



Project No. S9200-06-81
June 22, 2010

Mr. James Tkach, Task Order Manager
Caltrans District 5
50 Higuera Street
San Luis Obispo, California 93401

Subject: SOUTH COAST STATE ROUTE 101 HOV PROJECT (05-0N7000)
STATE ROUTE 101 (SOUTH OF CARPINTERIA CREEK TO SYCAMORE CREEK)
POST MILE SB-101 2.0 TO 12.3
SANTA BARBARA COUNTY, CALIFORNIA
CONTRACT NO. 06A1141, TASK ORDER NO. 81
ADDENDUM TO INITIAL SITE ASSESSMENT

Geocon Reference Document: South Coast State Route 101 HOV Project (05-0N7000), State Route 101 (South of Carpinteria Creek to Sycamore Creek) Post Mile SB-101 2.0 to 12.3, Santa Barbara County, California, Contract No. 06A1141, Task Order No. 42, Initial Site Assessment, June 29, 2009.

Dear Mr. Tkach:

In accordance with the California Department of Transportation (Caltrans) Contract No. 06A1141 and Task Order 81, we have prepared this addendum to the Initial Site Assessment (ISA) of the South Coast State Route 101 (SR-101) High Occupancy Vehicle (HOV) Project (05-0N7000) extending south of Carpinteria Creek, Carpinteria, to Sycamore Creek (Post Mile 2.0 to 12.3) in Santa Barbara County, California.

BACKGROUND

The purpose of the South Coast SR-101 HOV Project is to reduce congestion on SR-101 from the City of Carpinteria to the City of Santa Barbara. Planned highway improvements include widening the existing four-lane freeway to six lanes by adding an HOV lane in each direction. The proposed project currently includes three build alternatives and a no build alternative. Alternative 1 proposes to add the HOV lanes while balancing outside and inside (median) landscaping impacts. Alternative 2 proposes to add the HOV lanes while maximizing the amount of median planting within the project limits. Alternative 3 proposes to add the HOV lanes within the existing median with minor incidental outside widening. Each of the alternatives incorporate design options to include auxiliary lanes in short weave sections where warranted by design criteria and traffic study recommendations. SR-101 HOV Project Alternatives 1 through 3 are planned within existing State right-of-way (ROW).

Caltrans requested the ISA to determine the presence of recognized environmental conditions and potentially contaminated properties within the defined environmental study area (ESA) that may impact selection of project build alternatives, temporary construction easements, and construction of the proposed highway improvements. The ISA included site reconnaissances and review of historical topographic maps, aerial photographs, as-built plans, regulatory databases, facility-related documents, and other site-related record sources.

The ISA findings and conclusions pertaining to South Coast SR-101 HOV Project included the following:

- The presence of 16 locations within the project ESA that require further evaluation for potential impact on the design and construction of planned SR-101 improvements. The locations were ranked (medium and high risk) based on their potential to impact each of the project build alternatives.
- The project ESA is located within and near the Summerland Oil Field; numerous wells are located in the near vicinity and possibly adjacent to or within the project ROW and ESA.
- The results of the site reconnaissance, historical and regulatory file research, and prior field investigations indicate the potential presence of abandoned underground storage tanks (USTs) within the existing SR-101 ROW.
- Aerially deposited lead at levels exceeding hazardous waste criteria have been identified in shallow soil in the unpaved shoulders and median within the existing SR-101 ROW.
- Other potential identified environmental constraints include bridge and structure asbestos-containing building materials (barrier rail shims) and lead-containing paint, and yellow thermoplastic and paint striping.

Based on the findings of the ISA, 16 potential contaminated properties located within or adjacent to the project ESA and in surrounding areas were categorized with medium and high risk to the South Coast SR-101 HOV Project. The risk potential was based in part on proposed construction activities evaluated during the preparation of the ISA.

REVISED PROPOSED CONSTRUCTION ACTIVITIES

We reviewed a March 30, 2010 letter, data table, and figures provided by Caltrans that present revisions to the areas of construction and further defining planned construction activities proposed during the South Coast SR-101 HOV Project. We used the information in Caltrans' March 30, 2010, data table to re-evaluate the risk categories of the originally identified potentially contaminated properties using the same ranking conditions applied during preparation of the ISA, as summarized below.

High Potential to Impact the South Coast SR-101 HOV Project:

1. Properties within the proposed construction areas of the project ESA with identified soil or groundwater impacts;
2. Suspect properties (e.g., historical gas stations) within the proposed construction areas of the project ESA where soil or groundwater conditions are unknown;
3. Properties adjacent to the proposed construction areas of the project ESA with identified but undelineated soil impacts;
4. Properties adjacent to or near the proposed construction areas of the project ESA with identified groundwater impacts that have migrated into (or are likely to be based on groundwater flow direction and groundwater monitoring data) the proposed construction area boundaries or where the extent of groundwater impact is unknown; or
5. Properties adjacent to or near the proposed construction areas of the project ESA that, based on the property type, operations (i.e., chemicals used), proximity, and groundwater flow direction

(in the absence of soil and groundwater sample data), are likely to impact the project ESA in the event of an undocumented release to soil or groundwater.

Medium Potential to Impact the South Coast SR-101 HOV Project:

1. Properties near but not adjacent to the proposed construction areas of the project ESA with identified soil impacts and lacking groundwater data or documented closure;
2. Properties near (i.e., within ¼-mile) the proposed construction areas with identified groundwater impacts but no documented groundwater flow direction or delineation of extent; or
3. Properties near the project ESA that, based on the property type, operations (i.e., chemicals used), proximity, and undetermined groundwater flow direction (in the absence of soil and groundwater sample data) have the potential to impact the proposed construction areas in the event of an undocumented release to soil or groundwater.

Low Potential to Impact the South Coast SR-101 HOV Project:

1. Suspect properties (e.g., historical gas stations) within the proposed construction areas of the project ESA where soil or groundwater conditions are unknown but where proposed construction activities within the ROW are limited to a depth of approximately 3 feet for new roadway structural improvements;
2. Properties located adjacent to or near the project ESA with identified impacts to groundwater but where historical groundwater sample data indicates that groundwater between the property and proposed construction areas is not impacted;
3. Properties located near but not adjacent to the project ESA with impacts to soil only and documented closure; or
4. Identified release properties located away from the project ESA (i.e., greater than ¼-mile) with documented onsite groundwater impacts only or offsite impacts with groundwater flow direction away from the project ESA or with documented closure.

CONCLUSIONS

Based on information obtained during the ISA and provided by Caltrans, 4 of the 16 potential contaminated properties (Map ID Nos. 4, 6, 31, and 36) originally categorized in the ISA as medium risk have been re-evaluated to low risk status. Revised risk evaluations for the identified potential contaminated properties are summarized in Table 1. Revised recommendations for preliminary site investigations at or adjacent to potentially contaminated properties with medium to high risk impacts to the proposed Santa Barbara SR-101 HOV Project are listed in Table 2. Preliminary site investigations should be performed to further evaluate: 1) potential and documented environmental impairments within the selected alternative project boundaries, 2) the impact on project costs, 3) potential responsible party liability, 4) management and disposal options of potentially contaminated soil, groundwater, and materials, and 5) construction worker health and safety requirements.

Options for preliminary site investigations may include (but not be limited to) soil and groundwater sampling, geophysical investigations, bridge surveys, and field condition evaluations/meetings, as appropriate, and are summarized in Table 2. Further evaluation of groundwater quality within the project ESA may be conducted to determine potential liability associated with known or identified impairment to the existing ROW, for potential cost recovery, and where groundwater extraction/dewatering may be required for deep foundation construction for planned bridge improvements.

Please contact us should you have any questions concerning the contents of this addendum to the ISA or if we may be of further service.

Sincerely,

GEOCON CONSULTANTS, INC.



Chris Giuntoli, REA
Senior Project Scientist



John E. Juhrend, PE, CEG
Project Manager



CG:JEJ:krh

(15+1CD) Addressee

Attachments: Table 1 - Summary of Identified Potential Contaminated Properties – Revised
Table 2 - Summary of Preliminary Site Investigation Options – Revised
Caltrans' March 30, 2010 Letter, Data Table, and Figures

**TABLE 1
SUMMARY OF IDENTIFIED POTENTIAL CONTAMINATED PROPERTIES - REVISED
SOUTH COAST 101 HOV PROJECT – ADDENDUM TO THE INITIAL SITE ASSESSMENT**

Map ID No.	Location	Address	Figure No.	Impact to South Coast SR-101 HOV Project	Information Source(s)	Environmental Impacts/ Chemical of Concern	Regulatory Status	Potential Impact to Santa Barbara SR-101 HOV Project
1	Former Shell Service Station	1000 Coast Village Road, Montecito	2-3	High Impact Alt 1-3 ESA	Recon, LUST	Former service station with reported petroleum hydrocarbon releases to soil and groundwater.	Site assessment underway. Remedial actions involving injection of chemical oxidation solutions have been approved but will not be implemented until mid 2009. Oversight by Santa Barbara County Fire Prevention Division.	This location presents a high risk of impact to the proposed improvement project if planned improvement include nearby excavation to depths below groundwater.
2	One Hour Martinizing	1024-B Coast Village Rd, Montecito	2-3	Low Impact Alt 1-3 ESA	Recon, SLIC	Active dry cleaning facility with historic dry cleaner chemical impact to soil.	Case Closed.	This location presents a low risk of impact to the proposed improvement project.
3	China Pavilion	1070 Coast Village Road, Montecito	2-4	Low Impact Alt 1-3 ESA	LUST, 1962 Sanborn	Former service station with reported releases to soil. Petroleum hydrocarbon containing soil was reportedly excavated and removed.	Case Closed (Excavate and dispose 2000)	Based on the distance from the proposed improvements and reported regulatory status, this location presents a low risk of impact to the proposed improvement project.
4	Village Pool and Supply (Hanna Property)	1080 Coast Village Road, Montecito	2-4	Low Impact Alt 1-3 ESA	LUST, 1942 Sanborn	Former service station with reported petroleum hydrocarbon releases to soil and groundwater. PCE reported in groundwater offsite to south.	Site Assessment; Groundwater monitoring; SVE pilot test approval. Oversight by Santa Barbara County Fire Prevention Division.	Based on the proposed improvements within the existing ROW (e.g., shallow soil excavation for roadway improvements), this location presents a low risk of impact to the proposed improvement project.
5	Chevron Station	1085 Coast Village Road, Montecito	2-4	High Impact Alt 1-3 ESA	Recon, LUST 1942 Sanborn	Active service station with reported petroleum hydrocarbon releases to soil and groundwater.	Undergoing Monitored Natural Attenuation for low concentrations of MTBE in groundwater. Oversight by Santa Barbara County Fire Prevention Division.	This location presents a high risk of impact to the proposed improvement project if planned improvement include nearby excavation to depths below groundwater.
6	Unocal Service Station #0535	1298 Coast Village Road, Santa Barbara	2-5	Low Impact Alt 1-3 ESA	Recon, LUST 1942 Sanborn	Active service station with reported releases to soil and groundwater.	Remedial Action Underway	Based on the proposed improvements within the existing ROW (e.g., soil excavation no deeper than one foot below existing road base for roadway structural improvements), this location presents a low risk of impact to the proposed improvement project.
7	Longs Drugs #333	1282 Coast Village Road, Santa Barbara	2-5	Low Impact Alt 1-3 ESA	HIST UST	Former location of one 550-gallon UST; potential for petroleum hydrocarbon release from UST operation.	Unknown	Based on the distance from the proposed improvements, this location presents a low risk of impact to the proposed improvement project.
8	Miramar Hotel	1555 S. Jameson Lane, Montecito	2-6	Low Impact Alt 1-3 ESA	HIST UST	Former location of one 550-gallon UST; potential for petroleum hydrocarbon release from UST operation.	Unknown	Based on the distance from the proposed improvements, this location presents a low risk of impact to the proposed improvement project.
9	Summerland Texaco	2285 Lillie Avenue, Montecito	2-10	Low Impact Alt 1-3 ESA	Recon, LUST	Active service station with reported petroleum hydrocarbon releases to soil and groundwater.	Groundwater monitoring with oversight by Santa Barbara County Fire Prevention Division.	Groundwater contamination is present in the monitoring well farthest from Caltrans ROW. The wells closest to the Caltrans ROW do not have reportable concentrations of dissolved constituents. This location presents a low risk of impact to the proposed improvement project if planned improvement include nearby excavations to depths below groundwater.
10	Carpinteria Fire Station No. 2	2375 Lillie Avenue, Montecito	2-10	Medium Impact Alt 1-3 ESA	HIST UST	Potential for petroleum hydrocarbon release from past UST operation.	Unknown	Based on the distance from the proposed improvements and the unknown status of the UST, this location presents a medium risk of impact to the proposed improvement project.
11	Gallup & Stribling	3450 Via Real, Carpinteria	2-15	Medium Impact Alt 1-3 ESA	HIST UST, LUST	Former fueling facility with reported petroleum hydrocarbon releases to soil. Petroleum hydrocarbon containing soil was reportedly excavated and removed.	The case was closed by the Santa Barbara County Fire Department on August 6, 2003, with concurrence from the RWQCB. The closure documents indicate that groundwater contamination reduced to below action levels/MCLs via natural attenuation.	This location presents a medium risk of impact to the proposed improvement project if planned improvement includes excavation to depths below groundwater.
12	S.B. Harley-Davidson	3501-3508 Via Real, Carpinteria	2-16	Medium Impact Alt 1-3 ESA	HAZNET	Automotive repair facility with potential petroleum hydrocarbon release from facility operations.	Unknown	This location is not listed on any database indicative of spills or releases; however, the location is considered a medium risk based on its proximity to the proposed improvements and its history of generating unspecified solvent and oil-containing waste.
13	Corvette Shop	3651 Via Real, Carpinteria	2-16	Medium Impact Alt 1-3 ESA	Recon	Apparent former gas station and automotive repair/service facility with potential petroleum hydrocarbons.	Unknown	This location presents a medium risk of impact to the proposed improvement project if planned improvement includes excavation to depths below groundwater.
14	McCormix Corporation	3663 Via Real, Carpinteria	2-16	Medium Impact Alt 1-3 ESA	Recon LUST	Active service station with reported petroleum hydrocarbon releases to soil and groundwater.	Quarterly groundwater monitoring for TPH, BTEX and fuel oxygenates. Oversight by Santa Barbara County Fire Prevention Division.	This location presents a medium risk of impact to the proposed improvement project if planned improvement includes excavation to depths below groundwater.
15	Western Farms	3717 Santa Claus Lane, Carpinteria	2-17	Low Impact Alt 1-3 ESA	LUST, HIST UST	Former service station with reported petroleum hydrocarbon releases to soil and groundwater.	Case closed by RWQCB on 10/20/2005	Based on the distance from the proposed improvements and information available on Geotracker, this location presents a low risk of impact to the proposed improvement project.
16	Carpinteria Nursery	3798 Via Real, Carpinteria	2-17	Low Impact Alt 1-3 ESA	HIST UST	Historical diesel and waste USTs, generator of unspecified oil-containing waste. Potential for petroleum hydrocarbon and pesticide release from facility operations.	Unknown	Based on the distance from the proposed improvements, this location presents a low risk of impact to the proposed improvement project.
17	Sandyland Nursery	3890 Via Real, Carpinteria	2-17	Medium Impact Alt 1-3 ESA	HIST UST	Historical gasoline and diesel USTs; generator of pesticide rinse water and unspecified oil-containing waste. Potential for petroleum hydrocarbon and pesticide release from facility operations.	Unknown	This location is not listed on any database indicative of spills or releases; however, the location is considered a medium risk based on its proximity to the proposed improvements and its history of generating unspecified oil-containing and pesticide wastes.

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18	Ocean Breeze Int'l	3910 Via Real, Carpinteria	2-17	Medium Impact Alt 1-3 ESA	HIST UST	Potential for petroleum hydrocarbon release from historical operation of gasoline and diesel USTs.	Unknown	This location is not listed on any database indicative of spills or releases; however, the location is considered a medium risk based on its proximity to the proposed improvements and historical operation of USTs.
19	Chevron Station 9-3005	4290 Via Real, Carpinteria	2-19	High Impact Alt 1-3 ESA	Recon, LUST	Active service station with reported petroleum hydrocarbon releases to soil and groundwater.	Undergoing post remediation monitoring (Monitored Natural Attenuation) for low concentrations of TPHg and MTBE in groundwater. Oversight by Santa Barbara County Fire Prevention Division.	This location presents a high risk of impact to the proposed improvement project if planned improvement include nearby excavation to depths below groundwater. Groundwater monitoring wells adjacent to the SR-101 ROW are impacted with MTBE.
20	7-Eleven Store	4410 Via Real, Carpinteria	2-19	Low Impact Alt 1-3 ESA	Recon, LUST	Active service station with reported petroleum hydrocarbon releases to soil and groundwater.	Case closed September 2007	Based on the distance from the proposed improvements and reported regulatory status, this location presents a low risk of impact to the proposed improvement project.
21	Union Oil (aka Tosco, Conoco, Unocal, 7-11, etc.) Service Station	4401 Via Real, Carpinteria	2-19	High Impact Alt 1-3 ESA	LUST	Active service station with reported releases of TPHg, VOCs, and fuel oxygenates to soil and groundwater.	Remedial Action Underway	This location presents a high risk of impact to the proposed improvement project if planned improvement include nearby excavation. Groundwater at this location is shallow and is known to be impacted with MTBE beneath the Caltrans ROW.
22	Former Chevron 30-7248	4602 Carpinteria Avenue, Carpinteria	2-20	Low Impact Alt 1-3 ESA	LUST	Former service station with reported releases of TPHg, VOCs, PCE and lead to soil.	Limited site assessment performed. Owner directed to perform additional assessment of soil and groundwater. Additional assessment required to commence prior to October 2008. Oversight by Santa Barbara County Fire Prevention Division.	Based on the location of the facility, local groundwater flow direction, and the proposed improvements within the existing ROW (e.g., soil excavation to a depth of 3 feet for roadway structural improvements), this location presents a low risk of impact to the proposed improvement project.
23	KOH Atlas (aka Cloud Nine Homes)	4646 Carpinteria Avenue, Carpinteria	2-20	Low Impact Alt 1-3 ESA	LUST	Potential for petroleum hydrocarbon release from former waste oil UST operation.	Soil only case closed in June 1990. Location is currently occupied by a residential development.	Based on the distance from the proposed improvements and reported regulatory status, this location presents a low risk of impact to the proposed improvement project.
24	Verizon (aka GTE, General Tele.)	5115 Ogan Road Carpinteria,	2-21	Low Impact Alt 1-3 ESA	CA FID UST	Location of one 500-gallon diesel UST; potential for petroleum hydrocarbon release from UST operation.	No reported violations	Based on the distance from the proposed improvements and reported regulatory status, this location presents a low risk of impact to the proposed improvement project.
25	Former Exxon/Hondo (aka Prestige, Ted Best, Robert Smith, etc)	1115 Casitas Pass Road, Carpinteria	2-22	Low Impact Alt 1-3 ESA	LUST	Former service station with reported petroleum hydrocarbon releases to soil and groundwater.	Post Remedial Action Monitoring. 4th Quarter 2007 Groundwater Monitoring Report indicates that soil and groundwater contamination is present beneath the center of the property and recommends evaluating methods of remediation.	Based on groundwater sample results and the lack of contaminant detection in groundwater monitoring wells located between onsite impact areas and the Caltrans ROW, this location presents a low risk of impact to the proposed improvement project if planned improvement include nearby excavation to depths below groundwater.
26	ARCO #1980	1116 Casitas Pass Road, Carpinteria	2-22	Low Impact Alt 1-3 ESA	Recon, LUST	Active service station with reported petroleum hydrocarbon releases to soil and groundwater.	Undergoing post remediation monitoring (Monitored Natural Attenuation) for low concentrations of TPHg, MTBE, and TBA in groundwater. Oversight by Santa Barbara County Fire Prevention Division.	Based on groundwater sample results and flow direction, and the proposed improvements, this location presents a low risk of impact to the proposed improvement project.
27	Iron Oil Tank and Historic Service Station "Oil and Gas"	Southwest corner of State Highway (Lillie Avenue) and Beighle (Valencia Road)	2-10	High Impact Alt 1-3 ESA	1907 and 1930 Sanborn	Historical service station with potential for USTs or petroleum hydrocarbon releases from UST operations.	Unknown	This location appears to be located with the SR-101 ROW. Based on the location within the ROW and the historic "gas and oil" listing, this property presents a high risk to the proposed improvement project.
28	Oil Derricks	Harding Avenue, approximately half way between Colville Street and Beighle (Valencia Road).	2-10	Low Impact Alt 1-3 ESA	1907 Sanborn	Petroleum production location with potential for petroleum hydrocarbon releases from past operations.	Unknown	Based on the proposed improvements within the existing ROW (e.g., soil excavation to a depth of 3 feet within existing road base for roadway structural improvements), this location presents a low risk of impact to the proposed improvement project.
29	Two Oil Tanks and 11 galvanized iron gas tanks	South of Harding Avenue, approximately half way between Beighle (Valencia Road) and Temple Street	2-10	Low Impact Alt 1-3 ESA	1907 and 1930 Sanborn	Petroleum production location with potential for petroleum hydrocarbon releases from past operations.	Unknown	Based on the proposed improvements within the existing ROW (e.g., soil excavation to a depth of 3 feet within existing road base for roadway structural improvements), this location presents a low risk of impact to the proposed improvement project.
30	Three ASTs	Southeast of intersection of Wallace Avenue and Evans Avenue	2-10	Low Impact Alt 1-3 ESA	1930 Sanborn	Potential for petroleum hydrocarbon release from past AST operations.	Unknown	Based on the proposed improvements within the existing ROW (e.g., no soil excavation; import of soil for roadway improvements), this location presents a low risk of impact to the proposed improvement project.

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Map ID No.	Location	Address	Figure No.	Impact to South Coast SR-101 HOV Project	Information Source(s)	Environmental Impacts/ Chemical of Concern	Regulatory Status	Potential Impact to Santa Barbara SR-101 HOV Project
31	Historical Service Station "Gas and Oil"	Southwest corner of State Highway (Lillie Avenue) and Hollister Street	2-10	Low Impact Alt 1-3 ESA	1930 Sanborn	Historical service station with potential for USTs or petroleum hydrocarbon releases from UST operations.	Unknown	Based on the distance from the proposed improvements and proposed construction activities within the existing ROW (e.g., soil excavation to a depth of 3 feet for roadway structural improvements), this location presents a low risk of impact to the proposed improvement project.
32	Sea Side Oil Company - two crude oil AST	South of Rail Road Tracks at terminus of Hollister Street	2-10	Low Impact Alt 1-3 ESA	1930 Sanborn	Petroleum production location with potential for petroleum hydrocarbon releases from past operations.	Unknown	Based on the distance from the proposed improvements, this location presents a low risk of impact to the proposed improvement project.
33	Sea Side Oil Company - "numerous Steel Gas and Oil Tanks"	South side of the rail road tracks between Beigle (Valencia Road) and Temple Street	2-10	Low Impact Alt 1-3 ESA	1930 Sanborn	Petroleum production location with potential for petroleum hydrocarbon releases from past operations.	Unknown	Based on the distance from the proposed improvements, this location presents a low risk of impact to the proposed improvement project.
34	Two "wood tanks"	south of the rail road tracks to the east of Olive Street	2-10	Low Impact Alt 1-3 ESA	1930 Sanborn	Unknown	Unknown	Based on the distance from the proposed improvements, this location presents a low risk of impact to the proposed improvement project.
35	"restaurant, gas and oil"	South of 10 th Street (Carpinteria Avenue) east of the intersection of Reynolds Avenue	2-20	Low Impact Alt 1-3 ESA	1929 Sanborn	Historical service station with potential for USTs or petroleum hydrocarbon releases from UST operations.	Unknown	Based on the distance from the proposed improvements, this location presents a low risk of impact to the proposed improvement project.
36	Montecito Inn and Garage - "Gas and Oil"	1170 Coast Highway. Southwest corner of Coast Highway and Olive Mill Road.	2-5	Low Impact Alt 1-3 ESA	1942 Sanborn	Historical service station with potential for USTs or petroleum hydrocarbon releases from UST operations.	Unknown	Based on the proposed improvements within the existing ROW (e.g., soil excavation no deeper than one foot below existing road base for roadway structural improvements), this location presents a low risk of impact to the proposed improvement project.
37	Historical Service Station "Gas and Oil"	1133 Coast Highway	2-4	Low Impact Alt 1-3 ESA	1962 Sanborn	Historical service station with potential for USTs or petroleum hydrocarbon releases from UST operations.	Unknown	Based on the distance from the proposed improvements, this location presents a low risk of impact to the proposed improvement project.
38	Historical Service Station "Gas and Oil"	825 Coast Highway	2-3	Low Impact Alt 1-3 ESA	1942 Sanborn	Historical service station with potential for USTs or petroleum hydrocarbon releases from UST operations.	Unknown	Based on the proposed improvements within the existing ROW (e.g., soil excavation to a depth of 3 feet within existing road base for roadway structural improvements), this location presents a low risk of impact to the proposed improvement project.
39	Historical Service Station "Gas and Oil"	405 S. Salinas Street	2-1	Low Impact Alt 1-3 ESA	1969 Sanborn	Historical service station with potential for USTs or petroleum hydrocarbon releases from UST operations.	Unknown	Based on the distance from the proposed improvements, this location presents a low risk of impact to the proposed improvement project.
40	Location of UST at Miramar Hotel	1555 S. Jameson Lane, Montecito	2-6	Low Impact Alt 1-3 ESA	1918 Sanborn	Location of oil UST; potential for petroleum hydrocarbon release from UST operation.	Unknown	Based on the distance from the proposed improvements, this location presents a low risk of impact to the proposed improvement project.
NA	SR-101 Bridge Structures	Various Locations	NA	Existing SR-101 ROW	Recon 1963 Aerial	Existing bridge structures to be removed and replaced.	NA	Perform asbestos and lead-containing paint surveys for demolition worker health & safety and abatement.
NA	SR-101	Existing Corridor	NA	Existing SR-101 ROW	Recon	Planned excavation and pavement work within existing ROW.	NA	Thermoplastic traffic paint, asbestos pipe, and proper abandonment of wells, septic systems, and potential undocumented USTs.
NA	SR-101	Existing Corridor	NA	Existing SR-101 ROW	Recon Previous ADL Studies	Planned excavation and grading within existing ROW.	NA	Perform shallow soil sampling within unpaved areas to evaluate ADL in soil.
NA	SR-101	Existing Corridor	NA	Existing SR-101 ROW	CDCDOGGR maps	Potential petroleum hydrocarbons and oil and gas/exploratory wells in areas of planned excavation and grading within existing ROW.	Unknown	Conduct field meetings as part of preliminary site investigations prior to construction work. Additionally, evaluate potential soil and groundwater impacts and contamination issues, and conduct well abandonment pursuant to CDCDOGGR requirements if oil and gas/exploratory wells are encountered during construction activities.

Notes: ESA – Environmental Study Area
 UST – Underground Storage Tank
 CA FID UST – California Facility Index UST List
 SLIC – Spills, Leaks, Investigation, and Clean-up
 SVE – Soil Vapor Extraction
 MCLs – Maximum Contaminant Levels
 TPHg – total petroleum hydrocarbons as gasoline
 SR – State Route

AST – aboveground storage tank
 RWQCB – Regional Water Quality Control Board
 LUST – Leaking UST
 HIST UST – Historical UST
 MTBE – methy tert-butyl ether
 TBA – tertiary butyl alcohol
 VOCs – volatile organic compounds
 CDCDOGGR – California Department of Conservation, Division of Oil, Gas, and Geothermal Resources

NA – Not Applicable
 ROW – Right-of-way
 ADL – Aerially Deposited Lead
 PCE – tetrachloroethene
 TPH –total petroleum hydrocarbons
 BTEX – benzene, toluene, ethylbenzene, and xylenes
 HOV – High-occupancy vehicle

Shaded row indicate properties with revised (e.g., lower) potential risk categories based on specific construction activities outlined in Caltrans' March 30, 2010 letter and data tables.

TABLE 2
SUMMARY OF PRELIMINARY SITE INVESTIGATION OPTIONS - REVISED
SOUTH COAST 101 HOV PROJECT – ADDENDUM TO THE INITIAL SITE ASSESSMENT

Map ID No.	Location	Address	Figure No.	Impact to South Coast SR-101 HOV Project	Environmental Impacts/ Chemical of Concern	Preliminary Site Investigation Options		
						Soil Excavation Above Groundwater Level	Soil Excavation Below Groundwater Level	Existing Structure and Roadway Construction
1	Former Shell Service Station	1000 Coast Village Road, Montecito	2-3	High Impact Alt 1-3 ESA	Former service station with reported petroleum hydrocarbon releases to soil and groundwater.	No additional investigation recommended at this time.	Collect soil and groundwater samples to evaluate options for soil reuse or disposal, and management of water generated from de-watering activities due to potential petroleum hydrocarbon, VOC, and metals impacts.	NA
5	Chevron Station	1085 Coast Village Road, Montecito	2-4	High Impact Alt 1-3 ESA	Active service station with reported petroleum hydrocarbon releases to soil and groundwater.	No additional investigation recommended at this time.	Collect soil and groundwater samples to evaluate options for soil reuse or disposal, and management of water generated from de-watering activities due to potential petroleum hydrocarbon, VOC, and metals impacts.	NA
10	Carpinteria Fire Station No. 2	2375 Lillie Avenue, Montecito	2-10	Medium Impact Alt 1-3 ESA	Potential for petroleum hydrocarbon release from past UST operation.	Collect soil samples along SR-101 ROW to evaluate soil reuse or disposal options due to potential petroleum hydrocarbon and VOC impacts to soil from adjacent property.	Collect soil and groundwater samples to evaluate options for soil reuse or disposal, and management of water generated from de-watering activities due to potential petroleum hydrocarbon, VOC, and metals impacts.	NA
11	Gallup & Stribling	3450 Via Real, Carpinteria	2-15	Medium Impact Alt 1-3 ESA	Former fueling facility with reported petroleum hydrocarbon releases to soil from facility operations.	No additional investigation recommended at this time.	Collect soil and groundwater samples to evaluate options for soil reuse or disposal, and management of water generated from de-watering activities due to potential petroleum hydrocarbon, VOC, and metals impacts.	NA
12	S.B. Harley-Davidson	3501-3508 Via Real, Carpinteria	2-16	Medium Impact Alt 1-3 ESA	Automotive repair facility with potential petroleum hydrocarbon release from facility operations.	Collect soil samples along SR-101 ROW to evaluate soil reuse or disposal options due to potential petroleum hydrocarbon and VOC impacts to soil from adjacent property.	Collect soil and groundwater samples to evaluate options for soil reuse or disposal, and management of water generated from de-watering activities due to potential petroleum hydrocarbon, VOC, and metals impacts.	NA
13	Corvette Shop	3651 Via Real, Carpinteria	2-16	Medium Impact Alt 1-3 ESA	Apparent former gas station and automotive repair/service facility with potential petroleum hydrocarbons.	Collect soil samples along SR-101 ROW to evaluate soil reuse or disposal options due to potential petroleum hydrocarbon and VOC impacts to soil from adjacent property.	Collect soil and groundwater samples to evaluate options for soil reuse or disposal, and management of water generated from de-watering activities due to potential petroleum hydrocarbon, VOC, and metals impacts.	NA
14	McCormix Corporation	3663 Via Real, Carpinteria	2-16	Medium Impact Alt 1-3 ESA	Active service station with reported petroleum hydrocarbon releases to soil and groundwater.	No additional investigation recommended at this time.	Collect soil and groundwater samples to evaluate options for soil reuse or disposal, and management of water generated from de-watering activities due to potential petroleum hydrocarbon, VOC, and metals impacts.	NA
17	Sandyland Nursery	3890 Via Real, Carpinteria	2-17	Medium Impact Alt 1-3 ESA	Historical gasoline and diesel USTs; generator of pesticide rinse water and unspecified oil-containing waste. Potential for petroleum hydrocarbon and pesticide release from facility operations.	Collect soil samples along SR-101 ROW to evaluate soil reuse or disposal options due to potential petroleum hydrocarbon, pesticide, and metals impacts to soil from adjacent property.	Collect soil and groundwater samples to evaluate options for soil reuse or disposal, and management of water generated from de-watering activities due to potential petroleum hydrocarbon, pesticide, and metals impacts.	NA
18	Ocean Breeze Int'l	3910 Via Real, Carpinteria	2-17	Medium Impact Alt 1-3 ESA	Potential for petroleum hydrocarbon release from historical operation of gasoline and diesel USTs.	Collect soil samples along SR-101 ROW to evaluate soil reuse or disposal options due to potential petroleum hydrocarbon and VOC impacts to soil from adjacent property.	Collect soil and groundwater samples to evaluate options for soil reuse or disposal, and management of water generated from de-watering activities due to potential petroleum hydrocarbon, VOC, and metals impacts.	NA
19	Chevron Station 9-3005	4290 Via Real, Carpinteria	2-19	High Impact Alt 1-3 ESA	Active service station with reported petroleum hydrocarbon releases to soil and groundwater.	No additional investigation recommended at this time.	Collect soil and groundwater samples to evaluate options for soil reuse or disposal, and management of water generated from de-watering activities due to potential petroleum hydrocarbon, VOC, and metals impacts.	NA
21	Union Oil (aka Tosco, Conoco, Unocal, 7-11, etc.) Service Station	4401 Via Real, Carpinteria	2-19	High Impact Alt 1-3 ESA	Active service station with reported releases of TPHg, VOCs, and fuel oxygenates to soil and groundwater.	Collect soil samples to evaluate soil reuse or disposal options due to reported MTBE concentrations in groundwater within the SR-101 ROW.	Collect soil and groundwater samples to evaluate options for soil reuse or disposal, management of water generated from de-watering activities due to reported MTBE concentrations in groundwater within the SR-101 ROW.	NA
27	Iron Oil Tank and Historical Service Station "Oil and Gas"	Southwest corner of State Highway (Lillie Avenue) and Beighle (Valencia Road)	2-10	High Impact Alt 1-3 ESA	Historical service station with potential for USTs or petroleum hydrocarbon releases from UST operations.	Conduct a geophysical survey to evaluate the presence of potential USTs and subsurface features resulting from operations at the historical service station within the SR-101 ROW. Additionally, collect soil samples to evaluate soil reuse or disposal options due to potential petroleum hydrocarbon, VOC, and metals impacts to soil resulting from historical service station operations.	Conduct a geophysical survey to evaluate the presence of potential USTs and subsurface features resulting from operations at the historical service station within the SR-101 ROW. Additionally, collect soil and groundwater samples to evaluate soil reuse or disposal options, and management of water generated from de-watering activities due to potential petroleum hydrocarbon, VOC, and metals impacts.	NA
NA	SR-101 Bridge Structures	Various Locations	NA	Existing SR-101 ROW	Existing bridge structures to be removed and replaced.	Collect soil samples at previously unsampled areas to evaluate soil reuse or disposal options.	Collect soil and groundwater samples at previously unsampled areas to evaluate options for soil reuse or disposal, and management of water generated from de-watering activities.	Perform asbestos and lead-containing paint surveys for air district requirements (asbestos) and demolition worker health & safety (asbestos and lead).
NA	SR-101	Existing Corridor	NA	Existing SR-101 ROW	Planned excavation and pavement work within existing ROW.	Perform shallow soil sampling within unpaved and previously unsampled areas to evaluate ADL in soil.	NA	NA

TABLE 2
SUMMARY OF PRELIMINARY SITE INVESTIGATION OPTIONS - REVISED
SOUTH COAST 101 HOV PROJECT – ADDENDUM TO THE INITIAL SITE ASSESSMENT

Map ID No.	Location	Address	Figure No.	Impact to South Coast SR-101 HOV Project	Environmental Impacts/ Chemical of Concern	Preliminary Site Investigation Options		
						Soil Excavation Above Groundwater Level	Soil Excavation Below Groundwater Level	Existing Structure and Roadway Construction
NA	SR-101	Existing Corridor	NA	Existing SR-101 ROW	Planned excavation and grading within existing ROW.	Further evaluate potential hazardous waste issues or provide construction special provisions for thermoplastic traffic paint, asbestos pipe, and proper abandonment of undocumented wells, septic systems, and USTs.	Further evaluate potential hazardous waste issues or provide construction special provisions for thermoplastic traffic paint, asbestos pipe, and proper abandonment of encountered unidentified wells, septic systems, and USTs.	Further evaluate potential hazardous waste issues or provide construction special provisions for thermoplastic traffic paint, asbestos pipe, and proper abandonment of undocumented wells, septic systems, and USTs.
NA	SR-101	Existing Corridor	NA	Existing SR-101 ROW	Potential petroleum hydrocarbons and oil and gas/exploratory wells in areas of planned excavation and grading within existing ROW.	Contact CDCDOGGR staff to conduct a field meeting at locations with reported abandoned oil and gas wells within the SR-101 ROW. Perform a geophysical survey to evaluate the presence of potential oil and gas wells and subsurface features where reported wells are not locatable based on the field meeting. Properly abandon any unidentified oil and gas wells per CDCDOGGR requirements. Collect soil samples in areas of visibly stained soil to evaluate soil reuse or disposal options due to potential petroleum hydrocarbon impacts to soil. Based on information provided by CDCDOGGR, estimated oil and gas well abandonment or re-abandonment costs may range from \$15,000 to \$25,000 per well.	Contact CDCDOGGR staff to conduct a field meeting at locations with reported abandoned oil and gas wells within the SR-101 ROW. Perform a geophysical survey to evaluate the presence of potential oil and gas wells and subsurface features where reported wells are not locatable based on the field meeting. Properly abandon any unidentified oil and gas wells per CDCDOGGR requirements. Collect soil and groundwater samples in areas of visibly stained soil to evaluate options for soil reuse or disposal, and management of water generated from de-watering activities due to potential petroleum hydrocarbon impacts. Based on information provided by CDCDOGGR, estimated oil and gas well abandonment or re-abandonment costs may range from \$15,000 to \$25,000 per well.	NA

Notes:

ESA – Environmental Study Area
 UST – Underground Storage Tank
 ADL – Aerially Deposited Lead
 MTBE – methyl tert-butyl ether
 HOV – High-occupancy vehicle

NA – Not Applicable
 ROW – Right-of-way
 HIST UST – Historical UST
 TPHg – total petroleum hydrocarbons as gasoline
 SR – State Route

AST – aboveground storage tank
 LUST – Leaking UST
 PCE – tetrachloroethene
 VOCs – volatile organic compounds
 CDCDOGGR – California Department of Conservation, Division of Oil, Gas, and Geothermal Resources

DEPARTMENT OF TRANSPORTATION

50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3111
FAX (805) 549-3329
TDD (805) 549-3259
<http://www.dot.gov/dist05>



*Flex your power!
Be energy efficient!*

March 30, 2010

Mr. Chris Giuntoli
Geocon Consultants Inc.
6671 Brisa Street
Livermore, CA 94550

Dear Mr. Giuntoli:

**REQUEST FOR ADDENDUM TO THE INITIAL SITE ASSESSMENT REPORT FOR
THE SOUTH COAST 101 HOV LANE PROJECT (EA 05-0N7000).**

Additional design work has been completed on the South Coast 101 HOV Lane Project (EA 05-0N7000) since the Initial Site Assessment (ISA) was completed in June 2009. Design features such as retaining walls, sound walls and limits of roadway structural sections have been further defined. Based on this refined information, I have re-evaluated the potential risk to the proposed project by sites that are adjacent to the highway right of way and have a possibility of being contaminated. I believe that several of the sites that were rated as a medium or high risk to the project in the ISA can now be downgraded to a low risk to the project.

I am requesting that Geocon review the information on the attached table and either give concurrence to the revised risk status or state why the original risk rating should not be changed. The response should be in the form of an addendum to the June 2009 ISA. Please include a short statement why the addendum is being produced and include revised versions of Tables 1 and 2 from the ISA. Please also include the maps prepared by Caltrans that show the location of the suspect parcels and their relation to some of the design features. These figures can be found at the Caltrans ftp site. Directions for access to the site are on the following page. Please give me a call if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "James Tkach".

JAMES TKACH
Environmental Engineer

Attachment: Table - Potential Hydrocarbon sites

March 30, 2010

Page 2

FTP site with instructions below:

1. Open Internet Explorer
2. In the address bar, enter: **ftp://svctftp.dot.ca.gov/**
3. Dismiss any error dialogs if needed.
4. From the **File** menu, select **Login As**
5. In the Log On As dialog, enter the following
username: d05ftp3
password: D05Scott
6. Click **Log On**.
7. PDFs of the maps are in the folder: **South Coast HOV**

If you have any questions contact:

Ed Schefter
GIS Specialist
805-549-3653

Potential Hydrocarbon Impacted Sites - SB 101 HOV Lane 05-0N7000

ISA Site #	ISA Fig. #	Layout Sheet #	NRB Plan Fig #	ISA Risk Level	G/W Depth	Geocon Sampling Recommendation									
1	2-3	L-38	N/A	H*	35-45"	Below G/W only									
ISA Information			Former Shell service station. Site assessment underway. Offsite hydrocarbon contaminated groundwater. Extent into State R/W unknown.												
Construction Details			Structure excavation for pile cap at existing structure. G/W at 6 feet in 1956.												
Recommendation			One direct push hole to G/W for soil and G/W samples. One boring between south end of NB side of structure and plume will be sufficient for all structure excavation scenarios.												
4	2-4	L-36	N/A	M*	42-45'	Below G/W only									
ISA Information			Former service station. UST's removed in 2000. Site assessment underway. Offsite hydrocarbon and solvent contaminated groundwater. Extent into State R/W unknown.												
Construction Details			Only excavation is for roadway structural section and a traffic signal foundation. Soil and G/W contamination likely not this shallow.												
Recommendation			No sampling required.												
5	2-4	L-36	N/A	H*	27-43'	Below G/W only									
ISA Information			Active Chevron service station. Hydrocarbon and MTBE contaminated groundwater. Undergoing natural attenuation.												
Construction Details			Butterfly Lane Ped UC has potential for G/W issues.												
Recommendation			One direct push hole to G/W for soil and G/W samples.												
6	2-5	L-34	15	M*	49-51'	Below G/W only									
ISA Information			Active Unocal service station with ongoing remediation. Limits of offsite plume unknown.												
Construction Details			No excavation will be deeper than 1 foot below roadway structural section. Soil and G/W contamination likely not this shallow or this far offsite.												
Recommendation			No sampling required.												
9	2-10	L-25	11	L	9-14'	N/A									
ISA Information			Active Texaco service station with hydrocarbon contamination to soil and groundwater. Well closest to Caltrans R/W are not contaminated.												
Construction Details			SW will be constructed on top of 20' fill section. Pile cap excavation not impacted because onsite data shows no offsite contamination. G/W was not encountered at 65' in 1962.												
Recommendation			No sampling required.												
10	2-10	L-24	11	M	N/A	Above and Below G/W									
ISA Information			Carpinteria Fire station reportedly at one time had one 550 gallon diesel UST. No known releases and not on any database.												
Construction Details			Soundwall footing at grade with fire station property. Possible spread footing (8' W X 1'D) trench footing (1' W X 9'D), CIDH piles, (1' W X 20' D).												
Recommendation			One direct push hole for soil and possibly G/W samples if can get access to back of building which is State property.												
11	2-15	L-15	7	L, M*	N/A	Below G/W only									
ISA Information			Former service station. UST's removed in 1999. Site cleanup completed and case closed by the County and WB in 2004.												
Construction Details			Only soundwall on opposite side of highway. Arroyo Parida structure being completely removed. Bottom of pile cap may be close to G/W (possibly as shallow as 7').												
Recommendation			One direct push hole to G/W for soil and G/W samples.												
12	2-16	L-14	6	M	N/A	Above and Below G/W									
ISA Information			SB Harley Davidson - repair facility but no know releases - not on any database - M because of type of facility and proximity to project.												
Construction Details			Only rdwy ex is on hwy which is elevated so no issue. No soundwall but structure work on I/C. Sample soil and G/W at I/C structure footing. G/W may be at 7'.												
Recommendation			One direct push hole to G/W for soil and G/W samples.												
				* Indicates that the site is only a H or M risk IF there will be NEARBY excavation that extends BELOW the groundwater table											

Potential Hydrocarbon Sites - SB 101 HOV Lane 05-0N7000

ISA Site #	ISA Fig. #	Layout Sheet #	NRB Plan Fig #	ISA Risk Level	G/W Depth	Geocon Sampling Recommendation									
13	2-16	L-14	6	M*	N/A	Above and Below G/W									
ISA Information		Former service station. No other information. Not on any data base. M because of type of facility and proximity to project.													
Construction Details		Only rdwy ex is on hwy which is elevated so no issue. No excavation at grade on ramp. Have structure work on I/C. Sample soil and G/W at I/C structure footing. G/W may be at 7'.													
Recommendation		Use data from samples for Site 12 to represent this site also.													
14	2-16	L-14	6	M*	3-9'	Below G/W only									
ISA Information		McCormix fueling facility with reported hydrocarbon releases to soil and groundwater. Ongoing groundwater monitoring.													
Construction Details		Only rdwy ex is on hwy which is elevated so no issue. No excavation at grade on ramp. Have structure work on I/C. Sample soil and G/W at I/C structure footing. G/W may be at 7'.													
Recommendation		Use data from samples for Site 12 to represent this site also.													
17	2-17	L-12	5	M	N/A	Above and Below G/W									
ISA Information		Sandyland nursery. Had diesel and gasoline UST's. No known releases and not on any databases. Listed M because of history and close to project.													
Construction Details		Extensive storm drain modification. Excavations may get close to G/W estimated at 7'. No lateral runs. Only modifying what's already in place.													
Recommendation		One direct push hole to G/W for soil and G/W samples.													
18	2-17	L-11	5	M	N/A	Above and Below G/W									
ISA Information		Ocean Breez Intl. Historical UST's. No known releases and not on any databases. Listed M because of history and close to project.													
Construction Details		Extensive storm drain modification. Excavations may get close to G/W estimated at 7'. No lateral runs. Only modifying what's already in place.													
Recommendation		One direct push hole to G/W for soil and G/W samples.													
19	2-19	L-9	4	H*	3-7'	Below G/W only									
ISA Information		Chevron service station. Active service station with documented hydrocarbon contamination of soil and groundwater immediately adjacent to Caltrans R/W.													
Construction Details		Soundwall footing at grade with service station property. Possible spread footing (8' W X 1'D) trench footing (1' W X 9'D), CIDH piles, (1' W X 20' D).													
Recommendation		One direct push hole in the location where the soundwall is going for soil and G/W samples.													
21	2-19	L-8	4	H	1-17'	Above and Below G/W									
ISA Information		Unocal service station. Active service station with documented hydrocarbon contamination of soil and G/W. Documented shallow G/W contamination within Caltrans R/W.													
Construction Details		Soundwall footing at grade with service station property. Possible spread footing (8' W X 1'D) trench footing (1' W X 9'D), CIDH piles, (1' W X 20' D).													
Recommendation		One each direct push hole where the soundwall is going for soil and G/W samples (in front of former Carrows and on SB side of Highway). Incorporate existing information from encroachment permit reports.													
27	2-10	L-24	11	H	N/A	Above and Below G/W									
ISA Information		Only information is it was shown as a historic service station "Oil and Gas" on the 1907 and 1930 Sanborn maps. Not on any leak/spill data base. Just rated H because it is close to the project.													
Construction Details		Soundwall footing going right through this area. Possible spread footing (8' W X 1'D) trench footing (1' W X 9'D), CIDH piles, (1' W X 20' D).													
Recommendation		One direct push hole in the location where the soundwall is going for soil and G/W samples. Geophysical survey really necessary?													
31	2-10	L-25	11	M	N/A	Above and Below G/W									
ISA Information		Only information is it was shown as a historic service station "Oil and Gas" on the 1930 Sanborn maps. Not on any leak/spill data base. Just rated M because it is close to the project.													
Construction Details		Closest soundwall is approx 150' away. Only excavation in this area is for a 3' structural section and that is 50' away from this site.													
Recommendation		No sampling required.													
* Indicates that the site is only a H or M risk IF there will be NEARBY excavation that extends BELOW the groundwater table															

SB 101 South Coast HOV

- Area of Potential Impacts
- SB Co Parcels
- D5 Culvert Inventory
- Potentially Impacted Parcels



0 50 100 200 Feet

Note: Discrepancies exist in the position of data shown on this map resulting in errors such as parcel lines NOT aligning with the photo.

Soundwalls

- soundwall centerline
 - potential impact area
 - footing
- Retaining Walls**
- retaining wall centerline

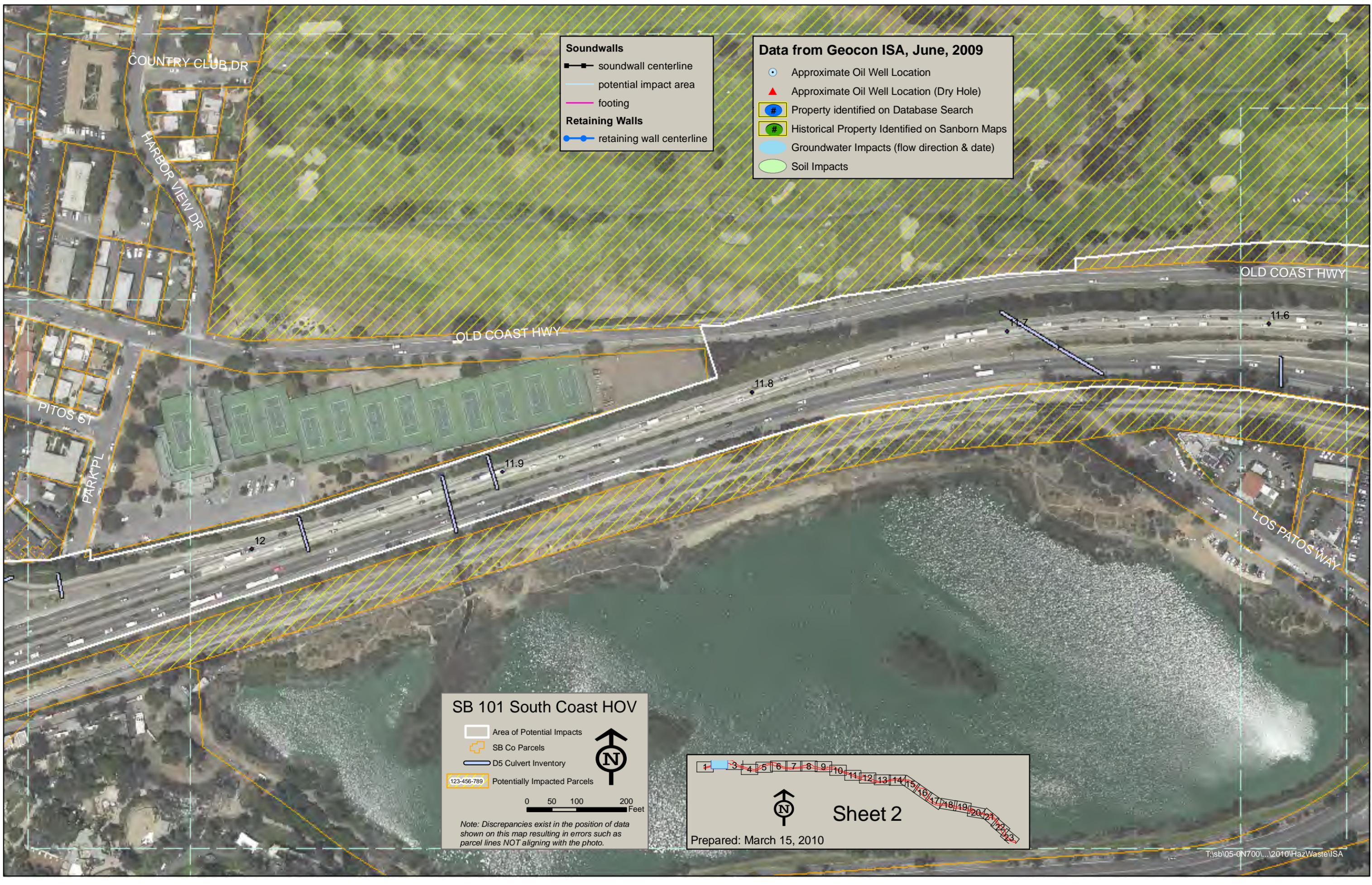
Data from Geocon ISA, June, 2009

- Approximate Oil Well Location
- Approximate Oil Well Location (Dry Hole)
- Property identified on Database Search
- Historical Property Identified on Sanborn Maps
- Groundwater Impacts (flow direction & date)
- Soil Impacts



Sheet 1

Prepared: March 15, 2010



Soundwalls

- soundwall centerline
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- footing

Retaining Walls

- retaining wall centerline

Data from Geocon ISA, June, 2009

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- ▲ Approximate Oil Well Location (Dry Hole)
- # Property identified on Database Search
- # Historical Property Identified on Sanborn Maps
- Groundwater Impacts (flow direction & date)
- Soil Impacts

SB 101 South Coast HOV

- Area of Potential Impacts
- ▣ SB Co Parcels
- D5 Culvert Inventory
- 123-456-789 Potentially Impacted Parcels



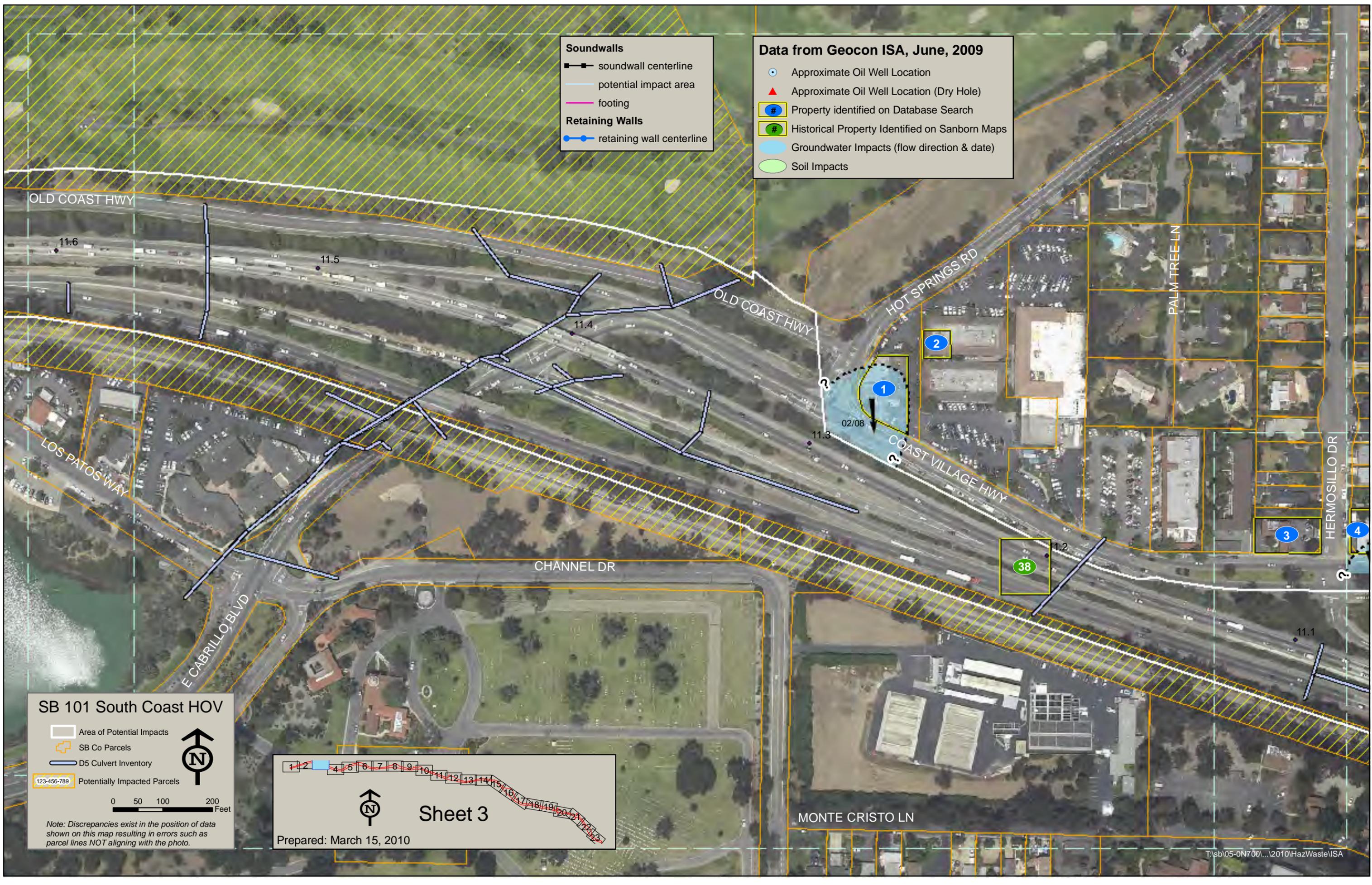
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Sheet 2

Prepared: March 15, 2010

- Soundwalls**
- soundwall centerline
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- Retaining Walls**
- retaining wall centerline

- Data from Geocon ISA, June, 2009**
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 - Soil Impacts

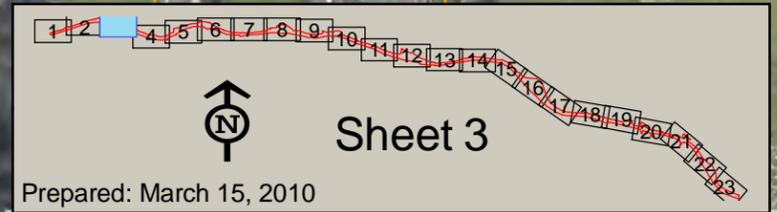


SB 101 South Coast HOV

- Area of Potential Impacts
- ▣ SB Co Parcels
- D5 Culvert Inventory
- 123-456-789 Potentially Impacted Parcels



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SB 101 South Coast HOV

- Area of Potential Impacts
- SB Co Parcels
- D5 Culvert Inventory
- # Potentially Impacted Parcels

0 50 100 200 Feet

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Sheet 4

Prepared: March 24, 2010

Soundwalls

- soundwall centerline
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- footing

Retaining Walls

- retaining wall centerline

SB 101 South Coast HOV

-  Area of Potential Impacts
-  SB Co Parcels
-  D5 Culvert Inventory
-  Potentially Impacted Parcels





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Soundwalls

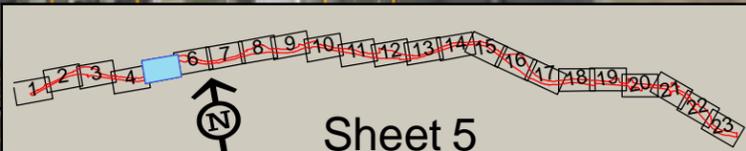
-  soundwall centerline
-  potential impact area
-  footing

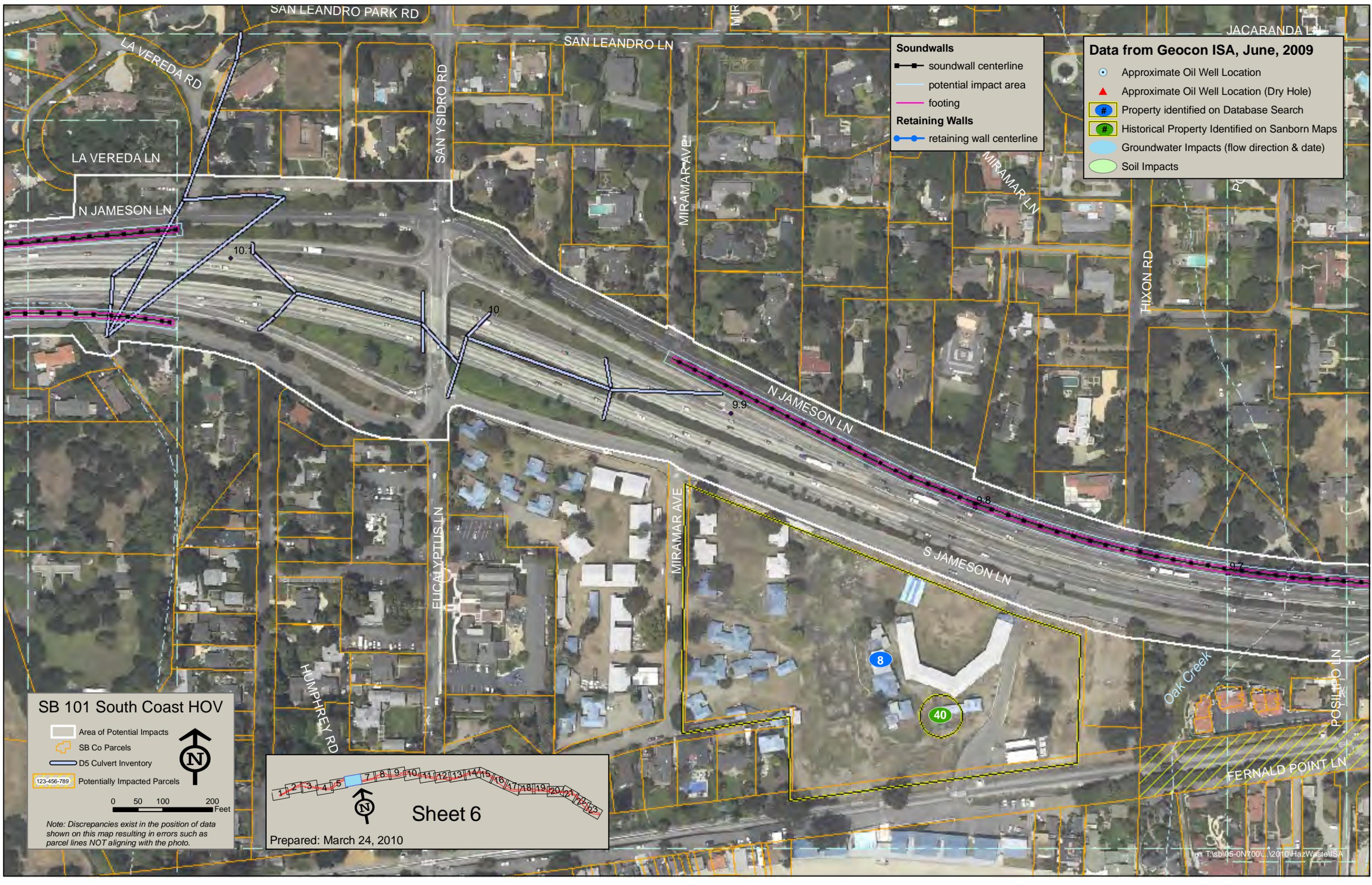
Retaining Walls

-  retaining wall centerline

Data from Geocon ISA, June, 2009

-  Approximate Oil Well Location
-  Approximate Oil Well Location (Dry Hole)
-  Property identified on Database Search
-  Historical Property Identified on Sanborn Maps
-  Groundwater Impacts (flow direction & date)
-  Soil Impacts


Sheet 5
 Prepared: March 24, 2010



- Soundwalls**
- soundwall centerline
 - potential impact area
 - footing
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- retaining wall centerline

- Data from Geocon ISA, June, 2009**
- Approximate Oil Well Location
 - ▲ Approximate Oil Well Location (Dry Hole)
 - # Property identified on Database Search
 - # Historical Property Identified on Sanborn Maps
 - Groundwater Impacts (flow direction & date)
 - Soil Impacts

SB 101 South Coast HOV

- Area of Potential Impacts
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Sheet 6

Prepared: March 24, 2010

SB 101 South Coast HOV

- Area of Potential Impacts
- SB Co Parcels
- D5 Culvert Inventory
- 123-456-789 Potentially Impacted Parcels



Note: Discrepancies exist in the position of data shown on this map resulting in errors such as parcel lines NOT aligning with the photo.

Sheet 7

Prepared: March 15, 2010

Data from Geocon ISA, June, 2009

- Approximate Oil Well Location
- Approximate Oil Well Location (Dry Hole)
- Property identified on Database Search
- Historical Property Identified on Sanborn Maps
- Groundwater Impacts (flow direction & date)
- Soil Impacts



- Soundwalls**
- soundwall centerline
 - potential impact area
 - footing
- Retaining Walls**
- retaining wall centerline

SB 101 South Coast HOV

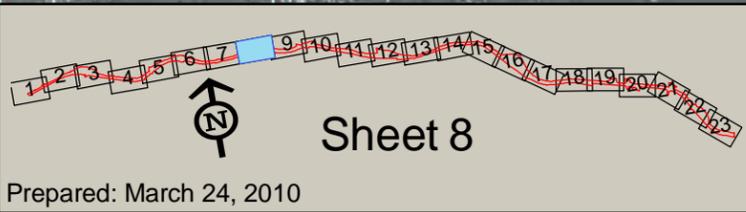
- Area of Potential Impacts
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- Potentially Impacted Parcels



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Data from Geocon ISA, June, 2009

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- Approximate Oil Well Location (Dry Hole)
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- Historical Property Identified on Sanborn Maps
- Groundwater Impacts (flow direction & date)
- Soil Impacts



Sheet 8

Prepared: March 24, 2010

- Soundwalls**
- soundwall centerline
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- retaining wall centerline

SB 101 South Coast HOV

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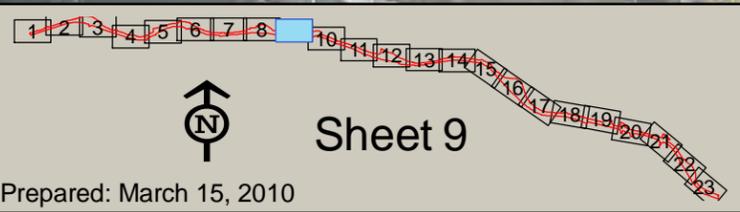
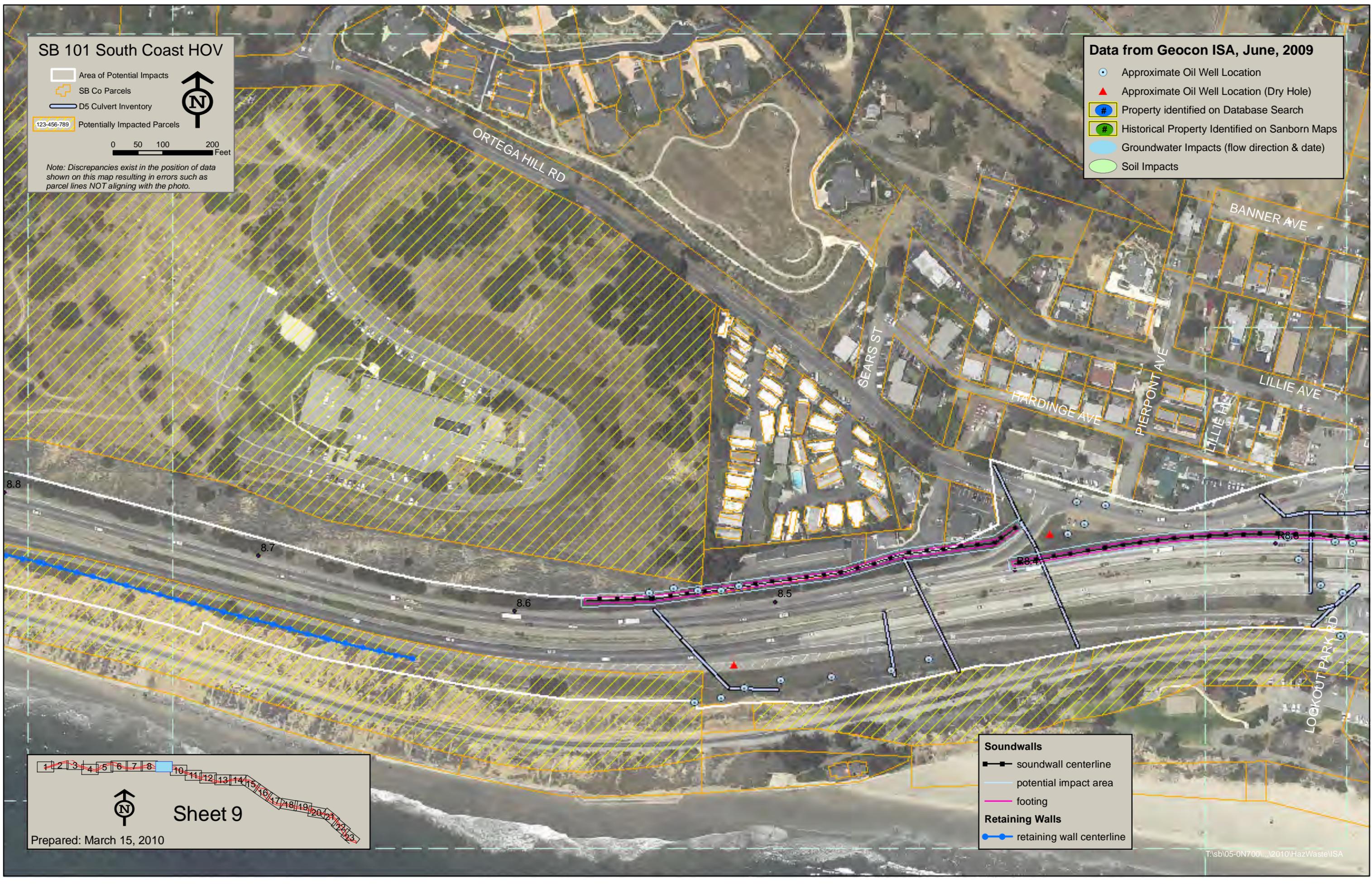


0 50 100 200 Feet

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Data from Geocon ISA, June, 2009

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- Approximate Oil Well Location (Dry Hole)
- Property identified on Database Search
- Historical Property Identified on Sanborn Maps
- Groundwater Impacts (flow direction & date)
- Soil Impacts



Sheet 9

Prepared: March 15, 2010

- Soundwalls**
- soundwall centerline
 - potential impact area
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- Retaining Walls**
- retaining wall centerline

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Sheet 10

Prepared: March 15, 2010

SB 101 South Coast HOV

- Area of Potential Impacts
- SB Co Parcels
- D5 Culvert Inventory
- Potentially Impacted Parcels

423-456-789

0 50 100 200 Feet

Note: Discrepancies exist in the position of data shown on this map resulting in errors such as parcel lines NOT aligning with the photo.



Data from Geocon ISA, June, 2009

- Approximate Oil Well Location
- Approximate Oil Well Location (Dry Hole)
- Property identified on Database Search
- Historical Property Identified on Sanborn Maps
- Groundwater Impacts (flow direction & date)
- Soil Impacts

Soundwalls

- soundwall centerline
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- footing

Retaining Walls

- retaining wall centerline

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Sheet 11

Prepared: March 15, 2010

SB 101 South Coast HOV

- Area of Potential Impacts
- SB Co Parcels
- D5 Culvert Inventory
- Potentially Impacted Parcels

423-456-789

0 50 100 200 Feet

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Data from Geocon ISA, June, 2009

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- Approximate Oil Well Location (Dry Hole)
- Property identified on Database Search
- Historical Property Identified on Sanborn Maps
- Groundwater Impacts (flow direction & date)
- Soil Impacts

Soundwalls

- soundwall centerline
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- footing

Retaining Walls

- retaining wall centerline

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Sheet 12

Prepared: March 15, 2010

SB 101 South Coast HOV

Area of Potential Impacts

SB Co Parcels

D5 Culvert Inventory

Potentially Impacted Parcels

423-456-789

0 50 100 200 Feet

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Data from Geocon ISA, June, 2009

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Data from Geocon ISA, June, 2009

- Approximate Oil Well Location
- ▲ Approximate Oil Well Location (Dry Hole)
- # Property identified on Database Search
- # Historical Property Identified on Sanborn Maps
- Groundwater Impacts (flow direction & date)
- Soil Impacts

Sheet 13

Prepared: March 15, 2010

SB 101 South Coast HOV

- Area of Potential Impacts
- SB Co Parcels
- D5 Culvert Inventory
- Potentially Impacted Parcels

0 50 100 200 Feet

Note: Discrepancies exist in the position of data shown on this map resulting in errors such as parcel lines NOT aligning with the photo.



Soundwalls

- soundwall centerline
- potential impact area
- footing

Retaining Walls

- retaining wall centerline

Data from Geocon ISA, June, 2009

- Approximate Oil Well Location
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- # Property identified on Database Search
- # Historical Property Identified on Sanborn Maps
- Groundwater Impacts (flow direction & date)
- Soil Impacts

Sheet 14

Prepared: March 15, 2010

SB 101 South Coast HOV

- Area of Potential Impacts
- SB Co Parcels
- D5 Culvert Inventory
- Potentially Impacted Parcels

423-456-789

0 50 100 200 Feet

Note: Discrepancies exist in the position of data shown on this map resulting in errors such as parcel lines NOT aligning with the photo.



Soundwalls

- soundwall centerline
- potential impact area
- footing

Retaining Walls

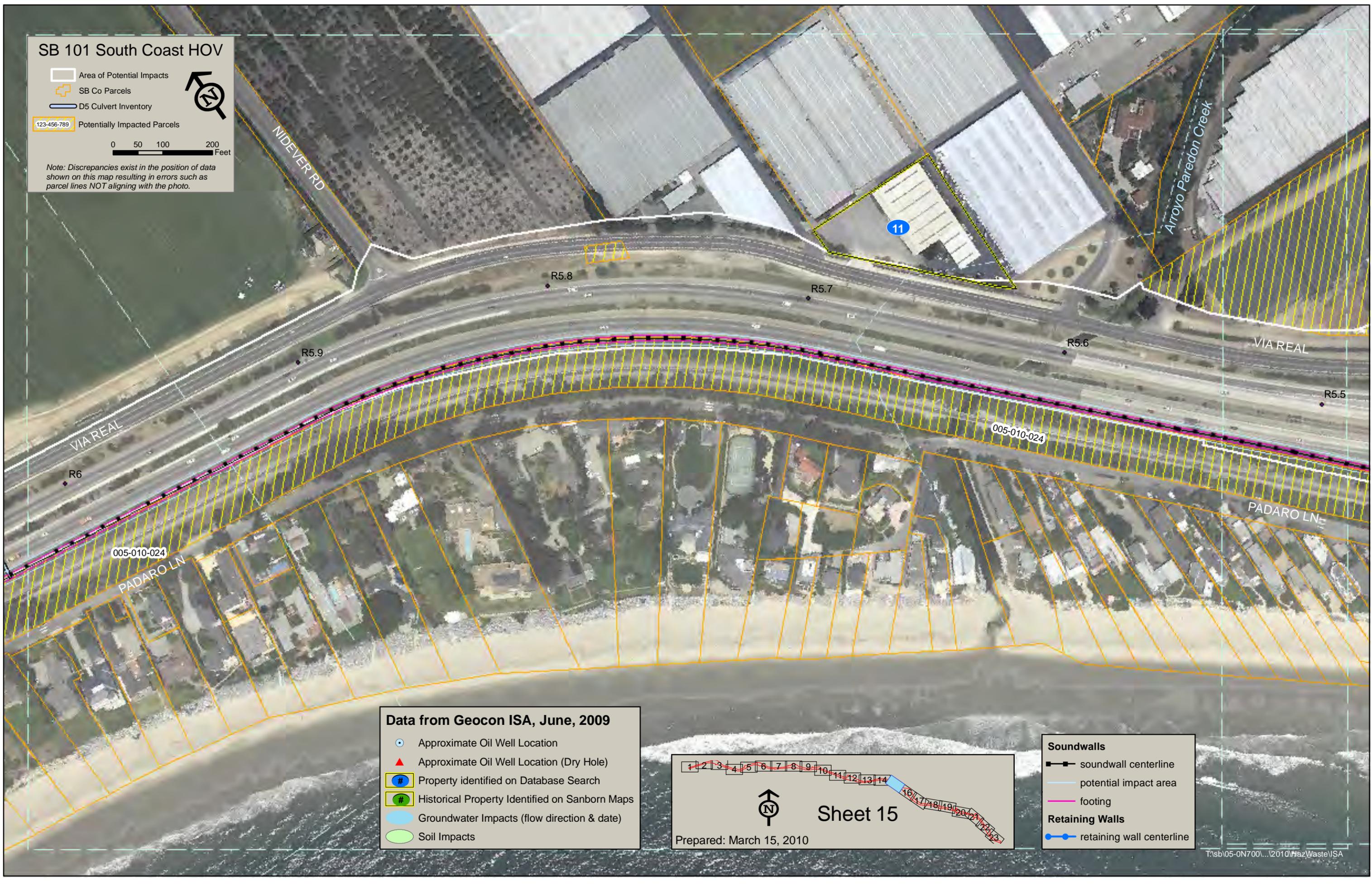
- retaining wall centerline

SB 101 South Coast HOV

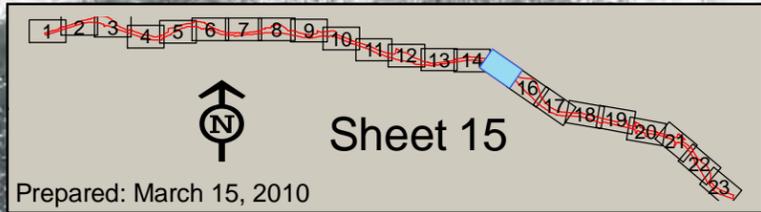
-  Area of Potential Impacts
-  SB Co Parcels
-  D5 Culvert Inventory
-  123-456-789 Potentially Impacted Parcels



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- ### Data from Geocon ISA, June, 2009
-  Approximate Oil Well Location
 -  Approximate Oil Well Location (Dry Hole)
 -  Property identified on Database Search
 -  Historical Property Identified on Sanborn Maps
 -  Groundwater Impacts (flow direction & date)
 -  Soil Impacts



- ### Soundwalls
-  soundwall centerline
 -  potential impact area
 -  footing
- ### Retaining Walls
-  retaining wall centerline

SB 101 South Coast HOV

- Area of Potential Impacts
- SB Co Parcels
- D5 Culvert Inventory
- 123-456-789 Potentially Impacted Parcels

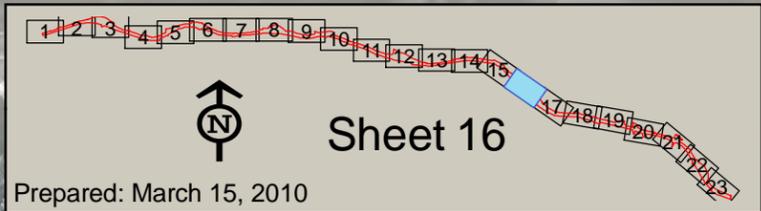


0 50 100 200 Feet

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- Data from Geocon ISA, June, 2009**
- Approximate Oil Well Location
 - Approximate Oil Well Location (Dry Hole)
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 - Soil Impacts



- Soundwalls**
- soundwall centerline
 - potential impact area
 - footing
- Retaining Walls**
- retaining wall centerline

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Prepared: March 24, 2010

Sheet 18

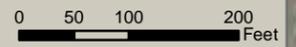
SB 101 South Coast HOV

Area of Potential Impacts

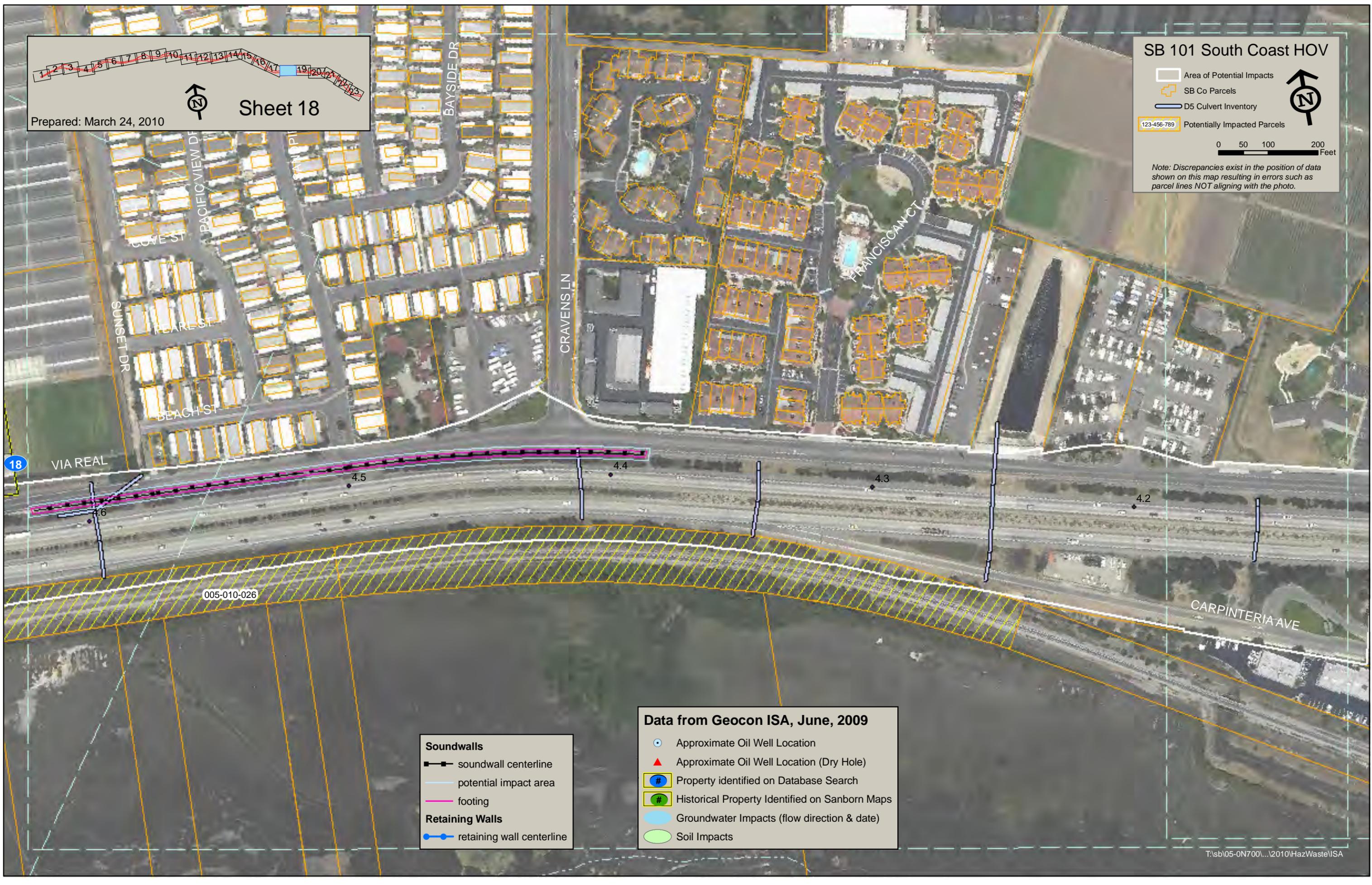
 SB Co Parcels

 D5 Culvert Inventory

 123-456-789 Potentially Impacted Parcels



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Data from Geocon ISA, June, 2009

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- Soil Impacts

- Soundwalls**
- soundwall centerline
 - potential impact area
 - footing
- Retaining Walls**
- retaining wall centerline

005-010-026

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Prepared: March 24, 2010

Sheet 19

Data from Geocon ISA, June, 2009

- Approximate Oil Well Location
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- Soil Impacts

SB 101 South Coast HOV

- Area of Potential Impacts
- SB Co Parcels
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- 123-456-789 Potentially Impacted Parcels

0 50 100 200 Feet

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Soundwalls

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- footing

Retaining Walls

- retaining wall centerline

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

Prepared: March 24, 2010

Sheet 20

Data from Geocon ISA, June, 2009

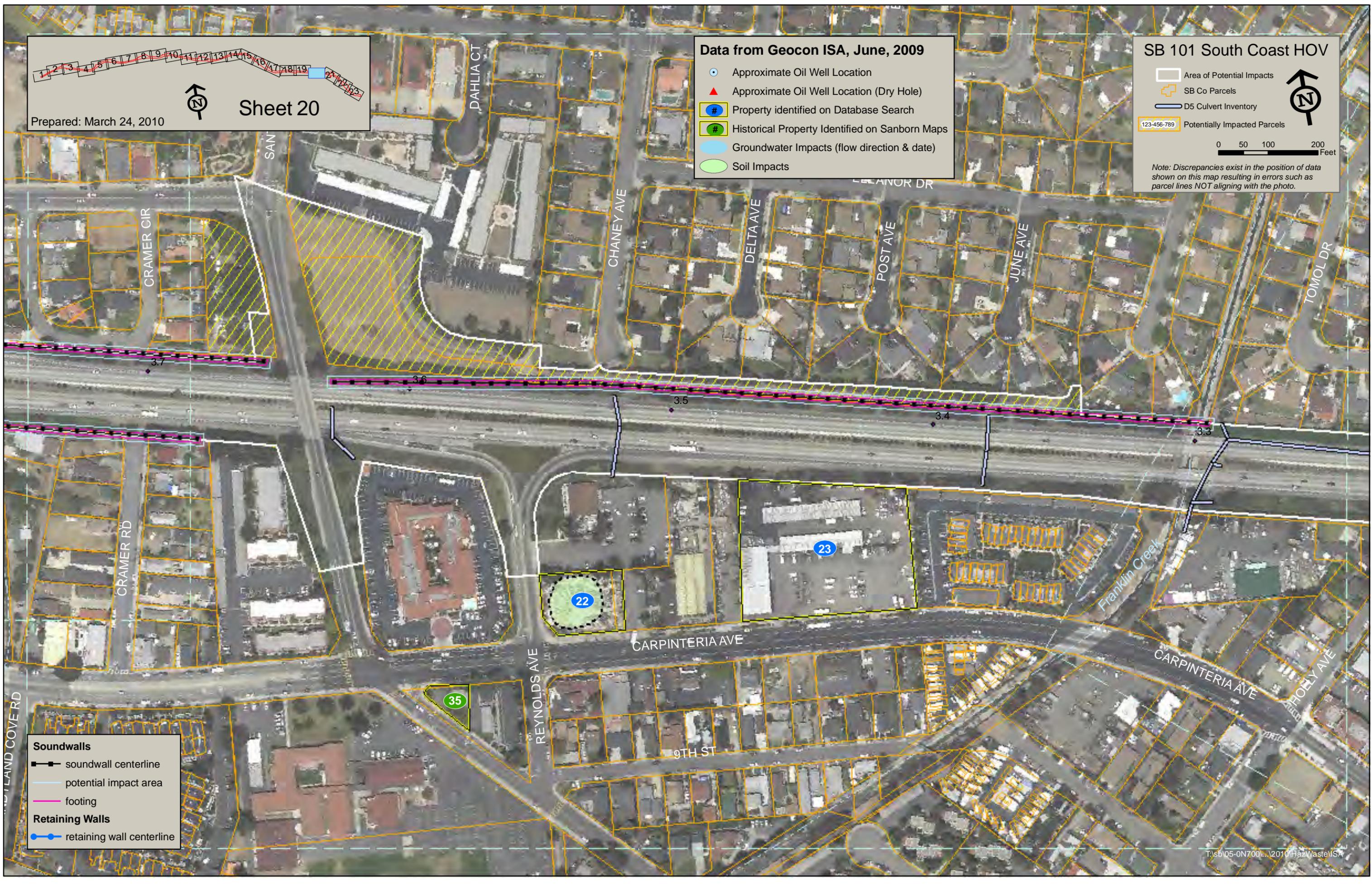
- Approximate Oil Well Location
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- # Property identified on Database Search
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- Groundwater Impacts (flow direction & date)
- Soil Impacts

SB 101 South Coast HOV

- Area of Potential Impacts
- SB Co Parcels
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0 50 100 200 Feet

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Soundwalls

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- potential impact area
- footing

Retaining Walls

- retaining wall centerline

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Prepared: March 24, 2010

Sheet 21

Data from Geocon ISA, June, 2009

- Approximate Oil Well Location
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Soundwalls

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Retaining Walls

- retaining wall centerline

SB 101 South Coast HOV

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0 50 100 200 Feet

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

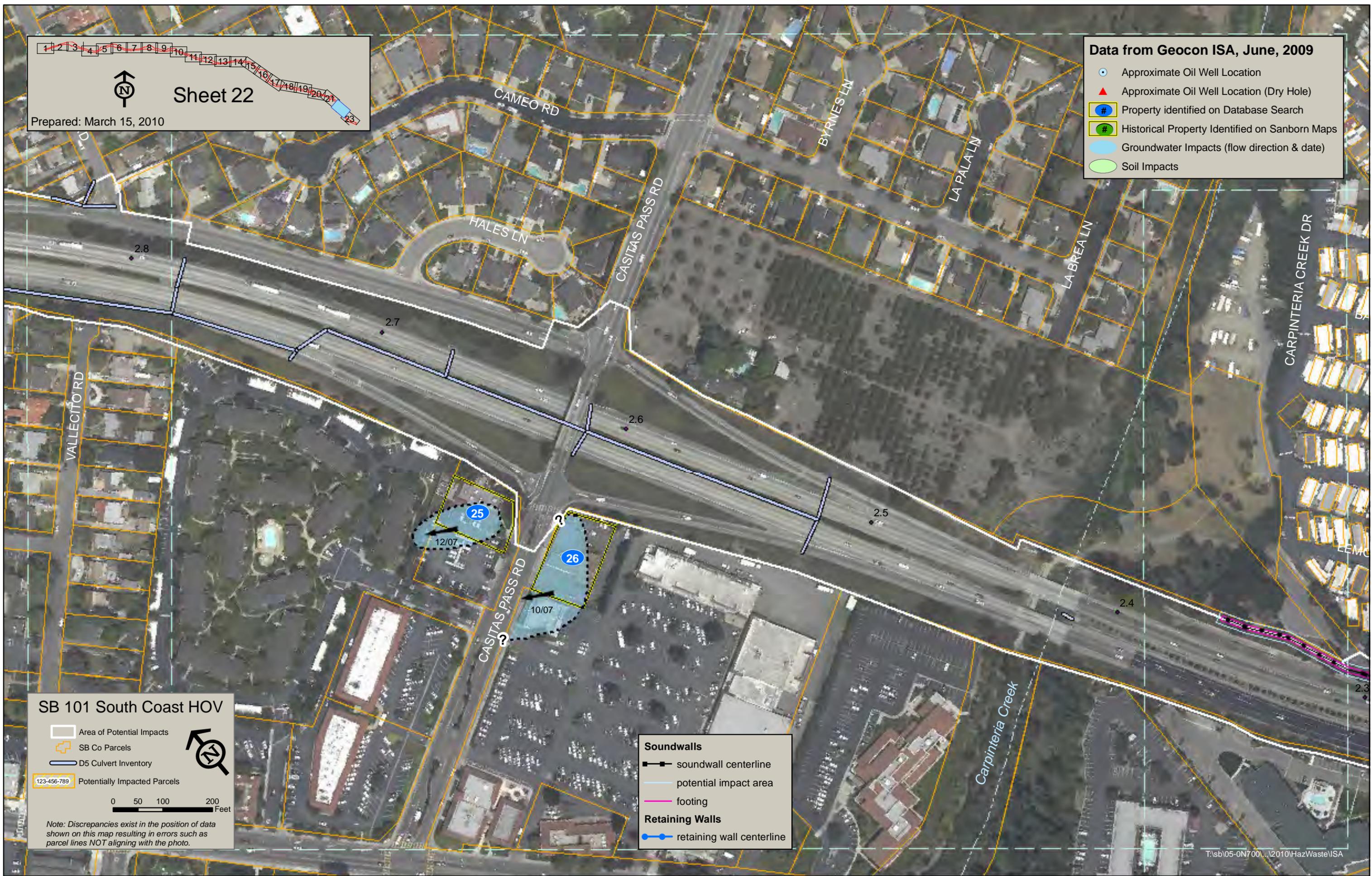
Sheet 22

Prepared: March 15, 2010



Data from Geocon ISA, June, 2009

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SB 101 South Coast HOV

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0 50 100 200 Feet

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Soundwalls

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- footing

Retaining Walls

- retaining wall centerline

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

Sheet 23

Prepared: March 15, 2010

Data from Geocon ISA, June, 2009

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Soundwalls

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Retaining Walls

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