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## Department of Toxic Substances Control

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# Statement of Basis

## Proposed Revised Remedy Selection for Contaminated Soil

**At**

**Britannia East Grand  
(Slough SSF, LLC, formerly O'Brien Facility)  
450 - 660 East Grand Avenue  
South San Francisco, CA  
San Mateo County**

Prepared by

Standardized Permitting and Corrective Action Branch  
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## Table of Contents

1.	Introduction .....	4
2.	Proposed Remedy .....	6
3.	Facility Background .....	7
3.1	Facility Location and Description .....	7
3.2	Environmental Conditions and Land Use .....	8
3.2.1	Environmental Conditions .....	8
3.2.2	Land Use .....	8
4.	RCRA Facility Assessment .....	9
5.	RCRA Facility Investigation .....	10
5.1	Soil/Soil Gas Investigation for the Proposed Day-Care Center Location ..	10
5.2	Site-wide Soil Gas Investigation .....	11
6.	Interim Remedial Measures .....	12
7.	Summary of Facility Risks .....	13
8.	Scope of Corrective Action .....	15
9.	Summary of Alternatives .....	16
10.	Evaluation of the Proposed Remedy and Alternatives .....	18
11.	Public Participation .....	22
12.	Key References .....	24

### List of Figures

Figure 1: Site Location .....	25
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Figure 2: Site Development Plan .....	26
Figure 3: Soil/Soil Gas Sampling Locations at the Proposed DCC.....	27
Figure 4: Soil Gas Sampling Locations .....	28

Appendix 1:

Statement of Basis for Soil Remedies at the O'Brien Corporation's Facility located at 450 East Grand Avenue, South San Francisco, CA, (EPA ID# CAD 005 130 455), July 1999, prepared by the U.S. Environmental Protection Agency, Region 9

## **1. Introduction**

The California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) has prepared this Statement of Basis to discuss the proposed revisions to the previously approved remedy for contaminated soil, and the reasons for this proposal, at the former O'Brien Property (O'Brien or Site or Property), located at 450-660 East Grand Avenue, South San Francisco, California. The Site was purchased by Cherokee San Francisco, LLC (Cherokee) on June 30, 1999 and sold to Slough SSF, LLC (Slough) on December 11, 2000.

U.S. EPA approved the final remedy for soil contamination at the Site on April 26, 2000 (See Appendix 1 for details). The U.S. EPA remedy restricted the Site use (through deed restrictions) to commercial and industrial use, unless approved by U.S. EPA or DTSC. The Site is being redeveloped into a biotechnology research and development business park; therefore, modification of the U.S. EPA-approved remedy is required. The proposed revised remedies, if approved, will allow installation of a methane gas mitigation system and amend the deed restriction to allow for a day-care center on a one acre parcel in the northwest corner.

The U.S. EPA remedy did not address the groundwater at the site. It was determined that additional groundwater monitoring was required before a groundwater remedy could be selected. The status of the groundwater corrective action will be discussed in a future Statement of Basis.

This Statement of Basis (SB) also summarizes remedial alternatives analyzed for this facility. DTSC will select a final soil remedy for the Site only after the public comment period has ended and any information submitted during this time has been reviewed and considered.

DTSC is issuing this SB as part of its public participation responsibilities under the California Health and Safety Code, Chapter 6.5, Hazardous Wastes Control Act. The corrective action process conducted at the Site addressed releases of hazardous waste and hazardous constituents at this Site. The Corrective Action Consent Agreement ("Consent Agreement") between Cherokee and DTSC defined the steps and corresponding scope of work for federal Resource Conservation and Recovery Act (RCRA) corrective action with respect to the 27-acre paint manufacturing facility owned and/or operated by O'Brien.

This SB summarizes information that can be found in greater detail in the Corrective Measures Study (CMS) Report, which includes the Methane Mitigation Plan dated March 16, 2006 and the draft Land Use Covenant Implementation & Enforcement Plan (LUCI&E Plan). Additional detail can be found in other documents contained in the administrative record for this facility. DTSC encourages the public to review these

documents in order to gain a more comprehensive understanding of the facility and corrective action activities that have been conducted there.

In addition to this SB, DTSC has prepared the following documents as a part of the public review process to facilitate public comments on the Corrective Measures Study Report:

- Fact Sheet that summarizes the proposed revised remedy selection and provides a notice of public comment period.
- Notice of Exemption that is an environmental analysis under the California Environmental Quality Act (CEQA).

DTSC may modify the proposed remedy or select another remedy based on new information or public comments. Therefore, the public is encouraged to review and comment on all alternatives. The public can be involved in the remedy selection process by reviewing the documents during the 45-day public comment period which begins July 1, 2006 and ends on August 15, 2006. Once a final decision is made on the proposed remedy, Slough would be required to implement the revised remedy for soil associated with historical chemical releases.

## **2. Proposed Remedy**

DTSC is proposing the following to amend the U.S. EPA approved remedy for contaminated soil at the Site:

- Install methane mitigation system in and underneath the buildings (with the exception of the proposed day-care center location, approximately one acre in the northwest corner) to collect and vent methane emitted by the soil, which is likely due to decomposition of organics;
- Revise the land use covenant (LUC) to allow a portion of the Site (approximately one acre in the northwest corner) to have unrestricted use to allow construction of a day-care center, while the remainder of the Site remains restricted to commercial and industrial land use; and
- Conduct annual site inspections to ensure that land use is maintained in compliance with the LUC.

A more detailed discussion of the proposed remedy is included in the following sections.

### **3. Facility Background**

#### **3.1 Facility Location and Description**

The Site is located at 450-660 East Grand Avenue, South San Francisco, County of San Mateo, and is comprised of approximately 27 acres. The Site is located on the shores of San Francisco Bay in South San Francisco, California, at the east end of East Grand Avenue approximately one mile east of Highway 101 (Figure 1). The Site was the location of manufacturing activities for over 100 years, beginning with the Steiger Terra Cotta Pottery Works (circa 1894) and W.P. Fuller (circa 1898). Manufacturing activities at the Site included production of ceramic products and oil and latex paint products.

During the paint manufacturing processes, O'Brien generated hazardous waste and managed its hazardous wastes in three surface impoundments (ponds) regulated under the Resources Conservation and Recovery Act (RCRA), one RCRA regulated storage area, and two RCRA regulated storage tanks. All of the waste management units were operated under an interim status.

In a September 23, 1987 letter, DHS (DTSC's predecessor) and the U.S. Environmental Protection Agency (U.S. EPA) approved a closure plan for three ponds and two waste storage tanks. DHS approved the certification of closure for the ponds and storage tanks on July 18, 1998. Due to the contamination found in the groundwater onsite, DHS required and the facility submitted a post-closure plan that included a seven year post-closure monitoring period, not the thirty year period described in state and federal regulations. On May 27, 1994, DTSC approved the closure plan of the storage area. On June 30, 1994 DTSC approved the closure certification for the storage area. On August 25, 1999, DTSC determined that post-closure monitoring was no longer required for the ponds based upon the data collected during the closure activities and the subsequent groundwater monitoring results.

U.S. EPA issued a 3008(h) Administrative Order (Order) to O'Brien on February 24, 1989. The Order required O'Brien to conduct RCRA corrective action to address hazardous constituent releases, including lead, semi-volatile organic compounds, etc. from the manufacturing activities into soil and groundwater.

Based on the results of the RCRA Facility Investigation (RFI) for the Site, U.S. EPA issued a *Statement of Basis for Soil Remediation at the O'Brien Corporation's Facility* in July 1999 (Appendix 1). U.S. EPA approved the remedy for soil media on April 26, 2000. U.S. EPA's corrective measures for soil included additional site investigation, soil removal, construction of a concrete and asphalt cap, and entering into a deed restriction. U.S. EPA approved the corrective measures implementation for soil, as well as the Phase II RFI (with conditions) on September 18, 2000. The conditions of

approval required further investigation and review of shallow groundwater quality. The approval letter also requested that DTSC assume the role as lead agency for the continuing shallow groundwater investigation.

Cherokee entered into a Deed Restriction on October 4, 2000, and also entered into a Corrective Action and Consent Agreement (CACA) on March 29, 2001 with DTSC. Cherokee has since been conducting shallow groundwater investigation and monitoring and is in the final stages of their investigation. Completion of the shallow groundwater corrective action will be discussed in a future Statement of Basis.

Slough purchased the Property in 2000 and is redeveloping the Site into a biotechnology research and development business park, including a day-care center. All original manufacturing buildings and offices have been removed and industrial operations ended in 2002.

### **3.2. Environmental Conditions and Land Use**

#### **3.2.1. Environmental Conditions**

The soils of the Site consist mainly of fill materials ranging in size from riprap to fine grain materials. The Site topography ranges from approximately 76-feet above mean sea level on the bedrock outcrop in the northern portion of the Site, to sea level along the southeastern portion of the Site.

Groundwater flow in the shallow aquifer at the Site is similar to the ground surface topology and trends towards the San Francisco Bay and the former San Bruno channel at an approximate gradient of 0.009 ft/ft. Groundwater has been observed within the shallow subsurface at depths ranging from four to 12 feet below ground surface (bgs), which varies seasonally.

#### **3.2.2. Land Use**

A Final Environmental Impact Report (FEIR) was prepared in April 2002 by the City of South San Francisco to assess the environmental impact of the construction of the proposed Britannia East Grand Business Park development at 450 East Grand Avenue. The project was approved, subject to the mitigation measures described in the FEIR (such as implementing a Transportation Demand Management program and preparing a Soil Management Plan), by the South San Francisco City Council on April 24, 2002.

#### **4. RCRA Facility Assessment**

In the RCRA Corrective Action program, the initial site assessment is called the RCRA Facility Assessment (RFA). During the RFA, an overseeing agency typically compiles existing information on environmental conditions at a given facility and, as necessary, gathers additional facility-specific information on Solid Waste Management Units and other Areas of Concern, releases, potential releases, release pathways, and receptors. Information gathered during an RFA usually forms the basis for initiating full scale site investigation (RCRA Facility Investigation). A Solid Waste Management Unit means “Any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous wastes. Such units include any area at a facility at which solid wastes have been routinely and systematically released.” An Area of Concern means “any area of a facility under the control or ownership of an owner or operator where a release to the environment of hazardous wastes or hazardous constituents has occurred, is suspected to have occurred, or may occur, regardless of the frequency or duration.” If the facility poses a threat to human health or the environment, DTSC may require corrective action either by a corrective action order, corrective action consent agreement, or through the facility’s permit conditions.

In December 1987, U.S. EPA’s contractor A.T. Kearney completed an RFA and identified 19 Solid Waste Management Units and 6 Areas of Concern. They were described in Table 1 of the U.S. EPA Statement of Basis (Appendix 1).

## **5. RCRA Facility Investigation**

The general objective of the RCRA Facility Investigation (RFI) is to thoroughly evaluate the nature and extent of releases of hazardous waste and its constituents. The RFI must include characterization of the facility (process, waste management, etc.), environmental setting, source areas, nature and extent of contamination, migration pathways (transport mechanisms) and all potential receptors. The RFI characterizes the nature and extent of any contamination in and around the facility with soil and groundwater samples. The investigation evaluates whether hazardous wastes or hazardous waste constituents have migrated or may migrate from the facility into the environment through the following pathways: soil, groundwater, and air.

Under the U.S. EPA 3008 (h) Administrative Order issued on February 24, 1989, O'Brien conducted an RFI. Investigations completed prior to 1999 were summarized in the U.S. EPA Statement of Basis (Appendix 1). The main contaminant of concern at this site is lead, although arsenic, semi-volatile organic compounds, and total petroleum hydrocarbons (TPH) are also present in lesser concentrations.

Slough has conducted additional soil and soil gas investigations between August 2004 and May 2005 under DTSC oversight and in accordance with the Consent Agreement between DTSC and Cherokee in preparation for the site redevelopment. The investigations are summarized below.

### **5.1. Soil and Soil Gas Investigation for the Proposed Day-Care Center Location**

The soil investigation consisted of the advancement of soil borings to depths of 3 to 10 feet below ground surface (bgs) in the area of the proposed Day-Care Center (DCC) (Figure 3). Twenty-two (22) soil samples were taken in 9 locations and 16 samples were analyzed for total petroleum hydrocarbons (diesel/motor oil – TPH d/mo), poly aromatic hydrocarbons (PAHs), ethylene glycol, and metals (Reference 8). A total of 24 soil gas samples were taken in 12 locations (6 locations within the area of the proposed DCC and 6 perimeter locations) from depths of 5 and 10 bgs and analyzed for volatile organic compounds (VOC's) and methane.

The investigation results revealed that VOCs in soil gas were below the laboratory detection limit. Methane concentrations in soil gas samples ranged from 0.00066% to 0.051% in air.

Soil sampling results indicated that ethylene glycol concentrations were below the laboratory detection limit, and concentrations of TPH d/mo and PAHs were present at concentrations less than the health screening criteria. Metal constituents, with the exception of Arsenic, were below health screening criteria. For more information about health screening criteria, please see Section 7, Summary of Facility Risks.

Arsenic was detected at or above site specific background (i.e., naturally occurring) concentrations (15 milligrams per/kilogram [mg/kg]) in one boring (SB-5) at depths of 3.5 feet bgs and 5.5 feet bgs (38 mg/kg and 15 mg/kg, respectively). Soil samples collected in subsequent borings surrounding SB-5 contained concentrations of arsenic within background concentrations.

## **5.2. Site-wide Soil Gas Investigation**

The Site development is divided into Phase I and Phase II. Phase II is further divided into Phase II North and Phase II South (Figure 2). Slough has conducted soil gas investigation at the entire Site. The scope and results of this investigation are presented in "Data Evaluation Soil Gas Investigation, January 20, 2005" (Reference 4).

A total of 88 soil gas samples were collected from 22 locations across the Site, excluding the northwest corner (proposed DCC location). Concentrations of VOCs across the Site were below the risk-based screening criteria (See Section 7 – Summary of Facility Risks) for indoor air and soil vapor derived for future commercial workers.

Methane gas concentrations in the northern portion of the site (including the Phase I and Phase II North building pad areas) ranged from 0.002% to 2.7% by volume, with an average concentration of 0.2527% for 24 samples (Figure 4). In the southern portion of the site, which includes the Phase II South building pad areas (comprised of Building 9 and Parking Structure B), methane concentrations exceeded 5% by volume. The methane under Building 9 and Parking Structure B appears to be under methanogenic conditions indicative of methane production and is likely due to the decomposition of organics in the soil.

## **6. Interim Remedial Measures**

Cherokee implemented U.S. EPA-required corrective measures for soil including additional site investigation, soil removal, constructing a concrete and asphalt cap, and entering a deed restriction due to elevated lead concentrations.

Since then, Cherokee and Slough have removed the concrete and asphalt cap previously approved by U.S. EPA to allow for site development. This was done under the DTSC-approved Soil Management Plan. The concrete and asphalt cap will be replaced by the post-development cap, which will consist of buildings, roadways, parking lots, concrete walkways, and/or landscaped areas with a minimum of three feet of clean soil cover.

In October 2005, Slough excavated 0.6 cubic yards of soil from the area of elevated arsenic concentrations (i.e., sampling location SB-5) and replaced the upper three feet of soil with clean fill at the day-care center (DCC) location to provide additional certainty that soil contaminants are not present at the proposed DCC location at concentrations that would potentially provide a risk to human health.

## **7. Summary of Facility Risks**

The health screening criteria that were used in the soil and soil gas investigation at the proposed DCC location include the following:

1. The Residential-California Human Health Screening Levels (CHHSLs) established by the California State Office of Environmental Health Hazard Assessment (Reference 13).
2. When there were no available CHHSL screening values for a given constituent, screening criteria were derived using the same methodology (California State Office of Environmental Health Hazard Assessment recommended toxicity criteria and exposure assumptions). Screening criteria is based on direct contact (ingestion, dermal contact, and inhalation).
3. The thresholds of concern used to develop the health screening criteria are an excess lifetime cancer risk of one-in-a-million ( $10^{-6}$ ) and a hazard quotient of 1.0 for noncancer health effects.
4. Site specific metal background concentrations

After interim soil removal from the proposed day-care center (DCC) and backfilling with soil, the potential for cumulative adverse health effects as a result of collective exposure to all remaining chemicals in the DCC area soil has been calculated to have a total estimated theoretical cancer risk of  $1 \times 10^{-6}$  and hazard index of 0.61 (Reference 2). These risk levels in this area are considered acceptable by DTSC (generally, the acceptable cancer risk is  $\leq 1 \times 10^{-6}$  and the acceptable hazard index is  $\leq 1$ ). Risk will be further minimized since the soil will eventually be covered with a combination of buildings and hardscape, thus direct contact with soil by future day-care center workers or users will be insignificant. Therefore, modification of the existing deed restriction to allow unrestricted land use at the one-acre parcel at the northwest corner is proposed. All other areas of the Site will continue to be used for industrial or commercial purposes only. The land use covenant will ensure the land use does not change without DTSC approval.

At the time of the site-wide soil gas investigation, the CHHSLs had not yet been published. The health screening criteria used in the site-wide soil gas investigation were derived using the California State Office of Environmental Health Hazard Assessment Inhalation Cancer Slope Factor from Toxicity Criteria Database and U.S. EPA Integrated Risk Information System [IRIS]. This methodology is similar to that used to derive the CHHSLs.

In the southwestern portion of the site (in the areas of the proposed Parking Structure B and Building 9), methane levels have been found in excess of 5%. Methane gas is not toxic to human health; its primary risk is explosion or asphyxiation (due to displacement of oxygen). Methane concentrations of 5% by volume in air are considered to be the lower explosive limit (LEL) and 15% methane is considered the Upper Explosive Limit (UEL). Between concentrations of 5% and 15%, if methane is confined, mixed with oxygen and exposed to an ignition source, an explosion may occur. To minimize the potential migration of methane gas into the proposed buildings at the site (thereby minimizing the associated risks of fire and explosions), the methane mitigation system is proposed, specifically in the area of the proposed Parking Structure B and Building 9, where methane concentrations are greater than 5% by volume. The methane mitigation system has been included in the proposed revised remedy as a measure to control the methane risk.

## **8. Scope of Corrective Action**

As a result of extensive soil and soil gas investigation, interim soil removal and a health risk screening evaluation (summarized in Section 7), the parcel designated for the Day-Care Center (DCC) does not require further corrective action except amending the land use covenant (LUC) with Slough and annual inspection of the Site as an administrative control measure. The LUC Inspection and Enforcement Plan (LUC I&E Plan) summarizes the land use restrictions and inspection schedules. The amended LUC will allow construction of the DCC within the specified area.

Corrective action measures are needed to address the presence of methane for Parking Structure B and Building 9 where methane gas concentrations are above the regulatory threshold (5% by volume). For other areas, Slough also incorporates methane mitigation as a safety precaution, which is not required or regulated by DTSC.

## **9. Summary of Alternatives**

In addition to the administrative measures such as the land use covenant and annual inspection of the Site to ensure that the Site's land use does not change, the only corrective measure needed is to address the methane gas in the southwestern area of the Site to prevent the accumulation of explosive levels of methane under building slabs or within structures. Three alternatives were considered:

1. No further action.

The "No Further Action" alternative is required to provide a baseline for comparing other alternatives.

2. Installation of a methane mitigation system.

The primary components of the methane mitigation system are a reinforced concrete structural slab gas barrier, utility gas barriers, a gas extraction system, and a subsurface gas monitoring system.

Due to the elevated methane concentrations in the areas of Parking Structure B and Building 9, the enclosed portions of these two structures will have an additional mitigation design, a geomembrane barrier. The geomembrane barrier, consisting of a 100-mil thick geomembrane (e.g., Liquid Boot™), will be installed to supplement the reinforced concrete structural slab gas barrier (References 3 and 7). The Liquid Boot is a cold spray-applied water-based product that will help control the migration of methane gas into the proposed buildings.

The purpose of the passive gas extraction system is to prevent buildup of methane gas at concentrations above the LEL below target building slab areas. The gas extraction system will consist of inlet and extraction piping (2-inch diameter PVC) placed parallel to one another across the footprint of the building area requiring protection. Subsurface gases will be collected through the sand or aggregate layer (located beneath the concrete structural slab or geomembrane, where applicable) and perforated pipes, which will convey the gases to solid wall header pipes and to the roofline of the buildings, where they will be vented to the atmosphere. A single extraction riser pipe per building will be required to passively convey collected gases to the roofline.

The purpose of a gas monitoring system is to measure concentrations of methane in the permeable layer beneath the gas barrier to determine if active ventilation of the underslab gas extraction system is required. Gas monitoring probes will be installed in strategic areas beneath the reinforced concrete

structural slab and/or geomembrane gas barrier. Monitoring will be performed on a weekly basis for the first month, on a monthly basis for the remainder of the first quarter, and continue on a quarterly basis for the first year. Upon completion of 4 consecutive quarterly sampling events, the data will be assessed for each building. If sampling results indicate that explosive gas concentrations are consistently lower than 25% of the LEL, sampling will be reduced to annually for the specific building only. Upon completion of 4 consecutive annual sampling events in which explosive gas concentrations are consistently lower than 5% of the LEL, an evaluation will be performed by a qualified professional engineer of the data to assess the ability to cease monitoring. The results of the gas monitoring for the Site shall be submitted to DTSC for review at the end of the first month, the end of the first quarter, and at the end of the first year of monitoring, as specified in the Methane Mitigation Plan, Section A of the CMS Report.

3. Excavation and removal of methanogenic material.

This alternative involves investigation of the methanogenic source and subsequent excavation and disposal or remediation of methane-generating material. Since the methane-generating material appears to be biogenic in nature (Reference 5) and is likely located discontinuously at deeper depths (e.g., extending greater than 10 feet below groundwater, or 18 feet bgs) through out the southwestern area of the site, extensive investigation, excavation, and remediation of soil would be required.

## **10. Evaluation of the Proposed Remedy and Alternatives**

DTSC evaluates corrective measures alternatives based on the following four standards (1-4) and five decision factors (5-9)

- 1) Be protective of human health and the environment
- 2) Attains media cleanup standards
- 3) Controls the source of release so as to reduce or eliminate, to the extent practical, further releases that might pose a threat to human health and/or the environment.
- 4) Meets all applicable waste management requirements
- 5) Short-term and effectiveness, Long-term effectiveness
- 6) Reduction of toxicity, mobility, or volume
- 7) Long-term reliability;
- 8) Implementability
- 9) Cost

The following Table 1 summarizes comparative analysis of the three proposed alternatives.

**Table 1. Comparative Analysis of Remedial Alternatives**

	<b><u>Alternative 1</u></b>	<b><u>Alternative 2</u></b>	<b><u>Alternative 3</u></b>
	<b>No further action</b>	<b>Installation of a methane gas barrier and control system</b>	<b>Excavation and removal of methanogenic material</b>
1) Be protective of human health and the environment	Alternative is not protective of human health and the environment.	Alternative provides significant protection of human health and the environment.	Alternative provides short-term exposures to site chemicals and odors and long-term protection of human health and the environment.
2) Attains media cleanup standards	Alternative does nothing to attain media cleanup standards.	Alternative will moderately attain media cleanup standards, as it will provide a means to passively extract gases that could potentially accumulate beneath the buildings.	Alternative significantly complies with media cleanup standards.
3) Controls the source of release so as to reduce or eliminate, to the extent practical, further releases that might pose a threat to human health and/or the environment	Alternative does nothing to control the source of release.	Alternative will control the source of release and will reduce the risk of further releases.	Alternative will significantly control the source of release and reduce the risk of further releases.
4) Meets all applicable waste management requirements	The Alternative will not generate wastes to be managed.	Alternative will collect and vent methane gas which is exempt from the local air district requirements. The construction and monitoring will be in compliance with Cal OSHA and DTSC requirements.	Alternative will generate soil waste due to excavation. The waste will be managed in accordance with all applicable requirements.

	<b><u>Alternative 1</u></b>	<b><u>Alternative 2</u></b>	<b><u>Alternative 3</u></b>
	<b>No further action</b>	<b>Installation of a methane gas barrier and control system</b>	<b>Excavation and removal of methanogenic material</b>
5) Short-term and Long-term effectiveness	Alternative does not provide short-term or long-term effectiveness.	In the short-term, this alternative would potentially expose construction workers to contaminated soil and noxious odors, and the public to noxious odors. Normal construction practices and Cal OSHA standards will be employed to protect construction workers and the public.  This alternative controls and monitors methane migration into structures. The alternative offers long-term effectiveness and performance.	In the short-term, this alternative would potentially expose construction workers to contaminated soil and noxious odors, and the public to noxious odors. Normal construction practices and Cal OSHA standards will be employed to protect construction workers and the public.  This alternative In the long-term would potentially eliminate the methane source.
6) Reduction of toxicity, mobility, or volume	Alternative will not reduce toxicity, mobility, or volume of methane.	Alternative will achieve significant reduction of potential for methane to accumulate in explosive concentrations.	Alternative would potentially eliminate the methane source.
7) Long-term reliability;	Alternative does not provide for any long-term reliability.	Alternative will include monitoring, which will demonstrate its reliability.	Alternative would potentially eliminate the methane source.

	<b><u>Alternative 1</u></b>	<b><u>Alternative 2</u></b>	<b><u>Alternative 3</u></b>
	<b>No further action</b>	<b>Installation of a methane gas barrier and control system</b>	<b>Excavation and removal of methanogenic material</b>
8) Implementability	Alternative requires no remedial action.	The technical approach is clear and the remedy is easily implementable.	Identification and removal of the methane source may not be reasonably achievable. Excavation and removal or remediation of soil would require significant equipment and time to achieve.
9) Cost	No action involved	\$100,000	\$250,000 to \$500,000 or higher

Alternative 2, installation of a methane gas barrier and control system, is the proposed alternative, because it effectively limits future potential for the accumulation of explosive concentrations of methane within structures.

Alternative 3, excavation of methanogenic material, is deemed to be impractical due to difficulty in performing deep excavation in soft bay sediments and high costs. It is unlikely that complete removal of the material could be accomplished cost effectively. Additionally, the methanogenic material is collocated with soil containing elevated lead concentrations, thus its excavation would result in additional exposures of lead to the environment. The excavation and disposal, or remediation, of the methanogenic material is not considered to be a feasible option.

In summary, Alternative 2 would achieve substantial risk reduction through collection and ventilation of methane gas in the southwest corner of the Site. Based on the information currently available, DTSC believes that the proposed remedies, including installation of methane mitigation system, amending the existing land use restriction and entering the new land use covenant, and annual inspection of the Site, provides the best balance of tradeoffs among evaluation criteria.

## **11. Public Participation**

DTSC is now formally soliciting public comments on these documents during a 45-day comment period. If DTSC approves the CMS Report, Slough will be authorized to implement the remedies recommended in the document and summarized in this Statement of Basis. The public comment period begins July 1, 2006 and ends August 15, 2006.

Public input on the proposed corrective action remedies, and on the information that supports the selection of those remedies, is an important contribution to the selection process. DTSC will consider all public comments received before issuing the final remedy selection decision. The final remedies selected could be different from those that have been proposed, depending on the information that is received through the public participation process.

The CMS Report and Notice of Exemption are available for review at:

Grand Avenue Branch Library  
603 Walnut Avenue  
South San Francisco, CA 94080

The complete administrative records will be available for public review at:

Department of Toxic Substances Control  
700 Heinz Avenue  
Berkeley, CA 94710  
(510) 540-3800

In addition, this Statement of Basis and other key references are also available on the DTSC website at:

<http://www.dtsc.ca.gov/HazardousWaste/>

All written comments on the proposed remedy selection should be received at the following address by August 15, 2006:

Ms. Amber Harmon  
Hazardous Substances Engineer  
Standardized Permitting and Corrective Action Branch  
Department of Toxic Substances Control  
700 Heinz Avenue, Suite 200  
Berkeley, CA 94710-2721

Statement of Basis  
Proposed Revised Soil Remedy  
Britannia, South San Francisco  
July 2006  
Page 23

To obtain additional information or if you have questions regarding the former O'Brien Facility (the Site), please contact Ms. Amber Harmon of DTSC at (510) 540-3779 or [AHarmon@dtsc.ca.gov](mailto:AHarmon@dtsc.ca.gov).

## 12. Key References

- 1) Ambient Concentrations of Arsenic in Soil, Proposed Day-Care Center, Geomatrix Consultants, August 11, 2005
- 2) Approval of Proposed Day-Care Center Fill Soil, Britannia East Grand Development (Formerly O'Brien Site), DTSC, November 29, 2005
- 3) Corrective Measures Study Report, Britannia East Grand, Geomatrix Consultants, May 25, 2006
- 4) Data Evaluation Soil Gas Investigation, Britannia East Grand, Geomatrix Consultants, revised January 20, 2005
- 5) Evaluation of Methane in Soil Gas, GeoSyntec Consultants, December 9, 2004
- 6) Evaluation of Methane in Soil Gas – Parking Structure B, GeoSyntec Consultants, March 27, 2006
- 7) Methane Mitigation Plan, Britannia East Grand Development, Phase II, GeoSyntec Consultants, March 16, 2006
- 8) Proposed Day-Care Center Soil and Soil Vapor Sampling Program Results, Geomatrix Consultants, May 2005
- 9) Proposed Soil for Fill – Day-Care Center, Geomatrix Consultants, November 22, 2005
- 10) Removal and Replacement of Soil, Day-Care Center, Geomatrix Consultants, February 2006
- 11) Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, (4th edition Interim Final), California Regional Water Quality Board, San Francisco Bay Region, February 2005. Available at <http://www.waterboards.ca.gov/rwqcb2/esl.htm>
- 12) Soil Gas Investigation Report, IRIS Environmental, November 17, 2004
- 13) Use of California Human Health Screening Levels in Evaluation of Contaminated Properties, California Environmental Protection Agency, January 2005. Available at <http://calepa.ca.gov/Brownfields/documents/2005/CHHSLsGuide.pdf>

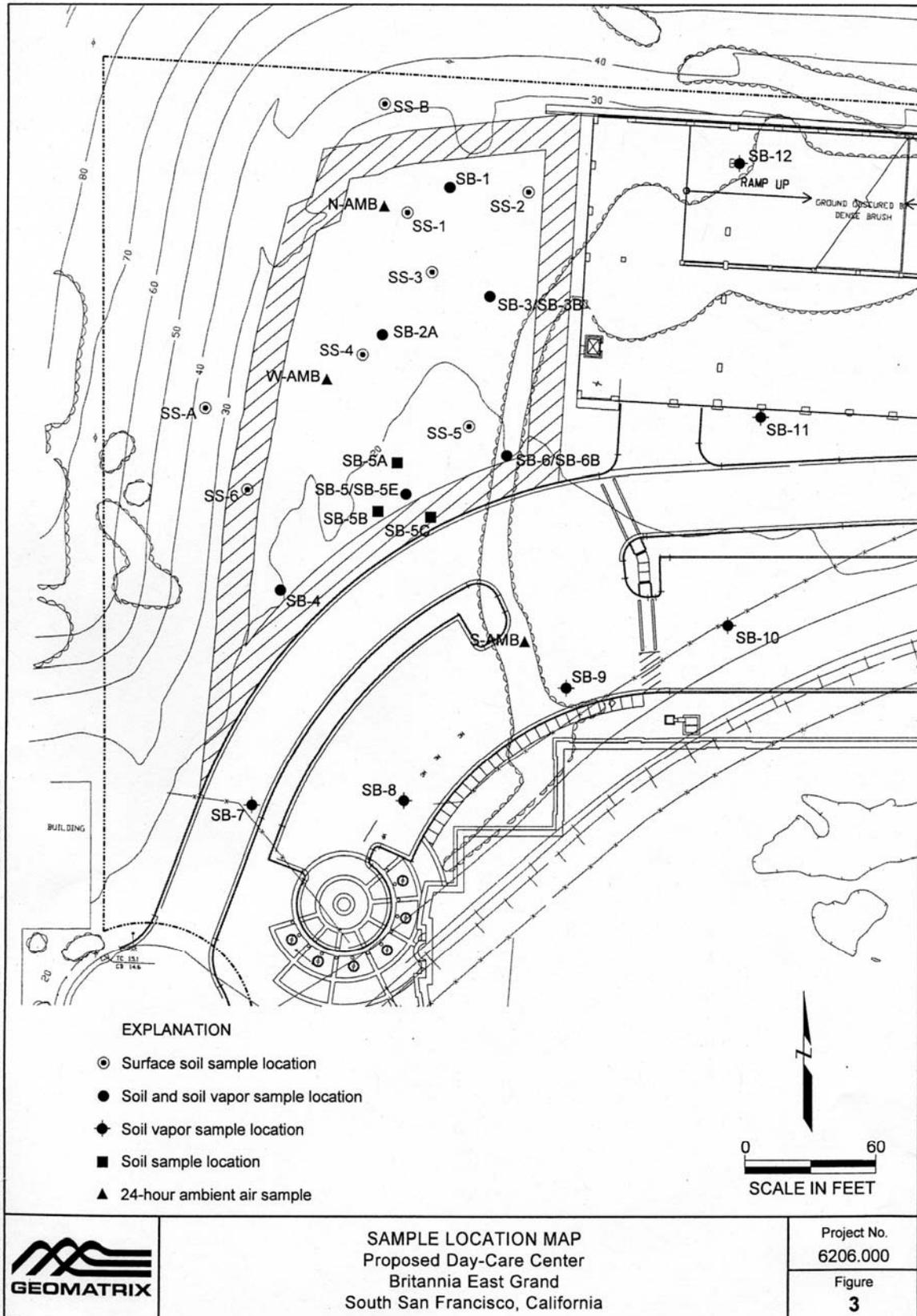
Figure 1: Site Location



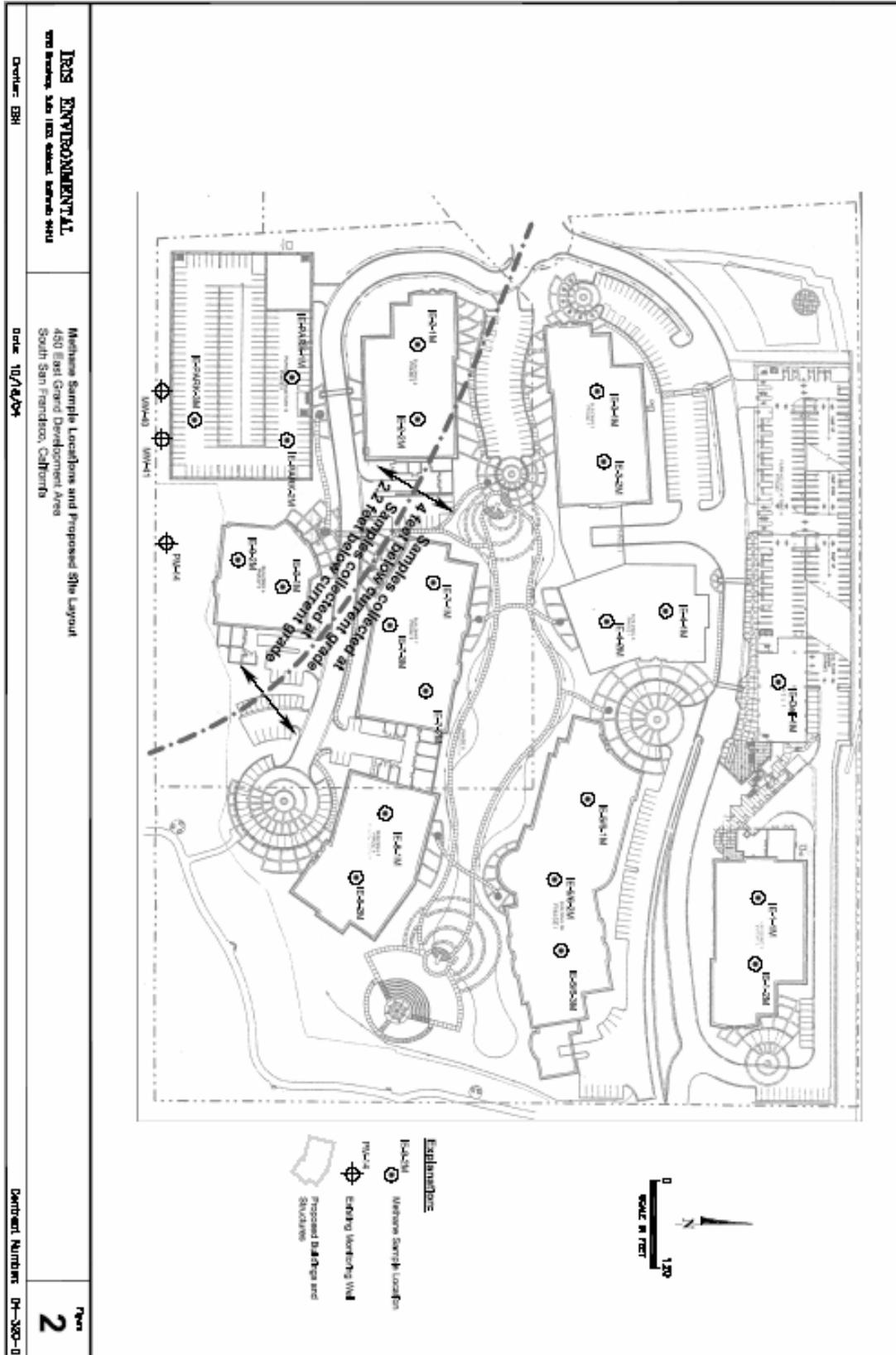
Figure 2: Site Development Plan



**Figure 3: Soil/Soil Gas Sampling Locations at the Proposed DCC**



**Figure 4: Soil Gas Sampling Locations**



Statement of Basis  
Proposed Revised Soil Remedy  
Britannia, South San Francisco  
July 2006  
Page 29

Appendix 1 – Statement of Basis, U.S. EPA July 1999