of benzene, toluene, ethylbenzene and xylenes (BTEX) were exhibited in samples collected from the dispensers and piping runs. Based on these detections, additional assessment was recommended.

In December 2004 a subsurface investigation was conducted to laterally and vertically delineate the extent of impact to soil beneath the former fuel dispensers. In addition, groundwater samples were collected from up- and down-gradient of the former USTs and dispensers to confirm that contamination to groundwater was not significant in the vicinity of these former features. The results of the investigation indicated low to non-detectable concentrations of TPHg and volatile organic compounds (VOCs) at a depth of 5 feet bgs in the vicinity of the former fuel dispensers. Based on this information, the impacted soil was believed to be limited to the upper 5 feet of soil. Groundwater collected from the vicinity of the former USTs exhibited non-detectable concentrations of TPHg and VOCs.

In December 2006, a remedial excavation was performed to remove the TPH impacted soil from the areas of the former fuel dispensers. Approximately 500 cubic yards of soil was removed from two excavation areas and stockpiled on-site. Clean and impacted soil was segregated based on photoionization detector (PID) readings, olfactory observations, and visual signs of staining. The depths of the excavations were limited to 10 feet bgs, due to the presence of groundwater. Verification soil samples were collected from the bottoms and sidewalls of each excavation. Analytical results of the soil samples collected from the sidewalls exhibited low to non-detectable concentrations of TPHg, TPH as diesel (TPHd), and VOCs. Analytical results of the soil samples collected from the bottoms of the excavations exhibited concentrations of TPHg ranging from 2.7 to 120 parts per million (ppm) and low to non-detectable concentrations of TPHd and VOCs. Composite soil samples collected from the impacted soil stockpile exhibited TPHg concentrations ranging from 1.4 to 47 ppm, as well as low to non-detectable concentrations of TPHd and VOCs. Concentrations of lead were exhibited in all soil samples ranging from 3.47 to 16.5 ppm. The clean soil stockpile was authorized to be used as backfill material by the ACHCSA.

In April 2007 a confirmation soil, soil vapor, and groundwater investigation was conducted in order to determine remaining impacts to the Site. Soil, soil vapor, and groundwater samples were collected from down-gradient of the former fuel dispensers and in the vicinity of the former USTs. Soil vapor and groundwater collected from immediately down-gradient of the former dispensers detected concentrations of TPHg and TPHd above the Regional Water Quality





Control Board (RWQCB) environmental screening levels (ESLs). However, these samples did not contain any detectable concentrations of BTEX and very low concentrations of methyl tert-butyl ether (MTBE) and ethyl tert-butyl ether (ETBE). TPHg and VOCs were detected at low to non-detectable levels in soil samples collected from the vicinity of the former fuel dispensers and former USTs.

In November 2007, at the request of the ACHCSA, three groundwater monitoring wells were installed down-gradient of the former fuel dispensers. A fourth well (MW-04) was installed, developed, sampled, and abandoned due to conflicts with Site development activities. Soil samples collected during the investigation exhibited low to non-detectable concentrations of TPHg and VOCs. Groundwater collected from MW-01, MW-03, and MW-04 exhibited non-detectable concentrations of TPHg and VOCs. However, well MW-02 exhibited a TPHg concentration of 710 micrograms per liter (ug/L) and low to non-detectable concentrations of VOCs. The result of this investigation determined that the plume is confined to a limited area immediately down-gradient of the former fuel dispensers. The ACHCSA requested one year of quarterly groundwater monitoring to evaluate the stability of the plume.

Quarterly groundwater monitoring was conducted in March 2008, June 2008, September 2008, and December 2008. During the course of these investigations, depth to water ranged between 7.65 and 9.14 feet bgs and flowed in a general northwest direction. Concentrations of TPHg and TPHd in well MW-02 ranged from 300 to 590 ug/L and non-detectable to 230 ug/L, respectively. MW-02 also exhibited low to non-detectable concentrations of VOCs. The remaining wells (MW-01 and MW-03) exhibited non-detectable concentrations of TPHg and VOCs. As a result, the plume appeared to be stable and limited to an area immediately down-gradient of the former fuel dispensers. Based on this information, Stantec submitted a request for closure after discussing the case with the case worker at the time. The case worker indicated that regulatory closure should be granted and, accordingly, the final paper work was filed for that purpose.

The ACDEH transferred the case to a new reviewer and, after review of the file, a request was made for additional assessment of soil and groundwater in down-gradient locations prior to granting closure. A meeting was held to discuss this new request on July 27, 2010. During that meeting, it was agreed that two hydropunch locations to be located across Bockman Road in a down gradient location of the former dispenser islands were necessary to evaluate that the plume limits were confined to the site. Tentative locations for these wells were agreed to in that meeting and are presented herein.

## **2.0 SCOPE OF WORK**

Based on the request from the ACDEH, Stantec is proposing to drill and sample groundwater from two boring locations which will be located down-gradient from the identified groundwater impact associated with the Site. The proposed borings are located on Figure 2 (attached). The following text provides a discussion of the proposed work to complete this recommended assessment.

Prior to the commencement of fieldwork activities Stantec will visit the Site to mark the proposed boring locations and acquire a current Underground Service Alert (USA) ticket number prior to





commencement of Site drilling activities. Stantec will also obtain the necessary drilling and encroachment permits needed to complete the drilling.

In accordance with federal OSHA regulations (29 CFR, Section 1910.120), Stantec will develop a site specific Health and Safety Plan (HASP) for the subject property. All Stantec personnel and subcontractors associated with the project will be required to be familiar with, and comply with, all provisions of the HASP.

Stantec will supervise and direct all onsite activities. All work will be conducted under the supervision of a State of California registered professional and include the advancement of two (2) soil borings to 20 feet in depth by a geoprobe drill rig. The borings will be located as indicated on the attached figure 2 and placed down-gradient of the area of known impact to groundwater. Soil samples will be collected for potential chemical analysis at five (5) foot intervals for the total depth of the boring for logging purposes.

At each boring location one (1) groundwater sample will be collected by using a direct push hydropunch. Stantec will submit one (1) soil sample from the capillary fringe zone of each and one (1) groundwater samples from each boring for chemical analysis. Each of these samples will be analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline, diesel, and oil by EPA Test Method 8015m. In addition, these samples will be analyzed for volatile organic compounds (VOCs) including fuel oxygenates, and ethanol by EPA Test Method 8260b.

Stantec will compile the data collected from the field investigation and prepare a technical report. The report will include a summary of all field and laboratory data obtained, along with our conclusions and recommendations. The intent of this assessment is to define the down gradient limits of groundwater impact associated with the known impacts on the subject site.

Stantec will upload the report, figures, and laboratory data to the California Regional Water Quality Control Board's Geotracker database and the ACDEH website.

### 3.0 CLOSURE

It has been Stantec's pleasure in providing this work plan for your review. Upon your authorization to proceed, Stantec will immediately obtain the appropriate boring and encroachment permits and schedule the field investigation program.

Should there be any questions regarding the proposed scope of work, please feel free to contact the undersigned at (909) 335-6116.

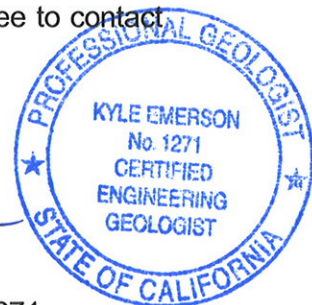
Respectfully submitted,  
**STANTEC CONSULTING CORPORATION**

A handwritten signature in blue ink that reads "Kristen Daly".

Kristen Daly  
Staff Geologist

A handwritten signature in blue ink that reads "Kyle D. Emerson".

Kyle D. Emerson CEG 1271  
Managing Principal Geologist



Attachments: Figures

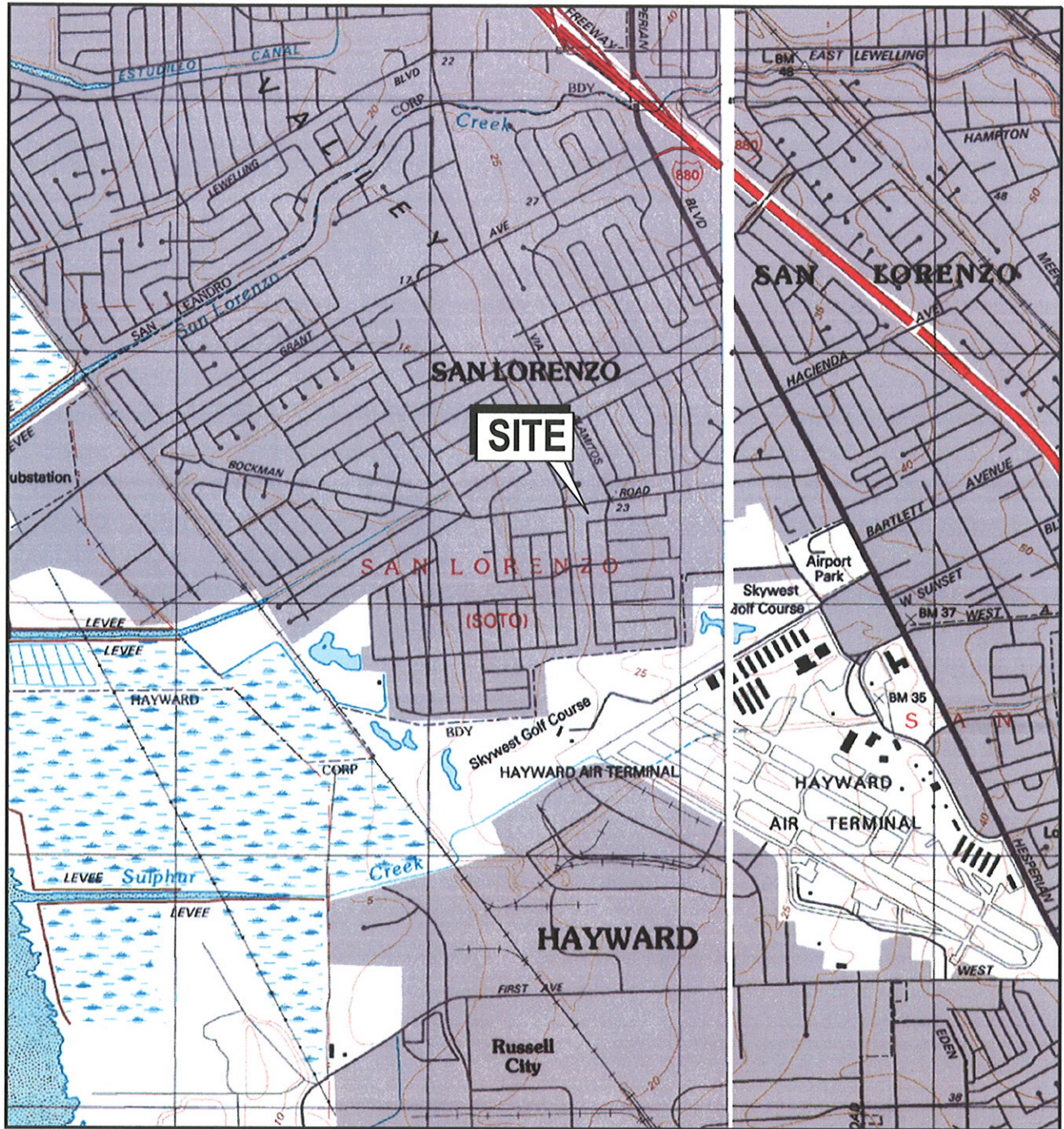
One Team. Infinite Solutions.



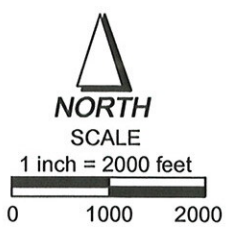
cc: Mr. John Reischl  
Mr. Dale Hines  
The Olson Company  
3010 Old Ranch Parkway, Suite 100  
Seal Beach, California 90740


Ms. Donna Drogos  
Department of Environmental Health  
Hazardous Materials Division  
1131 Harbor Bay Parkway  
Alameda, California 94502








Reference: U.S.G.S., 1993, San Leandro and Hayward Quadrangles California - Alameda County, 7.5' Series Topographic.

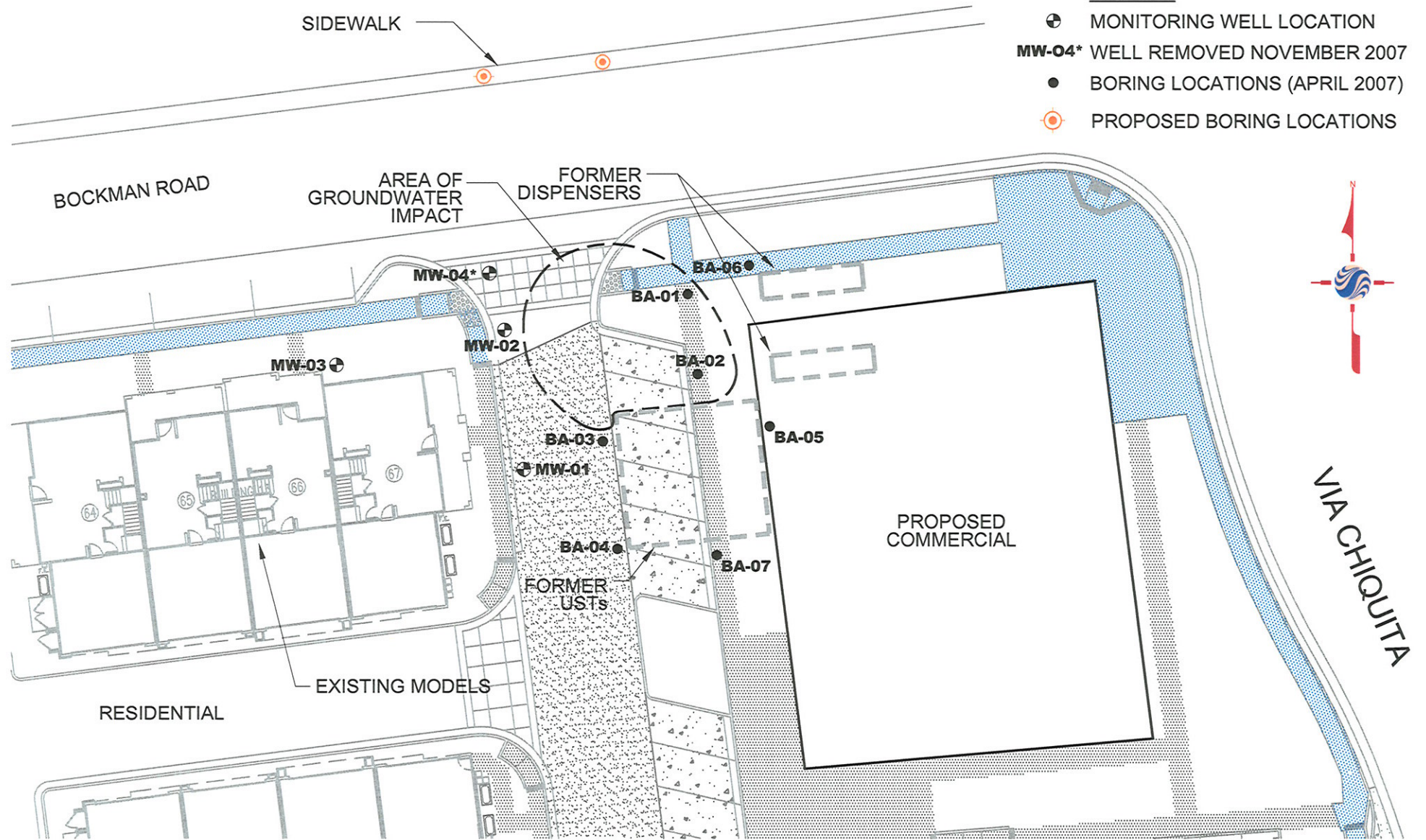


 25864-F BUSINESS CENTER DRIVE REDLANDS, CALIFORNIA 92374 PHONE: (909) 335-6116 FAX: (909) 335-6120	FOR: THE OLSON COMPANY VILLAGE WALK 1210 BOCKMAN ROAD SAN LORENZO, CALIFORNIA		FIGURE: 1	
	JOB NUMBER: 185899000	DRAWN BY: JBL	CHECKED BY: KD	APPROVED BY: KE

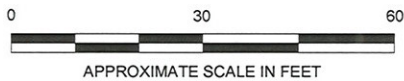



**LEGEND:**

-  MONITORING WELL LOCATION
- MW-04\*** WELL REMOVED NOVEMBER 2007
-  BORING LOCATIONS (APRIL 2007)
-  PROPOSED BORING LOCATIONS



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 <b>Stantec</b> 25864-F BUSINESS CENTER DRIVE REDLANDS, CALIFORNIA 92374 PHONE: (909) 335-6116 FAX: (909) 335-6120	FOR: THE OLSON COMPANY VILLAGE WALK 1210 BOCKMAN ROAD SAN LORENZO, CALIFORNIA		SITE PLAN WITH PROPOSED BORING LOCATIONS		FIGURE: <div style="font-size: 2em; font-weight: bold; text-align: center;">2</div>
	JOB NUMBER: 185899000	DRAWN BY: JBL	CHECKED BY: KD	APPROVED BY: KE	DATE: 09/07/10